Motor Break Out Board (BOB)

(Current Model – Older BOB's do not have LED's)

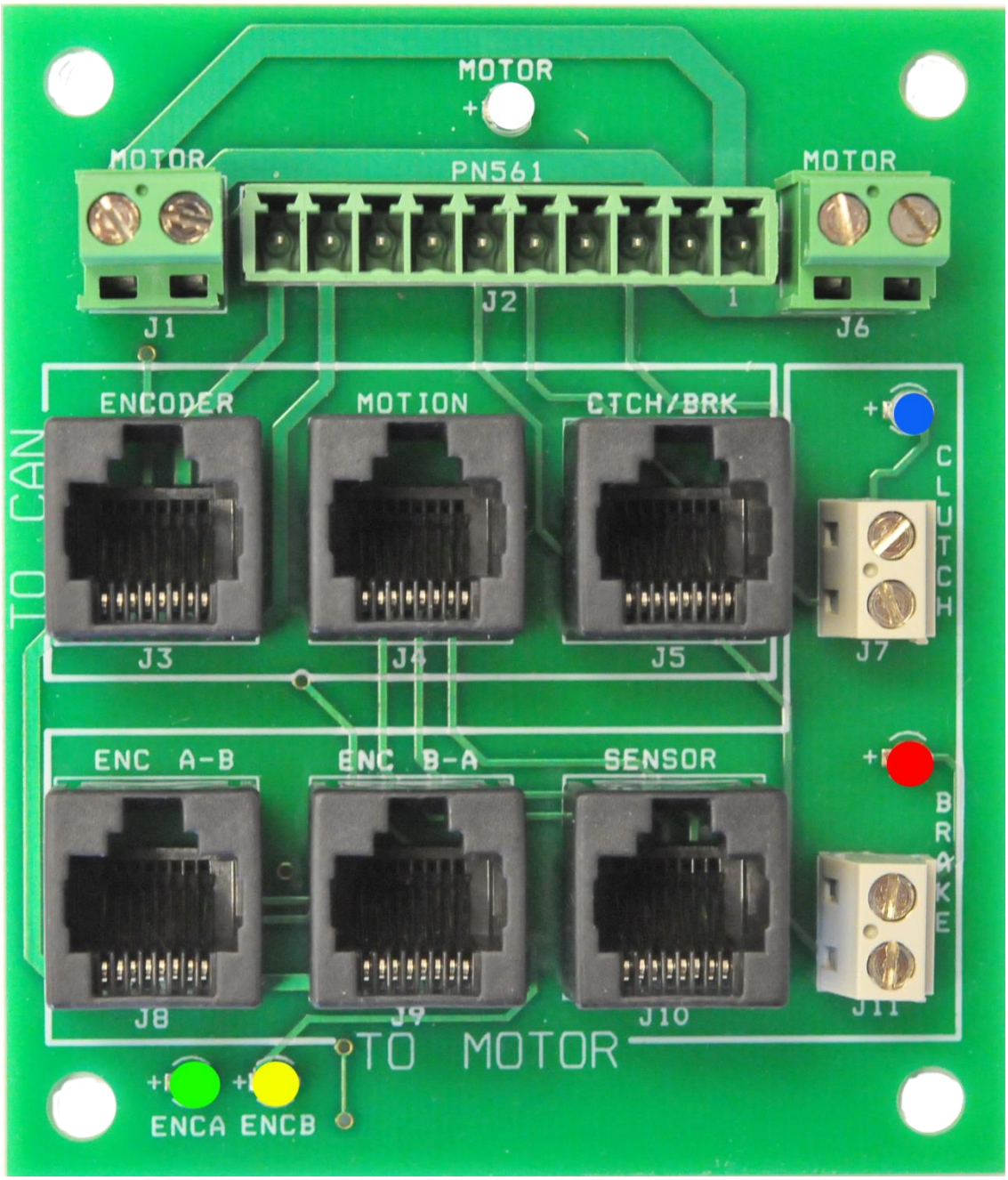


Figure 1 - Break Out Board(BOB) + LED's

G1x Main Board

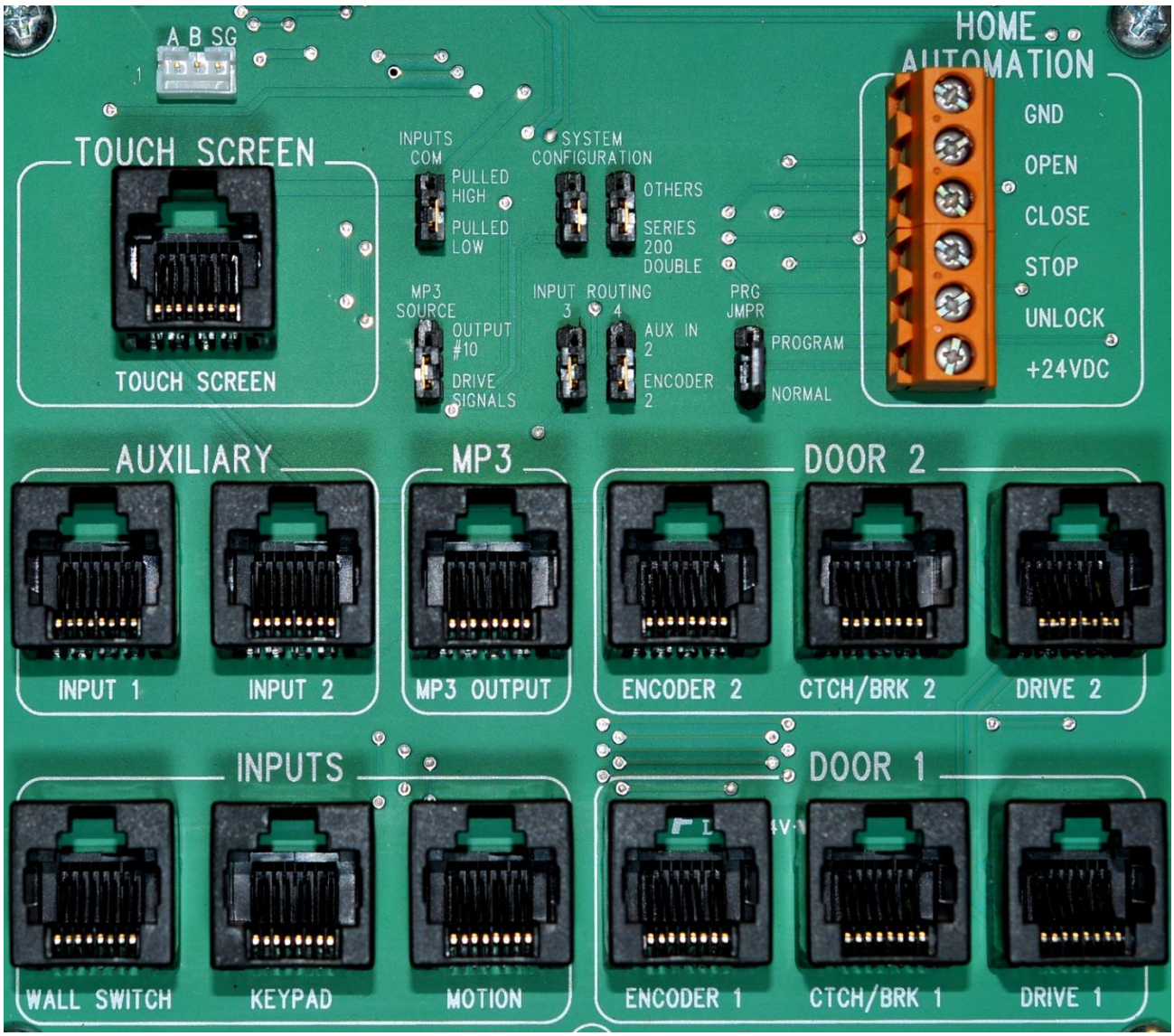


Figure 2 – G1x RJ45 Connectors

G1x Drive Board(s)

G1x Drive 1 Board Pots

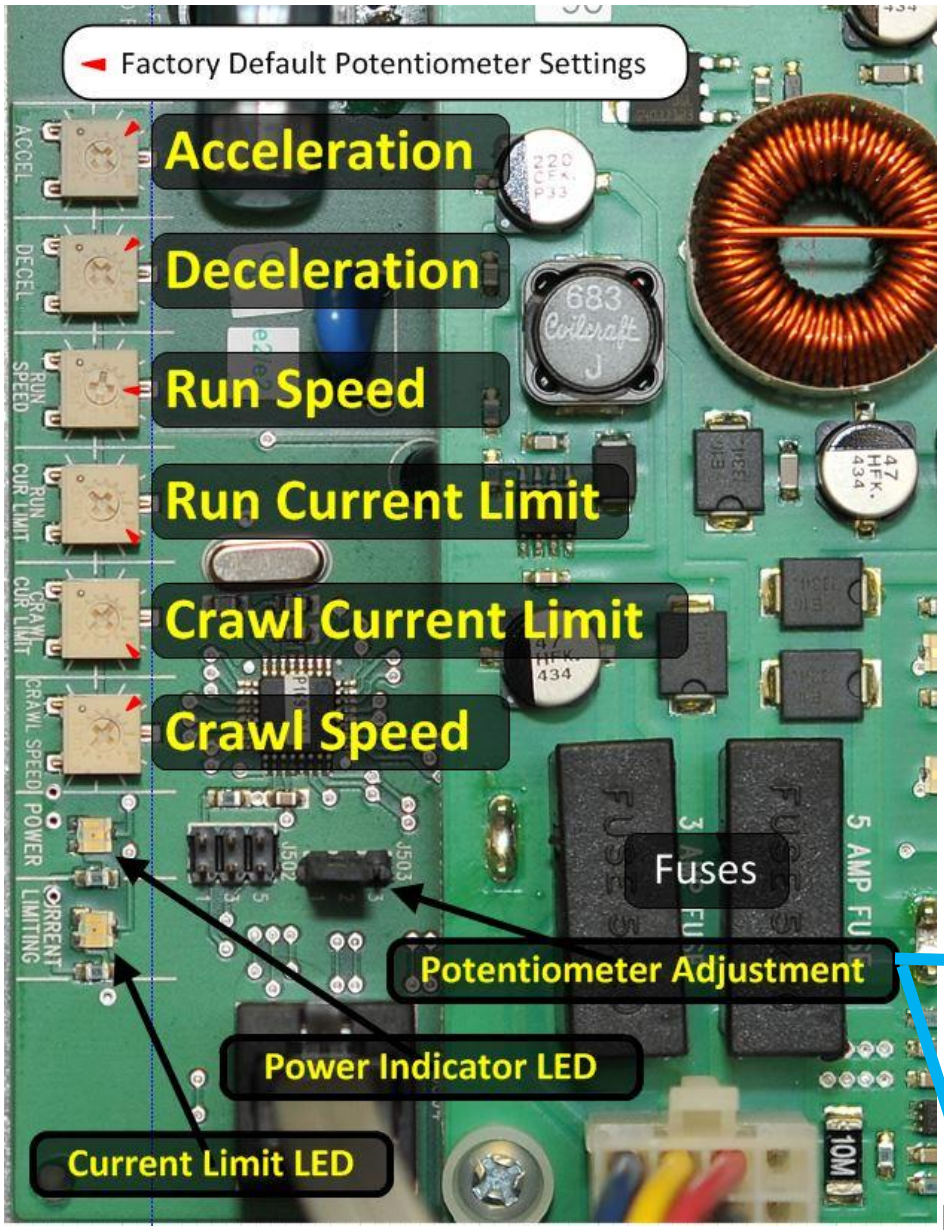
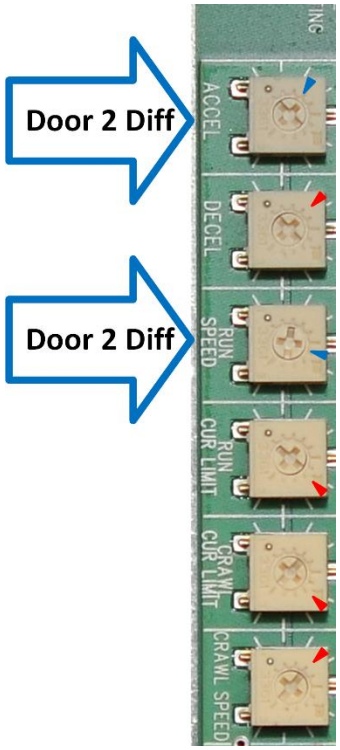
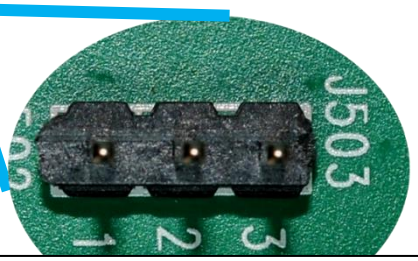


Figure 3 – G1x Drive 1 Power Board

G1D Drive 2 Board Pots





Potentiometer Jumper J503	
Adjustable	Pins 1 & 2
LOCKED	Pins 2 & 3

G1x PLC LED's

INPUTS	One Motor System (G1)	Two Motor System (G1D)
0	Door #1 Encoder Channel 1	Encoder #1 Channel 1
1	Door #1 Encoder Channel 2	Encoder #1 Channel 2
2	Auxilary	
3	**CLOSE** (from Wall Switch)	
4	**STOP** (from Wall Switch)	
5	**OPEN** (from Wall Switch)	
6	Auxiliary	Door #2 Encoder Channel 1
7	Auxiliary	Door #2 Encoder Channel 2
8	Does not exist	
9	Does not exist	
10	**UNLOCK** (from Wall Switch)	
11	**MOTION** (If NOT lit, door will not operate)	
12	N/A	
13	**Close Behind FULL Feature/Jumper Enabled**	
14	DC Drive Current Limit (either motor)*	
15	**Close Behind PARTIAL Feature/Jumper Enabled**	

** See red **"current limit"** **LED** on motor drive board(s) to identify motor*

OUTPUTS	One Motor System (G1)	Two Motor System (G2)
0	Crawl	Door #1 Crawl
1	**OPEN**	
2	**CLOSE**	
3	DC Drive Fault Reset/Reverse	
4	**Brake**	Door #1 Brake
5	**Clutch**	Door #1 Clutch
6	N/A	Door **#2 Brake**
7	N/A	Door **#2 Clutch**
8	Does not exist	
9	Does not exist	
10	N/A	Door #2 Crawl
11	**Maximum Opening**	**Maximum Opening**

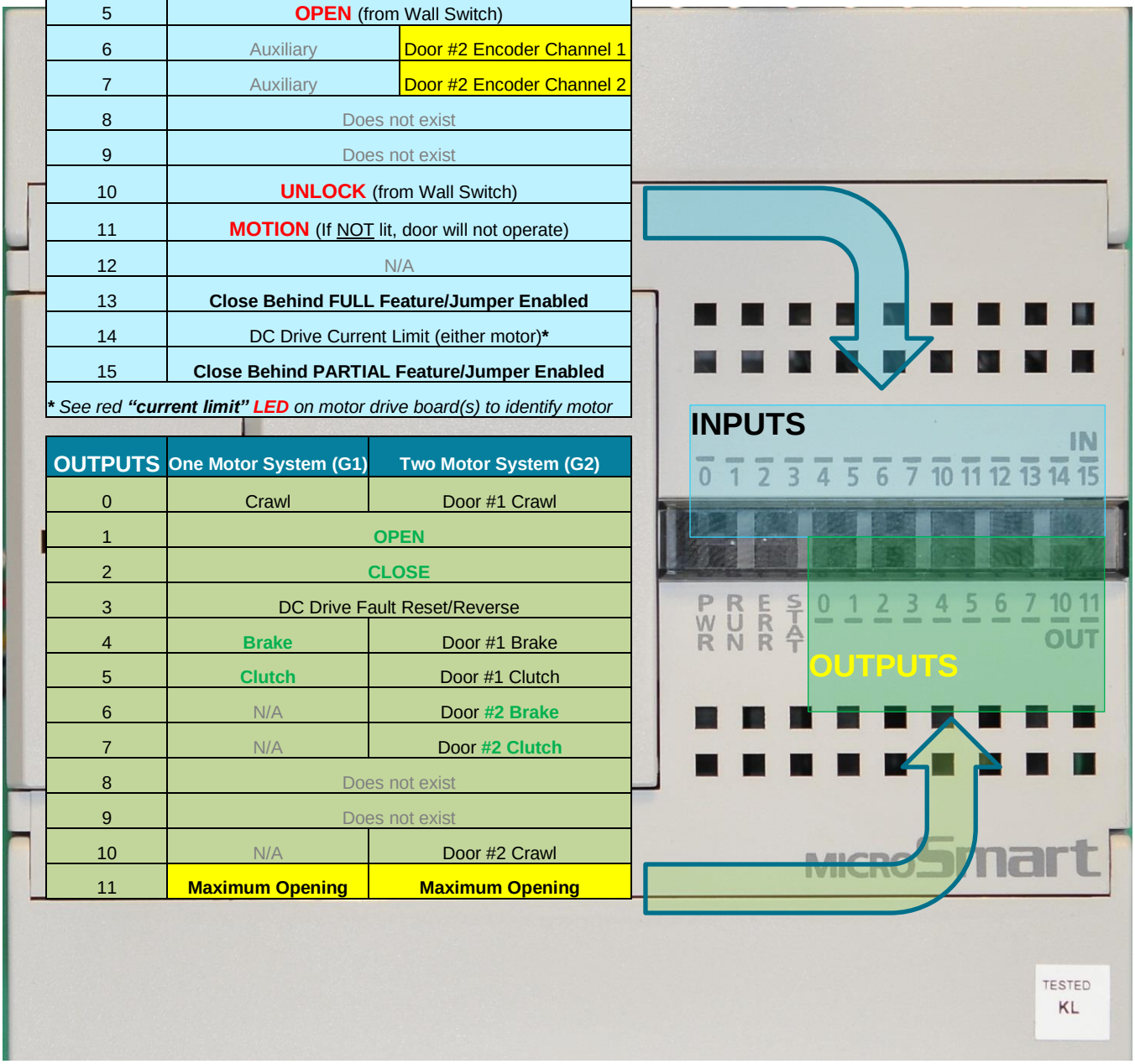
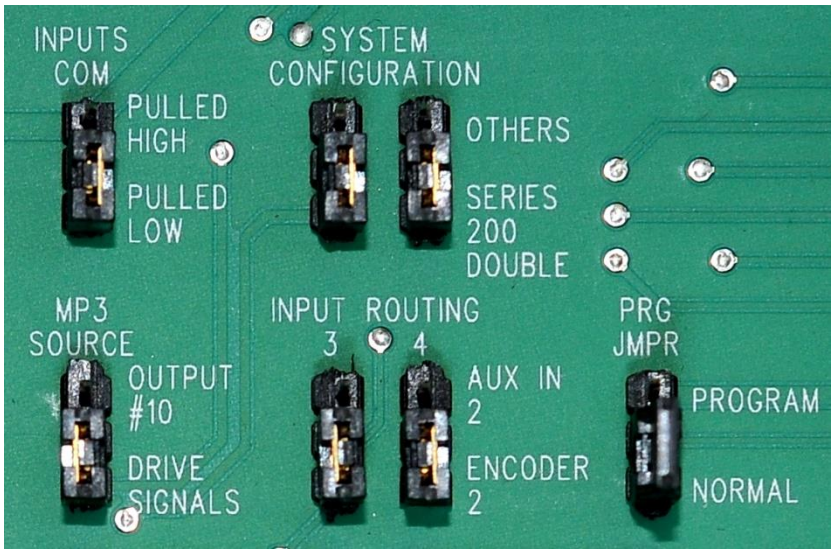


Figure 4 – G1x PLC

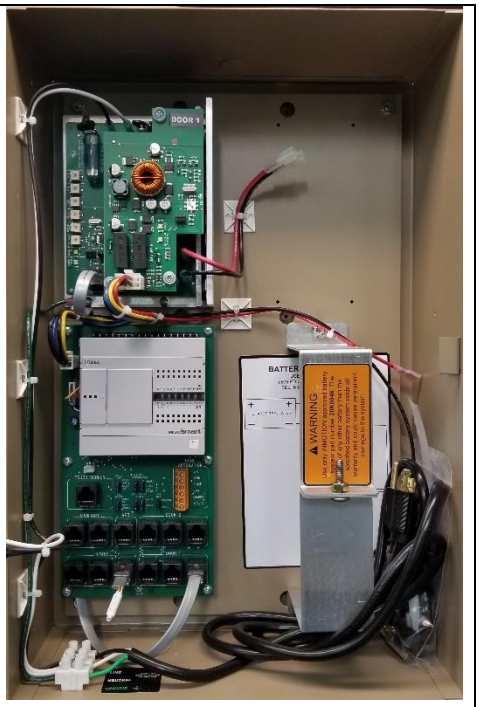
Photo Doc of BOB LED's & G1x Board

Part Number(s): G1, G1D

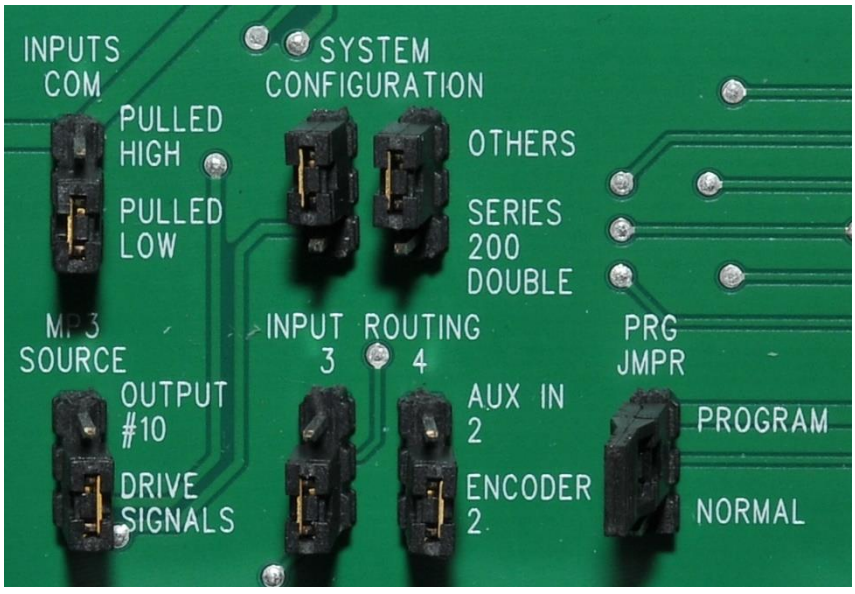
G1 vs G1D Jumpers



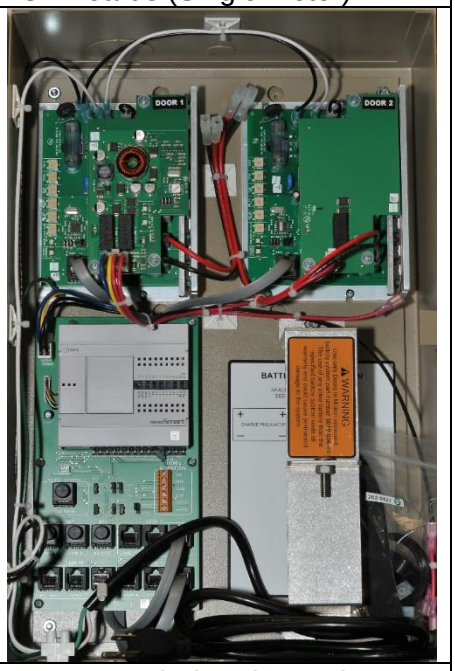
G1 Jumpers (System Config both DOWN)



G1 Boards (Single Motor)



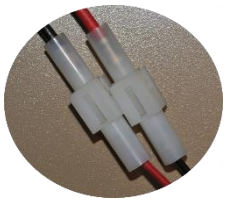
G1D Jumpers (System Config both UP)



G1D Boards (Dual Motor)

G1x Controller Troubleshooting

Motor Will Not Move:



- Check the red & black motor wire “quick connectors” inside the controller box.
- Check the red & black wires at the motor BOB **(figure 1)**
- Check the fuses on the Driver Board(s) **(figure 3)**
- Verify the potentiometer settings on the Drive Board(s) **(figure 3)**
- Check the encoder.

Encoder Checks:

- Use a network checker to verify the Encoder cable running from the motor to the controller.
- If the BOB board has LED’s **(figure 1)**
  - Green & Yellow LED’s on the BOB board should flash when door is manually moved
- If the BOB board does NOT have LED’s. **(figure 4)**
  - While manually moving Door #1…
    - On the PLC, top row of LED’s, LED 0 & 1 should toggle or flash during movement.
  - While manually moving Door #2…
    - On the PLC, top row of LED’s, LED 6 & 7 should toggle or flash during movement.
  - While the door is moving, the encoder LED’s on the BOB and the PLC must toggle. If either LED stays ON, or OFF, the encoder is either mis-wired or damaged.

Cannot Program:

- Use a network cable checker to verify the wall switch wire is correct (1:1) for all 8 wires.
- Make sure the wall switch cable is connected to either the “Wall Switch” or “Key Pad” ports inside the controller **(figure 2)**
- Make sure the programming jumper is on pins 2 & 3 in the controller during programming (figure 3

Cannot Program Full Open OR Wall Switch functions do not work:

- Use a network cable checker to verify the wall switch wire is correct (1:1) for all 8 wires.
- Verify the wall switch signals reach the controller…**(figure 4)**
  - While pressing the wall switch button “OPEN”, the PLC LED #5, top row should light.
  - While pressing the wall switch button “CLOSE”, the PLC LED #3, top row should light.
  - While pressing the wall switch button “STOP”, the PLC LED #4, top row should light.
  - While pressing the wall switch button “LOCK”, the PLC LED #10, top row should light.
- Check the main board Wall Switch & Keypad ports for bent pins. **(figure 2)**

After programming the “Full Open” LED #11 bottom row comes on at the closed position:

- The full open position was programmed at full close. Check the encoder. **(figure 4)**
- Try to reprogram the door after verifying the encoders are working.

After programming the door(s) will not close

- Make sure a motion detector OR motion detector jumper is installed in the motion port. **(figure 2)**
- If the doors are at full open make sure the PLC LED, LED #11 bottom row is on **(figure 4)**

After programming and the doors are moving the PLC makes a "chattering" sound (G1D only)

- Adjust door #2's potentiometers so that…**(figure 3)**
  - Door 2's "**Acceleration**" is slightly more than Door 1 (more is counterclockwise)
  - Door 2's "**Run Speed**" is slightly more than Door 1 (more is clockwise)