

# Must Know For R410a

- Pressures typically 1.6 times that of R-22
- R410 is NOT interchangeable with R22
- Must use special gages and hoses – working pressure rating is higher!
- Recovery tanks must be stronger than what you have been using for R22
- Recovery tanks must be BA400 rated
- Never fill recovery tank beyond 80% full
- Do not store R410a above 125 degrees
- Secure tanks in the upright position in your truck
- Evaporator must be an ARI match-up. NO HIGHSIDE CHANGE-OUTS!
- ARI is AIR CONDITIONING AND REFRIGERATION INSTITUTE
- FCCV, if used, must be from condensing unit
- FCCV for a given tonnage is smaller for R410a
- Expansion valves are rated for the refrigerant.
- R22 TXV's WILL NOT work with R410a
- Do not reuse line set if there was a burn out in old system
- Make sure all oil is blown out of line set if reusing from old system
- R410 requires brazing rather than silver soldering (Stay-Brite)
- Use good techniques to prevent oxidation. (nitrogen, oxy-acetylene)
- R410 condensing units come with a factory installed drier
- If system is opened for repairs, remove factory drier and install new drier
- Be sure replacement drier is rated to R410a
- After system repairs, evacuate to 500 microns
- 1" vacuum = 25,400 microns
- Your manifold gage is useless for determining deep vacuum
- Charge R410 by liquid through a flashing device
- R22 compressors use mineral oil
- R410 compressors use synthetic oil, POE (poly olefin)
- POE oil will attack roofing material
- At atmospheric pressure, R410's temperature is –60 degrees
- R410 at 100psi is 32 degrees. Frost forms on the coil and suction line
- R410 at 40 degree saturated is 118 psi. Typical evaporator condition
- R410 at 130 degree saturated is 475 psi. Possible condensing condition
- R410 at 110 degree saturated is 365 psi. Possible condensing condition
- When buying R410 equipment, your customer is also buying efficiency
- Correct airflow is essential to obtain ARI rated efficiency in ALL equipment
- Standard airflow is 400 CFM per ton of cooling.
- 425 CFM when coil is dry. Flow will drop when coil becomes wet
- Easiest method of determining airflow is temperature rise
- 2<sup>nd</sup> best is total static pressure of air handler or furnace
- 3<sup>rd</sup> best is pressure drop through evaporator