

Step 40 Collective & Roll Setup

The Roll linkage controls the side to side tilt of the swashplate which in turn causes the helicopter to pitch/move to the left or right (hence the name roll cyclic pitch).

Using threadlock, attach two steel balls with two 2mm nuts to a round servo arm at a distance of 10 to 11mm from the center of the servo (this range may vary depending on your particular servo) and few degrees ahead of the center of the servo. You are trying to get a 90 degree angle between the line described by the pushrods and the line described between the center of the servo and the ball joint on the servo wheel. This will eliminate any stress (wear) on the servo and any undesired collective/cyclic mix. With the radio turned on and the trim centered, attach the servo horn and the Aileron Bellcrank Pushrods (F). Some slight adjustment may be necessary to have the swashplate sit level or 90 degrees to the main shaft when viewed from the the front or back. Move the Aileron stick completely in both directions to insure that there is no binding in the linkages.

For the Collective Servo, use threadlock to attach one steel ball with one 2mm nut to the servo horn at a distance of 10mm for a sport set up (12mm for 3D) from the center of the servo. With the Collective/Throttle stick on the radio in the center press the servo horn onto the collective servo so the ball is at 90 degrees to the servo as shown. Attach the Collective Arm Pushrod (D) and move the Collective stick completely in both directions to insure that there is no binding in the linkages.

