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Diagnostic Trouble Code Index

DTC	PID	SID	FMI	Circuit	Condition Description
111				ECM (page 388)	No errors detected - flash code only
112†	168	0	3	ECM PWR (page 381)	Electrical system voltage B+ out-of-range high
113†	168	0	4	ECM PWR (page 381)	Electrical system voltage B+ out-of-range low
114*	110	0	4	ECT (page 391)	Engine Coolant Temperature signal out-of-range low
115*	110	0	3	ECT (page 391)	Engine Coolant Temperature signal out-of-range high
121*	102	0	3	MAP (page 500)	Intake Manifold Absolute Pressure signal out-of-range high
122*	102	0	4	MAP (page 500)	Intake Manifold Absolute Pressure signal out-of-range low
123*	102	0	2	MAP (page 500)	Intake Manifold Absolute Pressure signal in-range fault
124*	164	0	4	ICP (page 457)	Injection Control Pressure signal out-of-range low
125*	164	0	3	ICP (page 457)	Injection Control Pressure signal out-of-range high
126*	118	4	N/A	BCP (page 318)	Engine Brake Control Pressure signal out-of-range low
127*	118	3	N/A	BCP (page 318)	Engine Brake Control Pressure signal out-of-range high
131*†	91	0	4	APS/IVS (page 300)	APS signal out-of-range low
132*†	91	0	3	APS/IVS (page 300)	APS signal out-of-range high
133*†	91	0	2	APS/IVS (page 300)	APS signal in-range DTC
134*†	91	0	7	APS/IVS (page 300)	APS signal and IVS disagree
135*†	0	230	11	APS/IVS (page 300)	Idle Validation Switch circuit fault
136	94	0	4	EFP (page 406)	Engine Fuel Pressure signal out-of-range low
137	94	0	3	EFP (page 406)	Engine Fuel Pressure signal out-of-range high
141†	84	0	4	VSS (page 544)	Vehicle Speed Sensor signal out-of-range low
142†	84	0	3	VSS (page 544)	Vehicle Speed Sensor signal out-of-range high
143	0	21	2	CMP (page 355)	Incorrect CMP signal signature
145	0	21	12	CMP (page 355)	CMP signal inactive
146	0	64	12	CKP (page 351)	CKP signal inactive

† See chassis circuit diagrams and *Engine Diagnostics Manual* for more information.

* Indicates amber ENGINE lamp on when a Diagnostic Trouble Code (DTC) is set.

** Indicates red ENGINE lamp on if the Engine Warning Protection System (EWPS) is enabled and a DTC is set.

DTC	PID	SID	FMI	Circuit	Condition Description
147	0	64	2	CKP (page 351)	Incorrect CKP signal signature
151*†	108	0	3	BAP (page 314)	Barometric Absolute Pressure signal out-of-range high
152*†	108	0	4	BAP (page 314)	Barometric Absolute Pressure signal out-of-range low
153†	97	0	4	WIF (page 550)	Water In Fuel signal out-of-range low
154	171	0	4	IAT (page 451)	Inlet Air temperature signal out-of-range low
155	171	0	3	IAT (page 451)	Inlet Air temperature signal out-of-range high
161*	105	0	4	MAT (page 508)	Manifold Air Temperature Signal out-of-range low
162*	105	0	3	MAT (page 508)	Manifold Air Temperature Signal out-of-range high
163*	27	0	4	EGR (page 413)	Exhaust Gas Recirculation Valve Position Signal out-of-range low
211*	100	0	4	EOP (page 426)	Engine Oil Pressure signal out-of-range low
212*	100	0	3	EOP (page 426)	Engine Oil Pressure signal out-of-range high
215†	84	0	8	VSS (page 544)	Vehicle Speed Sensor signal frequency out-of-range high
225	100	0	0	EOP (page 426)	EOP sensor signal in-range fault
231†	0	250	2	ATA (page 309)	ATA data communication link error
236†	111	0	2	ECL (page 370)	ECL switch circuit fault
241†	0	42	11	IPR (page 494)	Injection Control Pressure regulator OCC self test failed
246†	0	56	11	EFAN (page 398)	Engine Fan - OCC self test fault
247†	121	0	11	BSV (page 334)	Engine Brake enable OCC self test failed
251†	0	38	11	IAH (page 444)	Inlet Air Heater OCC self test failed
256†	0	55	11	RSE (page 514)	Radiator Shutter Enable OCC fault
261†	0	27	11	VGT (page 526)	Variable Geometry Turbo control OCC self test failed
267†	0	39	11	ECI (page 366)	Engine Crank Inhibit OCC self test failed
311*	175	0	4	EOT (page 433)	Engine Oil Temperature signal out-of-range low
312*	175	0	3	EOT (page 433)	Engine Oil Temperature signal out-of-range high
313**	100	0	1	EWPS (page 440)	Engine Oil Pressure below warning level

† See chassis circuit diagrams and *Engine Diagnostics Manual* for more information.

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** Indicates red ENGINE lamp on if the Engine Warning Protection System (EWPS) is enabled and a DTC is set.

DTC	PID	SID	FMI	Circuit	Condition Description
314**	100	0	7	EWPS (page 440)	Engine Oil Pressure below critical level
315*	190	0	0	EWPS (page 440)	Engine speed above warning level
316	110	0	1	EWPS (page 440)	Engine Coolant Temperature unable to reach commanded set point
321**	110	0	0	EWPS (page 440)	Engine Coolant Temperature above warning level
322**	110	0	7	EWPS (page 440)	Engine Coolant Temperature above critical level
323**	111	0	1	EWPS (page 440)	Engine Coolant Level below warning/critical level
324**	71	0	14	IST (page 497)	Idle Shutdown Timer enabled engine shutdown
325	110	0	14	EWPS (page 440)	Power reduced, matched to cooling system performance
331*	164	0	0	ICP SYS (page 472)	Injection Control Pressure above system working range
332*	164	0	13	ICP (page 457)	Injection Control Pressure above spec. with engine not running
333*	164	0	10	ICP SYS (page 472)	Injection Control Pressure above/below desired level
334	164	0	7	ICP SYS (page 472)	ICP unable to achieve setpoint in time (poor performance)
335	164	0	1	ICP SYS (page 472)	ICP unable to build pressure during cranking
341*	0	34	4	EBP (page 359)	Exhaust Back Pressure signal out-of-range low
342*	0	34	3	EBP (page 359)	Exhaust Back Pressure signal out-of-range high
343*	0	34	0	AMS (page 294)	Excessive exhaust back pressure (gauge)
344*	0	34	13	EBP (page 359)	Exhaust back pressure above spec. when engine off
345	0	27	2	AMS (page 294)	Faults detected during VGT portion of the AMS Test
346	27	0	2	AMS (page 294)	Faults detected during EGR portion of the AMS Test
351	0	34	7	AMS (page 294)	Change in exhaust back pressure did not occur when expected
353	0	27	5	AMS (page 294)	Variable Geometry Turbo control over duty cycle
354	0	27	6	AMS (page 294)	Variable Geometry Turbo control under duty cycle

† See chassis circuit diagrams and *Engine Diagnostics Manual* for more information.

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** Indicates red ENGINE lamp on if the Engine Warning Protection System (EWPS) is enabled and a DTC is set.

DTC	PID	SID	FMI	Circuit	Condition Description
355	103	0	0	AMS (page 294)	Variable Geometry Turbo overspeed
361	0	27	10	AMS (page 294)	VGT control input (MAP/EBP) above/below desired level
365*	27	0	10	AMS (page 294)	EGR Valve Position above/below desired level
368*	0	146	7	AMS (page 413)	EGR driver module/ECM2 communication fault
371	94	0	0	EFP (page 406)	Engine Fuel Pressure is above normal operating range
372	94	0	1	EFP (page 406)	Engine Fuel Pressure is below normal operating range
421-426	0	1-6	5	INJ (page 489)	High side to low side open (cylinder number indicated)
431-436	0	1-6	4	INJ (page 489)	High side shorted to low side (cylinder number indicated)
451-456	0	1-6	6	INJ (page 489)	High side short to ground or V_{BAT} (cylinder number indicated)
523†	0	233	4	IDM (page 479)	IDM V_{IGN} voltage low
525*	0	254	6	IDM (page 479)	IDM fault
533†	0	221	3	IDM (page 479)	IDM relay voltage high
534†	0	221	4	IDM (page 479)	IDM relay voltage low
546*	121	0	1	BCP (page 318)	Engine Brake Contol Pressure is below expected range
547*	121	0	0	BCP (page 318)	Engine Brake Contol Pressure is above expected range
543*	0	155	7	ECM/IDM (page 373)	ECM/IDM communications fault
551	0	22	12	ECM/IDM (page 373)	IDM/CMPO signal inactive
552	0	22	2	ECM/IDM (page 373)	IDM incorrect CMPO signal signature
553	0	22	11	ECM/IDM (page 373)	IDM CKPO signal inactive
554	0	22	8	ECM/IDM (page 373)	IDM incorrect CKPO signal signature
613*	0	252	1	ECM (page 388)	ECM/IDM software not compatible
614*	0	252	13	ECM (page 388)	EFRC/ECM configuration mismatch
621*	0	253	1	ECM (page 388)	Engine using mfg. default rating
622*	0	253	0	ECM (page 388)	Engine using field default rating
623*	0	253	13	ECM (page 388)	Invalid Engine Family Rating Code (EFRC)
624	0	240	14	ECM (page 388)	Field default active

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DTC	PID	SID	FMI	Circuit	Condition Description
626†	0	254	8	ECM PWR (page 381)	Unexpected reset fault
631	0	240	2	ECM (page 388)	Read Only Memory (ROM) self test fault
632	0	254	12	ECM (page 388)	Random Access Memory (RAM) - CPU self test fault
655	0	240	13	ECM (page 388)	Programmable parameter list level incompatible
661	0	240	11	ECM (page 388)	RAM programmable parameter list corrupt
664	0	253	14	ECM (page 388)	Calibration level incompatible
665	0	252	14	ECM (page 388)	Programmable parameter memory content corrupt

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