digital™

**DEC 4000 Model 6x0/7x0 AXP Series**
**TLZ07 Tape Drive Installation**

EK–TLZ07–IN. A01

July 1994

This document illustrates how to install the TLZ07 tape drive in a DEC 4000 Model 6x0 or Model 7x0 AXP series system.

© Digital Equipment Corporation 1994. All rights reserved.

S2520

# TLZ07 Tape Drive

## Overview

| | |
|---|---|
| Description | Digital audio tape (RDAT drive) |
| Media type | DAT |
| Recording format | DDS/ DDS-2/ DC |
| Cartridge type | 4 mm cassette tape 60 m/90 m/120 m |
| Capacity | Up to 8.0 GB |
| Form factor | 5 1/4 in half-height |
| Transfer rate (sustained) | 400 KB/second (no compression) |
| Temperature | 10°C (50°F)–40°C (104°F) (operating) |
| Relative humidity | 20%–80% noncondensing (operating) |
| Voltage | +5 VDC ±5% and +12 VDC ±5% |
| Current | +5 V: 0.89 A and +12 V: 0.2 A |
| Power | 9 W |

## Add-On Option Part Number

| | |
|---|---|
| 3 1/2-inch embedded tape drive with bracket | TLZ07–MX (first device in removable-media slot) |
| 3 1/2-inch embedded tape drive without bracket | TLZ07–MY (second device in removable-media slot) |
| Tabletop drive | TLZ07–DA |

## Field Replacable Parts and Options

| | |
|---|---|
| TLZ07 tape drive | TLZ07–BA |
| Cassette tape[1] | TLZ04–CA (60 m = 2.6 GB) |
| | TLZ06–CA (90 m = 4.0 GB) |
| | TLZ07–CA (120 m = 8.0 GB) |
| Head cleaning cassette | TLZ04–HA |

[1]Compressed mode data capacity

| Documentation | |
|---|---|
| *TLZ07 Cassette Tape Drive and Autoloader Owners Manual* | EK–TLZ07–OM |
| *DEC 4000 AXP Owner's Guide (VMS Ops)* | EK–KN430–OP |
| *DEC OSF/1 AXP Factory Installed Software User Guide* | EK–SFFIS–UG |

Figure 1 shows the indicators, jumpers, and connectors on the TLZ07 tape drive. Table 1 shows the default switch settings, and Table 2 describes the light indications.

**Table 1 SCSI ID / Option Selection Switch**

| Switch | Default Setting |
|---|---|
| S1 - S3 SCSI ID | Off - See Note |
| S4 Media Recognition System (MRS) | On = Disabled |
| S5 Parity | On = Enabled |
| S6 Compression | On = Disabled |
| S7 | Off = Reserved for future use |
| S8 Self-test | On = Enabled |

**Note**

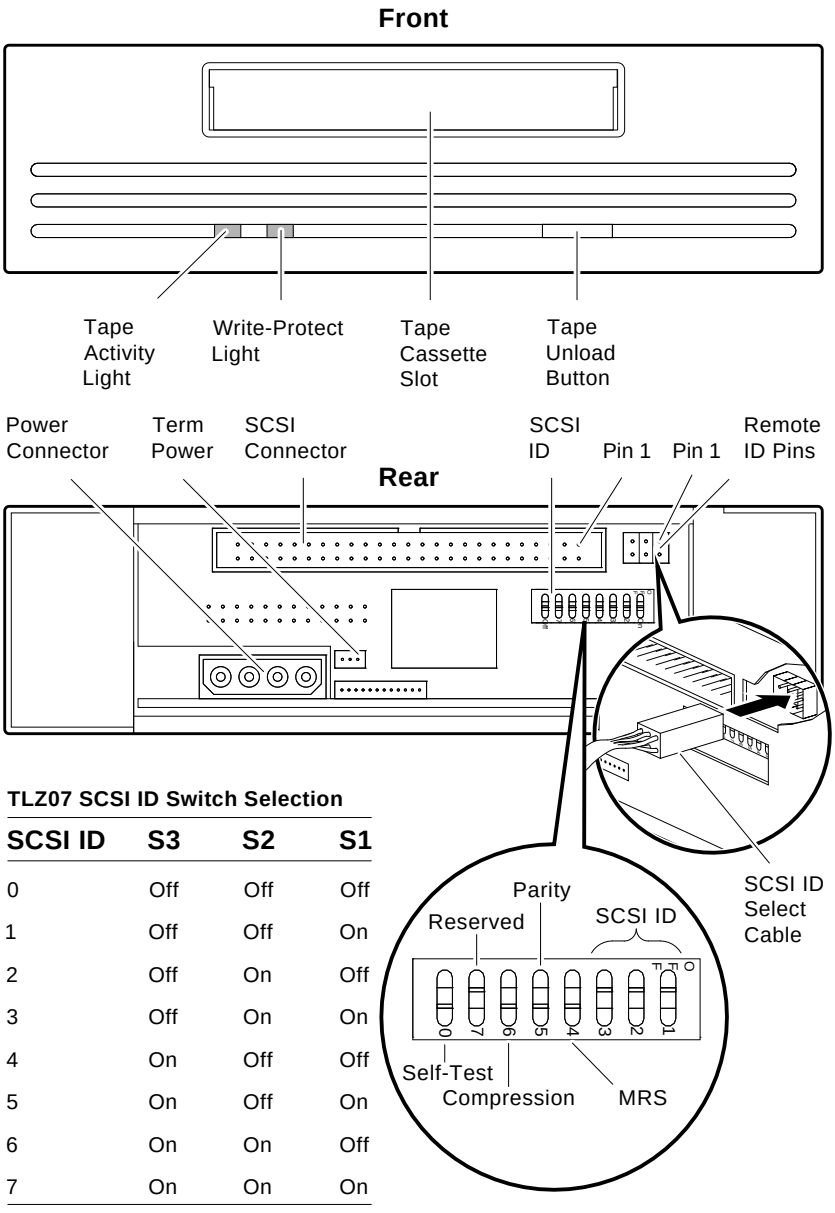
In a DEC 4000 system, the SCSI ID select cable is used instead of jumpers. The SCSI ID jumpers are logically ORed with the SCSI ID select connector pins. Set switches 1 - 3 off because the logic recognizes a SCSI ID bit set if *either* a switch is on *or* the bit is set by the cable.

### Media Recognition System

The media recognition system (MRS) is a quality standard for tapes. Cassette tapes that meet this standard are labeled **MRS** or **Media Recognition System**, and contain identifying information at the beginning of the tape.

## TLZ07

**Figure 1 TLZ07 Cassette Tape Drive Connectors and Indicators**




**TLZ07 SCSI ID Switch Selection**

| SCSI ID | S3 | S2 | S1 |
|---|---|---|---|
| 0 | Off | Off | Off |
| 1 | Off | Off | On |
| 2 | Off | On | Off |
| 3 | Off | On | On |
| 4 | On | Off | Off |
| 5 | On | Off | On |
| 6 | On | On | Off |
| 7 | On | On | On |

## Installation

**Caution**

Static electricity can damage integrated circuits. Use the antistatic wrist strap and antistatic pad found in the static-protective kit (ON 29–26246–00) when you work with the internal parts of a computer system.

Before you begin the installation procedure, remove the bus continuity card from the option storage slot into which you intend to install the tape drive. Figure 6 shows the location of the bus continuity cards.

To install a TLZ07-MX tape drive in your system, perform the following steps:

1. Slide the TLZ07-MX mounting bracket assembly into the option storage slot and push until the connector on the SCSI paddle card on the drive mounting bracket engages securely into the backplane. Secure the assembly by tightening the two captive screws. Figure 2 shows the location of one of the screws. The second screw is located on the bottom drive mounting bracket. Do not over-tighten the screws; 9" lbs is sufficient to secure the drive. It is normal for there to be a slight gap between the bracket and chassis.
2. Attach the SCSI ID cable to the OCP connector on the bezel assembly (Figure 2).
3. Insert the tabs on the bottom of the bezel into the slots on the storage slot (Figure 2).
4. Push in the top of the bezel, and tighten the Phillips screw (Figure 2).
5. Install a SCSI ID plug to the front of the bezel, making sure that the SCSI ID number is not used by another device. The bezel is marked to show the corresponding SCSI ID plug for each slot.

To add a TLZ07-MY tape drive to your system, perform the following steps:

1. Remove the mounting assembly as follows:
   - Remove any SCSI ID plugs installed in the bezel.
   - Loosen the Phillips screw at the top of the bezel, pull out the top of the bezel, and carefully lift the bezel up and out from the storage slot to expose the SCSI ID cables.

- Remove any SCSI ID cables from the OCP connector on the bezel assembly.
- Loosen the two captive screws that secure the mounting bracket to the chassis.
- Pull on the mounting assembly until it slides away from the chassis.
- Place the mounting assembly on the antistatic pad.

2. Connect the SCSI ID cable to the back of the drive (Figure 1).
3. Slide the drive into the mounting assembly.
4. Attach the SCSI and power cables to the drive. Figure 1 shows the location of the connectors.
5. Secure the drive into the mounting assembly with the four mounting screws provided. Two screws attach to the top of the assembly, and two screws attach to the bottom of the assembly (Figure 3 shows the top of the assembly). Make sure that the top front screw goes through the grounding strip shown in the figure.

**Caution**

Failure to connect the grounding strip could result in data errors.

6. Remove the blank panel from the bezel (Figure 4).
7. Remove the blank flat plug(s) from the bezel (Figure 5).
8. Return the OCP connector board to the bezel.
9. Install SCSI ID plugs on the front of the bezel. Each drive must have an unique SCSI ID number. Make sure that the drive that was installed prior to this add-on procedure retains the same SCSI ID number that was used previously. The front of the bezel is marked to show the corresponding SCSI ID plug for each slot.
10. Slide the mounting bracket assembly into the option storage slot and push until the SCSI paddle card on the drive mounting bracket engages securely into the backplane. Secure the drive by tightening the two captive screws. Figure 2 shows the location of one of the screws. The second screw is located on the bottom drive mounting bracket. Do not over-tighten the screws; 9" lbs is sufficient to secure the drive. It is normal for there to be a slight gap between the bracket and chassis.