



# ILM – Series

## Troubleshooting: ILM Medium Duty Railgate Lift

<u>Table of content:</u>	<u>Page</u>
1) Gate overview .....	2
2) Platform and Motor Setup overview.....	3
3) Gate does not opening up.....	4
4) Gate is not lowering down.....	5
5) Gate is not raising up.....	6
6) Gate is not closing.....	7
7) Electrical & hydraulic schematic .....	8

Tools needed:

- 1.) Voltmeter
- 2.) Test light
- 3.) 8" jumper cable (16ga. or smaller)
- 4.) Philips Screw driver
- 5.) 13mm (1/2") wrench

**\*\*\*\*\*MAKE SURE YOUR BATTERIES ARE FULLY CHARGED AND IN GOOD CONDITION\*\*\*\*\***



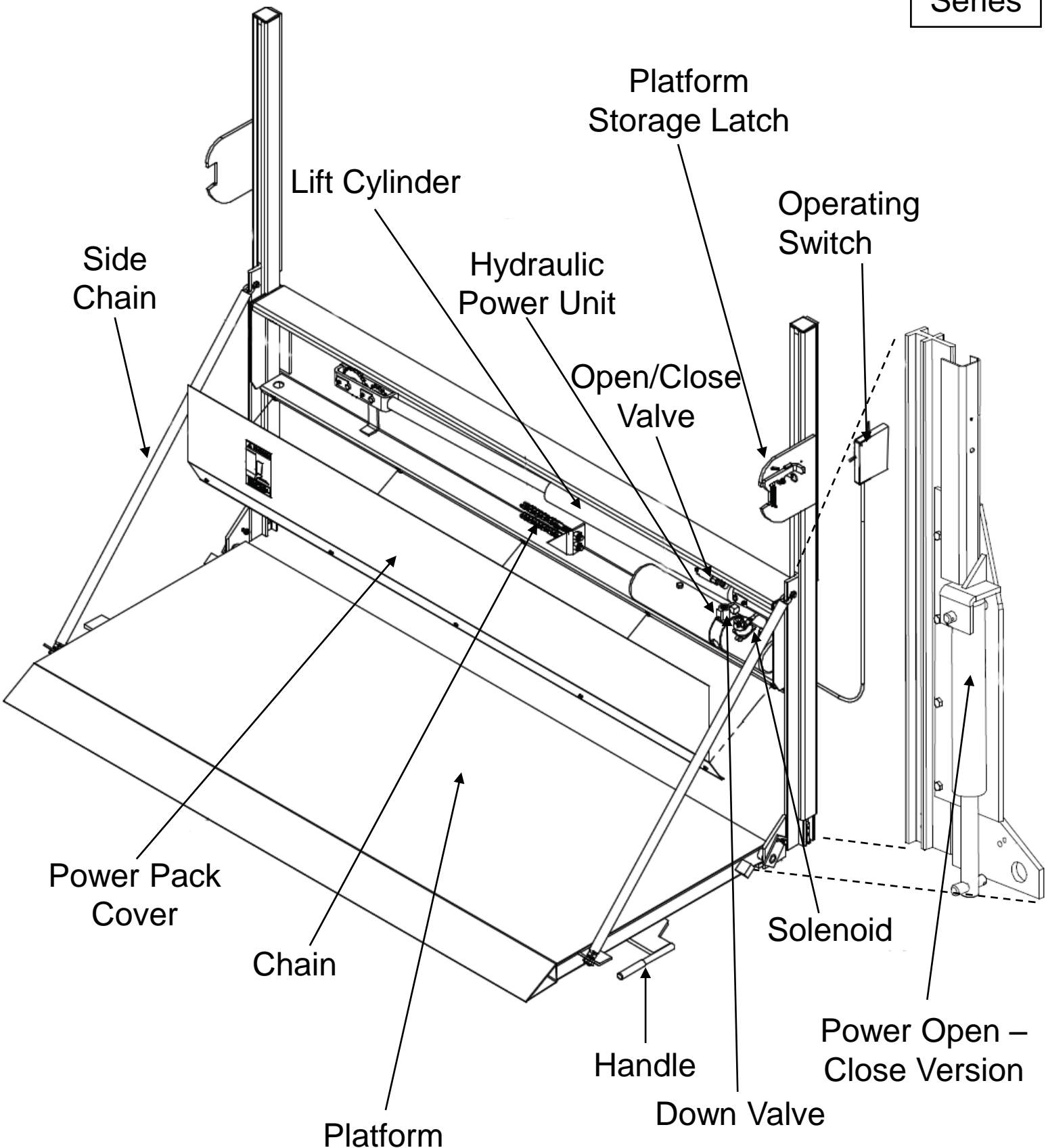
**Always use CAUTION and allow SAFE distance from moving parts**

Practice SAFETY, using common sense and good judgment



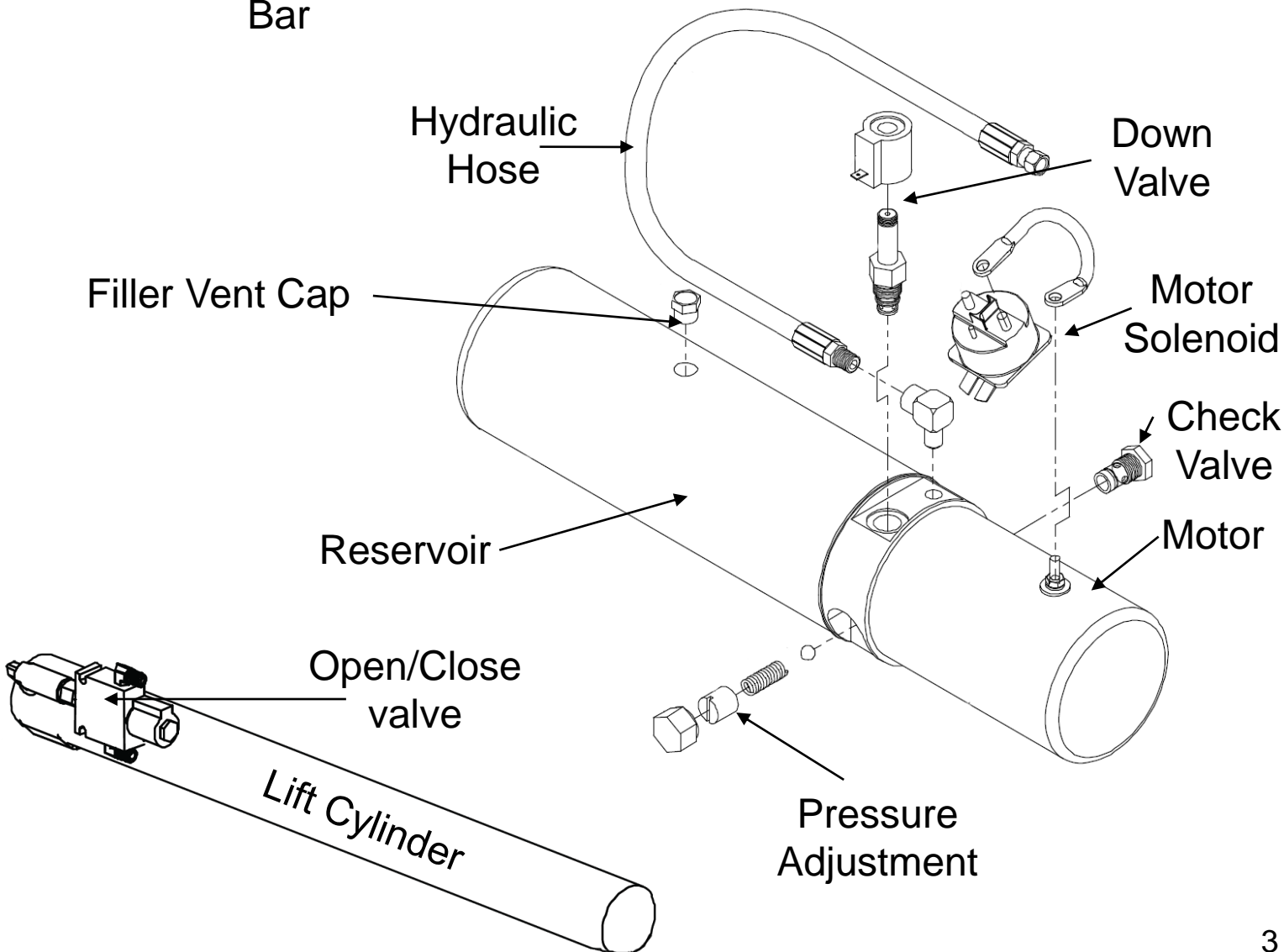
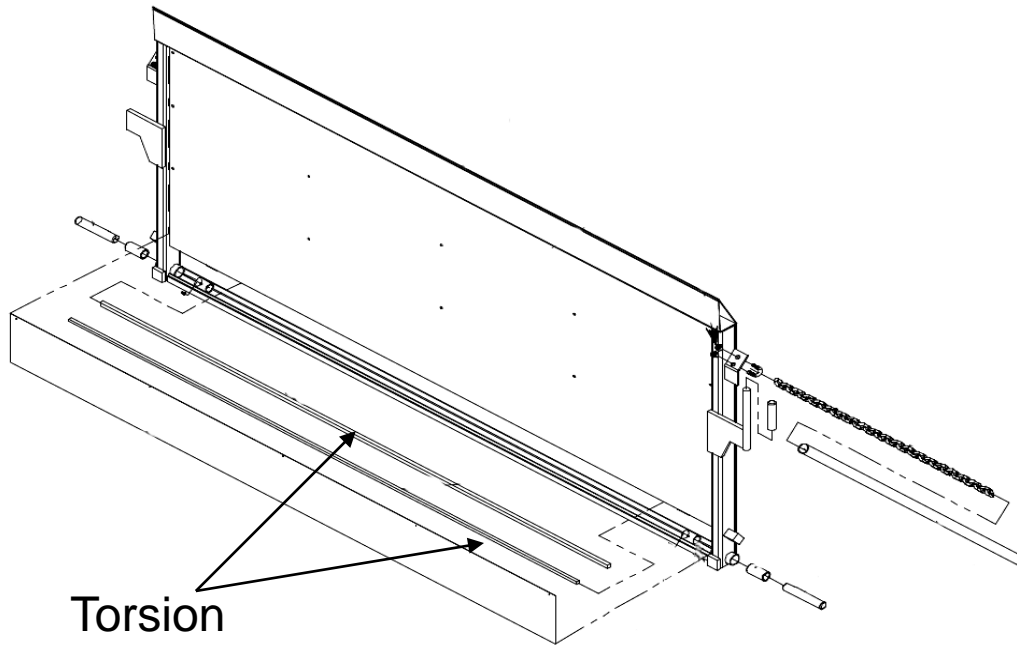
**ILM  
Series**

Gate overview



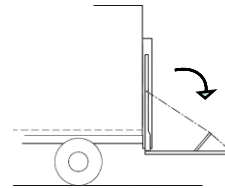
ILM  
Series

# Platform and Motor Setup Overview





**ILM Series**



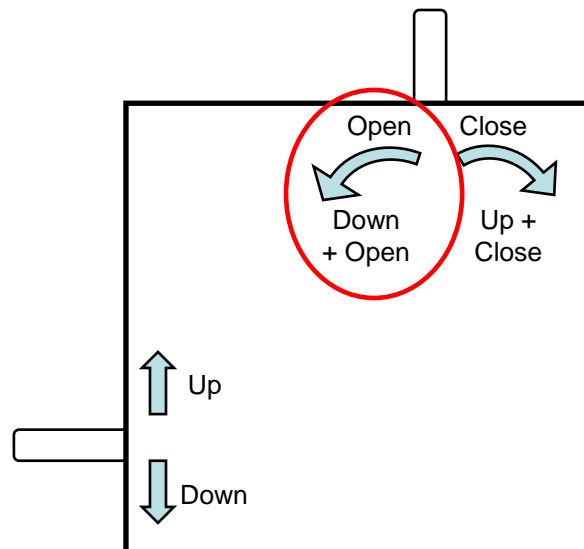
# 1) GATE DOES NOT OPEN UP

## a) Initial Checks

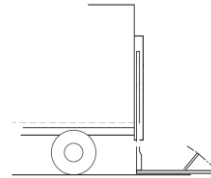
- Check Master Disconnect is "ON"
- Check that Circuit Breaker at battery box has not been tripped
- Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
- Check batteries. Batteries should be fully charged and in good condition
- Check voltage - minimum 10 volts at motor when closing or up function is engaged for 10 sec with gate in stored position.

## b) Platform is not opening up

- Check if open/close valve on top of motor and down valve on top of lift cylinder are energized.
  - If not, check power supply to switches and signal line to valves while activating open function
  - Valves are energized – check grounding of valves
- Valves are energized, but Platform still does not open
  - Check coil for damage and magnetic function
  - Check torsion bars inside of platform behind cover plate for damage and correct adjustment.
  - Check open /close cylinder for damage or leaks



## 2) GATE IS NOT LOWERING DOWN



ILM  
Series

### a) Initial Checks

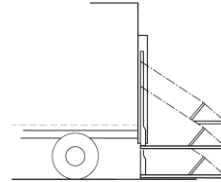
- Check Master Disconnect is "ON"
- Check that Circuit Breaker at battery box and inside Pump and motor compartment has not been tripped
- Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
- Check batteries. Batteries should be fully charged and in good conditions
- Check voltage - minimum 10 volts at motor while activating the UP function with gate in upper position

### b) Platform is not lowering down

- Check if down valve on top of motor is energized.
  - If not, check power supply to up/down switch and signal line to down valve while activating lowering function (check for voltage while activating function)
  - Valve is energized – check grounding of valve and make sure, valve is shifted over (hear click)
- Valve is energized, but Platform still does not lower down
  - Check if open/close valve is energized – it should NOT be energized.
  - Shift valve is not energized
    - Check if flow control valve is contaminated and/or cylinder is damaged



**ILM  
Series**



### 3) GATE IS NOT RAISING UP

#### a) Initial Checks

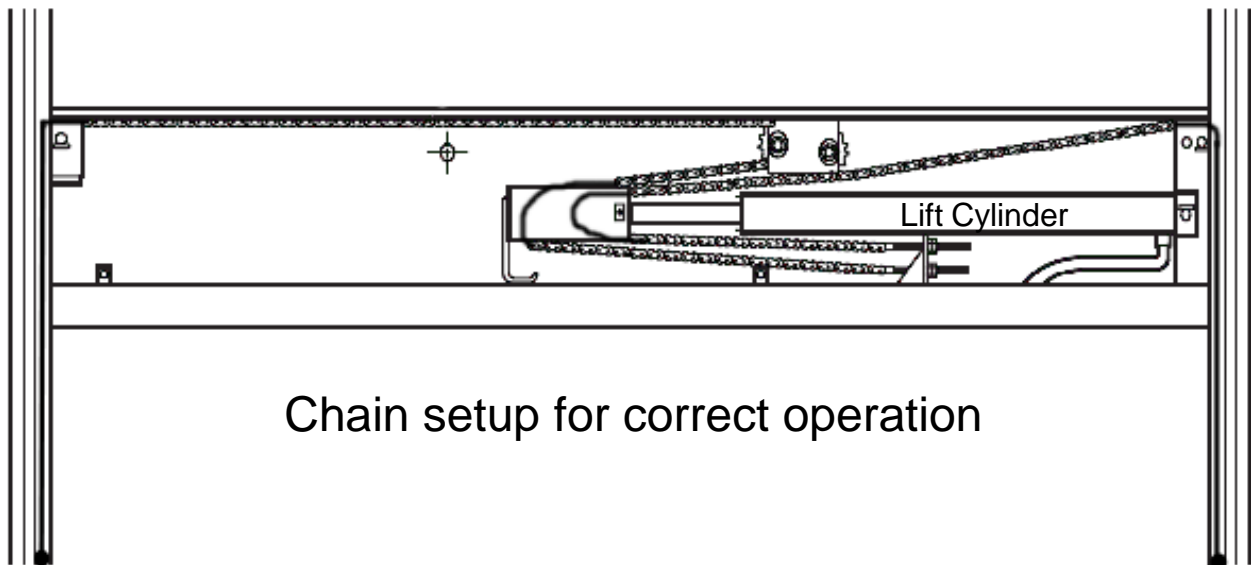
- Check Master Disconnect is "ON"
- Check that Circuit Breaker at battery box has not been tripped
- Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
- Check batteries. Batteries should be fully charged and in good condition
- Check voltage - minimum 10 volts at motor after 10 sec holding the switch for closing function. (Deadhead the gate in actual position)

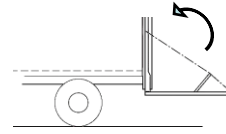
#### b) Motor does not run

- Check power supply to up/down switch and for voltage at signal line to motor solenoid while activating up function
- Check motor solenoid. If it is getting power (small connector at solenoid has voltage) but you do not hear a click, you should change the motor solenoid.
- You hear it click - check if the motor gets power. If yes, check the motor of correct function.

#### c) Motor runs but platform does not raise

- Check lift cylinder for damage or chain for broken chain links.





ILM  
Series

## 4) GATE IS NOT CLOSING

### a) Initial Checks

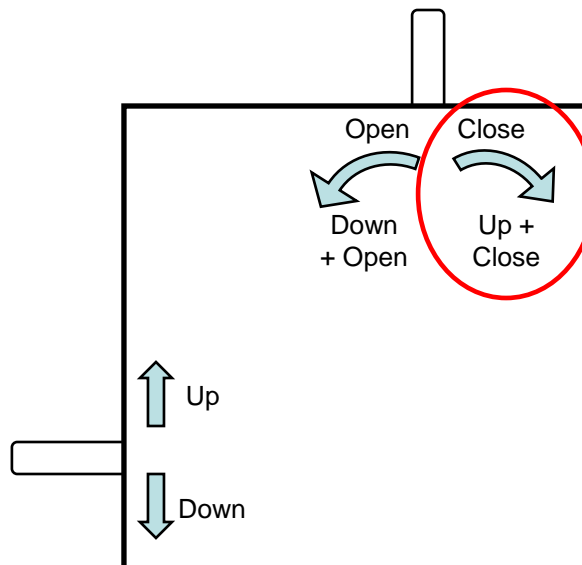
- Check Master Disconnect is "ON"
- Check that Circuit Breaker at battery box and fuse inside pump and motor compartment have not been tripped
- Check for shorts, ground faults or open circuits, e.g., power lines connected to the ground or a broken cable or connection
- Check batteries. Batteries should be fully charged and in good condition
- Check voltage - minimum 10 volts at motor at while holding the up function for 10 seconds (Deadhead)

### b) Motor is not running

- Check power supply to open/close and up/down switch and for voltage at motor solenoid and open/close valve while activating up function
- Check motor solenoid. If it is getting power but you do not hear click, you should change the motor solenoid.
- You hear it click, check if the motor gets power. If yes, check the motor of correct function.

### d) Motor is running, but platform does not close

- Check for power at open/close valve
- Check cylinder for leaking, loose fittings or contaminated restrictor
- Check the hydraulic oil level, low level oil in the reservoir – fill up and activate closing function



# Electrical and hydraulic schematic

