



# BRING BACK THE COOL!

## BE AWARE

and follow these simple steps:

The State of California has determined that R-134a, the refrigerant used in your car's A/C system, contributes to Global Warming.

Effective January 1, 2010, California law requires all purchasers of small containers of refrigerant marked for deposit and return to pay a \$10.00 per container deposit at time of retail purchase and return all purchased, used containers for recycling within 90 days to the retailer where purchased for a \$10.00 per container refund with valid proof of purchase.

It is illegal to destroy or discard used or unused small refrigerant containers under Section 95360 et seq. of the California Code of Regulations.



**A/C Recharging is fast & easy! Helpful tips while recharging:**

- Check for and repair leaks before recharging.
- Using a gauge ensures proper fill levels
- Do not overcharge or undercharge the A/C system; both conditions will produce poor cooling performance. Too much refrigerant will raise system pressures and may result in compressor or other component damage
- Check vent temperatures while charging. Cooler air should result as you're adding refrigerant.
- If you have added a can of refrigerant and are not getting cooler air - STOP! - see a professional! You may have leaks requiring repairs to the system.

## BE COOL but be RESPONSIBLE!

### DID YOU KNOW?

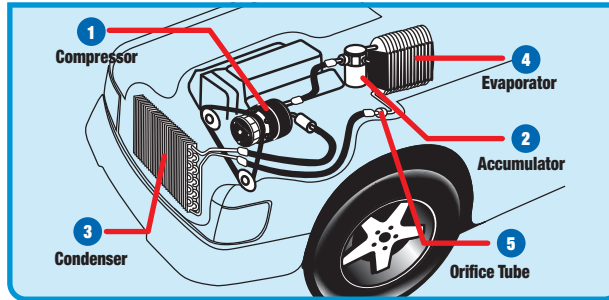
- Refrigerant R-134a is a greenhouse gas. If leaked into the atmosphere, it contributes to global warming!

### YOU SHOULD KNOW...

- The mobile A/C industry is working on long-term replacements for R-134a. Until then, we join the State of California in the following measures to ensure proper, responsible use:
  - Effective January 1, 2010, an instant \$10 California deposit and return program will begin.
  - Returned, used containers will be recycled to recover remaining refrigerant.
  - It is illegal to destroy or discard used or unused small refrigerant containers under Section 95360 et seq. of the California Code of Regulations.
  - A new, self sealing valve on cans of R-134a will help you avoid accidental discharges.
  - Better product instructions and education resources will help you do the job properly.
  - Check out [www.idqusa.com](http://www.idqusa.com), a helpful website about A/C service practices, trouble-shooting common problems, facts about global warming and more.

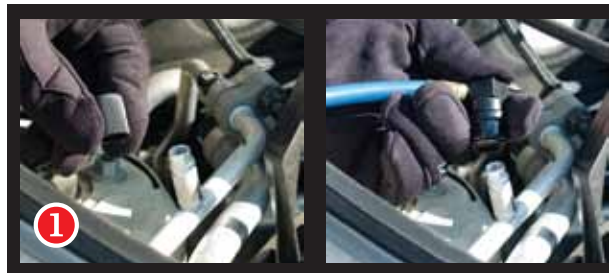
# DO-IT-YOURSELF STEP-BY-STEP GUIDE FOR A/C RECHARGING. DO IT RIGHT!

## Typical Orifice Tube A/C System



Did you know two-thirds of cars use an orifice tube system to regulate refrigerant flow to the evaporator? An orifice tube is a fixed metering device. The other one-third use an expansion valve system that senses pressure in the evaporator outlet and adjusts flow.

1. ALWAYS WEAR INSULATED GLOVES & SAFETY GLASSES.
2. IF SYSTEM REQUIRES RECHARGE MORE THAN ONCE A YEAR, IT HAS A LEAK. Diagnose and repair leaks before adding refrigerant.
3. READ THE LABEL and prepare by understanding the instructions.
4. PREPARE YOUR TOOLS, as specified on the product label. Lay out the proper charging hose, gauge, safety gear and hand tools in an accessible place.
5. IF NOT PRE-ASSEMBLED, ATTACH CHARGING HOSE TO REFRIGERANT CAN, following hose or can instructions.
6. TO IDENTIFY A/C FILL CAPACITY FOR YOUR SPECIFIC VEHICLE, LOCATE A/C SYSTEM NAMEPLATE in the engine compartment. NOTE THE COMPLETE SYSTEM CHARGE VOLUME. For optimal cooling, NEVER EXCEED MAX CHARGE.
7. LOCATE YOUR VEHICLE'S LOW SIDE A/C SERVICE PORT and remove the blue or black protective cap. It's a "SNAP"; the charging hose will only fit on the low-side port. (see image #1)



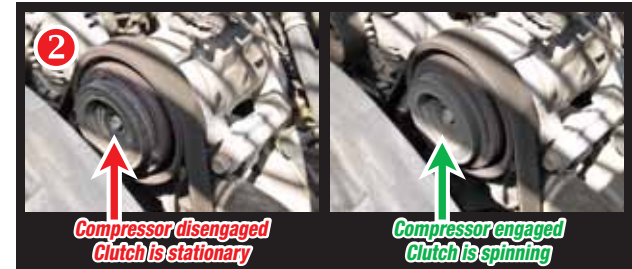
8. START THE ENGINE, turn on the A/C to maximum cooling, the fan switch to high and the temperature dial to full blue.
9. ATTACH QUICK CONNECTOR TO LOW-SIDE PORT by pulling back connecting ring or snapping into place. Check to assure it is securely locked.
10. DIAGNOSE A/C SYSTEM BEFORE ADDING REFRIGERANT using a charging hose with a gauge, an electronic meter or manifold gauge set. Compare gauge reading to the chart (top of right column). If pressure reading is below chart range, you may add refrigerant.

### AMBIENT TEMPERATURE - PRESSURE CHART

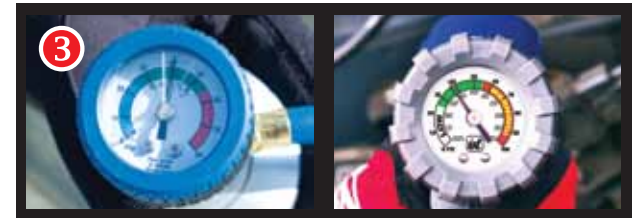
If Ambient Temp (F°/C°) is:	Low Pressure Gauge Should Read:
65°F (18°C)	25-35 psi
70°F (21°C)	35-40 psi
75°F (24°C)	35-45 psi
80°F (27°C)	40-50 psi
85°F (29°C)	45-55 psi
90°F (32°C)	45-55 psi
95°F (35°C)	50-55 psi
100°F (38°C)	50-55 psi
105°F (41°C)	50-55 psi
110°F (43°C)	50-55 psi

NOTE: Ambient temp is the outside atmospheric temperature. Pressure may only be taken when compressor is running. Determine by looking at the center of compressor pulley. (see image #2):

- If rotating, it's on.
- If it will not engage, add a can of R-134a.
- If compressor still won't cycle on, seek professional service advice.



11. ADD REFRIGERANT by opening dispensing valve or pulling the trigger, as shown in the charging device's instructions
12. WHILE CHARGING, HOLD CAN UPRIGHT, AGITATING FREQUENTLY USING A 12 O'CLOCK TO 3 O'CLOCK MOTION. It takes 5 to 15 minutes to dispense a can of refrigerant.
13. CHECK PRESSURE GAUGE every minute or so. To accurately check pressure, refrigerant cannot be flowing. Follow instructions: release trigger or close dispensing valve to measure pressure.
14. REPEAT STEPS 11, 12, & 13 AS NEEDED, until correct pressure is reached, can feels empty, or refrigerant stops flowing. NOTE: If can feels empty, turn upside down for 1 minute to remove all contents. Signs of an empty can include no detectable refrigerant movement and can is no longer cold to the touch.
15. A PROPERLY CHARGED A/C SYSTEM will not only read correct gauge pressure (see image #3) but air exiting all interior vents should be the same approximate cooled temperature. For optimal cooling, DO NOT OVERCHARGE OR UNDERCHARGE!



16. REMOVE QUICK CONNECT FROM LOW-SIDE PORT by pulling connector ring back and straight up from service port. Replace protective cap on Low-Side Port.
17. REMOVE EMPTY CAN FROM CHARGING HOSE unless permanently attached.
18. RETURN ALL USED CONTAINERS TO THE PLACE OF PURCHASE FOR RECYCLING & REFUND OF YOUR DEPOSIT.