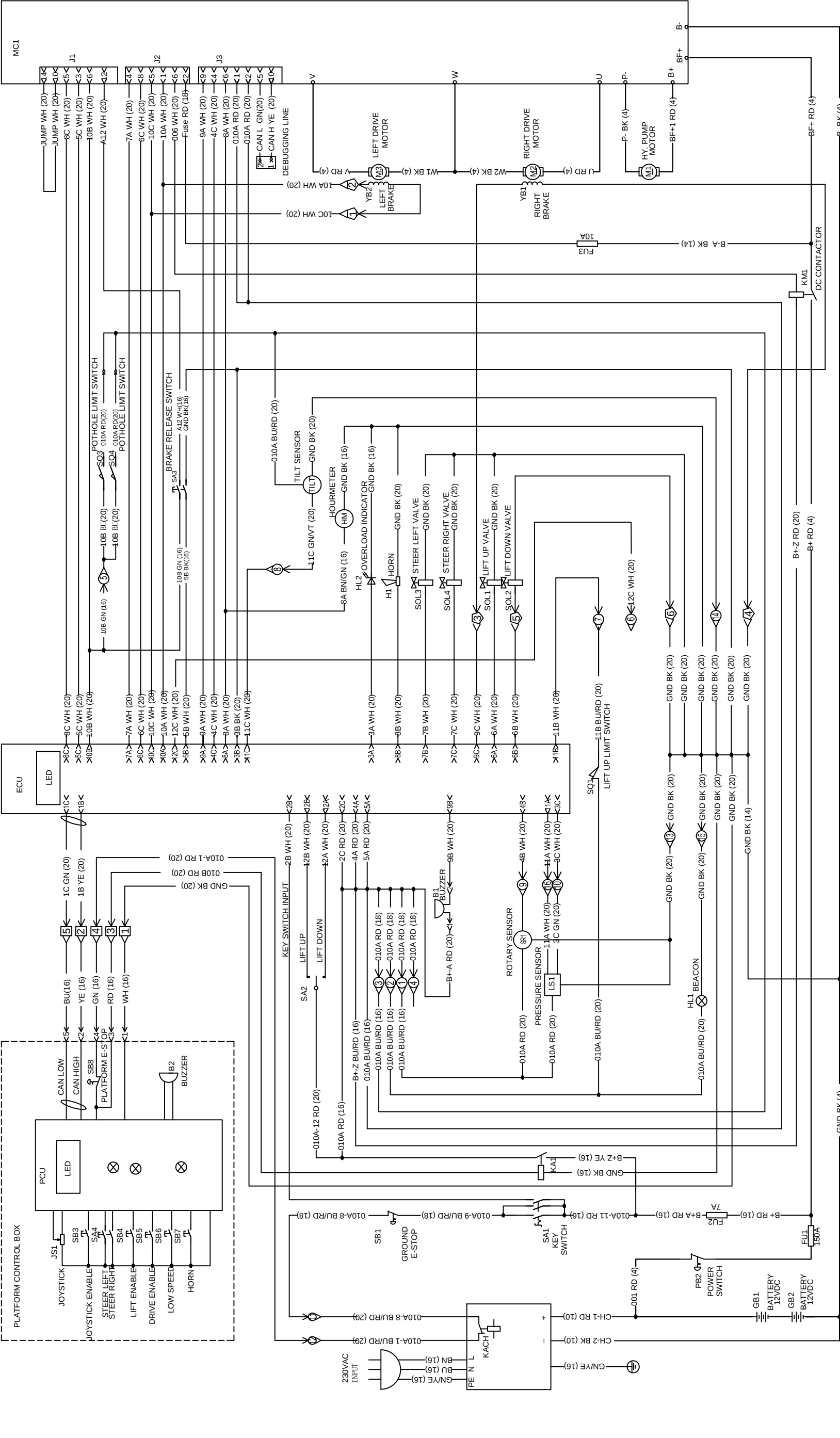
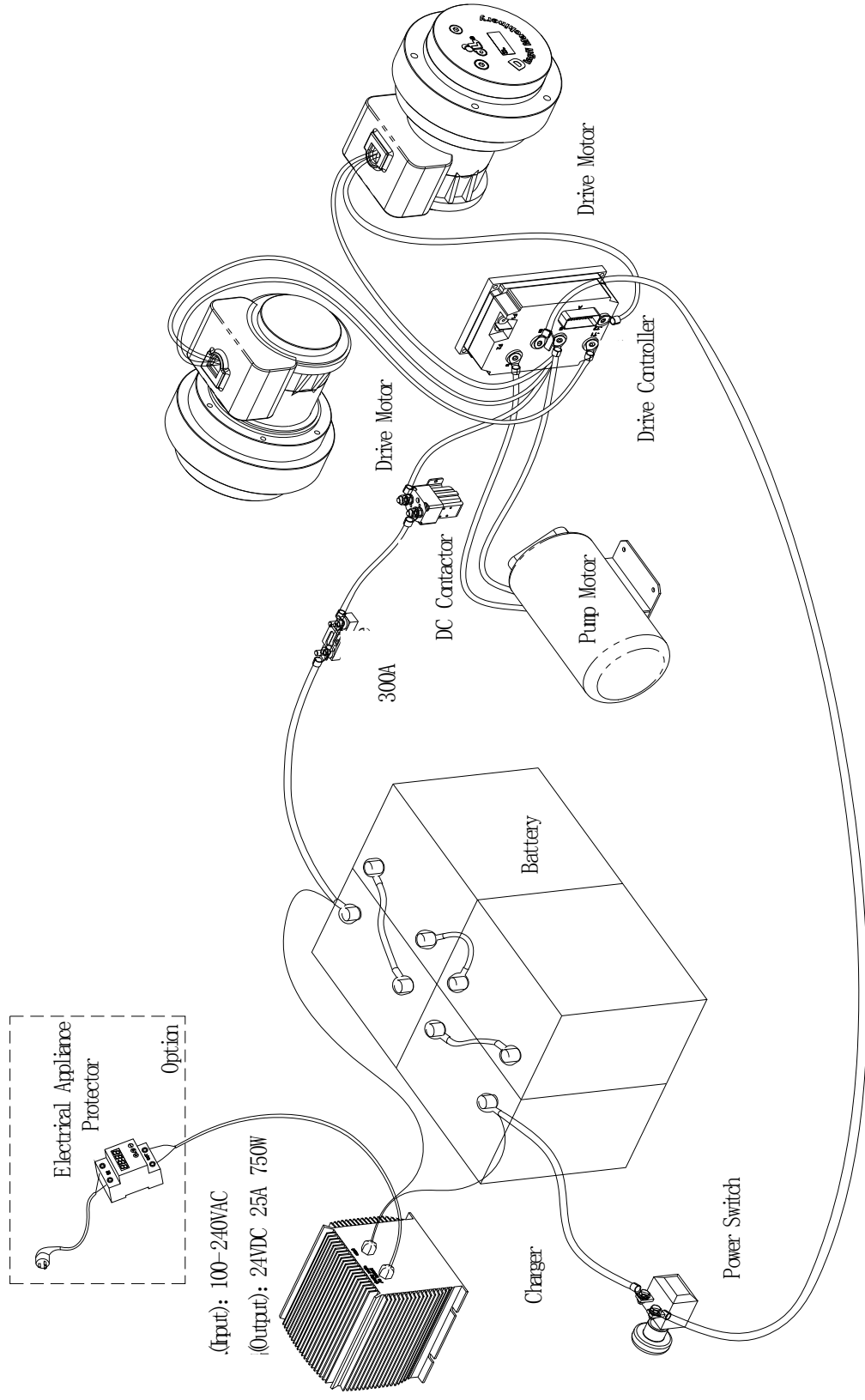
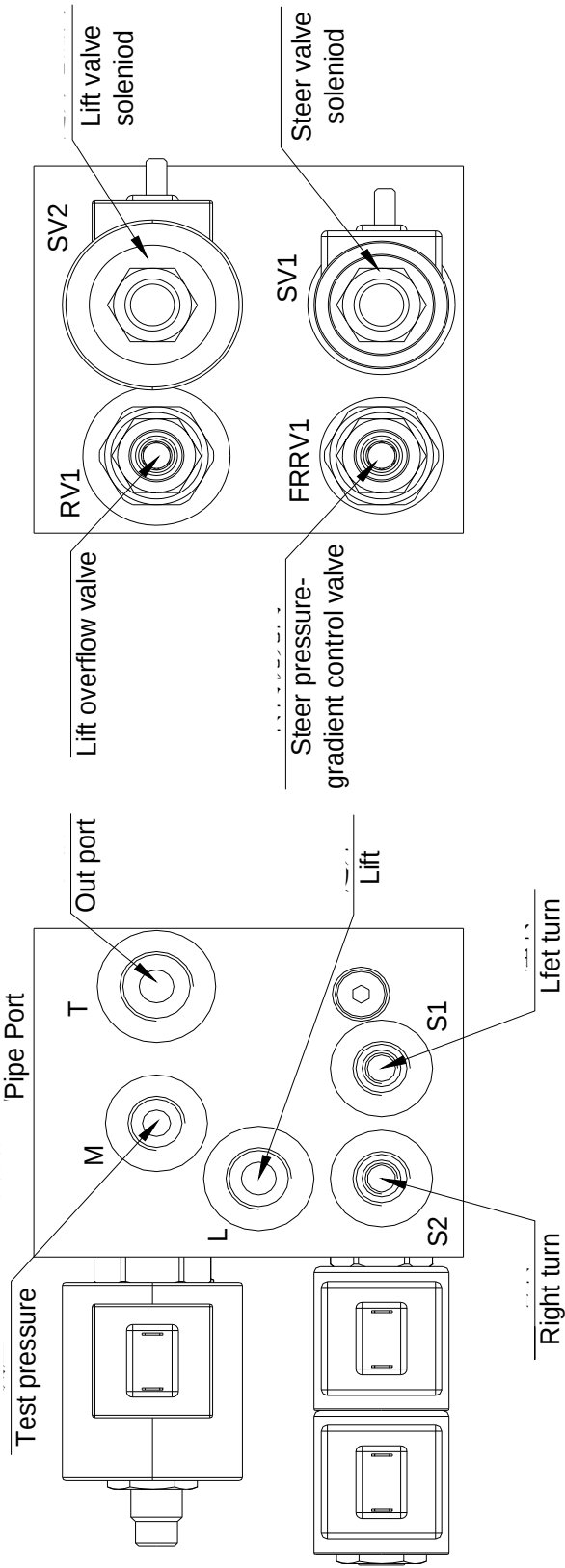




Harness—Main Circuit



Function Valve 4555SE

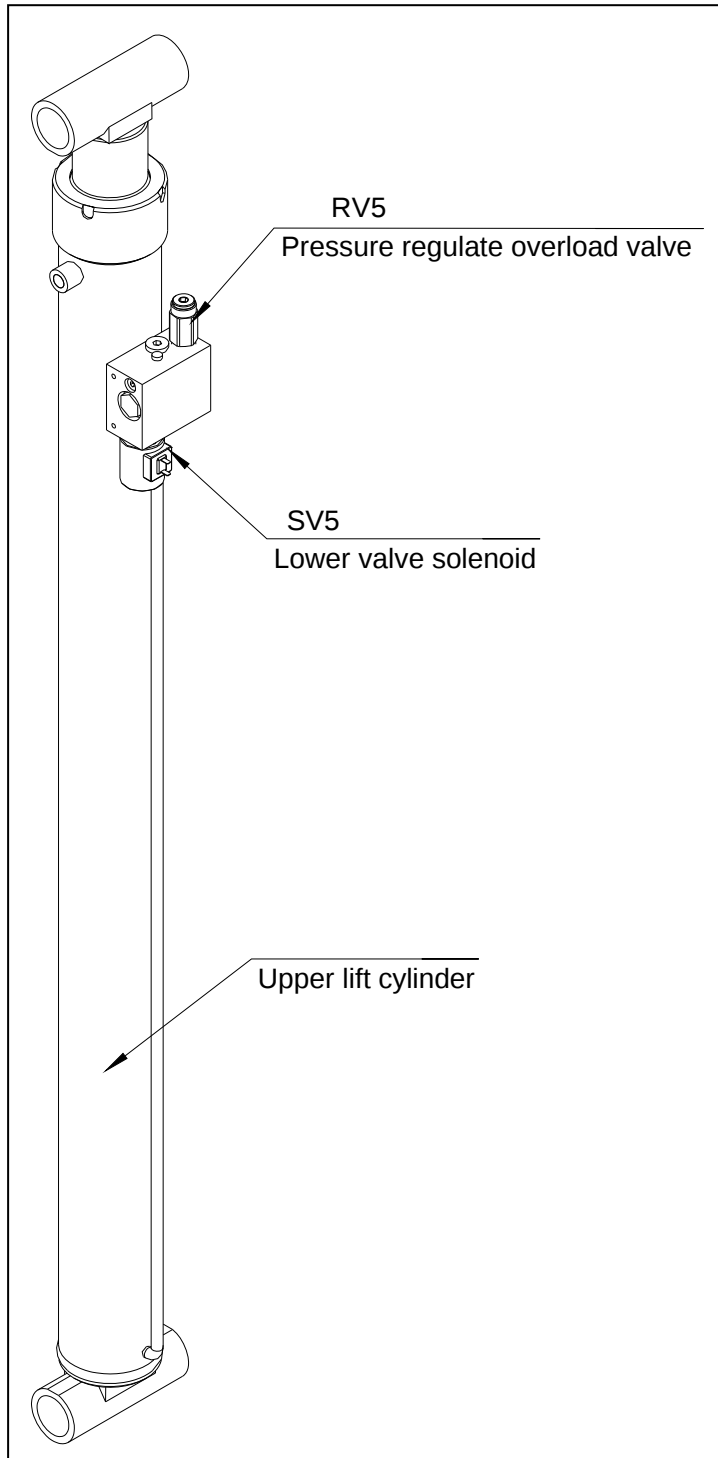


The diagram illustrates a hydraulic system for a lift. It features a main pump (P) driven by a motor (M), connected to a tank (T). The system is divided into three main sections, each enclosed in a dashed box:

- Steer Cylinder Section:** This section includes a 4/3-way directional valve (SV1) with a spring return to the tank. It is controlled by a 3-position selector valve (FRRV1). The Steer Cylinder is connected to the system via ports S1 and S2. A pressure relief valve (RV1) is set at the main line pressure.
- Lower Lift Cylinder Section:** This section includes a 4/3-way directional valve (SV2) with a spring return to the tank. It is controlled by a 3-position selector valve (FRRV1). The Lower Lift Cylinder is connected to the system via port L. A pressure relief valve (RV5) is set at the main line pressure.
- Upper Lift Cylinder Section:** This section includes a 4/3-way directional valve (SV5) with a spring return to the tank. It is controlled by a 3-position selector valve (FRRV1). The Upper Lift Cylinder is connected to the system via port L. A pressure relief valve (RV5) is set at the main line pressure.

Additional components include a Platform Overload Sensor (PO) and two pressure sensors (CV3 and CV4) monitoring the pressure in the main line. The PO sensor is connected to the main line between the Lower and Upper Lift Cylinders. The CV3 sensor is connected to the main line between the Steer Cylinder and the Lower Lift Cylinder. The CV4 sensor is connected to the main line between the Steer Cylinder and the Upper Lift Cylinder.

Upper Lift Cylinder Valve 4555SE



Pressure Relief Setting 3200 PSI

Fault	Description	Models	Solutions
01	System initialization Fault	All models	ECU ECU (Check the ECU)
02/20	System communication Fault	All models	1.Check the platform control 2. (Check the wiring on platform control connector) 3.ECU Check the ECU 4.Check the battery 5.Check the relay on ground control
03	Invalid option setting Fault	All models	Reset the option code
12	Chassis Up or Down Switch ON at power-up Fault	All models	1.Check the wiring on toggle switch 2. Check the toggle switch
18	Pothole Guard Fault	All models	1.Check the pothole board and switches) 2. Check the speed switch
31	Pressure Sensor Fault	NOT USED	1.Check the pressure sensor and wiring, the normal range of voltage output is 0.5-2.8V 2.Check the option code

Fault	Description	Models	Solutions
32	Angle Sensor Fault	MICRO 19	1. Check the angle sensor and wiring, the normal range of voltage output is 1.9-3.8V 2. Check the option code
42	Platform Left Turn Switch ON at power-up Message	All models	1. Check the left steer button 2. Check the platform controller
43	Platform Right Turn Switch ON at power-up Message	All models	1. Check the right steer button 2. Check the platform controller
46	Platform Joystick Enable Switch ON at power-up Fault	All models	1. Wait several seconds when turn on the lift 2. Check the joystick deadman switch
47	Platform Joystick not in neutral at power-up Message	All models	1. Check the joystick 2. Check the platform controller
52	Drive forward coil fault		
		All models	Check the option code
53	Drive reverse coil fault		
		All models	Check the option code

Fault	Description	Models	Solutions
54	Lift Up Coil Fault	All models	Check the lift solenoid and wiring
55	Lift Down Coil fault	All models	Check the down solenoid and wiring
56	Right Turn Coil Fault	All models	Check the right steering solenoid and wiring
57	Left Turn Coil Fault	All models	Check the left steering solenoid and wiring
58	General Brake Coil Fault	All models	1.Check the brake module and wiring 2.Check brakes and wiring 3.Check the battery voltage
59	Parallel coil fault	Not used Check Options code	Parallel Coil Fault: Check the connections to the Coil's terminals and make sure they are tight. If so, check the coil itself to see if it is open or shorted.
60	ZAPI Motor Controller Fault	4555SE	Replace the ZAPI controller

Fault	Description	Models	Solutions
61	Motor Controller Current Sensor Fault	All models	1.Check the drive motor and wiring 2.Check the drive motor controller and wiring Remark: Make sure the drive motor is good before change the drive motor controller, or the motor controller will be damaged again
62	Motor Controller Hardware Failsafe Fault	All models	Motor Controller Hardware Failsafe Fault: Cycle power. If that does not resolve the issue check for noise sources. If still needed, try replacing the Motor Controller.
63	Motor Controller Motor Output Fault	All models	1.Check the drive motor and wiring 2.Check the drive motor controller and wiring Remark: Make sure the drive motor is good before change the drive motor controller, or the motor controller will be damaged again
64	Motor Controller SRO Fault	All models	Motor Controller SRO Fault: Look at motor enable delay with the Dingli Scissor Programmer, it may be too short. Make sure other Motor Controller parameters are properly selected.

Fault	Description	Models	Solutions
65	Motor Controller Throttle Fault	All models	Motor Controller Throttle Fault: Check wiring. Make sure the correct throttle type is selected in the Motor Controller.
66	Motor Controller Emergency Reverse Fault	All models	Motor Controller Emergency Reverse Fault: Ensure that the Emergency Reverse Check Parameter is off in the Motor Controller.
67	Motor Controller HPD Fault	All models	Motor Controller HPD Fault: Look at motor enable delay with the Dingli Scissor Programmer, it may be too short. Make sure other Motor Controller parameters are properly selected.
68	Low Voltage Fault	All models	Low Voltage Fault: Check battery voltage and charge batteries if necessary. Check the battery connections and tighten or clean. Check the voltage to the ECU and PCU.
69	High Neutral Current Fault	All models	High Neutral Current: The MC is sensing current in the motors when there should be none. This could occur anytime the MC thinks the brakes are on and the motors are still turning. This message sometimes comes just before other faults but should be ignored in those cases.

Fault	Description	Models	Solutions
70	Steer Input Out of Range	All models	Steering Input Out of Range: There is an inappropriate voltage at the steering input of the ZAPI motor controller. The ZAPI may need to be “trained” for the three steering voltages (on Differential Steered machines) . Or the steering voltage from the ECU was at some point outside of the range that was recorded during the “training” session. Retrain the ZAPI and/or check for fluctuating voltages due to loose wires, etc.
71	Motor Controller Main Contactor Fault	All models	1.Check the main contactor and wiring 2. (Check the drive motor and wiring 3.Check the drive motor controller and wiring Remark: Make sure the drive motor is good before change the drive motor controller, or the motor controller will be damaged again
72	Motor Controller Over Voltage Fault	All models	Motor Controller Over Voltage Fault. Check battery voltage and make sure the battery charger is not on. Then cycle power to the lift. If that does not resolve the issue, try replacing the Motor Controller.
73	Motor Controller Thermal Cutback Fault	All models	Motor Controller Thermal Cutback Fault: Drive or Lift Motor may be overheating. Let the lift cool down. If that does not help cycle power to reset the Motor controller. If that doesn't resolve the issue, replace the Motor Controller.

Fault	Description	Models	Solutions
74	Motor Controller Motor Fault	All models	Motor Controller Motor Fault: Check connections to the motors. Cycle power to the lift and if that does not resolve the issue, replace the Motor Controller.
75	Motor Controller Pump Motor Fault	All models	Motor Controller Pump Motor Fault: Check connections to the Pump Motor. Cycle power to the lift and if that does not resolve the issue, replace the Motor Controller.
76	Motor Controller Left Drive Motor Fault	All models	Motor Controller Left Drive Motor Fault: Check connections to the motors. Cycle power to the lift and if that does not resolve the issue, replace the Motor Controller.
77	Motor Controller Right Drive Motor Fault	All models	Motor Controller Right Drive Motor Fault: Check connections to the motors. Cycle power to the lift and if that does not resolve the issue, replace the Motor Controller.
78	Pump Motor Short Fault	All models	Pump Motor Short Fault: Check connections to the pump motor. Cycle power to the lift and if that does not resolve the issue, replace the Motor Controller.
79	Left Drive Motor Short Fault	All models	1. Check the left drive motor and wiring 2. Check the ZAPI drive controller and wiring Remark: Make sure the drive motor is good before change ZAPI motor controller, or the drive motor will be damaged again

Fault	Description	Models	Solutions
80	Over 80% Load Warning	All models	Over 80% Load Warning: Platform is getting close to its limit of weight. Consider not adding more load.
81	Right Drive Motor Short Fault		1. Check the right drive motor and wiring 2. Check the ZAPI drive controller and wiring. 3. Check Contactor operation Remark: Make sure the drive motor is good before change ZAPI motor controller, or the drive motor will be damaged again)
82	Right Brake Coil Fault		
		All models	1. Check the right motor brake and wiring 2. Check the brake module and wiring 3. Check Contactor operation

Fault	Description	Models	Solutions
83	Left Brake Coil Fault	All models	1. Check the wiring on left drive motor and brake 2. Check the wires to right drive motor 3. Check the ZAPI controller and wiring 4. Check Contactor operation Remark: Make sure the drive motor is good before change ZAPI motor controller, or the drive motor will be damaged again)
		All models	1. Check the left motor brake and wiring 2. Check the brake module and wiring
85	Brake release switch Closed fault	Micro 19 1930SE	Turn the Brake Release switch off (lower panel)
86	NOT USED		
87	Brake release switch fault	NONE	
89	Drive Motor Field Open Fault	All models	Check the Field wires on motors and ZAPI controller to see if it is open or shorted -Only for ZAPI large electric

Fault	Description	Models	Solutions
90	Over 90% Load Warning	NONE	Not used Check options menu
91	Left Drive Motor Field Short Fault	All models	Check the Field wires on motors and ZAPI controller to see if it is open or shorted -Only for ZAPI large electric
92	Right Drive Motor Field Short Fault	All models	Check the Field wires on motors and ZAPI controller to see if it is open or shorted -Only for ZAPI large electric
99	Over 99% Load Warning	NONE	Not used Check options menu
OL	Overloaded Platform Fault	NONE	Not used Check options menu
LL	Machine Tilted Beyond Safe Limits Fault	All models	Machine Tilted Beyond Safe Limits Fault: If the machine is tilted, find a way to make it level. If the machine is level, check the wiring to the tilt sensor and then the sensor itself.

Remark: The common faults are in bold

If there is no fault code, please check solutions below:

No.	Fault	Models	Solutions
1	No drive, no alarm, the rest functions all good	All models	1.Check the option code 2.Check the drive speed setting
		All models	1. Check the option code 2. Check the drive speed setting 3. Check the drive motor and wiring 4. Check the drive motor controller and wiring
2	No steering, no alarm, the rest functions all good	All models	1.Check the steering function valve 2.Check the steering overflow valve 3.Check the steering speed setting 4.Check the steering cylinder
3	No lift, no alarm, the rest functions all good	All models	Check if the hydraulic pump is working during lift 1.Check the lift function valve operation 2.Check the up switch and ECU
4	No down, no alarm, the rest functions all good	All models	1. Check the down function valve 2. Check the cylinder orifice

No.	Fault	Models	Solutions
5	No function,no alarm	All models	1.Check the option code and speed setting 2.Check the joystick 3.Check the input voltage on pump motor, if the input voltage is correct, check the motor; if no voltage, check the motor controller and wiring.
		All models	1Check the option code and speed setting 2Check the joystick
6	7A Breaker tripped on ground control	All models	1.Check the beacon and wiring 2.Check the tilt sensor and wiring 3.Check the platform controller 4.Check 7A fuse
7	Drift down more than 6" following lift	All models	Check the relief valve on upper lift cylinder, increase the pressure by turning valve clockwise Remark: The down function will be affected if relief valve is tightened excessively
8	Platform drifts down completely	All models	1.Check the down function valve 2.Check the emergency lowering button

No.	Fault	Models	Solutions
9	Will not lift rated capacity	All models	1. Check Pressure and adjust relief valve if necessary 2. Check the o-ring on lift relief valve 3. Check the o-ring on lift function valve 4. Check the pump 5. Check the o-ring on Main relief valve
10	No power on machine	All models	1. Check the platform control and wiring 2. Check the charger relay wiring (if used) 3. Check three power switches and wiring 4. Check the keyswitch and wiring on ground control 5. Check and 7A breaker and 250A/300A fuse 6. Check the relay and wiring behind ground control

No.	Fault	Models	Solutions
11	No drive when elevated	All models	Check elevated drive speed setting
12	Slow drive speed on stowed position	All models	Check pothole, switches and wiring
13	No charging	All models	1.Check the charger protector output 2.Check the charger and wiring 3.Check the battery water, terminal and wiring 4.Check the battery