REVISION TRANSMITTAL

This sheet transmits Revision 1 to MTB-34-03, which:

A. Extended field aircraft effectivity.

NOTE: This revision replaces the original issue of MTB-34-03 in its entirety.

REVISION COMPLIANCE

NO EFFECT. Airplanes previously modified by this service bulletin are not effected by this revision.

LOG OF REVISIONS

Original Issue	July 14, 2020
Revision 1	December 12, 2022

Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

TITLE

NAVIGATION - TDR-94D ATC TRANSPONDER STRAPPING CHANGE FOR KING AIR B300 AND B300C CONFIGURED FOR 15,500 OR GREATER MAX TAKEOFF WEIGHT

EFFECTIVITY

MODEL	SERIAL NUMBERS
Super King Air B300	FL-381, FL-383 thru FL-953, FL-955 thru FL-1009, FL-1011 thru FL1030

Only applicable to airplanes with a maximum takeoff weight of 15,500 or greater and updated for ADS-B Out capability by Field Service Kit 101-3416.

NOTE: Airplanes that have ADS-B Out capability installed by an STC, should contact the STC holder to see if this service document is applicable.

MODEL	SERIAL NUMBERS
Super King Air B300	FL-954, FL-1010, FL-1031 thru FL-1234, FL-1240, FL-1245, FL-1249, FL-1253, FL-1257, FL-1258, FL-1262, FL-1265, FL-1274

Only applicable to airplanes with a maximum takeoff weight of 15,500 or greater.

MODEL	SERIAL NUMBERS
Super King Air B300C	FM-12 thru FM-65

Only applicable to airplanes with a maximum takeoff weight of 15,500 or greater and updated for ADS-B Out capability by Field Service Kit 101-3416.

NOTE: Airplanes that have ADS-B Out capability installed by an STC, should contact the STC holder to see if this service document is applicable.

MODEL	SERIAL NUMBERS
Super King Air B300C	FM-66 thru FM-86, FM-88, FM-91 thru FM-99, FM-101

Only applicable to airplanes with a maximum takeoff weight of 15,500 or greater.

REASON

To correct the ADS-B Out emitter category from Light to Small on ADS-B Out capable airplanes configured for 15,500 or greater MTOW.

DESCRIPTION

This service document provides parts and instructions to change the No. 1 and No. 2 TDR-94D ATC Transponders strapping.

COMPLIANCE

RECOMMENDED. This service document should be accomplished at a scheduled maintenance period or inspection.

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.

Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

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.

TOOLING

Use of the equipment listed or an approved alternate will be necessary to complete this service document.

NAME	NUMBER	MANUFACTURER	USE
Test Set	IFR–6000	Commercially available	Transponder test.
Pitot Static Test Set	6300	Laversab Inc. 10618 Rockley Road Houston, TX 77099 www.laversab.com/aviation/	Pitot Static Test.
Pitot Static Test Set	1811-F-D	Barfield Inc. 4101 NW 29th St Miami, FL 33132 www.barfield-inc.com	Pitot Static Test.

NOTE: If an approved alternate is used, the transponder test set must have ADS-B capability.

WEIGHT AND BALANCE INFORMATION

Negligible

REFERENCES

Super King Air B300/B300C Maintenance Manual

Super King Air B300/B300C Fusion Maintenance Manual

Super King Air B300 and B300C Digital Flight Data Recorder Avionics Wiring Diagram Manual Supplement

Electrical Wiring Diagram Manual

B300/B300C Avionics Wiring Diagram Manual

Super King Air B300/B300C Fusion Wiring Diagram Manual

NOTE: To make sure all publications used are complete and current, refer to www.txtavsupport.com.

PUBLICATIONS AFFECTED

Super King Air Model 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. Remove the No. 1 and No. 2 transponders. (Refer to the applicable Model Maintenance Manual for transponder removal.)
3. Complete the No. 1 and No. 2 transponder wiring changes as follows:

   NOTE: At the discretion of the technician, if the existing wires from pin 20 and pin 4 are long enough, it is acceptable to splice without fabricating new jumper wires; however, if necessary, there are sufficient parts in the MTB-34-03 Kit to fabricate new jumper wires.

   A. (Refer to Figure 2, Sheet 1, Before Modification.) Remove the jumper wire from Connector 3455P1 Pin 20 and 3455P1SP3.
   B. (Refer to Figure 2, Sheet 1, Before Modification.) Remove the jumper wire from Connector 3455P1 Pin 4 and 3455P1SP4.
   C. (Refer to Figure 2, Sheet 2, Before Modification.) Remove the jumper wire from Connector 3455P5 Pin 20 and 3455P5SP5.
   D. (Refer to Figure 2, Sheet 2, Before Modification.) Remove the jumper wire from Connector 3455P5 Pin 4 and 3455P5SP6.
   E. Fabricate four jumper wires with 131681AJ22-9 Wire and four 372-2514-110 Pin Contacts, one pin contact on each jumper wire.

      NOTE: The jumper wires will only need to be about six inches long.

   F. (Refer to Figure 2, Sheet 1, After Modification.) Install one fabricated jumper to Pin 20 on Connector 3455P1.
   G. (Refer to Figure 2, Sheet 1, After Modification.) Install one fabricated jumper to Pin 4 on Connector 3455P1.
   H. (Refer to Figure 2, Sheet 1, After Modification.) Splice the two installed jumpers and the existing wires from Pin 30 at 3455P1SP4 with one M81824/1-2 Splice.
   I. (Refer to Figure 2, Sheet 1, After Modification.) Splice the wires at 3455P1SP3 with one D-436-61 Splice.
   J. (Refer to Figure 2, Sheet 2, After Modification.) Install one fabricated jumper to Pin 20 on Connector 3455P5.
   K. (Refer to Figure 2, Sheet 2, After Modification.) Install one fabricated jumper to Pin 4 on Connector 3455P5.

L. (Refer to Figure 2, Sheet 2, After Modification.) Splice the two installed jumpers and the existing wires from Pin 30 at 3455P5SP6 with one M81824/1-2 Splice.

M. (Refer to Figure 2, Sheet 2, After Modification.) Splice the wires at 3455P5SP5 with one D-436-61 Splice.

4. Install the No. 1 and No. 2 transponders. (Refer to the applicable Model Maintenance Manual for transponder installation.)

5. Connect the airplane battery and external electrical power.

6. Set up the IFR-6000 Transponder test set with ADS-B capability according to the manufacturer's instructions.

7. Connect the 6300 Pitot Static Test Set according to the manufacturer's instructions.

8. Complete the ADS-B Out test for the No. 1 and No. 2 transponders as follows:

A. Press the SETUP key until SETUP-XPDR Screen is displayed.

B. Press ADS-B SETUP soft key to display SETUP ADS-B Screen.

C. (Refer to Figure 1, Sheet 2, Test Page 1.) Make sure the parameters are set as follows:

(1) ADS-B MON: DF17

(2) ADS-B GEN: DF17

(3) GICB: DF20

NOTE: To change the parameters, use NEXT PARAM or PREV PARAM softkeys to select the field, use UP and DOWN arrow keys to change the data.

D. (Refer to Figure 1, Sheet 2, Transponder ADS-B Test Page 2.) Push the ADSB MON soft key to bring up the ADS-B MON DF17 page.

E. Open the pressure rate valve to raise airspeed to 180 knots.

F. Push the BDS DATA soft key to open the ADS-B MON BDS page.

G. Push the NEXT TEST soft key until the ADS-B MON BDS 0.5 page is displayed.

NOTE: The ADS-B MON BDS 0.5 page will look similar to the SETUP-XPDR Page shown on Figure 1, Sheet 1.

H. (Refer to Figure 1, Sheet 3, Transponder ADS-B Test Page 3.) Push the RUN TEST soft key and check the data displayed as follows:

(1) Squitter Type: DF17

(2) PERIOD: Shows range of: 0.5 to 20.00 seconds (Squitter)

(3) LAT: Applicable airfield Latitude

(4) LONG: Applicable airfield Longitude

(5) T: UTC (this is time sync)

(6) BARO PRES ALT: Shows same as PFD altitude

I. Pull the ADC 1 and ADC 2 or the ADS 1 and ADS 2 Circuit Breakers on the Copilot's circuit breaker panel.

(1) On the ADS-B MON BDS 0,5 page, check the status as follows:

(a) GNSS ALT: shows altitude value

(b) BARO PRES ALT: shows N/A (altitude value not shown)

(2) Push in the ADC 1 and ADC 2 or the ADS1 and ADS2 Circuit Breakers on the Copilot's circuit breaker panel.

J. (Refer to Figure 1, Sheet 4, Transponder ADS-B Test Page 4.) Push the NEXT PARAM soft key until ADS-B MON BDS 0,9 page is displayed.

(1) Check the status as follows:

(a) SOURCE: GEO

(b) If GEO is not shown, push the RUN TEST softkey.

NOTE: The Transponder ADS-B Test Page 4 illustration is an example only and shows SOURCE: BARO.

K. Pull GPS 1 and GPS 2 or GNSS 1 and GNSS 2 circuit breakers.

(1) Check the ADS-B MON BDS 0,9 page status as follows:

(a) SOURCE: BARO

L. Push in the GPS 1 and GPS 2 or the GNSS 1 and GNSS 2 circuit breakers.

(1) Check the ADS-B MON BDS 0,9 page status as follows:

(a) SOURCE: GEO

NOTE: The Transponder ADS-B Test Page 4 illustration is an example only and shows SOURCE: BARO.

M. (Refer to Figure 1, Sheet 4, Transponder ADS-B Test Page 5.) Push the PREV PARAM softkey until ADS-B MON BDS 0,8 page is displayed.

(1) Check the status as follows:

(a) FLIGHT ID: Call Sign (registration), and/or ICAO Registration Number

(b) EMIT CAT SET: A

(c) EMIT CAT: SMALL

(d) If data is not shown, push the RUN TEST softkey.

N. Push the STOP TEST softkey.

9. Turn off the IFR-6000 Test Set.

10. Turn off and remove the 6300 Pitot Static Test Set.

11. Disconnect external electrical power.

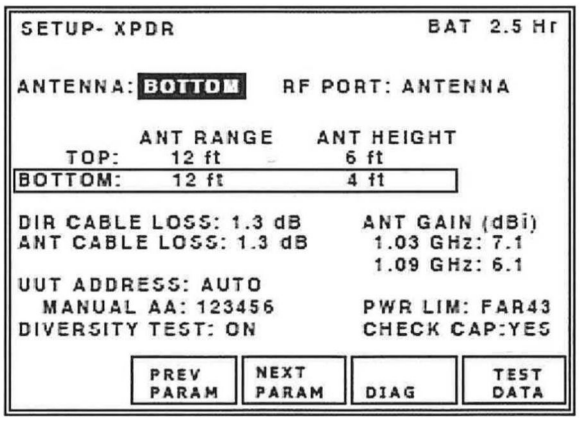
12. Remove the maintenance warning tags.

13. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

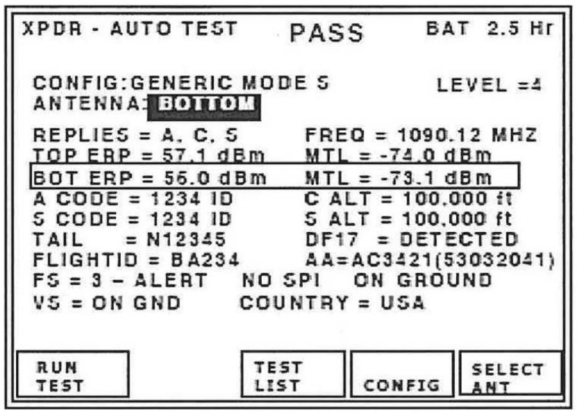
NOTE: Textron Aviation recommends that compliance with all service documents is reported to a maintenance tracking system provider.

- 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 the maintenance tracking system provider used.

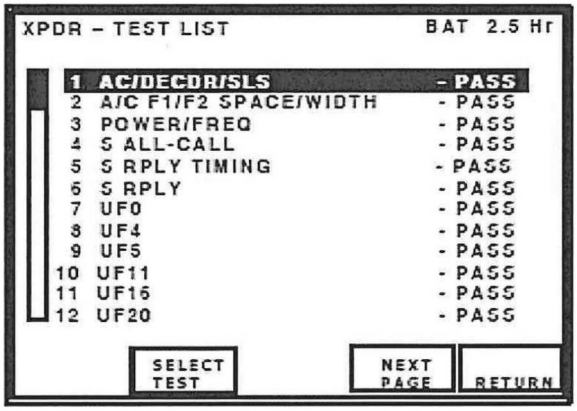
E75172



SETUP-XPDR Page



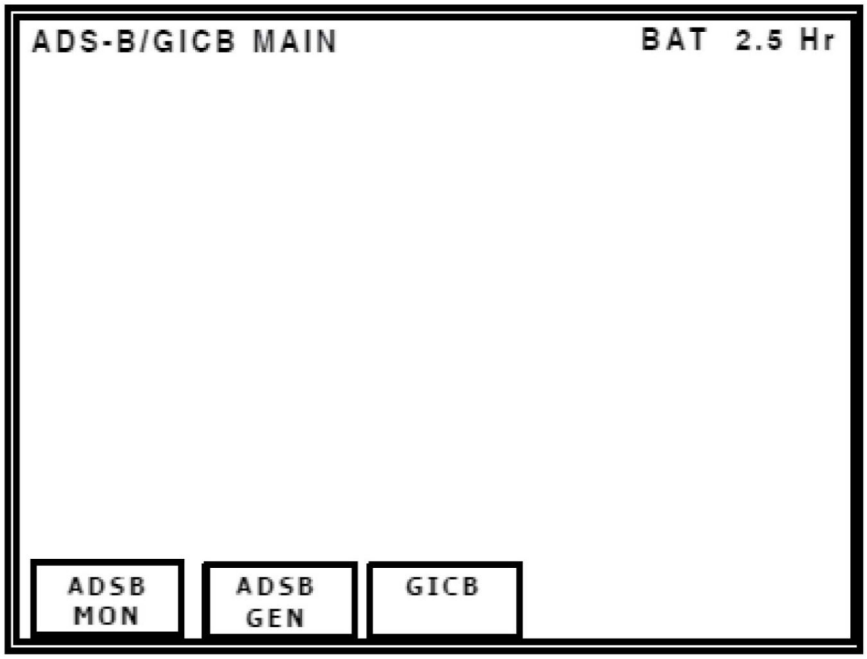
XPDR - AUTO TEST Page



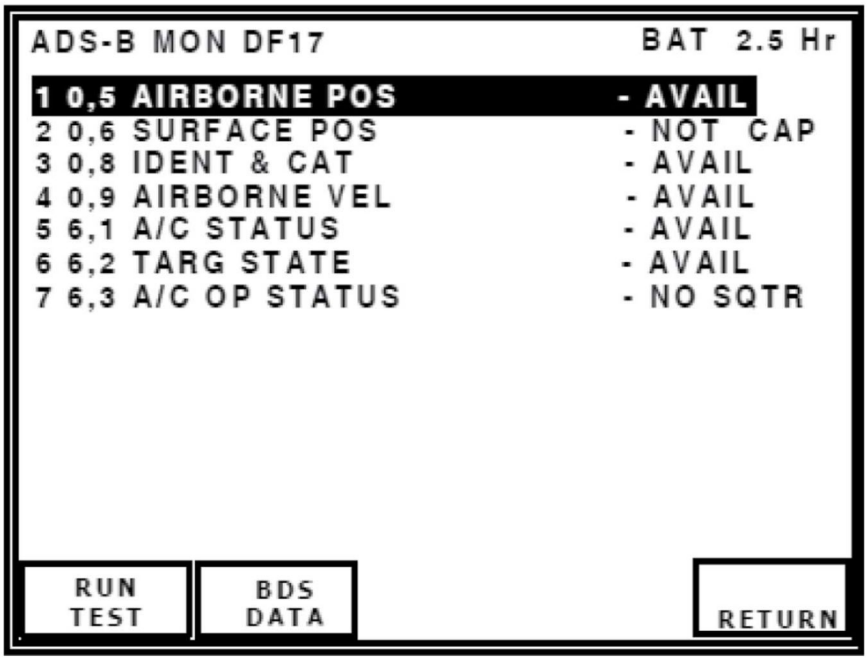
XPDR - TEST LIST Page

Figure 1. Transponder Setup and Test (Sheet 1)

E75163



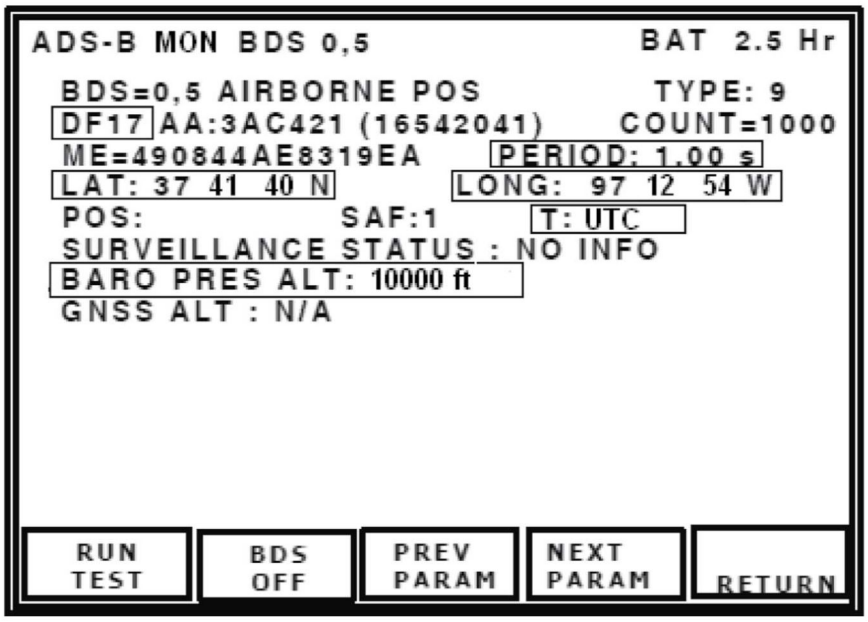
Transponder ADS-B Test Page 1 (Reference)



Transponder ADS-B Test Page 2 (Reference)

Figure 1. Transponder Setup and Test (Sheet 2)

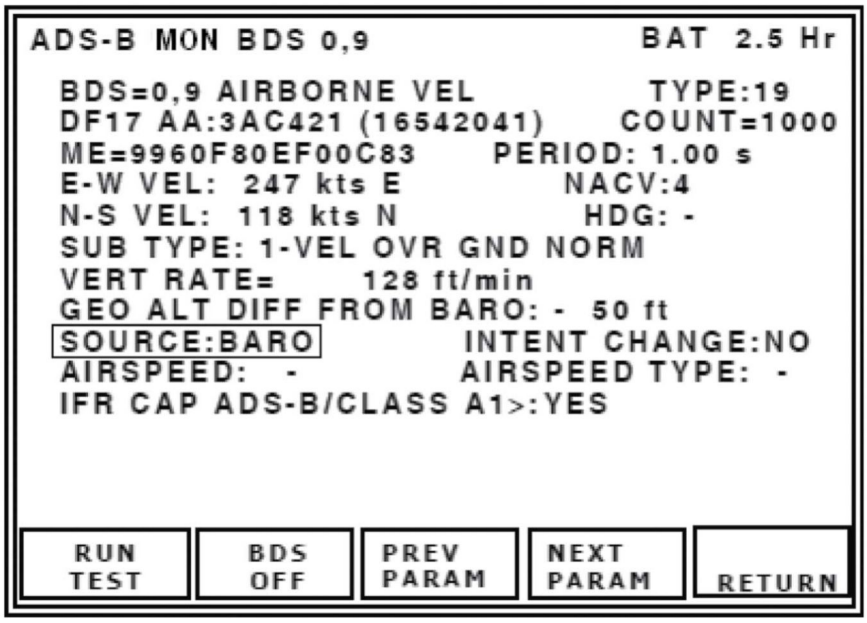
E75164



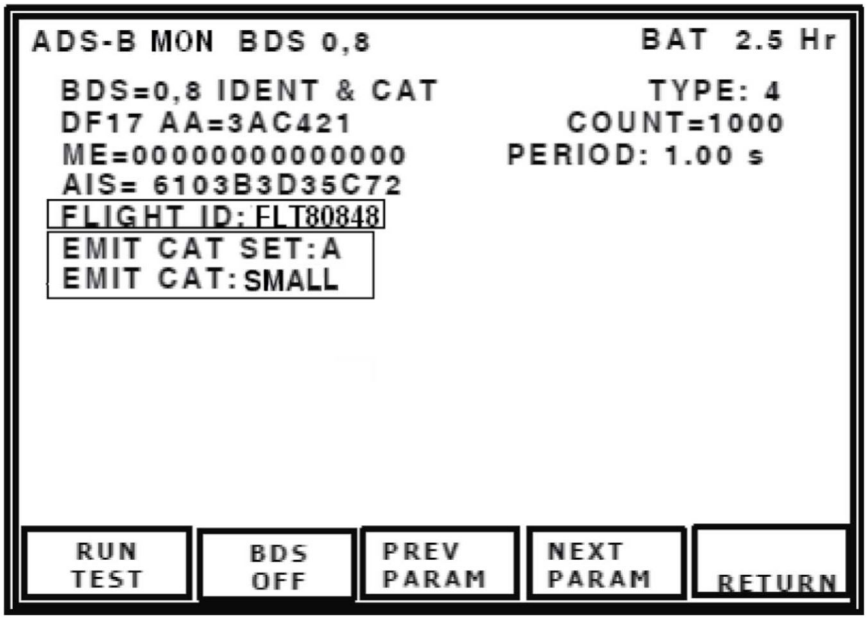
Transponder ADS-B Test Page 3 (Reference)

Figure 1. Transponder Setup and Test (Sheet 3)

E75165



Transponder ADS-B Test Page 4 (Reference)



Transponder ADS-B Test Page 5 (Reference)

Figure 1. Transponder Setup and Test (Sheet 4)

E75156

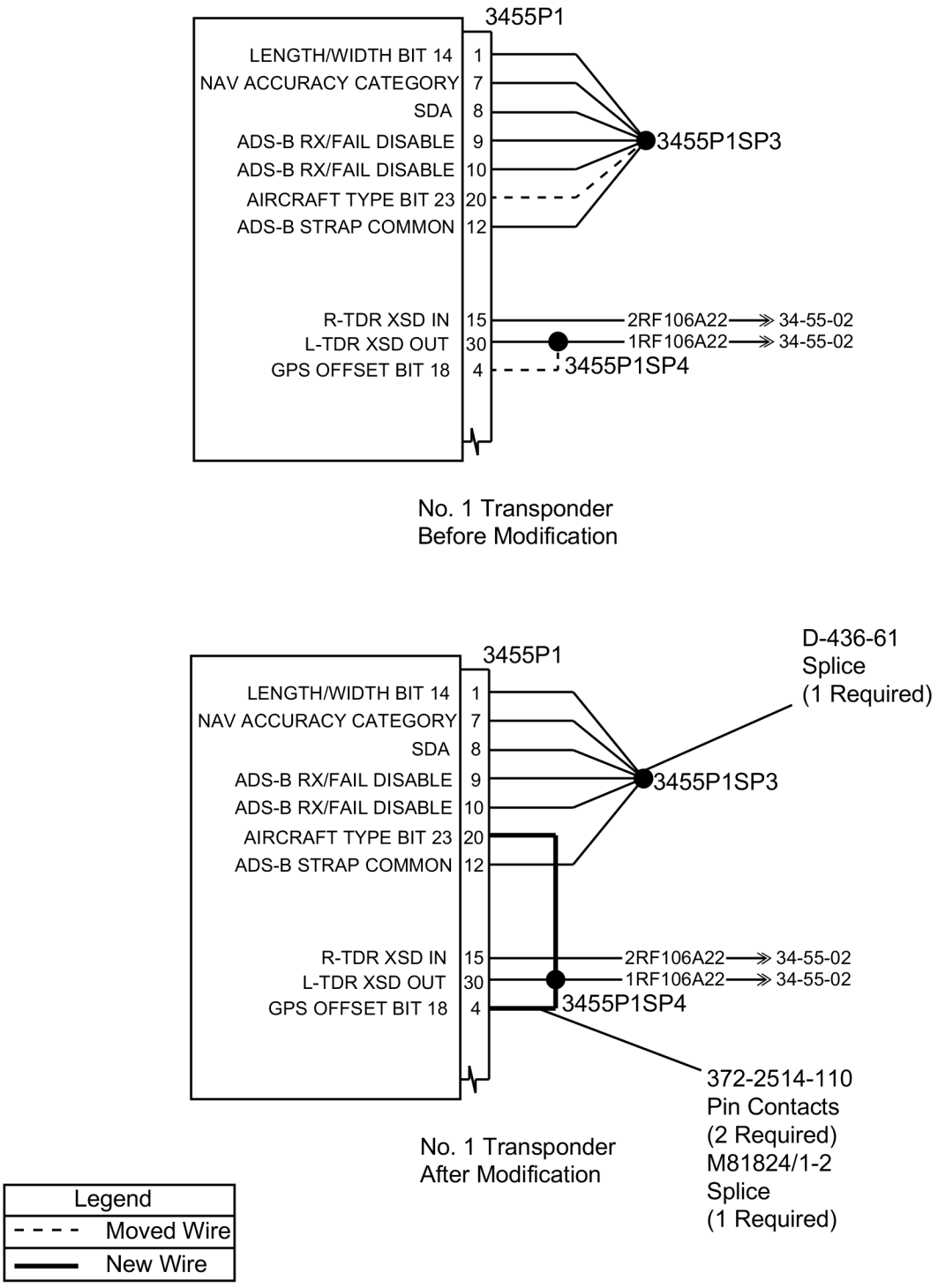
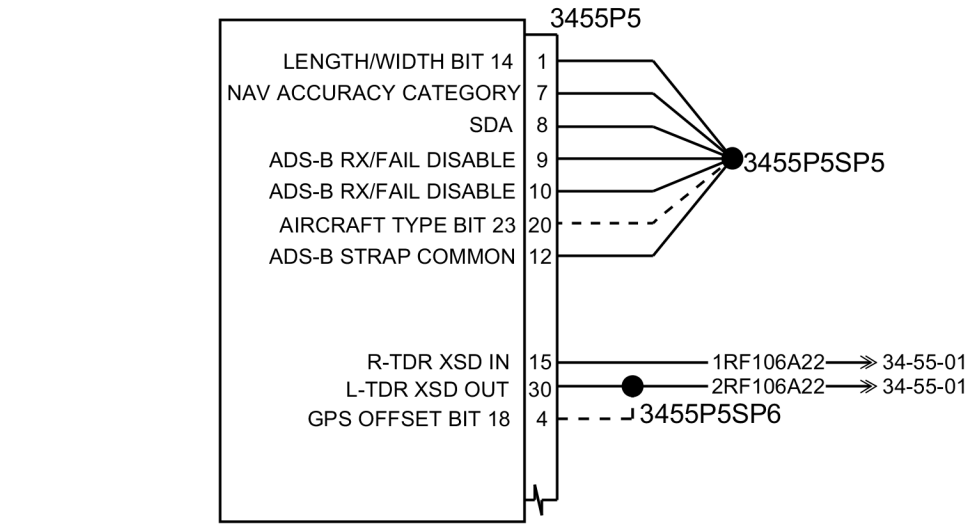
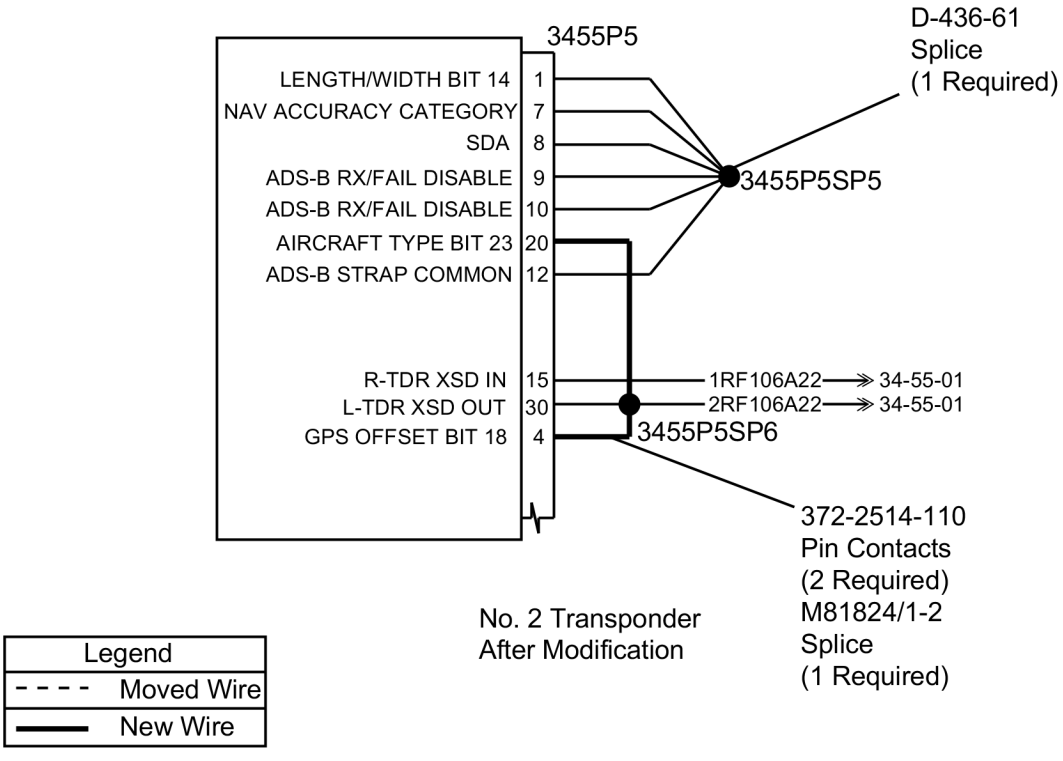


Figure 2. Transponder Wiring Modification, Before and After (Sheet 1)

E75254



No. 2 Transponder
Before Modification



No. 2 Transponder
After Modification

Figure 2. Transponder Wiring Modification, Before and After (Sheet 2)

MATERIAL INFORMATION

Order the kit below to install this modification.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
MTB-34-03	**1**	**Kit, CONSISTING OF THE FOLLOWING PARTS:**		
D-436-61	2	Splice	Same	To rework 3355P1SP3 and 3355P5SP5
M81824/1-2	2	Splice	N/A	To connect jumper wire to 3455P1SP4 and 3455P5SP6
131681AJ22-9	3 Feet	Wire	Same	To fabricate jumper wire
372-2514-110	4	Pin Contact	Same	To fabricate jumper wire
MTB-34-03	1	Instructions		

* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: parts@txtav.com.

TITLE

NAVIGATION - TDR-94D ATC TRANSPONDER STRAPPING CHANGE FOR KING AIR B300 AND B300C CONFIGURED FOR 15,500 OR GREATER MAX TAKEOFF WEIGHT

TO:

Super King Air B300 and B300C Aircraft Owner

REASON

To correct the ADS-B Out emitter category from Light to Small on ADS-B Out capable airplanes configured for 15,500 or greater MTOW.

COMPLIANCE

RECOMMENDED. This service document should be accomplished at a scheduled maintenance period or inspection.

LABOR HOURS

WORK PHASE	LABOR-HOURS
Modification	6.0

MATERIAL AVAILABILITY

PART NUMBER	AVAILABILITY	COST
MTB-34-03	*	*

* Please contact Textron Aviation Parts Distribution for current cost and availability of parts listed in this service document. Phone at 1-800-835-4000 (Domestic) or 1-316-517-5603 (International). Send email to: parts@txtav.com.

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 Airframe 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* or email the completed Textron Aviation Claim Form to *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: July 14, 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 to register.