# BENDIX/KING KRA 405B RADAR ALTIMETER SYSTEM - TROUBLESHOOTING

## 1. General

A. This section give the troubleshooting procedures for the Bendix/King KRA 405B Radar Altimeter System. For a general overview of the KRA 405B Radar Altimeter System refer to Bendix/King KRA 405B Radar Altimeter System - Description and Operation.

## 2. Bendix/King KRA 405B Radar Altimeter 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

- Bendix/King KRA 405B Radar Altimeter System - Description and Operation
- Bendix/King KRA 405B Radar Altimeter System - Adjustment/Test
- KRA 405B Radar Altimeter Unit - Removal/Installation
- Sensor Systems Radar Altimeter 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 KRA 405B Radar Altimeter 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 KRA 405B is not listed on the status page.**

(2) Make sure the GIA1 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 GIA1 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) Push the rightmost softkey on the PFD and make sure that no messages show in the Alerts window.

(5) If the RA FAIL CAS message shows above the HSI on each PFD, make sure that electrical power and ground signals are present at the KRA 405B unit.

(a) At the KRA 405B unit electrical connector (PT800) pin L do a check for 28Vdc electrical power.

(b) At the KRA 405B unit electrical connector (PT800) pin M do a check for airplane ground.

(c) If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual.

(6) Carefully examine the electrical wiring and components as follows: Refer to the Model 208 Wiring Diagram Manual.

(a) Do a visual check of the KRA 405B unit electrical connectors and coaxial connector bent pins and pushed back pins.

1 If necessary, repair the damage.

(b) 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.**

(c) Use a multimeter to do a continuity check of the ARINC 429 bus wires between the KRA 405B unit electrical connector (PT800) pins B and C and the GIA 63W/64W No.1 electrical connector PI503 pins 29 and 31, respectively.

1 Make sure that there is continuity only from each wires related pin end to end and to no other wires, airplanes grounds, or shields.

(d) 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.

(e) Do a visual check of the wiring bundles for damage.

1 If necessary, repair or replace the wiring bundles. Refer to the Model 208 Wiring Diagram Manual.

(f) Do a visual check of the coaxial cable connections at the KRA 405B unit coaxial connectors (PT1018 and (PT1020).

1 Tighten loose coaxial cable connectors as necessary.

2 Repair or replace unserviceable coaxial cable as necessary.

(g) Do a visual check of the coaxial cable connections to the radar altimeters antennas.

1 Tighten loose coaxial cable connectors as necessary.

2 Repair or replace unserviceable coaxial cable as necessary.

(7) If the KRA 405B system wiring is serviceable replace the components that follow:

(a) Replace the KRA 405B unit. Refer to Bendix/King KRA 405B Radar Altimeter Unit - Removal/Installation.

1 Do an operational check of the KRA 405B system again. Refer to Bendix/King KRA 405B Radar Altimeter System - Adjustment/Test.

(b) Replace the transmit radar altimeter antenna. Refer to Sensor Systems Radar Altimeter Antennas - Removal/Installation.

1 Do an operational check of the KRA 405B system again. Refer to Bendix/King KRA 405B Radar Altimeter System - Adjustment/Test.

(c) Replace the receive radar altimeter antenna. Refer to Sensor Systems Radar Altimeter Antennas - Removal/Installation.

1 Do an operational check of the KRA 405B system again. Refer to Bendix/King KRA 405B Radar Altimeter System - Adjustment/Test.

C. Put the Airplane Back to its Initial Condition.

(1) None.