

**Addendum to 25-1041**  
**20 Meg. Hard Disk System Installation Manual**

1. Before installing your 25-1007 Hard Disk Controller, check the sticker on the ROM chip at location U33. If the date is September 1987 or earlier, the controller will need to be modified by your local Radio Shack® Service Center.
2. Set the jumpers on your Hard Disk Controller for the 15 Meg. setting before installing the board in your computer.
3. The correct operating ambient temperature of the disk drive is 12.8° - 29.45° C.

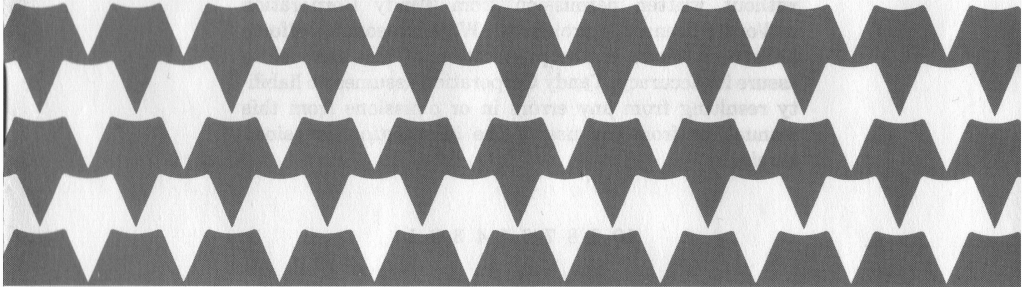
**Radio Shack**  
**A Division of Tandy Corporation**

The FCC wants you to know . . .

Warning: The equipment described here, when used with ordinary radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and has been found to comply with the limits for Class A computing devices pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. The operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

Tandy® 1000

# 20-Meg Disk System



**TANDY®**

**The FCC wants you to know . . .**

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# 20-Meg Disk System

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Thank you for purchasing the 20-Megabyte Hard Disk System. The 20-Megabyte Hard Disk greatly increases the data storage capabilities of the Tandy® 1000.

## A Little About Hard Disks

Your hard disk drive consists of 2 platters, or disks, that lie parallel to each other within the drive. These disks reside in the drive permanently.

Each side of each disk has a read/write head that moves toward or away from the center of the disk as needed to store and retrieve information.

When you purchase your hard disk, a few areas on the hard disk may be flawed because of minor defects in the platters or because of signals from external sources. This is not uncommon among hard disks, and it does not reduce storage space significantly. Your hard disk contains no more than 24 flawed tracks. Track 0 is never flawed.

Before shipping your hard disk, we determine which, if any, tracks on your hard disk are flawed. We then attach to the bottom of the hard disk case a Media Error Map containing this information. Write down this information in the space provided on page 4. You will need to refer to it when formatting the hard disk drive.

## What You Need

To connect the 20-Megabyte Hard Disk as the primary or first external hard disk to a Tandy 1000, you need the Tandy 1000 Hard Disk Controller Board (Cat. No. 25-1007).

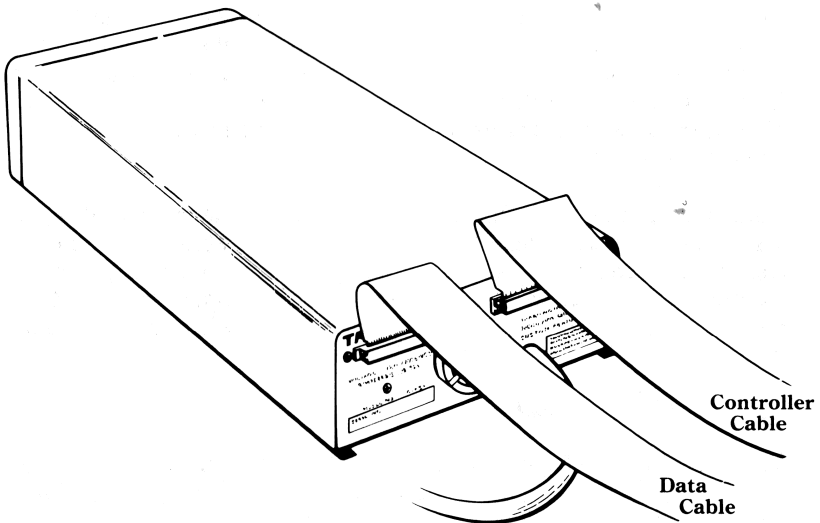
To connect the 20-Megabyte Hard Disk as the second external hard disk to a Tandy 1000, you need a cable kit (Cat. No. 25-1026). You must also have your second hard disk modified by a qualified Radio Shack computer service technician. The service technician will remove the terminator from the second drive and change the drive select settings. This is necessary to assure that the hard disk works properly.

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To connect the 20-Megabyte Hard Disk as an external hard disk to a Tandy 1000HD, you need a cable kit (Cat. No. 25-1027). You must also have your computer's internal hard disk and the external hard disk modified by a qualified Radio Shack computer service technician. The service technician will remove the terminator from the internal drive and change the drive select settings on the external drive. This is necessary to assure that the hard disk works properly. Note: Once this modification is made, you cannot use your Tandy 1000HD if the external hard disk is not connected and turned on.

## Connecting the Hard Disk

Follow the instructions in the Tandy® 1000 Hard Disk Controller Board Installation and User's Guide to connect the hard disk to your computer. Use the jumper configurations described for Disk Drive Type 2.



Connect the 20-pin cable (smaller cable) from the hard disk controller board to the connector labeled "DATA" on your hard disk. Next, connect the 34-pin cable from the hard disk controller board to the connector labeled "CONTROL" on your hard disk.

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Notice that the cables are keyed so they can be connected only one way. Be sure the cable's keys line up before connecting the cables. Do not force the cable into the connector. Refer to the illustration. Also, refer to any instructions included in your cable kit.

## **Care of Your Hard Disk System**

Because the disks are permanently encased within your hard disk drive, away from dust and other harmful particles, the drive requires little maintenance.

Be careful to not move, jolt, or drop the hard disk while it is turned on. This could result in loss of data or possible damage to the hard disk.

Your hard disk drive is designed for operation over a wide temperature range. For best results you should turn on the computer system at least 30 minutes prior to formatting the hard disk. This allows the internal temperature of the hard disk to stabilize.

# Unit Specifications

Number of cylinders: 615  
 Number of heads: 4

Power Requirements AC- 120V  $\pm$  10%

Start Up: +12 volts DC  
 .9 amperes typical  
 2.2 amperes maximum

Running:  
 +12 volts DC  
 $\pm$  5 percent  
 .8 amperes typical  
 2.2 amperes maximum

+5 volts DC  
 .8 amperes typical  
 0.8 amperes maximum

Operating Density Altitude -1000 to 10,000 feet

Operating Ambient Temperature 10.0°C to 45.0°C  
 55°F to 85°F

Relative Humidity 8 to 80 percent, noncondensing

MEDIA ERROR MAP			
HEAD	CYLINDER	HEAD	CYLINDER
2	6		
2	31		
2	30		

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