



DD-503 E-Drum Set



User manual

CAUTION

CAUTION

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

WARNING

When using electrical products, basic safety precautions should always be followed, including the following:

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.

Also, this equipment has been tested and found to comply with the limits for following standard:

EN55022-2006

EN55024:1998/+A1:2001/+A2:2003

EN55013:2001/+A1:2003/+A3:2006

EN55020:2007

EN61000-3-2:2006

EN61000-3-3:1995/+A1:2001/+A2:2003

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.

TAKING CARE OF YOUR DRUM

! DO NOT ATTEMPT TO OPEN THE UNIT OR MAKE ANY CHANGE IN THE CIRCUITS OR PARTS OF THE UNIT.

SERVICE AND MODIFICATION

This product should be serviced by qualified service personnel when,

- w the power supply cord or the plug of the adaptor has been damaged,
- w liquid has been spattered into the unit or it has been exposed to rain,
- w the instrument does not appear to operate normally or exhibits a marked change in performance,
- w the instrument has been dropped or the cabinet has been damaged.

HANDLING AND TRANSPORT

- w Never apply excessive force to the controls, connectors, pads or other parts of the instrument.
- w Always unplug cables by gripping the plug firmly, not by pulling on the cable.
- w Physical shocks caused by dropping, bumping, or placing heavy objects on the instrument can result in scratches and/or more serious damage.
- w Carefully check the amplifier volume control before stating to play. Excessive volume can cause permanent hearing loss.

CLEANING

- w Clean the unit with a dry or light-wet soft cloth. Do not use paint thinner or petrochemical based polishes.

LOCATION

- w Do not expose the drum to the following conditions to avoid deformation, discoloration, or more serious damage,

- direct sunlight (near a window),
- high temperatures (near a heat source, outside, or in a car during the daytime),
- rain or excessive humidity,
- excessive dust,
- strong vibration.

- w The unit shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the unit.
- w The drum contains digital circuitry and may cause interference if placed too close to radio or television receivers. If interference occurs, move the drum further away from the affected equipment.

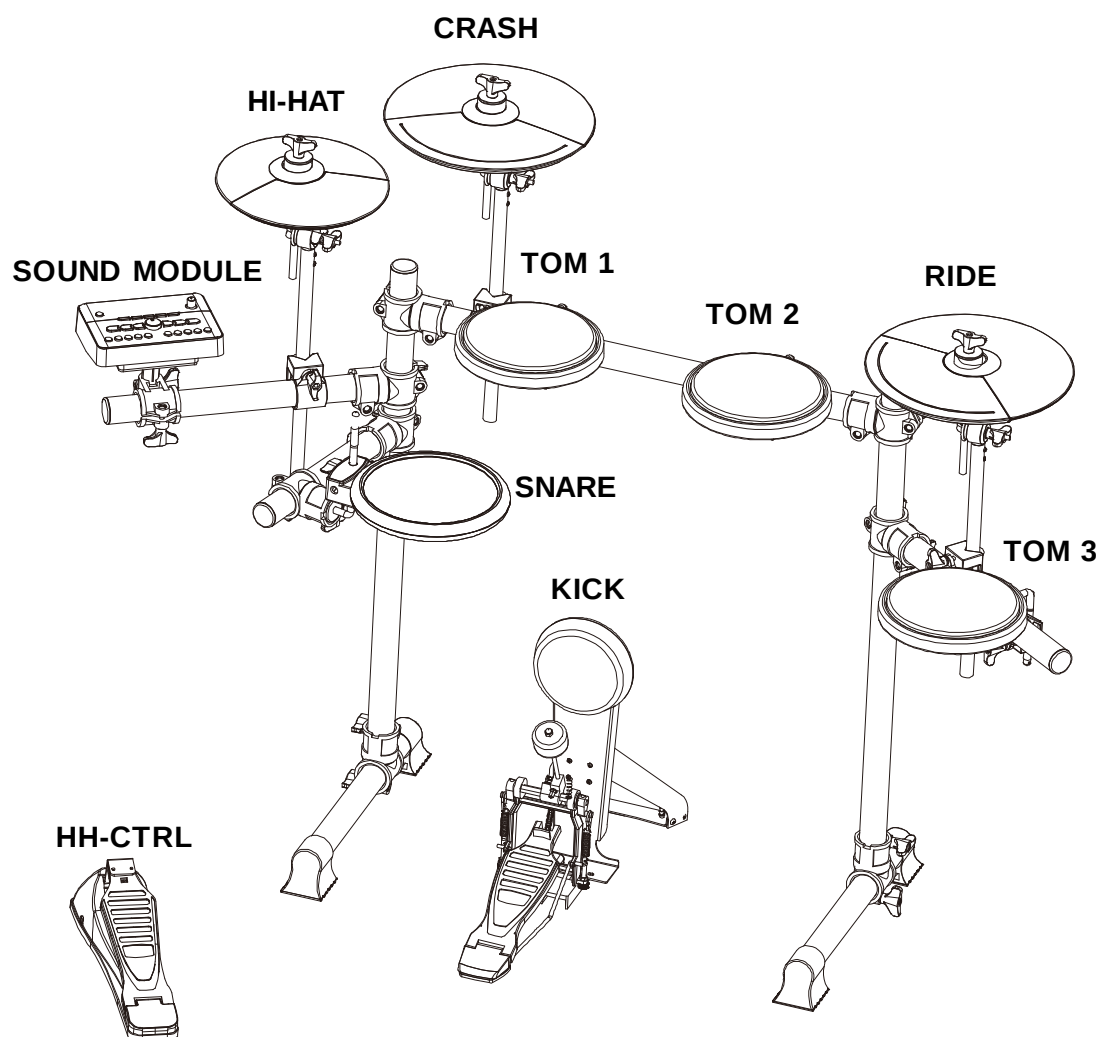
POWER

- w Only use attached power adaptor.
- w Turn the power switch off when the drum is not in use.
- w To avoid damage to the drum and other devices to which it is connected, turn the power switches of all related devices off prior to connection or disconnection of audio cables.
- w Turn the power off if the main cable of the adaptor is damaged or the instrument is spattered with liquid.
- w Do not switch the unit on and off in quick succession, this places an undue load on the electronic components.
- w Unplug the AC power cord during an electrical storm.
- w Avoid plugging the AC adaptor into the same AC outlet as appliances with high power consumption, such as electric heaters or ovens.

CONTENTS TABLE

INSTALLATION	1	Accompaniment Volume for Demo	16
SOUND MODULE	5	Percussion Volume for Demo	16
Control Panel	5	Master Tune	16
Back Panel	6	Advanced Parameter Edit	16
PLAYING PAD	7	Sensitivity	17
DRUM KIT	8	Dynamic Range	17
SONG	9	Trigger Curve	18
Demo Song	9	Cross Talk	18
User Song	10	Hi-Hat Pedal setting	19
METRONOME	11	Reset	20
Metronome	11	RECORD	21
Tempo	11	Record	21
DRUM KIT EDIT	12	Save as a User Song	21
Select kit for editing	13	Erase User Song	21
Enter the Edit Mode	13	MIDI & USB	22
Select part to edit	13	VOICE LIST	23
Select parameter to edit	14	SPECIFICATIONS	24
Edit the parameter	14		
Edit another parameter or part	14		
Complete the edit	15		
SETUP	16		

INSTALLATION

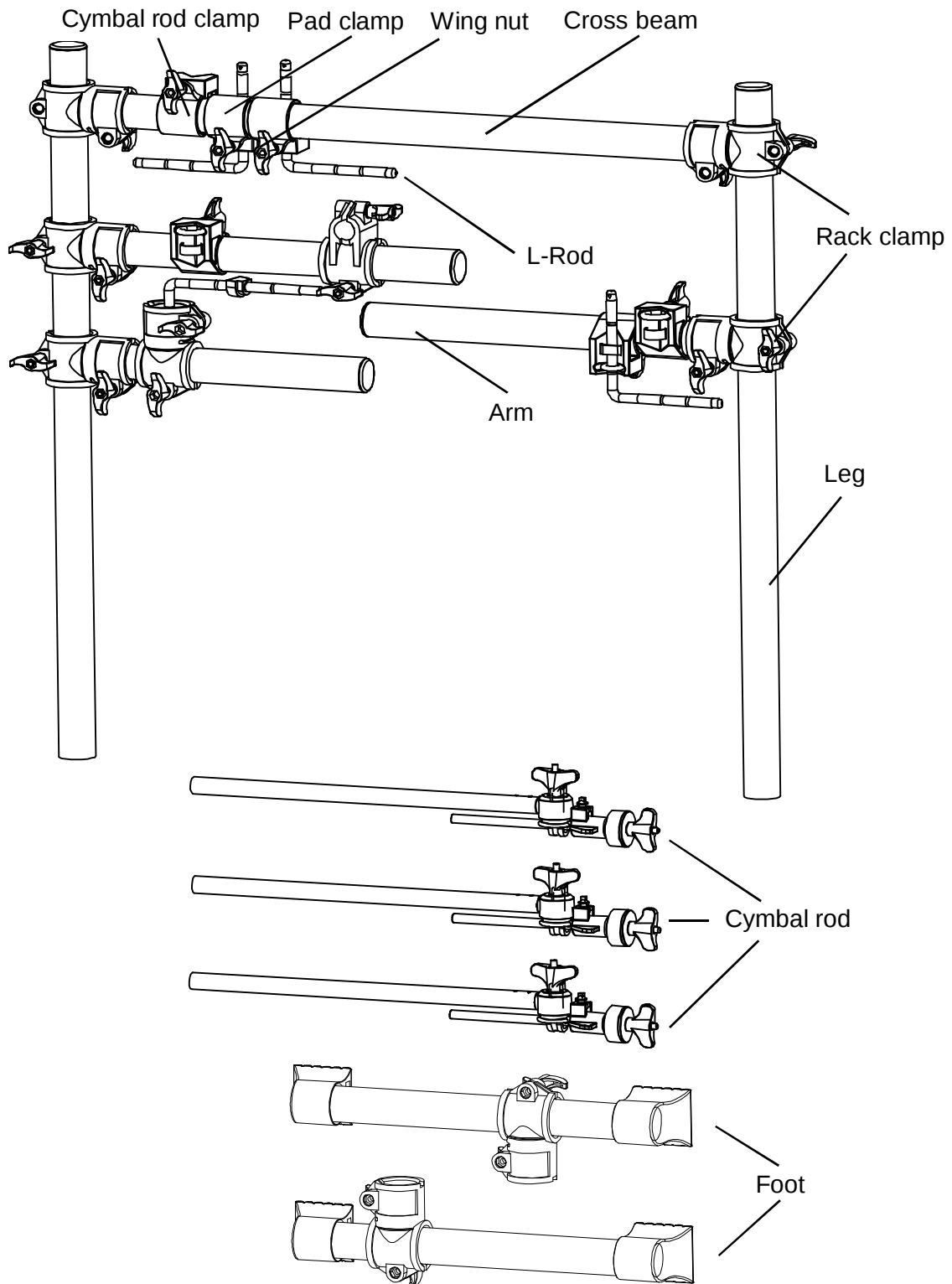


The drawing shows complete drum kit after your installation.

Power adaptor and connection cables are not shown in the drawing.

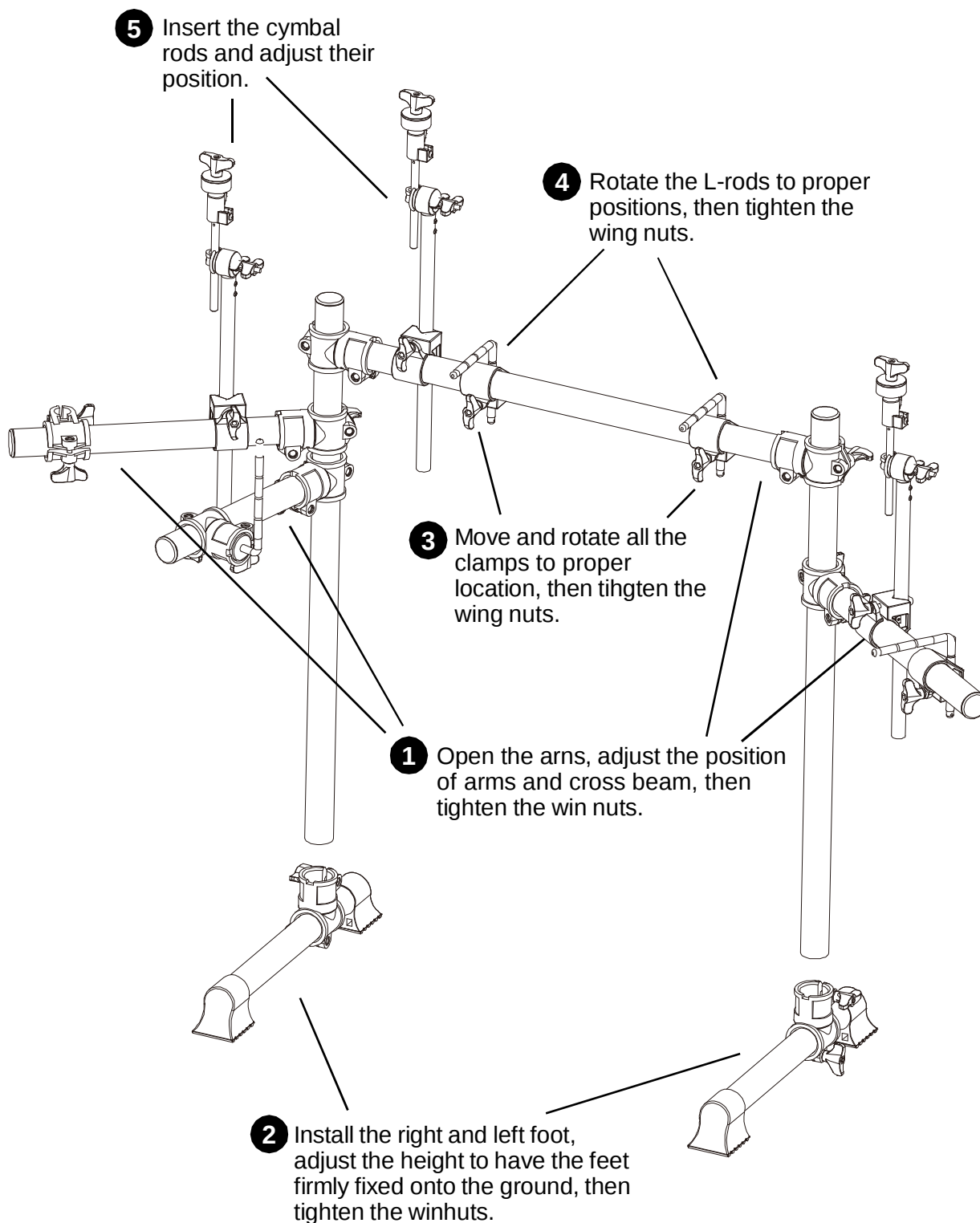
INSTALLATION

You can find all of these components in package for rack system installation..



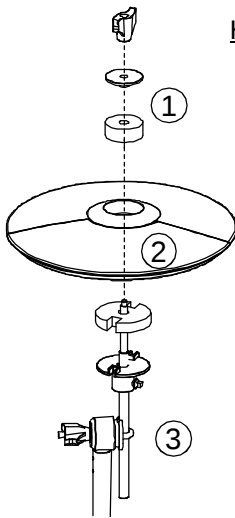
INSTALLATION

RACK SYSTEM INSTALLATION



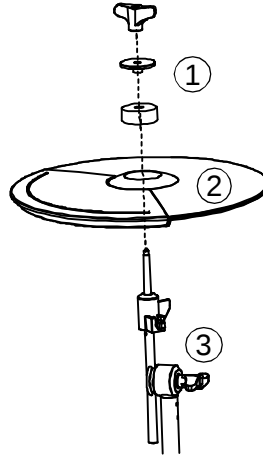
INSTALLATION

COMPONENTS INSTALLATION



Hi-Hat Installation

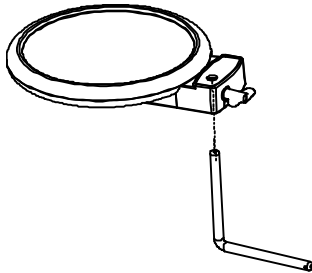
1. Remove the wing nut, washer and felt pad
2. Put the Hi-Hat into the rod along with parts removed in step 1. Fasten the wing nut.
3. Adjust the angle and height of the rod before tightening the wing nut.



Crash and Ride Installation

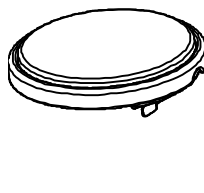
1. Remove the wing nut, washer and felt pad
 2. Put the cymbal pad into the rod along with parts removed in step 1. Fasten the wing nut moderately to give the pad a little bit wobbling like the real acoustic cymbal.
- Note:* Crash and Ride have different part numbers. Please refer to indication on page 5.

3. Adjust the angle of the rod then tighten the wing nut.



Snare Installation

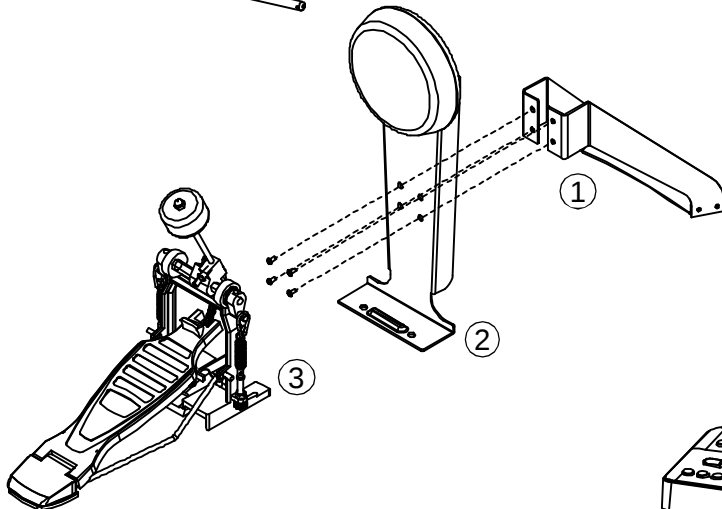
1. Insert the snare into the L-Rod, then tighten the wing nut.
2. Adjust the angle of the L-Rod then tighten the wing nut in the clamp.



Tom Installation

1. Insert the tom into the L-Rod, then tighten the wing nut.
- Note:* All the toms use the same pad.

2. Adjust the angle of the L-Rod before tightening the wing nut in the clamp.



Kick Installation

1. Align holes in the kick stand (2) with these in the bracket (1) then fasten them with screws.
2. Insert tongue of the kick stand into slot of the pedal (3). Tighten the wing nut on the pedal level to fix it.

Sound module Installation

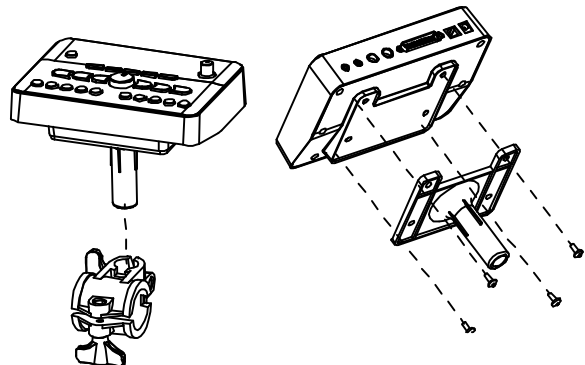
1. Align holes in supporting board with these in sound module then fasten them with screws.
2. Insert rod of the supporting board into the clamp, then tighten the wing nut.

Finalizing the Installation

Adjust arms, clamps and rods to the best position you like to finalize the installation.

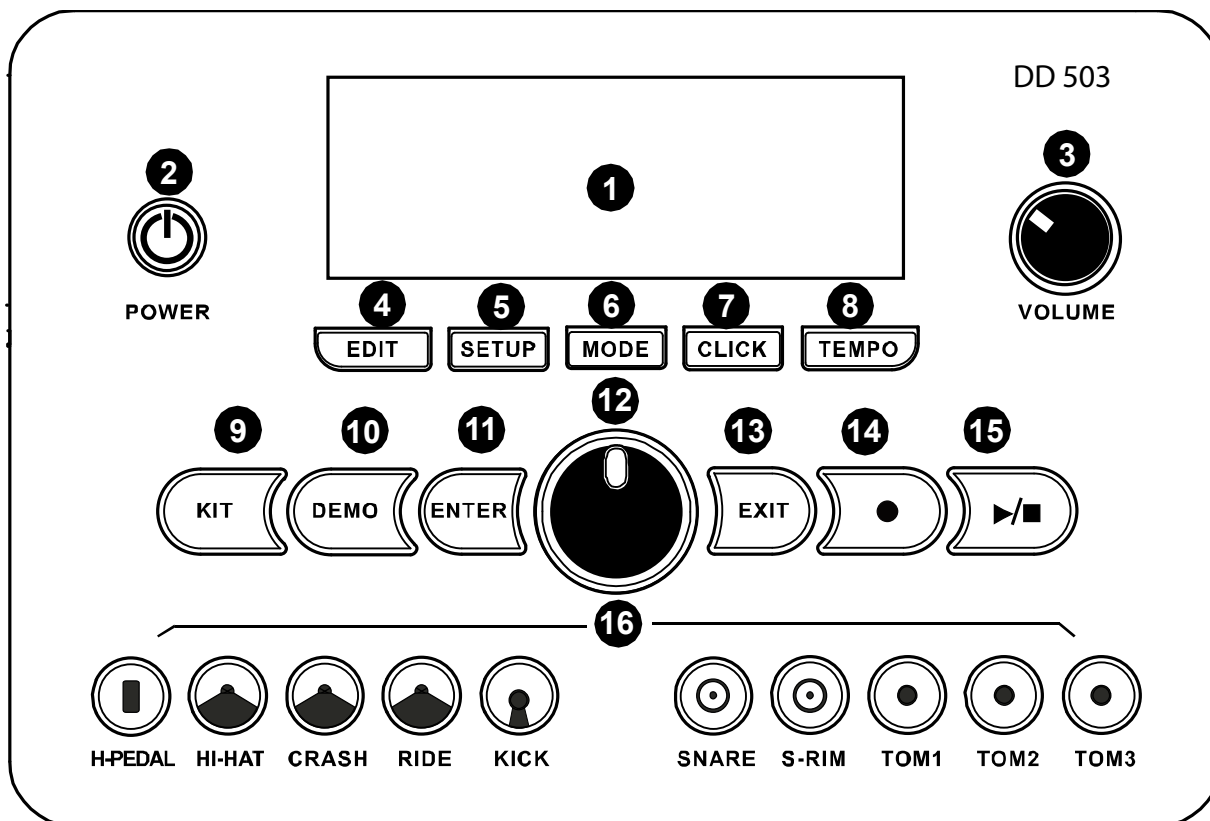
Electronic Connection

Please refer to the SOUND MODULE Chapter for electronic connection.



SOUND MODULE

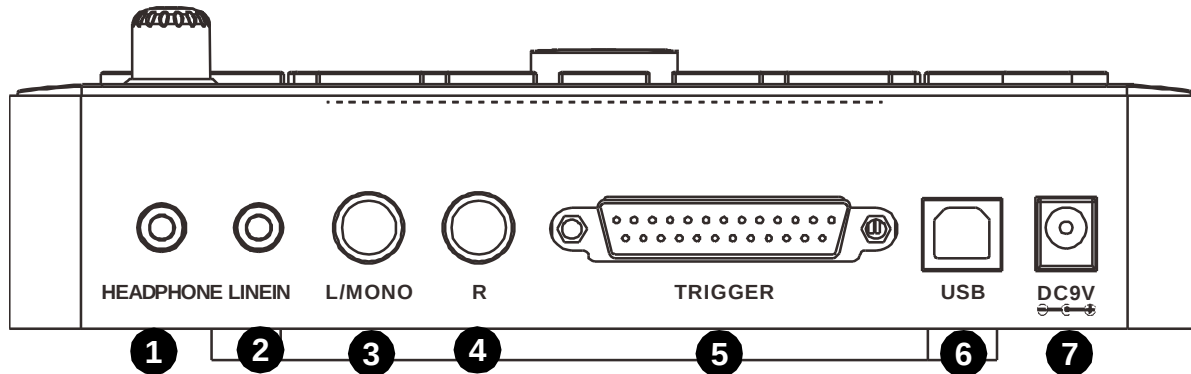
CONTROL PANEL



- (1) **DISPLAY:** The screen displays such as kit number, names and other information.
- (2) **POWER:** Turns ON/OFF the sound module.
NOTE: When you turn the power off, do not turn it on immediately. Wait at least five seconds to turn the power on so that the electronic circuits can properly reset. The sound module will shut down automatically if there is no operation in 20 minutes, in order to save energy. To disable this function, power on the module while pressing on snare rim.
- (3) **HEADPHONE VOL:** Rotate this knob to adjust the output level of headphone and line out. Rotate it clockwise to increase volume.
- (4) **EDIT:** Press this button to configure drum kits.
- (5) **SETUP:** Press this button to edit system parameters.
- (6) **MODE:** Press to change the playing mode for demo songs.
- (7) **CLICK:** Switch and set up the metronome.
- (8) **TEMPO:** Change the speed of metronome and demo songs.
- (9) **KIT:** Press to select kits.
- (10) **DEMO:** Press to play demo songs and user songs.
- (11) **ENTER:** To confirm operation or enter submenu.
- (12) **SCROLL WHEEL:** Rotate to change value, kit, or demo. Press this button to adjust master volume.
- (13) **EXIT:** To cancel operation or back to root menu.
- (14) **● Record button:** Press it to record user songs.
- (15) **▶/■ Play and stop button.** Press to stop playing current song or recording. For details, please refer to related chapter.
- (16) **“PAD BUTTONS:** In edit mode, press these buttons to select and listen to the corresponding pad.

SOUND MODULE

BACK PANEL



- (1) HEADPHONE: This is the headphone output of the sound module. Connect a 1/8 $\pm$ TRS cable to this output.
- (2) LINEIN: Analog input socket of the sound module, 1/8 $\pm$ TRS. An extra 1/8 $\pm$ male to male cable will be needed if you want connect your sound module to any sound source such as iPod, CD player, mobile phone or computer. Play and practice with your favorite music.
- (3) - (4) L/MONO, R: Line output of the sound module. Connect this output to any amplifier using 1/4" TS cable. While using single amplifier, please connect L/MONO only.
- (5) TRIGGER: Trigger inputs socket of sound module. Connect the multi-trigger connector (AKA 25pin connector) to this socket and lock it. There tags on all cables. Connect all cables to their instrument according to their tags.
- (6) USB: Connect standard B type USB cable to this socket for, gaming, recording MIDI and using plug-ins for more sound on computer.
- (7) DC 9V: Connect the included DC 9V power adapter to this socket.

PLAYING PAD

TURN ON THE POWER

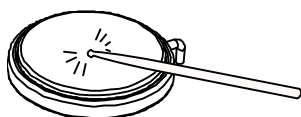
- (1) Turn down the external audio device connected with the drum.
- (2) Press the POWER button while don't strike pad or press the Hi-Hat control pedal.
- (3) Turn on external devices connected.
- (4) Strike the pad and adjust the volume to a proper level.

PLAYING PADS

All pads have striking force sensitivity feature. Strike the pad harder to make a higher volume and strike the pad softer to make a lower volume.

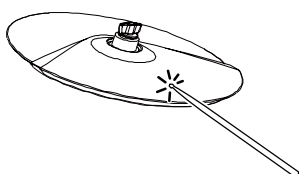
Playing Tom Drum

Strike the central position to create a sound.

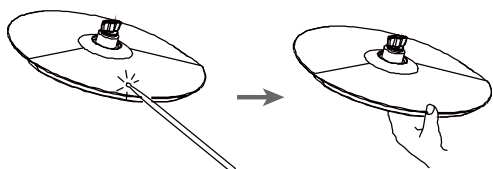


Playing Cymbal

Strike rubber area of the crash and ride pad to create a cymbal sound.

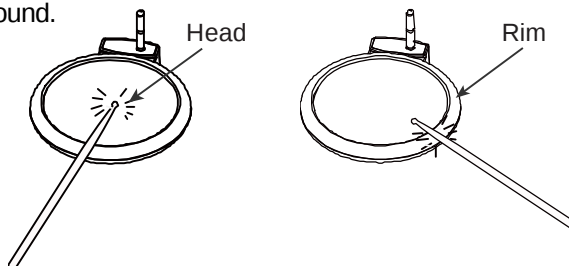


The crash has choke feature. Strike the crash pad, its sound will sustain. Squeeze the edge portion, the sound will be mute.



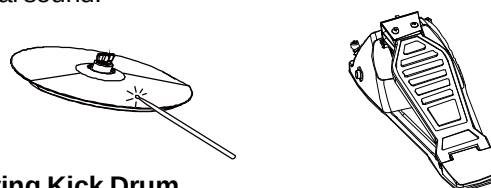
Playing Snare Drum

Strike the central position (head) of the pad to make head sound, strike the rim of the pad to make a rim sound.



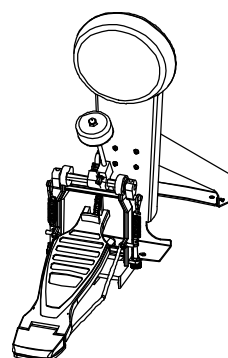
Playing Hi-Hat

- (1) Strike the Hi-Hat pad without pressing the Hi-Hat control pedal to make an open Hi-Hat sound.
- (2) Strike the Hi-Hat pad while fully pressing the Hi-Hat control pedal to make a close Hi-Hat sound.
- (3) Strike the Hi-Hat pad while pressing the Hi-Hat control pedal gradually, the consecutive open sound changes to close sound.
- (4) Press the Hi-Hat pedal down quickly to make Hi-Hat pedal sound.



Playing Kick Drum

Press the Kick drum pedal to make a kick drum sound.



MASTER VOLUME

Rotate the MASTER VOLUME knob to turn the master volume up/down. Rotate the knob clockwise to increase the volume; rotate the knob counter-clockwise to decrease the volume.



DRUM KIT

There are 10 preset drum kits and 10 User Kits. The kit is combination of different instrument voice assigned to each pad which has unitary style for performance. All the kits are for your choice. Any kit could be edited and saved as your own User Kit. After power, it'll enter the kit selection mode automatically while the KIT button indicator will light up. The kit number and its name will be displayed.

In some other operation modes, you may press the **KIT** button to enter the kit select operation mode.

PRESET KIT

The kit number is ranged 01 - 50.

Rotate the **SCROLL WHEEL** to select a kit you desire. Rotate the knob clockwise to increase the kit number and anticlockwise to decrease the kit number. All preset kit number and name are listed in the KIT LIST.

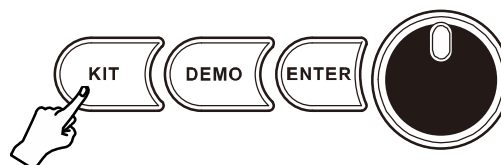
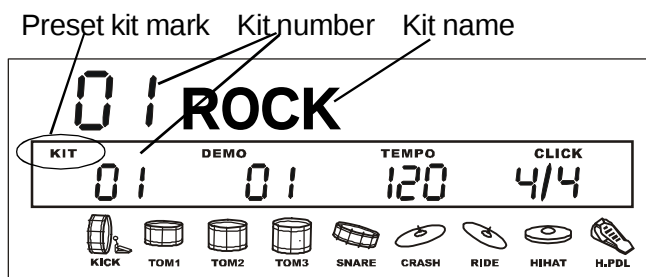
KIT LIST	
1	Rock
2	Vintage
3	Pop
4	Metal
5	Jazz
6	Jungle
7	Electro
8	Brush
9	Fiesta
10	Electro2

USER KIT

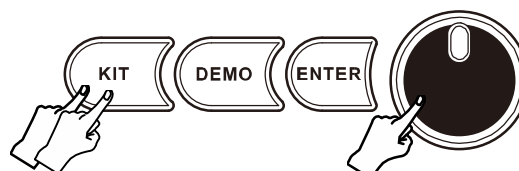
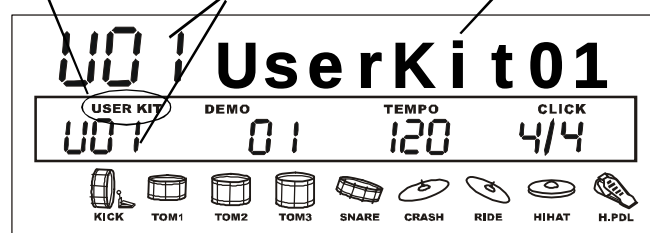
You can create your own user kit by edit function. Click the **KIT** button repeatedly will switch the Preset Kit and User Kit selection. The User Kit number is U01 - U10.

Rotate the **SCROLL WHEEL** to select an user kit you desire. Rotate the knob clockwise to increase the kit number and anticlockwise to decrease the kit number.

The factory setting for all User Kits is Universal Kit. You could call them even if you don't create your own user kit. Of course, you could replace it by editing. Please see <EDIT> Chapter in this manual for details. Press the **KIT** button again to back to the preset kit.



User kit mark User Kit number User Kit name



SONG

There are two types of song. The demonstration song (Demo) is for your enjoyment and practice. User song is your own recorded song.

1. DEMO SONG

(1) Select and Play Demo Song

There are 52 demo songs built in.

Press the **DEMO** button once to engage the demo song mode with the indicator lighting. The display will show "All Demo". Press the **▶/■** button immediately, all demo songs will play one by one. If you don't select song, after 3 second the first demo song number and name will appear on the display.

To select a song you desire, rotate the **SCROLL WHEEL** to choose a song.

Then press the **▶/■** button to start play; the button indicator lights up.

When select single song, it'll be played repeatedly.

When the demo song is playing, press the **▶/■** button again to stop the playing, the indicator turns off.

(2) Practice with Demo Song

You may practice your own performance with the demo song.

There are three modes for your practice:

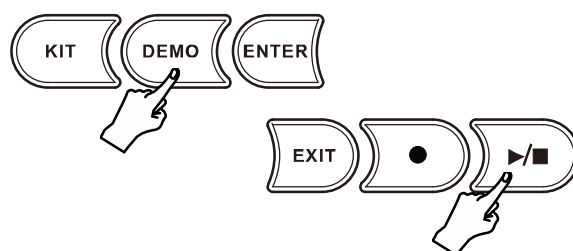
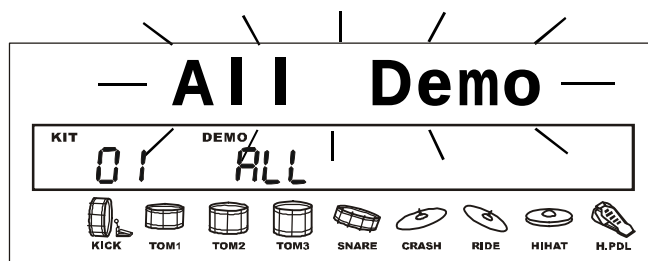
FULL - When press the **▶/■** button, you will hear complete song

DRUM ONLY - When press the **▶/■** button, you will hear drum sound only. It helps you to get idea how to perform drum.

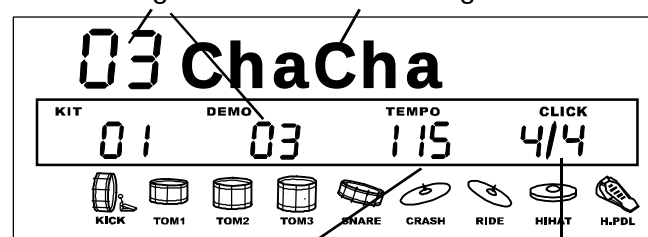
DRUM MUTE - When press the **▶/■** button, you will hear background music without drum sound. Then, you can play drums by yourself.

Press the **MODE** button repeatedly to change the mode.

Tip: Volume of the background music and drum of the demo song is adjustable separately. Please see Chapter **SETUP** for more information.

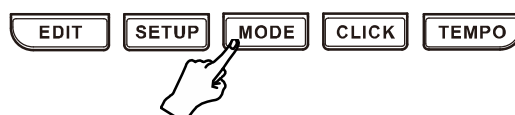
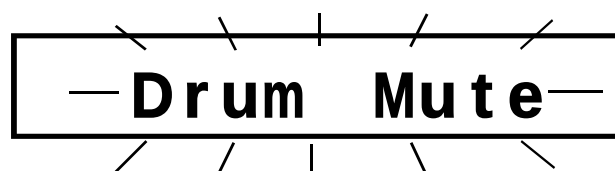


Demo song number Demo song name



Demo song tempo

Demo song beat



2. USER SONG

There are 10 User songs in maximum recorded by user.

Press the **DEMO** button twice quickly to engage the User Song mode with the indicator lighting. The display will show "All U-Song". If you don't select song, after 3 second the first available user song number and name will appear on the display.

If you want to select a song you desire, rotate the **SCROLL WHEEL** to choose a song.

Then press the **▶/■** button to start play; the button indicator lights up.

When the user song is playing, press the **▶/■** button again to stop the playing, the indicator turns off.

Note: If the interval between the first and second pressing of the **DEMO** button is longer than 2 seconds, it'll turn to Kit mode instead of Song mode.

Note: If you didn't record any song, the display will show "No u-song". After 3 second, the mode will change to Kit select automatically.

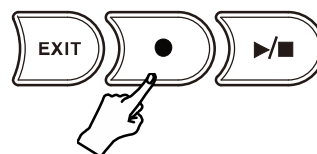
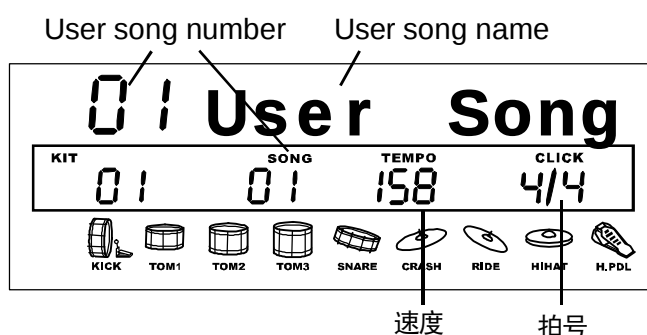
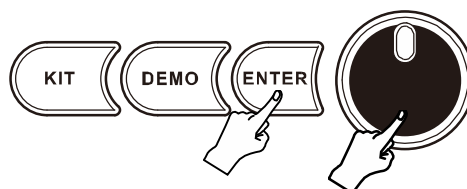
Tip: You may erase User Song in the User Song mode. Please refer to the <RECORD> chapter in the Manual for details.

3. EXIT THE SONG MODE

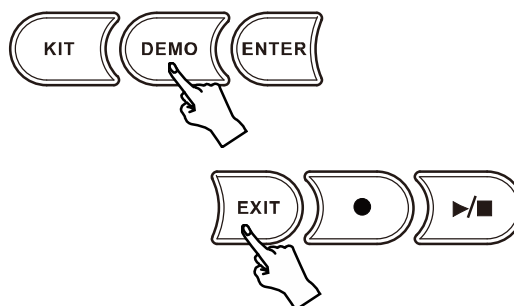
You may noted that press the **DEMO** button once to enter the Demo mode; press the **DEMO** button twice quickly to enter the Song mode. Therefore, in the Demo/User Song mode press the **DEMO** button again to exit the Demo/User Song mode and turn to the Kit selection mode. The **DEMO** indicator turns off.

Or, you can simply press the **EXIT** button to stop palying , exit the Demo/Song mode and turn to the Kit selection mode.

All U-Song



No u-song



METRONOME

1. METRONOME

Press the **CLICK** button to sound the metronome. Press the button again to stop it.

Press the **CLICK** button twice to setup the metronome.

(1) Time Signature Setting - At first, you could set the time signature. The the current time signature will blink in the second row of the display. Rotate the **SCROLL WHEEL** to change the time signature. Available time signature is 1-8/2, 1-8/4, 1-8/8, 1-8/16, The default setting is 4/4. Press the **ENTER** button to confirm you setting and turn to the next parameter of the metronome.

(2) Metronome Volume Setting - After press the **ENTER** button to finish the time signature setting, the next parameter to setup is metro-nome volume. The display will show "Metro Vol" and current volume is blinking. Rotate the **SCROLL WHEEL** to change the volume ranged 0 - 127, The default setting is 96. Press the **ENTER** button to confirm you setting and turn to the next parameter of the metronome..

You can press the **EXIT** button in any step to exit metronome setting.

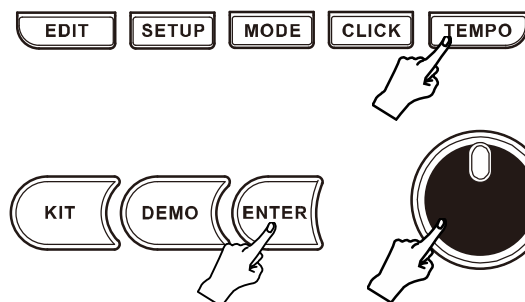
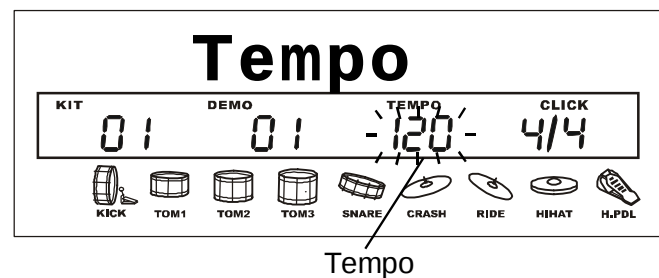
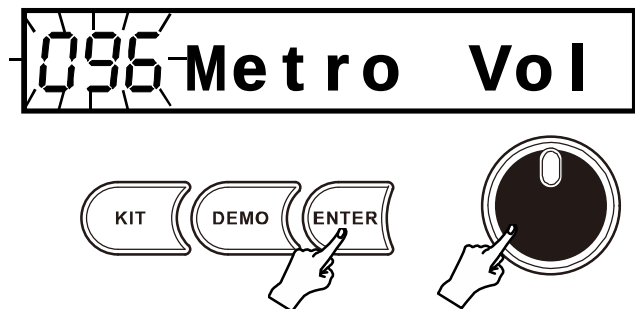
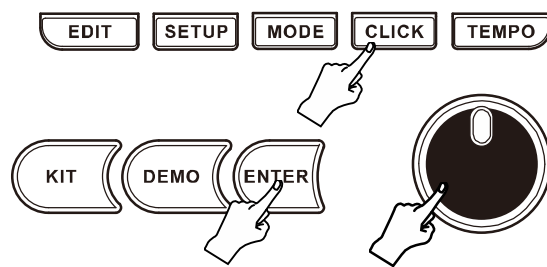
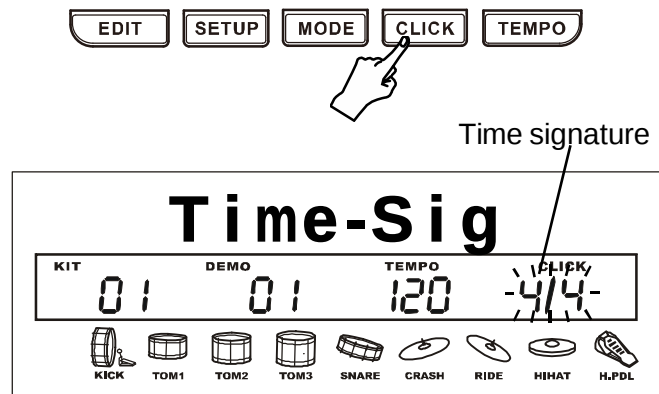
During the setting, the metronome will keep sound.

2. TEMPO

Press the **TEMPO** button, the current tempo value will blink in the display. Rotate the **SCROLL WHEEL** to change the tempo ranged 40 - 240.

Press the **ENTER** button to confirm you setting.

After about 10 seconds, this operation will exit automatically. Or, press the **EXIT** button to exit the tempo setting immediately.



DRUM KIT EDIT

A drum kit consists of drum pads, cymbals pads and Hi-Hat pedal physically.

They generate sound in different way such as by striking head or rim of drum pad, triggered by striking Crash bow or edge, pressing Hi-Hat pedal. We call the source to generate sound as Part. Each part is identified on the display by the icon with mark. The icon refers to part of striking head of pad and cymbal is shown below. H.PDL refers to sound generated by pressing the Hi-Hat pedal. HIHAT refers to Open Hi-Hat sound generated by striking the Hi-Hat cymbal.



Alternative part of the same instrument is shown by extra mark under the icon. For example, the part generating sound by striking the Rim 1 of the snare is marked by an arch under the SNARE icon.



Snare Rim Edge of CRASH HI-Hat Close

Each part has multi parameters to create its characteristics such as voice, volume, reverb level and Pan etc. The detailed description is listed In the table below.

PARAMETER	DESCRIPTION	EDIT RANGE
VOICE	Voice assigned to the part	1 – 418
VOLUME	Volume of the part , 127 refers to the highest volume	0~127
PAN	Stereo pan of the part. -64 refers to the most left, 63 refers to the most right, 0 refers to the center position	-64~63
PITCH	Pitch of the part. -10 refers to the lowest and 10 to the highest pitch.	-10~10
REVERB	Reverb effect level of the part, 127 refers to the highest level	0~127

The edit feature is to set parameter for each part, partly or for all parts in a kit. the Edit feature makes it possible to change the currently selected drum kit setting. In this way, you may create your own drum kit and save it as UserKit.

DRUM KIT EDIT

The edit procedure is the same for every parameter. Assigning voice to the part is one of the most important function. After you are familiar with the operation of voice assignment; it'll be easy to edit other parameters. The following section is the edit procedure taking example how to change voice for a pad.

1. Select kit for editing

Select a kit for editing in the same way explained in the DRUM KIT chapter. The display shows the kit number and kit name.

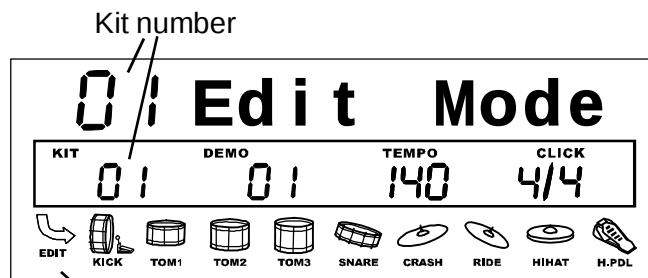
2. Enter the Edit Mode

Press the **EDIT** button to engage the edit mode. the display will show the kit number for editing and the EDIT icon appear.

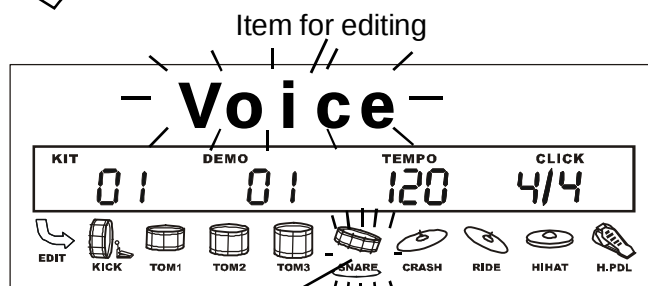
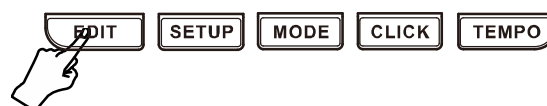
3. Select part to edit

Press a select button to engage editing for this part while the corresponding icon will blink. Some instruments have two or more parts, for example, the 'crash' has bow and edge; Hi-Hat has open and close etc. Press the button twice to select alternative part of this instrument, corresponding icon with the mark under the icon will flash. Please refer to table below.

A simple way to select part is to hit area of the pad you desire directly. This is an alternative method of pressing the button.

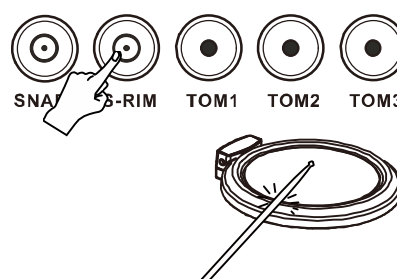


Edit icon



Item for editing

Part for editing



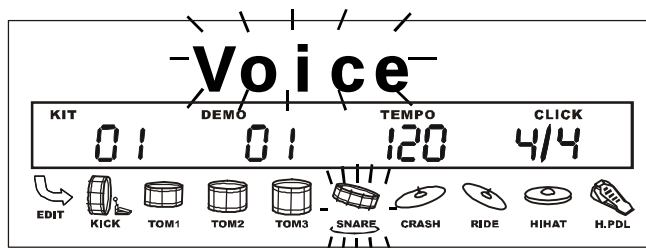
PART	DESCRIPTION	ICON
HH Pedal	Hi-Hat Pedal	
HiHat Open	Hi-Hat Open	
HiHatClose	Hi-Hat Close	
Crash	Crash Cymbal Bow	
Crash Edge	Crash Cymbal Edge	
Ride	Ride Cymbal	
Ride Edge	Ride Cymbal Edge	
Snare	Snare Head	

PART	DESCRIPTION	ICON
Snare Rim1	Snare Rim1	
Snare Rim2	Snare Rim2	
Tom1	Tom1 Head	
Tom2	Tom2 Head	
Tom3	Tom3 Head	
Kick	Kick Drum	

DRUM KIT EDIT

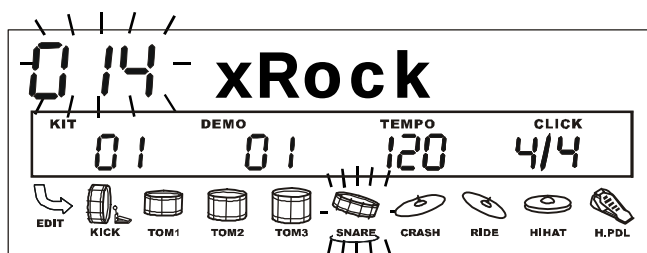
4. Select parameter to edit

After select part, the current parameter will be blinking. Rotate the **SCROLL WHEEL** to select a parameter to edit. In this example, select VOICE. The default parameter is VOICE. Press the **ENTER** button to confirm your choice.



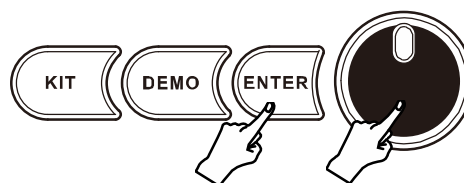
5. Edit the parameter

The current contents of this parameter will blink. In this example, it is the voice number. Rotate the **SCROLL WHEEL** to change contents of the parameter. In this example, you'll change voice assigned to Snare rim. Any parameter has its own range to set. For example, there are 95 voices can be selected to assign to a part. Please see Appendix VOICE LIST for details. Press the **ENTER** button to confirm your setting. Then, it'll return to the parameter selection operation stage.



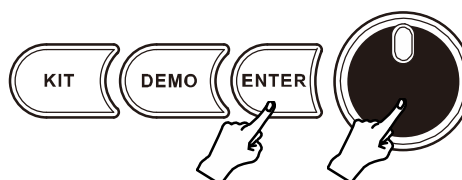
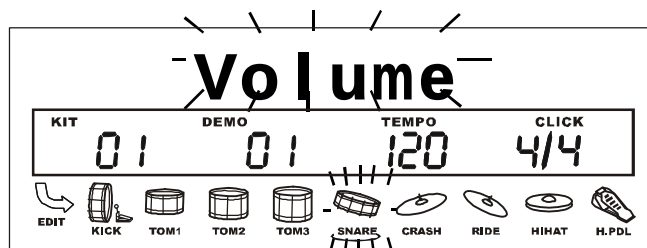
6. Edit another parameter or part

Now, the parameter (the VOICE in this example) editing for a selected part is finished. You may continue to edit other parameters in this part or change part to edit.



(1) Edit other parameter in the current part

After you press the **ENTER** button to finish current editing, it'll turn back to the parameter selection stage with the next parameter blinking. Press the **ENTER** button to edit this parameter or select other parameter by rotating the **SCROLL WHEEL**. Then, edit parameters in the same way explained in the Step 4 - Step 5 above. Parameters can be edited are listed in the table in page 12.



DRUM KIT EDIT

(2) Edit another part

Select another part to edit in the same way explained in Page 13. The current parameter to edit will keep no change. It provides you easy method to edit the same parameter for each part.

7. Complete the edit

After finish all editing job for the current drum kit, you may terminate the edit.

Press the **EXIT** button, "Save it?". Then, you have two choices:

(1) Save edited drum kit as your own user kit:

Press the **ENTER** button. "User Kit" with User kit number blinking will appear. Rotate the **SCROLL WHEEL** to choose number, then press the **ENTER** button to confirm.

Note: There are 10 built-in preset User Kit. All of them are the same as Kit 01. When you save your own User Kit, it'll replace the existing one.

If the saving is successful, it'll turn to the Kit select mode. The indicators of the pad select button and the **EDIT** button will turn off.

The display always asks "Replace it?". Press the **ENTER** button to replace existing one with your new editing. Press the **EXIT** button then change another number. If you really don't want to cover any existing User Kit, press the **EXIT** button again, and it will cover the current edited kit then turn to the Kit Select mode. .

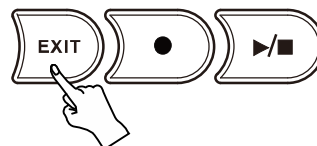
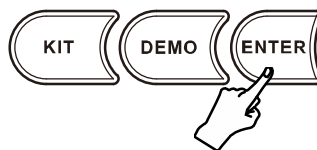
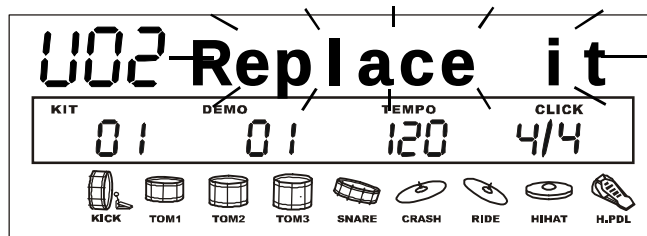
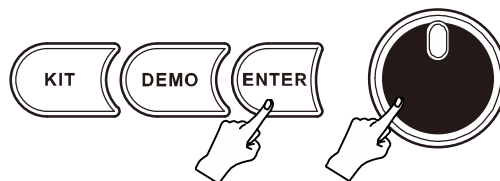
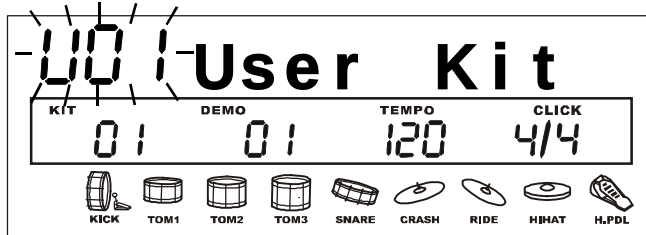
The User Kit setting is nonvolatile even the power turns off.

(2) Press the **EXIT** button to exit the edit mode and return to the Kit Selection mode without saving as User kit. The indicators of the pad select button and the **EDIT** button will turn off.

The edited results will cover the current drum kit and activate immediately. When the power turn off, this changes will reset.

Tip: You may reset the kit changes by Reset feature. Please see <SETUP> chapter in this Manual for details.

Save it?



SETUP

In the Kit Selection or Demo/Song stage, press the **SETUP** button to enter the Setup mode and its indicator lights up. The parameter to be setup will blink. Rotate the **SCROLL WHEEL** to select one of the 7 items listed below, then press the **ENTER** to confirm and its current value will be displayed.

In the item selection stage, press the **EXIT** button to exit setup operation and turn to the Kit Selection mode.

1. Accompaniment Volume for Demo

When play demo song, you may hear background music accompanied. Adjust this background music volume by parameter Accomp Vol. Rotate the **SCROLL WHEEL** to change the volume ranged 0 - 24. The default setting is 7.

Press the **ENTER** button to confirm and turn to the next parameter. Press the **EXIT** button to exit and turn to the parameter selection.

2. Percussion Volume for Demo

When play demo song, you may adjust percussion volume. Adjust this volume by parameter D.Drum Vol. Rotate the **SCROLL WHEEL** to change the volume ranged 0 - 24. The default setting is 11.

Press the **ENTER** button to confirm and turn to the next parameter. Press the **EXIT** button to cancel current edit and turn back to the parameter selection.

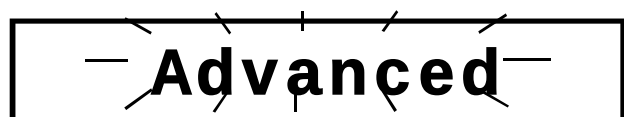
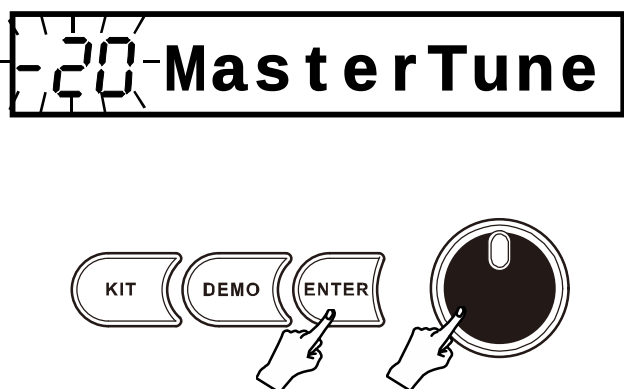
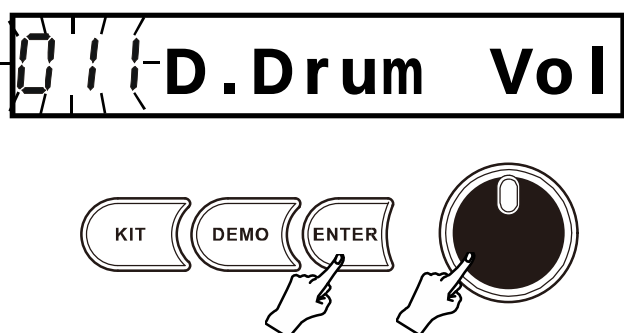
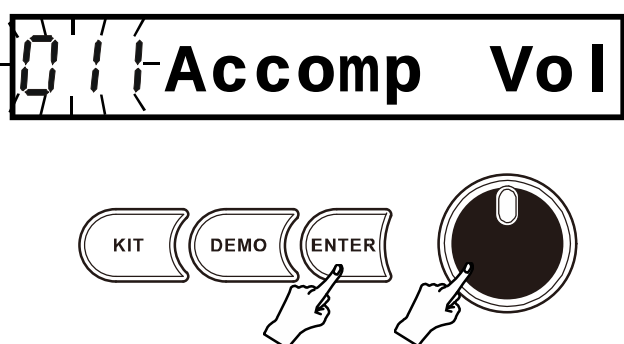
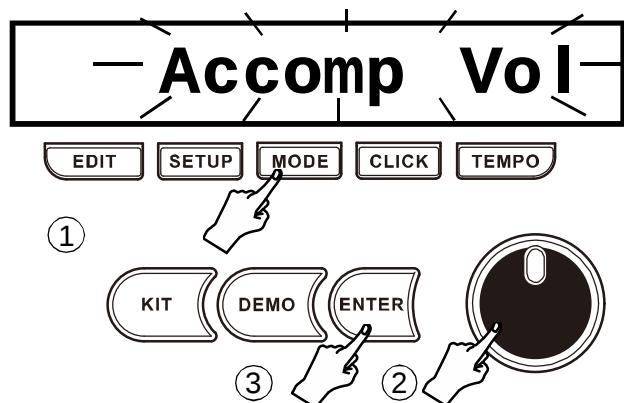
Press the **EXIT** button to exit and to the parameter selection.

3. Master Tune

This parameter affects sound pitch globally. Rotate the **SCROLL WHEEL** to change the master tuning ranged 0 to +/- 50. The default Setting is 0 which refers to 440 Hz at A4 note. Press the **ENTER** button to confirm and turn to the next parameter. Press the **EXIT** button to exit current edit and turn to the parameter selection.

4. Advanced Parameter Edit

The purpose of the drum kit edit is to change sound characteristics such as voice, volume, pan etc. The target of advanced parameter edit is physical characteristics of pad such as sensitivity, trigger curve etc.



SETUP

When the item name of Advanced is blinking, press the **ENTER** button to confirm it. The default parameter Sensitivity will be shown and blinking.

You could change parameter by rotating the **SCROLL WHEEL**.

Any parameter is assigned for each pad individually. You must select a pad to edit. The default pad is Tom1. You may select pad to setup by pressing the pad select button or strike the pad directly.

Note:

1. There is no alternative part such as rim, edge can be selected. It is different from part selection procedure in DRUM KIT EDIT.
2. The advanced setup does not include Hi-Hat pedal, which is available in individual item.

After select the parameter and pad, press the **ENTER** button to confirm. The current value of the parameter will appear and blink. Now, you can change the value.

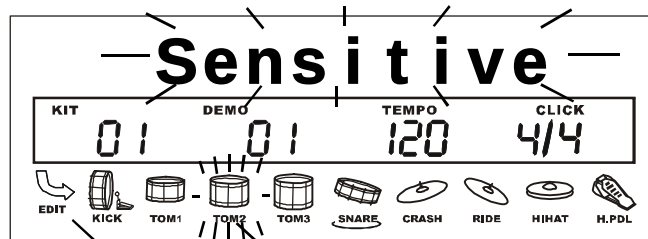
There are 4 advanced parameters can be edited. They are:

Sensitivity

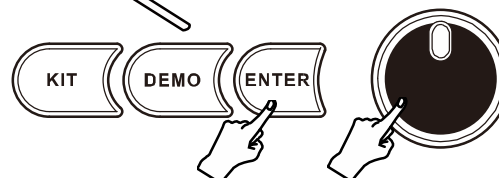
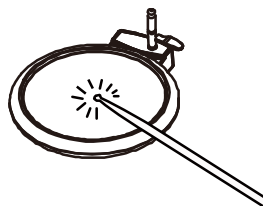
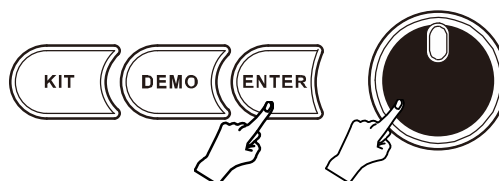
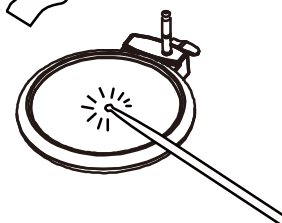
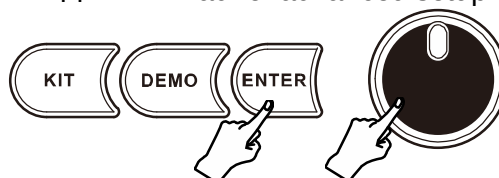
The pad sensitivity is ranged 1-127. Rotate the **SCROLL WHEEL** to change it. The higher value refers to the higher sensitivity. Please note that if the sensitivity is too high, it'll cause unexpected sound even if you don't strike the pad. Press the **ENTER** button to confirm your setting and turn to the next parameter. Press the **EXIT** button to exit current operation and back to Advanced parameter selection window.

Dynamic Range

This feature allows you to set playing strength, which response with the maximum volume, to accommodate your personal taste of performance. Strike the pad with strength you desire, with which you want to get the maximum volume. The value will appear automatically per your striking, the Max. value is 127. Press the **ENTER** button to confirm your setting. Press the **EXIT** button to exit current operation and back to Advanced menu.



EDIT icon appears Pad-for advanced setup



SETUP

Trigger Curve

This feature allows you select a proper curve from 6 preset curves to control the relation between the striking force and changes in volume. Change the curve until the response feels as natural as possible.

Rotate the **SCROLL WHEEL** to choose a curve. The curves you may select are Linear, Exp1, Exp2, Log1, Log2 and Spline. Press the **ENTER** button to confirm your setting. Press the **EXIT** button to exit current operation and back to Advanced menu. The default curve is Linear.

Curve type

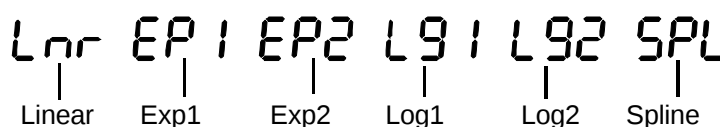
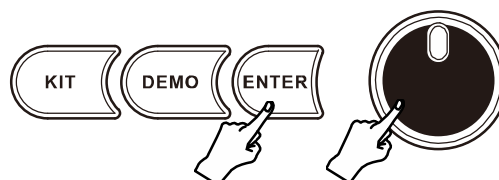
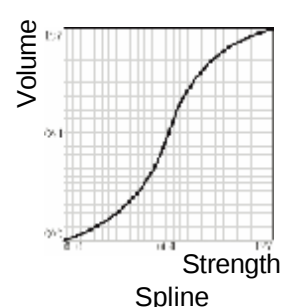
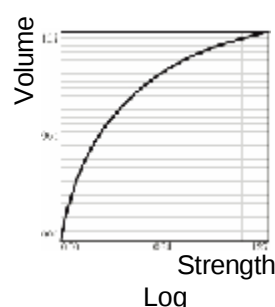
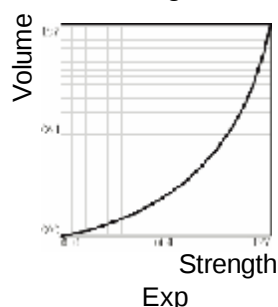
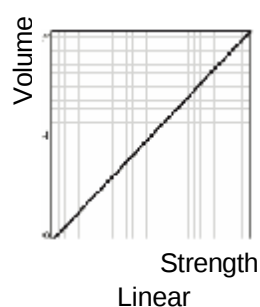


Diagram of 4 types of the curve



Cross Talk

Select Cross Talk in the menu and press **ENTER**. The option "Cross Talk" on screen will stop blinking, which indicates you have entered cross talk adjusting mode.

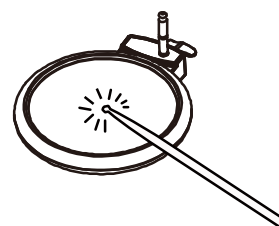
Keep striking a single pad repeatedly with high velocity, and the system will eliminate unexpected sounds on all other pads.

Go to next pad after no unexpected sound is heard by other pads. Finish all the cross talk adjustment and press **EXIT** to finish.

For example, if you can hear sound from pad B when you are only striking pad A, then there is cross talk between pad A and pad B.

Enter Cross Talk adjusting mode and keep striking pad A hard repeatedly until no sound from pad B is audible. Press **EXIT** to finish adjustment.

NOTE: The response from all the pads are bit slower compared with when playing kits. This is a normal phenomenon.



SETUP

Hi-Hat Pedal Setting

Strike the Hi-Hat pad without pressing the Hi-Hat control pedal to make open Hi-Hat sound.

The Hi-Hat pedal has three zones for sound control, which is divided by Open Threshold point and Close Threshold point. Strike the Hi-Hat pad while the position of the pedal is higher than open threshold point to make open Hi-Hat sound. Pressing the Hi-Hat control pedal gradually to make consecutive open to close Hi-Hat sound when pedal position is higher than close threshold. When pedal position is lower than close threshold, striking the Hi-Hat pad makes close Hi-Hat sound.

When press the pedal quickly and reach bottom position, it'll make Hi-Hat pedal sound and you don't need striking the Hi-Hat pad. The quicker the pressing, the higher the volume of the pedal sound. This bottom position is determined by Pedal Threshold.

The scale of Hi-Hat pedal movement is 0 - 127. 0 represents the lowest position of the pedal (completely pressed) and 127 represents the highest position (completely raised).

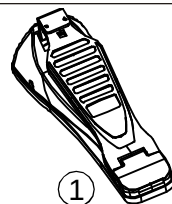
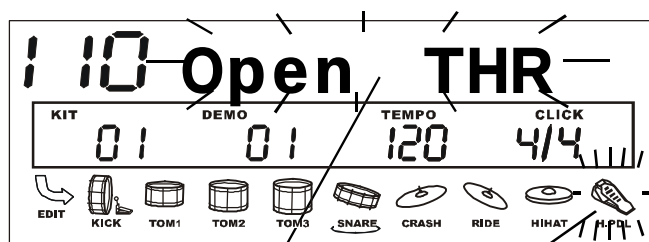
This feature allows you to set thresholds per your comfortable pressing strength.

The Threshold points can be adjusted in the Sensitive settings by pressing the Hi-Hat pedal. The parameter will be "Open THR" and blinking. Its current close threshold value will be shown. Press the **ENTER** button to confirm. Then, press the pedal to position you desire as close threshold while the real threshold value will be shown and blinking.

Press the **ENTER** button to confirm and turn to the pedal threshold setting; the parameter is "Pedal THR".

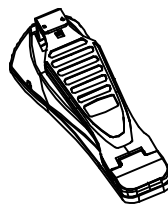
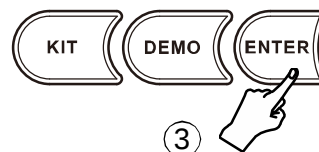
Then, set the Pedal threshold in the same way above while you could try by pressing the pedal quickly.

Press the **ENTER** button to confirm.
Press the **EXIT** button to exit current operation and back to Advanced menu.

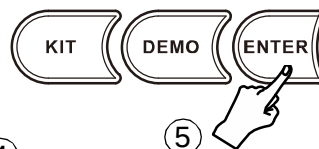


②

Hi-Hat pedal icon blinks



④



⑤



SETUP

In the Advanced menu window, press the **EXIT** button to turn to the Kit Selection mode. If you did some changes during the Advanced setting, the changes will be saved automatically. The display will say "Saving..."

5. Reset

After setup, kit editing and recording, all of changes are saved in the unit. This feature allows you to recover the factory settings.

Select Reset in the parameter selection stage then press **ENTER** button. There are four types of reset operations can be selected. Rotate the **SCROLL WHEEL** to select.

Reset Kit - Reset sound parameters in all User kits which changed during the kit editing. When "Reset Kit" is blinking, press the **ENTER** button. The display will show "AreYouSure". Press the **ENTER** button to confirm or press the **EXIT** button to cancel. Then, it'll return to the Setup parameter selection.

Reset Setup - Reset changes in Setup operation. When "ResetSetup" is blinking, press the **ENTER** button. The display will show "AreYouSure". Press the **ENTER** button to confirm and return to the Kit Selection mode. Or, press the **EXIT** button to return to the Setup parameter selection.

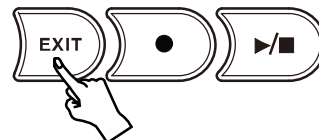
Reset Song - Erase all songs recorded by user. When "Reset Song" is blinking, press the **ENTER** button. Press the **ENTER** button to confirm or press the **EXIT** button to cancel. Then, it'll return to the Setup parameter selection.

Reset All - Besides reset all items above, it also reset physical parameter changes in kits which changed during the kit advanced editing. When "Reset All" is blinking, press the **ENTER** button. Press the **ENTER** button to confirm or press the **EXIT** button to cancel. Then, it'll return to the Setup parameter selection.

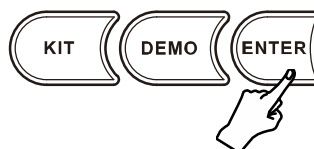
Note:

1. Don not strike any pad after press the **ENTER** button until it back to the Setup parameter stage or Kit Selection mode. It needs couple of second.
2. When enter the Setup mode from the Demo/song stage, the reset operation is not available.

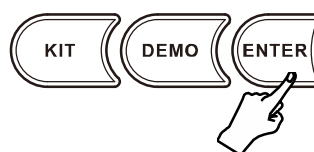
Saving . . .



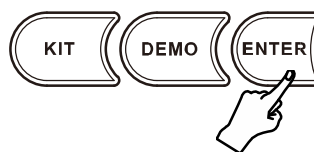
— Reset —



— Reset Kit —



— AreYouSure —



RECORD

Before recording, you should prepare necessary settings including drum kit, metronome, tempo, time signature etc. Press the **●** button to enter the record mode. The indicator will blink. Now, it is ready for recording.

1. Record

After one measure count-in, the record starts immediately, no matter you strike drum pad or not. If the metronome is turned on, you can hear the metronome during the recording.

The record indicator will keep blinking.

The record measure count will appear on the display.

Press the **●** button again to stop the recording. The display will go to the save stage.

2. Play back your recording

After stop the recording, press the **▶/■** button to playback your recording. Press **▶/■** button again to stop the playback.

After you save the recording as User Song, In the Song mode you can also select user song to playback. Please refer to the <SONG> chapter in this Manual for details.

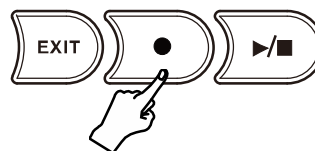
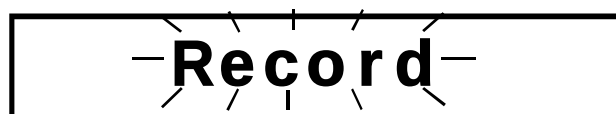
3. Save as a User Song

In the save operation, the User Song number for saving your record will blink. You may rotate the **SCROLL WHEEL** to choose song name. Press the **ENTER** button to save recorded song, press the **EXIT** button to turn to the Kit Selection mode without saving.

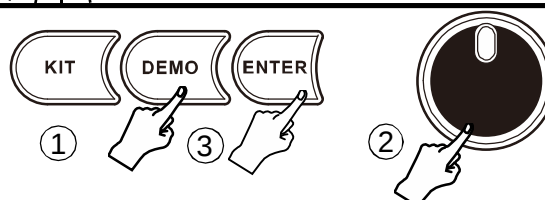
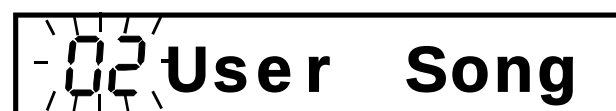
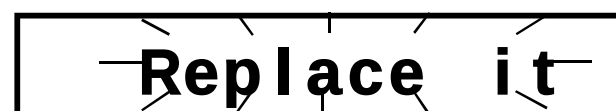
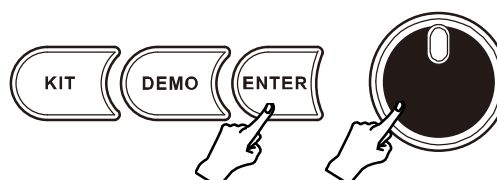
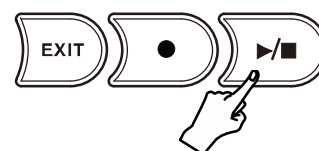
If the song name was already used for the previous recording, it'll ask you do you want to replace it with the new recording? Press the **ENTER** button to replace it or press the **EXIT** button to select another song number.

4. Erase User Song

In the Kit selection mode, press the **DEMO** button twice to enter the User Song mode. Select an User song then press the **ENTER** button. "Erase it?" will appear on the display. Press the **ENTER** button to erase this song or press the **EXIT** button to give up erasing. Then, it'll return to the User Song mode.



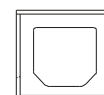
Measure



MIDI & USB

MIDI stands for Musical Instrument Digital Interface. This is a world wide standard communication interface that enables electronic musical instruments and computers to communicate with each other so that instructions and other data can pass between them. This exchange of information makes it possible to create a system of MIDI instruments and devices that offers far greater versatility and control than is available with isolated instruments. Whether you interface with computers, sequencers, expanders or other equipment your musical horizons will be greatly enhanced. For instance, you can edit your playing in computer or playback MIDI song from computer while play the drum.

USB - The USB connector allows you to connect the drum directly to your computer. It can connected without driver installation under the Windows XP, Windows Vista & MAC OSX environment. The drum will be recognized as USB Audio device to receive and transmit the same MIDI messages described above.



USB

MIDI APPLICATION CHART

Function	Transmitted	Recognized	Remarks
Basic Channel	10	1-16	
Note Number	0-127	0-127	
Velocity: Note ON Note OFF	1-127 64	0-127 0-127	
Major Controls: B9h 04h xxh Bxh 79h 00h Bxh 7Bh 00h	Yes Yes Yes	X Yes Yes	Hi-Hat pedal control Reset All Controller All Notes OFF
Program Change	X	Yes *	
System Exclusive	Yes	Yes **	
RPN	X **	Yes **	
NRPN	Yes	Yes **	

* Chanel 10 supports Bank 0 only

** If you need detailed information about Exclusive, RPN and NRPN, please contact your vender

Note: Transmitted note through chanel 10 for each pad if fixed as below:

PAD	NOTE
Tom1	48
Tom2	45
Tom3	41
Snare	38
Snare Rim	37
Crash	55
Crash Edge	49
Ride	51
Ride Edge	59
Hi-Hat Open	46
Hi-Hat Close	42
Hi-Hat Pedal	44
Kick	36

VOICE LIST

KICK					
1	kVintage	32	tVintage3	65	rMetal
2	kRock	33	tRock1	66	rJungle
3	kPop1	34	tRock2	67	rFiesta
4	kPop2	35	tRock3	68	rElectro1
5	kMetal1	36	tPop1	69	rElectro2
6	kMetal2	37	tPop2	70	rElectro3
7	kJungle	38	tPop3	71	rBrush
8	kJazz	39	tMetal1	CRASH	
9	kElectro1	40	tMetal2	72	cVintage
10	kElectro2	41	tMetal3	73	cRock1
11	kElectro3	42	tJungle1	74	cRock2
SNARE		43	tJungle2	75	cMetal1
12	sVintage	44	tJungle3	76	cMetal2
13	sRock	45	tJazz1	77	cJungle1
14	xRock	46	tJazz2	78	cJungle2
15	sPop	47	tJazz3	79	cJungle3
16	xPop	48	tFiesta1	80	cJazz
17	sMetal	49	tFiesta2	EXTRA	
18	xMetal	50	tFiesta3	81	hoVintage
19	sJungle1	51	tElectro1	82	hcVintage
20	sJungle2	52	tElectro2	83	hpVintage
21	sJazz	53	tElectro3	84	hoRock
22	xJazz	54	tElectro4	85	hcRock
23	sFiesta	55	tElectro5	86	hpRock
24	sElectro1	56	tElectro6	87	hoFiesta
25	sElectro2	57	tElectro7	88	hcFiesta
26	sElectro3	58	tElectro8	89	hpFiesta
27	sElectro4	59	tElectro9	90	hoElectro
28	sElectro5	60	tBrush1	91	hcElectro
29	sBrush	61	tBrush2	92	hpElectro
TOM		62	tBrush3	93	hoBrush
30	tVintage1	RIDE		94	hcBrush
31	tVintage2	63	rVintage	95	hpBrush
		64	rRock		

All voice name has prefix:

k refers to kick, s refers to snare, x refers to cross-stick, r refers to ride, c refers to crash, ho refers to hihat open, hc refers to hihat closed, hp refers to hihat pedal

SPECIFICATIONS

Configuration	3 X 8" Tom, 8"Snare(with rim),12"Crash cymbal(with choke),12"Ride cymbal,8"Hi-Hat,6"Kick,Hi-Hat pedal
Voice	95
Drum Kit	10 preset kits,10 user kits
Pattern	52, Full ,Drum Only and mute mode
Sound Effect	Reverb effect with professional DSP processor
Pad Button	10, for fast select and hear the sound while editing
Setup Menu	Accomp Vol,D.Drum Vol,MasterTune,Advanced,Reset
Pad Edit	Voice, Volume,Pan,Pitch,Reverb
Tempo	Default 96; range 40 ~240
Metro	On/Off,Tempo,Time-Signature,Volume
Record	10 songs
Display	Custom back-light LED
Power	9V DC
Aux. Socket	Headphone, Line In,Line Out L(Mono)/R,USB, Power In DC9V

All specifications are subject to change without notice