DOCUMENTATION INVOLVED:

Page 42C-01 REV 4: In Figure, added "WH-00129 SKYVIEW GPS-2020 HARNESS" as an alternate to "WH-00034 SKYVIEW GPS-250 HARNESS".

Page 42C-07 REV 5: In NOTE, "… the WH-00034 SkyView GPS-250 Harness will be referred to as the SV-GPS-250 and the WH-00129 SkyView GPS-2020 Harness will be referred to as the SV-GPS-2020." was "…the WH-00034 SkyView GPS-250 Harness will be referred to as the SV-GPS-250.".
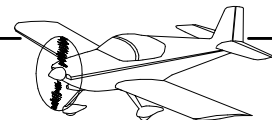
In Steps 2, 3, and 6, "SV-GPS-250 or SV-GPS-2020" was "SV-GPS-250".

In Figure 1, added "SV-GPS-2020" as an alternate to "SV-GPS-250".

In Step 4, Added "Modify the antenna shelf as required if there is any interference with the antenna.".

Page 42C-08 REV 3: In Steps 1, 2, and 3, "SV-GPS-250 or SV-GPS-2020" was "SV-GPS-250".

In Figure 2, added "SV-GPS-2020" as an alternate to "SV-GPS-250".

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
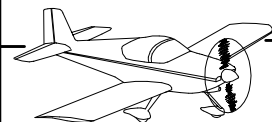ENGINE MONITORING MODULE

WH-00020
SKYVIEW SV-D1000
HARNESS

AV-50001
POWER & SWITCH MODULE
(SEE SECTION 42M)
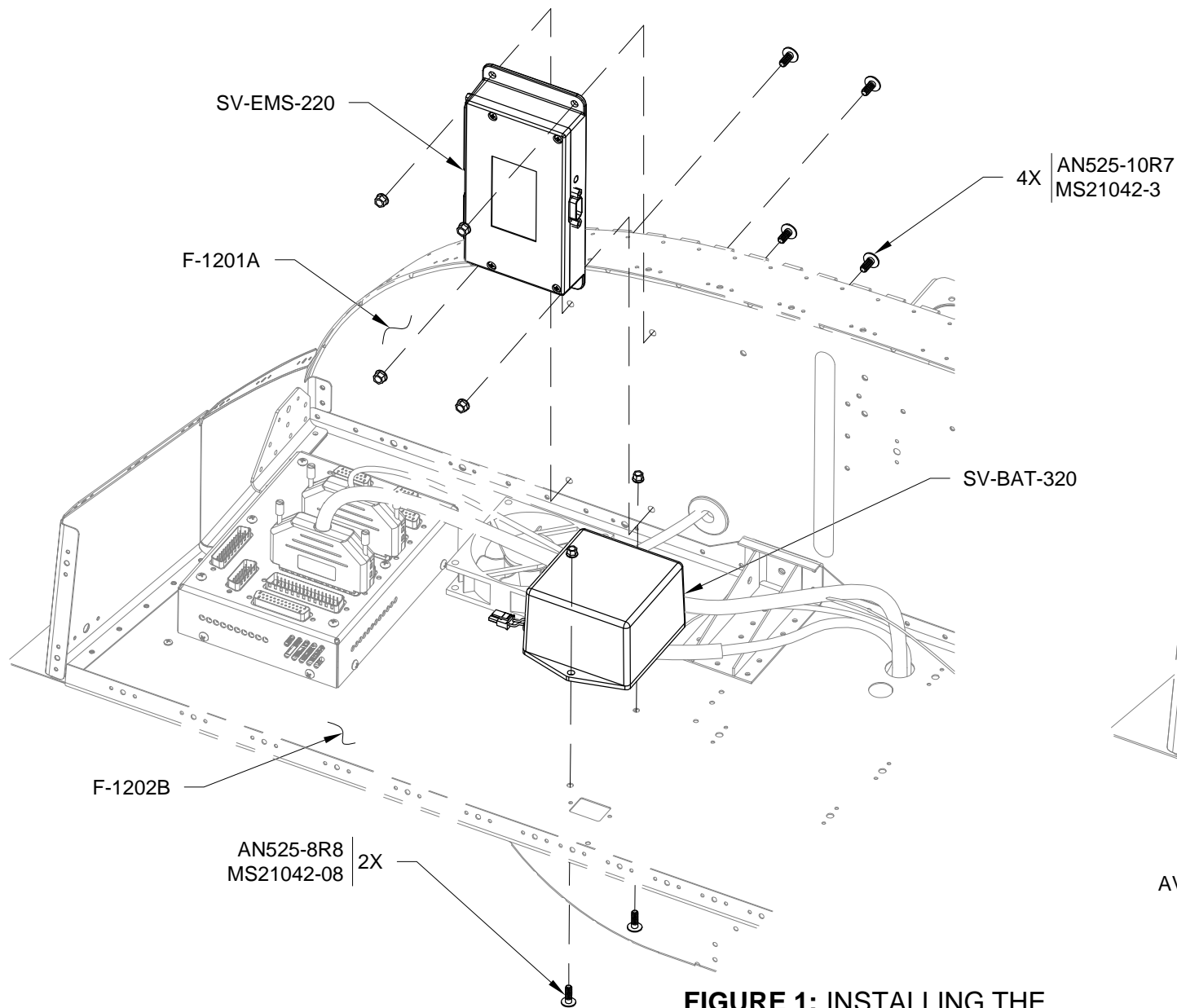
F-00044
CNTR INST PANEL GTR200

SV-D1000 OR SV-D1000T
SKYVIEW 10" DISPLAY

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

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.

SV-EMS-220

4X | AN525-10R7
MS21042-3

F-1201A

SV-BAT-320

F-1202B

AN525-8R8
MS21042-08 | 2X

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.

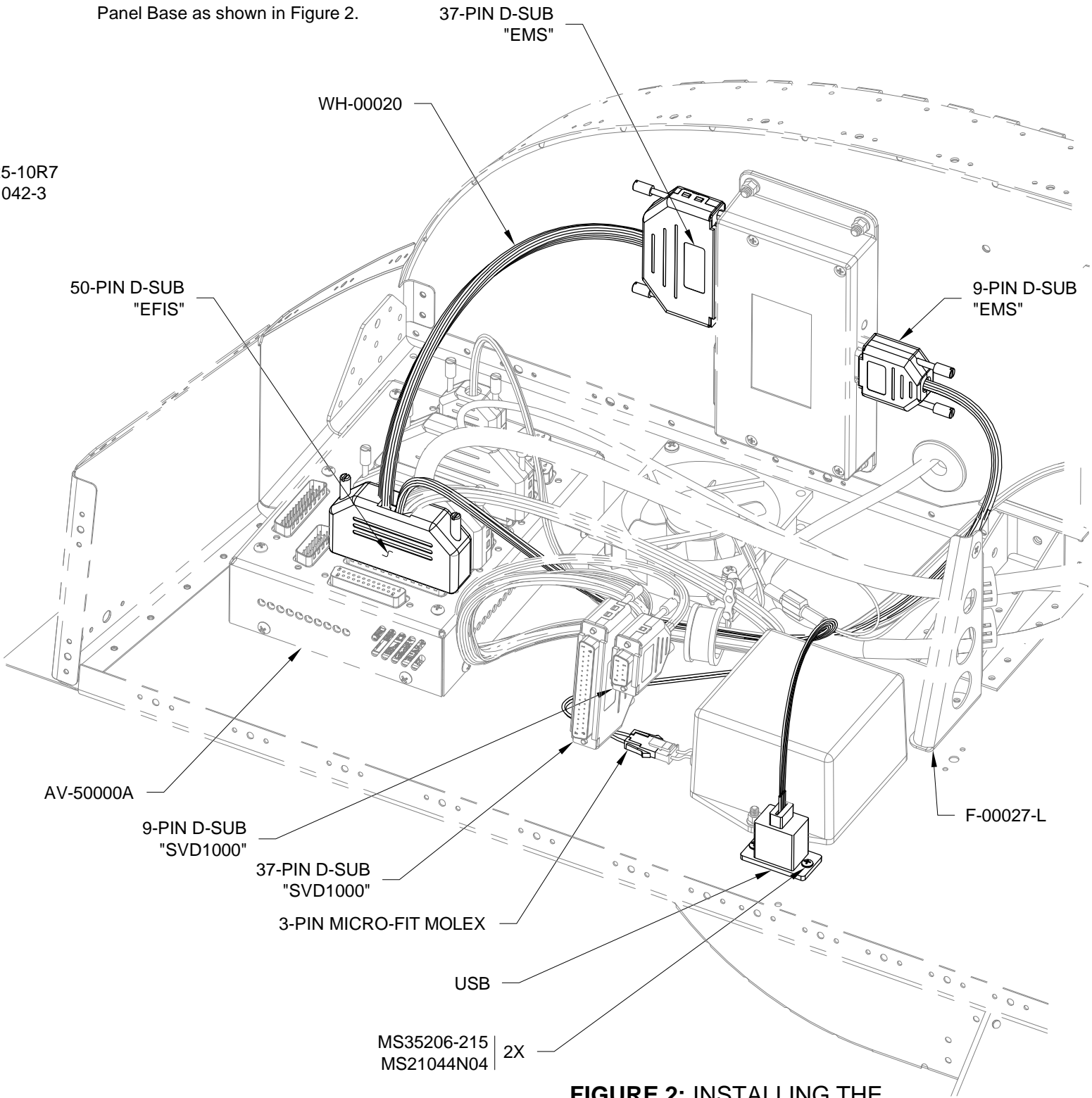Install the 37-pin d-sub labeled "EMS" into the SV-EMS-220 Engine Monitoring Module.

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.

37-PIN D-SUB
"EMS"

WH-00020

50-PIN D-SUB
"EFIS"

9-PIN D-SUB
"EMS"

AV-50000A

9-PIN D-SUB
"SVD1000"

37-PIN D-SUB
"SVD1000"

3-PIN MICRO-FIT MOLEX

F-00027-L

USB

MS35206-215
MS21044N04 | 2X

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

Standard

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.

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)

CUSHIONED
CLAMP

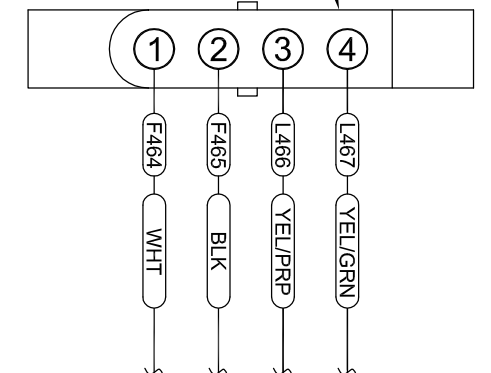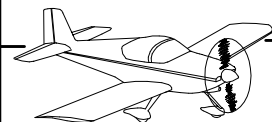WH-00025

37-PIN D-SUB
"AUTOPILOT"

AV-50000A

SNAP
BUSHING

FIGURE 1: INSTALLING THE
AUTOPILOT HARNESS

F-1202B

ES-00007

1	2	3	4
F464	F465	L466	L467
WHT	BLK	YEL/PRP	YEL/GRN

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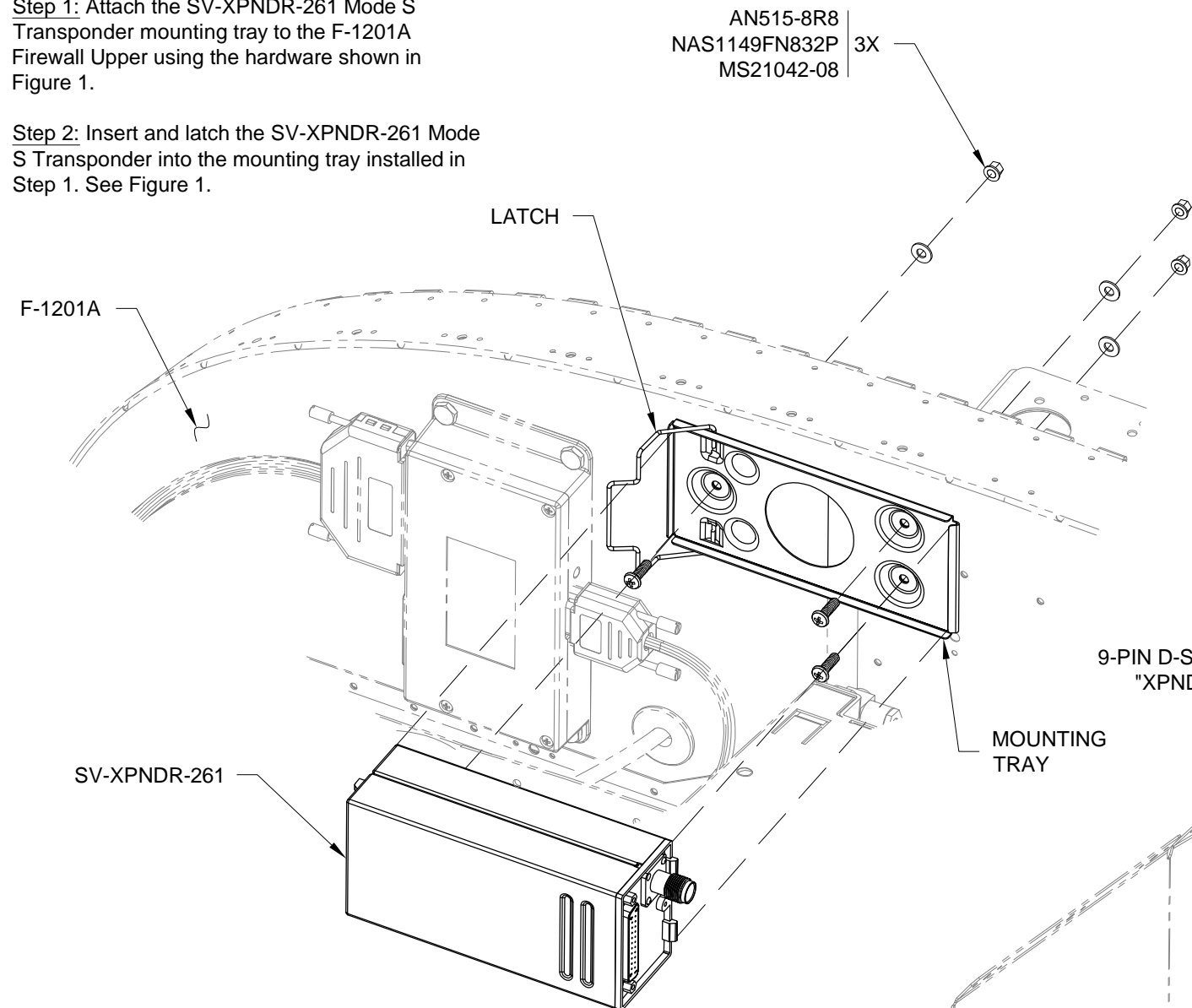
Step 3: Install the WH-00050 Transponder Antenna Cable to the SV-XPNDR-261 Mode S Transponder. See Figure 2.

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.

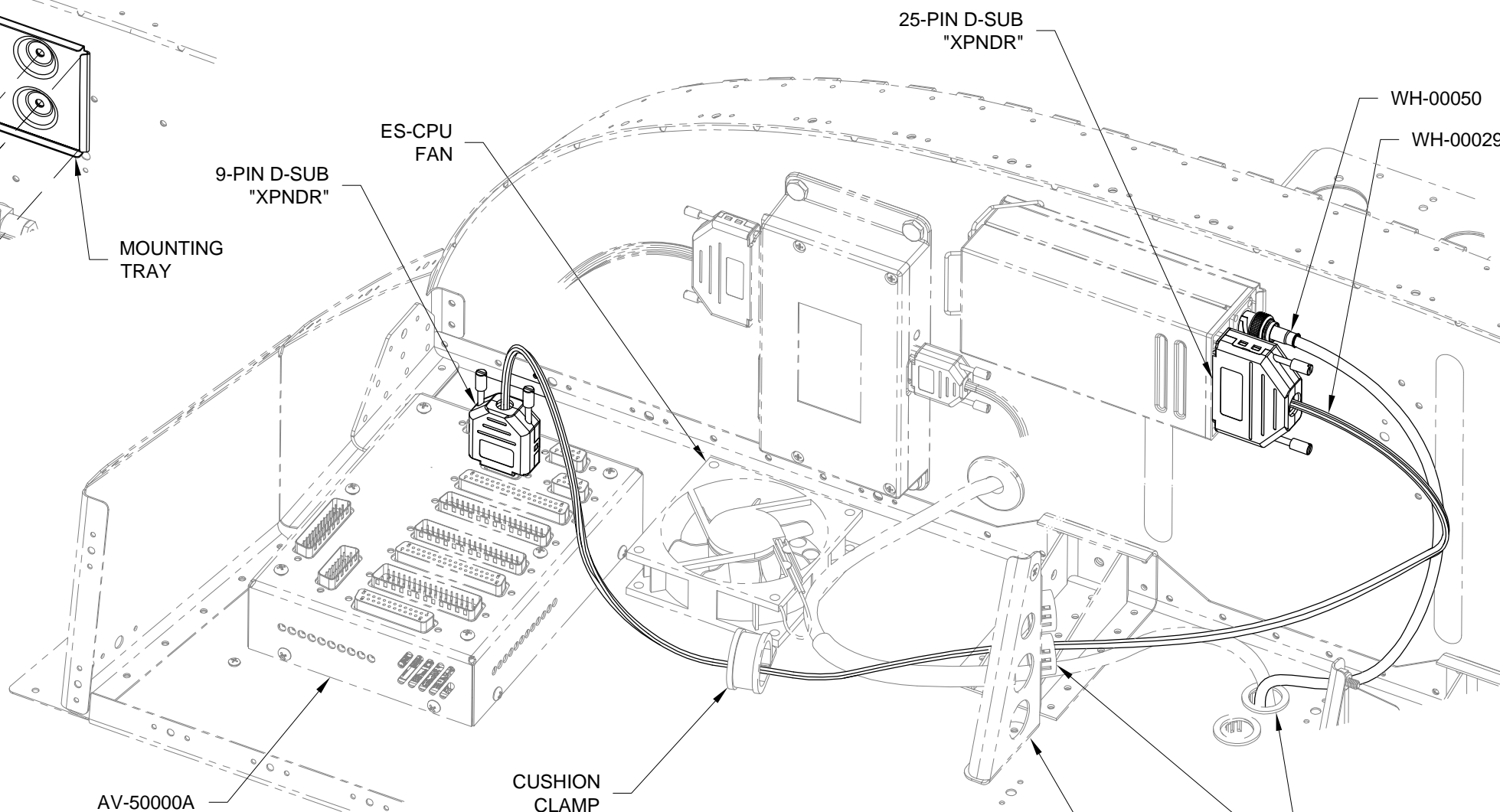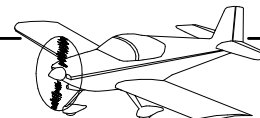Install the harness 9-pin d-sub to the AV-50000A RV-12 Control Module.

AN515-8R8
NAS1149FN832P   3X
MS21042-08

LATCH

F-1201A

SV-XPNDR-261

MOUNTING TRAY

FIGURE 1: ATTACHING THE MOUNTING TRAY

25-PIN D-SUB "XPNDR"

WH-00050

WH-00029

ES-CPU FAN

9-PIN D-SUB "XPNDR"

AV-50000A

CUSHION CLAMP

SNAP BUSHING

COM SUPPORT

FIGURE 2: INSTALLING THE TRANSPONDER HARNESS & ANTENNA CABLE

REMOVE
HATCHED
AREAS

F-00061

REMOVE
HATCHED
AREAS

FIGURE 2: TRIM
REINFORCEMENT ANGLE

Step 1: Machine countersink the aft face of the 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 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 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 SV1000 Inst Panel Left as shown in Figure 1.

F-00060

F-00061

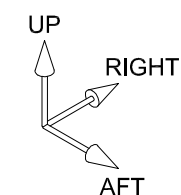6X | K1000-06
2X AN426AD3-4

AN426AD3-4,
8 PLACES

6-32 MOUNTING SCREWS
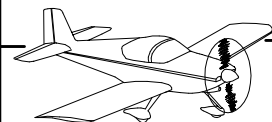(PROVIDED WITH SV-D1000),
6 PLACES

AV-50002

SV-D1000

AN507C632R8,
4 PLACES

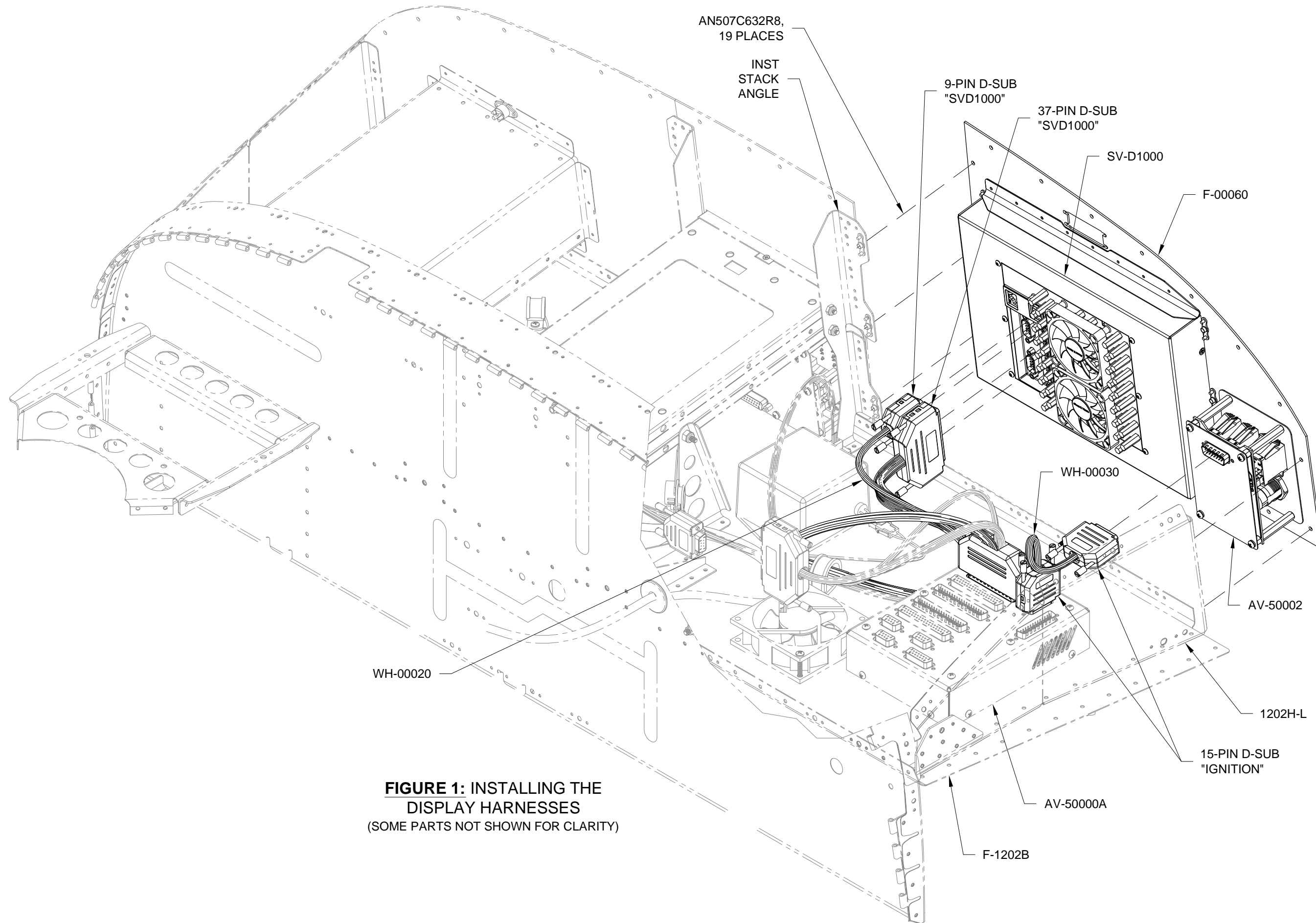**FIGURE 1:** IGNITION &
START MODULE AND
DISPLAY SCREEN ATTACH

UP
RIGHT
AFT

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.

AN507C632R8,
19 PLACES

INST
STACK
ANGLE

9-PIN D-SUB
"SVD1000"

37-PIN D-SUB
"SVD1000"

SV-D1000

F-00060

WH-00030

AV-50002

WH-00020

1202H-L

15-PIN D-SUB
"IGNITION"

AV-50000A

F-1202B

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-2020 Harness will be referred to as the SV-GPS-2020.

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-2020. See Figure 1 to determine dimple direction.

Step 3: Install the SV-GPS-250 or SV-GPS-2020 onto the F-1201Z Retaining Plate using the hardware called out in Figure 1.
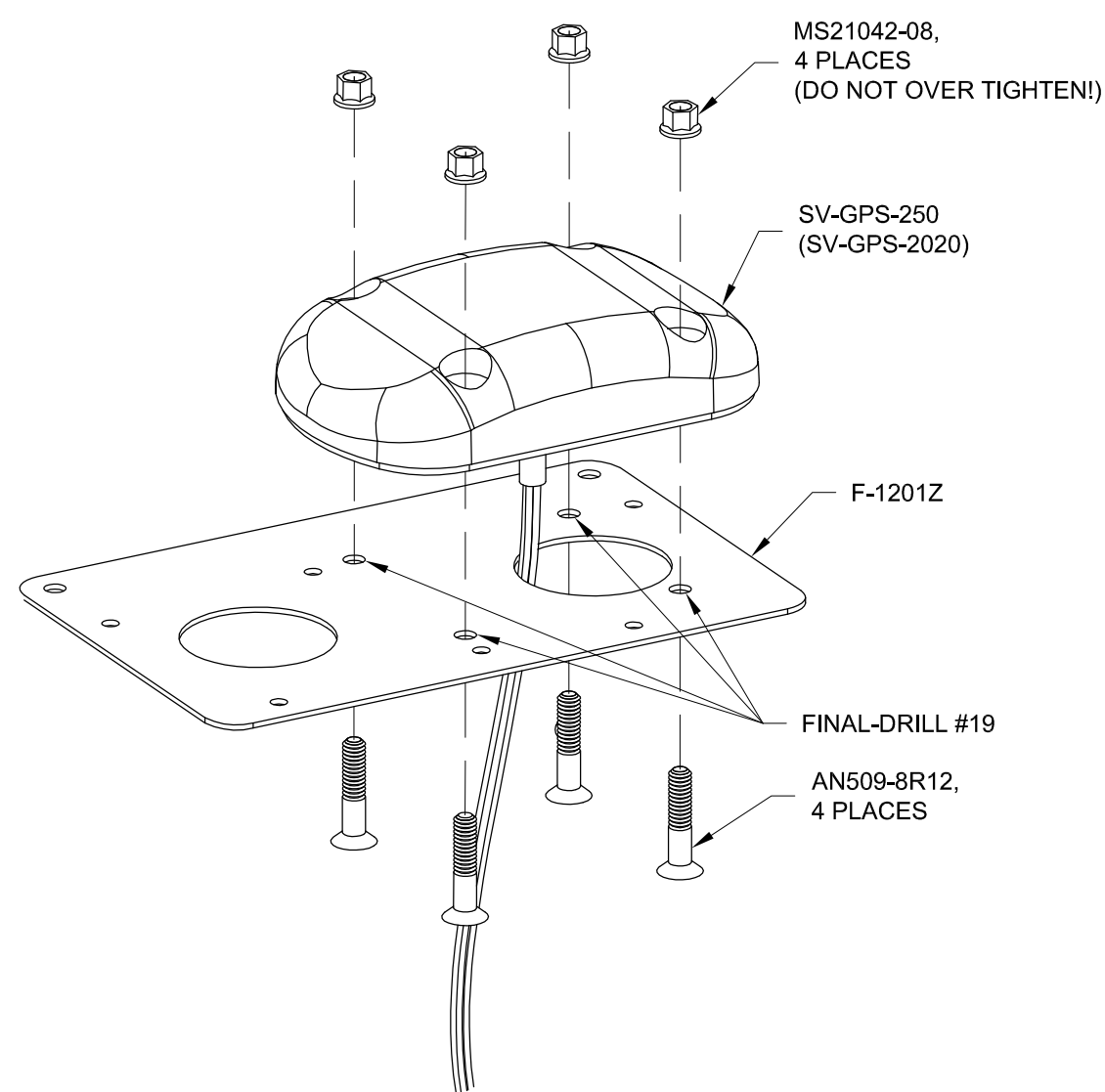
Step 4: Attach the F-1201Z Retaining Plate to the F-1201R Antenna Shelf using the hardware called out in Figure 2. Modify the antenna shelf as required if there is any interference with the antenna.

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-2020 wires through the cushioned clamp installed in Step 5 and aft through the rubber grommet for wire penetrations in the F-1201A Firewall Upper.
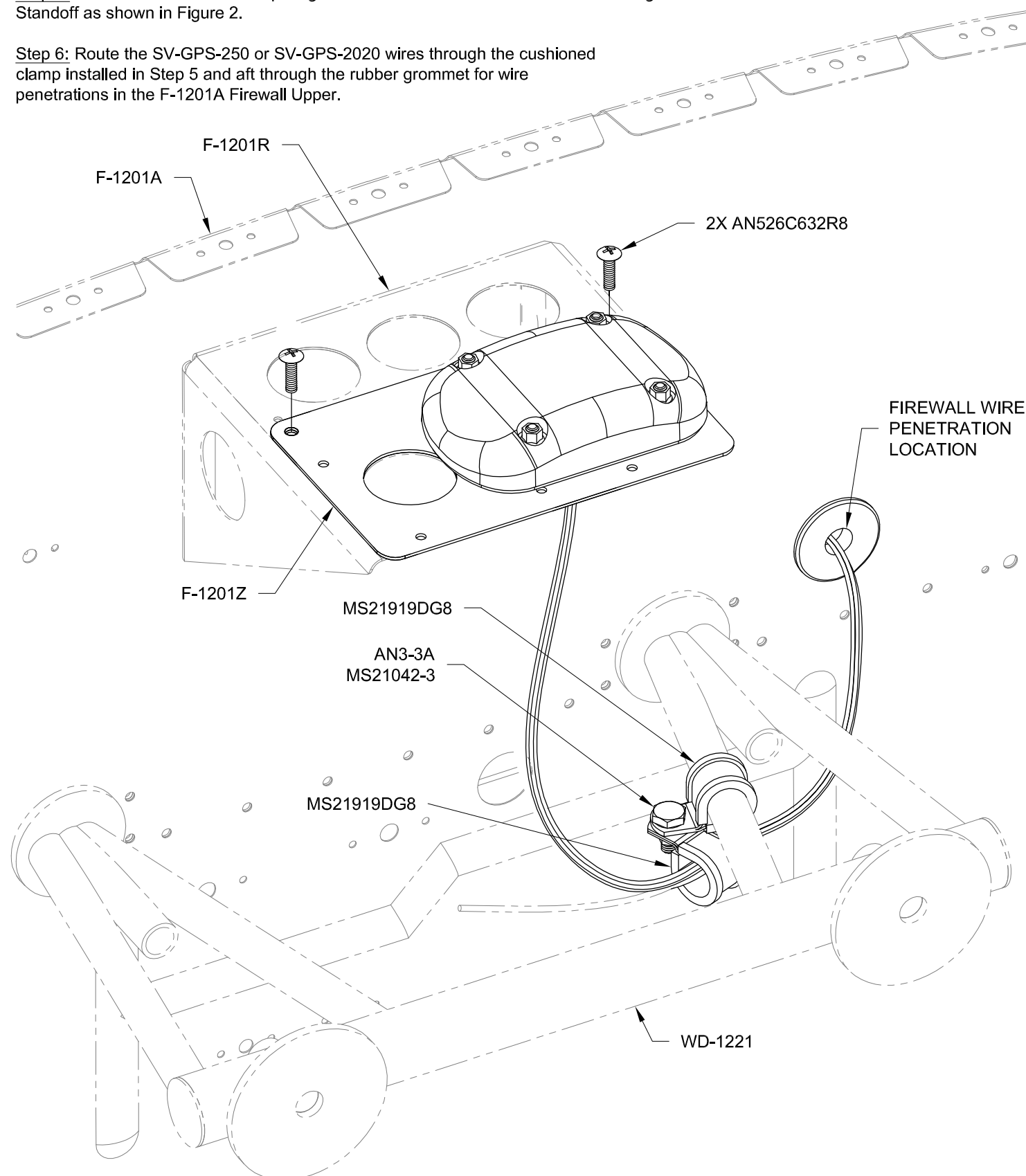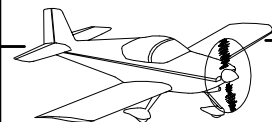
FIGURE 1: INSTALLING THE GPS RECEIVER

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.
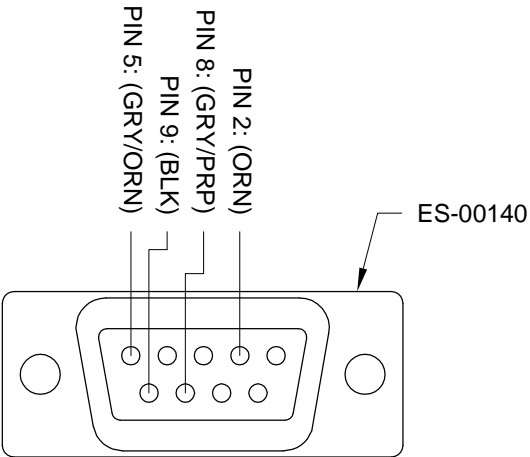
CUSHIONED CLAMP

SV-GPS-250 (SV-GPS-2020)

PIN 2: (ORN)
PIN 8: (GRY/PRP)
PIN 9: (BLK)
PIN 5: (GRY/ORN)

ES-00140

F-1202B

FIREWALL WIRE PENETRATION LOCATION

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

FIGURE 2: INSTALLING THE GPS WIRING HARNESS

9-PIN D-SUB GPS
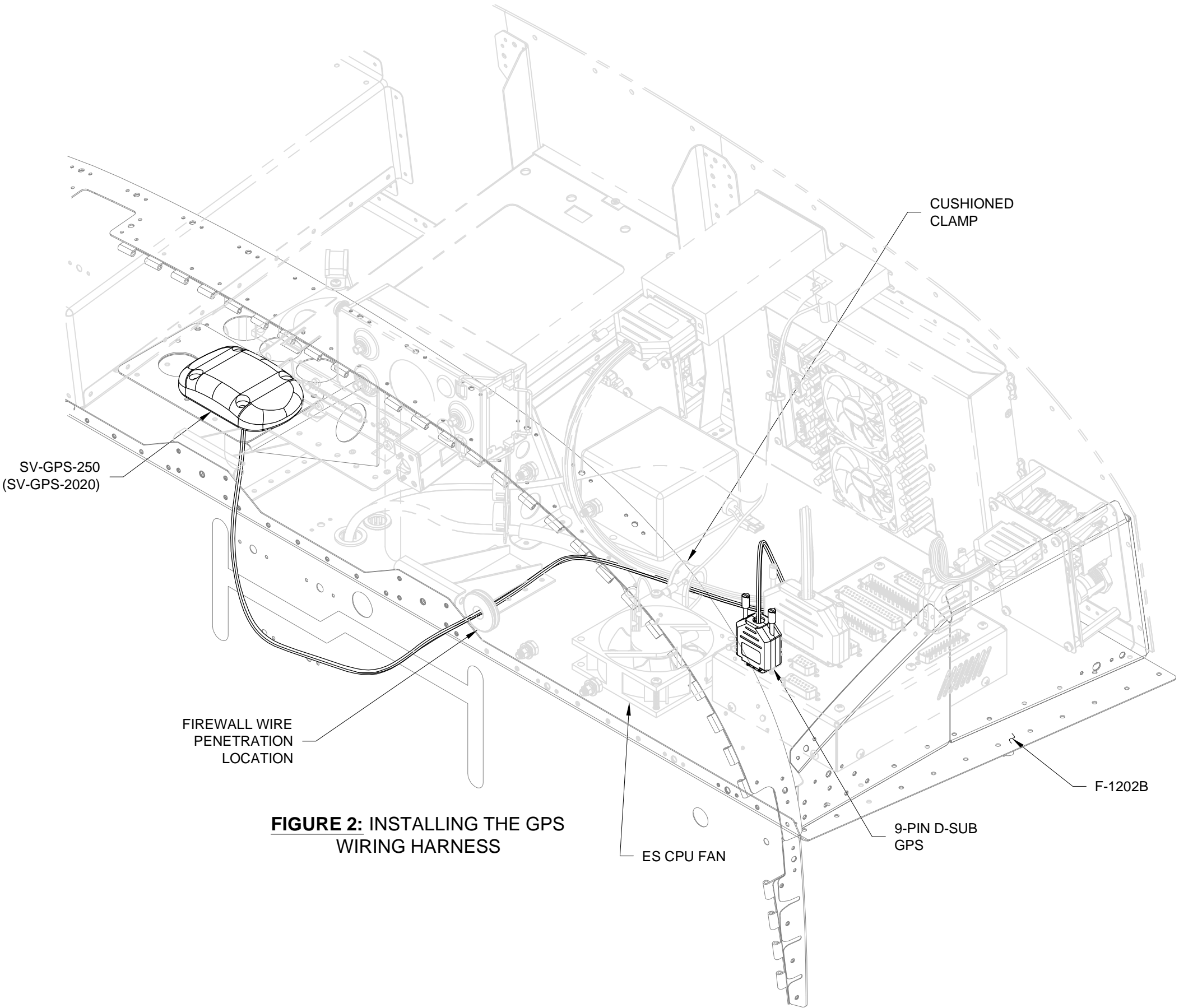
ES CPU FAN

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.
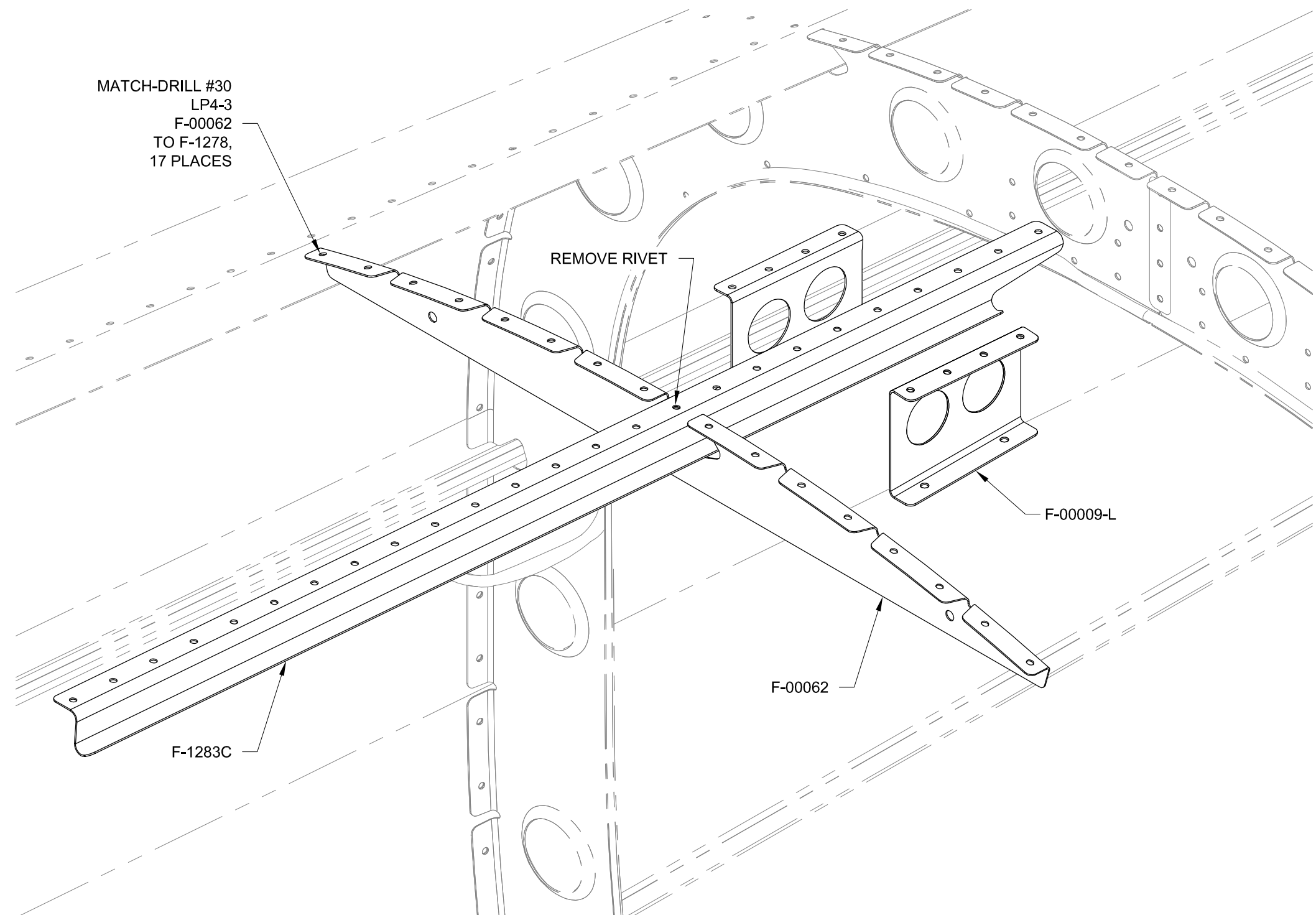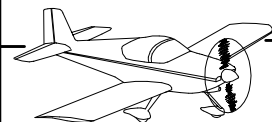
MATCH-DRILL #30
LP4-3
F-00062
TO F-1278,
17 PLACES

REMOVE RIVET

F-00009-L

F-00062

F-1283C

FIGURE 1: INSTALLING THE ADAHRS STIFFENER

VAN'S AIRCRAFT, INC.

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.

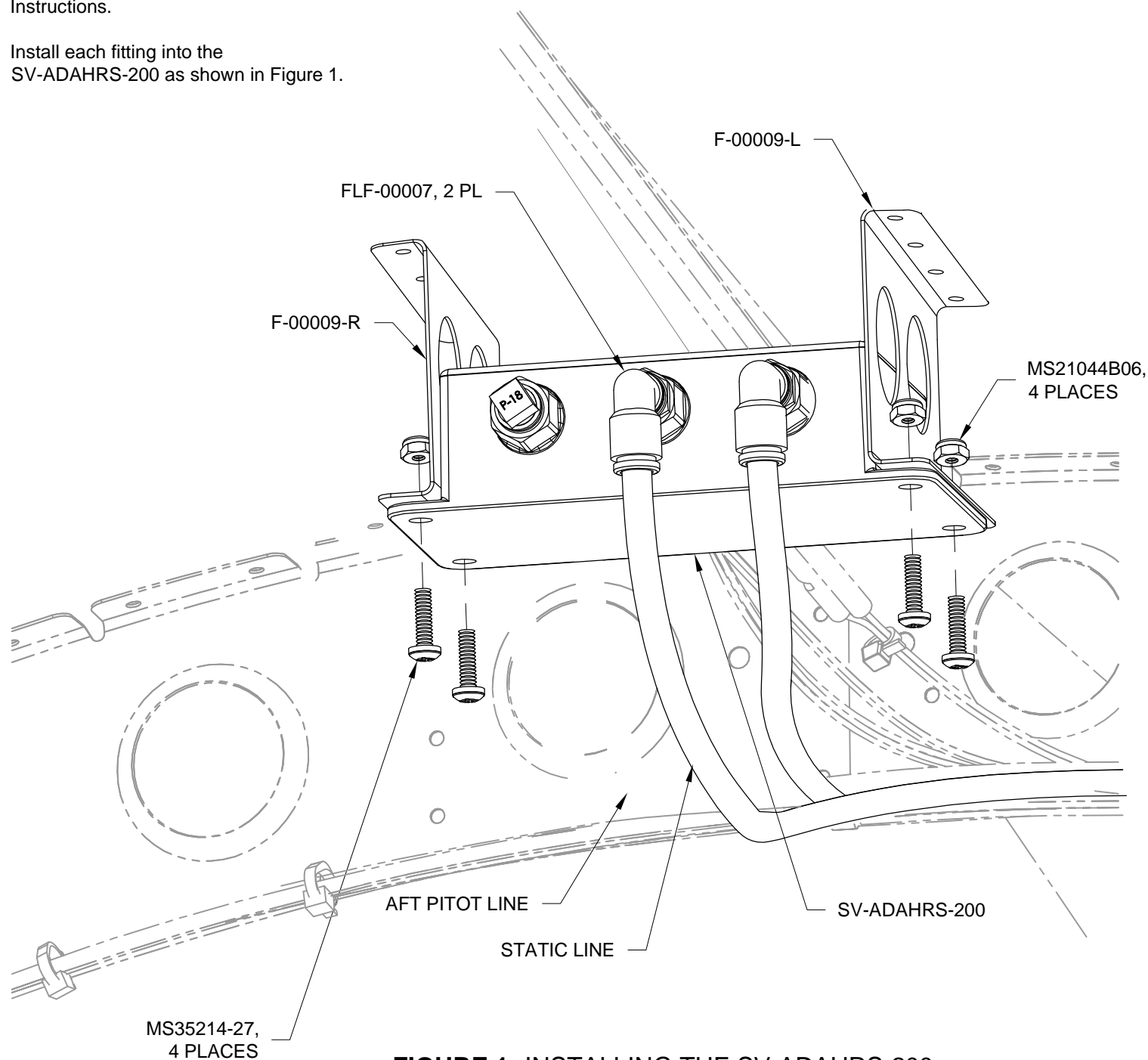Install each fitting into the SV-ADAHRS-200 as shown in Figure 1.

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.
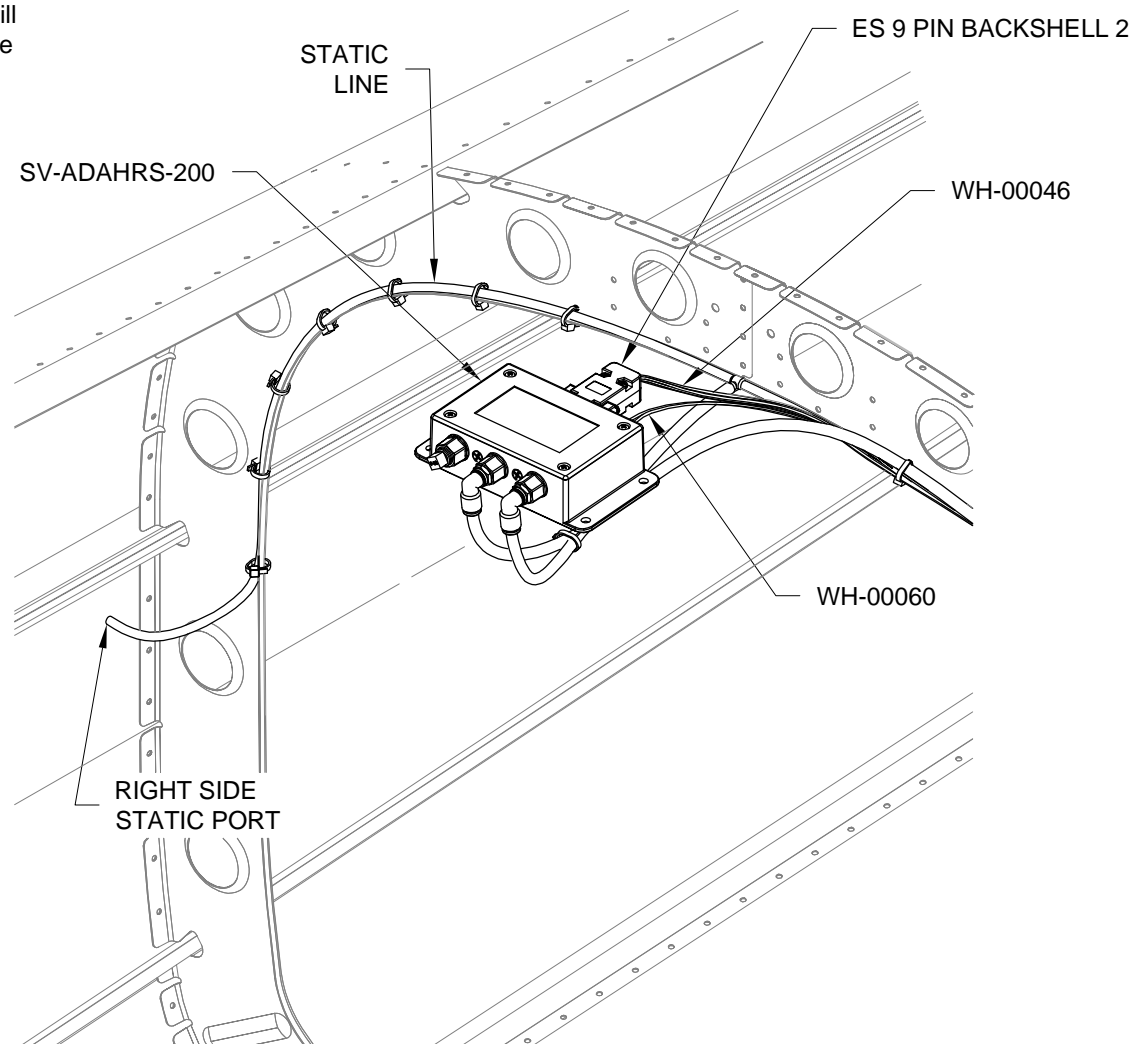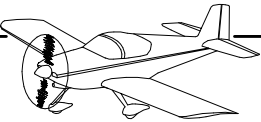
FLF-00007, 2 PL

F-00009-L

F-00009-R

MS21044B06, 4 PLACES

P-1B

AFT PITOT LINE

STATIC LINE

SV-ADAHRS-200

MS35214-27, 4 PLACES

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

STATIC LINE

ES 9 PIN BACKSHELL 2

SV-ADAHRS-200

WH-00046

WH-00060

RIGHT SIDE STATIC PORT

FIGURE 3: INSTALLING THE OAT & FUSELAGE HARNESS

PAGE: 42C-10 RV-12 REVISION: 5 DATE: 05/01/14

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.
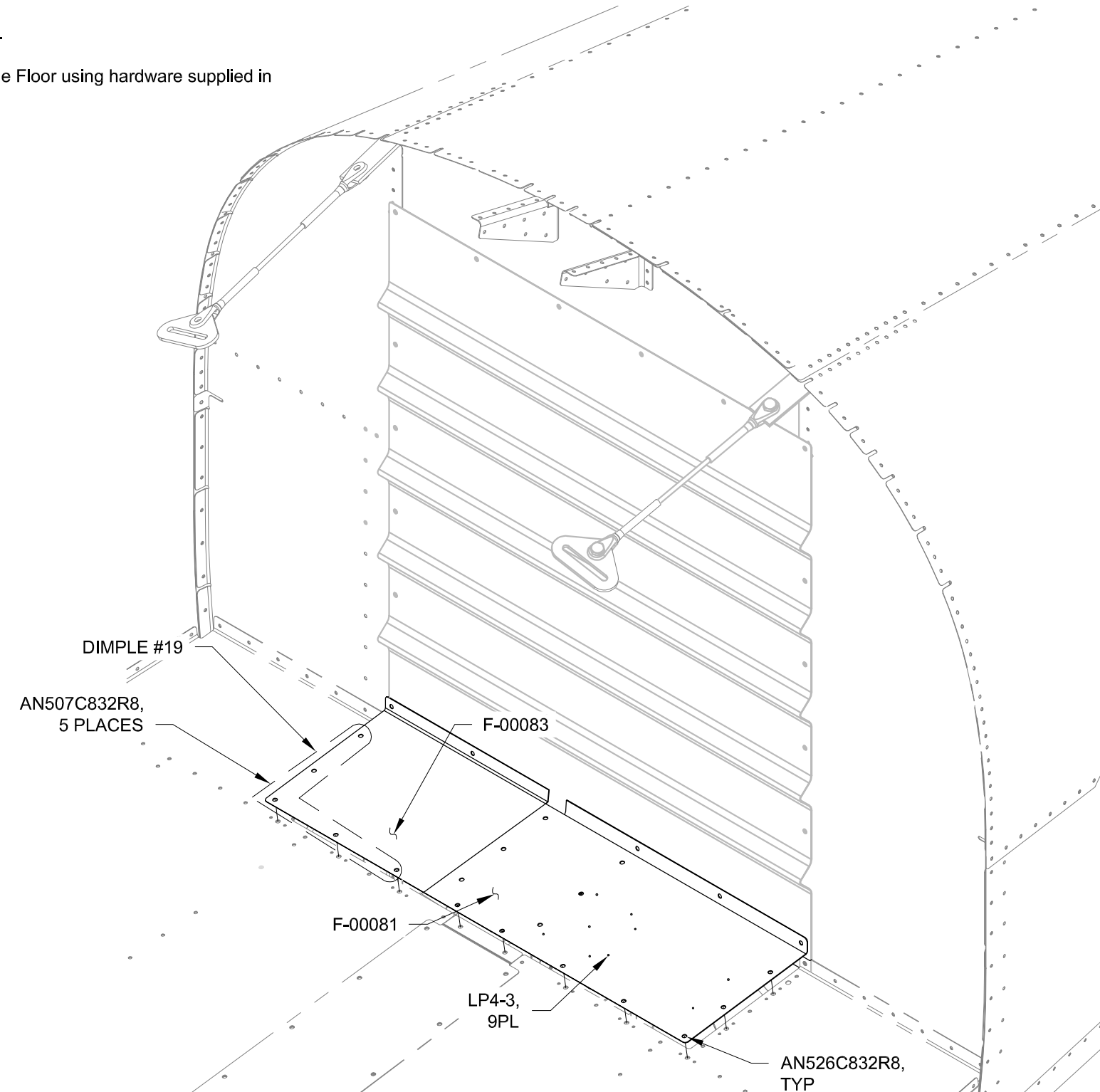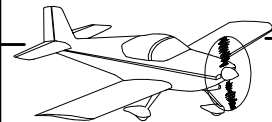
DIMPLE #19

AN507C832R8,
5 PLACES

F-00083

F-00081

LP4-3,
9PL

AN526C832R8,
TYP

FIGURE 1: REPLACING THE BAGGAGE COVER

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