



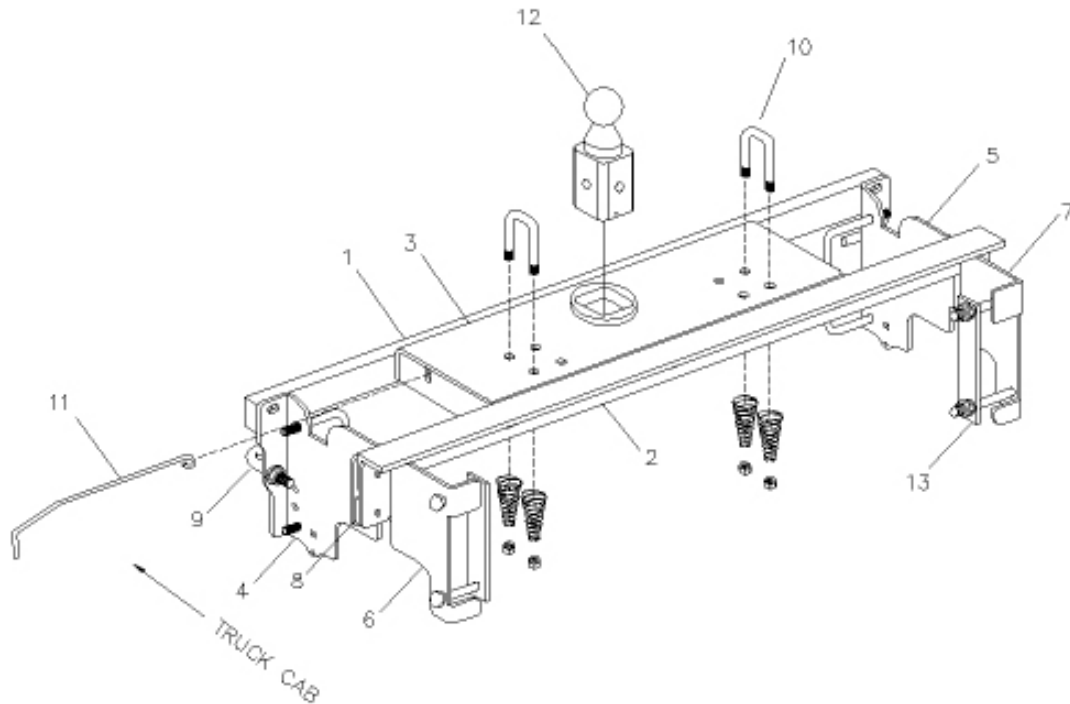
# TRAILER HITCHES

# Turnoverball™ Gooseneck Hitch Installation Instructions

## Model 1303R

**Dodge (2003 & newer)**

3/4 & 1 Ton, Long & Short Bed  
Two and Four-Wheel Drive



### Parts List

- 1- Front Crossmember
- 2- Rear Crossmember
- 3- Center Section
- 4- Left Front Sideplate
- 5- Right Front Sideplate
- 6- Left Rear Sideplate
- 7- Right Rear Sideplate
- 8- 2- 3/8" Spacer
- 9- 2- L-bolt
- 10- 2- Safety Chain Brackets
- 11- Latch Pin Release Handle
- 12- 2-5/16" Ball
- 13- 2- Clamping Straps

### Hardware Kit

- 13 - 1/2" x 1 1/2" Hex Screw Cap
- 9 - 1/2" Flat Washers
- 21 - 1/2" split Lock Washers
- 15 - 1/2" Hex Finish Nut
- 2 - 4" x 6 1/2" U-bolts
- 4 - 5/8" Serrated Flange Nuts
- 4 - 1/2" x 4 1/2" Hex Cap Screws
- 2 - 8mm. Self Tapping Bolts
- 1 - 5/16" x 1" Carriage Bolt
- 1 - 5/16" Flange Nut

**Call or Email us for Installation Support**

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## BEFORE INSTALLING OVERHEAD LIFTING DEVICE

An overhead-lifting device, such as chain falls, engine hoist, or cable come-a-long, can be used to lift the center section of the hitch in place. Lower a loop of rope or chain through the 4" hole in the truck bed floor and attach it to the latch pin in the round hitch receiver tube in the center section. Use the lifting device to raise the center section until the round hitch receiver tube that protrudes from the center section fits in the 4" hole in the truck bed floor. Maintaining upward pressure may facilitate fastening the crossmember to the center section, especially if the truck bed floor has been distorted downward from heavy use. If you use an overhead-lifting device, it should be disconnected before squaring the center section across the frame, installing the sideplates and torquing fasteners.

### WARNING

Most trucks have FUEL LINES and/or BRAKE LINES and/or ELECTRICAL WIRES located along the frame rails where B&W Turnoverall™ hitches install. Carefully examine the location of fuel lines, brake lines and electrical wires BEFORE INSTALLATION. Be certain you will not damage fuel lines, brake lines or electrical wires when positioning hitch components, drilling holes, tightening fasteners, and lifting and lowering the truck bed. The fuel tank vent, located on top of the gas tank, can be easily damaged during the installation of the hitch components. Care must be taken when positioning the front crossmember and center section components.

### WARNING

On the short bed trucks, BEFORE INSTALLING THIS HITCH, check for adequate turning clearance between the front of all of your trailers and the truck cab.

### WARNING

**DO not invert the ball in the socket when carrying heavy loads on 2 wheel drive trucks.** The ball may hit the top of the differential. Remove the ball from the socket before loading. A plug for the socket is available from B & W.

## GENERAL INFORMATION

The 2003 Dodge 2500 and 3500 long and short bed truck has a tubular frame, instead of the traditional "C" shaped channel frame. The Turnoverall™ gooseneck hitch for this truck clamps to the frame and installation is accomplished without any welding, drilling, or modification of the truck frame.

## INSTALLATION INSTRUCTIONS

### STEP 1A:

Begin by marking the location for the hole in the truck bed floor. Measure from the back end (tail gate end) of the truck bed floor by hooking a tape measure over the back of the truck box and mark the floor at the correct location. Next, mark the center between the wheel wells. This will be the center point for the 4" hole. This location is critical to the correct installation of this hitch, so measure, mark, and saw carefully.

**LONG BED INSTALLATION**                      **47 7/8"**

**SHORT BED INSTALLATION**                      **45 7/8"**

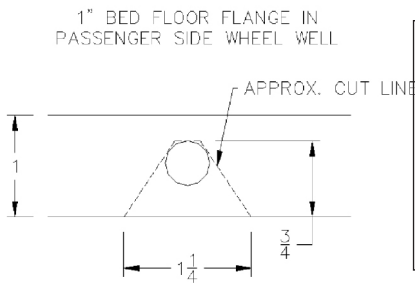
### STEP 1B:

If the truck has a plastic bed liner, you may drill through both, but it is more difficult to accurately locate the midpoint between the wheel wells, and to be sure that the bed liner does not move while sawing the hole. Make a 4 inch hole at this location using a four inch hole saw, or by marking a 4 inch circle and cutting it out with a saber saw equipped with a metal cutting blade.

### STEP 2

Install the two crossmembers. They will be installed by sliding them from inside the wheel well, above the tire, through the gap between the bed and the truck's frame and across until they span the frame rails. The gap between the bed and frame is large enough to allow this, but the gap is partially obstructed by a sheet metal flange (about 1 inch in height) that is hanging down from the bottom of the truck bed floor. A small notch needs to be made in this flange on the **Passenger's** side of the truck. Locate the 7/16" hole in this flange above the axle and enlarge the hole by removing the metal below the hole so that a notch is created. This will allow the rear crossmember to be installed.





Install the 1"x 2" bar making sure that the outer two holes will be toward the top of the bar when it is turned up vertical. Slide forward to bed crossmember. Next using the notch for clearance install the angle iron with the angle oriented so that the leg with slotted holes will be toward the front of the truck and the horizontal leg will be at the top against the truck bed floor. Hold the angle in an inverted V position, and push the angle across the frame. With the angle spanning the frame, move it rearward toward the bed crossmember.

### STEP 3

Install the center section. With the latch pin on the driver's side and the socket offset to the front of the truck, raise the center section up over the differential guiding the ring into the 4 inch hole in the truck bed floor. Pull the angle iron forward against the center section and install the center bolt, leaving the nut just barely started on the bolt. Install the 1 1/2" bolts, lock washers, and flat washers from inside the center section threading the bolts into the holes in the front bar. Next install the 1 1/2" bolts from inside the center section to the rear angle iron. Fasten with flat washer, lock washer and nut. **Do not tighten at this time.**



### STEP 4

The sideplates will have to be installed with the center section bolts still loose, so that the sideplates can be positioned between the bar and angle. On the long flange of the front sideplate fasten a L-bolt with two 5/8" serrated flange nuts in the lower round hole. The flange on the nuts must face each other sandwiching the sideplate flange between them. (see fig.2 )

On some 2005 and newer model trucks there will not be a 5/8" diameter hole on the drivers side of the frame to accommodate the L-bolt. For these models there are two 8 mm self threading bolts supplied that will go through the two slotted holes in the lower part of the side plate. They should align with the holes in the frame. Start the self threading bolts through the side plate and into the frame. Do not fully tighten at this time. The holes in the frame may be used for the emergency brake cable bracket. In this case remove the bracket and place the 5/16"x 1' carriage bolt in the square hole at the lower part of the side plate. Place the carriage bolt through the side plate with the threads facing out. Place the brake cable bracket over the carriage bolt and secure with the 5/16" flange nut.

If the hole for the L-bolt is present on the driver's side then position the front sideplate between the bar and angle. Place a bolt with lock and flat washers through the sideplate and thread into the outer hole of the bar, at the same time fit the L-bolt into the hole in the frame just in front of the sideplate while pushing the sideplate against the frame (the L-bolts may have to be tapped into the hole). Next install the front (gold colored) U-bolt from inside the frame through the holes in the sideplate above and below the frame. To install the front (gold colored) U-bolt on the driver's side it is necessary to remove a wiring harness frame clip (see fig. 3), place the U-bolt against the frame staying under the wiring harness, and brake line. While making certain that nothing is between the frame and U-bolt, raise the U-bolt until the top leg is level with the top of the frame rail. Then turn the legs outward to the front sideplate fitting the legs into the holes in the sideplate above and below the frame. Replace the wiring harness frame clip and fasten the U-bolt, using a lock washer and nut on each end of the U-bolt.



Fig. 2

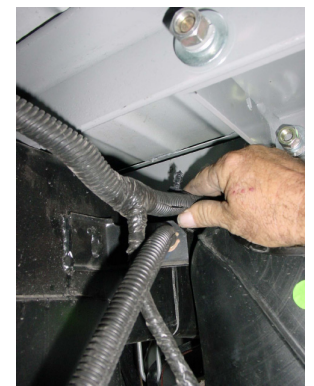


Fig. 3



### STEP 4A.

Attach the rear sideplate by inserting a 1 1/2" bolt through the top hole of the flange, through the rear angle cross member and the front sideplate. Fasten with a lock washer and nut. Next install the 1/2" x 4 1/2" bolts through the side plates above and below the frame. Install the clamping straps over the bolts from inside the frame, and secure with a lock washer and nut. Hand tighten until snug.

### STEP 4B.

Install a 3/8" sideplate spacer between the front and rear sideplates and fasten using a 1 1/2" bolt, lock washer and nut. Repeat Step 4A, 4B, and 4C on the passenger side of the truck.

### STEP 5

Tighten all hardware in this order: **1st** Tighten all center section hardware to 80 ft. pounds. **2nd** Tighten front and rear sideplates to cross members and sideplate spacer bolts to 80 ft. pounds. **3rd** Be sure the space between the front cross member of the hitch and the bed cross member are equal on each side of the truck. Then tighten the front and rear U-bolts on each side to 60 ft. pounds. **4th** Thread the front L-bolt flange nuts against the sideplate (do not tighten). Then tighten the rear flange nuts to 80 ft. pound, locking the nuts to sideplates. **5th** If the 8mm self threading bolts are being used on the driver's side instead of the L-bolt, tighten them to 10 ft. pounds.



### STEP 6

Install the latch release handle by inserting the handgrip end of the handle rod from inside the center section through the slot in the endplate. Align the handle loop and the hole in the tab on the end of the latch pin assembly, putting the handle on the pickup cab side of the tab and bolt together using the 3/8" x 3/4" bolt and lock nut. Before tightening make certain the latching handle is resting in the lower portion of the slot in the endplate. This will ensure adequate clearance between the sheet metal flange and the frame rail. When properly attached, the center of the handle should be in line with the center of the pin assembly.



### STEP 7

To install the safety chain brackets it is necessary to drill four 1/2" holes through the truck bed floor. Drill the holes from beneath the truck, through the four holes located in the farthest location from the round receiver tube in the center section. Drop a U-bolt through each pair of holes from the top side of the truck bed floor. Place a spring and lock nut on each of the four legs. Tighten the lock nuts until flush with the bottom of the U-Bolts.

