CURT™ The FIRST Name in Towing Products™

Q20 5TH WHEEL

INSTRUCTION MANUAL

Installer: read and understand this manual. Fully instruct and demonstrate the operation of this 5th wheel hitch to the end user. Include the importance of observing all warnings contained herein, including warning labels on 5th wheel hitch mid section. Provide this manual in its entirety to the end-user.

WARNING: to avoid serious injury, do not expose hands, body parts, or clothing between the truck and trailer or the truck's bed sides and trailer. Extreme care should be observed to avoid serious injury to self, property, and observers.

Never Position yourself or others under the trailer's kingpin area during coupling and uncoupling. Serious injury or death may result if the warning above is not observed.

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⚠ WARNING STATEMENTS ⚠

- **Never exceed the rated towing capacity of your vehicle.** Trailer and contents combined must not exceed tow vehicle, hitch, and or trailer tow ratings. Exceeding rated capacity may result in separation. Exceeding rated capacity may result in damage to 5th Wheel Hitch, towing vehicle, trailer, and or cause serious injury or death.
- **Do not expose hands, body parts, or clothing between the truck and trailer or the truck's bed sides and trailer (DANGER ZONES).** Extreme care should be observed to avoid serious injury to self, property, and observers.
- **Never position yourself or others under the trailer's kingpin area (DANGER ZONE) during coupling and uncoupling.** If for any reason, you must position any part of your body under the trailer or between the truck and trailer or between the trailer kingpin and 5th Wheel Hitch you **MUST FOLLOW THE STEPS IN THE "DANGER ZONE PRECAUTIONS" SECTION BELOW.**
- Improperly coupled trailers can separate and drop without notice.
- Read and understand instructions before using this product.
- Observe all warnings contained in this manual and all warning labels on the 5th Wheel Hitch.
- **Serious injury or death may result if the warnings above are not observed.**

DANGER ZONE PRECAUTIONS

1.) Block all trailer tires in front and behind with appropriate wheel chocks. Do not substitute objects such as, but not limited to: stones, wood blocks, etc.

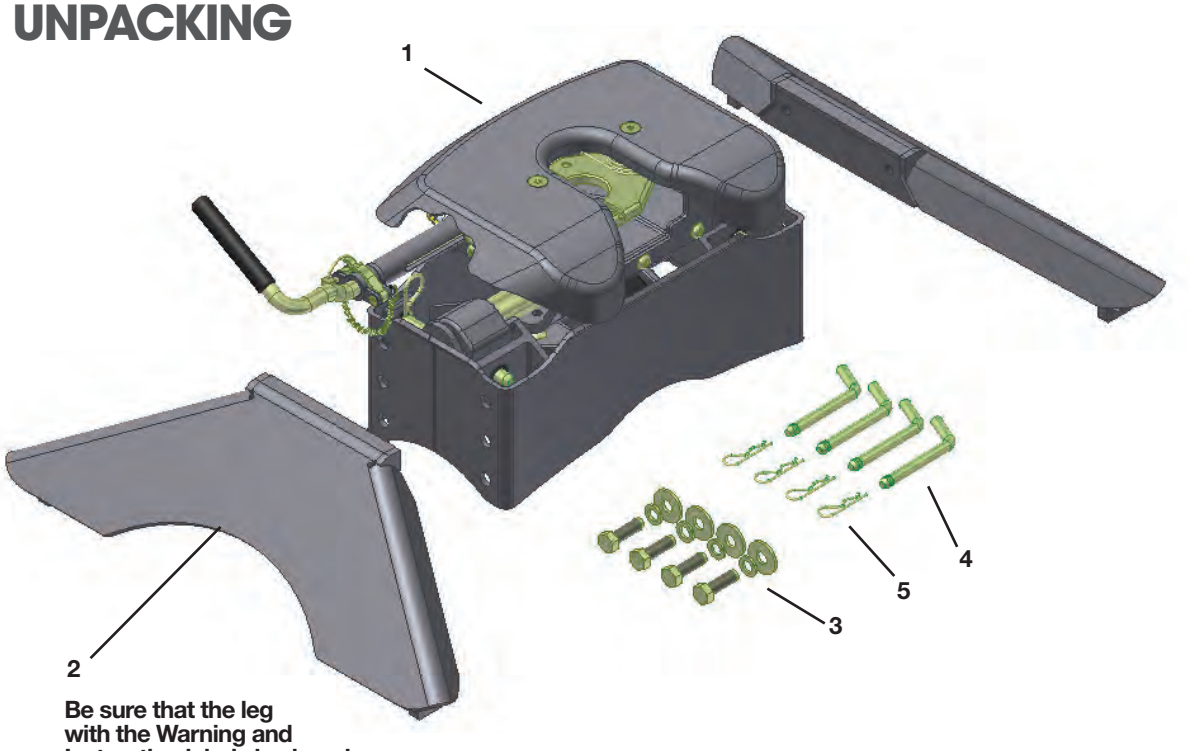
2.) Front trailer lifting jacks must be supporting the trailer and resting on a firm and level surface.

3.) Towing vehicle must be stationary with automatic transmission in park, emergency brake applied, and engine off. If equipped with a manual transmission place in neutral, apply emergency brake, and shut off the engine.

ASSEMBLY AND INSTALLATION

Your Q20 5th Wheel has been partially assembled, inspected and tested for fit, function and completeness. The Q20 5th Wheel is an engineered unit that has been designed and tested at the rating of 20,000 lbs. (trailer GVW).

UNPACKING



Be sure that the leg with the Warning and Instruction labels is placed on the side of the unit with the activation bar.

The Q20 5th Wheel is packed in a reusable box. Contents will include:

1. (1) The Q20 5th Wheel Head assembled to the Mid-Section
2. (2) Legs (16130 only)
3. (4) M14, 2 x 45 mm Pilot Hex Bolts
4. (4) 14 mm Flat Washers
5. (4) 14 mm Lock Washers
6. (4) 1/2” diameter Base Rail Mounting Pins
7. (4) Base Rail Mounting Pin Hairpin Clips

CALCULATING THE ASSEMBLY HEIGHT

Assembly includes measuring the height requirement for the Q20 5th Wheel Head in relation to your trailer ride height at the kingpin box and skid plate. Ideally the trailer should ride as near to level as possible. The Q20 5th Wheel is adjustable from 13 to 17 inches from the pickup bed to the top of its Skid Plate. Adjustment is attained by adjusting the Mid-Section up or down in relation to the legs in 2 inch increments (typical clearance between the pickup bed rails and the trailer should be a minimum of 5-1/2 inches.)

Step 1. With your trailer on a firm and level surface, set chock blocks in front of and behind the tires. (Do not substitute wood blocks, rocks, etc. for chock blocks.) Extend front trailer lifting jacks, adjust as required to set trailer at or near level.)

Step 2. Measure from the ground to under the trailer's kingpin box skid plate (or Lube Plate if used). This will be the portion in contact with the Q20 5th Wheel's Skid Plate once coupled.

Step 3. Measure from the ground to the surface of the pickup bed.

Step 4. Subtract the measurement from Step 2 from Step 1. This value will be near the height requirement for the Q20 5th Wheel.

ASSEMBLY

Once you have determined the height adjustment required for your Q20 5th Wheel, assemble the legs to the Mid-Section using the appropriate holes. Occasionally, the trailer's kingpin "pin box" will require adjustment to facilitate correct ride height.

Very Important! Torque the four pilot bolts to 100 ft-lbs. Retorque after initial 500 miles and every 1,000 miles thereafter and prior to each individual use.

Step 1. Depending on which holes are selected, attachment of the Legs to the Mid-Section may be easier with the Mid-Section upside-down sitting on its Skid Plate.

Step 2. The Head Assembly can be removed from the Mid-Section to further aid in the installation of the pilot bolts.

Step 3. If the Q20 5th Wheel is being mounted to existing Bed Mounting Rails, and alignment issues arise, it may be necessary to proceed as follows:

a. Loosely assemble the Legs to the Q20 5th Wheel Mid-Section. Place the unit on top of the existing Bed Mounting Rails aligning the Foot Tabs with the outermost rectangular slots of the Mounting Rails. When the 5th Wheel Foot Tabs drop into the 4 rectangular slots, pin the Foot Tabs using the (4) Pins and Clips provided. Continue assembly by tightening the Pilot Hex Bolts to 100 ft-lb.

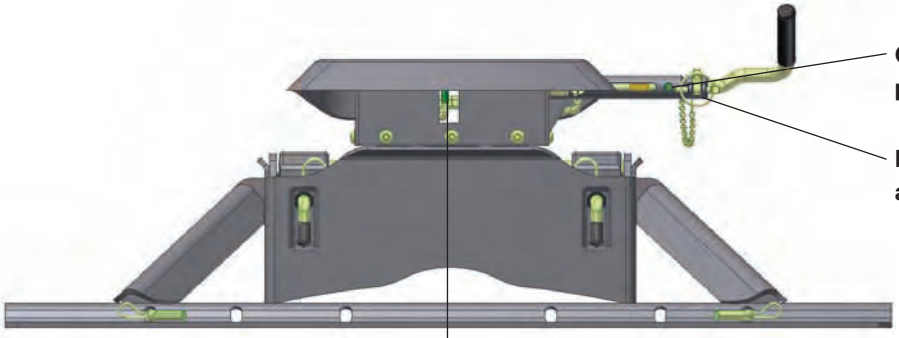
b. If difficulty is still experienced fitting the Q20 5th Wheel to the existing Bed Mounting Rails, it may be necessary to loosen the Mounting Rail Bolts and realign the Mounting Rails as required to facilitate installation. It is recommended to replace old Lock Washers with new Lock Washers at this time. Torque Mounting Rail Bolts to (75 ft-lbs). Continue with the Q20 installation by tightening the Pilot Bolts to 100 ft-lb.

c. If using new Bed Mounting Rails follow the Mounting Rail's instructions for proper placement, alignment, and spacing.

COUPLING AND LOCKING

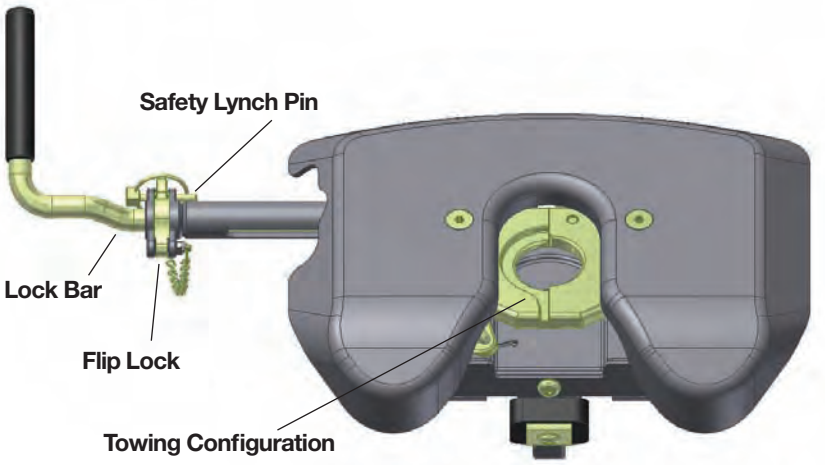
CAB VIEW

Indicator Positions Showing Coupled and Locked 5th Wheel



PREPARING VEHICLE/ TRAILER TO COUPLE

1. It is advised to perform trailer connections to the 5th Wheel on a firm and level surface.
2. Multiple wheel chocks should be used in front of and behind trailer tires. Do NOT substitute objects such as, but not limited to: stones, wood blocks, etc.
3. Lower or remove truck tailgate as required.
4. Position towing vehicle with 5th Wheel centered and inline with trailer or coach kingpin. Do NOT engage kingpin into 5th Wheel at this time.
5. Set automatic transmissions to park and activate emergency brake. Set manual transmissions to neutral and activate emergency brake.
6. Rear stabilizer jacks must be retracted. Adjust the front trailer lifting jacks so the trailer's kingpin skid plate is approximately 1/2 inch below the top surface of 5th Wheel Skid Plate. Hooking up in this manner helps ensure proper engagement of the trailer kingpin to most 5th Wheel systems. NEVER LOWER THE TRAILER'S KINGPIN INTO THE 5TH WHEEL HITCH HEAD.



- **Jaws Closed**
- **Lock Bar Fully Retracted**
- **Flip Lock Seated in Groove**
- **Safety Lynch Pin Installed**

PREPARING 5TH WHEEL TO COUPLE

Refer to “Cab View” on the top of page 5 and the coupling diagram on the bottom of page 5.

1. Note that Green Dot is visible (cab side) through Lock Bar Guide Tube and Indicator Rod is visible through window.
2. Flip Safety Lynch Pin Bail and remove Lynch Pin.
3. Lift Flip Lock, rotate clockwise and let hang.
4. Pull Lock Bar to full extension (approximately 3-1/2 inches) until Jaws activate and open, then release Lock Bar.
5. Visually check that Jaws are open and ready to receive trailer kingpin.
6. Note that Green Dot, and Indicator Rod have moved. This signifies that 5th Wheel Jaws are NOT in their closed and locked position. The Yellow Dot should now be visible. Yellow signifies the 5th Wheel is ready for coupling.
7. If the 5th Wheel is in any configuration other than that described in Step 1, follow the preparation troubleshooting guide below

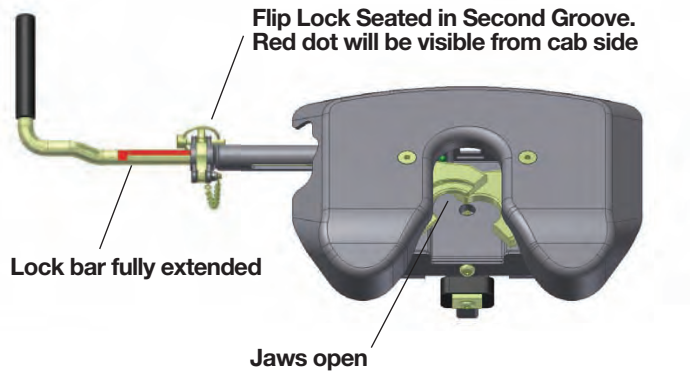
PREPARATION TROUBLESHOOTING

Red Dot

WARNING: DO NOT TOW IN THIS CONFIGURATION! JAWS WILL CLOSE BUT WILL NOT LOCK. FOLLOW STEPS BELOW TO PREPARE FOR COUPLING

Jaws Open but Lock Bar is at extended position and being held by Flip Lock / Red Dot is visible (cab side) through Lock Bar Guide Tube.

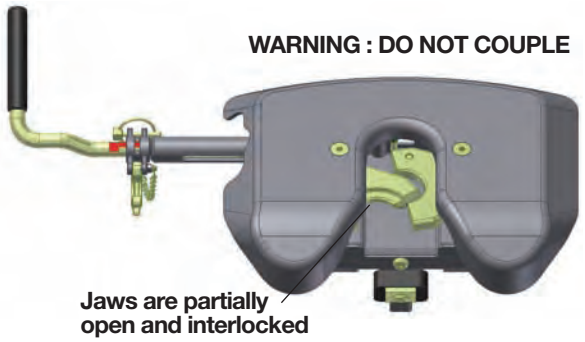
1. Red Dot signifies that Jaws are open and that Lock Bar is in its extended position. Jaws will close, but will **NOT** lock in this configuration.
2. Lightly pull Lock Bar and release Flip Lock from its groove.
3. Release Lock Bar. Lock Bar will retract partially inward.
4. Visually check that Jaws are open and ready to receive trailer kingpin. The Yellow Dot should be visible from cab.



Out of Sync Jaws

Jaws are semi-open and interlocked/interlaced with each other. Lock Bar is somewhere in between full retracted position and full extended position.

1. This configuration means that the Movable Jaw has become out of time with the second Fixed Jaw.
2. Inspect that Flip Lock is hanging free in its clockwise rotated position.
3. Pull Lock Bar to its full extended position and release.
4. Jaws will retime themselves.
5. Visually check that Jaws are open and ready to receive trailer kingpin (Yellow Dot).



COUPLING

If you are using a Lube Plate on the trailer kingpin, you are ready to couple the trailer to the 5th Wheel. (Up to (2) 3/16" thickness Lube Plates may be used). If you are not using a Lube Plate, apply a high pressure wheel bearing grease to the 5th Wheel Skid Plate.

Never position yourself or others under the trailer's kingpin area (DANGER ZONE) during coupling and uncoupling. If for any reason, you must position any part of your body under the trailer or between the truck and trailer or between the trailer kingpin and 5th Wheel Hitch you **MUST FOLLOW THE STEPS IN THE "DANGER ZONE PRECAUTIONS" ON PAGE 2**.

Back towing vehicle while remaining centered and aligned to trailer kingpin. Trailer kingpin skid plate will compress the towing vehicle's suspension and "ramp" up onto 5th Wheel Skid Plate. Observe the following: See "cab view "on Page 5 for indicator location.

a. Lock Bar will fully retract into 5th Wheel Head.

b. Green Dot will become visible (viewing from cab).

c. Green Indicator Rod is visible in window (viewing from cab).

Visually confirm that no space exists between trailer kingpin skid plate and 5th Wheel Skid Plate or between Lube Plate and 5th Wheel Skid Plate. If a gap is present then kingpin is NOT engaged into Jaws.

Step 1. Determine if kingpin is resting on top of Jaws and provide corrective action.

Step 2. Inspect for damage to 5th Wheel Unit. Under no circumstances should 5th Wheel Unit be used if damage exists due to improper coupling.

Step 3. If no damage exists, review coupling instructions and repeat procedure.

PULL TEST

After coupling and prior to removing trailer wheel blocks and or raising front trailer jacks **YOU MUST DO THE FOLLOWING:**

Set towing vehicle in a forward gear and lightly "tug" on the trailer to **ensure that a 100% coupling has taken place.** If resistance is felt, release forward pressure, set vehicle to Park if equipped with an automatic transmission and activate emergency brake. Place in Neutral if equipped with a standard transmission and activate emergency brake.

If resistance is not felt, trailer may not be coupled correctly. Do not continue applying forward pressure, **immediately stop**, and back towing vehicle into original position. Do not allow the truck and trailer to separate. Separation can cause damage to towing vehicle, 5th Wheel Hitch, and or trailer. **Serious injury or death may result if all warnings are not observed.**

Review coupling instructions, apply corrective action and repeat coupling steps.

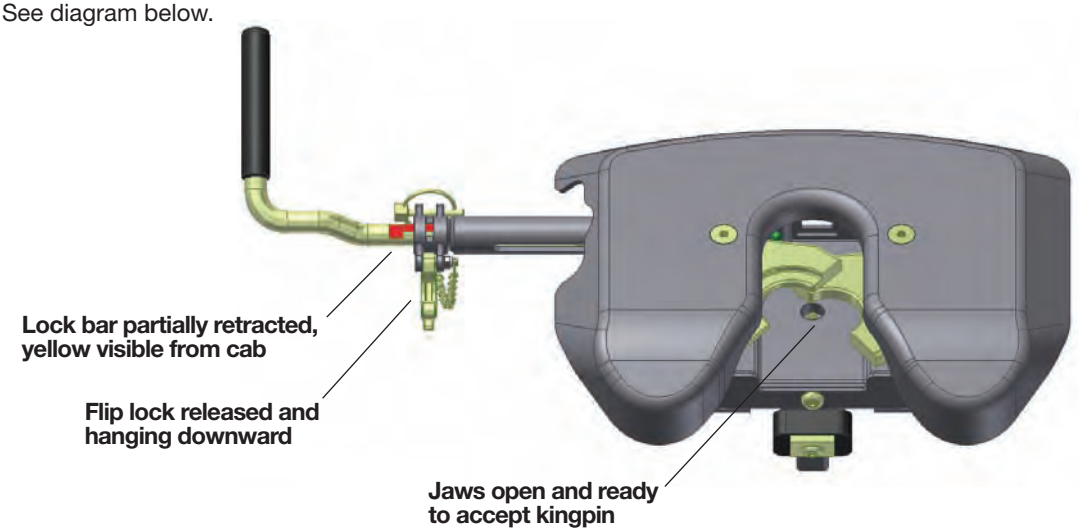
PREPARING TO TOW

1. Rotate Flip Lock counterclockwise and seat in groove.
2. Insert Safety Lynch Pin and flip bail to secure.
3. Attach electrical harnesses.
4. Attach lanyard and insert electric-brake-break-away plunger. If hydraulic surge brakes are present, attach lanyard from the surge brake assembly as required.
5. Fully retract front trailer lifting jacks.
6. Close truck tailgate or reinstall tailgate as required.
7. Remove tire chock blocks.
8. Check running lights, directional signals, and brake lights for proper operation.
9. Pull forward a few feet and apply brakes to check that trailer brakes are activating. Adjust the electric brake controller if necessary.

UNCOUPLING AND RESETTING

1. When parking it may be necessary to “unload” the forces on the kingpin by lightly backing “against” the kingpin. This maneuver helps put the kingpin and 5th Wheel in a “neutral” position. Once parked on a firm and level surface, set automatic transmission vehicles to Park and activate emergency brake, set standard transmission vehicles to Neutral and activate emergency brake.
2. Multiple wheel chocks should be used in front of and behind trailer tires. Do NOT substitute objects such as, but not limited to: stones, wood blocks, etc.
3. Disconnect as required, all harnesses, lanyards, safety devices, etc.
4. Do NOT extend rear trailer stabilizer jacks at this time.
5. Lower or remove truck tailgate as required.
6. Begin extending front trailer lifting jacks. Extend lifting jacks just enough to remove the weight of the trailer from the 5th Wheel Skid Plate. Creating a “gap” between the trailer skid plate and the 5th Wheel Skid Plate is NOT necessary and is NOT recommended. If a gap is present, it should be minimal and no more than 1/16 of an inch. Excessive gap while coupled can damage internal components of the 5th Wheel Hitch as well as components of your trailer.
7. Flip Safety Lynch Pin Bail and remove Lynch Pin.
8. Lift Flip Lock and pull Lock Bar outward approximately 1/2 inch. While holding Lock Bar in this position, drop Flip Lock back onto the lock bar. Pull Lock Bar to its full extension. Flip Lock will drop and engage second groove. Release Lock Bar. Lock Bar should remain in full extended position. Note that Red Dot is visible (cab side) through Lock Bar Guide Tube. This signifies that the jaws are NOT locked and are prepared to be uncoupled.
9. Reinsert Safety Lynch Pin and flip bail to secure.
10. Slowly pull vehicle out from underneath trailer skid plate. Observe that trailer is uncoupling. If resistance is encountered, determine corrective action and repeat uncoupling steps.
11. Once uncoupled from trailer, you may elect to reset 5th Wheel for future coupling at this time. To reset for future coupling, simply remove the Safety Lynch Pin and lift the Flip Lock from its groove. This will allow the Lock Bar to partially retract into its coupling position.

Important: Failure to reset Lock Bar in this manner prior to next coupling will NOT allow the jaws to lock around the trailer’s kingpin. See diagram below.

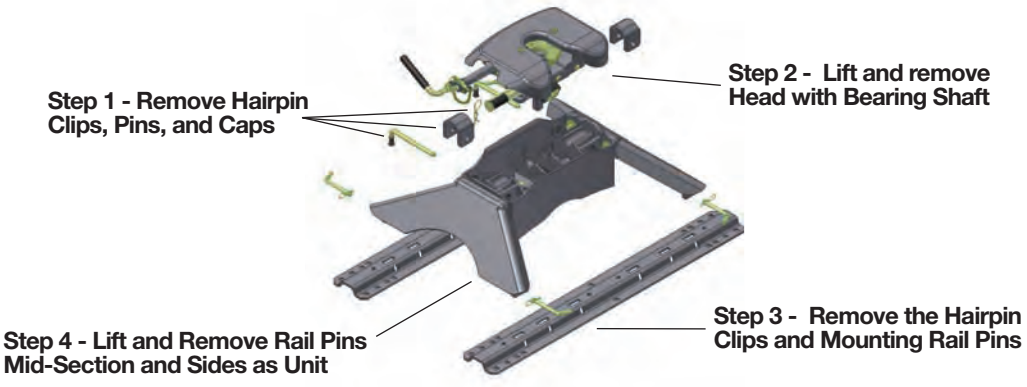


REMOVAL AND REINSTALLATION

For your convenience the Q20 5th Wheel Hitch may be disassembled to ease removal. This section will discuss the three different way the Q20 hitch can be removed.

OPTION 1

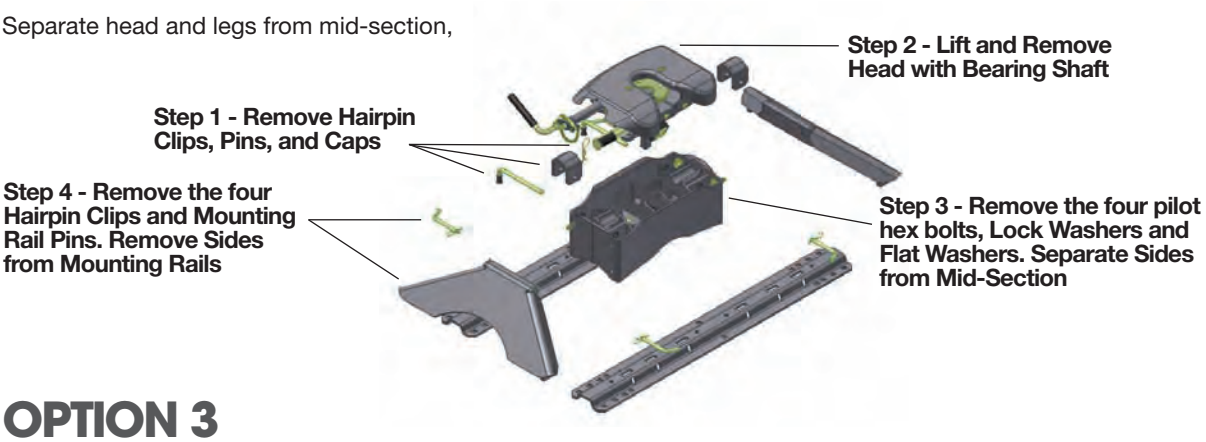
Recommended: Separate head from mid-section and remove mid-section and sides as one unit



Note: it is helpful to reinstall the caps pins and clips

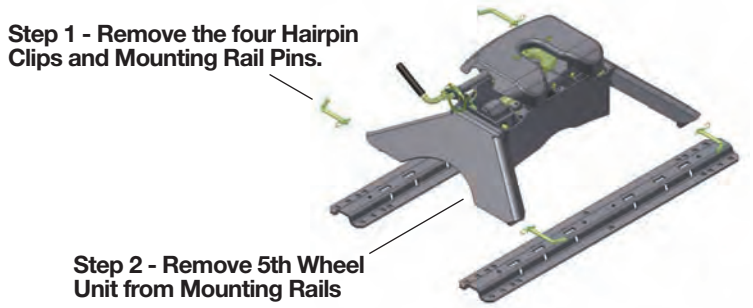
OPTION 2

Separate head and legs from mid-section,



OPTION 3

Not recommended: Separate entire 5th wheel hitch from base rails



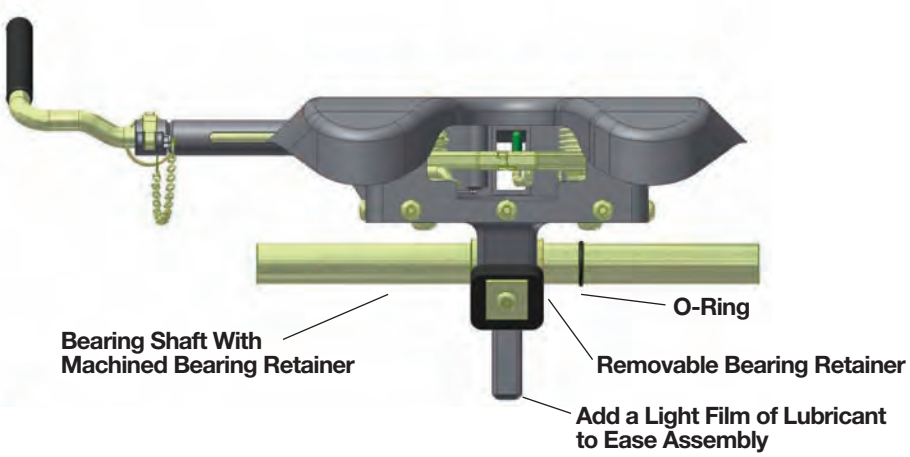
REINSTALLATION

Reinstall the Q20 5th Wheel in the reverse order it was removed. If removal method was per **option 1,** please follow the steps below:

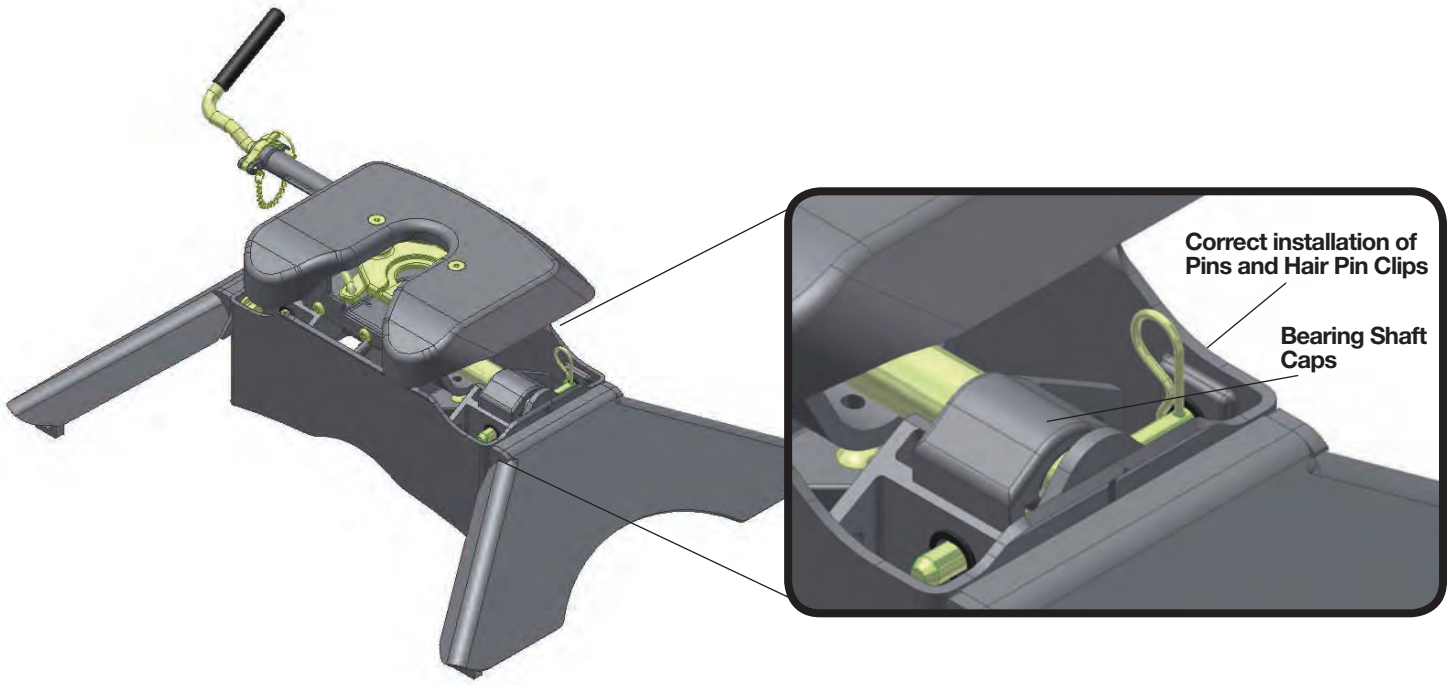
a. Place the Mid-Section still securely bolted to the legs into the Mounting Rails
b. Insert the (4) Mounting Rail Pins.
c. Install the (4) Hairpin Clips.
d. Retorque (4) Pilot Hex Bolts to 100 ft-lb.

IMPORTANT: When installing the 5th Wheel Head into the Mid-Section, the LONG END of the Bearing Shaft is inserted into the Lower Bearing Assembly. The Machined Bearing Retainer must be against the Lower Bearing Assembly. The Removable Bearing Retainer must be against the other side of the Lower Bearing Assembly. The O-Ring Retainer Stop is placed in its groove lastly.

Apply a light film of lubricant to the Lower Pilot. Guide Lower Pilot into Mid-Section while holding Bearing Shaft and its Retainers against Lower Bearing Assembly. Continue to guide Lower Pilot through the Lower Square Pad until the Bearing Shaft is fully seated in its Saddles. Place Shaft Caps over the Bearing Shaft. Install the two long Pins and insert two Hair Pin Clips. See diagrams below.



Ensure that the Machined Bearing Retainer and the Removable Bearing Retainer are against Lower Bearing Assembly. Both sit inboard of Mid-Section Bearing Shaft Cradles during assembly.



MAINTENANCE REQUIREMENTS

Years of troublefree service may be achieved by adhering to a few simple maintenance points.

JAW PIN GREASE FITTINGS

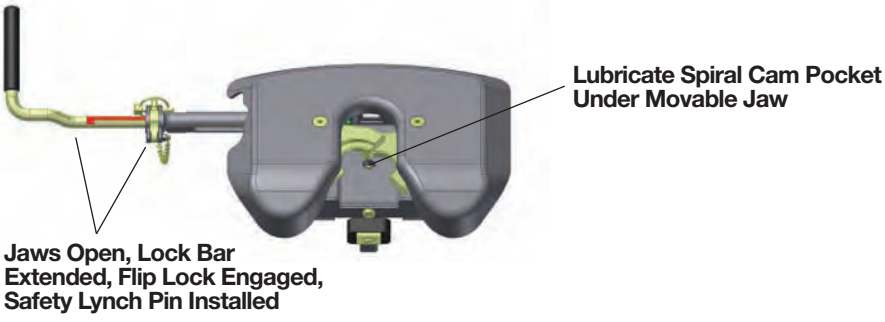
Each Jaw Pin is supplied with grease through a grease fitting located in each Jaw. These grease fittings are visible from each side of the Q20 5th Wheel.

LOWER BEARING GREASE FITTING

The Lower Bearing Assembly is supplied with grease through the grease fitting centered in the Cast Base Plate. This grease fitting is visible while looking down through the Jaws in their LOCKED position.

SPIRAL CAM GREASING

The Spiral Cam seated in the Cast Base Plate requires the application of grease into its pocket. To access, the Jaws must be open. Place the Lock Bar in its fully extended position and retain by seating the Flip Lock in its Uncoupling position. Insert the Safety Lynch Pin. Using a suitable probe, apply grease to the pocket under the Spiral Cam. When complete, remove the Safety Lynch Pin, rotate the Flip Lock from its seat and allow the Lock Bar to retract inward into the coupling position.



SKID PLATE GREASING

The last lubrication point is the Q20's Skid Plate. Liberally apply Grease to the Skid Plate surface if NOT using a Lube Plate. A high-pressure wheel bearing grease is preferred. Apply as required between coupling and uncoupling the trailer from the Q20 5th Wheel.

Apply Grease to Skid Plate if NOT using Lube Plate

MAINTENANCE SCHEDULE

Lubricate before each individual use and every 1000 miles thereafter. Black Graphite Grease is recommended for the Jaw Pins and the Lower Bearing Assembly Jaw. High pressure wheel bearing grease is preferred for the Skid Plate.

NOTE: In severe cold temperatures a lighter grease (such as White Lithium) may be substituted for the Jaw Pins and the Lower Bearing Assembly Jaw. This will ensure that all mechanisms work as designed.

VERY IMPORTANT: Torque the four Pilot Bolts to 100 ft-lbs. Retorque after initial 500 miles and every 1000 miles thereafter and prior to each individual use.

CURT WARRANTY

Ten Years Limited

CURT Manufacturing Incorporated ("CURT") warrants to the original purchaser ("Purchaser"), its products to be free from defect under normal use and service, ordinary wear and tear excepted, for the warranty period stated below, from the date of the original retail purchase, but subject to the limitations as set forth below.

Limitation on Warranty

CURT's obligation under the above warranty is limited to repair or replacement of the CURT Product (Product), at its option due to a manufacturing defect of the Product. CURT shall not be liable for the loss of or use of vehicles, loss of or damage to personal property, expenses such as telephone, lodging, gasoline, towing, tire damage or any other incidental or consequential damages incurred by the Purchaser, or any other person or entity.

CURT will examine the returned Product. If CURT, in its exclusive discretion, determines that the defect or damaged Product is covered under this limited warranty, CURT will repair the Product or replace it at that time.

Alterations to or misuse of the Product will void the warranty. For example, overloading or exceeding an automobile or trailer manufacturers' weight ratings, or maneuvering motor vehicles equipped with Products at improper rate of speed, shall void the warranty on any of the Products. Failure to properly maintain and regularly inspect the Product according to the specific instruction sheet accompanying each Product shall also void the warranty.

Some states do not allow the exclusion or limitation of incidental or consequential damages. If such exclusions or limitations are prohibited under the applicable law, the above limitation or exclusion may not apply.

This Warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

The Purchaser, when returning a CURT Product, must follow the following steps:

1. The Purchaser must have proof of purchase of any damaged Product and supply the same to the headquarters of CURT. The Purchaser must obtain from CURT (Toll free number is 1-877-CURTMFG) a Returned Goods Authorization (RGA) number in order to return any damaged Product to CURT for inspection and evaluation under this Limited Warranty.

2. The Purchaser must pay all handling charges and shipping costs to deliver Products to CURT and must send the damaged Product along with the RGA number and proof of purchase to CURT at 6208 Industrial Drive, Eau Claire, Wisconsin 54701.

3. Upon receipt of damaged Product, CURT will determine whether the damaged Product is covered under the Limited Warranty. If it is, CURT will repair or replace the Product. If the Product is replaced, the Product that is originally returned by the Purchaser shall become the exclusive property of CURT. If the returned Product is not covered under the Limited Warranty, CURT will notify the Purchaser before taking any further action with regard to repair or replacement, which would be at the Purchaser's cost.

09/28/06

16100 & 16200 MOUNTING RAIL INSTALLATION KIT

CUSTOM MOUNTING BRACKETS REQUIRED ON SOME INSTALLATIONS

DEALER/INSTALLER:

1) Provide this manual to end user.
2) Physically demonstrate procedure 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.

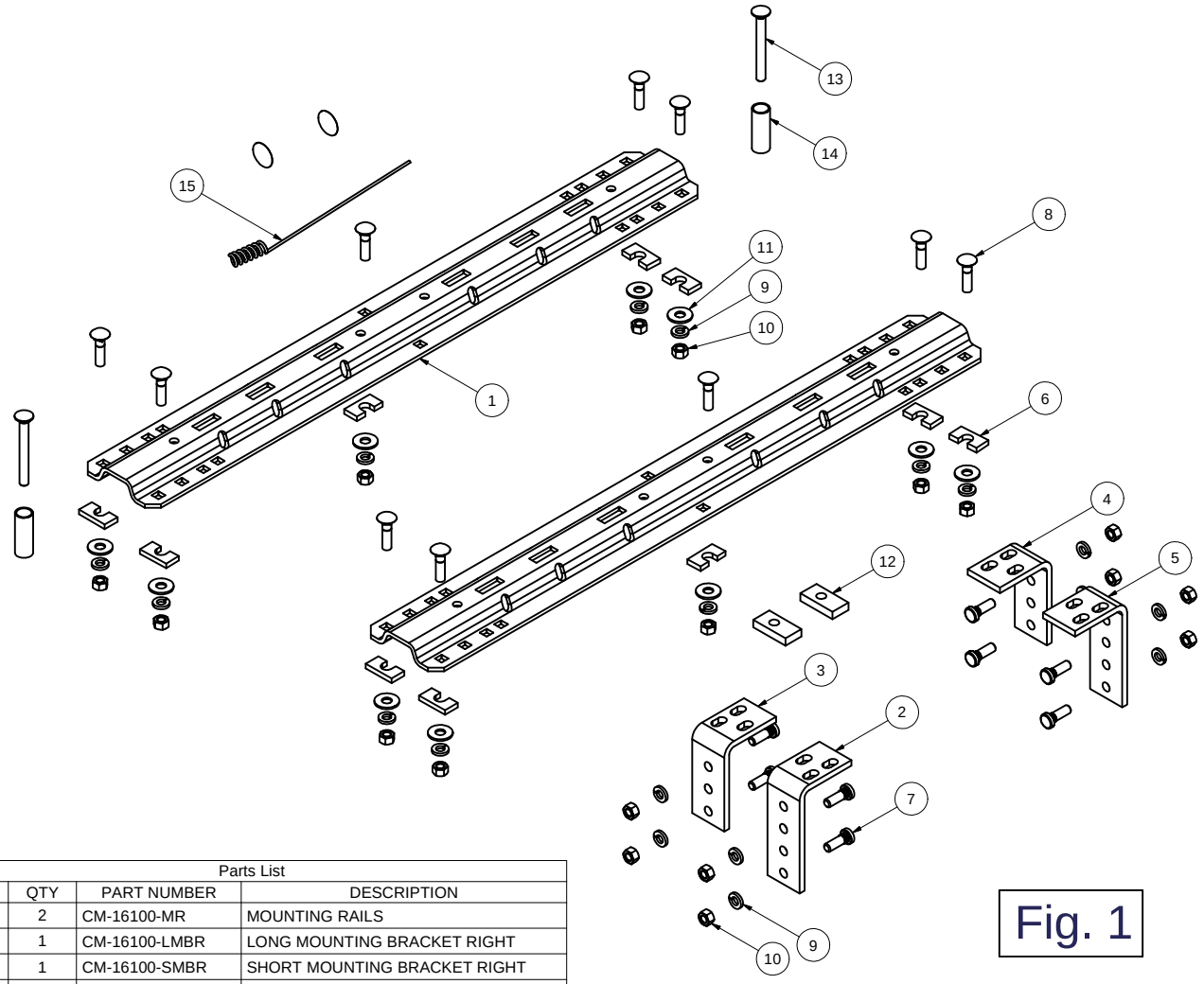


Fig. 1

Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	CM-16100-MR	MOUNTING RAILS
2	1	CM-16100-LMBR	LONG MOUNTING BRACKET RIGHT
3	1	CM-16100-SMBR	SHORT MOUNTING BRACKET RIGHT
4	1	CM-16100-SMBL	SHORT MOUNTING BRACKET LEFT
5	1	CM-16100-LMBL	LONG MOUNTING BRACKET LEFT
6	10	CM-SP136	.313" x 1.00 x 2.00" U-SHAPE SPACER
7	8	1/2 - 13 x 1 1/2 WB	1/2 - 13 x 1 1/2 WHEEL BOLT
8	10	1/2 - 13 x 2"	CARRIAGE BOLT
9	18	1/2"	LOCK WASHER
10	18	1/2-13	HEX NUT
11	10	1/2"	WASHER
12	2	CM-SP52	.500 x 1.25 x 2.50" ROUND HOLE SPACER
13	2	1/2-13 x 4 1/2	CARRIAGE BOLT
14	2	CM-16100-TS	ROUND TUBE 1.00 OD x 14GA A-513
15	1	1/2"	FISHWIRE TOOL

CUSTOM MOUNTING BRACKETS REQUIRED ON SOME INSTALLATIONS

GENERAL INSTRUCTIONS FOR MOUNTING RAIL INSTALLATION

TOOLS

3/16" drill	3/4" Socket & Open End Wrench
17/32" drill	100 lb-ft Torque Wrench
1" drill (Some Dodge application only)	"C" Clamps

1. The following instructions should be used to mount the 5th wheel. Care and attention to detail will ensure a quality installation. Check parts against parts list to become familiar with parts in kit. (See Fig. 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. Do not install mounting rails over plastic bed liners. Plastic bed liners must be cut out of the way. Mounting rails may be installed on spray in liner. **Note**: Consult installer for recommended curing time.

4. Use only the supplied bolts, nuts, and washers to install this kit. All installation hardware is grade 5 unless otherwise specified.

5. Specific instructions for most commonly used vehicles are included. If these instructions do not apply to your vehicle, be sure that each end of each base rail is connected to the vehicle frame. Each frame bracket must be bolted to the vehicle frame with two bolts, unless optional weld is used.

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.

To prevent the trailer from hitting the cab with the trailer turned 90°, the center of the hitch should be at least 52" from the back of the cab when using a long bed truck. (Actual distance required will depend on trailer width and king pin location.) Short bed (Minimum 38" from back cab to axle center line) trucks require a minimum of a 13" extended pin box for regular maneuvers and do not apply.

6. Measurements are given from Rear Edge of truck bed to rear edge of the mounting rail closest to the Rear Edge of truck for most vehicle applications (See Fig. 2).

7. Center hitch between fender wells and make sure rails are square. Adjust position of rails until both diagonal measurements are the same. This should allow installation of a gooseneck or other 5th wheels to these rails (See Fig. 2).

CAUTION:

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

8. Drill 10 holes identified in Fig. 2. (Hole location will vary for individual vehicle applications.) Drill all holes with 3/16" drill and enlarge them with a 17/32" drill. Always use sharp drill bits. A 3/16" pilot hole will greatly speed drilling larger holes. Install 1/2" carriage bolts into holes. Install 5/16" thick slotted spacer above or below bed to fill corrugations in bed floor. **NOTE: For Toyota Tundra application, part #16302 spacer kit is required. Stack (1) 3/16" and (1) 5/16" thick slotted spacer to avoid crushing of truck bed.**

9. Install mounting brackets onto carriage bolts with the long brackets on forward bolts and short brackets on rearward (long and short brackets can be interchanged as needed). Secure bolts through mounting brackets with serrated washers, lock washers, and hex nuts. Secure the other four bolts through the bed with flat washers, lock washers, and nuts.

10. Drill two holes in frame for each bracket. Select the holes which will give the greatest spread between bolts. Install eight 1/2”-13x1-3/8” ribbed neck bolts, (thread pointing out), lock washers, and hex nuts. Tighten nuts until bolt heads seat. Lubrication of knurls of all rib neck bolts is recommended.

Note: On vehicles with heavy duty suspensions, check for interference with bolts where brackets are mounted to frame. If interference with suspension spring results, cut bolt flush to nut outboard of frame or use weld option.

WARNING:
DO NOT lubricate threads. It may cause bolt failure.

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

CAUTION:
It is important that 17/32” drill be used for holes in chassis frame as rib neck bolts may break if too small a hole is used and neck may not grip if too large a hole is used.

11. Torque all nuts to 85 lb-ft

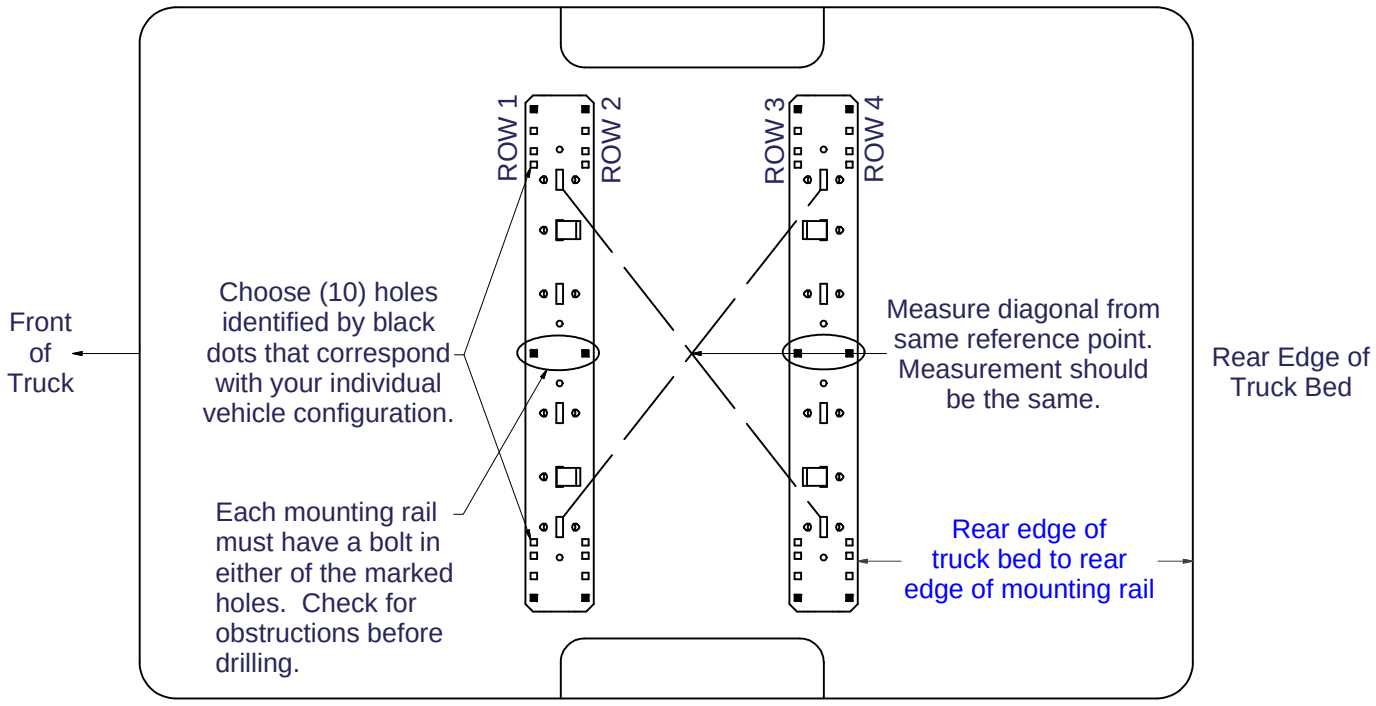
12. Pull wire provided to pull rib neck bolts through frame as needed per application

Drill locations will vary. See individual installation for location

Fig. 2

Use mounting channel/cross member assembly to position rails (not included).

**** Diagonal Measurements must be the same for smooth Operation of 16500 rolling units ****



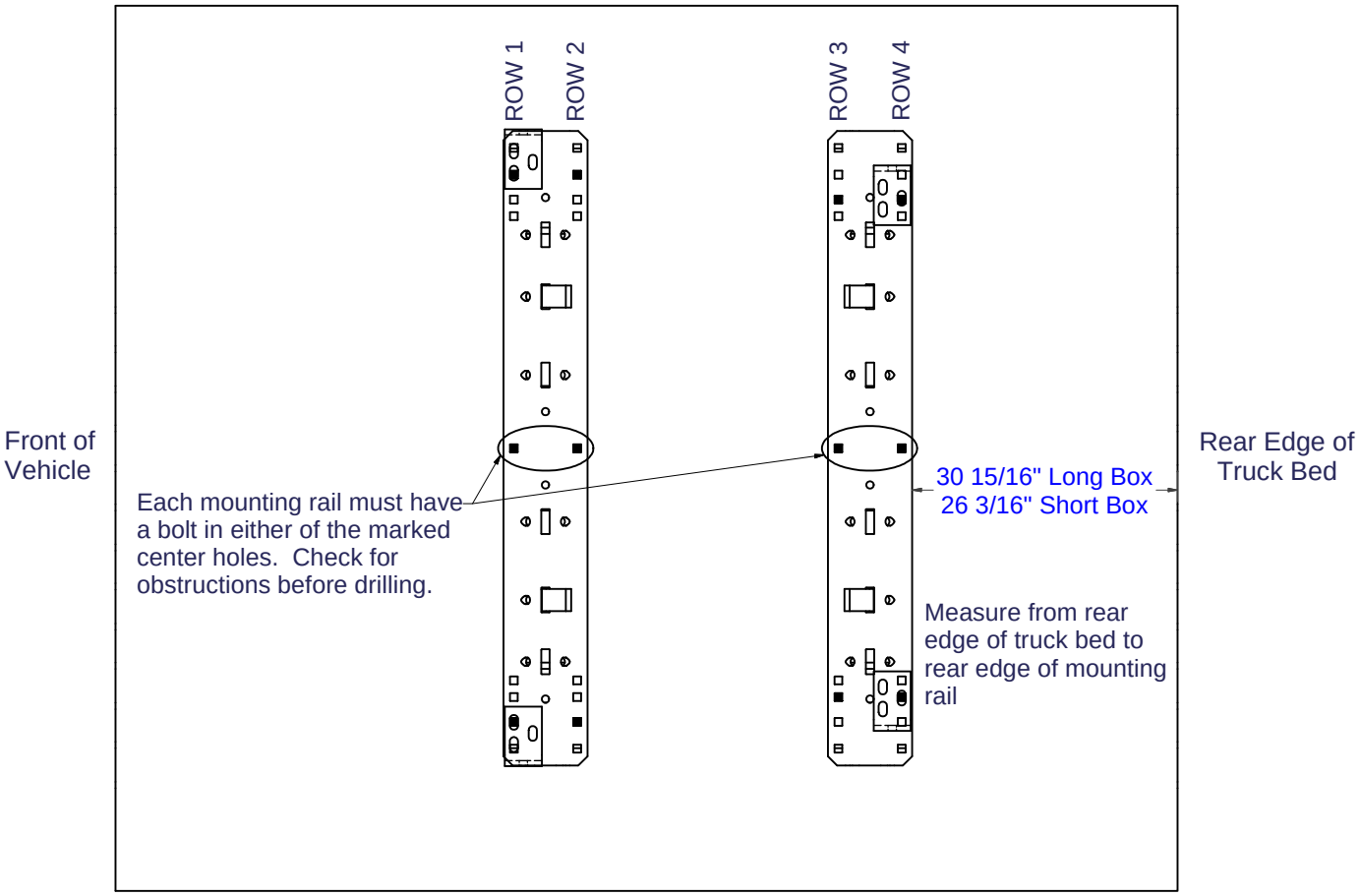
CHEVROLET/GMC 88-98, 92-98 4-DOOR, '99 SILVERADO
SIERRA CLASSIC (WITH TAPERED FRAME) (RED TURN SIGNALS)

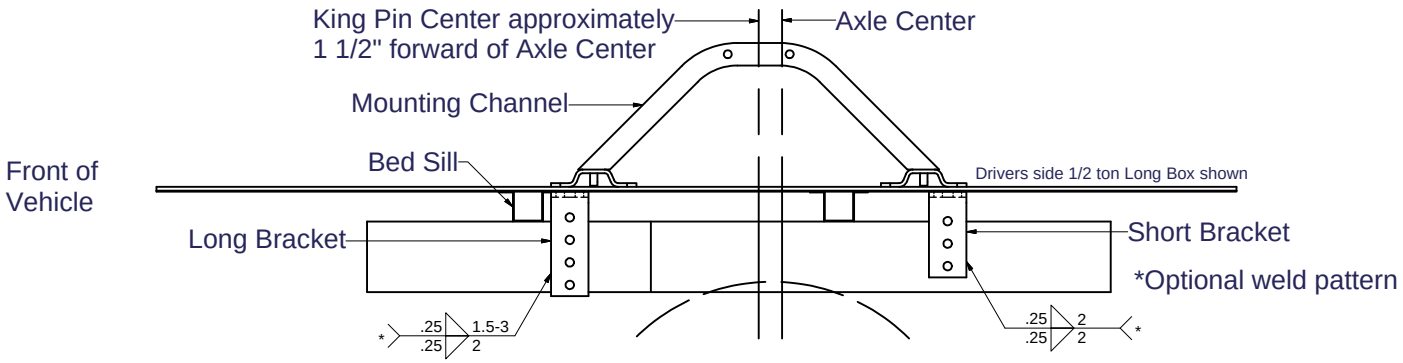
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Find parallel rows of bed sill spot welds in bed of truck. No drilling should be done in the ~4" between parallel rows of spot welds where the bed sill sits.





CAUTION!

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

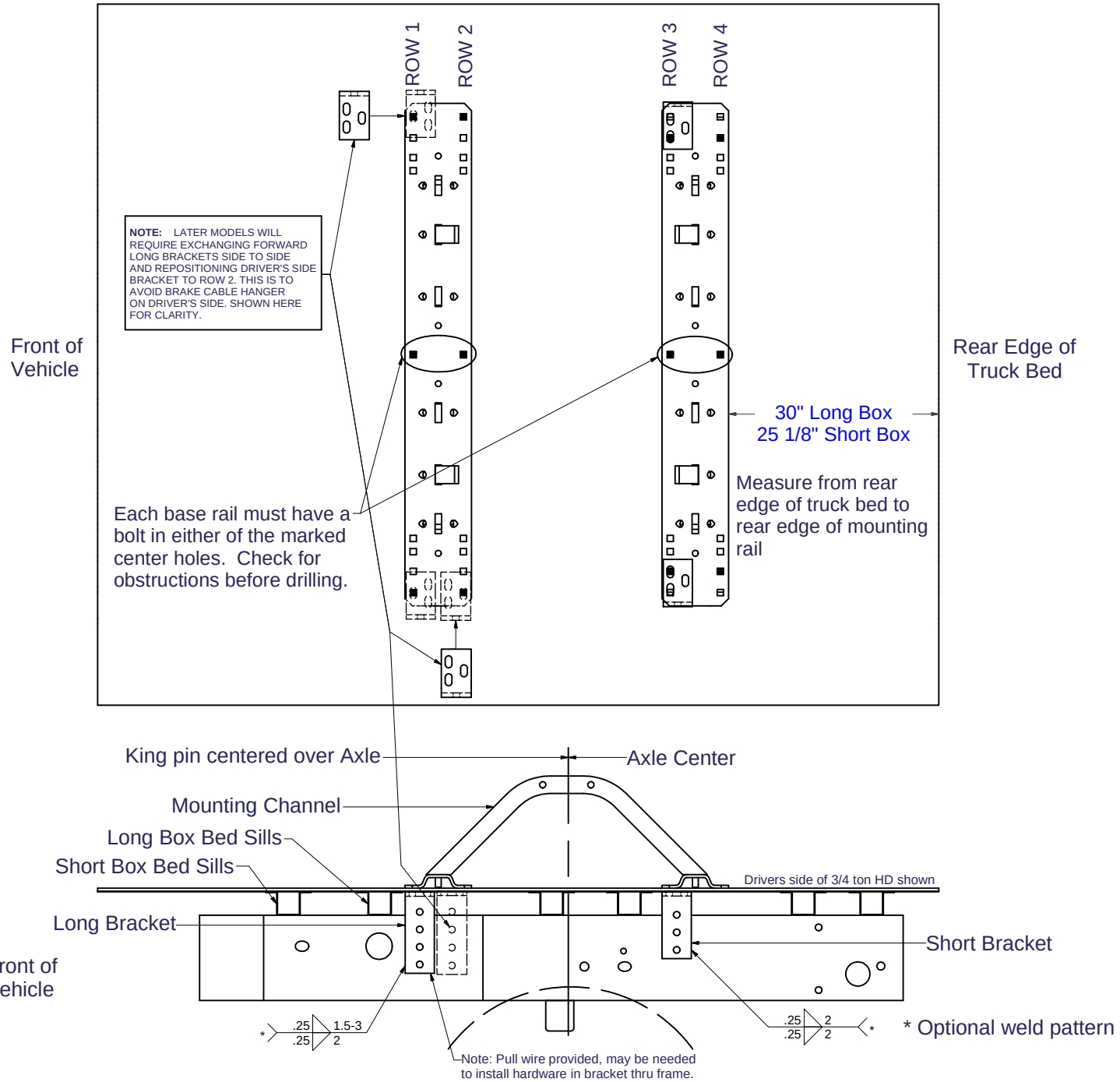
GM '99 Silverado, Sierra (not Sierra Classic) models, GM '00 to '10 Silverado, Sierra models including HD models

CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Find parallel rows of bed sill spot welds in bed of truck. No drilling should be done in the ~4" between parallel rows of spot welds where the bed sill sits.



CAUTION!

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

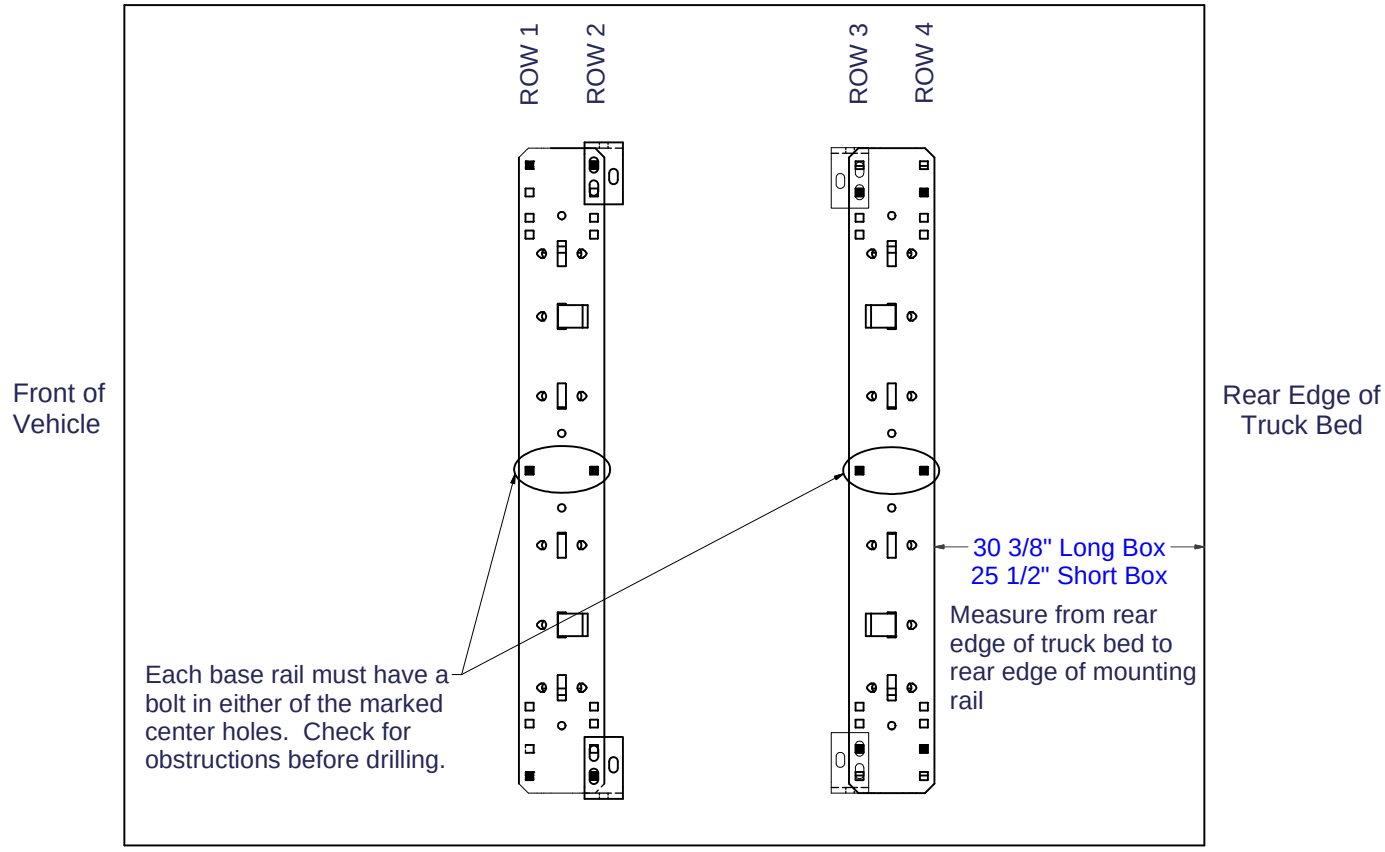
GM ’11 SILVERADO

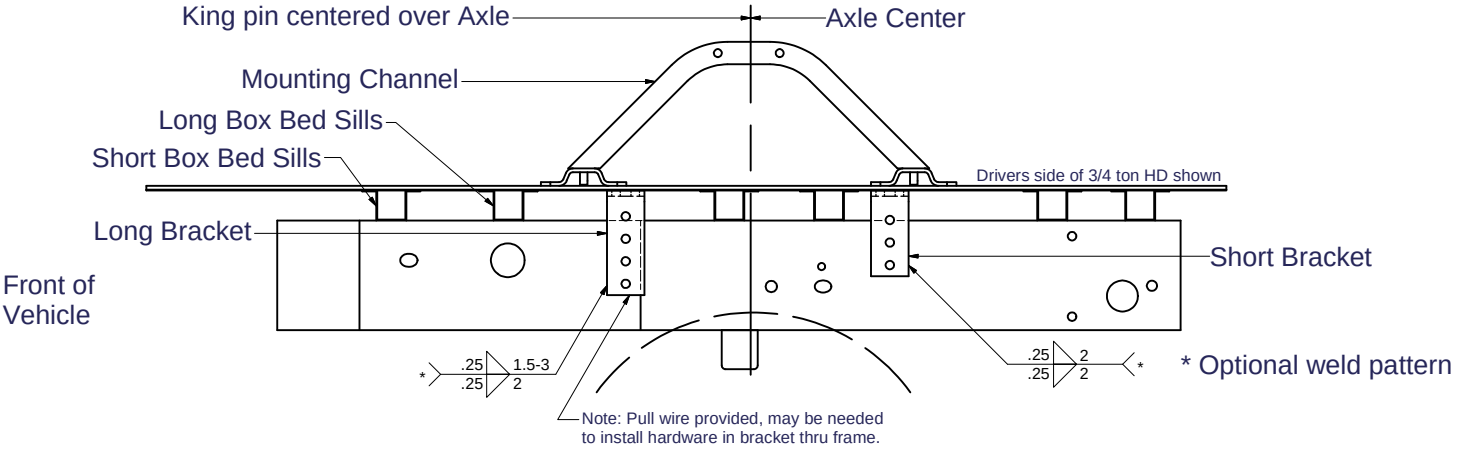
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Find parallel rows of bed sill spot welds in bed of truck. No drilling should be done in the ~4” between parallel rows of spot welds where the bed sill sits.





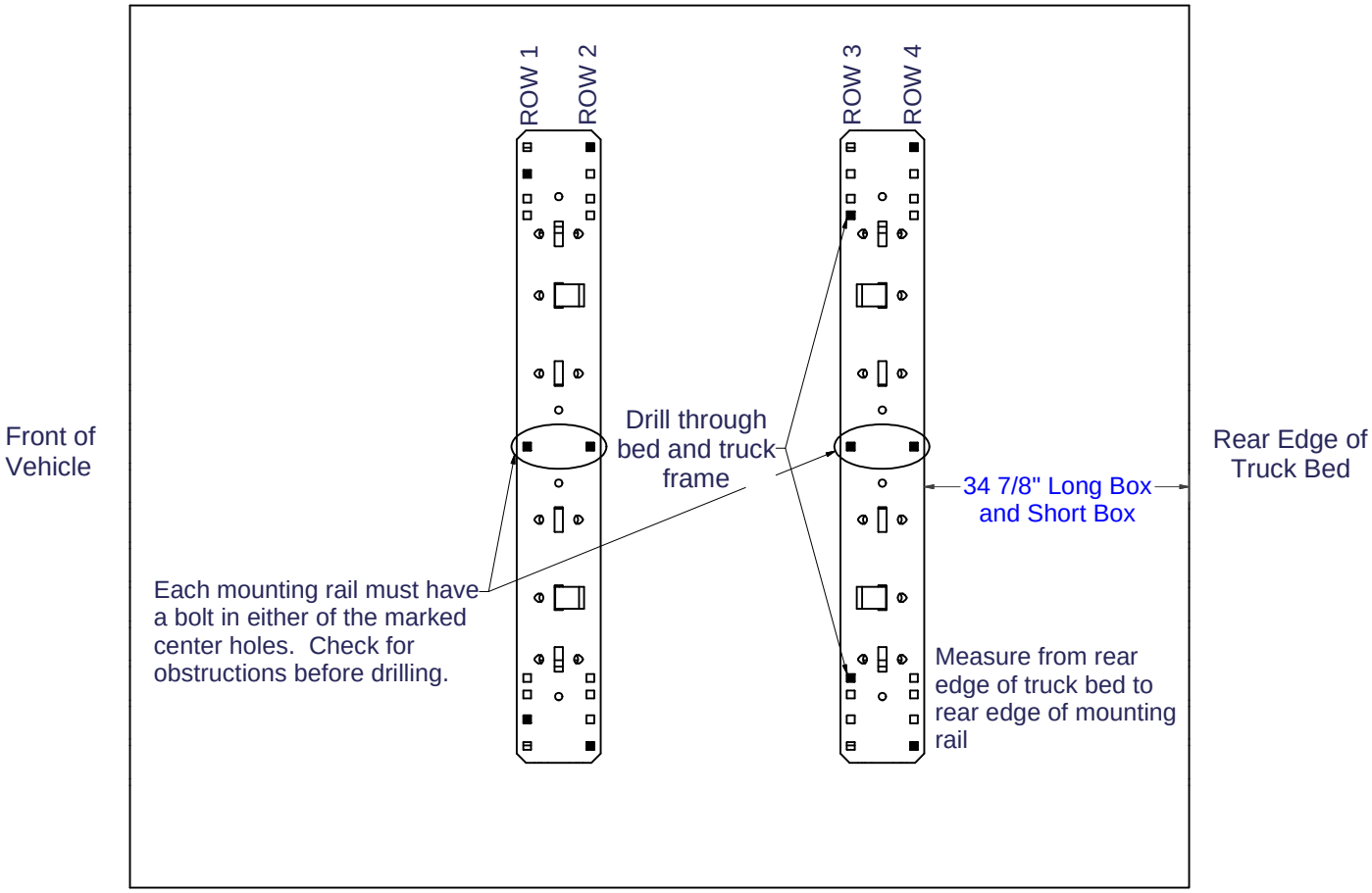
CAUTION!

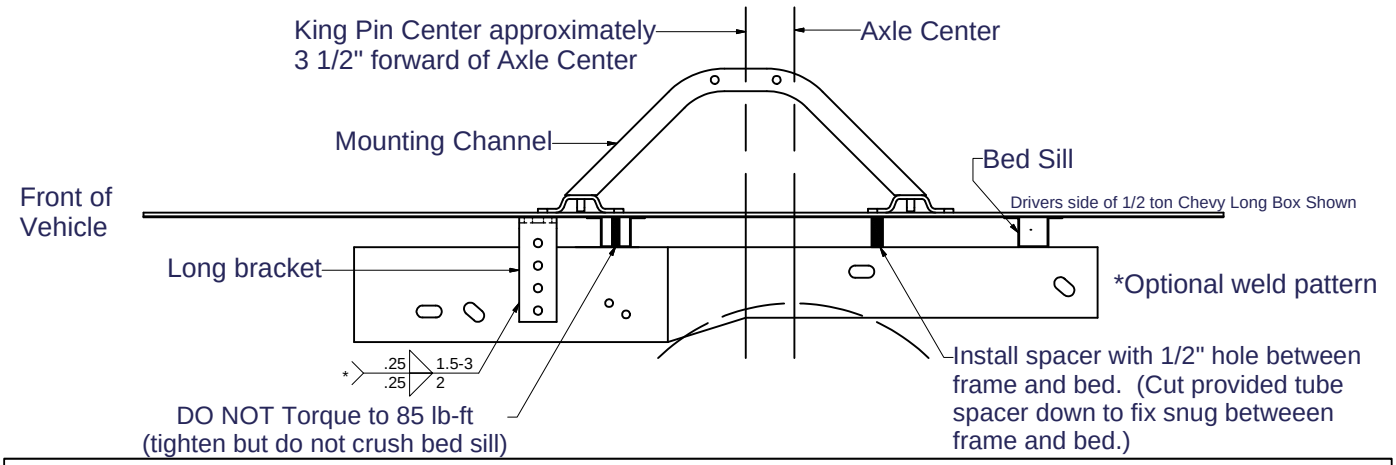
Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. CURT MANUFACTURING does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

Chevrolet 73 to 87, 73 to 92 4-door (GMC) (34” Straight, with Outside Shock Absorbers)

CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!





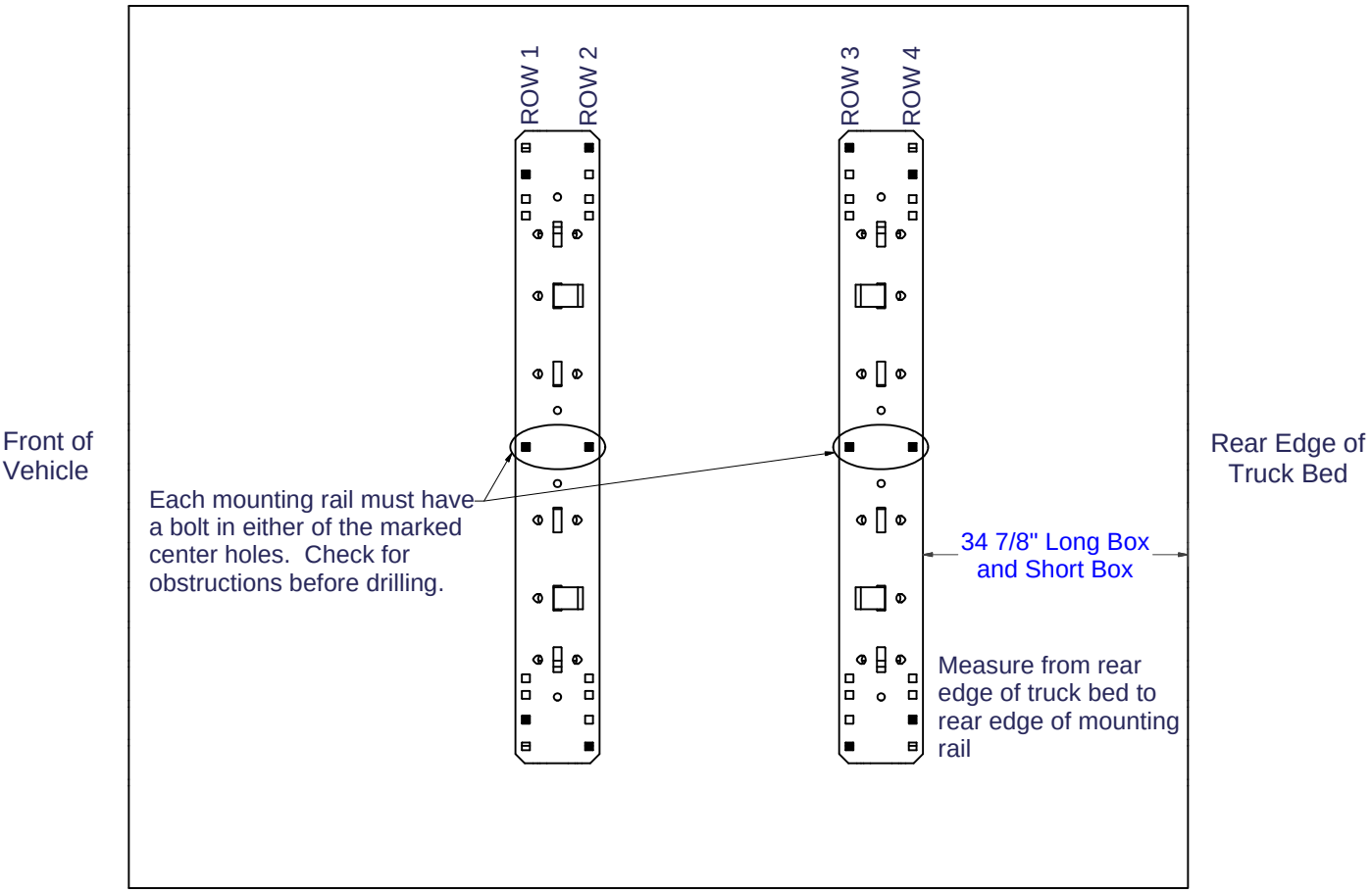
CAUTION!

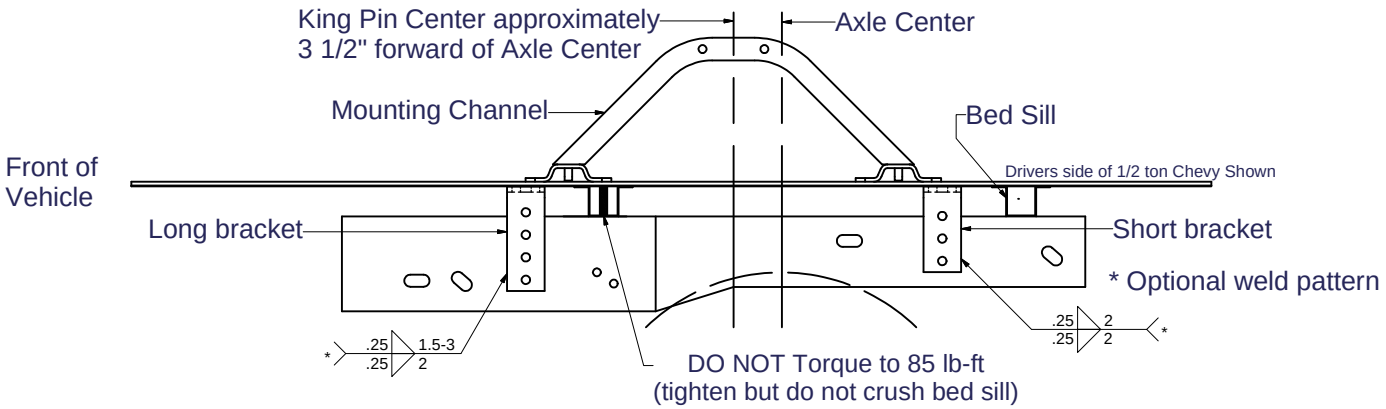
Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. CURT MANUFACTURING does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

Chevrolet 73 to 87, 73 to 92 4-door (GMC) (34" Straight, with Inside Shock Absorbers)

CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!





CAUTION!

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

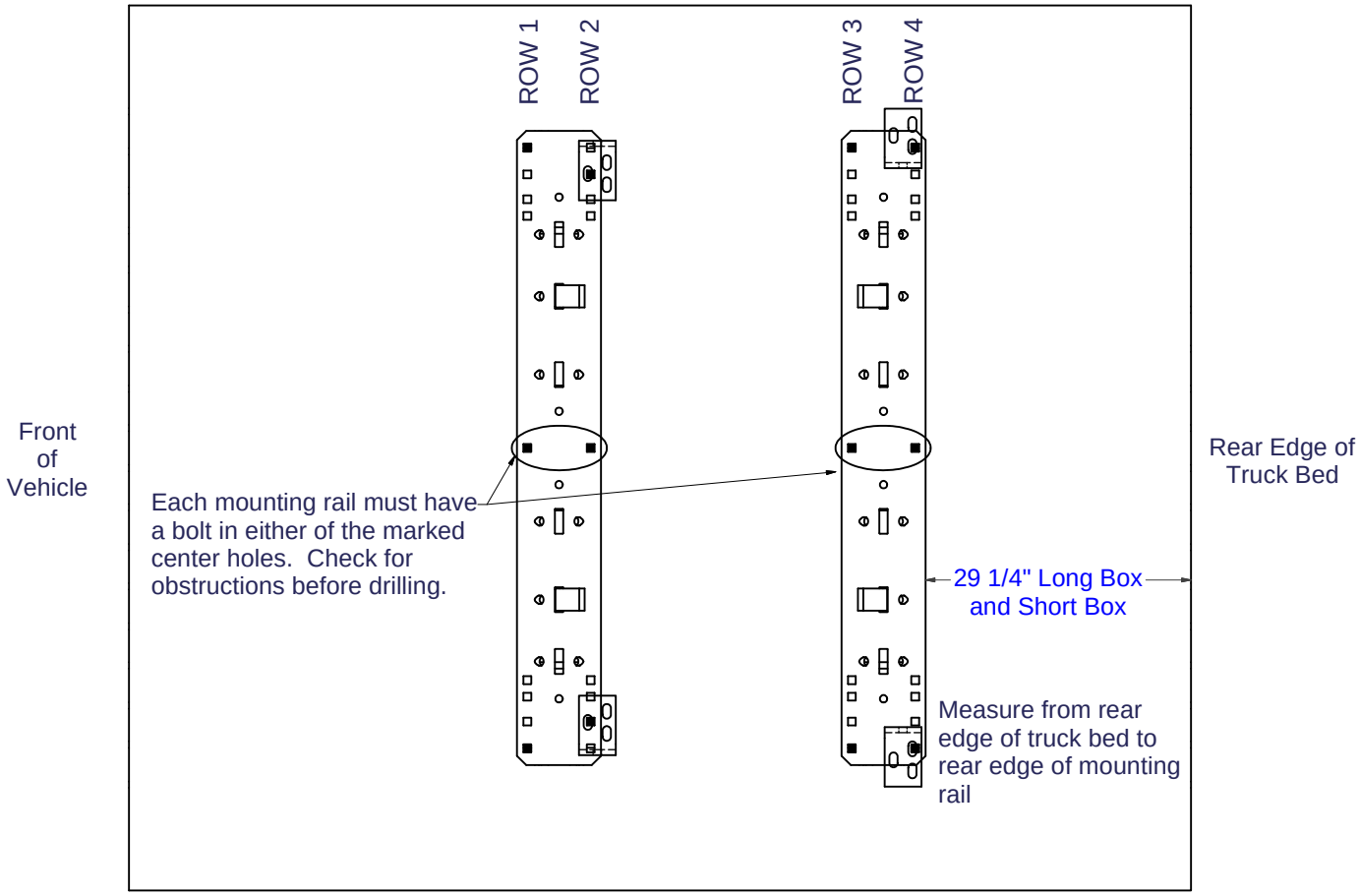
Ford '97 to '03 F-150 & F-250 8500 GVW AND UNDER and '04 Heritage Series Body Style

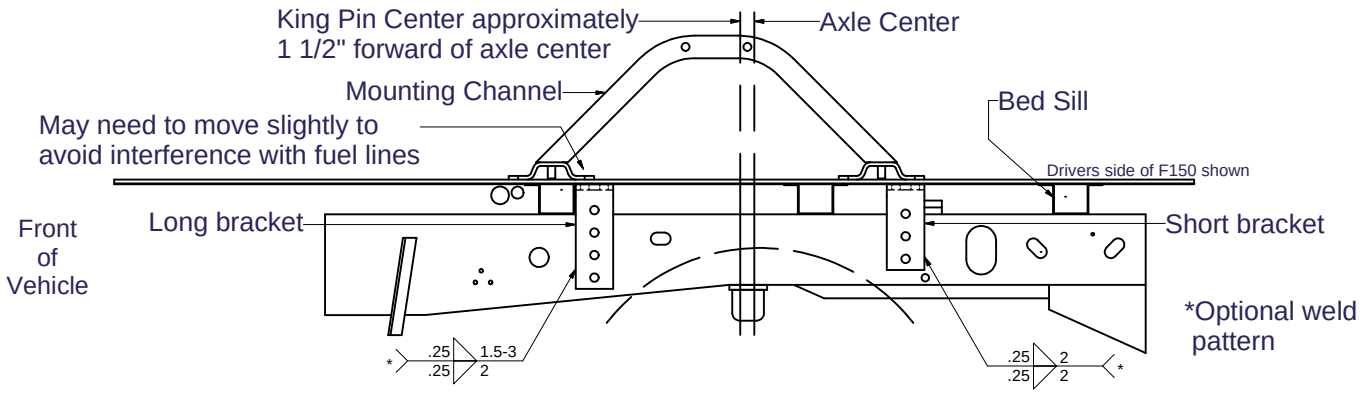
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Long and Short Brackets on Driver's Side may need to be switched to avoid interference with exhaust hanger.
2. You may need to move mounting rail location +/- ½" to ensure frame brackets do not interfere with bed sills.





CAUTION!

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

CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Do not drill through both walls of frame. Drill only through wall of frame to which bracket is mounted.

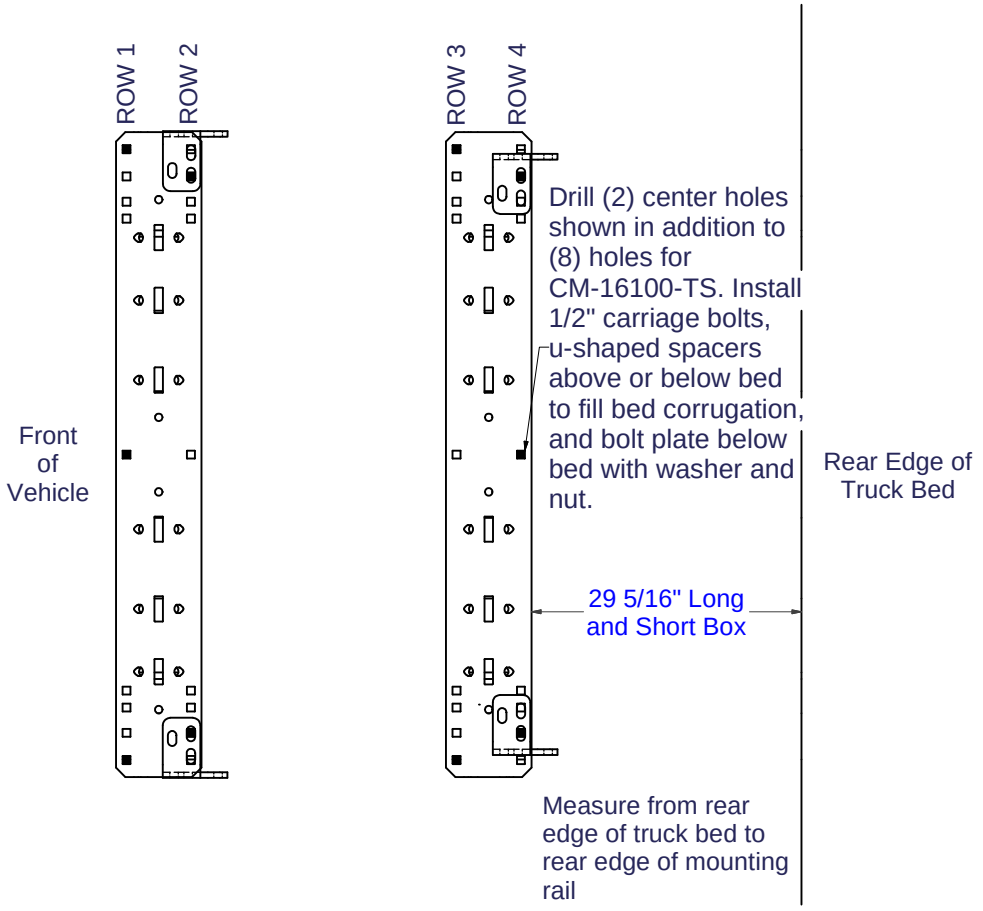
2. Find parallel rows of bed sill spot welds in bed of truck. No drilling should be done in the ~4" between parallel rows of spot welds where the bed sill sits.

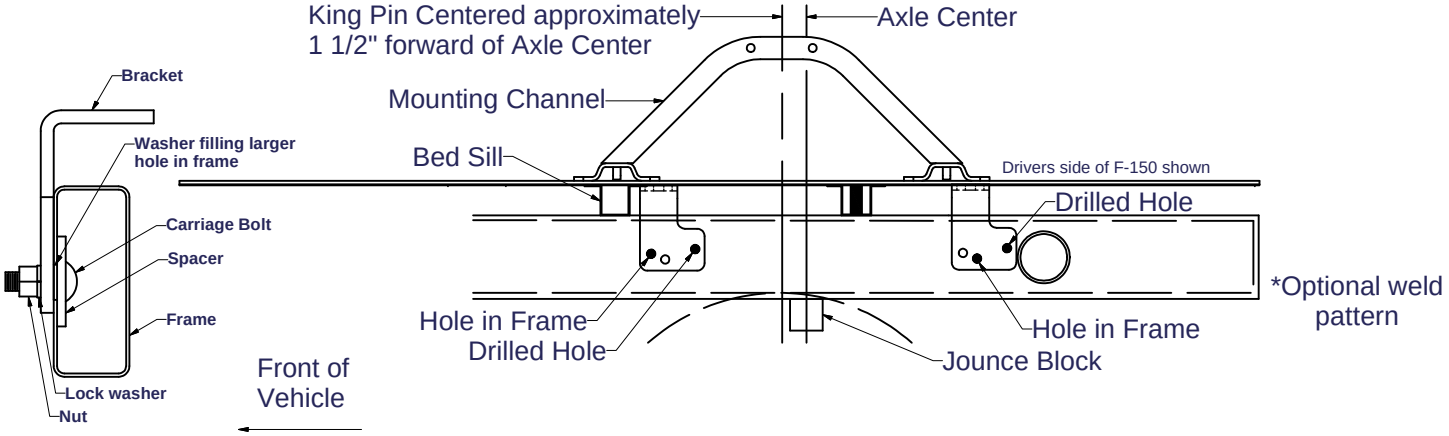
3. Remove jounce block from Bottom of frame on both sides.

4. When brackets are in place one of the front 2 holes should line up with a hole in the frame. A hole will need to be drilled in the frame at the rearward bracket hole.

5. Pull carriage bolts with bolt plates (using supplied pull wire) through the hole in the bottom of frame (where the jounce block was removed) and through the rear hole in each bracket. On the forward brackets a carriage bolt, spacer, and a 1" washer should be pulled through the forward hole. On the rearward brackets a carriage bolt, spacer, and 13/16" washer.

6. Replace the jounce block.





CAUTION!

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

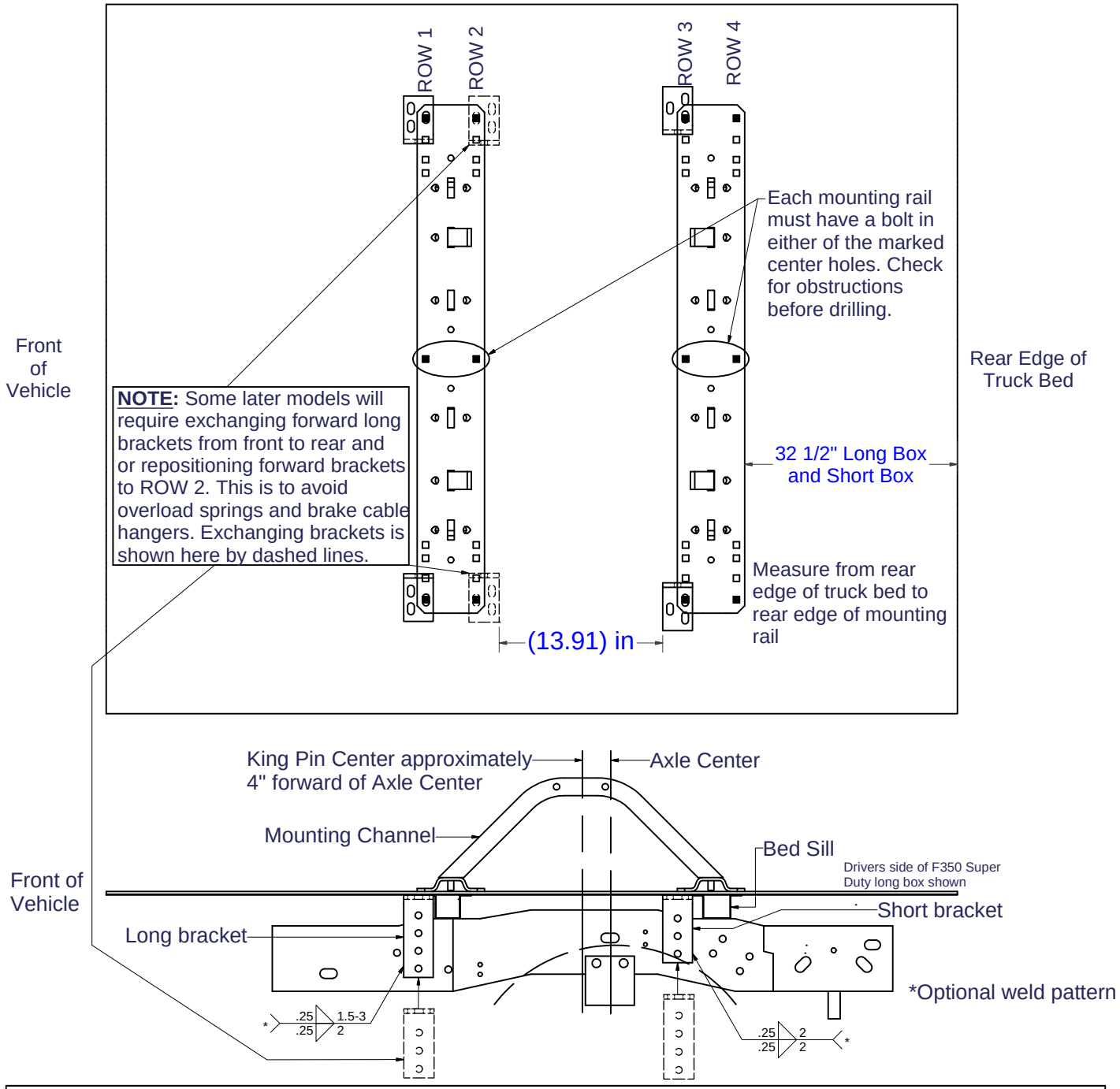
FORD F-150 & F-250 THROUGH '96, '97 F-250 OVER 8500 GVW, F350 THROUGH '97
1999 & NEWER F-250 / F-350 & f-450 SUPERDUTY (Not cab and chassis)

CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. On short bed vehicles, attach Driver's Side forward bracket on Row 2 to avoid interference with fuel lines.
2. On vehicles with overload springs, switch position of long and short brackets.
3. You may need to move the mounting rail location +/- ½" to ensure frame brackets do not interfere with bed sills.



CAUTION!

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

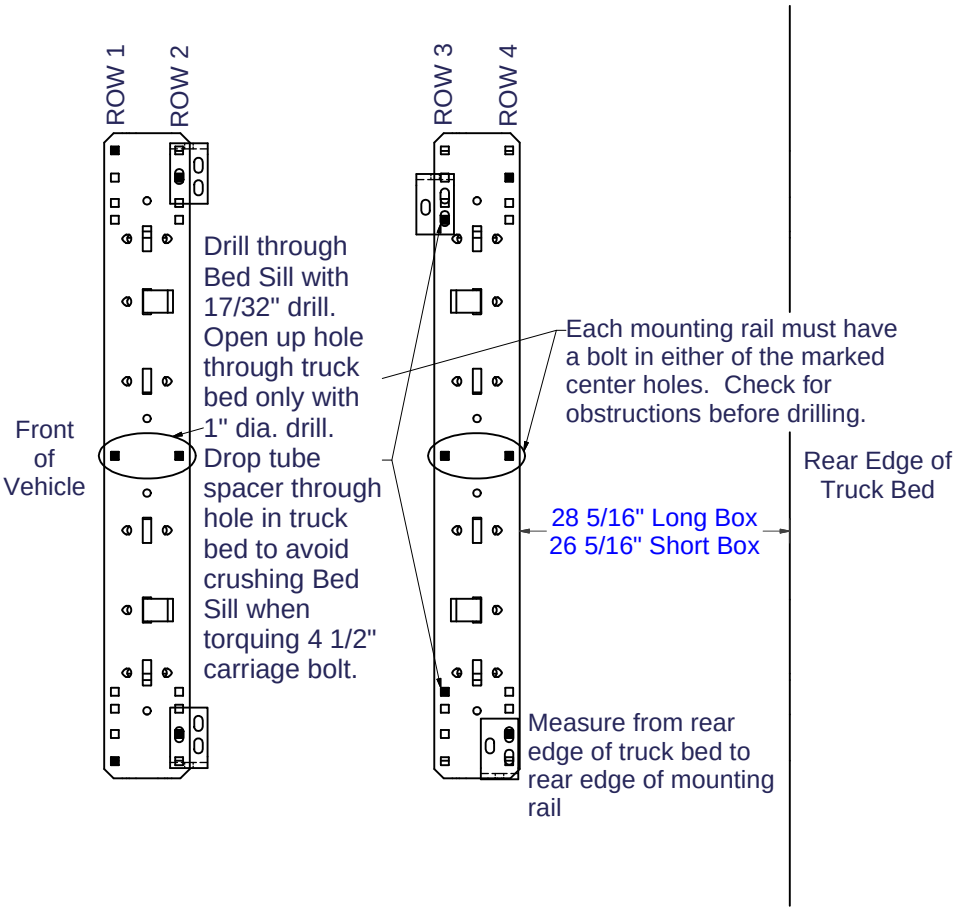
DODGE '02 TO '08 1500, '03 AND NEWER 2500 WITHOUT OVERLOAD BRACKETS

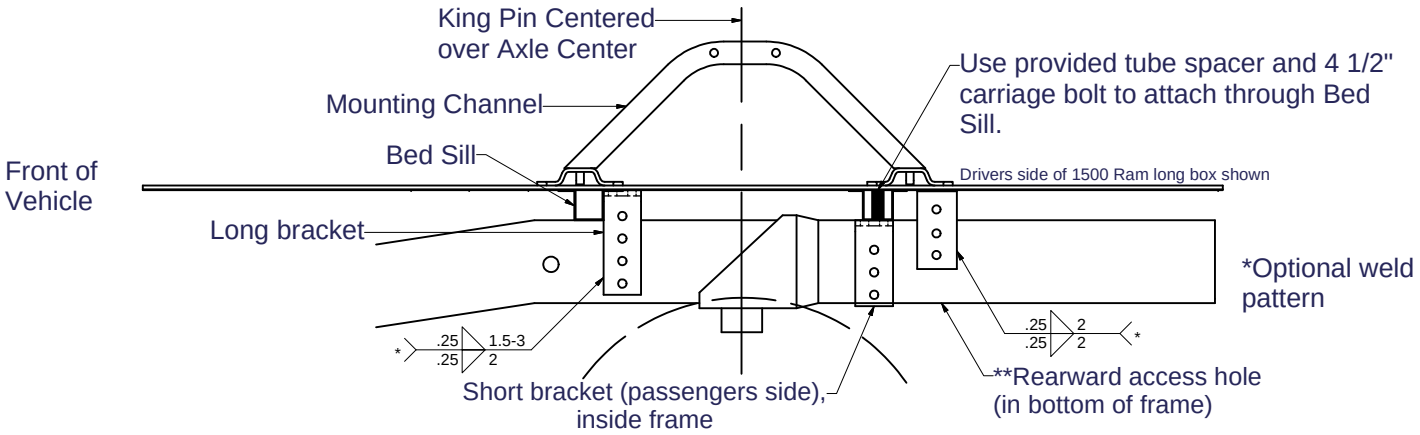
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Tube spacer and 4 1/2" carriage bolt used to attach through rearward Bed Sill (Row 3).
2. **Rib neck bolts will need to be pulled through access holes in frame with supplied pull wire (see below).
3. Do not drill thru both walls of frame. Drill only thru wall of frame to which bracket is mounted.
4. It is very important that brackets in Row 2 are against rear side of Bed Sill as shown. Due to dimensional instability in Bed Sill placement with the Dodge truck, interference could result when drilling in Row 3. Observe caution note below and double check all areas prior to drilling.
5. To avoid drilling inside of frame, (Passenger Side Row 3) Optional Custom Bracket (16303) can be purchased from your dealer. The use of this bracket allows for drilling outside the frame and avoids exhaust hanger.
6. *Due to tubular frames having thinner walls than previous C channel frames, extra caution needs to be used when mounting with the optional welding.





CAUTION!

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

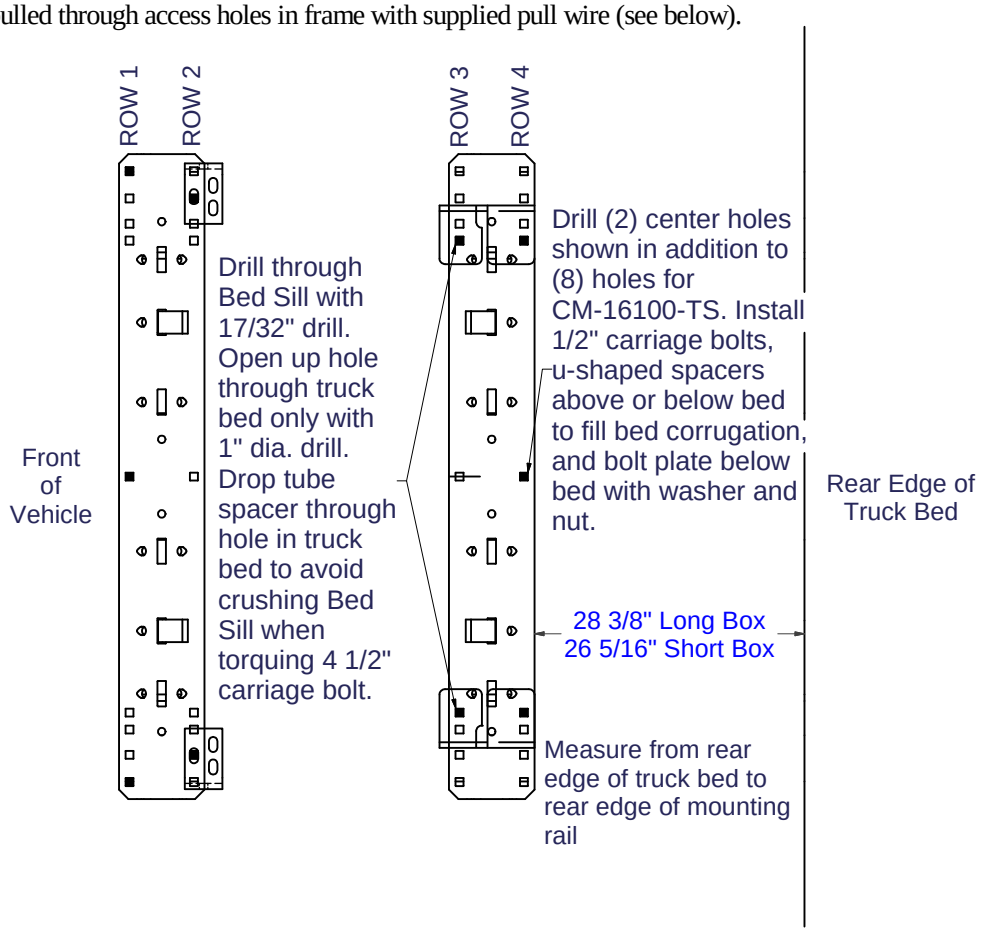
DODGE '03 AND NEWER 2500 WITH OVERLOAD SPRINGS
3500 (REQUIRES 16301 BRACKET KIT)

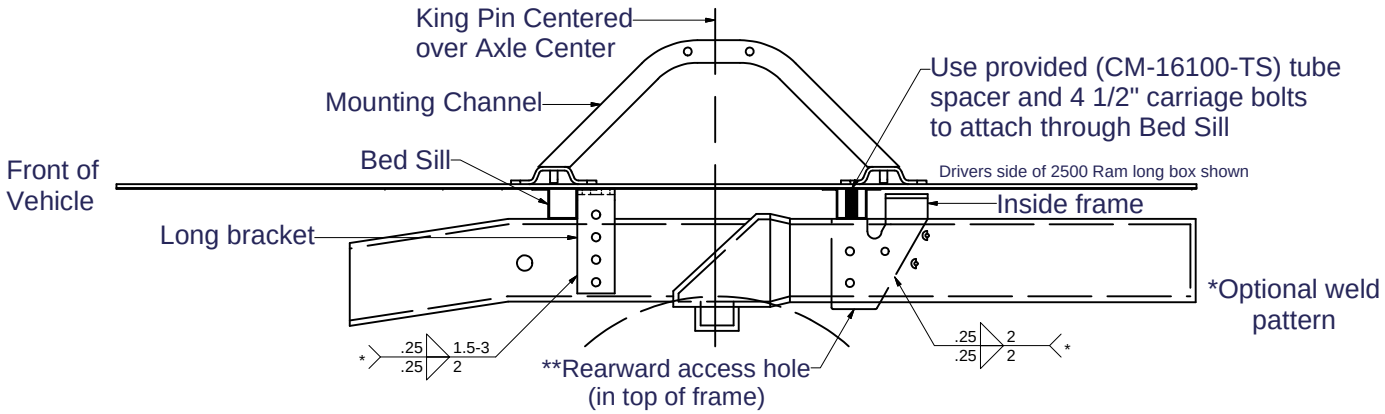
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Tube spacer and 4 ½" carriage bolt used to attach through rearward Bed Sill (Row 3).
2. **Rib neck bolts will need to be pulled through access holes in frame with supplied pull wire (see below).
3. Do not drill thru both wall of frame. Drill only thru wall of frame to which bracket is mounted.
4. It is very important that brackets in Row 2 are against rear side of Bed Sill as shown. Due to dimensional instability in Bed Sill placement with the Dodge truck, interference could result when drilling in Row 3. Observe caution note below and double check all areas prior to drilling.
5. Rear brackets can be mounted to frame with (2) bolts in any combination of the three bracket holes.
6. *Due to tubular frames having thinner walls than previous C channel frames, extra caution needs to be used when mounting with the optional welding.





CAUTION!

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

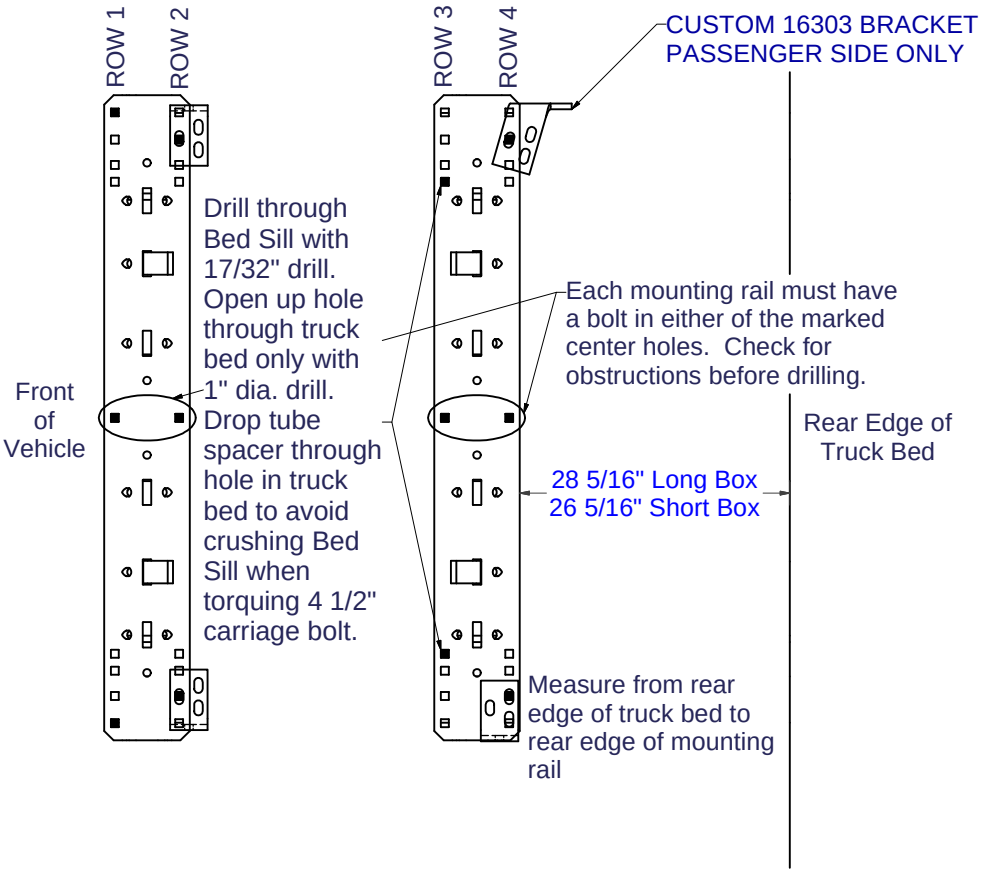
DODGE '02 THRU '08 1500 (16303 CUSTOM BRACKET KIT)
2500 WITHOUT OVERLOAD SPRINGS

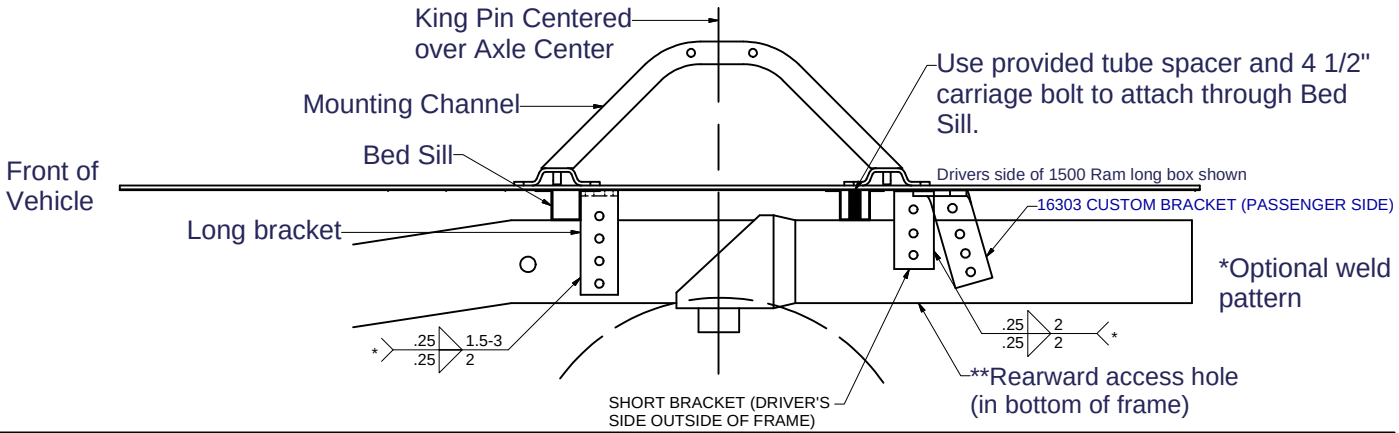
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Tube spacer and 4 1/2" carriage bolt used to attach through rearward Bed Sill (Row 3).
2. **Rib neck bolts will need to be pulled through access holes in frame with supplied pull wire (see below).
3. Do not drill thru both walls of frame. Drill only thru wall of frame to which bracket is mounted.
4. It is very important that brackets in Row 2 are against rear side of Bed Sill as shown. Due to dimensional instability in Bed Sill placement with the Dodge truck, interference could result when drilling in Row 3. Observe caution note below and double check all areas prior to drilling.
5. *Due to tubular frames having thinner walls than previous C channel frames, extra caution needs to be used when mounting with the optional welding.





CAUTION!

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

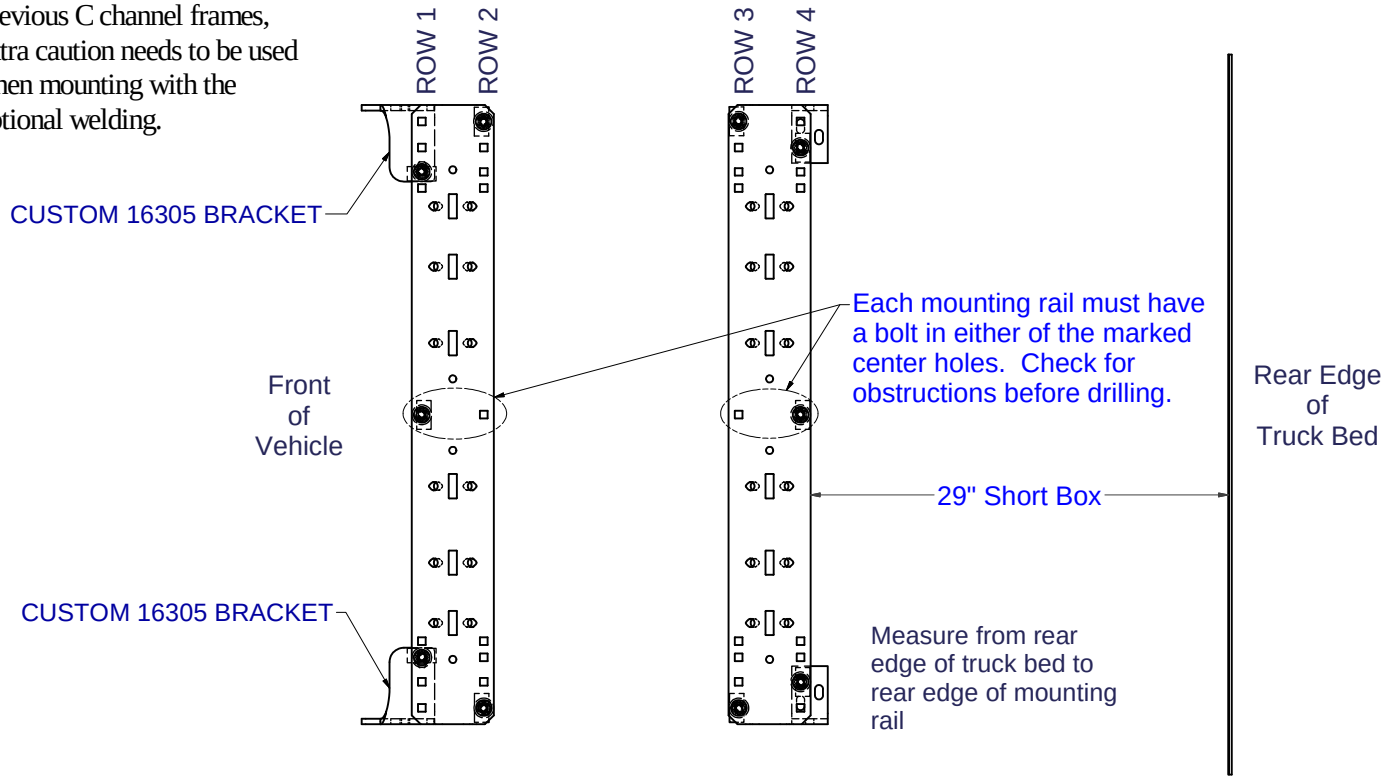
DODGE '09 TO '11 1500 (16305 CUSTOM BRACKET KIT)

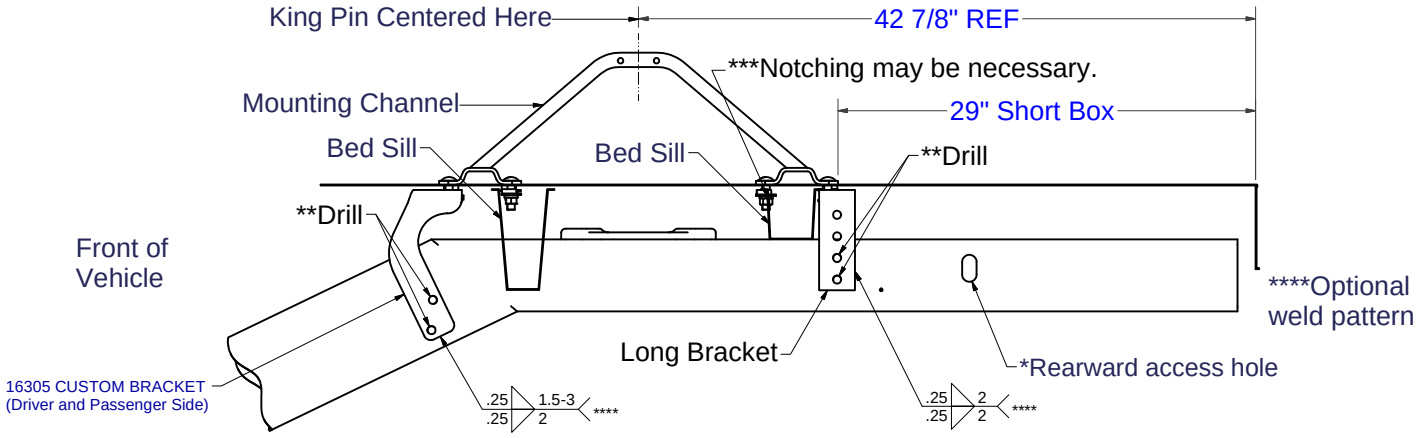
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. *Rib neck bolts will need to be pulled through access holes in frame with supplied pull wire (see below).
2. Observe caution note below and double check all areas prior to drilling.
3. **Do not drill thru both walls of frame. Drill only thru wall of frame to which bracket is mounted.
4. ***It may be necessary to notch ends of bed sill in Row 3 to allow access to and the bolting down of mounting rail hardware.
5. ****Due to tubular frames having thinner walls than previous C channel frames, extra caution needs to be used when mounting with the optional welding.





CAUTION!

Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc.

CURT MANUFACTURING does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

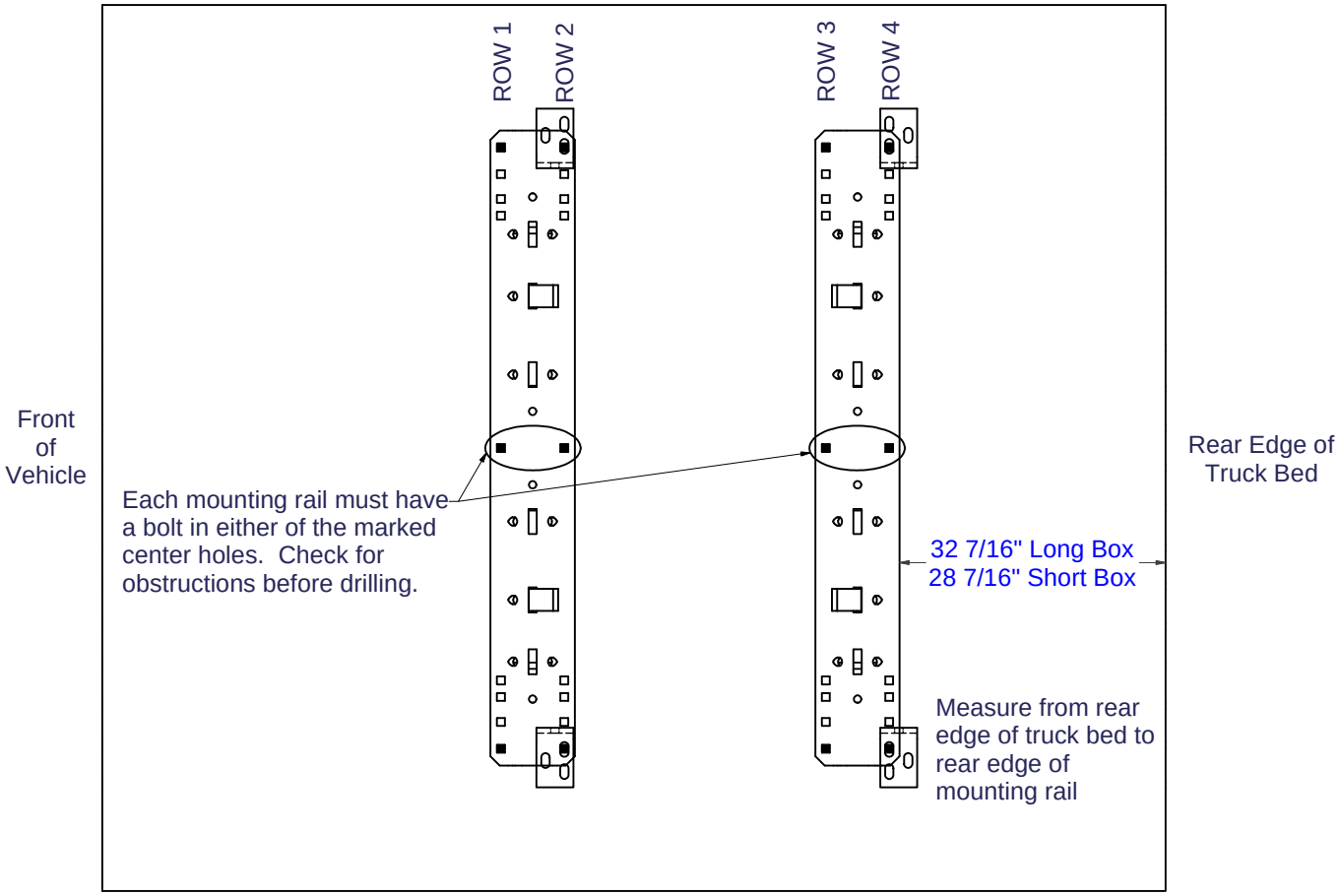
DODGE '94 TO '01 1500, '94 TO '02 2500/3500 (FULL SIZE, SHORT AND LONG BOX)

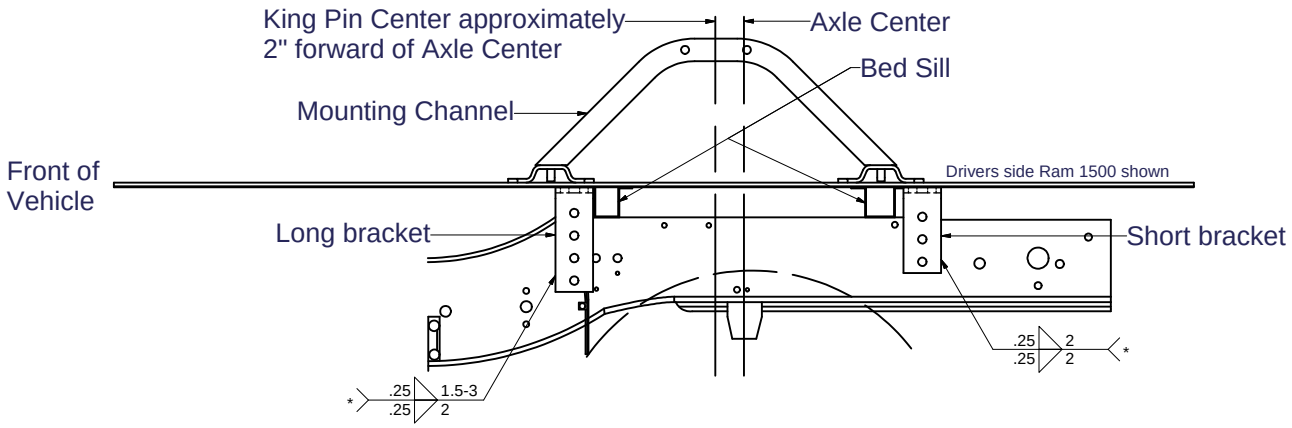
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. It is very important that brackets in Row 2 are against forward side of bed sill as shown below. Due to dimensional instability in bed sill placement with the Dodge truck, interference could result when drilling in Rows 3 or 4. You may need to move the mounting rail location +/- ½" to ensure frame brackets do not interfere with bed sills.





CAUTION!

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

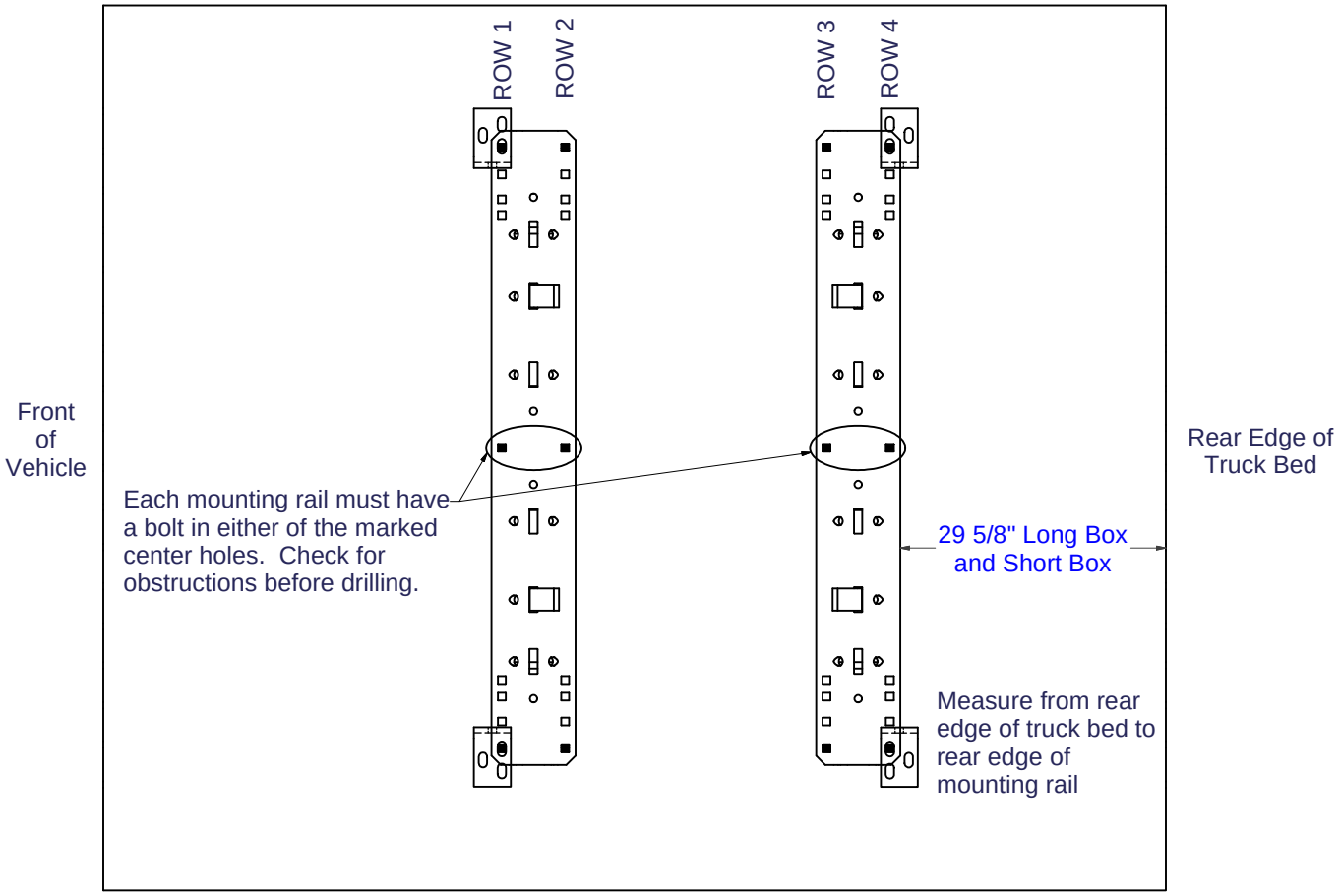
DODGE THROUGH 93 (FULL SIZE)

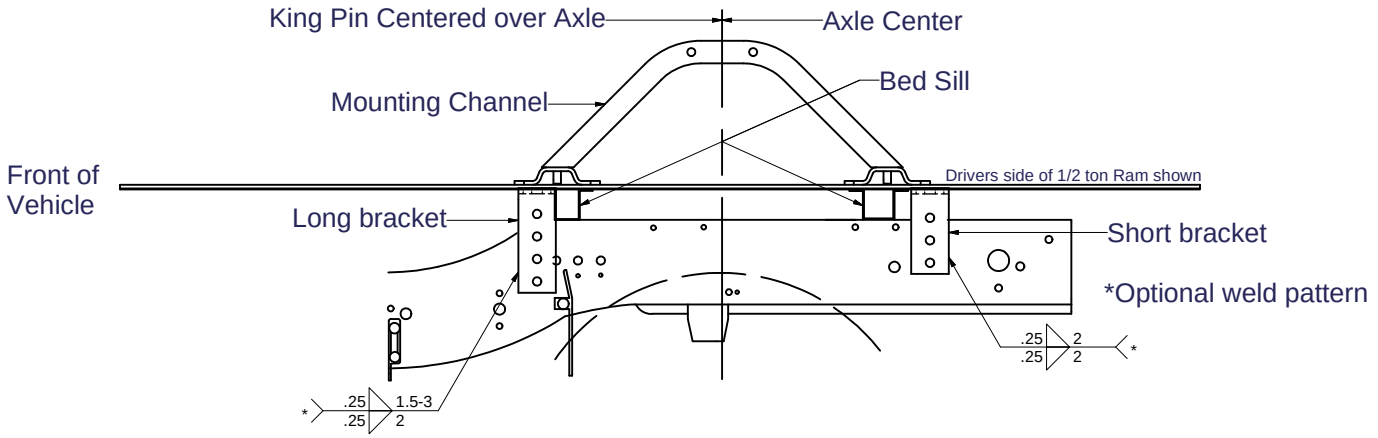
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. You may need to move mounting rail location +/- ½" to ensure frame brackets do not interfere with bed sills.





CAUTION!

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

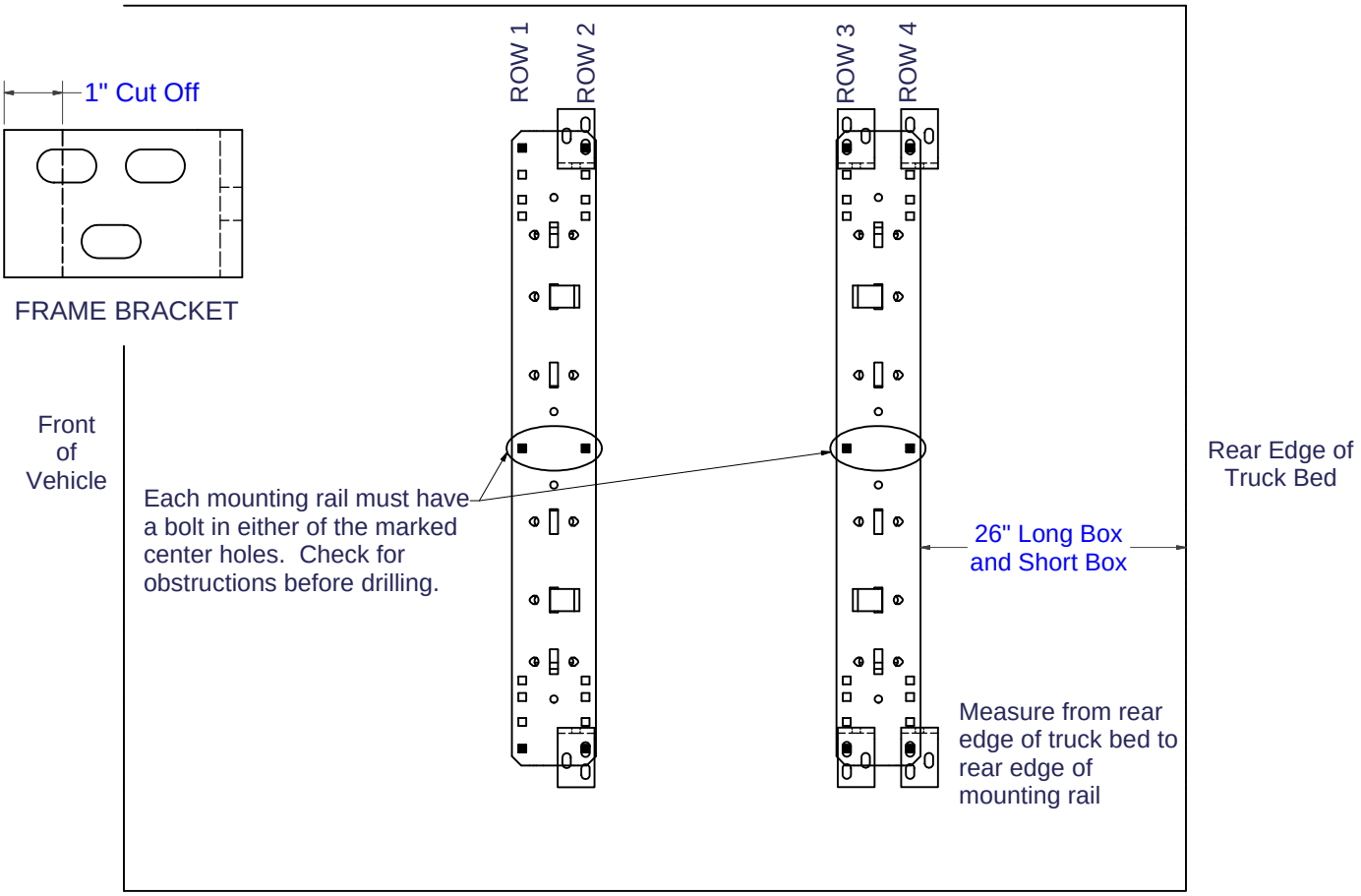
DODGE '94 TO 2004 DAKOTA

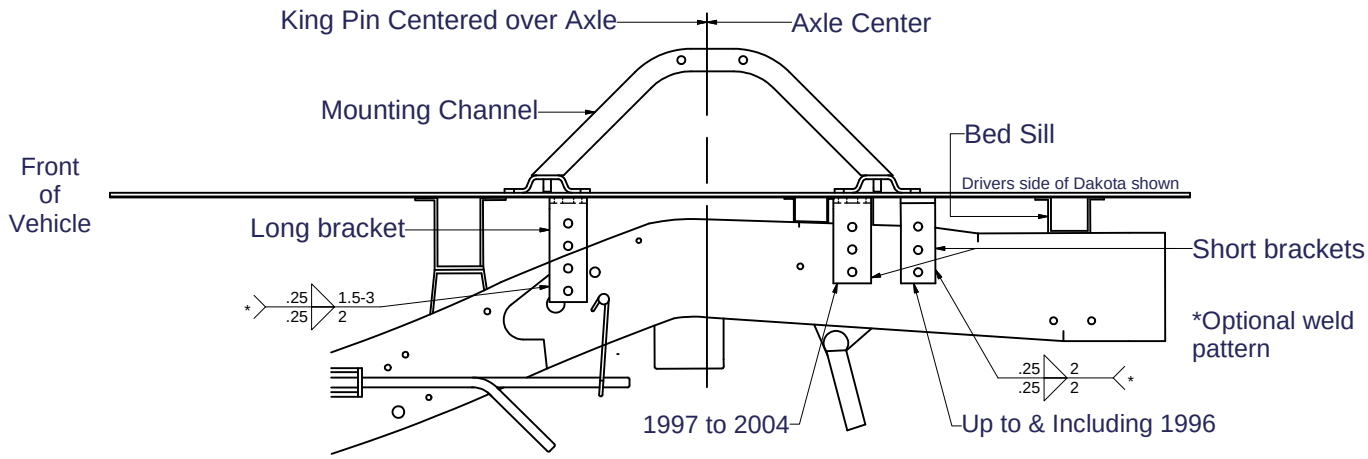
CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1. Find parallel rows of bed sill spot welds in bed of truck. No drilling should be done in the ~4" between parallel rows of spot welds where the bed sill sits.
2. Cut 1" from top flange of brackets. Under bed, mount brackets with flanges facing out.
3. Put rear brackets on Row 3 for '97 to Present models. Put brackets on Row 4 for '96 and Earlier models.





CAUTION!

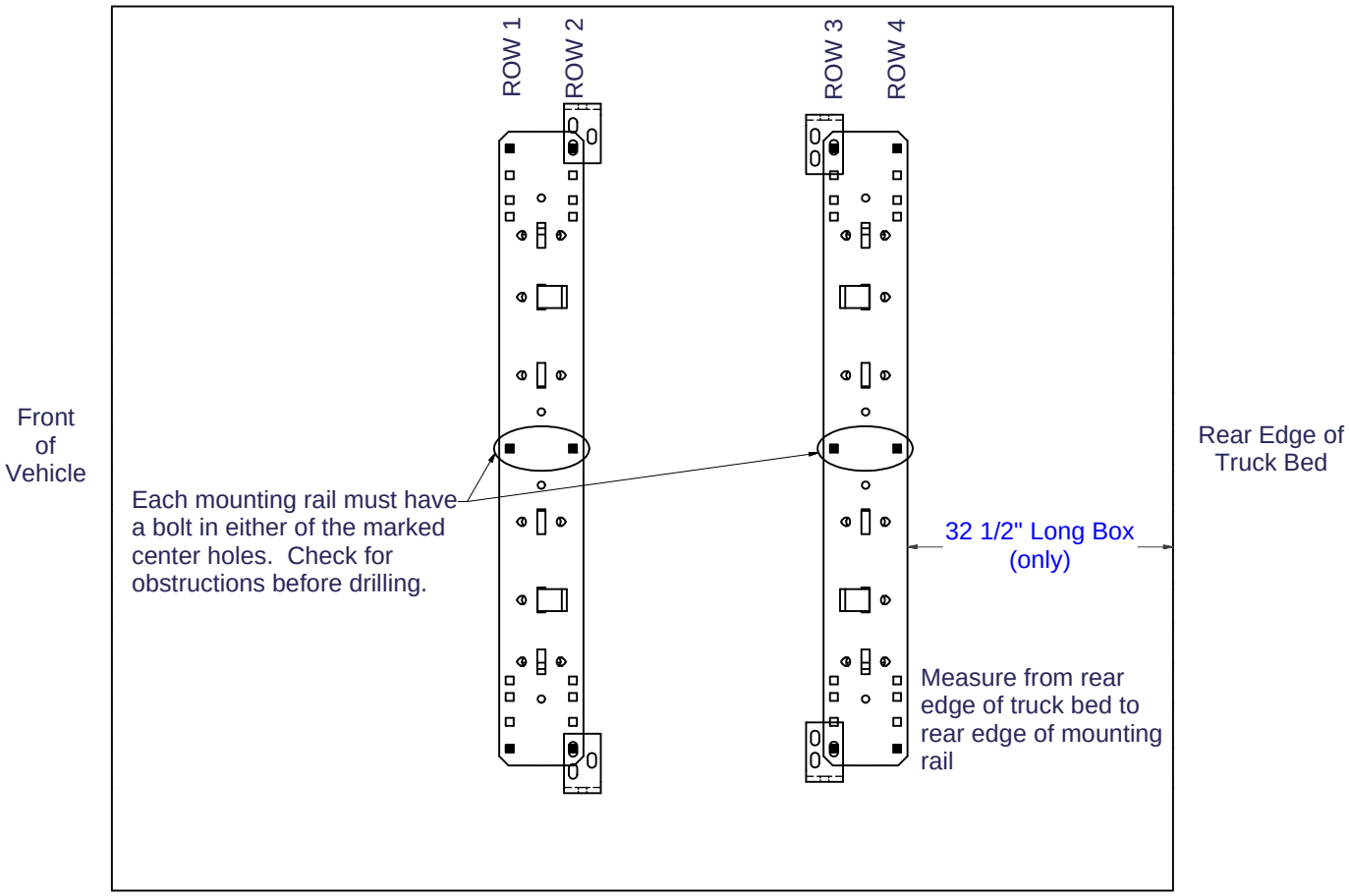
Check for obstructions before drilling. Failure to do so could result in damaged fuel or brake lines, structural members, etc. CURT MANUFACTURING does its best to communicate tow vehicle manufacturer changes; however, it is ultimately the responsibility of the installer to prevent damage due to installation.

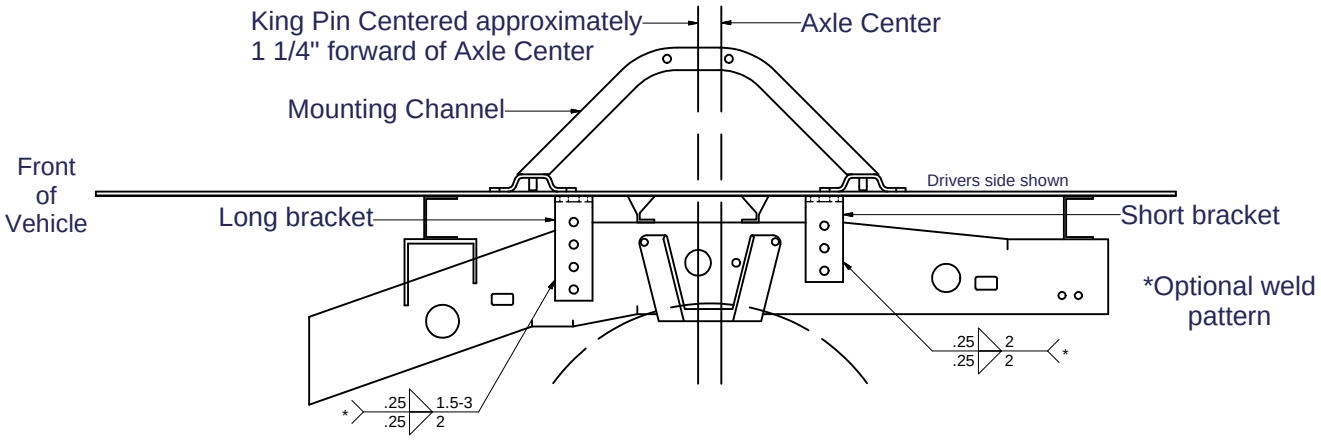
TOYOTA TUNDRA 2000 TO 2006 (STANDARD CAB LONG BOX ONLY)

CAUTION!

Read pages 2-3 of these instructions before starting installation. Failure to do so could result in significant vehicle damage!

NOTE: For Toyota Tundra application, part #16302 spacer kit is required. Stack (1) 3/16" and (1) 5/16" thick slotted spacers as required to avoid crushing of truck bed.





CAUTION!

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

TOYOTA 2007 AND NEWER TUNDRA, 6.5' & 8' BEDS, DOES NOT FIT CREWMAX

CAUTION!

Read pages 2-3 of 16100 instructions before starting installation. Failure to do so could reult in significant vehicle damage!

IMPORTANT NOTES FOR THIS INSTALLATION:

1) Use the 16304 add-on kit with the 16100 universal kit. Read pages 1-3 of the 16100 instruction for general information.

2) The mounting holes for row 3 go through the inside of the bed sill. Make sure it lines up correctly. Drill through the bed and the top of the frame on both sides. For the Row 4 passenger side attachment, drill through the bed and top of the frame as well.

3) The rear rail on the passenger side is secured directly to the frame with 3" carriage bolts provided in the 16304 kit. For the row 3 attachment, a tube spacer should be placed inside the bed sill on top of the frame and under the bottom of the bed. Line up the spacer with the drilled hole before inserting the carriage bolt. Repeat for both sides. See FIG. 1 below.

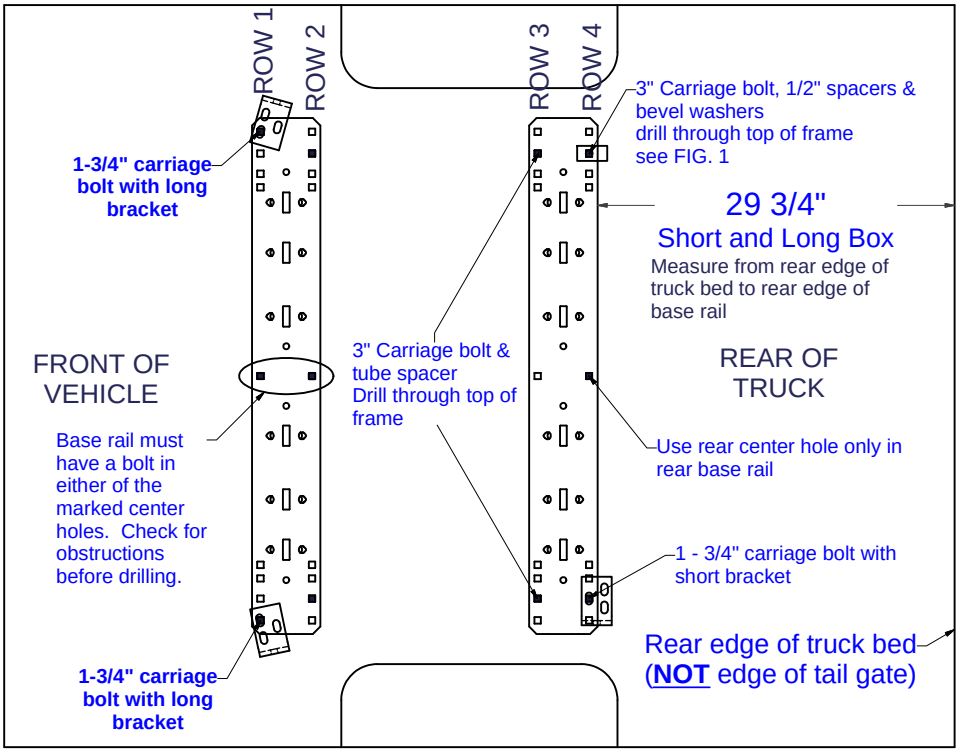
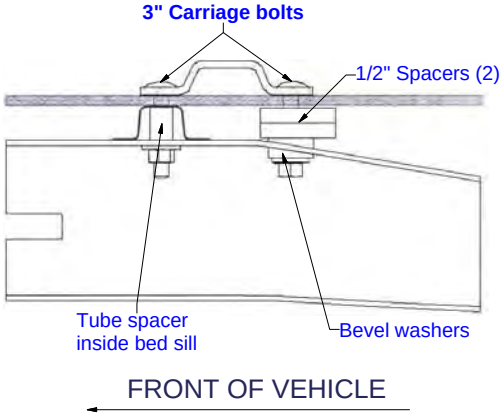


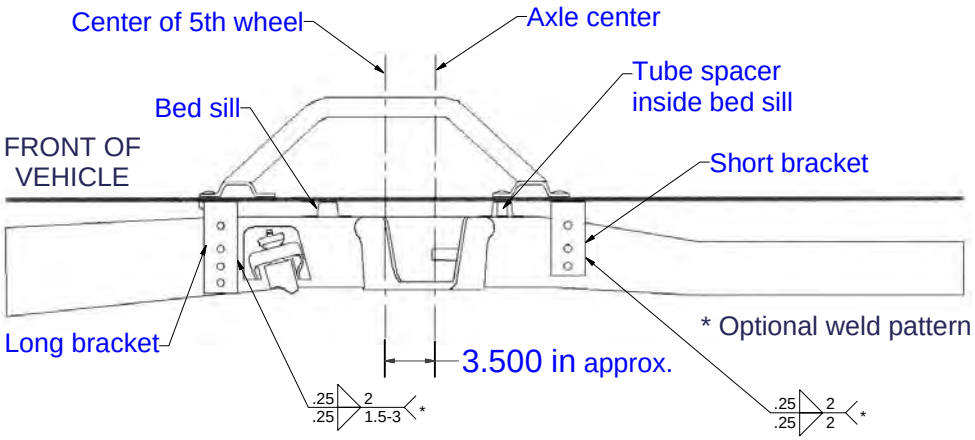
FIG. 1

(REAR PASSENGER SIDE)



4) For the Row 4 passenger side attachment, stack two 1/2" spacers and a bevel washer, provided in the 16304 kit, to fill the gap between the bed and the frame. Use another bevel washer, conical toothed washer, and hex nut to fasten the 3" carriage bolt in place. See FIG. 1.

5) Install the long brackets on the front rail and the short bracket on the rear driver side rail using the 1 - 3/4" carriage bolts provided in the 16304 kit. All other attachments to the bed use 2" carriage bolts from the 16100 kit.



CAUTION!

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

NOTES

FIVE YEAR LIMITED WARRANTY

CURT MANUFACTURING warrants its 5th Wheel Hitch Mounting Kits from date of purchase against defects in material and workmanship under normal use and service, for 5 years of ownership to the original purchaser when a CURT MANUFACTURING mounting kit is used.

CURT MANUFACTURING will replace FREE OF CHARGE any part, which proves defective in material or workmanship when presented to any CURT MANUFACTURING dealer, CURT MANUFACTURING Warehouse or returned to the 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 5th Wheel Hitch as a result of misuse, abuse, neglect, accident, improper installation, or any use that violates the instructions furnished by us, WILL VOID THE WARRANTY.

Curt Manufacturing, Inc.
6208 Industrial Drive
Eau Claire, WI 54701