



FORD

SuperRail Mounting Kit

#3520



Installation Instructions

- Fits 1999-2015 Ford Diesel F250 & F350 (6-1/2" bed)
 - Hitch is located 1" ahead of axle

IMPORTANT

DO NOT OPERATE HITCH UNTIL YOU READ THIS SECTION!

1. The SuperGlide hitch was designed to allow the Turntable Cam Arm Assembly to “glide” along two metal tubes, called the Way Tubes. Since its 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.

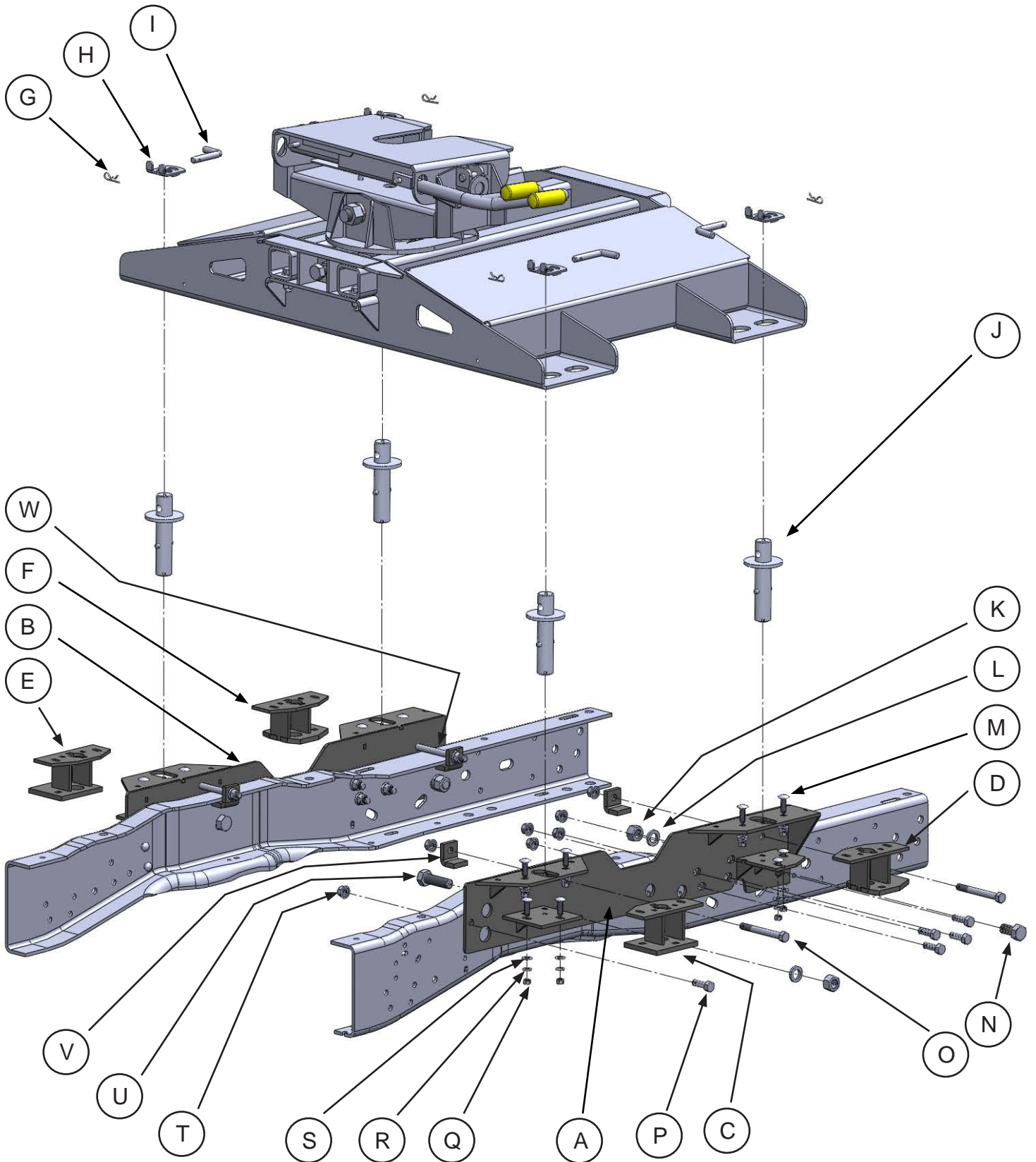
2. **THE TRAILER’S KING PIN BOX MUST BE EQUIPPED WITH A CAPTURE PLATE (UNIVERSAL OR QUICK CONNECT) TO ALLOW THE HITCH TO FUNCTION (MUST BE PURCHASED SEPARATELY). NOTE: IF YOU HAVE PURCHASED A QUICK CONNECT CAPTURE PLATE AND DID NOT RECEIVE INSTRUCTIONS, THEY ARE AVAILABLE ONLINE, OR YOU CAN CONTACT PULLRITE CUSTOMER SERVICE AT (800) 443-2307.**
3. 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.
4. 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.
5. 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.
6. Trucks with bed liners may need a tall Mounting Post. See “NOTE” under “Drilling the Bed” for further details.
7. 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.
8. Read these instructions completely and follow them accurately. Should you have any questions, please call Customer Service at (800) 443-2307 prior to installation for assistance. *If you did not receive your Owners Manual, visit us online at www.pullrite.com or call the number above.*
9. 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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MOUNTING HARDWARE PARTS IDENTIFICATION



PARTS LIST

#3520 SUPER RAIL MOUNTING KIT

	description	part no.	qty	material
A	DRIVER SIDE BRACKET	352001	1	
B	PASSENGER SIDE BRACKET	351307	1	
C	DRIVER SIDE FRONT MOUNTING POST HOLDER	351305	1	
D	DRIVER SIDE REAR MOUNTING POST HOLDER	351304	1	
E	PASSENGER SIDE FRONT MOUNTING POST HOLDER	351310	1	
F	PASSENGER SIDE REAR MOUNTING POST HOLDER	351308	1	
G	PIN CLIP	98410127	4	#3 PIN CLIP
H	MOUNTING POST KEEPER	351001	4	
I	KEEPER HITCH PIN	35100003	4	1/2" ROUND
J	MOUNTING POSTS	351302	4	
K	3/4" HEX NUT	98150131	4	3/4"-10 HEX NUT
L	3/4" LOCK WASHER	98200124	4	3/4" LOCK WASHER
M	3/8" MOUNTING BRACKET BOLT	98050137	16	3/8"-16 X 1-1/4" CARRIAGE BOLT GRD 5
N	3/4" MOUNTING BRACKET BOLT	98010125	2	3/4"-10 X 1-1/2" HHCS GRD 5
O	4-1/2" FRAME CLIP BOLT	98010195	3	1/2"-13 X 4-1/2" HHCS GRD 5
P	1/2" MOUNTING BRACKET BOLT	98010167	9	1/2"-13 X 1-1/2" HHCS GRD 5
Q	3/8" HEX NUT	98150211	16	3/8"-16 HEX NUT
R	3/8" LOCK WASHER	98200151	16	3/8" LOCK WASHER
S	3/8" FLAT WASHER	98250175	16	3/8" FLAT WASHER
T	1/2" FLANGE NUT	98150201	13	1/2"-13 SERRATED FLANGE NUT
U	3/4" MOUNTING BRACKET BOLT	98010128	2	3/4"-10 X 2-1/2" HHCS GRD 5
V	SMALL FRAME CLIP	35110402	4	
W	5-1/2" FRAME CLIP BOLT	98010203	1	1/2"-13 X 5-1/2" HHCS GRD 5

LAYOUT TEMPLATE

	description	part no.	qty.	material
	LAYOUT BED TEMPLATE	35000000	1	ITEM SOLD SEPARATELY

TRUCK PREPARATION

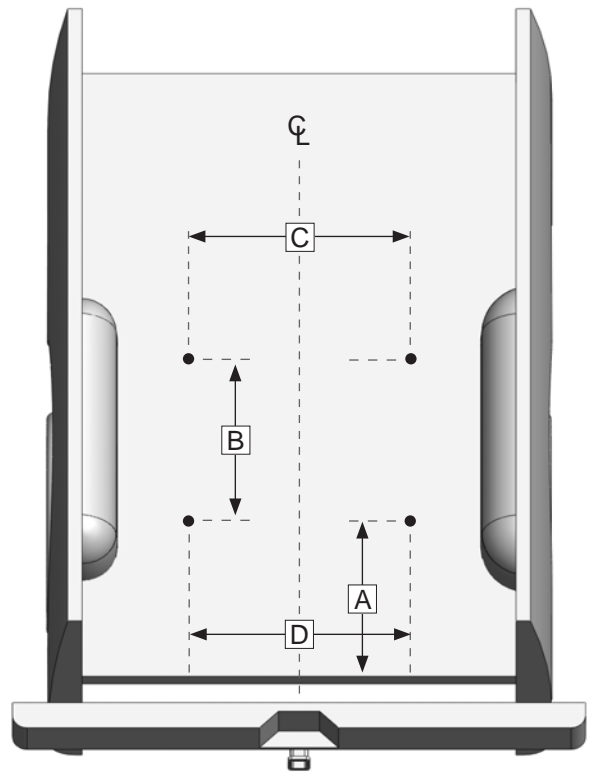
1. Check part quantities using the Parts List on page 5.
2. Block vehicle wheels. Some vehicles may require you to raise the rear of the truck in order to make it easier to drill for installing the mounting brackets on the truck frame.
3. Remove the spare tire and set aside.
4. You may wish to remove the wheels to give yourself greater working room.
5. If overload springs are present, they must be removed and reinstalled after mounting bracket installation. You may need to cut an inch or so off the overload spring to keep it from interfering with the mounting brackets.
6. Unfasten the emergency brake cable on the driver's side of the frame.

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" and "B". Do this at any point on both sides of the bed.
2. Draw a line across the bed from mark to mark.
3. Find the centerline of the bed.
4. Draw a line down the middle of the bed from front-to-rear.
5. 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).
6. 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.

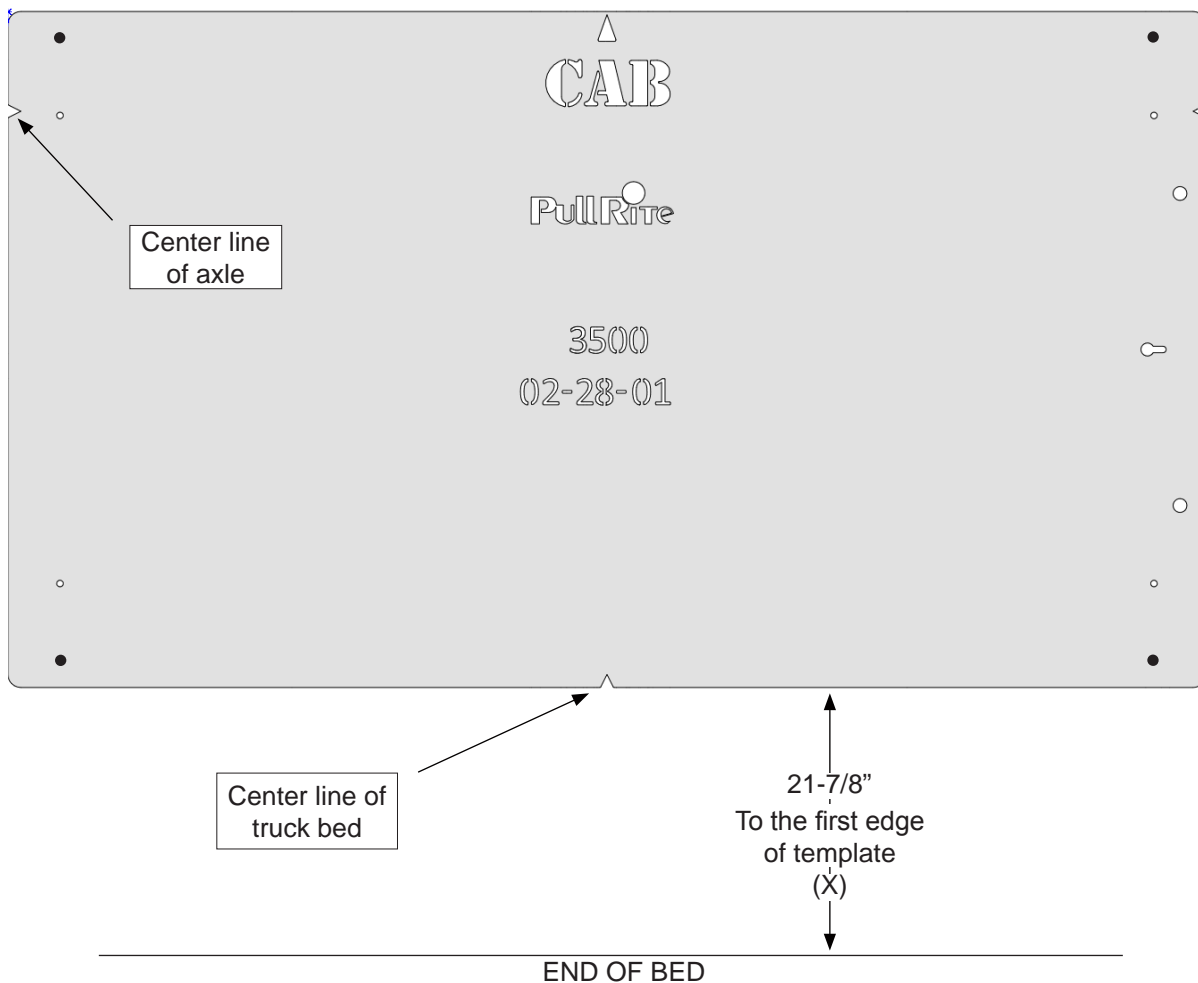


TRUCK BED DIMENSION TABLE					
LAYOUT METHOD				TEMPLATE METHOD	
"A"	"B"	"C"	"D"	"X"	Template part#
22-7/8"	24"	42"	42"	21-7/8"	35000000

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 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"™ or simply use duct tape on each corner to help keep the template from moving.*



INSTALLATION

PART 1 — BRACKET PLACEMENT & BED HOLE LOCATIONS

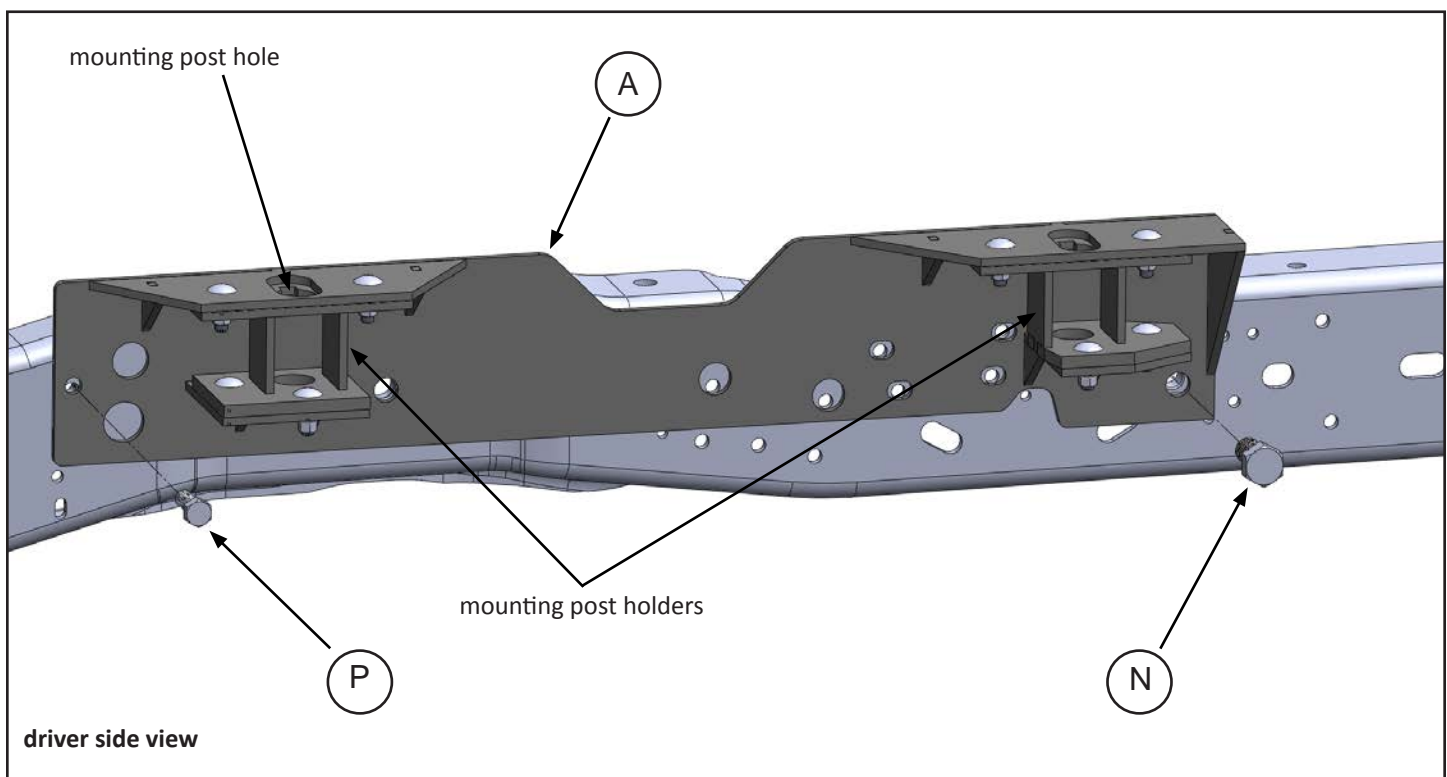
Since most truck beds are not installed square to the frame or are the same distance from the back of the cab, the installer will need to make sure the bed holes line up properly with the center of each mounting post hole.

The basic steps in this section are as follows:

- Layout the bed holes
- Drill the first pilot hole in the bed
- Check centering using the tape method
- 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

Detailed Installation Instructions

1. Use transparent tape to cover the oblong hole on the top of each mounting bracket (when the pilot hole is drilled through the bed, the tape will be pierced by the small drill; it should be positioned in the fore-to-aft center of the oblong hole).
2. Align the holes of the driver side mounting bracket {A} to the existing holes of the frame's crossmember as seen in the illustration below. *If your truck is equipped with an overload spring bracket, remove the overload bracket and set aside.*
3. Fasten the mounting bracket flush to the frame (some mounting brackets may have a slight warp due to the metal characteristics during the welding process) by temporarily installing the 1/2" mounting bracket bolt {P} and the 3/4" mounting bracket bolt {N} with the provided hardware (See parts list. Do not install lock washers at this point). Do not overtighten. Use a clamp near the front of the bracket to hold in place.



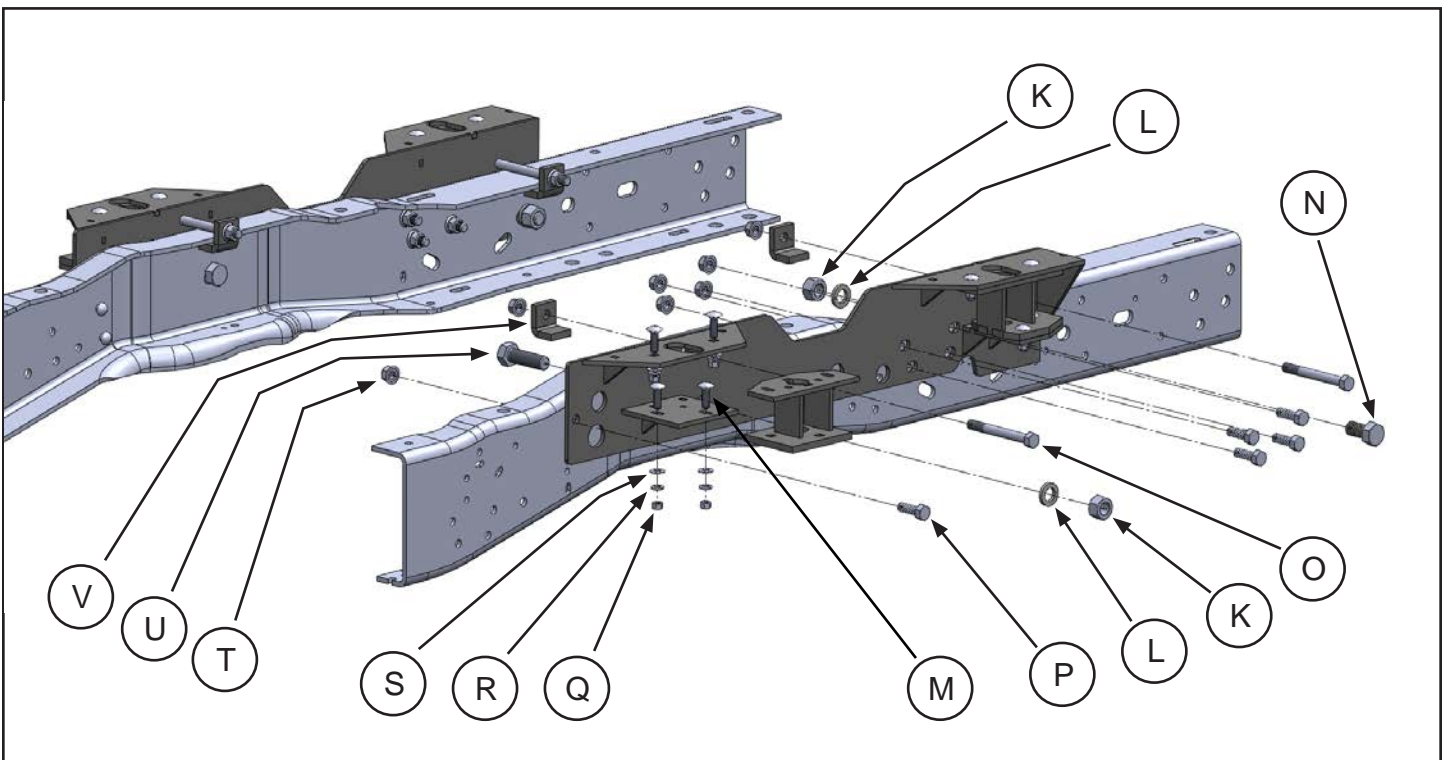
INSTALLATION

4. Drill the first 1/16" pilot hole through the truck bed over the rear hole on the driver side where you made the mark during the "Marking Bed for Drilling." The bit should come down through the fore-to-aft center of the oblong hole in the bracket, piercing the transparent tape.
5. If the pilot hole is off center, remember to adjust all the pilot hole locations accordingly.

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 hole centered, you will use this hole as a point of reference for all remaining pilot hole adjustments. If you are using the Template Method, simply use the properly drilled hole as a pivot point to square the remaining holes to the frame. If you are using the Layout Method, you may accomplish the same thing by using a framing square and straight edge.

6. Repeat Steps 2-5 for the passenger side mounting bracket, checking carefully for proper centering.

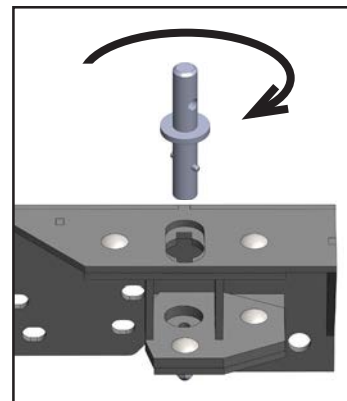
WARNING: Before proceeding to "Part 2, "Drilling the Bed..." you must verify that each pilot hole is centered before the 2-1/8" mounting post holes are drilled through the bed.



PART 2: DRILLING THE BED & BRACKET INSTALLATION

1. After removing the mounting brackets, use a 2-1/8" hole saw centered over the 1/16" pilot hole and cut the bed for the mounting posts.
2. De-bur inside the holes and use a paint stick to touch up the edges.
3. Install the Mounting Post Holders {C,D,E,F} onto each Mounting Bracket, fastening them into place using the required bolts {M}, lock washers {R}, flat washers {S} and hex nuts {Q} (finger tighten only).
4. Fasten the mounting bracket flush to the frame.
5. Install the mounting posts through the bed into the mounting bracket post holders. Rotate the posts a quarter turn (see the illustration to the right). Four posts are required for installation.

NOTE: Vehicles using plastic bed liners may require taller mounting posts (part# 351309) to seat properly into the post holders.

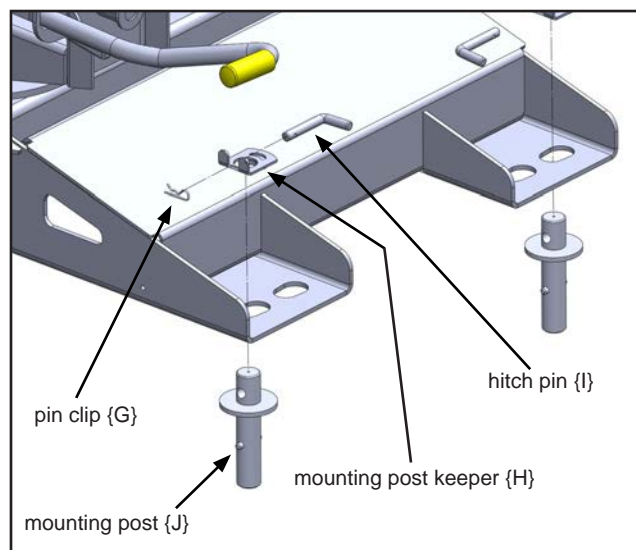


PART 3: HITCH ALIGNMENT

1. Remove the SuperGlide hitch from the shipping carton.
2. Set the SuperGlide hitch on the mounting posts and install the mounting post keepers, hitch pins and clips.
3. You may need to slide the hitch base to the rear of the vehicle to seat the keepers in place.

PART 4: FINAL INSTALLATION PROCEDURES

1. Reinstall the overload bracket.
2. Reinstall the emergency brake cable behind the mounting post holders.
3. Reinstall all remaining bolts and corresponding hardware.
4. Tighten all mounting bracket bolts, post holder bolts last, according to the Torque Table below.



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.



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