



Service Bulletin

Bulletin No.: 12-01-37-001F

Date: July, 2022

INFORMATION

Subject: Information on Refrigerant (R1234yf) for A/C Service

Models: 2023 and Prior GM Passenger Cars and Trucks
Equipped with R1234yf Refrigerant

Attention: This bulletin also applies to any of the above models that may be Export from North America vehicles.

This bulletin has been revised to add the 2020-2023 Model Years, remove the word "New" from the Subject, and update applicable information throughout the bulletin. Please discard Corporate Bulletin Number 12-01-37-001E.

Product Description

R1234yf is an environmentally friendly refrigerant that has a 99.7% lower Global Warming Potential (GWP) than R134a. The refrigerant is considered mildly flammable and has thermodynamic properties similar to R134a. It is the industry accepted solution for a low GWP refrigerant. R1234yf systems require the use of specific A/C compressor oils.

Note: Please reference the A/C Refrigerant Charge Label on vehicles for proper refrigerant identification.

Revised Service Procedures for R1234yf

Important: R1234yf, like R134a, is heavier than air and can accumulate in low lying areas like service pits – make sure proper ventilation is always available. As with all refrigerants, always work in a well-ventilated area and never release refrigerants into the atmosphere.

General information for service managers and technicians relating to R1234yf:

- Technicians repairing or servicing motor vehicle air conditioning (MVAC) systems in the U.S. must be trained and certified by an EPA approved organization. Certification is obtained by passing an EPA approved examination. (<http://www.epa.gov/ozone/title6/609/technicians/609certs.html>). ASE Refrigerant Recovery and Recycling Certification is acceptable. Email tech name, ASE certification number and Parts Dealer Code to groupaftersales@kemkrest.com to be entered into the database to allow ordering of R1234yf and R134a.

Note: As of January 2018, R1234yf and R134a requires the tech name, ASE certification number and Parts Dealer Code to groupaftersales@kemkrest.com to be entered into the database to allow ordering of R1234yf and R134a.

- In Canada, provincial regulations require that all motor vehicle air conditioning service technicians must be trained and certified.
- R1234yf systems require the use of specific A/C compressor oils. Refer to *HVAC/Specifications/Adhesives, Fluids, Lubricants, and Sealers* in service information (SI) for proper type and usage.

- Vehicles equipped with R1234yf refrigerant systems have:
 - Unique low and high side service fittings.
 - Most vehicles using R1234yf will also have an Internal Heat Exchanger (IHX).
 - SAE J2842 compliant evaporator cores.
- New or revised service procedures for R1234yf equipped vehicles (Refer to SI for details):
 - Refrigerant Recovery and Recharge
 - Leak Test
 - Evaporator Cores
 - Internal Heat Exchanger

Tools and Equipment for R1234yf

Specific tools and equipment are required to service vehicles equipped with R1234yf. Refer to the manufacturer's owner manual for information about operation and use of the equipment.

Important: The GE-50300 or GE-50300-A Recovery/Recycle/Recharge Machine for R1234yf A/C Systems requires 'Product Activation' within 30 days of the machine's initial startup. Refer to the machines Quick Start Guide and follow the on screen instructions to complete the on-line registration and product activation process.

- GE-50300 or GE-50300-A Recovery/Recycle/Recharge Machine for R1234yf A/C Systems:
 - Certified to SAE J2843 as required by the EPA.
 - Performs gas analysis prior to gas recovery or fill with recovery/fill lockout if gas is contaminated (< 98% R1234yf).
 - VIN input is required. VIN retrieved via integrated VCI cable connected to vehicles OBD2 connector or manually entered.
 - Integrated data recorder with printer:
- ⇒ Records and prints VIN, pressures, temperature, recovered/charged amount, gas analysis results and encrypts into a warranty code.

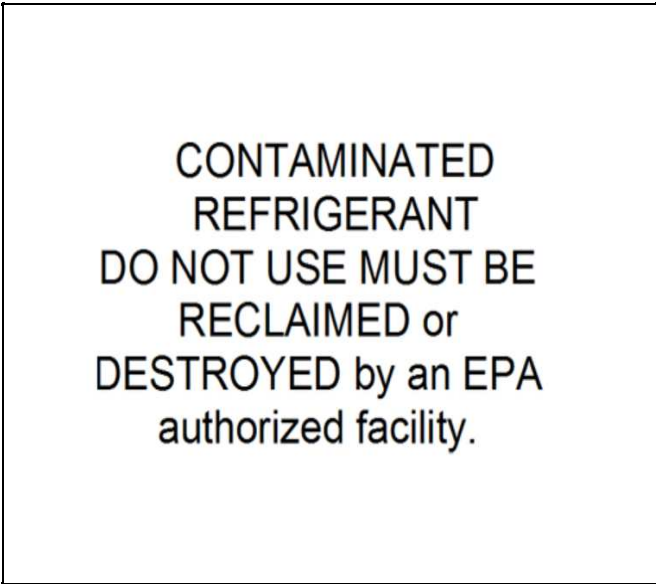
- ⇒ Warranty code is required to be entered into the comment field of claim for warranty reimbursement.
- GE-50957 Contaminated Refrigerant Recovery Machine:
 - Certified to SAE J2851 as required by EPA.
 - Required for recovery of contaminated refrigerant systems.
 - To be used with refrigerant recovery cylinders that meet DOT 4BA and TC certification. The recovery cylinders must have:
- ⇒ Vapor/Liquid "Y" valve with 1/4" MFL fittings.
- ⇒ Liquid Level Switch w/ Brad Harrison Connection.
- GE-50078 Electronic Refrigerant Leak Detection for R1234yf (and R134a):
 - Certified to SAE J2913 for use on R1234yf systems (certified to SAE J2971 for R134a systems).
 - SAE J2843 certified equipment (GE-50300) requires a SAE J2913 leak detector to perform the mandated gross leak check.
 - GE-50744 R1234yf PAG Oil Injection Hose:
 - To replace PAG oil in R1234yf systems with belt-driven AC compressors. (use with GE-45037 and the oil specified in the service manual).
 - GE-45268-130 R1234yf Fitting Kit - Refrigerant Flush Kit:
 - Required to adapt GE-45268 Flushing Kit to R1234yf.

Recovery Cylinders For Contaminated R1234yf Refrigerant

Recovery cylinders that are commercially available and recommended for use with GE-50957.

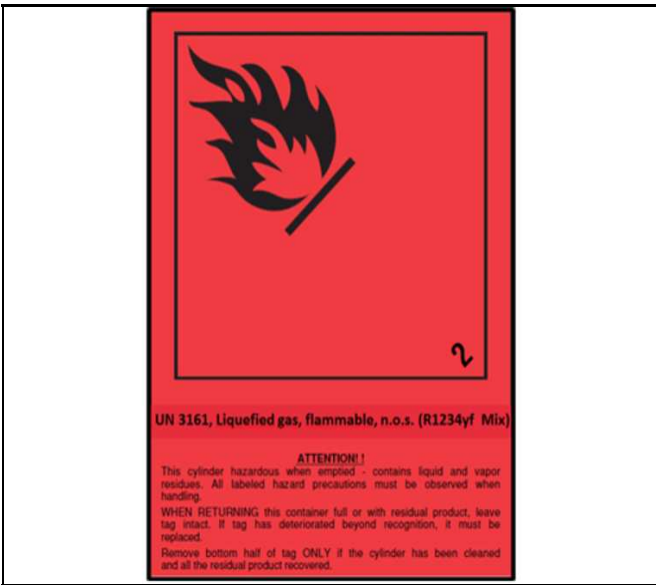
Commercially Available DOT 4BA/ TC Certified Recovery Cylinders w/ Liquid Level Switch & Valve w/ 1/4" MFL fittings (required for GE-50957)			
Cylinder P/N	Company	Phone Number	Website
62011/62012	Mastercool	973-252-9119	www.mastercool.com
CRX430TS	CPS	800-277-3808	www.cpsproducts.com
17605	Robinair	800-628-6496	www.robinair.com
95012	Yellow Jacket	800-769-8370	www.yellowjacket.com
*see website for local distributors			

United States - Recovery cylinder labeling requirements for R1234yf contaminated refrigerant.



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1. Print “CONTAMINATED REFRIGERANT- DO NOT USE – MUST BE RECLAIMED or DESTROYED by an EPA authorized facility” label (shown above) and apply to cylinder with clear packing tape. When printing this label, adjust your printer to create a 20 mm letter height (20 mm letter height required by SAE J2851).



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2. Remove the DOT transportation tag (pictured above) from an R1234yf source cylinder and install on the cylinder (using a wire tie or tape on with clear packing tape) that contaminated R1234yf will be stored and transported in.

3. If transport tag from a R1234yf source cylinder (step 2) is not available, using a color printer or red paper, print and install (with clear packing tape) the label on the cylinder (shown above). When printing this label, adjust your printer to create a 4.5 inch wide label (the ISO symbol portion of the label is required to be 4" x 4").

Canada - Recovery cylinder labeling requirements for R1234yf contaminated refrigerant



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Use a color printer or red paper to print the Canadian WHIMS label (shown above) and attach printed label to R1234yf contaminated recovery cylinder with clear packing tape. When printing this label, adjust your printer to create a label sized 7.25 inches wide by 8.50 inches high.

Parts Information

Part Number	Description
19260234 (in Canada, 19260235)	R1234yf Refrigerant (supplied in 4.5 kg cylinders)
12346287 (in Canada, 88864128)	Dye, R1234yf Refrigerant System

Warranty Information

Warranty Administration Policy for R1234yf equipped Vehicles:

- Printed summary of completed repair from the GE-50300 or GE-50300-A is required to be physically attached to each repair order.
- Warranty Code from printed repair summary is required to be entered in the "comment field" of warranty claim (warranty claims without the warranty code in the comment field are subject to debit).
- General Motors will reimburse only the R1234yf refrigerant that is actually used (figured by the difference from recovered and charged amount on the printed 'Vehicle Data' summary).
- Refrigerant R1234yf must be billed out in the parts field of the transaction, using a quantity of 1 for every 10 grams used (difference between the amount recovered and charged shown on the printed summary from the GE-50300 or GE-50300-A). **Example:** 0.600 kg charged - 0.390 kg recovered = 0.210 kg used. This translates to 210 grams. 210 divided by 10 = 21 (the amount to be entered in the part quantity field).

