

BACKGROUND

In an effort to help reduce harmful greenhouse gas emissions, Canada has joined more than 163 countries including the United States in aligning with the Kigali Amendment to the Montreal Protocol by phasing out hydrofluorocarbon (HFC) refrigerants with high global warming potential (GWP).

Mitsubishi Electric Sales Canada (MESCA) is committed to doing our part to help reduce the impact of our industry on climate change. Starting in 2025, Mitsubishi Electric will introduce a new HVAC product line equipped with A2L refrigerants, which have lower GWP compared to traditional HFCs like R-410A, making them an environmentally friendly alternative.

With over 45 years in Canada, we have built a solid reputation as an HVAC industry leader by delivering exceptional quality equipment featuring the latest in technology advancement and energy efficiency. As we transition to A2L refrigerants, homeowners and our network of Mitsubishi Electric Quality (MEQ) dealers can be confident knowing that we support and stand behind our products every step of the way.

To understand how this change may impact you, please review the list of Frequently Asked Questions (FAQs) below.

QUESTIONS

Q1. Will dealers be trained on the installation of products with R-454B

A: Yes. MESCA will provide live training sessions at local distributors. In addition, we will provide online technical training through our MESCA Academy as well as access to recorded webinars highlighting the benefits and features of our new product lines. Contractors are encouraged to learn how to handle A2L refrigerants through the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) or other online or in-person associations.

Q2. Are these refrigerants dangerous to work with?

A: There are only minor differences in handling 454B vs 410A refrigerants. While new A2L refrigerants are classified as mildly flammable, trained contractors should apply the same precautions they use handling any refrigerant. They should also become familiar with our new A2L product line through our live training sessions at local distributors. In addition, we will provide technical training through the MESCA Academy as well as access to recorded webinars highlighting the benefits and features of our new product lines. Contractors are encouraged to learn how to handle A2L refrigerants through the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) or other online or in-person associations.

Q3. How can I differentiate between 454B and 410A products and spare parts?

A: First, the model numbers for R410A products and R454B products are different. Second, the Significant New Alternatives Policy (SNAP) safety tags on R454B products have red tags on the refrigerant lines.

QUESTIONS

Q4. What new precautions should I take in terms of storing 454B product over 410A product?

A: Certified MEQ contractors should take the same precautions storing 454B refrigerants as they do with 410A. While the new A2L refrigerants are classified as mildly more flammable, the same care and handling procedures apply. For a review or refresh of our training options visit the MESCA Academy where you can access recorded webinars highlighting the benefits and features of our new product lines. Contractors are encouraged to learn how to handle A2L refrigerants through the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) or other online or in-person associations.

Q5. How can I prevent a mix-up of 410a and R454B product – to avoid using the incorrect refrigerant on a service call etc.

A: To prevent mix ups, contractors should remember that the model numbers for R410A with R454B products are different. In addition, the SNAP safety tags on R454B products feature red tags on the refrigerant lines. That said, contractors are reminded to take the necessary care when handling refrigerants. For a review or refresh of our training options visit the MESCA Academy where you can access recorded webinars highlighting the benefits and features of our new product lines. Contractors are encouraged to learn how to handle A2L refrigerants through the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI) or other online or in-person associations.

Q6. Can I mix the refrigerants together in one system?

A:No.

Q7. Why did you choose the A2L refrigerant 454B for your residential product line?

A: MESCA has chosen to use the R454B refrigerant in our new residential product line based on performance. With a GWP of 466, the new refrigerant is nearly 78% lower than that of R-410A (with a GWP of 2088). The higher condensing pressure and high side pipe (HEX) temperatures compared to other refrigerants allow R454B products to have lower cut-out temperatures with similar electrical consumption and less electrical consumption at rated temperatures with similar heat capacity. In fact, our best performing cold climate product, the FX, operates at 100% Heating Capacity at -23 °C and operates down to -37 °C*.

Q8. In addition to A2L refrigerants being better for the environment, what are the benefits of A2L?

A: While the new A2L refrigerants are better for the environment another key benefit is their improved energy efficiency. The higher condensing pressure and high side pipe (HEX) temperatures compared to other refrigerants allow R454B product to have lower cut-out temperatures with similar electrical consumption and less electrical consumption at rated temperatures with similar heat capacity. In fact, our best performing cold climate product, the FX, operates at 100% Heating Capacity of -23 °C and operates down to -37 °C*.

FX and GX Cold Climate Heat Pumps Heat to -36.7°C (above claims have been rounded to nearest integer of -37°C). Typical outdoor units will operate to the manufacturer's pre-programmed cut-out (outdoor ambient) temperature which ranges from -36.7°C to -10°C. Product will resume operation at pre-programmed outdoor ambient cut-in temperature which ranges from -30°C to -10°C. (See product documentation for details.)