

GARMIN G1000 TERRAIN AWARENESS WARNING SYSTEM - TROUBLESHOOTING**1. General**

- A. This section gives the troubleshooting procedures for the for the Garmin G1000 Terrain Awareness Warning System (TAWS-B). For a general overview of the TAWS-B refer to Garmin G1000 Terrain Awareness Warning System - Description and Operation

2. Garmin G1000 Terrain Awareness Warning 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 G1000 Terrain Awareness Warning System - Description and Operation
- Garmin G1000 Terrain Awareness Warning System - Adjustment/Test
- Garmin G10000 Integrated Avionics System - Adjustment/Test
- Model 208 Wiring Diagram Manual.

- B. Garmin Terrain Avoidance Warning System Troubleshooting.

- (1) The TAWS system must be enabled (unlocked) if the baseline software is loaded to the Garmin G1000 Integrated Avionics System. Refer to Garmin G1000 Integrated Avionics System - Adjustment/Test, G1000 TAWS Enable Configuration.

- (2) Refer to Do the Architecture Verification check and make sure all related systems are serviceable. Refer to Garmin G1000 Integrated Avionics System - Adjustment/Test, G1000 Architecture Verification Check.

- (a) Make sure that the correct software and configuration has been installed.

- (3) Make sure the PFD1, PFD2, MFD1, GIA1 and GIA2 each have a check mark (green) and serial number next to their nomenclature on the list.

- (a) This indicates the LRU is serviceable.

NOTE: Serial number is not reported for the following equipment: COM1, COM2, GS1, GS2, GTX1, GTX 2 (OPT), NAV1, NAV2, AND WX500.

NOTE: The components that follow are not listed on the System Status List page: KR 87 ADF, KN 63 DME, KTA 870 TAS, KRA 405B, KHF 1050 HR Radio System, ME406 ELT, and the C406-N ELT.

- (4) Make sure the supplemental data cards are inserted correctly in the bottom slot of each of the two primary flight displays (PFD)'s and the multifunction display (MFD).

- (5) Load the terrain and obstacle data files again. Refer to Garmin G10000 Integrated Avionics System, G1000 TAWS Enable Configuration.

- (6) If a problem is found and corrected, do an operational check of the TAWS-B again. Refer to Garmin G1000 Terrain Awareness Warning System - Adjustment/Test.

- C. TAWS-B CAS Message Troubleshooting

NOTE: Refer to the Model 208 Wiring Diagram Manual. while troubleshooting the TAWS-B.

- (1) Check the primary flight display crew alert system (CAS) window for messages to aid in troubleshooting the anomaly.

- (2) For CAS messages related to other Garmin LRU's refer to the applicable LRU section for CAS message troubleshooting.

- (a) Correct CAS related problems before continuing to troubleshoot TAWS problems.

- (3) Push the right-most softkey on the PFD and make sure that no CAS Alert messages show in the Alerts window.

- (4) To troubleshoot TAWS-B CAS Alert messages refer to Table 101.

Table 101. TAWS CAS Alert Message Troubleshooting Table

CAS Alert Message	Cause	Possible Solution
TAWS FAIL	A TAWS system failure has occurred.	<ol style="list-style-type: none"> 1. If message occurred on the first power on after unlocking TAWS, cycle power to initialize TAWS. 2. Make sure that each GDU contains a supplemental data card with a terrain and obstacle database present. 3. Make sure that GIA 1 and GIA 2 are serviceable. Refer to Garmin G1000 Integrated Avionics System - Adjustment/Test. 4. Make sure that the GPS receivers are serviceable. Refer to Garmin G1000 Global Positioning System - Adjustment/test. 5. Make sure that an Airport Terrain, Obstacle, Terrain, Aviation Database, or GDU software mismatch has not occurred. 6. If a mismatch has occurred, load correct database/software files or replace the terrain card. Refer to Garmin G1000 Integrated Avionics System - Adjustment/Test.
TAWS TEST	TAWS system is currently being tested.	<ol style="list-style-type: none"> 1. Normal annunciation during self test. Test will take up to two minutes to complete.
TAWS INHB	TAWS system alerting is disabled.	<ol style="list-style-type: none"> 1. Push the MENU button from the MAP-TAWS page to enable TAWS system alerting.
TAWS N/A	GPS system integrity not high enough to enable.	<ol style="list-style-type: none"> 1. Make sure that the GPS receivers are serviceable. Refer to Garmin G1000 Global Positioning System - Adjustment/test.

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