

Service Information

Mazda Motor Corporation

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Category U	Repair Guidance	Ref. No. R108/15 B	Page 1 of 6
Coverage <input type="checkbox"/> Distributor only <input checked="" type="checkbox"/> Please inform your dealers		Date Issued November 11, 2015	
Please convey this information to your <input type="checkbox"/> Director <input checked="" type="checkbox"/> General Manager <input checked="" type="checkbox"/> Warranty Dept. <input checked="" type="checkbox"/> Parts Dept. <input checked="" type="checkbox"/> Training Dept. <input checked="" type="checkbox"/> Field Rep.		Date Revised April 15, 2016	
Applicable Model CX-5 (KE) with SKYACTIV-G 2.0 and SKYACTIV-D 2.2		Applicable Countries or Specifications Europe	

REVISED

**Revision Note: SKYACTIV-D 2.2 engine has been added to the applicable model.
“Note” has been added to <HEATER CORE FLUSHING PROCEDURE>**

Subject: Insufficient Heater Performance

DESCRIPTION

Some customers may complain about an insufficient heater performance even after the engine reaching normal operating temperature.

CAUSE

Crystallized foreign substances may be generated causing clogging of the heater core and a shortage of the engine coolant circulation.

MASS PRODUCTION CHANGE

TBD

SUBJECT VIN RANGE

Spec.	Subject VIN Range
EC	JMZ KE **** ** : 100001 - 999999

REPAIR PROCEDURE

If you receive a customer complaint on this concern, diagnose by comparing the two temperatures of the heater hose IN and OUT to the heater core. If there is difference in the temperatures, flush the heater core to remove out the foreign substances using the procedure “HEATER CORE FLUSHING PROCEDURE”.

PARTS INFORMATION

Part Number	Part Name	Q'ty	Remark
BP4K-61-242	Hose Clip	2	Replacement part
C122-CL-005A 4X	Coolant (4 x 5L)	1	• 7.3L (SKYACTIV-G 2.0)/ 9.1L (SKYACTIV-D 2.2) for refilling • 4.0L for flushing
C122-CL-060A	Coolant (1 x 60L)	1	

NOTE: For coolant, either use C122-CL-005A 4X or C122-CL-060A and claim applicable amount (11.3L or **13.1L**) as described in “Warranty Information”.

WARRANTY INFORMATION

Assembly group	U – Heater and A/C (Other)
Subassembly group	04 - HEATER UNIT
Symptom Code	59 (Insufficient heating)
Damage Code	93 (Clogged)
Causal Part No.	KD45-61-A10A
Q'ty	0
Operation No.	XXL86XRX
Labor Hours	1.0 Hrs.
Period Covered	Normal Warranty Period
Prior approval necessary	No

NOTE: Claim the hose clip and coolant (5555-CL-001, Quantity=11.3L for SKYACTIV-G 2.0 or 13.1 for SKYACTIV-D 2.2) as Related Part.

NOTE: Claim the actual expense of local purchases such as pump (max. € 75,-), hose etc. using the sublet code "Z9" (Others). **(FOR FIRST TIME REPAIR ONLY)**

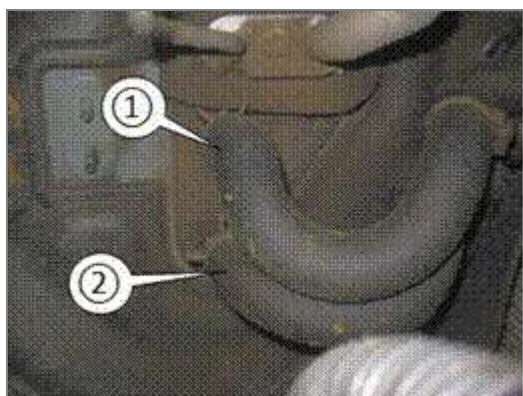
<HEATER CORE FLUSHING PROCEDURE>

-Things to prepare locally-

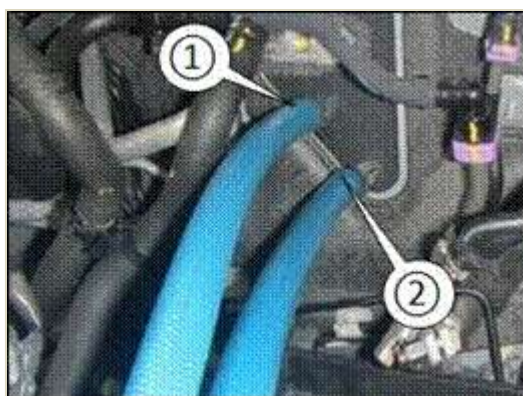
No.	Name	Note
1	Circulation Pump (1)	Power Output: min. 720l/hr./Pump Head approx. 2m (e.g. Eheim compact+ 2000 or Eden 135)
2	Water Hose (2)	Length: 2.5m - 3m Inner diameter: 18mm
3	Hose Band (1)	Used to secure water hose (②) to the circulation pump (①).
4	Citric Acid (2 x 15 grams)	Pure citric acid as powder is available in grocery or drug stores. Note: Usage of acetic acid or other acids may cause damage to the heater core.
5	Bucket (2)	Capacity: 10 liters



1. Drain the engine coolant.
(See Workshop Manual: ENGINE COOLANT REPLACEMENT)
2. Disconnect the battery.
(See Workshop Manual: BATTERY REMOVAL/INSTALLATION)
3. Remove the heater hoses (IN and OUT) from the heater core pipes.



NOTE: Picture shows L.H.D vehicle

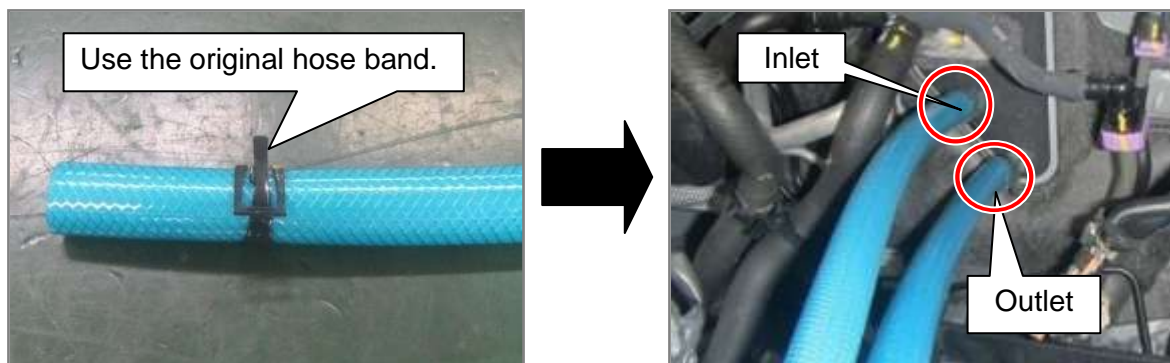


NOTE: Picture shows R.H.D vehicle

① Water inlet ② Water outlet

NOTE: Although routing of the water hoses in the engine compartment is different depending on the engine types and L.H.D. / R.H.D., the heater unit INLET pipe is always on upper side and the OUTLET pipe is on lower side.

4. Connect two water hoses to the pipes of the heater core and secure them using the original hose bands.



Note: Picture shows R.H.D. vehicle.

5. Connect the open end of the hose (which is connected to the heater core OUTLET) to the circulation pump (PUMP) and secure it with a hose band.

E.g. 1 using EDEN product pump

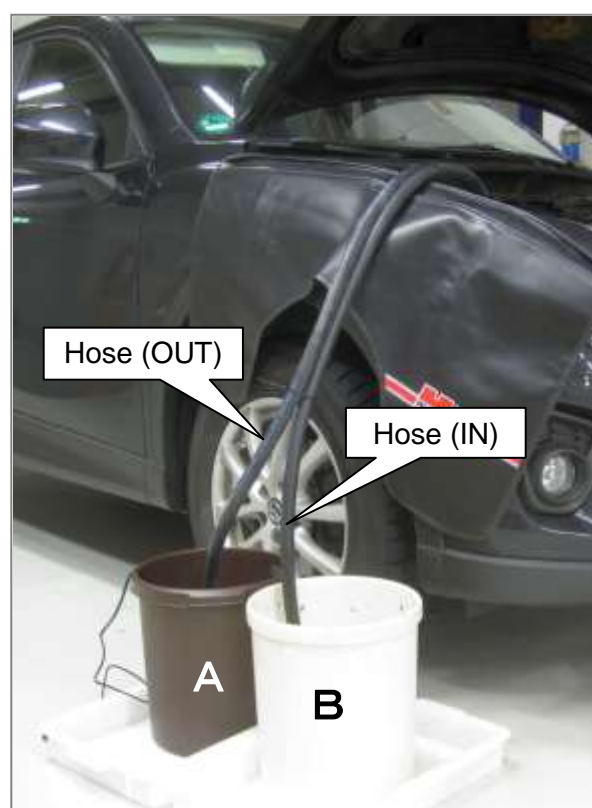


E.g.2 using EHEIM product pump



FLUSH HEATER CORE WITH WATER.

6. Fill bucket (A) with clean water and immerse the PUMP into the bucket.
7. Place the end of hose (connected to the heater core INLET pipe) in the empty bucket (B).
8. Turn on the PUMP and flush the heater core for about 1 minute. After the flushing, dispose the water collected in bucket (B).



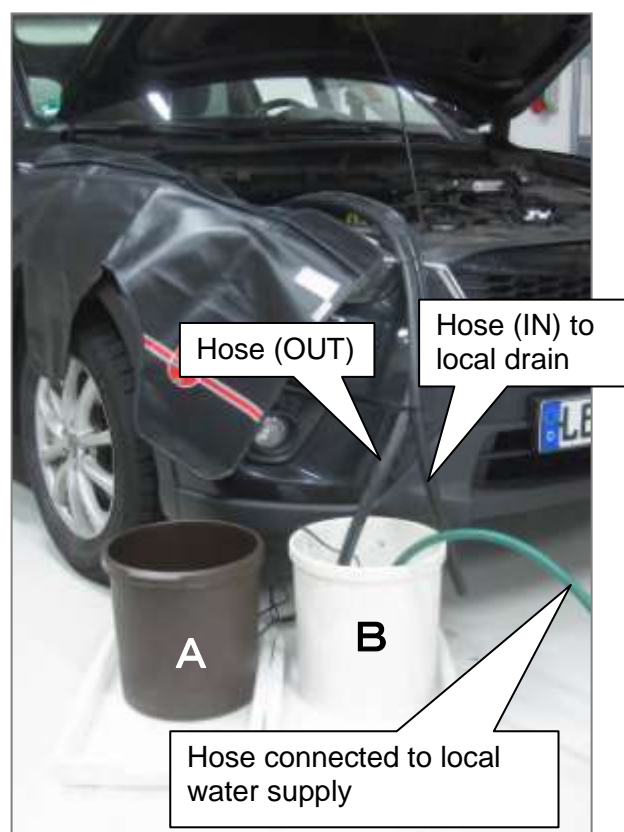
WASH HEATER CORE BY CIRCULATING DETERGENT (TWO TIMES).

9. Fill bucket (A) with 4 liters of warm water (max. 40°C), add 15 grams of citric acid powder and stir it well.
10. Place the PUMP and the open end of the other hose into bucket (A).
11. Turn on the PUMP and allow the mixture to circulate through the heater core for about 1 hr.
12. Dispose the used mixture.
13. Repeat step 9 to 12 for another cycle of 1 hr. using a fresh mixture of water and citric acid.



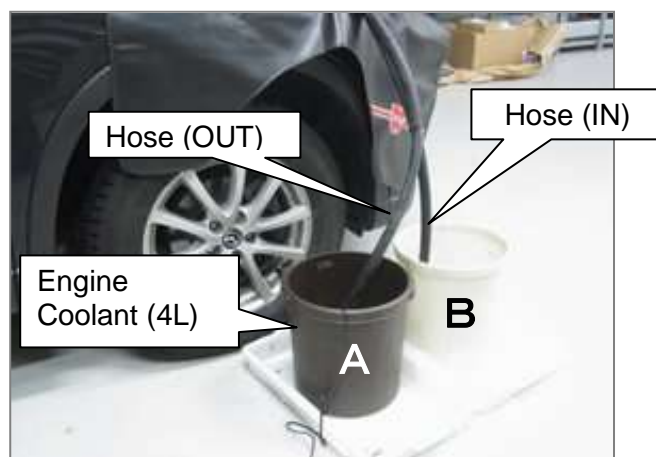
RINSE HEATER CORE BY CIRCULATING WATER.

14. Place a hose of your local fresh water supply into bucket (B).
15. Place the PUMP connected with the hose (OUT) also in the bucket (B).
16. Place the hose (IN) to a local drain.
17. Open the tap to run water. Turn on the PUMP and circulate water through the heater core for 15 minutes.



CIRCULATE ENGINE COOLANT THROUGH HEATER CORE TO REMOVE REMAINING WATER.

18. Fill the bucket (A) with 4 liters of engine coolant and place the PUMP in it.
19. Place the hose (IN) in the empty bucket (B).
20. Turn on the PUMP and run the engine coolant through the heater core to remove the remaining fresh water. Continue it until all 4 liters are used up.



21. Remove the two water hoses from the heater core.
22. Install the heater hoses (IN and OUT) to the heater core with new hose band.
23. Reconnect the battery.
(See Workshop Manual: BATTERY REMOVAL/INSTALLATION)
24. Refill the engine cooling system with new engine coolant.
(See Workshop Manual: ENGINE COOLANT REPLACEMENT)
25. Verify repair that the heater system performs sufficiently.

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2DC2305523 (MC Internal Use)