OBD fault-code overview list

Component	Fault Code	Monitoring strategy	Fault detection criteria	MI action criteria	Secondary parameters	Threshold	Preconditioning	Demonstration Test
Intake air pressure sensor	P0107	Intake pressure sensor voltage signal	If it is less than minimum setting voltage, that means it is SC GND or OC	1 cycle	Throttle position，engine speed，intake manifold pressure	0.1V	NONE	Key on
	P0108	Intake pressure sensor voltage signal	Check the sensor voltage; If it is bigger than maximum setting voltage, that means it is SC VCC	1 cycle	Throttle position，engine speed，intake manifold pressure	4.951V	NONE	Key on
Intake air temperature sensor	P0112	Intake temperature sensor voltage signal	If it is less than minimum setting voltage, that means it is SC GND	1 cycle	Engine speed，Intake temperature	0.073V	NONE	Key on
	P0113	Intake temperature sensor voltage signal	Check the sensor voltage; If it is bigger than maximum setting voltage, that means it is SC VCC or OC	1 cycle	Engine speed，Intake temperature	4.88V	NONE	Key on
	P0114	Air temperature sensor Intermitted	Signal not plausible	3 cycle	Engine running time，Air temperature	NA	NONE	Idle or driving cycle
	P0111	Air temperature sensor stuck	Signal not plausible	3 cycle	Engine running time，Air temperature	NA	NONE	Idle or driving cycle
Water temperature sensor	P0119	Coolant temperature sensor Intermitted	Signal not plausible	3 cycle	Engine speed，water temperature	NA	None	Idle or driving cycle
	P0116	Coolant temperature sensor stuck	Signal not plausible	3 cycle	Engine speed，water temperature	NA	None	Idle or driving cycle
	P0117	check circuit voltage	Error detected when the sensor voltage less than minimum setting voltage	1 cycle	Engine speed，water temperature	0.073V	None	Key on
	P0118	check circuit voltage	Error detected when the sensor voltage bigger than maximum setting voltage, that means it is SC VCC or OC	1 cycle	Engine speed，water temperature	4.88V	None	Key on
Throttle position sensor	P0120	Check TPS voltage	Error detected when the sensor voltage less than minimum setting voltage, that means it is SC GND	1 cycle	Engine speed，engine state	0.1V	None	Key on
	P0123	Check TPS voltage	Error detected when the sensor voltage bigger than maximum setting voltage, that means it is SC VCC or OC	1 cycle	Engine speed，engine state	4.88V	None	Key on
Stepper motor	P0509	feedback voltage by hardware	SC VCC	1 cycle	NA	NA	None	Idle or driving cycle
	P0508	feedback voltage by hardware	SC GND	1 cycle	NA	NA	None	Idle or driving cycle
	P0505	feedback voltage by hardware	OPEN CIRCUIT	1 cycle	NA	NA	None	Idle or driving cycle
	P0511	feedback voltage by hardware	Not plaisoble	1 cycle	NA	NA	None	Idle or driving cycle
Warning lamp	P0650	Performed by hardware	Open circuit	1 cycle	MIL state	NA	None	Idle or driving cycle
Oxygen sensor	P0130	check oxygen feedback signal voltage	Error detected when short term lambda correction reaches to threshold for more than 3000 cycles.	1 cycle	signal voltage	25%	None	Idle or driving cycle

Component	Fault Code	Monitoring strategy	Fault detection criteria	MI action criteria	Secondary parameters	Threshold	Preconditioning	Demonstration Test
Oxygen sensor	P0132	check oxygen feedback signal voltage	Error detected when voltage above threshold	1 cycle	signal voltage	4.878V	None	Idle or driving cycle
	P0133	check oxygen feedback signal voltage	Frequency error	3 cycle	signal voltage	LAMSOND	2 cycle	Idle or driving cycle
Oxygen sensor heater	P0030	check circuit voltage	circuit open	1 cycle	NA	NA	None	Idle or driving cycle
	P0031	check circuit voltage	circuit low	1 cycle	NA	NA	None	Idle or driving cycle
	P0032	check circuit voltage	circuit high	1 cycle	NA	NA	None	Idle or driving cycle
Engine speed sensor	P0335	Check flywheel signal	Open circuit	1 cycle	NA	NA	None	Key on
	P0336	Check flywheel signal	Signal not plausible	1 cycle	Engine speed	NA	None	At engine start
canister valve	P0458	Performed by hardware.	SC GND or Open circuit	1 cycle	NA	NA	None	Driving cycle
	P0459	Performed by hardware.	SC Vbat	1 cycle	NA	NA	None	Driving cycle
Ignition coil	P2300	check circuit voltage	circuit open	1 cycle	NA	NA	None	key on and push start-switch
Fuel injector	P0201	check circuit voltage	circuit open	1 cycle	NA	NA	None	key on and push start-switch
	P0261	check circuit voltage	circuit low	1 cycle	NA	NA	None	key on and push start-switch
	P0262	check circuit voltage	circuit high	1 cycle	NA	NA	None	key on and push start-switch
Fuel pump relay	P0231	check circuit voltage	circuit open or SC GND	1 cycle	NA	NA	None	Key on
Cooling fan relay	P0480	check circuit voltage	circuit open	1 cycle	NA	NA	None	Idle or driving cycle
	P0691	check circuit voltage	circuit low when fan is not active	1 cycle	NA	NA	None	Idle or driving cycle
	P0692	check circuit voltage	circuit high when fan is active	1 cycle	NA	NA	None	Idle or driving cycle
Misfire diagnosis	P0300	Crankshaft signal, Camshaft signal,and misfire rate threshold	The misfire rate exceeds the threshold within 200 engine cycles	1 cycle, MIL flash	RPM , ETASP	CATA200	None	Idle or driving cycle
		Crankshaft signal, Camshaft signal,and misfire rate threshold	The misfire rate is calculated through crank and cam signal in WLTC cycle when the catalyst is heated. Within the first 1000 engine cycles from engine start, the misfire rate exceeds the threshold	3 cycle	RPM , ETASP	MIS1000	WMTC	Test type I