

## AEROMOTIVE Part # 24302 / 24303 Universal Water Pump INSTALLATION INSTRUCTIONS

This product is not legal for sale or use on emission-controlled vehicles except when used as a direct replacement part matching OEM specification.

#### WARNING!



Always be aware of flammable situations. Drilling and grinding can be potential ignition sources. Extinguish all open flames, prohibit smoking and eliminate all sources of ignition in the area of the vehicle and workspace before proceeding with the installation. Ensure you are working in a well-ventilated area with an approved fire extinguisher nearby.

### WARNING!



Mechanical and hydraulic lifting devices can tip over or lower accidentally due to incorrect maneuvering or technical errors. A falling object can cause injury and/or loss of life to yourself and/or others. When working under the vehicle, always use stands, and ensure that the ground or floor is stable and level. Never crawl under a vehicle which is only supported by a jack.

#### WARNING!



CAUTION

wear safety glasses

The coolant system is under pressure. Do not open the coolant system until the pressure has been relieved. Refer to the appropriate vehicle service manual for the procedure and precautions for relieving the coolant system pressure.

#### **CAUTION!**

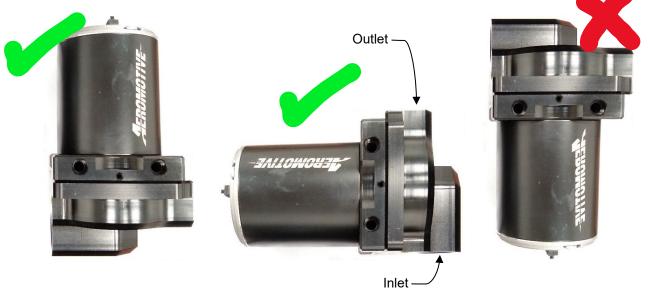
When installing this product always wear safety glasses and other appropriate safety apparel. A drilling operation will cause flying metal chips. Flying metal chips can cause eye injury.

The following steps are typical of most installations:

- 1. Once the engine has been allowed to cool, relieve the coolant system pressure and disconnect the negative battery cable.
- 2. Raise the vehicle and support it with jack stands (if needed).
- 3. Find a suitable place on the vehicle chassis to mount the pump. Make sure the location will accommodate the pump mounting bolts and keep the pump clear of road obstructions or debris. Make sure to mount the water pump below the water level in the radiator.

# Note: Failure to mount the pump lower than the water level in the radiator will cause the pump to run dry, resulting in extreme pump wear! Make sure the pump is located lower than the top of radiator and as close as possible to the radiator, so that the pump is always supplied with coolant!

4. The pump can be mounted in most orientations but **SHOULD NOT** be mounted with the motor angled downward. Mounting with the motor downward may result in premature bearing failure.



- 5. Two mounting options are available: the pump has two holes threaded 5/16-18 x 7/8 deep in the motor mount section as well as clearance through holes for using 1/4 inch screws.
- 6. Connect the pump using rubber hoses for barbed connection or braided hoses with AN fittings. Note which port is the inlet and outlet, as is shown in the previous images. Some available adapter fitting part numbers to connect the pump are listed following:

NPT Style Pump Version (24302)
15761 AN-12 ORB to <sup>3</sup> ⁄ <sub>4</sub> Slip Hose
15762 AN-12 ORB to 1in Slip Hose
15763 AN-12 ORB to 1 1/4 in Slip Hose
15764 AN-12 ORB to 1 1/2 in Slip Hose
15765 AN-12 ORB to 1 ¾ in Slip Hose

#### ORB Style Pump Version (24303)

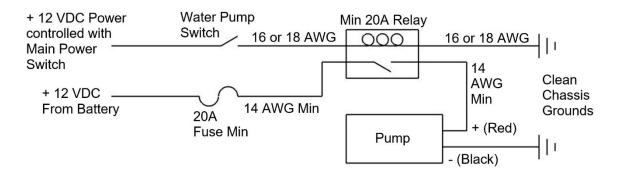
15612 AN-12 ORB to AN-12 Flare 15751 AN-12 ORB to <sup>3</sup>/<sub>4</sub> Slip Hose 15752 AN-12 ORB to <sup>1</sup>/<sub>4</sub> Slip Hose 15753 AN-12 ORB to 1 <sup>1</sup>/<sub>4</sub> in Slip Hose 15754 AN-12 ORB to 1 <sup>1</sup>/<sub>2</sub> in Slip Hose 15755 AN-12 ORB to 1 <sup>3</sup>/<sub>4</sub> in Slip Hose

#### Note: The NPT pump version (24302) requires the use of sealant on the fitting threads.

Note: The ORB pump version (24303) cannot accept a flared AN fitting. Use only ORB-style fittings! These will seal on the o-ring and the threads will require no sealant.

## Note: Be sure to route all electrical wires clear of any moving suspension or drivetrain components and any exhaust components! Protect wires from abrasion and road obstructions or debris.

9. Make sure you use stranded, insulated copper wire, in the sizes shown, with matching crimp-type connectors for all connections. Attach wires as shown in the following diagram.



10. Turn the ignition (and water pump switch as applicable) to ON without starting the engine to ensure the pump has been wired correctly and is running. Note: the pump has been checked at the factory before shipping to ensure it runs the correct direction (CCW looking "down" at top of the motor). However, the pump will function with the wires reversed, though less efficiently. If incorrect rotation is suspected, this can be confirmed by looking (CAREFULLY!) through the outlet at the impeller as it is allowed to come to a stop.

#### Note: DO NOT run the pump dry for more than a few of seconds to avoid damage to the seal.

- 11. If the pump will not flow, it may not be primed. You can remove the 1/16 NPT fitting near the inlet of the pump to ensure that water has made it into the pump volute. If not, lower the pump's location.
- 12. Carefully lower the vehicle to the ground (if needed).

## **Contact Us**

#### RGA NUMBER REQUIRED FOR ALL RETURNS TO AEROMOTIVE.

To obtain an RGA number, please call (913) 647–7300 and ask for the Returns and Repairs department or complete the online form under the "Rebuilds" section at <u>www.aeromotiveinc.com</u>.

Shipping & Returns
Aeromotive Inc.
10955 Mill Creek Road
Lenexa, KS 66219

General Inquiries and Tech Line: (913) 647-7300

General Email: <u>info@aeromotiveinc.com</u> Tech Email: <u>tech@aeromotiveinc.com</u>

The Aeromotive Tech Lines are open Monday through Friday from 9:30AM to 5:00PM Central Standard Time.



**WARNING**: This product can expose you to chemicals, including chromium, which is known to the State of California to cause cancer or birth defects or other reproductive harm. For more information, visit: <u>www.p65Warnings.ca.gov</u>

#### AEROMOTIVE, INC. LIMITED WARRANTY

This Aeromotive Product, with proof of purchase dated on or after January 1, 2003, is warranted to be free from defects in materials and workmanship for a period of one year from the original date of purchase. No warranty claim will be valid without authentic, dated proof of purchase.

This warranty is to the original retail purchaser and none other and is available directly from Aeromotive and not through any point of distribution or purchase.

If a defect is suspected, the retail purchaser must contact Aeromotive directly to discuss the problem, possible solutions and obtain a Return Goods Authorization (RGA), if deemed necessary by the company. Please call 913-647-7300 and dial option 3 for the technical service dept. All returns must be shipped freight pre-paid to the company and with valid RGA before they will be processed.

Aeromotive will examine any product returned with the proper authorization to determine if the failure resulted from a defect or from abuse, improper installation, misapplication or alteration. Aeromotive will then, at it's sole discretion, return, repair or replace the product.

If any Aeromotive product is determined defective, buyer's exclusive remedy is limited in value to the sale price of the good. In no event shall Aeromotive be liable for incidental or consequential damages.

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This warranty is limited and expressly limits any implied warranty to one year from the date of the original retail purchase on all Aeromotive products.

No person, party or corporate entity other than Aeromotive shall have the right to: determine whether or not this Limited Warranty is applicable to any Aeromotive product, authorize any action whatsoever under the terms and conditions of this Limited Warranty, assume any obligation or liability of any nature whatsoever on behalf of Aeromotive under the terms and conditions of this Limited Warranty.

This Limited Warranty covers only the product itself and not the cost of installation or removal.

This Limited Warranty is in lieu of and expressly excludes any and all other warranties, expressed or implied. This Limited Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.