

SECTION 16: STALL WARNING

WH-B216 (WHT)
TERMINAL
GROUND WIRE

W-1208-L
NOSE RIB

W-1206-L
SPAR ASSEMBLY

ES-00078,
FLOATING 8 POS
CONNECTOR MALE

LEFT
STUB SPAR
ASSEMBLY

WH-B218
TERMINAL
WIRE
(WHT)

WH-B217
GROUND
WIRE
(WHT)

W-1208-R
NOSE RIB

VA-195A
MOUNT PLATE
VA-196
STALL
WARNING
VANE

ES E22-50K
MICRO SWITCH

VA-195B
KEEPER
PLATE

DATE OF COMPLETION: _____
 PARTICIPANTS: _____
 DATE: 07/12/11 REVISION: 1 RV-12 PAGE 16-01



Step 1: Final-Drill #30 the holes in the VA-195A Mount Plate and VA-195B Keeper Plate that are used to mount the ES E22-50K Micro Switch.

Machine countersink both holes of the mount plates inboard side for the flush head of a #4 screw. See Figure 1.

Step 2: Final-Drill #19 the hole in the VA-195A Mount Plate and VA-195B Keeper Plate that holds the #8 screw on which the VA-196 Stall Warning Vane pivots.

Machine countersink this hole in the mount plate on the inboard side for the flush head of a #8 screw. See Figure 1.

Step 3: Deburr all holes and edges.

Step 4: Assemble the Stall Warning Subassembly as shown in Figure 1.

Do not over-torque the nut on the screw about which the VA-196 Stall Warning Vane pivots. Make sure that the stall warning vane can rotate freely.

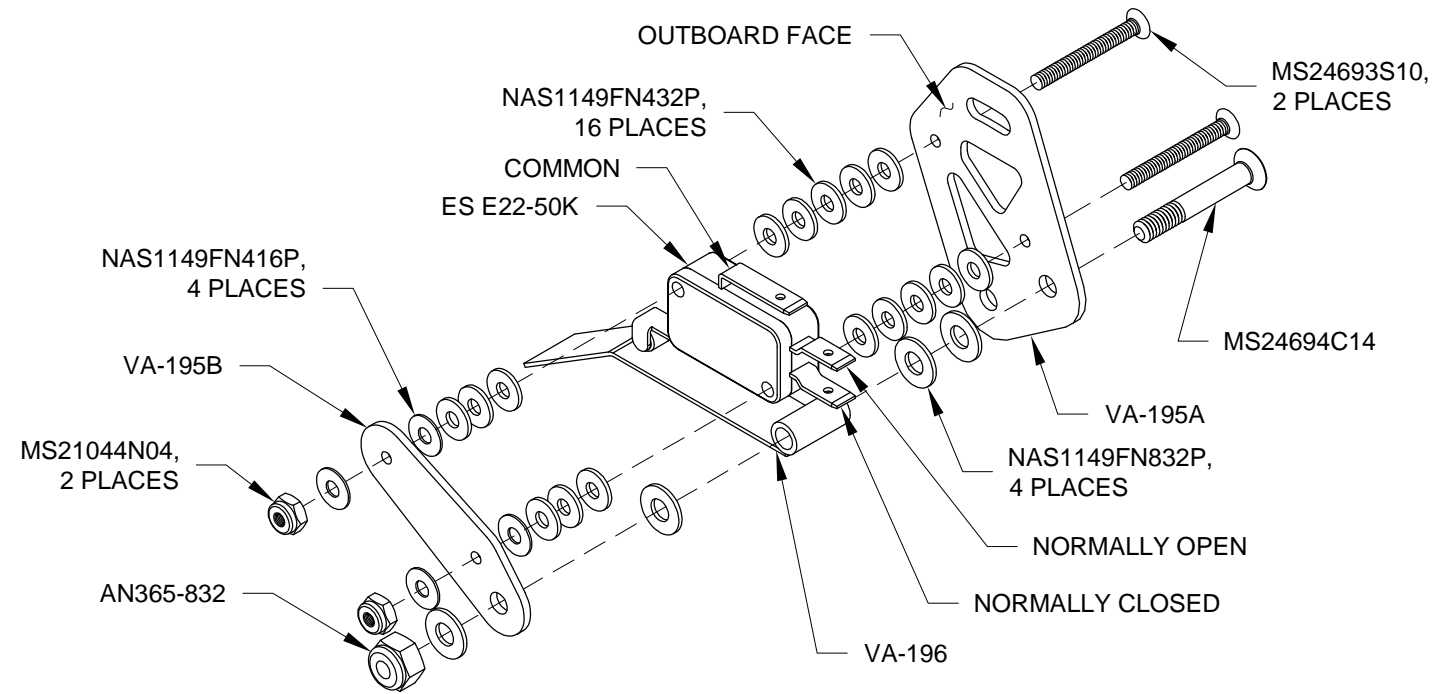


FIGURE 1: STALL WARNING SUBASSEMBLY

NOTE: See Chapter 5W for information on proper installation of electrical connectors onto wire ends.

Step 5: Fabricate the WH-B217 (WHT) Ground Wire by cutting a piece of 18 gauge wire 5 inches long.

Strip one end of the ground wire and crimp on an ES DV18-188-M Female Spade Connector.

Strip the other end of the ground wire and crimp on an ES 31890 Ring Terminal.

Step 6: Install the Stall Warning Subassembly on the W-1208-R Nose Rib as shown in Figure 2.

The upper screw goes through the slot in the VA-195A Mount Plate and allows the angle of the Stall Warning Subassembly to be adjusted.

The lower screw passes through the ES 31890 Ring Terminal on the WH-B217 (WHT) Ground Wire as shown in Figure 2.

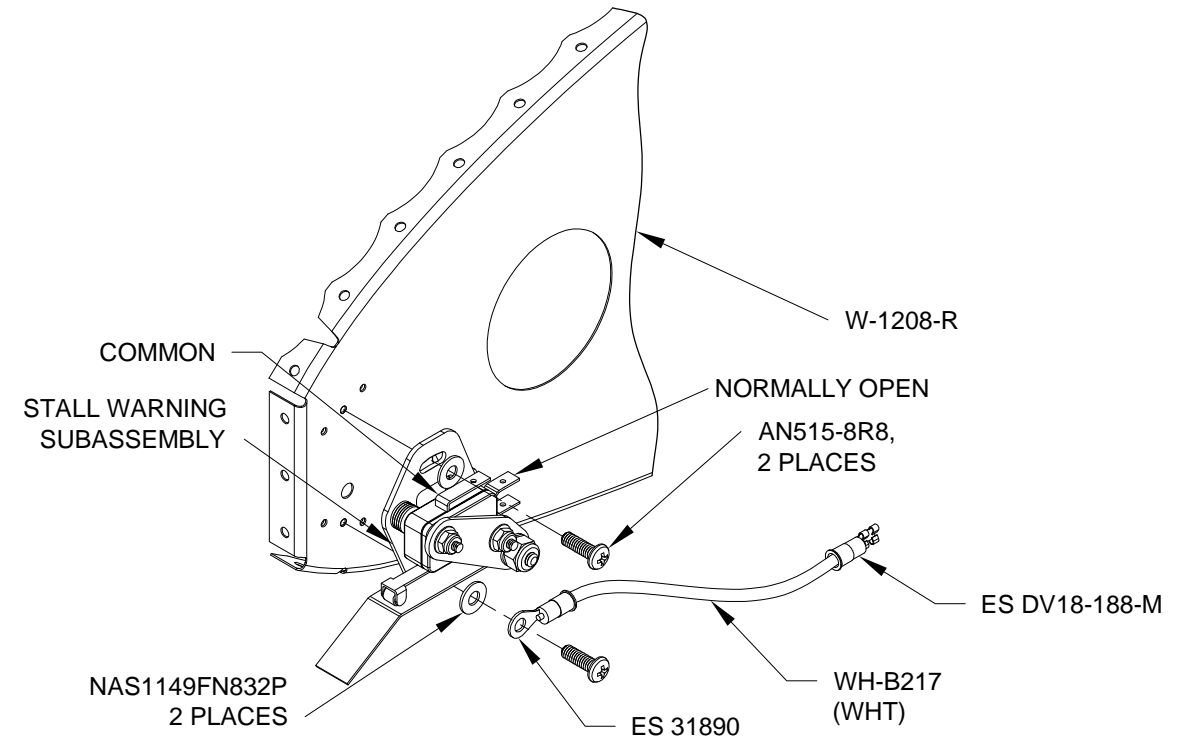


FIGURE 2: INSTALLING THE STALL WARNING SUBASSEMBLY

Step 7: Carefully position the W-1202-L Mid Wing Skin over the W-1208-R Nose Ribs and Stall Warning Subassembly and cleco as shown in Figure 3.

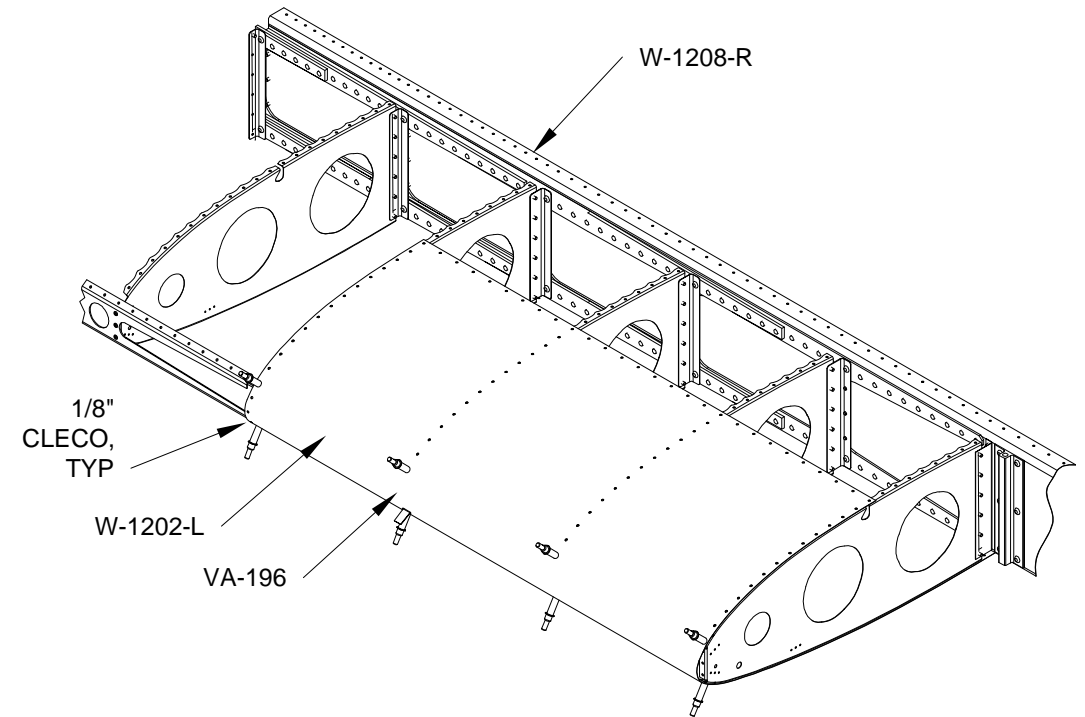


FIGURE 3: ADJUSTING THE MICRO SWITCH



Step 1: Double check that the VA-196 Stall Warning Vane in the at rest position is perpendicular to the surface of the wing skin.

If the stall warning vane is not perpendicular, remove the Stall Warning Subassembly and bend the stall warning vane as required. See Figure 1.

Adjust the Stall Warning Subassembly until the stall warning vane activates and deactivates the ES E22-50K Micro Switch with the minimum travel possible (it is permissible to bend the arm on the micro switch if/as required).

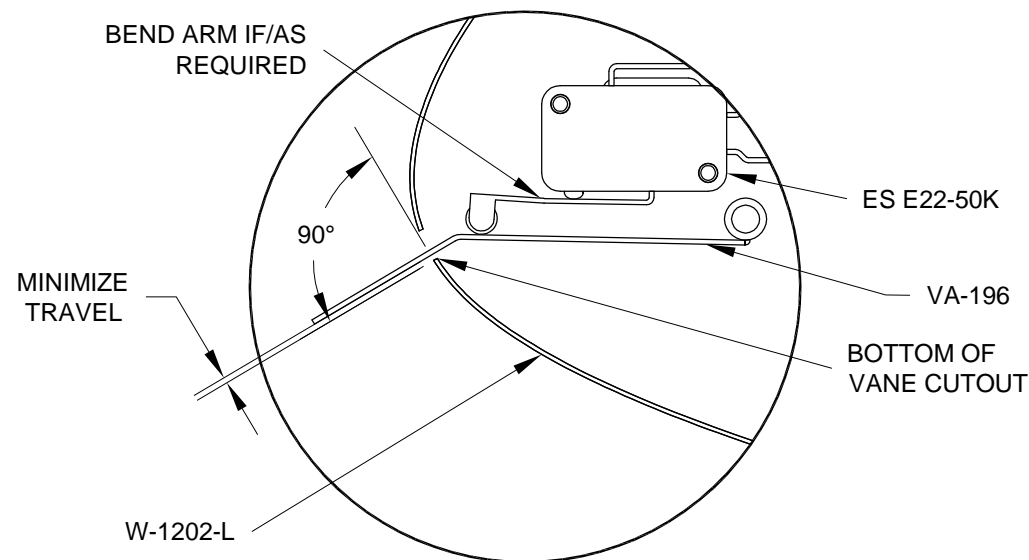


FIGURE 1: ACTIVATING THE MICRO SWITCH

Step 2: Remove the clecos and W-1202-L Mid Wing Skin.

Step 3: Fabricate the WH-B218 (WHT) Terminal Wire by cutting a piece of 18 gauge wire 68 inches long. Label the wire.

Strip one end of the terminal wire and crimp on an ES DV18-188-M Female Spade Connector.

Install the female spade connector to the N.O. (normally open) terminal of the ES E22-50K Micro Switch as shown on Page 16-02, Figure 2.

Step 4: Starting at the Stall Warning Subassembly, route the WH-B218 (WHT) Terminal Wire inboard through the snap bushing in each W-1208 Nose Rib as shown in Figure 2.

Install the WH-B217 (WHT) Ground Wire to the COM. (common) terminal of the ES E22-50K Micro Switch as shown on Page 16-02, Figure 2.

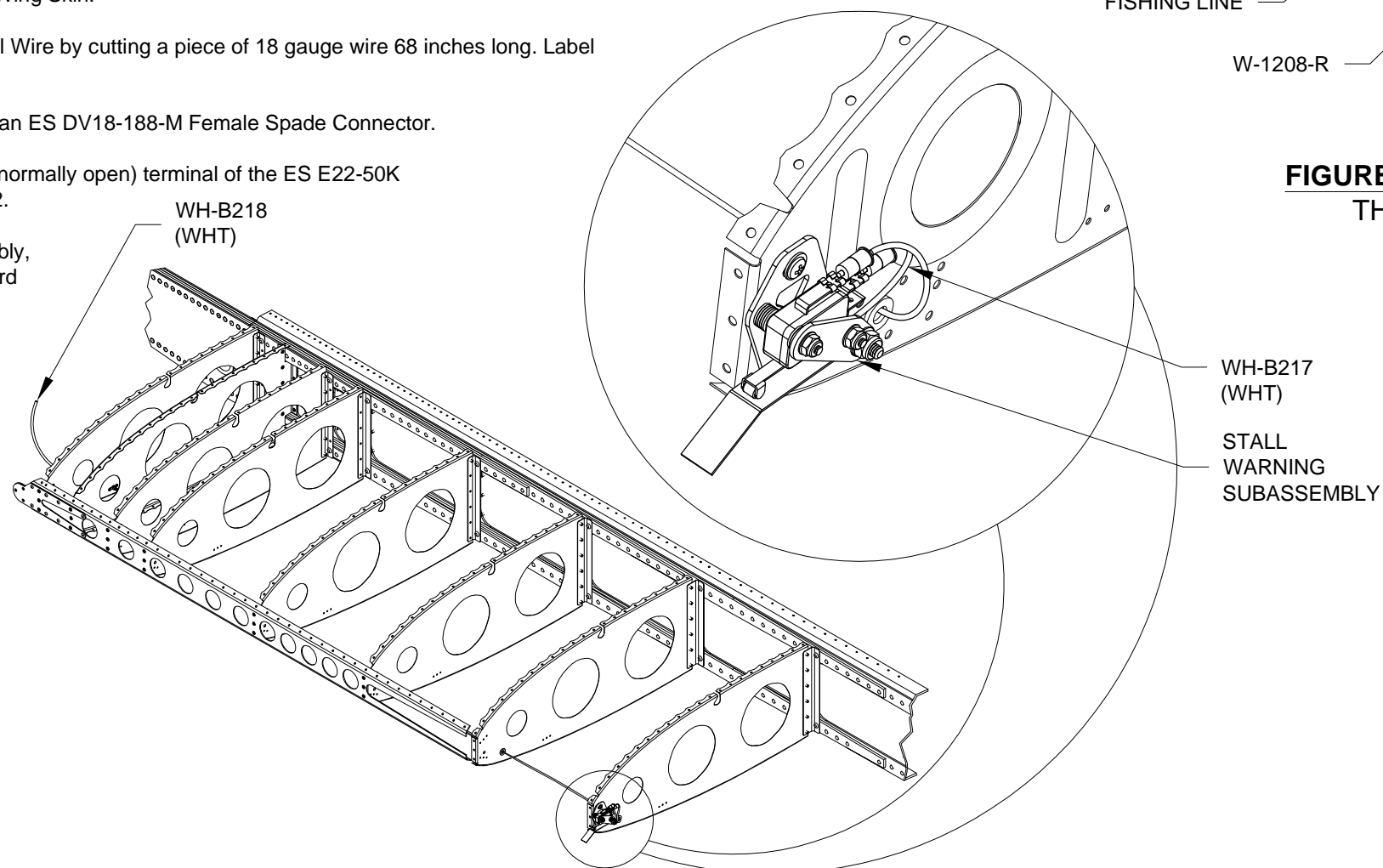


FIGURE 2: WIRE ROUTING

Step 5: Cut two 12 foot lengths of string or fishing line (not supplied in kit).

Step 6: Starting from the most outboard W-1208 Nose Rib, route a length of string or fishing line inboard through the snap bushing in all of the nose ribs.

Tape the ends of the string or fishing line on the most outboard and most inboard nose rib. Repeat process on the right wing. See Figure 3.

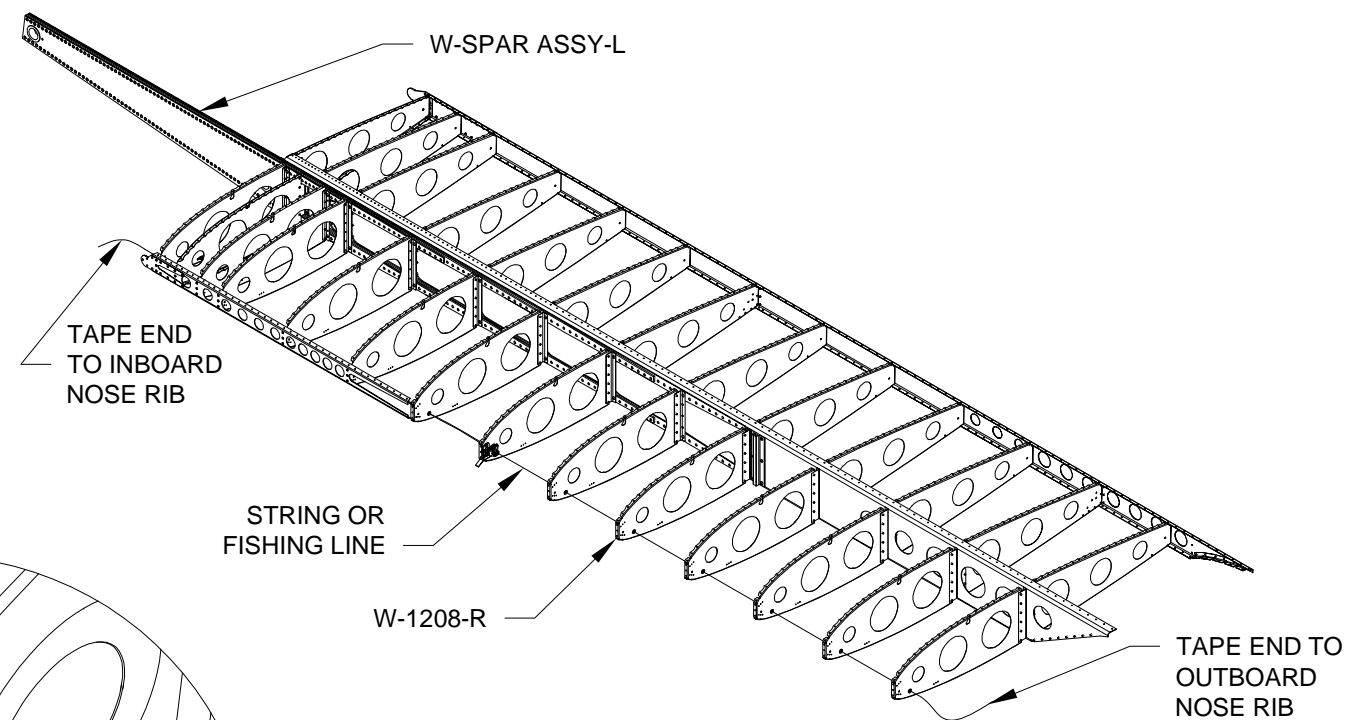


FIGURE 3: ROUTING LINE THROUGH RIBS



NOTE: For the remainder of this document the nomenclature for the ES-00081 4-40 F/F .750 1/4 Hex Standoffs will be "standoffs".

Step 1: Attach ES-00081 Standoffs to the inboard most W-1208 Nose Rib on each wing as shown in Figure 1.

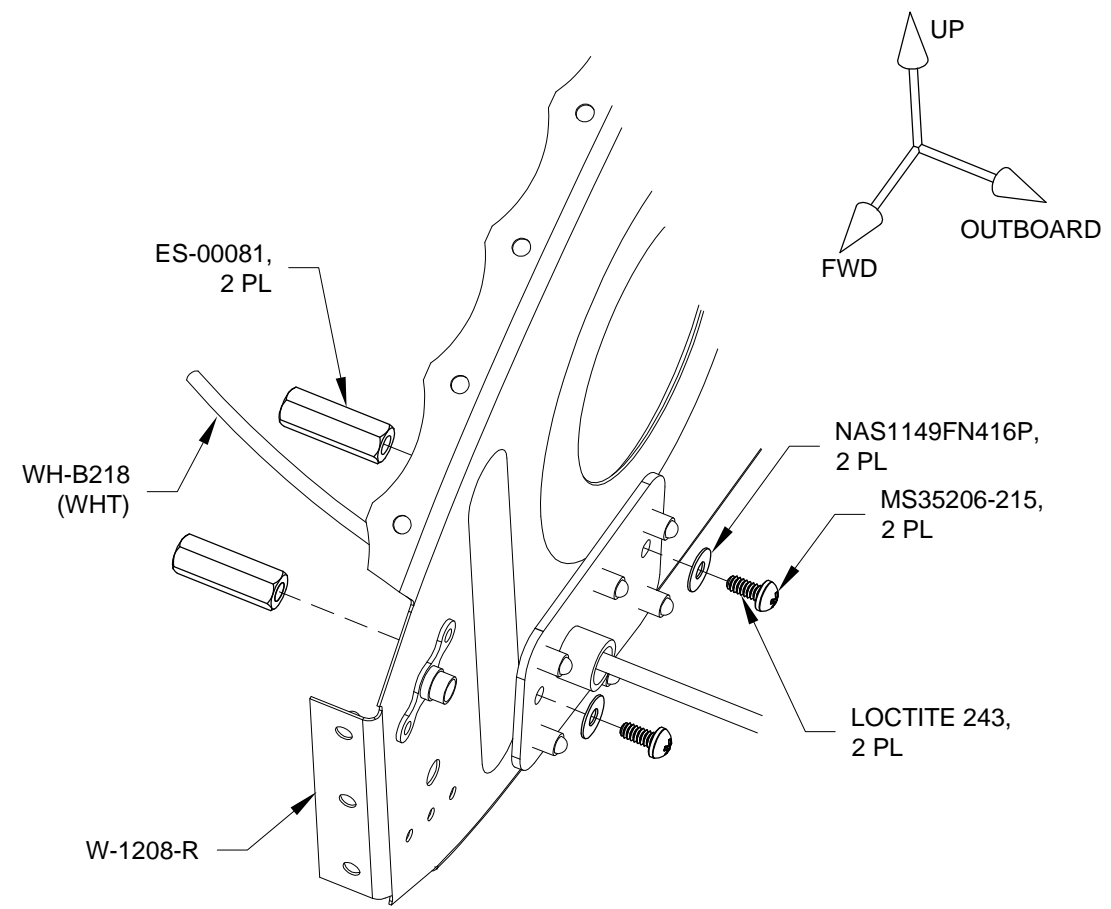


FIGURE 1: INSIDE BLOCK ASSEMBLY VIEW
(SPAR STUB NOT SHOWN FOR CLARITY)

Step 2: Strip the other end of the WH-B218 (WHT) Terminal Wire and crimp on an ES-00079 Floating Connector Pin 16-20 AWG. See Figures 1 & 2.

Install the terminal wire to the ES-00078 Floating 8 Pos Connector Male as shown in Figures 2 & 3.

Step 3: Fabricate two WH-B216 (WHT) Terminal Ground Wires by cutting two pieces of 18 gauge wire 5 inches long.

Strip one end of each terminal ground wire and crimp an ES-00079 Floating Connector Pin 16-20 AWG onto each as shown in Figure 2.

Strip the other end of each terminal ground wire and crimp an ES-31890 Ring Terminal onto each as shown in Figure 2.

Install the ring terminal ends to the W-1208 Nose Ribs as shown in Figure 2.

Install the connector pin ends of each terminal ground wire to the floating 8 pos connectors as shown in Figures 2 & 3.

Step 4: Attach the ES-00078 Floating 8 Pos Connector Male and ES-00077 Floating 8 Pos Connector Female to the ES-00081 Standoffs as shown in Figure 2.

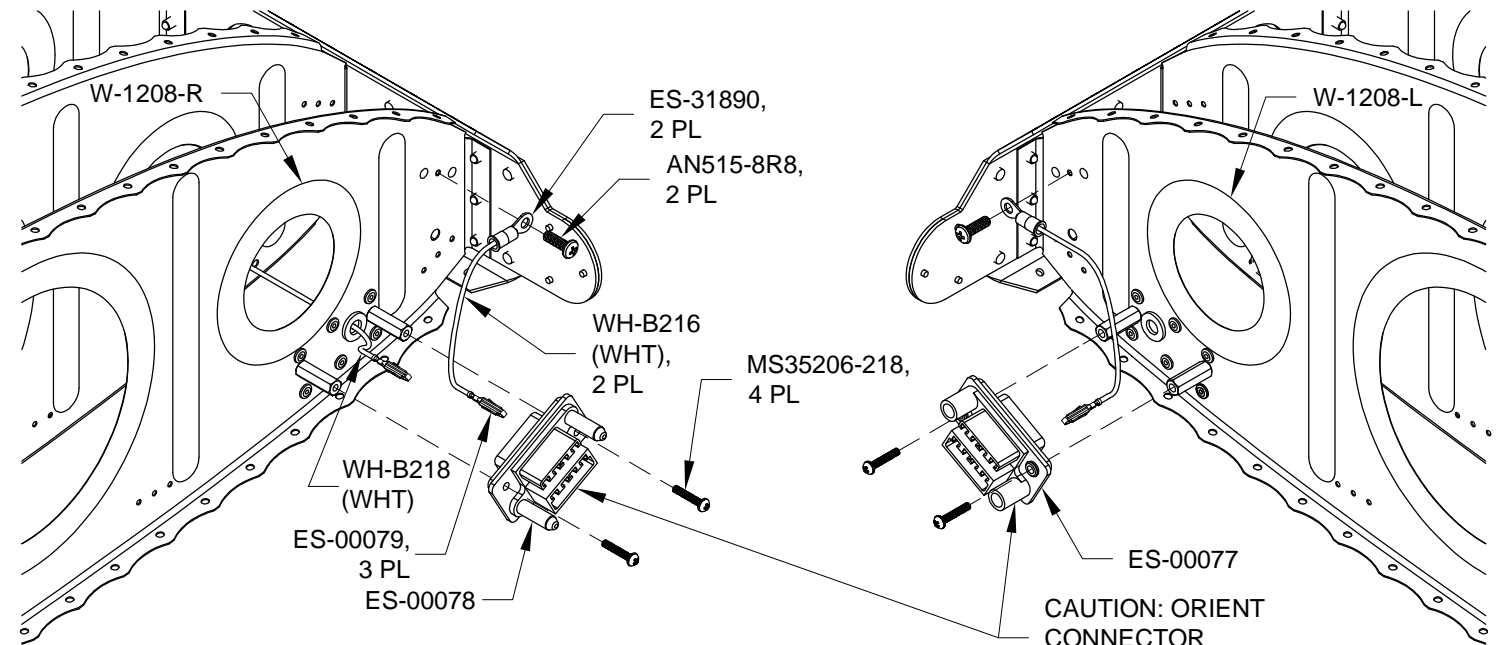


FIGURE 2: LEFT & RIGHT WING CONNECTOR EXPLODED VIEW

NOTE: If installing the optional lighting kit now would be a good time to install the kit. See Section 40.

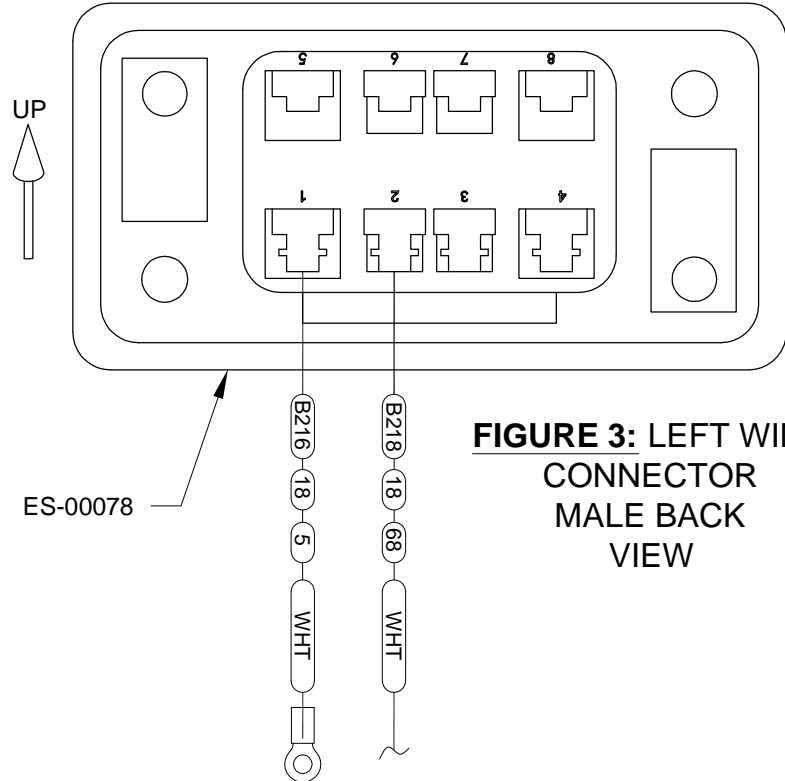


FIGURE 3: LEFT WING CONNECTOR MALE BACK VIEW

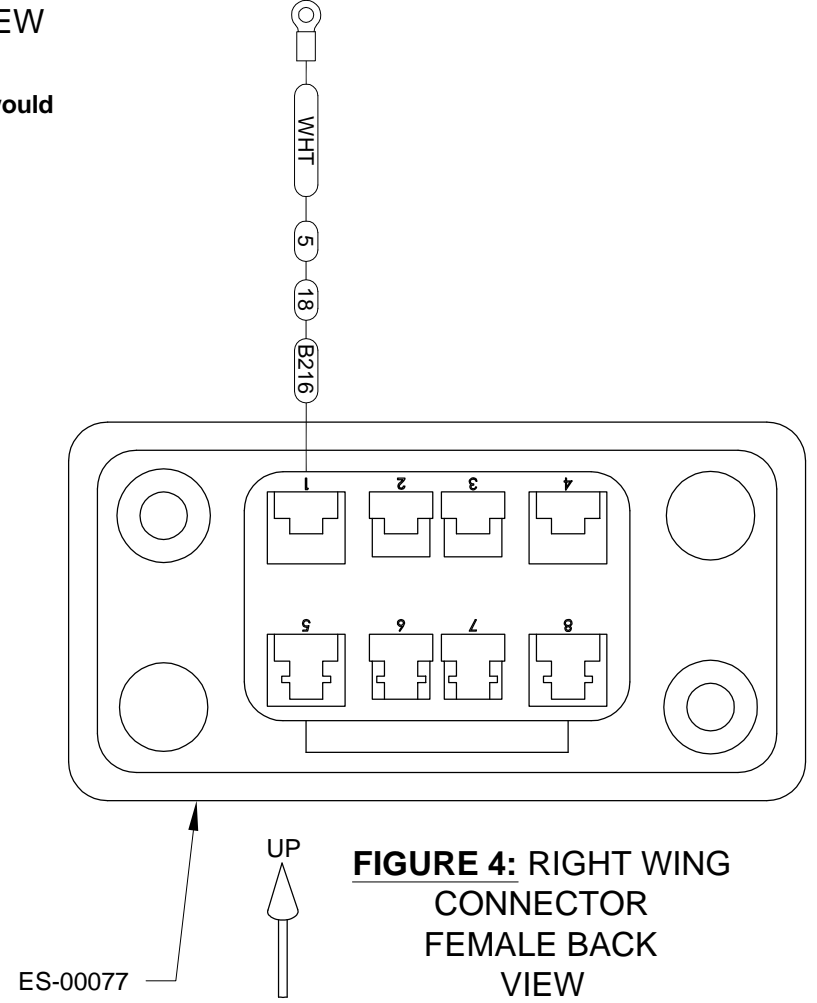


FIGURE 4: RIGHT WING CONNECTOR FEMALE BACK VIEW