

Millenium

MPS-150X
e-drum module



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1 General information

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (www.thomann.de) you will find lots of further information and details on the following points:

| | |
|-----------------------|---|
| Download | This manual is also available as PDF file for you to download. |
| Keyword search | Use the search function in the electronic version to find the topics of interest for you quickly. |
| Online guides | Our online guides provide detailed information on technical basics and terms. |
| Personal consultation | For personal consultation please contact our technical hotline. |
| Service | If you have any problems with the device the customer service will gladly assist you. |

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

Instructions

The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

1. ▶ Switch on the device.
2. ▶ Press *[Auto]*.
 - ⇒ Automatic operation is started.
3. ▶ Switch off the device.

Cross-references


References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.

Example: See ↗ *'Cross-references'* on page 8.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

| Signal word | Meaning |
|-----------------|--|
| DANGER! | This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided. |
| CAUTION! | This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided. |
| NOTICE! | This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided. |

| Warning signs | Type of danger |
|---|------------------------|
|  | Warning – danger zone. |

2 Safety instructions

Intended use

Drum modules are intended to be used for converting digital trigger signals from drum pads to various percussion sounds. Use the unit only as described in this manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



CAUTION!

Possible hearing damage

With loudspeakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment.

Do not operate the device permanently at a high volume level. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.



NOTICE!

External power supply

The device is powered by an external power supply. Before connecting the external power supply, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly the user.

Unplug the external power supply before electrical storms occur and when the device is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

- 108 Voices
- 10 preprogrammed drum kits
- 40 preprogrammed songs
- Metronome
- Flexible assignment of pad voices
- Reverb effect, voice tuning
- Individual adjustment of accompaniment and drum track
- Connections for headphones, AUX, USB and MIDI

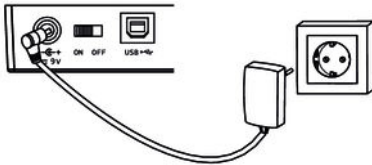
4 Installation

Setup, connecting pads and pedals

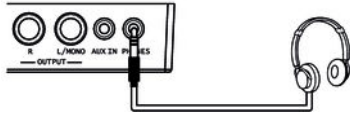
Setup and assembly of the pads and pedals are described in detail in the enclosed assembly guide. Finally check that all cables between the pads and the drum module have been properly connected.

Connecting the power adapter

Connect the included power adapter to the 9V connector of the unit and then plug the power adapter into a wall outlet.

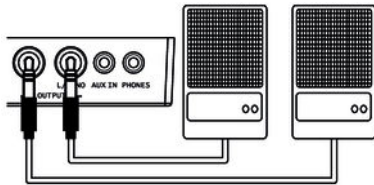


Connecting headphones



Connect your stereo headphones to the PHONES output of the drum module.

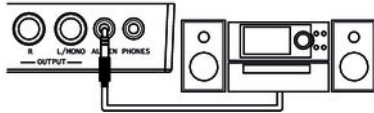
Connecting audio devices



Connect the inputs of your amplifier or active monitors to the OUTPUT sockets of the drum module. If you use a mono amplifier, connect its input to the output L / MONO socket of the module.

Connecting a CD or MP3 player

Connect your CD or MP3 player to the input socket AUX IN of the drum module.

**Connecting MIDI devices**

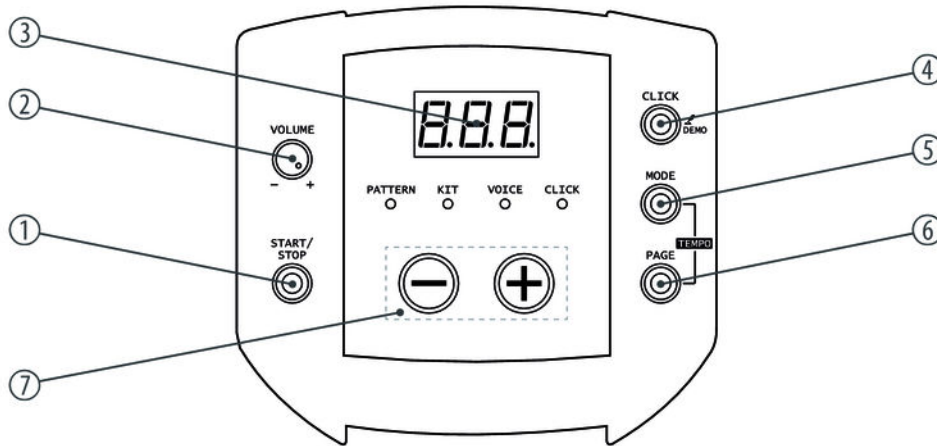
Connect external MIDI devices to the MIDI OUT socket of the drum module.

Connecting USB devices

Connect external MIDI devices or your computer to the USB port of the drum module.

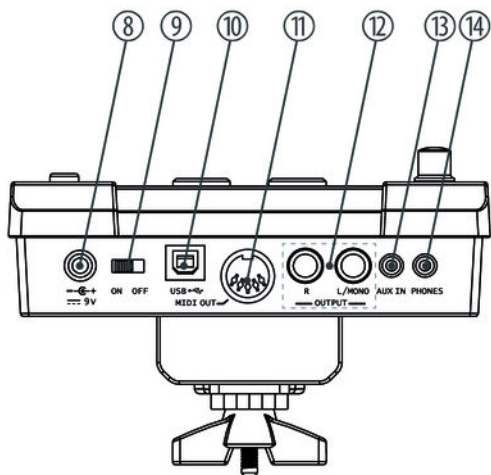
5 Connections and operating elements

Front panel



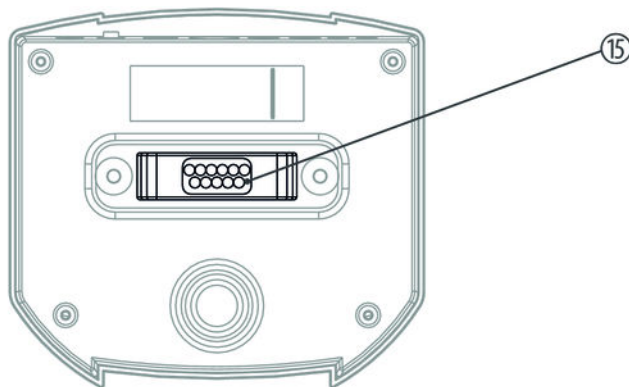
| | |
|---|---|
| 1 | <i>[START / STOP]</i> Button to start and stop song playback. |
| 2 | <i>[VOLUME]</i> Volume control for the audio and headphones output of the device. |
| 3 | 3-digit LED display. |
| 4 | <i>[CLICK] [DEMO]</i> Button to turn the metronome on and off and to play the demo song. |
| 5 | <i>[MODE]</i> Button to open the selection menu. |
| 6 | <i>[PAGE]</i> Button to scroll through the open menu. |
| 7 | <i>[+] / [-]</i> Increases or decreases the currently displayed value. |

Rear panel



| | |
|----|---|
| 8 | <i>[9V]</i> Connection socket for the power adapter. |
| 9 | <i>[ON / OFF]</i> Main switch to turn the device on and off. |
| 10 | <i>[USB]</i> Connection socket for USB cable. |
| 11 | <i>[MIDI OUT]</i> Connection socket for an external MIDI device to send MIDI commands. |
| 12 | <i>[OUTPUT – R / L/MONO]</i> Output for external audio devices (mono / stereo). |
| 13 | <i>[AUX IN]</i> Input for external audio devices like MP3 or CD players. |
| 14 | <i>[PHONES]</i> Connection socket for headphones. |

Bottom



15

Multiple socket for connecting the pads.

6 Operating

6.1 Functions

Switching on



Check all cable connections for correct fit before turning on.

Before switching on, turn the volume control [VOLUME] to minimum.

Turn the drum module on using the main switch [ON/OFF] on the rear side of the unit.



Automatic shutoff

- *When the device is not used it automatically shuts off after 30 minutes. To turn it back on set the on / off switch to 'OFF' and then to 'ON' again.*

Disabling automatic shutoff

- *To disable the automatic shut-off, press and keep the button [START / STOP] pressed while turning the device on.
The message 'PoF' appears in the display.*

Adjusting the volume

To adjust the volume strike a pad while turning the volume control [VOLUME] slowly clockwise.

6.2 Demo song

To play the preprogrammed demo piece, proceed as follows:

1. ▶ Press *[CLICK]* for about two seconds.
 - ⇒ The preprogrammed demo song sounds, 'dE' appears on the display.
2. ▶ Stop playback with *[START / STOP]*.

6.3 Playing and adjusting patterns

Selecting patterns

Your digital drum set features a total of 40 preprogrammed patterns. Pattern '001' is displayed by default when the drum module is turned on.

1. ▶ Press *[MODE]* repeatedly until the LED *[PATTERN]* lights up.
 - ⇒ The display shows the pattern number.
2. ▶ Use the buttons *[-]* and *[+]* to select the desired pattern (see).

Playing patterns

1. ▶ Select the desired pattern as described above.
2. ▶ Start and stop playback with *[START / STOP]*.

Adjusting pattern volume

1. ▶ Press *[MODE]* repeatedly until the LED *[PATTERN]* lights up.
⇒ The display shows the pattern number.
2. ▶ Press *[PAGE]*.
⇒ The pattern volume appears in 'Axx' format on the display.
3. ▶ Adjust the volume using the buttons *[-]* and *[+]* in a range from 00 to 32.
The setting is automatically stored.

Adjusting drum volume

1. ▶ Press *[MODE]* repeatedly until the LED *[PATTERN]* lights up.
⇒ The display shows the pattern number.

2. ▶ Press *[PAGE]*.
⇒ The drum volume appears in 'dxx' format on the display.
3. ▶ Adjust the volume using the buttons *[-]* and *[+]* in a range from 00 to 32.
The setting is automatically stored.

Adjusting playback speed

1. ▶ Simultaneously press *[MODE]* and *[PAGE]*
⇒ The display shows the playback speed.
2. ▶ Adjust the playback speed using the buttons *[-]* and *[+]* (setting range: 30 to 280 beats per minute).
The setting is automatically stored.

6.4 Selecting and adjusting drum kits

You can select one of the preprogrammed drum kits. The preprogrammed voices of the drum module can be programmed to any of the connected pads.

Selecting a drum kit

To select a certain drum kit, proceed as follows:

1. ▶ Press *[MODE]* repeatedly until the LED *[KIT]* lights up.
⇒ The display shows the kit number.
2. ▶ Use the buttons *[-]* and *[+]* to select the desired kit (see ↗ *Chapter 11.2 'Kit list' on page 48*).

The setting is automatically stored.

Adjusting kit volume

1. ▶ Press *[MODE]* repeatedly until the LED *[KIT]* lights up.
⇒ The display shows the kit number.

2. ▶ Press *[PAGE]*.
 - ⇒ The kit volume appears in 'Lxx' format on the display.
3. ▶ Adjust the volume using the buttons *[-]* and *[+]* in a range from 00 to 32.
The setting is automatically stored.

Turning Reverb on / off

To turn the Reverb effect on or off, proceed as follows:

1. ▶ Press *[MODE]* repeatedly until the LED *[KIT]* lights up.
 - ⇒ The display shows the kit number.
2. ▶ Press *[PAGE]*.
 - ⇒ The current Reverb setting appears in the display ('roN': on or 'roF': off).
3. ▶ Change the setting using the buttons *[-]* and *[+]*.
The setting is automatically stored.

Assigning a Voice

To programme a certain Voice for a pad, proceed as follows:

- 1.** ➤ Press *[MODE]* repeatedly until the LED *[VOICE]* lights up.
- 2.** ➤ Hit the respective pad to activate it.
⇒ The display shows the number of the currently assigned Voice.
- 3.** ➤ Select the desired Voice using the buttons *[-]/[+]* (see [🔗 Chapter 11.1 'Voice list' on page 44](#)).

The setting is automatically stored.



Only Voices from group 1 – group 4 can be assigned to a Hi-Hat. The display shows 'H-I'.

Adjusting Voice volume

You have the option to adjust the volume of each voice independently. To do so proceed as follows:

- 1.** ▶ Press *[MODE]* repeatedly until the LED *[VOICE]* lights up.
- 2.** ▶ Hit the respective pad to activate it.
⇒ The Voice volume appears in 'Lxx' format on the display.
- 3.** ▶ Adjust the volume using the buttons *[-]/[+]* (setting range: 0 to 32).
The setting is automatically stored.

Adjusting assigned MIDI note

You have the option to change the MIDI note assigned to a pad. To do so proceed as follows:

1. ➤ Press *[MODE]* repeatedly until the LED *[VOICE]* lights up.
2. ➤ Hit the respective pad to activate it.
 - ⇒ The assigned MIDI note appears in 'Nxx' format on the display.
3. ➤ Adjust the number using the buttons *[-]/[+]* (setting range: 0 to 99).
The setting is automatically stored.

The following table shows the MIDI mapping in default setting.

| No. | Name | Assigned MIDI note |
|-----|---------|--------------------|
| 1 | Crash 1 | 49 |
| 2 | Tom 1 | 48 |
| 3 | Tom 2 | 45 |
| 4 | Tom 3 | 43 |

| No. | Name | Assigned MIDI note |
|-----|--------------|--------------------|
| 5 | Ride | 51 |
| 6 | Kick | 36 |
| 7 | Snare | 38 |
| 8 | Hi-Hat close | 42 |
| 9 | Hi-Hat open | 46 |
| 10 | Hi-Hat pedal | 44 |

6.5 Click (metronome) set up and use

Using Click function

1. ▶ Press *[CLICK]* to turn the Click on.
⇒ The LED *[CLICK]* flashes in step, the Click sounds.
2. ▶ Press again *[CLICK]* to turn the Click off.

Setting the time signature

1. ▶ Press *[MODE]* repeatedly until the LED *[CLICK]* lights up.
2. ▶ Press *[PAGE]*.
 - ⇒ The time signature appears on the display, for example '4-4'.
3. ▶ Choose the time signature using the buttons *[-]* and *[+]* from a selection of 1/4 to 7/4, 3/8 and 6/8.

The setting is automatically stored.

Click tempo and time signature are automatically adjusted when playing patterns and can not be changed.

Setting Click interval

- 1.** ▶ Press *[MODE]* repeatedly until the LED *[CLICK]* lights up.
- 2.** ▶ Press *[PAGE]*.
⇒ The Click interval appears on the display, for example ‘--4’.
- 3.** ▶ Select the Click interval using the buttons *[-]* and *[+]*. Possible values are: 1/4, 1/8, 1/12, 1/16, 1/24, default value: 1/4.
The setting is automatically stored.

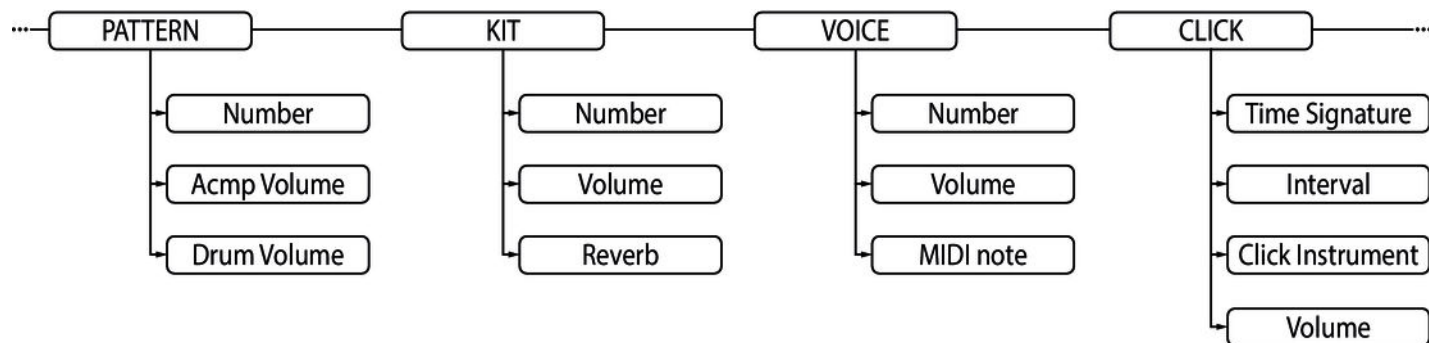
Setting the Click sound

- 1.** ▶ Press *[MODE]* repeatedly until the LED *[CLICK]* lights up.
- 2.** ▶ Press *[PAGE]*.
⇒ The set sound, the so-called ‘click instrument’ is displayed in ‘CLx’ format.
- 3.** ▶ Use the buttons *[-]* and *[+]* to select the sound. Possible values are: CL1 – CL5, default value: CL1.
The setting is automatically stored.

Setting the Click volume

1. ▶ Press *[MODE]* repeatedly until the LED *[CLICK]* lights up.
2. ▶ Press *[PAGE]*.
⇒ The set volume appears on the display, for example 'L24'.
3. ▶ Adjust the volume using the buttons *[-]* and *[+]* in a range from 0 to 32.
The setting is automatically stored.

6.6 Menu overview



7 Technical specifications

| | |
|------------------|----------------|
| Number of voices | 108 |
| Drum kits | 10 preset kits |
| Songs | 40 Songs |

| | |
|---------------------------------|---|
| <p>Connections</p> | <p>Headphones (1/4" phone socket) AUX in (1/4" phone socket) Left stereo output or mono out (1/4" phone socket) Stereo output right / left (1/4" phone socket) 1 × Kick pad 1 × Snare pad 3 × Tom pads 1 × Crash pad 1 × Ride pad 1 × Hi-Hat 1 × Hi-Hat control MIDI out USB port</p> |
| <p>Operating supply voltage</p> | <p>Power adapter (9 V $\overline{\text{---}}$)</p> |

8 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

1/4" TS phone plug (mono, unbalanced)



| | |
|---|-------------------|
| 1 | Signal |
| 2 | Ground, shielding |

1/4" TRS phone plug (mono, balanced)



| | |
|---|--------------------------|
| 1 | Signal (in phase, +) |
| 2 | Signal (out of phase, -) |
| 3 | Ground |

9 Cleaning

Device parts

Clean the accessible parts of the device regularly. The frequency of cleaning depends on the operating environment: moist, smoky or particularly dirty environments may cause a higher accumulation of dirt on the components of the device.

- Use a dry soft cloth for cleaning.
- Remove stubborn stains with a slightly damp cloth.
- Never use cleaners containing alcohol or thinner.
- Never put any vinyl items on the device, as vinyl can stick to the surface or lead to its discolouration.

10 Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

11 Appendix

11.1 Voice list

| No. | Name | No. | Name | No. | Name |
|-------------|-----------------|--------------|---------------------|-----|---------------------|
| KICK | | 009 | Jazz Kick 1 | 017 | Classic Snare 2 |
| 001 | Standard Kick 1 | 010 | Jazz Kick 2 | 018 | Classic Snare Rim 2 |
| 002 | Standard Kick 2 | 011 | Electronic Kick | 019 | Room Snare 1 |
| 003 | Room Kick | 012 | 808 Kick | 020 | Room Snare 2 |
| 004 | Rock Kick 1 | 013 | House Kick 1 | 021 | Acoustic Snare |
| 005 | Rock Kick 2 | 014 | House Kick 2 | 022 | Acoustic Snare Rim |
| 006 | Acoustic Kick | SNARE | | 023 | Funk Band Snare |
| 007 | HipHop Kick | 015 | Classic Snare 1 | 024 | Funk Band Rim |
| 008 | Funk Kick | 016 | Classic Snare Rim 1 | 025 | Camco Snare |

| No. | Name | No. | Name | No. | Name |
|------------|--------------------|-----|---------------|-------------|-------------------|
| 026 | Camco Snare Rim | 038 | Classic Tom 5 | 051 | 808 Tom 6 |
| 027 | Brush Snare | 039 | Classic Tom 6 | 052 | Electronic Tom 1 |
| 028 | Brush Snare Rim | 040 | Camco Tom 1 | 053 | Electronic Tom 2 |
| 029 | Electronic Snare 1 | 041 | Camco Tom 2 | 054 | Electronic Tom 3 |
| 030 | Electronic Snare 2 | 042 | Camco Tom 3 | 055 | Electronic Tom 4 |
| 031 | 808 Snare | 043 | Camco Tom 4 | 056 | Electronic Tom 5 |
| 032 | House Snare 1 | 044 | Camco Tom 5 | 057 | Electronic Tom 6 |
| 033 | House Snare 2 | 045 | Camco Tom 6 | RIDE | |
| TOM | | 046 | 808 Tom 1 | 058 | Classic Ride |
| 034 | Classic Tom 1 | 047 | 808 Tom 2 | 059 | Classic Ride Bell |
| 035 | Classic Tom 2 | 048 | 808 Tom 3 | 060 | Rock Ride |
| 036 | Classic Tom 3 | 049 | 808 Tom 4 | 061 | 808 Ride |
| 037 | Classic Tom 4 | 050 | 808 Tom 5 | | |

| No. | Name | No. | Name | No. | Name |
|---------------|------------------------|-------------------|-------------------------|-----|-----------------|
| CRASH | | 073 | Standard Hi-hat Close | 085 | Conga Low |
| 062 | Standard Crash 1 | 074 | Jazz Hi-hat Close | 086 | Timbale High |
| 063 | Standard Crash 2 | 075 | Electronic Hi-hat Close | 087 | Timbale Low |
| 064 | Rock Crash | 076 | 808 Hi-hat Close | 088 | Agogo High |
| 065 | Splash 1 | 077 | Standard Hi-hat Pad | 089 | Agogo Low |
| 066 | Splash 2 | 078 | Jazz Hi-hat Pad | 090 | Cabasa |
| 067 | Brush Crash | 079 | Electronic Hi-hat Pad | 091 | Maracas |
| 068 | 808 Crash | 080 | 808 Hi-hat Pad | 092 | Short Whistle |
| HI-HAT | | PERCUSSION | | 093 | Long Whistle |
| 069 | Standard Hi-hat Open | 081 | Bongo High | 094 | Short Guiro |
| 070 | Jazz Hi-hat Open | 082 | Bongo Low | 095 | Long Guiro |
| 071 | Electronic Hi-hat Open | 083 | Mute Conga Hi-hat | 096 | Claves |
| 072 | 808 Hi-hat Open | 084 | Open Conga Hi-hat | 097 | Wood Block High |

| No. | Name | |
|-----|----------------|--|
| 098 | Wood Block Low | |
| 099 | Mute Cuica | |
| 100 | Open Cuica | |
| 101 | Mute Triangle | |
| 102 | Open Triangle | |
| 103 | Shaker | |
| 104 | Jingle Bell | |
| 105 | Belltree | |
| 106 | Castanets | |
| 107 | Mute Surdo | |
| 108 | Open Surdo | |

11.2 Kit list

| No. | Name |
|-----|------------|
| 001 | Acoustic |
| 002 | Standard 1 |
| 003 | Rock |
| 004 | Standard 2 |
| 005 | Funk |
| 006 | Jazz |
| 007 | Brush |
| 008 | Electronic |
| 009 | 808 |
| 010 | House |

11.3 Pattern list

| No. | Name | Tempo | Kit | No. | Name | Tempo | Kit |
|-----|-------------------|-------|-----|-----|---------------|-------|-----|
| 001 | Fusion 1 | 103 | 1 | 011 | Funk 3 | 120 | 5 |
| 002 | Electronic & Funk | 116 | 9 | 012 | Fusion 3 | 108 | 1 |
| 003 | Modern Pop | 136 | 1 | 013 | Fusion 4 | 116 | 1 |
| 004 | HipHop | 110 | 9 | 014 | Pop Funk 2 | 106 | 5 |
| 005 | Latin Jazz 1 | 130 | 7 | 015 | R&B | 86 | 9 |
| 006 | Funk 1 | 120 | 5 | 016 | Drum & Bass 1 | 168 | 9 |
| 007 | Big Band 1 | 170 | 6 | 017 | Break Beat | 108 | 5 |
| 008 | Funk 2 | 112 | 1 | 018 | Dance | 130 | 9 |
| 009 | Pop Funk 1 | 112 | 1 | 019 | Drum & Bass 2 | 170 | 1 |
| 010 | Fusion 2 | 112 | 1 | 020 | Latin Dance | 126 | 5 |

| No. | Name | Tempo | Kit | No. | Name | Tempo | Kit |
|-----|--------------|-------|-----|------|---------------|-------|-----|
| 021 | Swing | 172 | 6 | 032 | Mambo | 126 | 5 |
| 022 | Latin Jazz 2 | 126 | 7 | 033 | Latin Rock | 136 | 1 |
| 023 | Big Band 2 | 152 | 6 | 034 | Latin Pop | 126 | 5 |
| 024 | 3/4 Jazz | 120 | 7 | 035 | Guitar Bossa | 84 | 5 |
| 025 | Jazz | 150 | 7 | 036 | Country Blues | 128 | 3 |
| 026 | 6/8 Ballad | 96 | 3 | 037 | Rock | 100 | 1 |
| 027 | Pop Ballad | 80 | 3 | 038 | Reggae | 78 | 1 |
| 028 | Pop Bossa | 120 | 2 | 039 | 60's Rock | 120 | 2 |
| 029 | 16Beat Pop | 120 | 5 | 040 | Blues | 96 | 2 |
| 030 | Pop Shuffle | 86 | 5 | Demo | Funk | 100 | 1 |
| 031 | Samba | 236 | 1 | | | | |

11.4 MIDI implementation

| Function | | Transmitted | Recognized | Remarks |
|---------------|------------|----------------------|------------|---------|
| Basic channel | Default | Ch 10 | 1-16 | |
| | Changed | No | No | |
| Mode | Default | No | No | |
| | Messages | No | No | |
| | Altered | ***** | ***** | |
| Note number | | 0...127 | 0...127 | |
| | True voice | ***** | 0...127 | |
| Velocity | Note ON | Yes (99H, V=1...127) | 0...127 | |
| | Note OFF | Yes (99H, V=0) | 0...127 | |
| Aftersustain | Keys | No | No | |
| | Channels | No | No | |

| Function | | Transmitted | Recognized | Remarks |
|----------------|----|-------------|------------|-------------------|
| Pitch bender | | No | Yes | |
| Control change | 0 | No | Yes | Bank select |
| | 1 | No | Yes | Modulation |
| | 5 | No | Yes | Portamento time |
| | 6 | No | Yes | Data entry |
| | 7 | No | Yes | Volume |
| | 10 | No | Yes | Pan |
| | 11 | No | Yes | Expression |
| | 64 | No | Yes | Sustain pedal |
| | 65 | No | Yes | Portamento ON/OFF |
| | 66 | No | Yes | Sostenuto pedal |
| | 67 | No | Yes | Soft pedal |
| | 80 | No | Yes | Reverb program |

| Function | | Transmitted | Recognized | Remarks |
|------------------|---------------|-------------|------------|-----------------------|
| | 81 | No | Yes | Chorus program |
| | 91 | No | Yes | Reverb level |
| | 93 | No | Yes | Chorus level |
| | 120 | No | Yes | All Sound Off |
| | 121 | No | Yes | Reset All Controllers |
| | 123 | No | Yes | All Notes Off |
| Program change | | Yes | Yes | |
| System exclusive | | No | Yes | |
| System common | Song Position | No | No | |
| | Song Select | No | No | |
| | Tune | No | No | |
| System real time | Clock | Yes | No | START and STOP only |
| | Command | Yes | No | |

| Function | | Transmitted | Recognized | Remarks |
|--------------|---------------|-------------|------------|---------|
| Aux messages | Local ON/OFF | No | No | |
| | All Notes OFF | No | No | |
| | Active Sense | Yes | No | |
| | System reset | No | No | |

11.5 General MIDI Backing Instrument List

| No. | Name | No. | Name |
|--------------|-----------------------|---------------|--------------|
| Piano | | Mallet | |
| 1 | Acoustic Grand Piano | 9 | Celesta |
| 2 | Bright Acoustic Piano | 10 | Glockenspiel |
| 3 | Electric Grand Piano | 11 | Music Box |

| No. | Name | No. | Name |
|-----|------------------|-----|---------------|
| 4 | Honky-Tonk Piano | 12 | Vibraphone |
| 5 | Electric Piano 1 | 13 | Marimba |
| 6 | Electric Piano 2 | 14 | Xylophone |
| 7 | Harpsichord | 15 | Tubular Bells |
| 8 | Clavi | 16 | Dulcimer |

| No. | Name | No. | Name |
|--------------|------------------|---------------|--------------|
| Organ | | Guitar | |
| 17 | Drawbar Organ | 25 | Nylon Guitar |
| 18 | Percussive Organ | 26 | Steel Guitar |
| 19 | Rock Organ | 27 | Jazz Guitar |
| 20 | Church Organ | 28 | Clean Guitar |

| No. | Name | No. | Name |
|-----|-----------------|-----|-------------------|
| 21 | Reed Organ | 29 | Muted Guitar |
| 22 | Accordion | 30 | Overdriven Guitar |
| 23 | Harmonica | 31 | Distortion Guitar |
| 24 | Tango Accordion | 32 | Guitar Harmonics |

| No. | Name | No. | Name |
|-------------|---------------|----------------|-----------------|
| Bass | | Strings | |
| 33 | Acoustic Bass | 41 | Violin |
| 34 | Finger Bass | 42 | Viola |
| 35 | Pick Bass | 43 | Cello |
| 36 | Fretless Bass | 44 | Contrabass |
| 37 | Slap Bass 1 | 45 | Tremolo Strings |

| No. | Name | No. | Name |
|-----|--------------|-----|-------------------|
| 38 | Slap Bass 2 | 46 | Pizzicato Strings |
| 39 | Synth Bass 1 | 47 | Orchestral Harp |
| 40 | Synth Bass 2 | 48 | Timpani |

| No. | Name | No. | Name |
|-------------------------|--------------------|--------------|---------------|
| Strings Ensemble | | Brass | |
| 49 | String Ensembles 1 | 57 | Trumpet |
| 50 | String Ensembles 2 | 58 | Trombone |
| 51 | Synth Strings 1 | 59 | Tuba |
| 52 | Synth Strings 2 | 60 | Muted Trumpet |
| 53 | Choir Aahs | 61 | French Horn |
| 54 | Voice Oohs | 62 | Brass Section |

| No. | Name | No. | Name |
|-----|---------------|-----|---------------|
| 55 | Synth Voice | 63 | Synth Brass 1 |
| 56 | Orchestra Hit | 64 | Synth Brass 2 |

| No. | Name | No. | Name |
|-------------|--------------|-------------|--------------|
| Reed | | Pipe | |
| 65 | Soprano Sax | 73 | Piccolo |
| 66 | Alto Sax | 74 | Flute |
| 67 | Tenor Sax | 75 | Recorder |
| 68 | Baritone Sax | 76 | Pan Flute |
| 69 | Oboe | 77 | Blown Bottle |
| 70 | English Horn | 78 | Shakuhachi |

| No. | Name | No. | Name |
|-----|----------|-----|---------|
| 71 | Bassoon | 79 | Whistle |
| 72 | Clarinet | 80 | Ocarina |

| No. | Name | No. | Name |
|-------------------|-------------------|------------|-------------------|
| Synth Lead | | Pad | |
| 81 | Lead 1 (square) | 89 | Pad 1 (new age) |
| 82 | Lead 2 (sawtooth) | 90 | Pad 2 (warm) |
| 83 | Lead 3 (calliope) | 91 | Pad 3 (polysynth) |
| 84 | Lead 4 (chiff) | 92 | Pad 4 (choir) |
| 85 | Lead 5 (charang) | 93 | Pad 5 (bowed) |
| 86 | Lead 6 (voice) | 94 | Pad 6 (metallic) |

| No. | Name | No. | Name |
|-----|----------------------|-----|---------------|
| 87 | Lead 7 (fifths) | 95 | Pad 7 (halo) |
| 88 | Lead 8 (bass + lead) | 96 | Pad 8 (sweep) |

| No. | Name | No. | Name |
|----------------|-------------------|---------------|----------|
| Effects | | Ethnic | |
| 97 | FX 1 (rain) | 105 | Sitar |
| 98 | FX 2 (soundtrack) | 106 | Banjo |
| 99 | FX 3 (crystal) | 107 | Shamisen |
| 100 | FX 4 (atmosphere) | 108 | Koto |
| 101 | FX 5 (brightness) | 109 | Kalimba |
| 102 | FX 6 (goblins) | 110 | Bagpipe |

| No. | Name | No. | Name |
|-----|---------------|-----|--------|
| 103 | FX 7 (echoes) | 111 | Fiddle |
| 104 | FX 8 (sci-fi) | 112 | Shanai |

| No. | Name | No. | Name |
|-------------------|-------------|----------------------|-------------------|
| Percussive | | Sound Effects | |
| 113 | Tinkle Bell | 121 | Guitar Fret Noise |
| 114 | Agogo | 122 | Breath Noise |
| 115 | Steel Drums | 123 | Seashore |
| 116 | Wood Block | 124 | Bird Tweet |
| 117 | Taiko Drum | 125 | Telephone Ring |
| 118 | Melodic Tom | 126 | Helicopter |

| No. | Name | No. | Name |
|-----|----------------|-----|----------|
| 119 | Synth Drum | 127 | Applause |
| 120 | Reverse Cymbal | 128 | Gunshot |

11.6 General MIDI Drum Kit List

| Note | Standard 1 (bank 0) | Standard 2 (bank 4) | Room (bank 8) | Rock (bank 16) | Funk (bank 17) |
|----------|---------------------|---------------------|---------------|----------------|----------------|
| 27 – D#1 | High Q | <- | <- | <- | <- |
| 28 – E1 | Slap | <- | <- | <- | <- |
| 29 – F1 | Scratch Push | <- | <- | <- | <- |
| 30 – F#1 | Scratch Pull | <- | <- | <- | <- |
| 31 – G1 | Sticks | <- | <- | <- | <- |
| 32 – G#1 | Square Click | <- | <- | <- | <- |

| Note | Standard 1 (bank 0) | Standard 2 (bank 4) | Room (bank 8) | Rock (bank 16) | Funk (bank 17) |
|----------|-------------------------|-------------------------|-------------------|-------------------|-------------------|
| 33 – A1 | Metronome Click | <- | <- | <- | <- |
| 34 – A#1 | Metronome Bell | <- | <- | <- | <- |
| 35 – B1 | Acoustic Bass Drum | <- | Room Bass Drum 1 | Rock Bass Drum 1 | Funk Bass Drum 1 |
| 36 – C2 | Standard 1 Bass Drum | Standard 2 Bass Drum | Room Bass Drum 2 | Rock Bass Drum 2 | Funk Bass Drum 2 |
| 37 – C#2 | Side Stick | <- | <- | <- | <- |
| 38 – D2 | Standard 1 Snare | Standard 2 Snare | Room Snare | Rock Snare | Funk Snare |
| 39 – D#2 | Hand Clap | <- | <- | <- | <- |
| 40 – E2 | Standard 1 Snare Rim | Standard 2 Snare Rim | Room Snare Rim | Rock Snare Rim | Funk Snare Rim |
| 41 – F2 | Standard 1 Tom 6 | Standard 2 Tom 6 | Room Tom 6 | Rock Tom 6 | Funk Tom 6 |
| 42 – F#2 | Standard 1 Hi-hat Close | Standard 2 Hi-hat Close | Room Hi-hat Close | Rock Hi-hat Close | Funk Hi-hat Close |
| 43 – G2 | Standard 1 Tom 5 | Standard 2 Tom 5 | Room Tom 5 | Rock Tom 5 | Funk Tom 5 |

| Note | Standard 1 (bank 0) | Standard 2 (bank 4) | Room (bank 8) | Rock (bank 16) | Funk (bank 17) |
|-------------|----------------------------|----------------------------|-----------------------|------------------------|------------------------|
| 44 – G#2 | Standard 1 Hi-hat Pedal | Standard 2 Hi-hat Pedal | Room Hi-hat Pedal | Rock Hi-hat Pedal | Funk Hi-hat Pedal |
| 45 – A2 | Standard 1 Tom 4 | Standard 2 Tom 4 | Room Tom 4 | Rock Tom 4 | Funk Tom 4 |
| 46 – A#2 | Standard 1 Hi-hat Open | Standard 2 Hi-hat Open | Room Hi-hat Open | Rock Hi-hat Open | Funk Hi-hat Open |
| 47 – B2 | Standard 1 Tom 3 | Standard 2 Tom 3 | Room Tom 3 | Rock Tom 3 | Funk Tom 3 |
| 48 – C3 | Standard 1 Tom 2 | Standard 2 Tom 2 | Room Tom 2 | Rock Tom 2 | Funk Tom 2 |
| 49 – C#3 | Standard 1 Crash 1 | Standard 2 Crash 1 | Room Crash 1 | Rock Crash 1 | Funk Crash 1 |
| 50 – D3 | Standard 1 Tom 1 | Standard 2 Tom 1 | Room Tom 1 | Rock Tom 1 | Funk Tom 1 |
| 51 – D#3 | Standard 1 Ride | Standard 2 Ride | Room Ride | Rock Ride | Funk Ride |
| 52 – E3 | Chinese Cymbal 1 | <- | <- | <- | <- |
| 53 – F3 | Ride Bell | <- | Room Ride Bell | Rock Ride Bell | <- |
| 54 – F#3 | Tambourine | <- | <- | <- | <- |
| 55 – G3 | Splash Cymbal | <- | Room Splash Cymbal | Rock Splash Cymbal | <- |

| Note | Standard 1 (bank 0) | Standard 2 (bank 4) | Room (bank 8) | Rock (bank 16) | Funk (bank 17) |
|----------|---------------------|---------------------|---------------|----------------|----------------|
| 56 – G#3 | Standard 1 Cowbell | Standard 2 Cowbell | Room Cowbell | Rock Cowbell | <- |
| 57 – A3 | Standard 1 Crash 2 | Standard 2 Crash 2 | Room Crash 2 | Rock Crash 2 | Funk Crash 2 |
| 58 – A#3 | Vibra-slap | <- | <- | <- | <- |
| 59 – B3 | Ride Cymbal | <- | <- | <- | <- |
| 60 – C4 | Hi Bongo | <- | <- | <- | <- |
| 61 – C#4 | Low Bongo | <- | <- | <- | <- |
| 62 – D4 | Mute Hi Conga | <- | <- | <- | <- |
| 63 – D#4 | Open Hi Conga | <- | <- | <- | <- |
| 64 – E4 | Low Conga | <- | <- | <- | <- |
| 65 – F4 | High Timbale | <- | <- | <- | <- |
| 66 – F#4 | Low Timbale | <- | <- | <- | <- |
| 67 – G4 | High Agogo | <- | <- | <- | <- |
| 68 – G#4 | Low Agogo | <- | <- | <- | <- |

| Note | Standard 1 (bank 0) | Standard 2 (bank 4) | Room (bank 8) | Rock (bank 16) | Funk (bank 17) |
|----------|---------------------|---------------------|----------------|-----------------|-----------------|
| 69 – A4 | Cabasa | <- | <- | <- | <- |
| 70 – A#4 | Maracas | <- | <- | <- | <- |
| 71 – B4 | Short Whistle | <- | <- | <- | <- |
| 72 – C5 | Long Whistle | <- | <- | <- | <- |
| 73 – C#5 | Short Guiro | <- | <- | <- | <- |
| 74 – D5 | Long Guiro | <- | <- | <- | <- |
| 75 – D#5 | Claves | <- | <- | <- | <- |
| 76 – E5 | Hi Wood Block | <- | <- | <- | <- |
| 77 – F5 | Low Wood Block | <- | <- | <- | <- |
| 78 – F#5 | Mute Cuica | <- | <- | <- | <- |
| 79 – G5 | Open Cuica | <- | <- | <- | <- |
| 80 – G#5 | Mute Triangle | <- | <- | <- | <- |
| 81 – A5 | Open Triangle | <- | <- | <- | <- |

| Note | Standard 1 (bank 0) | Standard 2 (bank 4) | Room (bank 8) | Rock (bank 16) | Funk (bank 17) |
|----------|---------------------|---------------------|---------------|----------------|----------------|
| 82 – A#5 | Shaker | <- | <- | <- | <- |
| 83 – B5 | Jingle Bell | <- | <- | <- | <- |
| 84 – C6 | Bell Tree | <- | <- | <- | <- |
| 85 – C#6 | Castanets | <- | <- | <- | <- |
| 86 – D6 | Mute Surdo | <- | <- | <- | <- |
| 87 – D#6 | Open Surdo | <- | <- | <- | <- |

| Note | Electronic (bank 24) | 808 (bank 25) | House (bank 28) | Jazz (bank 32) | Brush (bank 40) |
|----------|----------------------|---------------|-----------------|----------------|-----------------|
| 27 – D#1 | <- | <- | <- | <- | <- |
| 28 – E1 | <- | <- | <- | <- | <- |
| 29 – F1 | <- | <- | <- | <- | <- |
| 30 – F#1 | <- | <- | <- | <- | <- |

| Note | Electronic (bank 24) | 808 (bank 25) | House (bank 28) | Jazz (bank 32) | Brush (bank 40) |
|----------|------------------------|-----------------|-------------------|------------------|-------------------|
| 31 – G1 | <- | <- | <- | <- | <- |
| 32 – G#1 | <- | <- | <- | <- | <- |
| 33 – A1 | <- | <- | <- | <- | <- |
| 34 – A#1 | <- | <- | <- | <- | <- |
| 35 – B1 | Electronic Bass Drum 1 | 808 Bass Drum 1 | House Bass Drum 1 | Jazz Bass Drum 1 | Brush Bass Drum 1 |
| 36 – C2 | Electronic Bass Drum 2 | 808 Bass Drum 2 | House Bass Drum 2 | Jazz Bass Drum 2 | Brush Bass Drum 2 |
| 37 – C#2 | <- | <- | <- | <- | <- |
| 38 – D2 | Electronic Snare | 808 Snare | House Snare | Jazz Snare | Brush Snare |
| 39 – D#2 | <- | <- | House Hand Clap | <- | <- |
| 40 – E2 | Electronic Snare Rim | 808 Snare Rim | House Snare Rim | Jazz Snare Rim | Brush Snare Rim |
| 41 – F2 | Electronic Tom 6 | 808 Tom 6 | House Tom 6 | Jazz Tom 6 | Brush Tom 6 |

| Note | Electronic (bank 24) | 808 (bank 25) | House (bank 28) | Jazz (bank 32) | Brush (bank 40) |
|-------------|------------------------------|-----------------------|-------------------------|------------------------|-------------------------|
| 42 – F#2 | Electronic Hi-hat Close | 808 Hi-hat Close | House Hi-hat Close | Jazz Hi-hat Close | <- |
| 43 – G2 | Electronic Tom 5 | 808 Tom 5 | House Tom 5 | Jazz Tom 5 | Brush Tom 5 |
| 44 – G#2 | Electronic Hi-hat Pedal | 808 Hi-hat Pedal | House Hi-hat Pedal | Jazz Hi-hat Pedal | <- |
| 45 – A2 | Electronic Tom 4 | 808 Tom 4 | House Tom 4 | Jazz Tom 4 | Brush Tom 4 |
| 46 – A#2 | Electronic Hi-hat Open | 808 Hi-hat Open | House Hi-hat Open | Jazz Hi-hat Open | <- |
| 47 – B2 | Electronic Tom 3 | 808 Tom 3 | House Tom 3 | Jazz Tom 3 | Brush Tom 3 |
| 48 – C3 | Electronic Tom 2 | 808 Tom 2 | House Tom 2 | Jazz Tom 2 | Brush Tom 2 |
| 49 – C#3 | <- | 808 Crash 1 | <- | <- | Brush Crash 1 |
| 50 – D3 | Electronic Tom 1 | 808 Tom 1 | House Tom 1 | Jazz Tom 1 | Brush Tom 1 |
| 51 – D#3 | <- | <- | <- | Jazz Ride | Brush Ride |
| 52 – E3 | <- | <- | <- | <- | <- |

| Note | Electronic (bank 24) | 808 (bank 25) | House (bank 28) | Jazz (bank 32) | Brush (bank 40) |
|----------|-----------------------|-------------------|------------------|-----------------|------------------|
| 53 – F3 | <- | <- | <- | <- | <- |
| 54 – F#3 | <- | <- | <- | <- | <- |
| 55 – G3 | <- | <- | <- | <- | <- |
| 56 – G#3 | <- | <- | <- | <- | <- |
| 57 – A3 | <- | 808 Crash 2 | <- | ChineseCymbal 2 | Brush Crash 2 |
| 58 – A#3 | <- | <- | <- | <- | <- |
| 59 – B3 | <- | <- | <- | <- | <- |
| 60 – C4 | <- | <- | <- | <- | <- |
| 61 – C#4 | <- | <- | <- | <- | <- |
| 62 – D4 | <- | 808 Mute Hi Conga | <- | <- | <- |
| 63 – D#4 | <- | 808 Open Hi Conga | <- | <- | <- |
| 64 – E4 | <- | 808 Low Conga | <- | <- | <- |
| 65 – F4 | <- | <- | <- | <- | <- |

| Note | Electronic (bank 24) | 808 (bank 25) | House (bank 28) | Jazz (bank 32) | Brush (bank 40) |
|----------|-----------------------|----------------|------------------|-----------------|------------------|
| 66 – F#4 | <- | <- | <- | <- | <- |
| 67 – G4 | <- | <- | <- | <- | <- |
| 68 – G#4 | <- | <- | <- | <- | <- |
| 69 – A4 | <- | <- | <- | <- | <- |
| 70 – A#4 | <- | 808 Maracas | <- | <- | <- |
| 71 – B4 | <- | <- | <- | <- | <- |
| 72 – C5 | <- | <- | <- | <- | <- |
| 73 – C#5 | <- | <- | <- | <- | <- |
| 74 – D5 | <- | <- | <- | <- | <- |
| 75 – D#5 | <- | 808 Claves | <- | <- | <- |
| 76 – E5 | <- | <- | <- | <- | <- |
| 77 – F5 | <- | <- | <- | <- | <- |
| 78 – F#5 | <- | <- | <- | <- | <- |

| Note | Electronic (bank 24) | 808 (bank 25) | House (bank 28) | Jazz (bank 32) | Brush (bank 40) |
|-------------|------------------------------|-----------------------|-------------------------|------------------------|-------------------------|
| 79 – G5 | <- | <- | <- | <- | <- |
| 80 – G#5 | <- | <- | <- | <- | <- |
| 81 – A5 | <- | <- | <- | <- | <- |
| 82 – A#5 | <- | <- | <- | <- | <- |
| 83 – B5 | <- | <- | <- | <- | <- |
| 84 – C6 | <- | <- | <- | <- | <- |
| 85 – C#6 | <- | <- | <- | <- | <- |
| 86 – D6 | <- | <- | <- | <- | <- |
| 87 – D#6 | <- | <- | <- | <- | <- |

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