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REPORT NO. PR-206CS-100M
INSTALLATION INSTRUCTIONS
FOR
CABIN STEP INSTALLATION

BELL 206 SERIES HELICOPTERS

REVISIONS

<u>REV.</u>	<u>DATE</u>	<u>DESCRIPTION</u>	<u>BY</u>
N/C	12/22/87		N.L.H.
A	03/25/88	Revised pages 2, I-4 and II-1 and added pages 3 and I-5 to add instructions to install 206CS-306 bracket and 206CS-307 brace and associated hardware.	B.R.
B	05/05/89	Revised pages 1, 2, 3, I-4, and I-5 to add 206CS-304-3 fitting as alt. for 206-031-369-1 & -2. Replace 206CS-306-1 bracket with -2, -3, and -4 brackets.	B.R.
C	N/A	Corrected typographical error, pg I-4 AN960-416L was AN960PD-416.	R.E.B.
D	12/28/99	Revised and updated entire drawing. Updated report to current format.	M.R.
E	12/03/08	Revised maintenance inspection interval to coincide with standard Bell 206 100-Hour due to service history.	M.E.H.

LIST OF REFERENCES

1. Paravion Drawing 206CS-100 Cabin Step Installation.

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1.0 INTRODUCTION

The Paravion Technology, Inc. 206CS-100 Cabin Step Installation is designed to replace, or be installed in lieu of existing Bell 206 Cabin Steps provided in Bell Helicopter Kit Number 206-706-031-1 (206A/B) or Kit Number 206-706-064-3/101 (206L Series) when the helicopter is fitted with high skid landing gear.

This document provides a step-by-step procedure for installation of the 206CS-100 Cabin Step Installation on the Bell 206 Series Helicopter. The instructions contained herein are intended to supplement the information contained on the installation drawings.

2.0 INSTALLATION INSTRUCTIONS

NOTE

If aircraft has previously been fitted with cabin steps per Bell Helicopter Service Instruction No. 206-22, or later approved revision, skip instructions 1 thru 14 and simply remove existing step legs and pads (4 locations) and begin installation with step 15. These instructions outline the installation of the cabin steps for only one side, the other side is installed in the same manor and can be installed in parallel.

1. Remove both front seat cushions and honeycomb seat panels to gain access to work area under seats.
2. Remove existing screws in aft step fitting attachment (Sta. 96.7 for 206A/B, Sta. 121.7 for 206L Series) (4 each side) and align step fitting (206CS-304) with exposed holes in fuselage. Secure fitting to fuselage using indicated hardware and seal per drawing.

CAUTION

Check affected area beneath copilot's seat for clearance of existing component parts before drilling holes through fuselage shell. Four insert holes added in following steps (3, 4) MUST be drilled perpendicular to skin surface.

NOTE

Access to working area on floor panel beneath forward seats may require temporary removal of some existing components. Mark and note position of any removed parts to insure correct reinstallation.

3. Measure forward from the previously installed aft step fitting (206CS-304) to find the location of the forward step fitting per the drawing requirements. Note that the dimensions are different for the 206A/B and the 206L series aircraft. Locate and drill the fuselage skin using the step fitting (206CS-304) as a guide.

4. Enlarge the holes for the INNER skin and honeycomb core only, to indicated dimension. **DO NOT ENLARGE EXTERIOR SKIN HOLES.**

NOTE

When drilling doubler holes in step (5, 6), maintain proper edge distance for holes and flush fit of doubler on skin surface.

5. Align outer plate (206CS-305-1), mark hole locations on the plate using the step fitting or the previously drilled holes as guides, and drill per drawing requirements.
6. Align inner plate (206CS-305-2), mark hole locations on the plate using the previously drilled holes as guides, and drill per drawing requirements.

CAUTION

To avoid misalignment of plate holes with holes in fuselage shell, back drill, using holes in fuselage shell as guide to locate holes in plate. Pressure should be applied against plate during drilling operations.

7. Remove honeycomb core as indicated prior to installing adhesive and inserts.
8. Remove any loose core particles which may remain in hole areas, and deburr rough edges around hole openings on skin surface.
9. Follow all insert installation instructions and bonding instructions per Bell BHT-ALL-SPM when installing the indicated plates and inserts.
10. Install the plates (206CS-305-1 & -2), fittings (206CS-304), and indicated inserts per drawing requirements. The one inch diameter holes for the inserts need to be filled approximately three-fourths full with adhesive prior to installation of inserts. Exercising care to avoid trapping air within potted areas, finish filling cavities. A coat of adhesive must be applied to the faying surface flange of the inserts.

NOTE

Keep adhesive out of threaded insert holes. (This may be accomplished by covering insert holes with masking tape, or temporarily filling insert holes with removable rubber compound).

11. Wipe clean any excess adhesive remaining in work areas. Let adhesive cure.
12. Check all structure areas where drilling operations were performed to insure that bare metal is not exposed. Clean with solvent and apply a coat of Bell approved primer over any exposed metal per Bell BHT-ALL-SPM.

13. Install access doors and/or covers removed to gain access to work area.
14. Install 206CS-304 fittings and seal per drawing.
15. Align holes in step (206CS-200-1 for 206 A/B, 206CS-200-2 for 206L Series) bushings and insert two Leg Assemblies (the longer side) into holes. It may be necessary to lubricate the bushing holes with a soap solution to aid in pressing the legs into holes. Insure Leg is pressed all the way in (approx. 2.875 inches).
16. Install upper Leg Assembly (206CS-300) ends into fitting assemblies (206CS-304 or 206-031-369). To allow for proper alignment, it may be necessary to slide one of the Leg Assemblies forward or aft along the step assembly (206CS-200-1 for 206A/B, 206CS-200-2 for 206L Series) in the provided adjusting slot.
17. Assure that both Leg Assemblies are fully seated into the fittings, then match drill indicated holes through both Legs, using the existing holes in the fittings assemblies (206CS-304 or 206-031-369) as guides.
18. Install hardware as indicated on drawing.
19. Locate and drill four holes in each step, two at each leg attachment per drawing.
20. Install hardware as indicated.
21. Drill all 206CS-306 brackets per drawing requirements. Note that 3 holes in each aft bracket are drilled in later operations (holes drilled from existing rivets).
22. Verify that nominal length of brace assemblies (206CS-307) is 10.5" between rod end bolt hole centers.
23. Fasten one end of brace assembly to the leg assembly (206CS-300) using indicated hardware. Fasten the other end to the bracket assembly (206CS-306) using indicated hardware
24. At the forward locations only position brace and bracket assemblies as shown in drawing. Brace and bracket should align with the leg; however, the bracket may be placed up to 1" forward or 1" aft of this position to clear items that may be previously installed. Match drill the outer facesheet only of the fuselage per drawing requirements.
25. Coat faying surfaces with sealant and fasten bracket to fuselage per drawing requirements.

26. At the rear locations only, position brace and bracket assemblies as shown on drawing with the fwd flange of bracket centered over the forward existing row of rivets at the fuselage seam below the rear cabin door. The aft brace assembly can be lengthened or shortened to accommodate the desired hole center to bracket edge distance on the 206CS-306 bracket per the drawing requirements.

NOTE: Insure that there is a minimum of 1/2" thread engagement of the rod end in the brace barrel.

27. Mark this location and remove the three existing rivets in the fuselage.
28. Match drill three (3) holes in the fwd flange of the bracket per drawing requirements.
29. Relocate bracket and match drill three (3) aft holes in fuselage **outer skin only** per drawing requirements.

CAUTION

The fuel cell is located directly above this location. Use a drill stop to prevent drilling deeper than .25 inch.

30. Coat faying surfaces with sealant, and fasten bracket to fuselage per drawing requirements.
31. Readjust all brace rod ends as necessary to place brace assemblies in a slight compression.
32. Update aircraft weight and balance.
33. Complete proper Log entries necessary to document installation and return aircraft to service.

TABLE I

Weight and Balance Data

INSTALLATION	WEIGHT (lbs.)	ARM	MOMENT
206CS-100-1 Step Installation – 206A/B	21.2	79.31	1,681.46
206CS-100-2 Step Installation – 206L Series	26.2	91.47	2,396.55

APPENDIX A

SUPPLEMENTAL TYPE CERTIFICATE

APPENDIX B

MAINTENANCE INSTRUCTIONS

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Perform the following inspections at each 100 hour inspection interval:

1. Inspect fitting attachment for proper security to fuselage.
2. Inspect Step Legs for signs of corrosion. Clean and protect as necessary.
3. Inspect steps for security, cracks, and paint condition. Steps are constructed of a fiberglass material. To prevent deterioration caused by ultraviolet rays, all exposed surfaces should be kept coated with paint.