

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922



Subject: 07-005/17 - POOR AIR CONDITIONING PERFORMANCE AND OPERATION	Bulletin No.: 07-005/17
	Last Issued: 06/30/2017

BULLETIN NOTES

This bulletin supersedes the previously issued bulletin(s) listed below. The changes are noted in Red text.

Previous TSBs:	Date(s) Issued:
07-005/17	05/12/17 and 05/08/17

DESCRIPTION

APPLICABLE MODEL(S)/VINS

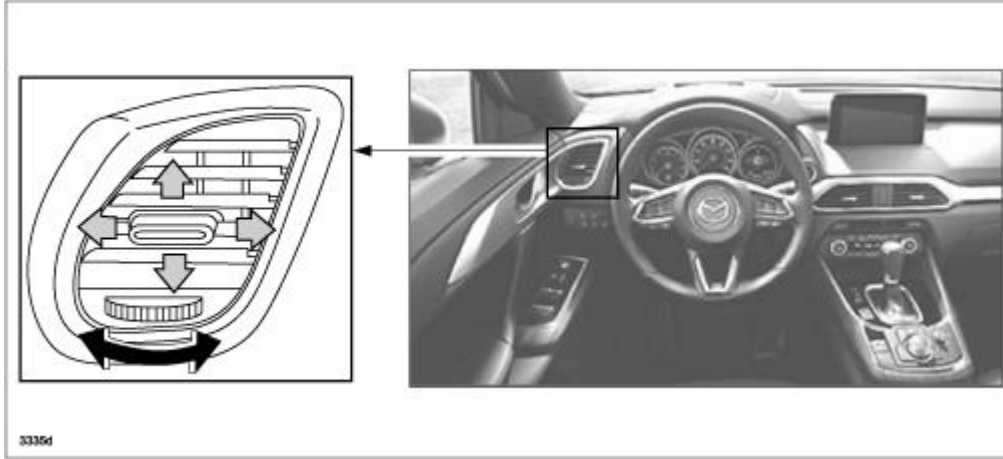
2016-2017 CX-9 vehicles with VINs lower than **JM3TC*****142099** (produced before May 19, 2017)

Some customers may complain that 1) the air conditioner is not cold enough or 2) the cabin is cold, but the fan speed stays on high and there is noise coming from the blower motor or 3) it is difficult to adjust the driver/passenger side ventilation grill so that the air flows directing to the driver's/passenger's face.

The following may be the causes:

- 1) The A/C compressor ON/OFF control is not operating correctly, causing a problem with the air temperature control.
- 1) The air conditioner may not be cool enough due to inadequate amount of the refrigerant, due to leakage or overcharging.
- 2) The control of the amount of air blown is incorrect.
- 3) The adjustable range of the side ventilation grills is not appropriate.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.



For 1) and 2), the front and rear climate control unit software has been modified to optimize the amount of air blown and the A/C compressor ON/OFF controls. For 3), the inner configuration of the side ventilation grilles has been changed to widen the adjustable range.

- The rear climate control unit software was modified on Dec. 1, 2016 (Beginning VIN: JM3TC**** **130572)
- The front climate control unit software was modified on Jan. 6, 2017 (Beginning VIN: JM3TC**** **135223)
- The side ventilation grilles were modified on May 19 2017 (Beginning VIN: JM3TC**** **142099)

Use the table below to determine if the customer's vehicle is a Type A, Type B or a Type C vehicle, then follow the appropriate repair procedure below.

Vehicle Type	Type A	Type B	Type C
VIN / Build Date Range	JM3TC**** **100001 - 130571 (Feb. 11, 2016 - Dec. 1, 2016)	JM3TC**** **130572 - 135222 (Dec. 1, 2016 - Jan. 6, 2017)	JM3TC**** **135223 - 142099 (Jan. 6, 2017 - May 19, 2017)

Customers having this concern should have their vehicle repaired using the following repair procedure.

REPAIR PROCEDURE

1. Verify the customer concern.

REPAIR PROCEDURES TO USE BY VEHICLE TYPE:

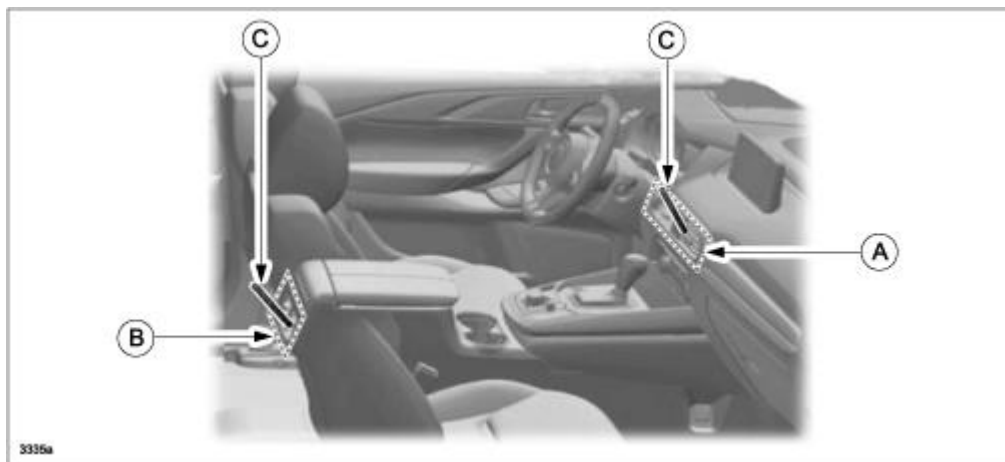
Repair Procedure	Vehicle Type A	Vehicle Type B	Vehicle Type C
Check refrigerant pressure.	YES	YES	NO

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

Measure air conditioner output temperatures.	YES	YES	NO
Repair refrigerant leak (IF ANY).	YES	YES	NO
Refill with correct amount of refrigerant.	YES	YES	NO
Replace front climate control unit with a modified one.	YES	YES	NO
Replace rear climate control unit with a modified one.	YES	NO	NO
Replace side ventilation grilles with modified ones.	YES	YES	YES

2. Inspect the refrigerant pressure according to the instructions on MGSS online (REFRIGERANT PRESSURE CHECK) and record the high and low pressure values.

3. Measure the air conditioner output temperature from the passenger's side center ventilator (A) and rear ventilator (B) outlets according to the instructions on MGSS online (REFRIGERANT SYSTEM PERFORMANCE TEST). Record the output temperature values with a dry-bulb thermometer (C) and the ambient temperature when it is measured.

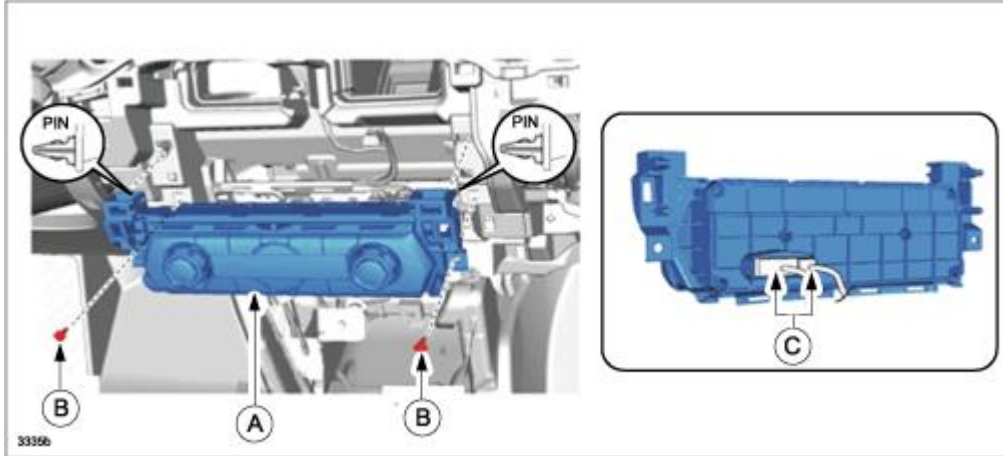


4. If refrigerant leakage is a possibility, locate it using UV black light and repair it according to the instructions on MGSS online (REFRIGERANT CHARGING – Leak Test).

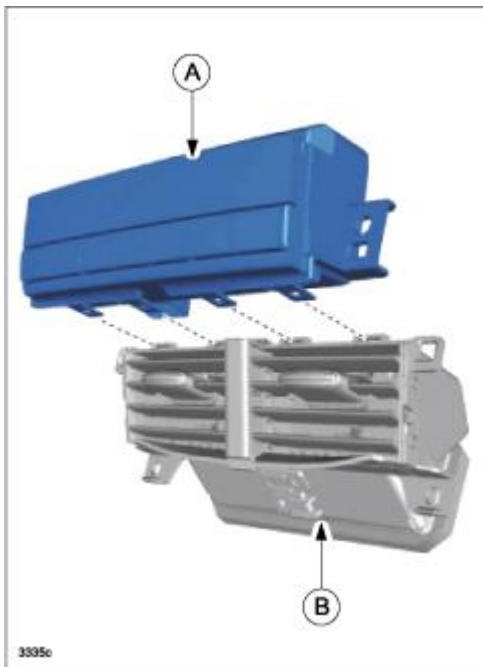
5. Recover refrigerant, evacuate the system and refill with correct amount of refrigerant (750g) according to the instructions on MGSS online (REFRIGERANT RECOVERY) and (REFRIGERANT CHARGING).

6. Replace the front climate control unit (A) with a modified one according to the instructions on MGSS online (FRONT CLIMATE CONTROL UNIT REMOVAL/INSTALLATION). Screws (B) and connector (C).

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

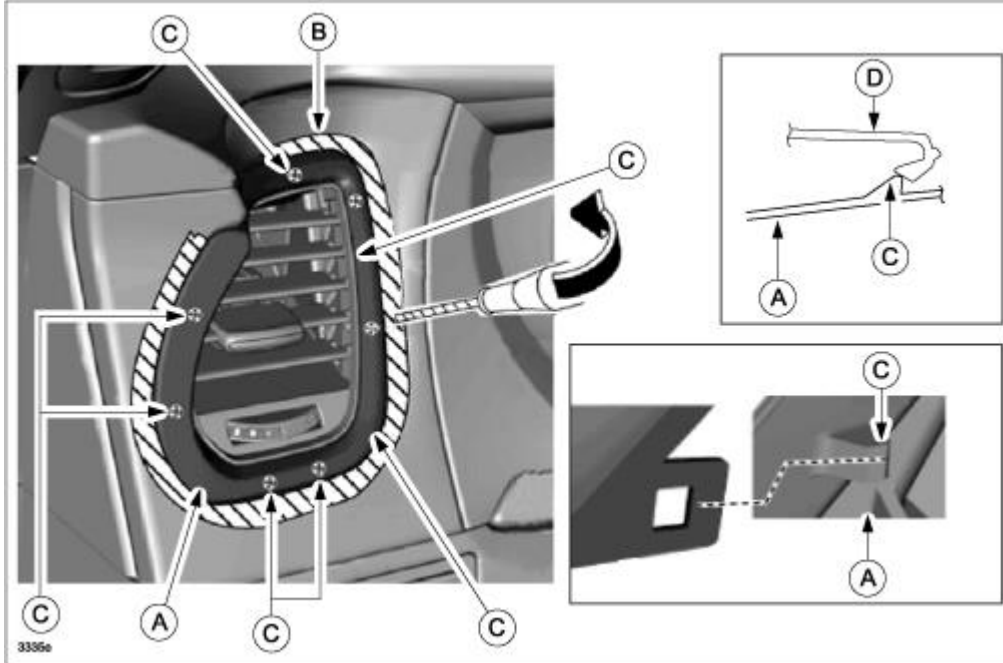


7.(FOR TYPE A VEHICLES ONLY) Replace the rear climate control unit (A) with a modified one according to the instructions on MGSS online (REAR CLIMATE CONTROL UNIT REMOVAL/INSTALLATION). Rear ventilator grille (B).



8.(FOR ALL VEHICLES TYPES) Replace the side ventilator grills (A) with modified ones according to the instructions on MGSS online (VENTILATOR GRILLE REMOVAL/INSTALLATION). B - Protective Tape, C - Tabs, D - Dashboard

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.



9. Verify the repair.

PARTS INFORMATION

Parts Number	Description	Qty.	Notes
TK80-61-190F	Front Climate Control Unit	1	---
TK80-61-325F	Rear Climate Control Unit	1	---
5555-CP-OIL	Compressor Oil (210ml)	1	Approx. 42ml per repair
5555-FG-002	A/C Refrigerant	8	(800g)
TK48-64-730B-02	Grille (R),Ventilator	1	Decoration Panel: Paint
TK48-64-830B-02	Grille (L),Ventilator	1	Decoration Panel: Paint
TK52-64-730B-02	Grille (R),Ventilator	1	Decoration Panel: Aluminum
TK52-64-830B-02	Grille (L),Ventilator	1	Decoration Panel: Aluminum

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.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by “do-it-yourselfers.” Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

FOR VEHICLE TYPES A AND B:

Warranty Type	A
Symptom Code	59
Damage Code	9W
Part Number Main Cause	TK80-61-190F
Quantity	1
Operation Number / Labor Hours:	<p style="text-align: center;">FOR VEHICLE TYPE A:</p> <p>Replace Both Front and Rear Climate Control Units and Side Ventilation Grill (both sides). XXN3RXXR / 1.9 Hrs.</p> <p>(Includes Refrigerant Pressure Check, Refrigerant System Performance Test and Gas Charging)</p> <p style="text-align: center;">FOR VEHICLE TYPE B:</p> <p>Replace only Front Climate Control Unit and Side Ventilation Grill (both sides). XXN3SARX / 1.8 Hrs.</p> <p>(Includes Refrigerant Pressure Check, Refrigerant System Performance Test and Gas Charging)</p> <p>If refrigerant leak was found and repaired, claim the repair only on a separate problem number, the associated part along with the labor operation for that part as listed in Warranty Wizard. Freon, compressor oil, evacuation and charge operations are included in the TSB labor operations.</p>

NOTE: Enter Rear Climate Control Unit (For vehicle type A) and Side Ventilator Grills (for vehicle type A and B) as related parts.

NOTE: Claim the compressor oil using 5555-CP-OIL, which will reimburse for 1/5 of the can (approx. 42ml).

Problem Cause / Remedy Text:

Enter the following test results when submitting the claim.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

- Refrigerant pressure high and low
- Output temperature from front vent
- Output temperature from rear vent
- Ambient temperature when tested

FOR VEHICLE TYPE C:

Warranty Type	A
Symptom Code	59
Damage Code	97
Part Number Main Cause	****-64-730* (SEE PARTS INFORMATION)
Quantity	1
Operation Number / Labor Hours:	Side Ventilation Grill (both sides). XXN5RXX / 0.3 Hrs.

NOTE: Enter Side Ventilator Grill (LH) in Related Parts.

CONSUMER NOTICE: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.