

Procedure 3.100**Fuel Probe Installation**

In this procedure...

You will install the fuel probes in the left and right fuel cell.

Step 1. Drill holes in wing ribs for probe installation.

Determine the location of the fuel probe mounting holes by placing a square on the top of the spar cap with the vertical leg of the square resting against the rib and the edge of the spar cap. Mark a vertical line on the rib directly below the spar cap. Measure up from the upper wing skin, the following dimensions and mark the hole center point.

Rib A	1 3/8"
Rib D	1 7/8"
Rib E	2 1/2"
Rib F	3 1/8"
Rib G	3 3/4"

Install Rib F1 approximately 8 inches outboard of Rib A. Use two tapes to secure rib to spar web. Coat exposed foam with resin.

Drill a 3/4" hole in each rib. An optional PVC bushing can be installed in each rib hole to allow for easy installation and removal. If the PVC bushing is not installed use Pro Seal to protect tube from chafing on fiberglass rib.



Step 2. Slip the fuel probe into position.

The inboard end of the probe should be within ½” of the outboard face of rib A. If the probe is too long use a tubing cutter to cut the outer tube. Make sure the plastic spacers are positioned at the end of the tube. Use a wire cutter and cut the center probe so that it is even with the end of the tube. The outboard end of the fuel probe must fit flush with wing rib. You can bend the tube a little to help make the fuel probe head fit flush with the rib. (Note: There is a mark approximately 8 inches down the tube from the head of the probe. Do not attempt to bend the probe beyond this point.)

Step 3. When you have aligned the probe so that it fits flush with the rib, clamp it in place and drill the mounting screw holes using the holes in the probe head as drill guides.

Step 4. Remove the probe assembly and set it aside. Place the backing plate on the inboard side of the rib and insure that the holes drilled in the rib match the backing plate. Coat the backing plate with Pro Seal and place it in position on the rib. Install the fuel probe to within 8 inches of the rib. Coat the rib side of the probe head with Pro Seal and slide the probe into position. Install the 6 mounting bolts and torque to 20 in/lb. Check the inboard side of the rib and coat the edges of the backing plate and probe with Pro Seal. Install safety wire to the bolts.

