FORAT
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LinnDrum MIDI Manual

Your Forat LinnDrum Midi Modification enables you to trigger your LinnDrum sounds using external Midi sources such as other drum machines/ sequencers or trigger other sound sources by the patterns programmed in your LinnDrum.

It now has full Midi clock syncing capabilities and can be used both as Master or Slave. It also responds to incoming Midi Song Position Pointer messages for chasing other sequencers.

It also supports saving/ loading of your patterns and songs using Midi System Exclusive (SysEx) commands.

Using Setup mode, you'll be able to change Midi channel, reassign drum note numbers or to enter a starting offset for the incoming Midi sync. These setting are stored within the Midi kit using nonvolatile RAM hence they won't be lost even if the LinnDrum losses its memory!

Setup Mode:

To enter Setup, start with your LinnDrum turned off then turn power on while holding the Load button down for approximately 2 seconds. The Step window will display two brackets **[ ]** to let you know that you've entered Setup.

To exit Setup, press the Load button after you're finished.

To change the LinnDrum Midi channel or to reassign the drum note numbers, you'll need to connect the Midi out of your keyboard/ drum machine or sequencer to the Midi in on your LinnDrum.

Changing Midi Channel:

You can change the Midi channel while the two brackets **[ ]** are being displayed as you first enter Setup mode. Set your keyboard or drum machine to transmit on the desired channel then play any note or drum pad. The LinnDrum will assign and display the new channel in the Pattern Number window.

Please note: Some earlier Midi keyboards such as the Yamaha DX7 will only transmit on channel 1 hence not suitable to use for setting channels unless used in conjunction with a sequencer.

If you're done, press Load button to exit Setup.

Changing Note Numbers:

Enter Setup mode then press the first drum button to be reassigned. The current note number will be displayed in the Pattern Number window. Now send the desired note to the LinnDrum by playing it on your keyboard or sequencer or by hitting a pad on your other drum machine. The note number in the Pattern Number window will change to the new number and you're done. If you accidentally play the wrong note or hit the wrong pad, simply play the correct one before continuing to the next drum button.
Now press the next drum button to be reassigned followed by the next desired note/ pad and so on.
Finally press the Load button to exit Setup when you're done.
You may assign several drum buttons to be played by one note however it is not possible to assign several notes to one drum button. You can always check the assigned note numbers by entering Setup mode however make sure no Midi note are being sent to the LinnDrum.

Default Factory Note Assignments:

Drum	Note	Drum	Note	Drum	Note
Side stick	36	Hi Hat 2	44	Cabasa 2	52
Snare 1	37	Hi Hat Open	45	Tamb 1	53
Snare 2	38	Hi Tom	46	Tamb 2	54
Snare 3	39	Mid Tom	47	Hi Conga	55
Bass 1	40	Lo Tom	48	Lo Conga	56
Bass 2	41	Ride 1	49	Cowbell	57
Crash	42	Ride 2	50	Claps	58
Hi Hat 1	43	Cabasa 1	51		

Midi Sync:

LinnDrum as Master: The LinnDrum will automatically output Midi clocks while in play or record mode and can drive other drum machines or sequencers with Midi.

LinnDrum as Slave: You can use Midi clocks to drive the LinnDrum from other external sources.
To enter Slave mode, simply power on the LinnDrum while holding the EXT SYNC button down for approximately one second. It is now ready to receive Midi clock.
If the LinnDrum receives a Midi song position pointer command, it will beep once it has reached that point.
You may then press the CONTINUE button on the master device to sync from that point on.
Note: Some equipment may not adhere to the Midi specification and send a song position pointer, a continue command and Midi clocks immediately in which case the LinnDrum will attempt to catch up but results may be unpredictable.
While in Setup mode, you may offset the LinnDrum to play ahead or behind the master Midi device.
To delay the LinnDrum so it plays behind the master, press the Length/ Left Arrow button.
The left Pattern Number window displays the number of clocks that the LinnDrum can be offset by.
The minimum number of clocks will be 1 and up to a maximum of 7.

To push the LinnDrum ahead of the master, press the Erase/ Right Arrow button.
The right Pattern Number window displays the number of clocks that the LinnDrum can be offset by.
The minimum number of clocks will be 1 and up to a maximum of 8.
For no offset, press either the Length or the Erase button until a 0 is displayed.
Each clock is about 10 milliseconds of offset at a tempo of 120 BPM.
Once you're done with offset, press LOAD to exit Setup mode.

System Exclusive:

You can save / load your patterns and songs using any SysEx capable sequencer including most Akai MPC's drum machines, SysEx librarians such as Midi-OX or Midi Disk Drives like the Peavey Midi Librarian or the Alesis Data Disk.
To store your LinnDrum patterns and songs, connect both Midi In and Out of your LinnDrum to Midi Out and In of your sequencer or SysEx librarian then program it to send out the following SysEx command:
F0 15 08 01 F7
Upon receiving this command, the LinnDrum will send all pattern and song data to the sequencer to be recorded.

We've created the necessary files and how to instructions to use MIDI-OX, a great free Midi utility program. You can download it from the LinnDrum page of our site or click on the link below:

http://www.forat.com/Downloads/Forat_LinnDrum_MIDIOX_Procedure.zip

Dump request format:

F0	**System Exclusive header**
15	
08	**LinnDrum I.D.**
01	**Dump Request**
F7	**End of System Exclusive**

Data is dumped as follows:

F0	**System Exclusive header**
15	
08	**LinnDrum I.D.**
00	**Data coming**
Data	**4 bit nibbles, right justified**
F7	**End of System Exclusive**

Data size is 16389 bytes for a regular LinnDrum or 32773 bytes for one with memory expansion.