



A2L (454B) FOCUS ON CHARGING AT INSTALLATION

Mingledorff's Technical Service

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A2L (454B) CHARGING



FOCUS ON CHARGING AT INSTALLATION.

Focus on charging at installation

Check with your tool supplier to confirm that your tools are approved for use with A2L refrigerants.

R-454B refrigerant cannot be dropped-in or retrofitted with equipment that is not designed for R-454B.



BEST PRACTICES



Best practices for installing R-454B units

Required procedures for R-454B:

- Ensure your workspace has adequate air; in addition, use of a personal alarm is recommended
- Perform a 500-micron level vacuum not to rise above 1000 microns in 7 minutes
- Charging should be done in the liquid state

INSTALLATION R-454B VS. R410A

Installation with R-454B vs. R-410A:

- Federal regulations prohibit venting any refrigerant (R-410A or R-454B) to the atmosphere
- TXVs meet rating requirements for the appropriate refrigerant
- Charge TXV units with the subcooling method in COOLING mode (if in ideal temperature range*)
- If temperatures are out of range, weigh in the refrigerant and recheck when temperatures are in range



* Favorable conditions (ideal temperature range) exist when:

The outdoor temperature is between 70°F and 100°F
(21.11°C – 37.78°C) AND

The indoor temperature is between 70°F and 80°F
(21.11°C – 26.67°C)

CHARGING WITH NEW OR EXISTING LINES



Charging with New or Existing Lines

Installation:

- New or existing lineset?
- Replacing an R-410A system or an R-454B system?
- Refrigerant **MUST** be recovered with approved recovery unit and cylinder

CHARGING WITH NEW OR EXISTING LINES



When installing a new R-454B unit with new piping:

- Recommended purge with nitrogen to clean debris from lines during the recovery process
- Single evacuation will suffice

New R-454B unit with existing R-410A piping:

- Recommended purge with nitrogen during the recovery process
- Single evacuation will suffice

New R-454B unit with existing R-454B piping:

- Double evacuation and purging with nitrogen of the line set IS required during the recovery process
- Straight stub outs encourage use of press-fit or push-fit connections; brazing is acceptable



THANK YOU