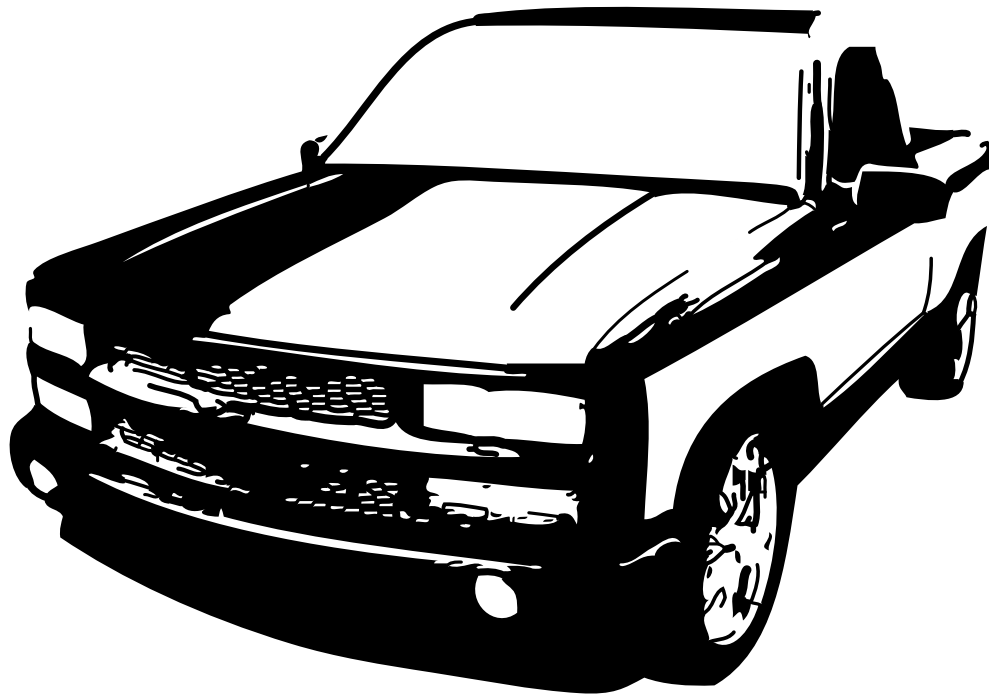




# ***Installation Manual***

## ***1988-1990 Chevy/GMC Truck***

### ***Compressor Upgrade Kit - 23-259 Series***





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# ***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 set of SAE & Metric Wrenches & Sockets, (A set of 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 EVAPORATOR, LIQUID LINE, AND CONDENSER IS 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.

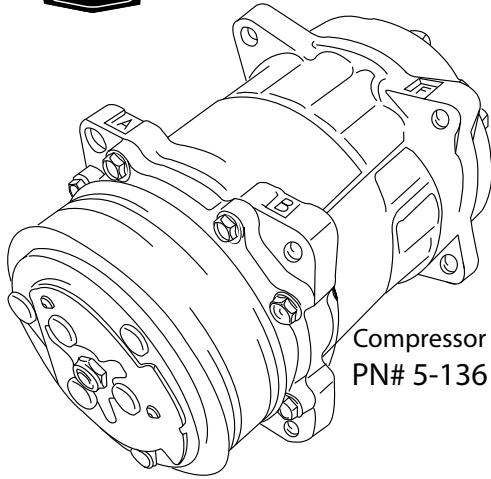
**Should you have any technical questions, call us immediately, we will be glad to assist you.  
Our toll-free number is listed on every page, we're here to help!**

**YOU CAN NOW BEGIN THE INSTALLATION...**

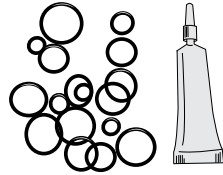


## THESE ARE THE PARTS FOR YOUR COMPRESSOR UPGRADE KIT

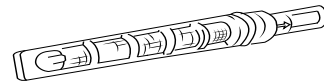
*If your kit happens to arrive incomplete, contact us asap for assistance!*



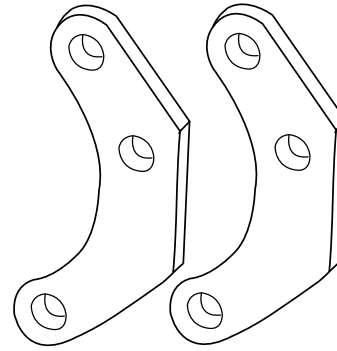
Compressor  
PN# 5-136



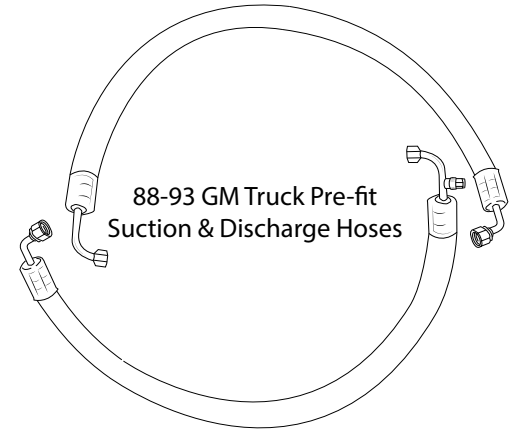
O-Rings and Lubricant Oil  
PN# 05-400



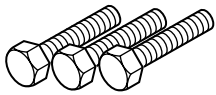
Orifice Tube



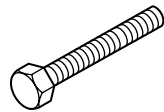
Compressor Brackets  
PN# 07-241



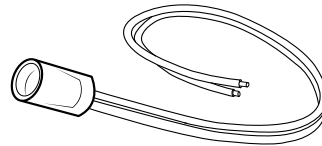
88-93 GM Truck Pre-fit  
Suction & Discharge Hoses



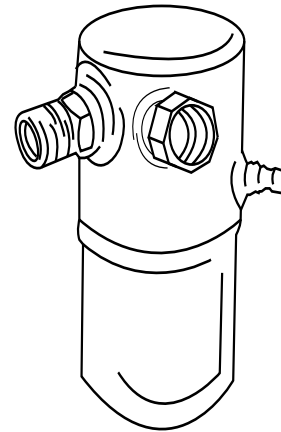
(3x) M10 x 1.50MM  
x 40MM Bolts



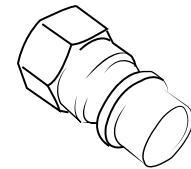
(1x) M10 x 1.50MM  
x 50MM Bolt



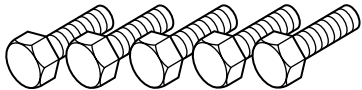
Cycling Switch  
Harness  
PN# 16-201



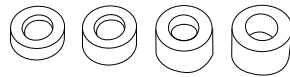
Accumulator  
PN# 12-247



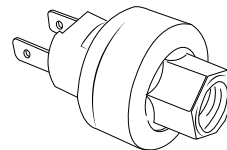
134a Adapter  
PN# 14-122-2



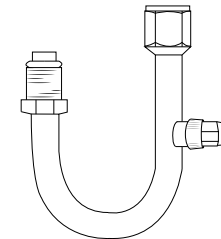
(5x) M10 x 1.50MM  
x 35MM Bolts



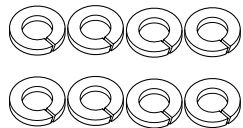
1/4", 11/32", 9/16", and 5/8"  
Compressor Spacers



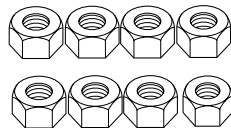
Clutch Cycling Switch  
PN# 16-200



Truck Suction Tube  
PN# G13-236



(8x) M10  
Lock Washers

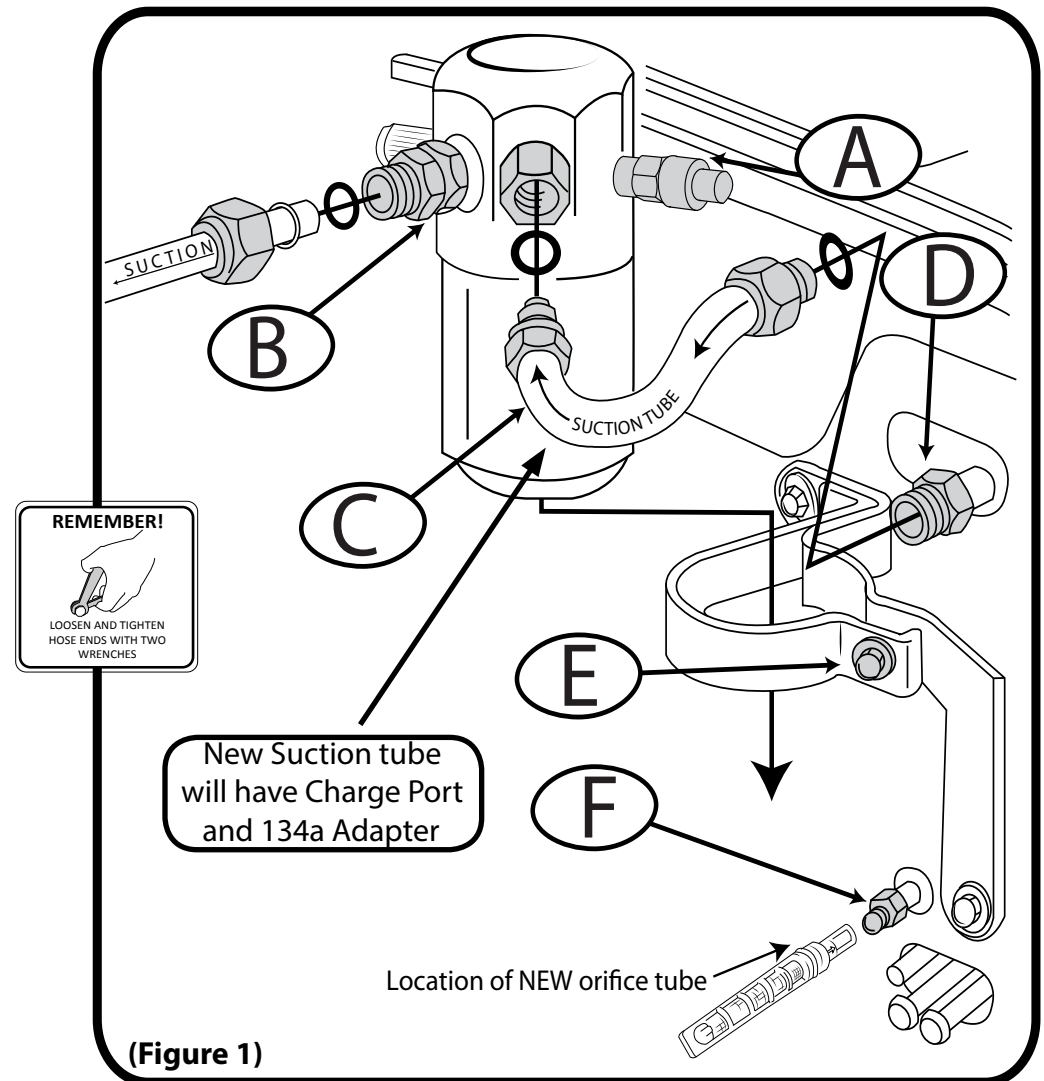


(8x) M10  
Hex Nuts



## ACCUMULATOR REMOVAL

- Disconnect the plug from the pressure cycling switch (**Figure 1A**).
- Disconnect Suction hose from accumulator (**Figure 1B**).
- Disconnect Suction Tube from Evaporator (**Figure 1C**). You may need to remove the plastic relay cover panel for easier access to evaporator fitting
- Disconnect the liquid hose (solid tubing) from the inlet fitting of the evaporator core (**Figure 1F**).
- **If equipped, remove orifice tube from inside evaporator inlet tube, with suitable tool.**
- The accumulator can be removed by loosening the 10mm screw (**Figure 1E**), on the bracket. The bracket does not need to be completely removed.
- Remove accumulator
- **Cover ends of evaporator fittings with tape to prevent contamination.**



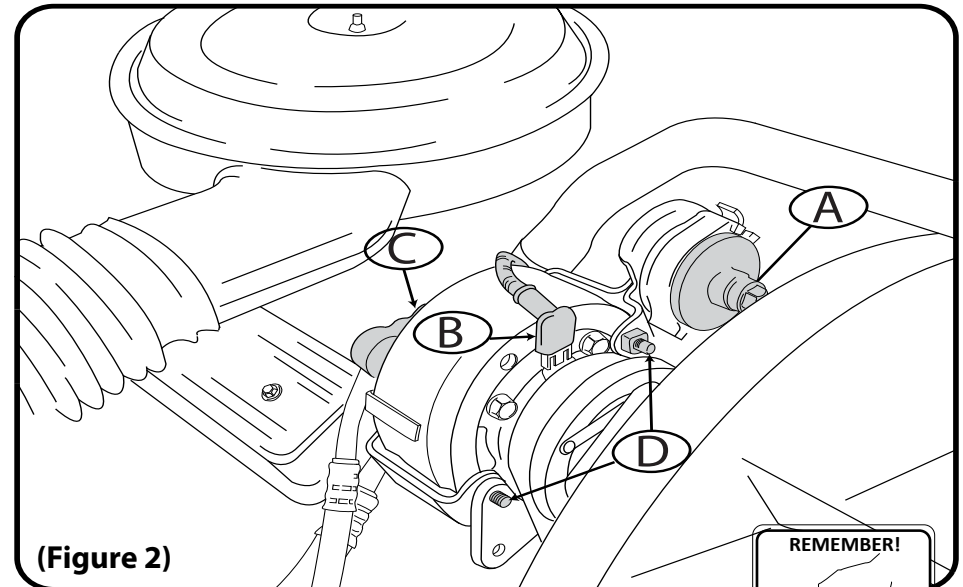


## COMPRESSOR REMOVAL

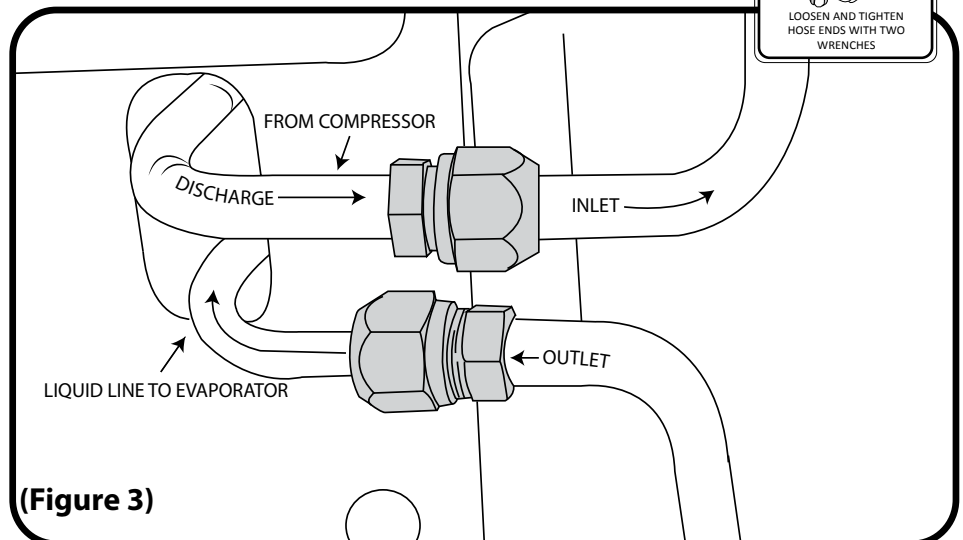
- Remove air cleaner assembly and ducting.
- Remove electrical plug from compressor, move to side for later connection. **(Figure 2B)**
- Detach hose manifold from rear of OEM compressor, **(Figure 2C)** by removing the 14mm bolt in the center of the manifold. Place hose assembly to side for later removal. *Elevate end to prevent fluid damage to engine compartment.*
- Remove drive belt by releasing tension of belt tensioner. **(Figure 2A)**
- Remove two bolts threaded into rear of compressor. **(Figure 2D)**
- Remove compressor from OEM mount

## GRILL/HOSE REMOVAL

- Remove both front turn signal lenses grill (4 phillips screws each)
- Disconnect side turn signal lens bulb and wiring from each side
- Remove screws (8mm) from top of radiator support
- Remove screws (8mm) from grill to latch support



**(Figure 2)**



**(Figure 3)**



## GRILL/HOSE REMOVAL CONT.

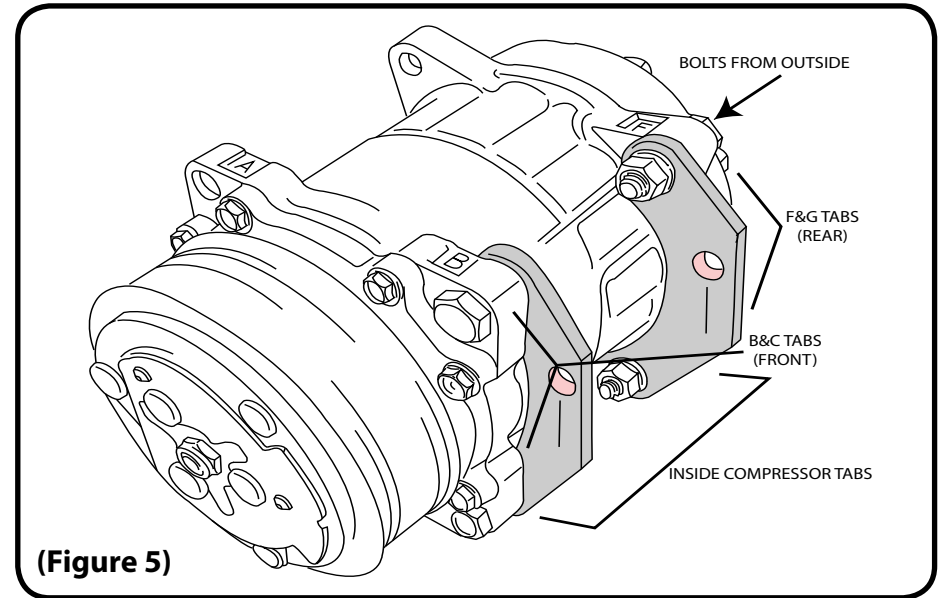
- Remove screws (8mm) from inside turn signal opening
- Carefully slide out grill and place aside for re-installation
- Disconnect and remove discharge hose from condenser. **Liquid line must be removed to allow for proper flushing of condenser. (Figure 3)**
- Hose assembly can now be removed from vehicle.

## COMPRESSOR INSTALLATION (STEEL MOUNT)

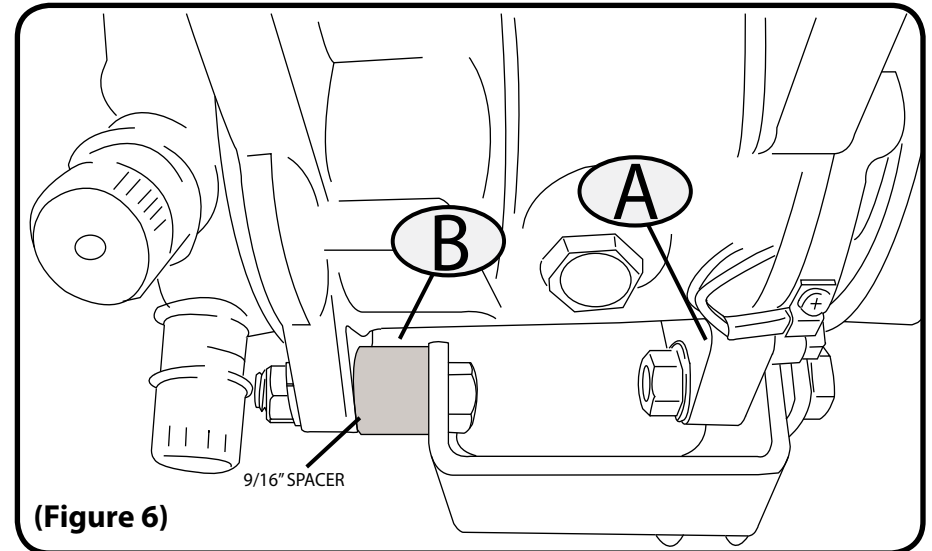
- Using (4x) M10 x 1.50 x 35mm bolts to install supplied brackets to compressor, one bracket will mount inward on B&C tabs of compressor.
- The second bracket will mount inward on the F&G tabs of the compressor. **(Figure 5)**

*Mount holes will be towards top of assembly. (Figure 5)*

- Thread the M10 x 1.50 x 40MM bolt completely into the front of the lower front of the OEM mount, tighten securely. **(Figure 6A)**
- Secure the compressor on the exposed bolt **(Figure 6A)**. Loosely Secure with a nut and lock washer.
- Insert the M10 x 1.50 x 50mm bolt through the lower rear OEM mount. **(Figure 6B)**. As the bolt passed through insert the 9/16" spacer, Loosely secure with a nut and lock washer.



**(Figure 5)**

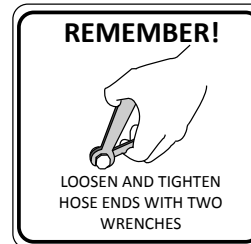
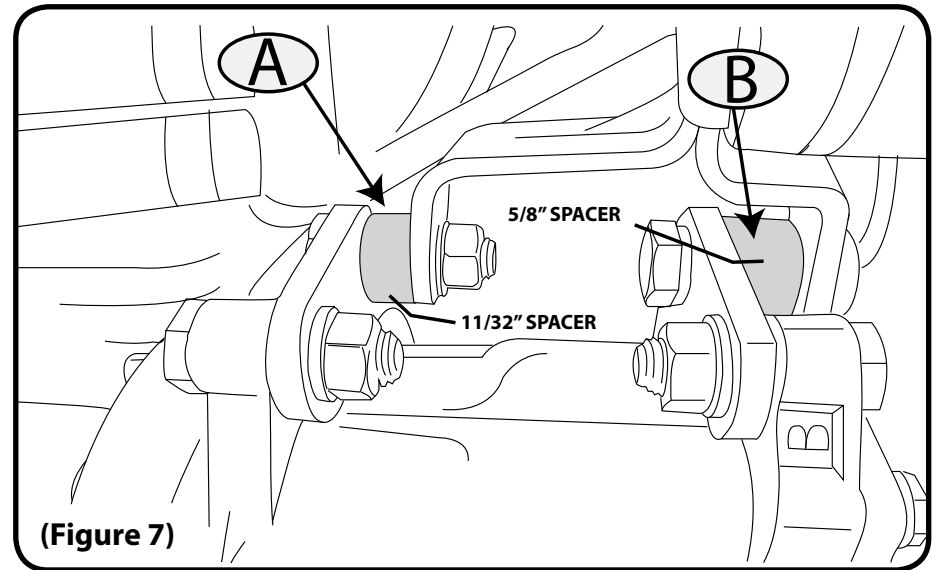


**(Figure 6)**



## COMPRESSOR INSTALLATION CONT. (STEEL MOUNT - CONTINUED)

- Align bracket mount holes with the remaining OEM bracket holes.
- The front bracket (**BC**) will mount to the rear of the front OEM bracket with the 11/16 spacer, (**Figure 7B**) with M10 x 1.50 x 40mm bolt, (threads into OEM mount from rear) lock washer behind bolt head.
- The Rear bracket (**FG**) will mount directly to the rear of the OEM bracket, with 35mm bolt. Nut and lock washer will be attached from the inside. (**Figure 7A**).
- You will need to tighten all of the compressor hardware.
- 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 green wire and crimp the female bullet connector, then connect the male bullet connector from the compressor.





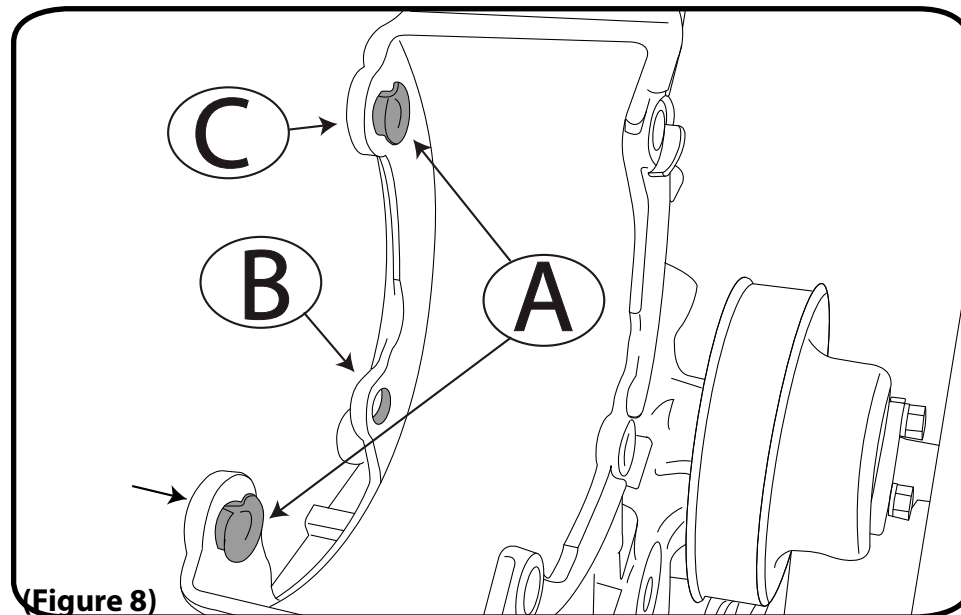


# COMPRESSOR INSTALLATION

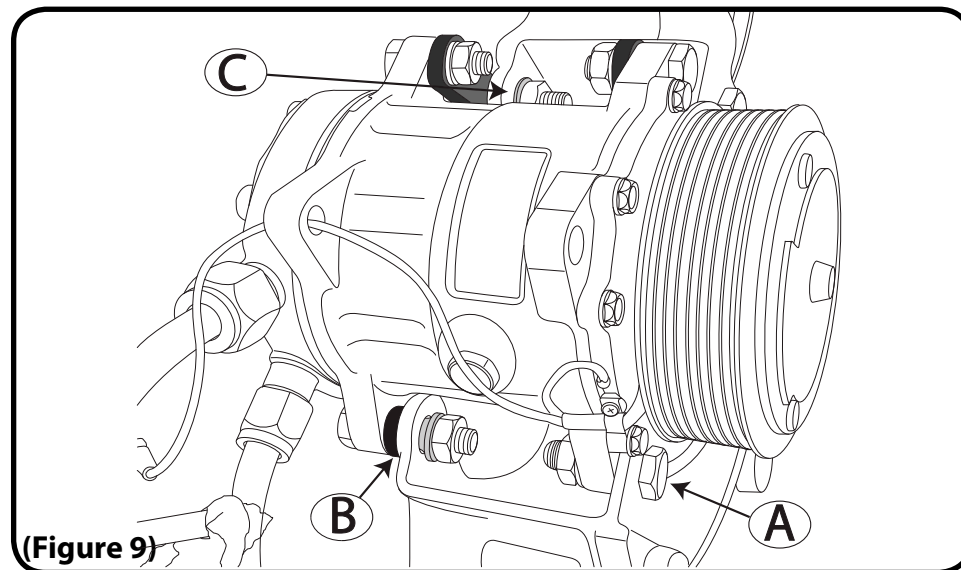
## (ALUMINUM MOUNT)

There are three split flange bushings pressed into the rear holes of the OEM mount. The bushings at the far left and right will be reused (Figure 8A). The center one will not be used (Figure 8B). Before proceeding with compressor installation, please make sure the rear of each bushing is flush with the rear of the OEM mount (Figure 8C). This can be accomplished by tapping on each one lightly to slide them towards the front of the vehicle until flush with the rear face of the mount.

- Insert the M10 x 1.50 x 40MM bolt completely into the front of the lower left front hole of the OEM mount. (Figure 9A)
- Slide the compressor ear D on the exposed bolt. Loosely Secure with a nut and lock washer. (Figure 9A)
- Insert the M10 x 1.50 x 50mm bolt through the lower left rear compressor ear. (Figure 9B). As the bolt passed through, insert the 1/4" spacer between the compressor ear and OEM bracket. Loosely secure with a nut and lock washer.
- The rear adapter bracket (FG) will mount to the rear of the upper OEM bracket, with 40mm bolt. Loosely secure with a nut and lock washer. (Figure 9C)
- Once all hardware is installed, start tightening at front mounting ear D, then BC, followed by rear lower mounting ear H, followed by FG. As both rear mounting ears are tightened, the factory split bushing will slide back through the factory mount. This is normal.



(Figure 8)



(Figure 9)



## 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 green wire and crimp the female bullet connector, then connect the male bullet connector from the compressor.

If the car was equipped with a switch mounted in the back of the compressor, it will be eliminated. Find the wiring and cut the connector off. Strip ends and crimp together using the supplied butt connector. Place back in wire loom.

## ORIFICE TUBE INSTALLATION

***IMPORTANT! GM changed location of the orifice tube throughout production of this generation truck. The orifice tube will be installed in either the inlet of the evaporator (Figure 1F) or inline of the two-part liquid line. It MUST be removed from the two part liquid line location as the new Orifice tube will be only be installed in the evaporator inlet.***

- The evaporator and the liquid line must be properly flushed prior to re-assembly.
- The new orifice tube can now be installed in into the inlet fitting of the evaporator (Figure 1F). Notice small arrows on orifice tube as this should point into the evaporator inlet fitting.
- At this time re-connect the liquid line to evaporator inlet.

## ACCUMULATOR INSTALLATION

- Slide the new accumulator into the bracket, loosely tighten bracket bolt (Figure 1E), until all connections made
- Attach the provided Suction Tube (Figure 1C), to the outlet fitting of the evaporator (Figure 1D).
- With a Schrader valve removal tool, remove the Schrader valve from the Suction Tube. It will not be used with the 134a adapter.
- Screw the 134a adapter onto the R12 port on the Suction Tube without oil, (*adapter has thread-lock on threads*).
- Attach the accumulator to the outlet fitting of the provided suction tube. (Figure 1C).
- Screw provided pressure cycling switch into the port on the top of the accumulator (Figure 1A).
- The factory cycling switch harness will need to have the plug end removed and replaced with the provided plug.
- Plug the pressure cycling switch harness onto the installed switch.
- Secure accumulator bracket once all connections made.



## HOSE/LINE CONNECTION

- Re-connect all fittings loosened during flushing process
- Attach the Suction hose to the accumulator fitting (**Figure 1B**), and the other end to the “**S**” port of the compressor. (*Suction hose has charge port on one hose end*)
- Connect the Discharge hose to the top fitting of the condenser and to the “**D**” port of the compressor.

## GRILL INSTALLATION

- Re-install grill in reverse procedure from previous steps

## 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.

The new compressor will have a slightly larger pulley than the original compressor. The original belt should fit, however you will want to check to make sure the belt is not too tight. It may be necessary to up size your belt from your local parts retailer.

Your vehicle is now ready to take to your A/C technician for charging process

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