

3070

TAPE DRIVE



 **Commodore**[®]
AMIGA[®]

INSTALLATION GUIDE

3070 TAPE DRIVE



 Commodore[®]
AMIGA[®]

Changing the SCSI ID number

Because it is a standard for the Amiga 3000 and 3000UX operating systems, the 3070 Tape Drive comes configured as SCSI device number 4. It is highly recommended that UNIX[®] users, in particular, leave the SCSI ID set to 4 because many UNIX operations assume it is set as such. If necessary, you can change the SCSI ID Number by using the dip switches located inside of the tape drive case.

To change the SCSI ID:

1. **IMPORTANT:** Make sure the power to the tape drive and the Amiga 3000 is OFF. Disconnect the power cables.
2. *Disconnect the SCSI cable from the back of the Amiga 3000.*
3. *Facing the rear of the tape drive, remove the screw that holds the bottom plate to the case (Figure 8).*

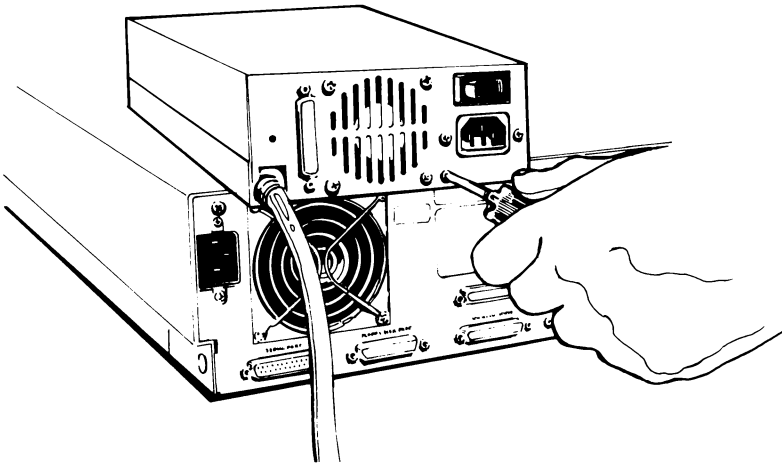


Figure 8
Removing the bottom screw

4. *Turn the tape drive over and remove the plate by sliding and lifting it off of the case.*

You will see the tape drive within the case.

5. *Remove the four screws that hold the tape drive in place (Figure 9).*

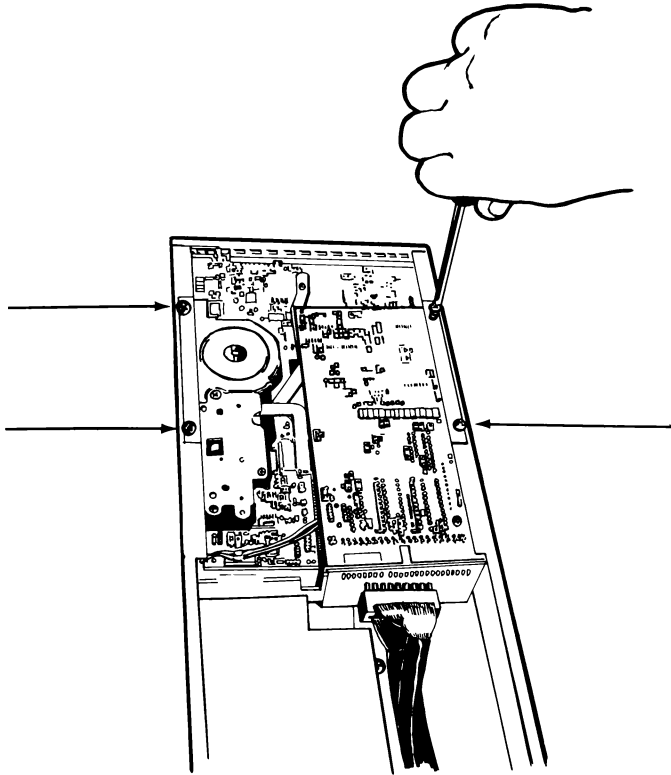


Figure 9
Removing the four screws

6. *Disconnect the power cable and SCSI connector bus from the tape drive (Figure 10).*

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Introduction

The Commodore 3070 Tape Drive is designed for use with the Commodore Amiga 3000 and the Amiga 3000UX.

With the 3070 Tape Drive, you can back up the data on your hard disk to magnetic tape. Because of the greater storage size of magnetic tape, it is much quicker and simpler than backing up to floppy disks.

Performing regular backups of your system reduces the risk of data loss from human and hardware errors, and provides a convenient way to exchange data between systems and load new software or system updates.

Before proceeding, examine the contents of your package. In addition to this manual, you should find:

- One Commodore 3070 Tape Drive
- One SCSI Terminator Block
- One Power Cable

This manual covers:

- **Understanding SCSI Devices**
- **Installing the 3070 Tape Drive as the only SCSI device on your system**
- **Installing the 3070 Tape Drive to a series of SCSI devices**
- **Loading and unloading the tape cartridge**
- **Compatible tape cartridges**
- **Care and handling of the tape drive and cartridges**
- **Write protecting a tape cartridge**
- **Changing the SCSI ID Number of the tape drive**

**THIS MANUAL IS STRICTLY AN INSTALLATION GUIDE.
ONCE YOU HAVE INSTALLED YOUR TAPE DRIVE,
CONSULT YOUR SYSTEM SOFTWARE MANUAL FOR
COMPLETE BACKUP AND RESTORE INSTRUCTIONS.**

Understanding SCSI devices

Throughout this manual you will see references to SCSI devices. **SCSI** (Small Computer System Interface) is a industry-wide standard interface (or connection), designed to be compatible with many types of computers and peripherals. The Commodore 3070 Tape Drive is a SCSI device, meaning it conforms to the SCSI standard.

SCSI devices are found inside and outside of your computer. Some SCSI devices are internal (connected inside of the computer), such as an internal SCSI hard disk. The 3070 Tape Drive is an **external SCSI device**; it is situated *outside* of the computer and linked to the computer via a **SCSI cable**. The Commodore 3070 Tape Drive operates through the SCSI port, located in the rear of the Amiga 3000.

External SCSI devices for the Amiga 3000 are designed to **daisy chain** to your system. This means the first SCSI device is connected to the SCSI port on your Amiga 3000; the second SCSI device is connected to the SCSI port on the first SCSI device, etc. This forms a chain back to your system and can continue until you reach a maximum of seven SCSI devices (both internal *and* external).

The SCSI device chain must be **terminated** at both ends with special terminators (such as the SCSI Terminator Block supplied with the 3070 Tape Drive). The internal end of the SCSI connector on the Amiga 3000 is already terminated. You must assume responsibility for the other end by terminating the open SCSI port on the last SCSI device hooked to your system.

For example, if your only external SCSI device is the 3070 Tape Drive, connect the included SCSI Terminator Block to the open SCSI port on the back of the tape drive. With more than one SCSI device, make sure the last device is terminated.

If some of your SCSI devices are not recognized by your system, or if your computer will not boot, it could be caused by improper termination. Make sure you have terminated the last SCSI device in the chain. Do not terminate any devices in the middle of the chain. (Note that SCSI hard disks usually have removable termination built in. Consult your dealer for more information.)

Installing the tape drive as the only external SCSI device

- 1) IMPORTANT: Make sure that the power to the system is disconnected before you begin to install the 3070 Tape Drive. Failure to observe this precaution could produce injury to the user and damage to the equipment.**
- 2) Connect the tape drive's SCSI Cable to the SCSI port in the rear of the Amiga 3000 (Figure 1).*

<p>IMPORTANT: The Amiga 3000 has other 25 pin connectors in the area of the SCSI port. MAKE SURE to connect the cable to the port marked SCSI. Connecting the cable to the wrong port could damage your equipment.</p>
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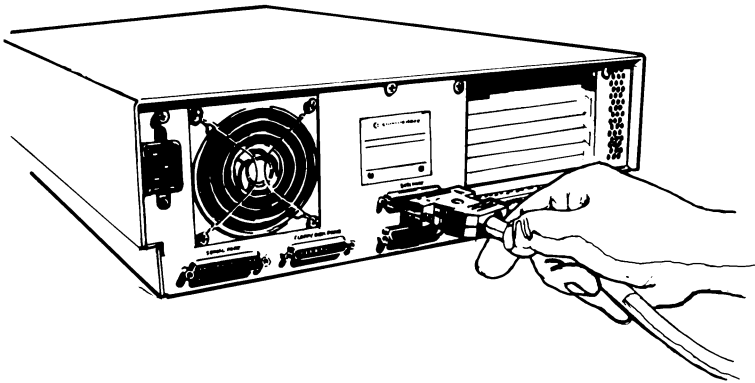


Figure 1
Connecting SCSI cable to SCSI port

- 3) Remove the SCSI Terminator Block from the box and connect it to the open SCSI port on the back of the tape drive (Figure 2).

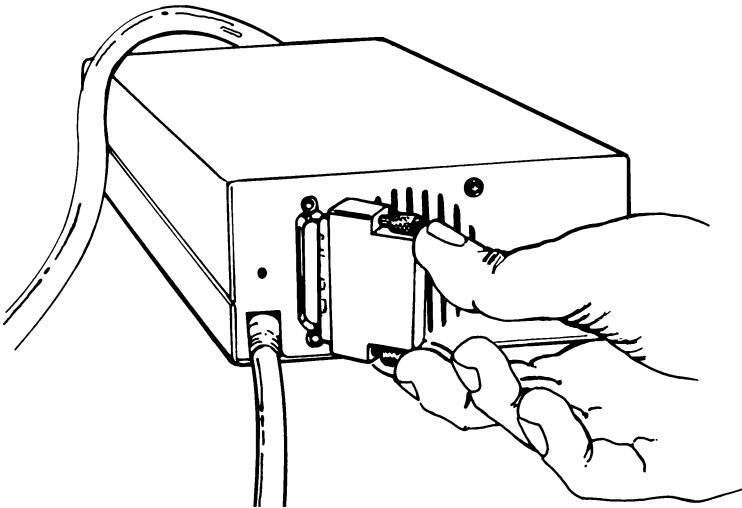


Figure 2
Connecting the SCSI Terminator Block

- 4) Connect the power cable to the power supply connector on the rear of the tape drive (Figure 3).

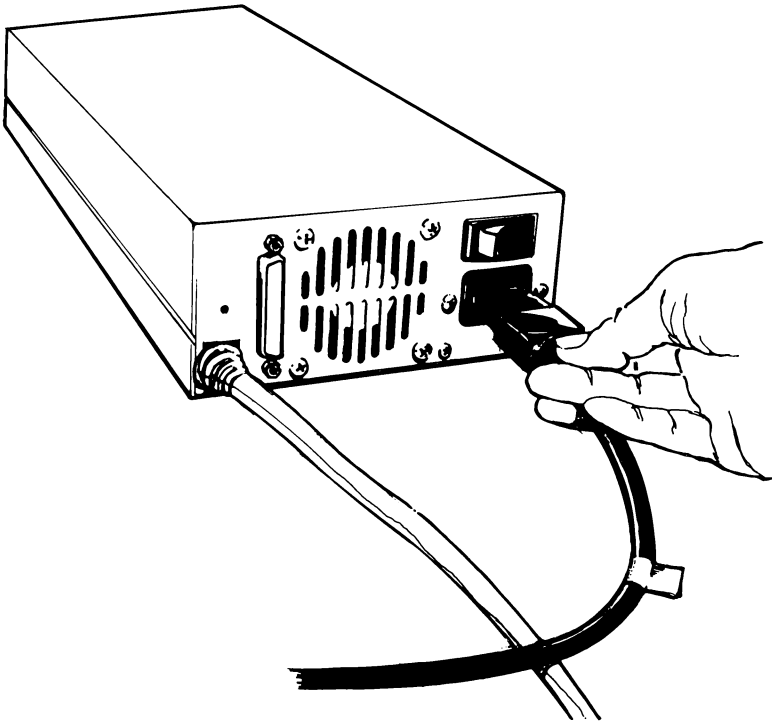


Figure 3
Connecting the power cable

- 5) *Plug in the tape drive. Do not power it up yet—the computer will not boot unless the tape drive is powered on at the same time as the system.*
- 6) *Reconnect the power to your system. Power up the tape drive (by flipping the power switch on the left rear) at the same time you power up your system*

A fan turning on within the tape drive will indicate that the tape drive is on. **Unless there is a tape cartridge in the tape drive, the light on the tape drive will not go on.**

Installing the tape drive to a series of external SCSI devices

To install the tape drive to a series of SCSI devices:

- 1) **IMPORTANT:** Make sure that the power to the system and to all SCSI devices is disconnected before you begin to install the 3070 Tape Drive. Failure to observe this precaution could produce injury to the user and damage to the equipment.
- 2) *Disconnect the first SCSI device of the chain from your system and connect it to the back of the tape drive (Figure 4).*

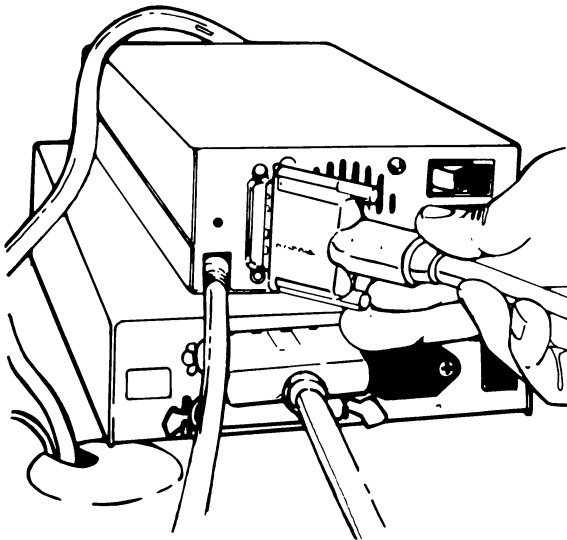


Figure 4
Connecting the SCSI device to the tape drive

- 3) *Connect the tape drive's SCSI Cable to the SCSI port in the rear of the Amiga 3000 (Figure 5).*

IMPORTANT: The Amiga 3000 has other 25-pin connectors in the area of the SCSI port. **MAKE SURE to connect the cable to the port marked SCSI.** Connecting the cable to the wrong port could damage your equipment.

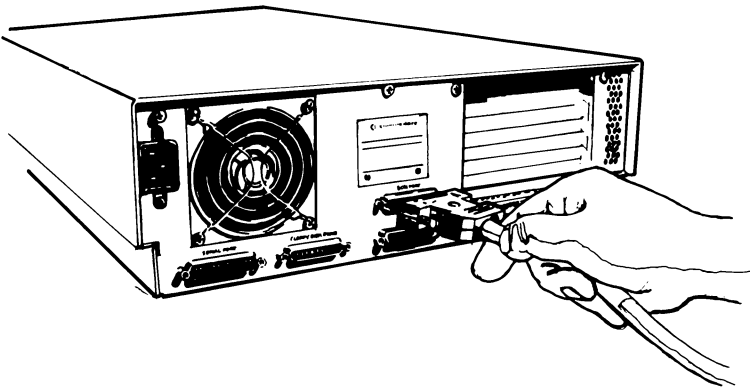


Figure 5
Connecting SCSI cable to SCSI port

- 4) *Make sure the last SCSI device in the chain has a SCSI Terminator Block covering its open SCSI port. If it does not, locate the SCSI Terminator Block that came with that device (or purchase one) to connect to its open SCSI port.*
- 5) *Connect the power cable to the power supply connector on the rear of the tape drive and plug it in (Figure 6).*

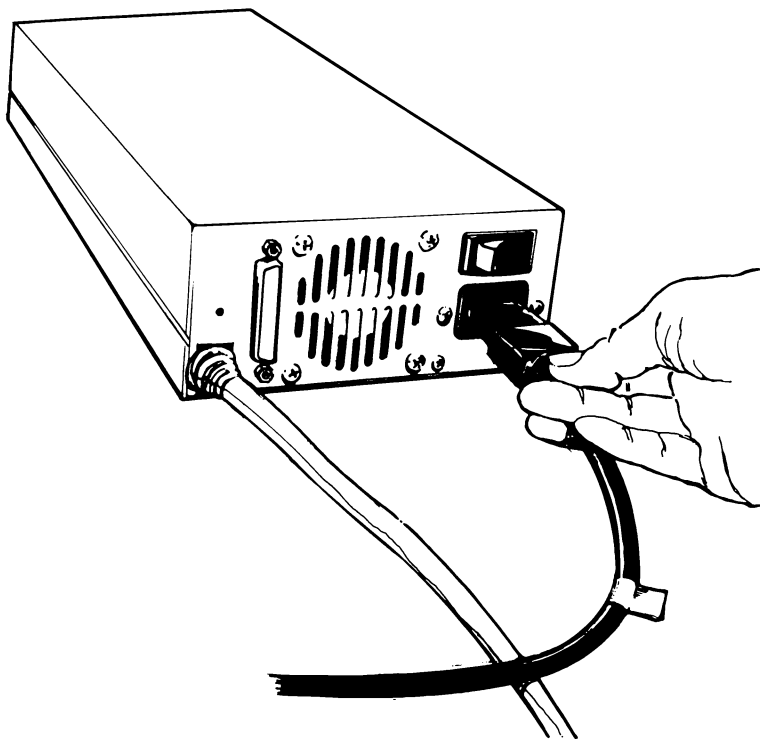


Figure 6
Connecting the power cable

- 6) *Reconnect the power to all of the devices you unplugged, but do not power them up.*
- 7) *Power up the tape drive, the other SCSI devices in the chain, and the system.*

In order for the system to boot up, all SCSI devices in the chain must be powered up at the same time as the system. You may decide to connect the devices to a power strip, so you can power up all devices by simply turning on the power strip.

A fan turning on within the tape drive will indicate that the tape drive is on. **The light on the tape drive *will not* go on unless there is a tape cartridge within the tape drive.**

Loading and unloading the tape cartridge

Note: DO NOT OPEN THE DOOR on the tape drive unless the light on the front is glowing green (when cartridge is installed but not operating) or when the light is off (no cartridge is installed). Failure to observe this precaution may cause data loss.

Loading the tape cartridge into the drive is a simple operation:

- 1) *Open the front door of the tape drive by pressing the eject button on the upper left hand corner.*

The door will spring halfway open. Gently press down on the door until it stops.

- 2) *Insert the cartridge into the door with the metal side down and the notches facing to the left.*
- 3) *Once the cartridge is held in place by the drive, push the door shut.*

If the tape is inserted incorrectly, the door will not shut. Do not force it.

The cartridge is properly installed if the door shuts fully and a “click” is heard when the eject button goes back into place.

To unload the cartridge:

- 1) When the tape drive light is GREEN (the tape is not moving), press the eject button, then gently press down on the half-opened door until the cartridge slides out of the drive.*
- 2) Grab the end of the cartridge and slide it the rest of the way out of the drive.*
- 3) Close the door and return the cartridge to its protective box.*

Compatible tape cartridges

Use only cartridges that were designed for operation with the Commodore 3070 Tape Drive. 3M® DC600XTD, 3M DC6150, and the Carlisle DC-6150 are recommended for use with this system.

Care and handling

Tape drive head cleaning should be part of your regular maintenance program. Make sure that it includes these points:

- Clean the recording head after every 500 passes.
- Use only approved cleaning solutions and materials.

To keep the data stored on tape cartridges safe, follow these guidelines:

- Do not clean or touch the tape or tape rollers with your fingers or any foreign objects.
- Always remove the cartridges when the drive is not in use.
- Keep the cartridge in its protective box when it is not in the drive.
- Keep the cartridges away from strong magnetic fields.
- **It is important to remember that your tape cartridges and drives are sensitive to temperature variations.** Do not try to operate your drive in temperatures below 40 F (5 C) or above 110 F (45 C). Do not store your tapes or tape drive where they will be exposed to temperatures below – 40 F (– 40 C) or above 140 F (60 C).

Write protecting a tape cartridge

To avoid inadvertently over-writing a cartridge, you can **write protect** a cartridge it just as you would a floppy disk. By write protecting a cartridge, no data can be written over the data already on the tape.

Notice that the tape cartridge contains a barrel plug in the upper left-hand corner that says “SAFE”. To write protect a cartridge, using a coin or screwdriver, turn the arrow on the plug so it points to SAFE (Figure 7).

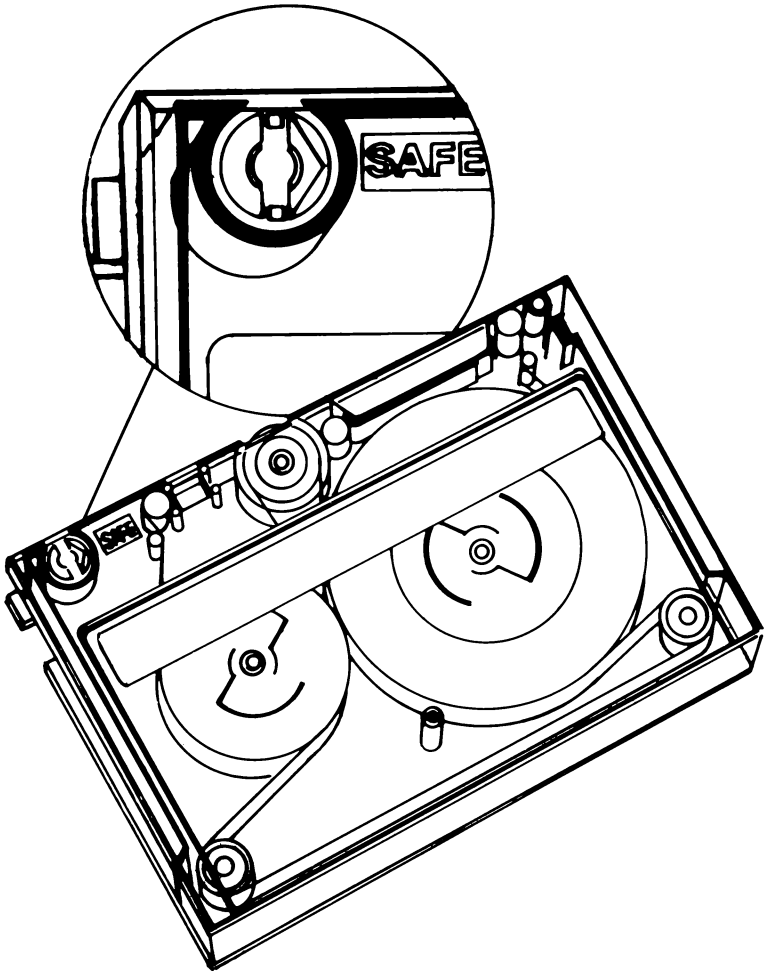


Figure 7
Write protected tape cartridge

If you attempt to write to a tape but are unable to do so, make sure that the cartridge is *not* write protected. Turn the arrow away from SAFE.

Technical specifications

Data handling and tape motion

Capacity	150 Mb (formatted)
Number of tracks	18 (Serpentine)
Head configuration	Read after write (2 channel) with full width erase
Recording method	NRZI
Recording code	4-5 GCR (0,2RLL)
Flux density	12,500 FTPI
Data density	10,000 BPI
Transfer rate	112.5 KByte/sec.
Tape speed	90 IPS
Speed variations	+/- 7% short term +/- 4% long term
Start/Stop time	<300ms

Environmental requirements

Operational	
Temperature	+ 5 to 45 C (41 to 113 F)
Relative humidity	20% to 80% non-condensing
Thermal gradient	1 C/min
Altitude	- 1000 ft. to 15,000 ft.
Non-Operational	
Temperature	- 30 to 60 C (- 22 to 140 F)
Relative humidity	10% to 90% non-condensing
Altitude	- 1000 ft. to 50,000 ft.

To order the cleaning kit specifically designed for the Commodore 3070 Tape Drive, call FlexSys Corp., at 1-800-533-7756 and request the FSC525 1/4" Cartridge Tape Cleaning Kit.

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USER'S MANUAL STATEMENT

WARNING: This device complies with Part 15 of the Federal Communications Commissions rules and Standard C108.8-M1983 of the Canadian Standards Association's regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation. If you suspect interference, you can test this equipment by turning it off and on. If this equipment does cause interference, correct it by doing any of the following:

- Reorient the receiving antenna or AC plug.
- Change the relative positions of the computer or receiver.
- Plug the computer into different outlet so that the computer and receiver are on different circuits.

CAUTION: Only peripherals with shield-grounded cables (computer input-output devices, terminals, printers, etc.), certified to comply with Class B limits, can be attached to this device. Operation with non-certified equipment may result in communications interference.

Your local AC wall receptacle must be the three-pronged type (AC ground). If not, contact an electrician to install the proper receptacle. If a multi-connector box is used to connect the computer and peripherals to AC, the ground must be common to all units.

If necessary, contact your dealer or an experienced radio-television technician for additional suggestions. You may find the following FCC booklet helpful: "How to Identify and Resolve Radio-TV Interference Problems." The booklet is available from the U.S. Government Printing Office, Washington, DC 20402, stock no. 004-000-00345-4.

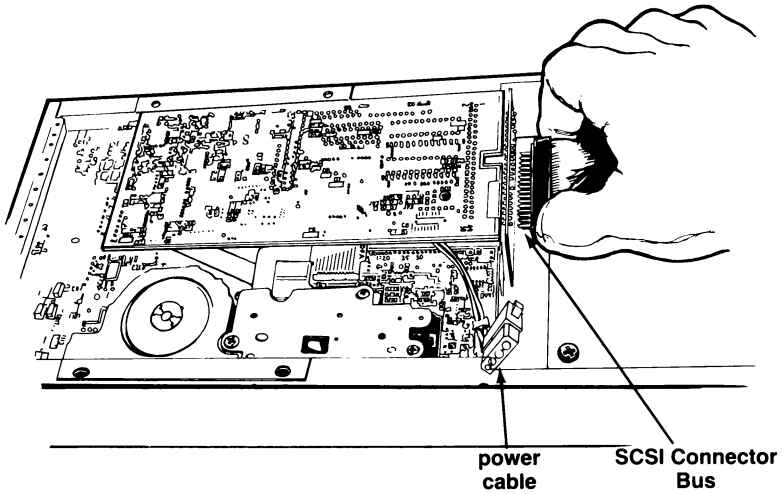


Figure 10
Disconnecting the cables

7. *Remove the tape drive by sliding it out toward its protective door.*
8. *Locate and adjust the thumb switch on the side of the tape drive.*

The switch configuration (as set to SCSI device 4) should look like this:

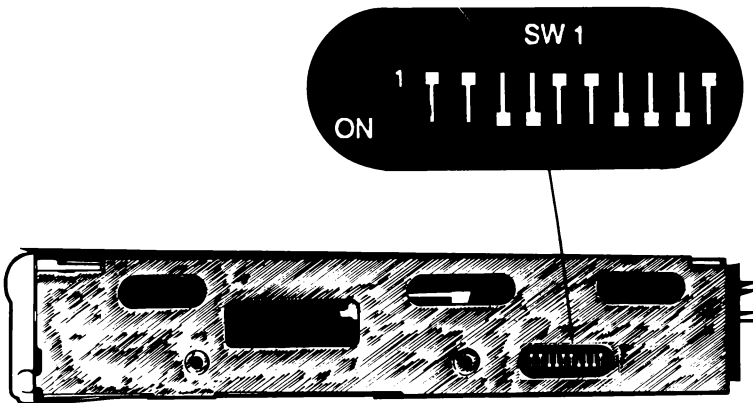


Figure 11
Switch configuration as SCSI device 4

Only the switches 1 through 3 need to be altered to change the SCSI ID. These are the left-most switches in Figure 11. The remaining seven switches should be left in place. Switch 4 represents Parity Enable, and 5 through 10 are for factory use only.

Use the following chart to change the SCSI ID on the tape drive:

SCSI ID SWITCH SETTINGS				
		SW1-1	SW1-2	SW1-3
I D N O	0	OFF	OFF	OFF
	1	ON	OFF	OFF
	2	OFF	ON	OFF
	3	ON	ON	OFF
	4	OFF	OFF	ON
	5	ON	OFF	ON
	6	OFF	ON	ON
	7	ON	ON	ON

Figure 12
Switch settings for SCSI ID

To replace the tape drive:

- 1. Slide the tape drive back into position.*
- 2. Reconnect the internal power cable and the SCSI bus cable.*
- 3. Replace the four screws that hold the tape drive in place.*
- 4. Slide the bottom plate back on the case.*
- 5. Replace the screw on the rear of the tape drive that attaches the bottom plate to the case.*
- 6. Reconnect the power cable to the tape drive.*
- 7. Reconnect the SCSI cable to the back of the Amiga 3000.*



Commodore Business Machines, Inc.
1200 Wilson Drive • West Chester, PA 19380



IMPORTANT:

**This is your Unit Warranty Registration:
Fill it out NOW and mail---
Don't delay!**

LIMITED 90-DAY WARRANTY INFORMATION

Please enter the Model No. and Serial No. below. These numbers can be found on the rating label. Retain this information for future reference.

Model No. _____

Serial No. _____

Fold to here and staple



BUSINESS REPLY CARD

FIRST CLASS

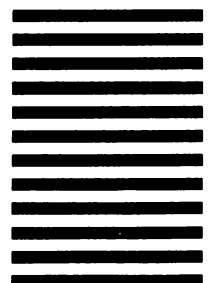
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LIMITED 90 DAY REPAIR WARRANTY

Commodore's commitment to its customers:

We warrant to you that for a period of ninety days from the date of your original purchase, our computer products shall be free from defects in material and workmanship. OUR WARRANTY EXTENDS TO THE ORIGINAL PURCHASER ONLY, AND ONLY TO THOSE NEW PRODUCTS PURCHASED DIRECTLY FROM AN AUTHORIZED COMMODORE RESELLER.

If you discover a defect covered by this warranty, we agree to repair it at our expense, using new or remanufactured components at our sole discretion. Commodore's liability is limited solely to the repair of the defective product.

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To obtain free repairs under this warranty, you *MUST* deliver the product along with the original sales invoice to the nearest Commodore Authorized Service Center which services that product. DO NOT RETURN THE PRODUCT TO COMMODORE. You will be responsible for paying any costs associated with the delivery to and from the service center.

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318290-03

UNIT WARRANTY REGISTRATION			
Purchaser's Name _____		Date of purchase _____	
Address _____			
City _____		State _____	Zip _____
Phone () _____			
Place of Purchase _____			
(1) Product Purchased (Name and Model Number): _____			
(2) Serial Number: _____			
(3) Place of Purchase (Select One)			
Dealer	<input type="checkbox"/>	Corporate Buy	<input type="checkbox"/>
Dept. Store	<input type="checkbox"/>	Educational Buy	<input type="checkbox"/>
VAR/OEM	<input type="checkbox"/>	Other	<input type="checkbox"/>
(4) Last computer you owned: (Select One)			
C-64/C-128	<input type="checkbox"/>	MS-DOS or OS/2	<input type="checkbox"/>
Amiga	<input type="checkbox"/>	Apple II	<input type="checkbox"/>
UNIX	<input type="checkbox"/>	Macintosh	<input type="checkbox"/>
Atari	<input type="checkbox"/>	Other	<input type="checkbox"/>
(5) Principal reason you selected this product: (Select One)			
Education	<input type="checkbox"/>	Graphic Arts	<input type="checkbox"/>
Business	<input type="checkbox"/>	Desktop Publishing	<input type="checkbox"/>
Home Office	<input type="checkbox"/>	Video	<input type="checkbox"/>
Entertainment	<input type="checkbox"/>	Animation	<input type="checkbox"/>
Music	<input type="checkbox"/>	Telecommunications	<input type="checkbox"/>
Programming	<input type="checkbox"/>	Interactive Video	<input type="checkbox"/>
Scientific	<input type="checkbox"/>	Other	<input type="checkbox"/>
(6) Please rate Commodore as a company: (Select One)			
Excellent	<input type="checkbox"/>	Fair	<input type="checkbox"/>
Good	<input type="checkbox"/>	Poor	<input type="checkbox"/>
(7) Primary location of use: (Select One)			
Home	<input type="checkbox"/>	Classroom K-12	<input type="checkbox"/>
Office	<input type="checkbox"/>	Classroom College	<input type="checkbox"/>
Laboratory	<input type="checkbox"/>	Other	<input type="checkbox"/>
(8) Most important feature: (Select One)			
Price	<input type="checkbox"/>	Power	<input type="checkbox"/>
Warranty	<input type="checkbox"/>	Multiple O/S	<input type="checkbox"/>
Graphics	<input type="checkbox"/>	Sound	<input type="checkbox"/>
Support	<input type="checkbox"/>	Brand	<input type="checkbox"/>
(9) Where did you first hear of this product? (Select One)			
Magazine	<input type="checkbox"/>	Friend	<input type="checkbox"/>
Newspaper	<input type="checkbox"/>	School	<input type="checkbox"/>
Television	<input type="checkbox"/>	Children	<input type="checkbox"/>
Work	<input type="checkbox"/>	Other	<input type="checkbox"/>
(10) Additional products you plan to purchase: Select All That Apply			
Monitor	<input type="checkbox"/>	Dot Matrix Printer	<input type="checkbox"/>
Hard Drive	<input type="checkbox"/>	Laser Printer	<input type="checkbox"/>
Modem	<input type="checkbox"/>	Scanner	<input type="checkbox"/>
LAN	<input type="checkbox"/>	Tape Backup	<input type="checkbox"/>
Video Peripheral	<input type="checkbox"/>		
(11) Computer experience: 1 = None, 6 = Much Experience) _____			
(12) Age:			
Under 18	<input type="checkbox"/>	35-49	<input type="checkbox"/>
18-24	<input type="checkbox"/>	over 50	<input type="checkbox"/>
25-34	<input type="checkbox"/>		
(13) Sex: Male <input type="checkbox"/> Female <input type="checkbox"/>			
(14) Married: Yes <input type="checkbox"/> No <input type="checkbox"/>			
(15) Number of children: _____			
(16) Income:			
Less than 10,000	<input type="checkbox"/>	40,000 - 49,999	<input type="checkbox"/>
10,000 - 19,999	<input type="checkbox"/>	50,000 - 59,999	<input type="checkbox"/>
20,000 - 29,999	<input type="checkbox"/>	60,000 +	<input type="checkbox"/>
30,000 - 39,999	<input type="checkbox"/>		
If the primary user is someone other than yourself, please answer questions 17-19			
PRIMARY USER			
(17) Computer experience: 1 = None, 6 = Much Experience) _____			
(18) Age:			
Under 18	<input type="checkbox"/>	35-49	<input type="checkbox"/>
18-24	<input type="checkbox"/>	over 50	<input type="checkbox"/>
25-34	<input type="checkbox"/>		
(19) Sex: Male <input type="checkbox"/> Female <input type="checkbox"/>			
Your response will help us serve you better.			
Thank You!			



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