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Olathe, KS 66062
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SERVICE BULLETIN

NO.: 1853 Rev A

TO: All Garmin Aviation Service Centers

DATE: August 24, 2018

SUBJECT: GTS 8X0 Software Version 4.12 for Non-GX000 Integrated Flight Deck Installations Only

CERTIFICATION

AUTHORIZATION: TSO Authorization

TSO/ETSO authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type certified aircraft. Notification of revision to any Garmin STC(s) will be provided under a separate service bulletin.

PRODUCTS AFFECTED

All GTS 8X0 (GTS 800/GTS 820/GTS 850) units with software version 4.10 (or earlier) and interfaced to a GTN 6XX/7XX, GNS 4XX(W)/5XX(W), GNS 480, G500, G500H, G600, GMX 200, MX20, or other 3rd party flight display system are affected by this bulletin.

The current GTS 8X0 software version can be viewed by using the GTS 8X0 Install Tool (refer to the Modification Instructions section of this bulletin), on the software label adjacent to the GTS 8X0 serial number tag (for installations unable to electronically display the software part number), or on the display for those units interfaced through HSDB (e.g. GTN 6XX/7XX, G500, G500H, and G600).

PURPOSE

GTS 8X0 software version 4.12 includes the following enhancements:

- Fixes an issue related to ADS-B In surface traffic targets between 0 and -90 degrees longitude. Previously, the targets would not be displayed (brown chevrons).
- Improves extrapolation of target positions in systems connected to HSDB displays.
- Allows for quicker detection of invalid own ship GPS data.
- Allows ADS-B In traffic to be displayed during the following faults since they are not critical to ADS-B In processing:
 - Barometric Altitude fault
 - TCAS Equipage fault

NOTE

This functionality requires the GTS configuration item “Allow ADS-B in Standby” to be enabled.

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- Improves the startup speed of the ADS-B In SURF application.
- Allows ADS-B In processing to automatically turn on eight seconds after GTS powers on or after own ship transitions from on-ground to airborne.

NOTE

This functionality requires the GTS configuration item “Allow ADS-B in Standby” to be enabled.

- Automatically logs calibration diagnostic data during a self test to the assert log.
- Removes the Radio Altitude fault.

DESCRIPTION

This modification consists of accessing the Dealer Resource Center of the Garmin website, downloading (from the Garmin website) and then uploading the following files to the unit:

- GTS 8X0 System software version 4.12
- Region List version 4.00
- Airport Database
- Magnetic Variation version 1.03

NOTE

The Region List must be uploaded to the GTS 8X0 before uploading the System Software.

COMPLIANCE

Optional: This Service Bulletin may be incorporated at the owner’s discretion and is not warranty reimbursable.

APPROVAL

TSO/ETSO authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type certified aircraft. Notification of revision to any Garmin STC(s) will be provided under a separate service bulletin.

The GTS 8X0 software version 4.12 is FAA approved under TSOA for design approval.

DOCUMENTATION CONSIDERATIONS

The GTS Traffic Systems Pilot's Guide (190-00587-02) Rev E or later is to be issued to the aircraft operator/owner before the aircraft is returned to service.

Garmin Part Number	Document Title
190-00587-00	GTS 8X0 Installation Manual, Revision M or newer

REFERENCES

GTS 8X0 Installation Manual, Garmin part number 190-00587-00 Rev M or later

Referenced documents are available at dealers.garmin.com.

MANPOWER

Two hours (2) labor.

WARRANTY INFORMATION

This modification is not warranty reimbursable.

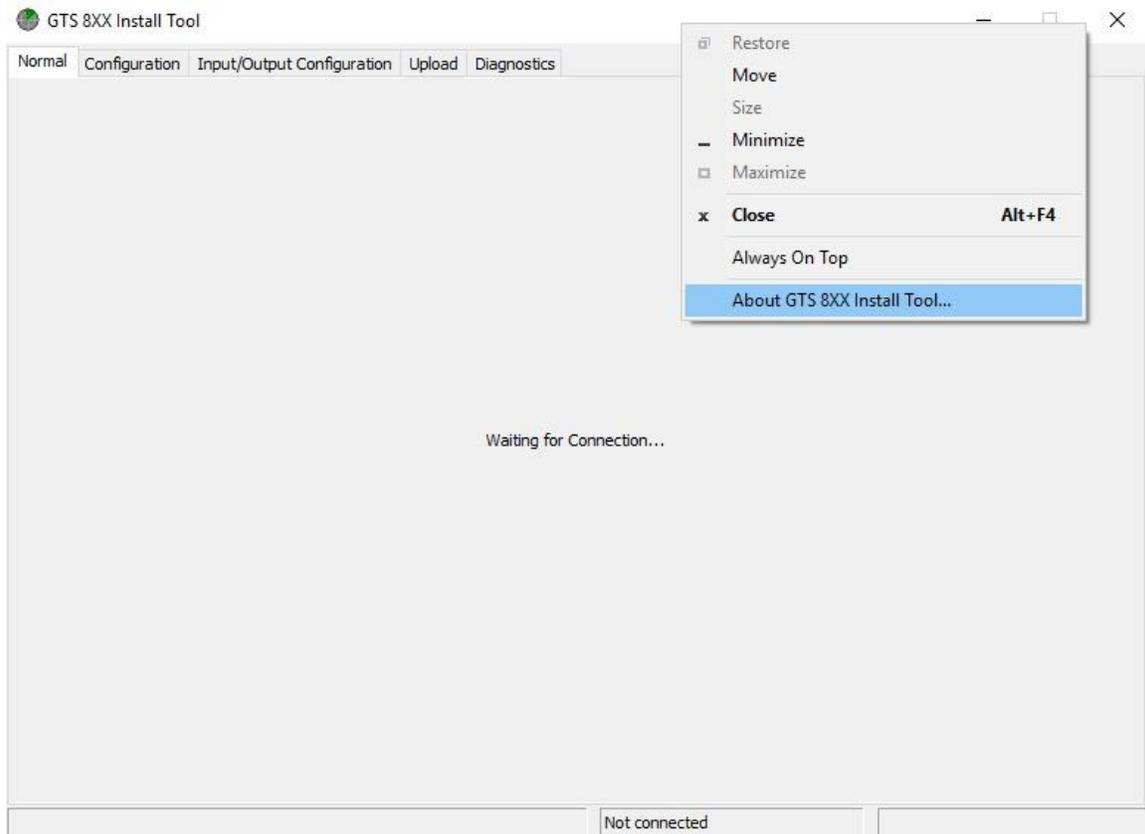
MODIFICATION INSTRUCTIONS

NOTE

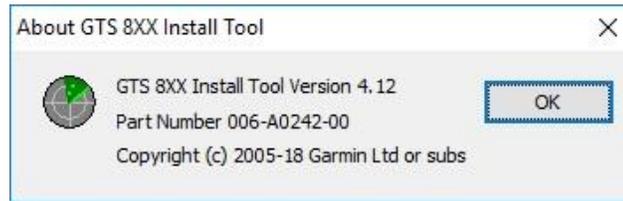
Make sure that a configuration module is installed.

1. Gain access to the GTS 8X0.
2. Construct a GTS 8X0 Dongle cable as described in the GTS 8X0/GPA 65 Installation Manual.
3. From the Dealers Resource Center section of dealers.garmin.com download and install the GTS 8X0 Install Tool as described in the GTS 8X0 Installation Manual.
4. From the Dealers Resource Center section of dealers.garmin.com download and save the following files to your computer's desktop:
 - 006-B0551-34_0A.ZIP
 - 006-D0159-03_0A.ZIP
 - 006-D0725-02_0A.ZIP
 - 006-D3844-00_0A.ZIP
5. Unzip the files saved in Step 4 and save the contents to your computer's desktop.
6. Attach the GTS 8X0 Dongle cable to the GTS 8X0 and the PC USB port.
7. Apply +14/28 VDC to the GTS 8X0.
8. Open the GTS 8X0 Install Tool.

9. Right click on the top portion of the Install Tool.
10. Select "About GTS 8X0 Install Tool..."



- Make sure that the Install Tool is version 4.12 or later. If Install Tool is not version 4.12 or later, download the latest version from the Dealer Resource Center.



- Select the Upload Tab of the GTS 8X0 Install Tool.

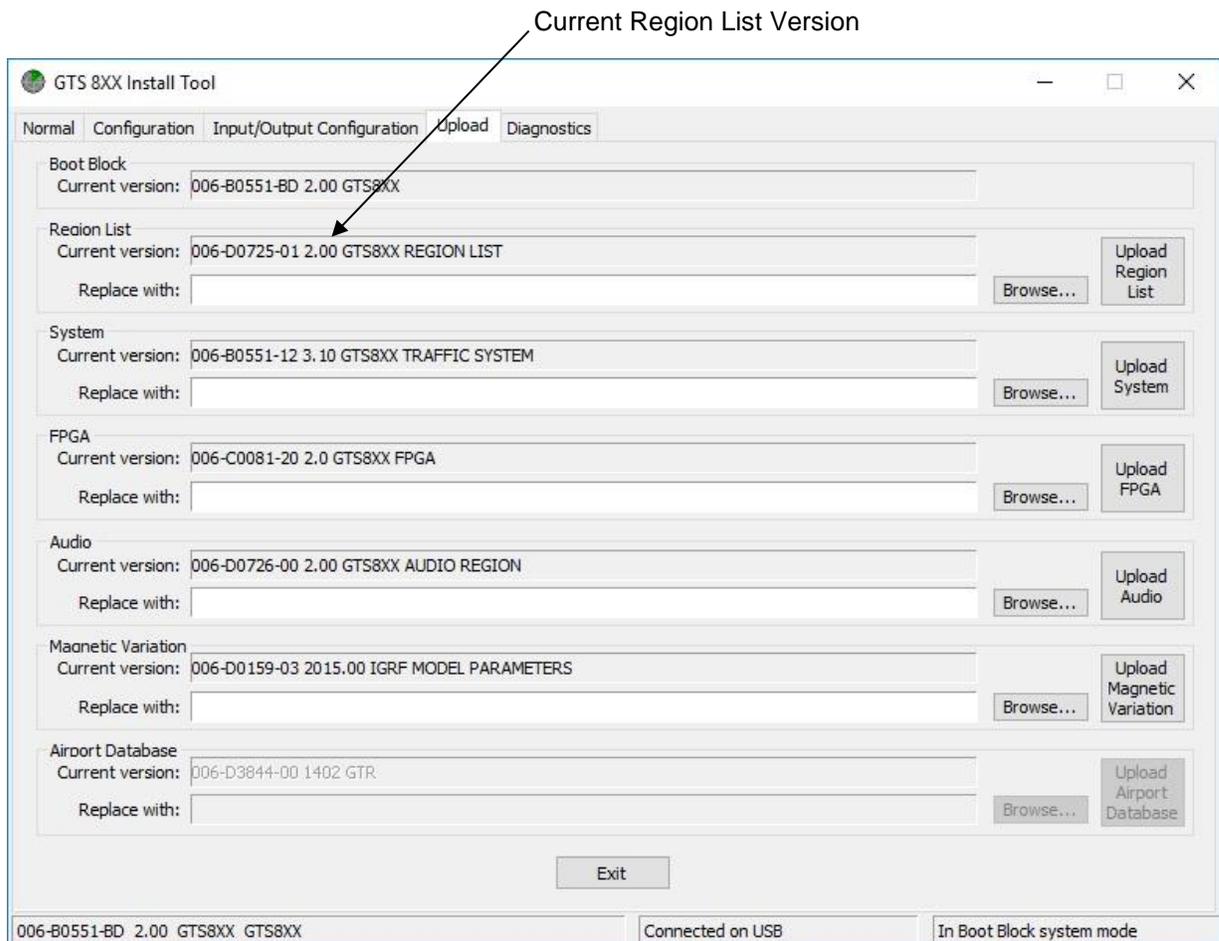
NOTE

When changing the view between tabs the GTS 8X0 will reboot.

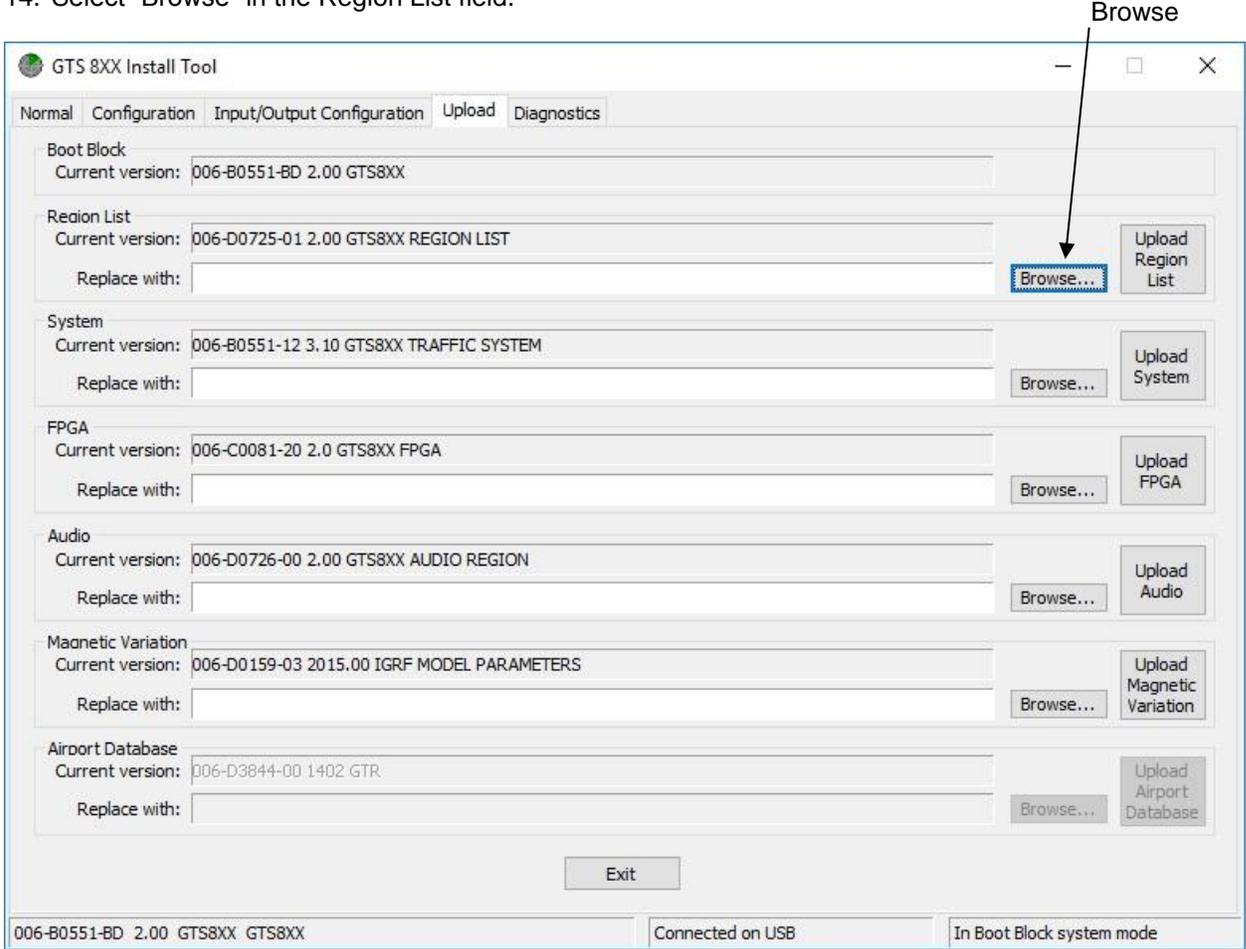
NOTE

If updating from 3.XX System Software to 4.XX System Software, the Region List must be uploaded to the GTS 8X0 prior to uploading the System Software.

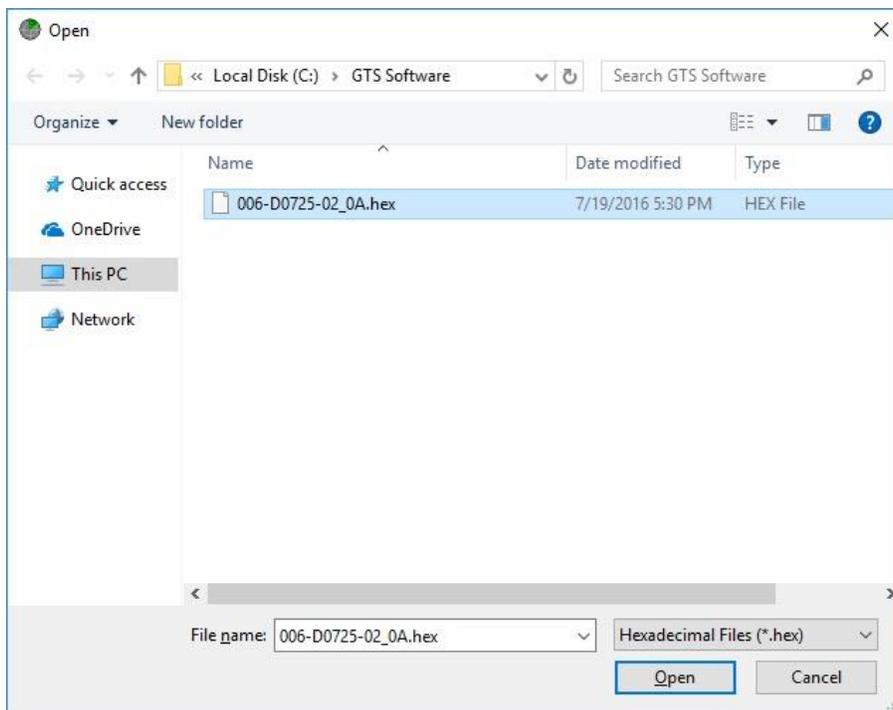
- Make sure that the current GTS 8X0 Region List version is 4.00 (or later). If the Region List version is not 4.00 (or later) perform following steps. If the Region List version is 4.00 (or later) proceed to Step 19 and perform the System SW upload.



14. Select "Browse" in the Region List field.

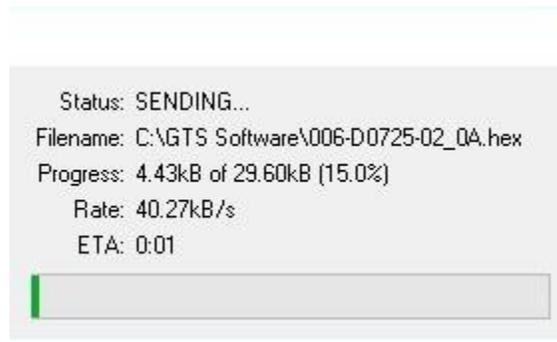


15. Select file "006-D0725-02_0A.HEX."

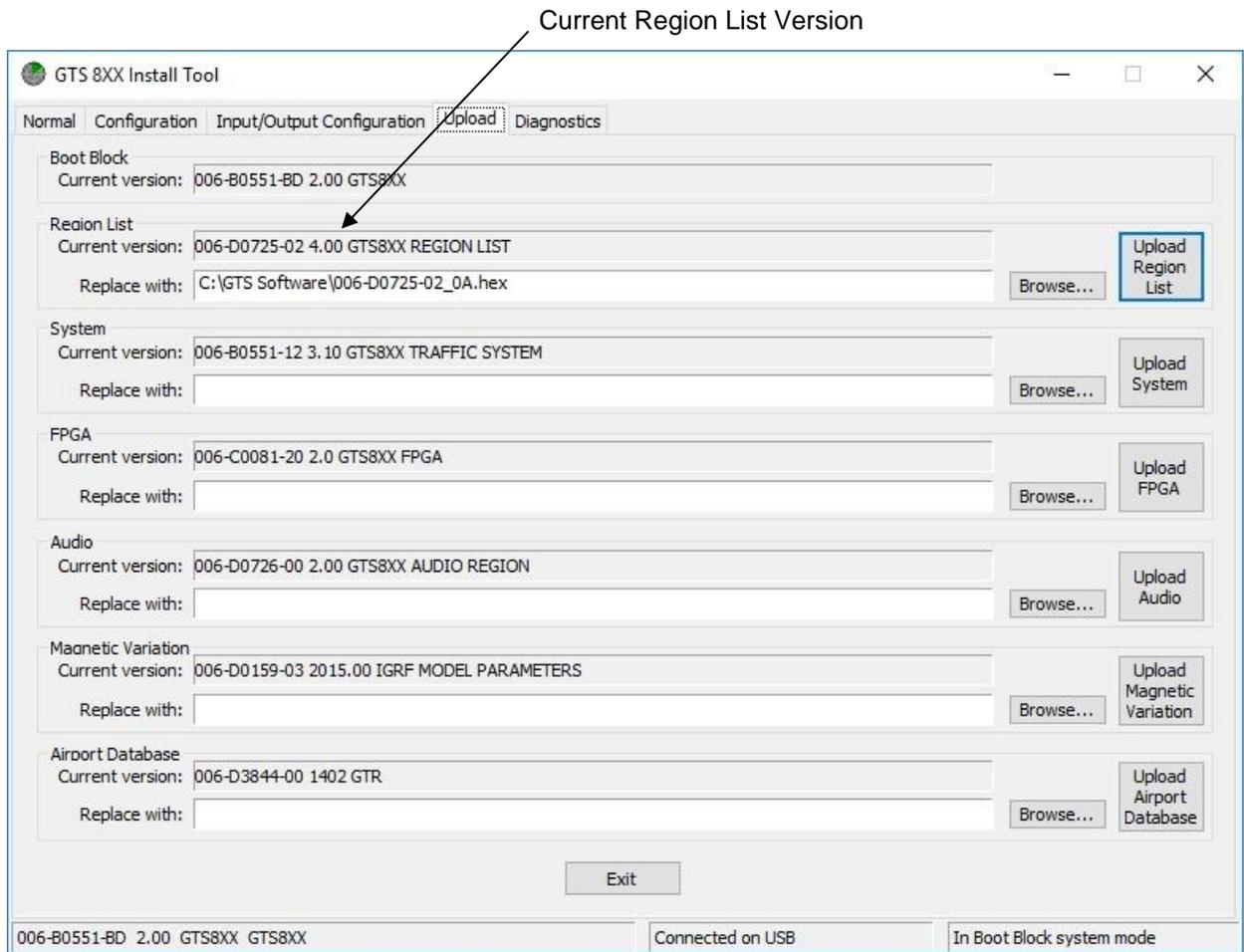


16. Select "Open."

17. Select "Upload Region List."



18. Once the Region List upload is complete, make sure that Region List version is 4.00 (or later).

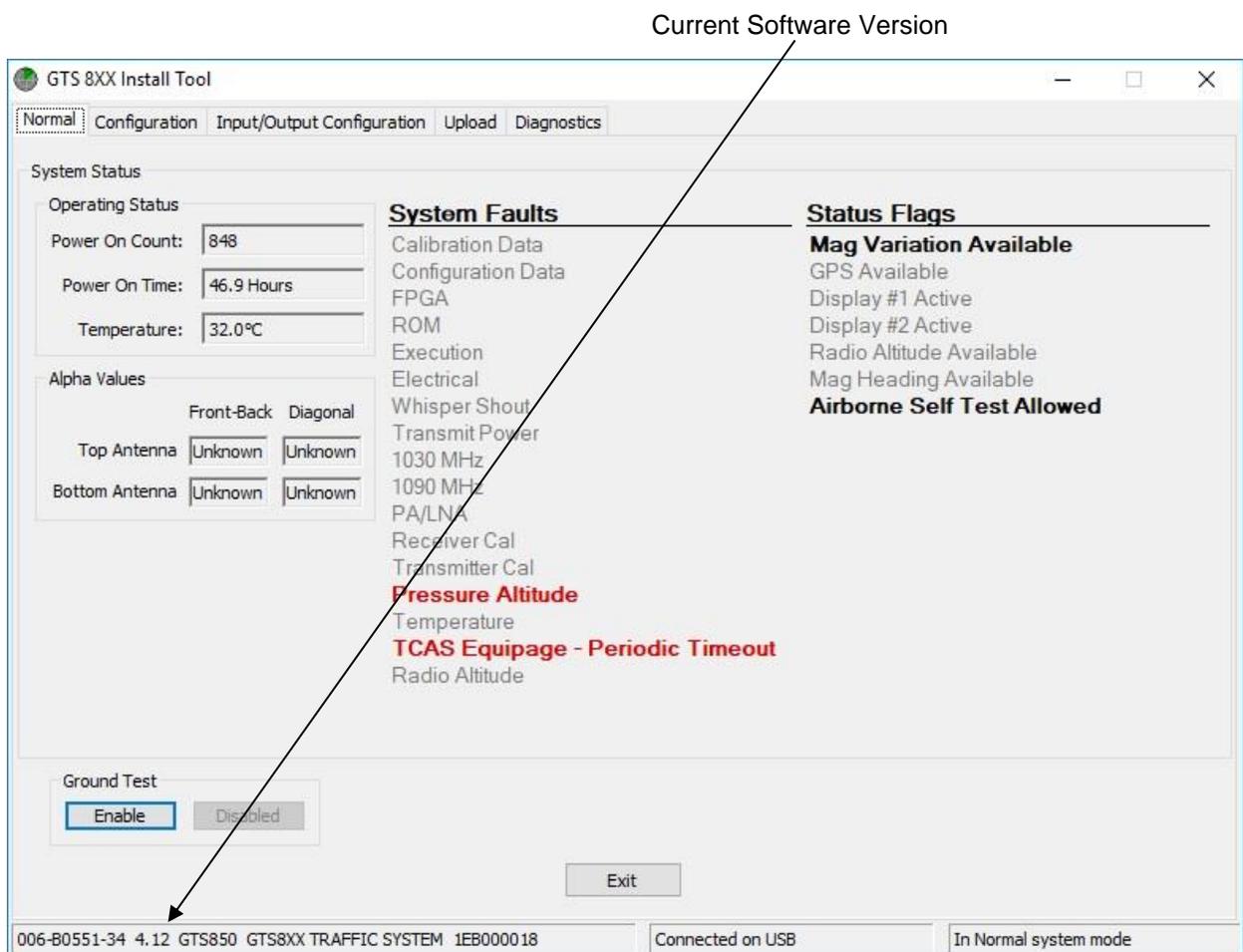


- Repeat steps 13-18 of this procedure for the System (006-B0551-34_0A.HEX), the Airport Database (006-D3844-00.dat), and Magnetic Variation (igrf.bin) files. Make sure that the current System software version is 4.12. Make sure that the current Airport Database version part number is 006-D3844-00. Make sure that the current Magnetic Variation version part number is 006-D0159-03.

NOTE

Always return the GTS 8X0 Install Tool to normal mode by selecting the Normal tab. Failure to return the install Tool to normal mode will keep the GTS 8X0 from going into Operate mode.

- Select the Normal Tab.
- Make sure that the System software version is 4.12.



- Refer to the GTS 8X0/GPA 65 Installation Manual for instructions on enabling the “Calculated Height Above Ground” and the “Short Aurals” options, and to make sure of correct unit configuration and installation requirements.
- Installations that are unable to electronically display the software part number of the GTS 8X0 should affix a label on the GTS 8X0 LRU marked with the software part number to meet the TSO marking requirements. For the installer’s convenience, a label has been applied adjacent to the LRU serial number tag.

RETURN TO SERVICE TEST PROCEDURE

Passing the software verification steps 18 through 21 of this service bulletin, is adequate to return the unit to service.

DOCUMENTATION UPDATE PROCEDURE

Log the software change (compliance with Garmin Service Bulletin 1853) in aircraft documentation in accordance with the applicable aviation authority requirements.

Installations that are unable to electronically display the software part number of the GTS 8X0 should affix a label on the GTS 8X0 LRU marked with the software part number to meet the TSO marking requirements. For the installer's convenience, a label has been applied adjacent to the LRU serial number tag.

MATERIAL INFORMATION

The files listed below are available for download from the Dealer Resource Center portion of the Garmin website (dealers.garmin.com).

QTY	Part Number	Description
1	006-A0242-00	GTS 8X0 Install Tool (v4.12)
1	006-B0551-34	GTS 8X0 System Image (v4.12)
1	006-D0159-03	IGRF Binary Magvar File (v1.03)
1	006-D0725-02	GTS 8X0 Region List (v4.00)
1	006-D3844-00	GTS Processor Airport Database (Cycle 1402)