

# SAFETY RECALL

# SR16-86E

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12.2016      NONE                1(8)

THIS REVISION SUPERSEDES PREVIOUS VERSION

REVISION E: IMPORTANT NOTE at step 13 added for vehicles equipped with the I-Start dual battery system. One screw M6-1x16mm is needed for vehicles equipped with the I-Start, see "Other parts that may be required:" table.

## 12-VOLT POWER SOURCE RELAY REPLACEMENT 9700 (B13R)

### MODEL YEAR(S) AND VEHICLE SERIAL NUMBERS (VIN) INVOLVED

NOTICE TO SERVICE CENTERS	
Verify vehicle eligibility by checking recall status with <b>SAP</b> or via <b>ONLINE WARRANTY SYSTEM</b> available on Service / Warranty tab of Prevest website.	
Model	VIN
Volvo 9700 us/can Model Year : 2009 - 2017	Vehicles up to VIN 3CET2V22X <b>H5 182596</b> incl.
This recall does not necessarily apply to all the above-mentioned vehicles, some vehicles may have been modified before delivery. The owners of the vehicles affected by this recall will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned.	

### DESCRIPTION

On the vehicles affected by this recall, it is necessary to replace one (1) and in some cases two (2) 12-volts power source relays.

The 12-volts power source relay(s) currently installed on the vehicle may fail, resulting in an engine shut down while driving. A new type of relay equipped with a coil that can hold a higher current must be installed to improve the vehicle reliability.

### MATERIAL

Order kit # **SR16-86** which contains the following parts:

Part No.	Description	Qty
972079	SIX POINT SOCKET SCREW ST4,8*13 'TORX' ZN/FE	1
21244697	RELAY ISO MINI NO/NC, 24V 20A WITH RESISTOR (CARTIER <b>MINI</b> )	1
564218	RELAY ISO POWER N/O, 24V 40A WITH RESISTOR (CARTIER <b>MAXI</b> )	1
25332944	RETAINER (WALL BRACKET)	1
25371116	MAXI RELAY HOUSING, CONNECTOR (RELAY SOCKET)	1
25371117	CABLE TERMINAL, SIZE 6.35, AREA .5 - 1.5 MM2 (CAVITY 85 & 86)	2
25371118	CABLE TERMINAL SIZE 8, AREA 2.5 - 4 MM2 (CAVITY 30 & 87)	2

Other parts that may be required:

Description	Qty
Machine screw <b>M6-1x16mm</b> pan head or binding The following screws can be used: 502817 or 502789	1

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## FOUR SCENARIOS PRESENTING FOUR SOLUTIONS DEPENDING ON THE MANUFACTURING DATE (V.I.N.) AND TRANSMISSION MODEL

RANGE	WHAT TO DO
Model Year: up to 2013 Vehicles up to 3CET2S22XD5 <u>160297</u>	<b>Relay K917:</b> Replace existing relay K917 with relay p/n 21244697 (Cartier <b>Mini</b> ) <b>Relay K918:</b> Replace existing relay K918 with relay p/n 564218 (Cartier <b>Maxi</b> ). Refer to the following instruction.
Model Year: 2013 – 2015 From 3CET2S225D5 <u>160756</u> up to 3CET2V227F5 <u>168569</u>	<b>Relay K918:</b> Replace existing relay K918 with relay p/n 564218 (Cartier <b>Maxi</b> ). Refer to the following instruction.
Model Year: from 2015 Equipped with <b>Allison transmission</b> From 3CET2V224F5 <u>169811</u>	<b>Relay K919:</b> Replace existing relay K919 with relay p/n 21244697 (Cartier <b>Mini</b> ) <b>Relay K918:</b> Replace existing relay K918 with relay p/n 564218 (Cartier <b>Maxi</b> ). Refer to the following instruction.
Model Year: from 2015 Equipped with <b>I-Shift transmission</b> From 3CET2V224F5 <u>169811</u>	<b>Relay K918:</b> Replace existing relay K918 with relay p/n 564218 (Cartier <b>Maxi</b> ). Refer to the following instruction.

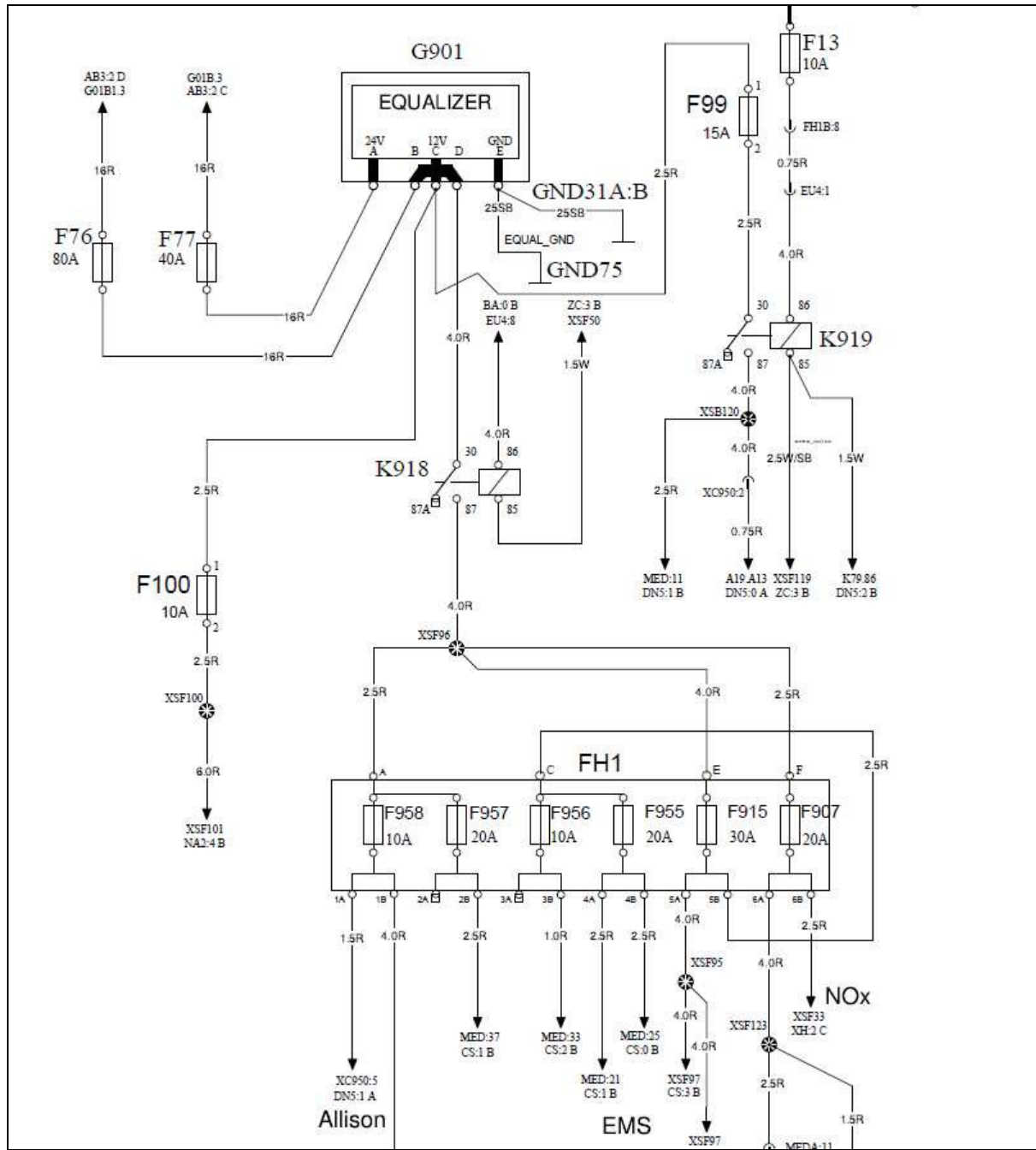


FIGURE 1: WIRING DIAGRAM SHOWING K918 & K919 – EQUIPPED WITH ALLISON TRANSMISSION

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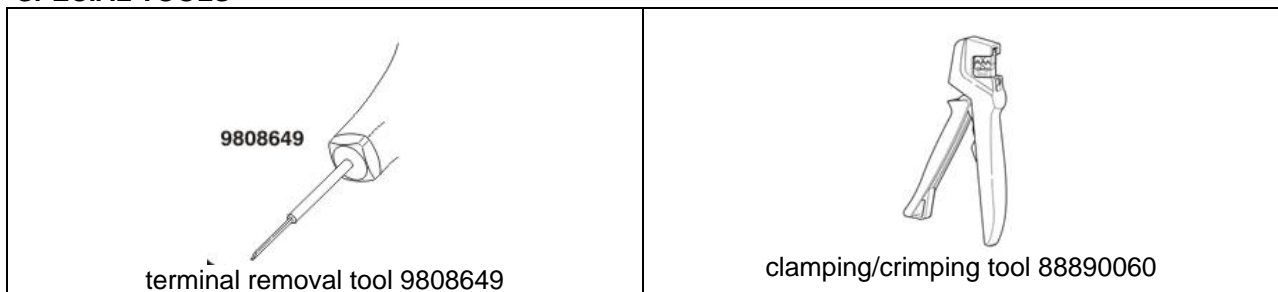
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FIGURE 2: RELAY K919 LOCATED UNDER THE DRIVER AREA FLOOR

## SPECIAL TOOLS



## PROCEDURE



### DANGER

Park vehicle safely, apply parking brake, stop engine. In the battery box, set the battery cut-off switch to the OFF position prior to working on the vehicle.

- 1) Turn off electrical vehicle system, by following these steps:
  - Remove ignition key;
  - Turn off vehicle main switch in the dashboard;
  - Turn off battery switch;
  - Wait at least 30 seconds;
  - Disconnect **NEGATIVE** cable from vehicle battery,

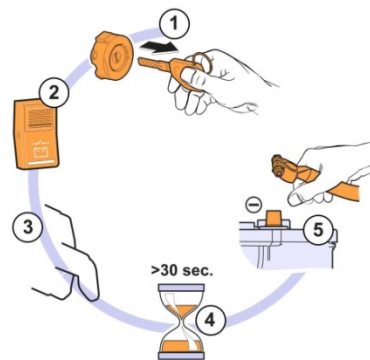


FIGURE 3

- 2) Identify the scenario applicable to the vehicle.
- 3) Locate the relays that are involved in accordance with the applicable scenario (one or two relays to be replaced).
- 4) Remove the existing relay and change it for a new relay in accordance with the scenario above. An easy adaptation is necessary when replacing relay K918. To do it, perform steps 5 up to 15.
- 5) Locate relay K918. See FIGURE 4 & FIGURE 5



FIGURE 4: For vehicles not equipped with I-START dual battery system (until **3CET2V42XG5176275**), find K918 at the right side of electrical distribution unit.



FIGURE 5 : For vehicles equipped with I-START dual battery system (from **3CET2V220G5177311**), find K918 at the starter batteries compartment.

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- 6) Remove relay K918 from socket.
- 7) TIP: Identify wires of cavities 30 & 87 on a piece of masking tape. Remove the terminals from cavities 30 and 87 on the current socket of K918 using terminal removal tool and cut off the terminals.

*terminal removal tool #9808649*

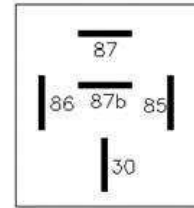


FIGURE 6

- 8) Crimp terminal #25371118 on these wires using the clamping tool.

*Clamping tool: 88890060*

- 9) Identify wires of cavities 85 & 86. Remove the terminals from cavities 85 and 86 on the current socket of K918 using terminal removal tool and cut off the terminals.

- 10) Crimp the terminal #25371117 on these wires using the clamping tool.

**IMPORTANT NOTE – Vehicles With I-START Dual Battery System**

*It may be difficult to crimp terminal #25371117 to wire F15C due to the large size of this wire. Crimp the terminal the best way possible and solder crimped terminal.*

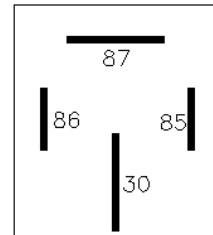
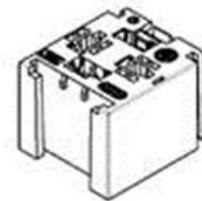


FIGURE 7

- 11) Connect each wire (30, 85, 86, 87) to its respective cavity in new relay socket #25371116.

- 12) Install relay # 564218.

- 13) Install relay wall bracket #25332944 on the compartment wall using self-taping screw # 972079.

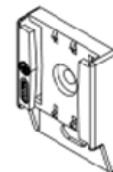


FIGURE 8: relay wall bracket #25332944

### **IMPORTANT NOTE – Vehicles With I-START Dual Battery System**

In order to install the wall bracket at the same location as former relay, proceed as follows:

1. Install the relay wall bracket **on the existing weld bung**. A M6-1x16mm will be required (Prevost p/n 502817 will do) machine screw.
2. Drill out the mounting hole with a 1/4" drill bit to accept the new screw (see image below).



14) Mount the relay and socket assembly to the wall bracket.

15) Turn on the vehicle. Follow these steps:

- Connect NEGATIVE cable in vehicle battery;
- Turn on battery switch;
- Turn on vehicle switch in the dashboard;
- Insert vehicle key.

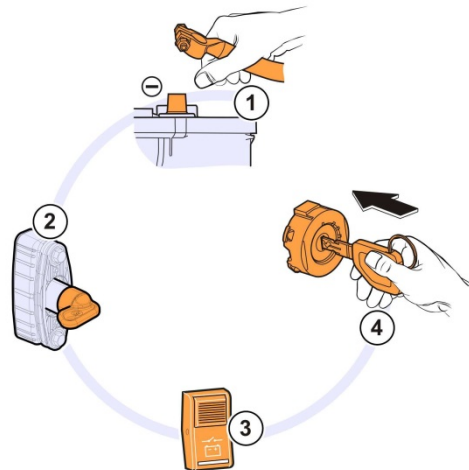


FIGURE 9

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## PARTS / WASTE DISPOSAL

All replaced parts must be returned to Prevost according to the Return Shipping Instructions available on <https://www.prevostcar.com/content/warranty-documents> for full reimbursement. A copy of the warranty claim form must be enclosed with the shipment.

## WARRANTY

This modification is covered by Prevost's normal warranty. We will reimburse you the parts and one hour (1.0) of labor upon receipt of the parts and a completed A.F.A. Please submit claim via our Online Warranty System, available at [www.prevostcar.com](http://www.prevostcar.com) (under Service \ Warranty section). Use Claim Type: "Bulletin/Recall" and select "Safety Recall SR16-86".

## OTHER

VBC Bulletin	C5170
Fail Code	06-09
Defect Code	09
Syst.Cond.	R
Causal Part	20374662

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