

VIPERTM

Half-high, Intelligent 5 1/4"
Streaming Cartridge Tape Drive

Product Manual SCSI Models 2060S and 2150S



ARCHIVE[®]
CORPORATION

Chapter 1

OVERVIEW

THE VIPER TAPE DRIVE

The Viper is a 1/4 inch cartridge streaming tape drive plus intelligent controller in a 5 1/4" half-high form factor. It is the ideal solution to the backup requirements of high capacity Winchester disk drives. Other applications include software distribution, transaction logging, data collection, data exchange, and program loading.

Configurations

Viper's embedded controller is available with a SCSI (Small Computer System Interface)¹ interface to the host computer system in both 60 megabyte and 150 megabyte capacity models.

Both models may be ordered with or without the SCSI terminating resistors installed.

MODEL NO.	INTERFACE	STORAGE CAPACITY
2060S 2150S	SCSI SCSI	60 megabytes 150 megabytes

MODEL NO.	WITH TERMINATORS	WITHOUT TERMINATORS
2060S 2150S	P/N 21153-xxx P/N 21251-xxx	P/N 21068-xxx P/N 21249-xxx

Features

Advanced LSI circuitry and surface-mount technology have resulted in the reduced package size, low power consumption, and high data reliability of the Viper. Dependability is further ensured by the Viper's sturdy aluminum die-cast chassis, a reliable DC brushless motor, and a tape-loading mechanism that is easy to use and has few moving parts. The following are some of the Viper's many features.

¹ Additional host interfaces are available with Viper.

- Half-high -- fits in 5-1/4-inch, half-high form factor.
- 60, 125 or 150 megabyte capacity.
- Backward compatibility with existing QIC-24 and QIC-120 format tape libraries.
- High data transfer rates of 112.5 Kbytes/second (Model 2150S) and 90 Kbytes/second (Model 2060S).
- Large 64 kilobyte RAM buffer for good streaming performance.
- SCSI burst data rates up to 1.8 megabytes/second.
- Selectable SCSI disconnect length for good bus utilization.
- High speed direct block access capability.
- High speed end of recorded data seeking.
- Edge-of-tape seek eliminates cartridge tolerance variations.
- Reference burst used for accurate data tracking.
- Off-track stepping for reliable data recovery.
- Low power requirements.
- Resident diagnostics allow tests to be performed under control of a built-in serial port.
- Advanced low-noise read/write for excellent data reliability.
- Microprocessor-controlled read threshold, and write current control.
- Write precompensation enhances data reliability and interchange. (Model 2150S only).

EXTERNAL DESCRIPTIONS

Dimensions

DIMENSION ¹	MEASUREMENT
Height	1.625 in. (4.126 cm)
Width	5.75 in. (14.605 cm)
Depth	8.0 in. (20.32 cm)
Weight	3.0 lbs. (1.36 kg)

Mounting Holes

The Viper tape drive may be mounted horizontally as shown in Figure 1, or vertically. When vertical mounting is desired, the preferred position is with the head loading lever at the top as shown.

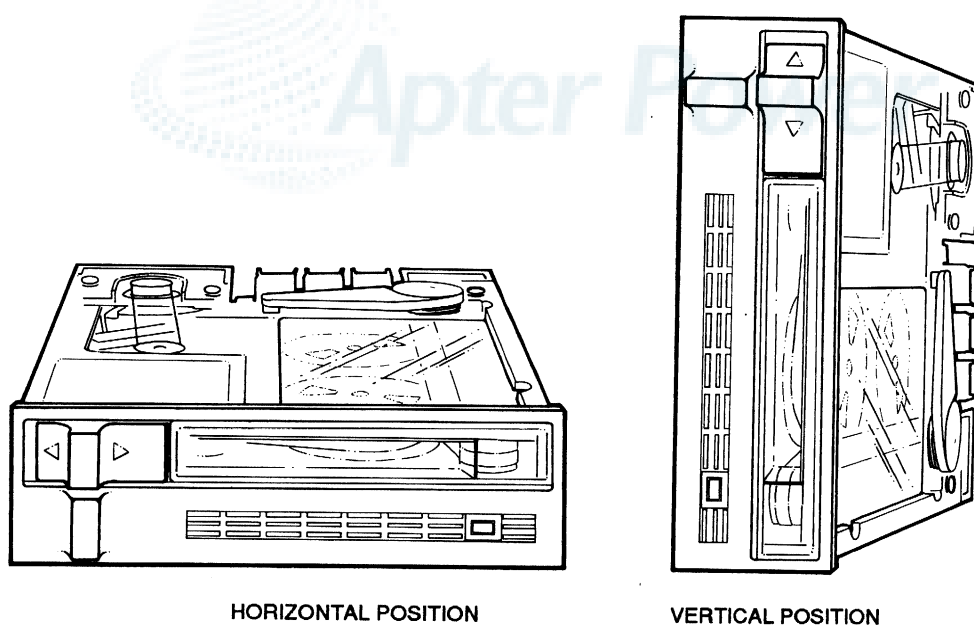


Figure 1. Mounting Positions

¹ Excluding front bezel.

Jumper Configuration

The configuration jumper block on the rear assembly provides for 9 connector pairs arranged in three vertical columns of three pairs each (Figure 4). Each jumper clip selects a given pair. (Part Number for Archive jumper clips is in Appendix A.)

The DIAG jumper places the drive in diagnostic mode. When the DIAG jumper is present, the interpretation of the remaining jumper pairs differs from their interpretation in operational mode.

In operational mode (diagnostic jumper removed) the jumper pairs are used to specify the following configuration data:

- parity check enable/disable
- one of eight available disconnect (transfer) sizes
- the Viper controller's bus ID.

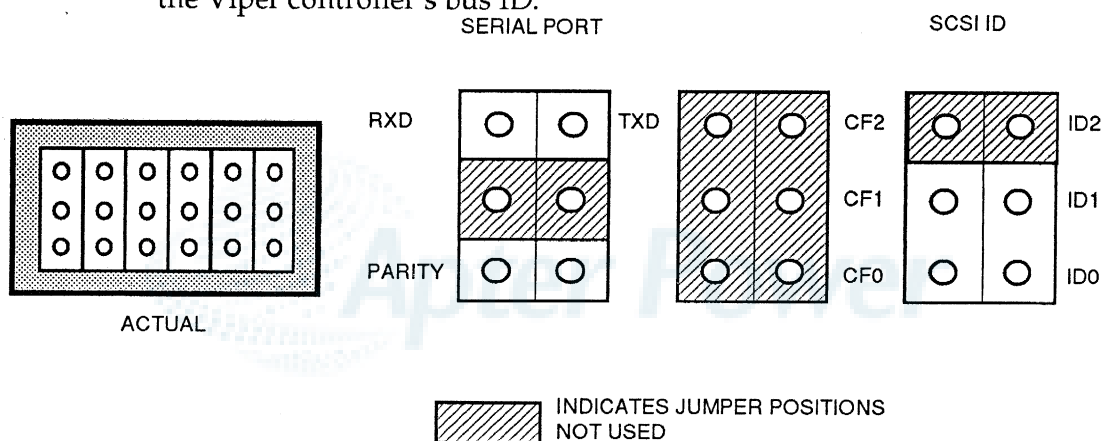


Figure 4. Configuration Jumper Block

PARITY: A single jumper pair is used to specify parity enable/disable. When the pair is connected via a jumper clip, parity checking will be enabled.

DISCONNECT SIZE: The three jumper pairs in column two are used to specify the 3-bit code required to select disconnect size. (Jumper in sets bit to 1.) The top pair rep-

Chapter 3

PHYSICAL DESCRIPTIONS

SPECIFICATIONS

Environmental

REQUIREMENT	SPECIFICATION
Operational Temperature	+ 5 to 45 degrees C (+41 to +113 degrees F)
Storage Temperature	-30 to +60 degrees C (-22 to +140 degrees F)
Relative Humidity	20 to 80%
Max Wet Bulb Temperature	26 degrees C (79 degrees F)
Altitude	-1,000 to +15,000 ft.

Power

REQUIREMENT	+12V	+5
Tolerance (incl. max. ripple of 200 mV)	$\pm 10\%$	$\pm 5\%$
Standby Current	0.2 amps nom.	0.45 amps nom.
Operational Current	0.8 amps nom. 1.5 amps max.	0.5 amps nom. 0.7 amps max.
Tape Start Surge (up to 300 msec.)	2.5 amps max.	
Power Dissipation (operational)	20 watts typ. 35 watts max.	