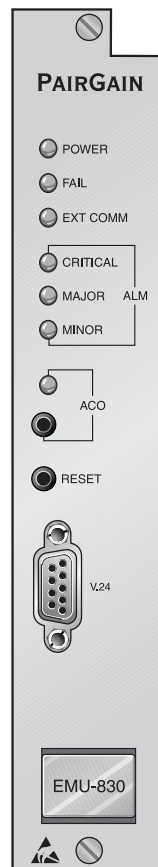


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# HIGAIN-ETSI MANAGEMENT UNIT

## SOFTWARE RELEASE NOTES - VERSION 2.20

Model	List Number	Part Number
EMU-830	1	150-1440-01



**PAIRGAIN TECHNOLOGIES, INC.**  
**ENGINEERING SERVICES TECHNICAL PRACTICE**  
**SECTION 190-800-112-01**

**Revision History of This Document**  
Revision 01—May 15, 1998  
A) Initial Release

# USING THIS TECHNICAL PRACTICE

Two types of messages, identified by icons, appear in the text.



**Notes contain information about special circumstances.**



**Cautions indicate the possibility of equipment damage or the possibility of personal injury.**

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## A. SOFTWARE RELEASE OVERVIEW

### 1. Description

This document describes the new features, bug fixes, known remaining bugs, and compatibility issues associated with the release of the following software:

<b>General Description:</b>	EMU-830 Exchange Office Management Unit Software
<b>Version:</b>	2.20
<b>Checksum:</b>	0xFA15
<b>Release Date:</b>	December 19, 1997
<b>File Name:</b>	muv220.img

The previous release of software was:

<b>Version:</b>	2.02
<b>Checksum:</b>	0x1080
<b>Release Date:</b>	August 7, 1997
<b>File Name:</b>	muv202.img

### 2. Product Application

This software is used with the products listed in the following table.

*Exchange Office Management Units Using Version 2.20 Software*

Model Number	Product Number	Description
EMU-830	150-1440-01	Exchange Office Management Unit with TAO and SNMP

### 3. New Features

The Version 2.20 EMU-830 software supports the Terminal Access Option (TAO) in a multishelf environment. This capability allows the user to manage up to 32 co-located shelves using a single VT-100 terminal that is either directly or remotely (via a modem link) attached to the EMU-830 front panel RS-232 port of one of the shelves. The network of co-located shelves are connected using the Ethernet interface (10BaseT and 10Base2) available on the EMS-83x shelves.

In addition, the TAO "SAVE NVRAM" command has been deleted and the NVRAM contents are now automatically saved after being changed. There is improved support for the UTU-80x HDSL Cards. The UTU cards are now properly recognized and the status is displayed on the TAO shelf screen. The user can set the UTU role to either LTU (master) or NTU (slave) through SNMP.

A security feature has been added to log out of the TAO when no keyboard activity is detected for 20 minutes. When logged out, the user must enter the password to regain management access to the system.

## 4. Bug Fixes

All bugs that existed in the previous software release, Version 2.02, are listed below along with the corrective action that was taken to fix the problem for the current release, Version 2.20.

### *Version 2.20 Bug Fixes*

<b>DR:*</b>	347
<b>Bug:</b>	The firmware upload to the remote shelf fails.
<b>Description:</b>	When trying to upload the HDSL Unit Firmware to a remote shelf, the local shelf crashed after a long period of sending UDP packets. This only occurred if the upload was performed using a 1K-XMODEM protocol. The problem did not occur when using a standard 128 byte XMODEM protocol.
<b>Fix:</b>	A 1K-XMODEM can now be used for this upload procedure.
<b>DR:</b>	348
<b>Bug:</b>	TFTP uploads failed to recover after dropout.
<b>Description:</b>	If the TFTP session was dropped and timed out, the EMU requested a restart. The TFTP server properly started with block number 1 while the EMU continued from where it left off. This caused the TFTP upload to eventually fail because the two are out of sync with each other.
<b>Fix:</b>	The problem was caused by the TFTP server not closing the terminated session properly. The retry algorithm has been improved to correct the problem.
<b>DR:</b>	352
<b>Bug:</b>	The PSW Alarm history was shown incorrectly as ES Alarm history in the SNMP MIB table.
<b>Description:</b>	The PSW alarm history information being retrieved from the line unit was incorrectly placed into the ES history location.
<b>Fix:</b>	Bug fixed.
<b>DR:</b>	N/A
<b>Bug:</b>	The EMU software hung under certain conditions.
<b>Description:</b>	After receiving backplane response of incorrect length from an LTU, the EMU could hang up, thus requiring a reset.
<b>Fix:</b>	A memory leak problem that caused the software hang has been found and corrected.
<b>DR:</b>	N/A
<b>Bug:</b>	Disabled alarm reporting in EMU TAO shelf menu was not correctly reflected in the EMU front panel LEDs and relays.
<b>Description:</b>	When the disable alarm function was activated for a circuit and an alarm was received from that circuit, the front panel alarm LEDs and relays improperly responded.
<b>Fix:</b>	The program has been changed to disable the LEDs and relays when alarm function is disabled.

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*Version 2.20 Bug Fixes*


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<b>DR:</b>	N/A
<b>Bug:</b>	The set date function accepted invalid inputs.
<b>Description:</b>	There was inadequate validation performed on user date inputs. For example, a date of February 30th was being accepted.
<b>Fix:</b>	A checking function has been added to validate all date entries.
<b>DR:</b>	369
<b>Bug:</b>	The EMU denied access to the TAO on the LTU.
<b>Description:</b>	After logging onto a LTU, if a user removed an LTU from the shelf and placed it into another slot, logged off the LTU shelf and the TAO mode, and then return to the EMU menu, the EMU would fail to access any line unit in the shelf.
<b>Fix:</b>	This problem has been corrected.
<b>DR:</b>	390, 392
<b>Bug:</b>	Autonomous alarm reporting failed on re-dials.
<b>Description:</b>	Autonomous alarm reporting operated correctly until the user dialed into a shelf and later disconnected. After the operator disconnected, the user could not reconnect.
<b>Fix:</b>	The DSR line dropped during disconnects, and the modem did not answer. The DSR line on the Craft port is now activated after the EMU board completes power-up initialization. (It was previously activated at the beginning of initialization.)
<b>DR:</b>	402
<b>Bug:</b>	The Configuration change reset activated ACOs.
<b>Description:</b>	If the user changes the ACO retirement configuration state of the alarm relays, an activated ACO became inactive.
<b>Fix:</b>	Configuration changes will not deactivate the ACO state.
<b>DR:</b>	393, 404
<b>Bug:</b>	Alarm status message kept blinking on the TAO screen.
<b>Description:</b>	The painting of the shelf ID on the TAO shelf screen overwrote part of the alarm status message causing it to blink.
<b>Fix:</b>	Bug fixed and the alarm status message is stable.
<b>DR:</b>	N/A
<b>Bug:</b>	The LTU was not shown as manageable on the TAO screen.
<b>Description:</b>	When a LTU lost communication to the EMU, it appeared as "Not manageable" on the TAO screen and did not return to the "manageable" state.
<b>Fix:</b>	A periodic checking routine has been added to monitor all "Not manageable" LTUs. They now return to the "manageable" state when communication has been re-established.

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DR: is for internal use only.

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## 5. Known Existing Bugs

At the time of the Version 2.20 release there were no known bugs in the EMU-830 software.

## B. BACKWARD COMPATIBILITY AND UPGRADES

### 6. Compatibility with Previous Versions of HDSL Unit Firmware

This version of the EMU-830 software Version 2.20 requires HDSL Unit firmware Version 2.00 or later to ensure proper communication between the EMU and HDSL Units.

### 7. Upgrade Methods

**From Version 1.1.** the EMU-830 management units running software Version 1.1 must be upgraded by replacing the two PROM chips on the board. These chips may be ordered from PairGain as part of the EMU-830 List 1 Upgrade Kit (part number 150-1491-02). This kit includes the following:

- EMU-830 Firmware Upgrade PROMs, Version 2.20
- EMU-830 Technical Practice
- SNMP MIB Diskette
- HDSL Unit Firmware Diskette, Version?

**From Version 2.0 or later.** The EMU-830 management units running software Version 2.0 may be upgraded by either replacing the PROM chips identified above, or by performing a firmware download from a VT100 terminal or PC running a terminal emulation program. The EMU-830 Technical Practice describes how to perform the firmware download. The Version 2.20 image file (muv220 .img) may be downloaded from PairGain's FTP site in the ETSI/Mgmtunit\_Unit directory.

### 8. Compatibility with Previous Versions of SNMP MIBs

The EMU software Version 2.20 requires the current release of SNMP MIB files to support the UTU-80x HDSL. The MIB files for the EMU-830 Version 2.20 are identified in the following list. The MIB files should be compiled in the order listed. The Release version number and Revision date can be seen by viewing the MIB files with a standard text editor.

File Name	Version #	Revision Date	Description
RFC1155.mib			Standard MIB Resident on SNMP software package
pgmibhd.mib	Release 1.1	Revision 05/21/97	PairGain Common MIB
pgetsi.mib	Release 1.2	Revision 12/01/97	PairGain ETSI Interface MIB
pghdl.mib	Release 1.2	Revision 06/24/97	PairGain HDSL MIB
pgagtmib.mib	Release 1.1	Revision 05/21/97	PairGain SNMP Agent MIB
pgetsitr.mib	Release 1.1	Revision 05/21/97	PairGain ETSI SNMP Trap MIB

## **C. SAFETY AND EMC COMPLIANCE**

### **9. Safety and EMC Compliance**

Use of the EMU-830 Version 2.20 software will not change the safety or EMC characteristics of the EMU-830 board.

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