



GROUP	MODEL
Safety Recall Campaign	2013-2015MY Optima (QF) 2014-2015MY Sorento (XMa)
NUMBER	DATE
SC212	June 2021

SAFETY RECALL CAMPAIGN

SUBJECT: **HECU/ABS MODULE PARASITIC CURRENT DRAW TEST & REPLACEMENT & MULTI-FUSE REPLACEMENT (SC212)**

This bulletin supersedes SC197 and provides the procedure to inspect, and, if necessary, replace the Hydraulic Electronic Control Unit (HECU) on some 2013-2015MY Optima (QF) vehicles produced from July 12, 2013 through October 2, 2015 and some 2014-2015MY Sorento (XMa) vehicles produced from June 17, 2013 through December 11, 2014. In addition, this bulletin provides the procedure to replace the Multi-Fuse in the above referenced vehicles. Brake fluid may leak internally inside the Hydraulic Electronic Control Unit (HECU) which, over time, can result in an electrical short. An electrical short in the HECU increases the risk of an engine compartment fire.

Dealers are to have technicians measure the Anti-Lock Brake System (ABS) circuit in the fuse box for parasitic current draw and inspect HECU connection (male and female connector) for any signs of suspected thermal damage (melt, burn, oil leakage, etc.) If the current draw is >70uA, the HECU assembly is to be replaced due to possible internal damage caused by an internal fluid leak. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

NOTICE

A Techline case number is required for all part orders to confirm the actual microamp draw is present at time of vehicle inspection prior to the part order.

NOTICE

There is no charge to the vehicle owner for this repair. Under applicable law, you may not sell or otherwise deliver any affected vehicle until it has been repaired pursuant to the procedures set forth in this bulletin.

NOTICE

To assure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

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❶ IMPORTANT

This test procedure must be performed with the ignition 'OFF'. (DO NOT 'START' the engine at any time during the test procedure)

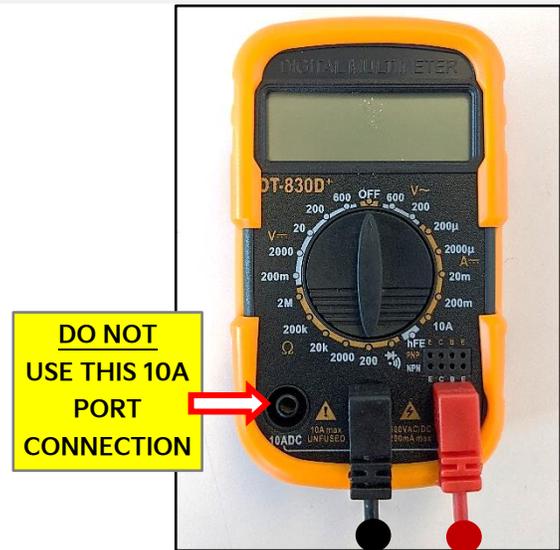
- Use the SST Multimeter to measure the parasitic current draw only (Do not use for any other purposes). Ensure the SST has a good 9V battery installed.
- Parasitic draw must be measured for at least 15 seconds, in order to record a constant value.

Setting the SST Multimeter:

1. Connect two (2) lead wires (red and black) to the SST.

Black Ground (-) lead wire; connect to COM

Positive (+) lead wire; connect to VΩmA.

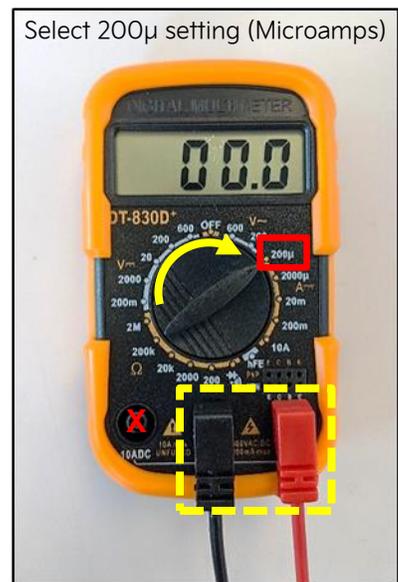
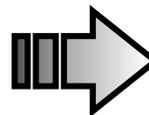
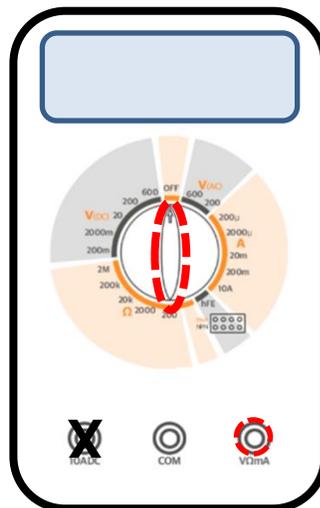


Connect (GND) Connect (+)

2. Turn the selection knob to the right and set it to **200uA**.

Reading Microamps:

Meter Setting	Displayed Value
200uA	0 - 200
2000uA	DO NOT USE
10A	DO NOT USE



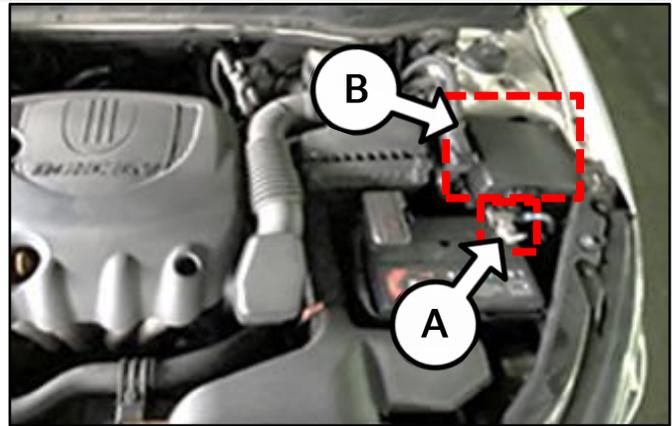
Select 200μ setting (Microamps)



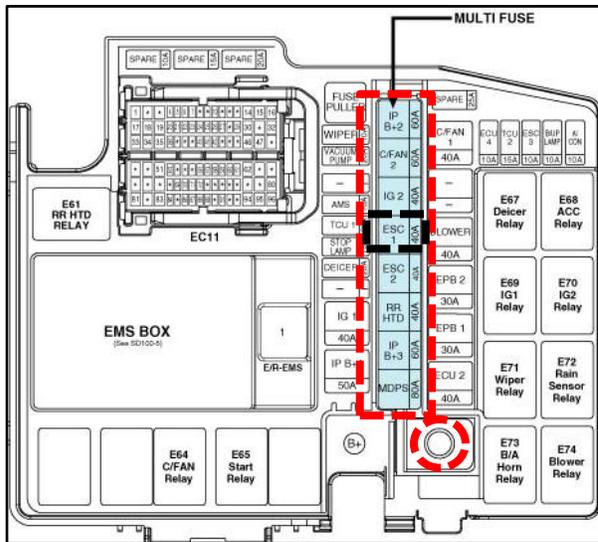
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Test Procedure:

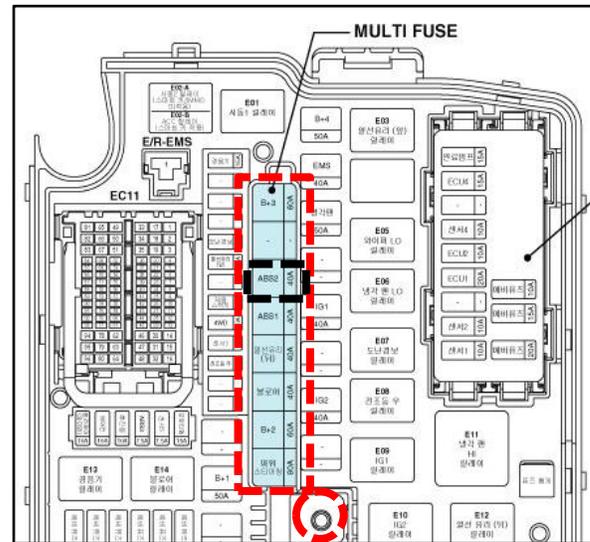
1. Open the hood and disconnect the negative (-) battery terminal (A).
2. Remove the fuse box cover (B).



3. Locate the Multi Fuse (C) ESC1 for (QF) Optima or ABS2 for (XMa) Sorento 40A in the fuse box.



Optima (QF)

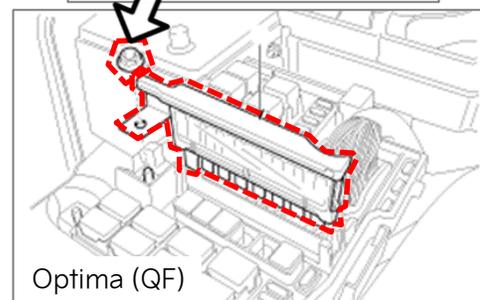
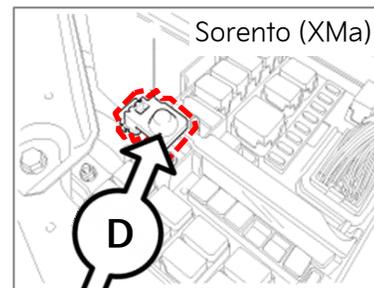
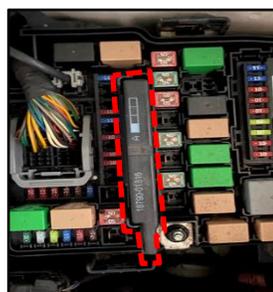


Sorento (XMa)

4. Loosen the 10mm Multi Fuse retaining nut (D) and remove the Multi Fuse.

Optima (QF) ONLY, remove the nut cover first.

Sorento (XMA) ONLY, after removing the fuse, re-attach the 12VDC cable to the fuse box, and temporarily re-install the Multi Fuse 10mm nut.



5. Reconnect the negative (-) battery terminal.



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- 6a. Using the two (2) SST Multimeter jumper leads, carefully contact the **'black'** lead to the **'ESC1' (QF)** or **'ABS2' (XMa)** fuse terminal **and** the **'red'** lead to the fuse box **'Positive' (E)** post.
- 6b. **Measure the Multimeter value/reading for at least 15 seconds.**

Note: The current draw value **must** stay constant.

⚠ CAUTION
DO NOT damage the terminals.

If current draw value is OVER 70uA or 0.070mA, open a Techline case and attach a picture of the meter reading for review prior to part order. All part orders are on manual allocation.

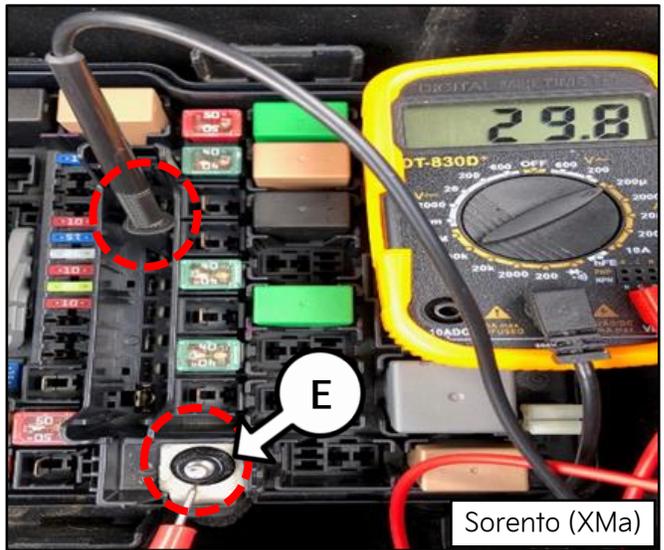
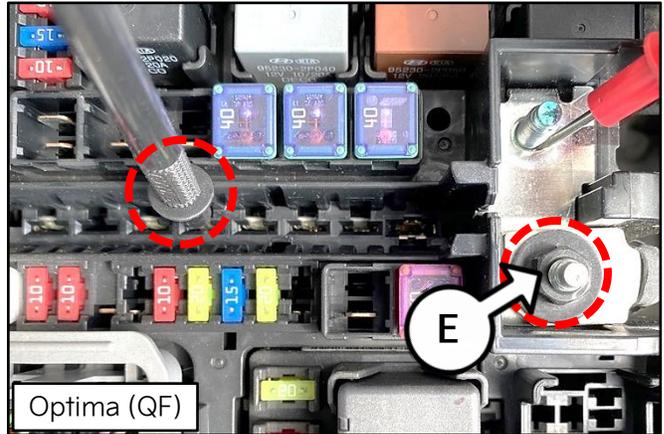
Replace the Hydraulic Electronic Control unit (HECU) by referring to the "Brake System → ESC (Electronic Stability Control) System → ESC Control Module → Repair procedures" chapter in the applicable Shop Manual on KGIS.

Replace the Multi-Fuse with the one from the Service Kit by referring to the "Body Electrical → Fuses And Relays → Relay Box (Engine compartment) → Repair procedures → Multi Fuse" chapter in the applicable Shop Manual on KGIS.

- 6c. **If current draw value is BELOW 70uA or 0.070mA, replace the Multi-Fuse with the one supplied in the Service Kit by referring to the "Body Electrical → Fuses And Relays → Relay Box (Engine compartment) → Repair procedures → Multi Fuse" chapter in the applicable Shop Manual on KGIS.**

Note: Drill a hole through the center of the removed fuse(s) and discard. **DO NOT** reuse.

ⓘ IMPORTANT
The inspection on step 7 **must** be performed after current draw test.

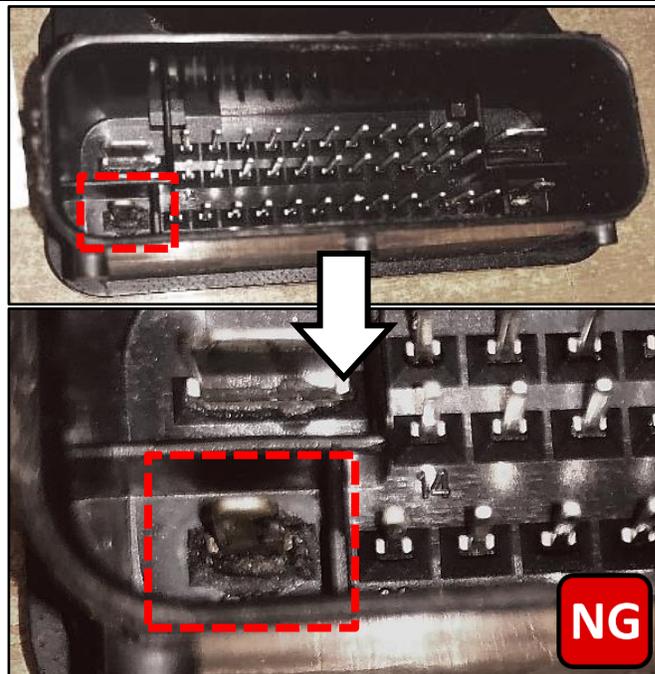


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& MULTI-FUSE REPLACEMENT (SC212)**

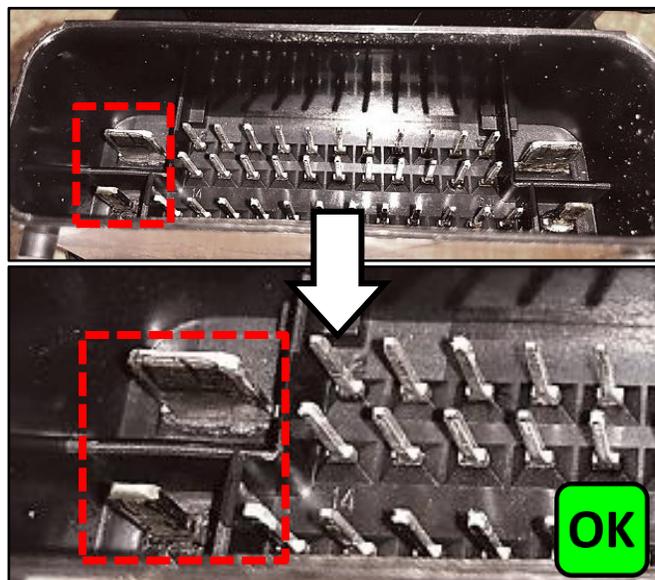
7. Disconnect the HECU connector and inspect the inside of the connector with good lighting for signs of thermal damage at both terminals.

If the wire harness has suspected signs of thermal damage as shown, open a Techline case and attach a picture of the damaged connector and hold for further assistance.

Note: Example of thermally damaged (melted housing) connector/terminal (NG) shown to the right.



Note: Example of normal (undamaged) connector/terminal (OK) shown to the right.



7. Replace the fuse box cover with the Upper Cover from the Service Kit.
8. Reinstall the removed parts in the reverse order of removal.

NOTICE

All parts replaced are subject to return to the Warranty Parts Return Center (WPRC) for verification of the reported parasitic draw.

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& MULTI-FUSE REPLACEMENT (SC212)**

AFFECTED VEHICLE RANGE:

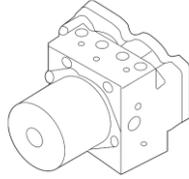
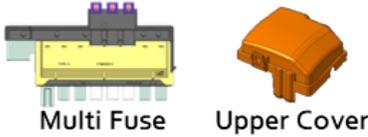
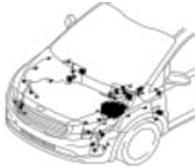
Model	Production Date Range
Optima (QF)	July 12, 2013 to October 2, 2015
Sorento (XMa)	June 17, 2013 to December 11, 2014

REQUIRED TOOL:

Tool Name	Figure	Part Number	Comments
Multimeter DT-830D		SC197Meter	Only one (1) multimeter set was auto shipped to each dealer by MPA, P/N: KQ589 4C100QQK. <u>Additional warrantable concerns will be handled by Snap-On Business Solutions*.</u>
		SC197Leads	

*Call Snap-on Business Solutions at (888) 542-1011 for lead replacements or defective meter.

REQUIRED PART:

Part Name	Part Number	Figure	Qty.
HECU Assembly* (XMa)	58920 1U000QQK		1
HECU Assembly* (QF) 13MY	58920 4C550QQK w/EPB 58920 2T550QQK w/o EPB		*Techline case number will be required prior to part order.
HECU Assembly* (QF) 14-15MY	58920 4C870QQK w/EPB 58920 2T870QQK w/o EPB		
Service Kit (13MY QF)	91NON 2TEU1QQK (2.4L) 91YES 2TEU1QQK (2.0L-T)	 Multi Fuse Upper Cover	1
Service Kit (14-15MY QF)	91PEN 2TEU1QQK (2.4L) 91PEY 2TEU1QQK (2.0L-T)		
Service Kit (XMa)	91KIT 2PUSAQQK		
Front Wire Harness (XMa and QF)	Refer to EPC		1

*Refer to EPC for the applicable required part per model VIN.

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& MULTI-FUSE REPLACEMENT (SC212)**

WARRANTY INFORMATION:

N Code: N99 C Code: C99

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
XMa	R	58920 1U000	0	(SC212) HECU Current (OK) + Connector Inspection + Service Kit Installation	211A15IO	0.3 M/H	91KIT 2PUSAQQK	1
				(SC212) HECU Current (NG) + Connector (OK) + HECU Replacement + Service Kit Installation	211A15RO	2.1 M/H	91KIT 2PUSAQQK	1
				(SC212) HECU Current (NG) + Connector (NG) HECU + Wire Harness Replacement + Service Kit Installation	211A15RA*	8.0 M/H	58920 1U000QQK	1
							91KIT 2PUSAQQK	1
							Wire harness Refer to EPC*	1
				13MY QF (2.4)	R	58920 4C550	0	(SC212) HECU Current (OK) + Connector Inspection + Service Kit Installation
(SC212) HECU Current (NG) + Connector (OK) + HECU Replacement + Service Kit Installation	211A16RO	2.0 M/H	91NON 2TEU1QQK					1
			58920 4C550QQK** or 58920 2T550QQK**					1
(SC212) HECU Current (NG) + Connector (NG) HECU + Wire Harness Replacement + Service Kit Installation	211A16RA*	7.4 M/H	91NON 2TEU1QQK					1
			58920 4C550QQK** or 58920 2T550QQK**					1
			Wire harness Refer to EPC*					1
13MY QF (2.0T)	R	58920 4C550	0	(SC212) HECU Current (OK) + Connector Inspection + Service Kit Installation	211A16I1	0.3 M/H	91YES 2TEU1QQK	1
				(SC212) HECU Current (NG) + Connector (OK) + HECU Replacement + Service Kit Installation	211A16R1	2.0 M/H	91YES 2TEU1QQK	1
							58920 4C550QQK** or 58920 2T550QQK**	1
				(SC212) HECU Current (NG) + Connector (NG) HECU + Wire Harness Replacement + Service Kit Installation	211A16RB*	7.4 M/H	91YES 2TEU1QQK	1
							58920 4C550QQK** or 58920 2T550QQK**	1
							Wire harness Refer to EPC*	1

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HECU/ABS MODULE PARASITIC CURRENT DRAW TEST & REPLACEMENT & MULTI-FUSE REPLACEMENT (SC212)

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
14-15MY QF (2.4)	R	58920 4C550	0	(SC212) HECU Current (OK) + Connector Inspection + Service Kit Installation	211A16I2	0.3 M/H	91PEN 2TEU1QQK	1
				(SC212) HECU Current (NG) + Connector (OK) + HECU Replacement + Service Kit Installation	211A16R2	2.0 M/H	91PEN 2TEU1QQK	1
				(SC212) HECU Current (NG) + Connector (NG) HECU + Wire Harness Replacement + Service Kit Installation	211A16RC*	7.4 M/H	58920 4C870QQK** or 58920 2T870QQK**	1
							91PEN 2TEU1QQK	1
							Wire harness Refer to EPC*	1
				14-15MY QF (2.0T)	R	58920 4C550	0	(SC212) HECU Current (OK) + Connector Inspection + Service Kit Installation
(SC212) HECU Current (NG) + Connector (OK) + HECU Replacement + Service Kit Installation	211A16R3	2.0 M/H	91PEY 2TEU1QQK					1
(SC212) HECU Current (NG) + Connector (NG) HECU + Wire Harness Replacement + Service Kit Installation	211A16RD*	7.4 M/H	58920 4C870QQK** or 58920 2T870QQK**					1
			91PEY 2TEU1QQK					1
			Wire harness Refer to EPC*					1

***Note:** If wire harness is **NG**, a Techline case must be opened for each wire harness ordered. (Refer to Warranty Bulletin 2021-13 for required model P/N).

****Note:** Only one (1) applicable HECU replacement P/N can be claimed for QF model. Refer to Warranty Bulletin 2021-13 for claim submission procedures. Use sublet code X1 for reimbursement for Kia Brake Fluid P/N: UM010 CHO43, DOT 4 (\$9 maximum).

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SC212** when accessing the WebDCS system.