

R44-series & R66 Cyclic Guard Installation Kit Instructions
Kit installs Cyclic Guard.

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.

NOTE

Rivets included in kit are provided as a courtesy and at lengths most commonly used on production helicopters. Proper rivet length is determined by installer during installation.

ITEM	PART NUMBER	KIT CONTENTS	QTY
1	KI-280Instr.	Kit Instructions	1
2	B204-5	Blind Rivet	4
3	G721-1	Cyclic Guard Assembly	1
4	G722-6	Plate	1
5	R3592	Set Screw (P/N S300NB17CA606912NNMA3)	1
6	MS21042L08	Nut	1
7	MS27039C0807	Screw	1
8	MS27039C0808	Screw	2
9	NAS1097AD3-3+	Rivet (Note: "+" in part number indicates 50-qty pack)	1
10	NAS1149FN816P+	Washer (Note: "+" in part number indicates 20-qty pack)	1
11	NAS1352-08-6	Screw	2
12	NAS1474A08	Nutplate	2

Special Tools

- 90° offset Phillips screwdriver, minimum 8 inch length
- 1/16-inch hex key wrench
- Drilling, deburring, and countersinking tools
- Blind rivet installation tool (optional)

Kit Instructions

1. Ensure battery and avionics switches are off. Disconnect negative (ground) cable from lead-acid battery per R44 Maintenance Manual (MM) § 37-10A or R66 MM § 96-11A, or from lithium-ion battery per R66 MM § 96-12B, as applicable.

Kit Instructions (continued)

2. Remove avionic equipment from avionics tray(s), referring to R44 MM Chapter 38 or R66 MM Chapter 97, as required. Remove hardware securing avionics tray(s) using 90° offset phillips screwdriver and a 7/32-inch deep socket. Carefully reposition avionic tray(s), leaving harness connections attached, setting tray stack aside.
3. As applicable, refer to R44 or R66 Illustrated Parts Catalog (IPC) Figure 21-1. Remove and discard installation hardware securing C365-13 (LH) control mount assembly to inside of LH lower console panel; if control mount is secured using screws, nuts & washers, discard screws only. Temporarily cover inside console area to catch drilling debris.
4. Refer to Figure 1. Temporarily install G722-6 plate to outside of console, and C365 control mount to inside of console, using (2) MS27039C0808 screws (and retained nut/washer, if removed) in vacated holes. Using plate as template, match drill (1) 0.169–0.175 inch diameter hole in console. Remove plate and control mount, retaining all hardware. Deburr newly drilled hole and clean up debris.
5. Install R3592 set screw flush to G722-6 plate using 1/16-inch hex key wrench. Install plate to outside of console, and C365 control mount to inside of console, using (2) MS27039C0808 screws (and retained nut/washer, if removed); install (1) MS27039C0807 screw, (1) NAS1149FN816P washer, and (1) MS21042L08 nut, in remaining hole, securing plate.
6. Refer to Figure 2 (R44) or Figure 3 (R66). Layout dimensions on forward-side of (R44) C297-4 support or (R66) F297-2 support, as shown. If seat-mounted intercom button is installed, remove clamp at inboard location and temporarily reposition wire.

NOTE

LH forward seat may be removed to allow additional work space when installing NAS1474A08 nutplate; removal of seat is at installer's discretion.

7. Drill (2) 0.090–0.110 inch diameter pilot holes in center location for nutplate installation as marked. Drill (1) 0.097–0.102 inch diameter rivet hole as marked at each nutplate location. Cleco (1) NAS1474A08 nutplate in each location, positioned as shown in Figure 2 or 3, and verify drilled hole locations. Match drill opposite rivet hole at each nutplate. Remove nutplates.
8. Drill (2) center pilot holes to 0.169–0.175 inch diameter and deburr holes. Create (4) 0.135–0.155 inch diameter, 100° countersinks, forward-side of support, in rivet installation holes. Clean up debris. Install nutplates using (4) NAS1097AD3-3 rivets, or B204-5 blind rivets, at installer's discretion.
9. Refer to Figure 1. Position G721-1 cyclic guard assembly with plunger at slot in G722-6 plate. Pull plunger out and slide latch aft into slot. Release plunger into hole at aft end of plate, securing cyclic guard assembly in raised position. Secure aft end of cyclic guard assembly to (R44) C297-4 support or (R66) F297-2 support, using (2) NAS1352-08-06 screws.
10. With cyclic guard assembly in raised position and plunger fully engaged, verify forward-aft movement does not exceed .015 inch. If movement exceeds limit, lower guard and adjust set screw counterclockwise. Return guard to raised position. Ensure plunger is fully engaged, then verify forward-aft movement. Repeat adjustment procedure, as required.

Kit Instructions (continued)

11. Install seat intercom button and LH forward seat, if removed.
11. Remove temporary cover from inside console area. Verify console area is free of debris. Install avionic tray(s) and avionic equipment in avionics tray(s), referring to R44 MM Chapter 38 or R66 MM Chapter 97, as required.
12. Connect negative (ground) cable to lead-acid battery per R44 § 37-10B or R66 MM § 96-11B, or to lithium-ion battery per R66 MM § 96-12C, as applicable.
13. Revise helicopter's Weight and Balance Record in Pilot's Operating Handbook (POH) Section 6 to reflect this installation by incorporating the following data:

Install:

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
KI-280 Cyclic Guard Installation	+0.4 lb	35.0 in.	+14.0 in.-lb	-4.7 in.	-1.9 in.-lb

14. Make appropriate maintenance record entries.

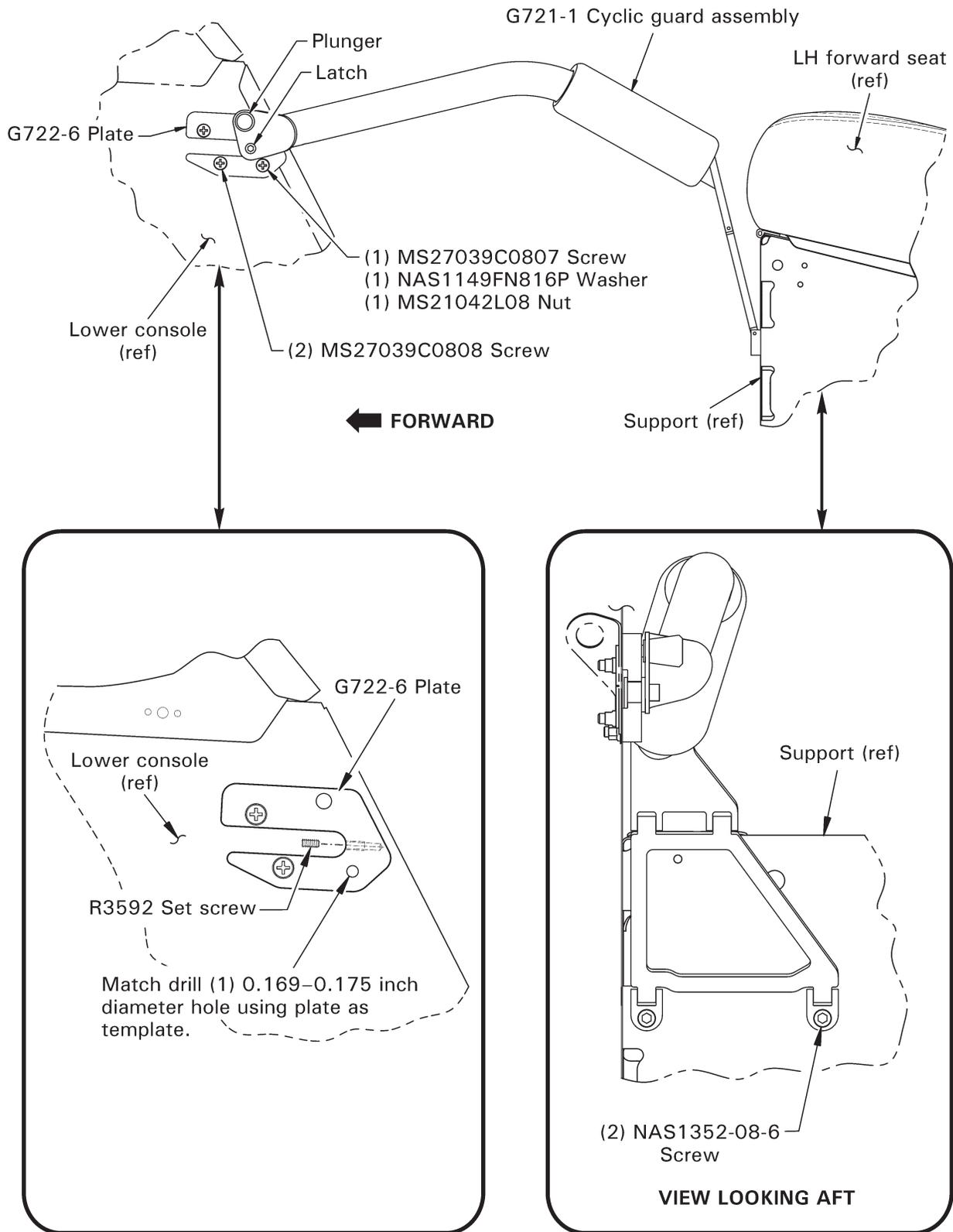


FIGURE 1 G720-1 Cyclic guard installation
(view looking inboard from helicopter LH side)

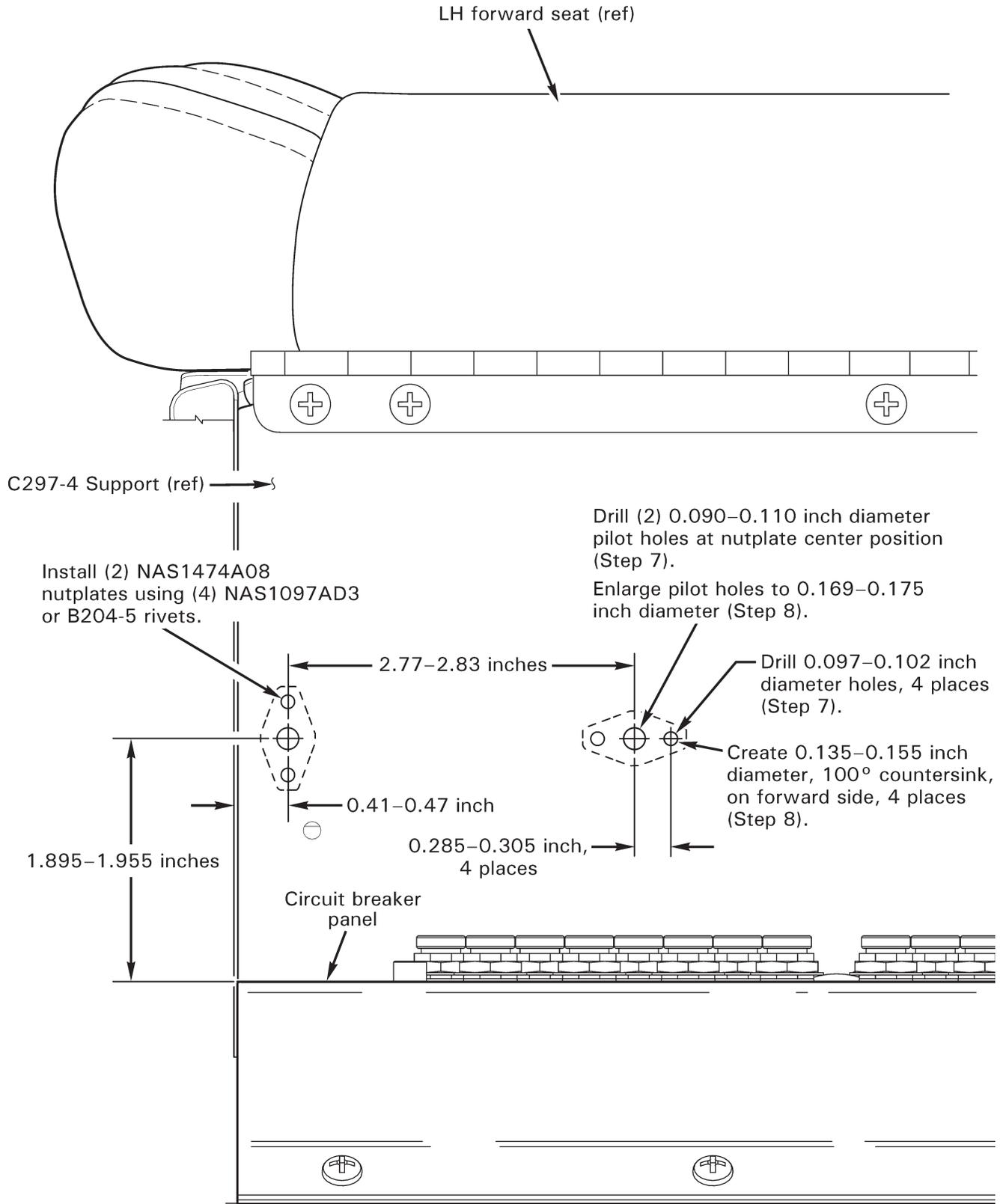


FIGURE 2 R44 Nutplate locations
(view looking aft; G196 light assembly not shown for clarity)

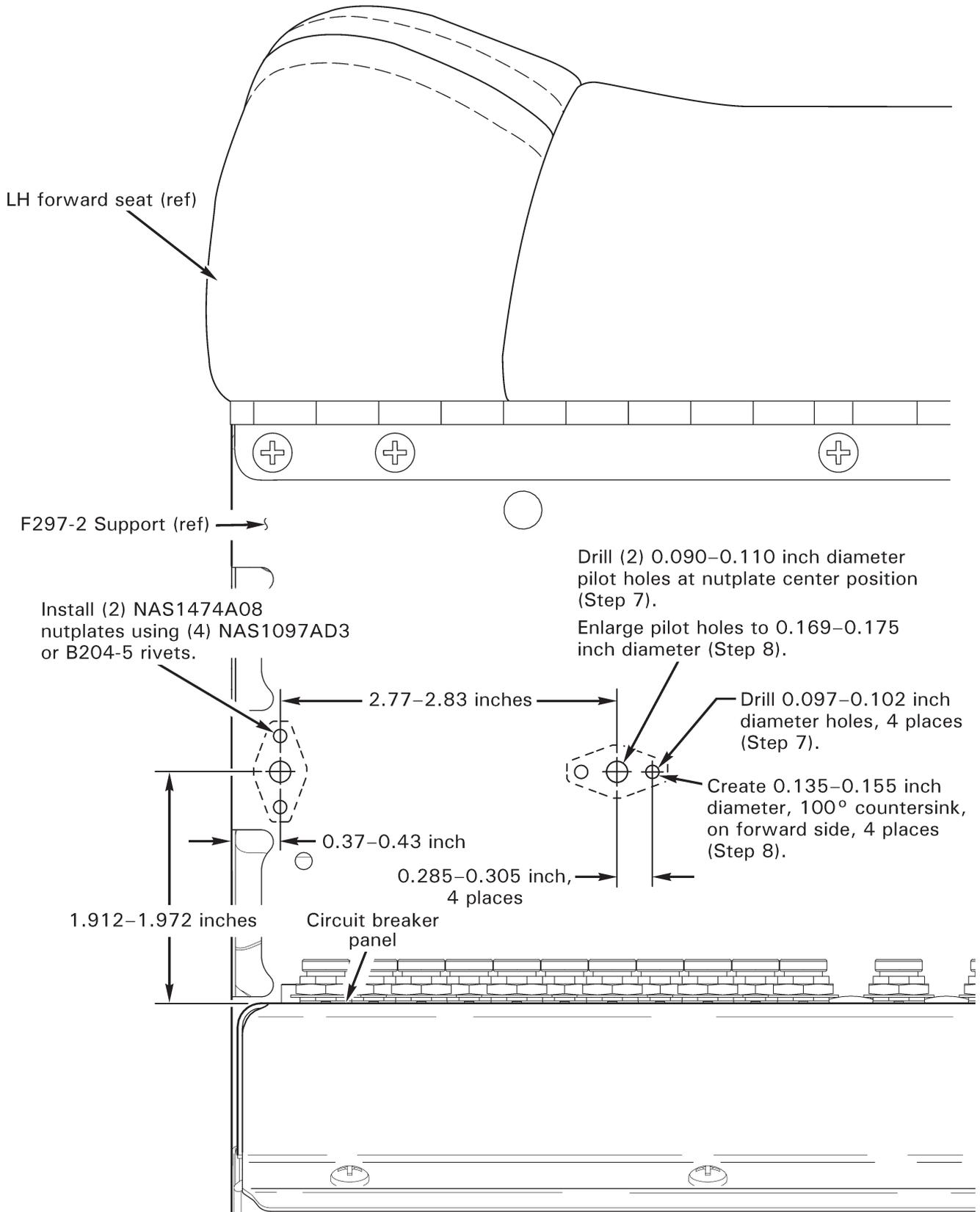


FIGURE 3 R66 Nutplate locations
 (view looking aft; G196 light assembly not shown for clarity)