



# Technical Journal

TITLE:

**XC40 BEV: A/C Refrigerant Charging Equipment (information only)**

<b>REF NO:</b> TJ 35672.1.1	<b>ISSUING DEPARTMENT:</b> Technical Service	<b>CAR MARKET:</b> United States and Canada	
<b>PARTNER:</b> 3 US 7510 Volvo Car USA		<b>ISSUE DATE:</b> 2020-09-09	<b>STATUS DATE:</b> 2020-09-15
<b>FUNC GROUP:</b> 8707	<b>FUNC DESC:</b> Air conditioning unit, general	Page 1 of 4	

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## Attachment

File Name	File Size
SE-009-2020-06-24.pdf	0.3337 MB

## Vehicle Type

Type	Eng	Eng Desc	Sales	Body	Gear	Steer	Model Year	Plant	Chassis range	Struc Week Range
536	ED	E400V6					2021-9999		-	0-0

## CSC Customer Symptom Codes

Code	Description
8B	Temperature control/A/C slow to cool in front section
8C	Temperature control/A/C not cold enough in rear section
8D	Temperature control/A/C slow to cool in rear section
9Q	Temperature control/Uneven temperature
KI	Temperature control/A/C not cold enough
SA	Temperature control/A/C not cold enough in front section

Rows beginning with \* are modified

Note! If using a printed copy of this Technical Journal, first check for the latest online version.



## DESCRIPTION:

Definitions:

POE - Polyolester

PAG - Polyalkylen Glycol

The XC40 BEV uses refrigerant type 1234yf with POE oil.

This is different from all previous and current model year Volvo vehicles which use the following refrigerant types:

All non-hybrid vehicles prior to MY20 **AND** all hybrid vehicles prior to MY21: R134 with PAG oil

All non-hybrid vehicles MY20 and later **AND** all hybrid vehicles MY21 and later: 1234yf with PAG oil

Due to these differences in oil type, the XC40 BEV will require a dedicated A/C refrigerant charging machine, separate from what is used on other Volvo vehicles.

Additionally, this dedicated BEV A/C refrigerant charging machine will need an internal flush performed before every use to ensure there has been no contamination of other refrigerant or oil types.

For further information, please refer to the service section below.


## SERVICE:

Please refer to the attached Shop Equipment Bulletin "SE-009-2020-06-24.pdf"

## VEHICLE REPORT:

Yes, please submit a Vehicle Report if the service solution described in this TJ has no effect. Use concern "Vehicle Report," sub concern area "Support not needed," and function group 8707.

**To view TJ attachment continue to next page. This TJ has one attachment.**

VOLVO CAR SERVICE AND PARTS BUSINESS			
<h1>Shop Equipment Bulletin</h1>			
TITLE: <b>A/C Refrigerant Management for 1234YF Battery Electric Vehicle (BEV)</b>			
NO: 009	ISSUE DATE: 2020-06-16	CAR MARKET: <b>United States and Canada</b>	Page 1 of 2
	STATUS DATE: 2020-06-24		

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**A/C compressor oil – POE (Polyol Ester)**

Battery Electric Vehicles (BEV) are equipped with R1234YF and POE compressor oil. The first variant will be XC40 (BEV) Battery Electric Vehicle.

\*Existing R1234YF machines use a different oil (PAG compressor oil). These machines cannot be used for Battery Electric Vehicles. Residual PAG oil remaining in the hoses, if mixed and introduced into the BEV refrigerant system, will result in permanent damage to the compressor and vehicle

***\*It is therefore required for each retailer to have a dedicated A/C machine in the workshop solely for BEV vehicles. This machine must be marked and Identified for (BEV) Battery Electric Vehicles ONLY.***

Based on the product release plan this machine is required, and is to be purchased prior to Nov 30th 2020. Volvo recommends A/C equipment from Robinair and Mahle (see below).



**Robinair**

R1234YF Recover, Recycle, Recharge A/C Machine with built in identifier.

Service Personnel: Read and initial	SERVICE MANAGER	PARTS MANAGER	WORKSHOP FOREMAN	SERVICE TECHNICIANS											



## Mahle

R1234YF Recover, Recycle, Recharge A/C Machine with built in identifier.

### Additional requirement information:

An automatic oil injector is not available on these AC units. A manual injector is required to replace any lost oil.

## Robinair oil injector

Labelled for POE



## Mahle oil injector

POE Starter Oil Injection Kit 4oz



Review all specifications at [www.VolvoRetailerSolutions.com](http://www.VolvoRetailerSolutions.com). Consult your local Bosch Area Business Consultant for ordering and additional details.

Convenient leasing options are available for these products.

*Technical information and specifications are subject to change - At time of publication this document has been deemed reliable/accurate. Content is subject to change with or without notice due to circumstances beyond VCUSA's control.*