INSTRUCTIONS FOR MIDI INTERFACE

LINNDRUM Mk 2/3

Your Linndrum is now equipped to send and receive MIDI information. When turned on the machine will function normally, sending out and receiving MIDI note & velocity information on the channels set in memory. The factory channel settings are: receive chan 16 omni off transmit chan 1 and Stop/start TX/RX enabled
Clock information is always sent and Start/stop information is sent and received if enabled. (Not channel sensitive)

YOU CAN RETURN TO THE FACTORY MIDI SETTINGS BY SWITCHING THE MACHINE ON WHILST HOLDING THE RED BUTTON PRESSED (hold for a couple of seconds)

With the front panel push switch set to INTERNAL clock (red led not lit) the Linndrum will run from its own internal clock and will send out MIDI timing information at a rate determined by the tempo knob. In the EXT sync position (red led lit) however, with the rear panel switch set to MIDI (up) it will run from MIDI sync at the rate set by the MIDI device connected. If no MIDI timing information is present,then the Linndrum will not run.

Some drum machines/sequencers may not send start/stop codes, in this case pressing the start switch on the Linn, will make it wait until MIDI clock/sync is present.

To use the EXTERNAL sync socket (tape sync) the front panel switch should still be set to EXT (red led lit), but the rear panel switch should be set to EXTERNAL (down).

RED PUSH BUTTON -
Two modes are available by pushing the red push button. Before you do press the red button however, make sure the Linndrum is not playing, otherwise the results may be unpredictable.

1) SET-UP MODE - setting MIDI channel/stop-start etc. (panel or remote)
Give the red push button a short press (half a second) - then release. Follow this with a MIDI note (a key on a DX7 D50 etc.) or sequence of notes as detailed on page 3. Note that after selecting a channel or other function, top C will need to be pressed to return the unit to playing mode. (N.B. set-ups are stored in non volatile memory).

2) MAPPING MODE - assigning MIDI notes to sounds (from remote synth only) - Press the red button hold for about six seconds - then release. Follow this (on the remote keyboard) with a program change number, then any MIDI note. The drum sound specified by that program change number will be mapped to the key you pressed. You may keep assigning drum sounds to keys in the same fashion (program then key). When you have assigned all the sounds that you want to, press any invalid program change number (any above 16), you will then be automatically returned to normal play mode. On page 4 is a list of which program numbers correspond to what drum sounds.

N.B. The red button can be "pressed via MIDI - see last page.

You can also set channels etc on the Linn itself as described below

The top row of eight buttons (Hihat 1 thru Ride 2) are Rx Tx channel numbers 1 to 8 and they become 9 to 16 if the percussion led is lit.
On the bottom row, Bass 1 selects Receive chan, Bass 2 selects Transmit chan, Sidestick selects [omni-on mode], Snare 1 selects [omni-off mode], Snare 2 selects [disable start/stop codes RX & TX through MIDI], Snare 3 selects [enable start/stop codes TX & RX through MIDI], and Crash is the ENTER key to return you to the normal operating state.
So the sequence of events is :- Red push button - (then optionally omni on or off) - then recieve or transmit select [bass 1 or 2] - then a channel number [1 thru 16] - then press crash to ENTER

As an example - to get transmit channel 5 and receive channel 10, but leave it in omni-off mode.

1) Press the red button
2) Press Bass 2 (transmit select)
3) Press Mid tom (perc led not lit) [transmit ch 5 now set]
4) Press Bass 1 (receive select)
5) Press Percussion button (to get to channels 9 to 16)
6) Press Cabasa 2 (perc led lit) [receive ch 10 now set]
7) Press Crash - to ENTER (return to normal operating mode)

Note that when the red button has been pressed, the panel buttons will not make sounds when pressed, until normal playing mode is resumed by pressing ENTER (Crash).

OPERATION OF DRUM BUTTONS IN SET-UP MODE

Chan 1 / 9	Chan 2 / 10	Chan 3 / 11	Chan 4 / 12	Chan 5 / 13	Chan 6 / 14	Chan 7 / 15	Chan 8 / 16
Omni on	Omni off	Disable START & STOP	Enable START & STOP	RX mode	TX mode	ENTER	Sel 1-8 / 9-16

Red percussion light off = chan 1-8
Red percussion light on = chan 9-16

Assign mode cannot be used from the front panel buttons

C	Receive channel	1	Bottom C - MIDI note no. 36	
Db	"	2		
D	"	3		
Eb	"	4		
E	"	5		
F	"	6		
Gb	"	7		
G	"	8		Selecting a receive channel
Ab	"	9		will automatically put the
A	"	10		MIDI into omni off mode.
Bb	"	11		That is, it will receive on
B	"	12		the selected channel only.
C	"	13		
Db	"	14		
D	"	15		
Eb	"	16	(default)	
E	not used			
F	Omni on mode			
Gb	not used			
G	not used			
Ab	not used			
A	not used			
Bb	not used			
B	not used			
C	Transmit channel	1 (default)	[Middle C] MIDI note number 60	
Db	"	2		
D	"	3		
Eb	"	4		
E	"	5		
F	"	6		
Gb	"	7		
G	"	8		The transmit channel can be
Ab	"	9		changed independently of the
A	"	10		of the receive channel, and
Bb	"	11		can be set even during omni
B	"	12		on mode.
C	"	13		
Db	"	14		
D	"	15		
Eb	"	16		
E	not used			
F	not used			
Gb	not used			
G	not used			
Ab	not used			
A	not used			
Bb	not used			
B	not used			
C	not used			
Db	not used			
D	not used			
Eb	not used			
E	Disable start and stop through MIDI			
F	Enable start and stop through MIDI (default)			
Gb	not used			
G	not used			
Ab	not used			
A	not used			
Bb	not used			
B	not used			
C	ENTER KEY - Press and release. Top C - MIDI note no. 96			

Program number use in Assign mode

Program 1 - Bass 1/2
2 - Snare 1/2/3
3 - Sidestick
4 - Hihat 1/2
5 - Hihat open
6 - Lo conga
7 - Hi conga
8 - Lo tom
9 - Mid tom
10 - Hi tom
11 - Ride 1/2
12 - Crash
13 - Cabasa 1/2
14 - Tambourine 1/2
15 - Cowbell
16 - Clap

1) No matter how the sounds are assigned, these program numbers always belong to the same sound.

2) Any program number above 16 will terminate Assign mode and return you to normal play mode.

3) If you assign more than one sound to the same MIDI note, only the most recent one will sound - the original sound on that note will then be "unassigned" until it has been given a new assignment.
When sounds are unassigned, they will not be transmitted over MIDI

4) Assignments are stored in non volatile memory.

5) The various volume levels are accessed via MIDI at different velocity levels - and as a bonus, Sidestick has 3 volume levels (like snare) and Hihat open and Crash have 2 levels - (MIDI in only)

6) If "MIDI CONTINUE" is received during song mode, the LINNDRUM will start at the beginning of the current pattern.

MIDI CONTROL OF RED PUSH BUTTON

The red push button can be "pressed" via MIDI as MIDI switch number 95 (5Fh) for regular program mode or 94 (5Eh) for transpose mode. The selection of the push button is enough, it doesn't matter if it is being turned on or off.
In hexadecimal BX - 5F - 00 = set-up mode
In hexadecimal BX - 5E - 00 = mapping mode
Where X is the current MIDI channel.
[n.b. whilst in set-up/mapping modes the MIDI is in omni on mode]

MIDI connectors -

MIDI IN should be connected to a MIDI OUT or a MIDI THRU
similarly MIDI OUT should be connected only to a MIDI IN
and a MIDI THRU should also be connected only to a MIDI IN.

MIDI OUT is the signal from the synthesiser (or drum machine etc.) that is to be sent to another instrument. MIDI IN is a received signal that contains MIDI information from another synth, and MIDI THRU is an exact copy of information arriving at the MIDI IN socket. This allows several instruments to be connected together.

If you want to wire your own MIDI cables the following information may be useful.
1) Although a 5 pin connector is used, only two connections plus an earth connection are required.
2) If you look at the din plug from the wiring side you will see that the pins are numbered. From left to right (or clockwise) these are 1 - 4 - 2 - 5 - 3.
3) The pins numbered 1 & 3 are not used.
4) The screen (earth) is connected to pin 2 (centre pin)
5) Pin 4 of one plug should be connected to pin 4 of the other
6) Pin 5 of one plug should be connected to pin 5 of the other
7) You should now have a working MIDI lead
8) It is preferable to label one end of the cable MIDI IN & the other end MIDI OUT, to avoid confusion.

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