

These instructions will aid you in relocating the pump box on a Tommy Gate V2 series liftgate.

Note: This pump box relocation kit is intended for use with a side mounted flow divider (Figure 1). If the flow divider is mounted in the pump box, a flow divider relocation kit (PN 016800) can be purchased to move the flow divider to the proper position.

Note: The pump box must remain in a vertical position after remounting (Figure 1).

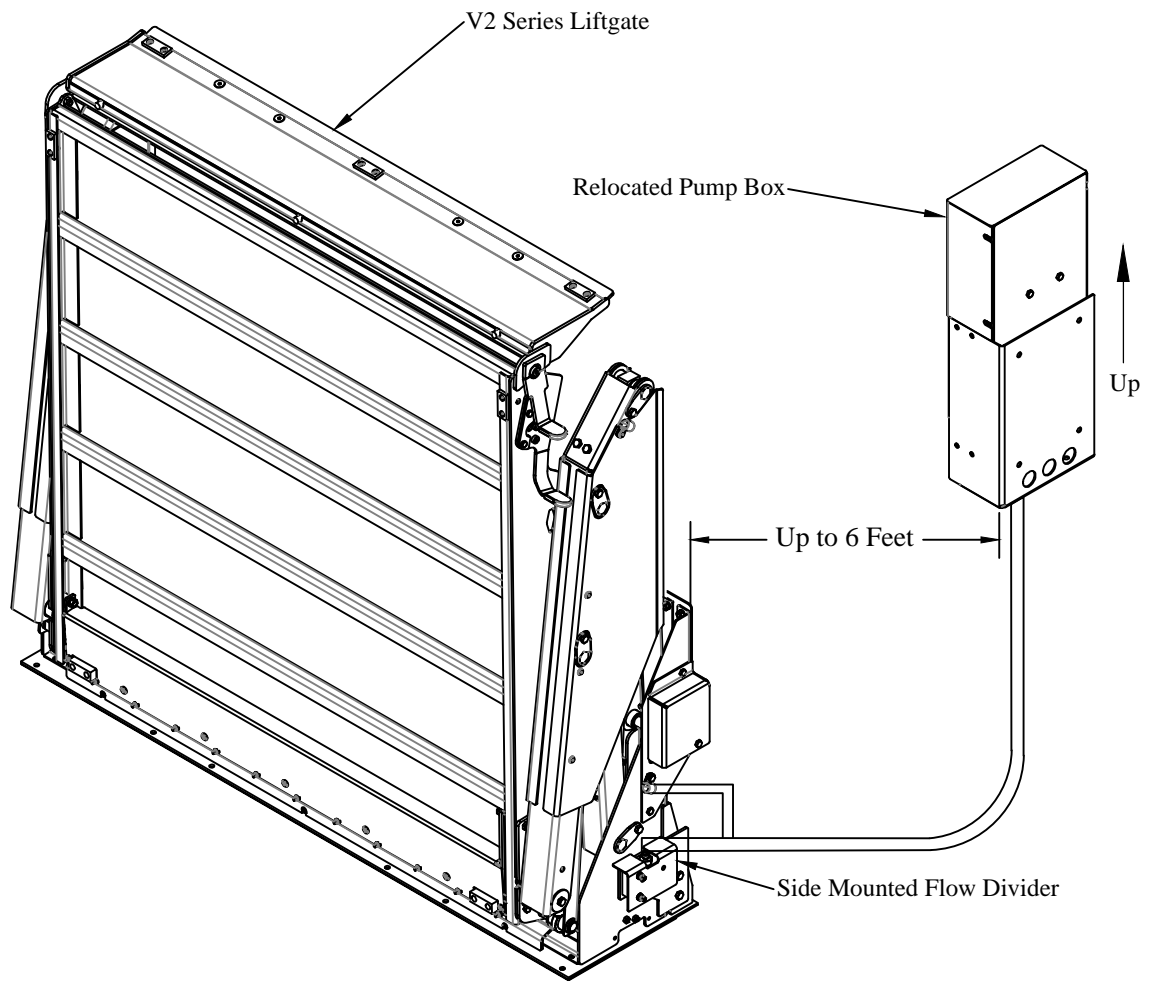


Figure 1: V2 Pump Box Relocation

V2 Pump Box Relocation Instructions

Preparing for the Relocation

1. Verify repair kit (Figure 2 and Table 1).

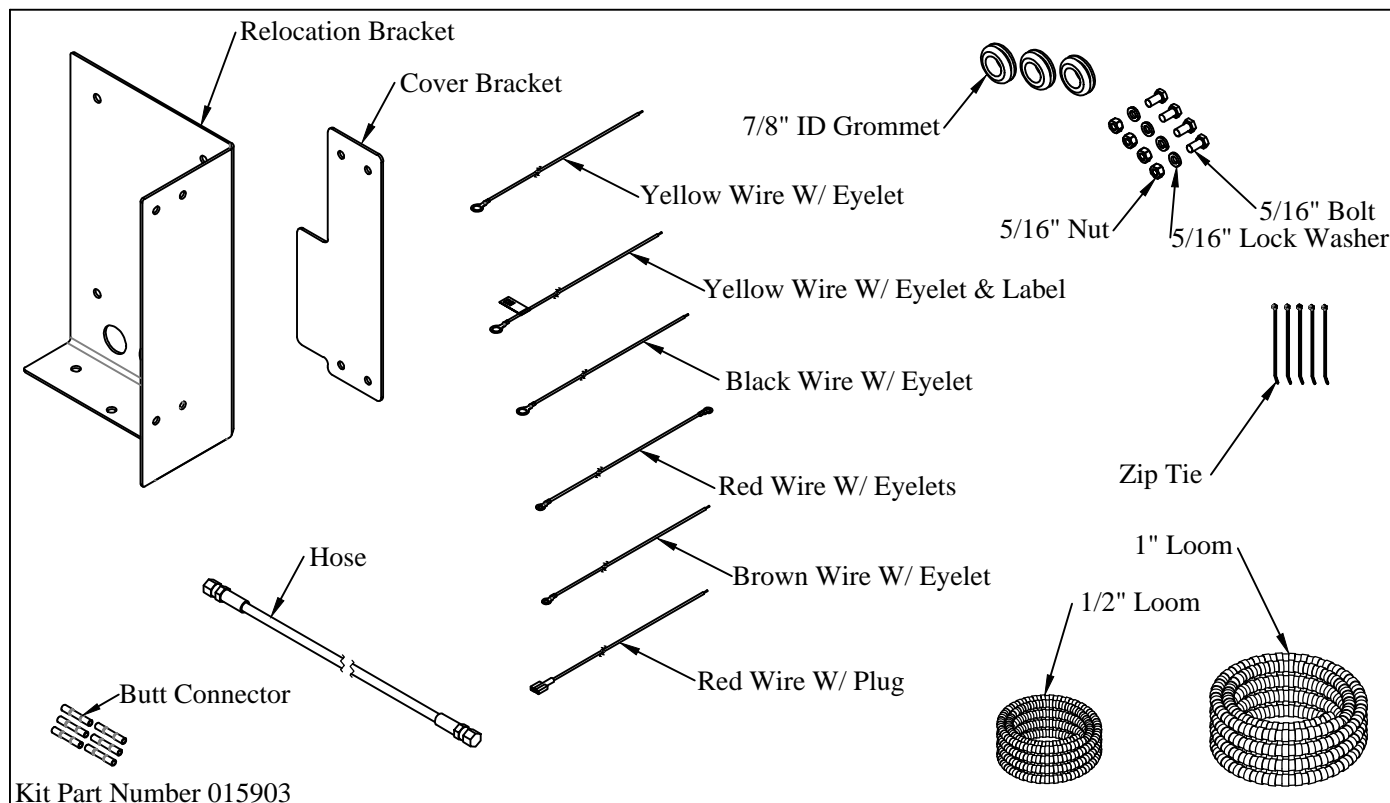


Figure 2: V2 Pump Box Relocation Part Identification

Table 1: Part List

QTY.	PART NO.	DESCRIPTION
1	015891	V2 PUMP BOX RELOCATION BRACKET COMP
1	015892	V2 COVER BRACKET
1	013042	1/4"x91.75" HYD HOSE
6	009089	16-14 HEAT SHRINK BUTT CONNECTOR
1	015894	16GA. YELLOW 96" WIRE W/ (1) 5/16 EYELET
1	015899	16GA. YEL 96" WIRE W/ 5/16 EYE & DN LBL
1	015895	16GA. BLACK 96" WIRE W/ (1) 5/16 EYELET
1	015896	16GA. RED 116" WIRE W/ #10 EYELETS
1	015897	16GA. BROWN 96" WIRE W/ (1) #10 EYELET
1	015898	16GA. RD 116" WIRE W/ (1) FULL INS QD PLUG
4	000543	5/16-18x5/8" HHCS GR5
4	000584	5/16" SPRING LOCK WASHER
4	000554	5/16-18 GR5 NUT (ZINC)
8FT	015904	1" ID SPLIT CORRUGATED LOOM
8FT	015905	1/2" ID SPLIT CORRUGATED LOOM
5	009077	3/16"x7-1/2" CABLE TIE
3	004199	7/8" ID GROMMET

V2 Pump Box Relocation Instructions

Preparing the Gate

1. **Open** the van's rear doors.
2. **Lower** the liftgate to the ground.
3. **Disconnect** the 4 GA. power cable from the positive side of the battery (Customer Connection Point on the driver seat pedestal on some Ford Transit vans) or manually **Trip** the circuit breaker (Figure 3).

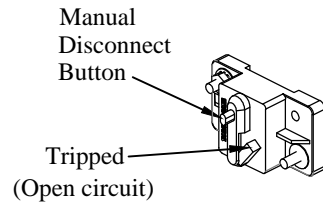


Figure 3: Manually trip circuit breaker.

Relocating the Pump Box

1. **Remove** the pump box cover by removing five (5) thumb screws (Figure 4).

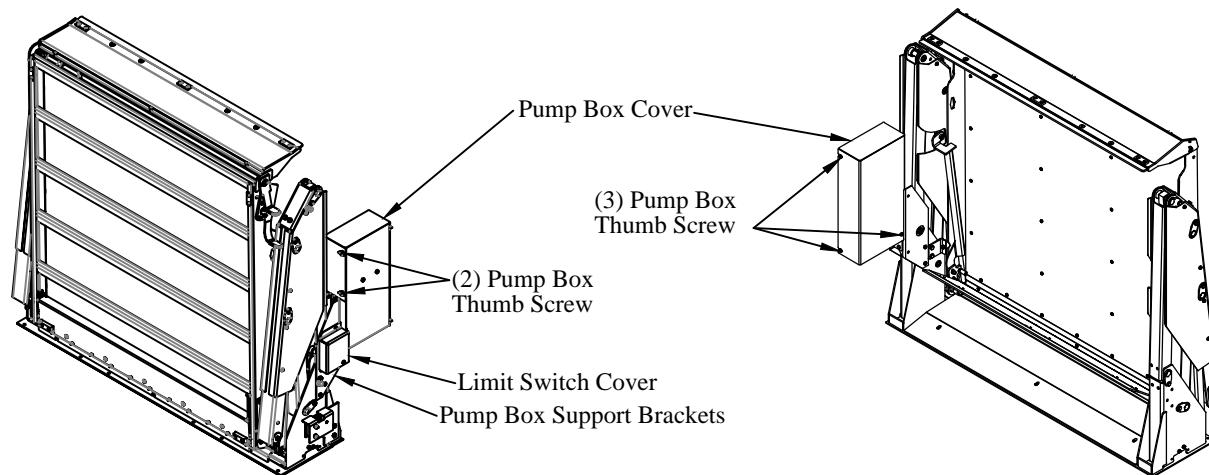


Figure 4: Pump Box.

2. **Remove** and **Save** limit switch cover (Figure 4).
 3. **Disconnect** all wires from limit switch (Figure 8).
 4. **Remove** brown wire from lower solenoid contactor (Figure 8).
 5. **Remove** yellow wire from lower solenoid contactor (Figure 8).
 6. **Remove** red wire from small post on raise solenoid (Figure 8).
 7. **Disconnect** red wire from inline fuse wire at the spade connector (Figure 8).
 8. **Remove** and **Save** ground bolt from power unit (Figure 8).
 9. **Loosen** control cord strain relief in bottom of pump box.
 10. **Remove** control wires and yellow wires from pump box.
- Note: Have rags available for next steps to clean up any oil spills.
11. **Disconnect** hose from the elbow on the power unit and **Remove** from pump box.

V2 Pump Box Relocation Instructions

Relocating the Pump Box (Continued)

12. Disconnect hose from the top of the flow divider.

13. Position and Mount the pump box relocation bracket to van wall or floor as desired (hardware not included).
The pump box must remain in a vertical position after remounting (Figure 5).

Note: If the power cable is not long enough for pump box to reach desired location, reroute or replace with new power cable from Tommy Gate. **Do Not** splice power cable.

14. Support the pump box to keep it from falling in next step.

15. Remove and Save four (4) 5/16" bolts with lock washers and nuts attaching pump box to support brackets (Figure 4).

16. Install pump box in pump box relocation bracket using bolts removed in previous step (Figure 5).

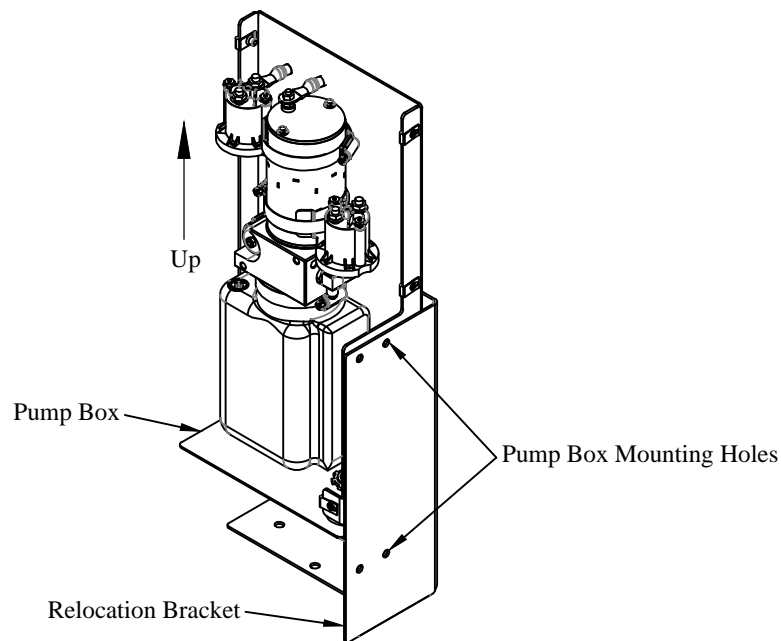


Figure 5: Pump Box Mounted in Vertical Position on Relocation Bracket.

17. Install cover bracket on the pump box support brackets with provided 5/16" bolts, lock washers and nuts (Figure 6).

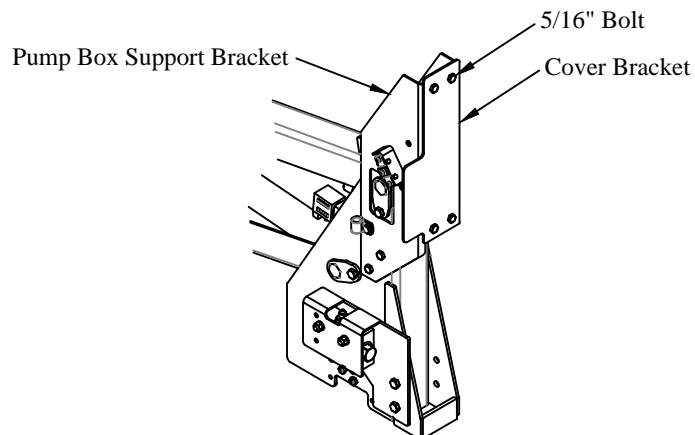


Figure 6: Cover Bracket.

V2 Pump Box Relocation Instructions

Relocating the Pump Box (Continued)

18. **Route** the included hose through the grommet in the bottom of the pump box.
Protect hoses from metal edges with grommets (included) or edge seal (not included).
19. **Install** hose on power unit elbow.
20. **Install** the free end of the hose on the flow divider.
21. **Install** blue and green control wires to terminal 1 (common) on limit switch (Figure 8).
22. **Install** orange control wire and provided red wire with eyelets to terminal 2 (normally closed) on limit switch (Figure 8).
23. **Replace** limit switch cover (Figure 4).
Do Not over tighten bolts and crush the cover.
24. **Install** provided brown wire on lower solenoid contactor where factory brown wire was previously removed (Figure 8).
25. **Install** provided yellow wire with "DN" label to lower solenoid contactor where factory wire was previously removed (Figure 8).
26. **Install** provided red wire with plug onto inline fuse wire (Figure 8).
27. **Install** remaining provided black and yellow wires on power unit ground bolt with 4 AWG and lower solenoid ground wires (Figure 8).
28. **Route** red wire from limit switch to the pump box and through strain relief in pump box and **Install** on raise solenoid where factory wire was previously removed (Figure 8).
29. **Route** control wires and yellow wires through strain relief out of pump box.
30. **Route** wires along the hose.
Protect wires from metal edges with grommet (included) or edge seal (not included).
31. **Match** loose wires up to previously removed wires.
Note: Polarity of yellow wires are reversible.
32. **Trim** and **Strip** wire ends as needed.
33. **Connect** wires with provided heat shrink butt connectors.
34. **Verify** wiring matches diagram (Figure 8).
35. **Install** 1/2" convoluted loom over wiring.
36. **Tighten** strain reliefs.
37. **Install** 1" convoluted loom over hose and wire loom.
38. **Secure** excess hose and wire length with provided zip ties.

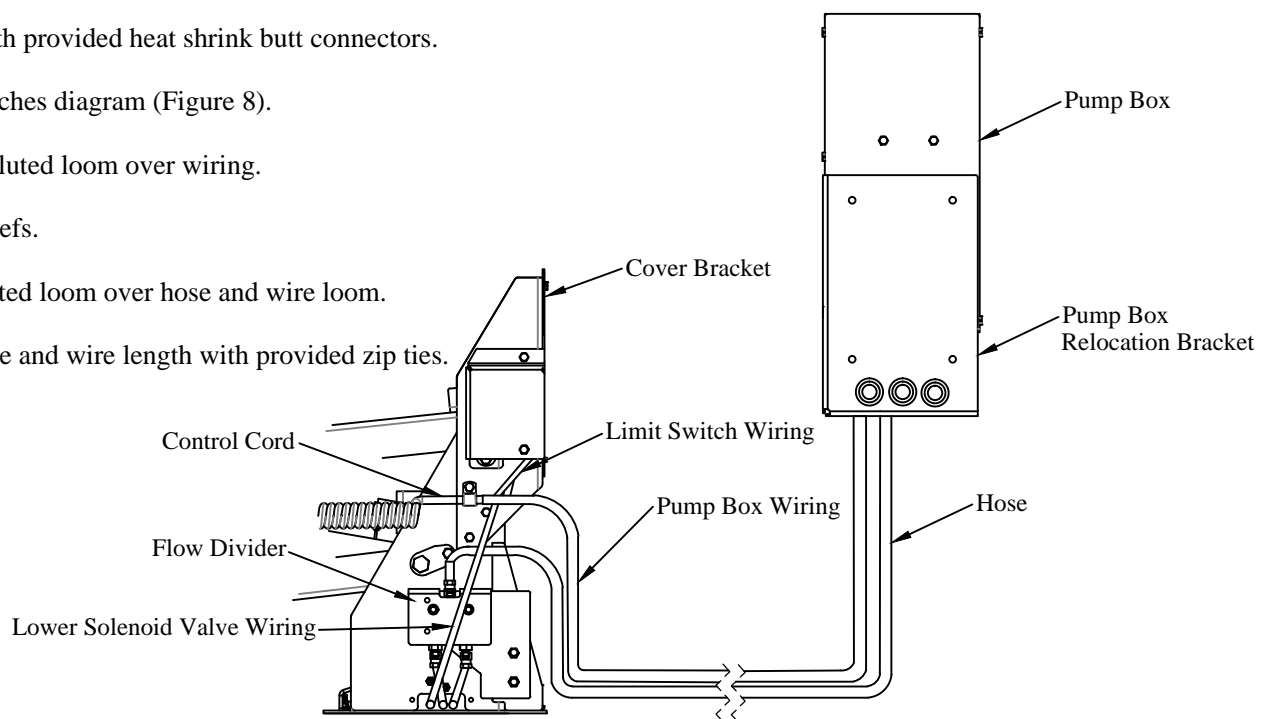


Figure 7: Completed Install.



ELECTRICAL WIRING DIAGRAM

Pendant Control

!!! PLEASE READ AND FOLLOW ALL DIRECTIONS BEFORE PROCEEDING !!!



NOTE !!! IF GATES ARE NOT WIRED IN ACCORDANCE WITH THIS DIAGRAM YOUR WARRANTY WILL BE VOID.



WELDING NOTE !!! DISCONNECT ALL BATTERY CABLES. ALWAYS DISCONNECT THE GROUND CABLE FIRST. ATTACH THE WELDING GROUND TO THE TRUCK RATHER THAN THE LIFTGATE.

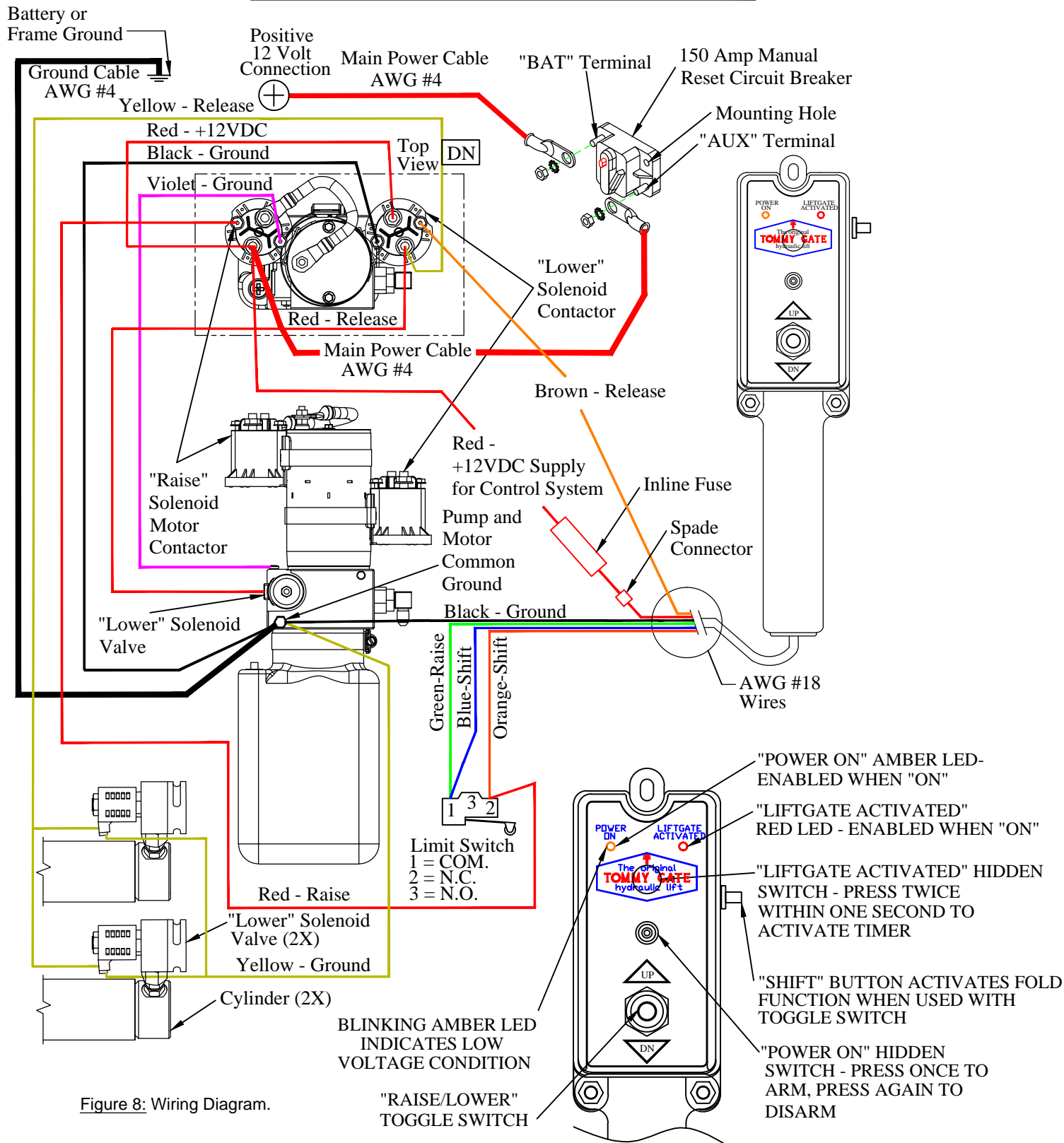
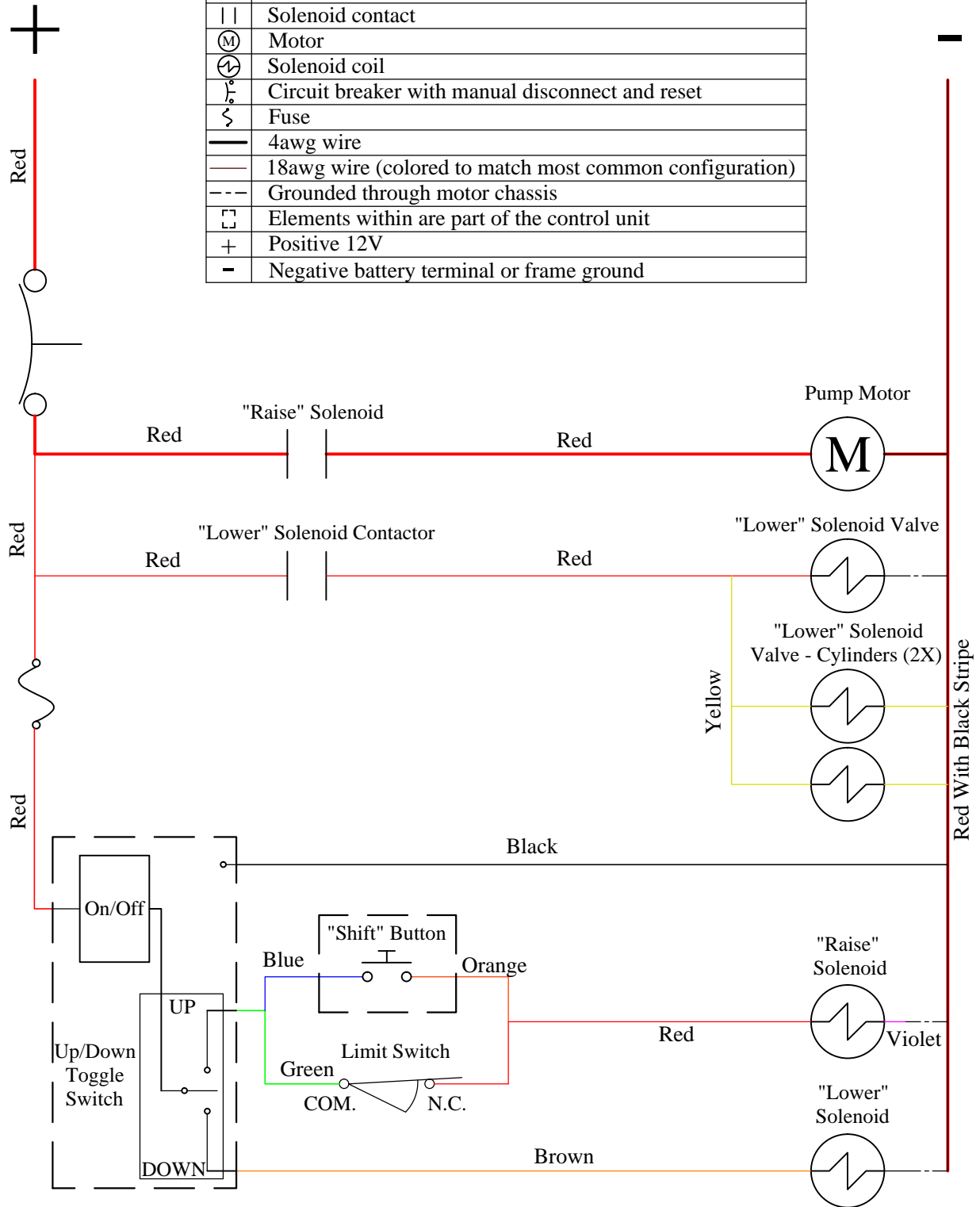


Figure 8: Wiring Diagram.



V2 POWER UNIT CONTROL CIRCUIT

Legend	
	Button
	Solenoid contact
	Motor
	Solenoid coil
	Circuit breaker with manual disconnect and reset
	Fuse
	4awg wire
	18awg wire (colored to match most common configuration)
	Grounded through motor chassis
	Elements within are part of the control unit
	Positive 12V
	Negative battery terminal or frame ground



V2 Pump Box Relocation Instructions

Finishing the Install

1. **Connect** the 4ga power cable to the positive side of the battery (Customer Connection Point on the driver seat pedestal on some Ford Transit vans) or manually **Engage** the circuit breaker (Figure 10).
 2. **Run** the liftgate through 3-4 complete cycles to remove air from the system.
 3. **Check** for leaks and Repair as needed.
 4. **Lower** the platform until the platform taper touches the ground.
 5. **Disconnect** the 4 GA power cable from the positive side of the battery (Customer Connection Point on the driver seat pedestal on some Ford Transit vans) or manually **Trip** the circuit breaker (Figure 3).
 6. **Check** if the reservoir is at least 3/4 full, if it is, Skip to Step 10.
 7. **Remove** the vent plug from the pump reservoir (Figure 9).
- Note:** The recommended hydraulic oil for this liftgate is ISO grade 32, Dexron, or equivalent.
8. **Add** enough recommended hydraulic oil to fill the reservoir 3/4 full.
(The platform should be on the ground at this point or the reservoir will be overfilled.)
 9. **Install** the vent plug in the pump reservoir.
 10. **Install** the pump box cover and screws (Figure 4). Make sure the wires and solenoids clear the cover.
 11. **Connect** the 4ga power cable to the positive side of the battery (Customer Connection Point on the driver seat pedestal on some Ford Transit vans) or manually **Engage** the circuit breaker (Figure 10).
 12. **Raise** and **Store** the platform.

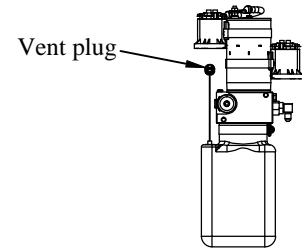


Figure 9: Vent plug.

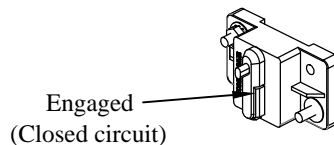


Figure 10: Engage circuit breaker.