

GARMIN DATA LINK SYSTEM - ADJUSTMENT/TEST**1. General**

- A. This section gives the adjustment and test procedures for the GDL 69A XM and the GDL 69A SXM Data Link System. For a general overview of the GDL 69 XM Data Link System refer to Garmin GDL 69A XM Data Link - Description and Operation.
- B. The G1000 Integrated Avionics System uses different slightly different GPS/XM LRU's based on Airplane Software/Configuration. Make sure to read each section carefully, each software configuration uses some variants of Garmin LRU's which are NOT interchangeable between software versions. Become familiar with the installed software version, refer to Chapter 34, G1000 Integrated Avionics System - Description and Operation. The procedures in this section are typical for the G1000 v.767.XX Family and the G1000 NXi software configuration unless otherwise noted in this document.
- (1) The G1000 Software Version v.767.XX uses the GDL 69A XM System.
 - (2) The G1000 NXi Software uses the GDL 69A SXM System.

2. Garmin Data Link System Operational Check

- 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
 - Aviation Headset.
 - (2) Special Consumables
 - None.
 - (3) Reference Material
 - Garmin Data Link System - Description and Operation
 - Garmin G1000 Integrated Avionics System - Adjustment/Test.
- B. Prepare the Airplane
- (1) Make sure that the switches that follow are in the OFF position:
 - (a) BATTERY switch
 - (b) EXTERNAL POWER switch
 - (c) AVIONICS 1 and 2 switches.
 - (2) Connect external electrical power to the airplane.
 - (a) Adjust the ground power unit (GPU) to 28Vdc, +0.5 or -0.5 Vdc.
 - (3) Make sure that all the circuit breakers on the Avionics circuit breaker panel are engaged.
 - (4) Put the switches that follow in the positions given:
 - (a) External POWER switch to the BUS position.
 - (b) BATTERY switch to the ON position
 - (c) Avionics 1 and 2 switches to the ON position.
 - (5) After the Garmin G1000 system is fully initiated refer to Garmin G1000 Integrated Avionics System - Adjustment/Test and do the steps that follow:
 - (a) Do the Architecture Verification check and make sure that the GDL 69A and all related systems are serviceable. Refer to Garmin G1000 Integrated Avionics System - Adjustment/Test, G1000 Architecture Verification Check.
 - (b) Make sure that the correct software and configuration has been installed.
- C. XM Datalink Data Path Operational Check
- (1) Disengage the MFD circuit breaker found on the Avionics circuit breaker panel.
 - (a) The MFD powers off.
 - (2) Engage the MFD circuit breaker while you push the ENT button to boot the MFD into configuration mode.
 - (3) Wait for the MFD to fully initialize into configuration mode.

- (a) Make sure that the HSDB status box for the GDL69, in the upper right hand corner of the display, has a green check.
- (4) Disengage the engage the MFD circuit breaker to re-initialize the MFD in normal mode.
 - (a) Push the ENT button on the MFD, when prompted to continue the functional test.

D. XM Datalink Antenna Operational Check

NOTE: You must do the test that follows outside of the hangar to allow enough reception for the XM antenna.

- (1) Use the MFD FMS knob to select the AUX - XM Radio page on the MFD.
- (2) Push the INFO softkey and make sure that the Signal Strength for both Audio and Data inputs is displayed as STRONG or WEAK.
 - (a) If Signal Strength for either Audio or Data is displayed as CHECK ANTENNA, do a check of the antenna or coax cable installation.
- (3) Push the Radio softkey, and use the FMS knobs to select an XM Radio Channel.
- (4) Make sure that the selected XM Radio Channel is heard clearly with no discernible static or other background interference through the pilot's headset.

E. Put the Airplane Back to its Initial Condition.

Do the steps that follow to put the Airplane Back to its Initial Condition:

- (1) Put the switches that follow to the OFF position:
 - (a) BATTERY switch.
 - (b) EXTERNAL POWER switch.
 - (c) AVIONICS 1 and 2 switches.
- (2) Disconnect external electrical power from the airplane.