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**DEC 4000 Model 6x0/7x0 AXP Series
TZ87 Subsystem Installation**
EK–XTZ87–IN.A01

January 1994

This document illustrates how to install the TZ87 subsystem in a DEC 4000 Model 6x0 or Model 7x0 AXP series system.

S2464

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TZ87 Tape Drive

TZ87 Overview

Description	Streaming tape drive
Cartridge type	CompacTape III
Capacity	10 GB (uncompressed) 20 GB (compressed)
Form factor	5 1/4 in
Media size	1/2 in
Transfer rate	1.25 MB/s (uncompressed)
Temperature	10°C (50°F)–40°C (104°F) (operating)
Relative humidity	20%–80%
Voltage	+5 VDC $\pm$ 5% and +12 VDC $\pm$ 5%
Current	+5 V: 2.5 A and +12 V: .8 A
Power	22.1 W maximum

Add-On Option Part Number

TZ87 embedded tape drive	TZ87E–MX

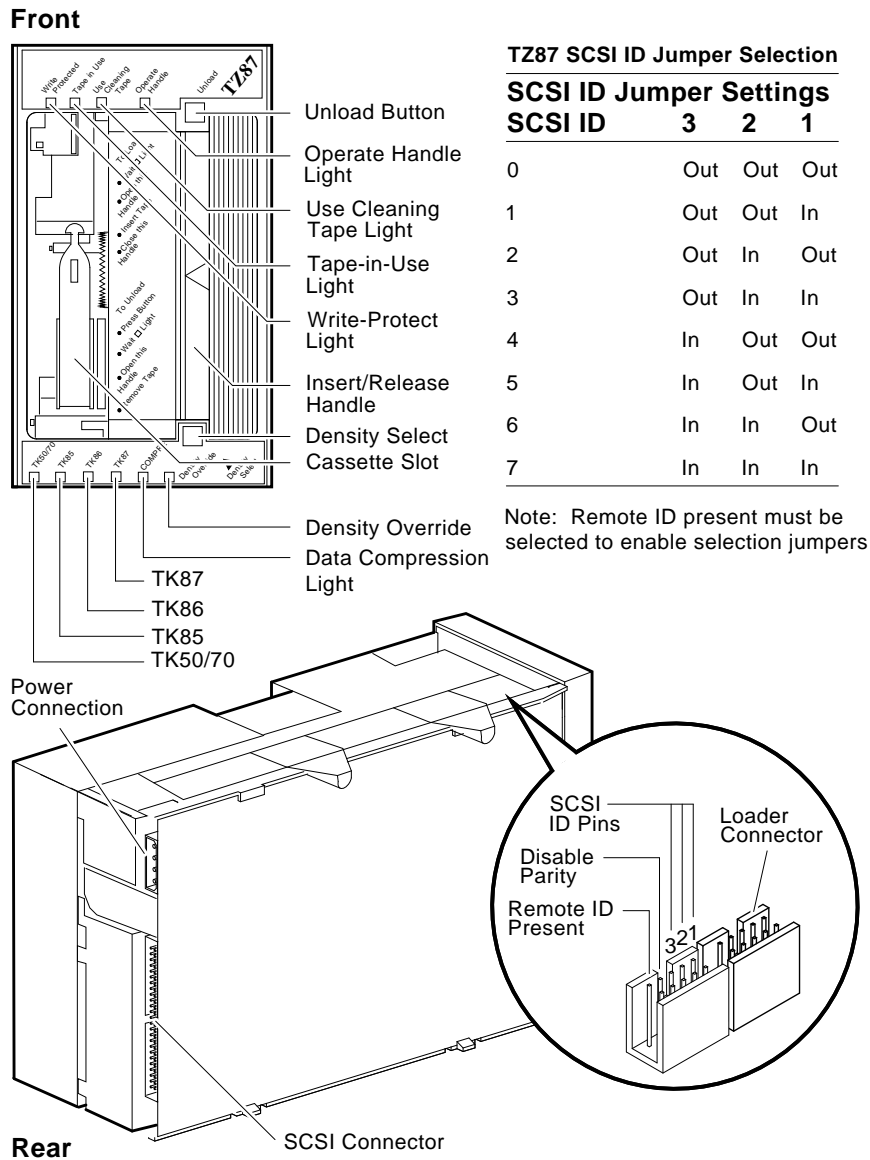**Field Service Orderable Parts and Options**

FRUs	TK87–BA (whole unit replacement)
CompacTape III cartridge	TK85K–01
CompacTape III cartridge (quantity of 7)	TK85K–07
CompacTape III cartridge (quantity of 1008)	TK85K–A0
Cleaning Tape III cartridge	TK85–HC
TZ87 electronic controller module	54–21259–01
SCSI ID Select cable	17–01936–01

Documentation

TZ87 Series Cartridge Tape Subsystem Owner's Manual	EK–OTZ87–OM
TZ87 Tape Drive Operator's Reference Card	EK–OTZ87–RC

TZ87

Figure 1   TZ87 Cassette Tape Drive

Front

Unload Button

Operate Handle
Light

Use Cleaning
Tape Light

Tape-in-Use
Light

Write-Protect
Light

Insert/Release
Handle

Density Select

Cassette Slot

Density Override

Data Compression
Light

TK87

TK86

TK85

TK50/70

Power
Connection

TZ87 SCSI ID Jumper Selection

SCSI ID Jumper Settings			
SCSI ID	3	2	1
0	Out	Out	Out
1	Out	Out	In
2	Out	In	Out
3	Out	In	In
4	In	Out	Out
5	In	Out	In
6	In	In	Out
7	In	In	In

Note: Remote ID present must be
selected to enable selection jumpers

SCSI
ID Pins

Loader
Connector

Disable
Parity

Remote ID
Present

3 2 1

SCSI Connector

Rear

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Table 1 TZ87 Top Side Light Summary

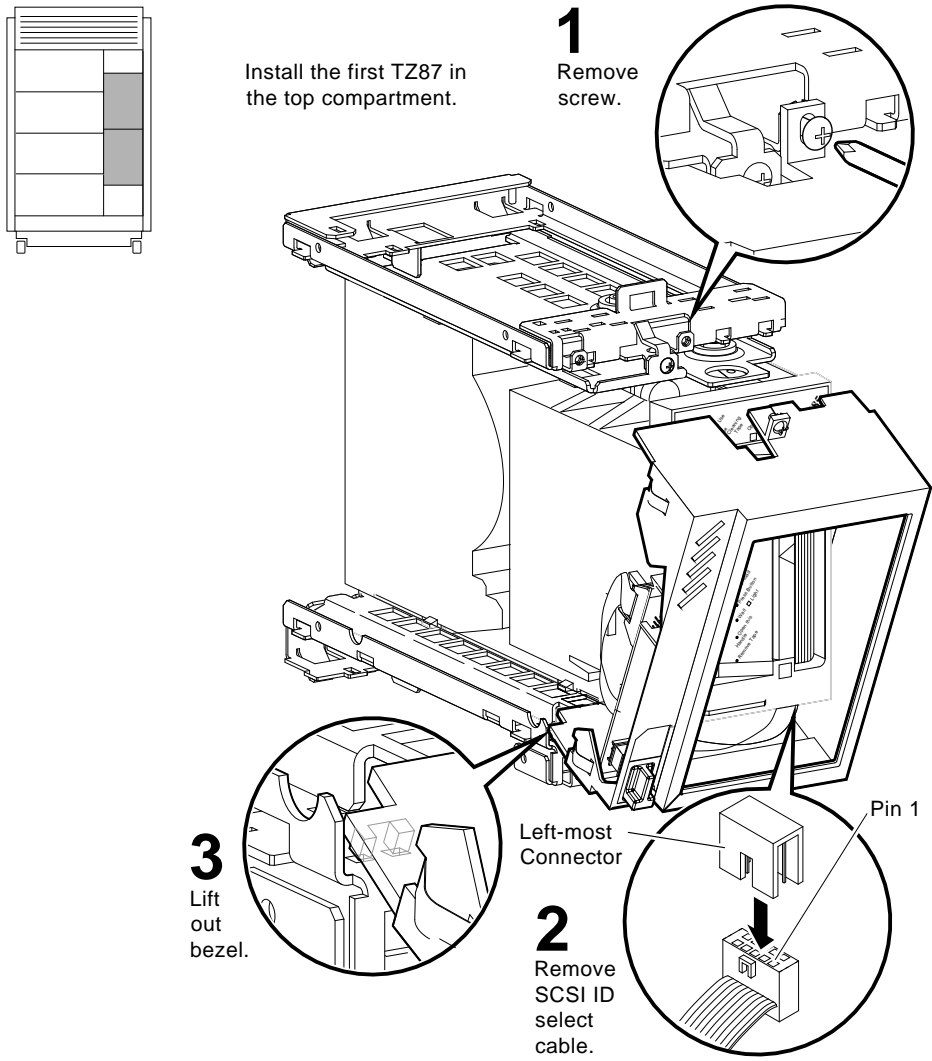| Light	State	Condition
Operate Handle (green)	On	Okay to operate the cartridge insert/release handle.
	Off	Do not operate the cartridge insert/release handle.
Tape in Use (yellow)	Blinks	Tape is moving.
	On	Tape is loaded and ready for use.
Use Cleaning Tape (yellow)	On	Drive head needs cleaning, or the current data cartridge is faulty.
	Remains on after you unload the cleaning tape.	Cleaning was not done. Replace cleaning cartridge.
	After cleaning, turns on again when you reload the data cartridge.	Faulty data cartridge. Try another cartridge.
	Off	Cleaning is complete or is unnecessary.
Write-Protect (orange)	On	Tape is write-protected.
	Off	Tape is write-enabled.
All indicators on one side of panel	On	Power-on self-test is starting.
	Blinks	An error has occurred. Press the Unload button or turn drive power off and then on again to clear the error.

Table 2   Bottom Front Panel Light Summary

Light	State	Condition
All lights are yellow		
TK50/70	On	Indicates tape is recorded in TK50 or TK70 format.
TK85	On	Indicates tape is recorded in TK85 format.
	Blinks	Indicates tape is recorded in another density. This density was selected for a write from BOT.[1]
TK86	On	Indicates tape is recorded in TK86 format.
	Blinks	Indicates tape is recorded in another density. This density was selected for a write from BOT.[1]
TZ87	On (default)	Indicates tape is recorded in TZ87 format.
	Blinks	Indicates tape is recorded in another density. This density was selected for a write from BOT.[1]
Data Compression	On	Compression mode enabled. (Compression can be done in TZ87 density only.)
	Off	Compression mode disabled.
Density Override	On	A density selection has been set from the drive's front panel.
	Off (default)	Density selection is under host control or automatic.
	Blinks	Drive is in density selection mode.

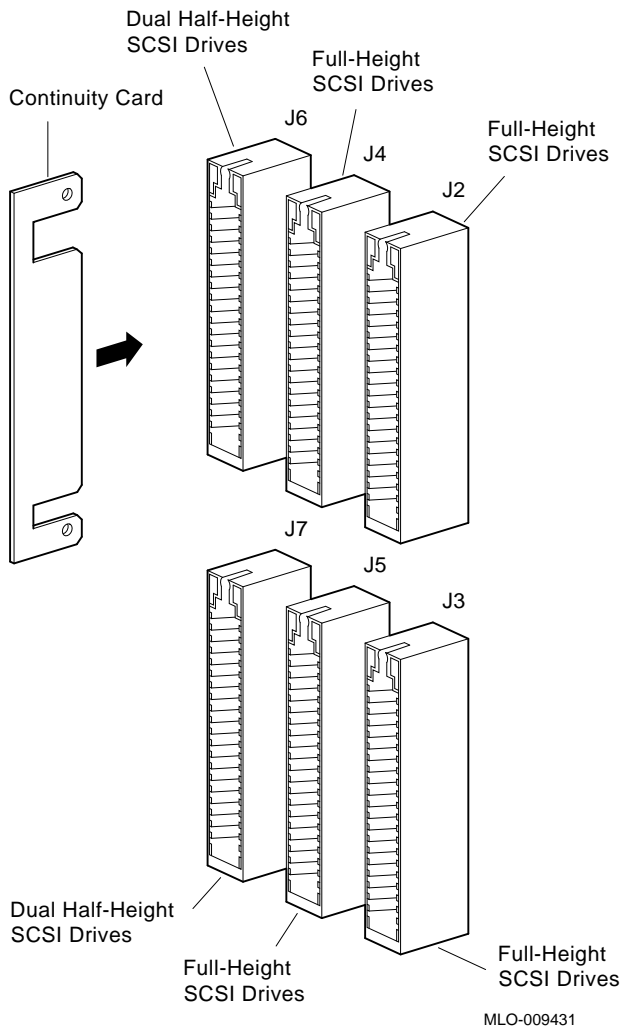[1]Density override by Density Select Switch on OCP

Figure 2   TZ87 Installation

Install the first TZ87 in
the top compartment.

1
Remove
screw.

3
Lift
out
bezel.

Left-most
Connector

Pin 1

2
Remove
SCSI ID
select
cable.

Note: The SCSI ID select cable overrides the SCSI ID jumpers.

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─────────────────── **Note** ───────────────────

When a removable-media compartment is empty, install blank bezels to
maintain maximum airflow. See Storage Tray Information in the *DEC
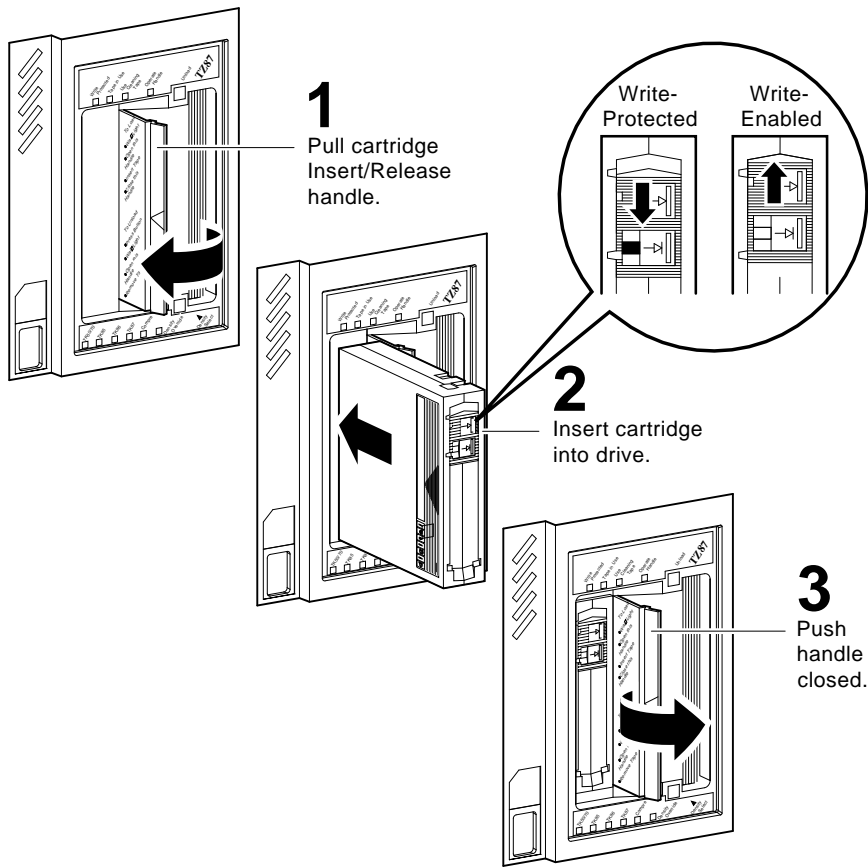4000 AXP Options Guide* for part numbers and illustrations.

Figure 3   Bus Continuity Card

Dual Half-Height
SCSI Drives

Full-Height
SCSI Drives

Continuity Card

Full-Height
SCSI Drives

J6

J4

J2

J7

J5

J3

Dual Half-Height
SCSI Drives

Full-Height
SCSI Drives

Full-Height
SCSI Drives
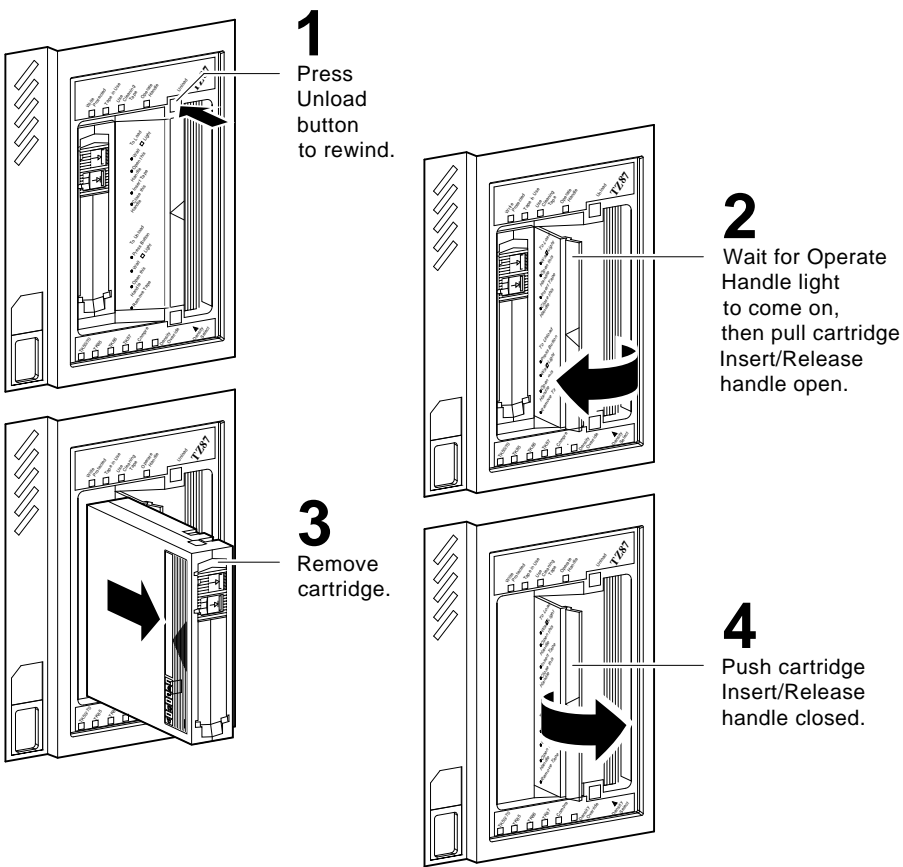
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_____ **Note** _____

When either the J6 or J7 backplane connector is not used, insert the
bus continuity card into those slots to maintain bus continuity. There
are two bus continuity cards already installed in the backplane.

Figure 4   TZ87: Inserting a Tape

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TZ87

Figure 5   TZ87: Removing a Tape

1
Press
Unload
button
to rewind.

2
Wait for Operate
Handle light
to come on,
then pull cartridge
Insert/Release
handle open.

3
Remove
cartridge.

4
Push cartridge
Insert/Release
handle closed.

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