



SERVICE MANUAL INFORMATION

**SB-19-010 P204B DTC WORKSHOP MANUAL
CORRECTION**

**GROUP: SERVICE MANUAL UPDATE
BULLETIN NO: SB-19-010
DATE: 3-22-2019**

SUBJECT VEHICLES: 2020MY Conventional XL Series Trucks equipped with an A09 engine.

The following is to inform you of the above caption. This service data should be attached to the relevant pages of the workshop manuals for maintenance and to use for servicing.

OVERVIEW:

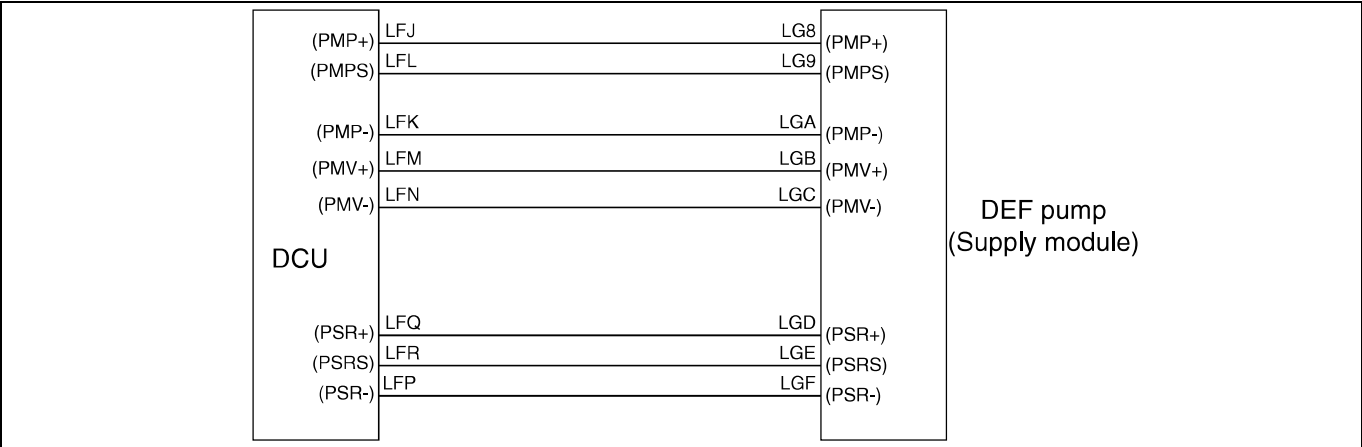
Workshop manual correction of Diagnostic Trouble Code (DTC) P204B.



DTC: P204B

EN01H16F02040F03001036

DTC: P204B DEF pressure sensor - rationality
INFORMATION



SAPH16F020400127

1. Technical description

- The pressure sensor in the DEF pump is used to confirm the pressure in the DEF pipe.

<Description of malfunction>

- DEF pressure sensor failure is detected.

2. DTC set condition

- (1) DTC detection condition
The DCU power supply voltage is in the range of 10 to 16 V
Minimum DEF pressure during previous after-run > -50 kPa {-7.3 psi}
DEF defrosting is completed, and
Exhaust Gas Temperature (SCR inlet) < 150 °C {302 °F}, and
the exhaust gas temperature (SCR inlet) is below 150 °C {302 °F}
- (2) Judgement criteria
DEF pressure > 50 kPa {7.3 psi} or < -50 kPa {-7.3 psi} for 1 sec.

3. Reset condition

- After having restored to the normal conditions.

4. Indication, warning or system control regulation when the DTC is set.

- MIL: ON
- DEF injection is stopped.
- NOx reduction quantity monitoring is aborted.
- Engine power limited.
- If malfunction doesn't improve within 4 hours: vehicle speed is restricted.

5. Symptoms on the vehicle when the DTC is set

<Symptoms on the vehicle due to backup control (fail safe function)>

- NOx reduction function is prevented.

<Symptoms on the vehicle due to malfunction>

- -

6. Pre-inspection work

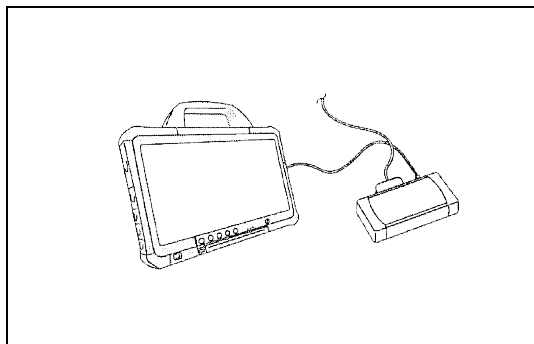
- Check if the battery voltage is in the normal range.

7. After-inspection work

- Clear all past DTCs.
- Check if no DTC is stored after test drive.

8. Estimated failure factors

- DEF pump (pressure sensor) malfunction

INSPECTION PROCEDURE: P204B**1 Confirm existence of P2047, P2049, P202E**

SAPH16F020400128

1. Set the starter switch to the "LOCK" position.
2. Connect the vehicle to HINO DX II .
3. Set the starter switch to the "ON" position.
4. Select [DCU].
5. Select [Leak test] from the check menu of HINO DX II and execute it.
6. Complete the leak test, leave the key OFF for 3 minutes.
7. Start the engine and perform diagnosis of HINO DX II .

Did P2047, P2049, P202E occur?**YES****NO****Go to diagnosis procedure of related DTC.****Go to step 2.****2 Monitor DEF pump pressure with HINO DX II .**

1. Set the starter switch to the "ON" position.
2. Select [DCU].
3. Select [DEF pump pressure] on HINO DX II data monitor and measure.

NOTICE

- **Perform the Urea SCR related memory if DEF pump does not run.**

Measurement conditions	Standard values
Starter switch: ON	At just key on, DEF pressure will show nearly of atmospheric pressure. -50 kPa - +50 kPa {-7.3 psi - +7.3 psi}

Do the measurements meet the standard value?

YES

Clean the DEF injector nozzle and inspect the DEF piping.
If necessary, replace parts.

HINT

After completing the work, please make the following work as a precaution.

1. Perform a leak test of HINO DX II in the starter switch "ON" position.
2. Complete the leak test, leave the starter switch "OFF" position for 3 minutes.
3. Run the diagnosis of HINO DX II in the starter switch "ON" position and confirm that there is no malfunction.

Perform "After-inspection work" of INFORMATION section.

NO

Go to step 3.

3

After removal of residual pressure, DEF pump pressure is monitored again.

1. After turning the starter switch "OFF" position, remove the DEF filter.
2. Set the starter switch to "ON" and measure the DEF pump pressure again from the HINO DX II data monitor.

Measurement conditions	Standard values
Starter switch: ON	At just key on, DEF pressure will show nearly of atmospheric pressure. -50 kPa - +50 kPa {-7.3 psi - +7.3 psi}

Do the measurements meet the standard value?



YES

Clean the DEF injector nozzle and check that the DEF pipe (pressure line (outlet)) is not clogged, pinched, or kinked.

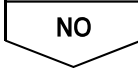
Please replace parts as necessary.

HINT

After completing the work, please make the following work as a precaution.

1. Perform a leak test of HINO DX II in the starter switch "ON" position.
2. Complete the leak test, leave the starter switch "OFF" position for 3 minutes.
3. Run the diagnosis of HINO DX II in the starter switch "ON" position and confirm that there is no malfunction.

Perform "After-inspection work" of INFORMATION section.



NO

Replace DEF pump.

HINT

After completing the work, please make the following work as a precaution.

1. Perform a leak test of HINO DX II in the starter switch "ON" position.
2. Complete the leak test, leave the starter switch "OFF" position for 3 minutes.
3. Run the diagnosis of HINO DX II in the starter switch "ON" position and confirm that there is no malfunction.

Perform "After-inspection work" of INFORMATION section.