

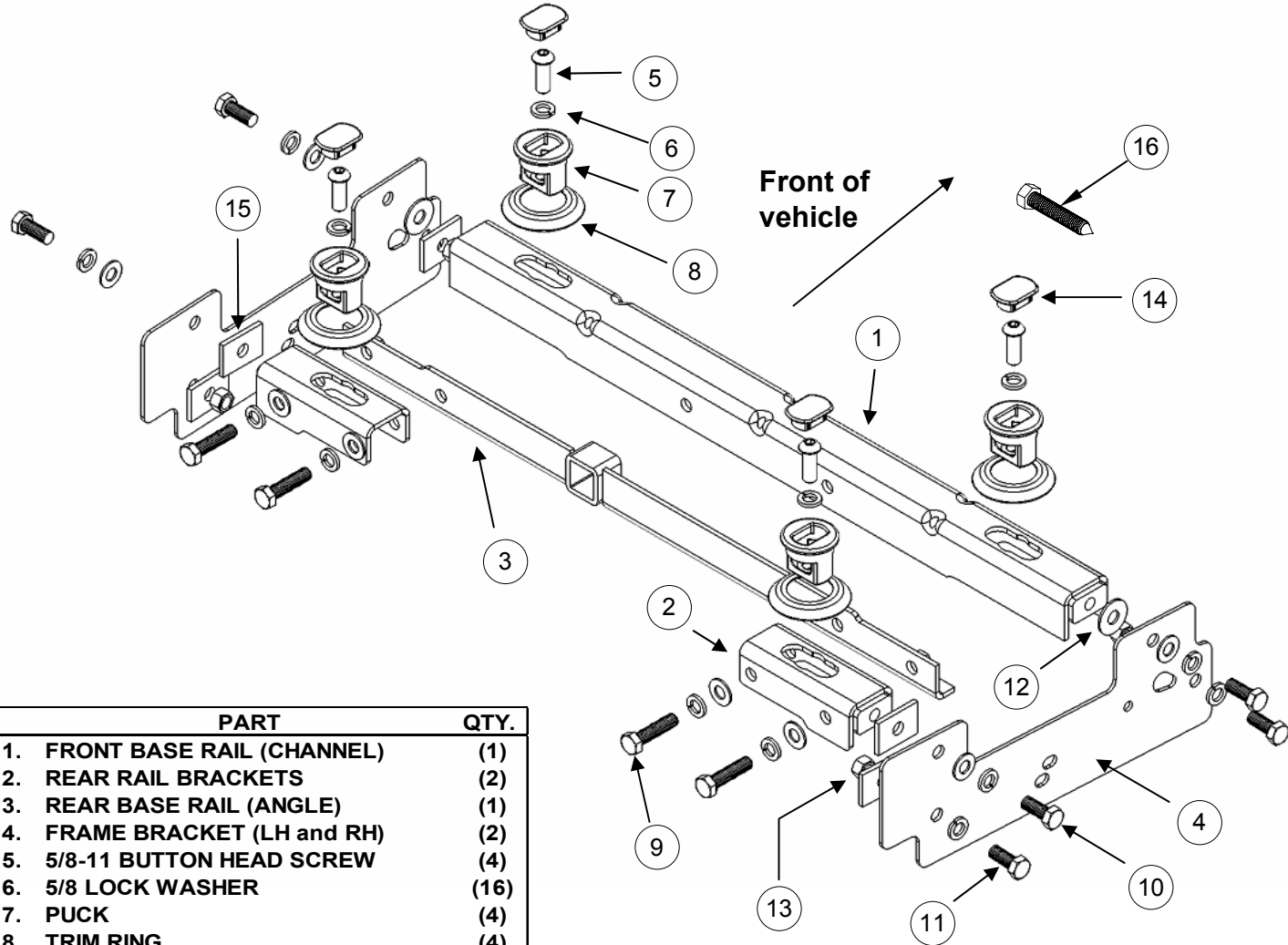
INSTALLATION INSTRUCTIONS MOUNTING KIT FORD '97-2003 F-150/250 LD 2004 F-150 HERITAGE 6' and 8' BEDS

DEALER/INSTALLER:

- (1) Provide this Manual to end user.
- (2) Physically demonstrate procedures in this Manual to end user.
- (3) Have end user demonstrate that he/she understands procedures.

END USER:

- (1) Read and follow this Manual every time you use Hitch.
- (2) Save this Manual for future reference.
- (3) Pass on copies of Manual to any other user or owner of Hitch.



PART	QTY.
1. FRONT BASE RAIL (CHANNEL)	(1)
2. REAR RAIL BRACKETS	(2)
3. REAR BASE RAIL (ANGLE)	(1)
4. FRAME BRACKET (LH and RH)	(2)
5. 5/8-11 BUTTON HEAD SCREW	(4)
6. 5/8 LOCK WASHER	(16)
7. PUCK	(4)
8. TRIM RING	(4)
9. 5/8-11 GR 8 BOLT 4" LONG	(4)
10. 5/8-11 GR 8 BOLT 1 1/2" LONG	(4)
11. 5/8-11 GR 8 BOLT 2" LONG	(4)
12. 5/8 FLAT WASHER	(10)
13. 5/8-11 GR 8 NUT	(4)
14. PUCK PLUG	(4)
15. SPACER (2" X 1 3/4" X 1/4")	(6)
16. 5/8-11 GR 8 BOLT 3 1/2" LONG W/POINT	(1)

Figure 1

For Installation Assistance or Technical Help
Call 1-800-758-0869

⚠ WARNING:

Failure to follow all of these instructions may result in death or serious injury!

INDEX

- | | |
|--|---------|
| 1. GUIDELINES FOR MATCHING TOW VEHICLE AND TRAILER | P. 2-4 |
| 2. ASSEMBLY INSTRUCTIONS | P. 5-12 |
| 3. CEQUENT TOWING PRODUCTS SEVEN YEAR LIMITED WARRANTY | P. 13 |

GUIDELINES FOR MATCHING HITCH TRUCK AND TRAILER

⚠ WARNING:

Failure to check and follow tow ratings could result in tow vehicle damage or truck and trailer separation while towing.

- Trailer and its contents together must not exceed truck, hitch and/or trailer tow ratings.
- Towing vehicle must have a manufacturer’s rated towing capacity equal to or greater than the gross trailer weight (dry weight of the trailer plus payload of the trailer). (Figure 2)
- Gross weight of trailer must not exceed fifth wheel hitch rating.
- King pin weight must not exceed fifth wheel rating (Figure 3). If in doubt have king pin weight measured by a qualified technician.

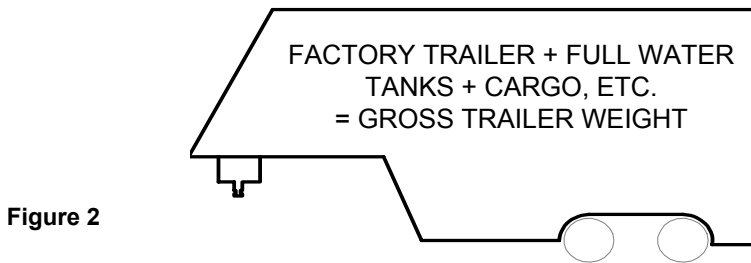


Figure 2

1. Check Tow Ratings:
 Vehicle Tow Rating: _____
Signature Series Hitch Rating: _____
 Gross Trailer Weight (Figure 2): _____
***Trailer weight should be the lowest of these recorded ratings for safe towing conditions.**
2. Cequent Towing Products hitches are designed for use with recreational fifth wheel trailers only. Hitch applications other than recreational fifth wheel trailers must be approved in writing by Cequent Towing Products' Engineering Department.
3. Use only a SAE 2-inch kingpin with your *Signature Series* Fifth Wheel Hitch.
4. Approximately 15%-25% of trailer weight should be on hitch (Pin Weight)(Figure 3).

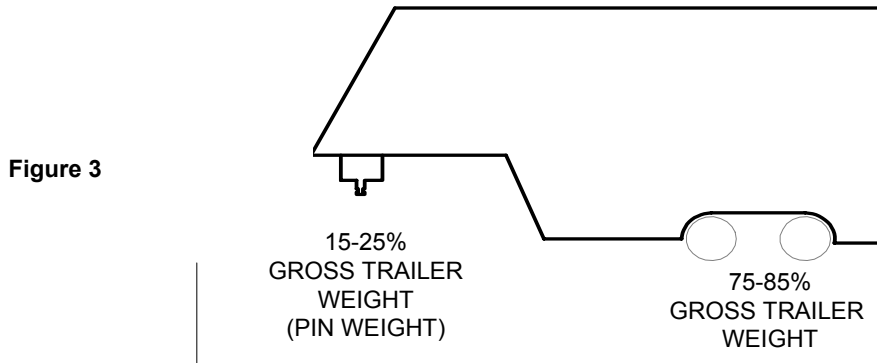
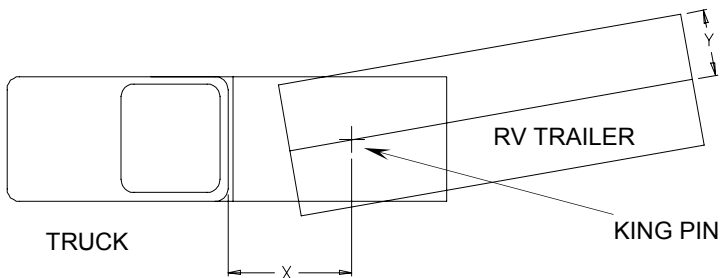


Figure 3

5. Trucks come in many different configurations. **Cequent Towing Products'** hitches are designed for use in light trucks such as the Ford F-Series, the Chevy Silverado and the Dodge Ram. **Cequent Towing Products** recommends the use of long bed (8ft) light trucks for the best combination in truck - trailer turning clearance.

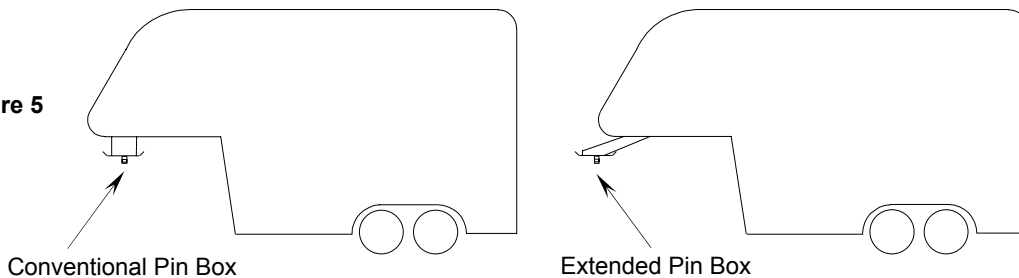
Rule of thumb: The distance from the back of the truck cab to the center of the rear truck axle ("X" in **Figure 4**), should be approximately 4 inches greater than one-half the trailer width ("Y" in **Figure 4**).

Figure 4



6. If a short bed pickup (less than 8 ft. but longer than 6 ft.) is to be used for towing, **Cequent Towing Products** recommends the trailer be equipped with an extended pin box to help gain additional truck - trailer turning clearance (See trailer manufacturer for options) (**Figure 5**). It also may be helpful to add a *Signature Series* Slider (**Part # 30070**) for increased turning clearance for low speed, non-highway maneuvering.

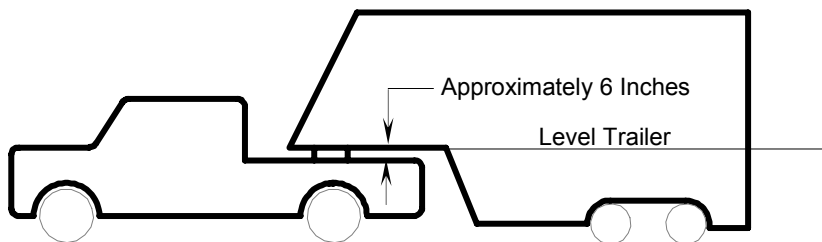
Figure 5



⚠ WARNING:
Do Not install this fifth wheel hitch on or attempt to tow with a short bed pickup truck that has a bed shorter than 6 ft.!

7. The height of the hitch and the pin box should be adjusted so the trailer is approximately level as it is towed. Allow approximately 6 inches clearance between the top of the pickup walls and the underside of the front of the trailer for pitch and roll of the trailer. (**Figure 6**). Allow more clearance between pickup walls and trailer for off road use.

Figure 6



CAUTION:

The measurements above are guidelines. If your measurements are close to these numbers re-check clearances. If vehicle and/or trailer has any added bed vicinity accessories (i.e. fairings, air dams, ground effects, bed rails, etc.). Additional dimensioning and clearance checks have to be made.

8. Hitch height determination:

With trailer leveled and on level ground measure from the ground to the king pin box ("A" in **Figure 7**). Secondly measure from the height of the inside of the truck bed ("B" in **Figure 7**). Determine the amount of clearance over the side rails ("C" and "D" in **Figure 7**), as mentioned in **Note 7**.

$$\text{Hitch Height} = A - B + 2''$$

The 2" value is an estimate of suspension compression due to king pin weight of the trailer. This compression could range between 1"-5" depending on the truck being used and the trailer being towed.

$$D - C + 2'' > 6'' \text{ as in Note 7.}$$

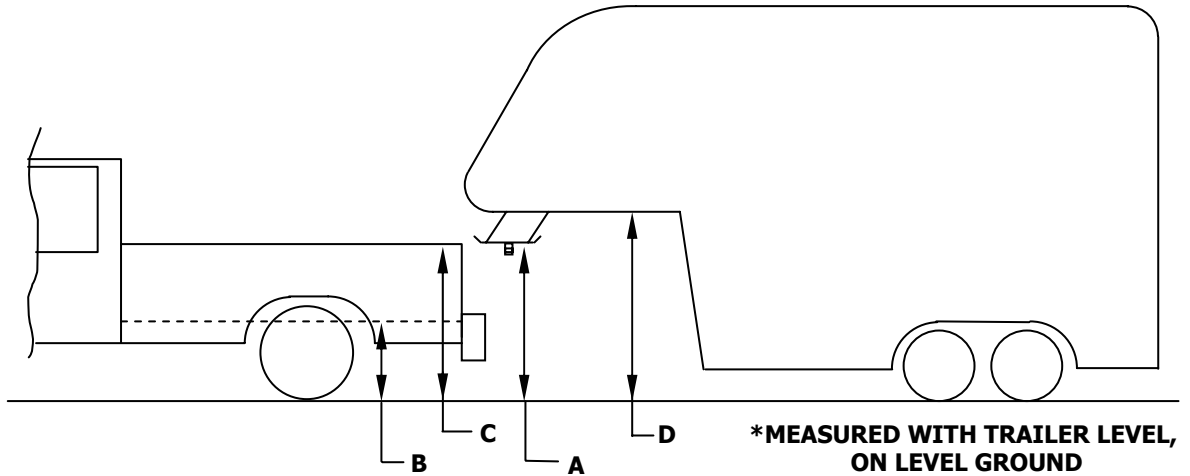


Figure 7

9. If a lube plate is to be used with a Signature Series 5th Wheel it must be at least 12" in diameter. **Cequent Towing Products** offers this optional lube plate as part # 83001 / 40001.

⚠ WARNING:

- **Connection for trailer wiring must be located at the side of the truck bed between the driver's seat and the rear wheel to prevent operators from working between the truck and trailer.**
- **Avoid putting any part of your body under the trailer or between the truck and trailer. Unexpected or accidental movement of the truck or the trailer can cause serious injury or death**
- **If you must place any part of your body under the trailer or between the truck and trailer you MUST perform ALL of the following steps:**
 - **Check that the truck transmission is in park**
 - **Check that the emergency brake is on**
 - **Block in front of and behind all trailer tires**
 - **Check that the trailer landing gear are resting on firm ground**

GENERAL INSTRUCTIONS FOR FIFTH WHEEL INSTALLATION

TOOLS

3/16" Drill

2 1/32" Drill

3/8", 1/2", 5/8", 3/4" Hex sockets

8 & 10 mm Hex socket

5/8-11 x 3.5 w/point

15/16" Socket & Open End Wrench

200 lb-ft Torque Wrench

2-1/2" Hole Saw OR 2 1/2" Greenlee Knockout Punch

Socket wrench extension (6 inch)

1. The following instructions should be used to mount the 5th wheel. Care and attention to detail will ensure a quick quality installation. Check parts against parts list to become familiar with parts in kit. **(Figure 1)**
2. Raise rear of truck high enough to allow jack stands to be placed under rear spring hanger bracket of truck. This will provide maximum room to install the 5th wheel brackets.



WARNING:

If the truck is raised, be sure that the truck is properly blocked and restrained to prevent the truck from falling. Failure to do so may result in the truck suddenly falling, causing death or serious injury.

3. Plastic drop-in bed liners must be cut out of the way. **Remove plastic bed liner if applicable.** Spray-in bed liners and bed mats less than 1/4" thick will work with normal installation instructions. **Note:** Consult installer for recommended curing time on spray-in liner before cutting holes through bed.

CAUTION:

Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. CEQUENT TOWING PRODUCTS does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

4. Use only **CEQUENT TOWING PRODUCTS** supplied bolts, nuts, and washers to install this kit. All bolts and nuts are Grade 8 unless specified otherwise.
5. These instructions are intended for a specific group of trucks. If these instructions do not apply to your vehicle, contact Technical Service to get proper instructions. Each frame bracket must be bolted to the vehicle frame with two bolts.

CAUTION:

These instructions are guidelines only. Actual installation is the responsibility of the installer and the owner. Always measure truck and trailer before installing hitch to be sure that there is clearance at the cab and at the bumper to allow for turns.

Insert rails as shown in the following steps (**FIGURES 8 through 24**).

Front (channel) rail should be inserted first flat side up followed by rear (angle) rail flat side down with welded nuts towards front of the vehicle.

Step 1 : Remove & discard the heat shield located above the exhaust pipe on the passenger side using an 8mm socket. DO NOT REMOVE & DISCARD THE HEAT SHIELD DIRECTLY ABOVE THE MUFFLER.

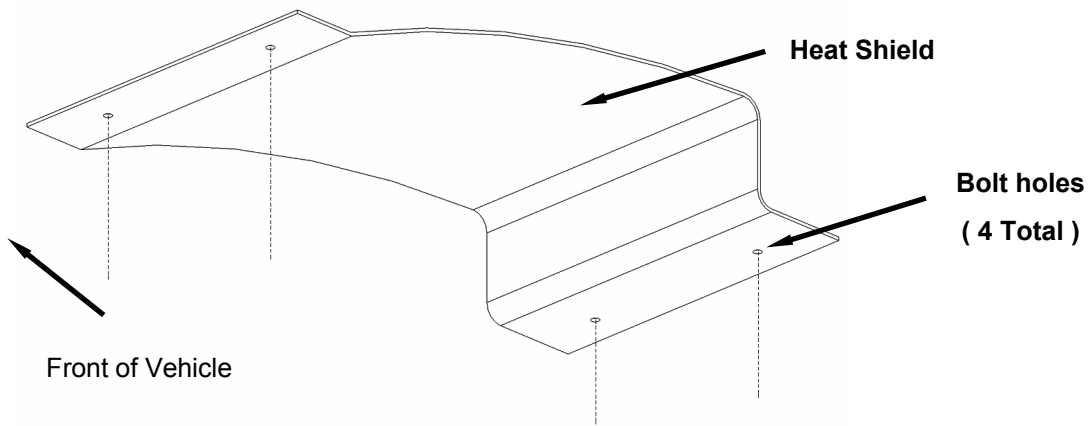
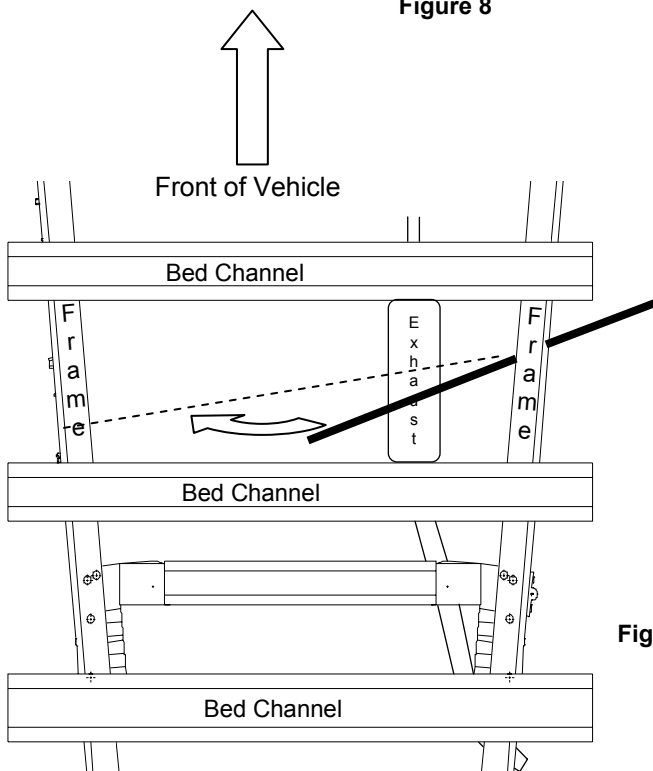
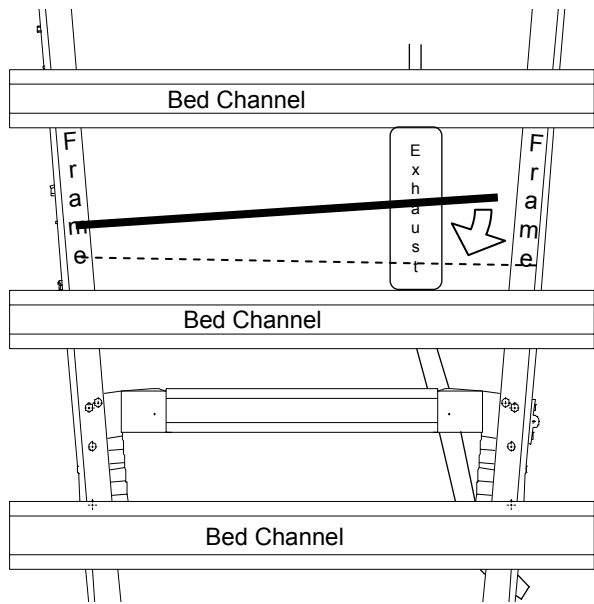


Figure 8



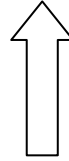
Step 2 : Slide the front channel rail in over the exhaust from in front of the passenger side rear wheel

Figure 9



Step 3: Slide the rail onto the driver side frame and lift the other end up and over the exhaust until both sides are resting on frame rails.

Figure 10



Front of vehicle

Step 4: Slide the rail forward and rest each end evenly on the rails.

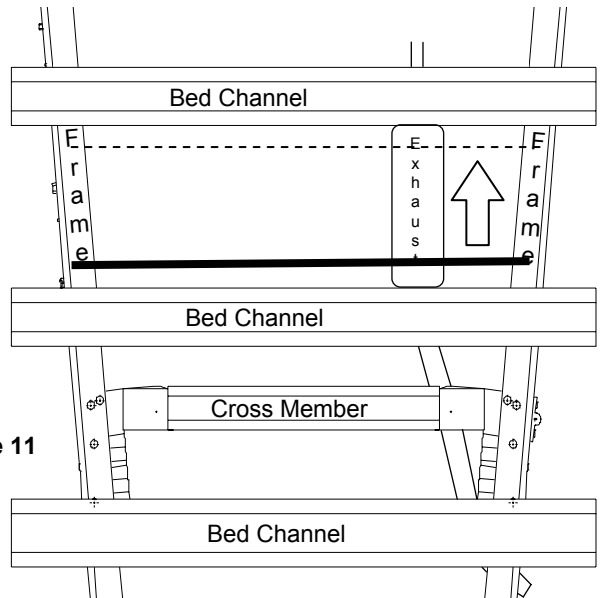


Figure 11

Step 5: Identify the Cross Member, the Vent Canister Solenoid and the Vent Canister Solenoid electrical pigtail located above the rear axle of the truck.

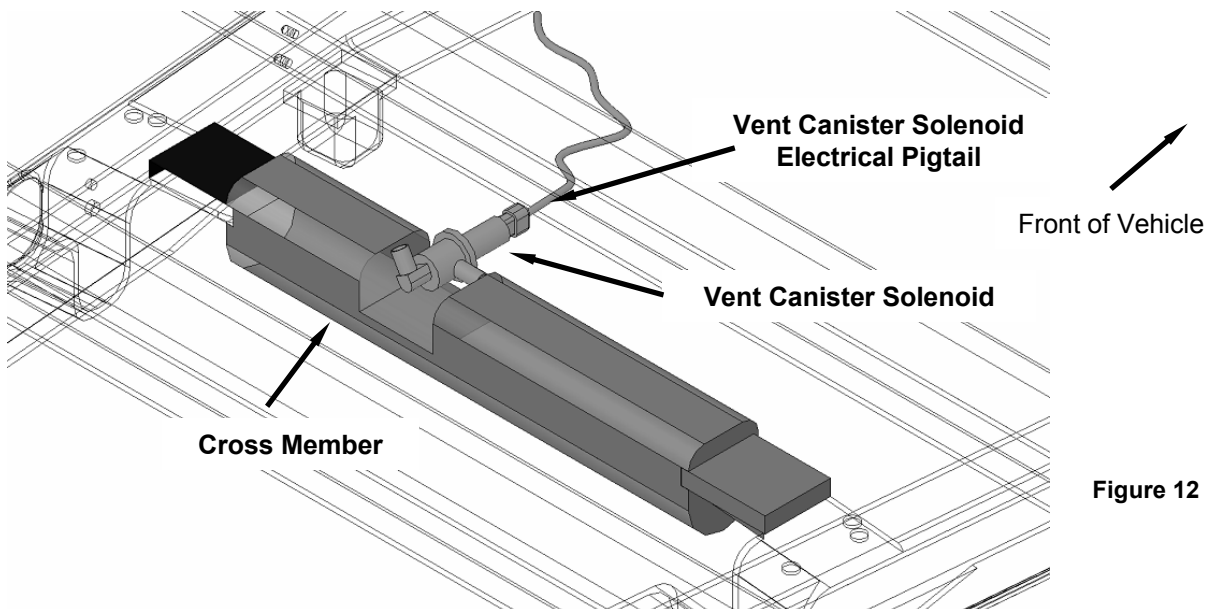


Figure 12

Step 6: Determine if the Vent Canister Solenoid is in the High or the Low position.

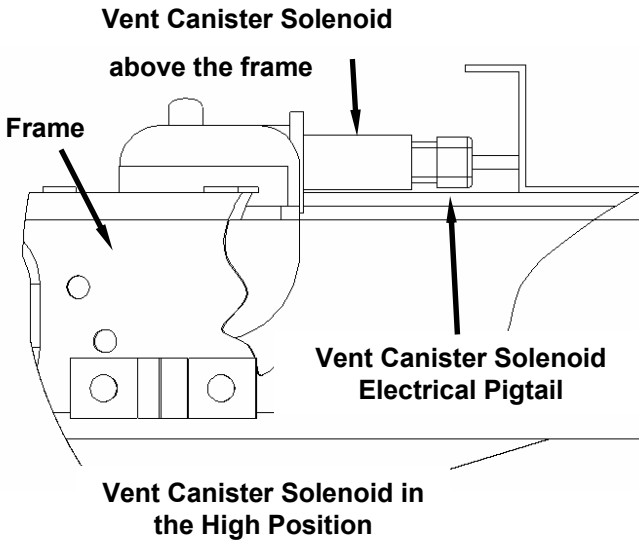


Figure 13A

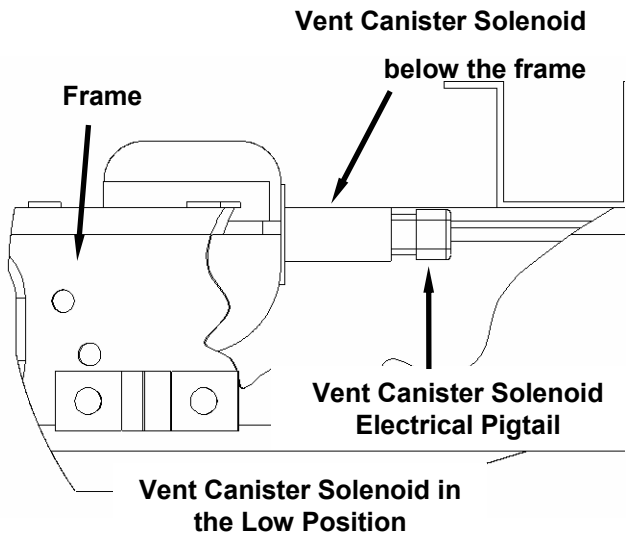


Figure 13B

Step 7: If the Vent Canister Solenoid is in the the Low position (Figure 13B) skip to Step 8 of this instruction sheet. Otherwise, unplug the Vent Canister Solenoid Electrical Pigtail from the Vent Canister Solenoid. Unbolt the Cross member from the frame using a 10mm socket and push the Cross Member rearward.

Cross Member bolts (2 per side)

Unbolt from under side of truck

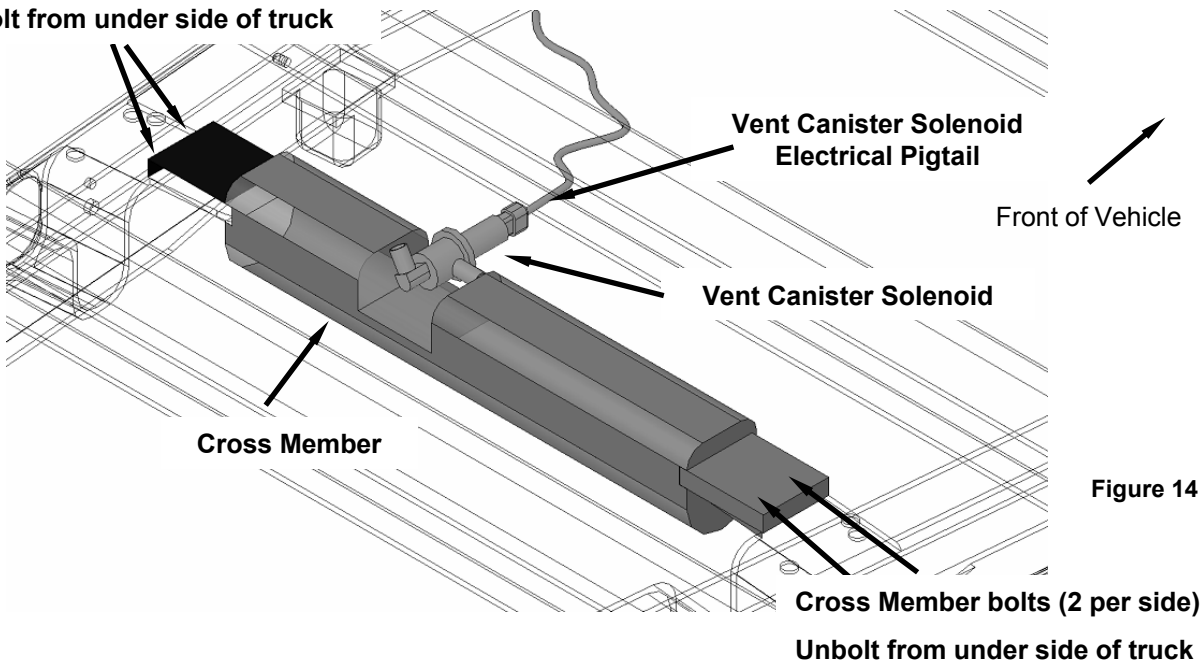


Figure 14

Step 8: Slide Rear Angle Rail between chassis frame and truck bed from driver side wheel well until resting evenly on both sides of chassis frame rails.

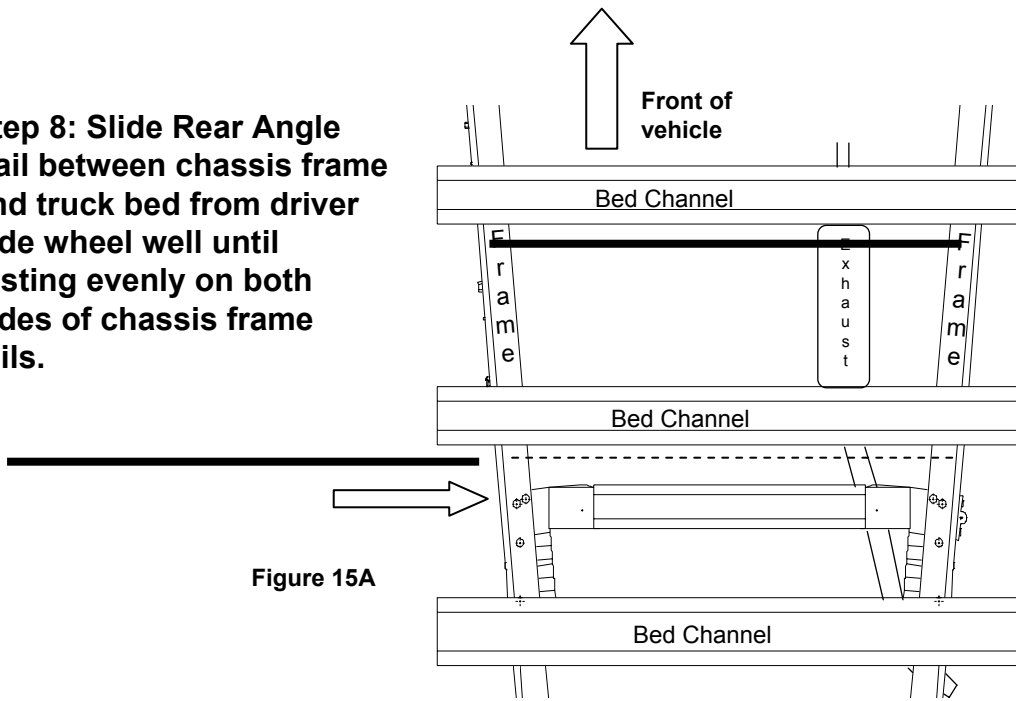


Figure 15A

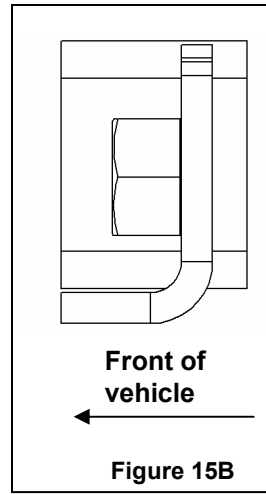


Figure 15B

Step 9: Reattach the Vent Canister Solenoid Electrical Pigtail to the Vent Canister Solenoid through the Rear Angle Rail if you disconnected it in Step 7. Reattach the Cross Member to the frame using the original hardware from Step 7 if you unbolted it. Tighten the bolts to the Cross Member.

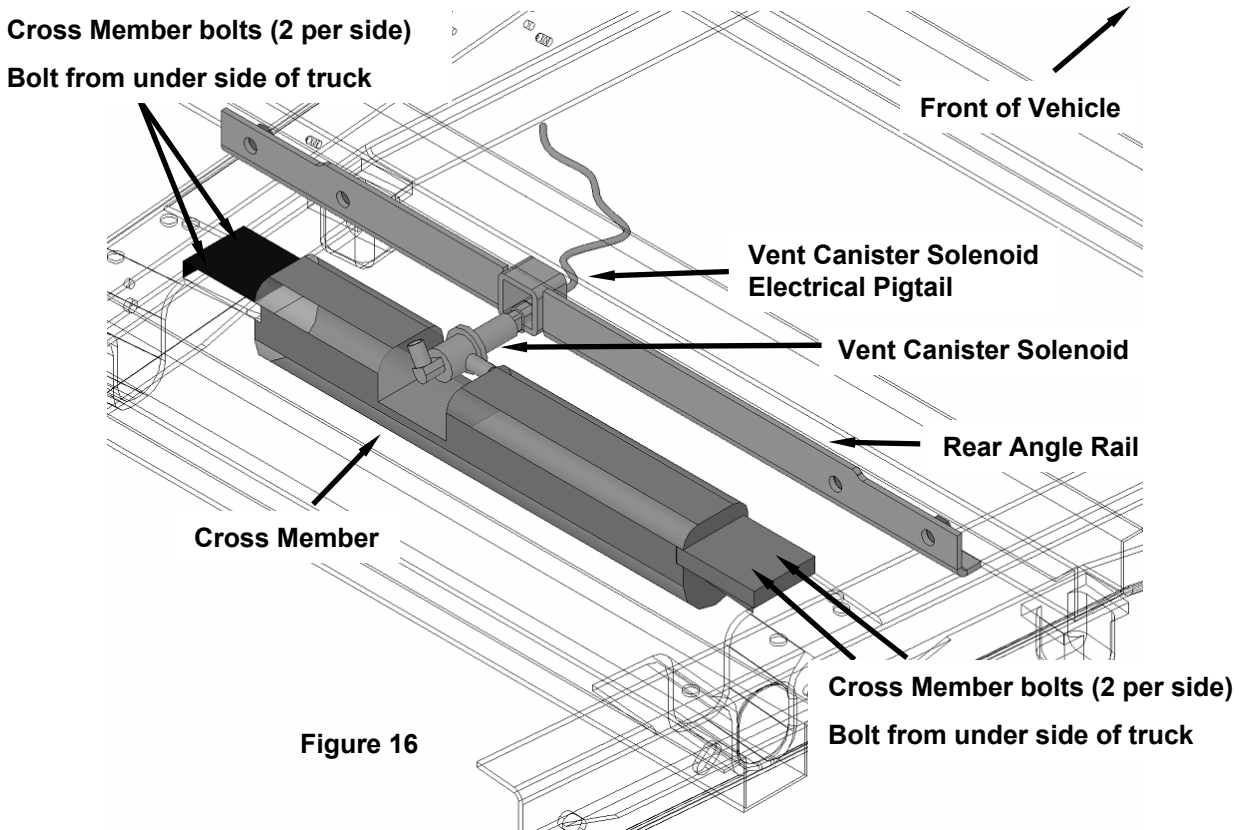
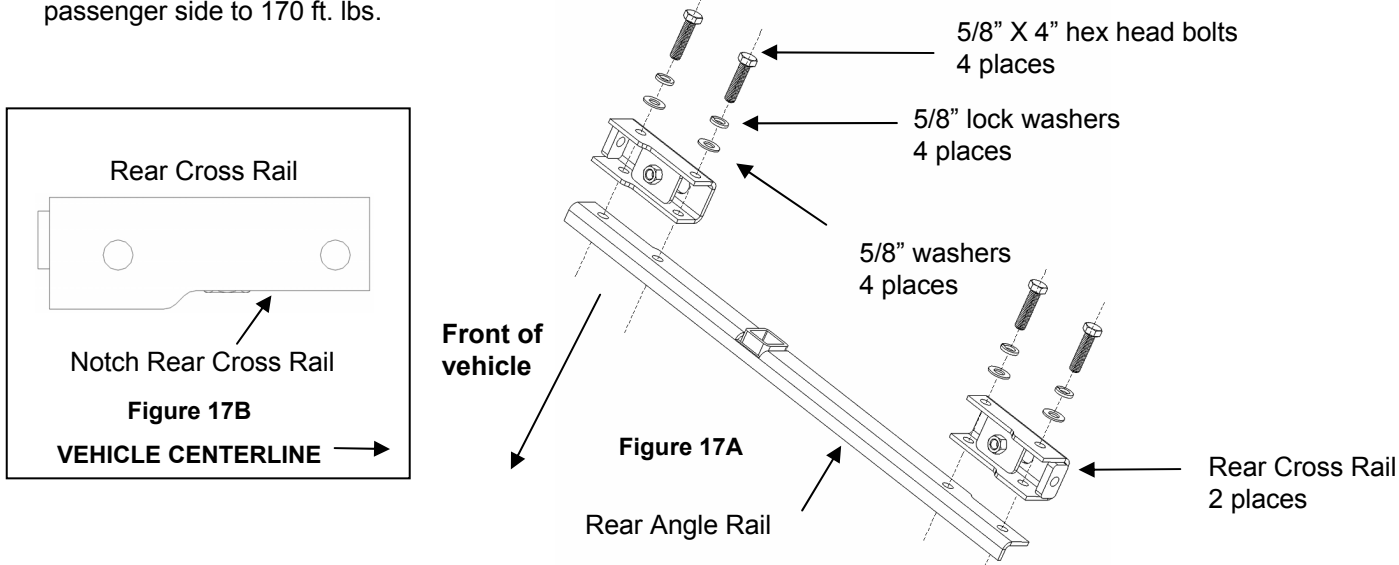
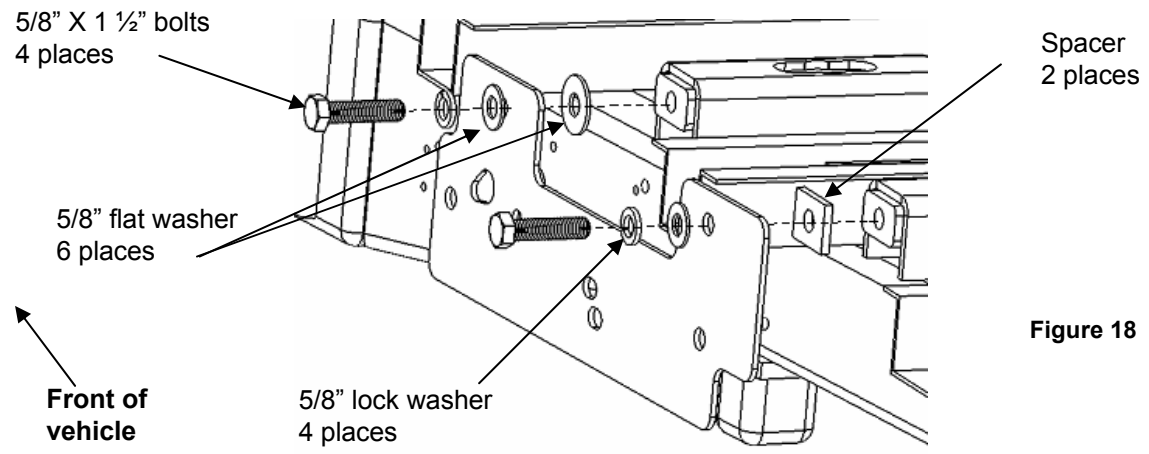


Figure 16

10. Slide the Rear Cross Rails onto the frame and attach them through the Rear Angle Rail using 5/8" X 4" bolts, lock washers, and washers to the Rear Angle Rail (**Figure 17A**). The notched portion of the the Rear Cross Rails should face inward (**Figure 17B**). Tighten bolts to hand tight. First torque driver side bolts to 170 ft.lbs. then torque passenger side to 170 ft. lbs.



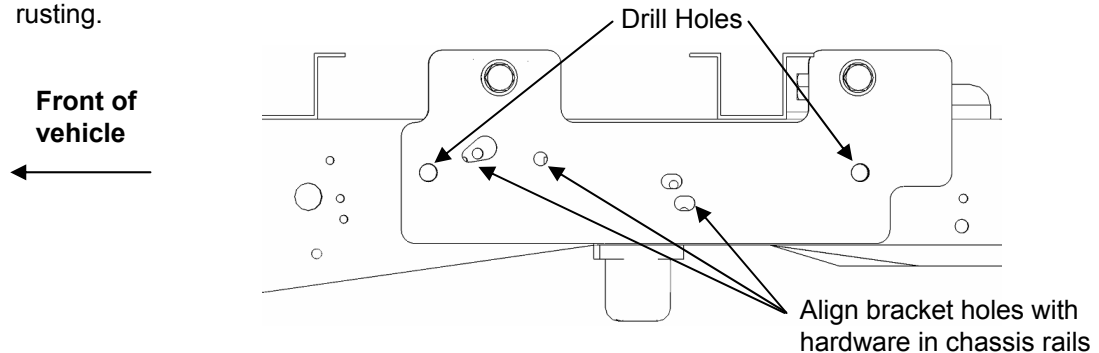
11. Loosely attach frame brackets to rails using 5/8" X 1 1/2" long bolts, flat washer, lock washers, and spacers as shown between the mounting bracket and short rear rails on driver and passenger side of vehicle (**Figure 18**). Tighten until hand tight.



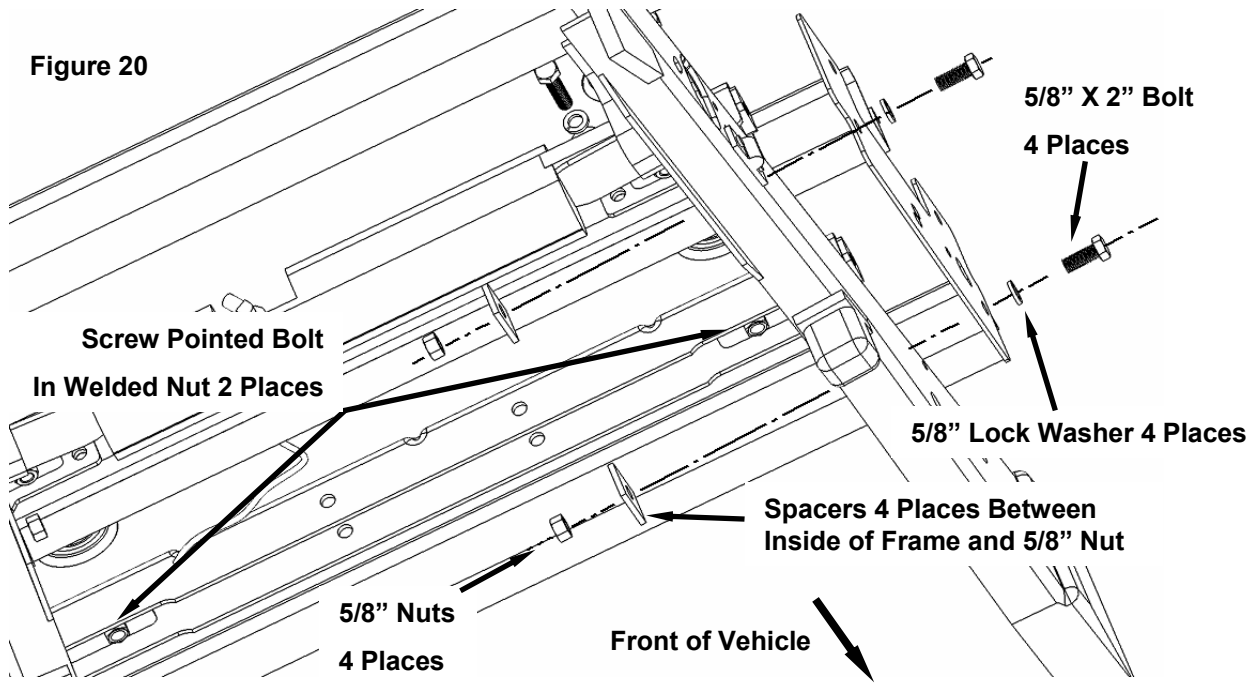
CAUTION:

Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. **CEQUENT TOWING PRODUCTS** does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

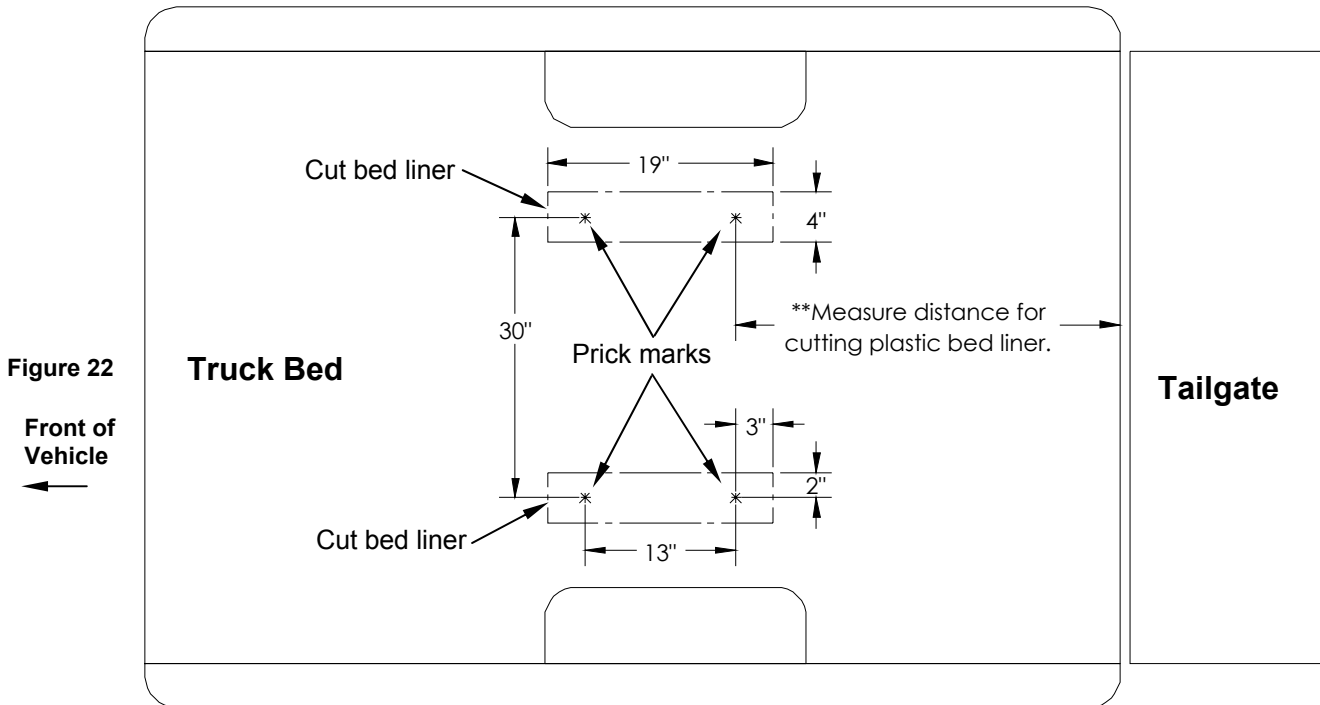
12. Align holes in mounting bracket with hardware in chassis frame. After checking to make sure that the rails are squared with each other drill pilot hole in chassis frame rails using the mounting brackets as a template (**Figure 19**). Enlarge pilot hole to 21/32" diameter hole. **Optional:** Spray under coating around drilled holes to prevent rusting.



13. Loosely attach frame brackets to frame using 5/8" x 2" bolt, spacer, lock washer, and nut hand tight (**Figure 20**).



14. Using pointed bolt (**Figure 21**), screw the pointed bolt into the nut that is welded to the rail assembly until a prick mark is clearly visible on the truck bed (**Figure 22**). If access to all the welded nuts is not possible due to vehicle obstructions, then the remaining prick marks should be marked on the bed by accurately measuring the distances from the other prick marks (**Figure 22**). If there is a plastic bed liner, cut 19" X 4" slots in plastic drop-in bed liner measured from prick marks in truck bed. If the *Signature Series* slider fifth wheel assembly is used, then see fifth wheel slider assembly instructions for slot cut dimensions.



15. Move rails rearward or forward to prevent interference with hole drilling or punching of truck bed.

CAUTION:

Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. **CEQUENT TOWING PRODUCTS** does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

16. Drill pilot holes in truck bed at prick mark locations. With hole saw or knockout punch create 2 1/2" hole centered at pilot holes. **Note:** Consult installer for recommended curing time on spray-in liner before cutting holes through bed. **Optional:** Spray under coating around 2 1/2" holes to prevent rusting.
17. Loosely reattach rails to frame bracket.
18. From truck bed attach pucks and trim rings to rails using 5/8" button head screw and lock washer (**Figure 23**). Tighten to 100ft.lbs. torque.

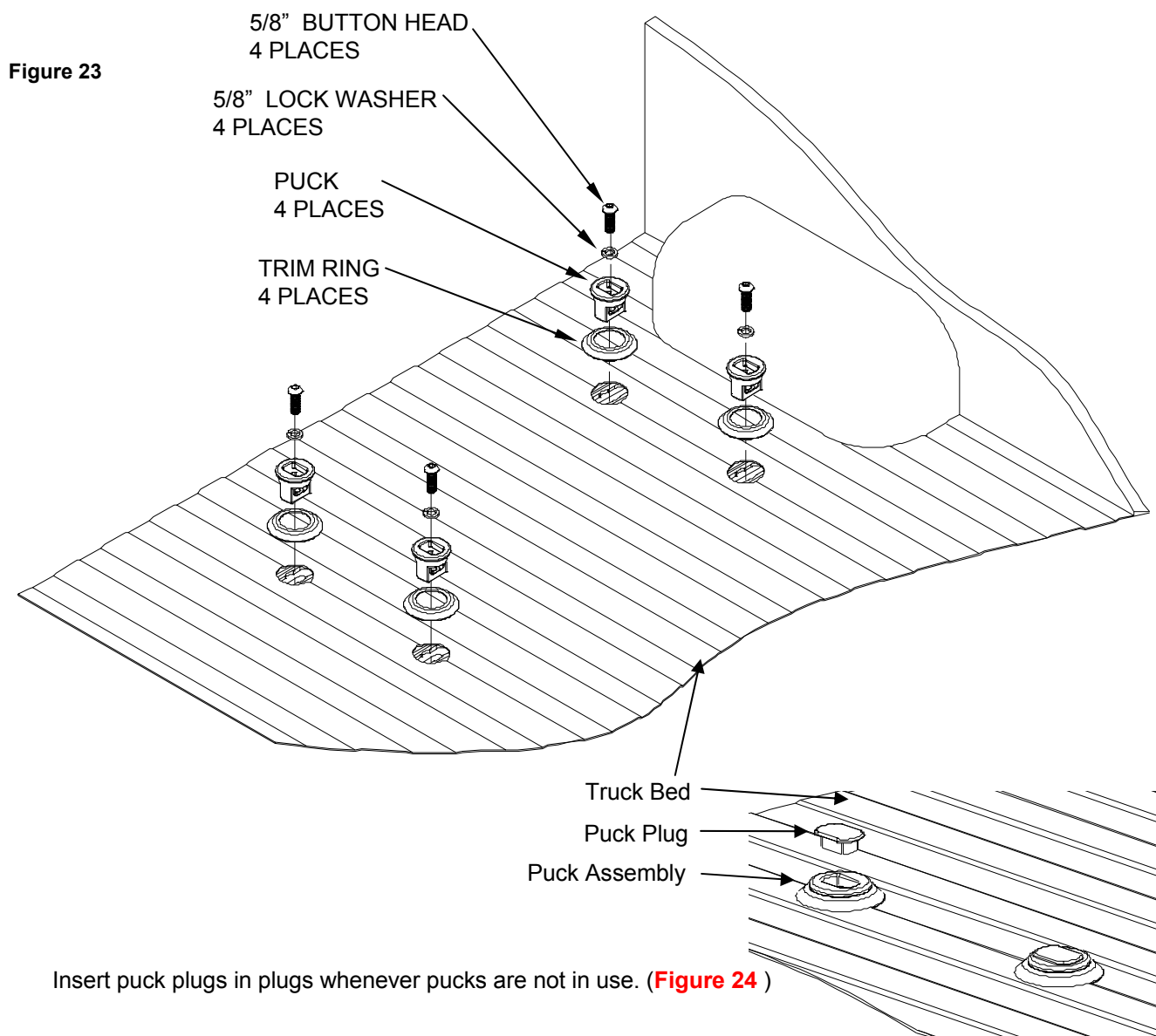


Figure 24

19. Insert puck plugs in plugs whenever pucks are not in use. (**Figure 24**)
20. Install *Signature Series* 5th wheel per hitch assembly instructions.
21. Torque hitch assembly bolts per hitch instructions.
22. Torque all 5/8" rail kit hex bolts to 170 ft.lbs.
23. Replace any brake lines, chassis wires, exhaust brackets, and spare tire that may have been removed/relocated.

NOTES

SEVEN YEAR LIMITED WARRANTY

Cequent Towing Products warrants the *Signature Series* 5th Wheel Hitch Mounting Kits from date of purchase against defects in material and workmanship under normal use and service, ordinary wear and tear excepted, for 7 years of ownership to the original consumer purchaser when a Cequent Towing Products *Signature Series* 5th Wheel Hitch is used.

Cequent Towing Products will replace FREE OF CHARGE any part which proves defective in material or workmanship when presented to any Cequent Towing Products dealer, Cequent Towing Products Warehouse or returned to factory. TRANSPORTATION CHARGES PREPAID, at the address below. THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS REPLACEMENT ONLY. LABOR CHARGES AND/OR DAMAGE INCURRED IN INSTALLATION OR REPLACEMENT AS WELL AS INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH ARE EXCLUDED.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

Any damage to the *Signature Series* 5th Wheel Hitch as a result of misuse, abuse, neglect, accident, improper installation, or any use violative of instructions furnished by us, WILL VOID THE WARRANTY.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. In the event of a problem with warranty service or performance, you may be able to go to a small claims court, or a federal district court.

Cequent Towing Products, Inc.
2602 College Avenue
Goshen, IN 46528