PWB-150 故障代码清单 V03 PWB-150 Fault code list V03						
手柄面板上绿灯闪烁次数代表十位，红灯闪烁次数代表个位 On the handle panel, the number of green blinking times indicates tens place, and the number of red blinking times indicates ones place						
控制器红灯常亮代表正常；故障时闪烁，慢闪次数代表十位，快闪次数代表个位 If the controller is steady red, it indicates normal, blinking when a fault occurs. The number of slow blinks indicates the tens place and the number of quick blinks indicates the ones place						
序号 No.	编程器显示内容 The programmer displays the content 故障名称 Fault name	手柄闪灯代码 Handle flashing code	控制器闪灯代码 Controller flashing code	可能的故障原因 Possible cause of the fault	深层故障原因/解决 Deep fault cause/solution	故障来源 Fault source

1	直立行走开关逻辑故障 UpRight_Fault	2	54	直立行走时互锁开关闭合； 直立行走：手柄直立时，长按龟速按钮 2s以上且龟速按钮不松开，再旋转加速 器，车辆可以行走； When walking upright, the interlock switch is closed; Upright walk: Long press the turtle speed button when the handle is upright After 2s and the turtle speed button is not released, then rotate to accelerate	直立行走模式下互锁开关闭合，若松开直立行走开关（龟速开关），复位互锁后故障还未清除： 1.直立行走开关（龟速开关）粘连，更换手柄； When the interlock switch is closed in upright walking mode, if the upright walking switch (turtle speed switch) is released, the fault is not cleared after the interlock is reset: 1. The upright walking switch (turtle speed	控制器 Controller
2	互锁开关错误 Inertlock_Fault	3	42	1.开机前互锁开关提前闭合 2.方向、互锁操作顺序不对 3.运行过程中互锁开关断开再闭合 1. The interlock switch is closed before starting 2. The direction and interlock operation sequence are wrong 3. The interlock switch is turned off and then closed during operation	若复位互锁，故障还未清除： 1.检查互锁开关线束（TA6)是否和B-短路； 2.更换互锁开关； If the interlock is reset, the fault is not cleared: 1. Check whether the interlock switch harness (TA6) is short-circuited with B-; 2. Replace the interlock switch;	控制器 Controller

3	加速器故障 Pedal_Fault	4	13	1..加速器损坏 2.手柄模拟量>4096或者<0 1. The accelerator is damaged 2. Handle analog value >4096 or <0	加速器模拟量超范围 1.更换手柄 The accelerator simulation is out of range 1. Replace the handle	控制器 Controller
4	预充电故障 Precharge_Fault	6	21	1.预充电失败 2.预充电时间过长 1. The precharging fails 2. The precharge time is too long	检查KSI端口（TA5)是否接触良好如无异常，请更换控制器Check whether the KSI port (TA5) is in good contact. If no, replace the controller	控制器 Controller
5	主接触器黏连故障 MainOff_Fault	8	22	1. 主接触器黏连或者被卡死 2. 主接触器驱动故障 1. The main contactor is stuck or stuck 2. The main contactor drive is faulty	更换控制器 Replace the controller	控制器 Controller
6	主接触器开路故障 MainOn_Fault	9	23	主接触器驱动回路开路 Main contactor drive circuit is open	更换控制器 Replace the controller	控制器 Controller
7	制动器断开故障 BrakeOff_Fault	10	25	制动器驱动回路短路 Brake drive circuit short circuit	更换控制器 Replace the controller	控制器 Controller
8	电池未连接 BATTERY DISCONNECT FAULT	12	27	1.电池未接 2.电池端接触不良 1. The battery is not connected 2. The battery end is in poor contact	1.检查电池线与控制器连接是否良好 1. Check whether the battery cable is properly connected to the controller	控制器 Controller

9	制动器闭合故障 BrakeOn_Fault	13	26	1. 制动器驱动回路开路 2. 制动器线圈开路 3. 维修模式开启 1. The brake drive circuit is open 2. The brake coil is open 3. Maintenance mode is enabled	1.检查电磁刹车线束连接是否良好; 2.电磁刹车损坏，更换电磁刹车; 3.更换控制器; 4.退出维修模式，重启电源; 1. Check whether the electromagnetic brake wiring harness is properly connected; 2. The electromagnetic brake is damaged, replace the electromagnetic brake; 3. Replace the controller. 4. Exit maintenance mode and restart the power supply.	控制器 Controller
10	内部电源故障 OutRange_15V	15	41	内部15V电压>18 volts或者<12 volts Internal 15V voltage >18 volts or <12 volts	1.供电端口外部线束或设备短路 2.更换控制器 1. The cable harness or device outside the power port is short-circuited 2. Replace the controller	控制器 Controller

11	M1桥臂故障 M1Short_Fault	15	43	1.M1桥臂故障MOSFET损坏 2.电机线对外短路 1.M1 bridge arm fault The MOSFET is damaged 2. External short circuit of motor line	1.更换控制器 2.检查M1电机线是否与B+/B-/电机外壳短路，更换电机; 1. Replace the controller 2. Check whether M1 motor line and B+/B-/ motor shell short circuit, replace the motor;	控制器 Controller
12	M2桥臂故障 M2Short_Fault	15	44	1.M2桥臂故障MOSFET损坏 2.电机线对外短路 1. The M2 bridge arm is faulty. The MOSFET is damaged 2. External short circuit of motor line	1.更换控制器 2.检查M2电机线是否与B+/B-/电机外壳短路，更换电机 1. Replace the controller 2. Check whether the M2 motor line is short-circuited with the B+/B-/ motor housing, and replace the motor	控制器 Controller

13	电机断线故障 MotorDisconnect_Fault	19	24	1. 电机未连接 2. 电机M1,M2回路连接不良 1. Motor is not connected 2. Motor M1,M2 circuit connection is not good	1.检查电机线与控制器连接是否良好; 2.电机故障; 3.如无异常，请更换控制器; 1. Check whether the motor cable is well connected to the controller; 2. Motor failure; 3. If no, replace the controller.	控制器 Controller
14	过流故障 OverCurrent_Fault	20	16	控制器电流大于保护值 The controller current is greater than the protection value	1.电机或电机线短路; 2.负载过大，放置后使用车辆 3.重启若故障还存在，请更换控制器 1. Short circuit of motor or motor line; 2. The load is too large, use the vehicle after placing it 3. Restart if the fault persists, replace the controller	控制器 Controller

15	控制器温度故障 Controller_Temp_Fault	22	11	1.温度＞95℃或者＜-40℃ 2.车辆过载 3.在极其恶劣环境下运行 4.电磁制动没有正常释放 1. Temperature ＞ 95℃ or ＜ -40℃ 2. Vehicle overload 3. Operate in extremely harsh environments 4. The electromagnetic brake is not released normally	1.控制器实际温度是否过高或过低; 2.若控制器温度-40℃＜T＜95℃，则更换控制器 1. The actual temperature of the controller is too high or too low; 2. If the controller temperature is -40 ° C ＜ T ＜ 95 ° C, replace the controller	控制器 Controller
16	过压故障1 OverVoltage_Fault 1	25	14	电池电压大于32V，小于35V The battery voltage is greater than 32V and less than 35V	电池电压过高 1.检查电池电压是否大于32V，小于35 2.电池放电 3.更换电池 High battery voltage 1. Check whether the battery voltage is greater than 32V and less than 35V 2. Battery discharge 3. Replace the battery	控制器 Controller

17	过压故障2 OverVoltage_Fault 2	26	14	电池电压＞35V Battery voltage > 35V	电池电压过高 1.检查电池电压是否高于35V 2.电池放电 3.更换电池 High battery voltage 1. Check whether the battery voltage is higher than 35V 2. The battery is discharged 3. Replace the battery	控制器 Controller
18	欠压故障1 UnderVoltage_Fault1	27	15	电池电压 <17V Battery voltage <17V	电池电压过低 1.检查B+/B-电源线连接是否良好; 2.电池电压过低，充电; 3.电池损坏，更换电池; 4.若电压正常，故障仍存在，则更换控制器; The battery voltage is too low. Procedure 1. Check whether the B+/B- power cable is properly connected. 2. Battery voltage is too low, charge; 3. The battery is damaged, replace the battery; 4. If the voltage is normal and the fault persists, replace the controller.	控制器 Controller

19	欠压故障2 UnderVoltage_Fault2	28		电池电压 <17V Battery voltage <17V	电池电压过低 1.检查B+/B-电源线连接是否良好; 2.电池电压过低，充电; 3.电池损坏，更换电池; 4.若电压正常，故障仍存在，则更换控制器; The battery voltage is too low. Procedure 1. Check whether the B+/B- power cable is properly connected. 2. Battery voltage is too low, charge; 3. The battery is damaged, replace the battery; 4. If the voltage is normal and the fault persists, replace the controller.	控制器 Controller
20	EEPROM故障 EEprom_Fault	29	32	EEPROM 读写参数故障 EEPROM read/write parameters are faulty	更换控制器 Replace the controller	控制器 Controller

21	CAN通信故障 CAN_Fault	32	45	CAN通讯故障 CAN communication failure	1.检查电池、手柄和控制器的CAN线连接是否正确; 2.测量CAN总线上是否有60欧终端电阻; 3.锂电池BMS损坏，更换锂电池; 4.手柄通讯模块损坏，更换手柄; 5.控制器通讯模块损坏，更换控制器 1. Check whether the CAN cables of the battery, handle, and controller are correctly connected. 2. Measure whether there is 60 ohm terminal resistance on the CAN bus; 3. Lithium battery BMS is damaged, replace the lithium battery; 4. The handle communication module is damaged. Replace the handle. 5. The controller communication module is damaged. Replace the	手柄/控制器 Handle/Controller
22	提升继电器断开故障 LiftOff_Fault	33	46	继电器驱动回路短路。 Relay drive circuit short circuit.	更换控制器 Replace the controller	控制器 Controller

23	提升继电器闭合故障 LiftOn_Fault	33	51	1. 继电器驱动回路开路。 2. 继电器线圈开路 1. Open relay drive circuit. 2. The relay coil is open	1.检查提升继电器线束连接是否良好 2.起升接触器损坏，更换起升接触器； 3.更换控制器； 1. Check whether the wiring harness of the lifting relay is properly connected 2. The lifting contactor is damaged, replace the lifting contactor; 3. Replace the controller.	控制器 Controller
24	下降继电器断开故障 LowerOff_Fault	34	52	继电器驱动回路短路。 Relay drive circuit short circuit.	更换控制器 Replace the controller	控制器 Controller

25	下降继电器闭合故障 LowerOn_Fault	34	53	1. 继电器驱动回路开路。 2. 继电器线圈开路 1. Open relay drive circuit. 2. The relay coil is open	1.检查下降电磁阀线束连接是否良好 2.下降电磁阀损坏，更换下降电磁阀； 3.更换控制器； 1. Check whether the cable harness of the descending solenoid valve is properly connected 2. The descending solenoid valve is damaged, replace the descending solenoid valve; 3. Replace the controller.	控制器 Controller

26	紧急反向故障 EMR_Fault	37	34	1. 钥匙开关上电之前，紧急反向开关闭 合 2. 紧急反向逻辑故障,执行紧急反向后油门、互锁、紧急反向未复位。 1. Before powering on the key switch, turn it on or off in reverse us 2. If the emergency reverse logic is faulty, the throttle, interlock, or emergency reverse is not reset after the emergency reverse logic is performed.	正常触发紧急反向，报紧急反向故障，若复位互锁后故障仍未 清除： 1.检查紧急反向开关线束连接，通断是否良好； 2.紧急反向开关粘连； 3.紧急反向开关类型参数设置是否正确； An emergency reverse fault is reported. If the fault persists after the interlock is reset, the emergency reverse fault is triggered Clear: 1. Check whether the emergency reverse switch harness is properly connected. 2. Emergency reverse switch adhesion; 3. Check whether the emergency reverse switch type parameter is correctly set.	控制器 Controller

27	BMS通讯超时 BMS_PDO_Timeout_Fault	38	62	1、手柄BMS损坏 2、手柄到控制器的通讯线断了 1. The handle BMS is damaged 2. The communication line from the handle to the controller is broken	1、检查手柄BMS通讯线 2、手柄BMS损坏，更换手柄 1. Check the BMS communication cable of the handle 2, handle BMS damaged, replace the handle	手柄/控制器 Handle/Controller
28	龟速按钮故障 Mode_fault	80		龟速按钮在开机前就检测到闭合。 The turtle speed button detects closure before it is turned on.	手柄自检故障,检修手柄乌龟薄膜按键，上电前不能按住龟速按钮 Handle self-check failure, check the handle turtle film button, do not hold down the turtle speed button before power-on	手柄 Handle
29	上升按钮故障 lift_fault	81		上升按钮在开机前就检测到被按下。 The lifting button is detected to be pressed before the power is turned on.	手柄自检故障，检修手柄上升按钮，上电前不能按住上升按钮 If the handle self-check is faulty, check the handle rise button. Do not hold down the rise button before power-on	手柄 Handle

30	下降按钮故障 Lower_fault	82		下降按钮在开机前就检测到被按下。 The lowering button is detected to be pressed before it is turned on.	手柄自检故障，检修手柄下降按钮，上电前不能按住下降按钮 If the handle self-test is faulty, check the handle drop button. Do not hold down the drop button before power-on	手柄 Handle
31	锂电池通讯故障 BMS_Communicaton _Outage	83		1.锂电池BMS损坏。锂电池到手柄的通讯线断了。手柄的通讯模块损坏。 1. The BMS of the lithium battery is damaged. The lithium-ion battery is disconnected from the handle. The communication module of the handle is damaged.	未配置独立的锂电池BMS No independent lithium battery BMS is configured	锂电池 Lithium battery
32	加速器故障 Throttle_FAULT	84		加速器在开机前就检测到不在中位。 The accelerator detects that it is not in the median position before it is turned on.	手柄自检故障，检修手柄加速器旋钮，上电前需要将加速器回弹到中位 If the handle self-test is faulty, check the handle accelerator knob. Before powering on, you need to bounce the accelerator back to the middle position	手柄 Handle

33	控制器通讯故障 Controller _Communicatior_Outage	85	45	1.控制器通讯模块损坏 2.控制器到手柄的通讯线断了。 3.手柄的通讯模块损坏。 4.手柄和控制器不匹配。 1. The controller communication module is damaged 2. The communication cable between the controller and the handle is broken. 3. The communication module of the handle is damaged. 4. The handle does not match the controller.	1.检查手柄和控制器的CAN线连接是否正确; 2.测量CAN总线上是否有60欧终端电阻; 3.手柄通讯模块损坏，更换手柄; 4.控制器通讯模块损坏，更换控制器 1. Check whether the CAN cables of the handle and controller are correctly connected. 2. Measure whether there is 60 ohm terminal resistance on the CAN bus; 3. The handle communication module is damaged. Replace the handle. 4. The controller communication module is damaged. Replace the controller	手柄/控制器 Handle/Controller

34	低电量故障 Low_BDI	86	33	电池电量低于低电量设定值 The battery is lower than the low battery setting value	当前电量低于低电量设定值（9%）： 1.电池电量低，需充电； 2.检查手柄型号是否正确，更换手柄（铅酸电池时，需要手柄计算电量） Current power below low power set value (9%) : 1. The battery is low and needs to be charged; 2. Check whether the handle model is correct and replace the handle (when the lead-acid battery is used, the handle needs to calculate the power).	手柄/控制器 Handle/Controller
35	起升故障 Lift_System_Failure	87		泵站输出连续运行，起升系统故障，有可能是手柄上升按钮微动开关故障 Pump station output continuous operation, lifting system failure, possibly the handle lift button microswitch failure	原因：上升按钮工作时间超过12秒解决：松开上升按钮，下降一次 Cause: The working time of the rise button exceeds 12 seconds. Solution: Release the rise button and fall once	手柄 Handle

36	过压 Over_Votage	90		1、可能是充电器过充电电池 2.BMS存在问题 3.车辆长时间下坡，一起反馈电流充电高压 1, the charger may be overcharged battery 2. The BMS is faulty 3. The vehicle goes downhill for a long time, and the feedback current is used to charge high voltage	1.更换电池 2.电池放电 1. Replace the battery 2. The battery is discharged	手柄/控制器 Handle/Controller
37	电机温度故障 Motor_Temp_Fault	/	12	电机过温 Motor overtemperature	未配置 Not configured yet.	控制器 Controller