

# Digital Drum Owner's Manual

# INFORMATION FOR YOUR SAFETY!

## THE FCC REGULATION WARNING (for USA)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

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

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

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

### CAUTION

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

## PRECAUTIONS

### PLEASE READ CAREFULLY BEFORE PROCEEDING

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

#### Power Supply

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

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

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

#### Connections

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

#### Location

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

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

#### Interference with other electrical devices

Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

#### Cleaning

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

#### Handling

Do not apply excessive force to the switches or controls.

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

Disconnect all cables before moving the instrument.

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# Main Features

## **A Richer Sound Bank with Realistic Sound Effects:**

This product contains 310 sounds. You can also add sounds from computer conveniently through corresponding software, which is specially designed to enrich your performance.

This product is equipped with more expressive sound effects to make your performance realistic and subtle.

## **A Huge Music Library Meeting the Needs of Practicing and Performing Different Music Styles:**

120 preset songs cover a large scale of music styles, which cater to your various performing needs.

4 independent buttons enable you to control every sound track easily.

## **Learning, Hand Percussion, Left-Right Exchange—Powerful Functions with Convenient Entries:**

Learning mode can improve your practice with special function.

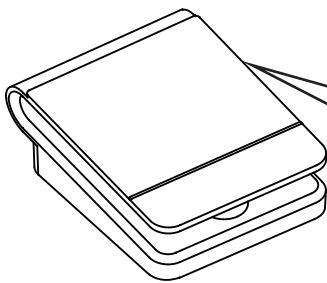
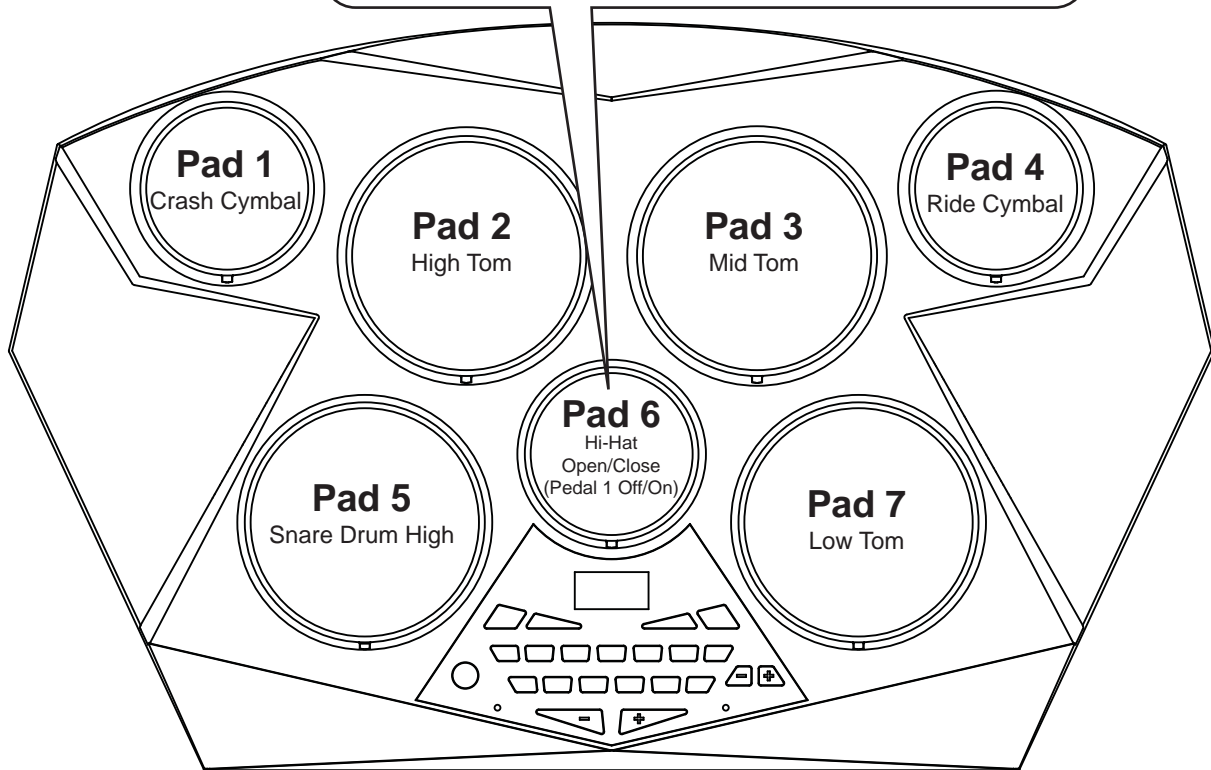
Hand percussion mode can make you a percussive generalist.

Left-Right exchange is tailored to meet the need of left-handed drummer.

# Panel Description

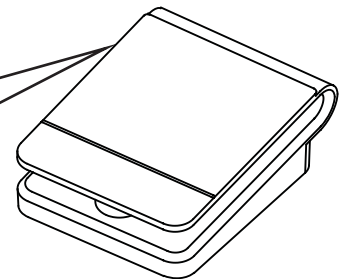
## Pad (Default):

A Hi-Hat sound is assigned to the Pad 6. Striking the Pad 6 while pressing on Pedal 1 produces a closed Hi-Hat sound. Striking the pad without pressing the pedal produces an open Hi-Hat sound.



**Pedal 1**  
Hi-Hat Pedal

The bass drum voice is controlled by pressing Pedal 2. Use Pedal 1 to control the Hi-Hat.



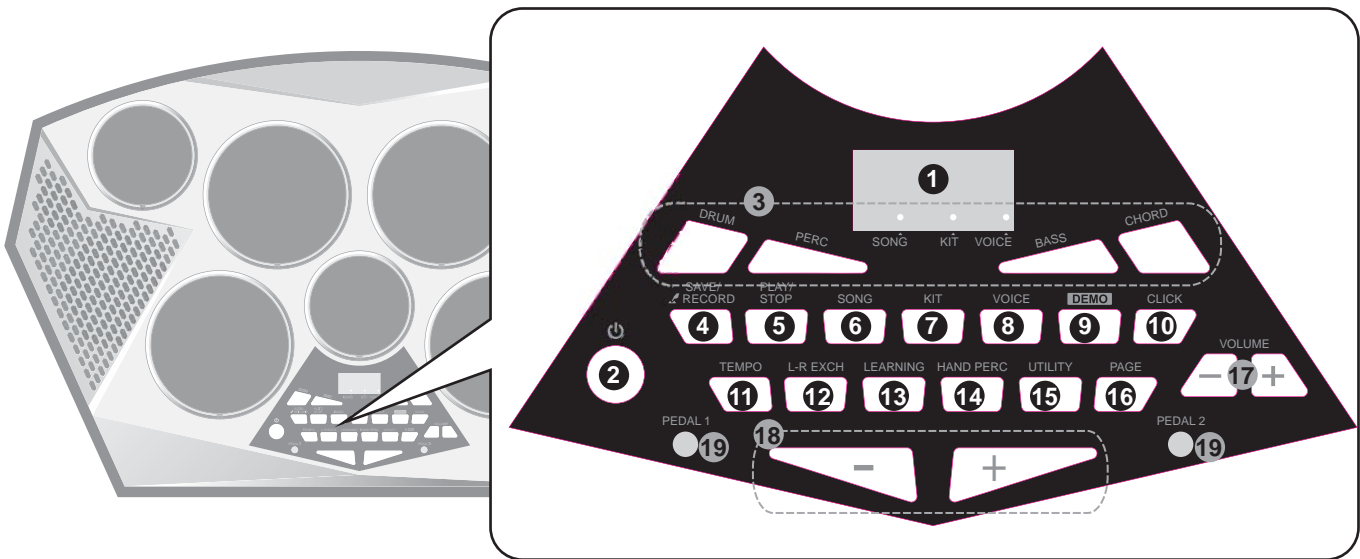
**Pedal 2**  
Bass Drum

### TIPS:

1. Each pad has a LED indicator. When hitting a pad, playing DEMO or under learning mode, the corresponding pad indicator(s) will be lighted.
2. Two pedal is attached to this product, which are Hi-hat pedal (PEDAL 1) and bass drum pedal (PEDAL 2) by default.

# Panel Description

## Top Panel



### 1. 3-Digital-LED Display

Display current mode and parameter.

### 2. [Power]

Press the button to turn the power on/off.

### 3. Song Track Switches

Mute or play 4 track respectively when playing a song. The button indicator will be lighted.

#### [DRUM]

Mute/play the drum track of a song. Light on means play this track, light off means mute this track.

#### [PERC]

Mute/play the percussion track of a song. Light on means play this track, light off means mute this track.

#### [BASS]

Mute/play the bass track of a song. Light on means play this track, light off means mute this track.

#### [CHORD]

Mute/play the chord track of a song. Light on means play this track, light off means mute this track.

### 4. [SAVE/RECORD]

This button is used to save the current kit settings in a user kit.

Press and hold the button for 1 second to enter record menu. The button indicator will be lighted.

### 5. [PLAY/STOP]

Play/stop a song.

### 6. [SONG]

Press the button to enter song menu.

### 7. [KIT]

Press the button to enter kit menu.

### 8. [VOICE]

Press the button to enter voice menu.

### 9. [DEMO]

Press the button to play or stop demo.

### 10. [CLICK]

Press the button to start or stop the click, and enter click menu. The button indicator will be lighted.

### 11. [TEMPO]

Press the button to enter tempo menu.

### 12. [L-R EXCH]

Press the button to exchange the voices between pads on opposite positions. The button indicator will be lighted.

### 13. [LEARNING]

Press the button to enter learning mode. The button indicator will be lighted.

### 14. [HAND PERC]

Press the button to enter hand percussion mode.

### 15. [UTILITY]

Press the button to enter utility menu. The button indicator will be lighted. You can adjust the parameters of EQ and pad start.

### 16. [PAGE]

Press the button to turn a page in menus.

### 17. [VOLUME+] / [VOLUME-]

Press to adjust global volume. Hold down to change the volume faster.

### 18. [+]/ [-]

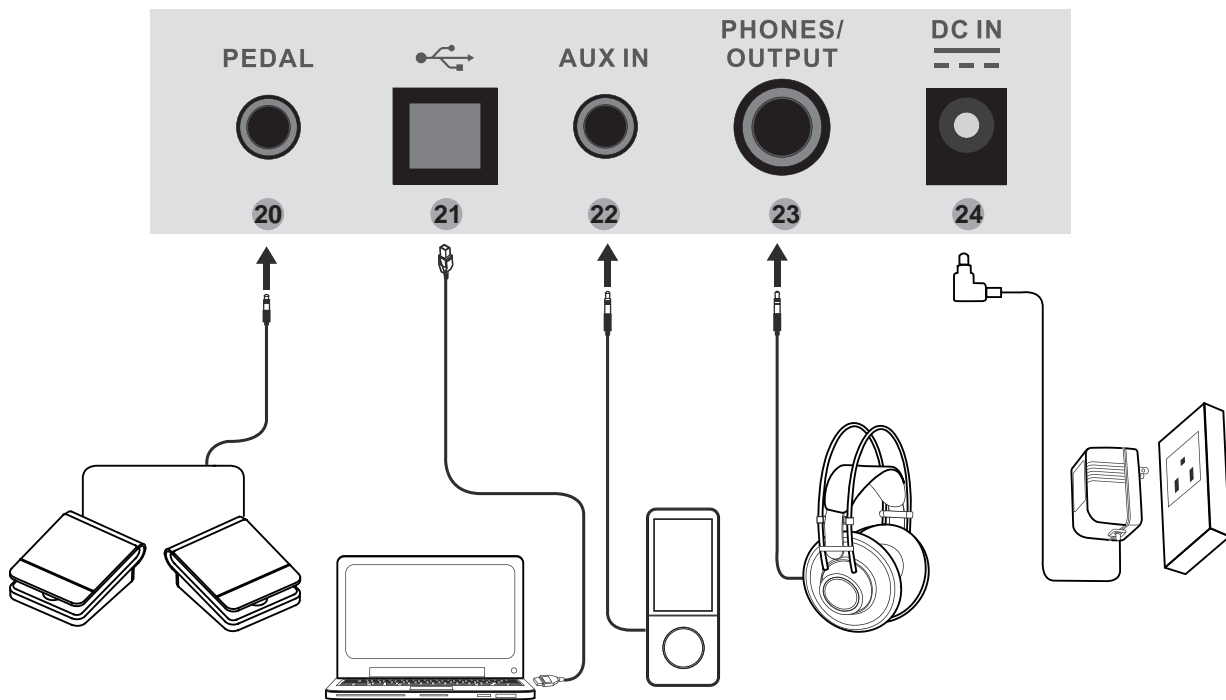
Press to adjust parameters.

### 19. PEDAL Indicators

Kick pedal and hi-hat pedal indicators.

## Real Panel:

---



**20. [PEDAL] JACK**  
Connect to Pedals.

**21. [USB] JACK**  
Connect to a PC.

**22. [AUX IN] JACK**  
Connect to other Aux Out device.

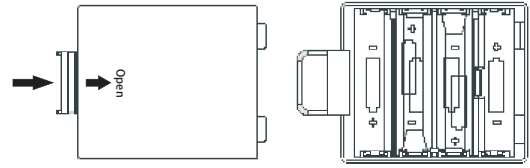
**23. [PHONES/OUTPUT] JACK**  
Connect to external AMP or phones.

**24. [DC IN] JACK**  
Connect to the attached AC adaptor.

# Prepare To Play

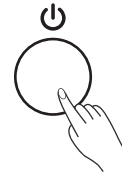
## Battery

You can connect attached AC Adaptor or you can also install 6 batteries (Sum-2,R 14, "C" size or equiv) as Picture.



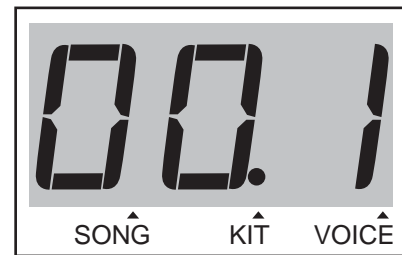
## Power On

Press the [Power] button to turn the power on. LED Display and 4 song track switches light. You can find the current mode and parameter on LED Display.



## Power Off

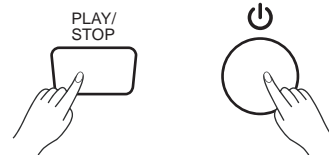
Press the [Power] button to turn the power off. LED Display and 4 song track switches are turned off.



## Auto Power Off

In order to save energy, we have designed the "Automatic Shutdown" function. With this function, this product will shutdown automatically when you have left it idle for more than 30 minutes.

If you don't need this function, just press and hold the [PLAY/STOP] button then turn the drum on.





# Choosing a Kit and Assigning a Pad

## Choosing a Kit

This product contains 65 kits, including 55 preset kits and 10 user kits.

1. Press [KIT], LED Display will indicate a point between the second and third number, which means kit mode is on.
2. In kit mode, LED Display will indicate the sequence number of current kit. (1-55, U01~U10) Press [+] or [-] to choose a kit.

## Choosing a Voice

This product contains 310 voices. Besides, you can also download voices from a computer through corresponding software. You can download 99 voices at most.

1. Press [VOICE], LED Display will indicate a point on the right of the third number, which means voice mode is on.
2. In voice mode, hit the pad you want to edit, then the corresponding indicator is lighted, which means the pad is chosen.
3. LED Display will indicate the related parameter of a voice. Press [+] or [-] to adjust a parameter. Press [PAGE] to choose menus. You can find further details in the following table:

### \* Note:

The LCD may display "---" after you have download new wave samples to module, it means you have to reassign an available sample number of specified pad.

For example:

1. There are five user wave samples: U001, U002, U003, U004, and U005.
2. And we have assigned the U003 sample to snare pad.
3. Now, you are downloading new user samples to your module. Let's suppose that you are downloading two samples to your module.
4. All downloaded samples will cover previous user samples of pad. So, you can only select the new user snare pad sample from U001 and U002, and the previous U003 does not exist now.
5. The LCD displays "---" temporarily, you have to refresh new wave samples and reassign snare pad as U001 or U002.

## Saving a Kit

1. Press [SAVE/RECORD], LED Display will indicate "U01" and blink, which means save to user kit 1.
2. Press [+] or [-] to choose a place to save current kit.
3. Press [SAVE/RECORD] again to confirm. LED Display will stop blinking.

### Note:

The current kit will be lost if you enter other modes or preset kits before saving it.



Menu	The Range of parameter	Display
Voice	1-310, U1~U99*	128
Volume	0-16	L12
Pan	-8-+8	P02
Reverb	0-3	r02
Tune	-8-+8	t-2
MIDI NOTE	0-99	n12



# Choosing and Playing a Song

## Choosing a Song

This product contains 120 preset songs. Besides, you can also download songs of MIDI format from a computer through corresponding software. You can download 5 songs at most. (Please refer to <Downloading From a Computer>)

1. Press [SONG], LED Display will indicate a point between the first and second number, which means song mode is on.
2. In song mode, LED Display will indicate the sequence number of current song. (1-120) Press [+] or [-] to choose a song.

## Playing a Song

1. Press [PLAY/STOP] to play or stop a song. When playing a song, you can also press [+] or [-]. This product will start the new chosen song at the next measure.
2. When playing a song, press [CLICK] to start or stop the click.
3. When playing a song, 3 points on LED Display will blink at the same speed of the song. All points will be lighted when the song was in the first beat.
4. Press [TEMPO] to enter tempo menu. LED Display will indicate the current tempo. Press [+] or [-] to change tempo (30-280). Press [+] and [-] simultaneously to restore default tempo. You can press other button to exit tempo menu, or LED Display will turn back to the previous menu if there is no operation in 3 seconds.

## Song Track Switches

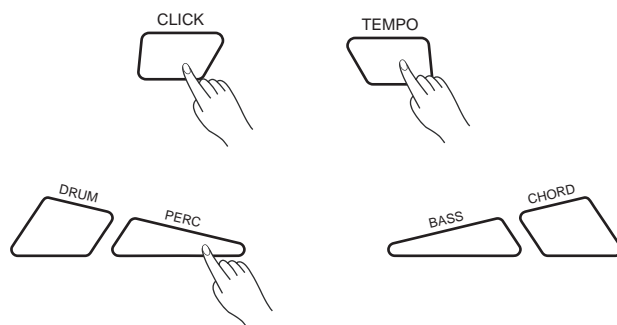
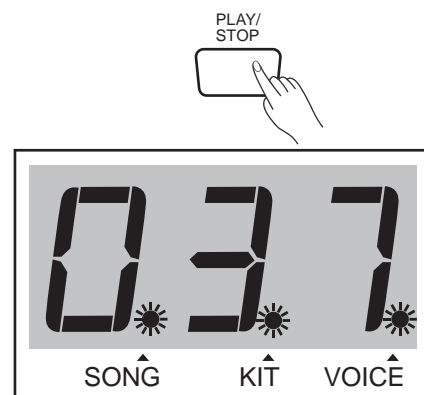
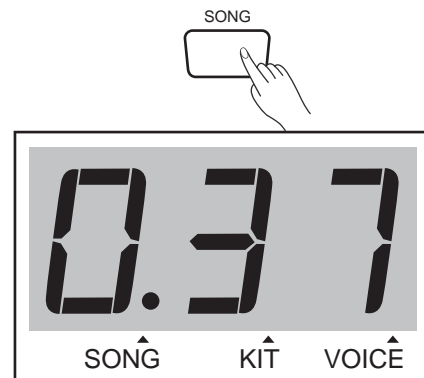
1. You can play/stop drum, percussion, bass and chord tracks respectively through [DRUM], [PERC], [BASS] and [CHORD].
2. Press one or any of these buttons to mute related tracks. Corresponding lights will be off.
3. Press the button whose light is off, This product will play the corresponding track again, and the light will be turned on.

**TIPS:** Song Track Switches are only useful to songs playing. Demo is not included.

## Learning Mode

Learning mode is design to provide an easy way for you to practice grooves of different styles. When playing a song, press [LEARNING]. The drum track will be muted. Meanwhile, the pad Indicators will blink when the drum part should be played in the song. You can practice this groove with the help of these indicators.

**TIPS:** Low speed and repeated practice will make your learning more effective.



## Starting and Stopping the Click

Press [CLICK] to start the click. CLICK button will blink at the same speed of the click.

Press [CLICK] again to stop the click.



## Setting the Click

1. Press [CLICK] to start the click. Meanwhile, the LED Display will enter click menu.

2. Press [+] or [-] to adjust a parameter. Press [PAGE] to choose menus.

You can find further details in the right table:

## Adjusting Tempo

Press [TEMPO] to enter tempo menu. LED Display will indicate the current tempo.

Press [+] or [-] to change tempo (30-280). Press [+] and [-] simultaneously to restore default tempo.

You can press other button to exit tempo menu, or LED Display will turn back to the previous menu if there is no operation in 3 seconds.

Menu	The Range of parameter	Display
Beat	1-9	6-4
Rhythm	2 (half-notes)	6-8
Type	4 (quarter notes)	
	8 (eighth notes)	
	3 (eighth note triplets)	
	16 (sixteen notes)	
Volume	0-16	L 12
Voice	1-6	L 04

# Recording

## Entering Recording Mode

1. Hold down [SAVE/RECORD], LED Display will indicate "rEC", which means recording mode is on.
2. Press [PAGE] to choose menus. Press [+] or [-] to adjust a parameter. You can find further details in the following table:

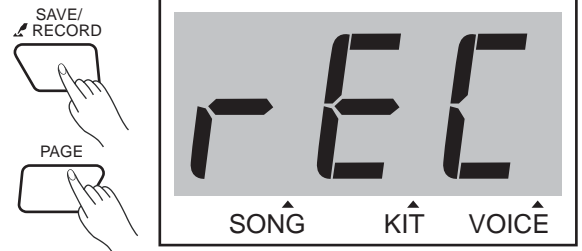
Menu	The Range of parameter	Display	Notes
UserSong	U01~U05	U02	
Kit	1-55,U01-10	002	
Song	--- ,1-120	055	Choose the song you want to record with. "---"means record without songs.
Beat	1-9	6-4	This menu will be skipped if song is not ---.
Rythm Type	2 (half-notes) 4 (quarter notes) 8 (eighth notes) 3 (eighth note triplets) 16 (sixteen notes)	6-8	This menu will be skipped if song is not ---.
Tempo	30-280	120	

## Recording

1. Under the recording mode, press [PLAY/STOP] or hit any pad to start recording. LED Display will indicate the measure number and 3 points on LED Display will blink at the tempo you've set.
2. Press [PLAY/STOP] again to stop recording.

### Note:

LED Display will indicate "FUL" and return to other mode if the memory of module is full. You can record about 6500 hits at most.

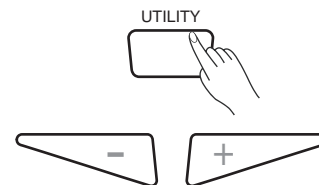


# Utility

Press [UTILITY], LED Display will indicate the parameter of current menu.  
Press [+] or [-] to adjust a parameter. Press [PAGE] to choose menus.  
You can find further details in the right table:

### Note:

Pad Start allows you hit a pad to start a song. "PoN" means this function is on. "PoF" means this function is off. Press [PLAY/STOP] to stop a song.



Menu	The Range of parameter	Display
EQ High	0-8	EH3
EQ Middle	0-8	Ed7
EQ Low	0-8	EL4
Pad Start	PoN/PoF	PoF

## DEMO

DEMO is designed to display this product's sound features.

1. Press [DEMO] to play demo. LED Display will indicate "dE". 3 points on LED Display will blink at the same speed of the demo. Meanwhile, the pad indicators will blink when the drum part should be played in the song.
2. Press [DEMO] or [PLAY/STOP] to stop .

## Left-Right Exchange

Left-Right Exchange is specially designed for left-handed drummer. Through this button, you can easily exchange between right-handed mode and left-handed mode.

1. Press [L-R EXCH] to exchange the preset kit voices between pads on opposite positions automatically. Meanwhile, the button light will be on, which means left-handed mode is ready.
2. Press [L-R EXCH] again to restore right-handed mode.

## Hand Percussion

Hand percussion function provide an easy entry to hand percussion mode.

1. Press [HAND PERC] to start hand percussion mode. The current kit will be changed to hand percussion kit. Sensitivity will be higher while velocity will be lower which is fit for hand playing.
2. Press [HAND PERC] again to exit hand percussion mode.

### Notes:

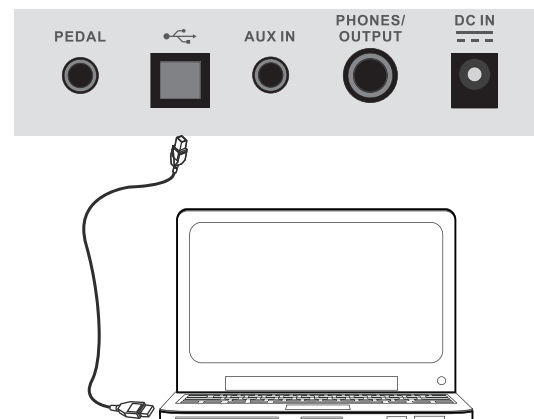
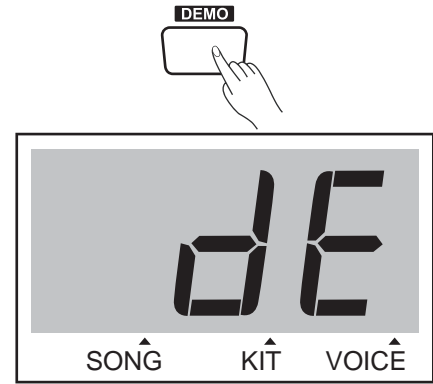
In this mode, you can choose kit 23, 24, 48 as hand percussion kit and song 94, 96 to play with.

## MIDI Connection

You can connect this product to a PC through a USB cable. The USB connector allows you to connect the digital drum directly to your computer. It can be connected without installing a driver in Windows and MAC OSX environments. The digital drum will be recognized as a "USB Audio device" to receive and transmit MIDI messages through a single USB cable.

### Note:

Compatible USB connector: USB 3.0, USB 2.0 full speed and USB high speed.



# Software Downloading

## MIDI Songs Downloading

There are 20 preset songs plus 5 user songs on this portable drum. End user can download 5 Midi songs with MIDI format 0 from PC via the software 'Song Transfer'.

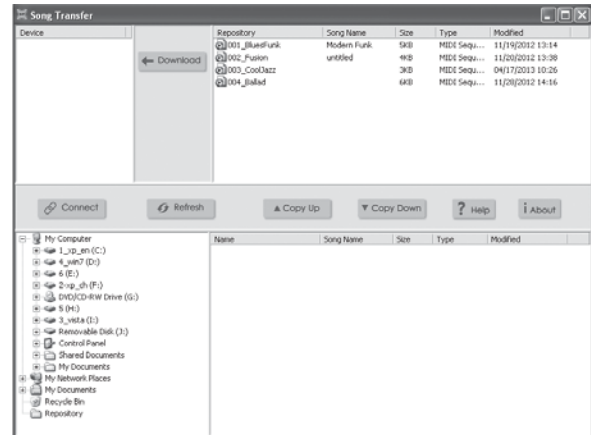
Get ready with your PC, software of 'Song Transfer' and USB cable (A-B type) to download user songs from PC.

1. Click at [www.mecldata.com/download/apps](http://www.mecldata.com/download/apps) for downloading 'Song Transfer'.
2. Install and open 'Song Transfer' on your PC.
3. Connect PC and the portable drum via USB cable (A-B type)
4. Download MIDI songs from PC via 'Song Transfer'.

\*For more details, please refer to HELP of 'Song Transfer'

### Remarks:

- Support Window XP, Window 7 32/64 bit, Window 8 32/64 bit.
- The filename extension must be '\*\*\*.mid'.
- Support SMF 0 MIDI file only and its PPQN should be 120.
- Capacity per MIDI file must be less than 20KB.
- The download song only can be saved in one of user song 1~5.
- The new download song will replace the one you want to omit.



## Wave Samples Downloading

Get ready with your PC, software of 'Drum Wave Maker' and USB cable (A-B type) to download waves files from PC.

1. Click at [www.mecldata.com/download/apps](http://www.mecldata.com/download/apps) for downloading 'Drum Wave Maker'.
2. Install and open 'Drum Wave Maker' on your PC.
3. Connect PC and the portable drum via USB cable (A-B type)
4. Download wave files from PC via 'Drum Wave Maker'.

\*For more details, please refer to HELP of 'Drum Wave Maker'

### Remarks:

- Support Window XP, Window 7 32/64 bit, Window 8 32/64 bit.
- The filename extension must be '\*\*\*.wav'.
- Support 8bit/16bit, 11.025k~22.05k~32k~44.1k~48k, mono/stereo wave.
- The maximum capacity of the wave group for downloading must be less than 16MByte.
- Maximum number of wave files for downloading is 99 only.



# Troubleshooting

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

# Prompt Messages

<b>Parameter</b>	<b>Meaning</b>
NoP	The module was busy with initialize and it can't response your operation temporarily.
---	It means the voice you selected was not exist.
NUL	The user song was empty.
FUL	The user song was full when recording.

# Specifications

## **Pads**

7 Drum Pads with Touch Sensitive

## **Drum Voices**

310 Drum Voices

## **Drum Kits**

55 Preset + 10 Custom

## **Songs**

120

## **Demo Song**

1

## **Panel Controls**

POWER ON/OFF, MASTER VOLUME +/-, TEMPO, PAGE +/-, UTILITY, SONG, VOICE, KIT, LEARNING, HAND PERC, SAVE/RECORD, PLAY/STOP, CLICK, L-R EXCH, DEMO, TRACK(DRUM/PERC/BASS/CHORD)

## **Connectors**

PEDAL

USB Port

PHONES/OUTPUT

AUX IN

DC 12 V (AC Adaptor)

## **Power Source**

Six "C" size, SUM-2, R14, or equivalent batteries

DC 12V adaptor, center positive type

## **Dimensions**

618(L) x 383(W) x 130(H) mm

## **Weight**

3.38kg

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



# Voice List

No.	Full Name	No.	Full Name	No.	Full Name	No.	Full Name
<b>KICK</b>		54	Techno Snare Rim	109	Lo-Fi Tom 4	162	808 Hi-hat Close
1	22" Acoustic Kick	55	Magic Snare	110	Lo-Fi Tom 5	163	808 Hi-hat Open
2	24" Standard Kick	56	Acoustic Snare Stick	111	Lo-Fi Tom 6	164	808 Hi-hat Pedal
3	Brush Kick	57	Standard Snare Stick	112	Junkyard Tom 1	165	808 Hi-hat Splash
4	Rock Kick	58	Brush Snare Stick	113	Junkyard Tom 2	166	909 Hi-hat Close
5	Jazz Kick	59	Rock Snare Stick	114	Junkyard Tom 3	167	909 Hi-hat Open
6	Room Kick	60	Live Snare Stick	115	Junkyard Tom 4	168	909 Hi-hat Pedal
7	Fusion Kick	61	Room Snare Stick	116	Junkyard Tom 5	169	909 Hi-hat Splash
8	1970's Kick	62	Fusion Snare Stick	117	Junkyard Tom 6	170	Dance Hi-hat Close
9	Vintage Kick	63	Brush Swirl	118	Noise Tom 1	171	Dance Hi-hat Open
10	HipHop Kick	<b>Tom</b>		119	Noise Tom 2	172	Dance Hi-hat Pedal
11	Reggae Kick	64	Acoustic Tom 1	120	Noise Tom 3	173	Dance Hi-hat Splash
12	Old School Kick	65	Acoustic Tom 2	121	Noise Tom 4	174	Lo-Fi Hi-hat Close
13	Lo-Fi Kick	66	Acoustic Tom 3	122	Noise Tom 5	175	Lo-Fi Hi-hat Open
14	Junkyard Kick	67	Acoustic Tom 4	123	Noise Tom 6	176	Lo-Fi Hi-hat Edge
15	Noise Kick	68	Acoustic Tom 5	124	Techno Tom 1	177	Lo-Fi Hi-hat Pedal
16	Drum & Bass Kick	69	Acoustic Tom 6	125	Techno Tom 2	178	Lo-Fi Hi-hat Splash
17	808 Kick	70	Brush Tom 1	126	Techno Tom 3	<b>PERCUSSION 1</b>	
18	909 Kick	71	Brush Tom 2	127	Techno Tom 4	179	Nan Bang
19	Electronic Kick 1	72	Brush Tom 3	128	Techno Tom 5	180	Da Mu Yu
20	Dance Kick	73	Brush Tom 4	129	Techno Tom 6	181	Xiao Bo
21	FX Mix Kick	74	Brush Tom 5	130	Magic Tom 1	182	Xiao Luo
22	Techno Kick	75	Brush Tom 6	131	Magic Tom 2	183	Peng Lin
23	Electronic Kick 2	76	Jazz Tom 1	132	Magic Tom 3	184	Maracas
24	Magic Kick	77	Jazz Tom 2	133	Magic Tom 4	185	Metronome Bell
<b>SNARE</b>		78	Jazz Tom 3	<b>Ride</b>		186	Vibra-slap
25	14" Acoustic Snare	79	Jazz Tom 4	134	20" Funk Ride	187	Synthesis Percussion
26	14" Standard Snare	80	Jazz Tom 5	135	808 Ride	188	High Q
27	14" Funk Snare	81	Jazz Tom 6	136	Ride	189	Low Q
28	Brush Snare	82	808 Tom 1	137	House Ride	190	Mute Hi Conga
29	14" Jazz Snare	83	808 Tom 2	138	Lo-Fi Ride	191	Open Hi Conga
30	14" Rock Snare	84	808 Tom 3	139	Junkyard Ride	192	Low Conga
31	13" Damped Snare	85	808 Tom 4	140	Noise Ride	193	High Bongo
32	Orchestra Snare	86	808 Tom 5	<b>Crash</b>		194	Low Bongo
33	Orchestra Snare Rim	87	808 Tom 6	141	16" Acoustic Crash	195	High Agogo
34	Room Snare	88	909 Tom 1	142	16" Acoustic Crash Edge	196	Low Agogo
35	Fusion Snare	89	909 Tom 2	143	16" Rock Crash	197	Claves
36	Big Band Snare	90	909 Tom 3	144	16" Rock Crash Edge	198	Jingle Bell
37	Vintage Snare	91	909 Tom 4	145	808Crash	199	Cowbell
38	Live Snare	92	909 Tom 5	146	909Crash	200	Tambourine
39	Reggae Snare	93	909 Tom 6	147	Electronic Crash	201	Cabasa
40	R&B Snare 1	94	Electronic Tom 1	148	Brush Crash	202	Long Guiro
41	808 Snare	95	Electronic Tom 2	149	Lo-Fi Crash	203	Short Guiro
42	909 Snare	96	Electronic Tom 3	150	China	204	Marimba C3
43	R&B Snare 2	97	Electronic Tom 4	151	Splash	205	Marimba Db3
44	Electronic Snare	98	Electronic Tom 5	<b>Hihat</b>		206	Marimba D3
45	Power Snare	99	Electronic Tom 6	152	14" Acoustic Hi-hat Close	207	Marimba Eb3
46	Dance Snare	100	Power Tom 1	153	14" Acoustic Hi-hat Open	208	Marimba E3
47	Old School Snare	101	Power Tom 2	154	14" Acoustic Hi-hat Edge Close	209	Marimba F3
48	House Snare	102	Power Tom 3	155	14" Acoustic Hi-hat Edge Open	210	Marimba Gb3
49	Lo-Fi Snare	103	Power Tom 4	156	14" Acoustic Hi-hat Pedal	211	Marimba G3
50	Junkyard Snare	104	Power Tom 5	157	14" Acoustic Hi-hat Splash	212	Marimba Ab3
51	Noise Snare	105	Power Tom 6	158	Rock Hi-hat Close	213	Marimba A3
52	Drum & Bass Snare	106	Lo-Fi Tom 1	159	Rock Hi-hat Open	214	Marimba Bb3
53	Techno Snare	107	Lo-Fi Tom 2	160	Fusion Hi-hat Close	215	Marimba B3
		108	Lo-Fi Tom 3	161	Fusion Hi-hat Open	216	Marimba C4

# Voice List

217	Marimba Db4
218	Marimba D4
219	Marimba Eb4
220	Marimba E4
221	Marimba F4
222	Marimba Gb4
223	Marimba G4
224	Marimba Ab4
225	Marimba A4
226	Marimba Bb4
227	Marimba B4
228	Marimba C5
229	Marimba Db5
230	Marimba D5
231	Marimba Eb5
232	Marimba E5
233	Marimba F5
234	Marimba Gb5
235	Marimba G5
236	Marimba Ab5
237	Marimba A5
238	Marimba Bb5
239	Marimba B5
240	Marimba C6
241	African 1
242	African 2
243	African 3
244	African 4
245	Indian 1
246	Indian 2
247	Indian 3
248	Indian 4
249	Vibraphone C3
250	Vibraphone Db3
251	Vibraphone D3
252	Vibraphone Eb3
253	Vibraphone E3
254	Vibraphone F3
255	Vibraphone Gb3
256	Vibraphone G3
257	Vibraphone Ab3
258	Vibraphone A3
259	Vibraphone Bb3
260	Vibraphone B3
261	Vibraphone C4
262	Vibraphone Db4
263	Vibraphone D4
264	Vibraphone Eb4
265	Vibraphone E4
266	Vibraphone F4
267	Vibraphone Gb4
268	Vibraphone G4
269	Vibraphone Ab4
270	Vibraphone A4
271	Vibraphone Bb4
272	Vibraphone B4
273	Vibraphone C5
274	Vibraphone Db5
275	Vibraphone D5
276	Vibraphone Eb5
277	Vibraphone E5
278	Vibraphone F5
279	Vibraphone Gb5
280	Vibraphone G5
281	Vibraphone Ab5
282	Vibraphone A5
283	Vibraphone Bb5
284	Vibraphone B5
285	Vibraphone C6
286	Orchestra Timp C2
287	Orchestra Timp Db2
288	Orchestra Timp D2
289	Orchestra Timp Eb2
290	Orchestra Timp E2
291	Orchestra Timp F2
292	Orchestra Timp Gb2
293	Orchestra Timp G2
294	Orchestra Timp Ab2
295	Orchestra Timp A2
296	Orchestra Timp Bb2
297	Orchestra Timp B2
298	Orchestra Timp C3
299	Orchestra Timp Db3
300	Orchestra Timp D3
301	Orchestra Timp Eb3
302	Orchestra Timp E3
303	Orchestra Timp F3
304	Orchestra Timp Gb3
305	Orchestra Timp G3
306	Orchestra Timp Ab3
307	Orchestra Timp A3
308	Orchestra Timp Bb3
309	Orchestra Timp B3
310	Orchestra Timp C4

NO.	Preset
1	Standard 1
2	Standard 2
3	Standard 3
4	Standard 4
5	Standard 5
6	Hard Rock 1
7	Hard Rock 2
8	Ballad 1
9	Ballad 2
10	Ballad 3
11	Acoustic 1
12	Funk Band
13	Funk 1
14	Jazz Brush
15	Dacne
16	Rock
17	Jazz
18	808
19	909
20	Funk 2
21	Latin
22	Room
23	Marimba
24	Percussion 1
25	Metal
26	Vibraphone
27	Electronic
28	Reggae
29	Fusion 1
30	Drum & Bass
31	Pop
32	Brush
33	World
34	Orchestra
35	Ska
36	Songo
37	Lo-Fi
38	1970's
39	HipHop
40	Big Band
41	Old School
42	R&B
43	Magic
44	Live
45	House
46	Jazz Latin
47	Fusion 2
48	Percussion 2
49	Techno
50	Vintage
51	Junkyard
52	Acoustic 2
53	Noise
54	Studio 1
55	Studio 2

NO.	User
U01	Standard 1
U02	Standard 2
U03	Standard 3
U04	Standard 4
U05	Standard 5
U06	Hard Rock 1
U07	Hard Rock 2
U08	Ballad 1
U09	Ballad 2
U10	Ballad 3

# Song List

No.	Name
<b>Funk</b>	
1	BluesFunk
2	NuJazzFunk
3	funk1
4	funk2
5	funk3
6	funk4
7	pop funk1
8	pop funk2
9	RetroFunk
<b>Fusion</b>	
10	Fusion1
11	Fusion2
12	Fusion3
13	Fusion4
14	Fusion5
15	Fusion6
<b>Jazz</b>	
16	CoolJazz
17	BigBand1
18	BigBand2
19	BigBand3
20	BigBand4
21	Swing
22	Bebop
23	3'4 jazz
24	Jazz
25	latin jazz1
26	latin jazz2
<b>Dance</b>	
27	Dance 1
28	DiscoHouse
29	Trance
30	TripHop
31	DrumNBass
32	BreakBeat1
33	Dancefunk
34	Hiphop
35	Dance2
36	D N'B1
37	D N'B2
38	Break beat2
<b>Rock</b>	
39	ClassicRock
40	HeavyRock
41	RockBallad
42	RockNRoll
43	Punk
44	Rock
45	80's Metal
46	Shuffle
47	60's rock
<b>Latin</b>	
48	Smaba1

49	BossaNova
50	Salsa
51	Ska
52	Raggae1
53	Raggae2
54	Raggae3
55	LatinRock1
56	LatinRock2
57	Mambo
58	Samba2
59	Latin pop
60	Gtr Bossa
61	LatinDance1
62	LatinDance2
<b>R&amp;B</b>	
63	R&B1
64	R&B2
65	JazzyFunk
66	Blues
<b>Country</b>	
67	Country
68	CountryPop
69	Country Blues
<b>Pop</b>	
70	Ballad1
71	BritPop
72	8BeatPop1
73	60'sPop
74	RetroDancePop
75	3-4Folk
76	8beatPop2
77	pop ballad
78	Ballad2
79	pop bossa
80	16beat dance
81	6'8ballad
82	pop shuffle
83	DancePop
84	16beat1
85	16beat2
86	16beat3
87	16beat4
88	16beat5
89	16beat6
90	16beat7
91	8 Beat 1
92	8 Beat 2
93	8 beat ballad 1
94	8 beat ballad 2
95	16 beat ballad 1
96	16 beat ballad 2
97	16 beat ballad 3
98	16 beat ballad 4
99	16 beat ballad 5
100	world

101	funk1
102	funk2
103	modern jazz
104	big band
105	swing
106	slow fusion
107	country
108	latinjazz
109	reggae
110	latin
111	boogie
112	disco
113	d n'b
114	metal
115	hardrock
116	8 beat 1
117	8 beat 2
118	16 beat 1
119	funk 3
120	funk 4

# GM Backing Instrument

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 Kit List

	Standard	Room	Jazz	Rock	Electric
Note#	PC# 00	PC# 04	PC# 08	PC# 16	PC# 24
Eb1[27]	High Q	<-	<-	<-	<-
E 1[28]	Slap	<-	<-	<-	<-
F 1[29]	Scratch Push	<-	<-	<-	<-
F#1[30]	Scratch Pull	<-	<-	<-	<-
G 1[31]	Sticks	<-	<-	<-	<-
G#1[32]	Square Click	<-	<-	<-	<-
A 1[33]	Metronome Click	<-	<-	<-	<-
Bb1[34]	Metronome Bell	<-	<-	<-	<-
B 1[35]	Acoustic Bass Drum	<-	<-	<-	<-
C 2[36]	Bass Drum 1	Room Kick	Jazz Kick 1	Rock Kick Drum	Electric Bass Drum
C#2[37]	Side Stick	<-	<-	<-	<-
D 2[38]	Acoustic Snare	Room Snare 1	Jazz Snare 1	Rock Snare Drum1	Electric Snare 1
Eb2[39]	Hand Clap	<-	<-	<-	<-
E 2[40]	Electric Snare	Room Snare 2	Jazz Snare 2	Rock Snare Drum2	Electric Snare 2
F 2[41]	Low Floor Tom	Room LowTom2	Jazz LowTom2	Rock LowTom2	Electric Low Tom 2
F#2[42]	Closed Hi-hat	<-	<-	<-	<-
G 2[43]	High Floor Tom	Room LowTom1	Jazz LowTom1	Rock LowTom1	Electric Low Tom 1
G#2[44]	Pedal Hi-hat	<-	<-	<-	<-
A 2[45]	Low Tom	Room MidTom2	Jazz MidTom2	Rock MidTom2	Electric Mid Tom 2
Bb2[46]	Open Hi-hat	<-	<-	<-	<-
B 2[47]	Low-Mid Tom	Room MidTom1	Jazz MidTom1	Rock MidTom1	Electric Mid Tom 1
C 3[48]	High Mid Tom	Room Hi Tom2	Jazz Hi Tom2	Rock HiTom2	Electric Hi Tom 2
C#3[49]	Crash Cymbal 1	<-	<-	<-	<-
D 3[50]	High Tom 1	Room Hi Tom1	Jazz Hi Tom1	Rock HiTom1	Electric Hi Tom 1
Eb3[51]	Ride Cymbal 1	<-	<-	<-	<-
E 3[52]	China Cymbal	<-	<-	<-	<-
F 3[53]	Ride Bell	<-	<-	<-	<-
F#3[54]	Tambourine	<-	<-	<-	<-
G 3[55]	Splash Cymbal	<-	<-	<-	<-
G#3[56]	Cowbell	<-	<-	<-	<-
A 3[57]	Crash Cymbal 2	<-	<-	<-	<-
Bb3[58]	Vibra-slap	<-	<-	<-	<-
B 3[59]	Ride Cymbal 2	<-	<-	<-	<-
C 4[60]	High Bongo	<-	<-	<-	<-
C#4[61]	Low Bongo	<-	<-	<-	<-
D 4[62]	Mute Hi Conga	<-	<-	<-	<-
Eb4[63]	Open Hi Conga	<-	<-	<-	<-
E 4[64]	Low Conga	<-	<-	<-	<-
F 4[65]	High Timbale	<-	<-	<-	<-
F#4[66]	Low Timbale	<-	<-	<-	<-
G 4[67]	High Agogo	<-	<-	<-	<-
G#4[68]	Low Agogo	<-	<-	<-	<-
A 4[69]	Cabasa	<-	<-	<-	<-
Bb4[70]	Maracas	<-	<-	<-	<-
B 4[71]	Short Whistle	<-	<-	<-	<-
C 5[72]	Long Whistle	<-	<-	<-	<-
C#5[73]	Short Guiro	<-	<-	<-	<-
D 5[74]	Long Guiro	<-	<-	<-	<-
Eb5[75]	Claves	<-	<-	<-	<-
E 5[76]	Hi Wood Block	<-	<-	<-	<-
F 5[77]	LowWood Block	<-	<-	<-	<-
F#5[78]	Mute Cuica	<-	<-	<-	<-
G 5[79]	Open Cuica	<-	<-	<-	<-
G#5[80]	Mute Triangle	<-	<-	<-	<-
A 5[81]	Open Triangle	<-	<-	<-	<-
Bb5[82]	Shaker	<-	<-	<-	<-
B 5[83]	Jingle Bell	<-	<-	<-	<-
C 6[84]	Bell Tree	<-	<-	<-	<-
C#6[85]	Castanets	<-	<-	<-	<-
D 6[86]	Mute Surdo	<-	<-	<-	<-
Eb6[87]	Open Surdo	<-	<-	<-	<-

	Analog	Brush
Note#	PC# 25	PC# 40
Eb1[27]	<-	<-
E 1[28]	<-	<-
F 1[29]	<-	<-
F#1[30]	<-	<-
G 1[31]	<-	<-
G#1[32]	<-	<-
A 1[33]	<-	<-
Bb1[34]	<-	<-
B 1[35]	<-	<-
C 2[36]	Analog Bass Drum	Brush Kick 1
C#2[37]	Analog Rim Shot	<-
D 2[38]	Analog Snare 1	Brush Tap
Eb2[39]	Analog Clap	<-
E 2[40]	Analog Snare 2	Brush Slap
F 2[41]	Analog Low Tom2	Brush Low Tom2
F#2[42]	Analog Closed Hi-hat	<-
G 2[43]	Analog Low Tom1	Brush Low Tom1
G#2[44]	Analog ClosedHi-hat	<-
A 2[45]	Analog Mid Tom2	Brush Mid Tom2
Bb2[46]	Analog Closed Hi-hat	<-
B 2[47]	Analog Mid Tom1	Brush Mid Tom1
C 3[48]	Analog Hi Tom2	Brush Hi Tom2
C#3[49]	Analog Cymbal	<-
D 3[50]	Analog Hi Tom1	Brush Hi Tom1
Eb3[51]	<-	<-
E 3[52]	<-	<-
F 3[53]	<-	<-
F#3[54]	<-	<-
G 3[55]	<-	<-
G#3[56]	<-	<-
A 3[57]	<-	<-
Bb3[58]	<-	<-
B 3[59]	<-	<-
C 4[60]	<-	<-
C#4[61]	<-	<-
D 4[62]	<-	<-
Eb4[63]	<-	<-
E 4[64]	<-	<-
F 4[65]	<-	<-
F#4[66]	<-	<-
G 4[67]	<-	<-
G#4[68]	<-	<-
A 4[69]	<-	<-
Bb4[70]	<-	<-
B 4[71]	<-	<-
C 5[72]	<-	<-
C#5[73]	<-	<-
D 5[74]	<-	<-
Eb5[75]	<-	<-
E 5[76]	<-	<-
F 5[77]	<-	<-
F#5[78]	<-	<-
G 5[79]	<-	<-
G#5[80]	<-	<-
A 5[81]	<-	<-
Bb5[82]	<-	<-
B 5[83]	<-	<-
C 6[84]	<-	<-
C#6[85]	<-	<-
D 6[86]	<-	<-
Eb6[87]	<-	<-

# MIDI Implementation Chart

	Function...	Transmitted	Recognized	Remarks
Basic Channel	Default Changed	10 ch	1-16	
	Default	X	X	
Mode	Messages Altered	X *****	X *****	
Note Number:	True voice	0-127 *****	0-127 0-127	
Velocity	Note on Note off	O 99H, V=1-127 O (99H. V=0)	0-127 0-127	
After Touch	Key's Channel's	X X	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 : Song Select	X X	X X	
	: Tune	X	X	
System Real Time	: Clock : Commands	O O	X X	START \ STOP
Aux Messages	: Local ON/OFF : All Notes OFF : Active Sense : Reset	X X O X	X X X X	

O : YES  
X : NO