

Installation Guide: Fly Henry Fuel Level Sensor

Albion Aero Services Ltd shall not be held liable for any damage or malfunctions resulting from improper installation. All installations are performed at the user's own risk.

Phase 1: Preparation and Tank Modification

1. **Drain and Dry:** Completely empty the fuel tank and allow it to dry thoroughly. If possible, remove the tank to facilitate easier installation.
2. **Drill the Access Hole:** Select the deepest point of the tank for the sensor placement. Drill a vertical hole using a 12mm or 3/8" drill bit.
3. **Install the Rod Holder:** Slide the rubber ring onto the rod holder. Guide the threaded rod holder into the drilled hole from inside the tank using a length of wire or fuel hose for assistance.
4. **Secure the Base:** Firmly tighten the larger nut onto the rod holder and remove the guide wire or tube. Confirm the assembly matches the reference in Picture 2.

Phase 2: Measurement and Calibration

1. **Initial Marking:** Insert the fuel rod into the holder. Use a marker to indicate the exact point where the rod meets the holder.
2. **Calculate the Cut Line:** Remove the rod and measure the distance from your mark to the lower end of the fuel gauge cap. Transfer this measurement to the bottom of the fuel rod, marking it from the base upwards.
3. **Position the Rod:** Insert the small rod into the fuel gauge until approximately one inch remains exposed.

Phase 3: Critical Component Adjustment

CAUTION: The following steps are non-reversible. Proceed with precision.

1. **Vise Security:** Secure the fuel rod into a workshop vise. Ensure it is clamped only at the **bottom**; do not clamp the middle or top of the rod (refer to Picture 3).
2. **Precision Cutting:** Using a saw, carefully cut along your measured line 360 degrees around the rod. You may need to rotate the rod multiple times to complete the cut.
3. **Separation:** Once separated, slide the piece out from the end of the fuel gauge while holding the rod upright. This prevents sawdust from entering the internal components. Note that a smaller internal rod will emerge during this process.
4. **Deburring:** Use a knife to clean any sharp edges from the cut rod. Ensure no debris enters the tube and take care not to bend the assembly. The finished end should resemble Picture 4.
5. **Insulation Cap Placement:** Carefully slide the white insulation insertion cap between the outer and inner rods. You may use a fingernail or a small tool for precision, but avoid bending the components. Verify that there is sufficient spacing for fuel flow. **IMPORTANT: Do not test the unit with any liquid other than petrol.**
6. **Trimming the Inner Tube:** Rotate the inner tube on a workbench while using a sharp knife to cut along its perimeter. Because the tube is thin-walled, it should cut easily. **DO NOT USE PLIERS**, as they will crush the tube ends.
7. **Final Deburring:** Clean the inner tube with a knife to ensure all sharp edges are removed.



Phase 4: Final Assembly

1. **Hardware Installation:** Thread the remaining nut onto the fuel gauge. Lubricate the final O-ring with a small amount of oil and slide it onto the gauge. Ensure the O-ring is the final component added and press it firmly into the nut.
2. **Integration:** Insert the gauge into the holder previously secured to the tank. Engage the nut by one or two threads.
3. **Final Seating:** Fully depress the fuel gauge into position and tighten the nut securely using a spanner.
4. **Integrity Check:** The fuel gauge is designed to be leak-proof once the nut is fully tightened. If installed correctly, the seal will be permanent.

Picture 1:



Picture 2:



Picture 3:



Picture 4:

