Diamond Aircraft Industries GmbH
N.A. Otto-Straße 5
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Austria

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SERVICE INFORMATION NO. SI-40-113

> **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 sent along with a new SI.

I. TECHNICAL DETAILS

1.1 Airplanes affected:

All DA 40   aircraft equipped with GARMIN G1000 system software version prior to 0321.22 (including the 0369.XX system software version), see also section 2.1.

All DA 40 F   aircraft equipped with GARMIN G1000 system software version prior to 0321.22 (including the 0369.XX system software version), see also section 2.1.

1.2 Subject:

GARMIN Service Bulletin No. 0919 Revision A
ATA-Code: 34-00

1.3 Reason:

GARMIN has issued this Service Bulletin to announce the availability of G1000 Software Version 0321.22 for DA 40 and DA 40 F aircraft.

1.4 Information:

For detailed technical information refer to the GARMIN Service Bulletin No. 0919 Revision A.

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II. OTHERS

2.1 STC Information:

The GARMIN G1000 system and its associated systems, components and software are installed in the DA 40 and DA 40 F airplanes under one of the following known GARMIN STC:

- FAA STC No:
    - SA01254WI   (G1000 System)
    - SA01444W-D   (G1000 System and GFC 700 A/P System with optional WAAS installation)
- EASA STC No.:
    - EASA.IM.A.S.01023 (G1000 System)

Additionally to the above mentioned STC further GARMIN STC's may be approved.

The applicability of the attached GARMIN publication must be checked. For this purpose refer to the related airplane documentation, contact your responsible GARMIN Service Centre or your local authority.

2.2 Miscellaneous:

The GARMIN Service Bulletin No. 0919 Revision A is attached to this SI.

In case of doubt contact GARMIN.

SERVICE BULLETIN

NO.: 0919 Revision A

TO: Diamond Aircraft Industries, Inc

DATE: 21 September 2009

SUBJECT: G1000 System Software Update for Diamond DA40 & DA40 F Aircraft

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PURPOSE

This Service Bulletin announces the availability of G1000 System Software Version 0321.22 for DA40 & DA40 F aircraft.

DESCRIPTION

This Service Bulletin provides information required to update G1000-equipped Diamond DA40 & DA40 F aircraft with new system software.

This software update provides the following for all G1000 equipped Diamond DA 40/DA 40F:

- Improvements in Synthetic Vision Technology (SVT) display of traffic and the depiction of runway elevation
- Corrects the left fuel low alert not being displayed when a low fuel condition exists (described in SA0916 pertaining to the DA40F only)
- Import/Export of stored Flight Plans to/from SD card
- Data Logging to an SD card
- XM satellite weather enhancements (for GDL 69/69A interface):
    - Added support for PIREP data (Aviator subscription only)
    - Added support for AIREP data (Aviator subscription only)
    - Added support for icing weather product (Aviator PRO subscription only)
    - Added support for turbulence weather product (Aviator PRO subscription only)

APPROVAL

G1000 System Software Version 0321.22 is FAA-approved for installation in accordance with STC SA01444WI-D. There are six available STC Configurations documented in the Master Drawing List, 005-00400-01 Rev. 7 or later FAA approved revision. They are summarized as follows:

- -1 Configuration: G1000 with GFC 700 AFCS, WAAS
- -2 Configuration: G1000 with GFC 700 AFCS, no WAAS
- -3 Configuration: G1000, No Autopilot, WAAS
- -4 Configuration: G1000, No Autopilot, no WAAS
- -5 Configuration: G1000 with KAP 140 Autopilot, WAAS
- -6 Configuration: G1000 with KAP 140 Autopilot, no WAAS

AFMS AND PILOT'S GUIDE CONSIDERATIONS

As a result of changes related to the system software version update, the documents listed in the following table are required to be issued to the aircraft operator/owner before the aircraft is returned to service.

Document Title	Part Number	Revision
Airplane Flight Manual Supplement: G1000 Integrated Avionics System In a Diamond Model DA40 & DA40 F (GFC 700) Or	190-00492-10	Revision 6 or later FAA-approved revision
Airplane Flight Manual Supplement: G1000 Integrated Avionics System – Diamond Model DA40 & DA40F (No Autopilot) Or	190-00492-11	Revision 6 or later FAA-approved revision
Airplane Flight Manual Supplement G1000 Integrated Avionics System (KAP 140 Autopilot)	190-00492-12	Revision 4 or later FAA-approved revision
G1000 Cockpit Reference Guide for Diamond DA40/40F	190-00324-10	Revision A or later

PRODUCT AFFECTED

All G1000-equipped Diamond DA40 & DA40 F aircraft with system software version prior to 0321.22 (including the 0369.XX system software versions).

COMPLIANCE

This service bulletin is mandatory for all Diamond DA 40 aircraft with system software version 0321.19, it is optional for all other Diamond DA 40 and DA 40F aircraft.

REFERENCES

The required STC documents are available from:
* www.garmin.com, within the Dealer Resource section of the web site

The following document is required to accomplish the update:

Document Title	Part Number	Revision
G1000 / GFC 700 Field Update Instructions, Diamond DA40 & DA40F	190-00544-03	Revision 8 or later FAA-approved revision

Maintenance Documentation
The following document is required to maintain the airworthiness of G1000-equipped DA 40 aircraft with System Software 0321.22:

Document Title	Part Number	Revision
G1000 System Maintenance Manual – Diamond DA40 & DA 40 F (Contains Instructions for Continued Airworthiness)	190-00545-01	Revision E or later revision

MANPOWER

One-hour (1.0) including labor and testing.

WARRANTY INFORMATION

This modification is warranty reimbursable per the following table for the Manpower listed above. When completing the Garmin warranty claim, be sure to include the aircraft serial number, the aircraft registration number, the system software version (prior to installation of v0321.22), and clearly indicate that this Service Bulletin has been complied with, to ensure proper reimbursement.

Aircraft	System Software Version Installed	Warranty Reimbursable
DA 40	0321.19	Yes
DA 40	Any Version Prior to 0321.19	No
DA 40F	Any Version	No

MODIFICATION INSTRUCTIONS

Perform the field update instructions according to the <u>G1000 Field Update Instructions, Diamond DA40 & DA 40 F</u> document, Garmin P/N 190-00544-03 Revision 8 or later FAA approved revision.

TESTING PROCEDURE

Perform the return to service and testing procedure according to the <u>G1000 Field Update Instructions, Diamond DA40 & DA40 F</u> document, Garmin P/N 190-00544-03 Revision 8 or later FAA approved revision.

MATERIAL INFORMATION

<u>G1000/DA40/DA40F Software Loader Image</u>
To accomplish this update, the technician must have the new G1000/DA40 Software Loader Image, Garmin P/N 006-B0321-22. The software loader image is available to download from the Dealer portion of the Garmin website (<u>www.garmin.com</u>). To access the software loader image, click on the "G1000 Field-Loadable Software Updates" link and select the appropriate airframe.

QTY	Part Number	Description
1	006-B0321-22	G1000 Software Loader Image (G1000 Diamond DA40/DA 40F System Software Version 0321.22)
2	010-00330-43*	SD Supplemental Data Cards (optional)
1	190-00324-10	G1000 Cockpit Reference Guide for Diamond DA40/40F
1	190-00592-06	G1000 Pilot's Guide for the Diamond DA40/40F

*Cards are required to obtain Synthetic Vision/Pathways, SafeTaxi, FliteChart, and G1000 chart display capabilities. Previous cards can be used if these features are not desired.

> **NOTE**
>
> Additional materials and equipment may be required. Refer to the Required Materials & Equipment Section in the <u>G1000 Field Update Instructions, Diamond DA40 & DA40 F</u> document (Garmin P/N 190-00544-03 Revision 8 or later FAA approved revision) for a complete list.