

TITLE

FLIGHT CONTROLS - INSTALLATION OF POWER LEVER POSITION AND ELEVATOR CONTROL POSITION POTENTIOMETER BRACKETS WITH FDR INSTALLED

EFFECTIVITY

For the airplane models and serials that follow, this service bulletin is only applicable to any King Air with STC SA10478SC FDR Installation performed with Master Data List (MDL) RAS060500131 Revision 15 or earlier.

MODEL	SERIAL NUMBERS
B200	BB-1834, BB-1843 and On,
B200C	BL-148 and On
B200GT	BY-1 and On
B300	FL-381, FL-383 and On
B300C	FM-12 and On

REASON

The potentiometers installed for the RH power lever position and elevator control positions have the potential for an excessive angle of pull on the potentiometer lead. Installation of these new brackets will improve the angle of the lead and improve the wear life of these potentiometers.

DESCRIPTION

This service document provides parts and instructions to install improved brackets for the power lever and elevator control potentiometers.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

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

In addition to the above kit(s), you must use the consumable materials that follow, or their equivalent, to complete this service bulletin.

NAME	NUMBER	MANUFACTURER	USE
Color Chemical Film Treatment	U074093 (Alodine 1132 Touch n Prep)	Textron Aviation Parts Distribution 7121 Southwest Boulevard Wichita, KS 67215	To prepare bare aluminum surface for intermediate primer. Bonderite M-CR 1132, (formerly the Alodine 1132 Touch-n-prep) are both approved for small touch up areas, generally less than 6 inches square.)
Sealant Type XIV, Class B	U470545 (2.5 ounce Simkit)	Textron Aviation Parts Distribution 7121 Southwest Boulevard Wichita, KS 67215	For sealing applications.

TOOLING

NAME	NUMBER	MANUFACTURER	USE
Laptop equipped with ROSE Software		Commercially Available	Calibration and testing of position transducers.
L3 CICC/3 Cable		Commercially Available	Connect Laptop.

WEIGHT AND BALANCE INFORMATION

Negligible

REFERENCES

Beechcraft Super King Air 200 Series Aircraft Maintenance Manual

Beechcraft Super King Air B300/B300C Maintenance Manual

RAS060500137, Instructions for Continued Airworthiness for STC Installation of L3 Communications Model FA2306 Modular Airborne Data Recording and Acquisitions System Cockpit Voice Data Recorder (MADRAS CVDR)

RAS050600105, Installation Instructions for L3 Communications Model FA2306 Modular Airborne Data Recording and Acquisitions System Cockpit Voice Data Recorder (MADRAS CVDR)

PUBLICATIONS AFFECTED

Beechcraft Super King Air 200 Series Aircraft Maintenance Manual

Beechcraft Super King Air B300/B300C Maintenance Manual

B200/B200C Illustrated Parts Catalog

B300/B300C Illustrated Parts Catalog

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. (Refer to Figure 1, Sheet 1). Install RAS160520308-0053 Angled Bracket Assembly for right power lever position transducer.
 - A. Remove floorboard access panel.
 - B. Disconnect the transducer cable from the power lever rod as follows:

CAUTION: Make sure to hold on to the transducer cable as it is being disconnected to prevent it from snapping back to the left or right power lever position transducer.

 - (1) Release the leader latch mechanism and disconnect the leader from the cable washer.
 - (2) If the existing power lever transducer is to be replaced, cut the transducer cable at the leader. Make sure to save the leader.
 - C. Disconnect the electrical connector.
 - D. Remove and retain the NAS1801-06-10 Screws and the NAS1149FN632P Washers that connect the right power lever position transducer to the structure.
 - E. Remove and retain the 301391 Transducer.
 - F. (Refer Figure 1, Sheet 1). Locate the RAS160520308-0053 Angled Bracket Assembly as shown.
 - G. Install the RAS160520308-0053 Angled Bracket Assembly to the structure with NAS1801-06-10 Screws to the existing holes in the structure.

NOTE: When installing the retained right power lever position transducer, the transducer body needs to be taken off the base and the base needs to be flipped 180 degrees before the body is reattached.
 - H. Put the right power lever position transducer in its position on the RAS160520308-0053 Angled Bracket Assembly.
 - I. Install using retained NAS1801-06-10 Screws and the NAS1149FN632P Washers that connect the right power lever position transducer to the RAS160520308-0053 Angled Bracket Assembly.
 - J. Connect the electrical connector.
 - K. Connect the transducer cable to the power lever rod as follows:
 - (1) (Refer to Figure 1, Sheet 2). Install the leader to the cable washer.
 - (2) Latch the leader latching mechanism.

NOTE: For a new power lever position transducer, the transducer cable is terminated and connected to the leader attached to the cable washer during the rigging procedure.
3. (Refer to Figure 1, Sheet 2). Install the Elevator Control Position Transducer RAS160520309-0061 Zee Bracket Assembly.
 - A. Disconnect the transducer cable from the clamp on the forward side of the control column as follows:

CAUTION: The transducer cable must have tension on it at all times and must not be allowed to snap back (freewind). If the cable is allowed to freewind into the transducer housing, it can cause damage to the transducer.

- (1) Release the leader latch mechanism and disconnect the leader from the cable washer.
 - (2) If the existing elevator control position transducer is to be replaced, cut the transducer cable at the leader. Make sure to save the leader.
- B. Disconnect the electrical connector.
- C. Remove and retain the NAS1801-06-10 Screws and the NAS1149FN632P Washers that connect the right elevator control position transducer to the structure.
- D. Remove and retain the 301391 Transducer.
- E. (Refer Figure 1, Sheet 3). Locate the RAS160520309-0061 Zee Bracket Assembly as shown.
- F. Match drill three 0.128 to 0.133 inch-diameter holes in the wheel well that aligns with the existing holes in the RAS160520309-0061 Zee Bracket Assembly.
- G. Apply Color Chemical Film Treatment to the bare aluminum surface.
- H. (Refer Figure 1, Sheet 2). Install the RAS160520309-0061 Zee Bracket Assembly with three 132269A402 Rivets wet with Type XIV, Class B sealant.
- I. Apply a brush coat the rivets with Type XIV, Class B sealant.
- J. Put the retained elevator control position transducer in its position on the RAS160520309-0061 Zee Bracket Assembly.
- K. Install using the retained NAS1801-06-10 Screws and the NAS1149FN632P Washers that connect the elevator control position transducer to the RAS160520309-0061 Zee Bracket Assembly.
- L. Connect the electrical connector to the receptacle.
- M. Connect the transducer cable to the clamp on the forward side of the control column as follows:
- (1) (Refer to Figure 1, Sheet 2). Install the leader to the cable washer.
 - (2) Latch the leader latch mechanism.

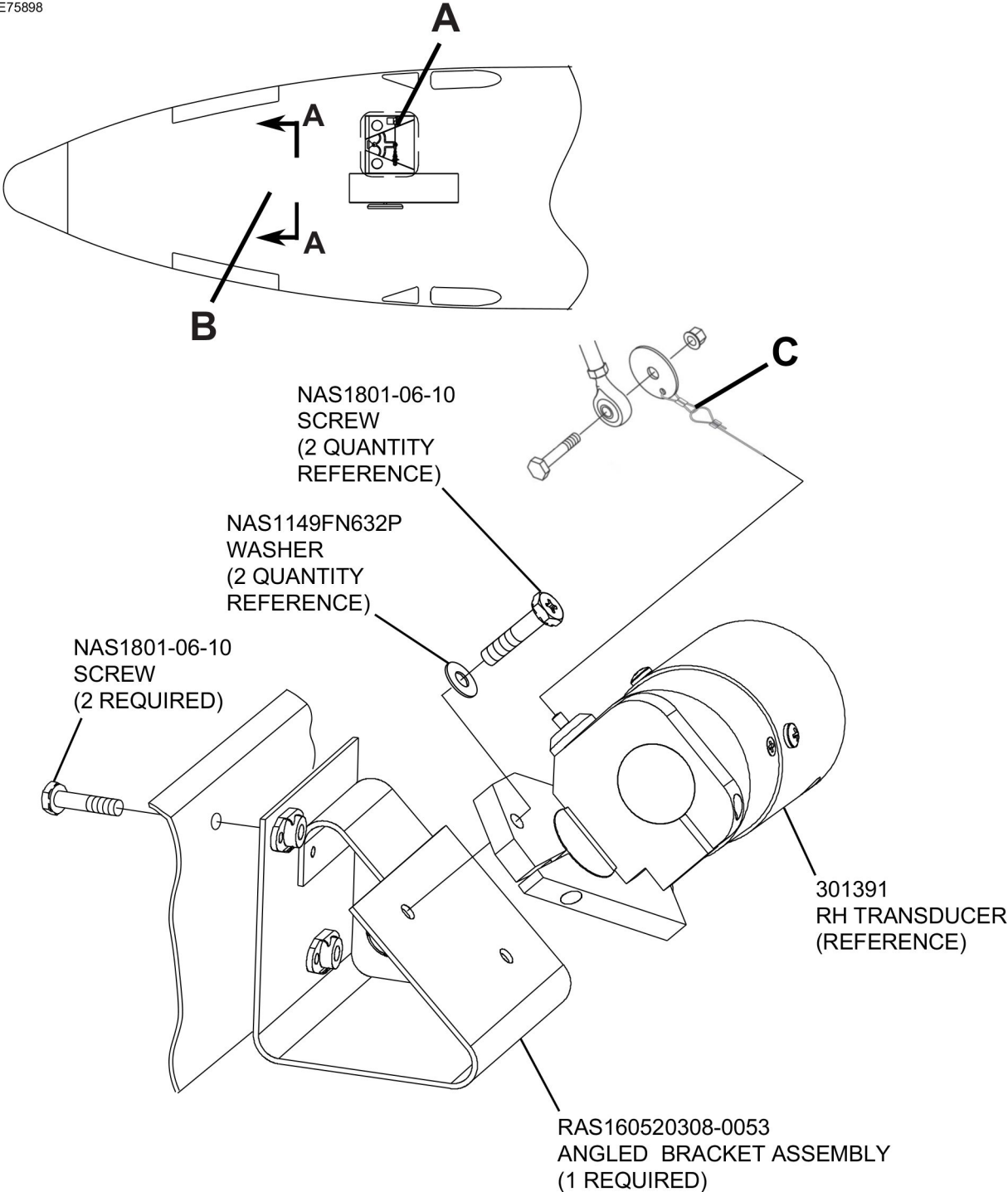
NOTE: For a new elevator control position transducer, the transducer cable is terminated and connected to the leader attached to the cable washer during the rigging procedure.

4. Remove the maintenance warning tags and connect the airplane battery.
5. Complete the calibration and testing of position transducers per Chapter 11.6 of the RAS050600105 Installation Instructions for each of the relocated transducers.
6. Install the removed floorboard access panel.
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 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.

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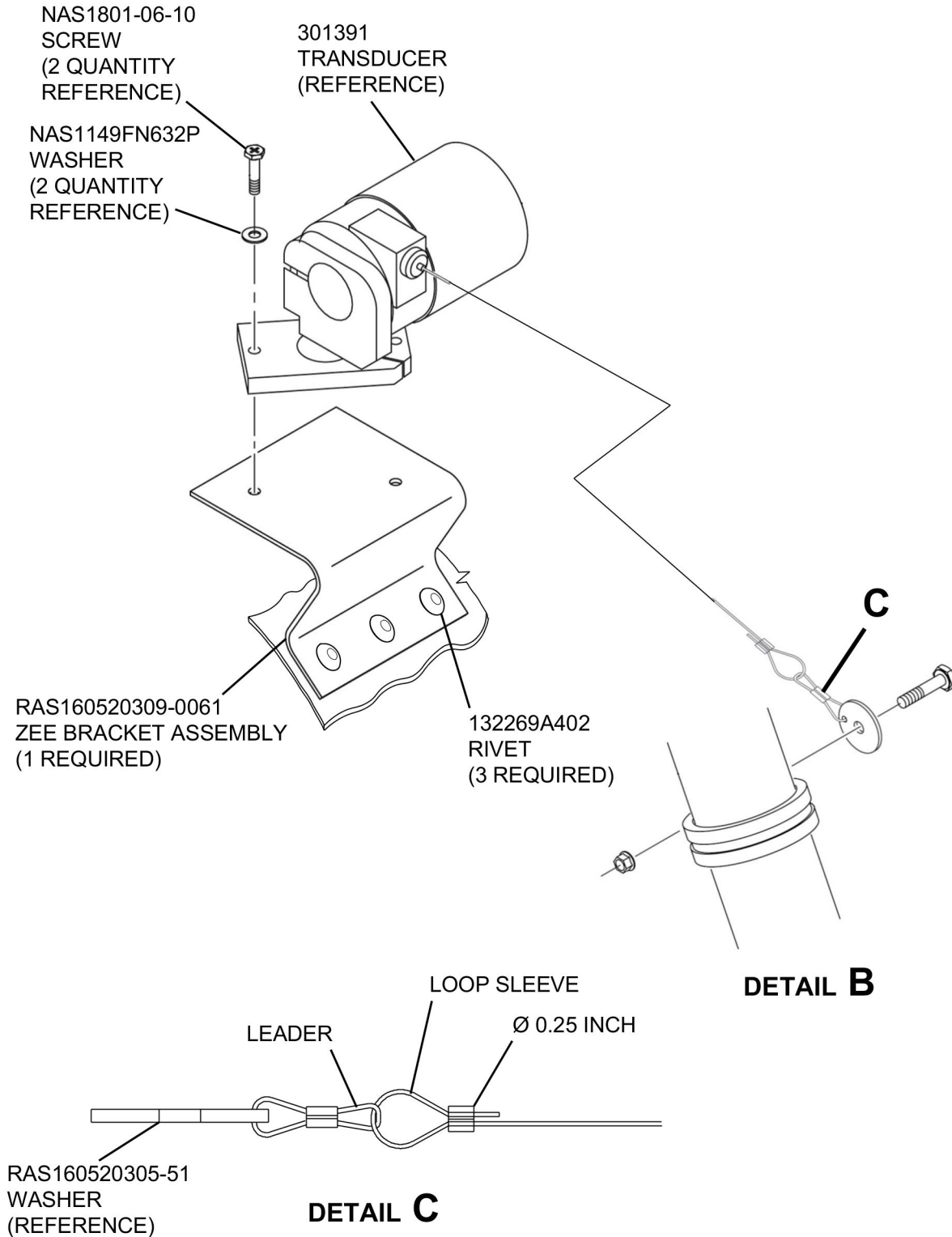


DETAIL A

RAS160520308-8

Figure 1. Brackets Installation (Sheet 1)

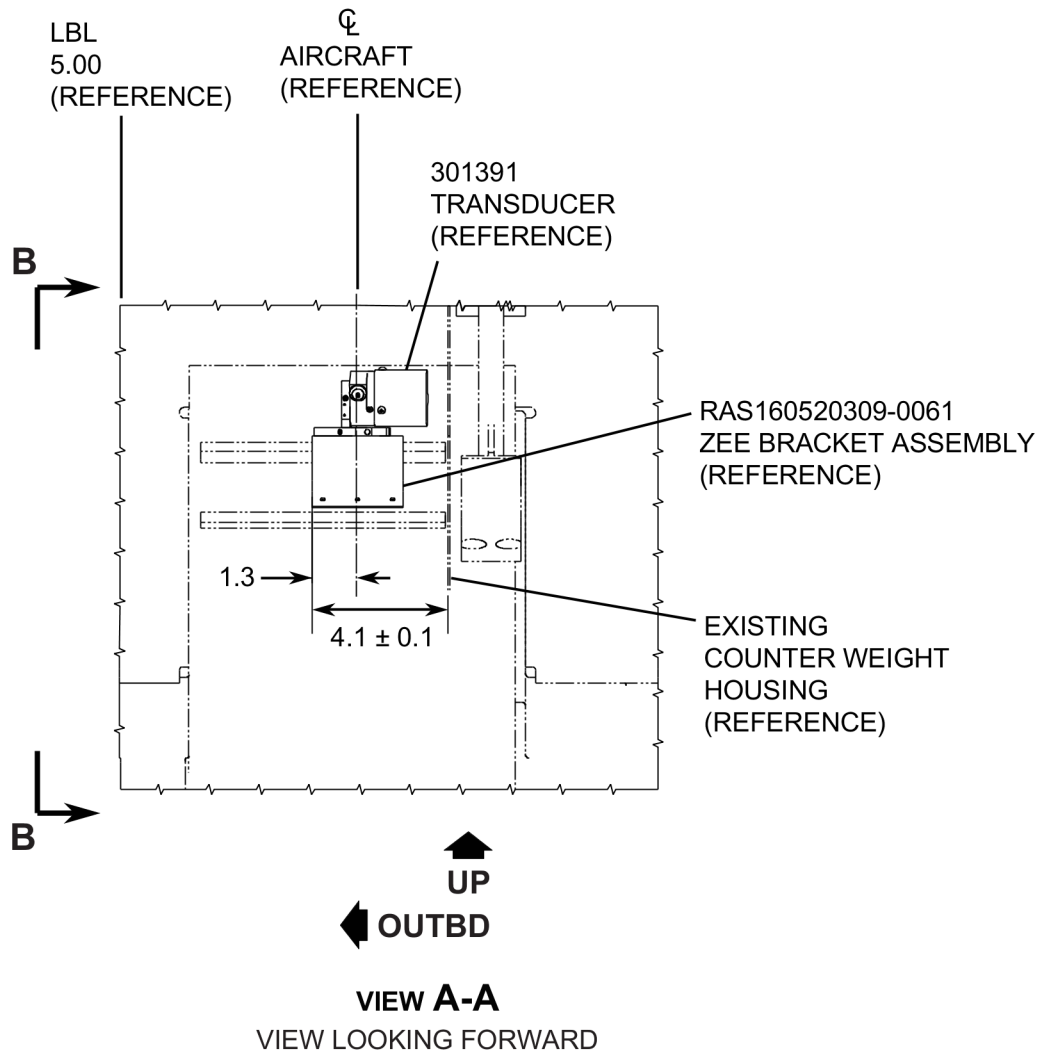
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Figure 1. Brackets Installation (Sheet 2)

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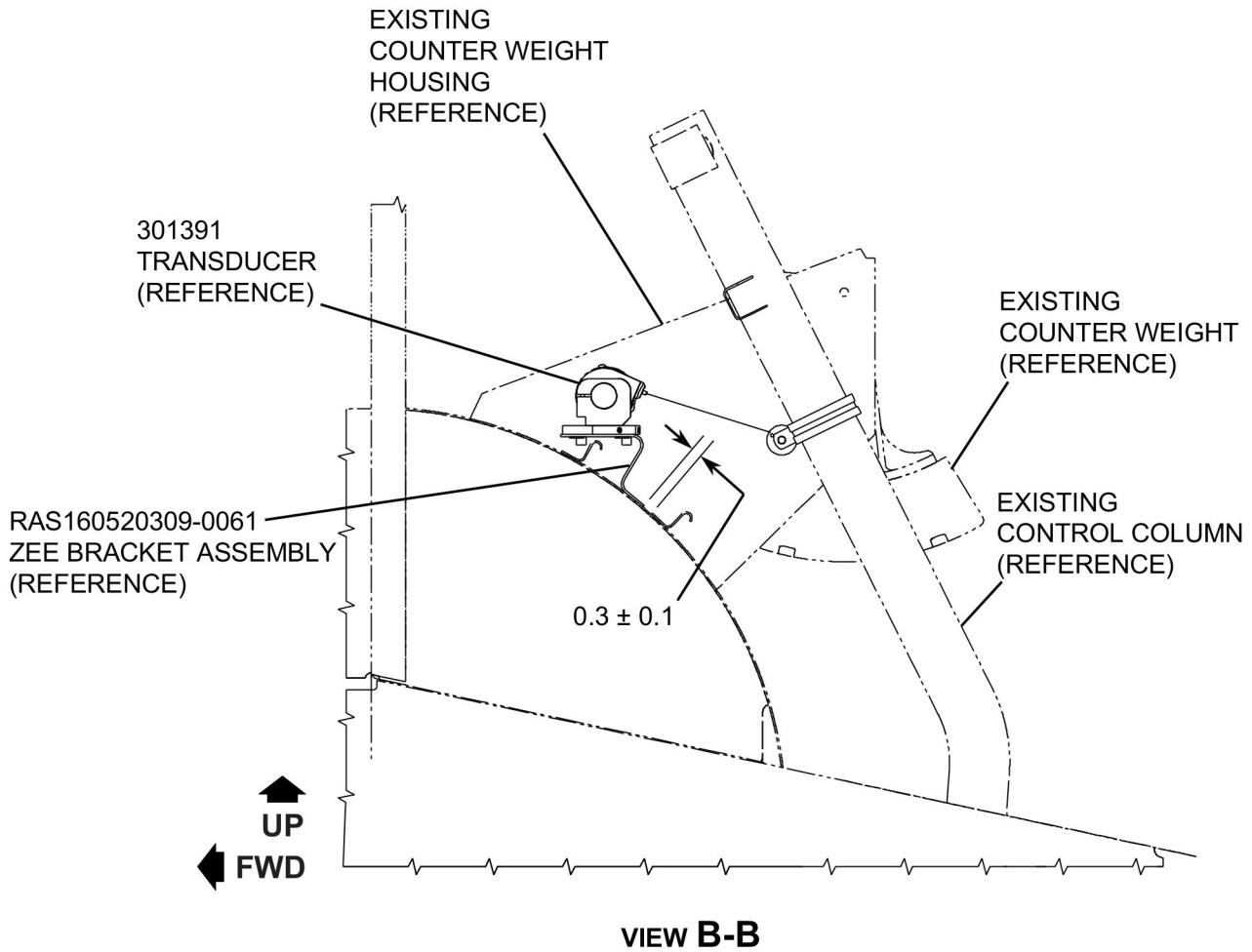


NOTE: ALL THE DIMENSIONS ARE IN INCHES

RAS160520309-9

Figure 1. Brackets Installation (Sheet 3)

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NOTE: ALL THE DIMENSIONS ARE IN INCHES

RAS160520309-9

Figure 1. Brackets Installation (Sheet 4)

MATERIAL INFORMATION

Order the kit/parts below to install this modification.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
MTB-27-02	1	Kit , consisting of the following parts:		
NAS1801-06-10	2	Screws		
RAS160520308-0053	1	Angled Bracket Assembly		
RAS160520309-0061	1	Zee Bracket Assembly		
132269A402	3	Rivets		
MTB-27-02	1	Instructions		

*Please contact your Regional Textron Aviation Parts Distribution Customer Support Team for current cost and availability of parts listed in this service document. For more information, please visit the TAPD Support & Aftermarket Account Management website at <https://ww2.txtav.com/Parts/Promos/TAPD>.

TITLE

FLIGHT CONTROLS - INSTALLATION OF POWER LEVER POSITION AND ELEVATOR CONTROL POSITION POTENTIOMETER BRACKETS WITH FDR INSTALLED

TO:

Beechcraft Model B200, B200C, B200GT, B300 and, B300C Aircraft Owner

NOTE: This service bulletin is only applicable to any King Air with STC SA10478SC FDR Installation performed with Master Data List (MDL) RAS060500131 Revision 15 or earlier.

REASON

The potentiometers installed for the RH power lever position and elevator control positions have the potential for an excessive angle of pull on the potentiometer lead. Installation of these new brackets will improve the angle of the lead and improve the wear life of these potentiometers.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

LABOR HOURS**WORK PHASE**

Modification

LABOR-HOURS

As Necessary

MATERIAL AVAILABILITY**PART NUMBER**

MTB-27-02

AVAILABILITY

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COST

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*Please contact your Regional Textron Aviation Parts Distribution Customer Support Team for current cost and availability of parts listed in this service document. For more information, please visit the TAPD Support & Aftermarket Account Management website at <https://ww2.txtav.com/Parts/Promos/TAPD>.

WARRANTY

None

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.

