

SECTION 2

RING MOUNT



Rotax aircraft engines are manufactured and supported by Rotax GmbH of Austria. Read and understand the Rotax manuals completely before starting with the engine installation, as they contain important engine installation, operation and maintenance information. Follow all of the important safety information provided in the Rotax manuals regarding the installation, operation and maintenance of the Rotax engine. Read and understand the Rotax Operator's Manual before starting the engine.

Make sure that your engine is registered with Rotax or an authorized distributor so that the factory warranty is in effect. In the United States, the Rotax distributor is Kodiak Research: <http://www.kodiakbs.com> Contact a Rotax distribution or service partner if you do not understand the instructions or if you have any additional questions. Maintain copies the manuals with the aircraft in case of sale. Obtain current versions of the manuals from the official Rotax website, as well as current service and maintenance information: www.rotax-aircraft-engines.com

If a discrepancy arises between the information provided by Rotax and the following pages, the Rotax manuals and/or service information and instructions take precedence. Zenith Aircraft Company does not manufacture or directly support engines.

Alternative engines will affect performance, specifications and flight characteristics of the aircraft. Also, the weight and balance of the aircraft may be adversely affected by alternative engines, and the original fuel system may not be adequate or suitable for some engines. Most alternative engines will require a custom engine mount and engine cowl.



Engine hanging from engine hoist.



Strap across the steel bracket to the chain.



Getting engine read to install the Rotax ring mount.



Steel bracket bolted on top of engine with 2 bolts.



Locate the ignition coils on top of the engine. To install the ring mount separate the connectors.



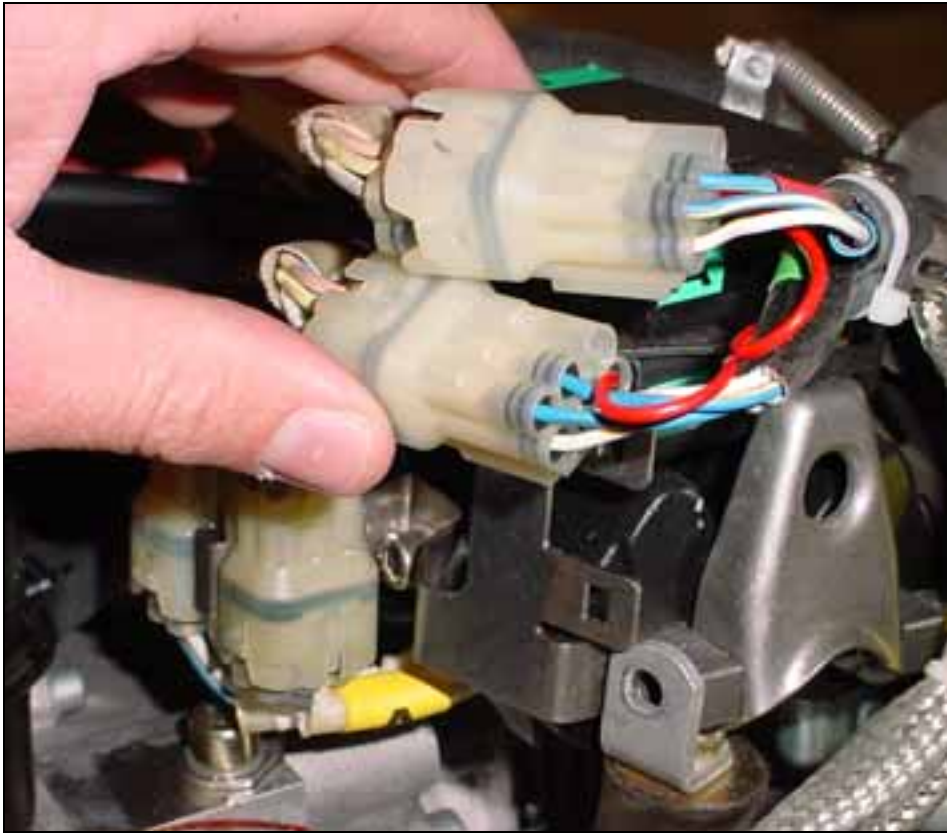
The plastic connectors are secured to a steel mounting bracket with a snap connector.



With a small screw driver (flat) push in on the plastic tab, at the same time push the plastic connect away from the coil to disengage from the bracket.

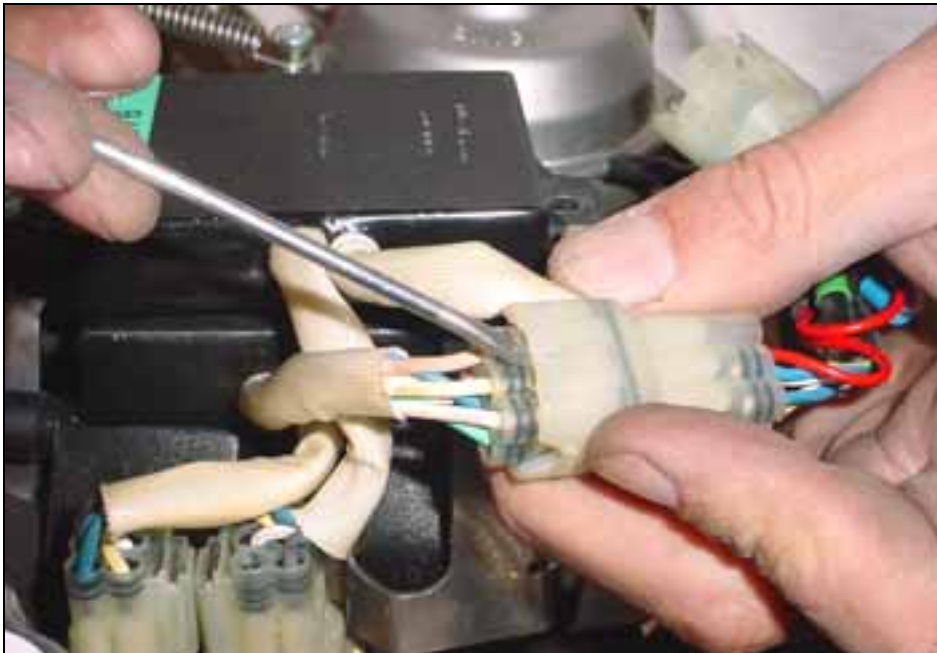


Plastic tab on back end of plastic connector.



Square hole in steel mounting bracket.

Plastic connectors released from mounting bracket.



Disconnect the two halves of the plastic connector.

Use a small screw driver (flat) to pry apart.



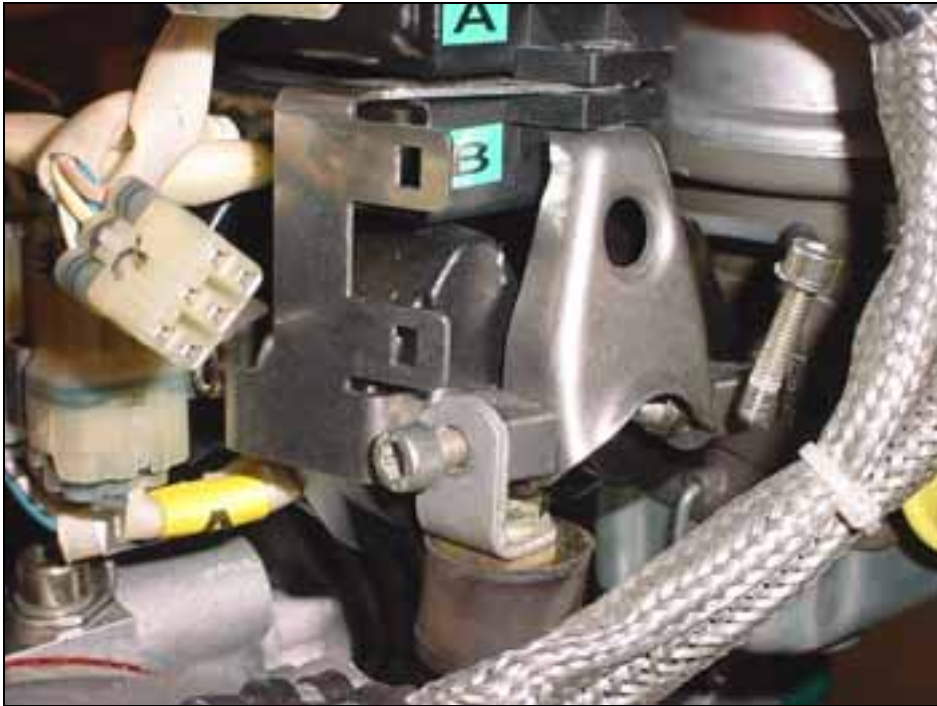
Photo of the connectors pulled part.



Remove the top Allen screw on top of the ignition coils.



Holding the screw by the ring connector.



Remove the side Allen screw on the ignition coils.



Note: There is a washer and nut on the end of the screw.



Lift the coils.



Remove the 4 hose from the water pump.



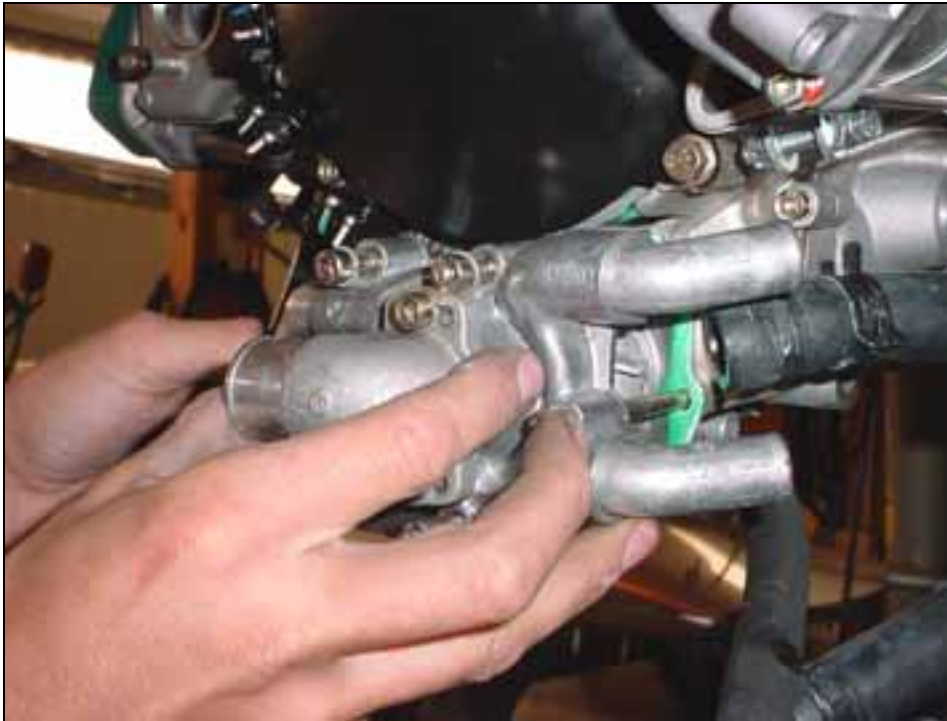
Use a pliers to compress the clamp,
Move the clamp up on the
hose and release.



Pull on the hose to disconnect.



Nipple fitting on water pump.



Remove the water pump from the engine.

Unscrew the water pump.

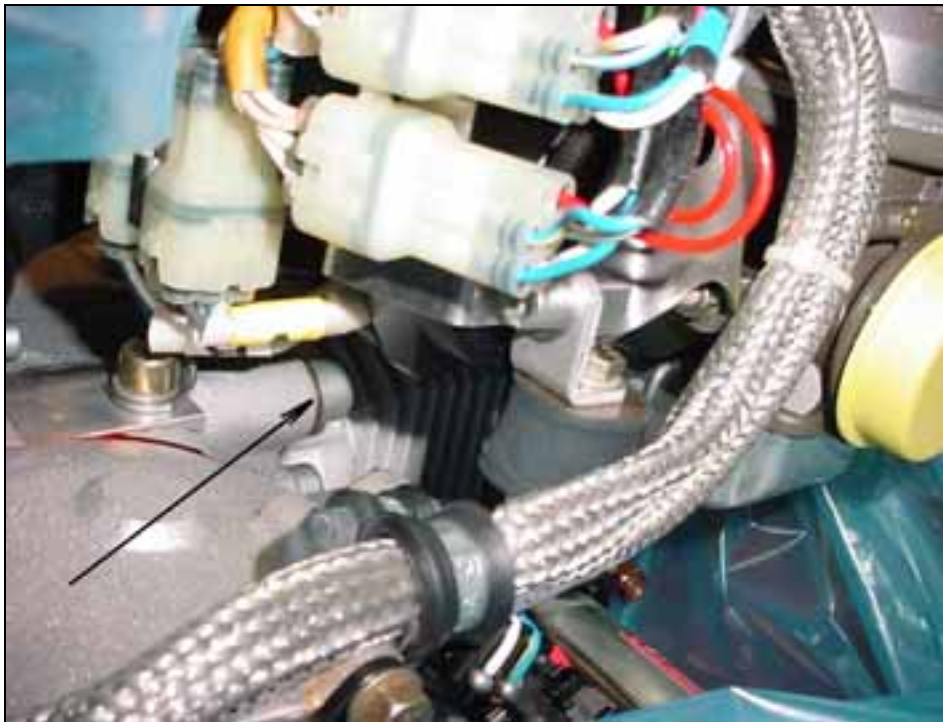


Read the Rotax Engine Manual for the installation of the ring mount.

Do not remove the water pump seal.



Remove the bolt (8mm Allen wrench) joining the engine casing together. Bolt is located above the starter, underneath the ignitions coils.



Arrow in photo is pointing to bolt to remove located underneath the ignition coils.

NOTE: The bolt will be replaced by a 110mm long bolt to go through the top right ring mount.



TOOLS: 8mm Allen socket with 6" extension on a ratchet.



ROTAX RING MOUNT
P/N 886-569.

ORIENTATION: The straight tube with the welds at each end is the bottom of the ring mount. The large bend on the right is to make room for the starter.



Feed the cables through the top right tubes.



Lift up on the coils to work the ring mount over the top of the mounting bracket.



Mounting bracket inside ring mount.



Line up the ring mount with the tapped holes on the side of the engine.



Photo of the bottom left attachment point.



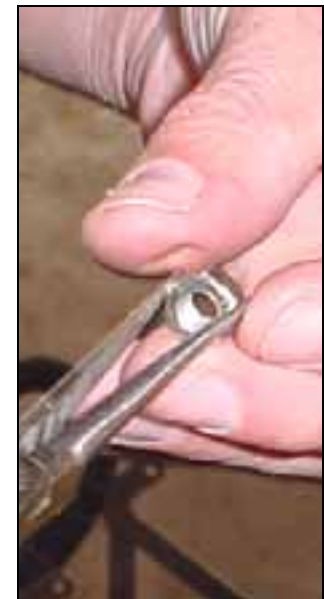
Feed the cable through the top left tubes.



Cable for the RPM hook up.



Reinstall the bottom bolt.



Pliers to hold the nut.



Reinstall the top bolt.



4mm Allen wrench
Use Locktite 242 (medium
thread lock).



Reconnect the plastic connectors, insert snap pin in square hole on side of mounting bracket. Check that all is secure and as it was before the Rotax ring mount was installed.





Fittings on the left side of the water pump housing point at the supports for the Ring Mount.

The left fittings on the water pump housing must be rotated for the water lines to clear the Ring Mount.

Use a heat gun to heat the fittings to release the sealant (use a cloth to keep from burning your hand!)



Allow the water pump housing to cool. Then test fit the water pump housing to check the clearance between the fittings and the Ring Mount.

Once the fittings are warm, use pliers to rotate the fittings to clear the Ring Mount.

NOTE: Duct tape works well to keep the harder steel of the pliers from gouging the softer aluminum fittings.