

## KARLock Installation Instructions

Updated 1-Nov-2012

See figure 6 for parts identification before starting. Your KARLock kit will include:

- a pivot block with clevis pin, washers, and clip
- catch rod
- catch plate with hardware
- 3/16 Allen wrench

### Update for retro-fitting to an existing TiltPlate installation (1-Nov-2012)

Some customers have reported that on a retro-fit to an existing TiltPlate installation, it's easier and faster to install the KARLock with the tower in the operational position rather than tilting it over to the maintenance position. It does involve climbing a ladder so be sure you have the proper size ladder if you prefer this option. The process is basically the same but you do not need to remove the antenna. Start with the tower retracted but vertical:

- 1) Install the pivot block and catch rod on the moveable plate (see figure 2). Push the block up against the plate and tighten the set screws with a 3/16 Allen wrench. These screws have a special coating to prevent loosening so are tight to turn.
- 2) Install the catch plate on the mast using the 2 U-Bolts. It should be located about 10 inches below the moveable plate (See figure 1). Just finger tighten initially. You may need to try different bolt settings, see next step.
- 3) Adjust the catch plate location so that the catch rod is about **3/8 inch** below the catch bolt (1/4 to 1/2 is okay, see figure 3). The catch plate may be rotated 180 degrees or the catch bolt may be moved to the other set of holes if there is any interference with the other mast U-bolts. (see figure 4). Since the TiltPlate supports numerous boom sizes, you may have to try different configurations to find the best fit for your installation.
- 4) Tighten the catch plate U-Bolts

## Installing the KARLock on a TiltPlate with a SteppIR yagi

The steps below outline the process for installing a KARLock on an existing TiltPlate installation with a SteppIR yagi. See Instructions below for non-SteppIR antennas

- 1) Retract the elements using the SteppIR controller.
- 2) Tilt the tower to the maintenance position.
- 3) Remove the fiberglass elements. *(Both sides should be removed otherwise the unbalanced weight is unwieldy to manage)* This allows the TiltPlate to be closed.
- 4) Close the TiltPlate and hold in place. (suggest using clamps, see figure 1)
- 5) Install the pivot block and catch rod on the moveable plate (see figure 2). Push the block up against the plate and tighten the set screws with a 3/16 Allen wrench. These screws have a special coating to prevent loosening so are tight to turn.
- 6) Install the catch plate on the mast using the 2 U-Bolts. It should be located about 10 inches below the moveable plate (See figure 1). Just finger tighten initially. You may need to try different bolt settings, see next step.
- 7) Adjust the catch plate location so that the catch rod is about **3/8 inch** below the catch bolt (1/4 to 1/2 is okay, see figure 3). The catch plate may be rotated 180 degrees or the catch bolt may be moved to the other set of holes if there is any interference with the other mast U-bolts. (see figure 4). Since the TiltPlate supports numerous boom sizes, you may have to try different configurations to find the best fit for your installation.
- 8) Tighten the catch plate U-Bolts
- 9) Confirm locking operation by releasing the moveable tilt plate while holding the catch rod in a position that is parallel to the mast. The catch rod should lift up and engage the catch bolt. (see figure 5)
- 10) Re-attach the fiberglass elements
- 11) Raise the tower to its normal operational position.

## Installing the KARLock on a TiltPlate with a NON-Steppir yagi

- 1) Tilt the tower to the maintenance position.
- 2) Remove the antenna from the TiltPlate
- 3) Insert a small section of boom material into the boom U-bolts (*a short piece of PVC pipe would work here*) that is the same size as your antenna boom. It's important to have the correct size to insure the catch rod clearance in step 7 is correct. Close the TiltPlate and hold in place. (suggest using clamps, see figure 1)
- 4) Install the pivot block and catch rod on the moveable plate (see figure 2). Push the block up against the plate and tighten the set screws with a 3/16 Allen wrench. These screws have a special coating to prevent loosening so are tight to turn.
- 5) Install the catch plate on the mast using the 2 U-Bolts. It should be located about 10 inches below the moveable plate (See figure 1). Just finger tighten initially. You may need to try different bolt settings, see next step.
- 6) Adjust the catch plate location so that the catch rod is about **3/8 inch** below the catch bolt (1/4 to 1/2 is okay, see figure 3). The catch plate may be rotated 180 degrees or the catch bolt may be moved to the other set of holes if there is any interference with the other mast U-bolts. (see figure 4). Since the TiltPlate supports numerous boom sizes, you may have to try different configurations to find the best fit for your installation.
- 7) Tighten the catch plate U-Bolts
- 8) Confirm locking operation by releasing the moveable tilt plate while holding the catch rod in a position that is parallel to the mast. The catch rod should lift up and engage the catch bolt. (see figure 5)
- 9) Re-install the antenna.
- 10) Raise the tower to its normal operational position

Figure 1



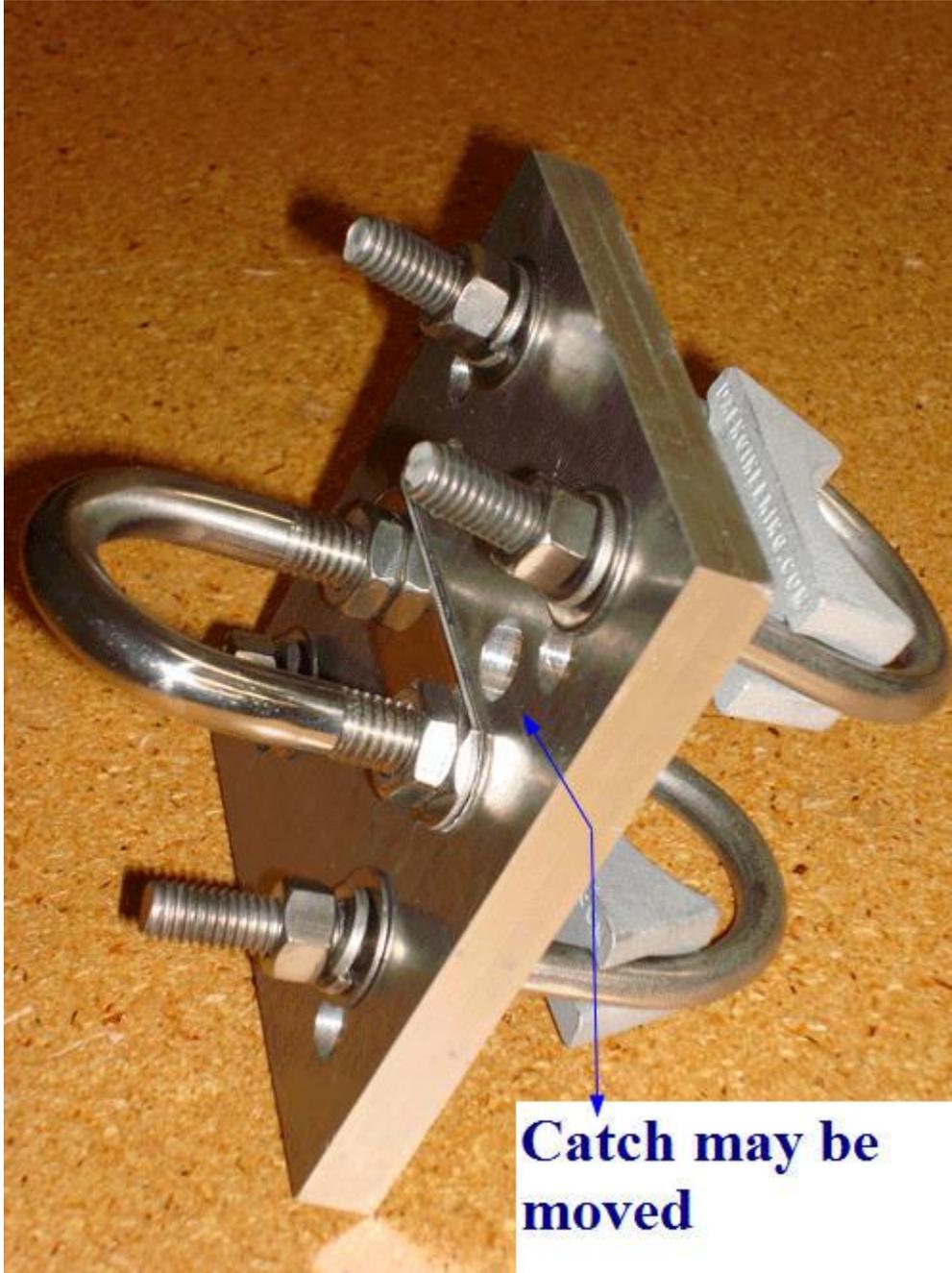
Figure 2



Figure 3



Figure 4



**Catch may be moved**

(note, the threads are coated with never-seize)

Figure 5

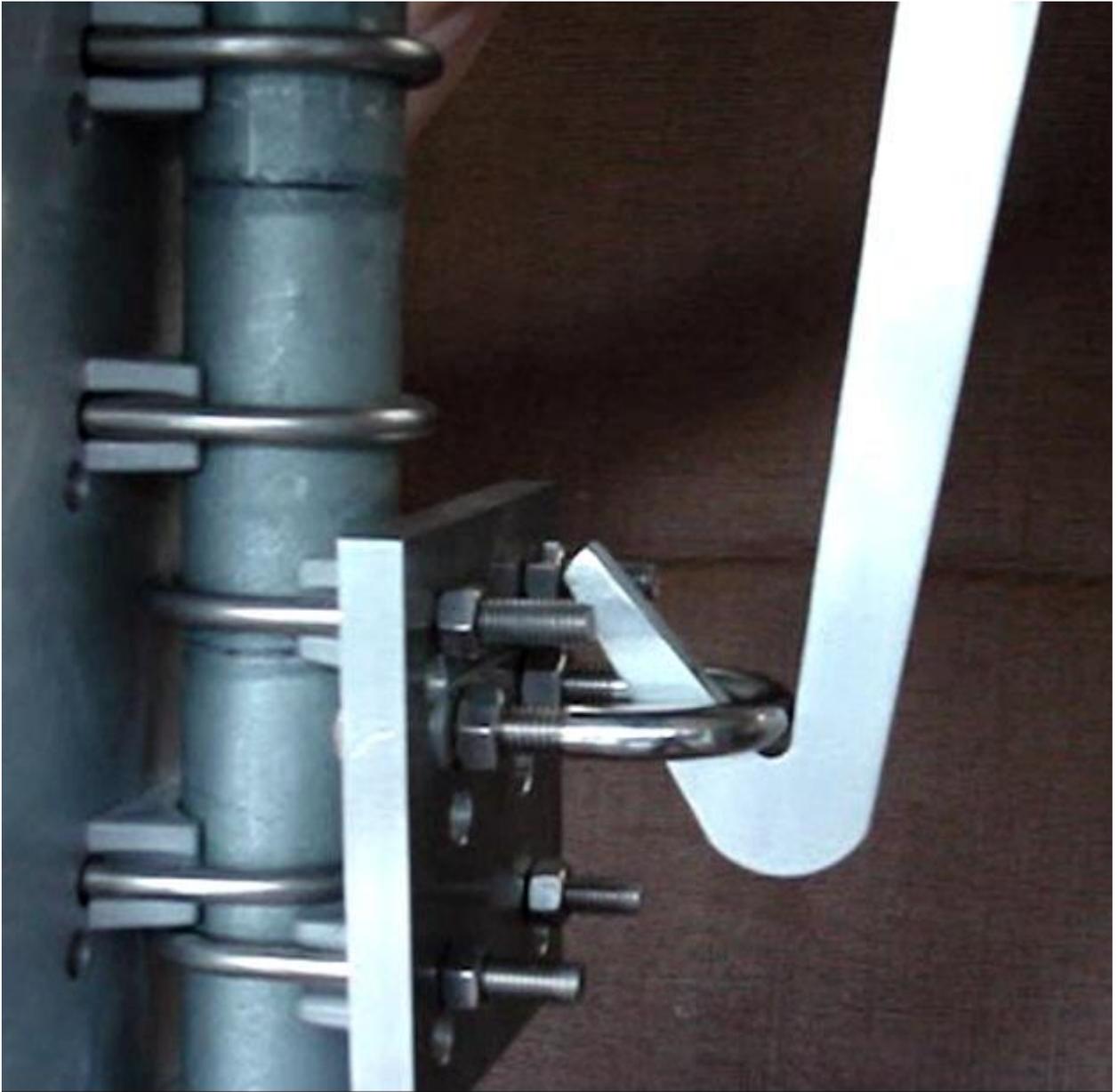


Figure 6

