

BENDIX/KING KTA-870 TRAFFIC ADVISORY SYSTEM - DESCRIPTION AND OPERATION**1. General**

- A. This section gives the description and operation of the Bendix/King KTA-870 Traffic Advisory System (TAS). The line replaceable units (LRU)'s in the KTA-870 TAS include the, KTA-810 processor, KCM-805 configuration module, KA-815 directional antenna, and L-band antenna.
- B. Refer to Figure 1 and Figure 2 for a general view of the KTA-870 TAS.

2. Description

- A. The Airborne TAS system is capable of surveillance of aircraft equipped with transponders, that is, Mode S and U.S. National Standard Air Traffic Control Radar Beacon System (ATCRBS) able to reply to ATCRBS Mode C interrogations in their operational environments. The TAS system will inter-operate with the ATCRBS and operate correctly out to a range of ten nautical miles for densities up to 0.08 aircraft per square nautical mile while complying with all ATCRBS signals in-space requirements.
- B. The KTA-810 Processor is installed on the aft avionics shelf as follows:
 - (1) For the Model 208 - FS 309.000, RBL 14.62.
 - (2) For the Model 208B - FS 357.00, RBL 14.62.
 - (3) The KCM-805 configuration module is installed on the aft avionics shelf just aft of the TAS processor.
- C. The TAS antennas are installed as follows:
 - (1) The KA-815 directional antenna is installed, just aft of, FS 155.52, RBL 4.57.
 - (2) The L-band antenna is installed as follows:
 - (a) For the Model 208 - FS 277.22, RBL 3.16.
 - (b) For the Model 208B - FS 325.22, RBL 3.16.
 - (3) There is a TAS diagnostic disconnect (JI700) installed on the lower- right instrument panel.
 - (4) The The KTA 870 TAS receives its 28 Vdc electrical power through the TAS circuit breaker found on the Avionics circuit breaker panel.

3. Operation

- A. The KTA-870 TAS processor interfaces with the Garmin 63W integrated avionics unit GIA No. 2 through an ARINC 429 bus. The TAS processor receives altitude and attitude data from the GIA No. 2. The TAS processor also receives altitude data from the KRA 405B radar altimeter system (if installed). The TAS gives traffic surveillance and advisory information about nearby aircraft equipped with transponders able to reply to ATCRBS Mode C interrogations.
- B. The system detects and tracks other airplanes by interrogating their transponders. The system then analyzes the other airplane replies to determine the range, bearing, and altitude of the intruders. The data is shown on the "Map – Traffic Map" page of the multifunction display (MFD).
- C. The TAS interfaces with the GMA 1347 audio panel to transmit aural alerts if it is determined that there is a traffic hazard. Should the TAS processor determine that a possible traffic hazard exists, it gives a visual and aural advisory to the crew.

Figure 1 : Sheet 1 : Bendix/King KTA-870 Traffic Advisory System

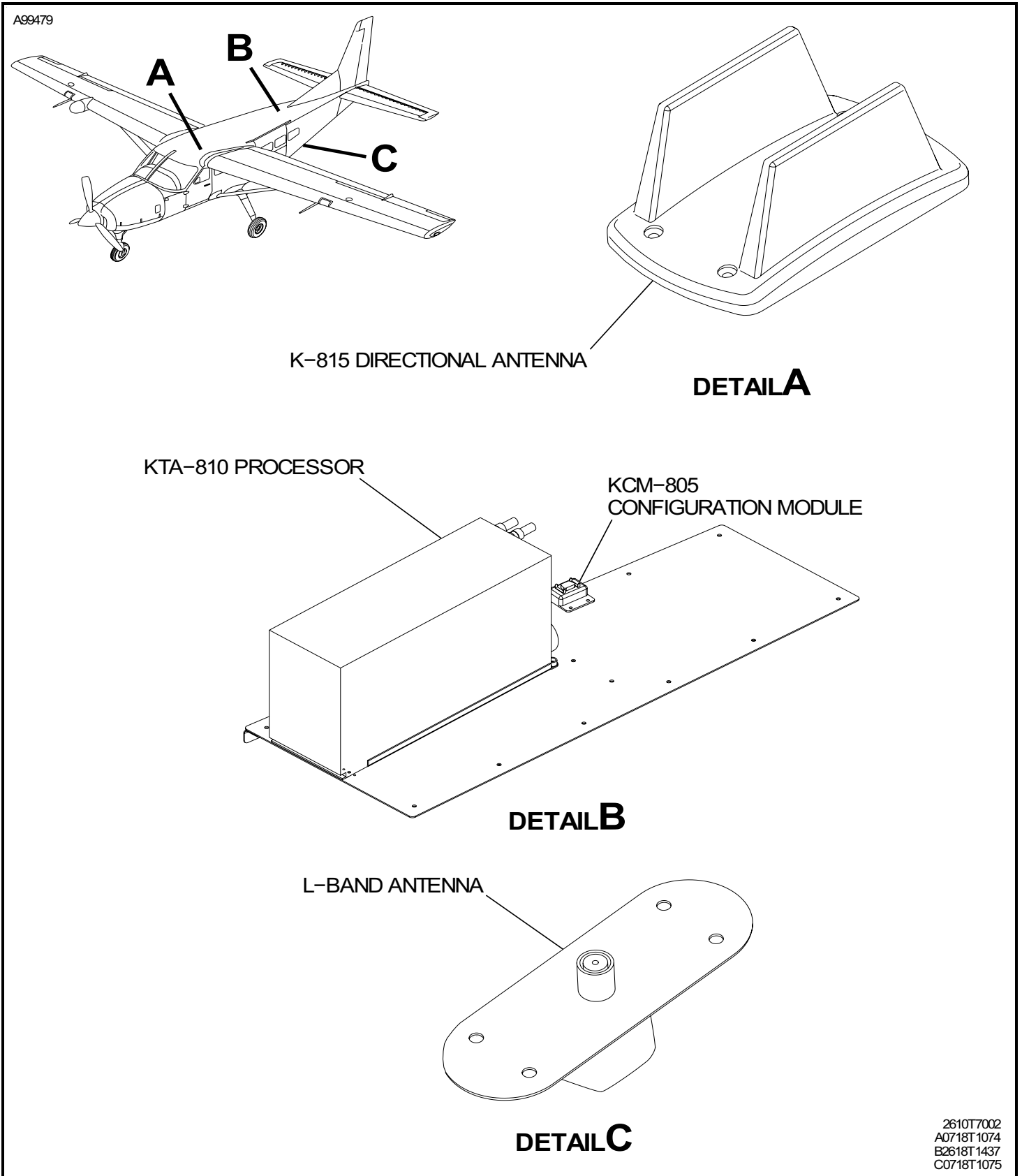


Figure 2 : Sheet 1 : TAS Diagnostic Disconnect

