

Installation Instructions

*Important information about your
new a/c system.*

*Please read the following directions prior to
installing this a/c system.*

1947-1955 CHEVY PICKUP



◆Contact us by email or phone if you need any assistance or information regarding this a/c system.

888-977-8889

Sales@nostalgicairparts.com

The Nostalgic Air Parts team would like to thank you for your recent purchase of a complete a/c kit for your truck. There are a few steps that must be followed in order for your a/c system to operate properly.

- The **HIGH SIDE** gauge reading should not exceed 230 PSI. We **MUST** have the **HIGH SIDE** gauge reading if you need any assistance in correcting a potential problem.
- If you purchased the a/c compressor from **NAP, DO NOT ADD ANY OIL, DYE, LEAK SEALANTS, OR OTHER ADDITIVES TO ANY PART OF THE SYSTEM.** If oil is required NAP will provide an additional sheet with directions on filling the system with oil.
- Be sure you have the correct pulleys for the engine prior to installing the kit. Pulleys are not included unless specified when the kit is ordered.
- Insulation is very important. Be sure to insulate the firewall and floorboard prior to installing the evaporator unit. It is very important to insulate the floor and firewall behind the evaporator unit.
- There should be adequate airflow from the radiator fan, and a sufficient amount of room between the condenser and radiator. Make sure the **CONDENSER HAS A TUNNEL EFFECT OF AIRFLOW THAT FLOWS THROUGH THE CONDENSER AND RADIATOR.** Foam can be put in between condenser and the radiator edges to achieve a proper airflow effect. There should be ¼” to 1” gap in between the radiator and condenser. **EFFECTS OF INADEQUATE AIRFLOW:** the compressor may act like it is “locking up”, warm air only from the vents, overheating of the engine, high head pressure, air blows cold at idle and blows warm while driving, and more.
- Find the proper flow of the water prior to installing the heater control valve. Water should be turned off prior to entering the evaporator / heating unit. It should only be turned off when the heat is needed. If you are experiencing warm air out of the evaporator check the compressor low side fitting. If it is ice cold then the heater valve is not hooked up properly.
- **DO NOT USE THE SIGHT GLASS!** The system should be charged with R-134a ONLY. If you do not follow this instruction your warranty may be void and you may not be eligible for technical assistance. **EFFECTS OF OVERCHARGING:** Compressor is “noisy”, engine overheating, warm air only from the vents, and more.
- If a problem exists after checking all these conditions you may call or email for technical assistance. **IF YOU DO NOT HAVE THE HIGH SIDE GAUGE READING WE WILL NOT BE ABLE TO ASSIST YOU IN FIXING THE PROBLEM.**

PARTS CHECKLIST

- | | |
|---|------------------------|
| <input type="checkbox"/> Compressor with Oil | PN: 15-5002 |
| <input type="checkbox"/> Evaporator Unit | PN: ID260 DO |
| <input type="checkbox"/> Drier | PN: 4-1000 |
| <input type="checkbox"/> High Low Pressure switch | PN: 119-9900 |
| <input type="checkbox"/> Binary Pig Tail | PN: 119-9904 |
| <input type="checkbox"/> Condenser | PN: 44-1418 |
| <input type="checkbox"/> Engine Mount kit | (Engine specific) |
| <input type="checkbox"/> Bowden Cable X 2 | PN: 77-3007 |
| <input type="checkbox"/> Hardware bag kit | PN: 920-1009 |
| | Includes: |
| | Two grommets |
| | 12 self tapping screws |
| | #6,8,10 orings |
| | Cork tape |
| | Evap. Mount Brackets |
| | Drain Tube |
| | Nuts / Bolts / Washers |
| | Heater control valve |
|
 | |
| <input type="checkbox"/> Hose Kit | PN:HK-920 |
| <input type="checkbox"/> Driver side vent | PN: P-313 & 5017 |
| <input type="checkbox"/> Underdash Vent pod w/ ctls | PN: P-213 & 5017 x 2 |
| <input type="checkbox"/> 2" duct hose x 4 | PN: DH20 |
| <input type="checkbox"/> 2-1/2" duct hose x 8 | PN: DH25 |
| <input type="checkbox"/> 10X10 Flat abs | PN:P-447 |
| <input type="checkbox"/> R-134a Sticker | PN: SZ100 |
| <input type="checkbox"/> Directions | |

STEP ONE

Installing the Evaporator unit:

- 1) To begin installing an in-dash a/c unit, you must first remove the old heater system. The firewall must be clear of all the old heater system. The glove box should be removed for better access.
- 2) If there is a hole in the firewall that was used for the old heating system it must be blocked off. Abs plastic or metal can be used to do this.
- 3) Insulate the firewall to stop the transfer of heat through the firewall.
- 4) Remove the 5/16" bolt from the outside passenger hood hinge; replace it with the 1" 5/16 bolt supplied. See figure 1.1

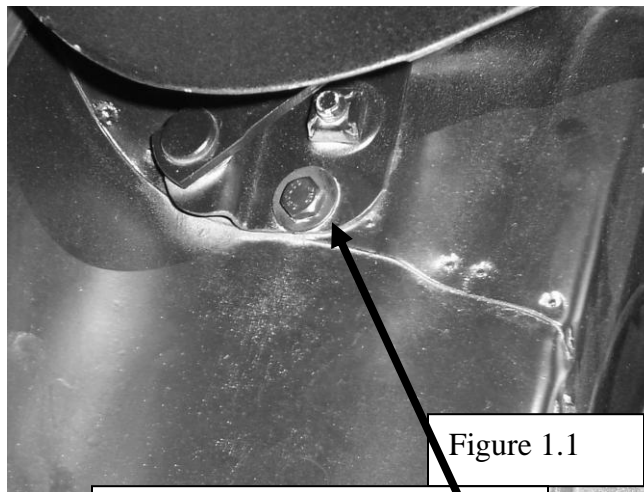
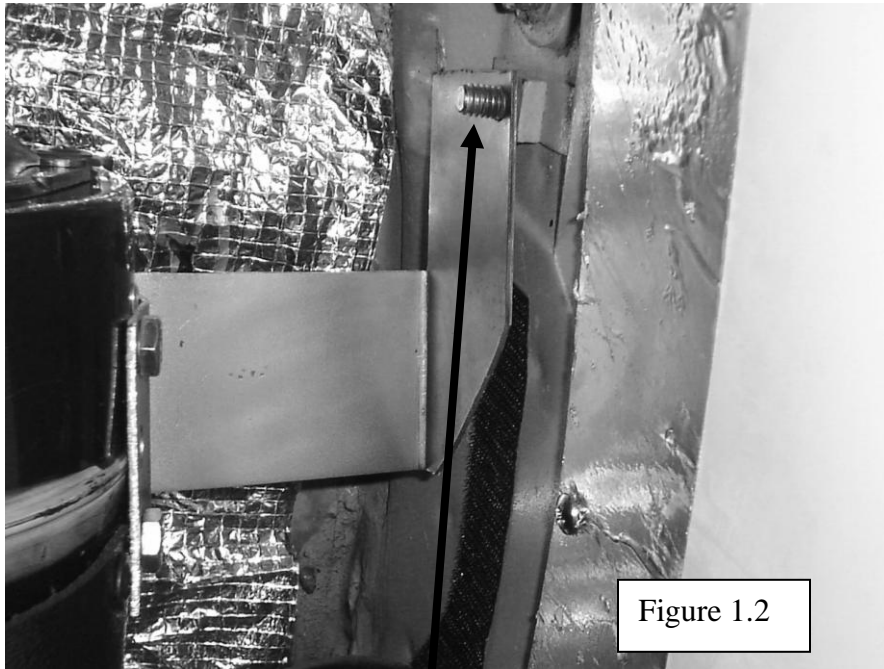


Figure 1.1

Remove original bolt and replace with supplied bolt.

- 5) Attach the "U" shaped bracket to the right side of the evaporator housing. The drain outlet goes against the firewall. Attach the "L" shaped bracket to the left side of the evaporator housing. The left side can be adjusted up and down to get the box level. With the mounts attached place the evaporator on the 5/16 bolt that was inserted through the hood hinge mount. Hold the unit level and mark the "L" bracket location on the firewall. Remove the "L" shape bracket then screw it or bolt it to the firewall.
- 6) With the Evaporator unit in place you can remove it as necessary to finish the installation. Be sure to insulate the firewall before the final mounting of the unit.
- 7) The evaporator unit should be mounted for the final time after the hoses have been run through the firewall. See figure 1.2 and 1.3



5/16 Bolt through the hood hinge for the evaporator bracket



Figure 1.3

- 8) The drain hose can be drilled at this point or at the end of the installation. Use a $\frac{3}{4}$ " hole saw for the drain tube, be sure it is not kinked and that it is not resting on any sharp edges.

STEP TWO

Controls and wiring:

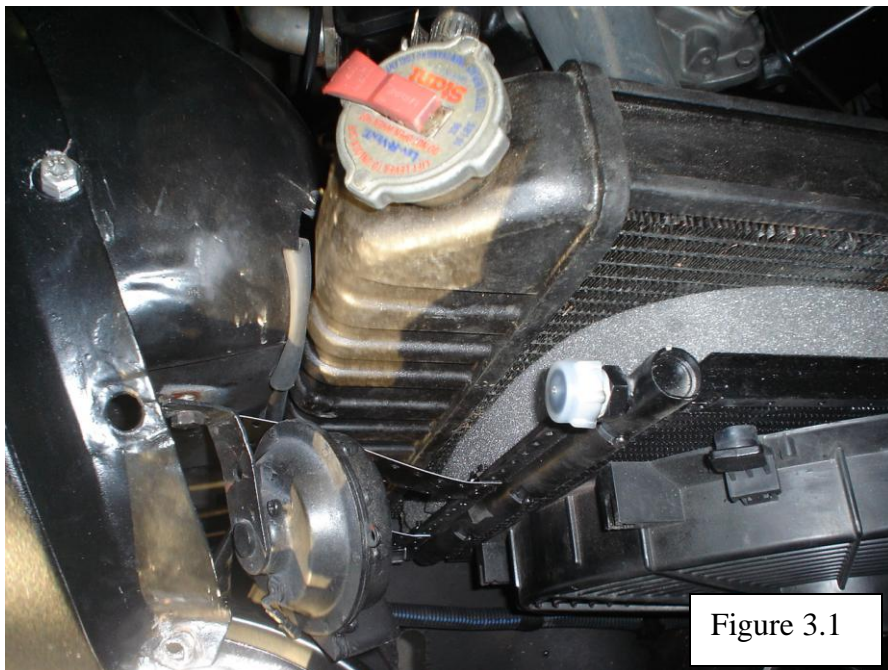
- 1) The control and vent under-dash assembly is mounted under the dash from the passenger side to the middle. The important step is to insert the silver probe on the thermostat into the evaporator coil. This probe will be inserted into the evaporator coil. The probe **MUST** go into the coil at least 1.5 inches to 2 inches. There is a hole on the top of the evaporator box with a white sticker for the probe insertion point. Be careful when unwinding the coil they are fragile. If it is cracked the thermostat will have to be replaced.
- 2) After the probe is inserted and the controls are ready to install it is time to wire the unit. There is a three-plug wire on the controls and the evaporator unit, the plug will have to male and one female barrel connector, they plug together. There will be a ground wire coming off the blower motor assembly, ground this wire to the body or dash.
- 3) The wire with a fuse inline is the power source, it is hooked into the ignition wire. Find a source that is hot when the key is on.
- 4) The other wire hooks into the binary safety switch, which is to be installed in the drier, from the switch, it plugs into the compressor. The binary switch cannot be hooked up incorrectly.
- 5) **DO NOT HOOK UP THE COMPRESSOR WIRE UNTIL THE SYSTEM IS READY TO CHARG, DOING SO COULD CAUSE MAJOR HARM TO THE COMPRESSOR.**
- 6) Mount the remote vent to the left of the steering column with the self tapping screws.
- 7) After the installation is complete we recommend hooking up all the duct hose and defrost outlets.
- 8) There are two supplied cables for the defroster and heater control valve. These cables can be mounted in the dash or in the under-dash vent assembly. We did not drill the holes in the assembly so the customer may choose where to mount the pull cables.



STEP THREE

Installing the condenser:

- 1) The condenser will have to be mounted so the small fitting, #6, is on the bottom. The large fitting is at the top. We recommend mounting the condenser so the hoses exit on the same side as the compressor.
- 2) When mounting the condenser in front of the radiator, again make sure the small fitting is on the bottom, and the large fitting is on the top. Use the flat brackets to install the condenser, with the included screws attach the brackets to the radiator core support and to the condenser.
- 3) **DO NOT INSTALL THE CONDENSER ON THE INSIDE OF THE RADIATOR**, between the motor and the radiator.
- 4) Please be sure not to puncture the condenser when installing it, there are holes designated for the mounting brackets.
- 5) The condenser should be .25" to 1" away from the radiator, if more space is needed be sure to fill the sides of the condenser in with a foam fill. The object is to get a tunnel effect of air through the condenser and radiator; you do not want air to escape between the two. See figure 3.1



* If the radiator fan is not sufficient or does not have a shroud an electric fan may be required. Notice the foam around the condenser edges, and the mounting straps to the core support.

STEP FOUR

Installing the drier and binary switch:

- 1) The drier can be installed in any location you choose, be sure to mount the drier so the fittings on the top.
- 2) The drier says “IN” on the top, the “IN” should be facing the front of the car, the hoses will run from the condenser “IN” the drier and out to the expansion valve.
- 3) If you are using R-134a freon DO NOT USE THE SIGHT GLASS.
- 4) The binary switch is to be mounted in the drier. There are two plugs (hex head bolts) on both sides of the drier some driers only have one. Unscrew one plug and install the binary into the switch port, remove the green cap from the binary switch. Be sure the o-ring is on the binary switch.
- 5) The binary switch should on be tightened one quarter of a turn past snug.



STEP FIVE

Installing the mount kit and compressor:

- 1) The mount kit will include directions for installation, please use the directions. Please note that mount kits are designed for engine, but many engines are built with components that do not match applications to the original engine setup. If the bracket does not fit exact please understand some minor fabrication may be required.
- 2) When installing the bracket, leave the bolts loose until the compressor is mounted. It is very easy to crack a compressor if the bracket is not installed properly. Please tighten the entire bracket in a random order while tightening do not strain any one point.
- 3) If a belt is not included, use a string to measure the length of the belt, or refer to the mount kit directions for the belt size.
- 4) Pulleys are not included with kits, unless it is specified. Chevy engines require double groove water pump pulleys, triple groove crank pulleys if running power steering, and a double groove power steering pulley.
- 5) When mounting the compressor be sure to make sure the hoses and charging ports clear the hood and the inner fender.
- 6) The compressor can be mounted with the fittings pointing in any direction. If the fittings are pointed at any angle lower than 45 degrees be sure to attach the crimped a/c hoses first. It is not recommended to mount the compressor on any angle over 45 degrees, only do so if the bracket is designed to fit the compressor on an odd angle. If the hoses are not attached first the oil can drain out, which can cause a system failure
- 7) **THE COMPRESSOR IS FULL OF OIL NO ADDITIONAL OIL IS REQUIRED.** Attach the hoses, and leave the oil alone, don't add any oil to any part of the system. If oil is added the system could have many problems. A few are a sour milk smell from the vents, improper cooling, low side pressure is low, expansion valve failure, and a noisy compressor.

STEP SIX

A/C hose routing and installation:

- 1) The a/c hoses are to be crimped with an a/c hose-crimping tool. Most a/c stores, and some auto parts stores have crimping tools. The hoses can be hooked up in any order you choose. The hose kit is a universal hose kit there will be left over fittings and hose when the job is done. The grommets require a 1-1/4" hole through the firewall.
- 2) Starting with the large hose #10 or 1/2". This hose goes from the large fitting on the compressor to the evaporator unit. The compressor will get the fitting with the charging port, low side. This hose will run through the firewall so be sure to use a grommet, 1-1/4" hole required.
- 3) The next size hose is #8 or 13/32". This hose runs from the compressor to the condenser. The compressor will get the fitting with the high side charging port on it. The condenser fitting connects to the fitting at the top of the condenser. When running the hose through or around the core support make sure it is protected it with loom. A hole can be rubbed into the hoses if they are against metal edges.
- 4) The third and fourth hose to install is the # 6 or 5/16" hose. Start with the # 6 hose that runs from the bottom fitting on the condenser to the "IN" fitting on the drier. From the drier the hose will go through the firewall and grommet, 1-1/4" hole, to the expansion valve on the evaporator. After this hose is attached, place the black insulation tape over the fittings. Keep the #10 and #6 hoses close together when routing through the firewall, it makes the evaporator installation process easier.
- 5) The fittings included with the hose kit can be used in any manner necessary to run the hoses without kinking the lines. Make sure the hoses do not rub edges without protection, and be sure to include O-rings on all the connections. Oil is not necessary on the o-rings, it can be added to the threads on the fittings to stop them from seizing. DO NOT USE TEFLON TAPE. Tie the hoses down from flopping around, and keep the hoses off of the exhaust.

Heater hose installation:

- 1) The heater hoses on the evaporator will attach into the existing heater hose connections on the engine. The hoses can be hooked up to either side of the heater core in the car. If the heater hoses are kinking due to the directions of the heater outlets and the dashboard, 180-degree pre-made hoses are available at most parts stores. This will eliminate the kinking of the heater hose under the dashboard. The heater hoses are 5/8 on the heater core, if your vehicle has 3/4" outlets, step down adapters are available at most parts stores.
- 2) After the heater hoses are installed, the heater control valve needs to be placed in the heater valve. This valve **MUST** turn the water off prior to the water entering the heater core. If the water flows through the core, the gauges will read correct, and the temperature of the unit will only get to 65 degrees out of the vents. If you are unsure of the water flow, turn the engine over with the heater hoses disconnected from the engine to determine the direction of flow.
- 3) A cable is provided to operate the heater valve. This cable needs to be attached to the valve so the valve opens when the cable is pulled. The valve should go under the hood in the engine compartment. If you wish to use the original heater controls, use the existing cable to hook up to the control valve. The pull cable can be mounted in or under the dash.

STEP SEVEN

Installing the drain tube:

- 1) The drain tube goes from the drain outlets on the evaporator through the floorboard of the vehicle. The hole should be 3/4" and the drain tube should be straight without any kinks, or sharp edges to cut a hole in it.

STEP EIGHT

Charging the system:

- 1) DO NOT ADD OIL TO ANY PART OF THE SYSTEM. DO NOT USE DYE, LEAK SEALANTS, OR ALTERNATIVE REFRIGERANTS IN THE SYSTEM. We are not able to diagnose problems if the directions are not followed.
- 2) The system should be evacuated in order to achieve maximum cooling from the system.
- 3) After the system is evacuated and ready to charge, plug the compressor wire in.
- 4) When charging the system start with 1.5 LBS of R-134a refrigerant. The ideal pressures of the system are 15-28 on the low side and 180-230 on the high side. If the system is not within this range with 1.5lbs of R-134a add more freon in .25LB increments. If the high side gets high, and the low side stays low you have a condenser-cooling problem. Please see the first page.

If more assistance is needed please email or call us.

Thanks again for the purchase.