

March 5, 2024

Version 2

MIL is On with DTC P2DE1

Supersedes 23-100, dated December 8, 2023, to revise the information.

AFFECTED VEHICLES

Year	Model	Trim Level	VIN Range
2021–22	HR-V	ALL	ALL

REVISION SUMMARY

The REPAIR PROCEDURE was updated.

SYMPTOM

The MIL is on with DTC P2DE1 (Cold Start Air-Fuel Ratio Control System Rich).

POSSIBLE CAUSE

During engine start in cold conditions, a miscalculation in the PCM causes the air-fuel ratio to exceed DTC P2DE1 rich criteria.

CORRECTIVE ACTION

Update the PGM-FI software.

PARTS INFORMATION

Part Name	Part Number	Quantity
Drain Plug Washer (14mm)	94109-14000	1

REQUIRED MATERIALS

Part Name	Part Number	Quantity
Motor Oil (0W-20)	08798-9029	4

CUSTOMER INFORMATION: The information in this bulletin is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by “do-it-yourselfers,” and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

WARRANTY CLAIM INFORMATION

The normal warranty applies.

Operation Number	Description	Flat Rate Time	Defect Code	Symptom Code	Template ID	Failed Part Number
1255D8	Update the PGM-FI software	0.2 hr	03214	03217	A23100A	37805-51M-AA1
K	Replace the engine oil - add	0.3 hr	03214	03217	A23100B	37805-51M-AA1

Skill Level: Repair Technician

SOFTWARE INFORMATION

NOTE: Unnecessary or incorrect repairs resulting from a failure to update the diagnostic and reprogramming software are not covered under warranty.

Before beginning the repair, make sure all diagnostic and reprogramming software are updated as listed.

i-HDS Software Version	1.009.003 or later
HDS Software Version	3.105.036 or later
Honda ECU Reprogramming	4.1.0.0 or later

For more information about updating vehicle systems, refer to service bulletin **22-100**, *Updating Control Units/Modules with the ECU Reprogramming Application*.

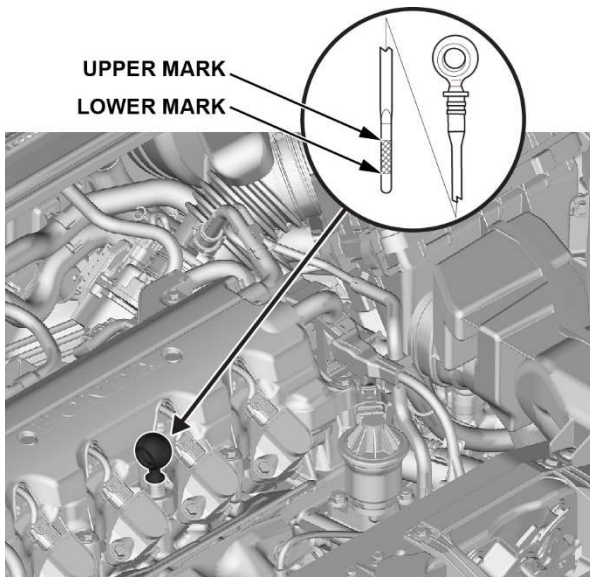
Update only the systems and software listed in this service bulletin.

Do not use the MongoosePRO VCI for this service bulletin as it is not an American Honda-approved device.

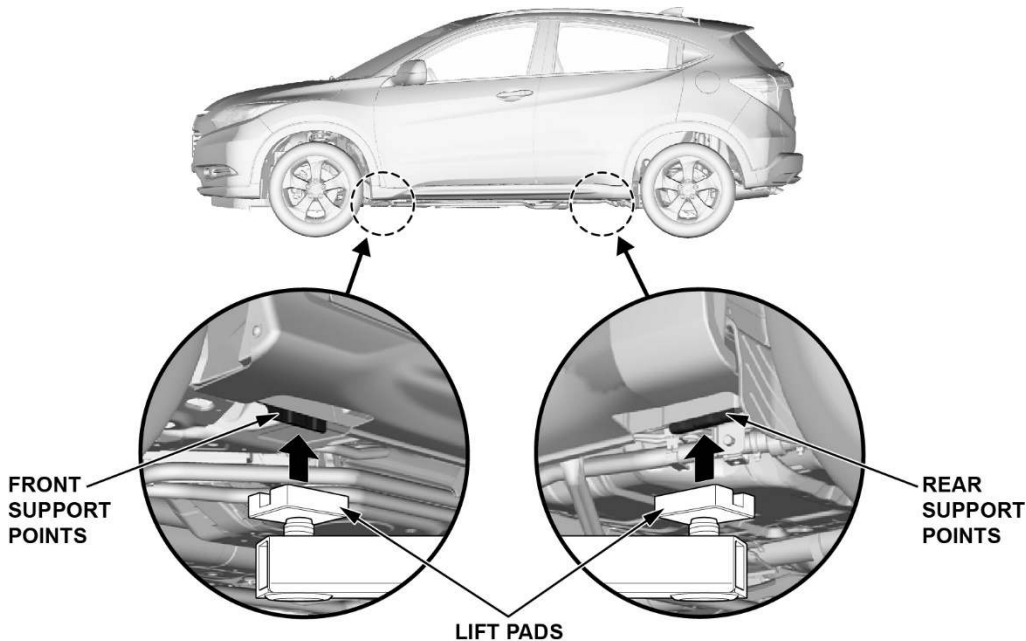
Year/Model	Vehicle System	Program ID (or later)
HR-V 2WD LX	PGM-FI	37805-51M-AA20
HR-V 2WD Sport	PGM-FI	37805-51M-AB20
HR-V AWD LX	PGM-FI	37805-51M-AD20
HR-V AWD Sport	PGM-FI	37805-51M-AE20
HR-V 2WD EX, EX-L	PGM-FI	37805-51M-AC30
HR-V AWD EX, EX-L, Touring	PGM-FI	37805-51M-AF30

REPAIR PROCEDURE

1. Do an ALL DTC check and verify if DTC P2DE1 is stored.
2. Check the engine oil.



3. Park the vehicle on level ground and start the engine. Hold the engine speed at 3000 RPM with no load until the radiator fan comes on, then turn off the engine and wait more than **3 minutes**.
 4. Remove the dipstick, and wipe off the dipstick, then reinstall the dipstick.
 5. Remove the dipstick and check the engine oil level. It should be between the upper mark (A) and the lower mark (B).
- Is the engine oil level above the upper mark?
- YES – Continue to step 6.
- NO – No engine oil change is needed. Go to SOFTWARE UPDATE PROCEDURE and update the PGM-FI software.
6. Engine Oil Replacement (Check Engine Section under **ESM > Lubrication System > Repair Procedures, Tests**).



1. Lift the vehicle by positioning the lift pads under the vehicle's front support points and rear support points.
2. Remove the engine undercover.
3. Remove the front splash shield.
4. Remove the drain bolt and drain the engine oil.

5. Reinstall the drain bolt with a new washer and torque to specification: **40 N.m (30 lb-ft)**.
6. Install Engine undercover/ Front splash shield.
7. Refill the engine with the recommended engine oil.

NOTE: Engine oil capacity without oil filter: 3.5 L (3.7 US qt)

7. Check the engine oil level again.

NOTE: Run the engine for more than **3 minutes**, then check the oil level and check for oil leakage.

8. Reset the maintenance minder.

NOTE:

- If the Maintenance Minder is required to replace the engine oil, reset the Maintenance Minder with the gauge (see "Resetting the Maintenance Minder").
- If the Maintenance Minder did not require to replace the engine oil, reset the Maintenance Minder with the HDS (see "Resetting Individual Maintenance Items").

9. Go to SOFTWARE UPDATE PROCEDURE

SOFTWARE UPDATE PROCEDURE

NOTICE

- Make sure the 12-volt battery is fully charged before starting an update.
 - Connect a fully charged jumper battery pack, the Midtronics GR8-1100P AST in Power Supply Mode or the Midtronics DCA-8000 Dynamic Diagnostic Charging System in Reflash Mode, directly to the vehicle's 12-volt battery. Leave it connected during the entire procedure to maintain a steady voltage.
 - If the vehicle's 12-volt battery drops below 10 volts during the update, the programming status bar may not present accurately, or the Honda ECU Reprogramming application may display an error message.
 - Control module failure caused by the improper completion of a software update (early key cycle, low battery voltage, disconnected DLC cable, etc.) is not covered by warranty.
 - If an error occurs during the update or the i-HDS freezes, **do not disconnect the battery or turn the ignition to OFF**. Reboot the i-HDS and start over.
 - To prevent control unit damage, do not operate anything electrical (headlights, audio system, brakes, A/C, power windows, door locks, etc.) during the update.
 - Warranty reimbursement for technician labor is not allowed for routine checking/installation of any available software update.
1. Update the PGM-FI software, see service bulletin 22-100 *Updating Control Units/Modules with the Honda ECU Reprogramming Application*.
 2. Do an **ALL DTC CHECK** and clear any codes that may have set during the update.