

R66 Air Conditioning Drain Upgrade Kit Instructions

Kit upgrades air conditioning drain installation to improve evaporator water drainage. Applicable to R66 S/N 1114 & prior.

NOTE

Visit www.robinsonheli.com to verify kit instructions are current revision. Review instructions before installation; contact RHC Technical Support with questions. Verify kit contents match list; contact RHC Customer Service if parts are missing or damaged.

ITEM	PART NUMBER	KIT CONTENTS	QTY
1	KI-284Instr.	Kit Instructions	1
2	A729-59	Tube	2
3	B204-5	Rivet	2
4	D277-8+	Clamp (Note: "+" in part number indicates 5-qty pack)	1
5	D277-9+	Clamp (Note: "+" in part number indicates 5-qty pack)	1
6	D789-11	Drain Assembly	2
7	MS21042L08	Nut	2
8	MS21069L08	Nutplate	1
9	MS21919WDG8	Clamp	2
10	MS27039C0806	Screw	2
11	MS27039C0820	Screw	2
12	MS35489-11	Grommet	2
13	NAS1149FN816P+	Washer (Note: "+" in part number indicates 20-qty pack)	1
14	2683	Hole Plug	2

Special Tools

- Drilling, deburring, and countersinking tools
- 90° angle drill
- Hand-operated blind riveting tool
- Drill jig (for supplied MS21069L08 nutplate)

Kit Instructions

1. Turn battery switch OFF. If helicopter is equipped with pop-out floats, remove D679 cylinder assembly per MM § 32-61, as required. Refer to R66 Illustrated Parts Catalog (IPC) Figure 21-13. Gain access to and remove items 4 thru 17 and 20 thru 23. Discard items.

NOTE

Removal of hardware securing D789-10 tube requires two people. Access nut by removing F794-2 belly panel (ref IPC Figure 6-11).

2. Refer to Figure 1. Verify adequate clearance on reverse side; using a drill stop, drill 0.169–0.175 inch diameter hole in F382-6 stiffener as shown.

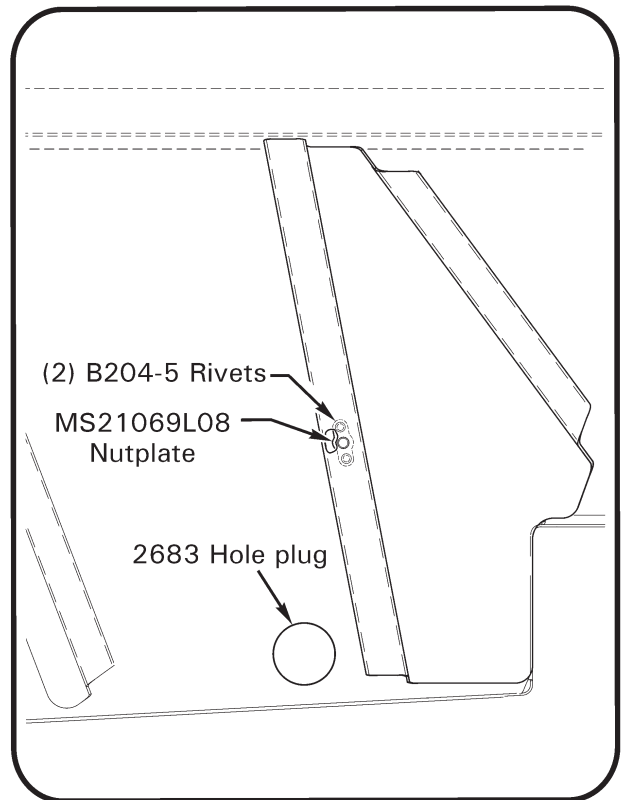
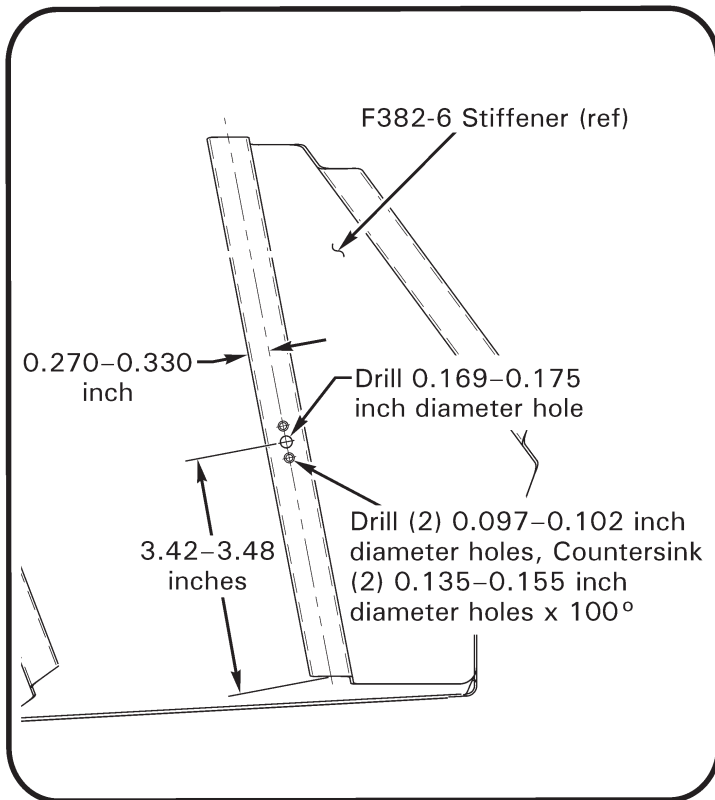
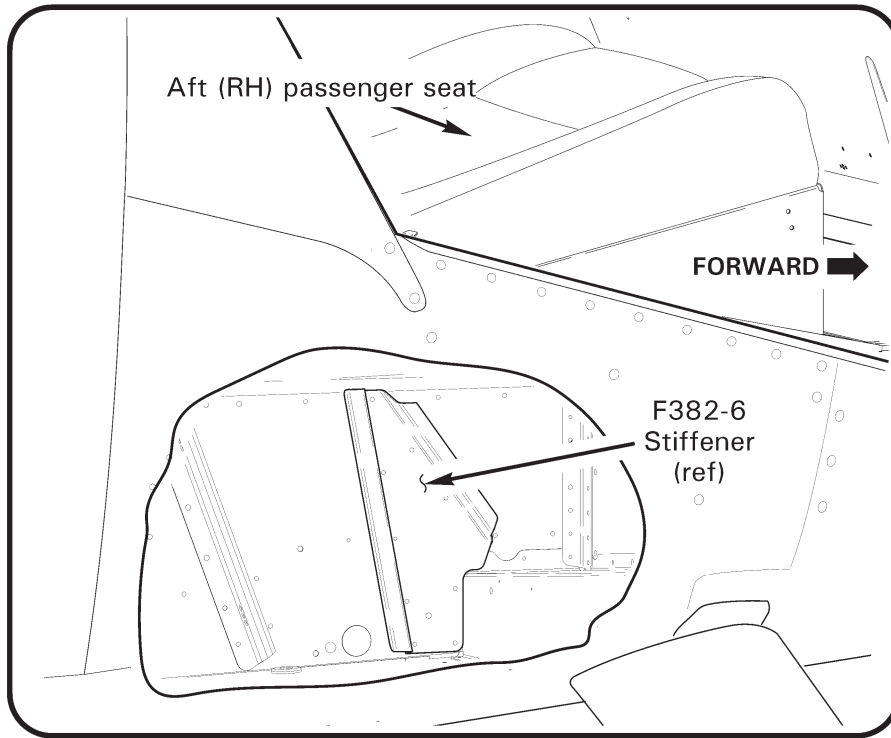


Figure 1 Nutplate and hole plug installation
(helicopter RH side shown)

Kit Instructions (continued)

3. Install appropriate nutplate drill jig in newly drilled hole and match drill (2) 0.097–0.102 rivet holes in F382-6 stiffener flange as shown. Create (2) 0.135–0.155 inch diameter, 100° countersinks at rivet holes. Clean up debris. Attach MS21069L08 nutplate to stiffener using (2) B204-5 rivets.

NOTE

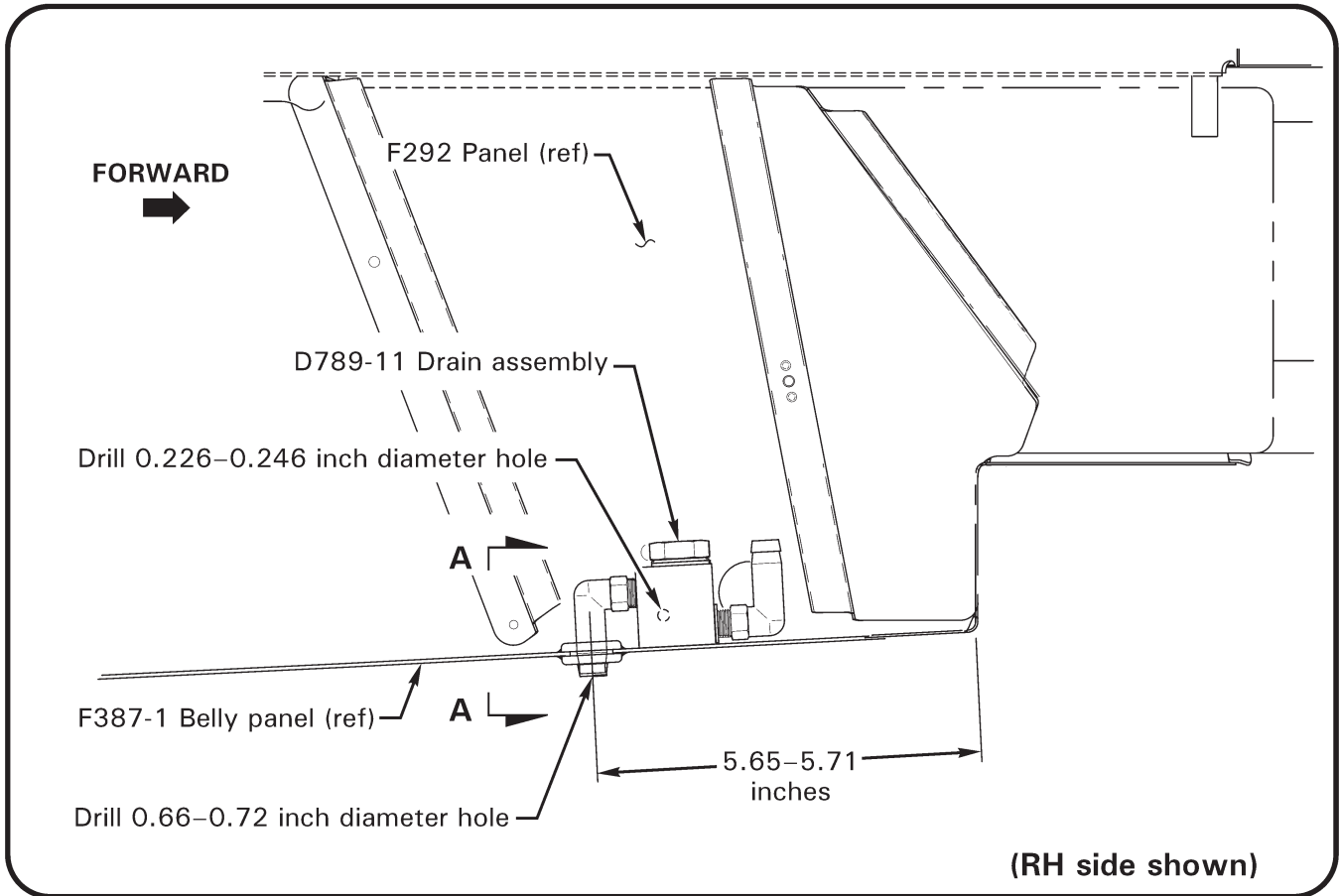
Use of a manual squeeze-type rivet installation tool is recommended to install B204-5 rivets.

4. Install 2683 hole plug in existing 0.750 inch diameter hole.
5. Refer to Figure 2. Verify clearance on reverse side and drill 0.66–0.72 inch diameter hole thru F387-1 belly panel as shown. Deburr hole and clean up debris. Temporarily install MS35489-11 grommet in newly drilled hole.
6. Position D789-11 drain assembly thru grommet in newly drilled hole as shown. Using thru-hole on drain assembly as guide, locate and mark one hole center on F292 panel. Remove drain assembly and grommet. Verify clearance on reverse side and, using a drill stop, drill 0.226–0.246 inch diameter hole at marked location on panel. Deburr hole and clean up debris. At installer's discretion, alodine and/or prime/paint hole(s) edges as described in NOTE below.

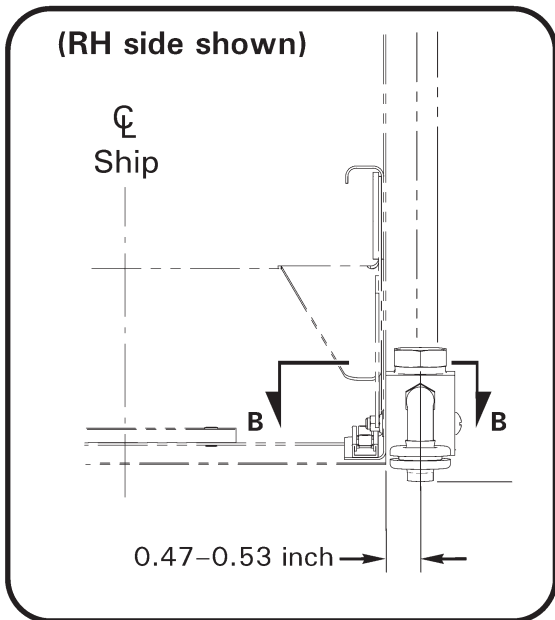
NOTE

After trimming or filing aluminum, finish edges as follows: Deburr trimmed edges with 220-grit or finer wet-or-dry aluminum oxide abrasive paper. Solvent-clean deburred edge and apply Bonderite M-CR 1132, or Bonderite M-CR 1201 Aero in accordance with manufacturer's instructions. Apply epoxy primer to dry edge. Touch up with helicopter paint color, where applicable, is optional.

7. Refer to Figure 3. Install MS35489-11 grommet.
8. Install A729-59 tube and secure using D277-8 clamp. Connect D789-11 drain assembly using D277-9 clamp and position clamp prongs inboard towards panel. Install drain assembly through grommet and secure to F292 panel using MS27039C0820 screw, NAS1149FN816P washer, and MS21042L08 nut. Secure tube to stiffener using MS21919WDG8 clamp and MS27039C0806 screw as shown.
9. Perform steps 4 thru 8 on opposite, left-hand side via LH-aft seat baggage compartment, noting in step 5, the existing hole is enlarged as shown in Figure 2, Detail B-B.



Detail A-A



Detail B-B

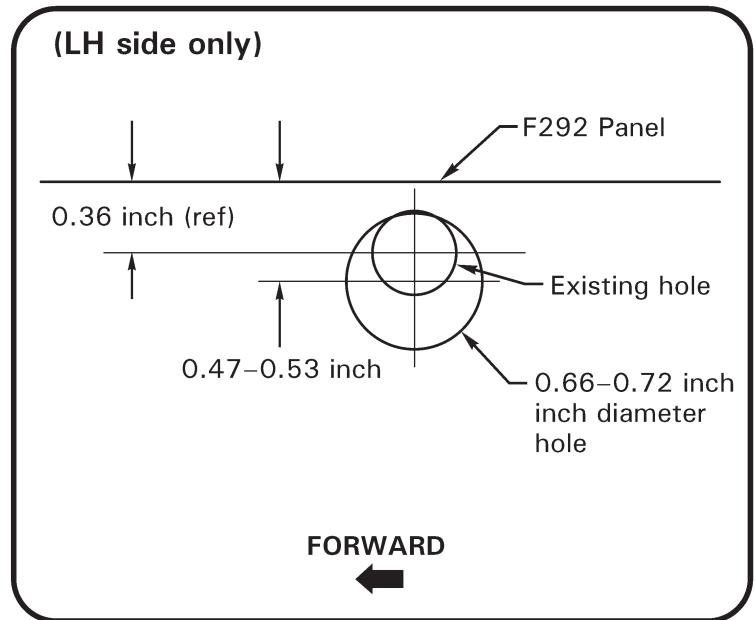


Figure 2 Drilling locations for drain assembly installation

Kit Instructions (continued)

10. Perform function test on right-hand and left-hand drain installation as follows:
 - a. Remove center seat assembly per MM § 25-21C.
 - b. Remove F474-1 cover (refer to IPC Figure 6-3).
 - c. Position a catch basin under each drain assembly. Using a funnel, pour water into sump under blower assembly. Avoid wetting blower motor.
 - d. Verify water drains overboard without internal leaks.
 - e. Install F474-1 cover.
 - f. Install center seat assembly per MM § 25-21C.
11. Install D679 cylinder assembly per MM § 32-61, as required.
12. Make appropriate maintenance record entries. Weight and Balance change is negligible.

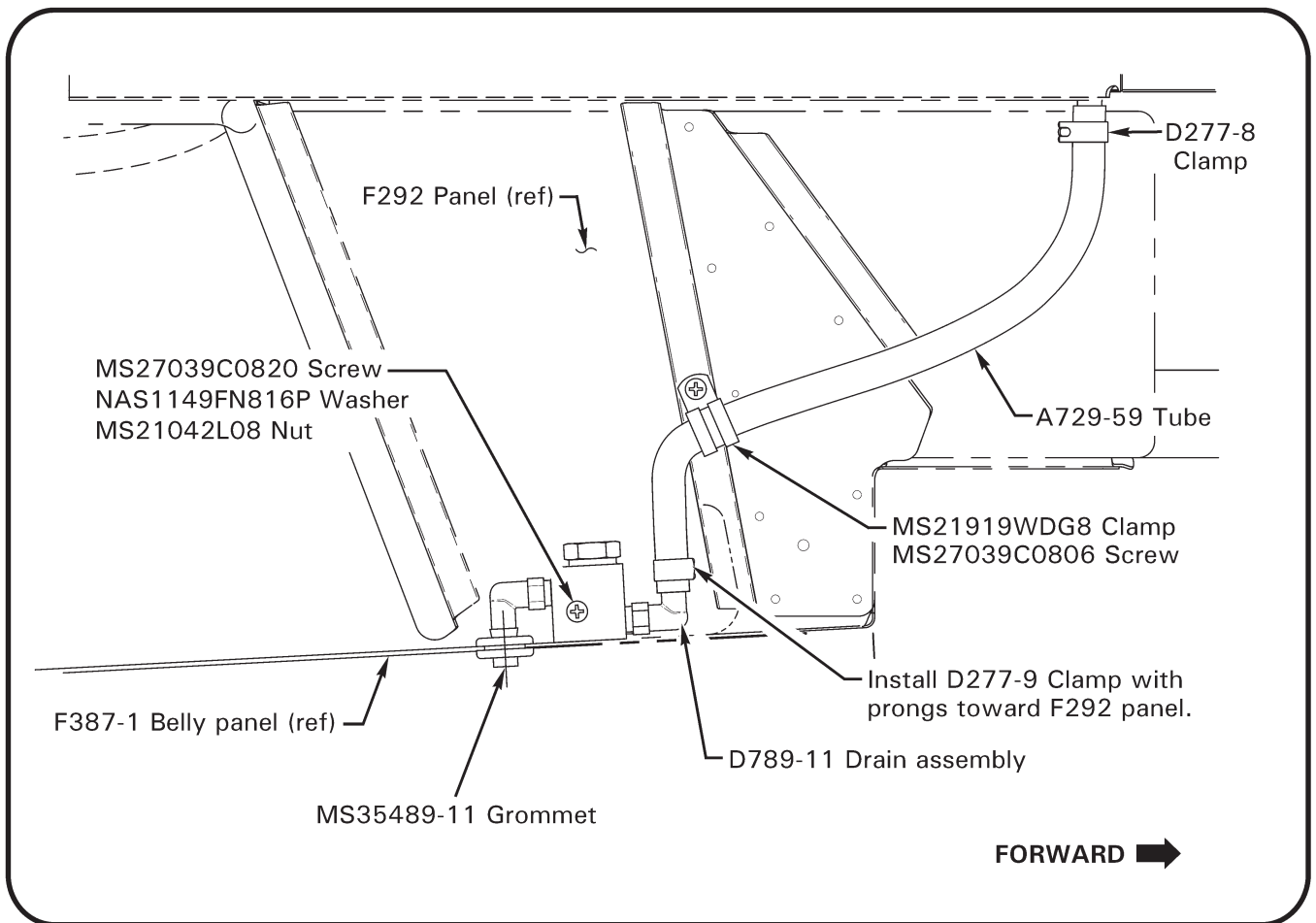


Figure 3 Drain installation
(RH installation shown; LH installation similar)