# Diagnostic Trouble Codes (DTCs) and Fault Conditions

DTC PRIORITY ORDER	FAULT CONDITION	SOLUTION
B1103 47	LHCM internal error	SWITCH DIAGNOSTICS
B1153 46	RHCM internal error	SWITCH DIAGNOSTICS
B1200 37	IM internal fault	NO INSTRUMENT POWER DIAGNOSTICS
B1210 176	Fuel level sender shorted low/open	FUEL GAUGE AND SENDER DIAGNOSTICS
B1211 182	Fuel level sender shorted high	FUEL GAUGE AND SENDER DIAGNOSTICS
B1212 175	Fuel signal low	FUEL GAUGE AND SENDER DIAGNOSTICS
B1213 176	Fuel signal high	FUEL GAUGE AND SENDER DIAGNOSTICS
B1300 340	Radio voltage high	AUDIO VOLTAGE DIAGNOSTICS
B1301 341	Radio voltage low	AUDIO VOLTAGE DIAGNOSTICS
B1302 342	Faceplate home button stuck	FACEPLATE BUTTON DIAGNOSTICS
B1303 343	Faceplate favorite button stuck	FACEPLATE BUTTON DIAGNOSTICS
B1304 344	Faceplate navigation button stuck	FACEPLATE BUTTON DIAGNOSTICS
B1305 345	Faceplate power/mute button stuck	FACEPLATE BUTTON DIAGNOSTICS
B1306 399	Rear hand controls shorted high	REAR AUDIO CONTROL DIAGNOSTICS
B1307 400	Rear hand controls shorted low	REAR AUDIO CONTROL DIAGNOSTICS
B1308 401	Rear volume up button stuck	REAR AUDIO CONTROL DIAGNOSTICS
B1309 402	Rear volume down button stuck	REAR AUDIO CONTROL DIAGNOSTICS
B1310 403	Rear mode button stuck	REAR AUDIO CONTROL DIAGNOSTICS
B1311 404	Rear PTT button stuck	REAR AUDIO CONTROL DIAGNOSTICS
B1312 405	Rear tune up button stuck	REAR AUDIO CONTROL DIAGNOSTICS
B1313 406	Rear tune down button stuck	REAR AUDIO CONTROL DIAGNOSTICS
B1314 346	LHCM VR PTT button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1315 347	LHCM up button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1316 348	LHCM left button stuck	FRONT HAND CONTROLS DIAGNOSTICS

B1317 349	LHCM center button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1318 350	LHCM right button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1319 351	LHCM down button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1320 352	RHCM info button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1321 353	RHCM up button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1322 354	RHCM left button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1323 355	RHCM center button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1324 356	RHCM right button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1325 357	RHCM down button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1326 358	RHCM CB squelch up button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1327 359	RHCM CB PTT button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1328 360	RHCM CB squelch down button stuck	FRONT HAND CONTROLS DIAGNOSTICS
B1329 361	Faceplate preset button 1 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1330 362	Faceplate preset button 2 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1331 363	Faceplate preset button 3 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1332 364	Faceplate preset button 4 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1333 365	Faceplate preset button 5 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1334 366	Faceplate preset button 6 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1335 367	Faceplate preset button 7 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1336 368	Faceplate preset button 8 stuck	FACEPLATE BUTTON DIAGNOSTICS
B1337 369	Front left speaker shorted together	FRONT SPEAKER DIAGNOSTICS
B1338 370	Front left speaker open	FRONT SPEAKER DIAGNOSTICS
B1339 371	Front left speaker shorted low	FRONT SPEAKER DIAGNOSTICS
B1340 372	Front left speaker shorted high	FRONT SPEAKER DIAGNOSTICS
B1341 373	Rear left speaker shorted together	REAR SPEAKER DIAGNOSTICS
B1342 374	Rear left speaker open	REAR SPEAKER DIAGNOSTICS
B1343 375	Rear left speaker shorted low	REAR SPEAKER DIAGNOSTICS

B1344 376	Rear left speaker shorted high	REAR SPEAKER DIAGNOSTICS
B1345 377	Front right speaker shorted together	FRONT SPEAKER DIAGNOSTICS
B1346 378	Front right speaker open	FRONT SPEAKER DIAGNOSTICS
B1347 379	Front right speaker shorted low	FRONT SPEAKER DIAGNOSTICS
B1348 380	Front right speaker shorted high	FRONT SPEAKER DIAGNOSTICS
B1349 381	Rear right speaker shorted together	REAR SPEAKER DIAGNOSTICS
B1350 382	Rear right speaker open	REAR SPEAKER DIAGNOSTICS
B1351 383	Rear right speaker shorted low	REAR SPEAKER DIAGNOSTICS
B1352 384	Rear right speaker shorted high	REAR SPEAKER DIAGNOSTICS
B1353 385	Speaker output	DC offset DTC B1353
B1354 386	GPS antenna open	SECURITY ANTENNA DIAGNOSTICS
B1355 387	GPS antenna shorted low	SECURITY ANTENNA DIAGNOSTICS
B1356 388	SDARS antenna open	SECURITY ANTENNA DIAGNOSTICS
B1357 389	SDARS antenna shorted	SECURITY ANTENNA DIAGNOSTICS
B1358 390	Front left headset shorted high	HEADSET DTCS
B1359 391	Front right headset shorted high	HEADSET DTCS
B1360 392	Front left headset shorted low	HEADSET DTCS
B1361 393	Front right headset shorted low	HEADSET DTCS
B1362 394	Rear left headset shorted high	HEADSET DTCS
B1363 395	Rear right headset shorted high	HEADSET DTCS
B1364 396	Rear left headset shorted low	HEADSET DTCS
B1365 397	Rear right headset shorted low	HEADSET DTCS
B1366 398	Internal thermal shutdown error	DTC 81366
B1367 451	WIM fault detected	Code used to support P&A parts.
B1401 407	Amp voltage low	AUDIO VOLTAGE DIAGNOSTICS
B1402 408	Amp voltage high	AUDIO VOLTAGE DIAGNOSTICS
B1403 409	Speaker output DC offset	AMPLIFIER 1 DTCS

B1404 410	Internal thermal shutdown error	AMPLIFIER 1 DTCS
B1405 427	EQ correlation error	AUDIO SYSTEM SYMPTOMS
B1406 428	Invalid or missing EQ	AUDIO SYSTEM SYMPTOMS
B1410 411	Channel 1 speaker open	AMPLIFIER 1 DTCS
B1411 412	Channel 1 speaker shorted low	AMPLIFIER 1 DTCS
B1412 413	Channel 1 speaker shorted high	AMPLIFIER 1 DTCS
B1413 414	Channel 1 speaker shorted together	AMPLIFIER 1 DTCS
B1420 415	Channel 2 speaker open	AMPLIFIER 1 DTCS
B1421 416	Channel 2 speaker shorted low	AMPLIFIER 1 DTCS
B1422 417	Channel 2 speaker shorted high	AMPLIFIER 1 DTCS
B1423 418	Channel 2 speaker shorted together	AMPLIFIER 1 DTCS
B1430 419	Channel 3 speaker open	AMPLIFIER 1 DTCS
B1431 420	Channel 3 speaker shorted low	AMPLIFIER 1 DTCS
B1432 421	Channel 3 speaker shorted high	AMPLIFIER 1 DTCS
B1433 422	Channel 3 speaker shorted together	AMPLIFIER 1 DTCS
B1440 423	Channel 4 speaker open	AMPLIFIER 1 DTCS
B1441 424	Channel 4 speaker shorted low	AMPLIFIER 1 DTCS
B1442 425	Channel 4 speaker shorted high	AMPLIFIER 1 DTCS
B1443 426	Channel 4 speaker shorted together	AMPLIFIER 1 DTCS
B2102 4	System power output shorted high	SYSTEM POWER CIRCUIT DIAGNOSTICS
B2103 5	System power output shorted low	SYSTEM POWER CIRCUIT DIAGNOSTICS
B2104 6	System power output over-loaded	SYSTEM POWER CIRCUIT DIAGNOSTICS
B2106 257	L4 open output	HEADLAMP DIAGNOSTICS
B2107 225	L4 output shorted high	HEADLAMP DIAGNOSTICS
B2108 226	L4 output shorted low	HEADLAMP DIAGNOSTICS
B2109 227	L4 output overloaded	HEADLAMP DIAGNOSTICS
B2112 132	ACC output shorted high	ACC CIRCUIT DIAGNOSTICS

B2113 134	ACC output shorted low	ACC CIRCUIT DIAGNOSTICS
B2114 136	ACC output overloaded	ACC CIRCUIT DIAGNOSTICS
B2116 92	Fuel pump output open	FUEL PUMP DIAGNOSTICS
B2117 93	Fuel pump output shorted high	FUEL PUMP DIAGNOSTICS
B2118 94	Fuel pump output shorted low	FUEL PUMP DIAGNOSTICS
B2119 95	Fuel pump output overloaded	FUEL PUMP DIAGNOSTICS
B2121 58	Starter output open	STARTER OUTPUT DTCS
B2122 59	Starter output shorted high	STARTER OUTPUT DTCS
B2123 60	Starter output shorted low	STARTER OUTPUT DTCS
B2124 61	Starter output overloaded	STARTER OUTPUT DTCS
B2127 243	E4 output shorted high	HORN DIAGNOSTICS
B2128 244	E4 output shorted low	HORN DIAGNOSTICS
B2129 245	E4 output overloaded	HORN DIAGNOSTICS
B2131 233	High beam open output	HEADLAMP DIAGNOSTICS
B2132 234	High beam output shorted high	HEADLAMP DIAGNOSTICS
B2133 235	High beam output shorted low	HEADLAMP DIAGNOSTICS
B2134 236	High beam output overloaded	HEADLAMP DIAGNOSTICS
B2136 229	Low beam open output	HEADLAMP DIAGNOSTICS
B2137 230	Low beam output shorted high	HEADLAMP DIAGNOSTICS
B2138 231	Low beam output shorted low	HEADLAMP DIAGNOSTICS
B2139 232	Low beam output overloaded	HEADLAMP DIAGNOSTICS
B2141 207	Left front turn signal output open	FRONT TURN SIGNAL DIAGNOSTICS
B2143 214	Left front turn signal output shorted low	FRONT TURN SIGNAL DIAGNOST ICS
B2144 215	Left front turn signal output overloaded	FRONT TURN SIGNAL DIAGNOST ICS
B2146 216	Right front turn signal output open	FRONT TURN SIGNAL DIAGNOSTICS
B2148 217	Right front turn signal output shorted low	FRONT TURN SIGNAL DIAGNOST ICS
B2149 218	Right front turn signal output overloaded	FRONT TURN SIGNAL DIAGNOST ICS

B2151 219	Left rear turn signal output open	REAR TURN SIGNAL DIAGNOSTICS
B2153 220	Left rear turn signal output shorted low	REAR TURN SIGNAL DIAGNOST ICS
B2154 221	Left rear turn signal output overloaded	REAR TURN SIGNAL DIAGNOSTICS
B2156 222	Right rear turn signal output open	REAR TURN SIGNAL DIAGNOSTICS
B2158 223	Right rear turn signal output shorted low	REAR TURN SIGNAL DIAGNOST ICS
B2159 224	Right rear turn signal output overloader	REAR TURN SIGNAL DIAGNOST ICS
B2161 198	Brake lamp output open	STOP LAMP DIAGNOSTICS
B2163 199	Brake lamp output shorted low	STOP LAMP DIAGNOSTICS
B2164 200	Brake lamp output overloaded	STOP LAMP DIAGNOSTICS
B2168 172	Running lights output shorted low	RUNNING LAMP DIAGNOSTICS
B2169 173	Running lights output over-loaded	RUNNING LAMP DIAGNOSTICS
B2172 237	H2 output shorted high	ALARM DIAGNOSTICS
B2173 238	H2 output shorted low	ALARM DIAGNOSTICS
B2176 239	Security antenna output open	SECURITY ANTENNA DIAGNOSTICS
B2177 240	Security antenna output shorted high	SECURITY ANTENNA DIAGNOSTICS
B2178 241	Security antenna output shorted low	SECURITY ANTENNA DIAGNOSTICS
B2183 249	G2 output shorted low	ADDITIONAL OUTPUT DIAGNOSTICS
B2188 254	G3 output shorted low	ADDITIONAL OUTPUT DIAGNOSTICS
B2193 257	H4 output shorted low	ADDITIONAL OUTPUT DIAGNOSTICS
B2198 259	H3 output shorted low	ADDITIONAL OUTPUT DIAGNOSTICS
B2201 52	IGN switch off w/VSS	IGN SWITCH DIAGNOSTICS
B2202 53	Ignition switch accy with vehicle speed	IGN SWITCH DIAGNOSTICS
B2203 50	Ignition switch input shorted low	IGN SWITCH DIAGNOSTICS
B2206 51	Run/stop switch input open/shorted high	ENGINE STOP SWITCH DIAGNOSTICS
B2208 54	Run/stop switch input shorted low	ENGINE STOP SWITCH DIAGNOSTICS
B2210 55	Run/stop switch inputs open both	SWITCH DIAGNOSTICS
B2212 56	Run/stop switch inputs both closed	SWITCH DIAGNOSTICS

B2218 131	Neutral switch shorted low	NEUTRAL SWITCH DIAGNOSTICS
B2223 197	Rear brake switch shorted low (light on)	STOP LAMP DIAGNOSTICS
B2226 247	BAS input open	BCM not configured properly.
B2228 250	BAS input shorted low	BCM not configured properly.
B2231 312	Fork locked w/VSS	BCM not configured properly. This DTC should only apply to CVO models.
B2232 313	Fork lock shorted high	BCM not configured properly. This DTC should only apply to CVO models.
B2233 314	Fork lock shorted low	BCM not configured properly. This DTC should only apply to CVO models.
B2234 315	Fork lock detected w/option disabled	BCM not configured properly. This DTC should only apply to CVO models.
B2235 316	Fork lock configuration invalid	BCM not configured properly. This DTC should only apply to CVO models.
B2250 128	Clutch switch stuck	SWITCH DIAGNOSTICS
B2251 242	Horn switch stuck	SWITCH DIAGNOSTICS
B2252 437	High beam switch stuck	SWITCH DIAGNOSTICS
B2253 228	FTP switch stuck	SWITCH DIAGNOSTICS
B2254 203	Left turn switch stuck	SWITCH DIAGNOSTICS
B2255 246	Trip switch stuck	Trip Odometer Functions Inoperative, DTC 82255
B2256 208	LHCM police siren power switch stuck	BCM not configured properly. This DTC should only apply to Police models.
B2257 209	LHCM police siren wail power switch stuck	BCM not configured properly. This DTC should only apply to Police models.
B2258 210	LHCM police siren yelp switch stuck	BCM not configured properly. This DTC should only apply to Police models.
B2260 57	Start switch stuck	SWITCH DIAGNOSTICS
B2261 204	Right switch stuck turn	SWITCH DIAGNOSTICS
B2262 196	Front switch stuck brake	SWITCH DIAGNOSTICS

B2263 202	Hazard switch stuck	SWITCH DIAGNOSTICS
B2264 211	RHCM police lights power switch stuck	BCM not configured properly. This DTC should only apply to Police models.
B2265 212	RHCM police lights front switch stuck	BCM not configured properly. This DTC should only apply to Police models.
B2266 213	RHCM police lights rear switch stuck	BCM not configured properly. This DTCshould only apply to Police models.
B2270 27	BCM internal error	SWITCH DIAGNOSTICS
B2271 26	BCM voltage low	BCM VOLTAGE DIAGNOSTICS
B2272 33	BCM/IM voltage high	BCM VOLTAGE DIAGNOSTICS
B2274 49	Constant battery line error	Odometer Self-Diagnostic Inoperative: DTC 00001, 00002, U0011, B2274
C0562 38	ABS voltage low	ABS VOLTAGE DIAGNOSTICS
C0563 40	ABS voltage high	ABS VOLTAGE DIAGNOSTICS
C1014 183	ABS ECU relay error	INTERNAL FAULT DIAGNOSTICS
C1021 191	ABS front WSS always zero	WSS DIAGNOSTICS
C1023 192	ABS rear WSS always zero	WSS DIAGNOSTICS
C1025 194	ABS front wheel speed intermittent	WSS DIAGNOSTICS
C1027 195	ABS rear wheel speed intermittent	WSS DIAGNOSTICS
C1029 193	ABS wheel speed difference too high	WSS DIAGNOSTICS
C1032 189	ABS front wheel speed circuit open shorted	WSS DIAGNOSTICS
C1034 190	ABS rear wheel speed circuit open shorted	WSS DIAGNOSTICS
C1040 184	ABS pump/motor error	INTERNAL FAULT DIAGNOSTICS
C1055 39	ABS ECU internal error	INTERNAL FAULT DIAGNOSTICS
C1061 185	ABS front apply solenoid circuit open/high resistance	INTERNAL FAULT DIAGNOSTICS
C1062 187	ABS front release solenoid circuit open/high resistance	INTERNAL FAULT DIAGNOSTICS

C1065 186	ABS rear apply solenoid circuit open/high resistance	INTERNAL FAULT DIAGNOSTICS
C1066 188	ABS rear release solenoid circuit open/high resistance	INTERNAL FAULT DIAGNOSTICS
C1071 283	Rear prime valve error	INTERNAL FAULT DIAGNOSTICS
C1072 284	Rear isolation valve error	INTERNAL FAULT DIAGNOSTICS
C1073 285	Front isolation valve error	INTERNAL FAULT DIAGNOSTICS
C1074 286	Front prime valve error	INTERNAL FAULT DIAGNOSTICS
C1075 287	Front linked inlet valve error	INTERNAL FAULT DIAGNOSTICS
C1076 288	Front linked outlet valve error	INTERNAL FAULT DIAGNOSTICS
C1077 289	Front circuit pressure sensor error	INTERNAL FAULT DIAGNOSTICS
C1078 290	Rear circuit pressure sensor error	INTERNAL FAULT DIAGNOSTICS
C1081 291	Front master pressure sensor error	INTERNAL FAULT DIAGNOSTICS
C1082 292	Front master pressure sensor offset error	INTERNAL FAULT DIAGNOSTICS
C1083 293	Front wheel pressure sensor error	INTERNAL FAULT DIAGNOSTICS
C1084 294	Front wheel pressure sensor offset error	INTERNAL FAULT DIAGNOSTICS
C1085 295	Rear master pressure sensor error	INTERNAL FAULT DIAGNOSTICS
C1086 296	Rear master pressure sensor offset error	INTERNAL FAULT DIAGNOSTICS
C1087 297	Rear wheel pressure sensor error	INTERNAL FAULT DIAGNOSTICS
C1088 298	Rear wheel pressure sensor offset error	INTERNAL FAULT DIAGNOSTICS
C1089 299	Pressure sensor external supply error	INTERNAL FAULT DIAGNOSTICS
C1159 43	ABS invalid stored	VIN INVALID VIN DIAGNOSTICS
C1178 41	ABS no VIN received from	ECM INVALID VIN DIAGNOSTICS
C1184 42	ABS invalid VIN from	ECM INVALID VIN DIAGNOSTICS
C1195 266	Wake up error	INTERNAL FAULT DIAGNOSTICS
P0031 153	Front HO2S open low	HO2S DIAGNOSTICS
P0032 156	Front HO2S shorted high	HO2S DIAGNOSTICS
P0051 154	Rear HO2S open low	HO2S DIAGNOSTICS

P0052 155	Rear HO2S shorted high	HO2S DIAGNOSTICS
P0072 112	AAT sensor low	AAT SENSOR DIAGNOSTICS
P0073 113	AAT sensor high open	MT SENSOR DIAGNOSTICS
P0107 100	MAP sensor failed low open	TMAP SENSOR DIAGNOSTICS
P0108 101	MAP sensor failed high/open port	TMAP SENSOR DIAGNOSTICS
P0112 123	IAT sensor shorted low	TMAP SENSOR DIAGNOSTICS
P0113 125	IAT sensor high open	TMAP SENSOR DIAGNOSTICS
P0117 102	ET sensor shorted low	ET SENSOR DIAGNOSTICS
P0118 107	ET sensor high open	ET SENSOR DIAGNOSTICS
P0120 76	TPS 1 range error	TCA DIAGNOSTICS
P0122 74	TPS 1 low	TCA DIAGNOSTICS
P0123 75	TPS 1 high open	TCA DIAGNOSTICS
P0131 157	02 sensor low/engine lean (front)	HO2S DIAGNOSTICS
P0132 159	Engine running rich (front)	HO2S DIAGNOSTICS
P0134 161	Oxygen sensor high/open (front)	HO2S DIAGNOSTICS
P0151 158	02 sensor low/engine lean (rear)	HO2S DIAGNOSTICS
P0152 160	Engine running rich (rear)	HO2S DIAGNOSTICS
P0154 162	02 sensor high/open (rear)	HO2S DIAGNOSTICS
P0220 79	TPS 2 range error	TCA DIAGNOSTICS
P0222 77	TPS 2 open low	TCA DIAGNOSTICS
P0223 78	TPS 2 high	TCA DIAGNOSTICS
P0261 96	Fuel injector low/open (front)	FUEL INJECTOR DIAGNOSTICS
P0262 97	Fuel injector shorted high (front)	FUEL INJECTOR DIAGNOSTICS
P0264 98	Fuel injector low/open (rear)	FUEL INJECTOR DIAGNOSTICS
P0265 99	Fuel injector shorted high (rear)	FUEL INJECTOR DIAGNOSTICS
P0325 139	Knock sensor front open circuit	KNOCK SENSOR DIAGNOSTICS
P0327 140	Knock sensor front circuit low	KNOCK SENSOR DIAGNOSTICS

P0328 141	Knock sensor front circuit high	KNOCK SENSOR DIAGNOSTICS
P0330 142	Knock sensor rear open circuit	KNOCK SENSOR DIAGNOSTICS
P0332 143	Knock sensor rear circuit low	KNOCK SENSOR DIAGNOSTICS
P0333 144	Knock sensor rear circuit high	KNOCK SENSOR DIAGNOSTICS
P0371 65	CKP sensor wrong number of pulses	CKP SENSOR DIAGNOSTICS
P0374 64	CKP sensor no pulses	CKP SENSOR DIAGNOSTICS
P0444 147	Purge solenoid low open	PURGE SOLENOID DIAGNOSTICS
P0445 148	Purge solenoid shorted high	PURGE SOLENOID DIAGNOSTICS
P0462 174	Fuel sender shorted low	FUEL GAUGE AND SENDER DIAGNOSTICS
P0463 175	Fuel sender shorted high/open	FUEL GAUGE AND SENDER DIAGNOSTICS
P0502 137	VSS failed low	PURGE SOLENOID DIAGNOSTICS
P0503 138	VSS	failed high VSS DIAGNOSTICS
P0505 148	Idle speed control - unstable	IDLE SPEED CONTROL DIAGNOSTICS
P0522 168	Engine oil pressure sensor/switch shorted low	INDICATOR LAMPS
P0523 169	Engine oil pressure sensor/switch shorted high open	INDICATOR LAMPS
P0562 127	ECM voltage low BATTERY	AND SYSTEM VOLTAGE DIAGNOSTICS
P0572 202	Brake switch low	BRAKE SWITCH DIAGNOSTICS
P0577 163	Cruise control	input error Cruise Control
P0603 29	ECM EEPROM memory error	ECM INTERNAL DIAGNOSTICS
P0605 28	ECM FLASH memory error	ECM INTERNAL DIAGNOSTICS
P0641 62	5 Volt reference out of range	5V REFERENCE DIAGNOSTICS
P0651 63	5 Volt reference 2 out of range	5V REFERENCE DIAGNOSTICS
P0693 119	Chassis fan control circuit shorted low	CHASSIS FAN DIAGNOSTICS
P0694 120	Chassis fan control circuit shorted high	CHASSIS FAN DIAGNOSTICS
P1009 32	VTD disabled fuel due to bad password	DTC P1009
P1017 103	ET indicates overheating	DTC P1017
P1019 106	ECT difference (high temp)	ECT SENSOR DIAGNOSTICS

P1270 67	TGS 2 ND validation error	DTC P1270
P1501 166	JSS low	JSS DIAGNOSTICS
P1502 167	JSS high open	JSS DIAGNOSTICS
P1505 445	Power limit violation	HESITATION OR LOSS OF POWER
P1510 447	ETC limited performance mode	ETC MANAGEMENT DIAGNOSTICS
P1511 448	ETC power management mode	ETC MANAGEMENT DIAGNOSTICS
P1512 449	ETC forced idle mode	ETC MANAGEMENT DIAGNOSTICS
P1514 87	ETC airflow error	ETC ERROR DIAGNOSTICS
P1600 66	ETC watchdog error	ETC ERROR DIAGNOSTICS
P1655 164	ACR solenoid open low	ACR Diagnostics
P1656 165	ACR solenoid shorted high	ACR Diagnostics
P1691 115	Cooling fan left low open	COOLING FAN DIAGNOSTICS
P1692 116	Cooling fan left shorted high	COOLING FAN DIAGNOSTICS
P1693 117	Cooling fan right low open	COOLING FAN DIAGNOSTICS
P1694 118	Cooling fan right shorted high	COOLING FAN DIAGNOSTICS
P2100 82	ETC driver open circuit	ETC ACTUATOR DIAGNOSTICS
P2101 83	ETC actuation error	ETC ACTUATOR DIAGNOSTICS
P2102 84	ETC driver shorted low	ETC ACTUATOR DIAGNOSTICS
P2103 85	ETC driver shorted high	ETC ACTUATOR DIAGNOSTICS
P2105 446	ETC forced shutdown mode	DTC P2105, P2107
P2107 68	ETC driver internal error	DTC P2105, P2107
P2119 81	ETC actuator return error	DTC P2119
P2122 69	TGS 1 low/open	TGS DIAGNOSTICS
P2123 70	TGS 1 high	TGS DIAGNOSTICS
P2127 71	TGS 2 low/open	TGS DIAGNOSTICS
P2128 72	TGS 2 high	TGS DIAGNOSTICS
P2135 80	TPS correlation error	CORRELATION ERROR DIAGNOSTICS

P2138 73	TGS correlation error	CORRELATION ERROR DIAGNOSTICS
P2176 86	ETC zero position learning error	DTC P2176
P2184 121	ECT sensor low	ECT SENSOR DIAGNOSTICS
P2185 122	ECT sensor high	ECT SENSOR DIAGNOSTICS
P2300 88	Ignition coil driver low/open (front)	IGN COIL DRIVER DIAGNOSTICS
P2301 89	Ignition coil driver shorted high (front)	IGN COIL DRIVER DIAGNOSTICS
P2303 90	Ignition coil driver low/open (rear)	IGN COIL DRIVER DIAGNOSTICS
P2304 91	Ignition coil driver shorted high (rear)	IGN COIL DRIVER DIAGNOSTICS
P2602 104	Coolant pump "A" control circuit low	COOLING PUMP DIAGNOSTICS
P2603 105	Coolant pump "A" control circuit high	COOLING PUMP DIAGNOSTICS
U0001 1	CAN BUS error	Odometer Self-Diagnostic Inoperative: DTC 00001, 00002, U0011, B2274
U0002 16	CAN comm bus perf error	Odometer Self Diagnostic Inoperative: DTC 00001, 00002, U0011, 82274
U0003 13	Network management monitoring	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0011 2	CAN bus low shorted to CAN bus high	Odometer Self-Diagnostic Inoperative: DTC 00001, 00002, 00011, B2274
U0100 7	Lost comm w/ECM	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0121 11	Lost comm w/ABS	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0140 3	Lost comm w/BCM	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0141 9	Lost comm w/LHCM	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0142 8	Lost comm w/RHCM	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0156 10	Lost comm w/speedo	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0158 180	Lost comm w/fuel gauge	SECONDARY COMMUNICATION DIAGNOSTICS
U0159 181	Lost comm w/volt gauge	SECONDARY COMMUNICATION DIAGNOSTICS
U0160 179	Lost comm w/fuel and volt gauges	SECONDARY COMMUNICATION DIAGNOSTICS
U0184 323	Lost comm w/radio	NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U0185 325	Lost comm w/AMP	1 AMP COMMUNICATION DIAGNOSTICS

U0186 326	Lost comm w/AMP	2 AMP COMMUNICATION DIAGNOSTICS
U0187 20	Lost comm w/AMP	3 AMP COMMUNICATION DIAGNOSTICS
U0188 21	Lost comm w/AMP	4 AMP COMMUNICATION DIAGNOSTICS
U0300 15	Internal control module software incompatibility	y NO VEHICLE POWER OR LOST COMMUNICATION DTCS
U1302 324	ACC bus pert error	SECONDARY COMMUNICATION DIAGNOSTICS
U1401 331	Lost comm w CB	SECONDARY COMMUNICATION DIAGNOSTICS
U1401 331	Lost comm w CB	COMMUNICATION DIAGNOSTICS
U1405 450	ACC bus lost comm w/ WIM	Code used to support P&A parts

### **RETRIEVING TROUBLE CODES**

### **ODOMETER SELF-DIAGNOSTICS**

Diagnostic Mode

To enter diagnostic mode, press and hold the trip odometer trigger switch located on the left handlebar controls, while turning the IGN ON.

## **NOTE**

The trip odometer trigger switch is located in the left hand control module. The switch signal is sent to the speedometer over the CAN bus. If there is a problem with the CAN bus, the odometer self-diagnostic mode may not function.

- 1. Release the trip odometer trigger switch. "diag" will appear on odometer display.
- 2. Press and release trip odometer trigger switch. ECM will appear on odometer display. It will have either a "Y" or an "N" after it, depending if there are any ECM codes or not.
- 3. Quickly press and release trip odometer trigger switch to cycle through the modules. Modules include the BCM, SPDO, ABS and RAD.

- 4. Once the desired module is displayed, press and hold trip odometer trigger switch.
- 5. If any DTCs are stored in the module, the odometer will display the DTC. Quickly pressing and releasing trip odometer trigger switch will cycle through stored DTCs.
- 6. When all DTCs have been cycled the odometer will display "end".
- 7. To clear all DTCs in that module press and hold trip odometer trigger switch, while a DTC is displayed. If DTCs are not to be cleared, quickly press and release trip odometer trigger switch. The part number of the module will be displayed.
- 8. Press and release trip odometer trigger switch again to continue to next module.
- 9. Make note of all DTCs. Clear all DTCs and operate vehicle to verify DTCs set and are current. Historic DTCs are not to be diagnosed unless the condition is reoccurring and intermittent.
- 10. Turn IGN OFF to exit diagnostic mode. If IGN is not turned off, vehicle will exit diagnostics mode when vehicle starts moving.

### **CODE TYPES**

There are three types of DTCs: current, pending and historic. The odometer self-diagnostics displays all codes and differentiates between current and historic with a letter designator.

- Odometer self-diagnostics will display both current and historic DTCs.
- Current DTCs reside in the memory of the ECM, BCM, instruments, radio or ABS module (if equipped) until the DTC is resolved.
- A historic DTC can be cleared by use of odometer self-diagnostics or after a total of 40 error free ignition cycles (start and run cycle) have elapsed.

Current DTCs are those which presently disrupt motorcycle operation and are set during the current ignition cycle. To determine current DTCs are present, clear the DTCs and operate the vehicle within the parameters for setting the DTC. See the appropriate diagnostic procedures for solutions.

Some DTCs require multiple occurrences or drive cycles to set. When these DTCs are first recognized, but have not repeated enough to set as a current DTC, they are reported as pending DTCs.

If a particular problem happens to resolve itself, the active status problem is dropped and it becomes a historic DTC rather than a current DTC. DTCs will also lose current status when ignition is turned off. If the problem still exists when ignition is turned on, the code will show as current.

Historic DTCs are stored for 40 ignition cycles to assist in diagnosis of intermittent faults. On the 40th error free cycle, the DTC will clear itself.

It is important to note that historic DTCs will exist whenever the system indicates existence of a current fault. See Multiple Trouble Codes. if multiple DTCs are found.

Diagnostic procedures are designed for use with current DTCs. As a result, they frequently suggest part replacement. When diagnosing a historic DTC, the procedures can be helpful but should not lead to part replacement without verification that the part is faulty.

Emissions related DTCs will illuminate the check engine lamp for three warm up cycles after the DTC has transitioned from current to historic.

#### **MULTIPLE TROUBLE CODES**

All DTCs are assigned a priority number to determine the order in which they should be diagnosed. If there are multiple DTCs present, always diagnose the highest priority first.

- Complete the repair.
- Restore connections.
- Clear DTCs.
- Start vehicle. Perform several cycles to verify a code did not return.

• Perform odometer self-diagnostics test to verify repair and DTCs have been cleared. If any DTCs are still present, refer to Diagnostics (Page 1-2).

## **CLEARING DTCS**

Clear DTCs after any diagnostic or repair procedure. The odometer is capable of displaying and clearing ECM, BCM, instruments, radio and ABS DTCs. Once DTCs are cleared perform a road test to verify DTCs do not return. It is important to perform a road test and not simply start the motorcycle since some DTCs may require vehicle speed or other inputs in order to validate repair.

## **SECURITY LAMP**

See Figure 1-1. The security lamp turns on when:

- Current DTCs are present in the BCM.
- Non-emission related DTCs are present in the ECM.