

**R44 II-series Full Throttle Caution Light Kit Instructions**  
*For compliance with R44 Service Letter SL-52*

**NOTE**

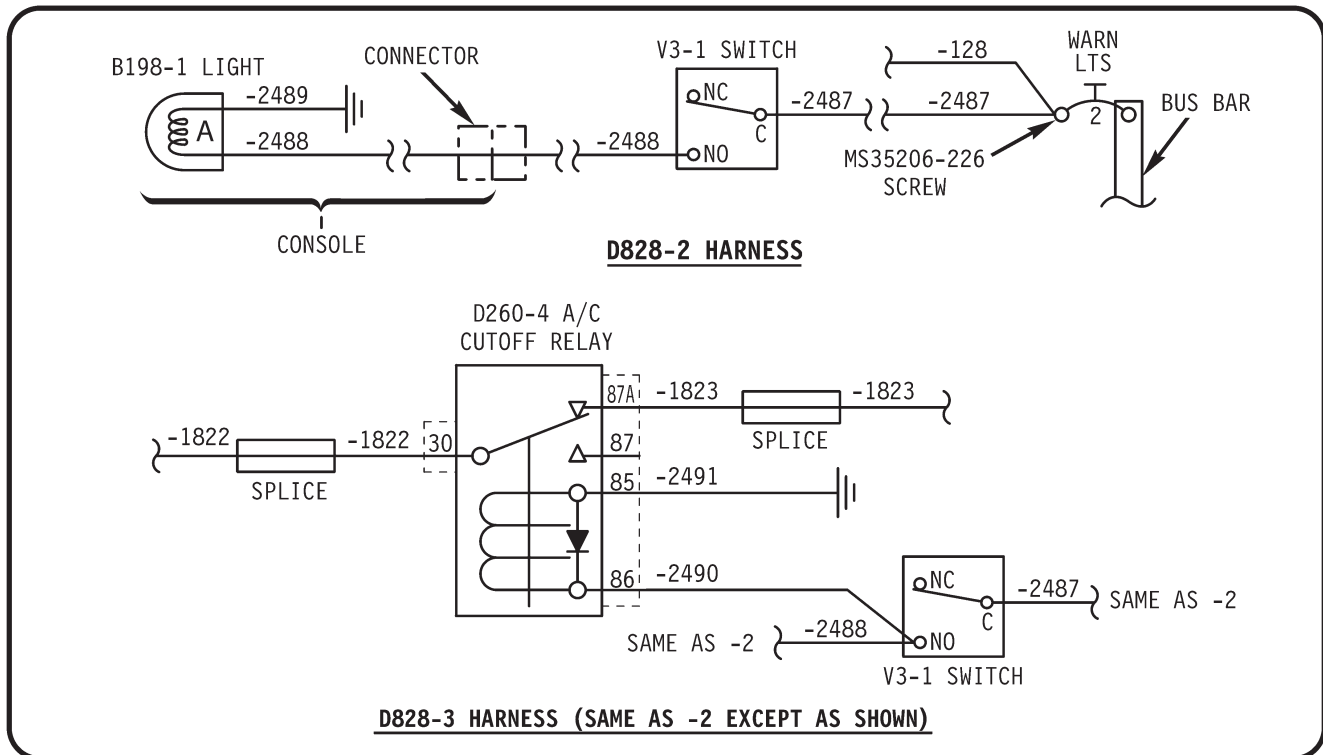
Visit [www.robinsonheli.com](http://www.robinsonheli.com) to verify kit instructions are current revision. Review instructions before installation; contact RHC Technical Support with questions. Verify kit contents match list; contact RHC Customer Service if parts are missing or damaged.

ITEM	PART NUMBER	KIT CONTENTS	QTY PER KI-218-3A	QTY PER KI-218-3B	QTY PER KI-218-3C
1	KI-218-3Instr.	Kit Instructions .....	1	1	1
2	B196-21	Lamp (28V) .....	1	1	1
3	B198-1	Light – Indicator (Amber) .....	1	1	1
4	B330-7	Palnut .....	2	2	2
5	B806-3	Decal – “FULL THROTTLE” .....	1	1	1
6	D210-3	Nut .....	2	2	2
7	D260-4	Relay .....	0	0	1
8	D731-1	Bellcrank Assembly (revision I or subsequent) .....	1	0	0
9	D731-8	Retainer .....	0	1	0
10	D731-11	Plate Assembly .....	1	1	1
11	D828-2	Wire Harness .....	1	1	0
12	D828-3	Wire Harness .....	0	0	1
13	JV-5	Actuator .....	1	1	0
14	V3-1	Switch .....	1	1	0
15	MS3367-4-9+	Ty-Rap (Note: “+” in part number indicates 20-qty pack) ..	1	1	1
16	MS3367-5-9+	Ty-Rap (Note: “+” in part number indicates 20-qty pack) ..	1	1	1
17	MS21042L08	Nut .....	0	0	1
18	MS27039C0806	Screw .....	0	0	1
19	MS35206-219	Screw .....	2	2	0
20	MS35206-226	Screw .....	1	1	1
21	NAS1149FN816P+	Washer (Note: “+” in part number indicates 20-qty pack) ..	0	0	1

**Kit Instructions**

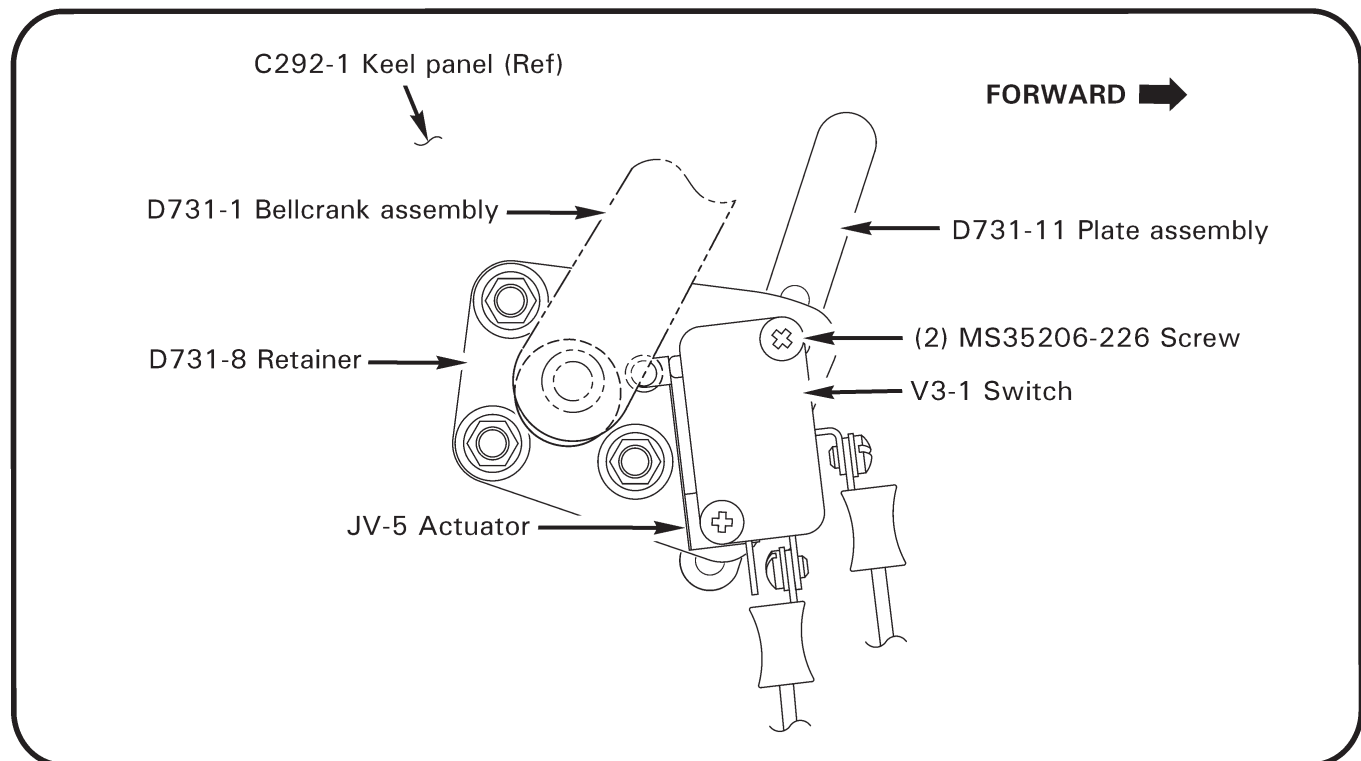
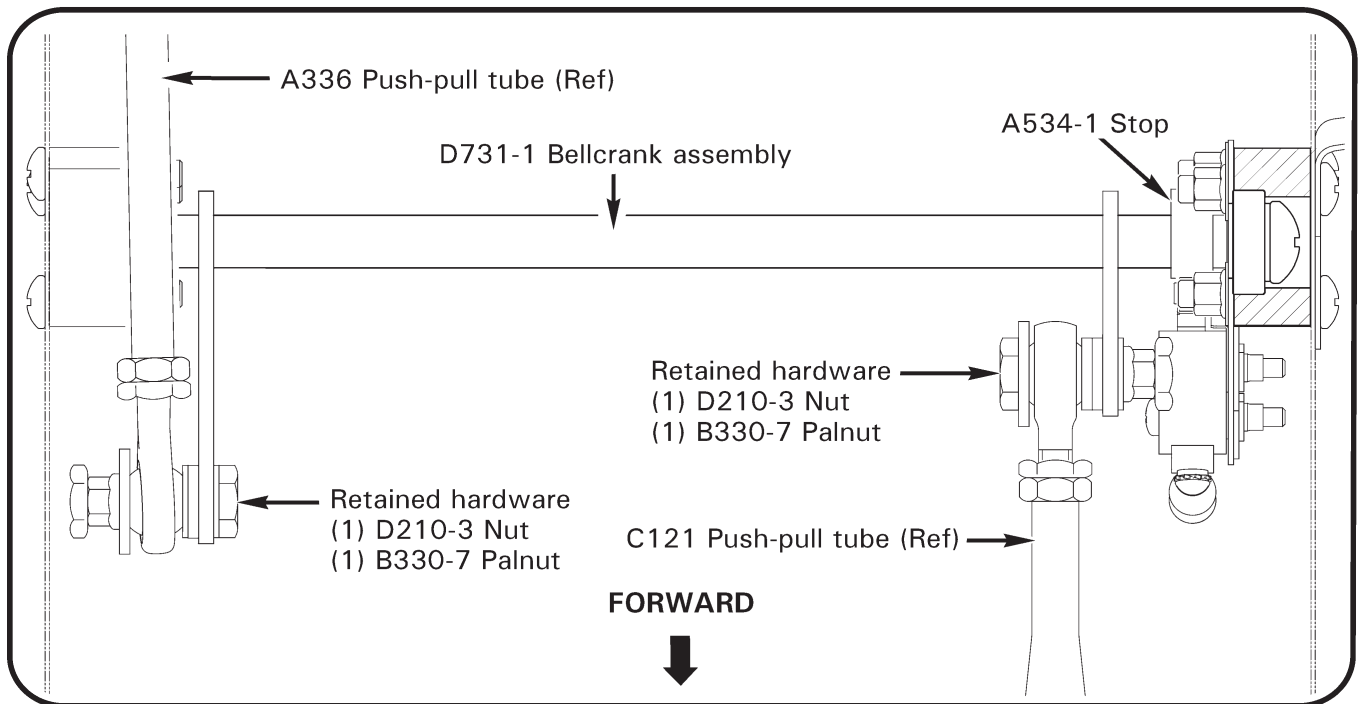
1. Turn battery switch off. Disconnect battery per R44 Maintenance Manual (MM) § 37-10.
2. Remove belly panels, C474-2 horizontal cover (between aft seats), and C606-2 cover (inside control tunnel). Remove left seat back assembly (air conditioning only). Open instrument console.
3. Refer to Figure 1. Disconnect D828-2 or -3 harness at connectors and set aside console portion.

**Kit Instructions (continued)**



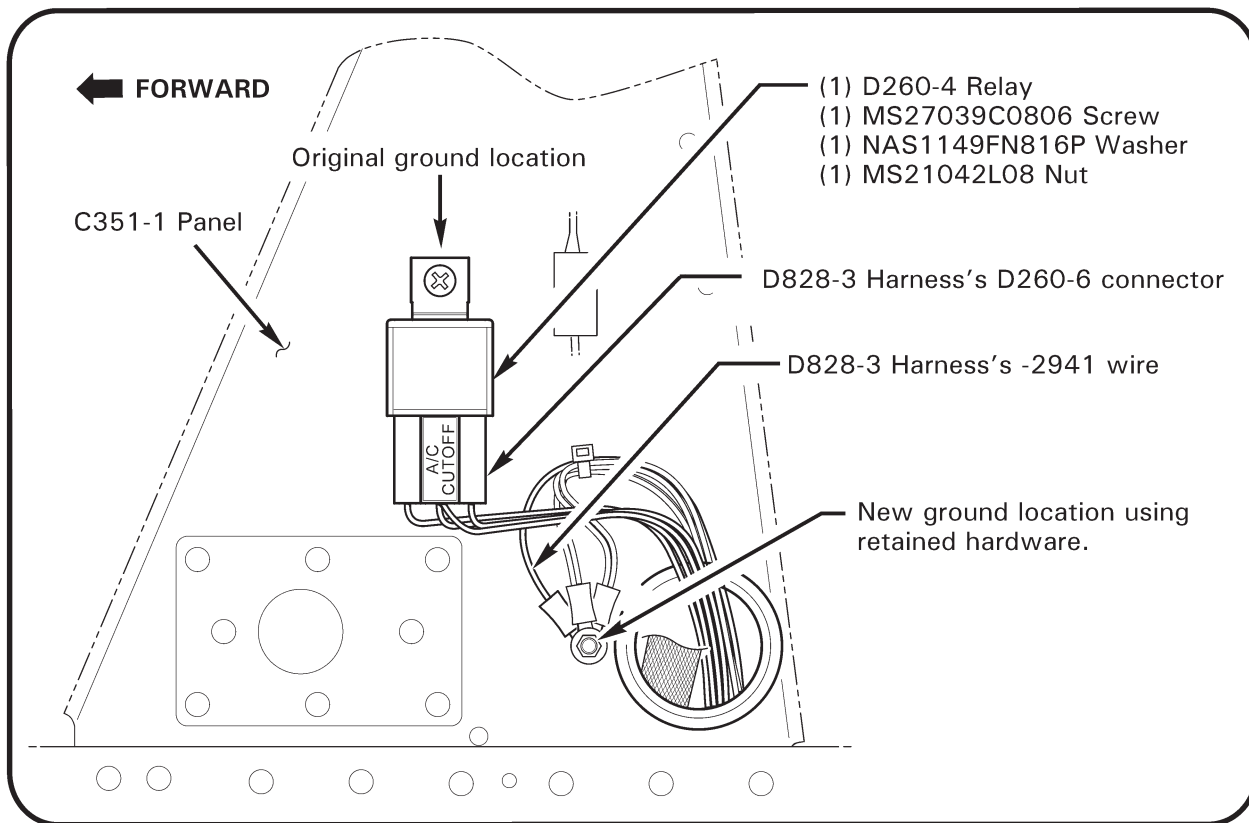
**FIGURE 1**

4. Refer to Figure 2. Remove and retain hardware securing C121 and A336 push-pull tubes to bellcrank.
5. **For helicopters without air conditioning:**
  - a. Remove hardware securing bellcrank to keel panels and remove bellcrank.
  - b. If bellcrank does not include A534-1 stop, discard bellcrank and proceed to 5(e), and install D73-1 revision I or subsequent bellcrank assembly.
  - c. If bellcrank includes stop but does not include D731-8 (slotted) retainer, secure bellcrank in a soft jaw vise and remove screw near A534-1 stop securing bearing housing and washers to weldment. Remove and discard earlier retainer and install new D731-8 retainer. Install bearing housing, washers, and screw on weldment. Special torque screw to 40 in.-lb.
  - d. Refer to Figures 1 and 2. Attach D828-2 harness's -2487 and -2488 wires to V3-1 switch and remove and discard switch's NC terminal screw and washer. Install screws securing switch, JV-5 actuator, and D731-11 plate assembly to D731-8 retainer.
  - e. Install hardware securing bellcrank to keel panels. Verify security. Proceed to step 8.
6. **For helicopters with air conditioning:** Refer to Figures 2 and 3. Remove and retain hardware securing ground wires to C351-1 panel. Route D828-3 harness wires inboard thru hole in panel. Connect D828-3 harness's D260-6 connector to new D260-4 relay and install hardware securing relay to panel. Remove primer at new ground location and attach existing ground wires and D828-3 harness's -2491 (ground) wire to panel using retained hardware. Verify security.



**FIGURE 2**

**Kit Instructions (continued)**



**FIGURE 3**

7. **For helicopters with air conditioning:** Remove hardware securing V3-1 switch, JV-5 actuator, and D731-11 plate assembly to retainer and discard plate assembly. Remove and retain hardware securing airframe harness's -1823 and -1822 wires to switch, cut off terminals, and strip wire ends. Crimp ends to D828-3 harness's -1823 and -1822 wires and verify security. Attach D828-3 harness's -2487 and -2488 wires to switch (terminal locations will be different) using retained hardware. Install screws securing switch, actuator, and new (longer) D731-11 plate assembly to retainer.
8. Install hardware securing push-pull tubes to bellcrank; use retained hardware but install new D210-3 nuts and B330-7 palnuts. Standard torque hardware per MM § 23-32 and torque stripe per Figure 2-1.
9. Open circuit breaker panel. Route -2487 wire to WARN LTS breaker. Remove and discard existing screw and secure -128 and -2487 wire terminal(s) to breaker using new MS35206-226 screw. Secure wires to airframe harness using MS3367 ty-raps as required. Cinch ty-raps until snug without over-tightening, and trim tips flush with heads. Close and secure panel.

**CAUTION**

Protect instrumentation using foam padding or equivalent. Handle instruments like eggs.

10. Remove warning and caution lights from lower panel as required. Remove perimeter screws securing face to console and pull face aft. Remove instruments from face and place on foam padding, but do not disconnect wiring, pitot/static lines, or MAP lines. Disconnect post lights.

**Kit Instructions (continued)****CAUTION**

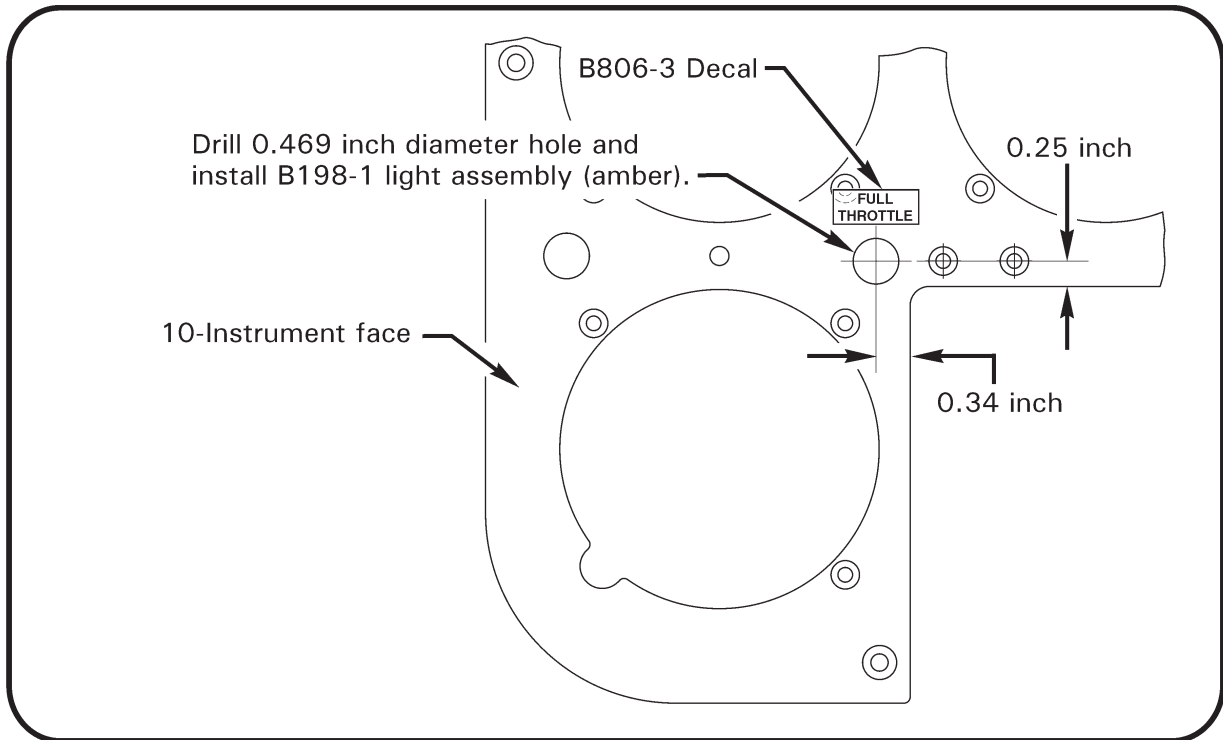
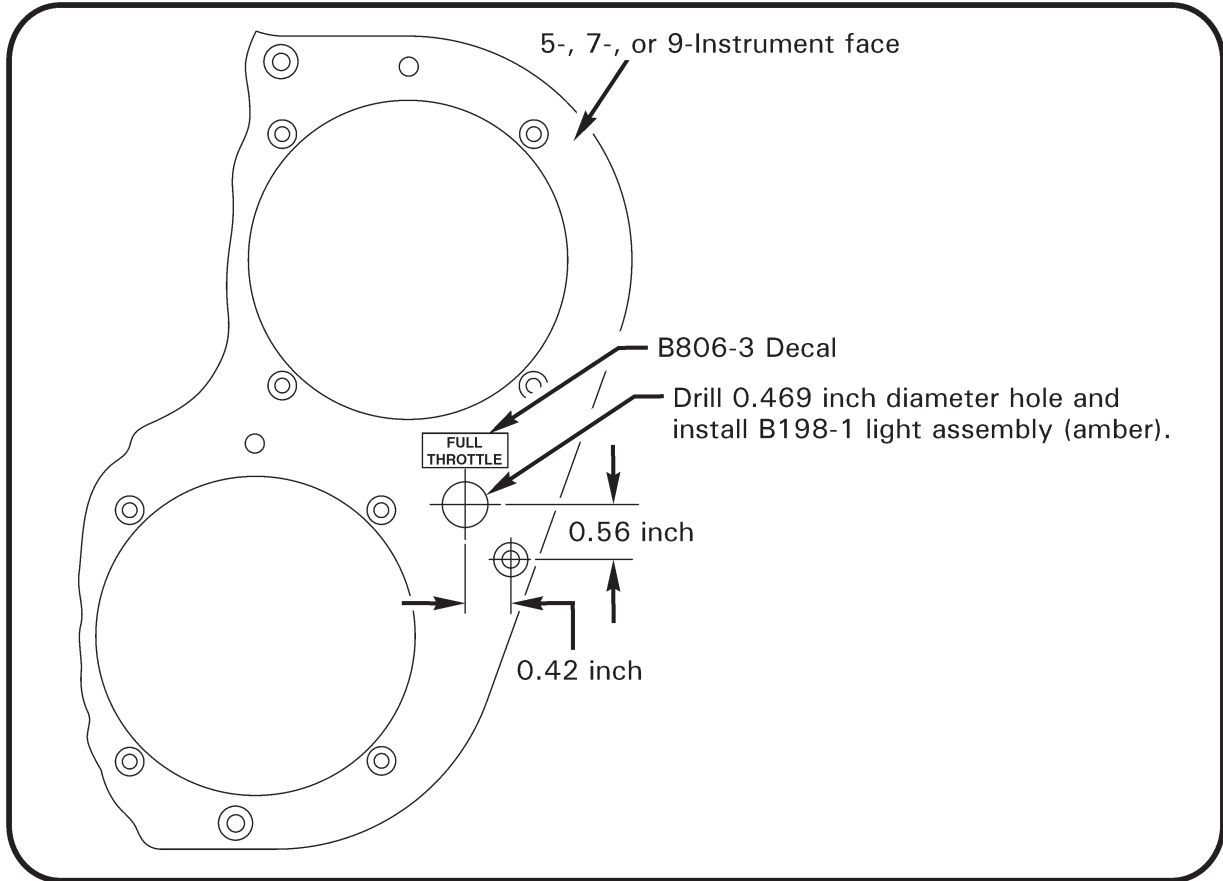
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**CAUTION**

Do not drill instrument face with instruments installed. Protect area from drilling debris.

11. Refer to Figure 4. Lay out hole in face. Drill one 0.098-inch diameter pilot hole and enlarge to 0.469-inch diameter hole using a step-up drill bit. Remove drilling debris and deburr hole.
12. Refer to R44 Illustrated Parts Catalog (IPC) Figure 95-65. Install B196-21 (28V) lamp in B198-1 light, install light (do not overtighten), and verify security. Attach the console portion of D828-2 or -3 harness's -2488 and -2489 wires to light (polarity not critical).
13. Install instruments as removed and verify security. Connect post lights. Secure face to console and verify security. Verify wires are not pinched between face and attaching tabs. Verify adequate clearance between light and surrounding structure.
14. Route -2489 wire to console's ground bus and attach to stud with the fewest wires. Route -2488 wire from light and -2488 wire from switch to console connectors and connect wires. Secure wires to console and airframe harness using MS3367 ty-raps as required. Cinch ty-raps until snug without overtightening, and trim tips flush with heads.
15. Install warning and caution lights in lower panel if removed.
16. Verify freedom of flight controls thru full-range of travel, and no contact with wiring.
17. Verify battery switch is off. Connect battery per MM § 37-10.
18. Adjust full throttle caution light and verify rigging per MM § 37-70. Install C606-2 cover.
19. Install C474-2 cover and belly panels. Install left seat back assembly if removed. Close and secure console.
20. Refer to Figure 4. Install B806-3 decal as shown.
21. Make appropriate maintenance record entries. Weight and balance change is negligible.



**FIGURE 4**