

Original Series Pickup Lift Mounting Instructions

Chevy / GMC-
Colorado/ Canyon: 2004-2012

T-51

Preparing the Gate

1. Remove the mounting hardware which is banded to the liftgate.
2. Verify mounting bracket kit (Figure 1 and Table 1).

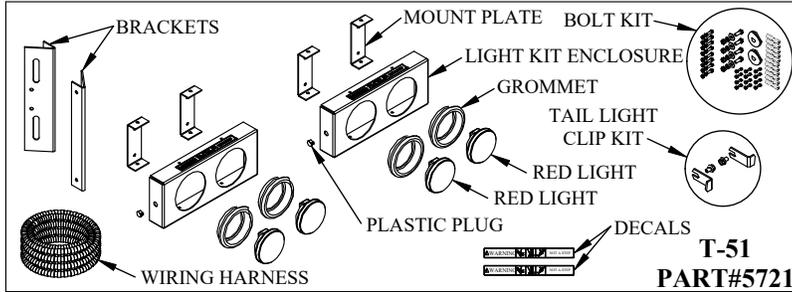


Figure 1: Part Identification.

Table 1: Parts List.

QTY.	PART NO.	DESCRIPTION
1	9064	T-51 Bolt Bag Kit
2	5713	T-51 Upper Bracket
1	5255	T-160 Tail Light Lens Clip Kit
2	3945	Light Kit Decal
2	6002	Light Kit Enclosure
4	5708	Mount Plate
4	4014	Rubber Grommet
4	4016	Red Light
2	3065	1/2" Plastic Plug
1	9143	Wiring Harness

Preparing the Truck

1. Remove the tailgate and tailgate hardware (Figure 2).
2. Support the rear bumper and hitch to keep them from falling while removing the mounting bolts.
3. Remove the rear bumper and bumper mounting brackets.
4. Remove the factory receiver hitch only if it is part of the bumper.
If the factory receiver hitch is separate from the bumper, it is compatible with the liftgate.

Note: The tailgate, tailgate hardware, rear bumper, and hitch cannot be remounted after the liftgate is installed if it was removed in this section.

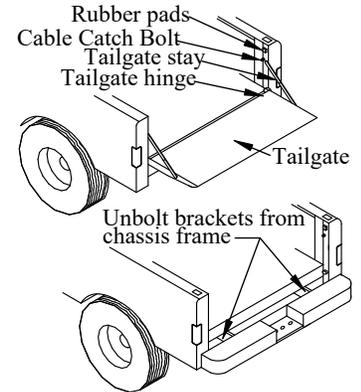


Figure 2: Remove hardware.

Modifying the Tail Light Mounting

Note: After this modification, the M8x1.25x12 bolts can be loosened to remove the tail light lenses.
Note: This modification must be completed before the liftgate is installed so that the tail light bulbs can be replaced without removing the liftgate.

1. Remove four (4) factory tail light screws, two (2) per side (Figure 3).
2. Install M8 x 1.25 x 12 bolts and tail light clips (supplied) in the tailgate cable catch bolt locations (Figure 3).
3. Apply pressure to the tail light from the rear while tightening the bolt (Figure 3).

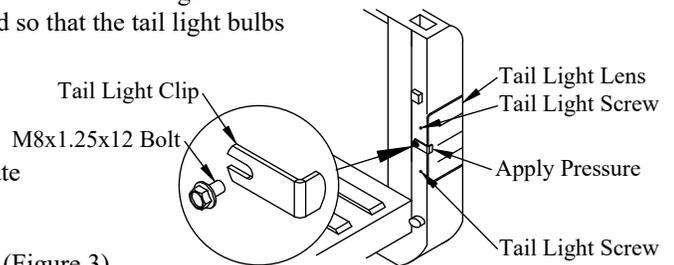


Figure 3: Tail light modification detail.

Installing the Filler Strip

Note: The filler strip must be mounted on the liftgate before the liftgate is mounted on the truck.
Note: The filler strip will fill the gap between the liftgate and the truck bed.

1. Weld the filler strip (12ga.x2"x52-3/4") to the top corner of the liftgate mainframe (Figure 4).

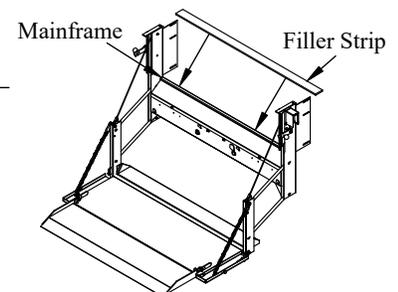


Figure 4: Filler strip location.

Installing the Liftgate

- Position** the mounting brackets into the truck bed in front of the corner posts (Figure 5).
 - The brackets will hook over the factory tie down loops.
 - Do not drill holes for mounting brackets at this time.
- Position** the Tommy Lift into the bed opening. The liftgate should be:
 - Centered in the opening.
 - Flush with the truck bed floor.
 - In a vertical position (level with the ground).
- Hand Tighten** each mounting bracket to the liftgate gussets using the supplied:
 - (2) 3/8"x1" hex head bolts on the bracket-side (Figure 5).
 - (2) 3/8" lock washers, and (2) 3/8" nuts on the bracket-side (Figure 5).
- Allow** the liftgate to hang, supported by the corner posts.
- Remove** the tail lights.
- Hold** the bracket flush against the corner post.
- Check** for obstructions before drilling in the next step.
- Drill** two (2) 3/8" holes into each corner post using the two holes in the bracket as a guide.
- Fasten** each bracket to the truck box using the supplied:
 - (2) 3/8"x1" hex head bolts inside the corner post.
 - (2) lock washers and (2) hex nuts on the gusset-side.
- Adjust** the liftgate so the platform is level from front to back.
 - Check the clearance between the truck tail light lenses and the liftgate.
- Tighten** the bolts securing the liftgate gussets to the mounting brackets.

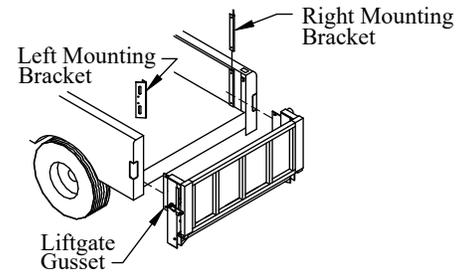


Figure 5: Mounting bracket and liftgate.

Checking the Spare Tire Access

Note: There are holes in the mainframe that provide access to the spare tire crank mechanism.

- Remove** the box cover by removing the 5/16" hex head bolts (Figure 6).
- Remove** and **Discard** the black plastic plugs from the mainframe at the location shown (Figure 7).
- Verify** spare tire access operation by inserting the spare tire crank rod through the access holes.

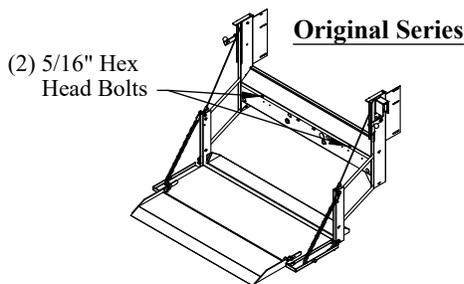


Figure 6: Box cover location.

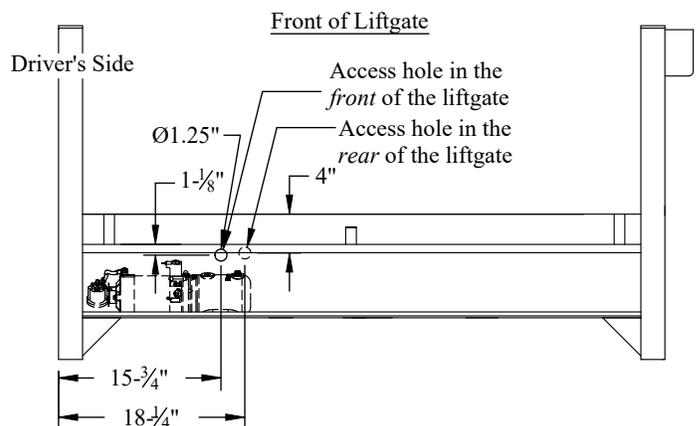


Figure 7: Spare tire access.

Preparing the Gate for Wiring

1. **Unscrew** the solid plastic plug from the pump reservoir. The box cover should already be off.

Note: The hydraulic system has already been filled with the proper amount of hydraulic oil so **do not** add any oil at this time.

2. **Attach** 12 volts from a battery to the liftgate power cables (no battery chargers).
3. **Push** the hidden "Power On" switch (Figure 9). The amber "Power On" LED will illuminate.
4. **Push** the hidden "Liftgate Activated" switch twice within one second. The red "Liftgate Activated" LED will illuminate.

Note: With both lights on, the liftgate can be raised or lowered. If not used for 90 seconds, the control will automatically shut off.

5. **Push** the toggle switch down to lower the liftgate to the ground.

6. **Remove** the following from inside the liftgate mainframe:

- Owner/Operator Manual
- (2) License plate lights
- License plate light hardware
- (1) Vent plug
- (2) Latch balls with studs
- (1) 150 Amp manual reset circuit breaker
- (4) Copper lugs
- (2) License plate nuts and screws
- (1) Padlock with keys
- (1) Drop away pin
- (1) Lower mounting kit

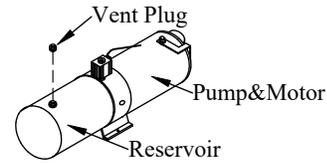


Figure 8: Vent plug.

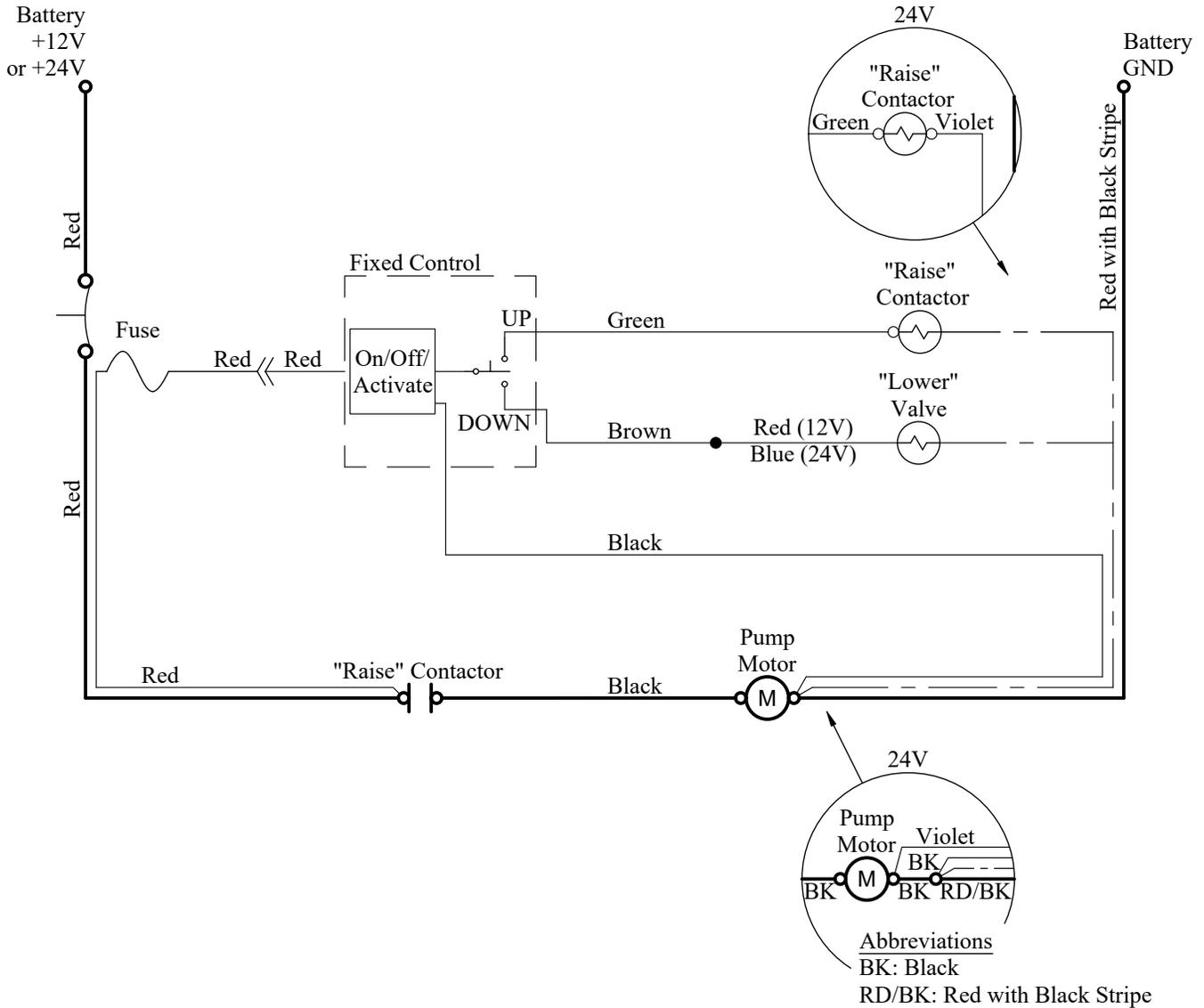
7. **Install** the vent plug provided into the pump reservoir (Figure 8).

Routing the Power Cables

1. **Install** the circuit breaker on the vehicle fender, firewall, or other location inside the engine compartment away from moving parts. Leave enough room for the power cables to be installed and so that the circuit breaker can easily be reset.
2. **Loosen** the strain relief on the back of the liftgate mainframe.
3. **Pull** the power cable (coiled up in the liftgate mainframe) carefully through the strain relief. Leave approximately two (2) inches of slack inside the liftgate mainframe.
4. **Tighten** the strain relief.
5. **Route** the power cables along the frame to the battery following the *Tommy Gate Recommended Electrical Wiring Guidelines*.
6. **Pull** the excess cable beyond the battery.
7. **Separate** the positive(+) and negative(-) leads.

Ladder Logic/Wiring Diagram

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



Mounting the Light Kit

1. Lower the liftgate to the ground.
2. Disconnect the #4 power cable from the positive side of the battery or manually Trip the circuit breaker (Figure 10).
3. Remove or Cover the 2-prong plugs from the light wiring harness.

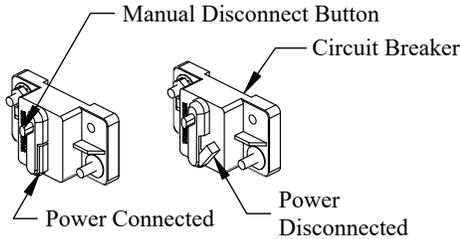


Figure 10: Circuit breaker.

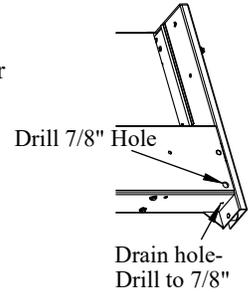


Figure 11: Access hole location.

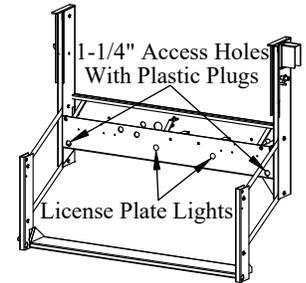


Figure 12: Front access hole location.

4. Check for obstructions before drilling in the next step.
5. Drill a new 7/8" access hole in the back of the liftgate or Drill out the drain hole in the bottom of the liftgate to 7/8" (Figure 11).
6. Remove plastic plugs from the access holes in the front of the liftgate (Figure 12).
7. Pull two (2) 3-prong light plug from inside the mainframe, through each 1-1/4" access hole. Make sure that the yellow wire is on the driver's side and the green wire is on the passenger's side.
8. Locate the two brown wires and the two white wires with no plugs on them.
 - If the license plate lights have two wires:
 - Connect a brown wire to each light's red wire with a heat shrink butt connector.
 - Connect a white wire to each light's black wire with a heat shrink butt connector.
 - If the license plate lights have only one wire:
 - Connect one brown wire to each light's black wire with a heat shrink butt connector.
 - Bend one of the white wires to a 180° bend. Wrap the exposed wire end with heat shrink (Figure 13).
 - Connect the other white wire to the common ground bolt on the power unit.

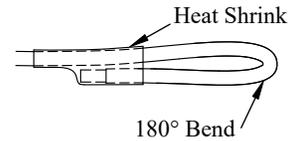


Figure 13: 180° bend on wire.

9. Install the license plate lights into the holes provided.
10. Pull the end of the harness with all the wires through the 7/8" drilled hole (Figure 11) Leave harness draped loosely in mainframe until all components are installed.
11. Cut each 1-1/4" grommet from the inner hole outward (Figure 14).
12. Place each 1-1/4" grommet around wires (Figure 14)
13. Push the 1-1/4" grommets into the access holes.

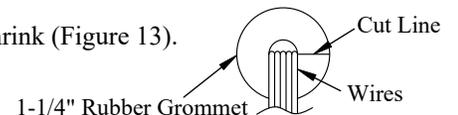


Figure 14: Assembled grommet.

Mounting the Light Kit (continued)

Note: If this light kit is being installed on an older liftgate with smaller access holes or no holes at all, two 1-1/4" diameter holes must be drilled in the locations shown (Figure 15).

Check for obstructions before drilling.

14. **Assemble** the light kit as shown using the supplied 1/4-20x3/4" bolts and 1/4-20 lock nuts.
Do not tighten at this time (Figure 16).

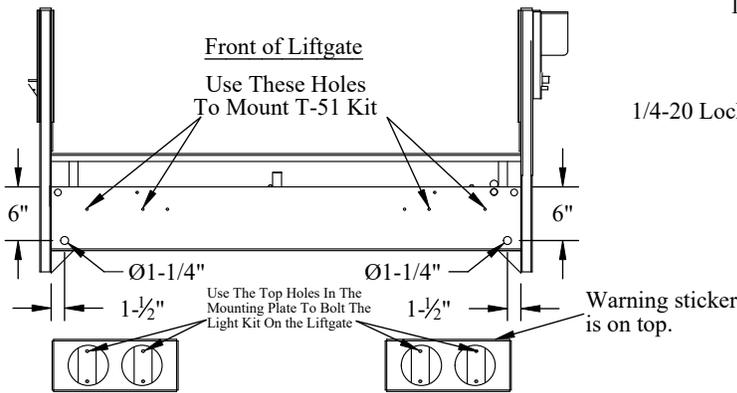


Figure 15: Light kit assembly location.

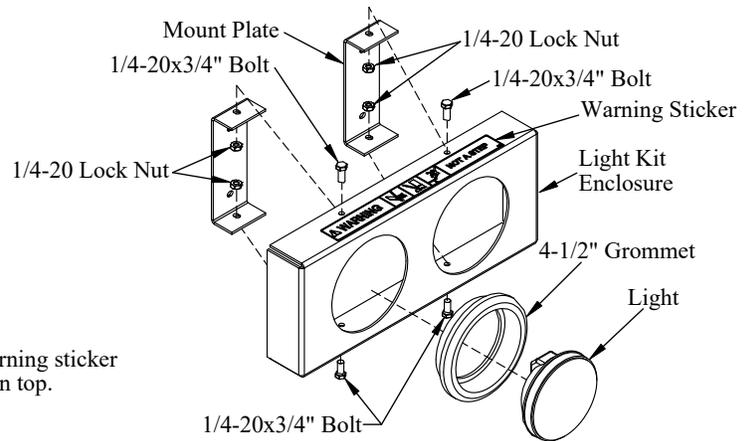


Figure 16: Light kit parts assembly.

15. **Route** the harness through the backs of the light kit.
16. **Bolt** the light kit to the liftgate using the supplied 1/4-20x3/4" bolts and 1/4-20 lock nuts (Figure 15).
Make sure that no wires are pinched between the kit and the liftgate and that the warning sticker is facing up (Figures 15 to 17).
17. **Tighten** all light kit bolts to 9ft-lb (Figure 16).
18. **Press** the 4-1/2" rubber grommets into the light holes (Figure 16).
19. **Pull** harness plugs through the inserted 4-1/2" grommets.
20. **Connect** the plugs to lights (Figure 18).
21. **Connect** the provided wiring harness to the vehicle's existing wiring (Figure 19).
Follow the Tommy Gate Recommended Electrical Wiring Guidelines when connecting the wiring harness to the vehicle.
22. **Check** for proper operation of lights.
23. **Push** lights into installed 4-1/2" rubber grommets (Figure 16).
24. **Fasten** the harness out of the way of moving components with wire ties.
25. **Verify** proper operation of lights.
26. **Reinstall** the box cover on the liftgate.
27. **Reconnect** the liftgate's main power cable to the positive side of the battery or manually **Engage** the circuit breaker (Figure 10).



Figure 17: Warning sticker.

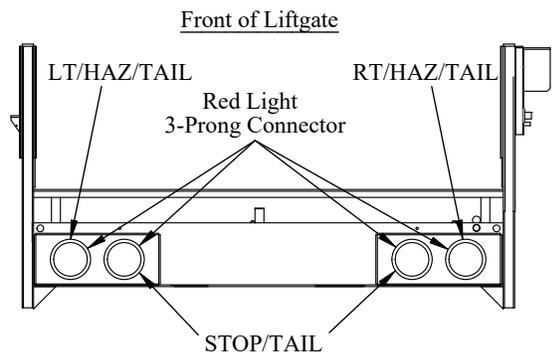


Figure 18: Installed light kit.

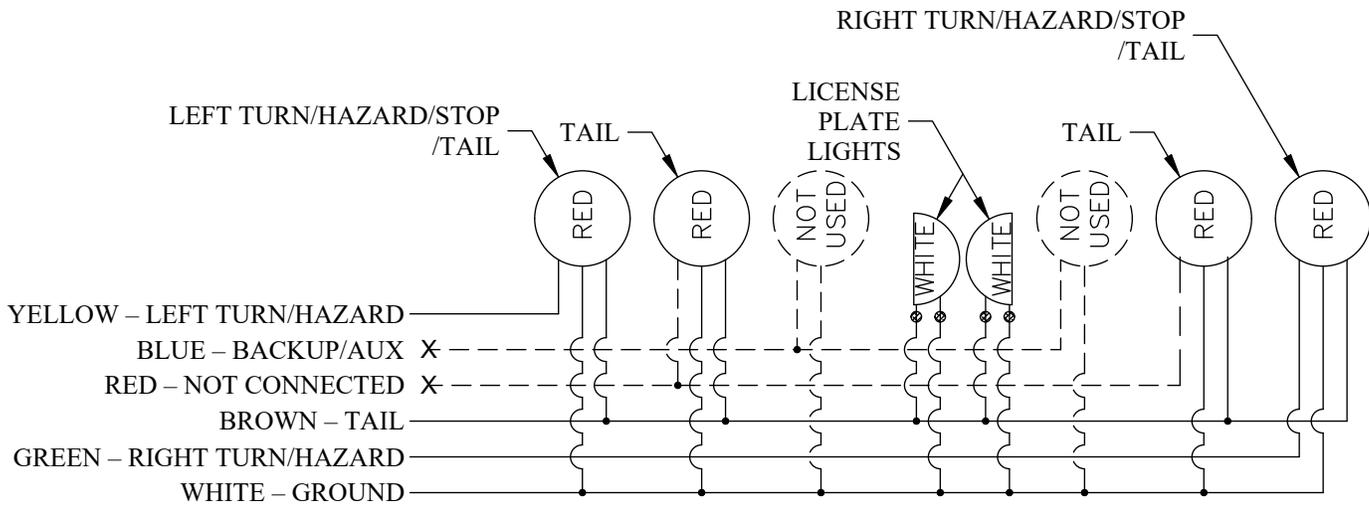
T-51 Wiring Diagrams

Electrical Guidelines:

- (1) The installer is responsible for using proper techniques when interfacing with vehicle electrical systems.
- (2) Failure to comply with the OEM guidelines could result in unsafe vehicle operation, failure of OEM wiring, or vehicle fire.
- (3) Never replace OEM fuses and/or circuit breakers with fuses or circuit breakers with a higher rating.
- (4) The total circuit current draw should not exceed 80% of the OEM circuit fuse or circuit breaker.
- (5) When possible, use body builder junction blocks, customer access circuits & connectors rather than extending OEM circuits.
- (6) Incorporate relays when extending the OEM electrical system.
- (7) Use appropriate gauge wire for extending circuits. The wire gauge should be capable of supporting the maximum load to which the added circuit will be exposed.
- (8) OEM electrical wire color coding should be maintained when extending circuits.
- (9) When adding circuits, always incorporate fuse or circuit breaker protection.

NOTE: ⊗ Symbol indicates usage of heat shrink butt connector.
 X Indicates wire is sealed away and not used (Figure 13).

T-54 ON VEHICLES WITH COMBINED STOP/TURN FUNCTION



T-54 ON VEHICLES WITH SEPARATED STOP/TURN FUNCTION

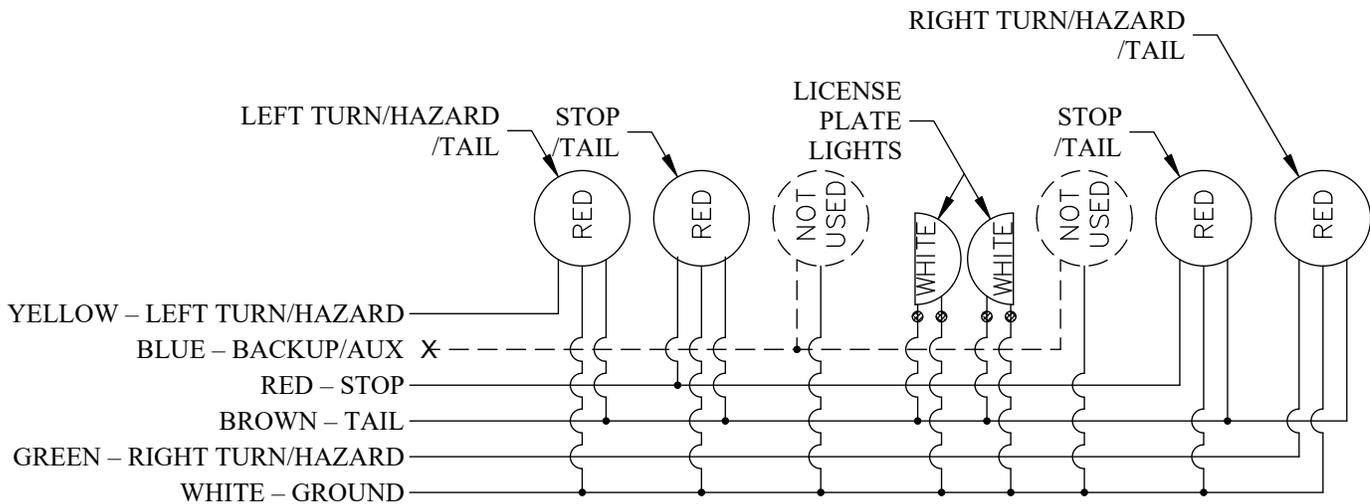


Figure 19: Light kit wiring diagrams.

Installing the Lower Mount

IMPORTANT: Do not install a liftgate on a pickup without installing the lower mount.

- 1. Install** the two (2) mounting angle irons to the bottom of the liftgate (Figure 20).
Select the holes in the liftgate that position the angle irons adjacent to the truck frame rails.

Note: Nuts have been welded to the inside of the liftgate to accept the bolts.
Note: If the liftgate already has a long angle iron, use it in place of the two mounting angle irons.

- 2. Bolt** the bracket plates to the truck frame (Figure 21).
Modification to the bracket plates may be required.

- 3. Clamp** the short angle irons to the bracket plates.
The short angle irons should extend out to the mounting angle irons on the liftgate.

- 4. Tack** weld the bracket plates (see welding note at right), the short angle irons, and the mounting angle irons together.

- 5. Remove** the tacked lower brackets from the truck.

- 6. Weld** all seams with a heavy weld:
 - Where the bracket plates meet the short angle irons.
 - Where the short angle irons meet the mounting angle irons.

- 7. Bolt** the completed brackets back to the truck frame and bottom of the liftgate.

Note: The lower mount is of great importance because it adds additional support to the liftgate.

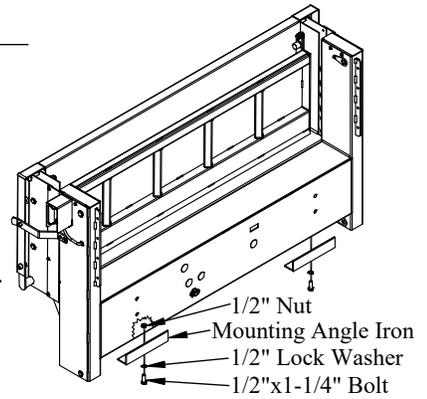


Figure 20: Mounting angle iron location.

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

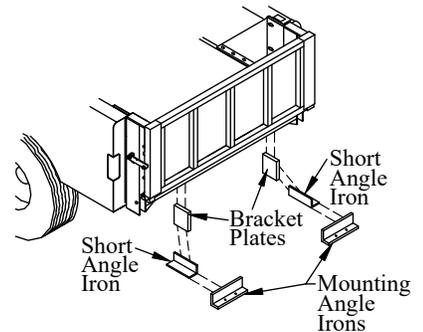


Figure 21: Lower bracket support.

Finishing the Liftgate Installation

- 1. Install** the two (2) knobs on the platform latches (Figure 22).

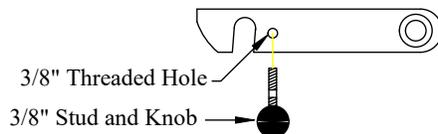


Figure 22: Original Series platform latch knob.

- 2. Install** the two (2) square plastic insert nuts for the license plate into the square holes on the liftgate.
- 3. Install** the license plate using the two (2) stainless steel screws provided.
- 4. See** the Owner's / Operator's Manual if drop away feature is desired.
- 5. Install** the "Do's and Do Not's" decal in a highly visible area in the vehicle cab.
This decal is with the Owner's / Operator's Manual.
- 6. Reinstall** the spare tire, if previously removed.

Testing the Operation of the Liftgate

CAUTION: Keep all foreign objects (body parts, tools, load weights, etc) out of the liftgate mainframe and away from pinch points at all times when operating the liftgate.

1. **Check** operation of the safety control for proper lift operation.
Be sure the control shuts off automatically after 90 seconds of not being used.
2. **Raise** and **Lower** the unloaded platform on a flat surface looking for proper operating speed and alignment with the ground.
3. **Load** the platform with the rated capacity and **Measure** the time necessary to raise the platform.
The platform should reach the bed height within a 20-second time interval.
4. **Examine** the platform for any downward creep.
5. **Time** the lowering operation with the platform still loaded.
It should take about 1/2 second per inch of bed height for the platform to reach the ground.
6. **Remove** the load from the platform and **Examine** the liftgate and vehicle for any problems such as hydraulic oil leaks, loose wiring, etc.
7. **Reinstall** the box cover.
8. **Close** and **Latch** the platform.
9. **Lock** the padlock through the hole in the platform (Figure 23).
10. **Place** Owner's / Operator's Manual and padlock keys in the vehicle.

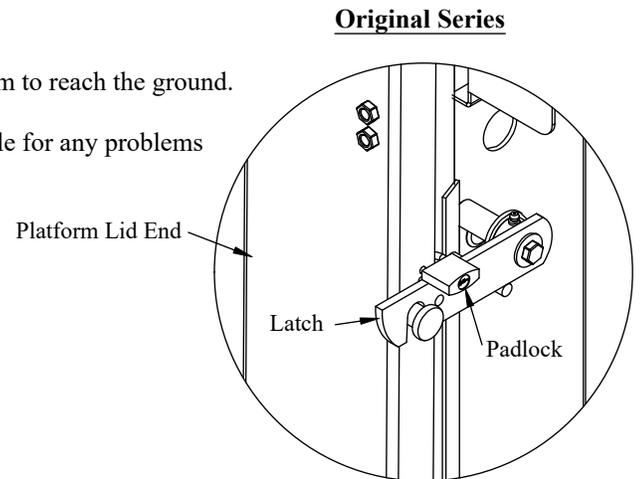


Figure 23: Padlock location.

Painting the Liftgate (if needed)

Your Tommy Gate has been primed with a gray polyurethane and painted with a black semi-gloss polyurethane topcoat to protect it from the environment. No additional paint is required unless shipping or installation damage or outdoor storage exposure has deteriorated the Tommy Gate paint. **Tommy Gate will not be responsible for shipping or installation damage or outdoor storage exposure that has marred or otherwise deteriorated the Tommy Gate paint.**

If you need to refinish the liftgate you should do the following:

1. **Remove** any dirt, oil, grease, salt, or other contamination by washing with a mild detergent solution.
2. **Rinse** thoroughly with fresh water and allow to dry.
3. Lightly **Scuff Sand** the Tommy Gate topcoat.
4. **Sand** and **Spot Prime** any area of the Tommy Gate paint that shows signs of damage or deterioration.
5. **Mask** off all safety decals, cylinder shafts and vents before painting.

WARNING: Paint overspray on the cylinder shaft(s) or vent(s) will damage the cylinder seals and void warranty.

6. After proper cleaning and surface preparation, **Apply** desired finish coat per paint manufacturer's recommendations.
7. **Remove** the masking from the safety decals and cylinders.
8. **Check** to ensure that all decals are clean and legible. Additional decals are available from the factory, if needed.

WIRE ROUTING

- (1) When routing wires, avoid heat (above 180°F), abrasion, vibration, metal edges, screws, and trim fasteners. If such routings are not possible, protective devices must be used. If wires must cross a metal edge, the edge should be covered with a protective shield and the wiring fastened within 3 inches on each side of the edge.
- (2) Grommets must be used where wires pass through holes in sheet metal, castings, and / or frame rails. Do not bend wires in a radius smaller than 10 times the wire diameter.
- (3) Routing wires into areas exposed to wheel wash should be avoided. If this cannot be avoided protective shields are required to protect the wires from stones, ice, salt and water damage. Provide a drip loop to prevent moisture from being conducted into switches, relays, circuit breakers, and fuses.
- (4) Wires should be supported every 18 inches with plastic zip ties or rubber-lined clips.
- (5) Wires must be routed to clear moving parts by at least 3 inches unless positively fastened or protected by a conduit. If wiring must be routed between two members where relative motion can occur, the wiring should be secured to each member, with enough wire slack to allow flexing without damage to the wire.
- (6) Maintain at least a 6 inch clearance from exhaust system components. If this is not possible, high temperature insulation and heat shields are required. Existing OEM heat shields, insulation, and wire shielding must be maintained.
- (7) Do not route or attach electrical wires to fuel lines. Route electrical wires at least 1-1/2 inches away from the engine.

BATTERY, WIRE, TERMINALS, AND CONNECTORS

- (1) Wire attachments at the battery must be protected from tension loads so there is no undue strain on the battery terminals. Wires should be routed down rather than horizontally from the terminals with no sharp bends adjacent to the connections.
- (2) Battery power for your Tommy Gate should come directly from the battery through the supplied circuit breaker or fuse. The circuit breaker or fuse should be installed as close to the battery as possible.
- (3) Do not splice battery cables. If splicing is necessary, the most durable splice joint will be bare metal barrel crimped, flow-soldered and covered with adhesive lined heat shrink tubing. Strip the wire ends making sure that individual conductor strands are not damaged. Use only rosin core solder, proper crimping tools, and wire with a gauge at least equivalent to the circuit being lengthened. Do not use electrical tape.
- (4) Battery cable terminals will be bare metal barrel crimped or flow-soldered and covered with adhesive lined heat shrink tubing.
- (5) Use wire connectors with locking features such as positive locking, inertia locking, bolt together, and soft mold-over with locking external retainers.

GENERAL

- (1) All frame contact areas must be wire brushed to bare metal, free of paint, dirt, and grease. Frame connections must be made using hardened flat washers under the bolt head and lock nuts. Corrosion preventive grease or compound is to be applied to the terminal area of the frame connection.
- (2) Frame cross members are not recommended as part of the ground return.
- (3) All circuit breakers and fuses should be located in one easily serviceable location with a means provided for identification of circuit function and current rating. Do not put circuit breakers or fuses in the vehicle cab.
- (4) Before welding to the chassis disconnect the battery. Also disconnect the power train, engine, valve, and transmission control modules.
- (5) Do not alter vehicle ignition, starting, and / or charging systems. Do not reroute engine compartment wiring.
- (6) Full copper circuitry and standardized polarity grounds are recommended.
- (7) Never increase the rating of a factory installed fuse or circuit breaker.
- (8) Disconnect the battery negative (ground) wire prior to any vehicle modification.

Following the above guidelines will provide you with years of trouble free service. Failing to incorporate the above guidelines will result in a voided warranty. Non-compliance with the guidelines above may result in a failure of electrical components, shutdown of engines, loss of backup brake systems, and the possibility of fire.