Diamond AIRCRAFT

Diamond Aircraft Industries G.m.b.H
N.A. Otto-Straße 5
A-2700 Wiener Neustadt

DAI SI 40-055
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SERVICE INFORMATION NO. SI 40-055

> **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 GDL 69/69A Satellite Data Link Receivers that are installed with MX20 and GMX 200 Multi-Function Displays, GNS 400/500 series units (excluding the GNS 480), and GNS 400W/500W series units.

All DA 40F   aircraft equipped with GDL 69/69A Satellite Data Link Receivers that are installed with MX20 and GMX 200 Multi-Function Displays, GNS 400/500 series units (excluding the GNS 480), and GNS 400W/500W series units.

1.2 Subject:

GARMIN: GDL 69/69A Software Upgrade to Version 3.10
ATA-Code: 34-00

1.3 Reason:

GARMIN has issued a Software Service Bulletin which contains the upgrading of the GDL 69/69A software to Version 3.10.

1.4 Information:

For detailed technical information see GARMIN Software Service Bulletin which is applicable without any further additions or restrictions.

II. OTHERS

The GARMIN Software Service Bulletin No.: 0702 Rev. A is attached to this SI.

In case of doubt contact Diamond Aircraft Industries.

GARMIN.

SOFTWARE SERVICE BULLETIN
NO.: 0702 Rev A

TO: All Garmin Aviation Service Centers
DATE: June 8, 2007

SUBJECT: GDL 69/69A Software Upgrade to Version 3.10

PURPOSE

This software service bulletin explains the process of upgrading the software to Version 3.10 in GDL 69/69A Satellite Data Link Receivers that are installed with MX20 and GMX 200 Multi-Function Displays, GNS 400/500 series units (excluding the GNS 480), and GNS 400W/500W series units.

DESCRIPTION

This software service bulletin explains the process of upgrading the GDL 69/69A software to Version 3.10. Version 3.10 contains enhancements including increasing the number of storm cells that can be handled from 400 to 2000. (Note: This does not address the storm cell limitation of 255 cells that exists in MX20s with software version 5.7 and earlier.)

The GDL 69/69A software resides on internal memory. The memory contents are upgraded via the host unit's RS-232 interface using a data loader card.

APPROVAL

The engineering data contained in GDL 69/69A software Version 3.10 are FAA approved. The software change is a minor software change.

PRODUCTS AFFECTED

All GDL 69/69A units with software prior to Version 3.10 that are installed with MX20s, GMX 200s, GNS 400/500 series units (excluding the GNS 480), and GNS 400W/500W series units.

COMPLIANCE

Recommended. It is recommended that the software be upgraded. However, the decision to modify is at the owner's discretion.

REFERENCES

GDL 69/69A Installation Manual (Garmin P/N 190-00355-02 Rev E)

MANPOWER

One hour (1.0) labor

WARRANTY INFORMATION

This modification is warranty reimbursable for the manpower listed above. When completing the Garmin warranty claim, be sure to include the unit serial number and clearly indicate that this service bulletin has been complied with to ensure proper reimbursement.

MATERIAL INFORMATION

All parts required to modify a GDL 69/69A per this software service bulletin are listed below:

Item	Garmin Part No.
MX20 Loader Card	010-00549-00
GMX 200 Loader Card	010-00660-00
GNS 400 Series Loader Card	010-00513-02
GNS 500 Series Loader Card	010-00514-02
GNS 400W/500W Series Loader Card	010-00636-01

Each loader card carries a charge of $50.00, which will be refunded upon return of the card to Garmin.

UPDATE INSTRUCTIONS

The loader card can be used for multiple upgrades. Before starting the upgrade procedure check to make sure power is applied to the GDL 69/69A.

MX20 and GMX 200 Upgrade Procedure

The "host unit" refers to the MX20 or GMX 200 connected to the GDL 69/69A.

1. With power to the host unit cycled off, remove the datacard and insert the loader card. Power the unit on. (Do not remove power to the host unit or the GDL 69/69A until Step 4 is complete.)

2. After power up, the host unit will display the "GDL 69/69A Software Loader V2.0" screen. The current GDL 69/69A software revision will be displayed in the upper part of the screen. Verify that this software revision is any version below Version 3.10. The display should also read "Version to Upload: 3.10.00" and "Press upload button to begin software update" should be displayed in white text at the bottom of the display.

3. Press the green UPLD soft key at the bottom of the display to begin uploading the software. The process may take several minutes to complete. Wait until the .exe and two .bin files are updated. When the process is complete, this message will be displayed: "Update Successful. Power off unit and extract loader card."

4. Power off the host unit, remove the loader card, and insert the datacard.

MX20 and GMX 200 Testing Procedure

1. Turn the host unit on and allow it to self-test.

2. Press the FN (function) hard key until the FIS soft key is displayed.

3. Press FIS, then press the CRNT, FCST, and TEXT soft keys to reach the Status Page.

4. Press the MENU/ENTER hard key, then the Products soft key.

5. Version 3.10.00 should be displayed at the bottom of the screen.

GNS 400/500 Series Upgrade Procedure (for non-WAAS units ONLY)

This procedure is to be used with non-WAAS units only. The "host unit" refers to the GNS 400/500 Series unit connected to the GDL 69/69A.

1. Power the host unit into the configuration mode. Press and hold the ENT key while turning on power. Release the ENT key after the boot screen appears.

2. Go to the RS-232 MAIN CONFIG page and change the GDL 69 port to OFF.

3. Power off the host unit.

4. Cycle power to the GDL 69/69A. This enables the auto-detect communication port for a high speed data transfer.

5. Turn the host unit on in the normal mode. At the main page insert the loader card into the right slot. **The left slot will not work.**

6. The display should read "Confirm upload of software." Press the ENT key. The display should read "Validating Card," then "Executing Card." The upload will take approximately 3.5 minutes. The host unit will reset after the upload.

7. Power off the host unit and remove the loader card.

8. Power the host unit into the configuration mode and set the GDL 69 port to ON.

9. Power off the host unit.

10. Cycle power to the GDL 69/69A. This resets the auto-detect port to the correct speed.

11. Power on the host unit.

GNS 400/500 Series Verification Procedure (for non-WAAS units ONLY)

1. Go to the AUX mode and select the Data Link Status page.

2. Verify that the GDL SW is 3.10.

GNS 400W/500W Series Upgrade Procedure (for WAAS units ONLY)

This procedure is to be used with WAAS units only. The "host unit" refers to the GNS 400W/500W Series unit connected to the GDL 69/69A.

1. Power off both the host unit and the GDL 69/69A and insert the loader card into the left card slot. **The right slot will not work.**

2. Power on the host unit and the GDL 69/69A. The following message will be displayed: "400W/500W GDL 69 UPDATER V2.00" and "UPDATE TO GDL69 V3.10.00? PRESS CLR FOR NO AND ENT FOR YES."

3. Press the ENT key. The upload will take approximately four minutes.

4. Power off the host unit and remove the loader card.

GNS 400W/500W Series Verification Procedure (for WAAS units only)

1. Power on the host unit and the GDL 69/69A.

2. Go the AUX mode and select the XM INFORMATION page.

3. Verify that the GDL 69 software is version 3.10.

ADDITIONAL INFORMATION

None