SyQuest®

SyJet™ 1.5GB

1.5GB Portable SCSI

Installation Guide
Macintosh and
Macintosh Compatible Systems

Welcome to SyQuest®

Thank you for buying a SyQuest removable cartridge hard drive. It represents a truly unique combination of powerful features and performance. Our goal is to make your drive an invaluable asset for years to come, starting today.

If you need assistance installing your drive, or have questions in the future, contact SyQuest at one of the numbers listed below:

SyQuest® Technology 47071 Bayside Parkway Fremont, CA 94538-6517
SyQuest's main phone number, 510-226-4000, is staffed during business hours, and has a 24-hour automated system.
You can also contact the sales or technical assistance numbers for your area listed below.

Sales

U.S.A.	Voice: 1-800-245-CART (2278) Email: sales@syquest.com
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Getting Started

You can connect the SyJet™ portable SCSI drive to Macintosh and Macintosh compatible desktop, laptop, or tower computers. Your computer must have the following features to operate the SyJet drive properly:

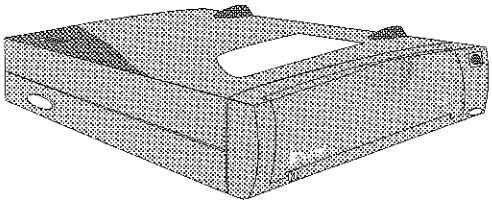
- A Macintosh SE 30 or newer computer
- System Software 6.0.5 or later (7.5 or later preferred)
- A 30-pin to 25-pin SCSI cable converter for Macintosh Powerbook computers

This guide provides detailed step-by-step installation instructions. Installation typically requires about an hour, and requires familiarity with computer hardware and software. Please review all instructions in this installation guide, and familiarize yourself with your computer before you install your SyJet drive.

Preparing Your SyJet Drive for Installation

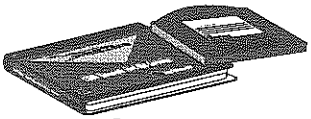
1. Unpack your SyJet drive.

Unpack and inspect the contents of the shipping carton.

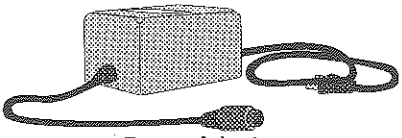


SyJet SCSI Removable Cartridge Disk Drive

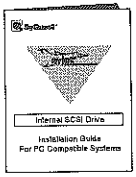
SCSI Cable



SyQuest® Cartridge in Protective Case

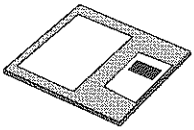


Power Adapter



Macintosh Installation Guide

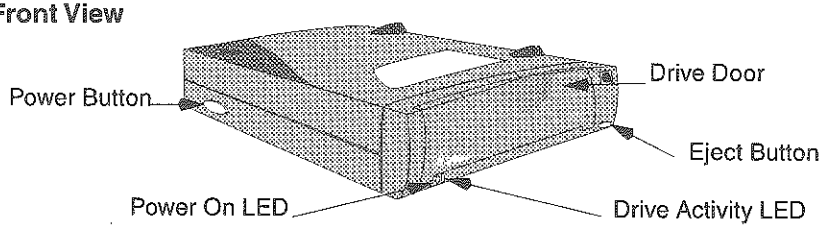
SyGear Accessories Brochure



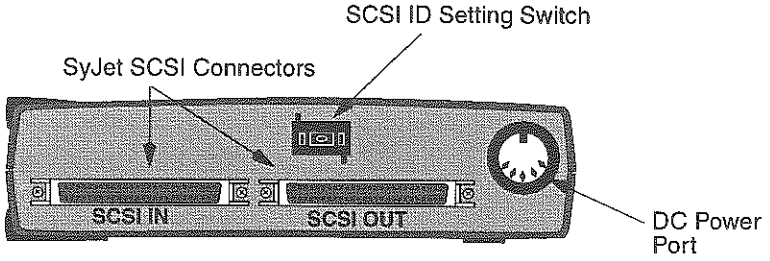
Installation Diskette with Software and Utilities

2. Study the parts of your SyJet drive.

Front View



Rear View



Installing Your SyJet Drive

1. Identify an available SCSI ID on your computer.

- Your SyJet drive comes with a default SCSI ID setting of 4. If SCSI ID 4 is available (not currently used by another device) on your computer's SCSI chain, verify that the SCSI ID is set to 4—the ID appears on the back of the drive—and skip to step 3 on page 10.
- If SCSI ID 4 is being used by another device, but you know of other SCSI IDs that are available, skip to step 2 on page 10.

a. Determine the SCSI ID for each SCSI device attached to your computer.

If you do not know the SCSI IDs of all the SCSI devices attached to your computer, use SyQuest's *Whatscsi.id* program to identify available SCSI IDs. To run *Whatscsi.id*:

- Insert the SyQuest *Macintosh Installation* diskette.
- Double-click the *Whatscsi.id* icon. The program scans your SCSI chain and recommends a SCSI ID for your SyJet drive.

b. If SCSI ID 4 is available, skip to step 3 on page 10.

You do not need to change the SyJet drive's SCSI ID if SCSI ID 4 is available (not used by another device) on your computer's SCSI chain—skip to step 3.

c. If *Whatscsi.id* could not identify the available SCSI IDs, exit *Whatscsi.id* and turn off the computer.

If *Whatscsi.id*: could not determine the SCSI IDs, look for a small numbered dial or switch on the back or side of the external SCSI devices attached to your computer's SCSI port (labeled). Refer to the manuals for internal devices to determine their SCSI IDs.

Record each device in the Device Assignment column in the table below. You will assign an unused SCSI ID to the SyJet drive.

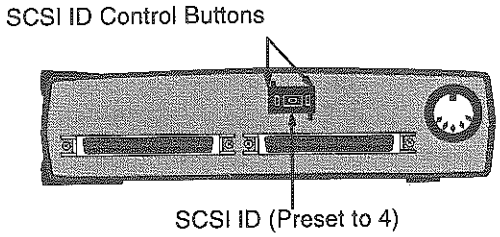
SCSI ID	Device Assignment	Notes
0	Macintosh's Internal SCSI Hard Disk	Do not use this SCSI ID.
1		
2		
3		
4		
5		
6		
7	SCSI Adapter	Do not use this SCSI ID.

2. Change the SCSI ID on your SyJet drive, if necessary.

Your SyJet drive comes with a default SCSI ID setting of 4. If ID 4 is unavailable (used by another device) on your system, you must change the SCSI ID on the SyJet, as follows:

Caution: Do not use SCSI IDs 0 or 7 for the SyJet drive. Do not use SCSI ID 3 if you have an internal CD-ROM drive.

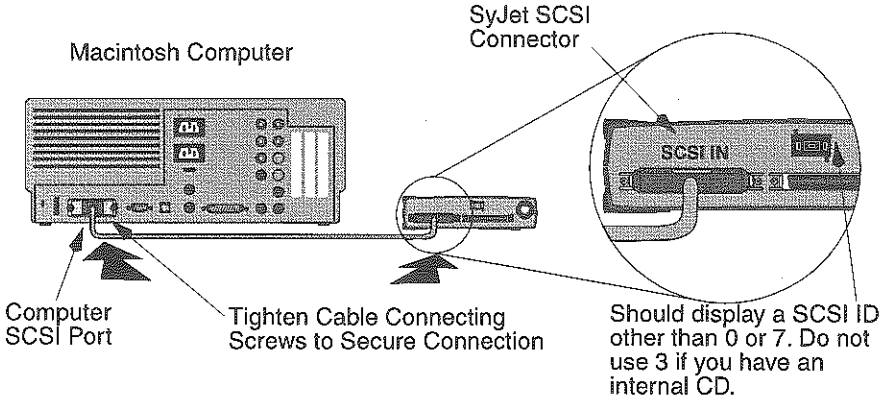
Locate the SCSI ID number at the back of the drive. Two buttons control the SCSI ID setting—the button marked with the + symbol raises the ID setting, the button marked with the – symbol lowers the ID setting. Press the appropriate button until the correct SCSI ID appears.



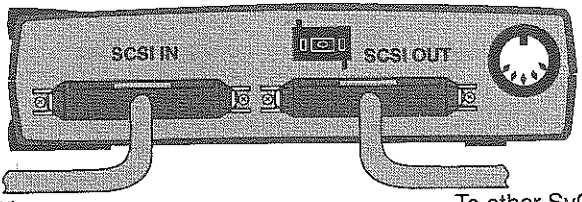
3. Turn off your computer.

Never attach or remove SCSI cables while your computer or your SyJet drive is on.

4. **Plug the 50-pin high-density end of the SCSI cable into the SyJet drive connector labeled *SCSI IN*. Plug the 25-pin end into your computer's SCSI port (labeled ⟐).**



5. If you will be using other SCSI devices with your SyJet drive, attach the next device to the SCSI connector labeled *SCSI OUT*.



From computer
or from other SyQuest SCSI drives

To other SyQuest
SCSI drives

Note: The SyJet drive features automatic sensing termination. If your SyJet drive is the only SCSI device attached to the computer's SCSI port, or if your SyJet drive is the last drive on the SCSI chain, the SyJet drive terminates automatically. Connect the SyJet drive to the end of the SCSI chain using the SCSI connector labeled **SCSI IN** and leave the SCSI connector labeled **SCSI OUT** open.

If you will be attaching other SCSI devices to your SyJet drive, you must terminate the last device on the SCSI chain. It is the physical location of the drive, *not* its SCSI ID, that determines the need for termination. Only the physically last device on the SCSI chain requires a terminator. See "SCSI Termination Rules" on page 22 for further details.

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6. Plug the power adapter connector into the DC power port on the rear of the SyJet drive. Plug the power adapter into an AC power outlet.

⚠ **Caution:** Use only the SyQuest power adapter provided with the drive—other power adapters may damage your drive.

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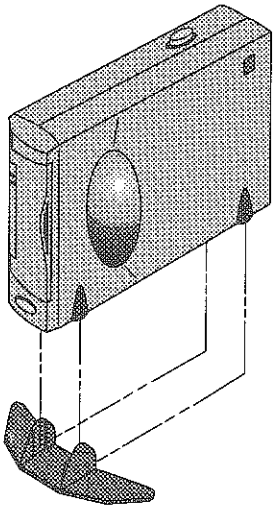
7. **If you will use the drive in the vertical position, attach the mounting foot to the base of the drive. You can attach the foot anywhere on the base between the rubber pads, as shown.**

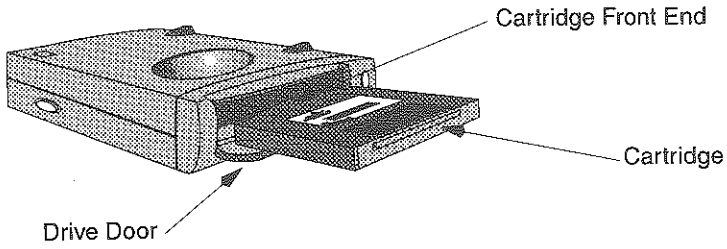


Caution: If you drop your SyJet drive, inspect it. If the plastic case is chipped or otherwise damaged, return it to your SyQuest reseller for inspection. The drive and cartridge can be damaged if the drive tips over while operating, so place the drive in a secure, stable location.

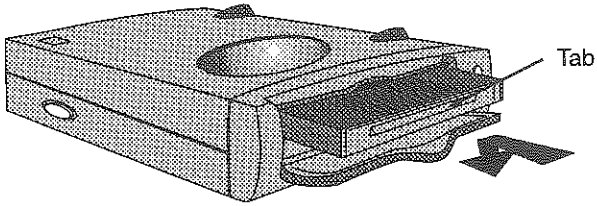
8. **Turn on the SyJet drive, then turn on the computer.**
The Power On LED glows green to indicate that the SyJet drive is on.

9. Insert a SyJet cartridge into the SyJet drive.

Hold the cartridge as shown below, and open the drive door using your finger or the front end of the cartridge



Slide the cartridge all the way into the drive. Press down gently on the tab until the cartridge snaps into place.



The drive spins up the cartridge, and the Drive Activity LED flickers amber. The Drive Activity LED glows green when the drive is ready.

If the Drive Activity LED does not glow green, eject and re-insert the cartridge. See "Ejecting a Cartridge" on page 17.

Note: The SyJet drive automatically goes into a power saving mode after 30 minutes of inactivity. Normal drive activity will restore full power to the drive when needed.

Note: The SyJet drive reads, writes, and formats SyJet cartridges only. The SyJet drive *cannot* read, write, or format other SyQuest cartridges.

Caution: Always remove the cartridge from the SyJet drive before moving or transporting the drive. If you remove or eject the cartridge, you must pull it halfway out in order to re-insert it. This built-in feature prevents partial insertion.

Congratulations, your SyJet drive is installed! Now you'll install some software.

Installing the Macintosh SCSI Driver

SyQuest software is preloaded on the cartridge that comes with your SyJet drive, so you can use your SyJet drive right away. To get the most out of your new SyJet drive, you should install the Macintosh SCSI driver included on the *SyQuest Macintosh Installation* diskette. Follow these steps to install the Macintosh SCSI driver:

1. **Double-click the *Install* icon on the *SyQuest Macintosh Installation* diskette.**
   For more information, double-click the SyQuest ReadMe icon or the Silverlining Lite ReadMe icon on the SyQuest *Macintosh Installation* diskette.

Note: If the Installer has difficulty installing Silverlining Lite, you can drag it from the *SyQuest Macintosh Installation* diskette and drop it into the System folder. If you still encounter difficulties, consult the ReadMe file on the SyQuest *Macintosh Installation* diskette for other alternatives.

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2. **Restart your Macintosh. Silverlining Lite is now available in the Control Panel.**

Congratulations, your SyJet drive and software are installed and ready to use!

Ejecting a Cartridge

Follow these steps to remove a cartridge, when changing cartridges, or when transporting your SyJet drive.

1. **Verify that the Power LED glows green.**
   The SyJet drive should always be switched on when you eject a cartridge.

2. **Exit all applications that use the cartridge and close all open files on the cartridge.**
   You may lose data if you eject the cartridge before closing all open files on the cartridge.

3. **Drag the cartridge icon to the Trash.**
   The Drive Activity LED flickers amber, the drive eject tone sounds, the drive door opens, and the cartridge ejects. Three tones sound to indicate that the cartridge has been fully ejected, and is ready for removal.

   If the Drive Activity LED does not flicker, the cartridge is locked. Unlock the cartridge, and then drag it to the trash (see "Write-protecting (Locking and Unlocking) a Cartridge" on page 20).

   If you use a SCSI driver other than Silverlining Lite, you may need to press the Eject button on the front of the SyJet drive.

4. **Remove the cartridge and place it in its protective case.**

Note: If you remove or eject the cartridge, you must pull it halfway out in order to re-insert it. This built-in feature prevents partial insertion.

Caution: Never store or transport the SyJet drive with the cartridge partially or fully inserted. Leaving a cartridge partially inserted, or transporting the SyJet drive with the cartridge inserted may damage the drive and void your warranty.

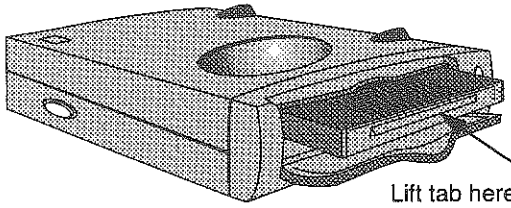
Ejecting a Cartridge Without Power

While the drive is not powered, you can manually eject a cartridge.

Caution: Never manually eject a cartridge while the power is on. This will damage the drive and void the warranty.

To manually eject a cartridge, follow these instructions:

1. **Wait for 45 seconds after power is turned off.**
2. **Open the drive door. Eject the cartridge by gently lifting the tab and pulling the cartridge out of the drive.**



3. **Return the cartridge to its protective case for storage or transport.**

SyQuest Utilities Software

The *Macutil* SyQuest Utilities software shipped with your SyJet drive allows you to perform useful tasks on the drive and on the cartridge. For additional information on any utility, run the *Macutil* program and click the Help button.

Drive

Eject Tone: Plays a tone when a cartridge is ejected to remind you to remove and store the cartridge. You can enable or disable this tone. The default setting of this feature is *enabled.*

Write Verify: This option causes the drive to verify that each bit of data transferred to the cartridge was written correctly. Write performance is reduced when this data integrity enhancement feature is enabled. The default setting of this feature is *enabled.*

Sleep Mode: The SyJet drive automatically switches to low power consumption (sleep mode) if the drive is not accessed for an extended period. This utility allows you to specify that time period. The default setting of this feature is 30 minutes.

Update Drive Code: Use this utility to update the SyJet drive code for new features or critical drive improvement options.

Head Clean: Use this utility to clean the drive heads only in a final attempt at data recovery.

Cartridge

Write-protecting (Locking and Unlocking) a Cartridge: SyQuest cartridges are shipped from the factory unlocked, that is, ready to record data. You write-protect (lock) a cartridge to prevent data on the cartridge from being altered or erased. Use Silverlining Lite to lock or unlock a cartridge as follows:

- Verify that a cartridge is in the drive and the Drive Activity LED glows green.
- Double-click **Silverlining Lite** in the **Control Panel**.
- Click the **Options** button. Select **Lock Cartridge** to activate write protection. Deselect **Lock Cartridge** to deactivate write protection.

Note: When you lock a cartridge, both the cartridge and the SyJet drive are locked (placed in Write Protect mode). This means that any cartridge inserted into the drive cannot be written to until you deselect **Lock Cartridge** in **Silverlining Lite**.

Automatically Ejecting the Cartridge: Your SyJet drive comes configured to automatically eject the cartridge when you drag its icon to the trash, during shut down, and upon restart (just like the diskette drive). You can, instead, choose to use the SyJet drive's eject button to eject cartridges, as follows:

- Verify that a cartridge is in the drive and the Drive Activity LED glows green.
- Double-click **Silverlining Lite** in the **Control Panel**.
- Click the **Options** button. Select **Auto Eject** to cause the cartridge to eject automatically when you drag its icon to the trash, during shut down, and upon restart. Deselect **Auto Eject** to require use of the eject button on the drive to eject the cartridge.

AV Mode: AV mode is for audio/video playback **only**. To avoid data errors, always record in Data mode. Using *Macutil*, you can select either:

- Enable AV mode — video playback **only**
- Disable AV mode (data mode) — normal operation

Note: AV Mode does not disable the Write Verify utility in order to write to disk at a faster rate. If you desire faster disk writing as well as the continuous read capability of AV mode, you must disable Write Verify.

Troubleshooting

Symptom	Problem	Solution
Computer does not recognize a newly installed SyQuest drive.	Drive does not show a steady green Drive Activity LED (the "Ready" state).	Eject and reinsert the cartridge.

Note: If you have more than one SyQuest drive attached to your computer, make sure each connected drive has a cartridge fully inserted.

SCSI Termination Rules

SCSI devices are connected to each other to create a "SCSI chain." The devices at each end of this chain must be terminated.

Only the last external device and last internal device should be terminated. The last drive in the SCSI chain must be terminated in order for all SCSI devices to function properly. Your SyJet drive terminates itself automatically.

- If the SyJet drive is the only SCSI drive in your computer, the SyJet drive terminates itself automatically.
- If there is another SCSI drive in your computer, you can use the termination on the existing drive provided that you install the SyJet drive somewhere in the middle of the SCSI chain. The SyJet drive automatically senses that it does not need to be terminated if it is not at the end of the SCSI chain.

SCSI Cabling

Cabling and termination are very critical on high speed SCSI devices. The cables must be short, double shielded, twisted pair, and of high quality for proper operation. Data corruption will occur if termination or cable quality are poor.

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FCC Warning

This equipment generates and uses radio frequency energy and, if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type-tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, try to correct the interference by one or more of the following measures:

- Reorient the antenna
- Relocate the equipment with respect to the receiver
- Move the equipment away from the receiver
- Plug the equipment into a different outlet so that equipment and receiver are on different branch circuits

If necessary, consult your dealer or an experienced radio/television technician for additional suggestions. The booklet entitled How to Identify and Resolve Radio-TV Interference Problems, prepared by the Federal Communications Commission, may be helpful. This booklet, Stock No. 004-000-003454, is available from the U. S. Government Printing Office, Washington, DC 20402.

Safety Standards

This product meets the following national and international regulations:

- UL 1950 Standard for Safety of Information Processing and Business Equipment
- UL Standard for Safety of Information Technology
- CSA C22.2 No. 154 Data Processing Equipment
- CSA C22 No. 220 Information Processing Equipment
- IEC 435 Safety Requirements for Data Processing Equipment
- IEC 380 Safety of Electrical Energized Office Equipment
- IEC 950 Safety of Information Technology Equipment in Electrical Business Equipment
- EMC Directive 89/336/EEC
- Low-Voltage Directive 73/23/EEC
- EW 60950

Inquiries

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Document History

The table below lists changes issued for this SyJet Installation Guide.

Date	Release	Part Number	Revision	Revised by
January 18, 1997	Final	110931-002	Revision A	Lasselle-Ramsay

Part Number 110931-002 Revision A