

1987-1995 Jeep Wrangler YJ

CK-8790..., CK-9195..., CK-8795YJSBC, CK-8795NC

## Installation instructions

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# IMPORTANT INFORMATION ABOUT THE INSTALLATION FOR THE YJ A/C KIT

## Evaporator / Blower Unit information:

Prior to installing your evaporator unit, make sure the blower motor spins without rubbing the case. The motor gets knocked around in shipping and may move. If the wheel is rubbing, loosen the clamp and re-center the motor.

## Wiring information:

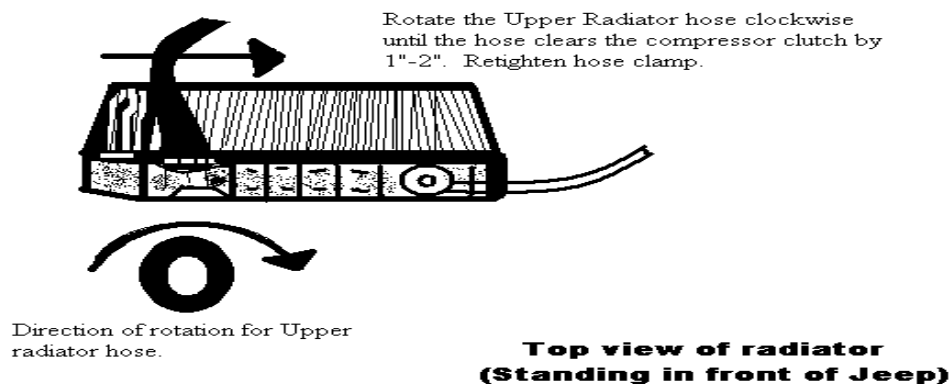
In order to make the installation process less complex we have simplified the wiring for this a/c system.

There are only three wires to hook up. A test light will be used to hook up one wire.

- 1) Wire with a fuse inline. This wire hooks into an ignition source, a hot wire with the key on. Use the test light to find this source.
- 2) Wire with an inline plug. The inline plug goes to the switch on the drier, from the plug in the drier to the compressor. **DON'T HOOK THIS UP UNTIL YOU CHARGE THE SYSTEM.**
- 3) Ground wire, there will be one wire on the blower motor that is not plugged in. Ground this wire to the chassis. (Normally Yellow or Red)

## Radiator hose adjustment:

After installing the radiator and attaching the upper hose, it may hit the a/c compressor clutch. If this happens please rotate it an inch or two away from the compressor clutch, then retighten the clamp. See diagram below.



## Expansion Valve Adjustment:

If the expansion valve hits the heater box while installing the evaporator unit you will have to move the expansion valve. You can GENTLY bend the expansion valve, and evaporator fitting to fit in the vehicle. Move the fittings as necessary to fit the box. It is designed to fit, but may require an adjustment.

## **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.

The YJ 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 Jeep 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

## Parts List

- Compressor with Oil
  - CK-8790.. PN: 15-5001
  - CK-9195.. PN: 15-5002
  - CK-8795SBC PN: 15-5001
  - CK-8795NC Compressor adapter only  
PN: GM1600
  
- Evaporator Unit
  - PN: 96-7351
- Drier W/ Binary Switch
  - PN: 915-2320
- Condenser
  - PN: 93-7877
- Engine Mount kit with belt
  - CK-8790.. PN: 8011
  - CK-9195.. PN: 8017
  - CK-8795SBC Depends on engine  
specs, per customers setup
  - CK-8795 NC No compressor bracket
  
- Hardware bag kit
  - PN: 920-1007
  - Includes:
    - Two grommets
    - Hose hold down
    - 10 self tapping screws
    - #6,8,10 orings
    - Cork tape
    - Evap. Support Bracket
    - Drain Tube
    - 4 5/16" x 1" bolts
    - 4 5/16" flat washers
    - 4 5/16" lock washers
    - 4 5/16" nuts
  
- Hose Kit
  - CK-8790 2.5 PN: HK-900
  - CK-8790 4.0 PN: HK-901
  - CK-9195 2.5 PN: HK-902
  - CK-9195 4.0 PN: HK-903
  - CK-8795SBC PN: HK-920
  - CK-8795NC PN:HK-920
  
- R-134a Sticker
  - PN: SZ100
- Directions

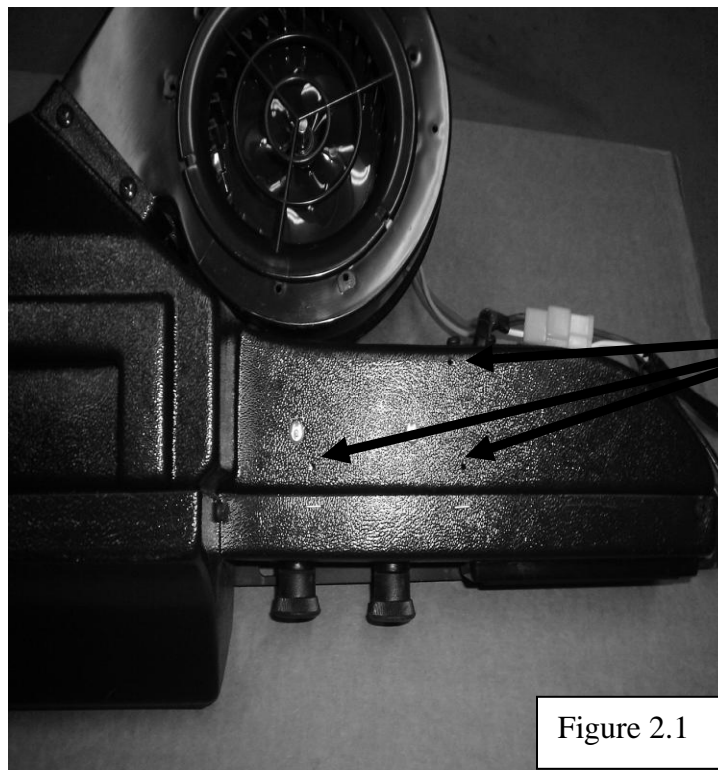
## Step One

1. Disconnect the Negative cable first and then Positive Battery Cable.
2. Remove the Ashtray from underneath the dashboard. Slide the ashtray out of the holder in order to remove all the screws.
3. Leave all the wires going to the ashtray connected if possible, or disconnect and reconnect after the installation.

## Step Two

### Installing the Evaporator

1. Some evaporators are shipped with the blower motor not attached, if the blower is not attached; use the six supplied screws to attach it now. The holes are pre-drilled, be sure to line the holes up. The screws for the blower housing will be taped to the unit.
2. Attach the Ashtray to the unit, using the three holes on the bottom side of the unit.



3. Place the evaporator inside the vehicle. Locate the mounting holes on the bottom of the dashboard. After locating all the holes use the self-tapping screws to mount the unit to the bottom of the dashboard. **BE SURE TO SECURE EVERY HOLE WITH A SCREW.**



4. The original wires on the ashtray will hookup, as they were before you added the a/c.
5. Attach the steel "L" shaped bracket to the firewall to support the unit. This bracket secures the unit from hitting the gas pedal.
6. There are four dimples in the firewall near the gas pedal arm, choose the two dimples closest to the pedal arm for attaching the "L" bracket. Use the two Self Tapping screws to fasten the bracket. If the gas pedal arm interferes with the blower housing you will have to cut it down. We recommend 3/16" above the large round hole. \* See attached sheet



7. Pull the carpet back on the passenger side and locate the area for the hoses to go through the firewall. The holes will have to be drilled with a 1.25" hole saw. The center of the first hole will be two inches under the heater box and two inches two the right of the transmission tunnel curve. The second hole will be two inches to the right of the first hole.



8. Insert the two rubber grommets at this time. Lube may be needed to feed the larger a/c line through the grommet.

9. Attach the drain tube to the evaporator unit. A 5/8 " will have to be drilled into the floor to the left of the first grommet. Put some tape around the drain tube at the point it goes through the floor, this will help to not sever the tube, from rubbing on the bare metal. **BE SURE NOT TO DAMAGE THE TRANSMISSION.**

## Step Three

### Installing the Drier

1. If the switch is not attached to the drier, attach it at this time. The switch only goes on "hand Tight" use a wrench to tighten it. **BE SURE TO ONLY SNUG THE SWITCH.**
2. On the passenger side inner fender well near the front of the jeep is where the drier will mount. Some YJ's have three dimples for mounting the drier. If the dimples are not present, be sure to mount the drier on the flat surface of the inner fender well. With three self tapping screws secure the drier to the inner fender well.

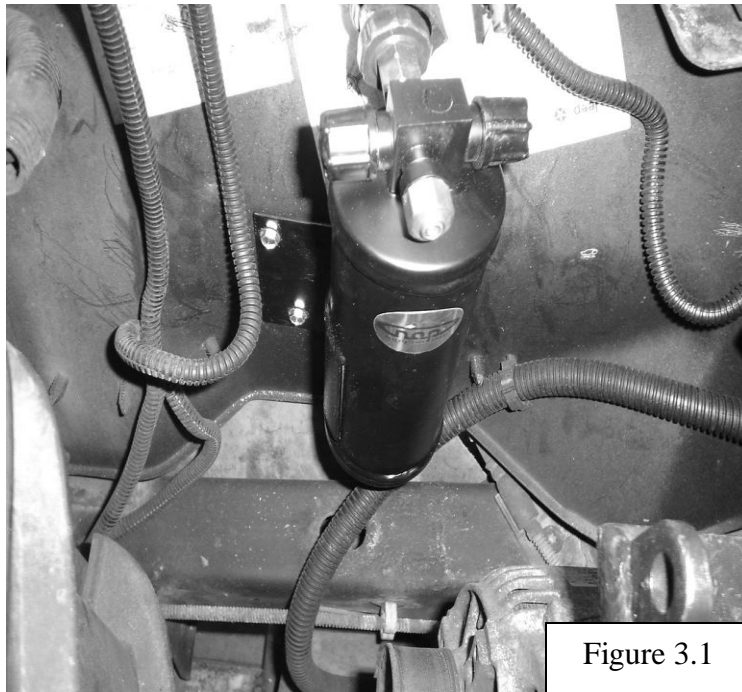


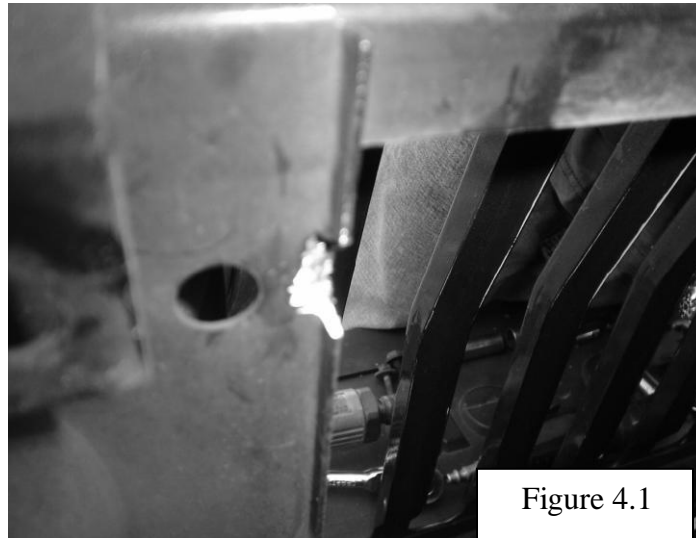
Figure 3.1

3. The switch of the drier will face the passenger side wheel, and the top of the drier will say "IN" that should face the radiator area of the vehicle.
4. If a universal drier is provided, attach the drier with the two brackets provided with the "IN" facing the front of the vehicle, and the switch toward the passenger side tire.

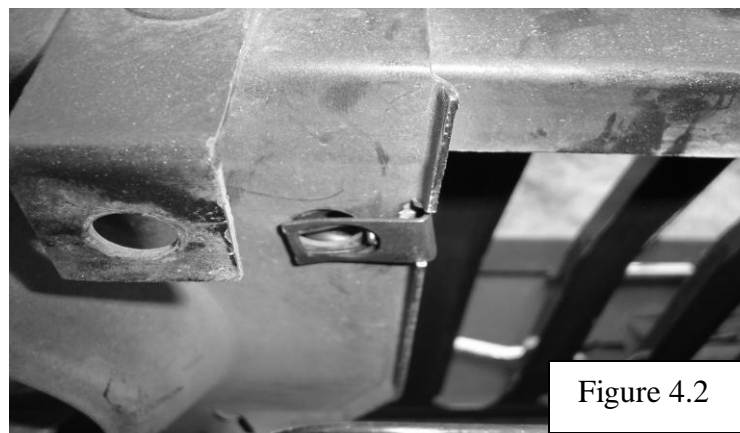
# Step Four

## Installing the condenser

1. Drain the Radiator into a clean drain pan.
2. Remove the radiator fan shroud from the radiator.
3. Remove the top four bolts from the radiator and loosen the bottom two. Some Jeeps with aftermarket radiators may not have a slotted hole on the bottom of the radiator, if this is so, you will have to remove all six bolts.
4. With the radiator out of the Jeep place the condenser in the Jeep to find the four holes used to mount the condenser.
5. The top two holes have a lip that will not allow the U-nut to fit onto the core support. Take a grinder and smooth the core support so the U-nut will slide over the core support.



6. Slide the four U-nuts over the core support.

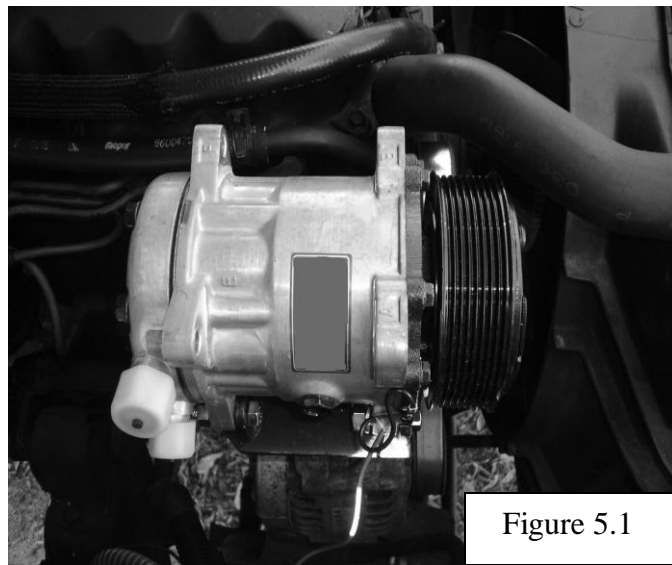


7. Sit the condenser into the core support, then bolt the condenser to the four U-nuts with the included 5/16 bolts and washers.
8. Reinstall the Radiator, and shroud
9. Fill the Radiator with the antifreeze and water. You may have to run the Jeep in order to fill the radiator to its full capacity.

## Step Five

### Installing the compressor mount and compressor

1. This kit is designed to work with many different engine combinations; Please use the directions supplied with the mount kit to install the mount, compressor and belt.
2. The compressor can be mounted with the fittings on the side or straight up.
3. The compressor (if purchased with the kit) will be full of oil. **DO NOT ADD OIL TO THE SYSTEM.**

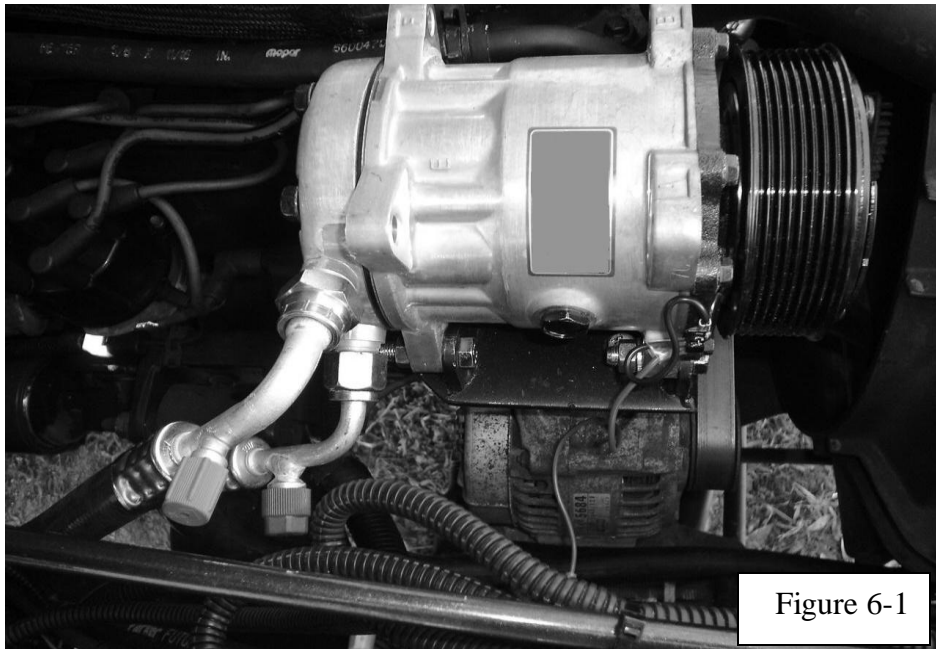


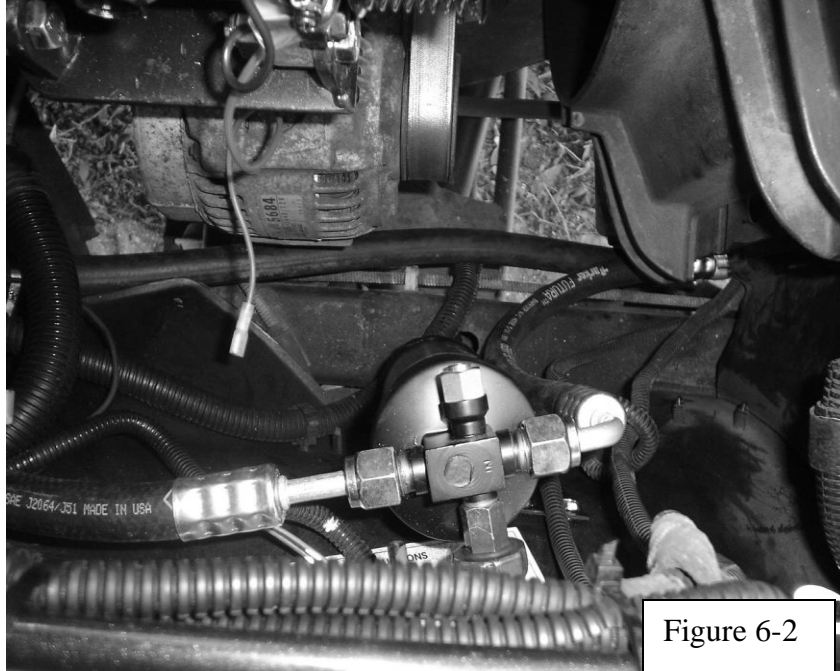
4. If the radiator hose is rubbing the compressor pulley, please see page 2 of the directions.

## Step Six

### Connecting the Hoses

1. The hoses on some kits are not pre-made. If your kit has pre-made hoses, follow step two. If your hoses are not pre-made go to step Three.
2. The smallest hoses are # 6, the 13/32" hose is # 8, and the large hose 1/2" is # 10. The number 10 hose will have the grommet already attached; it will run from the compressor to the evaporator. The number eight hose will go from the compressor to the condenser. The number six hose will go from the condenser to the drier, and the second hose will go from the drier to the evaporator. **BE SURE TO PUT O-RINGS ON ALL CONNECTIONS.**
3. If your hoses are not pre-made you will be required to have the hose ends crimped to the hose. Any major a/c store, and some parts stores can do this, it requires a hose-crimping tool.
4. The hoses can be measured w/o crimping the fittings. When all the hoses are cut to length with the correct fittings attached, crimp the lines. On the large hose that runs through the firewall, install the grommet onto the hose prior to crimping the lines.
5. Be sure to install the o-rings on all the fittings, oil is not necessary on the o-rings.





## Step Seven

### Finishing the installation

1. Wiring the system: This system only needs three wires to hook up the system.
2. The first wire is a red wire with an inline fuse. This is an ignition wire. Find a source that gets power with the key on, and splice / plug it into that connection.
3. The second wire is a ground wire on the blower motor. The ground wire will be yellow with a black wire plugged into it. The black wire has a loop connector on the end. Ground the loop connector to a screw on the firewall.
4. The last wire is the high low pressure switch / compressor wire. This wire has a bullet connector that allows you to unplug it to get it through the firewall. Drill a 3/16 hole or find a spare hole in the firewall to run this wire out to the engine compartment. Route the wire behind the engine, plug the round plug onto the switch on the drier, any way you cannot hook it up wrong. Plug the other end to the compressor. **DO NOT TURN THE A/C ON UNTIL THE SYSTEM IS CHARGED.**
5. Use the supplied hose hold-downs to keep the hoses from rubbing on moving parts; this can cause a leak in the system.
6. Place the supplied a/c system sticker to the bottom of the hood.
7. The system requires 1.5 lbs of R-134a refrigerant. Do not use substitutes, dyes, or oil mixed refrigerants.

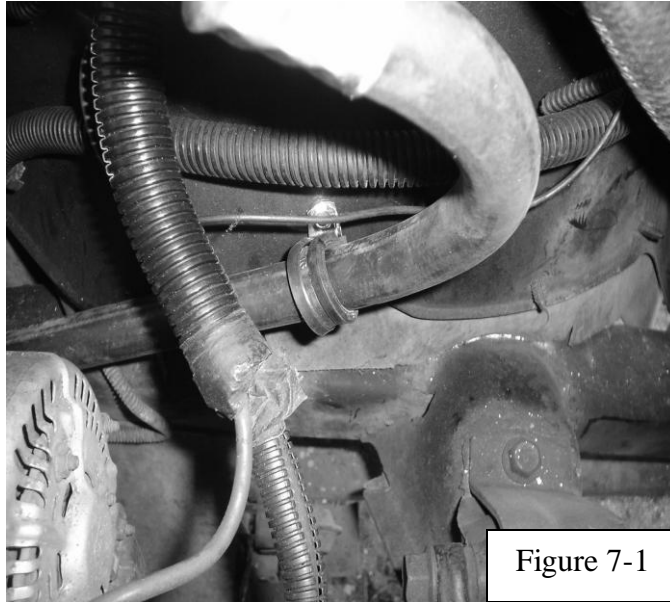


Figure 7-1

This completes the installation process. If you need any assistance please feel free to contact our technical support team by phone or email.

We thank you again for the business.

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# Supplement

## Gas Pedal Adjustment

\* On some Wranglers the gas pedal has a tall piece of metal above the hole that the gas pedal cable goes through. If your Wrangler has this long pedal arm you are going to have to cut it down to clear the blower housing. We recommend cutting it down 3/16" above the large hole. See the attached pictures for a clear illustration.

