



Technical Journal

TITLE:

XC40 Recharge A/C repair/diagnostics best practices

REF NO: TJ 35959.1.1	ISSUING DEPARTMENT: Technical Service	CAR MARKET: United States and Canada	
PARTNER: 3 US 7510 Volvo Car USA		ISSUE DATE: 2021-05-05	STATUS DATE: 2021-05-10
FUNC GROUP: 8700	FUNC DESC: Air conditioning unit	Page 1 of 4	

“Right first time in Time”

Attachment

File Name	File Size
SE-009-2020-09-25.pdf	0.3419 MB

Rows beginning with * are modified

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

DESCRIPTION:

When working on the A/C system on an XC40 Recharge vehicle please see best practices under service.

CSC Customer Symptom Codes

Code	Description
8B	Temperature control/A/C slow to cool in front section
KI	Temperature control/A/C not cold enough
TB	Temperature control/A/C does not work

DTC Diagnostic Trouble Codes

Vehicle Type

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




SERVICE:

When evacuating and/or recharging the A/C system.

1. Make sure you are using a dedicated A/C machine for the XC40 Recharge (Battery Electric Vehicle) only. Please refer to SE-009 (Attached)
2. Use the correct **POE oil** according to VIDA
3. When Draining and filling the A/C refrigerant from a car that has a heat pump, please use the script in VIDA to ensure it is fully evacuated and the correct amount is in the system when filling.
To find the script follow: Planning & Diagnostics/ Components/ ECU/ Vehicle Computational Unit 1 (VCU1)/ Diagnostic Sequences/ Draining and filling of the A/C refrigerant circuit for A/C heat pump system vehicles.
4. How to identify a vehicle with a heat pump - Go to vehicle details window/ Variant attributes tab by clicking on the VIN. Then search for VDN EP02.

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: A/C Refrigerant Management for 1234YF Battery Electric Vehicle (BEV)			
NO: 009	ISSUE DATE: 2020-06-16	CAR MARKET: United States and Canada	Page 1 of 2
	STATUS DATE: 2020-09-25		

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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.***

Special tools Newsletter 108 contains labels (PN 9997778) to be affixed that identify the machines Refrigerant and oil

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. 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.