



INSTRUCTIONS FOR USING THE HOWARD SLOT-PAK II

Thank you for purchasing the HOWARD MEDICAL COMPUTERS SLOT-PAK II. It was designed to give you more enjoyment and expandability with your Coco 1, 2, or 3. The SLOT-PAK II allows the use of up to 3 plug-in cartridges at one time. It will NOT, however, allow the use of game ROM-PAKS. It will allow the use of a Floppy Disk controller, a Hard Disk controller, and a Serial Port pak, for instance, or almost any combination of available hardware.

OPERATION:

The slots are numbered, beginning closest to the computer, as slots 1, 2, and X. Slots 1 and 2 are switchable through software by POKES or through machine language programming. Slots 1 and 2 also respond correctly when called 3 and 4, so, software written for the discontinued Tandy Multi-Pak (such as the Howard Medical Computers HARD Drive), will operate correctly with the Floppy controller plugged into slot 2 (instead of 4) and the Hard Drive controller plugged into slot 1 (instead of 3). This leaves slot X available for a Speech cartridge, Serial Pak, or any device that does not require slot switching (self-decoding). The Floppy Disk controller (if used) should always be plugged into slot 2. Slots 1 and 2 can also be used for self-decoding Paks. The interrupt input line to the Coco is never switched, but all inputs are connected to the Coco at all times. This insures that interrupts from any source will be recognized. This means that interrupt driven Paks, like the RS232 Pak, can be placed in any slot and will work properly.

SLOT SWITCHING:

Slot switching through BASIC is simple to do using POKES. However, when using a Coco 1 or 2, changing the Rom select line when running Disk Basic will cause the computer to crash, since basic is contained in the Rom in slot 2. For this reason the Floppy controller should always be plugged into slot 2, as this slot is automatically selected on power up. The slot switching memory location is 65407 or \$ff7f in hexadecimal. To select slot one, simply POKE 65407,0. To select slot 2 POKE 65407,17. These pokes change both the Rom select line and the I/O select line. To switch the lines separately remember that for I/O slot 1 is 0 and slot 2 is 1, and for Rom select slot 1 is 0 and slot 2 is 16. Then simply add the two numbers together and poke that number in to the slot switch. For instance to select I/O on slot 1 and Rom on slot 2 use 0 for the I/O and 16 for the Rom. POKE 65407,16. To read the slot selected use the PEEK command. But, since not all the available data line are used, you must AND the result with 17 to obtain a true reading. PRINT PEEK (65407) AND 17. The resulting number can be used with the information above to find which slot is selected for I/O and Rom



12 VOLT POWER:

If any of the Paks plugged into the SLOT-PAK II require +12 volts, and you are not using a Coco 1 which supplies this voltage, you will need the plug in AC Adapter AC-9 from Howard Medical Computers to supply it. The adapter simply plugs into the jack on the SLOT-PAK II and into any handy wall outlet (or your power strip). Other methods of obtaining +12 volts are possible (such as tapping the voltage from a disk drive or building Tony DiStefano's 12 supply into the Coco as written in the Rainbow). BUT, since these methods are highly dependent on the owners skill, We DO NOT recommend or encourage their use. So, proceed at your own risk as their use will invalidate your Howard Guarantee.

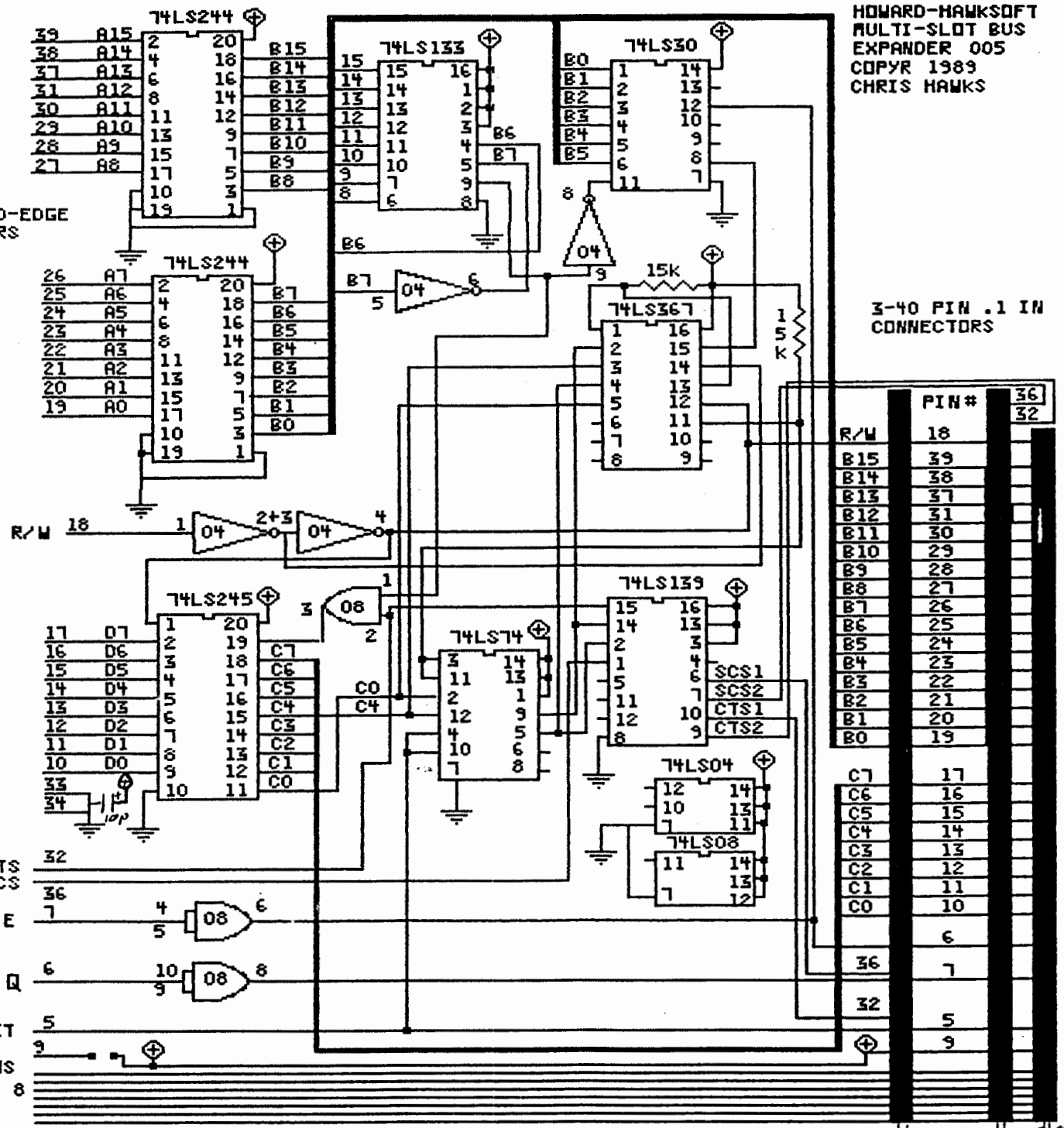
PLEASE NOTE: When powering up your system with a 12 volt Pak installed, some problems may occur (left-shifted characters, drives running , etc.). This is normal and will not harm your system. Should this occur, simply hit the RESET button and the system will return to normal.

HOWARD-HAWKSOFT
MULTI-SLOT BUS
EXPANDER 005
COPYR 1989
CHRIS HAWKS

0 PIM CARD-EDGE
PAD NUMBERS

3-40 PIN .1 IN
CONNECTORS

0 SAME PINS
1 2 3 4 8
34 + 40



	PIN#
R/W	18
B15	39
B14	38
B13	37
B12	31
B11	30
B10	29
B9	28
B8	27
B7	26
B6	25
B5	24
B4	23
B3	22
B2	21
B1	20
B0	19
C7	17
C6	16
C5	15
C4	14
C3	13
C2	12
C1	11
C0	10
	6
	7
	5
	9

↑
Jumper

32 | 34 33 | 34 33 | 34

1 2 3