

R66 F049 Engine Electrical Harness Upgrade Kit Instructions*(To comply with R66 Service Letter SL-41; Supersedes KI-268)*

Applicable to helicopter S/N 0274 & prior. Replaces previous F049-02 & F049-09 engine harnesses with F049-012. Isolates engine oil pressure warning light ground thru F059-01 cabin harness [Revision I & prior]. Compliance with Rolls-Royce Service Bulletin RR300-72-014 must be accomplished prior to, or simultaneously.

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	PART NUMBER	KIT CONTENTS	QTY
1	KI-223Instr.	Kit Instructions	1
2	B260-3	Terminal – Ring	1
3	F049-012	Electrical Harness Assembly – Engine (Revision R or subsequent)	1
4	F173-2	Shield	1
5	KI-223-1948	Wire Assembly (ground) Includes: [1] B274-22 Wire – 50-inch length (marked “-1948 KI-223”) [1] M39029/56-348 Socket	1
6	P15	Acid Brush	1
7	1182N111	O-Ring	1
8	5338A44	Probe	1
9	MS3367-4-9+	Ty-rap (Note: “+” in part number indicates 20-qty pack)	1
10	MS3367-5-0+	Ty-rap (Note: “+” in part number indicates 10-qty pack)	1
11	MS3367-5-9+	Ty-rap (Note: “+” in part number indicates 20-qty pack)	1
12	MS3367-7-9+	Ty-rap (Note: “+” in part number indicates 10-qty pack)	2

Consumables

Refer to R66 Maintenance Manual (MM) § 20-70 for approved materials list.

- B270-5 Sealant
- B270-20 Adhesive

Special Tools:

- Wire stripping and crimping tools

Kit Instructions

1. Turn BATTERY switch OFF. Disconnect battery negative (ground) cable per MM § 96-11 (lead-acid) or § 96-12 (lithium-ion).
2. Remove G040 engine cowling assembly per MM § 53-21.
3. Refer to Illustrated Parts Catalog (IPC) Figure 71-3 and Figure 1. Locate D38999/26FC35SN plug on F059-01 (cabin) electrical harness. Remove and retain clamp screws & bar from backshell and loosen (backshell) collar. Disconnect F059 cabin harness plug from F049 engine harness receptacle. Remove ty-raps securing F059 harness wires to wire bundle.
4. Refer to Figure 1. Carefully route socket of KI-223-1948 wire assembly thru B158-8 heat shrink to cabin harness D38999/26FC35SN plug. Install socket in hole 22 of plug. Verify socket security. Tighten collar. Apply B270-20 adhesive to retained clamp screws and install bar to backshell. Torque screws to 40 in-oz.
5. Route -1948 wire along F059 harness wires and thru NAS557-14A grommet on firewall, displacing B270-5 sealant as necessary, to ground bus depicted in Figure 2. Strip end of wire and crimp on B260-3 ring terminal. Inspect crimp per MM § 20-94 and verify security of terminal. Install terminal on least-populated ground stud using existing nut. Secure wires to harness using appropriately-sized ty-raps as required. Remove redundant ty-raps as desired.

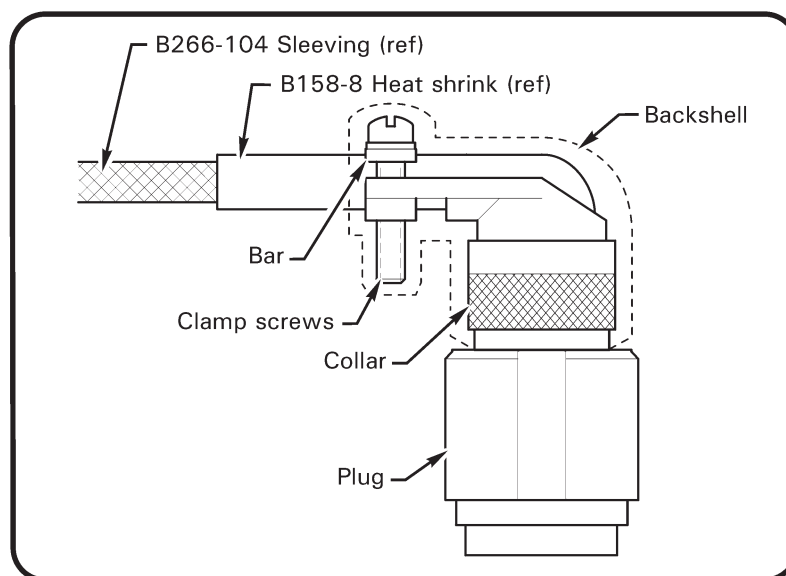


FIGURE 1 D38999/26FC35SN plug
(F059-01 cabin harness assembly)

Kit Instructions (continued)

6. Remove F049-02 or -09 harness per MM § 71-11, step 4, retaining installation hardware.
7. Refer to Figure 3. In N1 speed sensor's connector cavity, carefully remove existing O-ring using probe provided. Clean pins with acid brush dipped in isopropyl alcohol. Blow dry using compressed air. Install 1182N111 O-ring; avoid damaging adjacent pins.
8. Comply with Rolls-Royce Service Bulletin RR300-72-014, if not previously accomplished.
9. Refer to IPC Figures 71-3, 71-5, & 71-7. Install F049-012 harness assembly per MM § 71-12 step 15 using retained installation hardware.
10. Refer to Figure 3. Remove & retain one MS27039C1-06 screw & one MS27039C1-07 screw and two nuts at locations shown.
11. Install F173-2 shield as shown, using retained hardware. Standard torque screws per MM § 20-32.
12. Connect F049-012 (engine) electrical harness assembly to F059-01 (cabin) electrical harness assembly. Verify security. Secure F059-01 harness using appropriately-sized ty-raps as required.

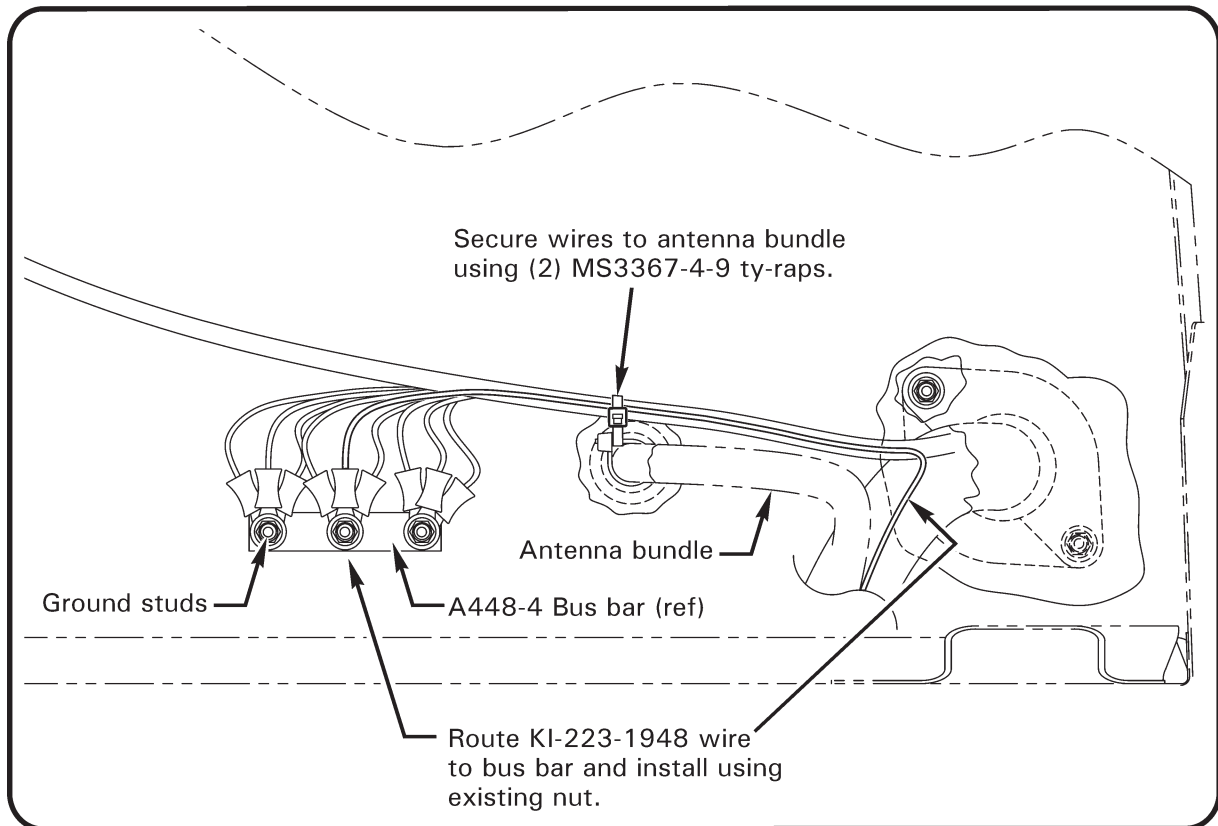


FIGURE 2 Bus bar ground location
(view looking forward)

Kit Instructions (continued)

13. Refer to IPC Figure 96-17-6 or 96-31-6. Reposition B270-5 sealant on aft-side of vertical firewall, covering NAS557-14A grommet and wiring, adding additional B270-5 sealant as required.
14. Connect battery negative (ground) cable per MM § 96-11 (lead-acid) or § 96-12 (lithium-ion).
15. Install G040 engine cowling assembly per MM § 53-21.
16. Make appropriate maintenance record entries. Weight and Balance change is negligible.

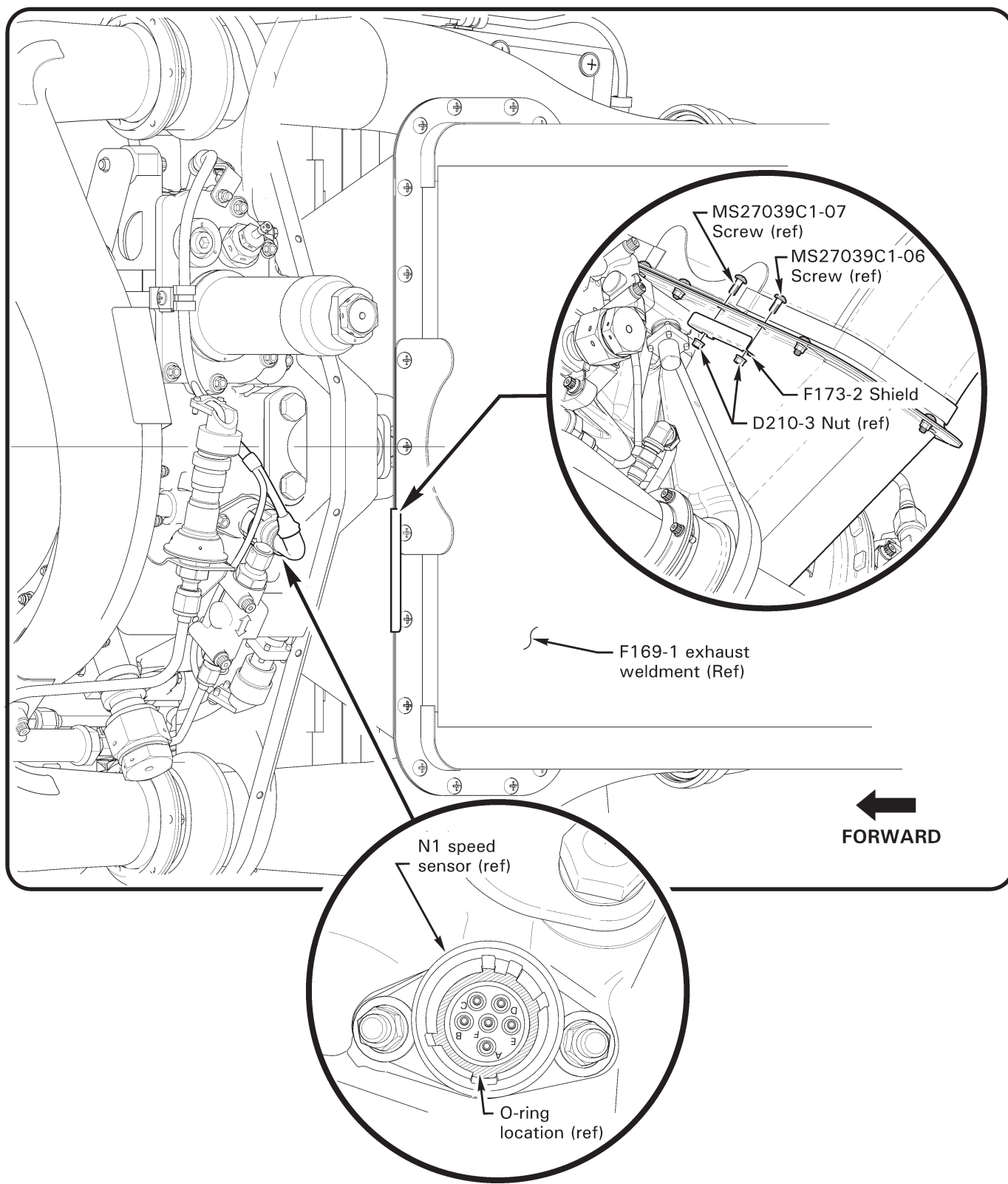


FIGURE 3