Host Update via RS-232

> **Note:** When updating Host to version 5.XX or higher from version 4.XX, you MUST also update your FeatureCall® to version 3.70 or higher. Failure to update FeatureCall will result in an inability to view and modify call programs and sets within FeatureCall.
>
> It is highly recommended that you **backup your existing unit configuration** using FeatureCall and **remove any existing call programs from the unit** before updating from a unit from version 4.XX to version 5.XX. This will ensure that you start with a clean file system. See the FeatureCall instruction manual or your unit instruction manual for instructions on backing up unit configurations, restoring configurations, and deleting call programs.

Configuring the RS-232 Port for downloading files to the unit:

A terminal/emulation program is required to load files to your unit. We strongly recommend the freeware program TeraTerm if you are not using Ameritec's GUI FeatureCall. TeraTerm has been identified to work for both serial and Telnet error-free transfers to the Ameritec AM2/CRS units. The TeraTerm program can be downloaded from Ameritec's FTP site. TeraTerm will run on MS-Windows 95/98, MS-Windows NT 3.51, and MS-Windows NT 4.0 Operating Systems. Download the self-extracting archive named TeraTerm.exe from the following location:

ftp://ftp.ameritecftp.com/

Go to the directory called "Recommended Terminal Emulation Program"

CAUTION: When connecting to Ameritec AM2/CRS units via the serial port, HyperTerminal has typically been the most common terminal emulation program used to transfer files to and from the unit. When transferring files, Ameritec units require the use of XON/XOFF software flow control. We have found that the HyperTerminal program drops characters when used in this mode, which can cause code corruption requiring return of hardware to the factory for repair. Therefore, HyperTerminal <u>cannot</u> be used when transferring host files to and from Ameritec units.

Configuring the RS-232 Port consists of:

- Connecting a PC to the Call Generator RS-232 Port.
- Setting up the Call Generator and PC serial communication parameters.

To configure the RS-232 Port, perform the following:

1. Obtain the necessary serial cable. Depending on the COM port on your PC, you many need a 25 to 25 pin or a 9 to 25 pin serial cable (see Tables 1 and 2).

Table 1. PC Cable [RS-232 Port to 9-pin Female Connector (48-0107)]

DB 25-Pin Female Connector		DB 9-Pin Female Connector
2	connected to	2
3	connected to	3
7 (ground)	connected to	5
5, 9, and 22 jumpered		4 and 6 jumpered
6 and 20 jumpered		7 and 8 jumpered
15 and 25 jumpered		

Table 2. PC Cable [RS-232 Port to 25-pin Male Connector (48-0084)]

DB 25-Pin Female Connector		DB 25-Pin Male Connector
2	connected to	3
3	connected to	2
7 (ground)	connected to	7
5, 9, and 22 jumpered		4 and 5 jumpered
6 and 20 jumpered		6 and 20 jumpered
15 and 25 jumpered		

2. Power up both the Call Generator and PC/Workstation.
3. Connect the Call Generator serial port to an available communications port on the PC/Workstation; usually COM1 or COM2.

Run TeraTerm and set the communications setup in TeraTerm to serial port with these parameters, **19200 baud**, **8 data bits**, **no parity**, **1 stop bit**, and **XON/OFF** software flow control. Be sure to select the correct COM Port. Select "setup", then save to keep your parameters. Save the file as TeraTerm.ini.

4. Enter **RM** to verify communication. TeraTerm should display the Call Generator status.
5. If you have privileged access, enter **ML <password>**. The default is **ML ameritec**. The monitor will display "Privileged Login".

   Note: If you need to change the password, use the **MP** command. If the password has been changed and you need to setup the Ethernet port, contact your system administrator.

Transferring Host Files using the RS-232 Port (hex files):

Requirements: TeraTerm Terminal Emulator found on Ameritec's FTP Site.

Time Requirements: approximately forty-five minutes.

> **CAUTION**: Transferring a new Host software release to the Call Generator may erase any resident Scripts, Protocols, Call Programs, Call Program Sets, Reports, Schedules, etc. Using FeatureCall, perform a full backup using the **Backup Unit Files** function from the **File** pull-down menu before downloading new Host software.

Transferring a new software release (a.k.a. "host" program) into the Call Generator requires that the unit be in the 'privileged mode' of operation (**ML** command). The new software release will reside in the Flash EPROM. In order to load the new software release, the old release must first be erased. A single command, **MF**, erases the old release and initiates the Flash EPROM to receive the new release. Use the following procedure to download a new software release:

1. Connect the Call Generator serial port to an available communications port on the PC/Workstation, usually COM1 or COM2.

   Set the communications setup in TeraTerm to serial port with these parameters, **19200 baud**, **8 data bits**, **no parity**, **1 stop bit**, and **XON/OFF** software flow control. Be sure to select the correct COM Port. Select "setup", and then save to keep your parameters. Save as TeraTerm.ini

2. To verify that the PC/Workstation is communicating with the Call Generator, enter **RM**. TeraTerm should display the unit status followed by the unit ID prompt:

   > Unit id <Ameritec>, Model XX, Version X.XXx 01-Feb-97
   >
   > Status: STOPPED
   >
   > Ameritec>

3. Enter **ML <password>**. TeraTerm displays the message:
   > Privileged Login
   >
   > Ameritec>

4. Enter **MF**. TeraTerm responds with the message:

   > **FLASH is OK, Overwrite? [y/n] : y   (DO NOT HIT ENTER)**

   > **CAUTION**: Entering **y** will erase the existing contents of Flash memory. Make sure the new software release files are accessible for download from your PC/Workstation. Immediately after erasing the Flash memory, you will be prompted to load the replacement file.

5. Enter **y**. The monitor responds with the following:

   > **Erasing FLASH...done**
   > **Load Extended Hex File**

NOTE: While you can load the hex files at this point it is faster to now power cycle the unit and wait for the "Load Extended Hex Files" prompt before continuing.

6. From the **File(s)** menu, select **Send File** to transfer the host file from the PC/Workstation to the Call Generator. In the dialog box, select the **path<filename.x>** for the "host" program, e.g., the Call Generator Software Release. Verify that the option binary is not checked.
The monitor displays the following: **............**, indicating a download is in progress. Tera Term opens a window showing the bytes transferred.

Note: Depending on file length, a "host" program download will take approximately 45 minutes to complete.

When the download is complete, the monitor displays a message:

Reset unit to run program in FLASH memory

7. Enter **CX** to reboot the unit. The monitor responds with information similar to the following:

> **REBOOT!!!**
> **boot $Revision: 1.6 $**
> **not done**
> **bsp $Revision: 1.32A $**
> **file system passed**
> **?<Ameritec> 0 --- 04:08:38am 10 Oct 90 Power Lost   0**
> **?<Ameritec> 0 --- 04:08:42am 10 Oct 90 Power Restored   0**
> **new device: 1**
> **new device: 2**
> **new device: 3**
> **new device: 4**

8. Restore the files that you previously backed up (if necessary).