

**TRS-80 MODEL III**  
**TRS-80 Model 4**  
**RS-232 SERIAL INTERFACE**  
**MODIFICATION KIT**

**Manual Number 5100-0002**



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## MODEL III/4 RS-232

### INSTALLATION INSTRUCTIONS

**NOTE:** Installation of the enclosed RS-232 Communications Interface will require removal of the Radio Shack seal on the bottom of your computer. This action may void the conditions of your 90 day Radio Shack Warranty. Should you elect to continue, please refer to the RS-232 PARTS CHECKLIST on the rear of this manual.

1. Remove all cables from the bottom and rear of the computer cabinet and position the computer on its rear or side panel. Remove all ten screws from the case bottom. One of the ten screws will be found beneath the warranty seal. It may be necessary to hold the case together as you remove the last few screws.
2. After insuring the computer is unplugged from the power source, position the computer upright and remove the screw from the top rear panel of the case.
3. Carefully remove the case top, lifting straight up. You may view the neck of the video tube while removing the top of the cabinet by looking down through the ventilation slots on the top left of the cabinet (if facing the video screen). Care should be taken during this step so as not to bump the neck of the video tube. After removal of the case top, place it on it's left side to the left of the computer and disconnect all cables from the video assembly to the computer. Now set the top aside in a SAFE PLACE. You will not need it until ready to reassemble.
4. Now turn the computer so the rear (chassis) is facing you. Remove all cables connecting the CPU Board (main DC power harness, CRT wiring harness, keyboard and cassette cables, and disk controller interconnect cable if used). During the disconnection process, you may care to make note or label all cable connections for ease in reassembly.
5. Remove the large metal RFI cover on the rear of the computer's chassis (if so equipped) and take out the screws fastening the CPU Board.
6. After insuring all cables to the CPU Board have been disconnected, remove the CPU Board. **NOTE:** Some older models may have RICHCO clips wherein the small tabs on the clips will have to be depressed while gently pulling the CPU Board off.

### INSTALLING THE RS-232

1. On the right side of the chassis, you will see four pre-threaded, metal spacers (FIGURE A). Install the RS-232 Board to these fasteners using four #6 x 3/8 screws. Insure socket P2 is upward and facing the rear of the computer. **NOTE:** Some very early Model III's used two RICHCO Clips and two Fastex clips for this installation. Due to the scarcity of this model, the clips have not been included with the kit. Should you need them, we will furnish if unavailable in your local area. Please call if you run into this situation.
2. Connect one end of the DC Power Cable (included) to P3 on the RS-232 Board. **CAUTION:** It should be connected so that the red wire is at PIN 1.
3. Connect the other end of the power cable to SK-3 or any open connector on the Power Supply PC Board. **NOTE:** The RED wire (+5V) **MUST** go to PIN 4.
4. Connect one end of the flat 5", 20 position cable to P2 on the RS-232 Board.

5. Replace the Main CPU Board using the screws which were previously removed.
6. Connect one end of the 8.5" eight position cable to JP1A on the CPU Board. You must place a "Z" bend in the cable so as to make it flat (SEE FIGURE B) and connect the other end to JP1B. NOTE: Disk systems will already have this cable in place. If this is the case, the new cable will not be needed. Now connect the other end of the RS-232 flat 5", 20 position cable (the one on P2) to connector J8 on the CPU Board.
7. Install the Metal RFI Cover (if so equipped) back in its original position and reconnect all cables to the CPU Board (power supply cable, video, keyboard, and cassette cables).
8. After checking to insure that the video cables have been re-installed properly, CAREFULLY place the the case top back on the case bottom once again being careful not to hit the neck of the CRT. Now install the screw in the top rear panel of the case.
9. Carefully rest the computer on its rear or side panel and replace the five 1" sheet metal screws toward the rear, three 7/8" machine screws along the front, and two 1" machine screws in the remaining positions. Take the necessary precautions to insure that all screws are replaced in their PROPER holes.
10. You are now a certified hacker, having overcome the immense fear of performing major surgery on a very important member of the family, your confidence is such that you can do ANYTHING to your computer. Now if you have a cable and modem, welcome to the world of data communications. If you don't, well.....what's another couple hundred bucks.

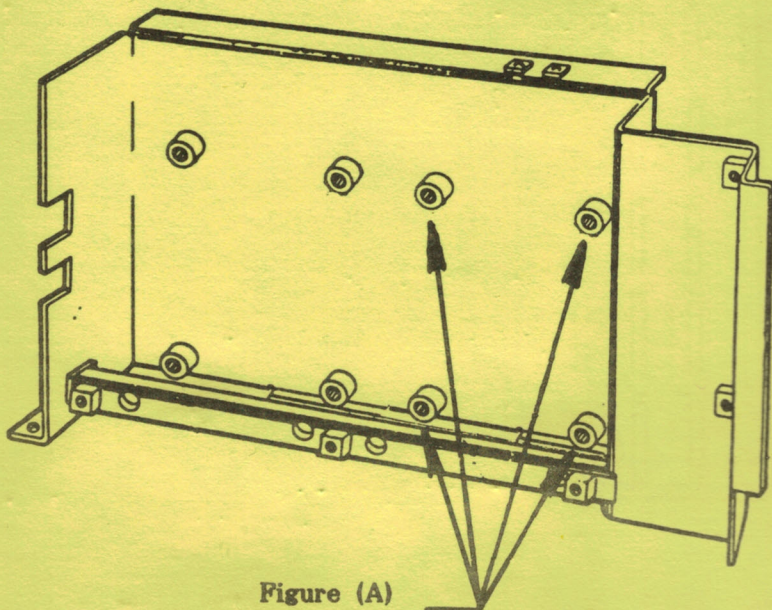


Figure (A)

## RS-232 PARTS CHECKLIST

<u>DESCRIPTION</u>	<u>QUANTITY</u>
RS-232 Board 5080-0006	1
Cable, flat, 20 position, 5" 8120-0011	1
Cable, flat, 8 position, 8.5" 8120-0010	1
Cable, DC power 8120-0022	1
Screws, #6 x 3/8 0510-0001	4
Installation instructions 5100-0002	1
Nerve and guts 1,000,000	Y
Brains 000-000	0

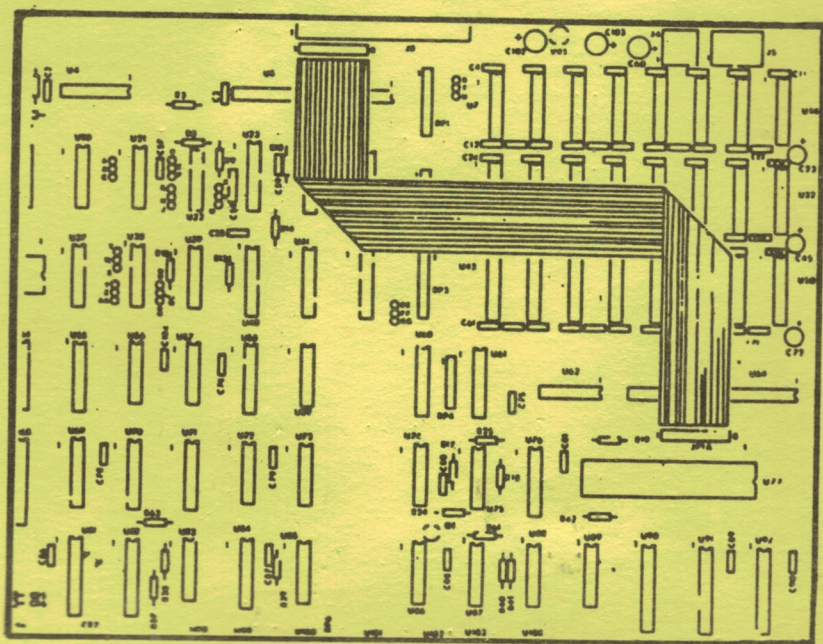


Figure (B)