Pickup Lift Mounting Instructions

Toyota-
Tacoma: 2005-2023

TG-67

Preparing the Gate

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

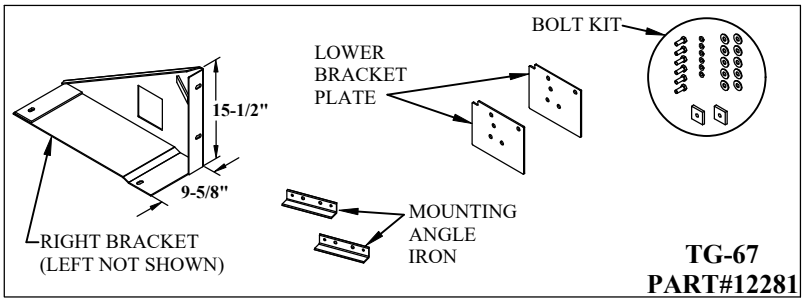


Figure 1: Part Identification.

Table 1: Parts List.

QTY.	PART NO.	DESCRIPTION
1	12280	TG-67 Bolt Bag Kit
1	12278	TG-67 Left Bracket
1	12279	TG-67 Right Bracket
2	12282	TG-67 Lower Bracket Plate
2	15262	Mounting Angle Iron

3. **Support** the liftgate; it will not stand upright without the angle irons.
4. **Unbolt** the two (2) angle irons attached to the liftgate uprights (Figure 2).
5. **Remove** the two (2) bracket plates attached to the liftgate (Figure 2).

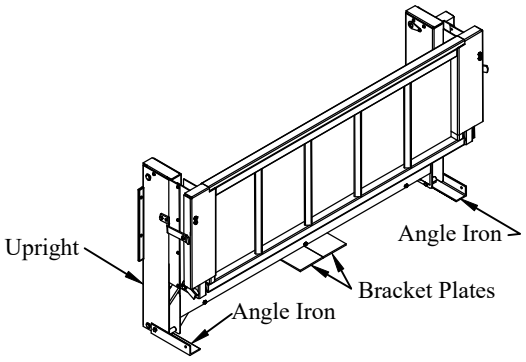


Figure 2: Complete liftgate.

Preparing the Truck

1. **Remove** the tailgate and hardware shown (Figure 3).
2. **Support** the rear bumper and hitch to keep them from falling while removing the mounting bolts.
3. **Remove** the rear bumper, bumper mounting brackets, and hitch.

Note: The tailgate, hardware, rear bumper, and hitch cannot be remounted after the liftgate is installed.

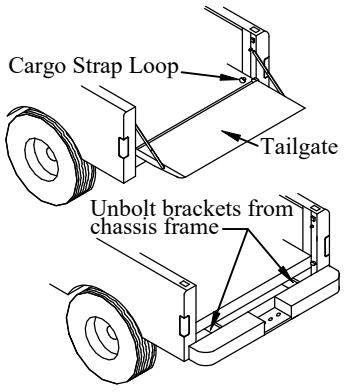


Figure 3: Remove Hardware.

Modifying the Spare Tire Access

Note: This modification must be completed before the liftgate is installed.
Note: This modification allows access to the spare tire crank mechanism after the liftgate is installed.

1. Check for obstructions before drilling in the next step.

2. Drill a 1-1/4" diameter hole, 1-1/4" to the left of the center of the bed, and 2-1/2" down from the top of the bed (Figure 4).

3. Remove the box cover by removing the 5/16" hex head nuts (Figure 7).

4. Check for obstructions before drilling in the next step.

5. Drill a 2" diameter hole, in the back of the liftgate in the location shown, if needed (Figure 5).

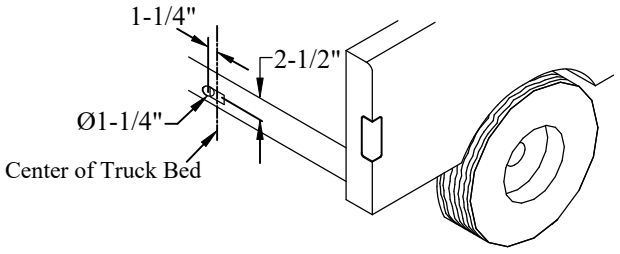


Figure 4: Spare tire access hole location.

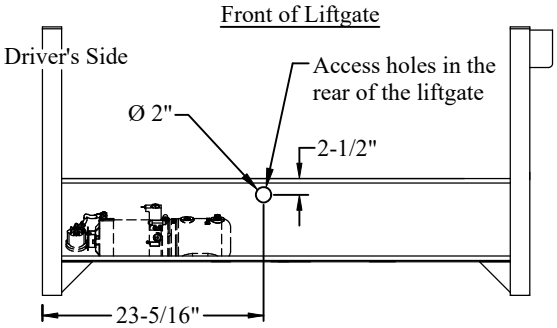


Figure 5: Spare tire access hole location in liftgate.

Installing the Liftgate

1. Remove the truck bed bolts at the rear of the truck bed, two per side (Figure 6).

2. Position the supplied 3/8" spacers over the mounting holes near the wheel wells, one per side (Figure 6).

3. Position the mounting brackets in the truck bed over the truck bed mounting holes (Figure 6).

4. Install the factory bed bolts in the mounting brackets (hand tight only).

5. Position the Tommy Lift into the bed opening. The liftgate should be:
- Centered in the opening.
- Flush with the truck bed floor.

6. Attach liftgate gussets to the mounting brackets using the supplied (4) 1/2"x1-1/4" hex head bolts, lock washers, and flat washers on the bracket-side (Figure 6).

7. Adjust the liftgate so that it is level with the ground.
Add 1/2" washers between the liftgate and bracket, if needed.

8. Tighten all bracket and bed bolts.

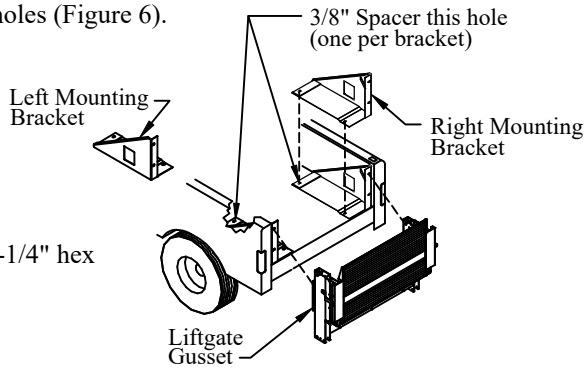


Figure 6: Mounting bracket and liftgate.

Checking the Spare Tire Access

Note: The hole previously drilled the mainframe provides access to the spare tire crank mechanism.

1. **Remove** the box cover by removing the 5/16" hex head nuts (Figure 7).

2. **Verify** spare tire access operation by inserting the spare tire crank rod through the access hole.

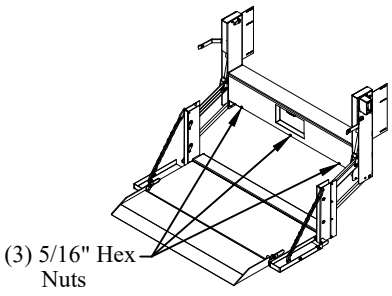


Figure 7: Box cover location.

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
   - (1) License plate light
   - (1) Vent plug
   - (4) Copper lugs
   - (2) License plate nuts and screws
   - (1) Padlock with keys

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

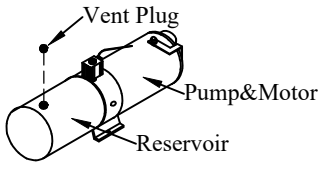


Figure 8: Vent plug.

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.

8. **Cut** the positive(+) lead to the length required to reach the auxilliary (AUX) terminal of the circuit breaker.

9. **Cut** the remaining pos.(+) lead long enough to reach from the circuit breaker battery (BAT) terminal to the pos.(+) battery terminal.

10. **Cut** the negative(-) lead to the length required to reach the negative battery terminal.

IMPORTANT: The pump and motor unit for this lift can require significant electrical power at 12 volts D.C. Be sure that the negative(-) ground lead is connected to the negative(-) terminal of the vehicle battery.

11. **Install** the copper lugs and heat shrink tubing on all required ends.

12. **Connect** the circuit breaker and battery as outlined in the *Tommy Gate Recommended Electrical Wiring Guidelines* and wiring diagram (Figure 9).

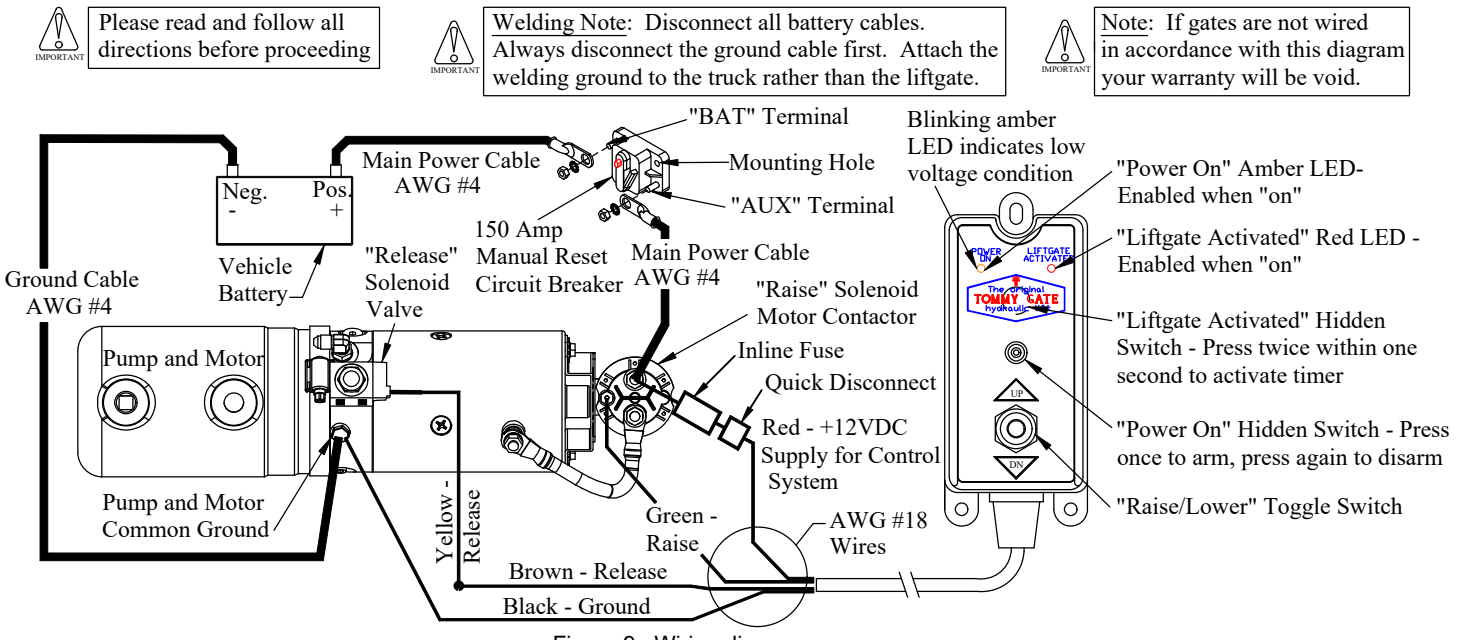
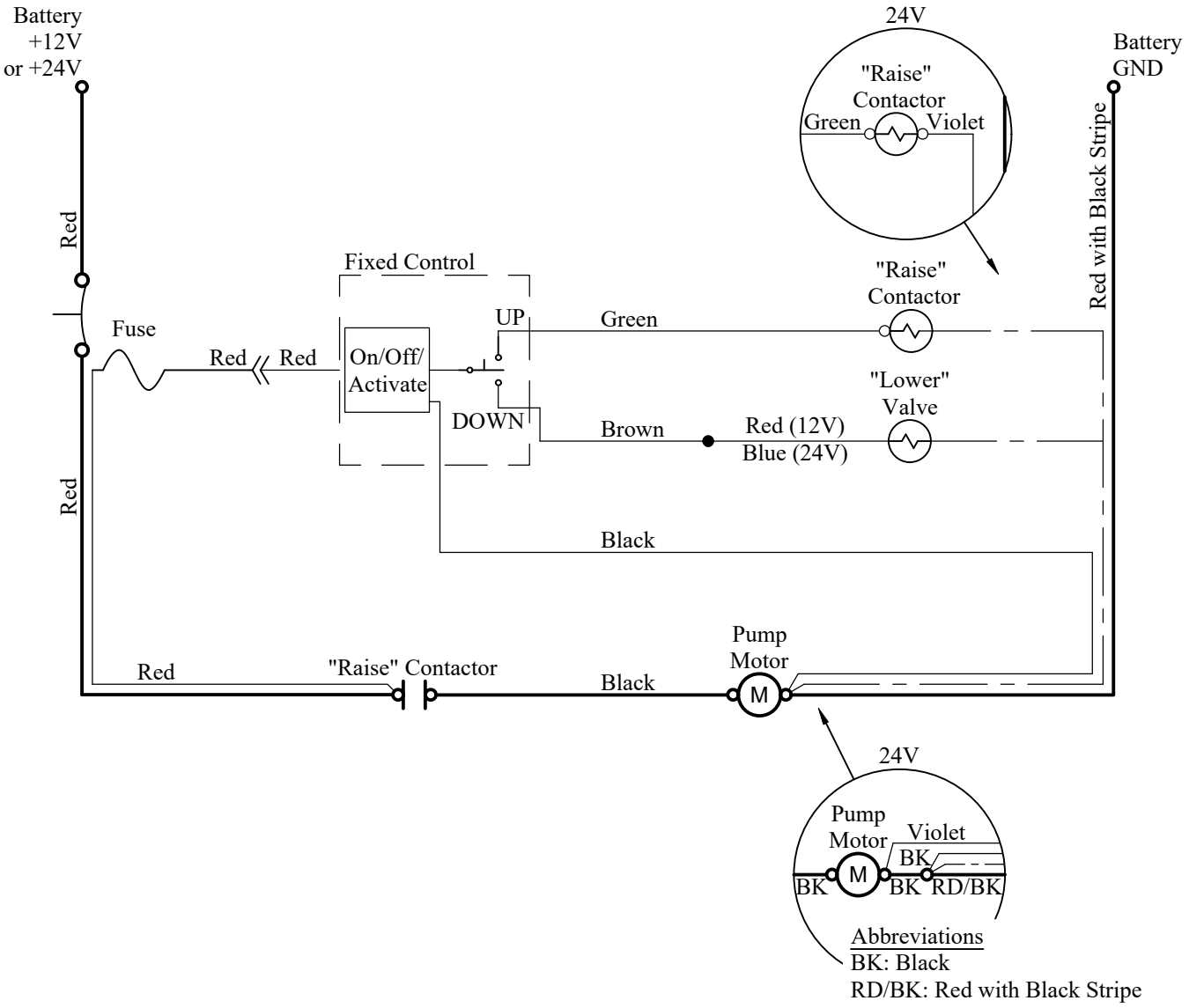


Figure 9: Wiring diagram.

Ladder Logic/Wiring Diagram

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



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 10). 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 10). Use the factory bumper/hitch bolts.

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

4. **Remove** the tacked lower brackets from the truck.

5. **Weld** all seams with a heavy weld where the bracket plates meet the mounting angle irons.

6. **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.

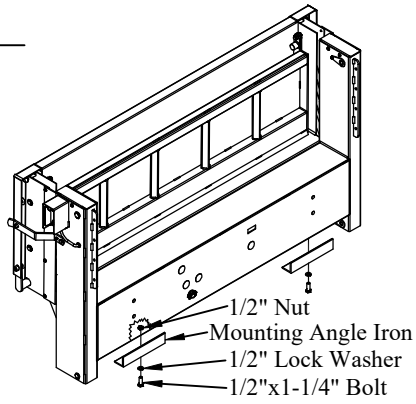


Figure 10: Mounting angle iron location.

IMPORTANT

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

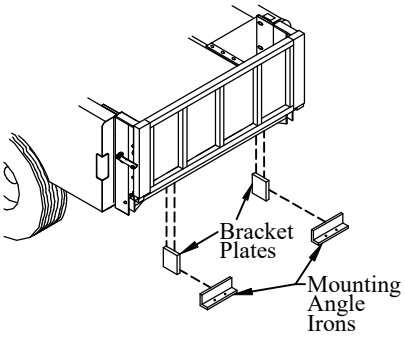


Figure 11: Lower bracket support.

Finishing the Liftgate Installation

1. **Install** the two (2) square plastic insert nuts for the license plate into the square holes on the liftgate.

2. **Install** the license plate using the two (2) stainless steel screws provided.

3. **Install** the license plate light into the holes provided.

4. **Connect** the license plate light to the vehicle's wiring following the *Tommy Gate Recommended Electrical Wiring Guidelines*. The license plate light wire(s) can be run through the strain relief in the back of the liftgate.

Note: Additional wire may need to be spliced into the license plate light circuit to reach the connection point.
Note: All electrical splices should be heat shrunk for corrosion protection.

5. **See** the Owner's / Operator's Manual if drop away feature is desired.

6. **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.

7. **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 raise at roughly 2-3 inches per second.

4. **Examine** the platform for any downward creep.

5. **Time** the lowering operation with the platform still loaded.
   The load should descend at roughly 7-9 inches per second.

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 latch pin (Figure 12).

10. **Place** Owner's / Operator's Manual and padlock keys in the vehicle.

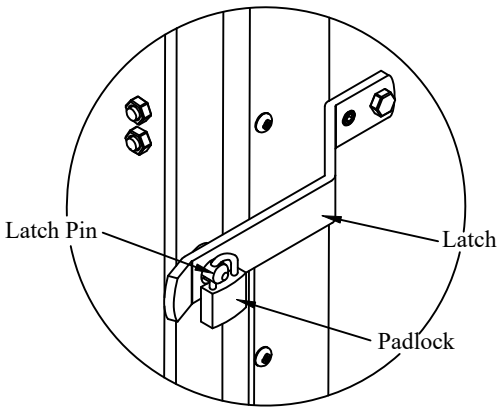


Figure 12: Padlock location.

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 180ºF), 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.