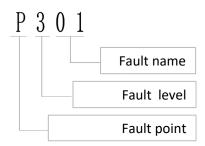
ERROR CODE LIST - MOTRON WHIZZ

Vers. 03 / 30.03.2023



FAULT CODE COMPOSITION

The fault code consists of four characters.



From left to right:

- The first Character represents the point where the fault is diagnosed (including: P for controller, I for meter, B for battery, C for controller, d for data terminal, T for tire pressure, A for ABS/TCS, and Q for hydrogen-fuel battery).
- The second number represents the fault level (including: 0 represents an indicative fault, 1 represents level one fault, 2 represents level two fault, and 3 represents level three fault).
- The third and fourth represent a fault number (the number of each point is varied from 01 to 99 at most), meanwhile all faults are detected or collected by the point at the corresponding network.

No.	Fault Name	Fault Codes	Fault Definition
1	Controller overvoltage	P301	This fault occurs when the controller detects that the DC bus voltage is higher than the set maximum voltage
2	Controller undervoltage	P302	This fault occurs when the controller detects that the DC bus voltage is lower than the set minimum voltage
3	Controller overcurrent protection fault	P303	This fault occurs when the controller detects that the DC bus current is higher than the set current limitation value
4	Motor stalling	P304	This fault occurs when the controller detects that a certain phase current is output while the rotor has no position change
5	Motor position sensor fault	P305	This fault occurs when the position sensor input is abnormal
6	Power tube fault	P306	The controller detects an internal power tube fault
7	Controller phase loss fault	P307	The fault occurs when the controller detects a phase loss
8	Motor controller self-checking fault	P310	This fault occurs when the controller fails to pass the self-checking
9	Controller over-temperature fault 1	P111	This fault occurs when the controller detects that the internal temperature exceeds the defaults 1
10	Controller over-temperature fault 2	P211	This fault occurs when the controller detects that the internal temperature exceeds the defaults 2
11	Controller over-temperature fault 3	P311	This fault occurs when the controller detects that the internal temperature exceeds the defaults 3
12	Motor over-temperature fault 1	P124	This fault occurs when the controller detects that the motor temperature exceeds the defaults 1
13	Motor over-temperature fault 2	P224	This fault occurs when the controller detects that the motor temperature exceeds the defaults 2
14	Motor over-temperature fault 3	P324	This fault occurs when the controller detects that the motor temperature exceeds the defaults 3
15	Acceleration handlebar fault	P314	This fault occurs when the input of the acceleration handle signal is abnormal
16	Motor controller system fault level 1	P123	The fault occurs when the motor control system is abnormal
17	Motor controller system fault level 2	P223	The fault occurs when the motor control system is abnormal

18	Motor controller system fault level 3	P323	The fault occurs when the motor control system is abnormal
19	Motor temperature sensor fault	P225	This fault occurs when the motor temperature sensor input is abnormal
20	Battery imbalance warning level 1	P126	This fault occurs when the controller detects that SOC difference value of each battery is larger than the default 1 (on condition of multiple batteries)
21	Battery imbalance warning level 2	P226	This fault occurs when the controller detects that SOC difference value of each battery is larger than the default 2 (on condition of multiple batteries)
22	Total discharge overvoltage fault	b309	This fault occurs when the total battery voltage exceeds the default
23	Discharge unit undervoltage fault 1	b110	When discharging, the cell voltage is lower than the default 1
24	Discharge cell undervoltage fault 2	b210	When discharging, the cell voltage is lower than the default 2
25	Discharge unit undervoltage fault 3	b310	When discharging, the cell voltage is lower than the default 3
26	BMS discharge over-temperature fault 1	b119	This fault occurs when the BMS temperature exceeds the default 1 during discharge
27	BMS discharge over-temperature fault 2	b219	This fault occurs when the BMS temperature exceeds the default 2 during discharge
28	BMS discharge over-temperature fault 3	b319	This fault occurs when the BMS temperature exceeds the default 3 during discharge
29	BMS charging over-temperature fault 1	b120	This fault occurs when the BMS temperature exceeds the default 1 during charging
30	BMS charging over-temperature fault 2	b220	This fault occurs when the BMS temperature exceeds the default 2 during charging
31	BMS charging over-temperature fault 3	b320	This fault occurs when the BMS temperature exceeds the default 3 during charging
32	BMS discharge under-temperature fault 1	b121	This fault occurs when the BMS temperature is lower than the default 1 during discharge
33	BMS discharge under-temperature fault 2	b221	This fault occurs when the BMS temperature is lower than the default 2 during discharge
34	BMS discharge under-temperature fault 3	b321	This fault occurs when the BMS temperature is lower than the default 3 during discharge
35	BMS charging under-temperature fault 1	b122	This fault occurs when the BMS temperature is lower than the default 1 during charging
36	BMS charging under-temperature fault 2	b222	This fault occurs when the BMS temperature is lower than the default 2 during charging
37	BMS charging under-temperature fault 3	b322	This fault occurs when the BMS temperature is lower than the default 3 during charging
38	BMS charging overcurrent fault 1	b114	This fault occurs when the charging current is larger than the default 1
39	BMS charging overcurrent fault 2	b214	This fault occurs when the charging current is larger than the default 2
40	BMS charging overcurrent fault 3	b314	This fault occurs when the charging current is larger than the default 3
41	BMS discharge overcurrent fault 1	b130	This fault occurs when the discharge current is larger than the default 1
42	BMS discharge overcurrent fault 2	b230	This fault occurs when the discharge current is larger than the default 2
43	BMS discharge overcurrent fault 3	b330	This fault occurs when the discharge current is larger than the default 3
44	Battery core pressure Difference fault 1	b103	This fault occurs when the pressure difference is larger than default 1
45	Battery core pressure Difference fault 2	b203	This fault occurs when the pressure difference is larger than default 2
46	Battery core pressure Difference fault 3	b303	This fault occurs when the pressure difference is larger than default 3
47	Battery insulation fault 1	b131	This fault occurs when the insulation value of battery core is smaller than default 1
48	Battery insulation fault 2	b231	This fault occurs when the insulation value of battery core is smaller than default 2
49	Battery insulation fault 3	b331	This fault occurs when the insulation value of battery core is smaller than default 3
50	Battery short circuit	b332	This fault occurs when there is a short circuit outside the battery (or inside the battery core)
51	BMS internal MOS failure or relay failure	b307	This fault occurs when the relay or mos is abnormal
52	Charging battery unit undervoltage fault level 1	b140	This fault occurs when the voltage cell is lower than default 1
53	Charging battery unit undervoltage fault level 2	b240	This fault occurs when the voltage cell is lower than default 2
54	Charging battery cell undervoltage fault level 3	b340	This fault occurs when the voltage cell is lower than default 3

55	Temperature non-uniformity fault 1	b141	This fault occurs when the temperature difference inside the battery core is larger than the default 1
56	Temperature non-uniformity fault 2	b241	This fault occurs when the temperature difference inside the battery core is larger than the default 2
57	Temperature non-uniformity fault 3	b341	This fault occurs when the temperature difference inside the battery core is larger than the default 3
58	Total charging voltage overvoltage fault	b342	This fault occurs when the port voltage is larger than the allowable voltage during charging
59	Total discharge voltage undervoltage fault	b343	The fault occurs when the port voltage is less than the preset value when discharging
60	Total charging voltage undervoltage fault	b344	This fault occurs when the port voltage is smaller than the allowable voltage during charging
61	Discharge unit overvoltage fault	b345	When discharging, the fault occurs when the core voltage is higher than the preset voltage
62	Charging unit overvoltage fault	b346	This fault occurs when the unit voltage is higher than the maximum allowable voltage during charging
63	Charger fault 1	C101	Charger self-checking fault 1
64	Charger fault 2	C201	Charger self-checking fault 2
65	Charger fault 3	C301	Charger self-checking fault 3
66	Short circuit protection	C304	This fault occurs when the charger is short circuited
67	Temperature fault 1	C106	This fault occurs when the charger temperature is larger than the default 1
68	Temperature fault 2	C206	This fault occurs when the charger temperature is larger than the default 2
69	Temperature fault 3	C306	This fault occurs when the charger temperature is larger than the default 3
70	Input overvoltage protection 1	C107	This fault occurs when the charger input current is larger than the default 1
71	Input overvoltage protection 2	C207	This fault occurs when the charger input current is larger than the default 2
72	Input overvoltage protection 3	C307	This fault occurs when the charger input current is larger than the default 3
73	Input undervoltage protection 1	C108	This fault occurs when the charger input current is smaller than the default 1
74	Input undervoltage protection 2	C208	This fault occurs when the charger input current is smaller than the default 1
75	Input undervoltage protection 3	C308	This fault occurs when the charger input current is smaller than the default 3
76	Output overcurrent protection 1	C109	This fault occurs when the charger output current is larger than the default 1
77	Output overcurrent protection 2	C209	This fault occurs when the charger output current is larger than the default 1
78	Output overcurrent protection 3	C309	This fault occurs when the charger output current is larger than the default 1
79	Output overvoltage protection 1	C110	This fault occurs when the charger output voltage is greater than the default 1
80	Output overvoltage protection 2	C210	This fault occurs when the charger output voltage is greater than the default 2
81	Output overvoltage protection 3	C310	This fault occurs when the charger output voltage is greater than the default 3
82	Output undervoltage protection 1	C111	This fault occurs when the charger output voltage is less than the default 1
83	Output undervoltage protection 2	C211	This fault occurs when the charger output voltage is less than the default 2
84	Output undervoltage protection 3	C311	This fault occurs when the charger output voltage is less than the default 3