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.	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.	1. Normal annunciation during self test. Test will take up to two minutes to complete.
TAWS INHB	TAWS system alerting is disabled.	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.	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.