

WHAT YOU SHOULD KNOW

THE TRANSITION TO A2L REFRIGERANTS

In 2025, the A2L standard for HVAC refrigerants mandates a Global Warming Potential (GWP) of under 700. The low GWP of A2L refrigerants can increase system efficiency and lower emissions by reducing energy consumption. While slightly more flammable than A1s like R410A, A2Ls are significantly safer than A3s such as propane.

A2L CYLINDERS

You can easily identify A2L cylinders by several distinctive attributes compared to current models:

- Left-handed threading (requires use of adapters)
- Gray cylinders with a red band on the top
- Equipped with pressure release valves instead of rupture discs (to enhance safety during handling and storage)

R410A products are not compatible with A2L products and cannot be matched together. A2L equipment will have built-in or field-installed safety features to mitigate refrigerant leak situations.

There is no one standard in refrigerants in this transition—R454B and R32 will be the main ones used by manufacturers.

SELL-THROUGH CATEGORIES

- **PRODUCT:** Packaged units (commercial and residential), window units, PTACs, etc.: **3-year sell-through timeline.**
- **SYSTEMS:** Split units installed, connected and charged onsite (residential, commercial and ductless): **1-year sell-through timeline.**
- **COMPONENTS:** Split units and parts used for service and repairs (condensers, coils, parts, etc.): **no specific sell-through limit.**
- Split system inventory will start transitioning beginning in late summer/early fall 2024, and packaged equipment winter 2024 into Q1 of 2025.

MYTHS VS. FACTS

MYTH: A2Ls are “new” and “untested”.

FACT: A2L refrigerants have been used globally in HVAC systems and in US appliances, automobiles and small HVAC applications for years. Over 90% of new cars and many window units and appliances today use A2L refrigerants.

MYTH: New A2L refrigerants are propane-based.

FACT: A2L refrigerants do NOT contain hydrocarbons or propane.

MYTH: These new refrigerants are highly flammable and dangerous.

FACT: A2Ls are classified as “mildly flammable” due to higher flammability limits, higher ignition energy levels and lower heat of combustion compared to propane or acetylene. With proper safety protocols, tools and practices, the transition to A2Ls is not as hazardous as perceived.

Higher Flammability	A3 Propane, Butane	B3
Flammable	A2 Methylene Fluoride	B2 Methyl Chloride
Lower Flammability	A2L R-454B, R-32	B2L Ammonia
No Flame Propagation at 60°C	A1 R-410A	B1 Sulfur Dioxide
	Lower Toxicity (OEL of 400 ppm or greater)	Higher Toxicity (OEL of 400 ppm or greater)



MYTHS VS. FACTS

MYTH: I need to buy all new tools.

FACT: While some tools like vacuum pumps, recovery machines and older manifolds may need to be replaced, many A2L-ready products are already in use. Check your inventory for compatibility. Some digital tools might only need a software upgrade, while others might require additional adapters or accessories.

TOOL - A2L

Products you **need to know** for A2L

REVERSE THREAD ADAPTERS		LIQUID CHARGING ADAPTERS	
For refrigerant access to R32 and R454B reverse threaded cylinders		For use as a metering element when charging blended refrigerant as a liquid to prevent compressor slugging	
			
JB	QC-A2L-LH	JB	LC-4
NAVAC	F2010	NAVAC	F2008
Yellow Jacket	19124	Yellow Jacket	41123

TOOL COMPATIBILITY CHECKLIST - A2L

SERVICE TOOL	A2L COMPATIBILITY
Analog Gauge Manifold	Needs to Reflect Saturation Temps (R32/R454B/R410A)
Digital Gauge Manifold/Probes	May Need to Update Software to Include A2L Refrigerants
Charging Hoses	No Change Needed, but A2L Hoses Available with Left-Handed Thread Adapter Included
Torque Wrench	No Change
Flaring Tool	No Change
Pipe Cutter	No Change
Pipe Bender	No Change
Hex Wrench	No Change
Ventilation Fan (if Low Ventilation)	No Change
Scales	No Change
Vacuum Pump	Switch Located Away from Work Zone, or A2L Compatible One
Fire Extinguisher	Chemical Compatible for A2L Refrigerants (Class B Dry Powder)
Gas Detector	Need A2L Compliant
Electronic Leak Detector	Need A2L Compliant
Refrigerant Recovery Cylinder	Need A2L Compliant (Left-Handed Thread, GHS Label)
Recovery Machine	Need A2L Compliant
Electric Hand Tools	Non-Sparking Recommended

MYTH: We need to redo our EPA exam to handle A2L equipment.

FACT: Current EPA Section 608 certification holders are grandfathered in and do not need to retake the exam. Continuing education on A2L safety and service is encouraged.

HAVE QUESTIONS? NEED HELP?

We're here to help ease your transition to A2L refrigerants. Visit fergusonhvac.com/a2l/ or speak to an associate at your local Ferguson HVAC counter for more information and assistance, including:

- Close capacity matches for outdated refrigerants.
- Key A2L transition dates.
- Compatible tools and parts.

