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REVISION HISTORY

REVISION	DESCRIPTION	DATE
1.0	Original Version	Aug 02
1.1	Updated Figure 1	Mar 03
1.2	Added Figure 2	Jul 03

1. OVERVIEW

Some of the 500 series modules contain firmware that is contained in a FLASH EPROM device. From time to time firmware updates will be provided to add additional features to the unit. The following procedure will allow you to upload new firmware from your computer.

The procedure for upgrading the firmware in each of these modules is the same. Through the rest of this section these modules will be referred to generically as the 500 module.

You will need the following equipment in order to update the 500 Firmware

- PC with available communications port. The communication speed is 57600 baud, therefore a 486 PC or better with a 16550 UART based communications port is recommended.
- "Straight-thru" serial extension cable (DB9 female to DB9 male) or (DB25 female to DB9 male)
- Terminal program that is capable of Xmodem file transfer protocol (such as HyperTerminal).
- New firmware supplied by Evertz (available at the download site on www.evertz.com)
- Special upgrade cable supplied with the 500FR-C frame. This cable is normally in the vinyl pouch at the front of this manual. (Evertz part #WA S76).

1.1. UPDATE PROCEDURE

1.1.1. PART 1: Configuring the Module for Firmware Upgrades

1. Remove the module from the frame.

2. Connect the Evertz Serial Upgrade cable to the 2 row x 3 pin header labelled J24 on the front edge of the 500 board as shown in Figure 1. Install the cable with the ribbon cable towards the front of the board.

500 End			PC End	
2 row X 3 pin Berg	**Pin**	**3 ft. Cable**	**9 pin D Female**	**Pin**
Key	1			1
Rx	2	-------1a------	Tx	2
Tx	3	-------1b------	Rx	3
Tx Gnd	4	----drain-----	Gnd	5
Key	5			
---	6			

Table 1: Evertz Serial Upgrade Cable (WA-S76)

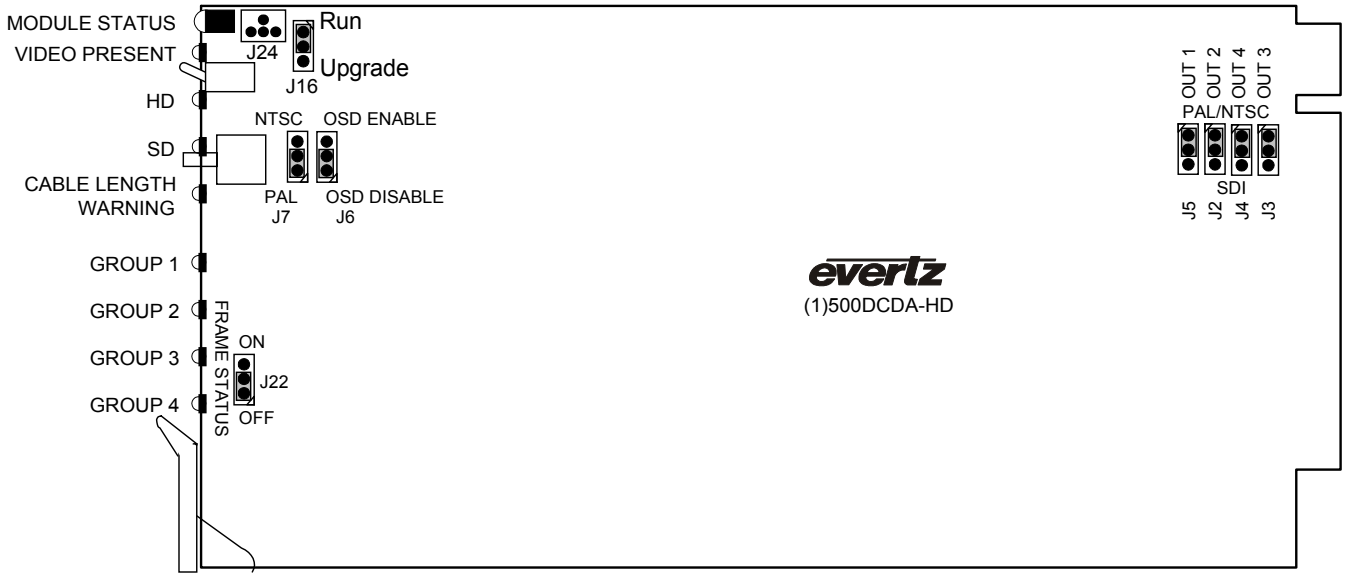

Figure 1 : Location of UPGRADE Jumper on 500DCDA-HD Boards

Figure 2: Location of UPGRADE Jumper on 500AMDA-AESU Boards

3. Move the UPGRADE jumper to the UPGRADE position as shown in Figure 1.

4. Connect the 9 pin connector on the end of the Serial Update cable to the PCs' RS-232 communications port

1.1.2. PART 2: Terminal Program Setup

5. Start the terminal program.

6. Configure the port settings of the terminal program as follows:

Baud	**57600**
Parity	**no**
Data bits	**8**
Stop bits	**2**
Flow Control	**None**

7. Install the 500 module into the frame. After the module powers up, a banner with the boot code version information should appear in the terminal window.

For example:

```
EVERTZ MFC5407 MONITOR 2.1.3
COPYRIGHT 1997, 1998, 1999, 2000, 2001, 2002 EVERTZ MICROSYSTEMS LTD.
UPGRADE JUMPER INSTALLED

UPLOAD FILE NOW, CONTROL-X TO CANCEL
```

8. The following is a list of possible reasons for failed communications:

   - Defective Evertz Serial Upgrade cable.
   - Wrong communications port selected in the terminal program.
   - Improper port settings in the terminal program. (Refer to step 7 for settings).

1.1.3. PART 3: Uploading the New Firmware

9. Upload the "*.bin" file supplied using the X-Modem transfer protocol of your terminal program. If you do not start the upload within 10 minutes the 500 Boot code will time out. You can restart the upgrade process by removing and reinstalling the module.

10. The boot code will indicate whether the operation was successful upon completion of the upload.

    For Example:

```
UPLOAD OKAY
COLD BOOT> |
```

    The cursor to the right of the word "BOOT>" should be spinning for about 5 seconds then the module will reboot.

11. The following is a list of possible reasons for a failed upload:

- If you get the message "transfer cancelled by remote" you must restart the terminal program and load the bin file, then remove and install the module again.
- The supplied “*.bin” file is corrupt.
- Wrong file specified to be uploaded.
- The PCs’ RS-232 communications port can’t handle a port speed of 57600.
- Noise induced into the 500 Serial Upgrade cable.

1.1.4. PART 4: Completing the Upgrade

12. You can now close the terminal program and disconnect the RS-232 serial cable from the PC.

13. Remove the module from the frame and disconnect the 500 Serial Upgrade cable from the module. Restore the *UPGRADE* jumper to the RUN position

14. Reinsert the module into the frame.

The update procedure is now completed.