



# Universal Ranch Hitch Adapter

The perfect Adapter, giving farmers and ranchers with gooseneck and 5<sup>th</sup> wheel trailers the greatest amount of strength and versatility offered by any hitch system.

Thank you for choosing the Ranch Hitch Adapter. This kit adapts any kingpin style 5<sup>th</sup> wheel trailer pin box to attach to a bed mounted 2 5/16" ball type hitch. An experienced installer can install this adapter in a short amount of time with only a few tools. **We strongly recommend that the installer use anti-seize grease on all threads and the inside of the threaded collar, prior to assembly.** This will allow owners or installers to remove the adapter and transfer it to a new trailer if they so desire.

Andersen Manufacturing also strongly recommends that the adapter **NOT** be installed on "super-extended style" pin boxes. This is due to the nature of their construction, as some are built of a thin steel, which may bend, flex or distort during the installation process, or when pulling the trailer. In addition, some other pin boxes that are not of adequate strength, nor are they adequately reinforced internally to support the use of this adapter without drilling the pin box and bolting the adapter directly to the pin box. **Due to the variance of pin box construction, Andersen Manufacturing requires that all adapters be bolted to the pin box, regardless of their construction, for consumer's safety and warranty.** Refer to Step 5 for the proper procedure to install the bolts.

Unpack the kit and compare it with the Parts List for damaged or missing items. If the kit appears to be damaged by shipping and handling, contact the freight carrier who delivered the kit for their damaged freight procedures. If any component appears to be missing or damaged not due to shipping and handling, please contact us immediately at:

**Andersen Manufacturing, Inc.**  
3125 N. Yellowstone Hwy.  
Idaho Falls, Idaho 83401  
Phone: 800-635-6106 Fax: 208-523-6562

### Step 1.

**IMPORTANT: Before installing, remove the nylon anti-friction plate from around the king pin on the bottom of the pin box, if it is so equipped.** The anti-friction plate will prevent the adapter from being fully tightened against the pin box. Locate the threaded collar and the split collar halves. Apply anti-seize grease to the threads of the collar and on the inside of the collar, as shown in Fig. 2. Note that one side of the split collars and the threaded collar has an "X" stamped on each part. These marks should face downward when the halves and the threaded collar are placed around the trailer king pin. Balance the threaded collar on the split collar halves (Fig. 3) and push them up over the king pin as shown in Fig. 4. Bring the two collar halves together around the king pin and then pull the threaded collar down around the split collar halves. The threaded collar and the split collar halves have been tapered so that when the threaded collar is pulled downward using a pulley puller, or the optional slide hammer (ordered separately) as shown in Figs. 5 & 6, the split collar halves will grip the king pin securely. When using a pulley puller, pull the threaded collar down as tight as you can by hand, then tighten with the pulley puller **NO MORE THAN** one turn to engage the collar, Fig 5. The slide hammer requires 3 or 4 good raps to adequately seat the collar, Fig. 6. **NOTE:** The collar only needs to be tight enough to start the adapter threading on, without spinning on the split collar halves. As the adapter is tightened against the pin box, the collar will self tighten.



Figure 2



Figure 3



Figure 4

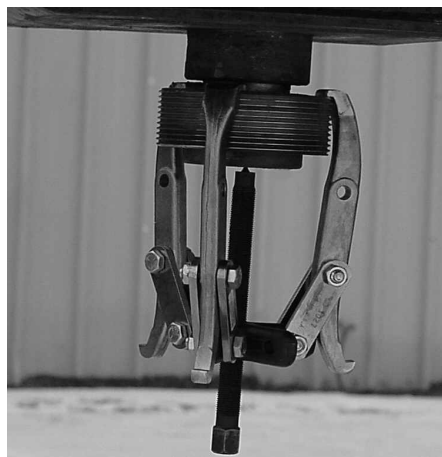


Figure 5



Figure 6

## Step 2.

For ease of installation, the lower half of the telescoping adapter has been removed while the Ranch Hitch Adapter is threaded onto the king pin, Fig. 7. **We strongly recommend that the installer use some type of anti-seize grease on the threads of the threaded collar so the Adapter may be removed at a later date if it is required.** **IMPORTANT:** Hand tighten the adapter, then use the included Spanner Wrench or a chain type wrench to tighten the Adapter as tight as you can against the pin box, as shown in Fig. 8. Use a 4' long pipe slipped over the end of the wrench and tighten the adapter to the required **1,200 ft/lbs** torque, which will be as much as two men can pull on the end of a 4' pipe, after the Adapter has made contact against the bottom of the pin box, as shown in Fig. 9. **DO NOT USE ANY MECHANICAL DEVICE TO MULTIPLY FORCE OF TWO MEN ON THE END OF THE 4' PIPE.** Tightening the Adapter to this specification ensures that the Adapter will transfer the load of the trailer directly to the ball hitch, and not cause damage to the trailer or the towing vehicle, due to excessive play. Periodically inspect and re-tighten as necessary, as you pull your trailer. If you notice that the adapter is frequently loosening, we recommend that you follow Step 5 and secure the adapter to your pin box with the four Grade 8 bolts we have provided with the adapter.



Figure 7



Figure 8



Figure 9

## Step 3.

Reinsert the lower half of the Adapter, the “ball coupler” into the telescoping sleeve as shown in Fig. 10. Note that as you insert the lower half of the adapter, there is a “line” scribed on the telescoping section of the coupler insert. **The “insert” should not be extended below this line or the adapter will not have adequate strength to support or pull your trailer.**

Set the proper height to allow the trailer to adequately clear the sideboards of your pickup's bed, and tighten the set screws to **150 ft/lbs** to secure the ball coupler in the Adapter, Fig. 11.



Figure 10



Figure 11

#### Step 4.

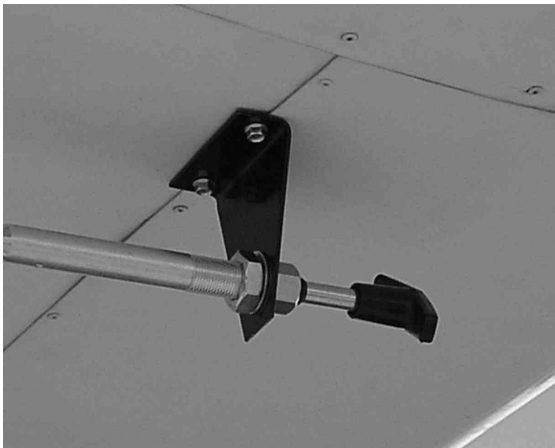
Attach the cable bracket to the underside of the trailer's overshot, **within 24"** of the *centerline* of the trailer (See Note below). Use the two self drilling, self tapping screws provided, and install as shown in Fig. 12. A cordless drill with a 5/16" socket is recommended for the easiest installation. Make sure that the screws are installed in the frame of the trailer, or the screws will eventually pull out of the thin fiberglass or aluminum sheet metal skin of the trailer.

**Note:** We strongly recommend that the bracket be installed within 24" of the centerline of the trailer to prevent the cable and bracket from being crushed by the pickup's sideboards. This can happen when the trailer and the pickup become twisted in reference to each other on uneven surfaces often found in campgrounds. Normally, with the old style 5<sup>th</sup> wheel hitch, this twisting will put tremendous strain on the frames of the truck and trailer because the 5<sup>th</sup> wheel hitch prevented the truck and trailer from twisting in reference to each other. The Ranch Hitch Adapter eliminates these twisting stresses.



**Figure 12**

A 1/4" eye bolt, two 1/4" flat washers, two 1/4" nuts, and a quick-release snap (to connect to the end of the safety cable for the trailer's emergency disconnect braking feature) have been included in the kit. Attach the end of the trailer's emergency brake cable to the quick-release snap. Locate the side or middle stake pocket of the pickup bed. There should be a hole into which you could install the 1/4" eye bolt, or drill a 5/16" dia. hole in the side of the stake pocket. Make sure that there is a washer and nut on each side of the hole. Tighten the nuts securely against the side of the stake pocket. Attach the quick release snap to the 1/4" eye bolt for your emergency disconnect brake cable. *Do not forget to detach the cable when uncoupling your trailer.*



**Figure 13**

**To operate:** To secure the coupler to the 2 5/16" ball, simply twist the handle to unlock it, push it in until the handle touches the large nut, then twist to lock it in position. **IMPORTANT: With the handle touching the large nut, you will know that the coupler is fully locked. DO NOT FORCE THE HANDLE INWARD. If the handle will not push in fully, check to make sure that the receiver is fully seated down over the 2 5/16" ball.** Due to tight tolerances, if the trailer and receiver are angled too much in reference to each other, the receiver may not fully seat on the ball. This also applies to uncoupling the receiver as well. If the truck and trailer are angled too much in reference to each other, the receiver may become "stuck" on the ball. To alleviate this problem, ensure that the truck and trailer are more or less level in reference to each other.

To detach the coupler from the ball, twist the handle to unlock it, pull the handle out fully, and twist the handle to lock it again. Raise the trailer up to clear the ball, disconnect your wiring harnesses and safety break-away cables, then drive your truck out from under the trailer.

#### Step 5.

As stated in the preface to these instructions, it is necessary to also bolt the adapter to the pin box to ensure a secure union between the adapter and your trailer. Because there are various types of pin boxes mounted to 5<sup>th</sup> wheel trailers, some pin boxes are cheaply constructed with little to no reinforcing inside the pin box itself, especially around the area where the kingpin is welded to the pin plate. Because of this, the additional leverage created by the Ranch Hitch Adapter is too great for some pin boxes. Most of these pin boxes are the so called "super extended" pin boxes. Therefore, Andersen Manufacturing recommends that you use discretion when installing the Ranch Hitch Adapter to any 5<sup>th</sup> wheel trailers with the "super extended" pin box. The medium extensions, and of course the short extensions are, for the vast majority, acceptable. However, some pin box plates (the plate the king-pin is welded to) are narrower than the cone plate of the Ranch Hitch Adapter. In all

cases, we **require** the adapter be installed with nuts and bolts as described below. The flange around the cone plate on the adapter has 8-bolt holes evenly spaced around the flange. 4-grade 8 bolts (included in every kit) should be used when installing to a poorly designed pin box.

*Note: The lower half of the adapter has been removed for clarity. It is not necessary to remove it while following this procedure.*

There are eight holes punched into the flange on the cone of the adapter. After the adapter has been tightened as described in Step 2, locate four slots (two on each side) closest to the outer edges of the pin box plate. Make sure you are not drilling up into any gussets inside the pin box, then drill four 9/16" holes.

Insert the bolts with 1/2" flat washers on them up through the flange and into the pin box plate, as shown in Fig. 15. Place a lock washer and nut over each 1/2" bolt, inside the pin box. Tighten the bolts to 55 ft/lbs. of torque.



**Figure 14**



**Figure 15**

## Parts List

- 
- 1 Ranch Hitch Adapter Assembly (Adapter, Cable, Cable Bracket)
  - 2 Threaded Collar Assembly (1 Threaded Collar, 2 Split Collar halves)
  - 2 Self drilling, Self tapping Screws
  - 1 Safety Brake Cable Kit (Quick release snap, 1/4" eye bolt, two 1/4" flat washers, two 1/4" nuts)
  - 1 Spanner Wrench
  - 4 1/2" x 1 1/2" Grade 8 Bolts
  - 4 1/2" Flat Washers
  - 4 1/2" Grade 8 Nuts
  - 4 1/2" Lock Washers

## **Ranch Hitch Adapter**

### **LIMITED WARRANTY**

Andersen Manufacturing, an Idaho Corporation, having its principal place of business at 3125 N. Yellowstone Highway, Idaho Falls, Id, 83401 ("Manufacturer") warrants its **Ultra Hitch, Ranch Hitch Adapter and Rapid Hitch** Products (the "Products") for one year from the date of purchase as follows ( Subject to the Conditions and Limitations listed herein):

#### **1. Limited Warranty.**

Manufacturer warrants that the Products sold hereunder will be free from defects in material, and workmanship when subject to normal and proper use for the original purchasers ownership. If the Products do not conform to this Limited Warranty during the warranty period (as herein above specified), Buyer shall notify Manufacturer in writing of the claimed defects and demonstrate to Manufacturer satisfaction that said defects are covered by this Limited Warranty. If the defects are properly reported to Manufacturer within the warranty period, and the defects are of such type and nature as to be covered by this warranty, Manufacturer shall, at its own expense, furnish, replacement Products or, at Manufacturer's option, replacement parts for the defective Products. Removal, shipping and installation of the replacement Products or replacement parts shall be at Buyer's expense.

#### **2. Other Limits.**

THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Manufacturer does not warrant against damages or defects arising out of improper or abnormal use or handling of the Products; against defects or damages arising from improper installation, including bolting the **Ranch Hitch Adapter** to the pin box as described in the instructions; against sudden impact arising from a collision or other abnormal occurrences; nor against damages incurred if **Ranch Hitch Adapter** product is installed onto a "super extended" 5<sup>th</sup> wheel pin-box.

Since it is beyond the Manufacture's control as to what trailers the **Ranch Hitch Adapter** may be installed on, and what condition the trailer frame or pin-box may be in, the Manufacture will not warrant or assume liability for damages incurred. It has been the experience of the Manufacture that if the trailer is a recently built model and the frame is in good condition, and the trailer brakes work properly, there should not be excess stress or damage to the frame. It is the responsibility of the purchaser to have the trailer braking system checked and maintained on a regular basis. The Manufacture does not warrant against discontinuation of products, acts of God, defects in products or components not manufactured by Manufacturer, or against damages resulting from such non-Manufacturer made products or components. Manufacturer passes on to Buyer the warranty it received (if any) from the maker thereof of such non-Manufacturer made products or components. This warranty also does not apply to Products upon which repairs have been effected or attempted by persons other than pursuant to written authorization by Manufacturer.

#### **3. Exclusive Obligation.**

THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Manufacturer shall be to repair or replace the defective Products in the manner and for the period provided above. Manufacturer shall not have any other obligation with respect to the Products or any part thereof, whether based on contract, tort, strict liability or otherwise. It is understood that the seller's liability, whether in contract, in tort, under any warranty, in negligence or otherwise, shall not exceed the return of the wholesale amount of the purchase price paid by the purchaser, Under no circumstances, whether based on this Limited Warranty or otherwise, shall Manufacturer be liable for incidental, special, or consequential damages . The price stated for the product is considered in limiting sellers liability.

#### **4. Other Statements.**

Manufacturer's employees or representative's ORAL OR OTHER WRITTEN STATEMENTS DO NOT CONSTITUTE WARRANTIES, shall not be relied upon by Buyer, and are not a part of the contract for sale or this limited warranty. As mentioned above, Purchaser is responsible to maintenance checks on the braking system on a regular basis.

#### **5. Entire Obligation.**

This Non-Prorated Limited Warranty states the entire obligation of Manufacturer with respect to the Products. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect. Notice of any warranty situation must be sent to Andersen Mfg. by registered mail in writing and include a photograph of the defective or damaged part.



**Ultra Hitch & Ranch Hitch Adapter  
Warranty Registration and Validation System**

*\* All information must be complete in order for the warranty to be effective \**

**Mail or Fax this completed page to:**

**Andersen Manufacturing, Inc.**

3125 N. Yellowstone Hwy.

Idaho Falls, Idaho 83401

Phone: 800-635-6106 Fax: 208-523-6562

Installation Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_

Dealer Name: \_\_\_\_\_ Salesman: \_\_\_\_\_ Installer: \_\_\_\_\_

**Product Information:**

Type of Product: (place a checkmark by product(s) purchased)

\* **Ultra Hitch** \_\_\_\_\_

\* **Ranch Hitch Adapter** \_\_\_\_\_

Customer Signature upon approval of installation: X \_\_\_\_\_