

## WWW.JEEPAIR.COM

1997-1998 Jeep Wrangler TJ

Complete Air Conditioning System

Slide Control Head

Installation instructions

# Important information about your system, and warranty

- → DO NOT ADD ANY OIL TO ANY PART OF THE SYSTEM.
- → DO NOT OVERCHARGE THE SYSTEM

This is a brand new a/c kit that is capable of a vent temperature of 39-47 degrees. The kit is not designed for sealer, dye, or Freon substitutes. If these substances are used we are not responsible for the performance of the a/c system.

This kit was created with the customer in mind. It is the simplest kit on the market to install, and it can be done without any special tools. The kit will fit into the Jeep just as the factory designed it too. Follow the directions and you will have cold air conditioning in less than a day. Before beginning the installation please read the directions provided, to get familiar with the kit and installation process. Before beginning the installation go through the checklist on page 4. If any parts are not included contact us immediately. We have a google link available for color photos and additional photos of the installation available here: https://photos.app.goo.gl/U6K4D5swPuBKLVjA8 You can also request the above link by sending us an email (sales@jeepair.com)

The Jeep Air team would like to thank you for your recent purchase of a complete a/c kit. 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 220 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 **Jeep Air**, **DO NOT ADD ANY OIL**, **DYE**, **LEAK SEALANTS**, **OR OTHER ADDITIVES TO ANY PART OF THE SYSTEM**. If oil is required, Jeep Air will provide an additional sheet with directions on filling the system with oil.
- → 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 ½" to 1" gap in between the radiator and condenser. **EFFECTS OF INADEOUATE 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.
- → 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.

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: Cracked compressors from improper installation Compressor with broken valves from overcharging of oil or refrigerant Burned up clutches from to high of head pressure

We will be here to serve you five days a week by phone and / or email Please contact us if you need assistance. 800-223-7167 sales@jeepair.com

# **Checklist**

#### $1997\ 2.5\ /\ 4.0\ Liter\ Wrangler$

$\square$ COMPRESSOR		PN: 91-4008
□ EVAPORATOR		PN: 96-7345F
□ CONDENSER		PN: 93-7878
☐ ACCUMULATOR DRIER		PN: 92-6904
☐ LIQUID LINE		PN: 79-5530
☐ SUCTION /DISCHARGE MANIFOLD 2.5 Liter		PN: 79-5534
☐ SUCTION /DISCHARGE MANIFOLD 4.0 Liter		PN: 79-5533
☐ HIGH PRESSURE SWITCH (attached to MANIFOLD)		PN: 915-2290
☐ CYCLING SWITCH (attached to 92-6904)		PN: 915-2291
$\square$ RECIRCULATION DOOR		PN: 915-2300
$\square$ RECIRCULATION DOOR ACTUATOR		PN: 915-2301
$\square$ A/C CONTROL HEAD FACE PLATE		PN: 915-2280
□ ACCUMULATOR STRAP		PN: 915-2302
☐ ACCUMULATOR SUPPORT BRACKET		PN: 915-2303
$\square$ BELT		PN: 910K6
□ HARDWARE BAG KIT		PN: 920-1000
	Kit includes:	
	915-2312 Pre-made vacuum tube	
	915-2313 oil tube 1/8 ounce	
	915-2305 hose hold down	
	915-2299 relay	
	10 amp fuse	
	4 X M-8 -1.25 x 100mm with washe	
	4 X 1/4" x 1" bolts with washers flat	and lock

Checked	by
	<b>5</b> ————————————————————————————————————

 $2\;X\;1/4"$  speed nuts and  $2\;X\;1/4"$  nuts

<sup>\*</sup>This checklist serves as a reference of all the parts included with this kit.

# **Checklist**

#### 1998 Slide Controls 2.5 / 4.0 Liter Wrangler

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□ LIQUID LINE		PN: 79-5530
☐ SUCTION /DISCHARGE MANIFOLD 2.5 Liter		PN: 79-5534
$\square$ SUCTION /DISCHARGE MANIFOLD 4.0 Liter		PN: 79-5533
☐ HIGH PRESSURE SWITCH (attached to MANIFOLD)		PN: 915-2292
☐ CYCLING SWITCH (attached to 92-6904)		PN: 915-2293
☐ RECIRCULATION DOOR		PN: 915-2300
$\square$ RECIRCULATION DOOR ACTUATOR		PN: 915-2301
$\square$ A/C CONTROL HEAD FACE PLATE		PN: 915-2280
□ ACCUMULATOR STRAP		PN: 915-2302
☐ ACCUMULATOR SUPPORT BRACKET		PN: 915-2303
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Checked	by
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 $2 \times 1/4$ " speed nuts and  $2 \times 1/4$ " nuts

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## **STEP ONE**

#### **Removing the Radiator**

- 1. REMOVE THE POSITIVE AND NEGATIVE BATTERY CABLES and REMOVE THE BATTERY FROM THE VEHICLE
- 2. Drain the radiator
- 3. Remove the upper and lower radiator hose
- 4. Remove the overflow tank and power steering reservoir, located on the fan shroud
- 5. Remove the four bolts that mount the shroud to the radiator, slide the shroud back to the motor, REMEMBER TO SLIDE THE SHROUD BACK OVER THE FAN PRIOR TO INSTALLING THE RADIATOR
- 6. Remove the four upper bolts from the radiator core support, loosen the lower two bolts
- 7. Slide the radiator up and out

# **STEP TWO**

#### **Install the Compressor**

- 1. Move all the wires off of the factory mounting bracket located on the passenger side of the engine
- 2. Remove the air cleaner tube
- 3. Make sure the four bolt holes are not dirty or corroded. You may need to tap the four holes with an M-8 1.25 Tap prior to mounting the compressor
- 4. Place the compressor on the mounting bracket; make sure the coil wire is not pinched. The fittings point up
- 5. Insert the four bolts into the compressor, hand tight into the mount
- 6. After all four bolts are started, tighten all four bolts
- 7. DO NOT PLUG THE COIL WIRE INTO THE PLUG



Figure 2.1

# **STEP THREE**

#### **Condenser Installation**

- 1. Install J-nuts into lower core support
- 2. Set the condenser on the core support, hang it to the top by the tabs
- 3. Install the top two bolts, be sure to put washers on the bolts and lock washers on the bottom DON'T TIGHTEN THE BOLTS
- 4. Install the bottom two bolts and washers Tighten lower bolts
- 5. Tighten Top Two bolts

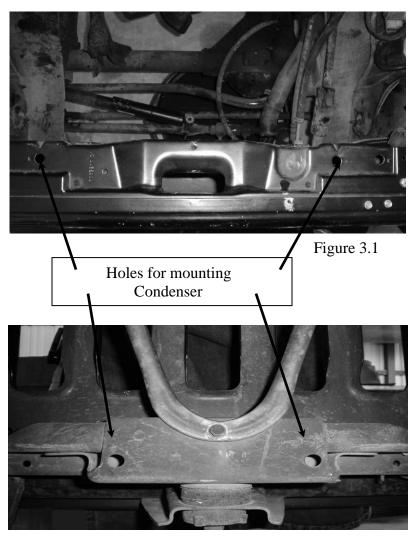


Figure 3.2

# **STEP FOUR**

#### **Belt Installation**

- 1. Loosen idler pulley located under the power steering pump (loosen center pulley bolt, then loosen bolt located on top of idler pulley bracket)
- 2. Remove the old belt and install the new belt
- 3. Tighten Idler pulley bolts, top first then center pulley bolt

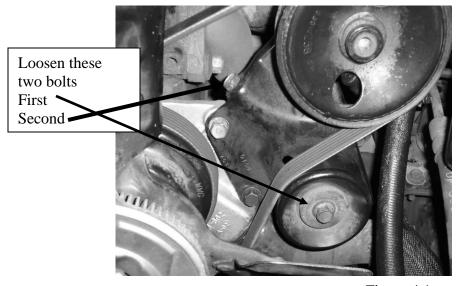


Figure 4.1



Figure 4.2

## **STEP FIVE**

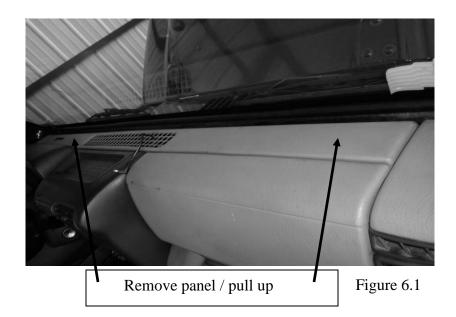
#### **Radiator Installation**

- 1) Slide the shroud over the engine fan
- 2) Install the radiator, rest the lower brackets on the lower two bolts (loose in the core support)
- 3) Install all radiator bolts, don't tighten until all bolts are started
- 4) Place shroud up to radiator, insert the bolts, tighten all bolts after they are started
- 5) Install upper and lower radiator hoses
- 6) Install the power steering reservoir and the radiator overflow tank
- 7) Again make sure the drain, located on the bottom of the radiator, is tight
- 8) The radiator can be filled now, or you can wait until the installation if finished.

# **STEP SIX**

#### **REMOVING CONTROL HEAD**

- 1. Remove the ashtray, and the Philips head screws located behind the opening
- 2. Remove the defrost grill (no screws) pull straight up
- 3. Remove the two Philips head screws holding the top center vent panel
- 4. Remove the center vent panel
- 5. Remove the four screws holding the control head
- 6. Remove the electrical plugs and the cable; unplug the vacuum lines at the connection located behind the dash. See fig. 6-2



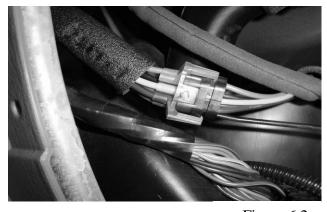
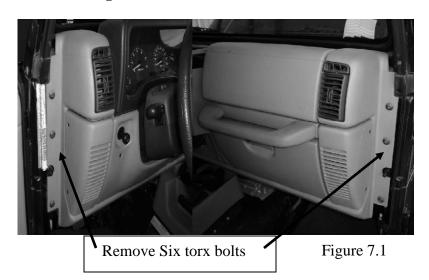


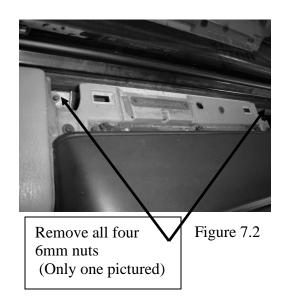
Figure 6.2

# **STEP SEVEN**

#### **Dashboard removal**

- 1. Remove three torx bits from each side of the dash, six total (T-30) Fig. 7-1
- 2. Remove four 6mm nuts from top of dash Fig.7-2
- 3. Remove the cover on the bottom of the plenum (over transmission tunnel, in front of console) Fig.7-3





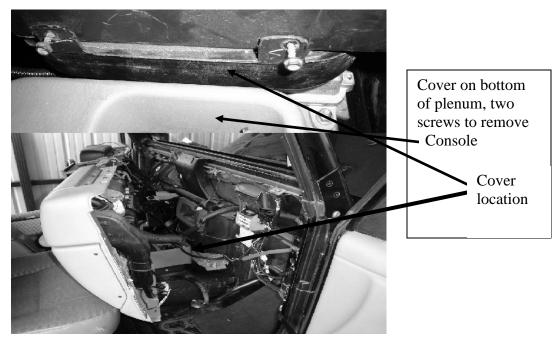


Figure 7.3

- 4. Remove the glove box by pulling the tab on passenger side of glove box toward center of vehicle. Let glove box drop, and lift off hinges.
- 5. Remove two nuts through glove box opening
- 6. Remove lower panel under steering column by removing two screws and pulling back on top of panel. Lift off hinges Fig. 7.4
- 7. Remove reinforcement plate behind lower panel by removing four screws Fig. 7.5
- 8. Remove two nuts securing steering column. Let steering column hang loose.

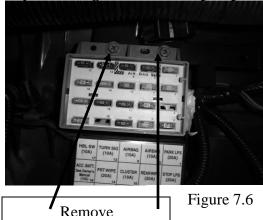


Figure 7.4



Figure 7.5

- 9. Disconnect blend door cable from blend door crank by removing push nut. Disconnect cable housing by pressing tabs on both sides of cable retainer lock. (May not be on all 98 and newer wranglers)
- 10. Disconnect wire harness from dash to heater
- 11. Remove fuse panel by removing to screws at top of panel. Fig. 7.6



- 12. Remove bolt securing heater case to fuse panel bracket
- 13. Remove heater floor outlet by removing two screws from front of outlet door pulling out on the floor outlet.

# **STEP EIGHT**

#### **Dashboard Removal Under Hood**

- 1. Disconnect Heater hose and vacuum line
- 2. Remove six nuts from heater case mounting studs on firewall. One is located under the blower motor. There are two nuts on one stud above the drain.
- 3. On the inside of vehicle, lift up the dash to clear the studs across the top of the dash. Pull back on passenger side of dash and let it rest on the front seat.
- 4. Remove heater case from vehicle through passenger door.

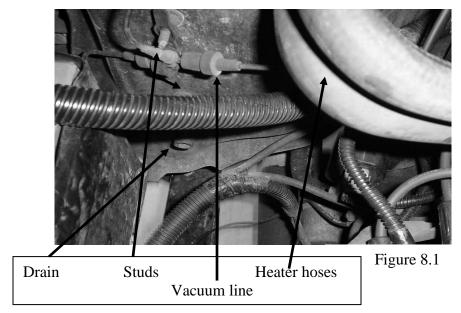




Figure 8.2

# **STEP NINE**

### **Separating the Evaporator case**

- 1. Put the case on a table or bench for easier working conditions. Remove the 15 screws holding the case halves together; remove the two clips holding the case together, and the three screws securing blower motor to the case.
- 2. Remove the firewall gasket at the blower motor and heater core tubes. Remove the blower motor
- 3. Separate the evaporator halves.
- 4. Remove the air inlet cover on the bottom of case, four screws



Figure 9.1



Figure 9.2

# STEP TEN

## **Installing the Fresh Air door**

- 1. Cut the opening in the case for the door. This can be done with a sharp razor knife by making four passes, or by a cut of wheel or plastic saw.
- 2. Install the door into the opening
- 3. Install the vacuum actuator
- 4. Hook the actuator to the door
- 5. Mount the actuator on the mounting clamp



Figure 10.1



Figure 10.2



Figure 10.3



Figure 10.4

# **STEP ELEVEN**

#### **Installing Evaporator**

- 1. Place the evaporator into the case. Make sure the foam is attached.
- 2. Set the top half of the plenum back on
- 3. Insert and tighten the fifteen screws, and two clips
- 4. Install the blower motor, make sure the foam is in place
- 5. Please cut the Red vacuum tube and insert the Tee into the line. Attach included black tube to the outlet on the Tee. Connect the other end of the black tube to outlet on the new door just installed, Figure 11.4
- 6. Install the air inlet cover (four screws, see figure 9.2)
- 7. MAKE SURE THE HEATER DOOR AND BLEND DOOR MOVE FREELY before reinstalling the evaporator box into the Jeep.

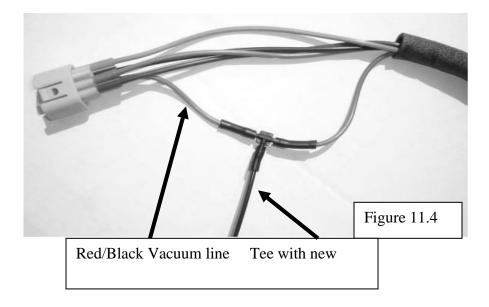


Drain reservoir Hole for drain Drain

Figure 11.1



Figure 11.2



**Color photos available on Google Drive:** 

# **STEP TWELVE**

## **Attaching Rubber Grommet**

- 1. There is a rubber grommet that sits on the evaporator and heater hose lines. You will need to cut two holes in the grommet and place over the lines.
- 2. Remove caps over evaporator outlets
- 3. Push the rubber up against the evaporator tubes, remove and mark with a pen or marker where the lines sit.

- 4. Take a razor or a round pipe and cut out the two holes. If you use a pipe, place the grommet over a piece of wood and hit the pipe with a hammer. The holes do not need to be larger than 1/4".
- 5. Remove the support brace over the evaporator tubes, with the brace removed you can slide the grommet over the four tubes, place the caps back on the evaporator
- 6. Pull the vacuum tube through the grommet
- 7. Now you can reinstall the evaporator case into the vehicle. Follow the directions if needed.

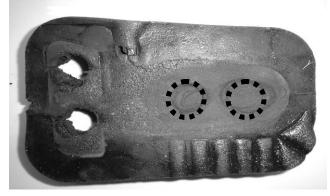


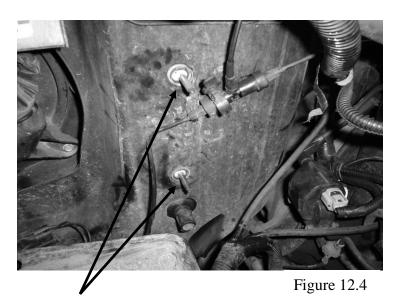
Figure 12.1



Figure 12.2



Figure 12.3



8. When reattaching the outside nuts to the studs leave two off, the two above the drain line.

## **STEP THIRTEEN**

#### **Under Hood Hook up**

- 1. Now that the Inside is back together we can hook up the rest of the parts under the hood. Starts by making sure all the nuts are attached on the outside of the firewall, except for the two above the drain
- 2. Hook up the Vacuum line, and heater hoses
- 3. Attach the flat bracket to the two studs that do not have the nuts on them. Be sure the vacuum line does not get stuck between the bracket and firewall
- 4. Install the round strap for the accumulator drier. Do not tighten
- 5. Install the accumulator to the strap, and push the fittings from the accumulator to the fitting on the evaporator (large to large fitting) Be sure to put some oil on the fittings and to PUSH HARD but carefully as to not put all the force on the evaporator. Push until you hear the fittings click. Once they are installed you will not be able to take them apart without a removal tool.
- 6. Tighten the screw on the strap of accumulator to secure it
- 7. Plug the accumulator switch to the switch located on the firewall wiring harness



Figure 13.1





Figure 13.3



Figure 13.4

# **STEP FOURTEEN**

#### **Attaching the Hoses**

- 1. Place the two flat gasket washers on the hose manifold that connects to the compressor (They should already be installed, metal gaskets with rubber center)
- 2. Place the hose manifold on the compressor and tighten (Please note that these instructions are for both engine sizes so the manifold hose assembly in the picture might not match the one you received)
- 3. Make sure O-rings are put on all fittings connections, if the fittings are hard to push on , dab a little pag oil on the o-rings.
- 4. Attach smaller line from the compressor to the condenser, PUSH HARD, but be sure to support the condenser tube, DON'T BEND IT. The larger line connects to the accumulator on firewall.
- 5. Connect the plug to the switch located on the Manifold. The plug should be close to the compressor plug near the intake /exhaust manifolds
- 6. Connect the Liquid line to the evaporator and Condenser. BE SURE THEY CLICK, BE SURE NOT TO BEND THE TUBE ON THE CONDENSER
- 7. Tie strap the liquid line to the inner fender well, not tight just to keep it from vibrating or rubbing
- 8. Be sure the Accumulator tube is not hitting the hose manifold tube
- 9. Reinstall the Air Cleaner Tube



Figure 14.1





Figure 14.3



Figure 14.4

## **STEP FIFTEEN**

#### Finishing Up

- 1. Put antifreeze back into the radiator. You may have to start the vehicle to get all the fluid back into the system.
- 2. Install the a/c relay into the fuse box, located under the hood on passenger side) Figure 15.1
- 3. Insert an ATM MINI 10 amp fuse into panel. If it is already in its place disregard, the fuse location is F-19.
- 4. Remove the two square knobs and round knob with a small flathead screwdriver.
- 5. Remove the old sticker from the control head. Use a Razor blade to peel off (Get under) one corner. Figure 15.2
- 6. Affix the new faceplate to the control head, push the three knobs back onto the head
- 7. Reinstall the control head into the dash, be sure to hook up the cable, both plugs and the vacuum harness.
- 8. Install the battery and hook up the cables
- 9. Evacuate the a/c system for at least 45 minutes
- 10. Hook up the Compressor plug

- 11. Charge the system with 1.50 lbs of R134a Refrigerant. DO NOT ADD OIL, DYE, SEALERS, OR ANY ALTERNATIVE REFRIGERANTS.
- 12. Apply the sticker under the hood, and then write in the exact amount of freon used.



Insert Fuse Insert relay

Figure 15.1



Figure 15.2

The system is designed for R134a; you will get the best performance by using it.