



OIL COOLING SYSTEMS FOR V-TWINS
Model: Aero ST

Installation Guide



Patent #6955150

Hardware Check List

- ☐ Main oil cooler with cover attached
- ☐ Oil Adapter
- ☐ Top Bracket
- ☐ Hardware parts bag that includes:

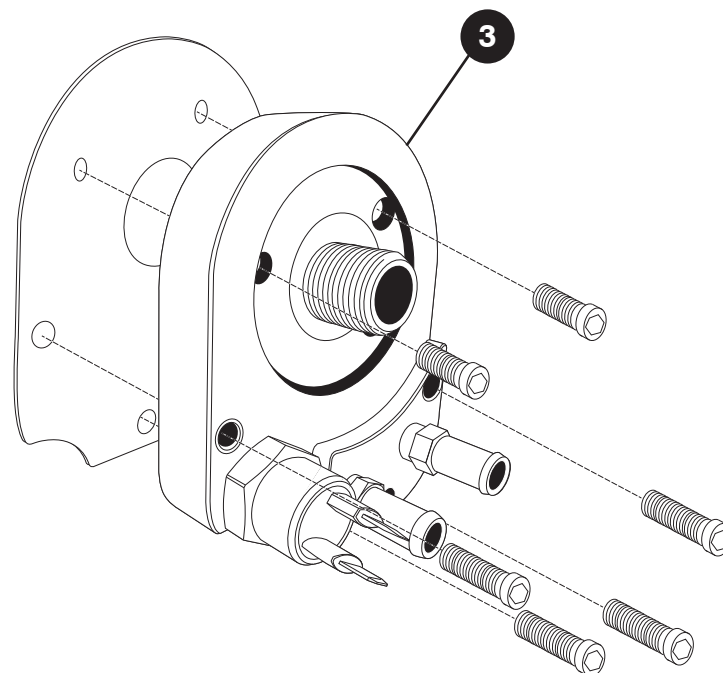
Qty	Item
(2)	3/4" hex Head Bolts
(4)	Hose clamps
(1)	LED light
(1)	Rubber thermal switch cap
(1)	Fork connector
(1)	6 ft PVC tubing
(1)	Access a fuse
(1)	1 ft ground wire
(4)	6" tie straps
(2)	Straight Connectors

Tools Required

- » Bike lift (optional)
- » 3/16" Allen wrench
- » 5/32" Allen wrench
- » 1" Deep socket
- » Torque wrench
- » 8" Long extension
- » Slot screwdriver
- » Needle nose pliers
- » Power drill
- » 5/16" Drill Bit
- » Thread locker-medium
- » Diagonal cutters
- » Flashlight
- » Oil filter wrench

Step 4: Oil Adapter Installatiion - Part 2

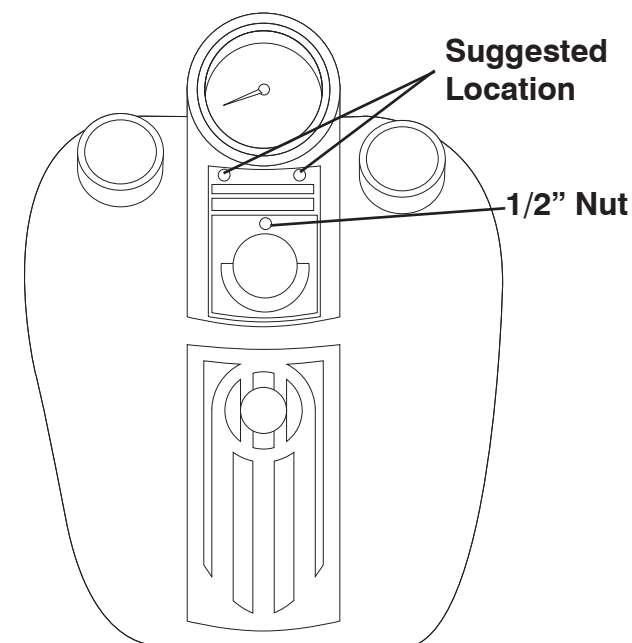
Take the other half of the adapter (3) and assemble it With the gasket and the top 2 3/4" hex bolts. This will hold the gasket in place. Hand start the 3/4" bolts to the adapter (2) on the bike just hand tight. Start the four 1" hex bolts along the bottom. Make sure you tighten all the bolts in a even pattern. This will prevent oil leaks. *Tighten 4 bottom bolts after warm up.



Step 1: L.E.D. Light Installation

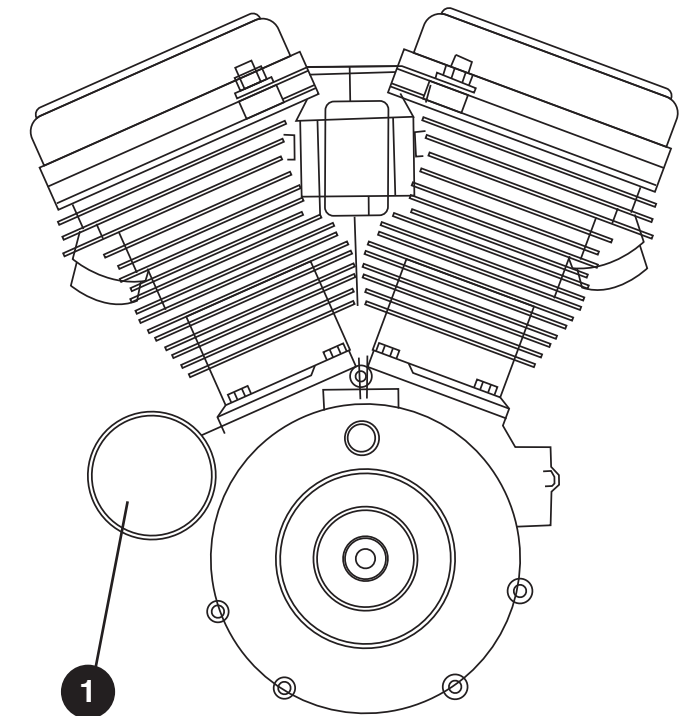
Remove the 1/2" nut from center dash. Turn the dash on its side and measure a location for the L.E.D. light. Drill a 5/16" hole and feed the wires from the top through the hole and secure L.E.D. with nut from the back.

Cut a 16" piece of black PVC tubing and run the red and black wires through it. Lay the PVC towards the front of the bike under the dash. Put the dash back and secure it with the original 1/2" nut.



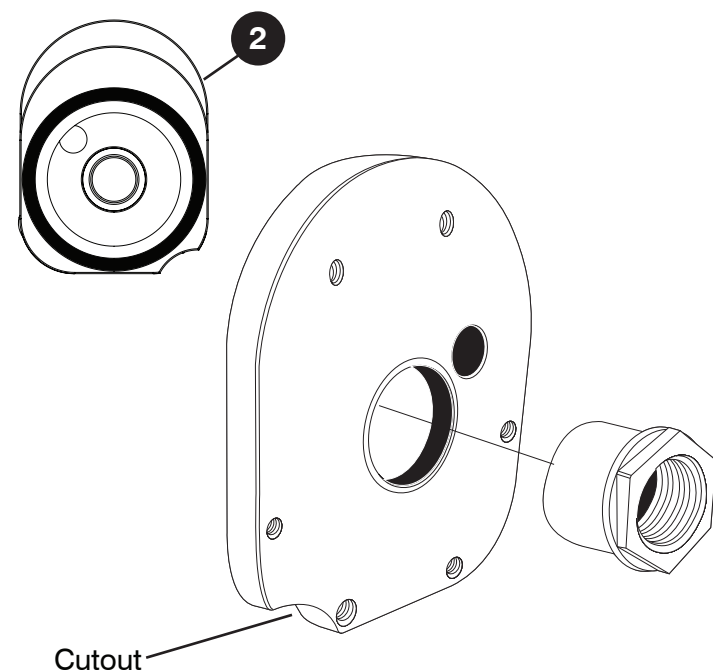
Step 2: Oil Filter

Remove the oil filter (1) Manifold of oil filter mount Must be very clean and dry.



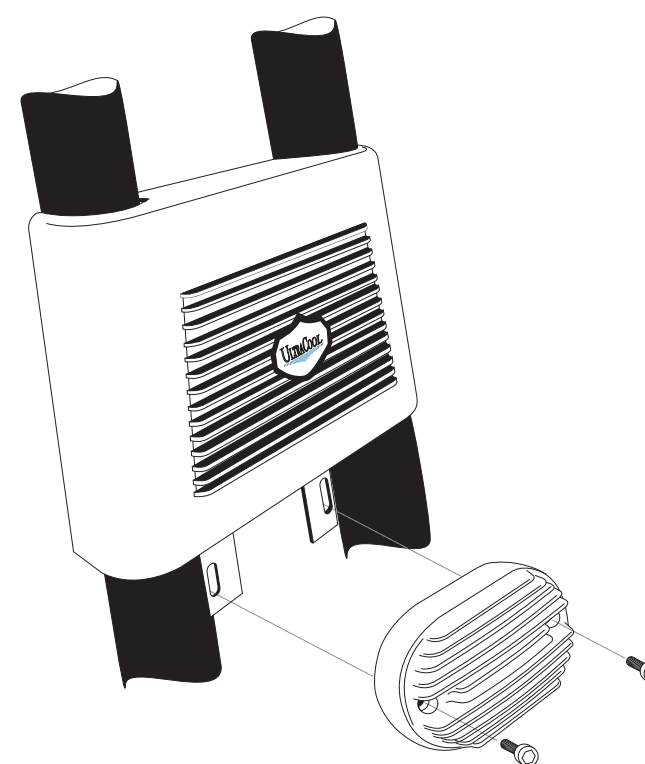
Step 3: Install Oil Adapter

Take oil adapter to a flat surface and remove the 6 hex head bolts. Notice 2 are 3/4" and 4 are 1". Take the half with the rubber gasket (2) facing towards the oil filter mount and secure it with the 1" nut hand tight. Now torque nut to 10 lbs.



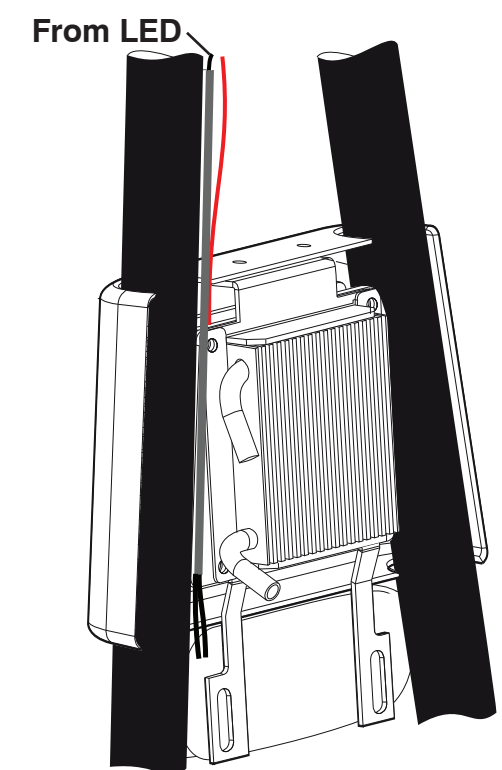
Step 5: Mounting Oil Cooler

Move the clutch cable to the side and remove the two 3/16" allen bolts that hold on the voltage regulator Slide the cooler unit between the down tubes. Now replace voltage regulator with original bolts.



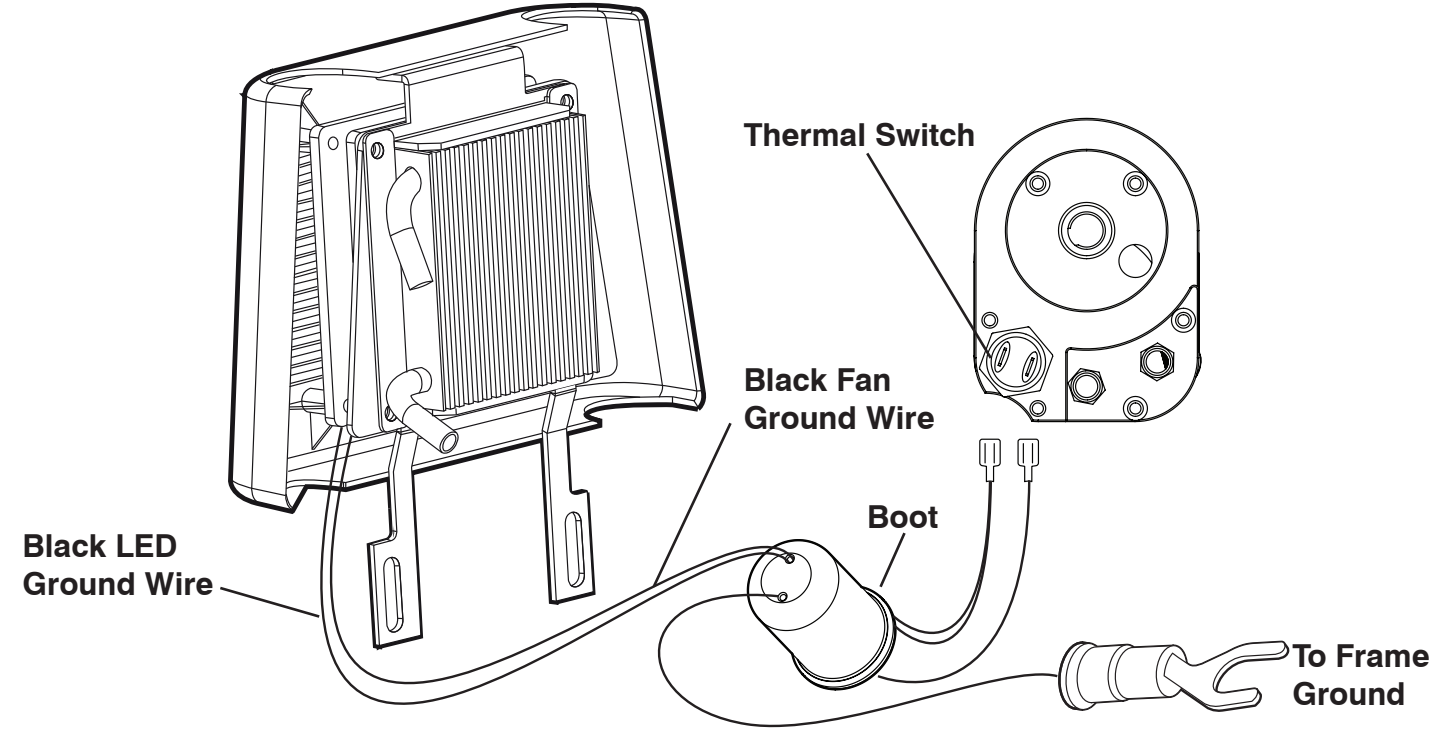
Step 6: Wiring

Cut a 12" piece of PVC tubing and feed the Black L.E.D wire down it. Now run the Red fan wire up the PVC tubing. Push the PVC along left side of the fan and tuck it out of the way. The top of the tubing should be just under the gas tank.



Step 7: Thermal Switch Connection

Take the black wire from the l.e.d. light and the black ground wire from the fan and feed them thru one side of the black cap. Measure black wires to one side of the thermal switch, strip ends splice black wires together and put on 1 straight connector. Now attach that to one side of the thermal switch (any side).

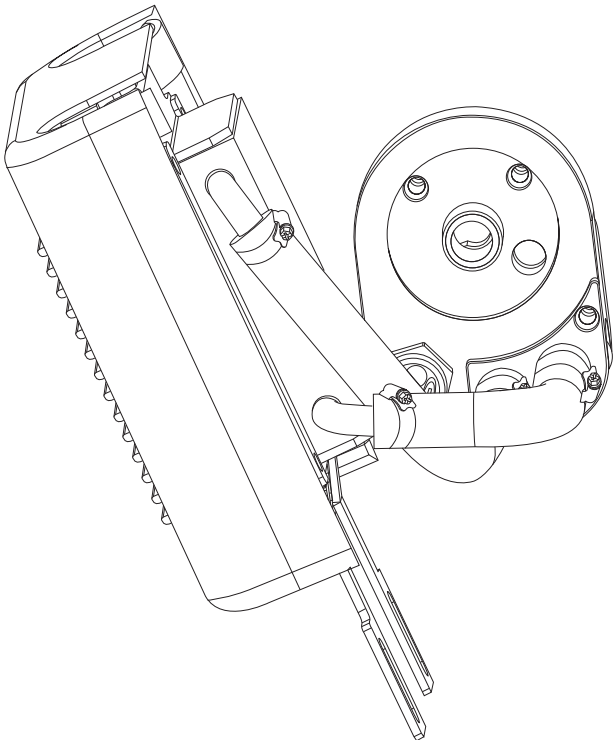


Step 8: Making the Ground Wire

You will find a 12” pc of black wire. Run the end thru the Other side of the black cap.strip the end and put on 1 Straight connector and attach it to the other side of the Thermal switch. Measure to a frame ground location and attach the fork connector.

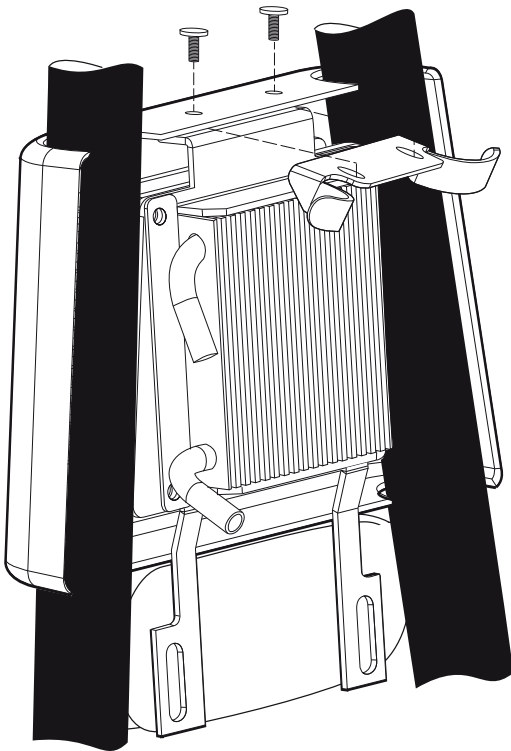
Step 9: Install Oil Lines

Install hoses as seen in photo. The left side on the adapter is the Inlet and the right side is the outlet. Install clamps so the adjustment is on the side of the hose or you won’t get the oil filter on. Replace oil filter just hand tight and a ¼” turn!



Step 10: Install Top Bracket

Attach top bracket by sliding it between the cover and the fan plate and secure it with two - ¾” hex head bolts. Make sure the cover fits tight around the down tubes.



Step 11: Power to the Fan and L.E.D. Light

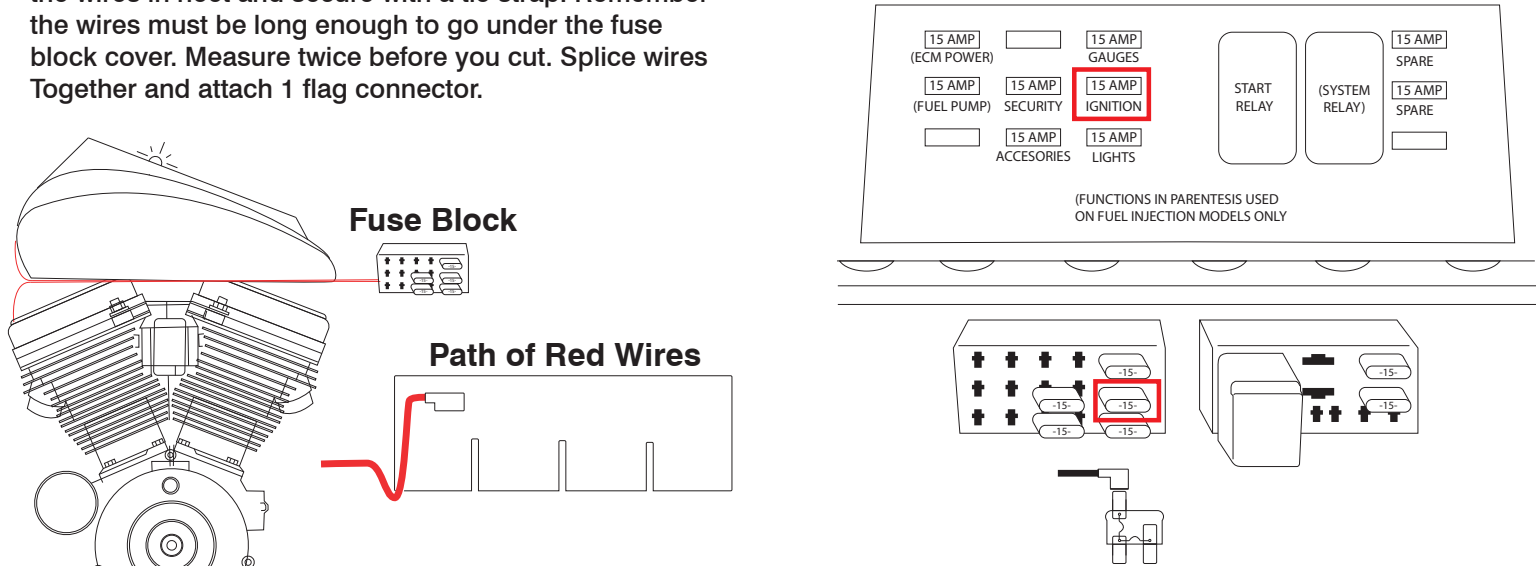
Take off your seat by removing 1 bolt from each side of the seat and 1 bolt on the back fender.

Cut a 30” pc of pvc tubing and feed it from the rear of the gas tank towards the front of the bike (Keep it away from the heads).

Run the RED L.E.D wire and the RED fan wire thru the pvc towards the rear of the bike to the fuse block. Tuck the wires in neet and secure with a tie strap. Remember the wires must be long enough to go under the fuse block cover. Measure twice before you cut. Splice wires Together and attach 1 flag connector.

Step 11: Power to the System

Remove fuse block cover and look for you ignition fuse and remove it. Install (access a fuse) with the pin on top on the right side (as you’re sitting on the bike). You can also check for your hot side with a meter. Now attach flag connector to top pin. Replace fuse cover and seat.



Congratulations!

You are finished with the installation. Now double check all of your work. Start up the bike and take it for a short spin around the block. On the bottom of the oil adapter, there are (4) 1” bolts, check those again.

Ride Cool!

Thank you for supporting UltraCool!

Notes:



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