

**MANDATORY****MTB-44-01****TITLE**

CABIN SYSTEMS - AVANCE L3 SYSTEM WIRING MODIFICATION TO PREVENT TCAS FAIL MESSAGE

**EFFECTIVITY****MODEL**

Super King Air B300

**SERIAL NUMBERS**

FL-1234 thru FL-1239, FL-1241, FL1243

**REASON**

To prevent inadvertent TCAS fail messages when turning off Interior Master Switch in air.

**DESCRIPTION**

This service document provides parts and instructions to add a diode to the wiring for the L3 Avance system.

**COMPLIANCE**

MANDATORY. This service document must be accomplished within 600 flight hours or 12 months from receipt, whichever occurs first.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service document, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
- 3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.
- 4) The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

**APPROVAL**

Textron Aviation received FAA approval for the technical data in this publication that changes the airplane type design.

**FLIGHT CREW OPERATIONS**

No Changes

**CONSUMABLE MATERIAL**

No specialized consumable materials are required to complete this service document.

June 7, 2021

MTB-44-01  
Page 1 of 5

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**TOOLING**

No specialized tooling is required for accomplishment of this service document.

**WEIGHT AND BALANCE INFORMATION**

Negligible

**REFERENCES**

Super King Air B300/B300C Fusion Maintenance Manual.

**PUBLICATIONS AFFECTED**

B300/B300C Fusion Wiring Diagram Manual.

**ACCOMPLISHMENT INSTRUCTIONS**

1. Prepare the airplane for maintenance.
  - A. Make sure that the airplane is electrically grounded.
  - B. Make sure that all switches are in the OFF/NORM position.
  - C. Disconnect electrical power from the airplane.
    - (1) Disconnect external electrical power.
    - (2) Disconnect the airplane battery.
  - D. Attach maintenance warning tags to the battery and external power receptacle that have **"DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS"** written on them.
2. Open the tail equipment bay access door 172BBR. (Refer to the Super King Air B300/B300C Fusion Maintenance Manual, Chapter 6, Airplane Access Panels - Description and Operation).
3. Do the wiring modification.
  - A. (Refer to Figure 1.) Cut the RT324B22 Wire.
  - B. Install the TJSE20709 Diode on the RT324B22 Wire. (Refer to the King Air Standard Practice Chapter 20 – Airframe, Electrical Wiring – Maintenance Practices).
4. Do the operation check of the TCAS as follows:
  - A. Connect the external electrical power.
  - B. Connect the airplane battery.
  - C. Set the BAT switch to the ON position.
  - D. Set the EXT PWR switch to ON position.
  - E. Set the AVIONICS MASTER POWER switch to the ON position.
  - F. Set the INTERIOR MASTER switch on the overhead control panel to ON position.
  - G. Make sure that the TCAS shows OFF.
  - H. Put the LH squat switch in AIR mode and switch TCAS to TA mode.
  - I. Cover both antennas with a dense enough material to block the RF signal, or use a piece of metal, such as aluminum, to deflect the RF signal away from the antenna.

**NOTE:** The intent is to block the signal so the radio altimeter thinks it is above 2500 feet AGL.
  - J. Set the INTERIOR MASTER switch on the overhead control panel to OFF position.
  - K. Make sure that the TCAS doesn't show OFF or any TCAS FAIL messages.
  - L. Remove the material kept for blocking the signal from the antenna.

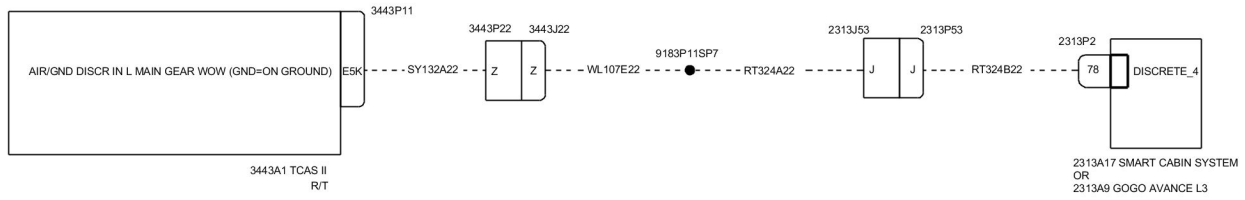
**MANDATORY****MTB-44-01**

5. Close the tail equipment bay access door 172BBR. (Refer to the Super King Air B300/B300C Fusion Maintenance Manual, Chapter 6, Airplane Access Panels - Description and Operation).
6. Remove the maintenance warning tags.
7. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

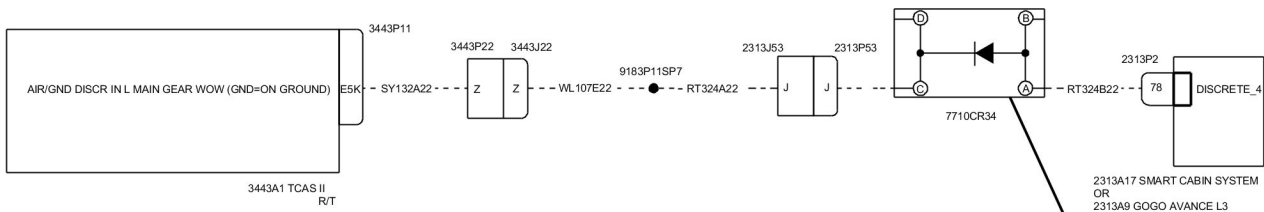
**NOTE:** Textron Aviation recommends that compliance with all service documents is reported to Camp Systems International.

- Complete a record of compliance. (Maintenance Transaction Report, Log Book Entry, or other record of compliance).
- Put a copy of the completed record of compliance in the airplane logbook.
- Send a copy of the completed record of compliance to: Camp Systems International Incorporated, 8201 East 34th Street North, Building 1100 Suite 1101 Wichita, KS 67226.

E75914



Before Modification



After Modification

TJSE20703 Diode (1 Required)

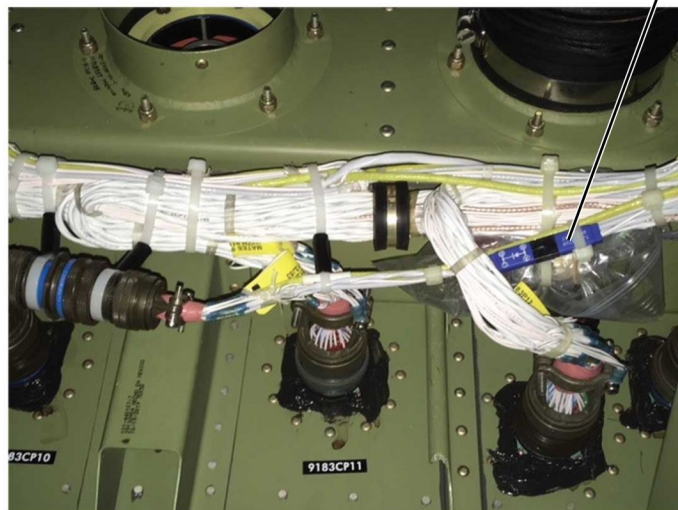


Figure 1. Diode Installation (Sheet 1)

130M346000\_R3

**MANDATORY****MTB-44-01****MATERIAL INFORMATION**

Order the parts below to install this modification.

<b>NEW P/N</b>	<b>QUAN- TITY</b>	<b>KEY WORD</b>	<b>OLD P/N</b>	<b>INSTRUCTIONS/ DISPOSITION</b>
S2209-7	4	Tie Straps		
TJSE20709	1	Diode	N/A	Install



**TITLE**

CABIN SYSTEMS - AVANCE L3 SYSTEM WIRING MODIFICATION TO PREVENT TCAS FAIL MESSAGE

**TO:**

Beechcraft Model B300 Aircraft Owner

**REASON**

To prevent inadvertent TCAS Fail messages when turning off Interior Master switch in air.

**COMPLIANCE**

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**LABOR HOURS**

WORK PHASE	LABOR-HOURS
Modification	1.5

**MATERIAL AVAILABILITY**

No part are required to complete this service document.

PART NUMBER	AVAILABILITY	COST
S2209-7	*	*
TJSE20709	*	*

June 7, 2021

MTB-44-01  
Page 1 of 2

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\* Please contact a Textron Aviation Authorized Service Facility for current cost and availability of parts listed in this service document.

Based on availability and lead times, parts may require advanced scheduling.

## WARRANTY

This service document is *recommended*. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

**Eligibility:** Airplanes identified within the serial number effectivity of this service document must have active Standard warranty coverage on the original issue date of this document and the coverage must be active on the day the work is accomplished.

**Parts Coverage:** Textron Aviation-owned and Textron Aviation-authorized Service Facilities, operators, or other maintenance facilities may submit a claim for the parts required to accomplish this service document as defined in the *Material Availability* section of this document.

**Labor Coverage:** Textron Aviation-owned and Textron Aviation-authorized Service Facilities rated to perform maintenance on the specific model of Beechcraft Aircraft may submit a claim for the labor necessary to accomplish this service document as defined in the *Labor Hours* section of this document.

**Credit Application:** After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a W4 type claim.

Please submit your claim form online at [ww2.txtav.com/Parts](http://ww2.txtav.com/Parts) or email the completed Textron Aviation Claim Form to [warranty@txtav.com](mailto:warranty@txtav.com). If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts (see *Material Availability*), to the point of purchase.

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

Textron Aviation Parts Distribution  
Warranty Administration  
285 South Greenwich Road  
Bldg B89, Docks 1-4  
Wichita, KS 67206  
USA

**Expiration:** June 7, 2022 (after this date the owner/operator assumes the responsibility for compliance costs)

Textron Aviation reserves the right to void continued airplane warranty coverage for the parts affected by this service document until the service document is accomplished.

**NOTE:** As a convenience, service documents are now available online to all our customers through a simple, free-of-charge registration process. If you would like to sign up, please visit the Customer Access link at [www.txtavsupport.com](http://www.txtavsupport.com) to register.