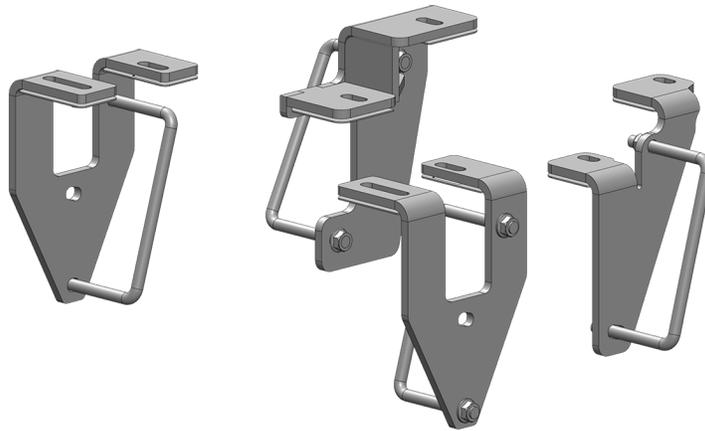




# DODGE

## 20K Industry Standard Rail Custom Mounting Kit

# #2742



Gross Trailer Weight (Maximum).....20,000 lbs.  
Vertical Load Weight (Max. Pin Weight).....5,000 lbs.

### SYSTEM TOW CAPACITY

Please note, in order to determine the **total tow capacity** of a system, you must consider the weight ratings of each component in that system. This includes, but may not be limited to, the capacity/rating of the **tow vehicle**, the **fifth wheel hitch**, and the hitch's **mounting system**. Actual tow capacity of the system will be equal to the lowest rated component.

---

# Installation Instructions

---

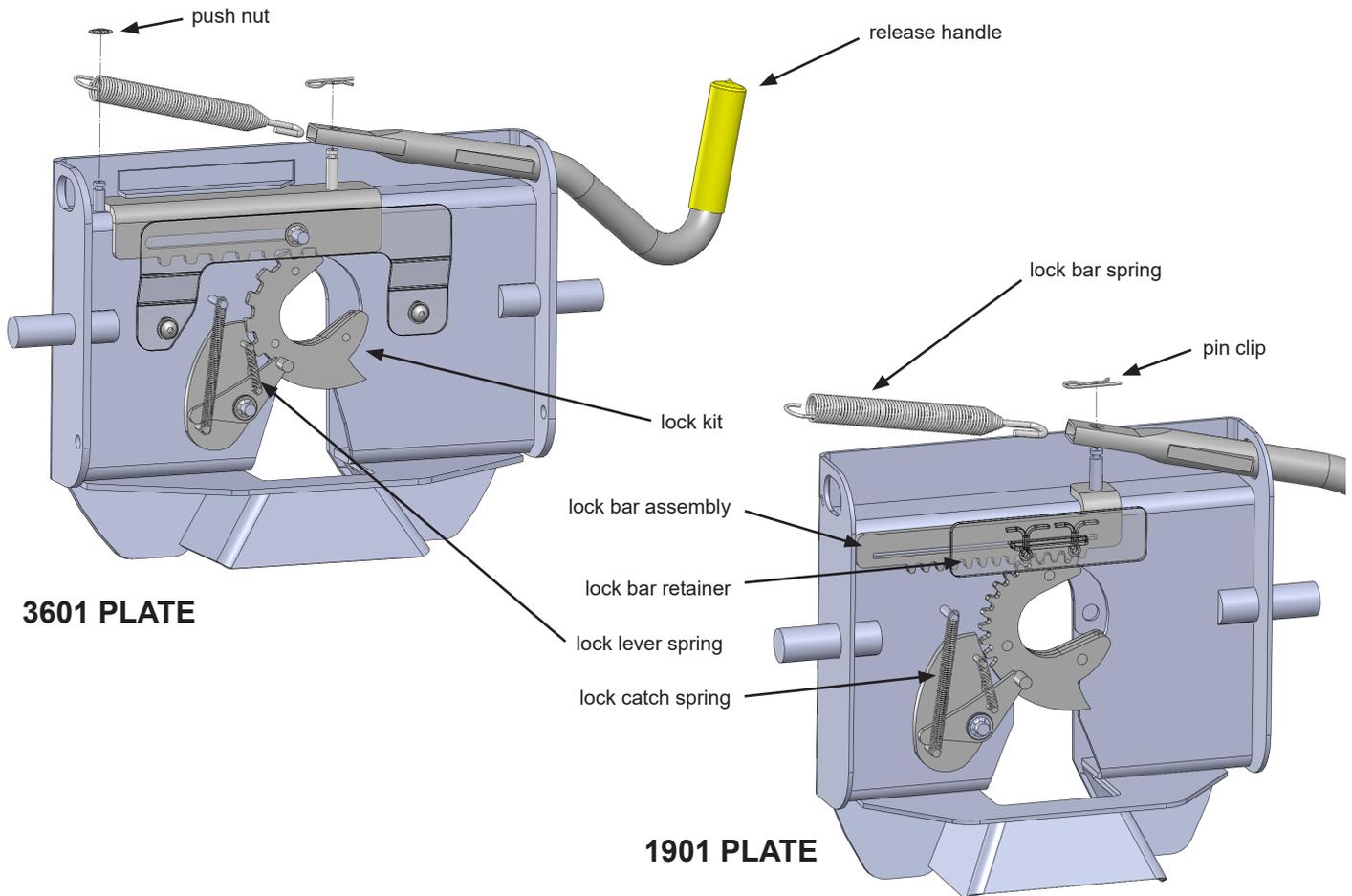
## SPECIFICATIONS

- Fits 2013-2020 Dodge 3500
  - NO DRILL application
- Hitch is located center of the axle
- Custom Mounting Bracket Kit (*Bracket & Hardware*) #2743

# TABLE OF CONTENTS

PLATE ASSEMBLY .....	3
MOUNTING KIT EXPLODED VIEW.....	4
MOUNTING KIT PARTS LIST.....	5
TRUCK PREPARATION .....	6
MARKING THE TRUCK BED FOR DRILLING .....	6
LAYOUT METHOD.....	6
TEMPLATE METHOD.....	7
INSTALLATION.....	8
PART 1 — BRACKET PLACEMENT & BED HOLE LOCATIONS .....	8
REAR MOUNTING BRACKET INSTALLATION .....	8
PART 2 — BRACKET INSTALLATION.....	10
FRONT MOUNTING BRACKET INSTALLATION .....	10
PART 3 — FINAL INSTALLATION PROCEDURES .....	11

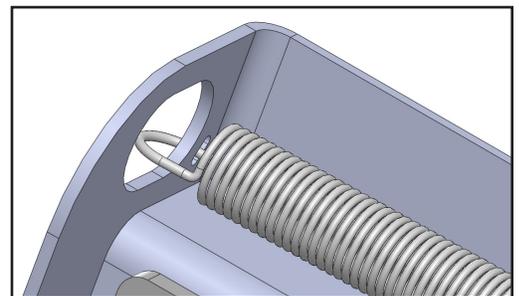
## PLATE ASSEMBLY



1. Remove the Fifth Wheel Plate from the Rocker Arm and place it upside down on a smooth, clean surface.
2. Insert the Release Handle into the obround hole of the plate as seen above.
3. The Lock Bar Spring must be placed inside the handle prior to placing the handle down over the pin of the Lock Bar Assembly, "catching" the hook inside the handle around the pin.
4. Push the handle and spring assembly down past the groove in the pin of the Lock Bar Assembly, and place one of the Pin Clips in the groove of the pin to fasten.
5. Grip the body of the spring and stretch it far enough over the opposite pin (welded to the plate) and push it down past the groove.
6. Install the Push Nut to secure the Lock Bar Spring onto the welded pin.

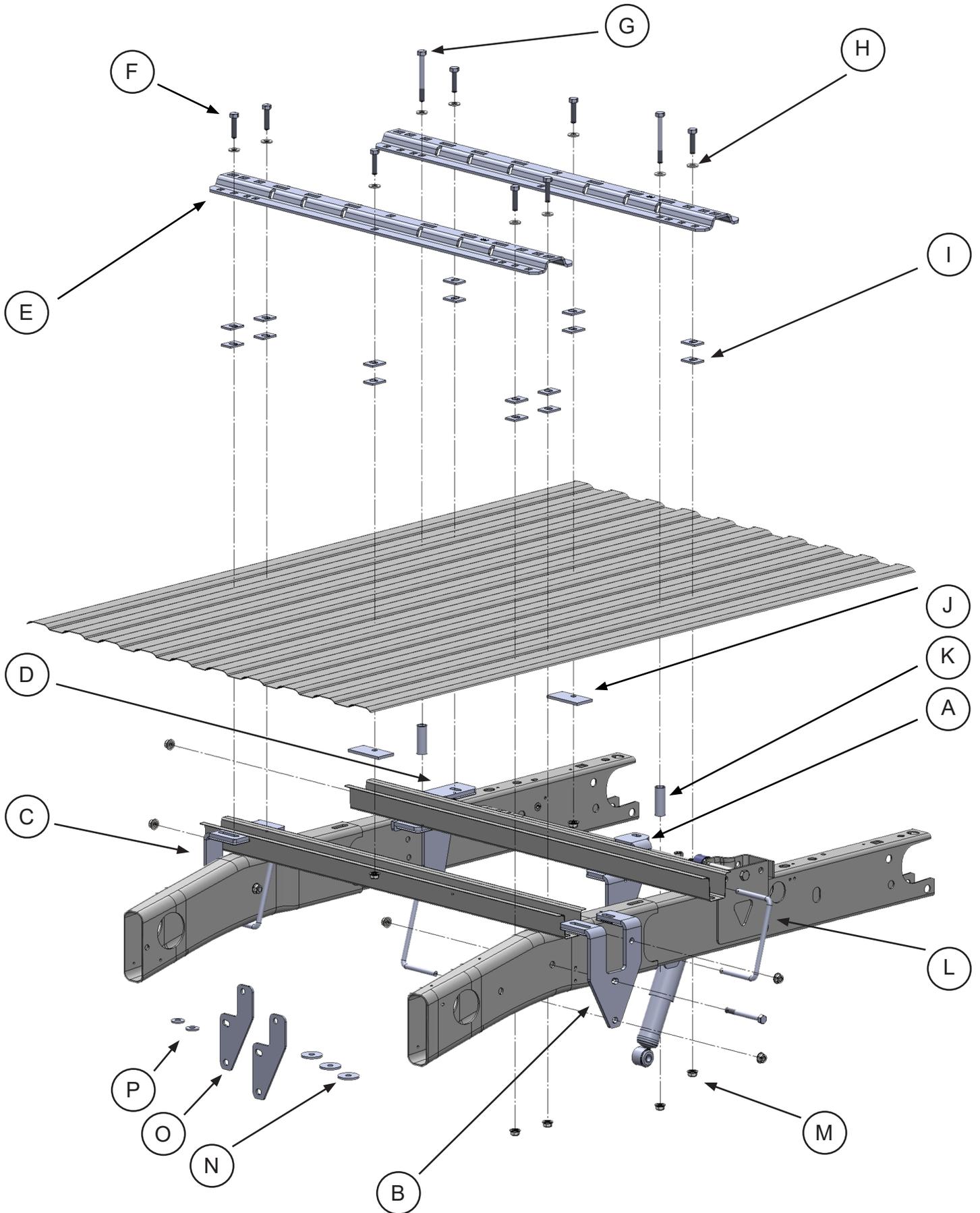
**NOTE:** The 1901 plate for the #1900 Super 5<sup>th</sup> does not use a push nut to attach the end of the spring, but rather a slot in the side of the fifth wheel plate located above the obround hole. See illustration to the right.

As a PullRite fifth wheel hitch owner, it is important for you to study and manually operate the Fifth Wheel Plate and Release Handle to better understand the locking action. A better working knowledge of the plate will help prevent accidental dropping of your trailer due to incorrect hitching.



Also, it is imperative that you study and adhere to the Maintenance procedures provided in the Owners Manual. If you did not receive one upon purchase, please contact PullRite or visit us on the web at [www.pullrite.com](http://www.pullrite.com).

# MOUNTING KIT EXPLODED VIEW



# MOUNTING KIT PARTS LIST

## #2742 DODGE CUSTOM ISR BRACKET KIT

description	part no.	qty	material
MOUNTING BRACKET KIT	2743	1	(See kit contents listed below)
BASE RAIL KIT	2719	1	(See kit contents listed below)

## #2743 — MOUNTING BRACKET KIT

item	description	part no.	qty.	material
A	DRIVER SIDE REAR MOUNTING BRACKET	274303	1	
B	DRIVER SIDE FRONT MOUNTING BRACKET	274301	1	
C	PASSENGERSIDEFRONTMOUNTINGBRACKET	274302	1	
D	PASSENGERSIDERREARMOUNTINGBRACKET	274304	1	
	MOUNTING BRACKET HARDWARE KIT	274305	1	(See kit contents listed below)

## #274305 — MOUNTING BRACKET HARDWARE KIT

item	description	part no.	qty.	material
F	1/2" BASE RAIL BOLT	98010175	8	1/2"-13 X 2" HHCS GRD 5
G	4-1/2" BASE RAIL BOLT	98010195	4	1/2"-13 X 4-1/2" HHCS GRD 5
H	FLAT WASHER	98250147	10	1/2" FLAT WASHER
I	FLAT BASE RAIL SPACER	27410501	16	7 GA ZINC BED SHIM
J	OFFSET HOLE BACKUP SHIM	05070303	2	
K	BED CHANNEL SPACER TUBE	27290103	2	
L	U-BOLT	98050184	4	1/2"-13 X 4-1/8" X 7-5/8" U-BOLT
M	FLANGE NUT	98150201	20	1/2"-13 SERRATED FLANGE NUT
N	2" OD WASHER	27430502	3	(DODGE 3500 APPLICATIONS ONLY)
O	FRONT BRACKET SHIM	27430501	2	(DODGE 3500 APPLICATIONS ONLY)
P	1/2" CONICAL SERRATED WASHER	98200172	2	(DODGE 3500 APPLICATIONS ONLY)

## #2719 — BASE RAIL KIT

item	description	part no.	qty.	material
E	ISR BASE RAILS	271901	2	

## LAYOUT TEMPLATE

description	part no.	qty.	material
LAYOUT BED TEMPLATE	27200000	1	ITEM SOLD SEPARATELY

# TRUCK PREPARATION

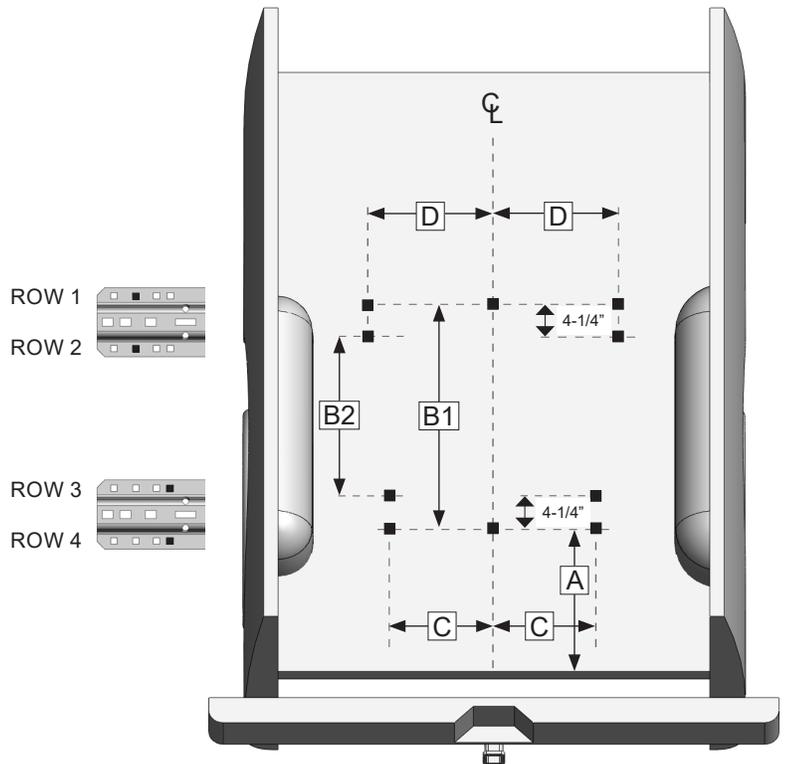
1. Block vehicle wheels. Some vehicles may require you to raise the rear of the truck to install the mounting brackets on the truck frame.
2. Remove the inner fender insert from both rear fender wells (not applicable to every model).
3. If additional clearance is required for bracket installation, the driver side shock absorber may be removed. It may not be necessary to remove *both* shock bolts, removing the top bolt may gain the most clearance; however, removing the bottom shock bolt will make reinstalling the bolt easier.
4. If necessary, the spare tire may be removed to gain additional clearance while working.

## MARKING THE TRUCK BED FOR DRILLING

### LAYOUT METHOD

If you purchased an installation template, please proceed to “TEMPLATE METHOD”. *Templates are sold separately.*

1. Referencing “Truck Bed Dimension Table” below, measure and mark from the back of the bed forward, the values for “A.” Do this at any point on both sides of the bed and draw a line across the bed from mark to mark.
2. Find the centerline of the bed.
3. Draw a line down the middle of the bed from front-to-rear.
4. Starting at “A,” measure from the end of the bed back to the first bolt hole on the base rail (row 4) and mark the bed.
5. Measure the distance of “C” from the centerline of the bed in both directions. The center of the bolt location will be at the intersection of A & C
6. Continue working toward the cab, marking the center holes of each remaining bolt locations. Note that two of the bolt locations are located at the intersection of “A” and the centerline of the bed on the rear base rail and another at the intersection of “B1” and the centerline of the bed on the front base rail (*optional for applications below 18K*).

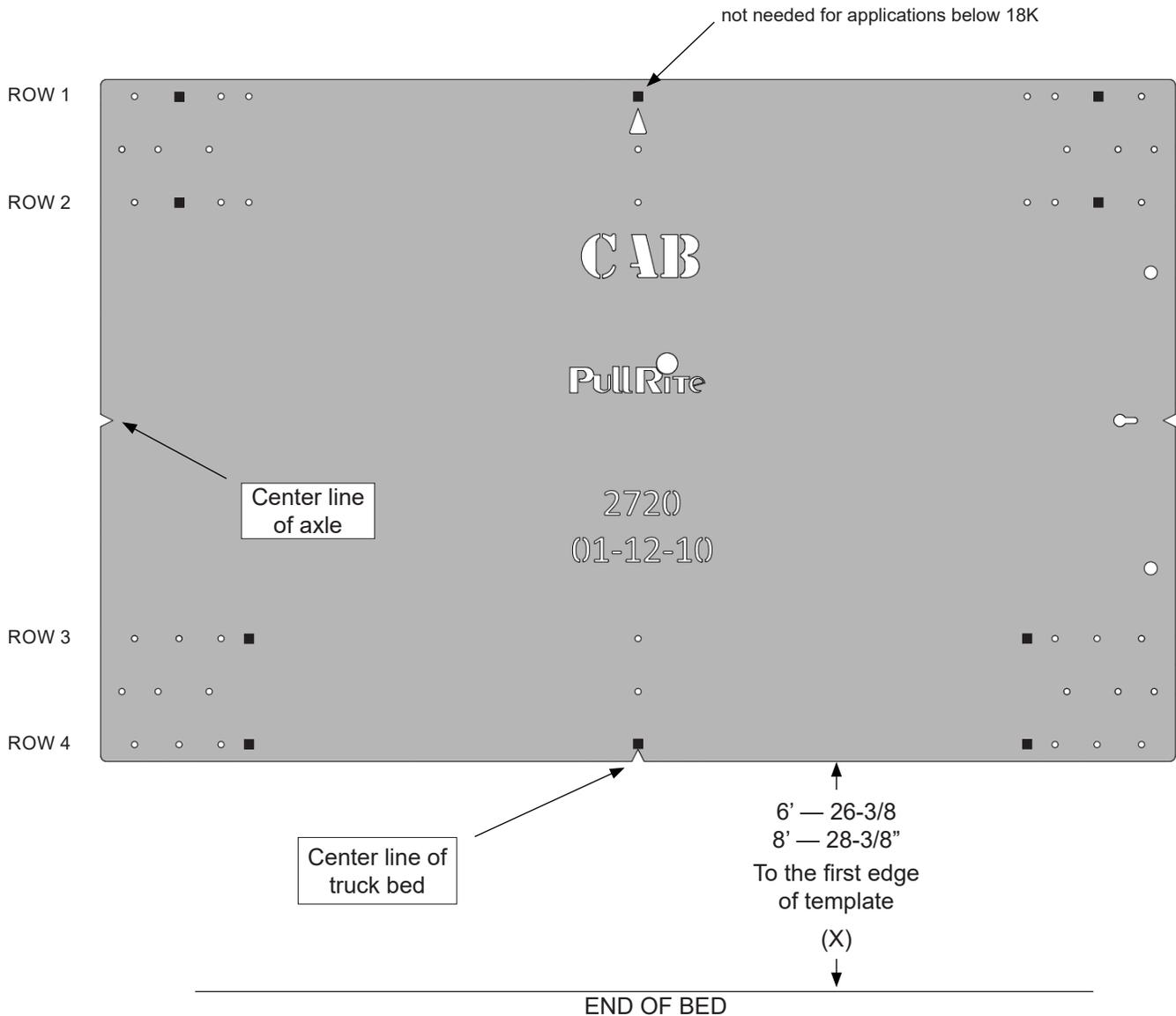


TRUCK BED DIMENSION TABLE							
LAYOUT METHOD					TEMPLATE METHOD		
BED LENGTH	"A"	"B1"	"B2"	"C"	"D"	"X"	Template part#
6 ft.	27-1/16"	26-1/4"	17-3/4"	15-3/4"	18-9/16"	26-3/8"	27200000
8 ft.	29-1/16"	26-1/4"	17-3/4"	15-3/4"	18-9/16"	28-3/8"	27200000

## TEMPLATE METHOD

1. Lay the template in the truck bed, centering it from side-to-side, and parallel to the end of the truck bed using the dimension "X" listed in "Truck Bed Dimension Table."
2. Mark the 10 holes (center bolt hole on the front rail is optional for applications below 18K), while making sure the template does not move.

**INSTALLATION TIPS:** The **TEMPLATE** should be orientated as shown in the drawing below. To avoid drilling holes in error from out of tolerance bed-to-frame dimensions, mark the hole locations as lightly as possible if a center or transfer punch is used. Then use a very small diameter drill bit to drill one location on either side of bed. Place the Mounting Brackets against the frame to determine the correctness of the bed hole locations relative to the pre-punched holes in the Mounting Bracket and existing frame holes. Adjust the template pattern relative to the end of the bed, as necessary, to move the bed holes nearer the center of the mounting bracket holes. Note also, the information etched into the template — the direction of the cab, the template number and the revision date. As one last measure, the template has a tendency to move when placed on the slick paint of new truck beds, and it may be helpful to place a small piece of **NON-SKID** matting, such as "SCOOT-GARD"™ or simply use duct tape on each corner to help keep the template from moving.



# INSTALLATION

## PART 1 — BRACKET PLACEMENT & BED HOLE LOCATIONS

Since most truck beds are not installed square to the frame or are the same distance from the back of the cab, the installer will need to make sure the bed holes line up properly with the obround hole in the top of the mounting bracket.

The basic steps in this section are as follows:

- Layout the bed holes
- Drill the first pilot hole in the bed
- Check centering
- Adjust the bed hole layout if necessary
- Drill the second pilot hole and check centering to ensure bed hole locations are square to the frame; adjust as needed
- Drill remaining pilot holes in the bed; check centering

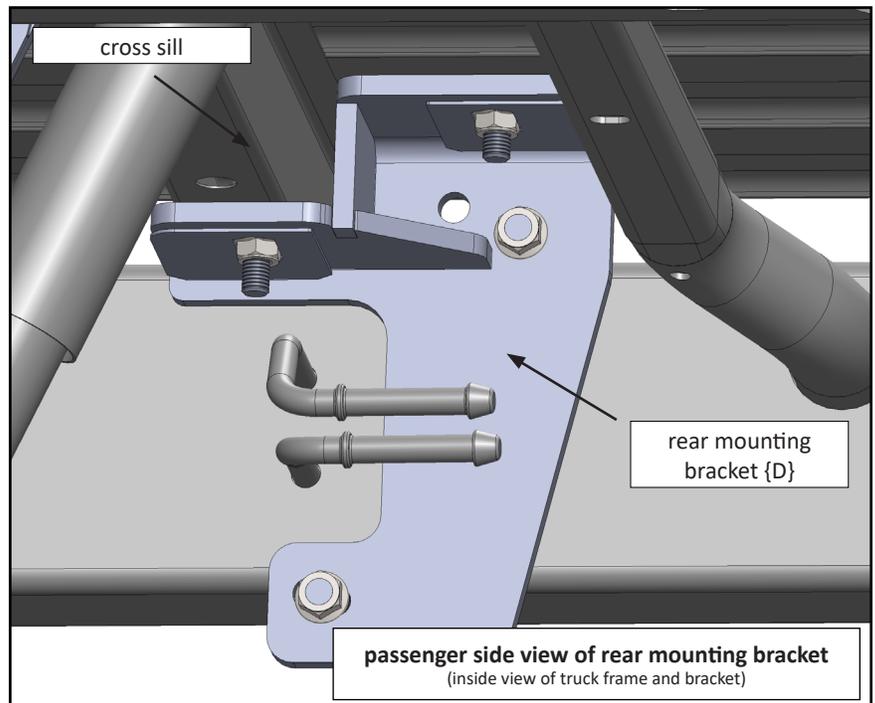
### REAR MOUNTING BRACKET INSTALLATION

1. This is a no-drill bracket installation; the brackets are fastened around the truck's frame and through pre-existing holes in the truck frame. We suggest you read completely through these installation procedures, paying close attention to the fastening methods before proceeding.
2. It is critical that the Passenger Side Rear Mounting Bracket {D} is installed properly before drilling bed holes for the other brackets.

**WARNING:** Prior to drilling any holes, be sure to check the inside of the frame to guard against drilling into the fuel tank, wiring, brake lines or fuel module.

**NOTE:** Wiring, brake lines, and the differential vent hose located on the driver side of the frame will have to be adjusted slightly to avoid contact with the frame brackets.

3. Drill five 1/16" pilot holes through the bed (and cross sill where applicable) required for locating the position of the rear base rail.
4. The rear brackets are installed on the *inside* surface of the frame. Position the rear brackets on the frame to verify the pilot hole positions, referring to the NOTE above and the illustration to the right, positioning the bracket in, and around any wiring.
5. Temporarily install the U-bolt around the frame and through the rear bracket holes and thread on two 1/2" Flange Nuts {M} to the U-bolt. Hand tighten only.

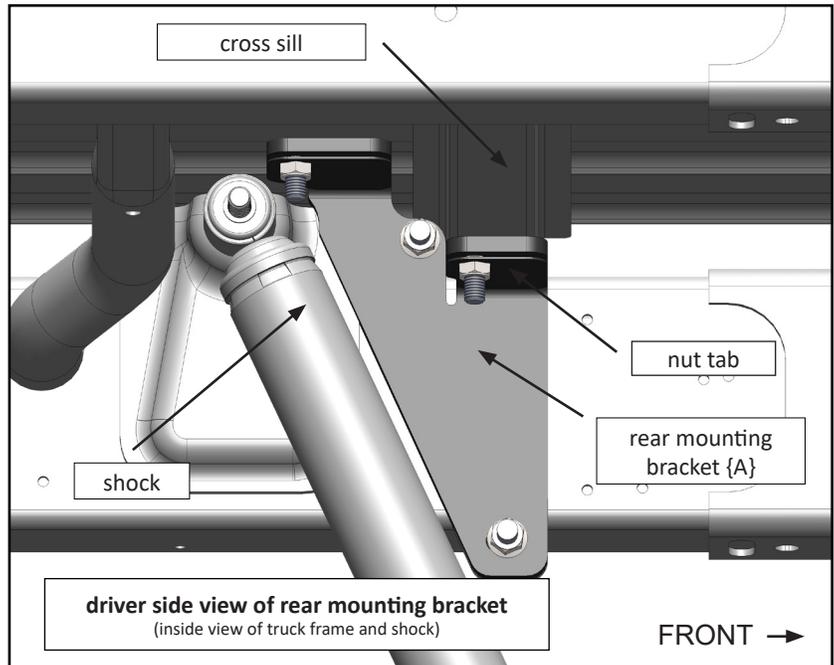
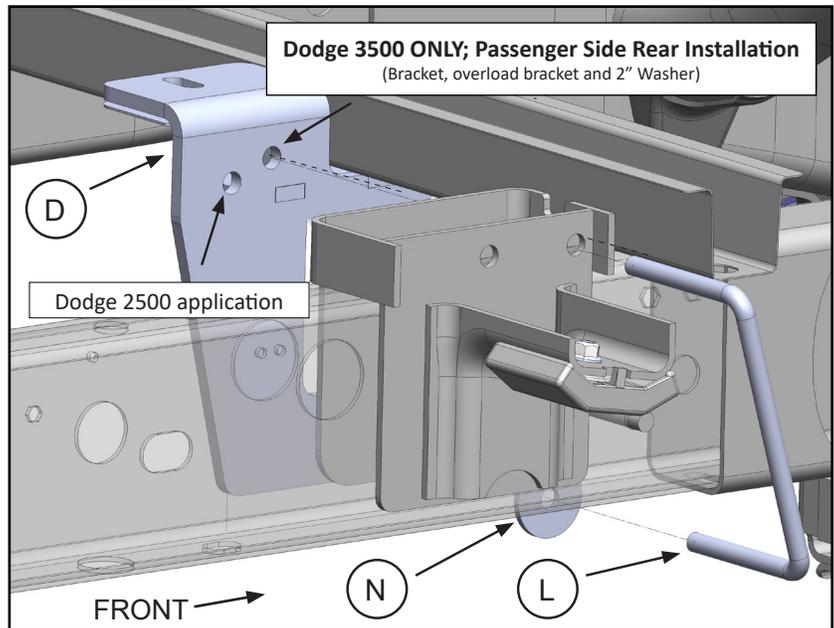


# INSTALLATION

**NOTE:** Dodge 3500 models require a 2" Washer {N} to be installed on the U-bolt between the bracket and *inside* of the frame, Additionally, the top of the U-bolt is installed through a pre-existing hole in the vehicle's overload bracket (*right*).

6. Insert the drill bit through the pilot holes you drilled to check that they are centered over the obround hole in the top of the rear mounting bracket. The bit should come down center to the walls of the obround hole (fore-to-aft).
7. Repeat the above Steps 4-6 for the Driver Side Rear Mounting Bracket {A} (*below right*).

**NOTE:** Some truck beds are not installed square on their frame by the manufacturer. To ensure your pilot holes are aligned properly, it is important that you use the measurements provided only as a starting point and make adjustments as needed. Once you have the rear driver side pilot holes centered, you will use these holes as a point of reference for all remaining pilot hole adjustments.



8. Remove the Rear Mounting Brackets and drill out the five (including center base rail hole) rear mounting bracket pilot holes with a 9/16" drill bit.

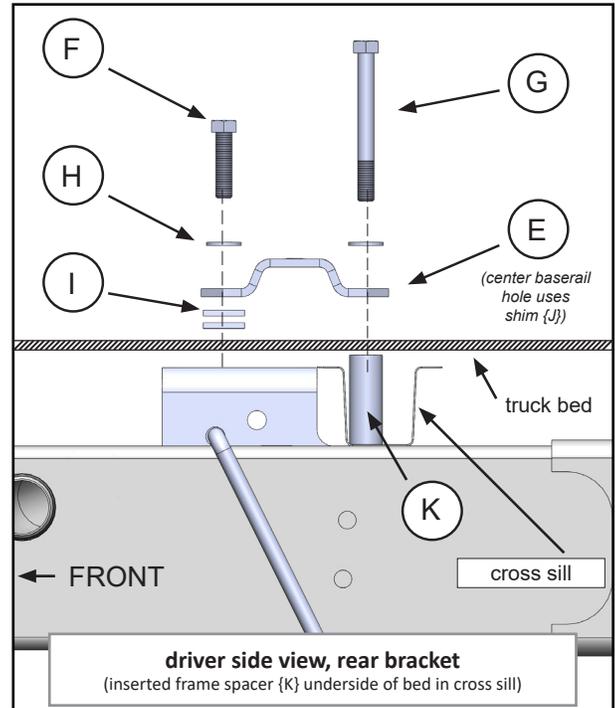
**NOTE:** The two **rear base rail holes closest to the cab** will need to be drilled through the cross sill with the 9/16" drill bit, and then re-drilled again to 1". **DO NOT drill through the bottom of the cross sill** with the 1" drill bit since the Rear Frame Spacer {K} will be installed through the top of the bed and will be installed in the channel.

9. Examine the Mounting Brackets and note that there is a 1/8" thick tab located just below the slotted bolt hole in the top plate of the Mounting Bracket (*above*). The purpose of this tab is to assist you in holding the Flange Nut {M} in place. To install, pry the "tab" down far enough so that a Flange Nut can be inserted, then push the "tab" back up into position. The Flange Nut should be able to slide in and out while the "tab" holds the nut in place. When fastening the Base Rails to the Mounting Brackets, the Flange Nut can easily be positioned under the square hole in the Base Rail using a pen or other small tool. When tightening the Base Rail Bolts with an impact gun, start slowly as the "tab" may otherwise "strip out."

# INSTALLATION

## PART 2 — BRACKET INSTALLATION

10. To prevent “crushing” of the corrugated truck bed, we provide Shims {I} to be installed above and/or below the truck bed where necessary. Not all truck beds are installed exactly the same when manufactured, so *it is necessary for you to determine where to place your shims, relative to the bolt locations* (see Layout Method).
11. Install the rear base rail and hardware on both driver and passenger sides of the vehicle as illustrated here (*right*) and on the “Mounting Kit Exploded View” drawing. A Center Hole Shim {J} must be installed below the bed for the rear center bolt.
12. Hand-tighten *only*, both Rear Mounting Bracket hardware.

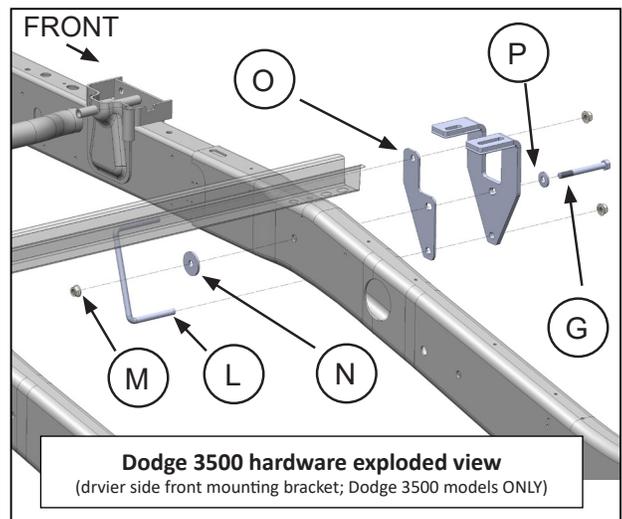


## FRONT MOUNTING BRACKET INSTALLATION

1. Verify the rail spacing dimensions for the front base rails and marks made during “Marking the Bed for Drilling,” referencing the measurements based on the rear bed rails installed in the previous section. If the rear base rail hole positions were adjusted, remember to adjust the front base rail holes accordingly.

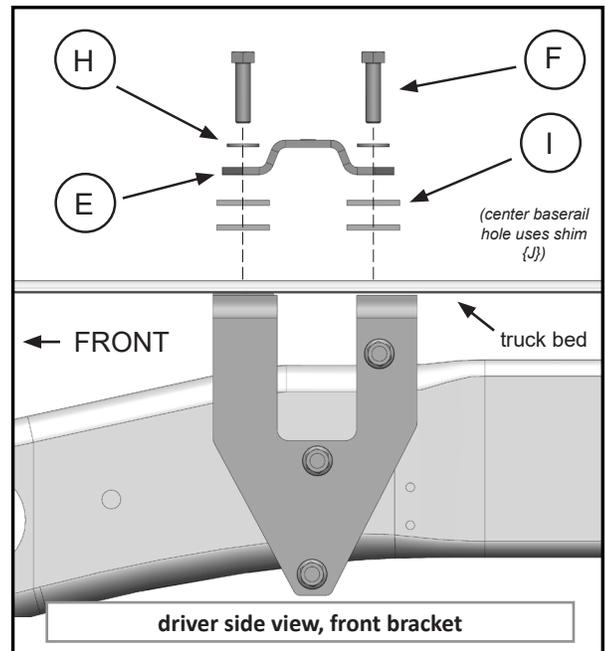
**NOTE:** For applications below 18K, installing the center hole shim and hardware in the front base rail’s center hole is provided, but not required.

2. Drill the front base rail pilot holes.
3. The Front Mounting Brackets are installed on the *outside* surface of the truck’s frame. **NOTE:** Dodge 3500 applications require the Mounting Bracket to be installed with a Mounting Bracket Shim {O} between the Bracket and truck frame (*right*). Install the shims toward the vehicle rear side of the bracket where the holes will align properly. It is not necessary to install the additional hardware {N} & {P} at this point in the installation.
4. Loosely attached the Driver Side Front Mounting Bracket to the frame using the supplied U-bolt {L} and Flange Nuts {M}, while verifying there are no interferences with wiring or parking brake cables.
5. Reposition the two rubber brake line protectors to cover the lines where they contact the frame bracket on the driver side.



# INSTALLATION

6. Check that the pilot holes can be centered front-to-rear in the frame bracket slot.
7. Remove the Mounting Bracket and re-drill the bed holes to 9/16".
8. Repeat the above steps for the Passenger Side Front Mounting Bracket.
9. Re-install the Front Mounting Brackets on both sides of the vehicle. If installing on a Dodge 3500 model, include hardware {P} & {N} as illustrated on the previous page.
10. Install the front base rail and hardware on both driver and passenger sides of the vehicle as illustrated here (*right*) and on the "Mounting Kit Exploded View" drawing. A Center Hole Shim {J} must be installed below the bed for the rear center bolt.
11. Hand-tighten *only*, both Front Mounting Bracket hardware.



## PART 3 — FINAL INSTALLATION PROCEDURES

1. Set the Industry Standard hitch on the base rails and align the hitch assembly with the mounting holes.
2. Install the hitch pins and clips, to secure the hitch assembly to the base rails.
3. Make certain the hitch comes on and off without binding prior to completing final torques.
4. Tighten all bolts, including the base rail bolts, according to the Torque Table or until the Bracket begins to bend.

### TORQUE TABLE

3/8" bolt	— 31 ft. lbs.
1/2" bolt	— 75 ft. lbs.
5/8" bolt	— 151 ft. lbs.
3/4" bolt	— 266 ft. lbs.



*MANUFACTURED BY:*  
PULLIAM ENTERPRISES, INC.  
13790 East Jefferson Blvd.  
Mishawaka, IN 46545  
(574) 259-1520 • (800) 443-2307  
info@pullrite.com • www.pullrite.com