Beechcraft

BY TEXTRON AVIATION

Multi-Engine Turboprop Communiqué

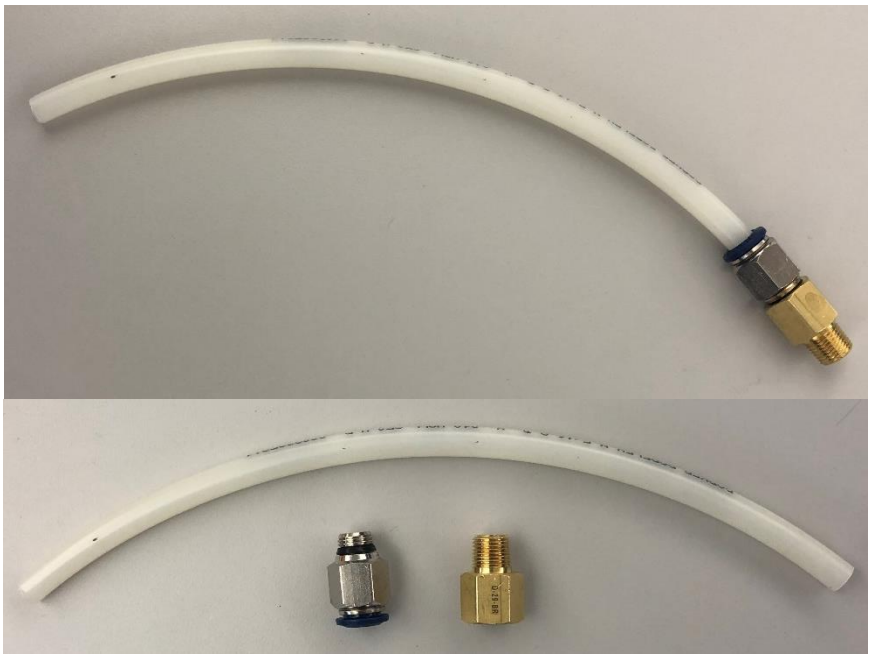
Communiqué ME-TP-0031
March 2022

ATA 21 – King Air Digital Pressurization Tools

Effectivity: 260/360

The new King Air 260/360 is equipped with the digital pressurization system and requires some specialized tooling for performing ground pressurization checks. AMM Chapter 21-31-00 includes instructions to use a MS20470A8-6 rivet drilled with a 0.030" hole in it to use as a control orifice. This orifice is then inserted into a length of NN-5-40 tubing. Alternatively, for those who may wish to avoid drilling a hole that small here are some alternate PNs from the McMaster-Carr Catalog which can replace the rivet.

- 2712T44 1/8NPT Male to Female Fitting with 0.029" built in Orifice
- 7397N22 1/8NPT to 5/16 Push to Connect



During the pressurization tasks in this AMM chapter 21 are leak checks of the controller pneumatic lines. While these tests can be done using a typical Pitot/Static Air Data Tester, a more convenient tool is the Fluke 719 Series Pressure Calibrator. Along with the calibrator itself you will need the following lines and adapters to make the connections. Equivalents are also acceptable:

- Fluke 719
- 1/8NPT Male to AN4 Male Adapter (Fluke to Hoses)
- AN4 to AN4 1/4 inch hose. (Fluke to Pm Test Port)
- AN4 to unterminated 1/4 inch hose. (Fluke to Static Port Hose Barbs)
- 2 Caps for 1/4 inch hose barbs (To cap static ports during testing.)

ATA 21 Fusion Digital Cabin Pressurization Display Sources
Effectivity: 260/360

King Air 260 and 360 included an upgrade to a digitally controlled cabin pressurization system. As part of this upgrade they also removed the analog cabin altitude, delta P and cabin rate of climb indicators and replaced them with a digital read out on the Fusion Displays. What follows is a brief description and answers to common questions regarding these displays:
Cabin Altitude – Cabin altitude is measured by a standalone pressure sensor on the A526 module in the aft lavatory sidewall. This sensor reports the pressure to A525 ARINC429 converter which then sends the pressure as a PSIA value to both the pressure controller and the avionics. The avionics software then uses a look up table to convert this pressure into an altitude. The most common question is why does my cabin altitude not always match my field elevation? One reason is that there is no barometric pressure adjustment in the cabin altitude value. This can be verified by setting your altimeter to 29.92 in hg and noting the value displayed should now be closer to the cabin altitude on the display.
Cabin Delta P – Delta P value as shown on the displays is calculated by the avionics displays and is comparing the internal pressure reported by the cabin altitude module mentioned above and the static pressure without barometric pressure correction reported by the selected ADC.

Cabin Rate of Change – This is a calculated value and is the result of the computer comparing the current cabin altitude to the cabin altitude value it stored from 10sec prior. This value may fluctuate when the system is first powering up. This is due to the display software populating historical data for the calculation and the stability of the data being received as the pressure sensor's internal heaters and systems power up.

ATA 25 - 1900D Cargo-Passenger Combination Configuration

Effectivity: UE-1 and after

Textron Aviation Technical Support often receives questions regarding the cargo-passenger combination configuration for the 1900D Airliner.

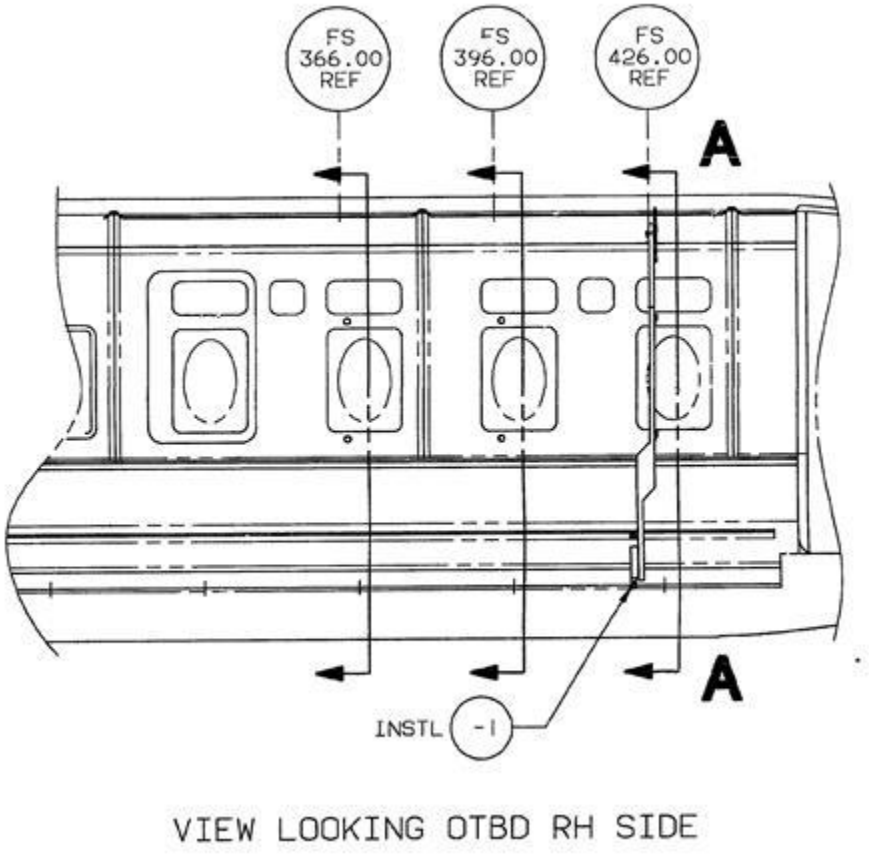
The cargo-passenger combination configuration was an option available at build. However, a kit to make the conversion after the fact was never developed. This can still be done as the airframe on all the 1900D airplanes have the provisions built in and the Pilot's Operating Handbook has the weight and balance information, including loading limits for each section. Contact your aviation authorities as this may require local approval.

The partitions that separate the cargo area from the passenger area can be moved to the desired location as shown below. The partitions are secured to the airframe with a built-in reinforcement in the intercoastal shown in the picture below by red circles. Holes are then drilled to accept the attachment pins of the partitions. The holes can be covered by a plug when not in use. The part number of the plug is NAS451-56.

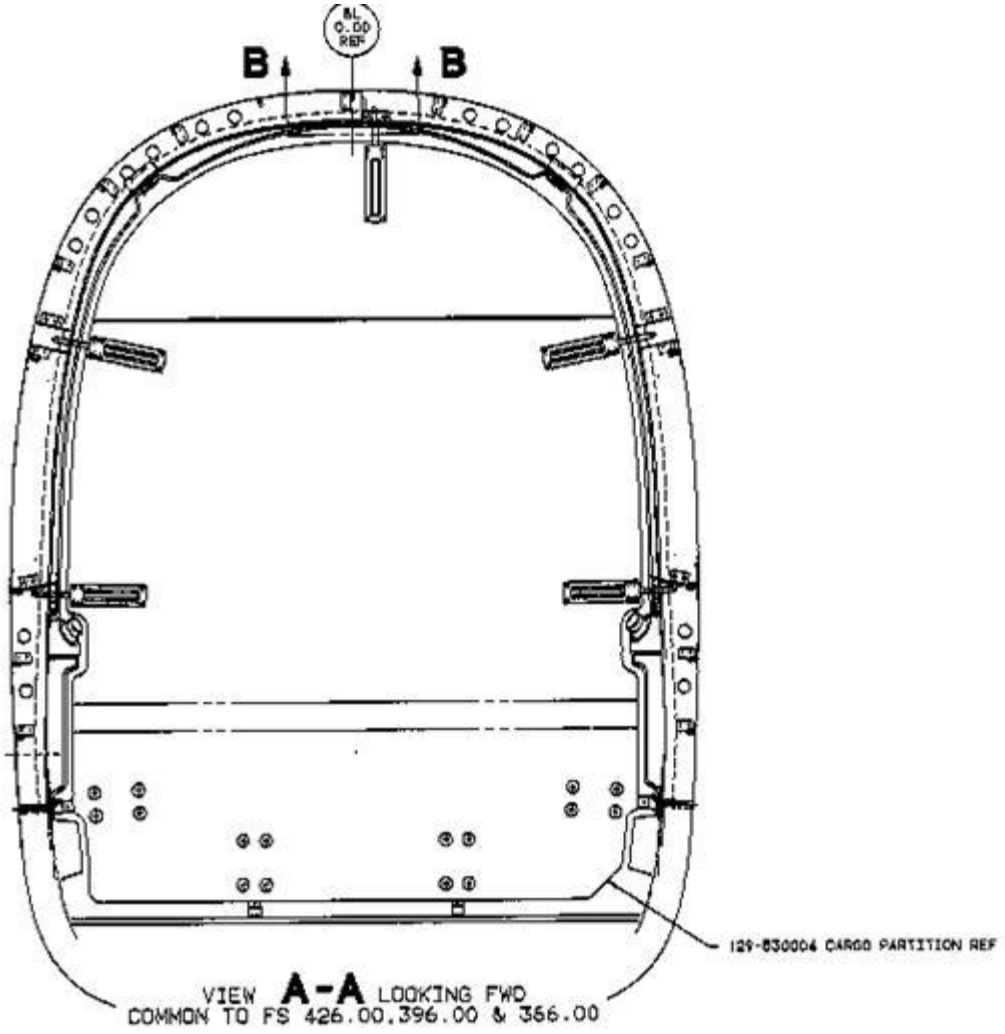
Pilot's Operating Handbook Supplement, part number, 129-590000-33, "Combination Passenger/Cargo Configuration" needs to be inserted in the airplane's Pilot's Operating Handbook.

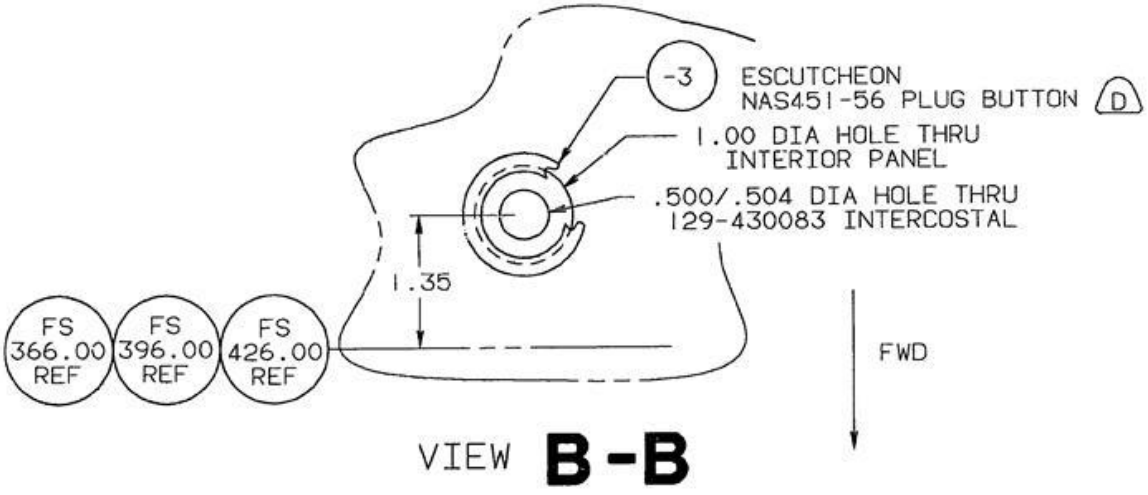
Red Circles Indicate Locations of Reinforcements

Closeup View of a Reinforcement Before Hole is Drilled



VIEW LOOKING OTBD RH SIDE





THIS VIEW TYP 5 PLCS
AT EACH PARTITION LOCATION

1. DRILL PILOT HOLES THRU INTERIOR AND INTERCOSTALS ON SAME OPERATION ONLY. LOCATION TO MATCH 129-530004 CARGO PARTITION ASSY

(D) INSTALL PLUG BUTTONS THRU ESCUTCHEONS AT ALL LOCATIONS NOT OCCUPIED BY CARGO PARTITION

(C) PAINT TO MATCH 129-530004 CARGO PARTITION

(B) BOND IN PLACE USING XMH 8680 OR EQUIVALENT

(A) MATERIAL: .060 KYDEX 100 (P/N KLEERDEX CO)
COLOR: PINSTRIPE # 52070
TEXTURE: PE VELOUR MATTE ONE SIDE

ATA 33 - LED Tail Position and Strobe Light Replacement
Effectivity: As noted below

Textron Aviation has developed a kit to install LED tail position and strobe lights as a spare replacement on King Air B200 and B300 serial numbers BB-1834, BB-1843 and after; BL-148 and after; BY-1 and after; BZ-1 and after; FL-381, FL-383 and after and FM-12 and after.

The kit part number is 130-3070-0001. It includes everything you need to complete the installation including the instructions to perform the minor wiring modifications needed. The kit is available from TAPD or your nearest Textron Aviation parts provider.

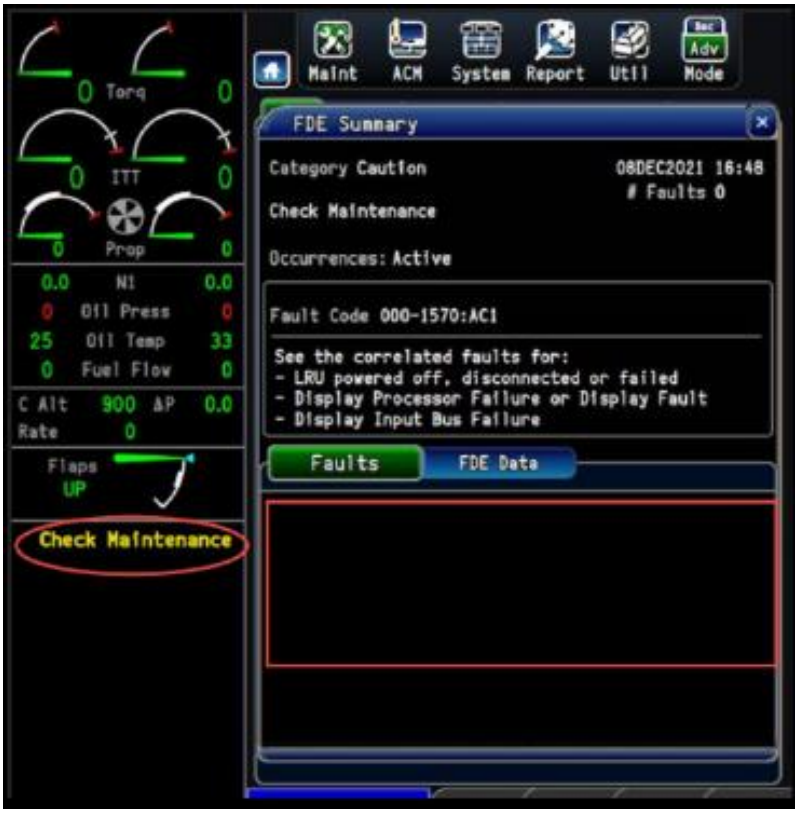
ATA 45 – Collins Aerospace King Air Fusion Technical Topics
Effectivity: Fusion Equipped King Air Aircraft

Collins Aerospace has released a new revision (12th Revision) of IDOC 0148-16 "King Air Fusion Technical Topics". Published on January 5, 2022, it added an article about occurrences of a "Check Maintenance" CAS message appearing without a related fault showing in the Onboard Maintenance System.

"Check Maintenance" is a collector caution message, shown only on the ground, for LRU or input bus failures. The "Faults" window on the FDE summary will have information about the specific cause of the message. If the fault area is blank, check for the following conditions:

- APM strapping settings
- Cabin pressurization 429 errors
- Autopilot coupled to the right or left side

The article provides some background of the messages, reasoning, and corrective action. To view the full article, as well as the rest of the document, refer to http://txtavsupport.com in the Maintenance/Pilot Notices Section for your aircraft in a post titled "King Air Fusion Technical Topics" or on Collins Aerospace's website.



ATA-76 - IS&S Thrustsense Autothrottle
Effectivity: 260/360 and airplanes incorporating STC SA00400BO

IS&S Thrustsense Autothrottle Software Release 7 is available in the Instructions for Continued Airworthiness section of http://txtavsupport.com. This package also contains IS&S Service Letter SL2129, which provides instructions to perform this update. This recommended service instruction incorporates other improvements from previous releases. You are not required to comply with previous service instructions before performing SL2129, but you must ensure that any files not up to the revisions listed in Appendix J.7, Table 8-21, of 1D-88129 Revision 17 are updated when performing this instruction. These requirements are also listed in SL2129, Section II Table 3 and Section IV Table 4.

ATA 76 - Autothrottle ICM changes
Effectivity: 260/360 and airplanes incorporating STC SA004400BO

For airplanes equipped with the IS&S Thrustsense Autothrottle system, settings are stored in an Installation Configuration Module (ICM), p/n 1V-13964-(). The ICM is installed inside the backshell of the mating connector of the Remote Standby Controller (RSC) in the nose. ICM dash number changes based on other options, and changes to the airplane may require a change to the ICM. The RSC reads the ICM on startup to use airplane-specific settings to drive the autothrottle.

ICM dash numbers are listed in Appendix K of the autothrottle operation and installation manual 1D-88129. Options that change the ICM part number include, but are not limited to:

- King Air model (B200 or B300)
- Engine type (PT6A-52, -60A, -67A)
- Takeoff weight
- Propeller
- Long nose
- High floatation landing gear

The installation manual can be found at http://txtavsupport.com at the model-specific Instructions for Continued Airworthiness page. If you are modifying an autothrottle-equipped King Air and have questions about whether a new ICM is required, contact teamturboprop@txtav.com or isscustomersvs@innovative-ss.com. Advanced scheduling may be required for new ICMs that need time for approval and certification.