

R1234yf Mandates and Service Precautions

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TECH TIP

#181

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As mandated by the Environmental Protection Agency (EPA), all new light-duty vehicles in the United States will no longer use R134a (epa.gov). The most available and common replacement for R134a is R1234yf. Although R1234yf has a significantly lower global warming potential, there are some service precautions to take when working on an R1234yf system.



EPA mandates and precautions regarding R1234yf A/C system service include:

- R1234yf is more flammable than R134a, requiring more precaution.
- To prevent cross-contamination R1234yf requires separate equipment (e.g., certified recovery and recharge machines, self-sealing can taps, and unique fittings).
- R1234yf automotive A/C systems require:
 - High pressure compressor cutoff switch
 - Compressor oil with acid reducer
 - Pressure relief device
 - Reinforced hose lines
 - Reinforced evaporator
 - Expansion device with R1234yf specific refrigerant flow settings
 - Expansion device settings will also differ if the system has an Internal Heat Exchanger (IHX) and/or rear air system

Refer to gpd Tech Tip #83 “2018 Refrigerant Mandate” for more information on EPA regulations regarding the purchase and sale of refrigerant.

Source: epa.gov/mvac

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