

Aqua-Hot Off-Road Heater UTV installation Kit Instructions

Models: Aqua-Hot 100 and Aqua-Hot 200

Thank you for purchasing Aqua-Hot Off-Road Products. The following instructions are typical for the installation of the Aqua-Hot 100 and Aqua-Hot 200 in a UTV using the Aqua-Hot UTV installation kit. Since each UTV model is different, the actual installation location of the Heater and Diverter Manifold may change with each model. For more information, including pictures of suggested heater and Diverter Manifold locations by model, please visit our website at www.aquahot.com.

Find the desired location for the heater. (Figure 1)

1. Make sure there is clearance on both sides of the mounting surface for the mounting bracket and backing plate.
2. Make sure there is clearance for the two, $\frac{3}{4}$ " hoses to connect to the barbs on the back of the heater. If the hoses are being run through the floor, firewall, or any other surface that requires drilling, make sure clearance is available on both sides of the surface before drilling.



Find a plumbing location for the diverter manifold.

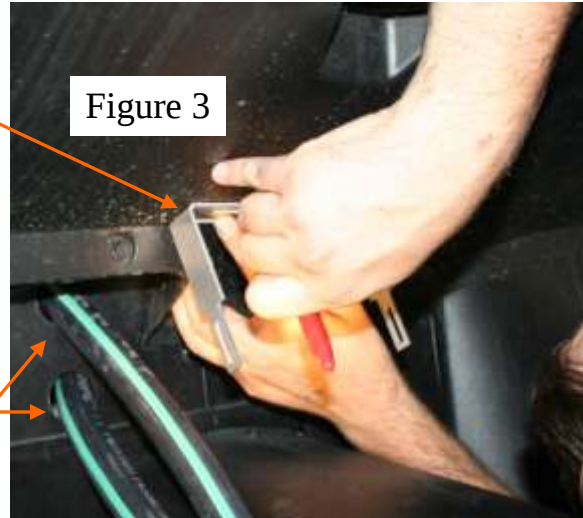
1. The suggested location is in the radiator hose running from the engine to the radiator. (Figure 2)
2. Make sure the diverter manifold won't interfere with any other components.
3. Radiator hoses are routed differently on every model, so the plumbing location of the diverter manifold varies with each model. Examples can be seen on Aqua-Hot's website at www.aquahot.com.



Make sure there is room for two, $\frac{3}{4}$ " heater hoses to run from the Heater location to the Diverter Manifold.

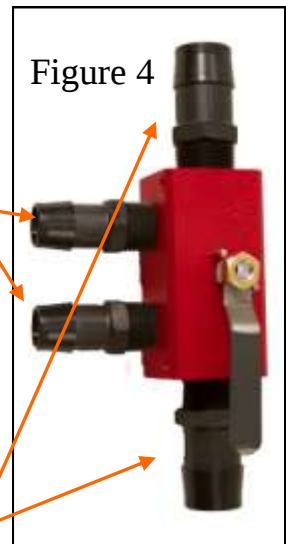
Drill mounting-bracket mounting holes and two heater hose holes (if necessary).

1. Hold the heater in position and mark the location of the mounting bracket holes. Drill the mounting bracket holes using the #9 drill bit supplied with the installation kit. (Figure 3)
2. If routing the electrical wires through the mounting surface, drill one additional hole near the mounting bracket.
3. If the two hoses connecting to the barbs on the back of the heater must be run through the firewall, floor, or other surface, tape the hole template to the mounting surface. Drill each hole with the 1.5" hole-saw supplied with the installation kit.
4. Insert the rubber grommets into the 1.5" holes.



Assemble the Diverter Manifold with the appropriate hose barbs. (Figure 4)

1. The Diverter Manifold has two threaded ports located on the side for connecting to the heater, and one threaded port located on each end for connecting to the radiator hose.
2. Select the two $\frac{3}{4}$ " NPT x $\frac{3}{4}$ " barb fittings and wrap the threads with two wraps of Teflon tape.
3. Insert these fittings into the two threaded ports on the side of the Diverter Manifold.
4. Select the proper size barb fittings to fit the radiator hose on the UTV. $\frac{3}{4}$ "NPT x $\frac{3}{4}$ " barb, $\frac{3}{4}$ "NPT x 1" barb, or $\frac{3}{4}$ "x 22mm barb are included in the installation kit.
5. Select the appropriate barbs and wrap the threads with two wraps of Teflon tape.
6. Insert these fittings into the threaded ports on each end of the Diverter Manifold.



The Diverter Manifold is now ready to install in the radiator hose.

Install the Diverter Manifold in the radiator hose that flows from the engine to the radiator. (Figure 1)

1. Use two pinch off pliers to clamp off coolant flow in the radiator hose that is going to be cut, to prevent coolant loss. Allow enough room between the pliers so that the manifold assembly can be installed without removing the pliers.
2. Holding the diverter manifold against the radiator hose, measure and mark a section of heater hose to be removed. (Figure 5)
3. Remember to leave enough hose to fit over the barbs on the end of the diverter manifold without having to remove the hose pliers.
4. Cut and remove the marked length of radiator hose from between the pliers. (Figure 6)
5. With the section of hose removed, and before installing the diverter manifold, place one worm drive clamp on each radiator hose end and slide next to the pinch off pliers. (Figure 6)
6. Insert the barbs on the end of the diverter manifold into the two radiator hose openings.
7. Make sure the diverter manifold is oriented in the desired direction for connection to the heater. (Figure 7)
8. Slide the clamps on the radiator hose over the barbed fittings on each end of the diverter manifold and tighten. (Figure 7)



Cut Hose
Approximately
Here

Apply Pinch
Pliers Here



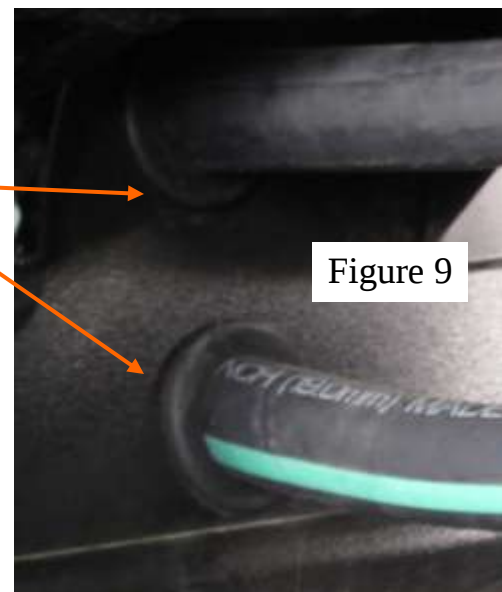
Caution: Make sure there is clearance for turning the lever on the Diverter Manifold

Using the #29 constant tension hose clamps included, install a length of hose on each heater port on the side of the manifold. (Figure 8)

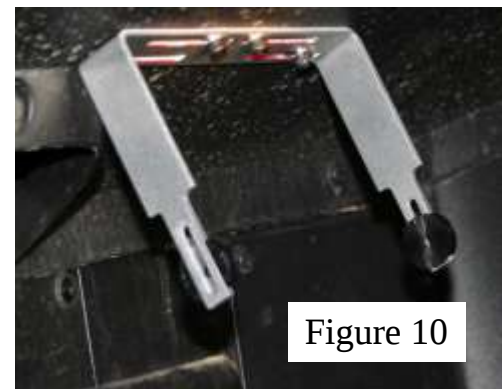


Caution: When engine is running, the Aqua-Hot Diverter Manifold may be hot.

If grommets were used: run the hose through the grommets in the 1.5" holes. Use soapy water as needed to get the hose through the grommets. (Figure 9)



Remove the bracket from the heater and install to the mounting wall with the backing plate and hardware in this order: Socket Head, Star Washer, Small Washer, Mounting Bracket, Wall, Backing Plate, Fender Washer, Nylock Nut. (Figure 10)



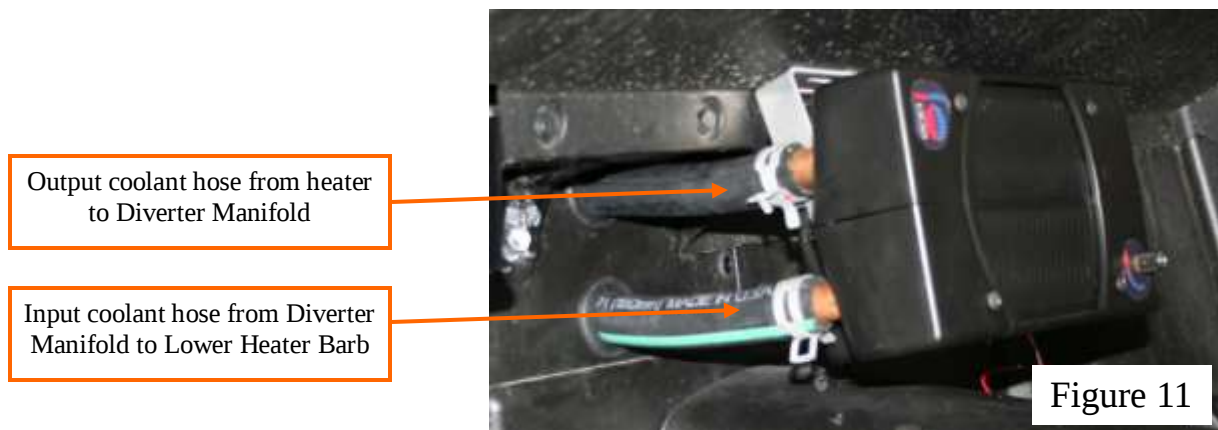
Loosely place the heater into the bracket and install the heater hose on to the heater using the #29 constant tension hose clamps included in the kit. (See Figure 11)

The hose feeding the hot water into the heater must be connected to the bottom barb on the back of the heater. (Figure 11)

The hose returning water to the diverter manifold should be attached to the top barb on the back of the heater. (Figure 11)

Reinstall the heater onto the mounting bracket and adjust to desired angle and tighten the bolts.

Remove the hose pliers from the radiator hose.



Find a location to tap into a powered wire. Power that is controlled by the ignition switch is recommended.

Use the tap splices* to connect the fuse holder* wire to the power source and the black wire to a ground location (or chassis ground will work)

Use a butt splice* to attach the red wire to the fuse holder* wire.

Run the length of wire in a secured location to the back of the Heater and trim the excess wire.

Use the butt splices* to connect the red wire to the heater red wire and the black wire to the heaters black wire.

Install the 5A fuse* in the holder and cap.

Turn the vehicle on and test power to the heater. Run the vehicle for a while with the valve in the open position, and the closed position, to make sure fluid enters the heater.

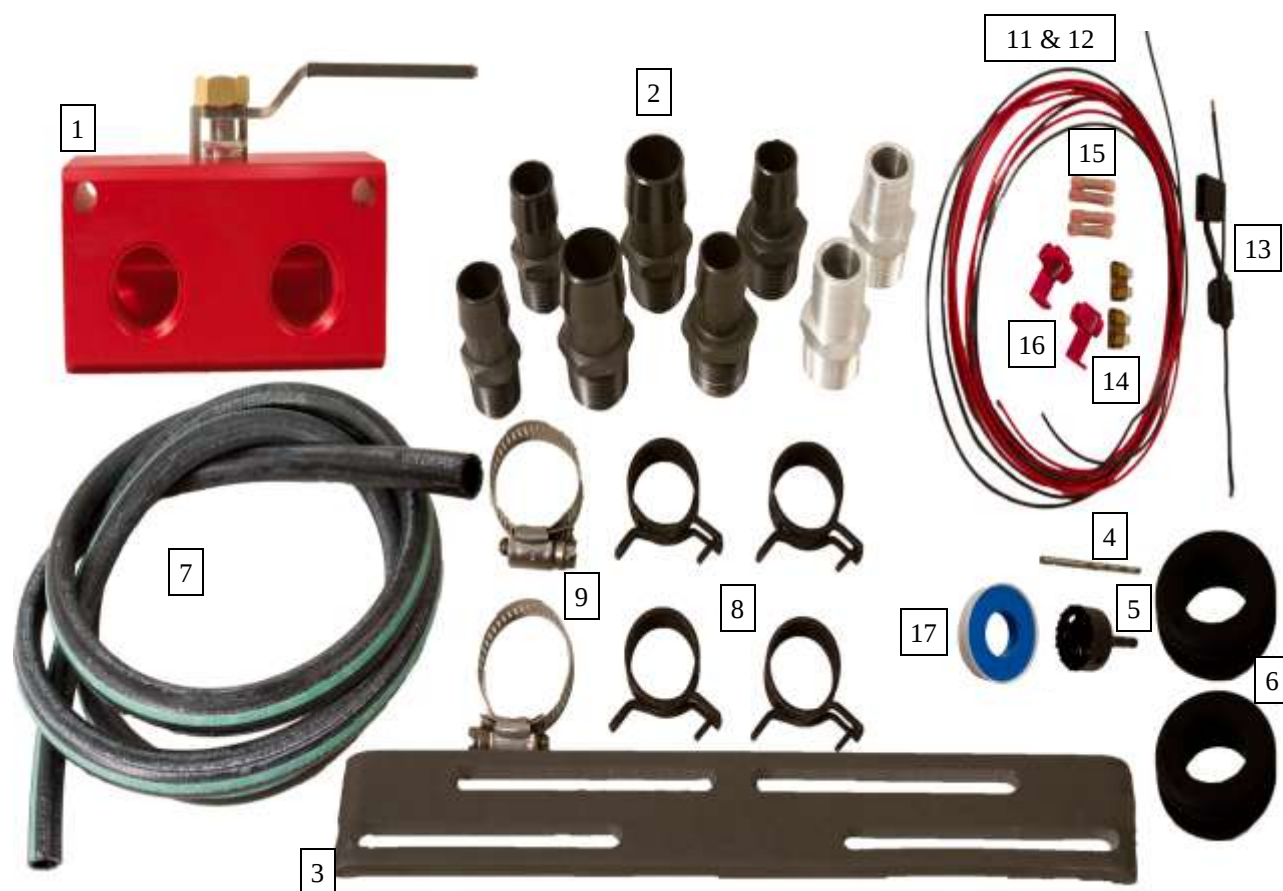
Top the overflow bottle off as necessary.

Check all connections to make sure there are no leaks.

Your Aqua-Hot Off-Road Heater is ready to use.

*Included in the installation kit.

Aqua-Hot Off Road Heater Kit Components



Item	Qty	Description	Item	Qty	Description
1	1	Diverter Valve	9	2	Clamp, Worm Drive
3	1	Barbed Fitting Assortment (8 Pieces)	11	10'	Red wire, 20 ga
3	1	Backing Plate	12	10'	Black wire, 20 ga
4	1	Drill Bit, #9	13	1	Fuse, inline holder, blade type
5	1	Bit, hole Saw, 1.5"	14	2	5 amp fuse, spade type
6	2	Grommet, 1" bore x 1/4" groove	15	4	connectors, butt end 18-22 ga
7	12'	3/4" heater hose	16	2	connectors, tap splice, 18-22 ga
8	4	Clamp, Constant tension, #290	17	1	Roll, Teflon Tape



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