ProPride 3P Hitch

Pivot Point Projection™ Design

INSTALLATION

And

OPERATION

INSTRUCTIONS

IMPORTANT: Keep these instructions in your trailer.

Dear Friend,

Welcome to the ProPride family!

We understand that whenever a product is purchased from us the customer has shown confidence in our ability to produce and service a product that will provide an exceptional experience. We appreciate that confidence and thank you for it.

Our intent is to meet every expectation you might have so please follow the installation instructions in these pages in order to build a solid foundation for outstanding towing performance. By following these step-by-step instructions you will install the entire 3P hitch in under 2 hours and be on your way to the safest, most enjoyable towing experience possible.

Once you have installed the hitch please read the operation instructions. Keep in mind that this hitch will require a little bit of a learning curve to understand. Don't let that frustrate you as we are only a phone call away to help with any questions you may have. After a few outings you will become familiar with operating the hitch and it will all be easy.

Once again, thank you for your confidence. If you should have any suggestions to make these pages more useful please send them to us.

Sincerely,

Sean T. Woodruff

President

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Pre-Installation

Before beginning the installation of your new hitch you should remove any old equipment you have on the trailer.

Also, remove your gas bottles and set them aside. This is necessary when you get to the Frame Bracket installation.

Many people take this opportunity to clean up the tongue of the trailer by removing any rust and touching up the painted steel.

Adjustable Hitch Bar



Tools for Assembly

15/16” Socket / Ratchet

15/16” Open End Wrench

Parts for Assembly

Hitch Bar - Receiver End (Above Right)

Hitch Bar – Hitch End (Above Left)

Adjustable Hitch Bar Hardware Kit

Assembly and Installation

Step 1: Determine your tow vehicle receiver height. Measure from the ground to the top of your tow vehicle hitch receiver opening. Tow Vehicle = ____

Step 2: Determine your trailer ball height. Measure from the ground to the top of the coupler on your trailer. Trailer = ____

Step 3: Determine your hitch box height. Subtract 5-1/2” from the trailer measurement you determined in step 2. Hitch Box = _____

Step 4: Determine if the Hitch Bar Receiver End plates are installed UP or DOWN. If your Tow Vehicle number is GREATER THAN or EQUAL TO your Hitch Box

number use 4A or 4B. If your Tow Vehicle number is LESS THAN your Hitch Box number use 4C or 4D. Note: The Hitch Bar Receiver End is shown in the picture above with the side plates facing UP.

Tow Vehicle Higher Than Hitch Box

A. If your Tow Vehicle number from step 1 is 4" or MORE THAN (higher off the ground) your Hitch Box number from step 3, use the 5/8" Hitch Pin to pin the Hitch Bar Receiver End in your tow vehicle receiver with the side plates DOWN. If not proceed to 4B.
B. If your Tow Vehicle number from step 1 is LESS THAN 4" OR EQUAL TO your Hitch Box number from step 3, use the 5/8" Hitch Pin to pin the Hitch Bar Receiver End in your tow vehicle receiver with the side plates UP. (Like shown in the picture above)

Tow Vehicle Lower Than Hitch Box

C. If your Tow Vehicle number from step 1 is 4" or LESS THAN (lower to the ground) your Hitch Box number from step 3, use the 5/8" Hitch Pin to pin the Hitch Bar Receiver End in your tow vehicle receiver with the side plates UP. If not proceed to 4D.
D. If your Tow Vehicle number from step 1 is LESS THAN your Hitch Box Number AND LESS THAN 4" OR EQUAL TO your Hitch Box number, use the 5/8" Hitch Pin to pin the Hitch Bar Receiver End in your tow vehicle receiver with the side plates DOWN.

Step 5: Insert the Tilt Adjustment Pin and (2)-Washers (2 extra washers are provided) in the upper tilt adjustment pin hole. **Note:** If your side plates are facing down the hole is in the end of the 2"x2" bar. If your side plates are facing UP the hole is through the spacer between the side plates.



Step 6: Hitch Bar Hitch End assembly. If you used 4A or 4B above your Hitch Bar Hitch End will be like shown in the parts picture above with the adjustment holes facing UP. If you used 4C or 4D above your Hitch Bar Hitch End will have the holes facing DOWN.

Step 7: What is the difference between your Tow Vehicle number and your Hitch Box Number? Difference = _____

Step 8: Slide your Hitch Bar Hitch End up or down between the side plates until the difference between the top of the Hitch Bar Receiver End and the top of the Hitch Bar Hitch End is approximately EQUAL TO the difference figured in step 7.

Step 9: Insert the 5/8 x 4" Hex Pivot Bolt into the LOWER pivot hole in the side plates and through the Hitch Bar Hitch End holes that line up when you have the proper offset from step 8. Place the 5/8 Split Lock Washer on the pivot bolt and snug fit the 5/8 Hex nut. This is only snug fit at this time and will be wrenched tight later. **Note:** This step uses the HOLE in the side plate and NOT THE SLOT. The SLOT is the lowest location for a bolt on the side plate but in this step we use the HOLE above the slot.

Step 10: Raise the Hitch Bar Hitch End by hand until it contacts the Tilt Adjustment Pin.

Step 11: Insert (2) 5/8 x 4-1/2" Adjustment Bolts into the slots in the side plates. Use (2) 5/8 USA Thick Flat Washer for each bolt. One washer under the head of the bolt and one on the thread end of the bolt. Snug fit the 5/8 Hex nut on each adjustment bolt.

Step 12: With all three hex bolts snug fit raise the Hitch Bar Hitch End by hand until the slack in the Tow Vehicle receiver is taken out. The Hitch Bar Receiver End will be tight up against the top of the 2x2 receiver at this point. Take note of the Hitch Bar Hitch End. Is it approximately parallel to the ground? If not, adjustment washers can be added or taken away from the adjustment pin to make the Hitch Bar Hitch End more parallel to the ground. This is to fine tune the Hitch Bar orientation and does NOT have to be completed to complete the install.

Step 13: Use a 15/16” socket and 15/16” open end wrench to tighten ALL three bolts on the hitch bar. These bolts CANNOT be too tight. The tighter, the better. **Note:** The OCL wrench provided is a 15/16” socket with a breaker bar that can also be used to torque these bolts.

<u>Assembled Hitch Bars Sample Pictures</u>

Hitch Bar Assembled Plates UP – No offset between Tow Vehicle number and Hitch Box number.



Hitch Bar Assembled Plates DOWN – Offset between Tow Vehicle number and Hitch Box number.



Weight Distribution Jacks



Tools for Installation	Parts for Installation
Measuring Tape	Right Side Weight Distribution Jack
9/16” Socket / Ratchet	Left Side Weight Distribution Jack
3/4” Socket / Ratchet	Weight Distribution Jack Bracket Hardware

Installation

Step 1: Measure from the center of the trailer coupler along the frame to 26”. This can be +/- 1-1/2” if the gas bottle cover or some other part is in the way of exactly 26”. Mark the frame at this location on each side.

Step 2: Note: Jacks are now Universal LEFT OR RIGHT. They can be mounted on the LEFT OR RIGHT of the frame. {A Right Side Jack and the Left Side Jack are shown in the picture above but they are no longer made this way.}

Step 3: Place the front edge of the Right Side Jack Bracket down on top of the trailer frame at your line you marked in step 1.

Step 4: Insert the U-Bolt from the bottom of the frame UPWARD through the two holes in the Jack Bracket. Use the split lock washer and nut on the top side of the plate and tighten with 9/16" wrench or socket. Do not put too much torque on these bolts. No more than 30 ft-lbs is needed. More may result in the bottom of the u-bolt bending around the bottom of the frame. This u-bolt does not require a lot of force for the jack to work.

Step 5: Insert 1/2 x 3-1/2" Adjustment Bolt in the threaded hole on the inside of the bracket. Tighten this bolt up against the inside of the frame.

Right Side Weight Distribution Jack Installed

Note : The jacks are now centered on the plate and can be mounted left or right.



Step 6: Complete steps 3, 4 and 5 for the Left Side Jack.

Frame Bracket



Tools for Installation

Measuring Tape

11/16” Socket / Ratchet

Parts for Installation

Frame Bracket

Frame Bracket Plates (2)

Frame Bracket Hardware

Installation

Step 1: Measure from the center of the trailer coupler along the frame to 20”. This measurement can be +/- 1/2”. Mark the frame at this location on each side. This is the point at which the U-Bolts slide down over the top of the frame.

Step 2: Note: If the trailer has a gas bottle tray screwed to the frame at this location remove it temporarily. If the tray is welded it is necessary to drill two holes for the u-bolt to slide down through the tray (this is very uncommon.) Be sure to drill at 1” away from the edge of the tray so the bottles do no sit on top of the u-bolts.

Step 3: Slide the U-Bolts over the top of the frame pointing down.

Step 4: Raise the Frame Bracket upward against the bottom of the frame and insert the 4 U-Bolt ends through the slots in the Frame Bracket.

Step 5: Slide the Frame Bracket Plates on the ends of the U-Bolts and into the Frame Bracket channel. Snug fit the 7/16 Lock Washers and Hex Nuts up against the plates.

Step 6: Center the two Frame Bracket down tubes directly behind the coupler.

Frame Bracket Top View Installed



Frame Bracket Bottom Side View Installed



Step 7: Tighten the U-Bolt Hex nuts with your 11/16" socket.

Note: Set aside the 1/2 x 4-1/2 Hex Bolt, Support Roller Sleeve and 1/2 Hex Lock Nut for use during Yoke installation.

Main Hitch Unit



Tools for Installation

Over-Center-Latch Wrench
(This is the 15/16” Socket and Breaker Bar provided)

All Purpose Grease

Parts for Installation

Main Hitch Unit

Step 1: Slide the Main Hitch Unit on to the end of the Hitch Bar that is installed on your tow vehicle.

Step 2: Latch one of the Over-Center-Latches (OCL) onto the hitch bar tab using the 15/16” socket and breaker bar (OCL Wrench) provided. Insert 7/16” Lynch Pin into tab hole.

Top View of Main Hitch Unit on Hitch Bar with one OCL latched. The other OCL is rotated out to the side for reference. Also shows OCL wrench on OCL. This picture shows the Main Hitch Unit with the coupler. This has not been installed yet for your installation. Only reference the OCL latched on the hitch bar.



Step 3: Grease the hitch ball with all-purpose grease.

Step 4: Align the tow vehicle as straight as possible with the front of the trailer. **Note:** This is the alignment when you are towing down the road. Try to be centered.

Step 5: Raise the trailer tongue approximately 3-4" above level.

Step 6: Back the tow vehicle until the hitch ball is under the coupler. Keep the tow vehicle and trailer in alignment.

Step 7: Lower the trailer coupler down onto the ball but until it is seated. No downward load on the hitch ball at this point. Latch the coupler onto the hitch ball.

Weight Distribution / Spring Bars



Tools for Installation

9/16” Socket / Ratchet

9/16” Open End Wrench

All Purpose Grease

Parts for Installation

(2) – Spring Bars

(2) – Spring Bar Inner Bushings
(pre-installed in Main Hitch Head)

(2) – Spring Bar Links

Spring Bar Hardware

Step 1: Slide the center of hole (3 total) of the Spring Bar Link over the hook on the Weight Distribution Jack. Spring Bar Links are shown above at the top center of the picture. The hole at the bottom is twisted 90 degrees to the top three holes. Repeat on the other side.

Step 2: Remove the Spring Bar Inner Bushing from the bottom of the Main Hitch Unit with a 9/16” socket and a 9/16” open end wrench. Remove one side first and leave the other side installed at this point. This part is shown in the above picture bottom between the spring bars.

Step 3: Liberally grease the end of the spring bar with all purpose grease.

Step 4: Slide the Spring Bar Inner Bushing you removed in step 2 down over the end of the spring bar. Insert the spring bar in the plate end of the bushing.

Step 5: Line up the slot in the bushing with the slot in the spring bar. Insert one Spring Bar Retainer Disk through the slot on the bushing and into the slot on the spring bar. **Note:** The grease will help to hold it in place but make sure it doesn't drop out when you insert the spring bar back into the bottom of the Main Hitch Unit.

Spring Bar Inner Bushing with Spring Bar Installed with slots aligned



Spring Bar Inner Bushing with Spring Bar and Retainer Disk Installed – No Grease for picture clarity. The retainer disk is a tiny steel disk in the hardware bag.



Step 6: With the tail end of the Spring Bar facing the trailer, insert the Spring Bar Bushing back into the bottom of the Main Hitch Head and replace the 3/8 bolt and lock nut. Tighten the lock nut firmly.

Step 7: Attach the tail end of the Spring Bar to the Spring Bar link bottom hole with the 3/8" U-Bolt. Use 3/8" Flat Washers and Lock Nuts on the bottom side of the Spring Bar. Tighten the u-bolt firm and then back the nut off 1/2 turn. The link should be able to move freely on the u-bolt.

Step 8: Repeat steps 2-7 for the other side.

Note: There are grease zerks installed in the Spring Bar OUTER Bushing to grease your spring bars periodically without the need to remove them. You should grease the spring bars every 1000 miles or if you hear any noises coming from your hitch during turns.

Yoke



Tools for Installation	**Parts for Installation**
3/4” Socket / Ratchet	Yoke
3/4" Open End Wrench	Yoke Hardware (shipped loosely installed in Yoke)
1-1/8” Socket / Ratchet	
1-1/8” Open End if Socket not available	

Step 1: Remove the 3/4” hardware from the front of the Yoke. Shown above at bottom of picture. Do not remove inner steel bushing. Leave inserted in bronze bushing. **Note:** Pay attention to the order of the hardware. E.g. – Washer under the head of bolt.

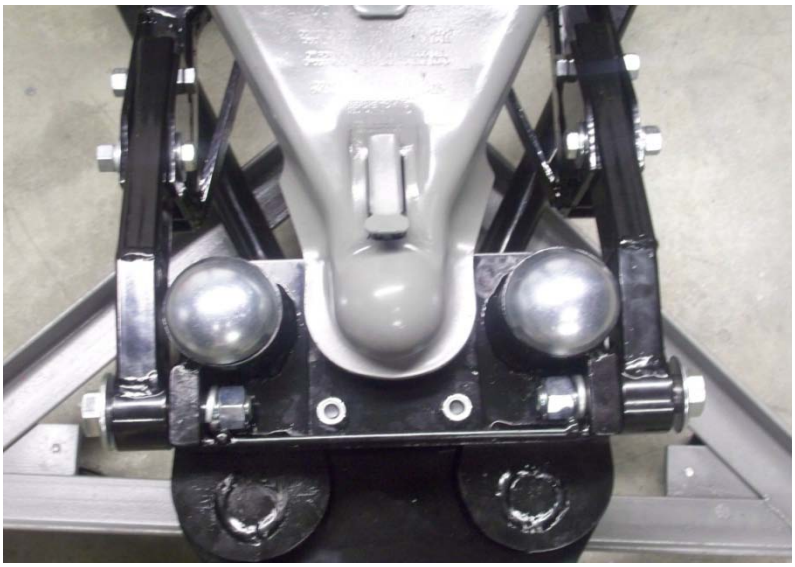
Step 2: Remove your hitch cover. (2) – 1/2" Bolts under the cover attach it to the Main Hitch Unit. Set aside and reinstall after Yoke is installed.

Step 3: Slide the Yoke under the trailer A-frame and behind the tongue jack. Bushings that you removed the hardware from should face the Main Hitch Unit. Top of picture above, Yoke tail, will point toward the trailer.

Step 4: Raise the front of the Yoke to align the bushings on the front of the Yoke with the holes in the side of the Main Hitch Unit. These holes are on each side of the hitch ball.

Step 5: Insert the 3/4" bolts, with the 3/4" flat washer under the head, through the Yoke bushings and into the 3/4" hole on the side of the Main Hitch Unit. Place the 3/4" split lock washer on the inside of the Main Hitch Unit and thread the bolt into the 3/4" hex nut. Once the bolt engages with the nut the nut block welded into the inside of the Main Hitch Unit will aid in tightening the bolts.

3/4" Yoke Hardware shown installed in Main Hitch Unit with cover off.



Step 5: Tighten the 3/4" Bolts VERY TIGHT. These bolts MUST BE TIGHT. Torque to 250 ft-lbs. Repeat on both sides of Yoke.

Step 6: Unlatch the one Over-Center-Latch (OCL) from the hitch bar.

Step 7: Note: Trailer tires should be chocked before this step or whenever you unhitch from the trailer. Pull the tow vehicle forward to clear the Hitch Bar from them Main Hitch Unit hitch box.

Step 8: Raise the Yoke tail (pointing toward the trailer and the top of the picture above) to between the two downward tubes of the frame bracket.

Step 9: Insert the 1/2 x 4-1/2 Yoke Tail support bolt through the down tubes with the Yoke Tail Support Roller under the Yoke Tail and between the tubes. Tighten the 1/2 " Locking Nut on the support bolt to take up any slack in the bolt.

Note: If the Yoke Tail can be moved from side to side, tighten the nut more on the Yoke Tail Support Bolt. Check this after a few miles of towing.

Step 10: Loosen the side bolts on the Yoke. The trailer side bolt is a pivot bolt. The bolt in the slot, toward the tow vehicle, should be adjusted up or down until there is approximately 1-2" between the Yoke and the bottom of the trailer A-frame.

Note: The Yoke should be approximately parallel with the trailer frame.

<u>Yoke picture under trailer frame 1-2"</u>



Step 11: Tighten the side Yoke bolts shown in the picture above.

Final Installation Adjustments

Number 1: Adjust the OCL latch screws so that they snap tightly over center and into the hitch bar. These screws are installed by the factory but can be lengthened (unscrewed) if the OCL latch is too loose and does not snap over center onto the hitch bar.

Number 2: Check that the hitch bar bolts are tight and torqued. These should be as tight as you can get them. 150 ft-lbs or more of torque.

Number 3: Check that the 3/4" Yoke bolts are tight. 250 ft-lbs of torque.

Number 4: Check that all other bolts and nuts are tight.

Note: If you did not start with the trailer and tow vehicle on level ground you should hitch up and tow it to level ground to check that the trailer and hitch are level. If you are not on level ground you can check that the trailer and tow vehicle are parallel to the ground by measuring a point at the front of the trailer and the rear of the trailer when hitched. If they are close to equal you will be level when towing.

Hitching and Unhitching

Hitching

Step 1: Chock your trailer tires.

Step 2: Back your tow vehicle slowly toward the front of the Main Hitch Unit until you are about 2" from the hitch.

Step 3: Adjust the tongue jack until the hitch bar is approximately centered in the 3"x3" hitch box opening.

Step 4: Back slowly into the Main Hitch Unit inserting your Hitch Bar Hitch End into the hitch box. When the wedges are seated in the hitch box you will have approximately 1/8" of the wedge showing out of the front of the hitch.

Step 5: Latch the Over-Center-Latch (OCL) on to the Hitch Bar Tab on each side. Use the OCL Wrench included with the hitch (15/16" Socket and Breaker Bar).

Step 6: Insert the 7/16" Lynch Pin in the Hitch Bar Tab and snap the wring down over the tab on each side.

Step 7: Raise the Weight Distribution Jack with the 3/4" Ratchet Wrench included with the hitch. Raise the Jack on each side until you either lift the trailer off of the tongue jack or you raise it to your desired ride.

Step 8: Raise the tongue jack.

Step 9: IMPORTANT – IMPORTANT – IMPORTANT – Route your tow chains **UNDER** the Main Hitch Unit and **BETWEEN** where the Spring Bars insert in the bottom of the Main Hitch Unit. When you are straight in line with your trailer the chains are the longest they ever need to be. When routed properly they should hang about 1" from the bottom of the Main Hitch Unit.

Step 10: Route your electrical connection over the top of the Main Hitch Unit and plug it into the vehicle.

Step 11: Hook up your emergency brake cable.

Unhitching

Unhitching properly will make your next hitch up go more smoothly. Hitching up is largely a result of how you previously unhitched. Once you make it routine to follow these steps, the Main Hitch Unit will be set for your next hitching.

You can unhitch at any angle in relation to your trailer. Once you have unhitched just leave the Main Hitch Unit hitch box facing in the direction you unhitched so you will be able to hitch up at the same angle.

Step 1: Chock your trailer tires.

Step 2: Lower your tongue jack until it takes the load off of the back of your tow vehicle.

Step 3: Unhook your chains, electrical and emergency brake cable.

Step 4: Lower your Weight Distribution Jack until the Spring Bar becomes loose. This may not be when the jack bottoms out. Kick the spring bar with your foot to recognize that there is not tension on it. At that point, STOP lowering the jack. Repeat this on the other side.

Note: The Weight Distribution Jacks will lower in relation to how level the tow vehicle is when you are unhitching. You can unhitch when not level but just note that your jacks will not be all the way bottomed out.

Step 5: Unlatch the OCL on each side with the OCL wrench.

Step 6: Pull the tow vehicle away from the hitch. If you have released the tension from the spring bars the hitch bar should slide smoothly out of the front of the hitch.