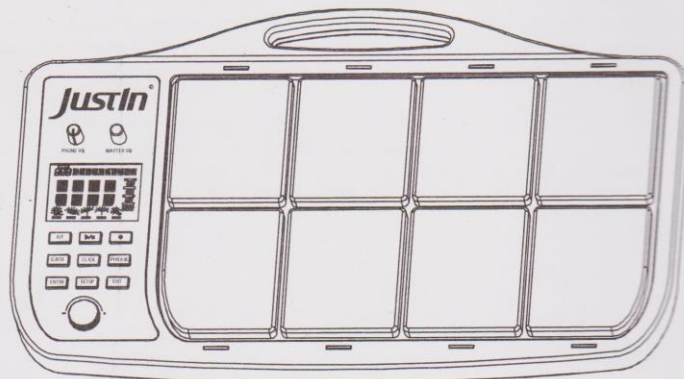


Justin[®]

**JDP-3000 DIGITAL DRUM
USER 'S 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,

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

HANDLING AND TRANSPORT

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

CLEANING

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

LOCATION

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.
- 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.
- 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

- Only use attached power adaptor.
- Turn the power switch off when the drum is not in use.
- 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.
- Turn the power off if the main cable of the adaptor is damaged or the instrument is spattered with liquid.
- Do not switch the unit on and off in quick succession, this places an undue load on the electronic components.
- Unplug the AC power cord during an electrical storm.
- Avoid plugging the AC adaptor into the same AC outlet as appliances with high power consumption, such as electric heaters or ovens.

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ABOUT MANUAL

This unit has many functions. They are introduced in respective chapters in the manual as listed below. The BASIC FUNCTION is recommended to read at first. Read the ADVANCED FUNCTION in case you need.

BASIC FUNCTION

PLAYING PAD and EXTERNAL TRIGGERING - The unit has 8 built-in pads and 5 external instruments can be connected. These chapters give you an essential concept on how to play them.

DRUM KIT - The unit has 80 preset pad kits and 5 external instrument kits. Each kit is a configuration of different voices assigned to each pad or instrument. Voices can be layered - two voices are assigned to a pad. The pad could be played in single, mixed or switched way depending on how hard the pad is struck. The kit is a very important concept of this drum.

GROOVEBOX - The GrooveBox provides an interesting and unique feature for your performance and entertainment. In this mode, the pad triggers musical elements including drum beat, other instrument obligato, effect sound and sequential notes. You can perform complete music by striking pads.

PHRASE - You can record your performance and save it as user phrases. Then you can play it back. Two recording modes provide an easy way to edit the recording in real time. Also, orchestration accompaniments can be merged into the phrase.

METRONOME - Built-in editable metronome is one of the useful utilities.

ADVANCED FUNCTION

SOUND EFFECTS - The drum is equipped with DSP device that generates sound effects applying to the original sound to improve the sound quality or change the characteristic of the sound.

DRUM KIT EDIT - The unit provides a powerful editing function that allows you to edit preset kits, for instance, assigning voice to the pad, setting its volume and establishing your own layer mode etc.


ADVANCED EDIT - This function allows you to sophisticatedly adjust behavior of the pad and external instrument such as sensitivity, dynamic range etc, though the manufacturer has already done. If necessary, read this chapter and learn how to do it to accommodate your taste.


SYSTEM SETUP - Setup function allows you to set up system parameters such as master tune, equalizer etc. You can also create custom sound effect modules. These functions are for more professional requirement.

RESET - In case you want to recover factory default setting, the Reset function provides different ways to do it.

APPENDIX

Appendixes contain Kit List, GrooveBox List, Accompaniment List, Effect List and Voice List.

Item headed by  **Note:** explains important point concerning the operation of the unit.

Item headed by  **Tip:** gives you useful tip regarding the use of the unit.

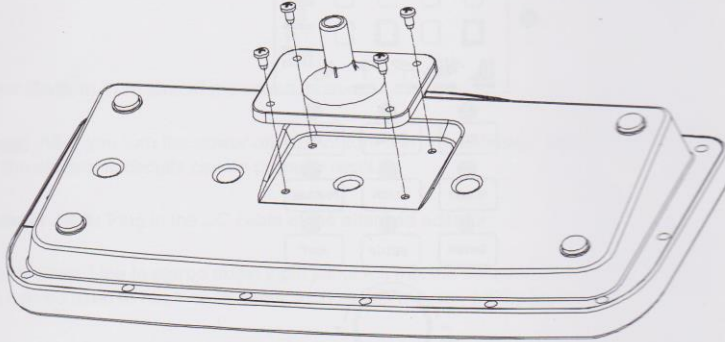
Please keep the Manual in hand and preserve it in a safe and convenient place for your frequent reference.

INSTALLATION

Support Board Installation

This unit is for desk-top application. It can be also mounted on stand or drum kit rack with support board installed.


Align holes in support board at the bottom of the unit, then insert four M6X12 screws and fasten them.

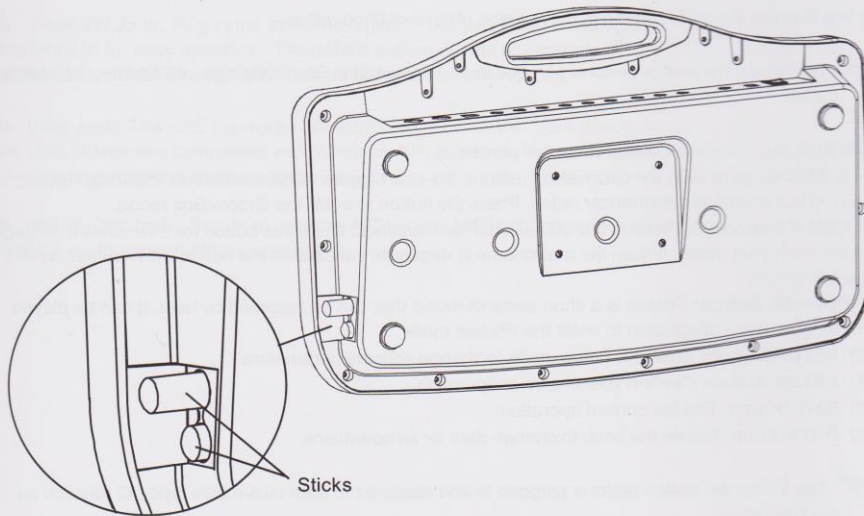


Stick Storage

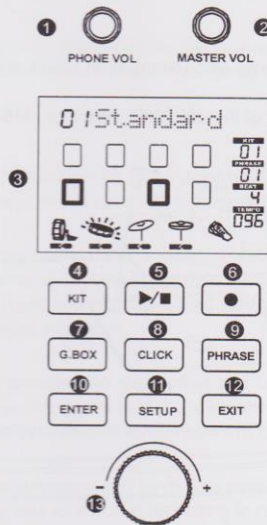
There are attached stick storage in the right side of the unit. Insert a stick into the hole of the storage and push it until the stick is hooked in and a click sound is heard.

Push it again, the stick will pop out.

 **Note:** Please use attached stick. Other sticks might have loosening or stuck problem.



CONTROL PANEL




(1) **HEADPHONE VOL Knob:** Rotate the HEADPHONE VOL knob to adjust the headphone volume. Rotate the knob clockwise to increase the headphone volume and counter-clockwise to decrease the volume.

(2) **MASTER VOL Knob:** The Master Volume will affect both the headphone volume and the line out level. Rotate the MASTER VOL knob to change the master volume ranging 0 - 127. Rotate the knob clockwise to increase the volume and counter-clockwise to decrease the volume.

(3) **Display:** Information such as Kit number and name, pad selection status etc are on the screen display. The display is back-lit LCD (Liquid Crystal Display) type.

(4) **KIT Button:** Press this button to enter the Kit selection window.

(5) **▶/■ Button:** Press the button to play or stop phrase or GrooveBox

 **Tip:** When the switch pedal is plugged in and assigned to Start/Stop type, it'll function as the ▶/■ button.

(6) **● Buttons:** Press the button to record phrase.

(7) **G.BOX Button:** With the GrooveBox feature, the pad triggers musical elements including rhythm, chord, effect sound and sequencer notes. Press the button to enter the GrooveBox mode.

(8) **CLICK Button:** Metronome On/Off switch. Press and hold down this button for 2 seconds to engage metronome setup mode. When the metronome is engaged, indicator of the button will flash per current beat and tempo


(9) **PHRASE Button:** Phrase is a short piece of music that can be recorded by user. It can be played back in loop. Press the button to enter the Phrase mode.

(10) **SETUP Button:** Enter the Setup mode to change editable parameters

(11) **ENTER Button:** Confirm your choice or operation.

(12) **EXIT Button:** Exit the current operation


(13) **DATA Knob:** Rotate the knob to change data for all operations.

 **Tip:** When the switch pedal is plugged in and assigned to data plus/minus type, it'll function as the Data knob.

BACK PANEL



(1) **Power Switch:** Turn On/Off the sound module

 **Note:** After you turn the power off, do not turn it on immediately. Wait at least five seconds so that the electronic circuits can be properly reset.

(2) **Power In Jack:** Plug in the DC cable of the attached adaptor

(3) **Line In Jack:** Line In stereo audio input jacks will mix the supplied signal with the internal drum sound. It can be used to hook up to items such as CD players, MP3 player etc.

(4) **Line Out Jack:** There is no built-in speaker in the drum. Line Out stereo audio output supplies the drum output signal to external amplification, such as home stereo, PA system or other stand alone amplifiers. If you connect the Line Out with an external mono system, stereo/mono adapter is recommended.

(5) **Headphone Jack:** The drum has the stereo headphone jack. You can play in total silence without disturbing others by plugging a set of headphones into the sockets.

(6) **Expand Trigger Jacks:** Connect external Ride cymbal, Hi-Hat cymbal, Snare, Kick drum and Hi-Hat control pedal through these jacks.

(7) **Foot SW Jack:** Plug in the foot switch pedal. The pedal can be assigned to data plus/minus or Start/Stop function for easy operation. The default setting is data plus/minus. Please refer to Overall Setting section of the <SYSTEM SETUP> Chapter for more information.

(8) **USB Jack:** The USB connector allows you to connect the drum directly to your computer's USB port. The USB interface is compatible with Windows XP, Windows Vista, Windows 7 and MAC OSx. The computer will recognize the drum as Audio Device.

(9) **MIDI In/Out Jack:** This drum contains MIDI in and MIDI out ports which allow communication with other products equipped with MIDI interfaces

PLAYING PAD

TURN ON THE POWER

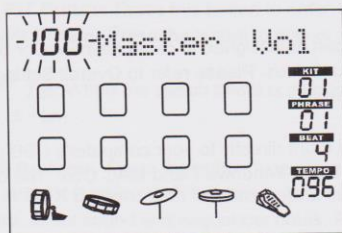
- (1) Plug in the DC cable of the attached adaptor into the POWER jack.
- (2) Plug in the headphone into the Headphone jack. Adjust the headphone volume to lower level.
- (3) Adjust the volume of external audio device such as amplifier and speaker box to lower level, if it is connected with the drum.
- (4) Press the POWER button.
- (5) Turn on external devices if it is connected.

VOLUME

Strike the pad and adjust the volume to proper level.



The Master Volume will affect both the headphone volume and the line out level. Rotate the MASTER VOL knob to change the master volume ranging 0 - 127. Rotate the knob clockwise to increase the volume and counter-clockwise to decrease the volume. The display will show the volume and it will blink. Press the ENTER button to confirm your setting. It will return to the previous window automatically if no operation is done after about 2 seconds.



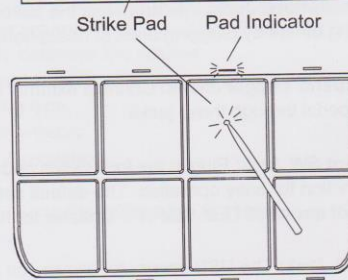
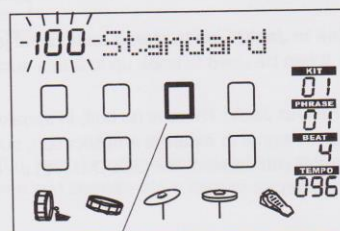
Rotate the PHONE VOL knob to control the headphone volume only.

PLAYING PADS

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

Note: The striking strength sensitivity feature is not applied to the pad 1-4 in the GrooveBox mode. Please refer to Chapter <GROOVEBOX> for details.

When a pad is struck, its indicator will light up and the corresponding block on the display will appear.



The pad could have layer feature. Strike the pad softer to make a voice and strike the pad harder to make another voice or a mixed voice. Please refer to Chapter <Drum Kit> for details.

EXTERNAL TRIGGERING

EXTERNAL TRIGGERING

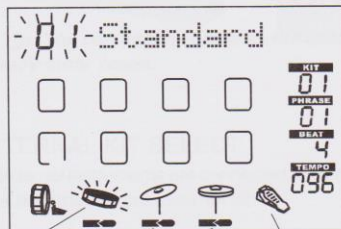
This unit can connect to external instruments such as snare pad, ride cymbal, kick drum pad, Hi-Hat and Hi-Hat control pedal. The unit can be triggered by these external instruments.

Plug the cable of the instrument into corresponding jack. Connection mark will appear underneath the external instrument icon on the display.



Kick Snare Ride Hi-Hat Hi-Hat Pedal

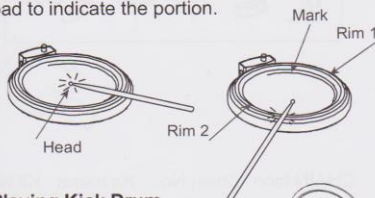
When the external instrument is played, its corresponding icon will be triggered with ray symbol.



Struck instrument Connection mark External instrument not connected

Playing Snare Drum

Strike the central position (head) of the pad to make a head sound, strike the rim of the pad to make a rim sound. There are two rim portions with different rim sounds. Also, there is a mark on the pad to indicate the portion.



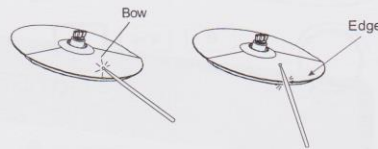
Playing Kick Drum

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



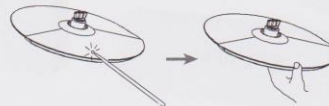
Playing Cymbal

Strike the central position (bow) of the cymbal to make a cymbal sound, strike the edge of the cymbal to make an edge shot sound.



Cymbal Choke

Strike the cymbal, its sound will sustain. Then squeeze the edge portion to mute the sound. Please note that the Hi-Hat has no choke feature.



Playing Cymbal Bell

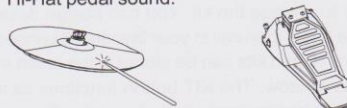
Strike the bell at the large ride cymbal to make a cymbal bell sound.



Note: This feature is available for the cymbal with bell only.

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 with 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 to make a consecutive closed Hi-Hat sound.
- (4) Press the Hi-Hat pedal down quickly to make Hi-Hat pedal sound.

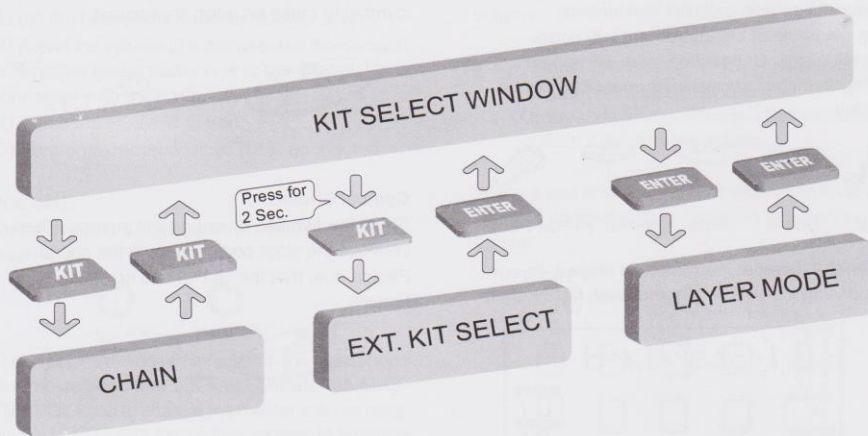


Note: Hi-Hat cymbal has no edge and choke features

CONTACT YOUR VENDER TO PURCHASE EXTERNAL INSTRUMENT

DRUM KIT

The unit has 80 preset pad kits and 5 external instrument kits for your choice. Each kit is a configuration of different voices assigned to each pad or instrument. The diagram below presents a brief control flow of the kit selection. The following pages will give you a detailed description.



KIT SELECTION

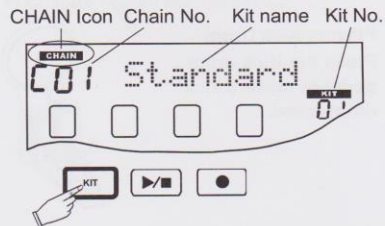
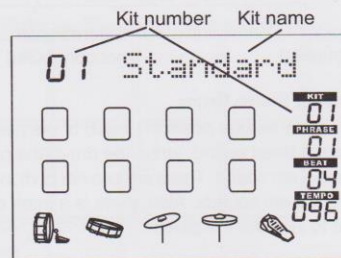
1. BASIC OPERATION

There are 80 preset pad kits for your choice. The pad kit is applied to 8 built-in pads. After the power is on, the pad kit selection window will be engaged automatically and the KIT button indicator will light up. The kit number and its name will be shown. The kit number also appears in the right side of the display.

Rotate the Data knob to select a pad kit. Rotate the knob clockwise to increase the kit number and anticlockwise to decrease the kit number. All pad kits are listed in the Appendix <KIT LIST> in the back of the manual.

2. CHAIN


The pad kit might be often changed during the performance. The Chain feature provides an easy and fast way to change the kit. You can assign desired pad kits into a chain then call in your favorite kit consecutively. There are 10 pad kits can be stored in the chain. In the Kit Selection window, The KIT button functions as a toggle switch to select normal or Chain mode. Press the KIT button to engage the Chain mode. The Chain icon will appear and the Chain number with prefix "C" and kit name



DRUM KIT


will be shown on the top row of the screen. Its corresponding pad kit number will be shown in the KIT area in the right side of the display. Rotate the DATA knob to select a Chain number..

Press the KIT button again to exit the Chain mode and back to normal Kit Selection window.

 **Tip:** You can assign your favorite kits to chain. Please refer to the <SYSTEM SETUP> Chapter for details.

3. USE PEDAL TO SELECT

You could also use foot switch pedal to select kit or Chain number, if the pedal is connected. Press the pedal, the kit number will increase by one normally. You could set it to decrease by one in the Setup function. Please refer to the <SYSTEM SETUP> Chapter in the manual for details.

 **Tip:** You can use the pedal as the Data Knob in many other cases.

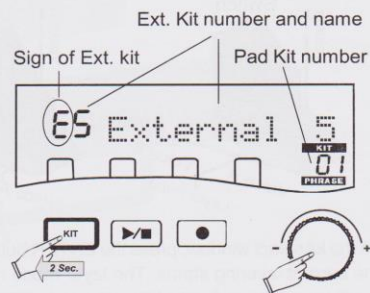
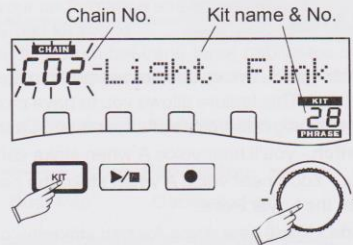
4. EXTERNAL KIT SELECT

When external instruments are connected, they are played in voice assigned to the external kit.

Press and hold down the KIT button for 2 seconds, the external kit number with prefix "E" will be shown. Default external kit is E1.

Rotate the Data knob to select an external kit. There are 5 external kits can be selected.

Press the ENTER button to confirm and exit.



DRUM KIT

LAYER

In this mode, two voices are assigned to each pad. The sound layering depends on how hard you strike the pad. This feature allows you to have more expressive performance. There are 5 layering types determining how voices of Layer A and Layer B are arranged.

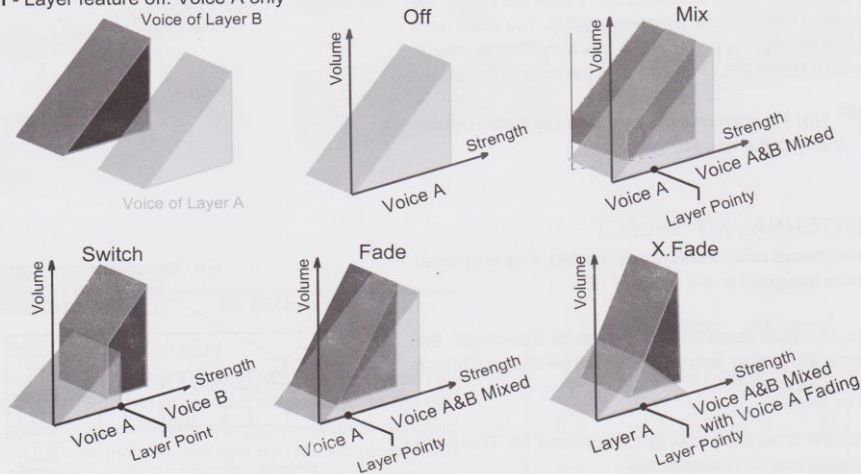
Switch - you'll hear voice A when strike softer and voice B when strike harder than the Layer Point.

Mix - You'll hear voice A when strike the pad softer and voice A mixed with voice B when strike harder than the Layer Point.

Fade - You'll hear voice A when strike the pad softer and voice B will be added gradually when strike harder than the Layer Point. The stronger the striking, the more the voice B will be added.

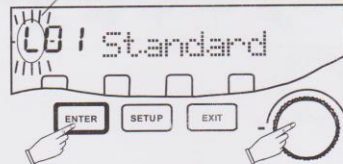
X.Fade - This is essentially the same as Fade, but Voice A will fade when you strike harder than the Layer Point. The harder the striking, the more it fades.

Off - Layer feature off. Voice A only



In the kit select window, press the ENTER button to watch the current layering status. The layer mode mark A, b or L will be added in front of the kit number and blink. "A" represents no-layering but voice A only, "b" represents no-layering but voice B only and "L" represents Layer mode. Rotate the Data knob to change the mode. Press the ENTER button again to confirm and back to normal kit number display.

Layering Mode mark



Note:

1. Not all kits have preset layering feature. Please refer to <KIT LIST> in the back of the manual. If the kit has no layering preset, i.e. the layer type is Off, it will always show A when you rotate the Data knob. If the kit has preset layering mode, the default status is L.
2. The layer mode change here is temporary. When you re-select this kit, the layer mode will recover to its default setting.



Tip: You can change layer preset and reserve it. Please refer to the <DRUM KIT EDIT> Chapter.

GROOVEBOX

The GrooveBox provides an interesting and unique feature for your performance and entertainment. When you play pad, it triggers GrooveBox music but not simply pad kit sound.

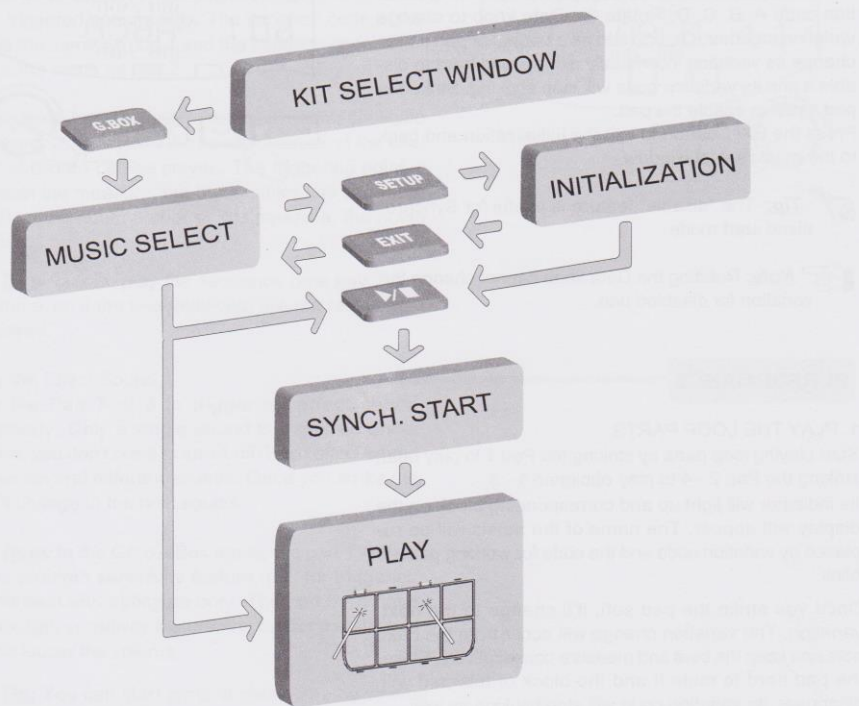
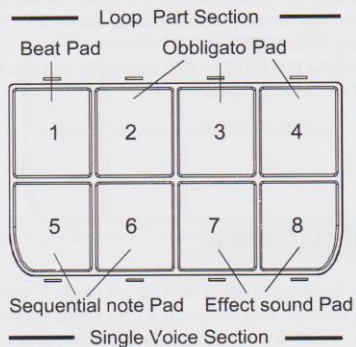
The GrooveBox music is composed of loop playing parts including drum beat and three obbligatos and single voice parts including effect sound and sequential notes. Each loop part and sequence has 4 variations from A to D.

With these preset elements combined; you can perform complete music with many varieties by striking pads.

There are 20 GrooveBox musics built-in for your choice. Please refer to the GrooveBox List in the back of this manual for details.

In this performance mode, 8 pads are divided into two sections. 4 upper pads marked with 1 - 4 are for loop parts triggering. 4 lower pads marked with 5 - 8 are for single Voice triggering.

The diagram below presents a brief control flow of GrooveBox operation. The following pages will give you detailed description.



GROOVEBOX

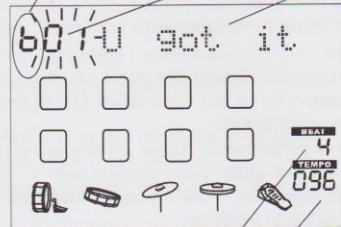
ENTER THE GROOVEBOX MODE

In the kit select window, press the G.BOX button and its indicator will light up. The name of GrooveBox music and its index number with prefix "b" will be shown. Its tempo and beat will appear on the right side of the screen.

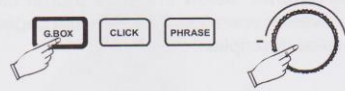
When the music number blinks, rotate the Data knob to select GrooveBox music.

Pressing the EXIT or KIT button to exit the GrooveBox and return to Kit window.

Sign of G.Box Music number Music name



Beat and tempo of the music



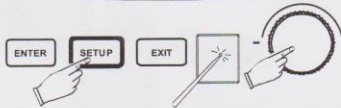
INITIALIZATION

The default variation is A for all pads. If you want, you can choose any variation as an initial variation to start play. In the G.Box music select window, press the SETUP button, the music name will be replaced by blinking variation code A, B, C, D. Rotate the Data knob to change variation together. Or, you can hit a particular pad soft to change its variation individually. Hit the pad hard to disable it and its variation code will stop blinking. Strike the pad again to enable the pad.

Press the EXIT button to exit the initialization and back to the music select window.

Tip: The "disable" feature is useful for Synchronized start mode.

Note: Rotating the Data knob cannot change the variation for disabled pad.



PERFORMANCE

1. PLAY THE LOOP PARTS

Start playing loop parts by striking the Pad 1 to play beat, striking the Pad 2 - 4 to play obbligato 1 - 3.

Its indicator will light up and corresponding block on the display will appear. The name of the music will be replaced by variation code and the code for working pad will blink.

Once you strike the pad soft, it'll change to the next variation. The variation change will occur from the next note and keep the beat and measure consecutively. Strike the pad hard to mute it and the block of this pad will disappear, its variation code will stop blinking as well.

GROOVEBOX

The measure count and beat will be displayed in real time. Even if you mute all parts, the count keeps running.

Rotate the Data Knob, the variation of working pads will change at same time based on the its current variation.


During the playing, you can add another part by striking a relevant triggering pad. The new part will be inserted in the next note of the current obligato or beat and will keep the measure and beat consecutive. Please note that the beat and the obligato are totally synchronized.

Alternatively, you don't need to hit pads hard separately to stop beat and obligato parts. Press the ►/■ button to stop all parts playing and the beat and measure count will disappear. Press the ►/■ button again to start from the first measure to play all beat and obligato parts, which were effective before the stop.

2. PLAY THE SEQUENTIAL NOTE


Each G.Box music has a sequence part. You can control when its notes sound. When you strike pad 5 or 6, notes will be triggered sequentially. The variation code of the pad 5 is the same as pad 1 and the variation code of the pad 6 is the same as pad 2.


The sequence is synchronized with beat and/or obligato in measure. Only notes in the same measure of the beat and/or obligato can be played. The triggering point is free within the measure, but if you strike the pad more times than the note number of this measure, the notes will repeat.

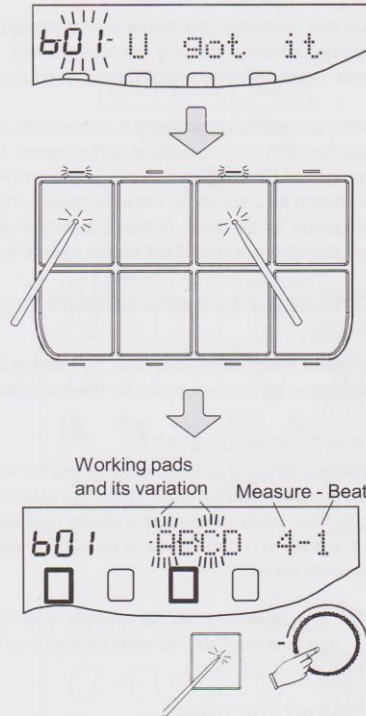
 **Tip:** You can play the sequence note any-time even if the beat/obligato are not really played.

3. Play the Effect Sound

Strike the Pad 7 or 8 to trigger an effect sound immediately. Only a single sound is triggered once, therefore, you don't need to turn it off. Each effect sound part has several different sounds. Once you strike the pad, it'll change to the next sound.

 **Note:** In the GrooveBox mode, the pad 1 - 4 has no strength sensitivity feature. It is for triggering the beat and obligato only. The pad 5 - 8 have strength sensitivity feature, the harder the striking, the louder the volume.

 **Tip:** You can start parts at same time by striking pads simultaneously.



GROOVEBOX

4. PLAY COMPLETE MUSIC

You can compose your music by arranging parts according to your taste in the way described above. You can play pads randomly but also get amazing results.

When an external instrument is connected, you can play it together with the GrooveBox performance. If you want to change the External kit number, press and hold down the KIT button for 2 seconds. The external kit number will appear with prefix "E" and blink. Rotate the Data knob to change it and then press the ENTER button to confirm.

5. CHANGE THE G.BOX NUMBER DURING THE PLAYING

You can change the GrooveBox by rotating the Data knob when all pads stopped by the ►/■ button.

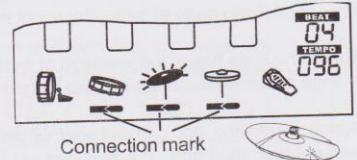
6. SYNCHRONIZED START

After selecting the G.Box music, press the ►/■ button, all beat and obligato parts will start playing together according to their initial variation and status setting. In this way, you don't need to hit pads to start beat and obligato parts.

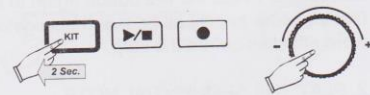
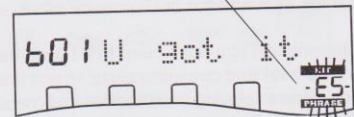
Tip: In the initializing window, you can enter the synchronized start directly by pressing the ►/■ button.

7. ADJUST THE TEMPO

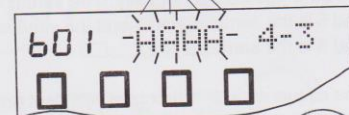
The beat and obligato parts share the same tempo. You can change the default tempo. Press and hold down the CLICK button for 2 seconds. The current tempo will blink in the right side of the display. Rotate the Data knob to change the tempo ranging 40 - 240 beat per minute. Press the ENTER button to confirm your setting and the tempo value will stop blinking.



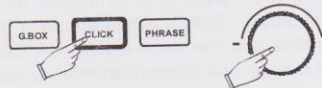
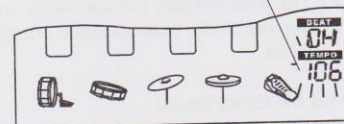
External kit number



Change variations together



Adjust tempo



METRONOME

Press the CLICK button, the metronome will start immediately. The metronome sound is louder at the first beat but lower for other beats. The CLICK indicator will flash as per beat and tempo setting. The indicator will be lighter at the first beat. Press the CLICK button again to stop it.

Press and hold down the CLICK button for 2 seconds to set up the metronome; the indicator will blink. The metronome will keep sounding and responding to your setting in real time.

Use the Data knob for setup. After setting the parameter, press the ENTER button to confirm your setting and then turn to the next parameter setting.


Press the KIT button to exit the setting and back to the Kit Selection window.

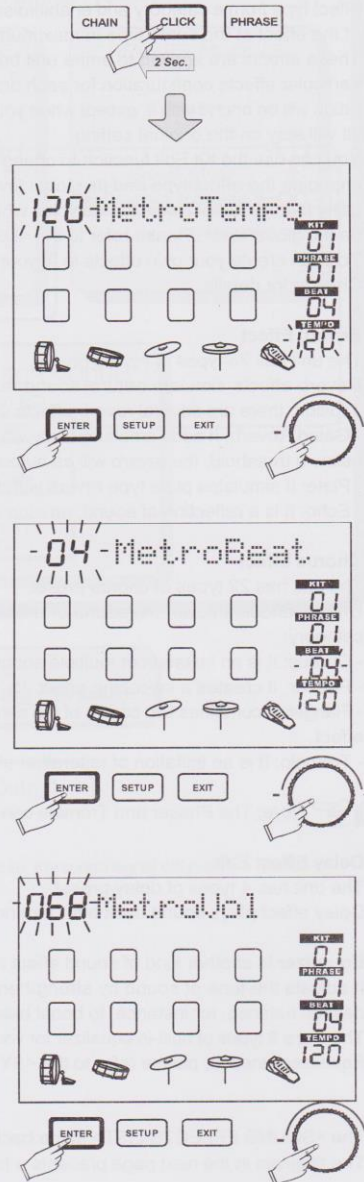
Following parameters can be changed.

(1) Tempo.- The current tempo will blink. Rotate the DATA knob to change the tempo ranging 40 - 240 beat per minute. The tempo will be also shown in the right side of the screen. The default tempo is 120.

(2) Beat - the current beat will blink. Rotate the DATA knob to change the beat ranging 2 - 12. The beat will also be shown in the right side of the screen. The default beat is 4.

(3) Volume.- The current metronome volume will blink. Rotate the DATA knob to change it ranging 0 - 127.

 **Tip:** If you do not want to change the current parameter, press the ENTER button to skip it.



SOUND EFFECTS

The drum is equipped with Professional Digital Signal Processor (DSP) that generates sound effects applying to the original sound to improve sound quality or change the characteristic of the sound. These effects are classified to three categories: Reverb, Chorus and Delay. You can choose one of the effect type from a category and enable/disable it respectively so that you can apply as many as three kinds of the effect at the same time in maximum.

These effects are applied to entire unit but not for individual pad or external instrument. The unit presets particular effects configuration for each drum kit, when you change the drum kit, the preset effect configuration will be bound with it, except when you change the kit during phrase record or phrase playing the effect kit will stay on the original setting.

You can use the Kit Edit function to change the presetting for each kit such as switching On/Off the effect, changing the effect type and its global level. Though effects are applied to enter unit, the drum provides utility to adjust effect level for the voice which is applied to a pad or external instrument respectively based on the global level. Please refer to the <DRUM KIT EDIT> Chapter for details.

You can create your own effects to fit your taste, or simply for fun, please refer to the <SYSTEM SETUP> Chapter for details.

Reverb Effect

The unit has 26 types of reverb preset.

Reverb effects simulate natural sound reflection from walls and ceilings of various halls and rooms. In addition, there are several reverb effects such as Gated Reverb and plate.

- Gated Reverb: It adds ambience only while the original signal is still sounding. As soon as the signal falls below a threshold, the reverb will be automatically cut off
- Plate: It simulates plate type reverb with their tight, dense early reflections and sharp reverb buildup
- Echo: It is a reflection of sound, arriving at the listener some time after the direct sound.

Chorus Effect

The unit has 22 types of chorus preset.

Chorus effects thicken the sound or make one sound like many. There are many types of effects in this category:

- Chorus: It is an imitation of multiple sounds with the same timbre and pitch converge perceived as one.
- Phaser: It creates a sweeping effect. Its sound is similar to that of flanging.
- Flanger: It combines two copies of the same sound, with the second delayed slightly, to produce a swirling effect.
- Tremolo: It is an imitation of reiteration of the sound.



Note: The Phaser and Tremolo can not respond to the level change.

Delay Effect Edit

The unit has 4 types of delay preset.

Delay effect plays sound back after a period of time. You can add Delay effect to the Chorus effect.

Equalizer is another kind of sound effect application.

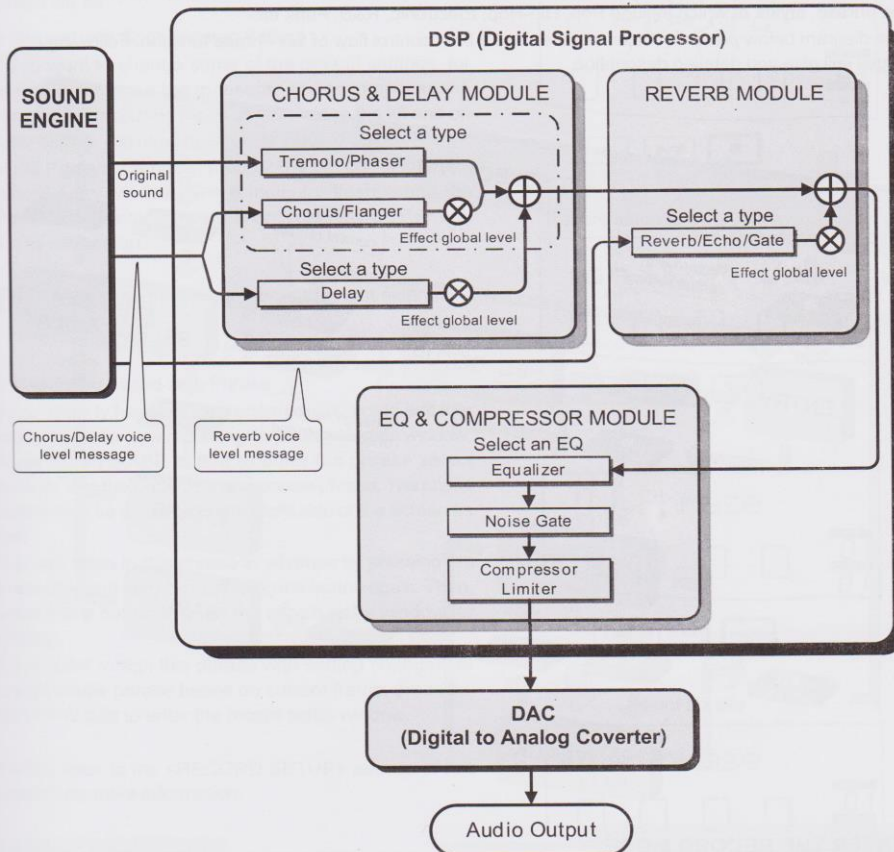
It adjusts the tone of sound by strengthening or weakening the energy of specific frequency to achieve desired balance, for instance, to boost bass, brighten treble, moderate alto voice etc.

There are 8 types of built-in equalizer for your choice. You can create your own 4-band equalizer by the User Equalizer function, please refer to the <SYSTEM SETUP> Chapter for details.

The <SOUND EFFECTS LIST> in the back of the Manual presents all effect types for your reference. The diagram in the next page presents a brief control flow of the effects processing.

SOUND EFFECTS

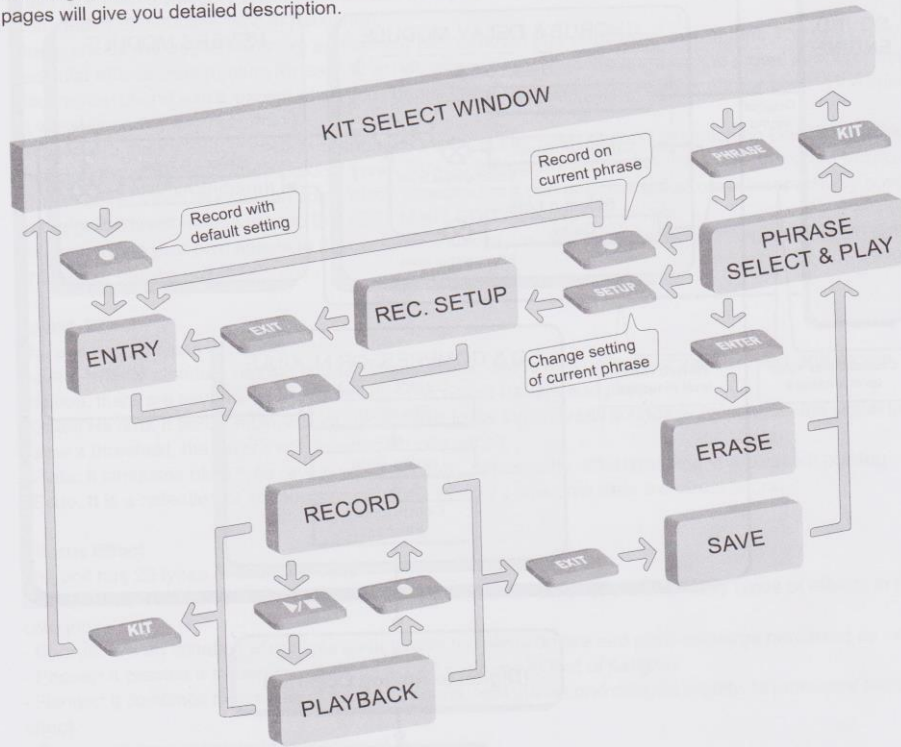
EFFECT FLOW CHART



Note: If there is no any type selected in Chorus/Delay/Reverb module, the sound signal will pass the module.

PHRASE

You can record your performance and save it as one of 30 user phrases. Then, you can play it back in loop and edit it to make it perfect. There are 20 built-in orchestration accompaniments can be added to the phrase, styles of which include Pop, Hip-Hop, Electronic, R&B, Funk etc. The diagram below presents major modules and a brief control flow of the Phrase function. Following pages will give you detailed description.



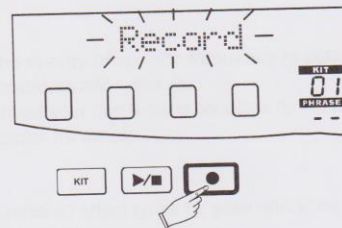
ENTER THE RECORD MODE

The unit provides 3 ways for your recording. One of them must fit you desire.

1. Easy Record

In this way, you don't need to set up anything. All of your current settings will be applied for recording, including kit selection, effects setting, metronome setting etc. You can record 16-measure phrase in Overdub mode without accompaniment.

In the Kit select window, press the ● button to enter the record entry window. The ● indicator flashes and the PHRASE indicator lights up. When "Record" appears in the display and blinks, press the ENTER button or the ● button to start recording immediately.



PHRASE

Note: The phase number in the right side of the screen will be "--".

2. Record with Sophisticated Setting

If you want to change some of the default settings, for example, increase the measure, add accompaniment, change the recording mode, even change the kit and effects setting, you need to enter the Record Setup window. In the Kit select window, press the ● button to enter the record entry window. The ● indicator flashes and the PHRASE indicator lights up. Then, press the SETUP button to start setup.

Note: The phase number in the right side of the screen will be "--".

3. Recording Based on a Phrase

If you already have phrase recorded, you could edit it or use its frame for new recording. In the kit selection window, press the PHRASE button to enter the phrase select window. Use the Data knob to choose a phrase. The phase number will be displayed in the right side of the screen as well.

You can listen to this phrase in advance by pressing the ►/■ button and stop it by pressing the button again. Then, press the ● button to enter the record entry window for editing.

If you want to edit this phrase with setting changes, or create a new phrase based on current frame, press the SETUP button to enter the record setup window.

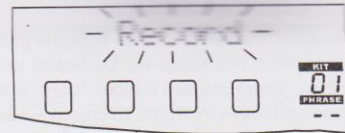
Please refer to the <RECORD SETUP> section of this chapter for more information.

RECORDER SETUP

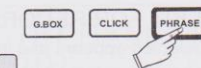
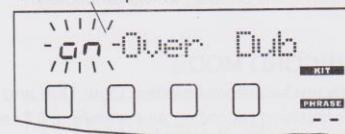
You have many optional setup items. When the item name blinks, rotate the Data knob to select and then press the ENTER button to confirm, its parameter data will blink. Use the Data knob to change data; then press the ENTER button to confirm your setting and turn to the next item.

Tip: If you don't want to change the current setting of an item, press the ENTER button to skip it and turn to the next item.

Press the ● button to start recording. The settings you have done will go into effect. Press the EXIT button to back to the entry of the Record window.



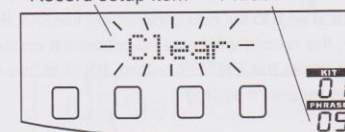
Record setup item



Select phrase



Record setup item Phrase number



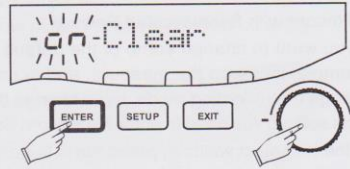
PHRASE

Items can be set are as follows:

1. CLEAR THE PHRASE

If you enter the setup window from the phrase select & play window, the setup will be based on the phrase selected. There are two options: Clear contents of the phrase and leave its frame to create a new phrase, or have its contents recorded for further editing. Rotate the Data knob to select On to clear or OFF not to clear, and then press the ENTER button to confirm.

If you enter the setup window directly from the kit window, this item will be skipped automatically.

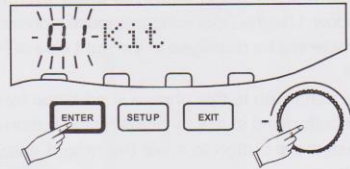
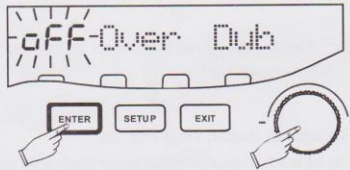


2. RECORD MODE

There are two record modes: Over Dub and Over Write. After finishing recording all measures, it'll restart further recording from the first measure with preserved contents.

The Over Dub mode provides the possibility to add more notes and sound tracks to the previous recording. The Over Write mode provides the possibility to replace contents in certain measure with new playing.

The display will show the current mode status, i.e. the Over Dub mode is On or Off. Over Dub oFF represents Over Write mode is On. Rotate the Data knob to change the mode and then press the ENTER button to confirm.



3. SELECT A KIT FOR RECORDING

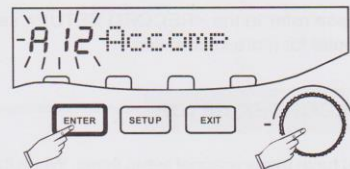
The current kit selected appears and its number blinks. Rotate the Data knob to select kit you desire. Press the ENTER button to confirm and turn to the next item.


If the CHAIN mode is engaged, you will select kit in chain.

4. SELECT ACCOMPANIMENT

4-1 Accompaniment setting - Select accompaniment by the Data knob. The range of the accompaniment number is 1 - 20 with prefix "A".


Press the ▶/■ button to listen it in advance. Press the button again to stop it. After selecting an accompaniment and then pressing the ENTER button, it will turn to the next item to set accompaniment volume. If you choose OFF, the record will have no orchestra accompaniment. After press the ENTER button, It'll skip this step and go to the measure setting.



 **Note:** If you enter the setup window from the phrase select & play window and Clear is set to Off, this item will skip automatically.


PHRASE


4-2 Accompaniment volume - To change the accompaniment volume by rotating the Data knob. The volume range is 0 - 127. If the accompaniment was set to OFF in previous step, this item will be skipped automatically.

 **Note:** If you enter the setup window from the phrase select & play window and Clear is set to Off, this item will be skipped automatically

5. MEASURE SETTING


This item is for you to set the maximum measure of the recording. The current measure setting will appear and blink. Rotate the Data knob to set the measure you desire. The available measure setting is 4, 8, 16, 32 and 999. "999" represents the free measure but the Max. measure is 999. Press the ENTER button to confirm and turn to the next item.

 **Note:** If the accompaniment is selected, the measure is determined by the accompaniment. This item will be skipped automatically.

 **Note:** If you enter the setup window from the phrase select & play window, this item will be skipped automatically.

6. BEAT SETTING

This item is for you to set the number of beat per measure. If the metronome is engaged, it will sound accordingly. The current beat appears and blinks. Rotate the Data knob to select beat per measure. The available beat is 2 - 12. Press the ENTER button to confirm and turn to the next item.

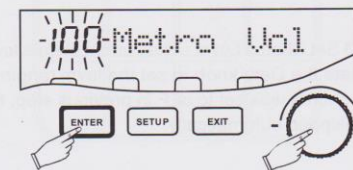
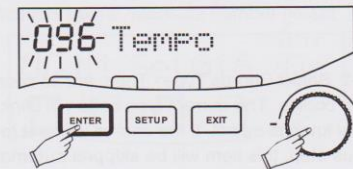
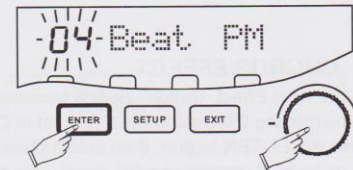
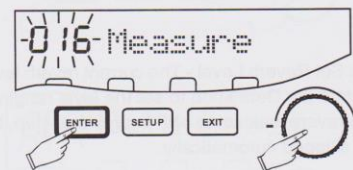
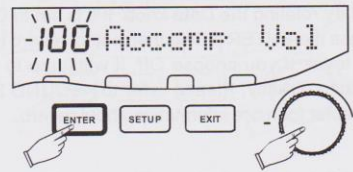
 **Note:** If an accompaniment is selected or you enter the setup window from the phrase select & play window, this item will be skipped automatically.

7. SET TEMPO

This item is for you to set the tempo. If the metronome is engaged, it will sound accordingly. The current tempo appears and blinks. Rotate the Data knob to change the tempo. The tempo range is 40 - 240. Press the ENTER button to confirm and turn to the next item.

8. SET METRONOME VOLUME

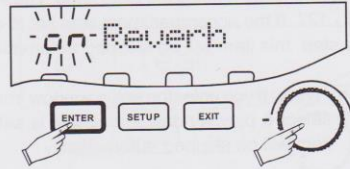
This item is for you to set the metronome volume. Rotate the Data knob to change the volume. The volume range is 0 - 127. Press the ENTER button to confirm and turn to the next item.



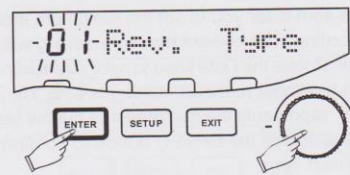
PHRASE

9. REVERB EFFECT

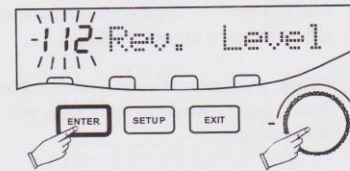
9-1 Reverb Effect Switch - Switch reverb effect On or Off by rotating the Data knob. If it is set to On, you can press the ENTER button then select reverb type and set its level. If you choose Off, it will jump to the chorus setting directly. Please refer to <SOUND EFFECTS> Chapter for more information about reverb.



9-2 Select Reverb Type - There are 27 reverb types for your choice. The current type code will blink. Rotate the Data knob to select. If the reverb was set to OFF in previous step, this item will be skipped automatically.

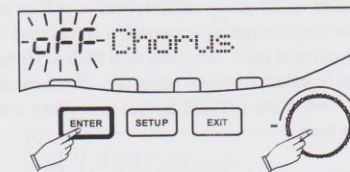


9-3 Set Reverb Level - The current reverb level will blink. Rotate the Data knob to set the level ranging 0 - 127. If the reverb was set to OFF in previous step, this item will be skipped automatically.

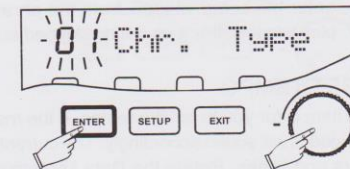


10. CHORUS EFFECT

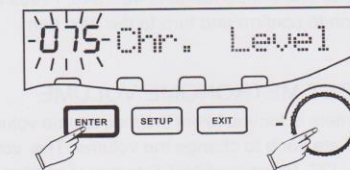
10-1 Chorus Effect Switch - Switch chorus effect On or Off by rotating the Data knob. If it is set to On, you can press the ENTER button, then select chorus type and set its level. If you choose Off, it will jump to the delay effect setting directly. Please refer to <SOUND EFFECTS> Chapter for more information about chorus.



10-2 Select Chorus Type - There are 23 chorus types for your choice. The current type code will blink. Rotate the Data knob to select. If the chorus was set to OFF in previous step, this item will be skipped automatically.



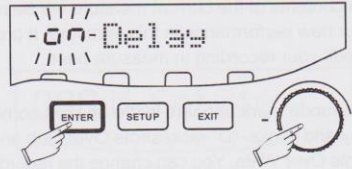
10-3 Set Chorus Level - The current chorus level will blink. Rotate the Data knob to set the level ranging 0 - 127. If the chorus was set to OFF in previous step, this item will be skipped automatically.



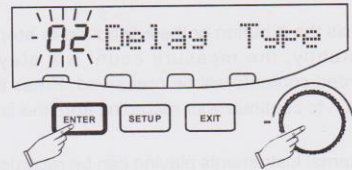
PHRASE

11. DELAY EFFECT

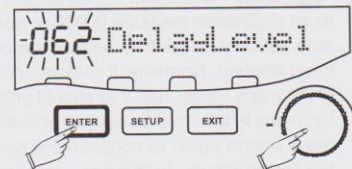
11-1 Delay Effect Switch - Switch delay effect On or Off by rotating the Data knob. If it is set to On, you can press the ENTER button, then select delay type and set its level. If you choose Off, it will jump to the item select window. Please refer to <SOUND EFFECTS> Chapter for more information about delay.



11-2 Select Delay Type - There are 5 delay types for your choice. The current type code will blink. Rotate the Data knob to select. If the delay was set to oFF in previous step, this item will be skipped automatically.



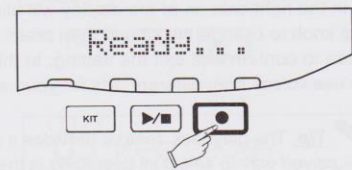
11-3 Set Delay Level - The current delay level will blink. Rotate the Data knob to set the level ranging 0 - 127. If the delay was set to oFF in previous step, this item will be skipped automatically.



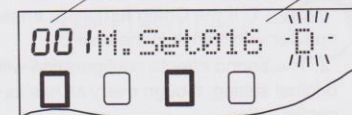
RECORDING

In any stage of the record setup procedure, press the ● button to start record with the setting you have done.

The indicator of the ● button will flash and you will hear one measures count-in metronome sound and "Ready..." will appear on the display. And then, record will start instantly no matter you start to play or not. The record indicator will stop flashing and stays lighting while the CLICK indicator flashes accordingly with current beat and tempo. The display will show preset measure number and recording measure count in real time.

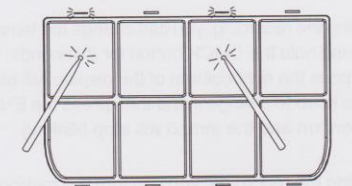


Measure count Measure number preset



If you have selected an accompaniment, it'll play as the background music for your drum performance.

When the last measure recording finishes, the metronome count-in will start again. Then, it will return to the first measure to continue your recording while recorded contents will be played back.



When the Over Dub mode is engaged, you can add more sounds to the current recording. Also, you can change kit to use different voices from other kits. This mode provides an easy way to complete your phrase step by step.

PHRASE

Another record mode is Over Write. When you play pads, the contents of the current measure will be replaced with your new performance in this measure. It provides a way to edit your recording in measure base.

The mode mark appears in the up right corner of the display and blinks. "D" represents Over Dub and "W" represents Over Write. You can change the recording mode by rotating the Data knob.

Press the **●** button or the **▶/■** button to stop recording instantly, the measure count will stay on. All recorded contents will be preserved. Press the **●** button again to continue your recording from the first measure.

External instruments playing can be recorded as well.

Tip: If the measure is set up to "999", the maximum recordable measure is 999. It wouldn't repeat automatically unless 999 measures recording have been finished. Normally, it seldom occurs because of too many measures. You should press the **●** button or the **▶/■** button to stop the recording and press the **●** button again to continue the recording from the first measure. In this way, you can have free measure record for long phrase.

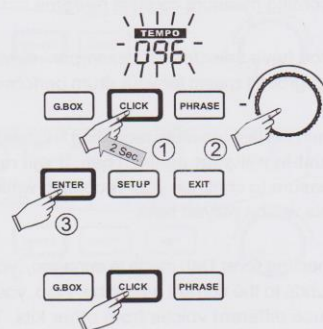
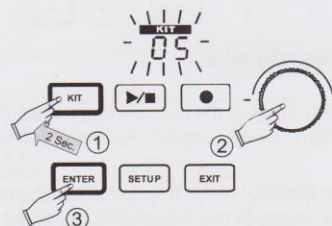
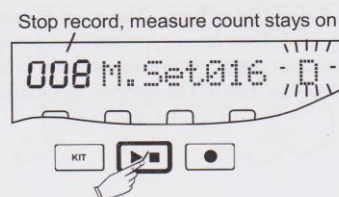
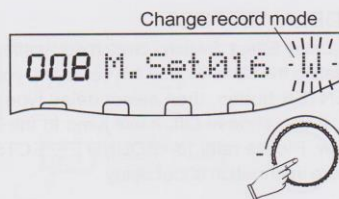
You can change pad kit during recording. Pressing the KIT button and hold on for 2 seconds, the current kit number in the right column of the display will blink. Use the Data knob to change the kit and then press the ENTER button to confirm and exit the setting. In this way, you can use voices from different kits for your recording.

Tip: The playback feature provides a directly perceived way to select kit described in the next page.

Note: 1. If the Chain feature is engaged, the kit number will change in the chain.
2. The sound effects configuration will stay in the original setting, though every kit has its own effects configuration.

During the recording, you can change the tempo by pressing and hold the CLICK button for 2 seconds. The current tempo in the right column of the display will blink. Use the Data knob to change it and then press the ENTER button to confirm and the tempo will stop blinking.

During the recording, you can turn the metronome sound On/Off by pressing the CLICK button.



PHRASE


PLAYBACK CURRENT RECORDING

When the recording is stopped, press the ►/■ button and its indicator will light up. After one measure count-in, you will hear the recorded contents from the first measure while the measure count will be displayed. The playing repeats in loop until you press the ►/■ button again to stop it and its indicator will be turned off.

During the playing back, you can play pads but it will not be recorded. You can change the kit for playing as well. It could give you idea how to edit your recording.

You can change the tempo and turn On/Off the metronome in the same manner described above.

When the playing is stopped, press the ● button to re-enter the recording stage to modify your recording. Changes of the tempo and drum kit you made will be preserved.


 **Note:** There is no record mode mark in the display and you cannot change the record mode here.


SAVE RECORDED CONTENTS

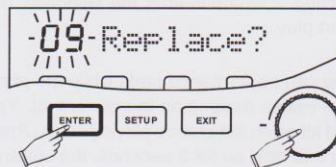
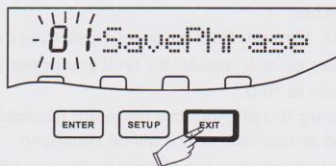
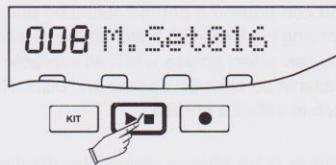
You can save your recording as user phrase. The unit can save as many as 30 phrases.

When recording or playing back stops, you can enter the save window by pressing the EXIT button. The phrase number will appear and blink. Use the Data knob to select phrase number for saving to. Press the ENTER button to save it and turn to the phrase select window. If this number is used by another phrase, the display will warn you "Replace?" because this existing phrase will be replaced by the new one. Press the ENTER button to save it and turn to the phrase select and play window; or press the EXIT button to select another phrase number to save.

In the saving stage, you have three optional operations:
Press the ● button to go back to the recording stage.
Press the ►/■ button to go back to the playing stage.
Press the EXIT button to go to the phrase select and play window.

 **Note:** If you press the EXIT button, your record will be lost.

 **Tip:** This is the only way to give up the current recording operation.



PHRASE

PLAY PHRASE

All saved user phrases can be played. You can enter the phrase selection and play mode by pressing the PHRASE button in the kit selection window. You can select phrase within all available numbers. The available number will appear and blink. Rotate the Date knob to select a phrase.

If there is no phrase saved, the display will say "No phrase"; after 3 seconds, it'll turn to the recording setup window for you to establish a phrase with the default setting.

Press the ▶/■ button, after one measure count in the phrase playing will start. Press this button again to stop the playing. There are four play modes can be selected in the Setup function.

- Single Once: Play single phrase once. It'll stop after the playing is finished.
- Single Repeat: Play single phrase repeatedly until you press the ▶/■ button again to stop.
- All Once: Play all phrases once starting from the current selected phrase. It will stop all phrases playing has been finished.
- All Repeat: Play all phrases starting from the current selected one repeatedly until you press the ▶/■ button again to stop.

During the playing, the measure number of the phrase and its real time count will be displayed.

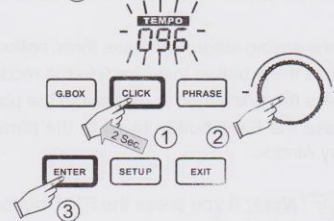
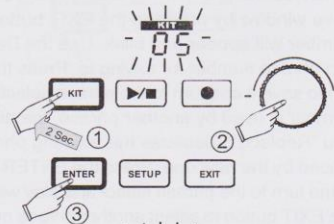
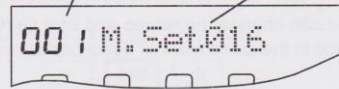
You can change the phrase by the Data knob during the playing. 2 seconds after the selection, new phrase will start play.

You can performance pads while the phrase is playing. The voices depend on the current kit. You can change pad kit when the phrase playing stops. Press the KIT button and hold on for 2 seconds, the current kit number in the right column of the display will blink. Use the Data knob to change the kit then press the ENTER button to confirm. The kit number will stop blinking.

During the playing, you can change the tempo by pressing and holding on the CLICK button for 2 seconds. The current tempo in the right column of the display will blink. Use the Data knob to change it then press the ENTER button to confirm. The tempo will stop blinking.



Measure count Measure number preset



PHRASE

During the record, you can turn the metronome sound On/Off by pressing the CLICK button.

In the phrase playing stage, you can enter the record operation directly to edit the current phrase or create a new phrase.


Press the **●** button to enter the record entry window. The setup and record procedures are described in the relevant sections of this Chapter.

Press the EXIT button to exit the phrase window and turn to the Kit selection window.


ERASE PHRASE

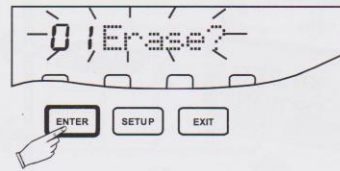
In the phrase select window, press the ENTER button to enter the phrase erase window. The current phrase number and "Erase?" will appear on the display.

Press the ENTER button to erase this phrase and back to the phrase select window.

 **Note:** If there is no phrase existing after erasing, the record entry window with the default setting will be engaged automatically.

Press the EXIT button to cancel the erasing operation and go back to the phrase select window.

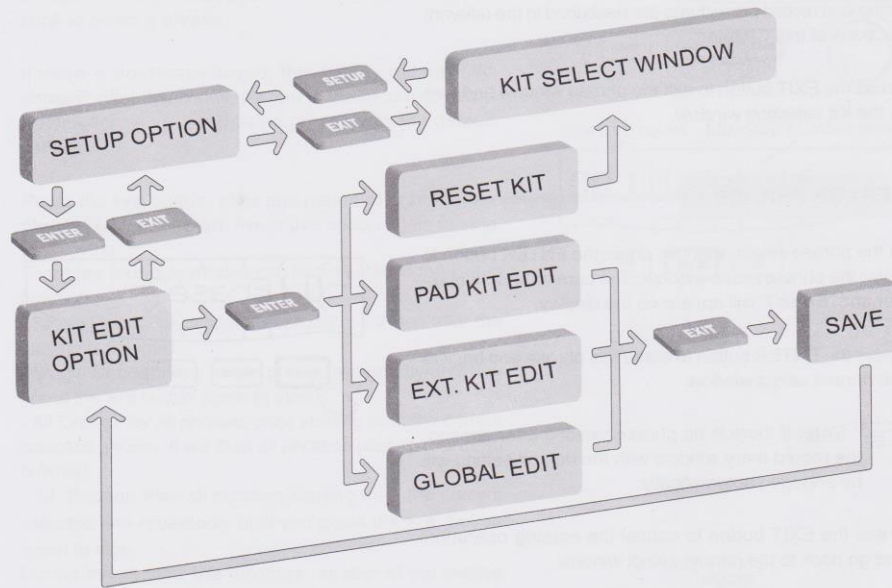
 **Note:** Be careful! The erased phrase is unrecoverable.



DRUM KIT EDIT

All 80 preset pad kits and 5 external instrument kits can be edited. You can assign voice to each pad, set its volume and pan etc. Some parameters are for the entire kit but not for individual pad such as sound effects type etc, they are also editable.

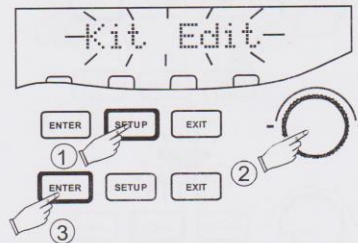
The diagram below presents major modules and a brief control flow of the Drum kit edit function. Following pages will give you a detailed description.



In the Kit select window, press the SETUP button. There are 5 setup items can be selected. Rotate the Data knob until "Kit Edit" appears then press the ENTER button to confirm.

Note: Before kit edit operation, you should select a pad kit or an external kit to edit.

Press the EXIT button to exit and back to the Kit selection window.



DRUM KIT EDIT

PAD KIT EDIT

1. PAD KIT EDIT PREPARING

(1) Enter the Pad Kit Edit

After entering the Kit Edit window, rotate the Data knob until "Pad Kit" appears and then press the ENTER button to confirm.

Press the EXIT button to exit and back to the Kit Edit window.

(2) Select Parameter

There are many parameters can be edited. The first parameter will appear and blink. Current parameter data will be shown for your reference. Rotate the Data knob to select the parameter you want to edit.

(3) Select a Pad to Edit

Each pad in the pad kit is editable respectively. After entering the Pad Kit edit window, the default pad to be edited is pad 1. You can select another one by striking the pad, its indicator will light up and corresponding block on the display will appear.

Note: When you re-enter the Pad Kit edit from the kit edit item selection window, the default pad is the last pad you stroke.

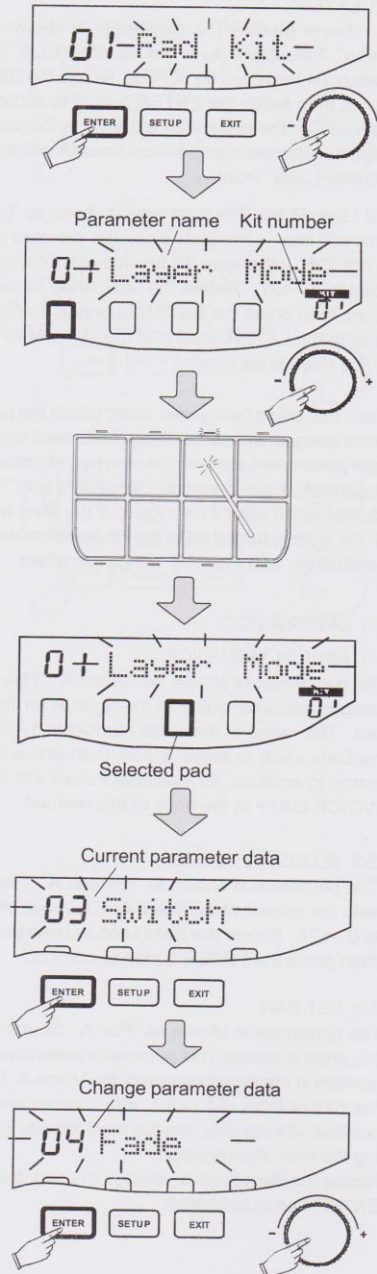
Tip: You can edit multiple parameters for a pad by selecting a pad then change the parameter, or you can edit a parameter for multiple pads by selecting a parameter then change the pad.

2. EDIT PARAMETERS

After selecting a parameter, press the ENTER button to confirm and the current parameter data will blink. Use the Data knob to change data; and then press the ENTER button to confirm your setting and turn to the next parameter.

Tip: If you don't want to change the current setting of an item, press the ENTER button to skip it and turn to the next item.

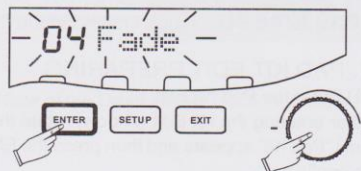
Tip: You can hear editing results in real time by striking the pad under the editing.



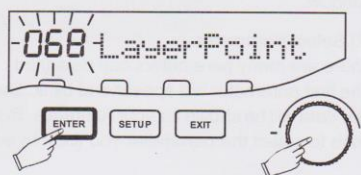
DRUM KIT EDIT

(1) LAYER

1-1 Layer Mode - The parameter is shown as "Layer Mode". Selectable layer modes are 01 Off, 02 Mix, 03 Switch, 04 Fade and 05 X.Fade. Rotate the Data knob to select then press the ENTER button to confirm. If you choose Off, the parameter will jump to the voice setting directly; otherwise, you will continue to edit the next parameter Layer Point.



1-2 Layer Point - The parameter is shown as "LayerPoint". This edit item is available when the selected layer mode is not "Off", otherwise it'll be skipped. The range of the point is 0 - 127. Rotate the Data knob to set the layer Point, then press the ENTER button to confirm. Please refer to the LAYER section of the <DRUM KIT> chapter in this manual for details.

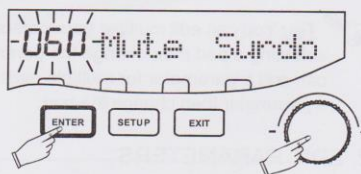


Each pad could be layered under which the pad has two voice assignments respectively. Also, each layer has multiple parameters such as volume, pan etc could be setup separately. Each parameter is marked with "A" or "B" to identify which layer it belongs to. If the layer mode is Off, or the layer is turned off in the Kit Selection window, only parameters with mark "A" will go into effect.

(2) LAYER A EDIT

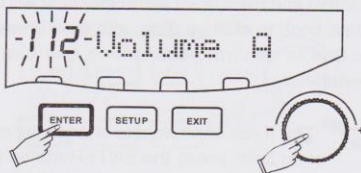
2-1 ASSIGN THE VOICE

The parameter is shown as "Voice A". This parameter assigns particular voice to the layer A for the selected pad. The range of the voice number is 1 - 914. Rotate the Data knob to select voice, then press the ENTER button to confirm. All available voices are listed in the <VOICE LIST> in the back of this manual.



2-2 ADJUST VOLUME

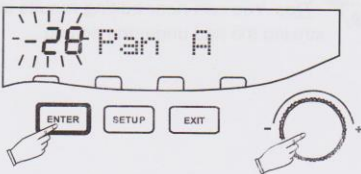
The parameter is shown as "Volume A". This parameter sets the volume of the Voice A. The range of the volume is 0 - 127. Rotate the Data knob to change the volume, then press the ENTER button to confirm.



2-3 SET PAN

The parameter is shown as "Pan A". Sound output from this drum is stereo. This parameter determines the sound position in stereo pan space of the Voice A. The range of the pan is from -64 to 63, with 0 representing centre position, -64 representing the most left and 63 representing the most right position.

Rotate the Data knob to change the pan, then press the ENTER button to confirm.



DRUM KIT EDIT

2-4 ADJUST PITCH

The parameter is shown as "Pitch A". This parameter affects the pitch of the Voice A. The range of the pitch is -10~10, with 0 representing the original pitch, -10 the lowest and 10 the highest pitch.

Rotate the Data knob to adjust the pitch, then press the ENTER button to confirm.



2-5 SET REVERB LEVEL FOR PAD

The parameter is shown as "Reverb A". This parameter determines the level of the reverb effect for the Voice A. The range of the level is 0 - 127, 127 represents the strongest effect.

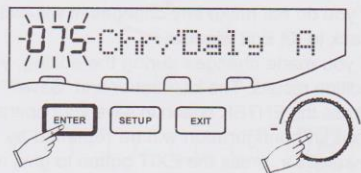
Rotate the Data knob to adjust the level, then press the ENTER button to confirm.



2-6 SET CHORUS/DELAY LEVEL FOR PAD

The parameter is shown as "Chr/Dely A". Chorus and Delay effects share the same level. This parameter determines the level of the Chorus and Delay effect for the Voice A. The range of the level is 0 - 127, 127 represents the strongest effect.

Rotate the Data knob to adjust the level, then press the ENTER button to confirm.




Note: Tremolo and Phaser will not respond to the Chorus and Delay effect level. If the current chorus type is Tremolo or Phaser, this parameter edit will not be effective.

DRUM KIT EDIT

(3) EDIT LAYER B

Edit Items listed below are accessible when the selected layer mode is not "Off", otherwise they will be skipped automatically. The way of the editing is the same as is described above for Layer A.

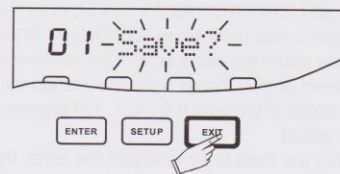
Parameter	Description	Range
Voice B	Assign voice to the layer B for the pad selected	1 to 914
Volume B	Volume of Voice B	0 to 127
Pan B	Sound position of Voice B in stereo pan space	-64 to 63
Pitch B	Pitch of the voice B	-10 to 10
Reverb B	Level of the reverb effect for the voice B	0 to 127
Chr/Dely B	Level of the Chorus and Delay effects for the voice B	0 to 127
Delay B	Level of the Delay effect for the voice B	0 to 127


 **Note:** Tremolo and Phaser will not respond to the Chorus and Delay effect level. If the current chorus type is Tremolo or Phaser, this parameter edit will not be effective.

(4) COMPLETE THE PAD KIT EDITING

Press the EXIT button anytime to terminate the editing. If you do not make any changes, it will exit the edit and back to Kit Edit window.

If you made changes during the editing, you can save editing results. The kit number and "Save?" will appear. Press the ENTER button to save your operation; the current kit configuration will be replaced by your editing results. Or, press the EXIT button to give up the editing and back to the Kit Edit window.



 **Note:** The saved setting is nonvolatile even when the power is turned off. You can recover the default setting under the Kit Reset function. Please refer to the Kit Reset section of this chapter for more information.

DRUM KIT EDIT

EXTERNAL KIT EDIT

The external kit for expanded instrument is independent from the pad kit. It is also editable.

1. EXTERNAL EDIT PREPARING

(1) Enter the External Kit Edit

After entering the Kit Edit item selection window, rotate the Data knob until "External" with the external kit number with prefix "E" appears. Then press the ENTER button to confirm. Press the EXIT button to exit and back to the Kit Edit window.

Note: If there is no external instrument connected, "No Connect" will appear on the display for 3 seconds then the display will back to the Kit Edit window.

(2) Select Parameter

There are many parameters can be edited. The first parameter will appear and blink. Current parameter data will be shown for your reference. Rotate the Data knob to select the parameter you want to edit.

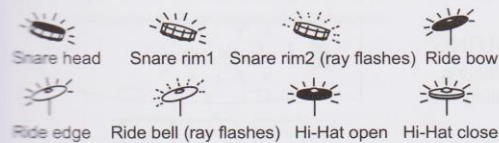
(3) Select an Instrument Part to Edit

Select an instrument by striking the pad. Please note that some instruments have two or more parts to make different voices, for example, the snare has head, rim1 and rim2 parts; ride cymbal has bow and edge parts etc. Select a part by striking relevant part.

All parts can be edited are listed below:

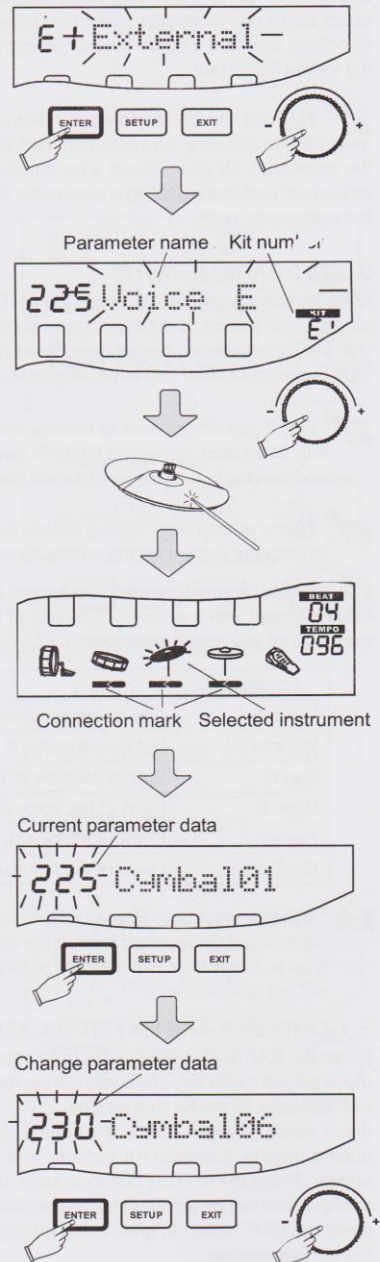
Hi-Hat Pedal	Ride Cymbal Bell
Hi-Hat Open	Snare Head
Hi-Hat Close	Snare Rim 1
Ride Cymbal Bow	Snare Rim 2
Ride Cymbal Edge	Kick Drum

The icon on the bottom of the screen shows selected instrument. The diagrams below present how the icon identifies the selected part of the snare, ride and Hi-Hat.



You may note that there are 3 parts for the Hi-Hat. They cannot be selected by simple striking.

Strike the Hi-Hat cymbal and do not press the Hi-Hat control pedal to select the Hi-Hat Open part; strike the Hi-Hat



DRUM KIT EDIT

cymbal while press the Hi-Hat control pedal to bottom to select the Hi-Hat Close part; press the Hi-Hat control pedal to bottom but do not strike the Hi-Hat cymbal to select the Hi-Hat Pedal part.

Tip: You can edit multiple parameters for an instrument part by selecting an instrument part then changing the parameter. Or you can edit a parameter for multiple instrument parts by selecting a parameter then changing the instrument part.

2. EDIT PARAMETERS

After selecting a parameter, press the ENTER button to confirm your choice. The current parameter data will blink. Use the Data knob to change data. Then press the ENTER button to confirm and turn to the next parameter.

Tip: If you do not want to change the current setting of an item, press the ENTER button to skip it and the display will turn to the next parameter.

Tip: You can hear editing results in real time by striking the part under the editing function.

The editable parameters listed below are the same as Pad Kit except with a suffix "E". The way of the editing is the same as the above description for Layer A.

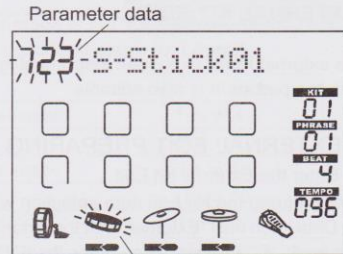
Parameter	Description	Range
Voice E	Assign voice to the part selected	1 to 914
Volume E	Volume of Voice E	0 to 127
Pan E	Sound position of Voice E in stereo pan space	-64 to 63
Pitch E	Pitch of the voice E	-10 to 10
Reverb E	Level of the reverb effect for the voice E	0 to 127
Chr/Dely E	Level of the Chorus and Delay effects for the voice E	0 to 127

Note: Tremolo and Phaser will not respond to the Chorus and Delay effect level. If the current chorus type is Tremolo or Phaser, this parameter editing will not be effective.

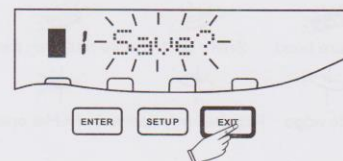
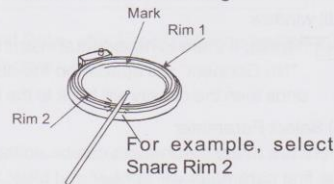
3. COMPLETE THE EXTERNAL KIT EDITING

Press the EXIT button anytime to terminate the editing. If you do not make any changes, the current editing will exit and back to the Kit Edit window.

If you made changes during the editing, you can save editing results. External Kit number and "Save?" will appear. Press the ENTER button to save; the current kit configuration will be replaced by your editing results. Or, press the EXIT button to give up the editing and back to the Kit Edit window.



Instrument under editing



DRUM KIT EDIT

Note: The saved setting is nonvolatile even when the power is turned off. You can recover the default setting under the Kit Reset function. Please refer to the Kit Reset section of this chapter for more information.

GLOBAL EDIT

Some parameters such as sound effect type etc are applied to the entire kit not just for individual pad or external instrument. You do not need to select a pad or an external instrument for the global editing.

1. ENTER THE GLOBAL EDIT

After entering the window for Kit Edit item selection, rotate the Data knob until "Global" appears. Then press the ENTER button to confirm your choice.

Press the EXIT button to exit and back to the Kit Edit window.

2. SELECT PARAMETER

There are many parameters can be edited.

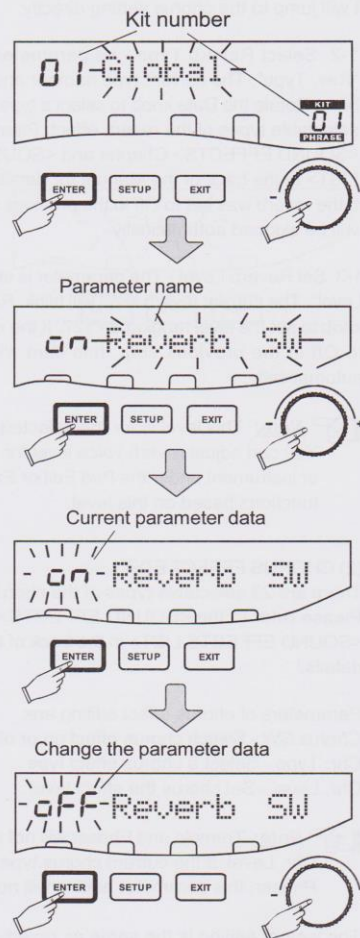
The first parameter name will appear and blink. Current parameter data will be shown for your reference. Rotate the Data knob to select the parameter you want to edit.

3. EDIT PARAMETERS

After selecting a parameter, press the ENTER button to confirm your choice. The current parameter data will blink. Use the Data knob to change data. Then press the ENTER button to confirm and turn to the next parameter.

Tip: If you do not want to change the current setting of a parameter, press the ENTER button to skip it and turn to the next parameter.

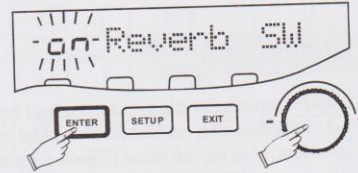
Tip: You can hear editing results in real time by striking the pad or external instrument.



DRUM KIT EDIT

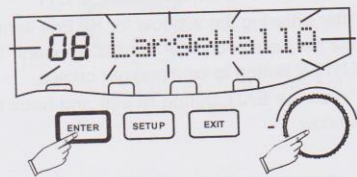
(1) REVERB EFFECT EDIT

1-1 Reverb Effect Switch - Its parameter is shown as "Reverb SW". Switch reverb effect On or Off by rotating the Data knob. Rotate the knob clockwise to turn it On and counter-clockwise to turn it Off. If it is set to On, you can press the ENTER button and take the following steps to select reverb type and set its level. If you choose Off, it will jump to the chorus setting directly.




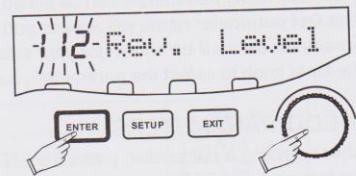
1-2 Select Reverb Type - Its parameter is shown as "Rev. Type". The current type number and its name will blink. Rotate the Data knob to select a type. There are 27 selectable types of the reverb effect. Please refer to the <SOUND EFFECTS> Chapter and <SOUND EFFECTS LIST> in the back of the Manual for details.

If the reverb was set to Off in the previous step, this item will be skipped automatically.



1-3 Set Reverb Level - The parameter is shown as "Rev. Level". The current reverb level will blink. Rotate the Data knob to set the level ranging 0 - 127. If the reverb was set to Off in the previous step, this item will be skipped automatically.

 **Note:** This level is for the selected reverb effect. You can adjust reverb voice level for individual pad or instrument under the Pad Edit or External Kit Edit functions based on this level.




(2) CHORUS EFFECT EDIT

There are 23 selectable types of the chorus effect. Please refer to the <SOUND EFFECTS> Chapter and <SOUND EFFECTS LIST> in the back of the Manual for details.

Parameters of chorus effect editing are:

- Chorus SW - Switch chorus effect on or off
- Chr. Type - Select a chorus effect type
- Chr. Level - Set chorus the effect level

 **Note:** Tremolo and Phaser will not respond to the Chr. Level. If the current chorus type is Tremolo or Phaser, this parameter editing will not be effective.

The way of editing is the same as reverb effect editing described above.

DRUM KIT EDIT

(3) DELAY EFFECT EDIT

There are 5 selectable types of the delay effect.

Please refer to the <SOUND EFFECTS> Chapter and <SOUND EFFECTS LIST> in the back of the Manual for details.

Parameters of chorus effect edit are:

Delay SW - Switch chorus effect on or off

Delay Type - Select a delay effect type

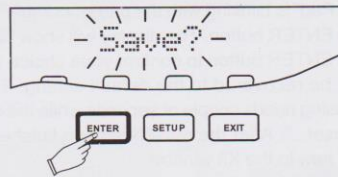
Delay Level - Set the delay effect level

The way of editing is the same as reverb effect editing described above.

3. COMPLETE THE GLOBAL EDITING

Press the EXIT button anytime to terminate the editing. If you do not make any changes, the current editing will exit and back to the Kit Edit window.

If you made changes during the editing, you can save editing results. The Kit number and "Save?" will appear. Press the ENTER button to save; the current kit configuration will be replaced by your editing results. Or, press the EXIT button to give up the editing and back to the Kit Edit window.



Note: The saved setting is nonvolatile even when the power is turned off. You can recover the default setting with Kit Reset function. Please refer to the Kit Reset section of this chapter for more information.

DRUM KIT EDIT

KIT RESET

Use this function you can recover the current pad kit or external kit setting to its default setting.

1. ENTER THE KIT RESET

After entering the Kit Edit window, rotate the Data knob until "Reset" appears, and then press the ENTER button to confirm your choice.

Press the EXIT button to exit and back to the Setup window.

2. RESET THE KIT

(1) Reset the Pad Kit - Rotate the Data knob, when "Reset Pad" is blinking with the pad kit number in front, press the ENTER button. The display will show "Sure?". Press the ENTER button to confirm youe choice and its setting will be recovered to the default setting, The reset processing needs couple of seconds while the display shows "Reset...". After the reset has been finished, the display will turn to the Kit window.

Or, press the EXIT button to cancel and it will back to the window for Reset item selection.

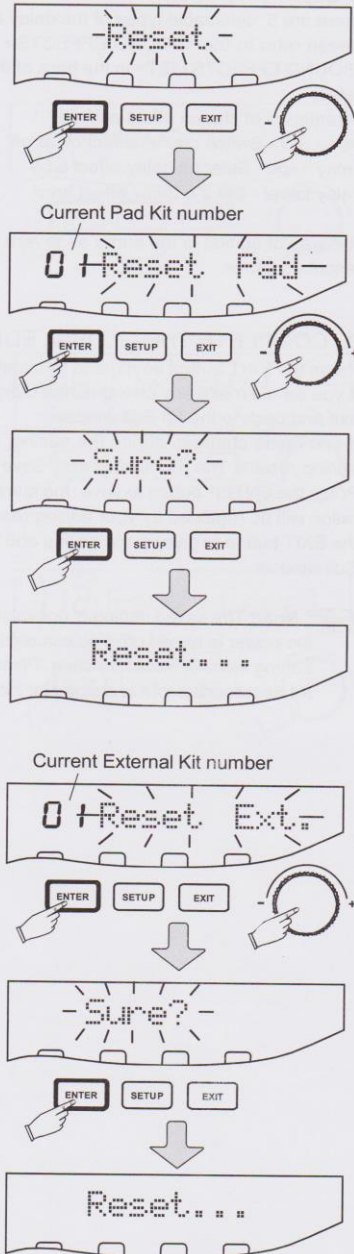
Note: The Global setting will be also reset.

(2) Reset the External Kit - Rotate the Data knob, when "Reset Ext." is blinking with the external kit number in front, press the ENTER button. The display will show "Sure?".

Press the ENTER button to confirm your choice and its setting will be recovered to the default setting, The reset processing needs couple of seconds while the display shows "Reset...". After reset has been finished, it will turn to the Kit window.

Or, press the EXIT button to cancel and it will back to the Reset item selection window.

Note: Don not strike any pad or external instrument after pressing the ENTER button until it turns to the Kit window. During the reset process, any button is disabled.

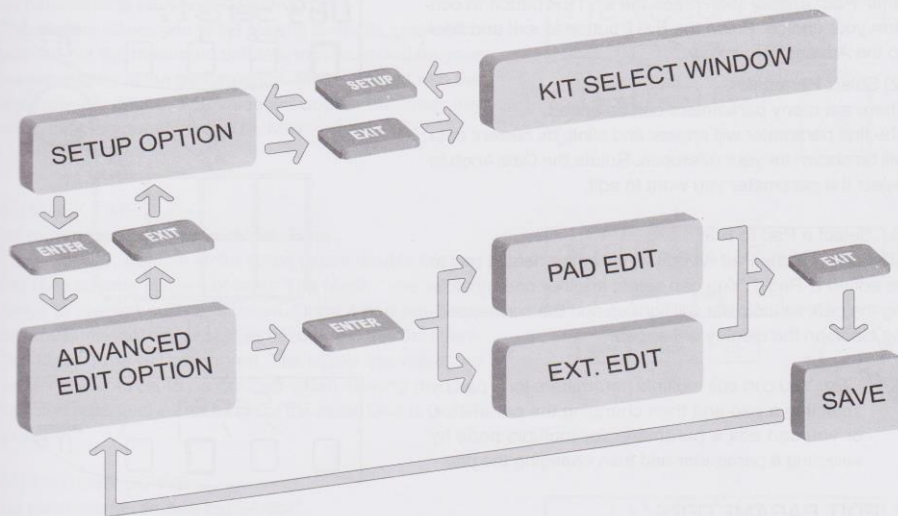


ADVANCED EDIT

The KIT EDIT Chapter introduces the sound editing procedure. The purpose of the sound editing is to change sound characteristics such as voice, volume, pan etc. The objects of advanced editing are physical characteristics such as sensitivity, trigger curve etc for the respective pad and external instrument .

Note: The advanced edit does not link with any specific Pad Kit and External Kit. This is a kind of global setting.

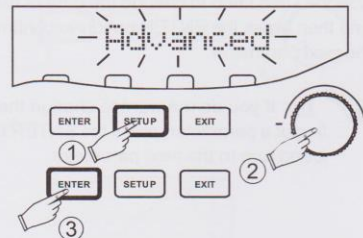
The diagram below presents major modules and a brief control flow of the Advanced edit function. Following pages will give you a detailed description.



In the Kit selection window, press the SETUP button. There are 4 modes can be selected. Rotate the Data knob until "Advanced" appears and then press the ENTER button to confirm your choice.

Press the EXIT button to exit and back to the Kit selection window.

Tip: You can experience editing results in real time by striking the pad or external instrument under the editing.



ADVANCED EDIT

PAD ADVANCED EDIT

There are two modes of the advanced editing for the built-in pads or the external instruments. The target of the Pad Advanced Edit is for the built-in pad.

1. PREPARING

(1) Enter the Pad Edit


After entering the Advanced edit window, you have two options: "Pad Kit", and "External". Rotate the Data knob until "Pad" appear then press the ENTER button to confirm your choice. Press the EXIT button to exit and back to the Advanced window.

(2) Select Parameter

There are many parameters can be edited. The first parameter will appear and blink. Its current data will be shown for your reference. Rotate the Data knob to select the parameter you want to edit.


(3) Select a Pad to Edit

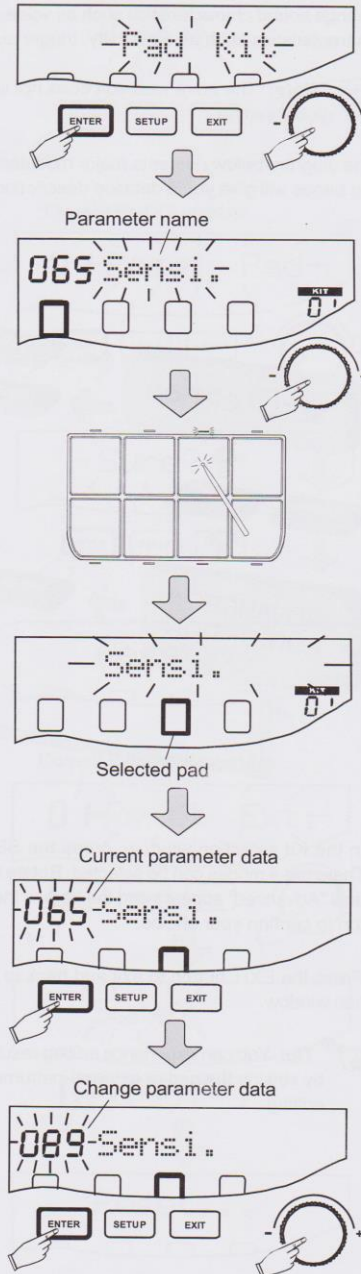
After entering the Pad Kit edit window, the default pad to be edited is Pad 1. You can select another one by striking the pad, its indicator will light up and the corresponding block on the display will appear.

 **Tip:** You can edit multiple parameters for a pad by selecting a pad and then changing the parameter, or you can edit a parameter for multiple pads by selecting a parameter and then changing the pad.

2. EDIT PARAMETERS

After selecting parameter, press the ENTER button to confirm your choice. Its current parameter data will blink. Use the Data knob to change the data of the parameter; and then press the ENTER button to confirm and turn to the next parameter.

 **Tip:** If you do not want to change the current setting of a parameter, press the ENTER button to skip it and turn to the next parameter.

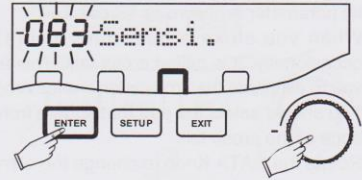


ADVANCED EDIT

(1) SENSITIVITY

Its parameter is shown as "Sensi".

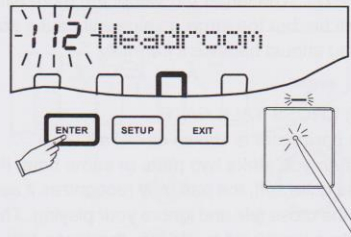
The range of pad sensitivity is 0 -127. Rotate the DATA Knob to change it. The higher value represents the higher sensitivity. Please note that if the sensitivity is too high, it will cause unexpected sound even if you did not strike the pad.



(2) DYNAMIC RANGE

Its parameter is shown as "Headroom".

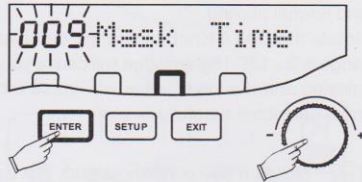
This feature allows you to set playing strength, from which you will get the maximum volume, to accommodate your personal taste of the performance. Strike the pad with the strength you desire. The value will appear automatically according to your striking. The Max. value is 127.



(3) MASK TIME

Its parameter is shown as "Mask Time".

Occasionally, a single strike could cause double triggering (two sounds instead of one). The Mask Time setting helps to prevent such a problem. Once a pad has been hit, any additional trigger signals occurring within the specified Mask Time will be ignored. The higher the value, the easier the sounds to be omitted when striking the pad fast and repeatedly. The range of the mask time is 0- 127 (msec).



(4) TRIGGER CURVE

Its parameter is shown as "Trigger".

The trigger curve refers to how trigger signal's dynamic response relates to your pad striking. You can select a proper curve from 3 preset curves. Rotate the DATA Knob to choose a curve until the feeling is as natural as possible. The curves you may select are 1 Linear, 2 Exp and 3 Log. The default curve is Linear.

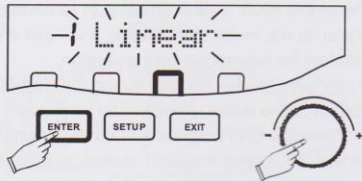
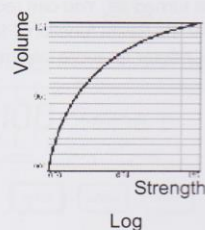
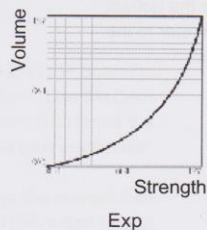
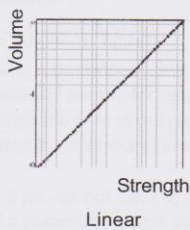


Diagram of 3 types of the curve



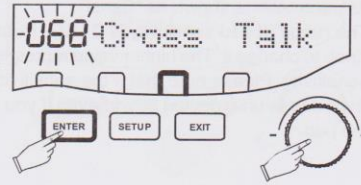
ADVANCED EDIT

(5) CROSS TALK

Its parameter is shown as "Cross Talk".

When you strike a pad, other pad(s) will sound occasionally. It is called cross talk. This feature allows you to eliminate the cross interference among the pads. You should select the pad that suffers from the interference of the cross talk.

Rotate the DATA Knob to change the eliminating factor to reduce unexpected cross talking sound. The range is 0 - 127. The larger the value, the more elimination there will be, but too large a value will cause sound missing. You should balance it carefully.

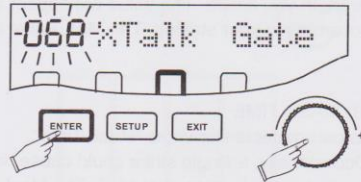



(5) CROSS TALK GATE

Its parameter is shown as "XTalk Gate".

When you strike two pads at same time, if you strike a pad quite soft, the pad may recognize it as interference of the cross talk and ignore your playing. This parameter sets a threshold to identify the cross talk interference and normal playing.

Rotate the DATA Knob to change cross talk gate. The range is 0 - 127. Higher value will cause your soft playing missing and the lower value will cause cross talk. You must balance it carefully.

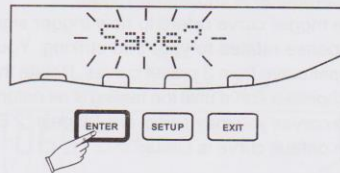



 **Note:** If you play single pad, this parameter will not be active.

4. COMPLETE THE PAD ADVANCED EDIT

Press the EXIT button anytime to terminate the editing. If you do not make any change, it will exit and back to the window for Advanced item selection.

If you have made changes during the Pad Advanced Edit, you can save editing results. The display will show "Save?". Press the ENTER button and the current setting will be saved. Or, press the EXIT button to give up the editing and back to the window for Advance item selection.



 **Note:** The saved setting is nonvolatile even when the power is turned off. You can recover the default setting under the Reset function. Please refer to the <RESET> Chapter for more information.

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ADVANCED EDIT

EXTERNAL INSTRUMENT ADVANCED EDIT

The target of this editing is the external instruments connected through the Expand Trigger jacks.

1. PREPARING

(1) Enter the External Instrument Edit

After entering the Advanced edit window, rotate the Data knob until "External" appears and then press the ENTER button to confirm your choice. Press the EXIT button to exit and back to the Advanced window.

If there is no external instrument connected, "No Connect" will appear on the display for 3 seconds before back to the window for Advanced edit item selection.

(2) Select Parameter

There are many parameters can be edited.

The first parameter will appear and blink. Rotate the Data knob to select parameter. The current parameter data will be shown for your reference.

Parameters of external instruments are the same as built-in pad, except Hi-Hat Control pedal. Please refer to (5) Hi-Hat Control Pedal Edit in the next page for details.

(3) Select an Instrument to Edit

After entering the External edit window, the default instrument to be edited is Snare. You can select another one by striking any position of it. Its icon on the display will blink.

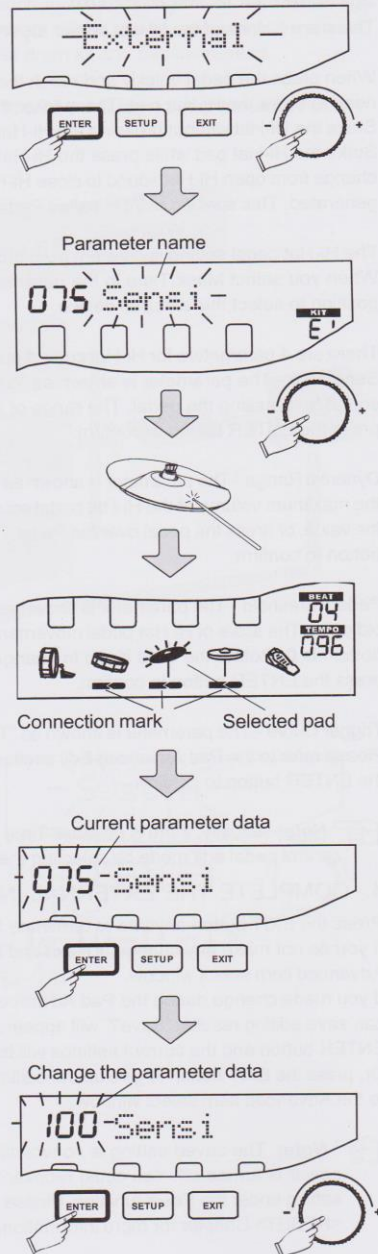
Note: Press the Hi-Hat control pedal to the bottom to select it. Its edit procedure is different. Please refer to HI-HAT CONTROL PEDAL section in the next page for details.

Tip: You can edit multiple parameters for a instrument by selecting an instrument then change the parameter, or you can edit a parameter for multiple instruments by selecting a parameter then change the instrument.

2. EDIT PARAMETERS

After selecting a parameter, press the ENTER button to confirm. Its current parameter data will blink. Use the Data knob to change the data of the parameter; then press the ENTER button to confirm and turn to the next parameter.

Tip: If you do not want to change the current setting of a parameter, press the ENTER button to skip it and turn to the next parameter.



ADVANCED EDIT

3. HI-HAT CONTROL PEDAL

There are 3 kinds of the Hi-Hat sound: Open Hi-Hat sound, Close Hi-Hat sound and Hi-Hat pedal sound.

When press the pedal quickly and reach the threshold point, it makes Hi-Hat pedal sound and you do not need to strike the Hi-Hat pad. The quicker the pedal is pressed, the higher the volume is.

Strike the Hi-Hat without pressing the Hi-Hat control pedal; it makes open Hi-Hat sound.

Strike the Hi-Hat pad while press the Hi-Hat control pedal over a specific point, the sound by striking will change from open Hi-Hat sound to close Hi-Hat sound gradually, meanwhile the Hi-Hat pedal sound is also generated. This specific point is called Pedal Threshold.

The Hi-Hat pedal setting is different from other instruments.

When you select Mask Time in the parameter select step, press the Hi-Hat control pedal to its bottom position to select this external device.


There are 4 parameters for Hi-Hat control pedal advanced edit.

Sensitivity - The parameter is shown as "Sensitivity". It determines how sensitive to make Hi-Hat pedal sound by pressing the pedal. The range of it is 0 - 127. Rotate the Data Knob to change the value, then press the ENTER button to confirm.

Dynamic Range - The parameter is shown as "Headroom". It determines how quick pressing the pedal to get the maximum volume of the Hi-Hat pedal sound. The range of it is 0 - 127. Rotate the Data Knob to change the value, or press the pedal over the Pedal Threshold point with your desired speed then press the ENTER button to confirm.

Pedal Threshold - The parameter is shown as "Pedal THR". It determines the position of the Pedal Threshold point. The scale of Hi-Hat pedal movement is 0 - 127. The top position of the pedal is defined to 127 and bottom is 0. Rotate the Data Knob to change the value, or press the pedal to your desired position then press the ENTER button to confirm.

Trigger Curve - The parameter is shown as "Trigger". Select a proper curve for making Hi-Hat pedal sound. Please refer to the Pad Advanced Edit section about the curve. Rotate the Data Knob to select, then press the ENTER button to confirm.

 **Note:** Actually, there is no Mask Time and Cross Talk parameters to edit, even you enter the Hi-Hat control pedal edit mode by selecting the Mask Time parameter.

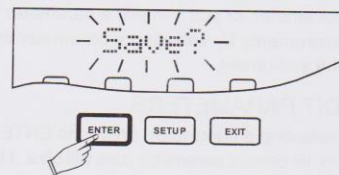
4. COMPLETE THE EXTERNAL INSTRUMENT ADVANCED EDIT


Press the EXIT button anytime to terminate the editing.

If you do not make any change, it'll exit and back to the Advanced item select window.

If you made change during the Pad Advanced Edit, you can save editing results. "Save?" will appear. Press the ENTER button and the current settings will be saved.

Or, press the EXIT button to give up the editing and back to the Advanced item select window.

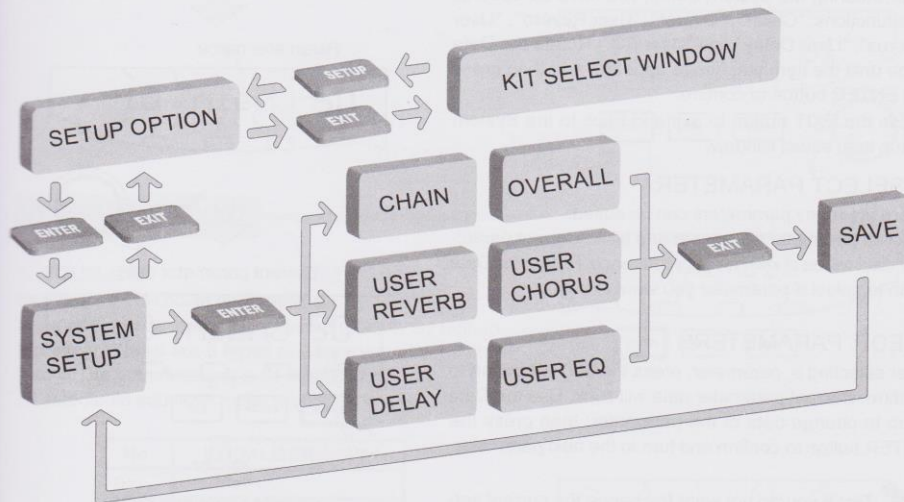


 **Note:** The saved setting is nonvolatile even the power is turned off. You could recover the default setting under the Reset function. Please refer to the <RESET> Chapter for more information.

SYSTEM SETUP

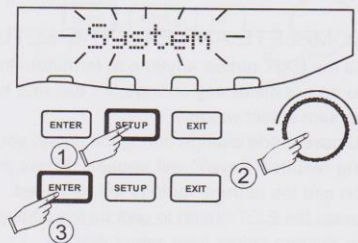
This function provides utilities to set up system parameters such as Chain assignment, Pedal setting, Master tune etc. This function also provides user effects feature that allows you to create your own effects. All of these settings are applied to entire unit instead of particular drum kit and pad/instrument.

The diagram below presents major modules and a brief control flow of the System Setup function. Following pages will give you detailed description.



In the Kit select window, press the SETUP button. There are 4 items can be selected. Rotate the Data knob until "System" appear then press the ENTER button to confirm.

Press the EXIT button to exit and back to the Kit selection window.



SYSTEM SETUP

GENERAL SETUP PROCEDURE

The System Setup function consists of six sub-function modules. Their setting procedures are basically the same.

1. SELECT SUB-FUNCTION

After entering the System Setup, you have six optional sub-functions: "Chain", "Overall", "User Reverb", "User Chorus", "User Delay" and "User EQ". Rotate the Data knob until the item you desire appears, and then press the ENTER button to confirm.

Press the EXIT button to exit and back to the System Setup item select window.


2. SELECT PARAMETER

There are many parameters can be edited.

The first parameter will appear and blink. Current parameter data will be shown for your reference. Rotate the Data knob to select a parameter you want to set up.

3. EDIT PARAMETERS

After selecting a parameter, press the ENTER button to confirm. Current parameter data will blink. Use the Data knob to change data of the parameter; then press the ENTER button to confirm and turn to the next parameter.


 **Tip:** If you do not want to change the current setting of an item, press the ENTER button to skip it and turn to the next item.


4. COMPLETE AND EXIT THE SETUP

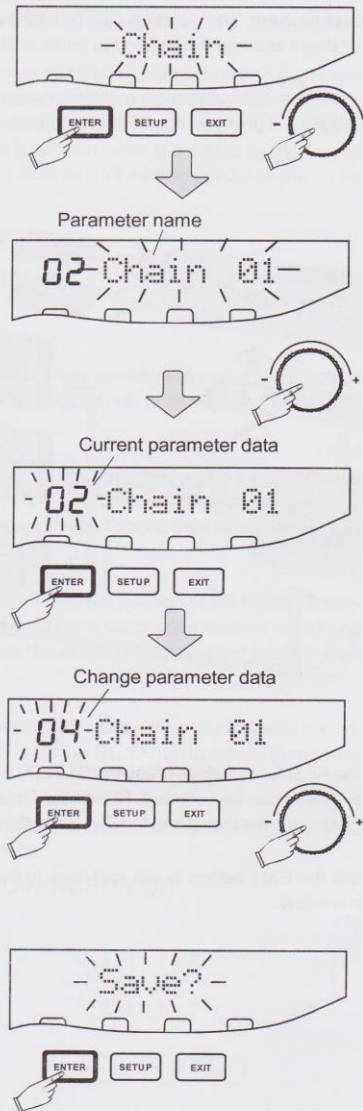
Press the EXIT button anytime to terminate the editing. If you do not make any change, it'll exit and back to the Setup item select window.

If you have made change during the setup, you can save editing results. "Save?" will appear. Press the ENTER button and the current settings will be saved.

Or, press the EXIT button to give up the editing and back to the System setup item select window.

 **Note:** The diagram in the right shows an example of the procedure of the Chain setup.

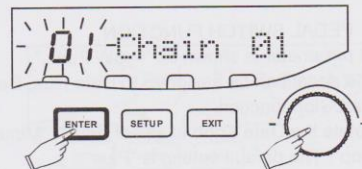
 **Note:** The new setting is nonvolatile even when the power is turned off. You can recover the default setting under the Reset function. Please refer to the <RESET> chapter for more information.



SYSTEM SETUP

CHAIN

You can assign your favorite Kit to Chain. Its parameters are Chain 01 to Chain 10. Rotate the Data knob to select a kit number to assign to the current chain. Press the ENTER button to confirm your choice and turn to the next Chain number.



OVERALL SETTINGS

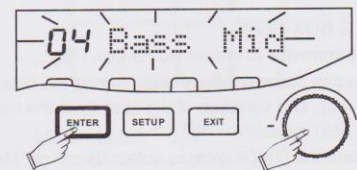
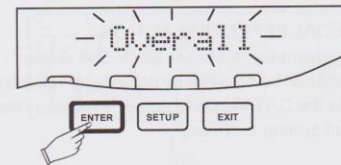
1. EQUALIZER

Its parameter is shown as "Equalizer".

Tone of the drum could be adjusted globally by built-in Equalizer. There are 8 types of preset equalizer listed below. The default setting is 01 Normal 1.

All selectable equalizer types are listed in next page.


No.	EQUALIZER TYPE
01	Normal 1
02	Normal 2
03	Bass Boost
04	Bass Mid
05	Moderate
06	Bright Mid
07	Bright
08	Bright High
09	User EQ

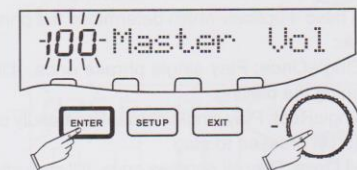


2. MASTER VOLUME

Its parameter is shown as "Master Vol".

This parameter determines the master volume of the unit. The master volume range is from 0 to 127.

 **Note:** The MASTER VOLUME knob can adjust the master volume as well. You can use it anytime. The parameter of the MASTER VOLUME establishes the base of adjustment of the MASTER VOLUME and can be saved. When the power is turned on, the master volume is set to your saved setting, and then use the MASTER VOLUME Knob to adjust accordingly.

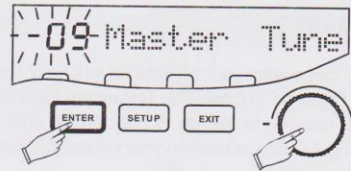


SYSTEM SETUP

3. MASTER TUNE

Its parameter is shown as "Master Tune".

This parameter affects sound pitch globally. The range of the master tune is from 0 to +/- 50. The default Setting is 0 which refers to 440 Hz at A1 note.

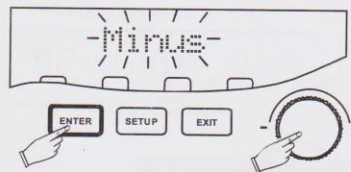


4. PEDAL SWITCH FUNCTION

Its parameter is shown as "P.SW Func.".

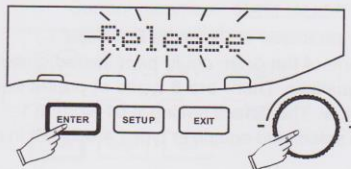
The pedal can be assigned to Data plus, Data minus or Start/Stop function.

Rotate the Data Knob to select "Plus", "Minus" or "Start/Stop". The default setting is "Plus".



5. PEDAL EFFECTIVE ACTION

The parameter is shown as "P.SW Action". The switch function can be effective by pressing or releasing the pedal. Rotate the DATA knob to select "Press" or "Release". The default setting is "Press".

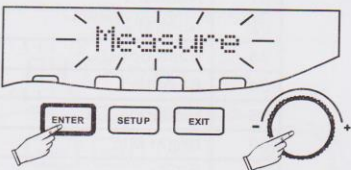


6. G.BOX PLAY

Its parameter is shown as "G.Box Play".

You can change the variation during the Groove Box playing. The variation could start from the next beat or the next measure.

Rotate the DATA knob to select "Beat" or "Measure". The default setting is "Beat".



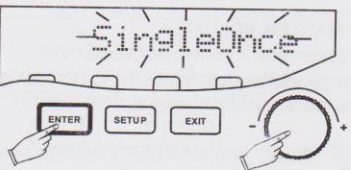
7. PHRASE PLAYING MODE

Its parameter is shown as "PhrasePlay".

You have 4 options which determines the phrase playing mode:

- 1 SingleOnce: Play single phrase once. It'll stop after finishing the playing.
- 2 SingleRept: Play single phrase repeatedly until the ►/■ button is pressed to stop.
- 3 All Once: Play all phrases once. It'll stop after finishing all phrases playing.
- 4 All Repeat: Play all phrases repeatedly until press the ►/■ button to stop.

Rotate the Data Knob to select. The default setting is SingleOnce.



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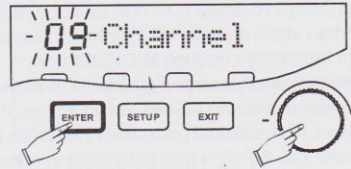
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SYSTEM SETUP

8. MIDI CHANNEL

Its parameter is shown as "Channel".

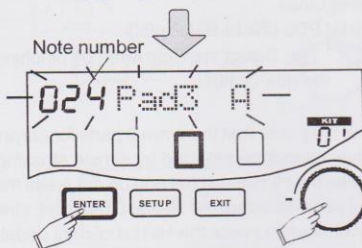
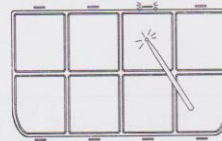
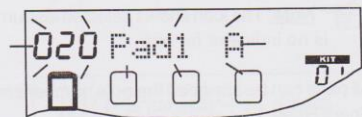
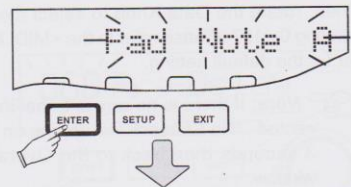
This parameter determines the MIDI message transmitting channel. The range of the channel is from 1 to 16. The default Setting is 10.



9. NOTE NUMBER OF THE PAD FOR THE LAYER A

Its parameter is shown as "Pad Note A".

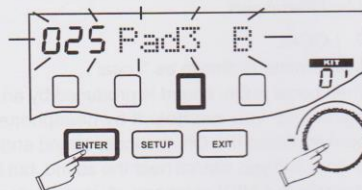
When strike a pad, its note number will be transmitted through MIDI/USB port. The pad can have Layer A and Layer B voices assigned. This parameter defines the note number for the Layer A. Strike a pad to select a pad. Then, rotate the Data Knob to select the note number ranging 0 - 127. Please refer to the <MIDI & USB> Chapter for the default setting.



10. NOTE NUMBER OF THE PAD FOR THE LAYER B

Its parameter is shown as "Pad Note B".

This parameter defines the note number for the Layer B. Strike a pad to select a pad. Then, rotate the Data Knob to select the note number ranging 0 - 127. Please refer to the <MIDI & USB> Chapter for the default setting.

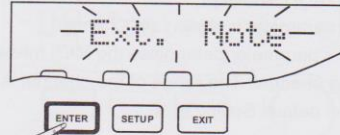


SYSTEM SETUP

11. NOTE NUMBER OF THE EXTERNAL INSTRUMENT

When strike an external instrument, its note number will be transmitted through MIDI/USB port.

Please note that some instruments have two or more parts to make different voices, for example, the snare have head, rim1 and rim2 parts; ride cymbal has head and edge parts etc. Select a part to by striking relevant part of the



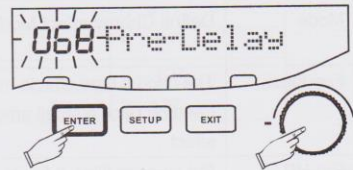
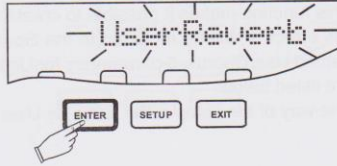
SYSTEM SETUP

USER REVERB EFFECT

This function makes it possible to create your own reverb effect. It'll be included in the Sound Effects List named UserReverb. There are 4 parameters for User Reverb setup.

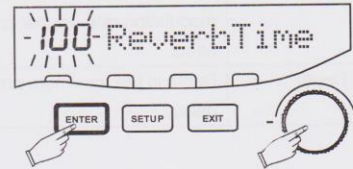
1. PRE-DELAY TIME

Its parameter is shown as "Pre-Delay". It represents the period from the first reflection to the reverb. Rotate the Data Knob to change the pre-delay value. The range is 0 - 127, 127 represents 250ms.



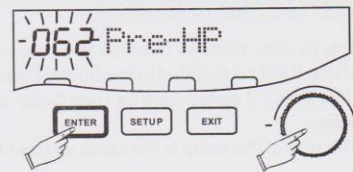
2. REVERB TIME

Its parameter is shown as "ReverbTime". It defines the time of the reflected sound from the room to decay or die away. Rotate the Data Knob to change the value. The range is 0 - 127, 127 represents 250ms.



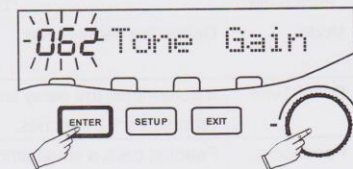
3. PRE HI-PASS FILTER

Its parameter is shown as "Pre- HP". It filters out low frequency. Rotate the Data Knob to change the value. The range is 0 - 127.



4. TONE GAIN

Its parameter is shown as "Tone Gain". It Decreases/Increases sound brilliance. Rotate the Data Knob to change the value. The range is 0 - 127. If it is < 64 then cut high frequency, > 64 then boost high frequency. 64=normal.

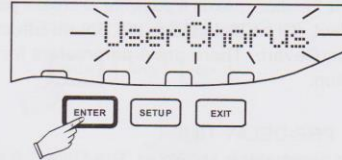


SYSTEM SETUP

USER CHORUS EFFECT

This function makes it possible to create your own Chorus effect. It will be included in the Sound Effects List named UserChorus. 5 parameters for User Chorus setup are listed below.

The way of the setup is the same as User Reverb setup.

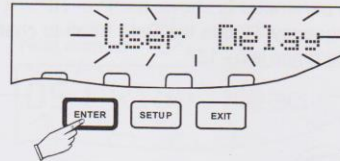


Parameter	Description	Data
Mode	Define Chorus effect Mode.	1=Chorus 2=Flanger 3=Tremolo 4=Phaser
Feedback	The chorus type effects have a feedback loop after the delay. Feeding back a small amount of the sound intensifies the effect.	0 - 127
Pre-HP	Pre Hi-pass filter. It filters out low frequency	0 - 127
LFO Rate	Low Frequency Oscillator (LFO) rate is applied as modulation rate. Higher is the rate, more intensive will be the effect.	0 - 127
Depth	Depth is the maximum amount of modulation applied to the delay.	0 - 127

USER DELAY EFFECT

This function makes it possible to create your own Delay effect. It will be included in the Sound Effects List named User Delay. 4 parameters for User Delay setup are listed below.

The way of the setup is the same as User Reverb setup.

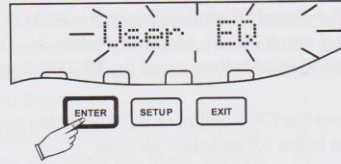


Parameter	Description	Data
Mode	Define the delay Mode.	1=Mono delay 2=Stereo delay
Delay Time	It determines the delay time. 0 represents 0 ms, 127 represents 1.3 seconds.	0 - 127
Feedback	Feeding back a small amount of the sound intensifies the effect.	0 - 127
Pre LP	Pre Low Frequency filter rate. Higher is the rate, more hi-frequency is filtered out.	0 - 127

SYSTEM SETUP

USER EQUALIZER

This function makes it possible to create your own 4-Band Parametric Equalizer. It will be included in the Sound Effects List named User EQ. There are 4 parameters for User Equalizer setup listed below. The way of the setup is the same as User Reverb setup.



Parameter	Description	Data
Gain Bass	Gain of the Bass band	0 - 127
Gain LowM	Gain of the Middle-Low band	0 - 127
Gain HighM	Gain of the Middle-High band	0 - 127
GainTreble	Gain of the Treble band	0 - 127

RESET

All of changes in the system setup, advanced edit, kit edit and phrase recordare can be saved in the unit. This function allows you to recover the factory settings.

In the Kit select window, press the SETUP button. There are 4 items can be selected. Rotate the Data knob until "Reset" appear then press the ENTER button to confirm.


Press the EXIT button or SETUP button again to exit and turn to the Kit selection window.

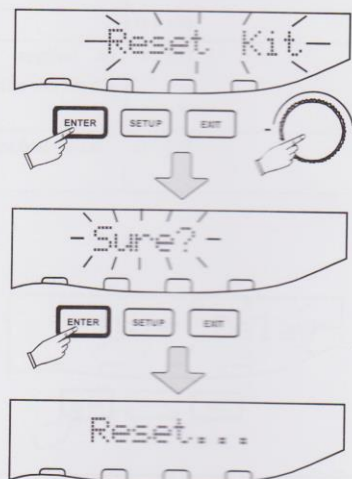
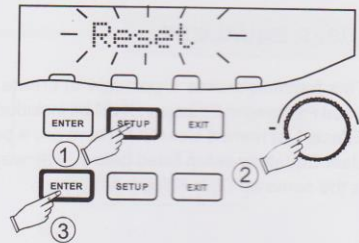
There are five Reset modes can be selected. When the reset mode name appears and blinks, rotate the Data Knob to select, then press the ENTER button to confirm. Or, press the EXIT button and back to the Reset window.

1. Reset Kits - Reset all kit configurations which changed during the kit editing.
2. Reset Adv - Reset all advanced setting which changed during the advanced editing.
3. Reset Sys - Reset all System setting which changed in the System Setup.
4. Reset Phr. - Erase all phrases recorded by user.
5. Reset All - Reset all items above.

Once a reset mode is confirmed by pressing the ENTER button, the display will show "Sure?". Press the ENTER button to confirm. The reset processing needs couple of seconds while the display shows "Reset...". After reset finishing, it will turn to the Kit window.

Or, press the EXIT button to cancel and it will return to the Setup window.

 **Note:** Don not strike any pads or external instruments after pressing the ENTER button until it turns to the Kit window. During the reset process, any button is disabled.



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 playing 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, Windows 7 & 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	1-127	0-127	
Note OFF	64	0-127	
Major Controls:			
B9h 04h xxh	Yes	X	Hi-Hat pedal control
Bxh 79h 00h	Yes	Yes	Reset All Controller
Bxh 7Bh 00h	Yes	Yes	All Notes OFF
Program Change	X	Yes *	
System Exclusive	Yes	Yes **	
RPN	X **	Yes **	
NRPN	Yes	Yes **	

* Channel 10 is the default setting. The transmitted channel supports Bank 0 only

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

Note: Transmitted note are preset as below:

PAD

Pad	Layer A Note	Layer B Note	Pad	Layer A Note	Layer B Note
Pad 1	20	21	Pad 5	28	29
Pad 2	22	23	Pad 6	30	31
Pad 3	24	25	Pad 7	32	33
Pad 4	26	27	Pad 8	34	35

EXTERNAL INSTRUMENT

Instrument	Note	Instrument	Note
Snare Head	38	Hi-Hat Open	46
Snare Rim1	37	Hi-Hat Close	42
Snare Rim2	40	Hi-Hat Pedal	44
Ride Head	51	Kick	36
Ride Edge	59	Ride Mute	6
Ride Bell	53		

KIT LIST

Kit No.	Nkit Name	Default Layer Type							
		Pad 1	Pad 2	Pad 3	Pad 4	Pad 5	Pad 6	Pad 7	Pad 8
01	Standard	Off	Off	Off	Off	Off	Off	Off	Switch
02	Latin	Off	Off	Off	Off	Off	Off	Off	Off
03	Music FX	Off	Switch	Switch	Off	Off	Off	Switch	Off
04	Blues Mrmb	Off	Off	Off	Off	Off	Off	Off	Off
05	Arabian	Off	Off	Off	Off	Off	Off	Off	Off
06	Conga	Switch	Switch	Switch	Switch	Off	Off	Off	Switch
07	Tabla	Off	Off	Off	Off	Off	Off	Off	Off
08	Wood Block	Off	Off	Off	Off	Off	Off	Off	Off
09	FX Band	Off	Off	Off	Off	Off	Off	Off	Switch
10	Elc Shots	Off	Off	Off	Off	Off	Off	Off	Off
11	DJ Blues	Off	Off	Off	Off	Off	Off	Off	Off
12	SEV Drum	Switch	Off	Off	Off	Off	Switch	Off	Switch
13	Timpani	Off	Off	Off	Off	Off	Off	Off	Off
14	Elc World	Mix	Mix	Mix	Mix	Mix	Mix	Mix	Mix
15	CH Bell	Off	Off	Off	Off	Off	Off	Off	Off
16	CH Drum	Switch	Switch	Switch	Switch	Switch	Switch	Switch	Switch
17	Chinese	Off	Off	Off	Off	Off	Off	Off	Off
18	Hi Perc	Off	Off	Off	Off	Off	Off	Off	Off
19	Strings	Mix	Mix	Mix	Mix	Mix	Mix	Mix	Mix
20	CowBell	Off	Off	Off	Off	Off	Off	Off	Off
21	Bell Drum	Off	Off	Off	Off	Off	Off	Off	Off
22	Robot FX	Off	Off	Off	Off	Off	Off	Off	Off
23	War Crysis	Off	Off	Off	Off	Off	Off	Off	Off
24	SwingSwing	Off	Off	Off	Off	Off	Off	Off	Off
25	Pots	Switch	Switch	Switch	Switch	Off	Switch	Switch	Switch
26	Hits	Off	Off	Off	Off	Off	Off	Off	Off
27	Industry	Off	Off	Off	Off	Off	Off	Off	Off
28	Light Funk	Off	Off	Off	Off	Off	Off	Off	Off
29	Brass	Off	Off	Off	Off	Off	Off	Off	Off
30	Disco Beat	Off	Off	Off	Off	Off	Off	Off	Off
31	Church	Off	Off	Off	Off	Off	Off	Off	Off
32	Acoustic1	Off	Off	Off	Switch	Off	Off	Off	Switch
33	Acoustic2	Off	Off	Off	Switch	Off	Off	Off	Switch
34	Voice1	Off	Off	Off	Off	Off	Off	Off	Off
35	Voice2	Off	Off	Off	Off	Off	Off	Off	Off
36	Voice3	Off	Off	Off	Off	Off	Off	Off	Off
37	Sci-Voice1	Off	Off	Off	Off	Off	Off	Off	Off
38	Sci-Voice2	Off	Off	Off	Off	Off	Off	Off	Off
39	Machine	Off	Off	Off	Off	Off	Off	Off	Switch
40	RockBand	Off	Off	Off	Off	Off	Off	Off	Off

Kit

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KIT LIST

Kit No.	Nkit Name	Default Layer Type							
		Pad 1	Pad 2	Pad 3	Pad 4	Pad 5	Pad 6	Pad 7	Pad 8
41	Orchestra	Off	Off	Off	Off	Off	Off	Off	Off
42	Drama	Off	Off	Off	Off	Off	Off	Off	Off
43	Nature	Off	Off	Off	Off	Off	Off	Off	Off
44	Alien	Off	Off	Off	Off	Off	Switch	Switch	Switch
45	AC	Off	Off	Off	Off	Off	Off	Off	Off
46	Taiko	Off	Off	Off	Off	Off	Off	Off	Off
47	Bell	Off	Off	Off	Off	Mix	Mix	Mix	Mix
48	GUS	Mix	Mix	Mix	Mix	Off	Off	Off	Off
49	Ring1	Off	Off	Off	Off	Off	Off	Off	Off
50	Ring2	Off	Off	Off	Off	Off	Off	Off	Off
51	Ring3	Off	Off	Off	Off	Off	Off	Off	Off
52	Ring4	Off	Off	Off	Off	Off	Off	Off	Off
53	RevDrum1	Off	Off	Off	Off	Off	Off	Off	Off
54	RevDrum2	Off	Off	Off	Off	Off	Off	Off	Off
55	Balalaika	Off	Off	Off	Off	Off	Off	Off	Off
56	Tar	Off	Switch	Switch	Off	Switch	Off	Switch	Switch
57	Tropic	Off	Off	Off	Off	Off	Off	Off	Off
58	Perc FX	Switch	Switch	Switch	Switch	Off	Off	Switch	Switch
59	Funny	Off	Off	Off	Off	Off	Off	Off	Off
60	Kraski	Off	Off	Off	Off	Off	Switch	Switch	Off
61	Ceremony	Off	Off	Off	Off	Off	Off	Off	Off
62	Heavy Beat	Off	Off	Off	Off	Off	Off	Off	Off
63	Hi-Fi	Off	Off	Off	Off	Off	Off	Off	Off
64	Music Box	Off	Off	Off	Off	Off	Off	Off	Off
65	CH Opera1	Off	Off	Off	Off	Off	Off	Off	Off
66	CH Opera2	Off	Off	Off	Off	Off	Off	Off	Off
67	CH Opera3	Off	Off	Off	Off	Off	Off	Off	Off
68	CH Opera4	Off	Off	Off	Off	Off	Off	Off	Off
69	Sax	Off	Off	Off	Off	Off	Off	Off	Off
70	Mixed Kit1	Switch	Switch	Switch	Switch	Switch	Switch	Switch	Switch
71	Mixed Kit2	Switch	Switch	Switch	Switch	Switch	Switch	Switch	Switch
72	Mixed Kit3	Switch	Switch	Switch	Switch	Switch	Switch	Switch	Switch
73	Sci-Fic	Off	Off	Off	Off	Off	Off	Off	Off
74	Star Wars	Off	Off	Off	Off	Off	Off	Off	Off
75	Pop	Off	Off	Off	Off	Off	Off	Off	Off
76	Scratch	Off	Off	Off	Off	Off	Off	Off	Off
77	VOX	Off	Off	Off	Off	Off	Off	Off	Off
78	Lute1	Off	Off	Off	Off	Off	Off	Off	Off
79	Lute2	Off	Off	Off	Off	Off	Off	Off	Off
80	X-Mas	Off	Off	Off	Off	Off	Off	Off	Off

GROOVEBOX & ACCOMPANIMENT LIST

GrooveBox List

No.	GrooveBox		No.	GrooveBox
01	U got it		11	Synth
02	Hoy ti		12	Brothers
03	Smooth		13	Bossa
04	Waltz		14	Cici
05	Find		15	Stay
06	Carbon		16	The way
07	California		17	That's it
08	Let's rock		18	Games
09	Pop ballad		19	Step
10	Slapin		20	Mixer

Accompaniment List

No.	Accompaniment		No.	Accompaniment
01	Bottle		11	Month
02	Bowdown		12	Sunshine
03	Freemind		13	Vida
04	Remcele		14	Mayday
05	Smile		15	Being
06	Soft		16	Case
07	Wish		17	Marie
08	Binary		18	Myeyes
09	Carryout		19	Sea
10	Challenge		20	Spud

SOUND EFFECTS LIST

Reverb Type List

No.	Description	Display	No.	Description	Display
01	Short Room A	ShortRoomA	15	Gated Reverb A	Gated RevA
02	Short Room B	ShortRoomB	16	Gated Reverb B	Gated RevB
03	Short Room C	ShortRoomC	17	Gated Plate A	Gtd PlateA
04	Room A	Room A	18	Gated Plate B	Gtd PlateB
05	Room B	Room B	19	Mono Echo	Mono Echo
06	Small Hall A	SmallHallA	20	Stereo Echo	StereoEcho
07	Small Hall B	SmallHallB	21	Mono 3/4 Echo	M.Echo 3/4
08	Large Hall A	LargeHallA	22	Stereo 3/4 Echo	S.Echo 3/4
09	Large Hall B	LargeHallB	23	Mono 4/4 Echo	M,Echo 4/4
10	Short Plate	ShortPlate	24	Stereo 4/4 Echo	S.Echo 4/4
11	Vocal Plate	VocalPlate	25	Mono Triplet Echo	M.Echo Tri
12	Church A	Church A	26	Stereo Triplet Echo	S.Echo Tri
13	Church B	Church B	27	User Veverb	UserReverb
14	Cathedral	Cathedral			

Chorus Type List

No.	Description	Display	No.	Description	Display
01	Chorus Light 1	Lt.Chorus1	13	Flange Slow Deep	Slw Flange
02	Chorus Light 2	Lt.Chorus2	14	Flange Deep	Dp.Flange
03	Chorus Medium 1	Md.Chorus1	15	Phaser Light	Lt.Phaser
04	Chorus Medium 2	Md.Chorus2	16	Phaser Medium	Md.Phaser
05	Chorus Deep 1	Dp.Chorus1	17	Phaser Slow Deep	Slw Phaser
06	Chorus Deep 2	Dp.Chorus2	18	Phaser Fast	Fst.Phaser
07	Chorus Fast 1	FstChorus1	19	Tremolo Slow	SlwTremolo
08	Chorus Fast 2	FstChorus2	20	Tremolo Medium 1	Md.Tremlo1
09	Resonant Chorus	Res.Chorus	21	Tremolo Medium 2	Md.Tremlo2
10	Long Time Chorus	LT.Chorus	22	Tremolo Fast	Fst.Tremlo
11	Flange Light	Lt.Flange	23	User Chorus	UserChorus
12	Flange Medium	Md.Flange			

Delay Type List

No.	Description	Display	No.	Description	Display
01	Delay 1	Delay 1	04	Delay 4	Delay 4
02	Delay 2	Delay 2	05	User Delay	User Delay
03	Delay 3	Delay 3			

Equalizer Type List

No.	Equalizer Type	No.	Equalizer Type
01	Normal 1	06	Bright Mid
02	Normal 2	07	Bright
03	Bass Boost	08	Bright High
04	Bass Mid	09	User EQ
05	Moderate		

VOICE LIST

INDEX

Category	Voice Number
GM Bank	1-61
Kick	62-88
Hi-Hat	89-110
Cymbal	111-117
Snare	118-150
Side-Stick	151-153
Floor Tom	154-163
Low Mid Tom	164-168
High Mid Tom	169-172
High Tom	173-175
Percussion Effect	176-247
Hand Drum	248-270
Banya	271-273
Tabla	274-286
Timpani	287-320
Voice	321-370
Animal Sound	371-374
Bell	375-438
Marimba	439-476
Brass	477-488
Bowl	489-491
Pot	492-504
Wood Block	505-526
Triangle	527-529
Cowbell	530-544
Craski	545-549
Balalaika	550-574
Guitar	575-588
Lute	589-611
Chinese Instrument	612-651
Hits	652-663
Special FX	664-669
Scratch	670-681
Effect	682-751
Other Percussions	752-914

VOICE LIST

No.	Name	No.	Name	No.	Name	No.	Name
001	HighQ	041	HighAgogo	081	Kick20	121	Snare04
002	Slap	042	LowAgogo	082	Kick21	122	Snare05
003	ScraPush	043	Cabasa	083	Kick22	123	Snare06
004	ScraPull	044	Maracas	084	Kick23	124	Snare07
005	Stick	045	ShortWhist	085	Kick24	125	Snare08
006	SquarClick	046	LongWhist	086	Kick25	126	Snare09
007	MetroClick	047	ShortGuiro	087	Kick26	127	Snare10
008	MetroBell	048	LongGuiro	088	Kick27	128	Snare11
009	KickDrum2	049	Claves	089	Hi-hat01	129	Snare12
010	KickDrum1	050	Hi W-Block	090	Hi-hat02	130	Snare13
011	SideStick	051	Lo W-Block	091	Hi-hat03	131	Snare14
012	SnareDrum2	052	MuteCuica	092	Hi-hat04	132	Snare15
013	HandClap	053	OpenCuica	093	Hi-hat05	133	Snare16
014	SnareDrum1	054	MuteTriang	094	Hi-hat06	134	Snare17
015	LoFloTom2	055	OpenTriang	095	Hi-hat07	135	Snare18
016	CloseHH	056	Cabasa	096	Hi-hat08	136	Snare19
017	LowFloTom1	057	Shaker	097	Hi-hat09	137	Snare20
018	PedalHH	058	Belltree	098	Hi-hat10	138	Snare21
019	LowTom	059	Castanets	099	Hi-hat11	139	Snare22
020	OpenHi-hat	060	MuteSurdo	100	Hi-hat12	140	Snare23
021	Low-midTom	061	OpenSurdo	101	Hi-hat13	141	Snare24
022	Hi-midTom	062	Kick01	102	Hi-hat14	142	Snare25
023	CrashCymb1	063	Kick02	103	Hi-hat15	143	Snare26
024	RHighTom	064	Kick03	104	Hi-hat16	144	Snare27
025	RideCymb1	065	Kick04	105	Hi-hat17	145	Snare28
026	ChCymbal	066	Kick05	106	Hi-hat18	146	Snare29
027	RideBell	067	Kick06	107	Hi-hat19	147	Snare30
028	Tambourine	068	Kick07	108	Hi-hat20	148	Snare31
029	SplashCymb	069	Kick08	109	Hi-hat21	149	Snare32
030	Cowbell	070	Kick09	110	Hi-hat22	150	Snare33
031	CrashCymb2	071	Kick10	111	Cymbal01	151	S-Stick01
032	VibraSlap	072	Kick11	112	Cymbal02	152	S-Stick02
033	RideCymb2	073	Kick12	113	Cymbal03	153	S-Stick03
034	HiBongo	074	Kick13	114	Cymbal04	154	Tom-Lo1
035	LowBongo	075	Kick14	115	Cymbal05	155	Tom-Lo2
036	MuteConga	076	Kick15	116	Cymbal06	156	Tom-Lo3
037	HiConga	077	Kick16	117	Cymbal07	157	Tom-Lo4
038	LowConga	078	Kick17	118	Snare01	158	Tom-Lo5
039	HighTimbal	079	Kick18	119	Snare02	159	Tom-Lo6
040	LowTimbale	080	Kick19	120	Snare03	160	Tom-Lo6

VOICE LIST

No.	Name	No.	Name	No.	Name	No.	Name
161	Tom-Lo7	201	Mt14	241	Perc Fx37	281	Tabla08
162	Tom-Lo8	202	Mt15	242	Perc Fx38	282	Tabla09
163	Tom-Lo9	203	Mt16	243	Perc Fx39	283	Tabla10
164	Tom-LoMid1	204	Mt17	244	Pswc1	284	Tabla11
165	Tom-LoMid2	205	Perc Fx01	245	Pswc2	285	Tabla12
166	Tom-LoMid3	206	Perc Fx02	246	Pswc3	286	Tabla13
167	Tom-LoMid4	207	Perc Fx03	247	Pswc4	287	THH01
168	Tom-LoMid4	208	Perc Fx04	248	Arabian1	288	THH02
169	Tom-HiMid1	209	Perc Fx05	249	Arabian2	289	THH03
170	Tom-HiMid2	210	Perc Fx06	250	Arabian3	290	THH04
171	Tom-HiMid3	211	Perc Fx07	251	Arabian4	291	THH05
172	Tom-HiMid4	212	Perc Fx08	252	Arabian5	292	THH06
173	Tom-Hi1	213	Perc Fx09	253	Arabian6	293	THH07
174	Tom-Hi2	214	Perc Fx10	254	Arabian7	294	THH08
175	Tom-Hi3	215	Perc Fx11	255	Athlp1	295	THH09
176	Btkk1	216	Perc Fx12	256	Athlp2	296	THH10
177	Btkk2	217	Perc Fx13	257	Athlp3	297	THH11
178	Btkk3	218	Perc Fx14	258	Atht1	298	THH12
179	Ckjk1	219	Perc Fx15	259	Atht2	299	THH13
180	Ckjk2	220	Perc Fx16	260	Atht3	300	Tima1
181	Ckjk3	221	Perc Fx17	261	Atht4	301	Tima2
182	Ckjk4	222	Perc Fx18	262	Handpan1	302	Timpani01
183	Ckjk5	223	Perc Fx19	263	Handpan2	303	Timpani02
184	Ckjk6	224	Perc Fx20	264	Handpan3	304	Timpani03
185	HMN01	225	Perc Fx21	265	Handpan4	305	Timpani04
186	HMN02	226	Perc Fx22	266	Handpan5	306	Timpani05
187	HMN03	227	Perc Fx23	267	Indian1	307	Timpani06
188	HMN04	228	Perc Fx24	268	Indian2	308	Timpani07
189	HMN05	229	Perc Fx25	269	Indian3	309	Timpani08
190	HMN06	230	Perc Fx26	270	Indian4	310	Timpani09
191	HMN07	231	Perc Fx27	271	Banya1	311	Timpani10
192	HMN08	232	Perc Fx28	272	Banya2	312	Timpani11
193	HMN09	233	Perc Fx29	273	Banya3	313	Timpani12
194	HMN10	234	Perc Fx30	274	Tabla01	314	Timpani13
195	HMN11	235	Perc Fx31	275	Tabla02	315	Timpani14
196	HMN12	236	Perc Fx32	276	Tabla03	316	Timpani15
197	HMN13	237	Perc Fx33	277	Tabla04	317	Timpani16
198	Mt11	238	Perc Fx34	278	Tabla05	318	Timpani17
199	Mt12	239	Perc Fx35	279	Tabla06	319	Timpani18
200	Mt13	240	Perc Fx36	280	Tabla07	320	Timpani19

VOICE LIST

No.	Name	No.	Name	No.	Name	No.	Name
321	Dine1	361	Voice33	401	CR06	441	Marimba03
322	Dine2	362	Voice34	402	CR07	442	Marimba04
323	Dine3	363	Voice35	403	CR08	443	Marimba05
324	Dine4	364	Voice36	404	CR09	444	Marimba06
325	Dine5	365	Voice37	405	CR10	445	Marimba07
326	Dine6	366	Voice38	406	CR11	446	Marimba08
327	Dine7	367	Voice39	407	CR12	447	Marimba09
328	Dine8	368	Voice40	408	HEA01	448	Marimba10
329	Voice01	369	Voice41	409	HEA02	449	Marimba11
330	Voice02	370	Voice42	410	HEA03	450	Marimba12
331	Voice03	371	Animal1	411	HEA04	451	Marimba13
332	Voice04	372	Animal2	412	HEA05	452	Marimba14
333	Voice05	373	Animal3	413	HEA06	453	Marimba15
334	Voice06	374	Animal4	414	HEA07	454	Marimba16
335	Voice07	375	Bell1	415	HEA08	455	Marimba17
336	Voice08	376	Bell2	416	HEA09	456	Marimba18
337	Voice09	377	Bell3	417	HEA10	457	Marimba19
338	Voice10	378	Bell4	418	HEA11	458	Marimba20
339	Voice11	379	Bell5	419	HEA12	459	Marimba21
340	Voice12	380	Bell6	420	HEA13	460	Marimba22
341	Voice13	381	Bell7	421	HEA14	461	Marimba23
342	Voice14	382	Bell8	422	HEA15	462	Marimba24
343	Voice15	383	Bell9	423	HEA16	463	Marimba25
344	Voice16	384	BP01	424	HEA17	464	Marimba26
345	Voice17	385	BP02	425	SPH01	465	Marimba27
346	Voice18	386	BP03	426	SPH02	466	Marimba28
347	Voice19	387	BP04	427	SPH03	467	Marimba29
348	Voice20	388	BP05	428	SPH04	468	Marimba30
349	Voice21	389	BP06	429	SPH05	469	Marimba31
350	Voice22	390	BP07	430	SPH06	470	Marimba32
351	Voice23	391	BP08	431	SPH07	471	Marimba33
352	Voice24	392	BP09	432	SPH08	472	Marimba34
353	Voice25	393	BP10	433	SPH09	473	Marimba35
354	Voice26	394	BP11	434	SPH10	474	Marimba36
355	Voice27	395	BP12	435	SPH11	475	Marimba37
356	Voice28	396	CR01	436	SPH12	476	Marimba38
357	Voice29	397	CR02	437	SPH13	477	Brass01
358	Voice30	398	CR03	438	SPH14	478	Brass02
359	Voice31	399	CR04	439	Marimba01	479	Brass03
360	Voice32	400	CR05	440	Marimba02	480	Brass04

VOICE LIST

No.	Name	No.	Name	No.	Name	No.	Name
481	Brass05	521	W-Block17	561	Balalaik12	601	Lute13
482	Brass06	522	W-Block18	562	Balalaik13	602	Lute14
483	Brass07	523	W-Block19	563	Balalaik14	603	Lute15
484	Brass08	524	W-Block20	564	Balalaik15	604	Lute16
485	Brass09	525	W-Block21	565	Balalaik16	605	Lute17
486	Brass10	526	W-Block22	566	Balalaik17	606	Lute18
487	Brass11	527	Triangle1	567	Balalaik18	607	Lute19
488	Brass12	528	Triangle2	568	Balalaik19	608	Lute20
489	Bowl1	529	Triangle3	569	Balalaik20	609	Lute21
490	Bowl2	530	Cowbell01	570	Balalaik21	610	Lute22
491	Bowl3	531	Cowbell02	571	Balalaik22	611	Lute23
492	Pot01	532	Cowbell03	572	Balalaik23	612	Chinese01
493	Pot02	533	Cowbell04	573	Balalaik24	613	Chinese02
494	Pot03	534	Cowbell05	574	Balalaik25	614	Chinese03
495	Pot04	535	Cowbell06	575	Gus01	615	Chinese04
496	Pot05	536	Cowbell07	576	Gus02	616	Chinese05
497	Pot06	537	Cowbell08	577	Gus03	617	Chinese06
498	Pot07	538	Cowbell09	578	Gus04	618	Chinese07
499	Pot08	539	Cowbell10	579	Gus05	619	Chinese08
500	Pot09	540	Cowbell11	580	Gus06	620	Chinese09
501	Pot10	541	Cowbell12	581	Gus07	621	Chinese10
502	Pot11	542	Cowbell13	582	Gus08	622	Chinese11
503	Pot12	543	Cowbell14	583	Gus09	623	Chinese12
504	Pot13	544	Cowbell15	584	Gus10	624	Chinese13
505	W-Block01	545	Craski1	585	Gus11	625	Chinese14
506	W-Block02	546	Craski2	586	Gus12	626	Chinese15
507	W-Block03	547	Craski3	587	Gus13	627	Chinese16
508	W-Block04	548	Craski4	588	Gus14	628	Chinese17
509	W-Block05	549	Craski5	589	Lute01	629	Chinese18
510	W-Block06	550	Balalaik01	590	Lute02	630	Chinese19
511	W-Block07	551	Balalaik02	591	Lute03	631	Chinese20
512	W-Block08	552	Balalaik03	592	Lute04	632	Chinese21
513	W-Block09	553	Balalaik04	593	Lute05	633	Chinese22
514	W-Block10	554	Balalaik05	594	Lute06	634	Chinese23
515	W-Block11	555	Balalaik06	595	Lute07	635	Chinese24
516	W-Block12	556	Balalaik07	596	Lute08	636	Chinese25
517	W-Block13	557	Balalaik08	597	Lute09	637	Chinese26
518	W-Block14	558	Balalaik09	598	Lute10	638	Chinese27
519	W-Block15	559	Balalaik10	599	Lute11	639	Chinese28
520	W-Block16	560	Balalaik11	600	Lute12	640	Chinese29

VOICE LIST

No.	Name	No.	Name	No.	Name	No.	Name
641	Chinese30	681	Scratch12	721	Effects40	761	Perc010
642	Chinese31	682	Effects01	722	Effects41	762	Perc011
643	Chinese32	683	Effects02	723	Effects42	763	Perc012
644	Chinese33	684	Effects03	724	Effects43	764	Perc013
645	Chinese34	685	Effects04	725	Effects44	765	Perc014
646	Chinese35	686	Effects05	726	Effects45	766	Perc015
647	Chinese36	687	Effects06	727	Effects46	767	Perc016
648	Chinese37	688	Effects07	728	Effects47	768	Perc017
649	Chinese38	689	Effects08	729	Effects48	769	Perc018
650	Chinese39	690	Effects09	730	Effects49	770	Perc019
651	Chinese40	691	Effects10	731	Effects50	771	Perc020
652	Hit01	692	Effects11	732	Effects51	772	Perc021
653	Hit02	693	Effects12	733	Effects52	773	Perc022
654	Hit03	694	Effects13	734	Effects53	774	Perc023
655	Hit04	695	Effects14	735	Effects54	775	Perc024
656	Hit05	696	Effects15	736	Effects55	776	Perc025
657	Hit06	697	Effects16	737	Effects56	777	Perc026
658	Hit07	698	Effects17	738	Effects57	778	Perc027
659	Hit08	699	Effects18	739	Effects58	779	Perc028
660	Hit09	700	Effects19	740	Effects59	780	Perc029
661	Hit10	701	Effects20	741	Effects60	781	Perc030
662	Hit11	702	Effects21	742	Effects61	782	Perc031
663	Hit12	703	Effects22	743	Effects62	783	Perc032
664	Spec FX1	704	Effects23	744	Effects63	784	Perc033
665	Spec FX2	705	Effects24	745	Effects64	785	Perc034
666	Spec FX3	706	Effects25	746	Effects65	786	Perc035
667	Spec FX4	707	Effects26	747	Effects66	787	Perc036
668	Spec FX5	708	Effects27	748	Gtr1	788	Perc037
669	Spec FX6	709	Effects28	749	Gtr2	789	Perc038
670	Scratch01	710	Effects29	750	Gtr3	790	Perc039
671	Scratch02	711	Effects30	751	Gtr4	791	Perc040
672	Scratch03	712	Effects31	752	Perc001	792	Perc041
673	Scratch04	713	Effects32	753	Perc002	793	Perc042
674	Scratch05	714	Effects33	754	Perc003	794	Perc043
675	Scratch06	715	Effects34	755	Perc004	795	Perc044
676	Scratch07	716	Effects35	756	Perc005	796	Perc045
677	Scratch08	717	Effects36	757	Perc006	797	Perc046
678	Scratch09	718	Effects37	758	Perc007	798	Perc047
679	Scratch10	719	Effects38	759	Perc008	799	Perc048
680	Scratch11	720	Effects39	760	Perc009	800	Perc049

VOICE LIST

No.	Name	No.	Name	No.	Name	No.	Name
801	Perc050	831	Perc080	861	Perc110	891	Perc140
802	Perc051	832	Perc081	862	Perc111	892	Perc141
803	Perc052	833	Perc082	863	Perc112	893	Perc142
804	Perc053	834	Perc083	864	Perc113	894	Perc143
805	Perc054	835	Perc084	865	Perc114	895	Perc144
806	Perc055	836	Perc085	866	Perc115	896	Perc145
807	Perc056	837	Perc086	867	Perc116	897	Perc146
808	Perc057	838	Perc087	868	Perc117	898	Perc147
809	Perc058	839	Perc088	869	Perc118	899	Perc148
810	Perc059	840	Perc089	870	Perc119	900	Perc149
811	Perc060	841	Perc090	871	Perc120	901	Perc150
812	Perc061	842	Perc091	872	Perc121	902	Perc151
813	Perc062	843	Perc092	873	Perc122	903	Perc152
814	Perc063	844	Perc093	874	Perc123	904	Perc153
815	Perc064	845	Perc094	875	Perc124	905	Perc154
816	Perc065	846	Perc095	876	Perc125	906	Perc155
817	Perc066	847	Perc096	877	Perc126	907	Perc156
818	Perc067	848	Perc097	878	Perc127	908	Perc157
819	Perc068	849	Perc098	879	Perc128	909	Perc158
820	Perc069	850	Perc099	880	Perc129	910	Perc159
821	Perc070	851	Perc100	881	Perc130	911	Perc160
822	Perc071	852	Perc101	882	Perc131	912	Perc161
823	Perc072	853	Perc102	883	Perc132	913	Perc162
824	Perc073	854	Perc103	884	Perc133	914	Perc163
825	Perc074	855	Perc104	885	Perc134		
826	Perc075	856	Perc105	886	Perc135		
827	Perc076	857	Perc106	887	Perc136		
828	Perc077	858	Perc107	888	Perc137		
829	Perc078	859	Perc108	889	Perc138		
830	Perc079	860	Perc109	890	Perc139		

SPECIFICATIONS

Built-in Pad	8 built-in pads with velocity response and layer feature
External Trigger	Snare drum, Kick drum, Ride cymbal, Hi-Hat cymbal and Hi-Hat pedal
Voice	914
Drum Kit	80 Editable pad kits, 5 Editable external instrument kits,
Layer Type	Switch, Mix, Fade, X.Fade, Off
GrooveBox	20 preset styles composed of drum kit beat and other instrument obligato, effect