

Annex II: Table of diagnostic flashing codes for faults of the fuel pump system of Common Rail Diesel engine

See also:

- [Fault Codes list for Sinotruk HOWO Engines](#)
- [Howo Trucks Service Repair Manuals PDF](#)
- [Howo Fuel System Fault Codes](#)

Diagnostic Flashing Code	Fault Code	Description	Actions of Block (Ecu)	Fault	Manifestation of Malfunction:
1	P1683	Short Circuit.Short On Mass Additional Motor brake Output	Alarm Off	The "mass" of the output OUT6 37	The motor brake function is not working well.
1	P1684	SC on battery Complementary Motor Brake Output	Alarm Burns	KZ +In the exit OUT6 37	The motor brake function is not working well.
2	P1602	Code data Qr Have not been entered	Alarm Burns	Code data Qr Have not been entered (all equal zero)	Lower output power and Increase of toxic emissions, increase of engine noise and emissions of white Smoke
2	P0602	Data Code Qr Wrong	Alarm Burns	Code size Qr Incorrect Eeprom) Kqrs w Shows 0, 1, 2	Lower output power and Increase of toxic emissions, increase of engine noise and emissions of white Smoke
2	P1601	Defining data for code Qr Incorrect (change definition Code Qr Wrong	Alarm not lit , the system does not work	Defining data For Code Qr Incorrect (for example, wrong order 40.80, 120, 140). This will not happen in mass production.	Lower output power and Increase of toxic emissions, increase of engine noise and emissions of white Smoke
3	P0607	Fault Cpu. Monitor the malfunction of the integrated circuit.	The alarm is lit, the cruise Control does not work, RTO stopped, fuel supply limit 70%.	Malfunction of the additional Cpu (Monitoring the computer of the main Ecu)	Lower output power and Increased toxic emissions, increased engine noise and engine stalls

3	P0606	Fault Cpu, malfunction of the main Cpu	Alarm Burns Cruise control is not It's working Rto MtpInNovilos, fuel supply limit 70%.	Malfunction of the main Cpu (GettingSignal Additional faults Ecu)	Reduced output power and increased toxic emissions, increased engine noise and engine stalls
3	P0601	Check the area specified by the flashing code and errors	Alarm Burns Cruise control is not It's working Rto MtpInNovilos, fuel supply limit 70%.	Ecu Constantly spends Circular Check the area specified by the flashing code	Reduced output power and increased toxic emissions, increased engine noise, and engine stalls
5	P0686	Malfunction of the main relay Relay Zaliplo in Closed Able	Alarm Burns	When the relay does not work, the voltage is above 16 v.	When the ignition is switched off, the fault alarm continues to burn
6	P0217	Coolant temperature exceeds upper limit	Alarm not lit , cruise control is not Works, LimitedFuel supply 70%.	The coolant temperature exceeds the upper limit of 107 C.	Overheating
7	P0219	Engine Exceeds Limit Momentum	Alarm Malfunction Not lit And cruise control is disabled	Warning When Speedexceeds 3000; WhenFrequency Rotation Below 2800, Warning Disappears	There are no obvious malfunctions (when the engine speed is Above 2900 rpm)
8	U0073	Error ECU CAN1	Alarm Off	"Mass" of wires 157 CAN1H and 158 CAN1L	
9	U1001	Error ECU CAN2	Alarm Burns	"Mass" of wires 95 CAN2H And 96 CAN2L	
9	U0121	Abs Disconnected from the bus CAN	The fault alarm is lit and the cruise control is disconnected	Abs Disconnected from the bus CAN	
9	U0155	Device CAN Disconnected From Tires CAN	The fault alarm is lit and the cruise control is disconnected	Device CAN Disconnected from the bus CAN	

11	P0118	High coolant temperature sensor signal	The fault alarm is lit and the cruise control is disconnected	Break Signal wire Circuit 155Ad7	Noise and white smoke emissions increase
11	P0117	Low temperature sensor signal Cooling Liquid	Alarm Burns Cruise control is not Works, LimitedFuel supply of 70%.	EMCO on 55A-GND5 Signal Wires 155Ad7	Noise and white smoke emissions increase
12	P0342	Sensor G does not yield ripples	The fault alarm is lit and Kruizkontrol Disables	Gap Chain 120g	Unstable idling speed and poor start-up (possibly with black smoke ejection)
13	P0337	Sensor Ne does not yield ripples	Fault alarm lights, cruise control Disables And FCCB Disables	Gap Chain 40ne +	Unstable idle, poor engine start(possibly with black smoke) and engine Stalls.
13	P0385	No sensor pulses Ne And G	The fault alarm is lit, the cruise control is switched off, FCCB Disables Pto Switched off and the motor brake is switched off	Simultaneous chain break 40Ne+ and 120G	Unstable idle, poor engine start(possibly with black smoke) and engine Stalls.
14	P0183	High oil temperature sensor signal	Alarm Burns	Break Signal wire Circuit 162Ad8	No visible signs of malfunction
14	P0182	Low oil temperature sensor signal	Alarm Burns	EMCO on 55A-GND5 Signal Wires 162Ad8	No visible signs of malfunction
15	P2229	High atmospheric pressure sensor signal	Alarm Burns	SC on 5v internal wire signal Ecu	Increase of white smoke emission, decrease of power, increase of emission toxicity, low engine power on horizontal road

15	P2228	Low atmospheric pressure sensor signal	Alarm Burns	"Mass" of the internal signal wire Ecu	Increase of white smoke emission, decrease of power, increase of emission toxicity, low engine power on horizontal road
16	P0113	High ambient air temperature sensor signal	Alarm Burns	Break Signal wire Circuit 32Ad16	Increase Toxic Emissions
16	P0112	Low ambient temperature sensor signal	Alarm Burns	EMCO on 55A-GND5 Signal Wires 32Ad16	Increase Toxic Emissions
17	P0523	High signal electronic pressure sensor of motor oil	Alarm Burns Cruise control is not Works, LimitedFuel supply of 70%.	Emco Of 57 A-VCC4 24 ad12	Reduced engine power and increased fuel consumption
17	P0522	Low signal of motor oil pressure electronic sensor	Alarm Burns Cruise control is not Works, LimitedFuel supply of 70%.	Short Circuit 24 ad12	Reduced engine power and increased fuel consumption
17	P0524	Low Pressure Motor Oil	The alarm is lit, the cruise control does not work, the RTO does not work, Limited tion 70% fuel supply.	Low motor oil pressure (defined MpoilthL_D)	Reduced engine power and increased fuel consumption
21	P0503	High frequency car speed signal	The alarm is lit and Cruise controlThe switch off	Input Signal 27Vs1 above normal sensor frequency Vs	The cruise control function can not be used on the car. The speed shown by the speedometer is different from the actual rate.

21	P0502	Or circuit break at the sensor inlet Speed Car	The alarm lights up and the cruise-Control off	Chain Break 27Vs1 and Kz On Mass Or +B	It does not matter if this Code Flashing is served on the stand with running drums (stand is not connected to the sensor)
21	P0501	Wrong car speed sensor signal	The alarm lights up and the cruise control is switched off	Constant on/off state Entrance 27Vs1	It does not matter if this Code Flashing is served on the stand with running drums (stand is not connected to the sensor)
22	P0122	Low sensor signal Provisions Accelerator pedal 1	The alarm light is on and the cruise control is switched off	Signal Wire chain Break 21Ad1	Poor quality mounts, low engine power, low engine speed, no function work Motor Brake
22	P0123	High sensor signal Provisions Accelerator pedal 1	The alarm light is on and the cruise control is switched off	EMCO on 125A-Vcc2 Signal Wires 21Ad1	Poor quality mounts, low engine power, low engine speed, no function work Motor Brake
22	P0222	Low sensor signal Provisions Accelerator pedal 2	The alarm light is on and the cruise control is switched off	Signal wire chain Break 22Ad2	Poor quality mounts, low engine power, low engine speed, no function work Motor Brake

22	P0223	High sensor signal Provisions Accelerator pedal 2	The alarm is lit and Cruise control Disables	EMCO on 123A-Vcc3 Signal Wires 22Ad2	Poor quality mounts, low power Engine, Low speed Engine does not workMotor function Brakes
22	P0121				Poor quality mounts, low power Engine, Low speed Engine does not workMotor function Brakes
22	P0221				Poor quality mounts, low power Engine, Low speed Engine does not workMotor function Brakes
22	P0120				Poor quality mounts, low power Engine, Low speed Engine does not workMotor function Brakes
22	P0220				Poor quality mounts, low power Engine, Low speed Engine does not workMotor function Brakes
22	P2120	Inefficient dual sensor position of the accelerator pedal	The alarm is lit and Cruise control Disables	Simultaneous circuit break 21Ad1 and 22Ad2 Signal Wires	Poor quality mounts, low power Engine, engine speed, does not work motor function Brakes

23	P0228	Low Signal From Rto	Alarm Troubleshooting Minute Not lit and RTO not working	Signal Wire Chain Break 23Ad10	Not It's working Function Rto
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23	P0227	High Signal From Rto	Alarm The malfunction is lit and Rto Whats	EMCO on 65A-Vcc5 Signal Wires 23Ad10	Not It's working Function Rto
25	P0541	"Mass" of the output wire of the pre-heating relay	Alarm Burns	KZ on Mass Exit 70 OUT19And 71 OUT20(When Work Glow Heating)	Cold engine runs poorly
25	P0542	Rupture of the output circuit of the pre-heating/short-circuit relay on the battery	Alarm Burns	Exit circuit Break 70 OUT19 and 71 OUT20 or KZ on +B	Cold engine runs poorly
26	P0563	High voltage in the electric network of the car	Alarm Burns	InternallyE Voltage VBB > 4 In the ie HAprjazhenie Systemss > 32 in	Engine BadAbout Starts
26	P0562	Low voltage in the electric network of the car	Alarm Off	Internal tension VBB < 1, 9 In the ie Voltage в System < 15 B	Engine Not good Starts
28	P1681	Breaking the chain of motor brake or short circuit to "mass"	Alarm Burns	GapChain 36OUT5и Kz On Mass	The motor brake function cannot be used normally.
28	P1682	Circuit on the battery of the motor brake control chain	Alarm Burns	KZ +In the exit 36OUT5	The motor brake function cannot be used normally.
37	P0238	High inlet air pressure sensor signal	Alarm Lit, and cruise control Disables	EMCO on 57A-Vcc4 Signal Wires 128Ad3	Low engine power, poor traction characteristics of the engine, especially at full load of the car.
37	P0237	Low ambient temperature sensor signal	Alarm Lit, and cruise control Disables	Break Signal wire Circuit 128Ad3	Low engine power, poor traction characteristics of the engine, especially at full load of the car.

37	P0236	Works poorly Inlet pressure sensor Air	Fault alarm is not lit And Cruise control Disables	128 Signal WireAd3 is loaded with alternating internal voltage of 5 V.	Low engine power, poor traction characteristics of the engine, especially at full load of the car.
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39	P0234	Pressure sensor signal Inlet Air exceeds the upper limit	The alarm is not lit, Cruise control Does not work, the fuel supply limit is 70%.	PIM>TBOPH (MAP) exceeds the upper limit	
39	P0299	Pressure sensor signal Inlet Air below the lower limit	Alarm not lit, Cruise control Does not work, the fuel supply limit is 70%.	PIM<TBOPH (MAP) Above the upper limit	
41	P0704	Fault in the chain of the limit switch of the clutch	The alarm is lit and Cruise control Disables	Chain Break 77 Sw27 (Car speed > 80 km/h)	Poor quality mounts (cruise control and motor brake not working, etc.)
43	P1565	Malfunction in Circuit Breaker Cruise control	The fault alarm is lit and Cruise control Disables	Kz On + B Wire 79 switch Cruise Control 2Sw and 92 switchCruise control 1Sw, Or you want to pressDuring the Long time	Abnormal Work Cruise- Control
44	P1143	High sensor signal Potentiometer Idle	Alarm Off	EMCO on 65A-Vcc5 Signal Wires 30Ad14	
44	P1142	Low sensor signal Potentiometer Idle	Alarm Off	Signal Wire Circuit Break 30Ad14	
45	P0617	Emco Of Akb Switch Ignition	Alarm Burns	Chain Break 48Sw2 and KZ on the supply voltage on the wire 48	
46	P1530	Jamming switch Engine Stuck or Closed	Alarm Burns	50SW4 ON	Abnormal flame ejection from the engine

47	P0850	Circuit malfunctionSwitch neutral Transfer	The alarm light is on and the cruise control is switched off	Chain Break 66 Sw9 (speed Car > 80 km/h)	Bad work functions RTO, cruise control, etc.
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51	P0201	Rupture of the nozzle outlet circuit TWV1 and Detaching Electromagnetic Winding Nozzles	Alarm Burns Cruise control is not It's working FCCB Not It's working Feed limit Fuel 70%.	Gap Chain 103 TWV1	Reduced output power and increased toxic emissions, increased engine noise
52	P0202	Rupture of the nozzle outlet circuit TWV5 and disconnection of the electromagnetic winding nozzle	Alarm Burns Cruise control is not It's working FCCB Not It's working Feed limit Fuel 70%.	Gap Chain 105 twv5	Reduced output power and increased toxic emissions, increased engine noise
53	P0203	Rupture of the nozzle outlet circuit TWV3 and disconnection of the electromagnetic winding nozzle	Alarm Burns Cruise control is not It's working FCCB Not It's working Feed limit Fuel 70%.	Gap Chain 104 Twv3	Reduced output power and increased toxic emissions, increased engine noise
54	P0204	Rupture of the nozzle outlet circuit TWV6 and disconnection of the electromagnetic winding nozzle	Alarm Burns Cruise control is not It's working FCCB Not It's working Feed limit Fuel 70%.	Gap Chain 139 Twv6	Reduced output power and increased toxic emissions, increased engine noise
55	P0205	Rupture of the nozzle outlet circuit TWV3 and disconnection of the electromagnetic winding nozzle	Alarm Burns Cruise control is not It's working FCCB Not It's working Feed limit Fuel 70%.	Gap Chain 137 Twv2	Reduced output power and increased toxic emissions, increased engine noise
56	P0206	Rupture of the nozzle outlet circuit TWV4 and disconnection of the electromagnetic winding nozzle	Alarm Burns Cruise control is not It's working FCCB Not It's working Feed limit Fuel 70	Gap Chain 138 TWV4	Lower output power and Increased toxic Emissions and increased engine noise

57	P2148	Circuit on the battery of the nozzle chain Com1/KZ on batteryOutputs TWV1 3 и 5	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply limit 50%.	Kz On +B Wires 106, 107 nozzles Com1 / Kz On +B On Wires 103,104 and 105	Reduced output power and increased toxic emissions, increased engine noise
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57	P2147	"Mass" of the nozzle chain Com1/KZ on the output battery TWV1, 3 and 5	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply limit 50%.	"Mass" in points 106, 107 nozzles Com1 /Kz On +B в Points 103, 104 и 105	Reduced output power and increased toxic emissions, increased engine noise
57	P2146	Break the output circuit under the nozzle load Com1/Break the output circuit under load TWV1, 3, 5	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply limit 50%.	Chain Break 106, 107 Nozzles Com1/Chain break 103, 104 и 105	Reduced output power and increased toxic emissions, increased engine noise
58	P2151	Circuit on the battery of the nozzle chain Com2/KZ on battery Outputs TWV2 4 и 6	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply limit 50%.	Kz On +B Wires 142, 143 Nozzles Com2 / Kz On +B Wires 137, 138 and 139	Reduced output power and increased toxic emissions, increased engine noise
58	P2150	"Mass" of the nozzle chain Com2/KZ on the output battery TWV2, 4 and 6	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply limit 50%.	"Mass" of wires 142, 143 Nozzles Com2/short-circuit on the "mass" of wires 137, 138 and 105	Reduced output power and increased toxic emissions, increased engine noise
58	P2149	Break output circuit Under Load Com2/Load Break circuit TWV2, 4, and 6	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply Limit 50%	Chain Break 142, 143 Nozzles Com2/Chain Break 137, 138 и 139	Reduced output power and increased toxic emissions increase engine noise

59	P0611	Fault Chain Charge Condenser	Alarm Burns Cruise control is not It's working FCCB Not It's working 50% fuel supply limit and low pressure limit	Internal Fault Ecu	Reduced output power and increased toxic emissions, increased engine noise
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59	P0200	Fault Chain Charge Condenser	Alarm Burns Cruise control is not It's working FCCB Not It's working Fuel supply limit 51% and low Limitations- tion Pressure	Internal Fault Ecu	Reduced output power and increased toxic emissions, increased engine noise
61	P0301	Circuit malfunction ToplivopoCylinder 1	Alarm not lit , And the system does not work	The nozzle is damaged, Injection No fuel (definitionBut FCCB)	Engine shaking at idle, low engine power at full load, increased fuel consumption compared to normal conditions
61	P0263	It's working Damper Flow №1	Alarm not lit And the system does not work	The damper starts to act and the nozzle stops injectioning the fuel	
62	P0305	Circuit malfunction Toplivopo Cylinder Giving 5	Alarm not lit And the system does not work	Nozzle damaged, no fuel injection (DetermineLeno FCCB)	Engine shaking at idle, low engine power at full load, increased fuel consumption compared to normal conditions
62	P0266	It's working Damper Flow №5	Alarm not lit And the system does not work	The damper starts to act and the nozzle stops injectioning the fuel	

63	P0303	Circuit malfunction Fuel Cylinder 3	Alarm not lit And the system does not work	Nozzle damaged, no fuel injection (DetermineLeno FCCB)	Engine shaking at idle, low engine power at full load, increased fuel consumption compared to normal conditions
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63	P0269	It's working Damper Flow № 3	Alarm not lit And the system does not work	The damper starts to act and the nozzle stops injectioning the fuel	
64	P0306	Circuit malfunction Fuel Cylinder 6	Alarm not lit And the system does not work	Nozzle damaged, no fuel injection (DetermineLeno FCCB)	Engine shaking at idle, low engine power at full load, increased fuel consumption compared to normal conditions
64	P0272	It's working Damper Flow № 6	Alarm not lit And the system does not work	The damper starts to act and the nozzle stops injectioning the fuel	
65	P0302	Circuit malfunction Fuel Cylinder 2	Alarm not lit And the system does not work	Nozzle damaged, no fuel injection (DetermineLeno FCCB)	Engine shaking at idle, low engine power at full load, increased fuel consumption compared to normal conditions
65	P0275	It's working Damper Flow № 2	Alarm not lit And the system does not work	The damper starts to act and the nozzle stops injectioning the fuel	

66	P0304	Fuel circuit malfunction Cylinder 4	Alarm not lit And the system does not work	Nozzle damaged, no fuel injection (DetermineLeno FCCB)	Engine shaking at idle, low engine power at full load, increased fuel consumption compared to normal conditions
66	P0278	It's working Damper Flow №4	Alarm not lit And the system does not work	The damper starts to act and the nozzle stops injectioning the fuel	

67	P0193	High pressure sensor signal in the fuel cell	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%, the pressure limit in the fuel accumulator is up to 80 MPa	Simultaneous break of signal wires circuit 21Ad1 and 132Ad5	Reduced output power and increased toxic emissions (with white smoke emissions), increased engine noise
67	P0192	Low pressure sensor signal in the fuel cell	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%, the pressure limit in the fuel accumulator is up to 80 MPa	Simultaneous short-circuit on 134A-Gnd1 121 Signal WiresAd4 and 132Ad5	Reduced output power and increased toxic emissions (with white smoke emissions), increased engine noise
67	P0191	The pressure sensor signal in the fuel accumulator in the Intermediate Range	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%, the pressure limit in the fuel accumulator is up to 80 MPa	The sensor is defective and the output voltage remains unchanged	Reduced output power and increased toxic emissions (with white smoke emissions), increased engine noise
68	P0088	The pressure in the fuel accumulator exceeds the upper limit	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%, the pressure limit in the fuel accumulator is up to 80 MPa	The pressure in the fuel accumulator exceeds 191 Mpa	Reduced power output, increased toxic emissions and white smoke emissions

69	P1089	The pressure in the fuel accumulator exceeds the upper limit	Alarm Burns Cruise control is not It's working 70% fuel supply limit, fuel cell pressure limit To 80 Mpa	Pressure in FuelsBattery exceeds 180 MPa	Reduced power output, increased toxic emissions and white smoke emissions
71	P0629	Output circuit Pcv1 and SC on battery	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%.	Kz On + BContacts 152, 153Pcv1	Reduced output capacity and increased toxic emissions, increased fuel consumption

71	P0628	Chain break Pcv1 and KZ on Mass	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%.	Chain Break 152, 153 Pcv1 or KZ on Mass	Reduced output capacity and increased toxic emissions, increased fuel consumption
72	P2634	Output circuit Pcv2 and KZ on battery	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%.	Kz On + BContacts 150, 151 Pcv2	Reduced output capacity and increased toxic emissions, increased fuel consumption
72	P2633	Output circuit Pcv2 and KZ to "mass"	The alarm is lit, the cruise control does not work, the fuel supply limit is 70%.	Chain Break 150, 151 Pcv2 or short-circuit on Mass	Reduced output capacity and increased toxic emissions, increased fuel consumption
73	P0629	EMCO of ACB Power Pcv1 and Pcv2	The alarm is lit, the cruise control does not work, the RTO does not work, the fuel supply limit is 50% and the engine is immediately stalls.	Simultaneous short-circuit on + in wires 152, 153, 150, 151, Pcv1 and Pcv2	Reduced power output, start-up difficulty Engine, increase of flow rate Fuel toxic emissions

73	P0628	Break out Circuit Pcv1 and Pcv2 and KZ on Mass	Alarm Burns Cruise control is not It's working RTO not Works, Limited 50% fuel supply and the engine is immediately Stalls.	Simultaneous break of the circuit 152, 153, 150, 151, Pcv1 and Pcv2 or short-circuit on Mass	Reduced output power, difficulty starting the engine, increased fuel consumption And Increased toxic emissions
76	P2635	The fuel pump load control circuit is overloaded	Alarm Burns Cruise control is not It's working Fuel supply limit 70%, Ogr Limiting pressure in the fuel cell To 80 Mpa	Mechanical malfunction of fuel pump in overload conditions	Reduced output power and increased toxic emissions, increased engine noise, engine stalls

76	P1088	The fuel pump control system exceeds the permissible pressure	Alarm Burns Cruise control is not It's working Fuel supply limit 70%, OgrLimiting pressure in the fuel cell To 80 Mpa	Excess pressure in Fuel Battery Npc> Pfin+ 15 MPa	Reduced output power and increased toxic emissions, increased engine noise, engine stalls
77	P1266	Fuel pump control without load	Alarm Burns Cruise control is not It's working Fuel supply limit 70%, OgrLimiting pressure in the fuel cell To 80 Mpa	Fuel pump control system can not increase the angle of injection	Reduced power output, increased toxic emissions and white smoke emissions
78	P0093	Fuel pump control without load,Including LeaksFuel	Alarm Burns Cruise control is not It's working Fuel supply limit 70%, OgrLimiting pressure in the fuel cell To 80 Mpa	Fuel pump without load, including fuel leakage	Reduced power output, increased toxic emissions and white smoke emissions