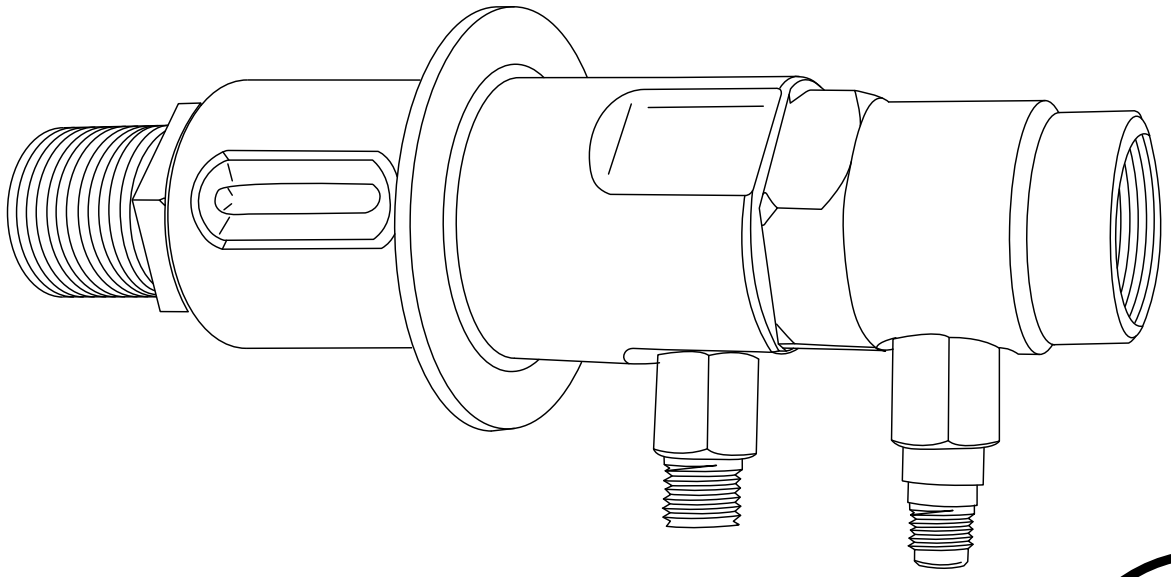
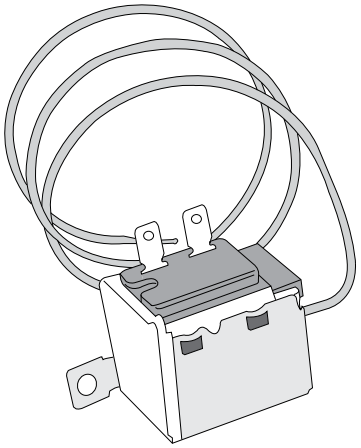
Installation Manual
Billet POA Valve Eliminator Kit

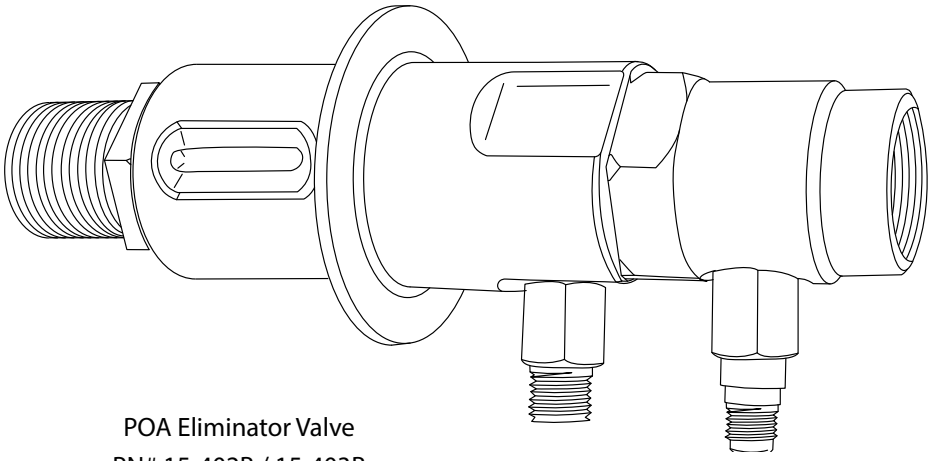
Part # 15-402B / 15-403B



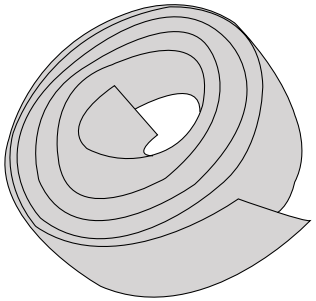
THESE ARE THE PARTS FOR YOUR BILLET POA ELIMINATOR KIT



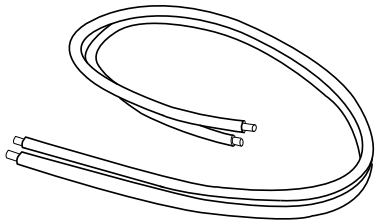
Thermostat Switch
PN# 16-104



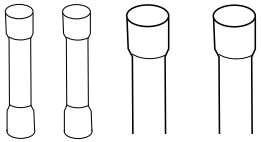
POA Eliminator Valve
PN# 15-402B / 15-403B



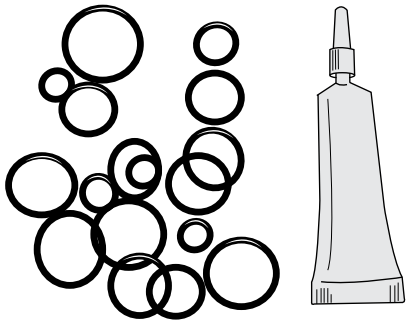
Refrigerant Tape
PN# 15-404



Thermostat Wire



Electrical Connectors



O-Rings and Lubricant Oil
PN# 05-400

POA VALVE REMOVAL

- If the system is assembled with all or partial charge of refrigerant, have refrigerant reclaimed by a qualified auto air-conditioning technician before starting.
- If the POA valve is still on the vehicle, remove the valve by disconnecting the suction hose, the expansion valve's equalization port and the evaporator's oil-return line from the valve. Remove any mounting hardware that secures the valve in place, and unscrew POA from evaporator and remove.
- Remove the old O-rings from the evaporator suction and oil-return line fittings, suction hose fitting and the expansion valve's equalization fitting, clean all four connections to remove any oil and contaminants from the fittings.

ATTENTION!

TIGHTENING OF FITTINGS IS "Hand-tight, plus a quarter turn."
OVER-TIGHTENING O-RING CONNECTIONS WILL SPLIT O-RING AND CAUSE REFRIGERANT LEAKS.

REMEMBER!

LOOSEN AND TIGHTEN HOSE ENDS WITH TWO WRENCHES

DONT FORGET!

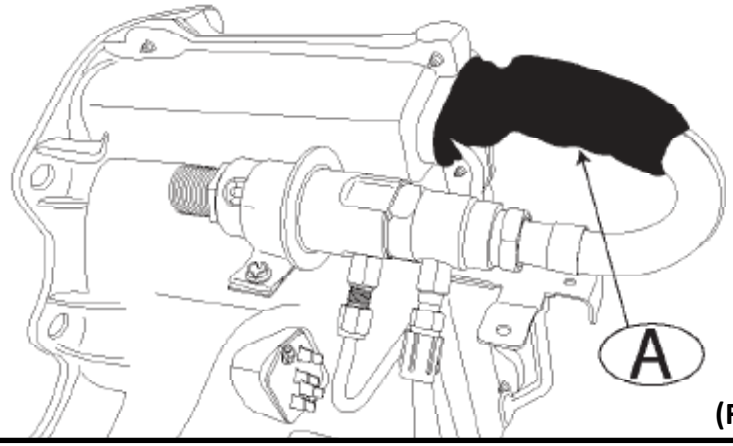
LUBRICATE ALL O-RINGS WITH 2 DROPS OF MINERAL OIL

NEW POA VALVE INSTALLATION

- After cleaning the line and tube fittings, replace the O-Rings from the supplied package. Lubricate each O-ring thoroughly with 2 drops of included oil.
- Place the new POA onto the original mounting bracket on the evaporator housing.
- Connect the POA to the outlet fitting on the evaporator. Loosely tighten at this time.
- Next attach the expansion valve equalization tube to the POA valve in the original location.
- Now attach the bleed/oil return line from the evaporator to the POA in its original location.
- Attach the original POA hold-down clamp to the original bracket.
- At this time finish tightening the evaporator outlet tube to the POA.
- Tighten the suction hose to the POA.

THERMOSTAT INSTALLATION

- The original POA system did not require a thermostat switch. The Billet POA eliminator does require the addition of this component.
- Your first step will be to remove original refrigerant tape (FIGURE 1A), and clean thoroughly with solvent the evaporator tube and expansion valve capillary sensor.



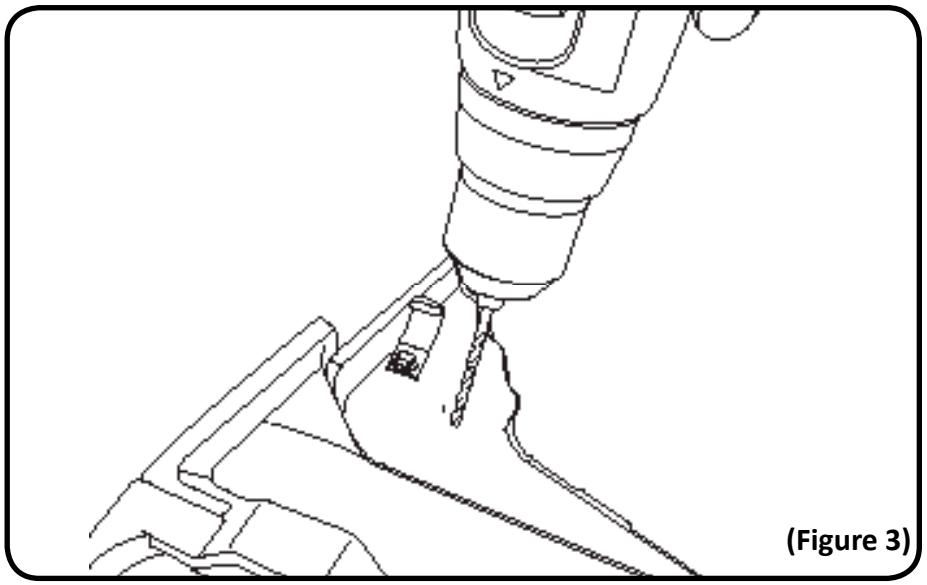
(Figure 1)

THERMOSTAT INSTALL CONT.

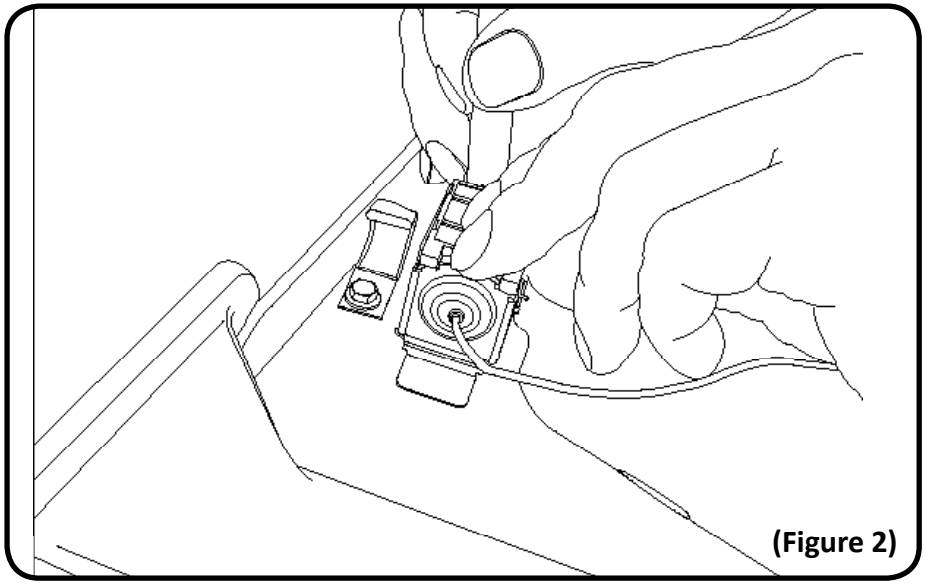
- Find a location for the thermostat that will allow for the capillary sensor to reach the inlet tube to the evaporator. A common location would be the top right section of the evaporator housing (closest to the engine).

Ensure there are no components in the housing that would be damaged by drilling or attaching screws!

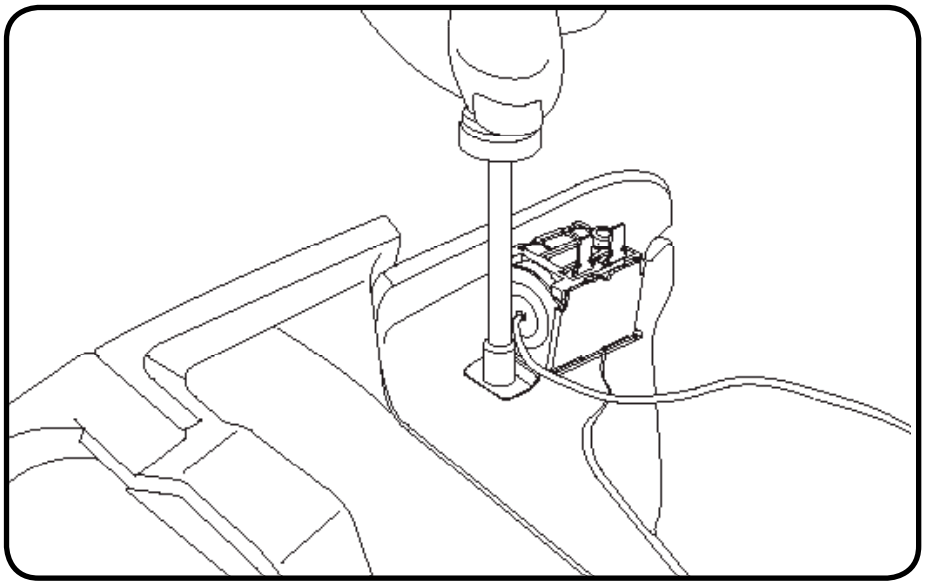
- Once location is determined, mark drill holes on the housing where the thermostat will be attached(Figure 2).
- Drill the marked holes with the appropriate drill size for the screws you have chosen. It may be necessary to put a drill stop on the bit, or masking tape to ensure the drill bit depth is limited, (Figure 3).
- Attach thermostat into location determined, (Figure 4).



(Figure 3)



(Figure 2)

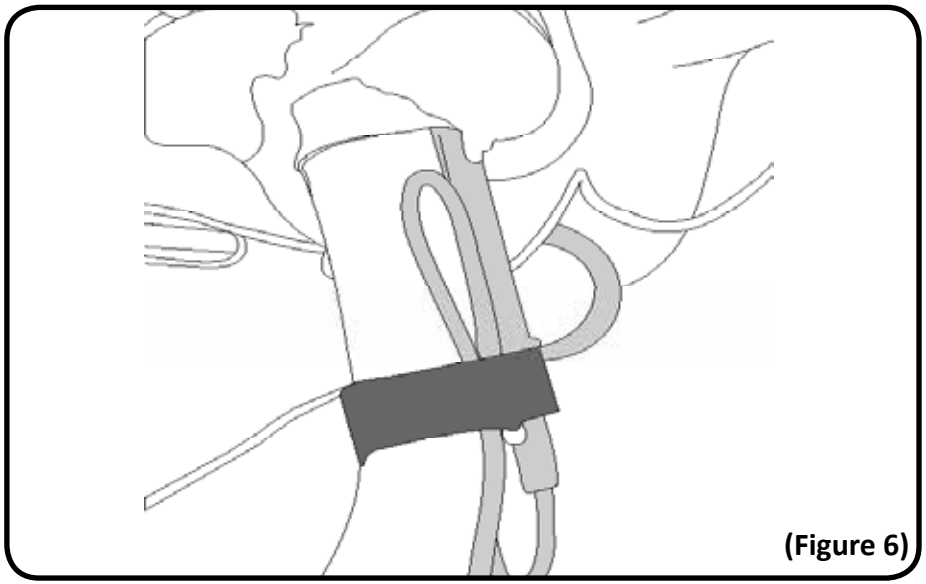


THERMOSTAT INSTALL CONT.

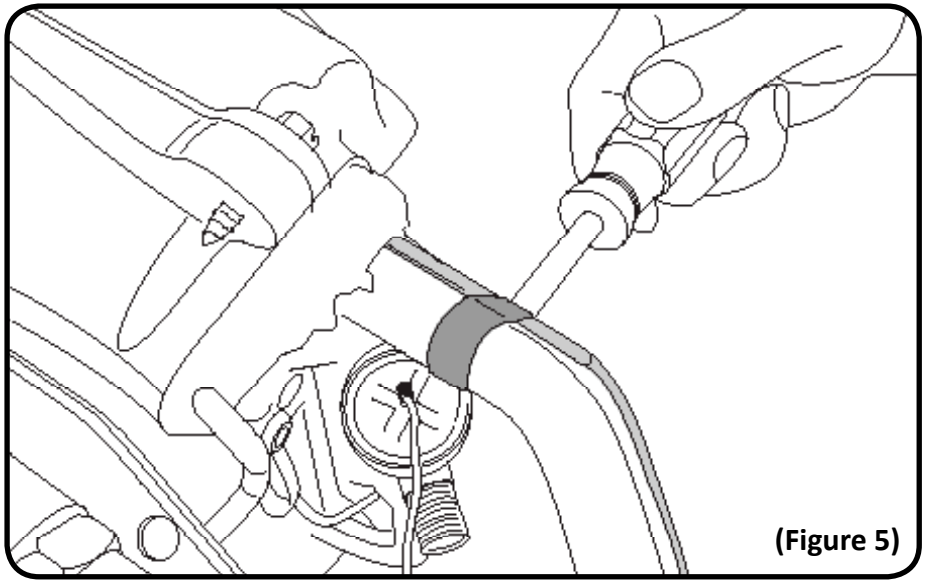
- Remove the clamp that secures the expansion capillary sensor. Retain this clip as it will secure both the expansion sensor and the capillary tube of the new thermostat, (Figure 5).
- Route the end of the thermostat capillary tube to the same location of the expansion valve capillary sensor. Be very careful not to kink this tube at any point.
- Form a small - but not kinked loop - at this location on the evaporator tube. This loop needs to be in full contact with the evaporator tube. (Figure 6).

Ensure all surface are absolutely clean before next step

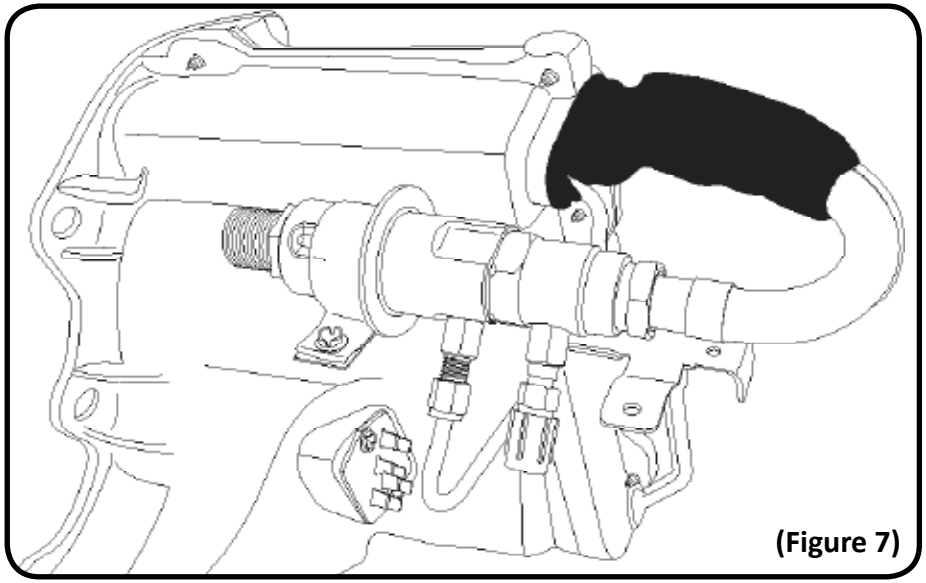
- Attach both the expansion tube sensor and the thermostat tube loop with the original sensor clamp.
- With provided refrigerant tape completely wrap the capillary sensors and clamp, ensuring the ends are well covered and insulated, (Figure 7).



(Figure 6)



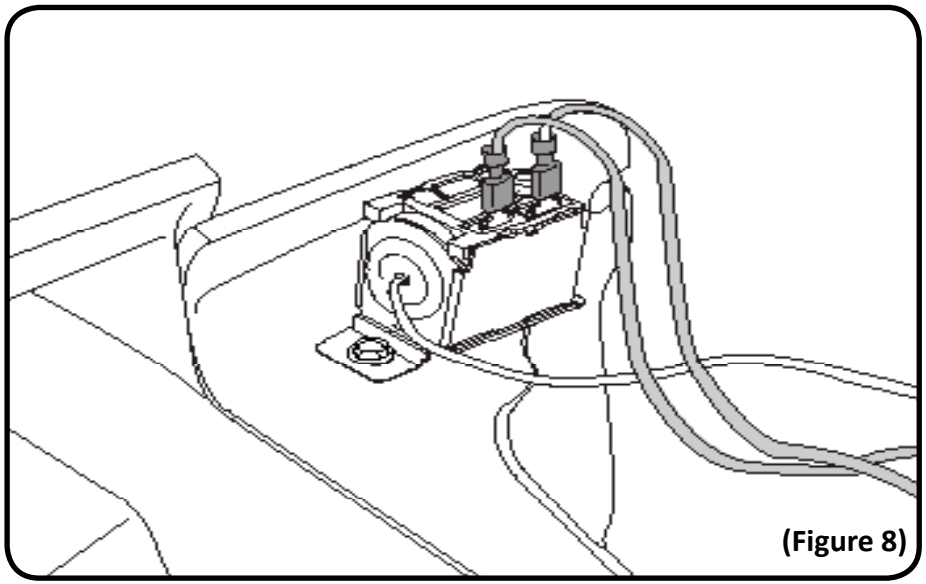
(Figure 5)



(Figure 7)

THERMOSTAT INSTALL CONT.

- Now find the wire that connects to the compressor clutch.
- With the wires provided splice the compressor clutch wire and connect each end to the wires provided.
- These will then connect to the thermostat which will now switch power to the compressor as the temperature of the evaporator demands, (Figure 8).
- Route and conceal wires as desired.



(Figure 8)

PLEASE NOTE! IN ORDER TO PROTECT NEWLY INSTALLED PARTS, IT'S CRITICAL THAT THE CONDENSER, LIQUID LINE AND EVAPORATOR ARE CLEAN AND FREE OF CONTAMINATION. DAMAGE TO COMPONENTS AS A RESULT OF CONTAMINATION WILL NOT BE COVERED UNDER WARRANTY.

If you have technical questions, please call Classic Auto Air's Original Air Group toll-free at 866-435-7801. 9:30 am - 6 pm EST