

## INSTALLATION INSTRUCTIONS



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## Water Headers Models WH-1 & WH-2

The Dedenbear Water Headers are designed to fit flush to the front of the engine or motor plate and clear exposed timing belt drive systems or cam driven fuel pumps. The shape and size of the passageways inside the header creates equal water flow into both cylinder banks so that the cooling rate will be the same for both sides of the engine.

**FLOW DIRECTION** The Water Header is designed to produce even flow into both sides of the engine, no matter which end you feed the coolant into. It is suggested to use the Water Header to feed water into the engine. Some racers have experimented using "reverse flow" systems and feed cool water into the intake and remove the hot water from the front of the motor. Unfortunately, the air trapped in the coolant can not be forced down through the motor and creates hot spots at the rear 4 cylinders. This can lead to cracked cylinder heads or extremely hot rear cylinders. Also, most racers install temperature senders in the intake and in this situation it would measure the cold water entering the motor, and not true engine temperature. What may seem like 180-190 degrees could be well over 220-230 degrees. Always measure the coolant where it leaves the motor.

**HOSE SIZE** By using the largest possible size hoses or braided lines, you will achieve the highest coolant flow rate. In our testing, we have found that -8 AN braided lines and fittings will only allow 8 gpm even when using high flow electric pumps such as the Dedenbear WP-3. We recommend at least -10 or -12 lines, using 3/4" NPT to AN adapters available from most braided line manufacturers.

### INSTALLATION

- 1) The water inlet can be plumbed into any of the three inlets on the header. Usually, the hose is plumbed into the 3/4 NPT thread on the passenger side of the engine.
- 2) Select which inlet you are going to use. Seal off the other two inlets with the supplied pipe plugs. Make sure you use a thread sealer on the plugs.
- 3) Using new gaskets (supplied), install the header onto the engine.
- 4) Plumb the water hose to the selected inlet. Good cooling system design practice is to mount the water pump at the lowest point of the system. Also, it should be mounted so that the water runs into the pump inlet during acceleration instead of away from the inlet. The Dedenbear Model WP-3 Water Pump is a good choice for use with the Water Header since the pump can be mounted in any position. Proper pump mounting and use of the Dedenbear ET-1K expansion tank will greatly increase the performance of the cooling system by removing air from the coolant. Proper direction of coolant flow is also very critical. It is important to move the water up through the engine as opposed to down. If you are using a reverse flow cooling system (water enters the intake manifold first), please call Dedenbear technical reps for information.
- 5) The 1/2 NPT inlet at the top of the Water Header can also be used for a temperature sender, temperature switch or as an air bleed location.

### LIMITED 1 YEAR WARRANTY

Dedenbear Products components are warranted directly by Dedenbear Products against defective materials or workmanship under normal use and service for a period of one (1) year after purchase. Dedenbear Products will repair or replace the defective unit, at Dedenbear Products option, free of charge. This warranty does not cover any damage to the component caused by abuse, mishandling, alteration, accident, electrical current fluctuations, failure to follow installation/operating instructions, maintenance, storage and environmental conditions, acts of God, or repair attempts made by anyone other than Dedenbear Products Authorized Service facility.

DEDENBEAR PRODUCTS SHALL NOT BE LIABLE FOR INJURY, CONSEQUENTIAL, OR OTHER TYPE DAMAGES RESULTING FROM THE USE OF ITS PRODUCTS, OTHER THAN THE LIABILITY STATED ABOVE. This warranty is in lieu of all other warranties of merchantability or fitness of use. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**FOR SERVICE** on all Dedenbear Products, return directly to: DEDENBEAR PRODUCTS, INC. • ATTN: REPAIRS • 1917 OAK PARK BLVD. • PLEASANT HILL, CA 94523. **For Faster Service**, please include a note describing the nature of the problem, a copy of your original invoice, your name, return shipping address, and daytime & evening phone numbers where you can be reached. Or call us and we'll take down the information. Normal turn-around time on service is typically 24-48 hours.

**CUSTOMER SERVICE & TECH. SUPPORT : (925)935-3027 Mon-Fri 8am-5pm PST**