



GROUP
CLI

MODEL
2017-2019MY
Sportage (QL)

NUMBER
046 (Rev 1, 08/30/2019)

DATE
July 2019

TECHNICAL SERVICE BULLETIN

SUBJECT: REDUCED PERFORMANCE OR INOPERATIVE
AIR CONDITIONING

* 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.

This bulletin provides the procedure to inspect the Air Conditioner (A/C) and replace the A/C compressor, Evaporator Temperature Sensor (ETS), and/or External Control Valve (ECV), depending on the inspection results on some 2017-2019MY Sportage (QL) vehicles, produced from December 1, 2015 through July 7, 2017, which may exhibit intermittent poor air conditioning performance. Follow the procedure outlined in this bulletin to inspect and, if necessary, replace the A/C compressor, ETS, and/or ECV. Refer to the flowchart outlined on page 2 for the procedure order.



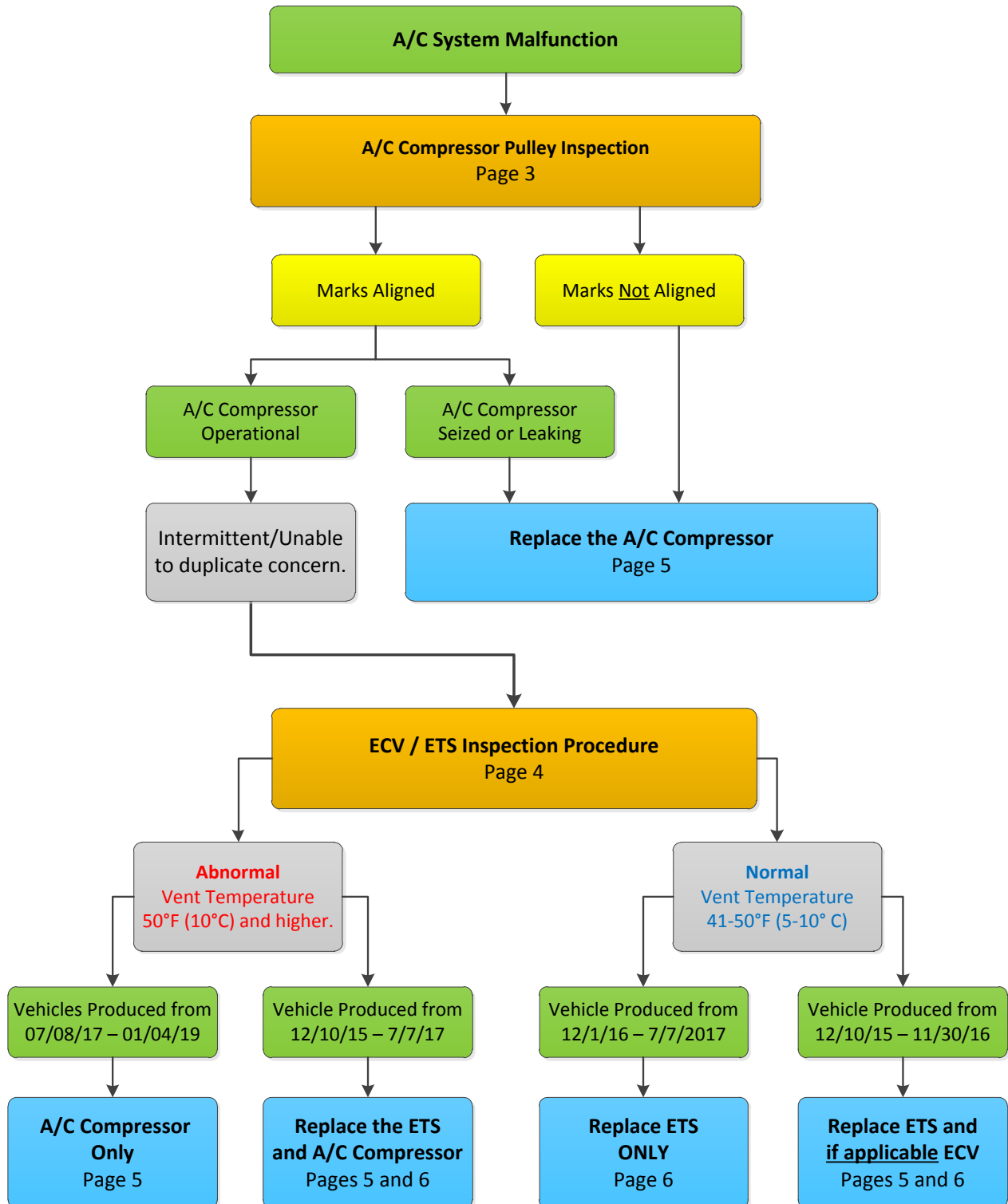
File Under: <Climate>

Circulate To: General Manager Service Manager Parts Manager
 Service Advisors Technicians Body Shop Manager Fleet Repair

*** NOTICE**

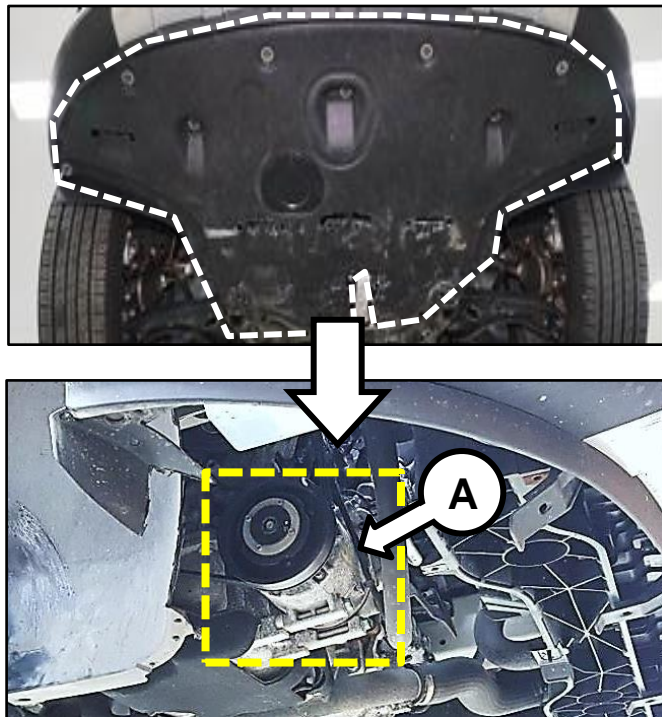
Other causes and/or remedies not described in this bulletin for an A/C operation concern must be performed per the technician's discretion. For more information and service procedures, refer to the applicable Shop Manual on KGIS.

A/C Inspection and Repair Flowchart:



SUBJECT: REDUCED PERFORMANCE OR INOPERATIVE AIR CONDITIONING
Compressor Inspection Procedure:

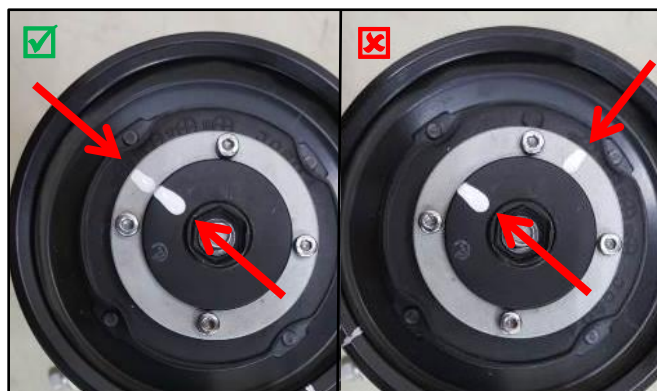
1. Raise the vehicle on a lift and remove the engine under cover to access the A/C compressor (A).



2. Check the mark alignment of the A/C compressor pulley.

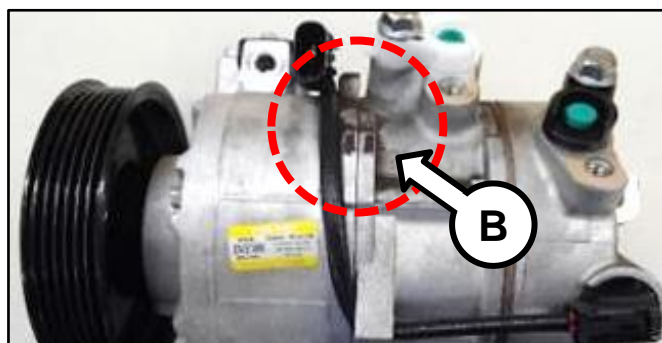
If the mark is aligned (☑) as shown, proceed to next step.

If the marks are not aligned (☒) as shown, skip to **page 5** and replace the A/C compressor.



3. Inspect the compressor for refrigerant leakage. If there is trace of a leak present (B), proceed to **page 5** and replace the A/C compressor.

If no leak is present, proceed to **page 4** and inspect the ECV and ETS.



ECV / ETS Inspection Procedure:

1. Start the engine and let it idle.



2. Turn the A/C temperature to the lowest temperature, set the fan speed to high, and vent mode to “face”.



3. Wait five (5) minutes and then measure the air temperature at a center vent using a temperature gauge.



Abnormal Temperature: 50°F (10°C) and higher.

Normal Temperature: 41-50°F (5-10°C)

Note: A/C temperature reading may vary slightly based on ambient temperature.

Note: When connecting gauges, if the compressor is inoperative, there will be no significant difference between high and low pressure reading (as shown). Pressure difference will be within 2-3 bar (29-44 psi).

If the A/C compressor operates normally during engine idle, replace the ETS and if applicable, replace the ECV (pages 5 and 6) (pages 5 and 6).

If the A/C compressor is not operating normally during engine idle, replace the compressor and if applicable, replace the ETS (page 6).



High Side / Low Side

*** IMPORTANT**

BEFORE replacing the Compressor, ECV, and/or ETS: If the air conditioning system malfunctions intermittently during engine idle, check the vehicle production date and apply the following service procedure.

Compressor Inspection Results	Production Date	Replace Part	Page
Marks not aligned, seized or leaking	12/10/2015 – 01/04/2019	Compressor	5

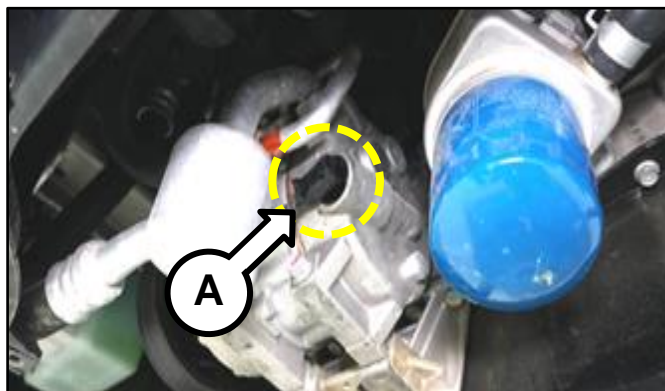
ECV / ETS Inspection Results	Production Date	Replace Part(s)	Page(s)
Abnormal	12/10/2015 – 07/07/2017	Compressor and ETS	5-6
	07/08/2017 – 01/04/2019	Compressor	5
Normal	12/10/2015 – 11/30/2016	ECV and ETS	5-6
	12/01/2016 – 07/07/2017	ETS	6

A/C Compressor Replacement Procedure:

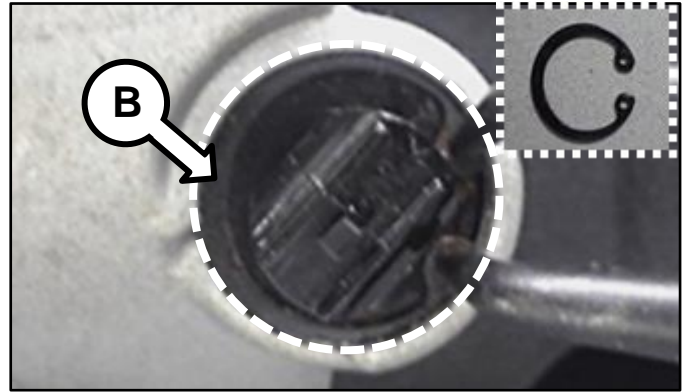
1. Record the customer's radio presets and then disconnect the negative (-) battery terminal.
2. Replace the A/C Compressor by referring to "Heating, Ventilation and Air Conditioning → Air conditioning System → Compressor → Repair procedures" chapter in the applicable Shop manual on KGIS.
3. Restore the radio presets and verify proper operation of the A/C.

**Electronic Control Valve (ECV) Replacement Procedure:**

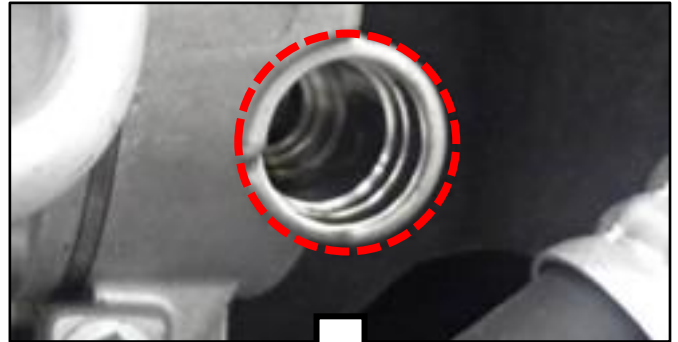
1. Evacuate refrigerant from the A/C system.
2. Disconnect the ECV connector (A).



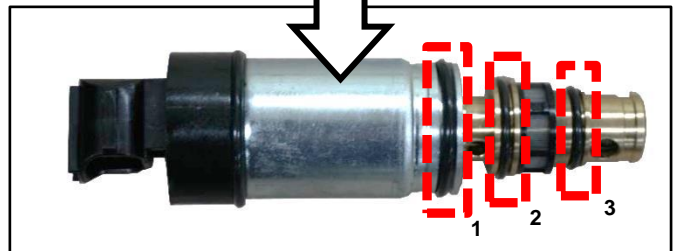
- Remove the snap ring (B).



- Remove and discard the ECV.



- Apply a small amount of Pag Oil FD46Xg compressor oil onto the three (3) O-rings of the new ECV and install the new ECV in the reverse order of removal.



- Reinstall all removed components in the reverse order of removal.
- Recharge the A/C system to the correct refrigerant specifications.

Refrigerant Specification:

1.21 ± 0.055 lb. (19.4 ± 0.88 oz., 550g ± 25g)

- If no other components needs to be replaced, verify proper operation of the A/C.

Evaporator Temperature Sensor (ETS) Replacement Procedure:

- Replace the Evaporator Temperature Sensor by referring to the "Heating, Ventilation and Air Conditioning → Air conditioning System → Evaporator Temperature Sensor → Repair procedures" chapter in the applicable Shop manual on KGIS.







- If no other components needs to be replaced, verify proper operation of the A/C.

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AFFECTED VEHICLE RANGE:

Model	Production Date Range
Sportage (QL)	December 1, 2015 through January 4, 2017

REQUIRED PART:

Part Name	Part Number	Figure	Qty.
A/C Compressor	97701 D9000FFF		1
	97701 D9001FFF		
Electronic Control Valve (ECV)	*97674 D3000FFF		1
Evaporator Temperature Sensor (ETS)	*97143 C5000FFF		1
R-1234YF Refrigerant	UM016 CH113W1 UM016 CH113W3		** Only up to a maximum of 1.21lb. (550g) can be claimed.

***Note: When ordering an “FFF” part, a “QK” part may be temporarily supplied instead of “FFF” until the “QK” supply is exhausted.**

****For customer complaint cases for loss of refrigerant due to leaks only.**

WARRANTY INFORMATION:

N Code: I14 C Code: ZZ5

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	97674 D3000	0	A/C System Inspection	97701F02	0.4 M/H	N/A	0
	97701 D9000	0	A/C System Inspection, Compressor Replacement	97701F10	1.1 M/H	97701 D9000FFF	1
						97701 D9001FFF	
	97701 D9000	0	A/C System Inspection, ETS Replacement and Compressor Replacement	97701F11	1.2 M/H	97701 D9000FFF	1
						97701 D9001FFF	
						97143 C5000FFF	
97674 D3000	0	A/C System Inspection, ECV Replacement and Thermistor Replacement	97701F12	1.0 M/H	97674 D3000FFF	1	
					97143 C5000FFF	1	
97143 C5000	0	A/C System Inspection and Thermistor Replacement	97701F13	0.5 M/H	97143 C5000FFF	1	

Note: Op Time includes evacuate and recharge of the A/C refrigerant. Use sublet code ‘NPNOTHER’ for PAG oil for a maximum of \$5.00