Spare Parts Bundle for Multi-Board Lighting & Control Systems Installation Instructions

Included in the Bundle is one of each of the following that are highlighted:

6010 – HUB with Raspberry Pi with Thumb Drive & SD Card
6020 – Controller w/ Arduino
6031 – Driver Board (Redesigned)
6040 – Switch Board
6051 – Motion Board, 8 inputs
6052 – Motion Board, 16 inputs
1709 – DC Circuit Breaker 1P 6A
1711 – DC Circuit Breaker 1P 16A

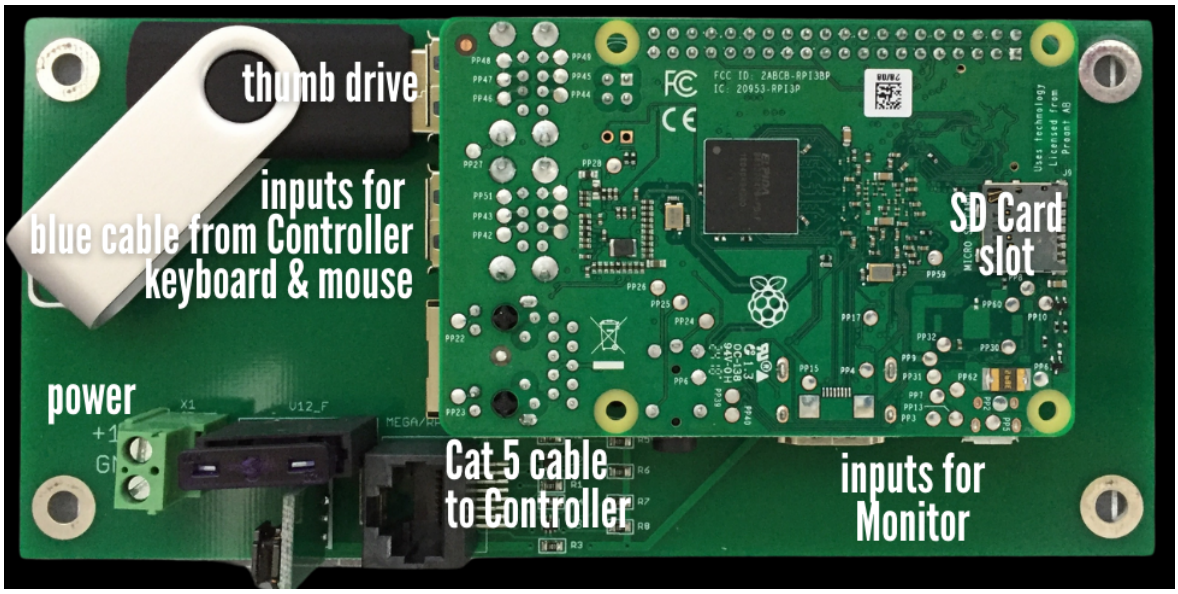
Thank you for ordering a spare parts bundle for your Lighting & Control System.

Instructions for installation and addressing can be found in the bundle packaging as well as online at pmmi-lighting.com/support-documents/. An email will also be sent including these instructions when your bundle ships.

A Troubleshooting Q&A Sheet is being created, and once finalized, it will be forwarded to you and posted on the website at pmmi-lighting.com/support-documents/.

If you have any questions, please email pmmi@pmmi-lighting.com for support.

6010 - HUB with Raspberry Pi, Thumb Drive & SD card



If it is necessary to replace your HUB, follow these steps.

PHOTOGRAPH – POWER OFF – REMOVE

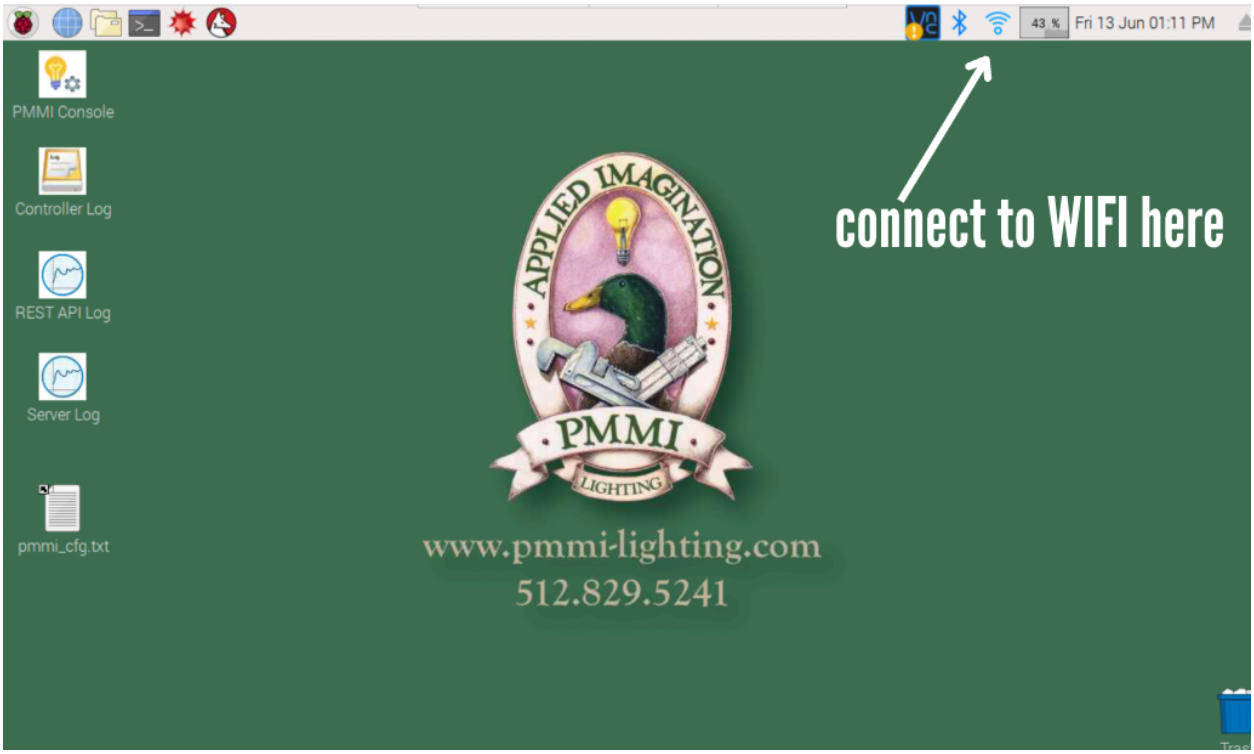
1. Take a photo of the board in the system to use as a reference when replacing cables.
2. **TURN OFF the POWER**
3. When removing Cat5 cable, press down on the tab to release it before pulling.
4. Make a note of the +12 and the GROUND. On some boards, these positions may be switched.
    a. RED = +12
    b. BLACK = GND
5. Disconnect all the cables & wires from the HUB.
6. Remove the board by releasing the 4 corners.

INSTALLING REPLACEMENT BOARD

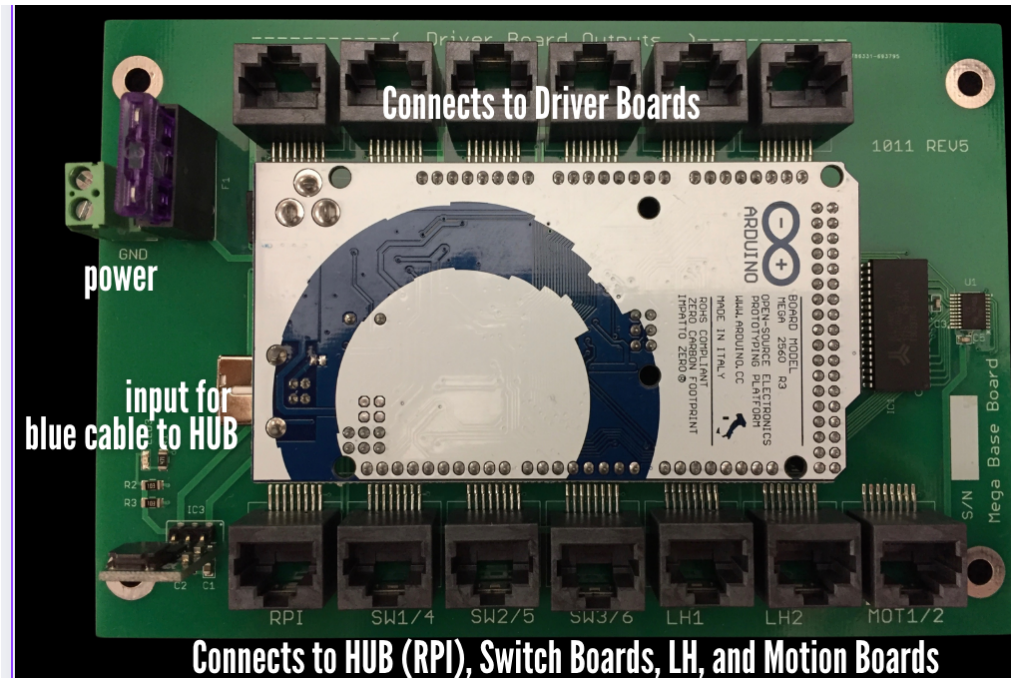
7. On the replacement board, insert the replacement SD Card that comes in a separate package. *(This holds the system programming for your serial number)*
8. Install the replacement board in the system.
9. Install the replacement Thumb Drive that shipped with your replacement HUB in a separate package. (This holds the programming for the configuration of your system)
10. Insert the cables into the board according to your pictures. Double-check to make sure all cables are plugged in and the RED & BLACK are connected to
    a. RED = +12,
    b. BLACK = GND
11. Connectors should have NO-Ox on them to keep them from corroding. NO-OX can be purchased from Amazon here… https://amzn.to/3HwMB10

CONNECTING to Internet

12. The system will automatically connect to the internet if your system is connected via ETHERNET.
13. If your system was previously connected via Wi-Fi, you must attach a monitor, keyboard, and mouse. Do this with the POWER OFF.
14. When all cables are connected, TURN ON the POWER.
15. When your system boots, you will see a login screen on the monitor.
16. Log in as USER – use **pmmilighting** as the password
    You will be prompted to change the password to your own personal password. During the process, you will need to type in 'pmmilighting' several times.
17. Once you are on the main screen, the Wi-Fi connection is in the top right corner.
18. Connect to your Wi-Fi.
19. Your app will work once you are hooked up to the internet. You will also be able to connect to your system via VNC Viewer.
20. When your system is connected to the internet via Wi-Fi or Ethernet, PMMI Lighting Support can access your system with your permission to address any issues or questions you may have.



6020 - CONTROLLER with Arduino



If it is necessary to replace your CONTROLLER, follow these steps.

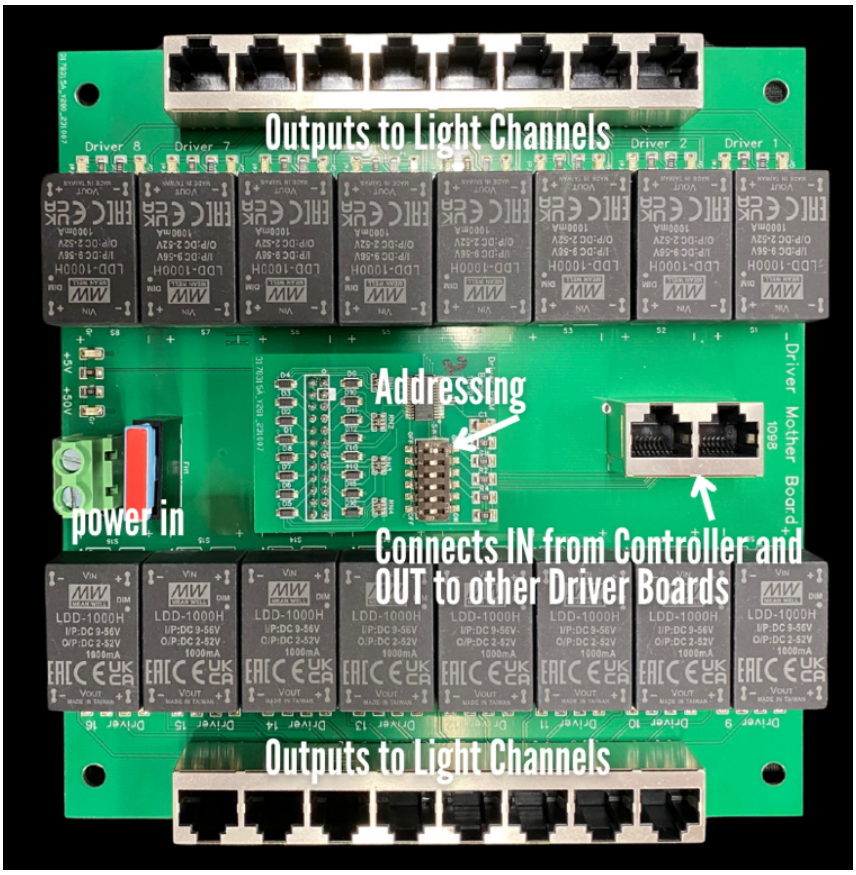
PHOTOGRAPH – LABEL – POWER OFF – REMOVE

1. Take a photo of the board in the system to use as a reference when replacing cables.
2. Ensure all cables are **labeled** before removing them from the board, so you know where to reconnect them. If they aren't labeled, **label** them as you are removing them. Take your time. This is critical.
3. **TURN OFF the POWER**
4. When removing cables, don't force them out. Press down on the tab to release it before pulling.
5. Make a note of the +12 and the GROUND. On some boards, these positions may be switched.
    a. RED = +12
    b. BLACK = GND
6. Remove the board by releasing the 4 corners.

INSTALLING REPLACEMENT BOARD

7. Install the replacement board in the system.
8. Insert the cables into the board according to your pictures. Double-check to make sure all cables are plugged in well and the RED & BLACK are connected to RED=+12, and BLACK=GND
9. Connectors should have NO-Ox on them to keep them from corroding. NO-OX can be purchased from Amazon here… https://amzn.to/3HwMB10
10. TURN ON the POWER.

6031 – DRIVER Board (Redesigned)



If it is necessary to replace the DRIVER Board, follow these steps.

PHOTOGRAPH – LABEL – POWER OFF – REMOVE

1. Take a photo of the board in the system to use as a reference for addressing and when replacing cables.
2. Ensure all cables are **labeled** before removing them from the board, so you know where to reconnect them. If they aren't labeled, **label** them as you are removing them. Take your time. This is critical.
3. **TURN OFF the POWER** - BEFORE removing any boards, or disconnecting CABLES or WIRES - **TURN OFF the POWER**.
4. When removing cables, don't force them out. Press down on the tab to release it before pulling.
5. Make a note of the +12 and the GROUND. On some boards, these positions may be switched. RED connects to the +12 / BLACK connects to GROUND
6. Remove the board by releasing the 4 corners.

ADDRESSING

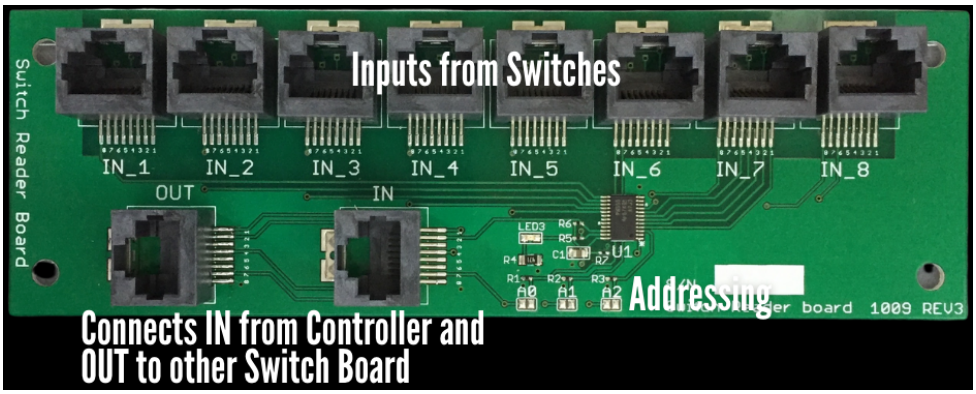
7. Identify the address on the board you are replacing. It is located in the center of the board.
    a. *ON = Pads Soldered (original board) in the A0-A5 position = ON, on the Redesigned board*
    b. *OFF = Pads NOT Soldered = OFF on the Redesigned board*
8. Address the replacement board to match the one you are removing. This will allow the system to recognize it as the same board.
    a. The Driver Board addressing can be accomplished by toggling the switches.
    b. The one you are removing is soldered since it was an original board.

Original Board…..	**A0**	**A1**	**A2**	**A3**	**A4**	**A5**
Redesigned…….	**1**	**2**	**3**	**4**	**5**	**6**
Driver Board #						
1	0ff	0ff	0ff	0ff	0ff	0ff
2	ON	0ff	0ff	0ff	0ff	0ff
3	0ff	ON	0ff	0ff	0ff	0ff
4	ON	ON	0ff	0ff	0ff	0ff
5	0ff	0ff	ON	0ff	0ff	0ff
6	ON	0ff	ON	0ff	0ff	0ff
7	0ff	ON	ON	0ff	0ff	0ff
8	ON	ON	ON	0ff	0ff	0ff
9	0ff	0ff	0ff	ON	0ff	0ff
10	ON	0ff	0ff	ON	0ff	0ff

INSTALLING REPLACEMENT BOARD

9. Install the replacement board back into the system
10. Insert the cables into the board according to the pictures and cable labels. Double-check to make sure all cables are plugged in and the RED & BLACK are connected to
    a. RED = +12
    b. BLACK = GND
11. Connectors should have NO-Ox on them to keep them from corroding. NO-OX can be purchased from Amazon here… https://amzn.to/3HwMB10
12. TURN ON the POWER.

6040 – SWITCH Reader Board



In this picture, A0, A1, and A2 are not soldered.
Therefore, it is addressed as Switch Reader Board 1.

If it is necessary to replace your Switch Reader Board, follow these steps.

PHOTOGRAPH – LABEL – POWER OFF – REMOVE

1. Take a photo of the board in the system to use as a reference for addressing and when replacing cables.
2. Ensure all cables are **labeled** before removing them from the board, so you know where to reconnect them. If they aren't labeled, **label** them as you are removing them. Take your time. This is critical.
3. **TURN OFF the POWER**
4. When removing cables, don't force them out. Press down on the tab to release it before pulling.
5. Remove the board by releasing the 4 corners.

ADDRESSING

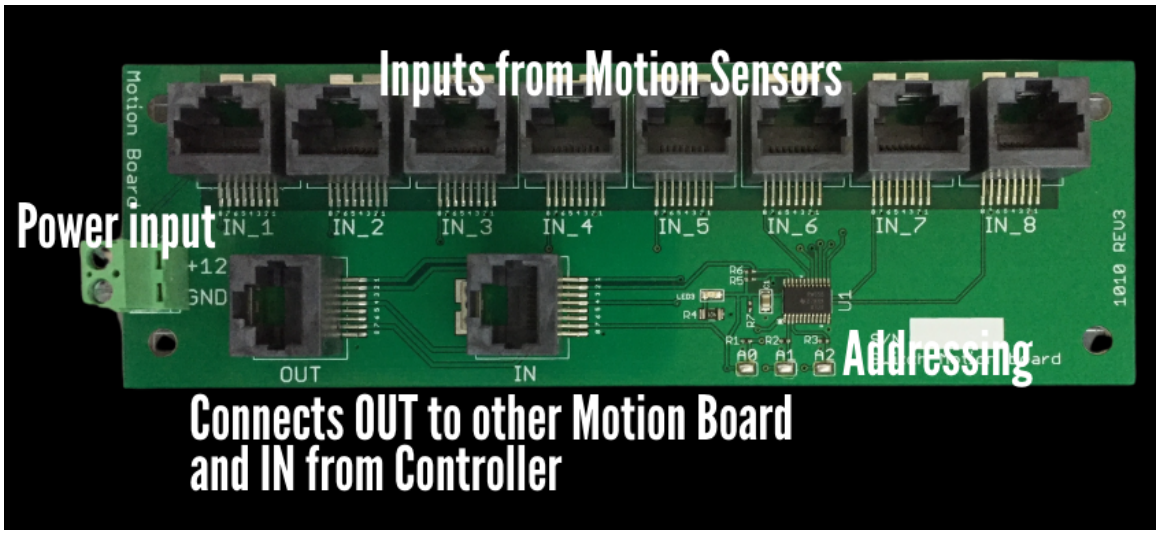
6. Address the replacement board so that it is identical to the one you are removing. (see board addressing)
7. Address by connecting the pads together with solder.

Switch Reader Board #	A0	A1	A2
1	0	0	0
2	1	0	0
3	0	1	0
4	1	1	0
5	0	0	1
6	1	0	1

INSTALLING REPLACEMENT BOARD

8. Install the replacement board.
9. Insert the cables into the board according to your pictures and cable labels.
10. Connectors should have NO-Ox on them to keep them from corroding. NO-OX can be purchased from Amazon here… https://amzn.to/3HwMB10
11. TURN ON the POWER.

6051 – Motion Board, 8 inputs



In this picture, A0, A1, and A2 are soldered.
Therefore, it is addressed as Switch MOTION Board 2.

If it is necessary to replace your Switch MOTION Board, follow these steps.

PHOTOGRAPH – LABEL – POWER OFF – REMOVE

1. Take a photo of the board in the system to use as a reference for addressing and when replacing cables.
2. Ensure all cables are **labeled** before removing them from the board, so you know where to reconnect them. If they aren't labeled, **label** them as you are removing them. Take your time. This is critical.
3. **TURN OFF the POWER**
4. When removing cables, don't force them out. Press down on the tab to release it before pulling.
5. Make a note of the +12 and the GROUND. On some boards, these positions may be switched. RED connects to the +12 / BLACK connects to GROUND
6. Remove the board by releasing the 4 corners.

ADDRESSING

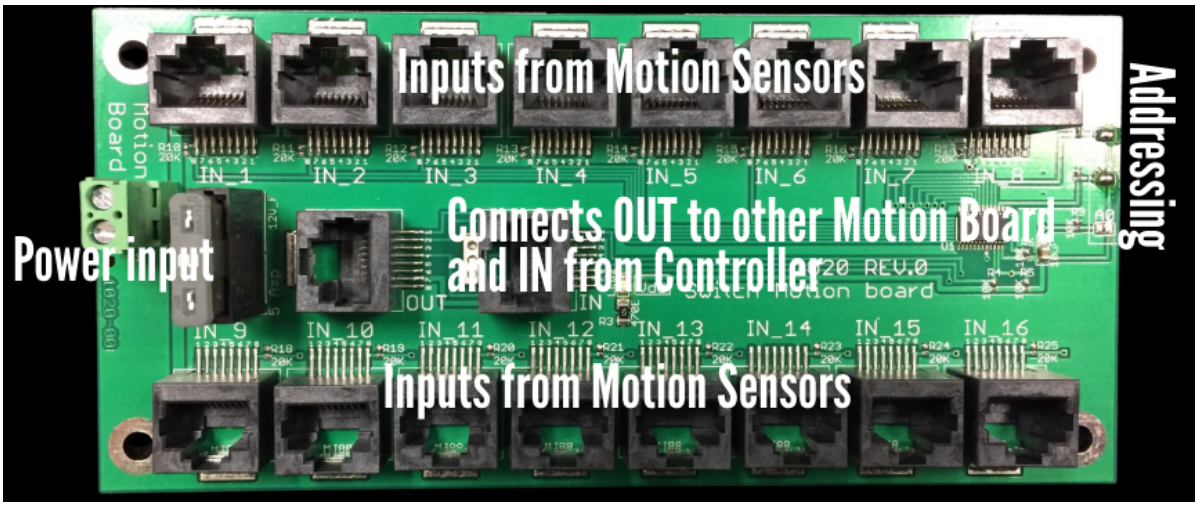
7. Address the replacement board so that it is identical to the one you are removing.
8. Address by connecting the pads together with solder.

Switch Motion Board #	A0	A1	A2
1	0	1	1
2	1	1	1

INSTALL REPLACEMENT BOARD

9. Install the replacement board.
10. Insert the cables into the board according to your pictures and cable labels. Double-check to make sure all cables are plugged in and the RED & BLACK are connected to RED=+12, BLACK=GND
11. Connectors should have NO-Ox on them to keep them from corroding. NO-OX can be purchased from Amazon here… https://amzn.to/3HwMB10
12. TURN ON the POWER.

6052 – Motion Board, 16 inputs



In this picture, A0, A1, and A2 are soldered.
Therefore, it is addressed as Switch MOTION Board 2.

If it is necessary to replace your Switch MOTION Board, follow these steps.

PHOTOGRAPH – LABEL – POWER OFF – REMOVE

1. Take a photo of the board in the system to use as a reference for addressing and when replacing cables.
2. Ensure all cables are **labeled** before removing them from the board, so you know where to reconnect them. If they aren't labeled, **label** them as you are removing them. Take your time. This is critical.
3. **TURN OFF the POWER**
4. When removing cables, don't force them out. Press down on the tab to release it before pulling.
5. Make a note of the +12 and the GROUND. On some boards, these positions may be switched.
    a. RED = +12
    b. BLACK = GND
6. Remove the board by releasing the 4 corners.

ADDRESSING

7. Address the replacement board so that it is identical to the one you are removing.
8. Address by connecting the pads together with solder.

Switch Motion Board #	A0	A1	A2
1	0	1	1
2	1	1	1

INSTALL REPLACEMENT BOARD

9. Install the replacement board.
10. Insert the cables into the board according to your pictures and cable labels. Double-check to make sure all cables are plugged in and the RED & BLACK are connected to RED=+12, BLACK=GND
11. Connectors should have NO-Ox on them to keep them from corroding. NO-OX can be purchased from Amazon here… https://amzn.to/3HwMB10
12. TURN ON the POWER.