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Installing the TZ86 Tabletop
Cartridge Tape Subsystem

EK–TZ86T–IG–001

Digital Equipment Corporation

Contents

About This Guide

Introduction

Contents

This guide describes how to install the TZ86 tabletop cartridge tape subsystem. It provides information about:

- Unpacking
- Choosing a site
- Affixing decals

- Configuring the TZ86
- Connecting cables
- Running the power-on self-test

Intended Audience

This guide is intended for owners of the TZ86 tabletop cartridge tape subsystem.

Introduction, Continued

**How To Use
This Guide**

Follow the guide instructions in the order presented:

Task	Action
1.	Read "Before You Start" in the next section to prepare for the installation.
2.	Set up the installation.
3.	Do the physical installation.
4.	Test the installation.

Before You Start

Tools

Installing the TZ86 tabletop cartridge tape subsystem requires no special tools. If you need to change the switchpack settings on the rear panel, you will need a pen.

Related Documents

Along with your system documentation, the following documents supplement this guide:

Title	Order Number
Tx86 Series Cartridge Tape Subsystem Owner's Manual	EK–OTX86–OM
Tx86 Tape Drive Operator's Reference Card	EK–OTK86–RC

To Solve Problems

If you have problems during the installation, see Appendix A, Solving Problems, or call Digital Services at your local Customer Support Center.

Chapter 1
Installation Setup

Overview

**How To
Set Up the
Installation**

The steps for installation setup are:

Step	Action
1	Unpack and check your shipment.
2	Choose a site for the TZ86 tabletop subsystem.
3	Do you need to use foreign language decals? • If *yes,* affix the decals. • If *no,* go to step 4.
4	Power off the system on which the TZ86 tabletop subsystem is to be installed.

Unpack

Check Your Shipment

Make sure your shipment has all the items listed on the contents listing. If any item is missing or damaged, contact your delivery agent or your Digital sales representative.

NOTE
Save the packing materials until you are sure you will not reship any items.

Contents Listing

The TZ86 tabletop subsystem and its accessories are:

	Part Number	Description
☐	TZ86–TA	TZ86 tabletop subsystem: a 5-1/4-inch drive and a SCSI controller in a tabletop enclosure
☐	TK85K–01	One CompacTape III cartridge
☐	TK85–HC	One CleaningTape III cartridge
☐	36–28816–03	Sheet of foreign language decals for front panel
☐	36–36963–01	Sheet of foreign language decals for remote panel
☐	EK–TZ86T–IG	Installation guide
☐	EK–OTX86–OM	Owner's manual
☐	EK–OTK86–RC	Operator's reference card
☐	U.S.A.	Power cord
☐	12–30552–01	Terminator
☐	Standard/ system-specific	SCSI signal cable(s)

Choose a Site

Site Setup

Place the TZ86 on a flat, sturdy, level area such as a desk or tabletop–*not on the floor*.

Site Guidelines

Be sure to follow these guidelines for your TZ86:

- Avoid a site that is dusty or humid.
- Allow enough space around the TZ86 for ventilation and for easy access to the front and rear.

Affix Decals

For Foreign Language Decals Only

If applicable, choose the foreign language decals with the language appropriate for your country. Affix them over the English labels. (*See the diagrams in* Front Decals *and* Rear Decal.)

Not Using the Decals?

If you are not using the foreign language decals, go to Power Off the System .

Front Decals

On the front of the TZ86, one decal adheres to the cartridge insert/release handle; the other adheres to the indicator panel:

Affix Decals, Continued

Rear Decal   At the rear of the TZ86, another decal adheres to the remote
                   panel:

Power Off the System

Check that the system manager has done the following steps:

Step	Action
1	Check and note SCSI IDs.
2	Back up all disks.
3	Shut down the operating system.
4	Halt the system.
5	Remove power from the system.

Chapter 2
Physical Installation

Overview

How to Install the TZ86

To install the TZ86:

Step	Action
1	Note the TZ86 factory settings.
2	Review the Configuration Guidelines.
3	Configure the TZ86 for use on your system:

If you need to. . .	See page. . .
Disable parity checking	2–4
Change the SCSI ID	2–4

Step	Action
4	Review the TZ86 Rear Panel.
5	Connect the cables.

Configure the TZ86

TZ86 Factory Settings

The TZ86 is factory set to SCSI ID 0, the usual ID for a tape device on the SCSI bus.

If your system generates parity, the TZ86 can check for correct parity on the SCSI bus.

Configuration Guidelines

Your system uses the SCSI ID to identify, or address, the TZ86. Follow these guidelines when configuring the TZ86 for use on your system:

If you are installing the TZ86 as. . .	Then. . .
The only SCSI device on the bus	You can leave the SCSI ID factory setting as is.
One of multiple SCSI devices on the bus	Be sure to use a SCSI ID that is unique from any other device or system ID on the SCSI bus.
The last or only device on the SCSI bus	You must terminate the bus by installing a terminator.

Configure the TZ86, Continued

Switchpack Location

The following diagram shows the location of the DISABLE PARITY and SCSI ID switchpack:

Caution

Never use a pencil to press the switches on the switchpack. Use only a pen.

Configure the TZ86, Continued

To Disable Parity Checking

If your system does not generate parity, you can disable parity checking on the TZ86. To do so, set the DISABLE PARITY switch to ON by pressing down on the left side of the switch with a pen. (*See* Switchpack Location *for switch 1*.)

To Change the SCSI ID

If you need to change the SCSI ID, see the SCSI ID Switch Settings section and:

- If a setting is 1 (ON), make sure the left side of the switch is down.
- If a setting is 0 (OFF or OPEN), make sure the right side of the switch is down.

SCSI ID Switch Settings

Use the following table to determine SCSI ID switch settings. (*See* Switchpack Location *for switches 2, 3, and 4*.) Switch 2 is the most significant bit (MSB) and switch 4 is the least significant bit (LSB):

		Switch (1 = ON; 0 = OFF)		
	SCSI ID	2	3	4
Factory Setting	0	0	0	0
	1	0	0	1
	2	0	1	0
	3	0	1	1
	4	1	0	0
	5	1	0	1
	6	1	1	0
	7	1	1	1

Connect the Cables

TZ86 Rear Panel

Familiarize yourself with these components on the TZ86 rear panel to complete the physical installation:

Connect the Cables, Continued

**Connect the
SCSI Signal
Cable**

To connect the SCSI signal cable, follow these steps:

1. Connect one end of the SCSI cable to the leftmost SCSI signal connector on the TZ86 rear panel.

2. Snap the wire cable clamps into place to secure the cable.

3. Connect the other end of the SCSI signal cable to the SCSI connector on your system or, for daisy-chained configurations, another SCSI device.

See your system documentation for system SCSI connections.

**Terminate the
SCSI Bus**

If the TZ86 is the last or only device on the SCSI bus, follow these steps to install the terminator:

1. Connect the SCSI terminator to the rightmost SCSI signal connector on the TZ86 rear panel.

2. Snap the wire cable clamps into place to secure the terminator.

If the TZ86 is not the last or only device on the SCSI bus, be sure to install the terminator at the end of the bus.

**Connect the
Power Cord**

To connect the power cord, follow these steps:

1. Be sure the TZ86 power switch is set to 0.

2. Connect the power cord to the TZ86 power connector. Make sure the connector is fully seated.

3. Connect the other end of the power cord to a nearby ac outlet.

Chapter 3
Installation Testing

Overview

To Test the Installation

The steps involved in installation testing are:

Step	Action
1	Turn on the system power.
2	Set the power switch on the TZ86 rear panel to on. **Result:** The power-on self-test (POST) runs automatically when you turn on the TZ86.
3	Observe the indicators on the TZ86 front panel.
4	Did POST succeed (*see* POST Success)? • If *yes,* go to step 5. • If *no,* see POST Failure.
5	Bring up the system and run optional system tests. **Result:** You are ready to operate the TZ86.

Run the Power-On Self-Test

POST Success

When you turn on the TZ86, the power-on self-test (POST) runs automatically. For a successful POST, you should see the following sequence of events:

Event	Action
1	The indicators on the front panel turn on sequentially, from top to bottom.
2	All four indicators turn on simultaneously for approximately three seconds.
3	The green Operate Handle indicator and the two orange indicators turn off.
4	The yellow Tape in Use indicator blinks.
5	With no cartridge loaded, the green Operate Handle indicator turns on and the beeper sounds.

Run the Power-On Self-Test, Continued

POST Failure

If all four indicators on the TZ86 front panel blink, POST did not run successfully. Follow these steps:

Step	Action
1	Make sure your cable connections are secure.
2	Make sure the SCSI bus is terminated correctly.
3	Power the TZ86 off and then on again to rerun POST.

If all four indicators blink again, you most likely have a hardware failure. Call Digital Services at your local Customer Support Center.

Bring Up the System

System Startup

After successful completion of POST, have the system manager do the following steps:

Step	Action
1	Restart the operating system.
2	Configure the system to recognize the TZ86.

Other Tests

See your system documentation for instructions on running a full system or SCSI bus test.

Ready To Operate

For Operating Instructions Once you have verified a successful installation, see the *Tx86 Series Cartridge Tape Subsystem Owner's Manual* (EK–OTX86–OM) for information on using the TZ86.

Appendix A
Solving Problems

What to Do

Troubleshooting Chart

If the TZ86 fails during power-up or operation, use the following chart to determine the problem and the action to take. If you cannot solve the problem, call Digital Services at your local Customer Support Center.

If. . .	Then. . .	You should. . .
Your system does not recognize the TZ86	Your system is not configured to see the SCSI ID	Configure your system to see the ID. For example, use SYSGEN AUTOCONFIG on the VMS operating system.
	The SCSI ID is not unique	Change the SCSI ID and reconfigure the system. New ID effective at next power-on.

What to Do, Continued

	If. . .	Then. . .	You should. . .
Troubleshooting Chart (continued)	Your system does not recognize the TZ86	The parameters for your SCSI adapter are incorrect	Check your SCSI adapter installation.
		The SCSI signal cable is loose	Make sure the connector on each end of the cable is fully seated.
		The SCSI terminator is not present or is loose	Install the terminator; make sure the terminator is fully seated.
		The SCSI bus is not correctly terminated	If the TZ86 is the last or only device on the bus, make sure the terminator is installed on the TZ86.
			If the TZ86 is not the last or only device on the bus, check the cable connections and make sure the terminator is installed at the end of the bus.

What to Do, Continued

Troubleshooting Chart (continued)

If. . .	Then. . .	You should. . .
Your system does not recognize the TZ86	The SCSI terminator is not at the end of the bus, or more than two terminators are present	Be sure to install a terminator at each end of the bus. One terminator is usually installed at the system.
	The SCSI bus is too long, or too many devices are on the bus	Limit the bus length to the ANSI SCSI standard of 6 meters (19 feet) and the number of devices on the bus (including the system) to eight. Check your system configuration rules.
The TZ86 does not power up	The TZ86 has no power	Check the TZ86 power cord connections, with the TZ86 power switch off.
All four indicators on the TZ86 front panel blink	A drive fault has occurred	Press the Unload button on the TZ86 front panel to clear the error. If the error does not clear, call Digital Services.

What to Do, Continued

Troubleshooting Chart (continued)

If. . .	Then. . .	You should. . .
You are finding fatal or nonfatal errors for which you cannot determine the cause	The bus termination or SCSI signal cable connections may be incorrect	Make sure the SCSI bus is terminated.
	The ac power source grounding may be incorrect	Use an ac outlet for the TZ86 on the same ac line that is powering the system.