



SECTION 44AiS/U:

SKYVIEW

DUAL AXIS

AUTOPILOT

AV-SV-KNOB-PANEL

AV-SV-AP-PANEL

AUTOPILOT DISCONNECT
SWITCHF-1292
PITCH SERVO
PUSHRODIF DYNON AP SV32
AUTOPILOT (PITCH) SERVOF-1291
ROLL SERVO
PUSHRODIF DYNON AP SV32
AUTOPILOT (ROLL) SERVO



Step 1: Cut the F-1291 Roll Servo Pushrod and the F-1292 Pitch Servo Pushrod from AT6-058X5/16 Tube.

Drill and tap the ends of each pushrod. See Figure 1.

DRILL #3, TAP 1/4-28
BOTH ENDS

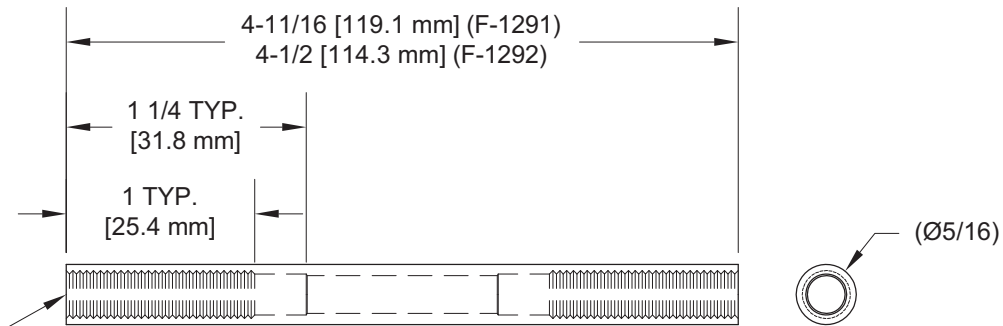


FIGURE 1: MAKING THE PUSHROD TUBES

Step 2: Assemble the F-1291 Roll Servo Pushrod and hardware as shown in Figure 2 to make the Roll Servo Pushrod Assembly.

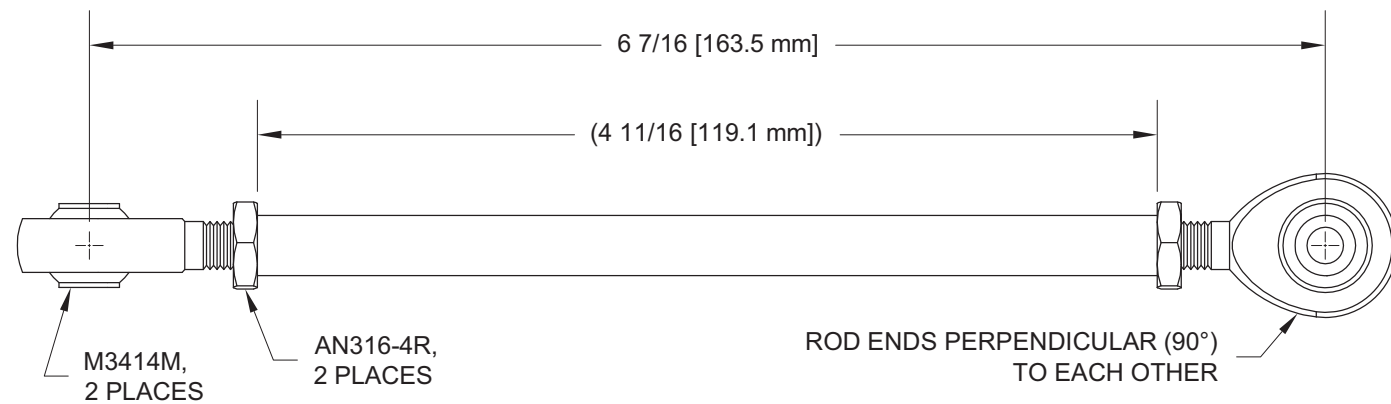


FIGURE 2: ROLL SERVO PUSHROD ASSEMBLY

Step 3: Assemble the F-1292 Pitch Servo Pushrod and hardware as shown in Figure 3 to make the Pitch Servo Pushrod Assembly.

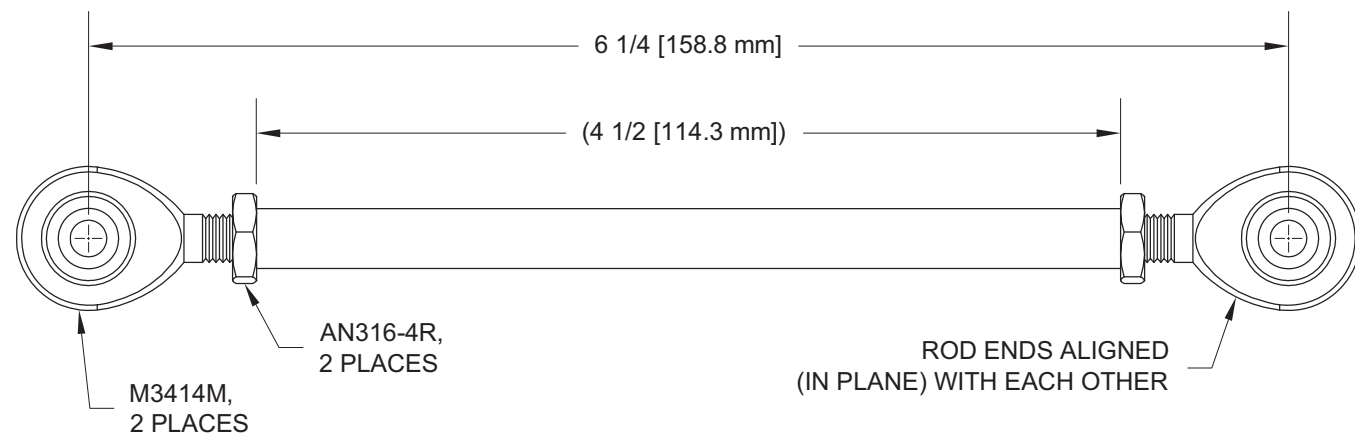


FIGURE 3: PITCH SERVO PUSHROD ASSEMBLY

Step 4: Remove the F-01206E-1 Baggage Floor Cover and F-1207F Baggage Bulkhead Corrugation. See Figure 4.

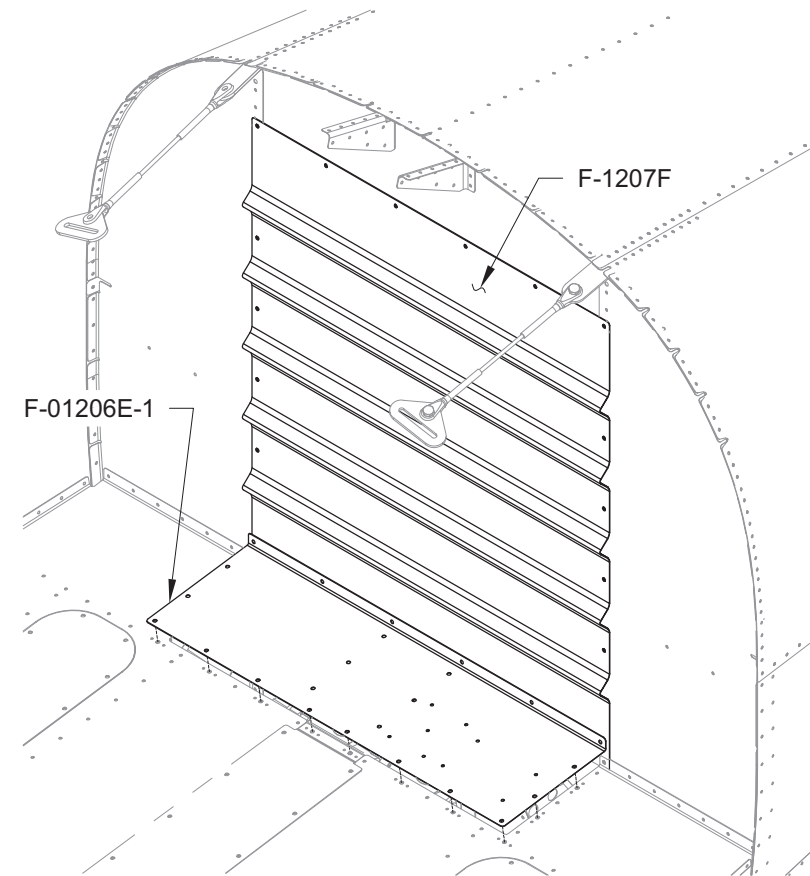
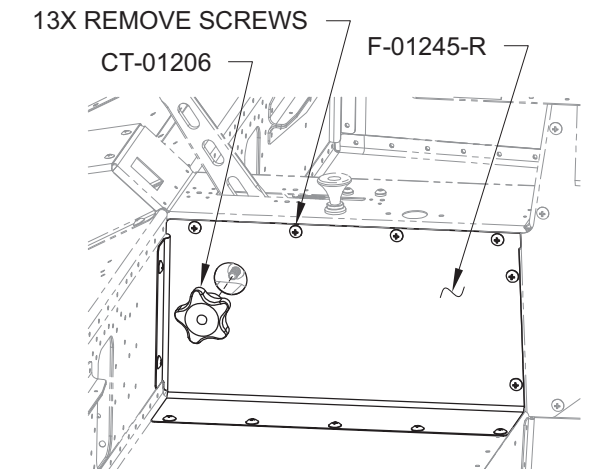


FIGURE 4: REMOVE ACCESS COVERS

NOTE: Use caution when removing CT-01206 to prevent loss of the spring/ hardware.

Step 5: Remove the CT-01206 and the F-01245-R Tunnel Cover Aft Side. See Figure 5.



**FIGURE 5:
REMOVE THE TUNNEL COVER**

Step 6: Remove the F-01227-L-1 Seat Ramp Cover. See Figure 6.

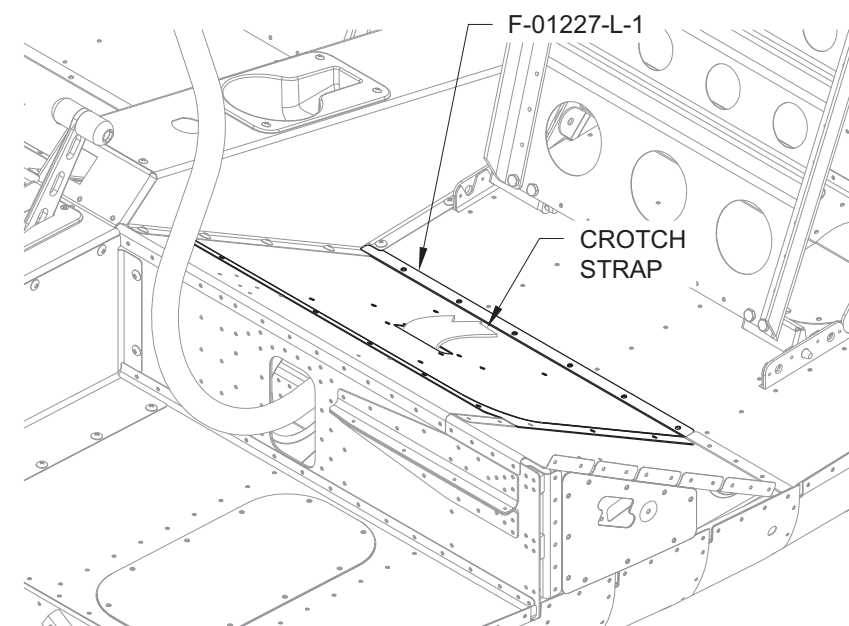


FIGURE 6: REMOVE THE LEFT SEAT RAMP COVER

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NOTE: If your pitch servo does not have a male d-sub connector attached, go to Page 44AiS/U-03, Step 1 for installation instructions.

Step 1: Insert the bolt that will attach the Pitch Servo Pushrod Assembly to the arm of the servo.

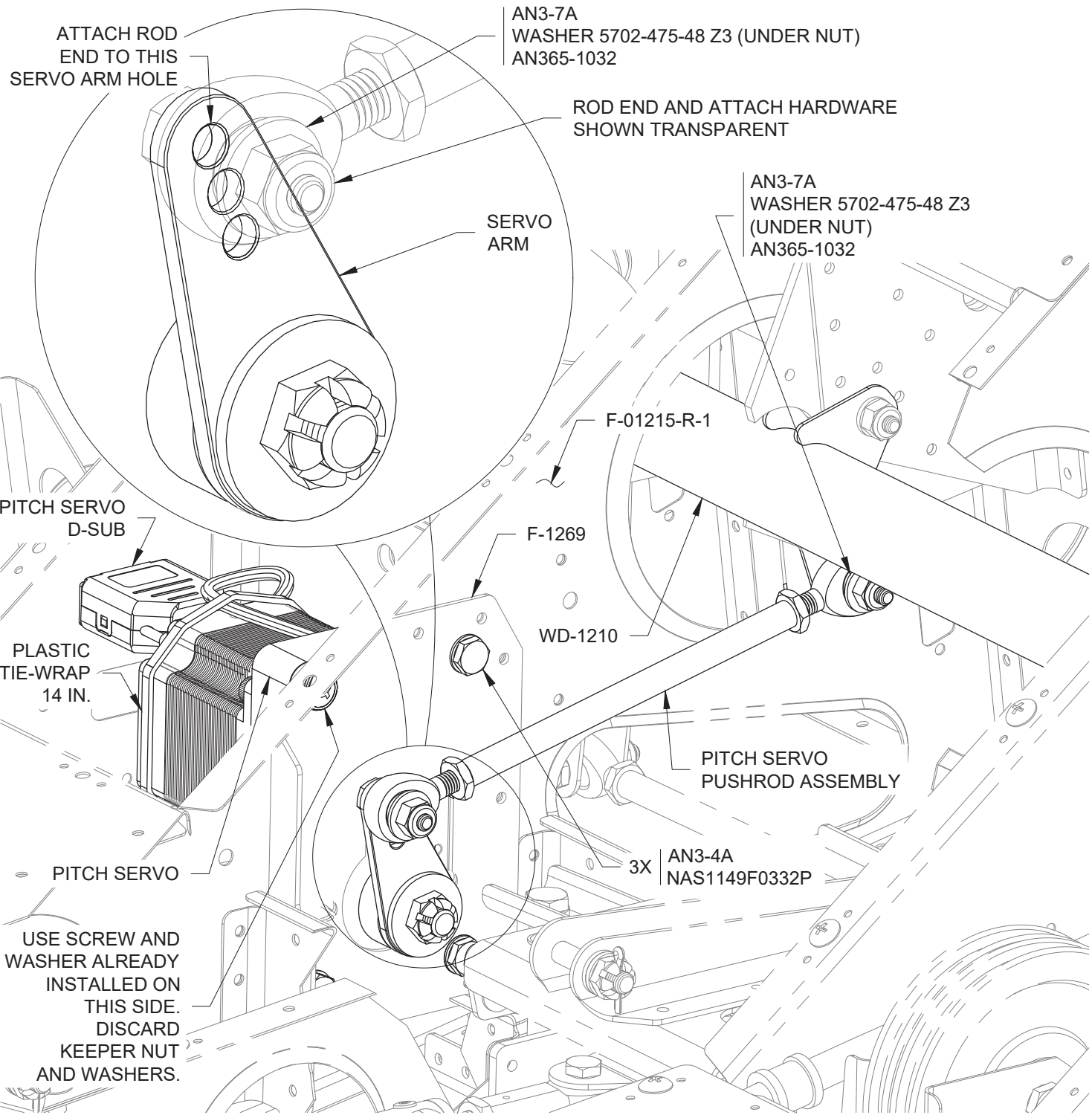


FIGURE 1: INSTALLING THE PITCH SERVO

Step 2: Attach the servo to the F-01215-R-1 Seat Rib and F-1269 Servo Doubler using the hardware called out and Loctite 242 or equivalent medium thread locker. See Figure 1.

Step 3: Connect the Pitch Servo Pushrod Assembly to the tab on the WD-1210 Control Column and the servo arm. See Figure 1.

Step 4: Remove the screws attaching the female d-sub connector to the F-01215-R-1, then connect the female d-sub to the male d-sub on the servo through the seat rib as shown in Figure 1.

Step 5: Install a tie-wrap around the servo to secure the wires and prevent chafing as shown in Figure 1.

Step 6: Remove the cover (not shown) over the autopilot disconnect switch mounting hole. See Figure 2.

Step 7: Locate the autopilot disconnect switch on the WH-00133-1 RV-12iS Dynon Common Harness. Cut the tie wrap securing it and attach the switch to the underside of the center console as shown using the hardware called out in Figure 2.

WARNING: WHEN FINISHED INSTALLING THE AUTOPILOT SERVOS, MOVE THE CONTROL STICK THROUGHOUT ITS ENTIRE RANGE OF TRAVEL MANY TIMES (WITH FLAPS UP AND WITH FLAPS DOWN) TO CHECK FOR AN OVER-CENTER CONDITION OF THE AUTOPILOT SERVOS (A CONDITION WHERE THE SERVO ARM AND PUSHROD BECOME CLOSE TO PARALLEL AND THE CONTROL SYSTEM LOCKS).

Step 8: Reinstall all covers and panels removed earlier. See Page 44AiS/U-02.

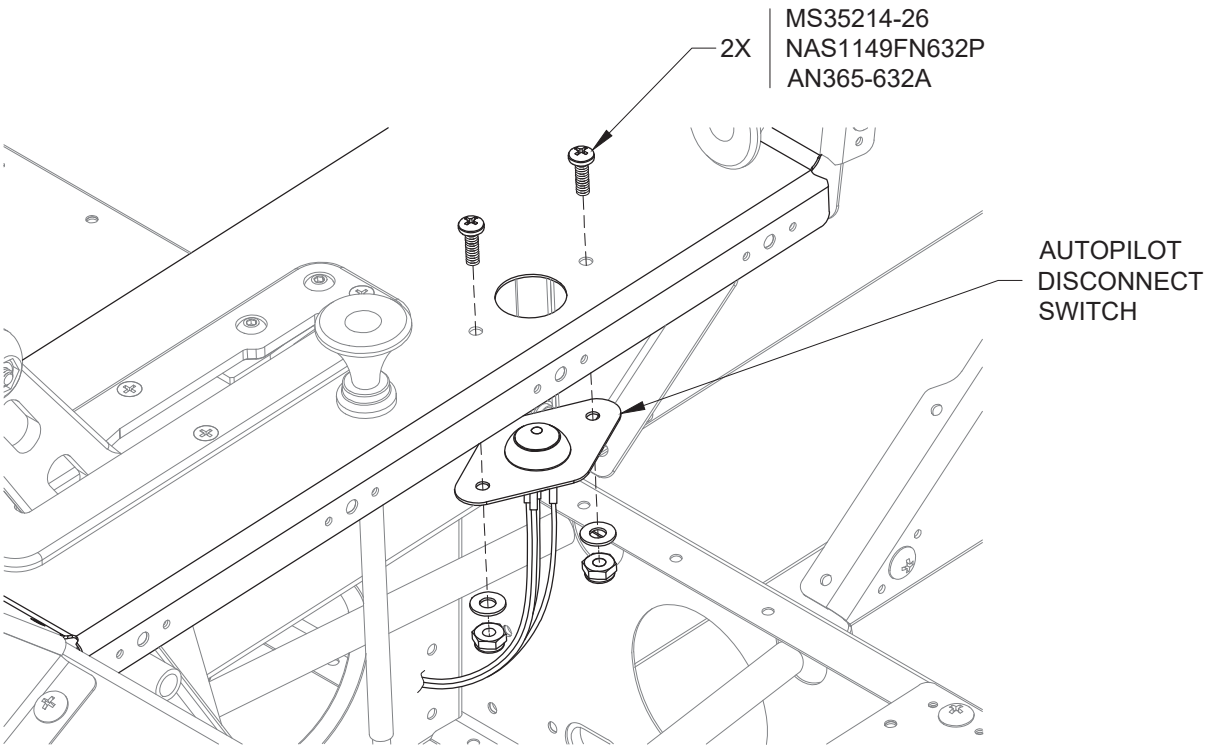


FIGURE 2: INSTALLING THE AP DISCONNECT SWITCH

QTY
3
2
2
2
2
3
2
1

NOTE: Page 44AiS/U-05 and -06 of this section describe how to make AP module cutouts in the provided (F-00044-2) center panel. This will work for a panel designed for the GTR 200 but will not work for a GTR 225 installation.

There are three center panel options available for use when installing the AP modules. They include two special order options; a 'ready to install' (Figure 1) and a 'bare' option (Figure 2). The third, a 'standard' center panel (Figure 3), was provided with the Avionics Kit.

Step 1: Remove the com radio per the manufacturer's directions. See Figure 4.

Step 2: Remove the F-00044-2 RV-12 GTR 200 CNTR INST Panel by removing the 20 screws attaching it to the sub-structure.

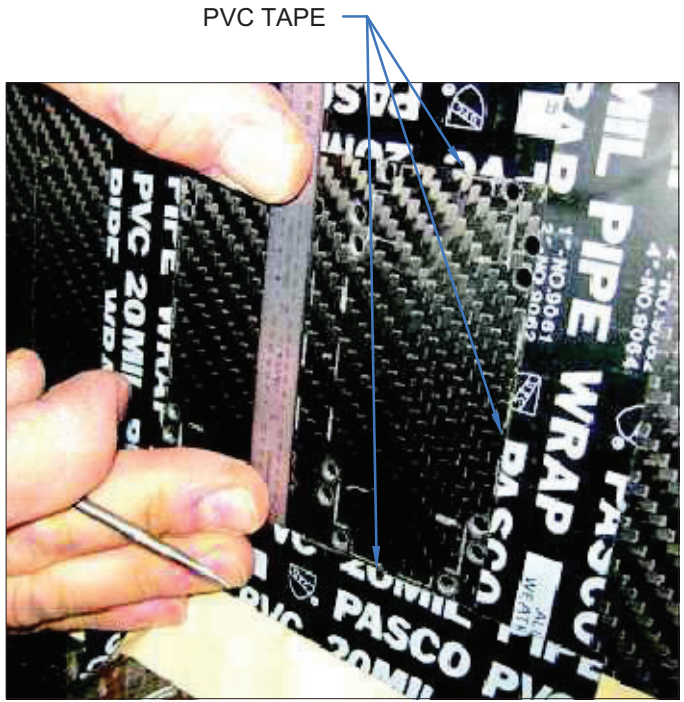
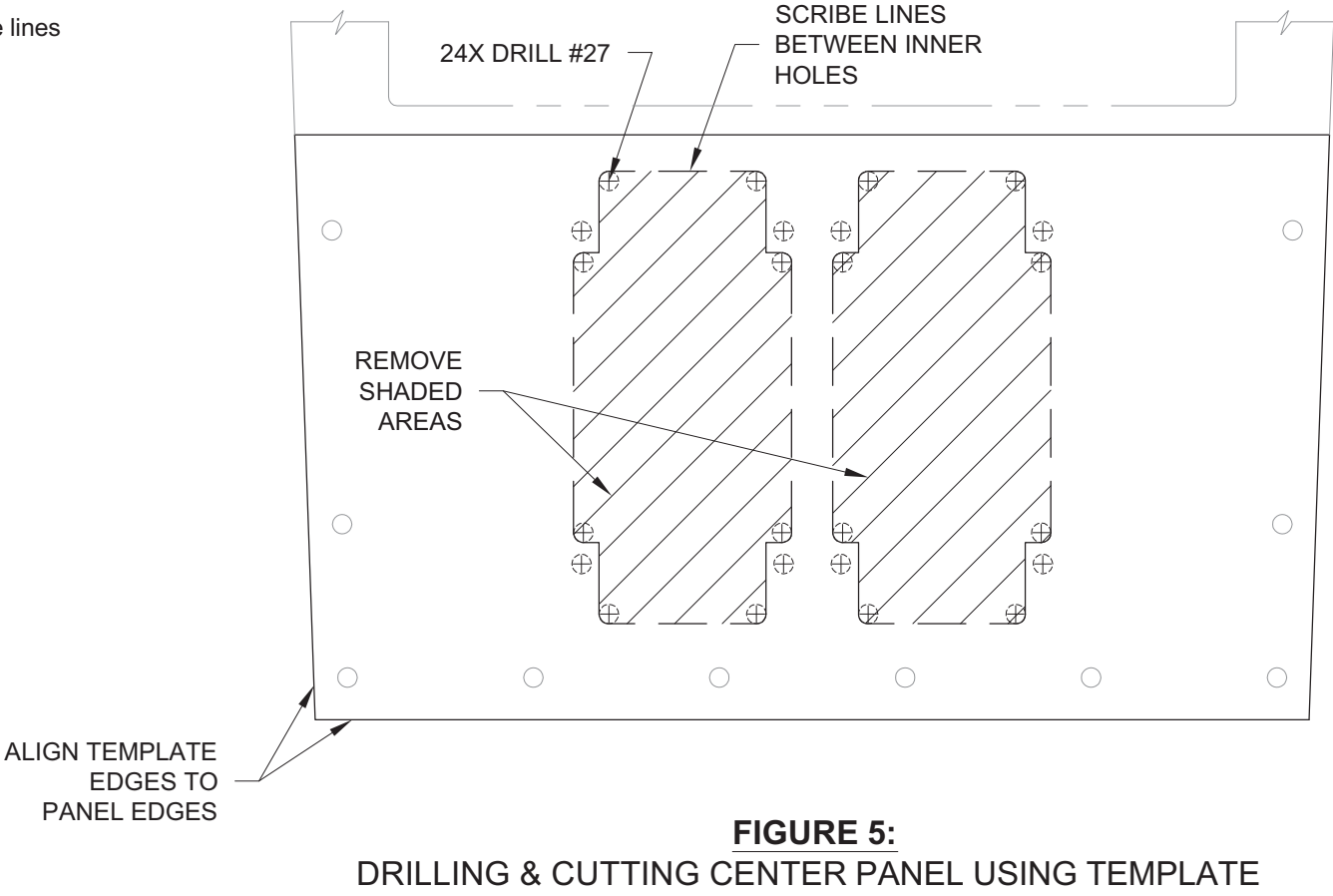
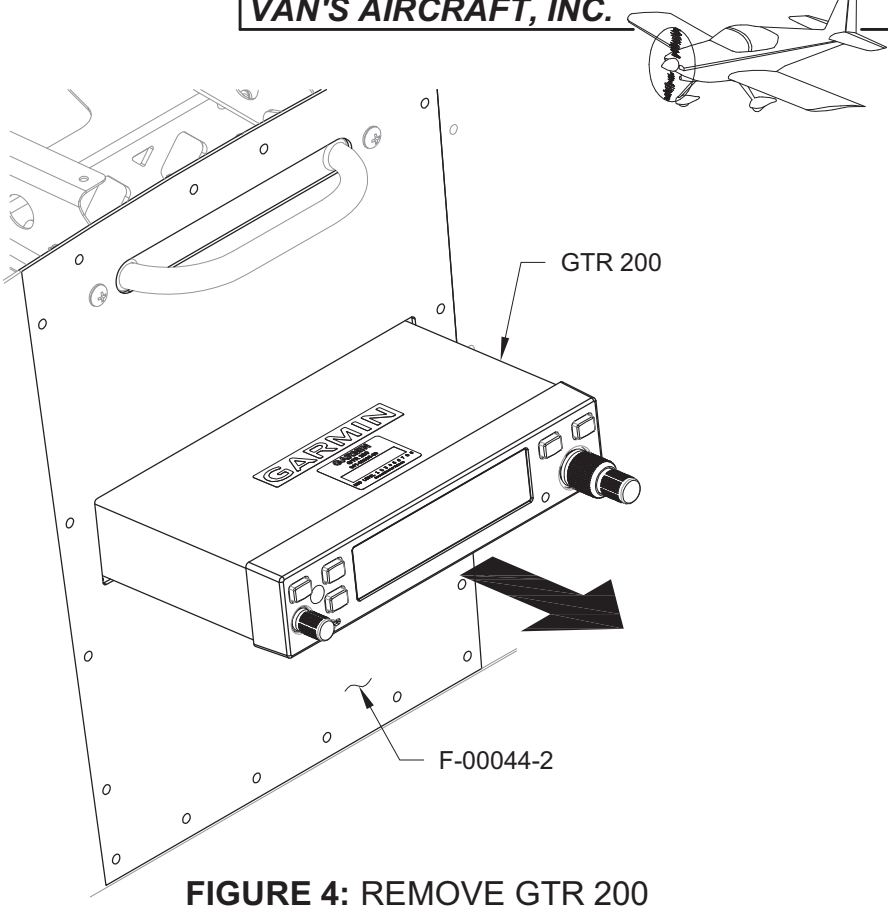
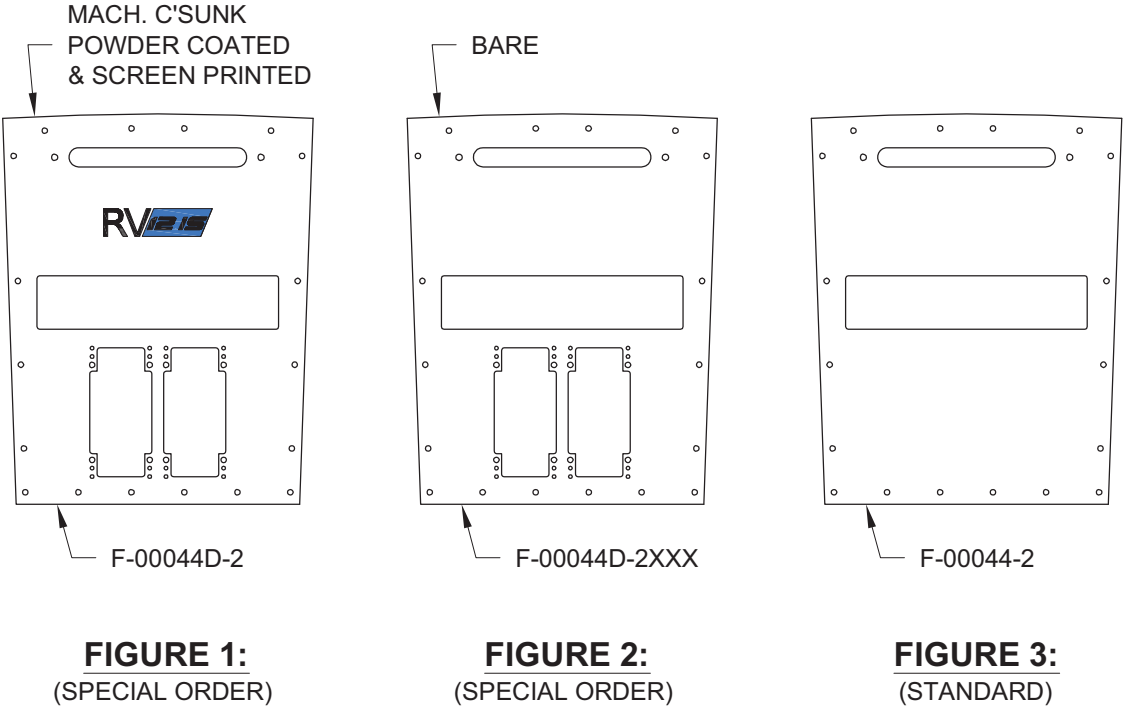
Step 3 (F-00044D-2 or F-00044D-2XXX): Skip to Page 44AiS-07.

Step 3 (F-00044-2): Cut out the template at the end of this section then attach it to the center panel.

Step 4: Drill #27 holes marked on the template into F-00044-2. See Figure 5.

Step 5: Mark the outside perimeter of the cutouts with a sharp scribe aligning to the edges of the inner set of holes as as shown in Figures 5 and 6.

Step 6: Add tough PVC tape along the outer scribe lines as shown in Figure 6.





Step 1: Define the 'outer' scribe border with high contrast electrical tape then repeat for the inner 'square' border. See Figure 1.

Step 2: Using a rotary cutting tool and a fibre reinforced cutting disk, cut between the holes drilled in the panel. See Figure 2.

Step 3: Remove the tape defining the inner square. See Figure 3.

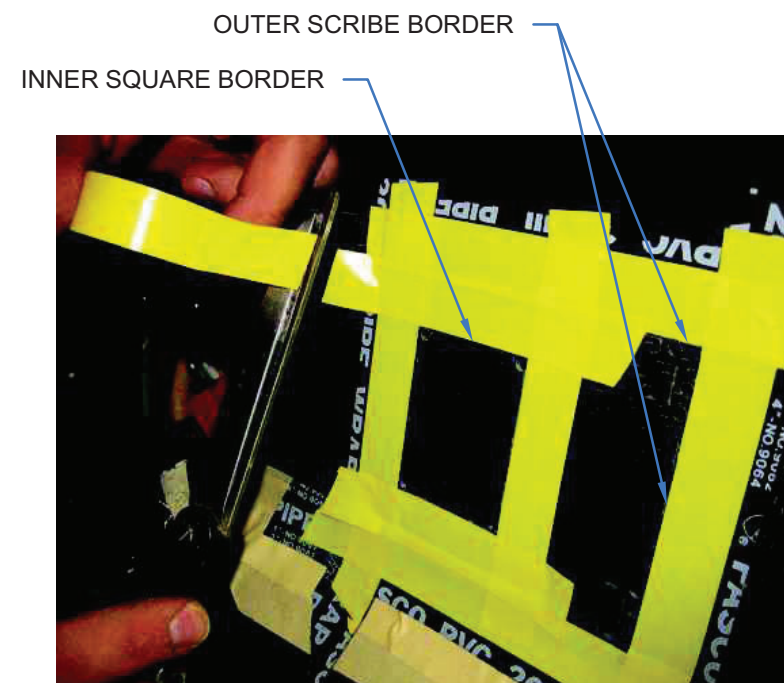


FIGURE 1: TAPING OFF THE INNER SQUARE



FIGURE 2: CUTTING OUT THE INNER SQUARE

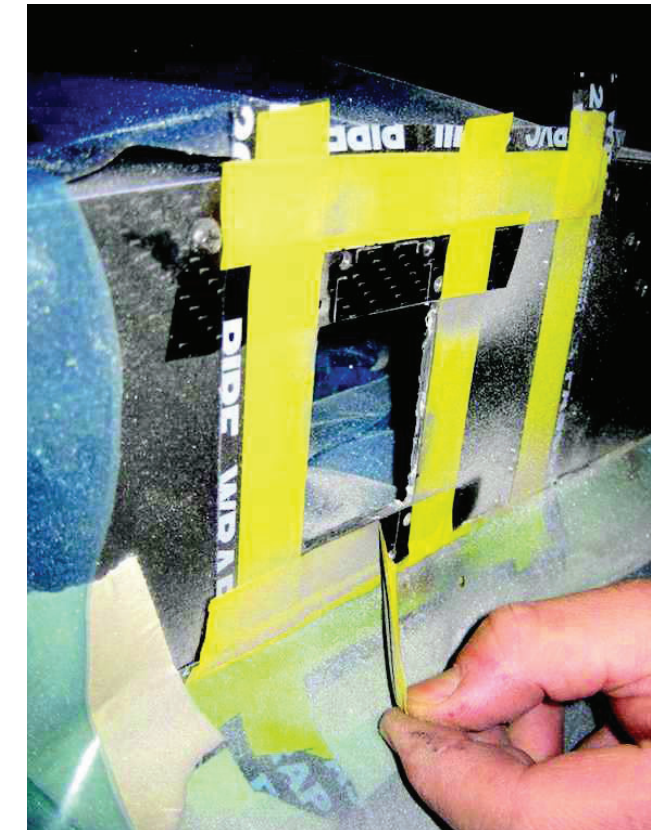


FIGURE 3: REMOVING INNER TAPE

Step 4: Add tape at each corner to define the top and bottom areas to be removed. See Figure 4.

Step 5: Remove the top and bottom areas by cutting to the holes. See Figure 5.

Step 6: Deburr the edges of the cutout.

Step 7: Test fit a module into the cutout. File the holes further as necessary. See Figure 6.

Step 8: Repeat the process for the right side cutout.

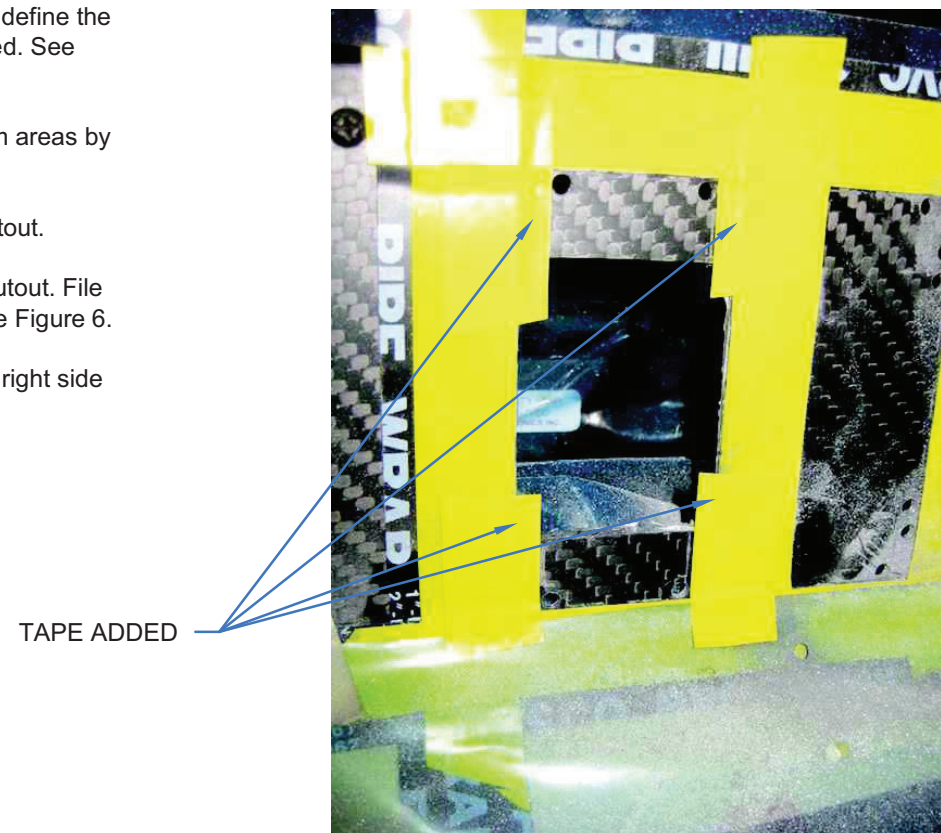


FIGURE 4: TAPING OFF UPPER & LOWER AREAS



FIGURE 5: CUTTING UPPER & LOWER AREAS

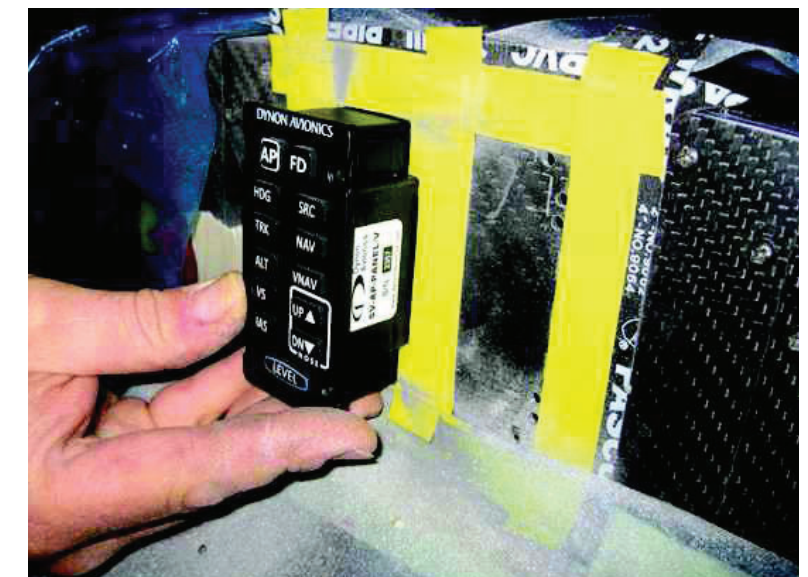
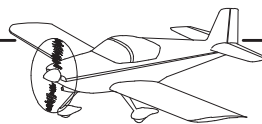


FIGURE 6: TEST FITTING MODULES



Refer to Figure 1 for Steps 1-3.

Step 1 (F-00044D-2): Skip to Step 3.

Step 1(F-00044D-2XXX): Skip to Step 2.

Step 1(F-00044-2): Match-Drill #40 nutplate attach holes at each module attach hole location.

Step 2(F-00044D-2XXX and F-00044-2): Machine countersink the nutplate attach holes and the flush screw holes per the call-outs.

Step 3: Rivet nutplates to the center panel as shown in Figure 1.

Step 4: (F-00044D-2XXX and F-00044-2): Prime/paint the center panel if/as desired.

Step 4: (F-00044D-2): Skip to Step 5.

Step 5: Re-Install the center panel using the screws provided in the Avionics Kit. See hardware call-outs in Figure 1.

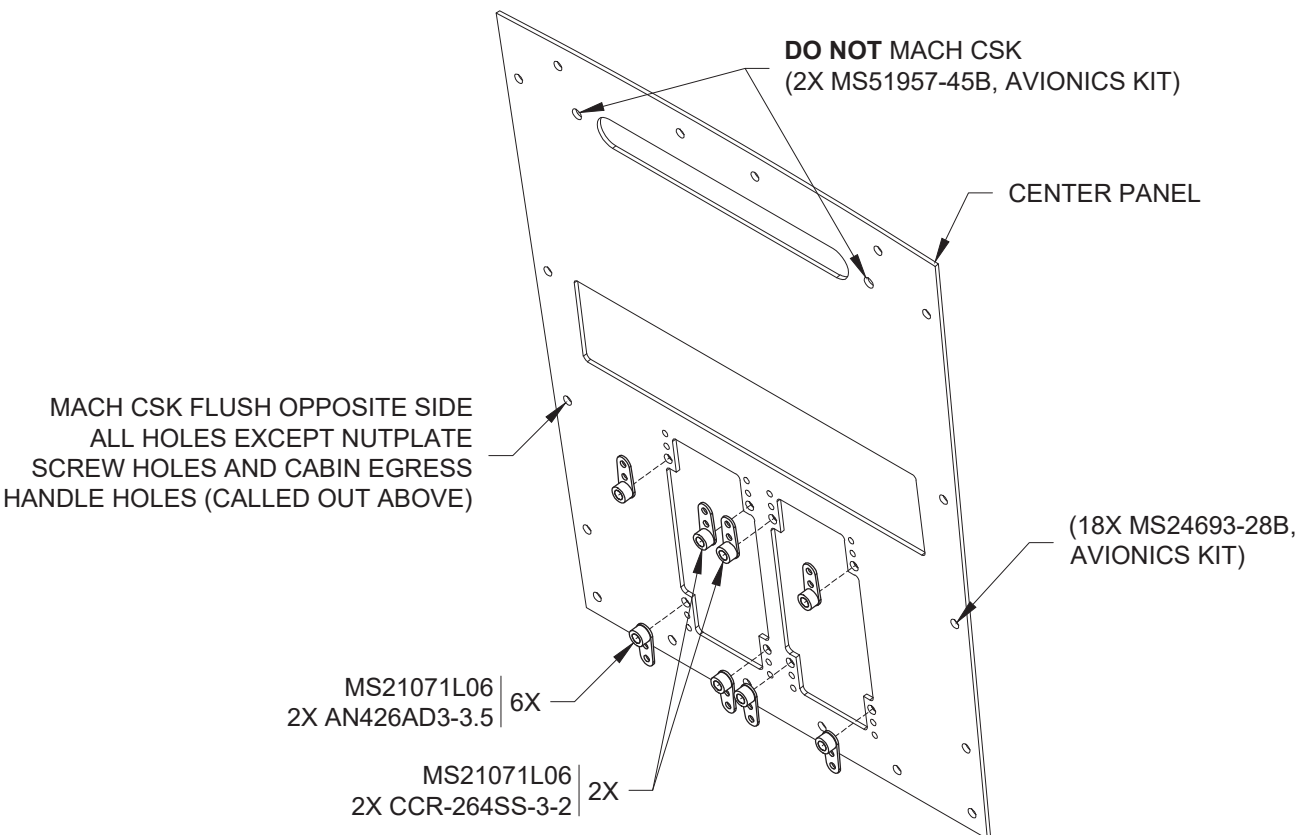


FIGURE 1: PREP THE CENTER INSTRUMENT PANEL

Step 5: Locate and pull the two 9-pin and one 15-pin d-sub from the WH-00133-1 harness through the cutouts in the panel as shown in Figure 2.

NOTE: The 9-pin d-sub may be connected to either of the two receptacles available in its corresponding module.

Step 6: Connect the 9-pin and 15-pin d-sub labeled "SV-AP" to the AV-SV-AP-PANEL module.

Connect the remaining 9-pin d-sub labeled "KNOB" to the AV-SV-KNOB-PANEL module.

Step 7: Attach the modules to the panel using the hardware provided with the modules. See Figure 2.

Step 8: Re-install the com radio (not shown).

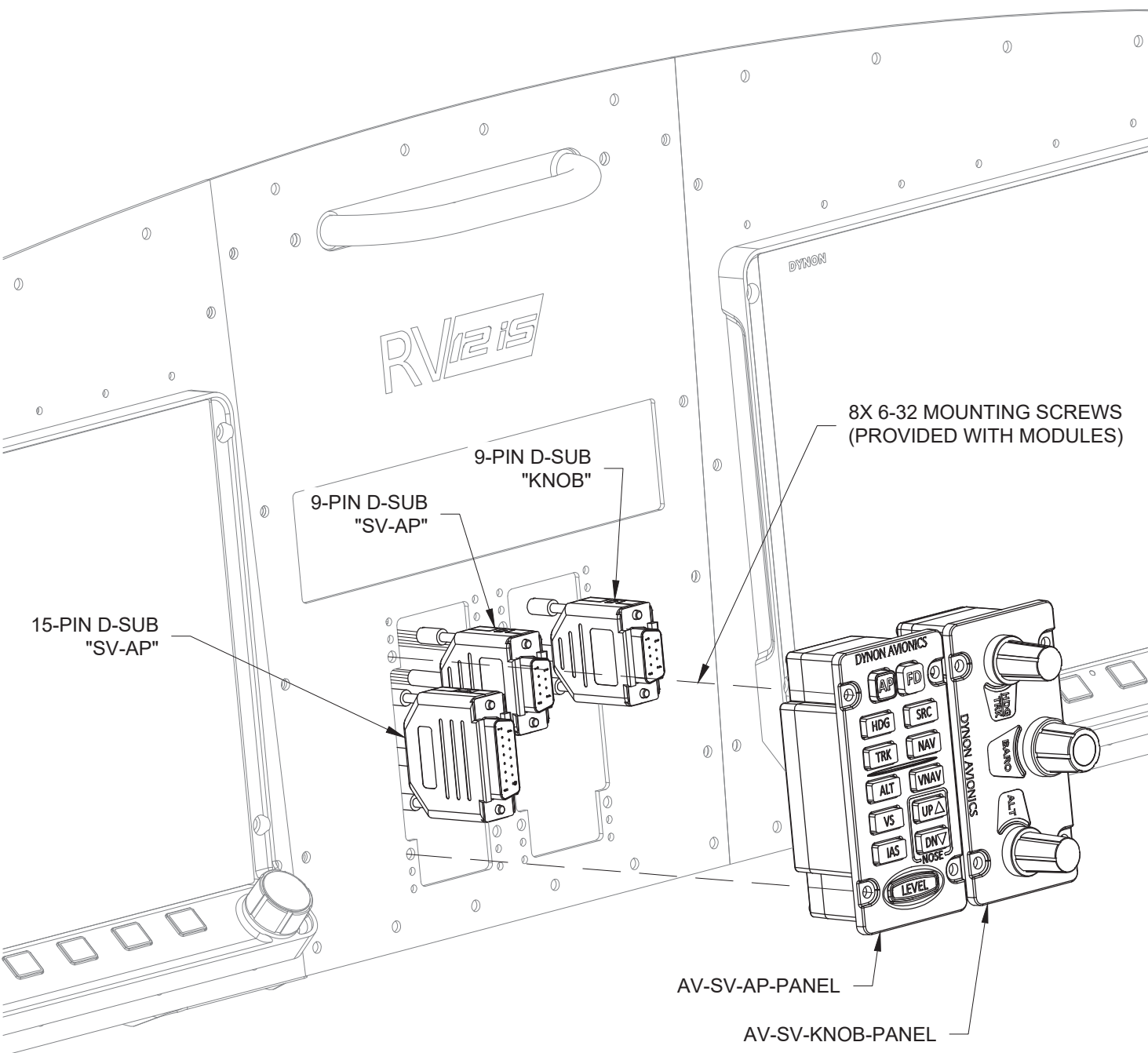


FIGURE 2: INSTALLING D-SUB PLUGS INTO AP PANELS



Refer to Figure 1 for Steps 1-3.

Step 1 (F-00044D-2): Skip to Step 3.

Step 1(F-00044D-2XXX): Skip to Step 2.

Step 1(F-00044-2): Match-Drill #40 nutplate attach holes at each module attach hole location.

Step 2(F-00044D-2XXX and F-00044-2): Machine countersink the nutplate attach holes and the flush screw holes per the call-outs.

Step 3: Rivet nutplates to the center panel as shown in Figure 1.

Step 4: (F-00044D-2XXX and F-00044-2): Prime/paint the center panel if/as desired.

Step 4: (F-00044D-2): Skip to Step 5.

Step 5: Re-Install the center panel using the screws provided in the Avionics Kit. See hardware call-outs in Figure 1.

Step 5: Locate and pull the two 9-pin and one 15-pin d-sub from the WH-00133 harness through the cutouts in the panel as shown in Figure 2.

NOTE: The 9-pin d-sub may be connected to either of the two receptacles available in its corresponding module.

Step 6: Connect the 9-pin and 15-pin d-sub labeled "SV-AP" to the AV-SV-AP-PANEL module.

Connect the remaining 9-pin d-sub labeled "KNOB" to the AV-SV-KNOB-PANEL module.

Step 7: Attach the modules to the panel using the hardware provided with the modules. See Figure 2.

Step 8: Re-install the com radio (not shown).

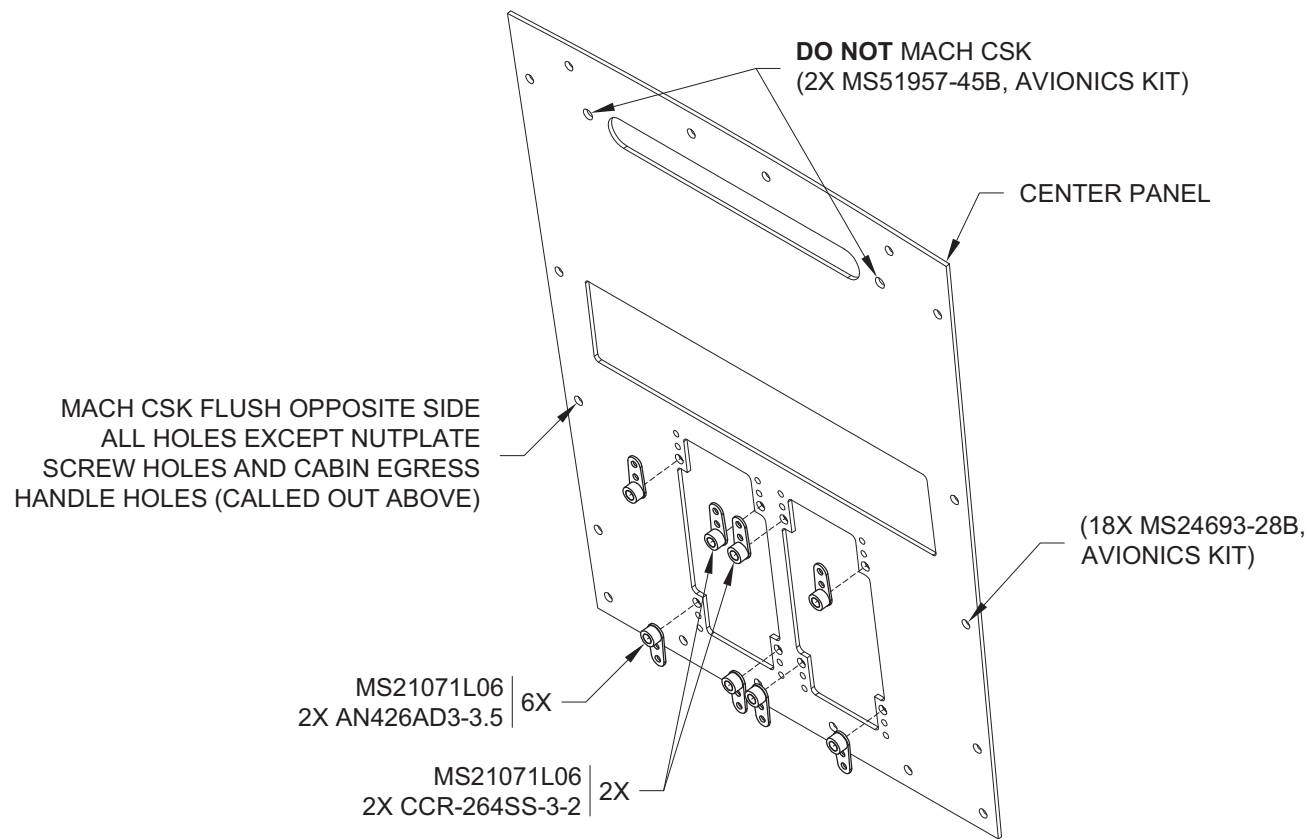


FIGURE 1: PREP THE CENTER INSTRUMENT PANEL

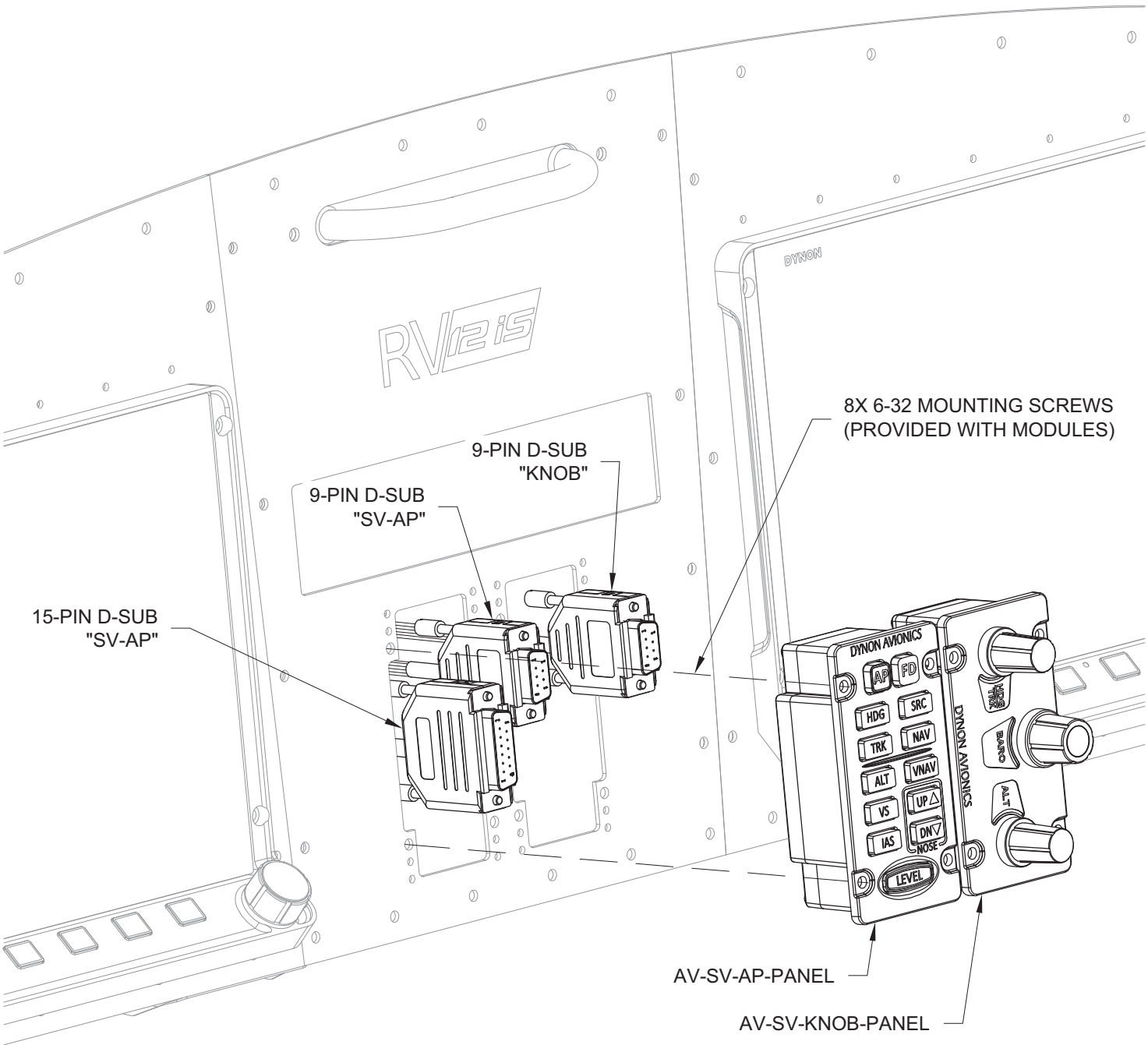


FIGURE 2: INSTALLING D-SUB PLUGS INTO AP PANELS



10 9/16
[268.3 mm]

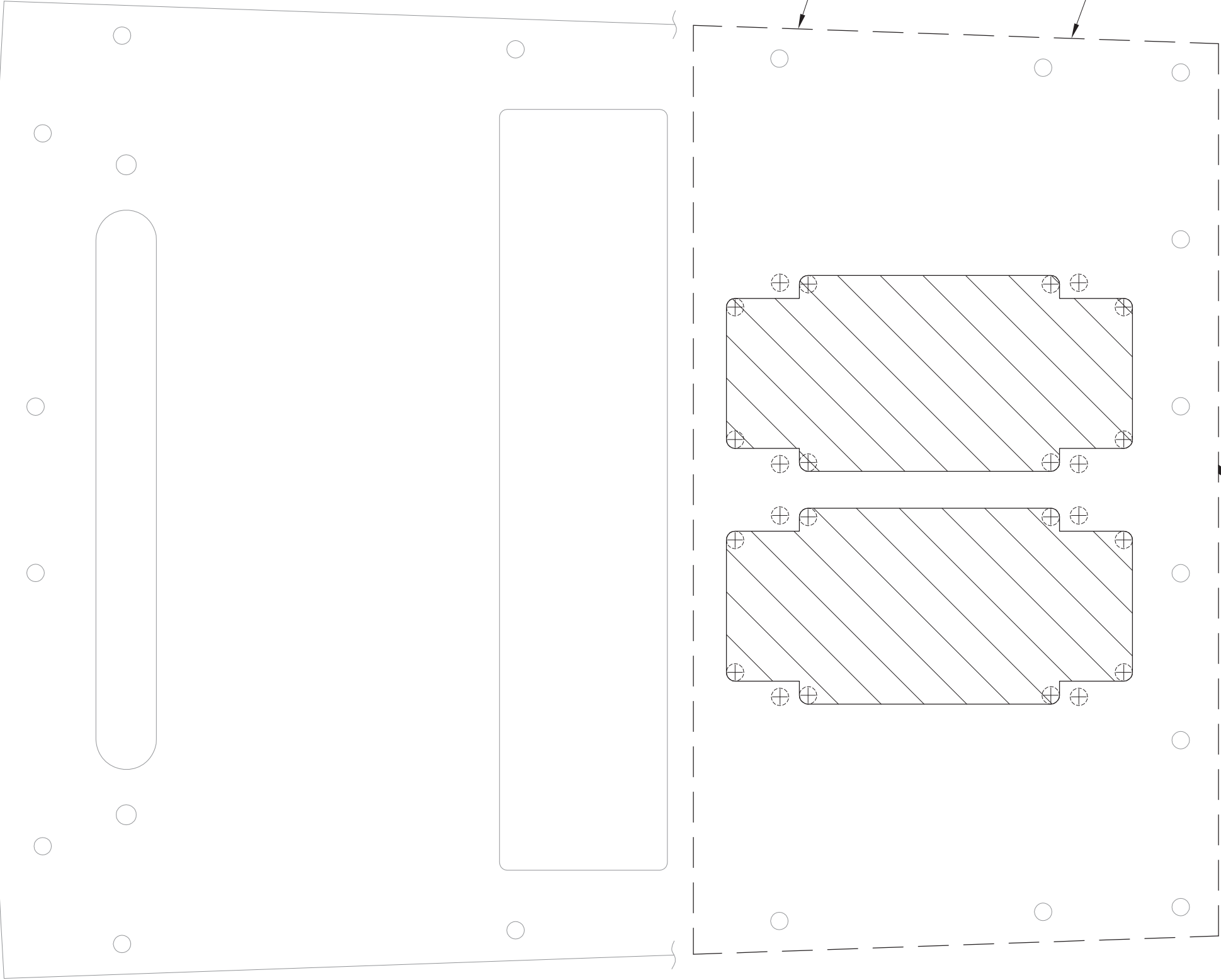


FIGURE 1: TEMPLATE

(NOTE: CHECK PRINTED SCALE 1:1 PER SECTION 3 BEFORE USING THE TEMPLATE!)

16
[406.4 mm]



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