

Fault Code



The LED readout screen displays fault codes that provide information about the machine operating status and about malfunctions. The fault codes listed in the following charts describe malfunctions and can aid in troubleshooting the machine by pinpointing the area or component affected.

List of Fault Codes

Code	Description	Lift Reaction	Failure reason & solution
01	System Initialization Fault	Disables All Motion	Fault appears momentarily as part of the normal boot up process. When the code remains: 1. Try to power on again; 2. Check for wire damage.
02	System Communication Fault	Disables All Motion	The CAN bus communication of the ECU and PCU is faulty, and the system will prohibit all actions. Momentary appearance is normal. Solution: 1. Check Battery voltage 2. Check the power relay operation; 3. Check ground on Blue wire on power relay; 3. Check the wiring at the PCU 6-pin connector;
03	Invalid Option Setting Fault	Disables All Motion	Get into setting interface, and check corresponding options.
04	Calibration Fault	Warning Only	1. The angle sensor calibration failed, it may be that the angle sensor analog output changed too little or no change during the calibration process. Check whether the angle sensor is tight, whether the power supply and wiring are normal, or replace the angle sensor. 2. No-load/full-load calibration fails, it may be that the load-pin and angle sensor analog output changes too little or no change during the calibration process, or the machine is not in a horizontal state.
06	Collision Trigger	Disable Lifting and Driving	Optional Collision Avoidance equipped only. 1. Check options and disable Collision
07	Ultrasonic Communication Fault		Optional PPSS equipped only. If not equipped, disable PPSS in options menu.
08	Key Switch Error	Disables All Motion	1. Try to restart machine, or replace key switch; 2. Replace ECU.

Code	Description	Lift Reaction	Failure reason & solution
09	GPS Communication Fault	Warning Only	The built-in GPS module or external GPS module communication failure, only alarm. Solution: 1. Check whether the connection between the CAN communication bus of the external GPS module and the CAN bus of the machine is normal;
10	MC Lost	Disable Lifting and Driving	Check the wires between ECU and display, or replace the ECU if no other problems found.
11	BMS Communication Fault	Disable Lifting and Driving	Lithium battery BMS CAN bus communication failure. Lithium-Ion battery option only Solution: 1. Check whether the CAN bus communication between the lithium battery and the machine is normal; 2. Replace the lithium battery.
12	Chassis Up or Down Switch ON	Disable Chassis Control	Ground control panel lift buttons failure.
13	Foot Pedal Fault	Disables All Motion	Foot Pedal option should be disabled unless a foot switch has been added.
14	Brake Release	Disable All Motion	Cycle E-stop to reapply brakes
18	Pothole Guard Fault or down limit switch Fault	Disable Lifting and Driving	1. Check the status of the pothole plates and pothole switches after platform is lifted, and whether there is any foreign matter stuck. 2. Check the status of the angle potentiometer and down limit switch after the platform is lowered, and calibrate the angle sensor if
19	Outdoor limit fault	Disable Lifting and Driving	1. Check indoor/outdoor switch position. 2. Lower platform
20	MC Platform Comm Fault	2646AV Only	Platform extend/retract communication failures
21	Chassis Controller Lost		
31	Pressure Sensor Fault	Disables All Motion	1. Check the load-pin power supply and its wiring; 3. Check the signal in display;

Code	Description	Lift Reaction	Failure reason & solution
32	Angle Sensor Fault	Disable Lifting and Driving	1. Check the angle sensor power supply and its wiring; 2. Check the signal in display;
33	Lift Is Locked	Disable Lifting and Drive speed limit	1. If not equipped, disable GPS Lock in options. 2. Check GPS status.
34	Angle Sensor Cross-check Fault		Angle calibration failure
35	Pressure Sensor 2 Fault	Disables All Motion	1. Check the load-pin power supply and its wiring; 3. Check the signal in display;
36	Low Battery Limp	Drive speed limit	It indicates that the current battery power is low. In order to prevent the battery from over-discharging, the system will prohibit the lifting function and limit the driving speed. Solution: The battery needs to be charged in time.
37	Battery Sleep	Disables All Motion	1. Cycle e-stop power
38	Over Outdoor Limit		1. Lower Platform
39	Angle Sensor Stuck		1. Check Angle Sensor
41	Descent Delay Limit Sw Fault		Not equipped with the option. Disable Descent Delay on options menu.
42	Platform Left Button ON	Warning Only	It is reminded that when the system is powered on and self-checked, the joystick buttons are triggered. Solution: 1. Wait to operate the machine 3s after the system is powered on; 2. Repair or replace the joystick.
43	Platform Right Button ON	Warning Only	
46	Platform Enable Button ON	Disable Platform Control	
47	Joystick Not In Neutral	Disables All Motion	The Joystick is not in the neutral position when the system is powered on and self-checked. 1. Lubricate joystick neutraling linkage. 2. Replace Joystick
48	Horn Coil Fault	Warning Only	Check wiring to horn. Replace horn if faulty
49	Meter Coil Fault	Warning Only	Not used

Code	Description	Lift Reaction	Failure reason & solution
50	Beacon Coil Fault	Warning Only	Check wiring to beacon. Replace beacon if faulty
51	Spare Coil Fault	Warning Only	Not used
52	Drive Forward Coil Fault	Disable Lifting and Driving	Drive forward / reverse solenoid valve open circuit failure. 1. Set the correct model for the machine;
53	Drive Reverse Coil Fault	Disable Lifting and Driving	
54	Lift Up Coil Fault	Disable Lifting and Driving	The platform lifting solenoid coil has open circuit failure Solution: 1. Check the solenoid valve coil and its wiring at the valve block;
55	Lift Down Coil Fault	Disable Lifting and Driving	1. Check the lowering solenoid valve coil and its wiring at the valve block of the lifting cylinder;
56	Steer Right Coil Fault	Disable Lifting and Driving	Not equipped with Steering valves. 1. Check machine options
57	Steer Left Coil Fault	Disable Lifting and Driving	
58	General Brake Coil Fault	Disable Lifting and Driving	1. Check wiring to brake coils 2. Brake Coil resistance is 20 ohms
59	Parallel Coil Fault	Disable Lifting and Driving	Not equipped with Parallel Coil. 1. Check machine options
60	E-Stop Coil Fault		Not equipped with E-Stop Coil. 1. Check machine options
68	Battery Low Voltage	Disables All Motion	Battery power is lower than the preset value, and the machine needs to be charged in time to protect the battery from over-discharge and damage.
70	Platform Extended		Not equipped. 1. Check machine options
72	Vehicle contact edge		Not equipped. 1. Check machine options
80	Platform Load is over 80%	Warning Only	Prompt that platform load exceeds the listed percentage of the rated load. 1. Confirm weight in platform is at listed percentage. Platform overload calibration may be necessary.
90	Platform Load is over 90%	Warning Only	
99	Platform Load is over 99%	Warning Only	

Code	Description	Lift Reaction	Failure reason & solution
PCU: LL ECU: 100	Machine out of level	Disable Lifting and Drive	The machine is in a tilted state and exceeds the set alarm angle value with the platform elevated. Lift and drive are prohibited. You need to descend to the lower limit and drive to a solid level work surface.
PCU: OL ECU: 101	Platform Overloaded	Prohibit lifting and drive; The platform is forbidden to descend after exceeding the "overload descent height"	The load in the platform exceeds the rated capacity. In order to ensure the safe use of the equipment, the system will prohibit lift, drive and descend. 1. Remove excess weight from the platform then cycle e-stop switch.
102	Restore Parameters to Default	Warning Only	Check Options menu for incorrect settings
103	Battery is draining	Warning Only	Optional alert that unit is powered but not used.
104	Motor Controller fault	Warning Only	Not a fault! This indicates a fault in one of the motor Controller systems. Record additional 4-digit codes and see 4-digit fault code list below.
105	BMS Alarm	Prohibit lifting, limit driving speed	The optional lithium battery management system has an alarm, and the control system will prohibit the lifting function and limit the driving speed at this time. Lithium-Ion battery only
106	BMS Fault	Disable All Motion	Optional Lithium battery management system fail, in order to ensure safety, the control system will prohibit all actions. Lithium-Ion Battery only
107	GPS Actively Lock	Disable Lifting and Driving	GPS stopped operation. Possible GPS failure. 1. Check GPS wiring and power. 2. Disable option in machine Option menu.
108	GPS Passive Lock	Disable Lifting and Driving	Not used
109	GPS Temporary Unlock	Warning Only	Not used
110	E-Stop Pressed		Not used
111	E-Stop Fault		Not used

Code	Description	Lift Reaction	Failure reason & solution
PCU: n1, ECU: 1xxx	Right Drive Motor Controller Fault	Controller Dependent	See ECU Display for additional faults
PCU: n2, ECU: 2xxx	Left Drive Motor Controller Fault	Controller Dependent	See ECU Display for additional faults
PCU: n3, ECU: 3xxx	Pump Motor Controller Fault	Controller Dependent	See ECU Display for additional faults
PCU: n4, ECU: 4xxx	BMS Fault	BMS Dependent	For Lithium-ion battery option only. 1. Disable Lithium option in options menu
PCU: n5, ECU: 5xxx	Platform Fault		2646AV only. Platform extend cylinder error. 1.0 Check wiring and extend cylinder
PCU: n6, ECU: 6xxx	Steer Fault		Electric Steering Cylinder fault. 1. Check wiring to Steer cylinder 2. Check Steer Cylinder
PCU: UP	Platform up limit position	Warning Only	The platform has reached maximum height. This is not a fault!

4-Digit Fault Code List for Lift and Drive Systems

1xxx represents the **right** drive system,

2xxx represents the **left** drive system,

3xxx represents the **pump** motor system.

Code	Fault Name	Solution
X037	CONTACTOR CLOSED	1. Contactor stuck closed 2. The large wire of contactor is short-circuited to the positive terminal
X038	CONTACTOR OPEN	1. Contactor is broken 2. The contactor signal wire is not connected 3. Big 200 amp is broken 4. The motor controller is broken
X060	CAPACITOR CHARGE	1. Check Motor Controller +B/-B for incorrect wiring or shorts. 2. Check key switch power at motor controller 3. The motor-controller is broken
X062	TH. PROTECTION	1. Wait to cool down 2. If the actual temperature is not high, the hardware is damaged, replace the motor controller
X065	MOTOR TEMPERAT.	Wait for the motor to cool down
X070	Vkey Fault	
X071	5V Power Fault	
X072	Hardware Overload	
X073	Current CL Fault	
X074	Opposite Comm. Fault	
X075	Opposite Fault	
X076	MOSFET Fault	
X153	ENCODER ERROR XX	1. The encoder has no signal to Motor Controller, check wiring 2. Motor is stuck
X175	SPEED FB. ERROR	1. The encoder is broken 2. Motor is stuck
X177	COIL SHOR. EB.	1. Check the brake wiring for short circuit
X178	MOTOR TEMP. STOP	1. Check motor temperature for overheating 2. Check wiring to the motor temperature sensor 3. Possible motor temp sensor failure.

Code	Fault name	Solution
X180	OVERLOAD	1. Problem with motor/encoder wiring 2. The machine is slow or shakes violently 3. Excessive resistance to motor rotation
X196	MOT.PHASE SH.	1. Check whether the wiring of the motor is normal, whether there is leakage or water inflow
X200	VDC OFF SHORTED	1. Check the battery 2. Replace the motor controller
X202	VDC LINK OVERV.	1. Check for abnormal regenerative braking 2. One of the external capacitors is damaged 3. Replace the motor controller
X207	Motor Phase Open	
X211	STALL ROTOR	1. Excessive load on motor stopping rotation 2. Motor mechanical problem or brake stuck
X212	Parameter Error	
X216	EB. COIL OPEN	1. Check if the brake is open circuit
X218	SENS MOT TEMP KO	1. The actual temperature is too high, waiting for cooling 2. The motor temperature sensor problem or wiring problem
X220	VKEY OFF SHORTED	1. Check the battery 2. Replace the motor controller
X223	Contactor Coil Short	1. Contactor coil short circuit 2. The coil of the contactor (to motor controller) is short-circuited.
X227	Current Sensor Fault	
X229	HW FAULT	
X230	Contactor Coil Open	Contactor failure or wire off coil term.
X248	NO CAN MSG.	1. Interference problem, check CAN resistance 2. Check Can wiring.