

## ENHANCER 2000 INSTALLATION

### Required tools:

- Phillips screwdriver
- IC extractor or small, flat-bladed screwdriver. An IC extractor is recommended, but not necessary (the screwdriver will suffice). If using a screwdriver, wrap tape around the tip to prevent damage to the circuit board.
- Hand or power drill. Necessary for installation of the ROM selector switch in the Enhancer 2000 case assembly.
- Silicone Sealant, RTV, epoxy, superglue, or any other general-purpose adhesive. This will be used to bond the switch wire to the Enhancer 2000 circuit board in order to keep it from interfering with the drive mechanism.

### Procedure:

1. If a disk is present in the Enhancer 2000, remove it.
2. Make sure that the Enhancer 2000 and your computer are OFF. Also make sure that any other peripherals attached to the serial bus are also switched OFF.
3. Unplug the Enhancer 2000 power supply cord from its wall outlet. Unplug the power supply and serial bus cables from the rear of the Enhancer 2000.
4. Turn the Enhancer 2000 upside-down and remove the eight screws from the bottom of the drive as indicated in Figure 1 below.

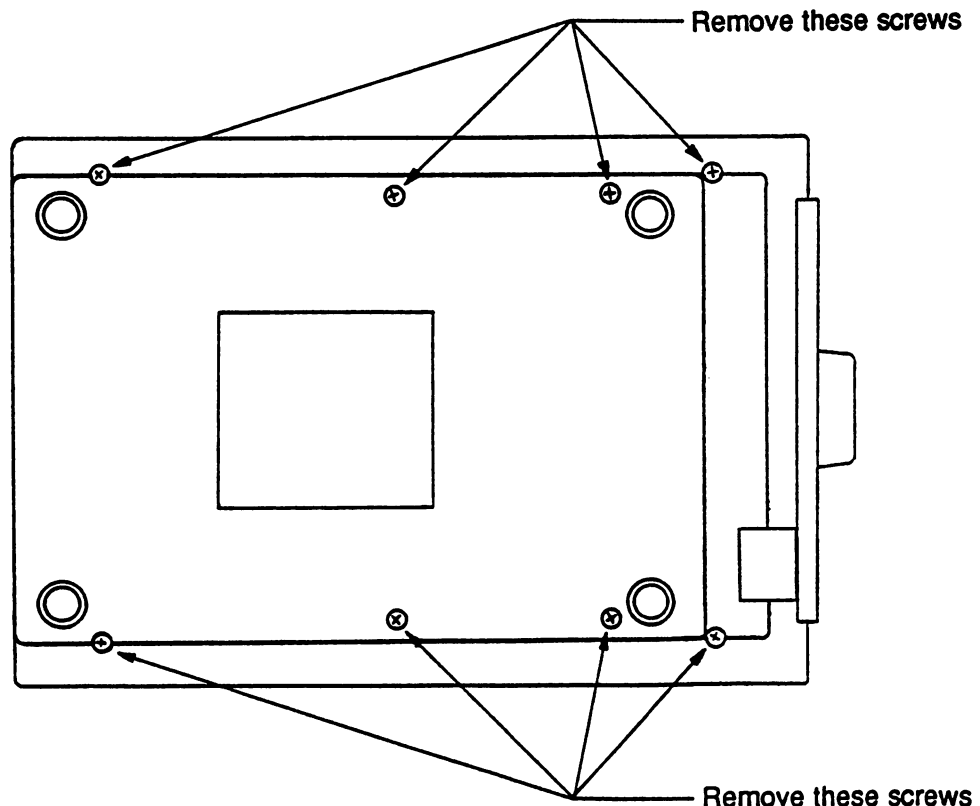


Figure 1 CASE SCREW REMOVAL

5. Turn the Enhancer 2000 rightside-up, making sure that you hold the top and bottom case halves together.
6. Remove the Enhancer 2000 top cover.
7. Lift the front of the drive mechanism upward. This will reveal the Enhancer 2000 circuit board. Continue lifting the front of the drive mechanism until it has been turned over onto its back; allowing easy access to the circuit board. Make sure that you do not strain the cables connecting the drive mechanism to the circuit board.
8. Locate the DOS ROM on the Enhancer 2000 circuit board using the diagram in Figure 2 below.

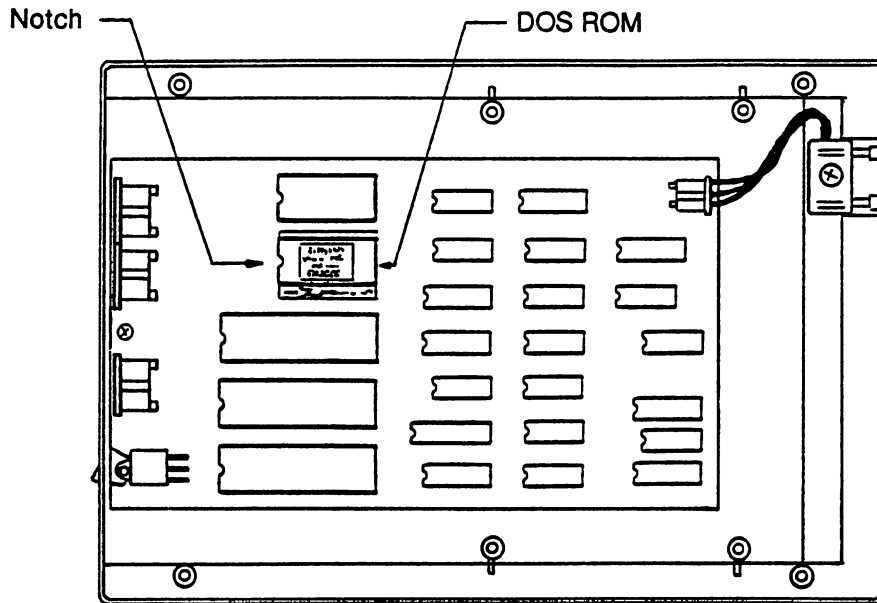


Figure 2 Enhancer 2000 DOS ROM LOCATION

9. Carefully remove the Enhancer 2000 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 EN2000 from its packing. Put the stock Enhancer 2000 DOS ROM back into the packing for safe keeping.
11. Inspect the JiffyDOS Enhancer 2000 ROM assembly carefully. If you observe any bent pins, carefully straighten them with a pair of tweezers.
12. "Test fit" the JiffyDOS Enhancer 2000 ROM assembly on top of the empty DOS ROM socket.

**VERY IMPORTANT**

**MAKE SURE THAT THE NOTCH ON THE JIFFYDOS ROM IS POSITIONED AS SHOWN IN FIGURE 2 ABOVE.**

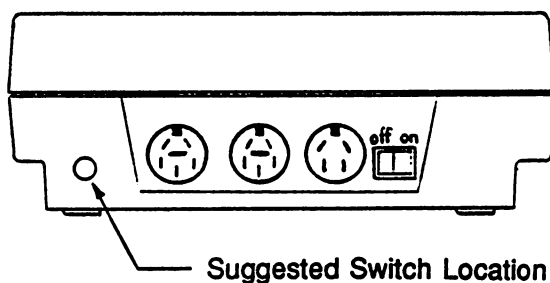
13. With all pins on the JiffyDOS ROM properly aligned with the socket, and with the ROM notch facing as shown in Figure 2, carefully press the Enhancer 2000 ROM into the socket using finger pressure until it is fully seated.
14. Route the ROM switch wire along the circuit board and out toward the rear of the disk drive. Bond the wire flush to the circuit board using Silicone Sealant, RTV, epoxy, superglue, etc.

#### **IMPORTANT**

The switch wire must be kept flush with the circuit board to avoid interference with the drive belt and pulleys when the drive mechanism is back in place.

15. Tilt the drive mechanism back into its normal position.
16. Drill a 1/4" hole in the Enhancer 2000 case assembly to accomodate the JiffyDOS ROM selector switch. A suggested switch location is given in Figure 3 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 ENHANCER 2000 INTERNAL COMPONENTS.**



**Figure 3 SUGGESTED SWITCH LOCATION**

17. After drilling, clean the drive to make sure it is free of any shavings.
18. Install the JiffyDOS selector switch.
19. Replace the top cover.
20. Turn the drive over on its back and replace the eight case mounting screws removed earlier.
21. Reconnect the power supply cable to the Enhancer 2000 and plug the power supply into a working outlet.
22. Connect the serial bus cable between the Enhancer 2000 and your computer.

## Checkout Procedure:

NOTE: Some of the steps in the following Enhancer 2000 installation checkout procedure require the use of a JiffyDOS-equipped computer.

1. Switch the Enhancer 2000 ON. The activity light 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 LIGHT STAYS ON OR BLINKS REPEATEDLY, IMMEDIATELY SWITCH THE DRIVE OFF. THEN FOLLOW THE STEPS OUTLINED BELOW.**

- 1a. Recheck all cabling connections to the Enhancer 2000. Make sure that the power supply and serial bus cables 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 Enhancer 2000 again.
  - 1b. If the problem is not with the cabling, disassemble the Enhancer 2000 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 Enhancer 2000 again.
  - 1c. If Steps 1a and 1b both fail, remove the JiffyDOS ROM assembly and reinstall the stock Enhancer 2000 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 Enhancer 2000 again. If it powers up properly, return your JiffyDOS Enhancer 2000 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 Enhancer 2000 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 Enhancer 2000.
  3. At your computer, type @\$ and RETURN. The activity light on the Enhancer 2000 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 ENHANCER 2000 AND YOUR COMPUTER. FOLLOW THE TROUBLESHOOTING PROCEDURE OUTLINED BELOW.**

- 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 Enhancer 2000. 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 Enhancer 2000 ROM selector switch. To do this, shut the Enhancer 2000 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 Enhancer 2000 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,ENHANCER 2000, 00, 00**

Next, power off the Enhancer 2000, select the alternate position on the ROM selector switch, and then power the Enhancer 2000 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, disassemble the Enhancer 2000 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 Enhancer 2000 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 Enhancer 2000 is ready to use. If there are any more peripherals to connect to your system, shut off the Enhancer 2000 and your computer, and connect them at this time.