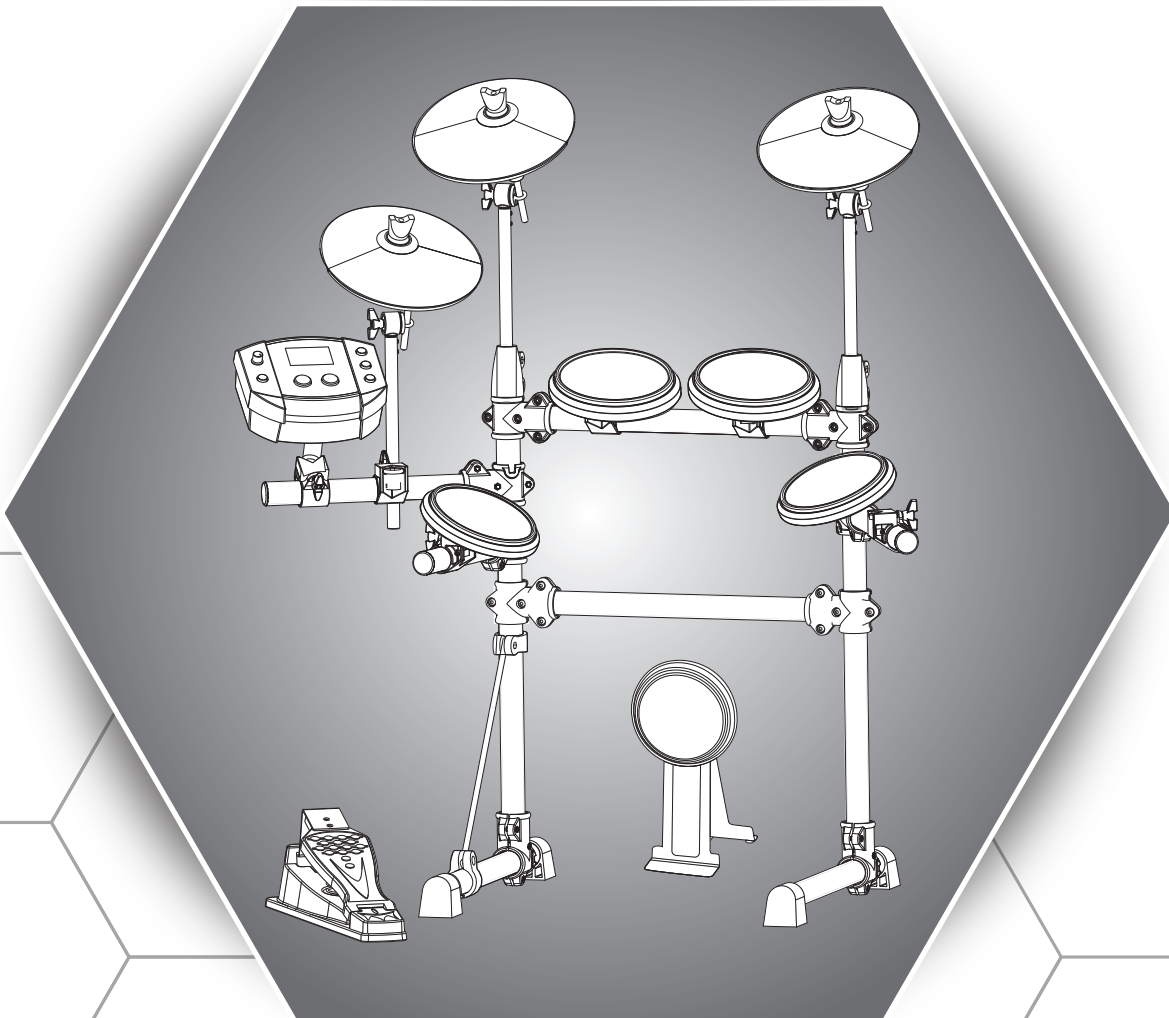


SIMMONS[®]

The First Name in Electronic Drums.

SD5X



Electronic Drum Kit

USER MANUAL

www.simmonsdrums.net

Two (2) Year Limited Warranty

Subject to the limitations set forth below, Simmons® hereby represents and warrants that the components of this product shall be free from defects in workmanship and materials, including implied warranties of merchantability or fitness for a particular purpose, subject to normal use and service, for two (2) years to the original owner from the date of purchase.

Retailer and manufacturer shall not be liable for damages based upon inconvenience, loss of use of product, loss of time, interrupted operation or commercial loss or any other incidental or consequential damages including but not limited to lost profits, downtime, goodwill, damage to or replacement of equipment and property, and any costs of recovering, reprogramming, or reproducing any program or data stored in equipment that is used with Simmons® products. This guarantee gives you specific legal rights. You may have other legal rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

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P.O. Box 5111
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Made in China

FCC Statements

1. Caution: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a different circuit.
 - Consult an experienced radio/TV technician for help.

CONGRATULATIONS!

... on your purchase of Simmons' SD5X Electronic Drum Kit. To get the most enjoyment from this kit, we recommend that you skim through this manual at least once, then refer back to it to learn more about specific functions.

Taking Care of Your Digital Drum Kit

Location

- To avoid deformation, discoloration, or more serious damage, do not expose the unit to direct sunlight, high temperature sources, or excessive humidity.

Power Supply

- Turn the power switch OFF when the SD5X is not in use.
- The AC adapter should be unplugged from the AC outlet if the SD5X is not to be used for an extended period of time.
- Avoid plugging the AC adapter into an AC outlet that is also powering high-consumption appliances such as electric heaters or televisions. Also avoid using multi plug adapters since these can reduce sound quality, cause operation errors and result in possible damage.
- To avoid damage, turn OFF the SD5X's power switch and all related devices prior to connecting or disconnecting cables.

Handling and Transport

- Never apply excessive force to controls, connectors, and other parts.
- Unplug cables by gripping the plug firmly. Do not pull on the cable.
- Disconnect all cables before moving the module.
- Physical shocks caused by dropping, bumping, or placing heavy objects on the module can result in scratches and more serious damage.

Cleaning

- Clean the module with a dry, soft cloth.
- A slightly damp cloth may be used to remove stubborn grime and dirt.
- Never use cleaners such as alcohol or thinner.
- To avoid discoloration, do not place vinyl objects on top of module.

Electrical Interference

- The module contains digital circuitry and may cause interference if placed too close to radio or television receivers. If this occurs, move the SD5X further away from the affected equipment.

Service and Modification

- There are no user serviceable parts in the drum module.
- Do not attempt to open the drum module or make any change in the circuits or parts of the unit. This would void the warranty.

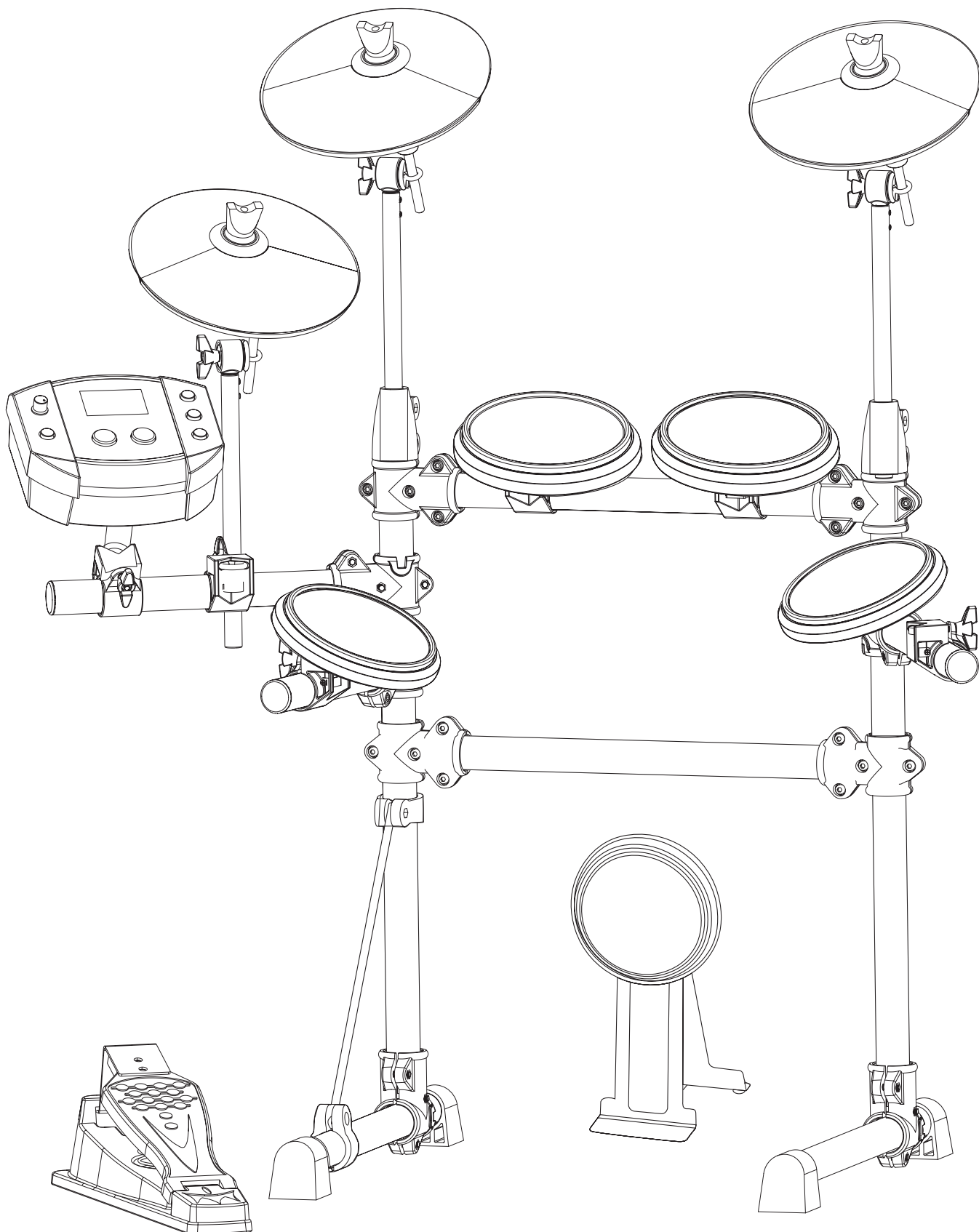


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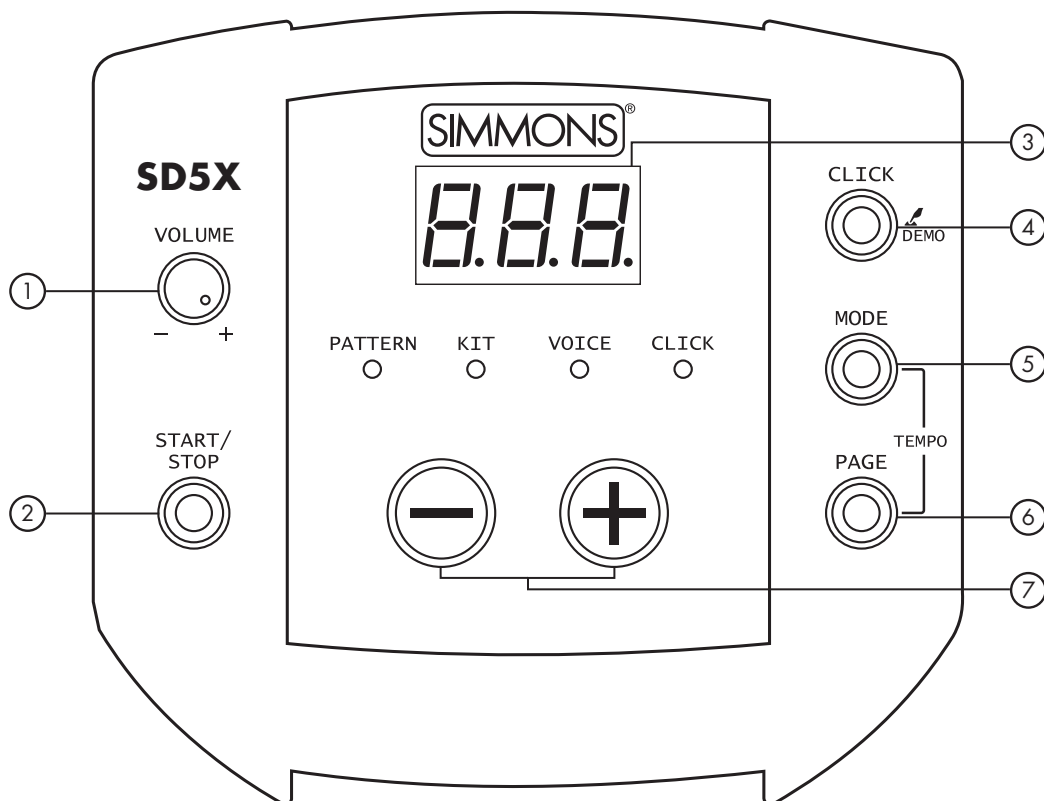
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PANEL CONTROLS

User Interface



① Master Volume Control

Control the volume of phone and line outputs. Turn knob clockwise to increase the volume and counter-clockwise to decrease the volume.

② [START/STOP] Button

Start or stop Pattern playing.

③ LED Display

3-digit LED and LED indicators.

④ [CLICK] BUTTON

Press **[CLICK]** button to start/stop the click.

Hold the **[CLICK]** button 2 seconds to enter the demo mode and play the demo.

⑤ [MODE] Button

Press **[MODE]** button to select the mode from PATTERN, KIT, VOICE, CLICK.

⑥ [PAGE] Button

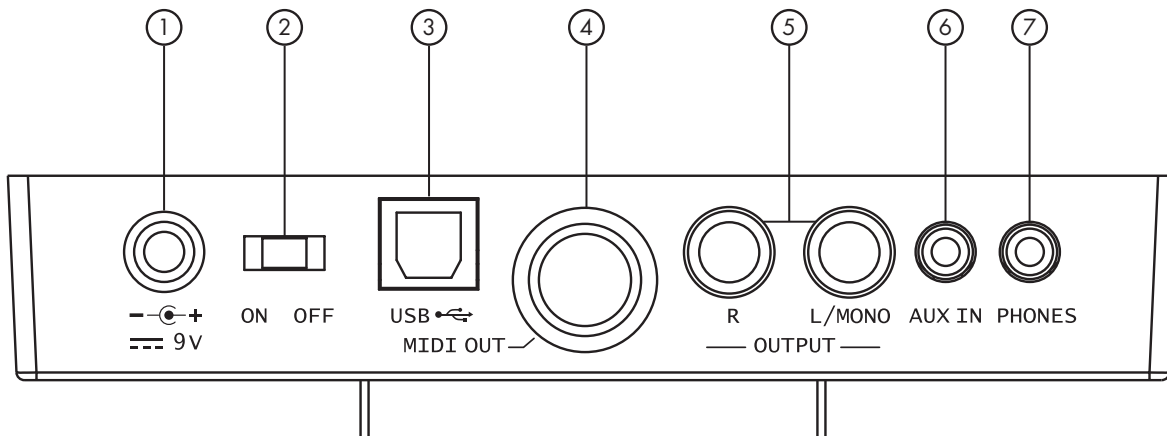
Press **[PAGE]** button to browse the menu pages of current selected mode.

Press both **[MODE]** and **[PAGE]** buttons, the 3-digit LED will display the tempo page, it will display for 3 seconds, then press **[+]/[-]** to adjust the value.

⑦ [+]/[-] Button

Press **[+]/[-]** button to adjust the parameters.

Rear Panel



① Power Supply Jack

Connect the 9V AC adaptor to this jack.

② Power Switch

Turn the power on/off.

③ USB Port

Connect to computer (MIDI via USB.)

④ MIDI Out Jack

Connect with external sound module.

⑤ Line Output Jacks (R, L/MONO)

Right channel output and left channel output. Left channel used as mono line output.

⑥ AUX In

Connect with external sound source.

⑦ Phones Jack

Connect a pair of stereo headphones to this jack (connection of the headphones will not mute the output jack.)

CONNECTIONS



CAUTION!

To prevent electric shock and damage to the device, make sure the power is switched OFF on the sound module and all related devices before making any connection.

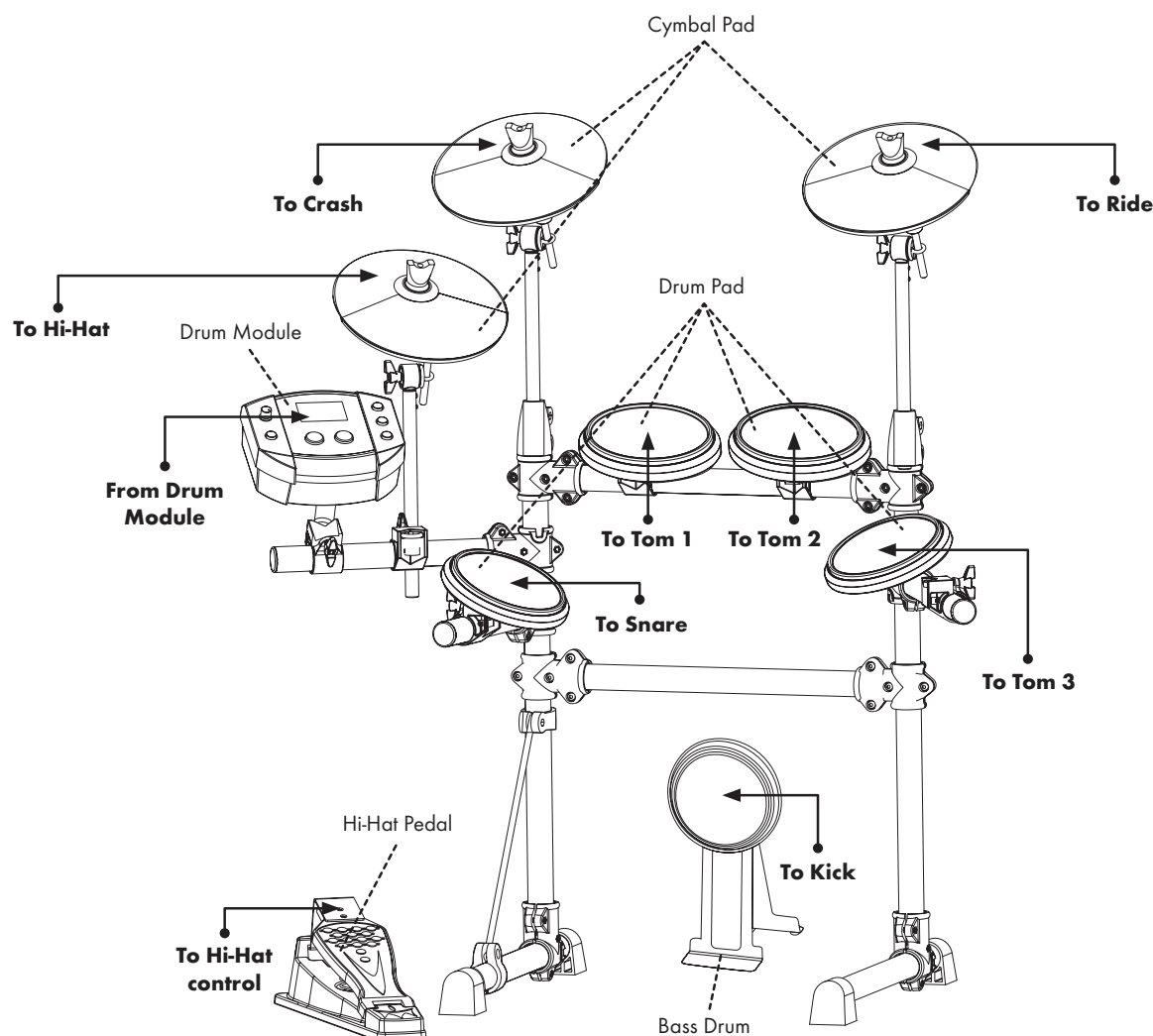


Pads and Pedal

Using the provided cables, connect the 1/4" jacks to the corresponding drum pads, cymbal pads and kick pad. The pin connection will attach to the serial port of the sound module. (See illustration.)

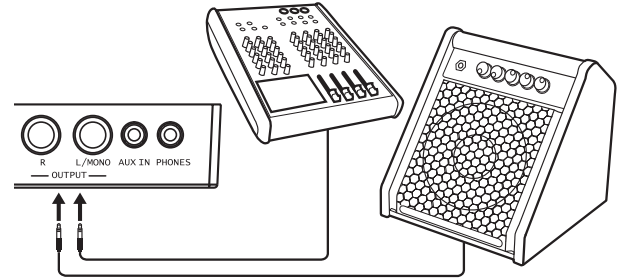
Note: The voice of the hi-hat pad is controlled by the hi-hat pedal. Similar to a real drum kit, the hi-hat pad functions as an 'open hi-hat' when the pedal is released. When the pedal is pressed down, it functions as a 'closed hi-hat'.

Note: The striking area of cymbal pad (ride, crash or hi-hat) is near the edge of the pad. One of the cymbal pads has a choke function (indicated by raised pattern at cymbal edge.) Grab this area to stop cymbal from sounding.



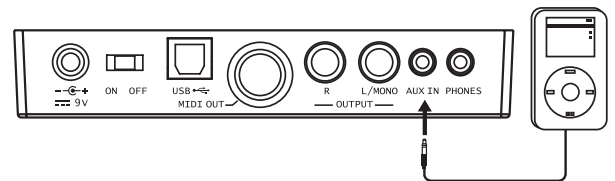
Mixer or Amplification

1. When you want to listen to the voices send the drum to a mixer or amplifier. Connect using the Output L/MONO and R jacks on the rear panel (for monaural playback, use the L/MONO jack; for stereo playback, connect both L/MONO and R jacks.)
2. The volume is adjusted with the VOLUME knob.



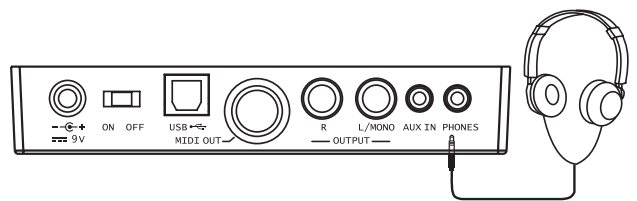
MP3 (Aux in Jack)

1. Use audio output of MP3 player, or other audio source, to connect with the AUX IN jack on the rear panel. Play along with a pre-recorded track.
2. The volume of the external signal is adjusted with the VOLUME knob.



Headphones

An optional set of stereo headphones can be connected with the PHONES jack located on the rear panel of the drum module. Adjust the volume to a comfortable level.

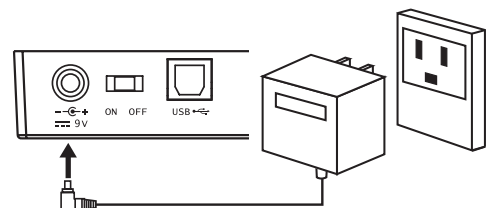


Power Supply

Make sure the power is switched OFF and connect the power adaptor with the DC IN jack on the rear panel.

Note: To protect the speakers, amplifier and the drum module from damage, lower the volume to the minimum level before switching the power ON.

Make sure the power is switched OFF when connecting the drum module with external devices.



MIDI and USB

MIDI stands for Musical Instrument Digital Interface, this is a world-wide standard communication interface that enables electronic musical instruments and computers (of all brands) to communicate with each other so that MIDI command and other data can pass between them. This exchange of information makes it possible to create a system of MIDI instruments and devices that offer greater versatility and control than is available with isolated instruments. Whether you interface with computers, sequencers, expanders or other controllers, your musical horizons will be greatly enhanced.

MIDI connection

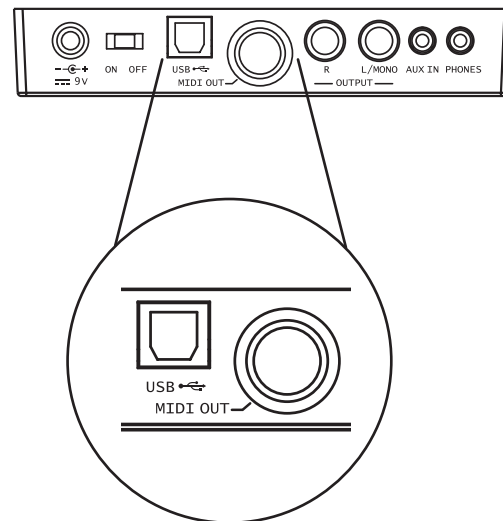
MIDI OUT: This terminal transmits data from this instrument to other MIDI devices.

USB connection

The USB connector allows you to connect the module directly to your computer. It can be connected without driver installation under the Windows XP\Vista\Windows 7 & MAC OSX environment.

The module will be recognized as 'USB Audio device' to receive and transmit MIDI messages through a single USB cable, USB is used only for MIDI messages (MIDI via USB).

Note: When the USB is connected to a computer, all MIDI messages will be received and transmitted via USB.



MENU TREE

PATTERN —————> Number
Accompaniment Volume
Drum Volume

KIT —————> Number
Volume
Reverb

VOICE —————> Number
Volume
MIDI Note

CLICK —————> Time Signature
Interval
Click Instrument
Volume

OPERATION

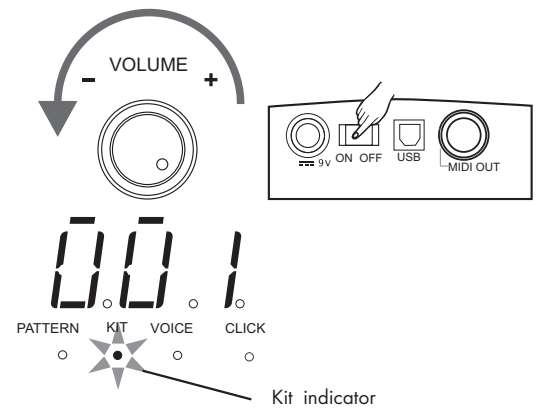
Press **[MODE]** button to change between modes.

Press **[PAGE]** button to select the page of current mode. Press **[+]/[-]** button to adjust the parameters.

Turning the Power On

After confirming all connections have been completed, lower the volume (minimum volume level) before switching the power on.

Set the power switch to "ON" position to turn on the power. Display shows the kit's number and its indicator lights.



Setting the Main Volume

While hitting a pad, gradually rotate the volume knob until a comfortable volume level is reached.



PATTERN

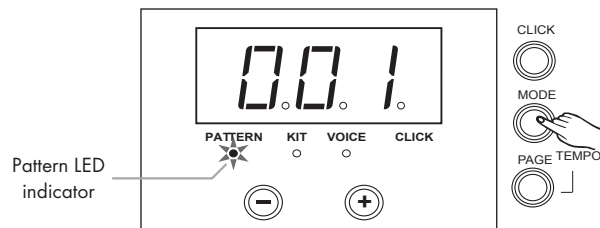
In pattern mode, there are 3 pages:

1. Pattern number (1-40, default 1).
2. Pattern accompaniment volume (0-32).
3. Pattern drum volume (0-32).

Selecting a Pattern

In pattern mode, pattern number (001-040, default 001):

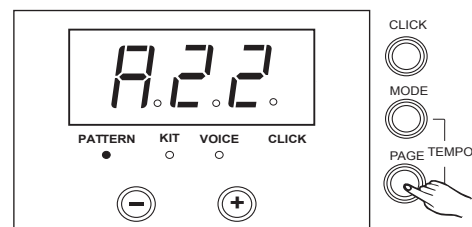
1. Press the **[MODE]** button to select the pattern mode, the pattern LED indicator will light, the 3-digit-LED will display the pattern number (001).
2. Press **[+]/[-]** button to adjust the value. Range: (001-040).



Adjusting the Accompaniment Volume

In pattern mode, pattern accompaniment volume (0-032):

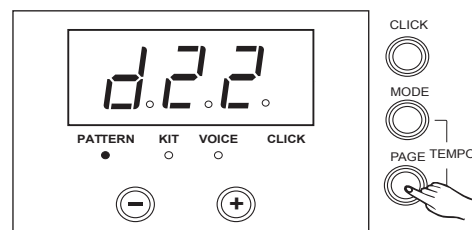
1. Press **[MODE]** button to select the pattern mode, the pattern LED indicator will light.
2. Press **[PAGE]** button to select the accompaniment volume page, the 3-digit-LED will display the accompaniment volume (A22).
3. Press **[+]/[-]** button to adjust the value. Range: (0-32).



Adjusting the Drum Volume

In pattern mode, pattern drum volume (0-032)

1. Press **[MODE]** button to select the pattern mode, the pattern LED indicator will light.
2. Press **[PAGE]** button to select the drum volume page, the 3-digit-LED will display the drum volume (d22).
3. Press **[+]/[-]** to adjust the value. Range: (0-32)



DRUM KIT

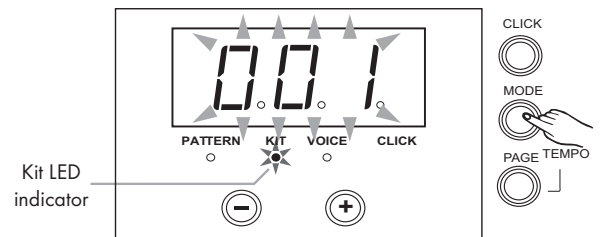
In kit mode, there are 3 pages:

1. Kit number (001-014, default 1).
2. Kit volume (0-32).
3. Kit reverb: (on/off, default on).

Selecting a Kit

In kit mode, kit number (001-014, default 1).

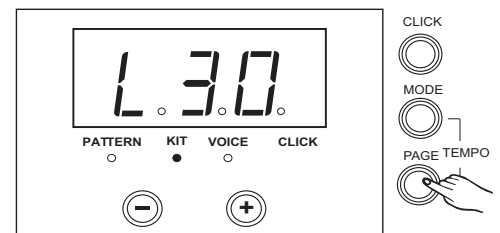
1. Press **[MODE]** button to select the kit mode, the kit LED indicator will light, the 3-digit-LED will display the kit number (001).
2. Press **[+]/[-]** to adjust the value. Range: (001-014).



Adjusting the Kit Volume

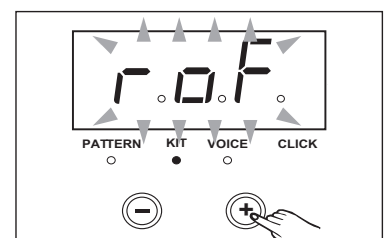
In kit mode, kit volume (0-32).

1. Press the **[MODE]** button to select the kit mode, the kit LED indicator will light.
2. Press the **[PAGE]** button to select the kit volume page, the 3-digit-LED will display the kit volume (L30).
3. Press **[+]/[-]** to adjust the value. This value will automatically be saved upon exit. Range: (0-32).



Toggling Reverb On/Off

1. Press **[MODE]** button to select the kit mode, the kit LED indicator will light.
2. Press the **[PAGE]** button to select the kit reverb page, reverb effect can be toggled on or off by pressing button **[+]/[-]**.



VOICE

In voice mode, there are 3 pages:

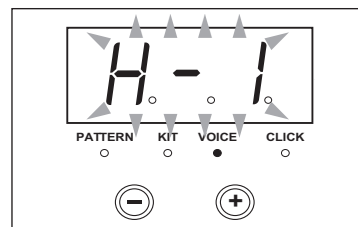
1. Voice number: (1-130).
2. Voice volume: (0-32).
3. MIDI note: (0-99).

Selecting the Voice

In voice mode, voice number: (1-130).

1. Press **[MODE]** button to select the voice mode, the voice LED indicator will light, strike a drum pad, the 3-digit-LED will display the voice number.
2. Press **[+]/[-]** to adjust the value. This value will automatically be saved upon exit. Range: (001-130).

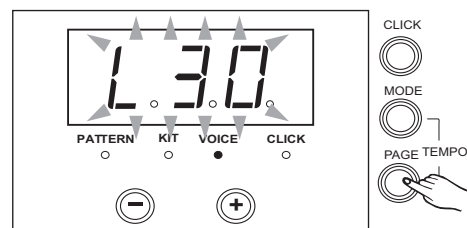
Note: When you select a voice for the hi-hit, you can only select the hi-hat group voices, from groups 1-4. The display will show H-1, H-2, H-3, H-4. This value will automatically be saved upon exit.



Adjusting the Voice Volume

In voice mode, voice volume: (0-32).

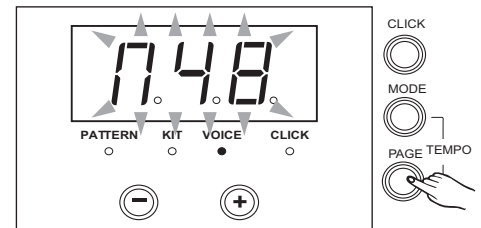
1. Press **[MODE]** button to select the voice mode, the voice LED indicator will light.
2. Press **[PAGE]** button to select the voice volume page, strike a drum pad, the 3-digit-LED will display the voice volume (L30).
3. Press **[+]/[-]** to adjust the value. This value will automatically be saved upon exit. Range: (0-32).



Adjusting the MIDI Note

In voice mode, MIDI note: (0-99).

1. Press **[MODE]** button to select the voice mode, the voice LED indicator will light.
2. Press **[PAGE]** button to select the MIDI note page, strike a drum pad, the 3-digit-LED will display the MIDI note (n48).
3. Press **[+]/[-]** to adjust the value. This value will automatically be saved upon exit. Range: (0-99).



The Default MIDI Note Numbers:

NO.	NAME	NOTE
1	Crash 1	49
2	Tom 1	48
3	Tom 2	45
4	Tom 3	43
5	Ride	51
6	Kick	36
7	Snare	38
8	Hi-Hat Close	42
9	Hi-Hat Open	46
10	Hi-Hat Pedal	44

TEMPO

The tempo range is 30-280 BPM.

Adjusting the Tempo

1. Press both **[MODE]** and **[PAGE]** buttons, the 3-digit-LED will display the tempo page for 3 seconds.
2. Press **[+]/[-]** to adjust the value.



CLICK

In click mode, there are 4 pages:

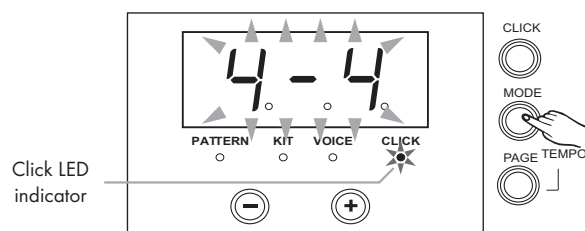
1. Time signature: (1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8).
2. Interval: (1/4, 1/8, 1/12, 1/16, 1/24, default 1/4).
3. Instrument: (1-5, default 1).
4. Click volume: (0-32).

Adjusting the Time Click Signature

In click mode, Time signature: (1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 7/4, 3/8, 6/8).

1. Press **[MODE]** button select the click mode, the click LED indicator will light.
2. Press **[PAGE]** button select the click time signature page, the 3-digit-LED will display the click time signature (4-4).
3. Press **[+]/[-]** to adjust the value.
Range: (1/4, 2/4, 3/4, 4/4, 5/4, 6/4, 3/8, 6/8).

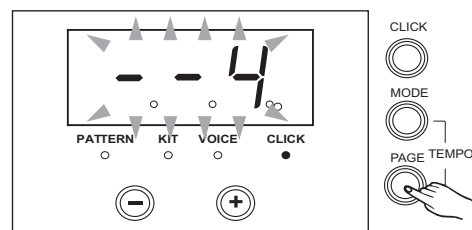
Note: The click time signature will follow the pattern playing. It can not be edited.



Adjusting the Click Interval

In click mode, interval: (1/4, 1/8, 1/12, 1/16, 1/24, default 1/4).

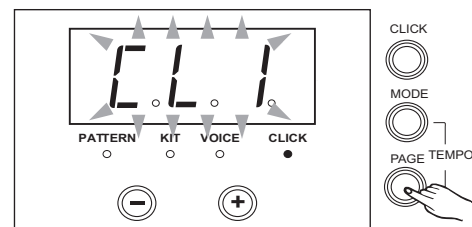
1. Press **[MODE]** button to select the click mode, the click LED indicator will light.
2. Press **[PAGE]** button to select the click interval page, the 3-digit-LED will display the click interval (- -4).
3. Press the **[+]/[-]** button to adjust the value. Range: (- -4 to -24).



Adjusting the Click Instrument

In click mode, instrument: (1-5, default 1).

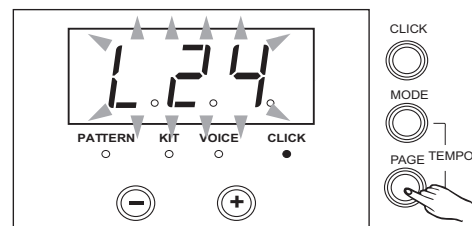
1. Press **[MODE]** button to select the click mode, the click LED indicator will light.
2. Press **[PAGE]** button to select the click instrument page, the 3-digit-LED will display the click instrument (CL1).
3. Press **[+]/[-]** to adjust the value. Range: (CL1-CL5).



Adjusting the Click Volume

In click mode, click volume: (0-32).

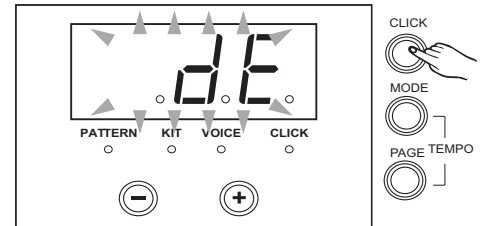
1. Press **[MODE]** button to select the click mode, the click LED indicator will light.
2. Press **[PAGE]** button to select the click volume page, the 3-digit-LED will display the click volume (L24).
3. Press **[+]/[-]** to adjust the value. Range: (0-32)



PLAYING

Playing the Demo

1. Hold the **[CLICK]** button for 2 seconds to enter demo mode and play the demo. The 3-digit-LED will display "dE". The click indicator will light to follow the tempo of the demo.
2. Press **[START/STOP]** button to play and stop the demo.



Playing the Pattern

1. Press **[START/STOP]** button to play the selected patterns.
2. Press **[START/STOP]** button again to stop play.



Playing the Click

1. Press the **[CLICK]** button to start the click. The click indicator will light to follow the tempo of the click.
2. Press the **[CLICK]** button again to stop the click.



APPENDICES

Restoring Factory Presets

Restoring the factory preset can be implemented by the following operations:

Turn on the power with both **[+]/[-]** pressed simultaneously.

This function will replace the current settings of the following parameters to their default preset values:

Kit volume, voice number, voice volume and MIDI note.

Specifications

Drum Kit:	4 drum pads 3 cymbal pads 1 hi-hat control pedal 1 kick pad
Preset Drum Kits:	14 preset kits
Drum Instruments:	130
Preset Patterns:	40
Controls:	MIDI Out Power Switch USB Phones Start/Stop Pattern Kit Voice Click Mode Page Demo Tempo Volume +/-
Display:	LED Display
Connections:	Phones Aux In Output (R&L/MONO) MIDI Out USB On/Off
Power Supply:	AC Adaptor (--- 9V 500mA)

*Specifications may be changed or modified at any time without prior notice

Preset Drum Kit List

#	Name	#	Name
001	Rock it!	008	Power Kick
002	Studio Kit	009	Eight O Eight
003	Power Tom	010	In the House
004	Digital Age	011	Classic 80
005	Percussive Mix Kit	012	Electric Dive
006	Jazz Kit	013	Club Electronica
007	Brush Kit	014	Electric Dance

Preset Pattern List

#	Name	Tempo	Kit	#	Name	Tempo	Kit
001	Fusion Groove	98	1	022	Smooth Latin	126	7
002	Electronica	103	9	023	Big Band Swing	136	6
003	Acid Jazz	130	1	024	3/4 Swing	120	7
004	Hip Hop	110	9	025	Jazz Break	150	7
005	Latin Jazz	130	7	026	6/8 Standard	96	3
006	Funk time	100	1	027	Smooth Ballad	80	3
007	Dixie Band	170	6	028	Bossa Pop	120	2
008	Funk Slap	95	1	029	16 Beat	108	2
009	Funk Time II	105	1	030	Shuffle	86	2
010	Fusion Vibe	112	1	031	Carnival	210	1
011	Funk Slap II	108	1	032	Havana Dance	98	2
012	Fusion Lead	108	1	033	Latin Rock	120	1
013	Fusion Groove II	106	1	034	Latin Interlude	126	2
014	Funky Groove	90	1	035	Rio	84	2
015	Nite Rhythm	86	9	036	Country Blues	120	9
016	Trip Hop	108	9	037	Rock Groove	96	1
017	Electronic Ride	86	1	038	Island Beat	78	1
018	House	120	9	039	Driving Rock	108	2
019	Drum & Bass	130	1	040	Classic Blue	89	2
020	Club Latin	106	1		Demo Funk	89	1
021	Straight Ahead	155	6				

Preset Drum Instrument List

KICK

001	Standard Kick 1
002	Standard Kick 2
003	Room Kick
004	Rock Kick 1
005	Rock Kick 2
006	Acoustic Kick
007	Hiphop Kick
008	Funk Kick
009	Jazz Kick 1
010	Jazz Kick 2
011	Electronic Kick
012	808 kick
013	House Kick 1
014	House Kick 2
015	Simmons Kick 1
016	Simmons Kick 2
017	Simmons Kick 3
018	Simmons Kick 4

SNARE

019	Classic Snare 1
020	Classic Snare Rim 1
021	Classic Snare 2
022	Classic Snare Rim 2
023	Room Snare 1
024	Room Snare 2
025	Acoustic Snare
026	Acoustic Snare Rim
027	Funk Band Snare
028	Funk Band Snare Rim
029	Maple Snare
030	Maple Snare Rim
031	Brush Snare
032	Brush Snare Rim
033	Electronic Snare 1
034	Electronic Snare 2
035	808 Snare
036	House Snare 1
037	House Snare 2
038	Simmons Snare 1
039	Simmons Snare 2
040	Simmons Snare 3
041	Simmons Snare 4
042	Simmons Clap

TOM

043	Classic Tom 1
044	Classic Tom 2
045	Classic Tom 3
046	Classic Tom 4
047	Classic Tom 5
048	Classic Tom 6
049	Maple Tom 1
050	Maple Tom 2
051	Maple Tom 3
052	Maple Tom 4
053	Maple Tom 5
054	Maple Tom 6
055	808 Tom 1
056	808 Tom 2
057	808 Tom 3
058	808 Tom 4
059	808 Tom 5
060	808 Tom 6
061	Electronic Tom 1
062	Electronic Tom 2
063	Electronic Tom 3
064	Electronic Tom 4
065	Electronic Tom 5
066	Electronic Tom 6
067	Simmons V1 Tom 1
068	Simmons V1 Tom 2
069	Simmons V1 Tom 3
070	Simmons V2 Tom 1
071	Simmons V2 Tom 2
072	Simmons V2 Tom 3
073	Simmons V3 Tom 1
074	Simmons V3 Tom 2
075	Simmons V3 Tom 3
076	Simmons V4 Tom 1
077	Simmons V4 Tom 2
078	Simmons V4 Tom 3
079	Simmons Bend Tom

RIDE

080	Classic Ride
081	Classic Ride Bell
082	Rock Ride
083	808 Ride

CRASH

084	Standard Crash 1
085	Standard Crash 2
086	Rock Crash
087	Splash 1
088	Splash 2
089	Brush Crash
090	808 Crash

HI-HAT

091	Standard Hi-hat Open
092	Jazz Hi-hat Open
093	Electronic Hi-hat Open
094	808 Hi-hat Open
095	Standard Hi-hat Close
096	Jazz Hi-hat Close
097	Electronic Hi-hat Close
098	808 Hi-hat Close
099	Standard Hi-hat Pad
100	Jazz Hi-hat Pad
101	Electronic Hi-hat Pad
102	808 Hi-hat Pad

PERCUSSION

103	Bongo High
104	Bongo Low
105	Mute High Conga
106	Open High Conga
107	Conga Low
108	Timbale High
109	Timbale Low
110	Agogo High
111	Agogo Low
112	Cabasa
113	Maracas
114	High Whistle
115	Low Whistle
116	Short Guiro
117	Long Guiro
118	Claves
119	Wood Block High
120	Wood Block Low
121	Mute Cuica
122	Open Cuica
123	Mute Triangle
124	Open Triangle
125	Shaker
126	Jingle Bell
127	Bell Tree
128	Castanets
129	Mute Surdo
130	Open Surdo

General MIDI Voice List

PIANO

001	Acoustic Grand Piano
002	Bright Acoustic Piano
003	Electric Grand Piano
004	Honky-Tonk Piano
005	Electric Piano 1
006	Electric Piano 2
007	Harpsichord
008	Clavichord

CHROMATIC PERCUSSION

009	Celesta
010	Glockenspiel
011	Music box
012	Vibraphone
013	Marimba
014	Xylophone
015	Tubular Bells
016	Dulcimer

ORGAN

017	Drawbar Organ
018	Percussive Organ
019	Rock Organ
020	Church Organ
021	Reed Organ
022	Accordion
023	Harmonica
024	Tango Accordion

GUITAR

025	Nylon Guitar
026	Steel Guitar
027	Jazz Guitar
028	Clean Guitar
029	Muted Guitar
030	Overdriven Guitar
031	Distortion Guitar
032	Guitar Harmonics

BASS

033	Acoustic Bass
034	Finger Bass
035	Pick Bass
036	Fretless Bass
037	Slap Bass 1
038	Slap Bass 2
039	Synth Bass 1
040	Synth Bass 2

STRINGS

041	Violin
042	Viola
043	Cello
044	Contrabass
045	Tremolo Strings
046	Pizzicato Strings
047	Orchestral Harp
048	Timpani

ENSEMBLE

049	String Ensemble 1
050	String Ensemble 2
051	Synth Strings 1
052	Synth Strings 2
053	Choir "Aahs"
054	Voice "Oohs"
055	Synth Voice
056	Orchestra Hit

BRASS

057	Trumpet
058	Trombone
059	Tuba
060	Muted Trumpet
061	French Horn
062	Brass Section
063	Synth Brass 1
064	Synth Brass 2

REED

065	Soprano Sax
066	Alto Sax
067	Tenor Sax
068	Baritone Sax
069	Oboe
070	English Horn
071	Bassoon
072	Clarinet

PIPE

073	Piccolo
074	Flute
075	Recorder
076	Pan Flute
077	Bottle Blow
078	Shakuhachi
079	Whistle
080	Ocarina

SYNTH LEAD

081	Lead 1 (square)
082	Lead 2 (sawtooth)
083	Lead 3 (caliope lead)
084	Lead 4 (chiff lead)
085	Lead 5 (charang)
086	Lead 6 (voice)
087	Lead 7 (fifths)
088	Lead 8 (bass + lead)

SYNTH PAD

089	Pad 1 (new age)
090	Pad 2 (warm)
091	Pad 3 (polysynth)
092	Pad 4 (choir)
093	Pad 5 (bowed)
094	Pad 6 (metallic)
095	Pad 7 (halo)
096	Pad 8 (sweep)

SYNTH EFFECT

097	FX 1 (rain)
098	FX 2 (soundtrack)
099	FX 3 (crystal)
100	FX 4 (atmosphere)
101	FX 5 (brightness)
102	FX 6 (goblins)
103	FX 7 (echoes)
104	FX 8 (sci-fi)

ETHNIC

105	Sitar
106	Banjo
107	Shamisen
108	Koto
109	Kalimba
110	Bagpipe
111	Fiddle
112	Shanai

PERCUSSIVE

113	Tinkle Bell
114	Agogo
115	Steel Drums
116	Wood Block
117	Taiko Drum
118	Melodic Tom
119	Synth Drum
120	Reverse Cymbal

SOUND EFFECT

121	Guitar Fret Noise
122	Breath Noise
123	Seashore
124	Bird Tweet
125	Telephone Ring
126	Helicopter
127	Applause
128	Gunshot

Percussion Set List

NET #	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	←	←	←	←
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
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	←
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	←	←	←	←
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	←	←	←	←
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	←	←	←	←

Percussion Set List Cont.

NET #	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	←	←	←	←	←
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
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	←	←	←	←	←
53-F3	←	←	←	←	←
54-F#3	←	←	←	←	←
55-G3	←	←	←	←	←
56-G#3	←	←	←	←	←
57-A3	←	808 Crash 2	←	Chinese Cymbal 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	←	←	←	←	←
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	←	←	←	←	←
79-G5	←	←	←	←	←
80-G#5	←	←	←	←	←
81-A5	←	←	←	←	←
82-A#5	←	←	←	←	←
83-B5	←	←	←	←	←
84-C6	←	←	←	←	←
85-C#6	←	←	←	←	←
86-D6	←	←	←	←	←
87-D#6	←	←	←	←	←

MIDI Implementation Chart

O: YES X: NO

	Function	Transmitted	Recognized	Remarks
Basic	Default	10Ch	1-16Ch	
Channel	Changed	X	X	
	Default	X	X	
Mode	Messages	X	X	
	Altered	*****	*****	
Note Number	True Voice	0-127 *****	0-127 0-127	
Velocity	Note On Note Off	0 (99H, V=1-127) 0 (9 9, V=0)	0-127 0-127	
After	Key's	X	X	
Touch	Ch's	X	X	
Pitch Blend		X	O	
Control	0	X	O	Bank Select
Change	1	X	O	Modulation
	5	X	O	Portamento Time
	6	X	O	Data Entry
	7	X	O	Volume
	10	X	O	Pan
	11	X	O	Expression
	64	X	O	Sustain Pedal
	65	X	O	Portamento On/Off
	66	X	O	Sostenuto Pedal
	67	X	O	Soft Pedal
	80	X	O	Reverb Program
	81	X	O	Chorus Program
	91	X	O	Reverb Level
	93	X	O	Chorus Level
	120	X	O	All Sound Off
	121	X	O	Reset All Controllers
	123	X	O	All Notes Off
Program Change		X	O	
System Exclusive		X	O	
System	:Song Position	X	X	
Common	:Song Select	X	X	
	:Tune	X	X	
System	:Clock	O	X	Start/Stop
Real Time	:Commands	O	X	
Aux	:Local On/Off	X	X	
	:All Notes Off	X	X	
Messages	:Active Sense	O	X	
	:Reset	X	X	