



SuperRail Installation Instructions

(Dodge Bracket #3346)



IMPORTANT!

1. It is imperative that the way tubes be cleaned of factory grease and re-lubricated before the hitch is used (see Owner's Manual for detailed instructions).
2. These installation instructions are also applicable to our discontinued 16K SuperGlide hitch.
3. Consult the maintenance section of the SuperGlide Owners Manual for complete Instructions. Failure to lubricate the Way Tubes will cause galling between the Way Tubes and the Cam Arm assembly and will result in the failure of the hitch to work properly. Destruction of some of the various hitch parts is also likely and will not be covered under the manufacturers warranty.
4. The trailer king-pin must be kept even with /or forward of the foremost point of the trailer. See "Caution" and "figure 1" on pg. 5.
5. Trucks with bed liners may need a tall Mounting Post. See "NOTE" under item 4 of "Drilling the Bed" on pg. 6 for detail.
6. See the 'Table of Contents' for page locations for information herein referred to as for 'truck SPECIFIC LISTINGS'.
7. Read these instructions completely and follow them accurately. Should you have any questions, please call the factory at (800) 443-2307 for installation assistance.

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KING PIN TRAILER PLATE INSTALLATION

The following instructions should be followed to install the king pin Trailer Plate.
Note: If more information is needed, Please call PullRite at 1-800-443-2307.

NOTE: IF YOUR TRAILER IS EQUIPPED WITH A MOR/ryde PIN BOX, YOU WILL NEED A SPECIAL ADAPTER. PLEASE CALL MOR/ryde CUSTOMER SERVICE AT 574-293-1581 TO ORDER.

FOR KING PIN BOXES WITH A FLANGE: Figure3.

1. Place the Trailer Plate {J2} over the King Pin, with the guide wedge towards the rear of the trailer (wedge facing down). Align the Trailer Plate {J2} square with the king pin box and clamp in place to prevent movement.
2. Mark the holes for drilling through the Trailer Plate {J2} onto the King Pin Box flange.
3. Remove the Trailer Plate {J2} or use it as a guide and drill 1/4" holes through the flange.
4. Re-install the Adapter Plate (as in step 1).
5. Use the 1/4" bolts provided, to secure the Trailer Plate {J2} onto the king pin box flange. A **minimum of 10 bolts** must be used to fasten the plate on. For use with heavy trailers, more bolts will be needed to secure this plate.

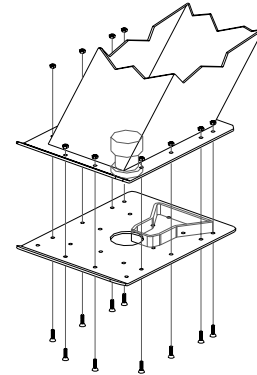


Figure 3

FOR KING PIN BOXES WITHOUT FLANGES: (Figure 4)

1. Place the Trailer Plate {J2} over the King Pin, with the guide wedge towards the rear of the trailer (wedge facing down), and hold in place to prevent movement.
2. The Trailer Plate {J2} can be secured to the King Pin Box sides by welding angle iron supports to the King Pin Box, or use the procedure in step 3. (Angle iron is not provided).
3. For the holes where you cannot reach the backside, drill holes with a #8 drill and tap with a 1/4"-20 tap.
4. If the Trailer Plate {J2} extends beyond the King Pin Box, then install the Knee Braces as shown in Figure 4.
5. Install the Trailer Plate {J2}, using the 1/4" bolts provided, to secure the Trailer Plate {J2} onto the King Pin Box. A **minimum of 10 bolts** must be used to fasten the plate on. For use with heavy trailers, more bolts will be needed to secure this plate. The fasteners used in step 4 **do not** count as part of the minimum number of bolts required.

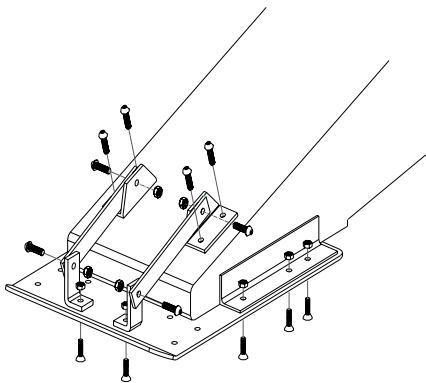


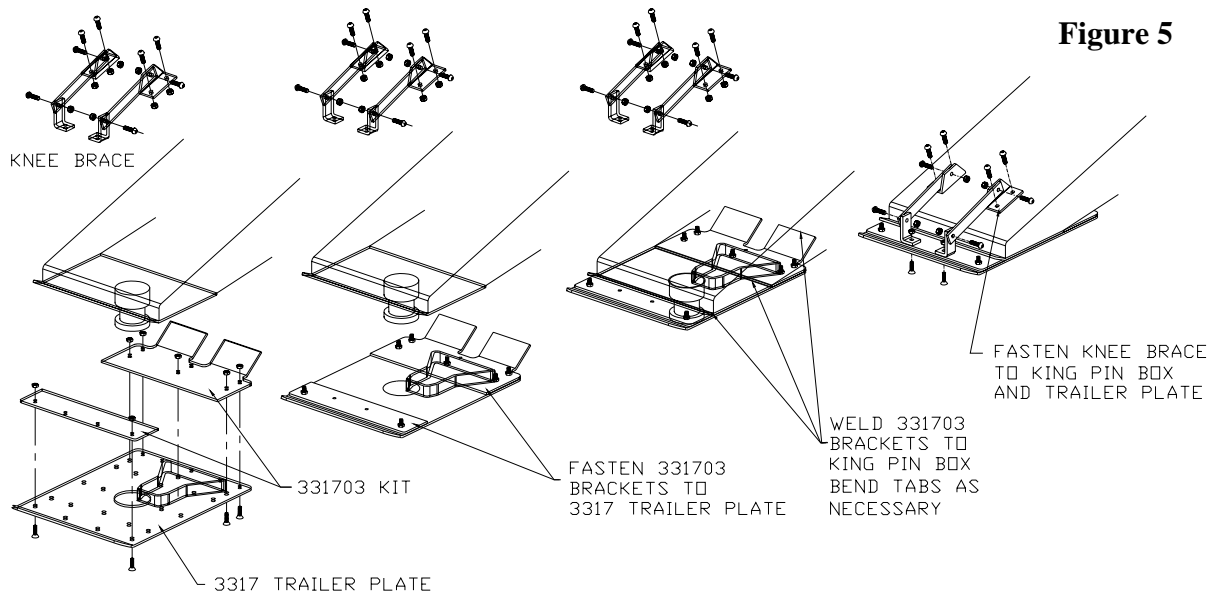
Figure 4

FOR KING PIN BOXES THAT ARE SHORTER FRONT TO BACK: (Figure 5)

1. Place the Trailer Plate {J2} over the king pin, with the guide wedge towards the rear of the trailer (wedge facing down), and measure the distance from the front and rear of the king pin box to the respective edges of the Trailer Plate {J2} (to the bend of the Trailer Plate {J2} in the front). Referring to Figure 5, fashion two plates, 3/16" to 1/4" thick, that will cover the holes of the Trailer Plate {J2} showing in front and rear of the king pin box.
2. While the trailer plate is in position under the king pin box, clamp these plates to both the front and rear of the Trailer Plate {J2}. Remove the Trailer Plate {J2} and drill matching holes in the two support plates with a 1/4" bit using the Trailer Plate {J2} as a guide.
3. Fasten the two support plates to the Trailer Plate {J2} with the 1/4" Bolts {K7} and Lock Nuts {K8} provided.
4. Replace the Trailer Plate {J2} on the king pin box, check for square alignment and **weld** the support plates to the king pin box.
5. Attach the Knee Braces {K2,3 & 4} to the king pin box and the Trailer Plate {J2}. Braces {k2} may have to be welded on if the interior of the king pin box is not accessible.

Note: Kit # 331703 consisting of pre drilled support plates are available from PullRite but are not part of the stock Trailer Plate Kit. Kit # 331703 was designed to fit the 8"x12" Lippert pin box. This method of attaching the Trailer Plate {J2} should allow **10 bolts** to be used.

CAUTION: When using kit #331703 on slightly larger pin boxes, it may be necessary to trim the plates for proper fit—when installed, the provided trailer plate adapter (3317) should be flush against the bottom of the trailer's king pin plate.



CAUTION

1. As a general rule, for the SuperGlide hitch to maintain proper clearance to the truck, the leading edge of the trailer (measured at the corner) should be even with the center of the king pin. Most truck trailer combinations will allow 102" wide trailers if the king pin is located as described. Narrower trailers will allow the king pin to be "tucked" under the trailer over hang to some extent (Figure 1). Call PullRite technical support with trailer width, make and year of truck and distance the king pin is from leading edge of the trailer (Dimension "A"). 1-800-443-2307

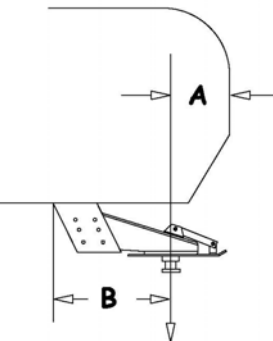


Figure 1

2. Using a trailer that has a long rear slope to the King Pin Box Hangar, "B" in (Figure 1), may cause damage to the trailer or truck bed during turns. Dimension "B" must be less than one half the width of the inside top edges of the bed. Please call PullRite technical support, 1-800-443-2307, if more information concerning this problem is needed.
3. The SuperGlide hitch is equipped with a side to side pivot feature. There should be a minimum of 6" between the truck bed rails and the under side of the trailer for side tilt clearance. It is the customers responsibility to adjust the trailer king pin box for the appropriate amount of clearance depending on the terrain being traveled (example: some State Parks are sloped and unpaved; some driveways are steeply angled). If bed covers are added, care must be taken to allow for additional clearance.

General Installation Instructions

1. **NOTE:** Refer to the Specific Vehicle's Figures and Reference information for all references made herein. The location of the Specific Vehicle can be found by referring to the Table of Contents.

Truck Preparation

1. Check part quantities using the **Parts List** for the specific vehicle type.
2. Block vehicle wheels. Some vehicles may require you to raise the rear of the truck in order to make it easier to drill for installing the Mounting Brackets on the truck frame.
3. You may wish to remove the wheels, to give yourself greater working room.
4. At this point, the bed should be laid out and marked for drilling using either the LAYOUT METHOD or the TEMPLATE METHOD.

Marking Bed for Drilling (layout method)

1. For layout using the Template method, see *Layout (Template Method)* on next page.

2. See **Truck Bed Layout Dimensions** table pg. 7 for the dimension values for items **A-D** located in the 'LAYOUT METHOD' illustration. Measure and mark from the back of the bed forward the values for **A** and **B**. Do this at any point on both sides of the bed.
3. Draw a line across the bed from mark to mark.
4. Find the centerline of the bed. Draw a line down the middle of the bed from front to rear. See **Figure 3 on pg. 7**. Center the measurement of **C** across the centerline at the front most line you made in step 2, and mark the measurement on each side (parallel to the centerline). Center the measurement of **D** for the rear most line made in step 2, and again mark the measurement on each side (parallel to the centerline). This will locate the 4 drill holes.
5. Go to the Index and look for your truck **SPECIFIC LISTING** and do the steps listed in **PART I**. The truck **Specific Listings** begin after **page 7** of these instructions. (See the **Table of Content** for your specific application).

Drilling the Bed

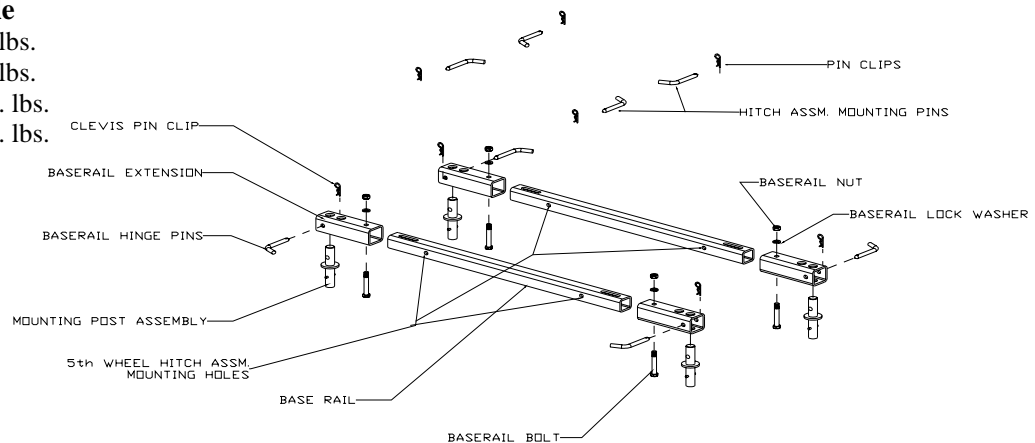
1. After you have removed the Mounting Brackets, use a **1 3/4"** hole saw, centered over the **1/16"** pilot hole, cut the bed for the mounting posts.
2. De-bur inside the holes, then use a paint stick to touch up the edges.
3. Re-install the Mounting Brackets and secure those that have no existing mounting holes in a temporary fashion, using 'C' clamps. Those that have holes, secure by lightly attaching with bolts (tighten sufficiently to where the Mounting Brackets lay flat against the truck frame).
4. Install the Mounting Posts through the bed into the Mounting Bracket Post Holders. Rotate the Posts a quarter turn. (**See the illustrations in the truck specific listings**)

NOTE: *The Mounting Post should be tall enough to clear most bed mats. Vehicles using bed liners may require taller Mounting Posts to seat into the Post Holders properly. A Tall Mounting Post is available under part # 330705. Four posts are required for installation.*

5. Remove the SuperGlide hitch from the shipping carton. Remove the Base Rail assembly from the base, leaving the Base Rail Extensions loose to allow lateral movement as you place the Rail assembly over the Mounting Posts. See drawing on next page.
6. Install the Base Rails in the bed of the truck, and center the Base Rails between the Base Rail Mounting Posts. Finger tighten the Base Rail mounting Bolts.

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.



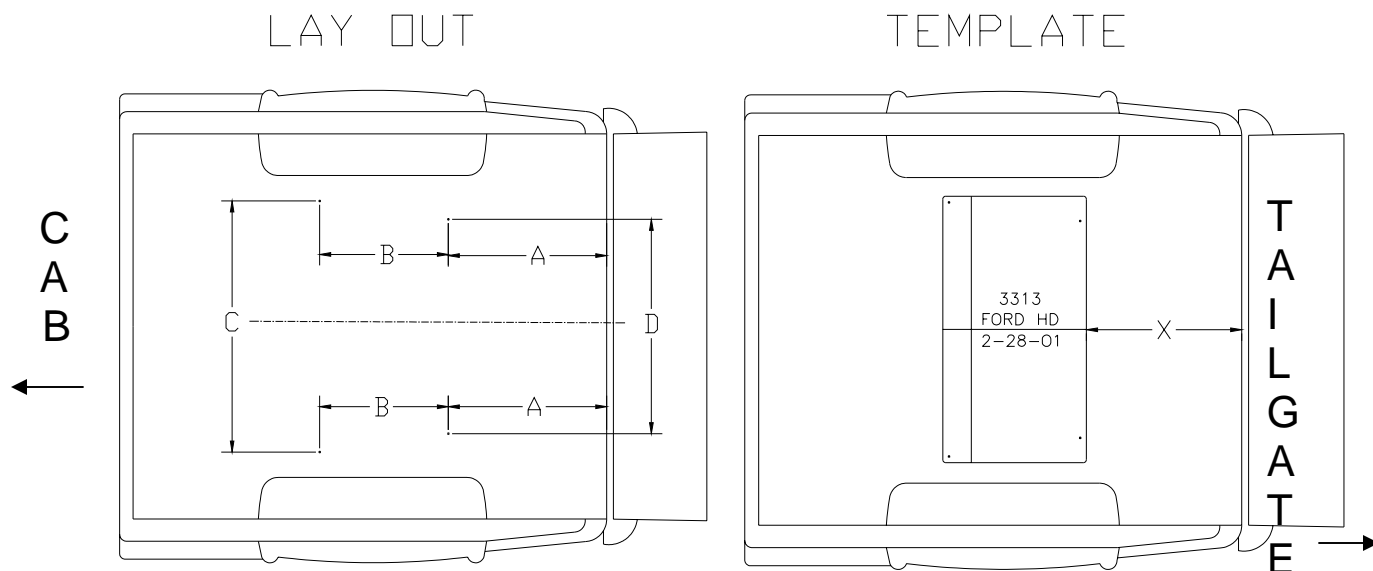
Base Rail parts identification

7. Set the SuperGlide Hitch on the Base Rails, and align the Hitch Assembly with the Base Rail mounting holes, using a drift pin punch to aid your alignment. Install the Mounting Pins from the inside. Then install the Pin Clips, to secure the Hitch assembly to the Base Rails. See drawing on next page.
8. Center the Hitch assembly within the truck bed, from side to side. You might need to use a rubber mallet to get the unit to move while centering. Once the unit is centered, tighten the Base Rail Extension Bolts to 85 ft. lbs.
9. The SuperGlide Hitch, and the Base Rails, must be removed to verify that the Mounting Post can be inserted and removed freely, without binding. A slight adjustment might be required to obtain unrestricted access.
10. Reinstall the Mounting Posts, the Base Rails, and the SuperGlide Hitch assembly.
11. Complete the final steps needed to install the Mounting Brackets to the truck frame. Go to the truck **Specific Listings, Part II** at this time .

Layout (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 layout dimension** table on pg. 7.
2. Mark the 4 holes, while making sure the template does not move.
3. Go to the truck **SPECIFIC LISTING** and begin with the steps listed in **PART I**.

Figure 3



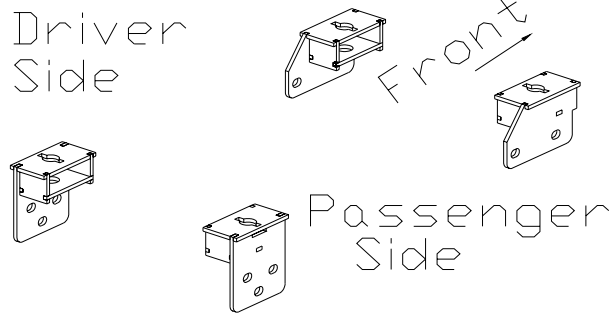
NOTES: The **TEMPLATE** should be orientated as shown in **Figure 3** above. Notice that the spacing of the forward and rearward facing holes may be different, and can be used to determine the correct orientation of the template. Item "C" in the table below shows the forward facing dimension, and Item "D" , the rearward facing dimension.

INSTALLATION TIP: 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"™, to help keep the template from moving. Also, cover the top Mounting Post hole of each bracket with masking tape then when the small pilot holes are drilled in the bed the bit will also pierce the tape allowing you to accurately see the relative location of the bed hole to the Mounting post hole.

Truck bed layout dimensions—For 6' bed (short bed) trucks only

	FIT YEARS	"A"	"B"	"C"	"D"	Template Mode "X"	Template Part #	FRAME HOLES
Chevy HD & LD, 3315 & 3345	98-05, 1500 2000-06, 2500-3500	21 1/8"	21 3/16"	41 5/8"	40"	20 1/8"	33150000	HD – Drill 7, Ream 1 LD – Drill 5, Ream 1
Dodge 3316 & 3346	95-01 All 2002 – 2500- 3500	22 3/4"	21 3/16"	35 5/16"	36 3/8"	21 3/4"	33160000	Existing 6, Ream 4
Ford SD 3313 & 3343	1999-2006 F250 – F350	26 3/32"	21 3/16"	41"	35"	25 3/32"	33130000	Existing 10, Drill 2
Ford-LD 3312 & 3342	1997-2003 F150 (not Super Crew)	24"	21 3/16"	37 13/16"	37 1/4"	22 15/16"	33120000	Existing 4, Drill 4
Dodge 3319 & 3349	02-05 1500 03-06 2500- 3500	22"	21 3/16"	39 1/8"	41 1/2"	21"	33180000	NO DRILL
Ford SD 3311 & 3341	1990-1998 F-150-F250	25 7/8"	21 3/16"	41 9/16"	36 9/16"	24 7/8"	33110000	Drill 2, Ream 2, Existing 4
Ford F150 3321 & 3361	2004-2005 F150 6 1/2' BED	24 27/32"	21 3/16"	38 1/4"	38 1/4"	23 27/32"	33210000	NO DRILL

DODGE 3316/3346



Hardware

1/2" x 1 1/2" Qty.=10

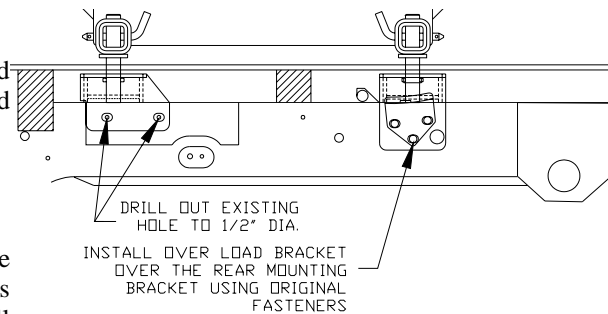
Figure 1

PART I Truck Preparation

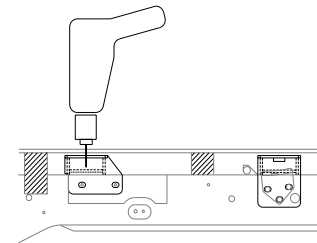
1. If the truck is equipped with bolt on overload spring brackets, they should be removed and the original bolts retained for reassembly.

Mounting Bracket Installation.

1. Locate the two existing holes that are to be used to mount the front Mounting Bracket, as shown in the drawing of **Dodge 1**. Re-drill these holes to 1/2". Install the Mounting Bracket over the holes, using 1/2" x 1 1/2" bolts. Tighten sufficiently to hold the Mounting bracket tight against the frame.
2. Install the rear Mounting Bracket, aligning the holes. Using the bolts that were removed from the overload spring bracket that was earlier removed, or using the 1/2" x 1 1/2" bolts provided, place the bolts into the holes. Tighten sufficiently to hold the Mounting bracket tight against the frame. (see figure **Dodge 1**).
3. Install the Mounting Brackets on the passenger side repeating steps 1-2.
4. Figure **Dodge 2** illustrates the drilling of the truck bed, using a 1/16" drill. Drill the four pilot holes in the truck bed where you marked the bed during Truck Bed Layout. Check each of the holes to be sure that the pilot hole is centered in the Mounting Post Hole. Adjust the Mounting Brackets if needed.



Dodge 1 Driver side view, Frame over axle



Dodge 2

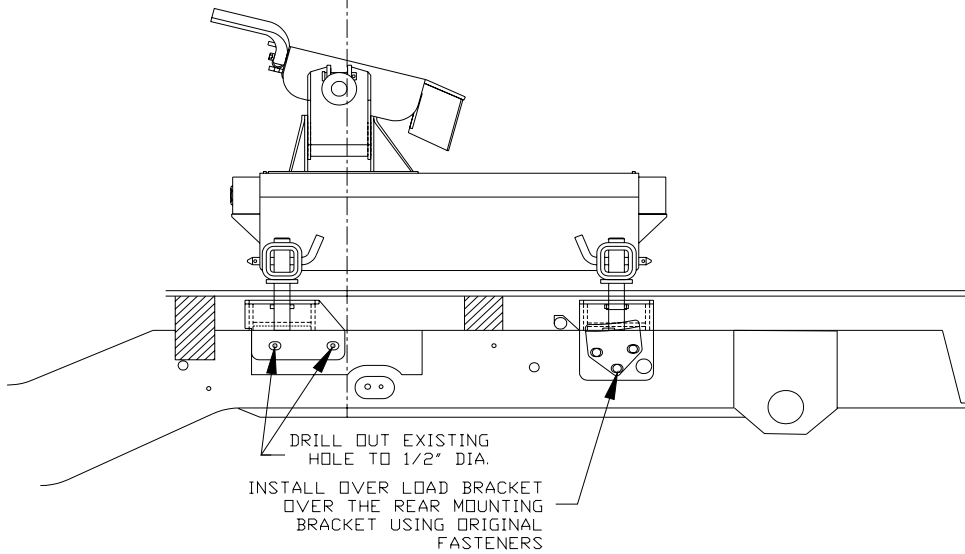
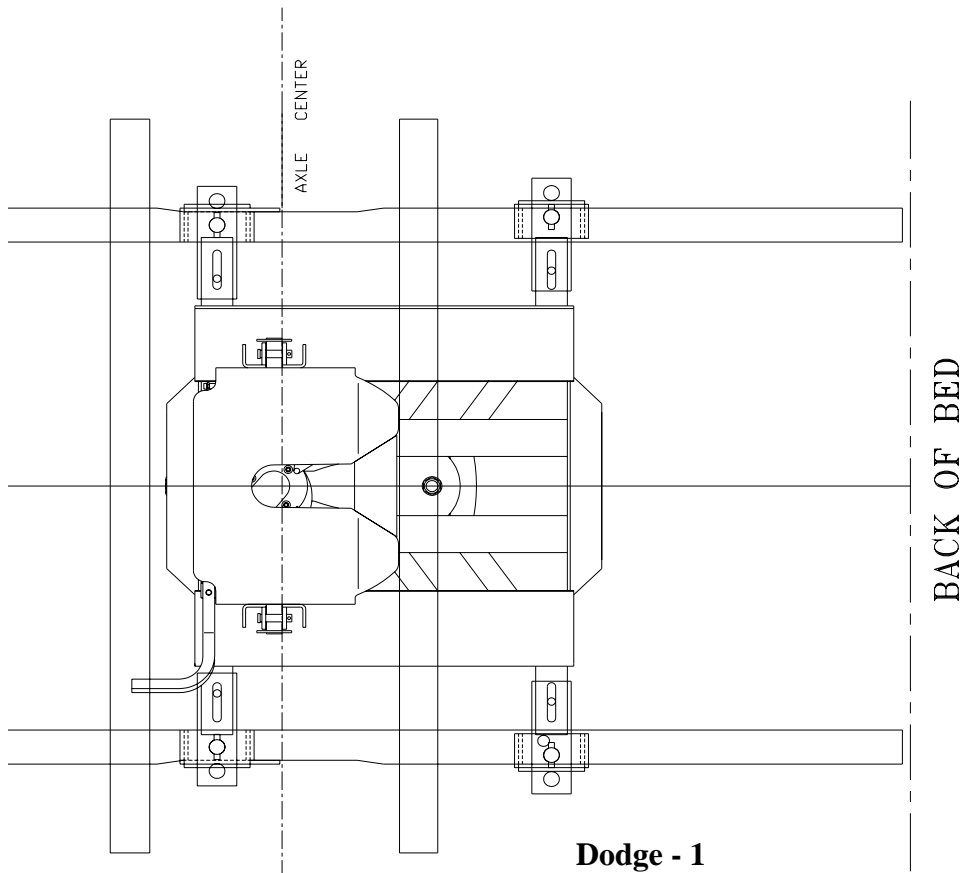
Installation tip: Cover the top of the Mounting Post hole of each mounting bracket with masking tape then when the small pilot holes are drilled in the bed the bit will also pierce the tape allowing you to accurately see the relative location of the bed holes to the Mounting Post holes.

5. Remove the four Mounting Brackets, and return to the General Instructions on page 6, and continue with '**Drilling the Bed**'.

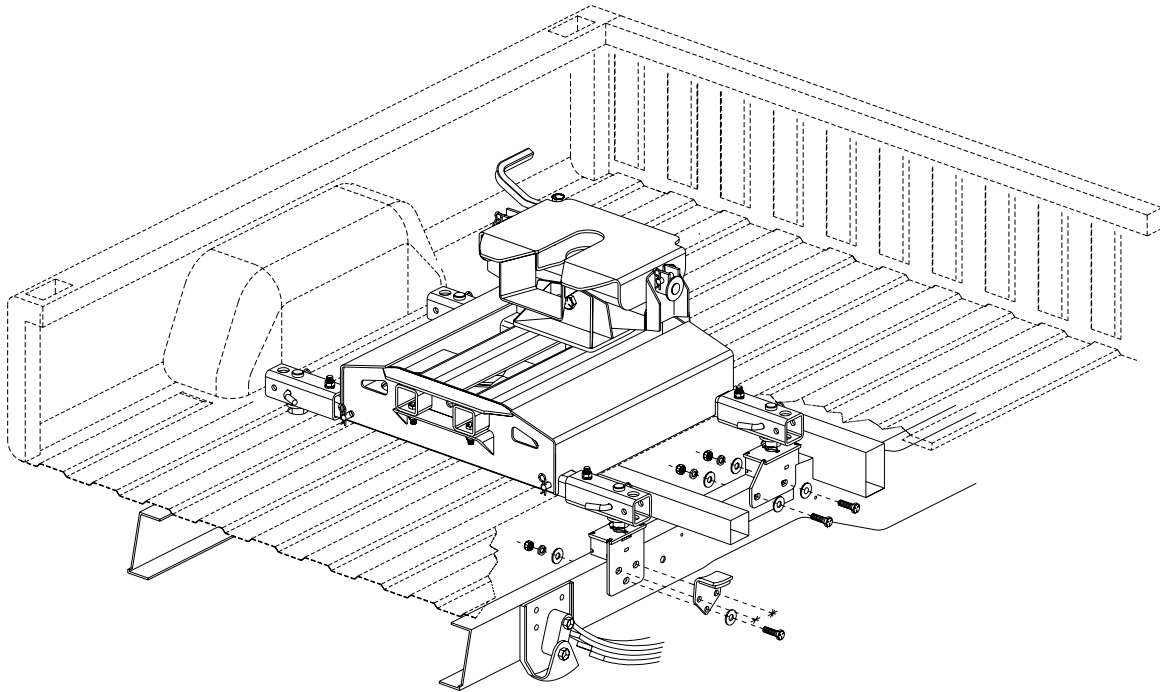
PART II Mounting Bracket installation continued.

1. Install the Mounting brackets using the 1/2" x 1 1/2" bolts provided, or use the bolts that were removed with the overload spring bracket. The hardware is illustrated in the **Detail View of Mounting Bracket Installation** on page 19.
2. Tighten all the previous installed mounting bolts on the Mounting Brackets. Torque all bolts per the table on pg. 6.
3. You should remove and install the Super Glide Hitch to be sure the hitch will go on and off freely.

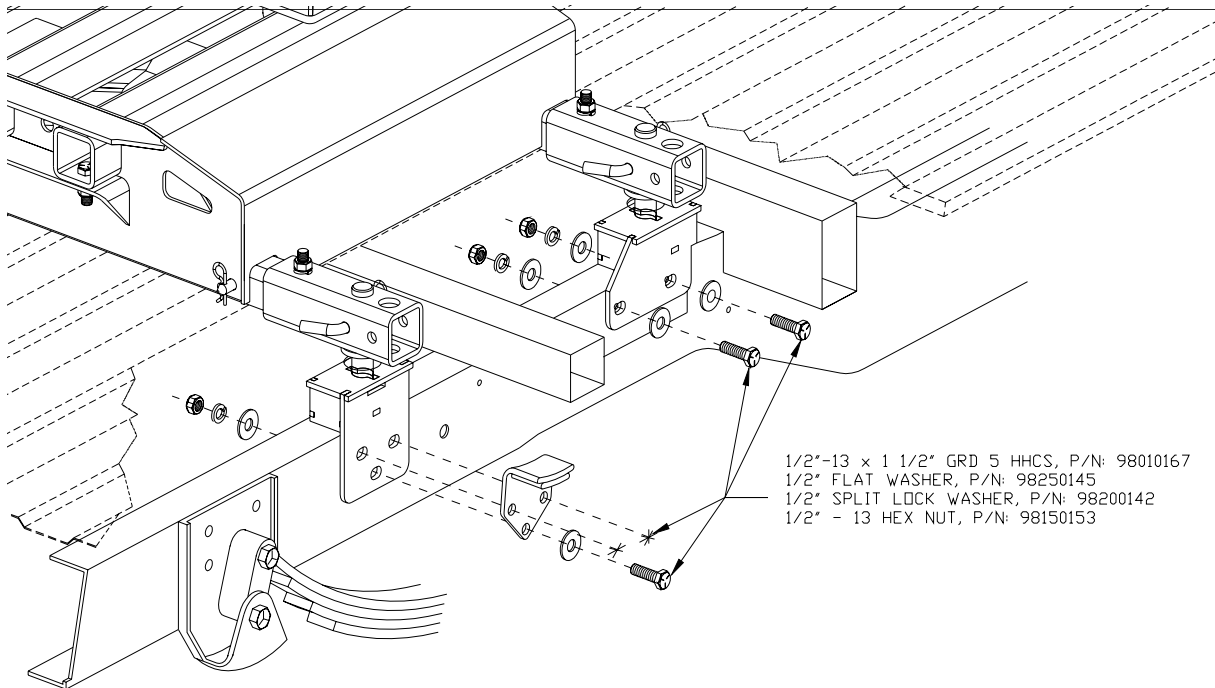
DODGE 3316/3346 continued



DODGE 3316/3346 continued



Cutaway view of Mounting Bracket Installation



- 1/2"-13 x 1 1/2" GRD 5 HHCS, P/N: 98010167
- 1/2" FLAT WASHER, P/N: 98250145
- 1/2" SPLIT LOCK WASHER, P/N: 98200142
- 1/2" - 13 HEX NUT, P/N: 98150153

Detail view of Mounting Bracket Installation

3346 DODGE SUPER RAIL MOUNTING KIT

Description	Part No.	Qty. Used	Material
3316 MOUNTING BRACKET KIT	3316	1	KIT
331605 HARDWARE KIT	331605	1	KIT
3300 BASE RAIL KIT	3307	1	KIT

3307 BASE RAIL KIT

Description	Part No.	Qty. Used	Material
BASE RAIL	33070001	2	2" SQ. x 1/4" WALL TUBING
BASE RAIL EXTENSION	330702	4	2.5" TUBE ASSEMBLY
MOUNTING POST	330701	4	1" ROUND ASSEMBLY
BASE RAIL HINGE PIN	08060001	4	1/2" ROUND
CLEVIS PIN CLIP	98410127	4	#3 COTTER PIN
BASE RAIL BOLT	98010183	4	1/2"- 13 x 3" HHCS GRD 5
BASE RAIL LOCK WASHER	98200142	4	1/2" LOCK WASHER
BASE RAIL NUT	98150153	4	1/2"- 13 HEX NUT

3316 MOUNTING BRACKET KIT

Description	Part No.	Qty. Used	Material
FRAME BRACKET ASSEMBLY FRONT D.S.	331601	1	
FRAME BRACKET ASSEMBLY FRONT P.S.	331602	1	
FRAME BRACKET ASSEMBLY REAR D.S.	331603	1	
FRAME BRACKET ASSEMBLY REAR P.S.	331604	1	
MOUNTING BRACKET HARDWARE KIT	331605	1	

331605 MOUNTING BRACKET HARDWARE KIT

Description	Part No.	Qty. Used	Material
1/2", FRAME BOLTS	98010167	10	1/2"-13 x 1 1/2" HHCS GRD 5
1/2" FLAT WASHER	98250145	20	1/2" FLAT WASHER
1/2" SPLIT LOCK WASHER	98200142	10	1/2" SPLIT LOCK WASHER
1/2" - 13 HEX NUT	98150153	10	1/2" - 13 HEX NUT
LAYOUT TEMPLATE	331600		NOT INCLUDED IN KIT