

Applies To: **2006–08 Civic** – ALL except GX, Hybrid, and Si**December 24, 2008****Engine Overheats or Leaks Coolant****(Supersedes 08-044, dated July 25, 2008, to update the information marked by the black bars)****SYMPTOM**

The engine is leaking coolant and may be overheating.

PROBABLE CAUSE

The engine block is cracking at the coolant passages.

CORRECTIVE ACTION

Install a new engine block assembly.

REQUIRED MATERIALSHonda Genuine Long Life Antifreeze/Coolant Type 2
(2 gallons required):

P/N 0L999-9001, H/C 6512636

Honda Genuine Automatic Transmission Fluid ATF-Z1
(3 quarts required):

P/N 08206-9001, H/C 3268554

Honda Genuine Manual Transmission Fluid
(2 quarts required):

P/N 08798-9016, H/C 4928271

Hondabond HT Silicone Gasket (1 tube required):

P/N 08718-0001, H/C 2963817

Honda Genuine Motor Oil, 5W-20 (5 quarts required):

P/N 08798-9023, H/C 6512610

PARTS INFORMATION

Block, Short, General Assembly:

P/N 10002-RNA-A00, H/C 8143323

Bolt, Flange (12 x 18) (2 required):

P/N 90018-SNA-010, H/C 8076713

Bolt, Flange (12 x 25) (2 required):

P/N 90182-S2H-000, H/C 6956080

Bolt, Flange (12 x 35) (2 required):

P/N 90168-S5A-000, H/C 6462972

Bolt, Flange (12 x 40) (3 required):

P/N 90164-S5A-000, H/C 6462949

Bolt, Flange (12 x 40) (1 required):

P/N 90160-SNA-A00, H/C 8178345

Bolt, Flange (12 x 63) (1 required):

P/N 90168-SZ3-000, H/C 4977641

Bolt, Flange (12 x 84) (2 required):

P/N 90118-SNA-000, H/C 8114480

Bolt, Flange (14 x 93) (1 required):

P/N 90165-SNA-A00, H/C 8114498

Bolt, Flange (14 x 94) (2 required):

P/N 90116-SNA-010, H/C 8178287

Bolt, Flange (14 x 115) (4 required):

P/N 90175-S5A-000, H/C 6579585

Filter, Oil (1 required):

P/N 15400-PLM-A01, H/C 6446231

Gasket Kit, Cylinder Head (1 required):

P/N 06110-RNB-000, H/C 8045114

Gasket, Flexible Exhaust (1 required):

P/N 18229-S5D-A01, H/C 6468722

Nut, Flange (12 mm) (2 required):

P/N 90371-SEF-000, H/C 8178535

Nut, Flange (14 mm) (1 required):

P/N 90213-S5A-003, H/C 6472237

Nut (10 mm) (2 required):

P/N 90212-SA5-003, H/C 1169812

Nut (12 mm) (4 required):

P/N 90215-SB0-003, H/C 1715499

Nut, Spindle (22 mm) (2 required):

P/N 90305-692-010, H/C 1483627

O-ring Set, Oil Pump (1 required):

P/N 15101-RNA-A00, H/C 8045650

Plate, Partition (coolant separator) (1 required):

P/N 11103-RNA-A01, H/C 8160616

Ring, Set, A/T (26 x 1.8) (2 required):

P/N 44319-SR1-003, H/C 4121810

Socket, Drive Bolt, (10 x 55) (1 required):

P/N 96700-10055-18, H/C 8114506

Washer, Drain Plug, (A/T) (16 mm) (1 required):

P/N 90471-RPC-000, H/C 8178840

Washer, Drain Plug, (A/T) (18 mm) (1 required):

P/N 90471-PX4-000, H/C 3300936

Washer, Drain Plug, (M/T) (14 mm) (1 required):

P/N 94109-14000, H/C 0171876

Washer, Drain Plug, (M/T) (20 mm) (1 required):

P/N 94109-20000, H/C 0251728

WARRANTY CLAIM INFORMATION

In warranty: The normal warranty applies.

OP#	Description	FRT
111100	Install a new engine block assembly.	12.0
Q	Add for alignment.	0.6

Failed Part: P/N 10002-RNA-A00
H/C 8143323

Defect Code: 07601

Symptom Code: 09105

Skill Level: Repair Technician

Out of warranty: Any repair performed after warranty expiration may be eligible for goodwill consideration by the District Parts and Service Manager or your Zone Office. You must request consideration, and get a decision, before starting work.

DIAGNOSIS

Look for coolant leaking from cracks in the block at the points shown below. On the back side of the engine, remove the oil/air separator cover so you can check beneath it. Pressure-test the cooling system if needed.

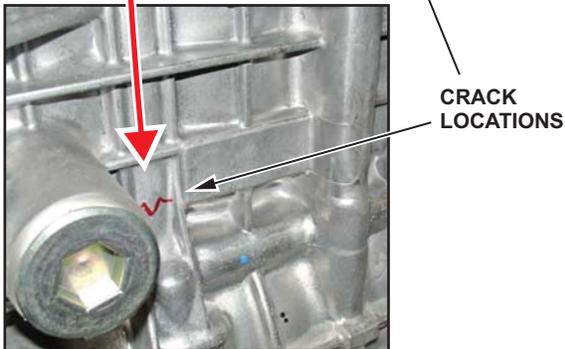
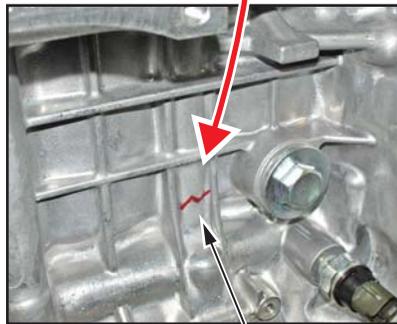
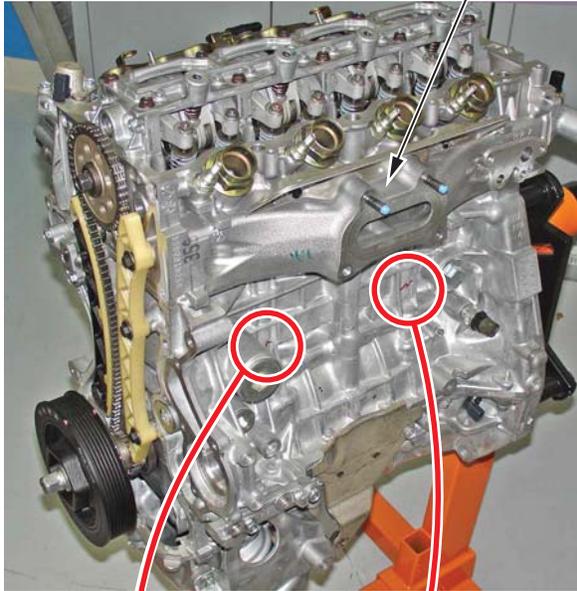
Is the block leaking coolant in any of the areas shown?

YES - Go to REPAIR PROCEDURE.

NO - Continue with normal troubleshooting.

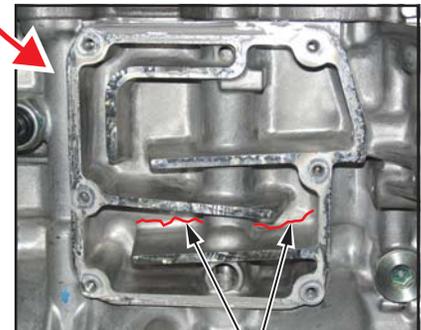
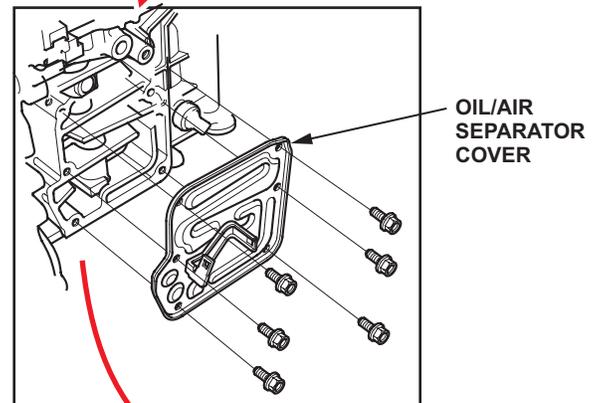
**FRONT
OF THE ENGINE**

EXHAUST MANIFOLD



**BACK
OF THE ENGINE**

CRACK LOCATIONS



CRACK LOCATIONS

REPAIR PROCEDURE

1. Remove the engine and transmission assembly:
 - Refer to page 5-3 of the *2006–2008 Civic Service Manual*, or
 - Online, enter keywords **ENGINE REMOVAL**, and select **Engine Removal (R18A1 Engine)** from the list.

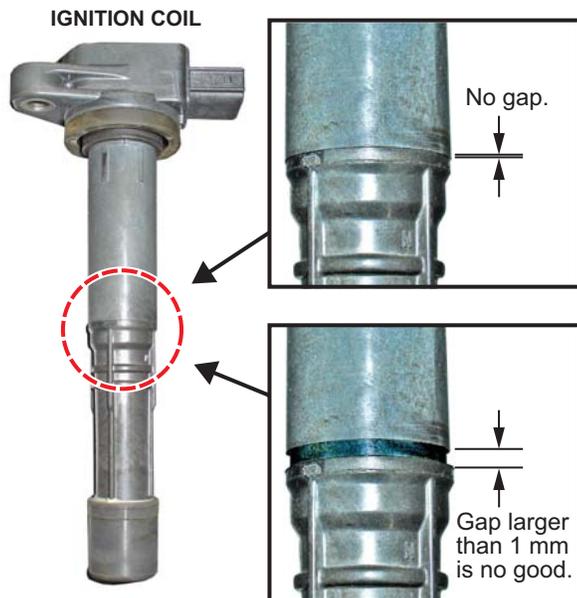
2. Remove the ignition coils:
 - Refer to page 4-29 of the service manual, or
 - Online, enter keywords **IGNITION COIL**, and select **Ignition Coil Removal/Installation (R18A1 and R18A4 Engine)** from the list.

3. Inspect the ignition coils for lengthening due to overheating.

Is there a gap in the insulation greater than 1 mm (.04 inch)?

Yes - Replace the affected coil(s).

No - Re-use the original coil(s).



4. Remove the cylinder head:
 - Refer to page 6-28 of the service manual, or
 - Online, enter keywords **HEAD REMOVE**, and select **Cylinder Head Removal (R18A1 Engine)** from the list.
5. Inspect the cylinder head:
 - Refer to steps 2 and 3 on page 6-33 of the service manual, or
 - Online, enter keywords **HEAD INSPECT**, and select **Cylinder Head Inspection for Warp** (R18A1 and R18A4 Engine) from the list, and do steps 2 and 3.

6. *M/T only*: Remove the M/T from the engine:
 - Refer to page 13-80, beginning with step 33, of the service manual, or
 - Online, enter keywords **TRANS REMOVAL**, and select **Manual Transmission Removal (5M/T)** from the list.
7. *A/T only*: Remove the A/T from the engine:
 - Refer to page 14-232, beginning with step 9, of the service manual, or
 - Online, enter keywords **TRANS REMOVAL**, and select **Automatic Transmission Removal (A/T)** from the list.
8. Install the original cylinder head on the new short block:

NOTE: Be sure to install the partition plate (coolant separator) before installing the cylinder head.

 - Refer to page 6-50 of the service manual, or
 - Online, enter keywords **HEAD INSTALL**, and select **Cylinder Head Installation (R18A1 Engine)** from the list.
9. *M/T only*: Install the M/T onto the engine:
 - Refer to page 13-81 of the service manual, or
 - Online, enter keywords **TRANS INSTALLATION**, and select **Manual Transmission Installation (5M/T)** from the list.
10. *A/T only*: Install the A/T onto the engine:
 - Refer to page 14-242, beginning with step 4, of the service manual, or
 - Online, enter keywords **TRANS INSTALLATION**, select **Automatic Transmission Installation (A/T)** from the list, and begin at step 4.
11. Install the engine and transmission assembly into the vehicle:
 - Refer to page 5-45 of the service manual, or
 - Online, enter keywords **ENGINE INSTALL**, and select **Engine Installation (R18A1 Engine, except '08 DX-G M/T models)** from the list.

NOTE: To avoid electrical problems, make sure that the ground wire connection G101 (Photo 29 ETM) is clean and tight.
12. To avoid false misfire detection, do the crank (CKP) pattern clear and CKP pattern learn procedures:
 - Refer to page 11-4 of the service manual, or
 - Online, enter keywords **HOW TROUBLESHOOT FUEL**, and select **How to Troubleshoot Fuel and Emissions Systems (R18A1 Engine, xx)** from the list.