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**\*\*MANDATORY\*\***  
**STC SERVICE BULLETIN**  
**NO.: 2183 Rev A**

**TO:** All Garmin Aviation Service Centers  
**DATE:** September 24, 2021  
**SUBJECT:** GI 275 Multi-Function Instrument Software Version v2.41 Update  
**CERTIFICATION**  
**AUTHORIZATION:** STC SA02658SE MDL Revision 13 (see Approval section for details)

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**PRODUCTS AFFECTED**

Aircraft modified with the GI 275 Multi-Function Instrument AML STC SA02658SE, MDL Revision 12 or earlier with a single pitot-static system that are equipped with dual GI 275 ADAHRS (Air Data & Attitude Heading Reference System) products [011-04489-10, 011-04489-20] installed as the only means to determine aircraft attitude.

**PURPOSE**

This STC Service Bulletin provides notification of STC SA02658SE Master Drawing List Revision 13 update which includes GI 275 Expansion Board Software improvement to provide additional robustness for the GI 275 ADAHRS solution.

**DESCRIPTION**

This Service Bulletin provides instructions to modify the GI 275 Multi-Function Instrument System Software in affected installations in accordance with Rev. 10 or later of the GI 275 Part 23 AML STC Equipment List 005-01208-42.

If the aircraft is not affected (ref. PRODUCTS AFFECTED above), this Service Bulletin is not mandatory.

If the aircraft is affected, follow the MODIFICATION INSTRUCTIONS below to update the GI 275 System Software.

**COMPLIANCE**

**Mandatory:** This STC Service Bulletin must be incorporated for affected installations. This service bulletin is recommended for all other installations.

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## **APPROVAL**

The GI 275 Multi-function Instrument is FAA-approved for installation in accordance with STC SA02658SE *GI 275 Part 23 AML STC, Master Drawing List* 005-01208-41 revision 13. For a list of FAA-approved data for installation, refer to the Master Drawing List.

## **DOCUMENTATION CONSIDERATIONS**

Existing Aircraft Flight Manual Supplements and Pilot Guides are retained for this installation. No new documents are provided with this Service Bulletin.

All documents needed to install/test the software described in this bulletin are available at no cost in the Dealer Resource Center on the Garmin website <https://dealers.garmin.com>.

## **REFERENCES**

**Table 1. References**

<b>Document Number</b>	<b>Revision (or later)</b>	<b>Description</b>
005-01208-41	13	GI 275 Part 23 AML STC Master Drawing List
005-01208-42	10	GI 275 Part 23 AML STC Equipment List
190-02246-10	10	GI 275 Part 23 AML STC Installation Manual
190-02246-14	9	GI 275 STC EIS & MFD Installation Manual

All documents needed for this bulletin are available at no cost in the Dealer Resource Center on the Garmin website <https://dealers.garmin.com>.

## **MANPOWER**

One (1) hour labor per affected aircraft to update the GI 275 Expansion Board Software.

## **WARRANTY INFORMATION**

This modification is only warranty reimbursable for installations described in the Products Affected section.

Warranty reimbursement deadline is February 28, 2022. For proper reimbursement, when completing the Garmin warranty claim include the:

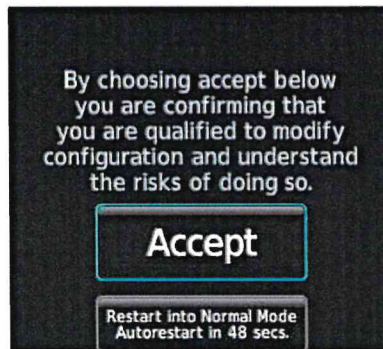
- Both GI 275 serial numbers
- Aircraft registration number
- Airframe serial number
- Copy of logbook entry showing:
  - Date
  - Airframe time
  - Compliance with Garmin Service Bulletin 2183

Note: Installations completed after September 24, 2021 are not eligible for warranty reimbursement.

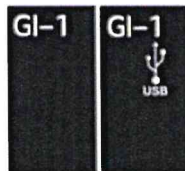
### **MODIFICATION INSTRUCTIONS**

Perform the following for any aircraft affected by this Service Bulletin:

1. Download the software image (006-B3182-0C.exe) and save to your hard drive
2. Open 006-B3182-0C.exe.
3. Select "Yes."
4. Connect a USB drive to your PC and follow the on-screen prompts.  
NOTE: This process will overwrite any existing data on the USB drive.
5. Push and hold the GI 275 inner knob while applying power to enter Configuration Mode.
6. Accept the prompt.



7. Attach the thumb drive to the dongle or the GSB 15.
8. Wait for the USB image to appear, indicating valid connection to the GI 275.



9. Select **SW/Config**.



10. Select **Loader Card**.



11. Select **Select All**.



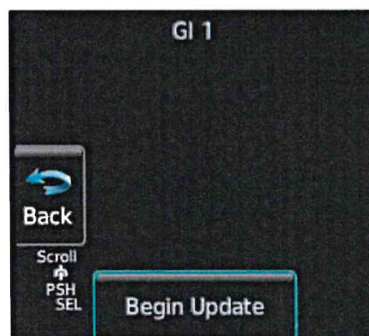
12. Make sure all selections are illuminated.



13. Select Update Package.



14. Select Begin Update.



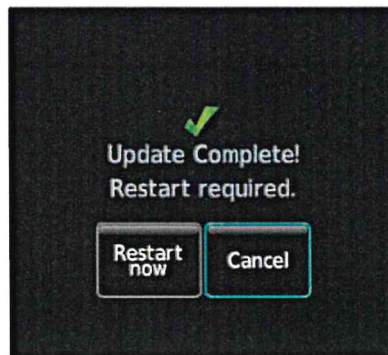
15. Wait for the system to load the software.

NOTE: If multiple GI 275 units are connected, the system will load software to every unit configured in the network.





16. Once the software load is complete, select **Restart Now**.



17. The unit will enter Configuration mode. Select **System Info**.



18. Ensure that the unit software has loaded successfully.

NOTE: This update only update the Expansion Board software version to v2.41. Main and LCD software versions remain at version v2.40.



### **RETURN TO SERVICE TEST PROCEDURE**

1. Apply power to the GI 275 into Configuration Mode.
2. Select System Info.
3. Select Device Info.
4. Make sure the software version and software part number of the Main, Expansion, and LCD Systems match what is listed in *GI 275 Part 23 AML STC Equipment List*, P/N 005-01208-42.

NOTE: Only the GI 275 Expansion System should be updated to version v2.41.

5. Inspect all system and interface settings to make sure no changes were made.

NOTE: Ensure that, for units configured as a reversionary HSI, the 'Standby' configuration is enabled in the **Unit Type**, **Unit Configuration** menu.



6. Perform system checkouts for the features and interfaces as appropriate per *GI 275 Part 23 AML STC Installation Manual*, 190-02246-10, Section 6, or *GI 275 STC EIS & MFD Installation Manual*, 190-02246-14, Section 6.
7. While in Normal mode, ensure the reversionary (Standby) GI 275 contains the ADI page as the left most page. This can be verified by either rotating the large knob counterclockwise, or engaging the reversionary switch from Auto to Manual and verifying the standby GI 275 Attitude display is present.

### **MATERIAL INFORMATION**

The STC documentation is downloadable from the Garmin Dealer Resource Center at <https://dealers.garmin.com>.



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**\*\*MANDATORY\*\***  
**SERVICE BULLETIN**  
**NO.: 2184 Rev A**

**TO:** All Garmin Aviation Service Centers  
**DATE:** September 24, 2021  
**SUBJECT:** GI 275 Multi-function Instrument Software Version 2.41  
**CERTIFICATION**  
**AUTHORIZATION:** TSO Authorization (see Approval section for details)

TSO authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type certified aircraft. Notification of any revision to any Garmin STC(s) will be provided under a separate service bulletin.

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**PRODUCTS AFFECTED**

Garmin GI 275 Multi-function Instruments with software version 2.40 or earlier are affected.

**PURPOSE**

GI 275 Multi-function Instrument Software Version 2.41 fixes the dual GI 275 simultaneous "AHRS Align" message described in Garmin Service Alert 2182.

GI 275 Multi-function Instrument Software Version 2.41 also provides additional robustness for the GI 275 ADAHRS solution.

**DESCRIPTION**

This modification consists of accessing the Dealer Resource Center of the Garmin website and uploading GI 275 Main and Expansion software to version 2.41.

**COMPLIANCE**

**MANDATORY:** Compliance with this Service Bulletin is mandatory for aircraft equipped with a single pitot-static system that are equipped with dual GI 275 ADAHRS (Air Data & Attitude Heading Reference System) products [011-04489-10, 011-04489-20] installed as the only means to determine aircraft attitude.

Compliance with the service bulletin is optional for all other installations.

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Service Bulletin 2184  
September 24, 2021

Page 1-9  
Revision A



## **APPROVAL**

TSO authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type-certified aircraft. Notification of revision to any Garmin STC(s) will be provided under a separate service bulletin.

GI 275 Multi-function Instrument Software Version 2.41 is TSO authorized. Refer to the applicable installation manual for additional approvals. The change from ADS-B software version 2.40 is minor per 14 CFR 21.619.

## **DOCUMENTATION CONSIDERATIONS**

No new documents are provided with this Service Bulletin.

## **REFERENCES**

Referenced documents are available from [www.garmin.com](http://www.garmin.com) within the Dealer Resource Center.

**Table 1 References**

Document Number	Revision (or later)	Description
190-02246-00	9	GI 275 Multi-Function Instrument Installation Manual
190-02246-01	G	GI 275 Pilot's Guide

## **MANPOWER**

One (1) hour labor per affected aircraft to update the GI 275 Software.

## **WARRANTY INFORMATION**

This modification is only warranty reimbursable for dual 011-04489-10 and/or 011-04489-20 GI 275 Multi-Function Instruments with Main and Expansion Board software versions 2.40 (or earlier) installed in aircraft with a single pitot-static system installed as the only means to determine aircraft attitude.

Warranty reimbursement deadline is February 28, 2022.

For proper reimbursement, when completing the Garmin warranty claim include:

- Both GI 275 serial numbers
- Aircraft registration number
- Airframe serial number
- Copy of logbook entry showing:
  - Date
  - Airframe time
  - Compliance with Garmin Service Bulletin 2184



### **NOTE**

*Installations completed after September 24, 2021 are not eligible for warranty reimbursement*

## **MODIFICATION INSTRUCTIONS**

1. Download the software image (006-B3182-0C.exe) and save to your hard drive.
2. Open 006-B3182-0C.exe
3. Select "Yes."
4. Attach a thumb drive to your PC and follow the on-screen prompts.

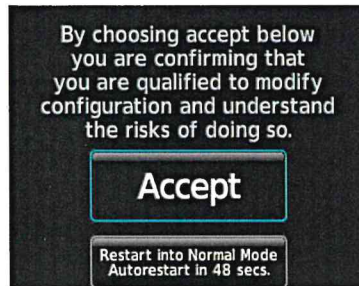


### **NOTE**

*This process will overwrite any existing data on the thumb drive.*

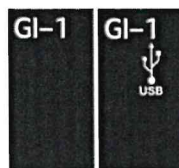
5. Push and hold the GI 275 inner knob while applying power to enter Configuration Mode.

6. Accept the prompt.



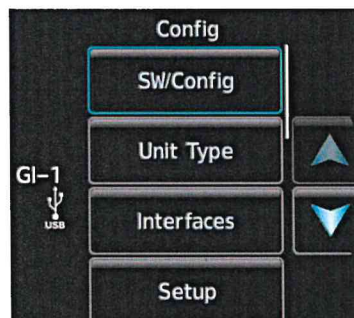
**Figure 1 Configuration Mode Prompt**

7. Attach the thumb drive to the dongle or the GSB 15.
8. Wait for the USB image to appear.



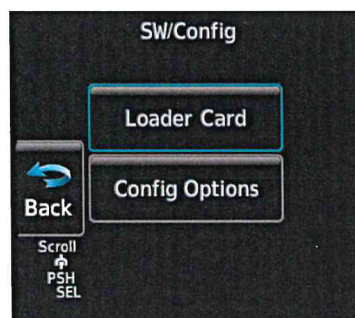
**Figure 2 USB Image**

9. Select **SW/Config**.



**Figure 3 SW/Config**

10. Save the system configuration.
11. Select **Config Options**.



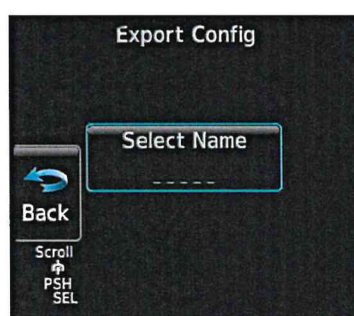
**Figure 4 Config Options**

12. Select **Export Config**.



**Figure 5 Export Config**

13. Select **Select Name**.



**Figure 6 Select Name**

14. Enter a name and select **Export Config**.



**Figure 7 Export Config**

15. Select **Complete**.



**Figure 8 Complete**



16. Select **Back** to return one level to the **SW/Cong** menu.



Figure 9 Back

17. Select **Loader Card**.

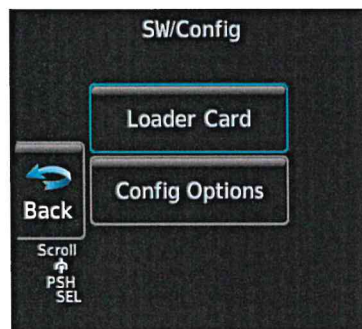


Figure 10 Loader Card

18. Select **Select All**.



Figure 11 Select All

19. Make sure all selections are illuminated.



Figure 12 Select All

20. Select Update Package



Figure 13 Update Package

21. Select Begin Update.



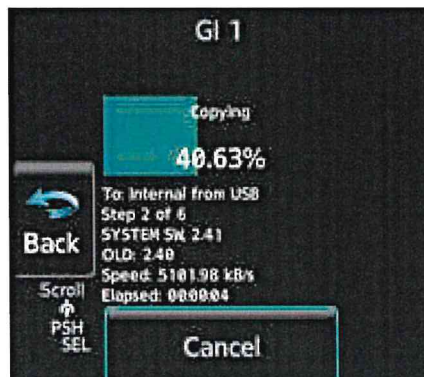
Figure 14 Begin Update

22. Wait for the system to load the software.



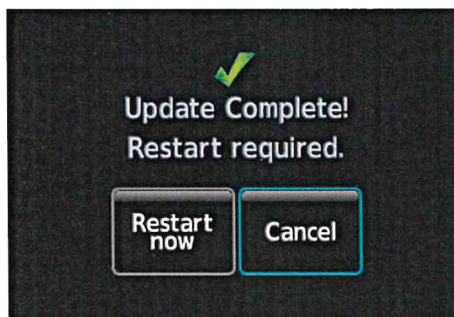
**NOTE**

*If multiple GI 275 units are connected, the system will load software to every unit configured in the network.*



**Figure 15 Software Load**

23. Once the software load is complete, select **Restart Now**.



**Figure 16 Restart Now**

24. The unit will enter Configuration mode. Select **System Info**.



**Figure 17 System Info**

25. Make sure the unit software has loaded.



**NOTE**

*Software reporting may take up to 60 seconds.*



**Figure 18 Software Information**

**RETURN TO SERVICE TEST PROCEDURE**

Successful completion of the modification instructions of this bulletin is adequate to return the GI 275 to service after the software modification.

Installers that are applying the Garmin STC must consult the appropriate STC Service Bulletin for installation return to service test procedures. Installers who are not applying the Garmin STC should consult the GI 275 Multi-Function Indicator TSO Installation Manual (or appropriate STC data) and do applicable ground checks.

**MATERIAL INFORMATION**

A GI 275 Software Loader Image 006-B3182-0C (available on the Dealer Resource Center <https://dealers.garmin.com>)



# ***SERVICE ALERT***

**NO.: 2182 Rev A**

**TO:** Owners and Operators of aircraft with a dual GI 275 ADAHRS installation using a single pitot/static system.

**DATE:** September 20, 2021

**SUBJECT:** Dual GI 275 simultaneous "AHRS Align" message in flight

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## **PRODUCTS AFFECTED**

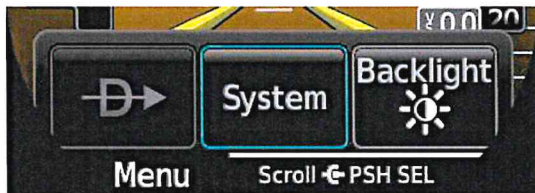
GI 275 installations with Expansion Board software version 2.40 or earlier, in the dual-ADAHRS configuration in aircraft with non-redundant or single-source pitot systems are affected.

Do the following to view the Expansion Board software version:

1. With the GI 275 unit powered on, enter the system menu by either swiping up or push and hold the knob for two seconds.



2. Select System.



3. Select External LRUs.



4. Select AHRS.



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5. The AHRS software reports the Expansion Board software versions. View the software version.



#### **ISSUE**

If the aircraft's pitot tube becomes obstructed due to the pitot tube cover being left on, icing blockage, and/or other debris obstruction, the GI 275 airspeed input can be interrupted. This interruption may cause both GI 275 units to enter alignment mode during certain maneuvers. If this occurs, it will result in the temporary loss of all attitude information from both GI 275 units.

#### **PILOT ACTION**

If the GI 275 dual-AHRS configuration is the only source of attitude in an aircraft without a redundant pitot source, do not fly in instrument meteorological conditions.

If the GI 275 Attitude display enters alignment mode during flight, when appropriate, establish wings level (stable flight with assumed bank angles less than 5 degrees) to allow the units to realign and recover attitude display.

#### **RESOLUTION**

This issue will be resolved with the incorporation of Service Bulletin 2183, which authorizes the installation of GI 275 Software Version 2.41. This service bulletin is available and is considered mandatory for installations with no tertiary source of attitude information and no redundant source of pitot pressure.