R44-series & R66 Cockpit Camera Installation Kit Instructions

Eligible for installation on R44 S/N 2625 & subsequent, R44 II S/N 14412 & subsequent, Cadet S/N 30071 & subsequent, and R66 S/N 1007 & subsequent, without (optional) air conditioning. Installs cockpit camera & antenna on helicopters equipped with factory-installed cockpit camera provisions.

NOTE

Visit https://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 Support if parts are missing or damaged.

NOTE

Kit requires separating headliner from roof, which may result in damage to headliner. Kit does not contain a replacement headliner.

ITEM	PART NUMBER	KIT CONTENTS	QTY
1	KI-271-2Instr.	Kit Instructions	1
2	D275-205	Fuse (AGC-5-R)	1
3	F039-2	Enclosure Assembly – Cockpit Camera	1
4	F714-2	Antenna Assembly (GPS)	1
5	F714-4	Flash Drive Assembly	1
6	AN526C832R6	Screw	1
7	MS21042L08	Nut	1
8	MS35206-232	Screw	1
9	NAS1149FN816P+	Washer (Note: “+” in part number indicates 20-qty pack)	1

Consumables

Refer to R44 Maintenance Manual (MM) § 23-70 or R66 MM § 20-70 for approved materials list.

- B270-8 Adhesive

Kit Instructions

1. Ensure battery switch is off.

2. Refer to Figure 1. Remove and discard MS35206-228 screw installed at D118-1 bracket assembly. Remove and retain MS27039C0806 screws securing C039 cover to C710-3 spacers. Lower cover and disconnect spotlight switch from airframe harness. Remove cover and spacers; retain spacers.

3. Refer to Figure 1, Detail B. Layout dimension on exterior roof for drilling new hole as shown, using straight edge to maintain lateral alignment with existing holes. Using a drill stop, drill (1) .169–.175 inch diameter hole. Clean up debris. Install AN526C832R6 screw in new hole.

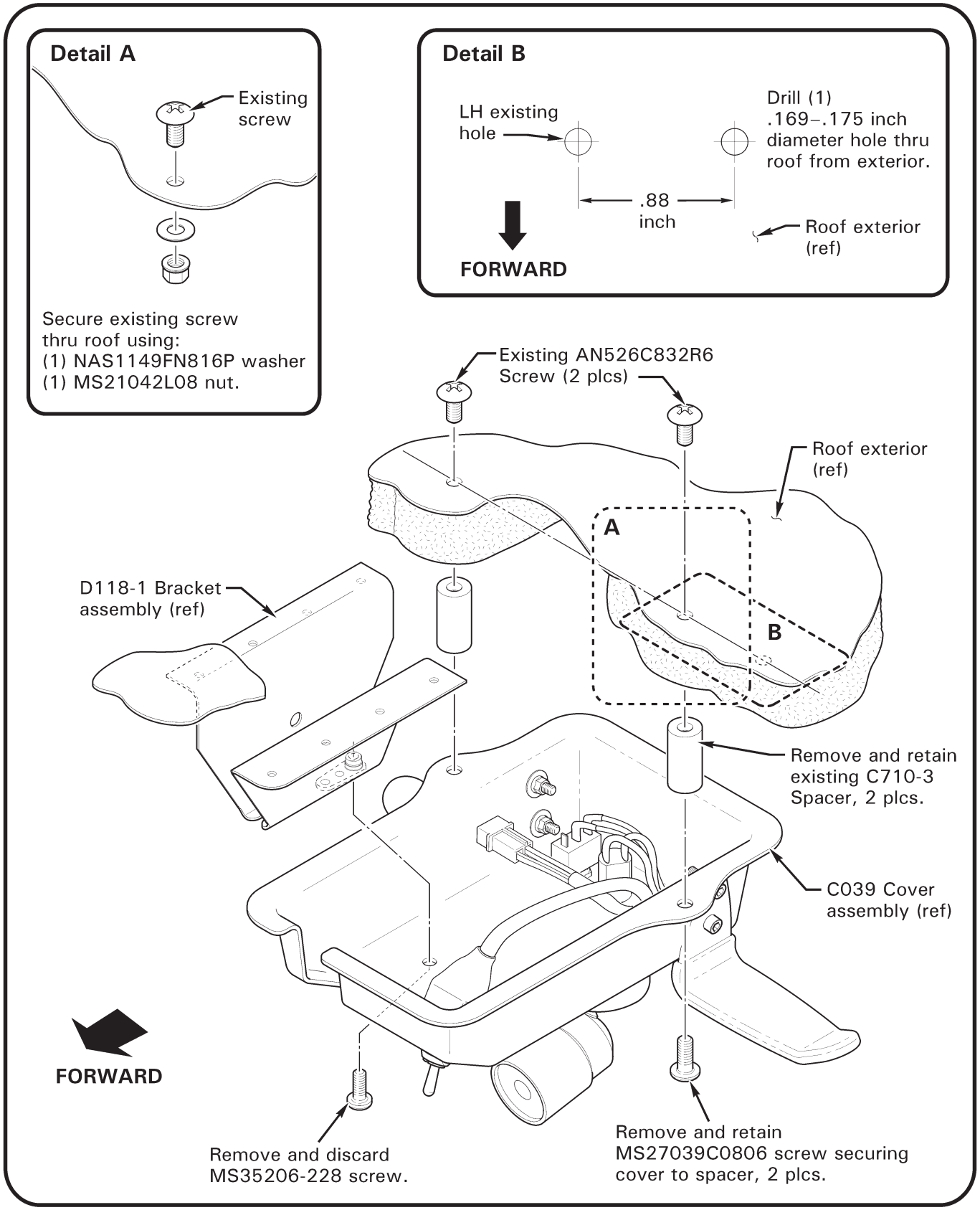


FIGURE 1 Existing C039 cover assembly installation

Kit Instructions (continued)

4. Refer to Figure 1, Detail A. Carefully remove headliner from roof to access threads of middle AN526C832R6 screw. Secure screw to roof using (1) NAS1149FN816P washer and (1) MS21042L08 nut.

5. Refer to R44 IPC Figure 96-83 or R66 IPC Figure 96-49. Carefully connect RV-BATT-LIPO500 Battery connector to circuit board.

NOTE
D269-6 receptacle in R66 airframe harness is labeled “CAMERA”.

6. Refer to Figure 2. Locate stowed black D269-6 receptacle in airframe harness and connect to enclosure assembly black plug. Connect 2-pin spotlight connector. Connect F714-2 antenna assembly to fitting in F039-2 enclosure assembly. Temporarily install enclosure assembly using retained C710-3 spacers & retained MS27039C0806 screws. Position antenna with metal side down, opposite of roof surface, and route wire forward as shown, carefully removing headliner as required.

7. Refer to Figure 2. Locate antenna as shown; remove backing from tape and press in place. Remove and retain C710-3 spacers & MS27039C0806 screws.

8. Apply B270-8 adhesive to both headliner & roof and press to secure.

9. Install F039-2 enclosure assembly using (2) C710-3 spacers and (2) MS27039C0806 screws. Secure enclosure to D118-1 bracket assembly using (1) MS35206-232 screw.

10. Ensure battery switch is off. Open circuit breaker panel. Install D275-205 fuse in fuse holder with wires (-3078) & (-3079) attached. Close and secure circuit breaker panel.

11. Turn battery switch on and verify proper operation of spotlight. Verify proper rotor brake function.

12. Ensure battery and avionics switches are on. Function check camera installation:

    a. Refer to Cockpit Camera Quick Start Guide available at https://robinsonheli.com.

    b. Refer to Figure 2. Insert F714-4 flash drive assembly into USB port of F039-2 enclosure. Toggle helicopter battery switch ON for minimum 30 seconds; video will record automatically. While video is recording, activate & route an audio source (such as ATIS) to copilot headset. Toggle helicopter battery switch OFF.

    c. Transfer flash drive to a computer and view video. If video is level with cockpit, camera lens is properly adjusted. If no audio is heard, check newly connected wiring.

    d. If horizon slants to the right (as shown in Figure 3), adjust angle by loosening two NAS1352-04-04 screws holding lens (see Figure 2) and rotate lens counterclockwise while facing lens; if horizon slants to the left, rotate lens clockwise. Tighten screws. Repeat steps b & c.

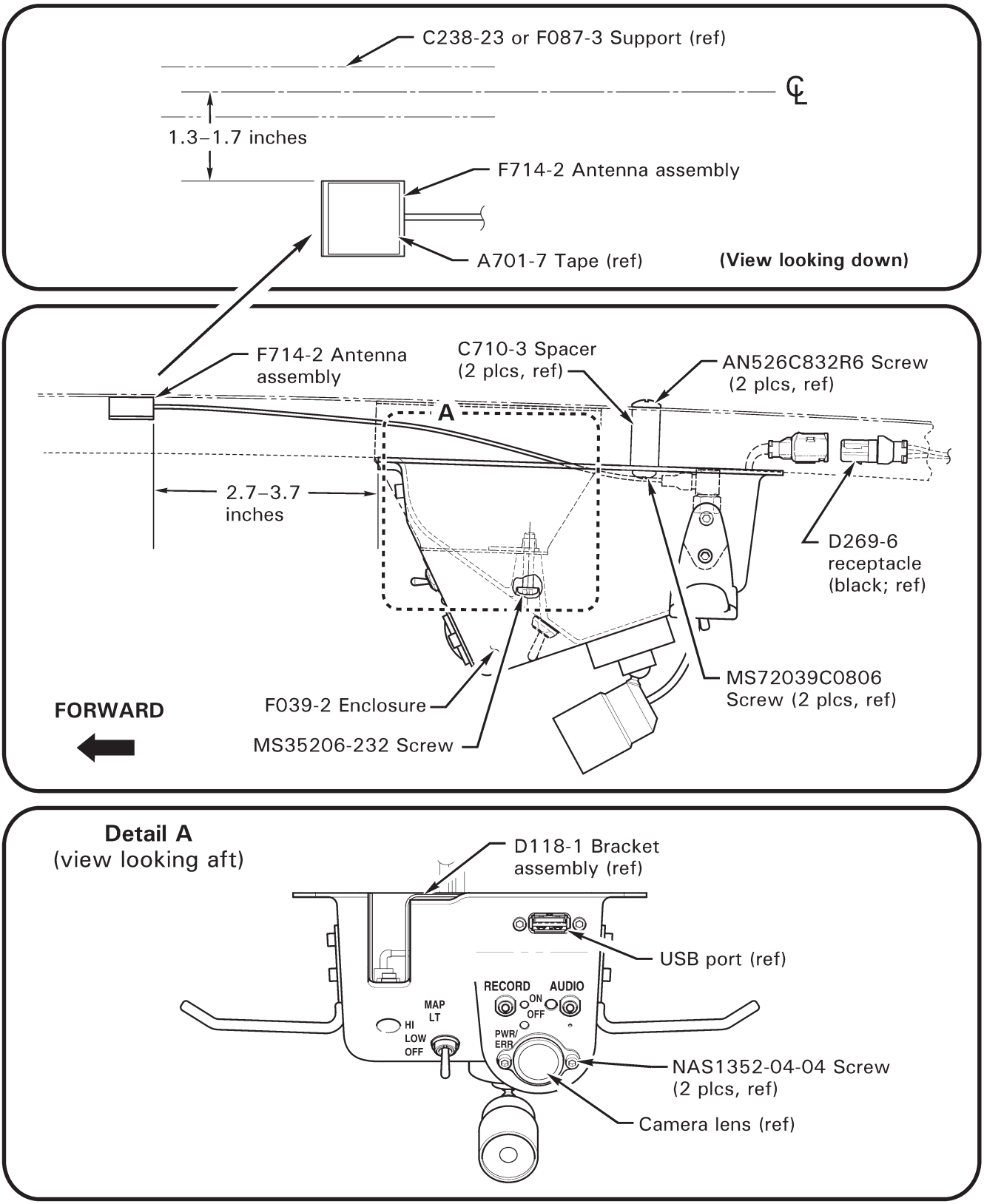


FIGURE 2 Camera enclosure and antenna installation

Kit Instructions (continued)

13. Revise helicopter's Weight and Balance Record in Pilot's Operating Handbook (POH) Section 6 to reflect this installation by incorporating the following data:

For R44 add:

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
KI-271-2 Cockpit Camera Installation Kit	+0.30 lb	73.1 in.	+21.93 in.-lb	-0.05 in.	-0.02 in.-lb

For R66 add:

Item	Weight	Long. Arm	Long. Moment	Lat. Arm	Lat. Moment
KI-271-2 Cockpit Camera Installation Kit	+0.30 lb	69.9 in.	+21.97 in.-lb	-0.05 in.	-0.02 in.-lb

14. Make appropriate maintenance record entries.

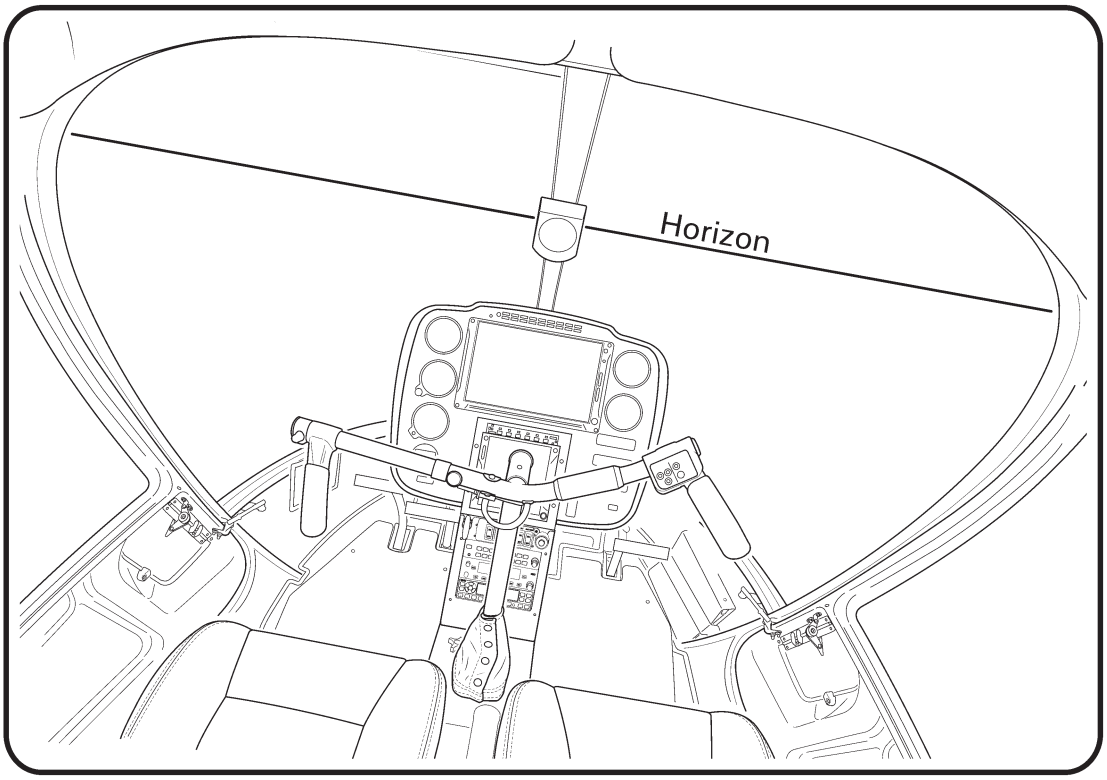


FIGURE 3 Camera view angle
(angle shown requires adjustment)