

MANDATORY SERVICE BULLETIN

MSB 50-003/8

SUPERSEDES MSB 50-003/7

I TECHNICAL DETAILS

I.1 Category

Mandatory.

I.2 Airplanes affected

Type: DA 50 C

Serial Numbers: 50.002, 50.003, 50.006
50.C.A.A.007 and subsequent,
50.C.C.A.001 and subsequent,
50.C.Q.A.001 and subsequent

I.3 Time of Compliance

At next scheduled maintenance action.

Note: Prior compliance with MSB 50-003 through MSB 50-003/7 does not constitute compliance with this MSB.

I.4 Subject

Software for Garmin G1000 NXi; approved software systems, manifests and configurations.

I.5 Reason

Summary of approved software systems, manifests and configurations for Garmin G1000 NXi.

I.6 Concurrent Documents

Garmin G1000 NXi Line Maintenance Manual, 190-02631-00, latest effective issue.

I.7 Approval

The technical information or instructions contained in this document relate to the Design Change Advisory No. VÄM 50-002, OÄM 50-001, OÄM 50-003, OÄM 50-004, OÄM 50-006 through OÄM 50-010, OÄM 50-011, OÄM 50-013, OÄM 50-018, OÄM 50-027/a, OÄM 50-031, OÄM 50-032, OÄM 50-050, MÄM 50-115, MÄM 50-140, MÄM 50-221, MÄM 50-514 and MÄM 50-517 which have been approved under the authority of EASA Design Organization Approval ref. EASA.21J.052 or by EASA.

The technical content of this document has been approved under the authority of DOA ref. EASA.21J.052.

I.8 Accomplishment/Instructions

Compare installed software system and related manifests with approved ones stated in this service bulletin.

If installed software system and related manifests are not approved, perform an update to the latest approved software version according to the instructions given in the G1000 NXi Line Maintenance Manual, latest effective issue or other related Garmin documents, or WI-MSB 50-003, latest effective issue.

An update to a later approved software system with the related manifest may be carried out on every aircraft. Perform the update according to the instructions given in the G1000 NXi Line Maintenance Manual, latest effective issue or other related Garmin documents, or WI-MSB 50-003, latest effective issue.

NOTE: Changing the software system requires new configuration of the system. Refer to the Garmin documentation for software configuration.

NOTE: Determine what optional equipment (i.e. ADF, DME, WX500, etc.) is installed in the airplane before loading software.

Determine what optional features (i.e. Synthetic Vision (SVT), Jeppesen ChartView, etc.) are installed before loading the AIRFRAME configuration file. If the AIRFRAME configuration file is loaded from the system software card, you will need to unlock the optional features using their unlock cards. Make sure that all of the required materials and equipment are on hand before you begin the upgrade procedure.

Software Part Number	Software Version	Software Name	Remarks
System			This software version supports the GFC700 autopilot system.
010-02576-02	v2576.02		
Manifest			
006-B0224-01	V2.05	GMU System	
006-B0398-46	V3.56	GSA8X System	
006-B0742-12	V3.10	GCU / GMC System	
006-B1177-7Y	V21.60	GDU System	
006-B1607-0K	V2.60	GTX 3X5 System	
006-B1797-16	V3.21	GTX 3X5 / ADS-B	
006-B1827-22	V8.2	GPS/WAAS System	
006-B1838-09	V2.09	GRS 79 System	
006-B1838-58	V2.08	GDC 72 System	
006-B2139-09	V2.60	GEA System	
006-B2210-1N	V5.31D	GMA AUX System	
006-B2212-1N	V5.31D	GMA System	
006-B2253-01	V2.01	NAV System	
006-B2371-02	V2.02	COM System	
006-B2548-19	V2.1B	GIA System	
006-B2679-00	V2.00	GMU44B System	
006-C0048-00	V2.00	GMU FPGA	
006-C0153-22	V2.20	GTX 3X5 FPGA	
006-C0157-21	V2.10	GTX 3X5 / ADS-B FPGA	
006-C0164-01	V1.10	GIA FPGA	
006-C0175-09	V1.46	GMA AUX FPGA	
006-D0425-2A	V4.10	GIA Audio	
006-D3034-B1	V5.00D	GMA AUX Region List	
006-D3034-C2	V5.21	GMA Audio Database	
006-D3035-B2	V5.00D	GMA Display Key Region	
006-D3035-CU	V5.15D	GMA Region List	
006-D3035-G6	V5.28D	GMA Audio Config	
006-D5080-00	V2.00	GRS 79 Region List	
006-D5080-50	V2.00	GDC 72 Region List	
006-D5761-00	V2.00	NAV Region List	

Software Part Number	Software Version	Software Name	Remarks
006-D6318-04	V2.21	GIA Region List	
006-D6358-01	V2.30	GEA Region List	
006-D6512-00	V2.00	COM Region List	
006-D9378-00	V2.00	GFC Cert GIA AFCS Gains	

Software Part Number	Software Version	Software Name	Remarks
System			This software version supports • De-Icing System including propeller de-icing • GMU44B magnetometer • Intake Air Temperature Caution & Warning • Glow Fail Caution • checklist files in *.gcl format • GDL69A SXM Datalink receiver • GTS800 Traffic Advisory System
010-02576-03	v2576.03		
Manifest			
006-B0224-01	V2.05	GMU System	
006-B0398-46	V3.56	GSA8X System	
006-B0551-35	V4.13	GTS8XX System	
006-B0742-12	V3.10	GCU / GMC System	
006-B1177-C3	V21.65.1	GDU System	
006-B1607-0K	V2.60	GTX 3X5 System	
006-B1797-16	V3.21	GTX 3X5 / ADS-B	
006-B1827-22	V8.2	GPS/WAAS System	
006-B1838-09	V2.09	GRS 79 System	
006-B1838-58	V2.08	GDC 72 System	
006-B1902-0B	V5.51	GDL 69e System	
006-B2139-09	V2.60	GEA System	
006-B2181-30	V3.00	GDL 69e XM FW/XM Firmware	
006-B2210-1N	V5.31D	GMA AUX System	
006-B2212-1N	V5.31D	GMA System	
006-B2253-01	V2.01	NAV System	
006-B2371-02	V2.02	COM System	
006-B2548-1K	V2.1E	GIA System	
006-B2679-00	V2.00	GMU44B System	
006-C0048-00	V2.00	GMU FPGA	
006-C0081-20	V2.0	GTS8XX FPGA	

Software Part Number	Software Version	Software Name	Remarks
006-C0153-22	V2.20	GTX 3X5 FPGA	
006-C0157-21	V2.10	GTX 3X5 / ADS-B FPGA	
006-C0164-01	V1.10	GIA FPGA	
006-C0175-09	V1.46	GMA AUX FPGA	
006-D0425-2A	V4.10	GIA Audio	
006-D0725-02	V4.00	GTS8XX Region List	
006-D3034-B1	V5.00D	GMA AUX Region List	
006-D3034-B2	V5.00D	GMA AUX Key Region	
006-D3034-C2	V5.21	GMA Audio Database	
006-D3035-B2	V5.00D	GMA Display Key Region	
006-D3035-CU	V5.15D	GMA Region List	
006-D3035-HE	V5.29D	GMA Audio Config	
006-D5080-00	V2.00	GRS 79 Region List	
006-D5080-50	V2.00	GDC 72 Region List	
006-D5402-02	V1.10	GDL 69e App Package	
006-D5761-00	V2.00	NAV Region List	
006-D6318-04	V2.21	GIA Region List	
006-D6358-01	V2.30	GEA Region List	
006-D6512-00	V2.00	COM Region List	
006-D6994-00	V2.00	GMU44B Region List	
006-D9378-00	V2.00	GFC Cert GIA AFCS Gains	

Software Part Number	Software Version	Software Name	Remarks
System			This software version supports the same hardware as the previous software version
010-02576-04	v2576.04		
Manifest			
006-B0224-01	V2.05	GMU System	
006-B0398-46	V3.56	GSA8X System	
006-B0551-35	V4.13	GTS8XX System	
006-B0742-12	V3.10	GCU / GMC System	

Software Part Number	Software Version	Software Name	Remarks
006-B1177-C3	V21.65.1	GDU System	This software version fixed an ADS-B issue as described in Garmin Service Advisory 23033.
006-B1607-0K	V2.60	GTX 3X5 System	
006-B1797-1D	V3.32	GTX 3X5 / ADS-B	
006-B1827-22	V8.2	GPS/WAAS System	
006-B1838-09	V2.09	GRS 79 System	
006-B1838-58	V2.08	GDC 72 System	
006-B1902-0B	V5.51	GDL 69e System	
006-B2139-09	V2.60	GEA System	
006-B2181-30	V3.00	GDL 69e XM FW/XM Firmware	
006-B2210-1N	V5.31D	GMA AUX System	
006-B2212-1N	V5.31D	GMA System	
006-B2253-01	V2.01	NAV System	
006-B2371-02	V2.02	COM System	
006-B2548-1K	V2.1E	GIA System	
006-B2679-00	V2.00	GMU44B System	
006-C0048-00	V2.00	GMU FPGA	
006-C0081-20	V2.0	GTS8XX FPGA	
006-C0153-22	V2.20	GTX 3X5 FPGA	
006-C0157-21	V2.10	GTX 3X5 / ADS-B FPGA	
006-C0164-01	V1.10	GIA FPGA	
006-C0175-09	V1.46	GMA AUX FPGA	
006-D0425-2A	V4.10	GIA Audio	
006-D0725-02	V4.00	GTS8XX Region List	
006-D3034-B1	V5.00D	GMA AUX Region List	
006-D3034-B2	V5.00D	GMA AUX Key Region	
006-D3034-C2	V5.21	GMA Audio Database	
006-D3035-B2	V5.00D	GMA Display Key Region	
006-D3035-CU	V5.15D	GMA Region List	
006-D3035-HE	V5.29D	GMA Audio Config	
006-D5080-00	V2.00	GRS 79 Region List	
006-D5080-50	V2.00	GDC 72 Region List	
006-D5402-02	V1.10	GDL 69e App Package	
006-D5761-00	V2.00	NAV Region List	

Software Part Number	Software Version	Software Name	Remarks
006-D6318-04	V2.21	GIA Region List	
006-D6358-01	V2.30	GEA Region List	
006-D6512-00	V2.00	COM Region List	
006-D6994-00	V2.00	GMU44B Region List	
006-D9378-00	V2.00	GFC Cert GIA AFCS Gains	

Approved Configurations (Software)	Remarks
NOTE: Even though more options may be included in the software loader card, only those shown below are currently approved for installation.	
DA50 Option – ADF	Install if an ADF is installed in the airplane (OÄM 50-003)
DA50 Option – Deicing	Install if the de-icing system is installed in the airplane (OÄM 50-011)
DA50 Option – DME	Install if a DME is installed in the airplane (OÄM 50-004)
DA50 Option – Fuel Tanks: Fuel calibration ^{*1)}	Refer to Note 1 below.
DA50 Option – Fuel Tanks: Pre-calibrated ^{*1)}	
DA50 Option – GCU 476	Install if a Garmin Control Unit GCU 476 is installed in the airplane (OÄM 50-018).
DA50 Option – GDL69A SXM	Install if a Garmin Datalink Receiver GDL69A SXM is installed in the airplane (OÄM 50-027/a).
DA50 Option – Flightstream 510 Enable	Install if a FS 510 is installed in the airplane (OÄM 50-032).
DA50 Option – GFC700 with ESP and USP	Install if GFC 700 Autopilot System is installed in the airplane; NOTE: an additional unlock card is required.
DA50 Option – GSR56	Install if a Satellite Transceiver GSR56 is installed in the airplane (OÄM 50-010)
DA50 Option – GSR56 Voice/Text Only	Optional to “DA50 Option – GSR56” above: Install if a Satellite Transceiver GSR56 is installed in the airplane (OÄM 50-010).
DA50 Option – GTS 800	Install if a Garmin Traffic Advisory System GTS800 (OÄM 50-050) is installed in the airplane.
DA50 Option – GTX 345 Option	Install if a GTX 345 transponder is installed in the airplane.
DA50 Option – GTS 345 and GTS 800	Install if a GTX 345 transponder and Garmin Traffic Advisory System GTS 800 (OÄM 50-050) is installed in the airplane.
DA50 Option – GTX 345 and TAS600	Install if a GTX 345 transponder and Avidyne Traffic Advisory System TAS6xx (OÄM 50-006) is installed in the airplane.

Approved Configurations (Software)	Remarks
DA50 Option – Aerox Oxygen Pressure ^{2*)}	Install if an Oxygen System with aerox pressure sensor is installed in the airplane (OÄM 50-001).
DA50 Option – ADZ Nagano Oxygen Pressure ^{2*)}	Install if an Oxygen System with ADZ Nagano pressure sensor is installed in the airplane (OÄM 50-001).
DA50 Option – Propeller Deicing	Install if the propeller de-icing system is installed in the airplane (OÄM 50-011)
DA50 Option – TAS600 Series Installation	Install if a Traffic Advisory System is installed in the airplane (OÄM 50-006).
DA50 Option – WX500	Install if a Stormscope WX500 is installed in the airplane (OÄM 50-013).

1*) This two options are not required to be installed. If either one is installed, the steps below have to be followed.

- "Fuel Tanks: Fuel calibration" requires manual calibration of the fuel quantity indicators. For calibration, refer to Work Instruction WI-MSB 50-003, latest effective issue.
- "Fuel Tanks: Pre-calibrated" uses pre-defined frequency values of the fuel probes for the fuel quantity indication.

2*) Refer to Airplane Flight Manual Doc. No. 9.01.01-E section 06-10 Equipment List to determine the installed pressure transducer.

Approved Magnetic Field Charts (GRS1 MV DB)		
Software Part Number	Approved Version	Remarks
006-D2658-01	V2015.00	
006-D2658-02	V2020.00	

I.9 Mass (Weight) and CG

n. a.

II PLANNING INFORMATION

II.1 Material & Availability

Quantity	Part Number	Description
1	010-02576-02 010-02576-03 010-02576-04	G1000 NXi Software Loader Card (Diamond DA50)

The required Garmin G1000 NXi Cockpit Reference Guide (CRG) and Pilot's Guide (PG) are referenced to the System Software Version number. The System Software Version number is displayed at the top right side of the MFD Power-up page.

System Software Version	Cockpit Reference Guide	Pilot's Guide
2576.02	P/N 190-02800-00, Rev. B or later appropriate revision	P/N 190-02799-00, Rev. B or later appropriate revision
2576.03	P/N 190-02800-01, Rev. A or later appropriate revision	P/N 190-02799-01, Rev. A or later appropriate revision
2576.04	P/N 190-02800-01, Rev. A or later appropriate revision	P/N 190-02799-01, Rev. A or later appropriate revision

Software and concurrent documents can be obtained through your Garmin distributor.

II.2 Special Tools

n. a.

II.3 Labor effort

Approx. 1 hour

II.4 Credit

None.

II.5 Reference Documents

None.

III REMARKS

1. All work must be done by a certified aircraft service station or a certified aircraft maintenance mechanic.
2. Completion of all work must be recorded in the log book.
3. In case of any doubt contact Diamond Aircraft Industries GmbH.
4. The content of this MSB is mandatory in accordance with EASA TCDS EASA.A.639.