

## 1995-2002 Dodge SuperRail Mounting Kit #3516



# **Installation Instructions**

### **SPECIFICATIONS**

- Does NOT fit 2002 Dodge 1/2 ton
- Hitch is located center of axle

## **IMPORTANT**

#### DO NOT OPERATE HITCH UNTIL YOU READ THIS SECTION!

The SuperGlide hitch was designed to allow the Turntable Cam Arm Assembly to "glide" along two metal tubes, called the Way Tubes. Since it's release in 1998, we have made several advancements in the design, strength, and durability of these components. The Lubrication section of your Owners Manual spans several product releases and design changes. It is *imperative* that you read each section and determine which SuperGlide hitch you purchased, and how to care for it. There have been three major lubrication changes to the SuperGlide hitch:

Prior to April 2008, Way Tubes were assembled with either a conventional, quality grade grease or none at all In April 2008, we started coating the Way Tubes with a graphite-based spray lubricant called SlipPlate™

November 2009 brings a new innovation from PullRite Towing Systems with the use of plastics. The Turntable Cam Arm Assembly is now equipped with Plastic Wear Plates; see Owners Manual for details (not available for #3600 models)

Depending on when your hitch was manufactured, the Way Tubes of your new SuperGlide hitch will meet one of the above criteria. Each application listed requires some level of maintenance, so it is important that you read the following instructions carefully for the correct lubrication instructions.

Failure to properly lubricate the Way Tubes, as directed in this section, will eventually cause galling between the metals of the Way Tubes and Cam Arm Assembly, which will result in hitch failure.

Destruction of various hitch parts is also likely, as well as truck and/or trailer damage, and will not be covered under the Manufacturer's Warranty.

THE TRAILER'S KING PIN BOX MUST BE EQUIPPED WITH A CAPTURE PLATE (UNIVERSAL OR QUICK CONNECT) TO ALLOW THE HITCH TO FUNCTION (MUST BE PURCHASED SEPARATELY). NOTE: IF YOU HAVE PURCHASED A QUICK CONNECT CAPTURE PLATE (PART# 3317) AND DID NOT RECEIVE INSTRUCTIONS, THEY ARE AVAILABLE ONLINE, OR YOU CAN CONTACT PULLRITE CUSTOMER SERVICE AT (800) 443-2307.

Failure to modify the length of the brake away cable that activates the emergency braking of your trailer, may cause the cable to catch on protruding parts of the hitch. Resulting damage will not be covered by the manufacturers warranty.

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.

**NOTE**: Some truck models are being manufactured with higher bed sides, making it necessary to adjust the height of your trailer's king pin box. If you don't have enough height adjustment available, PullRite produces a 3" Lift Kit that attaches to the rails of your 3100 (ask for part# 3108) or 4100, 3300 and 4400 (ask for part# 4408) SuperGlide models.

Some truck beds have contoured bed sides, making the inside bed measurement narrower. Make certain the trailer's king pin box does not contact the inside edge of the bed.

Trucks with bed liners may need a tall Mounting Post. See "NOTE" under "Drilling the Bed" for further details.

It is the installers and customers responsibility to ensure there is proper clearance between the truck and trailer. There should be a minimum of 2" of clearance as the trailer passes the cab. Call PullRite technical support with trailer width, make and year of truck and distance the king pin is from leading edge of the trailer (See "Caution" section, in the SuperGlide Owners Manual, for measuring procedure) at (800) 443-2307.

Read these instructions completely and follow them accurately. Should you have any questions, please call the factory at (800) 443-2307 prior to installation for assistance. If you did not recieve your Owners Manual, visit us online at www.pullrite.com or call the number above.

The SuperGlide was designed for short bed pickup trucks. The hitch may function in a longer bed truck, but no mounting brackets exist to make the transfer. Some 4100 and 4400 mounting kits may transfer with modification..

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#### CAUTION

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. (Figure 1). 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. Call PullRite technical support with trailer width, make and year of truck and distance the king pin is from leading edge of the trailer. 1-800-443-2307

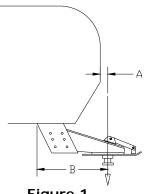


Figure 1

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.

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.

#### KING PIN CAPTURE PLATE INSTALLATION

The following instruction should be followed to install the king pin Trailer Plate.

#### FOR KING PIN BOXES WITH A FLANGE: (Figure 2).

- 1. Place the Capture Plate {J2} over the king pin, with the guide wedge towards the rear of the trailer (wedge facing down). Align the Capture Plate {J2} square with the king pin box and clamp in place to prevent movement.
- 2. Mark the holes for drilling through the Capture Plate {J2} onto the king pin box flange. Use holes that are located as far from the king pin as possible.
- 3. Remove the Capture 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). Use the ¼" bolts provided, to secure the Trailer Plate {J2} onto the king pin box flange. A minimum of 10

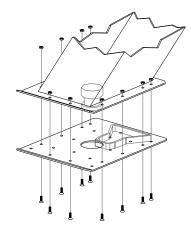


Figure 2

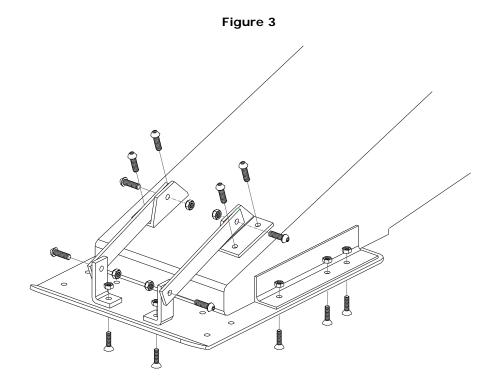
**bolts** must be used to fasten the plate on. For use with heavy trailers, more bolts will be needed to secure this plate. All flat head bolts should be flush or slightly below the surface of the Capture Plate so as not to score the hitch plate.

#### KING PIN CAPTURE PLATE INSTALLATION

#### FOR KING PIN BOXES WITHOUT FLANGES: (Figure 3)

- 1. Place the Capture 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 Capture 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 #3"-20 tap.
- 4. If the Capture Plate {J2} extends forward beyond the king pin box, then install the Knee Braces as shown in Figure 3.
- 5. Install the Capture Plate {J2}, using the ¼" bolts provided, to secure the Capture Plate {J2} onto the king pin box. A <u>minimum of 10 bolts</u> must be used to fasten the plate on. For use with heavy trailers, more bolts will be needed to secure this plate. The bolts used to fasten the Knee Braces to the Capture Plate do NOT count as part of the number of bolts necessary to properly attach the Capture Plate to the king pin box. All flat head bolts should be flush or slightly below the surface of the Capture Plate so as not to score the hitch plate.

NOTE: If more information is needed, please call PullRite at 1-800-443-2307.

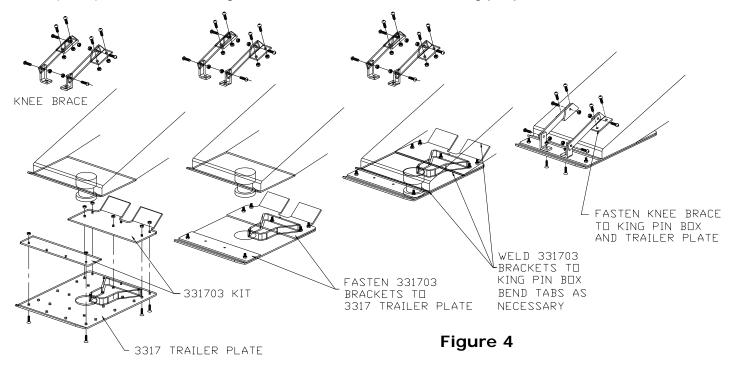


#### FOR KING PIN BOXES THAT ARE WIDER AND SHORTER: (Figure 4)

- 1. Place the Capture 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 Capture Plate {J2} (to the bend of the Capture Plate {J2} in the front). Referring to Figure 4, fashion two plates, 3/16" to 1/4" thick, that will cover the holes of the Capture Plate {J2} showing in front and rear of the king pin box.
- 2. While the Capture Plate is in position under the king pin box, clamp these plates to both the front and rear of the Capture Plate {J2}. Remove the Capture Plate {J2} and drill matching holes in the two support plates with a 1/4" bit using the Capture Plate {J2} as a guide.
- 3. Fasten the two support plates to the Capture Plate {J2} with the 1/4" Bolts {K7} and Lock Nuts {K8} provided.
- 4. Replace the Capture 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, the Capture Plate Knee Braces {k2} may have to be welded on if the interior of the king pin box is not accessible. The bolts used to fasten the Knee Braces to the Capture Plate do not count as part of the number of bolts necessary to properly attach the Capture Plate to the king pin box.

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

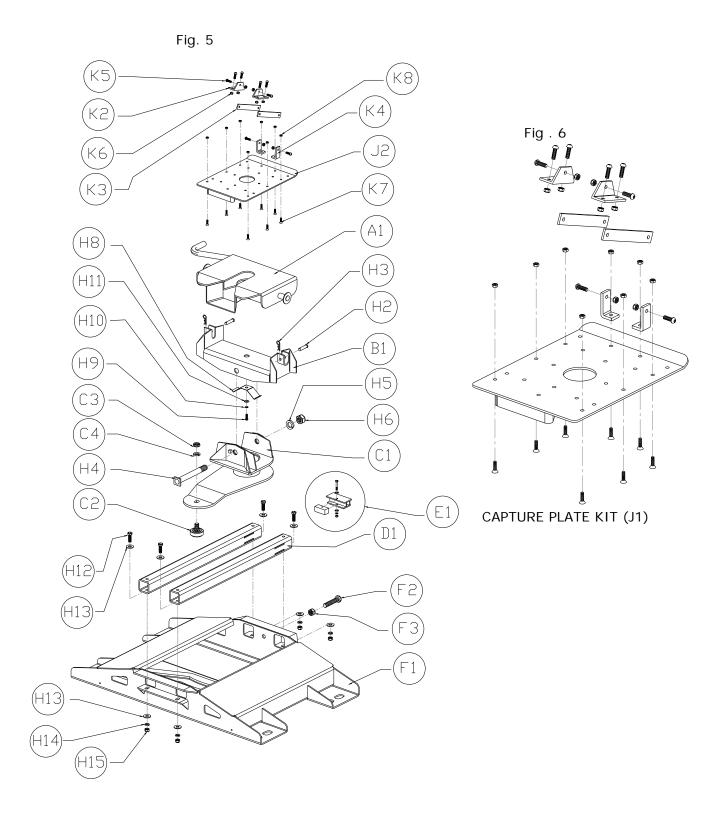
**CAUTION:** When using kit #331703 on slightly larger pin boxes, it may be necessary to trim the plates for proper fit—when installed, the provided Capture Plate adapter (3317) should be flush against the bottom of the trailer's king pin plate.



### **Parts Listing**

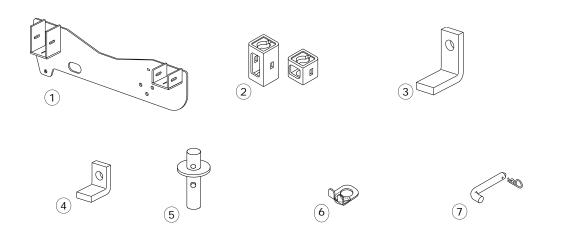
Item#	Assemblies / Kits	<u>Number</u>	Qty.	<u>Material</u>
<b>A</b> 1	5 <sup>th</sup> Wheel Plate Asm.	3601		
B1	Rocker Arm Asm.	3502		
C1 C2 C3 C4	Turntable Cam Arm Asm. Roller Lock Washer Jam Nut	<b>3603</b> 6901 98200124 98150142	1 1 1	¾" Lock Washer ¾" Nut
D1	Turntable Ways (Set)	3604		
E1 E2 E3 E4 E5 E6	Forward Shaft Stop Asm.  Nylon Stop Block Bolt Flat Washer Lock Washer Nut	<b>3606</b> 33050105 98410238 98250130 98200160 98150209	1 1 2 1	1/4"-20 x 1 3/4" HHCS, GRD 2 1/4" Flat Washer 1/4" Lock Washer 1/4"-20 Hex Nut
<b>F1</b> F2 F3	Shaft Stop Set Screw Set Screw Jam Nut	<b>3305</b> 98010128 98150131	1	3/4"-10 x 2 1/2" HHCS 3/4" -10 Hex Nut
H1 H2 H3 H4 H5 H6 H8 H9 H10 H11 H12 H13 H14 H15	Hardware Kit  Rocker Arm , Clevis Pir Clevis Pin Clip Rocker Arm Pivot Bolt Pivot Bolt Lock Washer Pivot Bolt Hex Nut Rocker Arm Spring Rocker Arm Spg Bolt Spring Bolt Lock Wash Spring Flat Washer Way Tube Bolt Way Tube Flat Washer Way Tube Lock Washe Way Tube Nut	98410127 140501 98200115 98150120 35100001 98010243 98200159 98250160 98010167 98250160 r98200142	2 2 1 1 1 1 1 1 1 1 4 4 4 4	1/2" x 2" Clevis Pin #3 Cotter Pin 1" – 8 x 9 1/2" HHCS "Zinc Plated Split Lock Washer 1" – 8 SAE Zinc Hex Nut 16 GA Spring Steel 5/16"–18 x 3/4" Button Head Cap Screw 5/16" Zinc Split Lock Washer 5/16"-18 Flat Washer 1/2"-13 x 1 1/2" HHCS GRD 5 1/2" Flat Washer 1/2" Lock Washer 1/2"-13 Hex Nut
<b>J1</b> J2 K1	Universal Capture Plate Kit  *Trailer Plate  *Capture Plate Hdw. Kit	331701	arately) 1 1	(*) denotes– included in Kit
K1 K2 K3 K4 K5 K6 K7	Capture Plate Hardware Kit Support Angle Support Bar Support "L" Bracket Support Bracket Bolts Support Bracket Nuts Capture Plate M Bolts Capture Plate M Nut	331702 35170002 35170003 35170004 98010243 98150202 98010240 98410255	2 2 2 8 8 10	3/16" x 1.5" x 1.5" Angle 3/16" x 1" Flat 3/16" x 1" Flat 5/16"-18 x ¾" Button Head Cap Screw 5/16" –18 Nylock Nut ¼" –20 x 1 1/4" Flat Head Allen ¼" – 20 Nylock Nut

## **3600 EXPLODED VIEW**



## Mounting Bracket and Hardware Parts List

<u>Reference</u>	<b>Description</b>	<b>Quantity</b>
1	Mounting Brackets	2
2	Mounting Brackets Post Holders	4
3	Large Frame Clips	2
4	Small Frame Clips	8
5	Mounting Posts	4
6	Keepers	4
7	Keeper Pins and Clips	4
С	3/8" x 1-1/2" Carriage Bolts w/ nuts, flat washers, & lock washers	8
Α	1/2" x 4" Hex Head Bolts w/ nuts & lock washers	2
В	1/2" x 4-1/2" Hex Head Bolts w/ nuts & lock washers	2



#### Mounting Bracket and Hitch Installation

- 1. Check part quantities using the Parts List on Page 7.
- 2. Raise the rear of the truck.
- 3. Remove wheels and wheel well shrouds for 4x4 applications.
- 4. If you have overload springs, the rear brackets must be removed and reinstalled after the mounting brackets are installed.

#### Mounting Bracket Installation

- 1. Loosen all post holder fasteners (C), allowing in and out movement. See figure 1.
- 2. The bolt holes and appropriate bolts are listed and labeled by letters in figure 1 and page 3.
- 3. Install fastener (A) using a small frame clip. See enlarged drawing in Figure 2. Finger tighten only.
- 4. Install fastener (B) using a large frame clip, see figure 2. Finger tighten only.

#### Relocating the Overload Brackets

1. See Figure 1. Move the bracket down and forward as shown; drill two holes on both sides to relocate. Use the overload bracket as a template for drilling.

Note: It may be necessary to cut up to an inch off the overload spring to keep it from hitting the mounting brackets.

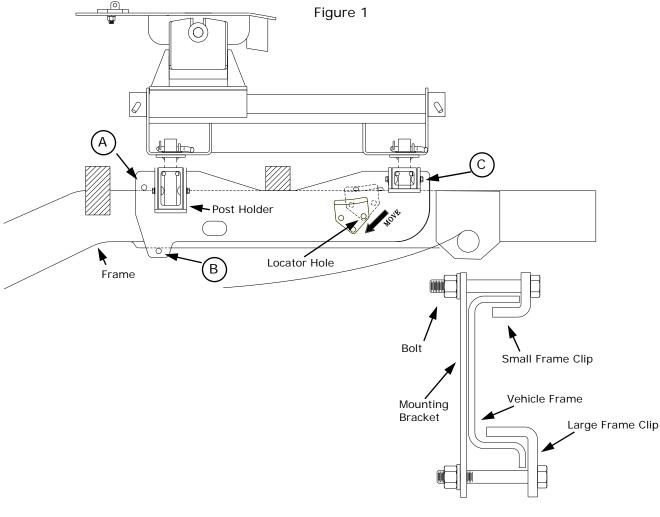
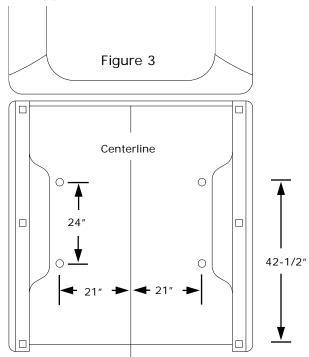


Figure 2

#### Marking the Bed for Drilling

- 1. See figure 3. Measure and mark from the back of the bed forward 42-1/2". Do this at any point on both sides of the bed.
- 2. Draw a line across the bed from mark to mark.
- 3. Measure 24" from the line towards the rear of the bed and mark on both sides.
- 4. Draw a line from mark to mark
- 5. Find the centerline of the bed. Draw a line down the middle of the bed from front to rear. See Figure 3.
- 6. Measure out from the centerline 21" on each side at the front and the rear of the bed and make a mark. Draw a line on each side (parallel to the centerline), from mark to mark. See figure 3.
- 7. Drill a 1/16" pilot hole where the lines cross, beginning with the driver's side front mark. The bit should come down through the post holder in the mounting bracket, centered front to rear. Don't worry about centering from side to side since the post holder can move in and out.
- 8. If the pilot hole is off center (front to rear) to the post holder, adjust the drill placement and re-drill.

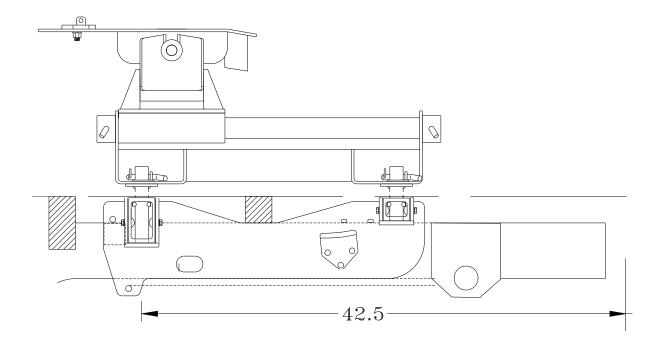
NOTE: If you have to re-drill in order to be centered, remember to adjust the other three holes accordingly.



#### Layout (Template Method) \*

- 1. Lay the Template in the truck bed, centering it from side to side 17 1/2" from and parallel to the end of the truck bed. The template is symmetrical so there is no front or rear. \*The template does not come with the hitch. Ask your distributor salesman for information about receiving a free set of steel installation templates.
- 2. Mark the 4 outside holes, while making sure the template does not move.

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" TM, to help keep the template from moving.



- 9. After locating the center front to rear, adjust the post holders in and out using the drill bit through the hole as a visual aid to find the center.
- 10. Finger tighten fasteners (C) to hold the post holder in the center position. Repeat steps 1-9 for the other three hole locations.
- 11. Using a 2-1/8" hole saw, centered over the 1/16" pilot hole, cut the bed for the mounting posts.
- NOTE: You may want to remove the post holders when you drill so the saw does not catch on the holder.
- 12. Debur inside the holes, use a paint stick to touch up the edges.
- 13. Install the mounting posts through the bed into the post holders. Rotate the posts a quarter turn.
- NOTE: The post is tall enough to clear most bed mats, bed liners may require taller posts to seat into the post holders properly.
- 14. Position the hitch on the post and install keepers and pins.
- NOTE: You may have to slide the hitch base to the rear of the vehicle to seat the keepers in place.
- 15. Tighten the mounting brackets to the frame. Torque the 1/2" fasteners to 75 ft. lbs.
- 16. Tighten the post holders to the brackets. Torque the 3/8" fasteners to 31 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