

COOL-PACK

Radiator Cooling System

2004-2013 Nissan Titan, Armada

Installation Instructions:

Part No. 19522

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



FRONT VIEW 19522 Shown



REAR VIEW 19522 Shown

Tools recommended:

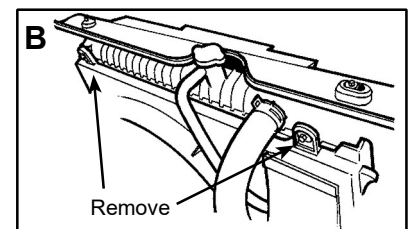
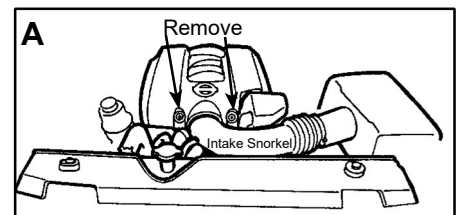
Ratchet / socket set; 3/8 inch drive, various extension
Sockets, 6mm, 8mm, 10mm, 12mm
Wrench, 10mm box
Wire cutters, pliers, utility knife Mini-screw
driver, flat blade (supplied)

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. Vehicles equipped with Heavy Duty / 4-Wheel Drive option will require the removal of the lower front skidpan, if so equipped.

Equipment removal (Retain all bolts and nuts):

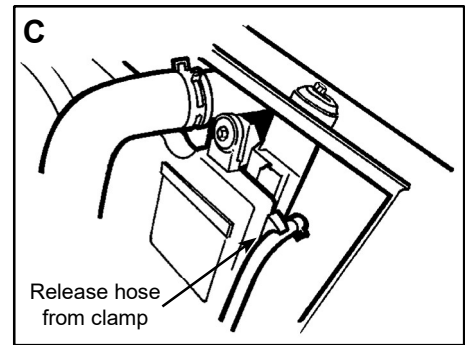
1. Remove the two intake shroud bolts and remove shroud, see illustration A.
2. Loosen the two clamps and remove the intake snorkel.
3. Remove the two radiator mount bracket bolts, see illustration B.
4. Loosen and remove the four nuts that attach the fan clutch assembly to the water pump pulley flange. Retain nuts.
5. It may be necessary to drain about 2 quarts of coolant from radiator using drain petcock.



6. Loosen hose clamp and remove upper radiator hose and coolant reservoir hose from radiator. It is not necessary to entirely remove upper radiator hose.

7. Release trans cooler lines from clamps on right side and bottom of fan shroud, see illustration C.

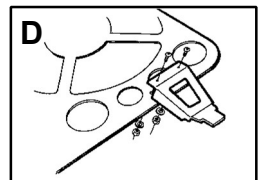
8. Tip fan shroud back towards the engine and carefully lift fan clutch assembly up and out through top of engine compartment.



9. Remove fan shroud by lifting up and out through top of engine compartment.

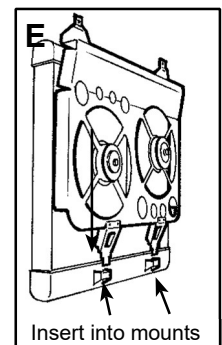
Cool-Pack Installation (Mechanical):

1. Reinstall four (4) nuts removed from fan clutch assembly / water pump pulley flange and tighten securely.

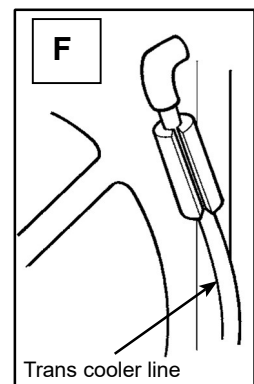


2. Attach the lower mount brackets to the Cool-Pack Assembly using provided nuts, bolts and washers, if necessary. Tighten securely. See illustration D.

3. Lower the Cool-Pack Assembly into position. Insert the brackets, installed in step 2 above, into the existing lower shroud mounts, see illustration E.

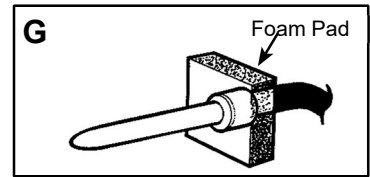


4. It will be necessary to reposition the trans cooler line on the passenger side of the Cool-Pack assembly. Using provided 11/32" hose, slit hose lengthwise and position on trans cooler line where the trans cooler line may touch Cool-Pack assembly, see illustration F. Failure to install hose may damage Cool-Pack assembly and trans cooler line.



5. Insert the sensor probe through the foam pad, aligning the large end of the probe in the foam pad, adhesive side out, see illustration G. The narrow part of the probe should be entirely exposed. 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

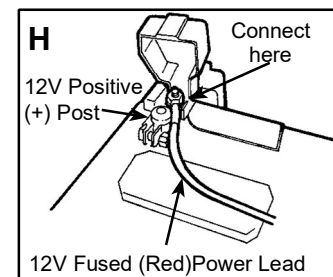
fan blades or any other moving parts. Note: It is recommended to install the probe before finalizing the Cool-Pack mechanical installation. Access is best through one of the vent holes.



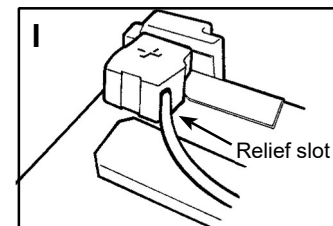
6. Re-install the two (2) bolts into the upper radiator support. Finger-tighten only.
7. With the probe securely in place, tighten all top bolts until snug.
8. Re-install intake snorkel and intake manifold shroud. Tighten bolts and clamps until they are snug.
9. Re-install top radiator hose and coolant reservoir hose, refill radiator to proper level with correct mixture of coolant. Tighten clamps securely.

Cool-Pack Installation (Electrical):

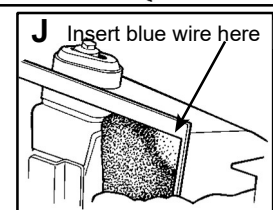
1. Disconnect the positive (+) red battery cable. Connect the fused power wire to the OEM bolt inside the connector, see illustration H.



2. It is recommended that a small relief slot be cut in the OEM clamp cover for the power wire and to allow the clamp cover to be closed, see illustration I.



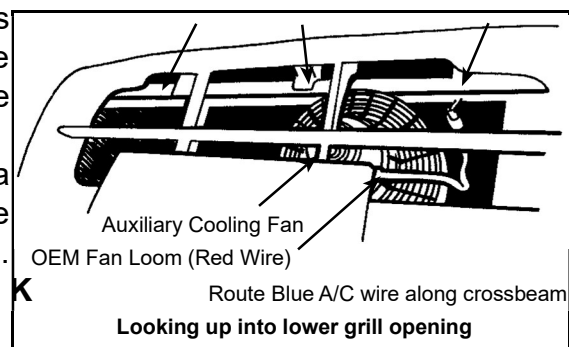
3. Insert the blue wire through the upper corner of the passenger side of the radiator support, through the foam seal and out behind the grill, see illustration J.



4a. Connect the blue wire to the positive (+) wire on auxiliary A/C electrical fan mounted behind grill either at OEM connector or at red wire connected at OEM fan motor. Secure blue wire to cross beam using J provided tie straps, see illustration K. **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 wiretap instead.

4b. 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 12V positive (+) toggle switch to turn unit on.

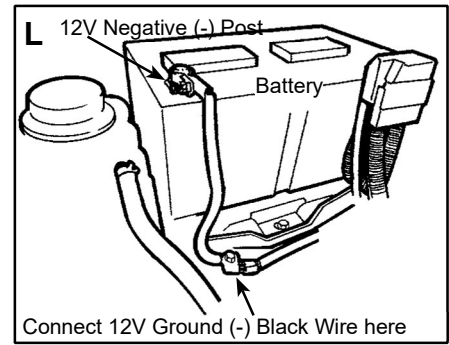
4c. If the vehicle does not have air conditioning, and a manual turn-on switch is not desired, cut the blue wire and install the provided wire cap to the end of the wire.



5. Connect the black (-) wire to body ground.
Recommended attachment point is OEM ground connection next to battery, see illustration L.

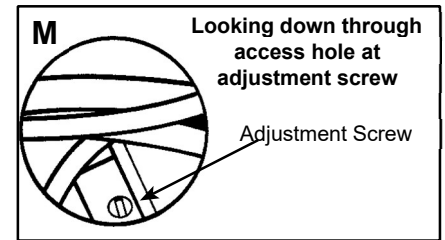
Cool-Pack Adjustment:

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.****

