

SERVICE INFORMATION NO. SI 40-068

NOTE: SI's are used **only**:

- 1) To distribute information from DAI to our customers.
- 2) To distribute applicable information / documents from our suppliers to our customers with additional information.

Typically there is no revision service for SI's. Each new information or change of that will be send along with a new SI.

I. TECHNICAL DETAILS

1.1 Airplanes affected:

All DA 40 aircraft equipped with GARMIN (non-WAAS) 400 Series Units.
All DA 40F aircraft equipped with GARMIN (non-WAAS) 400 Series Units.

1.2 Subject:

GARMIN: Software Service Bulletin No. 0706
ATA-Code: 34-00

1.3 Reason:

GARMIN has issued a Software Service Bulletin which contains the incorporation of Main Software Version 5.03 for 400 Series Units.

1.4 Information:

For detailed technical information see GARMIN Software Service Bulletin No: 0706 Revision A which is applicable without any further additions or restrictions.

II. OTHERS

The GARMIN Software Service Bulletin No. 0706 is attached to this SI.

In case of doubt contact Diamond Aircraft Industries.



SOFTWARE SERVICE BULLETIN

NO.: 0706

TO: All Garmin Aviation Service Centers
DATE: 18 October 2007
SUBJECT: New Software Version 5.03 (Main) for (non-WAAS) 400 Series Units only.

PURPOSE

This Software Service Bulletin incorporates Main Software Version 5.03 for 400 Series units.

Main Software Version 5.03 includes the following (for TERRAIN equipped units only):

1. Provides TERRAIN functionality updates.
2. Includes support for the 256 MB TERRAIN Data Card (P/N 010-10201-21).

NOTE

The 128 MB (P/N 010-10201-20) TERRAIN Data Card will still function with v5.03 Main Software, but does not provide enhanced TERRAIN resolution.

The models listed in Table 1 are affected:

Model	Part Number
GPS 400	011-00504-00, 011-00504-10
GNC 420	011-00506-00, 011-00506-10, 011-00506-30
GNC 420A	011-00837-00, 011-00837-10
GNS 430	011-00280-00, 011-00280-10, 011-00280-30
GNS 430A	011-00836-00, 011-00836-10

Table 1. Models Affected

DESCRIPTION

This modification consists of uploading 400 Series Main Software Version 5.03.

APPROVAL

TSO-C129a
TSO-C37d, JTSO-2C37e (ETSO-2C37e for the GNS 430A)
TSO-C38d, JTSO-2C38e (ETSO-2C38e for the GNS 430A)
TSO-C40c, JTSO-2C40c (ETSO-2C40c for the GNS 430A)
TSO-C36e, JTSO-C36e (ETSO-C36e for the GNS 430A)
TSO-C34e, JTSO-C34e (ETSO-C34e for the GNS 430A)

The Engineering data contained in Main Software Version 5.03 of the GPS 400, GNC 420/A, and GNS 430/A are FAA approved per Table 2.

Unit	Software Version	STC
GPS 400	5.03	SA00800WI-D
GNC 420, GNS 420A	5.03	SA00801WI-D
GNS 430, GNS 430A	5.03	SA00705WI-D

Table 2. Approval Documents

AFMS AND PILOT'S GUIDE CONSIDERATIONS

There are no changes to the GPS 400, GNC 420, or GNS 430 AFMS documents that are relative to this Software Service Bulletin. There are no Pilot's Guide changes relative to this Software Service Bulletin (see References for recommended revision).

The document "GPS 400, GNC 420/420A, GNS 430/430A AFMS/SAFM Terrain Addendum" (P/N 190-00140-14) has been updated per Main Software v5.03 and the STCs listed in Table 2.

PRODUCT AFFECTED

All GPS 400, GNC 420/A, and GNS 430/A units with Main Software Version 5.01 or previous are affected. The unit's current software version for the main processor may be viewed on the Software Version Page under the AUX Menu.

COMPLIANCE

Recommended

REFERENCES

Document Name	Part Number
GNS 430(A) Pilot's Guide and Reference 400 Series Installation Manual	P/N 190-00140-00, Rev. K or later P/N 190-00140-02, Rev. S or later
GNC 420(A) Pilot's Guide and Reference	P/N 190-00140-20, Rev. F or later
GPS 400 Pilot's Guide and Reference	P/N 190-00140-60, Rev D or later

Table 3. Reference Documents

MANPOWER

One-hour (1.0) labor including testing

WARRANTY INFORMATION

This modification is optional and is not warranty reimbursable.

MODIFICATION INSTRUCTIONS

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

1. Check the unit's current software version for the main processor. This information can be viewed on the Software Version Page under the AUX Menu.
2. Record the display contrast level value on the Display Page, located on AUX page 4, before clearing the memory. This number will be required later in the process.
3. Remove the Jeppesen NavData Card from the left slot.
4. Apply power and turn the unit on. Allow the Self-Test to complete and press the ENT key to acknowledge as required.
5. Insert the software upgrade data card into the left datacard slot on the front of the unit. (Note: It may take several seconds before recognizing the data card).
6. Confirm the software upload by pressing the ENT key on the User Card Upload Confirmation Window.
7. The software upload status is displayed during the upload (upload time is approximately 30 seconds).
8. When complete, the unit will reset and a color display test will appear.
9. Turn the unit off and wait for the unit to power off.
10. Remove the software upgrade data card and replace the Jeppesen datacard.
11. Turn the unit on and verify the new software version on the Startup / Self-Test Page or Software Version Page.
12. Turn the unit off and wait for the unit to power off.
13. Press and hold the CLR key down while turning the unit on. (This will clear all memory including waypoints, user setup, and satellite almanac information.) Verify the success of this procedure by confirming the message "Stored data was lost" is displayed when the MSG button is pressed.
14. Turn the unit off.
15. Turn the unit on and enter the display contrast level value (recorded in Step 2) on the Display Page located on AUX page 4.
16. Connect an outside antenna to the unit and allow it to collect almanac data. This process should take 15-20 minutes.

TESTING PROCEDURE

The unit's built-in Self-Test and successful completion of the Post Installation Check-out Procedure in the aircraft, as outlined in the unit's Installation Manual, is adequate to ensure proper functioning. This test procedure is intended to verify the serviceability of the appliance only. The Self-Test alone does not verify or otherwise validate the airworthiness of the installation.

MATERIAL INFORMATION

All parts required to modify one (1) GPS 400, GNC 420/A, or GNS 430/A per this Service Bulletin:

QTY	Part Number	Description
1	010-00194-10	Software Upload Datacard, Main ver. 5.03 <i>*NOTE* This datacard carries a charge of \$50.00, which will be refunded upon return of the datacard to Garmin.</i>
1	010-10201-21	TAWS/TERRAIN 256 MB Data Card (not required)

Table 4. Parts List

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

QTY	Part Number	Description
1	011-00351-04	Upload connector kit Consists of: 78 Pin connector and pins

Table 5. Test Harness