

07-006/17 - A/C BLOWS WARM AIR DUE TO REFRIGERANT LEAK

SI112752

TSB NUMBER: 07-006/17

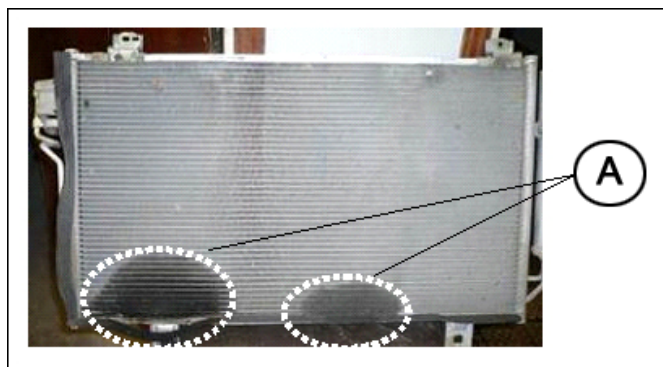
TSB ISSUE DATE

05/26/2017

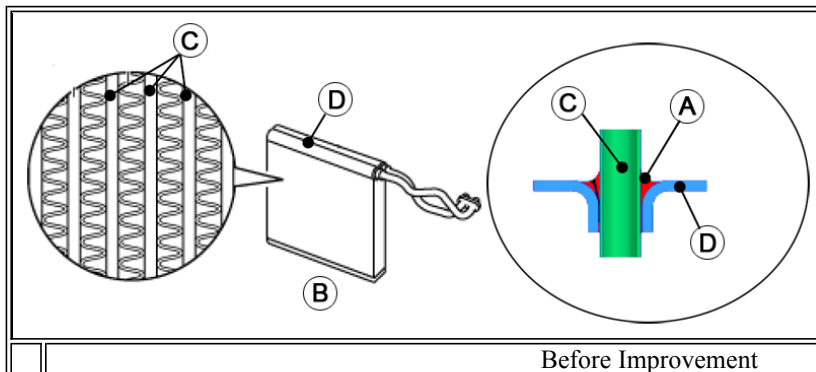
DESCRIPTION

Some customers may complain about warm air from the climate control vents. This may be caused one or both of the following:

- Condenser corrosion, causing a refrigerant leak (A).



- Improper brazing (A) of the evaporator (B), causing a refrigerant leak from the joint between the tubes (C) and the header (D).



Customers having these concerns should have their vehicle repaired using the following repair procedures.

Repair Procedure Outline

Repair Procedure	Description	Model
A.	Condenser corrosion, causing a refrigerant leak	2016-2017 CX-3 vehicles with VINs lower than JM1 DK ***** 159395 (produced before November 01, 2016)
B.	Improper brazing of the evaporator, causing a refrigerant leak	2016-2017 CX-3 USA/Mexico vehicles with VINs JM1 DK ***** 103784 through 162553 (produced from June 01, 2015 through December 19, 2016) 2016-2017 CX-3 Canada vehicles with VINs JM1 DK ***** 100037 through 162553 (produced from March 09, 2015 through December 19, 2016) 2016-2017 Mazda2 Mexico vehicles with VINs 3MD DJ ***** 100050 through 109656 (produced from December 19, 2014 through December 04, 2016)

REPAIR PROCEDURE

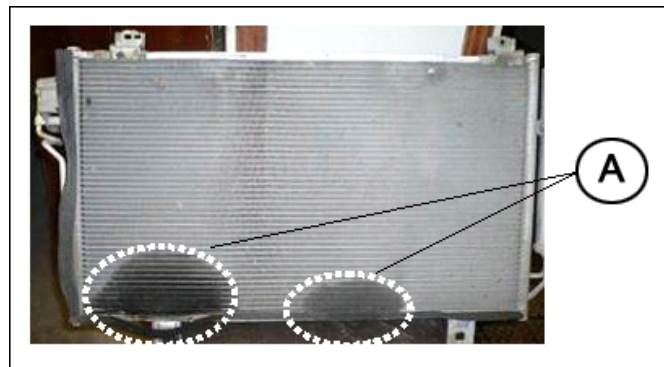
1. Verify customer concern.
2. Use a dealer supplied manifold gauge tool to check the A/C refrigerant charge. Refer to MGSS online Workshop Manual [REFRIGERANT PRESSURE CHECK](#). Is the A/C refrigerant charge low?

- Yes - Go to step 3.
- No - This Service Information is not applicable. Refer to MGSS online Workshop Manual:
 - Manual A/C [NO COOL AIR \[MANUAL AIR CONDITIONER\]](#).
 - Auto A/C [NO COOL AIR \[FULL-AUTO AIR CONDITIONER\]](#).

3. Is the vehicle a Mazda2 or CX-3?

- CX-3 - Go to step 4.
- Mazda2 - Go to step 6.

4. Visually inspect the condenser for A/C refrigerant leak. Is there a visible trace of A/C refrigerant leak at location (A)?



- Yes - Go to A. Repair Procedure.

NOTE: Before proceeding to A. Repair Procedure, go to step 6. for a possible evaporator leak also.

- No - Go to step 5.

5. Use a dealer supplied UV leak detection tool. Is there a trace of fluorescent liquid at location (A)?

NOTE: UV fluorescent leak detection dye is added at the factory.

- Yes - Go to A. Repair Procedure.

NOTE: Before proceeding to A. Repair Procedure, go to step 6. for a possible evaporator leak also.

- No - Go to step 6.

6. Use a dealer supplied UV leak detection tool. Is there a trace of fluorescent liquid at the A/C unit drain hose end?

- Yes - Go to B. Repair Procedure.
- No - This Service Information is not applicable. Refer to MGSS online Workshop Manual:
 - Manual A/C [NO COOL AIR \[MANUAL AIR CONDITIONER\]](#).
 - Auto A/C [NO COOL AIR \[FULL-AUTO AIR CONDITIONER\]](#).

A. Repair Procedure (Condenser corrosion, causing a refrigerant leak)

1. Replace the condenser. Refer to MGSS online Workshop Manual [CONDENSER REMOVAL/INSTALLATION \[SKYACTIV-G 2.0\]](#).

NOTE: When replacing the condenser, add compressor oil of approximately 40 ml [40 cc, 1.4 fl oz]. Refer to MGSS online Workshop Manual [REFRIGERANT CHARGING](#).

2. Verify repair.

B. Repair Procedure (Improper brazing of the evaporator, causing a refrigerant leak)

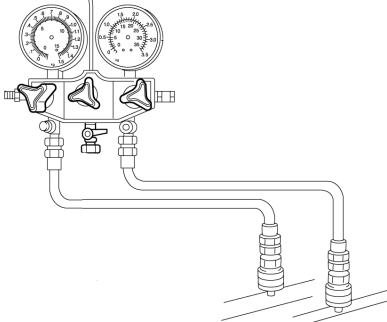

1. Replace the A/C evaporator. Refer to MGSS online Workshop Manual:

- CX-3 - [A/C UNIT REMOVAL/INSTALLATION](#).
- Mazda2 - [A/C UNIT REMOVAL/INSTALLATION](#).

NOTE: When replacing the evaporator, add compressor oil of approximately 40 ml [40 cc, 1.4 fl oz]. Refer to MGSS online Workshop Manual [REFRIGERANT CHARGING](#).

2. Verify repair.

SPECIAL SERVICE TOOLS

Part Number	Description	
Dealer Supplied	A/C Manifold Gauge	 A technical line drawing of an A/C manifold gauge. It features two circular pressure gauges at the top, a central valve, and two long hoses with quick-connect fittings at the bottom.
Dealer Supplied	UV leak detection tool	 An image of a UV leak detection tool. It consists of a pair of yellow safety glasses and a black flashlight with a blue UV light lens.

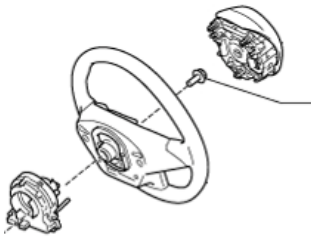
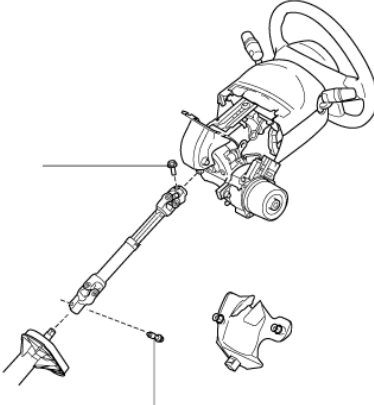

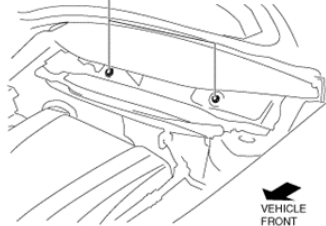

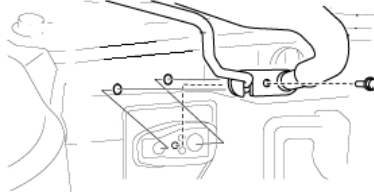
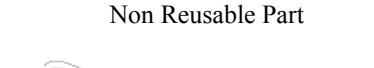
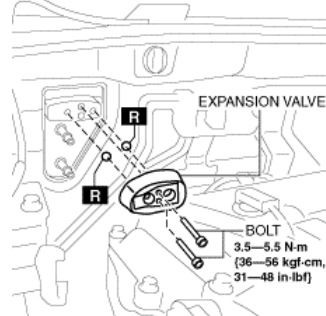
PARTS INFORMATION

A. REPAIR PROCEDURE PARTS INFORMATION (CX-3 only)

Part Number	Description	Qty.	Notes	Part Location
DB3R-61-480A	CONDENSER	1	(Part location A)	
GJ6A-61-J19	O RING NO.1	1	Non reusable part (Part location B)	
GJ6E-61-J19	O RING NO.2	1	Non reusable part (Part location C)	
5555-FG-002	A/C REFRIGERANT	As needed	---	
ZZC0-61-K39	COMPRESSOR OIL	1	1 bottle repairs 5 vehicles 40 ml required from 210 ml/bottle)	

B. REPAIR PROCEDURE PARTS INFORMATION

Part Number	Description	Qty.	Notes
DD2F-61-J10A (CX-3)	EVAPORATOR	1	
DB5H-61-J10A (Mazda2)			
D09W-68-162	TRIM CLIP	2	<p>Non Reusable Part</p>
9YA0-11-003A	BOLT, STEERING WHEEL	1	<p>Non Reusable Part</p>

			
B455-32-099B	BOLT, INTERMEDIATE SHAFT LOWER	1	<p>Non Reusable Part</p> 
D10J-32-099	BOLT, INTERMEDIATE SHAFT UPPER	1	
9YA0-20-682	BOLT, DASHBOARD	2	<p>Non Reusable Part</p>  <p style="text-align: right;">  <small>VEHICLE FRONT</small> </p>
BBM4-61-J17	O-RING, COOLER PIPE LOW AND EXPANSION VALVE	2	<p>Non Reusable Part</p> 
GJ6A-61-J19	O-RING, COOLER PIPE HIGH	1	
GJ6E-61-J19	O-RING, EXPANSION VALVE	1	<p>Non Reusable Part</p>  <p style="text-align: right;"> <small>BOLT</small> <small>3.5—5.5 N·m</small> <small>(36—56 kgf·cm,</small> <small>31—48 in·lbf)</small> </p>
BP4K-61-242	CLIP, HEATER PIPE	2	<p>Non Reusable Part</p>

5555-FG-002	A/C REFRIGERANT	As needed	---
ZZC0-61-K39	COMPRESSOR OIL	1	1 bottle repairs 5 vehicles (40 ml required from 210 ml/bottle).

Note: Use GEPC with VIN to look up the correct part numbers.

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

	A. Repair Procedure (Replace A/C Condenser)	B. Repair Procedure (Replace A/C Evaporator)
Warranty Type	A	A
Symptom Code	59	59
Damage Code	9Y	9G
Part Number Main Cause / Quantity	DB3R-61-480A / 1	DD2F-61-J10A / 1 or DB5H-61-J10A / 1
Related Part / Quantity	5555-CP-OIL / 1	5555-CP-OIL / 1
Operation Number / Labor Hours:	XXMB4XRX / 1.2 Hrs.	XXMASARX / 3.2 Hrs.
Refrigerant Charge / Labor	XXMATXRX / 0.7 Hrs. (One repair or both combined)	

NOTE:

- Claim the replacement parts as related parts.
 - ~~â€~~Claim the compressor oil using 5555-CP-OIL Quantity 1 which will reimburse you for 40 ml (1/5 of the can) (1 can repairs 5 vehicles).
 - ~~â€~~If both repairs are needed, claim 5555-CP-OIL Quantity 1 on each repair which will reimburse you for 80 ml. DSM authorization will be required when performing both repairs.
 - Claim the A/C refrigerant by entering the applicable part number and the quantity used as related part.
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