

# **HP EISA Mux Release Note**

**For HP-UX 11i, 11.0x, and 10.2x,**

**HP-UX Networking**



**Manufacturing Part Number: J2467-90025**

**E0602**

U.S.A.

© Copyright 2002 © Hewlett-Packard Company. All rights reserved..

---

## Legal Notices

The information in this document is subject to change without notice.

*Hewlett-Packard makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.*

**Warranty.** A copy of the specific warranty terms applicable to your Hewlett-Packard product and replacement parts can be obtained from your local Sales and Service Office.

**Restricted Rights Legend.** 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 for DOD agencies, and subparagraphs (c) (1) and (c) (2) of the Commercial Computer Software Restricted Rights clause at FAR 52.227-19 for other agencies.

HEWLETT-PACKARD COMPANY  
3000 Hanover Street  
Palo Alto, California 94304  
U.S.A.

Use of this manual and flexible disk(s) or tape cartridge(s) supplied for this pack is restricted to this product only. Additional copies of the programs may be made for security and back-up purposes only. Resale of the programs in their present form or with alterations, is expressly prohibited.

**Copyright Notices.** ©copyright 1983-2002 Hewlett-Packard Company, all rights reserved.

Reproduction, adaptation, or translation of this document without prior written permission is prohibited, except as allowed under the copyright laws.

©copyright 1979, 1980, 1983, 1985-93 Regents of the University of California

This software is based in part on the Fourth Berkeley Software Distribution under license from the Regents of the University of California.

©copyright 1980, 1984, 1986 Novell, Inc.

©copyright 1986-1992 Sun Microsystems, Inc.

©copyright 1985-86, 1988 Massachusetts Institute of Technology.

©copyright 1989-93 The Open Software Foundation, Inc.

©copyright 1986 Digital Equipment Corporation.

©copyright 1990 Motorola, Inc.

©copyright 1990, 1991, 1992 Cornell University

©copyright 1989-1991 The University of Maryland

©copyright 1988 Carnegie Mellon University

**Trademark Notices.** UNIX is a registered trademark in the United States and other countries, licensed exclusively through X/Open Company Limited.

X Window System is a trademark of the Massachusetts Institute of Technology.

MS-DOS and Microsoft are U.S. registered trademarks of Microsoft Corporation.

OSF/Motif is a trademark of the Open Software Foundation, Inc. in the U.S. and other countries.



# 1 HP EISA Mux Release Note for 11i (B.11.11.07)

---

## Announcement

The information in this chapter is specific to the HP-UX 11i version of the following HP EISA Mux products:

- The J2482A EISA Mux 8-port card and version B.11.11.07 software (32-bit OS only).
- The J2483A EISA Mux 64-port card and version B.11.11.07 software (32-bit OS only).

The above products are for HP-UX D-Class servers and HP-UX workstations that are equipped with the EISA bus.

The information specific to the HP-UX 11i version of the HP EISA Mux products is in this chapter. Please refer to Chapter 3 for information about HP-UX Version 10.2x and Chapter 2 for information about HP-UX Version 11.0x.

---

**IMPORTANT** If you have purchased either of the cards mentioned above *at the time of this release*, it will not be necessary for you to download and install any of these patches; the enclosed CD includes all of the software patches mentioned in this document. When looking for patches on-line, you should also check for patches that supersede those listed in this document -- download and install only the latest patch(es).

---

## What's in This Version

The information in this section is for the 11i version of the EISA RS-232 Mux products.

### Features and Benefits

This version of the EISA Mux software offers the following new features and benefits:

- EISA Mux software for all boards has been bundled under the name **TermIO-01**.
- When you order the EISA cards (J2482A and J2483A) the software ships free with the cards. The software is now bundled with the hardware and requires no software license or codeword. Software support, manuals, and release notes are also part of the hardware product structure.

J2482A/J2483A EISA Mux card and driver

#0B1 Add manual set (*HP EISA/PCI Multiplexer Family Cabling, Diagnostics and Troubleshooting Manual*)

#0D1 Factory integration and software ignition

#AVN Release notes

#Support Hardware and software support

---

## **Known Problems and Workarounds**

There are no known problems for HP 11i Mux products.

## Compatibility Information and Installation Requirements

This section describes requirements for installing the 11i version of the EISA Mux products.

### Software Requirements

You must have installed the HP-UX 11i Operating System before installing this product. To install this product, use the `swinstall` program.

### HP-UX Operating System Patch Dependencies

None.

### Hardware Requirements

The HP-UX D-Class servers and HP-UX workstations upon which the 11i version of the EISA Mux products are installed must be equipped with the EISA bus.

### Disk Space

The disk space required is 500 KBs.

### Installation Information

Listed below are some things to keep in mind when installing the EISA Mux product:

- You must install the EISA Mux hardware when the system is down.
- You must apply patches to HP-UX 11i prior to installation. These patch(es) are listed in “HP-UX Operating System Patch Dependencies” above.
- You must install the EISA Mux driver software first, to avoid a second reboot.
- The kernel dynamically assigns the major number for the EISA mux when you install the EISA Mux driver.

This major number can differ from system to system. However, once a major number is assigned, it remains unchanged across reboots until the driver is removed. You can find out the major number by entering the following command:

```
lsdev -d eisa_mux0
```

(`eisa_mux0` is the driver name of the EISA Mux.)



---

## Patches and Fixes in This Version

This section lists the fixes and patches that have been applied in the 11.11 version of the EISA Mux products.

### Patches

PHNE\_25490

### Fixes

**Table 1-1**                      **Fixes Included in This Release**

<b>SR/CR Number</b>	<b>Problem</b>
SR: 8606227010 CR: JAGad96072	The initialization process has been modified to pre-set all necessary registers with appropriate values.
SR: 8606215957 CR: JAGad85129	Terminal cross talk when using A6749A PCI-MUX 64 port with 25 ft cable A6749A has been corrected.
SR: 8606220546 CR: JAGad89684	The Data Page Fault panic has been corrected to pass appropriate arguments.

## Software Availability in Native Languages

This version of the EISA Mux software is in English.

### Available Documentation

The EISA Mux-related documentation is as follows:

- *HP EISA/PCI Multiplexer Family Cabling Diagnostics and Troubleshooting Manual*, Customer Order Number J3592-90001 (English)

Note that this manual is also available on the HP WWW site <http://www.docs.hp.com>.

- *HP EISA/PCI Mux Quick Installation Card*, Customer Order Number 5966-8645, is localized in French, German, Italian, Japanese and Spanish.

## 2 HP EISA Mux Release Note for B.11.00.15

---

### Announcement

The information in this chapter is for the following HP EISA RS-232 Mux products:

- The J2482A EISA Mux 8-port card and version B.11.00.15 software (32-bit OS only).
- The J2483A EISA Mux 64-port card and version B.11.00.15 software (32-bit OS only).

The above products are for HP-UX D-Class servers and HP-UX workstations that are equipped with the EISA bus.

The information specific to the HP-UX 11.0 version of the HP EISA Mux products is in this chapter. Please refer to Chapter 3 for information about HP-UX Version 10.2x and Chapter 13 for information about HP-UX Version 11i.

---

**IMPORTANT** If you have purchased either of the cards mentioned above *at the time of this release*, it will not be necessary for you to download and install any of these patches; the enclosed CD includes all of the software patches mentioned in this document. When looking for patches on-line, you should also check for patches that supersede those listed in this document -- download and install only the latest patch(es).

---

## What's in This Version

The information in this section is for version B.11.00.15 of the EISA RS-232 Mux products.

### Features and Benefits

This version of the EISA Mux software offers the following new features and benefits:

- EISA Mux software for all boards has been bundled under the name **TermIO-01**.
- When you order the EISA cards (J2482A and J2483A) the software ships free with the cards. The software is now bundled with the hardware and requires no software license or codeword. Software support, manuals, and release notes are also part of the hardware product structure.

J2482A/J2483A EISA Mux card and driver

#0B1 Add manual set (*HP EISA/PCI Multiplexer Family Cabling, Diagnostics and Troubleshooting Manual*)

#0D1 Factory integration and software ignition

#AVN Release notes

#Support Hardware and software support

## Known Problems and Workarounds

The known problems and corresponding workarounds for version B.11.00.15 of the EISA Mux products are as follows:

- Disconnecting or connecting port modules while the system is active might generate a break character on the serial ports of any port module still connected. The `gettys` active on those ports might treat the break as an auto-speed detection loop and change the baud rate, causing the ports to appear “hung”.

**Workaround:** Pressing the **Break** key a few times will bring the `getty` back to the original baud rate.

- The `emux_diag` program relies on HP terminal function keys. If you change the terminal function key definitions from the default values, `emux_diag` will not work.

**Workaround:** If you have changed the HP terminal function key definitions from their default values (press `ctrl-menu` to see the menu on HP terminals), you need to change them back to the default values (that is, `f1=<ESC>p`, `f2=<ESC>q`,... `f8=<ESC>v`) before running the `emux_diag` program.

- When adding a new port module to an already configured system, `insf` does not automatically create device files for new ports at boot time.

**Workaround:** Each time you add a new port module to an installed EISA Mux card, you must enter the command below to create device files for each newly added port:

```
insf -e -d eisa_mux0
```

- `Xterm` does not support HP function keys. Because `emux_diag` relies on HP terminal function keys, `emux_diag` will not work with `Xterm`.

**Workaround:** Configure your console to use `dtterm` or `hpterm`.

## Compatibility Information and Installation Requirements

This section describes the requirements for installing version B.11.00.15 of the EISA Mux products on HP-UX 11.0.

### Software Requirements

You must have installed the HP-UX 11.0 Operating System before installing this product. To install this product, use the `swinstall` program.

### HP-UX Operating System Patch Dependencies

None.

### Hardware Requirements

The HP-UX D-Class servers and HP-UX workstations the B.11.00.15 version of the EISA Mux products is installed on must be equipped with the EISA bus.

### Disk Space

The disk space required is 500 KBs.

### Installation Information

Listed below are some things to keep in mind when installing the EISA Mux product:

- You must install the EISA Mux hardware when the system is down.
- You must apply any patches to HP-UX 11.0 prior to installation.
- You must install the EISA Mux driver software first, to avoid a second reboot.
- The kernel dynamically assigns the major number for the EISA mux when you install the EISA Mux driver.

This major number can differ from system to system. However, once a major number is assigned, it remains unchanged across reboots until the driver is removed. You can find out the major number by entering the following command:

```
lsdev -d eisa_mux0
```

(`eisa_mux0` is the driver name of the EISA Mux.)

---

## Patches and Fixes in This Version

This section lists the fixes and patches that have been applied in version B.11.00.15 of the EISA Mux products.

### Patches

PHNE\_25488

### Fixes

This release contains the fixes listed below.

**Table 2-1**            **Fixes Included in This Release**

<b>SR/CR Number</b>	<b>Problem</b>
SR: 8606227010 CR: JAGad96072	The initialization process has been modified to pre-set all necessary registers with appropriate values.
SR: 8606215957 CR: JAGad85129	Terminal cross talk when using A6749A PCI-MUX 64 port with 25 ft cable A6749A has been corrected.

## Software Availability in Native Languages

This version (B.11.00.15) of the EISA Mux software is in English.

### Available Documentation

The EISA Mux-related documentation is as follows:

- *HP EISA/PCI Multiplexer Family Cabling Diagnostics and Troubleshooting Manual*, Customer Order Number J3592-90001 (English)

Note that this manual is also available on the HP WWW site <http://www.docs.hp.com>.

- *HP EISA/PCI Mux Quick Installation Card*, Customer Order Number 5966-8645, is localized in French, German, Italian, Japanese and Spanish.



## 3 HP EISA Mux Release Note for B.10.20.11

---

### Announcement

The information in this chapter is for the following HP EISA RS-232 Mux products:

- The J2482A EISA Mux 8-port card and version B.10.20.11 software.
- The J2483A EISA Mux 64-port card and version B.10.20.11 software.

The above products are for HP-UX D-Class servers and HP-UX workstations that are equipped with the EISA bus. Please refer to Chapter 2 for information about HP-UX Version 11.0x and Chapter 1 for information about HP-UX Version 11i.

---

**IMPORTANT** If you have purchased either of the cards mentioned above *at the time of this release*, it will not be necessary for you to download and install any of these patches; the enclosed CD includes all of the software patches mentioned in this document. When looking for patches on-line, you should also check for patches that supersede those listed in this document -- download and install only the latest patch(es).

---

## What's in This Version

The information in this section is for version B.10.20.11 of the EISA RS-232 Mux products.

### Features and Benefits

This version of the EISA Mux software offers the following new features and benefits:

- When you order the EISA cards (J2482A and J2483A) the software ships free with the cards. The software is now bundled with the hardware and requires no software license or codeword. Software support, manuals, and release notes are also part of the hardware product structure. As of December 1999, the previous software numbers became invalid. Below is the current product structure for the J2467C product:

J2482A/J2483A EISA Mux card and driver

#0B1 Add manual set (*HP EISA/PCI Multiplexer Family Cabling, Diagnostics and Troubleshooting Manual*)

#0D1 Factory integration and software ignition

#AVN Release notes

#Support Hardware and software support

## Known Problems and Workarounds

The known problems and corresponding workarounds for version B.10.20.11 of the EISA Mux products are as follows:

- Disconnecting or connecting port modules while the system is active might generate a break character on the serial ports of any port module still connected. The `gettys` active on those ports might treat the break as an auto-speed detection loop and change the baud rate, causing the ports to appear “hung”.

**Workaround:** Pressing the **Break** key a few times will bring the `getty` back to the original baud rate.

- The `emux_diag` program relies on HP terminal function keys. If you change the terminal function key definitions from the default values, `emux_diag` will not work.

**Workaround:** If you have changed the HP terminal function key definitions from their default values (press `ctrl-menu` to see the menu on HP terminals), you need to change them back to the default values (that is, `f1=<ESC>p`, `f2=<ESC>q`,... `f8=<ESC>v`) before running the `emux_diag` program.

- When adding a new port module to an already configured system, `insf` does not automatically create device files for new ports at boot time.

**Workaround:** Each time you add a new port module to an installed EISA Mux card, you must enter the command below to create device files for each newly added port:

```
insf -e -d eisa_mux0
```

- `Xterm` does not support HP function keys. Because `emux_diag` relies on HP terminal function keys, `emux_diag` will not work with `Xterm`.

**Workaround:** Configure your console to use `dtterm` or `hpterm`.

---

## Compatibility Information and Installation Requirements

This section describes the requirements for installing version B.10.20.11 of the EISA Mux products on HP-UX 10.20.

### Software Requirements

You must have installed the HP-UX 10.20 Operating System before installing this product. To install this product, use the `swinstall` program.

### HP-UX Operating System Patch Dependencies

Table 3-1 below lists the HP-UX 10.20 Operating System patch that version B.10.20.11 of the EISA Mux product has dependencies on. Please note that you *must* install this patch (or any patch that supersedes it) *before* you install the EISA Mux product.

**Table 3-1 EISA Mux HP-UX 10.20 Operating System Patch Dependencies**

HP-UX System	Patch Number	Description
Servers & Workstations	PHNE_21872	Mux and <code>pty</code> cumulative patch

### Hardware Requirements

The HP-UX D-Class servers and HP-UX workstations the B.10.20.11 version of the EISA Mux products is installed on must be equipped with the EISA bus.

### Disk Space

The disk space required is 500 KBs.

### Installation Information

Listed below are some things to keep in mind when installing the EISA Mux product:

- You must install the EISA Mux hardware when the system is down.
- You must apply patches to HP-UX 10.20 prior to installation. These patches are listed in “HP-UX Operating System Patch Dependencies” above.

- You must install the EISA Mux driver software first, to avoid a second reboot.
- The kernel dynamically assigns the major number for the EISA mux when you install the EISA Mux driver.

This major number can differ from system to system. However, once a major number is assigned, it remains unchanged across reboots until the driver is removed. You can find out the major number by entering the following command:

```
lsdev -d eisa_mux0
```

(eisa\_mux0 is the driver name of the EISA Mux.)

---

## Patches and Fixes in This Version

This section lists the fixes and patches that have been applied in version B.10.20.11 of the EISA Mux products.

### Patches

There are no patches included in version B.10.20.11 of the EISA Mux products.

### Fixes

This release contains the fixes listed in Table 3-2 below.

**Table 3-2** Fixes Included in This Release

SR/CR Number	Problem
5003438879 (SR) JAGaa42340 (CR)	Port 4 fails on 8-port EISA mux.
1653298273 (SR) JAGaa95443 (CR)	Port 4 fails on 8-port EISA mux at 11.0.
5003458190 (SR) JAGab03644 (CR)	When cards are initialized in the wrong sequence mux driver will cause HPMC.
8606101689 (SR) JAGab63551 (CR)	System panic in EQNX_sst_proc on the stack trace.
8606108601 (SR) JAGab79048 (CR)	EISA mux discard outbound flow control on close.

## Software Availability in Native Languages

This version (B.10.20.11) of the EISA Mux software is in English.

### Available Documentation

The EISA Mux-related documentation is as follows:

- *HP EISA/PCI Multiplexer Family Cabling Diagnostics and Troubleshooting Manual*, Customer Order Number J3592-90001 (English)

Note that this manual is also available on the HP website <http://www.docs.hp.com>.

- *HP EISA/PCI Mux Quick Installation Card*, Customer Order Number 5966-8645, is localized in French, German, Italian, Japanese and Spanish.