

R44-series Lead-Acid Battery To Lithium-Ion Battery (Aft) Conversion Kit Instructions

Kit replaces lead-acid battery installation with True Blue Power® TB17 (RHC P/N D237-2) lithium-ion battery installation on helicopters equipped with factory-installed provisions; battery is not included. Use KI-265-6A on R44 S/N 2625 & subsequent, and Cadet S/N 30071 & subsequent. Use KI-265-6B on R44 II S/N 14412 & subsequent.

NOTE

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

ITEM	PART NUMBER	KIT CONTENTS	QTY PER KI-265-6A	QTY PER KI-265-6B
1	KI-265-6Instr.	Kit Instructions	1	1
2	A372-1	Tube	1	1
3	A785-42	Hose	1	1
4	B277-12	Clamp	2	2
5	D131-3	Retainer	2	2
6	F693-6	Harness Assembly – Lithium-ion Battery (AFT)	1	1
7	G198-5	Indicator panel (R44 II With TB17)	0	1
8	G198-9	Indicator panel (R44 With TB17)	1	0
9	G405-2	Bumper	4	4
10	G598-4	Cover	1	1
11	MS3367-4-9+	Ty-rap (Note: “+” in contents part number indicates 20-qty pack)	1	1
12	MS3367-5-9+	Ty-rap (Note: “+” in contents part number indicates 20-qty pack)	1	1
13	MS20470AD3-2.5+	Rivet (Note: “+” in part number indicates 50-qty pack)	1	1
14	MS35206-213	Screw	2	2

Special Tools

- Step drill or hole saw

Kit Instructions

1. Ensure ignition switch is OFF; remove key. Turn BATTERY switch OFF.
2. Refer to Illustrated Parts Catalog (IPC) Figures 6-13, 53-1, & 53-5. Remove D041-1, D040-1, C377 (LH), and C378 (RH) cowling assemblies. **R44 II only:** Remove D057-2 airbox assembly per R44 Maintenance Manual (MM) § 6.470.
3. Remove lead-acid battery per MM § 37-10 A.
4. Refer to IPC Figure 96-12A. Remove D131-2 retainers; retain hardware.

Kit Instructions (continued)

5. Refer to IPC Figure 96-13A. To remove G198 indicator panel, remove upper console anchor screws and open upper console ref MM § 13-80. Alternately removal of indicator panel can be accessed by removing associated Electronic Flight Display per MM § 13-70.
6. Refer to Figure 1. Remove jam nut behind the console face and G198 annunciator panel. Remove the push to test switch to annunciator panel. Retain hardware and disconnect existing annunciator panel from airframe harness.
7. Install push-to-test switch to G198-5 or -9 indicator panel. Connect airframe harness connector to annunciator panel and position on console face assembly. Install retained hardware securing annunciator to the console face assembly. Verify security.
8. Install upper console anchor screws and secure console in closed position per MM § 13-80 or install Electronic Flight Display per MM § 13-71.

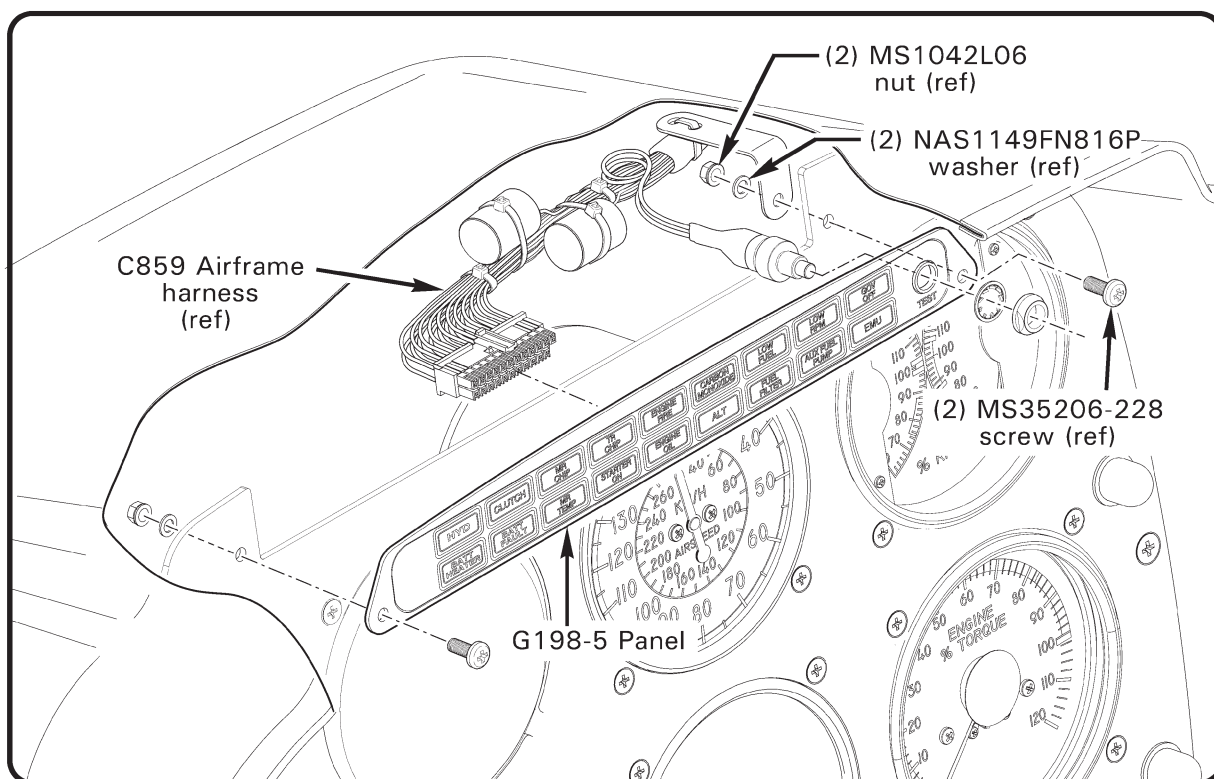


FIGURE 1 Indicator panel installation
(R44 II with 8-Instrument console panel shown)

Kit Instructions (continued)

9. Refer to Figure 2. Lay out location for 0.86 inch diameter hole and (2) 0.097-0.102 inch diameter holes on D040-1 cowling assembly as shown.
10. Refer to IPC Figures 96-13A & 6-13. Center A372-1 tube over hole on D041-1 cowling assembly and cleco in place. Using tube as guide, progressively drill (4) remaining 0.097–0.102 inch diameter holes and install clecos. Remove clecos and tube.
11. Deburr holes and clean up debris. At installer's discretion, alodine and/or prime/paint holes 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.

12. Cleco A372-1 tube in position. Progressively remove clecos and install tube using (6) MS20470AD3-2.5 rivets. Install D041-1 cowling.
13. Refer to IPC Figure 96-13A. Install D131-3 retainers (provided in kit) using retained hardware. Install (4) G405-2 bumpers. Install A785-42 hose to A372-1 tube using B277-12 clamp. Install G598-4 cover to D809-3 cover assembly using (2) MS35206-213 screws.
14. Perform pre-installation inspection and completely charge D237-2 lithium-ion battery per [True Blue Power Installation Manual and Operating Instructions](#) revision M or subsequent. If battery is new, also perform visual inspection, charging, capacity check, and return to service per [True Blue Power Installation Manual and Operating Instructions](#) revision M or subsequent.
15. Carefully install battery and connect F693-6 harness assembly to battery.
16. Verify battery switch is off. Verify battery terminal surfaces are clean. Install positive cable on battery positive terminal and install battery hardware. Special torque terminal bolt as noted on battery label, and torque stripe per MM Figure 2-1. Slide nipple over terminal.
17. Install negative (ground) cable to battery negative terminal and install battery hardware. Special torque terminal bolt as noted on battery label, and torque stripe per MM Figure 2-1.
18. Refer to IPC Figure 96-13A. Locate stowed (lithium battery interface) D269-2 receptacle. Cut ty-raps securing stowed receptacle and remove heat shrink. Connect receptacle to F693-6 harness assembly and secure plug using (1) MS3367-4-9 ty-rap. Secure harness assembly to battery positive cable using (1) MS3367-5-9 ty-rap.
19. Connect A785-42 (vent) hose to battery using (1) B277-12 clamp. Verify security of hose.

Kit Instructions (continued)

20. Install D809-3 cover assembly per MM § 37-10 B 4. a.
21. Perform functional check of lithium-ion battery by switching battery and strobe switches on and verifying strobe function. Turn battery switch off.
22. 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-265-6 R44-series Lead-Acid to Lithium-Ion Battery (Aft) Conversion	+15.74 lb	101.54 in.	1598.24 in-lb	-16.63 in.	-261.76 in-lb

Remove:

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
B237-4 Battery	-29.50 lb	101.54 in.	-2995.43 in-lb	-16.67 in.	491.77 in-lb

23. Update Pilot's Operating Handbook (POH) Section 9 with Lithium-Ion Battery Supplement, available at <https://robinsonheli.com/> under the Publications tab.
24. Make appropriate maintenance record entries.

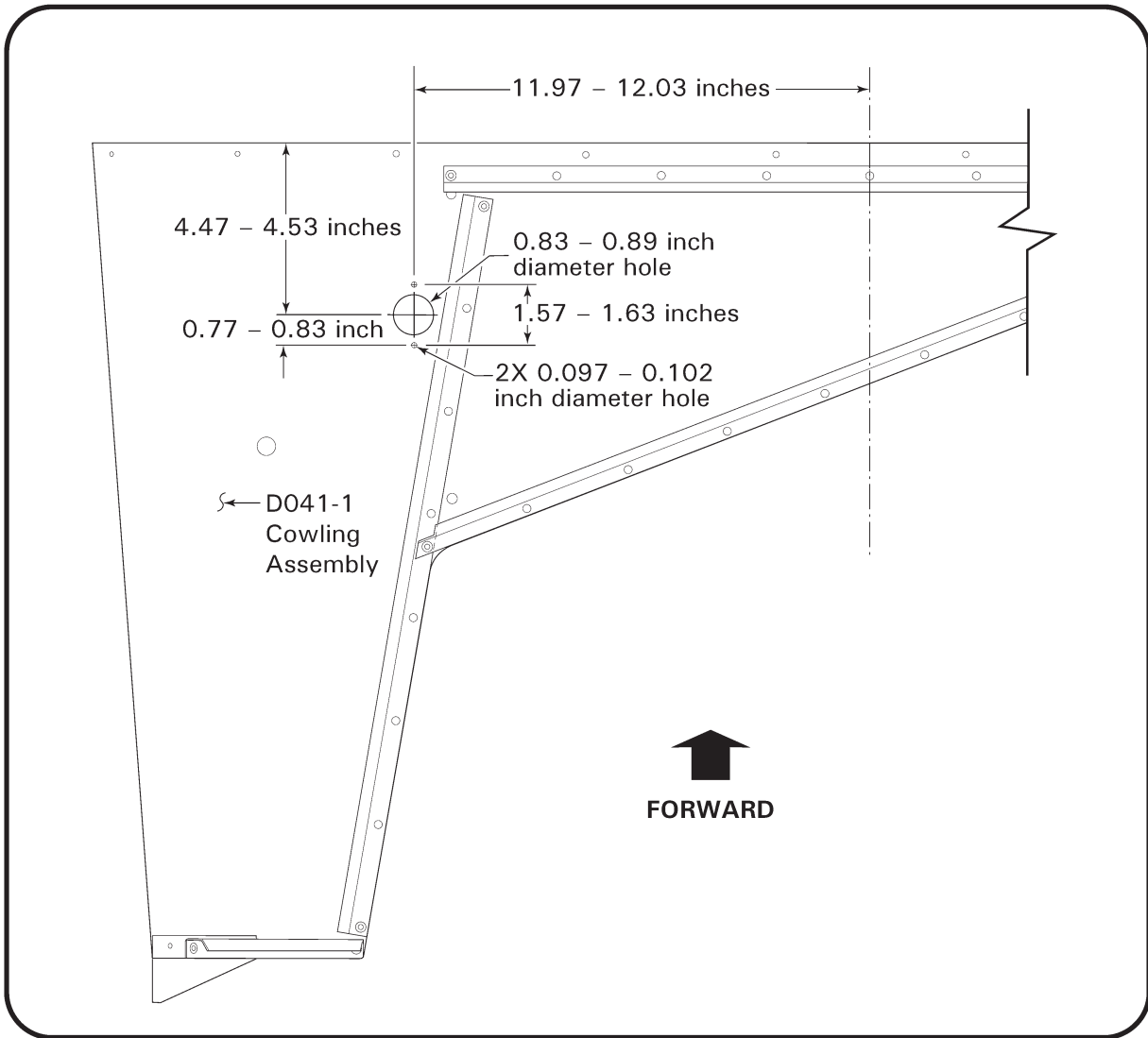


FIGURE 2 Lithium-Ion vent hole drill location