

# SECTION 42C: SKYVIEW D1000 AVIONICS SYSTEM

WH-00034 SKYVIEW GPS-250 HARNESS OR WH-00129 SKYVIEW GPS-2020 HARNESS

SV-XPNDR-261  
MODE S TRANSPONDER

WH-00050  
TRANSPONDER ANTENNA CABLE

WH-00029  
SKYVIEW XPNDR HARNESS

SV-EMS-220  
ENGINE MONITORING MODULE

WH-00020  
SKYVIEW SV-D1000  
HARNESS

AV-50001  
POWER & SWITCH MODULE  
(SEE SECTION 42M)

F-00044  
CNTR INST PANEL GTR200

SV-HDX1100  
DISPLAY

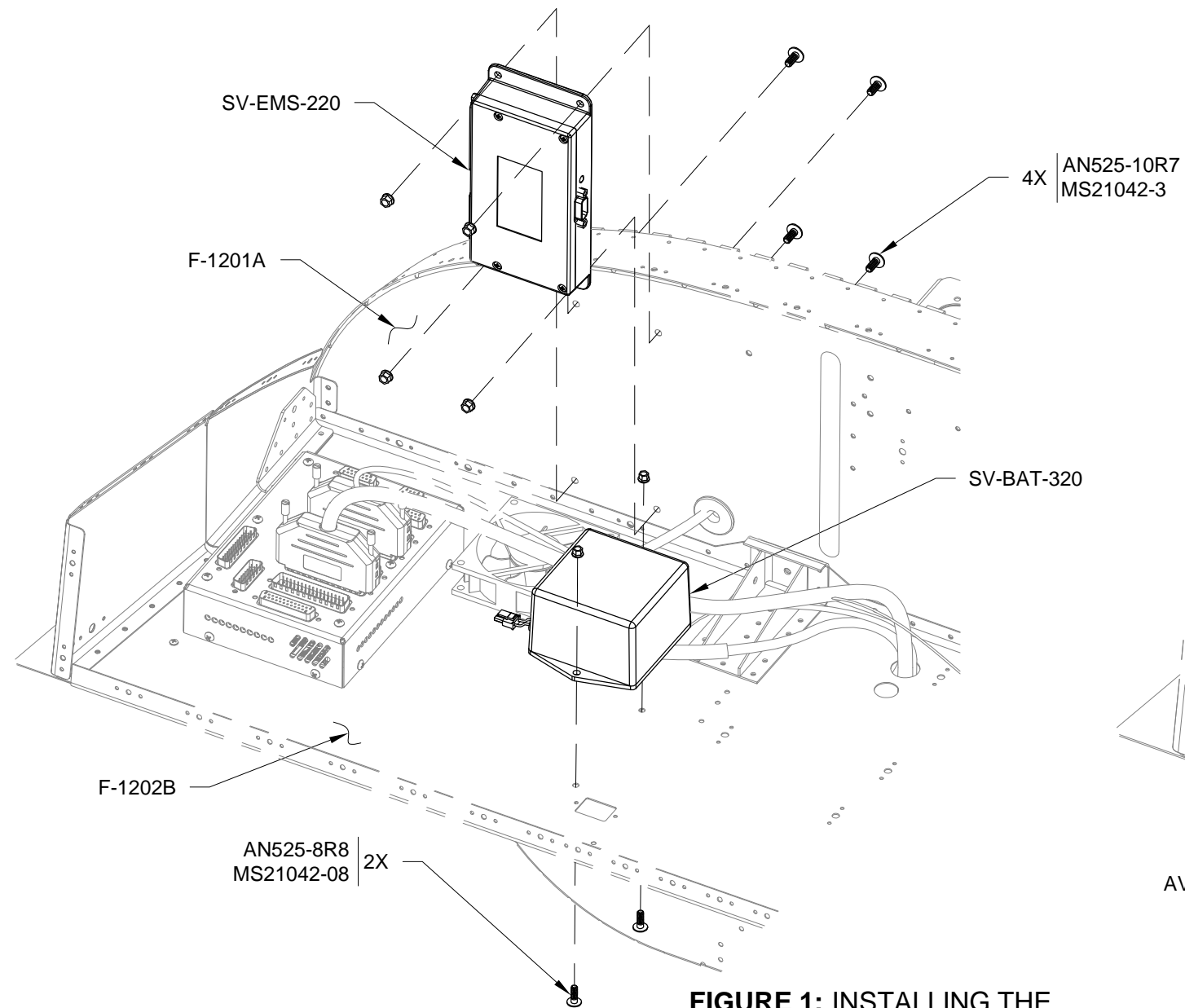
AV-50002  
IGNITION & START MODULE  
(SEE SECTION 42M)

**NOTE:** Throughout this section the SV-HDX1100 Installation is shown. SV-D1000(T) installation is similar.



Step 1: Install the SV-EMS-220 Engine Monitoring Module to the F-1201A Firewall Upper as shown in Figure 1.

Step 2: Install the SV-BAT-320 Backup Battery to the F-1202B Panel Base as shown in Figure 1.



**FIGURE 1: INSTALLING THE ENGINE MONITORING MODULE AND BATTERY**

Step 3: Install the WH-00020 SkyView SV-D1000 Harness 50-pin d-sub labeled "EFIS" into the AV-50000A RV-12 Control Module.

Install the 37-pin d-sub labeled "EMS" into the SV-EMS-220 Engine Monitoring Module.

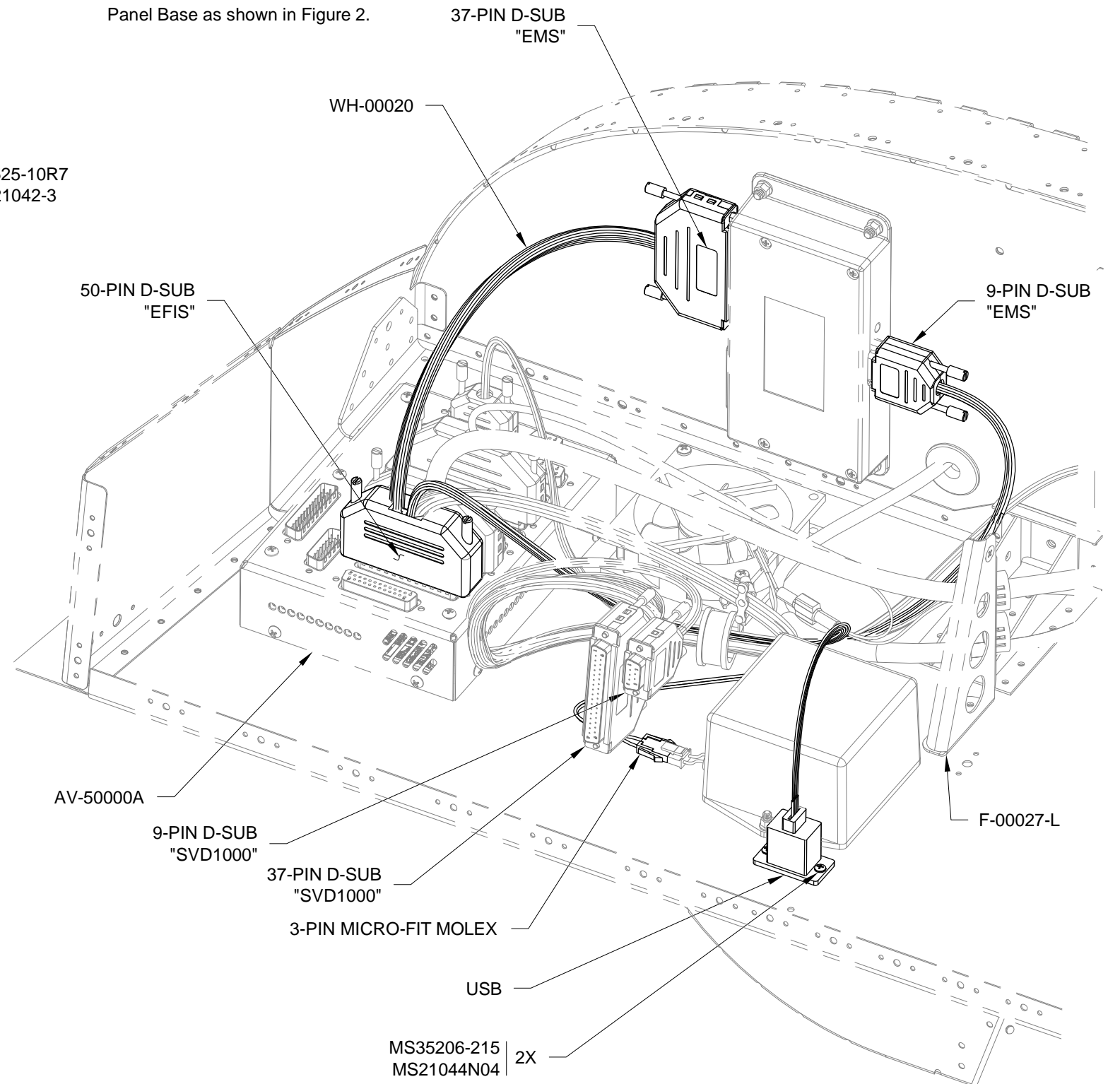
Route the remaining harness wires through the cushioned clamp near the left ES CPU FAN. See Figure 2.

Install the 9-pin d-sub labeled "EMS" into the engine monitoring module.

Step 3 (continued): Install the 3-pin Micro-Fit Molex connector from the harness into the matching connector on the SV-BAT-320 Backup Battery.

Arrange the harness so that the 37-pin d-sub labeled "SVD1000" and 9-pin d-sub labeled "SVD1000" lay about where the main display will be installed. This will create a service loop for the display and allow it to be removed from the panel without removing the panel itself.

Install the USB to the F-1202B Panel Base as shown in Figure 2.



**FIGURE 2: INSTALLING THE HARNESS TO THE ENGINE MONITORING MODULE AND BATTERY**

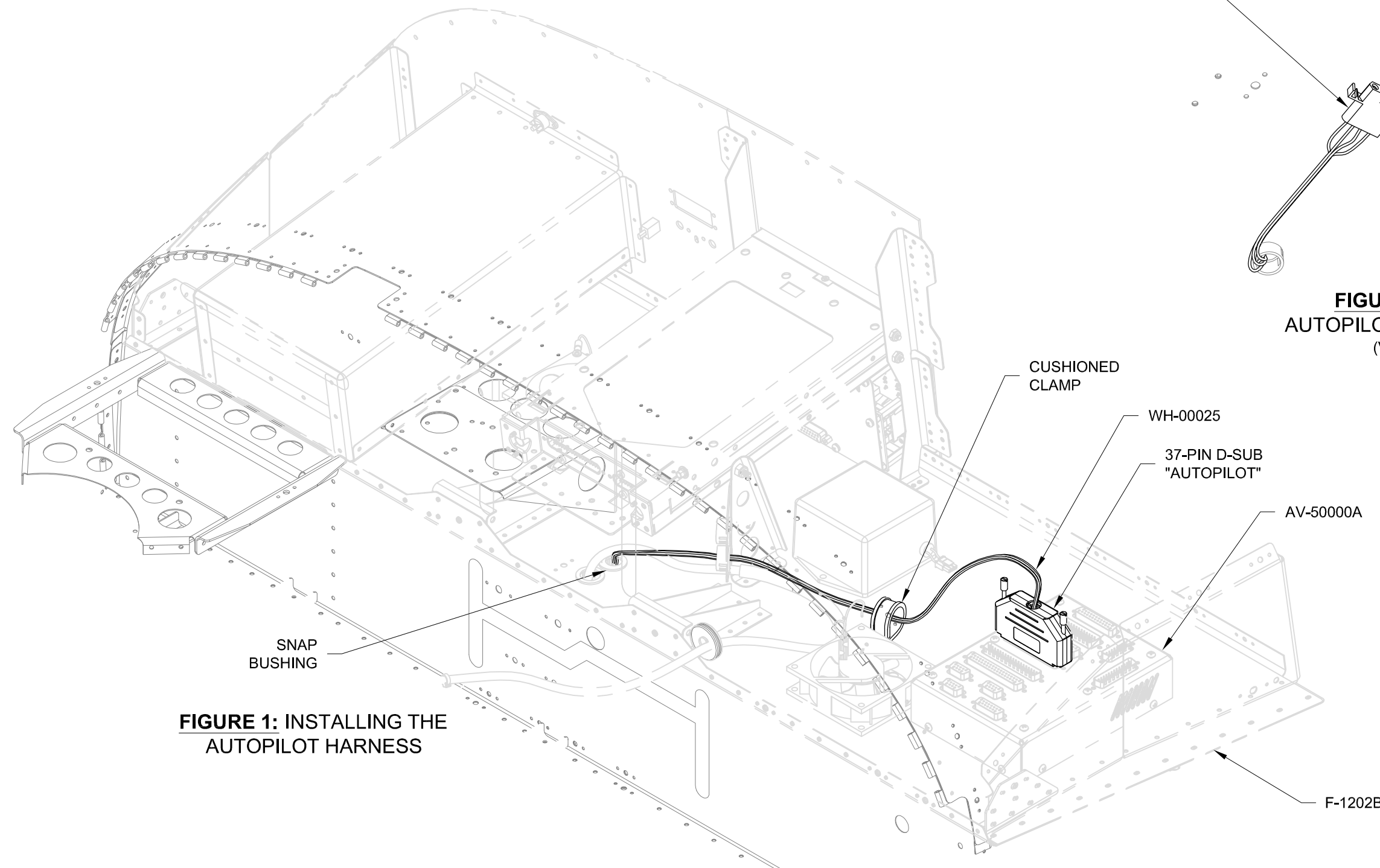


**Step 1:** Install the WH-00025 SkyView Autopilot Harness labeled "AUTOPILOT" to the AV-50000A RV-12 Control Module as shown in Figure 1.

**Step 2:** Route the end of the WH-00025 SkyView Autopilot Harness through the cushioned clamp and the aft snap bushing located on the F-1202B Panel Base as shown in Figure 1.

**Step 3:** Insert the WH-00025 SkyView Autopilot Harness wires into the ES-00007 Molex Receptacle as shown in Figures 2 and 3.

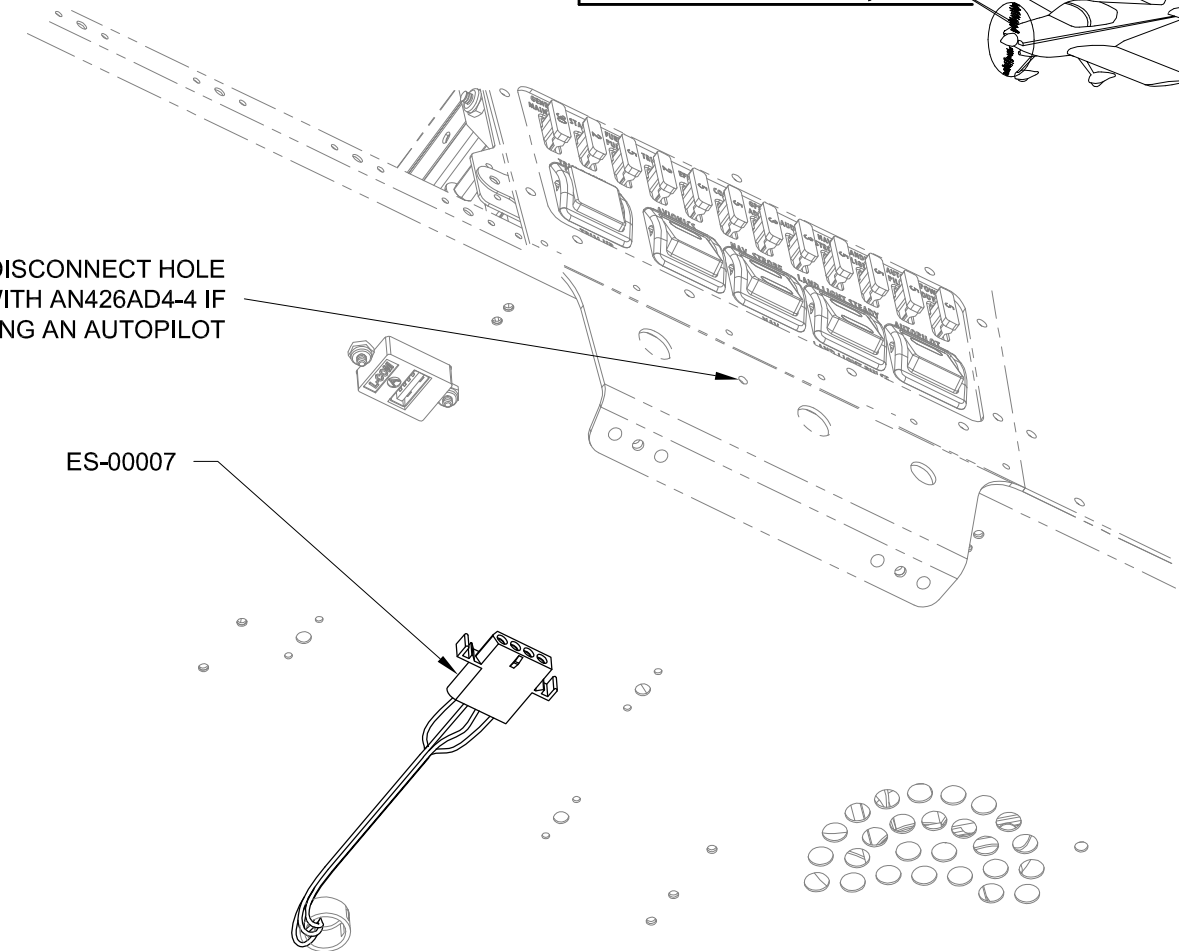
**Step 4:** If not using an autopilot fill the autopilot disconnect hole with a rivet as shown in Figure 2.



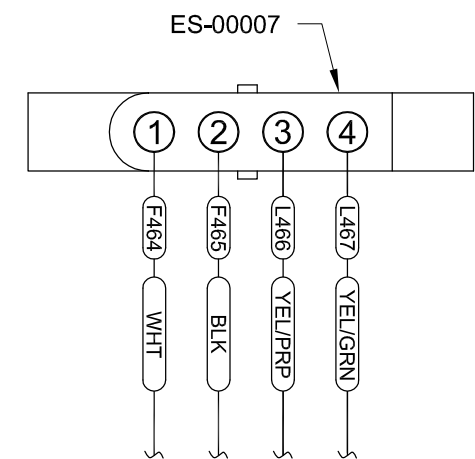
**FIGURE 1: INSTALLING THE AUTOPILOT HARNESS**

AUTOPILOT DISCONNECT HOLE  
FILL WITH AN426AD4-4 IF  
NOT USING AN AUTOPILOT

ES-00007



**FIGURE 2: CONNECTING THE AUTOPILOT HARNESS TO MOLEX PLUG (VIEW FROM BELOW PANEL)**

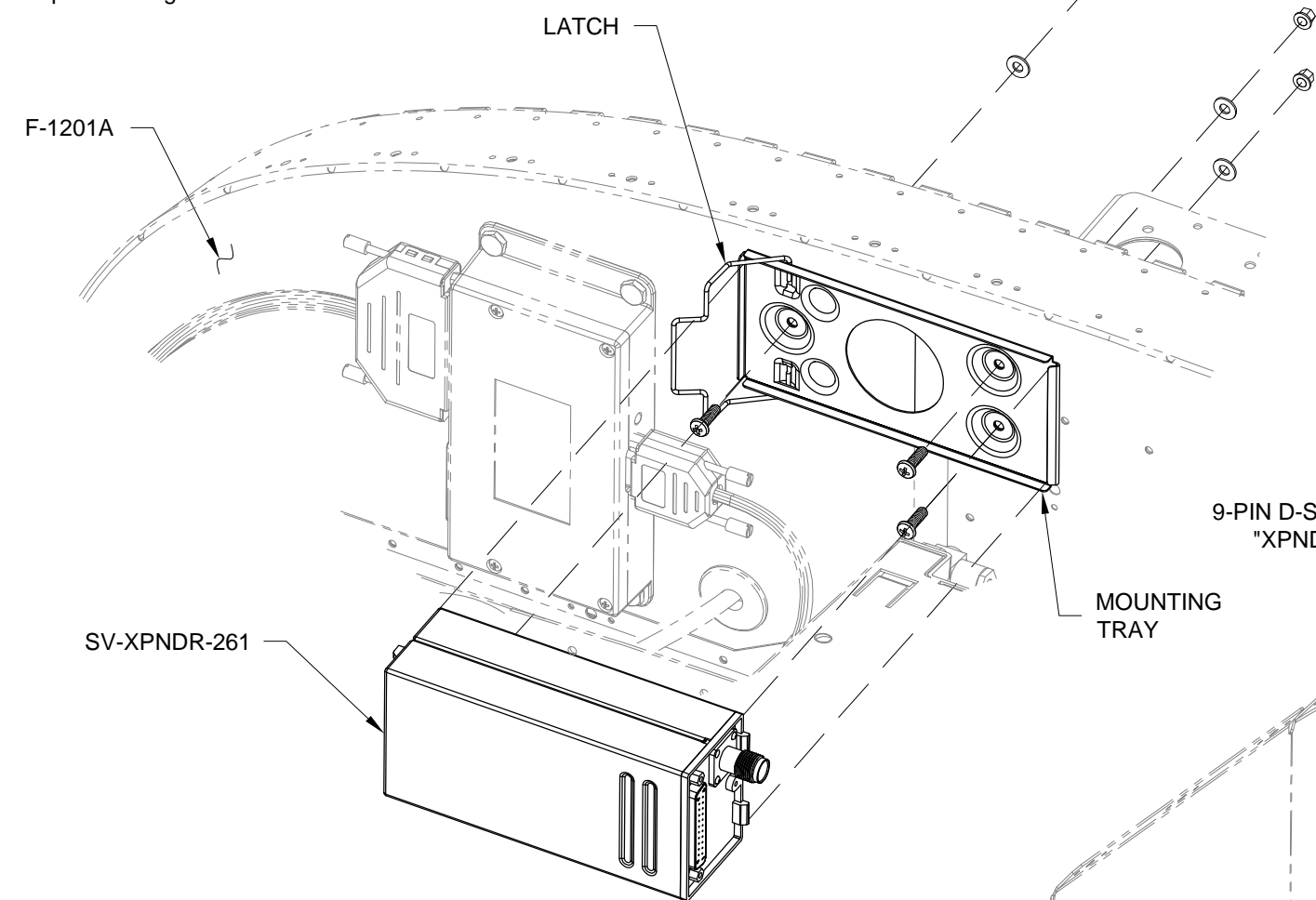


**FIGURE 3: AUTOPILOT HARNESS DIAGRAM (VIEW FROM WIRE INSERTION SIDE)**



Step 1: Attach the SV-XPNDR-261 Mode S Transponder mounting tray to the F-1201A Firewall Upper using the hardware shown in Figure 1.

Step 2: Insert and latch the SV-XPNDR-261 Mode S Transponder into the mounting tray installed in Step 1. See Figure 1.



**FIGURE 1: ATTACHING THE MOUNTING TRAY**

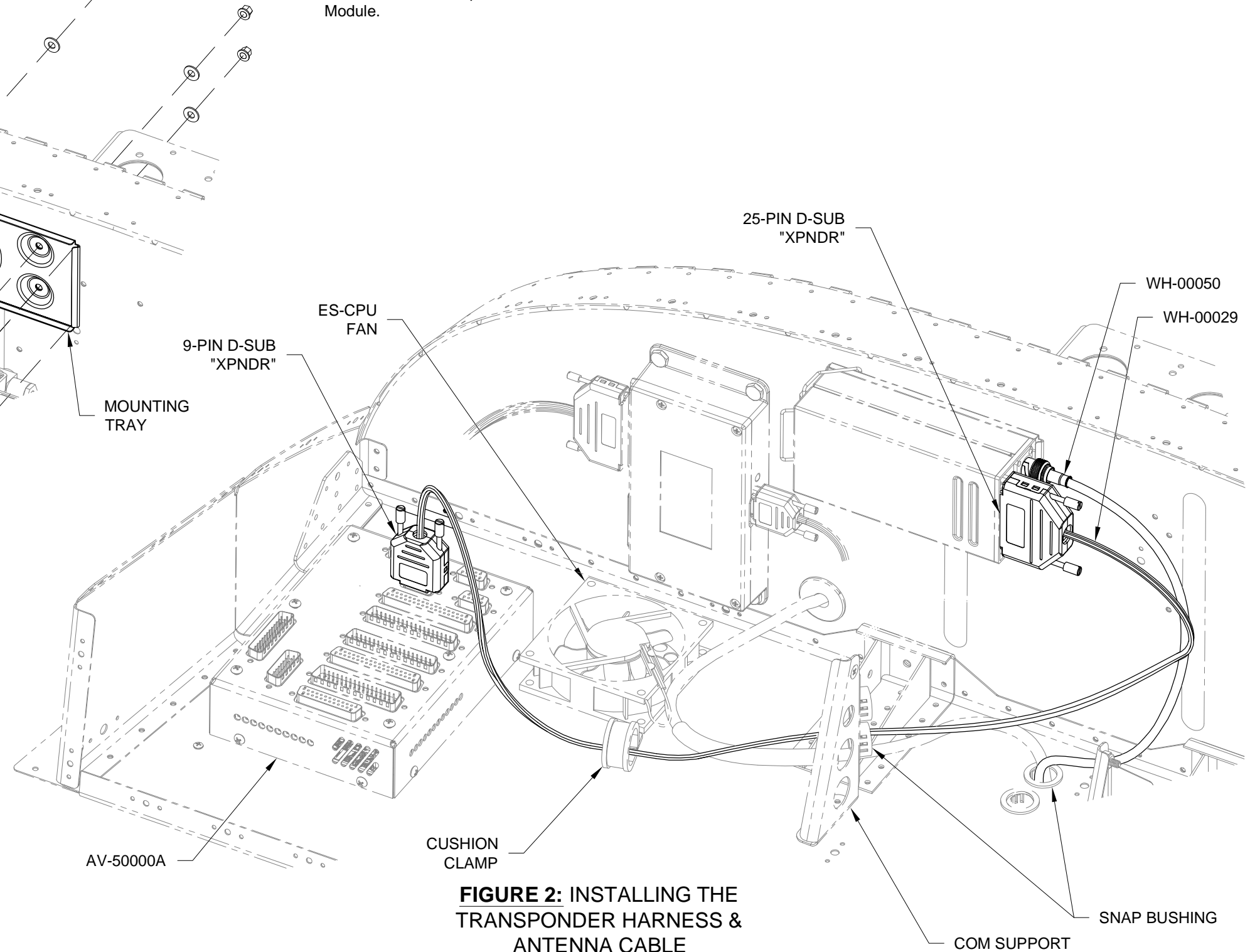
Step 3: Install the WH-00050 Transponder Antenna Cable to the SV-XPNDR-261 Mode S Transponder. See Figure 2.

Step 4: Install the WH-00029 Skyview Xpndr Harness labeled "XPNDR" to the SV-XPNDR-261 Mode S Transponder.

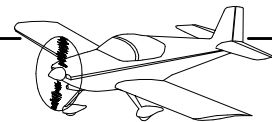
Route the harness through a snap bushing in the com support.

Route the harness through the cushioned clamp near the left ES-CPU FAN. See Figure 2.

Install the harness 9-pin d-sub to the AV-50000A RV-12 Control Module.



**FIGURE 2: INSTALLING THE TRANSPONDER HARNESS & ANTENNA CABLE**



Step 1: Machine countersink the aft face of the F-00060-1 Inst Panel Left HDX1100 or F-00060 SV1000 Inst Panel Left rivet attach holes for AN426AD3 rivets.

Machine countersink the #27 holes of the SV1000 Inst Panel Left (exclude Skyview display mounting locations). See Figure 1.

Step 2: Remove the hatched areas of the F-00061 Skyview Reinforcement Angle as shown in Figure 2.

Step 3: Attach the F-00061 Skyview Reinforcement Angle to the F-00060-1 Inst Panel Left HDX1100 or F-00060 SV1000 Inst Panel Left as shown in Figure 1.

Attach nutplates with rivets to the inst panel left as shown in Figure 1.

Step 4: Attach the AV-50002 Ignition & Start Module to the F-00060-1 Inst Panel Left HDX1100 or F-00060 SV1000 Inst Panel Left as shown in Figure 1.

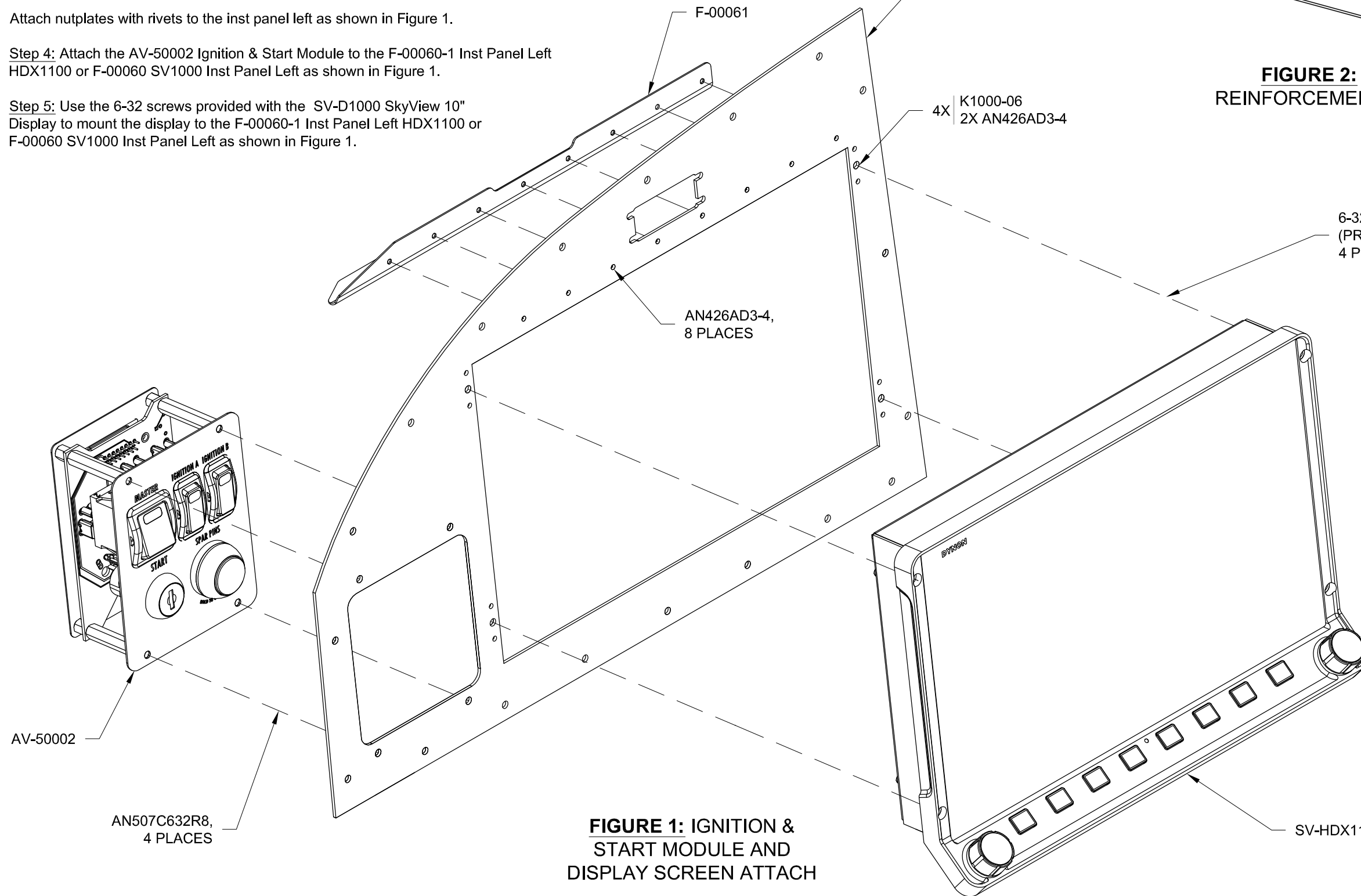
Step 5: Use the 6-32 screws provided with the SV-D1000 SkyView 10" Display to mount the display to the F-00060-1 Inst Panel Left HDX1100 or F-00060 SV1000 Inst Panel Left as shown in Figure 1.

REMOVE  
HATCHED  
AREAS

REMOVE  
HATCHED  
AREAS

F-00060-1 FOR HDX  
F-00060 FOR SV-D1000(T)

**FIGURE 2: TRIM  
REINFORCEMENT ANGLE**



**FIGURE 1: IGNITION &  
START MODULE AND  
DISPLAY SCREEN ATTACH**

6-32 MOUNTING SCREWS  
(PROVIDED WITH DISPLAY),  
4 PLACES

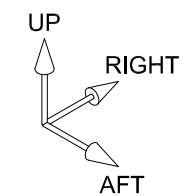
AN426AD3-4,  
8 PLACES

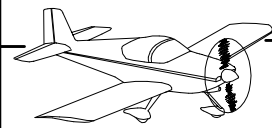
4X K1000-06  
2X AN426AD3-4

AV-50002

AN507C632R8,  
4 PLACES

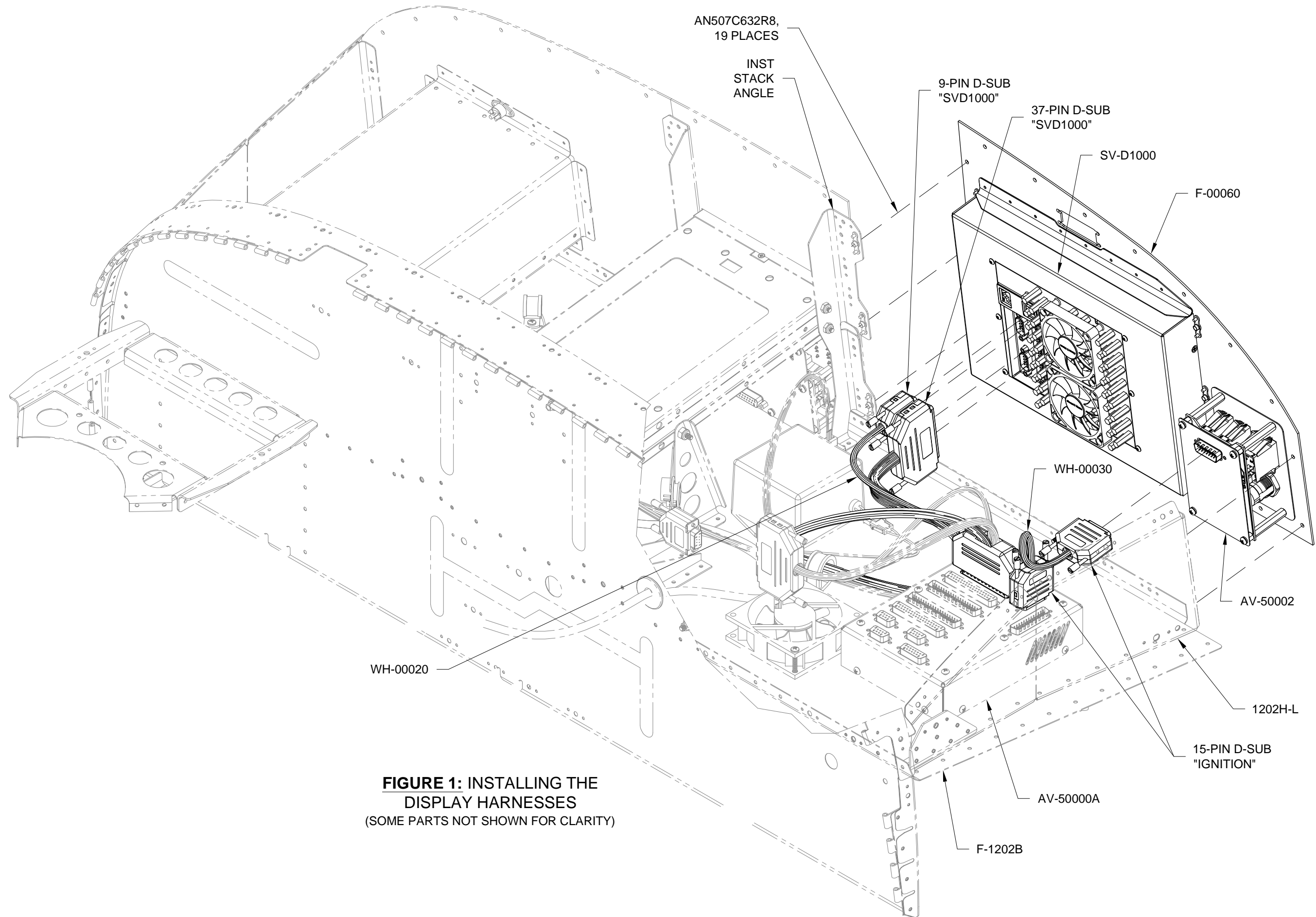
SV-HDX1100



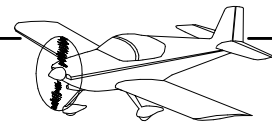


Step 1: Install the WH-00020 SkyView SV-D1000 Harness 9-pin and 37-pin d-subs labeled "SVD1000" to the back of the SV-D1000 SkyView 10" Display as shown in Figure 1.

Step 2: Install the F-00060 SV-1000 Inst Panel Left to the F-1202B Panel Base, inst stack angle and F-1202H-L Canopy Rib using the hardware called out in Figure 1.



**FIGURE 1: INSTALLING THE DISPLAY HARNESSES**  
(SOME PARTS NOT SHOWN FOR CLARITY)

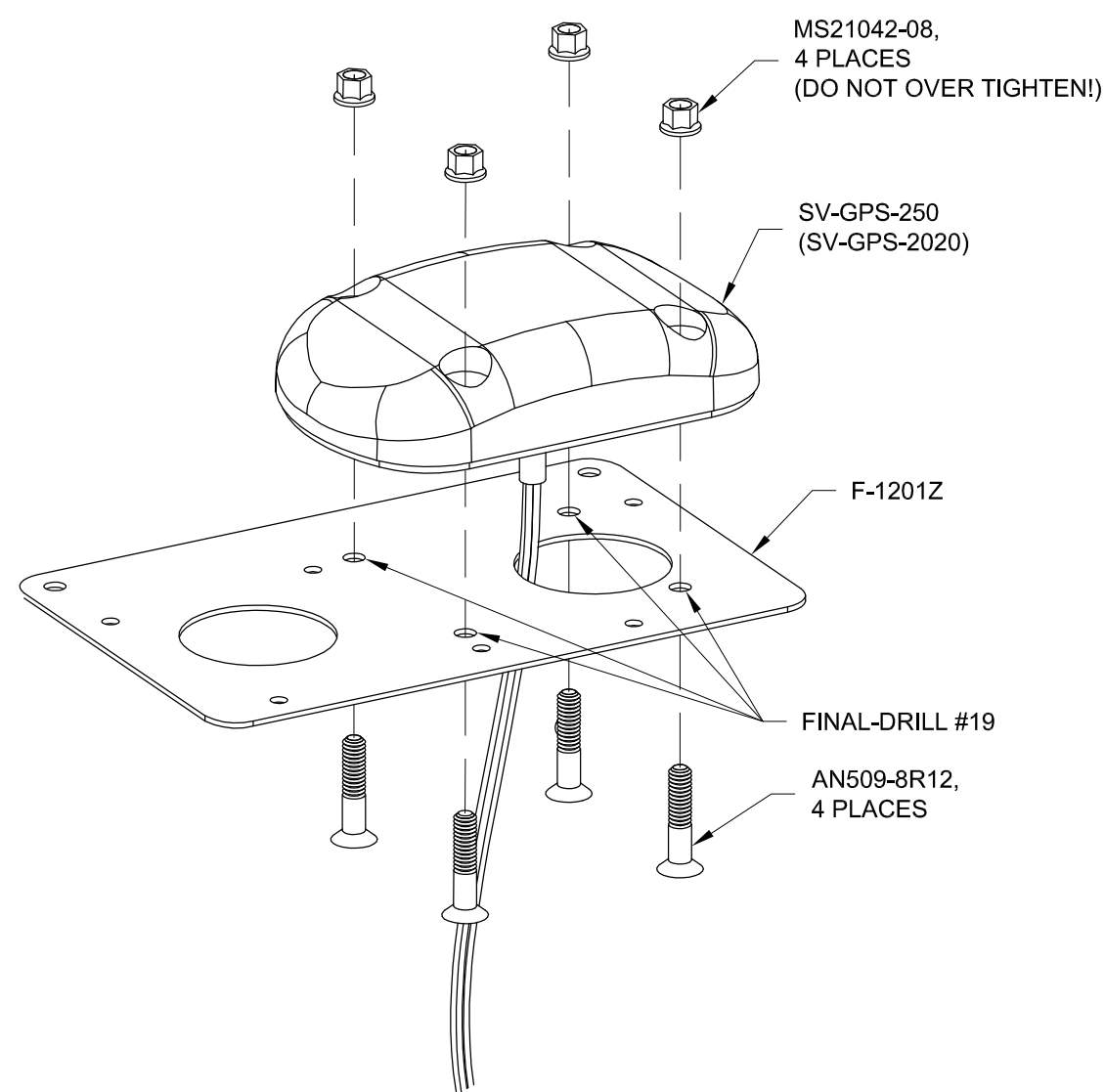


**NOTE:** For the remainder of this section, the WH-00034 SkyView GPS-250 Harness will be referred to as the SV-GPS-250 and the WH-00129 SkyView GPS-200 Harness will be referred to as the SV-GPS-200.

**Step 1:** Final-Drill #19 the holes in the F-1201Z Retaining Plate as indicated in Figure 1.

**Step 2:** Dimple the F-1201Z Retaining Plate for the heads of the screws that will attach the SV-GPS-250 or SV-GPS-200. See Figure 1 to determine dimple direction.

**Step 3:** Install the SV-GPS-250 or SV-GPS-200 onto the F-1201Z Retaining Plate using the hardware called out in Figure 1.

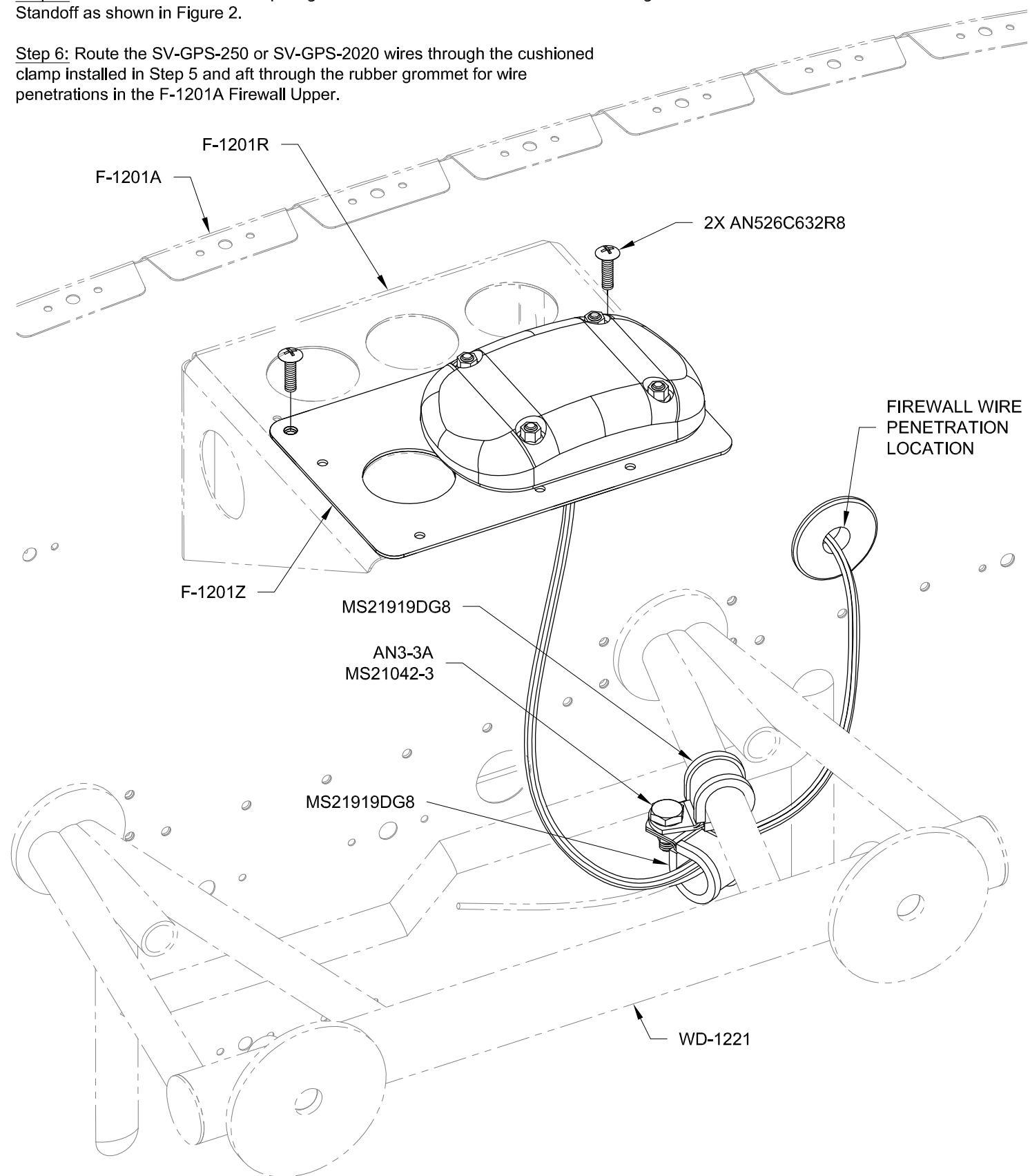


**FIGURE 1: INSTALLING THE GPS RECEIVER**

**Step 4:** Attach the F-1201Z Retaining Plate to the F-1201R Antenna Shelf using the hardware called out in Figure 2. Modify the antenna shelf as required if there is any interference with the antenna.

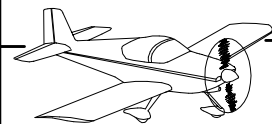
**Step 5:** Install two cushioned clamps together and around a tube of the WD-1221 Engine Mount Standoff as shown in Figure 2.

**Step 6:** Route the SV-GPS-250 or SV-GPS-200 wires through the cushioned clamp installed in Step 5 and aft through the rubber grommet for wire penetrations in the F-1201A Firewall Upper.



**FIGURE 2: ROUTING GPS WIRES**



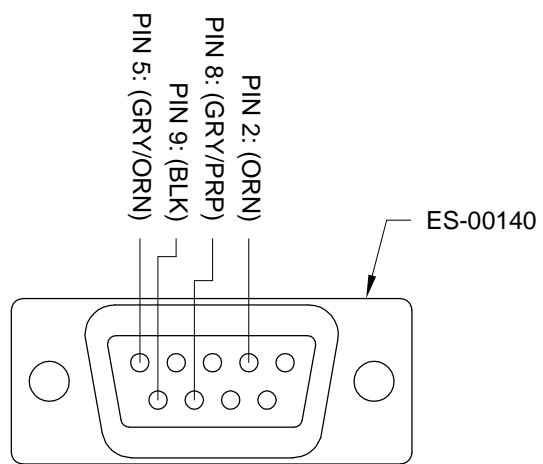


Step 1: Insert the wires coming from the SV-GPS-250 or SV-GPS-2020 into a ES-00140 9-Pin Male D-Sub at the positions shown in Figure 1.

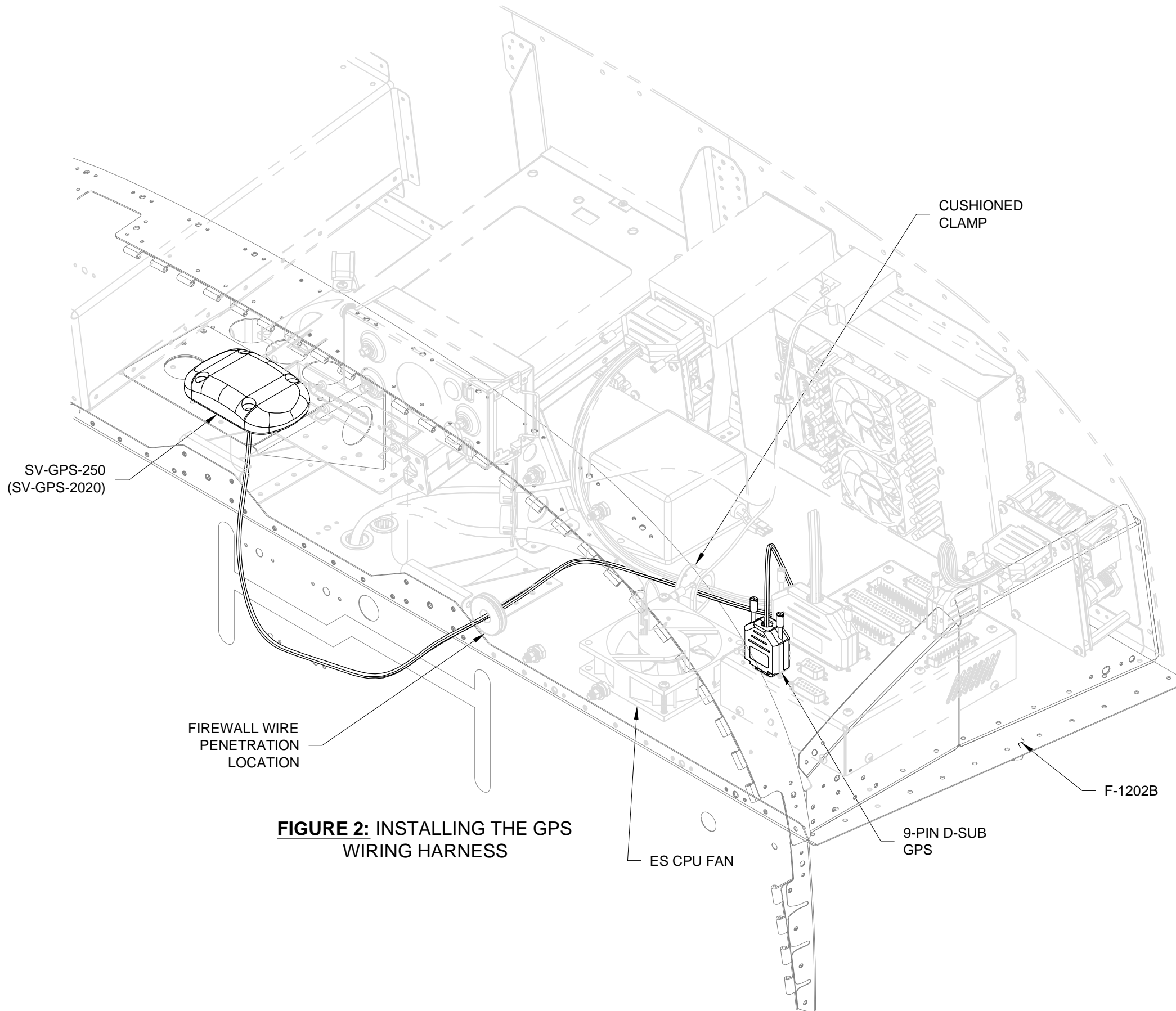
Step 2: Route the wires from the SV-GPS-250 or SV-GPS-2020 through the cushioned clamp near the left ES CPU FAN.

Step 3: Add a ES 9 PIN BACKSHELL and WH-00034L label to the ES-00140 9-Pin Male D-Sub. See Section 5W Electrical Wiring Notes, Backshell Assembly.

Install the SV-GPS-250 or SV-GPS-2020 Harness 9-pin d-sub labeled "GPS" on the AV-50000A RV-12 Control Module as shown in Figure 2.

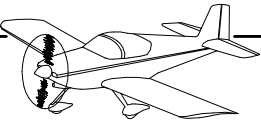


**FIGURE 1: INSERTING WIRES INTO THE GPS D-SUB (REAR VIEW / PIN INSERTION SIDE)**



**FIGURE 2: INSTALLING THE GPS WIRING HARNESS**





Step 1: Counting from the aft most rivet, remove the tenth rivet from the F-1283C J-Stiffener. See Figure 1.

Cleco the F-00062 ADAHRS Stiffener to the J-stiffener where the rivet was just removed.

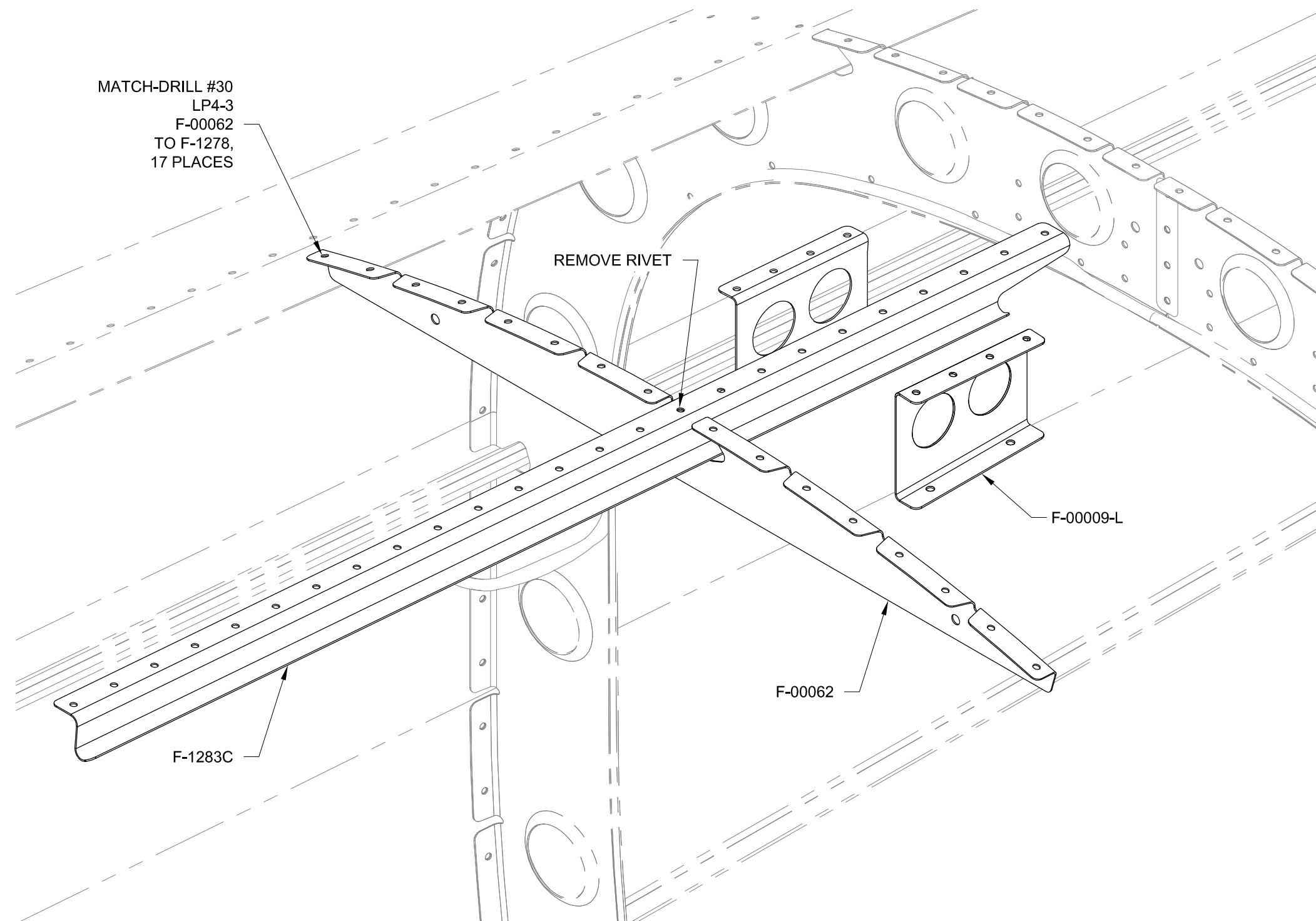
Step 2: Align the F-00062 ADAHRS Stiffener perpendicular to the F-1283C J-Stiffener.

Step 3: Match-Drill #30 the holes in the F-00062 ADAHRS Stiffener into the F-1278 Top Skin as shown in Figure 1. Deburr all of the holes.

**NOTE: For aesthetic purposes, blind rivet heads can be painted prior to installation to match the color of the top skin:**

- (1) paint the rivet head
- (2) allow the paint to dry
- (3) apply protective tape to the rivet head
- (4) install the rivet
- (5) remove the protective tape.

Step 4: Blind rivet the F-00062 ADAHRS Stiffener to the F-1283C J-Stiffener and F-1278 Top Skin from outside the fuselage as shown in Figure 1.



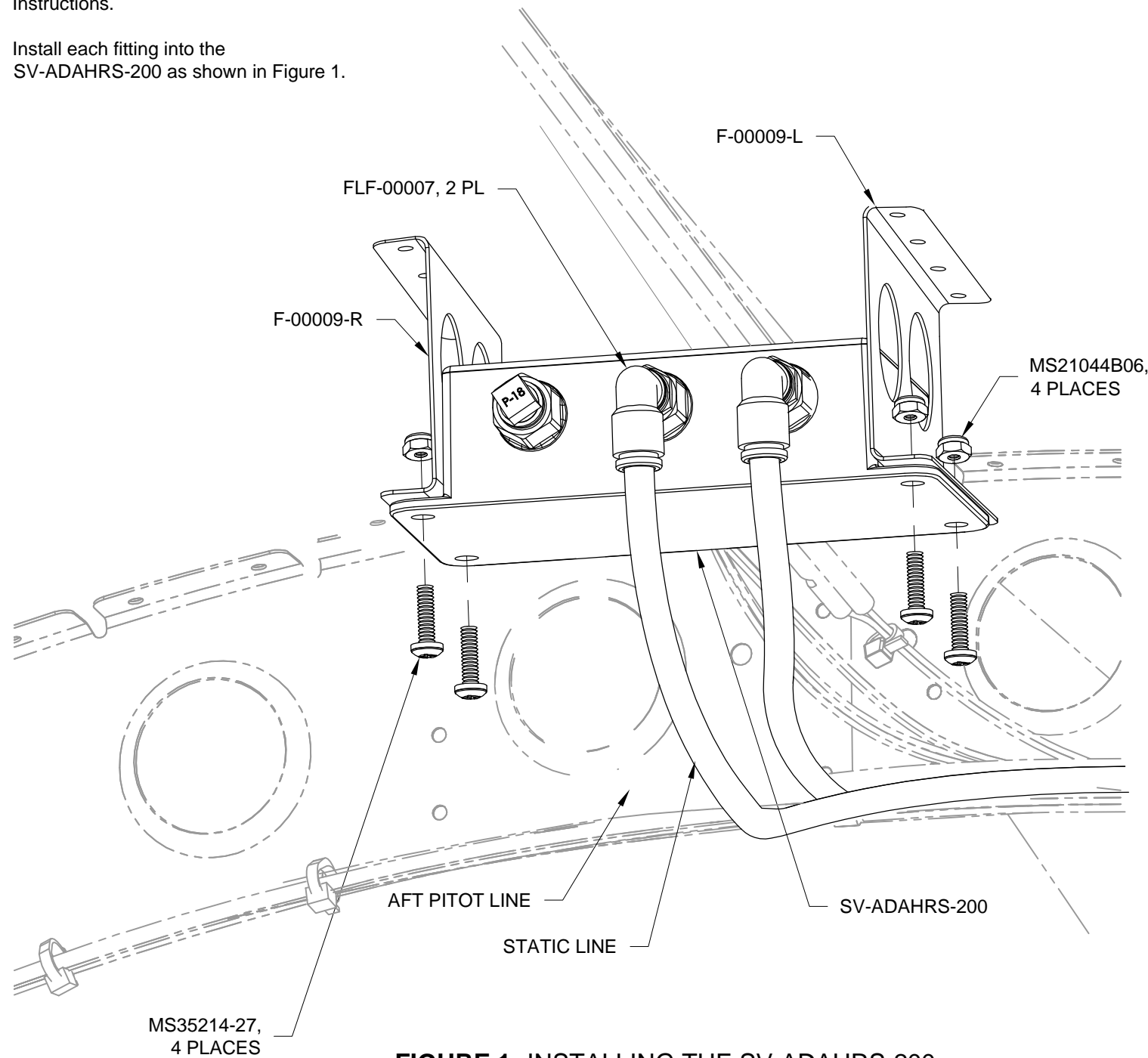
**FIGURE 1: INSTALLING THE ADAHRS STIFFENER**



**Step 1:** Install the SV-ADAHRS-200 to the F-00009-L & -R ADAHRS Brackets using the hardware called out in Figure 1.

**Step 2:** Install the FLF-00007 Push-To-Connect Elbows on the ends of the Aft Pitot Line and Static line. See Section 5Y O-Ring Seal Fitting Installation Instructions.

Install each fitting into the SV-ADAHRS-200 as shown in Figure 1.

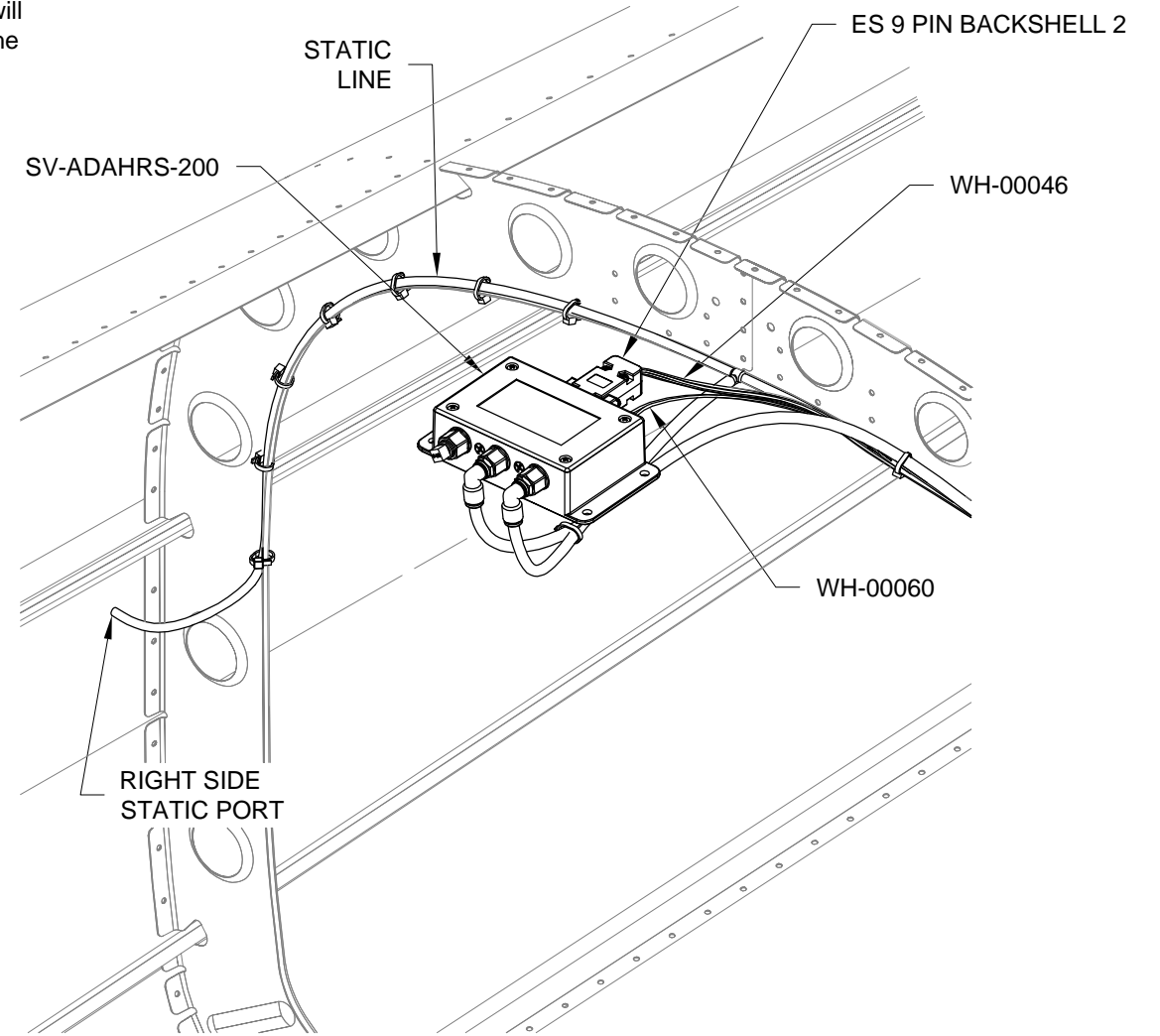


**FIGURE 1: INSTALLING THE SV-ADAHRS-200**  
(VIEW FROM INSIDE THE AIRCRAFT)

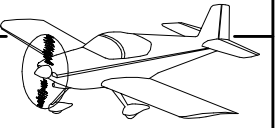
**Step 3:** Install the WH-00060 OAT Wiring Harness to the aft side of the SV-ADAHRS-200 as shown in Figure 3.

**Step 4:** Install the ES 9 PIN BACKSHELL 2 attached to the WH-00046 Fuselage Harness to the aft side of the SV-ADAHRS-200 as shown in Figure 3. This type of backshell is required. Other backshells with long thumb screws will cause interference with the ADAHRS.

**NOTE:** Final setup of the SkyView Avionics system will be completed after installation of the main battery. See Section 45.



**FIGURE 3: INSTALLING THE OAT & FUSELAGE HARNESS**



Step 1: Remove and discard the F-1206E Baggage Cover.

Step 2: Fill the specified holes in the F-00081 ADAHRS Baggage Floor with rivets. See Figure 1.

Step 3: Dimple the F-00083 Baggage Floor at the locations shown in Figure 1.

Step 4: Install the F-00081 ADAHRS Baggage Floor and the F-00083 Baggage Floor using hardware supplied in the Finish Kit. See Figure 1.

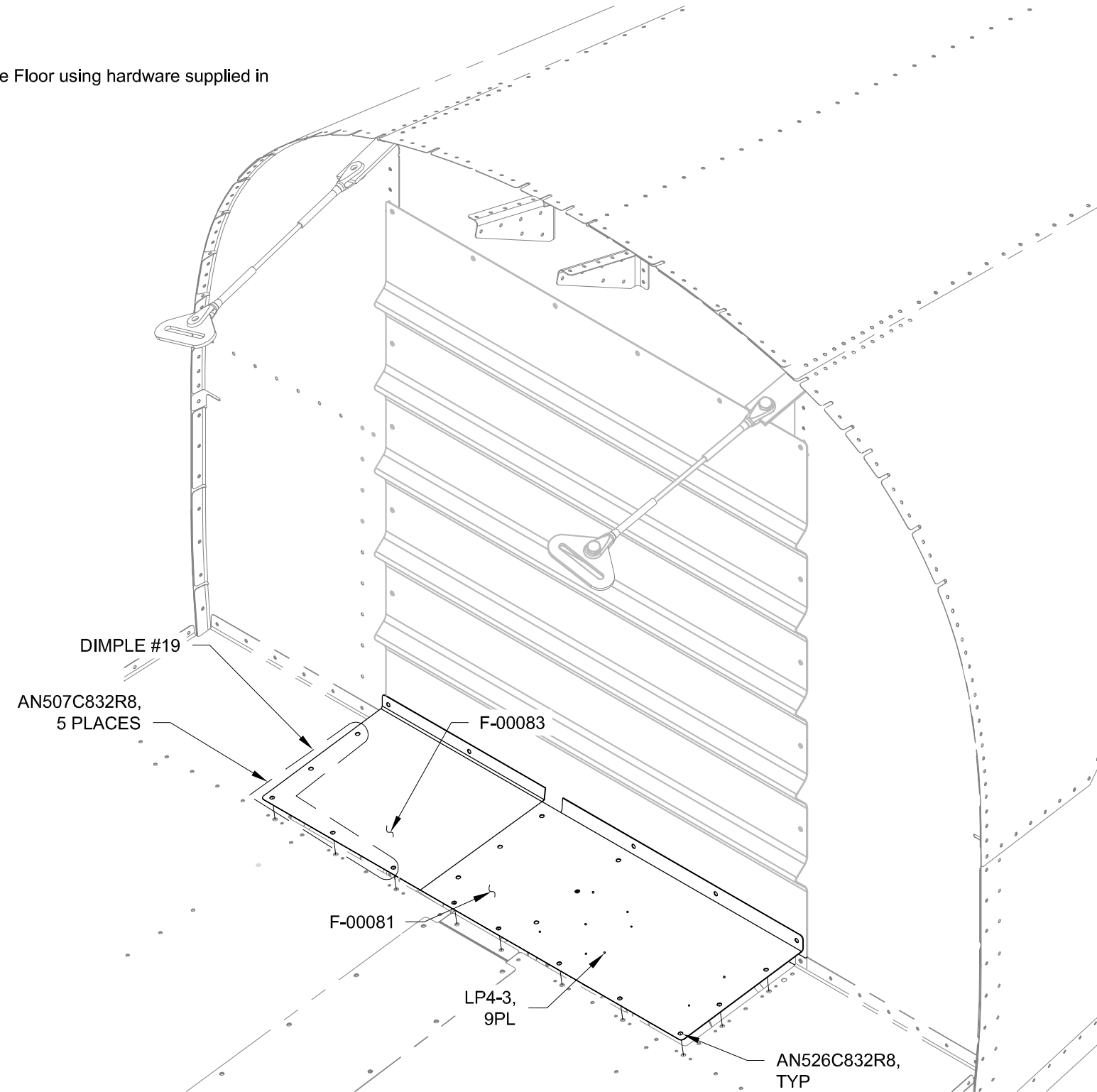


FIGURE 1: REPLACING THE BAGGAGE COVER



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