

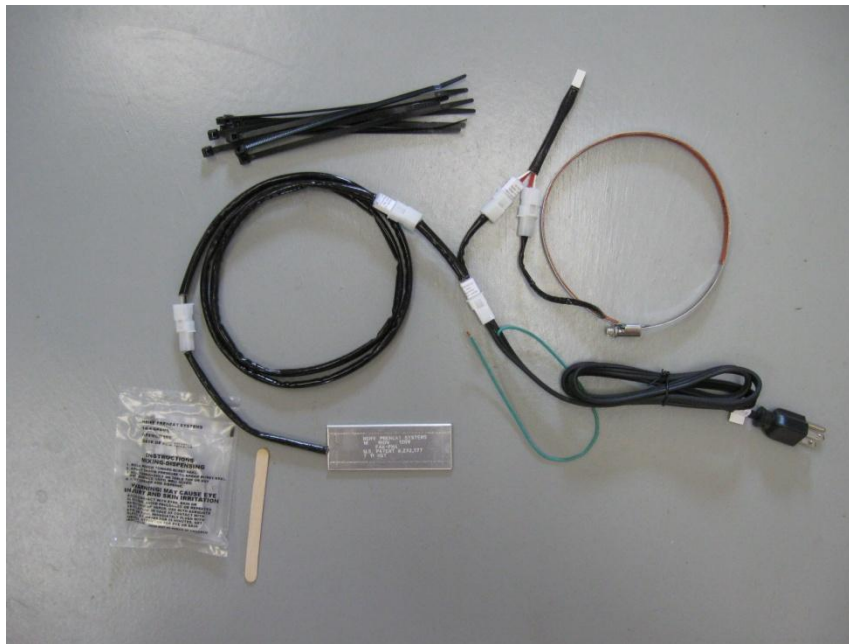


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INSTALLATION INSTRUCTIONS FOR ROTAX 912/914

Failure to follow these instructions may result in product failure.
If any of these instructions are unclear, please call for clarification before beginning.

- 1) Refer to this photo to see how all the parts plug together.



- 2) Install the HotBand heater (P/N CH38-20) around the lower end of the oil tank. Tighten it with a screwdriver so it's just snug - do not over tighten because you will crush the silicone heating element. Safety wire the clamp screw or place a dab of RTV on the screw to insure it will not vibrate loose, which will cause the heating element to overheat and burn out. See photo showing how to do this in our web page "Installation Instructions".
- 3) The HotStrip heater(s) (P/N 14) will be bonded to the bottom of the crankcase. Pick a spot that is flat and smooth. Do not install on a surface that is not flat, or over raised letters or gaps. Do not bend the heating element. The thermostat (P/N HSTS) will be bonded to the bottom of the oil tank, to limit the oil temp to approximately 190° F.
- 4) **Surface preparation is critical.** Before bonding the HotStrip heater any paint, if any, MUST be removed from the engine using paint remover. Trace the heater outline with a felt tip pen and remove the paint from the area inside the lines. Both of the surfaces (engine and heater) must then be scuffed with a Scotchbrite pad to provide a rougher surface and improve adhesion. The final step is to clean both surfaces with alcohol, lacquer thinner or acetone, and allow it to dry.

- 5) Thorough mixing is critical.** Place the Aremco epoxy bag in your pocket for a while to soften it and make it easier to mix, then follow the instructions on the package. Remove the divider clip and lay the bag on a table and roll the two parts back and forth in the bag **for several minutes** with a large socket. Simply kneading the bag a few times with your fingers is NOT sufficient. Apply a coating of epoxy onto the **unprinted side** of the HotStrip heater (the side with flaps), P/N 14. Position the heater onto the engine and apply firm pressure to squeeze out excess epoxy. Ideal epoxy thickness is 0.010" (like 3 sheets of paper). Bond the small white sensor end of the thermostat (P/N HSTS) to the bottom of the oil tank. Use duct tape to hold the heater and thermostat while the epoxy cures. Place unused epoxy in the freezer and save it for final touch up in step 5. J-B Weld epoxy #8265 (available in most hardware stores) is a suitable substitute epoxy but **do not substitute any other adhesive including other J-B WELD products.**
- 6) Proper curing is critical.** Aremco epoxy cures in 48 hrs at 75° F. Temps cooler than that will inhibit curing. For cold weather installations, it is not necessary to have the hangar at 75°. Tent the engine with a blanket and use a heat lamp or space heater to warm the bottom of the crankcase to at least 75°. After the epoxy is fully cured (when it's hard), power up the heating elements (with sump full of oil) and watch the HotStrip heater closely as it heats up. Probe the epoxy as it heats up and if it gets gooeey, unplug it and allow it to cure longer. If using JB Weld follow the curing instructions on their package, except that 75°F is required to be fully cured in the 24 hrs stated in their instructions. Curing of either epoxy is complete when the epoxy is solid. Use epoxy to form a generous bead around and over the heater edges to "lock" the heater in place, and to seal the openings in the corners and the lead wire exit hole to keep out oil and water which can short out the heater. Allow this edge bead to cure before running the engine. **IMPORTANT:** Place a gob of epoxy or RTV over the lead wires for strain relief.
- 7)** Using good aircraft practices install the wire harness components (P/N's HSPC, HSH, and Y) and plug them together as indicated in the photo. Route the power cord so that the AC plug is easily accessible with an extension cord, such as through the front air inlet, oil check door, or cooling air exit. Avoid interference with any moving parts or controls, and the exhaust pipes. Attach the green ground wire to the engine, and test the connection by checking for continuity between the engine and the ground pin on the plug.
- 8)** Test the system by plugging it in and carefully feeling by hand to ensure each heating element gets warm.
- 9)** Before recowling the engine, have someone get in the cockpit and move all controls while you watch to see if there is any interference with any part of the heater system.
- 10)** Installation of these FAA-PMA parts is a minor alteration and does not require an STC or Form 337. If installed on a type certificated aircraft an A&P is required to document the engine logbook and W&B.
- 11)** Update the aircraft's weight & balance. The weight of the system is 0.6 lb.

Operating Instructions

Place a blanket over the engine cowling and plug all cowl openings to retain heat in the engine compartment. Plug in the heater at least 3-5 hours before engine start, 10-12 hours for maximum heating. We suggest using a WI-FI or cellular remote control to make it convenient for you to turn the preheater on prior to a flight. Continuous use during long periods of aircraft inactivity is not recommended, nor do we advocate continuous preheater use as a means to prevent corrosion in inactive engines. Corrosion can occur in engines that are not flown frequently, whether they are warm or not. Always use a grounded outlet for safety. For the best protection against shock, use a ground fault type outlet or extension cord. During each annual inspection the heaters and harnesses should be checked to make sure they are secure and undamaged.

Warranty

Install it, try it, and if you are unsatisfied for any reason, send it back within 30 days of purchase.
Up to 5 years after purchase we will replace or repair any part that fails for any reason.