




DENSO



J05D/J08E Engine

COMMON RAIL SYSTEM (CRS) SERVICE MANUAL: Operation



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Revision History

Date	Revision Contents
2007.09	<ul style="list-style-type: none">• Basic CRS content omitted, March 2007 model CRS content added. Items added are as per the following:<ul style="list-style-type: none">✓ Applicable Vehicles and Product Information✓ Main Components and Sensors✓ Exhaust Gas Control System (DPF System)✓ Engine ECU Diagnostic Trouble Codes (DTC)✓ Engine ECU External Wiring Diagram and Connector Terminal Layout
2010.05	<ul style="list-style-type: none">• March 2010 model CRS content added. Items added are as per the following:<ul style="list-style-type: none">✓ Applicable Vehicles and Product Information✓ CRS Outline (Diagram)✓ Supply Pump✓ Rail✓ Injector✓ Engine ECU✓ Selective Catalytic Reduction (SCR) System✓ Engine ECU Diagnostic Trouble Codes (DTC)✓ Engine ECU External Wiring Diagrams and Connector Terminal Layout

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1. APPLICABLE VEHICLE AND PRODUCT INFORMATION

1.1 Introduction

- This manual describes the Common Rail System (CRS) equipped with J05D/J08E engines used in the HINO Medium Truck.

For information on items common to all CRSs, refer to the previously published CRS general addition manual (Doc ID: 00400076E). [Items common to all CRSs: CRS development process, system control, construction and operation of main components (supply pump, rail, injectors), sensors and actuators]

- Minor changes have been made to the HINO medium truck as of June 2010. With this minor change, the CRS equipped with the J08E engine has also changed, and now this engine uses the Selective Catalytic Reduction (SCR) system. The SCR system dramatically reduces the quantity of NOx exhaust, and achieves superior environmental protection functionality suited to the stringent emission standards stipulated in the "US10" regulations.

Changes to the CRS are shown below.

- Maximum injection pressure increased to 200 MPa.
- Fuel path related with the supply pump changed.
- Rail is compliant with a pressure of 200 MPa.
- Engine ECU changed to a direct-mount type.
- CRS now equipped with G3 type injectors.
- The J08E engine now uses the Selective Catalytic Reduction (SCR) system.

1.2 Applicable Vehicles

2004 model

Vehicle Type	Vehicle Model	Engine Model	Engine Displacement	Release Date
Medium Truck	HINO145 HINO165 HINO185	J05D	4.73 L	April 2004
	HINO238 HINO268 HINO308 HINO338	J08E	7.68 L	

2007 model

Vehicle Type	Vehicle Model	Engine Model	Engine Displacement	Release Date
Medium Truck	HINO145 HINO165 HINO185	J05D	4.73 L	March 2007
	HINO238 HINO258 HINO268 HINO338	J08E	7.68 L	

2010 model

Vehicle Type	Vehicle Model	Engine Model	Engine Displacement	Release Date
Medium Truck	HINO238 HINO258 HINO268 HINO338	J08E	7.68 L	June 2010

1.3 Applicable Products List

2004 model

Part Name	DENSO Part Number	Manufacturer Part Number	Remarks
Supply Pump	294000-025#	S2273-01321	J05D, HP3
	294050-001#	S2273-01311	J08E, HP4
Rail	095440-053#	S2276-01221	J05D
	095440-048#	S2276-01181	J08E
Injector	095000-539#	S2391-01311	J05D, G2
	095000-528#	S2391-01361	J08E, G2
Engine ECU	102758-301#	S8956-06540	
Accelerator Position Sensor	198800-316#	S7801-E0010	
Coolant Temperature Sensor	071560-011#	S8342-01250	
Crankshaft Position Sensor	029600-057#	S8941-11280	
Camshaft Position Sensor	949979-136#	S8941-01590	J08E
	949979-131#	S8941-01570	J05D
Manifold Absolute Pressure (MAP) Sensor	079800-589#	S8939-01080	
Exhaust Gas Recirculation (EGR) Valve	135000-707#	S1735-01210	J05D, 2004 Model Only
	135000-709#	S1735-01220	J08E, 2004 Model Only
Mass Air Flow (MAF) Meter	197400-200#	22204-21010	For EGR Control