



Appendix 1

Explaining the modes table.

Let's zoom in on Mode 1A (the default mode).
 (the **IC Pin#** column can be ignored for those not developing their own board)

		MODE	
IC Pin#	PCB port	1A	
14	B1	Pitch 1	The pitch voltage for notes played in on MIDI channel #1 will be seen at pin 1 on port B (0V to 10V)
15	B2	95 phaser	
16	B3	93 chorus	
17	B4	94 delay	Continuous controllers like volume, modulation, cut-off etc. received on MIDI channel #1 will appear as analogue voltages from 0V to 10V. e.g. attack will appear on pin 5 of port B cut-off will appear on pin 6 of port C
18	B5	73 attack	
19	B6	72 release	
23	C1	Ptch bend	
24	C2	1 mod	
25	C3	7 vol	
26	C4	11 expr	Pitch Gate #1. A note played in on MIDI channel #1 sends pin 1 of port D high (0V to 5V)
27	C5	71 res/aft	
28	C6	74 cut off	Auxiliary Gates. Notes played in on MIDI channel #16 will send these pins high (5V) Middle C affects pin 2 on port D (D2) C# will send pin 3 on port D (D3) to 5V etc.
4	D1	P Gate 1	
5	D2	A Gate 1	
6	D3	A Gate 2	
11	D4	A Gate 3	
12	D5	A Gate 4	Clock: outputs pulses if receiving on channel #1
13	D6	CT	
	Prog Change	1	MIDI channel #1 carries: Program changes (for mode change) and Pitch, pitch gate and CC messages. Auxiliary gates respond to channel #16
MIDI	Pitch	1	
Channels	Control	1	
	Aux Gate	16	If 2 boards are chained, notes played on MIDI channel #2 into the 1 st board will be sent over to the 2 nd board. The same is true for CC messages. Aux Gates are still received as notes on Channel #16. Notes Middle C to Eb appear on the 1 st board on pins D2 to D5 (0V to 5V) Higher notes E to G will appear on the 2 nd board on pins D2 to D5 (0V to 5V)
Overflow	Pitch	2	
to	Control	2	
Next IC	Aux Gate	16	