

1541-II Installation Instructions

Required tools:

- Phillips screwdriver
- IC extractor or small, flat bladed screwdriver. Needed for removal of the stock DOS ROM from the 1541-II circuit board. An IC extractor is recommended, but not necessary. If using a screwdriver, wrap a layer of tape around the tip to help prevent damage to the circuit board when prying.
- Hand or power drill. Necessary for installation of the ROM selector switch in the 1541-II case assembly.
- Silicone sealant, RTV, epoxy, superglue, or any other general-purpose adhesive. This will be used to bond the switch wire to the 1541-II circuit board in order to keep it from interfering with the drive mechanism.

Procedure:

1. If a disk is present in the 1541-II, remove it.
2. Shut-off power to computer system, unplug 1541-II power supply and remove all cables from the 1541-II Drive.
3. Turn 1541-II upside-down and remove the four screws from the bottom of the drive.
4. Turn the 1541-II rightside-up and remove top cover.
5. Remove the four screws holding the drive mechanism to the base of the 1541-II as shown in Figure 1.

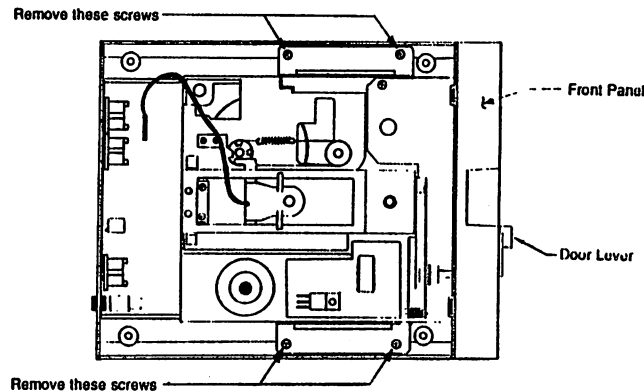


Figure 1: DRIVE MECHANISM REMOVAL

6. Pull the drive door lever (see Figure 1) off its shaft. Note: the door lever may be a tight fit on the shaft - do not be discouraged if it resists removal at first. Be careful not to break the plastic door lever while removing it from the shaft.
7. Remove the 1541-II front panel (see Figure 1) from the front of the drive and place it to one side. Note: a short cable connects the front panel to the disk drive circuit board. It is not necessary to remove this cable in order to remove the front panel.
8. Lift the front of the drive mechanism upward. This will reveal the 1541-II 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.
9. Locate the DOS ROM on the 1541-II circuit board using the diagram in Figure 2 below:

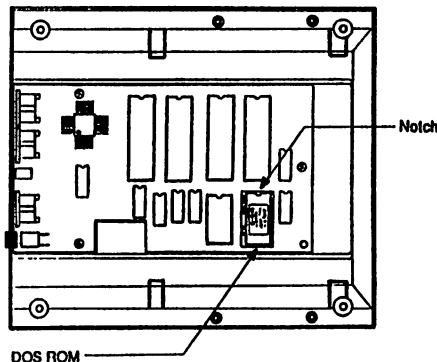


Figure 2: 1541-II DOS ROM LOCATION

10. Carefully remove the 1541-II 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.
11. Remove the JiffyDOS ROM labeled 1541-II from its packing. Put the stock DOS ROM back into the packing for safe keeping.
12. Inspect the JiffyDOS 1541-II assembly carefully. If you observe any bent pins, carefully straighten them with a pair of tweezers.
13. "Test Fit" the JiffyDOS 1541-II ROM assembly on top of the empty DOS ROM socket.

VERY IMPORTANT: Ensure that the notch on the JiffyDOS ROM is positioned as shown in FIGURE 2.

14. 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 1541-II ROM into the socket using finger pressure until it is fully seated.
15. 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 motor when the drive mechanism is back in place.

16. Tilt the drive mechanism back into its normal position.
17. Replace the front panel.
18. Press the door lever back onto its shaft.
19. Drill a 1/4" hole in the 1541-II case assembly to accommodate the JiffyDOS ROM selector switch. A suggested switch location is given in Figure 3 below.

NOTE: 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 1541-II internal components.

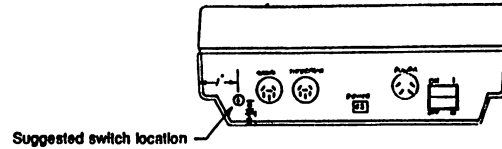


Figure 3: SUGGESTED SWITCH LOCATION

20. After drilling, clean the drive to make sure it is free of any shavings.
21. Install the JiffyDOS selector switch.
22. Replace the top cover.
23. Turn the drive over on its back and replace the four case mounting screws removed earlier.
24. Reconnect the disk drive to your computer system.

Checkout Procedure:

Note: Some of the steps in the following 1541-II installation checkout procedure require the use of a JiffyDOS-equipped computer.

1. Switch the 1541-II ON. The activity light on the front of the drive should come on immediately once 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 DRIVE OFF. THEN FOLLOW THE STEPS OUTLINED BELOW:

- a. Recheck all cabling connections to the 1541-II. 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 1541-II again.
 - b. If the problem is not with the cabling, disassemble the 1541-II 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 12 - 14. 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 1541-II again.
 - c. If steps a and b both fail, remove the JiffyDOS ROM assembly and reinstall the stock 1541-II DOS ROM. Follow the same procedure for installing the stock ROM as you did for installing the JiffyDOS ROM assembly. Make sure that the notch on the stock DOS ROM is correctly oriented. Try powering up the 1541-II again. If it powers up properly, contact the distributor from whom you purchased the JiffyDOS ROM or Creative Micro Designs, Inc., if the ROM was purchased directly from CMD, Inc. and arrange for a warranty replacement. If your disk drive does not power up properly, seek the assistance of a qualified technician.
2. Once the 1541-II 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 1541-II.
 3. At your computer, type @\$ and RETURN. The activity light on the 1541-II 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 1541-II and your computer. Follow the troubleshooting procedure outlined below:
 - a. Make sure that JiffyDOS is selected on your computer. When JiffyDOS is selected, the power-on screen will display: JiffyDOS 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.
 - b. Make sure that you have a known good disk in the 1541-II. Make sure that the disk is properly inserted in the drive.
 - c. Recheck the serial bus cabling between your computer and disk drive. Correct any errors and try reading the directory again.
 - d. If the problem persists, proceed with troubleshooting procedure 1(b) found on the previous page.
 4. Test the operation of the 1541-II ROM selector switch. To do this, shut the 1541-II 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 1541-II status channel). Depending on the position of the ROM selector switch, one of the following messages will appear:

73, JIFFYDOS x.x 1541, 00, 00

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

Next, power off the 1541-II, select the alternate position on the ROM selector switch and then power the 1541-II 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:

- a. Toggle the selector switch back and forth several times to break through oxidation on the switch contacts and repeat this step (Step 4) from the beginning.
 - b. If exercising the switch does not work, disassemble the 1541-II and check the switch wire connections at the switch and at the ROM assembly for shorts or breaks. Repair any evident problems (re-solder the connections, if necessary), reassemble the drive and then repeat Step 4 again.
 - c. If the problem persists, contact the distributor from whom you purchased the JiffyDOS ROM or Creative Micro Designs, Inc., if the ROM was purchased directly from CMD, Inc. and arrange for a warranty replacement.
5. After the selector switch has been checked out, the 1541-II is ready to use. If there are any more peripherals to connect to your system, shut off the 1541-II and your computer and connect them at this time.