(s3 (s06H INSTRUCTIONS FOR MIDI INTERFACE

ROLAND CR68 DRUM MACHINE (s10H

Your CR68 drum machine is now equipped to receive MIDI information. When turned on, the machine will function normally, receiving MIDI note & velocity information on the channel set in memory. The factory default settings are as follows : receive chan 16, omni off, stop/start messages enabled, continue ignored, normal clock ratio, no triplet. MIDI timing and stop start information is not channel sensitive and is received at all times (unless disabled).

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 rear panel clock switch set to normal (up) the CR68 drum will run from its own internal clock. With the rear panel clock switch in the down position however, it will run from MIDI sync at the rate set by the MIDI device connected. (MUST RECEIVE A MIDI START)

MIDI start/stop messages can be ignored. Go into set-up mode and select with the appropriate MIDI note as described in the next paragraph.

1) SET-UP MODE - setting MIDI channel/clock speed/stop-start etc.
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 2. 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
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 (15 and above), you will then be automatically returned to normal play mode. On page 3 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.

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 (FACTORY DEFAULT)
E not used
F Omni on mode
Gb not used
G not used
Ab not used
A Ignore received master reset
Bb not used
B not used
C not used Middle C - MIDI note no. 60
Db not used
D not used
Eb not used
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 not used
F not used
Gb Triplet clock | Select triplet after the clock speed
G Normal speed clock | Clock settings are not stored.
Ab Half speed clock | On power up the CR68 will
A Quarter speed clock | always return to Normal
Bb Eighth speed clock | clock speed - (no Triplets)
B not used
C not used
Db not used
D Continue message ignored - (FACTORY DEFAULT)
Eb Continue treated as Start (not true continue)
E Ignore MIDI Start and Stop messages
F Respond to MIDI Start and Stop messages - (FACTORY 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

ASSIGNING SOUNDS TO MIDI NOTE NUMBERS IN MAPPING MODE

Program	1	Bass Drum
	2	Snare Drum
	3	Rim Shot
	4	Hi Hat
	5	Cymbal
	6	Maracca
	7	Clave
	8	Hi Bongo
	9	Lo Bongo
	10	Lo Conga
	11	Cowbell
	12	NOT USED
	13	NOT USED
	14	NOT USED

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

2) Any program number ABOVE 14 will terminate Mapping 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.

4) Assignments are stored in non volatile memory.

5) MIDI notes below a velocity of 80 decimal (50 hex) will be treated as unaccented - notes with a velocity of 80d (50h) and above will be accented (and thus affected by the setting of the accent control).

6) "MIDI CONTINUE" is ignored as a factory default but it can be enabled (see table on previous page) - when enabled "CONTINUE" is treated as a "START" command.

7) To select TRIPLET, do so after selecting the clock speed, as selecting clock speeds will cancel Triplet.
Triplet will turn quavers (8s) into crotchet triplets (6s) and crotchets (4s) into minim triplets (3s) etc.

8) The CR68 MIDI allows you to play drum notes at the same time as you are running from MIDI clock (or internal clock)

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 = program mode
In hexadecimal BX - 5E - 00 = transpose mode
Where X is the current MIDI channel.
[n.b. whilst in program/transpose 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.

KENTON ELECTRONICS
12 Tolworth Rise South,
Tolworth, Surbiton,
Surrey. KT5 9NN
U.K.
Tel 0181-337-0333
Fax 0181-330-1060

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