BENDIX/KING KTA-870 TRAFFIC ADVISORY SYSTEM - TROUBLESHOOTING

1. General

A. This section gives the troubleshooting procedures for the Bendix/King KTA-870 Traffic Advisory System (TAS). For an overview of the KTA-870 system refer to Bendix/King KTA-870 Traffic Advisory System - Description and Operation.

2. Bendix/King KTA-870 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
 - Chapter 23, Garmin GMA 1347/1360D Audio System Troubleshooting
 - Bendix/King KTA-870 Traffic Advisory System Description and Operation
 - Bendix/King KTA-870 Traffic Advisory System Adjustment/Test
 - Bendix/King KTA-810 TAS Processor Removal/Installation
 - Bendix/King KCM-805 TAS Configuration Module Removal/Installation
 - Bendix/King KCM-805 TAS Configuration Module Adjustment/Test
 - Bendix/King KTA-870 TAS Antennas Removal/Installation
 - Garmin G1000 Integrated Avionics System Troubleshooting
 - Garmin G1000 Integrated Avionics System Adjustment/Test
 - Model 208 Wiring Diagram Manual.
- B. Do the Bendix/King KTA-870 System Troubleshooting.
 - (1) Refer to Do the Architecture Verification check and make sure all related systems are serviceable. Refer to G1000 Integrated Avionics System Adjustment/Test, G1000 Architecture Verification Check.
 - (a) Make sure that the correct software and configuration has been installed.

NOTE: The KTA-810 is not listed on the status page.

- (2) Make sure the GIA2 has check mark (green) and serial number next to its 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.
 - (b) If the GIA2 shows a red X, troubleshoot the GIA. Refer to 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.
- (4) For CAS messages related to other Garmin LRU's, refer to the applicable LRU section for CAS message troubleshooting.
- (5) Push the rightmost softkey on the PFD and make sure that no error messages show in the Alerts window.
- (6) Make sure that the KTA-810 processor is configured correctly. Refer to Bendix/King KCM-805 TAS Configuration Module Adjustment/Test.
 - (a) If the configuration module does not configure correctly replace it. Refer to Bendix/King KCM-805 TAS Configuration Module Removal/Installation.
- (7) Refer to the Model 208 Wiring Diagram Manual and carefully examine the electrical wiring and components as follows:
 - (a) Do a visual check of the KTA-810 processor electrical connectors and coaxial connector bent pins and pushed

back pins.

- <u>1</u> If necessary, repair the damage.
- (b) If NO DATA shows on the traffic map, make sure that electrical power and ground signals are present at the KTA-810 processor.
 - <u>1</u> Remove electrical power from the airplane.
 - 2 At the KTA-810 processor electrical connector (PT700) pins 59 and 82 do a check for 28Vdc electrical power at each pin.
 - <u>3</u> At the KTA-810 processor electrical connector (PT700) pins 1, 127 and 128, do a check for airplane ground at each pin.
 - <u>4</u> If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual.
- (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) Use a multimeter to do a continuity check of the data bus wires between the KTA-810 processor receiver electrical connector (PT700) and the GIA 63W/64W No.2 electrical connector (PI512) as given in Table 101.

ELECTRICAL CONNECTOR (PT700)	GIA 63W/64W No.2 ELECTRICAL CONNECTOR (PI502) PINS:
Pin 60	Pin 71
Pin 61	Pin 70
Pin 62	Pin 75
Pin 63	Pin 74
Pin 54	Pin 10
Pin 55	Pin 11

Table 101. Continuity Check Table

- <u>1</u> Make sure that there is continuity only from each wires' related pin end to end and to no other wires, airplanes grounds, or shields.
- (e) 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.
- (f) Do a visual check of the wiring bundles for damage.
 - <u>1</u> If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual.
- (g) Do a visual check of the coaxial cable connections to the KA-815 directional antenna and the L-Band antenna.
 - <u>1</u> Tighten loose coaxial cable connectors as necessary.
 - <u>2</u> Repair or replace unserviceable coaxial cable as necessary.
- (8) If the KTA-870 system wiring is serviceable replace the components that follow:
 - (a) Replace the KTA-810 processor. Refer to Bendix/King KTA-810 TAS Processor Removal/Installation.
 - <u>1</u> Do an operational check of the KTA-870 system again. Refer to Garmin G1000 Integrated Avionics System Adjustment/Test.
 - (b) Replace the KA-815 directional antenna. Refer to Bendix/King KTA-870 TAS Antennas Removal/Installation.
 - <u>1</u> Do an operational check of the KTA-870 system again. Refer to Garmin G1000 Integrated Avionics System Adjustment/Test.
 - (c) Replace the L-Band antenna. Refer to Bendix/King KTA-870 TAS Antennas Removal/Installation.
 - <u>1</u> Do an operational check of the KTA-870 system again. Refer to Garmin G1000 Integrated Avionics System Adjustment/Test.
- (9) If the there is a KTA-870 system audio problem, do a continuity check between the KTA-810 processor electrical connector (PT700) pins 20 and 21 and GMA audio panel electrical connector (PI501) pins 19 and 39, respectively.
 - (a) If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual.

- (b) If the KTA-870 system wiring is serviceable troubleshoot the Garmin GMA 1347/1360D audio system. Refer to Chapter 23, Garmin GMA 1347/1360D Audio System Troubleshooting.
- C. Put the Airplane Back to its Initial Condition.
 - (1) None.