

UPGRADING THE FIRMWARE

Overview

The 8084 contains firmware in a FLASH ROM device. From time to time firmware updates may be provided to add additional features to the unit. The following procedure will allow you to upload new firmware from your computer.

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

- PC with available communications port. The communication speed is selectable between 9600 baud and 38,400 baud. A 486 PC or better with a 16550 UART based communications port is recommended.
- "Null-modem" serial extension cable (DB9 female to DB9 female) or (DB25 female to DB9 female). This assumes that the user has not changed the pinout of serial port A using the jumpers inside the 8084.
- Terminal program that is capable of Xmodem file transfer protocol. (such as HyperTerminal)
- New firmware supplied by Evertz.

Procedure for 8084 for Firmware upgrades

1. With power disconnected, connect the null-modem cable between 8084 serial port A and the PC.
2. Power-up the PC, and start the terminal software.
3. Configure the port settings of the terminal program as follows:

Baud	38400 or 9600
Parity	None
Data bits	8
Stop bits	1
Flow Control	XON/XOFF (software)

4. If you wish 38,400 baud communications, hold the **↑** key and apply power to the 8084. For 9600 baud, hold the **↓** key while applying power.
5. The front panel will display the word `PROGRAMMER` and the selected baud rate. You should also see a menu appear in the terminal window on the PC.

For example:

```
-----  
8045 Flash ROM Programming Utility Ver 1.0  
COPYRIGHT 2000 EVERTZ MICROSYSTEMS LTD.  
-----  
Code Bank: 0 1 2 3 4 5 6 7  
BLANK?      N N N N N N N N  
Flash ROM is valid  
  
-- MENU -----  
1. <X>Modem download HEX file to Flash  
2. <A>SCII download HEX file to Flash  
3. production <T>est  
4. <Q>uit Programmer (Jump into Flash)  
-----  
COMMAND:
```

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

- Defective Serial Null modem cable.
- Wrong communications port selected in the terminal program.
- Connected to wrong communications port on 8084. You must use Port A for firmware upgrades.
- Improper port settings in the terminal program. (Refer to step 3 for settings).
- Arrow key not being pressed correctly during power-up.

7. Press '1' or 'X' to initiate X-modem file transfer.

8. Upload the "*.HEX" file supplied using the X-Modem transfer protocol of your terminal program. If you do not start the upload within a short time the firmware loading operation will time out. You can restart the process by selecting '1' or 'X' from the menu again.

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

For Example:

```
***** Download Complete!
```

10. The following is a list of possible reasons for a failed file transfer:

- The supplied "*.HEX" file is corrupt.
- Wrong file specified to be uploaded.
- The PCs' RS-232 communications port can't handle a port speed of 38400.

11. To complete the upgrade, either select "Quit" from the terminal menu, or power-down the unit and reapply power without pressing any keys to resume normal operation. If the Flash ROM contains valid code, the unit will resume normal operations. If there is a problem in the new firmware, you will be prompted with an error message and remain in the bootloader.

