

**KI-179-5 & KI-179-7 R22-series Kannad AF Integra ELT Installation Kit Instructions**

For R22 helicopters without ELTs or if replacing previously installed Pointer 3000-10 or 4000-10 ELT (RHC Inst'l)

**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 NUMBER	PART NUMBER	DESCRIPTION	QTY PER KI-179-5	QTY PER KI-179-7
<b>KIT CONTENTS</b>				
1	KI-179-5 & -7 Instr.	Kit Instructions .....	1	1
2	S1851501-02	ELT transmitter (Kannad AF Integra) .....	1	0
3	A837-2	Doubler .....	1	1
4	A837-10	Harness Assembly ("dongle"- contains registration data) .....	1	1
5	A837-11	Bracket - Forward .....	1	1
6	A837-12	Bracket - Aft .....	1	1
7	B260-3	Terminal - Ring .....	1	1
8	B263-1	Pin .....	3	3
9	B263-2	Socket .....	3	3
10	B263-14	Housing (3-pin) .....	1	1
11	B263-15	Housing (3-socket) .....	1	1
12	B267-3	Terminator - Shield (heat-activated; 1 spare) .....	2	2
13	D210-3	Nut .....	10	10
14	D693-4	Strap Assembly .....	1	1
15	F654-25	Decal .....	1	1
16	F837-3	Switch Assembly - ELT (remote) .....	1	1
17	KI-179-1A	Antenna Cable .....	1	1
18	KI-179-1B	Wire - Unshielded (B274-22 wire; 3 ft length, marked "692") .....	1	1
19	KI-179-1C	Wire - Three-conductor, shielded & jacketed (B274-322 wire; 12 ft length, marked "-1849/-1850/-1851") .....	1	1
20	MS20470AD3-4	Rivet .....	12	12
21	MS21042L08	Nut .....	3	3
22	MS21919WDG3	Clamp .....	2	2
23	MS21919WDG4	Clamp .....	1	1
24	MS21919WDG12	Clamp .....	1	1
25	MS21919WDG14	Clamp .....	2	2
26	MS27039C0806	Screw .....	3	3
27	MS27039C1-07	Screw .....	7	7
28	MS3367-5-9	Ty-Rap .....	50	50

ITEM NUMBER	PART NUMBER	DESCRIPTION	QTY PER KI-179-5	QTY PER KI-179-7
<b>KIT CONTENTS (Continued)</b>				
29	NAS1149FN816P	Washer .....	3	3
30	NAS1149F0316P	Washer .....	7	7
31	NAS1149F0332P	Washer .....	3	3
32	AV-300	Antenna .....	1	1
33	S1840502-01	Mounting Bracket (Kannad) .....	1	1

**Consumables:**

B270-1 Sealant  
 B270-4 Sealant

**Special Tools:**

Wire stripping, terminal crimping tools, and heat gun are required.

**KI-179-5 & KI-179-7 Kit Instructions**

1. Refer to R22 Service Letter SL-60. Verify registration marking indicated on A837-10 (dongle) harness assembly label matches aircraft registration marking.
2. Remove belly panel, control tunnel cover, right seat back, and aft cowling. Release cyclic friction, remove roll pin securing cyclic friction knob, remove knob, and install a ty-rap or pin thru shaft to retain spacers. Remove carburetor heat knob on aircraft with carburetor heat assist. Remove screws securing A444 cyclic box cover, lift cover, and disconnect wire from post light. Remove post light from cover.
3. If installed, remove existing: ELT, ELT remote switch, ELT mounting bracket & associated hardware, and ELT antenna & antenna doubler. Leave wiring connecting remote switch and ELT in aircraft, but install heat shrink or otherwise insulate existing connector for remote switch to protect the power wire within. Appropriately secure both connectors.
4. Mask cyclic box area to prevent debris falling in.
5. Refer to Figures 1 & 2. If required, create or modify remote switch hole in A444 cyclic box cover per Figure 1. Clean up debris.

**NOTE**

Hole dimensions must be accurate for proper switch installation. Newer A444 cyclic box covers do not require modification.

6. Install F837-3 remote switch assembly into A444 cover with "RESET & TEST" position of switch AFT and secure with supplied hardware per Figure 2. Verify that momentary position of switch coincides with "RESET & TEST" position. Reinstall post light. Unmask cyclic box area.
7. Attach A837-11 & A837-12 brackets and affix F654-25 decal to S1840502-01 mounting bracket with supplied hardware per Figures 3 & 5. Install mounting bracket assembly on left side of upper frame with clamps per Figure 3.

**KI-179-5 & KI-179-7 Kit Instructions (continued)**

8. Determine if a three-conductor shielded & jacketed wire (continuously marked "1849/-1850/-1851"), or a four-conductor shielded & jacketed wire (continuously marked "1849-1852", beginning with R22 S/N 3808) for remote switch is pre-installed. Pre-installed shielded wire may be covered with black expansion sleeving. If appropriately-marked wire is pre-installed, locate forward end (typically terminates at a six-socket housing near wiring entrance to circuit breaker panel) & aft end (in main rotor gearbox compartment), cut ty-raps as necessary to free them, and skip to step 10. If shielded wire is not installed, or if it cannot be located, proceed to following step.
9. Route supplied KI-179-1C wire (marked "1849/-1850/-1851") along main wire bundle from ELT remote switch location at cyclic box aft thru controls tunnel, thru keel panel, up behind right seat back, thru cabin bulkhead, along upper frame tubing to ELT mounting bracket. Secure KI-179-1C wire using MS3367-5-9 ty-raps as required. Cinch ty-raps until snug without overtightening, and trim tips flush with heads. Trim wire leaving adequate slack for attachment of connectors.
10. At forward end of three- or four-conductor shielded & jacketed wire, strip insulation from and crimp a B263-2 socket on each orange, blue, and white wire; if installed, cut green wire flush with shield. Strip insulation and crimp B260-3 terminal on one end of supplied KI-179-1B wire (marked "692"). Strip insulation on opposite end of -692 wire, remove B267-3 terminator's lead, and heat-shrink terminator and stripped -692 wire to shield. Insert sockets in B263-15 housing per Figure 4.
11. At aft end of shielded wire, strip insulation from and crimp B263-1 pins on orange, blue, and white wires. If shielded wire has four conductors, cut green wire flush with shield. Insert pins in B263-14 housing per Figure 4.
12. Connect shielded wire forward connector to F837-3 remote switch. Secure shielded wire to A338-4 channel on cyclic box with MS21919WDG4 clamp per Figure 2. Route and secure -692 wire forward along main wire harness and connect it to ground stud at center of lateral bulkhead under floor.
13. Position A837-2 doubler on inside of B429-2 aft cowling skin per Figure 3. Drill thru doubler's pilot holes with #40 drill and secure doubler to skin with a sheet fastener as each hole is drilled. For skin having rivet holes from a previously installed ELT antenna, align doubler's forward pilot holes with existing holes in cowling, secure with sheet fasteners, and additionally match drill A837-2 doubler thru non-aligning holes in skin. Using doubler as a template, match drill center 0.688-inch diameter hole and three surrounding 0.190-inch diameter holes in skin. Remove doubler and deburr skin and doubler. Attach doubler to skin using 8, or 12, MS20470AD3-4 rivets, as applicable.
14. Drill and deburr two 0.170 inch diameter holes in B423-3 (formerly A032-12) stiffener per Figure 3.
15. Discard gasket supplied with AV-300 antenna. Install AV-300 antenna over the 0.688-inch diameter hole per Figure 3. Seal around base with B270-1 sealant. Seal over screw heads and holes with B270-4 sealant.
16. Refer to Figure 3. Install aft cowling. Connect KI-179-1A antenna cable to antenna, route cable to ELT mounting bracket, and secure cable to frame with ty-raps.
17. Check ELT switch is in "OFF" position and remote switch is in "ARMED" position. Connect dongle to ELT transmitter. Connect KI-179-1A antenna cable to ELT transmitter. Connect dongle to ELT remote switch cable.

**KI-179-5 & KI-179-7 Kit Instructions (continued)**

18. Verify current revision status of Kannad AF Integra Operation Manual ([www.kannad.com](http://www.kannad.com)) and perform the “CHECK” procedure described in the manual.
19. Install ELT transmitter on mounting bracket. Install D693-4 strap per Figure 3. Ensure clearance exists between ELT installation and drive train.
20. Ensure no foreign objects in flight controls or tunnel area. Reconnect post light wire to post light and reinstall cyclic cover. Ensure ELT remote switch wiring does not interfere with flight controls and ty-rap as required. Reinstall friction knob and roll pin, right seat back, tunnel covers, belly panel, & carburetor heat knob (if applicable). Verify proper function of post light.
21. Revise Weight and Balance Record in R22 Pilot’s Operating Handbook (POH) Section 6 to incorporate the following data, as required:

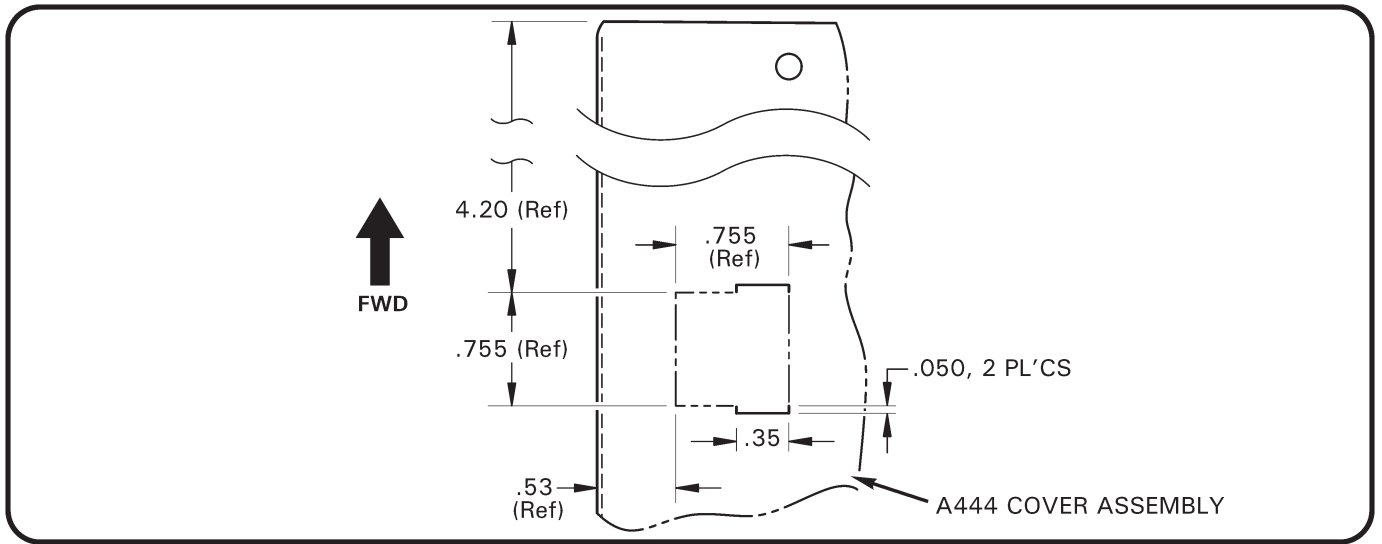
**Remove (as required):**

Item	Weight	Longitudinal Arm	Longitudinal Moment	Lateral Arm	Lateral Moment
Pointer 3000-10 ELT (RHC Installation)	-2.70 lb	+121.5 in.	-328 in.-lb	Negligible.	Negligible.

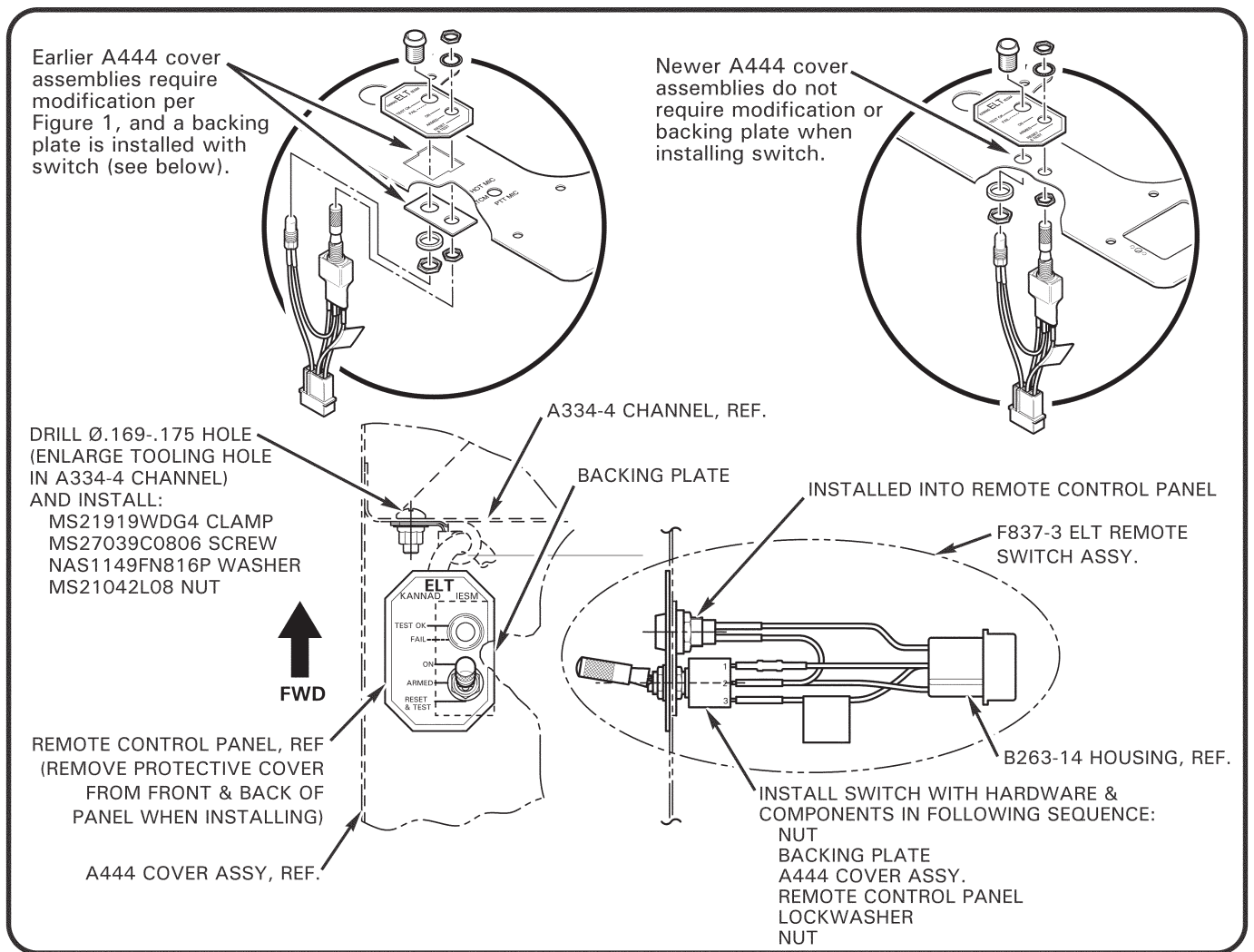
**Add:**

Item	Weight	Longitudinal Arm	Longitudinal Moment	Lateral Arm	Lateral Moment
Kannad AF Integra ELT (RHC Installation)	+2.62 lb	+116.1 in.	+304 in.-lb	-4.20 in.	-11 in.-lb

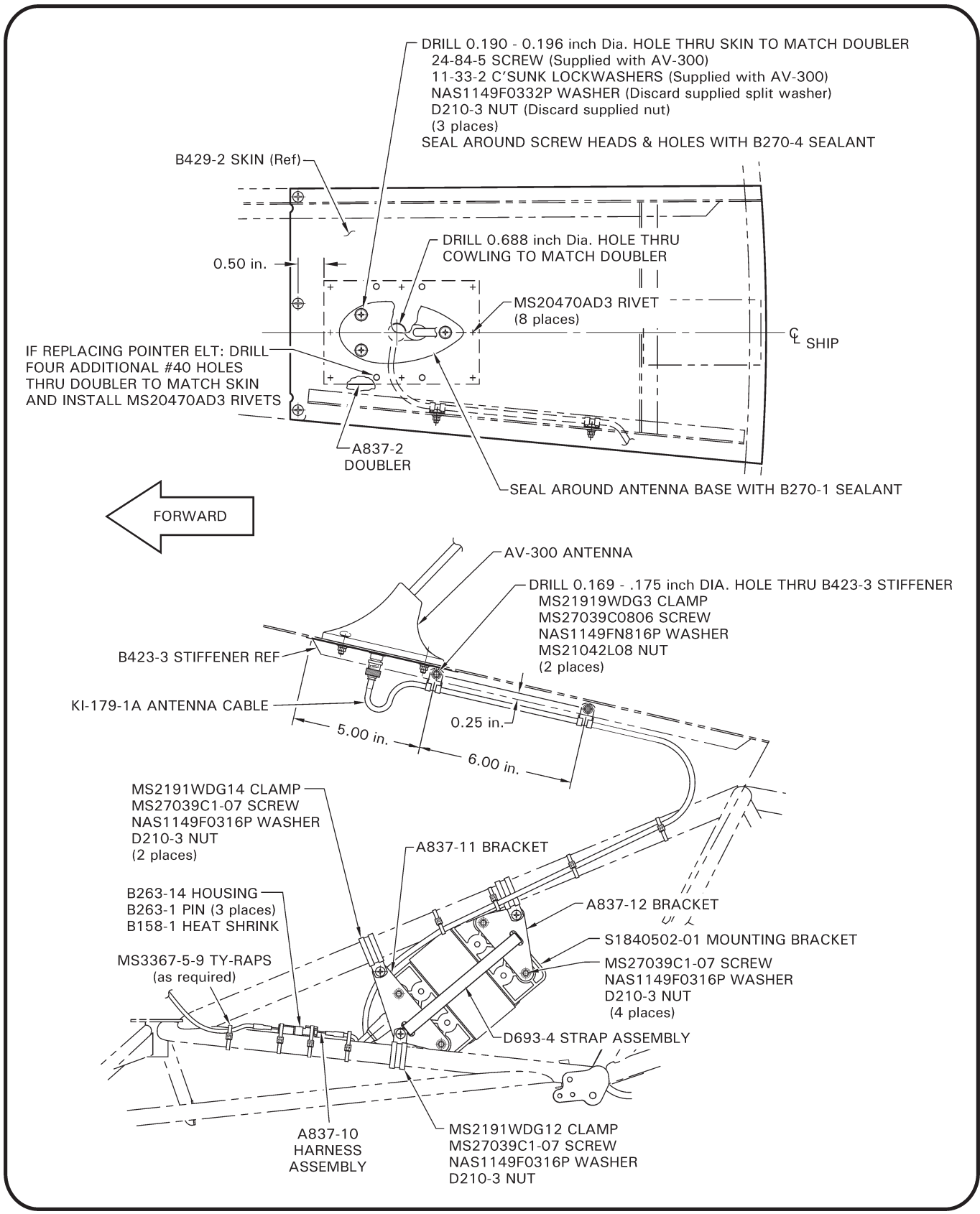
22. Make appropriate maintenance record entries.
23. The helicopter owner or operator must register the ELT. Visit [www.cospas-sarsat.org](http://www.cospas-sarsat.org) for instructions.



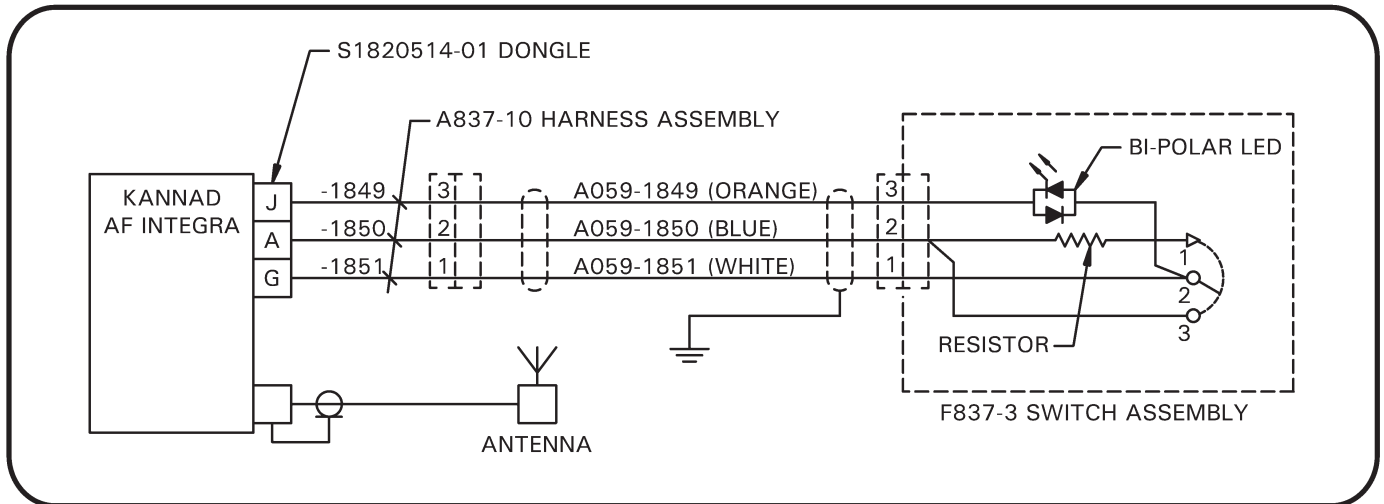
**FIGURE 1**



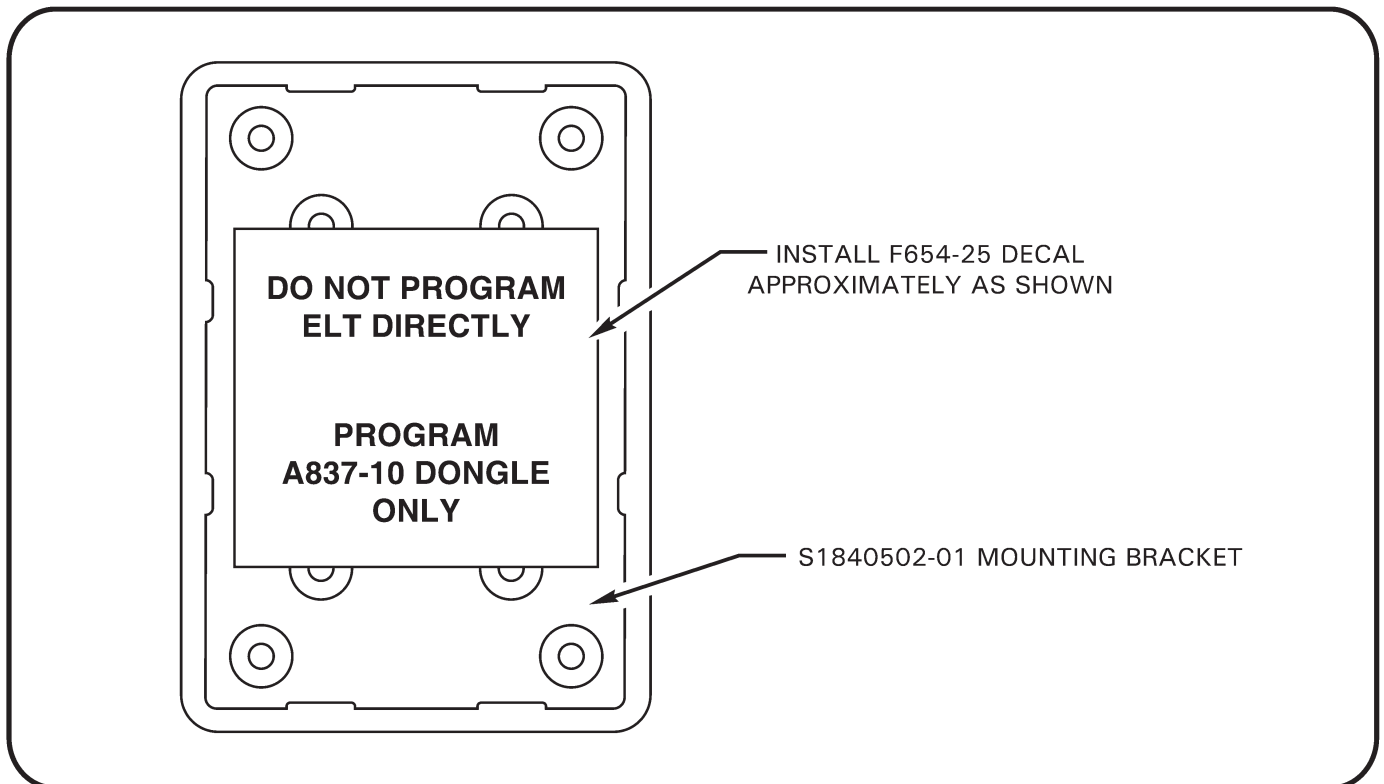
**FIGURE 2**



**FIGURE 3**



**FIGURE 4**



**FIGURE 5**