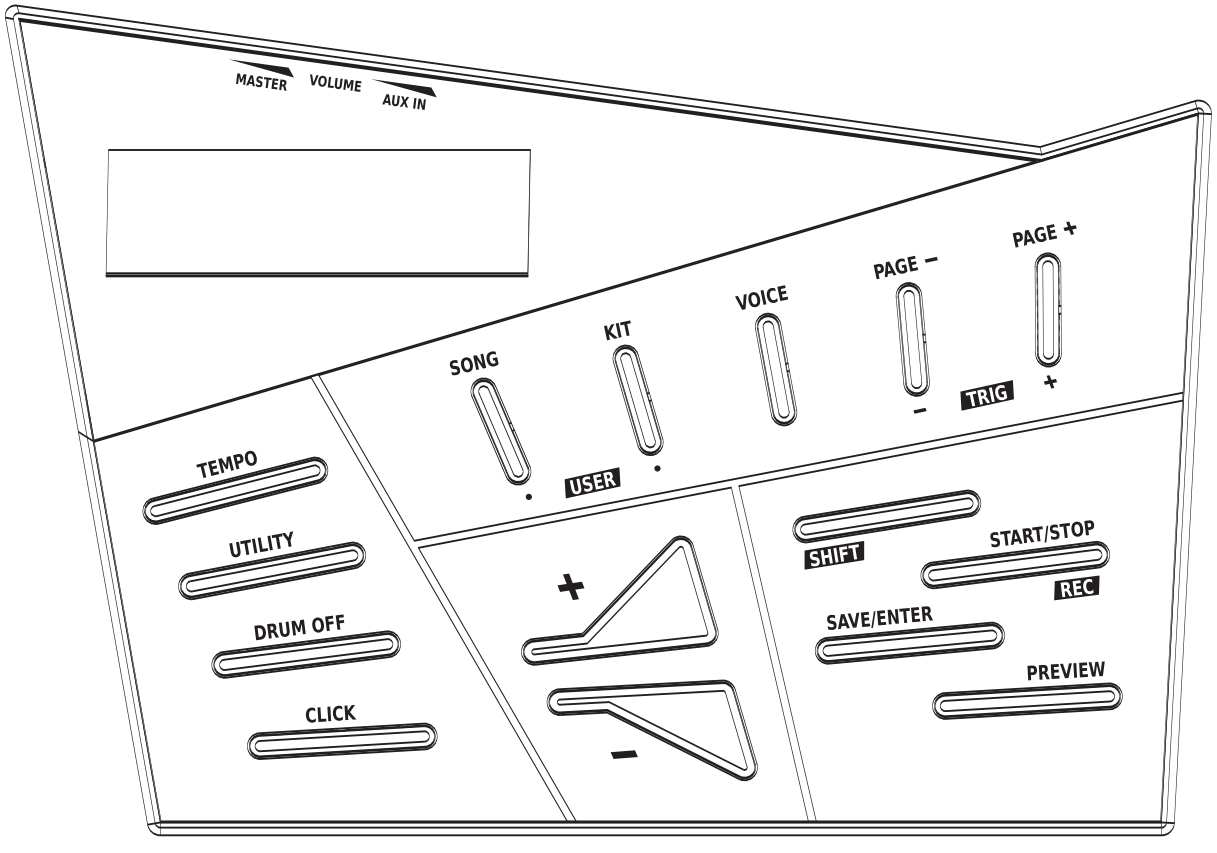

Digital Drum

Owner's Manual

INFORMATION FOR YOUR SAFETY!

THE FCC REGULATION WARNING (for USA)

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 circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

CAUTION

The normal function of the product may be disturbed by Strong Electro Magnetic Interference. If so, simply reset the product to resume normal operation by following the owner's manual. In case the function could not resume, please use the product in other location.

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

Please keep this manual in a safe place for future reference.

Power Supply
Please connect the designated AC adaptor to an AC outlet of the correct voltage.

Do not connect it to an AC outlet of voltage other than that for which your instrument is intended.

Unplug the AC power adaptor when not using the instrument, or during electrical storms.

Connections
Before connecting the instrument to other devices, turn off the power to all units. This will help prevent malfunction and / or damage to other devices.

Location
Do not expose the instrument to the following conditions to avoid deformation, discoloration, or more serious damage:

- Direct sunlight
- Extreme temperature or humidity
- Excessive dusty or dirty location
- Strong vibrations or shocks
- Close to magnetic fields

Interference with other electrical devices
Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Cleaning
Clean only with a soft, dry cloth.
Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.

Handling
Do not apply excessive force to the switches or controls.

Do not let paper, metallic, or other objects into the instrument. If this happens, remove the electric plug from the outlet. Then have the instrument inspected by qualified service personnel.

Disconnect all cables before moving the instrument.

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Main Features

Bring the Professional Experience to Your Performance

Natural and Realistic Voices

This fresh digital drum has equipped with all fresh voices, which vastly improved sound quality and will reach a super natural and realistic sense for your ears. No matter playing the stroke roll or striking pads with velocity dynamic, all of these let you enjoy delicate nuances and natural voice, capture the unique characteristics of acoustic drum kit.

Professional Hi-hat Controlling

Our engineers are always keeping keen on simulating the real drum kit, this time we have redefined our previous pad designing, and if desired, the drummers can adjust the Close Point according to their playing habits on Hi-hat Pedal.

With different positions the pedal pressed down, the voice of pad varied while you are striking the Hi-Hat pad. And this is similar to an acoustic drum.

Conveniently Design for Left-hand Drummer

Exchange the Pads

To satisfy the requirement of left-hand player, conveniently exchange pads by referring to the Owner's Manual.

Shortcut Buttons

Add [SHIFT] to panel buttons, combined with other buttons to quickly enter the specified menu.

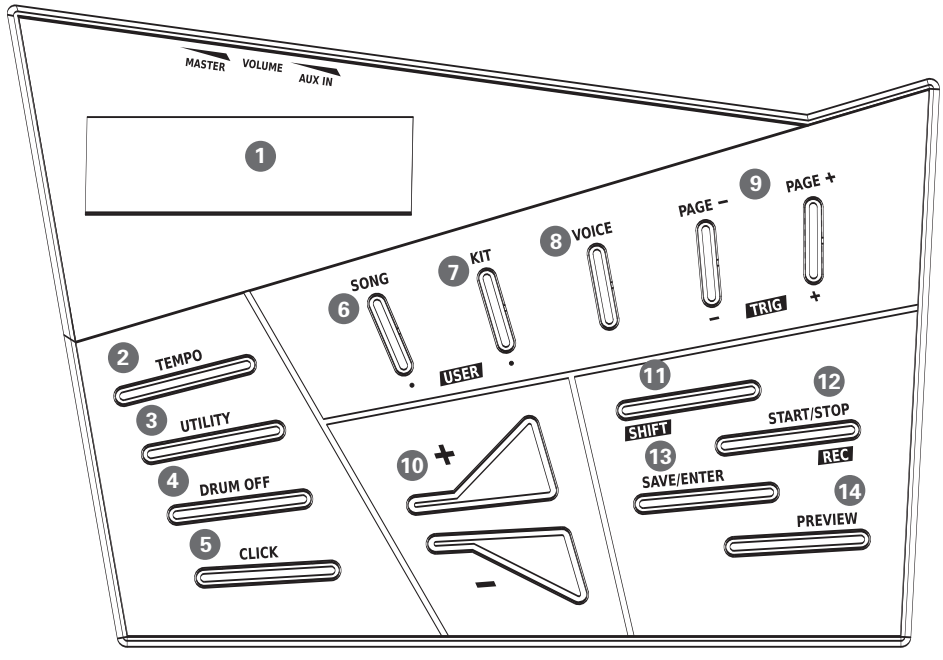
Preview Button

Use the preview function to listening pad voice, you can edit and play voice even in the condition that pads are unconnected, the force you pressed on the button will affect the volume of voice.

Fashionable Appearance

Used the LCD display, equipped with transparent LED buttons, all above sophisticate advantages make a vogue and attractive appearance and powerful feature drum for your performance journey.

Front Panel



1. LCD Display
Shows the name and parameter settings of Kit, Voice, Song and so on.

2. [TEMPO] Button
Adjust the tempo value.

3. [UTILITY] Button
Enter the utility mode.

4. [DRUM OFF] Button
Mute the drum part.

5. [CLICK] Button
Start/Stop the metronome, enter the metronome parameter setting.

6. [SONG] Button
Accesses to Song screen. With [SHIFT] + [SONG] shortcut buttons, quickly enter the user songs.

7. [KIT] Button
Switches drum kit. With [SHIFT] + [KIT] shortcut buttons, quickly enter the user kit.

8. [VOICE] Button
Enter the voice mode.

9. [PAGE +]/ [TRIG +]Buttons and [PAGE -]/ [TRIG -]
Page selection.
Use the combination of [SHIFT] + [PAGE -] / [PAGE +] buttons to select a trigger pad, such as snare, kick and so on.

10. [+]/[-] Button
Gradually increasing or decreasing the value of settings.

11. [SHIFT] Button
Combined with [SONG] / [KIT] / [PAGE+] / [PAGE-] / [START / STOP] buttons.
Combined with [SONG]/ [KIT] button, quickly enter the user mode.
Combined with [PAGE+]/ [PAGE-] button, select a trigger you want.
Combined with [START]/ [STOP] button, enter the quick record mode.

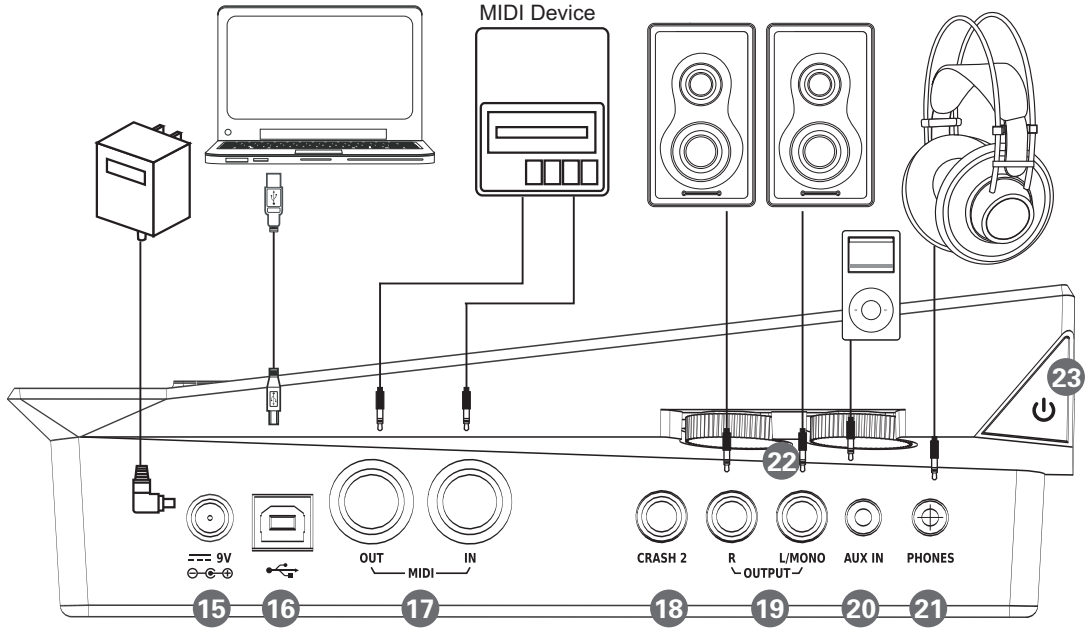
12. [START/STOP]/ [REC] Button
Start / Stop playing songs.
Press the [SHIFT] + [START / STOP], enter quick record.

13. [SAVE/ENTER] Button
Save the drum kit / pad settings.

14. [PREVIEW] Button
Press this button when you want to preview pad voice, the volume value are related to the force level you have pressed on the button.

Side Panel (Connecting)

Note:
To prevent malfunction and equipment failure, alwaysturndown the volume, and turn off all the units before making any connections.



15. DC IN jack
Connect the AC adaptor here. Plug the AC adaptor cable into the DC IN jack.

16. USB MIDI Terminal
Use this when you want to connect a PC/laptop or USB host device.
Note:
Only transmit MIDI data.

17. MIDI Terminal
Use this to connect extra MIDI sequencer, transmit MIDI data.
MIDI IN Connector: receive MIDI data; you can receive MIDI data from an extra MIDI device or a PC/laptop.
MIDI OUT Connector: send MIDI data; you can send MIDI data to an extra MIDI device or a PC/laptop.

18. CRASH 2 jack (1/4")
This allows you to connect additional Crash 2.

19. OUTPUT jack (L/ MONO, R) (2×1/4")
For connecting to your audio system or amplifier, all sounds from the module are output here.
L/ MONO jack: output sound in MONO.
R and L/ MONO jacks: output sound in stereo.

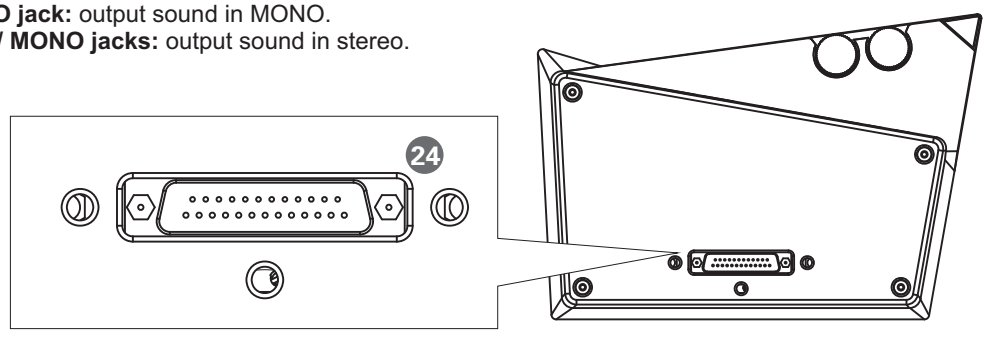
20. AUX IN jack (1/8")
For connecting an extra audio player, for example, Mp3 and so on via a stereo plug. You can enjoy playing the drum along with your favorite songs.

21. PHONES jack(1/8")
Connect stereo headphones here. Detecting all output sounds. Plug the headphone cable into this jack, sound will still be output from the OUTPUT jacks.

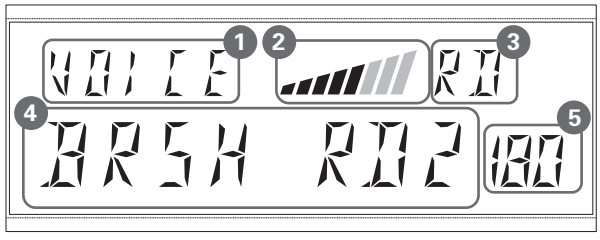
22. VOLUME knob
AUX IN: adjust the volume of extra audio.
MASTER: adjust the volume of headphone and output.
Note:
Before turning the module on, always be sure to turn the volume down.

23. POWER button
Press this button to power on / off the module.

24. TRIGGER INPUT CONNECTOR terminal
Connect the included dedicated cable to this connector, and use it to connect the pads and pedals.



LCD Display



1. Mode
Display the current mode, such as SONG, KIT and so on.

2. Velocity
Display the touch sensitivity of current pad you are playing or the force level you press on the [PREVIEW] button.

3. Pad Name
Display the current pad name.

4. Parameter Name
Display the parameter name, such as PAN, REVERB and so on or the name of song/kit.

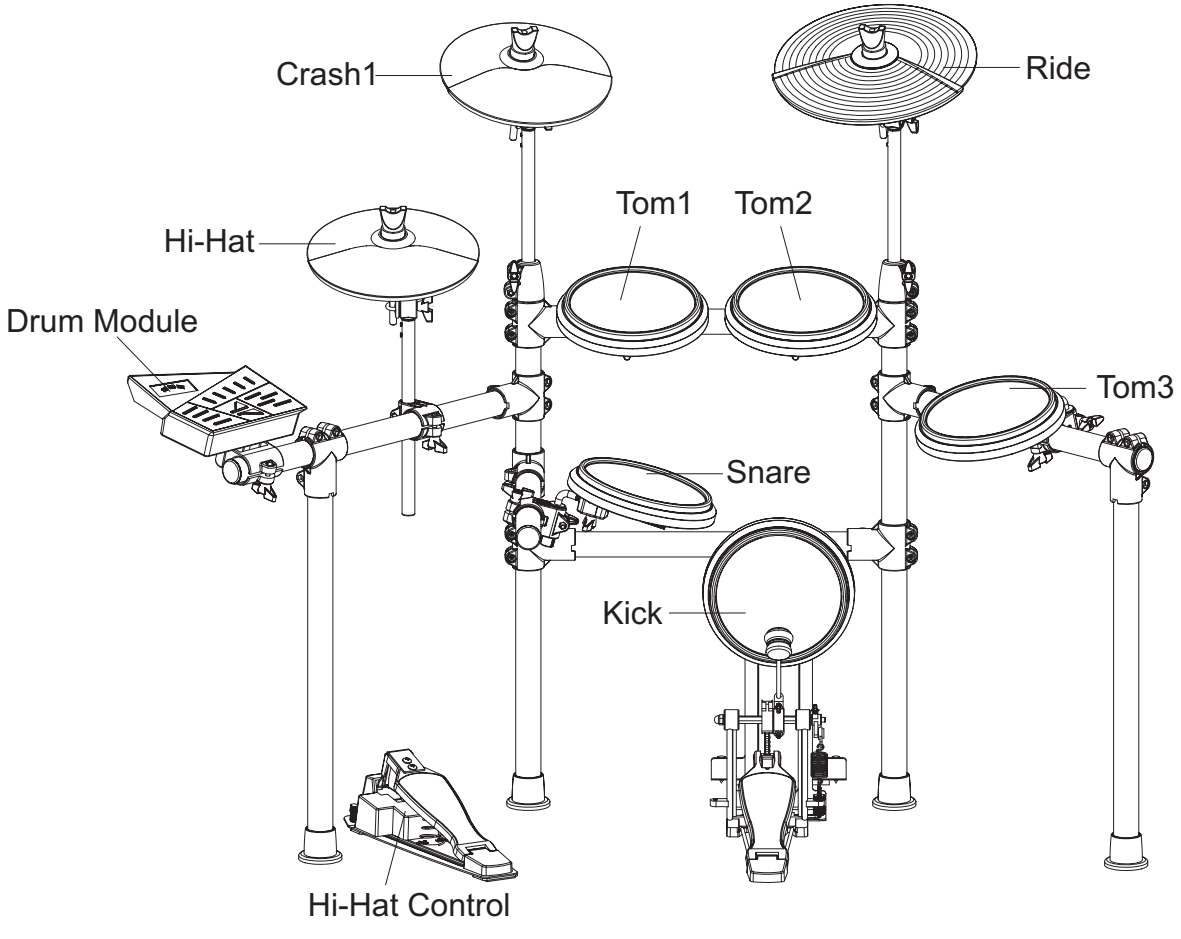
5. Parameter Value
Display the value which corresponding to the parameter or the number of song /kit.

Caution!

To prevent electric shock and damage to drum module or other devices, always turn off the power of all devices before making any connections.

Connecting Pads and Pedals

Standard configuration: KICK, SNARE (rim shot), TOM 1~3, CRASH 1 (Choke), RIDE (Choke), HI-HAT, HI-HAT CONTROL PEDAL.
Additional configuration: CRASH 2.



Note:

1. The SNARE, CRASH 1 (CRASH 2) and RIDE are stereo output, and other pads are mono output.
2. Using the cables provided, connect each Trigger input jack on the rear panel of the module, and make sure each pad is connected to its corresponding trigger input jack.
3. For details on assembling the drum stand, attaching the digital drum and connecting pads, refer to the Installation Manual description.

Setting up the Power Supply

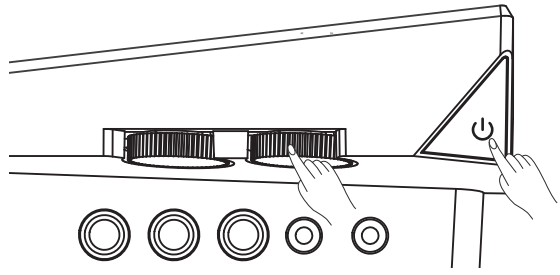
1. Connect the DC plug of the AC power adaptor to the DC IN jack on the rear panel.

2. Connect the other end of the power cord to the AC outlet.

Note:

1. Only use the voltage specified as correct for the drum module.

2. Even when the module is turned off, electricity is still flowing to the module at the minimum level. When you are not using the drum module for a long time, make sure to unplug the AC power adaptor from the wall AC outlet.



Turning the Power On/Off

Turning the power on

Make sure that you have made all necessary connections (trigger, audio and so on), turn down all volume controls of the module and other audio equipment.

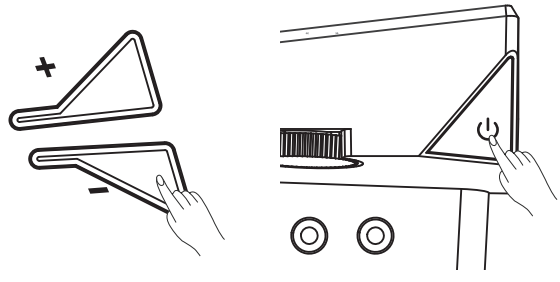
1. Turn the [VOLUME] knob always to minimize the volume.

2. Minimize the volume of the connected amplifier, headphone or audio system.

3. Press the POWER button.

4. Turn the amplifier or audio system on, or listen to the headphone.

5. Striking the pads and adjust the volume by slowly turning the [VOLUME] knob (module, amplifier, audio or headphone) toward the right direction. Keep turning until you get an appropriate value.



Turning the power off

1. Minimize the volume of the module and the external equipment connected to the module.

2. Power off all the external equipment.

3. Press the POWER button again.

Hint:

The drum module automatically stores saved settings before it turns off, you can also restore the factory set by following steps:

a) Press the [+] and [-] buttons simultaneously.

b) Press POWER button.

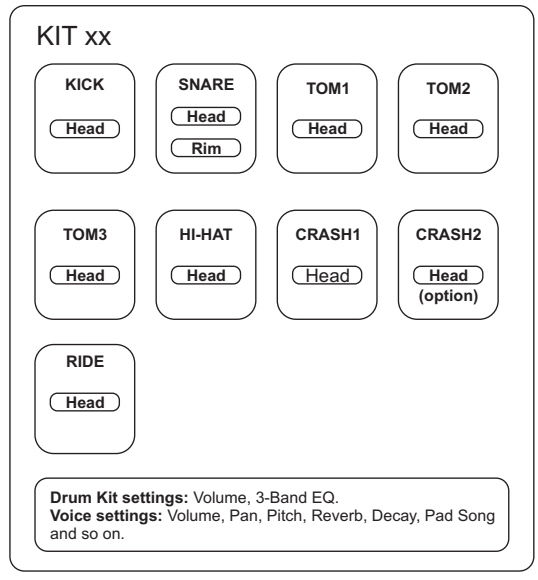
c) Until the LCD displays “FACRESET”, complete reset operation.

About the Auto Power Off Function

In order to save energy, we have designed the “Automatic Power Off” function to the digital drum. With this function, the drum will be powered off automatically when being idle for more than 30 (default) minutes. Refer to Utility Settings.

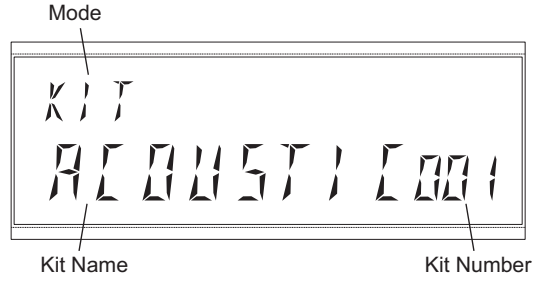
Drum Kits and Voices

There is only a fixed drum kit in an acoustic drum, but, to a digital drum, it has a lot of drum kits. This is just one of the digital drum characteristics.
The structure of a drum kit showed on the right:



Drum Kits and Voices

1. Press the [KIT] button, enter drum kit menu.
The screen shows on the right:

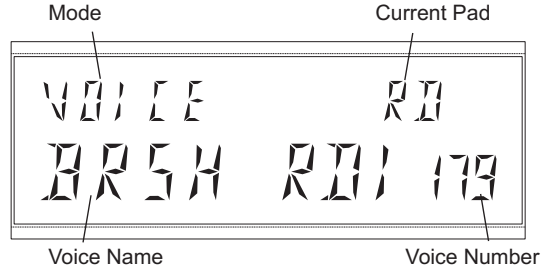


2. Press the [+] / [-] button, select your desired drum kit. (Refer to Drum Kit list)

Selecting a voice

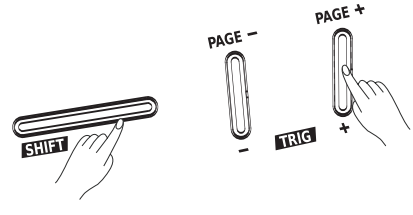
While striking the pads, you can listen to the ensemble kit sound effect. If you are not satisfied the voice of any pads, you can individually change the pad voice.

1. Press the [VOICE] button, enter the voice menu.
The screen shows on the right:



2. Hit the pad that you want to change its voice or you can use the combination buttons [SHIFT] + [PAGE +] / [PAGE -]. The screen displays the name of current pad.

3. While striking the pad, pressing the [+] / [-] button until you find an appropriate voice for your pads. (Refer to ***Voice List***)



Playing the Pads

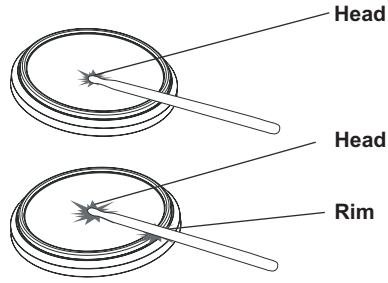
This section introduces various performance functions that will help you perform more expressively on the pads. Similar to an acoustic drum kit, the digital drum responds differently to various playing techniques and dynamics. All the pads are velocity sensitive. And some voices change timbre depending on the striking force.

Pad

Only the snare drum can detect both head and rim shot.

Head
Hit only the head of the pad.

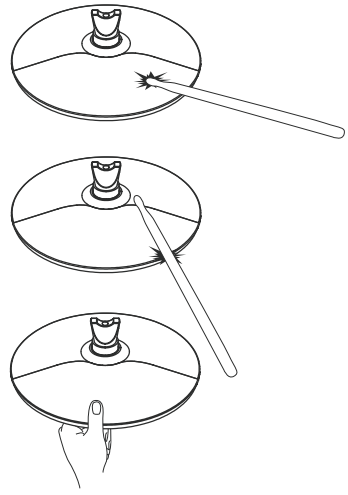
Rim Shot
Strike the head and the rim of the pad simultaneously. Or you can only strike the rim of the pad.



Cymbal

Cymbal Bow shot
Playing the bow area of the cymbal.

Choke Play
Both Ride and Crash cymbals have cymbal choke. But hi-hat don't have the cymbal choke.
Choking the crash/ride edge with the hand immediately after hitting the crash/ride mutes the crash/ride sound.



Hi-Hat

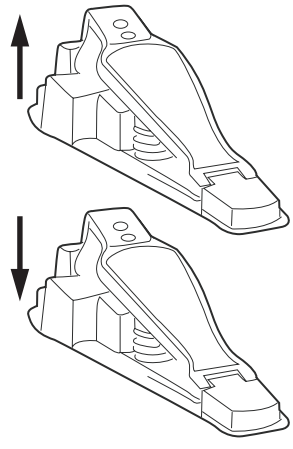
Hi-Hat Pedal Change
With different positions the pedal pressed down, the voice of pad varied while you are striking the Hi-Hat pad. And this is similar to an acoustic drum.

Open Hi-Hat
Strike the Hi-Hat pad without pressing the pedal.

Closed Hi-Hat
Strike the Hi-Hat pad with the pedal pressed completely down.

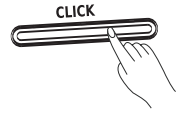
Hi-Hat Pedal
Press the hi-hat controller's pedal to create a foot-close sound without having to strike the hi-hat pad.

Splash
Playing the hi-hat with the pedal fully pressed and then instantly opening it.



Metronome

Practicing with the metronome is the best way to develop your accurate timing. Adjust a right tempo for your learning / performance require.



Starting/ Stopping the Metronome and Its Feature

1. Press the [CLICK] button.
The metronome will start playing, and the button will blink as the tempo.

2. Change the Voice, Volume, Tempo, Beat and Rhythm parameters of metronome. Use the [Page +] / [Page -] button to select the parameter you want to edit.

Parameter	Value	Description
NAME	1~6	Select the voice name which corresponding to each number.
VOLUME	0~16	Adjust the volume of metronome.
TEMPO	30~280	Adjust the tempo value.
TIME SIGNATURE	0-9/2, 0-9/4, 0-9/8, 0-9/16	Adjust the time signature.
INTERVAL	1/2, 3/8, 1/4, 1/8, 1/12, 1/16	Adjust the interval.

3. Use the [+] / [-] button to change the parameter value.

4. Press the [CLICK] button again to stop the metronome, and you will find the light goes out.

Select a Preset Drum Kit and Create a User Drum Kit

About the Preset and User Drum Kit

From no.1 to 30 are preset drum kits. You can edit the parameter of drum kit (from no.1-30), and you need save these changes into user drum kits (from user kit 001~005).

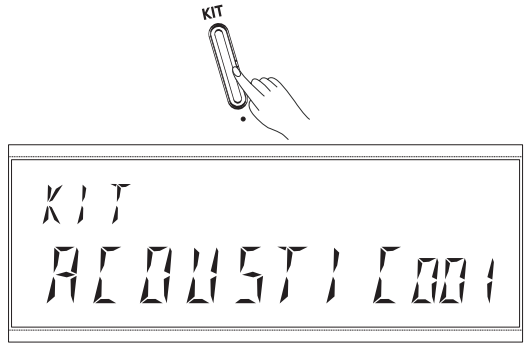
Note:

After you have edited the drum kit parameter or voice data, please save your changes immediately or all changes may lost.

Edit the Drum Kit Parameters

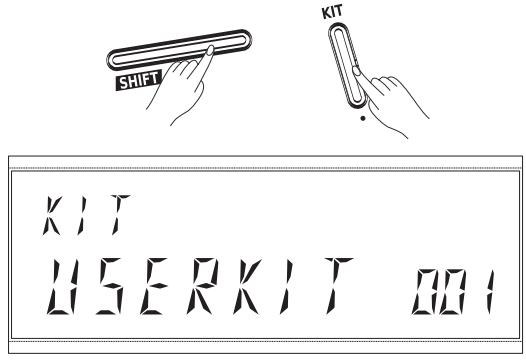
Change drum kit volume and EQ parameters, the overall effect of drum kit will be affected. That is to say, if you increase the volume of drum kit, all volume of the pads will be increased.

1. Press the [KIT] button, the LCD will display the kit menu.
Use the combination of [SHIFT] + [KIT] buttons to enter the user drum kit USER KIT001 quickly.



2. Press the [PAGE +] / [PAGE -] button to select the item that you want to edit.

Parameter	Value	Description
KIT NAME	Preset: 1~30 User: 1~5	Drum kit selection.
VOLUME	0~16	Adjust the volume of drum kit; the volume of each pad will be changed.
EQ HIGH	-12~12	Adjust the gain (amplitude change) in the EQ high frequency band.
EQ MID	-12~12	Adjust the gain (amplitude change) in the EQ middle frequency band.
EQ LOW	-12~12	Adjust the gain (amplitude change) in the EQ low frequency band.



3. Press the [+] / [-] button to adjust parameter value.

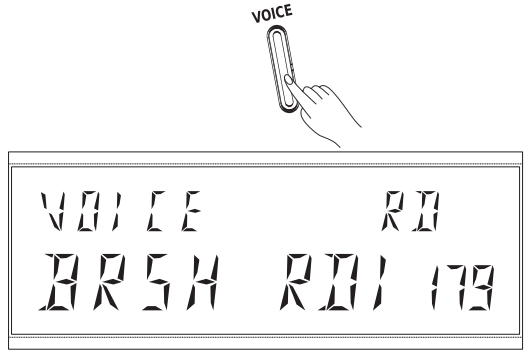
Edit the Voice Parameters

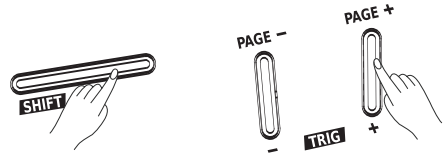
The voice parameters are aimed at one pad. For example, if you have increased the volume of snare, the other pads wouldn't change their volumes.

1. Press the [VOICE] button, and the LCD will display voice menu.

2. Press the [TRIG +] / [TRIG -] button or strike the pad that you want to edit.
Combination buttons: [SHIFT] + PAGE +] / [PAGE -].

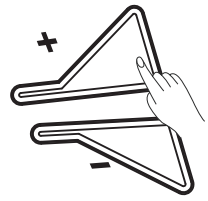
3. Press the [PAGE +] / [PAGE -] button to select an item you want to edit.



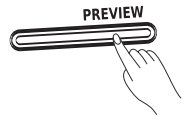


Parameter	Value	Description	Triggers
VOICE NAME	1–380	Select a voice.	KI (Kick) SN (Snare) SNR (Snare Rim) T1 (Tom1) T2 (Tom2) T3 (Tom3) HH (Hi-hat) C1 (Crash1) RD (Ride) PD (Hi-hat Pedal) C2 (Crash2) PS (Hi-hat Splash)
VOLUME	0~16	Adjust the volume of voice.	
PAN	–8~8	Adjust the pan of voice.	
PITCH	–8~8	Change the pitch of voice.	
REVERB	0~16	Adjust the reverb of voice.	
DECAY	–5~0	Adjust the decay of voice.	
NOTE	0~127	MIDI note.	
PAD SONG	Off, 1–82	Switch the pad song on/off and choose the song number.	

4. Press the [+] / [-] button to adjust parameter value.

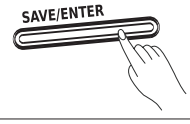


Preview pad voice
Expect striking the pads, you can also pressing the [PREVIEW] button to preview the instrument voice. The force you pressed on the button will affect the volume of voice.

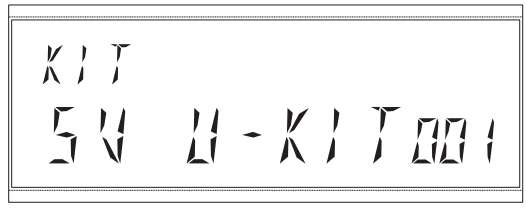


Save User Drum Kit

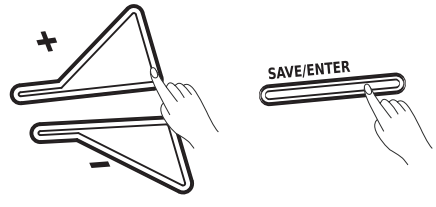
You should always save the edited drum kit and voice data before you switch to other menu or turn the module off, or the data will be lost.



1. While in the drum kit and voice edit menu, pressing the [SAVE] button to save all changes.



2. Use the [+] / [-] button to select a user drum kit (From user kit 001 to 005).



3. Press the [SAVE] button again, you will find the LCD displays “SAVE OK”, it means saved successfully.

Playing Along with a Song

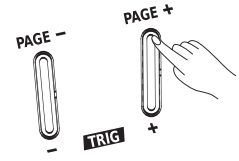
There are 82 built-in songs coving a variety of styles. You can play the drums while listening to one of these songs.

Playing Along with a Song

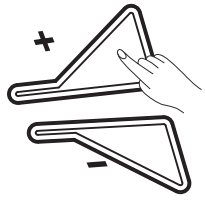
1. Press the [SONG] button to enter the selection menu.

2. Press the [PAGE +] / [PAGE -] button to select the menu that you want to edit.

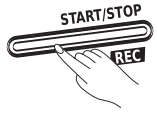
Parameter	Value	Description
SONG NAME	1~82	Select a song.
ACCOMPANY VOLUME	0~16	Adjust the accompaniment volume.
DRUM VOLUME	0~16	Adjust the drum volume.
DELETE	–––	Delete user song. Press [SAVE/ENTER] button to enter “CONFIRM N”, then press [+] to switch “CONFIRM Y” display and press [SAVE/ENTER] to confirm.



3. Use the [+] / [-] button to adjust the value.



4. Press the [START/STOP] button to play/stop song.



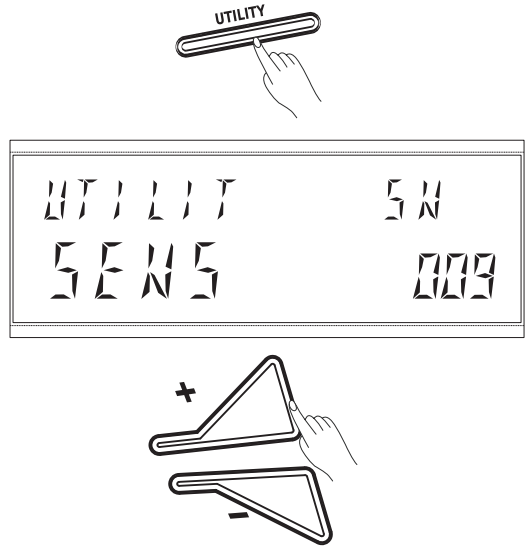
Mute the Drum Part of Song

If you want to learn a song, you can first practicing this song while playing songs. As you have controlled the drum part of a song, you can use this mute function to make some challenges, mute the drum part, or decrease the drum volume gradually.

Press the [DRUM OFF] button to mute the drum part, the [DRUM OFF] button will light.

Utility Mode (UTILITY)

This mode contains two parts: the drum pad trigger settings and drum module settings.



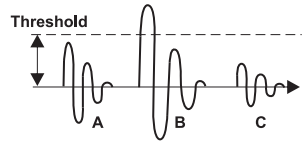
The Drum Pad Trigger Settings

As a professional drummer, you may be very pleased to set your drum triggers carefully corresponding to your playing habits and feelings, making your performance more interesting and professional. At the meantime, your digital drum will be more operability.

1. Press the [UTILITY] button, the LCD will display the UTILITY menu.

2. Press the [PAGE +] / [PAGE -] button; select the trigger parameters that you want to edit.

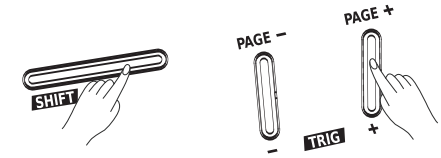
The drum pad trigger settings are as bellow:

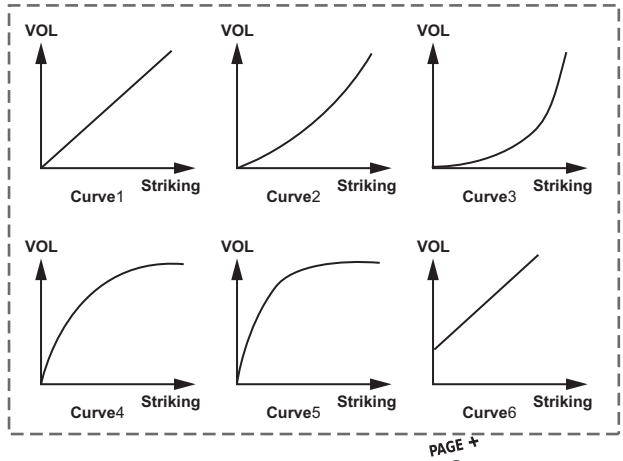
Parameter	**Value**	Description
SENSITIVITY	1~16	Adjust the sensitivity of the pad to regulate the pad response. Higher settings result in higher sensitivity, so that the pad will produce a loud volume even when struck softly. Lower sensitivity will keep the pad to producing a low volume even when played forcefully. You can also adjust the sensitivity of the splash in Splash Sensitivity.
RIM SENS	1~16	Adjust the sensitivity of rim shot.
THRESHOLD	1~16	The threshold of the pads means a specified signal level, and only the trigger signal above it can be sounded. This setting can prevent some unwanted sounding , such as crosstalk from other pads and so on. For example, B will sound but A and C will not sound. If it is set to a high value, no sound may be heared when strike lightly. You can adjust threshold like this: 1. Firstly set it to a low value; 2. Raise the value a little, then strike the pad to check and adjust; 3. Repeat step2 until the most suitable setting for performance has been achieved. 
XTALK	1~16	When two pads are mounted on the same stand, the vibration produced by hitting one pad may trigger the sound from another pad unintentionally (This is called crosstalk.) You can avoid this problem by adjusting Crosstalk on the pad that is sounding inadvertently. If the value is set too high, then when two pads are played simultaneously, the one that is struck less forcefully will not sound. So be careful and set this parameter to the minimum value required to prevent such crosstalk. With a setting of "0", crosstalk prevention does not function.
CURVE	1~6	You can control the relation betweeen striking force and response volume by this setting. Adjust the curve to satisfy your playing requirement.Refer to the CURVE description. Refer to the CURVE description.
RETRIG CANCEL	1~16	This setting avoids "re-triggering", which means that when you strike a pad once, maybe you can hear two hits coming from one strike. This may happen when pad vibrating. Adjust the "Retrigger Cancel" value and strike the pad to see if there is any re-triggering. Be careful to set it to a suitable value. If too high, some sounds may be omitted when played fast; if too low, retrigger can't be prevented effectively. It is best to set it to a value just prevented retriggering.
HH CLOSE	0~2	Adjust the position of Hi-Hat close. If you set the parameter as “0”, it means a low Hi-Hat close position; you need to step the pedal almost down tightly. If you set the parameter as “1”, it means a mid Hi-Hat close position; you just only to step the pedal on an appropriate level. If you set the parameter as “2”, it means a high Hi-Hat close position; you don’t need to step the pedal by too much force.
SPLASH	1~5	Splash sensitivity. The higher value makes the splash easier.

3. Striking the specified pad or use the [SHIFT] + [PAGE +] / [SHIFT] + [PAGE -] combination buttons, select the pad that you want to edit.

4. Use the [+] / [-] button to adjust the parameter value.

Note:
The Curve descriptions are shown below:
Curve 1: The most natural setting. There is a linear change between playing dynamics and volume response.
Curve 2, 3: Compared to Curve 1, heavily strikings make greater change.
Curve 4, 5: Compared to Curve 1, gentle strikings make greater change
Curve 6: Even a soft strike can make strong volume, and the range of dynamic response is small. Especially when a drum trigger is used as an external pad, reliable triggering can be made.



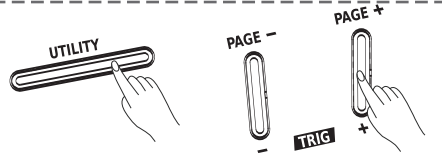


The Drum Module Settings

You can go further set the drum module function, do as the procedures showed below:

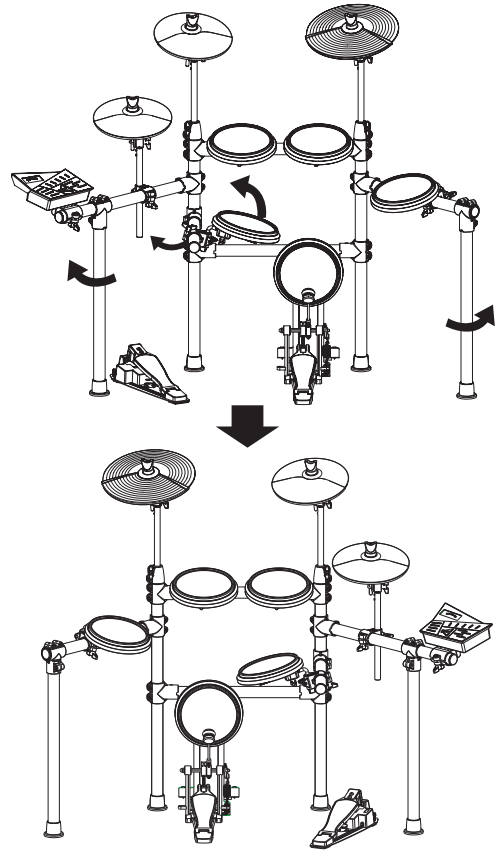
1. Press the [UTILITY] button, the LCD will display the UTILITY menu.

2. Press the [PAGE+] / [PAGE-] button to select the “L-R EXCH” item on the LCD menu.



What is “L-R EXCH”?
The “L-R EXCH” function is specially designed for those drummers who play drums with left-hand habit. Detailed description bellow:

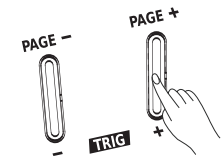
1. The default pad position diagram showed on the right, please confirm the “L-R EXCH” setting is set to “R”, this is the default parameter.



2. Now, maybe you want to move pad positions to adapt to your left-hand playing, not that much trouble, with our new design you can finish pad position in the condition of no changelings of cables. Firstly changing the “L-R EXCH” setting to “L”, and following the procedure 3 below:
a) Tom 1 and Tom 2
b) Crash and Ride
c) Hi-hat, Pedal and Bass Drum
d) Move the Snare to right side, and the Tom 3 to left side.

3. Continue pad exchange, suggest operation as follows:
a) Make sure the module is powered off.
b) Pull out all pad cables.
c) Move the left and right standers backward direction (About 90 degrees) to an appropriate position.
d) Rotated the horizontal stick of snare in backward direction about 90 degrees.
e) Loosen and pull out the left side stander, pull out the module with its pedestal, and then separate the module from pedestal, adapting negative-fixed to put them up again. Install back to the horizontal stick.
f) Remove the Hi-hat pedal and Bass Drum to the opposite side, adjust pads, crashes to an appropriate position and direction.
g) Connect cables to corresponding pads.
h) Above procedures completed, power module on, and set the “L-R EXCH” parameter to “L”, press “SAVE/ENTER” button to save settings.

3. You can press the [PAGE +] / [PAGE -] button to select the function menu and use the [+] / [-] button to adjust the parameter value.

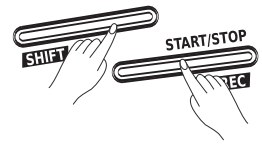


The Setting description of drum module, as follows:

Parameter	Value	Description
L–R EXCH	R/L	Exchange the left and right pad position. **R:** Normal settings. **L:** You can exchange the left and right pad position to satisfy the left-hand player.
LOCAL	ON/OFF	Specifies whether the pad signal will be connected to the internal sequencer or disconnected from the internal sound generator. **ON:** The pads and internal sequencer are connected to the digital drum's internal sound generator. Sounds are produced by the internal sound generator when the pads are struck. **OFF:** The pads and internal sequencer are disconnected from the digital drum's internal sound generator. Striking the pads does not cause sound to be produced by the internal sound generator.
GM MODE	ON/OFF	**ON:** The channel 10 will respond GM drum kit. **OFF:** The channel 10 will respond local drum kit.
AUTO POWER	30, 60 ,OFF	Factory settings, approximately 30 minutes. **30:** Automatically turns the power off if no operation for approximately 30 minutes. **60:** Automatically turns the power off if no operation for approximately 60 minutes. **OFF:** The power will not power off automatically.

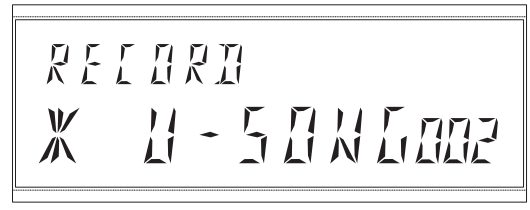
This digital drum lets you easily record your own performance. Quick record 5 user songs and about 6500 drum notes could be recorded in a song. Each song has two parts (The Drum and Accompaniment).

Preparing and starting record, refer to details bellow:



Preparing Record

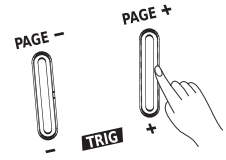
Press the [REC] button (Combination buttons [SHIFT] + [START/STOP]) to enter prepare record mode, the [REC] button will light, enter the record standby mode.



Select User Song

1. The U-SONG 001~005 which with “U-” prefix are user songs, for example, the name of the song displayed as “* U_SONG”（Pay attention to the “ *” mark）, it means this song is empty, no data. Otherwise, contains record data.

2. Press the [+] / [-] button to select user song (from U-SONG 001~005).



Select an Accompaniment Song

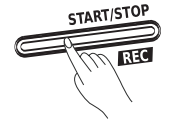
1. Press the [PAGE +] / [PAGE -] button, enter the Accompaniment Song Selection menu, the LCD displays “SONG xx”。

2. Press the [+] / [-] button to select an accompaniment song.
“--”: There is no accompaniment song.
1~60: The number of preset songs.

The Parameters of Record

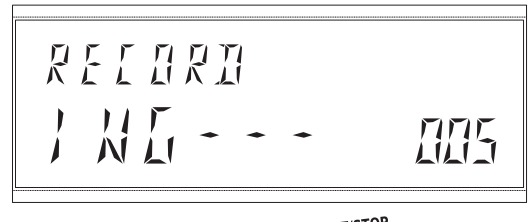
In state of preparing record, you can adjust these parameters below:

Parameter	Value	Description
*U_ SONG	001~005	Select a recorded song. The name with “*” mark means the song is empty.
SONG	–-/1，2,⋯,60	Accompaniment song and the “--” means there is no accompaniment song and you can record drum solo.
KIT	1~35	Recorded drum kit.
TEMPO	30~280	Adjust the tempo value.
TIME SIGNATURE	1–9/2，1–9/4，1–9/8，1–9/16	Adjust the time signature.
INTERVAL	1/2，3/8，1/4，1/8，1/12，1/16	Select a interval.
DRUM OFF	ON/OFF	Turn off the drum part. ON: Keep the drum part playing. OFF: Turn off the drum part.
PRECOUNT	ON/OFF	Turn on/off the precount function.

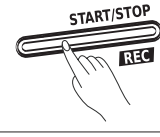


Start / Stop Recording

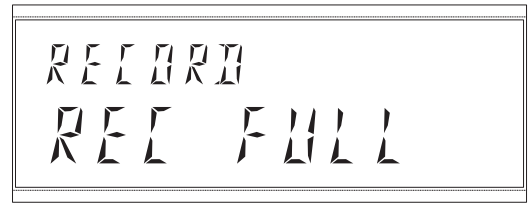
1. You can start recording in real time while in the preparing record menu, there are two ways to start record:
Press the [START/STOP] button.
Strike one pad.



2. While recording song, the [REC] button keeps flashing all along, and the LCD displays as “RECORDING---”.



3. Press the [START/STOP] button again or you can press the [REC] button (Combination buttons [SHIFT] + [START/STOP]) to stop recording, and the [REC] button light will goes out.



Note:

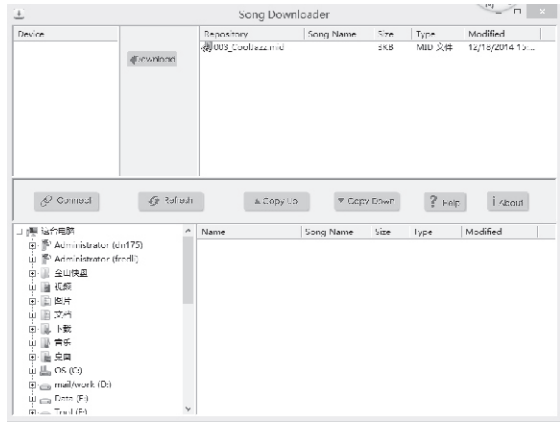
If the record storage capacity is full, the LCD will display “REC FULL” temporarily and then stop recording.

Downloading MIDI Songs from a Computer

There are 5 user songs can be saved and all data will not be erased. Except 5 songs recorded by this module in quick record way, you can also download 5 user songs from a computer.

Note:
Prepare for computer, download software, USB or USB-MIDI cable to download user songs from computer.

The interface of download software showed on the right side:



1. Download specified software:
You can download “Song Downloader” software on the website http://www.mecldata.com/download/apps/

2. Connect to a computer:

3. Download MIDI songs from a computer.
It is very easily to download MIDI songs to your module (For more details, please refer to PC help content).

Note:

- Support SMF MIDI file only.
- Capacity less than 20K per MIDI file.
- The filename extension should be ***.MID.
- The download song only can be saved in one of user song 1~5.
- The new download song will automatically cover the old one, so you do not have to delete it in advance.
- Support Window XP, Window 7 32bit, Window 7 64bit, Window 8 32bit, Window 8 64bit system.

About MIDI

MIDI (Musical Instrument Digital Interface) is a standard that allows performance data and other information to be exchanged among electronic musical instruments and computers. With a MIDI cable connecting MIDI connectors equipped device, you can play multiple instruments with a single electronic musical instrument, have multiple instruments perform in ensemble, program the settings to change kits automatically to match the performance as the song progress, and more.

MIDI Connection

MIDI IN: This terminal receives MIDI data from an external MIDI device.

MIDI OUT: This terminal transmits data from the digital drum to other MIDI devices.

USB Connection

The USB connector allows you to connect the digital drum directly to your computer. It can be connected without installing a driver in Windows XP/Vista/Win7 or MAC OSX environments. The digital drum will be recognized as a “USB Audio device” to receive and transmit MIDI messages through a single USB cable. The USB port is used only for MIDI messages (MIDI via USB).
Compatible USB connector: USB 3.0, USB 2.0 full speed and USB high speed.

Note:

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

More details about MIDI function please refer to the MIDI Implementation Chart.

Troubleshooting

Problem	Possible Cause and Solution
No sound	1. Rotate the [VOLUME] knob to be sure that the volume isn't down. 2. To be sure that Local Mode should be set to "ON".
No sound from Pads	1. To be sure that the pad is connected correctly. 2. To be sure not set the volume of the pad to 0.
No click sound	1. To be sure the metronome is turned on. 2. To be sure not set the volume of the click to 0.
The Pad volume doesn't match the Song playback volume	1. Adjust the song playback volume to matching the pad volume.
Cannot connect to the computer	1. Make sure the USB has correctly connected. 2. Do the connect operation again (Keep the computer on, and then turn the module on, connect the USB cable). 3. The drum module can be connected to PC automatically without install any software driver.

Prompt Messages

Parameter	Meaning
SPI MEM Err	SPI FLASH goes wrong
REC FULL	The record data memory is full
FAC RESET	The factory reset of module is complete
EMPTY	The user song is empty
SAVE OK	The drum kit and utility settings are saved

Specifications

Maximum Polyphony
64

Drum kits
Kit: 35 (30 Presets + 5 Users)
GM Drum Kit: 9 GM Drum Kits

Instruments
Instrument: 380 (Drum Voice, Percussion Voice, Effect Voice)
10 Hi-hat Companion

Effect
Reverb, 3-band EQ

Sequencer
Preset Pattern: 60
Preset Hit/Tap: 22
User Song: 5
Tick: 192 ticks per beat
Record: Real-time Record
Data Capacity: About 6500 notes

Tempo
30~280

Display
Backlit with segment code LCD

Connectors
TRIGGER INPUT CONNECTOR, PHONES, AUX IN, CRASH 2, R, L/MONO, USB, MIDI IN, MIDI OUT

Control Buttons
Power on/off, Master Volume, Aux In Volume, Start/Stop, Save, Song, Kit, Voice, Page+, Page-, INC, DEC, Click, Drum off, Record, Tempo, Utility, Shift

Power Supply
DC 9V, 500mA

Dimensions
235 (W) x 162 (D) x 71 (H) mm

Module Weight
0.5 kg

* All specifications and appearances are subject to change without notice.

Drum Kit List

NO.	PRESET
1	KITACOUSTIC
2	FUNK
3	STANDARD
4	BRUSH
5	DANCE
6	ROCK
7	JAZZ
8	808
9	909
10	FUNKBAND
11	FX MIX
12	POWER
13	LATIN
14	MARIMBA
15	PERCUSS
16	METAL
17	INDIAN
18	AFRICAN
19	ELECTRIC
20	REGGAE
21	ORCHESTR
22	SONGO
23	HIPHOP
24	BIG BAND
25	MAGIC
26	LIVE
27	HOUSE
28	JAZLATIN
29	TECHNO
30	VINTAGE

Drum Voice List

NO.	NAME	LCD NAME
KICK		
1	22”Acoustic Kick 1	22AC K1
2	22”Acoustic Kick 2	22AC K2
3	24”Standard Kick	24STD K
4	Brush Kick 1	BRUSH K1
5	Jazz Kick	JAZZ K
6	22”Rock Kick	22ROCK K
7	Room Kick	ROOM K
8	Vintage Kick	VTG K
9	HipHop Kick	HIPHOP K
10	Reggae Kick	REGGAE K
11	808 Kick	808 K
12	909 Kick	909 K
13	Electronic Kick	ELEC K
14	Power Kick	POWER K
15	Dance Kick	DANCE K
16	FX Mix Kick	FX MIX K
17	Techno Kick	TECHNO K
18	Magic Kick	MAGIC K
SNARE		
19	14”Acoustic Snare	14AC S1
20	14”Acoustic Snare Rim	14AC SR1
21	14”Standard Snare	14STD S1
22	14”Standard Snare Rim	14ST SR1
23	14”Funk Snare 1	14FK S1
24	14”Funk Snare Rim 1	14FK SR1
25	14”Funk Snare 2	14FK S2
26	14”Funk Snare Rim 2	14FK SR2
27	Brush Snare 1	BRUSH S1
28	Brush Snare Rim 1	BRSH SR1
29	Brush Snare 2	BRUSH S2
30	Brush Snare Rim 2	BRSH SR2
31	14”Jazz Snare	14JAZZ S
32	14”Jazz Snare Rim	14JZ SR
33	14”Rock Snare	14ROCK S
34	14”Rock Snare Rim	14RK SR
35	13”Damped Snare	13DP S1
36	Orchestra Snare	ORCH S
37	Orchestra Snare Rim	ORCH SR
38	Fusion Snare	FUSION S
39	Fusion Snare Rim	FUS SR
40	Big Band Snare	BB S
41	Big Band Snare Rim	BB SR
42	Vintage Snare	VTG S
43	Vintage Snare Rim	VTG SR
44	Live Snare	LIVE S
45	Live Snare Rim	LIVE SR
46	Reggae Snare	REGGAE S
47	Reggae Snare Rim	RG SR
48	808 Snare	808 S
49	808 Snare Rim	808 SR
50	909 Snare	909 S
51	909 Snare Rim	909 SR
52	Electronic Snare	ELEC S
53	Power Snare	POWER S
54	Dance Snare	DANCE S
55	Dance Snare Rim	DANCE SR
56	House Snare	HOUSE S
57	House Snare Rim	HOUSE SR
58	Techno Snare	TECHNO S
59	Techno Snare Rim	TEK SR
60	Magic Snare	MAGIC S
61	Magic Snare Rim	MAGIC SR
62	Acoustic Snare Stick	AC SX1
63	Standard Snare Stick 1	STD SX1
64	Brush Snare Stick	BRUSH SX
65	Standard Snare Stick 2	STD SX2
66	Rock Snare Stick 1	ROCK SX1
67	Rock Snare Stick 2	ROCK SX2
68	Live Snare Stick	LIVE SX
69	Fusion Snare Stick	FUS SX
70	808 Snare Stick	808 SX
71	909 Snare Stick	909 SX
72	Electronic Snare Stick	ELEC SX
73	House Snare Stick	HOUSE SX
74	Techno Snare Stick	TEK SX
75	Brush Swirl	BRUSH SW
TOM		
76	Acoustic Tom 1	AC T1
77	Acoustic Tom 1 Rim	AC T1R
78	Acoustic Tom 2	AC T2
79	Acoustic Tom 2 Rim	AC T2R
80	Acoustic Tom 3	AC T3
81	Acoustic Tom 3 Rim	AC T3R
82	Acoustic Tom 4	AC T4
83	Acoustic Tom 4 Rim	AC T4R
84	Acoustic Tom 5	AC T5
85	Acoustic Tom 5 Rim	AC T5R
86	Acoustic Tom 6	AC T6
87	Acoustic Tom 6 Rim	AC T6R
88	Brush Tom 1	BRUSH T1
89	Brush Tom 1 Rim	BRSH T1R
90	Brush Tom 2	BRUSH T2
91	Brush Tom 2 Rim	BRSH T2R
92	Brush Tom 3	BRUSH T3
93	Brush Tom 3 Rim	BRSH T3R
94	Brush Tom 4	BRUSH T4
95	Brush Tom 4 Rim	BRSH T4R
96	Brush Tom 5	BRUSH T5
97	Brush Tom 5 Rim	BRSH T5R
98	Brush Tom 6	BRUSH T6
99	Brush Tom 6 Rim	BRSH T6R
100	Funk Tom 1	FUNK T1
101	Funk Tom 1 Rim	FUNK T1R
102	Funk Tom 2	FUNK T2
103	Funk Tom 2 Rim	FUNK T2R
104	Funk Tom 3	FUNK T3
105	Funk Tom 3 Rim	FUNK T3R
106	Funk Tom 4	FUNK T4
107	Funk Tom 4 R	FUNK T4R
108	Funk Tom 5	FUNK T5
109	Funk Tom 5 Rim	FUNK T5R
110	Funk Tom 6	FUNK T6
111	Funk Tom 6 Rim	FUNK T6R
112	Jazz Tom 1	JAZZ T1
113	Jazz Tom 1 Rim	JAZZ T1R
114	Jazz Tom 2	JAZZ T2
115	Jazz Tom 2 Rim	JAZZ T2R
116	Jazz Tom 3	JAZZ T3
117	Jazz Tom 3 Rim	JAZZ T3R
118	Jazz Tom 4	JAZZ T4
119	Jazz Tom 4 Rim	JAZZ T4R
120	Jazz Tom 5	JAZZ T5
121	Jazz Tom 5 Rim	JAZZ T5R
122	Jazz Tom 6	JAZZ T6

123	Jazz Tom 6 Rim	JAZZ T6R
124	Fusion Tom 1	FUS T1
125	Fusion Tom 2	FUS T2
126	Fusion Tom 3	FUS T3
127	Fusion Tom 4	FUS T4
128	1970's Tom 1	70S T1
129	1970's Tom 2	70S T2
130	1970's Tom 3	70S T3
131	1970's Tom 4	70S T4
132	808 Tom 1	808 T1
133	808 Tom 2	808 T2
134	808 Tom 3	808 T3
135	808 Tom 4	808 T4
136	808 Tom 5	808 T5
137	808 Tom 6	808 T6
138	909 Tom 1	909 T1
139	909 Tom 2	909 T2
140	909 Tom 3	909 T3
141	909 Tom 4	909 T4
142	909 Tom 5	909 T5
143	909 Tom 6	909 T6
144	Electronic Tom 1	ELEC T1
145	Electronic Tom 2	ELEC T2
146	Electronic Tom 3	ELEC T3
147	Electronic Tom 4	ELEC T4
148	Electronic Tom 5	ELEC T5
149	Electronic Tom 6	ELEC T6
150	Power Tom 1	POWER T1
151	Power Tom 2	POWER T2
152	Power Tom 3	POWER T3
153	Power Tom 4	POWER T4
154	Power Tom 5	POWER T5
155	Power Tom 6	POWER T6
156	Teckno Tom 1	TEK T1
157	Techno Tom 1 Rim	TEK T1R
158	Techno Tom 2	TEK T2
159	Techno Tom 2 Rim	TEK T2R
160	Techno Tom 3	TEK T3
161	Techno Tom 3 Rim	TEK T3R
162	Techno Tom 4	TEK T4
163	Techno Tom 4 Rim	TEK T4R
164	Techno Tom 5	TEK T5
165	Techno Tom 5 Rim	TEK T5R
166	Techno Tom 6	TEK 6
167	Techno Tom 6 Rim	TEK T6R
168	Magic Tom 1	MAGIC T1
169	Magic Tom 1 Rim	MAGC T1R
170	Magic Tom 2	MAGIC T2
171	Magic Tom 2 Rim	MAGC T2R
172	Magic Tom 3	MAGIC T3
173	Magic Tom 3 Rim	MAGC T3R
174	Magic Tom 4	MAGIC T4
175	Magic Tom 4 Rim	MAGC T4R
RIDE		
176	21" Acoustic Ride	21AC RD
177	21" Acoustic Ride Edge	21AC RDE
178	21" Acoustic Ride Bell	21AC RDB
179	Brush Ride 1	BRSH RD1
180	Brush Ride 2	BRSH RD2
181	20" Funk Ride	20FK RD
182	20" Funk Ride Edge	20FK RDE
183	20" Funk Ride Bell	20FK RDB
184	20" Rock Ride	20RK RD
185	20" Rock Ride Edge	20RK RDE
186	20" Rock Ride Bell	20RK RDB
187	808 Ride	808 RD
188	20" Room Ride	20RM RD
189	20" Room Ride Edge	20RM RDE
190	20" Room Ride Bell	20RM RDB
191	20" Metal Ride	20MT RD
192	20" Metal Ride Edge	20MT RDE
193	20" Metal Ride Bell	20MT RDB
194	House Ride	HOUSE RD
195	House Ride Edge	HOUS RDE
196	House Ride Bell	HOUS RDB
197	Lo-Fi Ride	LOFI RD
198	Lo-Fi Ride Edge	LOFI RDE
199	Lo-Fi Ride Bell	LOFI RDB
200	Junkyard Ride	JKYD RD
201	Junkyard Ride Edge	JKYD RDE
202	Junkyard Ride Bell	JKYD RDB
CRASH		
203	16" Acoustic Crash 1	AC C1
204	16" Acoustic Crash 1 Edge	AC C1E
205	16" Acoustic Crash 2	AC C2
206	16" Acoustic Crash 2 Edge	AC C2E
207	16" Standard Crash 1	STD C1
208	16" Standard Crash 1 Edge	STD C1E
209	16" Standard Crash 2	STD C2
210	16" Standard Crash 2 Edge	STD C2E
211	Brush Crash 1	BRUSH C1
212	Brush Crash 2	BRUSH C2
213	Funk Crash 1	FUNK C1
214	Funk Crash 1 Edge	FUNK C1E
215	Funk Crash 2	FUNK C2
216	Funk Crash 2 Edge	FUNK C2E
217	19" Jazz Crash 1	JAZZ C1
218	19" Jazz Crash 1 Edge	JAZZ C1E
219	19" Jazz Crash 2	JAZZ C2
220	19" Jazz Crash 2 Edge	JAZZ C2E
221	Rock Crash 1	ROCK C1
222	Rock Crash 1 Edge	ROCK C1E
223	Rock Crash 2	ROCK C2
224	Rock Crash 2 Edge	ROCK C2E
225	808Crash	808 C
226	909Crash 1	909 C1
227	909Crash 2	909 C2
228	Electronic Crash 1	ELEC C1
229	Electronic Crash 2	ELEC C2
230	Orchestra Crash	ORCH C
231	Room Crash	ROOM C
232	Room Crash Edge	ROOM CE
233	Vintage Crash 1	VTG C1
234	Vintage Crash 1 Edge	VTG C1E
235	Vintage Crash 2	VTG C2
236	Vintage Crash 2 Edge	VTG C2E
237	Big Band Crash 1	BB C1
238	Big Band Crash 1 Edge	BB C1E
239	Big Band Crash 2	BB C2
240	Big Band Crash 2 Edge	BB C2E
241	Techno Crash 1	TEK C1
242	Techno Crash 1 Edge	TEK C1E
243	Techno Crash 2	TEK C2
244	Techno Crash 2 Edge	TEK C2E
245	Latin Crash 1	LATIN C1
246	Latin Crash 1 Edge	LATN C1E

247	Latin Crash 2	LATIN C2
248	Latin Crash 2 Edge	LATN C2E
249	China 1	CHINA1
250	China 1 Edge	CHINA1 E
251	Splash	SPLASH
252	Splash Edge	SPLASH E
HIHAT		
253	14" Acoustic Hi-hat	14AC HH
254	14" Acoustic Hi-hat Edge	14AC HHE
255	14" Acoustic Hi-hat Pedal	14AC HHP
256	14" Acoustic Hi-hat Splash	14AC HHS
257	14" Standard Hi-hat	14STD HH
258	14" Standard Hi-hat Edge	14ST HHE
259	14" Standard Hi-hat Pedal	14ST HHP
260	14" Standard Hi-hat Splash	14ST HHS
261	Brush Hi-hat	BRUSH HH
262	Brush Hi-hat Pedal	BRSH HHP
263	Brush Hi-hat Splash	BRSH HHS
264	14" Rock Hi-hat	14RK HH
265	14" Rock Hi-hat Edge	14RK HHE
266	14" Rock Hi-hat Pedal	14RK HHP
267	14" Rock Hi-hat Splash	14RK HHS
268	808 Hi-hat	808 HH
269	808 Hi-hat Pedal	808 HHP
270	808 Hi-hat Splash	808 HHS
271	909 Hi-hat	909 HH
272	909 Hi-hat Pedal	909 HHP
273	909 Hi-hat Splash	909 HHS
274	Dance Hi-hat	DANCE HH
275	Dance Hi-hat Pedal	DANC HHP
276	Dance Hi-hat Splash	DANC HHS
PERCUSSION		
277	Maracas	MARACAS
278	Metronome Bell	METRO BL
279	Mute Hi Conga 1	M CONGA1
280	Open Hi Conga 1	O CONGA1
281	Low Conga	LO CONGA
282	High Bongo	HI CONGA
283	Low Bongo	LO BONGO
284	High Timbale 1	HI TIMB1
285	High Timbale 1 Rim	HI TIM1R
286	High Timbale 2	HI TIMB2
287	High Timbale 2 Rim	HI TIM2R
288	Low Timbale 1	LO TIMB1
289	Low Timbale 2	LO TIMB2
290	Low Timbale 3	LO TIMB3
291	High Agogo	HI AGOGO
292	Low Agogo	LO AGOGO
293	Claves	CLAVES
294	Jingle Bell	JINGL BL
295	Cowbell	COWBELL
296	Bell Tree 1	BL TREE1
297	Bell Tree 2	BL TREE2
298	Tambourine	TAMBORIN
299	Cabasa	CABASA
300	Long Guiro	L GUIRO
301	Short Guiro	S GUIRO
302	Indian 1	INDIAN1
303	Indian 2	INDIAN2
304	Indian 3	INDIAN3
305	Indian 4	INDIAN4
306	Indian 5	INDIAN5
307	Indian 6	INDIAN6

308	Indian 7	INDIAN7
309	Indian 8	INDIAN8
310	Indian 9	INDIAN9
311	Indian 10	INDIAN10
312	Indian 11	INDIAN11
313	Indian 12	INDIAN12
314	Indian 13	INDIAN13
315	Indian 14	INDIAN14
316	Indian 15	INDIAN15
317	Indian 16	INDIAN16
318	Indian 17	INDIAN17
319	African 1	AFRICA1
320	African 2	AFRICA2
321	African 3	AFRICA3
322	African 4	AFRICA4
323	African 5	AFRICA5
324	African 6	AFRICA6
325	African 7	AFRICA7
326	African 8	AFRICA8
327	African 9	AFRICA9
328	African 10	AFRICA10
329	African 11	AFRICA11
330	African 12	AFRICA12
331	African 13	AFRICA13
332	African 14	AFRICA14
333	African 15	AFRICA15
334	African 16	AFRICA16
335	African 17	AFRICA17
336	Marimba C3	MARMB C3
337	Marimba A3	MARMB A3
338	Marimba C4	MARMB C4
339	Marimba Db4	MARB Db4
340	Marimba D4	MARMB D4
341	Marimba Eb4	MARB Eb4
342	Marimba E4	MARMB E4
343	Marimba F4	MARMB F4
344	Marimba Gb4	MARB Gb4
345	Marimba G4	MARMB G4
346	Marimba Ab4	MARB Ab4
347	Marimba A4	MARMB A4
348	Marimba Bb4	MARB Bb4
349	Marimba B5	MARMB B5
350	Marimba C5	MARMB C5
351	Orchestra Timp C2	ORCHT C2
352	Orchestra Timp D2	ORCHT D2
353	Orchestra Timp E2	ORCHT E2
354	Orchestra Timp F2	ORCHT F2
355	Orchestra Timp G2	ORCHT G2
356	Orchestra Timp A2	ORCHT A2
357	Orchestra Timp B2	ORCHT B2
358	Orchestra Timp C3	ORCHT C3
FX		
359	FX 1	FX1
360	FX 2	FX2
361	FX 3	FX3
362	FX 4	FX4
363	FX 5	FX5
364	FX 6	FX6
365	FX 7	FX7
366	FX 8	FX8
367	FX 9	FX9
368	FX 10	FX10
369	FX 11	Fx11

370	FX 12	Fx12
371	FX 13	FX13
372	FX 14	FX14
373	FX 15	FX15
374	FX 16	FX16
375	FX 17	FX17
376	FX 18	FX18
377	FX 19	FX19
378	FX 20	FX20
379	FX 21	FX21
380	MUTE	MUTE
HIHAT COMBINATION		
381	Acoustic	ACOUSTIC
382	Standard	STANDARD
383	JazBrush	BRUSH
384	Rock	ROCK
385	808	808
386	909	909
387	Dance	DANCE
388	Marimba	MARIMBA
389	Indian	INDIAN
390	African	AFRICAN

Song List

NO.	NAME	LCD NAME
PATTERN LOOP		
1	Blues Funk	BLUESFK
2	Fusion 1	FUSION 1
3	Cool Jazz	COOLJAZZ
4	Ballad	BALLAD
5	Samba1	SAMBA 1
6	Vintage Hip-Hop	VTHIPHOP
7	Nu Jazz Funk	NUJAZZFK
8	Soul	SOUL
9	R&B	RNB
10	Big Band 1	BIGBAND1
11	Ska	SKA
12	Classic Rock	CLASSRK
13	Hardcore Hip-Hop	HCHIPHOP
14	Vintage Dance Pop	VTGDANCE
15	Nu-Metal	NU-METAL
16	Salsa	SALSA
17	Euro Hip-Hop	EUHIPHOP
18	Bossa Nova	BOSSA
19	Fusion 2	FUSION2
20	8Beat Pop 1	8BEATP1
21	Jazzy Funk	JAZZYFK
22	Swing Big Band	SWBGBAND
23	Reggae 1	REGGAE 1
24	60's Pop	60'S POP
25	Vintage Funk	VTGFUNK
26	Trance	TRANCE
27	Heavy Rock	HEAVYRK
28	Swing	SWING
29	Punk	PUNK
30	8BeatPop 2	8BEATP2
31	Disco House	DISCOHOU
32	3/4 Folk	3/4 FOLK
33	Samba 2	SAMBA 2
34	Latin Rock	LATINRK
35	Reggae 2	REGGAE 2
36	Dance	DANCE
37	Country Pop	CTRYPOP
38	Country	COUNTRY
39	Rock Ballad	RKBALLAD
40	DancePop	DANCEPOP
41	Bebop	BEBOP
42	Rock N'Roll	R'N'R

NO.	NAME	LCD NAME
43	Band Jazz	BANDJAZZ
44	Blues	BLUES
45	3/4 Jazz	3/4 JAZZ
46	80's Metal	80SMETAL
47	6/8 Soul	6/8SOUL
48	Latin Jazz	LATINJAZ
49	TripHop	TRIPHOP
50	Brit Pop	BRITPOP
PERCUSSION LOOP		
51	Indonesia	INA
52	Latin	LATIN
53	Bossa	BOSSA
54	Samba	SAMBA
55	3-4 Pop	3/4 POP
56	Pop	POP
57	Jazz	JAZZ
58	Reggae 1	REGGAE 1
59	Reggae 2	REGGAE 2
60	Latin Rock	LTNROCK
HIT		
61	New Age Tap 1	NEWAGET1
62	Atmosphere Tap 3	ATMOSPT3
63	Polysynth Tap 5	POLYST5
64	Brass Tap 6	BRASST6
65	Fx Tap 8	FXT8
TAP		
66	Bass Tap 1	BASST1
67	Bass Tap 3	BASST3
68	Bass Tap 5	BASST5
69	Swing Bass Tap 6	SWBASST6
70	Bass Tap 8	BASST8
71	Crystal Tap 1	CRYSTLT1
72	Vibraphone Tap 3	VIBRAT3
73	Sawtooth Tap 5	SAWT5
74	Funk Gtslide Tap 6	FKGTRST6
75	Chorused Piano Tap 8	CHRPNOT8
76	Brightness Tap 1	BRIGHTT1
77	Lead Tap 3	LEADT3
78	Soundtrack Tap 5	SNDTRKT5
79	Funk Gtnote Tap 6	FKGTRNT6
80	Pad Tap 1	PADT1
81	Square Tap 3	SQURET3
82	Rain Tap 5	RAINT5

GM Drum Voice List

Note No.	Standard Set（bank 0）	Funk Set（bank 8）	Rock Set（bank 16）	Electric Set（bank 24）	Analog Set（bank 25）
Eb1[27]	High Q	< —	< —	< —	< —
E 1[28]	Slap	< —	< —	< —	< —
F 1[29]	Scratch Push	< —	< —	< —	< —
F#1[30]	Scratch Pull	< —	< —	< —	< —
G 1[31]	Sticks	< —	< —	< —	< —
G#1[32]	Square Click	< —	< —	< —	< —
A 1[33]	Metronome Click	< —	< —	< —	< —
Bb1[34]	Metronome Bell	< —	< —	< —	< —
B 1[35]	Acoustic Bass Drum	< —	< —	< —	< —
C 2[36]	Bass Drum 1	Funk Kick	Rock Kick Drum	Electric Bass Drum	Analog Bass Drum
C#2[37]	Side Stick	< —	< —	< —	Analog Rim Shot
D 2[38]	Acoustic Snare	Funk Snare 1	Rock Snare Drum1	Electric Snare 1	Analog Snare 1
Eb2[39]	Hand Clap	< —	< —	< —	Analog Clap
E 2[40]	Electric Snare	Funk Snare 2	Rock Snare Drum2	Electric Snare 2	Analog Snare 2
F 2[41]	Low Floor Tom	Funk LowTom2	Rock LowTom2	Electric Low Tom 2	Analog Low Tom2
F#2[42]	Closed Hi–hat	< —	< —	< —	Analog Closed Hi–hat
G 2[43]	High Floor Tom	Funk LowTom1	Rock LowTom1	Electric Low Tom 1	Analog Low Tom1
G#2[44]	Pedal Hi–hat	< —	< —	< —	Analog Pedal Hi–hat
A 2[45]	Low Tom	Funk MidTom2	Rock MidTom2	Electric Mid Tom 2	Analog Mid Tom2
Bb2[46]	Open Hi–hat	< —	< —	< —	Analog Open Hi–hat
B 2[47]	Low–Mid Tom	Funk MidTom1	Rock MidTom1	Electric Mid Tom 1	Analog Mid Tom1
C 3[48]	High Mid Tom	Funk Hi Tom2	Rock HiTom2	Electric Hi Tom 2	Analog Hi Tom2
C#3[49]	Crash Cymbal 1	< —	< —	< —	Analog Cymbal
D 3[50]	High Tom 1	Funk Hi Tom1	Rock HiTom1	< —	Analog Hi Tom1
Eb3[51]	Ride Cymbal 1	< —	< —	< —	< —
E 3[52]	China Cymbal	< —	< —	< —	< —
F 3[53]	Ride Bell	< —	< —	< —	< —
F#3[54]	Tambourine	< —	< —	< —	< —
G 3[55]	Splash Cymbal	< —	< —	< —	< —
G#3[56]	Cowbell	< —	< —	< —	< —
A 3[57]	Crash Cymbal 2	< —	< —	< —	< —
Bb3[58]	Vibra–slap	< —	< —	< —	< —
B 3[59]	Ride Cymbal 2	< —	< —	< —	< —
C 4[60]	High Bongo	< —	< —	< —	< —
C#4[61]	Low Bongo	< —	< —	< —	< —
D 4[62]	Mute Hi Conga	< —	< —	< —	< —
Eb4[63]	Open Hi Conga	< —	< —	< —	< —
E 4[64]	Low Conga	< —	< —	< —	< —
F 4[65]	High Timbale	< —	< —	< —	< —
F#4[66]	Low Timbale	< —	< —	< —	< —
G 4[67]	High Agogo	< —	< —	< —	< —
G#4[68]	Low Agogo	< —	< —	< —	< —
A 4[69]	Cabasa	< —	< —	< —	< —
Bb4[70]	Maracas	< —	< —	< —	< —
B 4[71]	Short Whistle	< —	< —	< —	< —
C 5[72]	Long Whistle	< —	< —	< —	< —
C#5[73]	Short Guiro	< —	< —	< —	< —
D 5[74]	Long Guiro	< —	< —	< —	< —
Eb5[75]	Claves	< —	< —	< —	< —
E 5[76]	Hi Wood Block	< —	< —	< —	< —
F 5[77]	LowWood Block	< —	< —	< —	< —
F#5[78]	Mute Cuica	< —	< —	< —	< —
G 5[79]	Open Cuica	< —	< —	< —	< —
G#5[80]	Mute Triangle	< —	< —	< —	< —
A 5[81]	Open Triangle	< —	< —	< —	< —
Bb5[82]	Shaker	< —	< —	< —	< —
B 5[83]	Jingle Bell	< —	< —	< —	< —
C 6[84]	Bell Tree	< —	< —	< —	< —
C#6[85]	Castanets	< —	< —	< —	< —
D 6[86]	Mute Surdo	< —	< —	< —	< —
Eb6[87]	Open Surdo	< —	< —	< —	< —

GM Drum Voice List

Note No.	Jazz Set（bank 32）	Brush Set（bank 40）	Orchestra Set（bank 48）	Dance Set（bank 56）
Eb1[27]	< —	< —	Closed Hi–hat 2	< —
E 1[28]	< —	< —	Pedal Hi–hat	< —
F 1[29]	< —	< —	Open Hi–hat 2	< —
F#1[30]	< —	< —	Ride Cymbal 1	< —
G 1[31]	< —	< —	< —	< —
G#1[32]	< —	< —	< —	< —
A 1[33]	< —	< —	< —	< —
Bb1[34]	< —	< —	< —	< —
B 1[35]	< —	< —	Concert BD 2	< —
C 2[36]	Jazz Kick 1	Brush Kick 1	Concert BD 1	Dance Bass Drum
C#2[37]	< —	< —	< —	< —
D 2[38]	Jazz Snare 1	Brush Tap	Concert SD	Dance Snare 1
Eb2[39]	< —	< —	Castanets	< —
E 2[40]	Jazz Snare 2	Brush Slap	Concert SD	Dance Snare 2
F 2[41]	< —	Brush Low Tom2	Timpani F	Dance Low Tom2
F#2[42]	< —	< —	Timpani F#	Dance Closed Hi–hat
G 2[43]	< —	Brush Low Tom1	Timpani G	Dance Low Tom1
G#2[44]	< —	< —	Timpani G#	Dance Pedal Hi–hat
A 2[45]	< —	Brush Mid Tom2	Timpani A	Dance Mid Tom2
Bb2[46]	< —	< —	Timpani A#	Dance Open Hi–hat
B 2[47]	< —	Brush Mid Tom1	Timpani B	Dance Mid Tom1
C 3[48]	< —	Brush Hi Tom2	Timpani C	Dance Hi Tom2
C#3[49]	< —	< —	Timpani C#	Dance Cymbal
D 3[50]	< —	Brush Hi Tom1	Timpani D	Dance Hi Tom1
Eb3[51]	< —	< —	Timpani D#	
E 3[52]	< —	< —	Timpani E	
F 3[53]	< —	< —	Timpani F	
F#3[54]	< —	< —	< —	< —
G 3[55]	< —	< —	< —	< —
G#3[56]	< —	< —	< —	< —
A 3[57]	< —	< —	< —	< —
Bb3[58]	< —	< —	< —	< —
B 3[59]	< —	< —	< —	< —
C 4[60]	< —	< —	< —	< —
C#4[61]	< —	< —	< —	< —
D 4[62]	< —	< —	< —	< —
Eb4[63]	< —	< —	< —	< —
E 4[64]	< —	< —	< —	< —
F 4[65]	< —	< —	< —	< —
F#4[66]	< —	< —	< —	< —
G 4[67]	< —	< —	< —	< —
G#4[68]	< —	< —	< —	< —
A 4[69]	< —	< —	< —	< —
Bb4[70]	< —	< —	< —	< —
B 4[71]	< —	< —	< —	< —
C 5[72]	< —	< —	< —	< —
C#5[73]	< —	< —	< —	< —
D 5[74]	< —	< —	< —	< —
Eb5[75]	< —	< —	< —	< —
E 5[76]	< —	< —	< —	< —
F 5[77]	< —	< —	< —	< —
F#5[78]	< —	< —	< —	< —
G 5[79]	< —	< —	< —	< —
G#5[80]	< —	< —	< —	< —
A 5[81]	< —	< —	< —	< —
Bb5[82]	< —	< —	< —	< —
B 5[83]	< —	< —	< —	< —
C 6[84]	< —	< —	< —	< —
C#6[85]	< —	< —	< —	< —
D 6[86]	< —	< —	< —	< —
Eb6[87]	< —	< —	< —	< —

GM Backing Instrument List

PIANO		STRINGS		LEAD	
1	Acoustic Grand Piano	41	Violin	81	Lead1 (square)
2	Bright Acoustic Piano	42	Viola	82	Lead2 (sawtooth)
3	Electric Grand Piano	43	Cello	83	Lead3 (calliope)
4	Honky-Tonk Piano	44	Contrabass	84	Lead4 (cliff)
5	E.Piano 1	45	Tremolo Strings	85	Lead5 (charang)
6	E.Piano 2	46	Pizzicato Strings	86	Lead6 (voice)
7	Harpsichord	47	Orchestral Harp	87	Lead7 (fifths)
8	Clavi	48	Timpani	88	Lead8 (bass & lead)
MALLET		**STRINGSENSEMBLE**		**PAD**	
9	Celesta	49	Strings Ensemble 1	89	Pad1 (newage)
10	Glockenspiel	50	Strings Ensemble 2	90	Pad2 (warm)
11	Music Box	51	Synth Strings 1	91	Pad3 (polysynth)
12	Vibraphone	52	Synth Strings 2	92	Pad4 (choir)
13	Marimba	53	Choir Aahs	93	Pad5 (bowed)
14	Xylophone	54	Voice Oohs	94	Pad6 (metallic)
15	Tubular Bells	55	Synth Voice	95	Pad7 (halo)
16	Dulcimer	56	Orchestra Hit	96	Pad8 (sweep)
ORGAN		**BRASS**		**EFFECTS**	
17	Drawbar Organ	57	Trumpet	97	FX1 (rain)
18	Percussive Organ	58	Trombone	98	FX2 (soundtrack)
19	Rock Organ	59	Tuba	99	FX3 (crystal)
20	Church Organ	60	Muted Trumpet	100	FX4 (atmosphere)
21	Reed Organ	61	French Horn	101	FX5 (brightness)
22	Accordion	62	Brass Section	102	FX6 (goblins)
23	Harmonica	63	Synth Brass 1	103	FX7 (echoes)
24	Tango Accordion	64	Synth Brass 2	104	FX8 (sci-fi)
GUITAR		**REED**		**ETHNIC**	
25	Nylon Guitar	65	Soprano Sax	105	Sitar
26	Steel Guitar	66	Alto Sax	106	Banjo
27	Jazz Guitar	67	Tenor Sax	107	Shamisen
28	Clean Guitar	68	Baritone Sax	108	Koto
29	Muted Guitar	69	Oboe	109	Kalimba
30	Overdriven Guitar	70	English Horn	110	Bagpipe
31	Distortion Guitar	71	Bassoon	111	Fiddle
32	Guitar Harmonics	72	Clarinet	112	Shanai
BASS		**PIPE**		**PERCUSSIVE**	
33	Acoustic Bass	73	Piccolo	113	Tinkle Bell
34	Finger Bass	74	Flute	114	Agogo
35	Pick Bass	75	Recorder	115	Steel Drums
36	Fretless Bass	76	Pan Flute	116	Wood Block
37	Slap Bass 1	77	Blown Bottle	117	Taiko Drum
38	Slap Bass 2	78	Shakuhachi	118	Melodic Tom
39	Synth Bass 1	79	Whistle	119	Synth Drum
40	Synth Bass 2	80	Ocarina	120	Reverse Cymbal

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

MIDI Implementation Chart

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

○: YES ×: NO