Choice™ Refrigerants

# Retrofit Guidelines for Choice™ R-421A

# Procedures for Retrofitting R-22 systems for Choice™ R-421A

## Caution

Converting a system from an HCFC refrigerant to and HFC may cause a compression of elastomers and O-rings, which can result in a loss of refrigerant. After recovering the original refrigerant, it is recommended that the O-rings and elastomers be replaced.

✓ **Collect data from the pre-converted system**
- Monitor operating conditions and record for post-converted reference (See chart on back page)

✓ **Recover the existing refrigerant**
- By law*, the system must be recovered of all existing refrigerant
- Record the amount of refrigerant that is recovered, this will help determine the amount of Choice™ R-421A the system needs

*For more information visit epa.gov

✓ **Determine Oil Composition**
- Check the existing oil's moisture content, acidity
- Also check for particulate matter such as metal shavings, or rust
- If the system's oil does not meet desired specification perform a complete oil change prior to converting the refrigerant

✓ **Install new Oil Filter and Filter Drier**
- If the system contains a compressor oil filter or coalescent oil separator, replace as needed

✓ **Determine if the System has a leak**
- Determine the units designed pressure level
- Conduct a pressure test using dry nitrogen to determine if the system contains a leak

✓ **Evacuate System**
- In order to remove all non-condensables and moisture from the system, a minimum vacuum of 500 microns is required.

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✓ **Charge System**

- The system should be charged with Choice™ R-421A in a liquid state only
- Choice™ R-421A can be applied to the high pressure side of the system
- The correct charge will vary for each system, though it is recommended that the initial charge be 90-95% of the original R-22 charge

✓ **Start System**

- Evaluate systems performance by checking the subcooling, superheat temperatures and pressures
- Reference the Choice™ PT chart as needed
- Choice™ R-421A can be topped off multiple time, or until desired performance is reached.

✓ **Label, Monitor and Record**

- Properly label the converted system and perform leak tests as needed
- Record the systems performance and compare to pre-conversion evaluation
- For additional information please Call 1-888-659-COLD

| System Data | Pre | Post |
|---|---|---|
| Suction PSIG | | |
| Suction Temp | | |
| Discharge PSIG | | |
| Discharge Temp | | |
| Ambient Temp | | |
| Compressor S.H. | | |
| Evaporator S.H. | | |
| Subcooling | | |
| Refrigerant (lbs) | | |
| Compressor Oil Level | | |
| Compressor Oil Temp | | |
| Compressor Motor Amps. | L1 | |
| | L2 | |
| | L3 | |

**Note**
Choice™ R-421A should only be used in existing R-22, R-417A, R-407C and R-422B systems. Only trained technicians should perform conversions.

**For More Information**
visit us at rmsgas.com