

COOL-PACK

Radiator Cooling System

Universal Application for Radiator Cores Up to 17" x 28 1/2"

Installation Instructions:	Part No. 19500 (17" x 28-1/2")
	Part No. 19502 (17" x 23")
	Part No. 19504 (17" x 20")

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-screw driver, 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.
3. Some applications feature an OEM thread-on fan clutch. Verify that you have the necessary tool on hand before beginning installation.

Equipment removal (Retain all bolts and nuts):

1. Remove factory fan shroud and lay the shroud back over front of engine to gain easy access to OEM fan clutch assembly.
2. Loosen and remove the four nuts that attach the fan clutch assembly to the water pump flange. Remove the 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 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 the studs out of the fan clutch flange. Unlock nuts and repeat on the other studs. Install the four (4) 5/16"-24 or 8mm bolts provided and tighten to 22-25 ft.-lbs. of torque.

Note: If the clutch is a thread-on unit examine the large nut looking for slots. The presence of slots may indicate if the nut is left thread. Use a large adjustable wrench or special tool to loosen and remove nut. It may be necessary to lightly tap the handle of the wrench to help loosen the nut.

3. Remove the fan clutch assembly and shroud and set aside.
4. If the fan clutch is held on with bolts and flatwashers reinstall to secure waterpump pulley. If the fan clutch is held in place with studs it may be necessary to add some flat washers under each nut to secure the pulley to the waterpump.

Cool-Pack Installation (Mechanical):

1. This Cool-Pack assembly is designed to attach directly to the upper and lower radiator core flanges. If the factory fan shroud also secures the radiator, it may be necessary to use radiator custom mounts available at your local speed shop. Secure the radiator prior to installing the Cool-Pack Assembly.

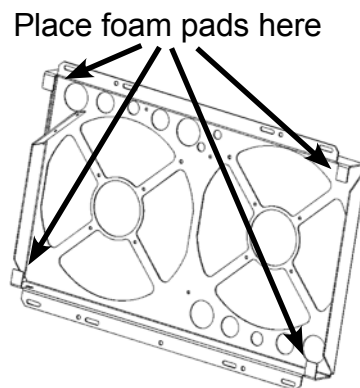
2. Install the four supplied foam pads on the small square flanges located at the outer corners of the Cool-Pack frame, see illustration.

3. Lower the Cool-Pack Assembly into position on the radiator core. Select a combination of holes/slots in the radiator core flanges that match holes/slots in the top and bottom flanges of the Cool-Pack Assembly.

4. Using supplied bolts, flat washers and nuts, 1/4"-20 or 10-24, attach the Cool-Pack Assembly to the upper and lower radiator core flanges, finger tight. If no holes in the radiator core flanges, drill small pilot holes in flanges and use either the #10 or #14 sheetmetal screws supplied to attach Cool-Pack unit.

5. 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 install. Access is best through one of the vent holes.

6. With the probe securely in place, tighten all top and bottom bolts until snug.



7. (Optional) Attach the radiator hose support assembly to the Cool-Pack Assembly, using clamp, bolt, and nut. An additional 1/4" hole will be needed depending on your application. Hold the nut in place with finger (through the vent holes), lining up to accept bolt. Tighten until snug.

Cool-Pack Installation (Electrical):

1. Disconnect the positive (red) battery cable. For sidepost applications, remove the OEM bolt located in the end of the battery cable. For top post applications, remove the hex nut that tightens the terminal to the battery top post.

2. Inspect and clean battery cable. For sidepost applications, reconnect the battery cable to the battery using the brass connector bolt provided. For top post applications, connect the fused power wire to the battery cable terminal and replace the hex nut.

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. For the sidepost applications, connect the fused power wire to the brass connector installed on the battery in step 2 above. For top post applications, reconnect the battery cable to the battery.

5. 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 counter clockwise (CCW) for a lower turn on temperature. **Note:** Setting the turn-on temperature to lower than 185°F may affect vehicle emission control compliance.



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