

CFE-WL15 Fault Troubleshooting Guide

• This information is for troubleshooting only.

• Fault information may change with product upgrades and iterations.

Fault code meaning

//-----BMS Fault Information-----

FAULT_BATVOL_DISMATCH	47//Lv1:The total battery voltage is inconsistent with the sum of individual cell voltages
FAULT_AFE_OVERTEMPERATURE	48//Lv1:The internal temperature of the chip is too high
FAULT_AFE_CMD_DISMATCH	49//Lv1:Command and feedback status are inconsistent,the output that should be generated is not produced
FAULT_AFE_UV	50//Lv1:Under-voltage of individual cell
FAULT_AFE_OV	51//Lv1:Over-voltage of individual cell
FAULT_AFE_SCD	52//Lv1:Short circuit in the discharge loop
FAULT_AFE_OCD	53//Lv1:Over-current in the discharge loop
FAULT_AFE_SCD_SOFT	54//Lv1:Software short circuit
FAULT_AFE_OCD_SOFT	55//Lv1:Over-current in the discharge loop,triggered by software
FAULT_BAT_OT	56//Lv1:Battery temperature is too high
FAULT_BAT_UT	57//Lv1:Battery temperature is too low
FAULT_BAT_OCC	58//Lv1:Excessive battery charging current
FAULT_MOS_OT	59//Lv1:MOS temperature is too high
FAULT_MOS_FAIL	60//MOS failure
FAULT_BAT_UNBALANCE	61//Excessive cell voltage difference
FAULT_BMS_OT	62//High temperature of the protection board
FAULT_CIRCUIT_FAIL	63//Circuit control failure
FAULT_PRECHARGE_FAIL	64//Precharge failure,precharge timeout
FAULT_CURRENT_LIMIT_FAIL	65//Current limiter failure

//BMS Other Faults Fault1

FAULT1_ACTION_CMD_DISMATCH	66//Control action is inconsistent with control command(control command and control feedback signal)
FAULT1_ACTION_STATE_DISMATCH	67//Control action is inconsistent with actual state(control action and actual current state)
FAULT1_ACTION_CMD_TIMEOUT	68//Mainly for Fault2 fault execution timeout,escalating to this Fault1 fault

//BMS Hardware Faults Fault1

FAULT1_RELAY_ADHESION_FAIL	73//Contactor adhesion
FAULT1_AFE_CHIP_FAIL	74//AFE chip failure
FAULT1_BAT_SAMPLE_FAILURE	75//Sampling line disconnection detection
FAULT1_BAT_NTC_FAILURE	76//NTC disconnection detection
FAULT1_BMS_NTC_FAILURE	77//NTC disconnection detection
FAULT1_MOS_NTC_FAILURE	78//NTC disconnection detection

//BMS Voltage Faults Fault1

FAULT1_CELL_OV_FAIL	80//Single cell over-voltage
FAULT1_CELL_UV_FAIL	81//Single cell under-voltage
FAULT1_CELL_UNBALANCE_FAIL	82//Excessive single cell voltage difference
FAULT1_BAT_OV_FAIL	83//Battery over-voltage
FAULT1_BAT_UV_FAIL	84//Battery under-voltage

//BMS Current Faults Fault1

FAULT1_BAT_SCD_FAIL	85//Battery short circuit
FAULT1_BAT_OCD_FAIL	86//Battery over-current during discharge
FAULT1_BAT_OCC_FAIL	87//Battery over-current during charge

//BMS Temperature Faults Fault1

FAULT1_BAT_OT_FAIL	88//Battery over-temperature
FAULT1_BAT_UT_FAIL	89//Battery low temperature
FAULT1_BAT_OTC_FAIL	90//Battery over-temperature during charge
FAULT1_BAT_UTC_FAIL	91//Battery low temperature during charge
FAULT1_MOS_OT_FAIL	92//MOS over-temperature
FAULT1_BMS_OT_FAIL	93//BMS protection board over-temperature

//BMS Voltage Faults Fault2

FAULT2_CELL_OV_FAIL	101//Single cell over-voltage
FAULT2_CELL_UV_FAIL	102//Single cell under-voltage
FAULT2_CELL_UNBALANCE_FAIL	103//Excessive single cell voltage difference

FAULT2_BAT_OV_FAIL	104//Battery over-voltage
FAULT2_BAT_UV_FAIL	105//Battery under-voltage
//BMS Current Faults Fault2	
FAULT2_BAT_OCD_FAIL	106//Battery over-current during discharge
FAULT2_BAT_OCC_FAIL	107//Battery over-current during charge
//BMS Temperature Faults Fault2	
FAULT2_BAT_OT_FAIL	108//Battery over-temperature
FAULT2_BAT_UT_FAIL	109//Battery low temperature
FAULT2_BAT_OTC_FAIL	110//Battery over-temperature during charge
FAULT2_BAT_UTC_FAIL	111//Battery low temperature during charge
FAULT2_MOS_OT_FAIL	112//MOS over-temperature
FAULT2_BMS_OT_FAIL	113//BMS protection board over-temperature
//BMS Other Faults Fault2	
FAULT2_BMS_SOC_FAIL	118//BMS SOC low
FAULT2_RESPONSE_TIMEOUT_FAIL	119//Inverter response timeout for charge/discharge command
//-----Parallel Faults-----	
VOLTAGE_INCONSISTENCY	130//Lv1:Excessive voltage difference in parallel connection
SLAVE_COMMUNICATION_FAULT	131//Lv1:Slave communication offline
CONTROL_STATUS_INCONSISTENT	132//Lv1:Inconsistent control commands
HOST_FAULT_SCD_SOFT	133//Lv1:Host short circuit
HOST_FAULT_OCD_SOFT	134//Lv1:Host over-current
HOST_FAULT_CHARGE_OVER_CURRENT	135//Lv1:Over-current during charging
//Consider adding address conflict fault,where the conflicting address device is faulty	

Handling measures for part of faults

/*****Voltage category*****/

Overvoltage: Stop charging and wait for the battery to recover. Check PCS settings

Undervoltage: Start charging immediately after shutting down and restarting, before the fault is triggered again. Check PCS settings.

/*****Temperature category*****/

High temperature for charging and discharging: Wait for the battery to recover, and check the PCS charging settings or load power.

Low temperature for charging and discharging: Low temperature is mainly caused by low ambient temperature. The device can be moved to a suitable environment to wait for recovery.

/*****Current category*****/

Charging overcurrent: Check the PCS charging settings. If it is a parallel system, check whether the voltage difference between the batteries is too large. Consider charging and calibrating the batteries separately and then reconnecting the system in parallel.

Discharging overcurrent: Check whether the load is too large and whether the battery is in a low power state. Adjust the load size according to the actual situation and charge the battery in time.

Short circuit: Short circuit is caused by external physical short circuit or instantaneous high current output, so it is necessary to carefully check whether the system wiring and the PCS used by the device are normal. It is necessary to check whether the device has been irreversibly damaged.

/*****Other categories*****/

Master-slave communication failure: Check the communication cables, and restart the entire system to restore the master-slave communication.

External PCS communication failure: Check the communication cables, and check whether the current supported protocols of the PCS and battery are set correctly.

For other failures, try to restart the device to restore while ensuring safety.

If the problem cannot be solved, please contact our after-sales staff.