

DECsystem 5900 Installation Guide

EK-D590A-IN-001

**Digital Equipment Corporation
Maynard, Massachusetts**

First Printing, December 1991

The information in this document is subject to change without notice and should not be construed as a commitment by Digital Equipment Corporation.

Digital Equipment Corporation assumes no responsibility for any errors that may appear in this document.

Restricted Rights: Use, duplication or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.227-7013.

The following are trademarks of Digital Equipment Corporation: DECsystem 5900, TURBOchannel, ULTRIX, VAX, VAX DOCUMENT, VMS, and the DIGITAL logo.

PrestoServe is a trademark of Legato Systems Inc.

© Digital Equipment Corporation 1991. All rights reserved.
Printed in U.S.A.

S1808

This document was prepared with VAX DOCUMENT,
Version 1.2.

Contents

Preface	v
1 Unpacking and Positioning the System	1
2 Assembling the System Skirts	2
2.1 Front Skirt	3
2.2 Side Skirts	3
2.3 Rear Skirt	4
3 Connecting External Cables	5
4 Powering Up the System	7
4.1 Power Controller	7
4.2 Mass Storage Drawer Switches	9
4.3 CPU Front Drawer Switches	9
5 Setting the Console Terminal	10
6 Removing Blank Media	10
7 Running Power-Up Self-Tests	10
7.1 Two Non-Problem Messages	10
7.2 Problems with Option Modules	11
8 Resolving Problems	11

Figures

1 Removing Hold-Down Bracket	1
2 Front and Side Skirts	3
3 Rear Skirt	4
4 DECsystem 5900 Rear View	6
5 Power Controller Switches	7
6 DECsystem 5900 Front	8
7 CPU Drawer Front Switches	9

Preface

Audience

This guide is for use by Digital services personnel or by self-maintenance customers. Installation begins when site preparation is completed and the DECsystem 5900 has been delivered on a skid to the computer room.

If necessary, refer to the *DECsystem 5900 Site Preparation Guide*.

Required Tools

The tools required to unpack and install the DECsystem 5900 are:

- Scissors or knife for opening packages
- Screwdrivers; variety of Phillips and flat blades
- Wrenches, 3/4-inch to remove hold-down brackets and 9/16-inch to bring feet down
- Allen wrench, 1/4-inch, to open DECsystem 5900 doors.

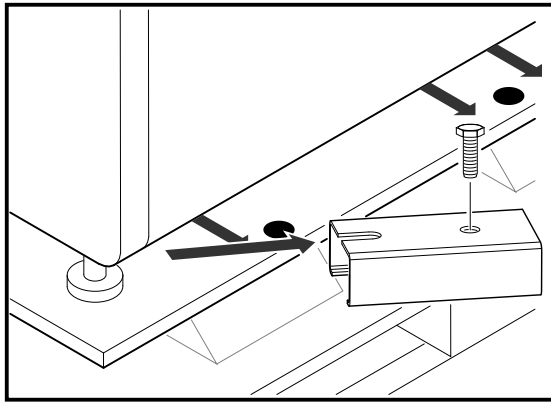
1 Unpacking and Positioning the System

Remove the plastic wrap, the corner pads, and any cardboard packaging.

To position the system in the computer lab, follow these steps.

1. Leave 7 ft clearance from the front of the skid.
2. Insert the skid ramps into the holes in the front of the skid with arrows on skid lined up with arrows on ramp boards.
3. With a 9/16-inch wrench, loosen and remove the hold-down brackets on the system's feet. See Figure 1.

Figure 1 Removing Hold-Down Bracket



MLO-007680

4. While the system is still on the skid, loosen the 3/4-inch upper (lock) nut on each foot by turning clockwise. Turn the 9/16-inch bottom nut on each foot counterclockwise to raise the feet for skid clearance.

Warning: The system weighs between 400 and 860 lbs. For safety, two people are needed to roll the system down the ramp.

5. Roll the system down the ramp boards to its position. Front two wheels are on casters, the rear two are fixed.
6. Leave 36-inch clearance at the front of the system and 22-inch clearance at the rear of the system for service.
7. Raise the system up on its feet as follows: Loosen the 3/4-inch lock nut (counterclockwise) on each foot. Lower each foot into position by turning clockwise on the 9/16-inch nut on the foot. Tighten each 3/4-inch lock nut counterclockwise to lock the feet in place.

2 Assembling the System Skirts

Open the system skirt kit.

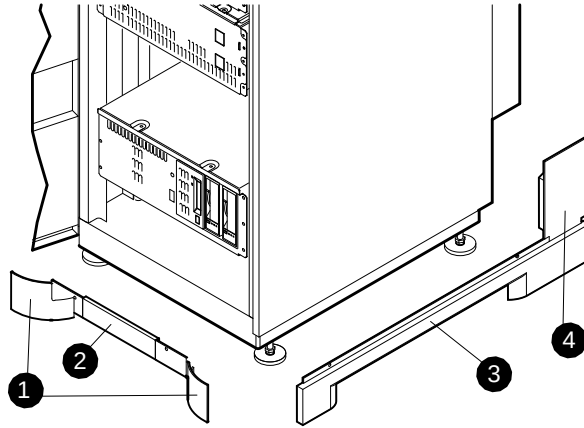
The skirts are installed after the system has been set in place and raised off the wheels by the leveling feet, as explained Section 1 in steps 6 and 7. The skirt kit is in a separate box from the accessory kit.

A separate skirt is installed on each side of the system. Each is attached to the system by 2 quarter-turn Phillips captive screws.

2.1 Front Skirt

The front skirt, shown in Figure 2, has three pieces that have to be fitted together, then attached to system.

Figure 2 Front and Side Skirts



MLO-007683

- ❶ Front curved pieces, 744165902, and 744165901
- ❷ Front center piece, 744173301
- ❸ Side piece, 744165301
- ❹ Ear of side piece, 744165501

2.2 Side Skirts

One side skirt is shown in Figure 2. The side skirts each have two parts—a side piece and an "ear" that you attach to the side piece with three self-tapping Phillips screws. Then attach the side skirt to the system frame.

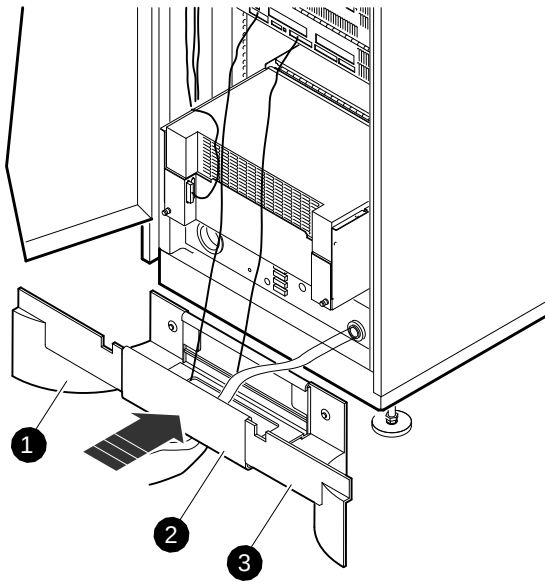
2.3 Rear Skirt

The center piece of the rear skirt has a rectangular opening through which run all external power and signal cables. The rear skirt parts are illustrated in Figure 3.

P/Ns 744165801 and 744165802 are the curved pieces.

These curved pieces are attached to the center piece with plastic push-in fasteners, and attached to the frame with the push-in captive screws. The cable cover, P/N 74416600 (not shown in Figure 3), fits into the notches on the two side pieces.

Figure 3 Rear Skirt



MLO-007684

3 Connecting External Cables

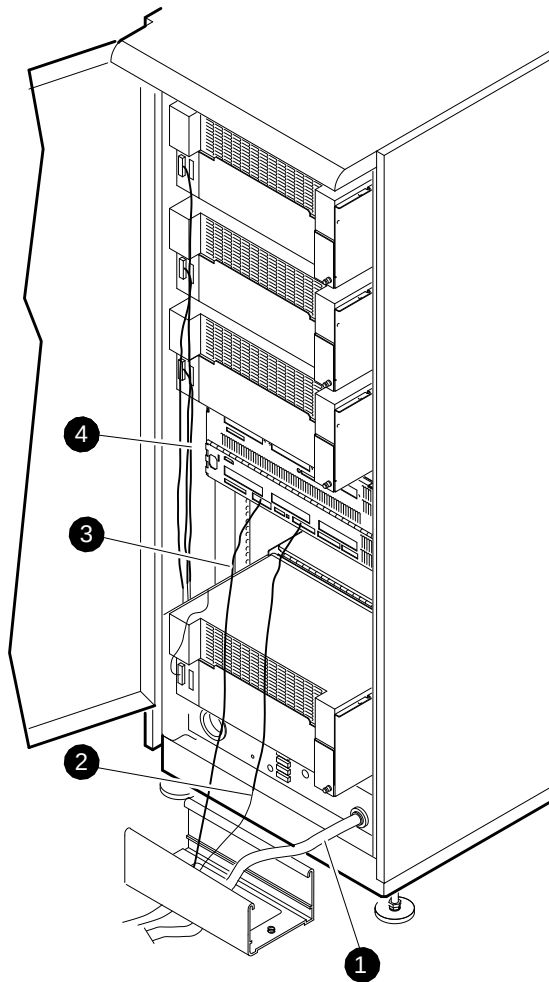
External cables are connected from the rear of the power controller and from the rear of the CPU drawer. See Figure 4 and connect the following.

Note: All external cables must run through the opening in the center piece of the rear skirt.

- ❶ Power cable
- ❷ Console cable
- ❸ Ethernet cable
- ❹ Internal power cables from power controller to individual drawers, which are connected at the factory.

Note: Most U.S. installations include the power cord as part of the power controller. Other countries are shipped unique, detachable cords with the appropriate plug.

Figure 4 DECsystem 5900 Rear View



MLO-007681

4 Powering Up the System

The power controller can be configured as follows for a single point of power control at the upper CPU drawer switch.

4.1 Power Controller

The power controller is in the bottom level of the DECsystem 5900. See Figure 5 and check the following:

- ❶ Power cable plugged in to the ac source.
- ❷ Circuit Breaker switch up (On).
- ❸ 1/8 A fuse in place.
- ❹ Remote/Local switch up (Remote).

If the Remote/Local switch is in the Local mode (down), the drawers must be powered up individually and manually.

- ❺ Power controller sequence cable connected.

Figure 5 Power Controller Switches

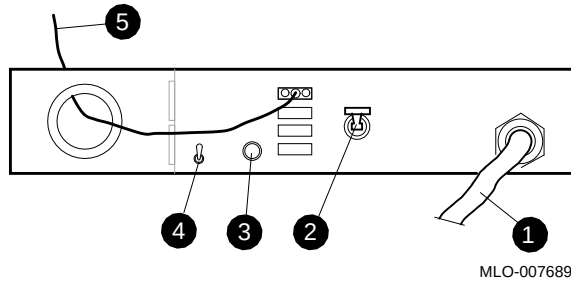
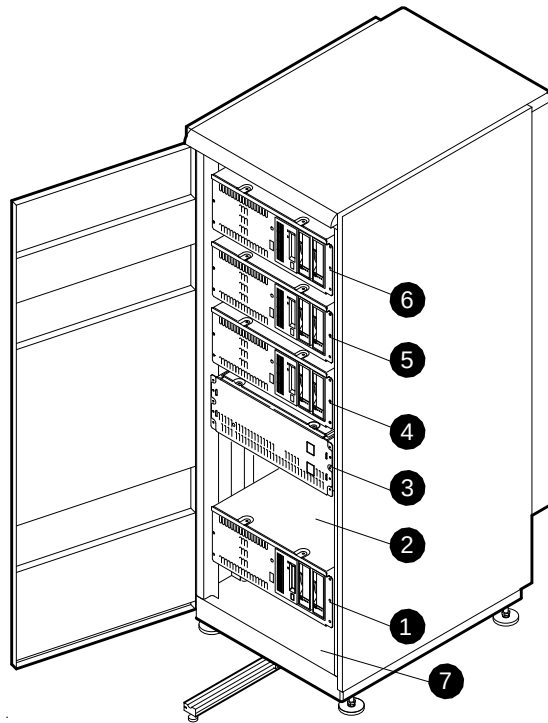


Figure 6 DECsystem 5900 Front



MLO-007690

Figure 6 shows the DECsystem 5900 front with the door open. ③ is the CPU drawer. Mass storage drawers are ④, ⑤, ①, and ⑥, in that order. Space ② is reserved for CPU upgrades.

4.2 Mass Storage Drawer Switches

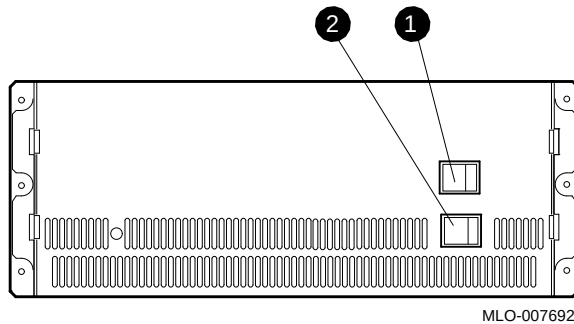
Turn on the switches at the rear and front of each mass storage drawer. Both must be on to power up each drawer.

4.3 CPU Front Drawer Switches

Both switches on front of CPU drawer must be on (|). See Figure 7.

- ❶ Upper switch on (|); this is the main system power switch, which powers the whole system up/down when the Remote /Local switch on the power controller is in the Remote mode.
- ❷ Lower switch on (|); this is for the CPU drawer power on/off only.

Figure 7 CPU Drawer Front Switches



5 Setting the Console Terminal

On the console, verify that the console terminal communication set-ups are as follows: 9600 baud rate, 8 bit, no parity, 1 stop bit.

6 Removing Blank Media

For protection during shipping, blank tape and plastic protectors are installed in the tape drives.

Put the dummy media and the plastic protectors in the accessory box and save it in case of re-shipment.

For proper loading and booting procedures, see the *Guide to Installing ULTRIX* (AA-PBLOD-TE).

7 Running Power-Up Self-Tests

The power up process takes about one minute from the time the system is turned on.

Names of the tests are displayed on the console as they are performed. The tests are also displayed in hexadecimal values on the pair of four LEDs at rear of the CPU drawer.

7.1 Two Non-Problem Messages

Error messages regarding the non-existent keyboard and pointer will be displayed on the console:

```
?STF (Ln#0 Kbd self test)
?STF (Ln#1 Pntr kbd self test)
```

As there is neither keyboard nor pointer directly connected to the system, these messages can be ignored.

7.2 Problems with Option Modules

The power-up self-tests do not test the devices in the mass storage drawers. Device IDs /addresses and function of the installed devices can be verified while running extended tests.

See the *DECsystem 5900 Service Guide*, EK-D590A-PS, for extended testing of mass storage devices and I/O options and troubleshooting procedures.

8 Resolving Problems

See the *DECsystem 5900 Service Guide*.