

KI-244-1 (LH) & KI-244-2 (RH) R44-series Forward Door Kit Instructions

For upgrading to forward doors with C224-13 rod assembly (bottom latching rod; door not included)

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 NUMBER	PART NUMBER	DESCRIPTION	QTY PER KI-244-1 (LH)	QTY PER KI-244-2 (RH)
KIT CONTENTS				
1	KI-244 Instr.	Kit Instructions	1	1
2	B427-1	Ring	2	2
3	C227-1	Hinge Assembly (LH, Lower)	1	0
4	C227-2	Hinge Assembly (RH, Lower)	0	1
5	C227-3	Hinge Assembly (LH, Upper)	1	0
6	C227-4	Hinge Assembly (RH, Upper)	0	1
7	C537-11	Block	1	1
8	AN525-832R6	Screw	2	2
9	MS51861-37C	Screw	4	4
10	NAS1149FN832P	Washer	12	12

Kit Instructions

CAUTION

Use proper personal protective equipment when handling fiberglass.

CAUTION

Protect door windows and paint from damage when door maintenance is performed on workbench.

1. Refer to Figure 1. On applicable side of helicopter, remove forward two screws securing D805-2 restraint, loosen aft screw, and pivot restraint up and away from door opening (remove sealant as required). Apply masking tape on surfaces of C238 retainer, new C227 hinge assemblies, and new C026-011 or C026-012 door assembly (not included), to mark with soft pencil.
2. Press door’s forward and top edge weather seals against door frame recess (rain gutter interferes with top edge until door is trimmed). From inside cabin, estimate material to be removed from door’s top edge, then transfer estimated edge distance to door. Remove door.
3. Using 60-grit sanding disc, trim top door edge; remove small amounts and test fit frequently. Perform steps 2 and 3 until top edge weather seal is evenly squeezed against door frame recess.

Kit Instructions (continued)

4. Press door's forward and top edge weather seals against door frame recess. Using soft pencil, trace door's forward edge onto masking tape, remove door, measure amount door overlaps C238 retainer, then transfer and mark overlap dimension onto door.
5. Using 60-grit sanding disc, trim forward door edge; remove small amounts and test fit frequently. Perform step 2, 4, and 5 until forward weather seal is evenly squeezed.
6. Using soft pencil and a straightedge, draw crosshairs through centers of door's pre-drilled holes, where upper hinge assembly will be installed. Hold fitted door against frame, insert new (door-mounted) hinge assembly in frame-mounted hinge assembly, and transfer crosshairs onto hinge (double-sided adhesive tape facilitates positioning hinge on door). Remove hinge and door.
7. Drill (2) 0.169–0.175 inch diameter holes at cross hair intersections in hinge assembly. Remove tape and deburr hinge. Solvent clean then epoxy prime bare metal (refer to Maintenance Manual [MM] § 1.400). Install (2) MS51861-37C screws securing hinge to door, special torque screws to 36 in.-lb, and verify security.
8. Repeat steps 6 and 7 for lower door-mounted hinge assembly.
9. Install door. Using 60-grit sanding disc, trim and bevel door edges as required for final fitting.
10. Mark tip of C224-13 rod assembly with light-color felt tip marker. Close door and manipulate latch to mark door sill; retract latch and remove door.
11. Refer to MM § 15.320. Carefully peel up carpet as required to access underside of door sill.
12. Refer to Figure 2. Lay out dimensions on sill where C537-11 block will be installed, drill (3) 0.169–0.175 inch diameter holes with drill stop (two screw holes and one rod hole at rod mark), and deburr. Clean up debris. Position block on inside of sill and install (2) AN525-832R6 screws. Verify security.
13. Enlarge rod hole in sill and block to 0.256–0.276 inch diameter using drill with stop, at 55° angle from sill as shown. Deburr hole. Install door and verify door opens and closes smoothly and latches correctly; remove door. Remove drilling debris. Solvent clean then epoxy prime bare metal (refer to MM § 1.400).
14. Adhere carpet as required per MM § 15.320. Verify security.
15. Solvent clean and touch-up door as required using approved materials per MM § 1.400. Install door and align gas spring rod with arm assembly ball joint and push gas spring down to lock. Install new B427-1 rings in door hinge pins.

WARNING

Failure to install a ring in each door's two hinge pins may allow door to depart aircraft in flight.

16. Refer to Figure 1. Pivot D805-2 restraint down into original position. As required, add or remove NAS1149FN832P washers underneath restraint at retaining screws to create a 0.01–0.05 inch gap between restraint & door; length of screw may be adjusted for one thread minimum beyond nut. Verify security.
17. As required, seal around restraint/retainer/rain gutter junction with B270-1 sealant and topcoat.
18. Paint door as desired.
19. Weigh new and old door and update helicopter weight and balance data.

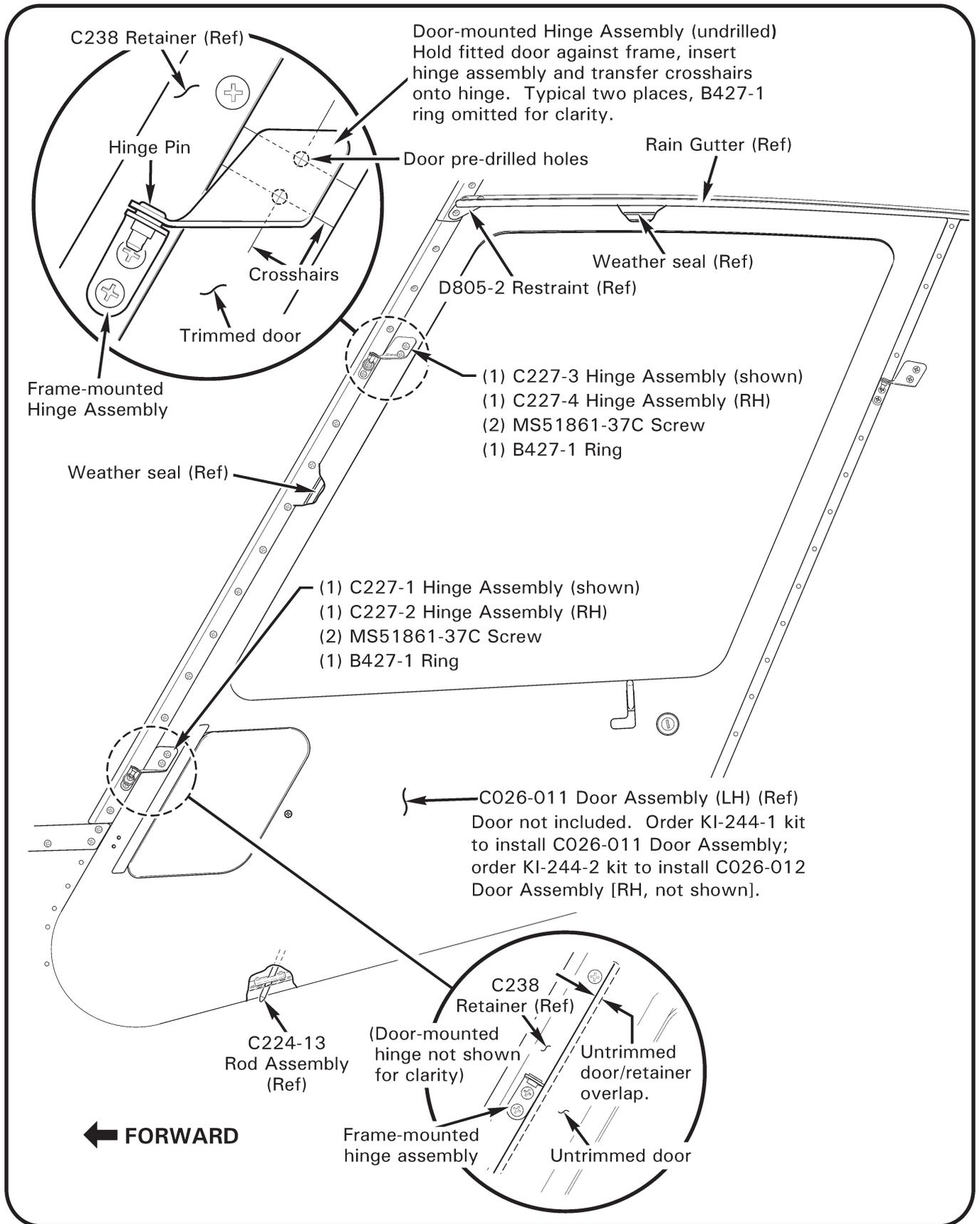


FIGURE 1 (VIEW LOOKING INBOARD)

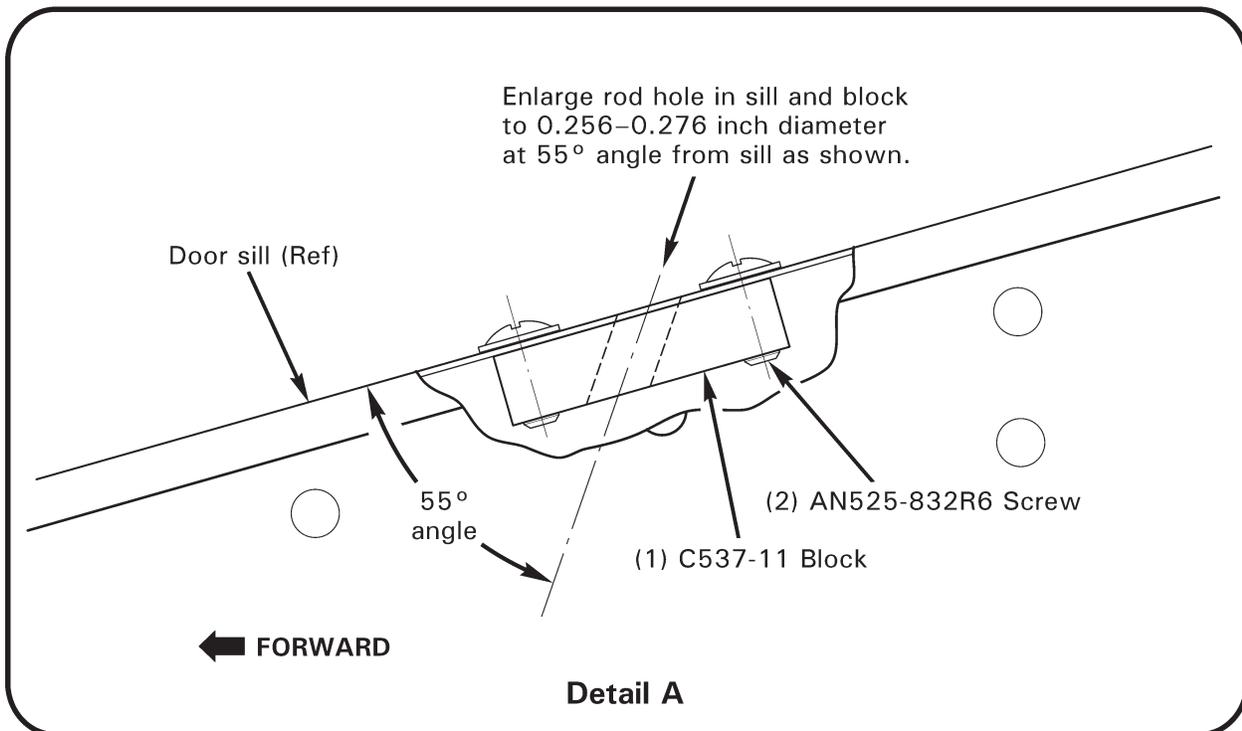
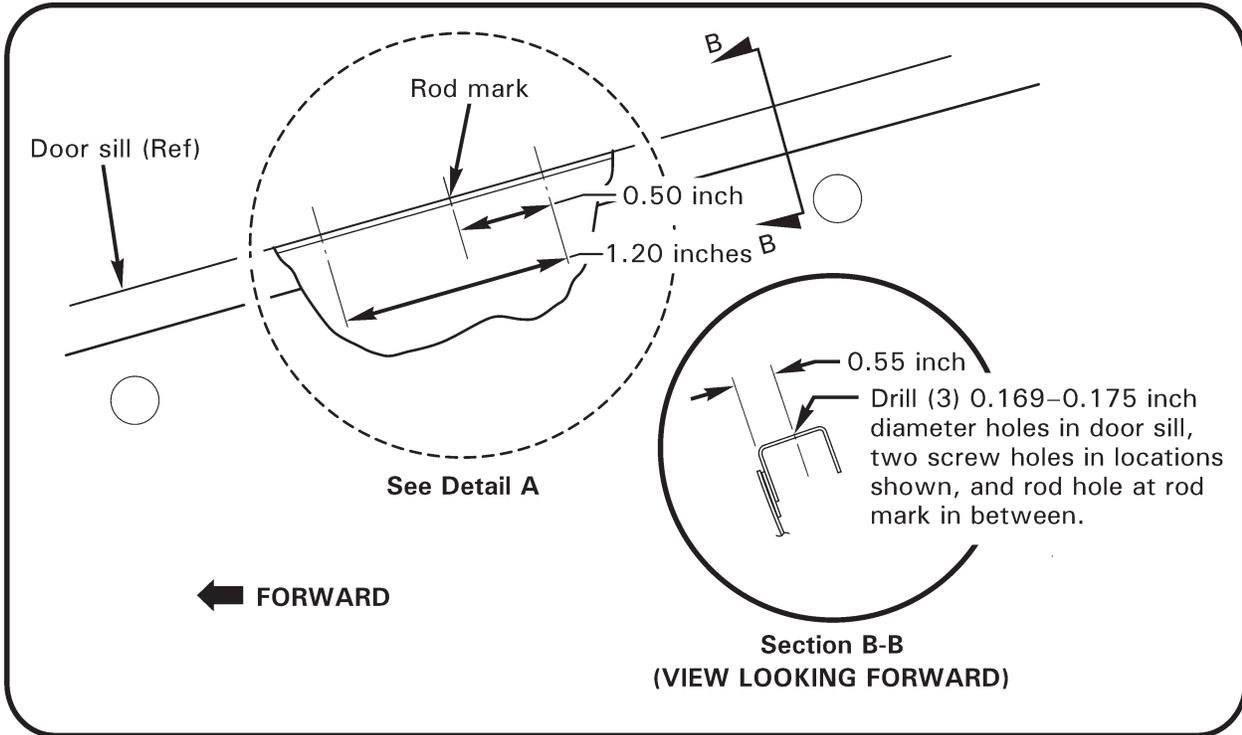


FIGURE 2 (VIEW LOOKING INBOARD)