

### 1. OVERVIEW

The 9025, 9150 and 9155 series products 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. If you have version 1.4.xx and later KeyLog Tracker software successfully interfaced to your unit, then it is very simple to upgrade your firmware from Tracker using the procedure outlined in section 1.1. Otherwise use the procedure outlined in section 1.2 to upload new firmware from your computer. If you have a 9150 or 9155 series product with an audio de-embedder card installed you will need to use the procedure in section 1.2 with the computer connected to the DE-EMBEDDER COM connector to update the de-embedder firmware.

#### 1.1. Upgrading Firmware using KeyLog Tracker

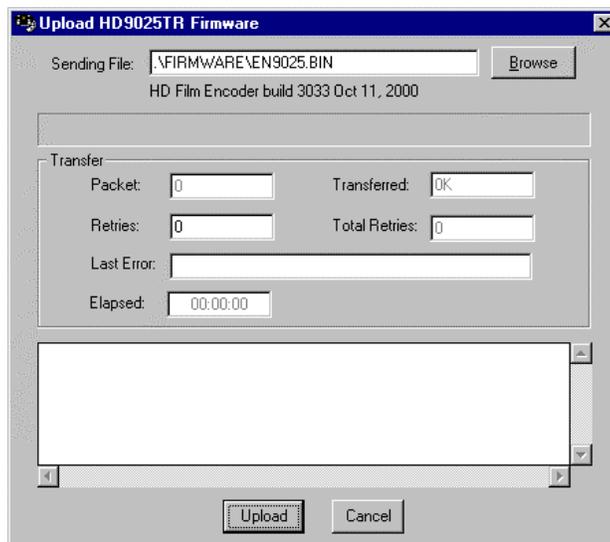
Versions 1.4.xx and later of KeyLog Tracker allow firmware upgrades to the hardware directly from within the Tracker software.

##### 1.1.1. Step 1 – Configuring the unit for Firmware upgrades.

1. Power up the 9025/9150 unit.

##### 1.1.2. Step 2 – KeyLog Tracker Setup

2. Start KeyLog Tracker
3. Confirm that you have established communications to the 9025 or 9150 that you wish to upgrade. (a green COMM indicator will show at the bottom of the Tracker screen)
4. From the TOOLS menu of Tracker choose the UPGRADE FIRMWARE option. A dialog box titled UPGRADE FIRMWARE will appear.



## Upgrading Firmware in 9025, 9150 and 9155 Units

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5. Use the BROWSE button to open the file dialog and choose the new firmware file. Typical filenames are shown in table 1. The build version of the firmware will be shown in the dialog box.
6. Click the UPLOAD button at the bottom of the upgrade dialog. Tracker will begin upgrading the firmware showing the communications and progress of the upgrade. On successful completion of the upload the unit should now reboot. After the unit reboots successfully with the new firmware the 'Upload Firmware' dialog will disappear. You can then resume normal operations with the Tracker software.
7. If the upgrade is interrupted or cancelled before completion, then Tracker will not be able to communicate to the 9025 or 9150. In that case you will have to manually upload the firmware using the procedure outlined in section 1.2.

### 1.2. Upgrading Firmware using a Terminal Program

You will need the following equipment in order to update the 9025/9150 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) This is the same cable you are using if you are running the KeyLog Tracker software with the 9025 or 9150.
- Terminal program that is capable of Xmodem file transfer protocol. (such as HyperTerminal)
- New firmware supplied by Evertz.

#### 1.2.1. Step 1 – Configuring the unit for Firmware upgrades.

1. Connect the straight through Serial cable to the SERIAL REMOTE DB9 connector on the rear panel. If you are updating the Audio De-embedder firmware in units so equipped, connect the serial cable to the DE-EMBEDDER COM connector on the rear panel.
2. Connect the 9 pin connector on the end of the Serial Update cable to the PCs' RS-232 communications port

#### 1.2.2. Step 2 – Terminal program Setup

3. Start the terminal program.
4. Configure the port settings of the terminal program as follows:

Baud	<b>57600</b>
Parity	<b>No</b>
Data bits	<b>8</b>
Stop bits	<b>2</b>
Flow Control	<b>None</b>

- Power up the 9025/9150/9155 unit. After the unit powers up, a banner with the boot code version information should appear in the terminal window. The cursor to the right of the word "BOOT>" should be spinning for about 5 seconds then the unit will continue to boot.

For example:

```
EVERTZ 7700PB MONITOR 1.2
COPYRIGHT 1997, 1998, 1999 EVERTZ MICROSYSTEMS LTD.
COLD BOOT |
```

- The following is a list of possible reasons for failed communications:
  - Defective Serial Upgrade cable.
  - Wrong communications port selected in the terminal program.
  - Improper port settings in the terminal program. (Refer to step 4 for settings). Note that Hyperterminal will not change port settings while connected. Click on Hyperterminal's "Disconnect" Button then click the "Reconnect" button to activate changes to the port settings.
- While the cursor is spinning press the <CTRL> and <X> keys on your computer keyboard at the same time, this should stop the cursor from spinning. The spinning prompt will only remain for about 5 seconds. You must press <CTRL-X> during this 5 second delay. If the unit continues to boot-up, simply cycle the power and repeat this step.
- Hit the <ENTER> key on your computer once.
- Type the word "upgrade", without quotes, and hit the <ENTER> key once.
- The boot code will ask for confirmation. Type "y", without quotes.
- You should now see a prompt asking you to upload the file.

### 1.2.3. Step 3 – Uploading the new firmware

- 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 unit's Boot code will time out. You can restart the upgrade process by power cycling the unit. The following table indicates the file names of various firmware for these units.

Example of File name	Description
EN9025_xxxx.BIN	Binary file for HD9025TR
HS9025_xxxx.BIN	Binary file for SD9025TR and HDSD9025TR
DE9150_xxxx.BIN	Binary File for downconverter module in HD9150, HD9150PS-AES, HD9150PS-AUD, HD9155, HD9155-AES, HD9155-AUD
HQ9150_xxxx.BIN	Binary File for downconverter module in HD9150Q, HD9150QPS-AUD, HD9155Q, HD9155Q-AUD
7720AD-HD_xxxx.BIN	Binary File for Audio De-embedder module in HD9150PS-AES, HD9155-AES
7720AD-A4-HD_xxxx.BIN	Binary File for Audio De-embedder module in HD9150PS-AUD, HD9150QPS-AUD, HD9155-AUD, HD9155Q-AUD

(xxxx will be the build number of the software).

**Table 1: Typical File names**

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

For Example:

```
UPLOAD OKAY
7700PB COLD BOOT> |
```

9. 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.
- Wrong file transfer protocol used – make sure you specify Xmodem, not Xmodem 1K.
- The PCs' RS-232 communications port can't handle a port speed of 57600.
- Noise induced into the Serial Upgrade cable.

### 1.2.4. Step 4 – Completing the Upgrade

10. Type the word "boot", without quotes, and hit the <ENTER> key once or power cycle the unit. The unit should now reboot.

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