



Installation Manual

64-75 Mopar

Engine Compartment Upgrade Kit





Congratulations...

You have just purchased the highest quality, best performing A/C system upgrade ever designed for your Classic Vehicle.

To obtain the high level of performance and dependability our systems are known for, please pay close attention to the following instructions. Our installation steps and procedures are derived from a long history of research and development and the combined experience achieved through thousands of successful installations (and feedback from customers like you). Please remember that our #1 goal is that you'll have a successful installation and a system that performs at a very high level for many years to come.

Before starting, read the instructions carefully, from beginning to end, and follow the proper sequence. On the next page you'll find a safety and general checklist that you should read before starting your installation.

Again, thank you from our entire staff.



PRE-INSTALLATION:

- Before beginning the installation, check the shipping box for the correct components.
- **If your vehicle has been or is being modified, some procedures will need to be adjusted to fit your particular application.**
- A basic cleaning of the engine compartment before beginning will make things go more smoothly.
- Check condition of engine mounts. Excessive engine movement can damage hoses to A/C and/or heater.
- **DISCONNECT THE BATTERY FIRST**
- **DISCHARGE THE SYSTEM NEXT;** You will want to have your system evacuated of all remaining refrigerant according to local laws. An A/C service shop can handle this for you.
- **TOOLS/MATERIALS REQUIRED:** A complete standard socket set, and standard wrench sets, (A set of standard ratcheting wrenches is suggested for the compressor installation), Magnet (Reach Tool), (2x) Medium Adjustable Wrenches, Flat Screwdriver, Wire cutter w/ crimper, and Tape or Caps.

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.

IMPORTANT NOTES:

- Use one or two drops of oil (supplied with your kit) on **ALL** O-rings, and threads.
- All capped fittings **MUST** remain covered until actual connection of the fitting to prevent contamination.
- Use two adjustable wrenches on all O-ring connections, these should be tightened to 10-15 ft/lbs which is hand tight plus ¼ turn. Over tightening could cause splitting of the O-ring.
- Carefully thread fittings. Fittings will thread easily, therefore if there is resistance, back off and re-align to avoid cross-threading. Be careful not to over tighten.

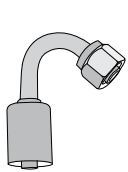
Should you have any technical questions, call us immediately, we will be glad to assist you.

Our toll-free number is listed on every page, we're here to help!

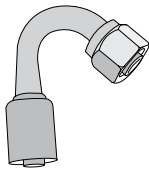
YOU CAN NOW BEGIN THE INSTALLATION...



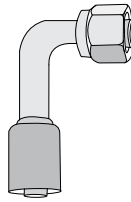
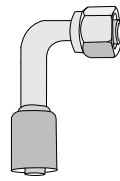
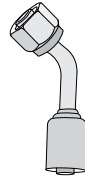
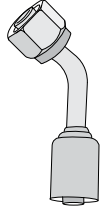
THESE ARE THE PARTS FOR YOUR ENGINE COMPARTMENT UPGRADE KIT



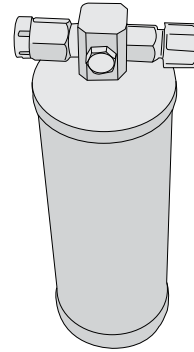
135 Degree Compressor fittings for Small Block (pre-attached w/ SB Kits)



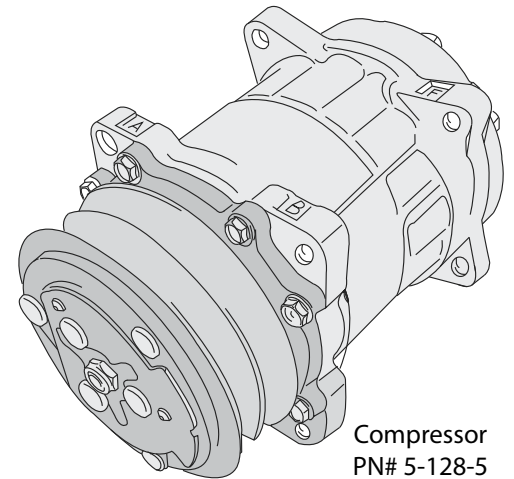
45 Degree Compressor fittings for Big Block (pre-attached w/ BB Kits)



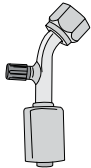
90 Degree Compressor fittings for 6 Cylinder (pre-attached w/ 6 Cyl. Kits)



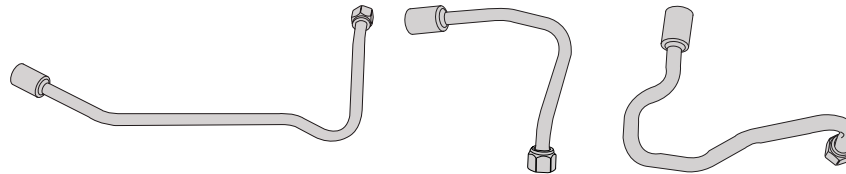
Mopar Drier
PN# 12-300,
or PN# 12-301



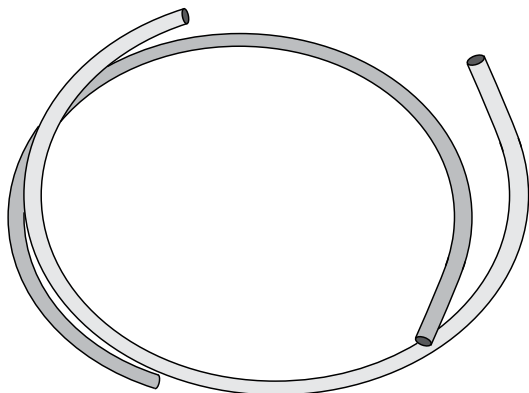
Compressor
PN# 5-128-5
or
PN# 5-156



45 Degree Evaporator fitting for SB/BB Mopar (un-attached)



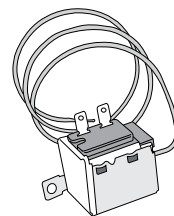
Model specific custom fitting for condenser discharge line (un-attached - One of above designs will be provided)



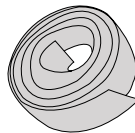
(1) #8 Discharge Hose (one end open)
(1) #10 Suction Hose (one end open)



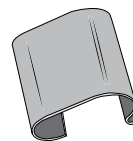
Expansion Valve
PN# 15-110



Thermostat
PN# 16-104



Insulating Cork Tape
PN# 15-404



Bulb Clamp
PN# 15-4000



O-Rings and Lubricant Oil
PN# 05-400

Compressor Brackets

6 Cylinder Bracket Kit # 6-301

Small Block Bracket Kit # 6-3BPE4725

Small Block Bracket Kit # 6-3BPE4732

Big Block Bracket Kit # 6-308

Big Block Bracket Kit # 6-309

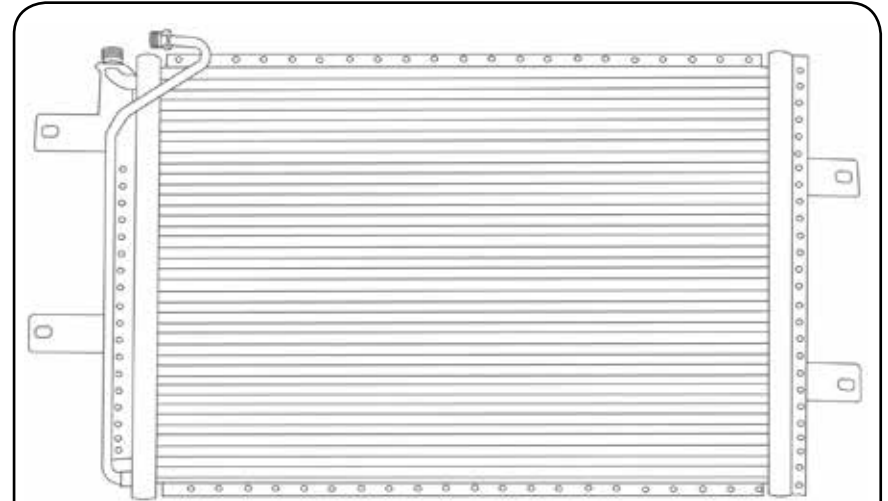
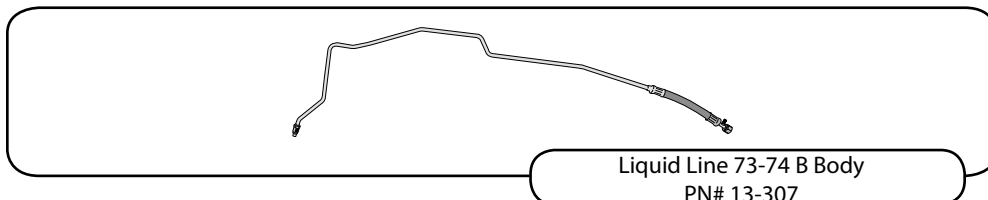
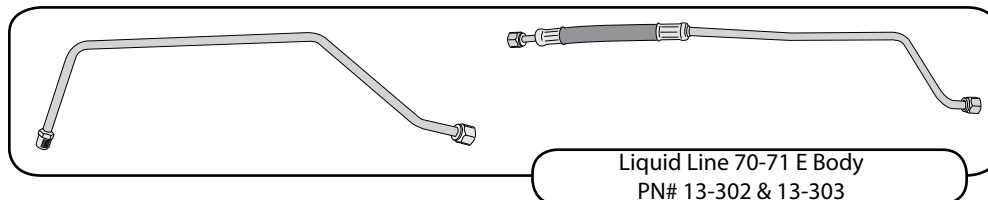
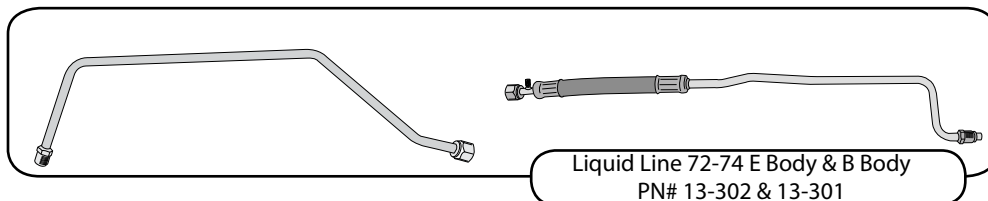
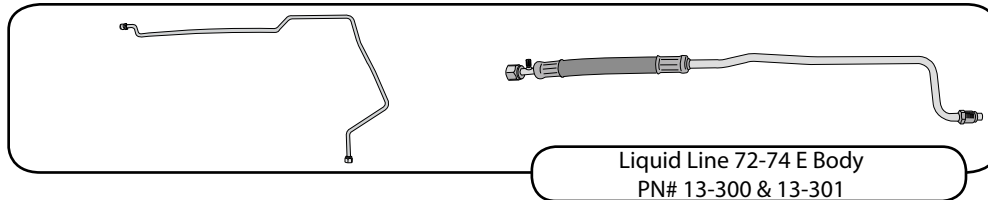
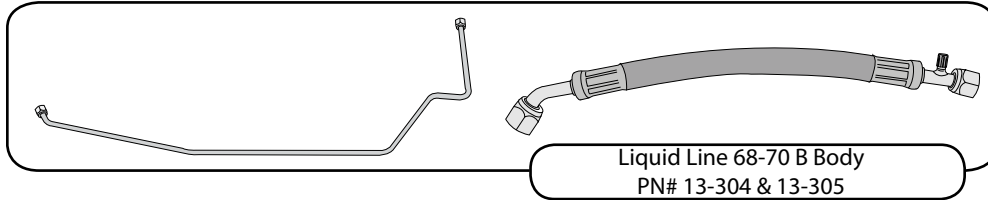
Most common bracket kits listed.
Some applications may use alternate
brackets kits



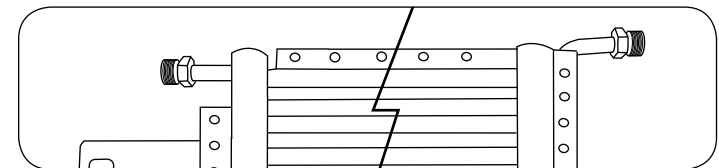
ENGINE COMPARTMENT UPGRADE KITS INCLUDE ONE
LIQUID LINE ASSEMBLY AND ONE CONDENSER



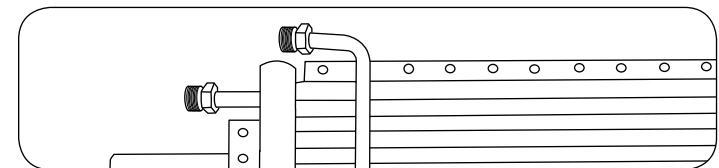
MOST COMMON PARTS SHOWN - SOME APPLICATIONS MAY USE ALTERNATE COMPONENTS



Condenser 66-Early 70 B Body
PN# 11-300P



Condenser 70-71 E Body
PN# 11-301P



Condenser 73-74 B Body
PN# 11-306P

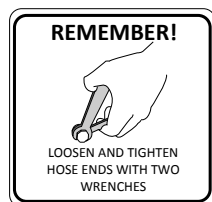
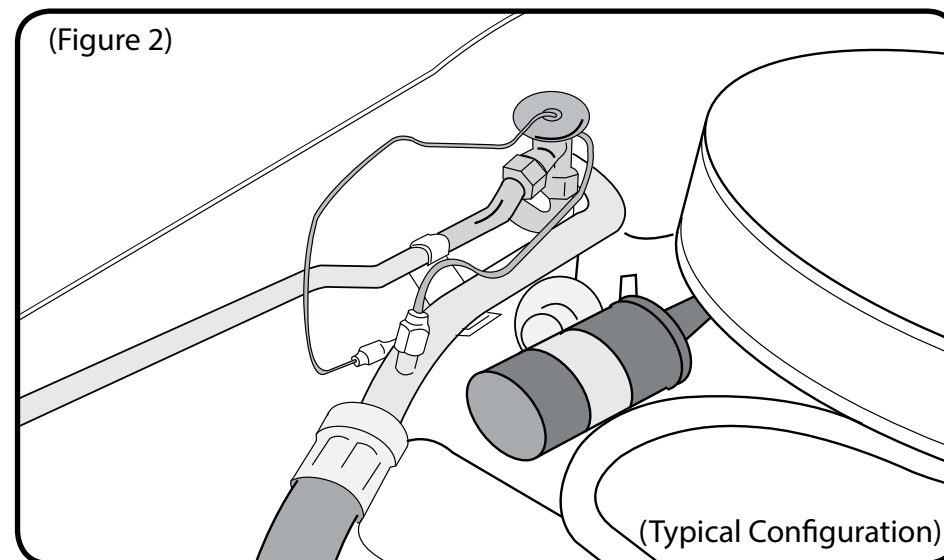
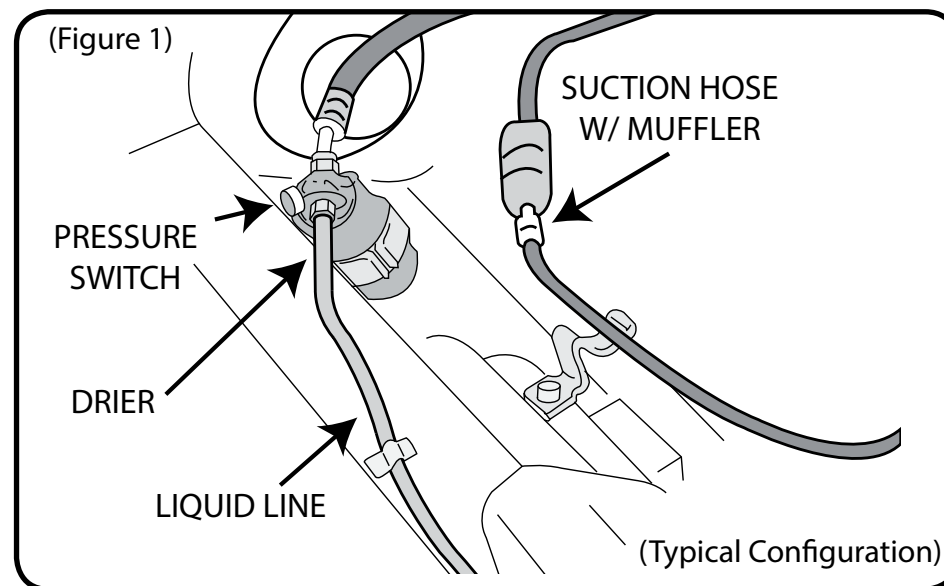


DRIER & PRESSURE SWITCH REMOVAL

- Disconnect the plug from the pressure switch
- Remove the pressure switch and cover to protect from contaminants. This part will be re-used
- Disconnect the liquid line, both solid tubing and hose from Drier.
- Loosen the Drier Bracket, Remove the drier and retain brackets for re-assembly

EXPANSION VALVE & HOSE REMOVAL

- Remove the capillary temperature sensing tube and equalizing tube from the suction hose
- Remove the liquid hose from expansion valve.
- Remove Expansion valve from evaporator fitting on firewall
- Disconnect suction hose from evaporator
- Cover ends of evaporator fittings with tape to prevent contamination





COMPRESSOR & HOSE REMOVAL

- Disconnect the magnetic clutch-to-control-unit wire
- Disconnect and remove the suction line (w/muffler) from compressor
- Disconnect and remove the discharge hose from the compressor and from condenser
- Remove the factory discharge hose fender clips if equipped. Remove discharge hose from vehicle
- Loosen and remove compressor pulley belts
- Remove the compressor-to-bracket attaching bolts, and remove compressor
- Remove factory compressor brackets from engine

CONDENSER & HOSE REMOVAL

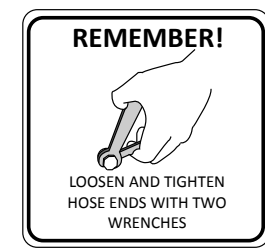
Various models will have different hose routes from the factory. It may be necessary to remove the grill assembly to access the condenser mounting hardware and hose fittings.

- Disconnect and remove the liquid line from the outlet fitting of the condenser

- Remove the factory liquid line fender clips if equipped. Remove liquid line from vehicle

On some models, it may be necessary to remove the grill assembly and radiator to access the condenser mounting hardware and hose fittings.

- Remove the hood latch assembly if it restricts access to the condenser mounting hardware
- Remove condenser from radiator support



IMPORTANT - READ BEFORE PROCEEDING!

IN ORDER TO PROTECT NEWLY INSTALLED PARTS, IT'S CRITICAL THAT ANY RE-USED COMPONENTS AND THE EVAPORATOR IS COMPLETELY CLEAN AND FREE OF CONTAMINATION. DAMAGE TO COMPONENTS AS A RESULT OF CONTAMINATION WILL NOT BE COVERED UNDER WARRANTY.



CONDENSER INSTALLATION

- Your specific model will have a condenser unique to that application. The installation will be the reverse sequence of previous step.

COMPRESSOR INSTALLATION

- At this time refer to the engine-specific bracket instructions included with your kit, and install mounting bracket and compressor
See Figure 5 and 6 for image on Compressor “Clocking”

EXPANSION VALVE INSTALLATION

- Your new expansion valve will attach to the evaporator in the factory location. Take care not to bend capillary sensor tube at a sharp angle

Capillary sensor will be fastened to new suction hose fitting in later step.

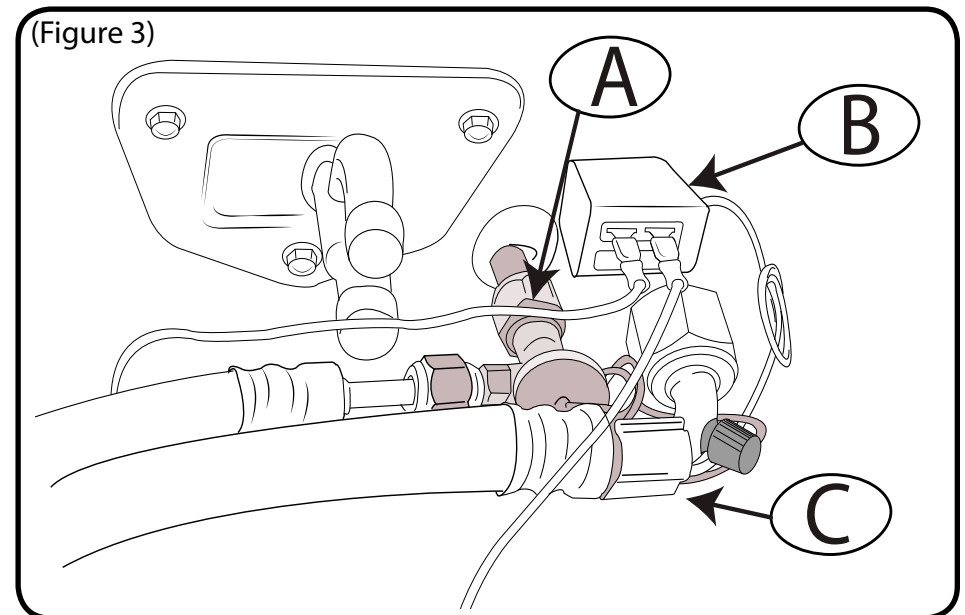
DRIER INSTALLATION

- Using your factory drier bracket, mount the included drier in the factory location with the “in” port facing toward the condenser
- Connect to the new front liquid line coming from the condenser to the “in” port of the new drier
- Connect the new rear liquid hose to the outlet of the drier
- Attach new liquid line to inlet of expansion valve (**Figure 3A**)
- Install the factory pressure switch into top port of drier and re-connect electrical plug

THERMOSTAT INSTALLATION

- Mount the included thermostat to the fire wall near the existing pressure switch wire (**Figure 3B**)
- The factory wire will need to be cut and the ends will be fixed with included spade connectors. These connectors will attach to the new thermostat
- The wire continues to the pressure switch and from the pressure switch to the compressor

Capillary sensor will be fastened to new suction hose fitting in later step.



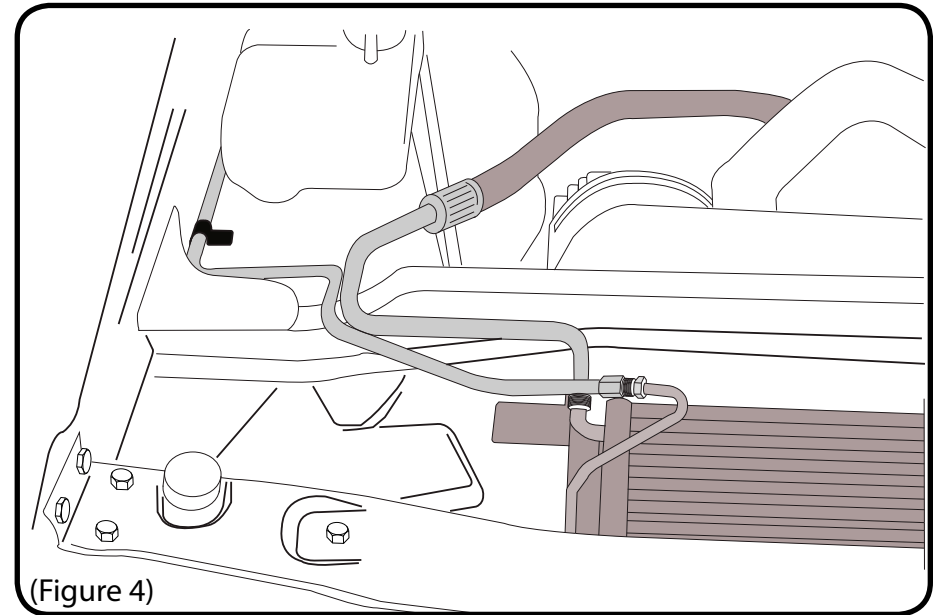


HOSE INSTALLATION

All components covered in previous steps (including the belts) must be installed to properly route, index and cut hoses

The “measure twice - cut once” rule MUST be followed with these kits. If the hoses are cut too short, you will have to purchase replacement hoses.

- Connect the Suction hose’s attached fitting to the “S” inlet of the compressor and the discharge hose’s attached fitting to the “D” outlet of the compressor. Refer to Figure 5 & 6 for engine specific hose end orientation
- Attach appropriate loose fitting to condenser and to evaporator (leave caps on fittings to prevent contamination)
- Align the loose Suction hose end to the evaporator, and loose Discharge hose end to the Condenser. Route the hose as desired.
- After confirming the hose will “bottom-out” in the fitting, mark the exact location of the cut and make the cut.
- Insert the hose end into the fitting and mark the orientation of the hose and fitting with permanent marker, in order to have crimped with appropriate indexing.
- Remove hoses for crimping and replace caps on exposed ends to prevent contamination.



Classic Auto Air can provide crimp service on the hose fittings for a small fee OR you can have a local A/C shop provide this service.

(Typical Passenger Side Hose Configuration)



CAPILLARY SENSOR INSTALLATION

- Secure the thermostat and expansion valve capillary tubes to the suction hose fitting next to expansion valve. **(Figure 3C)** *(A metal clip is supplied to secure the sensors, however some installers prefer using a standard hose clamp. The desired outcome is both cap tubes must have a good contact with the fitting.)*
- Wrap the fitting with supplied black insulating tape. It is very important to insulate this area from engine compartment heat so system will operate properly. Clamp and Sensor will be completely covered by the insulating tape when complete.

COMPRESSOR WIRING

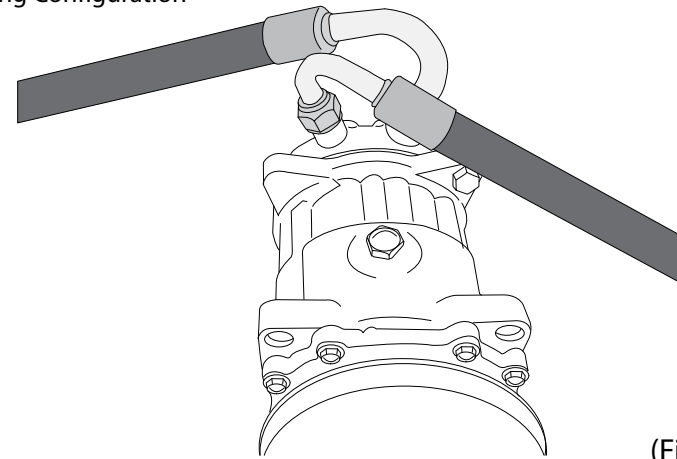
The compressor wire will need to be connected to the OEM wiring. Find the compressor wire that was originally connected to the compressor and cut the connector off. Shave the insulation off the end of the wire and crimp the female bullet connector, then connect the male bullet connector from the compressor.

FINAL STEPS

Take a look around at your installation and check all fittings and bolts for tightness, and make sure nothing is routed in a way to obstruct any moving parts. You can reconnect the battery and re-install the belt at this time.

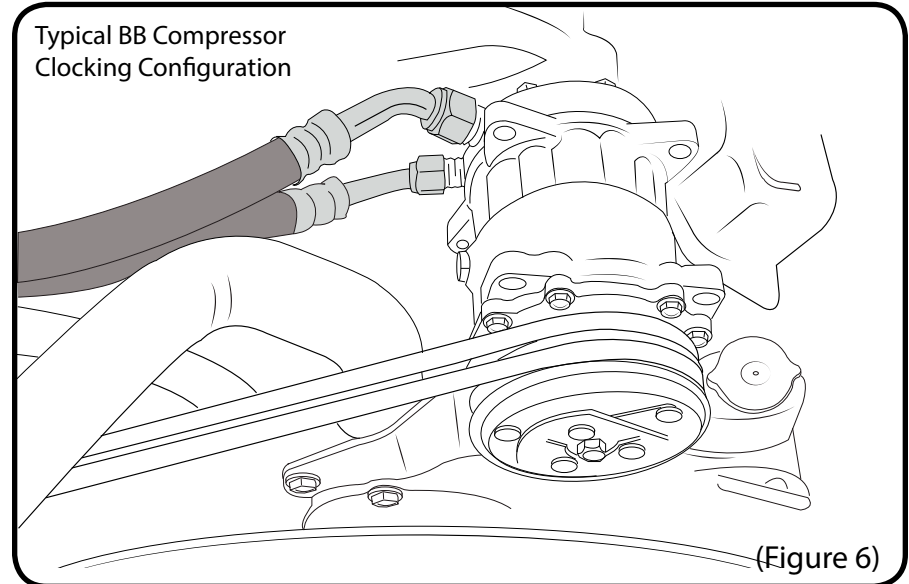


Typical SB Compressor
Clocking Configuration



(Figure 5)

Typical BB Compressor
Clocking Configuration



(Figure 6)