

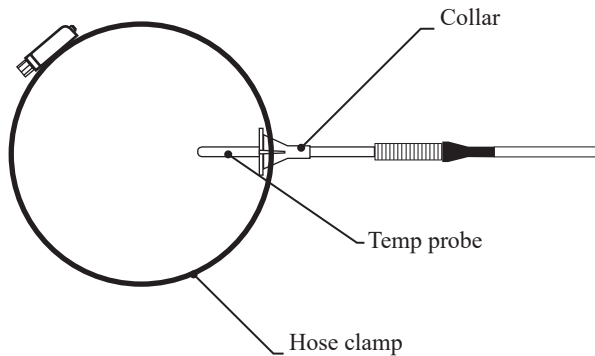


P-110-F and P-110-R Probes

Probe Identification

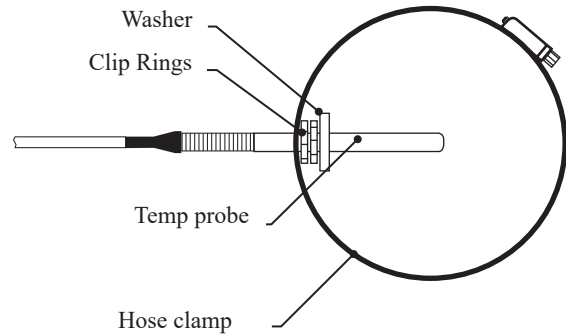
Probe identification is essential to ensure proper installation. Below are the two versions of the P-110 probe and their respective installation specifications.

P-110-F: Fast Response Probe



- Used on most normally aspirated engines.
- Positioned 2" - 4" away from the exhaust flange
- 5/32" hole diameter

P-110-R: Robust Probe



- Used for all Turbo-charged engines and some normally aspirated engines.
- Positioned 4" - 6" away from the exhaust flange for Turbo-charged engines, 2" - 4" away from the exhaust flange for normally aspirated engines.
- 13/64" hole diameter
- During installation both clip rings must be on the inside of the hose clamp.

Probe Installation

When installing the P-110-F or the P-110-R probes, follow all the instructions listed below to ensure optimum performance from the probe and to prevent possible damage to the probe or aircraft. Also you must **remove any rubber bands/o-rings used for shipping**.

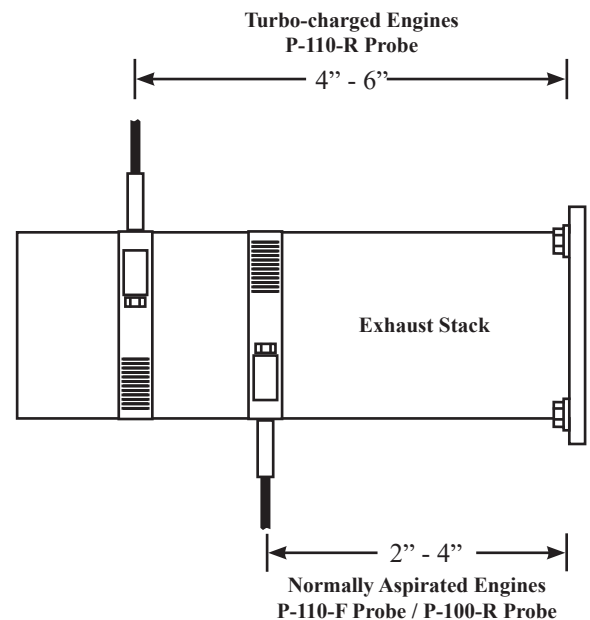
1. Identify the location. Look at each exhaust stack and determine the best location at which all of the EGT probes can be mounted at the same distance down from the exhaust ports. The ideal locations for the specific probes and engine types are shown on the right, but ease of installation should prevail.

Note: For Cessna 210s or any aircraft having a slip joint in the exhaust system, install the EGT probes above or below the slip joint. Installing an EGT probe in the slip joint can damage the probe.

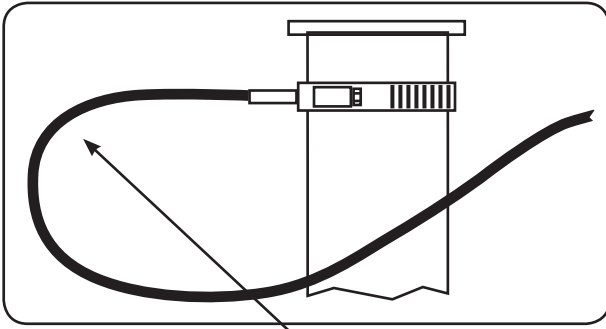
2. Drill the insertion hole. For the P-110-F fast response probe, drill a 5/32" hole. For the P-110-R robust probe, drill a 13/64" hole.

3. Insert the probe tip. For the P-110-F fast response probe, insert the tip 3/4" into the exhaust stack.

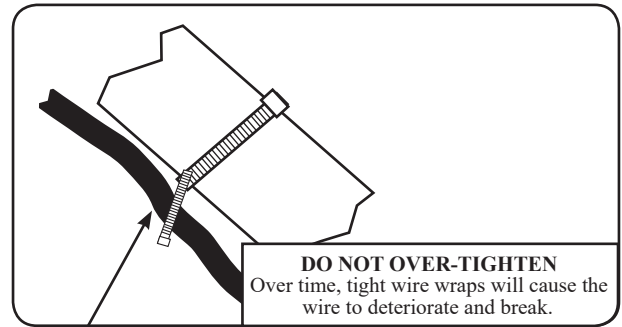
4. Tighten the hose clamp. **Note: As the hose clamps are heated and cooled, they will become loose. After the first 10 hours of operation, each hose clamp should be re-tightened.**



Probe Cable Routing

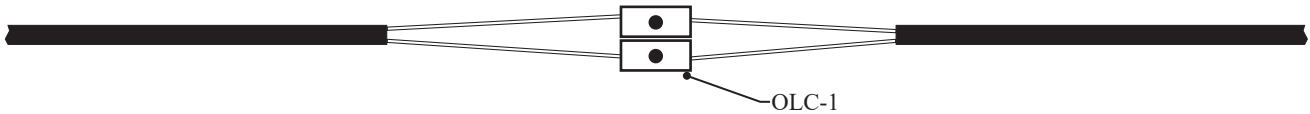


Provide a service loop for the probe cable. This will allow for engine movement and vibration.



Use two zip ties when securing the probe to the airframe, this will help prevent probe failure due to excessive vibrations. One zip tie to attach to the airframe and one to attach to the cable. The wire should not touch metal, nor should any zip tie be so tight as to cause pinch points to occur.

Termination Using the OLC-1 Connectors



The Type-K Thermocouple yellow and red wires, must be stripped 3/8" for proper overlap in the OLC-1 (Overlap Connector). On the OLC-1, back out the screw, insert wires into opposite ends (matching colors) so wire insulation is just inside the nylon housing and the ends of the wires are not exposed on the opposite side. Tighten the set screw until the set screw stops turning and the hex driver starts to flex (4-5 in-lbs). Tug on the wires (1-2lbs) to ensure proper connection.