

AIRCRAFT SPECIALTY



FLIGHTLINES

Thank you for purchasing your RV-10 Stock Fuel system kit brought to you by Aircraft Specialty Flightlines.

We are writing this document to show builders how our fuel hose system is designed to be installed so everything fits nice and perfectly. There are a variety of different ways to install the valve, fuel pump, etc.... and if deviations from these standard locations are made, everything may not fit quite as nicely.

Kit 1, 2, and 3 all are based around the ANDAIR FS20X7T valve. This kit is only designed to fit with that valve.

In addition, you will need a fuel valve extension kit from Andair for the type 7 valve. You won't need a very long extension, but we recommend ordering the 12" extension kit version which allows you to cut it and if you mess it up, you'll have extra tube to try again. The valve will be mounted in the SAME location as the stock valve while running an extension up through the center tunnel area.

After the valve has been installed, the next step is to configure the AFP pump and filter setup. If you have a quick-build RV10 Fuselage, leave the fuel pump/filter cradles in the stock location. If you have a slow build fuselage, you can keep them in the same location. If you lay your pump/filter setup in them, it will appear that one mount needs to be moved 2" in order for the cradles to properly grab the pump/filter.

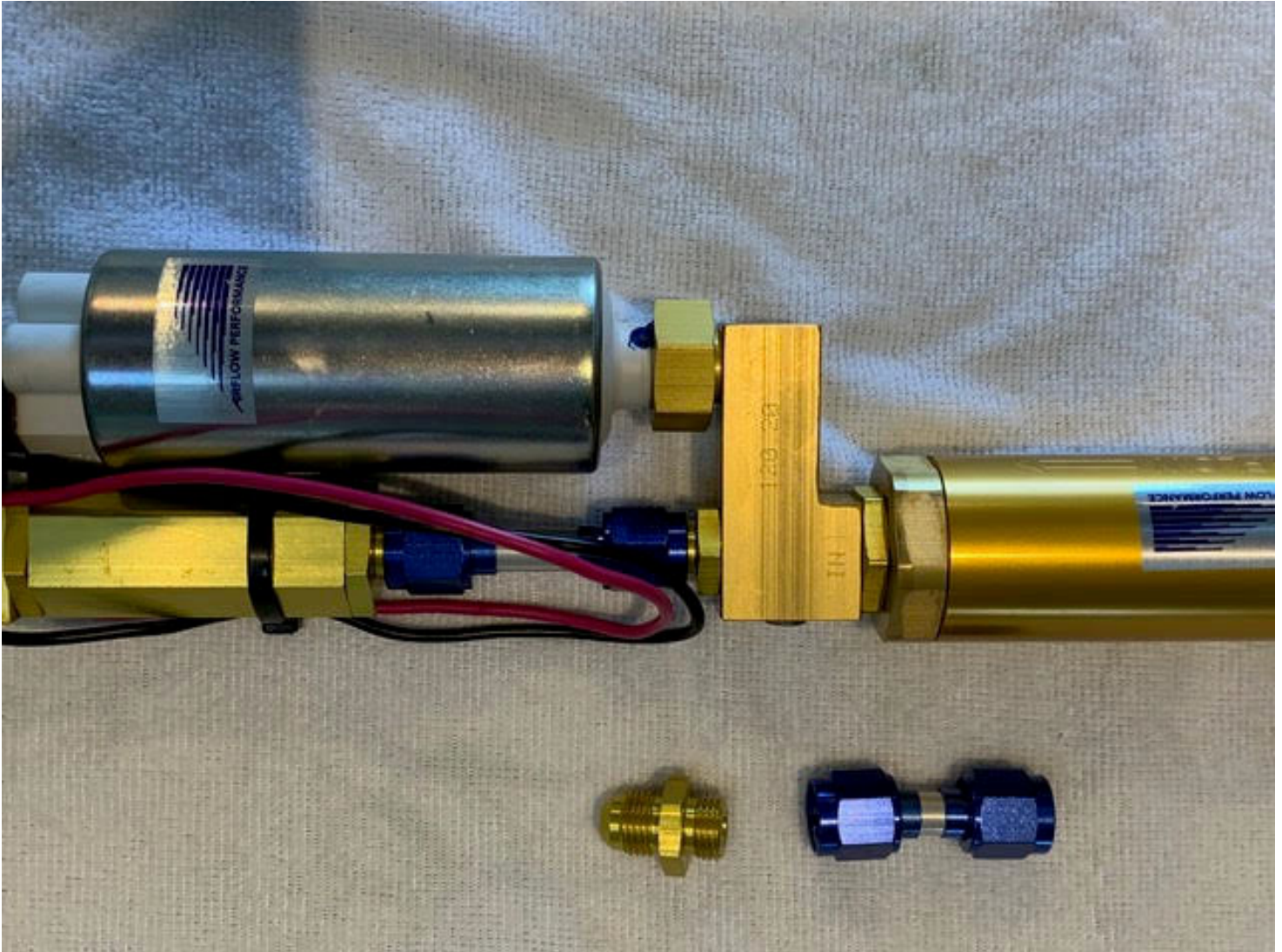


However, that is because the Pump/Filter REQUIRES a configuration modification to fit in the stock bracket locations. It is a very simple modification.

RV10 AFP FUEL SYSTEM STOCK INSTALL GUIDE REV 3 9-10-23

Remove, the rigid tube connecting the pump and filter and remove the gold fitting. **TRANSFER THE O RING** to the AN fitting on the filter and screw it directly into the pump assembly. If you do not transfer the O ring, the assembly will leak.

When complete it should look like the picture below. This gains you the 1.5-2” back and everything will now sit nicely in the cradles and our hoses will be the correct dimensions for the setup.



Please note that for Kit 1, Kit 2, and Kit 3 the under seat fuel lines are plumbed the same. We don't have an image for them, but they go from the fuselage bulkhead fitting to the center tunnel bulkhead fitting.



Kit 1 – Includes

ASF103-2 Hose 1 – Transducer to Firewall. 90 degree fitting goes on transducer to allow you to go straight up and bend around heat muff

ASF103-2 Hose 2 – Valve to Pump

ASF103-2 Hose 3 – Pump to Transducer

ASF103-4 Hose 1 – Valve to Center Tunnel Bulkhead Fitting

ASF103-4 Hose 2 – Valve to Center Tunnel Bulkhead Fitting

ASF103-4 Hose 3 – Center Tunnel Bulkhead Fitting to Fuselage Cabin Exit Bushing

ASF103-4 Hose 4 – Center Tunnel Bulkhead Fitting to Fuselage Cabin Exit Bushing

ASF103-4 Hose 5 – Fuselage Cabin Exit

Bushing to fuel Tank

ASF103-4 Hose 6 –Fuselage Cabin Exit Bushing to fuel Tank

Hardware : Two fuselage exit bushings, an fittings, and hardware to secure



KIT 2 – This is installed exactly the same as kit 1 with the exception of the fact that the transducer no longer is mounted in the tunnel. So you will go directly from the fuel pump to the firewall. (Image at left shows the forward section of kit 2. This is also the image with wing root filters which is why there is no filter in the tunnel. If you are using kit 2, you will still have your filter in the tunnel aft of the firewall just like kit 1.

ASF103-3 Hose 1 – Pump to Firewall

ASF103-3 Hose 2 – Valve to Pump

ASF103-4 Hose 1 – Valve to Center Tunnel Bulkhead Fitting

ASF103-4 Hose 2 – Valve to Center Tunnel Bulkhead Fitting

ASF103-4 Hose 3 –Center Tunnel Bulkhead Fitting to Fuselage Cabin Exit Bushing

ASF103-4 Hose 4 –Center Tunnel Bulkhead Fitting to Fuselage Cabin Exit Bushing

ASF103-4 Hose 5 –Fuselage Cabin Exit Bushing to fuel Tank

ASF103-4 Hose 6 –Fuselage Cabin Exit Bushing to fuel Tank

Hardware : Two fuselage exit bushings, an fittings, and hardware to secure

Note that the image above shows the front of the AFP pump to the firewall as well as the utilization of included ADEL clamps to secure the hose to the heat muff.

Below is an image of the wing area for Kit 1 and Kit 2.



Kit 3 – This kit is just like Kit 2 EXCEPT instead of going from valve to the filter, the hose goes directly from the Valve to the Pump.

ASF 104-2 – Hose 1 – Pump to Firewall

ASF 104-2 – Hose 2 – Valve to Pump

ASF 104-4 – Hose 1 – Valve to Tunnel Bulkhead

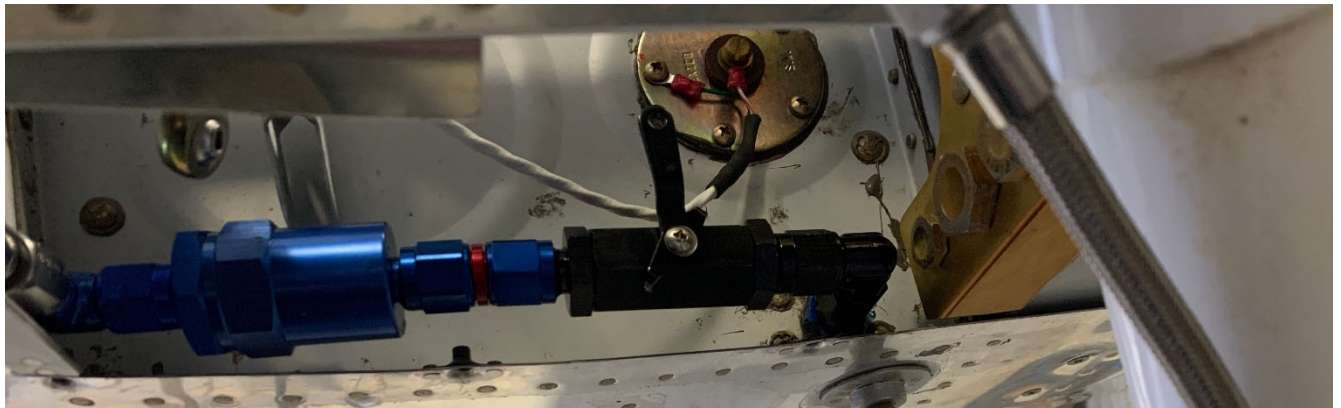
ASF 104-4 – Hose 2 – Valve to Tunnel Bulkhead

ASF 104-4 – Hose 3 – Tunnel Bulkhead to Fuselage Side Skin Bushing

ASF 104-4 – Hose 4 – Tunnel Bulkhead to Fuselage Side Skin Bushing

ASF 104-3 – Hose 1 – Wing Root Filter Hose

ASF 104-3 – Hose 2 – Wing Root Filter Hose



Please note that at the fuel tank, you will install a female/female swivel adapter. Then you will install the valve. Then install the female/female straight union. The filter attaches to that. On the output of the filter, you install a female to Male 90 degree adapter. The ASF104-3 hose attaches to that and to your Fuselage Bulkhead fitting. Please note that we also include adel clamps to secure your filter. **VERY IMPORTANT – Safety wire the valve OPEN so it is locked in that position except while servicing.**

SERVICING THE FILTER.

- 1) Remove the safety wire from the shutoff valve handle and rotate it 90* to stop the flow of fuel. Unscrew the adel camp from the root fairing.
- 2) Remove the hose end from the 90* AN fitting on the filter discharge side, and unscrew the AN nut on the inlet fitting on the filter.
- 3) Remove filter from the aircraft and service.
- 4) Reinstall in reverse order, making sure the appropriate fittings are tight and leak free. Torque seal the connections.
- 5) Secure the adel clamp to the root fairing.
- 6) Safety wire the shutoff valve to the OPEN position.
- 7) Repeat for the other side.