



Nostalgic AC Parts

"Keeping Your Classics Cool"

TR-6 DIRECTIONS



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

Important information about your system, and warranty

- ➔ DO NOT ADD ANY OIL TO ANY PART OF THE SYSTEM.
- ➔ DO NOT USE THE SIGHT GLASS TO CHARGE THE SYSTEM.
- ➔ DO NOT OVERCHARGE THE SYSTEM.

This Kit is designed to work with R134a refrigerant, not any other refrigerant (freon). The system has been designed and tested using R134a refrigerant. The systems performance with this freon was as expected. Vent temperature of 37-45 F Degrees, and a high side pressure reading at 200-220psi.

The system should not exceed 250psi on the high side, and the low side will stabilize if all is installed correctly.

WE NEED THE HIGH SIDE GAUGE READING IN ORDER TO HELP WITH ANY PROBLEMS.

The system needs to be evacuated for maximum performance. The system will take 1.50 lbs of R134a refrigerant, or two cans. You want the high side to be 200-220psi when the system is on and the vehicle is idle.

DO NOT ADD DYE TO CHECK THE SYSTEM. WE HAVE HAD PROBLEMS WITH THE EXPANSION VALVES GETTING CLOGGED.

If you have a problem with the system we ask to call before diagnosing or changing any parts. We can fix problems easier if the system is not tampered with.

If you have a warranty claim you need to call prior to shipping any parts back.

OUR POLICY IS TO GET THE OLD PART BACK PRIOR TO SHIPPING ANY NEW PARTS OUT.

We are not responsible for the following:

Clogged expansion valve from too much oil, or dye

Cracked compressors from improper installation

Compressor with broken valves from overcharging of oil or refrigerant

Burned up clutches from too high of head pressure

We will be here to serve you seven days a week by phone and / or email
Please contact us if you need assistance.

888-977-8889

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

- È The **HIGH SIDE** gauge reading should not exceed 200 PSI. We **MUST** have the **HIGH SIDE** gauge reading if you need any assistance in correcting a potential problem.
- È 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.
- È 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.
- È 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.
- È 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.
- È 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.
- È **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.
- È 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

15-5003 Sanden Style Compressor V-belt

2405 Compressor mount kit

UD-600 Evaporator unit and drivers side vent pod

44-7477 14 x 18 Condenser with brackets, fan, drier, and binary switch

HK-906 R-134a Hose Kit

15430 Belt

77-4025 Evaporator hardware bag:

- **77-9402 X 1** **½" Drain Tube**
- **S-23 X 2** **# 10-24 X 1" Stainless button head**
- **S-16 X 12** **Self tapping screws**
- **N-1 X 2** **10-24 Nut**

Kit Directions

STEP ONE

Condenser installation

- 1) The condenser should have the fan mounted, Relay with mounting harness, the drier attached with the binary, and the condenser mount brackets attached.
- 2) The condenser sits in front of the radiator, the top brackets are slotted are slotted. The brackets slide in between the nut and the support on the side of the radiators. Figure 1.1
- 3) After the top two brackets are mounted use two self tapping screws to secure the bottom of the condenser. We recommend drilling two pilot holes before using the self tapping screws.

Figure 1.1



Figure 1.2



- 4) The electric fan should be wired up through a relay, below is a diagram for wiring up the Relay. When wiring the fan up; make the sure the fan is pushing air. The fan is reversible so the ground can be the hot and the hot can be the ground.

RELAY WIRE SETUP

30	BATTERY
85	GROUND
86	COMPRESSOR WIRE, (SPlice IT IN THE WIRE FOR THE COMPRESSOR)
87	FAN POSITIVE
87a	NOT USED

The fan will have to be grounded as well. Only four wires are used on the plug for the relay.

STEP TWO

Evaporator installation

Driver Side:

- 1) **There is a vent “Y” on the driver and passenger side of the vehicle. The “Y” ties into the existing vents in the dash. The hook up on the “Y” is not used with the a/c system. You can remove the “Y” for more room to mount the vent and evaporator system. Figure 3.1**
- 2) **Mount the evaporator to the bottom of the dashboard using the self tapping screws included with the kit. The unit will align with the dash and the ignition pod. Figure 3.2**
- 3) **Run the vent hose and the thermostat wire to the passenger side of the vehicle. The vent hose can be crushed down for easier routing; do not crush it flat, air has to be able to move freely through the hose. The kick panels may have to be modified for the duct hose routing. The thermostat wire will run across the vehicle to the passenger side evaporator box. The silver probe is sensitive, if it is kinked or bent to sharply it will break. Please unwind it and route it gently. The evaporator box has a hole with a white sticker over it for the installation of the probe; it should stick 1” to 1.5” into the evaporator box.**
- 4) **The wire with a fuse inline is a power wire. This wire should hook into the fuse box. Find a terminal that has power when the key is turned on.**
- 5) **The single wire with a bullet connector goes to the binary switch on the drier. This wire may have to be lengthened, the wire can go to either side of the binary hi / lo switch. From the binary a wire should run to the relay for the fan that connects to the compressor. See the relay wire diagram for the compressor hook up.**
- 6) **The three wires with a connector plugs into the blower motor on the passenger side of the vehicle. This plug will mate up to the blower motor plug; run these wires with the duct hose and thermostat probe.**

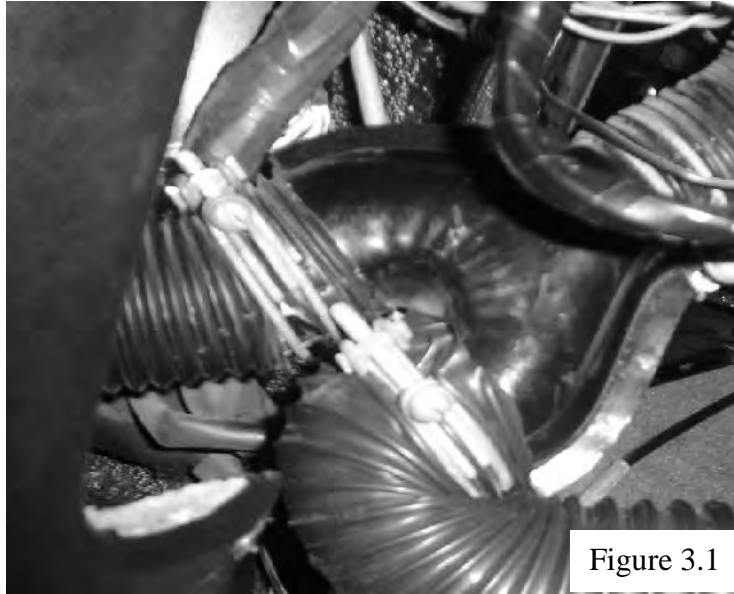


Figure 3.1

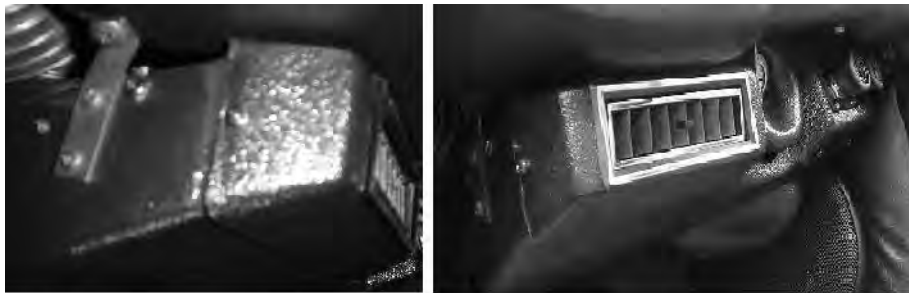
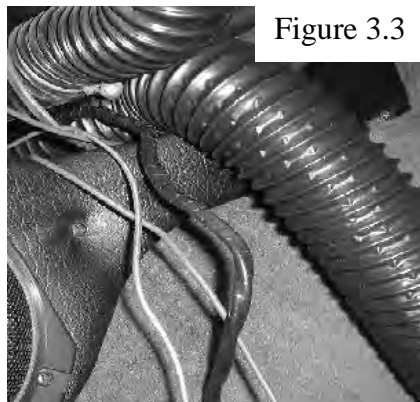


Figure 3.2



Figure 3.3



Passenger Side:

- 7) The passenger side evaporator has to be installed after the hoses and wiring is attached. We recommend test fitting first, then removing it and connecting everything before the final install. The evaporator mounts to the bottom of the dashboard, and to the rear of the cowl. See figure 3.4
- 8) Attach the a/c hoses to the evaporator box first. The hoses with the bulkhead fitting will attach to the evaporator box. After the orings are installed, both hoses are tight wrap the black insulation tape around the fittings, expansion valve, and exposed metal of the fittings.
- 9) Attach the box to the bottom of the dash, run the hoses toward the firewall and mark where the hoses will exit. After the firewall is marked, remove the evaporator box and use a 5/8" and 7/8" hole saw for the making the holes. Screw the bulkhead fittings into the holes.
- 10) After the hoses are attached you can attach the flexible duct hose. Self tapping screws or a wire tie strap can be used to hold the hose to the hose adapter. Plug the blower plug to the plug from the driver side box. Insert the thermostat probe into the evaporator case. Ground the black wire from the blower motor to the mount that is on the blower housing. This bracket is a "Z" shaped bracket that attaches to the cowl area of the firewall. Use the screws with nuts to attach this bracket.
- 11) Attach the Drain tube to the Evaporator housing route it as pictured to the firewall. Drill a 3/4" hole through the firewall for the drain.



Figure 3.4



Figure 3.5

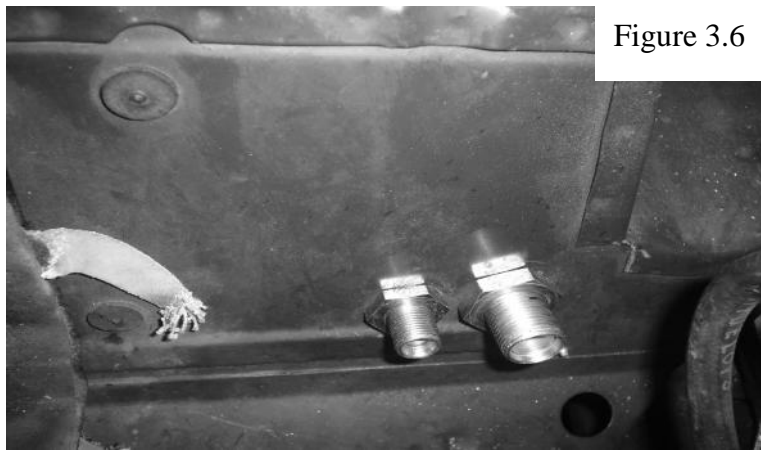


Figure 3.6



Figure 3.7

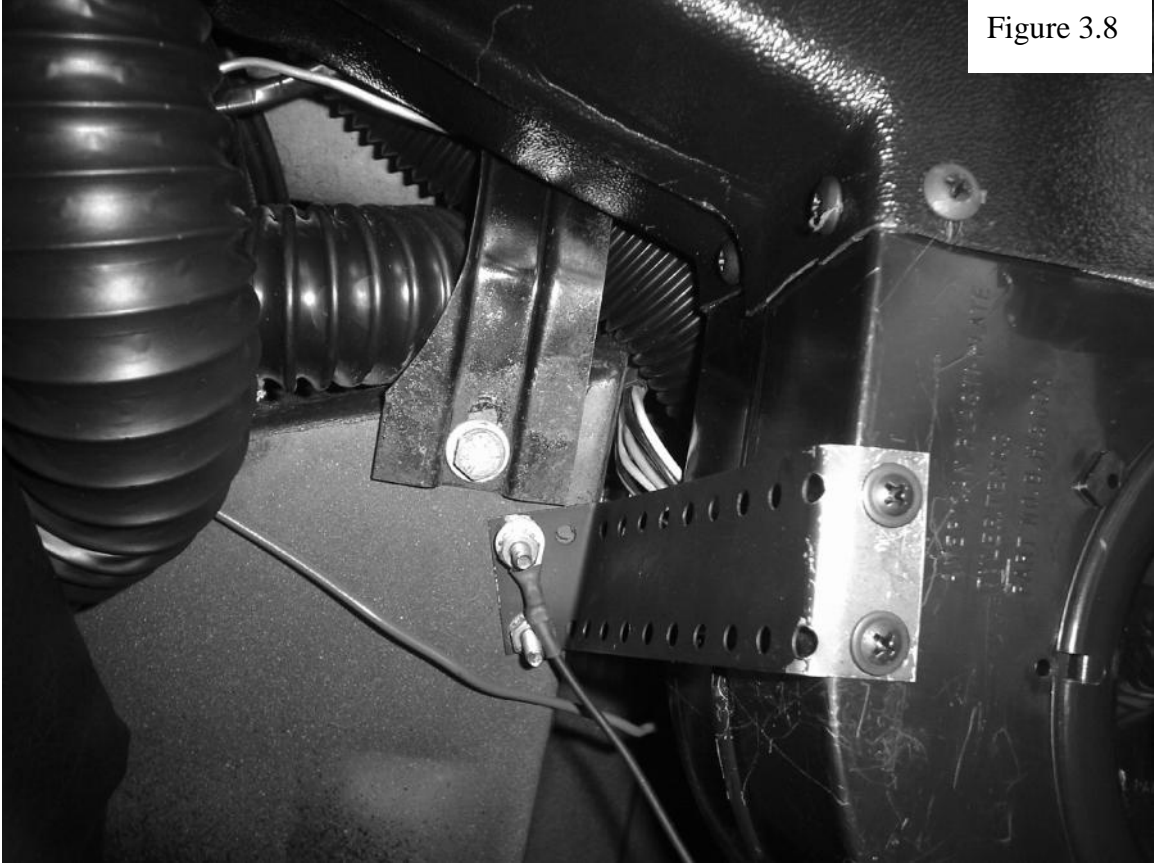


Figure 3.8



Figure 3.9

Step Three

Hoses

- 1) The hoses can only attach one way. There are three different size hoses. The smallest is 5/16" - # 6, the middle size is 13/32" - # 8, the large hose 1/2" - #10.
- 2) The number six hose will attach from the firewall bulkhead fitting to the drier which is mounted on the condenser. Please put orings on all the fittings, oil is not necessary.
- 3) The second hose attaches from the bulkhead fitting in the firewall to the compressor.
- 4) The third hose attaches from the compressor to the condenser.
- 5) Make sure the hoses do not rub on metal, if they are going to rub use a cover to protect them. Do not let the hoses touch the exhaust. After the hoses are mounted you can tie them together for a cleaner look, but leave a little slack for vibration.
- 6) Please see the pictures below for routing, and hookup.



Step Four

Finishing Installation

- 1) After the installation is complete evacuate the system for 30 minutes with a vacuum pump. The system will pull down to 28.5 (29) PSI below zero.
- 2) Do NOT add ANY OIL to ANY PART OF THE SYSTEM. Just ADD R-134a refrigerant.
- 3) The system holds 20 ounces of R-134a refrigerant.
- 4) The controls are adjusted as follows: The fan control is a three speed blower fan, low, medium, high. When the fan is off the compressor should be off.
- 5) The thermostat controls the temperature. The thermostat allows the a/c to get colder as you turn the knob clockwise. The ideal position is all the way clockwise and back a 1/8 of a turn.

2405 TR6 Mount Kit

Components for TR6 engine bracket

PN: 2405 mount kit

- 2405 mount bracket
- WATER PUMP SPACER
- 15430 BELT
- B28 x 4
- N16 X 4
- W12 X 5
- W4 X 5
- B51 X 4
- B54 X 1
- 999-2420 Crank pulley
- 77-5020 1/8" Spacer
- 77-5001 shoulder bolt for idler pulley
- B44 X 1 Eccentric bolt
- 77-5005 v-belt idler pulley
- EC0008C Eccentric

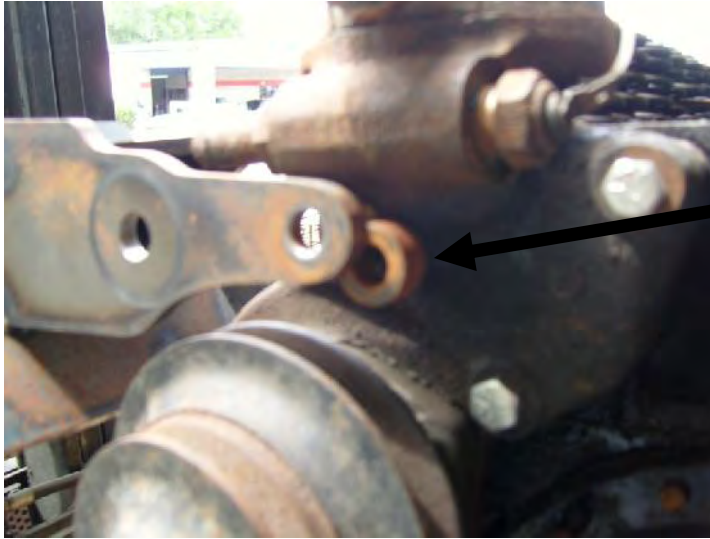
- 1) The compressor mount bracket is designed to fit the TR6
- 2) Remove the front two head nuts on the motor.
- 3) The new bracket is raw metal; if it does not get painted it will rust. The idler pulley and eccentric (idler pulley arm) do not need paint.
- 4) The mount bracket bolts to the top of the motor on the head bolts and on point on the water pump.
- 5) Use the 5/16"-24 x 3-3/4" bolt with a lock and flat washer to attach the bracket water pump. Do not tighten the bolts until all the bolts are started.
- 6) At this time you can tighten the bracket to the engine.



Use the two existing head bolts to secure the top of the bracket.

Fasten the bracket to the water pump using the 1/8" spacer provided





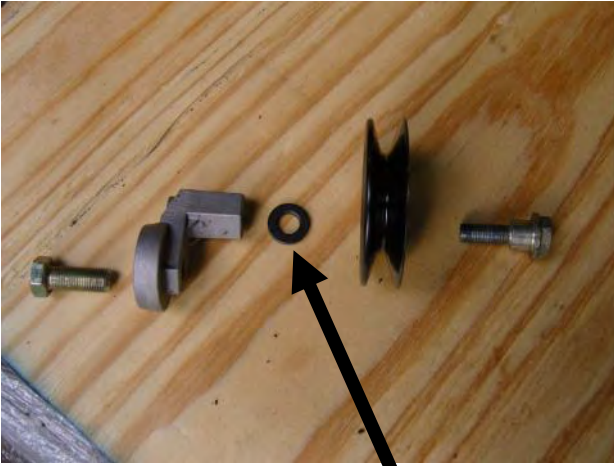
Use the 1/8" water pump spacer between the bracket and the water pump

- 7) Remove the fan from the crank shaft and install the new crank pulley using the four 5/16-24 x 2-1/4 bolts washers and lock washers provided.



- 8) Reinstall the fan on the new crank pulley with the original hardware.

- 9) The compressor is going to sit on the front side of the tabs on the bracket. The fittings on the compressor will point to the side, facing the inner fender well.
- 10) Mount the compressor using the four 3/8-16 x 1-1/4 hex head bolts provided. Don't tighten the bolts yet.
- 11) After all the bolts are snug with the washers and nuts you can tighten the compressor.
- 12) Attach the idler pulley to the eccentric using the shoulder bolt and spacer.
- 13) After the compressor is mounted you can attach the eccentric using the 1/2-20 x 1-1/4" hex head bolt, do not tighten the arm, just leave it snug so it does not flop down.
- 14) Install the 15430 belt.
- 15) Use the adjustment arm to tighten the belt.



Use the 1/8" spacer between the pulley and eccentric



After the engine bracket, belts, and idler are installed the engine should look like the picture.