

KI-218-1 R22 Full Throttle Caution Light Kit Instructions

For compliance with R22 Service Letter SL-66

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-218-1A	QTY PER KI-218-1B
KIT CONTENTS				
1	A130-14	Spacer	2	2
2	A607-3	Support Assembly	0	1
3	B196-1	Lamp (14V)	1	1
4	B198-1	Light – Indicator (Amber)	1	1
5	B330-7	Palnut	2	2
6	B806-3	Decal – “FULL THROTTLE”	1	1
7	D210-3	Nut	2	2
8	D756-2	Bellcrank Assembly (revision F or subsequent)	0	1
9	D828-1	Wire Harness	1	1
10	KI-218-1 INSTR.	Kit Instructions	1	1
11	JV-5	Actuator	1	1
12	MS21042L08	Nut	0	9
13	MS27039C0805	Screw	0	6
14	MS27039C0818	Screw	0	3
15	MS3367-4-9	Ty-Rap	20	20
16	MS3367-5-9	Ty-Rap	20	20
17	MS35206-220	Screw	2	2
18	MS35206-226	Screw	1	1
19	MS35489-4	Grommet	1	1
20	NAS1149FN432P	Washer	4	4
21	NAS1149FN816P	Washer	0	9
22	V3-1	Switch	1	1

KI-218-1 Kit Instructions

1. Turn battery switch off. Access battery as required; disconnect negative (ground) cable, then positive cable from battery.
2. Remove belly panel, A606-1 cover (under left seat), and A445-2 cover (under pilot’s collective). Open instrument console.

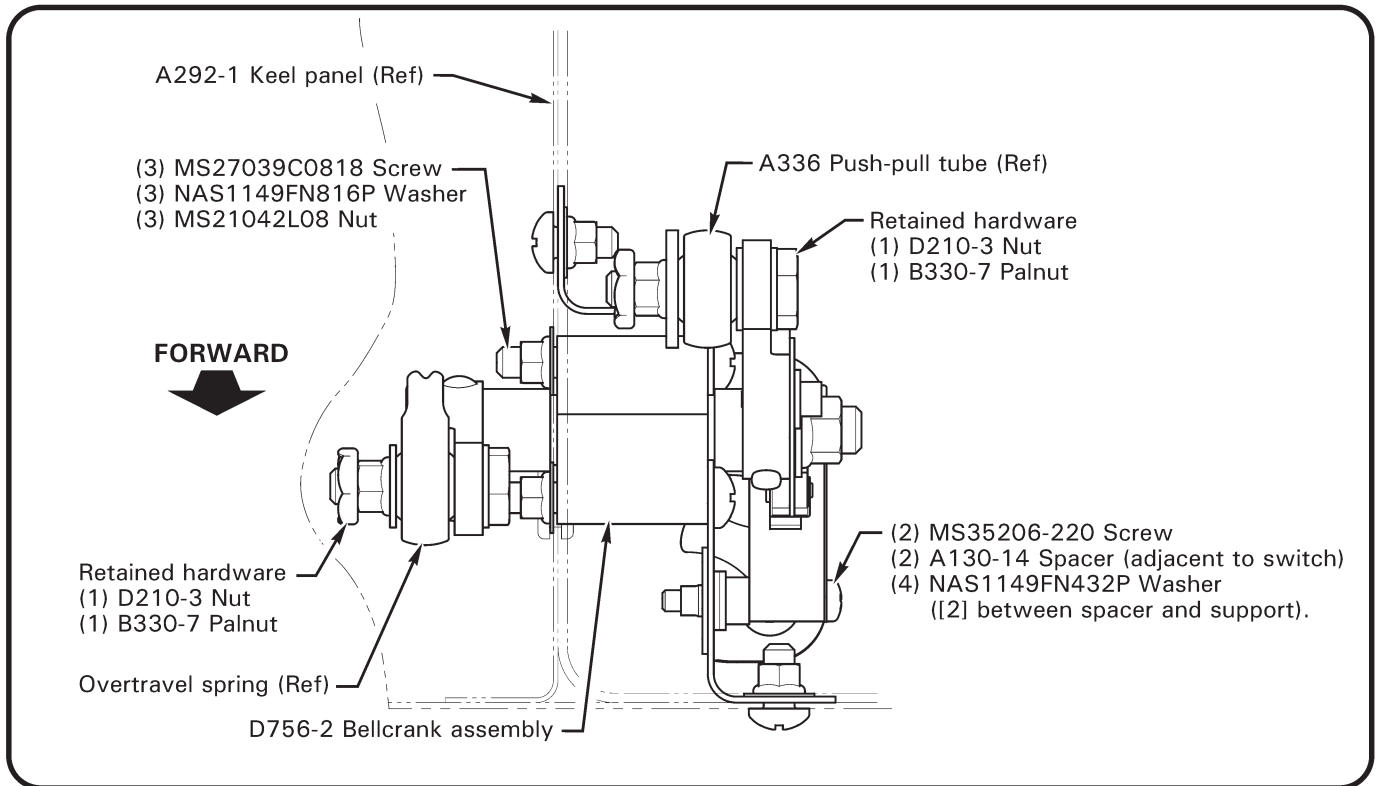
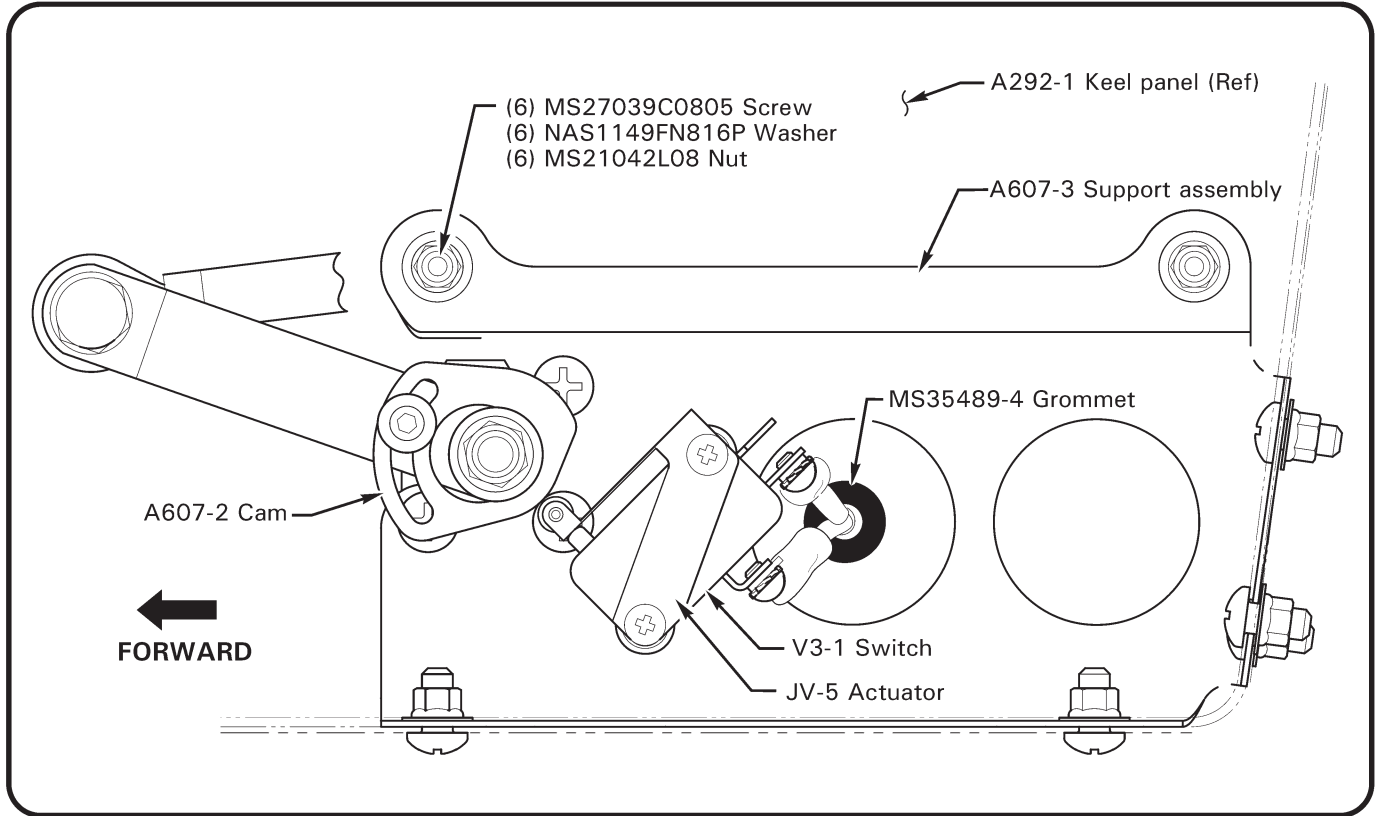


FIGURE 1

KI-218-1 Kit Instructions (continued)

3. Refer to Figure 1. If D756-2 bellcrank assembly does not include A607-2 cam:
 - a. Remove and retain hardware securing overtravel spring and A336 push-pull tube to bellcrank. Remove and discard safety wire and spring pin securing bellcrank's outboard arm. Disassemble and discard bellcrank assembly. Also, remove and discard A607-1 support and attaching hardware.
 - b. Lay out hole dimensions in A292-1 keel panel per Figure 2. Cut and file existing holes in panel into a single, oval-shaped hole as shown. Drill one 0.313-inch diameter hole in panel and deburr. Solvent clean then epoxy prime bare metal.
 - c. Refer to Figure 1. Install (retained) bolt and washer on inboard arm of new D756-2 revision F or subsequent bellcrank assembly and insert arm (with bolt) thru keel panel. Position new A607-3 support assembly on bellcrank and install three fasteners securing support and bellcrank to panel, finger tight.
 - d. Cleco (sheet metal fastener) support to belly and keel panel. Progressively remove clecos and match drill four 0.170-inch diameter holes in support thru belly and panel. Cleco support and match drill two 0.170-inch diameter holes in support thru firewall. Remove clecos and support and deburr new holes. Remove drilling debris. Solvent clean then epoxy prime bare metal.
 - e. Install hardware securing support and bellcrank, standard torque per R22 Maintenance Manual (MM) § 1.320, and torque stripe per Figure 2-1.
 - f. Install hardware securing overtravel spring and A336 push-pull tube to bellcrank; use (remaining) retained hardware but install new D210-3 nuts and B330-7 palnuts. Standard torque hardware per MM § 1.320 and torque stripe per Figure 2-1.

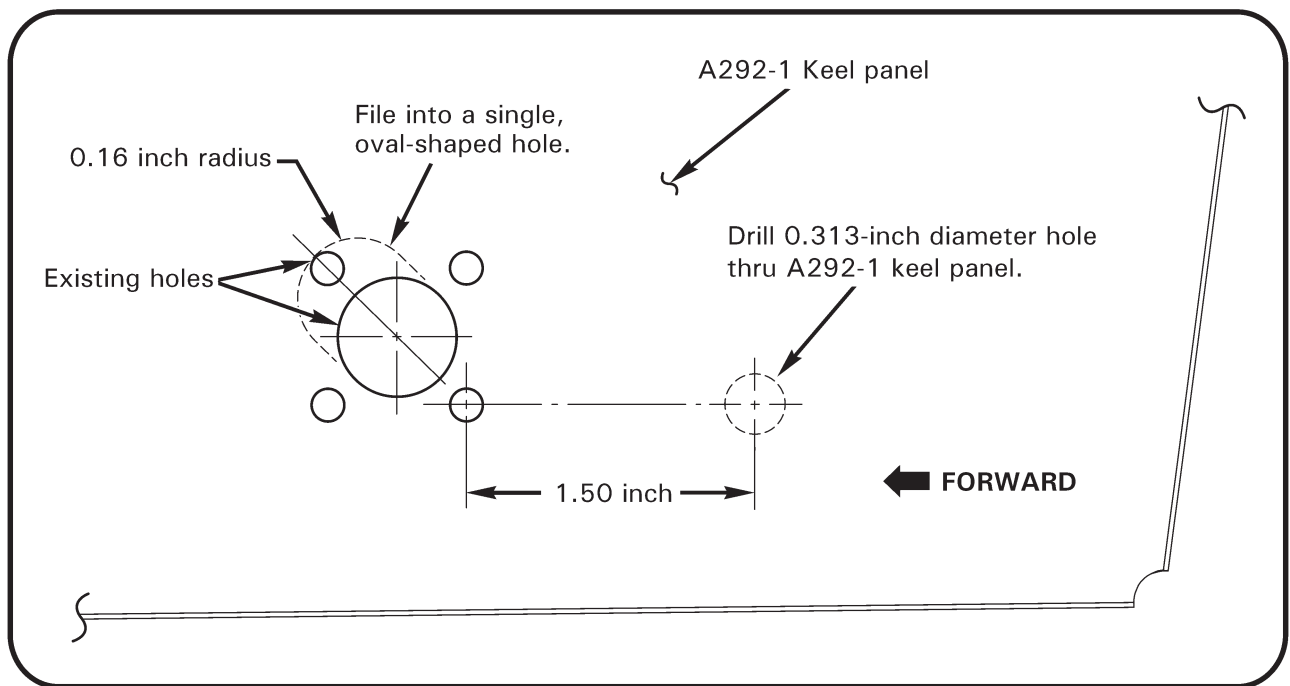


FIGURE 2

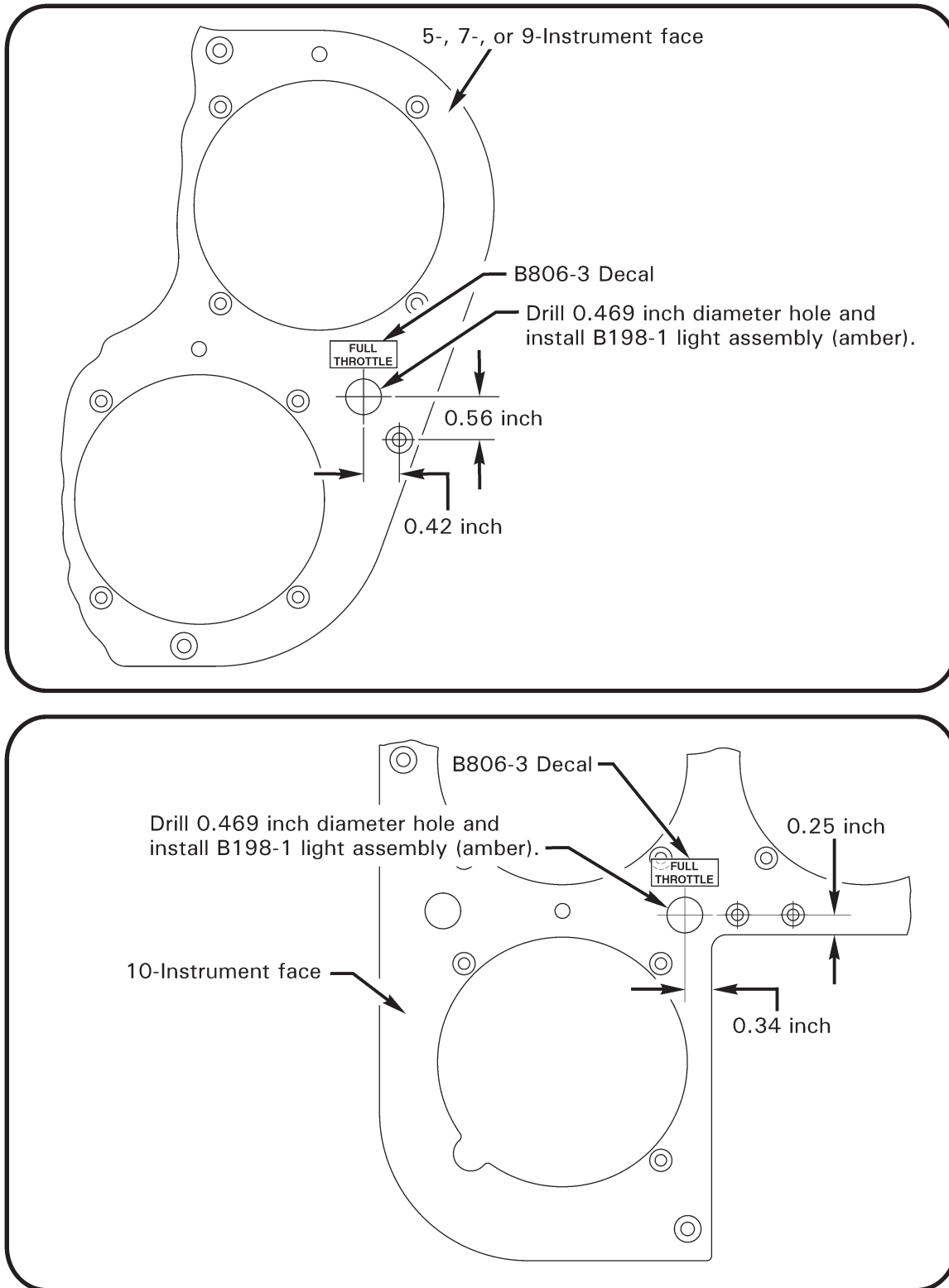


FIGURE 3

KI-218-1 Kit Instructions (continued)

4. Refer to Figure 4. Disconnect D828-1 harness at connectors and set aside console portion.
5. Refer to Figures 1 and 4. Slide MS35489-4 grommet over D828-1 harness's -2487 and -2488 wires and route through new hole in keel panel. Attach wires to V3-1 switch and remove and discard switch's NC terminal screw and washer. Install switch and JV-5 actuator on support as shown. Verify security. Install grommet.
6. 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.

7. 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.

CAUTION

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

8. Refer to Figure 3. 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.
9. Refer to R22 Illustrated Parts Catalog (IPC) Figure 95-1. Install B196-1 (14V) lamp in B198-1 light, install light (do not overtighten), and verify security. Attach the console portion of D828-1 harness's -2488 and -2489 wires to light (polarity not critical).
10. 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.
11. 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.
12. Install warning and caution lights in lower panel if removed.
13. Verify freedom of flight controls thru full-range of travel, and no contact with wiring.

KI-218-1 Kit Instructions (continued)

14. Verify battery switch is off. Connect battery.

CAUTION

When connecting battery, connect positive cable first, then the negative (ground) cable.

15. Adjust full throttle caution light and verify rigging per MM § 14.1220. Install A606-1 cover.

16. Install A445-2 cover and belly panel. Close and secure console.

17. Refer to Figure 3. Install B806-3 decal as shown.

18. Make appropriate maintenance record entries. No change to weight and balance.

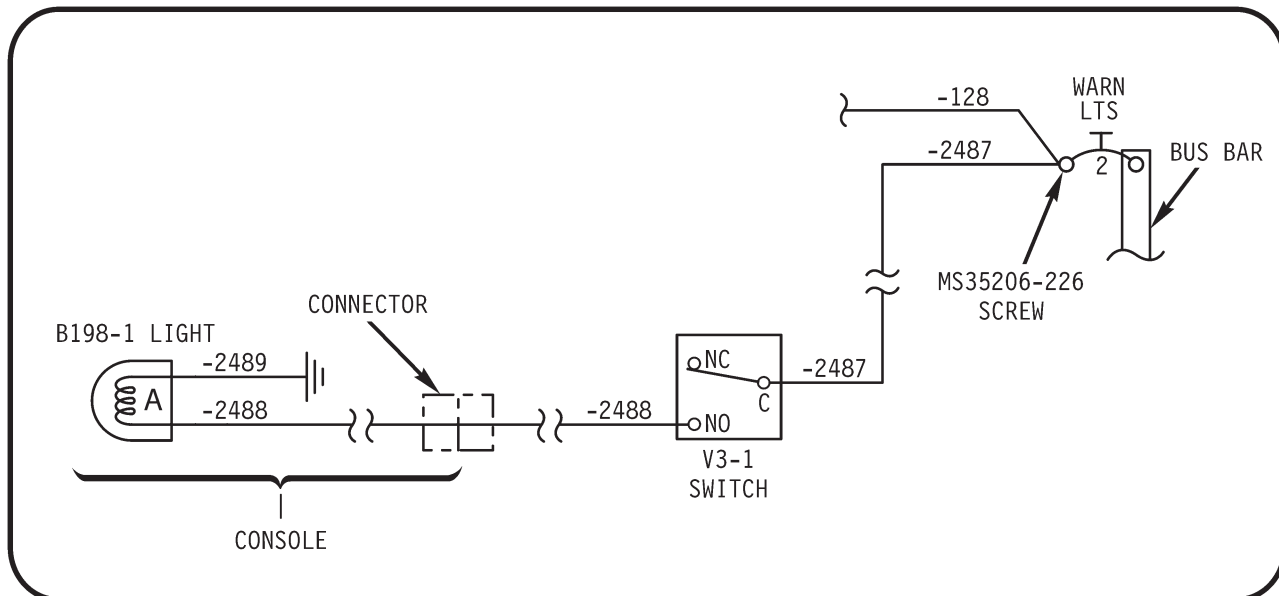


FIGURE 4