

## G-Ware Version 5.0 and XAP/PSR Firmware Upgrade Procedure



**IMPORTANT:** Please read this entire document before upgrading your XAP and PSR units. There is extra code that must be loaded for G Ware 5.0. Failure to follow these steps will cause problems.

### Description

G-Ware version 5.0 supports the new XAP Net product. Before you can use XAP Net, you will need to install G-Ware 5.0 and upgrade the bootcode and firmware files. This document will step you through the process of upgrading your existing XAP and PSR units to a compatible firmware version. G-Ware 5.0.0 is only compatible with the following firmware versions:

	XAP 800	XAP 400	XAP TH2	PSR1212
<b>New Firmware</b>	3.0	2.0	3.0	4.0

### G-Ware System Requirements

G-Ware must be installed to upgrade unit firmware. If you are running multiple applications with G-Ware, you will need to increase the requirements accordingly. G-Ware requires the following minimum system configuration:


Component	Minimum Requirements
Operating system and RAM	Windows <sup>®</sup> 95 OSR2/98/ME/NT 64MB Windows 2000 128MB Windows XP 256MB
Processor	PII 200MHz (or AMD equal) or higher processor
Monitor	1024x768 SVGA (16 bit) high color
Video card	8 MB video card
Free hard disk space	20 MB
Web browser	Internet Explorer 4 or later
RS-232 COM port	1
CD-ROM drive	1

### Before you begin upgrading units

1. Upgrading firmware will reset the units to their default factory settings. Therefore, it is imperative that you use your current G-Ware version to extract the site file from the units and save a copy of them to your PC **before** upgrading the unit firmware. Otherwise you will lose all custom settings and will need to reprogram the unit from the default factory settings.
2. After you have saved your site files, install G-Ware version 5.0. It is not necessary to uninstall the previous version of G-Ware. The install utility will step you through the installation process. Follow all directions.

**Note:** If you have a previous G-Ware version installed, you must install G-Ware 5.0.0 in a different directory. See the G-Ware Switcher technical note on the ClearOne web site for more information about using multiple G-Ware versions. ([XAP\\_GWARE\\_109\\_GWare\\_Switcher.pdf](#))

3. Disconnect any expansion bus cables, turn off you amplifier(s), and connect the unit to the PC using a straight-through 9-pin serial cable.
4. Verify that the flow control setting on the unit (RS-232 menu on front panel LCD) is enabled. Make sure the baud rate on the unit matches the baud rate set in G-Ware (Site Properties).
5. Follow the bootcode and firmware upgrade procedure described below. You must upgrade **both** the unit bootcode and firmware. These are separate upgrades.

 **IMPORTANT:** You must install a new bootcode in the units before installing the firmware.

### Bootcode and Firmware Upgrade Procedure

1. Open the G-Ware Firmware Utility by clicking on the G-Firm toolbar button located on the G-Ware toolbar.



Figure 1. G-Firm toolbar button

**Note:** If the G-Firm button is not on the G-Ware toolbar, you need to install G-Ware 5.0.0 You can download G-Ware from the ClearOne web site at [www.clearone.com](http://www.clearone.com).

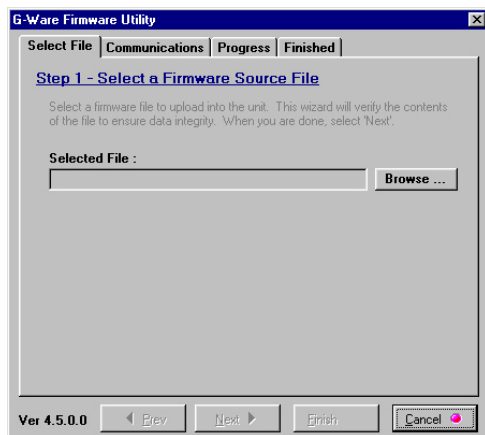


Figure 2. G-Ware Firmware utility

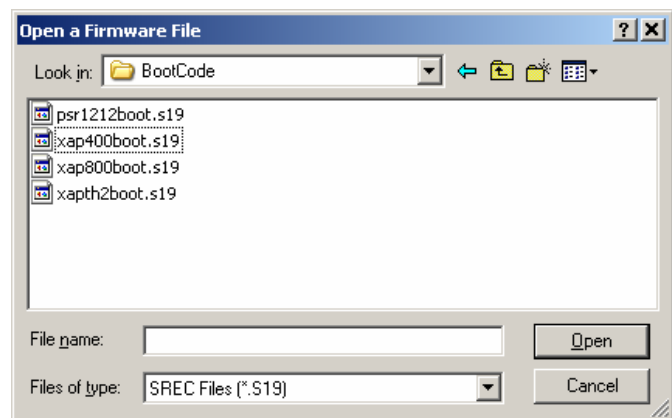
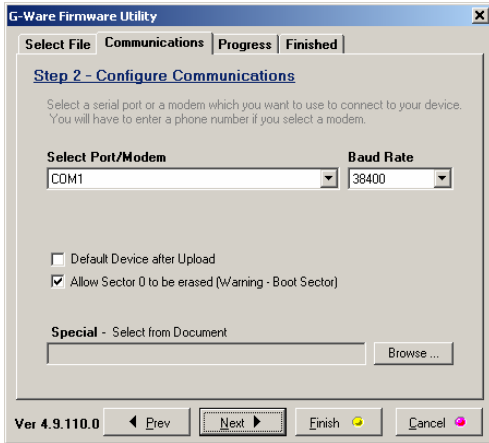


Figure 3. Available bootcode files

2. Click **Browse** to access a list of available boot code updates. Select the file that matches the type of unit you are upgrading and click **Open**. Verify the file is an xxxboot.s19 file. The boot code is located in the G-Ware folder (e.g., C:\G-Ware 5.0.0\Firmware\BootCode).
3. The selected boot code file will self verify and display the message **Verified, OK**. If the file information matches your unit and the file is verified, click **Next** to advance to the Communications tab.
4. Select the PC **COM port** you are using for the upgrade. Confirm that the **Baud Rate** matches the baud rate of the selected unit. **Verify that Allow sector 0 to be erased (Warning-Boot Sector) is selected** (Figure 4).



**Note:** The boot code update could take up to a minute per unit. The firmware upgrade will take approximately 5-15 minutes per unit depending on baud rate. During this time it is important not to interrupt the upgrade process or remove the cable.

Figure 4. Selecting the COM port and baud rate for the upgrade and verifying Allow Sector 0 to be erased is checked

5. Click **Next**. You may be prompted to save site files. If you have saved your site files, click **Yes, Continue** to begin bootcode upload.

If you have not saved, you will need to exit the G-Ware Firmware utility, sync to the units with your current G-Ware version (see G-Switcher Tech Note. [\(XAP\\_GWARE\\_109\)\\_GWare\\_Switcher.pdf](#)), and save the site file(s).

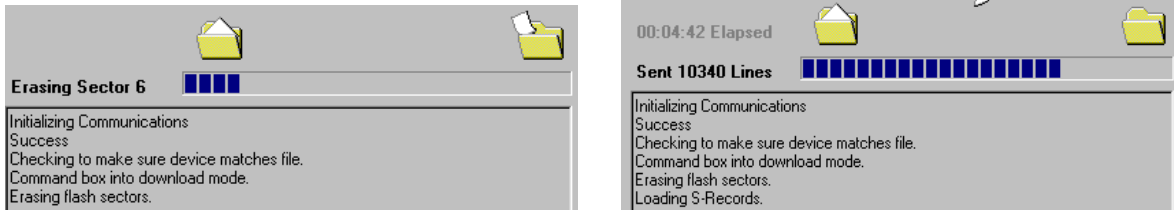


Figure 5. The process begins by erasing flash sectors and then uploading the firmware file

**Note:** If the process fails, do **not** use the Start Over button. Close G-Firm instead and verify you are using a 9-pin straight-through serial cable and that baud rate and flow control are configured properly (see the “Before you begin upgrading firmware” section). Restart G-Firm and return to step one of this procedure.

6. When the boot code upgrade is complete, the finished tab appears. Click on the **Start Over** button which will take you back to step 2. This time when you click Browse, you will need to select the proper firmware file which will be an xxxos.s19 file.

The firmware is located in the G-Ware folder (e.g., C:\G-Ware 5.0.0\Firmware).

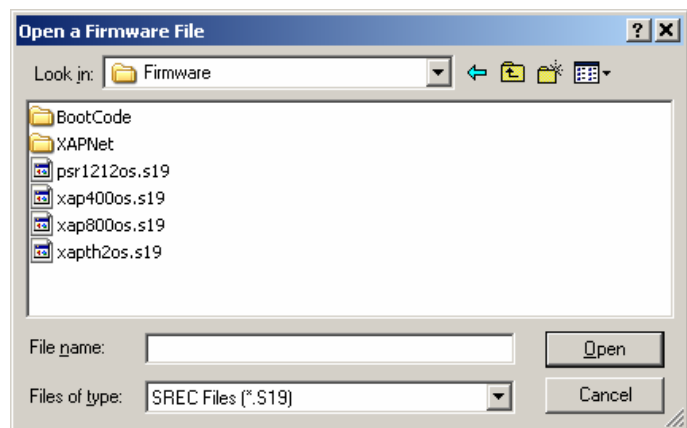


Figure 6. Available firmware files

7. Once G-Firm has successfully uploaded check the front panel of unit and verify the proper firmware version for your unit is now displayed. If you have no more units to upgrade, you can now close the G-Firm program. If updating multiple units, move the RS-232 connection to the next unit and click **Start Over** to continue.
8. After upgrading the firmware on all units, restore expansion bus connections. Using G-Ware 5.0.0, open your saved site file and choose the Sync to Document option when connecting to the site. This will load your custom settings into the unit.