



SOFTWARE SERVICE BULLETIN

NO.: 1240 Revision B

TO: All Garmin Aviation Service Centers

DATE: 19 March 2013

SUBJECT: Software Version 7.02 available for GTX 23, GTX 33/33D w/ES, GTX 330/330D w/ES products (not applicable to GNS 480, G900X, G950, G1000, Cirrus Perspective®, or Embraer Prodigy™ installations)

REVISION: Added the GTX 33/33D w/ES products

Note: Throughout this document the term GTX applies to the GTX 23, GTX 330/330D w/ES, and GTX 33/33D w/ES unless otherwise noted.

PURPOSE

GTX Software Version 7.02 (not applicable to GNS 480, G900X, G950, G1000, Cirrus Perspective®, or Embraer Prodigy™ installations) updates Automatic Dependent Surveillance – Broadcast (ADS-B) function to TSO-C166b.

DESCRIPTION

This modification consists of accessing the Dealer Resource Center of the Garmin website (dealers.garmin.com) and uploading new software to the GTX.

APPROVAL

The engineering data contained in GTX Software Version 7.02 are FAA approved.

NOTE: *An AC 20-165(a) compliant installation for ADS-B out function requires installation with a compatible source of position information. Please refer to the 14 CFR 91.227 ADS-B Out Compatible Equipment document (190-01533-00) for a list of compatible equipment.*

© Copyright 2013
Garmin Ltd. or its subsidiaries
All Rights Reserved

Except as expressly provided herein, no part of this document may be reproduced, copied, transmitted, disseminated, downloaded or stored in any storage medium, for any purpose without the express prior written consent of Garmin. Garmin hereby grants permission to download a single copy of this document and of any revision to this document onto a hard drive or other electronic storage medium to be viewed and to print one copy of this document or of any revision hereto, provided that such electronic or printed copy of this document or revision must contain the complete text of this copyright notice and provided further that any unauthorized commercial distribution of this document or any revision hereto is strictly prohibited.

AFMS AND PILOT'S GUIDE CONSIDERATIONS

There are no changes to AFMS documents that are relative to this Service Bulletin.
There are no Pilot's Guide changes relative to this Service Bulletin.

PRODUCT AFFECTED

This bulletin is applicable to all GTX 23, GTX 330/330D w/ES (Extended Squitter), and GTX 33/33D w/ES (Extended Squitter) units listed in Table 1 with Software Version 6.20 or previous software versions that are not installed with GNS 480, G900X, G950, G1000, Cirrus Perspective®, or Embraer Prodigy™ systems.

NOTE

This software service bulletin does not apply to non-ES enabled GTX 33/33D/330/330D units.

The unit's current software version is displayed at power up on the GTX 330/330D front panel.

For GTN/GTX installations, the current GTX software version is displayed on the GTN System Information page.

Table 1

Item	Unit Part Number
GTX 23	011-02803-02
GTX 33 w/ES	011-00779-20
GTX 33 w/ES	011-00779-30
GTX 33D w/ES	011-00779-21
GTX 330 w/ES, Black, Non-Diversity	011-00455-60
GTX 330 w/ES, Gray, Non-Diversity	011-00455-80
GTX 330D w/ES, Black, Diversity	011-00455-70
GTX 330D w/ES, Gray, Diversity	011-00455-90

COMPLIANCE

Optional: This service bulletin may be incorporated at the customer's request.

WARRANTY INFORMATION

This modification is not warranty reimbursable.

MODIFICATION INSTRUCTIONS

Before beginning the software field upgrade procedure, software must be downloaded from the Dealer Resource Center of the Garmin website (dealers.garmin.com).

The procedures described below are for the software field upgrade only.

1. Use a test harness as shown in Figure 1 (GTX 33/GTX 330) or Figure 2 (GTX 23).

CAUTION

If the unit is removed from the aircraft and operated, always connect J2302 (GTX 23), J3302 (GTX 330), and J3303 (GTX 33D/330D) to a 50 Ω , 5-watt load. The GTX transmits Mode S acquisition squitter replies once per second whether interrogations are received or not. Failure to connect a dummy load or antenna during this procedure will cause the transponder to fail.

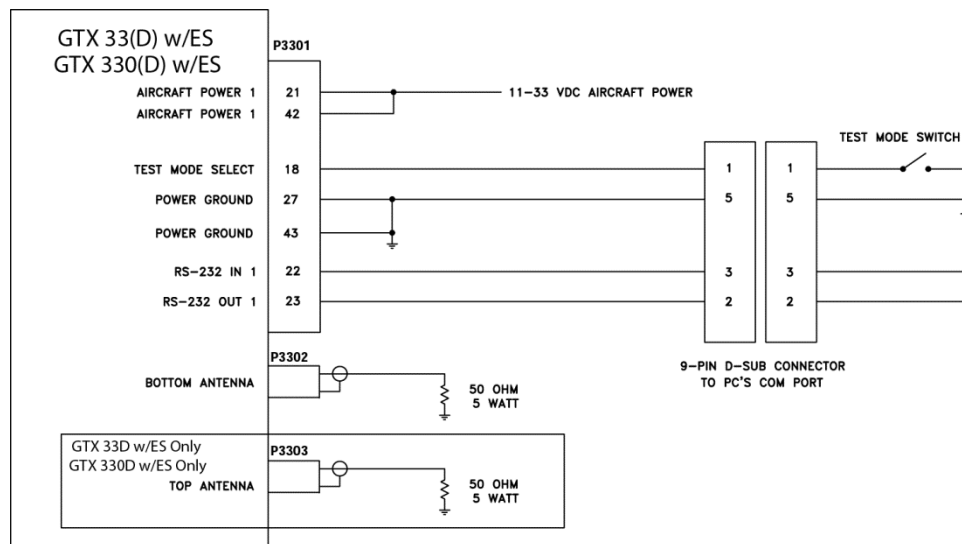


Figure 1

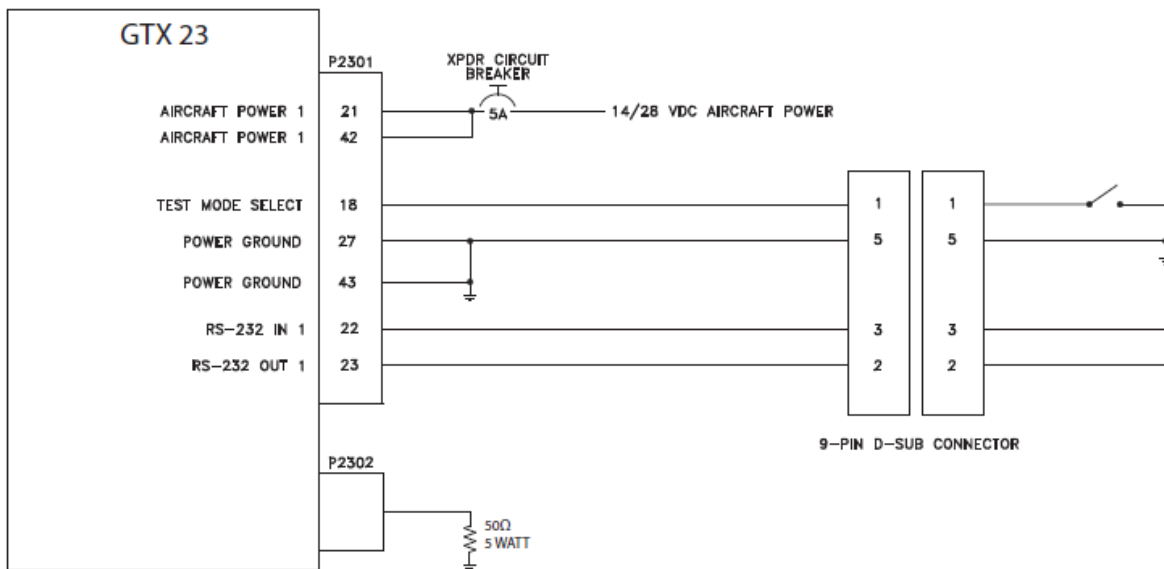


Figure 2

2. Ensure the unit is turned off. Connect the GTX to the test harness and apply power to the harness.
3. With the unit off, enable test mode via the Test Mode Switch. (Applies a ground to P3301 pin 18).
4. From the target directory (C:/Garmin) that the update software was saved to (from the Garmin website), double click on the file '330UPD22.exe'. This will create four additional files in the target directory. Verify the files are named as follows:
 - 006B0172.SA_0H
 - AVXRGN32.EXE
 - README.TXT
 - UPLOAD22.BAT
5. Connect the 9-pin D-Sub connector of the test harness to a free serial port (COM 1 or 2) on the PC and apply power.
6. Turn the GTX unit on. (The GTX23 and GTX 33/GTX 33D will turn on by the application of power.)
7. Double click on the file 'UPLOAD22.BAT'. The program will begin communicating with the GTX. (If problems are encountered in starting the software upload, an alternative method is described in the README.TXT file located in the C:/Garmin folder).
8. During the software upload, the GTX unit display test pattern either becomes static or the display will blank, depending on the software version originally installed in the unit. The upload process could take up to 6 minutes to complete; after which the unit will reset itself, turn on, and show a dynamic display test screen.
9. Turn the unit off and disable test mode via the test mode switch.
10. Turn the unit on and verify the new Software Version 7.02 on the GTX 330(D) Startup/Self-Test Page.

MODIFICATION INSTRUCTIONS FOR BACKLOADING TO SOFTWARE VERSION

6.20

Garmin Software Service Bulletin 1153 provides a means to return a GTX 330/330D w/ES unit to Software Version 6.20.

Garmin Software Service Bulletin 0935 provides a means to return a GTX 33/33D w/ES unit to Software Version 6.11

TESTING PROCEDURE

The unit's built-in Self-Test is adequate to return the appliance to service.

MATERIAL INFORMATION

All parts required to modify multiple GTX units per this Service Bulletin are listed below:

QTY	Part Number	Description
1	330UPD22.EXE	GTX 23, GTX 330/GTX 330D, GTX 33/GTX 33D Software Version 7.02

A connector kit is available to construct the test harness if required:

QTY	Part Number	Description
1	011-00583-00	GTX 330 Connector Kit
1	011-01012-01	GTX 23 Connector Kit