

## Installation Instructions

### Model 116 Dodge RAM

Fits 1994- 2001

Long & Short Bed - 1/2, 3/4 & 1 Ton

Fits 2002

Long and Short Bed- 3/4 & 1 Ton



**PopUp**™  
Retractable Hitch Ball

220 W. 14th  
Chanute, KS 66720  
800-837-8578  
US Patent 6,447,000

## MODEL 116 Rev2 FOR THE SAFEST INSTALLATION

**WARNING** Most pick up trucks have **FUEL LINES** and/or **BRAKE LINES** and/or **ELECTRICAL WIRING** positioned along the truck frame rails where your PopUp hitch will install. **BEFORE INSTALLATION** identify and examine the location of fuel lines, brake lines and electrical wires. Be sure you will not damage fuel lines, brake lines or electrical wiring when positioning PopUp hitch components, drilling holes or tightening fasteners. **Be Certain To Avoid Fuel Tanks When Drilling Holes.**

- Wear Safety Glasses, Gloves and Particle Mask for protection while installing a PopUp gooseneck hitch.
- ALWAYS correctly chock tires prior to raising truck with jacking device. For protection in case of jacking device failure ALWAYS use Jack Stands when working under or around a truck which has been raised by a jacking device.
- Be certain the exhaust system to cool prior to installation to avoid possible burns from hot tail pipe and muffler.
- Torque ALL fasteners used in the PopUp gooseneck hitch installation as specified in these Installation Instructions.

### INSTALLATION PROCEDURE    **NOTE:** Does Not Fit 2002 Ram 1500 Trucks (Use Model 119)

**CAUTION:** If larger after-market wheels and/or tires have been installed verify adequate Actuating Rod clearance.

**CAUTION:** Before mounting **SNOW CHAINS** verify adequate Actuating Rod clearance. Allow for suspension travel.

**CAUTION:** Verify adequate trailer swing clearance between trailer nose and cab or truck and trailer and rear of truck.

1. Mark and center punch a location for **SHORT BED TRUCKS at 44-7/16" (44.4375")** or for **LONG BED TRUCKS at 48-7/16" (48.4375")** from the rear lip of the truck bed (tailgate end) centered between the wheel wells. Use a 3" hole saw to cut a hole in the bed floor centered at this location. Clean all saw tailings from the bed area before proceeding. Remove the spare tire.
2. If so equipped, cut the **Heat Shield** off where it bends upward to pass over the muffler hanger/shock absorber mount, remove the three 3/8" sheet metal screws, and discard the rear section of the heat shield.
3. Some **Short Bed** trucks have sheet metal brackets spot welded outside the frame rails at the bed cross member forward of the axle. It may be necessary to remove these brackets to mount the Frame Plates. It is often possible to distort these brackets sufficiently to install the Frame Plates. (These brackets are used for bed alignment during truck manufacture.)
4. On **Four Wheel Drive** trucks it is necessary to remove the driver side plastic fender liner. After hitch installation is complete re-install the fender liner using pop rivets or nuts and bolts (not provided) and cut a 6" diameter or larger hole in the fender liner to allow access to the Actuating Rod.
5. On the driver side, on the lip formed where the bed floor and fender well are welded together, mark a location immediately at the rear edge of the bed cross member forward of the axle, and mark another location 8" rearward. Use a muffler cutter or tin snips to make vertical cuts at these locations the full depth of the lip where the bed side and the fender well join. Fold the lip section between the two cuts inward and upward to a position level with the bottom of the bed floor. (Use vise-grips and/or a prying bar levered against the top of the frame.)
6. Identify the Front Cross Member (2), the bar fitted with bolts. With the bolts facing the rear of the truck, and with the two center bolts up, slide the Cross Member across the frame rails of the truck from the driver side. Position the Front Cross Member centered across the frame rails against the bed cross member forward of the axle. Angle the top of the Cross Member rearward at approximately 45 degrees to facilitate stabbing the Ball Assembly with the bolts in the Cross Member.
7. Slide the Rear Cross Member (1), the angle, across the frame rails similarly, with the plain side (2" leg) up and with the slotted side facing forward. Position the Rear Cross Member about 6" rearward of the 3" hole in the bed floor.
8. With the ball down, and with the cam facing the front of the truck, raise the Ball Assembly (3) into position between the Cross Members with the protruding tube passing into the 3" hole. Fit the holes in the front leg of the channel over the bolts in the Front Cross Member. Place the Eye Bolt (provided) in the threaded hole in the top of the hitch ball and secure it to an overhead lifting device, or to a saw horse in the bed of the truck, and use cable or rope to hold the Ball Assembly firmly against the underside of the bed floor. Fasten the Ball Assembly to the Front Cross Members using 1/2" nuts with flat washers over the slotted holes. Slide the Rear Cross Member forward and fasten it to the Ball Assembly by passing 1/2" X 1-1/2" bolts from inside the channel and securing with flat washers and nuts. Tighten the fittings in the Front Cross Member, while leaving the fittings in the Rear Cross Member very loose at this time over

## INSTALLATION PROCEDURE - CONTINUED

9. Square the assembled Cross Members and Ball Assembly across the frame. Identify the driver side (4, with labels) and passenger side (5) Frame Plates. Position the Frame Plate extensions between the Cross Members. Fasten to the Front Cross Member using a flat washer and a 1/2" nut. Fasten to the Rear Cross Member by passing a 1/2" X 1-1/2" bolt with a flat washer from the Frame Plate and securing with a 1/2" nut. Snug these fittings at this time.

**NOTE:** On trucks equipped with **OVERLOAD SPRINGS** it is necessary to cut 3" off of the rearward end of the Frame Plates

10. Fasten the Frame Plates to the frame by aligning two of the slots in the Frame Plate with existing holes in the truck frame. Pass 1/2" X 1-1/2" bolts with flat washers from inside the frame and secure with 1/2" flat washers and nuts.

11. **Torque** 1/2" fasteners to **65 foot pounds** in the following sequence: First the Cross Members to Ball Assembly, then to the Frame Plates to the Cross Members, and finally the Frame Plates to the truck frame.

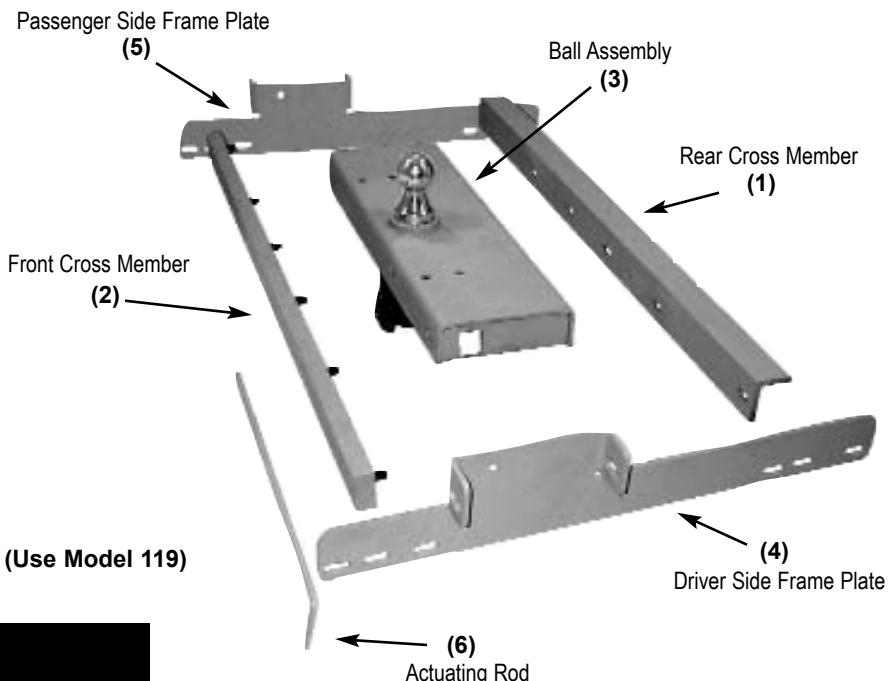
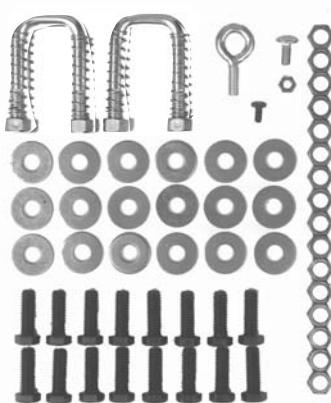
12. Pass the Actuating Rod (6) through the 1/2" hole between the Frame Plate extensions on the driver side and through the slotted hole in the end of the Ball Assembly and into the linkage coupler. Align the Actuating Rod so the set screw seats in the hole in the rod, and tighten to 7 foot pounds.

13. Drill four 1/2" holes for the Safety Chain Brackets from under the truck bed. Drill through the four holes in the Ball Assembly through the truck bed floor. Place a U-bolt in each pair of holes from the top side of the bed. From under the bed place a spring and 1/2" lock nut on each U-bolt leg. Tighten each nut until thread extends through the nut.

## HITCH BALL OPERATION

**WARNING: ALWAYS WEAR GLOVES FOR PROTECTION WHEN RAISING OR LOWERING HITCH BALL.**

1. Read the **SAFE TOWING INSTRUCTIONS** on your **Warranty Sheet**.
2. Raise and Retract the hitch ball with the Actuating Rod located in the driver side rear wheel well. Raise the hitch ball by firmly pulling the actuating rod to its maximum extension. **Note: Always make certain the hitch ball is fully raised before coupling to a trailer.** When the hitch ball is fully raised, a line cut around the neck of the hitch ball is visible at the tube. Retract the hitch ball by pushing the Actuating Rod to its seated position. (A sharp blow on the Actuating Rod will release the raised hitch ball.)
3. Retract and Raise the hitch ball frequently. The cam/ball mechanism is best lubricated with a spray of silicone lubricant.
4. Insert the Plastic Cap (provided) into the tube for protection from accumulation of debris in the top of the tube when the ball is retracted. The Plastic Cap will pop out when the ball is raised. Protection from debris can also be achieved by leaving the ball in the raised position when a level bed is not required.
5. It may be necessary to remove debris allowed to accumulate in the top of the tube while the hitch ball is retracted and not protected with the Plastic Cap. Insert the Eye Bolt in the ball and lift the ball using a screw driver to displace debris and free the ball.



**Does Not Fit 2002 Ram 1500 Trucks (Use Model 119)**

**Model Number 116 (1164444277)**  
**Gross Trailer Weight: 30M lbs.**  
**Gross Trailer Tongue Weight: 7.5M lbs.**