

Listing of Diagnostic Trouble Codes (DTCs) on ECU

Ascending SPN/FMI Codes

SPN	FMI	Description
000028	03	Throttle Volts High
	04	Throttle Volts Low
	14	Throttle Volts Out of Range
000029	03	Throttle Volts High
	04	Throttle Volts Low
	14	Throttle Volts Out of Range
000091	03	Throttle Volts High
	04	Throttle Volts Low
	14	Throttle Volts Out of Range
000094	03	Fuel Transfer Pump Pressure Input Voltage High
	04	Fuel Transfer Pump Pressure Input Voltage Low
	17	Fuel Transfer Pump Pressure Low Least Severe
000097	03	Water in Fuel Signal Voltage High
	04	Water in Fuel Signal Voltage Low
	16	Water in Fuel Detected
000100	01	Engine Oil Pressure Extremely Low
	03	Engine Oil Pressure Input Voltage High
	04	Engine Oil Pressure Input Voltage Low
	18	Engine Oil Pressure Moderately Low
	31	Engine Oil Pressure Invalid
000102	02	Manifold Air Pressure Invalid
	03	Manifold Air Pressure Input Voltage High
	04	Manifold Air Pressure Input Voltage Low
000103	00	Turbo Overspeed Most Severe
	02	Turbo Speed Mismatch
	05	Turbo Speed Sensor Current Low
	06	Turbo Speed Sensor Current High
	08	Turbo Speed Invalid
	31	Turbo Speed Missing
000105	00	Exhaust Gas Recirculation Mixed Air Temperature Extremely High
	03	Exhaust Gas Recirculation Mixed Air Temperature Input Voltage High
	04	Exhaust Gas Recirculation Mixed Air Temperature Input Voltage Low
	15	Exhaust Gas Recirculation Mixed Air High Least Severe
	16	Exhaust Gas Recirculation Mixed Air Temperature Moderately High
000107	00	Air Filter Restriction High
000108	02	Barometric Air Pressure Invalid
	31	Barometric Air Pressure Error
000110	00	Engine Coolant Temperature Extremely High
	03	Engine Coolant Temperature Input Voltage High
	04	Engine Coolant Temperature Input Voltage Low
	15	Engine Coolant Temperature High Least Severe
	16	Engine Coolant Temperature Moderately High
	17	Engine Coolant Temperature Low Least Severe
000111	01	Engine Coolant Level Low
000157	03	Fuel Rail Pressure Input Voltage High
	04	Fuel Rail Pressure Input Voltage Low
	10	Fuel Rail Pressure Loss Detected
	17	Fuel Rail Pressure Not Developed
000158	17	ECU Power Down Error

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000174	00	Fuel Temperature Extremely High
	03	Fuel Temperature Input Voltage High
	04	Fuel Temperature Input Voltage Low
	16	Fuel Temperature Moderately High
000189	00	Engine Speed Derate
000190	00	Engine Overspeed Extreme
	16	Engine Overspeed Moderate
000237	02	Part Of VIN Data Does Not Match Other Controllers
	13	Option Code Part Of VIN Data Does Not Match Other Controllers
	31	VIN Messages Are missing
000412	00	Exhaust Gas Recirculation Exhaust Temperature Extremely High
	03	Exhaust Gas Recirculation Exhaust Temperature Input Voltage High
	04	Exhaust Gas Recirculation Exhaust Temperature Input Voltage Low
	16	Exhaust Gas Recirculation Exhaust Temperature Moderately High
000611	03	Electronic Injector Wiring Shorted to Power Source
	04	Electronic Injector Wiring Shorted to Ground
000627	01	Electronic Injector Supply Voltage Problem
	16	ECU Power Supply Voltage Higher Than Expected
	18	ECU Power Supply Voltage Lower Than Expected
	13	ECU Error
000636	02	Pump Position Sensor Input Noise
	05	Pump Position Sensor Current Low
	06	Pump Position Sensor Current High
	08	Pump Position Sensor Input Missing
	10	Pump Position Sensor Input Pattern Error
000637	02	Crank Position Input Noise
	05	Crank Position Sensor Current Low
	06	Crank Position Sensor Current High
	07	Crank Position/Pump Position Timing Moderately Out of Sync
	08	Crank Position Input Missing
	10	Crank Position Input Pattern Error
000641	04	Turbo Actuator Error
	12	ECU/Turbo Communication Error
	13	Turbo Actuator Learned Value Error
	16	Turbo Actuator Temperature Moderately High
000651	02	Cylinder 1 Electronic Injector Part Number Invalid
	05	Cylinder 1 Electronic Injector Circuit Open
	06	Cylinder 1 Electronic Injector Circuit Shorted
	07	Cylinder 1 Electronic Injector Mechanical Failure
	13	Cylinder 1 Electronic Injector QR Code Invalid
000652	02	Cylinder 2 Electronic Injector Part Number Invalid
	05	Cylinder 2 Electronic Injector Circuit Open
	06	Cylinder 2 Electronic Injector Circuit Shorted
	07	Cylinder 2 Electronic Injector Mechanical Failure
	13	Cylinder 2 Electronic Injector QR Code Invalid
000653	02	Cylinder 3 Electronic Injector Part Number Invalid
	05	Cylinder 3 Electronic Injector Circuit Open
	06	Cylinder 3 Electronic Injector Circuit Shorted
	07	Cylinder 3 Electronic Injector Mechanical Failure
	13	Cylinder 3 Electronic Injector QR Code Invalid
000654	02	Cylinder 4 Electronic Injector Part Number Invalid
	05	Cylinder 4 Electronic Injector Circuit Open
	06	Cylinder 4 Electronic Injector Circuit Shorted
	07	Cylinder 4 Electronic Injector Mechanical Failure
	13	Cylinder 4 Electronic Injector QR Code Invalid

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000655	02	Cylinder 5 Electronic Injector Part Number Invalid
	05	Cylinder 5 Electronic Injector Circuit Open
	06	Cylinder 5 Electronic Injector Circuit Shorted
	07	Cylinder 5 Electronic Injector Mechanical Failure
	13	Cylinder 5 Electronic Injector QR Code Invalid
000656	02	Cylinder 6 Electronic Injector Part Number Invalid
	05	Cylinder 6 Electronic Injector Circuit Open
	06	Cylinder 6 Electronic Injector Circuit Shorted
	07	Cylinder 6 Electronic Injector Mechanical Delivery Failure
	13	Cylinder 6 Electronic Injector QR Code Invalid
000898	09	Vehicle Speed or Torque Message Invalid
000970	02	Auxiliary engine shutdown switch signal invalid
	31	Engine Shutdown -- Auxiliary Request
000971	31	External Derate - Auxiliary Request
001075	05	Fuel Transfer Pump Current Low
	06	Fuel Transfer Pump Current High
	12	Fuel Transfer Pump Error
001080	03	Sensor Supply 1 Voltage High
	04	Sensor Supply 1 Voltage Low
001109	31	Engine Protection Shutdown Warning
001110	31	Engine Protection Shutdown
001136	00	ECU Temperature Extremely High
	16	ECU Temperature Moderately High
001172	03	Turbo Compressor Inlet Temperature Input Voltage High
	04	Turbo Compressor Inlet Temperature Input Voltage Low
	16	Turbo Compressor Inlet Temperature Moderately High
001180	00	Turbo Turbine Inlet Temperature Extremely High
	16	Turbo Turbine Inlet Temperature Moderately High
001347	03	Pump Control Valve Current High
	05	Pump Control Valve Current Mismatch
	07	Fuel Rail Pressure Control Error
001569	31	Fuel Derate
001639	01	Zero Fan Speed Detected
	16	High Fan Speed Detected
	18	Lower Fan Speed Detected
002000	13	Security Violation
002005	09	TSC CAN Message Not Received
002030	09	A/C Clutch Status CAN Message Not Received
002071	09	Transmission Oil, Tier Size, Vehicle Speed CAN Message Not Received
002630	00	Exhaust Gas Recirculation Fresh Air Temperature Extremely High
	03	Exhaust Gas Recirculation Fresh Air Temperature Input Voltage High
	04	Exhaust Gas Recirculation Fresh Air Temperature Input Voltage Low
	15	Exhaust Gas Recirculation Fresh Air Temperature High Least Severe
	16	Exhaust Gas Recirculation Fresh Air Temperature Moderately High
002659	02	Exhaust Gas Recirculation Flow/Temperature Mismatch
	15	Exhaust Gas Recirculation Flow Rate High Least Severe
	17	Exhaust Gas Recirculation Flow Rate Low Least Severe
002790	16	Turbo Compressor Outlet Temperature Moderately High
002791	02	Exhaust Gas Recirculation Valve Position Invalid
	03	Exhaust Gas Recirculation Valve Position Input Voltage High
	04	Exhaust Gas Recirculation Valve Position Input Voltage Low
	07	Exhaust Gas Recirculation Valve Control Error
	13	Exhaust Gas Recirculation Valve Out of Calibration
002795	31	Exhaust Gas Recirculation Calibration Error
	07	Turbo Actuator Position Mismatch

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Trouble Code Diagnostics and Tests

	12	Turbo Actuator Control Error
003509	03	Sensor Supply 1 Voltage High
	04	Sensor Supply 1 Voltage Low
003510	03	Sensor Supply 2 Voltage High
	04	Sensor Supply 2 Voltage Low
003511	03	Sensor Supply 3 Voltage High
	04	Sensor Supply 3 Voltage Low
003512	03	Sensor Supply 4 Voltage High
	04	Sensor Supply 4 Voltage Low
003513	03	Sensor Supply 5 Voltage High
	04	Sensor Supply 5 Voltage Low
523222	03	Sensor Supply 5 Voltage High
	04	Sensor Supply 5 Voltage Low
523229	03	Sensor Supply 4 Voltage High
	04	Sensor Supply 4 Voltage Low

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