

These procedures describe how to upgrade the TxPORT 1559 APS Manager from version 1.15 to version 3.XX. The test center and central office technicians must understand fully each procedure before attempting to perform the upgrade.



**Failure to complete every step in each procedure may cause you to lose key information in the unit database.**

## Pre-installation Checks

The central office technician should visually verify that the 1559 and associated 1557 cards have no alarm LEDs illuminated. If any abnormal conditions exist, they should be noted and discussed with the controlling test center before proceeding. The test center responsible for this central office should use the following procedure to verify that the 1559 is operating properly and obtain a hard copy of key database information contained in the unit.

1. Access the 1559 APS Manager from the test center. This step verifies that the dial line to the central office is operating properly and that the 1559 is operating properly.
2. Verify that the 1559 can access the dial-out COA line by installing a spare 1557 card in a vacant slot and configuring it for In-Service and setting a valid COA value (1-12). When the card is configured for In-Service, the 1559 detects that the card is in alarm and reports the alarm condition to the designated COA telephone number at the test center.
3. Access the Circuit List display and print a hard copy of all equipped APS circuits installed in the office. If necessary, use the arrow keys to view or print circuits not being presently displayed. This information will be used later to verify that no circuit ID data has been changed.
4. Access the Utilities/Password screen and print a hard copy of this information to be used later when reentering the user names, setting temporary (“dummy”) user passwords, and setting the user levels and password expiration periods.
5. Access the Utilities/Call-On-Alarm screen and print a hard copy of the COA information to be used later when reentering the COA telephone number(s).

*After installing the 3.XX software, these names must be individually reentered along with a dummy password and a valid user level. Don't forget to notify the APS users to change the dummy password to a valid password as soon as possible.*

*The COA number(s) must be reentered after the 3.XX software is installed. Also, the new bus*

*communications COA numbers (S1, and S2) must be defined if the 1559 APS Manager is required to report bus communications failures to a designated repair location.*

## Required Equipment

The central office technician should verify that the following tools and equipment are available to complete the upgrade procedures without delays.

- Phillips-head screwdriver
- Hand test set for verification of dial-in/out telephone lines
- EPROM removal tool
- PC with terminal emulation capabilities
- DB-9 female to DB-25 male data cable
- TxPORT upgrade kit containing:
  - Two EPROMs labeled Revision 2.0X and 3.XX
  - A 3.5” diskette labeled *Download 2.03* or higher

## Installing the 2.0X EPROM

Upgrading the EPROM from revision 1.15 to 2.0X allows you to download a database file using the TxPORT Download software. This file contains the APS circuit IDs, Service State, and the APS Manager *name*. This procedure does not impact customer service (1557 APS cards continue to operate normally), however, the software should not be installed unless the test center is online and all pre-installation checks are complete.

1. Disconnect power from the 1559 by removing the front panel GMT fuse. The unit's green POWER LED indicator turns *Off*.
2. Remove the 1559 front panel by removing the two Phillips-head screws.
3. Locate the two EPROM sockets on the front edge of the circuit board. The left socket (U31) is empty. The right socket (U32) contains an EPROM labeled Revision 1.15.
4. Locate the strap option posts (JM12) left of U32. The strap covers the left and center posts (**512K** position). Move the plastic post strap to cover the center and right posts (1M position).
5. Using an EPROM removal tool, remove the 1.15 EPROM from the right socket (U32).



**Note the key (indentation) on the left side of the EPROM and install the new EPROM in the same orientation. Failure to do so may destroy the EPROM.**

6. Insert the upgrade kit EPROM labeled Rev. 2.0X into the EPROM socket (U32) being careful not to bend any EPROM leads. After you install the EPROM, carefully inspect and verify that all of the EPROM leads are seated and that the EPROM key is to the left.
7. Reinstall the GMT fuse. Notify the test center that the 2.0X EPROM has been installed and that power has been applied to the 1559. Once the test center has verified that the first procedure is complete, proceed with the next procedure.

## Configuring Serial Port 1

This procedure describes how to set the port speed for Serial Port 1 (J1), connect the PC cable to Serial Port 1, and configure Serial Port 1.

1. Remove the GMT fuse. The unit's green POWER LED indicator turns *Off*.
2. Configure the rear panel Serial Port 1 (J1) for 2400 bps by setting SW4-5 to the down (open) position. The red eight position DIP switch is located at the far left side of the unit. Position five is the fifth switch from the left. All other DIP switches should be in the up (closed) position (default).
3. Locate the rear panel MODEM/SERIAL PORT 1 slide switch (SW1). Set the slide switch to the SERIAL PORT 1 position (left). This configures Serial Port 1 as a serial port and not from the 1559 internal modem.
4. Replace the GMT fuse. The unit's green POWER LED indicator turns *On*.
5. Connect an industry standard PC to modem type data cable (DTE to DCE wired pin for pin) between the rear panel SERIAL PORT 1 (DB-25 female connector) and the communications port of the PC (DB-9 male connector).

## Installing the Software

The following steps describe how to install the TxPORT Download software on your PC. It is recommended that you copy the software to a designated directory on the PC hard drive and then store the original disk in a safe place.

1. Power-up the connected PC and insert the TxPORT Download diskette into drive A. Create a new directory by keying-in the command:

```
C:\> md download
```

2. At the DOS command line prompt, change to the new directory by keying in the command:

```
C:\> cd download
```

3. Copy the files from the diskette in drive A to the *download* directory on Drive C by keying in the command:

```
C:\DOWNLOAD> copy A:*.*
```

When the PC indicates that all files have been copied, remove and store the source diskette in a safe place.

4. Key in the command:

```
C:\DOWNLOAD> DOWNLOAD
```

The PC executes the DOWNLOAD application. Once the application is running, the PC displays the TxPORT DOWNLOAD user interface (Figure 1).

## Interface Setup

The following procedure describes the TxPORT Download software interface and how to set up this interface and save the 1559 database.

*Only the ComPort, Baud Rate, and Utilities menu items are accessed in this procedure. All other menu items should not be modified.*

1. Using the up/down arrow keys, move the cursor to the ComPort command field. Toggle the field (using the

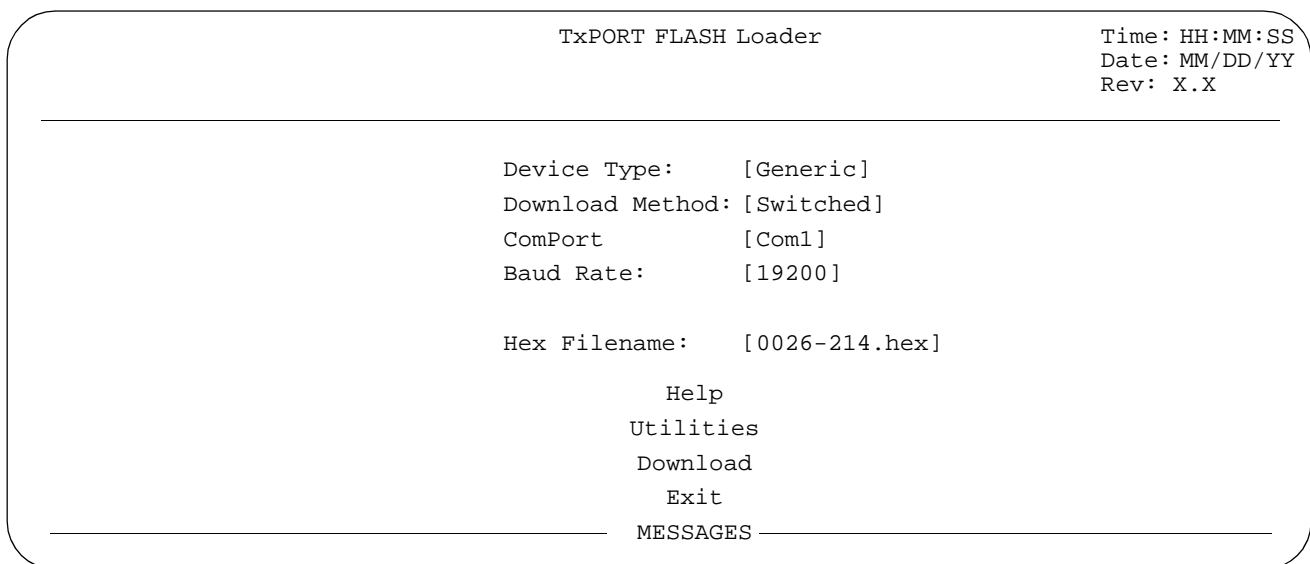


Figure 1. TxPORT FLASH Loader Screen

space bar) until the display matches the communications port that the PC uses to communicate with the 1559 Manager.

2. Move the cursor to the Baud Rate field and toggle the field (using the space bar) until the value 2400 is displayed.
3. Move the cursor to the Utilities field and press the return/enter key. The Utilities screen is displayed (Figure 2).
4. At the Configuration File field, key in a file name (for example, *config.dat*). This file name is used to upload the APS database after installing 3.XX software.
5. Move the cursor highlight to the Save Configuration field and press the enter/return key. The message **Sending Request** is displayed.
6. The software sends requests for data information to the 1559 unit. The 1559 responds by sending the circuit IDs, 1559 header information, and the service state for all card/shelf positions. This information is formatted and stored in the PC under the file name *config.dat*. This routine takes approximately five minutes. When complete, the software displays the message **Load/Save Completed**.  
If there is a communications problem between the PC and the 1559, the message **Sending Requests...** changes to **Response Time-out Error**. Probable causes include:
  - Com port is not properly selected. Verify that the PC communications port to the 1559 is set to the correct value (com1, com2, etc.)
  - Wrong cable type connection from PC to 1559. Verify that the cable is a straight-through cable (pin for pin).
  - Wrong speed. Verify that the download software and the 1559 serial port values are set at 2400.
7. The 1559 database is now saved to the the file defined in Step 4 (*config.dat*). This file will be used in later

steps to upload the database into the 1559 RAM after the 3.XX EPROM has been installed.



**Once the database file has been saved, do not turn the TxPORT program Off, change displays, or disconnect any connection. The PC will be used to upload the saved file after completing the 3.XX software installation.**

## Installing the 3.XX EPROM

The following procedure describes how to remove the 2.0X EPROM and then install the 1559 APS 3.XX EPROM.

1. Disconnect power from the 1559 Manager by removing the front panel GMT fuse. The unit's green POWER LED indicator turns *Off*.
2. Using an EPROM removal tool, carefully remove the 2.0X EPROM from the right socket (U32).

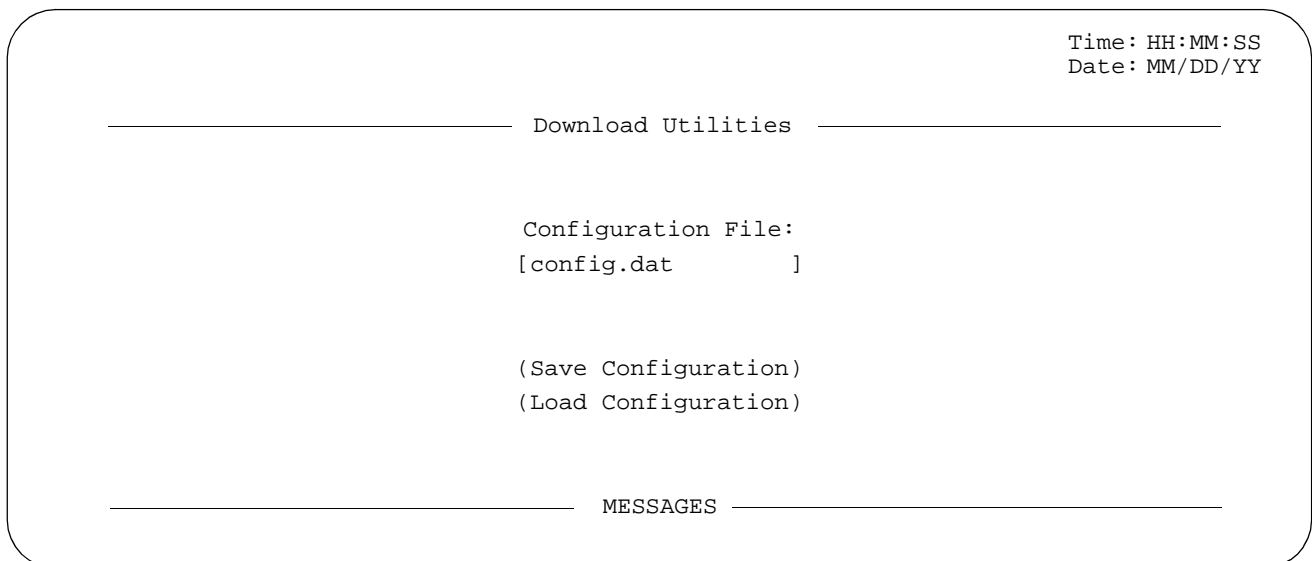


**Note the key (indentation) on the left side of the EPROM and install the new EPROM in the same orientation. Failure to do so may destroy the EPROM.**

3. Insert the 3.XX EPROM into the EPROM socket being careful not to bend any EPROM leads. Inspect and verify that all of the EPROM leads are seated and that the EPROM key is to the left.
4. Insert the GMT fuse. The unit's green POWER LED indicator turns *On*.

## Uploading the Database File

This procedure describes how to upload the *config.dat* file to the 1559 APS RAM. The PC and TxPORT programs should still be connected and running.



**Figure 2. Utilities Display**

1. From the TxPORT Flash Download application on the PC, move the cursor to the **Load Configuration** field and press the Return/Enter key. The message **Sending Messages...** is displayed.
2. The application uploads the stored 1559 database file (*config.dat*) to the 1559 RAM. The information being uploaded is Circuit Ids, Circuit State (In Service, Out of Service), and 1559 Location Header. The upload takes approximately five minutes to complete.
3. When complete, the message **Sending Messages** is replaced by the message **Load/Save Completed**.

The database is now uploaded to the 1559 APS unit and the 3.XX firmware installed. You may exit the TxPORT DOWNLOAD application and turn *Off* the PC.

## Resetting the Unit

This procedure describes disconnecting the PC, resetting Serial Port 1 options, and replacing the front panel.

1. Remove the data cable attaching the PC to the 1559 (Serial Port 1).
2. Move the Modem/Serial Port 1 slide switch (J1) to the MODEM position.
3. From the front of the 1559, reconfigure Serial Port 1 for 19.2 bps operation by moving SW4-5 back to the Up (Open) position. All DIP settings on this switch should now be in the Up (Open) position which is the factory default setting.
4. Reinstall the front panel of the 1559 using the two Phillips-head screws removed earlier. Contact the test center and notify them that the physical upgrade to 3.XX and the database upload are complete

## Testing and Verification

This procedure describes how to enter new password information, enter a COA alarm reporting telephone number information, and verify that the Circuit List display matches the hard copy Circuit List.

1. Connect to the remotely located 1559 APS Manager. The 1559 prompts you for a **NAME** and **PASSWORD**. For both of these prompts, press the enter/return key (default). The 1559 APS main menu is displayed (Figure 1).
2. Select the Utilities menu item and press the enter/return key. The Utilities menu is displayed.
3. Select the Password menu item and press the return/enter key. The system responds by displaying the Password display. Enter one or more passwords assigned as a SUPER level user(s). A SUPER level user must be entered first.



**Failure to enter one or more SUPER level users and passwords will pre-**

### **vent future access to the 1559 APS PASSWORD user interface display.**

4. Enter the user names found on the **PASSWORD** paper copy listing printed earlier followed by a “dummy” password (suggest something simple such as *abc*) and then select the user level (SUPER, MAINT, PROV, or USER).
5. Access the Utilities main menu, select the **Call-On-Alarm**, and press the return/enter key. The COA user interface screen is displayed. Reenter the COA information based upon the paper copy printed earlier.

The 3.XX software contains a new feature allowing the 1559 Manager to detect and report shelf communications bus failures to a designated telephone number alarm reporting maintenance location (S1 and S2). To activate this feature, move the cursor to the S1 or S2 field, type in the name (see prompt at bottom left corner of display), and press the enter/return key. The name you entered at S1 is displayed. Enter the alarm telephone number (see prompt at bottom left corner of display) to be dialed then press the return/enter key. Verify that the format selected is ASCII (default). If a second bus alarm reporting location is required, fill in the necessary information at field S2.

5. Verify that the Circuit Listing database information is correct by comparing the paper copy Circuit List printed earlier to the present Circuit List information. To do this, select the CIRCUIT LIST menu item from 1559 Main Menu and press the Return/Enter key. The 1559 Manager displays all circuits and circuit states (IN SERVICE, OUT OF SERVICE, UNUSED). Using the circuit listing paper copy, compare and verify that all circuit IDs and circuit STATES are correct. If any discrepancies are found between the 1559 database CIRCUIT LIST information and the Circuit List paper copy, you can correct the information by going to the CONFIGURATION display and reentering the correct data.
6. Verify that the 1559 APS unit can report alarms to the test center by installing a spare 1557 card in a vacant slot and configuring it for IN SERVICE and setting a valid COA value (1-12). If any COA bus communications alarm (S1 and/or S2) have been defined, the alarm operation can be verified by temporarily disconnecting the communications Bus Out connector (RJ-11) from the rear panel of the 1559 APS Manager. Within 60 seconds, the Manager will start the dial attempt to the designated telephone number and report that there is a communications failure at this location. After reporting the alarm, the Manager will disconnect from the line.

**After testing this feature, ensure that the BUS OUT cable is reconnected to the 1559 APS Manager.**

The 1559 APS Manager upgrade to version 3.XX is now complete.