



# Service Bulletin

File in Section: 01 - HVAC

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

Date: October, 2016

## INFORMATION

**Subject:** Information on New Refrigerant (R-1234yf) for A/C Service

**Models:** 2017 Buick LaCrosse  
2013-2017 Cadillac XTS  
2016-2017 Cadillac CT6  
2017 Cadillac ATS, CTS, Escalade, XT5  
2016 Chevrolet Spark EV  
2017 Chevrolet Camaro, Colorado, Malibu, Silverado, Suburban, Tahoe  
2017 GMC Acadia, Canyon, Sierra, Yukon

**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 update the Models section, Parts Information and Warranty Information. Please discard Corporate Bulletin Number 12-01-37-001A.

### Product Description

R-1234yf is a new environmentally friendly refrigerant that has a 99.7% lower Global Warming Potential (GWP) than R-134a. The new refrigerant is considered mildly flammable and has thermodynamic properties similar to R-134a. It is the industry accepted solution for a low GWP refrigerant. R-1234yf systems require the use of new, specific A/C compressor oils.

**Note:** Not all vehicles, for the models listed, will be produced with this new refrigerant. Please reference the A/C Refrigerant Charge Label on vehicles for proper refrigerant identification.

### Revised Service Procedures for R-1234yf

**Important:** R-1234yf like R-134a 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 the introduction of R-1234yf:

- 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>). In Canada, provincial regulations require that all motor vehicle air conditioning service technicians must be trained and certified.
- R-1234yf 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 R-1234yf refrigerant systems have:
  - Unique low and high side service fittings.
  - Most vehicles using R-1234yf will also have an Internal Heat Exchanger (IHX).
  - SAE J2842 compliant evaporator cores.
- New or revised service procedures for R-1234yf equipped vehicles (Refer to SI for details):
  - Refrigerant Recovery and Recharge
  - Leak Test
  - Evaporator Cores
  - Internal Heat Exchanger

## New Tools and Equipment for R-1234yf

New tools and equipment are required to service vehicles equipped with R-1234yf. 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 R-1234yf A/C Systems requires 'Product Activation' within 30 days of the machine's initial startup. Refer to the machine's 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 R-1234yf 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% R-1234yf).
  - 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.

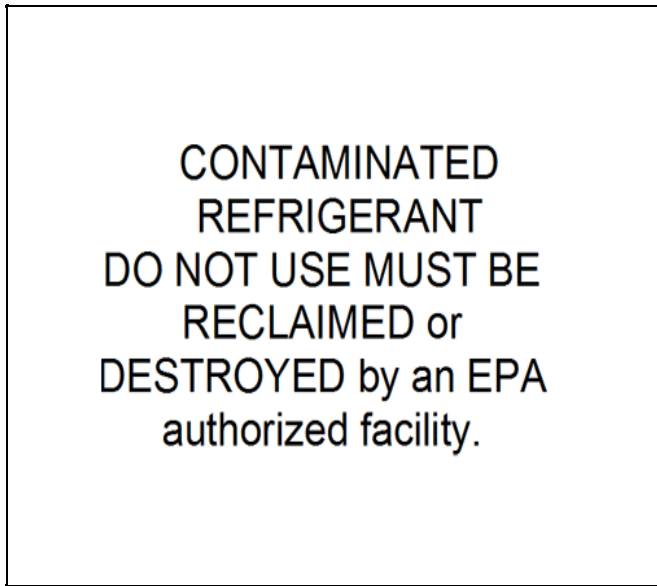
- GE-50957 Contaminated Refrigerant Recovery Machine:
  - Certified to SAE J2851 as required by EPA.
  - Required for recovery of contaminated refrigerant systems.
  - To be used with refrigerant recovery cylinders that meet DOT 4BA and TC certification. The recovery cylinders must have:
    - ⇒ Vapor/Liquid "Y" valve with 1/4" MFL fittings.
    - ⇒ Liquid Level Switch w/ Brad Harrison Connection.
- GE-50078 Electronic Refrigerant Leak Detection for R-1234yf (and R-134a):
  - Certified to SAE J2913 for use on R-1234yf systems (certified to SAE J2971 for R-134a systems).
  - SAE J2843 certified equipment (GE-50300) requires a SAE J2913 leak detector to perform the mandated gross leak check.
- GE-50744 R-1234yf PAG Oil Injection Hose:
  - To replace PAG oil in R-1234yf systems with belt-driven AC compressors. (use with GE-45037 and the oil specified in the service manual).
- GE-45268-130 R-1234yf Fitting Kit - Refrigerant Flush Kit:
  - Required to adapt GE-45268 Flushing Kit to R-1234yf.

## Recovery Cylinders For Contaminated R-1234yf Refrigerant

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

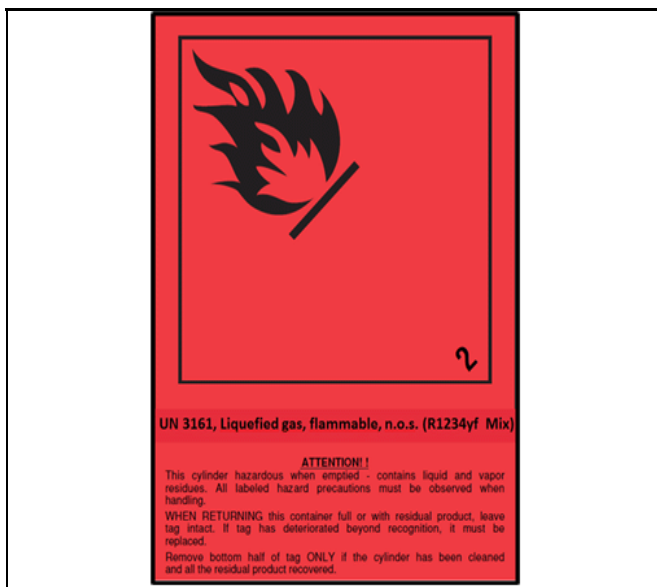
Commercially Available DOT 4BA/ TC Certified Recovery Cylinders w/ Liquid Level Switch & Valve w/ 1/4" MFL fittings (required for GE-50957)			
Cylinder P/N	Company	Phone Number	Website
62011/62012	Mastercool	973-252-9119	<a href="http://www.mastercool.com">www.mastercool.com</a>
CRX430TS	CPS	800-277-3808	<a href="http://www.cpsproducts.com">www.cpsproducts.com</a>
17605	Robinair	800-628-6496	<a href="http://www.robinair.com">www.robinair.com</a>
95012	Yellow Jacket	800-769-8370	<a href="http://www.yellowjacket.com">www.yellowjacket.com</a>
*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 Change for R-1234yf equipped Vehicles:

- Printed summary of completed repair from the GE-50300 or GE-50300-A is required to be 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 R-1234yf refrigerant that is actually used (figured by the difference from recovered and charged amount on the printed 'Vehicle Data' summary).
- Refrigerant R-1234yf 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).

