FSD-2 INSTALLATION

Required tools:

- Phillips screwdriver

- IC extractor or small, flat-bladed screwdriver. Needed for removal of the stock DOS ROM on the FSD-2 circuit board. An IC extractor is recommended, but not necessary (the small screwdriver will suffice). However, if using a screwdriver, wrap a layer of tape around the tip of the screwdriver to help prevent damage to the circuit board when prying.

- Hand or power drill. Necessary for installation of the ROM selector switch in the FSD-2 case assembly.

Procedure:

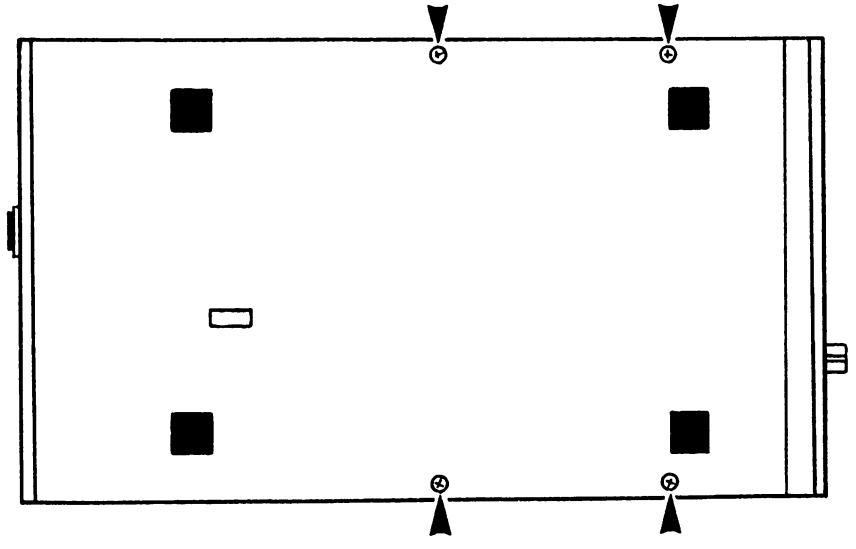
1. If a diskette is present in the FSD-2, remove it.

2. Make sure that the FSD-2 power switch and the power switch on your computer are **OFF**. Also make sure that any other peripherals attached to the serial bus are also switched **OFF**.

3. Unplug the FSD-2 power supply cord from its wall outlet.

4. Unplug all cables from the rear of the FSD-2, including the power supply cable and serial bus cable(s).

5. Turn the FSD-2 upside-down and remove the four screws from the bottom of the drive as indicated in Figure 1 below.



Remove the screws indicated by the arrows

Figure 1 **FSD-2 CASE SCREW REMOVAL**

6. Remove the metal plate covering the bottom of the disk drive.

7. Locate the circuit board power connector (see Figure 2 below) and disconnect it from the FSD-2 circuit board.

8. Locate the DOS ROM on the FSD-2 circuit board using the diagram in Figure 2.

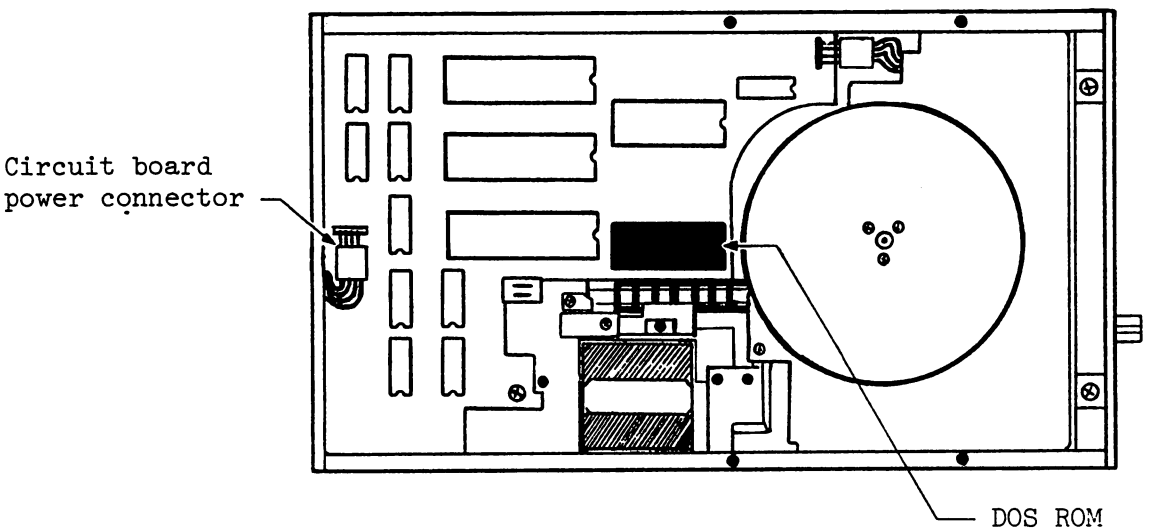


Figure 2 **FSD-2 DOS ROM LOCATION**

9. Carefully remove the FSD-2 DOS ROM from its socket using the IC extractor or small, flat-bladed screwdriver. Alternate lifting the ROM from each end, raising it from its socket a little at a time. If using a screwdriver, take care not to damage the circuit board or any of the circuit board components while prying.

10. Remove the JiffyDOS ROM labeled **FSD-2** from its packing (see Figure 3 below). Put the stock FSD-2 DOS ROM back into the packing for safe keeping.

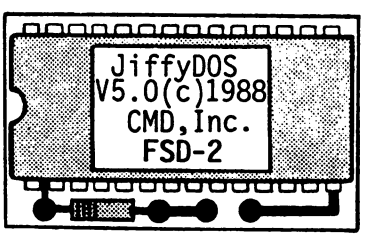


Figure 3 **JIFFYDOS FSD-2 DOS ROM**

ALTERNATE PG. 2 FOR FSD-2 V1 CIRCUIT BOARD

6. Remove the metal plate covering the bottom of the disk drive.

7. Locate the circuit board power connector (see Figure 2 below) and disconnect it from the FSD-2 circuit board.

8. Locate the DOS ROM on the FSD-2 circuit board using the diagram in Figure 2.

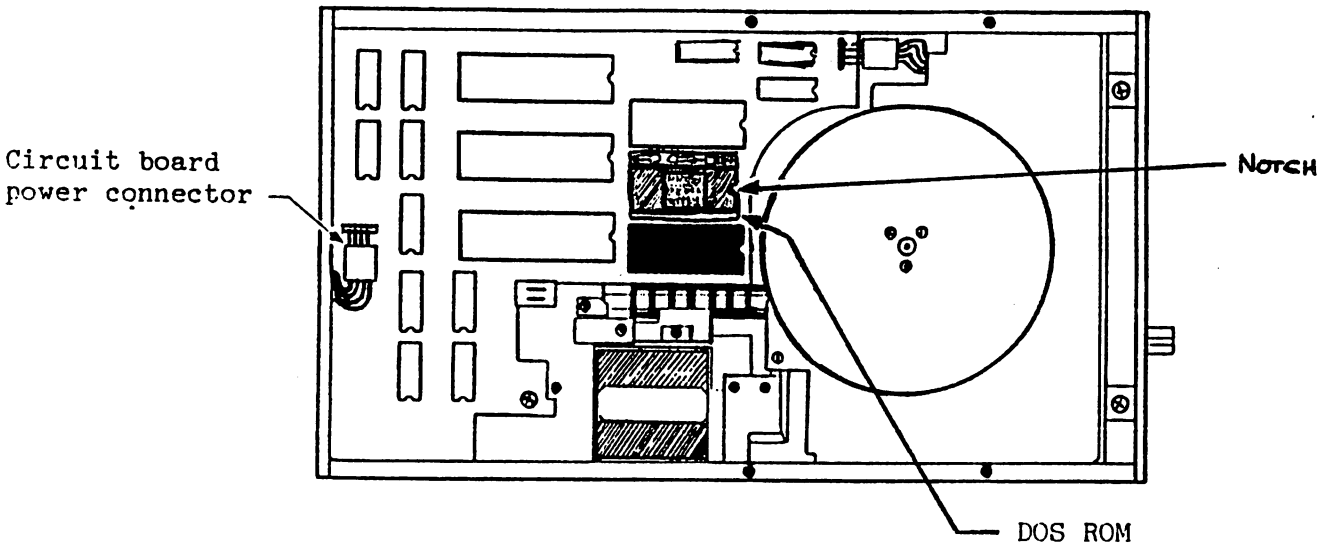


Figure 2 FSD-2 DOS ROM LOCATION (V1 BOARD)

9. Carefully remove the FSD-2 DOS ROM from its socket using the IC extractor or small, flat-bladed screwdriver. Alternate lifting the ROM from each end, raising it from its socket a little at a time. If using a screwdriver, take care not to damage the circuit board or any of the circuit board components while prying.

10. Remove the JiffyDOS ROM labeled FSD-2 (V1) from its packing (see Figure 3 below). Put the stock FSD-2 DOS ROM back into the packing for safe keeping.

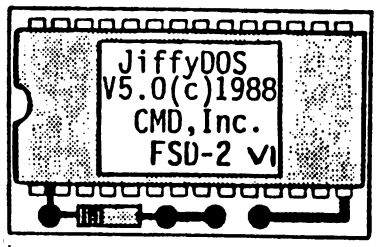


Figure 3 JIFFYDOS FSD-2 DOS ROM (V1)

NOTE: IF YOU HAVE AN FSD-2 V1 CIRCUIT BOARD, CONTACT CREATIVE MICRO DESIGNS TO ARRANGE FOR THE EXCHANGE OF YOUR JIFFYDOS FSD-2 CHIP FOR THE FSD-2 V1 CHIP. (THE STANDARD JIFFYDOS FSD CHIP WILL NOT WORK IN THE V1 BOARD — YOU MUST HAVE THE JIFFYDOS FSD-2 V1 CHIP).

11. Inspect the JiffyDOS FSD-2 ROM assembly carefully. If you observe any bent pins, carefully straighten them with a pair of tweezers.

12. "Test fit" the JiffyDOS FSD-2 ROM assembly on top of the empty DOS ROM socket.

VERY IMPORTANT

MAKE SURE THAT THE NOTCH ON THE JIFFYDOS ROM IS FACING THE FRONT OF THE DISK DRIVE AS SHOWN IN FIGURE 4 BELOW.

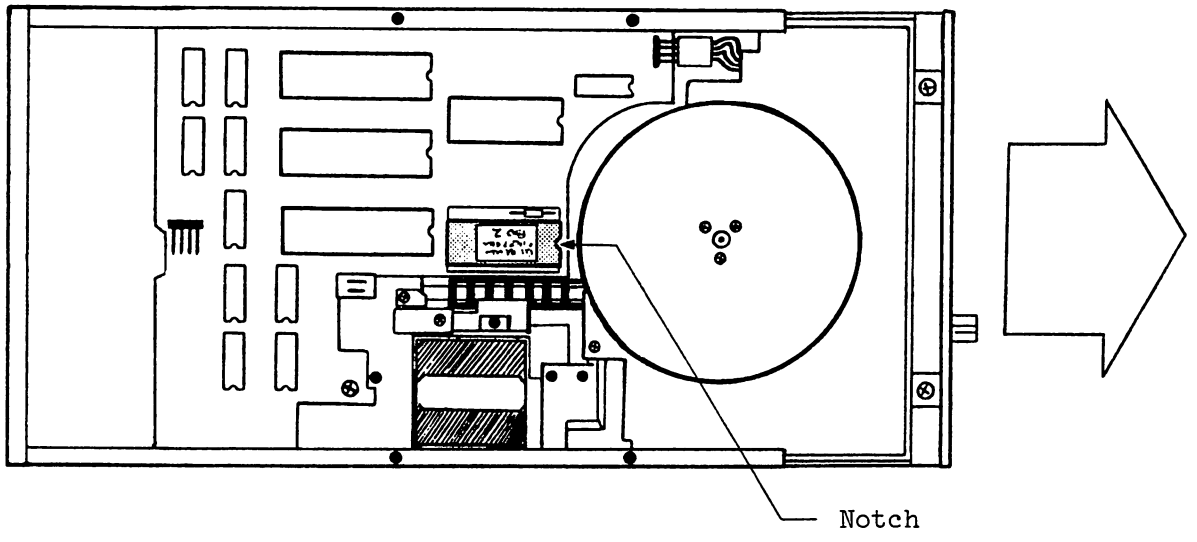


Figure 4 **NOTCH ORIENTATION**

13. With all pins on the JiffyDOS ROM properly aligned with the socket, and wi the ROM notch facing the front of the disk drive, carefully press the FSD- ROM into the socket using finger pressure until it is fully seated.

14. Slide the FSD-2 drive mechanism out from the drive casing as shown above in Figure 4. Make sure that the circuit board power connector (see Step 7) has been removed.

15. Drill a 1/4" hole in the FSD-2 case to accomodate the JiffyDOS ROM selector switch. A suggested switch location is given in Figure 5 below.

WHETHER YOU CHOOSE THIS LOCATION OR AN ALTERNATE ONE, MAKE ABSOLUTELY SURE THAT THE SWITCH IS POSITIONED SO THAT IT WILL NOT COME INTO CONTACT WITH ANY OF THE FSD-2 INTERNAL COMPONENTS.

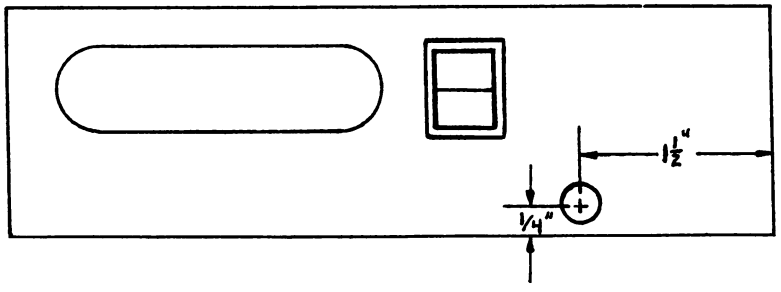


Figure 5 **SUGGESTED SWITCH LOCATION**

16. Slide the FSD-2 drive mechanism back into the case and install the JiffyDOS ROM selector switch in the hole just drilled in the case.

17. Reconnect the circuit board power connector to the circuit board.

IMPORTANT

The RED wire on the connector should be nearest the rear of the drive, and should correspond with Pin 1 on the circuit board header.

18. Replace the FSD-2 bottom cover and secure it using the four screws removed earlier.

NOTE

Depending on how much clearance is available, the bottom cover may come into contact with the top of the JiffyDOS ROM. This is not a problem, and will not adversely affect the operation of the ROM.

19. Reconnect the power supply cable to the rear of the FSD-2

20. Plug the FSD-2 power supply into a working outlet.

21. Connect the serial bus cable between the FSD-2 and your computer.

Installation Checkout Procedure:

NOTE: Some of the steps in the following FSD-2 installation checkout procedure require the use of a JiffyDOS-equipped computer.

1. Switch the FSD-2 ON. The activity indicator on the front of the drive should come on immediately as power is switched on, stay on for about one second, and then shut off as it normally does upon power-up.

   IF THE ACTIVITY INDICATOR STAYS ON OR BLINKS REPEATEDLY, IMMEDIATELY SWITCH THE DRIVE OFF. THEN FOLLOW THE STEPS OUTLINED BELOW.

   1a. Recheck all cabling connections to the FSD-2. Make sure that the serial bus cable and power supply cable have been connected properly. **Make sure that the AC power cord has been plugged into a working outlet.** If any cabling errors have been made, correct the errors and try powering up the FSD-2 again.

   1b. If the problem is not with the cabling, disassemble the FSD-2 according to the procedure you used earlier. Remove the JiffyDOS ROM assembly from its socket and then reinstall it according to the procedure in Steps 11-13. **Make sure that the ROM notch is oriented correctly, that there are no bent pins, and that the ROM is seated snugly in its socket.** Once the JiffyDOS ROM assembly has been reinstalled and the drive has been reassembled, try powering up the FSD-2 again.

   1c. If Steps 1a and 1b both fail, remove the JiffyDOS ROM assembly and reinstall the stock FSD-2 DOS ROM. Follow the same procedure for installing the stock DOS ROM as you did for installing the JiffyDOS ROM assembly. Make sure that the notch on the stock DOS ROM is oriented correctly. Try powering up the FSD-2 again. If it powers up properly, return your JiffyDOS FSD-2 ROM assembly to Creative Micro Designs for replacement under warranty. If your disk drive does not power up properly, seek the assistance of a qualified technician.

2. Once the FSD-2 has been powered up successfully, select JiffyDOS on your computer and then power it on (make sure that the power-on message on your computer indicates that JiffyDOS is active). Insert a known good diskette with a few programs on it into the FSD-2.

3. At your computer, type **@$** and **RETURN**. The activity light on the FSD-2 should come on and a directory listing should appear on the screen.

   IF THE DIRECTORY LISTING DOES NOT APPEAR, OR AN ERROR MESSAGE IS DISPLAYED, SHUT OFF THE FSD-2 AND YOUR COMPUTER. FOLLOW THE TROUBLESHOOTING PROCEDURES OUTLINED ON THE NEXT PAGE.

3a. Make sure that JiffyDOS is selected on your computer. When JiffyDOS is selected, the power-on screen will display: JIFFYDOS/64 VERSION x.x, or JIFFYDOS/128 VERSION x.x. If you did not have JiffyDOS selected on your computer, select it now and try reading the disk directory again.

3b. Make sure that you have a known good disk in the FSD-2. Make sure that the disk is properly inserted in the drive.

3c. Recheck the serial bus cabling between your computer and disk drive. Correct any errors and try reading the directory again.

3d. If the problem persists, proceed with troubleshooting procedure 1b found on the previous page.

4. Test the operation of the FSD-2 ROM selector switch. To do this, shut the FSD-2 OFF, and then turn it back ON. **Make sure that your computer is in JiffyDOS mode.** Type **@** and **RETURN** on the keyboard (this will read and display the FSD-2 status channel). Depending on the position of the ROM selector switch, one of the following messages will be displayed:

73,JIFFYDOS x.x 1541, 00, 00

73,CBM DOS V2.6 1541, 00, 00

Next, power off the FSD-2, select the alternate position on the ROM selector switch, and then power the FSD-2 back on. Type **@** and **RETURN** on the keyboard. This time, the other message should be displayed.

IF YOU CANNOT GET BOTH MESSAGES TO BE DISPLAYED, FOLLOW THE INSTRUCTIONS BELOW:

4a. Toggle the selector switch back and forth several times to break through any oxidation on the switch contacts and repeat this step (Step 4) from the beginning.

4b. If exercising the switch does not work, disasssemble the FSD-2 and check the the switch wire connections at the switch and at the ROM assembly for shorts or breaks. Repair any evident problems (resolder the connections, if necessary), reassemble the drive, and then repeat Step 4 again.

4c. If the problem persists, return the JiffyDOS FSD-2 ROM assembly to Creative Micro Designs for replacement under warranty. Please be sure to include a note explaining the problem.

5. After the selector switch has been checked out, the FSD-2 is ready to use. If there are any more peripherals to connect to your system, shut off the FSD-2 and your computer, and connect them at this time.