

GARMIN XM REMOTE SYSTEM - TROUBLESHOOTING

1. General

- A. This section gives the troubleshooting procedures for the XM GRT 10 Remote System. For a general overview of the XM GRT 10 wireless remote system refer to Garmin XM GRT 10 Remote System - Description and Operation.

2. XM Remote 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 XM GRT 10 Remote System - Description and Operation
- Garmin XM GRT 10 Transceiver - Removal/Installation
- Garmin XM GRT 10 Remote System - Adjustment/Test
- Chapter 34, Garmin GDL 69A XM Data Link System - Troubleshooting
- Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test
- Chapter 34, Global Positioning System (GPS)/XM Antenna - Removal/Installation
- Model 208 Wiring Diagram Manual.

- B. Do the XM GRT 10 Wireless Remote 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 GDL69 has check mark (green) next to their nomenclature on the list.

- (a) This indicates the LRU is serviceable.
- (b) If the GDL69 does not have a green check troubleshoot the Garmin XM data link system. Refer to Chapter 34, Garmin GDL 69A XM Data Link 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, GTX 2 (OPT), NAV1, NAV2, AND WX500.

- (a) Do a visual check of the XM GRT 10 Transceiver electrical connectors and airplane electrical 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 to the GPS/XM antenna.
 - 1 Tighten loose coaxial cable connectors as necessary.
 - 2 Repair or replace unserviceable coaxial cable as necessary.
 - (5) Replace the XM GRT 10 transceiver. Refer to, Garmin XM GRT 10 Transceiver - Removal/Installation.
 - (a) Do an operational check of the XM GRT 10 Wireless Remote system again. Refer to, Garmin XM GRT 10 Remote System - Adjustment/Test.
 - (6) Replace the GPS/XM antenna. Refer to, Chapter 34, Global Positioning System (GPS)/XM) Antenna - Removal/Installation.
 - (a) Do an operational check of the XM GRT 10 Wireless Remote system again. Refer to, Garmin XM GRT 10 Remote System - Adjustment/Test.
- C. GRT/GRC 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 GRT/GRC CAS Alert messages troubleshooting refer to Table 101.

Table 101. GRT/GRC CAS Alert Messages

GRT/GRC CAS Alert Messages	Cause	Corrective Actions
GRT 10 not found	GDL cannot communicate with GRT.	1. Make sure that the GRT 10 is receiving power. 2. Make sure that the GRT configuration is correct Chapter 34, Garmin G1000 Integrated Avionics System - Adjustment/Test.
GRT 10 connection lost.	GRC cannot communicate with the GRT.	1. Make sure that the GRC 10 is in RF range of the GRT 10. 2. Make sure that the GRT 10 wiring is serviceable. Refer to Model 208 Wring Diagram Manual.
GDL 69A not found.	GRC cannot communicate with the GRT.	1. Make sure that the GDL 69A is powered on. 2. Make sure the wiring between the GDL 69 and GRT 10 is serviceable. Refer to Model 208 Wring Diagram Manual.
GDL 69A connection is lost.	GRC cannot communicate with the GRT.	1. Make sure that the GDL 69A is powered on. 2. Make sure the wiring between the GDL 69 and GRT 10 is serviceable. Refer to Model 208 Wring Diagram Manual.
GRC 10 will not power on	No power to the GRC.	1. Make sure that the batteries are installed. 2. Install new batteries.

D. Put the Airplane Back to its Initial Condition.

- (1) Disconnect the external electrical power from the airplane.