

Original Series Mini Pickup Lift Mounting Instructions

Ford Ranger: 1983-present

Mazda B-series: 1994-present

TG-25

STAGE 1: PREPARING THE GATE

Step 1: **Remove** mounting hardware which is banded to the liftgate.

Step 2: **Verify** mounting bracket (**Figure 1** and **Table 1**).

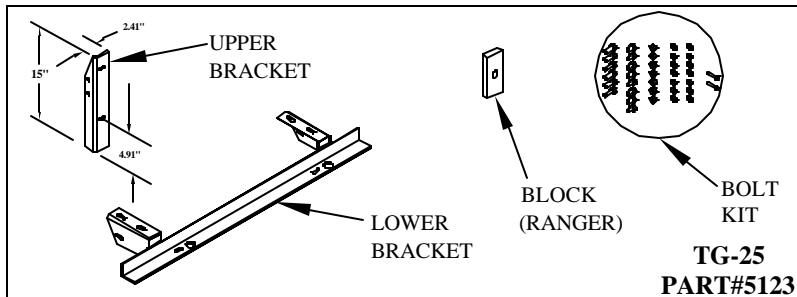


Figure 1 : Parts identification.

Table 1 : Parts list.

QTY.	PART NO.	DESCRIPTION
1	5111	TG-25 Lower Bracket
1	9409	TG-25 Upper Left Bracket
1	9408	TG-25 Upper Right Bracket
4	6942	0.50"x1.25"x3" Block(Ranger)
1	9100	Mini Pickup Bracket Bolt Bag Kit

STAGE 2: PREPARING THE TRUCK

Step 1: **Remove** the tailgate (**Figure 2**).

NOTE: The tailgate hardware does not need to be removed.

NOTE: Hold the rear bumper in place to keep it from falling while removing the mounting bolts.

Step 2: **Remove** the rear bumper (**Figure 2**).

A) Unplug the wiring clips that are connected to the rear bumper.

B) Remove the rear bumper mounting bolts.

NOTE: The tailgate and rear bumper cannot be remounted after the liftgate is installed.

Step 3: **Trim** 1.25" from the pickup's rear cross member as shown in **Figure 3** .

NOTE: This must be done to allow the liftgate to set flush with the upper brackets (installed later).

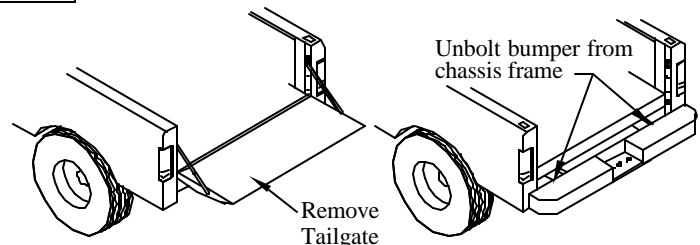


Figure 2 : Tailgate and bumper removal.

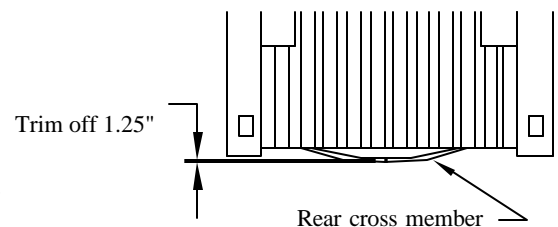


Figure 3 : Rear cross member.

STAGE 3: MODIFYING THE TAILLIGHT MOUNTING

NOTE: This modification must be completed before the liftgate is installed.

NOTE: This modification allows removal of the taillight lens without removing the liftgate.

Step 1: **Remove** the taillight lenses.

A) Remove the (2) factory taillight screws (**Figure 4**).

B) Remove taillight lens (**Figure 4**).

Step 2: Carefully **Drill** a 9/64" hole through each taillight lens and internal sheet metal (**Figure 4**).

Step 3: Carefully **Drill** a 3/16" hole through each taillight **lens only** , for screw clearance (**Figure 4**).

Step 4: **Install** a stainless self-tapping screw, supplied, into each 9/64" hole to hold the taillight lenses in place (Do not over-tighten).

NOTE: Do not apply clear silicone sealant at this time, it will be applied in a later step.

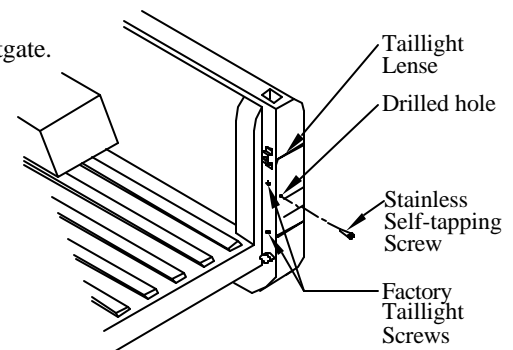


Figure 4 : Taillight modification detail.

STAGE 4: MODIFYING THE SPARE TIRE ACCESS

NOTE: This modification must be completed before the liftgate is installed.

Step 1: **Remove** the box cover.

A) Remove the (2) 5/16" hex head bolts from the box cover.

B) Remove the box cover.

NOTE: Watch for obstructions inside the mainframe before drilling.

Step 2: **Drill** a 1" hole in the back of the mainframe as shown in **Figure 5** .

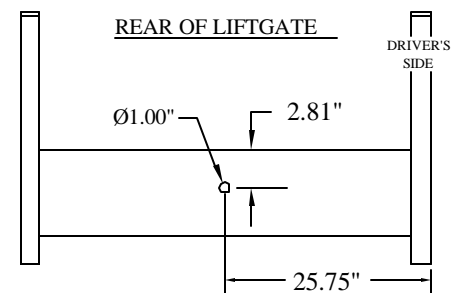


Figure 5 : Spare tire access hole location.

STAGE 5: INSTALLING THE FILLER STRIP

NOTE: The filler strip must be mounted on the liftgate before the liftgate is mounted on the pickup.

Step 1: **Weld** the supplied filler strip (12ga.x2"x50-1/4") to the top edge of the liftgate mainframe. This will fill the gap between the rear of the truck and the liftgate mainframe (**Figure 6**).

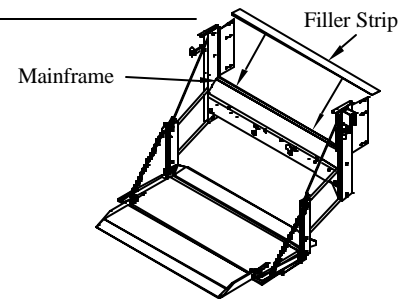


Figure 6 : Filler strip installation.

STAGE 6: INSTALLING THE LIFTGATE

Step 1: **Bolt** the supplied lower bracket in place of the bumper using four (4) 1/2" x 1-1/4" bolts, four (4) lock washers, and four (4) nuts, supplied. Leave the bolts slightly loose.

Step 2: **Slide** the lower bracket rearward.

NOTE: The bed of the pickup should now be approximately 11" above the flat surface of the lower bracket (**Figure 7**). If it is not, the lower bracket can be spaced down with washers or spacers (not supplied).

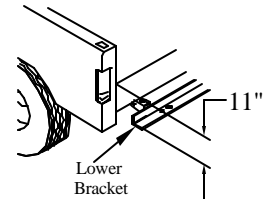


Figure 7 : Lower bracket location.

Step 3: **Support** the liftgate and **place** the Tommy Lift into the lower bracket.

Step 4: **Align** the holes in the lower bracket with the holes in the bottom of the liftgate.

Step 5: **Center** the liftgate in the opening.

Step 6: **Bolt** the lower bracket tightly to the liftgate with two (2) 1/2 x 3/4" bolts and two (2) lock-washers (**Figure 8**). There are nuts welded to the inside of the mainframe to accept the bolts.

Step 7: **Slide** the lower bracket and liftgate forward so that the gate is as close to the back of the pickup box as possible.

Step 8: **Tighten** the bolts holding the lower bracket to the pickup frame.

NOTE: The bed of the pickup should now be approximately flush with the top of the liftgate mainframe.

Step 9: **Fasten** each upper bracket to the liftgate gussets using four (4) 1/2" x 1-1/4" bolts and four (4) lockwashers, supplied (**Figure 8**). Leave the bolts slightly loose.

NOTE: 1998 and newer Rangers require four (4) blocks to be sandwiched between the liftgate gussets and upper brackets (**Figure 8**).

Step 10: **Slide** the upper brackets outward and tight against the pickup's stake pockets.

Step 11: **Verify** that the liftgate is in the vertical position and **Tighten** the bolts.

Step 12: **Remove** the taillights.

NOTE: Check for obstructions before drilling.

Step 13: **Drill** two (2) 1/2" diameter holes in each of the pickup's stake pockets, using the holes in the upper bracket as a guide.

Step 14: **Bolt** the upper brackets to the stake pockets using one (1) 1/2" x 1-1/4" bolt, lock-washer, and nut in the upper hole, and one (1) 1/2" x 3/4" bolt, lockwasher, and nut in the lower hole of each upper bracket.

Step 15: **Check** and **Tighten** all of the mounting fasteners.

Step 16: **Apply** clear silicone sealant to:

- A) The 3/16" drilled hole in each taillight lens.
- B) The supplied stainless self-tapping screws.

Step 17: **Install** one (1) stainless self-tapping screw into each 9/64" hole to hold the taillight lenses in place. (**Do not** over-tighten.)

Step 18: **Check** to make sure that the spare tire access hole in the liftgate lines up with the access hole in the pickup bed.

Step 19: **Go to** the wiring and final assembly instructions to complete the install of the liftgate.

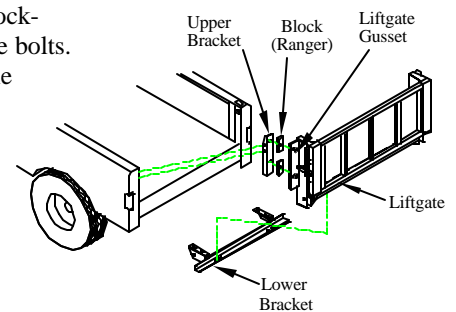


Figure 8 : Liftgate mounting on pickup.

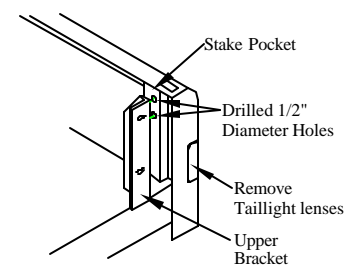
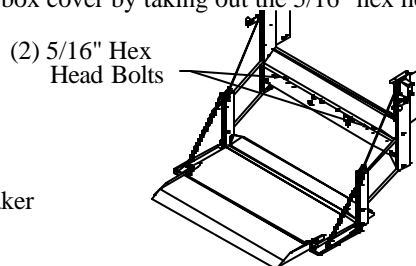


Figure 9 : Upper bracket location.

Original Series Wiring and Final Assembly for Mini Pickups, Cargo Vans, Flatbed Stake, Dump, and Van Bodies

Step 1. The liftgate should be lowered to the ground so the box cover can be removed to finish the installation of the liftgate. To lower the liftgate, attach 12 volts to the red positive(+) cable from a battery (no battery chargers). To activate the control, push the hidden "POWER ON" switch(located half way between the Tommy Gate logo and the up decal) once and the amber "POWER ON" LED will illuminate. Now press the hidden button on the control(located under the Tommy Gate logo) twice within one second and the red "LIFTGATE ACTIVATED" LED will illuminate. Once both lights are illuminated you will have power to lower the liftgate. Lower the liftgate to the ground. Remove the mainframe box cover by taking out the 5/16" hex head bolts. Packaged inside the mainframe are the following:

- Operator's manual
- License plate lights
- Vent plug
- Two latch balls with studs
- Warranty sheets
- 150 Amp Manual Reset Circuit Breaker
- Copper lugs



Step 2. Remove the circuit breaker and copper end lugs from the mainframe. Install the circuit breaker on the firewall or fender of the truck or other place in the engine compartment out of the way of moving parts. Make sure there is easy access for installation of the power cables and so the circuit breaker can be reset.

The liftgate electrical cables are coiled up in the bottom of the mainframe. Loosen the strain relief on the back of the liftgate mainframe. Carefully pull the cables through the strain relief, leaving approximately two inches of slack inside the liftgate mainframe. Tighten the strain relief.

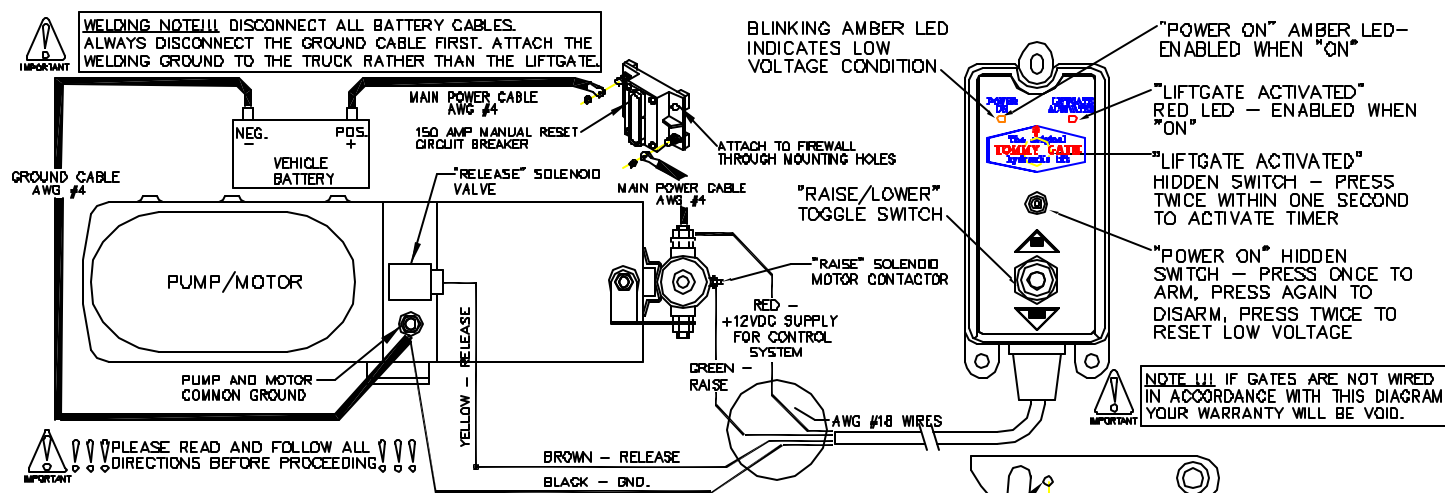
Carefully route the cables according to the Tommy Gate Electrical Guidelines along the frame to the battery. Pull the excess cables beyond the battery, and separate the positive (+) and negative (-) leads. Cut the positive (+) lead to the length required to reach the auxiliary (AUX) terminal of the circuit breaker. The remaining positive (+) lead needs to be cut at the length required to span the distance from the circuit breaker battery (BAT) terminal to the positive battery terminal.

Cut the negative (-) lead to the length required to reach the negative battery terminal. Install copper lugs on all required ends and attach to the circuit breaker and battery as outlined in the Tommy Gate Electrical Guidelines and wiring diagram.

To activate the control, push the hidden "POWER ON" switch(located half way between the Tommy Gate logo and the up decal) once and the amber "POWER ON" LED will illuminate. Now press the hidden button on the control(located under the Tommy Gate logo) twice within one second and the red "LIFTGATE ACTIVATED" LED will illuminate. Once both lights are illuminated you will have power to raise and lower the liftgate.

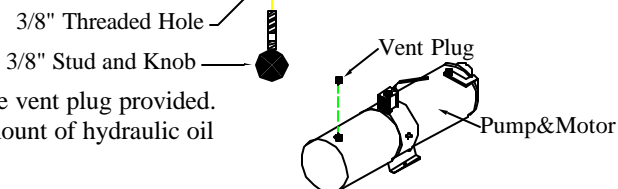
NOTE: The safety control will automatically shut off if not used for 90 seconds.

IMPORTANT: The pump and motor unit for this lift can require up to 205 Amps of electrical power at 12 volts D.C. Be sure you connect the negative(-) cable to the negative(-) terminal of the vehicle battery.



Step 3. Install the two knobs on the platform latches.

Step 4. Remove the solid plastic plug from the reservoir and screw in the vent plug provided. The hydraulic system has already been filled with the proper amount of hydraulic oil so do not add any oil at this time.



- Step 5. Install the license plate lights in the holes provided. Wire the license plate lights by running the wire through the strain relief in the back of the mainframe and then connect to the truck's existing wiring. In some instances you may need to splice additional wire to the license plate lights in order to reach the connection point. **NOTE: All electrical splices should be heat shrunk for corrosion protection.**
- Step 6. Reinstall the box cover on the mainframe.
- Step 7. Test the operation of the liftgate:
- a) Check operation of the safety control for proper lift operation. Be sure the control shuts off automatically after 90 seconds of not being used.
 - b) Raise and lower an unloaded platform on a flat surface looking for proper operating speed and alignment with the ground.
 - c) Load the platform with the rated capacity and measure the time necessary to raise the platform. The platform should reach bed height within a 20-second time interval.
 - d) Examine the platform for any downward creep.
 - e) With the platform still loaded, time the lowering operation. The load should take at least 1/2 seconds per inch of bed height to reach the ground.
 - f) Remove the load from the platform and examine the liftgate and truck for any problems such as hydraulic oil leaks, loose wiring, etc.
- Step 8. Your Tommy Gate has been primed with a white 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:
- Remove any dirt, oil, grease, salt, or other contamination by washing with a mild detergent solution. Rinse thoroughly with fresh water and allow to dry. Lightly scuff sand the Tommy Gate topcoat.
- If prolonged exposure, shipping, or other installation damage has deteriorated the Tommy Gate paint, it will be necessary to sand and spot prime the area(s) prior to finish coating. Mask off all safety decals, cylinder shafts and vents before painting. After proper cleaning and surface preparation apply desired finish coat per paint manufacturer's recommendations.
- Remove the masking from the safety decals and cylinders. **Make sure all decals are clean and legible.** Additional decals are available from the factory, if needed. **Paint overspray on the cylinder shaft(s) or vent(s) will damage the cylinder seals and void warranty.**
- Step 9. Place Maintenance and Operator's manual in the truck and have the owner retain the Warranty Guidelines sheet.