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## Inner arm replacement kit

For Falcon All-Terrain™ tow bars. Also fits BlackHawk™ 2 All-Terrain tow bars with serial numbers up to 16,499 – part number 910021-65

# Installation Instructions

All specifications are subject to change without notice.

### WARNING

Read the instructions before installing the kit components. Failure to understand how to install this product could result in property damage, serious personal injury or even death.



### Kit components

This kit contains the components to replace the inner arm on a BlackHawk 2 All-Terrain or a Falcon All-Terrain tow bar –

- (1) inner arm assembly (1) Nylock nut

### Required tools

- 9/16" socket wrench straight edge screwdriver
- 1/4" Allen wrench

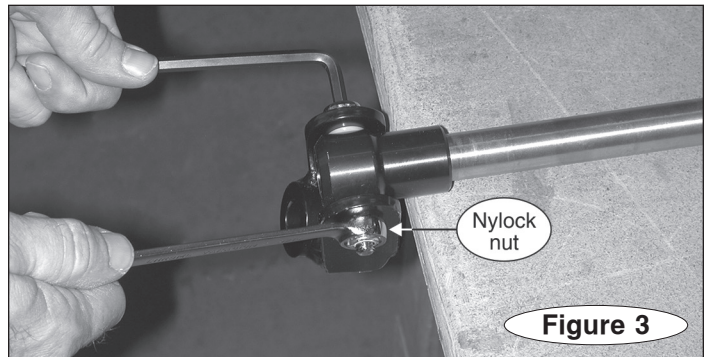
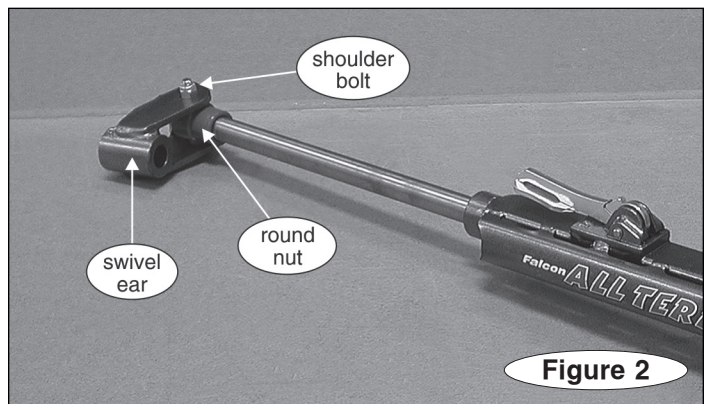
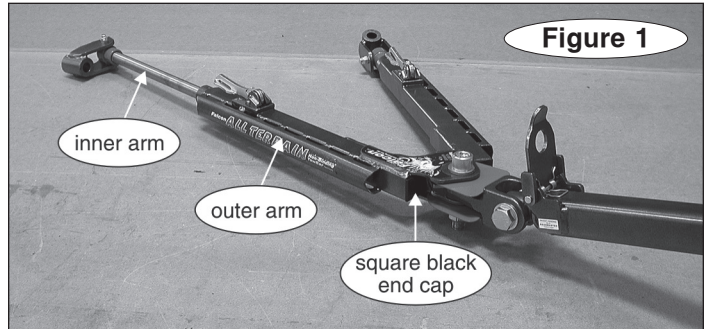
### Installation instructions

1. Use the straight edge screwdriver to pry off the square black end cap (Figure 1) at the end of the outer arm (Figure 1). Save the cap; you will replace it when the tow bar is reassembled.
2. With the 1/4" Allen wrench and the 9/16" socket wrench, remove the Nylock nut from the bottom of the Allen head shoulder bolt connecting the swivel ear to the round nut. Refer to Figures 2 and 3. Discard the Nylock nut.

### WARNING

Discard the original Nylock nut. It will not hold the shoulder bolt in place if it is reattached. The swivel ear, and the tow bar arm with it, will detach from the towed vehicle, causing the towed vehicle to separate or to be held by only one tow bar arm.

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## IMPORTANT NOTICE! Safety Definitions

These instructions contain information that is very important to know and understand. This information is provided for safety and to prevent equipment problems. To help recognize this information, observe the following symbols:

### WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in property damage, serious personal injury or even death.

### CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in property damage, or minor or moderate personal injury.

### CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

### NOTE

*Refers to important information and is placed in italic type. It is recommended that you take special notice of these items.*

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**Failure to follow these instructions will result in property damage, personal injury or even death.**

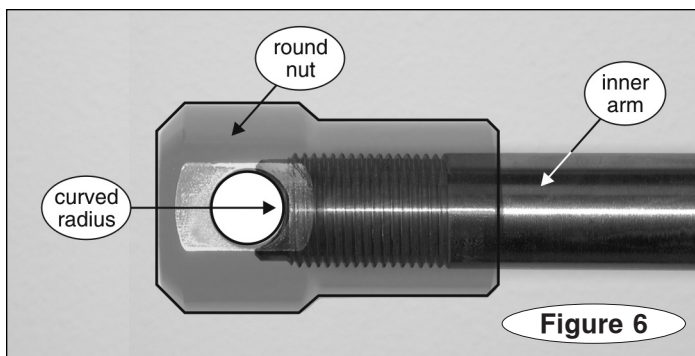
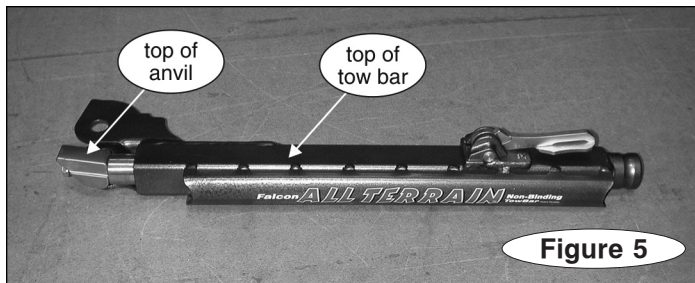
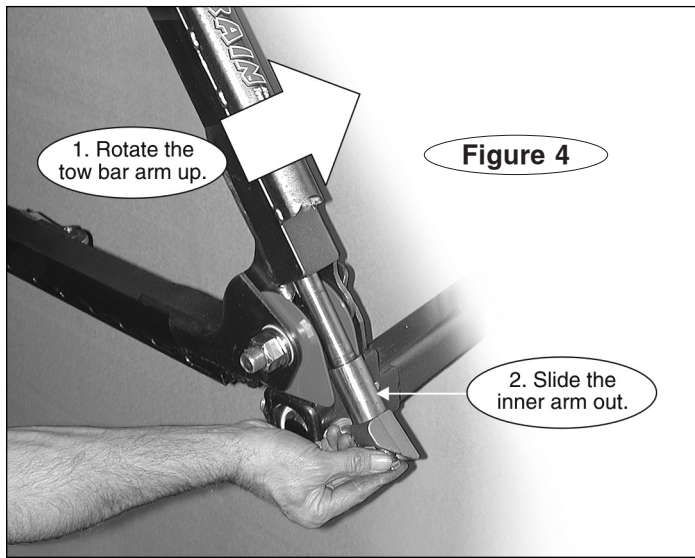
3. Unthread and remove the round nut.
4. Rotate the tow bar arm up, until it is vertical (Figure 4), and slide the inner arm completely out.

*Note: if the inner bar arm is bent, cut the bent section with a hacksaw or a cut off wheel before pushing the inner arm out.*

5. Insert the replacement inner arm back into the outer arm, so that the anvil is aligned to the top of the tow bar, as shown in Figure 5. Slide the inner arm completely through the outer arm, until it locks in place.

6. Thread the round nut onto the replacement inner arm, until the curved radius at the end of the inner arm (Figure 6) aligns to the hole through the round nut.

Reinsert the shoulder bolt. If the collar is overtightened, the shoulder bolt will not fit through. If this is the case, loosen the round nut just enough to allow the shoulder bolt to be



fully inserted through the collar nut.

Do not rotate the round nut forward or backward from this position. If the round nut is moved forward, the shoulder bolt will not fit. If the round nut is moved backward, it will rotate off the tow bar arm. Refer to Figure 8.

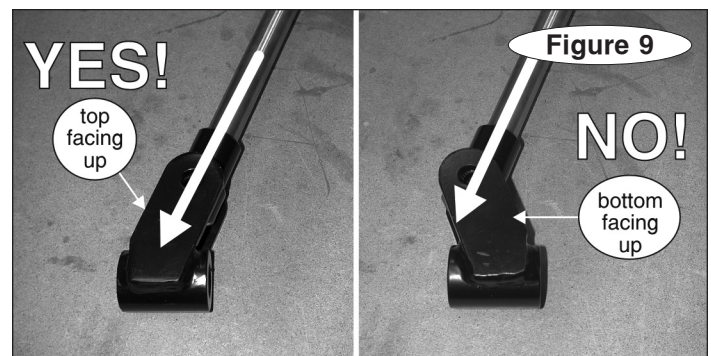
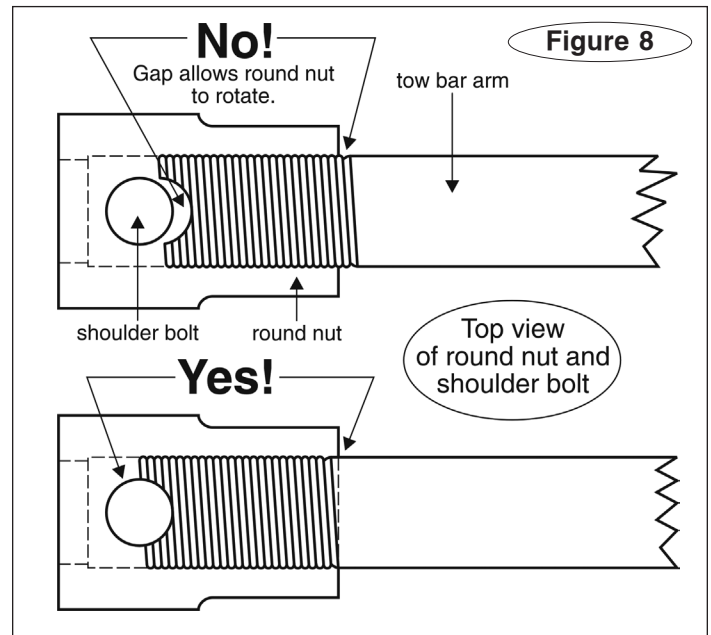
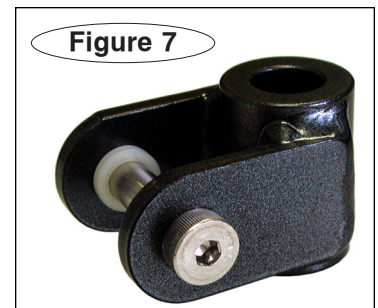
**! WARNING**

**If the round nut is moved backward on the tow bar arm, the shoulder bolt will not hold the round nut in place. Towing vibrations will cause the round nut, and the swivel ear with it, to rotate off the tow bar arm.**

**The tow bar arm will detach from the towed vehicle, causing the towed vehicle to separate or to be held by only one tow bar arm, which will result in property damage, personal injury or even death.**

7. Determine which version of swivel ears are on the tow bar – the swivel ears were redesigned in 2014, to fit either side of the tow bar. A photo of the newer swivel ear is shown in Figure 7.

If the swivel ears on your tow bar resemble those in Figure 7, skip step 8 and the warning that follows on next page



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lows it.

8. For earlier versions of these tow bars **only** (see the preceding step) – the swivel ears must be attached with the top facing up, as shown in Figure 9 ('Yes!').

To distinguish between the top and bottom, spread the tow bar arms about 28 inches apart. Place a swivel ear over a round nut and rotate it to the left or the right, to the approximate position it would be in when towing. When the top is facing up, the swivel ear will be at the same angle as the tow bar arm.

**! WARNING**

**If the swivel ears are not attached as described above, the weight of the towed vehicle will cause them to separate, resulting in tow bar failure and the loss of the towed vehicle.**

**Failure to attach the ears properly may cause property damage, personal injury or even death.**

9. Remove the shoulder bolt and, with the 1/4" Allen wrench and the 9/16" socket wrench, reattach the swivel ear to the round nut (Figure 3).

Use the original shoulder bolt, the two original 3/4" diameter acetyl washers and the new Nylock nut.

10. Be certain to position the head of the shoulder bolt at the top of the tow bar – on the same side as the Freedom Latch (Figure 10).

Before tightening the Nylock nut, make certain that the head of the shoulder bolt is flush to the swivel ear, as shown in Figure 11.

*Note: over-tightening the Nylock nut will bind the collar and prevent it from pivoting properly. When it is tightened correctly, the collar should pivot easily.*

11. Check for correct installation – the swivel ear should rotate **no more** than 10° to 15° in either direction.

12. Reinsert the end cap into the end of the tow bar outer arm.

13. The installation is complete. If a second inner arm is to be replaced, repeat steps 1 through 12.

