
Python™ DAT Tape Drives

Quick Installation Guide

Models

4320RT

4350XT

4320NT

4352XP

4322NP-M

4354XP

4322NP

4540NT

4324NP

4542NP

4324RP

AKO

CHKLIST.MS

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Internal Python DAT Tape Drive

The internal Python DAT tape drives are Digital Data Storage (DDS) tape backup systems. Incorporating a 3.5-inch DAT drive or a 3.5-inch DAT DC drive with rails attached, the drive will fit into a 5.25-inch slot.

This guide is designed to provide information on SCSI dip switch settings, media and recommended preventive maintenance for the Maynard Python DAT Tape Drive series.

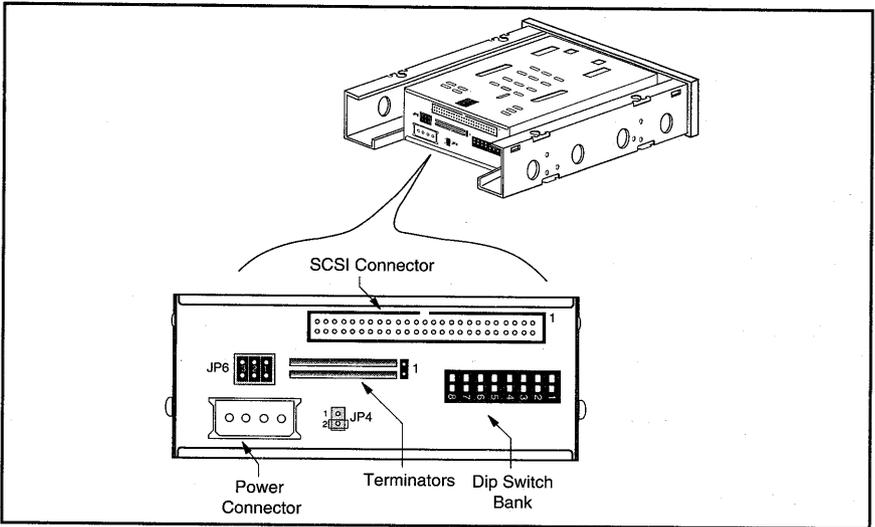


Figure 1. Switchbank access (4320NT, 4320RT, and 4540NT)

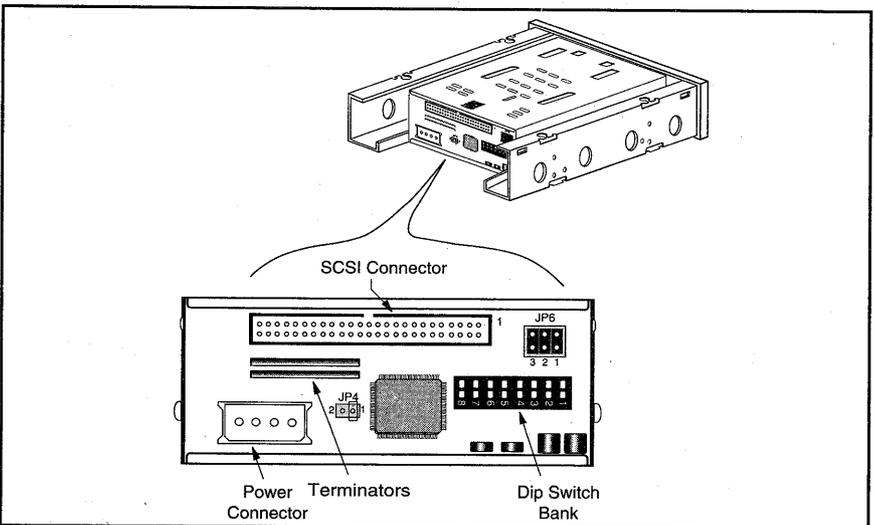


Figure 2. Switchbank access (4322NP-M, 4322NP, 4324RP, and 4542NP)

These switches allow you to set up the following configuration options:

SCSI device address (S1 through S3):	Default = SCSI ID 0	S1 through S3 = OFF
SCSI mode at power-up (S4)	Default = SCSI-2	S4 = ON
Parity check enable/disable (S5):	Default = Parity disabled	S5 = OFF
Power-on self-test enable/disable (S8):	Default = Power-on self-test disabled	S8 = OFF
DDS pass-through (S6) (Python 4322NP, 4542NP, 4324RP, 4324NP only)	Default = Data Compression ON	S6 = OFF
NOTE: Switch S7 is reserved for future use.		

JP4 or J5001

Alternate Terminating Power

When a jumper is installed, +5V alternate terminating power is available at pin 26 on the SCSI interface connector.

Dip Switch Bank

The following illustration shows the default settings for these switches (view looking from the front of the drive).

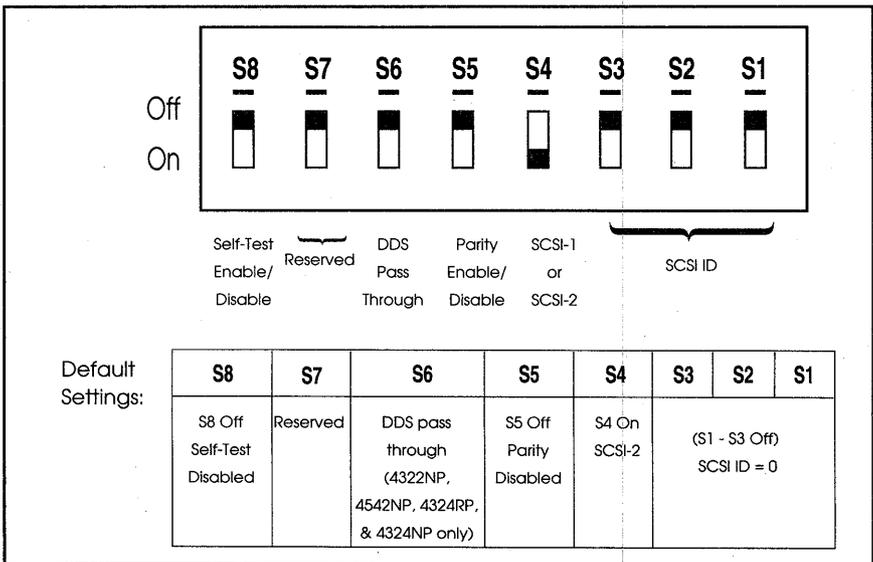


Figure 3. Default switch settings

The default settings may be correct for a variety of systems. If they are not correct, they can be changed easily.

NOTE:

The drive must be turned OFF, then ON for switch settings to take effect.

SCSI Device Address (S1 through S3)

The three switches, S1 through S3, correspond to the SCSI device.

The following illustration shows the switch settings for the eight possible SCSI device addresses. The default setting is SCSI device address S1 through S3 = OFF. Be sure no other device on the SCSI bus has the same SCSI address.

SCSI Device Address		S1	S2	S3
0	On			
	Off			
1	On			
	Off			
2	On			
	Off			
3	On			
	Off			
4	On			
	Off			
5	On			
	Off			
6	On			
	Off			
7	On			
	Off			

Figure 4. SCSI device address selection

SCSI Mode at Power-Up (S4)

The S4 switch selects either SCSI-1 or SCSI-2 as the default operational mode for the Python SCSI bus at power-up. The default is SCSI-2 (S4 ON), a superset of SCSI-1.

- S4 ON = SCSI-2
- S4 OFF = SCSI-1

The Python drive allows you to choose either SCSI-1 or SCSI-2 as the default interface with the computer system. The SCSI-1 interface conforms to the ANSI X3.131-1986 standard. SCSI-2 is a standard that augments the SCSI-1 command set and generally includes everything in SCSI-1. If the hardware default setting is SCSI-2 for power up, issuing a CHANGE DEFINITION command allows SCSI-1 to be selected until the next power up.

Parity Check Enable/Disable (S5)

The S5 switch enables or disables parity checking for the SCSI bus. The default is parity disabled (S5 OFF).

S5 ON = enables parity checking
S5 OFF = disables parity checking

DDS Pass Through (S6)

The S6 switch on Python models 4322NP-M, 4322NP, 4324RP, and 4524NP, enables or disables DDS-DC data compression pass-through mode. The default is DDS pass-through mode disabled (S6 OFF), which makes DDS-DC data compression active. S6 ON enables DDS pass-through mode, making DDS-DC data compression inactive.

The function of the S6 switch can be overridden by the proper SCSI Mode Select Command issued from the host computer. Thus, regardless of the position of the S6 switch, the Mode Select Command can enable or disable data compression.

On non-DC drives, this switch is reserved and must be OFF.

Reserved (S7)

The S7 switch is reserved for future use and should be off.

Power-on Self-test Mode Enable/Disable (S8)

The S8 switch enables or disables execution of power-on self-test diagnostics when the power is turned on. The default is power-on self-test mode disabled (S8 OFF). The drive responds to SCSI commands after successful completion of the test (about 5 seconds).

S8 ON = enables power-on self-test mode
S8 OFF = disables power-on self-test mode

External Python DAT Tape Drives

The external Python has two interface connectors to allow for daisy-chaining and/or connecting the terminator.

- When the Python external drive is the final device in the chain, a single interface cable is connected to one connector and a terminating plug is attached to the other.
- When the Python external drive is within the chain, interface cables from the preceding and following drives are connected. Termination is required on the last device on the chain. See Figure 5.

NOTE:

The external Python does not provide alternate terminating power to the SCSI bus.

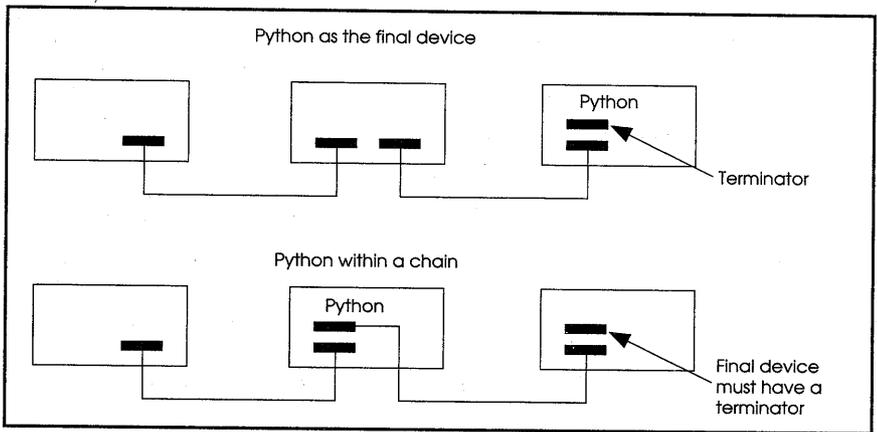


Figure 5. Daisy-chaining drives

SCSI Drive Identification Switch

The ID select switch is located on the rear of the external Python drive. It displays the SCSI ID number with a button above and below the display, which allows the ID number to be set.

- Push the top button to decrease the number
- Push the bottom button to increase the number

Power Requirements

Python external subsystems contain a built-in power supply. The power connector is located on the rear panel of the drive. See Figure 6.

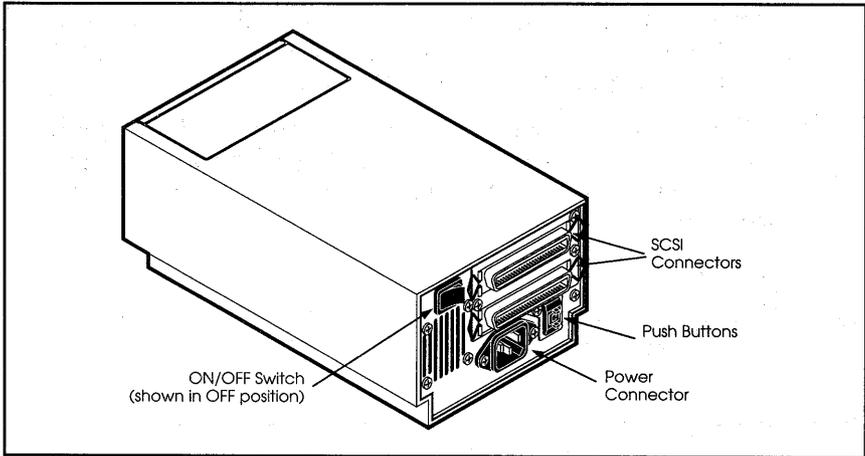


Figure 6. Python external tape drive rear view

External Drives LED's

Table 6-1 summarizes the operation of the two LEDs.

LED	Action	Meaning
Amber	ON (illuminated)	The drive is reading or writing the tape.
Amber	Flashing Rapidly	A hardware fault occurred or moisture was detected.
Green	ON (illuminated)	A cassette is inserted and does NOT generate excess errors.
Green	Flashing Slowly	A cassette is inserted but generates excessive errors beyond a predefined error threshold. (Warning only)
Green	Flashing Slowly (with Amber LED)	A prerecorded audio cassette is inserted and is being played automatically.
Green	Flashing Rapidly	The drive could not write to the tape correctly. (Error)

Table 6-1. LED summary

Qualified DAT Media

The Python supports both 60 and 90 meter DAT media. Only computer DAT media officially qualified by Archive Corporation companies should be used in Python tape drives. Compatible tapes include:

Tape Description	Part Number
Maynard DAT Data Cassette (60m)	31300
Maynard DAT Data Cassette (90m)	32000

Tape Drive Cleaning

A small amount of dust or debris can affect tape drive performance; therefore, the following tape head cleaning schedule is recommended:

- Whenever the green LED flashes
- After every 25 hours of normal use

Cleaning Supplies

- Maynard Head Cleaning Kit P/N 91301 (Recommended)

NOTE:

Each time the cleaning cassette is used, the tape advances over an unused portion. Eventually, the entire tape is used, and a new cleaning cassette is required. A cleaning cassette provides approximately 30 uses. The Python tape drive will not rewind the cleaning cassette.

Do not use a cleaning cassette designed for audio DAT cassette decks; it will not be properly recognized by the Python tape drives.

Reporting a Problem

When calling your Distributor or Maynard Technical Support Representative, gather as much information as possible about the error. This will ensure a quick and complete solution to the problem. Information required may include:

- Model Number and Part Number
- SCSI host adapter
- Hardware configuration
- Software drivers
- Error condition
- Type of tape cartridge(s) used

Maynard Technical Support can be reached at one of the following numbers:

(407) 263-3500

(800) 227-6296

(407) 263-3536 (Fax)

European Customers:

0494-473434 INTL

(44) 494-473434

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