

Microcom GTX Upgrade Procedures

Revision 2

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1. Introduction

The purpose of this document is to guide users through the process of updating the firmware in a Microcom GTX Satellite Transmitter Logger.

The application used to perform the upgrade is called the Microcom GTX Upgrade Utility. It is a lightweight windows application that can be downloaded and run without needing to be installed. The Upgrade Utility can be downloaded from Microcom's website under the [GTX-2.0 webpage](#) as part of a zip file.

The other items included in the zip file are firmware image files. The firmware files are less than 500Kb in size and are simple hex files. Since there are different hardware versions of GTX's there are multiple firmware versions. The GTX contains two processors, the Main and the TKM which serve different functions and so require different firmware. The Upgrade Utility is programmed to recognize different versions of GTX and automatically select the correct hex files. Once the files are selected the Upgrade Utility will prompt the user to confirm programming should begin.

2. GTX-2.0 Upgrade Example

The following procedure will describe the steps taken to upgrade a GTX-2.0 from firmware versions M2.28, T4.6 to M2.30, T5.0.

2.1. Download and Un-zip

Download the zip file from Microcom’s website under the [GTX-2.0 webpage](#). Un-zip all of the files to a convenient location.

2.2. Run GTX Upgrade Utility

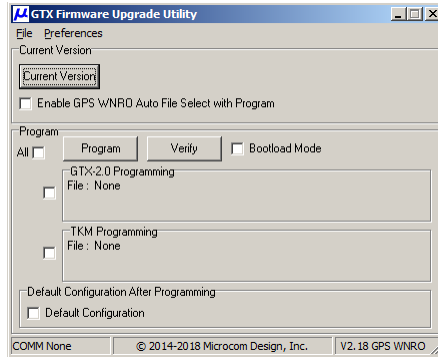


Figure 1. GTX Firmware Upgrade Utility

2.3. Select Comm Port

Select the comm port that will be used to connect the PC to the GTX. In this example Comm 31 is used because a USB to Serial dongle is being used.

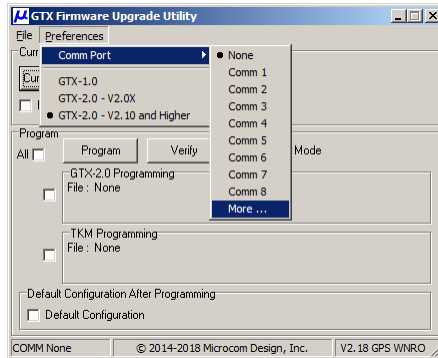


Figure 2. Com Port Selection

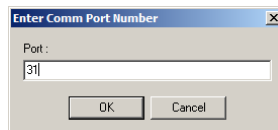
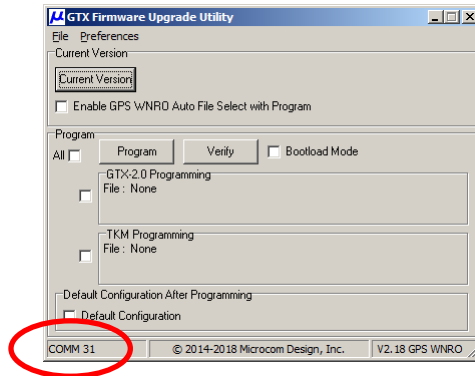


Figure 3. Entering Comm Port Number

Once the selection is made and the port is successfully opened the Comm port indicator changes from “None” to “31”.



2.4. Connect GTX

Apply power to the GTX and connect the serial cable between the PC and the GTX. The “DATA” LED will flash when power is applied.



Figure 4. GTX-2.0

2.5. PC Program Utility

The programming process begins by checking the “Enable GPS WNRO Auto Select with Program” checkbox then by clicking the “Current Version” button.

This will query the GTX for its current firmware versions and serial number, based on the response from the GTX the Upgrade Utility will then select the hex files and pop up a message window to confirm the update should proceed.

This example shows a Firmware version of M2.28, T4.6 and a Serial Number of 2848.

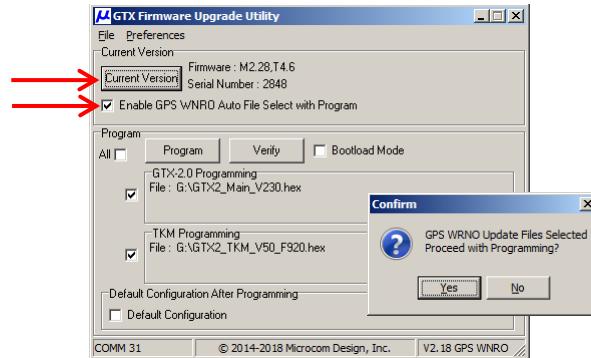


Figure 5. Current Version

2.6. Program

Click the “Yes” button on the confirmation pop up to begin programming the Main and TKM processors. It is recommended at this time to log the serial number and current firmware versions of the processors because the programming process will take approximately 2½ minutes.

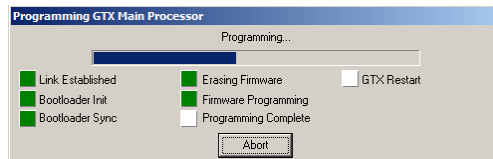


Figure 6. Main Programming Progress

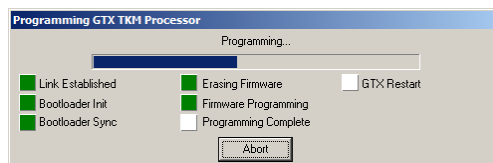


Figure 7. TKM Programming Progress

2.7. Verify

Once programming is complete the Upgrade Utility will restart and query the GTX for its current version. This example shows a new firmware version of M2.30, T5.0. It is recommended at this time to log the new firmware versions.

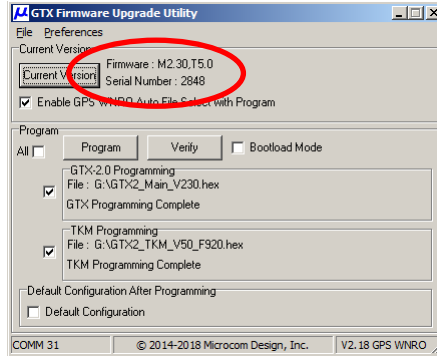


Figure 8. Upgrade Verification

2.8. Enable

If the GTX being upgraded is deployed it may be necessary to enable the GTX so that it can continue operations. If the GTX is configured with the “Power Up Enabled” flag set then cycling the power is all that will be needed to enable the GTX. Otherwise the GTX will need to be manually enabled using either the GTX Utility or a terminal program. Both procedures are explained fully in the GTX Manual.