

## Installation Instructions

**Model 110**  
**Ford Classic Style**  
Fits 1980-1998  
Long & Short Bed - 1/2, 3/4 & 1 Ton



**PopUp**<sup>TM</sup>  
Retractable Hitch Ball

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US Patent 6,447,000

## MODEL 110

## 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. Do not damage fuel lines, brake lines or electrical wiring when positioning PopUp hitch components, drilling holes or tightening fasteners. **Avoid Fuel Tanks When Drilling Holes.**

- Wear Safety Glasses, Gloves and a Particle Mask while installing a PopUp gooseneck hitch.
- ALWAYS correctly chock tires prior to raising truck with jacking device.
- ALWAYS use Jack Stands when working under or around a truck which has been raised by a jacking device.
- Allow the exhaust system to cool prior to installation to avoid possible burns from hot tail pipe and muffler.

## INSTALLATION PROCEDURE

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

**NOTICE:** Verify adequate trailer swing clearance between trailer nose and cab on Shot Bed Trucks.

**TO INSTALL IN 1/2 TON TRUCKS:** Cut notches in front and rear Cross Members 1/2" deeper, bend Actuating Rod as shown in illustration on reverse side, and trim lip formed where fender well and bed floor join for adequate Actuating Rod clearance.

1. Mark and center punch a location 50.4375" (50-7/16") from the rear 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. Remove all saw tailings from the bed area.

2. If using a vehicle hoist, raise the truck at this time. If using a jacking device Chock the front tires to prevent the truck from rolling. Jacking against the rear bumper or frame, lift the rear of the truck approximately 10". It is not necessary to lift the rear tires off the ground. Properly position jack stands under the rear frame of the truck to protect against jack failure. Remove the spare tire.

3. The heat shield located above the tail pipe at the rear axle must be removed. Replace the forward screws.

**Power Stroke Diesel** requires loosening the tail pipe bracket forward of the rear axle and strapping between the highest section of tail pipe and axle to hold the tail pipe low enough to install hitch components. After the hitch is installed place a 1/4" shim in the tail pipe bracket and tighten.

4. Identify the Rear Cross Member (1), the angle with the deepest notches. With the plain side (2" leg) up and with the slotted side (2-1/2") facing the front of the truck, slide the Cross Member across the frame rails from the driver side wheel well forward of the rear axle. Slide the Cross Member rearward onto the highest part of the frame rails. Position the Cross Member approximately square across the frame rails and about 6" behind the hole in the bed floor.

5. Slide the Front Cross Member (2) across the frame rails similarly, with the plain side (2" leg) up and with the slotted side facing rearward. Position the Forward Cross Member about 3" forward of the hole in the bed floor.

6. 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 placing the 3" tube in the hole cut in the bed floor. 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 Cross Members by passing eight 1/2" X 1-1/2" bolts from inside the Ball Assembly channel, and fitting with a flat washer and nut over the slot holes in the Cross members. Leave these very loose at this time.

7. Square the assembled Cross Members and Ball Assembly across the frame. Mount the Frame Plates (4 & 5) on the outside of the truck frame rails by passing a 3/4" bolt with flat washer from inside the truck frame through the large hole in the truck frame. Insert two 1/4" spacer washers between the outside of the truck frame and the Frame Plate, and complete the fastening with a 3/4" nut and flat washer outside the Frame Plate. Do not fully tighten at this time. This will position the Frame Plate extensions between the Cross Members. Pass 1/2" X 1-1/2" bolts with flat washers from the slotted holes in the Frame Plate extensions. Secure with 1/2" nuts. Snug these fasteners at this time, but do not torque.

(over)

## INSTALLATION PROCEDURE - CONTINUED

- Use a 1/2" drill bit to center a location in the frame rail at the slotted hole in the Frame Plate. Drill a 1/4" pilot hole and complete with a 1/2" drill bit. Pass a 1/2" X 1-1/2" bolt from inside the frame rail and fasten with a flat washer and nut. Torque **ALL** the 3/4" and 1/2" fasteners to 65 foot pounds.
- From the driver side, pass the Actuating Rod (6) through the 1/2" hole between the Frame Plate extensions 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 provided in the rod, and tighten to 7 foot pounds.
- Drill four 1/2" holes for the Safety Chain Brackets from under the truck bed. Drill through the **OUTER** four 9/16" holes in the Ball Assembly through the truck bed floor. Remove all tailings. 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.
- Be certain all hitch fasteners are torqued as specified in these installation instructions.
- See the HITCH BALL OPERATION instructions below.

## HITCH BALL OPERATION

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

- Read the **SAFE TOWING INSTRUCTIONS** on the PopUp **Warranty** sheet.
- 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 Actuating Rod is Fully Extended and 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 ball/detent latching the raised hitch ball so the Actuating Rod can be returned to its fully seated position.)
- Retract and Raise the hitch ball frequently. The cam/ball mechanism is best lubricated with a spray of silicone lubricant.
- Insert the Plastic Cap (provided) into the tube for protection from accumulation of debris. 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.
- 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.



PopUp does not use lock washers.  
Torque all fittings as specified.

Passenger Side Frame Plate

(5)

Ball Assembly

(3)

Rear Cross Member

(1)

Front Cross Member

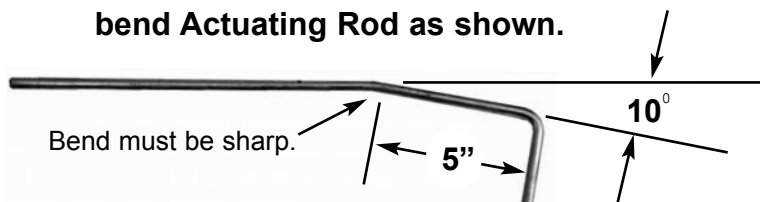
(2)

Driver Side Frame Plate

(4)

Actuating Rod

**When hitch is installed in 1/2 Ton Truck  
bend Actuating Rod as shown.**



**Model Number 110 (1101555211)**  
**Gross Trailer Weight: 30M lbs.**  
**Gross Trailer Tongue Weight: 7.5M lbs.**