

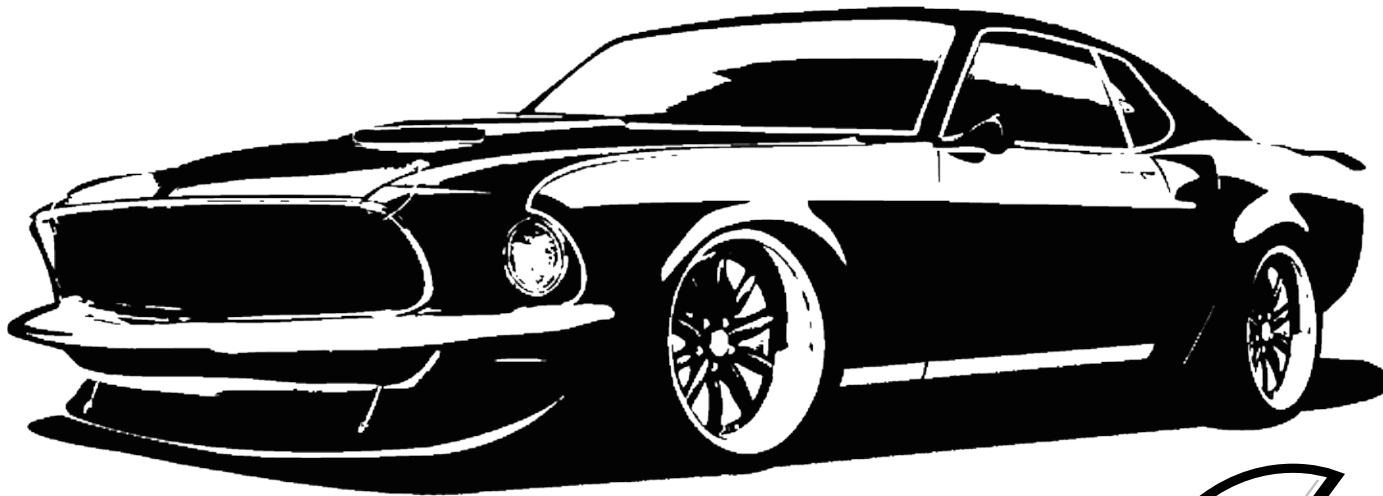


# ***Installation Manual***

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## ***1967-73 Mustang & Cougar***

***Engine Compartment  
Upgrade Kit 22-10X Series***





# ***Congratulations...***

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

To obtain the highest 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. The combined experience achieved through thousands of successful installations (and feedback from customers like you). Please remember that our #1 goal is that you 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 may 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 Wrenches & Sockets, (A set of ratcheting wrenches is suggested for the compressor installation), 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 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.

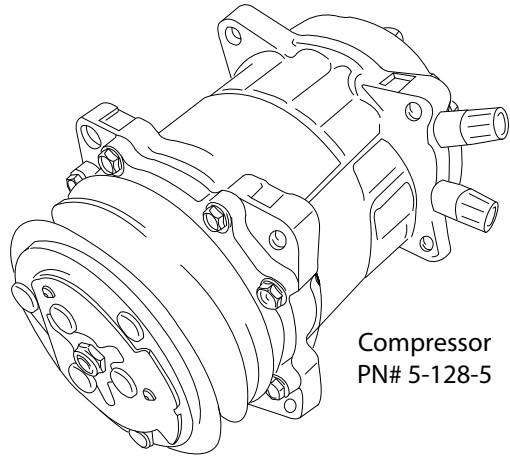
**Should you have any technical questions, call us immediately, we will be glad to assist you.  
Our toll-free number is listed on every page, we're here to help!**

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

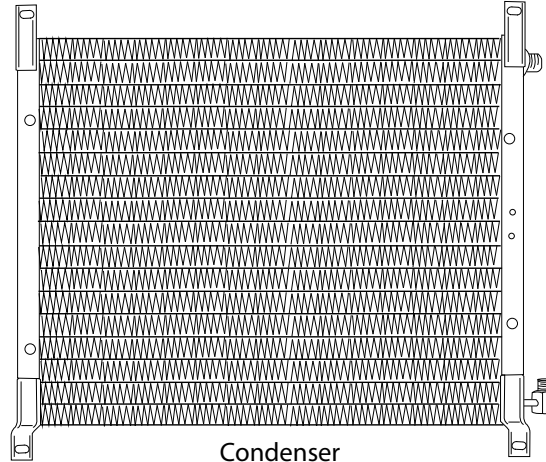


# THESE ARE THE PARTS FOR YOUR ENGINE COMPARTMENT UPGRADE KIT

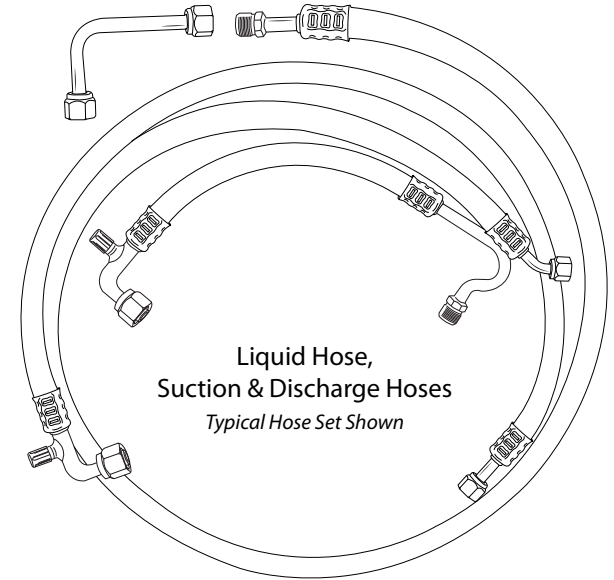
*If your kit happens to arrive incomplete, contact us asap for assistance!*



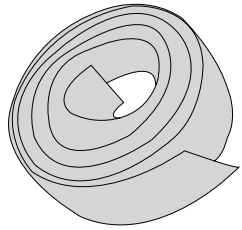
**Compressor**  
PN# 5-128-5



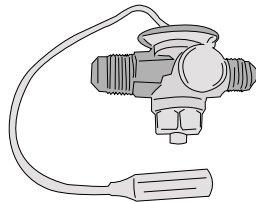
**Condenser**  
Typical - (11-103 Shown)



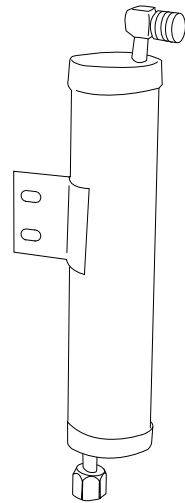
**Liquid Hose,  
Suction & Discharge Hoses**  
Typical Hose Set Shown



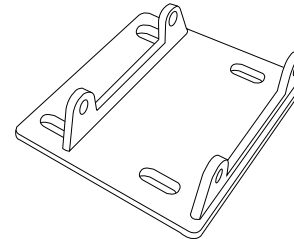
**Cork Tape**  
PN# 15-404



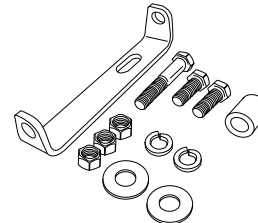
**Expansion Valve**  
Typical - (15-102 Shown)



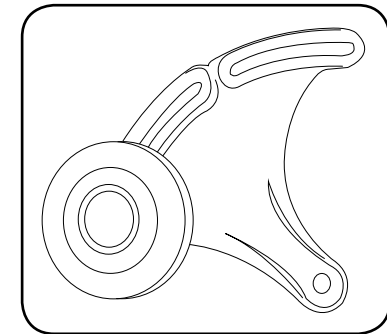
**Drier & Bracket**  
Typical - (12-102 Drier Shown)



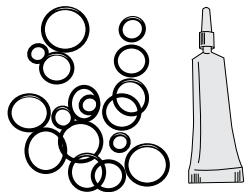
**Compressor Adapter**  
PN# 07-182  
*Not included in all kits*



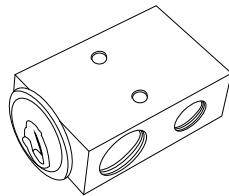
**Idle Adapter**  
PN# 07-183  
*Not included in all kits*



**Idle Bracket**  
PN# 07-148  
*Early 67 289/302 Models Only*



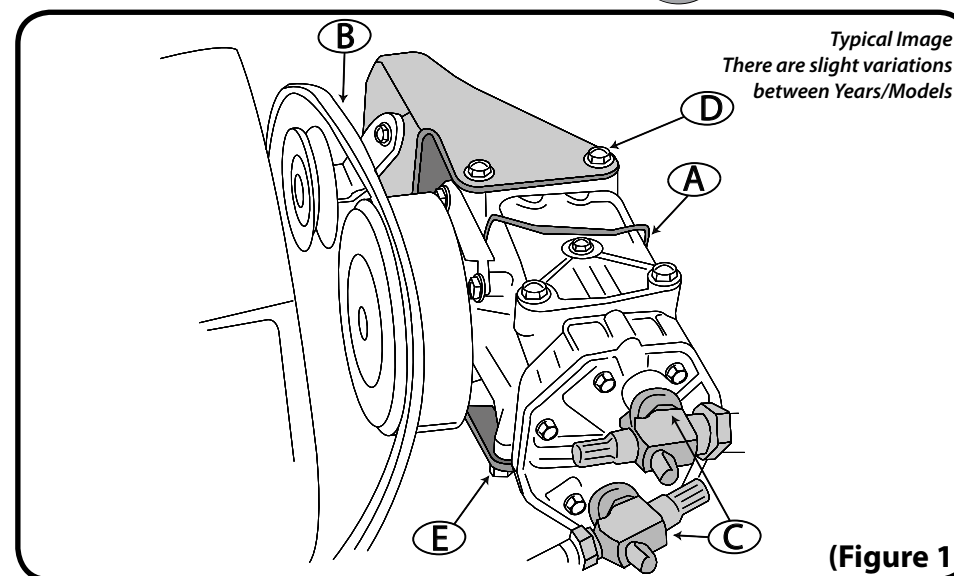
**O-Rings and Lubricant Oil**  
PN# 05-400



**71-73 Expansion Valve**  
PN# 15-104  
*Not included in all kits*

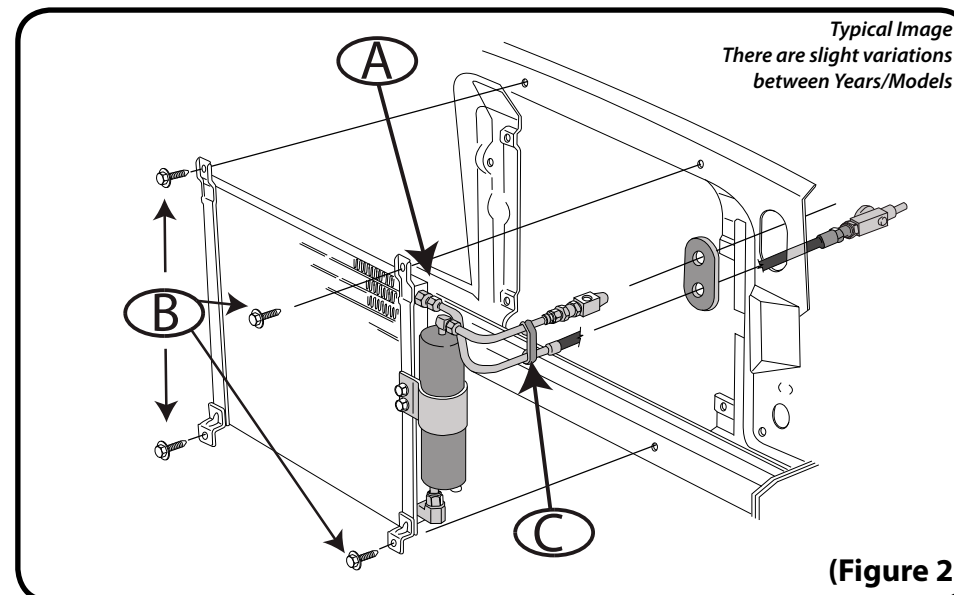
## COMPRESSOR REMOVAL

- Disconnect the compressor clutch wire from the factory harness **(Figure 1A)**.
- Remove compressor belt by loosening tensioner bolts. - *Actual idler pulley configuration may differ from image.* **(Figure 1B)**.
- Disconnect both hose fittings from compressor head. *(Position loose hoses so that remaining fluid does not come in contact with painted surfaces)* **(Figure 1C)**.
- Remove bolts from top compressor bracket **(Figure 1D)**.  
Remove bolts from bottom compressor bracket **(Figure 1E)**
- Carefully remove the compressor from the engine brackets and engine compartment. *(Take care not to drip compressor oil on painted surfaces)*
- *Early 67 models will have a "Dog-Leg" compressor bracket with attached idler. Both will need to be removed.*



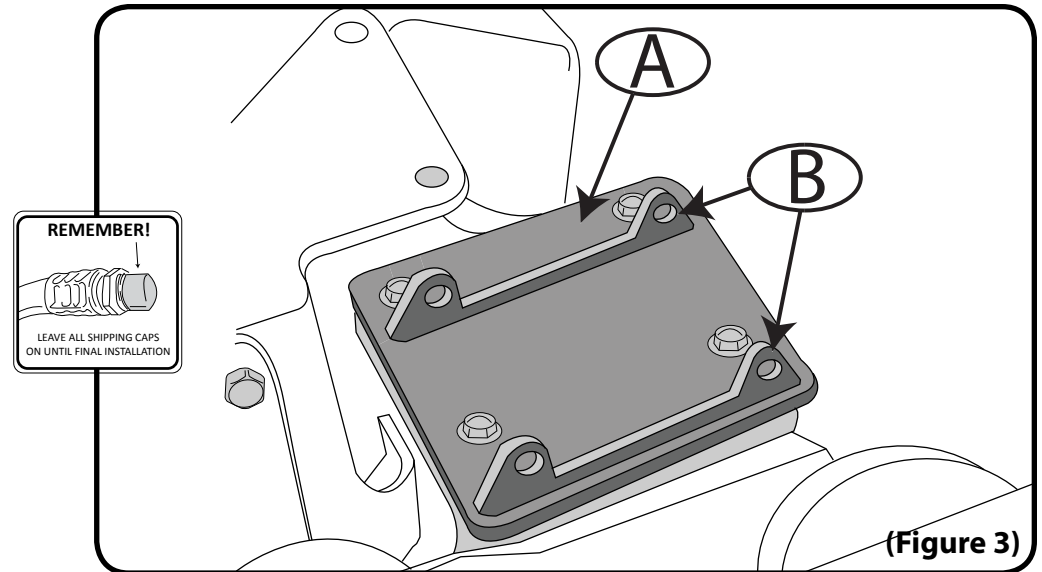
## ORIGINAL PARTS REMOVAL

- To access the drier and condenser, you will want to remove the hood latch, grill assembly, and lower valance.
- Remove any refrigerant hose brackets, *(Usually on engine side of radiator support)*.
- Remove radiator support refrigerant line grommet.
- Disconnect the refrigerant lines at the drier and condenser **(Figure 2a)**



## ORIGINAL PARTS REMOVAL

- Remove discharge hose from vehicle (Hose going to compressor)
- Remove liquid hose from vehicle (Line going to expansion valve at evaporator)
- Remove cork tape, clamp, and sensing bulb from evaporator suction/inlet tube. **Retain clamp for re-use.**  
*(71-73 Models have internal sensing on expansion valve "block")*
- Remove expansion valve at evaporator inlet fitting.
- Remove the condenser attaching bolts (**Figure 2b**). *It may be necessary to remove drier from condenser first on some models.*
- Disconnect Suction hose from evaporator fitting at firewall (hose going to compressor), and remove hose.

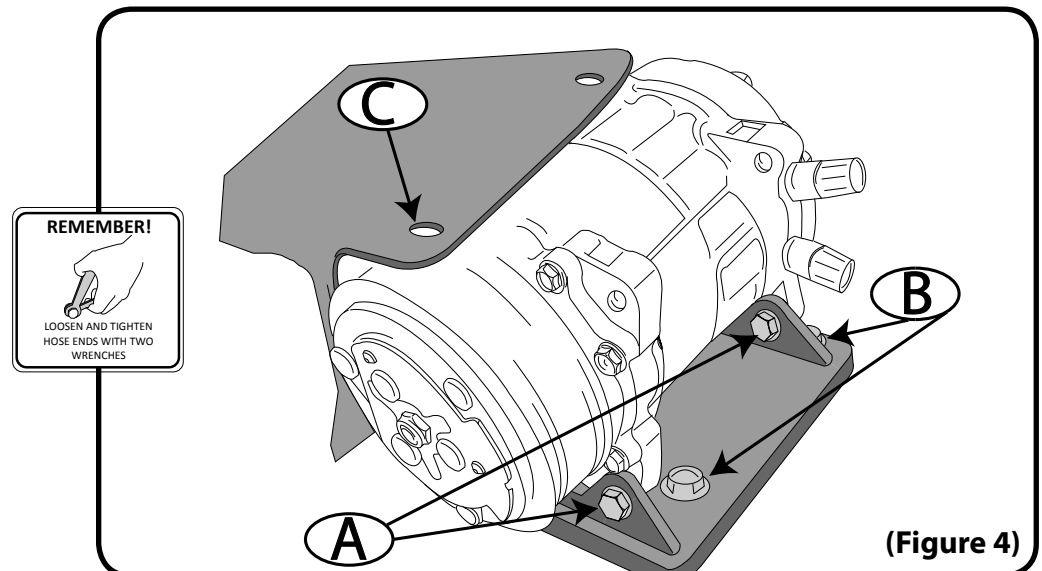


(Figure 3)

## COMPRESSOR INSTALL NOTES

*If you have an early 67 model with included 07-148 bracket you will attach it at this time following the instructions included with the bracket. Disregard the next three steps involving the attachment of the 07-183 adapter. This adapter does not apply to early 67 models.*

**\*\*\*Some kits will include an alternate compressor mount. Refer to the included instructions of the mount if your application requires.**

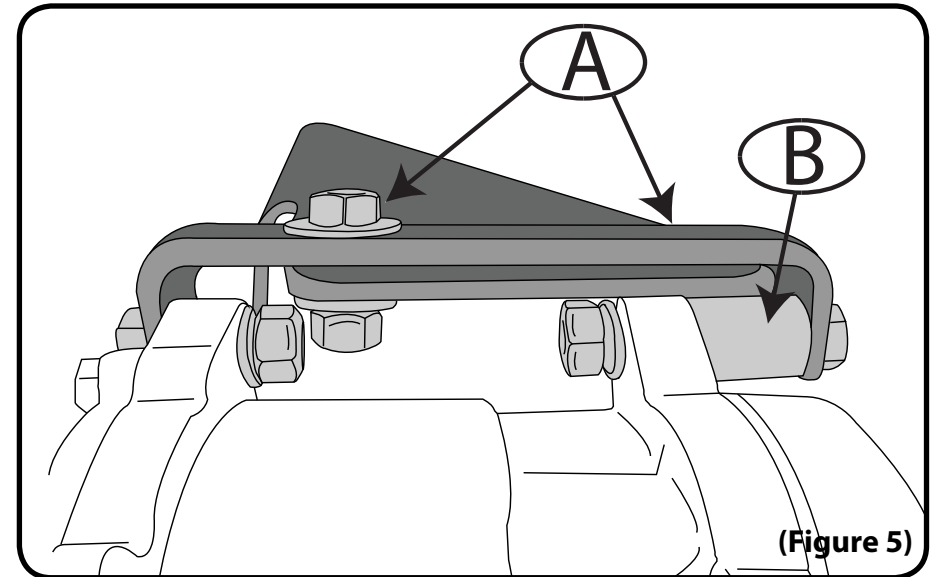


(Figure 4)



## COMPRESSOR INSTALLATION

- Loosely attach the 07- 182 compressor adapter to the original bracket - See diagram included with mount. **(Figure 3a)**
- Attach the new compressor on the adapter plate loosely with included hardware. **(Figure 3b & 4a)**
- Align compressor clutch pulley with engine pulleys.
- With alignment confirmed, complete tightening of the 4 adapter plate hardware and compressor to adapter bolts. **(Figure 4b)**
- Attach the 07-183 idler adapter to the top of the factory compressor mount using the included hardware. **(Figure 5a & 4c)**
- Spacer will attach in between the compressor and 07- 183 bracket **(Figure 5b)**
- The compressor wire will need to be connected to the original wiring.



## READ BEFORE PROCEEDING

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



### IMPORTANT NOTE:

*67/68 Vehicles have Flare Fittings at Condenser, Expansion Valve and Evaporator Fittings. O rings cannot be used. Oil should be applied to flare connection after inspection for marring. Flare fittings are to be tightened by hand then an additional 1/2 Turn with two wrenches.*



## EXPANSION VALVE INSTALL

- Remove old o-rings from all evaporator fittings.
- Thoroughly remove old cork tape residue from evaporator suction tube. (*Lacquer thinner is suggested*)
- Install new o-rings. Be sure to lubricate with included oil before attaching valve.
- Install & tighten expansion valve to evaporator inlet fitting.
- Route new sensing bulb to original location on suction tube.
- Secure tightly with original clamp.
- Wrap entire suction tube, and sensing bulb with included cork tape. Ensure there are no air pockets in tape wrapping.
- *71-73 models do not necessarily need cork tape, however some technicians will apply the tape over the exposed diaphragm "top-hat" casing.*

## HOSE CONNECTION

- Loosely attach the Suction hose fitting to evaporator outlet fitting on the firewall. Be sure to lubricate the O-ring with included oil before tightening fitting.
- Route the Suction hose to the "S" (Larger) port of the compressor and attach the fitting. Be sure to lubricate the O-ring with included oil before tightening fitting.
- Tighten Suction fitting at evaporator. (*after hose routing*)
- Loosely attach the liquid hose to the expansion valve at the evaporator.
- Route the liquid hose to the drier location at the radiator support. *Liquid line fittings will be tightened in later step.*
- Loosely connect the Discharge hose to the "D" (Smaller) port of the compressor. Be sure to lubricate the O-ring with included oil before tightening fit. *Discharge hose will be attached and tightened after it has been installed to condenser.*

### IMPORTANT NOTE:

*67/68 Vehicles have Flare Fittings at Drier & Liquid Fittings. O rings cannot be used. Oil should be applied to flare connection after inspection for marring. Flare fittings are to be tightened by hand then an additional 1/2 Turn with two wrenches.*





## DRIER & CONDENSER INSTALL

- Align drier with lower fitting on condenser. Be sure to lubricate the O-ring with included oil before loosely attaching fitting.
- Align mounting holes of drier bracket with holes of condenser. Loosely attach mounting screws. **(Figure 2c)**
- Tighten lower fitting on drier/condenser and bracket mounting screws.
- Align condenser with holes in radiator support.
- Loosely install condenser mount bolts.
- Loosely install the liquid line fitting to the drier. Be sure to lubricate the O-ring with included oil before tightening fitting.
- Tighten both fittings on liquid line.
- *67/68 models will have an additional 90 degree fitting at drier - it will need to be tightened after indexing.*
- Route the Discharge hose through the radiator support.
- Loosely connect the Discharge hose to the inlet fitting of the condenser. Be sure to lubricate the O-ring with included oil before tightening fit.
- Tighten both fittings of discharge hose.
- Re-attach grommet to the tubes at the radiator support.
- Attach the tubing bracket. **(Figure 2c)**
- Tighten all the condenser mounting bolts.
- Reattach hood latch, grill assembly & lower valance.

## 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 smaller pulley than the original compressor. The original belt should fit, however you will want to check to make sure the belt is not too loose. It may be necessary to reduce the length of your belt at your local parts retailer.

Your vehicle is now ready to take to your A/C technician for the evacuation & charging process.