

# STEERING LINK INSTALLATION INSTRUCTIONS

**Step 1:** Begin by removing the steering chains and springs and the double-sided control arm from your existing tailwheel installation.

**Step 2:** Install the single-sided control arm as shown in the picture, with the arm pointing to the left of the airplane. Please note: there is a slight twist in the control arm. This is intentional, and it mandates that the unit must be installed on the left side for proper function.

**Step 3:** Check fit at rudder horn. The aftmost hole in the left rudder horn must accommodate the AN3 bolt you will be using to attach the unit. If this is not the case, updrill the hole to size using a #12 drill bit



Refer to the picture at the bottom of the page to determine the proper orientation of the unit. The curved portion of the link should be forward when installed.

## Forward end installation

Place the AN3-7A bolt into the aft hole in the rudder horn.

Install one of the small washers to the underside of the rudder horn.

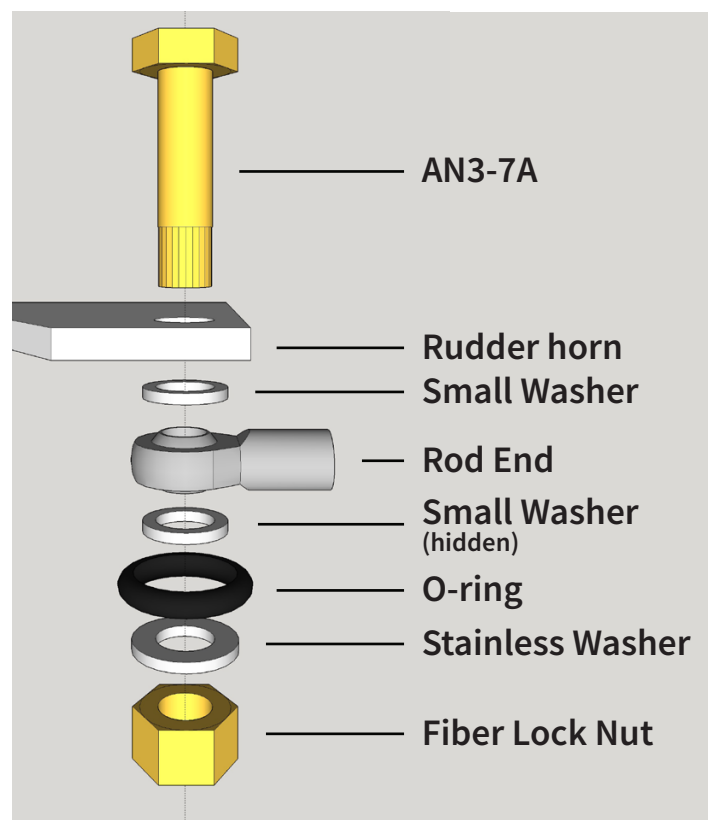
With the bent tube portion of the Steering Link forward, install the forward rod end bearing.

Add the other small washer.

Add the rubber O-ring (dampening washer).

Add the stainless steel penny washer.

Install the fiber lock nut.



## Adjusting for length

Move the rudder to its neutral position. Make sure that the control arm is engaged with the locking pin in the tailwheel, such that the control arm and tailwheel turn together, and move the tailwheel to its straight trailing position.

Using the rod ends on the front and back of the steering link, adjust the length of the link to align with the hole in the control arm. No more than half of the threads should be visible after adjusting (5/16 inch or less of thread should show). When properly adjusted and connected, the tailwheel should track straight when the rudder is in its neutral position.



Note on length adjustment: The standard steering length (bolts center-to-center) of this unit is approximately 13 in. with adjustment possible up to 13<sup>5</sup>/<sub>8</sub>in. If you need a shorter or longer length, contact us by email at [blake@flyboyaccessories.com](mailto:blake@flyboyaccessories.com) for more information.

## Aft end installation

Install the stainless steel penny washer on the supplied AN3-10A bolt.

Add one of the small washers

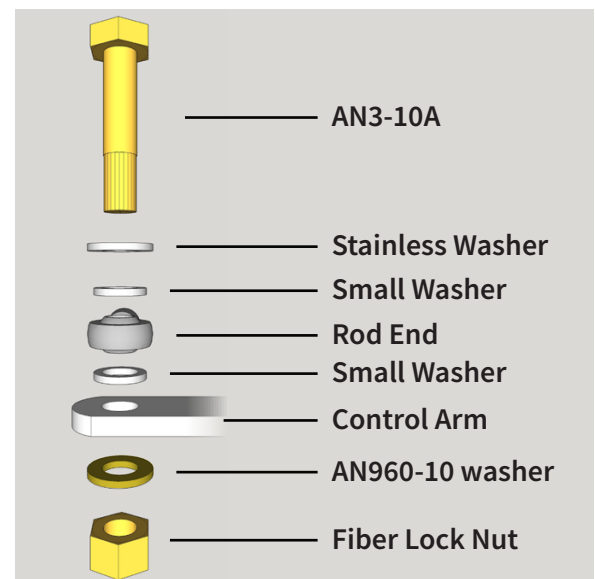
Add the aft rod end bearing.

Add the other small washer.

Install this assembly onto the top of the control arm.

Install the AN960-10 washer below the steering arm.

Install the fiber lock nut.



## Final Checks

Make sure that the fiber lock nuts are snug (you can torque to 23-25 in-lbs, but there is no need to overtighten). Tighten the jam nuts on the forward and aft rod end bearings to keep them from rotating.

Test the fit and function of the assembly. Turn the tailwheel to retract the locking pin and allow the tailwheel assembly to full swivel. Test to make sure the control arm can be moved freely and does not bind with the tailwheel assembly. Check to make sure that there is clearance when the rudder is fully deflected each way. The steering link may need to be rotated outboard to provide clearance.

The twist in the control arm is intentional and designed to give better clearance for the rod end bearing. Ensure that there is no binding occurring on the rod end bearing.

## Test Range of Motion (recommended)

Once the link is installed, raise and prop up the tail up in such a way that the tailwheel is off the ground and free to swivel. In this step, we will be testing range of motion to ensure proper fit. With the tailwheel's locking mechanism engaged, rotate the tailwheel fork by hand to each side, letting the rudder follow the tailwheel as it turns. On both sides, the tailwheel should unlock just before the rudder hits the stop. If the rudder hits the stop before the tailwheel unlocks (typically this would only be on one side), this can cause an issue where the tailwheel has to be forced sideways (jammed against the rudder stop) in order to get to its unlocking angle, possibly causing damage to the link or locking mechanism.

If you find that your link is improperly adjusted, first determine which side is hitting the stop and whether the link needs to be longer or shorter to reach proper configuration. Use the rod ends on either end of the steering link to make the necessary adjustments. If the rudder hits the stop on both sides before the tailwheel unlocks, or if you find that your link needs more adjustment than what you have, contact us by email for direction.