

**CROSS TUBE CAP, ASSY – R&O
MAINTENANCE MANUAL SUPPLEMENT**

MODELS: BELL 205A-1, 212, 412, 412EP & 412CF

Read all of the Instructions for Continuing Airworthiness
thoroughly prior to performing any activities relating to this product



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General Notes

1. All R&O Instructions shall be accomplished in accordance with (IAW) standard aircraft practices. Refer to the current revision of the FAA manuals AC 43.13-1B and AC 43.13-2B for details on standard aircraft practices.
2. All Fasteners shall be torqued to standard aircraft specifications, unless otherwise specified. Refer to the current revision of the FAA manuals AC 43.13-1B and AC 43.13-2B for details on standard torque specifications.
3. Cap, Assy R&O must be performed in pairs common to the same cross tube.
4. All Dimensions are in imperial measures (inches/pounds).
5. If changes to this document are required, Alpine Aerotech Ltd. shall revise all pages and reissue the entire document.
6. Alpine Aerotech Ltd. shall make any subsequent revisions of this document available free of charge upon request. Alpine Aerotech Ltd. also recommends that the end user of this product periodically verify the revision level of this document.

Section 1: Description

The purpose of the AAL Cross Tube Cap, Assy-R&O is to provide an economical method of repairing the OEM Fwd and Aft Cap, Assy when the bonded rubber portion of the assy wears out. This repair will be applicable to the FWD and AFT Cap, Assy's on the 205, 212 and the FWD Cap, Assy on the 412.



Section 2: Aircraft Applicability

MODEL	FWD LHS	FWD RHS	AFT LHS	AFT RHS
205A-1 [†]	YES	YES	YES	YES
212 [†]	YES	YES	YES	YES
412 ^{††}	YES	YES	NO	NO
412EP ^{††}	YES	YES	NO	NO
412CF ^{††}	YES	YES	NO	NO

[†] With P/N 212-030-436-007 installed on FWD Cross Tube and 212-030-437-007 installed on the AFT Cross Tube.

^{††} With P/N 212-030-436-007 installed on FWD Cross Tube.

Section 3: Weight & Balance

<u>Part Number</u>	<u>Description</u>	<u>Weight</u>	<u>Long. Arm</u>	<u>Lat. Arm</u>
AAL-290-062-001	Bumper, Detail FWD LHS	.058*	71.614	13.398
		.026 (Kg)	1.819 (m)	.340 (m)
AAL-290-062-001	Bumper, Detail FWD RHS	.058*	71.614	-13.398
		.026 (Kg)	1.819 (m)	-.340 (m)
AAL-290-062-001	Bumper, Detail AFT LHS	.058*	162.962	13.398
		.026 (Kg)	4.139 (m)	.340 (m)
AAL-290-062-001	Bumper, Detail AFT RHS	.058*	162.962	-13.398
		.026 (Kg)	4.139 (m)	-.340 (m)

* Total increase in weight to aircraft

Section 4: Maintenance/Inspection Section

1. Refer to the current revisions of the BHT Maintenance Manual BHT-205A1-MM for Instructions for Maintenance/Inspection with respect to the item(s) referenced within this document.
2. Refer to the current revisions of the BHT Maintenance Manual BHT-212-MM for Instructions for Maintenance/Inspection with respect to the item(s) referenced within this document.
3. Refer to the current revisions of the BHT Maintenance Manual BHT-412-MM for Instructions for Maintenance/Inspection with respect to the item(s) referenced within this document.
4. Refer to the current revisions of the BHT Maintenance Manual C-12-146-000/MF-001 for Instructions for Maintenance/Inspection with respect to the item(s) referenced within this document.



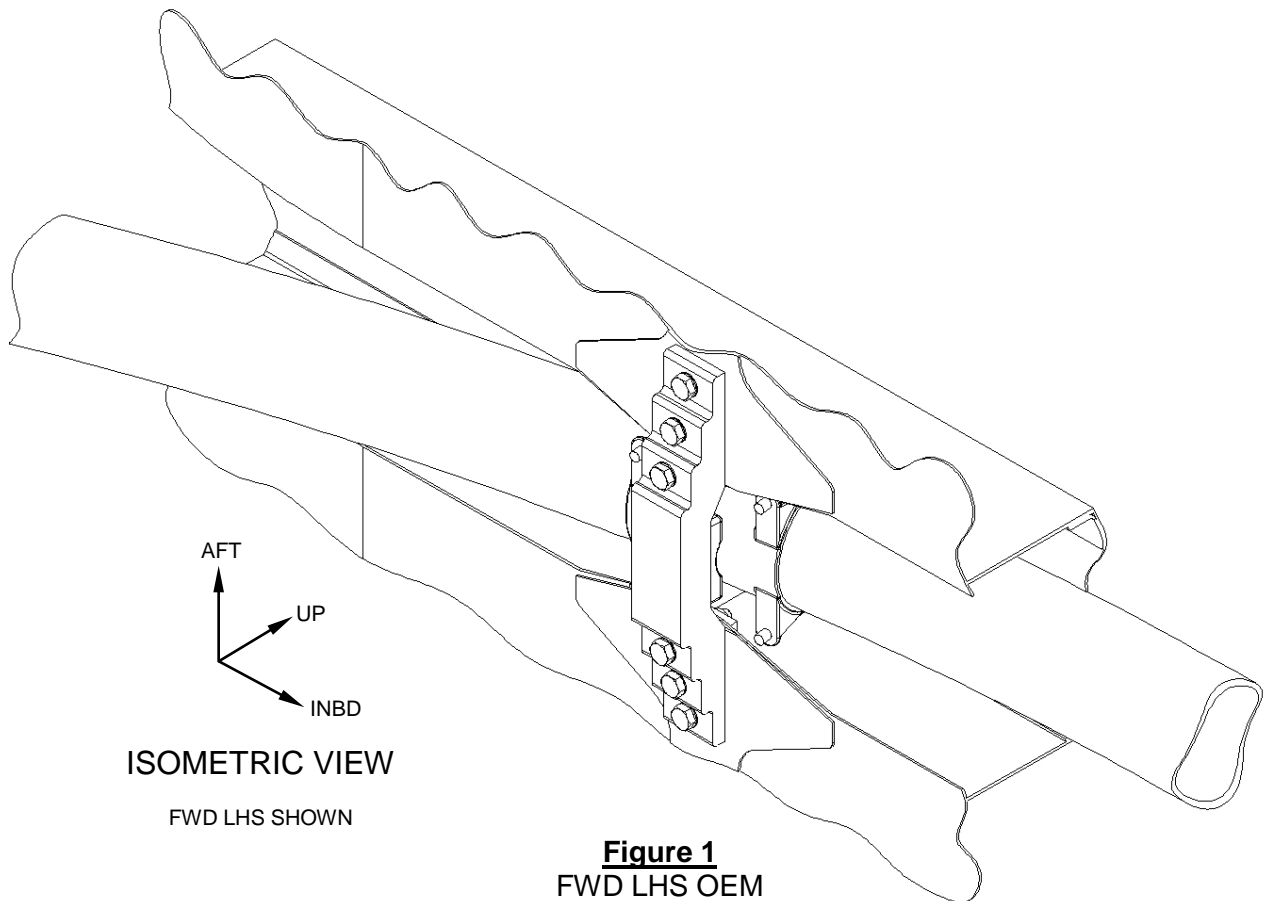
Section 5: R&O Instructions

R&O Instruction Notes

- 1 Remove and Discard.
- 2 Remove and Re-Use.
- 1 Remove rubber residue, paint and primer down to bare metal.
- 2 Conversion coat IAW MIL-C-5541, CLASS 1A. or;
Conversion coat with material PER QPL-81706, CLASS 1A. or;
Preclean with Prekote, a product of Pantheon Chemicals Inc, NCAGEC 1VFJ3 (or equivalent).

R&O of the FWD Cap, Assy, 205A-1, 212, 412, 412EP & 412CF:

1. Gain access to the underside of the aircraft. Reference Figure 1.





R&O Instructions

2. Remove the 6 fasteners holding the Cap, Assy to the FWD cross tube support structure.
Reference Figure 2.

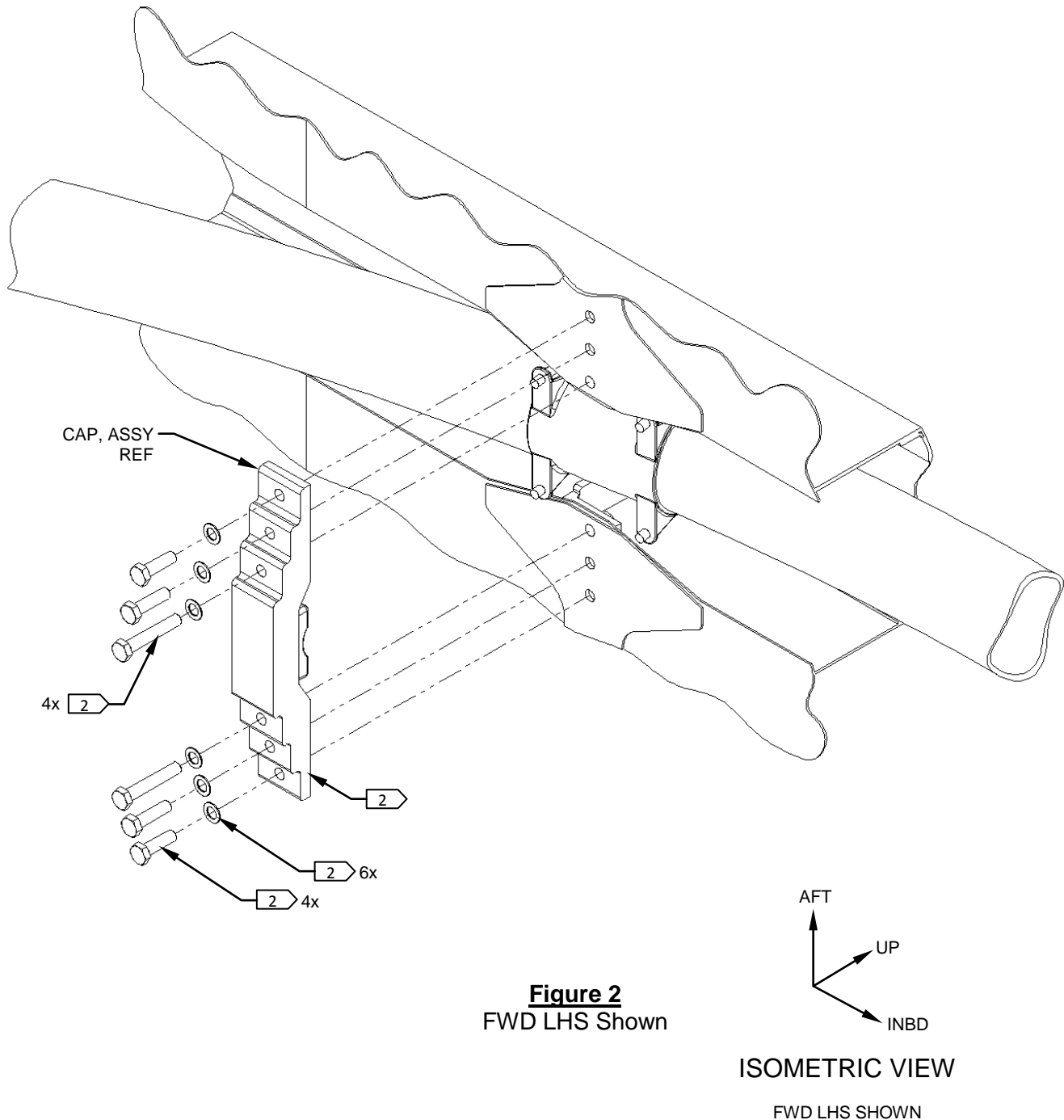


Figure 2
FWD LHS Shown

ISOMETRIC VIEW

FWD LHS SHOWN



R&O Instructions

3. Remove the bonded rubber bumper from the Cap, Assy and discard. Reference Figure 3.

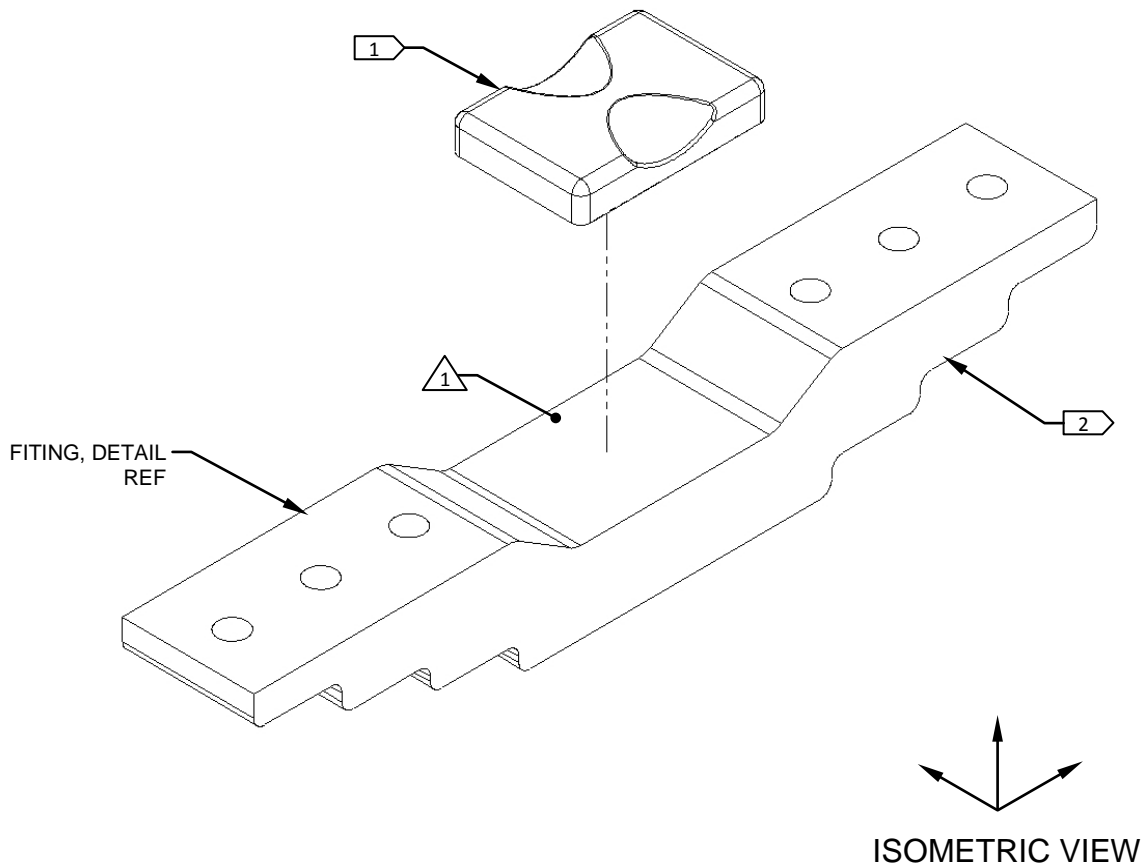


Figure 3



R&O Instructions

4. Place Bumper, Detail (Item 1) on the Fitting, Detail. Reference Figure 4.

Note: LHS shown. Orient the Bumper, Detail so that the short leg of the cross section is on the outboard side. RHS will be opposite as shown.

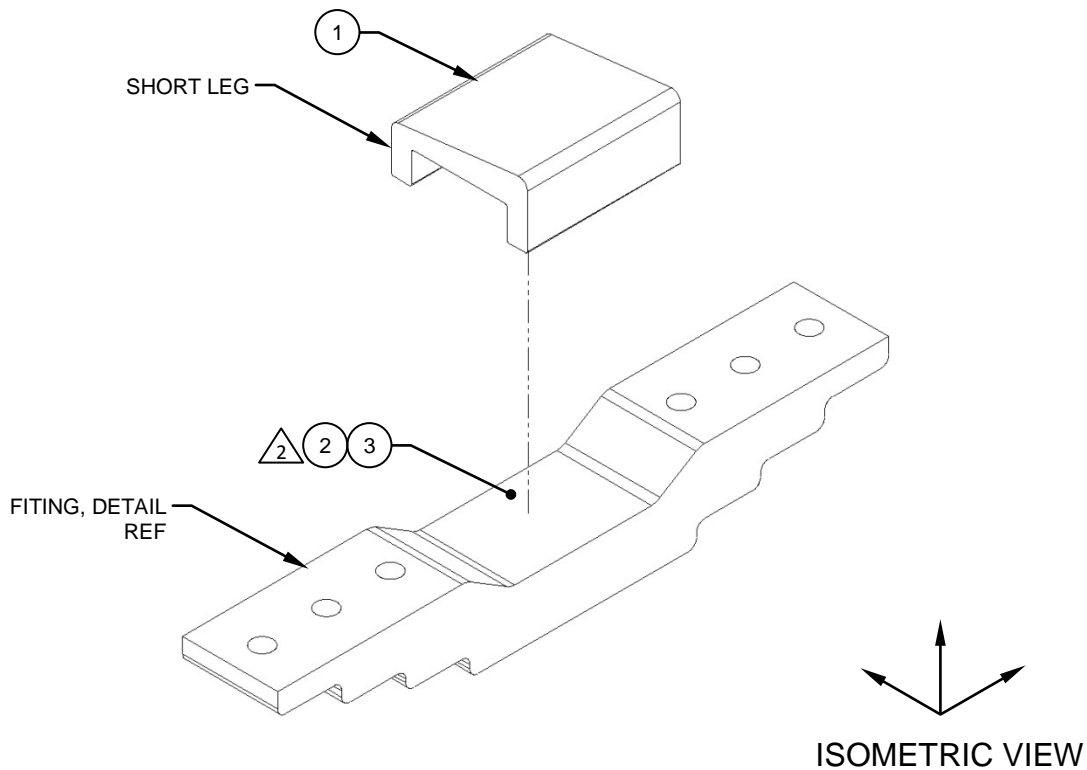


Figure 4



R&O Instructions

5. Re-install the 6 fasteners holding the Cap, Assy to the FWD cross tube support structure. Reference Figure 5.

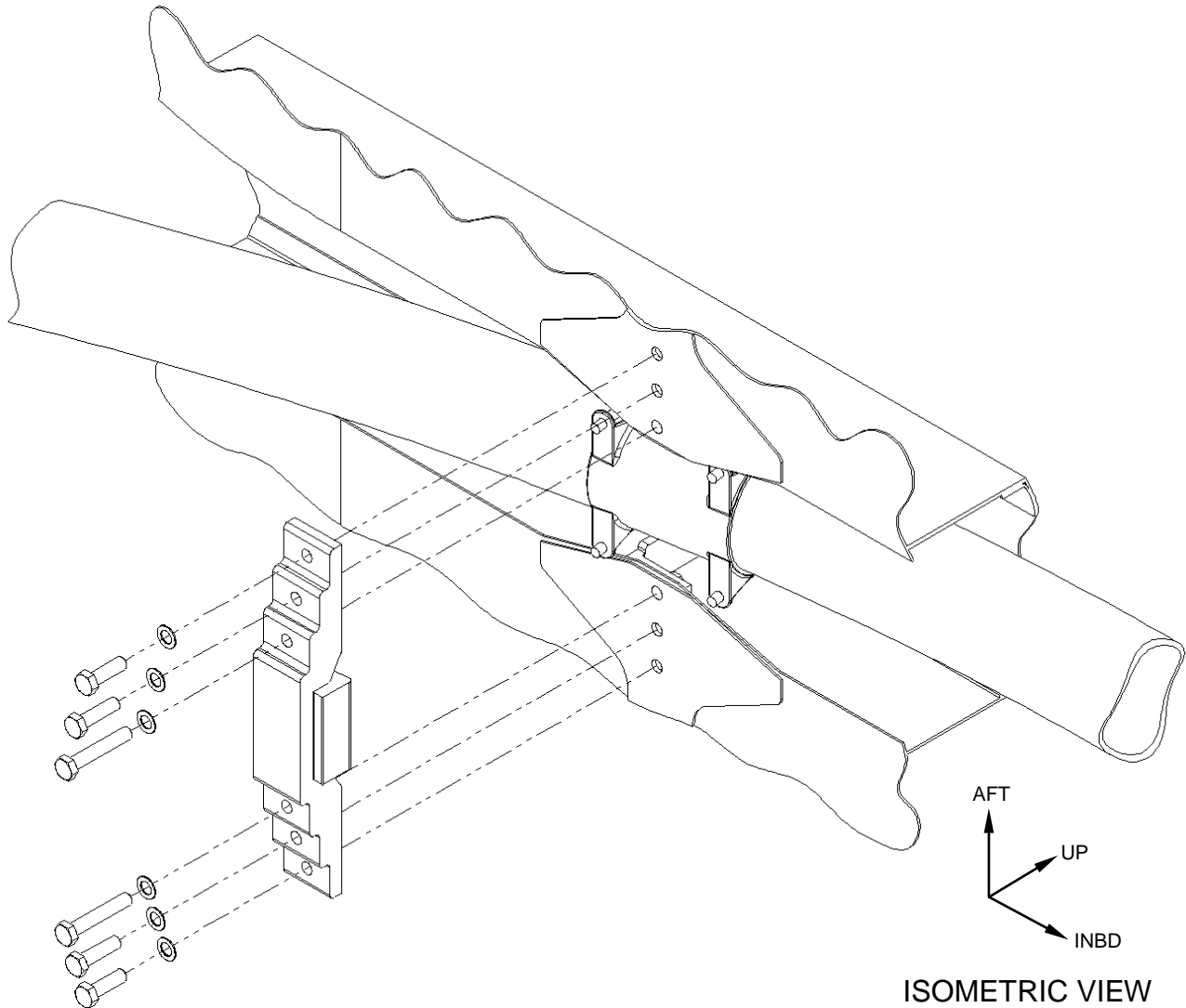


Figure 5
FWD LHS Shown
RHS Opposite

ISOMETRIC VIEW

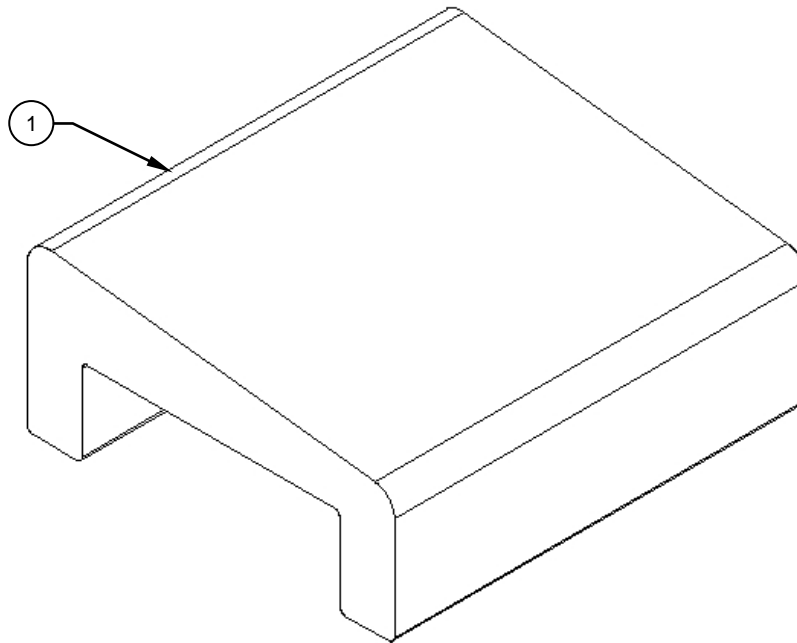
FWD LHS SHOWN
RHS OPPOSITE



R&O Instructions

6. Repeat process for as many locations as applicable per Section 1: Aircraft Applicability.
7. R&O complete.
8. Perform a General Inspection of all items to ensure proper R&O.
9. Update the aircraft logbook for the R&O of the Cap, Assy.

Section 5: Illustrated Parts Breakdown



Bumper, Detail
Shown
Item 1

