

ACCESSORY KIT NO. AK-107B  
Supersedes Accessory Kit  
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DATE: December 9, 1974

TITLE: FLASHING BEACON ACCESSORY KIT

MODELS AFFECTED: All Model AA-1, AA-1A and AA-1B aircraft.

WEIGHT AND BALANCE CHANGE:  
Weight Increase: Negligible  
Arm: Negligible

Parts List- Accessory Kit No. AK-107B-1 (All Model AA-1 and AA-1A)

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	803007-20	Placard
1	804001-502	Beacon Tip Ass'y
1	A1EB	Flasher Unit
1	HKP	Fuse Holder
1	AGC-15	Fuse
1	MS35489-4	Grommet
1	26-000-100	Switch
4	BB-8141	Terminal
4	AN960-8	Washer
4	AN526-832R8	Screw
1	ILF4	Wire Ass'y
1	ILF5	Wire Ass'y
1	804001-4	Tubing
2	BW 543	Splice
5 inches	Y-9132A (1½" wide)	Tape
1	DK 500	Stick Clip
2	DK 250	Stick Clip
2	1-480303-0	Socket
1	51LF8	Wire Ass'y
1	51LF9	Wire Ass'y
2	AN526-1032R14	Screw
2	MS20364-1032	Nut
1	ZR-0075-1150-PF	Load Resistor
1	OR-95-1.5	Load Resistor (Alternate)
4	AN960-10	Washer
5	60619-1	Terminal

Parts List - Accessory Kit No. AK-107B-2 (AA1B-0001 thru AA1B-0237)

Note: This Kit includes all parts listed in AK-107B-1 except the HKP Fuse Holder and AGC-15 Fuse.

1	HKP	Fuse Holder (Delete)
1	AGC-15	Fuse (Delete)

NOTE: Revision "B" identifies this Kit, as revised and rewritten.

Parts List - Accessory Kit No. AK-107B-3 (AA1B-0238 & Up)

Note: This Kit includes all parts listed in AK-107B-1, except the HKP Fuse Holder, AGC-15 Fuse and 26-000-100 Switch.

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1	HKP	Fuse Holder (Delete)
1	AGC-15	Fuse (Delete)
1	26-000-100	Switch (Delete)
1	TA-201-TB-W	Switch (Add)

Description of Installation

1. Installation of flashing beacon and related attaching hardware.
2. Estimated time to accomplish this installation is four (4) manhours.

Installation Instructions

1. On Model AA-1 and AA-1A aircraft, drill a 1/8 inch hole under ROT BCN (right lower instrument panel) exactly in line with the existing fuses. Using a small router or the side of a 1/4 inch drill bit, route out the hole to match the cut-out in rear panel (see Figure 1).
 

NOTES: 1. On aircraft serial AA1-0180 thru AA1-0459, remove the two screws and buss bar cover from lower instrument panel. Reinstall cover and screws after completion of step 3 below.

2. On Model AA-1A aircraft, the right hand vent airbox will have to be removed. Reinstall after completion of step 3 below.

3. On Model AA-1B aircraft, the fuse holder and fuse are installed as standard equipment. On AA1B-0238 and up, remove the "Not Used" placard.
2. On the right or below ROT BCN at left end of instrument panel, drill and route out a rectangular hole conforming to the cut-out in rear panel and insert 26-000-100 Switch. On aircraft serial AA1B-0238 and up, this hole is precut and plugged with a cover. Remove this cover and the "Not Used" placard, and install the TA-201-TB-W Switch.
3. If not provided as standard equipment, install the HKP Fuse Holder and solder to the buss bar. Locate the 1LF1 Wire in the harness behind the instrument panel near the fuse holders. This will have a plugged end. Remove plug, strip wire and solder to the fuse holder. Wrap with electrical tape. Do not install fuse at this time.
4. At the left end of the instrument panel, locate the other end of the 1LF1 (51LF1 on Model AA-1B aircraft) Wire. Remove the plugged end and attach a BB-8141 Terminal. Attach to the bottom post of the ROT BCN Switch.
5. Locate the 1LF2 (51LF2 on Model AA-1B aircraft) Wire in the harness and install a BB- 8141 Terminal. Attach to the top post of the ROT BCN Switch.

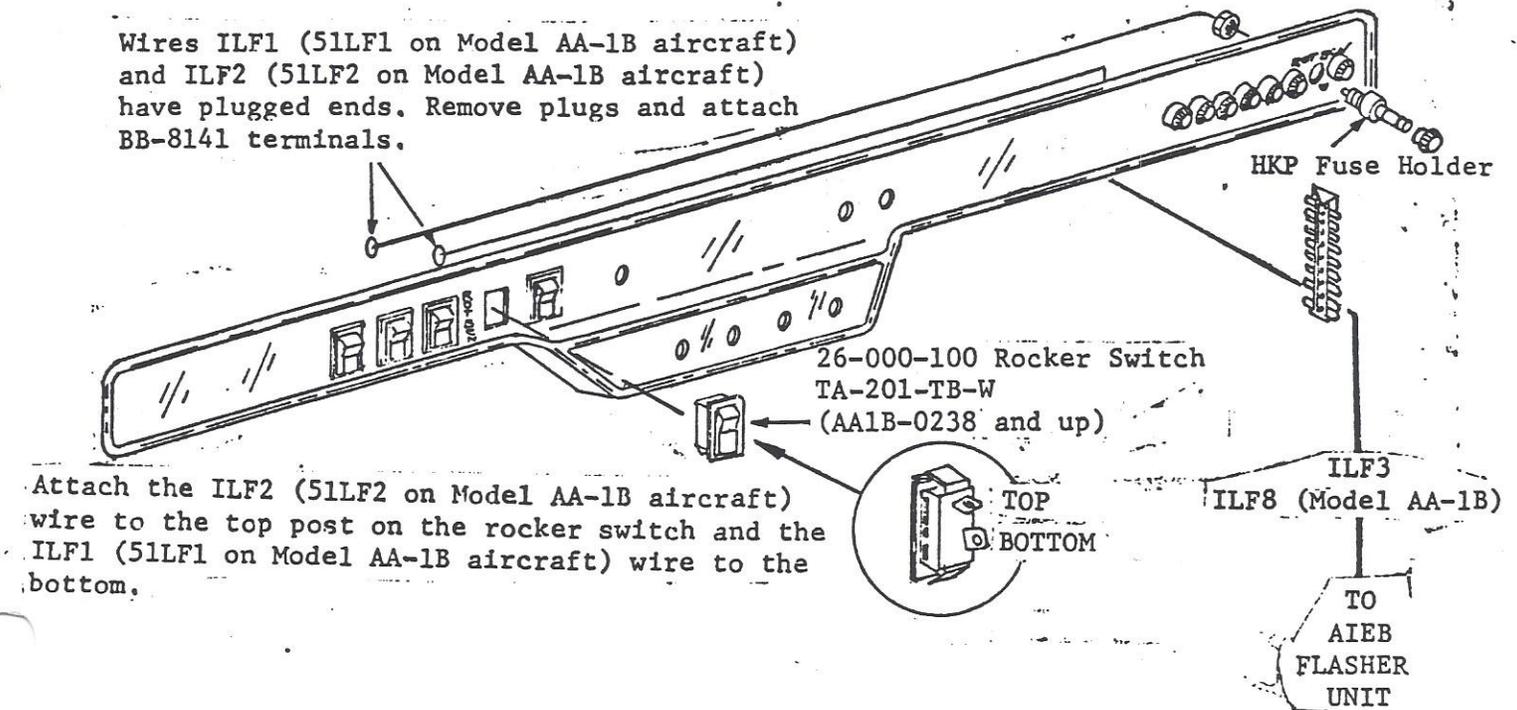


FIGURE 1: Switch and Fuse Holder Installation

6. Install the AIEB unit, load resistor and flashing beacon as instructed on figures 2, 3, and 4.
7. The balance of the rubber-beacon assembly should fall within the balance limits 0 to +32 in. oz. (underbalance) after installation of the beacon. The control surface balance must be checked before installation of the rudder.

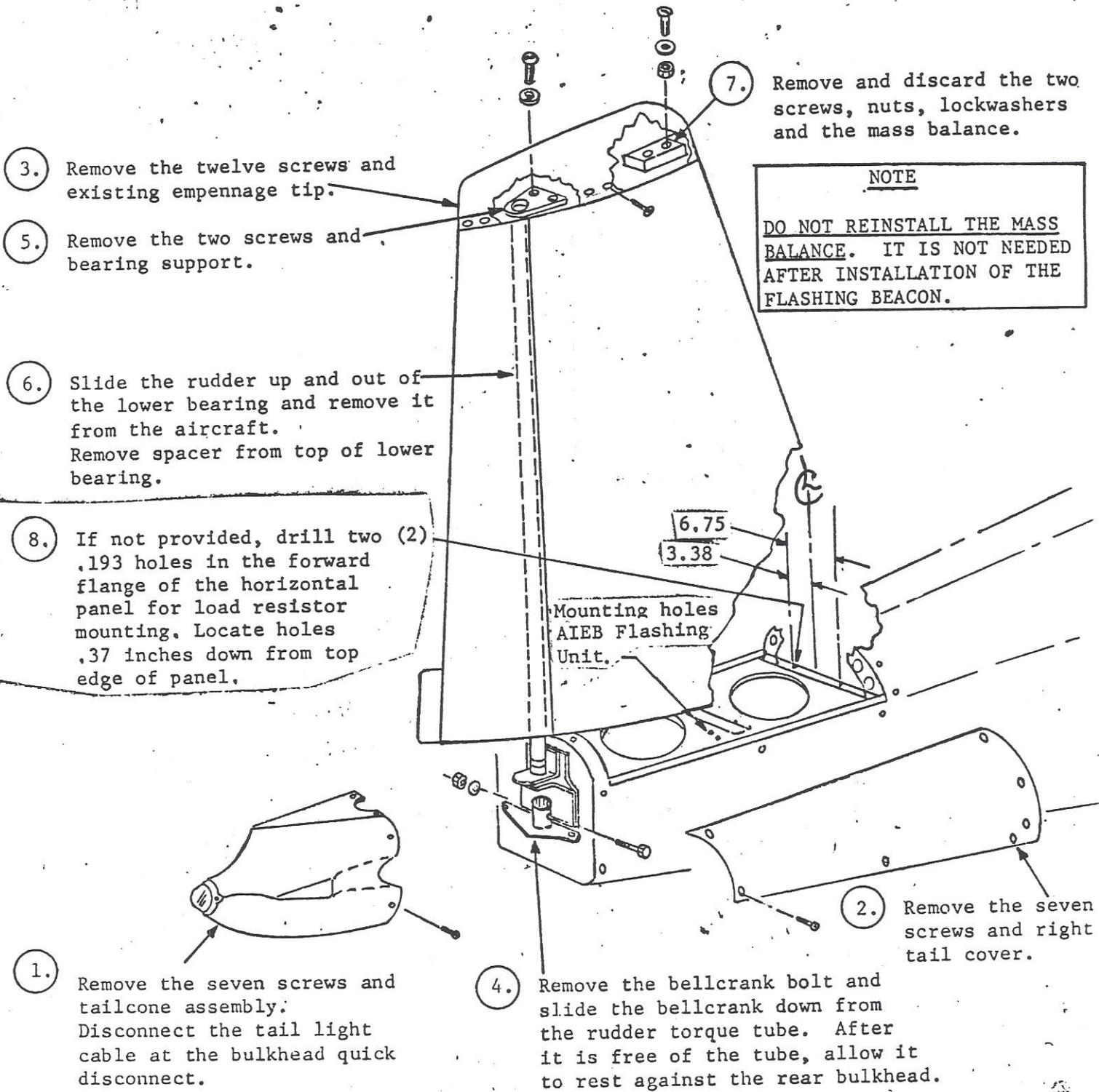


FIGURE 2: Empennage Assembly Preparation for Flashing Beacon Installation

6. Attach one BW543 Splice to each yellow wire from 804001-502 Beacon Tip Assembly and attach these wires to ILF4 and ILF5. Insert ILF4 and ILF5 into the 804001-4 Plastic Tube & route through the torque tube and MS35489-4 Grommet.

10. Install fuse in fuseholder. Turn switch to "on" position and check out circuit.

11. Install the removed components in reverse of the removal procedure.

5. Locate the ILF3 (ILF8 on Model AA-1B) plugged wire under the horizontal panel, attach a 60619-1 Terminal and insert in hole No 1 of the remaining 1-480303-0 Socket. Do not use hole No, 1 of the 1-480303-0 Socket called out in Step 4.

4. Attach the ZR-0075-1150-PF Load Resistor to the forward side of the horizontal panel flange, using the AN526-1032R14 Screws, AN960-10 Washers & MS20364-1032 Nuts. See Fig. 4 for correct assembly sequence. Position two (2) DK-250 Stick Clips on the bottom side of the horizontal panel, to support load resistor wires. Attach terminals to 51LF8 & 51LF9 Wires as shown in Fig. 4 and connect to the "Unlabeled" side of the AIEB Flasher Unit, using the 1-480303-0 Socket.

2. Using the four AN526-832R8 Screws and four AN960-8 Washers, attach the AIEB Flasher Unit to the bottom of panel.

3. Position a DK-250 Stick Clip on the top side of the horizontal panel, to support wires leading to the beacon bulb. Attach the black wire terminal (Ground) from the AIEB Unit to one of the screws that attaches the unit to the panel.

1. Locate and mark a point 10 5/8" down from the top of the rudder skin. Drill a 3/8" hole in the leading edge and insert the MS35489-4 Grommet.

**NOTE**  
The 3/8" hole must line up with the existing 5/16" hole in torque tube.

7. Pass wires through fourth large lightning hole, and route down toward the AIEB Unit.

8. Wrap edge of lightning hole with 5" of 1 1/2" Y-9132A Tape furnished.

9. Attach 60619-1 Terminals to ILF4 and ILF5 Wires and insert in 1-480303-0 Socket hole Numbers 2 and 3, respectively. Connect socket to "labeled" side of AIEB Unit.

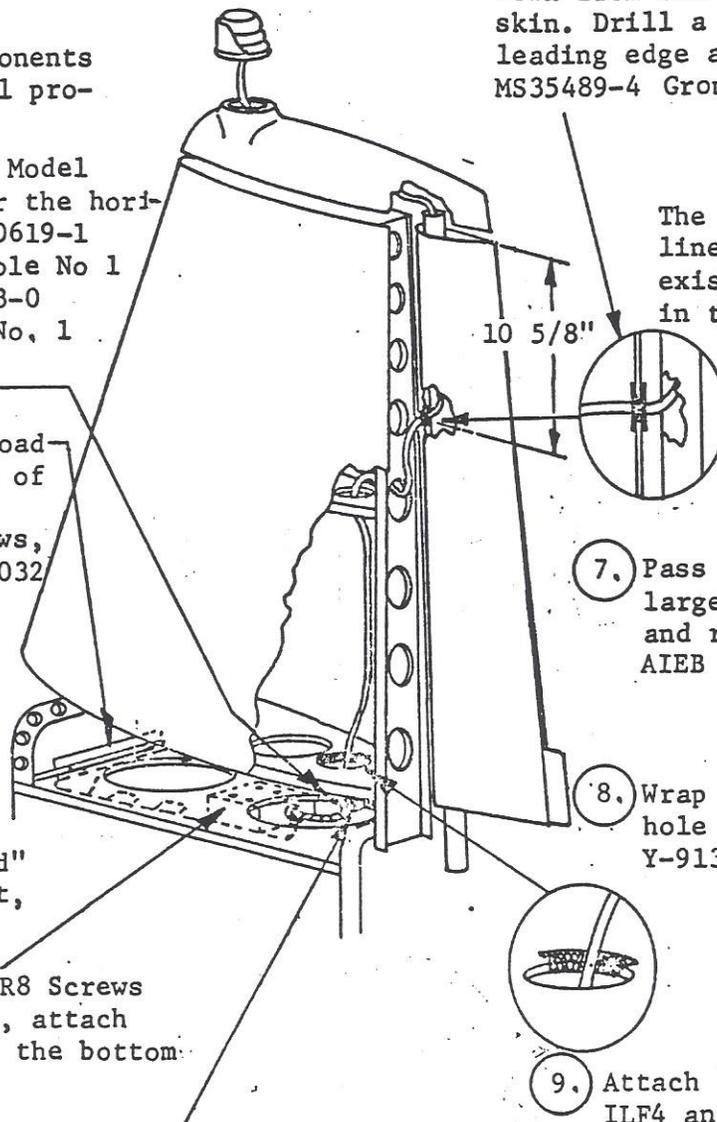
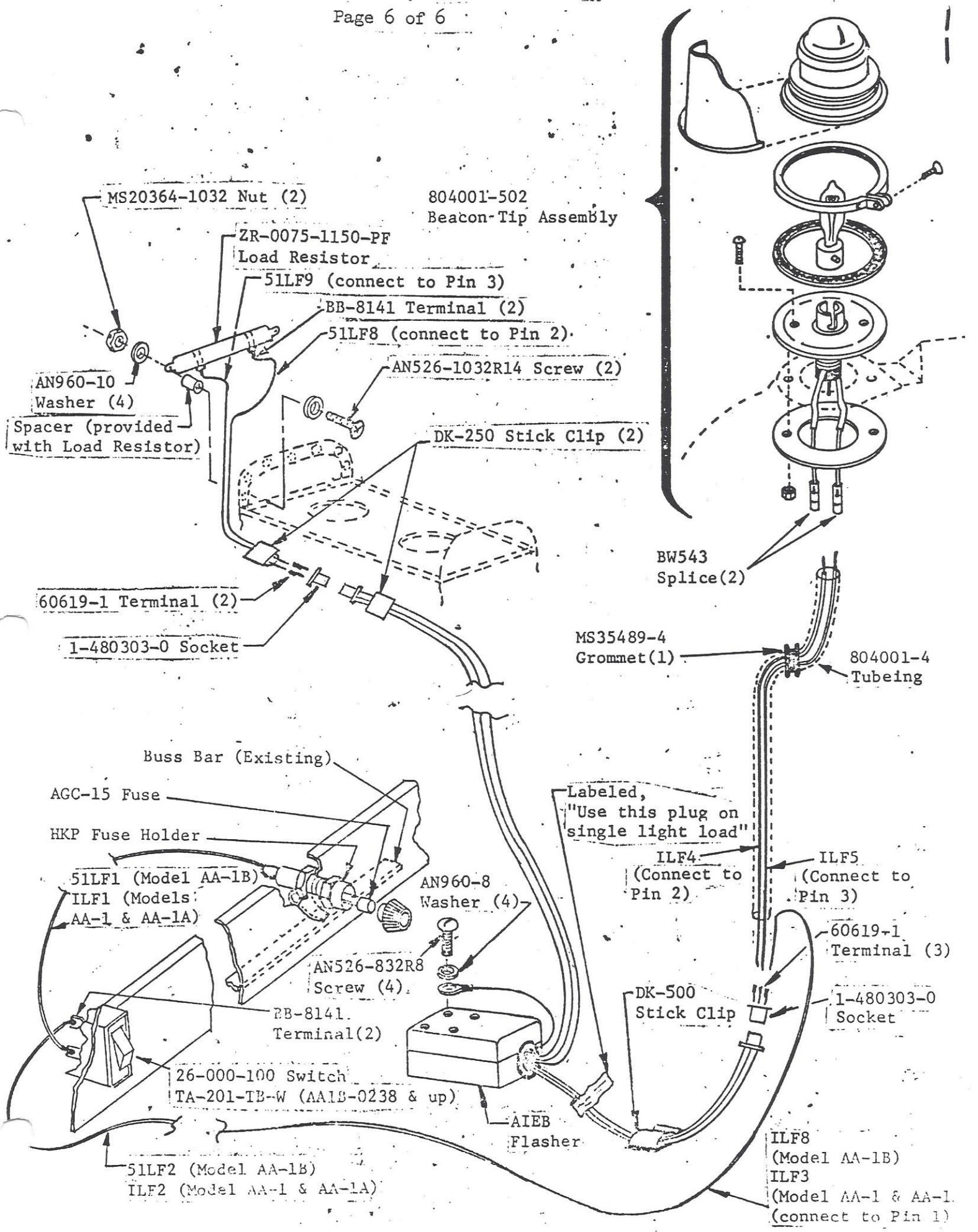


FIGURE 3. AIEB Flasher Unit, Load Resistor and Flashing Beacon Installation and Wiring



MS20364-1032 Nut (2)

804001-502  
Beacon-Tip Assembly

ZR-0075-1150-PF  
Load Resistor

51LF9 (connect to Pin 3)

BB-8141 Terminal (2)

51LF8 (connect to Pin 2)

AN526-1032R14 Screw (2)

AN960-10  
Washer (4)

Spacer (provided  
with Load Resistor)

DK-250 Stick Clip (2)

BW543  
Splice (2)

60619-1 Terminal (2)

1-480303-0 Socket

MS35489-4  
Grommet (1)

804001-4  
Tubing

Buss Bar (Existing)

AGC-15 Fuse

HKP Fuse Holder

51LF1 (Model AA-1B)

ILF1 (Models  
AA-1 & AA-1A)

AN960-8  
Washer (4)

AN526-832R8  
Screw (4)

BB-8141  
Terminal (2)

26-000-100 Switch  
TA-201-TB-W (AA1B-0238 & up)

AIEB  
Flasher

Labeled,  
"Use this plug on  
single light load"

ILF4  
(Connect to  
Pin 2)

ILF5  
(Connect to  
Pin 3)

60619-1  
Terminal (3)

1-480303-0  
Socket

DK-500  
Stick Clip

51LF2 (Model AA-1B)

ILF2 (Model AA-1 & AA-1A)

ILF8  
(Model AA-1B)

ILF3  
(Model AA-1 & AA-1)

(connect to Pin 1)