



## Installation Instructions for Part # 19444 & 19445 Push Button Limit Switch Kits

### 19444 Kit Includes:

2 #19441 switch	4 #18110 Self Drilling Bolt	
2 #19448 mounting bracket	2 #16118 18 ga. terminal	2 #16122 18 ga. Ring terminal

### 19445 Kit Includes:

4 #19441 switch	8 #18110 Self Drilling Bolt	
4 #19448 mounting bracket	4 #16118 18 ga. terminal	4 #16122 18 ga. Ring terminal

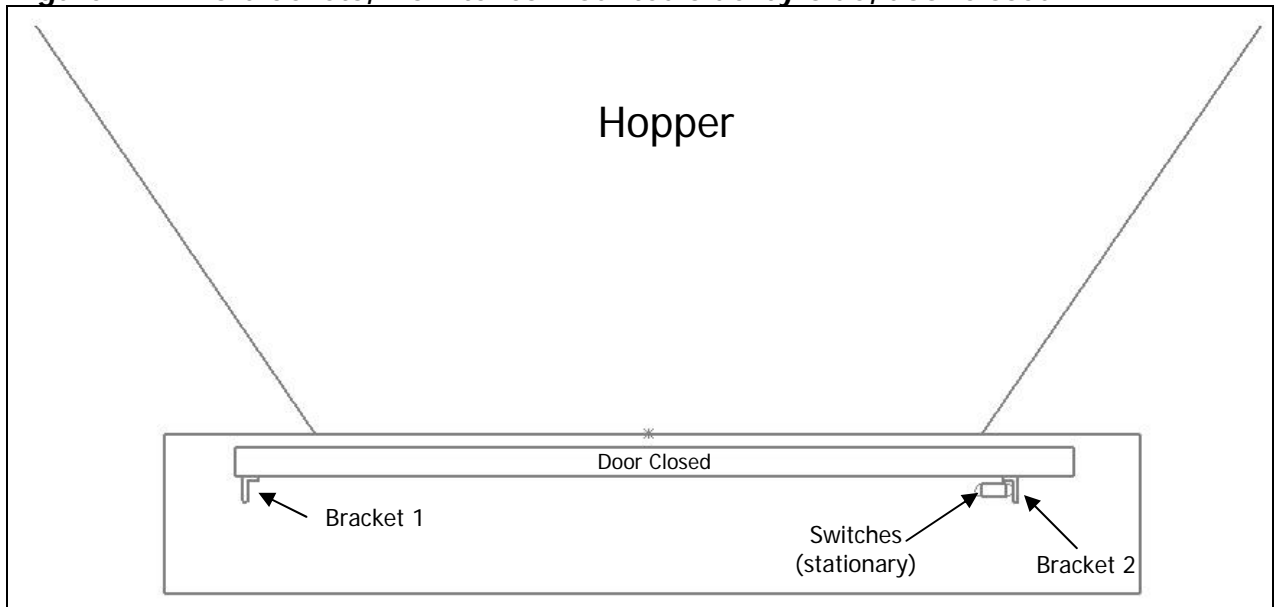
### You will need:

- 1) You will need to provide or fabricate a bracket to trip each limit switch. This will vary depending upon where the switches are installed and what type of device they are controlling.

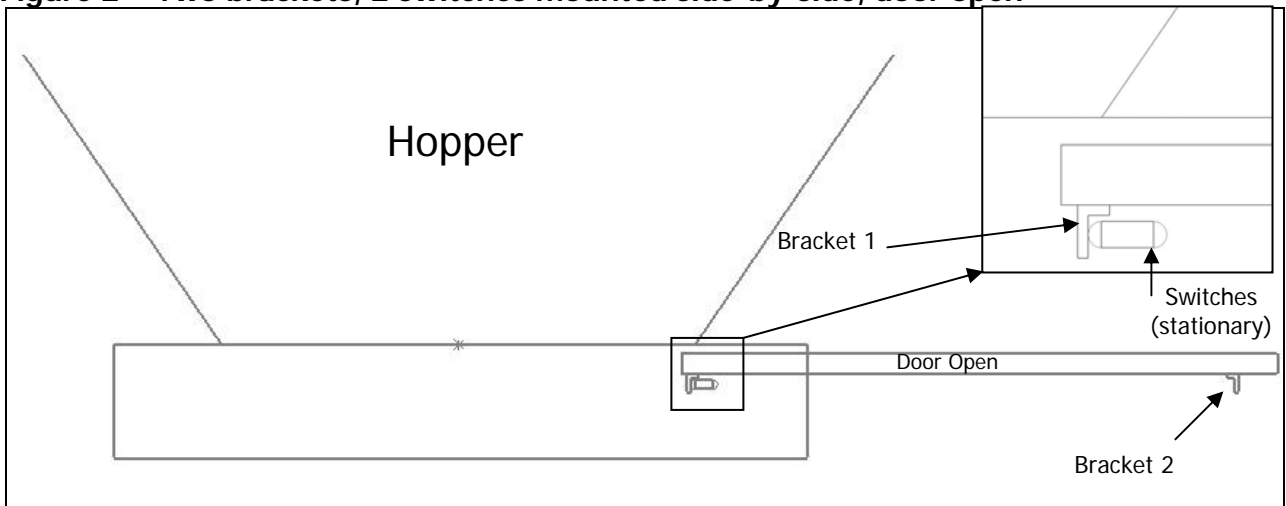
### Mounting the limit switch:

- 1) Determine where you will mount the limit switches. There are two options:
  - Option 1 is to mount the limit switches side-by-side facing in opposite directions to a stationary bracket near the end of the opening. With this method, a bracket must be mounted to each end of the door to trip the switches. See Figures 1 & 2 below.
  - Option 2 is to mount the limit switches to a stationary bracket at each end of the door, one at full open and one at full close. With this method, a single bracket must be mounted to the door to trip each switch. See Figures 3 & 4 below.

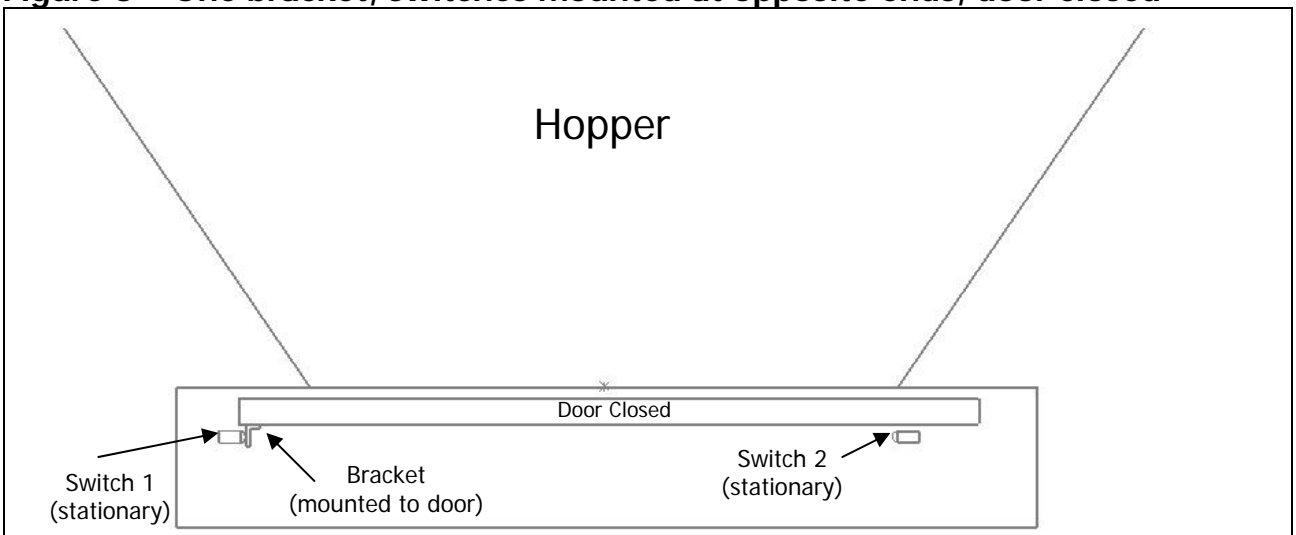
**Figure 1 – Two brackets, 2 switches mounted side-by-side, door closed**



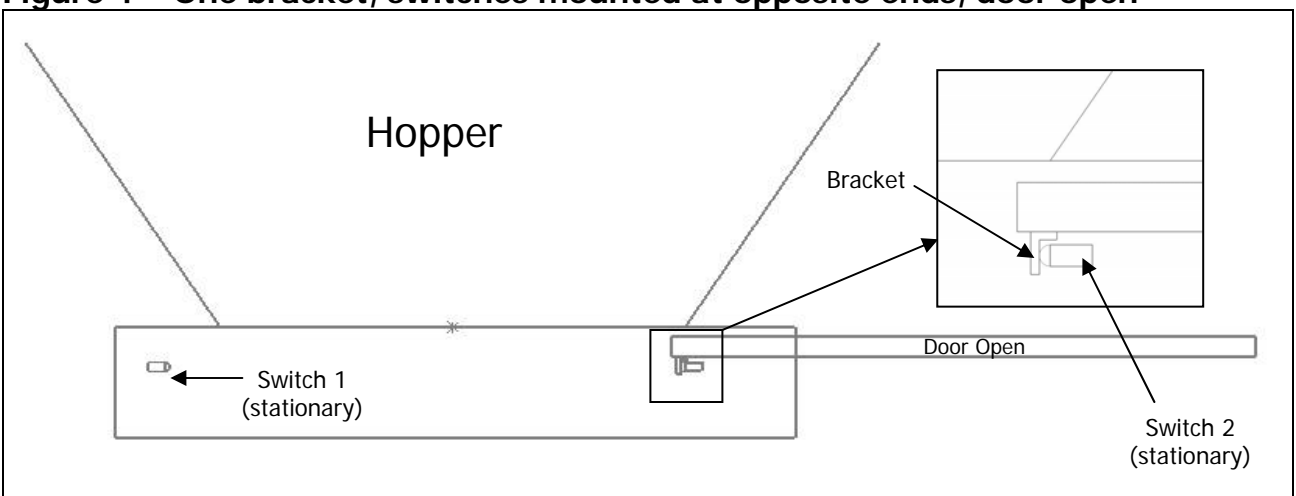
**Figure 2 – Two brackets, 2 switches mounted side-by-side, door open**



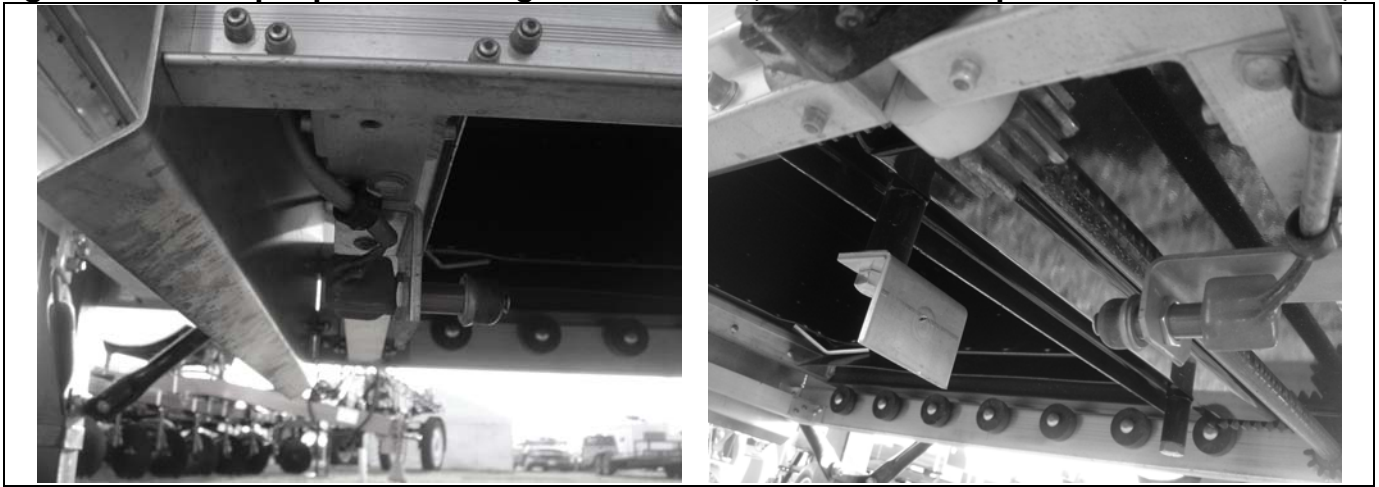
**Figure 3 – One bracket, switches mounted at opposite ends, door closed**



**Figure 4 – One bracket, switches mounted at opposite ends, door open**

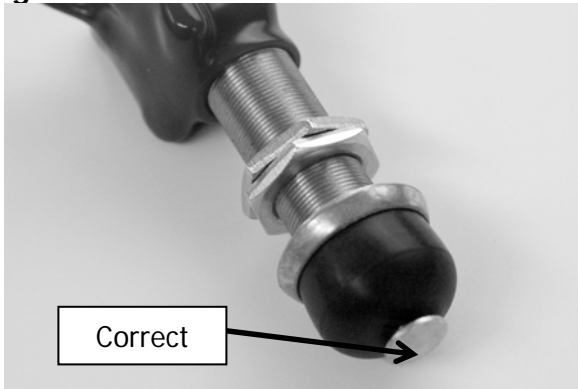


**Figure 5 – Example pictures of fig 4 & 5 above (one bracket trips switch at each end)**

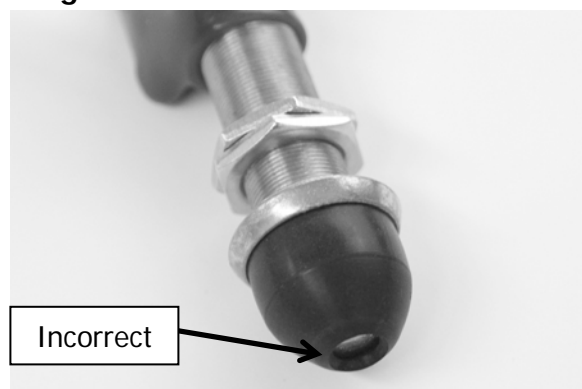


- 2) After mounting the switch, make sure that the rubber boot is packed with dielectric grease and seated correctly on the limit switch. Figure 6 below illustrates a boot that is fully seated, and Figure 7 illustrates an incorrectly seated boot.

**Figure 6**



**Figure 7**



- 3) Securely mount the limit switch wires. To use the included wires, the control box should be mounted within 15' of the limit switches. The optimum location for the control box on a dual hopper door trailer is on the side of the trailer between the two hopper doors.
- 4) Determine which output and channel your motors are connected to by operating the doors with the key fob. The key fob buttons are labeled I-VI (1-6) and correspond to channels 1 - 6. Write down which channel will correspond to each limit switch.
- Limit switch 1 controls Channel \_\_\_\_\_
  - Limit switch 2 controls Channel \_\_\_\_\_
  - Limit switch 3 controls Channel \_\_\_\_\_
  - Limit switch 4 controls Channel \_\_\_\_\_

**Electrical Installation Instructions:**

- 1) See the attached wiring diagram as a visual guide.
- 2) Disconnect the battery wires feeding the control box.
- 3) Install the provided spade terminals to the end of one leg of wire from each limit switch.
- 4) Twist the remaining legs together (2 legs for single hopper door, 4 legs for dual hopper door) and install one of the provided Ring terminals. This terminated bundle of wires is to be connected to the ground post on the box.

If you have any questions, please call our Customer Service Department at 1-800-297-9905.

- 5) You must program the box so that it recognizes that the switches are installed in the circuit. See Limit switch feature in the "Black Box" Instructions.

Example: If your hopper door motor is connected to Output 1 on the black box, buttons I and II on the remote will operate the door. If button I on the remote is wired to open the door, connect the single leg of the limit switch that senses when the door is all of the way open to the terminal indicated in Fig. 8 as CH1. For the limit switch that senses door closed, connect the single leg to the terminal indicated as CH2 in Fig. 8 (which corresponds to Button II on the remote). Connect the combined leg to Terminal JA1 (ground).

- 6) Reconnect the battery wires feeding the control box.

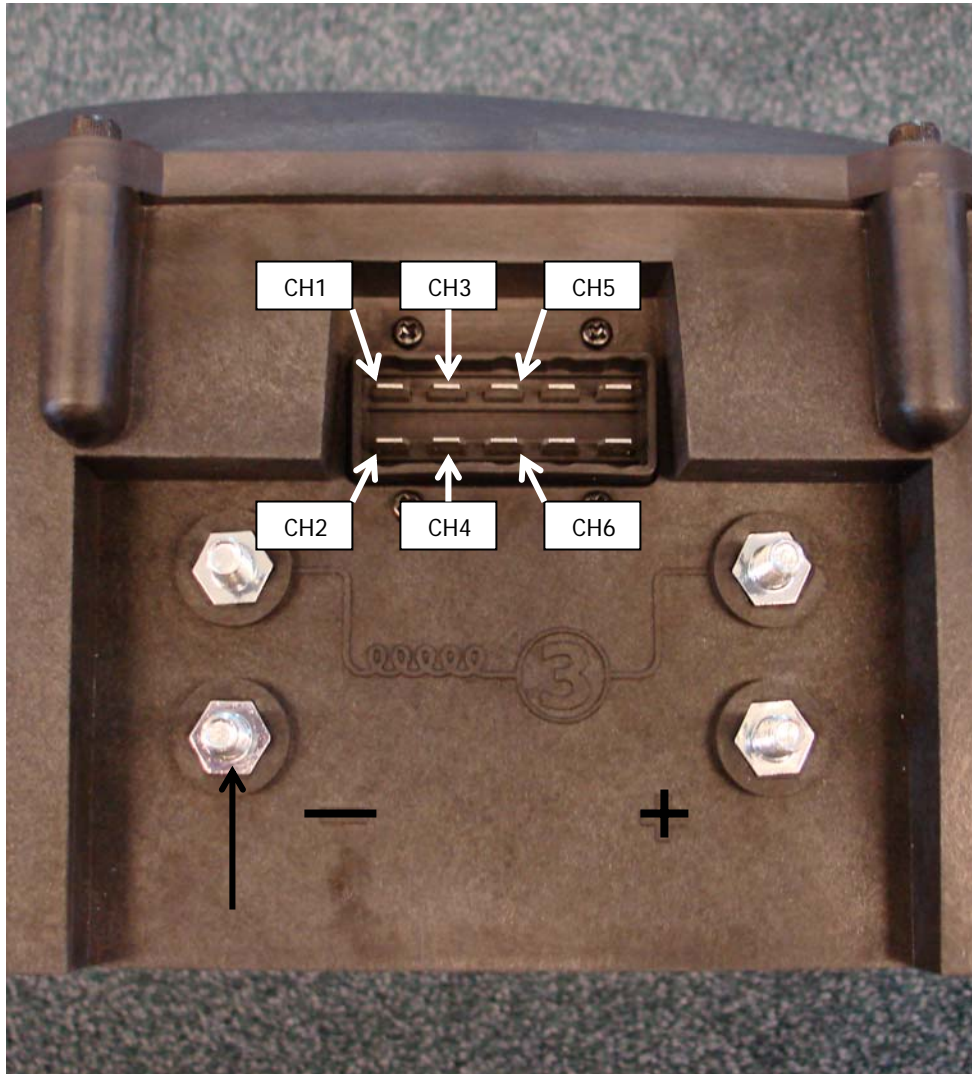
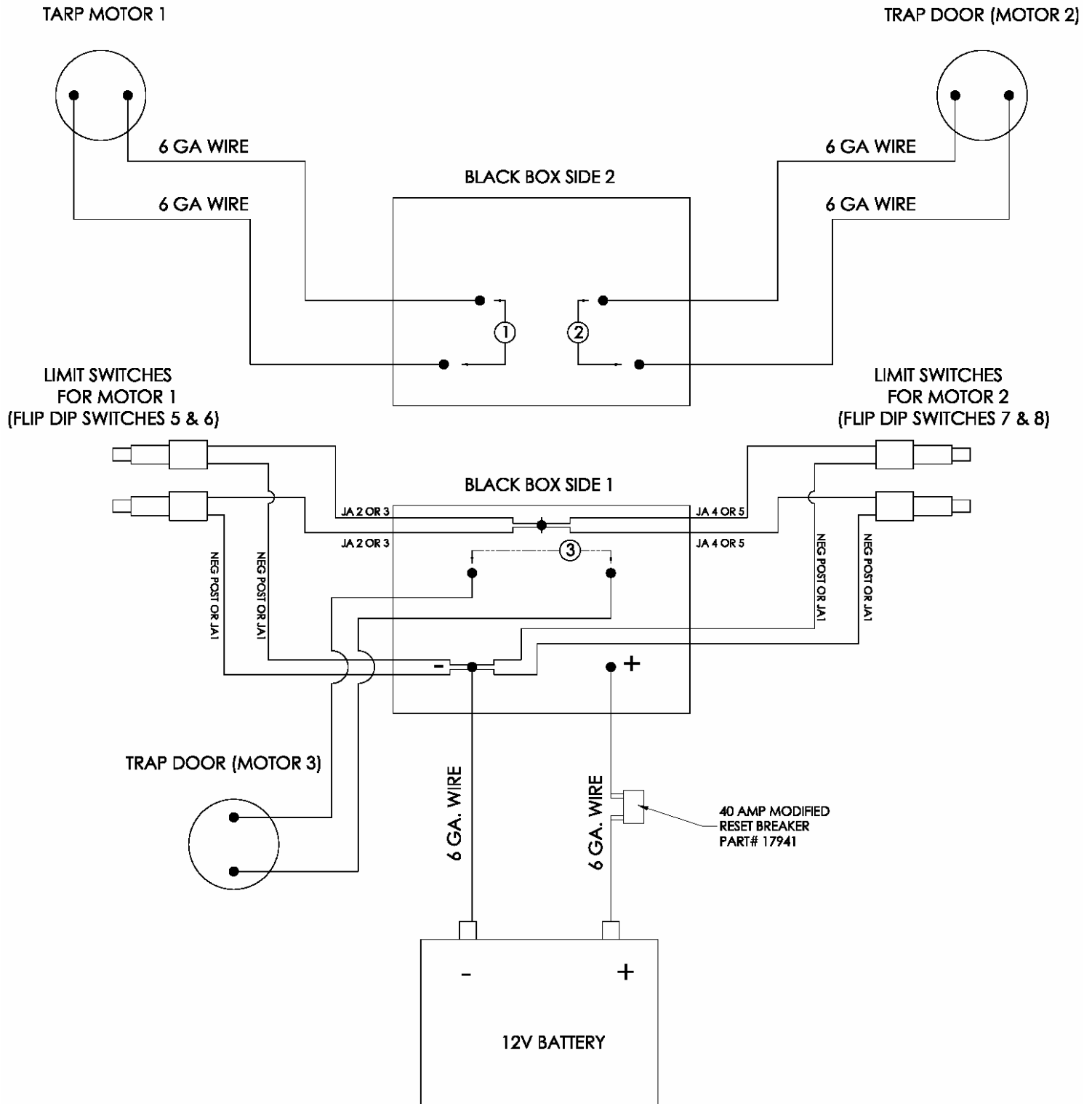


Fig 8

# Limit Switch Wiring Diagram



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