



GROUP

CLI

MODEL

2011MY~
Optima Hybrid (TF HEV)
2015MY~
Soul EV (PS EV)

NUMBER

017 (REV 4, 10/13/2014)

DATE

August 2011

TECHNICAL SERVICE BULLETIN

SUBJECT: EV AND HYBRID A/C SYSTEM SERVICING REQUIREMENTS

★ NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

The Soul Electric Vehicle (EV) and the Optima Hybrid use an A/C compressor that is driven by a high-voltage electric motor rather than by a belt. Both the motor and compressor are in one housing with a mix of refrigerant and oil flowing through both sections. Because the oil flows through the motor windings, it must have a high electrical resistivity (low conductivity). To achieve this, the EV and Hybrid vehicle's A/C system uses a special lubricant, either Polyvinyl Ether (PVE) or Polyolester (POE) oil. Conventional PAG oil cannot be intermixed with PVE or POE oil.



WARNING

PAG oil is not sufficiently resistive and would permanently damage the electric A/C compressor. Use of the incorrect lubricant may cause severe personal injury or death from electrical shock.

To service an EV or Hybrid vehicle A/C system, one of the following Recovery, Recycle, and Recharge (RRR) machines is required:

- A **DEDICATED** machine: a standard, non-SAE J2788-compliant RRR Machine (once dedicated, this can then only be used on PVE and POE A/C systems). Always keep the oil injection reservoir filled with PVE oil purchased from Kia Chemicals (www.kiachemicals.com). **NOTE: At this time, only PVE oil is available from Kia Chemicals.**
- A **HOSE-FLUSHING** machine: an SAE J2788-compliant RRR machine (this can service all PAG, PVE, and POE A/C systems). When servicing an EV or Hybrid A/C system, use ONLY PVE oil purchased from Kia Chemicals (www.kiachemicals.com).

File Under: <Climate>

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Service Advisor(s) Technician(s) Body Shop Manager Fleet Repair

For information regarding the purchase of either of these machines, contact Snap-on Business Solutions at (888) 542-1011 or go to www.kiaspecialtools.com.

*** NOTICE**

- POE and PVE oils are compatible so if a DEDICATED machine has already been purchased, it can be used with either oil type.
- Prior to using the RRR machine, make sure it is properly calibrated per the manufacturer's instructions.
- Warranty claims for EV or Hybrid A/C compressors that are found to be contaminated with non-PVE/POE oils may be subject to charge-back.