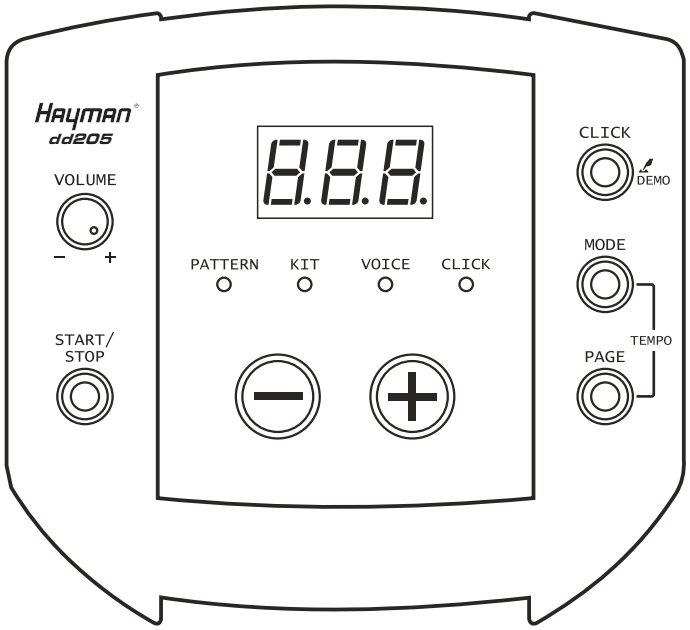
DIGITAL DRUM

Owner's Manual



GENERAL MIDI

THE FCC REGULATION WARNING (for USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

CAUTION

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

CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

PRECAUTIONS

PLEASE READ CAREFULLY BEFORE PROCEEDING

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

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

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

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

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

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

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

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

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

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

Do not let paper, metallic, or other objects into the instrument. If this happens, unplug the AC adaptor from the wall outlet. Then have the instrument inspected by qualified service personnel.

Disconnect all cables before moving the instrument.

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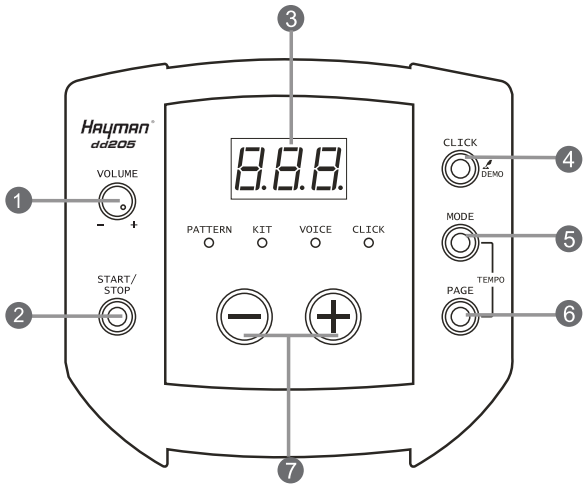
Panel Description

Front Panel



1 MASTER VOLUME KNOB

Control the volume of phone and line out.
Turn it clockwise to increase the volume and anticlockwise to decrease the volume.

2 [START/STOP] BUTTON

Start or stop Pattern playing.

3 3-DIGIT LED DISPLAY

3-digit LED and LED indicators

4 [CLICK] BUTTON

Press [click] button to start/stop the click.
Hold on the [click] button 2 seconds to enter the demo mode and play the demo.

5 [MODE] BUTTON

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

6 [PAGE] BUTTON

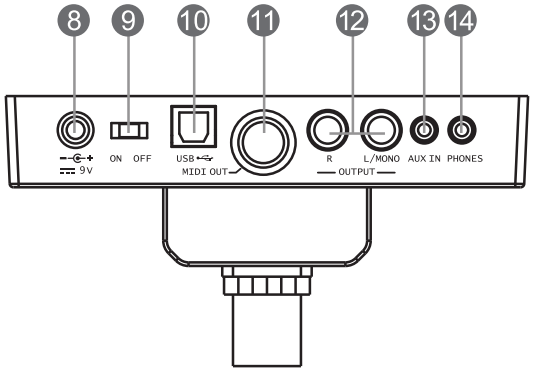
Press [page] button to browse the menu pages of current selected mode.

Press both [mode] and [page] buttons, the 3-digit LED will display the tempo page, it will temporarily display for 3 seconds, then press [+] or [-] to adjust the volume.

7 [+]/[-] BUTTON

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

Rear Panel



8 POWER SUPPLY JACK (DC IN 9V)

Connect an AC adaptor to this jack.

9 POWER SWITCH

Turn the power on/off.

10 USB PORT

Connect to computer.

11 MIDI OUT JACK

Connect with external sound module.

12 LINE OUTPUT JACKS (R, L/MONO)

Made up of right channel output and left channel output which is also used as mono line output.

13 AUX IN

Connect with external sound source.

14 PHONES JACK

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

Caution!

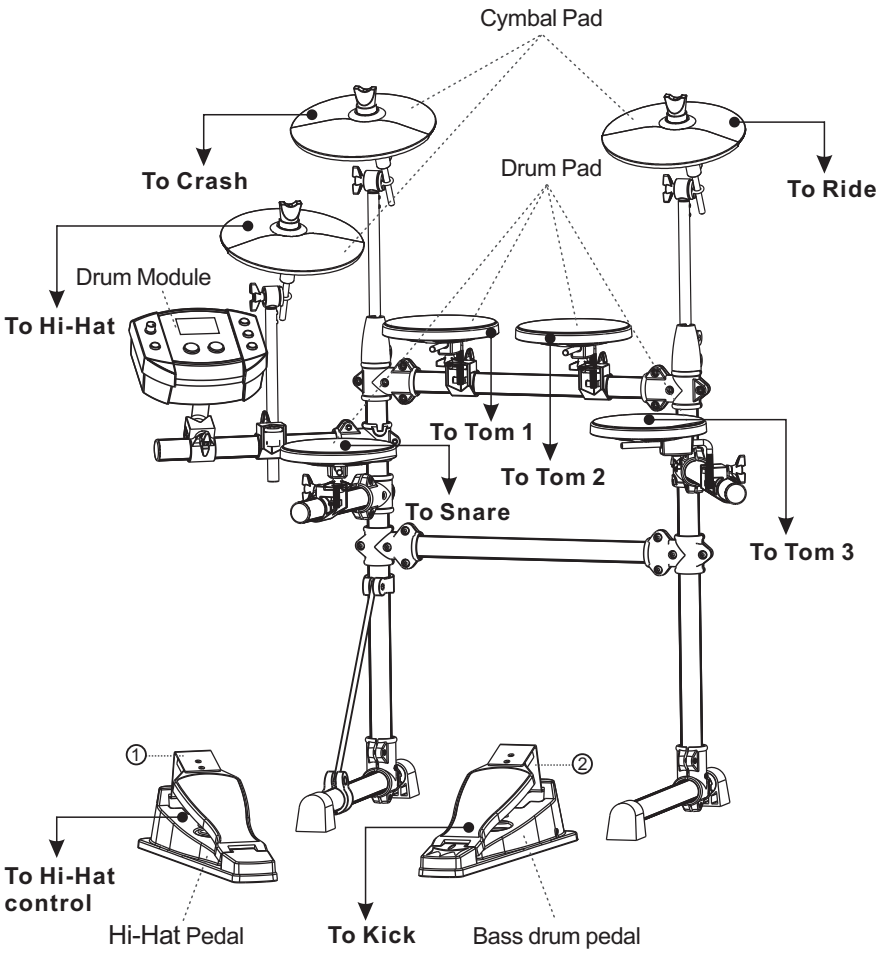
To prevent electric shock and damage to the device, make sure the power is switched OFF on the drum and all related device before making any connection.

Connecting Pads and Pedals

Using the provided cables, the cable received by marking the corresponding drum pads, cymbal pads and pedals. (See the below illustration for reference)

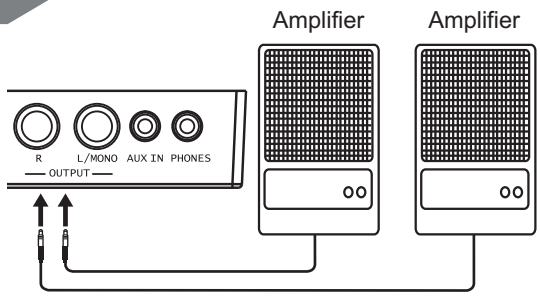
Note:

1. The voice of hi-hat pad hitting is controlled by hi-hat pedal. Similar to a real drum kit, the hi-hat pad functions as an 'open hi-hat' when the pedal is released. When the pedal is stepped, it functions as a 'closed hi-hat'.
2. The valid striking area of cymbal pad (ride, crash or hi-hat) is near the edge of the pad, which is different from other pads.



Connections

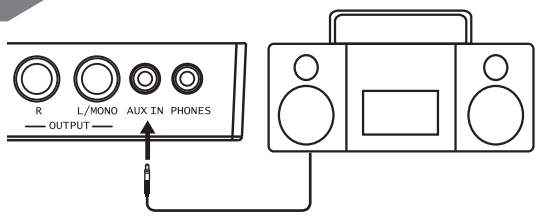
Connect an audio equipment



1.When you want to listen to the voices with an amplifier, connect amplifiers with the Output L/MONO and R jacks on the rear panel. (For monaural playback, use the L/MONO jack; for stereo playback, connect both L/MONO and R jacks.)

2. The volume is adjusted with the VOLUME knob.

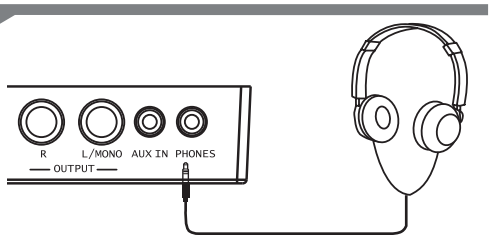
Connect a CD player, etc.(Aux. In jack)



1. The audio output of a CD player, or other audio source, to connect with the AUX IN jack on the rear panel can mixed with the sound of the drum. This function is that let you play along with a favourite song.

2. The volume of the external signal is adjusted with the VOLUME knob.

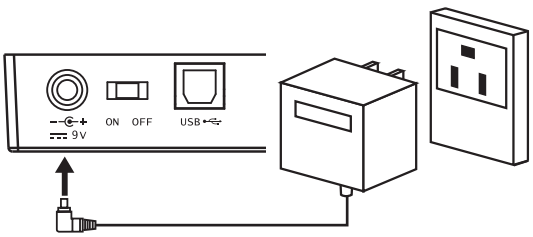
Connect headphones



An optional set of stereo headphones can be connected with the PHONES jack located on the rear panel of the drum module.

* Adjust the volume to a comfortable level.

Connect the power supply jack



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

Note:

1. To protect the speakers, amplifier and the drum module from damage, rotate the volume knob to the minimum volume level before switching the power ON.

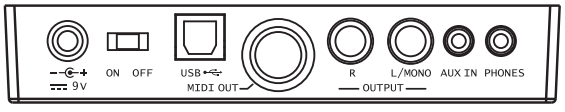
2. Make sure the power is switched OFF when connecting drum module with external devices.

MIDI and USB

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

MIDI connection

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

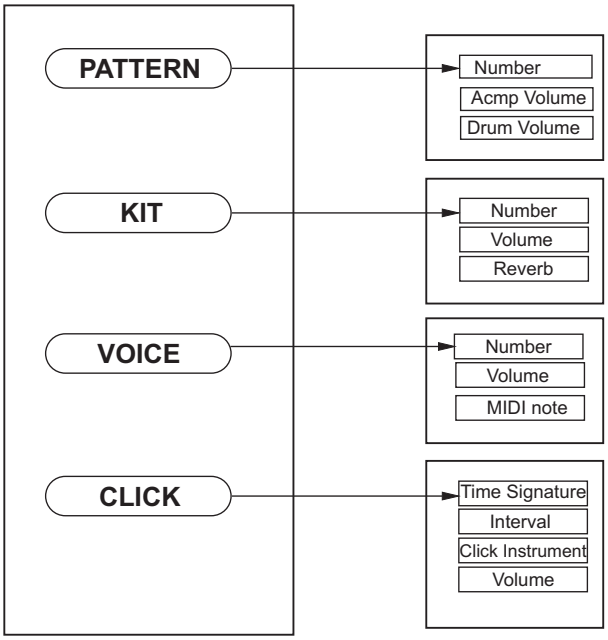


USB connection

The USB connector allows you to connect the module directly to your computer. It can be connected without driver installation under the Windows XP\ Vista\Windows 7& MAC OSX environment. The modulewill be recognized as 'USB Audio device' to receive and transmit MIDI messages through a single USB cable, USB is used only for MIDI messages(MIDI via USB).

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

Menu tree



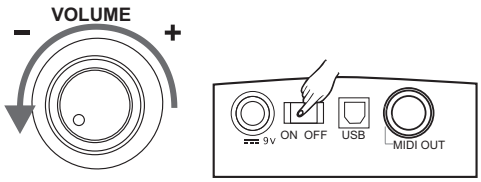
In the main menu there are 4 menu items
- PATTERN
- DRUM KIT
- VOICE
- CLICK

Operation

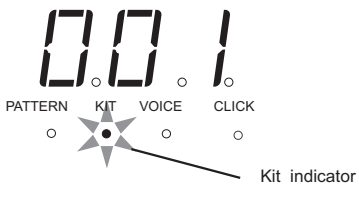
Press [MODE] button to change the mode.
Press [PAGE] button to select the page of current mode.
Press [+] / [-] button to adjust the parameters.

Switch the power ON

After confirming all connection have been completed, rotate the volume knob to the left (minimum volume level) before switching the power on.

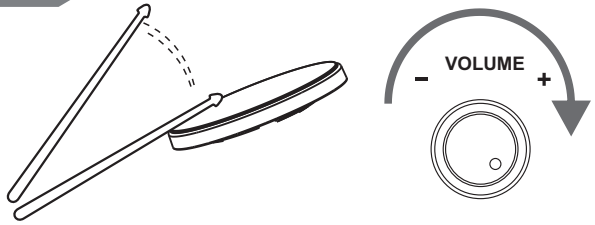


Set the power switch to "ON" position to switch on the power. Display shows the kit's number and its indicator lights up.



Set the main volume

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



Pattern

In pattern mode, there are 3 pages:
1.Pattern number (1- 40,default 1)
2.Pattern accompaniment volume(0-32)
3.Pattern drum volume(0-32)

Select a pattern

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

1.Press the [MODE] button to select the pattern mode, the pattern LED indicator will be lighted up, the 3-digit-LED will display the pattern number(001)

2. Press [+] or [-] button to adjust the value.
Range :(001 to 040)

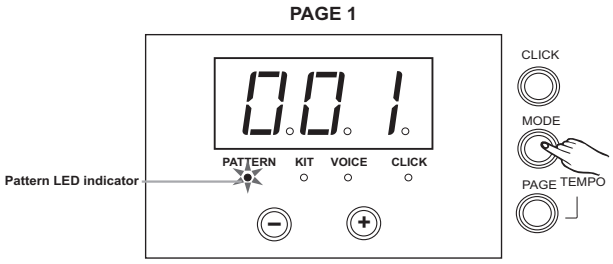


Figure Pattern number

Adjust the accompaniment volume

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

1. Press [MODE] button to select the pattern mode, the pattern LED indicator will be lighted up.

2. Press [PAGE] button to select the accompaniment volume page, the 3-digit-LED will display the accompaniment volume(A22).

3. Press [+] or [-] button to adjust the value.
Range:(0 to 32).

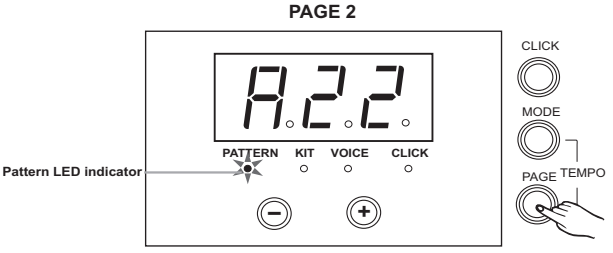


Figure Pattern accompaniment volume

Adjust the drum volume

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

1. Press [MODE] button to select the pattern mode, the pattern LED indicator will be lighted up,

2. Press [PAGE] button to select the drum volume page, the 3-digit-LED will display the drum volume(d22).

3. Press [+] or [-] to adjust the value.
Range:(0 to 32)

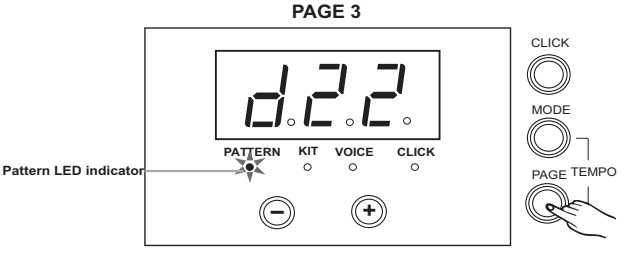


Figure Pattern drum volume

In kit mode, there are 3 pages:
1. kit number(001-010,default 1).
2. kit volume (0-32).
3. kit reverb:(on/off, default on).

Select a kit

In kit mode, kit number(001-010,default 1).

1. Press [MODE] button to select the kit mode, the kit LED indicator will be lighted up, the 3-digit-LED will display the kit number(001).

2. Press [+] or [-] to adjust the value.
Range:(001-010).

PAGE 1

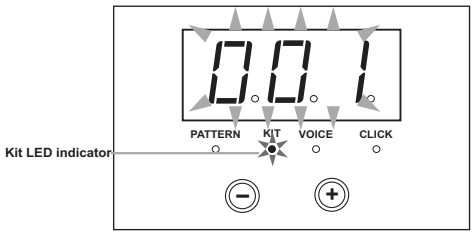


Figure Kit number

Adjust the kit volume

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

1. Press the [MODE] button to select the kit mode, the kit LED indicator will be lighted.

2. Press the [PAGE] button to select the kit volume page, the 3-digit-LED will display the kit volume(L30).

3.Press [+] or [-] to adjust the value (Automatic save).
Range:(0 to 32).

PAGE 2

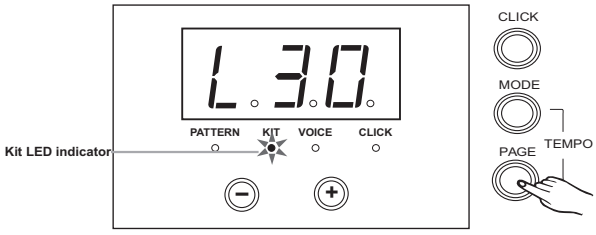
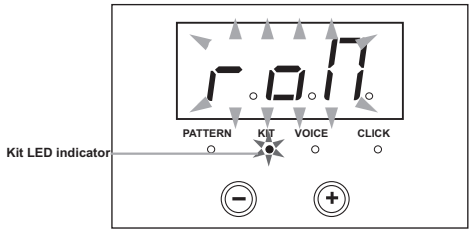


Figure Kit volume

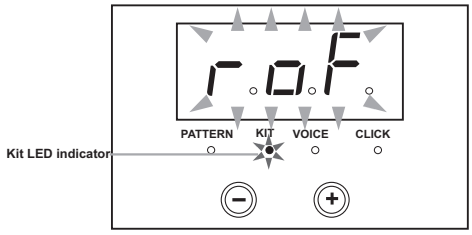
Switch reverb on/off

1. Press [MODE] button to select the kit mode, the kit LED indicator will be lighted up.

2. Press the [PAGE] button to select the kit reverb page, reverb effect can be turn on or off by pressing button [+] or [-].



PAGE 3



Voice

In voice mode, there are 3pages:
1. Voice number:(1-108).
2. Voice volume:(0-32).
3. Midi note:(0-99).

Select the voice

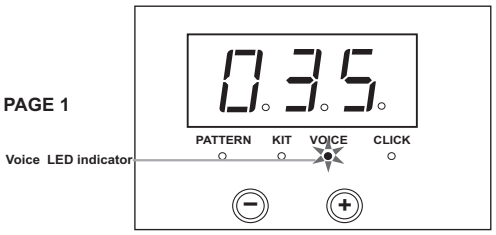
In voice mode, voice number:(1-108).

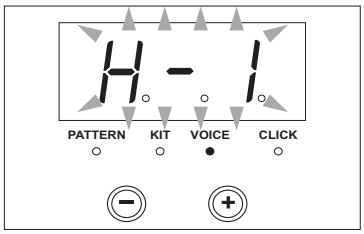
1. Press [MODE] button to select the voice mode, the voice LED indicator will be lighted up, strike a drum pad, the 3-digit-LED will display the voice number.

2. Press [+] or [-] to adjust the value(Automatic save). Range:(001 to 108).

NOTE:
When you select a voice for hi-hit drum, you only can select the hi-hat group voices, from group 1-group 4(Automatic save), the display is:(H-I).

PAGE 1





Adjust the voice volume

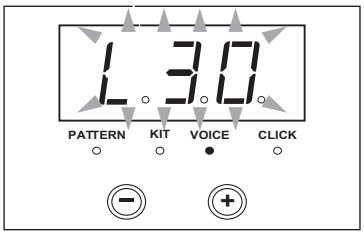
In voice mode, voice volume:(0-32).

1. Press [MODE] button to select the voice mode, the voice LED indicator will be lighted up.

2. Press [PAGE] button to select the voice volume page, strike a drum pad, the 3-digit-LED will display the voice volume(L30).

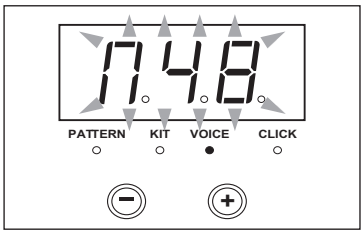
3. Press [+] or [-] to adjust the value(Automatic save). Range:(0 to 32).

PAGE 2



Adjust the midi note

PAGE 3



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

1. Press [MODE] button to select the voice mode, the voice LED indicator will be lighted up.

2. Press [PAGE] button to select the midi note page, strike a strike a drum pad, the 3-digit-LED will display the midi note (n48).

3.Press [+] or [-] to adjust the value(Automatic save). Range:(0 to 99).

THE DEFAULT MIDI NOTE:

NO.	NAME	NOTE
1	CRASH1	49
2	TOM 1	48
3	TOM 2	45
4	TOM 3	43
5	RIDE	51
6	KICK	36
7	SNARE	38
8	HIHAT CLOSE	42
9	HIHAT OPEN	46
10	HIHAT PEDAL	44

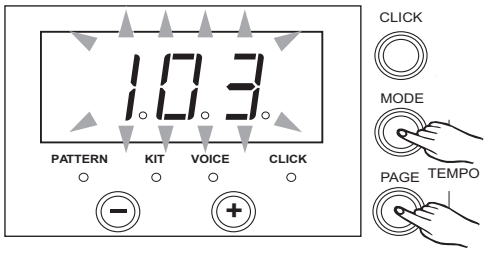
Tempo

The tempo range is 30-280

Adjust the tempo

1.Press both [MODE] and [PAGE] buttons, the 3-digit-LED will display the tempo page, it will temporarily display for 3 seconds.

2. Press [+] or [-] to adjust the value.



Click

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

Adjust the click time signature

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

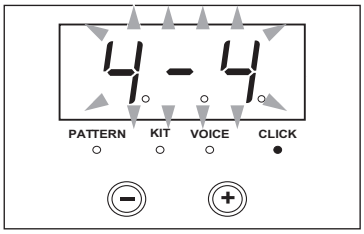
1. Press [MODE] button select the click mode, the click LED indicator will be lighted up.

2. Press [PAGE] button select the click time signature page, the 3-digit-LED will display the click time signature(4-4).

3. Press [+] or [-] to adjust the value.
Range:(1/4-7/4 or 3/8 or 6/8).

Note: The click time signature will follow the pattern, when pattern is playing, it can not be edit.

PAGE 1



Adjust the click interval

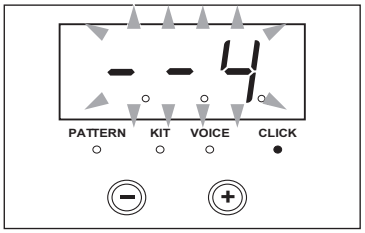
In click mode, interval:(1/4,1/8,1/12,1/16,1/24,default 1/4).

1. Press [MODE] button to select the click mode, the click LED indicator will be lighted up.

2. Press [PAGE] button to select the click interval page, the 3-digit-LED will display the click interval(--4) .

3. Press the [+] or [-] button to adjust the value.
Range:(--4 to -24).

PAGE 2



Adjust the click instrument

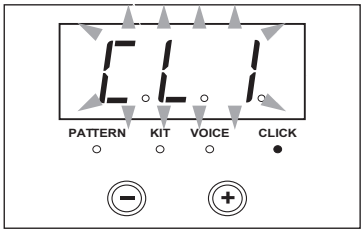
In click mode, instrument:(1-5,default 1).

1. Press [MODE] button to select the click mode, the click LED indicator will be lighted up.

2. Press [PAGE] button to select the click instrument page, the 3-digit-LED will display the click instrument(CL1).

3. Press [+] or [-] to adjust the value.
Range:(CL1 to CL5).

PAGE 3



Adjust the click volume

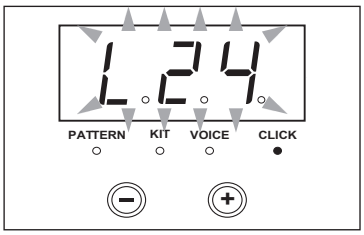
In click mode, click volume:(0-32).

1. Press [MODE] button to select the click mode, the click LED indicator will be lighted up.

2. Press [PAGE] button to select the click volume page, the 3-digit-LED will display the click volume(L24).

3. Press [+] or [-] to adjust the value.
Range:(0 to 32)

PAGE 4



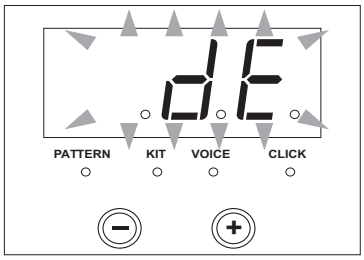
Restore the factory preset

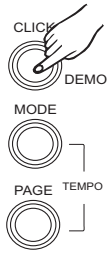
Restoring the factory preset can be implemented by following operations:
Turn on the power with
both [+] and [-] unreleased.
This function will replace the current settings of following parameters by their default preset values:
Kit volume, voice number, voice volume and MIDI note.

Play the demo

1. Hold on the [CLICK] button 2 seconds to enter the demo and play the demo, the 3-digit-LED will display the demo “dE”.

2. Press [START/STOP] button to stop the demo playing.





Play the pattern

1. Press [START/STOP] button play the pattern.
2. Press [START/STOP] button again to stop the pattern playing.

Play the click

1. Press the [CLICK] button to start the click, the click indicator will flash follow the beat.

2. Press the [CLICK] button again to stop the click.

Specifications

Drum Pad
4 drum pads , 3 cymbal pads ,1 hi-hat control pedal , 1 kick pedal

Preset Drum kits
10 preset kits

Drum Instrument
108

Preset Pattern
40

Controls
MIDI OUT, POWER SWITCH, USB, PHONES, START/STOP,PATTERN, KIT, VOICE, CLICK, MODE, PAGE, DEMO, TEMPO, VOLUME, + / -

Display
LED display

Connections
PHONES
AUX IN
OUTPUT (R & L/MONO)
MIDI OUT
USB
ON/OFF

Power Supply
AC adaptor (⎓ 9V)

Preset Drum KIT list

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

Drum Instrument List

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

No.	Name
022	Acoustic Snare Rim
023	Funk Band Snare
024	Funk Band Snare Rim
025	Camco Snare
026	Camco Snare Rim
027	Brush Snare
028	Brush Snare Rim
029	Electronic Snare 1
030	Electronic Snare 2
031	808 Snare
032	House Snare 1
033	House Snare 2
	TOM
034	Classic Tom 1
035	Classic Tom 2
036	Classic Tom 3
037	Classic Tom 4
038	Classic Tom 5
039	Classic Tom 6
040	Camco Tom 1
041	Camco Tom 2
042	Camco Tom 3

No.	Name
043	Camco Tom 4
044	Camco Tom 5
045	Camco Tom 6
046	808 Tom 1
047	808 Tom 2
048	808 Tom 3
049	808 Tom 4
050	808 Tom 5
051	808 Tom 6
052	Electronic Tom 1
053	Electronic Tom 2
054	Electronic Tom 3
055	Electronic Tom 4
056	Electronic Tom 5
057	Electronic Tom 6
	RIDE
058	Classic Ride
059	Classic Ride Bell
060	Rock Ride
061	808 Ride
	CRASH
062	Standard Crash 1

No.	Name
063	Standard Crash 2
064	Rock Crash
065	Splash 1
066	Splash 2
067	Brush Crash
068	808 Crash
	HI-HAT
069	Standard Hi-hat Open
070	Jazz Hi-hat Open
071	Electronic Hi-hat Open
072	808 Hi-hat Open
073	Standard Hi-hat Close
074	Jazz Hi-hat Close
075	Electronic Hi-hat Close
076	808 Hi-hat Close
077	Standard Hi-hat Pad
078	Jazz Hi-hat Pad
079	Electronic Hi-hat Pad
080	808 Hi-hat Pad
	PERCUSSTION
081	Bongo High

No.	Name
082	Bongo Low
083	Mute Conga Hi-hat
084	Open Conga Hi-hat
085	Conga Low
086	Timbale High
087	Timale Low
088	Agogo High
089	Agogo Low
090	Cabasa
091	Maracas
092	Short Whistle
093	Long Whistle
094	Short Guiro
095	Long Guiro
096	Claves
097	Wood Block High
098	Wood Block Low
099	Mute Cuica
100	Open Cuica
101	Mute Triangle
102	Open Triangle
103	Shaker
104	Jingle Bell
105	Belltree
106	Castanets
107	Mute Surdo
108	Open Surdo

Preset Pattern List

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

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

GM Backing Instrument List

PIANO
1 Acoustic Grand Piano
2 Bright Acoustic Piano
3 Electric Grand Piano
4 Honky-Tonk Piano
5 E.Piano 1
6 E.Piano 2
7 Harpsichord
8 Clavi

MALLET
9 Celesta
10 Glockenspiel
11 Music Box
12 Vibraphone
13 Marimba
14 Xylophone
15 Tubular Bells
16 Dulcimer

ORGAN
17 Drawbar Organ
18 Percussive Organ
19 Rock Organ
20 Church Organ
21 Reed Organ
22 Accordion
23 Harmonica
24 Tango Accordion

GUITAR
25 Nylon Guitar
26 Steel Guitar
27 Jazz Guitar
28 Clean Guitar
29 Muted Guitar
30 Overdriven Guitar
31 Distortion Guitar
32 Guitar Harmonics

BASS
33 Acoustic Bass
34 Finger Bass
35 Pick Bass
36 Fretless Bass
37 Slap Bass 1
38 Slap Bass 2
39 Synth Bass 1
40 Synth Bass 2

STRINGS
41 Violin
42 Viola
43 Cello
44 Contrabass
45 Tremolo Strings
46 Pizzicato Strings
47 Orchestral Harp
48 Timpani

STRINGS ENSEMBLE
49 Strings Ensemble 1
50 Strings Ensemble 2
51 Synth Strings 1
52 Synth Strings 2
53 Choir Aahs
54 Voice Oohs
55 Synth Voice
56 Orchestra Hit

BRASS
57 Trumpet
58 Trombone
59 Tuba
60 Muted Trumpet
61 French Horn
62 Brass Section
63 Synth Brass 1
64 Synth Brass 2

REED
65 Soprano Sax
66 Alto Sax
67 Tenor Sax
68 Baritone Sax
69 Oboe
70 English Horn
71 Bassoon
72 Clarinet

PIPE
73 Piccolo
74 Flute
75 Recorder
76 Pan Flute
77 Blown Bottle
78 Shakuhachi
79 Whistle
80 Ocarina

LEAD
81 Lead1 (square)
82 Lead2 (sawtooth)
83 Lead3 (calliope)
84 Lead4 (chiff)
85 Lead5 (charang)
86 Lead6 (voice)
87 Lead7 (fifths)
88 Lead8 (bass & Lead)

PAD
89 Pad1 (newage)
90 Pad2 (warm)
91 Pad3 (Polysynth)
92 Pad4 (choir)
93 Pad5 (bowed)
94 Pad6(metallic)
95 Pad7 (halo)
96 Pad8 (sweep)

EFFECTS
97 FX1 (rain)
98 FX2 (soundtrack)
99 FX3 (crystal)
100 FX4 (atmosphere)
101 FX5 (brightness)
102 FX6 (goblins)
103 FX7 (echoes)
104 FX8 (sci-fi)

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

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

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

GM Drum Kit List

NET NO.	Standard 1 (bank 0)	Standard 2 (bank 4)	Room (bank 8)	Rock (bank 16)	Funk (bank 17)
27—D#1	High Q	<-	<-	<-	<-
28—E1	Slap	<-	<-	<-	<-
29—F1	Scratch Push	<-	<-	<-	<-
30—F#1	Scratch Pull	<-	<-	<-	<-
31—G1	Sticks	<-	<-	<-	<-
32—G#1	Square Click	<-	<-	<-	<-
33—A1	Metronome Click	<-	<-	<-	<-
34—A#1	Metronome Bell	<-	<-	<-	<-
35—B1	Acoustic Bass Drum	<-	Room Bass Drum 1	Rock Bass Drum 1	Funk Bass Drum 1
36—C2	Standard 1 Bass Drum	Standard 2 Bass Drum	Room Bass Drum 2	Rock Bass Drum 2	Funk Bass Drum 2
37—C#2	Side Stick	<-	<-	<-	<-
38—D2	Standard 1 Snare	Standard 2 Snare	Room Snare	Rock Snare	Funk Snare
39—D#2	Hand Clap	<-	<-	<-	<-
40—E2	Standard 1 Snare Rim	Standard 2 Snare Rim	Room Snare Rim	Rock Snare Rim	Funk Snare Rim
41—F2	Standard 1 Tom 6	Standard 2 Tom 6	Room Tom 6	Rock Tom 6	Funk Tom 6
42—F#2	Standard 1 Hi-hat Close	Standard 2 Hi-hat Close	Room Hi-hat Close	Rock Hi-hat Close	Funk Hi-hat Close
43—G2	Standard 1 Tom 5	Standard 2 Tom 5	Room Tom 5	Rock Tom 5	Funk Tom 5
44—G#2	Standard 1 Hi-hat Pedal	Standard 2 Hi-hat Pedal	Room Hi-hat Pedal	Rock Hi-hat Pedal	Funk Hi-hat Pedal
45—A2	Standard 1 Tom 4	Standard 2 Tom 4	Room Tom 4	Rock Tom 4	Funk Tom 4
46—A#2	Standard 1 Hi-hat Open	Standard 2 Hi-hat Open	Room Hi-hat Open	Rock Hi-hat Open	Funk Hi-hat Open
47—B2	Standard 1 Tom 3	Standard 2 Tom 3	Room Tom 3	Rock Tom 3	Funk Tom 3
48—C3	Standard 1 Tom 2	Standard 2 Tom 2	Room Tom 2	Rock Tom 2	Funk Tom 2
49—C#3	Standard 1 Crash 1	Standard 2 Crash 1	Room Crash 1	Rock Crash 1	Funk Crash 1
50—D3	Standard 1 Tom 1	Standard 2 Tom 1	Room Tom 1	Rock Tom 1	Funk Tom 1
51—D#3	Standard 1 Ride	Standard 2 Ride	Room Ride	Rock Ride	Funk Ride
52—E3	Chinese Cymbal 1	<-	<-	<-	<-
53—F3	Ride Bell	<-	Room Ride Bell	Rock Ride Bell	<-
54—F#3	Tambourine	<-	<-	<-	<-
55—G3	Splash Cymbal	<-	Room Splash Cymbal	Rock Splash Cymbal	<-
56—G#3	Standard 1 Cowbell	Standard 2 Cowbell	Room Cowbell	Rock Cowbell	<-
57—A3	Standard 1 Crash 2	Standard 2 Crash 2	Room Crash 2	Rock Crash 2	Funk Crash 2
58—A#3	Vibra-slap	<-	<-	<-	<-
59—B3	Ride Cymbal	<-	<-	<-	<-
60—C4	Hi Bongo	<-	<-	<-	<-
61—C#4	Low Bongo	<-	<-	<-	<-
62—D4	Mute Hi Conga	<-	<-	<-	<-
63—D#4	Open Hi Conga	<-	<-	<-	<-
64—E4	Low Conga	<-	<-	<-	<-
65—F4	High Timbale	<-	<-	<-	<-
66—F#4	Low Timbale	<-	<-	<-	<-
67—G4	High Agogo	<-	<-	<-	<-
68—G#4	Low Agogo	<-	<-	<-	<-
69—A4	Cabasa	<-	<-	<-	<-
70—A#4	Maracas	<-	<-	<-	<-
71—B4	Short Whistle	<-	<-	<-	<-
72—C5	Long Whistle	<-	<-	<-	<-
73—C#5	Short Guiro	<-	<-	<-	<-
74—D5	Long Guiro	<-	<-	<-	<-
75—D#5	Claves	<-	<-	<-	<-
76—E5	Hi Wood Block	<-	<-	<-	<-
77—F5	Low Wood Block	<-	<-	<-	<-
78—F#5	Mute Cuica	<-	<-	<-	<-
79—G5	Open Cuica	<-	<-	<-	<-
80—G#5	Mute Triangle	<-	<-	<-	<-
81—A5	Open Triangle	<-	<-	<-	<-
82—A#5	Shaker	<-	<-	<-	<-
83—B5	Jingle Bell	<-	<-	<-	<-
84—C6	Bell Tree	<-	<-	<-	<-
85—C#6	Castanets	<-	<-	<-	<-
86—D6	Mute Surdo	<-	<-	<-	<-
87—D#6	Open Surdo	<-	<-	<-	<-

GM Drum Kit List

NET NO.	**Electronic** (**bank** 24)	808 (**bank** 25)	**House** (**bank** 28)	**Jazz** (**bank** 32)	**Brush** (**bank** 40)
27—D#1	<-	<-	<-	<-	<-
28—E1	<-	<-	<-	<-	<-
29—F1	<-	<-	<-	<-	<-
30—F#1	<-	<-	<-	<-	<-
31—G1	<-	<-	<-	<-	<-
32—G#1	<-	<-	<-	<-	<-
33—A1	<-	<-	<-	<-	<-
34—A#1	<-	<-	<-	<-	<-
35—B1	Electronic Bass Drum 1	808 Bass Drum 1	House Bass Drum 1	Jazz Bass Drum 1	Brush Bass Drum 1
36—C2	Electronic Bass Drum 2	808 Bass Drum 2	House Bass Drum 2	Jazz Bass Drum 2	Brush Bass Drum 2
37—C#2	<-	<-	<-	<-	<-
38—D2	Electronic Snare	808 Snare	House Snare	Jazz Snare	Brush Snare
39—D#2	<-	<-	House Hand Clap	<-	<-
40—E2	Electronic Snare Rim	808 Snare Rim	House Snare Rim	Jazz Snare Rim	Brush Snare Rim
41—F2	Electronic Tom 6	808 Tom 6	House Tom 6	Jazz Tom 6	Brush Tom 6
42—F#2	Electronic Hi-hat Close	808 Hi-hat Close	House Hi-hat Close	Jazz Hi-hat Close	<-
43—G2	Electronic Tom 5	808 Tom 5	House Tom 5	Jazz Tom 5	Brush Tom 5
44—G#2	Electronic Hi-hat Pedal	808 Hi-hat Pedal	House Hi-hat Pedal	Jazz Hi-hat Pedal	<-
45—A2	Electronic Tom 4	808 Tom 4	House Tom 4	Jazz Tom 4	Brush Tom 4
46—A#2	Electronic Hi-hat Open	808 Hi-hat Open	House Hi-hat Open	Jazz Hi-hat Open	<-
47—B2	Electronic Tom 3	808 Tom 3	House Tom 3	Jazz Tom 3	Brush Tom 3
48—C3	Electronic Tom 2	808 Tom 2	House Tom 2	Jazz Tom 2	Brush Tom 2
49—C#3	<-	808 Crash 1	<-	<-	Brush Crash 1
50—D3	Electronic Tom 1	808 Tom 1	House Tom 1	Jazz Tom 1	Brush Tom 1
51—D#3	<-	<-	<-	Jazz Ride	Brush Ride
52—E3	<-	<-	<-	<-	<-
53—F3	<-	<-	<-	<-	<-
54—F#3	<-	<-	<-	<-	<-
55—G3	<-	<-	<-	<-	<-
56—G#3	<-	<-	<-	<-	<-
57—A3	<-	808 Crash 2	<-	ChineseCymbal 2	Brush Crash 2
58—A#3	<-	<-	<-	<-	<-
59—B3	<-	<-	<-	<-	<-
60—C4	<-	<-	<-	<-	<-
61—C#4	<-	<-	<-	<-	<-
62—D4	<-	808 Mute Hi Conga	<-	<-	<-
63—D#4	<-	808 Open Hi Conga	<-	<-	<-
64—E4	<-	808 Low Conga	<-	<-	<-
65—F4	<-	<-	<-	<-	<-
66—F#4	<-	<-	<-	<-	<-
67—G4	<-	<-	<-	<-	<-
68—G#4	<-	<-	<-	<-	<-
69—A4	<-	<-	<-	<-	<-
70—A#4	<-	808 Maracas	<-	<-	<-
71—B4	<-	<-	<-	<-	<-
72—C5	<-	<-	<-	<-	<-
73—C#5	<-	<-	<-	<-	<-
74—D5	<-	<-	<-	<-	<-
75—D#5	<-	808 Claves	<-	<-	<-
76—E5	<-	<-	<-	<-	<-
77—F5	<-	<-	<-	<-	<-
78—F#5	<-	<-	<-	<-	<-
79—G5	<-	<-	<-	<-	<-
80—G#5	<-	<-	<-	<-	<-
81—A5	<-	<-	<-	<-	<-
82—A#5	<-	<-	<-	<-	<-
83—B5	<-	<-	<-	<-	<-
84—C6	<-	<-	<-	<-	<-
85—C#6	<-	<-	<-	<-	<-
86—D6	<-	<-	<-	<-	<-
87—D#6	<-	<-	<-	<-	<-

MIDI Implementation Chart

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

O : YES
X : NO