# COOL-PACK

## *Radiator Cooling System*

### 1997-2006 Jeep Wrangler TJ 4.0L

## Installation Instructions: Part No. 19503

**PLEASE READ ALL OF THE INSTRUCTIONS BEFORE BEGINNING INSTALLATION OF THIS SYSTEM**


**Tools recommended:**
Ratchet / socket set; 3/8 inch drive
Sockets, 6-point 9MM and 3/8 inch
Box wrench, 1/2 inch and Large adjustable wrench
Mini-screwdriver, flat blade (supplied)

**Notes:**

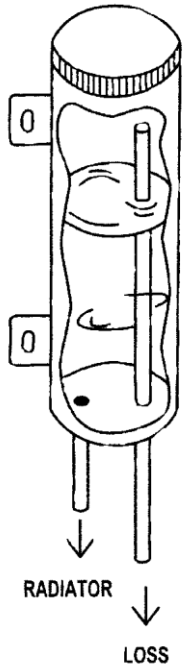
1. Verify that your vehicle's cooling system is functioning correctly. It is important that the coolant is fresh and properly mixed per factory specifications. The radiator should be free of any corrosion or blockage. Cooling system should be filled to factory specified level.
2. Some vehicles will require the removal of the lower front skidpan, if so equipped.

**Equipment removal (Retain all bolts and nuts):**

1. Remove the coolant overflow reservoir from the fan shroud.
2. Remove the four bolts holding the factory fan shroud and lay the shroud back over front of engine to gain easy access to OEM fan clutch assembly.
3. Loosen and remove the four nuts that attach the fan clutch assembly to the water pump flange. Remove fan clutch and fan assembly. Models with four (4) mounting studs on fan clutch unit will require their removal. To remove the studs, use the nuts just removed from the fan clutch. Screw two (2) nuts (on top of each other) onto a stud and then lock the nuts together. Place wrench on the inner nut and back studs out of the fan clutch flange. Unlock nuts and repeat on the other studs. Install the four (4) bolts provided and tighten to 22-25 ft.- lbs. of torque.

**Cool-Pack Installation (Mechanical):**

1. Lower the Cool-Pack Assembly into position. Use the existing bolts and flat washers attach the radiator and the Cool-Pack Assembly to the factory mounts, finger tight.
2. Insert the sensor probe through the foam pad, adhesive side out. Remove the adhesive backing and insert probe into radiator. The ideal probe location is three to five inches (3" to 5") below the top of the core in the center. Secure the probe wiring loom to prevent contact with the fan blades or any other moving parts. Note: It is recommended to install the probe before finalizing the Cool-Pack mechanical installation. Access is best through one of the vent holes.
3. With the probe securely in place, tighten all top and bottom bolts until snug.
4. Re-install the factory coolant overflow reservoir in provided slots on driver's side of Cool-Pack Assembly.




**Cool-Pack Installation (Electrical):**

1. Disconnect the positive (red) battery cable. Remove the OEM bolt located in the end of the battery cable.
2. Inspect and clean battery cable. Reconnect the battery cable to the battery.

3a. Connect the blue wire to the A/C compressor clutch supply wire. To determine or identify the wire, find the location on the compressor where the wires are connected. Unwrap the factory tape enough to view the insulation colors. The supply wire is generally Green-with Black.

**Note:** *If you are unsure or cannot locate the proper wire, it may be necessary to consult a repair manual or wiring schematic.* **Do not cut the A/C wire on the vehicle!** Use the provided wire splice tap instead.

3b. If a manual turn-on switch is desired, and there is no A/C connected in the system, the blue wire can be energized from a manual toggle switch to turn the unit on.

3c. If the vehicle does not have air conditioning, and a manual turn-on switch is not desired, cut the blue wire and install the provided wire cap to the end of the wire.

4. Connect the black wire to body ground. Recommended attachment points are underneath an upper radiator core support bolt, the negative battery pigtail, or drill 1/8" hole in (metal) core support, frame, or fenderwell and use either of the sheet metal screws provided. To ensure a better electrical connection, scratch or scuff the paint surface where you will be attaching the wire.

**Cool-Pack Adjustment:**

1. After vehicle has reached normal operating temperature, the preset temperature (approx. 195˚F) controller can be adjusted for the fans to turn on at any temperature between 170˚F-220˚F.
2. Turn adjustment screw clockwise (CW) for a higher turn on temperature. Conversely, turn the screw counterclockwise (CCW) for a lower turn on temperature.
3. For units manufactured in 2022 or later, the adjustment is reverse! Turn the adjustment screw counterclockwise (CCW) for a higher turn on temperature. Conversely, turn the screw clockwise (CW) for a lower turn on temperature.

**Note:** Setting the turn-on temperature to *lower than 185˚F may affect vehicle emission control compliance.*

****The small blue adjustment screw can be found by following the power wire to where it enters the potted switch, next to the relay.****