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# Additional Explanation

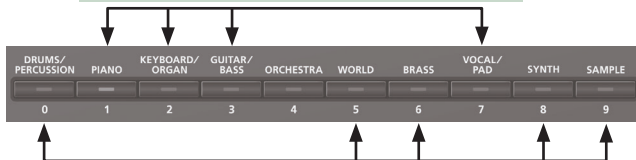
## Panel Descriptions

|                  |   |
|------------------|---|
| [NUMERIC] button | When this button is on (lit), you can use the [0]–[9] buttons to enter numeric values.<br>* You can use this button only in the PATCH screen and PERFORM screen.  |
| [ENTER] button   | Used to execute an operation.<br><b>List display</b><br>You can move the cursor to a parameter and press the [ENTER] button to see a list of that parameter's values. You can select a value from the list that's shown.<br><b>(Example)</b><br>In the PATCH screen, move the cursor to the patch number and press the [ENTER] button to see the patch list.<br><br>Press the [EXIT] button to return to the previous screen. |

## Patch Mode

- If you press the same category button in succession, the patch changes as follows each time you press the button.

Each time you press the button, the first patch of the two sub-categories is selected.  
**If a user patch is saved**  
Each time you press the button, the first patch of sub-category 1 → sub-category 2 → user → sub-category 1 ... is selected.



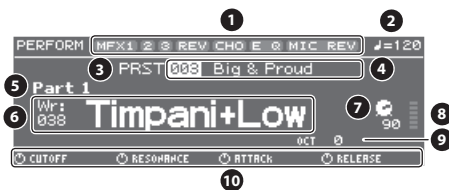
**If a user patch is saved**  
Each time you press the button, the first patch of preset → user → preset ... is selected.

## Performance Mode

- You can use pads [1]–[8] to select the applicable part (current part).
  - Pressing a pad [1]–[8] selects part 1–8.
  - Hold down the [SHIFT] button and press pad [1]–[8] to select part 9–16.

## 16-part mode

- Within Performance mode, the state in which neither split, dual, nor super layer is selected is called "16-part mode."



| No. | Explanation                 | No. | Explanation  |
|-----|-----------------------------|-----|--|
| 1   | Effect on (lit)/off (unlit) | 6   | Category number/Patch name                                     |
| 2   | Tempo                       | 7   | Level of the current part                                      |
| 3   | Performance bank            | 8   | Level meter  |
| 4   | Performance number/name     | 9   | Octave Shift setting   |
| 5   | Current part                | 10  | Parameters that can currently be adjusted by the control knobs |

When you play the keyboard, you'll hear the current part and the parts whose keyboard switch (p. 19, p. 20, p. 22) is on.

### Adjusting the volume

You can use the [UPPER] LEVEL slider and [LOWER] LEVEL slider to adjust the part 1 and part 2 volume (LEVEL).

## Key Touch

- Depending on the KEY TOUCH setting, the [KEY TOUCH] button is lit or unlit.

|       |                                      |
|-------|--------------------------------------|
| Lit   | When the Velocity setting is "REAL"  |
| Unlit | When the Velocity setting is "1–127" |

## Sample Import

- When importing a sample, the OPTIMIZE window might appear depending on the user memory usage status.

|        |  |
|--------|--|
| OK     | Memory is optimized, and then the sample import is executed. |
| CANCEL | Sample import is cancelled.                                  |

## Editing a Patch/Drum Kit

### PATCH EDIT

- In the PATCH EDIT screen when editing each tone, you can use pads [1]–[8] to perform the following operations.

|              |   |
|--------------|---|
| Pads [5]–[8] | Turn each tone on (pad lit) or off. When a tone is on, a "✓" symbol appears.  |
| Pads [1]–[4] | Make the pad(s) light to specify the tone(s) that you want to edit. You can also make multiple pads light to select multiple tones. |

- In the PATCH EDIT screen, press the [MENU] button to open the INIT MENU window. Select "PATCH" or "TONE" and then press the [ENTER] button to initialize the selected patch or tone.

### DRUM KIT EDIT

- A drum kit consists of a percussion instrument sound (tone) assigned to each key. The tone that's assigned to each key consists of a combination of up to four waves. Drum Kit Edit lets you edit the settings of the tone that's assigned to each key.
- In the DRUM KIT EDIT screen, when editing the four waves that make up the tone assigned to the selected key, you can use pads [1]–[8] to perform the following operations.

|              |   |
|--------------|---|
| Pads [5]–[8] | Turn each wave on (pad lit) or off. When a wave is on, a "✓" symbol appears.  |
| Pads [1]–[4] | Make the pad(s) light to specify the wave(s) that you want to edit. You can also make multiple pads light to select multiple waves. |

- In the DRUM KIT EDIT screen, press the [MENU] button to open the INIT MENU window. Select "DRUM" or "TONE" and then press the [ENTER] button to initialize the selected drum kit or the tone of the selected key.

## Editing a Performance

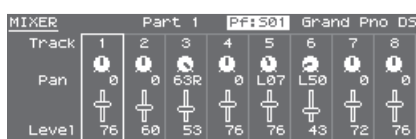
- "PERFORMANCE EDIT" lets you edit while viewing a list of the settings of all parts, and "PART EDIT" lets you edit each part of the performance individually.
  - \* PERFORMANCE EDIT and PART EDIT have the same parameters in common.
- In the PERFORMANCE EDIT or PART EDIT screen, you can use pads [1]–[8] to select the part that you want to edit. If you hold down the [SHIFT] button and press a pad [1]–[8], a part 9–16 is selected.
- In the PERFORMANCE EDIT screen, press the [MENU] button to open the INIT MENU window. Select "PERFORM" or "PART" and press the [ENTER] button to initialize the selected performance or part.

### Pattern Sequencer

- In the PATTERN SEQUENCER screen, you can long-press the [LOOP] button to open the LOOP window, where you can make loop-related settings. Press the [EXIT] button to close the LOOP window.

| Parameter   | Explanation  |
|-------------|--|
| Loop Switch | Specifies whether playback will loop (ON) or not loop (OFF).<br>* You can also switch this by pressing the [LOOP] button.  |
|             | OFF, ON  |
| Loop Rec    | Specifies whether to loop-record (ON) or not loop-record (OFF).<br>* You can also switch this by pressing the [LOOP] button while holding down the [SHIFT] button. |
|             | OFF, ON  |

- Use the [UPPER] slider to adjust the level of track 1, and the [LOWER] slider to adjust the level of track 2.
- Use the [PHRASE PAD] slider to increase or decrease the level that's specified for tracks 3–8 while maintaining the balance between these tracks.
- Press the [MIXER] button to open the MIXER screen. Here you can set the pan and level of each track.



You can use pads [1]–[8] to select a track to edit. Use the [UPPER]/[LOWER]/[PHRASE PAD] sliders to adjust the level.

#### MEMO

Tracks 1–7 are assigned to parts 1–7, and track 8 is assigned to part 10.

### Realtime Erase

#### Erasing only specified notes during recording or playback (REALTIME NOTE ERASE)

- During recording or playback, hold down the [RHYTHM PATTERN] button and press the [ERASE] button. The REALTIME NOTE ERASE window appears.
- Press a key on the keyboard to specify the note that you want to erase.
- Press the [ERASE] button. While you continue holding down the key, only the note you specify is erased from the selected track.

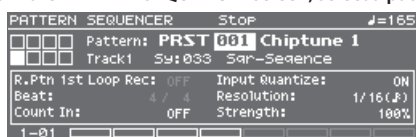
#### Erasing only movements of knobs or the bender/modulation lever during recording or playback

- During recording or playback, hold down the [MUTE] button and press the [ERASE] button. Only while you continue holding down these buttons, movements of the knobs and the bender/modulation lever are erased from the selected track.

### Saving a Pattern As a "Performance" (SAVE AS PERFORM)

Settings related to the sound of the pattern (preset/user) used in the pattern sequencer can be saved as a performance. For example, if you want to export a pattern to SMF, use your DAW to edit it into a complete song, and then use the JUNO-DS to play this song data, the performance saved by the "SAVE AS PERFORM" function can be recalled to play the data using the original sound.

- In the PATTERN SEQUENCER screen, select a pattern.



- Press the [MENU] button. The MENU screen appears.
- Move the cursor to "PATTERN UTILITY," and press the [ENTER] button.

- Move the cursor to "SAVE AS PERFORM," and press the [ENTER] button. The SAVE AS PERFORM screen appears.
- Use the value dial to select the write destination performance, and press the [ENTER] button. A confirmation message appears. If you decide to cancel, press the [EXIT] button.
- Move the cursor to "OK," and press the [ENTER] button. Writing is complete when the screen indicates "Completed!"

#### NOTE

Never turn off the power while the screen indicates "Writing...."

### Turning the Display Backlight On/Off

To reduce battery consumption, you can turn off the display backlight when it's not required.

- Hold down the [SHIFT] button and press the [EXIT] button. The display backlight will turn off.

#### Turning the display backlight on

- Hold down the [SHIFT] button and press the [ENTER] button. The display backlight will turn on.

### Demo Songs

|   |                   |                                     |
|---|-------------------|-------------------------------------|
| 1 | Wonder            | Copyright © 2015 Roland Corporation |
| 2 | There There There |                                     |

# Patch Mode

## Patch/Drum Kit Edit

### Procedure

1. Select a patch or drum kit that you want to edit.
2. Press the [SAMPLE IMPORT] button and [DAW CONTROL] button simultaneously.  
The EDIT MENU screen appears.
3. Move the cursor to "PATCH EDIT" or "DRUM KIT EDIT," and press the [ENTER] button.  
The PATCH EDIT or DRUM KIT EDIT screen appears.

### MEMO

- In the PATCH EDIT screen when editing each tone, you can use pads [1]–[8] to perform the following operations.

|              |  |
|--------------|--|
| Pads [5]–[8] | Turn each tone on (pad lit) or off.<br>When a tone is on, a "✓" symbol appears.  |
| Pads [1]–[4] | Make the pad(s) light to specify the tone(s) that you want to edit.<br>You can also make multiple pads light to select multiple tones. |

- In the PATCH EDIT screen, press the [MENU] button to open the INIT MENU window. Select "PATCH" or "TONE" and then press the [ENTER] button to initialize the selected patch or tone.

### MEMO

- In the DRUM KIT EDIT screen, when editing the four waves that make up the tone assigned to the selected key, you can use pads [1]–[8] to perform the following operations.

|              |  |
|--------------|--|
| Pads [5]–[8] | Turn each wave on (pad lit) or off.<br>When a wave is on, a "✓" symbol appears.  |
| Pads [1]–[4] | Make the pad(s) light to specify the wave(s) that you want to edit.<br>You can also make multiple pads light to select multiple waves. |

- In the DRUM KIT EDIT screen, press the [MENU] button to open the INIT MENU window. Select "DRUM" or "TONE" and then press the [ENTER] button to initialize the selected drum kit or the tone of the selected key.

4. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
5. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
6. To save the edited settings, perform the operation "Saving Your Settings (Write)" (refer to owner's manual).

## About the Parameters

- Parameters marked with a "★" can be controlled using Matrix control (p. 12).
- Some parameters (such as Rate or Delay Time) can be set in terms of a note value.

|                           |                           |                            |                     |
|---------------------------|---------------------------|----------------------------|---------------------|
| Sixty-fourth-note triplet | Sixty-fourth note         | Thirty-second-note triplet | Thirty-second note  |
| Sixteenth-note triplet    | Dotted thirty-second note | Sixteenth note             | Eighth-note triplet |
| Dotted sixteenth note     | Eighth note               | Quarter-note triplet       | Dotted eighth note  |
| Quarter note              | Half-note triplet         | Dotted quarter note        | Half note           |
| Whole-note triplet        | Dotted half note          | Whole note                 | Double-note triplet |
| Dotted whole note         | Double note               |                            |                     |

### NOTE

If you specify the delay time as a note value, slowing down the tempo will not change the delay time beyond a certain length.  
This is because there is an upper limit for the delay time; if the delay time is specified as a note value and you slow down the tempo until this upper limit is reached, the delay time cannot change any further. This upper limit is the maximum value that can be specified when setting the delay time as a numerical value.

## Patch Parameters

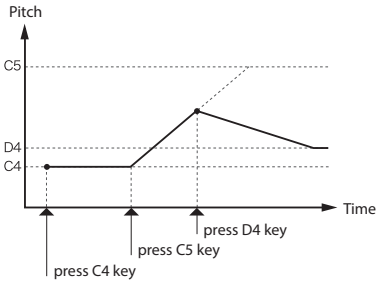
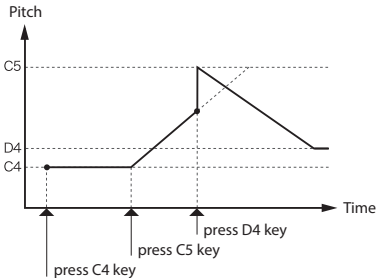
### COMMON

| Parameter           | Value/Explanation  |
|---------------------|--|
| Patch Category      | Specifies the type (category) of the patch.<br>* If you select "NO ASSIGN" as the category, it won't be possible to select the patch on the JUNO-DS itself.<br>Refer to "Category List" (p. 5).  |
| Patch Level         | Specifies the volume of the patch.<br>0–127  |
| Patch Pan           | Specifies the pan of the patch.<br>"L64" is far left, "0" is center, and "63R" is far right.<br>L64–0–63R  |
| Patch Priority      | This determines how notes will be managed when the maximum polyphony is exceeded (128 voices).<br>LAST The last-played voices will be given priority, and currently sounding notes will be turned off in order, beginning with the first-played note.<br>LOUDEST The voices with the loudest volume will be given priority, and currently sounding notes will be turned off, beginning with the lowest-volume voice.             |
| Octave Shift        | Adjusts the pitch of the patch's sound up or down in units of an octave (±3 octaves).<br>-3–3  |
| Patch Coarse Tune   | Adjusts the pitch of the patch's sound up or down in semitone steps (±4 octaves).<br>-48–48  |
| Patch Fine Tune     | Adjusts the pitch of the patch's sound up or down in 1-cent steps (±50 cents).<br>-50–50   |
| Stretch Tune        | Stretched tuning (a system by which acoustic pianos are normally tuned, causing the lower range to be lower and the higher range to be higher than the mathematical tuning ratios would otherwise dictate)<br>OFF Equal temperament<br>1–3 Higher settings will produce the greater difference in the pitch of the low and high ranges.  |
| Stretch Tune Depth  |  |
| Analog Feel         | Specifies the depth of 1/f modulation that is to be applied to the patch. By adding this "1/f modulation," you can simulate the natural instability characteristic of an analog synthesizer.<br>0–127  |
| Cutoff Offset       | Cutoff Frequency Offset alters the cutoff frequency of the overall patch, while preserving the relative differences between the cutoff frequency values set for each tone in the Cutoff Frequency (p. 8).<br>* This value is added to the cutoff frequency value of a tone, so if the cutoff frequency value of any tone is already set to "127" (maximum), positive "+" settings here will not produce any change.<br>-63–+63   |
| Resonance Offset    | Resonance Offset alters the resonance of the overall patch, while preserving the relative differences between the resonance values set for each tone in the Resonance (p. 8).<br>* This value is added to the resonance value of a tone, so if the resonance value of any tone is already set to "127" (maximum), positive "+" settings here will not produce any change.<br>-63–+63   |
| Attack Time Offset  | Attack Time Offset alters the attack time of the overall patch, while preserving the relative differences between the attack time values set for each tone in the TVA-Env Time 1 (p. 10), TVF-Env Time 1 (p. 9).<br>* This value is added to the attack time value of a tone, so if the attack time value of any tone is already set to "127" (maximum), positive "+" settings here will not produce any change.<br>-63–+63      |
| Release Time Offset | Release Time Offset alters the release time of the overall patch, while preserving the relative differences between the release time values set for each tone in the TVA-Env Time 4 (p. 10), TVF-Env Time 4 (p. 9).<br>* This value is added to the release time value of a tone, so if the release time value of any tone is already set to "127" (maximum), positive "+" settings here will not produce any change.<br>-63–+63 |

| Parameter            | Value/Explanation   |
|----------------------|---|
| Velocity Sens Offset | Velocity Sens Offset alters the Velocity Sensitivity of the overall patch while preserving the relative differences between the Velocity Sensitivity values set for each tone in the parameters below.<br>Cutoff V-Sens (p. 9)<br>Level V-Sens (p. 10)<br>* This value is added to the velocity sensitivity value of a tone, so if the velocity sensitivity value of any tone is already set to "+63" (maximum), positive "+" settings here will not produce any change.<br>-63+63  |
| Mono/Poly            | Specifies whether the patch will play polyphonically (POLY) or monophonically (MONO).<br>The "MONO" setting is effective when playing a solo instrument patch such as sax or flute.<br>MONO Only the last-played note will sound.<br>POLY Two or more notes can be played simultaneously.   |
| Legato Switch        | Specifies whether the Legato Switch will be used (ON) or not (OFF).<br>With the Legato Switch parameter "ON," pressing a key while continuing to press a previous key causes the note to change pitch to the pitch of the most recently pressed key, sounding all the while. This creates a smooth transition between notes, which is effective when you wish to simulate the hammering-on and pulling-off techniques used by a guitarist.<br>* Legato Switch is valid when the Mono/Poly is set to "MONO."<br>OFF, ON                    |
| Legato Retrigger     | The setting determines whether sounds are replayed (ON) or not (OFF) when performing legato. Normally you will leave this parameter "ON."<br>When "OFF," when one key is held down and another key is then pressed, only the pitch changes, without the attack of the latter key being played. Set this to "OFF" when performing wind and string phrases or when using modulation with the mono synth keyboard sound.<br>* Legato Retrigger is valid when the Mono/Poly is set to "MONO" and the Legato Switch is set to "ON."<br>OFF, ON |

## MEMO

Let's say you have the Legato Switch set to "ON," and the Legato Retrigger set to "OFF." When you try to sound a legato (by pressing a higher key while a lower key is held down), the pitch may sometimes not be able to rise all the way to the intended pitch (stopping instead at an intermediate pitch). This can occur because the limit of pitch rise, as determined at the wave level, has been exceeded. Additionally, if differing upper pitch limits are used for the waves of a Patch that uses multiple tones, it may stop being heard in MONO. When making large pitch changes, set the Legato Retrigger to "ON."

|                   |   |
|-------------------|---|
| Portamento Switch | Specifies whether the portamento effect will be applied (ON) or not (OFF).<br>OFF, ON   |
| Portamento Mode   | Specifies the performance conditions for which portamento will be applied.<br>NORMAL Portamento will always be applied.<br>LEGATO Portamento will be applied only when you play legato (i.e., when you press the next key before releasing the previous key).   |
| Portamento Type   | Specifies the type of portamento effect.<br>RATE The time it takes will depend on the distance between the two pitches.<br>TIME The time it takes will be constant, regardless of how far apart in pitch the notes are.   |
| Portamento Start  | When another key is pressed during a pitch change produced by portamento, a new pitch change will begin. This setting specifies the pitch at which the change will begin.<br>PITCH Starts a new portamento when another key is pressed while the pitch is changing.<br><br>NOTE Portamento will begin anew from the pitch where the current change would end.<br> |

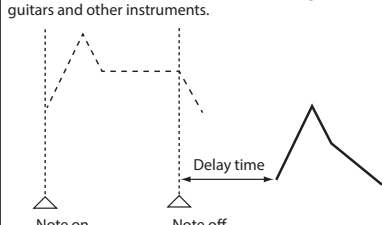
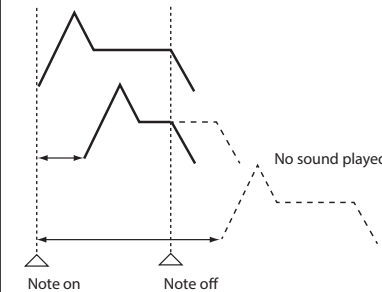
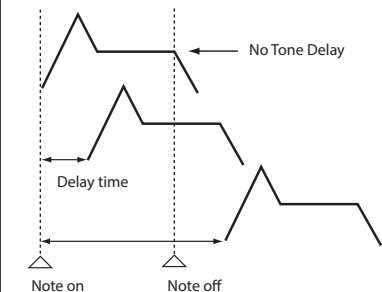
| Parameter       | Value/Explanation   |
|-----------------|---|
| Portamento Time | When portamento is used, this specifies the time over which the pitch will change. Higher settings will cause the pitch change to the next note to take more time.<br>0-127 |

## Category List

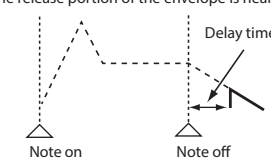
| Category | Contents     |
|----------|--------------|
| - - -    | No assign    |
| PNO      | AC. Piano    |
| EP       | EL. Piano    |
| KEY      | Keyboards    |
| BEL      | Bell         |
| MLT      | Mallet       |
| ORG      | Organ        |
| ACD      | Accordion    |
| HRM      | Harmonica    |
| AGT      | AC. Guitar   |
| EGT      | EL. Guitar   |
| DGT      | DIST. Guitar |
| BS       | Bass         |
| SBS      | Synth Bass   |
| STR      | Strings      |
| ORC      | Orchestra    |
| HIT      | Hit&Stab     |
| WND      | Wind         |
| FLT      | Flute        |
| BRS      | AC. Brass    |
| SBR      | Synth Brass  |
| SAX      | Sax          |
| HLD      | Hard Lead    |
| SLD      | Soft Lead    |
| TEK      | Techno Synth |
| PLS      | Pulsating    |
| FX       | Synth FX     |
| SYN      | Other Synth  |
| BPD      | Bright Pad   |
| SPD      | Soft Pad     |
| VOX      | Vox          |
| PLK      | Plucked      |
| ETH      | Ethnic       |
| FRT      | Fretted      |
| PRC      | Percussion   |
| SFX      | Sound FX     |
| BTS      | Beat&Groove  |
| DRM      | Drums        |
| CMB      | Combination  |

WAVE

| Parameter         | Value/Explanation   |  |
|-------------------|---|--|
| □1-□4             | Specify the on/off status of tones 1-4. If a tone is on, a "✓" mark is shown.<br>OFF, ON  |  |
| Wave Group        | Selects the group for the waveform that is to be the basis of the tone.   |  |
|                   | INTA, B   | Waveforms stored in internal   |
|                   | EXP   | Waveforms for expansion sounds   |
|                   | SAMP  | Imported user sample waveforms   |
| MSAM              | Multisamples created by JUNO-DS Tone Manager (PC software)  |  |
| Wave No. L (Mono) | Selects the basic waveform for a tone. Along with the Wave number, the Wave name appears at the lower part of the display.  |  |
| Wave No. R        | When in mono, only the left side (L) is specified. When in stereo, the right side (R) is also specified.<br>OFF, 1-2402 (The upper limit will depend on the wave group.)  |  |
| Wave Gain         | Sets the gain (amplification) of the waveform. The value changes in 6 dB (decibel) steps—an increase of 6 dB doubles the waveform's gain. If you intend to use the Booster to distort the waveform's sound, set this parameter to its maximum value (p. 7).<br>-6, 0, +6, +12 |  |
| Wave Tempo Sync   | When you wish to synchronize a Phrase Loop to the clock (tempo), set this to "ON."<br>OFF, ON   |  |
| Wave FXM Switch   | Phrase loop refers to the repeated playback of a phrase that's been pulled out of a song (e.g., by using a sampler).  |  |
|                   | Sets whether FXM will be used (ON) or not (OFF).<br>OFF, ON   |  |
| Wave FXM Color    | FXM (Frequency Cross Modulation) uses a specified waveform to apply frequency modulation to the currently selected waveform, creating complex overtones. This is useful for creating dramatic sounds or sound effects.  |  |
|                   | Specifies how FXM will perform frequency modulation. Higher settings result in a grainier sound, while lower settings result in a more metallic sound.<br>1-4   |  |
| ★ Wave FXM Depth  | Specifies the depth of the modulation produced by FXM.<br>0-16  |  |
| Tone Delay Mode   | Selects the type of tone delay.   |  |
|                   | NORM  | The tone begins to play after the time specified in the Tone Delay Time has elapsed.   |
|                   | HOLD  | Although the tone begins to play after the time specified in the Tone Delay Time has elapsed, if the key is released before the time specified in the Tone Delay Time has elapsed, the tone is not played.   |
|                   | OFF-N   | Rather than being played while the key is pressed, the tone begins to play once the period of time specified in the Tone Delay Time has elapsed after release of the key. This is effective in situations such as when simulating noises from guitars and other instruments. |

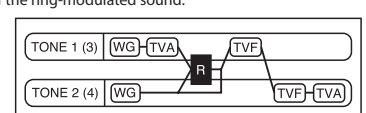
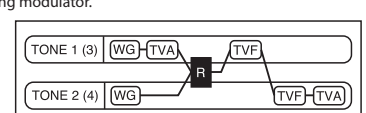
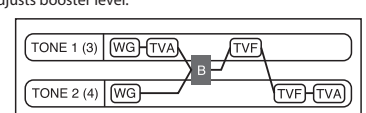
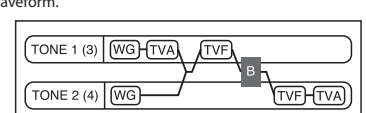
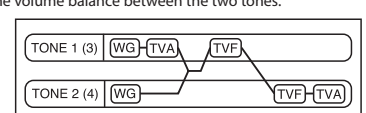
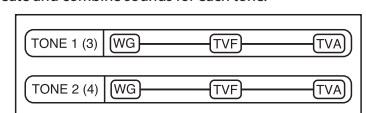


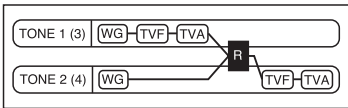
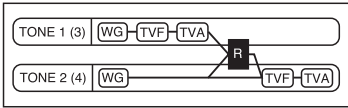
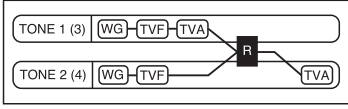
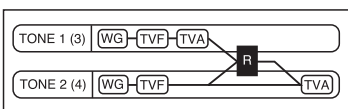
| Parameter       | Value/Explanation   |
|-----------------|---|
| OFF-D           | Rather than being played while the key is pressed, the tone begins to play once the period of time specified in the Tone Delay Time has elapsed after release of the key. Here, however, changes in the TVA Envelope begin while the key is pressed, which in many cases means that only the sound from the release portion of the envelope is heard. |
| MEMO            | If you have selected a waveform that is a decay-type sound (i.e., a sound that fades away naturally even if the key is not released), selecting "OFF-N" or "OFF-D" may result in no sound being heard.  |
| Tone Delay Time | Specifies the time from when the key is pressed (or if the Delay Mode is set to "OFF-N" or "OFF-D," the time from when the key is released) until when the tone will sound.<br>0-127, note  |



TMT

| Parameter                   | Value/Explanation  |  |
|-----------------------------|--|--|
| Structure Type 1 & 2, 3 & 4 | Determines how tone 1 and 2, or tone 3 and 4 are connected. The following 10 different Types of combination are available.   |  |
|                             | 1  | With this type, tones 1 and 2 (or 3 and 4) are independent. Use this type when you want to preserve PCM sounds or create and combine sounds for each tone.   |
|                             | 2  | This type stacks the two filters together to intensify the characteristics of the filters. The TVA for tone 1 (or 3) controls the volume balance between the two tones.                            |
|                             | 3  | This type mixes the sound of tone 1 (3) and tone 2 (4), applies a filter, and then applies a booster to distort the waveform.  |
|                             | 4  | This type applies a booster to distort the waveform, and then combines the two filters. The TVA for tone 1 (or 3) controls the volume balance between the two tones and adjusts booster level.     |
|                             | 5  | This type uses a ring modulator to create new overtones, and combines the two filters. The tone 1 (3) TVA will control the volume balance of the two tones, adjusting the depth of ring modulator. |
| 6                           | This type uses a ring modulator to create new overtones, and in addition mixes in the sound of tone 2 (4) and stacks the two filters. Since the ring-modulated sound can be mixed with tone 2 (4), tone 1 (3) TVA can adjust the amount of the ring-modulated sound. |  |

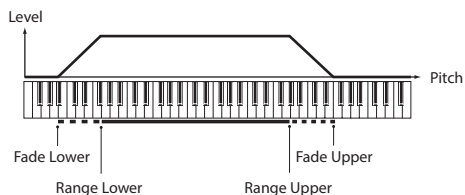


| Parameter | Value/Explanation   |
|-----------|---|
| 7         | <p>This type applies a filter to tone 1 (3) and ring-modulates it with tone 2 (4) to create new overtones.</p>   |
| 8         | <p>This type sends the filtered tone 1 (3) and tone 2 (4) through a ring modulator, and then mixes in the sound of tone 2 (4) and applies a filter to the result.</p>    |
| 9         | <p>This type passes the filtered sound of each tone through a ring modulator to create new overtones. The tone 1 (3) TVA will control the volume balance of the two tones, adjusting the depth of ring modulator.</p>    |
| 10        | <p>This type passes the filtered sound of each tone through a ring modulator to create new overtones, and also mixes in the sound of tone 2 (4). Since the ring-modulated sound can be mixed with tone 2 (4), tone 1 (3) TVA can adjust the amount of the ring-modulated sound.</p>  |

## MEMO

- When type 2-10 is selected and one tone of a pair is turned off, the other tone will be sounded as type 1 regardless of the displayed setting.
- If you limit the keyboard area in which a tone will sound (Key Range Upper, Lower) or limit the range of velocities for which it will sound (Velo Range Upper, Lower), the result in areas or ranges where the tone does not sound is just as if the tone had been turned off. This means that if type 2-10 is selected and you create a keyboard area or velocity range in which one tone of a pair does not sound, notes played in that area or range will be sounded by the other tone as TYPE 1 regardless of the displayed setting.

|                                     |   |
|-------------------------------------|---|
| <b>Booster 1 &amp; 2, 3 &amp; 4</b> | <p>When a Structure Type of 3 or 4 is selected, you can adjust the depth of the booster. The booster increases the input signal in order to distort the sound. This creates the distortion effect frequently used with electric guitars. Higher settings will produce more distortion.</p> <p>0, +6, +12, +18</p>                           |
| <b>Key Fade Upper, Lower</b>        | <p>This determines what will happen to the tone's level when a note that's higher/lower than the tone's specified keyboard range is played. Higher settings produce a more gradual change in volume. If you don't want the tone to sound at all when a note below the keyboard range is played, set this parameter to "0."</p> <p>0-127</p> |
| <b>Key Range Upper, Lower</b>       | <p>Specifies the highest/lowest note that the tone will sound for each tone.</p> <p>* If you attempt to raise the lower key higher than the upper key, or to lower the upper key below the lower key, the other value will be automatically modified to the same setting.</p> <p>(Upper) LOWER-G9, (Lower) C-1-UPPER</p>                    |

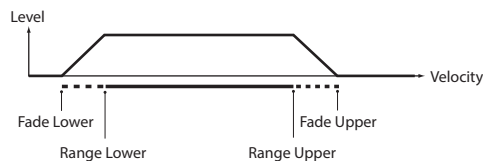


|                               |  |
|-------------------------------|--|
| <b>TMT Velocity Control</b>   | <p>TMT Velocity Control determines whether a different tone is played or not depending on the force with which the key is played (velocity).</p> <p>* Instead of using Velocity, you can also have tones substituted using the Matrix control (p. 12). However, the keyboard velocity and the Matrix control cannot be used simultaneously to make different tones to sound. When using the Matrix control to switch tones, set the Velocity Control to "OFF."</p> |
| OFF                           | Tones are not velocity-switched.   |
| ON                            | Tones are switched according to the keyboard playing velocity.   |
| RANDOM                        | The patch's constituent tones will sound randomly, regardless of the velocity.   |
| CYCLE                         | The patch's constituent tones will sound consecutively, regardless of the velocity.  |
| <b>Velo Fade Upper, Lower</b> | <p>This determines what will happen to the tone's level when the tone is played at a velocity Upper/lower than its specified velocity range. Higher settings produce a more gradual change in volume. If you want notes played outside the specified key velocity range to not be sounded at all, set this to "0."</p> <p>0-127</p>  |

| Parameter                      | Value/Explanation  |
|--------------------------------|--|
| <b>Velo Range Upper, Lower</b> | <p>Sets the highest/lowest velocity at which the tone will sound.</p> <p>* If you attempt to set the Lower velocity limit above the Upper, or the Upper below the Lower, the other value will automatically be adjusted to the same setting.</p> <p>(Upper) LOWER-127, (Lower) 1-UPPER</p> |

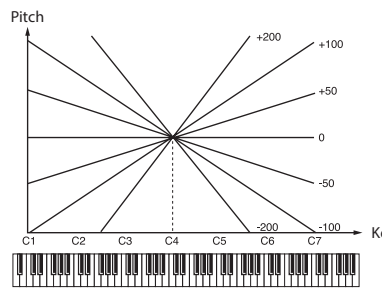
## MEMO

When using the Matrix Control to have different tones played, set the lowest value (Lower) and highest value (Upper) of the value of the MIDI message used.



|                           |   |
|---------------------------|---|
| <b>TMT Control Switch</b> | <p>Use the Matrix control to enable (ON), or disable (OFF) sounding of different tones.</p> <p>* You can also cause different tones to sound in response to notes played at different strengths (velocity) on the keyboard (p. 7). However, the Matrix control and the keyboard velocity cannot be used simultaneously to make different tones to sound. When you want to make the different tones to sound, set the TMT Velocity Control (p. 7) to "OFF."</p> <p>OFF, ON</p> |
|---------------------------|---|

## PITCH

| Parameter                        | Value/Explanation  |
|----------------------------------|--|
| <b>Tone Coarse Tune</b>          | <p>Adjusts the pitch of the tone's sound up or down in semitone steps (<math>\pm 4</math> octaves).</p> <p>-48-+48</p>   |
| <b>Tone Fine Tune</b>            | <p>Adjusts the pitch of the tone's sound up or down in 1-cent steps (<math>\pm 50</math> cents).</p> <p>-50-+50</p>  |
| <b>Random Pitch Depth</b>        | <p>Specifies the width of random pitch deviation that will occur each time a key is pressed. If you do not want the pitch to change randomly, set this to "0." These values are in units of cents (1/100th of a semitone).</p> <p>0-1200</p>   |
| <b>Pitch Keyfollow</b>           | <p>Specifies the amount of pitch change that will occur when you play a key one octave higher (i.e., 12 keys upward on the keyboard). If you want the pitch to rise one octave as on a conventional keyboard, set this to "+100." If you want the pitch to rise two octaves, set this to "+200." Conversely, set this to a negative value if you want the pitch to fall. With a setting of "0," all keys will produce the same pitch.</p> <p>-200-+200</p>  |
| <b>Pitch Bend Range Up, Down</b> | <p>Specifies the degree of pitch change in semitones when the Pitch Bend lever is all the way right (left). For example if this is set to "+48 (-48)" and you move the pitch bend lever all the way to the right (left), the pitch will rise (fall) 4 octaves.</p> <p>(Up) 0-+48, (Down) 0- -48</p>  |

PITCH ENV


| Parameter            | Value/Explanation  |
|----------------------|--|
| Pitch Env Depth      | Adjusts the effect of the Pitch Envelope. Higher settings will cause the pitch envelope to produce greater change. Negative (-) settings will invert the shape of the envelope.<br>-12--+12  |
| Pitch Env V-Sens     | Keyboard playing dynamics can be used to control the depth of the pitch envelope. If you want the pitch envelope to have more effect for strongly played notes, set this parameter to a positive (+) value. If you want the pitch envelope to have less effect for strongly played notes, set this to a negative (-) value.<br>-63--+63  |
| Pitch Env T1 V-Sens  | This allows keyboard dynamics to affect the Time 1 of the Pitch envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63--+63   |
| Pitch Env T4 V-Sens  | Use this parameter when you want key release speed to affect the Time 4 value of the pitch envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63--+63   |
| Pitch Env Time KF    | Use this setting if you want the pitch envelope times (Time 2–Time 4) to be affected by the keyboard location. Based on the pitch envelope times for the C4 key, positive (+) settings will cause notes higher than C4 to have increasingly shorter times, and negative (-) settings will cause them to have increasingly longer times. Larger settings will produce greater change.<br>-100--+100 |
| ★ Pitch Env Time 1–4 | Specify the pitch envelope times (Time 1–Time 4). Higher settings will result in a longer time until the next pitch is reached. (For example, Time 2 is the time over which the pitch changes from Level 1 to Level 2.)<br>0–127   |
|                      | Specify the pitch envelope levels (Level 0–Level 4). It determines how much the pitch changes from the reference pitch (the value set with Coarse Tune or Fine Tune on the Pitch screen) at each point. Positive (+) settings will cause the pitch to be higher than the standard pitch, and negative (-) settings will cause it to be lower.<br>-63--+63  |

The graph shows Pitch on the vertical axis and Time on the horizontal axis. The envelope is divided into four time segments: T1 (ramp up), T2 (ramp down), T3 (ramp up), and T4 (ramp down). The pitch levels are labeled L0, L1, L2, L3, and L4. A keyboard diagram below shows the C1 to C7 keys.

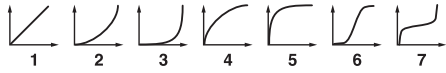
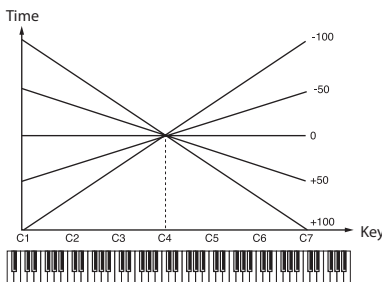
TVF

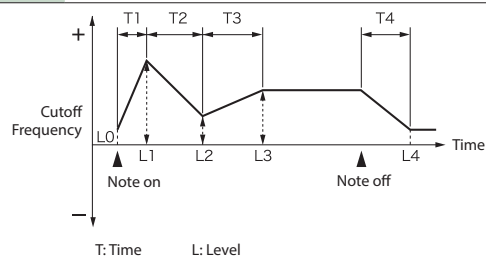
| Parameter   | Value/Explanation   |
|---|---|
| Filter Type   | Selects the type of filter. A filter cuts or boosts a specific frequency region to change a sound's brightness, thickness, or other qualities.<br>* If you set "LPF2" or "LPF3," the setting for the Resonance (p. 8) will be ignored.  |
| OFF   | No filter is used.  |
| LPF   | Low Pass Filter. This reduces the volume of all frequencies above the cutoff frequency in order to round off, or un-brighten the sound. This is the most common filter used in synthesizers.  |
| BPF   | Band Pass Filter. This leaves only the frequencies in the region of the cutoff frequency, and cuts the rest. This can be useful when creating distinctive sounds.   |
| HPF   | High Pass Filter. This cuts the frequencies in the region below the cutoff frequency. This is suitable for creating percussive sounds emphasizing their higher tones.   |
| PKG   | Peaking Filter. This emphasizes the frequencies in the region of the cutoff frequency. You can use this to create wah-wah effects by employing an LFO to change the cutoff frequency cyclically.  |
| LPF2  | Low Pass Filter 2. Although frequency components above the cutoff frequency are cut, the sensitivity of this filter is half that of the LPF. This makes it a comparatively warmer low pass filter. This filter is good for use with simulated instrument sounds such as the acoustic piano.   |
| LPF3  | Low Pass Filter 3. Although frequency components above the cutoff frequency are cut, the sensitivity of this filter changes according to the cutoff frequency. While this filter is also good for use with simulated acoustic instrument sounds, the nuance it exhibits differs from that of the LPF2, even with the same TVF Envelope settings.  |
| ★ Cutoff Frequency  | <div style="display: flex; justify-content: space-around;"> <div> <p>Level</p> <p>High</p> <p>Low</p> </div> <div> <p>LPF</p> <p>BPF</p> <p>HPF</p> <p>PKG</p> </div> </div> <p>The grid shows parameter value on the vertical axis (High to Low) and Frequency on the horizontal axis. The columns represent different filter types: LPF, BPF, HPF, and PKG. Each cell contains a graph showing the filter's response curve.</p> |
|   | Selects the frequency at which the filter begins to have an effect on the waveform's frequency components.<br>"LPF/LPF2/LPF3" selected for the Filter Type<br>Lower cutoff frequency settings reduce a tone's upper harmonics for a more rounded, warmer sound. Higher settings make it sound brighter.   |
|   | "BPF" selected for the Filter Type<br>Harmonic components will change depending on the TVF Cutoff Frequency setting. This can be useful when creating distinctive sounds.   |
|   | "HPF" selected for the Filter Type<br>Higher Cutoff Frequency settings will reduce lower harmonics to emphasize just the brighter components of the sound.  |
| "PKG" selected for the Filter Type<br>The harmonics to be emphasized will vary depending on Cutoff Frequency setting. |   |
| MEMO  | To edit the overall patch while preserving the relative differences in the Cutoff Frequency values set for each tone, set the Cutoff Offset (p. 4).<br>0–127  |
| ★ Resonance   | Emphasizes the portion of the sound in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort.<br>0–127   |
| Cutoff Keyfollow  | Use this parameter if you want the cutoff frequency to change according to the key that is pressed. Relative to the cutoff frequency at the C4 key (center C), positive (+) settings will cause the cutoff frequency to rise for notes higher than C4, and negative (-) settings will cause the cutoff frequency to fall for notes higher than C4. Larger settings will produce greater change.<br>-200--+200                     |
|   | <p>The graph shows Cutoff frequency (Octave) on the vertical axis and Key on the horizontal axis. The curves show how the cutoff frequency changes for different keys relative to C4. Positive settings (+200, +100, +50) rise for notes higher than C4, and negative settings (-200, -100, -50) fall for notes higher than C4. A keyboard diagram is shown below.</p>  |



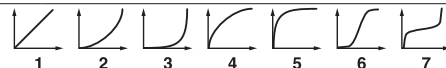
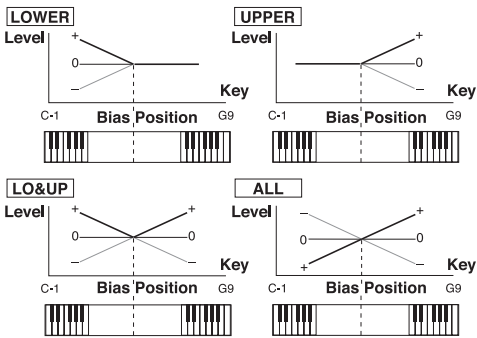
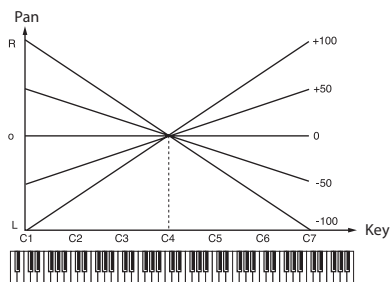
| Parameter        | Value/Explanation   |
|------------------|---|
| Cutoff V-Curve   | <p>Selects one of the following seven curves that determine how keyboard playing dynamics (velocity) influence the cutoff frequency. Set this to "FIXED" if you don't want the Cutoff frequency to be affected by the keyboard velocity.</p> <p>FIXED, 1-7</p>   |
| Cutoff V-Sens    | <p>Use this parameter when changing the cutoff frequency to be applied as a result of changes in playing velocity. If you want strongly played notes to raise the cutoff frequency, set this parameter to positive (+) settings. If you want strongly played notes to lower the cutoff frequency, use negative (-) settings.</p> <p><b>MEMO</b></p> <p>To edit the overall patch while preserving the relative differences in the Cutoff V-Sens values set for each tone, set the Velocity Sens Offset (p. 5). However, this setting is shared by the Level V-Sens (p. 10).</p> <p>-63+63</p> |
| Resonance V-Sens | <p>This allows keyboard velocity to modify the amount of Resonance. If you want strongly played notes to have a greater Resonance effect, set this parameter to positive (+) settings. If you want strongly played notes to have less Resonance, use negative (-) settings.</p> <p>-63+63</p>   |

## TVF ENV

| Parameter              | Value/Explanation   |
|------------------------|---|
| TVF Env Depth          | <p>Specifies the depth of the TVF envelope. Higher settings will cause the TVF envelope to produce greater change. Negative (-) settings will invert the shape of the envelope.</p> <p>-63+63</p>   |
| TVF Env V-Curve        | <p>Selects one of the following 7 curves that will determine how keyboard playing dynamics will affect the TVF envelope. Set this to "FIXED" if you don't want the TVF Envelope to be affected by the keyboard velocity.</p> <p>FIXED, 1-7</p>   |
| TVF Env V-Sens         | <p>Specifies how keyboard playing dynamics will affect the depth of the TVF envelope. Positive (+) settings will cause the TVF envelope to have a greater effect for strongly played notes, and negative (-) settings will cause the effect to be less.</p> <p>-63+63</p>   |
| TVF Env T1 V-Sens      | <p>This allows keyboard dynamics to affect the Time 1 of the TVF envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.</p> <p>-63+63</p>   |
| TVF Env T4 V-Sens      | <p>The parameter to use when you want key release speed to control the Time 4 value of the TVF envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.</p> <p>-63+63</p>  |
| TVF Env Time Keyfollow | <p>Use this setting if you want the TVA envelope times (Time 2-Time 4) to be affected by the keyboard location. Based on the TVF envelope times for the C4 key (center C), positive (+) settings will cause notes higher than C4 to have increasingly shorter times, and negative (-) settings will cause them to have increasingly longer times. Larger settings will produce greater change.</p> <p>-100+100</p>  |
| ★ TVF Env Time 1-4     | <p>Specify the TVF envelope times (Time 1-Time 4). Higher settings will lengthen the time until the next cutoff frequency level is reached. (For example, Time 2 is the time over which Level 1 will change to Level 2.)</p> <p>0-127</p>   |
| TVF Env Level 0-4      | <p>Specify the TVF envelope levels (Level 0-Level 4). These settings specify how the cutoff frequency will change at each point, relative to the standard cutoff frequency (the cutoff frequency value specified in the TVF screen).</p> <p>0-127</p>   |



TVA

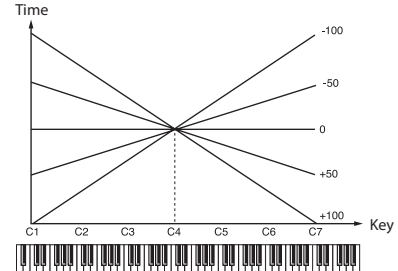
| Parameter        | Value/Explanation   |
|------------------|---|
| ★ Tone Level     | Sets the volume of the tone. This setting is useful primarily for adjusting the volume balance between tones.<br>0-127  |
| Level V-Curve    | You can select from seven curves that determine how keyboard playing strength will affect the volume. If you do not want the volume of the tone to be affected by the force with which you play the key, set this to "FIXED."<br>FIXED, 1-7<br>  |
| Level V-Sens     | Set this when you want the volume of the tone to change depending on the force with which you press the keys. Set this to a positive (+) value to have the changes in tone volume increase the more forcefully the keys are played; to make the tone play more softly as you play harder, set this to a negative (-) value.<br><b>MEMO</b><br>If you wish to make adjustments to the entire patch while maintaining the relative values of Level V-Sens among tones, adjust the Velocity Sens Offset (p. 5). However, this setting is shared by the Cutoff V-Sens (p. 9).<br>-63+63 |
| Bias Level       | Adjusts the angle of the volume change that will occur in the selected Bias Direction. Larger settings will produce greater change. Negative (-) values will invert the change direction.<br>-100+100   |
| Bias Position    | Specifies the key relative to which the volume will be modified.<br>C- G9   |
| Bias Direction   | LWR<br>The volume will be modified for the keyboard area below the Bias Point.  |
|                  | UPR<br>The volume will be modified for the keyboard area above the Bias Point.  |
|                  | L&U<br>The volume will be modified symmetrically toward the left and right of the Bias Point.   |
|                  | ALL<br>The volume changes linearly with the bias point at the center.   |
| <b>Bias</b>      | Bias causes the volume to be affected by the keyboard position. This is useful for changing volume through keyboard position (pitch) when playing acoustic instruments.   |
|                  |    |
| ★ Tone Pan       | Sets the pan of the tone. "L64" is far left, "0" is center, and "63R" is far right.<br>L64-0-63R  |
|                  | Use this parameter if you want key position to affect panning. Positive (+) settings will cause notes higher than C4 key (center C) to be panned increasingly further toward the right, and negative (-) settings will cause notes higher than C4 key (center C) to be panned toward the left. Larger settings will produce greater change.<br>-100+100   |
| Pan Keyfollow    |    |
| Random Pan Depth | Use this parameter when you want the stereo location to change randomly each time you press a key. Higher settings will produce a greater amount of change.<br>0-63   |

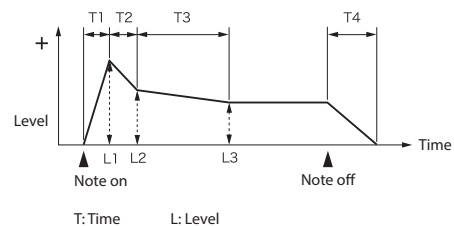
| Parameter           | Value/Explanation   |
|---------------------|---|
| Alternate Pan Depth | This setting causes panning to be alternated between left and right each time a key is pressed. Higher settings will produce a greater amount of change. "L" or "R" settings will reverse the order in which the pan will alternate between left and right. For example if two tones are set to "L" and "R" respectively, the panning of the two tones will alternate each time they are played.<br>L63-0-63R |

**MEMO**

When any value from Type "2"- "10" is selected for the Structure Type (p. 6) in the Pan Keyfollow, Random Pan Depth, Alternate Pan Depth settings, the output of tones 1 and 2 are joined in tone 2, and the output of tones 3 and 4 are joined in tone 4. For this reason, tone 1 will follow the settings of tone 2, and tone 3 will follow the settings of tone 4.

TVA ENV

| Parameter          | Value/Explanation  |
|--------------------|--|
| TVA-Env T1 V-Sens  | This allows keyboard dynamics to affect the Time 1 of the TVA envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63   |
| TVA-Env T4 V-Sens  | The parameter to use when you want key release speed to control the Time 4 value of the TVA envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63  |
| TVA-Env Time KF    | Use this setting if you want the TVA envelope times (Time 2-Time 4) to be affected by the keyboard location. Based on the TVA envelope times for the C4 key (center C), positive (+) settings will cause notes higher than C4 to have increasingly shorter times, and negative (-) settings will cause them to have increasingly longer times. Larger settings will produce greater change.<br>-100+100<br> |
| ★ TVA-Env Time 1-4 | Specify the TVA envelope times (Time 1-Time 4). Higher settings will lengthen the time until the next volume level is reached. (For example, Time 2 is the time over which Level 1 will change to Level 2.)<br>0-127   |
| TVA-Env Level 1-3  | Specify the TVA envelope levels (Level 1-Level 3). These settings specify how the volume will change at each point, relative to the standard volume (the Tone Level value specified in the TVA screen).<br>0-127   |



## OUTPUT

| Parameter           | Value/Explanation  |   |
|---------------------|--|---|
| Patch Output Assign | Specifies how the direct sound of each patch will be output.   |   |
|                     | MFX  | Output in stereo through MFX. You can also apply chorus or reverb to the sound that passes through MFX. |
|                     | L+R  | Output to the OUTPUT L (MONO) jack and OUTPUT R jack in stereo without passing through MFX.             |
|                     | L, R   | Output to the OUTPUT L (MONO) jack or OUTPUT R jack in mono without passing through MFX.                |
| TONE                | Outputs according to the settings for each tone.   |   |
| Tone Output Assign  | Specifies how the direct sound of each tone will be output.  |   |
|                     | * If the Patch Output Assign is set to anything other than "TONE," these settings will be ignored.   |   |
|                     | * When the Structure Type (p. 6) has a setting of "2"–"10," the outputs of tones 1 and 2 will be combined with tone 2, and the outputs of tones 3 and 4 will be combined with tone 4. For this reason, tone 1 will follow the settings of tone 2, and tone 3 will follow the settings of tone 4. |   |
|                     | * Chorus and reverb are output in mono at all times.   |   |
| MFX                 | Output in stereo through MFX. You can also apply chorus or reverb to the sound that passes through MFX.  |   |
| L+R                 | Output to the OUTPUT L (MONO) jack and OUTPUT R jack in stereo without passing through MFX.  |   |
| L, R                | Output to the OUTPUT L (MONO) jack or OUTPUT R jack in mono without passing through MFX.   |   |
| Tone Output Level   | Set the level of the signal that is sent to the output destination specified by Patch Output Assign or Tone Output Assign.<br>0–127  |   |
| Tone Chorus Send    | Specifies the level of the signal sent to the chorus for each tone.<br>0–127   |   |
| Tone Reverb Send    | Specifies the level of the signal sent to the reverb for each tone.<br>0–127   |   |

## LFO1, 2

| Parameter   | Value/Explanation   |  |
|-------------|---|--|
| Waveform    | Selects the waveform of the LFO.  |  |
|             | * If you set this to "BD-U" or "BD-D," you must turn the Key Trigger parameter to "ON." If this is "OFF," it will have no effect.   |  |
|             | SIN   | Sine wave  |
|             | TRI   | Triangle wave  |
|             | SAWU  | Sawtooth wave  |
|             | SAWD  | Sawtooth wave (negative polarity)  |
|             | SQR   | Square wave  |
|             | RND   | Random wave  |
|             | BD-U  | Once the attack of the waveform output by the LFO is allowed to develop in standard fashion, the waveform then continues without further change. |
|             | BD-D  | Once the decay of the waveform output by the LFO is allowed to develop in standard fashion, the waveform then continues without further change.  |
|             | TRP   | Trapezoidal wave   |
|             | S&H   | Sample & Hold wave (one time per cycle, LFO value is changed)  |
|             | CHS   | Chaos wave   |
| VSIN        | Modified sine wave. The amplitude of a sine wave is randomly varied once each cycle.  |  |
| STEP        | A waveform generated by the data specified by LFO Step 1–16. This produces stepped change with a fixed pattern similar to a step modulator.   |  |
| ★ Rate      | Adjusts the modulation rate, or speed, of the LFO.<br>* This setting will be ignored if the Waveform parameter is set to "CHS."<br>0–127, note  |  |
| Rate Detune | LFO Rate Detune makes subtle changes in the LFO cycle rate (Rate) each time a key is pressed. Higher settings will cause greater change.<br>* This parameter is invalid when Rate is set to "note."<br>0–127  |  |
| Offset      | Raises or lowers the LFO waveform relative to the central value (pitch or cutoff frequency). Positive (+) settings will move the waveform so that modulation will occur from the central value upward. Negative (-) settings will move the waveform so that modulation will occur from the central value downward.<br>-100, -50, 0, +50, +100 |  |
| Delay Time  | Delay Time (LFO Delay Time) specifies the time elapsed before the LFO effect is applied (the effect continues) after the key is pressed (or released).<br>* After referring to "How to Apply the LFO" (p. 12), change the setting until the desired effect is achieved.<br>0–127  |  |

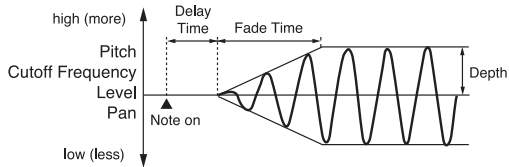
| Parameter     | Value/Explanation  |
|---------------|--|
| Delay Time KF | Adjusts the value for the Delay Time depending on the key position, relative to the C4 key (center C). To decrease the time that elapses before the LFO effect is applied (the effect is continuous) with each higher key that is pressed in the upper registers, select a positive value; to increase the elapsed time, select a negative value.<br>Larger settings will produce greater change. If you do not want the elapsed time before the LFO effect is applied (the effect is continuous) to change according to the key pressed, set this to "0." |
|               | -100–+100  |
|               |  |
| Fade Mode     | Specifies how the LFO will be applied.<br>* After referring to "How to Apply the LFO" (p. 12), change the setting until the desired effect is achieved.<br>ON <, ON >, OFF <, OFF >  |
| Fade Time     | Specifies the time over which the LFO amplitude will reach the maximum (minimum).<br>* After referring to "How to Apply the LFO" (p. 12), change the setting until the desired effect is achieved.<br>0–127  |
| Key Trigger   | Specifies whether the LFO cycle will be synchronized to begin when the key is pressed (ON) or not (OFF).<br>OFF, ON  |
| ★ Pitch Depth | Specifies how deeply the LFO will affect pitch.<br>-63–+63   |
| ★ TVF Depth   | Specifies how deeply the LFO will affect the cutoff frequency.<br>-63–+63  |
| ★ TVA Depth   | Specifies how deeply the LFO will affect the volume.<br>-63–+63  |
| ★ Pan Depth   | Specifies how deeply the LFO will affect the pan.  |
|               | <p><b>MEMO</b></p> When the Structure Type (p. 6) is set to any value from "2" through "10," the output of tones 1 and 2 will be combined into tone 2, and the output of tones 3 and 4 will be combined into tone 4. This applies to the Pan Depth settings. For this reason, tone 1 will follow the settings of tone 2, and tone 3 will follow the settings of tone 4.<br>-63–+63   |

## STEP LFO

| Parameter     | Value/Explanation  |
|---------------|--|
| Step Type     | When generating an LFO waveform from the data specified in LFO Step 1–16, specify whether the level will change abruptly at each step (TYP1) or will be connected linearly (TYP2).<br>TYP1, TYP2 |
| LFO Step 1–16 | Specifies the data for the Step LFO. If the LFO Pitch Depth is +63, each +1 unit of the step data corresponds to a pitch of +50 cents.<br>-36–+36  |

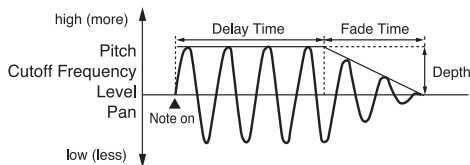
## How to Apply the LFO

## Apply the LFO gradually after the key is pressed



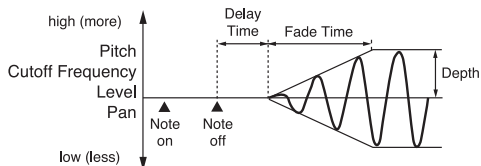
| Parameter  | Value/Explanation  |
|------------|--|
| Fade Mode  | ON <   |
| Delay Time | The time from when the keyboard is played until the LFO begins to be applied.                  |
| Fade Time  | The time over which the LFO amplitude will reach the maximum after the Delay Time has elapsed. |

## Apply the LFO immediately when the key is pressed, and then gradually begin to decrease the effect



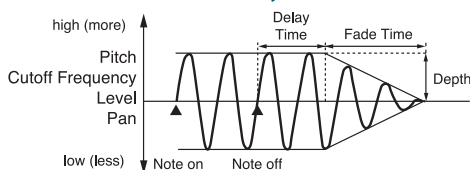
| Parameter  | Value/Explanation  |
|------------|--|
| Fade Mode  | ON >   |
| Delay Time | The time that the LFO will continue after the keyboard is played.                              |
| Fade Time  | The time over which the LFO amplitude will reach the minimum after the Delay Time has elapsed. |

## Apply the LFO gradually after the key is released



| Parameter  | Value/Explanation  |
|------------|--|
| Fade Mode  | OFF <  |
| Delay Time | The time from when the keyboard is released until the LFO begins to be applied.                |
| Fade Time  | The time over which the LFO amplitude will reach the maximum after the Delay Time has elapsed. |

## Apply the LFO from when the key is pressed until it is released, and gradually begin to decrease the effect when the key is released



| Parameter  | Value/Explanation  |
|------------|--|
| Fade Mode  | OFF >  |
| Delay Time | The time that the LFO will continue after the keyboard is released.                            |
| Fade Time  | The time over which the LFO amplitude will reach the minimum after the Delay Time has elapsed. |

## CTRL

| Parameter     | Value/Explanation   |      |  |      |  |
|---------------|---|------|--|------|--|
|               | When a loop waveform is selected, the sound will normally continue as long as the key is pressed. If you want the sound to decay naturally even if the key remains pressed, set this to "NOSUS."<br>* If a one-shot type waveform is selected, it will not sustain even if this parameter is set to "SUST."   |      |  |      |  |
|               | NOSUS, SUST   |      |  |      |  |
|               | <b>MEMO</b>   |      |  |      |  |
| Env Mode      | <ul style="list-style-type: none"> <li><b>One-shot:</b> These waveforms contain sounds that have short decays. A one-shot waveform records the initial rise and fall of the sound. Some of the JUNO-DS's one-shot waveforms are sounds that are complete in themselves, such as percussive instrument sounds. The JUNO-DS also contains many other one-shot waveforms that are elements of other sounds. These include attack components such as piano-hammer sounds and guitar fret noises.</li> <li><b>Looped:</b> These waveforms include sounds with long decays as well as sustained sounds. Loop waveforms repeatedly play back (loop) the portion of the waveform after the sound has reached a relatively steady state. The JUNO-DS's looped waveforms also include components of other sounds, such as piano-string resonant vibrations and the hollow sounds of brass instruments.</li> </ul> |      |  |      |  |
| Rx Bender     | For each tone, specify whether MIDI Pitch Bend messages will be received (ON), or not (OFF).<br>OFF, ON   |      |  |      |  |
| Rx Expression | For each tone, specify whether MIDI Expression messages will be received (ON), or not (OFF).<br>OFF, ON   |      |  |      |  |
| Rx Hold-1     | For each tone, specify whether MIDI Hold-1 messages will be received (ON), or not (OFF).<br>* If "NOSUS" is selected for Env Mode parameter, this setting will have no effect.<br>OFF, ON   |      |  |      |  |
|               | For each tone, specify how pan messages will be received.<br>* The channels cannot be set so as not to receive Pan messages.  |      |  |      |  |
| Rx Pan Mode   | <table border="1"> <tr> <td>CONT</td> <td>Whenever Pan messages are received, the stereo position of the tone will be changed.</td> </tr> <tr> <td>K-ON</td> <td>The pan of the tone will be changed only when the next note is played. If a pan message is received while a note is sounding, the panning will not change until the next key is pressed.</td> </tr> </table>   | CONT | Whenever Pan messages are received, the stereo position of the tone will be changed. | K-ON | The pan of the tone will be changed only when the next note is played. If a pan message is received while a note is sounding, the panning will not change until the next key is pressed. |
| CONT          | Whenever Pan messages are received, the stereo position of the tone will be changed.  |      |  |      |  |
| K-ON          | The pan of the tone will be changed only when the next note is played. If a pan message is received while a note is sounding, the panning will not change until the next key is pressed.  |      |  |      |  |
| Redamper Sw   | You can specify, on an individual tone basis, whether or not the sound will be held when a Hold 1 message is received after a key is released, but before the sound has decayed to silence. If you want to sustain the sound, set this "ON." When using this function, also set the Rx Hold-1 "ON." This function is effective for piano sounds.<br>OFF, ON   |      |  |      |  |

## Matrix control

Ordinarily, if you wanted to change tone parameters using an external MIDI device, you would need to send System Exclusive messages—MIDI messages designed exclusively for the JUNO-DS. However, System Exclusive messages tend to be complicated, and the amount of data that needs to be transmitted can get quite large.

For that reason, a number of the more typical of the JUNO-DS's tone parameters have been designed so they accept the use of Control Change (or other) MIDI messages for the purpose of making changes in their values. This provides you with a variety of means of changing the way patches are played. For example, you can use the Pitch Bend lever to change the LFO cycle rate, or use the keyboard's touch to open and close a filter.

The function which allows you use MIDI messages to make these changes in realtime to the tone parameters is called the Matrix control. Up to four Matrix Controls can be used in a single patch.

To use the Matrix control, specify which MIDI message (Source) will be used to control which parameter (Dest), and how greatly (Sens), and the tone to which the effect is applied (Switch).

## MTRX CTRL1-4

| Parameter          | Value/Explanation  |   |
|--------------------|--|---|
| Control 1-4 Source | Sets the MIDI message used to change the tone parameter with the Matrix Control. |   |
|                    | OFF  | Matrix control will not be used.  |
|                    | CC01-32, 33-95   | Controller numbers 1-32, 33-95  |
|                    | PITCH BEND   | Pitch Bend  |
|                    | AFTERTOUCH   | Aftertouch  |
|                    | SYS CTRL1-SYS CTRL4  | MIDI messages used as common matrix controls.                                     |
|                    | VELOCITY   | Velocity (pressure you press a key with)  |
|                    | KEY FOLLOW   | Key follow (keyboard position with C4 as 0)                                       |
|                    | * Velocity and Key follow correspond to Note messages.                           |   |
|                    | TEMPO  | The specified tempo (sequencer tempo) or the tempo of an external MIDI sequencer. |
|                    | LFO1, 2  | LFO1, 2   |
|                    | PITCH ENV  | Pitch envelope  |
|                    | TVF ENV  | TVF envelope  |
|                    | TVA ENV  | TVA envelope  |

- Although there are no MIDI messages for LFO 1 through TVA Envelope, they can be used as Matrix Control. In this case, you can change the tone settings in realtime by playing patches.
- If you want to use common controllers for the entire JUNO-DS, select "SYS CTRL1"- "SYS CTRL4." MIDI messages used as System Control 1-4 are set with the System Ctrl 1-4 Source (p. 34).

## MEMO

- There are parameters that determine whether or not Pitch bend, Controller number 11 (Expression) and Controller number 64 (Hold 1) are received (p. 12). When these settings are "ON," and the MIDI messages are received, then when any change is made in the settings of the desired parameter, the Pitch bend, Expression, and Hold 1 settings also change simultaneously. If you want to change the targeted parameters only, then set these to "OFF."
- There are parameters that let you specify whether specific MIDI messages will be received for each channel in a performance (p. 20). When a patch with Matrix control settings is assigned to a part, confirm that any MIDI messages used for the Matrix control will be received. If the JUNO-DS is set up such that reception of MIDI messages is disabled, then the Matrix control will not function.

|                 |  |   |
|-----------------|--|---|
| Control Dest1-4 | Matrix control destination selects the tone parameter that is to be controlled when using the Matrix control. The following parameters can be controlled. When not controlling parameters with the Matrix Control, set this to "OFF." Up to four parameters can be specified for each Matrix Control, and controlled simultaneously. |   |
|                 | OFF  | Matrix control will not be used.  |
|                 | <b>Changing the pitch</b>  |   |
|                 | PCH  | Changes the pitch.  |
|                 | <b>Opening and closing the filter</b>  |   |
|                 | CUT  | Changes the cutoff frequency.   |
|                 | RES  | Emphasizes the overtones in the region of the cutoff frequency, adding character to the sound.  |
|                 | <b>Changing the volume and pan</b>   |   |
|                 | LEV  | Changes the volume level.   |
|                 | PAN  | Changes the pan.  |
|                 | <b>Changing how the effects are applied</b>  |   |
|                 | DRY  | Changes the volume of the original sound.   |
|                 | CHO  | Changes the amount of chorus.   |
|                 | REV  | Changes the amount of reverb.   |
|                 | <b>Applying LFO to modulate sounds</b>   |   |
|                 | PIT-LFO1, 2  | Changes the vibrato depth.  |
|                 | TVF-LFO1, 2  | Changes the wah depth.  |
|                 | TVA-LFO1, 2  | Changes the tremolo depth.  |
|                 | PAN-LFO1, 2  | Changes the effect that the LFO will have on pan.   |
|                 | LFO-RATE   | Changes the speed of the LFO cycles.<br>The speed will not change if LFO Rate is set to "note."   |
|                 | <b>Changing the Pitch Envelope</b>   |   |
|                 | PIT-ATK  | Changes the Env Time 1 of the pitch envelope.   |
|                 | PIT-DCY  | Changes the Env Time 2 and Env Time 3 of the pitch envelope.  |
|                 | PIT-REL  | Changes the Env Time 4 of the pitch envelope.   |
|                 | <b>Changing the TVF Envelope</b>   |   |
|                 | TVF-ATK  | Changes the Env Time 1 of the TVF envelope.   |
|                 | TVF-DCY  | Changes the Env Time 2 and Env Time 3 of the TVF envelope.  |
|                 | TVF-REL  | Changes the Env Time 4 of the TVF envelope.   |
|                 | <b>Changing the TVA Envelope</b>   |   |
|                 | TVA-ATK  | Changes the Env Time 1 of the TVA envelope.   |
|                 | TVA-DCY  | Changes the Env Time 2 and Env Time 3 of the TVA envelope.  |
|                 | TVA-REL  | Changes the Env Time 4 of the TVA envelope.   |
|                 | <b>Splitting tones that are played</b>   |   |
|                 | TMT  | <ul style="list-style-type: none"> <li>If the Matrix control is used to split tones, set the TMT Velocity Control to "OFF," and the TMT Control Switch to "ON" (p. 7).</li> <li>If the Matrix control is used to split tones, we recommend setting the Matrix control Sens to "+63." Selecting a lower value may prevent switching of the tones. Furthermore, if you want to reverse the effect, set the value to "-63."</li> <li>If you want to use matrix control to switch smoothly between tones, use the Velo Fade Lower and Velo Fade Upper (p. 7). The higher the values set, the smoother the switch is between the tones.</li> </ul> |

| Parameter         | Value/Explanation  |  |
|-------------------|--|--|
|                   | Changing the depth of frequency modulation for FXM   |  |
|                   | FXM  |  |
|                   | <b>Changing specific MFX parameters</b>  |  |
| MFX1-4            | Change the parameter that was specified by MFX Control 1-4 Assign.<br>* If you have not made the necessary settings for using the MFX, the MFX will not be applied even if you attempt to control it as a Matrix control destination.  |  |
| Control Sens1-4   | Sets the amount of the Matrix Control's effect that is applied. If you wish to modify the selected parameter in a positive (+) direction—i.e., a higher value, toward the right, or faster etc.—from its current setting, select a positive (+) value. If you wish to modify the selected parameter in a negative (-) direction—i.e., a lower value, toward the left, or slower etc.—from its current setting, select a negative (-) value. For either positive or negative settings, greater absolute values will allow greater amounts of change. Set this to "0" if you don't want to apply the effect. |  |
|                   | -63+63   |  |
|                   | Selects the tone to which the effect is applied when using the Matrix Control.   |  |
| Control Switch1-4 | OFF  | The effect will not be applied.        |
|                   | ON   | The effect will be applied.            |
|                   | REVS   | The effect will be applied in reverse. |

## Drum Kit Parameters

## MEMO

A drum kit consists of a percussion instrument sound (tone) assigned to each key. The tone that's assigned to each key consists of a combination of up to four waves. Drum Kit Edit lets you edit the settings of the tone that's assigned to each key.

## COMMON

| Parameter             | Value/Explanation   |  |
|-----------------------|---|--|
| A0–C8<br>(Tone name)  | Specifies the key to which the tone you want to edit is assigned.<br>* You can also press a key to select this.   |  |
| Drum Kit Level        | Sets the volume of the drum kit.<br>0–127   |  |
| Tone Name             | Changes the name (tone name) of the tone that's assigned to the specified key.<br>Refer to "Editing the tone name" (p. 14).   |  |
| Assign Type           | Sets the way sounds are played when the same key is pressed a number of times.  |  |
|                       | MULTI   | Layer the sound of the same keys. Even with continuous sounds where the sound plays for an extended time, such as with crash cymbals, the sounds are layered, without previously played sounds being eliminated. |
| Mute Group            | Only one sound can be played at a time when the same key is pressed. With continuous sounds where the sound plays for an extended time, the previous sound is stopped when the following sound is played.   |  |
|                       | SINGLE  | Only one sound can be played at a time when the same key is pressed. With continuous sounds where the sound plays for an extended time, the previous sound is stopped when the following sound is played.        |
| Mute Group            | On an actual acoustic drum set, an open hi-hat and a closed hi-hat sound can never occur simultaneously. To reproduce the reality of this situation, you can set up a Mute Group.<br>The Mute Group function allows you to designate two or more tones that are not allowed to sound simultaneously. Up to 31 Mute Groups can be used. Tones that are not belong to any such group should be set to "OFF."<br>OFF, 1–31 |  |
| Tone Env Mode         | When a loop waveform (p. 12) is selected, the sound will normally continue as long as the key is pressed. If you want the sound to decay naturally even if the key remains pressed, set this to "NO-SUS."<br>* If a one-shot type waveform (p. 12) is selected, it will not sustain even if this parameter is set to "SUSTAIN."<br>NO-SUS, SUSTAIN  |  |
| Tone Pitch Bend Range | Specifies the amount of pitch change in semitones (4 octaves) that will occur when the pitch bend lever is moved. The amount of change when the lever is tilted is set to the same value for both left and right sides.<br>0–48   |  |
| Tone Rx Expression    | For each tone, specify whether MIDI Expression messages will be received (ON), or not (OFF).<br>OFF, ON   |  |
| Tone Rx Hold-1        | For each tone, specify whether MIDI Hold-1 messages will be received (ON), or not (OFF).<br>* If "NO-SUS" is selected for Tone Env Mode (p. 14), this setting will have no effect.<br>OFF, ON   |  |
| Rx Pan Mode           | For each tone, specify how pan messages will be received.<br>* The channels cannot be set so as not to receive Pan messages.  |  |
|                       | CONT  | Whenever Pan messages are received, the stereo position of the tone will be changed.   |
| One Shot Mode         | The pan of the tone will be changed only when the next note is played. If a pan message is received while a note is sounding, the panning will not change until the next key is pressed.  |  |
|                       | K-ON  | The pan of the tone will be changed only when the next note is played. If a pan message is received while a note is sounding, the panning will not change until the next key is pressed.                         |
| One Shot Mode         | The sound will play back until the end of the waveform (or the end of the envelope, whichever comes first). The result will be the same as when the envelope's Tone Env Mode (p. 14) is set to "NO-SUS."<br>OFF, ON   |  |

## Editing the tone name

1. Move the cursor to "Tone Name," and press the [ENTER] button.  
The DRUM KIT TONE NAME screen appears.

2. Assign a tone name

| Operation                   | Explanation                             |
|-----------------------------|---|
| [◀] [▶] buttons             | Move the cursor.                        |
| Value dial, [-] [+] buttons | Select the character.                   |
| [▼] [▲] buttons             | Switch between uppercase and lowercase. |

## Inserting/Deleting Characters

1. While entering a name, press the [MENU] button.  
The NAME MENU window appears. The window closes if you press the button once again.
2. Move the cursor to "INSERT" or "DELETE," and press the [ENTER] button.

| Function | Explanation   |
|----------|---|
| INSERT   | Press the [ENTER] button to insert a space (blank) at the cursor location.  |
| DELETE   | Press the [ENTER] button to delete the character at the cursor location; subsequent characters will be moved forward to fill the gap. |

3. When you've specified the name, press the [ENTER] button.

## WAVE

| Parameter  | Value/Explanation  |  |
|--|--|--|
| <input type="checkbox"/> 1– <input type="checkbox"/> 4 | Specify the on/off status of tones 1–4. If a tone is on, a "✓" mark is shown.<br>OFF, ON   |  |
| Wave Group   | Select the groups containing the Waves comprising the tone.  |  |
|  | INTA, B  | Waveforms stored in internal   |
|  | EXP  | Waveforms for expansion sounds   |
|  | SAMP   | Imported user sample waveforms   |
| MSAM   | Multisamples created by JUNO-DS Tone Manager (PC software)   |  |
| Wave No. L (Mono)<br>Wave No. R                        | Selects the Waves comprising the tone. Along with the Wave number, the Wave name appears at the lower part of the display.<br>When in mono, only the left side (L) is specified. When in stereo, the right side (R) is also specified.<br>OFF, 1–2402 (The upper limit will depend on the wave group.) |  |
| Wave Gain  | Sets the gain (amplification) of the waveform. The value changes in 6 dB (decibel) steps—an increase of 6 dB doubles the waveform's gain.<br>-6, 0, +6, +12  |  |
| Wave Tempo Sync  | When you wish to synchronize a Phrase Loop to the clock (tempo), set this to "ON."<br>OFF, ON  |  |
| Wave FXM Switch  | Sets whether FXM will be used (ON) or not (OFF).<br>OFF, ON  |  |
| Wave FXM Color   | Specifies how FXM will perform frequency modulation. Higher settings result in a grainier sound, while lower settings result in a more metallic sound.<br>1–4  |  |
| Wave FXM Depth   | Specifies the depth of the modulation produced by FXM.<br>0–16   |  |
| Wave Coarse Tune                                       | Adjusts the pitch of the waveform's sound up or down in semitone steps (±4 octaves).<br>-48–+48  |  |
| Wave Fine Tune   | Adjusts the pitch of the waveform's sound up or down in 1-cent steps (±50 cents).<br>-50–+50   |  |
| Wave Level   | Sets the volume of the waveform.<br>0–127  |  |
| Wave Pan   | Specifies the pan of the waveform. "L64" is far left, "0" is center, and "63R" is far right.<br>L64–0–63R  |  |
| Wave Random Pan Sw                                     | Use this setting to cause the waveform's panning to change randomly each time a key is pressed (ON) or not (OFF).<br>* The range of the panning change is set by the Random Pan Depth (p. 16).<br>OFF, ON  |  |
| Wave Alter Pan Sw                                      | This setting causes panning of the waveform to be alternated between left and right each time a key is pressed.  |  |
|  | OFF  | Pan does not change.   |
|  | ON   | The waveform is panned according to the Alternate Pan Depth (p. 16) setting. |
| REVS   | The waveform is panned in reverse.   |  |

## WMT

| Parameter               | Value/Explanation   |  |
|-------------------------|---|--|
| WMT Velocity Control    | WMT Velocity Control determines whether a different tone is played or not depending on the force with which the key is played (velocity).   |  |
|                         | OFF   | Waveforms are not velocity-switched.                               |
|                         | ON  | Waveforms are switched according to the keyboard playing velocity. |
| Velo Fade Upper, Lower  | RANDOM  |  |
|                         | The waveform's constituent tones will sound randomly, regardless of the velocity.   |  |
| Velo Range Upper, Lower | This determines what will happen to the tone's level when the tone is played at a velocity Upper/lower than its specified velocity range. Higher settings produce a more gradual change in volume. If you want notes played outside the specified key velocity range to not be sounded at all, set this to "0."<br>0–127  |  |
|                         | This sets the highest/lowest velocity at which the waveform will sound. Make these settings when you want different waveforms to sound in response to notes played at different strengths.<br>* If you attempt to set the Lower velocity limit above the Upper, or the Upper below the Lower, the other value will automatically be adjusted to the same setting.<br>(Upper) LOWER–127, (Lower) 1–UPPER |  |

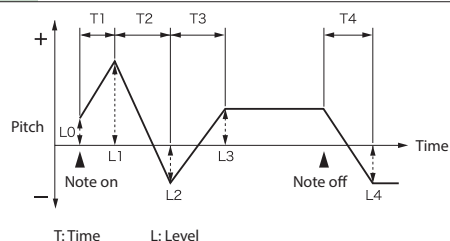
| Parameter | Value/Explanation |
|-----------|-------------------|
|           |                   |

## PITCH

| Parameter               | Value/Explanation   |
|-------------------------|---|
| Tone Coarse Tune        | Selects the pitch at which a tone sounds.<br>C -G9  |
| Tone Fine Tune          | Adjusts the pitch of the tone's sound up or down in 1-cent steps ( $\pm 50$ cents).<br>-50+50   |
| Tone Random Pitch Depth | Specifies the width of random pitch deviation that will occur each time a key is pressed. If you do not want the pitch to change randomly, set this to "0." These values are in units of cents (1/100th of a semitone).<br>0-1200 |

## PITCH ENV


| Parameter           | Value/Explanation   |
|---------------------|---|
| Pitch Env Depth     | Adjusts the effect of the Pitch Envelope. Higher settings will cause the pitch envelope to produce greater change. Negative (-) settings will invert the shape of the envelope.<br>-12+12   |
| Pitch Env V-Sens    | Keyboard playing dynamics can be used to control the depth of the pitch envelope. If you want the pitch envelope to have more effect for strongly played notes, set this parameter to a positive (+) value. If you want the pitch envelope to have less effect for strongly played notes, set this to a negative (-) value.<br>-63+63                   |
| Pitch Env T1 V-Sens | This allows keyboard dynamics to affect the Time 1 of the Pitch envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63  |
| Pitch Env T4 V-Sens | Use this parameter when you want key release speed to affect the Time 4 value of the pitch envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63  |
| Pitch Env Time 1-4  | Specify the pitch envelope times (Time 1-Time 4). Higher settings will result in a longer time until the next pitch is reached. (For example, Time 2 is the time over which the pitch changes from Level 1 to Level 2.)<br>0-127  |
| Pitch Env Level 0-4 | Specify the pitch envelope levels (Level 0-Level 4). It determines how much the pitch changes from the reference pitch (the value set with Coarse Tune or Fine Tune on the Patch screen) at each point. Positive (+) settings will cause the pitch to be higher than the standard pitch, and negative (-) settings will cause it to be lower.<br>-63+63 |

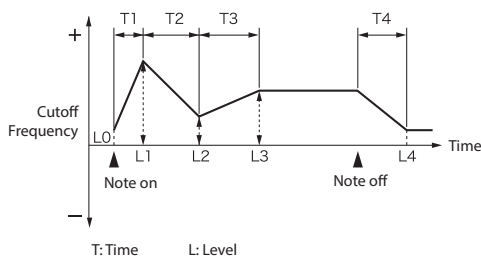


## TVF

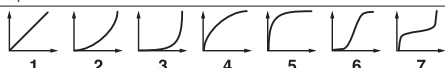
| Parameter        | Value/Explanation  |
|------------------|--|
|                  | Selects the type of filter. A filter cuts or boosts a specific frequency region to change a sound's brightness, thickness, or other qualities.<br>* If you set "LPF2" or "LPF3," the setting for the Resonance will be ignored (p. 15).  |
| Filter Type      | <p>OFF No filter is used.</p> <p>LPF Low Pass Filter. This reduces the volume of all frequencies above the cutoff frequency in order to round off, or un-brighten the sound. This is the most common filter used in synthesizers.</p> <p>BPF Band Pass Filter. This leaves only the frequencies in the region of the cutoff frequency, and cuts the rest. This can be useful when creating distinctive sounds.</p> <p>HPF High Pass Filter. This cuts the frequencies in the region below the cutoff frequency. This is suitable for creating percussive sounds emphasizing their higher tones.</p> <p>PKG Peaking Filter. This emphasizes the frequencies in the region of the cutoff frequency. You can use this to create wah-wah effects by employing an LFO to change the cutoff frequency cyclically.</p> <p>LPF2 Low Pass Filter 2. Although frequency components above the cutoff frequency are cut, the sensitivity of this filter is half that of the LPF. This makes it a comparatively warmer low pass filter. This filter is good for use with simulated instrument sounds such as the acoustic piano.</p> <p>LPF3 Low Pass Filter 3. Although frequency components above the cutoff frequency are cut, the sensitivity of this filter changes according to the cutoff frequency. While this filter is also good for use with simulated acoustic instrument sounds, the nuance it exhibits differs from that of the LPF2, even with the same TVF Envelope settings.</p> |
|                  |  |
| Cutoff Frequency | Selects the frequency at which the filter begins to have an effect on the waveform's frequency components.<br>"LPF/LPF2/LPF3" selected for the Filter Type<br>Lower cutoff frequency settings reduce a tone's upper harmonics for a more rounded, warmer sound. Higher settings make it sound brighter.<br>"BPF" selected for the Filter Type<br>Harmonic components will change depending on the TVF Cutoff Frequency setting. This can be useful when creating distinctive sounds.<br>"HPF" selected for the Filter Type<br>Higher Cutoff Frequency settings will reduce lower harmonics to emphasize just the brighter components of the sound.<br>"PKG" selected for the Filter Type<br>The harmonics to be emphasized will vary depending on Cutoff Frequency setting.<br>0-127   |
| Resonance        | Emphasizes the portion of the sound in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort.<br>0-127  |
| Cutoff V-Curve   | Selects one of the following seven curves that determine how keyboard playing dynamics (velocity) influence the cutoff frequency. Set this to "FIXED" if you don't want the Cutoff frequency to be affected by the keyboard velocity.<br>FIXED, 1-7<br>  |
| Cutoff V-Sens    | Use this parameter when changing the cutoff frequency to be applied as a result of changes in playing velocity. If you want strongly played notes to raise the cutoff frequency, set this parameter to positive (+) settings. If you want strongly played notes to lower the cutoff frequency, use negative (-) settings.<br>-63+63  |
| Resonance V-Sens | This allows keyboard velocity to modify the amount of Resonance. If you want strongly played notes to have a greater Resonance effect, set this parameter to positive (+) settings. If you want strongly played notes to have less Resonance, use negative (-) settings.<br>-63+63   |

## TVF ENV

| Parameter         | Value/Explanation  |
|-------------------|--|
| TVF Env Depth     | Specifies the depth of the TVF envelope. Higher settings will cause the TVF envelope to produce greater change. Negative (-) settings will invert the shape of the envelope.<br>-63+63   |
| TVF Env V-Curve   | Selects one of the following 7 curves that will determine how keyboard playing dynamics will affect the TVF envelope. Set this to "FIXED" if you don't want the TVF Envelope to be affected by the keyboard velocity.<br>FIXED, 1-7<br> |
| TVF Env V-Sens    | Specifies how keyboard playing dynamics will affect the depth of the TVF envelope. Positive (+) settings will cause the TVF envelope to have a greater effect for strongly played notes, and negative (-) settings will cause the effect to be less.<br>-63+63   |
| TVF Env T1 V-Sens | This allows keyboard dynamics to affect the Time 1 of the TVF envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63   |
| TVF Env T4 V-Sens | The parameter to use when you want key release speed to control the Time 4 value of the TVF envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63                          |
| TVF Env Time 1-4  | Specify the TVF envelope times (Time 1-Time 4). Higher settings will lengthen the time until the next cutoff frequency level is reached. (For example, Time 2 is the time over which Level 1 will change to Level 2.)<br>0-127   |
| TVF Env Level 0-4 | Specify the TVF envelope levels (Level 0-Level 4). These settings specify how the cutoff frequency will change at each point, relative to the standard cutoff frequency (the cutoff frequency value specified in the TVF screen).<br>0-127   |



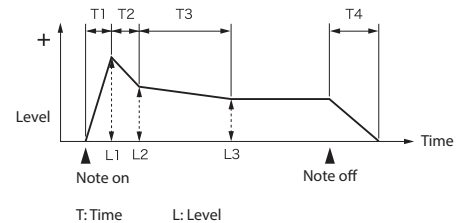
## TVA

| Parameter           | Value/Explanation   |
|---------------------|---|
| Tone Level          | Sets the volume of the tone. Use this parameter to adjust the volume balance between tones.<br>0-127  |
| Level V-Curve       | You can select from seven curves that determine how keyboard playing strength will affect the volume. If you do not want the volume of the tone to be affected by the force with which you press the key, select "FIXED."<br>FIXED, 1-7<br>  |
| Level V-Sens        | Set this when you want the volume of the tone to change depending on the force with which you press the keys. Set this to a positive (+) value to have the changes in tone volume increase the more forcefully the keys are played; to make the tone play more softly as you play harder, set this to a negative (-) value.<br>-63+63   |
| Tone Pan            | Sets the pan for the tone. "L64" is far left, "0" is center, and "63R" is far right.<br>L64-0-63R   |
| Random Pan Depth    | Use this parameter when you want the stereo location to change randomly each time you press a key. Higher settings will produce a greater amount of change.<br>* This will affect only waves whose Wave Random Pan Sw (p. 14) is "ON."<br>0-63  |
| Alternate Pan Depth | This setting causes panning to be alternated between left and right each time a key is pressed. Higher settings will produce a greater amount of change. "L" or "R" settings will reverse the order in which the pan will alternate between left and right. For example if two tones are set to "L" and "R" respectively, the panning of the two tones will alternate each time they are played.<br>* This will affect only waves whose Wave Alter Pan Sw (p. 14) is "ON" or "REVS."<br>L63-0-63R |

| Parameter      | Value/Explanation  |
|----------------|--|
| Relative Level | Corrects for the volume of the tone. This parameter is set by the key-based controller system exclusive message. Normally, you should leave it set to 0.<br>* If the Tone Level is set to 127, the volume will not increase beyond that point.<br>-64+63 |

## TVA-ENV

| Parameter         | Value/Explanation   |
|-------------------|---|
| TVA-Env T1 V-Sens | This allows keyboard dynamics to affect the Time 1 of the TVA envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63                                |
| TVA-Env T4 V-Sens | The parameter to use when you want key release speed to control the Time 4 value of the TVA envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63 |
| TVA-Env Time 1-4  | Specify the TVA envelope times (Time 1-Time 4). Higher settings will lengthen the time until the next volume level is reached. (For example, Time 2 is the time over which Level 1 will change to Level 2.)<br>0-127  |
| TVA-Env Level 1-3 | Specify the TVA envelope levels (Level 1-Level 3). These settings specify how the volume will change at each point, relative to the standard volume (the Tone Level value specified in the TVA screen).<br>0-127  |



## OUTPUT

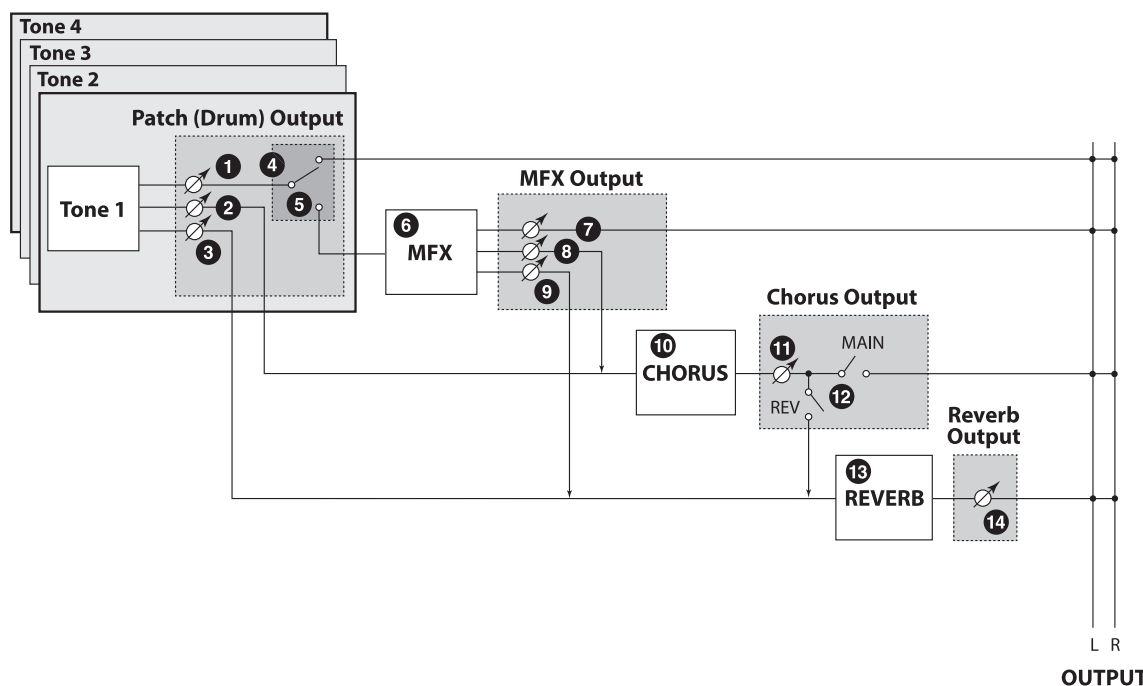
| Parameter            | Value/Explanation   |  |
|----------------------|---|--|
| Rhythm Output Assign | MFX   | Specifies for each drum kit how the direct sound will be output. Output in stereo through MFX. You can also apply chorus or reverb to the sound that passes through MFX.   |
|                      | L+R   | Output to the OUTPUT L (MONO) jack and OUTPUT R jack in stereo without passing through MFX.  |
|                      | L, R  | Output to the OUTPUT L (MONO) jack or OUTPUT R jack in mono without passing through MFX.   |
|                      | TONE  | Outputs according to the settings for each tone.   |
| Tone Output Assign   | MFX   | Specifies how the direct sound of each tone will be output.<br>* If the Rhythm Output Assign is set to anything other than "TONE," these settings will be ignored.<br>* Chorus and reverb are output in mono at all times. Output in stereo through MFX. You can also apply chorus or reverb to the sound that passes through MFX. |
|                      | L+R   | Output to the OUTPUT L (MONO) jack and OUTPUT R jack in stereo without passing through MFX.  |
|                      | L, R  | Output to the OUTPUT L (MONO) jack or OUTPUT R jack in mono without passing through MFX.   |
| Tone Output Level    | Set the level of the signal that is sent to the output destination specified by Patch Output Assign or Tone Output Assign.<br>0-127 |  |
| Tone Chorus Send     | Specifies the level of the signal sent to the chorus for each tone.<br>0-127  |  |
| Tone Reverb Send     | Specifies the level of the signal sent to the reverb for each tone.<br>0-127  |  |



## Effects Edit

In Patch mode you can use multi effects (MFX), chorus, and reverb.

## Signal Flow



|  |          |                      |       |
|--|----------|----------------------|-------|
| <b>When a patch is selected</b><br>Make these settings in the "OUTPUT" tab of the PATCH EDIT screen.       | <b>1</b> | Tone Output Level    | p. 11 |
|  | <b>2</b> | Tone Chorus Send     |       |
|  | <b>3</b> | Tone Reverb Send     |       |
|  | <b>4</b> | Patch Output Assign  |       |
|  | <b>5</b> | Tone Output Assign   |       |
| <b>When a drum kit is selected</b><br>Make these settings in the "OUTPUT" tab of the DRUM KIT EDIT screen. | <b>1</b> | Tone Output Level    | p. 16 |
|  | <b>2</b> | Tone Chorus Send     |       |
|  | <b>3</b> | Tone Reverb Send     |       |
|  | <b>4</b> | Rhythm Output Assign |       |
|  | <b>5</b> | Tone Output Assign   |       |

|   |           |                   |       |
|---|-----------|-------------------|-------|
| Make these settings in the "MFX" tab of the EFFECTS EDIT screen.    | <b>6</b>  | MFX Type          | p. 18 |
|   | <b>7</b>  | Output Level      |       |
|   | <b>8</b>  | Chorus Send Level |       |
| Make these settings in the "CHORUS" tab of the EFFECTS EDIT screen. | <b>9</b>  | Reverb Send Level | p. 18 |
|   | <b>10</b> | Chorus Type       |       |
| Make these settings in the "REVERB" tab of the EFFECTS EDIT screen. | <b>11</b> | Chorus Level      | p. 18 |
|   | <b>12</b> | Output Select     |       |
|   | <b>13</b> | Reverb Type       |       |
|   | <b>14</b> | Reverb Level      |       |

## Procedure

1. Press the [SAMPLE IMPORT] button and [DAW CONTROL] button simultaneously.  
The EDIT MENU screen appears.
2. Move the cursor to "EFFECTS EDIT," and press the [ENTER] button.  
The EFFECTS EDIT screen appears.
3. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
4. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
5. To save the edited settings, perform the operation "Saving Your Settings (Write)" (refer to owner's manual).

## Effects Parameters

## MFX

| Parameter                    | Value/Explanation  |
|------------------------------|--|
| MFX Type                     | Turns MFX on/off, and specifies the type of MFX that is used. If MFX is on, <input type="checkbox"/> shows a "✓" mark.<br>* For details on MFX, refer to "MFX Parameters (MFX, MFX1-3)" (p. 40).<br>00: THRU-80: BIT CRUSHER |
| Parameters for each MFX type | Edit the parameters of the MFX type you've selected.<br>* Refer to "MFX Parameters (MFX, MFX1-3)" (p. 40).   |
| Output Level                 | Adjusts the volume of the sound that has passed through the MFX. If you're applying a MFX, this specifies the depth of the MFX. If you're not applying a MFX, this specifies the volume of the original sound.<br>0-127      |
| Chorus Send Level            | Specifies the level of the signal sent to the chorus.<br>0-127   |
| Reverb Send Level            | Specifies the level of the signal sent to the reverb.<br>0-127   |

## MFX control

If you wanted to change the volume of MFX sounds, the delay time of Delay, and the like, using an external MIDI device, you would need to send System Exclusive messages-MIDI messages designed exclusively for the JUNO-DS. However, System Exclusive messages tend to be complicated, and the amount of data that needs to be transmitted can get quite large.

For that reason, a number of the more typical of the JUNO-DS's MFX parameters have been designed so they accept the use of Control Change (or other) MIDI messages for the purpose of making changes in their values. For example, you can use the Pitch Bend lever to change the amount of distortion, or use the keyboard's touch to change the delay time of Delay.

The parameters that can be changed are predetermined for each type of MFX; among the parameters described in "MFX parameters" (p. 40), these are indicated by a "#."

The function that allows you use MIDI messages to make these changes in realtime to the MFX parameters is called the MFX control. Up to four MFX controls can be used in a single patch/drum kit/performance.

When the MFX control is used, you can select the amount of control (Sens) applied, the parameter selected (Destination), and the MIDI message used (Source).

## MEMO

By using the Matrix control instead of the MFX control, you can also change the parameters of some popular MFX in realtime (p. 12).

## MFX CTRL

| Parameter       | Value/Explanation   |   |
|-----------------|---|---|
| Source 1-4      | Sets the MIDI message used to change the MFX parameter with the MFX control.  |   |
|                 | OFF   | MFX control will not be used.   |
|                 | CC01-31, 33-95  | Controller numbers 1-31, 33-95  |
|                 | PITCH BEND  | Pitch bend  |
|                 | AFTERTOUCH  | Aftertouch  |
| Destination 1-4 | Sets the MFX parameters to be controlled with the Source 1-4. The MFX parameters available for control will depend on the MFX Type.<br>* Refer to "MFX Parameters (MFX, MFX1-3)" (p. 40). |   |
|                 | Sens 1-4  | Specifies the depth of MFX control.<br>Specify a positive (+) value if you want to change the value of the assigned destination in a positive direction (larger, toward the right, faster, etc.), or specify a negative value (-) if you want to change the value in a negative direction (smaller, toward the left, slower, etc.).<br>Larger values will allow a greater amount of control.<br>-63-+63 |

## CHORUS

| Parameter                       | Value/Explanation   |  |
|---------------------------------|---|--|
| Chorus Type                     | Turns Chorus on/off, and specifies the type of chorus that is used. If Chorus is on, <input type="checkbox"/> shows a "✓" mark. |  |
|                                 | 00: OFF   | Neither chorus or delay is used.                             |
|                                 | 01: CHORUS  | Chorus is used.  |
|                                 | 02: DELAY   | Delay is used.   |
| Parameters for each chorus type | 03: GM2 CHORUS  | GM2 chorus   |
|                                 | Set the parameters of the selected chorus type.<br>* Refer to "Chorus Parameters" (p. 58).                                      |  |
| Output Select                   | Specifies how the sound routed through chorus will be output.   |  |
|                                 | MAIN  | Output to the OUTPUT jacks in stereo.                        |
|                                 | REV   | Output to reverb in mono.                                    |
| Chorus Level                    | M+R   | Output to the OUTPUT jacks in stereo, and to reverb in mono. |
|                                 | Adjusts the volume of the sound that has passed through chorus.<br>0-127  |  |

## REVERB

| Parameter                       | Value/Explanation   |   |
|---------------------------------|---|---|
| Reverb Type                     | Turns Reverb on/off, and specifies the type of reverb that is used. If Reverb is on, <input type="checkbox"/> shows a "✓" mark. |   |
|                                 | 00: OFF   | Reverb is not used.   |
|                                 | 01: REVERB  | Normal reverb   |
|                                 | 02: SRV ROOM  | This reverb simulates typical room acoustic reflections.  |
|                                 | 03: SRV HALL  | This reverb simulates typical concert hall acoustic reflections.  |
|                                 | 04: SRV PLATE   | This reverb simulates a reverb plate, a popular type of artificial reverb unit that derives its sound from the vibration of a metallic plate. |
| Parameters for each reverb type | 05: GM2 REVERB  | GM2 reverb  |
|                                 | Set the parameters of the selected reverb type.<br>* Refer to "Reverb Parameters" (p. 58).                                      |   |
| Reverb Level                    | Adjusts the volume of the sound that has passed through reverb.<br>0-127  |   |

# Performance Mode

## Performance Edit

### MEMO

PERFORMANCE EDIT and PART EDIT have the same parameters in common.

### Procedure

1. Press the [PATCH/PERFORM] button to make it light.
2. Select a performance that you want to edit.
3. Press the [SAMPLE IMPORT] button and [DAW CONTROL] button simultaneously.  
The EDIT MENU screen appears.
4. Move the cursor to "PERFORMANCE EDIT," and press the [ENTER] button.  
The PERFORM EDIT screen appears.
5. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
6. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
7. To save the edited settings, perform the operation "Saving Your Settings (Write)" (refer to owner's manual).

### MEMO

- In the PERFORM EDIT screen, you can use pads [1]–[8] to select the part that you want to edit. If you hold down the [SHIFT] button and press a pad [1]–[8], a part 9–16 is selected.
- In the PERFORM EDIT screen, press the [MENU] button to open the INIT MENU window. Select "PERFORM" or "PART" and press the [ENTER] button to initialize the selected performance or part.

## Performance Parameters

### PATCH

| Parameter | Value/Explanation   |
|-----------|---|
| Type      | Sets the assignment of a patch (Pat) or drum kit (Drm) to each of the parts.<br>Pat, Drm  |
| Bank      | Selects the group to which the desired patch or drum kit belongs.<br>DS (DS tone), PRST (Preset), GM (GM2 tone), EXP (expansion sounds), USER |
| Number    | Selects the desired patch or drum kit by its number.<br>0001–   |
| Kbd       | Specifies, for each part, whether or not the keyboard controller section will be connected to the internal sound generator.<br>OFF, ON        |

### LEVEL/CH

| Parameter | Value/Explanation  |
|-----------|--|
| Solo      | Turns on the part that you want to solo. Parts other than the soloed part are not heard.<br>OFF, ON  |
| Mute      | Specifies whether each part's performance is temporarily muted (ON) or not muted (OFF).<br>* The Mute parameter does not turn the part off; it mutes the sound by minimizing the volume. Therefore, the part still receives MIDI messages.<br>OFF, ON                                |
| Level     | Adjust the volume of each part. This setting's main purpose is to adjust the volume balance between parts.<br>0–127  |
| Pan       | Adjust the pan of each part. "L64" is far left, "0" is center, and "63R" is far right.<br>L64–0–63R  |
| RxCh      | Specifies the MIDI receive channel for each part.<br>1–16  |
| RxSw      | For each part, specify whether MIDI messages will be received (ON), or not (OFF).<br>If this is "OFF" the part will not respond. Normally, you should leave this "ON," but you can turn it "OFF" when you do not want a specific part to be playing during song playback.<br>OFF, ON |

### OUTPUT

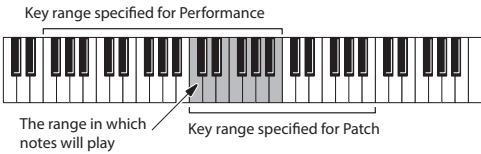
| Parameter  | Value/Explanation   |
|--|---|
| Out  | Specifies for each part how the direct sound will be output.  |
|  | MFX Output in stereo through MFX. You can also apply chorus or reverb to the sound that passes through MFX.   |
|  | L+R Output to the OUTPUT L (MONO) jack and OUTPUT R jack in stereo without passing through MFX.               |
|  | L, R Output to the OUTPUT L (MONO) jack or OUTPUT R jack in mono without passing through MFX.                 |
| PATCH Outputs according to the settings for patch. |   |
| Sel  | Of the three types of MFX that can be used simultaneously, specify which MFX will be used.<br>1–3 (MFX1–MFX3) |
| Lev  | Set the level of the signal that is sent to the output destination specified by Part Output Assign.<br>0–127  |
| Cho  | Sets the level of the signal sent to chorus for each part.<br>0–127   |

| Parameter | Value/Explanation   |
|-----------|---|
| Rev       | Sets the level of the signal sent to reverb for each part.<br>0–127                     |
| 1–3       | Turn MFX 1–3 on/off for each part. If turned on, a "✓" mark appears.<br>Off (–), On (✓) |
| C         | Turn Chorus on/off for each part. If turned on, a "✓" mark appears.<br>Off (–), On (✓)  |
| R         | Turn Reverb on/off for each part. If turned on, a "✓" mark appears.<br>Off (–), On (✓)  |

### PITCH

| Parameter | Value/Explanation  |
|-----------|--|
| Oct       | Adjusts the pitch of the part's sound up or down in units of an octave (±3 octaves).<br>* Note that when a rhythm set is assigned to a part, you cannot modify the Octave Shift.<br>–3–+3  |
| Crs       | Adjusts the pitch of the part's sound up or down in semitone steps (±4 octaves).<br>–48–+48  |
| Fine      | Adjusts the pitch of the part's sound up or down in 1-cent steps (±50 cents).<br>–50–+50   |
| Mono      | Set this parameter to "MONO" when the patch assigned to the part is to be played monophonically, or to "POLY" when the patch is to be played polyphonically. If you want to use the Mono/Poly setting of the patch assigned to the part (p. 5), set this to "PAT."<br>* This setting is ignored for parts to which a drum kit is assigned.<br>MONO, POLY, PAT        |
| Legt      | Turn this parameter "ON" when you want to use the Legato feature and "OFF" when you don't. If you want to use the Legato Switch setting of the patch assigned to the part (p. 5), set this to "PAT."<br>* This setting is ignored for parts to which a drum kit is assigned.<br>OFF, ON, PAT   |
| Bend      | Specifies the amount of pitch change in semitones (2 octaves) that will occur when the Pitch Bend Lever is moved. The amount of change when the lever is tilted is set to the same value for both left and right sides. If you want to use the Pitch Bend Range setting of the patch assigned to the part (p. 7), set this to "PAT."<br>0–24, PAT                    |
| Port      | Turn this parameter "ON" when you want to apply Portamento and "OFF" when you don't. If you want to use the Portamento Switch setting of the patch assigned to the part (p. 5), set this to "PAT."<br>OFF, ON, PAT   |
| Time      | When portamento is used, this specifies the time over which the pitch will change. Higher settings will cause the pitch change to the next note to take more time. If you want to use the Portamento Time setting of the patch assigned to the part (p. 5), set this to "PAT."<br>* This setting is ignored for parts to which a drum kit is assigned.<br>0–127, PAT |

**KBD**

| Parameter                            | Value/Explanation  |
|--------------------------------------|--|
| Kbd                                  | Specifies, for each part, whether or not the keyboard controller section will be connected to the internal sound generator and MIDI OUT. Normally you will leave this off; you can turn it on if you want to layer sounds.<br>OFF, ON  |
| RngLo, RngUp                         | Specifies the lowest/highest note that the tone will sound for each part.<br>* When the Key Range (p. 7) is set for each individual tone in a patch, sounds are produced in the range where the Key Range of each tone and the Key Range for the part overlap.<br>C- -G9<br>  |
| V-Sens (Velocity Sensitivity Offset) | This changes the volume and cutoff frequency for each part according to the velocity with which the keys are pressed. If you want strongly played notes to raise the volume/cutoff frequency, set this parameter to positive (+) settings. If you want strongly played notes to lower the volume/cutoff frequency, use negative (-) settings. Set Velocity Sensitivity to "0" when you want sounds played at a fixed volume and cutoff frequency, regardless of the force with which the keys are played.<br>* Patches also contain a Velocity Sensitivity Offset setting (p. 5). The ultimate Velocity Sensitivity Offset value is the sum of the part's and the patch's Velocity Sensitivity Offsets. Accordingly, if the patch's Velocity Sensitivity Offset is set to "127" (maximum), there will be no change in the part's Velocity Sensitivity Offset, even when this is set to a positive value.<br>-63+63 |
| V-Rsv                                | Specifies the number of voices that will be reserved for each part when more than 128 voices are played simultaneously.<br>* It is not possible for the settings of all parts to total an amount greater than 128.<br>0-63, FULL   |
| Oct                                  | Adjusts the pitch of the part's sound up or down in units of an octave ( $\pm 3$ octaves).<br>* Note that when a drum kit is assigned to a part, you cannot modify the Octave Shift.<br>-3+3   |

**Calculating the number of voices being used**

The JUNO-DS is able to play up to 128 notes simultaneously. The polyphony, or the number of voices (sounds) does not refer only to the number of sounds actually being played, but changes according to the number of tones used in the patches, and the number of Waves used in the tones. The following method is used to calculate the number of sounds used for one patch being played. (number of sounds being played) x (number of tones used by patches being played) x (number of waves used in the tones) Realtime Stretch requires twice the normal polyphony.

**OFFSET**

| Parameter                     | Value/Explanation   |
|-------------------------------|---|
| Cutoff (Cutoff Offset)        | Adjusts the cutoff frequency for the patch or drum kit assigned to a part.<br>* Patches also have a Cutoff Offset setting (p. 4). The final cutoff frequency value is the sum of the tone Cutoff Frequency value and the patch and part Cutoff Offset values. If the tone's cutoff frequency is already set to "127" (maximum), there will be no change produced by setting the Cutoff Offset to a positive value.<br>-64+63  |
| Reso (Resonance Offset)       | Adjusts the Resonance for the patch or rhythm set assigned to a part.<br>* Patches also have a Resonance Offset setting (p. 4). The final Resonance value is the sum of the tone Resonance value and the patch and part Resonance Offset values. If the tone's resonance is already set to "127" (maximum), there will be no change produced by setting the resonance offset to a positive value.<br>-64+63   |
| Attack (Attack Time Offset)   | Adjusts the TVA/TVF Envelope Attack Time for the patch or drum kit assigned to a part.<br>* Patches also contain the Attack Time Offset setting (p. 4). The final TVA Envelope attack time value is therefore the sum of the tone's TVA Envelope Time 1 setting, the patch's Attack Time Offset, and the part's Attack Time Offset. If the tone's Time 1 is already set to "127" (maximum), there will be no change produced by setting the Attack Time Offset to a positive value. The same applies to the TVF envelope.<br>-64+63   |
| Decay                         | Adjusts the TVA/TVF Envelope Decay Time for the patch or drum kit assigned to a part.<br>-64+63   |
| Release (Release Time Offset) | Adjusts the TVA/TVF Envelope Release Time for the patch or drum kit assigned to a part.<br>* Patches also contain a Release Time Offset setting (p. 4). The final TVA Envelope release time value is therefore the sum of the tone's TVA Envelope Time 4 setting, the patch's Release Time Offset, and the part's Release Time Offset. If the tone's Time 4 is set to "127" (maximum), there will be no change in the Release Time Offset, even when this is set to a positive value. The same applies to the TVF envelope.<br>-64+63 |

**VIBRATO**

| Parameter | Value/Explanation   |
|-----------|---|
| Rate      | For each part, adjust the vibrato speed (the rate at which the pitch is modulated). The pitch will be modulated more rapidly for higher settings, and more slowly with lower settings.<br>-64+63                              |
| Depth     | For each part, this adjusts the depth of the vibrato effect (the depth at which the pitch is modulated). The pitch will be modulated more greatly for higher settings, and less with lower settings.<br>-64+63                |
| Delay     | For each part, this adjusts the time delay until the vibrato (pitch modulation) effect begins. Higher settings will produce a longer delay time before vibrato begins, while lower settings produce a shorter time.<br>-64+63 |

**SCALE**

| Parameter | Value/Explanation                                 |
|-----------|---|
| C-B       | Make scale tune settings for each part.<br>-64+63 |

**Equal Temperament**

This tuning divides the octave into 12 equal parts, and is the most widely used method of temperament used in Western music.

**Just Temperament (Tonic of C)**

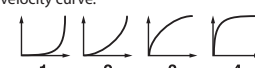
Compared with equal temperament, the principle triads sound pure in this tuning. However, this effect is achieved only in one key, and the triads will become ambiguous if you transpose.

**Arabian Scale**

In this scale, E and B are a quarter note lower and C<sup>♯</sup>, F<sup>♯</sup> and G<sup>♯</sup> are a quarter-note higher compared to equal temperament. The intervals between G and B, C and E, F and G<sup>♯</sup>, B<sup>♭</sup> and C<sup>♯</sup>, and E<sup>♭</sup> and F<sup>♯</sup> have a natural third—the interval between a major third and a minor third. On the JUNO-DS, you can use Arabian temperament in the three keys of G, C and F.

| Note name      | Equal temperament | Just Temperament (tonic C) | Arabian Scale |
|----------------|-------------------|----------------------------|---------------|
| C              | 0                 | 0                          | -6            |
| C <sup>♯</sup> | 0                 | -8                         | +45           |
| D              | 0                 | +4                         | -2            |
| E <sup>♭</sup> | 0                 | +16                        | -12           |
| E              | 0                 | -14                        | -51           |
| F              | 0                 | -2                         | -8            |
| F <sup>♯</sup> | 0                 | -10                        | +43           |
| G              | 0                 | +2                         | -4            |
| G <sup>♯</sup> | 0                 | +14                        | +47           |
| A              | 0                 | -16                        | 0             |
| B <sup>♭</sup> | 0                 | +14                        | -10           |
| B              | 0                 | -12                        | -49           |

**MIDI**

| Parameter | Value/Explanation   |
|-----------|---|
|           | For each MIDI channel, specify whether MIDI messages will be received (ON), or not (OFF). Assigning a check mark (✓) will enable reception.   |
| PC        | Program Change  |
| BS        | Bank Select   |
| PB        | Pitch Bend  |
| PA        | Polyphonic Aftertouch   |
| CA        | Channel Aftertouch  |
| MD        | Modulation  |
| VO        | Volume  |
| PN        | Pan   |
| EX        | Expression  |
| HD        | Hold 1  |
| PC-VC     | Set PL (phase lock) to "✓" (ON) when you want to suppress discrepancies in timing of parts played on the same MIDI channel.<br>* When the PL (phase lock) is set to "ON," parts on the same MIDI channel are put in a condition in which their timing is matched, enabling them to be played at the same time. Accordingly, a certain amount of time may elapse between reception of the Note messages and playing of the sounds. Turn this setting to "ON" only as needed. |
| VC        | Selects Velocity Curve for each MIDI channel one of the four following Velocity Curve types that best matches the touch of the connected MIDI keyboard.<br>Set this to "—" (OFF) if you are using the MIDI keyboard's own velocity curve.<br>  |

## Part Edit

## MEMO

- PART EDIT and PERFORMANCE EDIT have the same parameters in common.
- If you're using the pattern sequencer, the part edit settings are saved as a "pattern."

## Procedure

1. Press the [PATCH/PERFORM] button to make it light.
2. Select a performance that you want to edit.
3. Press the [SAMPLE IMPORT] button and [DAW CONTROL] button simultaneously.  
The EDIT MENU screen appears.
4. Move the cursor to "PART EDIT," and press the [ENTER] button.  
The PART EDIT screen appears.
5. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
6. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
7. To save the edited settings, perform the operation "Saving Your Settings (Write)" (refer to owner's manual).

## MEMO

- In the PART EDIT screen, you can use pads [1]–[8] to select the part that you want to edit. If you hold down the [SHIFT] button and press a pad [1]–[8], a part 9–16 is selected.

## Performance Parameters

## PATCH

| Parameter       | Value/Explanation   |
|-----------------|---|
| TYPE            | Sets the assignment of a patch (Patch) or drum kit (Drum) to each of the parts.<br>Patch, Drum  |
| BANK            | Selects the group to which the desired patch or drum kit belongs.<br>DS (DS tone), PRST (Preset), GM (GM2 tone), EXP (expansion sounds), USER |
| Category number | Selects the desired patch or drum kit by its number.<br>0001–   |

## LEVEL/CH

| Parameter   | Value/Explanation   |
|-------------|---|
| Solo Switch | Turns on the part that you want to solo. Parts other than the soloed part are not heard.<br>OFF, ON   |
| Mute Switch | Specifies whether each part's performance is temporarily muted (ON) or not muted (OFF).<br>* The Mute parameter does not turn the part off; it mutes the sound by minimizing the volume. Therefore, the part still receives MIDI messages.<br>OFF, ON                                 |
| Level       | Adjust the volume of each part. This setting's main purpose is to adjust the volume balance between parts.<br>0–127   |
| Pan         | Adjust the pan of each part. "L64" is far left, "0" is center, and "63R" is far right.<br>L64–0–63R   |
| Rx Switch   | For each part, specify whether MIDI messages will be received (ON), or not (OFF).<br>If this is "OFF," the part will not respond. Normally, you should leave this "ON," but you can turn it "OFF" when you do not want a specific part to be playing during song playback.<br>OFF, ON |
| Rx Channel  | Specifies the MIDI receive channel for each part.<br>* You can't edit this parameter if the [PATTERN SEQUENCER] button is lit.<br>1–16  |

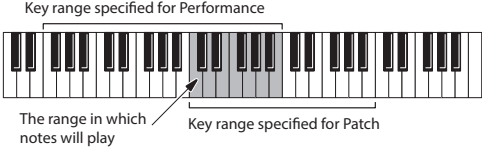
## OUTPUT

| Parameter  | Value/Explanation   |
|--|---|
| Output Assign                                    | Specifies for each part how the direct sound will be output.  |
|  | MFX Output in stereo through MFX. You can also apply chorus or reverb to the sound that passes through MFX.   |
|  | L+R Output to the OUTPUT L (MONO) jack and OUTPUT R jack in stereo without passing through MFX.               |
|  | L, R Output to the OUTPUT L (MONO) jack or OUTPUT R jack in mono without passing through MFX.                 |
| PAT Outputs according to the settings for patch. |   |
| Output MFX Sel                                   | Of the three types of MFX that can be used simultaneously, specify which MFX will be used.<br>1–3 (MFX1–MFX3) |
| Output Level                                     | Set the level of the signal that is sent to the output destination specified by Part Output Assign.<br>0–127  |
| Cho Send Level                                   | Sets the level of the signal sent to chorus for each part.<br>0–127   |
| Rev Send level                                   | Sets the level of the signal sent to reverb for each part.<br>0–127   |

## PITCH

| Parameter     | Value/Explanation  |
|---------------|--|
| Octave Shift  | Adjusts the pitch of the part's sound up or down in units of an octave ( $\pm 3$ octaves).<br>* Note that when a rhythm set is assigned to a part, you cannot modify the Octave Shift.<br>–3–+3  |
| Coarse Tune   | Adjusts the pitch of the part's sound up or down in semitone steps ( $\pm 4$ octaves).<br>–48–+48  |
| Fine Tune     | Adjusts the pitch of the part's sound up or down in 1-cent steps ( $\pm 50$ cents).<br>–50–+50   |
| Mono/Poly     | Set this parameter to "MONO" when the patch assigned to the part is to be played monophonically, or to "POLY" when the patch is to be played polyphonically. If you want to use the Mono/Poly setting of the patch assigned to the part (p. 5), set this to "PAT."<br>* This setting is ignored for parts to which a drum kit is assigned.<br>MONO, POLY, PAT        |
| Legato Switch | Turn this parameter "ON" when you want to use the Legato feature and "OFF" when you don't. If you want to use the Legato Switch setting of the patch assigned to the part (p. 5), set this to "PAT."<br>* This setting is ignored for parts to which a drum kit is assigned.<br>OFF, ON, PAT   |
| Bend Range    | Specifies the amount of pitch change in semitones (2 octaves) that will occur when the Pitch Bend Lever is moved. The amount of change when the lever is tilted is set to the same value for both left and right sides. If you want to use the Pitch Bend Range setting of the patch assigned to the part (p. 7), set this to "PAT."<br>0–24, PAT                    |
| Porta Switch  | Turn this parameter "ON" when you want to apply Portamento and "OFF" when you don't. If you want to use the Portamento Switch setting of the patch assigned to the part (p. 5), set this to "PAT."<br>OFF, ON, PAT   |
| Porta Time    | When portamento is used, this specifies the time over which the pitch will change. Higher settings will cause the pitch change to the next note to take more time. If you want to use the Portamento Time setting of the patch assigned to the part (p. 5), set this to "PAT."<br>* This setting is ignored for parts to which a drum kit is assigned.<br>0–127, PAT |

KBD

| Parameter                                      | Value/Explanation  |
|--|--|
| Kbd Switch                                     | Specifies, for each part, whether or not the keyboard controller section will be connected to the internal sound generator and MIDI OUT. Normally you will leave this off; you can turn it on if you want to layer sounds.<br>OFF, ON  |
| Key Range Lower, Upper                         | Specifies the lowest/highest note that the tone will sound for each part.<br>* When the Key Range (p. 7) is set for each individual tone in a patch, sounds are produced in the range where the Key Range of each tone and the Key Range for the part overlap.<br>1-16<br>  |
| Velo Sens Offset (Velocity Sensitivity Offset) | This changes the volume and cutoff frequency for each part according to the velocity with which the keys are pressed. If you want strongly played notes to raise the volume/cutoff frequency, set this parameter to positive (+) settings. If you want strongly played notes to lower the volume/cutoff frequency, use negative (-) settings. Set Velocity Sensitivity to "0" when you want sounds played at a fixed volume and cutoff frequency, regardless of the force with which the keys are played.<br>* Patches also contain a Velocity Sensitivity Offset setting (p. 5). The ultimate Velocity Sensitivity Offset value is the sum of the part's and the patch's Velocity Sensitivity Offsets. Accordingly, if the patch's Velocity Sensitivity Offset is set to "127" (maximum), there will be no change in the part's Velocity Sensitivity Offset, even when this is set to a positive value.<br>-63+63 |
| Voice Reserve                                  | Specifies the number of voices that will be reserved for each part when more than 128 voices are played simultaneously.<br>* It is not possible for the settings of all parts to total an amount greater than 128.<br>0-63, FULL   |
| Octave Shift                                   | Adjusts the pitch of the part's sound up or down in units of an octave (±3 octaves).<br>* Note that when a rhythm set is assigned to a part, you cannot modify the Octave Shift.<br>-3+3   |

Calculating the number of voices being used

The JUNO-DS is able to play up to 128 notes simultaneously. The polyphony, or the number of voices (sounds) does not refer only to the number of sounds actually being played, but changes according to the number of tones used in the patches, and the number of Waves used in the tones. The following method is used to calculate the number of sounds used for one patch being played.  
(number of sounds being Played) x (number of tones used by patches being played) x (number of waves used in the tones) Realtime Stretch requires twice the normal polyphony.

OFFSET

| Parameter                            | Value/Explanation   |
|--------------------------------------|---|
| Cutoff Offset                        | Adjusts the cutoff frequency for the patch or rhythm set assigned to a part.<br>* Patches also have a Cutoff Offset setting (p. 4). The final Cutoff frequency value is the sum of the tone Cutoff Frequency value and the patch and part Cutoff Offset values. If the tone's cutoff frequency is already set to "127" (maximum), there will be no change produced by setting the Cutoff Offset to a positive value.<br>-64+63  |
| Reso Offset (Resonance Offset)       | Adjusts the Resonance for the patch or rhythm set assigned to a part.<br>* Patches also have a Resonance Offset setting (p. 4). The final Resonance value is the sum of the tone Resonance value and the patch and part Resonance Offset values. If the tone's resonance is already set to "127" (maximum), there will be no change produced by setting the resonance offset to a positive value.<br>-64+63   |
| Attack Offset (Attack Time Offset)   | Adjusts the TVA/TVF Envelope Attack Time for the patch or drum kit assigned to a part.<br>* Patches also contain the Attack Time Offset setting (p. 4). The final TVA Envelope attack time value is therefore the sum of the tone's TVA Envelope Time 1 setting, the patch's Attack Time Offset, and the part's Attack Time Offset. If the tone's Time 1 is already set to "127" (maximum), there will be no change produced by setting the Attack Time Offset to a positive value. The same applies to the TVF envelope.<br>-64+63   |
| Decay Offset                         | Adjusts the TVA/TVF Envelope Decay Time for the patch or drum kit assigned to a part.<br>-64+63   |
| Release Offset (Release Time Offset) | Adjusts the TVA/TVF Envelope Release Time for the patch or drum kit assigned to a part.<br>* Patches also contain a Release Time Offset setting (p. 4). The final TVA Envelope release time value is therefore the sum of the tone's TVA Envelope Time 4 setting, the patch's Release Time Offset, and the part's Release Time Offset. If the tone's Time 4 is set to "127" (maximum), there will be no change in the Release Time Offset, even when this is set to a positive value. The same applies to the TVF envelope.<br>-64+63 |

VIBRATO

| Parameter     | Value/Explanation   |
|---------------|---|
| Vibrato Rate  | For each part, adjust the vibrato speed (the rate at which the pitch is modulated). The pitch will be modulated more rapidly for higher settings, and more slowly with lower settings.<br>-64+63                              |
| Vibrato Depth | For each part, this adjusts the depth of the vibrato effect (the depth at which the pitch is modulated). The pitch will be modulated more greatly for higher settings, and less with lower settings.<br>-64+63                |
| Vibrato Delay | For each part, this adjusts the time delay until the vibrato (pitch modulation) effect begins. Higher settings will produce a longer delay time before vibrato begins, while lower settings produce a shorter time.<br>-64+63 |

SCALE

| Parameter | Value/Explanation                                 |
|-----------|---|
| C-B       | Make scale tune settings for each part.<br>-64+63 |

Equal Temperament

This tuning divides the octave into 12 equal parts, and is the most widely used method of temperament used in Western music.

Just Temperament (Tonic of C)

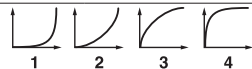
Compared with equal temperament, the principle triads sound pure in this tuning. However, this effect is achieved only in one key, and the triads will become ambiguous if you transpose.

Arabian Scale

In this scale, E and B are a quarter note lower and C<sup>♯</sup>, F<sup>♯</sup> and G<sup>♯</sup> are a quarter-note higher compared to equal temperament. The intervals between G and B, C and E, F and G<sup>♯</sup>, B<sup>♭</sup> and C<sup>♯</sup>, and E<sup>♭</sup> and F<sup>♯</sup> have a natural third—the interval between a major third and a minor third. On the JUNO-DS, you can use Arabian temperament in the three keys of G, C and F.

| Note name      | Equal temperament | Just Temperament (tonic C) | Arabian Scale |
|----------------|-------------------|----------------------------|---------------|
| C              | 0                 | 0                          | -6            |
| C <sup>♯</sup> | 0                 | -8                         | +45           |
| D              | 0                 | +4                         | -2            |
| E <sup>♭</sup> | 0                 | +16                        | -12           |
| E              | 0                 | -14                        | -51           |
| F              | 0                 | -2                         | -8            |
| F <sup>♯</sup> | 0                 | -10                        | +43           |
| G              | 0                 | +2                         | -4            |
| G <sup>♯</sup> | 0                 | +14                        | +47           |
| A              | 0                 | -16                        | 0             |
| B <sup>♭</sup> | 0                 | +14                        | -10           |
| B              | 0                 | -12                        | -49           |

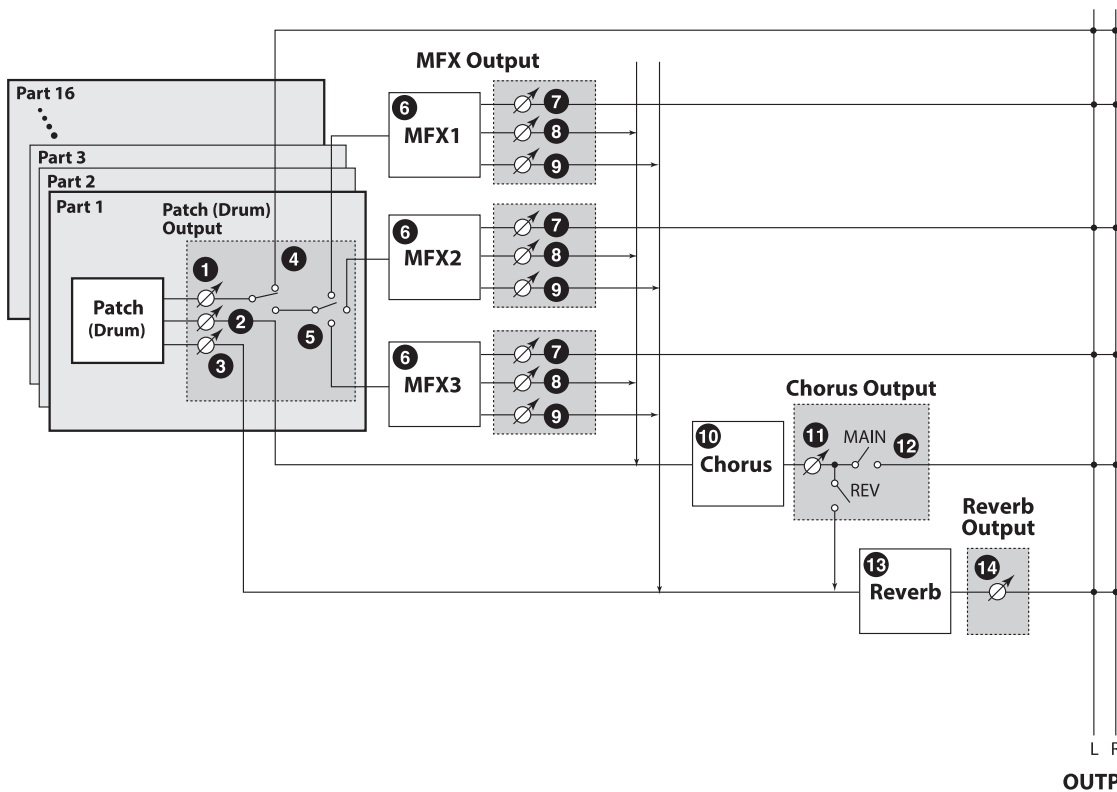
MIDI

| Parameter | Value/Explanation  |
|-----------|--|
| PC        | For each MIDI channel, specify whether MIDI messages will be received (ON), or not (OFF). Assigning a check mark (✓) will enable reception.<br>Program Change  |
| BS        | Bank Select  |
| BEND      | Pitch Bend   |
| PAFT      | Polyphonic Aftertouch  |
| CAFT      | Channel Aftertouch   |
| MOD       | Modulation   |
| VOL       | Volume   |
| PAN       | Pan  |
| EXP       | Expression   |
| HOLD      | Hold 1   |
| VERO CRV  | Selects Velocity Curve for each MIDI channel one of the four following Velocity Curve types that best matches the touch of the connected MIDI keyboard.<br>Set this to "OFF" if you are using the MIDI keyboard's own velocity curve.<br>OFF, 1-4<br>  |
| PHASELOCK | Set PHASELOCK to "ON" when you want to suppress discrepancies in timing of parts played on the same MIDI channel.<br>* When the PHASELOCK is set to "ON", parts on the same MIDI channel are put in a condition in which their timing is matched, enabling them to be played at the same time. Accordingly, a certain amount of time may elapse between reception of the Note messages and playing of the sounds. Turn this setting to "ON" only as needed.<br>OFF, ON |

Effects Edit

In Performance mode you can use three multi effects (MFX1–3), one chorus, and one reverb. For each of the three MFX, the chorus, and the reverb, you can specify whether it will operate according to the effect settings of the performance, or according to the effect settings of the patch or drum kit assigned to the part you specify. The three MFX can be used independently, or you can connect two or three of them in series.

Signal Flow



|   |          |                   |       |
|---|----------|-------------------|-------|
| Make these settings in the "OUTPUT" tab of the PART EDIT screen.    | <b>1</b> | Output Level      | p. 21 |
|   | <b>2</b> | Cho Send Level    |       |
|   | <b>3</b> | Rev Send Send     |       |
|   | <b>4</b> | Output Assign     |       |
|   | <b>5</b> | Output MFX Sel    |       |
| Make these settings in the "MFX1–3" tab of the EFFECTS EDIT screen. | <b>6</b> | MFX Type          | p. 24 |
|   | <b>7</b> | Output Level      |       |
|   | <b>8</b> | Chorus Send Level |       |
|   | <b>9</b> | Reverb Send level |       |

|   |           |               |       |
|---|-----------|---------------|-------|
| Make these settings in the "CHORUS" tab of the EFFECTS EDIT screen. | <b>10</b> | Chorus Type   | p. 24 |
|   | <b>11</b> | Chorus Level  |       |
|   | <b>12</b> | Output Select |       |
| Make these settings in the "REVERB" tab of the EFFECTS EDIT screen. | <b>13</b> | Reverb Type   |       |
|   | <b>14</b> | Reverb Level  |       |

Procedure

1. Press the [SAMPLE IMPORT] button and [DAW CONTROL] button simultaneously. The EDIT MENU screen appears.
2. Move the cursor to "EFFECTS EDIT," and press the [ENTER] button. The EFFECTS EDIT screen appears.
3. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
4. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
5. To save the edited settings, perform the operation "Saving Your Settings (Write)" (refer to owner's manual).

Effects Parameters

COMMON

| Parameter   | Value/Explanation  |               |               |  |  |
|---|--|---------------|---------------|--|--|
| MFX Structure   | Specify how MFX1-3 will be connected.  |               |               |  |  |
|   | <table border="0"> <tr> <td><b>TYPE01</b></td> <td><b>TYPE02</b></td> </tr> <tr> <td></td> <td></td> </tr> </table>    | <b>TYPE01</b> | <b>TYPE02</b> |  |  |
|   | <b>TYPE01</b>  | <b>TYPE02</b> |               |  |  |
|   |  |               |               |  |  |
|   | <table border="0"> <tr> <td><b>TYPE03</b></td> <td><b>TYPE04</b></td> </tr> <tr> <td></td> <td></td> </tr> </table>    | <b>TYPE03</b> | <b>TYPE04</b> |  |  |
|   | <b>TYPE03</b>  | <b>TYPE04</b> |               |  |  |
|   |  |               |               |  |  |
|   | <table border="0"> <tr> <td><b>TYPE05</b></td> <td><b>TYPE06</b></td> </tr> <tr> <td></td> <td></td> </tr> </table>    | <b>TYPE05</b> | <b>TYPE06</b> |  |  |
|   | <b>TYPE05</b>  | <b>TYPE06</b> |               |  |  |
|   |  |               |               |  |  |
|   | <table border="0"> <tr> <td><b>TYPE07</b></td> <td><b>TYPE08</b></td> </tr> <tr> <td></td> <td></td> </tr> </table>    | <b>TYPE07</b> | <b>TYPE08</b> |  |  |
|   | <b>TYPE07</b>  | <b>TYPE08</b> |               |  |  |
|   |  |               |               |  |  |
|   | <table border="0"> <tr> <td><b>TYPE09</b></td> <td><b>TYPE10</b></td> </tr> <tr> <td></td> <td></td> </tr> </table>    | <b>TYPE09</b> | <b>TYPE10</b> |  |  |
|   | <b>TYPE09</b>  | <b>TYPE10</b> |               |  |  |
|   |  |               |               |  |  |
| <table border="0"> <tr> <td><b>TYPE11</b></td> <td><b>TYPE12</b></td> </tr> <tr> <td></td> <td></td> </tr> </table> | <b>TYPE11</b>  | <b>TYPE12</b> |               |  |  |
| <b>TYPE11</b>   | <b>TYPE12</b>  |               |               |  |  |
|   |  |               |               |  |  |
| <table border="0"> <tr> <td><b>TYPE13</b></td> <td><b>TYPE14</b></td> </tr> <tr> <td></td> <td></td> </tr> </table> | <b>TYPE13</b>  | <b>TYPE14</b> |               |  |  |
| <b>TYPE13</b>   | <b>TYPE14</b>  |               |               |  |  |
|   |  |               |               |  |  |
| <table border="0"> <tr> <td><b>TYPE15</b></td> <td><b>TYPE16</b></td> </tr> <tr> <td></td> <td></td> </tr> </table> | <b>TYPE15</b>  | <b>TYPE16</b> |               |  |  |
| <b>TYPE15</b>   | <b>TYPE16</b>  |               |               |  |  |
|   |  |               |               |  |  |
| MFX1-3 Source   | PERFORM Use the MFX settings of the performance.   |               |               |  |  |
|   | UPPER (PART1), LOWER (PART2), PART3-16 Use the MFX settings of the patch or drum kit assigned to the specified part    |               |               |  |  |
| Chorus Source   | PERFORM Use the chorus settings of the performance.  |               |               |  |  |
|   | UPPER (PART1), LOWER (PART2), PART3-16 Use the chorus settings of the patch or drum kit assigned to the specified part |               |               |  |  |
| Reverb Source   | PERFORM Use the reverb settings of the performance.  |               |               |  |  |
|   | UPPER (PART1), LOWER (PART2), PART3-16 Use the reverb settings of the patch or drum kit assigned to the specified part |               |               |  |  |

MFX1-3

| Parameter                    | Value/Explanation   |
|------------------------------|---|
| MFX Type                     | Turns MFX on/off, and specifies the type of MFX that is used. If MFX is on, <input type="checkbox"/> shows a "✓" mark.<br>* For details on MFX parameters, refer to "MFX Parameters (MFX, MFX1-3)" (p. 40).<br>00: THRU-80: BIT CRUSHER |
| Parameters for each MFX type | Edit the parameters of the MFX type you've selected.<br>* Refer to "MFX Parameters (MFX, MFX1-3)" (p. 40).  |
| Chorus Send Level            | Specifies the level of the signal sent to the chorus.<br>0-127  |
| Reverb Send Level            | Specifies the level of the signal sent to the reverb.<br>0-127  |

MFX1-3 CTRL

| Parameter  | Value/Explanation  |
|--|--|
| Source 1-4   | Sets the MIDI message used to change the MFX parameter with the MFX control.   |
|  | OFF MFX control will not be used.  |
|  | CC01-31, 33-95 Controller numbers 1-31, 33-95  |
|  | PITCH BEND Pitch bend  |
|  | AFTERTOUCH Aftertouch  |
| SYS CTRL1-4 Use the System Control 1-4 Source setting (p. 34). |  |
| Destination 1-4  | Sets the MFX parameters to be controlled with the Source1-4. The MFX parameters available for control will depend on the MFX Type.<br>* Refer to "MFX Parameters (MFX, MFX1-3)" (p. 40).   |
| Sens 1-4   | Specifies the depth of MFX control. Specify a positive (+) value if you want to change the value of the assigned destination in a positive direction (larger, toward the right, faster, etc.), or specify a negative value (-) if you want to change the value in a negative direction (smaller, toward the left, slower, etc.). Larger values will allow a greater amount of control. |
|  | -63+63   |

CHORUS

| Parameter  | Value/Explanation  |
|--|--|
| Chorus Type  | Turns Chorus on/off, and specifies the type of chorus that is used. If Chorus is on, <input type="checkbox"/> shows a "✓" mark.  |
|  | 00: OFF Neither chorus or delay is used.   |
|  | 01: CHORUS Chorus is used.   |
|  | 02: DELAY Delay is used.   |
| 03: GM2 CHORUS GM2 chorus  |  |
| Parameters for each chorus type                                  | Set the parameters of the selected chorus type. The chorus parameters available for control will depend on the Chorus Type.<br>* Refer to "Chorus Parameters" (p. 58). |
| Output Select  | Specifies how the sound routed through chorus will be output.  |
|  | MAIN Output to the OUTPUT jacks in stereo.   |
|  | REV Output to reverb in mono.  |
| M+R Output to the OUTPUT jacks in stereo, and to reverb in mono. |  |
| Chorus Level   | Adjusts the volume of the sound that has passed through chorus.<br>0-127   |

REVERB

| Parameter                       | Value/Explanation  |
|---------------------------------|--|
| Reverb Type                     | Turns Reverb on/off, and specifies the type of reverb that is used. If Reverb is on, <input type="checkbox"/> shows a "✓" mark.  |
|                                 | 00: OFF Reverb is not used.  |
|                                 | 01: REVERB Normal reverb   |
|                                 | 02: SRV ROOM This reverb simulates typical room acoustic reflections.  |
|                                 | 03: SRV HALL This reverb simulates typical concert hall acoustic reflections.  |
|                                 | 04: SRV PLATE This reverb simulates a reverb plate, a popular type of artificial reverb unit that derives its sound from the vibration of a metallic plate.            |
| 05: GM2 REVERB GM2 reverb       |  |
| Parameters for each reverb type | Set the parameters of the selected reverb type. The reverb parameters available for control will depend on the Reverb Type.<br>* Refer to "Reverb Parameters" (p. 58). |
| Reverb Level                    | Adjusts the volume of the sound that has passed through reverb.<br>0-127   |



# Sample Edit

## Procedure

1. Press the [SAMPLE IMPORT] button.  
The SAMPLE MENU screen appears.
2. Move the cursor to "SAMPLE EDIT" and press the [ENTER] button.  
The SAMPLE EDIT screen appears.
3. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
4. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
5. To save the edited settings, perform the operation "Saving Your Settings (Write)" (refer to owner's manual).

## Sample Parameters

### SAMPLE

#### NOTE

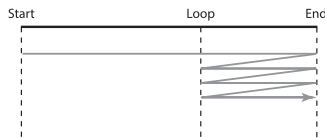
The following parameters cannot be edited for samples Sp:001–006 in the PRST bank.

| Parameter    | Value/Explanation   |
|--------------|---|
| Original Key | Specifies the note number that plays the sample at the pitch at which it was imported.<br>C-1–G9  |
| Loop Switch  | Turns loop playback on/off.<br>OFF, ON  |
| Start        | Playback start point (Start Point) (*1)<br>This lets you skip an unwanted portion of the waveform at the beginning of the sample so that the sample plays with the desired timing.<br>0–  |
| Loop         | Point at which the repeated portion starts on the second and subsequent plays (Loop Point) (*1)<br>Specify this if you want to loop from a location other than Start After the Sample played back from Start to End, it will then be repeatedly played back in the forward direction, from the Loop to End.<br>0– |
| End          | Playback end point (End Point) (*1)<br>This lets you omit an unwanted portion of the waveform at the end of the sample.<br>0–   |

(\*1)

The length of the imported sample is calculated, and the position of each point is shown as a time (units: milliseconds).

The displayed value (time) is the value when the sample is played at the key specified by Original Key. The playback time is shorter than displayed if you play a key that is higher than the Original Key, and longer than displayed if you play a key that is lower.



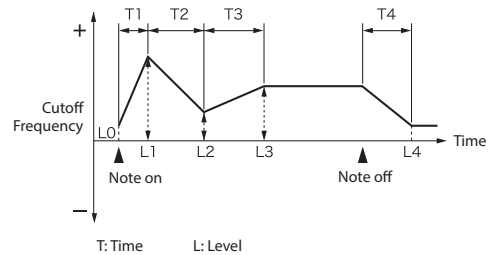
### TVF

| Parameter   | Value/Explanation   |  |
|-------------|---|--|
| Filter Type | Selects the type of filter. A filter cuts or boosts a specific frequency region to change a sound's brightness, thickness, or other qualities.<br>* If you set "LPF2" or "LPF3", the setting for the Resonance will be ignored (p. 25). |  |
|             | OFF   | No filter is used.   |
|             | LPF   | Low Pass Filter. This reduces the volume of all frequencies above the cutoff frequency (Cutoff Freq) in order to round off, or un-brighten the sound.<br>This is the most common filter used in synthesizers.  |
|             | BPF   | Band Pass Filter. This leaves only the frequencies in the region of the cutoff frequency (Cutoff Freq), and cuts the rest. This can be useful when creating distinctive sounds.  |
|             | HPF   | High Pass Filter. This cuts the frequencies in the region below the cutoff frequency (Cutoff Freq). This is suitable for creating percussive sounds emphasizing their higher tones.  |
|             | PKG   | Peaking Filter. This emphasizes the frequencies in the region of the cutoff frequency (Cutoff Freq). You can use this to create wah-wah effects by employing an LFO to change the cutoff frequency cyclically.   |
|             | LPF2  | Low Pass Filter 2. Although frequency components above the Cutoff frequency (Cutoff Freq) are cut, the sensitivity of this filter is half that of the LPF. This makes it a comparatively warmer low pass filter. This filter is good for use with simulated instrument sounds such as the acoustic piano.  |
|             | LPF3  | Low Pass Filter 3. Although frequency components above the Cutoff frequency (Cutoff Freq) are cut, the sensitivity of this filter changes according to the Cutoff frequency. While this filter is also good for use with simulated acoustic instrument sounds, the nuance it exhibits differs from that of the LPF2, even with the same TVF Envelope settings.   |
|             | Cutoff Frequency  |  |
|             |   | Selects the frequency at which the filter begins to have an effect on the waveform's frequency components.<br>"LPF/LPF2/LPF3" selected for the Filter Type<br>Lower cutoff frequency settings reduce a tone's upper harmonics for a more rounded, warmer sound. Higher settings make it sound brighter.<br>"BPF" selected for the Filter Type<br>Harmonic components will change depending on the TVF Cutoff Frequency setting. This can be useful when creating distinctive sounds.<br>"HPF" selected for the Filter Type<br>Higher Cutoff Frequency settings will reduce lower harmonics to emphasize just the brighter components of the sound.<br>"PKG" selected for the Filter Type<br>The harmonics to be emphasized will vary depending on Cutoff Frequency setting.<br>0–127 |
| Resonance   |   | Emphasizes the portion of the sound in the region of the cutoff frequency, adding character to the sound. Excessively high settings can produce oscillation, causing the sound to distort.<br>0–127  |


| Parameter        | Value/Explanation  |
|------------------|--|
| Cutoff Keyfollow | Use this parameter if you want the cutoff frequency to change according to the key that is pressed. Relative to the cutoff frequency at the C4 key (center C), positive (+) settings will cause the cutoff frequency to rise for notes higher than C4, and negative (-) settings will cause the cutoff frequency to fall for notes higher than C4. Larger settings will produce greater change.<br>-200→+200 |
|                  |  |
| Cutoff V-Curve   | Selects one of the following seven curves that determine how keyboard playing dynamics (velocity) influence the cutoff frequency. Set this to "FIXED" if you don't want the Cutoff frequency to be affected by the keyboard velocity.<br>FIXED, 1-7  |
|                  |  |
| Cutoff V-Sens    | Use this parameter when changing the cutoff frequency to be applied as a result of changes in playing velocity. If you want strongly played notes to raise the cutoff frequency, set this parameter to positive (+) settings. If you want strongly played notes to lower the cutoff frequency, use negative (-) settings.<br>-63→+63   |
| Resonance V-Sens | This allows keyboard velocity to modify the amount of Resonance. If you want strongly played notes to have a greater Resonance effect, set this parameter to positive (+) settings. If you want strongly played notes to have less Resonance, use negative (-) settings.<br>-63→+63  |

TVF ENV

| Parameter              | Value/Explanation  |
|------------------------|--|
| TVF Env Depth          | Specifies the depth of the TVF envelope. Higher settings will cause the TVF envelope to produce greater change. Negative (-) settings will invert the shape of the envelope.<br>-63→+63  |
| TVF Env V-Curve        | Selects one of the following 7 curves that will determine how keyboard playing dynamics will affect the TVF envelope. Set this to "FIXED" if you don't want the TVF Envelope to be affected by the keyboard velocity.<br>FIXED, 1-7<br>  |
| TVF Env V-Sens         | Specifies how keyboard playing dynamics will affect the depth of the TVF envelope. Positive (+) settings will cause the TVF envelope to have a greater effect for strongly played notes, and negative (-) settings will cause the effect to be less.<br>-63→+63  |
| TVF Env T1 V-Sens      | This allows keyboard dynamics to affect the Time 1 of the TVF envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63→+63  |
| TVF Env T4 V-Sens      | The parameter to use when you want key release speed to control the Time 4 value of the TVF envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63→+63   |
| TVF Env Time Keyfollow | Use this setting if you want the TVF envelope times (Time 2–Time 4) to be affected by the keyboard location. Based on the TVF envelope times for the C4 key (center C), positive (+) settings will cause notes higher than C4 to have increasingly shorter times, and negative (-) settings will cause them to have increasingly longer times. Larger settings will produce greater change.<br>-100→+100 |
|                        |  |
| TVF Env Time 1-4       | Specify the TVF envelope times (Time 1–Time 4). Higher settings will lengthen the time until the next cutoff frequency level is reached. (For example, Time 2 is the time over which Level 1 will change to Level 2.)<br>0-127   |
| TVF Env Level 0-4      | Specify the TVF envelope levels (Level 0–Level 4). These settings specify how the cutoff frequency will change at each point, relative to the standard cutoff frequency (the cutoff frequency value specified in the TVF screen).<br>0-127   |

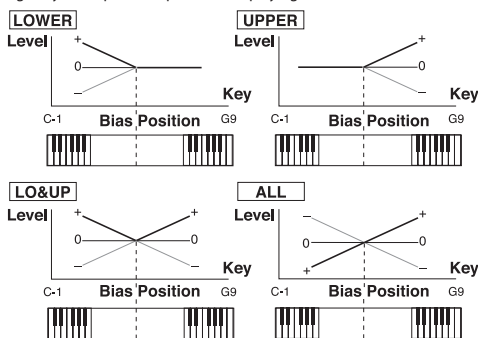


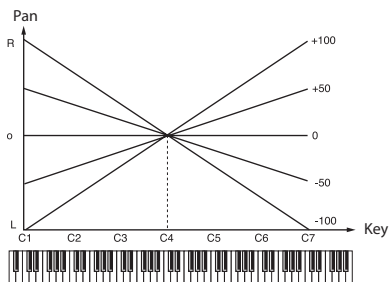
**TVA**

| Parameter      | Value/Explanation   |
|----------------|---|
| Tone Level     | Sets the volume of the tone.<br>0-127   |
| Level V-Curve  | You can select from seven curves that determine how keyboard playing strength will affect the volume. If you do not want the volume of the tone to be affected by the force with which you play the key, set this to "FIXED."<br>FIXED, 1-7<br>      |
| Level V-Sens   | Set this when you want the volume of the tone to change depending on the force with which you press the keys. Set this to a positive (+) value to have the changes in tone volume increase the more forcefully the keys are played; to make the tone play more softly as you play harder, set this to a negative (-) value.<br>-63+63 |
| Bias Level     | Adjusts the angle of the volume change that will occur in the selected Bias Direction. Larger settings will produce greater change. Negative (-) values will invert the change direction.<br>-100+100   |
| Bias Position  | Specifies the key relative to which the volume will be modified.<br>C-1-G9  |
| Bias Direction | LWR The volume will be modified for the keyboard area below the Bias Position.  |
|                | UPR The volume will be modified for the keyboard area above the Bias Position.  |
|                | L&U The volume will be modified symmetrically toward the left and right of the Bias Position.   |
|                | ALL The volume changes linearly with the Bias Position at the center.   |

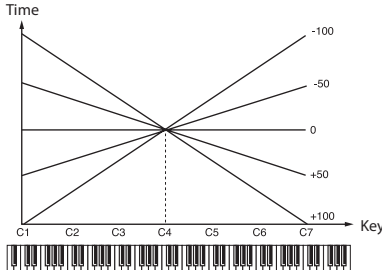
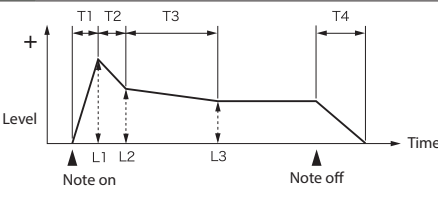
**Bias**

Bias causes the volume to be affected by the keyboard position. This is useful for changing volume through keyboard position (pitch) when playing acoustic instruments.



|                     |  |
|---------------------|--|
| Tone Pan            | Sets the pan of the tone. "L64" is far left, "0" is center, and "63R" is far right.<br>L64-0-63R   |
| Pan Keyfollow       | Use this parameter if you want key position to affect panning. Positive (+) settings will cause notes higher than C4 key (center C) to be panned increasingly further toward the right, and negative (-) settings will cause notes higher than C4 key (center C) to be panned toward the left. Larger settings will produce greater change.<br>-100+100<br> |
| Random Pan Depth    | Use this parameter when you want the stereo location to change randomly each time you press a key. Higher settings will produce a greater amount of change.<br>0-63  |
| Alternate Pan Depth | This setting causes panning to be alternated between left and right each time a key is pressed. Higher settings will produce a greater amount of change. "L" or "R" settings will reverse the order in which the pan will alternate between left and right.<br>L63-0-63R   |

**TVA ENV**

| Parameter         | Value/Explanation  |
|-------------------|--|
| TVA-Env T1 V-Sens | This allows keyboard dynamics to affect the Time 1 of the TVA envelope. If you want Time 1 to be speeded up for strongly played notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63   |
| TVA-Env T4 V-Sens | The parameter to use when you want key release speed to control the Time 4 value of the TVA envelope. If you want Time 4 to be speeded up for quickly released notes, set this parameter to a positive (+) value. If you want it to be slowed down, set this to a negative (-) value.<br>-63+63  |
| TVA-Env Time KF   | Use this setting if you want the TVA envelope times (Time 2-Time 4) to be affected by the keyboard location. Based on the TVA envelope times for the C4 key (center C), positive (+) settings will cause notes higher than C4 to have increasingly shorter times, and negative (-) settings will cause them to have increasingly longer times. Larger settings will produce greater change.<br>-100+100<br> |
| TVA-Env Time 1-4  | Specify the TVA envelope times (Time 1-Time 4). Higher settings will lengthen the time until the next volume level is reached. (For example, Time 2 is the time over which Level 1 will change to Level 2.)<br>0-127   |
| TVA-Env Level 1-3 | Specify the TVA envelope levels (Level 1-Level 3). These settings specify how the volume will change at each point, relative to the standard volume (the Tone Level value specified in the TVA screen).<br>0-127<br>   |

**LFO1**

| Parameter   | Value/Explanation  |  |
|-------------|--|--|
| Waveform    | Selects the waveform of the LFO.<br>* If you set this to "BD-U" or "BD-D" you must turn the Key Trigger parameter to "ON." If this is "OFF," it will have no effect.   |  |
|             | SIN  | Sine wave  |
|             | TRI  | Triangle wave  |
|             | SAWU   | Sawtooth wave  |
|             | SAWD   | Sawtooth wave (negative polarity)  |
|             | SQR  | Square wave  |
|             | RND  | Random wave  |
|             | BD-U   | Once the attack of the waveform output by the LFO is allowed to develop in standard fashion, the waveform then continues without further change. |
|             | BD-D   | Once the decay of the waveform output by the LFO is allowed to develop in standard fashion, the waveform then continues without further change.  |
|             | TRP  | Trapezoidal wave   |
|             | S&H  | Sample & Hold wave (one time per cycle, LFO value is changed)  |
|             | CHS  | Chaos wave   |
|             | VSIN   | Modified sine wave. The amplitude of a sine wave is randomly varied once each cycle.   |
|             | STEP   | A waveform generated by the data specified by LFO Step 1-16. This produces stepped change with a fixed pattern similar to a step modulator.      |
| Rate        | Adjusts the modulation rate, or speed, of the LFO.<br>* This setting will be ignored if the Waveform is set to "CHS."<br>0-127, note   |  |
| Rate Detune | LFO Rate Detune makes subtle changes in the LFO cycle rate (Rate) each time a key is pressed. Higher settings will cause greater change.<br>* This parameter is invalid when Rate is set to "note."<br>0-127 |  |

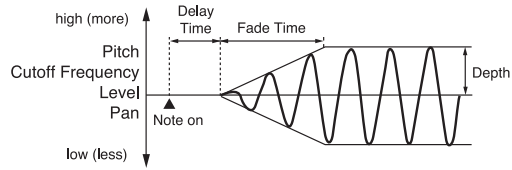
| Parameter            | Value/Explanation   |
|----------------------|---|
| <b>Offset</b>        | Raises or lowers the LFO waveform relative to the central value (pitch or cutoff frequency). Positive (+) settings will move the waveform so that modulation will occur from the central value upward. Negative (-) settings will move the waveform so that modulation will occur from the central value downward.<br>-100, -50, 0, +50, +100   |
| <b>Delay Time</b>    | Delay Time (LFO Delay Time) specifies the time elapsed before the LFO effect is applied (the effect continues) after the key is pressed (or released).<br>* After referring to "How to Apply the LFO" (p. 28), change the setting until the desired effect is achieved.<br>0-127  |
| <b>Delay Time KF</b> | Adjusts the value for the Delay Time depending on the key position, relative to the C4 key (center C). To decrease the time that elapses before the LFO effect is applied (the effect is continuous) with each higher key that is pressed in the upper registers, select a positive value; to increase the elapsed time, select a negative value.<br>Larger settings will produce greater change. If you do not want the elapsed time before the LFO effect is applied (the effect is continuous) to change according to the key pressed, set this to "0."<br>-100-+100 |
|                      |   |
| <b>Fade Mode</b>     | Specifies how the LFO will be applied.<br>* After referring to "How to Apply the LFO" (p. 28), change the setting until the desired effect is achieved.<br>ON <, ON >, OFF <, OFF >   |
| <b>Fade Time</b>     | Specifies the time over which the LFO amplitude will reach the maximum (minimum).<br>* After referring to "How to Apply the LFO" (p. 28), change the setting until the desired effect is achieved.<br>0-127   |
| <b>Key Trigger</b>   | Specifies whether the LFO cycle will be synchronized to begin when the key is pressed (ON) or not (OFF).<br>OFF, ON   |
| <b>Pitch Depth</b>   | Specifies how deeply the LFO will affect pitch.<br>-63-+63  |
| <b>TVF Depth</b>     | Specifies how deeply the LFO will affect the cutoff frequency.<br>-63-+63   |
| <b>TVA Depth</b>     | Specifies how deeply the LFO will affect the volume.<br>-63-+63   |
| <b>Pan Depth</b>     | Specifies how deeply the LFO will affect the pan.<br>-63-+63  |

STEP LFO

| Parameter            | Value/Explanation  |
|----------------------|--|
| <b>Step Type</b>     | When generating an LFO waveform from the data specified in LFO Step 1-16, specify whether the level will change abruptly at each step (TYPE 1) or will be connected linearly (TYPE 2).<br>TYPE 1, TYPE 2 |
| <b>LFO Step 1-16</b> | Specifies the data for the Step LFO. If the LFO Pitch Depth is +63, each +1 unit of the step data corresponds to a pitch of +50 cents.<br>-36-+36  |

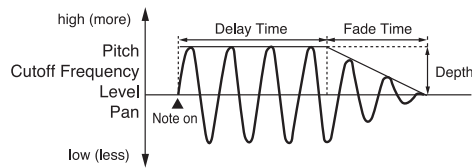
How to Apply the LFO

Apply the LFO gradually after the key is pressed



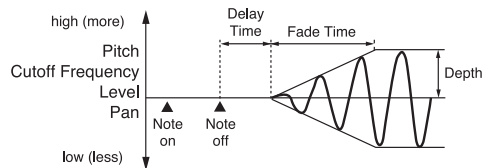
| Parameter         | Value/Explanation  |
|-------------------|--|
| <b>Fade Mode</b>  | ON <   |
| <b>Delay Time</b> | The time from when the keyboard is played until the LFO begins to be applied.                  |
| <b>Fade Time</b>  | The time over which the LFO amplitude will reach the maximum after the Delay Time has elapsed. |

Apply the LFO immediately when the key is pressed, and then gradually begin to decrease the effect



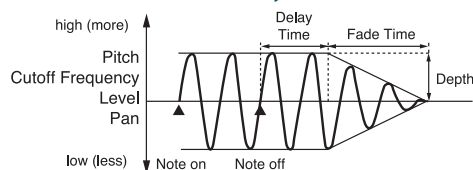
| Parameter         | Value/Explanation  |
|-------------------|--|
| <b>Fade Mode</b>  | ON >   |
| <b>Delay Time</b> | The time that the LFO will continue after the keyboard is played.                              |
| <b>Fade Time</b>  | The time over which the LFO amplitude will reach the minimum after the Delay Time has elapsed. |

Apply the LFO gradually after the key is released



| Parameter         | Value/Explanation  |
|-------------------|--|
| <b>Fade Mode</b>  | OFF <  |
| <b>Delay Time</b> | The time from when the keyboard is released until the LFO begins to be applied.                |
| <b>Fade Time</b>  | The time over which the LFO amplitude will reach the maximum after the Delay Time has elapsed. |

Apply the LFO from when the key is pressed until it is released, and gradually begin to decrease the effect when the key is released



| Parameter         | Value/Explanation  |
|-------------------|--|
| <b>Fade Mode</b>  | OFF >  |
| <b>Delay Time</b> | The time that the LFO will continue after the keyboard is released.                            |
| <b>Fade Time</b>  | The time over which the LFO amplitude will reach the minimum after the Delay Time has elapsed. |

OUTPUT

| Parameter               | Value/Explanation  |
|-------------------------|--|
| <b>Tone Chorus Send</b> | Specifies the level of the signal sent to the chorus.<br>0-127 |
| <b>Tone Reverb Send</b> | Specifies the level of the signal sent to the reverb.<br>0-127 |

# Editing Arpeggios

1. Press the [ARPEGGIO] button to make it light.  
The ARPEGGIO screen appears.
2. Move the cursor to the item that you want to edit, and use the value dial to edit the setting.
3. Press the [EXIT] button to exit the ARPEGGIO screen.

| Parameter  | Value/Explanation   |
|--|---|
| STYLE  | Selects the arpeggio's basic performance style.<br>001-128  |
| Part   | In performance mode, this selects the part (only one part) that will be played by the arpeggio. If a drum kit is assigned to a part, you can play a drum kit along with the arpeggios.<br>* This parameter is not shown if the patch mode is selected or the [SUPER LAYER] button is on.<br>Part1 (Upper), Part2 (Lower), Part3-16                              |
| Arp Hold   | You can produce arpeggios even without continuing to press the keyboard.<br>OFF, ON   |
| Grid   | Sets the particular note division and resolution in a "single grid" used in creating the arpeggio in an Arpeggio Style, and how much of a "shuffle" syncopation is to be applied (none/weak/strong) to it (grid type).<br>* Grid settings are shared with the rhythm pattern.   |
|  | 1/4 (♩) Quarter note (one grid section = one beat)  |
|  | 1/8 (♩) Eighth note (two grid sections = one beat)  |
|  | 1/8 (♩) L Eighth note shuffle Light (two grid sections = one beat, with a light shuffle)  |
|  | 1/8 (♩) H Eighth note shuffle Heavy (two grid sections = one beat, with a heavy shuffle)  |
|  | 1/12 (♩) Eighth note triplet (three grid sections = one beat)   |
|  | 1/16 (♩) Sixteenth note (four grid sections = one beat)   |
|  | 1/16 (♩) L Sixteenth note shuffle Light (four grid sections = one beat, with a light shuffle)   |
|  | 1/16 (♩) H Sixteenth note shuffle Heavy (four grid sections = one beat, with a heavy shuffle)   |
| 1/24 (♩) Sixteenth note triplet (six grid sections = one beat) |   |
| Duration   | This determines whether the sounds are played staccato (short and clipped), or tenuto (fully drawn out).<br>* Duration settings are shared with the rhythm pattern.   |
|  | 30-120% For example, when set to "30%," the length of the note in a grid (or when a series of grids is connected with ties, the final grid) is 30% of the full length of the note set in the grid type.<br>Full Even if the linked grid is not connected with a tie, the same note continues to sound until the point at which the next new sound is specified. |
| Motif  | Refer to "Selecting Ascending/Descending Variations (Motif)" (p. 29).   |
| Velocity   | Specifies the loudness of the notes that you play.  |
|  | REAL The velocity will change according to how strongly you strike the key.<br>1-127 The notes will be sounded with the velocity you specify here, regardless of how strongly you strike the key.   |
| Oct Range  | Adds an effect that shifts arpeggios one cycle at a time in octave units (octave range). You can set the shift range upwards or downwards (up to three octaves up or down).<br>-3+3   |
| Accent   | Adjust the amount ("spread") of this dynamic variation. With a setting of "100," the arpeggiated notes will have the velocities that are programmed by the arpeggio style. With a setting of "0," all arpeggiated notes will be sounded at a fixed velocity.<br>0-100   |

## Selecting Ascending/Descending Variations (Motif)

Selects the method used to play sounds (motif) when you have a greater number of notes than programmed for the Arpeggio Style.

- \* When the number of keys played is less than the number of notes in the Style, the highest-pitched of the pressed keys is played by default.

| Value      | Explanation  |
|------------|--|
| Up (L)     | Only the lowest of the keys pressed is sounded each time, and the notes play in order from the lowest of the pressed keys.   |
| Up (L&H)   | Notes from both the lowest and highest pressed keys are sounded each time, and the notes play in order from the lowest of the pressed keys.  |
| Up ( )     | The notes play in order from the lowest of the pressed keys. No note is played every time.   |
| Down (L)   | Only the lowest of the keys pressed is sounded each time, and the notes play in order from the highest of the pressed keys.  |
| Down (L&H) | Notes from both the lowest and highest pressed keys are sounded each time, and the notes play in order from the highest of the pressed keys.   |
| Down ( )   | The notes play in order from the highest of the pressed keys. No note is played every time.  |
| U/D (L)    | Notes will be sounded from the lowest to the highest key you press and then back down to the lowest key, with only the lowest key sounded each time.                                 |
| U/D (L&H)  | Notes from both the lowest and highest pressed keys are sounded each time, and the notes play in order from the lowest of the pressed keys and then back again in the reverse order. |
| U/D ( )    | The notes play in order from the lowest of the pressed keys, and then back again in the reverse order. No note is played every time.   |
| Rand (L)   | Notes will be sounded randomly for the keys you press, with only the lowest key sounded each time.   |
| Rand ( )   | Only the lowest of the keys pressed is sounded each time, the notes you press will be sounded randomly. No note is played every time.  |
| Phrase     | Pressing just one key will play a phrase based on the pitch of that key. If you press more than one key, the key you press last will be used.  |

# Editing the Vocoder/Auto Pitch

1. Press the [VOCODER/AUTO PITCH] button to make it light.  
The VOCODER/AUTO-PITCH screen appears.



2. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
3. To save the edited settings, perform the operation "Saving the Vocoder/Auto Pitch Settings (Write)."

| Parameter                                       | Value/Explanation  |
|---|--|
| <b>Mode</b>                                     | Selects the vocoder or auto-pitch.<br>Vocoder, Auto-Pitch  |
| <b>Bank, Number</b>                             | Selects the vocoder or auto-pitch setting.<br>PRST 001-010 Vocoder settings  |
|   | PRST 011-020 Auto-pitch settings   |
|   | USER 501-520 User settings   |
|   |  |
| <b>Mode: Vocoder</b>                            |  |
| <b>Carrier</b>                                  | Selects the sound that will be the basic waveform of the vocoder sound.  |
| <b>Level</b>                                    | Adjusts the output level of the sound that passes through the vocoder.<br>0-127  |
| <b>Pan</b>                                      | Adjusts the stereo position of the sound that passes through the vocoder.<br>L64-63R   |
| <b>Mic Sens</b>                                 | Specifies the input sensitivity of the mic.<br>0-127   |
| <b>Envelope</b>                                 | Selects the character of the sound.<br>SHARP Emphasizes the human voice.   |
|   | SOFT Emphasizes the sound of the instrument.   |
|   | LONG Produces a vintage sound with a long decay.   |
| <b>Synth Level</b>                              | Specifies the input level of the instrumental sound.<br>0-127  |
| <b>Mic Mix Level</b>                            | Specifies the amount of the mic audio passing through the Mic HPF (Mic High Pass Filter) that is added to the output of the vocoder.<br>0-127  |
| <b>Mic HPF</b>                                  | Specifies the frequency at which the high pass filter (HPF) applied to the mic audio starts to take effect. If this is set to "BYPASS," no filter is applied.<br>BYPASS, 1000-16000Hz  |
| <b>Mode: Auto-Pitch</b>                         |  |
| <b>Keyboard Part</b>                            | Selects the sound that is played on the keyboard when using Auto-Pitch.<br>Selects how Auto-Pitch correction is performed.   |
| <b>Type</b>                                     | SOFT Corrects the pitch smoothly.  |
|   | HARD Corrects the pitch quickly.   |
|   | ELECTRIC1 Corrects the pitch in a stepwise manner.   |
|   | ELECTRIC2 Corrects the pitch more strongly than ELECTRIC1. This reproduces the mechanical, step-wise pitch correction used in pop music.   |
| ROBOT Corrects the pitch to the specified note. |  |
| <b>Level</b>                                    | Adjusts the output level of the sound that passes through the auto-pitch.<br>0-127   |
| <b>Pan</b>                                      | Adjusts the stereo position of the sound that passes through auto-pitch.<br>L64-63R  |
| <b>Scale</b>                                    | Selects the scale to which Auto-Pitch corrects the pitch.<br>CHROMATIC Corrects the pitch in semitone steps.   |
|   | Maj (Min) Corrects the pitch to the notes of the scale (Key) you specify.  |
| <b>Key</b>                                      | If the Scale parameter is set to "Maj (Min)," specify the key of the song you're singing. For example if the song is in C major, specify "C"; if the song is in A minor, specify "Am."   |
|   | C-Bm<br>Relationship between the key of the song and the key signature (and) of the score  |
|   | <p>Major keys C F B<sup>b</sup> E<sup>b</sup> A<sup>b</sup> D<sup>b</sup></p> <p>Minor keys Am Dm Gm Cm Fm B<sup>b</sup>m</p> <p>Major keys C G D A E B F<sup>#</sup></p> <p>Minor keys Am Em Bm F<sup>#</sup>m C<sup>#</sup>m C<sup>#</sup>m D<sup>#</sup>m</p> |
| <b>Octave</b>                                   | Makes the pitch one octave higher/lower.<br>-1, 0, +1  |
| <b>Gender</b>                                   | Settings in the "-" direction give the voice an increasingly masculine character; settings in the "+" direction give the voice an increasingly feminine character.<br>-10-+10  |
| <b>Balance</b>                                  | Specifies the volume balance between the direct sound (D) and the effect sound (W).<br>D100:0W-D0:100W   |
| <b>Note</b>                                     | Fixes the pitch.<br>* Available if Type is set to "Robot."<br>C-B  |

## Saving the Vocoder/Auto Pitch Settings (Write)

1. Press the [WRITE] button to make it light.  
The VOCODER/AUTO-PITCH NAME screen appears.
2. Assign a name to the data that you're saving.

| Operation                   | Explanation                             |
|-----------------------------|---|
| [◀] [▶] buttons             | Move the cursor.                        |
| Value dial, [-] [+] buttons | Select the character.                   |
| [▼] [▲] buttons             | Switch between uppercase and lowercase. |

## Inserting/Deleting Characters

1. While entering a name, press the [MENU] button.  
The NAME MENU window appears. The window closes if you press the button once again.
2. Move the cursor to "INSERT" or "DELETE," and press the [ENTER] button.

| Function | Explanation   |
|----------|---|
| INSERT   | Press the [ENTER] button to insert a space (blank) at the cursor location.  |
| DELETE   | Press the [ENTER] button to delete the character at the cursor location; subsequent characters will be moved forward to fill the gap. |

3. When you've specified the name, press the [ENTER] button.
4. Use the value dial to specify the save-destination.
5. Press the [ENTER] button.  
A confirmation message appears. If you decide to cancel, press the [EXIT] button.
6. Move the cursor to "OK," and press the [ENTER] button.  
Saving is complete when the screen indicates "Completed!"

## NOTE

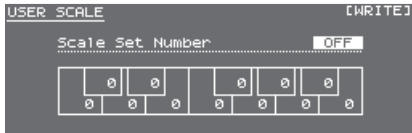
Never turn off the power while the screen indicates "Writing..."

# Creating an Original Scale (USER SCALE)

You can adjust the pitch of each note from C through B in units of one cent. The pitch you specify for each note is applied to that note for all octaves. You can create and save nine different “user scales” for later recall.

## Setting a User Scale

1. Press [MENU] button.  
The MENU screen appears.
2. Move the cursor to “USER SCALE,” and press the [ENTER] button.  
The USER SCALE screen appears.



3. Select each of the 12 notes from C to B, and use the value dial to edit their pitch.

\* You can also use the keyboard to select a note to edit.

Value -64--+63

### Quarter Tone settings

1. In the USER SCALE screen, hold down the OCTAVE [DOWN] button and play a note on the keyboard.  
The pitch of the note you played is flattened by 1/4 semitone (-50 cents).  
Once again hold down the OCTAVE [DOWN] button and play the same note to restore it to its original pitch.
  2. In the SCALE EDIT screen, hold down the OCTAVE [UP] button and play a note on the keyboard.  
The pitch of the note you played is sharpened by 1/4 semitone (+50 cents).  
Once again hold down the OCTAVE [UP] button and play the same note to restore it to its original pitch.
4. When you've finished making settings, press the [WRITE] button.  
The USER SCALE WRITE screen appears.  
\* If you press the [EXIT] button to exit the USER SCALE screen without performing the Write operation, the unsaved settings revert to their previous state.
  5. Select the write destination number (USER 1–9), and press the [ENTER] button.  
A confirmation message appears.  
If you decide to cancel, press the [EXIT] button.
  6. Move the cursor to “OK,” and press the [ENTER] button.  
Writing is complete when the screen indicates “User Scale Write Completed.”

## Recalling a User Scale

1. Press [MENU] button.  
The MENU screen appears.
2. Move the cursor to “USER SCALE,” and press the [ENTER] button.  
The USER SCALE screen appears.  
The currently selected user scale number is shown.  
When the instrument starts up, this always indicates “OFF.”
3. Press the [1]–[9] button to select a user scale.  
To return to the normal state (OFF), press the [0] button.

### MEMO

- If a user scale is selected, the user scale does not change even if you switch patches or performances.
- User scale returns to OFF when you turn off the power.
- If no user scale is registered to the button that you press, equal temperament is selected.
- If you use the shortcut ([KEY TOUCH]+[TRANPOSE]) to access the USER SCALE screen, you can press a [0]–[9] button to select a user scale and immediately exit the USER SCALE screen. This is convenient when you want to recall a user scale while performing.

# System Settings

## Procedure

1. Press the [MENU] button.  
The MENU screen appears.
2. Move the cursor to "SYSTEM," and press the [ENTER] button.
3. Move the cursor to tab, and use the [◀] [▶] buttons to switch the pages.
4. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.
5. Press the [EXIT] button to exit the screen.

## MEMO

The parameters you edit are saved when you press the [WRITE] button in the SYSTEM screen, or when you exit the SYSTEM screen.

## System Parameters

### GENERAL

| Parameter       | Value/Explanation   |
|-----------------|---|
| LCD Contrast    | Adjusting the display contrast.<br>1–20   |
| LCD Brightness  | Adjusting the display brightness.<br>1–20   |
| Auto Off        | Specifies whether the unit will turn off automatically after a certain time has elapsed.<br>If you don't want the unit to turn off automatically, choose "OFF" setting.<br>OFF, 30, 240[min]  |
| Power Save Time | Amount of idle time that is to pass before the JUNO-DS enters power-save mode.<br>When the JUNO-DS enters power-save mode, it will reduce its power consumption by turning off the display backlight and minimizing button illumination.<br>OFF, 1, 3, 5, 10, 15, 20, 30, 60[min] |
| Illumination    | Specifies whether the buttons illuminate when they are waiting for an operation.<br>OFF, ON   |

### PAD COLOR

| Parameter      | Value/Explanation  |
|----------------|--|
| Pad Brightness | Adjusts the brightness of pads [1]–[8].<br>1–127   |
| COLOR          | The illumination color of pads [1]–[8] can be specified for each function.   |
| Back Ground    | Specifies the basic illumination color of the pads.  |
| Level Meter    | OFF, 1–13<br>Specifies the illumination color of the level meter that indicates the volume when you play the keyboard. |
| Part Select    | Specifies the pad illumination color that indicates the selected part when you use the pads to select a part.          |
| Track Select   | Specifies the pad illumination color that indicates the selected track when you use the pads to select a track.        |
| Track Data     | Specifies the pad illumination color that indicates a track already containing performance data.                       |
| Track Mute     | Specifies the pad illumination color that indicates a muted track.   |
| Rhythm Pattern | 1–13<br>Specifies the pad illumination color when the RHYTHM PAT TERN screen is displayed.                             |
| Audio Player   | Specifies the pad illumination color when the AUDIO PLAYER screen is displayed.  |
| Tone Switch    | Specifies the pad illumination color for pads [5]–[8] that indicate tones turned on in the PATCH EDIT screen.          |
| Tone Select    | Specifies the pad illumination color for the pad that indicates the selected tone in the PATCH EDIT screen.            |

### PAD NOTE

| Parameter           | Value/Explanation   |
|---------------------|---|
| Pad Note Switch     | Specifies the mode in which MIDI note messages are transmitted.<br>OFF Messages are not transmitted.<br>PATCH Only in patch mode.<br>PERFORM Only in performance mode.<br>BOTH In patch mode and in performance mode. |
| Pad 1–8 Note Number | Specifies the note that is transmitted.<br>C–G9   |
| Pad 1–8 Velocity    | Specifies the velocity of the note that is transmitted.<br>OFF, 1–127   |
| Pad 1–8 Channel     | Specifies the MIDI channel of the note that is transmitted.<br>1–16   |

### KEY TOUCH

| Parameter    | Value/Explanation   |
|--------------|---|
| Velo Curve   | Sets the keyboard's touch.<br>LIGHT, MEDIUM, HEAVY  |
| Curve Offset | Adjusts the Velo Curve.<br>Lower values make the keyboard feel lighter.<br>Higher values make the keyboard feel heavier.<br>-10→+9  |
| Velocity     | Specifies the velocity transmitted when a key is played.<br>REAL The transmitted velocity value will correspond to the force with which you strike the key.<br>1–127 The transmitted velocity value will be fixed, regardless of the force with which you strike the key. |

### SOUND

| Parameter        | Value/Explanation   |
|------------------|---|
| Master Tune      | Adjusts the overall tuning of the JUNO-DS.<br>The display shows the frequency of the A4 note (center A).<br>415.3–466.2[Hz] |
| Master Key Shift | Shifts the JUNO-DS's overall pitch range in semitone steps.<br>-24→+24  |
| Master Level     | Sets the JUNO-DS's overall volume.<br>0–127   |
| Output Gain      | Adjusts the output gain from the JUNO-DS's output.<br>-12→+12[dB]   |
| Audio Level      | Specifies the volume when playing audio file from the Audio Player.<br>0–127  |

### MASTER EQ

| Parameter        | Value/Explanation   |
|------------------|---|
| Master EQ Switch | Turn the master EQ (this is an equalizer that is applied to the overall sound of the entire JUNO-DS) on/off.<br>OFF, ON         |
| EQ Low Freq      | Frequency of the low range.<br>200, 400[Hz]   |
| EQ Low Gain      | Gain of the low frequency range.<br>-15→+15[dB]   |
| EQ Mid Freq      | Frequency of the middle range.<br>200–8000[Hz]  |
| EQ Mid Gain      | Gain of the middle frequency range.<br>-15→+15[dB]  |
| EQ Mid Q         | Width of the middle frequency range.<br>Set a higher value for Q to narrow the range to be affected.<br>0.5, 1.0, 2.0, 4.0, 8.0 |
| EQ High Freq     | Frequency of the high range.<br>2000, 4000, 8000[Hz]  |
| EQ High Gain     | Gain of the high frequency range.<br>-15→+15[dB]  |
| EQ Total Gain    | Gain of the overall Master EQ.<br>-15→+15[dB]   |



MIC IN SETTINGS

| Parameter                  | Value/Explanation  |
|----------------------------|--|
| Mic In Level               | Adjusts the input level of the MIC INPUT jack.<br>0–127  |
| Mic In Reverb Switch       | Specifies whether reverb is applied (ON) to the mic input or not applied (OFF).<br>OFF, ON   |
| Mic In Reverb Level        | Adjust the amount of reverb that is applied to the sound of the microphone.<br>0–127   |
| Mic In Reverb Type         | Select the type of reverb/delay that is applied to the sound of the microphone.<br>ROOM1, ROOM2, STAGE1, STAGE2, HALL1, HALL2, DELAY, PAN-DELAY  |
| Mic In Reverb Time         | Adjusts the length of the reverberation (when Reverb Type is ROOM1–HALL2) or the delay time of the delay (when Reverb Type is DELAY or PAN-DELAY).<br>0–127  |
| Noise Suppressor Switch    | Switches the noise suppressor on/off. The noise suppressor is a function that suppresses noise during periods of silence.<br>OFF, ON   |
| Noise Suppressor Threshold | Adjusts the volume at which noise suppression starts to be applied.<br>0–127   |
| Noise Suppressor Release   | Adjusts the time from when noise suppression starts until the volume reaches 0.<br>0–127   |
| Mic Mode                   | Specifies the mic input mode.  |
|                            | ALL<br>SOUND is input from the mic at all times.<br>VOCAL FX<br>SOUND is input from the mic only when the [VOCODER/ AUTO PITCH] button is lit, or when the effect type is set to "79: Di VOCODER" (p. 57). |

PEDAL

| Parameter              | Value/Explanation  |
|------------------------|--|
| <b>Control Pedal</b>   |  |
|                        | Specifies the function of the pedal that is connected to the PEDAL CONTROL jack. The number in parentheses ( ) is the controller number of the control change message produced by the pedal when the corresponding function is assigned. |
| MODULATION             | (CC01) Vibrato   |
| PORTA-TIME             | (CC05) Portamento time   |
| VOLUME                 | (CC07) Level   |
| PAN                    | (CC10) Pan   |
| EXPRESSION             | (CC11) Level   |
| HOLD                   | (CC64) The sound will be sustained for keys that are played or were already held down while holding down the pedal.  |
| PORTAMENTO             | (CC65) Portamento switch   |
| SOSTENUTO              | (CC66) The sound will be sustained only for keys that were already pressed when you pressed the pedal.   |
| RESONANCE              | (CC71) Resonance   |
| RELEAS-TIME            | (CC72) Release time  |
| ATTACK-TIME            | (CC73) Attack time   |
| CUTOFF                 | (CC74) Cutoff  |
| DECAY-TIME             | (CC75) Decay time  |
| VIB-RATE               | (CC76) Vibrato speed   |
| VIB-DEPTH              | (CC77) Vibrato depth   |
| VIB-DELAY              | (CC78) Vibrato delay time  |
| CHORUS-SEND            | (CC93) The amount of the chorus  |
| REVERB-SEND            | (CC91) The amount of the reverb  |
| AFTERTOUCH             | Channel aftertouch   |
|                        | * In Patch mode, the effect of the above functions applies to the currently selected sound. In Performance mode, the effect applies to the current part or to parts whose keyboard switch (p. 19, p. 20, p. 22) is on.                   |
| START/STOP             | Pressing the pedal will start/stop the rhythm pattern, audio player, or pattern sequencer.   |
| TAP-TEMPO              | The tempo will be set to the interval at which you press the pedal (Tap Tempo).  |
| PROG-UP                | If you're in the patch mode, this selects the next sound. If you're in the performance mode, this selects the next-numbered performance.   |
| PROG-DOWN              | If you're in the patch mode, this selects the previous sound. If you're in the performance mode, this selects the previous-numbered performance.   |
| FAV-UP                 | The favorite of the next number or bank will be selected.  |
| FAV-DOWN               | The favorite of the previous number or bank will be selected.  |
| Control Pedal Polarity | Selects the polarity of the pedal connected to the PEDAL CONTROL jack.<br>STANDARD, REVERSE  |
| <b>Hold Pedal</b>      |  |
| Continuous Hold Pedal  | If this is ON, the PEDAL HOLD jack will support half-pedaling.<br>OFF, ON  |
| Hold Pedal Polarity    | Selects the polarity of the pedal connected to the PEDAL HOLD jack.<br>STANDARD, REVERSE   |

KNOB

| Parameter       | Value/Explanation   |   |
|-----------------|---|---|
| Knob 1–4 Assign | Specifies the function that is assigned to each knob when the parameter controlled by the control knobs is set to ASSIGN 1–4.                             |   |
|                 | OFF   | No function is assigned.                  |
|                 | CC01–31, 32 (OFF), 33–95  | Controller number 1–31, 32, 33–95         |
|                 | Pitch Bend  | The same effect as moving the pitch bend. |
|                 | Aftertouch  | Aftertouch                                |
|                 | * In Patch mode, the effect of the above functions applies to the currently selected sound. In Performance mode, the effect applies to the selected part. |   |
|                 | EQ Low Freq   | Frequency of the low range.               |
|                 | EQ Low Gain   | Gain of the low frequency range.          |
|                 | EQ Mid Freq   | Frequency of the middle range.            |
|                 | EQ Mid Gain   | Gain of the middle frequency range.       |
| EQ Mid Q        | Width of the middle frequency range.  |   |
| EQ High Freq    | Frequency of the high range.  |   |
| EQ High Gain    | Gain of the high frequency range.   |   |

SYNC/TEMPO

| Parameter     | Value/Explanation   |
|---------------|---|
| Sync Mode     | Specifies the synchronization message that the JUNO-DS will use for operation.  |
|               | MASTER<br>The JUNO-DS will be the master. Choose this setting when using the JUNO-DS by itself without synchronizing to another device.<br>SLAVE<br>The JUNO-DS will be the slave. Choose this setting when you want the JUNO-DS to synchronize to MIDI Clock messages received from another MIDI device. |
| Clock Source  | When the Sync Mode is "SLAVE," this setting specifies whether the JUNO-DS will synchronize to synchronization messages from the MIDI IN connector or from the USB COMPUTER port.<br>MIDI, USB   |
| Startup Tempo | Specifies the tempo when the JUNO-DS starts.<br>20–250  |
| Tempo Lock    | When you switch performances or patterns, this specifies whether the tempo of the newly selected performance/pattern is used, or the current tempo is maintained.<br>OFF, ON (maintain)   |

METRONOME

| Parameter               | Value/Explanation                                 |   |
|-------------------------|---|---|
| Metronome Mode          | Specifies how the metronome will be sounded.      |   |
|                         | OFF   | No metronome is sounded.  |
|                         | PLAY-ONLY   | The metronome sounds when a pattern is playing.                   |
|                         | REC-ONLY  | The metronome sounds when a pattern is being recorded.            |
|                         | PLAY&REC  | The metronome sounds when a pattern is playing or being recorded. |
| ALWAYS                  | The metronome sounds at all times.                |   |
| Metronome Level         | Adjusts the metronome volume.<br>0–10             |   |
| Metronome Sound         | Selects the metronome sound.                      |   |
|                         | TYPE1   | Conventional metronome sound (first beat is a bell)               |
|                         | TYPE2   | Click sound   |
|                         | TYPE3   | Beep sound  |
| TYPE4                   | Cowbell sound                                     |   |
| Metronome Accent Switch | Adds an accent to the metronome sound.<br>OFF, ON |   |

MIDI

| Parameter  | Value/Explanation  |         |   |        |
|--|--|---------|---|--------|
| Local Switch   | Determines whether the internal sound generator is disconnected (OFF) from the controller section (keyboard, pitch bend/modulation lever, buttons, sliders, pedal, and so on); or not disconnected (ON). Normally you'll leave this "ON." Choose the "OFF" setting if you want operations on the JUNO-DS to only control DAW software on your computer.<br>OFF, ON |         |   |        |
| Patch Rx/Tx Ch                                       | In patch mode, specifies the MIDI message transmit/receive channel for the keyboard part.<br>1-16  |         |   |        |
| Performance Control Channel                          | Specifies the MIDI receive channel on which MIDI messages (program change/bank select) from an external MIDI device will be received by the JUNO-DS to switch performances. Choose "OFF" setting if you don't want performances to be switched from a connected MIDI device.<br>1-16, OFF  |         |   |        |
| Transmit Program Change, Bank Select, Active Sensing | Specifies whether program change messages/bank select messages/active sensing messages will be transmitted (ON) or not be transmitted (OFF).<br>OFF, ON  |         |   |        |
| Transmit Edit Data                                   | Specifies whether changes you make in the settings of a patch or performance will be transmitted as system exclusive messages (ON), or will not be transmitted (OFF).<br>OFF, ON   |         |   |        |
| Receive Program Change, Bank Select                  | Specifies whether program change messages/bank select messages will be received (ON) or not be received (OFF).<br>OFF, ON  |         |   |        |
| Soft Through   | If this is "ON," incoming MIDI messages from the MIDI IN connector will be re-transmitted without change from the MIDI OUT connector.<br>OFF, ON   |         |   |        |
| USB Driver   | Sets the USB driver.<br>* This setting will take effect when you turn the power off, then on again.  |         |   |        |
|  | <table border="1"> <tr> <td>GENERIC</td> <td>Choose this if you want to use the generic USB driver provided by your computer's operating system.</td> </tr> <tr> <td>VENDOR</td> <td>Choose this if you want to use a USB driver downloaded from the Roland website. (*1)</td> </tr> </table>  | GENERIC | Choose this if you want to use the generic USB driver provided by your computer's operating system. | VENDOR |
| GENERIC  | Choose this if you want to use the generic USB driver provided by your computer's operating system.  |         |   |        |
| VENDOR   | Choose this if you want to use a USB driver downloaded from the Roland website. (*1)   |         |   |        |

\*1: Download the Driver

In order to use the JUNO-DS with the "VENDOR" setting, you must download the driver from the following URL and install it on your computer.  
For details on installation, refer to the following URL.

➔ <http://www.roland.com/support/>

CONTROL

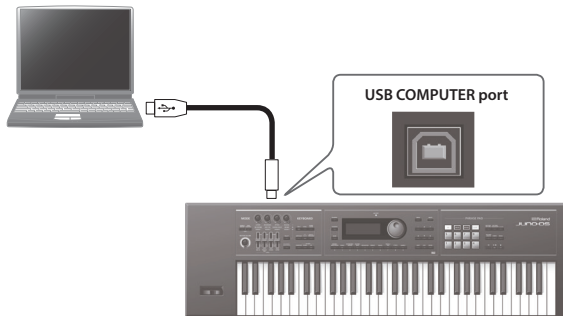
| Parameter           | Value/Explanation   |   |
|---------------------|---|---|
| Sys Ctrl 1-4 Source | Specify the MIDI messages that will be used as system controls. System Control settings allow you to specify MIDI messages that will apply in common to the entire JUNO-DS, and can be used for controlling volume, tone, etc. You can assign up to four MIDI messages for this type of control.<br>* If you want to make assignments for realtime control of the sound and effects for each tone independently, use "Matrix control" (p. 12) or "MFX control" (p. 18). |   |
|                     | OFF   | No function is assigned.                  |
|                     | CC01-31, 32 (OFF), 33-95  | Controller number 1-31, 32, 33-95         |
|                     | PITCH BEND  | The same effect as moving the pitch bend. |
| AFTERTOUCH          | Aftertouch  |   |

INFORMATION

| Parameter | Value/Explanation                            |
|-----------|--|
| Version   | View the software version.                   |
| Expansion | Displays information about expansion sounds. |

# Connecting to a Computer via USB

If you use a commercially available USB cable to connect a USB port of your computer to the USB COMPUTER port located on the rear panel of the JUNO-DS, you can use MIDI-compatible software (DAW software) to play back audio and MIDI data on the JUNO-DS.



For details on operating requirements, refer to the Roland website.  
<http://www.roland.com/support/>

## NOTE

- For some types of computer, this might not work correctly. Refer to the Roland website for details on the operating systems that are supported.
- A USB cable is not included. You can purchase one from the dealer where you purchased the JUNO-DS.
- Use a USB 2.0 cable.
- Your computer's USB port must support USB 2.0 Hi-Speed.
- Turn on the power of the JUNO-DS before you start the DAW software on your computer. Don't turn the JUNO-DS's power on/off while your DAW software is running.

## USB audio

### JUNO-DS → Computer

If the JUNO-DS is connected to your computer via a USB cable, the audio output you've chosen in the JUNO-DS can be recorded into your computer's DAW software.

### Computer → JUNO-DS

If the JUNO-DS is connected to your computer via a USB cable, the sound of your computer can be reproduced from an audio system connected to the JUNO-DS's jacks.

## USB MIDI

If the JUNO-DS is connected to your computer via a USB cable, the JUNO-DS's performance data (MIDI data) can be recorded into your DAW software, and performance data (MIDI data) played back by your DAW software can be sounded by the JUNO-DS's sound engine.

## Installing the USB Driver

The USB driver is software that exchanges data between the JUNO-DS and your computer software. In order to use the JUNO-DS's dedicated USB driver, you must install the USB driver.

## MEMO

For details on downloading and installing the USB driver, refer to the Roland website.

<http://www.roland.com/support/>

## Making USB Driver Settings

Here's how to switch between the JUNO-DS's dedicated USB driver and the generic driver provided by your operating system.

1. Press the [MENU] button.  
The MENU screen appears.
2. Move the cursor to "SYSTEM," and press the [ENTER] button.  
The SYSTEM screen appears.
3. Move the cursor to "MIDI" tab – "USB Driver," and use the value dial to select the driver.

| Driver  | Explanation  |
|---------|--|
| VENDOR  | The dedicated driver provided by Roland specifically for the JUNO-DS is used. Both MIDI and audio are available. |
| GENERIC | The generic driver of the operating system is used. Only MIDI is available.                                      |

When you switch the driver, a confirmation screen appears. If you decide to cancel, press the [EXIT] button.

4. Move the cursor to "WRITE," and press the [ENTER] button.  
Setting is complete when the screen indicates "Completed."

## MEMO

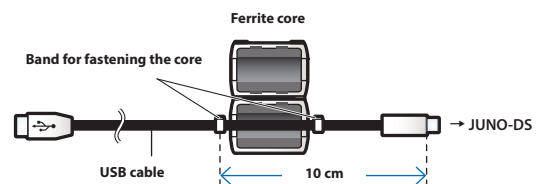
This system takes effect when the JUNO-DS is powered-on.

5. Turn the power off, and then on again.

## Attaching the Ferrite Core (76-key model only)

If you use a USB cable to connect the JUNO-DS to your computer, you must attach the included ferrite core. This is for the purpose of preventing electromagnetic interference; do not remove it.

1. Attach the ferrite core to the USB cable.



2. Press the halves together until they click shut.



- \* Be careful not to pinch your fingers when attaching the ferrite core.
- \* Do not damage the cable by pinching it excessively with the ferrite core.

# Using the JUNO-DS with DAW Software

## Using the JUNO-DS As a DAW Controller

You can use the JUNO-DS as a controller for your DAW software. The JUNO-DS provides various DAW control maps. Simply select the appropriate control map to apply the appropriate settings for the DAW software that you're using.

### MEMO

If you want to use the JUNO-DS as a controller for your DAW software, set the USB Driver setting to "VENDOR."

## Using the JUNO-DS to Control DAW Software

1. Use a USB cable to connect the JUNO-DS to your computer. A confirmation message appears.
  - \* This message is not shown if you power-on the JUNO-DS with it already connected to the computer.
2. Move the cursor to "YES," and press the [ENTER] button. DAW Control mode is on, and the DAW CONTROL screen appears.
3. Move the cursor to "Control Map," and use the value dial to select the DAW software that you're using.

| Value     | Explanation  |
|-----------|--|
| LOGIC PRO | When controlling Logic Pro.  |
| SONAR     | When controlling SONAR.  |
| CUBASE    | When controlling Cubase.   |
| USER      | Choose "USER" if your system cannot use the Mackie Control control surface. You'll be able to choose the MIDI messages that are transmitted when you press pads [1]–[8]. |

4. As necessary, move the cursor to "Sync Output" or "Sync Mode," and use the value dial to change the setting.

| Parameter   | Value/Explanation   |        |   |       |
|-------------|---|--------|---|-------|
| Sync Output | Specifies whether clock, start, continue, stop, and song position pointer messages are transmitted to another device (ON) or are not transmitted (OFF). <ul style="list-style-type: none"> <li>* When the DAW CONTROL screen is not shown, this parameter is forcibly turned OFF.</li> </ul>  |        |   |       |
|             | OFF, ON   |        |   |       |
| Sync Mode   | Specifies the synchronization message that the JUNO-DS will use for operation.  |        |   |       |
|             | <table border="1"> <tbody> <tr> <td>MASTER</td> <td>The JUNO-DS will be the master. Choose this setting when using the JUNO-DS by itself without synchronizing to another device.</td> </tr> <tr> <td>SLAVE</td> <td>The JUNO-DS will be the slave. Choose this setting when you want the JUNO-DS to synchronize to MIDI Clock messages received from another MIDI device.</td> </tr> </tbody> </table> | MASTER | The JUNO-DS will be the master. Choose this setting when using the JUNO-DS by itself without synchronizing to another device. | SLAVE |
| MASTER      | The JUNO-DS will be the master. Choose this setting when using the JUNO-DS by itself without synchronizing to another device.   |        |   |       |
| SLAVE       | The JUNO-DS will be the slave. Choose this setting when you want the JUNO-DS to synchronize to MIDI Clock messages received from another MIDI device.   |        |   |       |

5. Turn the Local Switch "OFF" in the "Controller" tab (p. 37).
6. In your DAW software, open the project file that you want to control.

### MEMO

Before you continue, select "JUNO-DS" as the MIDI input device and output device.

For details on how to do this, refer to the owner's manual of your DAW software.

7. Make the appropriate control surface settings for the DAW software you selected.

### Settings in LOGIC PRO

This explanation describes the procedure when using Logic Pro X. The procedure may differ for other versions.

1. From the Logic Pro X menu, choose [Logic Pro X] → [Control Surfaces] → [Setup] to open the setting screen.
2. From the menu, choose [New] → [Install].
3. From the list of Model, choose "Mackie Control" and press "Add."
4. As the input port and the output port, specify "JUNO-DS DAW CTRL."

### Settings in SONAR

This explanation describes the procedure when using SONAR X2 Producer. The procedure may differ for other versions.

1. From the SONAR menu, choose [Edit] → [Preferences] → [MIDI Devices] to open the input/output device selection.
2. To the input devices and output devices, add "JUNO-DS DAW CTRL."
3. In [Preferences], choose [MIDI Control Surfaces].
4. Press "Add new Controller/Surface" to access the control surface settings dialog box.
5. Choose "Mackie Control" as the control surface, choose "JUNO-DS DAW CTRL" as the input port and output port, and then press "OK."

### Settings in CUBASE

This explanation describes the procedure when using the Mac OS X version of Cubase 7. The procedure may differ for other versions.

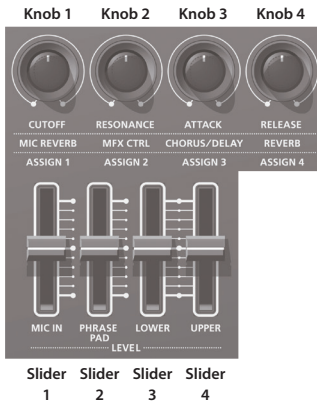
1. From the Cubase [Devices] menu, choose [Device Setup].
2. Press the [+] button located in the upper left of the dialog box, and choose "Mackie Control" from the pull-down menu.
3. As the MIDI input and MIDI output for Mackie Control, specify "JUNO-DS DAW CTRL."
4. In the left side of the dialog box, choose "MIDI Port Setup" to access the setting screen.
5. In "JUNO-DS DAW CTRL," clear the check box from "In 'ALL MIDI Inputs'."

8. Operate the JUNO-DS to control your DAW software.

| Available controllers   | Explanation  |
|---|--|
| [▶/■] button  | Playback/Stop  |
| [●] button  | Start recording on record-standby tracks.                                      |
| [◀] button  | Return the current position to the beginning.                                  |
| [SHIFT]+Pad [2]   | Rewind   |
| [SHIFT]+Pad [3]   | Fast forward   |
| The [▶/■] through [◀] buttons emulate the Mackie Control control surface. |  |
| Pad [1]–[8]   | Emulate the Mackie Control control surface Function buttons (F1–F8).           |
| Control knobs   | You can control the functions that are assigned (p. 33) to Assign 1–4 (p. 37). |
| [LEVEL] sliders   | You can control the functions that are assigned to the four sliders (p. 37).   |

## Assigning Functions to Knobs and Sliders

You can assign functions to the control knobs (1–4) and the [LEVEL] sliders (1–4).



You can store sixteen sets of these assignments, with each set containing the assignments of the control knobs (1–4) and the [LEVEL] sliders (1–4).

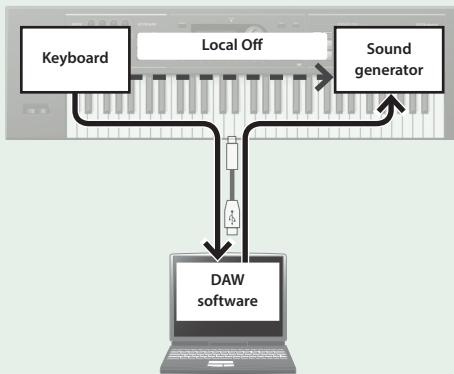
1. In the DAW CONTROL screen, select the “Controller” tab.
2. Select the set of assignments that you want to edit.

### MEMO

You can press the [ENTER] button and rename the set.

3. Move the cursor to the parameter that you want to edit, and use the value dial to change the value.

| Parameter    | Explanation   |
|--------------|---|
| Local Switch | Turns the Local switch on/off when in DAW Control mode.<br>If you're using a DAW software with the JUNO-DS's keyboard controller section and sound generator section, you should turn the Local Switch "OFF". Here's why.<br>We need to connect these sections in the following order: the JUNO-DS's keyboard a DAW software the JUNO-DS's sound generator. Since the JUNO-DS's keyboard section and sound generator section are connected internally, such a connection order would normally be impossible. However, if the Local Switch is "OFF," the JUNO-DS's keyboard section and its sound generator section will be independent, allowing you to use a DAW software as shown here in the illustration. |
| Tx Channel   | Specifies the MIDI transmit channel used when in DAW Control mode. Set this as desired.   |
| Knob 1–4     | Select the MIDI messages that are transmitted when you turn the control knobs (1–4).  |
| Slider 1–4   | Select the MIDI messages that are transmitted when you control the [LEVEL] sliders (1–4).   |



## Using the JUNO-DS As a MIDI Keyboard

Your playing on the JUNO-DS's keyboard (MIDI data) can be recorded into your DAW software, or used to play software instruments.

1. Connect the JUNO-DS to your computer.
2. Press the [DAW CONTROL] button to make it light.  
The DAW CONTROL screen appears.
3. In the DAW CONTROL screen, select the “Controller” tab.
4. Turn the Local Switch “OFF.”

### MEMO

Set the MIDI transmit channel as necessary (Tx Channel: p. 37).

## Playing the JUNO-DS's Sound Generator from DAW Software

Performance data (MIDI data) played back by your DAW software can make the JUNO-DS's sound generator produce sound.

1. Connect the JUNO-DS to your computer.
2. Press the [DAW CONTROL] button to make it light.
3. Start your DAW software, and open the project file that you want to play.

### MEMO

Before you continue, select “JUNO-DS” as the MIDI input device and output device.

For details on how to make this setting, refer to the owner's manual of your DAW software.

4. In the DAW CONTROL screen, select the “Part Edit” tab.



| No. | Explanation  |
|-----|--|
| 1   | Performance  |
| 2   | Patches that are assigned to each part   |
| 3   | Receive switch for each part<br>If you set to “OFF,” MIDI messages are not received. |
| 4   | Receive channel for each part  |

\* Depending on the channel settings of your DAW, messages that switch studio sets may be transmitted on the channel of a part, causing the tone to switch. If this occurs, check the channel settings of your DAW.

5. Change the settings as necessary.

### MEMO

It is convenient to turn receive switch on/off if you temporarily want to stop receiving MIDI messages.

6. In your DAW software, set the transmit channels of the tracks that you're playing back to match the receive channel settings of the JUNO-DS.  
For details on how to make this setting, refer to the owner's manual of your DAW software.
7. Play back your DAW software.  
You hear the playback sounded by the JUNO-DS's patches.

### MEMO

If you want your settings to be remembered, save the DAW CONTROL settings (p. 38).

### Using the JUNO-DS As an Audio Interface

The JUNO-DS's audio output you've specified can be recorded into DAW software on your computer. Sound from your computer can also be reproduced from a device that's connected to the JUNO-DS's OUTPUT jacks.

1. Connect the JUNO-DS to your computer.
2. Start up your DAW software, and choose "JUNO-DS" as the audio input device and output device.

For details on how to make this setting, refer to the owner's manual of your DAW software.

### Saving the DAW CONTROL Settings

The DAW CONTROL settings revert to their previous state when you turn off the power. If you want the DAW CONTROL settings to be remembered even after power-off, save them.

1. In the DAW CONTROL screen (expect in the "Part Edit" tab), press the [WRITE] button.

\* If you press the [WRITE] button when the "Part Edit" tab is selected, PERFORMANCE WRITE is executed.

A confirmation message appears.  
If you decide to cancel, press the [EXIT] button.

2. Move the cursor to "OK," and press the [ENTER] button.  
Saving is complete when the screen indicates "Completed!"

#### NOTE

Never turn off the power while the screen indicates "Writing...."

#### MEMO

When you save the DAW CONTROL settings, the system settings are also saved.

# Error Messages

If an incorrect operation is performed, or if processing could not be performed as you specified, an error message appears. Refer to the explanation for the error message that appears, and take the appropriate action.

| Message                                   | Meaning  | Action   |
|---|--|--|
| <b>Battery Low!</b>                       | The battery has run down.  | Replace the batteries, or use an AC adaptor.   |
| <b>Cannot Read!</b>                       | Failed to load the audio file from the USB flash drive.  | Make sure that USB flash drive is correctly connected.<br>Use USB Flash Memory sold by Roland.   |
| <b>Duplicate File Name! Overwrite it?</b> | A file of the same name already exists.  | If you want to overwrite it, proceed with the operation. If you don't want to delete the identically-named file, save using a different file name. |
| <b>Duplicate File Name!</b>               | A file of the same name already exists.  | Check the name.  |
| <b>Format USB Memory Error!</b>           | An error occurred when formatting the USB flash drive.   | Use USB Flash Memory sold by Roland. We cannot guarantee operation if other products are used.   |
| <b>Incorrect File!</b>                    | This is a file that the JUNO-DS is unable to play/import.  | Do not use this file.  |
| <b>Incorrect File Name!</b>               | A "." (period) cannot be used at the beginning of a file name.   | Specify a different character.   |
| <b>Int Memory Full!</b>                   | There is insufficient memory capacity in the internal pattern writing destination.   | Delete unneeded pattern.   |
| <b>Memory Damaged!</b>                    | Failed when reading from the waveform memory file system.  | Please execute a Factory Reset.<br>If this does not resolve the problem, contact your dealer or a nearby Roland service center.                    |
| <b>Memory Full!</b>                       | There is insufficient free capacity to store the sample.   | Delete unneeded sample.  |
| <b>Memory Full! Optimize?</b>             | There is insufficient free capacity to store the sample. Do you want to execute Optimize?  | You can obtain free capacity by optimizing the memory area (p. 2).   |
| <b>MIDI Buffer Full!</b>                  | An unusually large amount of MIDI data was received, and could not be processed.   | Reduce the amount of MIDI messages that are being transmitted.   |
| <b>MIDI Offline!</b>                      | The MIDI IN connection was broken.   | Check that there is no problem with the MIDI cable connected to the JUNO-DS's MIDI IN, and that the MIDI cable was not disconnected.               |
| <b>No more Registered Favorites!</b>      | No more favorites have been registered.  | Check the currently selected favorite number and the direction ("FAV-UP" or "FAV-DOWN") that's assigned to the pedal (p. 33).                      |
| <b>No Room!</b>                           | The number of stored waveforms has reached the maximum (256).  | Delete unneeded sample.  |
| <b>Not Found!</b>                         | The file was not found on the USB flash drive.   | Make sure that the file exists on the USB flash drive.   |
| <b>Now Playing!</b>                       | Since the JUNO-DS is playing, this operation cannot be executed.   | Stop playback before you execute the operation.  |
| <b>Now Recording!</b>                     | Since the JUNO-DS is recording, this operation cannot be executed.   | Stop recording before you execute the operation.   |
| <b>Pattern Full!</b>                      | The maximum number of notes that can be recorded in one pattern has been exceeded; the pattern cannot be recorded any further.                             | Delete unneeded data from the pattern that you're recording.   |
|   | This indication may appear if a large amount of data, such as movements of the Control knobs, is being recorded. No further pattern recording is possible. |  |
| <b>Permission Denied!</b>                 | The operation cannot be performed because the USB flash drive, file, or folder is write-protected.   | Disable the write-protect setting of the USB flash drive.<br>Using your computer, disable the write-protect setting of the file or folder.         |
| <b>Read Error!</b>                        | Failed to load data from USB flash drive.  | Make sure that USB flash drive is correctly connected.   |
|   | It may be that the file is damaged.  | Do not use this file.  |
|   | This file cannot be loaded since its format is incorrect.  |  |
| <b>Rec Overflow!</b>                      | Since a large amount of recorded data was input all at once, it could not be processed correctly.  | Reduce the amount of recorded data.  |
| <b>Sample Length Too Long!</b>            | The audio file cannot be imported because it is too long.  | An audio file that exceeds 64 MB stereo or 32 MB mono cannot be imported.  |
| <b>Sample Length Too Short!</b>           | The audio file cannot be imported because it is too short.   | Extremely short audio files cannot be imported.  |
| <b>Sys Mem Damaged!</b>                   | It is possible that the contents of system memory have been damaged.   | Please execute a Factory Reset.<br>If this does not resolve the problem, contact your dealer or a nearby Roland service center.                    |
| <b>USB Mem NotReady!</b>                  | USB flash drive is not connected.  | Connect USB flash drive.   |
| <b>Write Error!</b>                       | Failed to write data to USB flash drive.   | Make sure that USB flash drive is correctly connected.   |
|   | Data cannot be written because the USB flash drive has no more free space.   | Delete unneeded files from the USB flash drive. Alternatively, use a different USB flash drive device, one that has more free space available.     |
|   | The file or the USB flash drive itself is write protected.   | Make sure that the file or the USB flash drive is not write protected.   |

# MFX/Chorus/Reverb Parameters

## MFX Parameters (MFX, MFX1-3)

The MFX feature 80 different kinds of effects. Some of the effects consist of two or more different effects connected in series.

| Type                 | MFX                 | Page  |               |       |
|----------------------|---------------------|-------|---------------|-------|
| Filter               | 00 THRU             | -     |               |       |
|                      | 01 EQUALIZER        | p. 41 |               |       |
|                      | 02 SPECTRUM         |       |               |       |
|                      | 03 ISOLATOR         |       |               |       |
|                      | 04 LOW BOOST        |       |               |       |
|                      | 05 SUPER FILTER     | p. 42 |               |       |
|                      | 06 STEP FILTER      |       |               |       |
|                      | 07 ENHANCER         |       |               |       |
|                      | 08 AUTO WAH         |       |               |       |
|                      | 09 HUMANIZER        |       |               |       |
| 10 SPEAKER SIMULATOR | p. 43               |       |               |       |
| 11 PHASER            |                     |       |               |       |
| 12 STEP PHASER       |                     |       |               |       |
| Modulation           | 13 MLT STAGE PHASER | p. 44 |               |       |
|                      | 14 INFINITE PHASER  |       |               |       |
|                      | 15 RING MODULATOR   |       |               |       |
|                      | 16 STEP RING MOD    |       |               |       |
|                      | 17 TREMOLO          | p. 45 |               |       |
|                      | 18 AUTO PAN         |       |               |       |
|                      | 19 STEP PAN         |       |               |       |
|                      | 20 SLICER           |       |               |       |
|                      | 21 ROTARY           |       |               |       |
|                      | 22 VK ROTARY        |       |               |       |
| Chorus               | 23 CHORUS           | p. 46 |               |       |
|                      | 24 FLANGER          |       |               |       |
|                      | 25 STEP FLANGER     |       |               |       |
|                      | 26 HEXA-CHORUS      |       |               |       |
|                      | 27 TREMOLO CHORUS   | p. 47 |               |       |
|                      | 28 SPACE-D          |       |               |       |
|                      | 29 3D CHORUS        |       |               |       |
|                      | 30 3D FLANGER       |       |               |       |
|                      | 31 3D STEP FLANGER  |       |               |       |
|                      | 32 2BAND CHORUS     |       |               |       |
| 33 2BAND FLANGER     | p. 48               |       |               |       |
| 34 2BAND STEP FLANGR |                     |       |               |       |
| Dynamics             | 35 OVERDRIVE        | p. 49 |               |       |
|                      | 36 DISTORTION       |       |               |       |
|                      | 37 VS OVERDRIVE     |       |               |       |
|                      | 38 VS DISTORTION    |       |               |       |
|                      | 39 GUITAR AMP SIM   |       |               |       |
|                      | 40 COMPRESSOR       |       |               |       |
|                      | 41 LIMITER          |       |               |       |
|                      | 42 GATE             |       |               |       |
|                      | Delay               |       | 43 DELAY      | p. 50 |
|                      |                     |       | 44 LONG DELAY |       |
| 45 SERIAL DELAY      |                     |       |               |       |
| 46 MODULATION DELAY  |                     |       |               |       |
| 47 3TAP PAN DELAY    |                     | p. 51 |               |       |
| 48 4TAP PAN DELAY    |                     |       |               |       |
| 49 MULTI TAP DELAY   |                     |       |               |       |
| 50 REVERSE DELAY     |                     | p. 52 |               |       |
| 51 SHUFFLE DELAY     |                     |       |               |       |
| 52 3D DELAY          |                     |       |               |       |
| 53 ANALOG DELAY      |                     |       |               |       |
| 54 ANALOG LONG DELAY |                     |       |               |       |
| Lo-Fi 1              | 55 TAPE ECHO        | p. 53 |               |       |
|                      | 56 LOFI NOISE       |       |               |       |
|                      | 57 LOFI COMPRESS    |       |               |       |
|                      | 58 LOFI RADIO       |       |               |       |
| Pitch                | 59 TELEPHONE        | p. 54 |               |       |
|                      | 60 PHONOGRAPH       |       |               |       |
|                      | 61 PITCH SHIFTER    |       |               |       |
| Reverb               | 62 2VOI PCH SHIFTER | p. 55 |               |       |
|                      | 63 STEP PCH SHIFTER |       |               |       |
|                      | 64 REVERB           |       |               |       |
|                      | 65 GATED REVERB     |       |               |       |

| Type                | MFX                 | Page  |
|---------------------|---------------------|-------|
| Combination         | 66 OD → CHORUS      | p. 55 |
|                     | 67 OD → FLANGER     |       |
|                     | 68 OD → DELAY       | p. 56 |
|                     | 69 DST → CHORUS     |       |
|                     | 70 DST → FLANGER    |       |
|                     | 71 DST → DELAY      |       |
|                     | 72 ENH → CHORUS     |       |
|                     | 73 ENH → FLANGER    |       |
|                     | 74 ENH → DELAY      |       |
|                     | 75 CHORUS → DELAY   |       |
| 76 FLANGER → DELAY  | p. 57               |       |
| 77 CHORUS → FLANGER |                     |       |
| Piano               | 78 SYMPATHETIC RESO |       |
| Vocoder             | 79 Di VOCODER       |       |
| Lo-Fi 2             | 80 BIT CRUSHER      |       |

### MEMO

- Parameters marked with a ☆ can be controlled using the control knob to which "MFX CTRL" is assigned.
- Parameters marked with a sharp "#" can be controlled using a MFX control (p. 18, p. 24) or Matrix control (p. 12). (Two setting items will change simultaneously for "#1" and "#2").

### Note

Some effect parameters (such as Rate or Delay Time) can be set in terms of a note value.

|  |                           |  |                           |  |                            |  |                     |
|--|---------------------------|--|---------------------------|--|----------------------------|--|---------------------|
|  | Sixty-fourth-note triplet |  | Sixty-fourth note         |  | Thirty-second-note triplet |  | Thirty-second note  |
|  | Sixteenth-note triplet    |  | Dotted thirty-second note |  | Sixteenth note             |  | Eighth-note triplet |
|  | Dotted sixteenth note     |  | Eighth note               |  | Quarter-note triplet       |  | Dotted eighth note  |
|  | Quarter note              |  | Half-note triplet         |  | Dotted quarter note        |  | Half note           |
|  | Whole-note triplet        |  | Dotted half note          |  | Whole note                 |  | Double-note triplet |
|  | Dotted whole note         |  | Double note               |  |                            |  |                     |

### NOTE

- If you specify the delay time as a note value, slowing down the tempo will not change the delay time beyond a certain length. This is because there is an upper limit for the delay time; if the delay time is specified as a note value and you slow down the tempo until this upper limit is reached, the delay time cannot change any further. This upper limit is the maximum value that can be specified when setting the delay time as a numerical value.
- If you specify a parameter for which a note value is assigned as the MFX control Destination, you can't use MFX control to control that parameter.

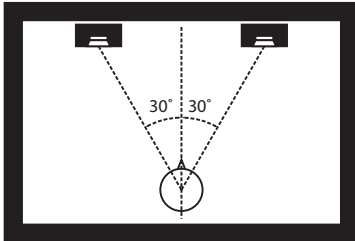


**When Using 3D Effects**

The following 3D effects utilize RSS (Roland Sound Space) technology to create a spaciousness that cannot be produced by delay, reverb, chorus, etc.

- 52: 3D DELAY
- 29: 3D CHORUS
- 30: 3D FLANGER
- 31: 3D STEP FLANGER

When using these effects, we recommend that you place your speakers as follows. Also, make sure that the speakers are at a sufficient distance from the walls on either side.



If the left and right speakers are too far apart, or if there is too much reverberation, the full 3D effect may not appear. Each of these effects has an "Output Mode" parameter. If the sound from the OUTPUT jacks is to be heard through speakers, set this parameter to "SPEAKER." If the sound is to be heard through headphones, set it to "PHONES." This will ensure that the optimal 3D effect will be heard. If this parameter is not set correctly, the full 3D effect may not appear.

**About the Step Reset function**

- 06: STEP FILTER
- 16: STEP RING MOD
- 19: STEP PAN
- 20: SLICER
- 63: STEP PCH SHIFTER

The above types contain a sixteen-step sequencer. For these types, you can use a MFX control to reset the sequence to play from the first step. To do this, set the MFX control Destination to "Step Reset."

For example if you are using the modulation lever to control the effect, you would make the following settings.

| Parameter   | Value            |
|-------------|------------------|
| Source      | CC01: Modulation |
| Destination | Step Reset       |
| Sens        | +63              |

With these settings, the sequence will play back from the first step whenever you operate the modulation lever.

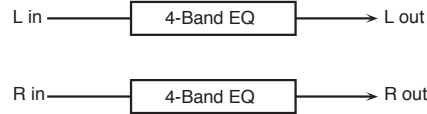
**Rotary effect**

- 21: ROTARY
- 22: VK ROTARY

When performing sounds that use these effects, you can change the speed of the rotary effect by moving the modulation lever away from yourself.

**01: EQUALIZER**

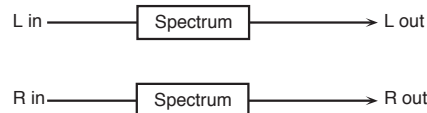
This is a four-band stereo equalizer (low, mid x 2, high).



| Parameter     | Value                   | Explanation   |
|---------------|-------------------------|---|
| Low Freq      | 200, 400[Hz]            | Frequency of the low range  |
| Low Gain #    | -15--+15[dB]            | Gain of the low range   |
| Mid1 Freq     | 200-8000[Hz]            | Frequency of the middle range 1   |
| Mid1 Gain     | -15--+15[dB]            | Gain of the middle range 1  |
| Mid1 Q        | 0.5, 1.0, 2.0, 4.0, 8.0 | Width of the middle range 1<br>Set a higher value for Q to narrow the range to be affected. |
| Mid2 Freq     | 200-8000[Hz]            | Frequency of the middle range 2   |
| Mid2 Gain     | -15--+15[dB]            | Gain of the middle range 2  |
| Mid2 Q        | 0.5, 1.0, 2.0, 4.0, 8.0 | Width of the middle range 2<br>Set a higher value for Q to narrow the range to be affected. |
| High Freq     | 2000, 4000, 8000[Hz]    | Frequency of the high range   |
| ☆ High Gain # | -15--+15[dB]            | Gain of the high range  |
| Level #       | 0-127                   | Output level  |

**02: SPECTRUM**

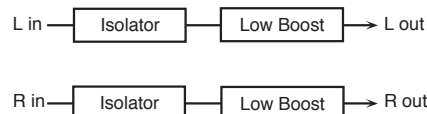
This is a stereo spectrum. Spectrum is a type of filter which modifies the timbre by boosting or cutting the level at specific frequencies.



| Parameter        | Value                   | Explanation  |
|------------------|-------------------------|--|
| Band1 (250[Hz])  | -15--+15[dB]            | Gain of each frequency band  |
| Band2 (500[Hz])  |                         |  |
| Band3 (1000[Hz]) |                         |  |
| Band4 (1250[Hz]) |                         |  |
| Band5 (2000[Hz]) |                         |  |
| Band6 (3150[Hz]) |                         |  |
| Band7 (4000[Hz]) |                         |  |
| Band8 (8000[Hz]) |                         |  |
| Q                | 0.5, 1.0, 2.0, 4.0, 8.0 | Simultaneously adjusts the width of the adjusted ranges for all the frequency bands. |
| ☆ Level #        | 0-127                   | Output level   |

**03: ISOLATOR**

This is an equalizer which cuts the volume greatly, allowing you to add a special effect to the sound by cutting the volume in varying ranges.



| Parameter            | Value       | Explanation  |
|----------------------|-------------|--|
| Boost/Cut Low #      | -60--+4[dB] | These boost and cut each of the High, Middle, and Low frequency ranges. At -60 dB, the sound becomes inaudible. 0 dB is equivalent to the input level of the sound.                              |
| ☆ Boost/Cut Mid #    |             |  |
| Boost/Cut High #     |             |  |
| Anti Phase Low Sw    | OFF, ON     | Turns the Anti-Phase function on and off for the Low frequency ranges. When turned on, the counter-channel of stereo sound is inverted and added to the signal.                                  |
| Anti Phase Low Level | 0-127       | Adjusts the level settings for the Low frequency ranges. Adjusting this level for certain frequencies allows you to lend emphasis to specific parts (This is effective only for stereo source.). |
| Anti Phase Mid Sw    | OFF, ON     | Settings of the Anti-Phase function for the Middle frequency ranges.   |
| Anti Phase Mid Level | 0-127       | The parameters are the same as for the Low frequency ranges.   |
| Low Boost Sw         | OFF, ON     | Turns Low Booster on/off. This emphasizes the bottom to create a heavy bass sound.   |
| Low Boost Level      | 0-127       | Increasing this value gives you a heavier low end. * Depending on the Isolator and filter settings this effect may be hard to distinguish.   |
| Level                | 0-127       | Output level   |

**04: LOW BOOST**

Boosts the volume of the lower range, creating powerful lows.



| Parameter         | Value             | Explanation   |
|-------------------|-------------------|---|
| Boost Frequency # | 50-125[Hz]        | Center frequency at which the lower range will be boosted |
| ☆ Boost Gain #    | 0-+12[dB]         | Amount by which the lower range will be boosted           |
| Boost Width       | WIDE, MID, NARROW | Width of the lower range that will be boosted             |
| Low Gain          | -15-+15[dB]       | Gain of the low frequency range                           |
| High Gain         | -15-+15[dB]       | Gain of the high frequency range                          |
| Level             | 0-127             | Output level  |

**05: SUPER FILTER**

This is a filter with an extremely sharp slope. The cutoff frequency can be varied cyclically.



| Parameter          | Value                                      | Explanation  |
|--------------------|--|--|
| Filter Type        | Filter type                                | Frequency range that will pass through each filter   |
|                    | LPF  | Frequencies below the cutoff   |
|                    | BPF  | Frequencies in the region of the cutoff  |
|                    | HPF  | Frequencies above the cutoff   |
|                    | NOTCH                                      | Frequencies other than the region of the cutoff  |
| Filter Slope       | Amount of attenuation per octave           |  |
|                    | -12[dB]                                    | Gentle   |
|                    | -24[dB]                                    | Steep  |
|                    | -36[dB]                                    | Extremely steep  |
| ☆ Filter Cutoff #  | 0-127                                      | Cutoff frequency of the filter<br>Increasing this value will raise the cutoff frequency.                       |
| Filter Resonance # | 0-127                                      | Filter resonance level<br>Increasing this value will emphasize the region near the cutoff frequency.           |
| Filter Gain        | 0-+12[dB]                                  | Amount of boost for the filter output  |
| Modulation Sw      | OFF, ON                                    | On/off switch for cyclic change  |
| Modulation Wave    | How the cutoff frequency will be modulated |  |
|                    | TRI  | Triangle wave  |
|                    | SQR  | Square wave  |
|                    | SIN  | Sine wave  |
|                    | SAW1                                       | Sawtooth wave (upward)   |
|                    | SAW2                                       | Sawtooth wave (downward)   |
|                    |  |  |
| Rate #             | 0.05-10.00[Hz], note                       | Rate of modulation   |
| Depth              | 0-127                                      | Depth of modulation  |
| Attack #           | 0-127                                      | Speed at which the cutoff frequency will change<br>This is effective if Modulation Wave is SQR, SAW1, or SAW2. |
| Level              | 0-127                                      | Output level   |

**06: STEP FILTER**

This is a filter whose cutoff frequency can be modulated in steps. You can specify the pattern by which the cutoff frequency will change.



| Parameter          | Value  | Explanation  |
|--------------------|--|--|
| Step 01-16         | 0-127  | Cutoff frequency at each step  |
| ☆ Rate #           | 0.05-10.00[Hz], note                               | Rate of modulation   |
| Attack #           | 0-127  | Speed at which the cutoff frequency changes between steps  |
| Filter Type        | Filter type  |  |
|                    | Frequency range that will pass through each filter |  |
|                    | LPF  | frequencies below the cutoff   |
|                    | BPF  | frequencies in the region of the cutoff  |
|                    | HPF  | frequencies above the cutoff   |
|                    | NOTCH  | frequencies other than the region of the cutoff  |
| Filter Slope       | Amount of attenuation per octave                   |  |
|                    | -12[dB]  | gentle   |
|                    | -24[dB]  | steep  |
|                    | -36[dB]  | extremely steep  |
| Filter Resonance # | 0-127  | Filter resonance level<br>Increasing this value will emphasize the region near the cutoff frequency. |
| Filter Gain        | 0-+12[dB]  | Amount of boost for the filter output  |
| Level              | 0-127  | Output level   |

**MEMO**

You can use MFX control to restart the step sequence from the beginning (p. 18, p. 24).

**07: ENHANCER**

Controls the overtone structure of the high frequencies, adding sparkle and tightness to the sound.



| Parameter | Value       | Explanation                                      |
|-----------|-------------|--|
| Sens #    | 0-127       | Sensitivity of the enhancer                      |
| ☆ Mix #   | 0-127       | Level of the overtones generated by the enhancer |
| Low Gain  | -15-+15[dB] | Gain of the low range                            |
| High Gain | -15-+15[dB] | Gain of the high range                           |
| Level     | 0-127       | Output Level                                     |

**08: AUTO WAH**

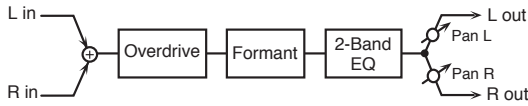
Cyclically controls a filter to create cyclic change in timbre.



| Parameter   | Value  | Explanation  |
|-------------|--|--|
| Filter Type | Type of filter   |  |
|             | LPF  | The wah effect will be applied over a wide frequency range.  |
|             | BPF  | The wah effect will be applied over a narrow frequency range.  |
| Manual #    | 0-127  | Adjusts the center frequency at which the effect is applied.   |
| Peak        | 0-127  | Adjusts the amount of the wah effect that will occur in the range of the center frequency.<br>Set a higher value for Q to narrow the range to be affected. |
| Sens #      | 0-127  | Adjusts the sensitivity with which the filter is controlled.   |
| Polarity    | Sets the direction in which the frequency will change when the auto-wah filter is modulated. |  |
|             | UP   | The filter will change toward a higher frequency.  |
|             | DOWN   | The filter will change toward a lower frequency.   |
| ☆ Rate #    | 0.05-10.00[Hz], note   | Frequency of modulation  |
| Depth #     | 0-127  | Depth of modulation  |
| Phase #     | 0-180[deg]   | Adjusts the degree of phase shift of the left and right sounds when the wah effect is applied.   |
| Low Gain    | -15-+15[dB]  | Gain of the low range  |
| High Gain   | -15-+15[dB]  | Gain of the high range   |
| Level       | 0-127  | Output level   |

**09: HUMANIZER**

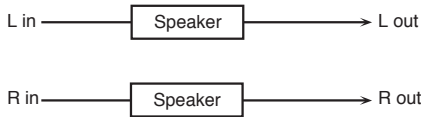
Adds a vowel character to the sound, making it similar to a human voice.



| Parameter            | Value                           | Explanation   |
|----------------------|---------------------------------|---|
| Drive Sw             | OFF, ON                         | Turns Drive on/off.   |
| Drive #              | 0–127                           | Degree of distortion<br>Also changes the volume.  |
| Vowel1               | a, e, i, o, u                   | Selects the vowel.  |
| Vowel2               | a, e, i, o, u                   |   |
| ☆ Rate #             | 0.05–10.00[Hz], note            | Frequency at which the two vowels switch  |
| Depth #              | 0–127                           | Effect depth  |
| Input Sync Sw        | OFF, ON                         | LFO reset on/off<br>Determines whether the LFO for switching the vowels is reset by the input signal (ON) or not (OFF). |
| Input Sync Threshold | 0–127                           | Volume level at which reset is applied  |
| Manual #             | Point at which Vowel 1/2 switch |   |
|                      | 49 or less                      | Vowel 1 will have a longer duration.  |
|                      | 50                              | Vowel 1 and 2 will be of equal duration.  |
|                      | 51 or more                      | Vowel 2 will have a longer duration.  |
| Low Gain             | -15→+15[dB]                     | Gain of the low frequency range   |
| High Gain            | -15→+15[dB]                     | Gain of the high frequency range  |
| Pan #                | L64–63R                         | Stereo location of the output   |
| Level                | 0–127                           | Output level  |

**10: SPEAKER SIMULATOR**

Simulates the speaker type and microphone settings used to record the speaker sound.



| Parameter      | Value                     | Explanation  |
|----------------|---------------------------|--|
| Speaker Type   | (See the following table) | Type of speaker  |
| Mic Setting    | 1, 2, 3                   | Adjusts the location of the microphone that is recording the sound of the speaker. This can be adjusted in three steps, with the microphone becoming more distant in the order of 1, 2, and 3. |
| ☆ Mic Level #  | 0–127                     | Volume of the microphone   |
| Direct Level # | 0–127                     | Volume of the direct sound   |
| Level #        | 0–127                     | Output level   |

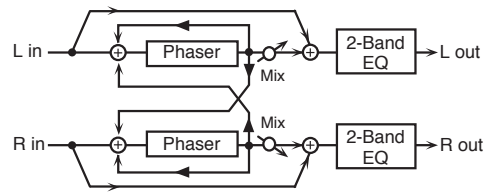
**Specifications of each Speaker Type**

The speaker column indicates the diameter of each speaker unit (in inches) and the number of units.

| Type        | Cabinet                   | Speaker | Microphone |
|-------------|---------------------------|---------|------------|
| SMALL 1     | small open-back enclosure | 10      | dynamic    |
| SMALL 2     | small open-back enclosure | 10      | dynamic    |
| MIDDLE      | open back enclosure       | 12 x 1  | dynamic    |
| JC-120      | open back enclosure       | 12 x 2  | dynamic    |
| BUILT-IN 1  | open back enclosure       | 12 x 2  | dynamic    |
| BUILT-IN 2  | open back enclosure       | 12 x 2  | condenser  |
| BUILT-IN 3  | open back enclosure       | 12 x 2  | condenser  |
| BUILT-IN 4  | open back enclosure       | 12 x 2  | condenser  |
| BUILT-IN 5  | open back enclosure       | 12 x 2  | condenser  |
| BG STACK 1  | sealed enclosure          | 12 x 2  | condenser  |
| BG STACK 2  | large sealed enclosure    | 12 x 2  | condenser  |
| MS STACK 1  | large sealed enclosure    | 12 x 4  | condenser  |
| MS STACK 2  | large sealed enclosure    | 12 x 4  | condenser  |
| METAL STACK | large double stack        | 12 x 4  | condenser  |
| 2-STACK     | large double stack        | 12 x 4  | condenser  |
| 3-STACK     | large triple stack        | 12 x 4  | condenser  |

**11: PHASER**

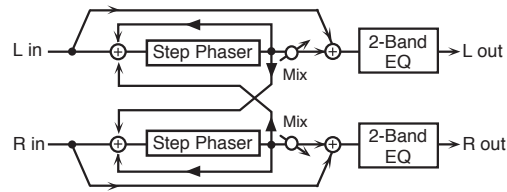
This is a stereo phaser. A phase-shifted sound is added to the original sound and modulated.



| Parameter      | Value  | Explanation   |
|----------------|--|---|
| Mode           | 4-STAGE, 8-STAGE, 12-STAGE   | Number of stages in the phaser  |
| ☆ Manual #     | 0–127  | Adjusts the basic frequency from which the sound will be modulated.   |
| Rate           | 0.05–10.00[Hz], note   | Frequency of modulation   |
| Depth          | 0–127  | Depth of modulation   |
| Polarity       | Selects whether the left and right phase of the modulation will be the same or the opposite. |   |
|                | INVERSE  | The left and right phase will be opposite. When using a mono source, this spreads the sound.                              |
|                | SYNCHRO  | The left and right phase will be the same. Select this when inputting a stereo source.                                    |
| Resonance #    | 0–127  | Amount of feedback  |
| Cross Feedback | -98→+98[%]   | Adjusts the proportion of the phaser sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| Mix #          | 0–127  | Level of the phase-shifted sound  |
| Low Gain       | -15→+15[dB]  | Gain of the low range   |
| High Gain      | -15→+15[dB]  | Gain of the high range  |
| Level          | 0–127  | Output level  |

**12: STEP PHASER**

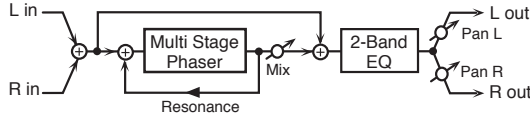
This is a stereo phaser. The phaser effect will be varied gradually.



| Parameter      | Value  | Explanation   |
|----------------|--|---|
| Mode           | 4-STAGE, 8-STAGE, 12-STAGE   | Number of stages in the phaser  |
| ☆ Manual #     | 0–127  | Adjusts the basic frequency from which the sound will be modulated.   |
| Rate #         | 0.05–10.00[Hz], note   | Frequency of modulation   |
| Depth          | 0–127  | Depth of modulation   |
| Polarity       | Selects whether the left and right phase of the modulation will be the same or the opposite. |   |
|                | INVERSE  | The left and right phase will be opposite. When using a mono source, this spreads the sound.                              |
|                | SYNCHRO  | The left and right phase will be the same. Select this when inputting a stereo source.                                    |
| Resonance #    | 0–127  | Amount of feedback  |
| Cross Feedback | -98→+98[%]   | Adjusts the proportion of the phaser sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| Step Rate #    | 0.10–20.00[Hz], note   | Rate of the step-wise change in the phaser effect   |
| Mix #          | 0–127  | Level of the phase-shifted sound  |
| Low Gain       | -15→+15[dB]  | Gain of the low range   |
| High Gain      | -15→+15[dB]  | Gain of the high range  |
| Level          | 0–127  | Output level  |

13: MLT STAGE PHASER

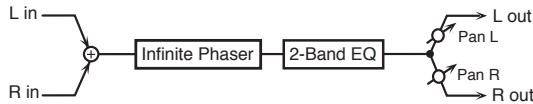
Extremely high settings of the phase difference produce a deep phaser effect.



| Parameter   | Value  | Explanation   |
|-------------|--|---|
| Mode        | 4-STAGE, 8-STAGE, 12-STAGE, 16-STAGE, 20-STAGE, 24-STAGE | Number of phaser stages   |
| ☆ Manual #  | 0–127  | Adjusts the basic frequency from which the sound will be modulated. |
| Rate #      | 0.05–10.00[Hz], note                                     | Frequency of modulation   |
| Depth       | 0–127  | Depth of modulation   |
| Resonance # | 0–127  | Amount of feedback  |
| Mix #       | 0–127  | Level of the phase-shifted sound                                    |
| Pan #       | L64–63R  | Stereo location of the output sound                                 |
| Low Gain    | -15–+15[dB]  | Gain of the low range   |
| High Gain   | -15–+15[dB]  | Gain of the high range  |
| Level       | 0–127  | Output level  |

14: INFINITE PHASER

A phaser that continues raising/lowering the frequency at which the sound is modulated.



| Parameter   | Value       | Explanation  |
|-------------|-------------|--|
| Mode        | 1–4         | Higher values will produce a deeper phaser effect.   |
| ☆ Speed #   | -100–+100   | Speed at which to raise or lower the frequency at which the sound is modulated (+: upward / -: downward) |
| Resonance # | 0–127       | Amount of feedback   |
| Mix #       | 0–127       | Volume of the phase-shifted sound  |
| Pan #       | L64–63R     | Panning of the output sound  |
| Low Gain    | -15–+15[dB] | Amount of boost/cut for the low-frequency range  |
| High Gain   | -15–+15[dB] | Amount of boost/cut for the high-frequency range   |
| Level       | 0–127       | Output level   |

15: RING MODULATOR

This is an effect that applies amplitude modulation (AM) to the input signal, producing bell-like sounds. You can also change the modulation frequency in response to changes in the volume of the sound sent into the effect.



| Parameter     | Value  | Explanation  |
|---------------|--|--|
| ☆ Frequency # | 0–127  | Adjusts the frequency at which modulation is applied.                |
| Sens #        | 0–127  | Adjusts the amount of frequency modulation applied.                  |
| Polarity      | Determines whether the frequency modulation moves towards higher frequencies or lower frequencies. |  |
|               | UP   | Higher frequencies   |
|               | DOWN   | Lower frequencies  |
| Low Gain      | -15–+15[dB]  | Gain of the low frequency range                                      |
| High Gain     | -15–+15[dB]  | Gain of the high frequency range                                     |
| Balance #     | D100:0W–D0:100W  | Volume balance between the direct sound (D) and the effect sound (W) |
| Level         | 0–127  | Output level   |

16: STEP RING MOD

This is a ring modulator that uses a 16-step sequence to vary the frequency at which modulation is applied.



| Parameter    | Value                | Explanation   |
|--------------|----------------------|---|
| ☆ Step 01–16 | 0–127                | Frequency of ring modulation at each step                     |
| Rate #       | 0.05–10.00[Hz], note | Rate at which the 16-step sequence will cycle                 |
| Attack #     | 0–127                | Speed at which the modulation frequency changes between steps |
| Low Gain     | -15–+15[dB]          | Amount of boost/cut for the low-frequency range               |
| High Gain    | -15–+15[dB]          | Amount of boost/cut for the high-frequency range              |
| Balance #    | D100:0W–D0:100W      | Volume balance of the original sound (D) and effect sound (W) |
| Level        | 0–127                | Output level  |

MEMO

You can use MFX control to restart the step sequence from the beginning (p. 18, p. 24).

17: TREMOLO

Cyclically modulates the volume to add tremolo effect to the sound.



| Parameter | Value                | Explanation                          |
|-----------|----------------------|--------------------------------------|
| Mod Wave  | Modulation Wave      |                                      |
|           | TRI                  | Triangle wave                        |
|           | SQR                  | Square wave                          |
|           | SIN                  | Sine wave                            |
|           | SAW1, 2              | Sawtooth wave                        |
|           |                      |                                      |
| ☆ Rate #  | 0.05–10.00[Hz], note | Frequency of the change              |
| Depth #   | 0–127                | Depth to which the effect is applied |
| Low Gain  | -15–+15[dB]          | Gain of the low range                |
| High Gain | -15–+15[dB]          | Gain of the high range               |
| Level     | 0–127                | Output level                         |

18: AUTO PAN

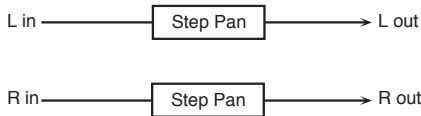
Cyclically modulates the stereo location of the sound.



| Parameter | Value                | Explanation                          |
|-----------|----------------------|--------------------------------------|
| Mod Wave  | Modulation Wave      |                                      |
|           | TRI                  | Triangle wave                        |
|           | SQR                  | Square wave                          |
|           | SIN                  | Sine wave                            |
|           | SAW1, 2              | Sawtooth wave                        |
|           |                      |                                      |
| ☆ Rate #  | 0.05–10.00[Hz], note | Frequency of the change              |
| Depth #   | 0–127                | Depth to which the effect is applied |
| Low Gain  | -15–+15[dB]          | Gain of the low range                |
| High Gain | -15–+15[dB]          | Gain of the high range               |
| Level     | 0–127                | Output level                         |

19: STEP PAN

This uses a 16-step sequence to vary the panning of the sound.



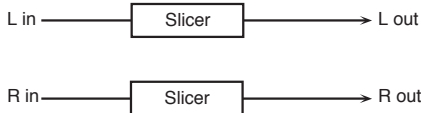
| Parameter            | Value                | Explanation   |
|----------------------|----------------------|---|
| Step 01-16           | L64-63R              | Pan at each step  |
| ☆ Rate #             | 0.05-10.00[Hz], note | Rate at which the 16-step sequence will cycle   |
| Attack #             | 0-127                | Speed at which the pan changes between steps  |
| Input Sync Sw        | OFF, ON              | Specifies whether an input note will cause the sequence to resume from the first step of the sequence (ON) or not (OFF) |
| Input Sync Threshold | 0-127                | Volume at which an input note will be detected  |
| Level                | 0-127                | Output level  |

MEMO

You can use MFX control to restart the step sequence from the beginning (p. 18, p. 24).

20: SLICER

By applying successive cuts to the sound, this effect turns a conventional sound into a sound that appears to be played as a backing phrase. This is especially effective when applied to sustain-type sounds.



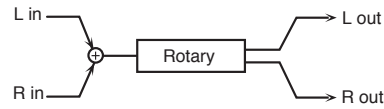
| Parameter            | Value                | Explanation  |
|----------------------|----------------------|--|
| Step 01-16           | 0-127                | Level at each step   |
| ☆ Rate #             | 0.05-10.00[Hz], note | Rate at which the 16-step sequence will cycle  |
| Attack #             | 0-127                | Speed at which the level changes between steps   |
| Input Sync Sw        | OFF, ON              | Specifies whether an input note will cause the sequence to resume from the first step of the sequence (ON) or not (OFF)  |
| Input Sync Threshold | 0-127                | Volume at which an input note will be detected   |
| Mode                 | LEGATO               | Sets the manner in which the volume changes as one step progresses to the next.<br>The change in volume from one step's level to the next remains unaltered. If the level of a following step is the same as the one preceding it, there is no change in volume. |
|                      | SLASH                | The level is momentarily set to 0 before progressing to the level of the next step. This change in volume occurs even if the level of the following step is the same as the preceding step.  |
| Shuffle #            | 0-127                | Timing of volume changes in levels for even-numbered steps (step 2, step 4, step 6...). The higher the value, the later the beat progresses.   |
| Level                | 0-127                | Output level   |

MEMO

You can use MFX control to restart the step sequence from the beginning (p. 18, p. 24).

21: ROTARY

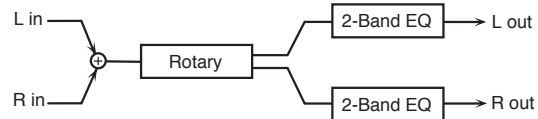
The Rotary effect simulates the sound of the rotary speakers often used with the electric organs of the past. Since the movement of the high range and low range rotors can be set independently, the unique type of modulation characteristic of these speakers can be simulated quite closely. This effect is most suitable for electric organ Tones.



| Parameter            | Value          | Explanation   |
|----------------------|----------------|---|
| ☆ Speed #            |                | Simultaneously switch the rotational speed of the low frequency rotor and high frequency rotor.   |
|                      | SLOW           | Slows down the rotation to the Slow Rate.   |
|                      | FAST           | Speeds up the rotation to the Fast Rate.  |
| Woofer Slow Speed    | 0.05-10.00[Hz] | Slow speed (SLOW) of the low frequency rotor  |
| Woofer Fast Speed    | 0.05-10.00[Hz] | Fast speed (FAST) of the low frequency rotor  |
| Woofer Acceleration  | 0-15           | Adjusts the time it takes the low frequency rotor to reach the newly selected speed when switching from fast to slow (or slow to fast) speed. |
| Woofer Level         | 0-127          | Volume of the low frequency rotor   |
| Tweeter Slow Speed   | 0.05-10.00[Hz] | Settings of the high frequency rotor<br>The parameters are the same as for the low frequency rotor.   |
| Tweeter Fast Speed   | 0.05-10.00[Hz] |   |
| Tweeter Acceleration | 0-15           |   |
| Tweeter Level        | 0-127          |   |
| Separation           | 0-127          | Spatial dispersion of the sound   |
| Level #              | 0-127          | Output level  |

22: VK ROTARY

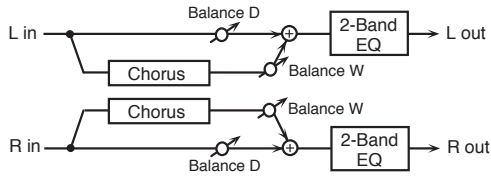
This type provides modified response for the rotary speaker, with the low end boosted further. This effect features the same specifications as the VK-7's built-in rotary speaker.



| Parameter          | Value                  | Explanation   |
|--------------------|------------------------|---|
| Speed #            |                        | Rotational speed of the rotating speaker  |
|                    | SLOW                   | Slow  |
|                    | FAST                   | Fast  |
| ☆ Brake #          | OFF, ON                | Switches the rotation of the rotary speaker. When this is turned on, the rotation will gradually stop. When it is turned off, the rotation will gradually resume. |
| Woofer Slow Speed  | 0.05-10.00[Hz]         | Low-speed rotation speed of the woofer  |
| Woofer Fast Speed  | 0.05-10.00[Hz]         | High-speed rotation speed of the woofer   |
| Woofer Trans Up    | 0-127                  | Adjusts the rate at which the woofer rotation speeds up when the rotation is switched from SLOW to FAST.  |
| Woofer Trans Down  | 0-127                  | Adjusts the rate at which the woofer rotation speeds up when the rotation is switched from FAST to SLOW.  |
| Woofer Level       | 0-127                  | Volume of the woofer  |
| Tweeter Slow Speed | 0.05-10.00[Hz]         | Settings of the tweeter<br>The parameters are the same as for the woofer.   |
| Tweeter Fast Speed | 0.05-10.00[Hz]         |   |
| Tweeter Trans Up   | 0-127                  |   |
| Tweeter Trans Down | 0-127                  |   |
| Tweeter Level      | 0-127                  |   |
| Spread             | 0-10                   | Sets the rotary speaker stereo image.   |
| Low Gain           | -15-+15[dB]            | Gain of the low range   |
| High Gain          | -15-+15[dB]            | Gain of the high range  |
| Level #            | 0-127                  | Output level  |
| Type               | STANDARD, STACK, CLEAN | Type of speaker   |

23: CHORUS

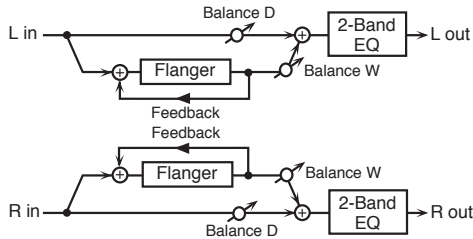
This is a stereo chorus. A filter is provided so that you can adjust the timbre of the chorus sound.



| Parameter   | Value                | Explanation   |
|-------------|----------------------|---|
| Filter Type | Type of filter       |   |
|             | OFF                  | No filter is used   |
|             | LPF                  | Cuts the frequency range above the Cutoff Freq                                |
| Cutoff Freq | HPF                  | Cuts the frequency range below the Cutoff Freq                                |
|             | 200–8000[Hz]         | Center frequency when using the filter to cut a specific frequency range      |
| Pre Delay   | 0.0–100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard. |
| ☆ Rate #    | 0.05–10.00[Hz], note | Frequency of modulation   |
| Depth       | 0–127                | Depth of modulation   |
| Phase       | 0–180[deg]           | Spatial spread of the sound   |
| Low Gain    | -15–+15[dB]          | Gain of the low range   |
| High Gain   | -15–+15[dB]          | Gain of the high range  |
| Balance #   | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the chorus sound (W)          |
| Level       | 0–127                | Output level  |

24: FLANGER

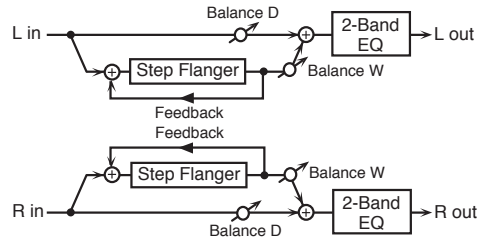
This is a stereo flanger (The LFO has the same phase for left and right.). It produces a metallic resonance that rises and falls like a jet airplane taking off or landing. A filter is provided so that you can adjust the timbre of the flanged sound.



| Parameter   | Value                | Explanation  |
|-------------|----------------------|--|
| Filter Type | Type of filter       |  |
|             | OFF                  | No filter is used  |
|             | LPF                  | Cuts the frequency range above the Cutoff Freq   |
| Cutoff Freq | HPF                  | Cuts the frequency range below the Cutoff Freq   |
|             | 200–8000[Hz]         | Center frequency when using the filter to cut a specific frequency range   |
| Pre Delay   | 0.0–100[msec]        | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.                                 |
| ☆ Rate #    | 0.05–10.00[Hz], note | Frequency of modulation  |
| Depth       | 0–127                | Depth of modulation  |
| Phase       | 0–180[deg]           | Spatial spread of the sound  |
| Feedback #  | -98–+98[%]           | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| Low Gain    | -15–+15[dB]          | Gain of the low range  |
| High Gain   | -15–+15[dB]          | Gain of the high range   |
| Balance #   | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the flanger sound (W)  |
| Level       | 0–127                | Output level   |

25: STEP FLANGER

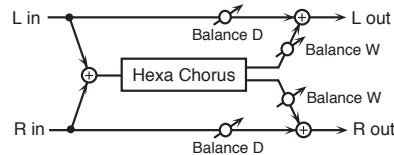
This is a flanger in which the flanger pitch changes in steps. The speed at which the pitch changes can also be specified in terms of a note-value of a specified tempo.



| Parameter     | Value                | Explanation  |
|---------------|----------------------|--|
| Filter Type   | Type of filter       |  |
|               | OFF                  | No filter is used  |
|               | LPF                  | Cuts the frequency range above the Cutoff Freq   |
| Cutoff Freq   | HPF                  | Cuts the frequency range below the Cutoff Freq   |
|               | 200–8000[Hz]         | Center frequency when using the filter to cut a specific frequency range   |
| Pre Delay     | 0.0–100[msec]        | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.                                 |
| ☆ Rate #      | 0.05–10.00[Hz], note | Frequency of modulation  |
| Depth         | 0–127                | Depth of modulation  |
| Phase         | 0–180[deg]           | Spatial spread of the sound  |
| Feedback #    | -98–+98[%]           | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| ☆ Step Rate # | 0.10–20.00[Hz], note | Rate (period) of pitch change  |
| Low Gain      | -15–+15[dB]          | Gain of the low range  |
| High Gain     | -15–+15[dB]          | Gain of the high range   |
| Balance #     | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the flanger sound (W)  |
| Level         | 0–127                | Output level   |

26: HEXA-CHORUS

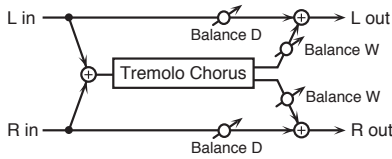
Uses a six-phase chorus (six layers of chorused sound) to give richness and spatial spread to the sound.



| Parameter           | Value                | Explanation   |
|---------------------|----------------------|---|
| Pre Delay           | 0.0–100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard.   |
| ☆ Rate #            | 0.05–10.00[Hz], note | Frequency of modulation   |
| Depth               | 0–127                | Depth of modulation   |
| Pre Delay Deviation | 0–20                 | Adjusts the differences in Pre Delay between each chorus sound.                 |
| Depth Deviation     | -20–+20              | Adjusts the difference in modulation depth between each chorus sound.           |
| Pan Deviation       | 0–20                 | Adjusts the difference in stereo location between each chorus sound.            |
|                     | 0                    | All chorus sounds will be in the center.  |
|                     | 20                   | Each chorus sound will be spaced at 60 degree intervals relative to the center. |
| Balance #           | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the chorus sound (W)            |
| Level               | 0–127                | Output level  |

27: TREMOLO CHORUS

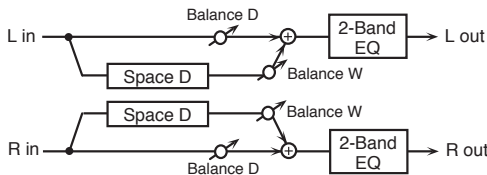
This is a chorus effect with added Tremolo (cyclic modulation of volume).



| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Pre Delay          | 0.0–100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard. |
| ☆ Chorus Rate #    | 0.05–10.00[Hz], note | Modulation frequency of the chorus effect                                     |
| Chorus Depth       | 0–127                | Modulation depth of the chorus effect   |
| Tremolo Rate #     | 0.05–10.00[Hz], note | Modulation frequency of the tremolo effect                                    |
| Tremolo Separation | 0–127                | Spread of the tremolo effect  |
| Tremolo Phase      | 0–180[deg]           | Spread of the tremolo effect  |
| Balance #          | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the tremolo chorus sound (W)  |
| Level              | 0–127                | Output level  |

28: SPACE-D

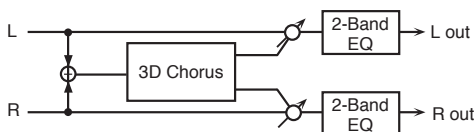
This is a multiple chorus that applies two-phase modulation in stereo. It gives no impression of modulation, but produces a transparent chorus effect.



| Parameter | Value                | Explanation   |
|-----------|----------------------|---|
| Pre Delay | 0.0–100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard. |
| ☆ Rate #  | 0.05–10.00[Hz], note | Frequency of modulation   |
| Depth     | 0–127                | Depth of modulation   |
| Phase     | 0–180[deg]           | Spatial spread of the sound   |
| Low Gain  | -15–+15[dB]          | Gain of the low range   |
| High Gain | -15–+15[dB]          | Gain of the high range  |
| Balance # | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the chorus sound (W)          |
| Level     | 0–127                | Output level  |

29: 3D CHORUS

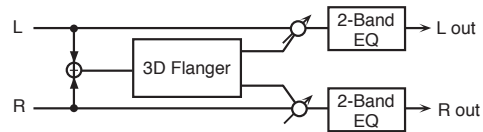
This applies a 3D effect to the chorus sound. The chorus sound will be positioned 90 degrees left and 90 degrees right.



| Parameter   | Value                                   | Explanation   |
|-------------|---|---|
| Filter Type | Type of filter                          |   |
|             | OFF                                     | No filter is used   |
|             | LPF                                     | Cuts the frequency range above the Cutoff Freq                                |
|             | HPF                                     | Cuts the frequency range below the Cutoff Freq                                |
| Cutoff Freq | 200–8000[Hz]                            | Center frequency when using the filter to cut a specific frequency range      |
| Pre Delay   | 0.0–100[msec]                           | Adjusts the delay time from the direct sound until the chorus sound is heard. |
| ☆ Rate #    | 0.05–10.00[Hz], note                    | Frequency of modulation   |
| Depth       | 0–127                                   | Modulation depth of the chorus effect   |
| Phase       | 0–180[deg]                              | Spatial spread of the sound   |
| Output Mode | The optimal 3D effect will be achieved. |   |
|             | SPEAKER                                 | When using speakers   |
|             | PHONES                                  | When using headphones   |
| Low Gain    | -15–+15[dB]                             | Gain of the low range   |
| High Gain   | -15–+15[dB]                             | Gain of the high range  |
| Balance #   | D100:0W–D0:100W                         | Volume balance between the direct sound (D) and the chorus sound (W)          |
| Level       | 0–127                                   | Output level  |

30: 3D FLANGER

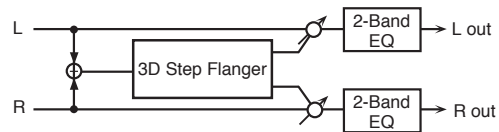
This applies a 3D effect to the flanger sound. The flanger sound will be positioned 90 degrees left and 90 degrees right.



| Parameter   | Value                                   | Explanation  |
|-------------|---|--|
| Filter Type | Type of filter                          |  |
|             | OFF                                     | No filter is used  |
|             | LPF                                     | Cuts the frequency range above the Cutoff Freq   |
|             | HPF                                     | Cuts the frequency range below the Cutoff Freq   |
| Cutoff Freq | 200–8000[Hz]                            | Center frequency when using the filter to cut a specific frequency range   |
| Pre Delay   | 0.0–100[msec]                           | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.                                 |
| ☆ Rate #    | 0.05–10.00[Hz], note                    | Frequency of modulation  |
| Depth       | 0–127                                   | Depth of modulation  |
| Phase       | 0–180[deg]                              | Spatial spread of the sound  |
| Feedback #  | -98–+98[%]                              | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| Output Mode | The optimal 3D effect will be achieved. |  |
|             | SPEAKER                                 | When using speakers  |
|             | PHONES                                  | When using headphones  |
| Low Gain    | -15–+15[dB]                             | Gain of the low range  |
| High Gain   | -15–+15[dB]                             | Gain of the high range   |
| Balance #   | D100:0W–D0:100W                         | Volume balance between the direct sound (D) and the flanger sound (W)  |
| Level       | 0–127                                   | Output level   |

31: 3D STEP FLANGER

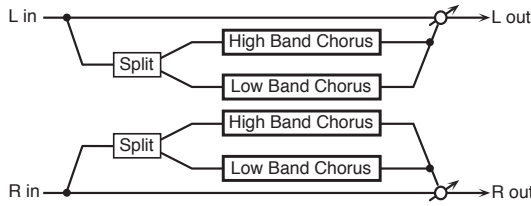
This applies a 3D effect to the step flanger sound. The flanger sound will be positioned 90 degrees left and 90 degrees right.



| Parameter     | Value                                   | Explanation  |
|---------------|---|--|
| Filter Type   | Type of filter                          |  |
|               | OFF                                     | No filter is used  |
|               | LPF                                     | Cuts the frequency range above the Cutoff Freq   |
|               | HPF                                     | Cuts the frequency range below the Cutoff Freq   |
| Cutoff Freq   | 200–8000[Hz]                            | Center frequency when using the filter to cut a specific frequency range   |
| Pre Delay     | 0.0–100[msec]                           | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.                                 |
| Rate #        | 0.05–10.00[Hz], note                    | Frequency of modulation  |
| Depth         | 0–127                                   | Depth of modulation  |
| Phase         | 0–180[deg]                              | Spatial spread of the sound  |
| Feedback #    | -98–+98[%]                              | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| ☆ Step Rate # | 0.10–20.00[Hz], note                    | Rate (period) of pitch change  |
| Output Mode   | The optimal 3D effect will be achieved. |  |
|               | SPEAKER                                 | When using speakers  |
|               | PHONES                                  | When using headphones  |
| Low Gain      | -15–+15[dB]                             | Gain of the low range  |
| High Gain     | -15–+15[dB]                             | Gain of the high range   |
| Balance #     | D100:0W–D0:100W                         | Volume balance between the direct sound (D) and the flanger sound (W)  |
| Level         | 0–127                                   | Output level   |

32: 2BAND CHORUS

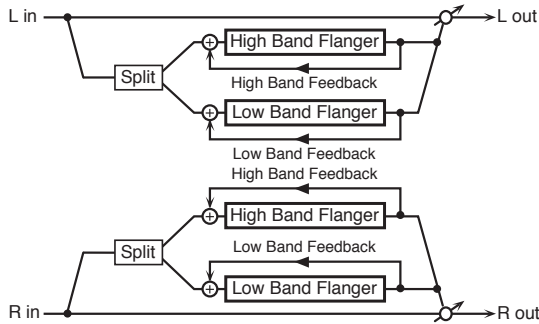
A chorus effect that lets you apply an effect independently to the low-frequency and high-frequency ranges.



| Parameter      | Value                | Explanation   |
|----------------|----------------------|---|
| Split Freq     | 200–8000[Hz]         | Frequency at which the low and high ranges will be divided                                    |
| Low Pre Delay  | 0.0–100[msec]        | Delay time from when the original sound is heard to when the low-range chorus sound is heard  |
| Low Rate #     | 0.05–10.00[Hz], note | Rate at which the low-range chorus sound is modulated   |
| Low Depth      | 0–127                | Modulation depth for the low-range chorus sound   |
| Low Phase      | 0–180[deg]           | Spaciousness of the low-range chorus sound  |
| High Pre Delay | 0.0–100[msec]        | Delay time from when the original sound is heard to when the high-range chorus sound is heard |
| ☆ High Rate #  | 0.05–10.00[Hz], note | Rate at which the high-range chorus sound is modulated  |
| High Depth     | 0–127                | Modulation depth for the high-range chorus sound  |
| High Phase     | 0–180[deg]           | Spaciousness of the high-range chorus sound   |
| Balance #      | D100:0W–D0:100W      | Volume balance of the original sound (D) and chorus sound (W)                                 |
| Level          | 0–127                | Output level  |

33: 2BAND FLANGER

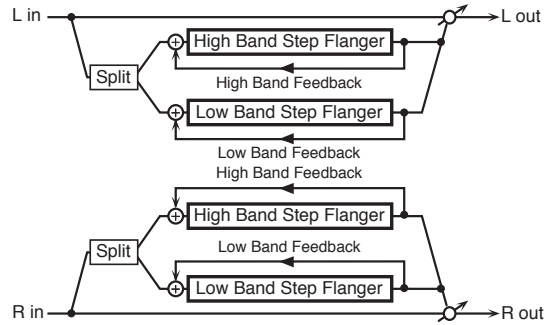
A flanger that lets you apply an effect independently to the low-frequency and high-frequency ranges.



| Parameter       | Value                | Explanation   |
|-----------------|----------------------|---|
| Split Freq      | 200–8000[Hz]         | Frequency at which the low and high ranges will be divided  |
| Low Pre Delay   | 0.0–100[msec]        | Delay time from when the original sound is heard to when the low-range flanger sound is heard                         |
| Low Rate #      | 0.05–10.00[Hz], note | Rate at which the low-range flanger sound is modulated  |
| Low Depth       | 0–127                | Modulation depth for the low-range flanger sound  |
| Low Phase       | 0–180[deg]           | Spaciousness of the low-range flanger sound   |
| Low Feedback #  | -98–+98[%]           | Proportion of the low-range flanger sound that is to be returned to the input (negative (-) values invert the phase)  |
| High Pre Delay  | 0.0–100[msec]        | Delay time from when the original sound is heard to when the high-range flanger sound is heard                        |
| ☆ High Rate #   | 0.05–10.00[Hz], note | Rate at which the high-range flanger sound is modulated   |
| High Depth      | 0–127                | Modulation depth for the high-range flanger sound   |
| High Phase      | 0–180[deg]           | Spaciousness of the high-range flanger sound  |
| High Feedback # | -98–+98[%]           | Proportion of the high-range flanger sound that is to be returned to the input (negative (-) values invert the phase) |
| Balance #       | D100:0W–D0:100W      | Volume balance of the original sound (D) and flanger sound (W)  |
| Level           | 0–127                | Output level  |

34: 2BAND STEP FLNGER

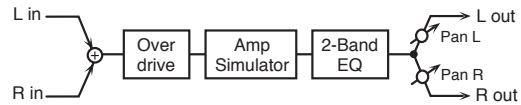
A step flanger that lets you apply an effect independently to the low-frequency and high-frequency ranges.



| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Split Freq         | 200–8000[Hz]         | Frequency at which the low and high ranges will be divided  |
| Low Pre Delay      | 0.0–100[msec]        | Delay time from when the original sound is heard to when the low-range flanger sound is heard                         |
| Low Rate #         | 0.05–10.00[Hz], note | Rate at which the low-range flanger sound is modulated  |
| Low Depth          | 0–127                | Modulation depth for the low-range flanger sound  |
| Low Phase          | 0–180[deg]           | Spaciousness of the low-range flanger sound   |
| Low Feedback #     | -98–+98[%]           | Proportion of the low-range flanger sound that is to be returned to the input (negative (-) values invert the phase)  |
| Low Step Rate #    | 0.10–20.00[Hz], note | Rate at which the steps will cycle for the low-range flanger sound  |
| High Pre Delay     | 0.0–100[msec]        | Delay time from when the original sound is heard to when the high-range flanger sound is heard                        |
| High Rate #        | 0.05–10.00[Hz], note | Rate at which the high-range flanger sound is modulated   |
| High Depth         | 0–127                | Modulation depth for the high-range flanger sound   |
| High Phase         | 0–180[deg]           | Spaciousness of the high-range flanger sound  |
| High Feedback #    | -98–+98[%]           | Proportion of the high-range flanger sound that is to be returned to the input (negative (-) values invert the phase) |
| ☆ High Step Rate # | 0.10–20.00[Hz], note | Rate at which the steps will cycle for the high-range flanger sound   |
| Balance #          | D100:0W–D0:100W      | Volume balance of the original sound (D) and flanger sound (W)  |
| Level              | 0–127                | Output level  |

35: OVERDRIVE

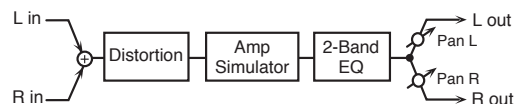
Creates a soft distortion similar to that produced by vacuum tube amplifiers.



| Parameter | Value              | Explanation                                      |
|-----------|--------------------|--|
| ☆ Drive # | 0–127              | Degree of distortion<br>Also changes the volume. |
| Amp Type  | Type of guitar amp |  |
|           | SMALL              | Small amp  |
|           | BUILT-IN           | Single-unit type amp                             |
|           | 2-STACK            | Large double stack amp                           |
| Low Gain  | -15–+15[dB]        | Gain of the low range                            |
| High Gain | -15–+15[dB]        | Gain of the high range                           |
| Pan #     | L64–63R            | Stereo location of the output sound              |
| Level     | 0–127              | Output level                                     |

36: DISTORTION

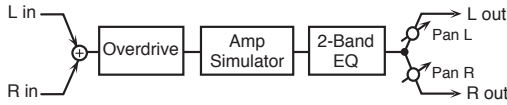
Produces a more intense distortion than Overdrive. The parameters are the same as for "35: OVERDRIVE."





**37: VS OVERDRIVE**

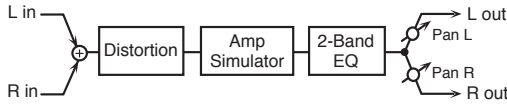
This is an overdrive that provides heavy distortion.



| Parameter | Value              | Explanation                                      |
|-----------|--------------------|--|
| ☆ Drive # | 0–127              | Degree of distortion<br>Also changes the volume. |
| Tone #    | 0–127              | Sound quality of the Overdrive effect            |
| Amp Sw    | OFF, ON            | Turns the Amp Simulator on/off.                  |
| Amp Type  | Type of guitar amp |  |
|           | SMALL              | Small amp  |
|           | BUILT-IN           | Single-unit type amp                             |
|           | 2-STACK<br>3-STACK | Large double stack amp<br>Large triple stack amp |
| Low Gain  | -15→+15[dB]        | Gain of the low range                            |
| High Gain | -15→+15[dB]        | Gain of the high range                           |
| Pan #     | L64–63R            | Stereo location of the output sound              |
| Level     | 0–127              | Output level                                     |

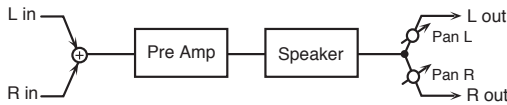
**38: VS DISTORTION**

This is a distortion effect that provides heavy distortion. The parameters are the same as for “37: VS OVERDRIVE.”



**39: GUITAR AMP SIM**

This is an effect that simulates the sound of a guitar amplifier.



| Parameter    | Value  | Explanation  |  |
|--------------|--|--|--|
| Pre Amp Sw   | OFF, ON  | Turns the amp switch on/off.   |  |
| Pre Amp Type | JC-120, CLEAN TWIN, MATCH DRIVE, BG LEAD, MS1959I, MS1959II, MS1959I+II, SLDN LEAD, METAL 5150, METAL LEAD, OD-1, OD-2 TURBO, DISTORTION, FUZZ |  |  |
|              | Type of guitar amp   |  |  |
|              | ☆ Pre Amp Volume #   | 0–127  | Volume and amount of distortion of the amp   |
|              | Pre Amp Master #   | 0–127  | Volume of the entire pre-amp   |
|              | Pre Amp Gain   | LOW, MIDDLE, HIGH  | Amount of pre-amp distortion   |
|              | Pre Amp Bass   | 0–127  | Tone of the bass/mid/treble frequency range  |
|              | Pre Amp Middle   |  | Middle cannot be set if “MATCH DRIVE” is selected as the Pre Amp Type.   |
|              | Pre Amp Treble   |  |  |
|              | Pre Amp Presence   | 0–127  | Tone for the ultra-high frequency range  |
|              | Pre Amp Bright   | OFF, ON  | Turning this “On” produces a sharper and brighter sound.<br>This parameter applies to the “JC-120,” “CLEAN TWIN,” and “BG LEAD” Pre Amp Types. |
| Speaker Sw   | OFF, ON  | Determines whether the signal passes through the speaker (ON), or not (OFF).   |  |
| Speaker Type | (See the following table)  | Type of speaker  |  |
| Mic Setting  | 1–3  | Adjusts the location of the microphone that’s capturing the sound of the speaker.<br>This can be adjusted in three steps, from 1 to 3, with the microphone becoming more distant as the value increases. |  |
| Mic Level    | 0–127  | Volume of the microphone   |  |
| Direct Level | 0–127  | Volume of the direct sound   |  |
| Pan #        | L64–63R  | Stereo location of the output sound  |  |
| Level #      | 0–127  | Output level   |  |

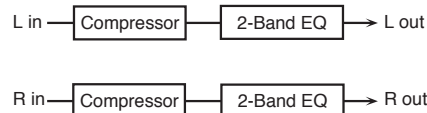
**Specifications of each Speaker Type**

The speaker column indicates the diameter of each speaker unit (in inches) and the number of units.

| Type        | Cabinet                   | Speaker | Microphone |
|-------------|---------------------------|---------|------------|
| SMALL 1     | small open-back enclosure | 10      | dynamic    |
| SMALL 2     | small open-back enclosure | 10      | dynamic    |
| MIDDLE      | open back enclosure       | 12 x 1  | dynamic    |
| JC-120      | open back enclosure       | 12 x 2  | dynamic    |
| BUILT-IN 1  | open back enclosure       | 12 x 2  | dynamic    |
| BUILT-IN 2  | open back enclosure       | 12 x 2  | condenser  |
| BUILT-IN 3  | open back enclosure       | 12 x 2  | condenser  |
| BUILT-IN 4  | open back enclosure       | 12 x 2  | condenser  |
| BUILT-IN 5  | open back enclosure       | 12 x 2  | condenser  |
| BG STACK 1  | sealed enclosure          | 12 x 2  | condenser  |
| BG STACK 2  | large sealed enclosure    | 12 x 2  | condenser  |
| MS STACK 1  | large sealed enclosure    | 12 x 4  | condenser  |
| MS STACK 2  | large sealed enclosure    | 12 x 4  | condenser  |
| METAL STACK | large double stack        | 12 x 4  | condenser  |
| 2-STACK     | large double stack        | 12 x 4  | condenser  |
| 3-STACK     | large triple stack        | 12 x 4  | condenser  |

**40: COMPRESSOR**

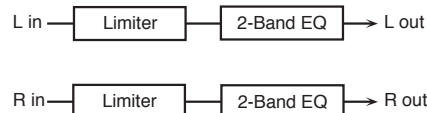
Flattens out high levels and boosts low levels, smoothing out fluctuations in volume.



| Parameter     | Value       | Explanation  |
|---------------|-------------|--|
| Attack #      | 0–127       | Sets the time from when the input exceeds the Threshold until the volume starts being compressed |
| ☆ Threshold # | 0–127       | Adjusts the volume at which compression begins   |
| Post Gain     | 0→+18[dB]   | Adjusts the output gain.   |
| Low Gain      | -15→+15[dB] | Gain of the low range  |
| High Gain     | -15→+15[dB] | Gain of the high range   |
| Level #       | 0–127       | Output level   |

**41: LIMITER**

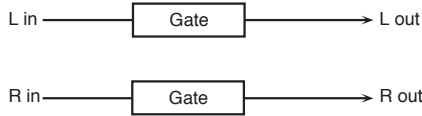
Compresses signals that exceed a specified volume level, preventing distortion from occurring.



| Parameter     | Value                  | Explanation  |
|---------------|------------------------|--|
| Release #     | 0–127                  | Adjusts the time after the signal volume falls below the Threshold Level until compression is no longer applied. |
| ☆ Threshold # | 0–127                  | Adjusts the volume at which compression begins   |
| Ratio         | 1.5:1, 2:1, 4:1, 100:1 | Compression ratio  |
| Post Gain     | 0→+18[dB]              | Adjusts the output gain.   |
| Low Gain      | -15→+15[dB]            | Gain of the low range  |
| High Gain     | -15→+15[dB]            | Gain of the high range   |
| Level #       | 0–127                  | Output level   |

42: GATE

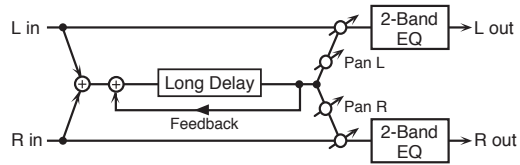
Cuts the reverb's delay according to the volume of the sound sent into the effect. Use this when you want to create an artificial-sounding decrease in the reverb's decay.



| Parameter     | Value           | Explanation   |
|---------------|-----------------|---|
| ☆ Threshold # | 0–127           | Volume level at which the gate begins to close  |
| Mode          | Type of gate    |   |
|               | GATE            | The gate will close when the volume of the original sound decreases, cutting the original sound.            |
|               | DUCK (Duking)   | The gate will close when the volume of the original sound increases, cutting the original sound.            |
| Attack        | 0–127           | Adjusts the time it takes for the gate to fully open after being triggered.                                 |
| Hold          | 0–127           | Adjusts the time it takes for the gate to start closing after the source sound falls beneath the Threshold. |
| Release       | 0–127           | Adjusts the time it takes the gate to fully close after the hold time.                                      |
| Balance #     | D100:0W–D0:100W | Volume balance between the direct sound (D) and the effect sound (W)  |
| Level         | 0–127           | Output level  |

44: LONG DELAY

A delay that provides a long delay time.

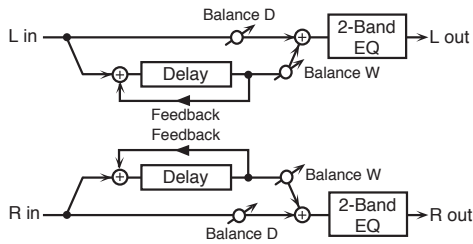


| Parameter    | Value                | Explanation  |
|--------------|----------------------|--|
| ☆ Delay Time | 0–2600[msec], note   | Delay time from when the original sound is heard to when the delay sound is heard                        |
| Phase        | NORMAL, INVERSE      | Phase of the delay (NORMAL: non-inverted, INVERT: inverted)  |
| Feedback #   | -98–+98[%]           | Proportion of the delay sound that is to be returned to the input (negative (-) values invert the phase) |
| HF Damp      | 200–8000[Hz], BYPASS | Frequency at which the high-frequency content of the delayed sound will be cut (BYPASS: no cut)          |
| Pan #        | L64–63R              | Panning of the delay sound   |
| Low Gain     | -15–+15[dB]          | Gain of the low range  |
| High Gain    | -15–+15[dB]          | Gain of the high range   |
| Balance #    | D100:0W–D0:100W      | Volume balance of the original sound (D) and delay sound (W)   |
| Level        | 0–127                | Output level   |

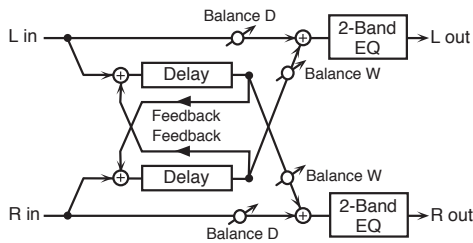
43: DELAY

This is a stereo delay.

When Feedback Mode is NORMAL:



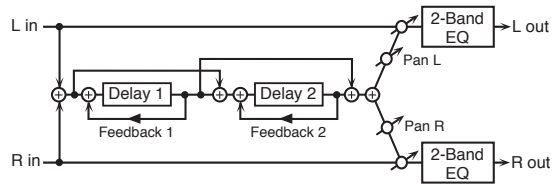
When Feedback Mode is CROSS:



| Parameter     | Value                          | Explanation   |
|---------------|--------------------------------|---|
| Delay Left    | 0–1300[msec], note             | Adjusts the time until the delay sound is heard.  |
| Delay Right   |                                |   |
| Phase Left    | Phase of the left delay sound  |   |
|               | NORMAL                         | Non-inverted  |
|               | INVERT                         | Inverted  |
| Phase Right   | Phase of the right delay sound |   |
|               | NORMAL                         | Non-inverted  |
|               | INVERT                         | Inverted  |
| Feedback Mode | NORMAL, CROSS                  | Selects the way in which delay sound is fed back into the effect (See the figures.).  |
| ☆ Feedback #  | -98–+98[%]                     | Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.  |
| HF Damp       | 200–8000[Hz], BYPASS           | Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS. |
| Low Gain      | -15–+15[dB]                    | Gain of the low range   |
| High Gain     | -15–+15[dB]                    | Gain of the high range  |
| Balance #     | D100:0W–D0:100W                | Volume balance between the direct sound (D) and the delay sound (W)   |
| Level         | 0–127                          | Output level  |

45: SERIAL DELAY

This delay connects two delay units in series. Feedback can be applied independently to each delay unit, allowing you to produce complex delay sounds.

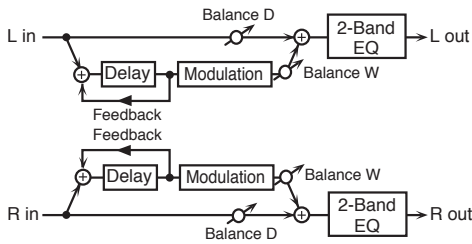


| Parameter            | Value                | Explanation   |
|----------------------|----------------------|---|
| Delay 1 Time         | 0–1300[msec], note   | Delay time from when sound is input to delay 1 until the delay sound is heard                                       |
| ☆ Delay 1 Feedback # | -98–+98[%]           | Proportion of the delay sound that is to be returned to the input of delay 1 (negative (-) values invert the phase) |
| Delay 1 HF Damp      | 200–8000[Hz], BYPASS | Frequency at which the high-frequency content of the delayed sound of delay 1 will be cut (BYPASS: no cut)          |
| Delay 2 Time         | 0–1300[msec], note   | Delay time from when sound is input to delay 2 until the delay sound is heard                                       |
| Delay 2 Feedback #   | -98–+98[%]           | Proportion of the delay sound that is to be returned to the input of delay 2 (negative (-) values invert the phase) |
| Delay 2 HF Damp      | 200–8000[Hz], BYPASS | Frequency at which the high-frequency content of the delayed sound of delay 2 will be cut (BYPASS: no cut)          |
| Pan #                | L64–63R              | Panning of the delay sound  |
| Low Gain             | -15–+15[dB]          | Gain of the low range   |
| High Gain            | -15–+15[dB]          | Gain of the high range  |
| Balance #            | D100:0W–D0:100W      | Volume balance of the original sound (D) and delay sound (W)  |
| Level                | 0–127                | Output level  |

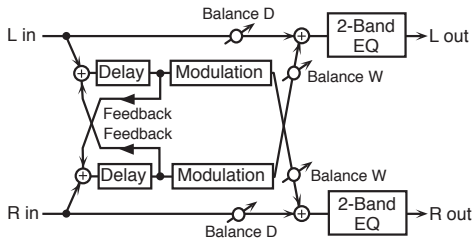
**46: MODULATION DELAY**

Adds modulation to the delayed sound.

**When Feedback Mode is NORMAL:**



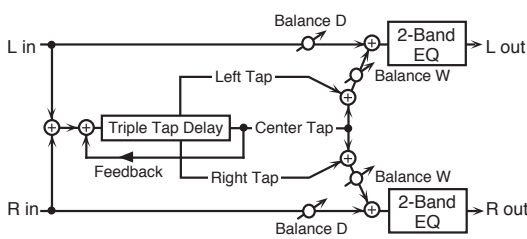
**When Feedback Mode is CROSS:**



| Parameter     | Value                | Explanation   |
|---------------|----------------------|---|
| Delay Left    | 0-1300[msec], note   | Adjusts the time until the delay sound is heard.  |
| Delay Right   | 0-1300[msec], note   | Adjusts the time until the delay sound is heard.  |
| Feedback Mode | NORMAL, CROSS        | Selects the way in which delay sound is fed back into the effect (See the figures.)   |
| Feedback #    | -98-+98[%]           | Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.  |
| HF Damp       | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS. |
| ☆ Rate #      | 0.05-10.00[Hz], note | Frequency of modulation   |
| Depth         | 0-127                | Depth of modulation   |
| Phase         | 0-180[deg]           | Spatial spread of the sound   |
| Low Gain      | -15-+15[dB]          | Gain of the low range   |
| High Gain     | -15-+15[dB]          | Gain of the high range  |
| Balance #     | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the delay sound (W)   |
| Level         | 0-127                | Output level  |

**47: 3TAP PAN DELAY**

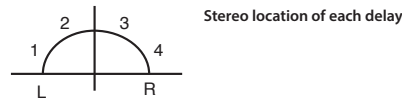
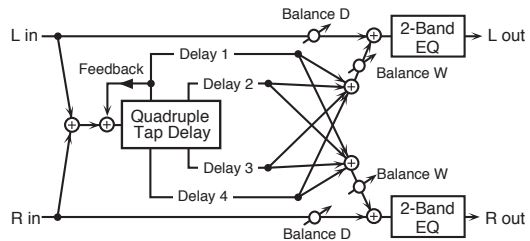
Produces three delay sounds; center, left and right.



| Parameter                 | Value                | Explanation  |
|---------------------------|----------------------|--|
| Delay Left, Right, Center | 0-2600[msec], note   | Adjusts the time from the original sound until the left, right, and center delayed sounds are heard  |
| ☆ Center Feedback #       | -98-+98[%]           | Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.   |
| HF Damp                   | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS. |
| Left, Right, Center Level | 0-127                | Volume of each delay   |
| Low Gain                  | -15-+15[dB]          | Gain of the low range  |
| High Gain                 | -15-+15[dB]          | Gain of the high range   |
| Balance #                 | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the delay sound (W)  |
| Level                     | 0-127                | Output level   |

**48: 4TAP PAN DELAY**

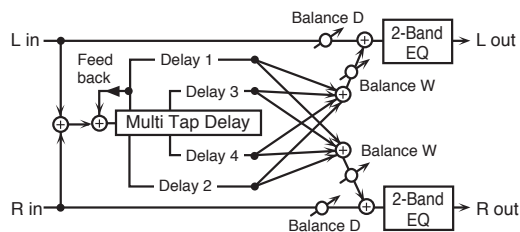
This effect has four delays.



| Parameter            | Value                | Explanation  |
|----------------------|----------------------|--|
| Delay 1-4 Time       | 0-2600[msec], note   | Adjusts the time from the original sound until delay sounds 1-4 are heard  |
| ☆ Delay 1 Feedback # | -98-+98[%]           | Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.   |
| HF Damp              | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS. |
| Delay 1-4 Level      | 0-127                | Volume of each delay   |
| Low Gain             | -15-+15[dB]          | Gain of the low range  |
| High Gain            | -15-+15[dB]          | Gain of the high range   |
| Balance #            | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the delay sound (W)  |
| Level                | 0-127                | Output level   |

**49: MULTI TAP DELAY**

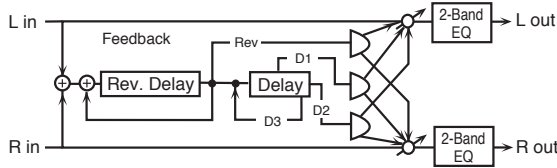
This effect provides four delays. Each of the Delay Time parameters can be set to a note length based on the selected tempo. You can also set the panning and level of each delay sound.



| Parameter            | Value                | Explanation  |
|----------------------|----------------------|--|
| Delay 1-4 Time       | 0-2600[msec], note   | Adjusts the time until Delays 1-4 are heard.   |
| ☆ Delay 1 Feedback # | -98-+98[%]           | Adjusts the amount of the delay sound that's fed back into the effect. Negative (-) settings invert the phase.   |
| HF Damp              | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any the high frequencies, set this parameter to BYPASS. |
| Delay 1-4 Pan        | L64-63R              | Stereo location of Delays 1-4  |
| Delay 1-4 Level      | 0-127                | Output level of Delays 1-4   |
| Low Gain             | -15-+15[dB]          | Gain of the low range  |
| High Gain            | -15-+15[dB]          | Gain of the high range   |
| Balance #            | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the effect sound (W)   |
| Level                | 0-127                | Output level   |

50: REVERSE DELAY

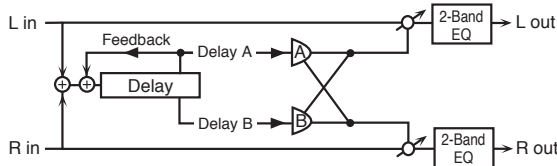
This is a reverse delay that adds a reversed and delayed sound to the input sound. A tap delay is connected immediately after the reverse delay.



| Parameter                    | Value                | Explanation   |
|------------------------------|----------------------|---|
| Threshold                    | 0-127                | Volume at which the reverse delay will begin to be applied  |
| Rev Delay Time               | 0-1300[msec], note   | Delay time from when sound is input into the reverse delay until the delay sound is heard                                     |
| ☆ Rev Delay Feedback #       | -98-+98[%]           | Proportion of the delay sound that is to be returned to the input of the reverse delay (negative (-) values invert the phase) |
| Rev Delay HF Damp            | 200-8000[Hz], BYPASS | Frequency at which the high-frequency content of the reverse-delayed sound will be cut (BYPASS: no cut)                       |
| Rev Delay Pan                | L64-63R              | Panning of the reverse delay sound  |
| Rev Delay Level              | 0-127                | Volume of the reverse delay sound   |
| Delay 1-3 Time               | 0-1300[msec], note   | Delay time from when sound is input into the tap delay until the delay sound is heard   |
| Delay 3 Feedback #           | -98-+98[%]           | Proportion of the delay sound that is to be returned to the input of the tap delay (negative (-) values invert the phase)     |
| Delay HF Damp                | 200-8000[Hz], BYPASS | Frequency at which the hi-frequency content of the tap delay sound will be cut (BYPASS: no cut)                               |
| Delay 1 Pan, Delay 2 Pan     | L64-63R              | Panning of the tap delay sounds   |
| Delay 1 Level, Delay 2 Level | 0-127                | Volume of the tap delay sounds  |
| Low Gain                     | -15-+15[dB]          | Gain of the low range   |
| High Gain                    | -15-+15[dB]          | Gain of the high range  |
| Balance #                    | D100:0W-D0:100W      | Volume balance of the original sound (D) and delay sound (W)  |
| Level                        | 0-127                | Output level  |

51: SHUFFLE DELAY

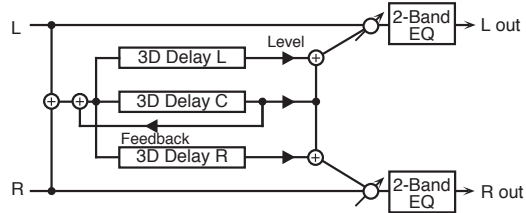
Adds a shuffle to the delay sound, giving the sound a bouncy delay effect with a swing feel.



| Parameter      | Value                | Explanation  |
|----------------|----------------------|--|
| ☆ Delay Time # | 0-2600[msec], note   | Adjusts the time until the delay sound is heard.   |
| Shuffle Rate # | 0-100                | Adjusts the ratio (as a percentage) of the time that elapses before Delay B sounds relative to the time that elapses before the Delay A sounds. When set to 100, the delay times are the same. |
| Acceleration   | 0-15                 | Adjusts the speed which the Delay Time changes from the current setting to its specified new setting.  |
| Feedback #     | -98-+98[%]           | Adjusts the amount of the delay that's feedback into the effect. Negative (-) settings invert the phase.   |
| HF Damp        | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you don't want to filter out any high frequencies, set this parameter to BYPASS.                            |
| Pan A, B       | L64-63R              | Stereo location of Delay A/B   |
| Level A, B     | 0-127                | Volume of delay A/B  |
| Low Gain       | -15-+15[dB]          | Gain of the low range  |
| High Gain      | -15-+15[dB]          | Gain of the high range   |
| Balance #      | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the effect sound (W)   |
| Level          | 0-127                | Output level   |

52: 3D DELAY

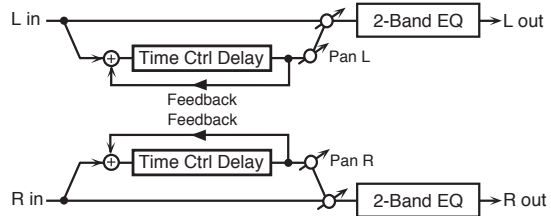
This applies a 3D effect to the delay sound. The delay sound will be positioned 90 degrees left and 90 degrees right.



| Parameter           | Value                | Explanation   |
|---------------------|----------------------|---|
| Delay Left          |                      |   |
| Delay Right         | 0-2600[msec], note   | Adjusts the delay time from the direct sound until the delay sound is heard.  |
| Delay Center        |                      |   |
| ☆ Center Feedback # | -98-+98[%]           | Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.                                  |
| HF Damp             | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS. |
| Left Level          |                      |   |
| Right Level         | 0-127                | Output level of the delay sound   |
| Center Level        |                      |   |
| Output Mode         |                      | The optimal 3D effect will be achieved.   |
|                     | SPEAKER              | When using speakers   |
|                     | PHONES               | When using headphones   |
| Low Gain            | -15-+15[dB]          | Gain of the low range   |
| High Gain           | -15-+15[dB]          | Gain of the high range  |
| Balance #           | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the effect sound (W)  |
| Level               | 0-127                | Output level  |

53: ANALOG DELAY

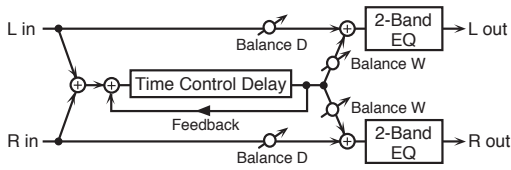
A stereo delay in which the delay time can be varied smoothly.



| Parameter      | Value                | Explanation  |
|----------------|----------------------|--|
| ☆ Delay Time # | 0-1300[msec], note   | Adjusts the time until the delay is heard.   |
| Acceleration   | 0-15                 | Adjusts the speed which the Delay Time changes from the current setting to a specified new setting. The rate of change for the Delay Time directly affects the rate of pitch change. |
| Feedback #     | -98-+98[%]           | Adjusts the amount of the delay that's fed back into the effect. Negative (-) settings invert the phase.   |
| HF Damp        | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS.                 |
| Low Gain       | -15-+15[dB]          | Gain of the low range  |
| High Gain      | -15-+15[dB]          | Gain of the high range   |
| Balance #      | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the delay sound (W)  |
| Level          | 0-127                | Output level   |

54: ANALOG LONG DELAY

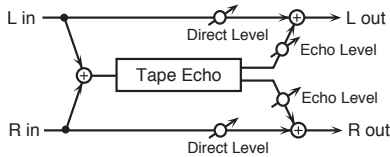
A delay in which the delay time can be varied smoothly, and allowing an extended delay to be produced.



| Parameter      | Value                | Explanation  |
|----------------|----------------------|--|
| ☆ Delay Time # | 0-2600[msec], note   | Adjusts the time until the delay is heard.   |
| Acceleration   | 0-15                 | Adjusts the speed which the Delay Time changes from the current setting to a specified new setting. The rate of change for the Delay Time directly affects the rate of pitch change. |
| Feedback #     | -98-+98[%]           | Adjusts the amount of the delay that's fed back into the effect. Negative (-) settings invert the phase.   |
| HF Damp        | 200-8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect is filtered out. If you do not want to filter out any high frequencies, set this parameter to BYPASS.                 |
| Pan #          | L64-63R              | Stereo location of the delay   |
| Low Gain       | -15-+15[dB]          | Gain of the low range  |
| High Gain      | -15-+15[dB]          | Gain of the high range   |
| Balance #      | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the delay sound (W)  |
| Level          | 0-127                | Output level   |

55: TAPE ECHO

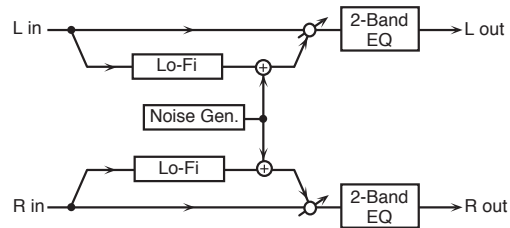
A virtual tape echo that produces a realistic tape delay sound. This simulates the tape echo section of a Roland RE-201 Space Echo.



| Parameter         | Value                         | Explanation   |
|-------------------|-------------------------------|---|
| Mode              | S, M, L, S+M, S+L, M+L, S+M+L | Combination of playback heads to use. Select from three different heads with different delay times. S: short, M: middle, L: long  |
| ☆ Repeat Rate #   | 0-127                         | Tape speed. Increasing this value will shorten the spacing of the delayed sounds.   |
| Intensity #       | 0-127                         | Amount of delay repeats   |
| Bass              | -15-+15[dB]                   | Boost/cut for the lower range of the echo sound   |
| Treble            | -15-+15[dB]                   | Boost/cut for the upper range of the echo sound   |
| Head S Pan        | L64-63R                       | Independent panning for the short, middle, and long playback heads  |
| Head M Pan        |                               |   |
| Head L Pan        |                               |   |
| Tape Distortion   | 0-5                           | Amount of tape-dependent distortion to be added. This simulates the slight tonal changes that can be detected by signal-analysis equipment. Increasing this value will increase the distortion. |
| Wow/Flutter Rate  | 0-127                         | Speed of wow/flutter (complex variation in pitch caused by tape wear and rotational irregularity)   |
| Wow/Flutter Depth | 0-127                         | Depth of wow/flutter  |
| Echo Level #      | 0-127                         | Volume of the echo sound  |
| Direct Level #    | 0-127                         | Volume of the original sound  |
| Level             | 0-127                         | Output level  |

56: LOFI NOISE

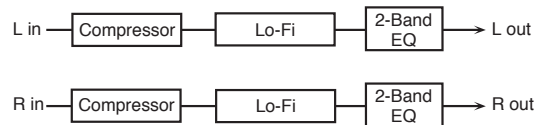
In addition to a lo-fi effect, this adds various types of noise such as white noise and disc noise.



| Parameter          | Value                | Explanation  |
|--------------------|----------------------|--|
| LoFi Type          | 1-9                  | Degrades the sound quality. The sound quality grows poorer as this value is increased.   |
| Post Filter Type   | OFF                  | No filter is used  |
|                    | LPF                  | Cuts the frequency range above the Cutoff.   |
|                    | HPF                  | Cuts the frequency range below the Cutoff.   |
| Post Filter Cutoff | 200-8000[Hz]         | Center frequency of the filter   |
| W/P Noise Type     | WHITE, PINK          | Switch between white noise and pink noise.   |
| W/P Noise LPF      | 200-8000[Hz], BYPASS | Center frequency of the low pass filter applied to the white/pink noise (BYPASS: no cut)   |
| W/P Noise Level #  | 0-127                | Volume of the white/pink noise   |
| Disc Noise Type    | LP, EP, SP, RND      | Type of record noise. The frequency at which the noise is heard depends on the selected type.  |
| Disc Noise LPF     | 200-8000[Hz], BYPASS | Adjusts the cutoff frequency of the low pass filter applied to the record noise. If you don't want to filter out any high frequencies, set this parameter to BYPASS. |
| Disc Noise Level # | 0-127                | Volume of the record noise   |
| Hum Noise Type     | 50, 60[Hz]           | Frequency of the hum noise   |
| Hum Noise LPF      | 200-8000[Hz], BYPASS | Center frequency of the low pass filter applied to the hum noise (BYPASS: no cut)  |
| Hum Noise Level #  | 0-127                | Volume of the hum noise  |
| Low Gain           | -15-+15[dB]          | Gain of the low range  |
| High Gain          | -15-+15[dB]          | Gain of the high range   |
| ☆ Balance #        | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the effect sound (W)   |
| Level              | 0-127                | Output level   |

57: LOFI COMPRESS

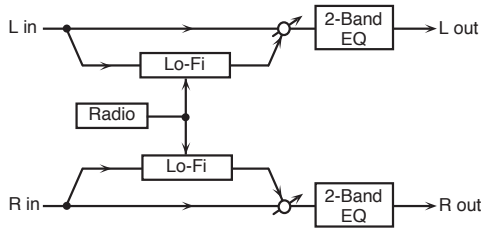
This is an effect that intentionally degrades the sound quality for creative purposes.



| Parameter          | Value           | Explanation  |
|--------------------|-----------------|--|
| Pre Filter Type    | 1               | Compressor off   |
|                    | 2-6             | Compressor on  |
| LoFi Type          | 1-9             | Degrades the sound quality. The sound quality grows poorer as this value is increased. |
| Post Filter Type   | OFF             | No filter is used  |
|                    | LPF             | Cuts the frequency range above the Cutoff  |
|                    | HPF             | Cuts the frequency range below the Cutoff  |
| Post Filter Cutoff | 200-8000[Hz]    | Basic frequency of the Post Filter   |
| Low Gain           | -15-+15[dB]     | Gain of the low range  |
| High Gain          | -15-+15[dB]     | Gain of the high range   |
| ☆ Balance #        | D100:0W-D0:100W | Volume balance between the direct sound (D) and the effect sound (W)                   |
| Level #            | 0-127           | Output level   |

58: LOFI RADIO

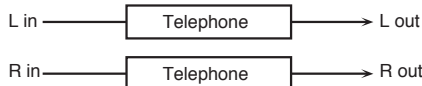
In addition to a Lo-Fi effect, this effect also generates radio noise.



| Parameter           | Value           | Explanation  |
|---------------------|-----------------|--|
| LoFi Type           | 1-9             | Degrades the sound quality. The sound quality grows poorer as this value is increased.     |
| Post Filter Type    | Type of filter  |  |
|                     | OFF             | No filter is used  |
|                     | LPF             | Cuts the frequency range above the Cutoff.   |
|                     | HPF             | Cuts the frequency range below the Cutoff.   |
| Post Filter Cutoff  | 200-8000[Hz]    | Basic frequency of the Post Filter   |
| ☆ Radio Detune #    | 0-127           | Simulates the tuning noise of a radio. As this value is raised, the tuning drifts further. |
| Radio Noise Level # | 0-127           | Volume of the radio noise  |
| Low Gain            | -15-+15[dB]     | Gain of the low range  |
| High Gain           | -15-+15[dB]     | Gain of the high range   |
| Balance #           | D100:0W-D0:100W | Volume balance between the direct sound (D) and the effect sound (W)                       |
| Level               | 0-127           | Output level   |

59: TELEPHONE

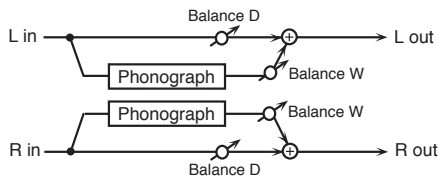
This effect produces a muffled sound, like that heard through a telephone.



| Parameter         | Value           | Explanation  |
|-------------------|-----------------|--|
| ☆ Voice Quality # | 0-15            | Audio quality of the telephone voice                                 |
| Treble            | -15-+15[dB]     | Bandwidth of the telephone voice                                     |
| Balance #         | D100:0W-D0:100W | Volume balance between the direct sound (D) and the effect sound (W) |
| Level             | 0-127           | Output level   |

60: PHONOGRAPH

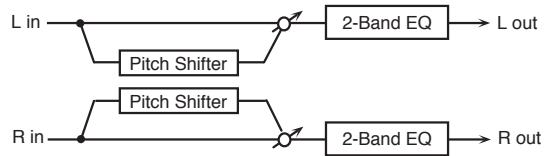
Simulates a sound recorded on an analog record and played back on a record player. This effect also simulates the various types of noise that are typical of a record, and even the rotational irregularities of an old turntable.



| Parameter             | Value           | Explanation   |
|-----------------------|-----------------|---|
| Signal Distortion     | 0-127           | Depth of distortion   |
| Frequency Range       | 0-127           | Frequency response of the playback system. Decreasing this value will produce the impression of an old system with a poor frequency response. |
| Disc Type             | LP, EP, SP      | Rotational speed of the turntable. This will affect the frequency of the scratch noise.   |
| Scratch Noise Level   | 0-127           | Amount of noise due to scratches on the record  |
| Dust Noise Level      | 0-127           | Volume of noise due to dust on the record   |
| Hiss Noise Level      | 0-127           | Volume of continuous "hiss"   |
| Total Noise Level #   | 0-127           | Volume of overall noise   |
| Wow                   | 0-127           | Depth of long-cycle rotational irregularity   |
| Flutter               | 0-127           | Depth of short-cycle rotational irregularity  |
| Random                | 0-127           | Depth of indefinite-cycle rotational irregularity   |
| ☆ Total Wow/Flutter # | 0-127           | Depth of overall rotational irregularity  |
| Balance #             | D100:0W-D0:100W | Volume balance between the direct sound (D) and the effect sound (W)  |
| Level                 | 0-127           | Output level  |

61: PITCH SHIFTER

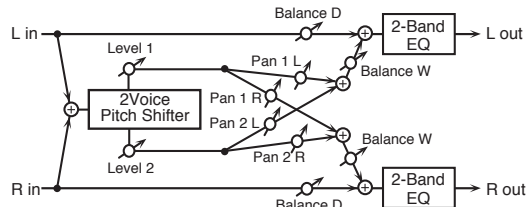
A stereo pitch shifter.



| Parameter   | Value              | Explanation  |
|-------------|--------------------|--|
| ☆ Coarse #1 | -24-+12[semi]      | Adjusts the pitch of the pitch shifted sound in semitone steps.  |
| Fine #1     | -100-+100[cent]    | Adjusts the pitch of the pitch shifted sound in 2-cent steps.  |
| Delay Time  | 0-1300[msec], note | Adjusts the delay time from the direct sound until the pitch shifted sound is heard.   |
| Feedback #  | -98-+98[%]         | Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| Low Gain    | -15-+15[dB]        | Gain of the low range  |
| High Gain   | -15-+15[dB]        | Gain of the high range   |
| Balance #   | D100:0W-D0:100W    | Volume balance between the direct sound (D) and the pitch shifted sound (W)  |
| Level       | 0-127              | Output level   |

62: 2VOI PCH SHIFTER

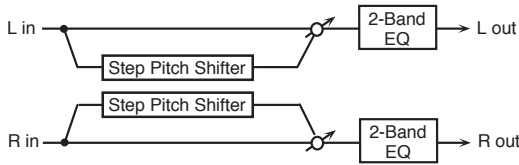
Shifts the pitch of the original sound. This 2-voice pitch shifter has two pitch shifters, and can add two pitch shifted sounds to the original sound.



| Parameter          | Value              | Explanation  |
|--------------------|--------------------|--|
| ☆ Pitch1 Coarse #1 | -24-+12[semi]      | Adjusts the pitch of Pitch Shift 1 in semitone steps.  |
| Pitch1 Fine #1     | -100-+100[cent]    | Adjusts the pitch of Pitch Shift Pitch 1 in 2-cent steps.  |
| Pitch1 Delay       | 0-1300[msec], note | Adjusts the delay time from the direct sound until the Pitch Shift 1 sound is heard.   |
| Pitch1 Feedback #  | -98-+98[%]         | Adjusts the proportion of the pitch shifted sound that is fed back into the effect. Negative (-) settings will invert the phase. |
| Pitch1 Pan #       | L64-63R            | Stereo location of the Pitch Shift 1 sound   |
| Pitch1 Level       | 0-127              | Volume of the Pitch Shift1 sound   |
| Pitch2 Coarse #2   | -24-+12[semi]      | Settings of the Pitch Shift 2 sound. The parameters are the same as for the Pitch Shift 1 sound.                                 |
| Pitch2 Fine #2     | -100-+100[cent]    |  |
| Pitch2 Delay       | 0-1300[msec], note |  |
| Pitch2 Feedback #  | -98-+98[%]         |  |
| Pitch2 Pan #       | L64-63R            |  |
| Pitch2 Level       | 0-127              |  |
| Low Gain           | -15-+15[dB]        | Gain of the low range  |
| High Gain          | -15-+15[dB]        | Gain of the high range   |
| Balance #          | D100:0W-D0:100W    | Volume balance between the direct sound (D) and the pitch shifted sound (W)  |
| Level              | 0-127              | Output level   |

63: STEP PCH SHIFTER

A pitch shifter in which the amount of pitch shift is varied by a 16-step sequence.



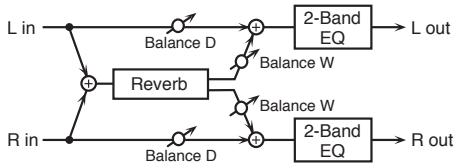
| Parameter     | Value               | Explanation  |
|---------------|---------------------|--|
| Step 01-16    | -24+12[semi]        | Amount of pitch shift at each step (semitone units)  |
| Rate #        | 0.05-10.0[Hz], note | Rate at which the 16-step sequence will cycle  |
| Attack #      | 0-127               | Speed at which the amount of pitch shift changes between steps   |
| ☆ Gate Time # | 0-127               | Duration of the pitch shifted sound at each step   |
| Fine          | -100+100[cent]      | Pitch shift adjustment for all steps (2-cent units)  |
| Delay Time    | 0-1300[msec], note  | Delay time from the original sound until the pitch-shifted sound is heard  |
| Feedback #    | -98+98[%]           | Proportion of the pitch-shifted sound that is to be returned to the input (negative (-) values invert the phase) |
| Low Gain      | -15+15[dB]          | Gain of the low range  |
| High Gain     | -15+15[dB]          | Gain of the high range   |
| Balance #     | D100:0W-D0:100W     | Volume balance of the original sound (D) and pitch-shifted sound (W)   |
| Level         | 0-127               | Output level   |

MEMO

You can use MFX control to restart the step sequence from the beginning (p. 18, p. 24).

64: REVERB

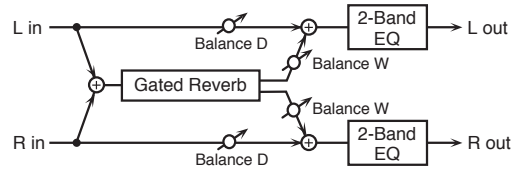
Adds reverberation to the sound, simulating an acoustic space.



| Parameter | Value                         | Explanation  |
|-----------|-------------------------------|--|
| Type      | Type of reverb                |  |
|           | ROOM1                         | Dense reverb with short decay  |
|           | ROOM2                         | Sparse reverb with short decay   |
|           | STAGE1                        | Reverb with greater late reverberation   |
|           | STAGE2                        | Reverb with strong early reflections   |
|           | HALL1                         | Reverb with clear reverberance   |
| HALL2     | Reverb with rich reverberance |  |
| Pre Delay | 0.0-100[msec]                 | Adjusts the delay time from the direct sound until the reverb sound is heard.  |
| ☆ Time #  | 0-127                         | Time length of reverberation   |
| HF Damp   | 200-8000[Hz], BYPASS          | Adjusts the frequency above which the reverberant sound will be cut. As the frequency is set lower, more of the high frequencies will be cut, resulting in a softer and more muted reverberance. If you do not want to cut the high frequencies, set this parameter to BYPASS. |
| Low Gain  | -15+15[dB]                    | Gain of the low range  |
| High Gain | -15+15[dB]                    | Gain of the high range   |
| Balance # | D100:0W-D0:100W               | Volume balance between the direct sound (D) and the reverb sound (W)   |
| Level     | 0-127                         | Output level   |

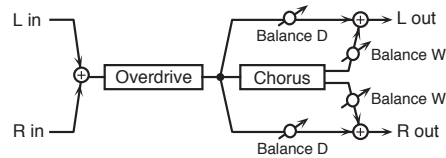
65: GATED REVERB

This is a special type of reverb in which the reverberant sound is cut off before its natural length.



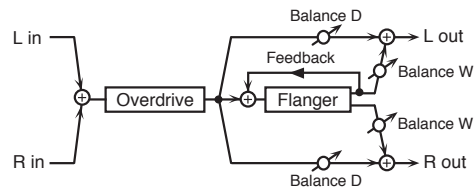
| Parameter   | Value  | Explanation   |
|-------------|--|---|
| Type        | Type of reverb                                 |   |
|             | NORMAL   | Conventional gated reverb   |
|             | REVERSE  | Backwards reverb  |
|             | SWEEP1   | The reverberant sound moves from right to left                                |
| SWEEP2      | The reverberant sound moves from left to right |   |
| Pre Delay   | 0.0-100[msec]                                  | Adjusts the delay time from the direct sound until the reverb sound is heard. |
| Gate Time   | 5-500[msec]                                    | Adjusts the delay time from when the reverb is heard until it disappears.     |
| Low Gain    | -15+15[dB]                                     | Gain of the low range   |
| High Gain   | -15+15[dB]                                     | Gain of the high range  |
| ☆ Balance # | D100:0W-D0:100W                                | Volume balance between the direct sound (D) and the reverb sound (W)          |
| Level #     | 0-127  | Output level  |

66: OD → CHORUS



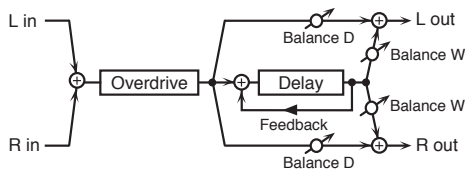
| Parameter         | Value                | Explanation   |
|-------------------|----------------------|---|
| Overdrive Drive # | 0-127                | Degree of distortion. Also changes the volume.  |
| Overdrive Pan #   | L64-63R              | Stereo location of the overdrive sound  |
| Chorus Pre Delay  | 0.0-100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard.   |
| ☆ Chorus Rate #   | 0.05-10.00[Hz], note | Frequency of modulation   |
| Chorus Depth      | 0-127                | Depth of modulation   |
| Chorus Balance #  | D100:0W-D0:100W      | Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D). |
| Level             | 0-127                | Output level  |

67: OD → FLANGER



| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Overdrive Drive #  | 0-127                | Degree of distortion. Also changes the volume.  |
| Overdrive Pan #    | L64-63R              | Stereo location of the overdrive sound  |
| Flanger Pre Delay  | 0.0-100[msec]        | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.  |
| ☆ Flanger Rate #   | 0.05-10.00[Hz], note | Frequency of modulation   |
| Flanger Depth      | 0-127                | Depth of modulation   |
| Flanger Feedback # | -98+98[%]            | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.                |
| Flanger Balance #  | D100:0W-D0:100W      | Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D). |
| Level              | 0-127                | Output level  |

68: OD → DELAY

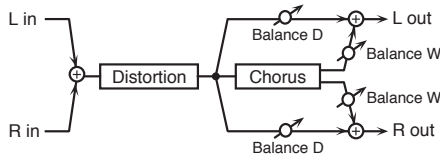


| Parameter          | Value              | Explanation   |
|--------------------|--------------------|---|
| Overdrive Drive #  | 0–127              | Degree of distortion<br>Also changes the volume.  |
| Overdrive Pan #    | L64–63R            | Stereo location of the overdrive sound  |
| Delay Time         | 0–2600[msec], note | Adjusts the delay time from the direct sound until the delay sound is heard.  |
| ☆ Delay Feedback # | -98–+98[%]         | Adjusts the proportion of the delay sound that is fed back into the effect.<br>Negative (-) settings will invert the phase.                               |
| Delay HF Damp      | 200–8000[Hz], note | Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS. |
| Delay Balance #    | D100:0W–D0:100W    | Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).                     |
| Level              | 0–127              | Output level  |

69: DST → CHORUS

The parameters are essentially the same as in “66: OD → CHORUS” with the exception of the following two.

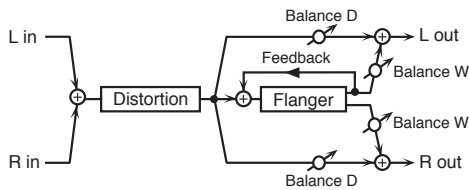
Overdrive Drive → Distortion Drive,  
Overdrive Pan → Distortion Pan



70: DST → FLANGER

The parameters are essentially the same as in “67: OD → FLANGER,” with the exception of the following two.

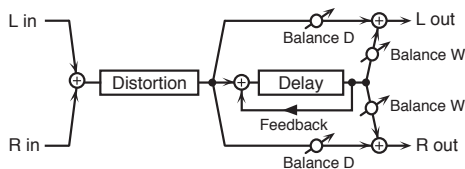
Overdrive Drive → Distortion Drive,  
Overdrive Pan → Distortion Pan



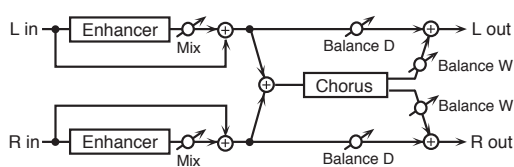
71: DST → DELAY

The parameters are essentially the same as in “68: OD → DELAY,” with the exception of the following two.

Overdrive Drive → Distortion Drive,  
Overdrive Pan → Distortion Pan

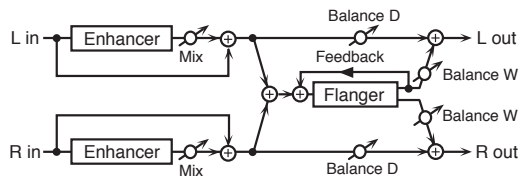


72: ENH → CHORUS



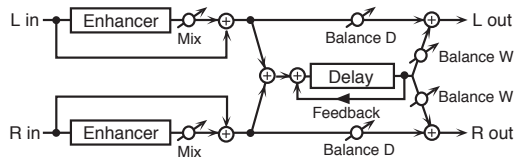
| Parameter        | Value                | Explanation   |
|------------------|----------------------|---|
| Enhancer Sens #  | 0–127                | Sensitivity of the enhancer   |
| Enhancer Mix #   | 0–127                | Level of the overtones generated by the enhancer  |
| Chorus Pre Delay | 0.0–100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard.   |
| ☆ Chorus Rate #  | 0.05–10.00[Hz], note | Frequency of modulation   |
| Chorus Depth     | 0–127                | Depth of modulation   |
| Chorus Balance # | D100:0W–D0:100W      | Adjusts the volume balance between the sound that is sent through the chorus (W) and the sound that is not sent through the chorus (D). |
| Level            | 0–127                | Output level  |

73: ENH → FLANGER



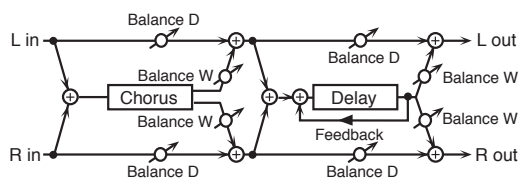
| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Enhancer Sens #    | 0–127                | Sensitivity of the enhancer   |
| Enhancer Mix #     | 0–127                | Level of the overtones generated by the enhancer  |
| Flanger Pre Delay  | 0.0–100[msec]        | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.  |
| ☆ Flanger Rate #   | 0.05–10.00[Hz], note | Frequency of modulation   |
| Flanger Depth      | 0–127                | Depth of modulation   |
| Flanger Feedback # | -98–+98[%]           | Adjusts the proportion of the flanger sound that is fed back into the effect.<br>Negative (-) settings will invert the phase.             |
| Flanger Balance #  | D100:0W–D0:100W      | Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D). |
| Level              | 0–127                | Output level  |

74: ENH → DELAY



| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Enhancer Sens #    | 0–127                | Sensitivity of the enhancer   |
| Enhancer Mix #     | 0–127                | Level of the overtones generated by the enhancer  |
| Delay Time         | 0–2600[msec], note   | Adjusts the delay time from the direct sound until the delay sound is heard.  |
| ☆ Delay Feedback # | -98–+98[%]           | Adjusts the proportion of the delay sound that is fed back into the effect.<br>Negative (-) settings will invert the phase.                               |
| Delay HF Damp      | 200–8000[Hz], BYPASS | Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS. |
| Delay Balance #    | D100:0W–D0:100W      | Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).                     |
| Level              | 0–127                | Output level  |

75: CHORUS → DELAY

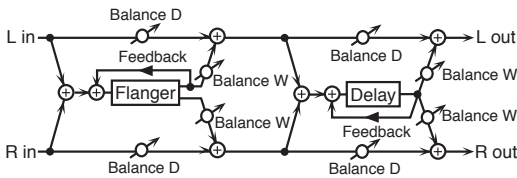


| Parameter        | Value                | Explanation   |
|------------------|----------------------|---|
| Chorus Pre Delay | 0.0–100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard. |
| ☆ Chorus Rate #  | 0.05–10.00[Hz], note | Frequency of modulation   |
| Chorus Depth     | 0–127                | Depth of modulation   |
| Chorus Balance # | D100:0W–D0:100W      | Volume balance between the direct sound (D) and the chorus sound (W)          |
| Delay Time       | 0–2600[msec], note   | Adjusts the delay time from the direct sound until the delay sound is heard.  |



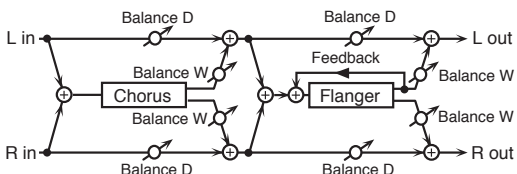
| Parameter        | Value                   | Explanation   |
|------------------|-------------------------|---|
| Delay Feedback # | -98~+98[%]              | Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.                                  |
| Delay HF Damp    | 200-8000[Hz],<br>BYPASS | Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS. |
| Delay Balance #  | D100:0W-D0:100W         | Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).                     |
| Level            | 0-127                   | Output level  |

76: FLANGER → DELAY



| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Flanger Pre Delay  | 0.0-100[msec]        | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.  |
| ☆ Flanger Rate #   | 0.05-10.00[Hz], note | Frequency of modulation   |
| Flanger Depth      | 0-127                | Depth of modulation   |
| Flanger Feedback # | -98~+98[%]           | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.                                |
| Flanger Balance #  | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the flanger sound (W)   |
| Delay Time         | 0-2600[msec], note   | Adjusts the delay time from the direct sound until the delay sound is heard.  |
| Delay Feedback #   | -98~+98[%]           | Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.                                  |
| Delay HF Damp      | 200-8000[Hz], note   | Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS. |
| Delay Balance #    | D100:0W-D0:100W      | Adjusts the volume balance between the sound that is sent through the delay (W) and the sound that is not sent through the delay (D).                     |
| Level              | 0-127                | Output level  |

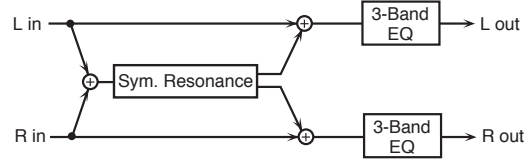
77: CHORUS → FLANGER



| Parameter          | Value                | Explanation   |
|--------------------|----------------------|---|
| Chorus Pre Delay   | 0.0-100[msec]        | Adjusts the delay time from the direct sound until the chorus sound is heard.   |
| Chorus Rate #      | 0.05-10.00[Hz], note | Modulation frequency of the chorus effect   |
| Chorus Depth       | 0-127                | Modulation depth of the chorus effect   |
| ☆ Chorus Balance # | D100:0W-D0:100W      | Volume balance between the direct sound (D) and the chorus sound (W)  |
| Flanger Pre Delay  | 0.0-100[msec]        | Adjusts the delay time from when the direct sound begins until the flanger sound is heard.  |
| Flanger Rate #     | 0.05-10.00[Hz], note | Modulation frequency of the flanger effect  |
| Flanger Depth      | 0-127                | Modulation depth of the flanger effect  |
| Flanger Feedback # | -98~+98[%]           | Adjusts the proportion of the flanger sound that is fed back into the effect. Negative (-) settings will invert the phase.                |
| Flanger Balance #  | D100:0W-D0:100W      | Adjusts the volume balance between the sound that is sent through the flanger (W) and the sound that is not sent through the flanger (D). |
| Level              | 0-127                | Output level  |

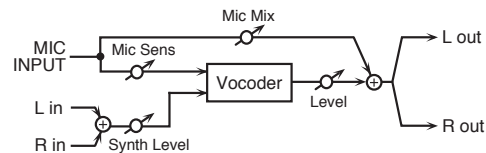
78: SYMPATHETIC RESO

On an acoustic piano, holding down the damper pedal allows other strings to resonate in sympathy with the notes you play, creating rich and spacious resonances. This effect simulates these sympathetic resonances.



| Parameter    | Value                   | Explanation  |
|--------------|-------------------------|--|
| ☆ Depth #    | 0-127                   | Depth of the effect  |
| Damper #     | 0-127                   | Depth to which the damper pedal is pressed (controls the resonant sound)   |
| Pre LPF      | 16-15000[Hz],<br>BYPASS | Frequency of the filter that cuts the high-frequency content of the input sound (BYPASS: no cut)                 |
| Pre HPF      | BYPASS,<br>16-15000[Hz] | Frequency of the filter that cuts the low-frequency content of the input sound (BYPASS: no cut)                  |
| Peaking Freq | 200-8000[Hz]            | Frequency of the filter that boosts/cuts a specific frequency region of the input sound                          |
| Peaking Gain | -15~+15[dB]             | Amount of boost/cut produced by the filter at the specified frequency region of the input sound                  |
| Peaking Q    | 0.5, 1.0, 2.0, 4.0, 8.0 | Width of the frequency region boosted/cut by the Peaking Gain parameter (larger values make the region narrower) |
| HF Damp      | 16-15000[Hz],<br>BYPASS | Frequency at which the high-frequency content of the resonant sound will be cut (BYPASS: no cut)                 |
| LF Damp      | BYPASS,<br>16-15000[Hz] | Frequency at which the low-frequency content of the resonant sound will be cut (BYPASS: no cut)                  |
| Lid          | 1-6                     | This simulates the actual changes in sound that occur when the lid of a grand piano is set at different heights. |
| EQ Low Freq  | 200, 400[Hz]            | Frequency of the low-range EQ  |
| EQ Low Gain  | -15~+15[dB]             | Amount of low-range boost/cut  |
| EQ Mid Freq  | 200-8000[Hz]            | Frequency of the midrange EQ   |
| EQ Mid Gain  | -15~+15[dB]             | Amount of midrange boost/cut   |
| EQ Mid Q     | 0.5, 1.0, 2.0, 4.0, 8.0 | Width of midrange (larger values make the region narrower)   |
| EQ High Freq | 2000, 4000,<br>8000[Hz] | Frequency of the high-range EQ   |
| EQ High Gain | -15~+15[dB]             | Amount of high-range boost/cut   |
| Level        | 0-127                   | Output level   |

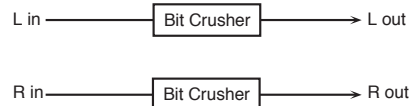
79: Di VOCODER



| Parameter     | Value | Explanation   |
|---------------|-------|---|
| Mic Sens #    | 0-127 | Input sensitivity of the microphone                           |
| Synth Level # | 0-127 | Input level of the instrument                                 |
| ☆ Mic Mix #   | 0-127 | Amount of microphone audio added to the output of the vocoder |
| Level         | 0-127 | Volume level after passing through the vocoder                |

80: BIT CRUSHER

This creates a lo-fi sound.



| Parameter       | Value | Explanation               |
|-----------------|-------|---------------------------|
| ☆ Sample Rate # | 0-127 | Adjusts the sample rate.  |
| Bit Down #      | 0-20  | Adjusts the bit depth.    |
| Filter #        | 0-127 | Adjusts the filter depth. |
| Level           | 0-127 | Output level              |

**Chorus Parameters**

| Parameter                 | Explanation   |  |
|---------------------------|---|--|
| <b>01: CHORUS</b>         |   |  |
| Filter Type               | Type of filter  |  |
|                           | OFF   | No filter is used                              |
|                           | LPF   | Cuts the frequency range above the Cutoff Freq |
|                           | HPF   | Cuts the frequency range below the Cutoff Freq |
| Cutoff Freq               | Basic frequency of the filter<br>200-8000[Hz]   |  |
| Pre Delay                 | Adjusts the delay time from the direct sound until the chorus sound is heard.<br>0.0-100.0[msec]  |  |
| Rate                      | Frequency of modulation<br>0.05-10.00Hz, note   |  |
| Depth                     | Depth of modulation<br>0-127  |  |
| Phase                     | Spatial spread of the sound<br>0-180[deg]   |  |
| Feedback                  | Adjusts the amount of the chorus sound that is fed back into the effect.<br>0-127   |  |
| <b>02: DELAY</b>          |   |  |
| Delay Left, Right, Center | Adjusts the delay time from the direct sound until the delay sound is heard.<br>0-1000ms, note  |  |
| Center Feedback           | Adjusts the proportion of the delay sound that is fed back into the effect. Negative (-) settings will invert the phase.<br>-98-+98[%]  |  |
| HF Damp                   | Adjusts the frequency above which sound fed back to the effect will be cut. If you do not want to cut the high frequencies, set this parameter to BYPASS.<br>200-8000[Hz], BYPASS |  |
| Left, Right, Center Level | Volume of each delay sound<br>0-127   |  |
| <b>03: GM2 CHORUS</b>     |   |  |
| Pre-LPF                   | Cuts the high frequency range of the sound coming into the chorus.<br>0-7   |  |
| Level                     | Volume of the chorus sound<br>0-127   |  |
| Feedback                  | Adjusts the amount of the chorus sound that is fed back into the effect.<br>0-127   |  |
| Rate                      | Frequency of modulation<br>0-127  |  |
| Depth                     | Depth of modulation<br>0-127  |  |
| Send Level To Rev         | Adjusts the amount of chorus sound that will be sent to the reverb.<br>0-127  |  |

**Reverb Parameters**

| Parameter  | Explanation  |  |
|--|--|--|
| <b>01: REVERB</b>                                  |  |  |
| Type   | Type of reverb/delay   |  |
|  | ROOM1  | Short reverb with high density         |
|  | ROOM2  | Short reverb with low density          |
|  | STAGE1   | Reverb with greater late reverberation |
|  | STAGE2   | Reverb with strong early reflections   |
|  | HALL1  | Very clear-sounding reverb             |
|  | HALL2  | Rich reverb                            |
|  | DELAY  | Conventional delay effect              |
| PAN-DELAY  | Delay effect with echoes that pan left and right   |  |
| Time   | Time length of reverberation (Type: ROOM1-HALL2)<br>Delay time (Type: DELAY, PAN-DELAY)<br>0-127   |  |
| HF Damp  | Adjusts the frequency above which the high-frequency content of the reverb sound will be cut, or "damped." If you do not want to cut the high frequencies, set this parameter to BYPASS.<br>200-8000[Hz], BYPASS |  |
| Delay Feedback                                     | Adjusts the amount of delay feedback when the Type setting is DELAY or PAN-DELAY. Amount of delay sound returned to the input (this setting is valid only if Type is DELAY or PAN-DELAY)<br>0-127                |  |
| <b>02: SRV ROOM / 03: SRV HALL / 04: SRV PLATE</b> |  |  |
| Pre Delay  | Adjusts the delay time from the direct sound until the reverb sound is heard.<br>0.0-100.0[msec]   |  |
| Time   | Time length of reverberation<br>0-127  |  |
| Size   | Size of the simulated room or hall<br>1-8  |  |
| High Cut   | Adjusts the frequency above which the high-frequency content of the reverb will be reduced. If you do not want to reduce the high frequencies, set this parameter to BYPASS.<br>160-12500[Hz], BYPASS            |  |
| Density  | Density of reverb<br>0-127   |  |
| Diffusion  | Adjusts the change in the density of the reverb over time. The higher the value, the more the density increases with time. (The effect of this setting is most pronounced with long reverb times.)<br>0-127      |  |
| LF Damp Freq                                       | Adjusts the frequency below which the low-frequency content of the reverb sound will be reduced, or "damped."<br>50-4000[Hz]   |  |
| LF Damp Gain                                       | Adjusts the amount of damping applied to the frequency range selected with LF Damp. With a setting of "0," there will be no reduction of the reverb's low-frequency content.<br>-36-0[dB]                        |  |
| HF Damp Freq                                       | Adjusts the frequency above which the high-frequency content of the reverb sound will be reduced, or "damped."<br>4000-12500[Hz]   |  |
| HF Damp Gain                                       | Adjusts the amount of damping applied to the frequency range selected with HF Damp. With a setting of "0," there will be no reduction of the reverb's high-frequency content.<br>-36-0[dB]                       |  |
| <b>05: GM2 REVERB</b>                              |  |  |
| Character  | Type of reverb   |  |
|  | 0-5  | Reverb                                 |
|  | 6, 7   | Delay                                  |
| Pre-LPF  | Cuts the high frequency range of the sound coming into the reverb.<br>0-7  |  |
| Level  | Output level of reverberation<br>0-127   |  |
| Time   | Time length of reverberation<br>0-127  |  |
| Delay Feedback                                     | Adjusts the amount of the delay sound that is fed back into the effect when the Reverb Character setting is 6 or 7.<br>0-127   |  |

# Waveform List

## INTA

| No.  | Name         | No.  | Name          | No.  | Name         | No.  | Name         | No.  | Name         |
|------|--------------|------|---------------|------|--------------|------|--------------|------|--------------|
| 0001 | Ult.P*mp A L | 0080 | HM-Pno* C R   | 0159 | Reg.Clav B   | 0238 | Funk Gtr C   | 0317 | Slp.E.BassA  |
| 0002 | Ult.P*mp A R | 0081 | HM-Pno* C M   | 0160 | Reg.Clav C   | 0239 | Funk MtGtr A | 0318 | Slp.E.BassB  |
| 0003 | Ult.P*mp A M | 0082 | HM-Pno A L    | 0161 | Retro Clav A | 0240 | Funk MtGtr B | 0319 | Slp.E.BassC  |
| 0004 | Ult.P*mp B L | 0083 | HM-Pno A R    | 0162 | Retro Clav B | 0241 | Funk MtGtr C | 0320 | Pul.E.BassA  |
| 0005 | Ult.P*mp B R | 0084 | HM-Pno A M    | 0163 | Retro Clav C | 0242 | Nasty Gtr    | 0321 | Pul.E.BassB  |
| 0006 | Ult.P*mp B M | 0085 | HM-Pno B L    | 0164 | Tight Clav A | 0243 | Overdrive1 A | 0322 | Pul.E.BassC  |
| 0007 | Ult.P*mp C L | 0086 | HM-Pno B R    | 0165 | Tight Clav B | 0244 | Overdrive1 C | 0323 | Jungle Bass  |
| 0008 | Ult.P*mp C R | 0087 | HM-Pno B M    | 0166 | Tight Clav C | 0245 | Distortion1A | 0324 | Garage Bass  |
| 0009 | Ult.P*mp C M | 0088 | HM-Pno C L    | 0167 | Hard Clav A  | 0246 | Distortion1B | 0325 | SH-101 Bs A  |
| 0010 | Ult.P*ff A L | 0089 | HM-Pno C R    | 0168 | Hard Clav B  | 0247 | Distortion1C | 0326 | SH-101 Bs B  |
| 0011 | Ult.P*ff A R | 0090 | HM-Pno C M    | 0169 | Hard Clav C  | 0248 | Dist Chord A | 0327 | SH-101 Bs C  |
| 0012 | Ult.P*ff A M | 0091 | HM-Pno L+     | 0170 | ClavMtrLs DB | 0249 | Dist Chord B | 0328 | MG Bass 1 A  |
| 0013 | Ult.P*ff B L | 0092 | HM-Pno R+     | 0171 | Harpsi A     | 0250 | Dist Chord C | 0329 | MG Bass 1 B  |
| 0014 | Ult.P*ff B R | 0093 | JD Piano 1 A  | 0172 | Harpsi B     | 0251 | E.Gtr Harm   | 0330 | MG Bass 1 C  |
| 0015 | Ult.P*ff B M | 0094 | JD Piano 1 B  | 0173 | Harpsi C     | 0252 | Harp A       | 0331 | MG Bass 2    |
| 0016 | Ult.P*ff C L | 0095 | JD Piano 1 C  | 0174 | JLOrg Slow L | 0253 | Harp B       | 0332 | MG Bass 3    |
| 0017 | Ult.P*ff C R | 0096 | Piano Atk Nz  | 0175 | JLOrg Slow R | 0254 | Harp C       | 0333 | MC Bass A    |
| 0018 | Ult.P*ff C M | 0097 | MKS Piano1 A  | 0176 | JLOrg Fast L | 0255 | Banjo A      | 0334 | MC Bass B    |
| 0019 | Ult.P mp A L | 0098 | MKS Piano1 B  | 0177 | JLOrg Fast R | 0256 | Banjo 1 B    | 0335 | MC Bass C    |
| 0020 | Ult.P mp A R | 0099 | MKS Piano1 C  | 0178 | GT Organ     | 0257 | Banjo 1 C    | 0336 | Atk Syn Bass |
| 0021 | Ult.P mp A M | 0100 | Vint.EP mp A  | 0179 | JD Full Draw | 0258 | Sitar 1 A    | 0337 | Flute 1 A    |
| 0022 | Ult.P mp B L | 0101 | Vint.EP mp B  | 0180 | Org Basic 1  | 0259 | Sitar 1 B    | 0338 | Flute 1 B    |
| 0023 | Ult.P mp B R | 0102 | Vint.EP mp C  | 0181 | Org Basic 2  | 0260 | Sitar 1 C    | 0339 | Flute 1 C    |
| 0024 | Ult.P mp B M | 0103 | Vint.EP f A   | 0182 | Ballad Org   | 0261 | Sitar Drn A  | 0340 | Piccolo A    |
| 0025 | Ult.P mp C L | 0104 | Vint.EP f B   | 0183 | 3rd Perc Org | 0262 | Sitar Drn B  | 0341 | Piccolo B    |
| 0026 | Ult.P mp C R | 0105 | Vint.EP f C   | 0184 | Perc Organ   | 0263 | Sitar Drn C  | 0342 | Piccolo C    |
| 0027 | Ult.P mp C M | 0106 | Vint.EP ff A  | 0185 | RockOrgn1 A  | 0264 | E.Sitar A    | 0343 | Pan Flute    |
| 0028 | Ult.P ff A L | 0107 | Vint.EP ff B  | 0186 | RockOrgn1 B  | 0265 | E.Sitar 1 B  | 0344 | Shakuhachi 1 |
| 0029 | Ult.P ff A R | 0108 | Vint.EP ff C  | 0187 | RockOrgn1 C  | 0266 | E.Sitar 1 C  | 0345 | JD Fl Push   |
| 0030 | Ult.P ff A M | 0109 | Stage EP p A  | 0188 | Rtry Org A L | 0267 | Santur 1 A   | 0346 | Clarinet A   |
| 0031 | Ult.P ff B L | 0110 | Stage EP p B  | 0189 | Rtry Org A R | 0268 | Santur 1 B   | 0347 | Clarinet B   |
| 0032 | Ult.P ff B R | 0111 | Stage EP p C  | 0190 | Rtry Org B L | 0269 | Santur 1 C   | 0348 | Clarinet C   |
| 0033 | Ult.P ff B M | 0112 | Stage EP f A  | 0191 | Rtry Org B R | 0270 | Shamisen A   | 0349 | Oboe A       |
| 0034 | Ult.P ff C L | 0113 | Stage EP f B  | 0192 | Rtry Org C L | 0271 | Shamisen B   | 0350 | Oboe B       |
| 0035 | Ult.P ff C R | 0114 | Stage EP f C  | 0193 | Rtry Org C R | 0272 | Shamisen C   | 0351 | Oboe C       |
| 0036 | Ult.P ff C M | 0115 | Tine EP p A   | 0194 | LoFi RtryOrg | 0273 | Koto A       | 0352 | E.Horn A     |
| 0037 | XPr.P*mp A L | 0116 | Tine EP p B   | 0195 | Vint.Org 1   | 0274 | Koto B       | 0353 | E.Horn B     |
| 0038 | XPr.P*mp A R | 0117 | Tine EP p C   | 0196 | Vint.Org 2   | 0275 | Koto C       | 0354 | E.Horn C     |
| 0039 | XPr.P*mp A M | 0118 | Tine EP mf A  | 0197 | Vint.Org 3   | 0276 | FatAcBs p HA | 0355 | Bassoon A    |
| 0040 | XPr.P*mp B L | 0119 | Tine EP mf B  | 0198 | Vint.Org 4   | 0277 | FatAcBs p HB | 0356 | Bassoon B    |
| 0041 | XPr.P*mp B R | 0120 | Tine EP mf C  | 0199 | Positive '8  | 0278 | FatAcBs p HC | 0357 | Bassoon C    |
| 0042 | XPr.P*mp B M | 0121 | Tine EP ff A  | 0200 | Pipe Organ 1 | 0279 | FatAcBs p NA | 0358 | Recorder A   |
| 0043 | XPr.P*mp C L | 0122 | Tine EP ff B  | 0201 | Cathedrl Org | 0280 | FatAcBs p NB | 0359 | Recorder B   |
| 0044 | XPr.P*mp C R | 0123 | Tine EP ff C  | 0202 | BrtNyl.Gtr A | 0281 | FatAcBs p NC | 0360 | Recorder C   |
| 0045 | XPr.P*mp C M | 0124 | Dyno EP mp A  | 0203 | BrtNyl.Gtr B | 0282 | FatAcBs f HA | 0361 | SopranoSax A |
| 0046 | XPr.P*ff A L | 0125 | Dyno EP mp B  | 0204 | BrtNyl.Gtr C | 0283 | FatAcBs f HB | 0362 | SopranoSax B |
| 0047 | XPr.P*ff A R | 0126 | Dyno EP mp C  | 0205 | Nylon Gtr1 A | 0284 | FatAcBs f HC | 0363 | SopranoSax C |
| 0048 | XPr.P*ff A M | 0127 | Dyno EP mf A  | 0206 | Nylon Gtr1 B | 0285 | FatAcBs f NA | 0364 | Soft Alto A  |
| 0049 | XPr.P*ff B L | 0128 | Dyno EP mf B  | 0207 | Nylon Gtr1 C | 0286 | FatAcBs f NB | 0365 | Soft Alto B  |
| 0050 | XPr.P*ff B R | 0129 | Dyno EP mf C  | 0208 | Nylon Gtr2 A | 0287 | FatAcBs f NC | 0366 | Soft Alto C  |
| 0051 | XPr.P*ff B M | 0130 | Wurly DI p A  | 0209 | Nylon Gtr2 B | 0288 | Ac.Bass A    | 0367 | Wide Sax A   |
| 0052 | XPr.P*ff C L | 0131 | Wurly DI p B  | 0210 | Nylon Gtr2 C | 0289 | Ac.Bass B    | 0368 | Wide Sax B   |
| 0053 | XPr.P*ff C R | 0132 | Wurly DI p C  | 0211 | Bright Gtr A | 0290 | Ac.Bass C    | 0369 | Wide Sax C   |
| 0054 | XPr.P*ff C M | 0133 | Wurly DI f A  | 0212 | Bright Gtr B | 0291 | Fng.EB1 mf A | 0370 | BreathySax A |
| 0055 | XPr.P mp A L | 0134 | Wurly DI f B  | 0213 | Bright Gtr C | 0292 | Fng.EB1 mf B | 0371 | BreathySax B |
| 0056 | XPr.P mp A R | 0135 | Wurly DI f C  | 0214 | Ac.Guitar1 A | 0293 | Fng.EB1 mf C | 0372 | BreathySax C |
| 0057 | XPr.P mp A M | 0136 | Wurly DI ff A | 0215 | Ac.Guitar1 B | 0294 | Fng.EB1 ff A | 0373 | TenorBreathy |
| 0058 | XPr.P mp B L | 0137 | Wurly DI ff B | 0216 | Ac.Guitar1 C | 0295 | Fng.EB1 ff B | 0374 | Tenor Sax A  |
| 0059 | XPr.P mp B R | 0138 | Wurly DI ff C | 0217 | Ac.Gtr Hrm1A | 0296 | Fng.EB1 ff C | 0375 | Tenor Sax B  |
| 0060 | XPr.P mp B M | 0139 | Soft SA EP A  | 0218 | Ac.Gtr Hrm1B | 0297 | Fng.EB2 A    | 0376 | Tenor Sax C  |
| 0061 | XPr.P mp C L | 0140 | Soft SA EP B  | 0219 | Ac.Gtr Hrm1C | 0298 | Fng.EB2 B    | 0377 | Bari.Sax 1 A |
| 0062 | XPr.P mp C R | 0141 | Soft SA EP C  | 0220 | Jazz Gtr A   | 0299 | Fng.EB2 C    | 0378 | Bari.Sax 1 B |
| 0063 | XPr.P mp C M | 0142 | Hard SA EP A  | 0221 | Jazz Gtr B   | 0300 | Finger Bs A  | 0379 | Bari.Sax 1 C |
| 0064 | XPr.P ff A L | 0143 | Hard SA EP B  | 0222 | Jazz Gtr C   | 0301 | Finger Bs B  | 0380 | Musette      |
| 0065 | XPr.P ff A R | 0144 | Hard SA EP C  | 0223 | Clean Gtr1 A | 0302 | Finger Bs C  | 0381 | Harmonica A  |
| 0066 | XPr.P ff A M | 0145 | SA E.Piano A  | 0224 | Clean Gtr1 B | 0303 | P.Bass       | 0382 | Harmonica B  |
| 0067 | XPr.P ff B L | 0146 | SA E.Piano B  | 0225 | Clean Gtr1 C | 0304 | Thumb MtBs A | 0383 | Harmonica C  |
| 0068 | XPr.P ff B R | 0147 | SA E.Piano C  | 0226 | Clr Mt Gtr A | 0305 | Thumb MtBs B | 0384 | Blues G-harp |
| 0069 | XPr.P ff B M | 0148 | 80's E.Pno 1  | 0227 | Clr Mt Gtr B | 0306 | Thumb MtBs C | 0385 | Flugel A     |
| 0070 | XPr.P ff C L | 0149 | 80's E.Pno 2  | 0228 | Clr Mt Gtr C | 0307 | Fretlss Bs A | 0386 | Flugel B     |
| 0071 | XPr.P ff C R | 0150 | 80's E.Pno 3  | 0229 | E.Gtr Ld     | 0308 | Fretlss Bs B | 0387 | Flugel C     |
| 0072 | XPr.P ff C M | 0151 | 80's E.Pno 4  | 0230 | Brt Strat1 A | 0309 | Fretlss Bs C | 0388 | Trumpet 1 A  |
| 0073 | HM-Pno* A L  | 0152 | Hard E.Pno    | 0231 | Brt Strat1 B | 0310 | Fretlss SftA | 0389 | Trumpet 1 B  |
| 0074 | HM-Pno* A R  | 0153 | Celesta       | 0232 | Brt Strat1 C | 0311 | Fretlss SftB | 0390 | Trumpet 1 C  |
| 0075 | HM-Pno* A M  | 0154 | Music Box     | 0233 | FstPick70s1A | 0312 | Fretlss SftC | 0391 | Wide Tp A    |
| 0076 | HM-Pno* B L  | 0155 | ClavDB Brt A  | 0234 | FstPick70s1B | 0313 | Pick EB 1 A  | 0392 | Wide Tp B    |
| 0077 | HM-Pno* B R  | 0156 | ClavDB Brt B  | 0235 | FstPick70s1C | 0314 | Pick EB 1 B  | 0393 | Wide Tp C    |
| 0078 | HM-Pno* B M  | 0157 | ClavDB Brt C  | 0236 | Funk Gtr A   | 0315 | Pick EB 1 C  | 0394 | Mute Tp A    |
| 0079 | HM-Pno* C L  | 0158 | Reg.Clav A    | 0237 | Funk Gtr B   | 0316 | Pick EB 2    | 0395 | Mute Tp B    |

## Waveform List

| No.  | Name         | No.  | Name         | No.  | Name         | No.  | Name         | No.  | Name          |
|------|--------------|------|--------------|------|--------------|------|--------------|------|---------------|
| 0396 | Mute Tp C    | 0478 | ChmbrStrRevB | 0560 | Church Bell  | 0642 | Uuh Formant  | 0724 | MG Zap 1      |
| 0397 | Trombone 1 A | 0479 | ChmbrStrRevC | 0561 | Mild CanWave | 0643 | Metal Vox W1 | 0725 | MG Zap 2      |
| 0398 | Trombone 1 B | 0480 | Vls Pizz 1 A | 0562 | JD Crystal   | 0644 | Metal Vox W2 | 0726 | MG Zap 3      |
| 0399 | Trombone 1 C | 0481 | Vls Pizz 1 B | 0563 | Bell Organ   | 0645 | Metal Vox L  | 0727 | MG Attack     |
| 0400 | Trombone 2 A | 0482 | Vls Pizz 1 C | 0564 | Old DigiBell | 0646 | Metal Vox W3 | 0728 | Syn Hrd Atk1  |
| 0401 | Trombone 2 B | 0483 | VlsPizzRev A | 0565 | JD Bell Wave | 0647 | JD Rattles   | 0729 | Syn Hrd Atk2  |
| 0402 | Trombone 2 C | 0484 | VlsPizzRev B | 0566 | TinyBellWave | 0648 | Xylo Seq.    | 0730 | Syn Swt Atk1  |
| 0403 | Tuba A       | 0485 | VlsPizzRev C | 0567 | Vib Wave     | 0649 | JD Anklungs  | 0731 | Syn Swt Atk2  |
| 0404 | Tuba B       | 0486 | Vcs Pizz 1 A | 0568 | JD Brt Digi  | 0650 | JD Shami     | 0732 | Syn Swt Atk3  |
| 0405 | Tuba C       | 0487 | Vcs Pizz 1 B | 0569 | Bagpipe      | 0651 | SynBassClick | 0733 | Syn Swt Atk4  |
| 0406 | Sft F.Horn A | 0488 | Vcs Pizz 1 C | 0570 | Digital Vox  | 0652 | JD EP Atk    | 0734 | SF Kick 1 L   |
| 0407 | Sft F.Horn B | 0489 | UnisonSaw1 A | 0571 | JD WallyWave | 0653 | Key On Click | 0735 | SF Kick 1 R   |
| 0408 | Sft F.Horn C | 0490 | UnisonSaw1 B | 0572 | JD Brusky Lp | 0654 | Org Click 1  | 0736 | Reg.Kick L    |
| 0409 | French Hrn A | 0491 | UnisonSaw1 C | 0573 | Bright Form  | 0655 | Org Click 2  | 0737 | Reg.Kick R    |
| 0410 | French Hrn C | 0492 | Super Saw1 A | 0574 | JD Nasty     | 0656 | JD Switch    | 0738 | Jazz Kick     |
| 0411 | XP Horn A    | 0493 | Super Saw1 B | 0575 | JD Spark Vox | 0657 | JD Tuba Slap | 0739 | Jz Dry Kick   |
| 0412 | XP Horn B    | 0494 | Super Saw1 C | 0576 | JD Cutters   | 0658 | TVF Trigger  | 0740 | TR909 Kick 1  |
| 0413 | F.HornSect A | 0495 | TranceSaw1 A | 0577 | SBF Hrd Ld   | 0659 | Hi Q 1       | 0741 | TR909 Kick 2  |
| 0414 | F.HornSect B | 0496 | TranceSaw1 B | 0578 | JD EML 5th   | 0660 | Slap 1       | 0742 | AnalogKick 1  |
| 0415 | F.HornSect C | 0497 | TranceSaw1 C | 0579 | Juno Saw HD  | 0661 | Stick 1      | 0743 | TR808 Kick    |
| 0416 | Tp Section A | 0498 | Warm Pad A   | 0580 | TB303 Saw HD | 0662 | Click        | 0744 | SH32 Kick     |
| 0417 | Tp Section B | 0499 | Warm Pad B   | 0581 | Custm Saw HD | 0663 | Cutting Nz   | 0745 | SF Snr L      |
| 0418 | Tp Section C | 0500 | Warm Pad C   | 0582 | MG Saw HD    | 0664 | Ac.Bass Body | 0746 | SF Snr R      |
| 0419 | OctBrass A L | 0501 | OB2 Pad 1 A  | 0583 | Real MG Saw  | 0665 | Flute Pad Nz | 0747 | SF Rim L      |
| 0420 | OctBrass A R | 0502 | OB2 Pad 1 B  | 0584 | DigitalSawHD | 0666 | Applause 1   | 0748 | SF Rim R      |
| 0421 | OctBrass B L | 0503 | OB2 Pad 1 C  | 0585 | P5 Saw HD    | 0667 | River        | 0749 | Reg.Snr L     |
| 0422 | OctBrass B R | 0504 | OB2 Pad 2 A  | 0586 | Calc.Saw     | 0668 | Thunder 1    | 0750 | Reg.Snr R     |
| 0423 | OctBrass C L | 0505 | OB2 Pad 2 B  | 0587 | Calc.Saw inv | 0669 | Monsoon      | 0751 | Reg.SnrGst L  |
| 0424 | OctBrass C R | 0506 | OB2 Pad 2 C  | 0588 | Synth Saw 1  | 0670 | Stream       | 0752 | Reg.SnrGst R  |
| 0425 | XP Brass     | 0507 | D-50 Heavn1A | 0589 | JD Syn Saw   | 0671 | Bubble       | 0753 | Sft Snr Gst   |
| 0426 | OrchUnis A L | 0508 | D-50 Heavn1B | 0590 | JD Fat Saw   | 0672 | Bird Song    | 0754 | Jz Brsh Slap  |
| 0427 | OrchUnis A R | 0509 | D-50 Heavn1C | 0591 | JP-8 Saw     | 0673 | Dog Bark     | 0755 | Jz Brsh Swsh  |
| 0428 | OrchUnis1 BL | 0510 | SBF Vox A    | 0592 | OB2 Saw HD   | 0674 | Gallop       | 0756 | Swish&Turn    |
| 0429 | OrchUnis1 BR | 0511 | SBF Vox B    | 0593 | 700 Saw A    | 0675 | Vint.Phone   | 0757 | Concert SD 1  |
| 0430 | OrchUnis1 CL | 0512 | SBF Vox C    | 0594 | 700 Saw B    | 0676 | Office Phone | 0758 | Analog Snr 1  |
| 0431 | OrchUnis1 CR | 0513 | Syn Vox 1 A  | 0595 | 700 Saw C    | 0677 | Mobile Phone | 0759 | TR909 Snr 1   |
| 0432 | Violin 1 A   | 0514 | Syn Vox 1 B  | 0596 | D-50 Saw     | 0678 | Door Creak   | 0760 | TR909 Snr 2   |
| 0433 | Violin 1 B   | 0515 | Syn Vox 1 C  | 0597 | LA-Saw       | 0679 | Door Slam    | 0761 | TR808 Snr 1   |
| 0434 | Violin 1 C   | 0516 | Female Ahs A | 0598 | Air Wave     | 0680 | Car Engine   | 0762 | TR808 Snr 2   |
| 0435 | Cello 1 A    | 0517 | Female Ahs B | 0599 | GR-300 Saw   | 0681 | Car Slip     | 0763 | SF Crs Stk L  |
| 0436 | Cello 1 B    | 0518 | Female Ahs C | 0600 | Juno Sqr HD  | 0682 | Car Pass     | 0764 | SF Crs Stk R  |
| 0437 | Cello 1 C    | 0519 | Female Oos A | 0601 | P5 Sqr HD    | 0683 | Crash Seq.   | 0765 | Soft Stick    |
| 0438 | VI Sect. A L | 0520 | Female Oos B | 0602 | Fat Square   | 0684 | Gun Shot 1   | 0766 | TR808 Rim     |
| 0439 | VI Sect. A R | 0521 | Female Oos C | 0603 | JP-8 Square  | 0685 | Siren        | 0767 | LD L.Tom      |
| 0440 | VI Sect.1 BL | 0522 | Male Aahs A  | 0604 | SH-2 Square  | 0686 | Train 1      | 0768 | LD M.Tom      |
| 0441 | VI Sect.1 BR | 0523 | Male Aahs B  | 0605 | TB303 Sqr HD | 0687 | Airplane     | 0769 | LD H.Tom      |
| 0442 | VI Sect.1 CL | 0524 | Male Aahs C  | 0606 | TB Dst Sqr A | 0688 | Helicopter 1 | 0770 | RR F.Tom      |
| 0443 | VI Sect.1 CR | 0525 | Jz Doos 1 A  | 0607 | TB Dst Sqr B | 0689 | Space Voyage | 0771 | SF M.Tom      |
| 0444 | Vc Sect.1 AL | 0526 | Jz Doos 1 B  | 0608 | TB Dst Sqr C | 0690 | Blow Loop    | 0772 | SF H.Tom      |
| 0445 | Vc Sect.1 AR | 0527 | Jz Doos 1 C  | 0609 | Dist SquareA | 0691 | Laugh        | 0773 | Reg.F.Tom     |
| 0446 | Vc Sect.1 BL | 0528 | JzDoos1 Lp A | 0610 | Dist SquareB | 0692 | Scream       | 0774 | Reg.M.Tom     |
| 0447 | Vc Sect.1 BR | 0529 | JzDoos1 Lp B | 0611 | Dist SquareC | 0693 | Punch        | 0775 | Reg.H.Tom     |
| 0448 | Vc Sect.1 CL | 0530 | JzDoos1 Lp C | 0612 | JP8 Pls 10HD | 0694 | Heartbeat    | 0776 | TR808 Tom     |
| 0449 | Vc Sect.1 CR | 0531 | Jz Doos 2 A  | 0613 | JP8 Pls 15HD | 0695 | Footsteps    | 0777 | Deep Tom      |
| 0450 | Full Str A L | 0532 | Jz Doos 2 B  | 0614 | JP8 Pls 25HD | 0696 | Machine Gun1 | 0778 | Reg.CHH p     |
| 0451 | Full Str A R | 0533 | Jz Doos 2 C  | 0615 | JP8 Pls 30HD | 0697 | Laser        | 0779 | Reg.CHH ff    |
| 0452 | Full Str1 BL | 0534 | Jz Doos 2 Ip | 0616 | JP8 Pls 40HD | 0698 | Thunder Lp   | 0780 | Reg.PHH mf    |
| 0453 | Full Str1 BR | 0535 | JzVoiceDat A | 0617 | JP8 Pls 45HD | 0699 | Ac.Bass Nz   | 0781 | Reg.PHH f     |
| 0454 | Full Str1 CL | 0536 | JzVoiceDat B | 0618 | Syn Pulse 1  | 0700 | E.Bass Nz 1  | 0782 | Reg.OHH 1 mf  |
| 0455 | Full Str1 CR | 0537 | JzVoiceDat C | 0619 | Syn Pulse 2  | 0701 | E.Bass Nz 2  | 0783 | Reg.OHH 1 ff  |
| 0456 | JV Strings L | 0538 | Gospel Hum A | 0620 | 700 Triangle | 0702 | E.Bass Slide | 0784 | TR808 CHH 1   |
| 0457 | JV Strings R | 0539 | Gospel Hum B | 0621 | Syn Triangle | 0703 | Fng.EB Sld   | 0785 | Noise CHH     |
| 0458 | JV Strings A | 0540 | Gospel Hum C | 0622 | JD Triangle  | 0704 | DistGtr Nz 1 | 0786 | TR808 OHH 1   |
| 0459 | JV Strings C | 0541 | Soprano Vox  | 0623 | VS-Ramp      | 0705 | DistGtr Nz 2 | 0787 | TR606 OHH     |
| 0460 | F.Str A L    | 0542 | Kalimba 1    | 0624 | Sync Sweep   | 0706 | Gtr Fret Nz1 | 0788 | Rock Crash 1  |
| 0461 | F.Str A R    | 0543 | JD Klmba Atk | 0625 | Sine         | 0707 | Gtr Fret Nz2 | 0789 | Splash Cym    |
| 0462 | F.Str B L    | 0544 | JD Wood Crak | 0626 | JD Fine Wine | 0708 | ClassicHseHt | 0790 | TR808 Cym     |
| 0463 | F.Str B R    | 0545 | JD Gamelan 1 | 0627 | Digi Loop    | 0709 | Narrow Hit   | 0791 | Ride Cymbal   |
| 0464 | F.Str C L    | 0546 | JD Gamelan 2 | 0628 | JD MetalWind | 0710 | Dist Hit     | 0792 | Rock Rd Cup   |
| 0465 | F.Str C R    | 0547 | JD Log Drum  | 0629 | Atmosphere   | 0711 | Thin Beef    | 0793 | Rock Rd Edge  |
| 0466 | F.Str LpL    | 0548 | JD Xylo      | 0630 | DigiSpectrum | 0712 | Smear Hit    | 0794 | China Cym 1   |
| 0467 | F.Str LpR    | 0549 | Marimba 1    | 0631 | JD Vox Noise | 0713 | LoFi Min Hit | 0795 | Concert Cym 1 |
| 0468 | F.StrStacA L | 0550 | Vibraphone 1 | 0632 | SynVox Noise | 0714 | Orch. Hit    | 0796 | Gospel Clap   |
| 0469 | F.StrStacA R | 0551 | Glocken      | 0633 | Shaku Noise  | 0715 | Punch Hit    | 0797 | TR808 Clap 1  |
| 0470 | F.StrStacB L | 0552 | Steel Drums  | 0634 | Digi Breath  | 0716 | O'Skool Hit  | 0798 | TR808 Clap 2  |
| 0471 | F.StrStacB R | 0553 | D50 Bell A   | 0635 | Agogo Noise  | 0717 | Philly Hit   | 0799 | Cowbell 1     |
| 0472 | F.StrStacC L | 0554 | D50 Bell B   | 0636 | White Noise  | 0718 | Scratch 1    | 0800 | TR808Cowbell  |
| 0473 | F.StrStacC R | 0555 | D50 Bell C   | 0637 | Pink Noise   | 0719 | Scratch 2    | 0801 | Wood Block1H  |
| 0474 | ChmbrStrAt1A | 0556 | D50 Bell Lp  | 0638 | Aah Formant  | 0720 | Scratch 3    | 0802 | Wood Block1L  |
| 0475 | ChmbrStrAt1B | 0557 | Agogo Bell   | 0639 | Eeh Formant  | 0721 | Scratch 4    | 0803 | Claves 1      |
| 0476 | ChmbrStrAt1C | 0558 | Finger Bell  | 0640 | Iih Formant  | 0722 | Scratch Push | 0804 | TR808 Claves  |
| 0477 | ChmbrStrRevA | 0559 | Tubular Bell | 0641 | Ooh Formant  | 0723 | Scratch Pull | 0805 | Castanet 1    |

| No.  | Name         | No.  | Name         | No.  | Name         | No.  | Name         | No.  | Name         |
|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|
| 0806 | Whistle 1    | 0888 | CivMTRs DB f | 0970 | Sitar 4 C    | 1052 | Qu Di C      | 1134 | TpRomntic vb |
| 0807 | Bongo High   | 0889 | RtryOrg2 A L | 0971 | XV Sitar A   | 1053 | QuDi 1 Vib A | 1135 | TrumpetShake |
| 0808 | Bongo Low    | 0890 | RtryOrg2 A R | 0972 | XV Sitar C   | 1054 | QuDi 1 Vib B | 1136 | Trombone 3 A |
| 0809 | Conga1 Hi Mt | 0891 | RtryOrg2 B L | 0973 | Sitar Gliss  | 1055 | QuDi 1 Vib C | 1137 | Trombone 3 B |
| 0810 | Conga1 Slap  | 0892 | RtryOrg2 B R | 0974 | Guzheng f    | 1056 | QuDi 2 Vib A | 1138 | Trombone 3 C |
| 0811 | Conga1 Hi Op | 0893 | RtryOrg2 C L | 0975 | Guzheng Trem | 1057 | QuDi 2 Vib B | 1139 | Tbn mf A     |
| 0812 | Conga1 LowOp | 0894 | RtryOrg2 C R | 0976 | Gu Zheng A   | 1058 | QuDi 2 Vib C | 1140 | Tbn mf B     |
| 0813 | TR808 Conga1 | 0895 | E.Organ Slw  | 0977 | Gu Zheng B   | 1059 | Xiao 1 f     | 1141 | Tbn mf C     |
| 0814 | TR808 Conga2 | 0896 | E.Organ Fst  | 0978 | Gu Zheng C   | 1060 | Xiao Trill   | 1142 | Trombone 4   |
| 0815 | Timbale High | 0897 | B3 1 FL A    | 0979 | Santur 2 B   | 1061 | Bawu f       | 1143 | Tp Section2B |
| 0816 | Timbale Low  | 0898 | B3 1 FL B    | 0980 | Santur 2 C   | 1062 | BawuVibFingr | 1144 | Tp Section2C |
| 0817 | Cabasa Cut 1 | 0899 | B3 1 FL C    | 0981 | Santur 3 A   | 1063 | Bawu Trill   | 1145 | Brass ff     |
| 0818 | Maracas 1    | 0900 | B3 2 FL A    | 0982 | Santur 3 B   | 1064 | Xun mp       | 1146 | R&R Horns A  |
| 0819 | 808 Maracas1 | 0901 | B3 2 FL B    | 0983 | Santur 3 C   | 1065 | Xun Orna     | 1147 | R&R Horns B  |
| 0820 | R8 Shaker    | 0902 | B3 2 FL C    | 0984 | Santur 4 A   | 1066 | Hulusi 1 mf  | 1148 | R&R Horns C  |
| 0821 | Guiro Short  | 0903 | B3 Perc 1 A  | 0985 | Santur 4 B   | 1067 | Sheng A      | 1149 | PopBrsAtkA L |
| 0822 | Guiro Long   | 0904 | B3 Perc 1 B  | 0986 | Santur 4 C   | 1068 | Sheng B      | 1150 | PopBrsAtkA R |
| 0823 | Vibraslap 1  | 0905 | B3 Perc 1 C  | 0987 | Santur Trm A | 1069 | Sheng C      | 1151 | PopBrsAtkB L |
| 0824 | Tambourine 1 | 0906 | B3 3 A       | 0988 | Santur Trm B | 1070 | Suona 1 A    | 1152 | PopBrsAtkB R |
| 0825 | Cuica Mute   | 0907 | B3 3 B       | 0989 | Santur Trm C | 1071 | Suona 1 B    | 1153 | PopBrsAtkC L |
| 0826 | Cuica Open   | 0908 | B3 3 C       | 0990 | HmrDulcimer  | 1072 | Suona 1 C    | 1154 | PopBrsAtkC R |
| 0827 | Timpani p    | 0909 | B3 Perc 2 A  | 0991 | Dulcimer A   | 1073 | Suona 2 mf   | 1155 | PopBrass A L |
| 0828 | Timpani f    | 0910 | B3 Perc 2 B  | 0992 | Dulcimer B   | 1074 | Suona 2 ff   | 1156 | PopBrass A R |
| 0829 | Timpani Roll | 0911 | B3 Perc 3 C  | 0993 | Dulcimer C   | 1075 | Suona 2 Grwl | 1157 | PopBrass B L |
| 0830 | Timpani Lp   | 0912 | B3 1 Ch A    | 0994 | Yangqin      | 1076 | Zurna-A      | 1158 | PopBrass B R |
| 0831 | ConcertBD p  | 0913 | B3 1 Ch B    | 0995 | Yangqin 1 mf | 1077 | F.AccordionA | 1159 | PopBrass C L |
| 0832 | ConcertBD f  | 0914 | B3 1 Ch C    | 0996 | Yangqin1Trem | 1078 | F.AccordionB | 1160 | PopBrass C R |
| 0833 | ConcertBD ff | 0915 | RockOrgan2 B | 0997 | Oygur f      | 1079 | F.AccordionC | 1161 | OctBrs p A L |
| 0834 | ConcertBD Lp | 0916 | Power B fstA | 0998 | Oygur Trem   | 1080 | D.AccordionA | 1162 | OctBrs p A R |
| 0835 | Triangle 1   | 0917 | Power B fstB | 0999 | Upright Bs   | 1081 | D.AccordionB | 1163 | OctBrs p B L |
| 0836 | JingleBell 1 | 0918 | Power B fstC | 1000 | Fingerd Bs A | 1082 | D.AccordionC | 1164 | OctBrs p B R |
| 0837 | Wind Chime 1 | 0919 | B3 Click     | 1001 | Fingerd Bs B | 1083 | ACD Bltn R8  | 1165 | OctBrs p C L |
| 0838 | Crotale      | 0920 | Org Click 3  | 1002 | Fingerd Bs C | 1084 | ACD Bltn R8s | 1166 | OctBrs p C R |
| 0839 | R8 Click     | 0921 | Vint.Organ   | 1003 | Fretless     | 1085 | ACD Bltn R16 | 1167 | Brass Fall L |
| 0840 | Metro Bell   | 0922 | Pipe Organ 2 | 1004 | Slap Bass    | 1086 | ACD Bltn R4  | 1168 | Brass Fall R |
| 0841 | Metro Click  | 0923 | Nylon Gtr 3A | 1005 | SlapBs Wave1 | 1087 | ACD Str R8   | 1169 | Tps Fall     |
| 0842 | DR202 Beep   | 0924 | Nylon Gtr 3B | 1006 | SlapBs Wave2 | 1088 | ACD Str Nz   | 1170 | Brass Fall   |
| 0843 | Low Sine     | 0925 | Nylon Gtr 3C | 1007 | JUNO-60 Bass | 1089 | ACD Str R8s  | 1171 | Violin 2 A   |
| 0844 | DC           | 0926 | RequintGt mf | 1008 | JP-4 Bass    | 1090 | Accord 4' A  | 1172 | Violin 2 B   |
| 0845 | Reverse Cym1 | 0927 | AcGtr Pick A | 1009 | SH-101 Bs    | 1091 | Accord 4' B  | 1173 | Strings L    |
| 0846 | MC500 Beep 1 | 0928 | AcGtr Pick B | 1010 | KG Poly Bs   | 1092 | Accord 4' C  | 1174 | Strings R    |
| 0847 | MC500 Beep 2 | 0929 | AcGtr Pick C | 1011 | Solid Bass   | 1093 | Accord 8' A  | 1175 | Marcato A L  |
| 0848 | TB Dst Saw A | 0930 | Ac.Guitar2 A | 1012 | Mini Bs A    | 1094 | Accord 8' B  | 1176 | Marcato A R  |
| 0849 | TB Dst Saw B | 0931 | Ac.Guitar2 B | 1013 | Mini Bs B    | 1095 | Accord 8' C  | 1177 | Marcato B L  |
| 0850 | TB Dst Saw C | 0932 | Ac.Guitar2 C | 1014 | Mini Bs C    | 1096 | Accord PadNz | 1178 | Marcato B R  |
| 0851 | Ac Piano 1 B | 0933 | JC Strat Nz  | 1015 | Flute Vib A  | 1097 | Musette 1 A  | 1179 | Marcato C L  |
| 0852 | Ac Piano 1 C | 0934 | Strt Gtr     | 1016 | Flute Vib B  | 1098 | Musette 1 B  | 1180 | Marcato C R  |
| 0853 | Ac Piano2 pA | 0935 | FstPick70s   | 1017 | Flute Vib C  | 1099 | Musette 1 C  | 1181 | OrcStrings A |
| 0854 | Ac Piano2 pB | 0936 | Clean TC pA  | 1018 | Flute 2 B    | 1100 | Musette 2 A  | 1182 | OrcStrings B |
| 0855 | Ac Piano2 pC | 0937 | ClnGtr Mt Nz | 1019 | Flute 2 C    | 1101 | Musette 2 B  | 1183 | OrcStrings C |
| 0856 | Ac Piano2 fA | 0938 | PdlSteel A   | 1020 | Atk Flute A  | 1102 | Musette 2 C  | 1184 | Erhu 1 Vib   |
| 0857 | Ac Piano2 fB | 0939 | PdlSteel B   | 1021 | Atk Flute B  | 1103 | Musette 3 A  | 1185 | Erhu 1 mp    |
| 0858 | Ac Piano2 fC | 0940 | PdlSteel C   | 1022 | Atk Flute C  | 1104 | Musette 3 B  | 1186 | Erhu 2 mp    |
| 0859 | Piano Up TH  | 0941 | Oud A        | 1023 | BlwAltoVibPL | 1105 | Musette 3 C  | 1187 | Erhu 2 f     |
| 0860 | JD Piano 2 B | 0942 | Oud B        | 1024 | BlwAltoVibPR | 1106 | Master A     | 1188 | Er Hu 3 A    |
| 0861 | JD Piano 2 C | 0943 | Oud C        | 1025 | BlwAltoVibFL | 1107 | Master B     | 1189 | Er Hu 3 B    |
| 0862 | MKS Piano2 B | 0944 | Oud          | 1026 | BlwAltoVibFR | 1108 | Master C     | 1190 | Er Hu 3 C    |
| 0863 | MKS Piano2 C | 0945 | Pipa mp 1    | 1027 | Alto Sax Vib | 1109 | Single A     | 1191 | Matouqin1 mp |
| 0864 | SA EP 1B     | 0946 | Pipa mp 2    | 1028 | Alto mp B    | 1110 | Single B     | 1192 | Matouqin1Vib |
| 0865 | SA EP 1C     | 0947 | Pipa Trem    | 1029 | Alto mp C    | 1111 | Single C     | 1193 | Matoqn Harm  |
| 0866 | SA EP 2B     | 0948 | Pipa Chord   | 1030 | Blow Sax     | 1112 | Bandoneon 1A | 1194 | MatoqnSldVib |
| 0867 | SA EP 2C     | 0949 | Pi Pa A      | 1031 | Blow Sax A   | 1113 | Bandoneon 1B | 1195 | Keman L      |
| 0868 | Dyn EP mp A  | 0950 | Pi Pa B      | 1032 | Blow Sax C   | 1114 | Bandoneon 1C | 1196 | Keman R      |
| 0869 | Dyn EP mp B  | 0951 | Pi Pa C      | 1033 | Blowed Sax   | 1115 | Bandoneon 2A | 1197 | Blaster A    |
| 0870 | Dyn EP mp C  | 0952 | Chung Ruan A | 1034 | T.Sax hrd    | 1116 | Bandoneon 2B | 1198 | Blaster B    |
| 0871 | Wurly mp A   | 0953 | Chung Ruan B | 1035 | T.Sax hrd A  | 1117 | Bandoneon 2C | 1199 | Blaster C    |
| 0872 | Wurly mp B   | 0954 | Chung Ruan C | 1036 | T.Sax hrd B  | 1118 | Bs/Musette 1 | 1200 | UnisonSaw2 A |
| 0873 | Wurly mp C   | 0955 | Dumbra mp    | 1037 | T.Sax hrd C  | 1119 | Bs/Musette 2 | 1201 | UnisonSaw2 B |
| 0874 | Wurly mf A   | 0956 | Dumbra Strum | 1038 | Blow Pipe    | 1120 | Bs/Musette 3 | 1202 | UnisonSaw2 C |
| 0875 | Wurly mf B   | 0957 | UD           | 1039 | Sicu 1       | 1121 | Bs/Master    | 1203 | Super Saw2 A |
| 0876 | Wurly mf C   | 0958 | UD Body      | 1040 | Sicu 2       | 1122 | Bs/Single    | 1204 | Super Saw2 B |
| 0877 | Wurly ff A   | 0959 | Baglama L    | 1041 | BottleBlow   | 1123 | Bs/Bandneon1 | 1205 | Super Saw2 C |
| 0878 | Wurly ff B   | 0960 | Baglama H    | 1042 | Shakuhachi 2 | 1124 | Bs/Bandneon2 | 1206 | TranceSaw2 A |
| 0879 | Wurly ff C   | 0961 | Elk Baglama  | 1043 | FolkClaVibFL | 1125 | Bandneon RHL | 1207 | TranceSaw2 B |
| 0880 | D-50 EP      | 0962 | Kanun        | 1044 | FolkClaVibFR | 1126 | Bandneon RHR | 1208 | TranceSaw2 C |
| 0881 | E.Piano 1 A  | 0963 | Sitar/Drone  | 1045 | FolkClaMarCL | 1127 | Bandneon Nz  | 1209 | Fat JP-6     |
| 0882 | E.Piano 1 B  | 0964 | Sitar 2 A    | 1046 | FolkClaMarCR | 1128 | Solo Tpt. A  | 1210 | SBF Noise    |
| 0883 | E.Piano 1 C  | 0965 | Sitar 2 C    | 1047 | Tr Klarnet   | 1129 | Solo Tpt. B  | 1211 | P5 Sink      |
| 0884 | E.Piano 2 A  | 0966 | Sitar 3 A    | 1048 | Qudi mp 1    | 1130 | Solo Tpt. C  | 1212 | Synth Stack  |
| 0885 | E.Piano 2 B  | 0967 | Sitar 3 C    | 1049 | Qudi Orna 1  | 1131 | Trumpet 2 B  | 1213 | Soft Pad B   |
| 0886 | E.Piano 2 C  | 0968 | Sitar 4 A    | 1050 | Qu Di A      | 1132 | Trumpet 2 C  | 1214 | Soft Pad C   |
| 0887 | EP Hard      | 0969 | Sitar 4 B    | 1051 | Qu Di B      | 1133 | Tp_Mari Vb   | 1215 | Syn Str      |

Waveform List

| No.  | Name         |
|------|--------------|
| 1216 | JP Strings1A |
| 1217 | JP Strings1B |
| 1218 | JP Strings1C |
| 1219 | JP StringsU2 |
| 1220 | Syn Strings  |
| 1221 | JP Hollo A   |
| 1222 | JP Hollo B   |
| 1223 | JP Hollo C   |
| 1224 | Hollo Wave   |
| 1225 | Fantasynth A |
| 1226 | Fantasynth B |
| 1227 | Fantasynth C |
| 1228 | D-50 Heavn2A |
| 1229 | D-50 Heavn2B |
| 1230 | D-50 Heavn3A |
| 1231 | D-50 Heavn3B |
| 1232 | D-50 Heavn3C |
| 1233 | D50 Fantas 1 |
| 1234 | D50 Fantas 2 |
| 1235 | D50FuturePd1 |
| 1236 | D50FuturePd2 |
| 1237 | D50 DNDance1 |
| 1238 | D50 DNDance2 |
| 1239 | D50 DNDance3 |
| 1240 | D50 DNDance4 |
| 1241 | D50Pizzagogo |
| 1242 | D50 StachVn  |
| 1243 | D50NylnAtms1 |
| 1244 | D50NylnAtms2 |
| 1245 | Syn Vox 2    |
| 1246 | Syn Vox 3 A  |
| 1247 | Syn Vox 3 B  |
| 1248 | Syn Vox 3 C  |
| 1249 | Vox Noise    |
| 1250 | Syn Vox 4    |
| 1251 | MMM VOX      |
| 1252 | Choir Aah A  |
| 1253 | Choir Aah B  |
| 1254 | Choir Aah C  |
| 1255 | Choir Mmh A  |
| 1256 | Choir Mmh B  |
| 1257 | Choir Mmh C  |
| 1258 | Pop Voice    |
| 1259 | Voice Aahs A |
| 1260 | Voice Aahs B |
| 1261 | Voice Aahs C |
| 1262 | LargeChrF AL |
| 1263 | LargeChrF AR |
| 1264 | LargeChrF BL |
| 1265 | LargeChrF BR |
| 1266 | LargeChrF CL |
| 1267 | LargeChrF CR |
| 1268 | Hey Brazil   |
| 1269 | Sabor!       |
| 1270 | Arriba!      |
| 1271 | Ole!         |
| 1272 | Uno!         |
| 1273 | Dos!         |
| 1274 | Tres!        |
| 1275 | Quatro!      |
| 1276 | Grito-Hahaha |
| 1277 | Grito-Ahaha! |
| 1278 | Grito-Haahai |
| 1279 | Grito-Rrrrr! |
| 1280 | Tiquittito!  |
| 1281 | Grito-Oa Oa! |
| 1282 | Grito-Eh Eh! |
| 1283 | Ama ya ah!   |
| 1284 | Fuego!       |
| 1285 | One          |
| 1286 | Two          |
| 1287 | Three        |
| 1288 | ZagrutaLoop  |
| 1289 | ZagrutaStop  |
| 1290 | Vibes        |
| 1291 | Vibraphone 2 |
| 1292 | Glockenspiel |
| 1293 | Marimba Wave |
| 1294 | Marimba 2    |
| 1295 | Kalimba 2    |
| 1296 | Balaphone 1  |
| 1297 | Balaphone 2  |

| No.  | Name         |
|------|--------------|
| 1298 | Angklung     |
| 1299 | Bonang       |
| 1300 | Pemade A     |
| 1301 | Pemade B     |
| 1302 | Pemade C     |
| 1303 | DIGI Bell    |
| 1304 | JP-8 Saw C   |
| 1305 | JP-6 Saw     |
| 1306 | P5 Saw 1 A   |
| 1307 | P5 Saw 2 A   |
| 1308 | P5 Saw 3 A   |
| 1309 | P5 Saw 3 B   |
| 1310 | P5 Saw 3 C   |
| 1311 | MG Saw       |
| 1312 | Saw          |
| 1313 | Synth Saw 2  |
| 1314 | TB Dst Saw   |
| 1315 | Juno Saw+Sub |
| 1316 | MG Sqr HD    |
| 1317 | TB303 SqrFHD |
| 1318 | TB Dst Sqr   |
| 1319 | TB Square    |
| 1320 | 260 Sub OSC  |
| 1321 | V5-Triangle  |
| 1322 | ARP Sine HD  |
| 1323 | JP-8 Pulse   |
| 1324 | MG Pulse A   |
| 1325 | JP8 Pls 30   |
| 1326 | PWM Wave A   |
| 1327 | PWM Wave B   |
| 1328 | PWM Wave C   |
| 1329 | PWM Wave     |
| 1330 | Lead Wave 1  |
| 1331 | Lead Wave 2  |
| 1332 | Wire String  |
| 1333 | Hard 5ths A  |
| 1334 | Hard 5ths B  |
| 1335 | Hard 5ths C  |
| 1336 | Cold Dress   |
| 1337 | FX Bomb      |
| 1338 | FX Bell 1 fw |
| 1339 | FX Bell 2 fw |
| 1340 | Hi Q 2       |
| 1341 | Slap 2       |
| 1342 | Stick 2      |
| 1343 | Applause 2   |
| 1344 | Applause 3   |
| 1345 | Applause 4   |
| 1346 | Sea          |
| 1347 | Thunder 2    |
| 1348 | Bird         |
| 1349 | Horse        |
| 1350 | Gun Shot 2   |
| 1351 | Train 2      |
| 1352 | Helicopter 2 |
| 1353 | Machine Gun2 |
| 1354 | Tao Hit      |
| 1355 | S Push       |
| 1356 | S Pull       |
| 1357 | HM-Dummy     |
| 1358 | PopKickLo    |
| 1359 | PopKickMd    |
| 1360 | PopKickHi    |
| 1361 | Warm Kick p  |
| 1362 | Warm Kick f  |
| 1363 | Hush Kick p  |
| 1364 | Hush Kick f  |
| 1365 | Jz Kick 1    |
| 1366 | Jz Kick 2    |
| 1367 | Fat BD       |
| 1368 | Rom Kick     |
| 1369 | Techno BD1   |
| 1370 | 909 CompKick |
| 1371 | HipHop BD    |
| 1372 | 707 BD       |
| 1373 | TightSnr p L |
| 1374 | TightSnr f L |
| 1375 | T.Snr Ghst L |
| 1376 | TightSnr ffl |
| 1377 | T.Snr RS p L |
| 1378 | Br.Snr p L   |
| 1379 | Br.Snr mf L  |

| No.  | Name         |
|------|--------------|
| 1380 | Br.Snr ff L  |
| 1381 | IronSnrFlm L |
| 1382 | WoodSnr mf L |
| 1383 | WoodSnr ff L |
| 1384 | Maple Lo Snr |
| 1385 | MapleSoft SN |
| 1386 | PopSnr Gst 1 |
| 1387 | PopSnr Gst 2 |
| 1388 | PopSnr Gst 3 |
| 1389 | Jz Snare 1   |
| 1390 | Jz Snare 2   |
| 1391 | Jz Snare 3   |
| 1392 | PopSnr Lo_L  |
| 1393 | PopSnr Md_L  |
| 1394 | PopSnr VH_L  |
| 1395 | PopSnr Lo_R  |
| 1396 | PopSnr Md_R  |
| 1397 | PopSnr VH_R  |
| 1398 | PopSnr Ph    |
| 1399 | PopSnr ShRl  |
| 1400 | Fish Snare   |
| 1401 | Hybrid Snare |
| 1402 | Cross Snare  |
| 1403 | Rim Shot 1   |
| 1404 | Real Snare   |
| 1405 | Std Snare    |
| 1406 | Sol Snare    |
| 1407 | Id Snare 1   |
| 1408 | Id Snare 2   |
| 1409 | Rock Snare   |
| 1410 | GS Fat SD    |
| 1411 | Rim Shot 2   |
| 1412 | Rap Snare    |
| 1413 | Dance Snare  |
| 1414 | TR909 Snr 3  |
| 1415 | IronSnrGst L |
| 1416 | Concert SD 2 |
| 1417 | Snare Roll   |
| 1418 | Cross Stick  |
| 1419 | Br.SideStk L |
| 1420 | WoodSideStkL |
| 1421 | 707 Rim      |
| 1422 | StudioLo Tom |
| 1423 | StudioMidTom |
| 1424 | StudioHi Tom |
| 1425 | Jz Tom Lo    |
| 1426 | Jz Tom Md 1  |
| 1427 | Jz Tom Md 2  |
| 1428 | Jz Tom Hi 1  |
| 1429 | Jz Tom Hi 2  |
| 1430 | PopFrTmLoRC  |
| 1431 | PopFrTmMdRC  |
| 1432 | PopFrTmHiRC  |
| 1433 | Stdio T4 sft |
| 1434 | Stdio T4 med |
| 1435 | Stdio T4 hrd |
| 1436 | Stdio T3 sft |
| 1437 | Stdio T3 med |
| 1438 | Stdio T3 hrd |
| 1439 | Stdio T2 sft |
| 1440 | Stdio T2 med |
| 1441 | Stdio T2 hrd |
| 1442 | Stdio T1 sft |
| 1443 | Stdio T1 med |
| 1444 | Stdio T1 hrd |
| 1445 | PopTom1LoRC  |
| 1446 | PopTom1MdRC  |
| 1447 | PopTom1HiRC  |
| 1448 | PopTom2LoRC  |
| 1449 | PopTom2MdRC  |
| 1450 | PopTom2HiRC  |
| 1451 | PopFrTmFIlo  |
| 1452 | PopFrTmFIMd  |
| 1453 | PopFrTmFIHi  |
| 1454 | RkTom1Lo_Fl  |
| 1455 | RkTom1Md_Fl  |
| 1456 | RkTom1Hi_Fl  |
| 1457 | RkTom1VH_Fl  |
| 1458 | RkTom2Lo_Fl  |
| 1459 | RkTom2Md_Fl  |
| 1460 | RkTom2Hi_Fl  |
| 1461 | RkTom2VH_Fl  |

| No.  | Name         |
|------|--------------|
| 1462 | Reg.CHH 1 p  |
| 1463 | Reg.CHH 1 mf |
| 1464 | Reg.CHH 1 f  |
| 1465 | Reg.CHH 1 ff |
| 1466 | Reg.CHH 2 mf |
| 1467 | Reg.CHH 2 f  |
| 1468 | Reg.CHH 2 ff |
| 1469 | Reg.OHH 2 mf |
| 1470 | Reg.OHH 2 f  |
| 1471 | PopHHUPLo    |
| 1472 | PopHHUPMd    |
| 1473 | PopHHUPHi    |
| 1474 | PopHHSideLo  |
| 1475 | PopHHSideMd  |
| 1476 | PopHHSideHi  |
| 1477 | PopHHSideOp  |
| 1478 | PHHSdOpLg    |
| 1479 | 707 CHH      |
| 1480 | Dixie HH Pdl |
| 1481 | Dixie HH Cls |
| 1482 | Dixie HH Hlf |
| 1483 | Dixie HH Opn |
| 1484 | Crash Cym1 p |
| 1485 | Crash Cym1 f |
| 1486 | Crash Cym 2  |
| 1487 | Rock Crash 2 |
| 1488 | PopCrashLo   |
| 1489 | PopCrashMd   |
| 1490 | PopCrashHi   |
| 1491 | RkCrash1Lo   |
| 1492 | RkCrash1Md   |
| 1493 | RkCrash1Hi   |
| 1494 | RkCrash2Lo   |
| 1495 | RkCrash2Md   |
| 1496 | RkCrash2Hi   |
| 1497 | China Cym 2  |
| 1498 | RkSplashLo   |
| 1499 | RkSplashMd   |
| 1500 | RkSplashHi   |
| 1501 | Splash       |
| 1502 | PopRide BILo |
| 1503 | PopRide BIMd |
| 1504 | PopRide BIHi |
| 1505 | PopRideLo    |
| 1506 | PopRideMd    |
| 1507 | PopRideHi    |
| 1508 | RkRide1Lo    |
| 1509 | RkRide1Hi    |
| 1510 | Concert Cym2 |
| 1511 | 808 Clps     |
| 1512 | Hand Clap 1  |
| 1513 | TR-909 HC    |
| 1514 | Hand Clap 2  |
| 1515 | OR Clap 1    |
| 1516 | OR Clap 2    |
| 1517 | FingerSnaps1 |
| 1518 | FingerSnaps2 |
| 1519 | Cowbell Lng  |
| 1520 | Cowbell Edg  |
| 1521 | Cowbell mf   |
| 1522 | Cowbell f    |
| 1523 | Cowbell 2    |
| 1524 | Cowbell 3    |
| 1525 | Cowbell 4    |
| 1526 | Cowbell Op 1 |
| 1527 | Cowbell Mt 1 |
| 1528 | Cowbell Op 2 |
| 1529 | Cowbell Mt 2 |
| 1530 | BongoBell Op |
| 1531 | BongoBell Mt |
| 1532 | MamboBell Op |
| 1533 | MamboBell Mt |
| 1534 | Cowbell Low  |
| 1535 | Cowbell Hi   |
| 1536 | Cow Bell     |
| 1537 | 808 Cows     |
| 1538 | Wood Block2H |
| 1539 | Wood Block2L |
| 1540 | Wood Block 3 |
| 1541 | Claves 2     |
| 1542 | Clave!       |
| 1543 | Claves Lo    |

| No.  | Name         |
|------|--------------|
| 1544 | Claves 3     |
| 1545 | Ban Gu 1     |
| 1546 | Ban Gu 2     |
| 1547 | Castanet 2   |
| 1548 | Whistle Long |
| 1549 | Whistle Shrt |
| 1550 | ApitoHiShort |
| 1551 | ApitoLoShort |
| 1552 | SambaWhistle |
| 1553 | Whistle 2    |
| 1554 | ID Whistle 1 |
| 1555 | ID Whistle 2 |
| 1556 | ID Whistle 3 |
| 1557 | Shankh       |
| 1558 | Bongo HM     |
| 1559 | Bongo LM 1   |
| 1560 | Bongo LM 2   |
| 1561 | Bongo Hi Hrd |
| 1562 | Bongo HiOp f |
| 1563 | BongoHiSlap1 |
| 1564 | BongoHiSlap2 |
| 1565 | Bongo 1 Hi   |
| 1566 | Bongo 2 Hi   |
| 1567 | Bongo 1 Lo   |
| 1568 | Bongo 2 Lo   |
| 1569 | Bongo Lo Hrd |
| 1570 | Bongo Lo Sft |
| 1571 | Bongo LoOpmf |
| 1572 | Bongo LoOp f |
| 1573 | Bongo LoSlap |
| 1574 | Bongo slide  |
| 1575 | Conga 2H Op  |
| 1576 | Conga 2H Mt  |
| 1577 | Conga 2H Slp |
| 1578 | Conga 2L Op  |
| 1579 | Conga 2L Mt  |
| 1580 | Conga Mt Lo  |
| 1581 | Conga Thumb  |
| 1582 | Conga Link   |
| 1583 | Conga Roll   |
| 1584 | Conga HM     |
| 1585 | Conga 1H Mt  |
| 1586 | Conga M      |
| 1587 | Conga 1L Mt  |
| 1588 | Conga LM     |
| 1589 | Conga 1 Slap |
| 1590 | Conga 1H Op  |
| 1591 | CongaLoOp f  |
| 1592 | CongaLoOp mf |
| 1593 | Timbales L   |
| 1594 | Timbales H   |
| 1595 | Timbale 1    |
| 1596 | Timbale 2    |
| 1597 | Timbale 3 Lo |
| 1598 | Timbale 3 Hi |
| 1599 | Timbale 3 Sd |
| 1600 | Timbles LoOp |
| 1601 | Timbles LoMt |
| 1602 | Timbles HiOp |
| 1603 | Timbles HiMt |
| 1604 | TimbalesHand |
| 1605 | Timbales Rim |
| 1606 | TmbSideStick |
| 1607 | TimbalesFil1 |
| 1608 | TimbalesFil2 |
| 1609 | TimbalesFil3 |
| 1610 | TimbalesFil4 |
| 1611 | SambaBateria |
| 1612 | Cabasa Down1 |
| 1613 | Cabasa Down2 |
| 1614 | Cabasa Up 1  |
| 1615 | Cabasa Up 2  |
| 1616 | Real Cabasa1 |
| 1617 | Real Cabasa2 |
| 1618 | Cabasa       |
| 1619 | Cabasa Cut 2 |
| 1620 | Maracas 2    |
| 1621 | Maracas 3    |
| 1622 | Maracas3UpDw |
| 1623 | Shaker 1     |
| 1624 | Shaker 2     |
| 1625 | Shaker 3     |

| No.  | Name         | No.  | Name         | No.  | Name         | No.  | Name         | No.  | Name         |
|------|--------------|------|--------------|------|--------------|------|--------------|------|--------------|
| 1626 | Shaker 4     | 1708 | TablaBaya Te | 1790 | Surdo Open L | 1872 | C-Accord A3R | 1954 | ThumbMtBs fB |
| 1627 | Shaker Long  | 1709 | Tabla Baya 4 | 1791 | Surdo Open H | 1873 | C-Accord N1L | 1955 | ThumbMtBs fC |
| 1628 | Shaker Short | 1710 | Tbl Tak      | 1792 | Surdo Mute 1 | 1874 | C-Accord N1R | 1956 | DistTB Sqr   |
| 1629 | Cabasa Roll  | 1711 | Tbl Dom      | 1793 | Surdo Rim 1  | 1875 | C-Accord N2  | 1957 | Oboe Mezzo A |
| 1630 | Caxixi       | 1712 | Tabla Fx     | 1794 | Surdo Hard   | 1876 | E-Accord 1   | 1958 | Oboe Mezzo B |
| 1631 | Ganza Soft   | 1713 | Tbl Sak      | 1795 | Surdo Open 1 | 1877 | E-Accord 2   | 1959 | Oboe Mezzo C |
| 1632 | Ganza Hard   | 1714 | Tbl Rim      | 1796 | Surdo Open 2 | 1878 | BajoSxt mf   | 1960 | Bari.Sax 2 A |
| 1633 | 808 Maracas2 | 1715 | Tbl NurRim   | 1797 | Surdo Mute 2 | 1879 | BajoSxt f    | 1961 | Bari.Sax 2 B |
| 1634 | 808 Maracas3 | 1716 | Duff Dish    | 1798 | Surdo Rim 2  | 1880 | BajoSxtMute1 | 1962 | Bari.Sax 2 C |
| 1635 | Chekere 1    | 1717 | Duff T       | 1799 | Surdo Soft   | 1881 | BajoSxtMute2 | 1963 | OctBrs f A L |
| 1636 | Chekere 2    | 1718 | Ceng Ceng 1  | 1800 | Caixa Open1  | 1882 | CharangUp mf | 1964 | OctBrs f A R |
| 1637 | Chekere 3    | 1719 | Udu Pot1 Hi  | 1801 | Caixa Open2  | 1883 | CharangUp f  | 1965 | OctBrs f B L |
| 1638 | Guiro 2 Long | 1720 | Udu Pot1 Lo  | 1802 | Caixa Roll   | 1884 | ChrngOctUpmf | 1966 | OctBrs f B R |
| 1639 | Guiro 2 Shrt | 1721 | Udu Pot2 Lng | 1803 | Caixa Mute   | 1885 | ChrngOctUp f | 1967 | OctBrs f C L |
| 1640 | Quide Long   | 1722 | Udu Pot2 Sht | 1804 | Caixa Open3  | 1886 | Guitarrn p   | 1968 | OctBrs f C R |
| 1641 | Quide Short  | 1723 | Udo Low      | 1805 | Caixa Mute2  | 1887 | Guitarrn mf  | 1969 | OrchUnis2 BL |
| 1642 | Guiro 3 Long | 1724 | Udo Slap     | 1806 | Caixa Roll 2 | 1888 | MariTp Vb mf | 1970 | OrchUnis2 BR |
| 1643 | Guiro 3 Shrt | 1725 | Cajon        | 1807 | Caixa Rim    | 1889 | MariTp Vb f  | 1971 | OrchUnis2 CL |
| 1644 | Long Guiro   | 1726 | Cajon Lo     | 1808 | RepiniqueHrd | 1890 | MariTpVbwAtk | 1972 | OrchUnis2 CR |
| 1645 | Short Guiro  | 1727 | Cajon Hi     | 1809 | RepiniqueSft | 1891 | MariTp Stc f | 1973 | Violin Vib A |
| 1646 | Guiro 4 Up   | 1728 | Cajon Rol Hi | 1810 | Repinique1   | 1892 | Banda Tp Vib | 1974 | Violin Vib B |
| 1647 | Guiro 4 Down | 1729 | Cajon Rol Lo | 1811 | Repinique2   | 1893 | Banda Tp Stc | 1975 | Violin Vib C |
| 1648 | Guiro 4 Fast | 1730 | Cuica 1 Hi   | 1812 | Repique Open | 1894 | Banda TbnVib | 1976 | Cello Vib A  |
| 1649 | RecoRecoLng  | 1731 | Cuica 1 Low  | 1813 | Repique Rim  | 1895 | Banda TbnStc | 1977 | Cello Vib B  |
| 1650 | RecoRecoSht  | 1732 | Cuica 2      | 1814 | Repique Roll | 1896 | Banda Tuba   | 1978 | Cello Vib C  |
| 1651 | MtlGuiroLng  | 1733 | Cuica Lo 1   | 1815 | Timpani      | 1897 | BandaTubaStc | 1979 | Cello 2 A    |
| 1652 | MtlGuiroSht  | 1734 | Cuica Lo 2   | 1816 | Open Triangl | 1898 | Banda ClaVib | 1980 | Cello 2 B    |
| 1653 | Vibraslap 2  | 1735 | Cuica Hi 1   | 1817 | Triangle 2   | 1899 | Banda ClaStc | 1981 | Cello 2 C    |
| 1654 | Vibraslap 3  | 1736 | Cuica Hi 2   | 1818 | Triangle 3   | 1900 | CharangDw mf | 1982 | VI Sect.2 BL |
| 1655 | Quijada      | 1737 | Mute Cuica   | 1819 | Sagat Mid    | 1901 | CharangDw f  | 1983 | VI Sect.2 BR |
| 1656 | Rainstick    | 1738 | Open Cuica   | 1820 | Sagat Hi     | 1902 | ChrngOctDwmf | 1984 | VI Sect.2 CL |
| 1657 | Tambarin 1   | 1739 | Wadon 1      | 1821 | Sagat Sak    | 1903 | ChrngOctDw f | 1985 | VI Sect.2 CR |
| 1658 | Tambarin 2   | 1740 | Wadon 2      | 1822 | Sagat Open 1 | 1904 | Ac.Pno p A L | 1986 | Vc Sect.2 BL |
| 1659 | Tambarin 3   | 1741 | Wadon 3      | 1823 | Sagat Close1 | 1905 | Ac.Pno p A R | 1987 | Vc Sect.2 BR |
| 1660 | Tamborine p  | 1742 | Wadon 4      | 1824 | Twesat 1     | 1906 | Ac.Pno p B L | 1988 | Vc Sect.2 CL |
| 1661 | Tamborine f  | 1743 | Wadon 5      | 1825 | Twesat Prc   | 1907 | Ac.Pno p B R | 1989 | Vc Sect.2 CR |
| 1662 | PandeiroCrsh | 1744 | Wadon 6      | 1826 | PandeiroStc  | 1908 | Ac.Pno p C L | 1990 | Full Str2 BL |
| 1663 | PandeiroHit  | 1745 | Wadon 7      | 1827 | Zil Open     | 1909 | Ac.Pno p C R | 1991 | Full Str2 BR |
| 1664 | PandeiroMute | 1746 | Madal Da     | 1828 | Zil Close    | 1910 | Ac.Pno f A L | 1992 | Full Str2 CL |
| 1665 | PandeiroL Lo | 1747 | Madal Dun    | 1829 | Clapstick    | 1911 | Ac.Pno f A R | 1993 | Full Str2 CR |
| 1666 | PandeiroL Hi | 1748 | Madal Ta     | 1830 | Agogo 1      | 1912 | Ac.Pno f B L | 1994 | ChmbrStrAt2B |
| 1667 | PandeiroL Sp | 1749 | Dhol Beater  | 1831 | Agogo 2 Lo   | 1913 | Ac.Pno f B R | 1995 | ChmbrStrAt2C |
| 1668 | PandeiroL Rm | 1750 | Dhol Stick   | 1832 | Agogo 2 Hi   | 1914 | Ac.Pno f C L | 1996 | Vls Pizz 2 B |
| 1669 | PandeiroS Op | 1751 | Dhol Hand    | 1833 | Agogo 3 Lo   | 1915 | Ac.Pno f C R | 1997 | Vls Pizz 2 C |
| 1670 | PandeiroS Sp | 1752 | Dhol Body    | 1834 | Agogo 3 Hi   | 1916 | Dyno EP ff A | 1998 | Vcs Pizz 2 B |
| 1671 | PandeiroS Rm | 1753 | Dhol 1       | 1835 | Asian Gong 1 | 1917 | Dyno EP ff B | 1999 | Vcs Pizz 2 C |
| 1672 | PandeiroOpen | 1754 | Dhol 2       | 1836 | GamelanGong1 | 1918 | Dyno EP ff C | 2000 | OB2 Pad 3 B  |
| 1673 | PandeiroRim  | 1755 | Doholla Dom  | 1837 | Wind Bell 1  | 1919 | RtryOrg1 A L | 2001 | Jazz Doos A  |
| 1674 | PandeiroRoll | 1756 | Doholla Sak  | 1838 | Kane 1       | 1920 | RtryOrg1 A R | 2002 | Jazz Doos B  |
| 1675 | Tamborim Opn | 1757 | Doholla Tak  | 1839 | JingleBell 2 | 1921 | RtryOrg1 B L | 2003 | Jazz Doos C  |
| 1676 | Tamborim Mut | 1758 | Dla Rim      | 1840 | Wind Chime 2 | 1922 | RtryOrg1 B R | 2004 | Jz Doos Lp A |
| 1677 | Tamborim Slp | 1759 | Dla Sak      | 1841 | Sarna Bell   | 1923 | RtryOrg1 C L | 2005 | Jz Doos Lp B |
| 1678 | TamborimOpen | 1760 | Dof 2 Dmo    | 1842 | Berimbau Opn | 1924 | RtryOrg1 C R | 2006 | Jz Doos Lp C |
| 1679 | TamborimRim  | 1761 | Dof 1 Rim    | 1843 | Berimbau Up  | 1925 | Nylon Gtr3 B | 2007 | JD Cowbell   |
| 1680 | TamborimMute | 1762 | Dof 1 Dom    | 1844 | Berimbau Dn  | 1926 | Ac.Gtr ff A  | 2008 | Vinyl Noise  |
| 1681 | TamborimRoll | 1763 | Dof 1 Sak    | 1845 | Berimbau Mut | 1927 | Ac.Gtr ff B  | 2009 | Scratch 5    |
| 1682 | Tambrin Hit  | 1764 | Hager        | 1846 | 180:LatinPtn | 1928 | Ac.Gtr ff C  | 2010 | MG Zap 4     |
| 1683 | TambrinShake | 1765 | Zir          | 1847 | 160:CgMambo  | 1929 | Ac.Gtr Sld A | 2011 | MG Zap 5     |
| 1684 | Riq Open     | 1766 | Nakrazn      | 1848 | 132:TmbI Ptn | 1930 | Ac.Gtr Sld B | 2012 | MG Zap 6     |
| 1685 | Riq Mute     | 1767 | Dholak 1     | 1849 | 104:Shakin'  | 1931 | Ac.Gtr Sld C | 2013 | MG Zap 7     |
| 1686 | Rek Open     | 1768 | Dholak 2     | 1850 | 132:AgogoPtn | 1932 | Ac.Gtr Hrm2B | 2014 | MG Zap 8     |
| 1687 | Rek Dom      | 1769 | Dholak 3     | 1851 | 118:TablaBy1 | 1933 | Clean Gtr2 B | 2015 | Syn Hrd Atk3 |
| 1688 | Rek Tek      | 1770 | Dholak 4     | 1852 | 118:TablaBy2 | 1934 | Clean Gtr2 C | 2016 | Syn Mtl Atk1 |
| 1689 | Rek BRS      | 1771 | Dholak 5     | 1853 | 92:DholakPh1 | 1935 | Brt Strat2 B | 2017 | Syn Mtl Atk2 |
| 1690 | Rek ROL      | 1772 | Dholak Ga    | 1854 | 92:DholakPh2 | 1936 | Brt Strat2 C | 2018 | Syn Swt Atk5 |
| 1691 | Rek KNA      | 1773 | Dholak 6     | 1855 | 120:Dhol Ph  | 1937 | FstPick70s2B | 2019 | Syn Swt Atk6 |
| 1692 | Rek KNB      | 1774 | Dholak 7     | 1856 | SectChd 13th | 1938 | FstPick70s2C | 2020 | Syn Swt Atk7 |
| 1693 | Doira Dun    | 1775 | Dholak 8     | 1857 | SectChd m9   | 1939 | Overdrive2 C | 2021 | Reg.Kick p L |
| 1694 | Doira Tik    | 1776 | Dholak Na    | 1858 | SectChd Mj9  | 1940 | Distortion2B | 2022 | Reg.Kick p R |
| 1695 | Tabla Baya 2 | 1777 | Dholak Tun   | 1859 | MC500 Beep 3 | 1941 | Distortion2C | 2023 | Reg.Kick f L |
| 1696 | Tabla Baya 3 | 1778 | Tabel H Dom  | 1860 | Boing        | 1942 | Banjo 2 B    | 2024 | Reg.Kick f R |
| 1697 | TablaBaya Ka | 1779 | Tabel H Sak2 | 1861 | G-Accord 1 L | 1943 | Sitar 5 B    | 2025 | Rock Kick p  |
| 1698 | TablaBaya Ge | 1780 | Tabel H Sak1 | 1862 | G-Accord 1 R | 1944 | Sitar 5 C    | 2026 | Rock Kick f  |
| 1699 | Tabla Baya 1 | 1781 | Tabel H Tac  | 1863 | G-Accord 2 L | 1945 | E.Sitar 2 B  | 2027 | Jazz Kick p  |
| 1700 | TablaBayaSld | 1782 | Tabel L Dom  | 1864 | G-Accord 2 R | 1946 | E.Sitar 2 C  | 2028 | Jazz Kick mf |
| 1701 | Baya Sld     | 1783 | Tabel L Sak1 | 1865 | G-Accord 3 L | 1947 | FngrCmp Bs A | 2029 | Jazz Kick f  |
| 1702 | Baya Long    | 1784 | Tabel L Sak2 | 1866 | G-Accord 3 R | 1948 | FngrCmp Bs B | 2030 | Dry Kick 1   |
| 1703 | TablaBayaGin | 1785 | Tabel L Tac  | 1867 | C-Accord A1L | 1949 | FngrCmp Bs C | 2031 | Tight Kick   |
| 1704 | TablaBaya Na | 1786 | Merjaf Dom   | 1868 | C-Accord A1R | 1950 | ThumbMtBs pA | 2032 | Old Kick     |
| 1705 | TablaBayaTin | 1787 | Merjaf Tac   | 1869 | C-Accord A2L | 1951 | ThumbMtBs pB | 2033 | Dry Kick 2   |
| 1706 | TablaBayaTun | 1788 | Merjaf Sak   | 1870 | C-Accord A2R | 1952 | ThumbMtBs pC | 2034 | Dry Kick 3   |
| 1707 | TablaBaya Ti | 1789 | Surdo        | 1871 | C-Accord A3L | 1953 | ThumbMtBs fA | 2035 | Power Kick   |

## Waveform List

| No.  | Name         | No.  | Name          | No.  | Name          | No.  | Name          | No.  | Name          |
|------|--------------|------|---------------|------|---------------|------|---------------|------|---------------|
| 2036 | R&B Kick L   | 2118 | TR909 Ride    | 2200 | Acid-Basson1f | 2282 | EEU-LTom2 f   | 2364 | EM.Rek Trill  |
| 2037 | Rk CmpKick L | 2119 | Hand Clap     | 2201 | Acid-Basson2f | 2283 | EEU-LTom2 ff  | 2365 | EM.Rek Tak 1  |
| 2038 | Rk CmpKick R | 2120 | Bright Clap   | 2202 | Acid-Basson2p | 2284 | EEU-MTom2 p   | 2366 | EM.Rek Rim 1  |
| 2039 | 70's Kick    | 2121 | Disc Clap     | 2203 | Acid-Sop 1 p  | 2285 | EEU-MTom2 f   | 2367 | EM.Rek Rim 2  |
| 2040 | Dance Kick   | 2122 | TR909 Clap 1  | 2204 | Acid-Sop 1 f  | 2286 | EEU-MTom2 ff  | 2368 | EM.Rek Brs 1  |
| 2041 | HipHop Kick  | 2123 | TR909 Clap 2  | 2205 | Acid-Sop 2 p  | 2287 | EEU-HTom2 p   | 2369 | EM.Rek Brs 2  |
| 2042 | Plastic Kick | 2124 | Cheap Clap    | 2206 | Acid-Sop 2 f  | 2288 | EEU-HTom2 f   | 2370 | EM.Rek Tok    |
| 2043 | AnalogKick 2 | 2125 | Snap          | 2207 | Acid-Violin p | 2289 | EEU-HTom2 ff  | 2371 | EM.Rek Brs 3  |
| 2044 | TR909 Kick 3 | 2126 | Cowbell Mute  | 2208 | Acid-Violin f | 2290 | EEU-CrsStk p  | 2372 | EM.Rek Tak 2  |
| 2045 | TR909 Kick 4 | 2127 | Wood Block 4  | 2209 | Acid-Clari1 p | 2291 | EEU-CrsStkmp  | 2373 | EM.REK Sak    |
| 2046 | TR707 Kick   | 2128 | Bongo Hi Op   | 2210 | Acid-Clari1 f | 2292 | EEU-CrsStkmp  | 2374 | EM.Rek Tik    |
| 2047 | TR909 Kick 5 | 2129 | Bongo Lo Op   | 2211 | Acid-Clari2 p | 2293 | EEU-CrsStk f  | 2375 | EM.MazharDom  |
| 2048 | Reg.SnrFlm L | 2130 | Conga2 Hi Mt  | 2212 | Acid-Clari2 f | 2294 | EEUSplashCym  | 2376 | EM.MazharTak  |
| 2049 | Amb.Snr 1 p  | 2131 | Conga2 HiSlp  | 2213 | Acid-Musete p | 2295 | EEU-Ride mp   | 2377 | EM.MazharSak  |
| 2050 | Amb.Snr2 p L | 2132 | Conga2 Hi Op  | 2214 | Acid-Musete f | 2296 | EEU-Ride mf   | 2378 | EM.MazharBrs  |
| 2051 | Amb.Snr2 p R | 2133 | Conga2 LowOp  | 2215 | Acid-Accord p | 2297 | EEU-Ride Cup  | 2379 | EM.Dofs Tak   |
| 2052 | Maple Snr    | 2134 | Timbale 4     | 2216 | Acid-Accord f | 2298 | EEU-HH Op p   | 2380 | EM.Dofs Dom   |
| 2053 | Light Snr ff | 2135 | Cabasa Op 3   | 2217 | Acid-Harmon p | 2299 | EEU-HH Op mp  | 2381 | EM.Dofs Sak   |
| 2054 | Snr Roll Lp  | 2136 | Guiro 1       | 2218 | Acid-Harmon f | 2300 | EEU-HH Op mf  | 2382 | EM.Dofs Rim1  |
| 2055 | Soft Jz Roll | 2137 | Tambourine 2  | 2219 | Acid-Piccolo  | 2301 | EEU-HH Op f   | 2383 | EM.Dofs Rim2  |
| 2056 | BrushRoll Lp | 2138 | Tambourine 3  | 2220 | Acid-Oboe 1 p | 2302 | EEU-HH Cl1 p  | 2384 | EM.Tbl2 Tak 1 |
| 2057 | Dirty Snr    | 2139 | Tambourine 4  | 2221 | Acid-Oboe 1 f | 2303 | EEU-HH Cl1mp  | 2385 | EM.Tbl2 Rim1  |
| 2058 | Lo-Bit Snr   | 2140 | Cuica 3       | 2222 | Acid-Oboe 2 p | 2304 | EEU-HH Cl1mf  | 2386 | EM.Tbl2 Dom   |
| 2059 | Jngl pkt Snr | 2141 | Triangle 4    | 2223 | Acid-Oboe 2 f | 2305 | EEU-HH Cl1 f  | 2387 | SC.TR909 BD2  |
| 2060 | Flange Snr   | 2142 | Reverse Cym2  | 2224 | Acid-Organ1 p | 2306 | EEU-HH Cl2 p  | 2388 | EEU-BsDrm mf  |
| 2061 | Analog Snr 2 | 2143 | F.Str mp A L  | 2225 | Acid-Organ1 f | 2307 | EEU-HH Cl2mp  | 2389 | EEU-BsDrm f   |
| 2062 | TR909 Snr 4  | 2144 | F.Str mp A R  | 2226 | Acid-Organ2 p | 2308 | EEU-HH Cl2mf  | 2390 | EEU-BsDrm ff  |
| 2063 | TR909 Snr 5  | 2145 | Mrcr A L      | 2227 | Acid-Organ2 f | 2309 | EEU-HH Cl2 f  | 2391 | EEU-Snare1 p  |
| 2064 | TR909 Snr 6  | 2146 | Mrcr A R      | 2228 | Acid-RegistS1 | 2310 | EEU-ChnCym p  | 2392 | EEU-Snare1mp  |
| 2065 | Urbn Sn Roll | 2147 | RR F.Tom mp   | 2229 | Acid-RegistS2 | 2311 | EEU-ChnCym f  | 2393 | EEU-Snare1mf  |
| 2066 | Hard Stick   | 2148 | RR F.Tom ff   | 2230 | Acid-RegistS3 | 2312 | EEU-Cr.Cym1p  | 2394 | EEU-Snare1 f  |
| 2067 | Dry Stick    | 2149 | SF Kick 2 L   | 2231 | Acid-KeyOff 1 | 2313 | EEU-Cr.Cym1f  | 2395 | EEU-Snare2mp  |
| 2068 | R8 Comp Rim  | 2150 | SF Kick 2 R   | 2232 | Acid-KeyOff 2 | 2314 | EEU-Cr.Cym2p  | 2396 | EEU-Snare2mf  |
| 2069 | TR909 Rim    | 2151 | SF Snr p L    | 2233 | EEU-PickBs1p  | 2315 | EEU-Cr.Cym2f  | 2397 | EEU-Snare2 f  |
| 2070 | Reg.L.Tom p  | 2152 | SF Snr p R    | 2234 | EEU-PickBs1f  | 2316 | EEUbnngL RM p | 2398 | EEU-Snare2ff  |
| 2071 | Reg.L.Tom f  | 2153 | SF Snr f L    | 2235 | EEU-PickBs2p  | 2317 | EEUbnngL RMmf | 2399 | EEU-ViolnS1   |
| 2072 | Reg.M.Tom p  | 2154 | SF Snr f R    | 2236 | EEU-PickBs2f  | 2318 | EEUbnngL RM f | 2400 | EEU-ViolnS2   |
| 2073 | Reg.M.Tom f  | 2155 | SF Snr ff L   | 2237 | EEU-SlideBs1  | 2319 | EEUbnngH RM p | 2401 | EEU-E.VlnS1   |
| 2074 | Reg.H.Tom p  | 2156 | SF Snr ff R   | 2238 | EEU-SlideBs2  | 2320 | EEUbnngH RMmp | 2402 | EEU-E.VlnS2   |
| 2075 | Reg.H.Tom f  | 2157 | SF Rim p L    | 2239 | EEU-SlideBs3  | 2321 | EEUbnngH RMmf |      |               |
| 2076 | Reg.L.TomFlm | 2158 | SF Rim p R    | 2240 | BB2-SlideBs1  | 2322 | EEUbnngH RM f |      |               |
| 2077 | Reg.M.TomFlm | 2159 | SF Rim mf L   | 2241 | BB2-SlideBs2  | 2323 | EEUbnngL OP p |      |               |
| 2078 | Reg.H.TomFlm | 2160 | SF Rim mf R   | 2242 | EEU-E.Gtr p   | 2324 | EEUbnngL OPmp |      |               |
| 2079 | Jazz Lo Tom  | 2161 | SF Rim f L    | 2243 | EEU-E.Gtr f   | 2325 | EEUbnngL OP f |      |               |
| 2080 | Jazz Mid Tom | 2162 | SF Rim f R    | 2244 | EEU-E.GtrTrm  | 2326 | EEUbnngL OPmf |      |               |
| 2081 | Jazz Hi Tom  | 2163 | SF SnrGst1 L  | 2245 | EEU-BozkGlid  | 2327 | EEUbnngH OP p |      |               |
| 2082 | Jazz Lo Flm  | 2164 | SF SnrGst1 R  | 2246 | EEU-Bozuki p  | 2328 | EEUbnngH OPmf |      |               |
| 2083 | Jazz Mid Flm | 2165 | SF SnrGst2 L  | 2247 | EEU-Bozuki f  | 2329 | EEUbnngH OP f |      |               |
| 2084 | Jazz Hi Flm  | 2166 | SF SnrGst2 R  | 2248 | EEU-Bozuk ff  | 2330 | FG.TR909Clap  |      |               |
| 2085 | Dry Lo Tom   | 2167 | R&B ShrtSnr1  | 2249 | EEU-BozkTrem  | 2331 | VA.Cha2Bell1  |      |               |
| 2086 | TR909 Tom    | 2168 | Vint Snr      | 2250 | EEU-Violin    | 2332 | VA.Cha2Bell2  |      |               |
| 2087 | TR909 DstTom | 2169 | Short Snr     | 2251 | EEU-E.Violin  | 2333 | SC.Elec Kick  |      |               |
| 2088 | Rock CHH1 mf | 2170 | SF CStk p L   | 2252 | EEU-Sax p     | 2334 | EM.DholaRaka  |      |               |
| 2089 | Rock CHH1 f  | 2171 | SF CStk p R   | 2253 | EEU-Sax f     | 2335 | EM.DholaTak1  |      |               |
| 2090 | Rock CHH2 mf | 2172 | SF L.Tom mf   | 2254 | EEU-SaxKyOff  | 2336 | EM.DholaTak2  |      |               |
| 2091 | Rock CHH2 f  | 2173 | SF L.Tom ff   | 2255 | EEU-Or.Sax p  | 2337 | EM.DofDom 1   |      |               |
| 2092 | Rock OHH     | 2174 | SF M.Tom mf   | 2256 | EEU-Or.Sax f  | 2338 | EM.DofDom 2   |      |               |
| 2093 | HipHop CHH   | 2175 | SF M.Tom ff   | 2257 | EEU-Clari p   | 2339 | EM.DofDom 3   |      |               |
| 2094 | TR909 CHH 1  | 2176 | SF H.Tom mf   | 2258 | EEU-Clari f   | 2340 | EM.DofTak 1   |      |               |
| 2095 | TR909 CHH 2  | 2177 | SF H.Tom f    | 2259 | EEU-ClakKyOff | 2341 | EM.DofSak 1   |      |               |
| 2096 | TR808 CHH 2  | 2178 | RR FT Flm ff  | 2260 | EEU-Gajde     | 2342 | EM.DofSak 2   |      |               |
| 2097 | TR808 CHH 3  | 2179 | SF LT Flm ff  | 2261 | EEU-Tp p      | 2343 | EM.DofSak 3   |      |               |
| 2098 | TR606 CHH    | 2180 | SF MT Flm f   | 2262 | EEU-Tp f      | 2344 | EM.DofFingr2  |      |               |
| 2099 | TR606 DstCHH | 2181 | SF HT Flm p   | 2263 | EEU-Tp Noise  | 2345 | EM.Tbl Raka 1 |      |               |
| 2100 | Dance CHH    | 2182 | SF HT Flm f   | 2264 | EEU-Tapan Fx  | 2346 | EM.Tbl Tak 1  |      |               |
| 2101 | TR909 PHH 1  | 2183 | SF HT Flm ff  | 2265 | EEU-TapanM p  | 2347 | EM.Tbl Tik 1  |      |               |
| 2102 | TR909 PHH 2  | 2184 | 808 Kick 1 P  | 2266 | EEU-TapanM f  | 2348 | EM.Tbl Dom 1  |      |               |
| 2103 | TR808 PHH    | 2185 | 808 Kick 2 P  | 2267 | EEU-TapanH p  | 2349 | EM.Tbl Dom 2  |      |               |
| 2104 | TR606 PHH    | 2186 | 909 Kick 1 P  | 2268 | EEU-TapanHmf  | 2350 | EM.Tbl Sak 1  |      |               |
| 2105 | Lo-Bit OHH   | 2187 | 909 Kick 2 P  | 2269 | EEU-TapanH f  | 2351 | EM.Tbl Sak 2  |      |               |
| 2106 | HipHop OHH   | 2188 | 909 Kick 3 P  | 2270 | EEU-TapanL p  | 2352 | EM.Tbl Roll   |      |               |
| 2107 | TR909 OHH 1  | 2189 | JungleKick P  | 2271 | EEU-TapanL f  | 2353 | EM.Tbl Tak 2  |      |               |
| 2108 | TR909 OHH 2  | 2190 | 808 Snr 1 P   | 2272 | EEU-LTom1 p   | 2354 | EM.Tbl Raka 2 |      |               |
| 2109 | TR808 OHH 2  | 2191 | 808 Snr 2 P   | 2273 | EEU-LTom1 f   | 2355 | EM.Tbl Rim 1  |      |               |
| 2110 | TR808 OHH 3  | 2192 | 909 Snr 1 P   | 2274 | EEU-LTom1 ff  | 2356 | EM.Tbl Toks1  |      |               |
| 2111 | Lite OHH     | 2193 | 909 Snr 2 P   | 2275 | EEU-MTom1 p   | 2357 | EM.Tbl Toks2  |      |               |
| 2112 | Rock Crash 3 | 2194 | 626 Snr P     | 2276 | EEU-MTom1 f   | 2358 | EM.Tbl Toks3  |      |               |
| 2113 | Jazz Crash   | 2195 | 106 Snr       | 2277 | EEU-MTom1 ff  | 2359 | EM.Tbl Toks4  |      |               |
| 2114 | TR909 Crash  | 2196 | Jungle Snr P  | 2278 | EEU-HTom1 p   | 2360 | EM.Tbl Rim 2  |      |               |
| 2115 | Ride Bell    | 2197 | Claptail      | 2279 | EEU-HTom1 f   | 2361 | EM.Tbl Tik 2  |      |               |
| 2116 | Jazz Ride p  | 2198 | Dist Clap     | 2280 | EEU-HTom1 ff  | 2362 | EM.Rek Raka   |      |               |
| 2117 | Jazz Ride mf | 2199 | Acid-Basson1p | 2281 | EEU-LTom2 p   | 2363 | EM.Rek Dom    |      |               |



## INTB

| No.  | Name         | No.  | Name         | No.  | Name         |
|------|--------------|------|--------------|------|--------------|
| 0001 | GrandP* 1 mp | 0080 | Naggra 4 p   | 0159 | Chenchen Opn |
| 0002 | GrandP* 1 f  | 0081 | Naggra 4 mf  | 0160 | Chenchen Cls |
| 0003 | GrandP* 1 ff | 0082 | Naggra 4 f   | 0161 | Ceng Ceng 2  |
| 0004 | GrandP* 2 mp | 0083 | Naggra 4 ff  | 0162 | Kwaengwari f |
| 0005 | GrandP* 2 f  | 0084 | Nggr Flam 1  | 0163 | KwaengwariMt |
| 0006 | GrandP* 2 ff | 0085 | Nggr Flam 2  | 0164 | Sagat Open 2 |
| 0007 | GrandP*mp CL | 0086 | Nggr Flam 3  | 0165 | Sagat Close2 |
| 0008 | GrandP*mp CR | 0087 | Nggr Flam 4  | 0166 | Asian Gong 2 |
| 0009 | GrandP* f CL | 0088 | Nggr Mute p  | 0167 | Shou Luo 1   |
| 0010 | GrandP* f CR | 0089 | Nggr Mute mf | 0168 | Shou Luo 2   |
| 0011 | GrandP*ff CL | 0090 | Nggr Mute f  | 0169 | HuYinLuoH Op |
| 0012 | GrandP*ff CR | 0091 | Nggr Mute ff | 0170 | HuYinLuoL Op |
| 0013 | Erhu 4 mp    | 0092 | Nggr Roll 1  | 0171 | HuYinLuoH Mt |
| 0014 | Erhu 4 f     | 0093 | Nggr Roll 2  | 0172 | HuYinLuoL Mt |
| 0015 | Erhu 4 Vib   | 0094 | Nggr Roll 3  | 0173 | Big Gong     |
| 0016 | Erhu 4 Harm  | 0095 | Nggr Roll 4  | 0174 | Kane 2       |
| 0017 | Banhu mf     | 0096 | Nggr Side p  | 0175 | Kane Side    |
| 0018 | Banhu Vib    | 0097 | Nggr Side mf | 0176 | Kwaengwari p |
| 0019 | Banhu Harm   | 0098 | Nggr Side f  | 0177 | GamelanGong2 |
| 0020 | Banhu Orna   | 0099 | Nggr Side ff | 0178 | Saron        |
| 0021 | Jinghu mf    | 0100 | Dap 1 p      | 0179 | Wind Bell 2  |
| 0022 | Jinghu f     | 0101 | Dap 1 f      | 0180 | Jinghu Menu  |
| 0023 | Sihu mp      | 0102 | Dap 2 p      | 0181 | Sihu Menu    |
| 0024 | Sihu mf      | 0103 | Dap 2 mf     | 0182 | Matoqn Menu  |
| 0025 | Sihu w/Atk   | 0104 | Dap 2 f      | 0183 | 118:China Ph |
| 0026 | Sihu Harm    | 0105 | Dap 2 ff     | 0184 | 132:China Ph |
| 0027 | Matouqin2 mp | 0106 | Dap 3        |      |              |
| 0028 | Matouqin2Vib | 0107 | Dap 4        |      |              |
| 0029 | Yangqin 2 mp | 0108 | Dap 5        |      |              |
| 0030 | Yangqin 2 mf | 0109 | Dap 6        |      |              |
| 0031 | Yangqin 2Hrd | 0110 | Dap 7        |      |              |
| 0032 | Yangqin2Trem | 0111 | Dap 8        |      |              |
| 0033 | Zhongruan mp | 0112 | Dap 9        |      |              |
| 0034 | Zhongruan mf | 0113 | Dap 10       |      |              |
| 0035 | Zhngruan Hrm | 0114 | Dap 11       |      |              |
| 0036 | ZhngruanStrm | 0115 | Dap 12       |      |              |
| 0037 | Guqin mp     | 0116 | Dap 13       |      |              |
| 0038 | Guqin mf     | 0117 | Dap 14       |      |              |
| 0039 | Guqin Harm   | 0118 | Dap 15       |      |              |
| 0040 | Qudi 2 mp    | 0119 | Dap 16       |      |              |
| 0041 | Qudi 2 f     | 0120 | Dap Roll 1   |      |              |
| 0042 | Qudi 2 Orna  | 0121 | Dap Roll 2   |      |              |
| 0043 | Xiao 2 f     | 0122 | Dap Roll 3   |      |              |
| 0044 | Xiao2 Vib f  | 0123 | Dap Roll 4   |      |              |
| 0045 | Hulusi 2 mf  | 0124 | Dap Roll 5   |      |              |
| 0046 | Hulusi Atk   | 0125 | Dap Roll 6   |      |              |
| 0047 | Gu Roll      | 0126 | Dap Roll 7   |      |              |
| 0048 | Gu Hi        | 0127 | Tabla 1      |      |              |
| 0049 | Changgo      | 0128 | Tabla 2      |      |              |
| 0050 | Tang Gu Mt   | 0129 | Tabla 3      |      |              |
| 0051 | Tang Gu Op   | 0130 | Tabla 4      |      |              |
| 0052 | Shu Gu Rim   | 0131 | Tabla 5      |      |              |
| 0053 | Shu Gu       | 0132 | Tabla 6      |      |              |
| 0054 | Shu Ban      | 0133 | Tabla 7      |      |              |
| 0055 | Dholak 9     | 0134 | Tabla 8      |      |              |
| 0056 | Dholak 10    | 0135 | Tabla 9      |      |              |
| 0057 | Dhol 3       | 0136 | Tabla 10     |      |              |
| 0058 | Wadon 8      | 0137 | Tabla 11     |      |              |
| 0059 | Wadon 9      | 0138 | TablaRoll 1  |      |              |
| 0060 | Wadon 10     | 0139 | TablaRoll 2  |      |              |
| 0061 | Wadon 11     | 0140 | TablaRoll 3  |      |              |
| 0062 | Wadon 12     | 0141 | TablaRoll 4  |      |              |
| 0063 | Wadon 13     | 0142 | TablaRoll 5  |      |              |
| 0064 | Wadon 14     | 0143 | TablaRoll 6  |      |              |
| 0065 | Wadaiko      | 0144 | TablaRoll 7  |      |              |
| 0066 | Shimedaiko   | 0145 | TablaRoll 8  |      |              |
| 0067 | Wadaiko Rim  | 0146 | TablaRoll 9  |      |              |
| 0068 | Naggra 1 p   | 0147 | Cga Mute Hi  |      |              |
| 0069 | Naggra 1 mf  | 0148 | Cga Mute Lo  |      |              |
| 0070 | Naggra 1 f   | 0149 | Mokugyo 1    |      |              |
| 0071 | Naggra 1 ff  | 0150 | Mokugyo 2    |      |              |
| 0072 | Naggra 2 p   | 0151 | Ban Gu 3     |      |              |
| 0073 | Naggra 2 mf  | 0152 | Ban Gu 4     |      |              |
| 0074 | Naggra 2 f   | 0153 | Ban Gu 5     |      |              |
| 0075 | Naggra 2 ff  | 0154 | Ohkawa       |      |              |
| 0076 | Naggra 3 p   | 0155 | Nao Bo       |      |              |
| 0077 | Naggra 3 mf  | 0156 | Xiao Bo      |      |              |
| 0078 | Naggra 3 f   | 0157 | Kopyak Mt    |      |              |
| 0079 | Naggra 3 ff  | 0158 | Kopyak Op    |      |              |

# Patch List

## Bank: DS

| No.  | Name   | Sub-category  | MSB | LSB | PC  |     |
|------|--------|---------------|-----|-----|-----|-----|
| 0001 | Pf:S01 | Grand Pno DS  | PNO | 087 | 073 | 001 |
| 0002 | Pf:S02 | Rock Pno DS   | PNO | 087 | 073 | 002 |
| 0003 | Pf:S03 | Nice Piano    | PNO | 087 | 073 | 003 |
| 0004 | Pf:S04 | WarmVoxPiano  | PNO | 087 | 073 | 004 |
| 0005 | Pf:S05 | MIDled Grand  | PNO | 087 | 073 | 005 |
| 0006 | Pf:S06 | West Coast    | PNO | 087 | 073 | 006 |
| 0007 | Pf:S07 | JV EP+        | EP  | 087 | 073 | 007 |
| 0008 | Pf:S08 | 80's FM       | EP  | 087 | 073 | 008 |
| 0009 | Pf:S09 | Player's EP   | EP  | 087 | 073 | 009 |
| 0010 | Pf:S10 | EP Mix        | EP  | 087 | 073 | 010 |
| 0011 | Pf:S11 | Super Wurly   | EP  | 087 | 073 | 011 |
| 0012 | Ky:S01 | Fantasia JV   | BEL | 087 | 073 | 012 |
| 0013 | Ky:S02 | D50 Fantasia  | BEL | 087 | 073 | 013 |
| 0014 | Ky:S03 | Wave Bells    | BEL | 087 | 073 | 014 |
| 0015 | Ky:S04 | Prefab Chime  | BEL | 087 | 073 | 015 |
| 0016 | Ky:S05 | Warm VibesLS  | MLT | 087 | 073 | 016 |
| 0017 | Ky:S06 | Acc.Master    | ACD | 087 | 073 | 017 |
| 0018 | Ky:S07 | Acd-Basson1   | ACD | 087 | 073 | 018 |
| 0019 | Ky:S08 | Acd-Clarint1  | ACD | 087 | 073 | 019 |
| 0020 | Ky:S09 | Acd-Harmonm   | ACD | 087 | 073 | 020 |
| 0021 | Ky:S10 | Acd-Musette   | ACD | 087 | 073 | 021 |
| 0022 | Ky:S11 | Acd-Oboe 1    | ACD | 087 | 073 | 022 |
| 0023 | Ky:S12 | Acd-Organ 1   | ACD | 087 | 073 | 023 |
| 0024 | Ky:S13 | Acd-Piccolo   | ACD | 087 | 073 | 024 |
| 0025 | Ky:S14 | Acd-Soprano 1 | ACD | 087 | 073 | 025 |
| 0026 | Ky:S15 | Acd-Violin    | ACD | 087 | 073 | 026 |
| 0027 | Ky:S16 | Acd-Accord    | ACD | 087 | 073 | 027 |
| 0028 | Ky:S17 | Acd-Basson2   | ACD | 087 | 073 | 028 |
| 0029 | Ky:S18 | Acd-Clarint2  | ACD | 087 | 073 | 029 |
| 0030 | Ky:S19 | Acd-Oboe 2    | ACD | 087 | 073 | 030 |
| 0031 | Ky:S20 | Acd-Organ 2   | ACD | 087 | 073 | 031 |
| 0032 | Ky:S21 | Acd-Soprano2  | ACD | 087 | 073 | 032 |
| 0033 | Ky:S22 | Acd-ResistS1  | ACD | 087 | 073 | 033 |
| 0034 | Ky:S23 | Acd-ResistS2  | ACD | 087 | 073 | 034 |
| 0035 | Ky:S24 | Acd-ResistS3  | ACD | 087 | 073 | 035 |
| 0036 | Ky:S25 | Perky Twin B  | ORG | 087 | 073 | 036 |
| 0037 | Ky:S26 | Perc OrganJU  | ORG | 087 | 073 | 037 |
| 0038 | Ky:S27 | Blues Perc    | ORG | 087 | 073 | 038 |
| 0039 | Ky:S28 | AllSkateSRX   | ORG | 087 | 073 | 039 |
| 0040 | Ky:S29 | D-50 Organ 1  | ORG | 087 | 073 | 040 |
| 0041 | Ky:S30 | D-50 Organ 2  | ORG | 087 | 073 | 041 |
| 0042 | Ky:S31 | ChurchOrg XP  | ORG | 087 | 073 | 042 |
| 0043 | Gt:S01 | Ac.Gtrs SRX   | AGT | 087 | 073 | 043 |
| 0044 | Gt:S02 | Bouzuki /Gld  | AGT | 087 | 073 | 044 |
| 0045 | Gt:S03 | Bouzuki Glid  | AGT | 087 | 073 | 045 |
| 0046 | Gt:S04 | Bouzuki /Trm  | AGT | 087 | 073 | 046 |
| 0047 | Gt:S05 | Bouzuki Trem  | AGT | 087 | 073 | 047 |
| 0048 | Gt:S06 | Bouzuki /3    | AGT | 087 | 073 | 048 |
| 0049 | Gt:S07 | E.Guitar/Trm  | EGT | 087 | 073 | 049 |
| 0050 | Gt:S08 | E.Guitar /2   | EGT | 087 | 073 | 050 |
| 0051 | Gt:S09 | E.Guitar 1    | EGT | 087 | 073 | 051 |
| 0052 | Gt:S10 | E.Guitar 2    | EGT | 087 | 073 | 052 |
| 0053 | Gt:S11 | E.Guitar Trm  | EGT | 087 | 073 | 053 |
| 0054 | Gt:S12 | Guitar Rock   | DGT | 087 | 073 | 054 |
| 0055 | Gt:S13 | Pick Bs DI    | BS  | 087 | 073 | 055 |
| 0056 | Gt:S14 | Pick Bs Line  | BS  | 087 | 073 | 056 |
| 0057 | Gt:S15 | Slap Bass JP  | BS  | 087 | 073 | 057 |
| 0058 | Gt:S16 | GAIA A-1 Bs   | SBS | 087 | 073 | 058 |
| 0059 | Gt:S17 | Short Bs 1    | SBS | 087 | 073 | 059 |
| 0060 | Gt:S18 | Short Bs 2    | SBS | 087 | 073 | 060 |
| 0061 | Gt:S19 | 5th Stac Bs   | SBS | 087 | 073 | 061 |
| 0062 | Gt:S20 | ElectroBass   | SBS | 087 | 073 | 062 |
| 0063 | Gt:S21 | SideChain Bs  | SBS | 087 | 073 | 063 |
| 0064 | Gt:S22 | Wobble Bass   | SBS | 087 | 073 | 064 |
| 0065 | Gt:S23 | WobbleBs/Mod  | SBS | 087 | 073 | 065 |
| 0066 | Gt:S24 | AutoWobble    | SBS | 087 | 073 | 066 |
| 0067 | Gt:S25 | Growl Bass    | SBS | 087 | 073 | 067 |
| 0068 | Gt:S26 | Monster Bass  | SBS | 087 | 073 | 068 |
| 0069 | Gt:S27 | E.Bs Slide 1  | BS  | 087 | 073 | 069 |
| 0070 | Gt:S28 | E.Bs Slide 2  | BS  | 087 | 073 | 070 |
| 0071 | Gt:S29 | E.Bs Slide 3  | BS  | 087 | 073 | 071 |
| 0072 | Gt:S30 | E.Bs Slide 4  | BS  | 087 | 073 | 072 |
| 0073 | Gt:S31 | E.Bs Slide 5  | BS  | 087 | 073 | 073 |
| 0074 | Oc:S01 | Strings LS    | STR | 087 | 073 | 074 |
| 0075 | Oc:S02 | Stage Str LS  | STR | 087 | 073 | 075 |
| 0076 | Oc:S03 | St.Strings    | STR | 087 | 073 | 076 |
| 0077 | Oc:S04 | Strings       | STR | 087 | 073 | 077 |
| 0078 | Oc:S05 | FullStrings2  | STR | 087 | 073 | 078 |
| 0079 | Oc:S06 | Film Octaves  | STR | 087 | 073 | 079 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0080 | Oc:S07 | GX Strings   | STR | 087 | 073 | 080 |
| 0081 | Oc:S08 | Slow Str XP  | STR | 087 | 073 | 081 |
| 0082 | Oc:S09 | Mood Strings | STR | 087 | 073 | 082 |
| 0083 | Oc:S10 | Str+Choir    | STR | 087 | 073 | 083 |
| 0084 | Oc:S11 | JP8.Strings  | STR | 087 | 073 | 084 |
| 0085 | Oc:S12 | Violin 1     | STR | 087 | 073 | 085 |
| 0086 | Oc:S13 | Violin 2     | STR | 087 | 073 | 086 |
| 0087 | Oc:S14 | Vln Silde 1  | STR | 087 | 073 | 087 |
| 0088 | Oc:S15 | Vln Silde 2  | STR | 087 | 073 | 088 |
| 0089 | Oc:S16 | E.Violin 1   | STR | 087 | 073 | 089 |
| 0090 | Oc:S17 | E.Violin 2   | STR | 087 | 073 | 090 |
| 0091 | Oc:S18 | El Vln Sld 1 | STR | 087 | 073 | 091 |
| 0092 | Oc:S19 | El Vln Sld 2 | STR | 087 | 073 | 092 |
| 0093 | Br:S01 | X Brs Sect   | BRS | 087 | 073 | 093 |
| 0094 | Br:S02 | Brass RD     | BRS | 087 | 073 | 094 |
| 0095 | Br:S03 | R&R Brass    | BRS | 087 | 073 | 095 |
| 0096 | Br:S04 | SessionBrass | BRS | 087 | 073 | 096 |
| 0097 | Br:S05 | Trumpet /2   | BRS | 087 | 073 | 097 |
| 0098 | Br:S06 | Trumpet /2wP | BRS | 087 | 073 | 098 |
| 0099 | Br:S07 | TrumpetSftwP | BRS | 087 | 073 | 099 |
| 0100 | Br:S08 | TrumpetLudwP | BRS | 087 | 073 | 100 |
| 0101 | Br:S09 | Trumpet RD   | BRS | 087 | 073 | 101 |
| 0102 | Br:S10 | Trumpet      | BRS | 087 | 073 | 102 |
| 0103 | Br:S11 | Jump BrassFG | SBR | 087 | 073 | 103 |
| 0104 | Br:S12 | JP8000 BrsFS | SBR | 087 | 073 | 104 |
| 0105 | Br:S13 | Sax /2       | SAX | 087 | 073 | 105 |
| 0106 | Br:S14 | Sax /2 wPad  | SAX | 087 | 073 | 106 |
| 0107 | Br:S15 | Sax Sft wPad | SAX | 087 | 073 | 107 |
| 0108 | Br:S16 | Sax Lud wPad | SAX | 087 | 073 | 108 |
| 0109 | Br:S17 | Or Sax /2    | SAX | 087 | 073 | 109 |
| 0110 | Br:S18 | Or Sax/2wPad | SAX | 087 | 073 | 110 |
| 0111 | Br:S19 | Alto mp      | SAX | 087 | 073 | 111 |
| 0112 | Br:S20 | Alto Sax LS  | SAX | 087 | 073 | 112 |
| 0113 | Br:S21 | Alto Sax GW  | SAX | 087 | 073 | 113 |
| 0114 | Br:S22 | BlowAltoVib  | SAX | 087 | 073 | 114 |
| 0115 | Br:S23 | Blow Tenor   | SAX | 087 | 073 | 115 |
| 0116 | Br:S24 | Solo Tenor   | SAX | 087 | 073 | 116 |
| 0117 | Br:S25 | Soft Sax     | SAX | 087 | 073 | 117 |
| 0118 | Br:S26 | Flute+1octLS | FLT | 087 | 073 | 118 |
| 0119 | Br:S27 | Atk Flute    | FLT | 087 | 073 | 119 |
| 0120 | Br:S28 | SL LivingCal | FLT | 087 | 073 | 120 |
| 0121 | Br:S29 | Clarinet /2  | WND | 087 | 073 | 121 |
| 0122 | Sy:S01 | Analog Lead  | HLD | 087 | 073 | 122 |
| 0123 | Sy:S02 | Synth Solo   | HLD | 087 | 073 | 123 |
| 0124 | Sy:S03 | JP8 PulseLd  | HLD | 087 | 073 | 124 |
| 0125 | Sy:S04 | EDM Saw Lead | HLD | 087 | 073 | 125 |
| 0126 | Sy:S05 | EDM Sqr Lead | HLD | 087 | 073 | 126 |
| 0127 | Sy:S06 | TB Dist Sqr  | HLD | 087 | 073 | 127 |
| 0128 | Sy:S07 | Trap Sqr Ld  | HLD | 087 | 073 | 128 |
| 0129 | Sy:S08 | P5 Sync Lead | HLD | 087 | 074 | 001 |
| 0130 | Sy:S09 | RajasthaniLS | HLD | 087 | 074 | 002 |
| 0131 | Sy:S10 | Edye Boost   | HLD | 087 | 074 | 003 |
| 0132 | Sy:S11 | Pure Sine Ld | SLD | 087 | 074 | 004 |
| 0133 | Sy:S12 | Tri Stack Ld | SLD | 087 | 074 | 005 |
| 0134 | Sy:S13 | D-50 Stack   | SYN | 087 | 074 | 006 |
| 0135 | Sy:S14 | Stacc.Heaven | SYN | 087 | 074 | 007 |
| 0136 | Sy:S15 | D50 Stac Hvn | SYN | 087 | 074 | 008 |
| 0137 | Sy:S16 | Pluck Synth  | SYN | 087 | 074 | 009 |
| 0138 | Sy:S17 | Solid Pluck  | SYN | 087 | 074 | 010 |
| 0139 | Sy:S18 | D50 DigiNDnc | SYN | 087 | 074 | 011 |
| 0140 | Sy:S19 | D50 FuturePd | SYN | 087 | 074 | 012 |
| 0141 | Sy:S20 | Sugar Keys   | SYN | 087 | 074 | 013 |
| 0142 | Sy:S21 | 260 & JUNO   | SYN | 087 | 074 | 014 |
| 0143 | Sy:S22 | GAIA F-3Trns | SYN | 087 | 074 | 015 |
| 0144 | Sy:S23 | S-SawStacSyn | SYN | 087 | 074 | 016 |
| 0145 | Sy:S24 | SuperSaws    | SYN | 087 | 074 | 017 |
| 0146 | Sy:S25 | Bustranza JU | SYN | 087 | 074 | 018 |
| 0147 | Sy:S26 | 80s Poly     | SYN | 087 | 074 | 019 |
| 0148 | Sy:S27 | Fat Analog   | SYN | 087 | 074 | 020 |
| 0149 | Sy:S28 | Strobot 2    | SYN | 087 | 074 | 021 |
| 0150 | Sy:S29 | StepTrance 2 | SYN | 087 | 074 | 022 |
| 0151 | Sy:S30 | Growl Synth  | SYN | 087 | 074 | 023 |
| 0152 | Sy:S31 | Hover Lead   | TEK | 087 | 074 | 024 |
| 0153 | Sy:S32 | Tech Rave    | TEK | 087 | 074 | 025 |
| 0154 | Sy:S33 | Electrostrs2 | TEK | 087 | 074 | 026 |
| 0155 | Sy:S34 | SideChainPad | PLS | 087 | 074 | 027 |
| 0156 | Sy:S35 | Blade Racer  | PLS | 087 | 074 | 028 |
| 0157 | Sy:S36 | Throbulax 2  | PLS | 087 | 074 | 029 |
| 0158 | Sy:S37 | Step In 2    | PLS | 087 | 074 | 030 |
| 0159 | Sy:S38 | Cross Talk 2 | PLS | 087 | 074 | 031 |
| 0160 | Sy:S39 | Chop Synth 2 | PLS | 087 | 074 | 032 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0161 | Sy:S41 | AutoTrance 3 | PLS | 087 | 074 | 033 |
| 0162 | Sy:S41 | Poly Gate    | PLS | 087 | 074 | 034 |
| 0163 | Sy:S42 | Rise Up      | FX  | 087 | 074 | 035 |
| 0164 | Sy:S43 | Sci-Fi FX x4 | FX  | 087 | 074 | 036 |
| 0165 | Sy:S44 | LazerPoints2 | FX  | 087 | 074 | 037 |
| 0166 | Sy:S45 | EDM Kick     | FX  | 087 | 074 | 038 |
| 0167 | Vo:S01 | Chorus LS    | VOX | 087 | 074 | 039 |
| 0168 | Vo:S02 | Mmmms        | VOX | 087 | 074 | 040 |
| 0169 | Vo:S03 | Voc:Ensemble | VOX | 087 | 074 | 041 |
| 0170 | Vo:S04 | Voc:5thStack | VOX | 087 | 074 | 042 |
| 0171 | Vo:S05 | Voc:Robot    | VOX | 087 | 074 | 043 |
| 0172 | Vo:S06 | Voc:Saw      | VOX | 087 | 074 | 044 |
| 0173 | Vo:S07 | Voc:Sqr      | VOX | 087 | 074 | 045 |
| 0174 | Vo:S08 | Voc:Rise Up  | VOX | 087 | 074 | 046 |
| 0175 | Vo:S09 | Voc:Auto Vib | VOX | 087 | 074 | 047 |
| 0176 | Vo:S10 | Voc:PitchEnv | VOX | 087 | 074 | 048 |
| 0177 | Vo:S11 | Voc:Choir    | VOX | 087 | 074 | 049 |
| 0178 | Vo:S12 | Voc:Noise    | VOX | 087 | 074 | 050 |
| 0179 | Vo:S13 | SLSoundTrack | SPD | 087 | 074 | 051 |
| 0180 | Vo:S14 | ORBit Pad    | SPD | 087 | 074 | 052 |
| 0181 | Vo:S15 | Soft Pad 2   | SPD | 087 | 074 | 053 |
| 0182 | Vo:S16 | Far East XP  | SPD | 087 | 074 | 054 |
| 0183 | Vo:S17 | JupiterMv JU | SPD | 087 | 074 | 055 |
| 0184 | Wr:S01 | Gajde        | ETH | 087 | 074 | 056 |

## Bank: PRST

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0001 | Pf:001 | 88StageGrand | PNO | 087 | 064 | 001 |
| 0002 | Pf:002 | 88StgGrand 2 | PNO | 087 | 064 | 002 |
| 0003 | Pf:003 | 88StgGrand 3 | PNO | 087 | 064 | 003 |
| 0004 | Pf:004 | JUNO Piano 1 | PNO | 087 | 064 | 004 |
| 0005 | Pf:005 | JUNO Piano 2 | PNO | 087 | 064 | 005 |
| 0006 | Pf:006 | Rich Grand 1 | PNO | 087 | 064 | 006 |
| 0007 | Pf:007 | Rich Grand 2 | PNO | 087 | 064 | 007 |
| 0008 | Pf:008 | Piano+Str 1  | PNO | 087 | 064 | 008 |
| 0009 | Pf:009 | Fairy Piano  | PNO | 087 | 064 | 009 |
| 0010 | Pf:010 | Pop Piano 1  | PNO | 087 | 064 | 010 |
| 0011 | Pf:011 | Pop Piano 2  | PNO | 087 | 064 | 011 |
| 0012 | Pf:012 | ConcertGrand | PNO | 087 | 064 | 012 |
| 0013 | Pf:013 | Warm Tune    | PNO | 087 | 064 | 013 |
| 0014 | Pf:014 | Hall Concert | PNO | 087 | 064 | 014 |
| 0015 | Pf:015 | Mellow Tune  | PNO | 087 | 064 | 015 |
| 0016 | Pf:016 | Mono Piano 1 | PNO | 087 | 064 | 016 |
| 0017 | Pf:017 | Mono Piano 2 | PNO | 087 | 064 | 017 |
| 0018 | Pf:018 | Mono Piano 3 | PNO | 087 | 064 | 018 |
| 0019 | Pf:019 | Piano+Pad 1  | PNO | 087 | 064 | 019 |
| 0020 | Pf:020 | Piano+Pad 2  | PNO | 087 | 064 | 020 |
| 0021 | Pf:021 | Piano+Vox    | PNO | 087 | 064 | 021 |
| 0022 | Pf:022 | Piano+Str 2  | PNO | 087 | 064 | 022 |
| 0023 | Pf:023 | Layers       | PNO | 087 | 064 | 023 |
| 0024 | Pf:024 | Grand Hall   | PNO | 087 | 064 | 024 |
| 0025 | Pf:025 | Cicada Piano | PNO | 087 | 064 | 025 |
| 0026 | Pf:026 | Rapsody      | PNO | 087 | 064 | 026 |
| 0027 | Pf:027 | Pop Piano 3  | PNO | 087 | 064 | 027 |
| 0028 | Pf:028 | Pop Piano 4  | PNO | 087 | 064 | 028 |
| 0029 | Pf:029 | Radio Piano  | PNO | 087 | 064 | 029 |
| 0030 | Pf:030 | Rokkin' pF   | PNO | 087 | 064 | 030 |
| 0031 | Pf:031 | JD Piano 1   | PNO | 087 | 064 | 031 |
| 0032 | Pf:032 | JD Piano 2   | PNO | 087 | 064 | 032 |
| 0033 | Pf:033 | JD Piano&Str | PNO | 087 | 064 | 033 |
| 0034 | Pf:034 | SA Dance Pno | PNO | 087 | 064 | 034 |
| 0035 | Pf:035 | E-Grand      | PNO | 087 | 064 | 035 |
| 0036 | Pf:036 | Back E-Grand | PNO | 087 | 064 | 036 |
| 0037 | Pf:037 | Dark Grand   | PNO | 087 | 064 | 037 |
| 0038 | Pf:038 | Grand+FM     | PNO | 087 | 064 | 038 |
| 0039 | Pf:039 | Blend Piano  | PNO | 087 | 064 | 039 |
| 0040 | Pf:040 | Piano Oz     | PNO | 087 | 064 | 040 |
| 0041 | Pf:041 | Meditate Pno | PNO | 087 | 064 | 041 |
| 0042 | Pf:042 | FX Piano     | PNO | 087 | 064 | 042 |
| 0043 | Pf:043 | AmbientPiano | PNO | 087 | 064 | 043 |
| 0044 | Pf:044 | Pure EP      | EP  | 087 | 064 | 044 |
| 0045 | Pf:045 | Pure EP Trem | EP  | 087 | 064 | 045 |
| 0046 | Pf:046 | Stage Phazer | EP  | 087 | 064 | 046 |
| 0047 | Pf:047 | SA EPiano 1  | EP  | 087 | 064 | 047 |
| 0048 | Pf:048 | FM EP 1      | EP  | 087 | 064 | 048 |
| 0049 | Pf:049 | Pure Wurly 1 | EP  | 087 | 064 | 049 |
| 0050 | Pf:050 | Wurly Trem 1 | EP  | 087 | 064 | 050 |
| 0051 | Pf:051 | VelSpdWurly  | EP  | 087 | 064 | 051 |
| 0052 | Pf:052 | Phase EP 1   | EP  | 087 | 064 | 052 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0053 | Pf:053 | Phase Stg EP | EP  | 087 | 064 | 053 |
| 0054 | Pf:054 | Flanger EP   | EP  | 087 | 064 | 054 |
| 0055 | Pf:055 | TEL Stage EP | EP  | 087 | 064 | 055 |
| 0056 | Pf:056 | Vintage EP 1 | EP  | 087 | 064 | 056 |
| 0057 | Pf:057 | Vintage EP 2 | EP  | 087 | 064 | 057 |
| 0058 | Pf:058 | Vintage EP 3 | EP  | 087 | 064 | 058 |
| 0059 | Pf:059 | Stage EP 1   | EP  | 087 | 064 | 059 |
| 0060 | Pf:060 | Stage EP 2   | EP  | 087 | 064 | 060 |
| 0061 | Pf:061 | StageCabinet | EP  | 087 | 064 | 061 |
| 0062 | Pf:062 | StageEP Trem | EP  | 087 | 064 | 062 |
| 0063 | Pf:063 | EP Trem 1    | EP  | 087 | 064 | 063 |
| 0064 | Pf:064 | EP Trem 2    | EP  | 087 | 064 | 064 |
| 0065 | Pf:065 | EP Trem 3    | EP  | 087 | 064 | 065 |
| 0066 | Pf:066 | EP Chorus 1  | EP  | 087 | 064 | 066 |
| 0067 | Pf:067 | EP Chorus 2  | EP  | 087 | 064 | 067 |
| 0068 | Pf:068 | EP Chorus 3  | EP  | 087 | 064 | 068 |
| 0069 | Pf:069 | Phase EP 2   | EP  | 087 | 064 | 069 |
| 0070 | Pf:070 | 80s EP 1     | EP  | 087 | 064 | 070 |
| 0071 | Pf:071 | Dyno EP      | EP  | 087 | 064 | 071 |
| 0072 | Pf:072 | E.Piano      | EP  | 087 | 064 | 072 |
| 0073 | Pf:073 | Back2the60s  | EP  | 087 | 064 | 073 |
| 0074 | Pf:074 | Tine EP      | EP  | 087 | 064 | 074 |
| 0075 | Pf:075 | LEO EP       | EP  | 087 | 064 | 075 |
| 0076 | Pf:076 | SA EPiano 2  | EP  | 087 | 064 | 076 |
| 0077 | Pf:077 | SA EP Trem   | EP  | 087 | 064 | 077 |
| 0078 | Pf:078 | FM EP mix    | EP  | 087 | 064 | 078 |
| 0079 | Pf:079 | FM-777       | EP  | 087 | 064 | 079 |
| 0080 | Pf:080 | FM EP 2      | EP  | 087 | 064 | 080 |
| 0081 | Pf:081 | FM EP 3      | EP  | 087 | 064 | 081 |
| 0082 | Pf:082 | FM EP 4      | EP  | 087 | 064 | 082 |
| 0083 | Pf:083 | Pure Wurly 2 | EP  | 087 | 064 | 083 |
| 0084 | Pf:084 | Pure Wurly 3 | EP  | 087 | 064 | 084 |
| 0085 | Pf:085 | Wurly Trem 2 | EP  | 087 | 064 | 085 |
| 0086 | Pf:086 | Wurly Trem 3 | EP  | 087 | 064 | 086 |
| 0087 | Pf:087 | EP Layer     | EP  | 087 | 064 | 087 |
| 0088 | Pf:088 | 80s EP 2     | EP  | 087 | 064 | 088 |
| 0089 | Pf:089 | Pop EP       | EP  | 087 | 064 | 089 |
| 0090 | Pf:090 | EP Bell 1    | EP  | 087 | 064 | 090 |
| 0091 | Pf:091 | EP Bell 2    | EP  | 087 | 064 | 091 |
| 0092 | Pf:092 | LonesomeRoad | EP  | 087 | 064 | 092 |
| 0093 | Pf:093 | Age'n'Tines  | EP  | 087 | 064 | 093 |
| 0094 | Pf:094 | Brill TremEP | EP  | 087 | 064 | 094 |
| 0095 | Pf:095 | Crystal EP   | EP  | 087 | 064 | 095 |
| 0096 | Pf:096 | Vintage Tine | EP  | 087 | 064 | 096 |
| 0097 | Pf:097 | Mk2 Stg phsr | EP  | 087 | 064 | 097 |
| 0098 | Pf:098 | Celestial EP | EP  | 087 | 064 | 098 |
| 0099 | Pf:099 | Psycho EP 1  | EP  | 087 | 064 | 099 |
| 0100 | Pf:100 | Psycho EP 2  | EP  | 087 | 064 | 100 |
| 0101 | Pf:101 | TineEP+Pad   | EP  | 087 | 064 | 101 |
| 0102 | Pf:102 | Wurly+Pad    | EP  | 087 | 064 | 102 |
| 0103 | Pf:103 | Dreaming EP  | EP  | 087 | 064 | 103 |
| 0104 | Pf:104 | Balladeer    | EP  | 087 | 064 | 104 |
| 0105 | Pf:105 | Remember     | EP  | 087 | 064 | 105 |
| 0106 | Pf:106 | Vibe EP      | EP  | 087 | 064 | 106 |
| 0107 | Pf:107 | sin(EP)      | EP  | 087 | 064 | 107 |
| 0108 | Pf:108 | Fonky Fonky  | EP  | 087 | 064 | 108 |
| 0109 | Pf:109 | FM EPad      | EP  | 087 | 064 | 109 |
| 0110 | Pf:110 | EP Stack     | EP  | 087 | 064 | 110 |
| 0111 | Ky:001 | HardRockORG1 | ORG | 087 | 064 | 111 |
| 0112 | Ky:002 | HardRockORG2 | ORG | 087 | 064 | 112 |
| 0113 | Ky:003 | GT Org Stack | ORG | 087 | 064 | 113 |
| 0114 | Ky:004 | GT Org Std   | ORG | 087 | 064 | 114 |
| 0115 | Ky:005 | GT Org Clean | ORG | 087 | 064 | 115 |
| 0116 | Ky:006 | Perc Organ 1 | ORG | 087 | 064 | 116 |
| 0117 | Ky:007 | FullStop Org | ORG | 087 | 064 | 117 |
| 0118 | Ky:008 | FullDraw Org | ORG | 087 | 064 | 118 |
| 0119 | Ky:009 | StakDraw Org | ORG | 087 | 064 | 119 |
| 0120 | Ky:010 | JUNO PercOrg | ORG | 087 | 064 | 120 |
| 0121 | Ky:011 | VKHold4Speed | ORG | 087 | 064 | 121 |
| 0122 | Ky:012 | Pop Organ 1  | ORG | 087 | 064 | 122 |
| 0123 | Ky:013 | Pop Organ 2  | ORG | 087 | 064 | 123 |
| 0124 | Ky:014 | Pop Organ 3  | ORG | 087 | 064 | 124 |
| 0125 | Ky:015 | B Org 1      | ORG | 087 | 064 | 125 |
| 0126 | Ky:016 | B Org 2      | ORG | 087 | 064 | 126 |
| 0127 | Ky:017 | B Org 3      | ORG | 087 | 064 | 127 |
| 0128 | Ky:018 | B Org 4      | ORG | 087 | 064 | 128 |
| 0129 | Ky:019 | D.Bar Org 1  | ORG | 087 | 065 | 001 |
| 0130 | Ky:020 | D.Bar Org 2  | ORG | 087 | 065 | 002 |
| 0131 | Ky:021 | D.Bar Org 3  | ORG | 087 | 065 | 003 |
| 0132 | Ky:022 | D.Bar Org 4  | ORG | 087 | 065 | 004 |
| 0133 | Ky:023 | D.Bar Org 5  | ORG | 087 | 065 | 005 |

Patch List

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0134 | Ky:024 | D.Bar Org 6  | ORG | 087 | 065 | 006 |
| 0135 | Ky:025 | D.Bar Org 7  | ORG | 087 | 065 | 007 |
| 0136 | Ky:026 | D.Bar Org 8  | ORG | 087 | 065 | 008 |
| 0137 | Ky:027 | Perc Organ 2 | ORG | 087 | 065 | 009 |
| 0138 | Ky:028 | X Perc Organ | ORG | 087 | 065 | 010 |
| 0139 | Ky:029 | Rhythm'n'B   | ORG | 087 | 065 | 011 |
| 0140 | Ky:030 | Phono Organ  | ORG | 087 | 065 | 012 |
| 0141 | Ky:031 | Rochno Org   | ORG | 087 | 065 | 013 |
| 0142 | Ky:032 | R&B Organ 1  | ORG | 087 | 065 | 014 |
| 0143 | Ky:033 | R&B Organ 2  | ORG | 087 | 065 | 015 |
| 0144 | Ky:034 | SuperDistOrg | ORG | 087 | 065 | 016 |
| 0145 | Ky:035 | SuperDist Ld | ORG | 087 | 065 | 017 |
| 0146 | Ky:036 | Dist Bee     | ORG | 087 | 065 | 018 |
| 0147 | Ky:037 | LoFi PercOrg | ORG | 087 | 065 | 019 |
| 0148 | Ky:038 | 60's Org 1   | ORG | 087 | 065 | 020 |
| 0149 | Ky:039 | 60's Org 2   | ORG | 087 | 065 | 021 |
| 0150 | Ky:040 | Smoky Organ  | ORG | 087 | 065 | 022 |
| 0151 | Ky:041 | Soap Opera   | ORG | 087 | 065 | 023 |
| 0152 | Ky:042 | Crummy Organ | ORG | 087 | 065 | 024 |
| 0153 | Ky:043 | Aqua Org/Pno | ORG | 087 | 065 | 025 |
| 0154 | Ky:044 | Positive Org | ORG | 087 | 065 | 026 |
| 0155 | Ky:045 | Chapel Organ | ORG | 087 | 065 | 027 |
| 0156 | Ky:046 | Cathedral    | ORG | 087 | 065 | 028 |
| 0157 | Ky:047 | Grand Pipe   | ORG | 087 | 065 | 029 |
| 0158 | Ky:048 | Pipe Organ 1 | ORG | 087 | 065 | 030 |
| 0159 | Ky:049 | Pipe Organ 2 | ORG | 087 | 065 | 031 |
| 0160 | Ky:050 | Masked Opera | ORG | 087 | 065 | 032 |
| 0161 | Ky:051 | Clavi 1      | KEY | 087 | 065 | 033 |
| 0162 | Ky:052 | Clavi 2      | KEY | 087 | 065 | 034 |
| 0163 | Ky:053 | Phase Clavi1 | KEY | 087 | 065 | 035 |
| 0164 | Ky:054 | Phase Clavi2 | KEY | 087 | 065 | 036 |
| 0165 | Ky:055 | AnalogClavi1 | KEY | 087 | 065 | 037 |
| 0166 | Ky:056 | Pulse Clavi  | KEY | 087 | 065 | 038 |
| 0167 | Ky:057 | VintageClavi | KEY | 087 | 065 | 039 |
| 0168 | Ky:058 | Cutter Clavi | KEY | 087 | 065 | 040 |
| 0169 | Ky:059 | Over-D6      | KEY | 087 | 065 | 041 |
| 0170 | Ky:060 | Cell Clavi   | KEY | 087 | 065 | 042 |
| 0171 | Ky:061 | Clavi 3      | KEY | 087 | 065 | 043 |
| 0172 | Ky:062 | Clavi 4      | KEY | 087 | 065 | 044 |
| 0173 | Ky:063 | Clavi 5      | KEY | 087 | 065 | 045 |
| 0174 | Ky:064 | Funky D      | KEY | 087 | 065 | 046 |
| 0175 | Ky:065 | Funky Line   | KEY | 087 | 065 | 047 |
| 0176 | Ky:066 | AnalogClavi2 | KEY | 087 | 065 | 048 |
| 0177 | Ky:067 | PWM Clavi    | KEY | 087 | 065 | 049 |
| 0178 | Ky:068 | Biting Clavi | KEY | 087 | 065 | 050 |
| 0179 | Ky:069 | Reso Clavi   | KEY | 087 | 065 | 051 |
| 0180 | Ky:070 | BPF Clavi Ph | KEY | 087 | 065 | 052 |
| 0181 | Ky:071 | Snappy Clavi | KEY | 087 | 065 | 053 |
| 0182 | Ky:072 | Harpsy Clavi | KEY | 087 | 065 | 054 |
| 0183 | Ky:073 | JUNO Harpsi  | KEY | 087 | 065 | 055 |
| 0184 | Ky:074 | Amadeus      | KEY | 087 | 065 | 056 |
| 0185 | Ky:075 | Music Bells  | BEL | 087 | 065 | 057 |
| 0186 | Ky:076 | D50Fantasia1 | BEL | 087 | 065 | 058 |
| 0187 | Ky:077 | D50Fantasia2 | BEL | 087 | 065 | 059 |
| 0188 | Ky:078 | Friends Bell | BEL | 087 | 065 | 060 |
| 0189 | Ky:079 | FM Syn Bell  | BEL | 087 | 065 | 061 |
| 0190 | Ky:080 | Dreaming Box | BEL | 087 | 065 | 062 |
| 0191 | Ky:081 | Himalaya Ice | BEL | 087 | 065 | 063 |
| 0192 | Ky:082 | Wine Glass   | BEL | 087 | 065 | 064 |
| 0193 | Ky:083 | MuBox Pad    | BEL | 087 | 065 | 065 |
| 0194 | Ky:084 | Pop Bell     | BEL | 087 | 065 | 066 |
| 0195 | Ky:085 | Candy Bell   | BEL | 087 | 065 | 067 |
| 0196 | Ky:086 | FM Heaven    | BEL | 087 | 065 | 068 |
| 0197 | Ky:087 | JUNO Celesta | BEL | 087 | 065 | 069 |
| 0198 | Ky:088 | Celesta Trem | BEL | 087 | 065 | 070 |
| 0199 | Ky:089 | Glocken      | BEL | 087 | 065 | 071 |
| 0200 | Ky:090 | Music Box 1  | BEL | 087 | 065 | 072 |
| 0201 | Ky:091 | Music Box 2  | BEL | 087 | 065 | 073 |
| 0202 | Ky:092 | Kalimbells   | BEL | 087 | 065 | 074 |
| 0203 | Ky:093 | JUNO Bell    | BEL | 087 | 065 | 075 |
| 0204 | Ky:094 | Grained Bell | BEL | 087 | 065 | 076 |
| 0205 | Ky:095 | Chime        | BEL | 087 | 065 | 077 |
| 0206 | Ky:096 | Bell Ring    | BEL | 087 | 065 | 078 |
| 0207 | Ky:097 | Tubular Bell | BEL | 087 | 065 | 079 |
| 0208 | Ky:098 | 5th Key      | BEL | 087 | 065 | 080 |
| 0209 | Ky:099 | Bell Monitor | BEL | 087 | 065 | 081 |
| 0210 | Ky:100 | TubyRuesday  | BEL | 087 | 065 | 082 |
| 0211 | Ky:101 | Step Ice     | BEL | 087 | 065 | 083 |
| 0212 | Ky:102 | Vibe Trem 1  | MLT | 087 | 065 | 084 |
| 0213 | Ky:103 | Vibe Trem 2  | MLT | 087 | 065 | 085 |
| 0214 | Ky:104 | Pure Vibe    | MLT | 087 | 065 | 086 |

| No.  | Name   | Sub-category  | MSB | LSB | PC  |     |
|------|--------|---------------|-----|-----|-----|-----|
| 0215 | Ky:105 | Ringy Vibes   | MLT | 087 | 065 | 087 |
| 0216 | Ky:106 | Airie Vibez   | MLT | 087 | 065 | 088 |
| 0217 | Ky:107 | JUNO Marimba  | MLT | 087 | 065 | 089 |
| 0218 | Ky:108 | Soft Marimba  | MLT | 087 | 065 | 090 |
| 0219 | Ky:109 | FM Wood       | MLT | 087 | 065 | 091 |
| 0220 | Ky:110 | Xylo          | MLT | 087 | 065 | 092 |
| 0221 | Ky:111 | Ethno Keys    | MLT | 087 | 065 | 093 |
| 0222 | Ky:112 | Synergy MLT   | MLT | 087 | 065 | 094 |
| 0223 | Ky:113 | JUNO SteelDr  | MLT | 087 | 065 | 095 |
| 0224 | Ky:114 | 50' SteelDrms | MLT | 087 | 065 | 096 |
| 0225 | Ky:115 | Xylosizer     | MLT | 087 | 065 | 097 |
| 0226 | Ky:116 | AirPluck      | MLT | 087 | 065 | 098 |
| 0227 | Ky:117 | Toy Box       | MLT | 087 | 065 | 099 |
| 0228 | Ky:118 | Icy Keys      | MLT | 087 | 065 | 100 |
| 0229 | Ky:119 | Squeeze Me!   | ACD | 087 | 065 | 101 |
| 0230 | Ky:120 | Vodkakordion  | ACD | 087 | 065 | 102 |
| 0231 | Ky:121 | Guinguette    | ACD | 087 | 065 | 103 |
| 0232 | Ky:122 | JUNO Harm     | HRM | 087 | 065 | 104 |
| 0233 | Ky:123 | Blues harp    | HRM | 087 | 065 | 105 |
| 0234 | Ky:124 | Green Bullet  | HRM | 087 | 065 | 106 |
| 0235 | Gt:001 | JUNO Nylon    | AGT | 087 | 065 | 107 |
| 0236 | Gt:002 | Comp Stl Gtr  | AGT | 087 | 065 | 108 |
| 0237 | Gt:003 | Pre Mass Hum  | AGT | 087 | 065 | 109 |
| 0238 | Gt:004 | Uncle Martin  | AGT | 087 | 065 | 110 |
| 0239 | Gt:005 | 12str Guitar  | AGT | 087 | 065 | 111 |
| 0240 | Gt:006 | Nylon Gtr     | AGT | 087 | 065 | 112 |
| 0241 | Gt:007 | SoftNylN Gtr  | AGT | 087 | 065 | 113 |
| 0242 | Gt:008 | Wet NylN Gtr  | AGT | 087 | 065 | 114 |
| 0243 | Gt:009 | Bright Nylon  | AGT | 087 | 065 | 115 |
| 0244 | Gt:010 | Pure Nylon    | AGT | 087 | 065 | 116 |
| 0245 | Gt:011 | Nylon Delay   | AGT | 087 | 065 | 117 |
| 0246 | Gt:012 | Thick Steel   | AGT | 087 | 065 | 118 |
| 0247 | Gt:013 | Wide Ac Gtr   | AGT | 087 | 065 | 119 |
| 0248 | Gt:014 | So good !     | AGT | 087 | 065 | 120 |
| 0249 | Gt:015 | Jazz Guitar1  | EGT | 087 | 065 | 121 |
| 0250 | Gt:016 | Jazz Guitar2  | EGT | 087 | 065 | 122 |
| 0251 | Gt:017 | DynoJazz Gtr  | EGT | 087 | 065 | 123 |
| 0252 | Gt:018 | Clean Gtr 1   | EGT | 087 | 065 | 124 |
| 0253 | Gt:019 | Clean Gtr 2   | EGT | 087 | 065 | 125 |
| 0254 | Gt:020 | Pick Gtr      | EGT | 087 | 065 | 126 |
| 0255 | Gt:021 | Strat Gtr 1   | EGT | 087 | 065 | 127 |
| 0256 | Gt:022 | Strat Gtr 2   | EGT | 087 | 065 | 128 |
| 0257 | Gt:023 | Funk Gtr      | EGT | 087 | 066 | 001 |
| 0258 | Gt:024 | StratSeq'nce  | EGT | 087 | 066 | 002 |
| 0259 | Gt:025 | Plug n' Gig1  | EGT | 087 | 066 | 003 |
| 0260 | Gt:026 | Plug n' Gig2  | EGT | 087 | 066 | 004 |
| 0261 | Gt:027 | Kinda Kurt    | EGT | 087 | 066 | 005 |
| 0262 | Gt:028 | Nice Oct Gtr  | EGT | 087 | 066 | 006 |
| 0263 | Gt:029 | Crimson Gtr   | EGT | 087 | 066 | 007 |
| 0264 | Gt:030 | Plugged!!     | DGT | 087 | 066 | 008 |
| 0265 | Gt:031 | Punker 1      | DGT | 087 | 066 | 009 |
| 0266 | Gt:032 | Rockin' Dly   | DGT | 087 | 066 | 010 |
| 0267 | Gt:033 | Loud Gtr      | DGT | 087 | 066 | 011 |
| 0268 | Gt:034 | Searing Gtr   | DGT | 087 | 066 | 012 |
| 0269 | Gt:035 | Searing COSM  | DGT | 087 | 066 | 013 |
| 0270 | Gt:036 | OctSearingGt  | DGT | 087 | 066 | 014 |
| 0271 | Gt:037 | Dist.Fingerz  | DGT | 087 | 066 | 015 |
| 0272 | Gt:038 | Fuzz Gtr      | DGT | 087 | 066 | 016 |
| 0273 | Gt:039 | Crunch Twin   | DGT | 087 | 066 | 017 |
| 0274 | Gt:040 | Larsen        | DGT | 087 | 066 | 018 |
| 0275 | Gt:041 | Trem-o-Vibe   | DGT | 087 | 066 | 019 |
| 0276 | Gt:042 | Touch Drive   | DGT | 087 | 066 | 020 |
| 0277 | Gt:043 | Chunk Atk     | DGT | 087 | 066 | 021 |
| 0278 | Gt:044 | LP Dist       | DGT | 087 | 066 | 022 |
| 0279 | Gt:045 | Hurling Gtr   | DGT | 087 | 066 | 023 |
| 0280 | Gt:046 | Power Chord   | DGT | 087 | 066 | 024 |
| 0281 | Gt:047 | Punker 2      | DGT | 087 | 066 | 025 |
| 0282 | Gt:048 | Ac Bass 1     | BS  | 087 | 066 | 026 |
| 0283 | Gt:049 | Ac Bass 2     | BS  | 087 | 066 | 027 |
| 0284 | Gt:050 | Ac Bass 3     | BS  | 087 | 066 | 028 |
| 0285 | Gt:051 | Ulti Ac Bass  | BS  | 087 | 066 | 029 |
| 0286 | Gt:052 | Downright Bs  | BS  | 087 | 066 | 030 |
| 0287 | Gt:053 | Cmp'd Fng Bs  | BS  | 087 | 066 | 031 |
| 0288 | Gt:054 | FingerMaster  | BS  | 087 | 066 | 032 |
| 0289 | Gt:055 | Return2Base!  | BS  | 087 | 066 | 033 |
| 0290 | Gt:056 | Finger Bs 1   | BS  | 087 | 066 | 034 |
| 0291 | Gt:057 | Finger Bs 2   | BS  | 087 | 066 | 035 |
| 0292 | Gt:058 | Finger Bs 3   | BS  | 087 | 066 | 036 |
| 0293 | Gt:059 | Fretless Bs1  | BS  | 087 | 066 | 037 |
| 0294 | Gt:060 | Fretless Bs2  | BS  | 087 | 066 | 038 |
| 0295 | Gt:061 | Fretless Bs3  | BS  | 087 | 066 | 039 |

| No.  | Name                | Sub-category | MSB | LSB | PC  |
|------|---------------------|--------------|-----|-----|-----|
| 0296 | Gt:062 RichFretless | BS           | 087 | 066 | 040 |
| 0297 | Gt:063 NewAge Frtls | BS           | 087 | 066 | 041 |
| 0298 | Gt:064 P-Bass       | BS           | 087 | 066 | 042 |
| 0299 | Gt:065 Roomy Bass   | BS           | 087 | 066 | 043 |
| 0300 | Gt:066 All Round Bs | BS           | 087 | 066 | 044 |
| 0301 | Gt:067 Pick Bass 1  | BS           | 087 | 066 | 045 |
| 0302 | Gt:068 Pick Bass 2  | BS           | 087 | 066 | 046 |
| 0303 | Gt:069 Thumb Up!    | BS           | 087 | 066 | 047 |
| 0304 | Gt:070 Tubby Mute   | BS           | 087 | 066 | 048 |
| 0305 | Gt:071 Chicken Bass | BS           | 087 | 066 | 049 |
| 0306 | Gt:072 Snug Bass    | BS           | 087 | 066 | 050 |
| 0307 | Gt:073 Chorus Bass  | BS           | 087 | 066 | 051 |
| 0308 | Gt:074 A Big Pick   | BS           | 087 | 066 | 052 |
| 0309 | Gt:075 Slap Bass    | BS           | 087 | 066 | 053 |
| 0310 | Gt:076 Slap w/Fx    | BS           | 087 | 066 | 054 |
| 0311 | Gt:077 Basement     | BS           | 087 | 066 | 055 |
| 0312 | Gt:078 Low Bass     | SBS          | 087 | 066 | 056 |
| 0313 | Gt:079 Foundation   | SBS          | 087 | 066 | 057 |
| 0314 | Gt:080 SH Sawtooth  | SBS          | 087 | 066 | 058 |
| 0315 | Gt:081 Fat RubberBs | SBS          | 087 | 066 | 059 |
| 0316 | Gt:082 Garage Bass1 | SBS          | 087 | 066 | 060 |
| 0317 | Gt:083 Reso SynBs 1 | SBS          | 087 | 066 | 061 |
| 0318 | Gt:084 TB Dist Bs   | SBS          | 087 | 066 | 062 |
| 0319 | Gt:085 JUNO Acid Bs | SBS          | 087 | 066 | 063 |
| 0320 | Gt:086 Monster Bass | SBS          | 087 | 066 | 064 |
| 0321 | Gt:087 Oil Can Bass | SBS          | 087 | 066 | 065 |
| 0322 | Gt:088 Pedal Syn Bs | SBS          | 087 | 066 | 066 |
| 0323 | Gt:089 Big Mini 1   | SBS          | 087 | 066 | 067 |
| 0324 | Gt:090 Big Mini 2   | SBS          | 087 | 066 | 068 |
| 0325 | Gt:091 SH-2 Bs      | SBS          | 087 | 066 | 069 |
| 0326 | Gt:092 SH-101 Bs 1  | SBS          | 087 | 066 | 070 |
| 0327 | Gt:093 R&B Bass 1   | SBS          | 087 | 066 | 071 |
| 0328 | Gt:094 R&B Bass 2   | SBS          | 087 | 066 | 072 |
| 0329 | Gt:095 R&B Bass 3   | SBS          | 087 | 066 | 073 |
| 0330 | Gt:096 Moogy Bass 1 | SBS          | 087 | 066 | 074 |
| 0331 | Gt:097 Moogy Bass 2 | SBS          | 087 | 066 | 075 |
| 0332 | Gt:098 JUNO Reso    | SBS          | 087 | 066 | 076 |
| 0333 | Gt:099 Alpha SynBs1 | SBS          | 087 | 066 | 077 |
| 0334 | Gt:100 Alpha SynBs2 | SBS          | 087 | 066 | 078 |
| 0335 | Gt:101 SH Square    | SBS          | 087 | 066 | 079 |
| 0336 | Gt:102 Pedal Square | SBS          | 087 | 066 | 080 |
| 0337 | Gt:103 Doze Bass 1  | SBS          | 087 | 066 | 081 |
| 0338 | Gt:104 VirtualRnBs1 | SBS          | 087 | 066 | 082 |
| 0339 | Gt:105 Saw&MG Bass1 | SBS          | 087 | 066 | 083 |
| 0340 | Gt:106 Square Bass  | SBS          | 087 | 066 | 084 |
| 0341 | Gt:107 Bs MG        | SBS          | 087 | 066 | 085 |
| 0342 | Gt:108 Bs Reso      | SBS          | 087 | 066 | 086 |
| 0343 | Gt:109 Bs SH        | SBS          | 087 | 066 | 087 |
| 0344 | Gt:110 Bs TB        | SBS          | 087 | 066 | 088 |
| 0345 | Gt:111 Bs MC        | SBS          | 087 | 066 | 089 |
| 0346 | Gt:112 Bs Pedal     | SBS          | 087 | 066 | 090 |
| 0347 | Gt:113 Bs Release   | SBS          | 087 | 066 | 091 |
| 0348 | Gt:114 Bs Cheeze    | SBS          | 087 | 066 | 092 |
| 0349 | Gt:115 Mini Like!   | SBS          | 087 | 066 | 093 |
| 0350 | Gt:116 MC-404 Bass  | SBS          | 087 | 066 | 094 |
| 0351 | Gt:117 Soft SynBass | SBS          | 087 | 066 | 095 |
| 0352 | Gt:118 JUNO-106 Bs  | SBS          | 087 | 066 | 096 |
| 0353 | Gt:119 Smooth Bass  | SBS          | 087 | 066 | 097 |
| 0354 | Gt:120 Flat Bass    | SBS          | 087 | 066 | 098 |
| 0355 | Gt:121 Punch MG 2   | SBS          | 087 | 066 | 099 |
| 0356 | Gt:122 Electro Rubb | SBS          | 087 | 066 | 100 |
| 0357 | Gt:123 R&B Bass 4   | SBS          | 087 | 066 | 101 |
| 0358 | Gt:124 Enorjizor    | SBS          | 087 | 066 | 102 |
| 0359 | Gt:125 LowFat Bass  | SBS          | 087 | 066 | 103 |
| 0360 | Gt:126 Doze Bass 2  | SBS          | 087 | 066 | 104 |
| 0361 | Gt:127 DCO Bass     | SBS          | 087 | 066 | 105 |
| 0362 | Gt:128 VirtualRnBs2 | SBS          | 087 | 066 | 106 |
| 0363 | Gt:129 Saw&MG Bass2 | SBS          | 087 | 066 | 107 |
| 0364 | Gt:130 MG+SubOsc Bs | SBS          | 087 | 066 | 108 |
| 0365 | Gt:131 R&B Bass 5   | SBS          | 087 | 066 | 109 |
| 0366 | Gt:132 R&B Bass 6   | SBS          | 087 | 066 | 110 |
| 0367 | Gt:133 Not a Bass   | SBS          | 087 | 066 | 111 |
| 0368 | Gt:134 Reso SynBs 2 | SBS          | 087 | 066 | 112 |
| 0369 | Gt:135 SH-1 Bass    | SBS          | 087 | 066 | 113 |
| 0370 | Gt:136 SH-101 Bs 2  | SBS          | 087 | 066 | 114 |
| 0371 | Gt:137 Punch MG 1   | SBS          | 087 | 066 | 115 |
| 0372 | Gt:138 MKS-50 SynBs | SBS          | 087 | 066 | 116 |
| 0373 | Gt:139 Gashed Bass  | SBS          | 087 | 066 | 117 |
| 0374 | Gt:140 Q Bass       | SBS          | 087 | 066 | 118 |
| 0375 | Gt:141 Super-G DX   | SBS          | 087 | 066 | 119 |
| 0376 | Gt:142 Kickin' Bass | SBS          | 087 | 066 | 120 |

| No.  | Name                | Sub-category | MSB | LSB | PC  |
|------|---------------------|--------------|-----|-----|-----|
| 0377 | Gt:143 OilDrum Bass | SBS          | 087 | 066 | 121 |
| 0378 | Gt:144 Dust Bass    | SBS          | 087 | 066 | 122 |
| 0379 | Gt:145 Glide-iator  | SBS          | 087 | 066 | 123 |
| 0380 | Gt:146 Acid Punch   | SBS          | 087 | 066 | 124 |
| 0381 | Gt:147 Unison Bass  | SBS          | 087 | 066 | 125 |
| 0382 | Gt:148 Detune Bass  | SBS          | 087 | 066 | 126 |
| 0383 | Gt:149 Lo Bass      | SBS          | 087 | 066 | 127 |
| 0384 | Gt:150 Garage Bass2 | SBS          | 087 | 066 | 128 |
| 0385 | Gt:151 Sub Sonic    | SBS          | 087 | 067 | 001 |
| 0386 | Gt:152 Jungle Bass  | SBS          | 087 | 067 | 002 |
| 0387 | Gt:153 R&B Bass 7   | SBS          | 087 | 067 | 003 |
| 0388 | Gt:154 Simply Basic | SBS          | 087 | 067 | 004 |
| 0389 | Gt:155 Beepin Bass  | SBS          | 087 | 067 | 005 |
| 0390 | Gt:156 MC-TB Bass   | SBS          | 087 | 067 | 006 |
| 0391 | Gt:157 Acdg Bass    | SBS          | 087 | 067 | 007 |
| 0392 | Gt:158 Loco Voco    | SBS          | 087 | 067 | 008 |
| 0393 | Gt:159 Unplug it!   | SBS          | 087 | 067 | 009 |
| 0394 | Gt:160 S&H Bass     | SBS          | 087 | 067 | 010 |
| 0395 | Gt:161 Destroyed Bs | SBS          | 087 | 067 | 011 |
| 0396 | Gt:162 Lo-Fi TB     | SBS          | 087 | 067 | 012 |
| 0397 | Gt:163 Drop Bass    | SBS          | 087 | 067 | 013 |
| 0398 | Gt:164 Big Mini 3   | SBS          | 087 | 067 | 014 |
| 0399 | Gt:165 Muffled MG   | SBS          | 087 | 067 | 015 |
| 0400 | Gt:166 Intrusive Bs | SBS          | 087 | 067 | 016 |
| 0401 | Gt:167 Alpha SynBs3 | SBS          | 087 | 067 | 017 |
| 0402 | Gt:168 TransistorBs | SBS          | 087 | 067 | 018 |
| 0403 | Gt:169 JUNO-60 Bass | SBS          | 087 | 067 | 019 |
| 0404 | Gt:170 Storm Bass   | SBS          | 087 | 067 | 020 |
| 0405 | Gt:171 Alpha ResoBs | SBS          | 087 | 067 | 021 |
| 0406 | Gt:172 SH-101 Vibe  | SBS          | 087 | 067 | 022 |
| 0407 | Gt:173 Fazee Bass   | SBS          | 087 | 067 | 023 |
| 0408 | Gt:174 Hi-Energy Bs | SBS          | 087 | 067 | 024 |
| 0409 | Gt:175 Low Nz Bass  | SBS          | 087 | 067 | 025 |
| 0410 | Oc:001 String Ens   | STR          | 087 | 067 | 026 |
| 0411 | Oc:002 JUNO Strings | STR          | 087 | 067 | 027 |
| 0412 | Oc:003 Chamber Str1 | STR          | 087 | 067 | 028 |
| 0413 | Oc:004 Chamber Str2 | STR          | 087 | 067 | 029 |
| 0414 | Oc:005 Staccato     | STR          | 087 | 067 | 030 |
| 0415 | Oc:006 Pizzicato    | STR          | 087 | 067 | 031 |
| 0416 | Oc:007 Pizz/Stacc   | STR          | 087 | 067 | 032 |
| 0417 | Oc:008 Sahara Str   | STR          | 087 | 067 | 033 |
| 0418 | Oc:009 Random Mood  | STR          | 087 | 067 | 034 |
| 0419 | Oc:010 X Hall Str   | STR          | 087 | 067 | 035 |
| 0420 | Oc:011 DelayQuartet | STR          | 087 | 067 | 036 |
| 0421 | Oc:012 Pop Str 1    | STR          | 087 | 067 | 037 |
| 0422 | Oc:013 Pop Str 2    | STR          | 087 | 067 | 038 |
| 0423 | Oc:014 Pop Str 3    | STR          | 087 | 067 | 039 |
| 0424 | Oc:015 WhiteStrings | STR          | 087 | 067 | 040 |
| 0425 | Oc:016 JV Strings   | STR          | 087 | 067 | 041 |
| 0426 | Oc:017 Marcato      | STR          | 087 | 067 | 042 |
| 0427 | Oc:018 Strings 1    | STR          | 087 | 067 | 043 |
| 0428 | Oc:019 Strings 2    | STR          | 087 | 067 | 044 |
| 0429 | Oc:020 Stringz 101  | STR          | 087 | 067 | 045 |
| 0430 | Oc:021 Crossed Bows | STR          | 087 | 067 | 046 |
| 0431 | Oc:022 Small Str    | STR          | 087 | 067 | 047 |
| 0432 | Oc:023 Warm Strings | STR          | 087 | 067 | 048 |
| 0433 | Oc:024 DynaStrSect1 | STR          | 087 | 067 | 049 |
| 0434 | Oc:025 DynaStrSect2 | STR          | 087 | 067 | 050 |
| 0435 | Oc:026 Full Strings | STR          | 087 | 067 | 051 |
| 0436 | Oc:027 X StrSection | STR          | 087 | 067 | 052 |
| 0437 | Oc:028 Oct Strings  | STR          | 087 | 067 | 053 |
| 0438 | Oc:029 Strings 3    | STR          | 087 | 067 | 054 |
| 0439 | Oc:030 Monkey Str   | STR          | 087 | 067 | 055 |
| 0440 | Oc:031 Hybrid Str 1 | STR          | 087 | 067 | 056 |
| 0441 | Oc:032 Hybrid Str 2 | STR          | 087 | 067 | 057 |
| 0442 | Oc:033 Biggie Bows  | STR          | 087 | 067 | 058 |
| 0443 | Oc:034 Str Stacc mp | STR          | 087 | 067 | 059 |
| 0444 | Oc:035 So Staccato  | STR          | 087 | 067 | 060 |
| 0445 | Oc:036 Long/Stacc   | STR          | 087 | 067 | 061 |
| 0446 | Oc:037 Pizz/Long    | STR          | 087 | 067 | 062 |
| 0447 | Oc:038 Vls PizzHall | STR          | 087 | 067 | 063 |
| 0448 | Oc:039 DelicatePizz | STR          | 087 | 067 | 064 |
| 0449 | Oc:040 Orch Pizz    | STR          | 087 | 067 | 065 |
| 0450 | Oc:041 BrightViolin | STR          | 087 | 067 | 066 |
| 0451 | Oc:042 Bright Cello | STR          | 087 | 067 | 067 |
| 0452 | Oc:043 Gang Strangs | STR          | 087 | 067 | 068 |
| 0453 | Oc:044 Clustered!?! | STR          | 087 | 067 | 069 |
| 0454 | Oc:045 Movie Scene  | STR          | 087 | 067 | 070 |
| 0455 | Oc:046 Mellow Tron  | STR          | 087 | 067 | 071 |
| 0456 | Oc:047 Tronic Str   | STR          | 087 | 067 | 072 |
| 0457 | Oc:048 Wind & Str 1 | ORC          | 087 | 067 | 073 |

Patch List

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0458 | Oc:049 | Wind & Str 2 | ORC | 087 | 067 | 074 |
| 0459 | Oc:050 | Farewell     | ORC | 087 | 067 | 075 |
| 0460 | Oc:051 | Orch & Horns | ORC | 087 | 067 | 076 |
| 0461 | Oc:052 | Soft Orch 1  | ORC | 087 | 067 | 077 |
| 0462 | Oc:053 | Soft Orch 2  | ORC | 087 | 067 | 078 |
| 0463 | Oc:054 | Henry IX     | ORC | 087 | 067 | 079 |
| 0464 | Oc:055 | Ending Scene | ORC | 087 | 067 | 080 |
| 0465 | Oc:056 | Symphonika   | ORC | 087 | 067 | 081 |
| 0466 | Oc:057 | Cheezy Movie | HIT | 087 | 067 | 082 |
| 0467 | Oc:058 | Philly Hit   | HIT | 087 | 067 | 083 |
| 0468 | Oc:059 | Smear Hit 1  | HIT | 087 | 067 | 084 |
| 0469 | Oc:060 | Smear Hit 2  | HIT | 087 | 067 | 085 |
| 0470 | Oc:061 | Good Old Hit | HIT | 087 | 067 | 086 |
| 0471 | Oc:062 | Mix Hit 1    | HIT | 087 | 067 | 087 |
| 0472 | Oc:063 | Mix Hit 2    | HIT | 087 | 067 | 088 |
| 0473 | Oc:064 | Lo-Fi Hit    | HIT | 087 | 067 | 089 |
| 0474 | Oc:065 | 2ble Action  | HIT | 087 | 067 | 090 |
| 0475 | Oc:066 | In da Cave   | HIT | 087 | 067 | 091 |
| 0476 | Oc:067 | Housechord   | HIT | 087 | 067 | 092 |
| 0477 | Oc:068 | Mod Chord    | HIT | 087 | 067 | 093 |
| 0478 | Oc:069 | Dance Steam  | HIT | 087 | 067 | 094 |
| 0479 | Br:001 | Bright Brass | BRS | 087 | 067 | 095 |
| 0480 | Br:002 | BreakOut Brs | BRS | 087 | 067 | 096 |
| 0481 | Br:003 | StackTp Sect | BRS | 087 | 067 | 097 |
| 0482 | Br:004 | Tb Section   | BRS | 087 | 067 | 098 |
| 0483 | Br:005 | TpTb Sect.   | BRS | 087 | 067 | 099 |
| 0484 | Br:006 | Brass Sect 1 | BRS | 087 | 067 | 100 |
| 0485 | Br:007 | Brass Sect 2 | BRS | 087 | 067 | 101 |
| 0486 | Br:008 | Brass & Sax  | BRS | 087 | 067 | 102 |
| 0487 | Br:009 | Simple Tutti | BRS | 087 | 067 | 103 |
| 0488 | Br:010 | Tpts & Tmbs  | BRS | 087 | 067 | 104 |
| 0489 | Br:011 | BrassPartOut | BRS | 087 | 067 | 105 |
| 0490 | Br:012 | Full sForza  | BRS | 087 | 067 | 106 |
| 0491 | Br:013 | Stereo Brass | BRS | 087 | 067 | 107 |
| 0492 | Br:014 | F.Horns Sect | BRS | 087 | 067 | 108 |
| 0493 | Br:015 | Solo Tp      | BRS | 087 | 067 | 109 |
| 0494 | Br:016 | Ambi Tp      | BRS | 087 | 067 | 110 |
| 0495 | Br:017 | Horn Chops   | BRS | 087 | 067 | 111 |
| 0496 | Br:018 | Mute Tp      | BRS | 087 | 067 | 112 |
| 0497 | Br:019 | Harmon Mute  | BRS | 087 | 067 | 113 |
| 0498 | Br:020 | Soft Tb      | BRS | 087 | 067 | 114 |
| 0499 | Br:021 | Solo Tb      | BRS | 087 | 067 | 115 |
| 0500 | Br:022 | Solo Bone    | BRS | 087 | 067 | 116 |
| 0501 | Br:023 | Flugel Horn  | BRS | 087 | 067 | 117 |
| 0502 | Br:024 | Spit Flugel  | BRS | 087 | 067 | 118 |
| 0503 | Br:025 | XP Horn      | BRS | 087 | 067 | 119 |
| 0504 | Br:026 | Grande Tuba  | BRS | 087 | 067 | 120 |
| 0505 | Br:027 | JUNO Tuba    | BRS | 087 | 067 | 121 |
| 0506 | Br:028 | 80s Brass 1  | SBR | 087 | 067 | 122 |
| 0507 | Br:029 | Wide Syn Brs | SBR | 087 | 067 | 123 |
| 0508 | Br:030 | Poly Brass   | SBR | 087 | 067 | 124 |
| 0509 | Br:031 | JP8000 Brass | SBR | 087 | 067 | 125 |
| 0510 | Br:032 | JUNO Brass   | SBR | 087 | 067 | 126 |
| 0511 | Br:033 | DetuneSawBrs | SBR | 087 | 067 | 127 |
| 0512 | Br:034 | J-Pop Brass  | SBR | 087 | 067 | 128 |
| 0513 | Br:035 | 80s Brass 2  | SBR | 087 | 068 | 001 |
| 0514 | Br:036 | 80s Brass 3  | SBR | 087 | 068 | 002 |
| 0515 | Br:037 | 80s Brass 4  | SBR | 087 | 068 | 003 |
| 0516 | Br:038 | 80s Brass 5  | SBR | 087 | 068 | 004 |
| 0517 | Br:039 | Ana Brass    | SBR | 087 | 068 | 005 |
| 0518 | Br:040 | Soft Brass   | SBR | 087 | 068 | 006 |
| 0519 | Br:041 | Ox Brass     | SBR | 087 | 068 | 007 |
| 0520 | Br:042 | Syn Brass 1  | SBR | 087 | 068 | 008 |
| 0521 | Br:043 | Syn Brass 2  | SBR | 087 | 068 | 009 |
| 0522 | Br:044 | Xpand Brass1 | SBR | 087 | 068 | 010 |
| 0523 | Br:045 | Xpand Brass2 | SBR | 087 | 068 | 011 |
| 0524 | Br:046 | Super Saw    | SBR | 087 | 068 | 012 |
| 0525 | Br:047 | SoftSynBrass | SBR | 087 | 068 | 013 |
| 0526 | Br:048 | Windy Synth  | SBR | 087 | 068 | 014 |
| 0527 | Br:049 | Silky JP     | SBR | 087 | 068 | 015 |
| 0528 | Br:050 | Silk Brs Pad | SBR | 087 | 068 | 016 |
| 0529 | Br:051 | X-Saw Brass  | SBR | 087 | 068 | 017 |
| 0530 | Br:052 | Cheesy Brass | SBR | 087 | 068 | 018 |
| 0531 | Br:053 | Dual Saw Brs | SBR | 087 | 068 | 019 |
| 0532 | Br:054 | JUNO-106 Brs | SBR | 087 | 068 | 020 |
| 0533 | Br:055 | BreakOut Key | SBR | 087 | 068 | 021 |
| 0534 | Br:056 | Stacked Brs  | SBR | 087 | 068 | 022 |
| 0535 | Br:057 | Sax Sect. 1  | SAX | 087 | 068 | 023 |
| 0536 | Br:058 | Sax Sect. 2  | SAX | 087 | 068 | 024 |
| 0537 | Br:059 | Horny Sax    | SAX | 087 | 068 | 025 |
| 0538 | Br:060 | JUNO Sop Sax | SAX | 087 | 068 | 026 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0539 | Br:061 | Solo Sop Sax | SAX | 087 | 068 | 027 |
| 0540 | Br:062 | JUNO AltoSax | SAX | 087 | 068 | 028 |
| 0541 | Br:063 | AltoLead Sax | SAX | 087 | 068 | 029 |
| 0542 | Br:064 | FXM Alto Sax | SAX | 087 | 068 | 030 |
| 0543 | Br:065 | XP TnrBrethy | SAX | 087 | 068 | 031 |
| 0544 | Br:066 | JUNO Tnr Sax | SAX | 087 | 068 | 032 |
| 0545 | Br:067 | Fat TenorSax | SAX | 087 | 068 | 033 |
| 0546 | Br:068 | JUNO BariSax | SAX | 087 | 068 | 034 |
| 0547 | Br:069 | JUNO Flute   | FLT | 087 | 068 | 035 |
| 0548 | Br:070 | JUNO Piccolo | FLT | 087 | 068 | 036 |
| 0549 | Br:071 | Clarence.net | WND | 087 | 068 | 037 |
| 0550 | Br:072 | JUNO Oboe    | WND | 087 | 068 | 038 |
| 0551 | Br:073 | JUNO E.Horn  | WND | 087 | 068 | 039 |
| 0552 | Br:074 | JUNO Bassoon | WND | 087 | 068 | 040 |
| 0553 | Br:075 | Good Old Day | WND | 087 | 068 | 041 |
| 0554 | Br:076 | WindWood     | WND | 087 | 068 | 042 |
| 0555 | Sy:001 | Porta Lead 1 | HLD | 087 | 068 | 043 |
| 0556 | Sy:002 | Porta Lead 2 | HLD | 087 | 068 | 044 |
| 0557 | Sy:003 | Solo Saw Ld  | HLD | 087 | 068 | 045 |
| 0558 | Sy:004 | Wind Syn Ld  | HLD | 087 | 068 | 046 |
| 0559 | Sy:005 | GR Lead 1    | HLD | 087 | 068 | 047 |
| 0560 | Sy:006 | Sync Lead    | HLD | 087 | 068 | 048 |
| 0561 | Sy:007 | JupiterLead1 | HLD | 087 | 068 | 049 |
| 0562 | Sy:008 | Alpha Spit 1 | HLD | 087 | 068 | 050 |
| 0563 | Sy:009 | Pro Fat Ld   | HLD | 087 | 068 | 051 |
| 0564 | Sy:010 | Saw Lead 1   | HLD | 087 | 068 | 052 |
| 0565 | Sy:011 | Saw Lead 2   | HLD | 087 | 068 | 053 |
| 0566 | Sy:012 | Saw Lead 3   | HLD | 087 | 068 | 054 |
| 0567 | Sy:013 | Saw Lead 4   | HLD | 087 | 068 | 055 |
| 0568 | Sy:014 | Saw Lead 5   | HLD | 087 | 068 | 056 |
| 0569 | Sy:015 | Saw Lead 6   | HLD | 087 | 068 | 057 |
| 0570 | Sy:016 | JUNO Lead    | HLD | 087 | 068 | 058 |
| 0571 | Sy:017 | Jump Poly    | HLD | 087 | 068 | 059 |
| 0572 | Sy:018 | Octa Juice   | HLD | 087 | 068 | 060 |
| 0573 | Sy:019 | Octa Saw     | HLD | 087 | 068 | 061 |
| 0574 | Sy:020 | Octa Sync 1  | HLD | 087 | 068 | 062 |
| 0575 | Sy:021 | Octa Sync 2  | HLD | 087 | 068 | 063 |
| 0576 | Sy:022 | Hot Sync     | HLD | 087 | 068 | 064 |
| 0577 | Sy:023 | Hot Coffee   | HLD | 087 | 068 | 065 |
| 0578 | Sy:024 | Phase Lead   | HLD | 087 | 068 | 066 |
| 0579 | Sy:025 | Waspy Lead 1 | HLD | 087 | 068 | 067 |
| 0580 | Sy:026 | Follow Me 1  | HLD | 087 | 068 | 068 |
| 0581 | Sy:027 | Follow Me 2  | HLD | 087 | 068 | 069 |
| 0582 | Sy:028 | Classic Ld 1 | HLD | 087 | 068 | 070 |
| 0583 | Sy:029 | Classic Ld 2 | HLD | 087 | 068 | 071 |
| 0584 | Sy:030 | Digi Lead 1  | HLD | 087 | 068 | 072 |
| 0585 | Sy:031 | Digi Lead 2  | HLD | 087 | 068 | 073 |
| 0586 | Sy:032 | DC Triangle  | HLD | 087 | 068 | 074 |
| 0587 | Sy:033 | Sqr-Seqence  | HLD | 087 | 068 | 075 |
| 0588 | Sy:034 | Pure Square  | HLD | 087 | 068 | 076 |
| 0589 | Sy:035 | Griggley     | HLD | 087 | 068 | 077 |
| 0590 | Sy:036 | Legato Saw   | HLD | 087 | 068 | 078 |
| 0591 | Sy:037 | Dual Profs   | HLD | 087 | 068 | 079 |
| 0592 | Sy:038 | Gwyo Press   | HLD | 087 | 068 | 080 |
| 0593 | Sy:039 | Q DualSaws   | HLD | 087 | 068 | 081 |
| 0594 | Sy:040 | Mogulator Ld | HLD | 087 | 068 | 082 |
| 0595 | Sy:041 | DirtyVoltage | HLD | 087 | 068 | 083 |
| 0596 | Sy:042 | Clean?       | HLD | 087 | 068 | 084 |
| 0597 | Sy:043 | Distortion   | HLD | 087 | 068 | 085 |
| 0598 | Sy:044 | Syn Lead 1   | HLD | 087 | 068 | 086 |
| 0599 | Sy:045 | Syn Lead 2   | HLD | 087 | 068 | 087 |
| 0600 | Sy:046 | X-Sink Delay | HLD | 087 | 068 | 088 |
| 0601 | Sy:047 | Destroyed Ld | HLD | 087 | 068 | 089 |
| 0602 | Sy:048 | Synchro Lead | HLD | 087 | 068 | 090 |
| 0603 | Sy:049 | Sync Tank    | HLD | 087 | 068 | 091 |
| 0604 | Sy:050 | Sync Ld Mono | HLD | 087 | 068 | 092 |
| 0605 | Sy:051 | SyncModulate | HLD | 087 | 068 | 093 |
| 0606 | Sy:052 | 2krazy Brite | HLD | 087 | 068 | 094 |
| 0607 | Sy:053 | Distorted MG | HLD | 087 | 068 | 095 |
| 0608 | Sy:054 | Dist Lead    | HLD | 087 | 068 | 096 |
| 0609 | Sy:055 | Ringmod Lead | HLD | 087 | 068 | 097 |
| 0610 | Sy:056 | BodyElectric | HLD | 087 | 068 | 098 |
| 0611 | Sy:057 | SonicVampire | HLD | 087 | 068 | 099 |
| 0612 | Sy:058 | Stimulation  | HLD | 087 | 068 | 100 |
| 0613 | Sy:059 | Wire Sync    | HLD | 087 | 068 | 101 |
| 0614 | Sy:060 | Epic Lead    | HLD | 087 | 068 | 102 |
| 0615 | Sy:061 | Bag Lead     | HLD | 087 | 068 | 103 |
| 0616 | Sy:062 | Wezcoast     | HLD | 087 | 068 | 104 |
| 0617 | Sy:063 | HyperJupiter | HLD | 087 | 068 | 105 |
| 0618 | Sy:064 | Vintagolizer | HLD | 087 | 068 | 106 |
| 0619 | Sy:065 | C64 Lead     | HLD | 087 | 068 | 107 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0620 | Sy:066 | 303 NRG      | HLD | 087 | 068 | 108 |
| 0621 | Sy:067 | Feat Lead    | HLD | 087 | 068 | 109 |
| 0622 | Sy:068 | Cell SqrLead | SLD | 087 | 068 | 110 |
| 0623 | Sy:069 | Theramax 1   | SLD | 087 | 068 | 111 |
| 0624 | Sy:070 | Pulse Lead 1 | SLD | 087 | 068 | 112 |
| 0625 | Sy:071 | Pulse Lead 2 | SLD | 087 | 068 | 113 |
| 0626 | Sy:072 | Mid Saw Ld   | SLD | 087 | 068 | 114 |
| 0627 | Sy:073 | On Air       | SLD | 087 | 068 | 115 |
| 0628 | Sy:074 | Tri Lead 1   | SLD | 087 | 068 | 116 |
| 0629 | Sy:075 | Tri Lead 2   | SLD | 087 | 068 | 117 |
| 0630 | Sy:076 | Sine Lead 1  | SLD | 087 | 068 | 118 |
| 0631 | Sy:077 | Sine Lead 2  | SLD | 087 | 068 | 119 |
| 0632 | Sy:078 | Sqr Lead 1   | SLD | 087 | 068 | 120 |
| 0633 | Sy:079 | Sqr Lead 2   | SLD | 087 | 068 | 121 |
| 0634 | Sy:080 | SH Sqr Lead  | SLD | 087 | 068 | 122 |
| 0635 | Sy:081 | Sinetific    | SLD | 087 | 068 | 123 |
| 0636 | Sy:082 | JUNO Soft Ld | SLD | 087 | 068 | 124 |
| 0637 | Sy:083 | Spooky Lead  | SLD | 087 | 068 | 125 |
| 0638 | Sy:084 | PeakArpSine  | SLD | 087 | 068 | 126 |
| 0639 | Sy:085 | Howards Lead | SLD | 087 | 068 | 127 |
| 0640 | Sy:086 | SoloNzPeaker | SLD | 087 | 068 | 128 |
| 0641 | Sy:087 | R&B Tri Ld 1 | SLD | 087 | 069 | 001 |
| 0642 | Sy:088 | R&B Tri Ld 2 | SLD | 087 | 069 | 002 |
| 0643 | Sy:089 | JupiterLead2 | SLD | 087 | 069 | 003 |
| 0644 | Sy:090 | JupiterLead3 | SLD | 087 | 069 | 004 |
| 0645 | Sy:091 | Dig-n-Duke   | SLD | 087 | 069 | 005 |
| 0646 | Sy:092 | Sqr Diamond  | SLD | 087 | 069 | 006 |
| 0647 | Sy:093 | Soft Lead    | SLD | 087 | 069 | 007 |
| 0648 | Sy:094 | Soft Saw Ld  | SLD | 087 | 069 | 008 |
| 0649 | Sy:095 | X-Pulse Lead | SLD | 087 | 069 | 009 |
| 0650 | Sy:096 | Mild 2-SawLd | SLD | 087 | 069 | 010 |
| 0651 | Sy:097 | Mew Lead     | SLD | 087 | 069 | 011 |
| 0652 | Sy:098 | Shy Soloist  | SLD | 087 | 069 | 012 |
| 0653 | Sy:099 | Theramax 2   | SLD | 087 | 069 | 013 |
| 0654 | Sy:100 | Therasqu     | SLD | 087 | 069 | 014 |
| 0655 | Sy:101 | GR Lead 2    | SLD | 087 | 069 | 015 |
| 0656 | Sy:102 | SH-2 Lead    | SLD | 087 | 069 | 016 |
| 0657 | Sy:103 | Jucy Saw     | SLD | 087 | 069 | 017 |
| 0658 | Sy:104 | Reso Lead    | SLD | 087 | 069 | 018 |
| 0659 | Sy:105 | Modulated Ld | SLD | 087 | 069 | 019 |
| 0660 | Sy:106 | Synthi Fizz  | SLD | 087 | 069 | 020 |
| 0661 | Sy:107 | Waspy Lead 2 | SLD | 087 | 069 | 021 |
| 0662 | Sy:108 | Pulstar Ld   | SLD | 087 | 069 | 022 |
| 0663 | Sy:109 | Naked Lead   | SLD | 087 | 069 | 023 |
| 0664 | Sy:110 | Alpha Spit 2 | SLD | 087 | 069 | 024 |
| 0665 | Sy:111 | JP Saw Lead  | SLD | 087 | 069 | 025 |
| 0666 | Sy:112 | Violin Lead  | SLD | 087 | 069 | 026 |
| 0667 | Sy:113 | Mod Lead     | SLD | 087 | 069 | 027 |
| 0668 | Sy:114 | Tristar      | SLD | 087 | 069 | 028 |
| 0669 | Sy:115 | Chubby Lead  | SLD | 087 | 069 | 029 |
| 0670 | Sy:116 | Sneaky Leady | SLD | 087 | 069 | 030 |
| 0671 | Sy:117 | Shaku Lead   | SLD | 087 | 069 | 031 |
| 0672 | Sy:118 | Legato Tkno  | SLD | 087 | 069 | 032 |
| 0673 | Sy:119 | Reso Saw Ld  | SLD | 087 | 069 | 033 |
| 0674 | Sy:120 | SliCed Lead  | SLD | 087 | 069 | 034 |
| 0675 | Sy:121 | Mini Growl   | SLD | 087 | 069 | 035 |
| 0676 | Sy:122 | Evangelized  | SLD | 087 | 069 | 036 |
| 0677 | Sy:123 | Air Lead     | SLD | 087 | 069 | 037 |
| 0678 | Sy:124 | Stacc Heaven | SYN | 087 | 069 | 038 |
| 0679 | Sy:125 | Sugar Synth  | SYN | 087 | 069 | 039 |
| 0680 | Sy:126 | Synth Key    | SYN | 087 | 069 | 040 |
| 0681 | Sy:127 | Frontier Syn | SYN | 087 | 069 | 041 |
| 0682 | Sy:128 | Summer Str   | SYN | 087 | 069 | 042 |
| 0683 | Sy:129 | JUNO Poly    | SYN | 087 | 069 | 043 |
| 0684 | Sy:130 | SuperSawSlow | SYN | 087 | 069 | 044 |
| 0685 | Sy:131 | Cue Tip      | SYN | 087 | 069 | 045 |
| 0686 | Sy:132 | Waspy Synth  | SYN | 087 | 069 | 046 |
| 0687 | Sy:133 | Europe Xpres | SYN | 087 | 069 | 047 |
| 0688 | Sy:134 | Squeeepy     | SYN | 087 | 069 | 048 |
| 0689 | Sy:135 | DOC Stack    | SYN | 087 | 069 | 049 |
| 0690 | Sy:136 | Sweep Lead   | SYN | 087 | 069 | 050 |
| 0691 | Sy:137 | 80s Saws 1   | SYN | 087 | 069 | 051 |
| 0692 | Sy:138 | 80s Saws 2   | SYN | 087 | 069 | 052 |
| 0693 | Sy:139 | 80s Saws 3   | SYN | 087 | 069 | 053 |
| 0694 | Sy:140 | Digitalless  | SYN | 087 | 069 | 054 |
| 0695 | Sy:141 | Flip Pad     | SYN | 087 | 069 | 055 |
| 0696 | Sy:142 | Short Detune | SYN | 087 | 069 | 056 |
| 0697 | Sy:143 | forSequence  | SYN | 087 | 069 | 057 |
| 0698 | Sy:144 | Memory Pluck | SYN | 087 | 069 | 058 |
| 0699 | Sy:145 | Metalic Bass | SYN | 087 | 069 | 059 |
| 0700 | Sy:146 | Aqua         | SYN | 087 | 069 | 060 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0701 | Sy:147 | Round SQR    | SYN | 087 | 069 | 061 |
| 0702 | Sy:148 | Big Planet   | SYN | 087 | 069 | 062 |
| 0703 | Sy:149 | Wet Atax     | SYN | 087 | 069 | 063 |
| 0704 | Sy:150 | Houze Clavi  | SYN | 087 | 069 | 064 |
| 0705 | Sy:151 | Saw Stack    | SYN | 087 | 069 | 065 |
| 0706 | Sy:152 | Frgile Saws  | SYN | 087 | 069 | 066 |
| 0707 | Sy:153 | Steamed Sawz | SYN | 087 | 069 | 067 |
| 0708 | Sy:154 | RAVtune      | SYN | 087 | 069 | 068 |
| 0709 | Sy:155 | Bustranza    | SYN | 087 | 069 | 069 |
| 0710 | Sy:156 | Digi Saw Syn | SYN | 087 | 069 | 070 |
| 0711 | Sy:157 | JP OctAttack | SYN | 087 | 069 | 071 |
| 0712 | Sy:158 | Oct Unison   | SYN | 087 | 069 | 072 |
| 0713 | Sy:159 | Xtatic       | SYN | 087 | 069 | 073 |
| 0714 | Sy:160 | Dirty Combo  | SYN | 087 | 069 | 074 |
| 0715 | Sy:161 | FM's Attack  | SYN | 087 | 069 | 075 |
| 0716 | Sy:162 | Digi-vox Syn | SYN | 087 | 069 | 076 |
| 0717 | Sy:163 | Fairy Factor | SYN | 087 | 069 | 077 |
| 0718 | Sy:164 | Tempest      | SYN | 087 | 069 | 078 |
| 0719 | Sy:165 | X-Racer      | SYN | 087 | 069 | 079 |
| 0720 | Sy:166 | TB Booster   | SYN | 087 | 069 | 080 |
| 0721 | Sy:167 | Syn-Orch/Mod | SYN | 087 | 069 | 081 |
| 0722 | Sy:168 | Pressyn      | SYN | 087 | 069 | 082 |
| 0723 | Sy:169 | High Five    | SYN | 087 | 069 | 083 |
| 0724 | Sy:170 | Magnetic 5th | SYN | 087 | 069 | 084 |
| 0725 | Sy:171 | DigimaX      | SYN | 087 | 069 | 085 |
| 0726 | Sy:172 | Exhale       | SYN | 087 | 069 | 086 |
| 0727 | Sy:173 | X-panda      | SYN | 087 | 069 | 087 |
| 0728 | Sy:174 | Saw Keystep  | SYN | 087 | 069 | 088 |
| 0729 | Sy:175 | Blue Meanie  | SYN | 087 | 069 | 089 |
| 0730 | Sy:176 | 4mant Cycle  | SYN | 087 | 069 | 090 |
| 0731 | Sy:177 | Modular      | SYN | 087 | 069 | 091 |
| 0732 | Sy:178 | Analog Dream | SYN | 087 | 069 | 092 |
| 0733 | Sy:179 | DCO Bell Pad | SYN | 087 | 069 | 093 |
| 0734 | Sy:180 | Cell Fanta   | SYN | 087 | 069 | 094 |
| 0735 | Sy:181 | JUNO 5th     | SYN | 087 | 069 | 095 |
| 0736 | Sy:182 | DoubleBubble | SYN | 087 | 069 | 096 |
| 0737 | Sy:183 | JUNO-D Maj7  | TEK | 087 | 069 | 097 |
| 0738 | Sy:184 | Sweet House  | TEK | 087 | 069 | 098 |
| 0739 | Sy:185 | Periscope    | TEK | 087 | 069 | 099 |
| 0740 | Sy:186 | 5th Voice    | TEK | 087 | 069 | 100 |
| 0741 | Sy:187 | HPF Sweep    | TEK | 087 | 069 | 101 |
| 0742 | Sy:188 | BPF Saw      | TEK | 087 | 069 | 102 |
| 0743 | Sy:189 | Moon Synth   | TEK | 087 | 069 | 103 |
| 0744 | Sy:190 | DelyResoSaws | TEK | 087 | 069 | 104 |
| 0745 | Sy:191 | JUNO Trance1 | TEK | 087 | 069 | 105 |
| 0746 | Sy:192 | Trancy Synth | TEK | 087 | 069 | 106 |
| 0747 | Sy:193 | Cell Trance  | TEK | 087 | 069 | 107 |
| 0748 | Sy:194 | Trancy X     | TEK | 087 | 069 | 108 |
| 0749 | Sy:195 | JUNO Trance2 | TEK | 087 | 069 | 109 |
| 0750 | Sy:196 | R-Trance     | TEK | 087 | 069 | 110 |
| 0751 | Sy:197 | Braatz...    | TEK | 087 | 069 | 111 |
| 0752 | Sy:198 | AllinOneRiff | TEK | 087 | 069 | 112 |
| 0753 | Sy:199 | YZ Again     | TEK | 087 | 069 | 113 |
| 0754 | Sy:200 | Flazzy Lead  | TEK | 087 | 069 | 114 |
| 0755 | Sy:201 | Coffee Bee   | TEK | 087 | 069 | 115 |
| 0756 | Sy:202 | TB-Sequence  | TEK | 087 | 069 | 116 |
| 0757 | Sy:203 | SC-303       | TEK | 087 | 069 | 117 |
| 0758 | Sy:204 | Dance Saws   | TEK | 087 | 069 | 118 |
| 0759 | Sy:205 | AluminmWires | TEK | 087 | 069 | 119 |
| 0760 | Sy:206 | Fred&Barney  | TEK | 087 | 069 | 120 |
| 0761 | Sy:207 | Electrostars | TEK | 087 | 069 | 121 |
| 0762 | Sy:208 | LoFiSequence | TEK | 087 | 069 | 122 |
| 0763 | Sy:209 | MelodicDrums | TEK | 087 | 069 | 123 |
| 0764 | Sy:210 | Monkey Arpg  | TEK | 087 | 069 | 124 |
| 0765 | Sy:211 | TB Wah       | TEK | 087 | 069 | 125 |
| 0766 | Sy:212 | Waving TB303 | TEK | 087 | 069 | 126 |
| 0767 | Sy:213 | Digi Seq     | TEK | 087 | 069 | 127 |
| 0768 | Sy:214 | Seq Saw      | TEK | 087 | 069 | 128 |
| 0769 | Sy:215 | Reso Seq Saw | TEK | 087 | 070 | 001 |
| 0770 | Sy:216 | DetuneSeqSaw | TEK | 087 | 070 | 002 |
| 0771 | Sy:217 | Technotribe  | TEK | 087 | 070 | 003 |
| 0772 | Sy:218 | Teethy Grit  | TEK | 087 | 070 | 004 |
| 0773 | Sy:219 | Repertition  | TEK | 087 | 070 | 005 |
| 0774 | Sy:220 | Killerbeez   | TEK | 087 | 070 | 006 |
| 0775 | Sy:221 | Acid Lead    | TEK | 087 | 070 | 007 |
| 0776 | Sy:222 | Tranceformer | TEK | 087 | 070 | 008 |
| 0777 | Sy:223 | Anadroid     | TEK | 087 | 070 | 009 |
| 0778 | Sy:224 | Shroomy      | TEK | 087 | 070 | 010 |
| 0779 | Sy:225 | Noize R us   | TEK | 087 | 070 | 011 |
| 0780 | Sy:226 | Beep Melodie | TEK | 087 | 070 | 012 |
| 0781 | Sy:227 | Morpher      | TEK | 087 | 070 | 013 |

Patch List

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0782 | Sy:228 | Power Synth  | TEK | 087 | 070 | 014 |
| 0783 | Sy:229 | Hoover Again | TEK | 087 | 070 | 015 |
| 0784 | Sy:230 | Alpha Said.. | TEK | 087 | 070 | 016 |
| 0785 | Sy:231 | Ravers Awake | TEK | 087 | 070 | 017 |
| 0786 | Sy:232 | Tekno Gargle | TEK | 087 | 070 | 018 |
| 0787 | Sy:233 | Tranceiver   | TEK | 087 | 070 | 019 |
| 0788 | Sy:234 | Techno Dream | TEK | 087 | 070 | 020 |
| 0789 | Sy:235 | Techno Pizz  | TEK | 087 | 070 | 021 |
| 0790 | Sy:236 | VirtualHuman | PLS | 087 | 070 | 022 |
| 0791 | Sy:237 | Strobot      | PLS | 087 | 070 | 023 |
| 0792 | Sy:238 | Strobe       | PLS | 087 | 070 | 024 |
| 0793 | Sy:239 | Strobe X     | PLS | 087 | 070 | 025 |
| 0794 | Sy:240 | Mr. Fourier  | PLS | 087 | 070 | 026 |
| 0795 | Sy:241 | Rhythmic 5th | PLS | 087 | 070 | 027 |
| 0796 | Sy:242 | Sorry4theDLY | PLS | 087 | 070 | 028 |
| 0797 | Sy:243 | Cell Pad     | PLS | 087 | 070 | 029 |
| 0798 | Sy:244 | Shape of X   | PLS | 087 | 070 | 030 |
| 0799 | Sy:245 | ShapeURMusic | PLS | 087 | 070 | 031 |
| 0800 | Sy:246 | Synth Force  | PLS | 087 | 070 | 032 |
| 0801 | Sy:247 | Trance Split | PLS | 087 | 070 | 033 |
| 0802 | Sy:248 | Step Trance  | PLS | 087 | 070 | 034 |
| 0803 | Sy:249 | Chop Synth   | PLS | 087 | 070 | 035 |
| 0804 | Sy:250 | Euro Teuro   | PLS | 087 | 070 | 036 |
| 0805 | Sy:251 | Auto Trance1 | PLS | 087 | 070 | 037 |
| 0806 | Sy:252 | Eureggae     | PLS | 087 | 070 | 038 |
| 0807 | Sy:253 | Beat Pad     | PLS | 087 | 070 | 039 |
| 0808 | Sy:254 | TMT Seq Pad  | PLS | 087 | 070 | 040 |
| 0809 | Sy:255 | ForYourBreak | PLS | 087 | 070 | 041 |
| 0810 | Sy:256 | HPF Slicer   | PLS | 087 | 070 | 042 |
| 0811 | Sy:257 | Sliced Choir | PLS | 087 | 070 | 043 |
| 0812 | Sy:258 | Digi-Doo     | PLS | 087 | 070 | 044 |
| 0813 | Sy:259 | PanningFrmnt | PLS | 087 | 070 | 045 |
| 0814 | Sy:260 | Dirty Beat   | PLS | 087 | 070 | 046 |
| 0815 | Sy:261 | Electrons    | PLS | 087 | 070 | 047 |
| 0816 | Sy:262 | Protons      | PLS | 087 | 070 | 048 |
| 0817 | Sy:263 | Brisk Vortex | PLS | 087 | 070 | 049 |
| 0818 | Sy:264 | Throbulax    | PLS | 087 | 070 | 050 |
| 0819 | Sy:265 | Lonizer      | PLS | 087 | 070 | 051 |
| 0820 | Sy:266 | diGital Pad  | PLS | 087 | 070 | 052 |
| 0821 | Sy:267 | StepPitShift | PLS | 087 | 070 | 053 |
| 0822 | Sy:268 | Pad Pulses   | PLS | 087 | 070 | 054 |
| 0823 | Sy:269 | Seq-Pad 1    | PLS | 087 | 070 | 055 |
| 0824 | Sy:270 | DSP Chaos    | PLS | 087 | 070 | 056 |
| 0825 | Sy:271 | Dance floor  | PLS | 087 | 070 | 057 |
| 0826 | Sy:272 | Minor Thirds | PLS | 087 | 070 | 058 |
| 0827 | Sy:273 | FX World     | PLS | 087 | 070 | 059 |
| 0828 | Sy:274 | Nu Trance X  | PLS | 087 | 070 | 060 |
| 0829 | Sy:275 | Auto 5thSaws | PLS | 087 | 070 | 061 |
| 0830 | Sy:276 | Cross Talk   | PLS | 087 | 070 | 062 |
| 0831 | Sy:277 | Reanimation  | PLS | 087 | 070 | 063 |
| 0832 | Sy:278 | VoX Chopper  | PLS | 087 | 070 | 064 |
| 0833 | Sy:279 | Trevor's Pad | PLS | 087 | 070 | 065 |
| 0834 | Sy:280 | Fantomas Pad | PLS | 087 | 070 | 066 |
| 0835 | Sy:281 | Jazzy Arps   | PLS | 087 | 070 | 067 |
| 0836 | Sy:282 | Keep Running | PLS | 087 | 070 | 068 |
| 0837 | Sy:283 | Step In      | PLS | 087 | 070 | 069 |
| 0838 | Sy:284 | Echo Echo    | PLS | 087 | 070 | 070 |
| 0839 | Sy:285 | Keep going   | PLS | 087 | 070 | 071 |
| 0840 | Sy:286 | Arposphere   | PLS | 087 | 070 | 072 |
| 0841 | Sy:287 | Voco Riff    | PLS | 087 | 070 | 073 |
| 0842 | Sy:288 | Pulsator     | PLS | 087 | 070 | 074 |
| 0843 | Sy:289 | Motion Bass  | PLS | 087 | 070 | 075 |
| 0844 | Sy:290 | Sine Magic   | PLS | 087 | 070 | 076 |
| 0845 | Sy:291 | JUNO-D Slice | PLS | 087 | 070 | 077 |
| 0846 | Sy:292 | Pulsatron    | PLS | 087 | 070 | 078 |
| 0847 | Sy:293 | Mega Sync    | PLS | 087 | 070 | 079 |
| 0848 | Sy:294 | Passing by   | FX  | 087 | 070 | 080 |
| 0849 | Sy:295 | Lazer Points | FX  | 087 | 070 | 081 |
| 0850 | Sy:296 | Retro Sci-Fi | FX  | 087 | 070 | 082 |
| 0851 | Sy:297 | Magic Chime  | FX  | 087 | 070 | 083 |
| 0852 | Sy:298 | Try This!    | FX  | 087 | 070 | 084 |
| 0853 | Sy:299 | New Planetz  | FX  | 087 | 070 | 085 |
| 0854 | Sy:300 | Jet Noise    | FX  | 087 | 070 | 086 |
| 0855 | Sy:301 | Chaos 2003   | FX  | 087 | 070 | 087 |
| 0856 | Sy:302 | Control Room | FX  | 087 | 070 | 088 |
| 0857 | Sy:303 | OutOf sortz  | FX  | 087 | 070 | 089 |
| 0858 | Sy:304 | Scatter      | FX  | 087 | 070 | 090 |
| 0859 | Sy:305 | Low Beat-S   | FX  | 087 | 070 | 091 |
| 0860 | Sy:306 | WaitnOutside | FX  | 087 | 070 | 092 |
| 0861 | Sy:307 | Breath Echo  | FX  | 087 | 070 | 093 |
| 0862 | Sy:308 | SoundStrange | FX  | 087 | 070 | 094 |

| No.  | Name   | Sub-category | MSB | LSB | PC  |     |
|------|--------|--------------|-----|-----|-----|-----|
| 0863 | Sy:309 | Cosmic Pulse | FX  | 087 | 070 | 095 |
| 0864 | Sy:310 | Faked Piano  | FX  | 087 | 070 | 096 |
| 0865 | Sy:311 | JUNO Crystal | FX  | 087 | 070 | 097 |
| 0866 | Sy:312 | ResoSweep Dn | FX  | 087 | 070 | 098 |
| 0867 | Sy:313 | Zap B3 & C4  | FX  | 087 | 070 | 099 |
| 0868 | Sy:314 | PolySweep Nz | FX  | 087 | 070 | 100 |
| 0869 | Sy:315 | Strange Land | FX  | 087 | 070 | 101 |
| 0870 | Sy:316 | S&H Voc      | FX  | 087 | 070 | 102 |
| 0871 | Sy:317 | 12th Planet  | FX  | 087 | 070 | 103 |
| 0872 | Sy:318 | Scare        | FX  | 087 | 070 | 104 |
| 0873 | Sy:319 | Hillside     | FX  | 087 | 070 | 105 |
| 0874 | Sy:320 | Mod Scanner  | FX  | 087 | 070 | 106 |
| 0875 | Sy:321 | SoundOnSound | FX  | 087 | 070 | 107 |
| 0876 | Sy:322 | Gasp         | FX  | 087 | 070 | 108 |
| 0877 | Sy:323 | ResoSweep Up | FX  | 087 | 070 | 109 |
| 0878 | Sy:324 | Magic Wave   | FX  | 087 | 070 | 110 |
| 0879 | Sy:325 | Shangri-La   | FX  | 087 | 070 | 111 |
| 0880 | Sy:326 | CerealKiller | FX  | 087 | 070 | 112 |
| 0881 | Sy:327 | Cosmic Drops | FX  | 087 | 070 | 113 |
| 0882 | Sy:328 | Space Echo   | FX  | 087 | 070 | 114 |
| 0883 | Sy:329 | Robot Sci-Fi | FX  | 087 | 070 | 115 |
| 0884 | Vo:001 | Jazz Scat    | VOX | 087 | 070 | 116 |
| 0885 | Vo:002 | Jazz Doos    | VOX | 087 | 070 | 117 |
| 0886 | Vo:003 | Choir Aahs 1 | VOX | 087 | 070 | 118 |
| 0887 | Vo:004 | Choir Aahs 2 | VOX | 087 | 070 | 119 |
| 0888 | Vo:005 | Choir Oohs   | VOX | 087 | 070 | 120 |
| 0889 | Vo:006 | AngelsChoir1 | VOX | 087 | 070 | 121 |
| 0890 | Vo:007 | AngelsChoir2 | VOX | 087 | 070 | 122 |
| 0891 | Vo:008 | Syn Opera    | VOX | 087 | 070 | 123 |
| 0892 | Vo:009 | Angelique    | VOX | 087 | 070 | 124 |
| 0893 | Vo:010 | Vox Pad 1    | VOX | 087 | 070 | 125 |
| 0894 | Vo:011 | Vox Pad 2    | VOX | 087 | 070 | 126 |
| 0895 | Vo:012 | Gospel Oohs  | VOX | 087 | 070 | 127 |
| 0896 | Vo:013 | Choir&Str    | VOX | 087 | 070 | 128 |
| 0897 | Vo:014 | SynVox 1     | VOX | 087 | 071 | 001 |
| 0898 | Vo:015 | SynVox 2     | VOX | 087 | 071 | 002 |
| 0899 | Vo:016 | Aah Vox      | VOX | 087 | 071 | 003 |
| 0900 | Vo:017 | Sweet Keys   | VOX | 087 | 071 | 004 |
| 0901 | Vo:018 | JUNO Synvox  | VOX | 087 | 071 | 005 |
| 0902 | Vo:019 | Uhhmm        | VOX | 087 | 071 | 006 |
| 0903 | Vo:020 | Morning Star | VOX | 087 | 071 | 007 |
| 0904 | Vo:021 | BeautifulOne | VOX | 087 | 071 | 008 |
| 0905 | Vo:022 | Ooze         | VOX | 087 | 071 | 009 |
| 0906 | Vo:023 | Aerial Choir | VOX | 087 | 071 | 010 |
| 0907 | Vo:024 | 3D Vox       | VOX | 087 | 071 | 011 |
| 0908 | Vo:025 | Sample Opera | VOX | 087 | 071 | 012 |
| 0909 | Vo:026 | Film Cue     | VOX | 087 | 071 | 013 |
| 0910 | Vo:027 | Paradise     | VOX | 087 | 071 | 014 |
| 0911 | Vo:028 | Sad ceremony | VOX | 087 | 071 | 015 |
| 0912 | Vo:029 | Lost Voices  | VOX | 087 | 071 | 016 |
| 0913 | Vo:030 | Beat Vox     | VOX | 087 | 071 | 017 |
| 0914 | Vo:031 | Talk 2 Me    | VOX | 087 | 071 | 018 |
| 0915 | Vo:032 | FM Vox       | VOX | 087 | 071 | 019 |
| 0916 | Vo:033 | Let's Talk!  | VOX | 087 | 071 | 020 |
| 0917 | Vo:034 | Voc:Di Robt  | VOX | 087 | 071 | 021 |
| 0918 | Vo:035 | Voc:Di Chr   | VOX | 087 | 071 | 022 |
| 0919 | Vo:036 | Voc:Di Ens   | VOX | 087 | 071 | 023 |
| 0920 | Vo:037 | Cosmic Rays  | BPD | 087 | 071 | 024 |
| 0921 | Vo:038 | Phaser Pad 1 | BPD | 087 | 071 | 025 |
| 0922 | Vo:039 | PhaseStrings | BPD | 087 | 071 | 026 |
| 0923 | Vo:040 | Super SynStr | BPD | 087 | 071 | 027 |
| 0924 | Vo:041 | 80s Str 1    | BPD | 087 | 071 | 028 |
| 0925 | Vo:042 | 80s Str 2    | BPD | 087 | 071 | 029 |
| 0926 | Vo:043 | BreakOut Str | BPD | 087 | 071 | 030 |
| 0927 | Vo:044 | Friends Syn  | BPD | 087 | 071 | 031 |
| 0928 | Vo:045 | Comb         | BPD | 087 | 071 | 032 |
| 0929 | Vo:046 | Voyager      | BPD | 087 | 071 | 033 |
| 0930 | Vo:047 | Stringship   | BPD | 087 | 071 | 034 |
| 0931 | Vo:048 | DarknessSide | BPD | 087 | 071 | 035 |
| 0932 | Vo:049 | Fat Stacks   | BPD | 087 | 071 | 036 |
| 0933 | Vo:050 | Strings R Us | BPD | 087 | 071 | 037 |
| 0934 | Vo:051 | Electric Pad | BPD | 087 | 071 | 038 |
| 0935 | Vo:052 | Neo RS-202   | BPD | 087 | 071 | 039 |
| 0936 | Vo:053 | OB Rezo Pad  | BPD | 087 | 071 | 040 |
| 0937 | Vo:054 | Synthi Ens   | BPD | 087 | 071 | 041 |
| 0938 | Vo:055 | Giant Sweep  | BPD | 087 | 071 | 042 |
| 0939 | Vo:056 | Mod Dare     | BPD | 087 | 071 | 043 |
| 0940 | Vo:057 | Cell Space   | BPD | 087 | 071 | 044 |
| 0941 | Vo:058 | Digi-Swell   | BPD | 087 | 071 | 045 |
| 0942 | Vo:059 | New Year Day | BPD | 087 | 071 | 046 |
| 0943 | Vo:060 | Polar Morn   | BPD | 087 | 071 | 047 |



| No.  |        | Name         | Sub-category | MSB | LSB | PC  |
|------|--------|--------------|--------------|-----|-----|-----|
| 0944 | Vo:061 | Distant Sun  | BPD          | 087 | 071 | 048 |
| 0945 | Vo:062 | PG Chimes    | BPD          | 087 | 071 | 049 |
| 0946 | Vo:063 | Saturn Rings | BPD          | 087 | 071 | 050 |
| 0947 | Vo:064 | Brusky       | BPD          | 087 | 071 | 051 |
| 0948 | Vo:065 | 2.2 Pad 1    | BPD          | 087 | 071 | 052 |
| 0949 | Vo:066 | 2.2 Pad 2    | BPD          | 087 | 071 | 053 |
| 0950 | Vo:067 | 2.2 Pad 3    | BPD          | 087 | 071 | 054 |
| 0951 | Vo:068 | SaturnHolida | BPD          | 087 | 071 | 055 |
| 0952 | Vo:069 | Neuro-Drone  | BPD          | 087 | 071 | 056 |
| 0953 | Vo:070 | In The Pass  | BPD          | 087 | 071 | 057 |
| 0954 | Vo:071 | Polar Night  | BPD          | 087 | 071 | 058 |
| 0955 | Vo:072 | Cell 5th     | BPD          | 087 | 071 | 059 |
| 0956 | Vo:073 | MistOver5ths | BPD          | 087 | 071 | 060 |
| 0957 | Vo:074 | Gritty Pad   | BPD          | 087 | 071 | 061 |
| 0958 | Vo:075 | India Garden | BPD          | 087 | 071 | 062 |
| 0959 | Vo:076 | BillionStars | BPD          | 087 | 071 | 063 |
| 0960 | Vo:077 | Sand Pad     | BPD          | 087 | 071 | 064 |
| 0961 | Vo:078 | ReverseSweep | BPD          | 087 | 071 | 065 |
| 0962 | Vo:079 | HugeSoundMod | BPD          | 087 | 071 | 066 |
| 0963 | Vo:080 | Metal Swell  | BPD          | 087 | 071 | 067 |
| 0964 | Vo:081 | NuSoundtrack | BPD          | 087 | 071 | 068 |
| 0965 | Vo:082 | Phat Strings | BPD          | 087 | 071 | 069 |
| 0966 | Vo:083 | Hollow       | SPD          | 087 | 071 | 070 |
| 0967 | Vo:084 | Heaven Pad   | SPD          | 087 | 071 | 071 |
| 0968 | Vo:085 | Soft OB Pad  | SPD          | 087 | 071 | 072 |
| 0969 | Vo:086 | Reso Pad     | SPD          | 087 | 071 | 073 |
| 0970 | Vo:087 | Slow Saw Str | SPD          | 087 | 071 | 074 |
| 0971 | Vo:088 | Terra Nostra | SPD          | 087 | 071 | 075 |
| 0972 | Vo:089 | Summer Pad   | SPD          | 087 | 071 | 076 |
| 0973 | Vo:090 | Friends Pad  | SPD          | 087 | 071 | 077 |
| 0974 | Vo:091 | Pop Pad      | SPD          | 087 | 071 | 078 |
| 0975 | Vo:092 | Sqr Pad      | SPD          | 087 | 071 | 079 |
| 0976 | Vo:093 | Silk Pad     | SPD          | 087 | 071 | 080 |
| 0977 | Vo:094 | WarmReso Pad | SPD          | 087 | 071 | 081 |
| 0978 | Vo:095 | Soft Pad     | SPD          | 087 | 071 | 082 |
| 0979 | Vo:096 | Air Pad      | SPD          | 087 | 071 | 083 |
| 0980 | Vo:097 | Soft Breeze  | SPD          | 087 | 071 | 084 |
| 0981 | Vo:098 | JP Strings 1 | SPD          | 087 | 071 | 085 |
| 0982 | Vo:099 | JP Strings 2 | SPD          | 087 | 071 | 086 |
| 0983 | Vo:100 | DelayStrings | SPD          | 087 | 071 | 087 |
| 0984 | Vo:101 | NorthStrings | SPD          | 087 | 071 | 088 |
| 0985 | Vo:102 | Syn Strings1 | SPD          | 087 | 071 | 089 |
| 0986 | Vo:103 | Syn Strings2 | SPD          | 087 | 071 | 090 |
| 0987 | Vo:104 | OB Strings 1 | SPD          | 087 | 071 | 091 |
| 0988 | Vo:105 | OB Strings 2 | SPD          | 087 | 071 | 092 |
| 0989 | Vo:106 | Strings Pad  | SPD          | 087 | 071 | 093 |
| 0990 | Vo:107 | R&B SoftPad  | SPD          | 087 | 071 | 094 |
| 0991 | Vo:108 | Phat Pad     | SPD          | 087 | 071 | 095 |
| 0992 | Vo:109 | Phaser Pad 2 | SPD          | 087 | 071 | 096 |
| 0993 | Vo:110 | Mystic Str   | SPD          | 087 | 071 | 097 |
| 0994 | Vo:111 | Glass Organ  | SPD          | 087 | 071 | 098 |
| 0995 | Vo:112 | Wind Pad     | SPD          | 087 | 071 | 099 |
| 0996 | Vo:113 | Combination  | SPD          | 087 | 071 | 100 |
| 0997 | Vo:114 | HumanKindnes | SPD          | 087 | 071 | 101 |
| 0998 | Vo:115 | Beauty Pad   | SPD          | 087 | 071 | 102 |
| 0999 | Vo:116 | Atmospherics | SPD          | 087 | 071 | 103 |
| 1000 | Vo:117 | OB Aaahs     | SPD          | 087 | 071 | 104 |
| 1001 | Vo:118 | Vulcano Pad  | SPD          | 087 | 071 | 105 |
| 1002 | Vo:119 | Cloud #9     | SPD          | 087 | 071 | 106 |
| 1003 | Vo:120 | Organic Pad  | SPD          | 087 | 071 | 107 |
| 1004 | Vo:121 | Hum Pad      | SPD          | 087 | 071 | 108 |
| 1005 | Vo:122 | Vox Pad      | SPD          | 087 | 071 | 109 |
| 1006 | Vo:123 | Digital Aahs | SPD          | 087 | 071 | 110 |
| 1007 | Vo:124 | Tri 5th Pad  | SPD          | 087 | 071 | 111 |
| 1008 | Vo:125 | Movin Pad    | SPD          | 087 | 071 | 112 |
| 1009 | Vo:126 | Seq-Pad 2    | SPD          | 087 | 071 | 113 |
| 1010 | Vo:127 | Follow       | SPD          | 087 | 071 | 114 |
| 1011 | Vo:128 | Consolament  | SPD          | 087 | 071 | 115 |
| 1012 | Vo:129 | Spacious Pad | SPD          | 087 | 071 | 116 |
| 1013 | Vo:130 | JD Pop Pad   | SPD          | 087 | 071 | 117 |
| 1014 | Vo:131 | JP-8 Phase   | SPD          | 087 | 071 | 118 |
| 1015 | Vo:132 | Nu Epic Pad  | SPD          | 087 | 071 | 119 |
| 1016 | Vo:133 | Flange Dream | SPD          | 087 | 071 | 120 |
| 1017 | Vo:134 | Evolution X  | SPD          | 087 | 071 | 121 |
| 1018 | Vo:135 | Angelis Pad  | SPD          | 087 | 071 | 122 |
| 1019 | Vo:136 | JUNO-106 Str | SPD          | 087 | 071 | 123 |
| 1020 | Vo:137 | JupiterMoves | SPD          | 087 | 071 | 124 |
| 1021 | Vo:138 | Oceanic Pad  | SPD          | 087 | 071 | 125 |
| 1022 | Vo:139 | Fairy's Song | SPD          | 087 | 071 | 126 |
| 1023 | Vo:140 | Borealis     | SPD          | 087 | 071 | 127 |
| 1024 | Vo:141 | JX Warm Pad  | SPD          | 087 | 071 | 128 |

| No.  |        | Name          | Sub-category | MSB | LSB | PC  |
|------|--------|---------------|--------------|-----|-----|-----|
| 1025 | Vo:142 | Analog Bgrnd  | SPD          | 087 | 072 | 001 |
| 1026 | Wr:001 | Sitar on C    | PLK          | 087 | 072 | 002 |
| 1027 | Wr:002 | JUNO Sitar 1  | PLK          | 087 | 072 | 003 |
| 1028 | Wr:003 | JUNO Sitar 2  | PLK          | 087 | 072 | 004 |
| 1029 | Wr:004 | Sitar Baby    | PLK          | 087 | 072 | 005 |
| 1030 | Wr:005 | Neo Sitar     | PLK          | 087 | 072 | 006 |
| 1031 | Wr:006 | SaraswatiRivr | PLK          | 087 | 072 | 007 |
| 1032 | Wr:007 | Teky Drop     | PLK          | 087 | 072 | 008 |
| 1033 | Wr:008 | TroubadorEns  | PLK          | 087 | 072 | 009 |
| 1034 | Wr:009 | Elec Sitar    | PLK          | 087 | 072 | 010 |
| 1035 | Wr:010 | Pat is away   | PLK          | 087 | 072 | 011 |
| 1036 | Wr:011 | Nice Kalimba  | PLK          | 087 | 072 | 012 |
| 1037 | Wr:012 | Quiet River   | PLK          | 087 | 072 | 013 |
| 1038 | Wr:013 | Aerial Harp   | PLK          | 087 | 072 | 014 |
| 1039 | Wr:014 | Harpiness     | PLK          | 087 | 072 | 015 |
| 1040 | Wr:015 | Skydiver      | PLK          | 087 | 072 | 016 |
| 1041 | Wr:016 | Jamisen       | PLK          | 087 | 072 | 017 |
| 1042 | Wr:017 | JUNO Koto     | PLK          | 087 | 072 | 018 |
| 1043 | Wr:018 | Monsoon       | PLK          | 087 | 072 | 019 |
| 1044 | Wr:019 | Bend Koto     | PLK          | 087 | 072 | 020 |
| 1045 | Wr:020 | JUNO Banjo    | FRT          | 087 | 072 | 021 |
| 1046 | Wr:021 | Pan Pipes     | ETH          | 087 | 072 | 022 |
| 1047 | Wr:022 | Andes Mood    | ETH          | 087 | 072 | 023 |
| 1048 | Wr:023 | LongDistance  | ETH          | 087 | 072 | 024 |
| 1049 | Wr:024 | Ambi Shaku    | ETH          | 087 | 072 | 025 |
| 1050 | Wr:025 | HimalayaPipe  | ETH          | 087 | 072 | 026 |
| 1051 | Wr:026 | Ethnic Lead   | ETH          | 087 | 072 | 027 |
| 1052 | Wr:027 | Lochscape     | ETH          | 087 | 072 | 028 |
| 1053 | Wr:028 | PipeDream     | ETH          | 087 | 072 | 029 |
| 1054 | Wr:029 | Angel Pipes   | ETH          | 087 | 072 | 030 |
| 1055 | Wr:030 | Far East      | ETH          | 087 | 072 | 031 |
| 1056 | Wr:031 | Wired Synth   | ETH          | 087 | 072 | 032 |
| 1057 | Wr:032 | 4DaCommonMan  | ETH          | 087 | 072 | 033 |
| 1058 | Wr:033 | Orgaenia      | ETH          | 087 | 072 | 034 |
| 1059 | Wr:034 | Sleeper       | ETH          | 087 | 072 | 035 |
| 1060 | Wr:035 | Ice Palace    | ETH          | 087 | 072 | 036 |
| 1061 | Wr:036 | Story Harp    | ETH          | 087 | 072 | 037 |
| 1062 | Wr:037 | LostParadise  | ETH          | 087 | 072 | 038 |
| 1063 | Wr:038 | Timpani+Low   | PRC          | 087 | 072 | 039 |
| 1064 | Wr:039 | Timpani Roll  | PRC          | 087 | 072 | 040 |
| 1065 | Wr:040 | Bass Drum     | PRC          | 087 | 072 | 041 |
| 1066 | Wr:041 | Ambidextrous  | SFX          | 087 | 072 | 042 |
| 1067 | Wr:042 | En-co-re      | SFX          | 087 | 072 | 043 |
| 1068 | Wr:043 | Mobile Phone  | SFX          | 087 | 072 | 044 |
| 1069 | Wr:044 | ElectroDisco  | BTS          | 087 | 072 | 045 |
| 1070 | Wr:045 | Groove 007    | BTS          | 087 | 072 | 046 |
| 1071 | Wr:046 | In Da Groove  | BTS          | 087 | 072 | 047 |
| 1072 | Wr:047 | Sweet 80s     | BTS          | 087 | 072 | 048 |
| 1073 | Wr:048 | Auto Trance2  | BTS          | 087 | 072 | 049 |
| 1074 | Wr:049 | JUNO Pop      | BTS          | 087 | 072 | 050 |
| 1075 | Wr:050 | Compusonic 1  | BTS          | 087 | 072 | 051 |
| 1076 | Wr:051 | Compusonic 2  | BTS          | 087 | 072 | 052 |
| 1077 | Wr:052 | Mix Drum 1    | DRM          | 087 | 072 | 053 |
| 1078 | Wr:053 | Mix Drum 2    | DRM          | 087 | 072 | 054 |
| 1079 | Wr:054 | Lounge Kit    | CMB          | 087 | 072 | 055 |
| 1080 | Wr:055 | 80s Combo     | CMB          | 087 | 072 | 056 |
| 1081 | Wr:056 | Analog Days   | CMB          | 087 | 072 | 057 |
| 1082 | Wr:057 | Techno Craft  | CMB          | 087 | 072 | 058 |
| 1083 | Sp:001 | NylonGtr E4   | SMP          | 087 | 072 | 059 |
| 1084 | Sp:002 | Pemade C5     | SMP          | 087 | 072 | 060 |
| 1085 | Sp:003 | Shankh G#4    | SMP          | 087 | 072 | 061 |
| 1086 | Sp:004 | RSS SpinnrC4  | SMP          | 087 | 072 | 062 |
| 1087 | SP:005 | Come On! C4   | SMP          | 087 | 072 | 063 |
| 1088 | Sp:006 | 102:PhraseC4  | SMP          | 087 | 072 | 064 |

## Bank: GM

| No.  | Name                | Sub-category | MSB | LSB | PC |
|------|---------------------|--------------|-----|-----|----|
| 0001 | Pf:111 Piano 1      | PNO          | 121 | 0   | 1  |
| 0002 | Pf:112 Piano 1w     | PNO          | 121 | 1   |    |
| 0003 | Pf:113 European Pf  | PNO          | 121 | 2   |    |
| 0004 | Pf:114 Piano 2      | PNO          | 121 | 0   | 2  |
| 0005 | Pf:115 Piano 2w     | PNO          | 121 | 1   |    |
| 0006 | Pf:116 Piano 3      | EP           | 121 | 0   | 3  |
| 0007 | Pf:117 Piano 3w     | EP           | 121 | 1   |    |
| 0008 | Pf:118 Honky-tonk   | PNO          | 121 | 0   | 4  |
| 0009 | Pf:119 Honky-tonk 2 | PNO          | 121 | 1   |    |
| 0010 | Pf:120 E.Piano 1    | EP           | 121 | 0   | 5  |
| 0011 | Pf:121 St.Soft EP   | EP           | 121 | 1   |    |
| 0012 | Pf:122 FM+SA EP     | EP           | 121 | 2   |    |
| 0013 | Pf:123 Wurly        | EP           | 121 | 3   |    |
| 0014 | Pf:124 E.Piano 2    | EP           | 121 | 0   | 6  |
| 0015 | Pf:125 Detuned EP 2 | EP           | 121 | 1   |    |
| 0016 | Pf:126 St.FM EP     | EP           | 121 | 2   |    |
| 0017 | Pf:127 EP Legend    | EP           | 121 | 3   |    |
| 0018 | Pf:128 EP Phase     | EP           | 121 | 4   |    |
| 0019 | Ky:125 Harpsichord  | KEY          | 121 | 0   | 7  |
| 0020 | Ky:126 Coupled Hps. | KEY          | 121 | 1   |    |
| 0021 | Ky:127 Harpsi.w     | KEY          | 121 | 2   |    |
| 0022 | Ky:128 Harpsi.o     | KEY          | 121 | 3   |    |
| 0023 | Ky:129 Clav.        | KEY          | 121 | 0   | 8  |
| 0024 | Ky:130 Pulse Clav   | KEY          | 121 | 1   |    |
| 0025 | Ky:131 Celesta      | KEY          | 121 | 0   | 9  |
| 0026 | Ky:132 Glockenspiel | BEL          | 121 | 0   | 10 |
| 0027 | Ky:133 Music Box    | BEL          | 121 | 0   | 11 |
| 0028 | Ky:134 Vibraphone   | MLT          | 121 | 0   | 12 |
| 0029 | Ky:135 Vibraphone w | MLT          | 121 | 1   |    |
| 0030 | Ky:136 Marimba      | MLT          | 121 | 0   | 13 |
| 0031 | Ky:137 Marimba w    | MLT          | 121 | 1   |    |
| 0032 | Ky:138 Xylophone    | MLT          | 121 | 0   | 14 |
| 0033 | Ky:139 Tubular-bell | BEL          | 121 | 0   | 15 |
| 0034 | Ky:140 Church Bell  | BEL          | 121 | 1   |    |
| 0035 | Ky:141 Carillon     | BEL          | 121 | 2   |    |
| 0036 | Wr:058 Santur       | PLK          | 121 | 0   | 16 |
| 0037 | Ky:142 Organ 1      | ORG          | 121 | 0   | 17 |
| 0038 | Ky:143 Trem. Organ  | ORG          | 121 | 1   |    |
| 0039 | Ky:144 60's Organ 1 | ORG          | 121 | 2   |    |
| 0040 | Ky:145 70's E.Organ | ORG          | 121 | 3   |    |
| 0041 | Ky:146 Organ 2      | ORG          | 121 | 0   | 18 |
| 0042 | Ky:147 Chorus Or.2  | ORG          | 121 | 1   |    |
| 0043 | Ky:148 Perc. Organ  | ORG          | 121 | 2   |    |
| 0044 | Ky:149 Organ 3      | ORG          | 121 | 0   | 19 |
| 0045 | Ky:150 Church Org.1 | ORG          | 121 | 0   | 20 |
| 0046 | Ky:151 Church Org.2 | ORG          | 121 | 1   |    |
| 0047 | Ky:152 Church Org.3 | ORG          | 121 | 2   |    |
| 0048 | Ky:153 Reed Organ   | ORG          | 121 | 0   | 21 |
| 0049 | Ky:154 Puff Organ   | ORG          | 121 | 1   |    |
| 0050 | Ky:155 Accordion Fr | ACD          | 121 | 0   | 22 |
| 0051 | Ky:156 Accordion It | ACD          | 121 | 1   |    |
| 0052 | Ky:157 Harmonica    | HRM          | 121 | 0   | 23 |
| 0053 | Ky:158 Bandoneon    | ACD          | 121 | 0   | 24 |
| 0054 | Gt:176 Nylon-str.Gt | AGT          | 121 | 0   | 25 |
| 0055 | Gt:177 Ukulele      | AGT          | 121 | 1   |    |
| 0056 | Gt:178 Nylon Gt.o   | AGT          | 121 | 2   |    |
| 0057 | Gt:179 Nylon Gt.2   | AGT          | 121 | 3   |    |
| 0058 | Gt:180 Steel-str.Gt | AGT          | 121 | 0   | 26 |
| 0059 | Gt:181 12-str.Gt    | AGT          | 121 | 1   |    |
| 0060 | Gt:182 Mandolin     | AGT          | 121 | 2   |    |
| 0061 | Gt:183 Steel + Body | AGT          | 121 | 3   |    |
| 0062 | Gt:184 Jazz Gt.     | EGT          | 121 | 0   | 27 |
| 0063 | Gt:185 Pedal Steel  | EGT          | 121 | 1   |    |
| 0064 | Gt:186 Clean Gt.    | EGT          | 121 | 0   | 28 |
| 0065 | Gt:187 Chorus Gt.   | EGT          | 121 | 1   |    |
| 0066 | Gt:188 Mid Tone GTR | EGT          | 121 | 2   |    |
| 0067 | Gt:189 Muted Gt.    | EGT          | 121 | 0   | 29 |
| 0068 | Gt:190 Funk Pop     | EGT          | 121 | 1   |    |
| 0069 | Gt:191 Funk Gt.2    | EGT          | 121 | 2   |    |
| 0070 | Gt:192 Jazz Man     | EGT          | 121 | 3   |    |
| 0071 | Gt:193 Overdrive Gt | DGT          | 121 | 0   | 30 |
| 0072 | Gt:194 Guitar Pinch | DGT          | 121 | 1   |    |
| 0073 | Gt:195 DistortionGt | DGT          | 121 | 0   | 31 |
| 0074 | Gt:196 Feedback Gt. | DGT          | 121 | 1   |    |
| 0075 | Gt:197 Dist Rtm GTR | DGT          | 121 | 2   |    |
| 0076 | Gt:198 Gt.Harmonics | EGT          | 121 | 0   | 32 |
| 0077 | Gt:199 Gt. Feedback | EGT          | 121 | 1   |    |
| 0078 | Gt:200 Acoustic Bs. | BS           | 121 | 0   | 33 |
| 0079 | Gt:201 Fingered Bs. | BS           | 121 | 0   | 34 |

| No.  | Name                | Sub-category | MSB | LSB | PC |
|------|---------------------|--------------|-----|-----|----|
| 0080 | Gt:202 Finger Slap  | BS           | 121 | 1   |    |
| 0081 | Gt:203 Picked Bass  | BS           | 121 | 0   | 35 |
| 0082 | Gt:204 Fretless Bs. | BS           | 121 | 0   | 36 |
| 0083 | Gt:205 Slap Bass 1  | BS           | 121 | 0   | 37 |
| 0084 | Gt:206 Slap Bass 2  | BS           | 121 | 0   | 38 |
| 0085 | Gt:207 Synth Bass 1 | SBS          | 121 | 0   | 39 |
| 0086 | Gt:208 SynthBass101 | SBS          | 121 | 1   |    |
| 0087 | Gt:209 Acid Bass    | SBS          | 121 | 2   |    |
| 0088 | Gt:210 Clavi Bass   | SBS          | 121 | 3   |    |
| 0089 | Gt:211 Hammer       | SBS          | 121 | 4   |    |
| 0090 | Gt:212 Synth Bass 2 | SBS          | 121 | 0   | 40 |
| 0091 | Gt:213 Beef FM Bass | SBS          | 121 | 1   |    |
| 0092 | Gt:214 RubberBass 2 | SBS          | 121 | 2   |    |
| 0093 | Gt:215 Attack Pulse | SBS          | 121 | 3   |    |
| 0094 | Oc:070 Violin       | STR          | 121 | 0   | 41 |
| 0095 | Oc:071 Slow Violin  | STR          | 121 | 1   |    |
| 0096 | Oc:072 Viola        | STR          | 121 | 0   | 42 |
| 0097 | Oc:073 Cello        | STR          | 121 | 0   | 43 |
| 0098 | Oc:074 Contrabass   | STR          | 121 | 0   | 44 |
| 0099 | Oc:075 Tremolo Str  | STR          | 121 | 0   | 45 |
| 0100 | Oc:076 PizzicatoStr | STR          | 121 | 0   | 46 |
| 0101 | Wr:059 Harp         | PLK          | 121 | 0   | 47 |
| 0102 | Wr:060 Yang Qin     | PLK          | 121 | 1   |    |
| 0103 | Wr:061 Timpani      | PRC          | 121 | 0   | 48 |
| 0104 | Oc:077 Strings      | STR          | 121 | 0   | 49 |
| 0105 | Oc:078 Orchestra    | ORC          | 121 | 1   |    |
| 0106 | Oc:079 60s Strings  | STR          | 121 | 2   |    |
| 0107 | Oc:080 Slow Strings | STR          | 121 | 0   | 50 |
| 0108 | Oc:081 Syn.Strings1 | STR          | 121 | 0   | 51 |
| 0109 | Oc:082 Syn.Strings3 | STR          | 121 | 1   |    |
| 0110 | Vo:143 Syn.Strings2 | SPD          | 121 | 0   | 52 |
| 0111 | Vo:144 Choir Aahs   | VOX          | 121 | 0   | 53 |
| 0112 | Vo:145 Chorus Aahs  | VOX          | 121 | 1   |    |
| 0113 | Vo:146 Voice Oohs   | VOX          | 121 | 0   | 54 |
| 0114 | Vo:147 Humming      | VOX          | 121 | 1   |    |
| 0115 | Vo:148 SynVox       | VOX          | 121 | 0   | 55 |
| 0116 | Vo:149 Analog Voice | VOX          | 121 | 1   |    |
| 0117 | Oc:083 OrchestraHit | HIT          | 121 | 0   | 56 |
| 0118 | Oc:084 Bass Hit     | HIT          | 121 | 1   |    |
| 0119 | Oc:085 6th Hit      | HIT          | 121 | 2   |    |
| 0120 | Oc:086 Euro Hit     | HIT          | 121 | 3   |    |
| 0121 | Br:077 Trumpet      | BRS          | 121 | 0   | 57 |
| 0122 | Br:078 Dark Trumpet | BRS          | 121 | 1   |    |
| 0123 | Br:079 Trombone     | BRS          | 121 | 0   | 58 |
| 0124 | Br:080 Trombone 2   | BRS          | 121 | 1   |    |
| 0125 | Br:081 Bright Tb    | BRS          | 121 | 2   |    |
| 0126 | Br:082 Tuba         | BRS          | 121 | 0   | 59 |
| 0127 | Br:083 MutedTrumpet | BRS          | 121 | 0   | 60 |
| 0128 | Br:084 MuteTrumpet2 | BRS          | 121 | 1   |    |
| 0129 | Br:085 French Horns | BRS          | 121 | 0   | 61 |
| 0130 | Br:086 Fr.Horn 2    | BRS          | 121 | 1   |    |
| 0131 | Br:087 Brass 1      | BRS          | 121 | 0   | 62 |
| 0132 | Br:088 Brass 2      | BRS          | 121 | 1   |    |
| 0133 | Br:089 Synth Brass1 | SBR          | 121 | 0   | 63 |
| 0134 | Br:090 Pro Brass    | SBR          | 121 | 1   |    |
| 0135 | Br:091 Oct SynBrass | SBR          | 121 | 2   |    |
| 0136 | Br:092 Jump Brass   | SBR          | 121 | 3   |    |
| 0137 | Br:093 Synth Brass2 | SBR          | 121 | 0   | 64 |
| 0138 | Br:094 SynBrass sfz | SBR          | 121 | 1   |    |
| 0139 | Br:095 Velo Brass 1 | SBR          | 121 | 2   |    |
| 0140 | Br:096 Soprano Sax  | SAX          | 121 | 0   | 65 |
| 0141 | Br:097 Alto Sax     | SAX          | 121 | 0   | 66 |
| 0142 | Br:098 Tenor Sax    | SAX          | 121 | 0   | 67 |
| 0143 | Br:099 Baritone Sax | SAX          | 121 | 0   | 68 |
| 0144 | Br:100 Oboe         | WND          | 121 | 0   | 69 |
| 0145 | Br:101 English Horn | WND          | 121 | 0   | 70 |
| 0146 | Br:102 Bassoon      | WND          | 121 | 0   | 71 |
| 0147 | Br:103 Clarinet     | WND          | 121 | 0   | 72 |
| 0148 | Br:104 Piccolo      | FLT          | 121 | 0   | 73 |
| 0149 | Br:105 Flute        | FLT          | 121 | 0   | 74 |
| 0150 | Br:106 Recorder     | FLT          | 121 | 0   | 75 |
| 0151 | Br:107 Pan Flute    | FLT          | 121 | 0   | 76 |
| 0152 | Br:108 Bottle Blow  | FLT          | 121 | 0   | 77 |
| 0153 | Wr:062 Shakuhachi   | ETH          | 121 | 0   | 78 |
| 0154 | Br:109 Whistle      | FLT          | 121 | 0   | 79 |
| 0155 | Br:110 Ocarina      | FLT          | 121 | 0   | 80 |
| 0156 | Sy:330 Square Wave  | HLD          | 121 | 0   | 81 |
| 0157 | Sy:331 MG Square    | HLD          | 121 | 1   |    |
| 0158 | Sy:332 2600 Sine    | HLD          | 121 | 2   |    |
| 0159 | Sy:333 Saw Wave     | HLD          | 121 | 0   | 82 |
| 0160 | Sy:334 OB2 Saw      | HLD          | 121 | 1   |    |

| No.  | Name   | Sub-category | MSB | LSB | PC    |
|------|--------|--------------|-----|-----|-------|
| 0161 | Sy:335 | Doctor Solo  | HLD | 121 | 2     |
| 0162 | Sy:336 | Natural Lead | HLD | 121 | 3     |
| 0163 | Sy:337 | SequencedSaw | HLD | 121 | 4     |
| 0164 | Sy:338 | Syn.Calliope | SLD | 121 | 0 83  |
| 0165 | Sy:339 | Chiffer Lead | SLD | 121 | 0 84  |
| 0166 | Sy:340 | Charang      | HLD | 121 | 0 85  |
| 0167 | Sy:341 | Wire Lead    | HLD | 121 | 1     |
| 0168 | Sy:342 | Solo Vox     | SLD | 121 | 0 86  |
| 0169 | Sy:343 | 5th Saw Wave | HLD | 121 | 0 87  |
| 0170 | Sy:344 | Bass & Lead  | HLD | 121 | 0 88  |
| 0171 | Sy:345 | Delayed Lead | HLD | 121 | 1     |
| 0172 | Sy:346 | Fantasia     | SYN | 121 | 0 89  |
| 0173 | Vo:150 | Warm Pad     | SPD | 121 | 0 90  |
| 0174 | Vo:151 | Sine Pad     | SPD | 121 | 1     |
| 0175 | Sy:347 | Polysynth    | SYN | 121 | 0 91  |
| 0176 | Vo:152 | Space Voice  | VOX | 121 | 0 92  |
| 0177 | Vo:153 | Itopia       | VOX | 121 | 1     |
| 0178 | Vo:154 | Bowed Glass  | SPD | 121 | 0 93  |
| 0179 | Vo:155 | Metal Pad    | BPD | 121 | 0 94  |
| 0180 | Vo:156 | Halo Pad     | BPD | 121 | 0 95  |
| 0181 | Vo:157 | Sweep Pad    | SPD | 121 | 0 96  |
| 0182 | Sy:348 | Ice Rain     | SYN | 121 | 0 97  |
| 0183 | Vo:158 | Soundtrack   | SPD | 121 | 0 98  |
| 0184 | Ky:159 | Crystal      | BEL | 121 | 0 99  |
| 0185 | Ky:160 | Syn Mallet   | BEL | 121 | 1     |
| 0186 | Gt:216 | Atmosphere   | AGT | 121 | 0 100 |
| 0187 | Sy:349 | Brightness   | SYN | 121 | 0 101 |
| 0188 | Sy:350 | Goblin       | PLS | 121 | 0 102 |
| 0189 | Vo:159 | Echo Drops   | BPD | 121 | 0 103 |
| 0190 | Vo:160 | Echo Bell    | BPD | 121 | 1     |
| 0191 | Vo:161 | Echo Pan     | BPD | 121 | 2     |
| 0192 | Vo:162 | Star Theme   | BPD | 121 | 0 104 |
| 0193 | Wr:063 | Sitar        | PLK | 121 | 0 105 |
| 0194 | Wr:064 | Sitar 2      | PLK | 121 | 1     |
| 0195 | Wr:065 | Banjo        | FRT | 121 | 0 106 |
| 0196 | Wr:066 | Shamisen     | PLK | 121 | 0 107 |
| 0197 | Wr:067 | Koto         | PLK | 121 | 0 108 |
| 0198 | Wr:068 | Taisho Koto  | PLK | 121 | 1     |
| 0199 | Wr:069 | Kalimba      | PLK | 121 | 0 109 |
| 0200 | Wr:070 | Bagpipe      | ETH | 121 | 0 110 |
| 0201 | Oc:087 | Fiddle       | STR | 121 | 0 111 |
| 0202 | Wr:071 | Shanai       | ETH | 121 | 0 112 |
| 0203 | Ky:161 | Tinkle Bell  | BEL | 121 | 0 113 |
| 0204 | Wr:072 | Agogo        | PRC | 121 | 0 114 |
| 0205 | Ky:162 | Steel Drums  | MLT | 121 | 0 115 |
| 0206 | Wr:073 | Woodblock    | PRC | 121 | 0 116 |
| 0207 | Wr:074 | Castanets    | PRC | 121 | 1     |
| 0208 | Wr:075 | Taiko        | PRC | 121 | 0 117 |
| 0209 | Wr:076 | Concert BD   | PRC | 121 | 1     |
| 0210 | Wr:077 | Melo. Tom 1  | PRC | 121 | 0 118 |
| 0211 | Wr:078 | Melo. Tom 2  | PRC | 121 | 1     |
| 0212 | Wr:079 | Synth Drum   | PRC | 121 | 0 119 |
| 0213 | Wr:080 | 808 Tom      | PRC | 121 | 1     |
| 0214 | Wr:081 | Elec Perc    | PRC | 121 | 2     |
| 0215 | Wr:082 | Reverse Cym. | PRC | 121 | 0 120 |
| 0216 | Gt:217 | Gt.FretNoise | AGT | 121 | 0 121 |
| 0217 | Gt:218 | Gt.Cut Noise | AGT | 121 | 1     |
| 0218 | Gt:219 | String Slap  | AGT | 121 | 2     |
| 0219 | Sy:351 | Breath Noise | FX  | 121 | 0 122 |
| 0220 | Sy:352 | Fl.Key Click | FX  | 121 | 1     |
| 0221 | Wr:083 | Seashore     | SFX | 121 | 0 123 |
| 0222 | Wr:084 | Rain         | SFX | 121 | 1     |
| 0223 | Wr:085 | Thunder      | SFX | 121 | 2     |
| 0224 | Wr:086 | Wind         | SFX | 121 | 3     |
| 0225 | Wr:087 | Stream       | SFX | 121 | 4     |
| 0226 | Wr:088 | Bubble       | SFX | 121 | 5     |
| 0227 | Wr:089 | Bird         | SFX | 121 | 0 124 |
| 0228 | Wr:090 | Dog          | SFX | 121 | 1     |
| 0229 | Wr:091 | Horse-Gallop | SFX | 121 | 2     |
| 0230 | Wr:092 | Bird 2       | SFX | 121 | 3     |
| 0231 | Wr:093 | Telephone 1  | SFX | 121 | 0 125 |
| 0232 | Wr:094 | Telephone 2  | SFX | 121 | 1     |
| 0233 | Wr:095 | DoorCreaking | SFX | 121 | 2     |
| 0234 | Wr:096 | Door         | SFX | 121 | 3     |
| 0235 | Wr:097 | Scratch      | SFX | 121 | 4     |
| 0236 | Wr:098 | Wind Chimes  | SFX | 121 | 5     |
| 0237 | Wr:099 | Helicopter   | SFX | 121 | 0 126 |
| 0238 | Wr:100 | Car-Engine   | SFX | 121 | 1     |
| 0239 | Wr:101 | Car-Stop     | SFX | 121 | 2     |
| 0240 | Wr:102 | Car-Pass     | SFX | 121 | 3     |
| 0241 | Wr:103 | Car-Crash    | SFX | 121 | 4     |

| No.  | Name   | Sub-category | MSB | LSB | PC    |
|------|--------|--------------|-----|-----|-------|
| 0242 | Wr:104 | Siren        | SFX | 121 | 5     |
| 0243 | Wr:105 | Train        | SFX | 121 | 6     |
| 0244 | Wr:106 | Jetplane     | SFX | 121 | 7     |
| 0245 | Wr:107 | Starship     | SFX | 121 | 8     |
| 0246 | Wr:108 | Burst Noise  | SFX | 121 | 9     |
| 0247 | Wr:109 | Applause     | SFX | 121 | 0 127 |
| 0248 | Wr:110 | Laughing     | SFX | 121 | 1     |
| 0249 | Wr:111 | Screaming    | SFX | 121 | 2     |
| 0250 | Wr:112 | Punch        | SFX | 121 | 3     |
| 0251 | Wr:113 | Heart Beat   | SFX | 121 | 4     |
| 0252 | Wr:114 | Footsteps    | SFX | 121 | 5     |
| 0253 | Wr:115 | Gun Shot     | SFX | 121 | 0 128 |
| 0254 | Wr:116 | Machine Gun  | SFX | 121 | 1     |
| 0255 | Wr:117 | Lasergun     | SFX | 121 | 2     |
| 0256 | Wr:118 | Explosion    | SFX | 121 | 3     |

# Performance List

| No. | Name         |
|-----|--------------|
| 001 | Bass / Piano |
| 002 | Piano & Str  |
| 003 | Big & Proud  |
| 004 | Whale Pad    |
| 005 | Dual Rotary  |
| 006 | Mission DS   |
| 007 | JUNO DS Lead |
| 008 | Choir Orche  |
| 009 | Delicate     |
| 010 | Asian Temple |
| 011 | The Leader   |
| 012 | SolarEclipse |
| 013 | Proud Brass  |
| 014 | Air Garden   |
| 015 | Winter Bell  |

| No. | Name         |
|-----|--------------|
| 016 | D-50Memories |
| 017 | Ambi Lead    |
| 018 | Rock Organ   |
| 019 | Notre-Dame   |
| 020 | SuperSawStk  |
| 021 | SatelliteGtr |
| 022 | Bright Pad   |
| 023 | Pad/Sine Ld  |
| 024 | Rock Unison  |
| 025 | Super SynBrs |
| 026 | St Echo Lead |
| 027 | Flux Pad     |
| 028 | Sweet Tekno  |
| 029 | Twilight Pad |
| 030 | SonicVoyager |

| No. | Name         |
|-----|--------------|
| 031 | St Oct Lead  |
| 032 | Personal Pad |
| 033 | Eden Gardens |
| 034 | Space Tale   |
| 035 | SeqBs/Sft Ld |
| 036 | Gtr Heaven   |
| 037 | Concert Str  |
| 038 | Dual D-50    |
| 039 | Wstmin Abbey |
| 040 | Choir & Orch |
| 041 | World Lead   |
| 042 | CrystalGrand |
| 043 | Orchestral   |
| 044 | 80s Stack    |
| 045 | Grand Ocean  |

| No. | Name         |
|-----|--------------|
| 046 | Baby's Hand  |
| 047 | Leading D/A  |
| 048 | Horizon      |
| 049 | TripTo 80s   |
| 050 | Blizzard     |
| 051 | WoodyFlt Ld  |
| 052 | 3AM          |
| 053 | Synchronize  |
| 054 | Additive Pad |
| 055 | The Pipes    |
| 056 | Space Walk   |
| 057 | Tibet Pad    |
| 058 | XyloSaw Ld   |
| 059 | Jupiters     |
| 060 | Voc:Di + Bs  |

| No. | Name         |
|-----|--------------|
| 061 | Voc:Di + Org |
| 062 | Voc:Di + Pad |
| 063 | Seq:Template |
| 064 | GM2 Template |

# Drum Kit List

## Bank: DS

| No.  | Name                | MSB | LSB | PC  |
|------|---------------------|-----|-----|-----|
| 0001 | Dr:S01 StudioKt DS1 | 086 | 065 | 001 |
| 0002 | Dr:S02 StudioKt DS2 | 086 | 065 | 002 |
| 0003 | Dr:S03 EEU-Oriental | 086 | 065 | 003 |
| 0004 | Dr:S04 808 Kit      | 086 | 065 | 004 |
| 0005 | Dr:S05 909 Kit      | 086 | 065 | 005 |
| 0006 | Dr:S06 EDM Kit 1    | 086 | 065 | 006 |
| 0007 | Dr:S07 EDM Kit 2    | 086 | 065 | 007 |
| 0008 | Dr:S08 Drum&Bs Kit  | 086 | 065 | 008 |
| 0009 | Dr:S09 DanceMixKit  | 086 | 065 | 009 |

## Bank: GM

| No.  | Name                | MSB | LSB | PC  |
|------|---------------------|-----|-----|-----|
| 0001 | Dr:022 GM2 STANDARD | 120 | 0   | 001 |
| 0002 | Dr:023 GM2 ROOM     | 120 | 0   | 009 |
| 0003 | Dr:024 GM2 POWER    | 120 | 0   | 017 |
| 0004 | Dr:025 GM2 ELECTRIC | 120 | 0   | 025 |
| 0005 | Dr:026 GM2 ANALOG   | 120 | 0   | 026 |
| 0006 | Dr:027 GM2 JAZZ     | 120 | 0   | 033 |
| 0007 | Dr:028 GM2 BRUSH    | 120 | 0   | 041 |
| 0008 | Dr:029 GM2 ORCHSTRA | 120 | 0   | 049 |
| 0009 | Dr:030 GM2 SFX      | 120 | 0   | 057 |

## Bank: PRST

| No.  | Name                | MSB | LSB | PC  |
|------|---------------------|-----|-----|-----|
| 0001 | Dr:001 Pop Kit 1    | 086 | 064 | 001 |
| 0002 | Dr:002 Rock Kit     | 086 | 064 | 002 |
| 0003 | Dr:003 Brush Jz Kit | 086 | 064 | 003 |
| 0004 | Dr:004 HipHop Kit   | 086 | 064 | 004 |
| 0005 | Dr:005 R&B Kit      | 086 | 064 | 005 |
| 0006 | Dr:006 Dance Kit 1  | 086 | 064 | 006 |
| 0007 | Dr:007 Dance Kit 2  | 086 | 064 | 007 |
| 0008 | Dr:008 Dance Kit 3  | 086 | 064 | 008 |
| 0009 | Dr:009 Pop Kit 2    | 086 | 064 | 009 |
| 0010 | Dr:010 Dance Kit 4  | 086 | 064 | 010 |
| 0011 | Dr:011 Ambi Pop 1   | 086 | 064 | 011 |
| 0012 | Dr:012 Ambi Rock    | 086 | 064 | 012 |
| 0013 | Dr:013 Ambi BrushJz | 086 | 064 | 013 |
| 0014 | Dr:014 Ambi HipHop  | 086 | 064 | 014 |
| 0015 | Dr:015 Ambi R&B     | 086 | 064 | 015 |
| 0016 | Dr:016 Ambi Dance 1 | 086 | 064 | 016 |
| 0017 | Dr:017 Ambi Dance 2 | 086 | 064 | 017 |
| 0018 | Dr:018 Ambi Dance 3 | 086 | 064 | 018 |
| 0019 | Dr:019 Ambi Pop 2   | 086 | 064 | 019 |
| 0020 | Dr:020 Ambi Dance 4 | 086 | 064 | 020 |
| 0021 | Dr:021 Latin Menu   | 086 | 064 | 021 |

# Drum Kit Assign List

|           | DS: 0001. StudioKt DS1 | DS: 0002. StudioKt DS2 | DS: 0003. EEU-Oriental | DS: 0004. 808 Kit | DS: 0005. 909 Kit |
|-----------|------------------------|------------------------|------------------------|-------------------|-------------------|
| 21        | ----                   | ----                   | BB2-SlideBs1           | ----              | ----              |
| 22        | MC-500 Beep1           | MC-500 Beep1           | BB2-SlideBs2           | ----              | ----              |
| 23        | MC-500 Beep2           | MC-500 Beep2           | FG.TR909Clap           | ----              | ----              |
| <b>C1</b> |                        |                        |                        |                   |                   |
| 24        | Concert SD             | Concert SD             | Tamarin 2              | ----              | ----              |
| 25        | Snare Roll 1           | Snare Roll 1           | VA.Cha2Bell1           | ----              | ----              |
| 26        | Finger Snap2           | Finger Snap2           | EEU-ViolnS11           | ----              | ----              |
| 27        | High Q                 | High Q                 | EEU-ViolnS12           | ----              | ----              |
| 28        | Slap                   | Slap                   | EEU-E.VlnS11           | ----              | ----              |
| 29        | Scratch Push           | Scratch Push           | EEU-E.VlnS12           | ----              | ----              |
| 30        | Scratch Pull           | Scratch Pull           | EM.Tbl2 Dom            | ----              | ----              |
| 31        | Sticks                 | Sticks                 | EM.Tbl2 Tak1           | Kick1             | Kick1             |
| 32        | Reg.PHH [M1]           | Reg.PHH [M1]           | EM.Tbl2 Rim1           | Snare Ghost1      | Snare Ghost1      |
| 33        | Hand Clap              | Hand Clap              | TR909 Clap 1           | Kick2             | 909 Kick 1        |
| 34        | Snare Roll 2           | Snare Roll 2           | Reg.PHH [M1]           | Pedal Hihat [M1]  | Pedal Hihat [M1]  |
| 35        | Warm Kick              | Warm Kick              | SC.TR909 BD2           | 808 Kick 1        | 909 Kick 3        |
| <b>C2</b> |                        |                        |                        |                   |                   |
| 36        | Hush Kick              | Hush Kick              | EEU-BsDrm              | 808 Kick 2        | 909 Kick 2        |
| 37        | WoodSideStk            | Br.SideStk             | EEU-CrsStk             | 808 Rim           | 909 Rimshot       |
| 38        | TitanSnr               | Br.Snr 1               | EEU-Snare 1            | 808 Snare 1       | 909 Snare 1       |
| 39        | T.Snr Ghst             | IronSnrGst             | Reg.SnrGst             | 808 Clap          | 909 Clap          |
| 40        | T.Snr RS               | Br.Snr 2               | EEU-Snare 2            | 808 Snare 2       | 909 Snare 2       |
| 41        | StudioT4 [M1]          | StudioT4 [M1]          | EEU-LTom2              | 808 Low Tom       | 909 Low Tom       |
| 42        | Reg.CHH 1 [M1]         | Reg.CHH 1 [M1]         | EEU-HH Cl1 [M1]        | 808 Cl HH [M1]    | 909 Cl HH [M1]    |
| 43        | StudioT3 [M1]          | StudioT3 [M1]          | EEU-LTom1 [M1]         | 808 Low Tom [M1]  | 909 L DstTom [M1] |
| 44        | Reg.CHH 2 [M1]         | Reg.CHH 2 [M1]         | EEU-HH Cl2 [M1]        | 808 Pedal HH [M1] | 909 Pedal HH [M1] |
| 45        | StudioT3 [M1]          | StudioT3 [M1]          | EEU-MTom2 [M1]         | 808 Mid Tom [M1]  | 909 Mid Tom [M1]  |
| 46        | Reg.OHH [M1]           | Reg.OHH [M1]           | EEU-HH Op [M1]         | 808 Open HH [M1]  | 909 Open HH [M1]  |
| 47        | StudioT2               | StudioT2               | EEU-MTom1              | 808 Mid Tom       | 909 M DstTom      |
| <b>C3</b> |                        |                        |                        |                   |                   |
| 48        | StudioT2               | StudioT2               | EEU-HTom2              | 808 Hi Tom        | 909 Hi Tom        |
| 49        | Crash Cym              | Crash Cym              | EEU-Cr.Cym2            | 808 Cymbal        | 909 CrashCym      |
| 50        | StudioT1               | StudioT1               | EEU-HTom1              | 808 Hi Tom        | 909 H DstTom      |
| 51        | Rock Ride              | Rock Ride              | EEU-Ride               | Ride Cymbal1      | 909 Ride Cym      |
| 52        | Chinese Cym            | Chinese Cym            | EEU-ChnCym             | China Cymbal      | China Cymbal      |
| 53        | Rock Ride              | Rock Ride              | EEU-Ride Cup           | Ride Cymbal2      | Ride Cymbal2      |
| 54        | Tambourine             | Tambourine             | Tambourine 3           | Tambourine        | Tambourine        |
| 55        | Splash Cym             | Splash Cym             | EEUSplashCym           | SplashCymbal      | SplashCymbal      |
| 56        | Cowbell                | Cowbell                | Cowbell Mute           | 808 Cowbell       | Cowbell           |
| 57        | Crash Cym              | Crash Cym              | EEU-Cr.Cym1            | Crash Cymbal      | CrashCymbal2      |
| 58        | Vibra-slap             | Vibra-slap             | EM.DholaRaka           | Vibraslap         | Vibraslap         |
| 59        | Rock Ride              | Rock Ride              | EM.DholaTak1           | Ride Cymbal3      | Ride Cymbal3      |
| <b>C4</b> |                        |                        |                        |                   |                   |
| 60        | StudioT4               | High Bongo             | EM.DholaTak2           | High Bongo1       | High Bongo1       |
| 61        | Low Bongo              | Low Bongo              | EM.DofDom 1            | Low Bongo1        | Low Bongo1        |
| 62        | Mute HiConga           | Mute HiConga           | EM.DofDom 2            | 808 LowConga      | Conga Slap        |
| 63        | Open HiConga           | Open HiConga           | EM.DofDom 3            | 808 MidConga      | OpenHi Conga      |
| 64        | Open LoConga           | Open LoConga           | EM.DofTak 1            | 808 Hi Conga      | Low Conga1        |
| 65        | High Timbale           | High Timbale           | EEU-TapanL             | High Timbale      | High Timbale      |
| 66        | Low Timbale            | Low Timbale            | EM.DofSak 1            | Low Timbale       | Low Timbale       |
| 67        | High Agogo             | High Agogo             | EEU-TapanH             | High Agogo        | High Agogo        |
| 68        | Low Agogo              | Low Agogo              | EM.DofSak 2            | Low Agogo         | Low Agogo         |
| 69        | Cabasa                 | Cabasa                 | EEU-TapanM             | Cabasa            | Cabasa            |
| 70        | Maracas                | Maracas                | EM.DofSak 3            | 808 Maracas       | Maracas           |
| 71        | ShortWhistle           | ShortWhistle           | EEU-Tapan Fx           | ShortWhistle [M2] | ShortWhistle [M2] |
| <b>C5</b> |                        |                        |                        |                   |                   |
| 72        | Long Whistle [M2]      | Long Whistle [M2]      | EM.DofFingr2           | Long Whistle [M2] | Long Whistle [M2] |
| 73        | Short Guiro [M2]       | Short Guiro [M2]       | EM.Tbl Raka1           | Short Guiro [M3]  | Short Guiro [M3]  |
| 74        | Long Guiro [M2]        | Long Guiro [M2]        | EM.Tbl Tak 1           | Long Guiro [M3]   | Long Guiro [M3]   |
| 75        | Claves                 | Claves                 | EM.Tbl Tik 1           | 808 Claves        | Claves            |
| 76        | Hi Wood Blck           | Hi Wood Blck           | EM.Tbl Dom 1           | Hi WoodBlock      | Hi WoodBlock      |
| 77        | Lo Wood Blck           | Lo Wood Blck           | EM.Tbl Sak 1 [M2]      | LowWoodBlock      | LowWoodBlock      |
| 78        | Mute Cuica [M5]        | Mute Cuica [M5]        | EM.Tbl Roll [M2]       | Mute Cuica [M4]   | Mute Cuica [M4]   |
| 79        | Open Cuica [M5]        | Open Cuica [M5]        | EM.Tbl Tak 2 [M2]      | Open Cuica [M4]   | Open Cuica [M4]   |
| 80        | MuteTriangle [M3]      | MuteTriangle [M3]      | EM.Tbl Raka2 [M3]      | MuteTriangle [M5] | MuteTriangle [M5] |
| 81        | OpenTriangle [M3]      | OpenTriangle [M3]      | EM.Tbl Rim 1 [M2]      | OpenTriangle [M5] | OpenTriangle [M5] |
| 82        | Shaker                 | Shaker                 | EM.Tbl Toks1           | Shaker            | Shaker            |
| 83        | Jingle Bell            | Jingle Bell            | EM.Tbl Rim 2           | Castanet          | Castanet          |
| <b>C6</b> |                        |                        |                        |                   |                   |
| 84        | Wind Chime             | Wind Chime             | EM.Tbl Tik 2           | High Bongo2       | High Bongo2       |
| 85        | Castanets              | Castanets              | EM.Rek Raka            | MtHigh Conga      | MtHigh Conga      |
| 86        | Mute Surdo [M4]        | Mute Surdo [M4]        | EM.Rek Dom             | Low Bongo2        | Low Bongo2        |
| 87        | Open Surdo [M4]        | Open Surdo [M4]        | EM.Rek Trill           | Low Bongo3        | Low Bongo3        |
| 88        | Applause 2             | Applause 2             | EM.Rek Tak 1           | Low Conga2        | Low Conga2        |
| 89        | ----                   | ----                   | EM.Rek Rim 1           | Low Tom3          | Low Tom3          |
| 90        | ----                   | ----                   | EM.Rek Brs 1           | Low Tom4          | Low Tom4          |
| 91        | ----                   | ----                   | EM.Rek Tok             | Mix Kick1         | Mix Kick1         |
| 92        | ----                   | ----                   | EM.Rek Brs 3           | Mix Kick2         | Mix Kick2         |
| 93        | ----                   | ----                   | EM.Rek Tak 2           | Mix Kick3         | Mix Kick3         |
| 94        | ----                   | ----                   | EM.REK Sak             | Mix Kick4         | Mix Kick4         |
| 95        | ----                   | ----                   | EM.Rek Tik             | Mix Nz1           | Mix Nz1           |
| <b>C7</b> |                        |                        |                        |                   |                   |
| 96        | ----                   | ----                   | EM.MazharDom           | Mix Nz2           | Mix Nz2           |
| 97        | Std.1 Snare1           | Std.1 Snare1           | EM.MazharTak           | Mix Nz3           | Mix Nz3           |
| 98        | Std.1 Snare2           | Std.1 Snare2           | EM.MazharSak           | Wind Chime        | Wind Chime        |
| 99        | Std 2 Snare1           | Std 2 Snare1           | EM.MazharBrs           | Hand Clap1        | Hand Clap1        |
| 100       | Std 2 Snare2           | Std 2 Snare2           | EEUbnGL OP             | Hand Clap2        | Hand Clap2        |
| 101       | Snare Drum 2           | Snare Drum 2           | EEUbnGL RM             | ----              | ----              |
| 102       | Std 1 Snare1           | Std 1 Snare1           | EEUbnGH OP             | ----              | ----              |
| 103       | Std 1 Snare2           | Std 1 Snare2           | EEUbnGH RM             | ----              | ----              |
| 104       | Std Snare 3            | Std Snare 3            | EM.Dofs Tak            | ----              | ----              |
| 105       | Jazz Snare 1           | Jazz Snare 1           | EM.Dofs Dom            | ----              | ----              |
| 106       | Jazz Snare 2           | Jazz Snare 2           | EM.Dofs Sak            | ----              | ----              |
| 107       | Room Snare 1           | Room Snare 1           | EM.Dofs Rim1           | ----              | ----              |
| <b>C8</b> |                        |                        |                        |                   |                   |
| 108       | Room Snare 2           | Room Snare 2           | EM.Dofs Rim2           | ----              | ----              |

---- : no sound

[M] : will not sound simultaneously with other percussion instruments of the same number

Performance List

|    | DS: 0006. StudioKt DS1 | DS: 0007. StudioKt DS2 | DS: 0008. EEU-Oriental | DS: 0009. 808 Kit |              |      |
|----|------------------------|------------------------|------------------------|-------------------|--------------|------|
|    | 21                     | ----                   | ----                   | 909 Kick          |              |      |
|    | 22                     | ----                   | ----                   | FingerSnaps       |              |      |
|    | 23                     | ----                   | ----                   | Id Snare          |              |      |
| C1 | 24                     | ----                   | ----                   | Fat Kick          |              |      |
|    | 25                     | ----                   | ----                   | Gospel Clap       |              |      |
|    | 26                     | ----                   | ----                   | HipHop Kick       |              |      |
|    | 27                     | ----                   | ----                   | Uno!              |              |      |
|    | 28                     | TR808 Kick             | TR909 Kick1            | Dos!              |              |      |
|    |                        | Mix Kick1              | SH32 Kick1             | Tres!             |              |      |
|    | 29                     | Mix Snare1             | AnalogSnare1           | Quatro!           |              |      |
|    | 30                     | Mix Kick2              | Analog Kick1           | Hey Brazil        |              |      |
|    | 31                     | Mix Snare2             | TR808 Snare            | Reg.CHH           |              |      |
|    | 32                     | Mix Kick3              | SH32 Kick2             | Sol Snare         |              |      |
|    | 33                     | Thin CIHH              | Pedal Hihat            | Gospel Clap       |              |      |
|    | 34                     | Mix Kick4              | TR909 Kick2            | Id Snare          |              |      |
|    | 35                     |                        | [M1]                   | [M1]              |              |      |
| C2 | 36                     | 909 Kick 1             | Analog Kick2           | Plastic Kick      |              |      |
|    | 37                     | Mix Rim1               | Synth Rim              | 808 Rim           |              |      |
|    | 38                     | 626 Snare              | Clap&Snare 1           | 626 Snare         |              |      |
|    | 39                     | TR808 Clap             | TR808 Clap1            | Hand Clap         |              |      |
|    | 40                     | 106 Snare              | Clap&Snare 2           | Gospel Clap       |              |      |
|    | 41                     | Mix Tom1               | Deep Tom1              | Gospel Clap       |              |      |
|    | 42                     | Mix CIHH1              | Reg.CHH                | 808 CHH           | [M1]         |      |
|    | 43                     | Mix Tom2               | Deep Tom1              | Reg.F.Tom         | 808 Low Tom  |      |
|    | 44                     | Mix CIHH2              | Reg.PHH                | CI Hihat2         | 808 PHH      | [M1] |
|    | 45                     | Mix Tom3               | Deep Tom2              | Reg.M.Tom         | 808 Mid Tom  |      |
|    | 46                     | Op Hihat               | Reg.OHH                | Op Hihat1         | 909 OHH      | [M1] |
|    | 47                     | Mix Tom3               | Deep Tom2              | Reg.M.Tom         | 808 Mid Tom  |      |
| C3 | 48                     | Mix Tom4               | Deep Tom3              | Reg.H.Tom         | 808 Hi Tom   |      |
|    | 49                     | Crash Cymbal           | Rock Crash             | CrashCymbal1      | 909 CrashCym |      |
|    | 50                     | Mix Tom4               | Deep Tom3              | Reg.H.Tom         | 808 Hi Tom   |      |
|    | 51                     | TR909 Ride             | Wide Syn Cym           | Ride Cymbal1      | Ride Cymbal  |      |
|    | 52                     | China Cymbal           | TR808 Cym2             | Rock Chash        | China Cymbal |      |
|    | 53                     | Ride Cymbal            | China Cym1             | Ride Cup          | 909 Ride Cym |      |
|    | 54                     | Tambourine             | Castanet               | Tambourine1       | Tambourine   |      |
|    | 55                     | Rock Crash             | TR808 Cym3             | Syn Swt Atk1      | SplashCymbal |      |
|    | 56                     | Cowbell                | Syn Cowbell            | Agogo Noise       | 808 Cowbell  |      |
|    | 57                     | Concert Cym            | China Cym2             | MG Zap1           | Crash Cymbal |      |
|    | 58                     | Vibraslap              | Syn Swt Atk1           | Syn Swt Atk2      | Vibraslap    |      |
|    | 59                     | TR808 Cym              | TR909 Kick3            | TR909 Kick4       | Ride Cymbal  |      |
| C4 | 60                     | Bongo1                 | Analog Kick3           | SH32 Kick3        | High Bongo1  |      |
|    | 61                     | Bongo2                 | Syn Stick              | TR808 Rim2        | Low Bongo1   |      |
|    | 62                     | Bongo&Conga1           | AnalogSnare2           | TR808 Snare1      | 808 LowConga |      |
|    | 63                     | Conga                  | TR808 Clap2            | TR808 Clap1       | 808 MidConga |      |
|    | 64                     | Bongo&Conga2           | AnalogSnare3           | Analog Snare      | 808 Hi Conga |      |
|    | 65                     | TR808 Conga            | Shaker1                | Mid Tom1          | High Timbale |      |
|    | 66                     | Maracas                | Syn CIHH1              | Noise CIHH        | Low Timbale  | [M1] |
|    | 67                     | Shaker                 | Shaker2                | Mid Tom2          | High Agogo   |      |
|    | 68                     | Triangle1              | Syn CIHH2              | CI Hihat3         | Low Agogo    | [M1] |
|    | 69                     | Cabasa                 | Atmosphere1            | Mid Tom3          | Cabasa       |      |
|    | 70                     | Guiro                  | Syn OpHH               | Op Hihat2         | 808 Maracas  | [M1] |
|    | 71                     | Street OpHH            | Atmosphere2            | Mid Tom4          | ShortWhistle | [M2] |
| C5 | 72                     | Scratch                | Atmosphere3            | Mid Tom5          | Long Whistle | [M2] |
|    | 73                     | Mix Atk1               | TR808 Cym4             | Rock Crash2       | Short Guiro  | [M3] |
|    | 74                     | MG Zap                 | Atmosphere4            | Mid Tom6          | Long Guiro   | [M3] |
|    | 75                     | Syn Swt Atk1           | Mix Ride               | SplashCymbal      | 808 Claves   |      |
|    | 76                     | Syn Swt Atk2           | China Cym3             | Rock Crash3       | Hi WoodBlock |      |
|    | 77                     | Cuica Low              | Rock Rd Edge           | Rock Rd Edge      | LowWoodBlock |      |
|    | 78                     | Triangle2              | Syn Slap               | Tambourine2       | Mute Cuica   | [M4] |
|    | 79                     | Triangle3              | MG Zap1                | Syn Swt Atk3      | Open Cuica   | [M4] |
|    | 80                     | Triangle4              | SynVox Noise           | Cowbell1          | MuteTriangle | [M5] |
|    | 81                     | Mix Hit1               | MG Zap2                | Syn Swt Atk4      | OpenTriangle | [M5] |
|    | 82                     | Mix Hit2               | Syn Swt Atk2           | Cowbell2          | Shaker       |      |
|    | 83                     | Mix Hit3               | MG Zap3                | MG Zap3           | Castanet     |      |
| C6 | 84                     | Wind Chime             | 808 Maracas            | Low Bongo         | High Bongo   |      |
|    | 85                     | Timpani Roll           | TR808 Claves           | MtHigh Conga      | MtHigh Conga |      |
|    | 86                     | Crotale                | MuteTriangle           | Conga Slap        | Low Bongo    |      |
|    | 87                     | R8 Click               | OpenTriangle           | OpHigh Conga      | Low Bongo    |      |
|    | 88                     | Metro Bell             | Mix Hit                | Op Low Conga      | Low Conga    |      |
|    | 89                     | DR202 Beep 1           | Scratch                | High Timbale      | Fuego!       |      |
|    | 90                     | DR202 Beep 2           | Easy Gtr               | Low Timbale       | Tiquitito!   |      |
|    | 91                     | Sweep Down1            | Syn Bel Atk            | High Agogo        | Grito-Oa Oa! |      |
|    | 92                     | Sweep Up               | MG Attack              | Low Agogo         | Mix Kick     |      |
|    | 93                     | Sweep Down2            | SynSnareRoll           | Cabasa            | MG Zap       |      |
|    | 94                     | Light Wood             | Syn Burst Nz           | Maracas           | 808 Snare    |      |
|    | 95                     | Laser                  | White Noise            | Short Guiro       | Reverse Cym  | [M2] |
| C7 | 96                     | Low Atk                | Polishing Nz           | Long Guiro        | Mix Noise    | [M2] |
|    | 97                     | Analog Kick            | Long Guiro             | Claves            | 909 Crash    |      |
|    | 98                     | Old Kick               | Light Wood             | LowWoodBlock      | ReverseClap  |      |
|    | 99                     | Mix Kick6              | Light Box              | Hi WoodBlock      | Reg.Kick     |      |
|    | 100                    | TR909 Snare            | Syn Swt Atk3           | MuteTriangle      | 909 Ride     | [M3] |
|    | 101                    | TR808 Snare            | Laugh                  | OpenTriangle      | Deep Tom     | [M3] |
|    | 102                    | Mix Snare4             | Office Phone           | Castanet          | Id Snare     |      |
|    | 103                    | Mix Snare5             | Polish Kick            | Whistle           | Deep Tom     |      |
|    | 104                    | ----                   | ----                   | ----              | 808 Kick     |      |
|    | 105                    | ----                   | ----                   | ----              | 808 CHH      | [M2] |
|    | 106                    | ----                   | ----                   | ----              | Analog Snr   |      |
|    | 107                    | ----                   | ----                   | ----              | 808 OHH      | [M2] |
| C8 | 108                    | ----                   | ----                   | ----              | Deep Tom     |      |

---- : no sound

[M] : will not sound simultaneously with other percussion instruments of the same number

|        | PRST: 0001. Pop Kit 1 | PRST: 0002. Rock Kit | PRST: 0003. Brush Jz Kit | PRST: 0004. HipHop Kit | PRST: 0005. R&B Kit |
|--------|-----------------------|----------------------|--------------------------|------------------------|---------------------|
| 21     | ----                  | ----                 | ----                     | ----                   | ----                |
| 22     | ----                  | ----                 | ----                     | ----                   | ----                |
| 23     | ----                  | ----                 | ----                     | ----                   | ----                |
| C1 24  | ----                  | ----                 | ----                     | ----                   | ----                |
| 25     | ----                  | ----                 | ----                     | ----                   | ----                |
| 26     | ----                  | ----                 | ----                     | ----                   | ----                |
| 27     | ----                  | ----                 | ----                     | ----                   | ----                |
| 28     | ----                  | ----                 | ----                     | ----                   | ----                |
| 29     | ----                  | ----                 | ----                     | ----                   | ----                |
| 30     | ----                  | ----                 | ----                     | ----                   | ----                |
| 31     | Kick1                 | Kick1                | Kick1                    | Analog Kick1           | Mix Kick1           |
| 32     | Snare Ghost1          | Snare Ghost1         | Snare Ghost              | Analog Kick2           | Mix Kick2           |
| 33     | Kick2                 | Kick2                | Kick2                    | Mix Kick1              | Mix Kick3           |
| 34     | Pedal Hihat           | Pedal Hihat          | Pedal Hi-hat             | Mix Kick2              | Mix Kick4           |
| 35     | Kick3 [M1]            | Power Kick1 [M1]     | Jazz Kick 1 [M1]         | Analog Kick3           | Mix Kick5           |
| C2 36  | Kick4                 | Power Kick2          | Jazz Kick 2              | Mix Kick3              | Mix Kick6           |
| 37     | Side Stick            | Side Stick           | Side Stick               | TR808 Rim1             | Soft Stick          |
| 38     | Snare1                | Power Snare1         | Brush Slap1              | Mix Snare1             | Short Snare1        |
| 39     | Snare Ghost2          | Snare Ghost2         | Jz Brsh Swsh             | Mix Clap1              | Mix Stick           |
| 40     | Snare2                | Power Snare2         | Brush Slap2              | Mix Snare2             | Short Snare2        |
| 41     | Low Tom1              | Low Tom1             | BrushLowTom              | Mix Snare3             | Short Snare3        |
| 42     | Cl Hihat1 [M1]        | Cl Hihat1 [M1]       | Brush CIHH1 [M1]         | TR808 CIHH [M1]        | Cl Hihat1 [M1]      |
| 43     | Low Tom2              | Low Tom2             | BrushMidTom1             | Mix Snare4             | Short Snare4        |
| 44     | Cl Hihat2 [M1]        | Cl Hihat2 [M1]       | Brush CIHH2 [M1]         | Noise CIHH [M1]        | Cl Hihat2 [M1]      |
| 45     | Mid Tom1              | Mid Tom1             | BrushMidTom2             | Mix Snare5             | Mix Snare1          |
| 46     | Op Hihat [M1]         | Op Hihat [M1]        | Brush OpHH [M1]          | TR808 OpHH [M1]        | Op Hihat [M1]       |
| 47     | Mid Tom2              | Mid Tom2             | BrushMidTom2             | Mix Snare6             | Mix Snare2          |
| C3 48  | High Tom1             | High Tom1            | Brush HiTom              | Syn Swt Atk1           | Mix Snare3          |
| 49     | CrashCymbal1          | CrashCymbal1         | CrashCymbal1             | TR808 Cym1             | TR808 Cym1          |
| 50     | High Tom2             | High Tom2            | Brush HiTom              | MG Attack              | Mix Snare4          |
| 51     | Ride Cymbal1          | Ride Cymbal1         | Ride Cymbal1             | TR808 Cym2             | TR808 Cym2          |
| 52     | China Cymbal          | China Cymbal         | China Cymbal             | China Cymbal           | China Cymbal        |
|        | Ride Cymbal2          | Ride Cymbal2         | Ride Cymbal2             | Rock Rd Edge           | Rock Rd Edge        |
| 53     | Tambourine            | Tambourine           | Tambourine               | Tambourine1            | Tambourine1         |
| 54     | SplashCymbal          | SplashCymbal         | SplashCymbal             | Mix Crash1             | Mix Crash1          |
| 55     | Cowbell               | Cowbell              | Cowbell                  | Mix Hat                | Mix Hat             |
| 56     | CrashCymbal2          | CrashCymbal2         | CrashCymbal2             | Mix Crash2             | Mix Crash2          |
| 57     | Vibraslap             | Vibraslap            | Vibraslap                | Syn Swt Atk2           | Syn Swt Atk         |
| 58     | Ride Cymbal3          | Ride Cymbal3         | Ride Cymbal3             | TR808 Kick1            | TR808 Kick1         |
| C4 60  | High Bongo1           | High Bongo1          | High Bongo               | TR808 Kick2            | TR808 Kick2         |
| 61     | Low Bongo1            | Low Bongo1           | Low Bongo                | TR808 Rim2             | TR808 Rim           |
| 62     | Conga Slap            | Conga Slap           | MtHigh Conga             | TR808 Snare1           | TR808 Snare1        |
| 63     | OpenHi Conga          | OpenHi Conga         | OpHigh Conga             | TR808 Clap1            | TR808 Clap1         |
| 64     | Low Conga1            | Low Conga1           | Low Conga                | TR808 Snare2           | TR808 Snare2        |
|        | High Timbale          | High Timbale         | High Timbale             | TR808 Tom1             | TR808 Tom1          |
| 65     | Low Timbale           | Low Timbale          | Low Timbale              | TR808 CIHH [M1]        | TR808 CIHH [M1]     |
| 66     | High Agogo            | High Agogo           | High Agogo               | TR808 Tom2             | TR808 Tom2          |
| 67     | Low Agogo             | Low Agogo            | Low Agogo                | Noise CIHH [M1]        | Noise CIHH [M1]     |
| 68     | Cabasa                | Cabasa               | Cabasa                   | TR808 Tom3             | TR808 Tom3          |
| 69     | Maracas               | Maracas              | Maracas                  | TR808 OpHH [M1]        | TR808 OpHH [M1]     |
| 70     | ShortWhistle [M2]     | ShortWhistle [M2]    | Jazz Kick 1 [M2]         | TR808 Tom4             | TR808 Tom4          |
| C5 72  | Long Whistle [M2]     | Long Whistle [M2]    | Jazz Kick 2              | TR808 Tom5             | TR808 Tom5          |
| 73     | Short Guiro [M3]      | Short Guiro [M3]     | Side Stick               | Scratch1               | Scratch1            |
| 74     | Long Guiro [M3]       | Long Guiro [M3]      | Jazz Snare1              | TR808 Tom6             | TR808 Tom6          |
| 75     | Claves                | Claves               | Sft Snr Gst              | Scratch2               | Scratch2            |
| 76     | Hi WoodBlock          | Hi WoodBlock         | Jazz Snare2              | Hand Clap1             | Hand Clap1          |
|        | LowWoodBlock          | LowWoodBlock         | Low Tom                  | Hand Clap2             | Hand Clap2          |
| 77     | Mute Cuica [M4]       | Mute Cuica [M4]      | Cl Hihat1 [M1]           | TR808 Clap2            | TR808 Clap2         |
| 78     | Open Cuica [M4]       | Open Cuica [M4]      | Mid Tom1 [M1]            | Cabasa                 | Cabasa              |
| 79     | MuteTriangle [M5]     | MuteTriangle [M5]    | Cl Hihat2 [M1]           | Shaker1                | Shaker1             |
| 80     | OpenTriangle [M5]     | OpenTriangle [M5]    | Mid Tom2 [M1]            | Tambourine2            | Tambourine2         |
| 81     | Shaker                | Shaker               | Op Hihat [M1]            | Shaker2                | Shaker2             |
| 82     | Castanet              | Castanet             | Mid Tom2                 | Castanet               | Castanet            |
| C6 84  | High Bongo2           | High Bongo2          | High Tom                 | High Bongo             | High Bongo          |
| 85     | MtHigh Conga          | MtHigh Conga         | CrashCymbal1             | MtHigh Conga           | MtHigh Conga        |
| 86     | Low Bongo2            | Low Bongo2           | High Tom                 | Low Bongo1             | Low Bongo1          |
| 87     | Low Bongo3            | Low Bongo3           | Ride Cymbal1             | Low Bongo2             | Low Bongo2          |
| 88     | Low Conga2            | Low Conga2           | China Cymbal             | Op Low Conga           | Op Low Conga        |
|        | Low Tom3              | Low Tom3             | Low Tom3                 | Low Tom1               | Low Tom1            |
| 89     | Low Tom4              | Low Tom4             | Low Tom4                 | Low Tom2               | Low Tom2            |
| 90     | Mix Kick1             | Mix Kick1            | Claves                   | Mix Kick4              | Mix Kick7           |
| 91     | Mix Kick2             | Mix Kick2            | Hi WoodBlock             | Mix Kick5              | Mix Kick8           |
| 92     | Mix Kick3             | Mix Kick3            | LowWoodBlock             | TR909 Snare            | Stream              |
| 93     | Mix Kick4             | Mix Kick4            | MuteTriangle [M5]        | Syn Burst Nz           | Bubble              |
| 94     | Mix Nz1               | Mix Nz1              | OpenTriangle [M5]        | Digi Breath            | Train               |
| C7 96  | Mix Nz2               | Mix Nz2              | Shaker                   | Mix Breath             | Wind Chime          |
| 97     | Mix Nz3               | Mix Nz3              | Castanet                 | Wide Shaker            | Syn Back Nz1        |
| 98     | Wind Chime            | Wind Chime           | Wind Chime               | JD Tuba Slap           | Syn Back Nz2        |
| 99     | Hand Clap1            | Hand Clap1           | Hand Clap 1              | Hand Clap3             | Hand Clap3          |
| 100    | Hand Clap2            | Hand Clap2           | Hand Clap 2              | Hand Clap4             | Hand Clap4          |
| 101    | ----                  | ----                 | ----                     | Door Creak             | ----                |
| 102    | ----                  | ----                 | ----                     | Vint.Phone             | ----                |
| 103    | ----                  | ----                 | ----                     | Polish Kick            | ----                |
| 104    | ----                  | ----                 | ----                     | ----                   | ----                |
| 105    | ----                  | ----                 | ----                     | ----                   | ----                |
| 106    | ----                  | ----                 | ----                     | ----                   | ----                |
| 107    | ----                  | ----                 | ----                     | ----                   | ----                |
| C8 108 | ----                  | ----                 | ----                     | ----                   | ----                |

---- : no sound

[M] : will not sound simultaneously with other percussion instruments of the same number

Performance List

|     | PRST: 0006. Dance Kit 1 | PRST: 0007. Dance Kit 2 | PRST: 0008. Dance Kit 3 | PRST: 0009. Pop Kit 2 | PRST: 0010. Dance Kit 4 |
|-----|-------------------------|-------------------------|-------------------------|-----------------------|-------------------------|
| 21  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 22  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 23  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C1  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 24  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 25  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 26  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 27  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 28  | TR808 Kick              | SH32 Kick1              | TR909 Kick1             | ----                  | TR808 Kick              |
|     | Mix Kick1               | TR909 Kick1             | SH32 Kick1              | ----                  | Mix Kick1               |
| 29  | Mix Snare1              | AnalogSnare1            | Snare Ghost1            | ----                  | Mix Snare1              |
| 30  | Mix Kick2               | Analog Kick1            | Analog Kick             | Kick1                 | Mix Kick2               |
| 31  | Mix Snare2              | TR808 Snare             | TR909 Snare1            | Snare Ghost1          | Mix Snare2              |
| 32  | Mix Kick3               | SH32 Kick2              | SH32 Kick2              | Kick2                 | Mix Kick3               |
| 33  | Thin CIHH               | Pedal Hihat             | Pedal Hihat             | Pedal Hihat           | Thin CIHH               |
| 34  | Mix Kick4               | TR909 Kick2             | TR909 Kick2             | Kick3                 | Mix Kick4               |
| 35  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C2  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 36  | Mix Kick5               | Analog Kick2            | TR909 Kick3             | Kick4                 | Mix Kick5               |
| 37  | Mix Rim1                | Synth Rim               | TR808 Rim1              | Side Stick            | Mix Rim1                |
| 38  | Analog Snare            | TR909 Snare             | TR808 Rim2              | Snare1                | Mix Snare3              |
| 39  | TR808 Clap              | TR808 Clap1             | TR808 Clap              | Snare Ghost2          | TR808 Clap              |
| 40  | Mix Snare3              | DistNz Snare            | TR909 Snare3            | Snare2                | Mix Snare4              |
|     | Mix Tom1                | Deep Tom1               | TR808 Tom1              | Low Tom1              | Mix Tom1                |
| 41  | Mix CIHH1               | TR808 CIHH              | CI Hihat1               | CI Hihat1             | Mix CIHH1               |
| 42  | Mix Tom2                | Deep Tom1               | TR808 Tom2              | Low Tom2              | Mix Tom2                |
| 43  | Mix CIHH2               | TR606 OpHH              | CI Hihat2               | CI Hihat2             | Mix CIHH2               |
| 44  | Mix Tom3                | Deep Tom2               | TR808 Tom3              | Mid Tom1              | Mix Tom3                |
| 45  | Op Hihat                | TR808 Cym1              | Op Hihat1               | Op Hihat              | Op Hihat                |
| 46  | Mix Tom3                | Deep Tom2               | TR808 Tom4              | Mid Tom2              | Mix Tom3                |
| 47  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C3  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 48  | Mix Tom4                | Deep Tom3               | TR808 Tom5              | High Tom1             | Mix Tom4                |
| 49  | Crash Cymbal            | TR808 OpHH              | CrashCymbal1            | CrashCymbal1          | Crash Cymbal            |
| 50  | Mix Tom4                | Deep Tom3               | TR808 Tom6              | High Tom2             | Mix Tom4                |
| 51  | Rock Rd Edge            | Wide Syn Cym            | Ride Cymbal1            | Ride Cymbal1          | Rock Rd Edge            |
| 52  | China Cymbal            | TR808 Cym2              | Rock Chash              | China Cymbal          | China Cymbal            |
|     | Ride Cymbal             | China Cym1              | Ride Cup                | Ride Cymbal2          | Ride Cymbal             |
| 53  | Tambourine              | Castanet                | Tambourine1             | Tambourine            | Tambourine              |
| 54  | Rock Crash              | TR808 Cym3              | Syn Swt Atk1            | SplashCymbal          | Rock Crash              |
| 55  | Cowbell                 | Syn Cowbell             | Agogo Noise             | Cowbell               | Cowbell                 |
| 56  | Concert Cym             | China Cym2              | MG Zap1                 | CrashCymbal2          | Concert Cym             |
| 57  | Vibraslap               | Syn Swt Atk1            | Syn Swt Atk2            | Vibraslap             | Vibraslap               |
| 58  | TR808 Cym               | TR909 Kick3             | TR909 Kick4             | Ride Cymbal3          | TR808 Cym               |
| 59  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C4  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 60  | Bongo1                  | Analog Kick3            | SH32 Kick3              | High Bongo1           | Bongo1                  |
| 61  | Bongo2                  | Syn Stick               | TR808 Rim2              | Low Bongo1            | Bongo2                  |
| 62  | Bongo&Conga1            | AnalogSnare2            | TR808 Snare1            | Conga Slap            | Bongo&Conga1            |
| 63  | Conga                   | TR808 Clap2             | TR808 Clap1             | OpenHi Conga          | Conga                   |
| 64  | Bongo&Conga2            | AnalogSnare3            | Analog Snare            | Low Conga1            | Bongo&Conga2            |
|     | TR808 Conga             | Shaker1                 | Mid Tom1                | High Timbale          | TR808 Conga             |
| 65  | Maracas                 | Syn CIHH1               | Noise CIHH              | Low Timbale           | Maracas                 |
| 66  | Shaker                  | Shaker2                 | Mid Tom2                | High Agogo            | Shaker                  |
| 67  | Triangle1               | Syn CIHH2               | CI Hihat3               | Low Agogo             | Triangle1               |
| 68  | Cabasa                  | Atmosphere1             | Mid Tom3                | Cabasa                | Cabasa                  |
| 69  | Guiro                   | Syn OpHH                | Op Hihat2               | Maracas               | Guiro 1                 |
| 70  | Street OpHH             | Atmosphere2             | Mid Tom4                | ShortWhistle          | Street OpHH             |
| 71  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C5  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 72  | Scratch                 | Atmosphere3             | Mid Tom5                | Long Whistle          | Scratch                 |
| 73  | Mix Atk1                | TR808 Cym4              | Rock Crash2             | Short Guiro           | Mix Atk1                |
| 74  | MG Zap                  | Atmosphere4             | Mid Tom6                | Long Guiro            | MG Zap                  |
| 75  | Syn Swt Atk1            | Mix Ride                | SplashCymbal            | Claves                | Syn Swt Atk1            |
| 76  | Syn Swt Atk2            | China Cym3              | Rock Crash3             | Hi WoodBlock          | Syn Swt Atk2            |
|     | Cuica Low               | Rock Rd Edge            | Rock Rd Edge            | LowWoodBlock          | Cuica Low               |
| 77  | Triangle2               | Syn Slap                | Tambourine2             | Mute Cuica            | Triangle2               |
| 78  | Triangle3               | MG Zap1                 | Syn Swt Atk3            | Open Cuica            | Triangle3               |
| 79  | Triangle4               | SynVox Noise            | Cowbell1                | MuteTriangle          | Triangle4               |
| 80  | Mix Hit1                | MG Zap2                 | Syn Swt Atk4            | OpenTriangle          | Guiro 2                 |
| 81  | Mix Hit2                | Syn Swt Atk2            | Cowbell2                | Shaker                | Mix Hit2                |
| 82  | Mix Hit3                | MG Zap3                 | MG Zap2                 | Castanet              | Mix Hit3                |
| 83  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C6  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 84  | Wind Chime              | 808 Maracas             | Low Bongo               | High Bongo2           | Wind Chime              |
| 85  | Timpani Roll            | TR808 Claves            | MtHigh Conga            | MtHigh Conga          | Timpani Roll            |
| 86  | Crotale                 | MuteTriangle            | Conga Slap              | Low Bongo2            | Crotale                 |
| 87  | R8 Click                | OpenTriangle            | OpHigh Conga            | Low Bongo3            | R8 Click                |
| 88  | Metro Bell              | Mix Hit                 | Op Low Conga            | Low Conga2            | Metro Bell              |
|     | DR202 Beep 1            | Scratch                 | High Timbale            | Low Tom3              | MC500 Beep 1            |
| 89  | DR202 Beep 2            | Easy Gtr                | Low Timbale             | Low Tom4              | MC500 Beep 2            |
| 90  | Sweep Down1             | Syn Bel Atk             | High Agogo              | Mix Kick1             | Sweep Down1             |
| 91  | Sweep Up                | MG Attack               | Low Agogo               | Mix Kick2             | Sweep Up                |
| 92  | Sweep Down2             | SynSnareRoll            | Cabasa                  | Mix Kick3             | Sweep Down2             |
| 93  | Light Wood              | Syn Burst Nz            | Maracas                 | Mix Kick4             | Light Wood              |
| 94  | Laser                   | White Noise             | Short Guiro             | Mix Nz1               | Laser                   |
| 95  | ----                    | ----                    | ----                    | ----                  | ----                    |
| C7  | ----                    | ----                    | ----                    | ----                  | ----                    |
| 96  | Low Atk                 | Polishing Nz            | Long Guiro              | Mix Nz2               | Low Atk                 |
| 97  | Analog Kick             | Long Guiro              | Claves                  | Mix Nz3               | Analog Kick             |
| 98  | Old Kick                | Light Wood              | LowWoodBlock            | Wind Chime            | Old Kick                |
| 99  | Mix Kick6               | Light Box               | Hi WoodBlock            | Hand Clap1            | Mix Kick6               |
| 100 | TR909 Snare             | Syn Swt Atk3            | MuteTriangle            | Hand Clap2            | TR909 Snare             |
| 101 | TR808 Snare             | Laugh                   | OpenTriangle            | ----                  | TR808 Snare             |
| 102 | Mix Snare4              | Office Phone            | Castanet                | ----                  | Mix Snare5              |
| 103 | Mix Snare5              | Polish Kick             | Whistle                 | ----                  | Mix Snare6              |
| 104 | ----                    | ----                    | ----                    | ----                  | ----                    |
| 105 | ----                    | ----                    | ----                    | ----                  | ----                    |
| 106 | ----                    | ----                    | ----                    | ----                  | ----                    |
| 107 | ----                    | ----                    | ----                    | ----                  | ----                    |
| 108 | ----                    | ----                    | ----                    | ----                  | ----                    |
| C8  | ----                    | ----                    | ----                    | ----                  | ----                    |

---- : no sound

[M] : will not sound simultaneously with other percussion instruments of the same number



|        | PRST: 0011. Ambi Pop 1 | PRST: 0012. Ambi Rock | PRST: 0013. Ambi BrushJz | PRST: 0014. Ambi HipHop | PRST: 0015. Ambi R&B |
|--------|------------------------|-----------------------|--------------------------|-------------------------|----------------------|
| 21     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 22     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 23     | ----                   | ----                  | ----                     | ----                    | ----                 |
| C1 24  | ----                   | ----                  | ----                     | ----                    | ----                 |
| 25     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 26     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 27     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 28     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 29     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 30     | ----                   | ----                  | ----                     | ----                    | ----                 |
| 31     | Kick1                  | Kick1                 | Kick1                    | Analog Kick1            | Mix Kick1            |
| 32     | Snare Ghost1           | Snare Ghost1          | Snare Ghost              | Analog Kick2            | Mix Kick2            |
| 33     | Kick2                  | Kick2                 | Kick2                    | Mix Kick1               | Mix Kick3            |
| 34     | Pedal Hihat            | Pedal Hihat           | Pedal Hi-hat             | Mix Kick2               | Mix Kick4            |
| 35     | Kick3 [M1]             | Power Kick1 [M1]      | Jazz Kick 1 [M1]         | Analog Kick3            | Mix Kick5            |
| C2 36  | Kick4                  | Power Kick2           | Jazz Kick 2              | Mix Kick3               | Mix Kick6            |
| 37     | Side Stick             | Side Stick            | Side Stick               | TR808 Rim1              | Soft Stick           |
| 38     | Snare1                 | Power Snare1          | Brush Slap1              | Mix Snare1              | Short Snare1         |
| 39     | Snare Ghost2           | Snare Ghost2          | Jz Brsh Swsh             | Mix Clap1               | Mix Stick            |
| 40     | Snare2                 | Power Snare2          | Brush Slap2              | Mix Snare2              | Short Snare2         |
| 41     | Low Tom1               | Low Tom1              | BrushLowTom              | Mix Snare3              | Short Snare3         |
| 42     | Cl Hihat1 [M1]         | Cl Hihat1 [M1]        | Brush CIHH1 [M1]         | TR808 CIHH [M1]         | Cl Hihat1 [M1]       |
| 43     | Low Tom2               | Low Tom2              | BrushMidTom1             | Mix Snare4              | Short Snare4         |
| 44     | Cl Hihat2 [M1]         | Cl Hihat2 [M1]        | Brush CIHH2 [M1]         | Noise CIHH [M1]         | Cl Hihat2 [M1]       |
| 45     | Mid Tom1               | Mid Tom1              | BrushMidTom2             | Mix Snare5              | Mix Snare1           |
| 46     | Op Hihat [M1]          | Op Hihat [M1]         | Brush OpHH [M1]          | TR808 OpHH [M1]         | Op Hihat [M1]        |
| 47     | Mid Tom2               | Mid Tom2              | BrushMidTom2             | Mix Snare6              | Mix Snare2           |
| C3 48  | High Tom1              | High Tom1             | Brush HiTom              | Syn Swt Atk1            | Mix Snare3           |
| 49     | CrashCymbal1           | CrashCymbal1          | CrashCymbal1             | TR808 Cym1              | TR808 Cym1           |
| 50     | High Tom2              | High Tom2             | Brush HiTom              | MG Attack               | Mix Snare4           |
| 51     | Ride Cymbal1           | Ride Cymbal1          | Ride Cymbal1             | TR808 Cym2              | TR808 Cym2           |
| 52     | China Cymbal           | China Cymbal          | China Cymbal             | China Cymbal            | China Cymbal         |
|        | Ride Cymbal2           | Ride Cymbal2          | Ride Cymbal2             | Rock Rd Edge            | Rock Rd Edge         |
| 53     | Tambourine             | Tambourine            | Tambourine               | Tambourine1             | Tambourine1          |
| 54     | SplashCymbal           | SplashCymbal          | SplashCymbal             | Mix Crash1              | Mix Crash1           |
| 55     | Cowbell                | Cowbell               | Cowbell                  | Mix Hat                 | Mix Hat              |
| 56     | CrashCymbal2           | CrashCymbal2          | CrashCymbal2             | Mix Crash2              | Mix Crash2           |
| 57     | Vibraslap              | Vibraslap             | Vibraslap                | Syn Swt Atk2            | Syn Swt Atk          |
| 58     | Ride Cymbal3           | Ride Cymbal3          | Ride Cymbal3             | TR808 Kick1             | TR808 Kick1          |
| C4 60  | High Bongo1            | High Bongo1           | High Bongo               | TR808 Kick2             | TR808 Kick2          |
| 61     | Low Bongo1             | Low Bongo1            | Low Bongo                | TR808 Rim2              | TR808 Rim            |
| 62     | Conga Slap             | Conga Slap            | MtHigh Conga             | TR808 Snare1            | TR808 Snare1         |
| 63     | OpenHi Conga           | OpenHi Conga          | OpHigh Conga             | TR808 Clap1             | TR808 Clap1          |
| 64     | Low Conga1             | Low Conga1            | Low Conga                | TR808 Snare2            | TR808 Snare2         |
|        | High Timbale           | High Timbale          | High Timbale             | TR808 Tom1              | TR808 Tom1           |
| 65     | Low Timbale            | Low Timbale           | Low Timbale              | TR808 CIHH [M1]         | TR808 CIHH [M1]      |
| 66     | High Agogo             | High Agogo            | High Agogo               | TR808 Tom2              | TR808 Tom2           |
| 67     | Low Agogo              | Low Agogo             | Low Agogo                | Noise CIHH [M1]         | Noise CIHH [M1]      |
| 68     | Cabasa                 | Cabasa                | Cabasa                   | TR808 Tom3              | TR808 Tom3           |
| 69     | Maracas                | Maracas               | Maracas                  | TR808 OpHH [M1]         | TR808 OpHH [M1]      |
| 70     | ShortWhistle [M2]      | ShortWhistle [M2]     | Jazz Kick 1 [M2]         | TR808 Tom4              | TR808 Tom4           |
| C5 72  | Long Whistle [M2]      | Long Whistle [M2]     | Jazz Kick 2              | TR808 Tom5              | TR808 Tom5           |
| 73     | Short Guiro [M3]       | Short Guiro [M3]      | Side Stick               | Scratch1                | Scratch1             |
| 74     | Long Guiro [M3]        | Long Guiro [M3]       | Jazz Snare1              | TR808 Tom6              | TR808 Tom6           |
| 75     | Claves                 | Claves                | Sft Snr Gst              | Scratch2                | Scratch2             |
| 76     | Hi WoodBlock           | Hi WoodBlock          | Jazz Snare2              | Hand Clap1              | Hand Clap1           |
|        | LowWoodBlock           | LowWoodBlock          | Low Tom                  | Hand Clap2              | Hand Clap2           |
| 77     | Mute Cuica [M4]        | Mute Cuica [M4]       | Cl Hihat1 [M1]           | TR808 Clap2             | TR808 Clap2          |
| 78     | Open Cuica [M4]        | Open Cuica [M4]       | Mid Tom1 [M1]            | Cabasa                  | Cabasa               |
| 79     | MuteTriangle [M5]      | MuteTriangle [M5]     | Cl Hihat2 [M1]           | Shaker1                 | Shaker1              |
| 80     | OpenTriangle [M5]      | OpenTriangle [M5]     | Mid Tom2 [M1]            | Tambourine2             | Tambourine2          |
| 81     | Shaker                 | Shaker                | Op Hihat [M1]            | Shaker2                 | Shaker2              |
| 82     | Castanet               | Castanet              | Mid Tom2                 | Castanet                | Castanet             |
| C6 84  | High Bongo2            | High Bongo2           | High Tom                 | High Bongo              | High Bongo           |
| 85     | MtHigh Conga           | MtHigh Conga          | CrashCymbal1             | MtHigh Conga            | MtHigh Conga         |
| 86     | Low Bongo2             | Low Bongo2            | High Tom                 | Low Bongo1              | Low Bongo1           |
| 87     | Low Bongo3             | Low Bongo3            | Ride Cymbal1             | Low Bongo2              | Low Bongo2           |
| 88     | Low Conga2             | Low Conga2            | China Cymbal             | Op Low Conga            | Op Low Conga         |
|        | Low Tom3               | Low Tom3              | Low Tom3                 | Low Tom1                | Low Tom1             |
| 89     | Low Tom4               | Low Tom4              | Low Tom4                 | Low Tom2                | Low Tom2             |
| 90     | Mix Kick1              | Mix Kick1             | Claves                   | Mix Kick4               | Mix Kick7            |
| 91     | Mix Kick2              | Mix Kick2             | Hi WoodBlock             | Mix Kick5               | Mix Kick8            |
| 92     | Mix Kick3              | Mix Kick3             | LowWoodBlock             | TR909 Snare             | Stream               |
| 93     | Mix Kick4              | Mix Kick4             | MuteTriangle [M5]        | Syn Burst Nz            | Bubble               |
| 94     | Mix Nz1                | Mix Nz1               | OpenTriangle [M5]        | Digi Breath             | Train                |
| C7 96  | Mix Nz2                | Mix Nz2               | Shaker                   | Mix Breath              | Wind Chime           |
| 97     | Mix Nz3                | Mix Nz3               | Castanet                 | Wide Shaker             | Syn Back Nz1         |
| 98     | Wind Chime             | Wind Chime            | Wind Chime               | JD Tuba Slap            | Syn Back Nz2         |
| 99     | Hand Clap1             | Hand Clap1            | Hand Clap 1              | Hand Clap3              | Hand Clap3           |
| 100    | Hand Clap2             | Hand Clap2            | Hand Clap 2              | Hand Clap4              | Hand Clap4           |
| 101    | ----                   | ----                  | ----                     | Door Creak              | ----                 |
| 102    | ----                   | ----                  | ----                     | Vint.Phone              | ----                 |
| 103    | ----                   | ----                  | ----                     | Polish Kick             | ----                 |
| 104    | ----                   | ----                  | ----                     | ----                    | ----                 |
| 105    | ----                   | ----                  | ----                     | ----                    | ----                 |
| 106    | ----                   | ----                  | ----                     | ----                    | ----                 |
| 107    | ----                   | ----                  | ----                     | ----                    | ----                 |
| C8 108 | ----                   | ----                  | ----                     | ----                    | ----                 |

---- : no sound

[M] : will not sound simultaneously with other percussion instruments of the same number

Performance List

|     | PRST: 0016. Ambi Dance 1 | PRST: 0017. Ambi Dance 2 | PRST: 0018. Ambi Dance 3 | PRST: 0019. Ambi Pop 2 | PRST: 0020. Ambi Dance 4 |
|-----|--------------------------|--------------------------|--------------------------|------------------------|--------------------------|
| 21  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 22  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 23  | ----                     | ----                     | ----                     | ----                   | ----                     |
| C1  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 24  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 25  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 26  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 27  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 28  | TR808 Kick               | SH32 Kick1               | TR909 Kick1              | ----                   | TR808 Kick               |
|     | Mix Kick1                | TR909 Kick1              | SH32 Kick1               | ----                   | Mix Kick1                |
| 29  | Mix Snare1               | AnalogSnare1             | Snare Ghost1             | ----                   | Mix Snare1               |
| 30  | Mix Kick2                | Analog Kick1             | Analog Kick              | Kick1                  | Mix Kick2                |
| 31  | Mix Snare2               | TR808 Snare              | TR909 Snare1             | Snare Ghost1           | Mix Snare2               |
| 32  | Mix Kick3                | SH32 Kick2               | SH32 Kick2               | Kick2                  | Mix Kick3                |
| 33  | Thin CIHH                | Pedal Hihat              | Pedal Hihat              | Pedal Hihat            | Thin CIHH                |
| 34  | Mix Kick4                | TR909 Kick2              | TR909 Kick2              | Kick3                  | Mix Kick4                |
| C2  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 36  | Mix Kick5                | Analog Kick2             | TR909 Kick3              | Kick4                  | Mix Kick5                |
| 37  | Mix Rim1                 | Synth Rim                | TR808 Rim1               | Side Stick             | Mix Rim1                 |
| 38  | Analog Snare             | TR909 Snare              | TR909 Snare2             | Snare1                 | Mix Snare3               |
| 39  | TR808 Clap               | TR808 Clap1              | TR808 Clap               | Snare Ghost2           | TR808 Clap               |
| 40  | Mix Snare3               | DistNz Snare             | TR909 Snare3             | Snare2                 | Mix Snare4               |
|     | Mix Tom1                 | Deep Tom1                | TR808 Tom1               | Low Tom1               | Mix Tom1                 |
| 41  | Mix CIHH1                | TR808 CIHH               | CI Hihat1                | CI Hihat1              | Mix CIHH1                |
| 42  | Mix Tom2                 | Deep Tom1                | TR808 Tom2               | Low Tom2               | Mix Tom2                 |
| 43  | Mix CIHH2                | TR606 OpHH               | CI Hihat2                | CI Hihat2              | Mix CIHH2                |
| 44  | Mix Tom3                 | Deep Tom2                | TR808 Tom3               | Mid Tom1               | Mix Tom3                 |
| 45  | Op Hihat                 | TR808 Cym1               | Op Hihat1                | Op Hihat               | Op Hihat                 |
| 46  | Mix Tom3                 | Deep Tom2                | TR808 Tom4               | Mid Tom2               | Mix Tom3                 |
| C3  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 48  | Mix Tom4                 | Deep Tom3                | TR808 Tom5               | High Tom1              | Mix Tom4                 |
| 49  | Crash Cymbal             | TR808 OpHH               | CrashCymbal1             | CrashCymbal1           | Crash Cymbal             |
|     | Mix Tom4                 | Deep Tom3                | TR808 Tom6               | High Tom2              | Mix Tom4                 |
| 50  | Rock Rd Edge             | Wide Syn Cym             | Ride Cymbal1             | Ride Cymbal1           | Rock Rd Edge             |
| 51  | China Cymbal             | TR808 Cym2               | Rock Chash               | China Cymbal           | China Cymbal             |
| 52  | Ride Cymbal              | China Cym1               | Ride Cup                 | Ride Cymbal2           | Ride Cymbal              |
| 53  | Tambourine               | Castanet                 | Tambourine1              | Tambourine             | Tambourine               |
| 54  | Rock Crash               | TR808 Cym3               | Syn Swt Atk1             | SplashCymbal           | Rock Crash               |
| 55  | Cowbell                  | Syn Cowbell              | Agogo Noise              | Cowbell                | Cowbell                  |
| 56  | Concert Cym              | China Cym2               | MG Zap1                  | CrashCymbal2           | Concert Cym              |
| 57  | Vibraslap                | Syn Swt Atk1             | Syn Swt Atk2             | Vibraslap              | Vibraslap                |
| 58  | TR808 Cym                | TR909 Kick3              | TR909 Kick4              | Ride Cymbal3           | TR808 Cym                |
| C4  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 60  | Bongo1                   | Analog Kick3             | SH32 Kick3               | High Bongo1            | Bongo1                   |
| 61  | Bongo2                   | Syn Stick                | TR808 Rim2               | Low Bongo1             | Bongo2                   |
| 62  | Bongo&Conga1             | AnalogSnare2             | TR808 Snare1             | Conga Slap             | Bongo&Conga1             |
| 63  | Conga                    | TR808 Clap2              | TR808 Clap1              | OpenHi Conga           | Conga                    |
| 64  | Bongo&Conga2             | AnalogSnare3             | Analog Snare             | Low Conga1             | Bongo&Conga2             |
|     | TR808 Conga              | Shaker1                  | Mid Tom1                 | High Timbale           | TR808 Conga              |
| 65  | Maracas                  | Syn CIHH1                | Noise CIHH               | Low Timbale            | Maracas                  |
| 66  | Shaker                   | Shaker2                  | Mid Tom2                 | High Agogo             | Shaker                   |
| 67  | Triangle1                | Syn CIHH2                | CI Hihat3                | Low Agogo              | Triangle1                |
| 68  | Cabasa                   | Atmosphere1              | Mid Tom3                 | Cabasa                 | Cabasa                   |
| 69  | Guiro                    | Syn OpHH                 | Op Hihat2                | Maracas                | Guiro 1                  |
| 70  | Street OpHH              | Atmosphere2              | Mid Tom4                 | ShortWhistle           | Street OpHH              |
| C5  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 72  | Scratch                  | Atmosphere3              | Mid Tom5                 | Long Whistle           | Scratch                  |
| 73  | Mix Atk1                 | TR808 Cym4               | Rock Crash2              | Short Guiro            | Mix Atk1                 |
| 74  | MG Zap                   | Atmosphere4              | Mid Tom6                 | Long Guiro             | MG Zap                   |
| 75  | Syn Swt Atk1             | Mix Ride                 | SplashCymbal             | Claves                 | Syn Swt Atk1             |
| 76  | Syn Swt Atk2             | China Cym3               | Rock Crash3              | Hi WoodBlock           | Syn Swt Atk2             |
|     | Cuica Low                | Rock Rd Edge             | Rock Rd Edge             | LowWoodBlock           | Cuica Low                |
| 77  | Triangle2                | Syn Slap                 | Tambourine2              | Mute Cuica             | Triangle2                |
| 78  | Triangle3                | MG Zap1                  | Syn Swt Atk3             | Open Cuica             | Triangle3                |
| 79  | Triangle4                | SynVox Noise             | Cowbell1                 | MuteTriangle           | Triangle4                |
| 80  | Mix Hit1                 | MG Zap2                  | Syn Swt Atk4             | OpenTriangle           | Guiro 2                  |
| 81  | Mix Hit2                 | Syn Swt Atk2             | Cowbell2                 | Shaker                 | Mix Hit2                 |
| 82  | Mix Hit3                 | MG Zap3                  | MG Zap2                  | Castanet               | Mix Hit3                 |
| C6  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 84  | Wind Chime               | 808 Maracas              | Low Bongo                | High Bongo2            | Wind Chime               |
| 85  | Timpani Roll             | TR808 Claves             | MtHigh Conga             | MtHigh Conga           | Timpani Roll             |
| 86  | Crotale                  | MuteTriangle             | Conga Slap               | Low Bongo2             | Crotale                  |
| 87  | R8 Click                 | OpenTriangle             | OpHigh Conga             | Low Bongo3             | R8 Click                 |
| 88  | Metro Bell               | Mix Hit                  | Op Low Conga             | Low Conga2             | Metro Bell               |
|     | DR202 Beep 1             | Scratch                  | High Timbale             | Low Tom3               | MC500 Beep 1             |
| 89  | DR202 Beep 2             | Easy Gtr                 | Low Timbale              | Low Tom4               | MC500 Beep 2             |
| 90  | Sweep Down1              | Syn Bel Atk              | High Agogo               | Mix Kick1              | Sweep Down1              |
| 91  | Sweep Up                 | MG Attack                | Low Agogo                | Mix Kick2              | Sweep Up                 |
| 92  | Sweep Down2              | SynSnareRoll             | Cabasa                   | Mix Kick3              | Sweep Down2              |
| 93  | Light Wood               | Syn Burst Nz             | Maracas                  | Mix Kick4              | Light Wood               |
| 94  | Laser                    | White Noise              | Short Guiro              | Mix Nz1                | Laser                    |
| C7  | ----                     | ----                     | ----                     | ----                   | ----                     |
| 96  | Low Atk                  | Polishing Nz             | Long Guiro               | Mix Nz2                | Low Atk                  |
| 97  | Analog Kick              | Long Guiro               | Claves                   | Mix Nz3                | Analog Kick              |
| 98  | Old Kick                 | Light Wood               | LowWoodBlock             | Wind Chime             | Old Kick                 |
| 99  | Mix Kick6                | Light Box                | Hi WoodBlock             | Hand Clap1             | Mix Kick6                |
| 100 | TR909 Snare              | Syn Swt Atk3             | MuteTriangle             | Hand Clap2             | TR909 Snare              |
| 101 | TR808 Snare              | Laugh                    | OpenTriangle             | ----                   | TR808 Snare              |
| 102 | Mix Snare4               | Office Phone             | Castanet                 | ----                   | Mix Snare5               |
| 103 | Mix Snare5               | Polish Kick              | Whistle                  | ----                   | Mix Snare6               |
| 104 | ----                     | ----                     | ----                     | ----                   | ----                     |
| 105 | ----                     | ----                     | ----                     | ----                   | ----                     |
| 106 | ----                     | ----                     | ----                     | ----                   | ----                     |
| 107 | ----                     | ----                     | ----                     | ----                   | ----                     |
| C8  | 108                      | ----                     | ----                     | ----                   | ----                     |

---- : no sound

[M] : will not sound simultaneously with other percussion instruments of the same number

|        | PRST: 0021. Latin Menu | GM: 0001. GM2 STANDARD | GM: 0002. GM2 ROOM | GM: 0003. GM2 POWER | GM: 0004. GM2 ELECTRIC |
|--------|------------------------|------------------------|--------------------|---------------------|------------------------|
| C1 21  | ----                   | ----                   | ----               | ----                | ----                   |
| 22     | ----                   | ----                   | ----               | ----                | ----                   |
| 23     | ----                   | ----                   | ----               | ----                | ----                   |
| 24     | ----                   | ----                   | ----               | ----                | ----                   |
| 25     | ----                   | ----                   | ----               | ----                | ----                   |
| 26     | ----                   | ----                   | ----               | ----                | ----                   |
| 27     | ----                   | ----                   | ----               | ----                | ----                   |
| 28     | High Q                 | High Q                 | High Q             | High Q              | High Q                 |
|        | Slap                   | Slap                   | Slap               | Slap                | Slap                   |
| 29     | Scratch Push [M7]      | Scratch Push [M7]      | Scratch Push [M7]  | Scratch Push [M7]   | Scratch Push [M7]      |
| 30     | Scratch Pull [M7]      | Scratch Pull [M7]      | Scratch Pull [M7]  | Scratch Pull [M7]   | Scratch Pull [M7]      |
| 31     | Sticks                 | Sticks                 | Sticks             | Sticks              | Sticks                 |
| 32     | Square Click           | Square Click           | Square Click       | Square Click        | Square Click           |
| 33     | Metron Click           | Metron Click           | Metron Click       | Metron Click        | Metron Click           |
| 34     | Metron Bell            | Metron Bell            | Metron Bell        | Metron Bell         | Metron Bell            |
| 35     | Kick Drum 2            | Kick Drum 2            | Kick Drum 2        | Power Kick 2        | Kick Drum 2            |
| C2 36  | Agogo 2 Hi             | Kick Drum 1            | Kick Drum 1        | Power Kick 1        | Elec.Kick 1            |
| 37     | Agogo 2 Lo             | Side Stick             | Side Stick         | Side Stick          | Side Stick             |
| 38     | Agogo 3 Hi             | Aco.Snare              | Aco.Snare          | PowerSnareDr        | E.SnareDrum1           |
| 39     | Agogo 3 Lo             | Hand Clap              | Hand Clap          | Hand Clap           | Hand Clap              |
| 40     | ApitoHiShort           | Elec.Snare             | Elec.Snare         | Elec.Snare          | E.SnareDrum2           |
|        | ApitoLoShort           | Room LowTom 2          | Room LowTom2       | PowerLowTom2        | E.Low Tom 2            |
| 41     | Berimbau Dn            | ClosedHi-hat [M1]      | ClosedHi-hat [M1]  | ClosedHi-hat [M1]   | ClosedHi-hat [M1]      |
| 42     | Berimbau Mut           | Low Tom 1              | Room LowTom1       | PowerLowTom1        | E.Low Tom 1            |
| 43     | Berimbau Opn           | Pedal Hi-hat [M1]      | Pedal Hi-hat [M1]  | Pedal Hi-hat [M1]   | Pedal Hi-hat [M1]      |
| 44     | Berimbau Up            | Mid Tom 2              | Room MidTom2       | PowerMidTom2        | E.Mid Tom 2            |
| 45     | Bongo 1 Hi             | Open Hi-hat [M1]       | Open Hi-hat [M1]   | Open Hi-hat [M1]    | Open Hi-hat [M1]       |
| 46     | Bongo 1 Lo             | Mid Tom 1              | Room MidTom1       | PowerMidTom1        | E.Mid Tom 1            |
| C3 48  | Bongo 2 Hi             | High Tom 2             | Room Hi Tom2       | Power HiTom2        | E.Hi Tom 2             |
| 49     | Bongo 2 Lo             | CrashCymbal1           | CrashCymbal1       | CrashCymbal1        | CrashCymbal1           |
| 50     | Bongo Hi Hrd           | High Tom 1             | Room Hi Tom1       | Power HiTom1        | E.Hi Tom 1             |
| 51     | Bongo HiOp f           | Ride Cymbal1           | Ride Cymbal1       | Ride Cymbal1        | Ride Cymbal1           |
| 52     | Bongo Lo Hrd           | China Cymbal           | China Cymbal       | China Cymbal        | Reverse Cym.           |
|        | Bongo Lo Sft           | Ride Bell              | Ride Bell          | Ride Bell           | Ride Bell              |
| 53     | Bongo LoOp f           | Tambourine             | Tambourine         | Tambourine          | Tambourine             |
| 54     | Bongo LoOpmf           | SplashCymbal           | SplashCymbal       | SplashCymbal        | SplashCymbal           |
| 55     | Bongo LoSlap           | Cowbell                | Cowbell            | Cowbell             | Cowbell                |
| 56     | BongoBell Mt           | CrashCymbal2           | CrashCymbal2       | CrashCymbal2        | CrashCymbal2           |
| 57     | BongoBell Op           | Vibra-slap             | Vibra-slap         | Vibra-slap          | Vibra-slap             |
| 58     | BongoHiSlap1           | Ride Cymbal2           | Ride Cymbal2       | Ride Cymbal2        | Ride Cymbal2           |
| C4 60  | BongoHiSlap2           | High Bongo             | High Bongo         | High Bongo          | High Bongo             |
| 61     | Cabasa Roll            | Low Bongo              | Low Bongo          | Low Bongo           | Low Bongo              |
| 62     | Caixa Mute             | MuteHi Conga           | MuteHi Conga       | MuteHi Conga        | MuteHi Conga           |
| 63     | Caixa Mute2            | OpenHi Conga           | OpenHi Conga       | OpenHi Conga        | OpenHi Conga           |
| 64     | Caixa Open1            | Low Conga              | Low Conga          | Low Conga           | Low Conga              |
|        | Caixa Open2            | High Timbale           | High Timbale       | High Timbale        | High Timbale           |
| 65     | Caixa Open3            | Low Timbale            | Low Timbale        | Low Timbale         | Low Timbale            |
| 66     | Caixa Rim              | High Agogo             | High Agogo         | High Agogo          | High Agogo             |
| 67     | Caixa Roll             | Low Agogo              | Low Agogo          | Low Agogo           | Low Agogo              |
| 68     | Caixa Roll2            | Cabasa                 | Cabasa             | Cabasa              | Cabasa                 |
| 69     | Cajon Hi               | Maracas                | Maracas            | Maracas             | Maracas                |
| 70     | Cajon Lo               | ShortWhistle [M2]      | ShortWhistle [M2]  | ShortWhistle [M2]   | ShortWhistle [M2]      |
| C5 72  | Cajon Rol Hi           | Long Whistle [M2]      | Long Whistle [M2]  | Long Whistle [M2]   | Long Whistle [M2]      |
| 73     | Cajon Rol Lo           | Short Guiro [M3]       | Short Guiro [M3]   | Short Guiro [M3]    | Short Guiro [M3]       |
| 74     | Caxixi                 | Long Guiro [M3]        | Long Guiro [M3]    | Long Guiro [M3]     | Long Guiro [M3]        |
| 75     | Chekere 1              | Claves                 | Claves             | Claves              | Claves                 |
| 76     | Chekere 2              | Hi WoodBlock           | Hi WoodBlock       | Hi WoodBlock        | Hi WoodBlock           |
|        | Chekere 3              | LowWoodBlock           | LowWoodBlock       | LowWoodBlock        | LowWoodBlock           |
| 77     | Clave!                 | Mute Cuica [M4]        | Mute Cuica [M4]    | Mute Cuica [M4]     | Mute Cuica [M4]        |
| 78     | Claves Lo 2            | Open Cuica [M4]        | Open Cuica [M4]    | Open Cuica [M4]     | Open Cuica [M4]        |
| 79     | Conga Hi Mt            | MuteTriangle [M5]      | MuteTriangle [M5]  | MuteTriangle [M5]   | MuteTriangle [M5]      |
| 80     | Conga Hi Op            | OpenTriangle [M5]      | OpenTriangle [M5]  | OpenTriangle [M5]   | OpenTriangle [M5]      |
| 81     | Conga Link             | Shaker                 | Shaker             | Shaker              | Shaker                 |
| 82     | Conga Lo Mt            | Jingle Bell            | Jingle Bell        | Jingle Bell         | Jingle Bell            |
| C6 84  | Conga Roll             | Bell Tree              | Bell Tree          | Bell Tree           | Bell Tree              |
| 85     | Conga Slap             | Castanets              | Castanets          | Castanets           | Castanets              |
| 86     | Conga Thumb            | Mute Surdo [M6]        | Mute Surdo [M6]    | Mute Surdo [M6]     | Mute Surdo [M6]        |
| 87     | CongaLoOp f            | Open Surdo [M6]        | Open Surdo [M6]    | Open Surdo [M6]     | Open Surdo [M6]        |
| 88     | CongaLoOp mf           | ----                   | ----               | ----                | ----                   |
|        | Cowbell 1              | ----                   | ----               | ----                | ----                   |
| 89     | Cowbell 2              | ----                   | ----               | ----                | ----                   |
| 90     | Cowbell 3              | ----                   | ----               | ----                | ----                   |
| 91     | Cowbell Mt 1           | ----                   | ----               | ----                | ----                   |
| 92     | Cowbell Mt 2           | ----                   | ----               | ----                | ----                   |
| 93     | Cowbell Op 1           | ----                   | ----               | ----                | ----                   |
| 94     | Cowbell Op 2           | ----                   | ----               | ----                | ----                   |
| C7 96  | ----                   | ----                   | ----               | ----                | ----                   |
| 97     | ----                   | ----                   | ----               | ----                | ----                   |
| 98     | ----                   | ----                   | ----               | ----                | ----                   |
| 99     | ----                   | ----                   | ----               | ----                | ----                   |
| 100    | ----                   | ----                   | ----               | ----                | ----                   |
| 101    | ----                   | ----                   | ----               | ----                | ----                   |
| 102    | ----                   | ----                   | ----               | ----                | ----                   |
| 103    | ----                   | ----                   | ----               | ----                | ----                   |
| 104    | ----                   | ----                   | ----               | ----                | ----                   |
| 105    | ----                   | ----                   | ----               | ----                | ----                   |
| 106    | ----                   | ----                   | ----               | ----                | ----                   |
| 107    | ----                   | ----                   | ----               | ----                | ----                   |
| C8 108 | ----                   | ----                   | ----               | ----                | ----                   |

----: no sound

[M]: will not sound simultaneously with other percussion instruments of the same number

Performance List

|     | GM: 0005. GM2 ANALOG | GM: 0006. GM2 JAZZ | GM: 0007. GM2 BRUSH | GM: 0008. GM2 ORCHSTRA | GM: 0009. GM2 SFX |
|-----|----------------------|--------------------|---------------------|------------------------|-------------------|
| 21  | ----                 | ----               | ----                | ----                   | ----              |
| 22  | ----                 | ----               | ----                | ----                   | ----              |
| 23  | ----                 | ----               | ----                | ----                   | ----              |
| C1  | ----                 | ----               | ----                | ----                   | ----              |
| 24  | ----                 | ----               | ----                | ----                   | ----              |
| 25  | ----                 | ----               | ----                | ----                   | ----              |
| 26  | ----                 | ----               | ----                | ----                   | ----              |
| 27  | High Q               | High Q             | High Q              | ClosedHi-hat [M1]      | ----              |
| 28  | Slap                 | Slap               | Slap                | Pedal Hi-hat [M1]      | ----              |
| 29  | Scratch Push [M7]    | Scratch Push [M7]  | Scratch Push [M7]   | Open Hi-hat [M1]       | ----              |
| 30  | Scratch Pull [M7]    | Scratch Pull [M7]  | Scratch Pull [M7]   | Ride Cymbal1           | ----              |
| 31  | Sticks               | Sticks             | Sticks              | Sticks                 | ----              |
| 32  | Square Click         | Square Click       | Square Click        | Square Click           | ----              |
| 33  | Metron Click         | Metron Click       | Metron Click        | Metron Click           | ----              |
| 34  | Metron Bell          | Metron Bell        | Metron Bell         | Metron Bell            | ----              |
| 35  | Kick Drum 2          | Jazz Kick 2        | Jazz Kick 2         | Concert BD 2           | ----              |
| C2  | ----                 | ----               | ----                | ----                   | ----              |
| 36  | Ana.Kick 1           | Jazz Kick 1        | Jazz Kick 1         | Concert BD 1           | ----              |
| 37  | Ana.Rim Sho          | Side Stick         | Side Stick          | Side Stick             | ----              |
| 38  | Ana.Snare 1          | Aco.Snare          | Brush Tap           | Concert SD             | ----              |
| 39  | Hand Clap            | Hand Clap          | Brush Slap          | Castanets              | High Q            |
| 40  | Elec.Snare           | Elec.Snare         | Brush Swirl         | Concert SD             | Slap              |
| 41  | Ana.Low Tom2         | Low Tom 2          | BrushLowTom2        | Timpani F              | Scratch Push [M7] |
| 42  | Ana.ClosedHH [M1]    | ClosedHi-hat [M1]  | ClosedHi-hat [M1]   | Timpani F#             | Scratch Pull [M7] |
| 43  | Ana.Low Tom1         | Low Tom 1          | BrushLowTom1        | Timpani G              | Sticks            |
| 44  | Ana.ClosedHH [M1]    | Pedal Hi-hat [M1]  | Pedal Hi-hat [M1]   | Timpani G#             | Square Click      |
| 45  | Ana.Mid Tom2         | Mid Tom 2          | BrushMidTom2        | Timpani A              | Metron Click      |
| 46  | Ana.Open HH [M1]     | Open Hi-hat [M1]   | Open Hi-hat [M1]    | Timpani A#             | Metron Bell       |
| 47  | Ana.Mid Tom1         | Mid Tom 1          | BrushMidTom1        | Timpani B              | GtFret Noise      |
| C3  | ----                 | ----               | ----                | ----                   | ----              |
| 48  | Ana.Hi Tom2          | High Tom 2         | Brush HiTom2        | Timpani c              | Cut Noise Up      |
| 49  | Ana.Cymbal           | CrashCymbal1       | CrashCymbal1        | Timpani c#             | Cut Noise Dw      |
| 50  | Ana.Hi Tom1          | High Tom 1         | Brush HiTom1        | Timpani d              | Slap_St.Bass      |
| 51  | Ride Cymbal1         | Ride Cymbal1       | Ride Cymbal1        | Timpani d#             | Fl.Key Click      |
| 52  | China Cymbal         | China Cymbal       | China Cymbal        | Timpani e              | Laughing          |
|     | Ride Bell            | Ride Bell          | Ride Bell           | Timpani f              | Scream            |
| 53  | Tambourine           | Tambourine         | Tambourine          | Tambourine             | Punch             |
| 54  | SplashCymbal         | SplashCymbal       | SplashCymbal        | SplashCymbal           | Heart Beat        |
| 55  | Ana.Cowbell          | Cowbell            | Cowbell             | Cowbell                | Footsteps 1       |
| 56  | CrashCymbal2         | CrashCymbal2       | CrashCymbal2        | Concert Cym2           | Footsteps 2       |
| 57  | Vibra-slap           | Vibra-slap         | Vibra-slap          | Vibra-slap             | Applause          |
| 58  | Ride Cymbal2         | Ride Cymbal2       | Ride Cymbal2        | Concert Cym1           | Door Creak        |
| 59  | ----                 | ----               | ----                | ----                   | ----              |
| C4  | ----                 | ----               | ----                | ----                   | ----              |
| 60  | High Bongo           | High Bongo         | High Bongo          | High Bongo             | Door              |
| 61  | Low Bongo            | Low Bongo          | Low Bongo           | Low Bongo              | Scratch           |
| 62  | Ana.Hi Conga         | MuteHi Conga       | MuteHi Conga        | MuteHi Conga           | Wind Chimes       |
| 63  | Ana.MidConga         | OpenHi Conga       | OpenHi Conga        | OpenHi Conga           | Car-Engine        |
| 64  | Ana.LowConga         | Low Conga          | Low Conga           | Low Conga              | Car-Stop          |
| 65  | High Timbale         | High Timbale       | High Timbale        | High Timbale           | Car-Pass          |
| 66  | Low Timbale          | Low Timbale        | Low Timbale         | Low Timbale            | Car-Crash         |
| 67  | High Agogo           | High Agogo         | High Agogo          | High Agogo             | Siren             |
| 68  | Low Agogo            | Low Agogo          | Low Agogo           | Low Agogo              | Train             |
| 69  | Cabasa               | Cabasa             | Cabasa              | Cabasa                 | Jetplane          |
| 70  | Ana.Maracas          | Maracas            | Maracas             | Maracas                | Helicopter        |
| 71  | ShortWhistle [M2]    | ShortWhistle [M2]  | ShortWhistle [M2]   | ShortWhistle [M2]      | Starship          |
| C5  | ----                 | ----               | ----                | ----                   | ----              |
| 72  | Long Whistle [M2]    | Long Whistle [M2]  | Long Whistle [M2]   | Long Whistle [M2]      | Gun Shot          |
| 73  | Short Guiro [M3]     | Short Guiro [M3]   | Short Guiro [M3]    | Short Guiro [M3]       | Machine Gun       |
| 74  | Long Guiro [M3]      | Long Guiro [M3]    | Long Guiro [M3]     | Long Guiro [M3]        | Lasergun          |
| 75  | Ana.Claves           | Claves             | Claves              | Claves                 | Explosion         |
| 76  | Hi WoodBlock         | Hi WoodBlock       | Hi WoodBlock        | Hi WoodBlock           | Dog               |
|     | LowWoodBlock         | LowWoodBlock       | LowWoodBlock        | LowWoodBlock           | Horse-Gallop      |
| 77  | Mute Cuica [M4]      | Mute Cuica [M4]    | Mute Cuica [M4]     | Mute Cuica [M4]        | Birds             |
| 78  | Open Cuica [M4]      | Open Cuica [M4]    | Open Cuica [M4]     | Open Cuica [M4]        | Rain              |
| 79  | MuteTriangle [M5]    | MuteTriangle [M5]  | MuteTriangle [M5]   | MuteTriangle [M5]      | Thunder           |
| 80  | OpenTriangle [M5]    | OpenTriangle [M5]  | OpenTriangle [M5]   | OpenTriangle [M5]      | Wind              |
| 81  | Shaker               | Shaker             | Shaker              | Shaker                 | Seashore          |
| 82  | Jingle Bell          | Jingle Bell        | Jingle Bell         | Jingle Bell            | Stream            |
| 83  | ----                 | ----               | ----                | ----                   | ----              |
| C6  | ----                 | ----               | ----                | ----                   | ----              |
| 84  | Bell Tree            | Bell Tree          | Bell Tree           | Bell Tree              | Bubble            |
| 85  | Castanets            | Castanets          | Castanets           | Castanets              | ----              |
| 86  | Mute Surdo [M6]      | Mute Surdo [M6]    | Mute Surdo [M6]     | Mute Surdo [M6]        | ----              |
| 87  | Open Surdo [M6]      | Open Surdo [M6]    | Open Surdo [M6]     | Open Surdo [M6]        | ----              |
| 88  | ----                 | ----               | ----                | Applause               | ----              |
| 89  | ----                 | ----               | ----                | ----                   | ----              |
| 90  | ----                 | ----               | ----                | ----                   | ----              |
| 91  | ----                 | ----               | ----                | ----                   | ----              |
| 92  | ----                 | ----               | ----                | ----                   | ----              |
| 93  | ----                 | ----               | ----                | ----                   | ----              |
| 94  | ----                 | ----               | ----                | ----                   | ----              |
| 95  | ----                 | ----               | ----                | ----                   | ----              |
| C7  | ----                 | ----               | ----                | ----                   | ----              |
| 96  | ----                 | ----               | ----                | ----                   | ----              |
| 97  | ----                 | ----               | ----                | ----                   | ----              |
| 98  | ----                 | ----               | ----                | ----                   | ----              |
| 99  | ----                 | ----               | ----                | ----                   | ----              |
| 100 | ----                 | ----               | ----                | ----                   | ----              |
| 101 | ----                 | ----               | ----                | ----                   | ----              |
| 102 | ----                 | ----               | ----                | ----                   | ----              |
| 103 | ----                 | ----               | ----                | ----                   | ----              |
| 104 | ----                 | ----               | ----                | ----                   | ----              |
| 105 | ----                 | ----               | ----                | ----                   | ----              |
| 106 | ----                 | ----               | ----                | ----                   | ----              |
| 107 | ----                 | ----               | ----                | ----                   | ----              |
| C8  | ----                 | ----               | ----                | ----                   | ----              |
| 108 | ----                 | ----               | ----                | ----                   | ----              |

---- : no sound

[M]: will not sound simultaneously with other percussion instruments of the same number

# Rhythm Pattern List

| No. | Group     | Pattern   | No. | Group    | Pattern   | No. | Group     | Pattern | No. | Group            | Pattern  |
|-----|-----------|-----------|-----|----------|-----------|-----|-----------|---------|-----|------------------|----------|
| 001 | Pop 1     | 1-a (120) | 009 | Pop 8    | 9-a (125) | 017 | R&B       | 1 (140) | 025 | 6/8 SlwJazzWaltz | 1-a (80) |
|     |           | 1-b (120) |     |          | 9-b (125) |     |           | 2 (140) |     |                  | 1-b (80) |
|     |           | 1-c (120) |     |          | 9-c (125) |     |           | 3 (140) |     |                  | 1-c (80) |
|     |           | 1-d (120) |     |          | 9-d (125) |     |           | 4 (140) |     |                  | 1-d (80) |
|     |           | 1-e (120) |     |          | 9-e (125) |     |           | 5 (140) |     |                  | 2-a (80) |
|     |           | 1-f (120) |     |          | 9-f (125) |     |           | 6 (140) |     |                  | 2-b (80) |
|     |           | 1-g (120) |     |          | 9-g (125) |     |           | 7 (140) |     |                  | 2-c (80) |
|     |           | 1-h (120) |     |          | 9-h (125) |     |           | 8 (140) |     |                  | 2-d (80) |
| 002 | Pop 2     | 2-a (120) | 010 | Rock 1   | 1-a (120) | 018 | Reggae    | 1 (105) | 026 | 6/8 Shuffle      | 1-a (90) |
|     |           | 2-b (120) |     |          | 1-b (120) |     |           | 2 (94)  |     |                  | 1-b (90) |
|     |           | 2-c (120) |     |          | 1-c (120) |     |           | 3 (94)  |     |                  | 1-c (90) |
|     |           | 2-d (120) |     |          | 1-d (120) |     |           | 4 (90)  |     |                  | 1-d (90) |
|     |           | 2-e (120) |     |          | 1-e (120) |     |           | 5 (89)  |     |                  | 2-a (90) |
|     |           | 2-f (120) |     |          | 1-f (120) |     |           | 6 (105) |     |                  | 2-b (90) |
|     |           | 2-g (120) |     |          | 1-g (120) |     |           | 7 (105) |     |                  | 2-c (90) |
|     |           | 2-h (120) |     |          | 1-h (120) |     |           | 8 (100) |     |                  | 2-d (90) |
| 003 | Pop 3     | 3-a (150) | 011 | Rock 2   | 2-a (114) | 019 | Trance 1  | 1 (140) | 027 | 6/8 Pop 2        | 1-a (64) |
|     |           | 3-b (150) |     |          | 2-b (114) |     |           | 2 (138) |     |                  | 1-b (64) |
|     |           | 3-c (150) |     |          | 2-c (114) |     |           | 3 (142) |     |                  | 1-c (64) |
|     |           | 3-d (150) |     |          | 2-d (114) |     |           | 4 (142) |     |                  | 1-d (64) |
|     |           | 3-e (150) |     |          | 2-e (114) |     |           | 5 (142) |     |                  | 2-a (64) |
|     |           | 3-f (150) |     |          | 2-f (114) |     |           | 6 (142) |     |                  | 2-b (64) |
|     |           | 3-g (150) |     |          | 2-g (114) |     |           | 7 (138) |     |                  | 2-c (64) |
|     |           | 3-h (150) |     |          | 2-h (114) |     |           | 8 (138) |     |                  | 2-d (64) |
| 004 | Pop 4     | 4-a (120) | 012 | Funk     | 1 (115)   | 020 | Trance 2  | 1 (143) | 028 | Machine Beat 1   | 1 (100)  |
|     |           | 4-b (120) |     |          | 2 (115)   |     |           | 2 (142) |     |                  | 2 (100)  |
|     |           | 4-c (120) |     |          | 3 (115)   |     |           | 3 (135) |     |                  | 3 (140)  |
|     |           | 4-d (120) |     |          | 4 (115)   |     |           | 4 (140) |     |                  | 4 (140)  |
|     |           | 4-e (120) |     |          | 5 (115)   |     |           | 5 (130) |     |                  | 5 (160)  |
|     |           | 4-f (120) |     |          | 6 (115)   |     |           | 6 (154) |     |                  | 6 (160)  |
|     |           | 4-g (120) |     |          | 7 (115)   |     |           | 7 (140) |     |                  | 7 (136)  |
|     |           | 4-h (120) |     |          | 8 (115)   |     |           | 8 (138) |     |                  | 8 (160)  |
| 005 | Pop 5     | 5-a (103) | 013 | Fusion   | 1 (100)   | 021 | House 1   | 1 (126) | 029 | Machine Beat 2   | 1 (130)  |
|     |           | 5-b (103) |     |          | 2 (100)   |     |           | 2 (126) |     |                  | 2 (130)  |
|     |           | 5-c (103) |     |          | 3 (100)   |     |           | 3 (124) |     |                  | 3 (130)  |
|     |           | 5-d (103) |     |          | 4 (100)   |     |           | 4 (128) |     |                  | 4 (140)  |
|     |           | 5-e (103) |     |          | 5 (100)   |     |           | 5 (125) |     |                  | 5 (140)  |
|     |           | 5-f (103) |     |          | 6 (100)   |     |           | 6 (128) |     |                  | 6 (140)  |
|     |           | 5-g (103) |     |          | 7 (100)   |     |           | 7 (126) |     |                  | 7 (175)  |
|     |           | 5-h (103) |     |          | 8 (100)   |     |           | 8 (126) |     |                  | 8 (160)  |
| 006 | Pop 6     | 6-a (96)  | 014 | 6/8 Jazz | 1 (136)   | 022 | House 2   | 1 (125) | 030 | Machine Beat 3   | 1 (130)  |
|     |           | 6-b (96)  |     |          | 2 (136)   |     |           | 2 (130) |     |                  | 2 (130)  |
|     |           | 6-c (96)  |     |          | 3 (136)   |     |           | 3 (134) |     |                  | 3 (130)  |
|     |           | 6-d (96)  |     |          | 4 (136)   |     |           | 4 (127) |     |                  | 4 (130)  |
|     |           | 6-e (96)  |     |          | 5 (136)   |     |           | 5 (128) |     |                  | 5 (130)  |
|     |           | 6-f (96)  |     |          | 6 (136)   |     |           | 6 (128) |     |                  | 6 (130)  |
|     |           | 6-g (96)  |     |          | 7 (136)   |     |           | 7 (128) |     |                  | 7 (130)  |
|     |           | 6-h (96)  |     |          | 8 (136)   |     |           | 8 (128) |     |                  | 8 (130)  |
| 007 | Pop 7     | 7-a (104) | 015 | Bossa    | 1 (160)   | 023 | Drum'n Bs | 1 (170) | 024 | Disco            | 1 (125)  |
|     |           | 7-b (104) |     |          | 2 (160)   |     |           | 2 (160) |     |                  | 2 (125)  |
|     |           | 7-c (104) |     |          | 3 (160)   |     |           | 3 (180) |     |                  | 3 (125)  |
|     |           | 7-d (104) |     |          | 4 (160)   |     |           | 4 (160) |     |                  | 4 (120)  |
|     |           | 7-e (104) |     |          | 5 (160)   |     |           | 5 (170) |     |                  | 5 (130)  |
|     |           | 7-f (104) |     |          | 6 (160)   |     |           | 6 (170) |     |                  | 6 (124)  |
|     |           | 7-g (104) |     |          | 7 (160)   |     |           | 7 (170) |     |                  | 7 (125)  |
|     |           | 7-h (104) |     |          | 8 (160)   |     |           | 8 (170) |     |                  | 8 (125)  |
| 008 | 6/8 Pop 1 | 8-a (110) | 016 | Hip Hop  | 1 (95)    | 024 | Disco     | 1 (125) | 024 | Disco            | 1 (125)  |
|     |           | 8-b (110) |     |          | 2 (95)    |     |           | 2 (125) |     |                  | 2 (125)  |
|     |           | 8-c (110) |     |          | 3 (95)    |     |           | 3 (125) |     |                  | 3 (125)  |
|     |           | 8-d (110) |     |          | 4 (95)    |     |           | 4 (120) |     |                  | 4 (120)  |
|     |           | 8-e (110) |     |          | 5 (95)    |     |           | 5 (130) |     |                  | 5 (130)  |
|     |           | 8-f (110) |     |          | 6 (95)    |     |           | 6 (124) |     |                  | 6 (124)  |
|     |           | 8-g (110) |     |          | 7 (95)    |     |           | 7 (125) |     |                  | 7 (125)  |
|     |           | 8-h (110) |     |          | 8 (95)    |     |           | 8 (95)  |     |                  | 8 (125)  |

( ) : Recommended tempo

# Pattern List

| No. | Name        |
|-----|-------------|
| 001 | Chiptune 1  |
| 002 | Chiptune 2  |
| 003 | Synth Pop 1 |
| 004 | Synth Pop 2 |
| 005 | Pop EDM 1   |
| 006 | Pop EDM 2   |
| 007 | Pop EDM 3   |
| 008 | Pop EDM 4   |

| No. | Name        |
|-----|-------------|
| 009 | Pop EDM 5   |
| 010 | Pop EDM 6   |
| 011 | Pop EDM 7   |
| 012 | Drum&Bass 1 |
| 013 | Drum&Bass 2 |
| 014 | Electro.H 1 |
| 015 | Electro.H 2 |
| 016 | ProgTrance  |

| No. | Name        |
|-----|-------------|
| 017 | Electro 1   |
| 018 | Electro 2   |
| 019 | TechHouse 1 |
| 020 | TechHouse 2 |
| 021 | Trap 1      |
| 022 | Trap 2      |
| 023 | Trap 3      |
| 024 | Trap 4      |

| No. | Name    |
|-----|---------|
| 025 | Trap 5  |
| 026 | Trap 6  |
| 027 | House 1 |
| 028 | House 2 |
| 029 | EDM 1   |
| 030 | EDM 2   |
| 031 | EDM 3   |
| 032 | EDM 4   |

# Arpeggio Style List

| No. | Name           |
|-----|----------------|
| 001 | Basic 1 (a)    |
| 002 | Basic 2 (a)    |
| 003 | Basic 3 (a)    |
| 004 | Basic 4 (a)    |
| 005 | Basic 5 (a)    |
| 006 | Basic 6 (a)    |
| 007 | Seq Ptn 1 (2)  |
| 008 | Seq Ptn 2 (2)  |
| 009 | Seq Ptn 3 (2)  |
| 010 | Seq Ptn 4 (2)  |
| 011 | Seq Ptn 5 (2)  |
| 012 | Seq Ptn 6 (3)  |
| 013 | Seq Ptn 7 (3)  |
| 014 | Seq Ptn 8 (3)  |
| 015 | Seq Ptn 9 (3)  |
| 016 | Seq Ptn 10 (3) |
| 017 | Seq Ptn 11 (3) |
| 018 | Seq Ptn 12 (3) |
| 019 | Seq Ptn 13 (3) |
| 020 | Seq Ptn 14 (3) |
| 021 | Seq Ptn 15 (3) |
| 022 | Seq Ptn 16 (3) |
| 023 | Seq Ptn 17 (3) |
| 024 | Seq Ptn 18 (4) |
| 025 | Seq Ptn 19 (4) |
| 026 | Seq Ptn 20 (4) |

| No. | Name           |
|-----|----------------|
| 027 | Seq Ptn 21 (4) |
| 028 | Seq Ptn 22 (4) |
| 029 | Seq Ptn 23 (4) |
| 030 | Seq Ptn 24 (4) |
| 031 | Seq Ptn 25 (4) |
| 032 | Seq Ptn 26 (4) |
| 033 | Seq Ptn 27 (4) |
| 034 | Seq Ptn 28 (4) |
| 035 | Seq Ptn 29 (4) |
| 036 | Seq Ptn 30 (5) |
| 037 | Seq Ptn 31 (5) |
| 038 | Seq Ptn 32 (6) |
| 039 | Seq Ptn 33 (p) |
| 040 | Seq Ptn 34 (p) |
| 041 | Seq Ptn 35 (p) |
| 042 | Seq Ptn 36 (p) |
| 043 | Seq Ptn 37 (p) |
| 044 | Seq Ptn 38 (p) |
| 045 | Seq Ptn 39 (p) |
| 046 | Seq Ptn 40 (p) |
| 047 | Seq Ptn 41 (p) |
| 048 | Seq Ptn 42 (p) |
| 049 | Seq Ptn 43 (p) |
| 050 | Seq Ptn 44 (p) |
| 051 | Seq Ptn 45 (p) |
| 052 | Seq Ptn 46 (p) |

| No. | Name            |
|-----|-----------------|
| 053 | Seq Ptn 47 (p)  |
| 054 | Seq Ptn 48 (p)  |
| 055 | Seq Ptn 49 (p)  |
| 056 | Seq Ptn 50 (p)  |
| 057 | Seq Ptn 51 (p)  |
| 058 | Seq Ptn 52 (p)  |
| 059 | Seq Ptn 53 (p)  |
| 060 | Seq Ptn 54 (p)  |
| 061 | Seq Ptn 55 (p)  |
| 062 | Seq Ptn 56 (p)  |
| 063 | Seq Ptn 57 (p)  |
| 064 | Seq Ptn 58 (p)  |
| 065 | Seq Ptn 59 (p)  |
| 066 | Seq Ptn 60 (p)  |
| 067 | Bassline 1 (1)  |
| 068 | Bassline 2 (1)  |
| 069 | Bassline 3 (1)  |
| 070 | Bassline 4 (1)  |
| 071 | Bassline 5 (1)  |
| 072 | Bassline 6 (1)  |
| 073 | Bassline 7 (1)  |
| 074 | Bassline 8 (1)  |
| 075 | Bassline 9 (1)  |
| 076 | Bassline 10 (2) |
| 077 | Bassline 11 (2) |
| 078 | Bassline 12 (2) |

| No. | Name            |
|-----|-----------------|
| 079 | Bassline 13 (2) |
| 080 | Bassline 14 (2) |
| 081 | Bassline 15 (2) |
| 082 | Bassline 16 (3) |
| 083 | Bassline 17 (3) |
| 084 | Bassline 18 (3) |
| 085 | Bassline 19 (3) |
| 086 | Bassline 20 (3) |
| 087 | Bassline 21 (3) |
| 088 | Bassline 22 (p) |
| 089 | Bassline 23 (p) |
| 090 | Bassline 24 (p) |
| 091 | Bassline 25 (p) |
| 092 | Bassline 26 (p) |
| 093 | Bassline 27 (p) |
| 094 | Bassline 28 (p) |
| 095 | Bassline 29 (p) |
| 096 | Bassline 30 (p) |
| 097 | Bassline 31 (p) |
| 098 | Bassline 32 (p) |
| 099 | Bassline 33 (p) |
| 100 | Bassline 34 (p) |
| 101 | Bassline 35 (p) |
| 102 | Bassline 36 (p) |
| 103 | Bassline 37 (p) |
| 104 | Bassline 38 (p) |

| No. | Name             |
|-----|------------------|
| 105 | Bassline 39 (p)  |
| 106 | Bassline 40 (p)  |
| 107 | Bassline 41 (p)  |
| 108 | Sliced 1 (a)     |
| 109 | Sliced 2 (a)     |
| 110 | Sliced 3 (a)     |
| 111 | Sliced 4 (a)     |
| 112 | Sliced 5 (a)     |
| 113 | Sliced 6 (a)     |
| 114 | Sliced 7 (a)     |
| 115 | Sliced 8 (a)     |
| 116 | Sliced 9 (a)     |
| 117 | Sliced 10 (a)    |
| 118 | Gtr Arp 1 (4)    |
| 119 | Gtr Arp 2 (5)    |
| 120 | Gtr Arp 3 (6)    |
| 121 | Gtr Backing 1(a) |
| 122 | Gtr Backing 2(a) |
| 123 | Key Bckng1 (a)   |
| 124 | Key Bckng2 (a)   |
| 125 | Key Bckng3 (1-3) |
| 126 | 1/1 Note Trg (1) |
| 127 | 1/2 Note Trg (1) |
| 128 | 1/4 Note Trg (1) |

## Recommended number of notes to press

- (1)–(6) : One to six notes
- (1-3) : One bass note + three-note chord
- (a) : As desired
- (p) : One note, with Motif (p. 29) set to "Phrase"

# Vocoder/Auto Pitch List

| No.           | Name         |
|---------------|--------------|
| Mode: Vocoder |              |
| 001           | Voc:Ensmble  |
| 002           | Voc:5thStack |
| 003           | Voc:Robot    |
| 004           | Voc:Saw      |
| 005           | Voc:Sqr      |
| 006           | Voc:RiseUp   |
| 007           | Voc:AutoVib  |
| 008           | Voc:PitchEnv |
| 009           | Voc:Choir    |
| 010           | Voc:Noise    |

| No.              | Name         |
|------------------|--------------|
| Mode: Auto-Pitch |              |
| 011              | AP:Elct Pch1 |
| 012              | AP:Elct Pch2 |
| 013              | AP:Hard Pch  |
| 014              | AP:Soft Pch1 |
| 015              | AP:Formant + |
| 016              | AP:Formant - |
| 017              | AP:Octave +  |
| 018              | AP:Octave -  |
| 019              | AP:toSoprano |
| 020              | AP:to Bass   |

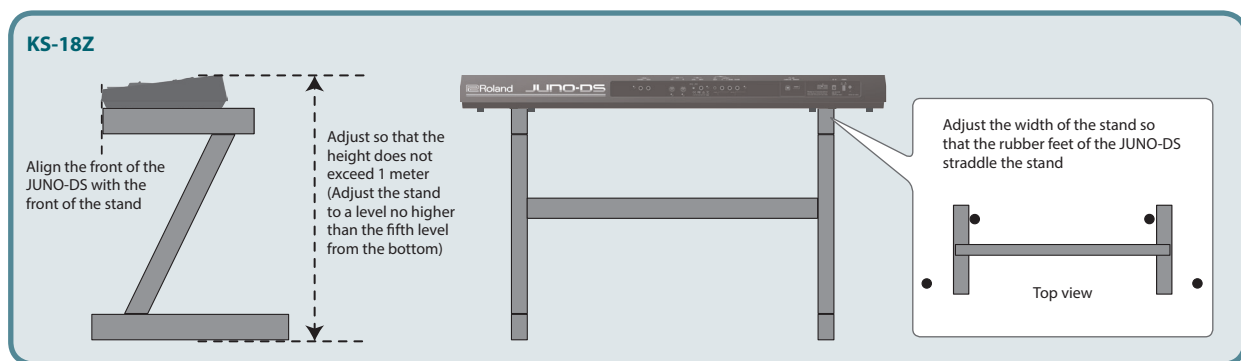
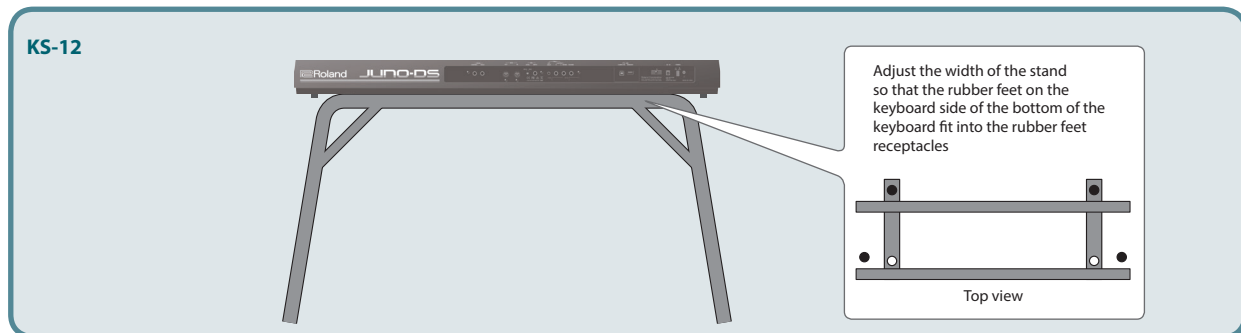
# Placing This Unit on a Stand

Be careful not to pinch your fingers when setting up the stand.

\* When using the KS-18Z and KS-J8, ensure that the height of the unit is one meter or lower.

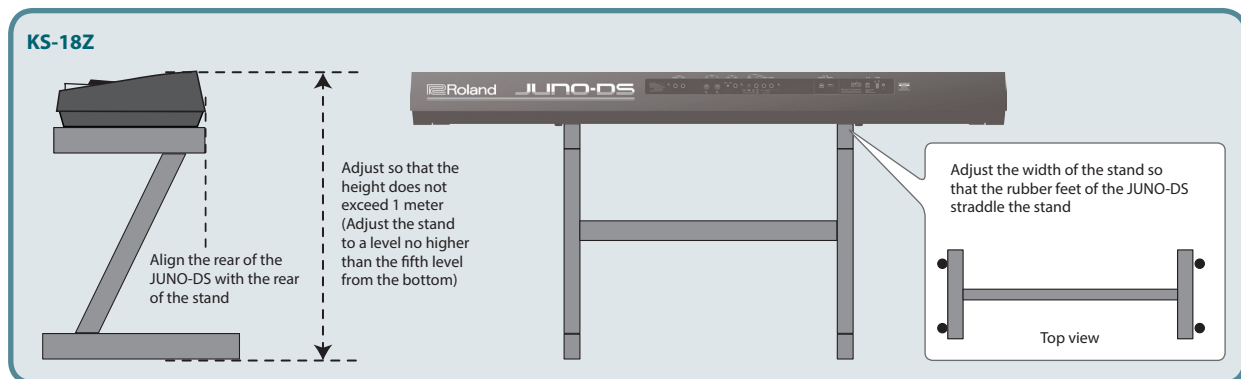
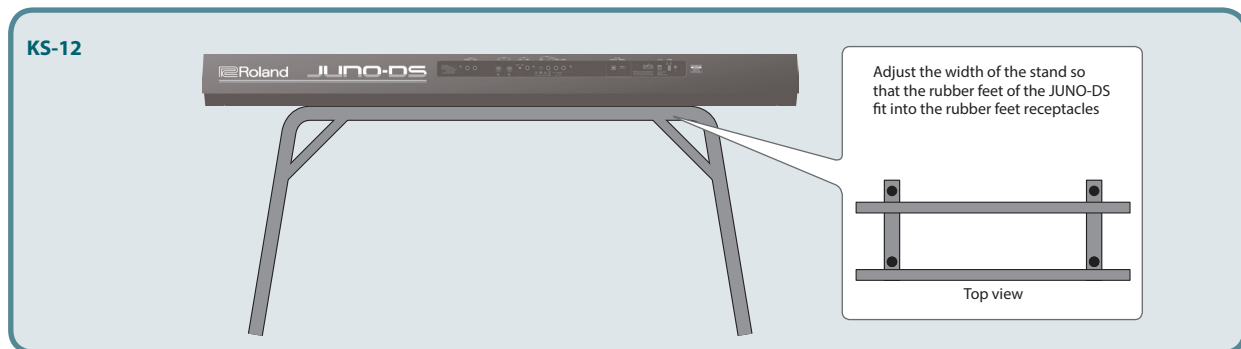
## If you're using the 61-key model or 76-key model

If you want to place the 61-key model or 76-key model on a stand, please use the KS-12 or KS-18Z stands manufactured by Roland.



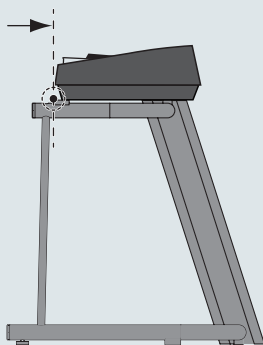
## If you're using the 88-key model


If you want to place the 88-key model on a stand, please use the KS-12, KS-18Z, KS-J8, or KS-G8B stands manufactured by Roland.



**KS-G8B**

Align the front of the JUNO-DS with the rubber base of the stand



- Keep the rubber feet of the JUNO-DS on the inside of the stand
  - Ensure that the rubber base of the stand does not contact the screws of the JUNO-DS
- 
- Top view