



## SERVICE LETTER 19-06-27

**Date Released:** November 20, 2019

**Date Effective:** November 20, 2019

**Subject:** RV-12 ADS-B/2020 Compliance

**Affected Models:** First generation RV-12 aircraft equipped with Dynon D180 EFIS and GTX 327 Transponder.

**Affected Serial Numbers:** Not applicable

**Required Action:** Install ADS-B Out Transmitter and compatible certified GPS position source.

**Time of Compliance:** Optional/None

**Supersedes Notice:** None

**Labor Required / SLSA Warranty Allowance:** Not applicable

**Level of Certification:** Not applicable

### Synopsis:

First generation RV-12 aircraft equipped with Dynon D180 EFIS systems will need to be equipped with an ADS-B transmitter and a compatible WAAS GPS Position source if they wish to meet the FAA's ADS-B Mandate. For detailed information regarding the applicability of the ADS-B Out mandate, see the FAA's website.

A complete kit, including wiring, brackets, hardware, and the Garmin GDL 82 & GA-35 antenna, is available from Van's Aircraft.

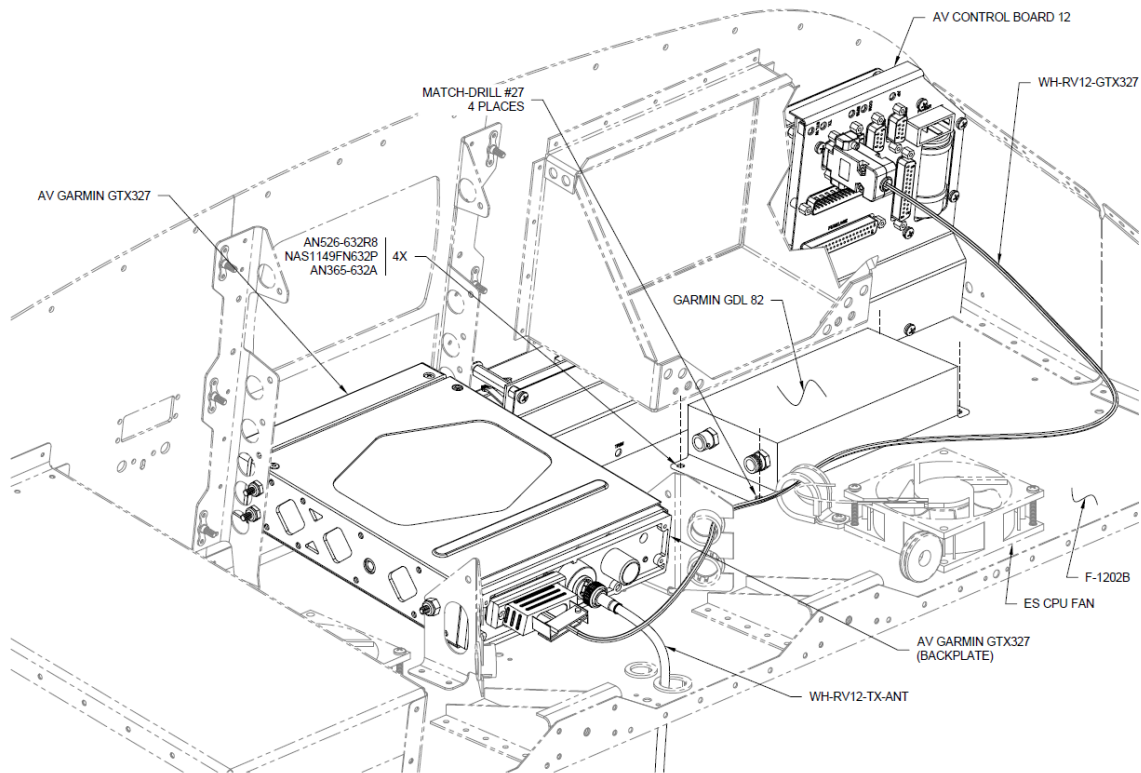
### Materials Required:

-RV-12 ADS-B/2020 KIT  
-WH-00142 Wiring Schematic (available from the downloads page of the Van's Aircraft website).

### Method of Compliance:

Step 1: Remove the F-1240 Top Skin Assembly for access to the required avionics and airframe components.

Step 2: Position, match-drill #27, then fasten the GARMIN GDL 82 on to the F-1202B as shown in Figure 1.

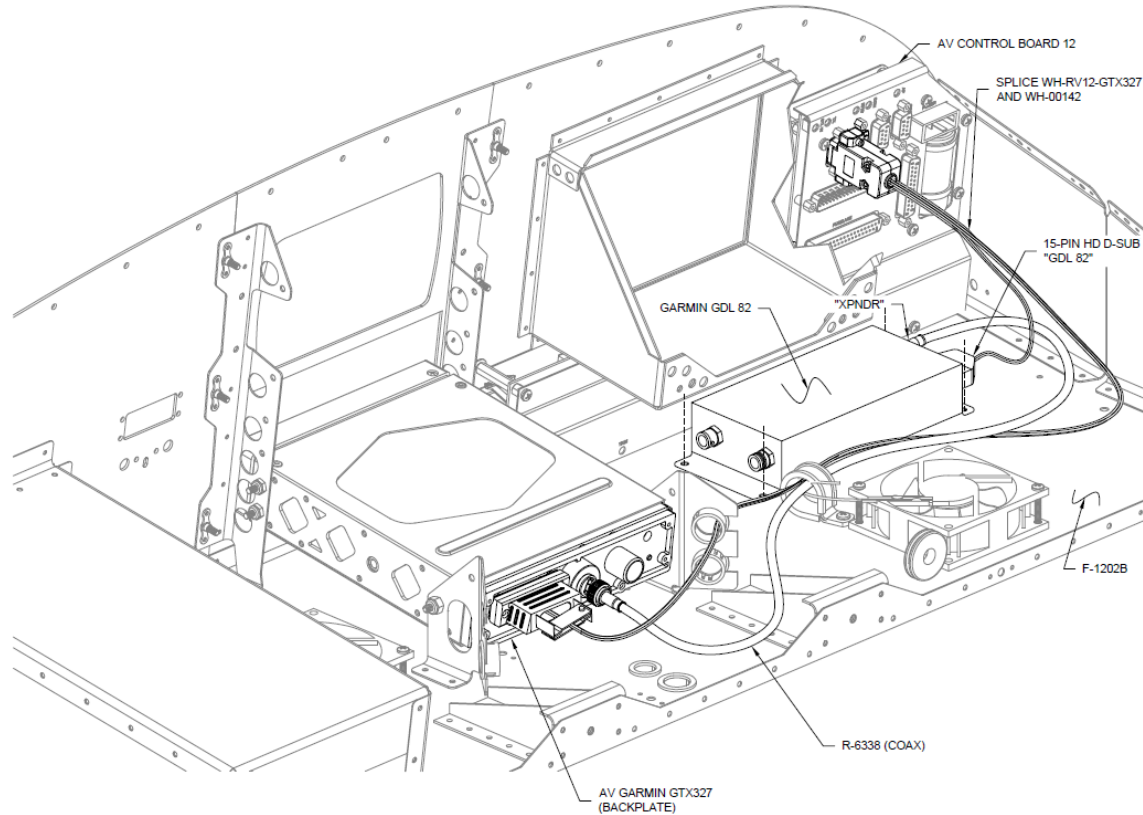


**FIGURE 1: INSTALLING THE GDL 82**

**Step 3:** Splice the P6334 (RED) and P6335 (BLK) ads-b power wires of the WH-00142 into the WH-RV12-GTX327 as shown in the WH-00142 schematic.

**Step 4:** Connect the 15-pin high density d-sub connector labeled “GDL 82” and one BNC connector of the R-6338 coaxial cable to the Garmin GDL 82 as shown in Figure 2.

**Step 5:** Disconnect the WH-RV12-TX-ANT from the AV GARMIN GTX327, then connect the remaining BNC Connector of the R-6338 coaxial cable to the AV GARMIN GTX327 as shown in Figure 2.



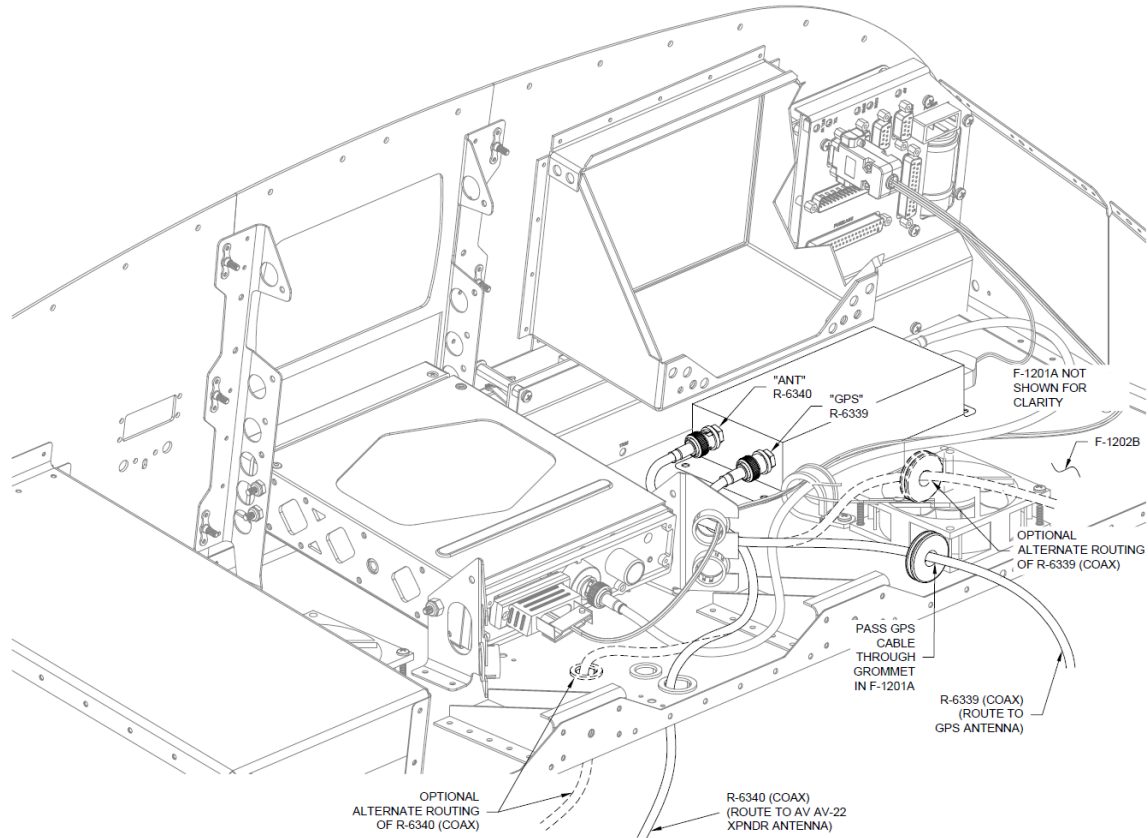
**FIGURE 2:** CONNECTING GARMIN GDL 82

**NOTE:** The BNC connectors on the R-6340 coaxial cable will not fit through the existing snap bushing in the F-1202B, or between the brake pedal torque tube and the firewall. Builders fabricating their own harness should wait until the R-6340 coaxial cable has been routed before crimping on the second BNC connector. Builders using a pre-fabricated R-6340 coaxial cable will need to drill an alternate wire pass-through 5/8", install the included SB625-7 snap bushing, and route the cable aft of the rudder pedal torque tubes. See Figure 3.

**NOTE:** The TNC connector on the R-6339 coaxial cable will not fit through the existing grommet in the F-1201A. Builders fabricating their own harness should wait until the R-6339 coaxial cable has been routed before crimping on the second TNC connector. Builders using a pre-fabricated R-6339 coaxial cable will need to drill an alternate wire pass-through 3/4", and install the included AN931-4-12 grommet in the F-1201A. See Figure 3.

**Step 6:** Connect the R-6340 coaxial cable to the "ANT" terminal of the Garmin GDL 82 as shown in Figure 3.

**Step 7:** Route the free end of the R-6340 coaxial cable to the AV AV-22 transponder antenna, following the route of the WH-RV12-TX-ANT. See Figure 3.



**FIGURE 3: ROUTING ANTENNA CABLES**

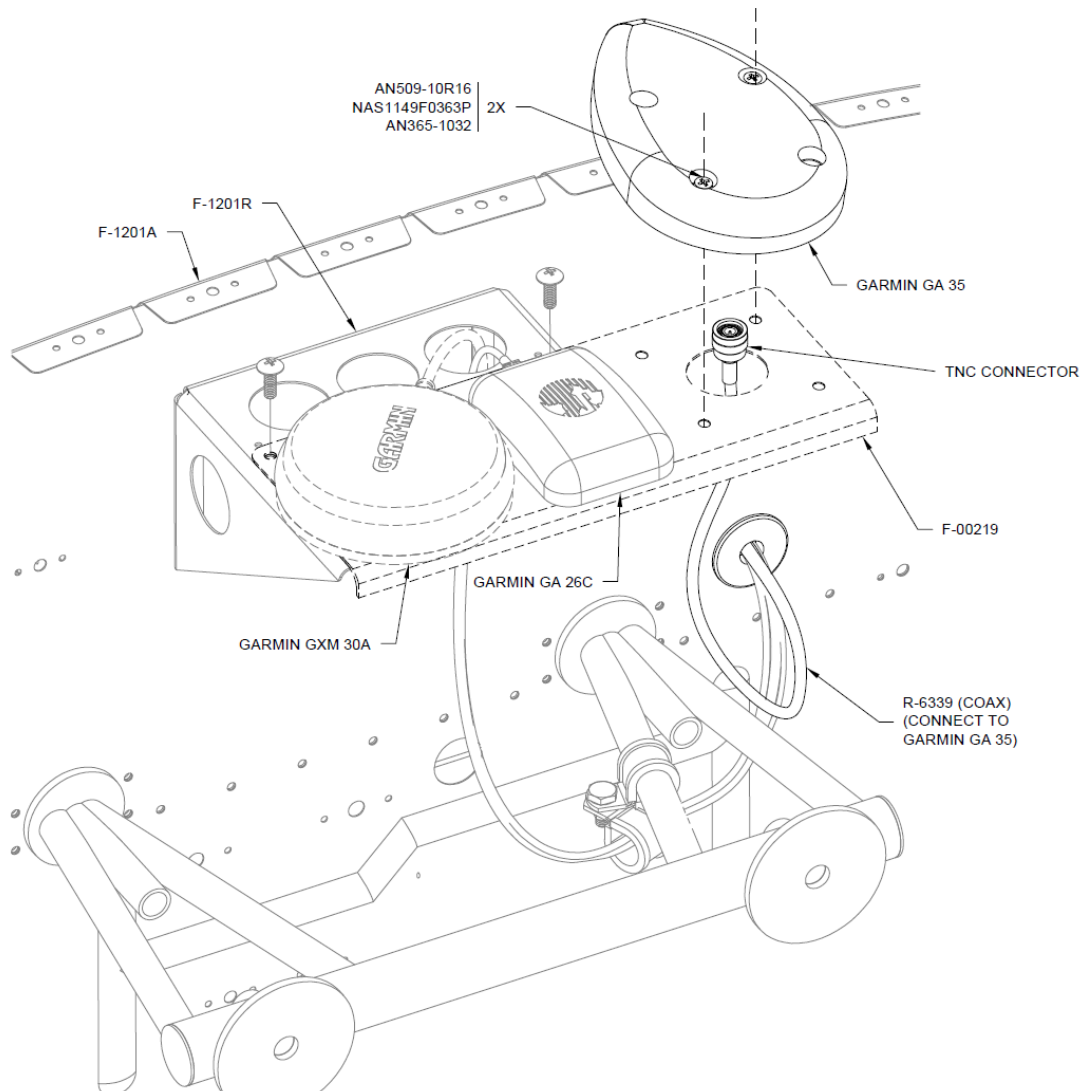
**Step 8:** Disconnect the WH-RV12-TX-ANT from the AV AV-22 transponder antenna. Crimp a BNC connector onto the R-6340 coaxial cable (if necessary), and connect the R-6340 to the AV AV-22. Discard the WH-RV12-TX-ANT.

**NOTE:** For aircraft not equipped with the Garmin GXM 30A XM antenna, the Garmin GA 35 antenna can be installed onto the right side of the F-1201R. Aircraft equipped with the Garmin GXM 30A antenna will need to use the included F-00219 bracket to support the Garmin GA 35 antenna. See Figure 4.

**Step 9 (With XM):** Replace the F-1201Z with the F-00219 as shown in Figure 4, reusing existing fasteners. Fasten the Garmin GA 35 to the F-00219 as shown in Figure 4.

**Step 9 (Without XM):** Position the Garmin GA 35 in place of the Garmin GXM 30A shown in Figure 4. Match-drill the mounting holes into the F-1201R, then fasten the Garmin GA 35 to the F-1201R with the hardware called out in Figure 4.

**Step 10:** Crimp a TNC connector on to the end of the R-6339 coaxial cable (if necessary), then connect the R-6339 coaxial cable to the GA 35 as shown in Figure 4.



**FIGURE 4: INSTALLING GPS ANTENNA**

**Step 11:** Seal any gaps between the grommet, F-1201A, and R-6339 coaxial cable using fuel tank sealant.

**Step 12:** Complete any further instructions included in the GDL 82 installation manual to finish the setup of the GDL 82.

**Step 13:** Ensure all wires and cables are free from chaffing on sharp edged, then reinstall the F-1240 Top Skin assembly.

**Step 14:** Make a logbook entry indicating compliance with SL 19-06-27.

Place a copy of this notification in the back of the maintenance manual for your aircraft. Note the addition of this notification to the bottom of the Maintenance Manual table of contents.