

1.44 MB DISKETTE DRIVE

UNFORMATTED CAPACITY: 2.0 MB

FORMATTED CAPACITY: 1.44 MB

NUMBER OF TRACKS: 80 per side

NUMBER OF HEADS: 2

ACCESS TIME

AVERAGE: 95 ms

TRACK-TO-TRACK: 3 ms

MOTOR STARTING TIME: 500 ms (700 ms max.)

ROTATION SPEED: 300 rpm

MEDIA: 3 1/2" high-density or standard-density

NOTE: The 1.44 MB diskette drive can read, write, and format standard-density (720 KB) diskettes as well as high-density (1.44 MB) diskettes. This formatting requires a different set of command parameters. See an operating system reference manual.

Note: This CPU provides power to the floppy with a 4 pin mini power connector. Previous units provided power through the floppy drive cable. The 1.44Meg drive (250-4053) is not a direct replacement for the original floppy. The correct drive replacement is available from Business Products Parts. The 250-4053 can still be added to this unit if the 250-1076 adapter is used and the drive is installed in a 5 1/4" bay.

The type of diskette you use in a diskette drive depends on the drive size (3 1/2" or 5 1/4") and type: 2.88 MB (extra high-capacity), 1.44 MB (high-capacity), or 720 KB (standard-capacity).

See the table on the following page to determine the diskette type for your computer.

DISKETTE TYPE	EXTRA-CAPACITY USE IN A 2.88 MB DRIVE?	HIGH-CAPACITY USE IN A 1.44 MB DRIVE?	STANDARD-CAPACITY USE IN A 720 KB DRIVE?
2.88 MB Diskette	Yes	No	No
1.44 MB Diskette	Yes*	Yes	No
720 KB Diskette	Yes*	Yes*	Yes
*See your operating system documentation for the command parameters required for this type of format.			

INSTALLING ADDITIONAL DRIVES

Your computer supports up to three storage devices. Two devices can be installed in the upper drive bays, and a third can be installed in the lower drive bay.

A diskette drive is installed in an upper drive bay. The remaining upper bay supports a second 3 1/2" device (maximum height, 1 inch). The lower bay supports either a half-height 5 1/4" device or a standard 3 1/2" device adapter to a 5 1/4" form.

To expand storage capacity you can:

- * Install diskette drives in the 3 1/2" and/or 5 1/4" drive bays
- * Install internal hard drives in the 3 1/2" bay or the 5 1/4" drive bay. The SmartDrive connector in your computer supports up to two internal hard drives.
- * Install disk or tape cartridge systems in the 3 1/2" or 5 1/4" drive bay.

Plastic panels cover the openings of the 3 1/2" and 5 1/4" drive bays. Before installing a diskette drive or other drive that accepts removable media, remove the appropriate plastic panel as illustrated.

To remove a panel, press the panel away from inside the cover.

If you are installing a hard drive that is not a SmartDrive, you may need to install an expansion adapter for the drive. Refer to the drive and adapter documentation for instructions.

DRIVE CONNECTIONS

You must connect a drive power cable and drive data/controller cable to each drive you install. The cable connectors are keyed for proper Pin 1 orientation.

DRIVE POWER CABLE

A multi-colored, 4-pin power cable extends from the computer power supply. One 4-pin plug is connected to the installed 3 1/2" diskette drive. The other two plugs are available for optional drives.

DATA/CONTROLLER CABLE

Up to two data/controller cables may be attached to the main logic board. One cable is designed to connect up to two SmartDrives (IDE drives). The other cable has two diskette drive connectors. One diskette drive is already connected. Diskette drives can be:

- * 2.88 MB, 1.44 MB, or 720 KB, 3 1/2" diskette drives, or
- * 1.2 MB or 360 KB, 5 1/4" diskette drives

WHEN TO USE THE SMARTDRIVE CONNECTOR

If you are using a SmartDrive, connect it to the SmartDrive connector on the main logic board.

NOTE: Do not connect an ESDI, SCSI, or ST-506 drive to the SmartDrive connector on the main logic board.

You must install a drive controller if you use non-IDE drives. If a non-IDE drive controller is installed, be sure that the IDE port has been disabled using the setup utility if the controller cannot co-exist with the IDE drives.

SMARTDRIVES co-exist with:

ST-506	No
ESDI	No
SCSI	Yes (Use SmartDrive as the startup drive)

INSTALLING A 3 1/2" DRIVE

To install a 3 1/2" drive, follow these steps and refer to the drive installation guide for instructions on adjusting drive components, connecting the drive cable, and selecting mounting holes on the drive.

1. Adjust the selector switches and terminating resistors on the drive as necessary.
2. Open the computer.
3. If you will need to access the front of the drive after it is installed (for example, to insert diskettes or tape cartridges), remove the plastic panel that covers the drive bay, located on the computer cover. Refer to "Installing Additional Drives" for more information.
4. If you are installing a diskette drive, remove the replaceable metal panel covering the drive bay opening by pulling it outward. Keep the panel in a safe place in case you later decide to remove the drive.
5. Select the appropriate mounting holes on the drive, Slide the drive into the 3 1/2" drive bay. With the drive resting on the center rail, align the mounting holes on the side of the drive with the two mounting holes on the side of the carriage. If a diskette drive or a tape drive is being installed, it should extend approximately one-half inch from the opening.
6. Mount the drive in the bay by installing the four screws as illustrated:
7. Connect the appropriate drive cables to the main logic board, following the instructions in your drive installation guide.

NOTE: A power cable adapter kit is required for all 3 1/2" diskette drives.

8. Close the computer.
9. Run the setup utility to complete the installation. Refer to "Setup" in the "Utilities" section for more information.

INSTALLING A 5 1/4" DRIVE

To install a 5 1/4" drive, follow these steps and refer to the drive installation guide for detailed instructions.

1. Adjust the selector switches and terminating resistors on the drive as necessary.

2. Open the computer.
3. If you are installing a diskette drive, a tape drive, or a CD-ROM drive, remove the plastic card from the bottom of the 5 1/4" bay and remove the panel from the computer cover. Refer to "Installing Additional Drives" for more information.

You will also need to remove the metal panel covering the drive bay opening by pulling it outward. Keep the panel in a safe place in case you later decide to remove the drive.

4. Select the appropriate mounting holes for the drive. Refer to your drive installation guide.
5. Slide the drive into the bay. Align the appropriate mounting holes in the drive with the three mounting holes on the bottom of the carriage.
6. Mount the drive in the bottom of the carriage, using the screws included in your drive kit.
7. Connect the drive cable to the appropriate connector on the main logic board. Connect one of the power cables from the computer power supply to the power connector on the drive.
8. Close the computer.
9. Run the setup utility to complete the installation. Refer to "Setup" in the "Utilities" section for more information.

INSTALLING A 3 1/2" DRIVE IN THE 5 1/4" BAY

Refer to the drive installation guide for instructions on adjusting drive components, connecting the cables, and selecting mounting holes on the drive. If you are not installing a SmartDrive, you may need a drive adapter.

NOTE: Adapters without mounting holes on the bottom require an L-bracket.

1. Adjust the selector switches and terminating resistors on the drive as necessary.
2. Open the computer and remove the replaceable metal panel covering the drive bay.

NOTE: If you are installing a diskette drive, keep the panel in a safe place in case you later decide to remove the drive.

3. Install the drive in a 3 1/2" to 5 1/4" internal drive adapter if necessary.
4. Attach the drive cable to the device as directed.
5. Align the holes on the wider side of the L-bracket with the bottom set of holes on the drive adapter. Install the screws as illustrated.
6. Insert the drive, adapter, and L-bracket into the 5 1/4" bay. Use the screws from the installation kit to mount the device.

7. Attach the power connector from the power harness adapter to the power connector on the drive.

NOTE: Depending on the drive kit, you may need a DC power harness adapter to link the drive power cable to the smaller connector on the drive.

8. If you have installed a hard drive, replace the metal panel in the drive bay.
9. Close the computer.
10. Run the setup utility to complete the installation. Refer to "Setup" in the "Utilities" section for more information.

(smm 08/05/93)