

GARMIN GSR 56 - TROUBLESHOOTING**1. General**

- A. This section gives the troubleshooting procedures for the GSR 56 System. For a general overview of the GSR 56 system refer to Garmin GSR 56 - Description and Operation.

2. GSR 56 System Troubleshooting

- A. Tools and Equipment

NOTE: For the supplier publication part number and manufacturer data, refer to the Introduction - Supplier Publication List.

- (1) Tools and Equipment
 - Multimeter.
- (2) Special Consumables
 - None.
- (3) Reference Material
 - Garmin GSR 56 - Description and Operation
 - GSR 56 Iridium Satellite Radio - Removal/Installation
 - GSR 56 Iridium Antenna - Removal/Installation
 - Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test
 - Model 208 Wiring Diagram Manual.

- B. Do the GSR 56 System Troubleshooting.

- (1) Refer to Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test G1000 Architecture Verification Check and make sure that:
 - (a) The correct software and configuration has been installed.
 - (b) All related systems are serviceable.
 - (c) The LRU serial number or a version number is not dashed.
- (2) Make sure the GSR has check mark (green) next to their nomenclature on the list.
 - (a) This indicates the LRU is serviceable.
 - (b) If the GSR does not have a green check troubleshoot the Garmin GSR 56 system. Refer to Chapter 34, Garmin G1000 Integrated Avionics System - Troubleshooting.
- (3) Check the primary flight display crew alert system (CAS) window for messages to aid in troubleshooting the anomaly. For CAS message troubleshooting refer to, Table 101.
- (4) If the Architecture Verification check shows a serial number or a version number is dashed on the Avionics Status page, carefully examine the electrical wiring and components as follows: Refer to the Model 208 Wiring Diagram Manual, Chapter 20, Wiring - Maintenance Practices.

NOTE: Serial number is not reported for the following equipment: COM1, COM2, GS1, GS2, GTX1, GTX2 (OPT), NAV1, NAV2, AND WX500.

- (a) Do a visual check of the GSR 56 iridium satellite radio electrical and coaxial connectors and airplane mounting rack electrical and coaxial connectors for bent pins and pushed back pins.

1 If necessary, repair the damage.

- (b) Make sure that electrical power and ground signals are present.
- (c) Make sure that data bus lines are correctly terminated and secure.

CAUTION: Do not touch bus wiring to each other or to shield grounds. Damage to equipment or circuits can result.

- (d) Do a visual check of the wiring components and make sure that all applicable strapping is correct and any necessary G1000 system strapping is correct.

- (e) Do a visual check of the wiring bundles for damage.

1 If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual, Chapter 20, Wiring - Maintenance Practices.

- (f) Use a multimeter to do a check of the applicable system wiring for continuity, ground faults, or other unserviceable conditions.
 - 1 If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual, Chapter 20, Wiring - Maintenance Practices.
- (g) Do a visual check of the coaxial cable connections from the satellite radio to the iridium antenna.
 - 1 Tighten loose coaxial cable connectors as necessary.
 - 2 Repair or replace unserviceable coaxial cable as necessary.
- (5) Replace the GSR 56 Iridium Satellite Radio. Refer to, Garmin GSR 56 Iridium Satellite Radio - Removal/Installation.
 - (a) Do an operational check of the GSR 56 system again. Refer to, GSR 56 System - Adjustment/Test.
- (6) Replace the GSR 56 Iridium Antenna. Refer to Garmin GSR 56 Iridium Antenna - Removal/Installation.
 - (a) Do an operational check of the GSR 56 system again. Refer to, GSR 56 System - Adjustment/Test.
- C. GSR 56 CAS Error Message Troubleshooting.
 - (1) Push the rightmost softkey on the PFD and make sure that no CAS Alert messages show in the Alerts window.
 - (2) For GSR 56 Alert messages troubleshooting refer to Table 101.

Table 101. GSR 56CAS Alert Messages

GSR 56 CAS Alert Messages	Cause	Corrective Actions
GSR1 FAIL	GSR1 has failed.	1. Make sure that the GSR 56 Iridium Satellite Radio is receiving power. 2. Make sure that the GSR 56 wiring is serviceable. Refer to Model 208 Wiring Diagram Manual. 3. Make sure that the GSR 56 configuration is correct Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test.
MANIFEST	GSR1 software mismatch, communication halted.	1. Make sure that the GSR 56 software version is correct.

- D. Put the Airplane Back to its Initial Condition.
 - (1) Disconnect the external electrical power from the airplane.