



Service Bulletin

MODEL:SR20

SB 20-95-04

Issued: 10 July, 2002

ATA 95-00 Replacement of CAPS Activation Handle Bracket

COMPLIANCE

Mandatory: Cirrus Design considers this Service Bulletin to be MANDATORY. Accomplish this Service Bulletin within 30 flight hours or 60 days whichever occurs first.

Compliance with SB 20-95-02 Revision 1 (Modification and Reroute of CAPS Activation Cable Assembly) is a prior requirement for the installation of this Service Bulletin.

This Service Bulletin is a prior or concurrent requirement for the completion of SB 20-95-05 (Replacement of CAPS Activation Cable).

Note: This Service Bulletin may be accomplished by any licensed Airframe and Powerplant Technician.

EFFECTIVITY

Cirrus Design SR20 serial numbers 1005 through 1195.

APPROVAL

FAA approval has been obtained on all technical data in this Service Bulletin that affects type design.

PURPOSE

This Service Bulletin provides instructions for replacing the CAPS cable activation bracket and attaching hardware. The affected airplanes have handle brackets manufactured of aluminum and some early airplanes have the handle bracket attached to a composite bracket bonded to the cabin ceiling. During factory testing of the CAPS system, it was determined that under certain conditions, especially if the bracket was bent and then forced back into position, these brackets, or their attachments, could fail.

DESCRIPTION

This Service Bulletin contains parts and instructions to install an improved CAPS cable activation bracket.

WARRANTY INFORMATION

Cirrus Design will cover parts and labor costs for this Service Bulletin.

MANPOWER REQUIREMENTS

2.0 manhours.

WEIGHT AND BALANCE

Change is negligible.

Cirrus Design Corporation
4515 Taylor Circle
Duluth, Minnesota 55811
PH (218) 727-2737

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Cirrus Design Corporation cannot be responsible for the quality of work performed by others while fulfilling the requirements of this service bulletin. Procedures specified in this service bulletin must be accomplished using industry standard maintenance practices and applicable government regulations.



MATERIAL INFORMATION

The following kit is used on all affected airplanes and is available from Cirrus Design Spare Part Sales:

Kit 70043-002

| Item No. | Part Number | Description | Quantity |
|----------|---------------|---|----------|
| 1 | BRS 15510 | Cable Activation Handle Bracket | 1 |
| 2 | MS24694-S53 | Screw (for mounting handle) | 2 |
| 3 | 51191-201 | Shoulder Washer (for mounting handle) | 2 |
| 4 | NAS1149F0363P | Washer (for mounting handle) | 2 |
| 5 | MS21044N3 | Nut (for mounting handle) | 2 |
| 6 | 15049-001 | CAPS Decal, External | 1 |
| 7 | MS35206-277 | Screw (for attaching handle to bracket) | 1 |

ACCOMPLISHMENT INSTRUCTIONS

A. Preparation

1. Remove CAPS handle access cover.
2. Install CAPS handle safety pin.
3. Remove key from ignition.
4. Ensure BATTERY and AVIONICS master switches are in the OFF position.

Caution: Ensure hands are clean while working with headliners and trim pieces.

5. If applicable, remove fasteners securing cabin headliner to fuselage.
6. Remove LH and RH cabin flood light assemblies. (Refer to AMM 33-10)
7. Pull LH door seal away from top edge of door frames.
8. If applicable, slit tape securing LH headliner to door frame.
9. Remove LH B-pillar trim. (Refer to AMM 25-10)
10. Remove CAPS handle recess trim. (Refer to AMM 25-10)
11. Gently pull LH portion of cabin headliner down from ceiling to gain access to CAPS activation cable bracket.



B. Install Improved CAPS Activation Handle Bracket (See Figure 1)

1. Acquire necessary tools, equipment, and supplies.

| Description | P/N or Spec. | Supplier | Purpose |
|---------------------|---------------------------|-------------|--|
| Small Knife | N/A | Any Source | Facilitate Removal of Bracket Attach Screws. |
| Spot Putty | 937 Bondo (or equivalent) | Bondo Corp. | Filler. |
| Teflon Tape, 1-inch | N/A | Any Source | Sealing. |
| White Hobby Paint | Testers (or equivalent) | Any Source | Cover Spot Putty. |

Note: To facilitate screw removal, push attaching screws up to break filler covering screw heads and use a small knife to remove remaining filler.

2. Remove nuts, washers, bushings, and screws securing CAPS activation handle and cable assembly to fuselage and discard attaching hardware.
3. **ASN 1005 THROUGH 1017 ONLY** - Remove CAPS handle composite brackets, locate and drill mounting holes for improved CAPS handle bracket. (See Figure 1)
 - (a) Acquire necessary tools, equipment, and supplies.

| Description | P/N or Spec. | Supplier | Purpose |
|---------------|--------------------|------------|------------------|
| Die Grinder | N/A | Any Source | Bracket Removal. |
| Cutting Wheel | 3/4", Diamond Grit | Any Source | Bracket Removal. |
| Sanding Disk | 2", 36 Grit | Any Source | Bracket Removal. |

Caution: Exercise caution when cutting/sanding CAPS handle bracket to prevent damage to underlying laminate. Control dust migration.

- (b) Using die grinder and diamond grit cutting wheel, cut CAPS handle bracket at 90° bend.
- (c) Using die grinder and sanding disc, grind LH bracket remnant down to, but not into, fuselage seam.
- (d) Using die grinder and conditioning disc, grind the RH bracket remnant so that it is flush with the adjacent fuselage seam.
- (e) Solvent clean grind area with isopropyl alcohol.
- (f) Draw reference line across fuselage ceiling where LH bracket forward edge was installed by using forward edge of RH bracket remnant.
- (g) Along reference line just made, measure 0.60 inches left from fuselage centerline seam (located between LH and RH bracket grind areas) and mark this location.
- (h) Using mark just made, measure 2.50 inches aft to locate forward handle bracket mounting hole.
- (i) To locate aft bracket mounting hole, from forward mounting hole reference mark, measure 0.70 inches aft and mark this location.
- (j) Using a 1/8-inch drill bit, pilot drill bracket mounting holes.



- (k) From outside, using a No. 11 countersink drill bit with a 100° taper, countersink each hole to a diameter of 0.33 inches.

Caution: When removing handle from bracket, ensure that nylon ball integral to handle assembly does not fall loose.

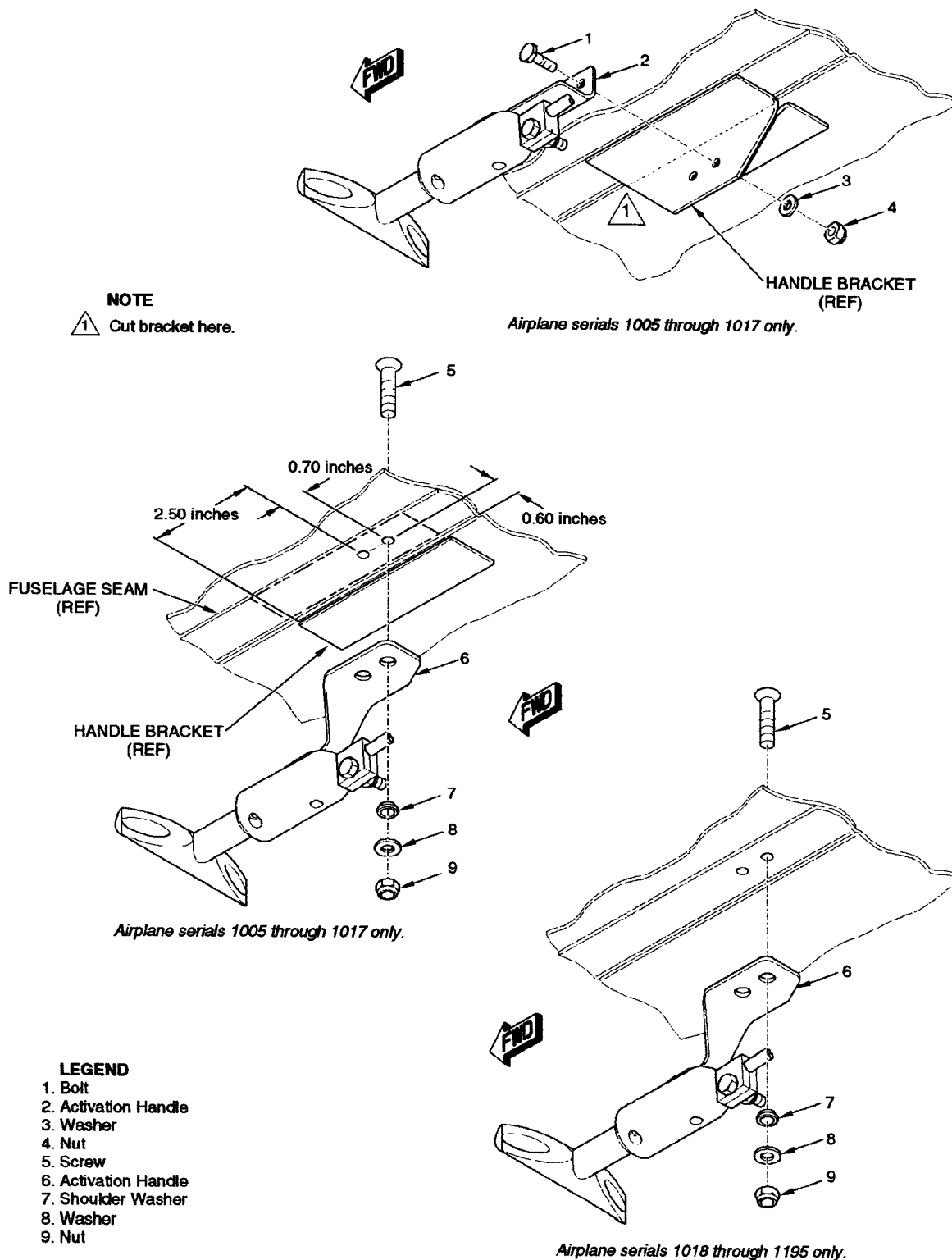
4. Remove screw securing CAPS activation handle to bracket and discard screw.
5. Remove handle plate and discard.
6. Position CAPS activation handle to improved bracket, ensuring nylon ball is properly seating in handle groove, and install new screw.
7. Position activation cable handle bracket over mounting holes and secure to fuselage ceiling installing new screws, washers, and nuts. Torque to 15.0 - 20.0 inch-pounds (1.7 - 2.2 Nm).

Note: Ensure spot putty application and sanding does not extend beyond area of installed CAPS decal.

8. From outside, fill screw holes with spot putty and let dry.
9. Lightly sand spot putty covering screws holes and clean with isopropyl alcohol.
10. To prevent spot putty from bleeding through CAPS decal, apply a thin coat of white paint over spot putty.
11. Apply CAPS decal over screw holes.

C. Post Installation

1. Position cabin headliner to ceiling and install CAPS handle recess trim.
2. Install LH B-pillar trim. (Refer to AMM 25-10)
3. Install tape securing headliner to door frame.
4. Install LH and RH door seal to top edge of door frames.
5. Install LH and RH cabin flood light assemblies. (Refer to AMM 25-10)
6. Remove CAPS handle safety pin and install CAPS handle access cover.
7. Complete airplane records by noting compliance with SB 20-95-04. Send Compliance Response Card to Cirrus Design.



Airplane serials 1005 through 1017 only.

Airplane serials 1005 through 1017 only.

Airplane serials 1018 through 1195 only.

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