

**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 63W GIA 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.