

# INSTALLATION MANUAL



# 3100 - Straight Adapter



# 3139 – 8" Offset Adapter

24,000 lbs GTWR, 6,000 lbs tongue





## IMPORTANT SAFETY INFORMATION

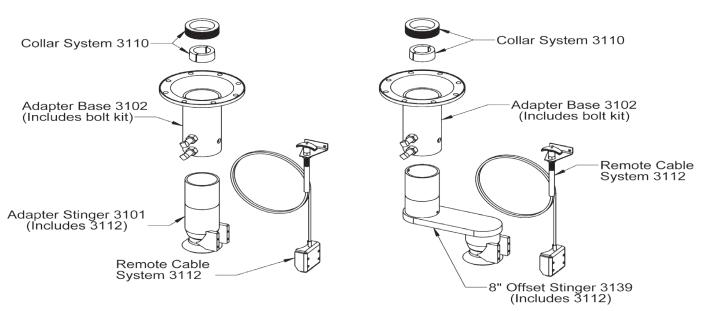


Regularly check all hardware, bolts and nuts for wear and fatigue. Make sure that they are all properly tightened and secured in place.

The Ranch Hitch Adapter is <u>NOT</u> recommended for cushioned or moveable pin boxes, only on static pin box applications. If you have a cushioned pin box you may want to use our Ultimate 5th Wheel Connection fifth wheel hitch instead.

Because Andersen Manufacturing Inc. has no control of your trailers' pin box and frame construction, we would ask you to use caution on your first towing experience with the Ranch Hitch Adapter. Be aware of what your trailer is telling you. If you are feeling undue chucking, or if you feel significant surging when stopping or starting, additional reinforcing gussets may need to be positioned in or on your pin box. A good welder will be able to shore things up, and you will be safely on your way. If you are unsure, please feel free to call us.

#### PARTS ILLUSTRATION

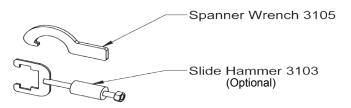


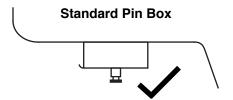
# 3100 - Straight Adapter

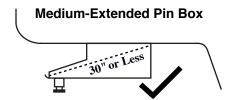
# 3139 - 8" Offset Adapter

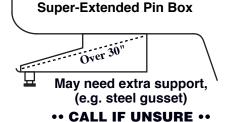
# **PARTS LIST**

- 1 Ranch Hitch Adapter Base
- 1 Ranch Hitch Adapter Assembly (includes stinger, base, cable, and cable bracket)
- 1 Threaded Collar Assembly (one threaded collar and two split collar halves)
- 2 Self drilling, self tapping screws
- 1 Safety Brake Cable Kit (quick release snap, ¼" flat washers, two ¼" nuts, 1 eye bolt)
- 1 Spanner Wrench
- 4 1/2" Grade 8 Bolts
- 4 1/2" Lock Washers
- 4 1/2" Grade 8 Nuts
- 2 Set Screws





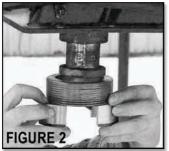


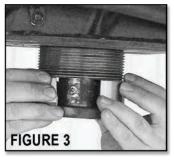


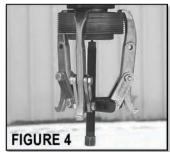
## INSTALLATION

- 1. Thoroughly inspect the trailer's pin box and frame for cracks or broken welds before installing the Ranch Hitch Adapter. Repair any problems before installation. On used trailers, inspect the king pin for wear and file any swaged metal round again or the Ranch Hitch split collar will not install properly. Use your good judgment in determining that the Ranch Hitch Adapter and the Trailer will work together to achieve the desired results (e.g. the heavier a trailer is, the shorter or stouter your pin box should be). Remove the plastic anti-friction plate if the trailer is equipped with one. It is important that the Ranch Hitch adapter base be mounted directly to the metal of the pin box.
- 2. Unpack the Ranch Hitch adapter box and make sure there are no missing parts by comparing items to the Parts List on page 2 in this manual. Contact your Authorized Andersen Dealer or Andersen's Customer Service Dept. if any parts are missing or damaged.
- 3. Locate the threaded collar and the split collets (2 pieces). The threaded collar is screwed into the black base at the factory to keep the threads from getting damaged in shipping. NOTE: The threaded collar and the split collets are each stamped with an 'x' on the bottom of the item. Ensure that all x's point down when assembling because the threaded collar and split collets are tapered.
- 4. Liberally apply anti-seize grease to the trailer king pin, the split collets, and the threaded collar. This will facilitate removal should you ever find the need (see Figure 1).
- 5. With the marked 'x' pointing down on each, slide the threaded collar over the king pin and while holding the collar up, place the split collets around the narrow neck of the king pin (see Figures 2 and 3). Slide the threaded collar down over the split collets and pull tight. You need to seat the threaded collar over the split collets with enough force that it does not want to slide up or spin when you thread the black base onto the threaded collar. You can accomplish this by using a gear puller to lightly seat the threaded collar onto the split collets (see Figure 4). One full turn from finger-tight is sufficient. If you will be installing these Ranch Hitch Adapters regularly (and we certainly hope you will,) you may wish to use our Slide Hammer #3103. It facilitates both installation AND removal of the Ranch Hitch (see figure 5).











- 6. Locate the Ranch Hitch Adapter base and apply anti-seize grease to its inner threads. Thread it clockwise onto the seated collar, being careful not to cross-thread the base (see figure 6). Spin the base onto the collar –it should spin very easily— until the base contacts the bottom of the pin box. Inspect the base/pin box contact area and make sure the two touch each other without any gaps.
- 7. Locate the spanner wrench and a "cheater pipe" (not to exceed 4ft). Insert spanner wrench into the punched hole near the bottom of the base (see figures 7 and 8). Place cheater pipe over spanner wrench and tighten to 400 ft-lbs torque (this will be as much as two men can generate by pulling together on the end of your cheater pipe). This will finish seating the threaded collar onto the split collar and ensure a very strong grip on the king pin.
- 8. Locate the grade 8 bolts, lock washers and nuts. There are 8 holes drilled in the Ranch Hitch Adapter Base, but only four need to be used. You will be responsible to choose which 4 holes will be used to accept the Grade 8 Bolts; try to evenly spread the load as much as possible. Take care to locate the bolts where they will not interfere with any gusseting that might be inside the pin box. Drill the four holes. Insert the bolts into each hole and secure with a lock washer and nut. Tighten to 55 ft-lbs (see Figures 13 and 14 on the following page). Some pin boxes are enclosed and cannot be accessed for placement of the washers and nuts. In this case, or in any other application, the Grade 8 Bolts can be replaced by 4 one-inch tack welds placed by a certified welder. (NOTE: drilling and tapping the pin box metal to accept the grade 8 bolts will not offer sufficient strength and is not acceptable.)
- 9. Locate the stinger and remote cable assembly and the 2 set bolts. Place the stinger into the base and lightly tighten the set bolts enough to hold the stinger in place (see Figure 9). Note that the stinger tube has a scribed line or groove approximately half way up the tube. This line must not be visible when the stinger is in its final or lowest adjustment position in the base or there will not be sufficient stinger material inside the base for the set bolts to engage.
- 10. Back the tow vehicle under the trailer and determine the necessary position of the stinger to ensure the trailer is level and the overshot has sufficient clearance from truck bed sideboards. If you are installing the #3100 Ranch Hitch Adapter, there is no proper position for the locking mechanism. If you are installing the #3139 8" offset Ranch Hitch Adapter, the extension needs to be carefully positioned parallel to the centerline of the trailer. When you have determined the final position of the Stinger, tighten the set bolts to 180 ft-lbs of torque (see Figure 10). (NOTE: The remote cable assembly is adjusted at the factory and should need no further adjustment to function properly).





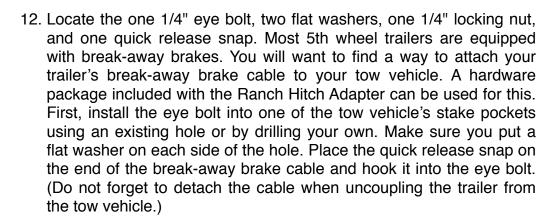








11. Attach the remote cable bracket (the part with the T-handle on the end of the cable) and the 2 self tapping screws. Choose a location under the trailer overshot that will allow the screws to penetrate the framing of your trailer. (See Figure 12). DO NOT rely on only penetrating the trailer skin, or the cable handle will work free. We recommend you keep this mounting spot within 24 inches of the trailer centerline to assure that the bracket and T-handle have sufficient clearance from the tow vehicle side boards to avoid crushing them when on uneven terrain or when turning. Secure the handle bracket to the frame with the self tapping screws (See Figure 11). Do not leave the remote cable assembly flopping loosely in your tow vehicle bed. It will inevitably get snagged on something and become damaged.



13. Make sure the Ranch Hitch Adapter coupler is open by twisting the T-handle counter-clockwise and pulling it out. Couple the trailer and the tow vehicle together and close the Ranch Hitch Adapter by pushing the T-handle in and turn clockwise 1/4 turn. Make sure the trailer and tow vehicle are coupled up by lifting the trailer with its jack to assure the Ranch Hitch Adapter has locked onto the tow ball. Connect the trailer break-away brake cable.



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Some States require Safety Chains. Andersen's Heavy Duty Safety Chains (part #3109) will fulfill this requirement.





