

ST215 3S-GTE - Engine Control Diagnosis Trouble Codes List

Diagnosis Codes	Item [Terminal symbol]	Condition	Check mode	Lamp	Memory	Symptom	Inspection part
Code No. SAE [TCCS]	1. Condition	2. Symptom	3. Term	4. Others			
P0100 [31]	Intake airflow sensor signal [VG, EVG]	1. Engine revolution 3000rpm or less 2. Open or short in airflow meter circuit 3. 3 seconds or more	O	O	O	After engine stall, unable to start the engine	<ul style="list-style-type: none"> • Wiring and connector (airflow sensor) • Intake airflow sensor • Engine control computer
P0110 [24]	Inlet air temperature sensor signal [THA, E2]	1. IG ON 2. Open or short in inlet air temperature sensor 3. 1 second or more (less than 1 second when check mode)	O	X	O	Poor drivability	<ul style="list-style-type: none"> • Wiring and connector (inlet air temperature sensor) • Inlet air temperature sensor • Engine control computer
P0115 [22]	Water temperature sensor [THW, E2]	1. IG ON 2. Open or short in water temperature sensor 3. 1 second or more (less than 1 second when check mode)	O	O	O	<ul style="list-style-type: none"> • Hard starting when cold • Poor drivability 	<ul style="list-style-type: none"> • Wiring and connector (water temperature sensor) • Water temperature sensor • Engine control computer
P0120 [41]	Throttle position sensor [VC, VTA, VTA2, E2]	1. IG ON 2. Open or short in throttle position sensor 3. 2 seconds or more (0.4 seconds or more when VC circuit is open)	O	O	O	Fail safe mode	<ul style="list-style-type: none"> • Wiring and connector (throttle position sensor) • Throttle position sensor • Engine control computer

P0121 [41]	Throttle position sensor [VTA, VTA2]	1. Nil 2. VTA or VTA2 sensor characteristic abnormal 3. 2 seconds or more	O	X	O	Fail safe mode	<ul style="list-style-type: none"> Wiring and connector (throttle position sensor) Throttle position sensor Engine control computer
P0130 [21]	O2 sensor signal [OX1A]	1. After warmed up, engine revolution 4000rpm 2. O2 sensor output voltage amplitudes is 0.3V or less 3. 60 seconds or more	O	X	O	<ul style="list-style-type: none"> Poor emission Abort feedback control 	<ul style="list-style-type: none"> Oxygen sensor Engine control computer
P0135 [21]	O2 sensor heater abnormal [HT1A]	1. IG ON 2. Open in O2 sensor heater circuit 3. 1 second or more	O	X	O	Poor emission while warming up	<ul style="list-style-type: none"> Wiring and connector (oxygen sensor heater) Oxygen sensor Engine control computer
P0150 [28]	O2 sensor signal (A/T only) [OX2A]	1. After warmed up, engine revolution 4000rpm 2. O2 sensor output voltage amplitudes is 0.3V or less 3. 60 seconds or more	O	X	O	<ul style="list-style-type: none"> Poor emission Abort feedback control 	<ul style="list-style-type: none"> Oxygen sensor Engine control computer
P0155 [28]	O2 sensor heater abnormal (A/T only) [HT2A]	1. IG ON 2. Open in O2 sensor heater circuit 3. 1 second or more	O	X	O	Poor emission while warming up	<ul style="list-style-type: none"> Wiring and connector (oxygen sensor) Oxygen sensor Engine control computer
P0171 [25]	Lean abnormal [OX1A]	1. While driving at 40~100km/h 2. No rich signal output from oxygen sensor 3. 90 seconds or more	O	X	O	<ul style="list-style-type: none"> Hard to start Poor drivability Engine stall 	<ul style="list-style-type: none"> Ignition system (spark plug, ignition coil) Intake system (intake airflow meter) Wiring and connector (oxygen sensor) Fuel system (fuel injector ASSY, fuel pressure) Engine control computer

P0174 [25]	Lean abnormal (A/T only) [OX2A]	1. While driving vehicle at 40~100kmh 2. No rich signal output from oxygen sensor 3. 90 seconds or more	O	X	O	• Hard to start • Poor drivability • Engine stall	• Ignition system (spark plug, ignition coil) • Intake system (intake airflow meter) • Wiring and connector (oxygen sensor) • Fuel system (fuel injector ASSY, fuel pressure) • Engine control computer
P0301 [93]	Ignition signal [#10]	1. IG ON 2. Open or short in ignitor circuit 3. 1 second or more	X	O	O	-	• Wiring and connector • Ignition coil • Engine control computer
P0302 [93]	Ignition signal [#20]	1. IG ON 2. Open or short in ignitor circuit 3. 1 second or more	X	O	O	-	• Wiring and connector • Ignition coil • Engine control computer
P0303 [93]	Ignition signal [#30]	1. IG ON 2. Open or short in ignitor circuit 3. 1 second or more	X	O	O	-	• Wiring and connector • Ignition coil • Engine control computer
P0304 [93]	Ignition signal [#40]	1. IG ON 2. Open or short in ignitor circuit 3. 1 second or more	X	O	O	-	• Wiring and connector • Ignition coil • Engine control computer
P0325 [52]	Knock sensor signal [KNK]	1. After warmed up, engine revolution 1600~5200rpm 2. Open or short in knock sensor circuit 3. 10 seconds or more	O	O	O	Knocking level deterioration	• Wiring and connector (knock sensor) • Knock sensor • Knock sensor installation • Engine control computer

P0335 [12] [13]	Revolution signal 2 [NE+, NE-]	1. While cranking 2. Open or short in crank position sensor 3. 5 seconds or more	O	O	O	After engine stall, unable to start	<ul style="list-style-type: none"> Wiring and connector (NE signal) STA signal Crank position sensor Engine control computer
P0340 [12]	Revolution signal 1 [G2+]	1. While cranking 2. Open or short in crank position sensor No.1 3. 4 seconds or more	O	O	O	After engine stall, unable to start	<ul style="list-style-type: none"> Wiring and connector (G2+ signal) STA signal Crank position sensor No.1 Engine control computer
P0500 [42]	Speed sensor signal [SP2+, SP2-] (A/T) [SPD] (M/T)	1. While driving vehicle (shift position other than P, N range: A/T only) 2. No speed sensor signal input (when check mode, no speed signal input until connected TC and E10) 3. 8 seconds or more	O	O	O	Shifting point abnormal	<ul style="list-style-type: none"> Wiring and connector (speed sensor) Speed sensor Engine control computer
P1120 [19]	Acceleration position sensor 1 [VC, VPA, VPA2, E2]	1. IG ON 2. Open or short in acceleration position sensor circuit 3. 2 seconds or more (0.4 seconds or more when VC circuit is open)	O	O	O	Fail safe mode	<ul style="list-style-type: none"> Wiring and connector Acceleration position sensor Engine control computer
P1121 [19]	Acceleration position sensor 2 [VTA, VTA2, E2]	1. IG ON 2. VPA or VPA2 sensor characteristic abnormal 3. 2 seconds or more	O	O	O	Fail safe mode	<ul style="list-style-type: none"> Wiring and connector Acceleration position sensor Engine control computer
P1125 [89]	Throttle motor [M+, M-]	1. Nil 2. Open or short in throttle motor 3. Nil	O	O	O	Fail safe mode	Refer to ETCS

P1126 [89]	Electric clutch [CL+, CL-]	1. Nil 2. Electric clutch abnormal 3. Nil	O	O	O	Fail safe mode	Refer to ETCS
P1127 [89]	Electric throttle power	1. Nil 2. Electric throttle power abnormal 3. Nil	O	O	O	Fail safe mode	Refer to ETCS
P1128 [89]	Electric throttle body	1. Nil 2. Throttle motor stick 3. Nil	O	O	O	Fail safe mode	Refer to ETCS
P1129 [89]	Electric throttle system	1. Nil 2. Electric throttle system 3. Nil	O	O	O	Fail safe mode	Refer to ETCS
P1301 [14]	Ignition signal [ION1]	1. IG ON 2. Open or short in ignitor power circuit 3. 1 second or more	X	O	O	-	<ul style="list-style-type: none"> • Wiring and connector • Ignition coil • Engine control computer
P1306 [15]	Ignition signal [ION2]	1. IG ON 2. Open or short in ignitor power circuit 3. 1 second or more	X	O	O	-	<ul style="list-style-type: none"> • Wiring and connector • Ignition coil • Engine control computer
P1311 [15]	Ignition signal [ION3]	1. IG ON 2. Open or short in ignitor circuit 3. 1 second or more	X	O	O	-	<ul style="list-style-type: none"> • Wiring and connector • Ignition coil • Engine control computer
P1316 [14]	Ignition signal [ION4]	1. IG ON 2. Open or short in ignitor circuit 3. 1 second or more	X	O	O	-	<ul style="list-style-type: none"> • Wiring and connector • Ignitor • Engine control computer

P1335 [13]	Revolution signal 2 [NE+, NE-]	1. Engine revolution 1500rpm 2. No NE signal input 3. 1 second or more	X	X	O	After engine stall, unable to start	<ul style="list-style-type: none"> Wiring and connector (NE signal) Crank position sensor Engine control computer 	
P1357 [18]	Exhaust system	VVT	1. While initial check, no IGN signal input 2. Input VVT signal 6 times or more while 3 TDC signal input (720°CA)	O	O	O	-	<ul style="list-style-type: none"> Wiring and connector Engine control computer
P1360 [18]	Exhaust system	VVT	1. IG ON 2. No exhaust VVT pulse break in 3. 4 seconds or more	O	O	O	-	<ul style="list-style-type: none"> Wiring and connector Engine control computer
P1633 [33]	Electric ECU	throttle	1. ETCS internal circuit malfunction 2. ETCS CPU malfunction	O	O	O	Fail safe mode	Refer to ETCS
P1645 [82]	MPX malfunction	[MPX1, MPX2]	1. Elapsed 2 seconds or more after IG ON 2. No A/C data for MPX 3. 10 seconds or more	O	X	O	Unable to turn A/C magnet clutch ON	<ul style="list-style-type: none"> Conform diagnosis codes on instrument panel ECU
P1656 [39]	VVT signal	[OCV+, OCV-]	1. IG ON 2. Open or short in OCV circuit 3. 1 second	O	O	O	Poor output when driving high speed	<ul style="list-style-type: none"> Wiring and connector (oil control valve) Oil control valve Engine control computer +B2 voltage check
P1663 [39]	Exhaust VVT signal	[OCV2+, OCV2-]	1. IG ON 2. Open or short in OVC circuit 3. 1 second	O	O	O	Poor output when driving high speed	<ul style="list-style-type: none"> Wiring and connector (oil control valve) Oil control valve Engine control computer +B2 voltage check