

19, 23, 24

No. 2006  
ATA Code 24-50

Kit No. 23-3011-1 S

**SUBJECT: ELECTRICAL POWER - INSTRUMENT PANEL GROUND STRAP INSTALLATION**

**EFFECTIVITY: PART I**

BEECHCRAFT A23-19, 19A, M19A, and B19, serials MB-1 through MB-480;  
B19 Sport 150, serials MB-531 through MB-905;  
23, A23, A23A, B23, and C23, serials M-2 through M-1284;  
C23 Sundowner 180, serials M-1376 through M-2351;  
A23-24, serials MA-1 through MA-363;  
A24R, B24R and C24R Sierra 200, serials MC-103 through MC-771.

**PART II**

BEECHCRAFT B19, serials MB-481 through MB-520;  
B19 Sport 150, serials MB-521 through MB-530;  
C23 Sundowner 180, serials M-1285 through M-1375;  
A24, serials MA-364 through MA-368;  
A24R, serials MC-2 through MC-95;  
A24R Sierra 200, serials MC-96 through MC-102.

**REASON:** To provide an improved ground between the instrument panel and the aircraft.

**COMPLIANCE:** At the owner's/operator's discretion, however, Beech Aircraft Corporation recommends that this modification be accomplished at the next scheduled inspection.

**APPROVAL:** Engineering data contained in this Service Bulletin is FAA approved.

**MANPOWER:** The following information is for planning purposes only:

**PART I**

Estimated man-hours: 1 hour.

Suggested number of men: 1 man.

**PART II**

Estimated man-hours: 1.5 hours.

Suggested number of men: 1 man.

The above is an estimate based on experienced personnel complying with this Service Bulletin. Occasionally, after work has started, conditions may be found which could result in additional man-hours.

AW-1285 O

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Beech Aircraft Corporation issues service information for the benefit of owners and fixed base operators in the form of two classes of Service Bulletins. MANDATORY (Red Border) Service Bulletins are changes, inspections and modifications that could affect safety. The factory considers compliance with these Service Bulletins mandatory. OPTIONAL (No Border) Service Bulletins cover changes, modifications, improvements or inspections the factory feels will benefit the owner and although highly recommended, they are not considered mandatory compliance at the time of issuance, unless so stated in the publication. Due to the wide range of information covered by the OPTIONAL Service Bulletin, each owner/operator is responsible for conducting a thorough review of each Optional Service Bulletin and determine if compliance is required based on the applicability of the OPTIONAL Service Bulletin to his particular set of operating conditions. Both classes are mailed to:

- BEECHCRAFT Authorized Outlets.
- Owners of record on the FAA Aircraft Registration Branch List and the BEECHCRAFT International Owner Notification Service List.

(c) Those having a publications subscription.

information on Owner Notification Service or Subscriptions can be obtained through any BEECHCRAFT Authorized Outlet. As Service Bulletins are issued, temporary notification in the Service Bulletin Master Index should be made until the index is revised. Warranty will be allowed only when specifically defined in the Service Bulletin and in accordance with the Beech Aircraft Corporation Warranty Policy.

Unless otherwise designated, Beech Aircraft Corporation Service Bulletins as well as BEECHCRAFT kits are approved for installation on BEECHCRAFT airplanes in original or BEECHCRAFT modified configurations only. BEECHCRAFT Service Bulletins and Kits may not be compatible with airplanes modified by STC installations or modifications other than BEECHCRAFT Approved kits.

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## Service Bulletin No. 2006

### MATERIAL:

The parts required to accomplish this Service Bulletin are contained in Kit No. 23-3011-1 S. The kit may be ordered through BEECHCRAFT Aero or Aviation Centers and International Distributors and Dealers. The value of the kit required to incorporate this Service Bulletin on one airplane is to be advised. Price, when issued, will be subject to change without notice. Beech Aircraft Corporation expressly reserves the right to supersede, cancel and/or declare obsolete any kits or publications that may be referenced in this Service Bulletin without prior notice.

### NOTICE

All BEECHCRAFT kits, unless otherwise designated, are approved for installation on BEECHCRAFT airplanes in original or BEECHCRAFT modified configurations only. BEECHCRAFT kits may not be compatible with airplanes modified by STC installations or modifications other than BEECHCRAFT approved kits.

### WARRANTY:

None.

### SPECIAL TOOLS:

None.

### WEIGHT AND BALANCE:

None.

### REFERENCES:

None.

### PUBLICATIONS AFFECTED:

It is recommended that a note to "See Service Bulletin No. 2006" be made in the following:

BEECHCRAFT 19, 23, and 24 series Shop Manual copies, P/N 169-590015G or subsequent, Section 4;  
BEECHCRAFT C23, C24R 28-Volt Wiring Diagram Manual copies, P/N 169-590025-17 or subsequent, Chapter 77-20;  
BEECHCRAFT 19, 23, 24 Parts Catalog copies P/N 169-590012J or subsequent, Figure 392;  
BEECHCRAFT B19, C23, C24 Parts Catalog copies P/N 169-590026D or subsequent, Figure 392.

### ACCOMPLISHMENT INSTRUCTIONS:

This Service Bulletin may be accomplished as follows:

#### PART I

1. Locate the Q5A20N ground wire, if installed, from the engine indicating instrument cluster to the instrument subpanel, and remove. Retain attaching hardware.

2. Obtain a new 16 gage wire of the same length as the Q5A20N wire that complies with 131681AE16-9 and identify as Q5A16N. Install appropriate terminals on the wire ends. (obtain locally)

3. Install the new Q5A16N ground wire in place of the Q5A20N ground wire which was removed in Step 1. If not previously installed, connect the new wire to the instrument cluster ground stud and to an existing ground stud on the bottom lip of the instrument subpanel.

4. On the lower right hand corner of the instrument subpanel, drill a .165 to .175 inch diameter hole in the bottom lip. Countersink the hole to .332 inch diameter with a 100 degree countersink. (see Figure 1)

5. Refer to Figure 2 and clean a small area around the countersunk hole in the instrument subpanel to bare metal. Clean the bare metal with 1,1,1 Trichloroethane or equivalent (adequate ventilation required, obtain locally).

6. On the lower right hand instrument panel mounting structure, drill a .165 to .174 inch diameter hole just above the "J" stringer as depicted in Figure 1, views A-A and B-B. Clean the area per step 5.

7. Apply Alodine 1200 (brush on strength) to the areas previously cleaned with a clean Scotch Brite sponge or equivalent. (obtain locally) Keep the area wet for 3 to 5 minutes or until a gold color develops. Using clean water, dampen a clean cloth and wipe the treated area lightly. Allow to dry.

8. Attach a P/N MS25083-2BB4 bond strap at the hole on the lower right hand corner of the instrument subpanel using a P/N MS24693S50 screw, a P/N AN960PD8 washer under the bond strap terminal, a P/N AN960-8 washer, and a P/N MS35338-42 lockwasher between the P/N MS21042L08 nut and the bond strap terminal lug. (see Figure 2)

9. Insulate the bond strap with P/N 106242C2 heat shrink tubing or equivalent and a heat gun. Install the free end of the bond strap at the newly drilled location on the instrument panel mounting structure using a P/N MS35206-245 screw, a P/N AN960PD8 washer under the terminal lug, a P/N AN960-8 washer, a P/N MS35338-42 lockwasher and a P/N MS21042L08 nut. (see Figure 1 view A-A)

10. Use touch up paint and/or primer to seal the bonded areas after installation.

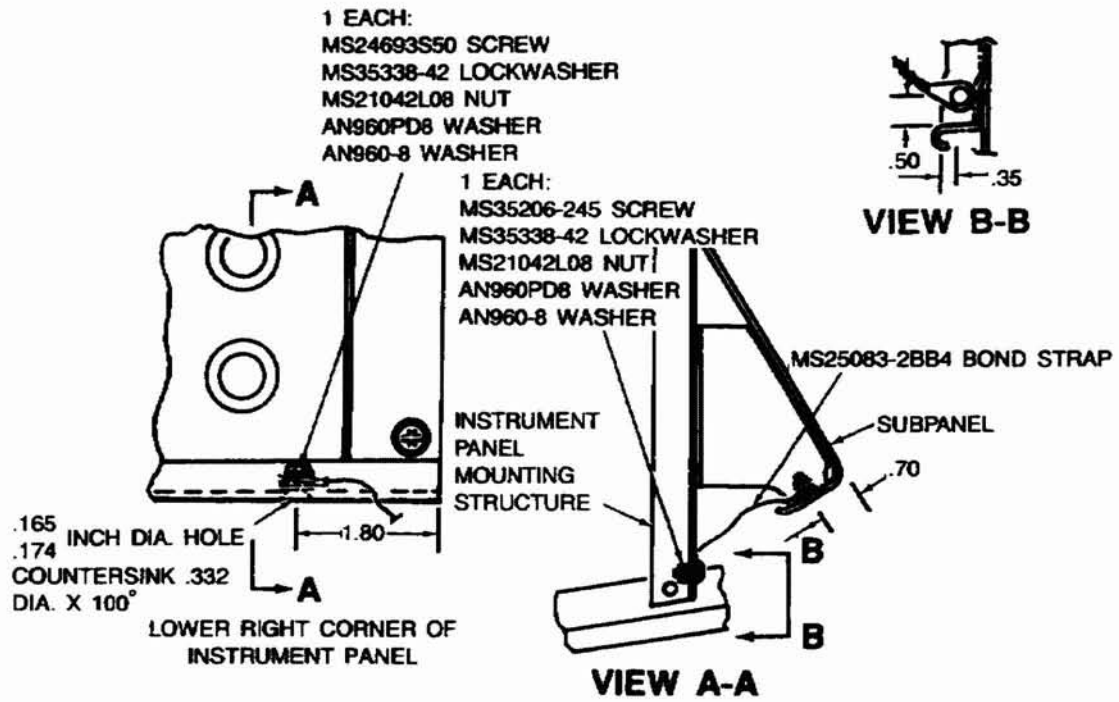


Figure 1

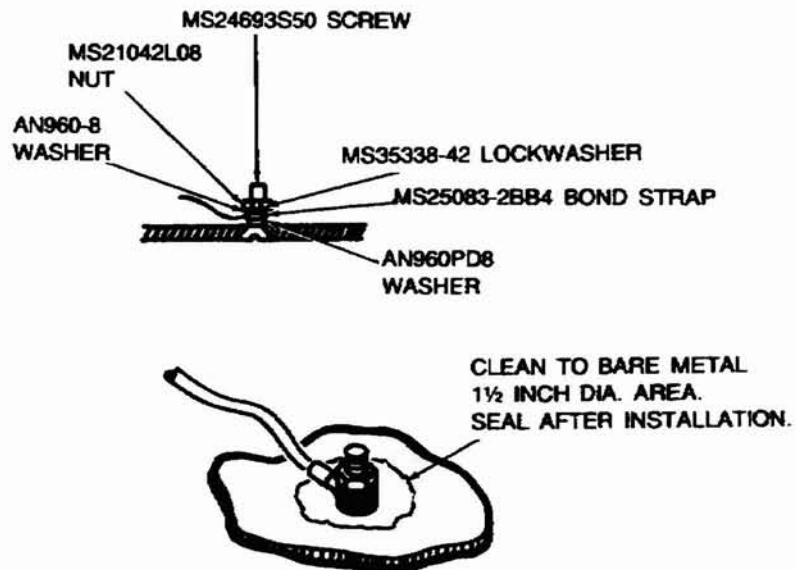


Figure 2

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**PART II**

1. Locate and remove the Q3A20N wire from the fuel quantity indicator and the Q2B20N wire from the oil temperature indicator.

2. Obtain two new ground wires using 16 gage wire which complies with 131881AE16-9 and identify as Q5A16N. Install appropriate terminals on the wire ends.

3. Clean areas on the instrument panel to bare metal where new wires are to be installed per Step 5, PART I.

4. Apply Alodine to the cleaned areas per Step 7, PART I.

5. Install the new ground wires, using the original hardware.

6. Use touch up paint and/or primer to seal the bonded areas after installation.

7. Comply with Steps 4 through 10 of PART I of this Service Bulletin.

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**RECORD**

**COMPLIANCE:**

Upon completion of this Service Bulletin, make an appropriate maintenance record entry specifying the kit identification number and the kit serial number. It is recommended that the parts list contained in the kit be filed for future reference until the listing of parts has been incorporated into the Parts Catalog and Wiring Diagram Manual.