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 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

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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.

  <u>2</u> 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 63W GIA No.2 electrical connector (PI512) as given in Table 101.

Table 101. Continuity Check Table

ELECTRICAL CONNECTOR (PT700)	63W GIA 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

  <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 audio system. Refer to Chapter 23, Garmin GMA 1347 Audio System - Troubleshooting.

C.   Put the Airplane Back to its Initial Condition.

(1)   None.