

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).

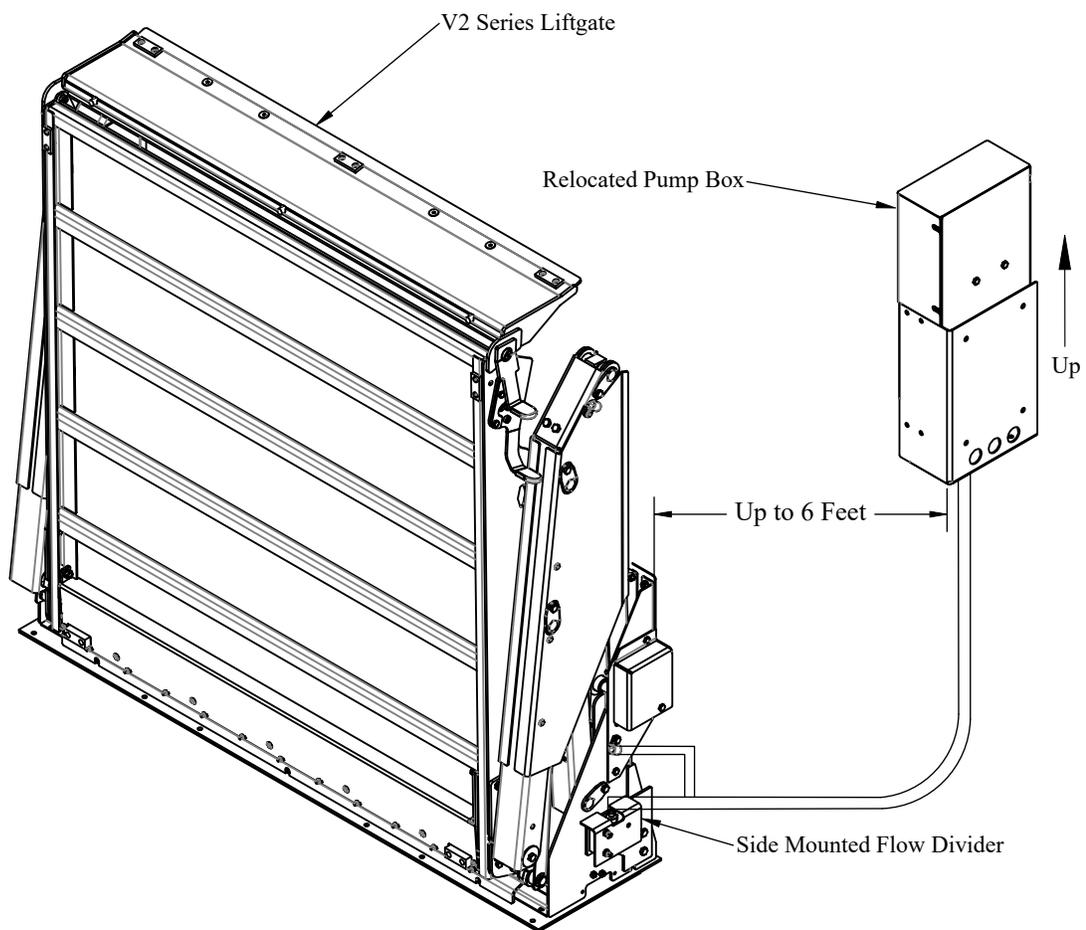
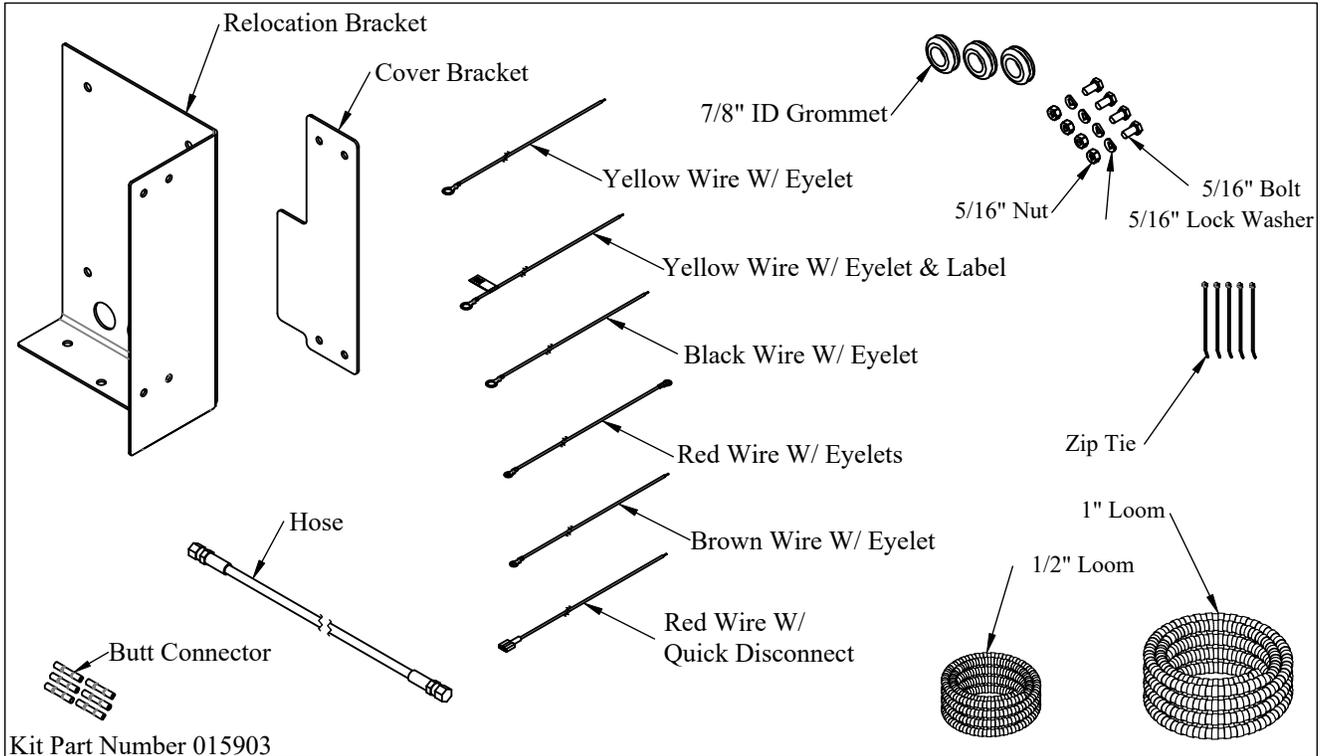


Figure 1: V2 pump box relocation.

V2 Pump Box Relocation Instructions

Preparing for the Relocation

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



Kit Part Number 015903

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
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).

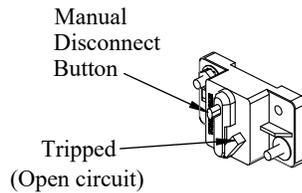


Figure 3: Tripped circuit breaker.

Relocating the Pump Box

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

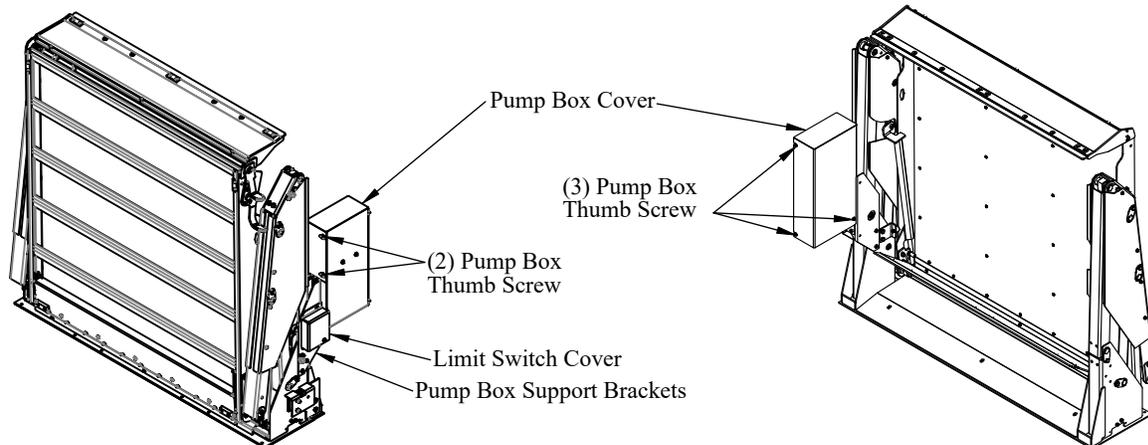


Figure 4: Pump box.

2. **Remove** and **Save** limit switch cover (Figure 4).
3. **Disconnect** all wires from limit switch (Figures 9 and 10).
4. **Remove** brown wire from "Lower" solenoid (Figures 9 and 10).
5. **Remove** yellow wire from "Lower" solenoid (Figures 9 and 10).
6. **Remove** and **Discard** red wire from small post on "Raise" solenoid (Figures 9 and 10).
7. **Disconnect** red wire from inline fuse wire at the quick disconnect (Figures 9 and 10).
8. **Remove** and **Save** ground bolt from power unit (Figures 9 and 10).
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).
 17. **Install** cover bracket on the pump box support brackets with provided 5/16" bolts, lock washers and nuts (Figure 6).
 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 (Figures 9 and 10).
 22. **Install** orange control wire and provided red wire with eyelets to terminal 2 (normally closed) on limit switch (Figures 9 and 10).
 23. **Replace** limit switch cover (Figure 4).
Do Not over tighten bolts and crush the cover.

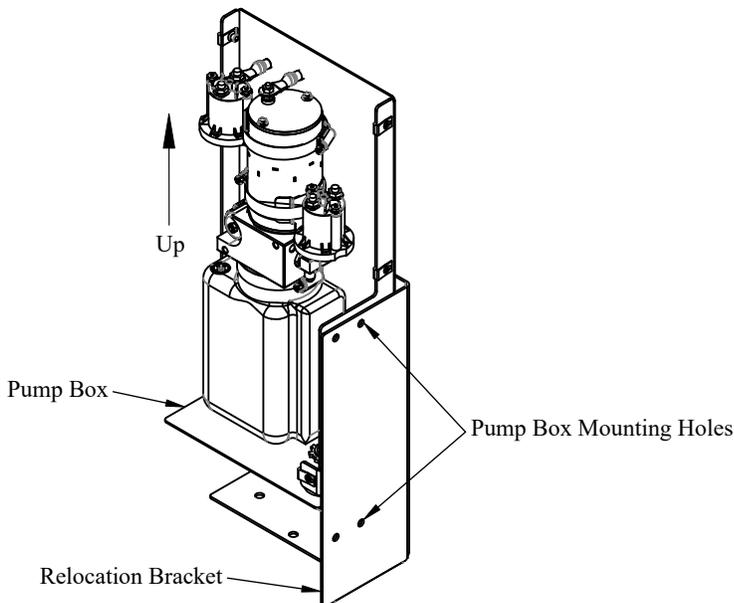


Figure 5: Pump box mounted in vertical position on relocation bracket.

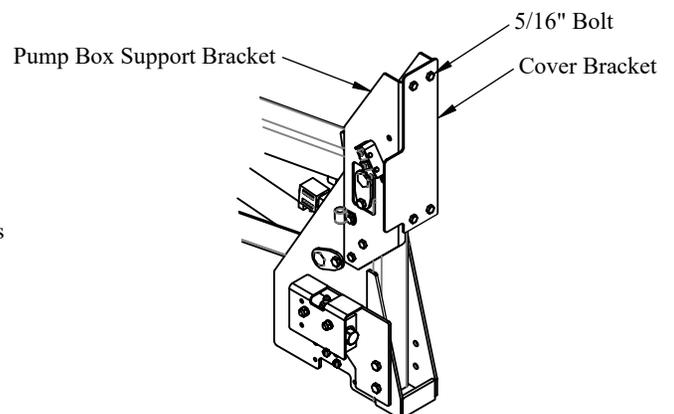


Figure 6: Cover bracket.

V2 Pump Box Relocation Instructions

Relocating the Pump Box (Continued)

24. **Install** provided brown wire on "Lower" signal post (Figure 7) where factory brown wire was previously removed (Figures 9 and 10).
25. **Install** provided yellow wire with "DN" label to "Lower" load post (Figure 7) where factory wire was previously removed (Figures 9 and 10).
26. **Install** provided red wire with quick disconnect onto inline fuse wire (Figures 9 and 10).
27. **Install** remaining provided black and yellow wires on power unit ground bolt (Figure 7) with 4 AWG and "Lower" solenoid contactor ground wires (Figures 9 and 10).
28. **Route** red wire with eyelets from limit switch to the pump box and through strain relief in pump box
29. **Install** red wire with eyelets on "Raise" signal post where factory wire was previously removed (Figures 9 and 10).
30. **Route** control wires and yellow wires through strain relief out of pump box.
31. **Route** wires along the hose.
Protect wires from metal edges with grommet (included) or edge seal (not included).
32. **Match** loose wires up by color to previously removed wires.
Note: Yellow wires are interchangeable.
33. **Trim and Strip** wire ends as needed.
Note: Remove "DN" label from yellow wire where the eyelet was trimmed off.
34. **Connect** wires with provided heat shrink butt connectors.
35. **Verify** wiring matches diagram (Figures 9 and 10).
36. **Install** 1/2" convoluted loom over wiring.
37. **Tighten** strain reliefs.
38. **Install** 1" convoluted loom over hose and wire loom.
39. **Secure** excess hose and wire length with provided zip ties.

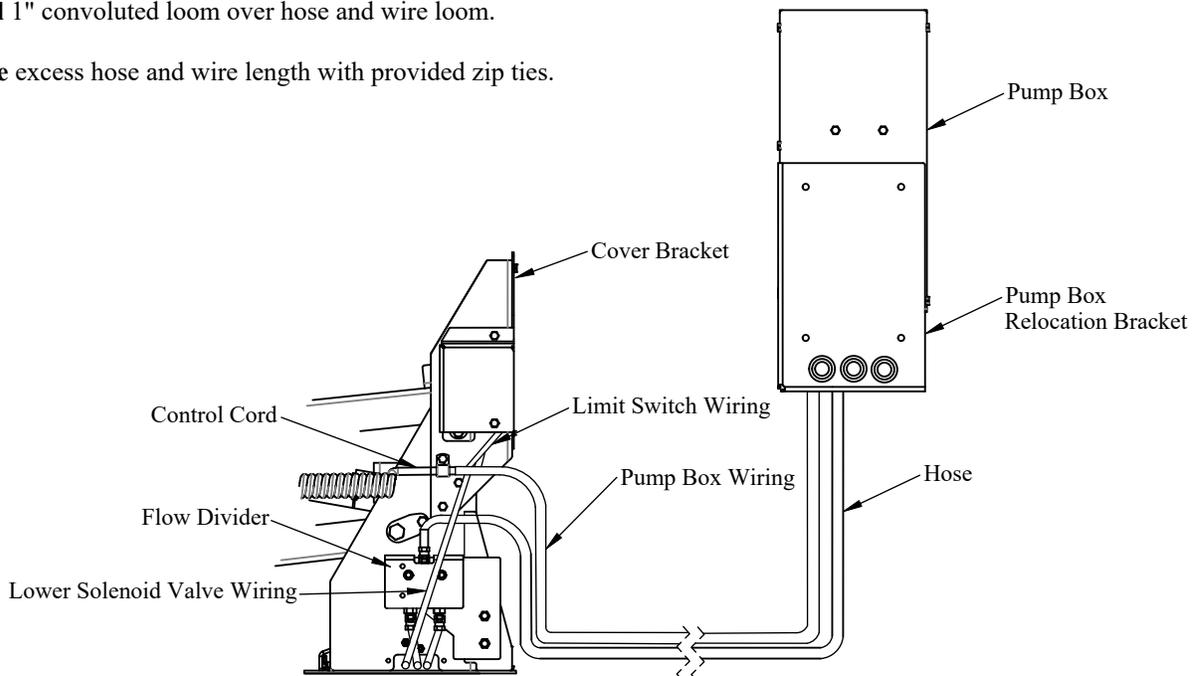
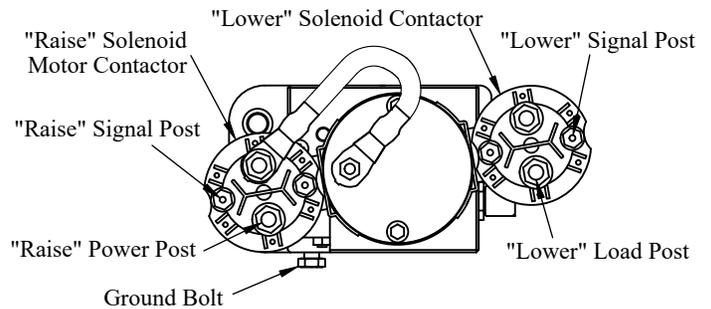


Figure 8: Completed install.



ELECTRICAL WIRING DIAGRAM

Pendant Control

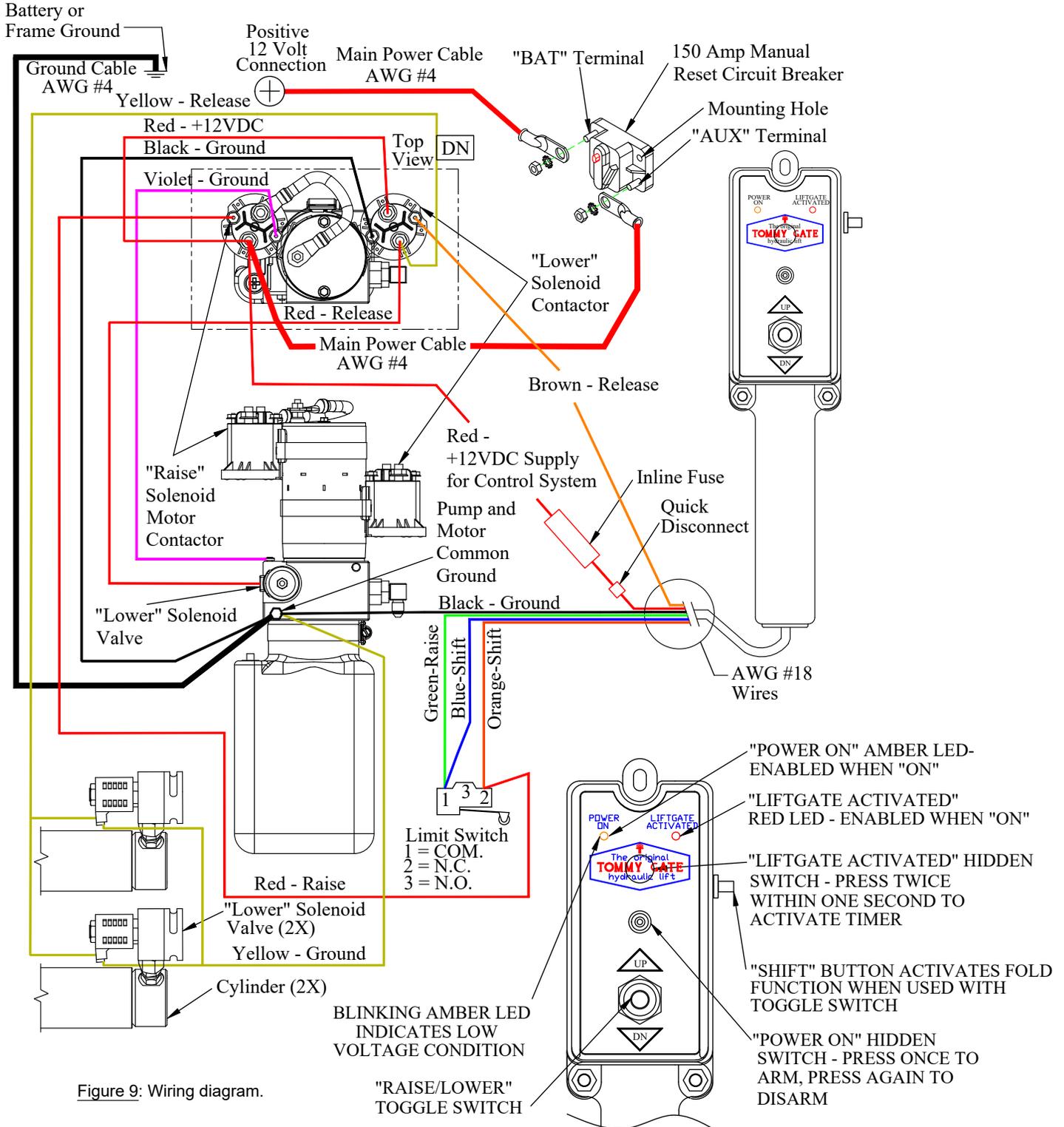
!!! PLEASE READ AND FOLLOW ALL DIRECTIONS BEFORE PROCEEDING !!!



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.



V2 Pump Box Relocation Instructions

Ladder Logic/Wiring Diagram

Legend	
	Circuit Breaker
	Push Button
	Toggle Switch
	Limit Switch
	Contactor - Normally Open Contacts
	Motor
	Solenoid/Contactor - Coil
	Battery Cable
	Wire
	Grounded through pump body.
	Quick Disconnect
	Eyelet Terminal
	Splice
	Fuse

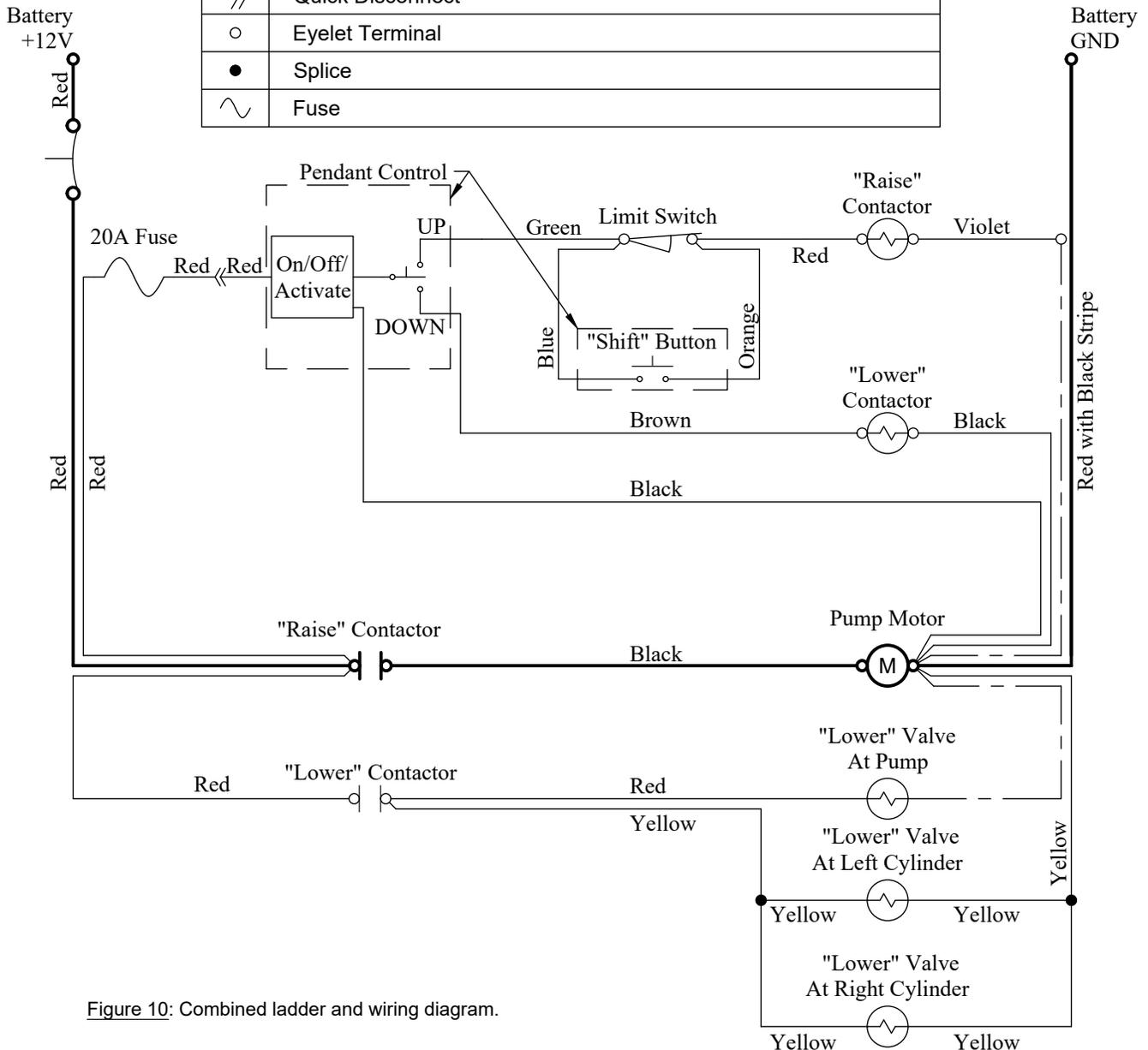


Figure 10: Combined ladder and wiring diagram.

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 12).
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 11).

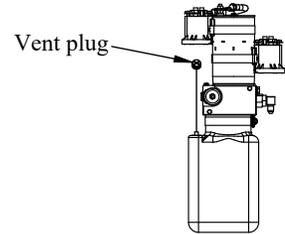


Figure 11: Vent plug.

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 12).
12. **Raise** and **Store** the platform.

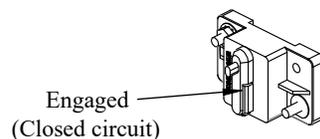


Figure 12: Engaged circuit breaker.