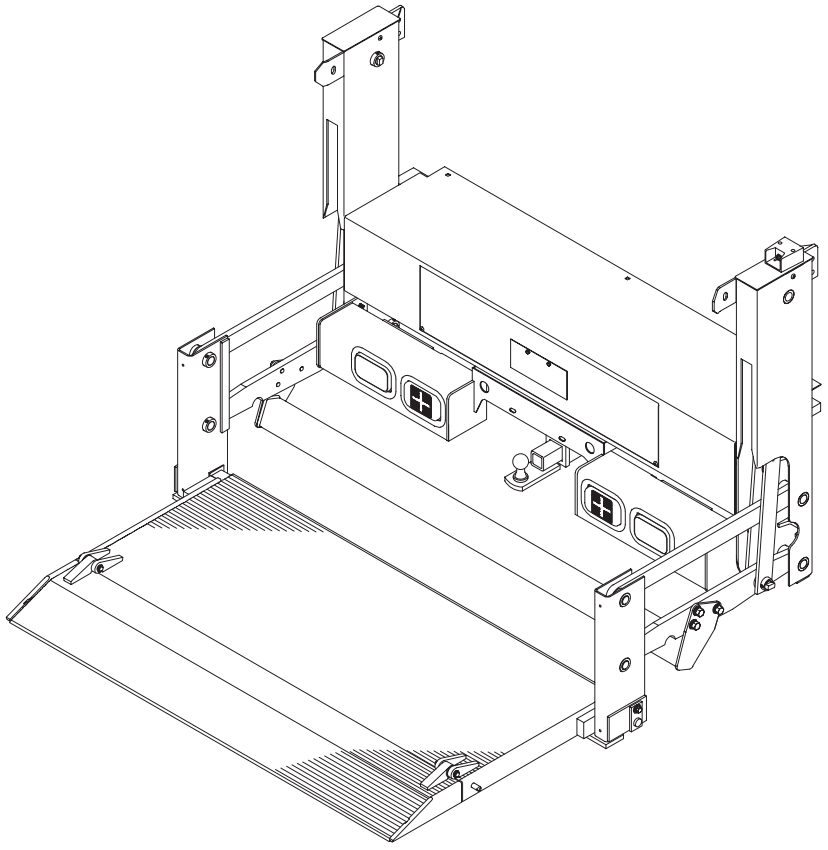
TOPLIFTER

Tailgates By THIEMAN

TT-15
INSTALLATION INSTRUCTIONS

SHOWN WITH OPTIONAL 2 PC. ALUMINUM PLATFORM AND LIGHT KIT



⚠ IMPORTANT! KEEP IN VEHICLE!

PLEASE READ AND UNDERSTAND THE CONTENTS OF THIS MANUAL BEFORE INSTALLING THIS EQUIPMENT.

NTEA THE ASSOCIATION FOR THE WORK TRUCK INDUSTRY MEMBER

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ATTENTION INSTALLERS:

Changes are made periodically to the installation procedure to comply with engineering changes. To ensure proper liftgate operation, it is **VERY IMPORTANT** to read and understand the installation instructions before attempting an installation. Installers also **MUST** read and understand the liftgate's Owner's Manual before installing the liftgate, so they can operate the liftgate safely as required during different stages of the installation process. **NEVER** perform a modification on the liftgate, which is not specifically covered in this manual or which is unauthorized by Thieman. Modifications may result in failure of the liftgate and may create hazards for liftgate installers, operators, or maintainers. Serious damage, equipment failure, or operator injury could result from improper installation. This equipment **MUST** have all decals applied properly. **FAILURE** to apply all decals properly will **VOID** all warranties! Any installer with questions or doubts should contact Thieman before proceeding.

The TT15 series liftgate is designed for use on pickup trucks, service bodies, and flatbeds. The TT15 has a bed height range of 30 to 45 inches and comes standard with a split style bumper. The split style bumper allows clearance for a receiver type hitch to be attached to the truck frame.

- All maximum mounting dimensions are shown with the vehicle empty; All minimum mounting dimensions are shown with the vehicle loaded.
- Check bed height when parked on level surface.
- Models with 49" and 53" nominal width platforms, come standard with 3319-001 installation kit for service body applications.
- **Models with 56" nominal width platforms, are designed for pickup trucks and do NOT include an installation kit. A separate installation kit for a specific application MUST be ordered to install these liftgates. Do NOT proceed without the proper kit.**

TT15 INSTALLATION KITS → (Liftgates with 56" nominal width platforms, do NOT come standard with an install kit. One of the kits shown in this chart, MUST be purchased separately, based on application below)		**INSTALL KIT PN**				
		3319-001	3319-003	3319-005	3319-006	3319-007
**** FULL SIZE PICKUP TRUCK APPLICATIONS ****						
Chevy/GM – CK 1500	2007-2018			**X**		
Chevy/GM – CK 1500	2019-Pres.				**X**	
Chevy/GM – CK 2500/3500	2007-2019			**X**		
Chevy/GM – CK 2500/3500	2020-Pres.				**X**	
Ford – F150 (combustion engine models only)	1997-Pres.		**X**			
Ford – F250/350	1997-2022		**X**			
Ford - F250/350	2023-Pres.					**X**
Ram 1500/2500/3500	1994-Pres.		**X**			
Misc. models w/squarely shaped pockets (not-contoured)			**X**			
**** SERVICE BODY OR FLAT BED APPLICATIONS****		**X**				
**** OTHER APPLICATIONS ****		Consult Factory				

TRUCK PREPARATION

Remove lights, safety bumper, dock bumpers, etc. that may interfere with installation.

INSTALLATION INSTRUCTIONS

Step 1 Uncoil the battery cable found under the threshold.

Step 2 **NOTE: FOR INSTALLATIONS ON ALUMINUM PICKUP BEDS**
For Ford pickup trucks, See Ford SVE Bulletin Q-222 for adding accessories to aluminum beds. It covers how to protect against galvanic corrosion (corrosion between dissimilar metals). If other manufacturers release aluminum pickup beds in the future, please ask them for similar recommendations.

Step 3 **During the entire installation, be sure that the platform is locked into the stowed position and the liftgate is in the fully raised position, such that no gaps exist between the posts and platform supports**. See figure 1. If gaps exist, with liftgate on shipping feet, supply temporary power and ground to the liftgate and hit UP switch to close any gaps. Disconnect power and ground before proceeding. Raise liftgate with crane or forklift and remove shipping feet. Locate the liftgate in the bed of the truck by sliding the threshold on to the bed as far as possible. Before proceeding, be sure that idler arms and lift arms can be removed once the liftgate is installed. See figure 1.

Step 4 Center the liftgate in the truck bed with spacer blocks tight against the truck bed, and post perpendicular to the ground. See figure 1. Bolt the threshold to the truck floor using the 3 sq. holes provided in the threshold See figure 2. Use a 3/8 drill bit in each sq. hole to drill through the truck floor in that location. Use grade 5, 3/8x1.50 carriage bolts and related hardware provided (**Kit bag 3657–remaining hardware for step 10**).

Step 5 Clamp the curb and street side posts so both are perpendicular to the ground to ensure the platform will level ride parallel to the ground. DO NOT square the posts with the truck bed because the truck bed may not be parallel to the ground. NOTE: Platform stow pins must be centered in the locking tab slots, front to back, to ensure the platform will latch properly after the installation is completed. See figure 1.

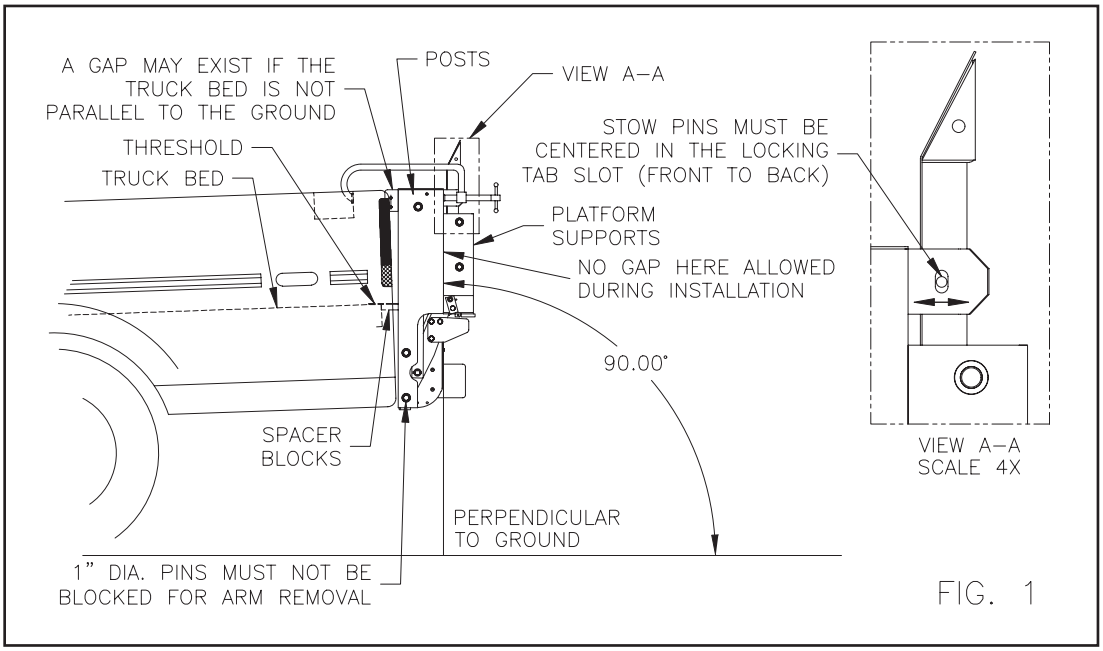


FIG. 1

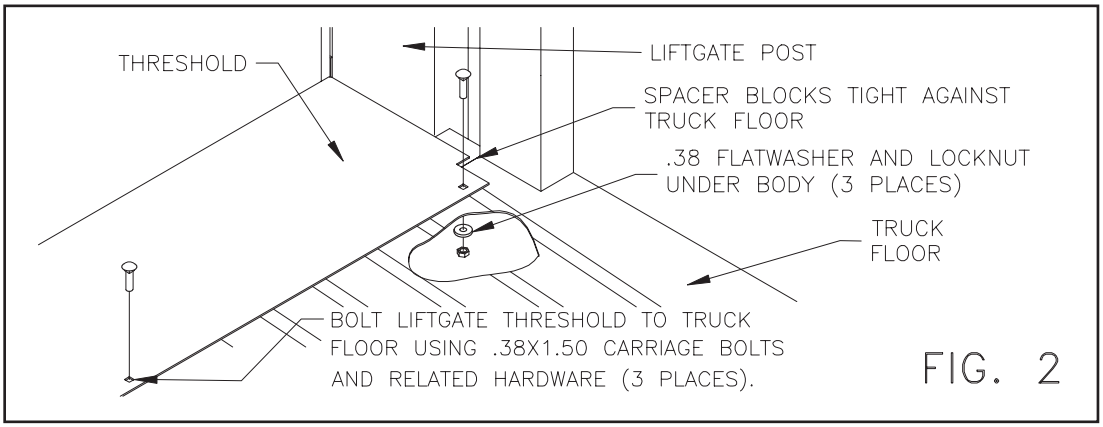


FIG. 2

NEXT STEP 6 ONLY FOR:
(INSTALLATION KIT: 3319-006) CHEVY/GM, FULL SIZE PICKUP TRUCKS – CK1500 MODEL YEARS 2019-PRESENT, CK2500/3500 MODEL YEARS 2020-PRESENT.

Step 6 Bolt the 27304-001 and 27304-002 GM Mounting plates to the stake pockets as shown using the 3/4x2.00 bolts, and the related hardware with each bolt. (**Kit bag 3660 – keep remaining hardware for future steps**). An extra 3/4" flat washer is provided to be used as a shim between the mounting plates and the recessed area in the stake pockets. The rectangular hole in each mounting plate must be centered around the bed light (if equipped) and each mounting plate should be tight against the contour of the bed and stake pocket. Once the mounting plates are positioned correctly and secured with the 3/4" hardware, use the (3) additional holes provided in the mounting plate as a guide to drill .38 dia. holes through the truck bed. Finish securing the mounting plate to the truck bed using the 3/8x1.00 bolts, the 3/8x1.75 bolts, and the related hardware with each bolt. (**Kit bag 3660 – keep remaining hardware for step 14**). Only the CK 2500/3500 trucks use the shim weldments provided in the kits. See Fig. 3A for GM 1500 and Fig. 3B for GM 2500/3500.

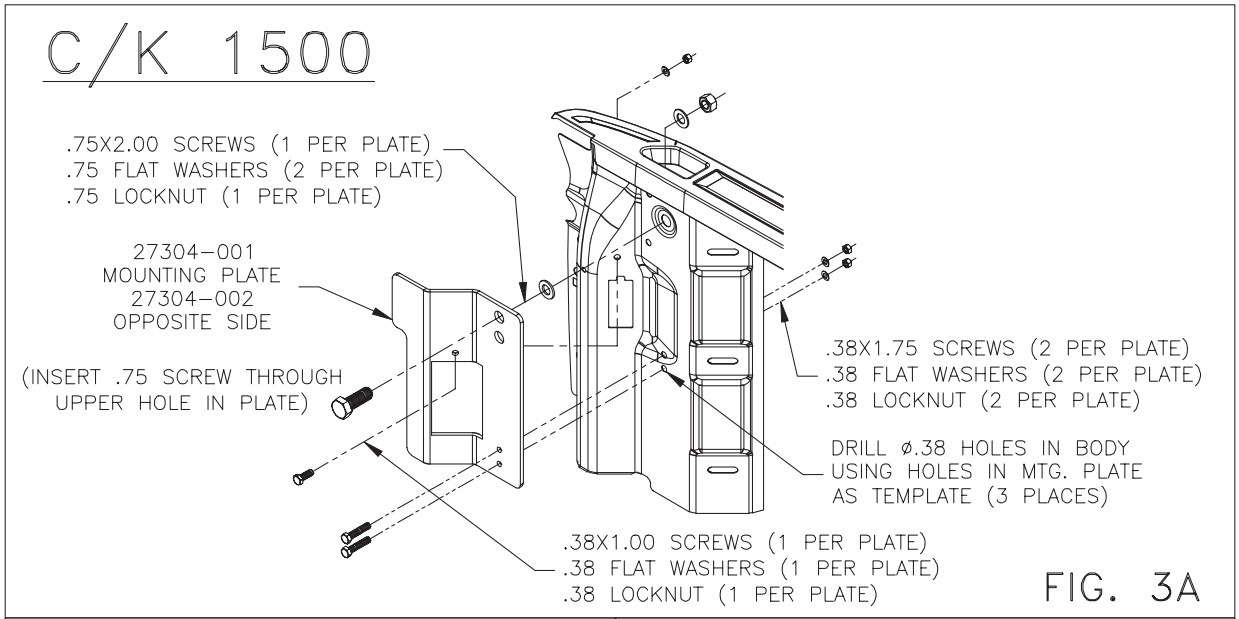


FIG. 3A

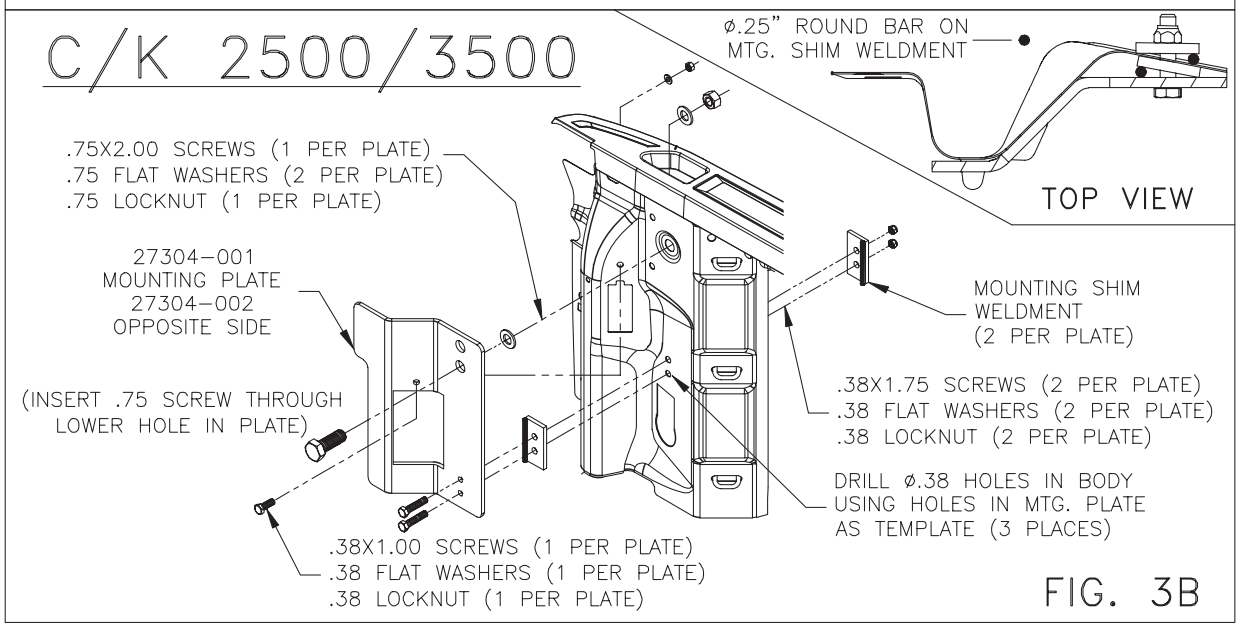
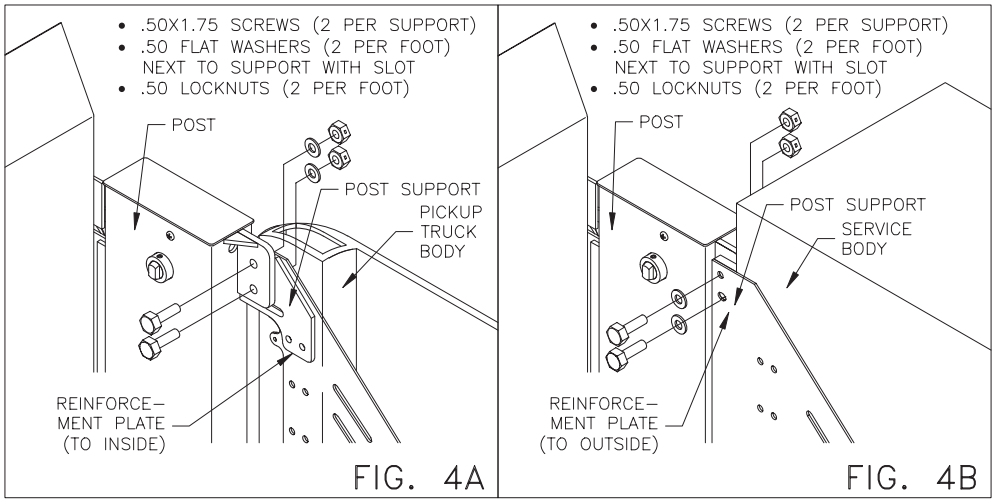


FIG. 3B

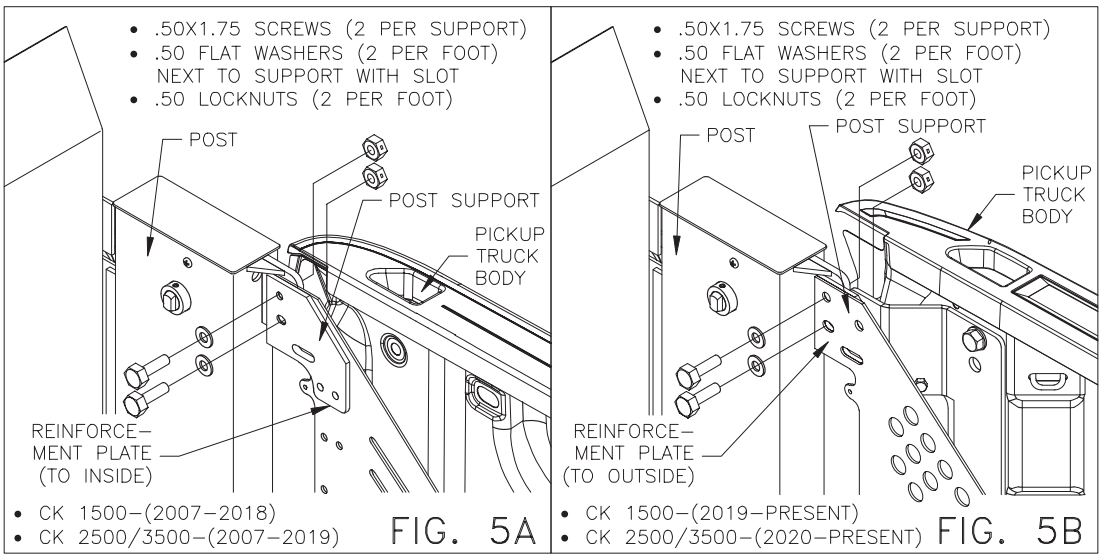
NEXT STEP 7 ONLY FOR:
(INSTALLATION KIT: 3319-001) SERVICE BODIES.
(INSTALLATION KITS: 3319-003 or 3319-007) RAM AND FORD PICKUP TRUCK BEDS (AND OTHER PICKUP MODELS WITH SQUARELY SHAPED STAKE POCKETS (NOT CONTOURED).

Step 7 Bolt the post supports, as shown, to the back of the posts. For pickups, bolt post supports on the side toward the stake pockets. See Fig. 4A. For service bodies, bolt post supports on side away from service body. See Fig. 4B. Use grade 8, .50x1.75 bolts and related hardware provided (**Kit bag 3653**). NOTE: Flatwashers should be next to the post supports, with slotted hole. Finger tighten at this point.



NEXT STEP 8 ONLY FOR:
(INSTALLATION KIT: 3319-005) CHEVY/GM, FULL SIZE PICKUP TRUCKS – CK1500 MODEL YEARS 2007-2018, CK2500/3500 MODEL YEARS 2007-2019.
(INSTALLATION KIT: 3319-006) CHEVY/GM, FULL SIZE PICKUP TRUCKS – CK1500 MODEL YEARS 2019-PRESENT, CK2500/3500 MODEL YEARS 2020-PRESENT

Step 8 Bolt the post supports to the back of the posts on side away from stake pockets with reinforcement plates oriented as shown. See Fig. 5A or 5B. Use grade 8, .50x1.75 bolts and related hardware provided (**Kit bag 3653**). NOTE: Flatwashers should be next to the post supports, with slotted hole. Finger tighten at this point.

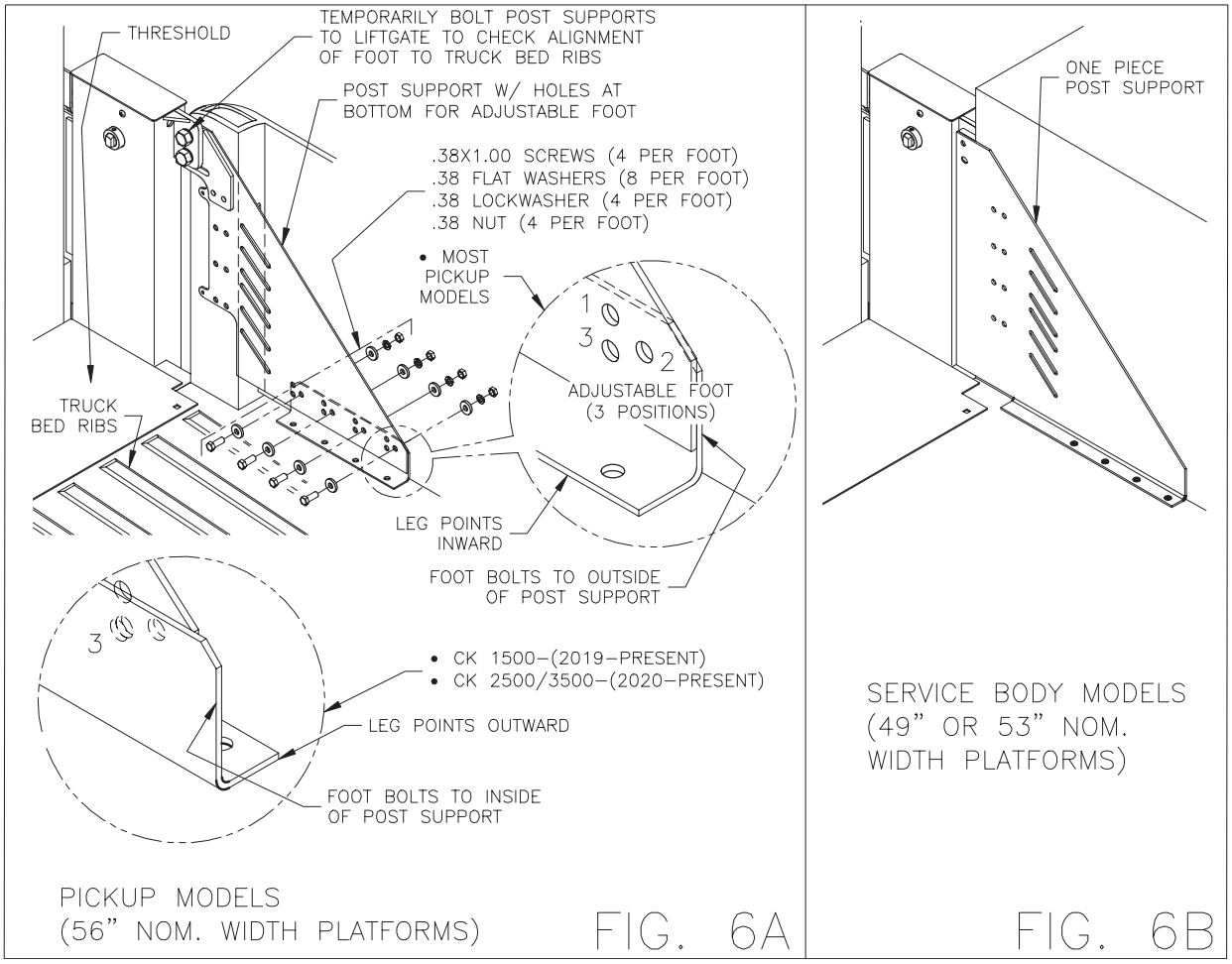


Step 9 On liftgates designed for pickup trucks (56 inch nominal width platforms), the installation kit includes post supports with adjustable feet (mounting flanges). Determine how the adjustable feet align with the truck bed ribs. Bolt the feet to the post supports using grade 5, 3/8 x 1.00 Bolts and related hardware included. (**Kit bag 3654**). See Fig 6A. The leg of the adjustable foot that lays flat on the truck bed, will normally point inward, but on Chevy/GM, full size pickup trucks – CK1500 model years 2019-present and CK2500/3500 model years 2020-present, the leg of the adjustable foot points outward. See Fig. 6A for proper orientation.

Only finger tighten at this point. There are three bolt positions on the post support for the adjustable foot because of different bed designs. Which set of holes that are used is dependent upon how the threshold and adjustable foot align with the truck bed ribs. See Figure 6A.

1. Top holes: If the foot is higher (on truck rib) than the threshold (below truck ribs).
2. Middle holes: If the foot is on the same level as the threshold (Both the foot and threshold are either both on ribs or are both below the ribs).
3. Bottom holes: If the foot is lower (below truck rib) than the threshold (on truck ribs).

NOTE: On liftgates designed for service bodies (49 & 53 inch nominal width platforms, or liftgates ordered with service body installation kits), the installation kit will include one piece post supports, so this step is not required on those models. See Fig. 6B.



Step 10 Rotate the post supports downward, so the feet are flat on the truck floor and pull tight toward the cab to remove any play. Bolt the foot of each post support through the truck floor and through the backer plate and at least one body crossmember. Backer plates may be trimmed where bolts intersect crossmembers, but should be used with all other bolts which only intersect the truck bed. Use grade 5, 3/8 x 1.50 and 3/8 x 4.00 bolts and related hardware included. (**Kit bag 3657**). See Fig. 7.

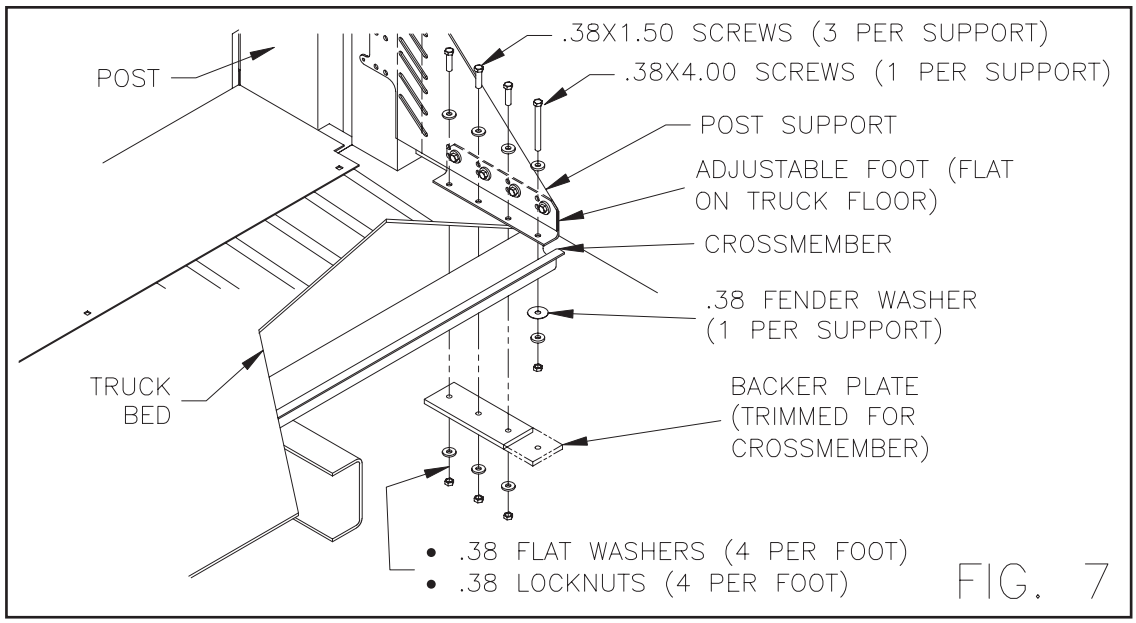


FIG. 7

Step 11 For post supports with 2 columns of 4 vertical holes, bolt each post support to the rear stake pocket using the four holes that align best. 4-hole shims are provided if necessary to fill a gap between the post support and stake pocket. There is also a 2-hole spacer plate provided in some kits, to fill the contour of the stake pocket. Bolt the post support to the stake pocket using the 3/8 hardware supplied. (**Kit bag 3658**). See figure 8. For service bodies, Thieman recommends bolting through the service body for added strength, unless the installer knows the truck floor is heavy enough to carry the liftgate loads. Post supports for the newest Chevy/GM pickups do not require bolting here, and don't include the necessary holes and hardware.

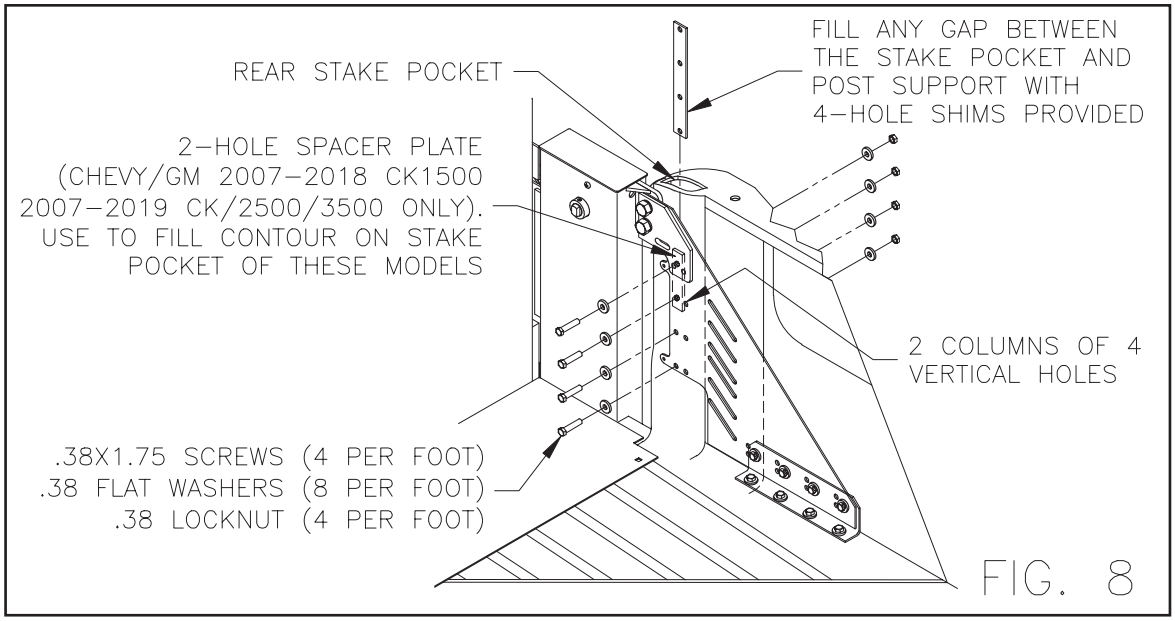
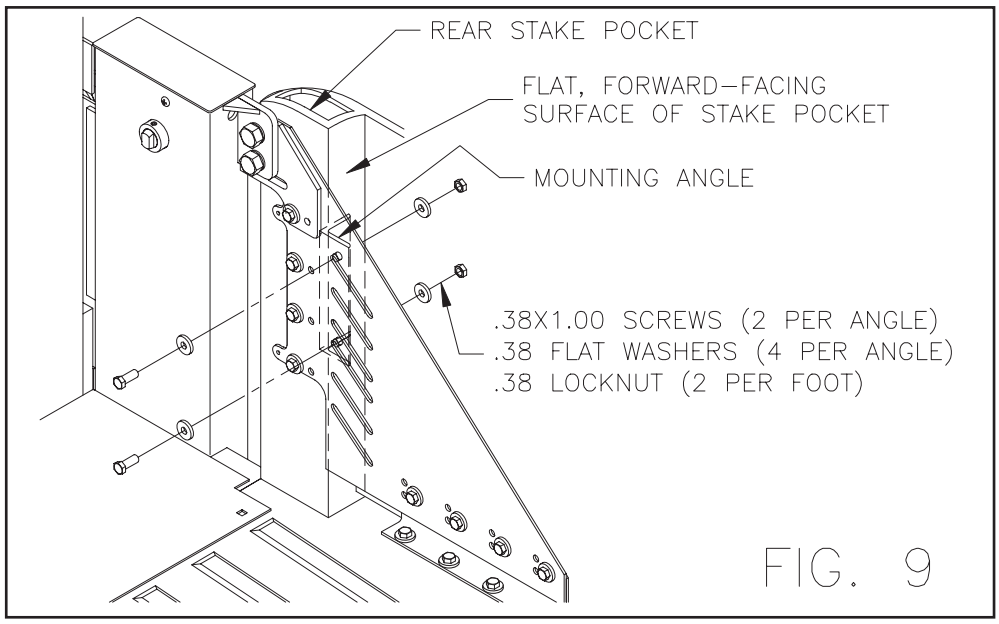


FIG. 8

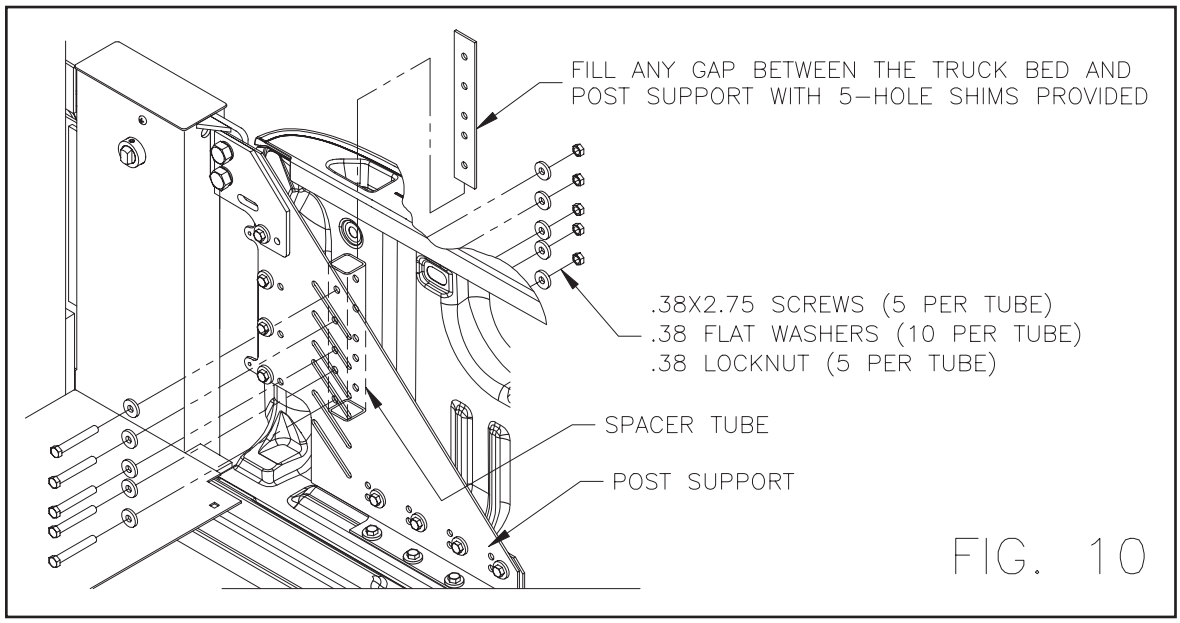
NEXT STEP 12 ONLY FOR:
(INSTALLATION KITS: 3319-003 or 3319-007) RAM AND FORD PICKUP TRUCK BEDS (AND OTHER PICKUP MODELS WITH SQUARELY SHAPED STAKE POCKETS (NOT CONTOURED).

Step 12 Bolt the supplied 2 x 2 x 1/4" mounting angles to each post support through the angled slots as high as possible, to support the most load. Slide the mounting angles up tight against a flat, forward-facing surface of the stake pocket. Use 3/8 Grade 5 hardware provided. (**Kit bag 3655**). See figure 9.



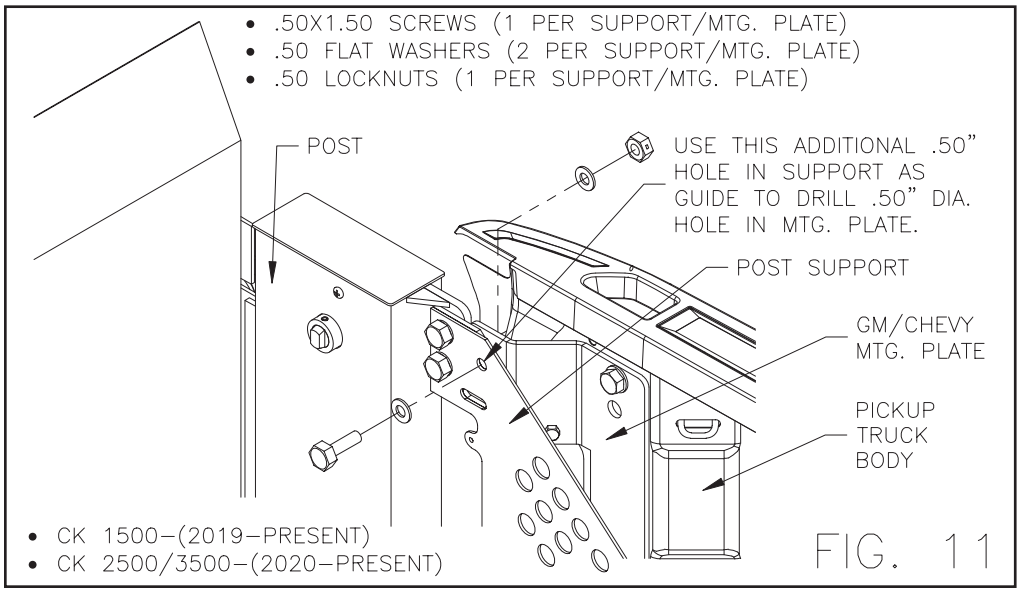
NEXT STEP 13 ONLY FOR:
(INSTALLATION KIT: 3319-005) CHEVY/GM, FULL SIZE PICKUP TRUCKS – CK1500 MODEL YEARS 2007-2018, CK2500/3500 MODEL YEARS 2007-2019.

Step 13 Using the top 5 slots in the post supports, bolt the spacer tubes and 5-hole shims (if necessary to fill any gaps), sandwiched between the post supports and the side of the truck bed, to further anchor the post supports to the bed on these models, using the 3/8 hardware supplied. (**Kit bag 3659**). See figure 10.



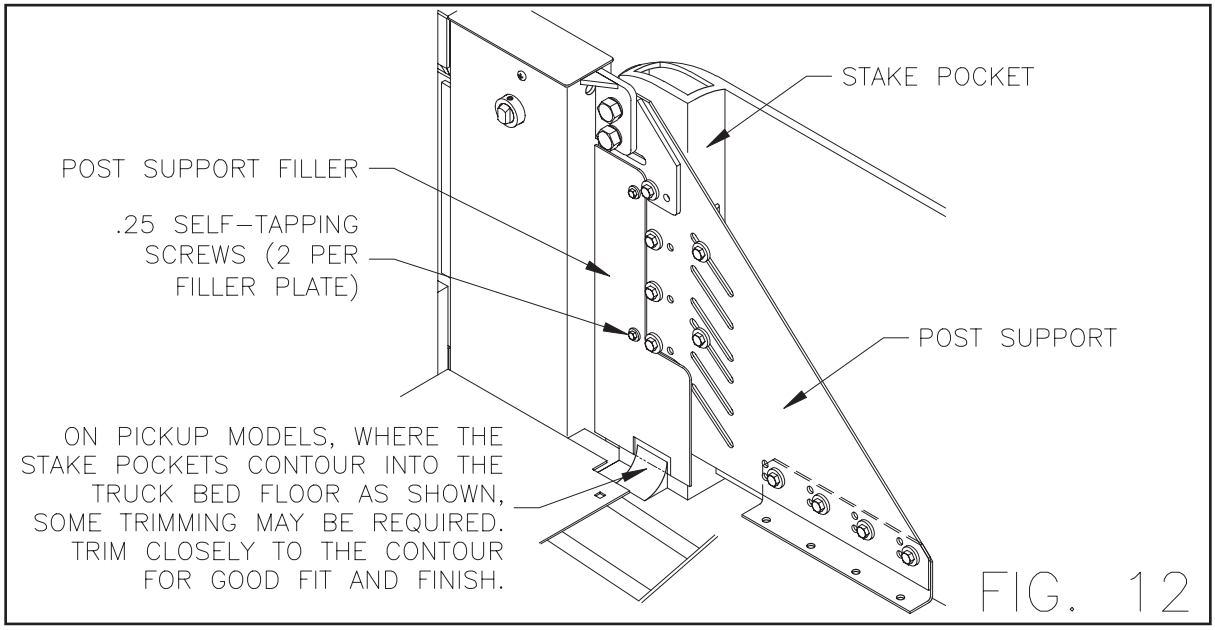
NEXT STEP 14 ONLY FOR:
(INSTALLATION KIT: 3319-006) CHEVY/GM, FULL SIZE PICKUP TRUCKS – CK1500 MODEL YEARS 2019-PRESENT, CK2500/3500 MODEL YEARS 2020-PRESENT.

Step 14 Using the additional .50" dia. hole in each post support as a guide, drill a mating .50 dia. hole in the GM/Chevy mounting plate on the curb and street sides. Use the .50 hardware supplied to securely bolt the GM/Chevy mounting plates to the post supports as shown. **(Kit bag 3660)**. See figure 11.



Step 15 Securely tighten the ½ bolts and nuts between the post supports and posts using appropriate sized wrenches. Similarly, securely tighten ALL the nuts and bolts from ALL previous steps that were previously only tightened by hand.

Step 16 A filler plate is provided to close the opening between the post on the liftgate and the stake pocket of the pickup bed (not used on service bodies). It attaches to the post support in the two holes provided with ¼ self-tapping screws. (**Kit bag 3656**) Because of the contours on certain pickup bodies, some trimming (closely around the contours for proper fit/finish) may be needed to fit properly. See figure 12.



Step 17 Weld the vertical frame braces (long) to the truck frame. If welding to the truck frame is prohibited by the manufacturer, the vertical frame brace (long) may be bolted to the truck chassis frame. Weld the vertical frame braces (short), to the threshold mounting plates on the underside of the liftgate and aligned with the vertical frame braces (long). Weld the horizontal braces between the vertical frame braces (long) and vertical frame braces (short), as shown. See figure 13.

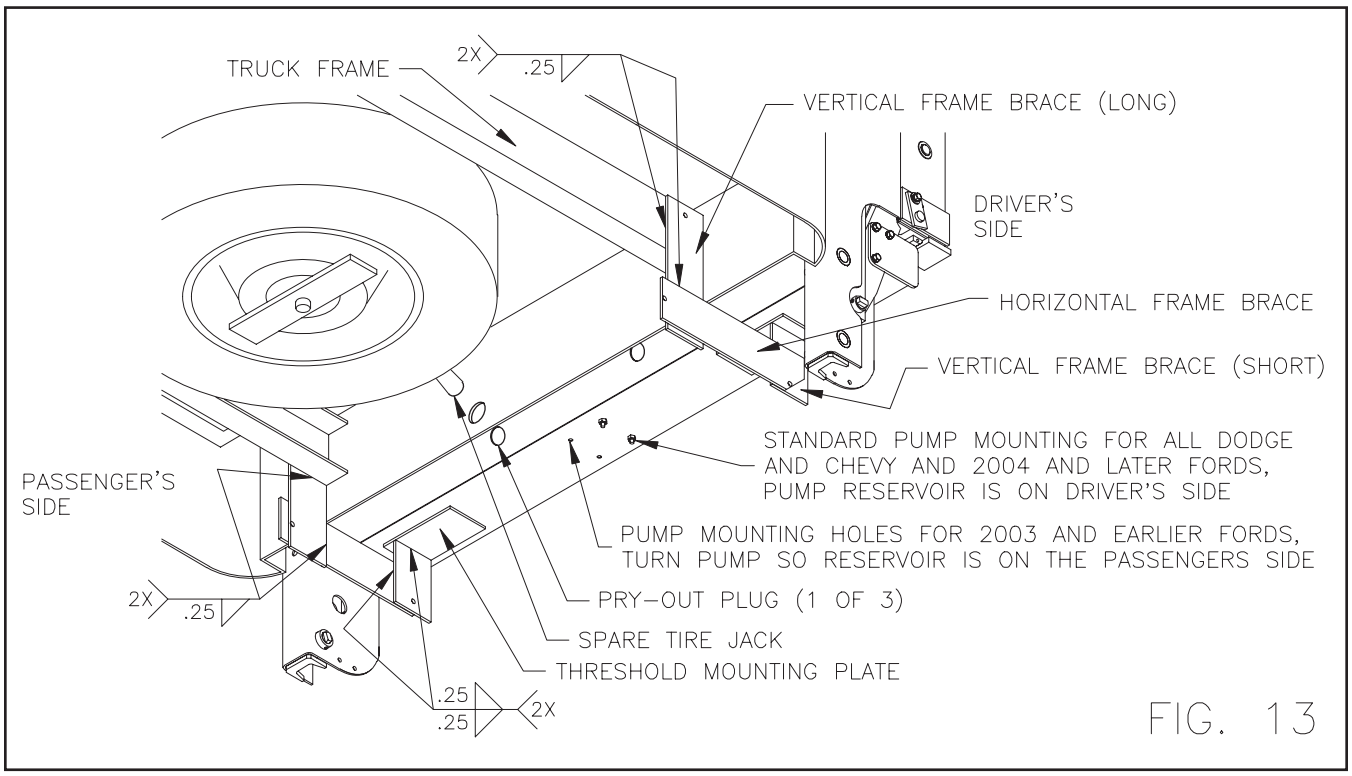


FIG. 13

Step 18 Fasten the 150 AMP circuit breaker provided within 2 ft. of the truck battery. (**Kit bag 3652-025**) Route the battery cable from the liftgate toward the 150 AMP circuit breaker (Note: secure an extra 2ft. of battery cable near the liftgate. This slack will allow the power unit to be removed from the gate easily in the future if servicing or replacement is required). AVOID SHARP CORNERS AND HIGH HEAT AREAS. Use cable clips provided to secure the cable to the truck frame every 2 feet. Cut the cable to the desired length and strip .88" of insulation from the end. Slide the pre-cut heat shrink over the end of the cable. Secure the cable lug in a vise and apply heat to the connector and insert the cable as the solder melts. Allow connector to cool and install the heat shrink. Attach this end to one terminal on the 150 amp circuit breaker. Install heavy ground cable from negative battery terminal to the frame. Wire the breaker to the truck battery using the 2ft. cable provided. See figure 14.

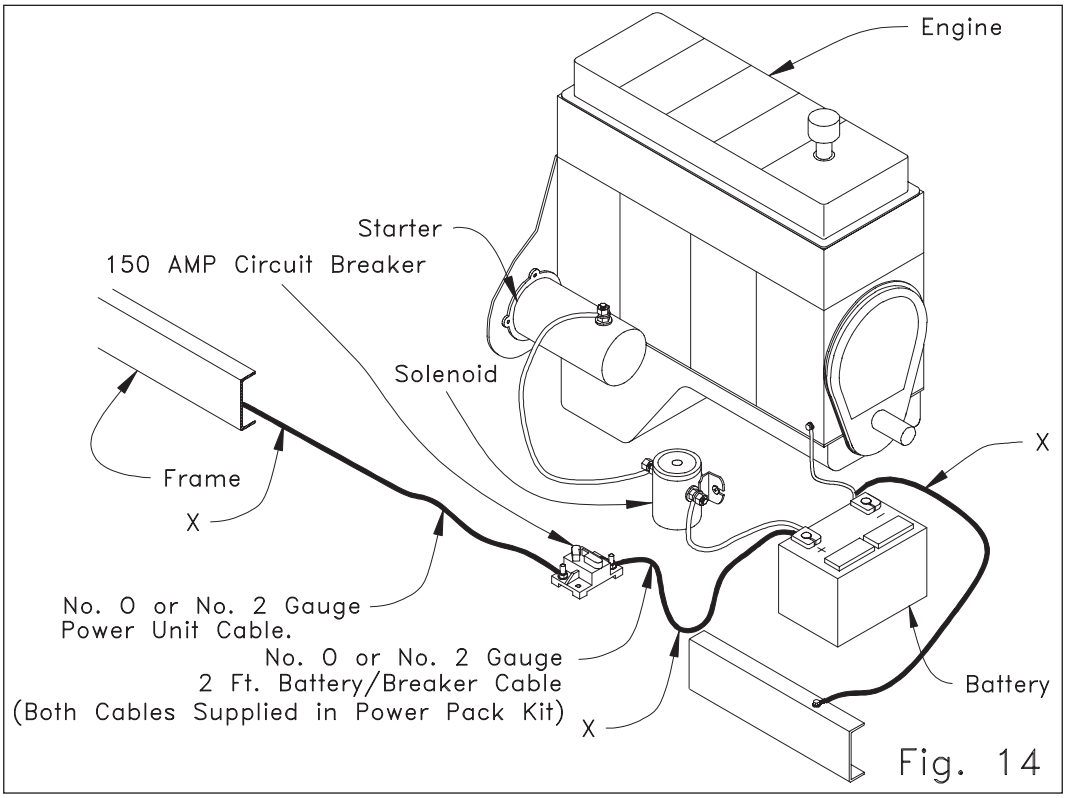


Fig. 14

Step 19 Many late model trucks have battery connections as shown in Figure 14. The ground cable from the battery is connected directly to the engine block with only a light braided ground strap from the block to the chassis (either the body or the frame.) Where this is the case, the factory-installed wiring usually does not provide an adequate ground circuit for battery-operated accessories, such as electric-hydraulic tailgates.

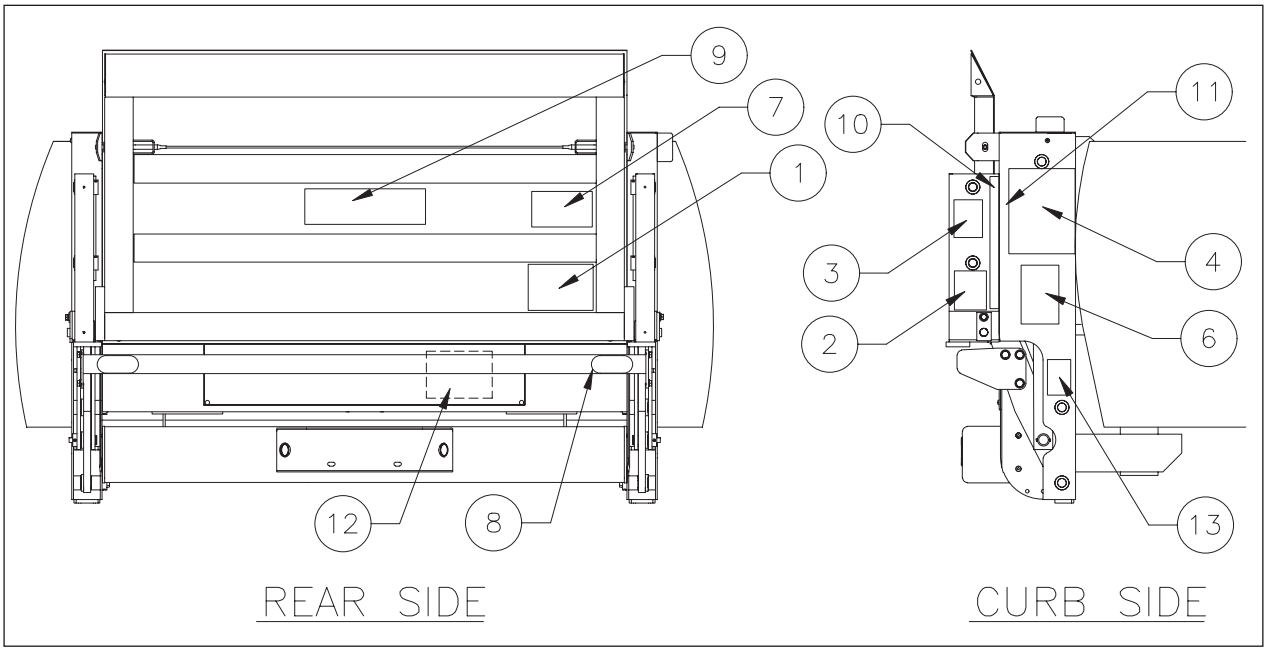
We recommend that the cables, shown with an "X" in Figure 14, be not less than No. 2 gauge wire, as supplied in the Power Pack Kit on all electric/hydraulic installations. Because of the high current draw (approximately 200 A) by hydraulic tailgates, we recommend that the alternator be a heavy duty type and the battery must have a 150 AMP minimum reserve capacity.

Step 20 Once the power is connected, release the safety latches, unfold the platform and lower it to the ground. The pump is located under the threshold and can be accessed by removing the cover plate. For standard gravity down liftgates, with the platform on the ground, make sure that the fluid in the pump reservoir is ½" from the top. MAKE SURE the black plastic breather plug is installed in the pump reservoir.

Step 21 The TT15 has three pry out plugs located on the rear of the threshold behind the pump cover plate. These plugs can easily be removed by hand and are designed to allow access to the spare tire jack once the cover plate has been removed. The hydraulic pump is mounted by the factory to allow access to two of the three holes which are designed for all model year Chevy and Dodge pickup trucks and 2004 and later F150 and 2008 and later F250/350 Ford pickup trucks. If the liftgate is being mounted on a 2003 or earlier Ford F150 or 2007 or earlier pickup, the installer must flip the pump 180° and use the other two mounting holes in the threshold so that the reservoir is toward the passenger side. This will allow access to the spare tire on these earlier Ford pickups. These holes are only designed to line up with the latest full size models from Ford, Dodge and Chevy. Access to the spare tire on other model pickups must be provided by the installer. Replace the cover plate when finished. See figure 13.

Step 22 When painting, carefully grease or mask fittings and any exposed portion of the cylinder rods. On decals already applied remove premask after painting. Apply remaining decals in the appropriate locations as shown. These decals **MUST** be applied or all warranties are **VOID**!

Item	Part Name	Part Number
1	Warning Decal-off center	4671050
2	PTO Decal	4650140
2	Fast Idle Decal	4650150
3	Danger Decal-no riding	4609
4	Operating Decal	4650870
5	Capacity Decal-1000#	4650050
5	Capacity Decal-1250#	4650060
5	Capacity Decal-1500#	4650070
6	Warning Decal	4681
7	Caution Decal-working area	4650770
8	Reflector(2)	5705
9	Thieman Nameplate	4650801
10	Hazard Marking Tape - Pivot	5760-002
11	Hazard Marking Tape - Frame	5760-003
12	Wiring Decal (Back of Cover)	4612
13	Warning Decal-High Pressure	4620



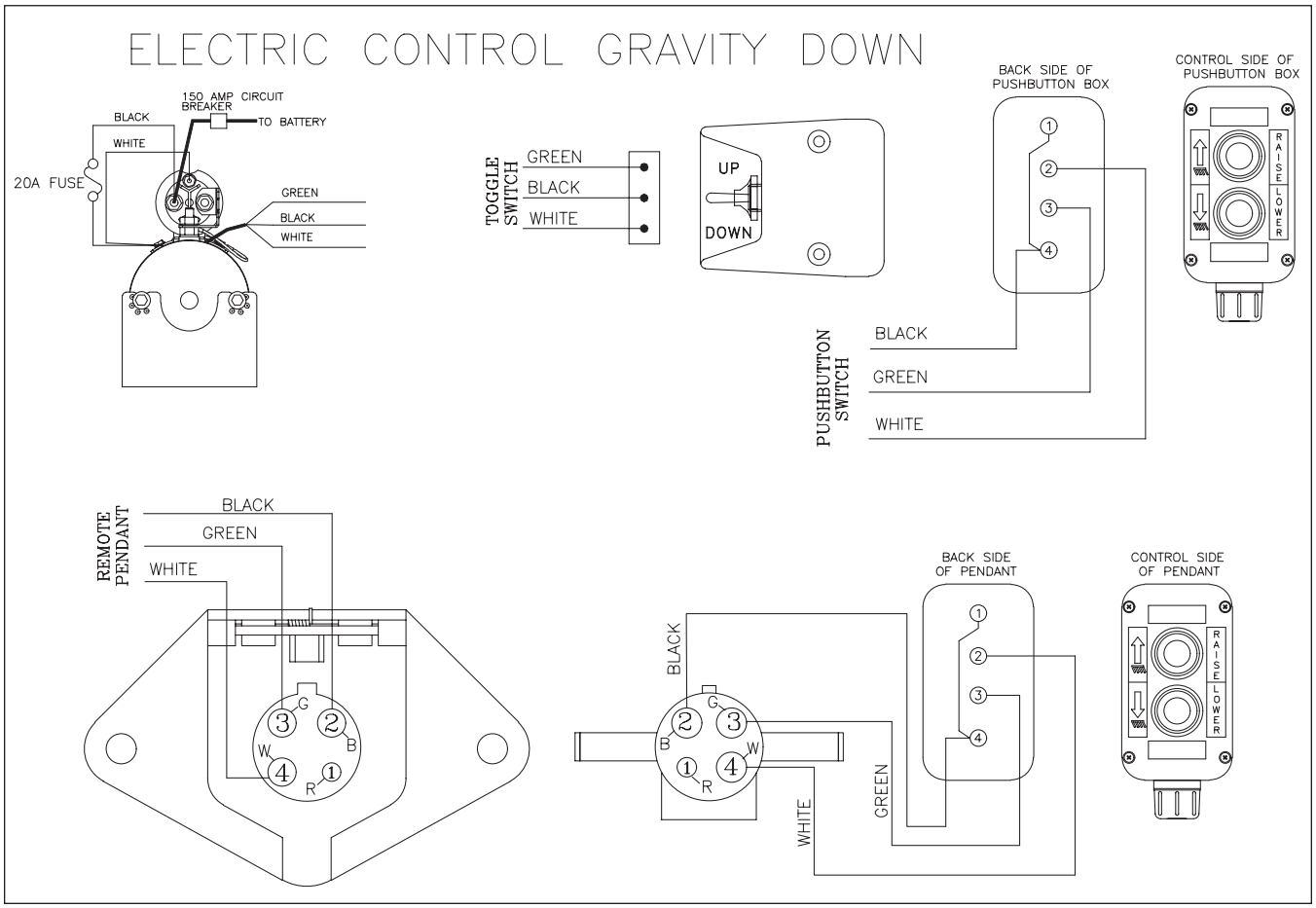
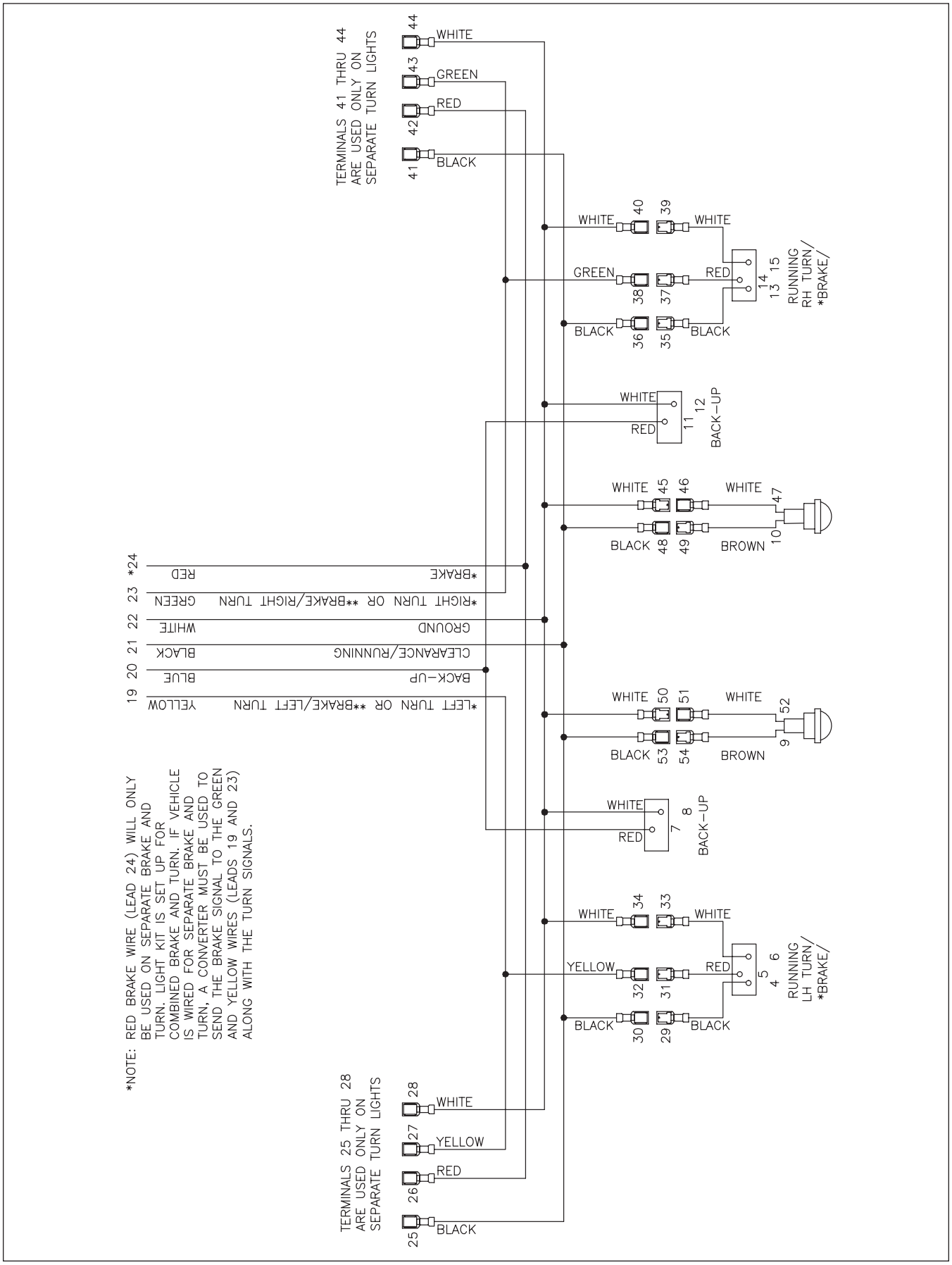
Step 23 Thieman recommends that the installer perform a weight test of the liftgate to check the welds or mounting bolts and the structural integrity of the body or frame of the truck or trailer. The load used should be the maximum weight rating of the particular liftgate with the weight centrally located on the platform. A minimum of 20 cycles should be made to insure the integrity of the mounting.

Step 24 Any lights that were removed or obstructed must be replaced or relocated in such a manner that the completed vehicle must be in compliance with FMVSS 108(49CFR 571.108). If the optional bumper lights were ordered it is up to the installer to wire the lights to the truck. A light harness is provided (See Wiring Pictorial on page 14).

Step 25 Any vehicle with a GVWR less than 10,000 pounds, was likely factory equipped with a rear view camera to meet FMVSS 111 (49CFR 571.111) requirements. For pickup trucks, the OEM rear view camera is typically in the pickup's tailgate, which would have been removed during this installation. Thieman offers optional "camera" kits for specific pickup models, to assist in relocating the OEM cameras on our hydraulic liftgate. The installer is responsible for ensuring the vehicle is compliant to FMVSS 111 after the liftgate and any optional "camera" kits are installed.

Step 26 It may be necessary to add Rear End Protection on this installation. Check your local and state laws for requirements for FMCSR 49 CFR 393.86.

WIRING PICTORIAL



OPTIONAL BUMPER LIGHTS - WIRING PICTORIAL