This is the standard tail setup originally posted by Chris Bergen. It was downloaded and "prettied it up" in a PDF file. The text has been slightly edited for clarity; however the accuracy of the instructions has not been changed. The pictures show the tail gear box used on the EB and industrial models, but the setup is the same for the regular gear box and the new version introduced at the beginning of 2006. Also note that the newer style tail blade grips are shown in the pictures. These are necessary to achieve full throw and have the tail locked in with the slider in the middle of the output shaft during a hover.

The instructions follow:

Turn on your radio. Turn off all mixes, 0 out all sub trims, set stick trims to neutral. Anything that can affect how the tail operates should be shut off or neutralized. Some radios come with these things turned ON by default. Note: If using a Futaba 9C series radio, make sure that REVO mixing is turned off in all flight modes. When a new helicopter setup is created on a 9C, REVO mixing is active by default.

Turn your radio on, making sure the switch that you use for turning heading hold on and off is set to ON. The Gyro must initialize in heading hold mode

Turn the helicopter on, looking at the gyro. When the light stops blinking and goes steady red on, then the gyro is initialized properly.

Now turn the heading hold function OFF, using the switch that you designated on your radio. The light on the gyro will go off.

Install the ball on the smallest wheel that comes with the servo per the manual. Set the ball either straight up or straight down as shown in Figure 1. Install the servo screw. Double check the servo screw; ensure that it is installed!

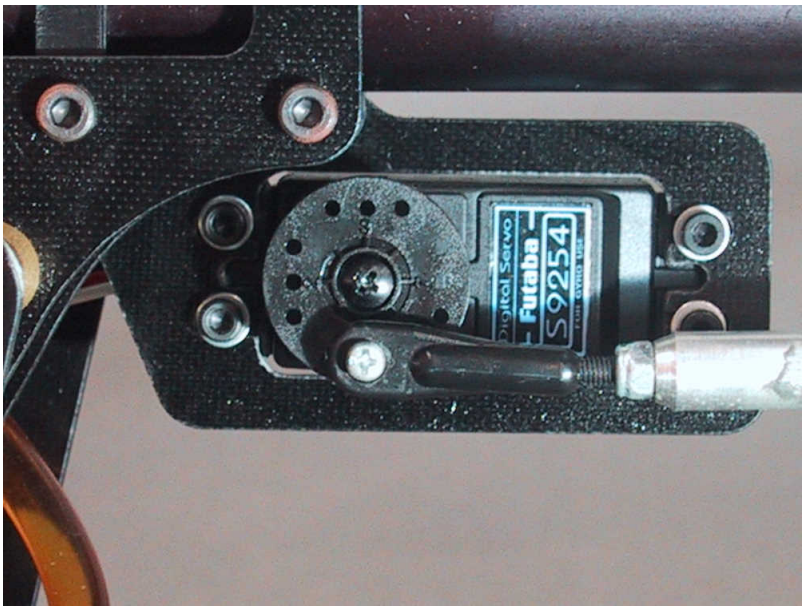

Figure 1

The ball on the tail bell crank should be in the inner most position (Figure 2).

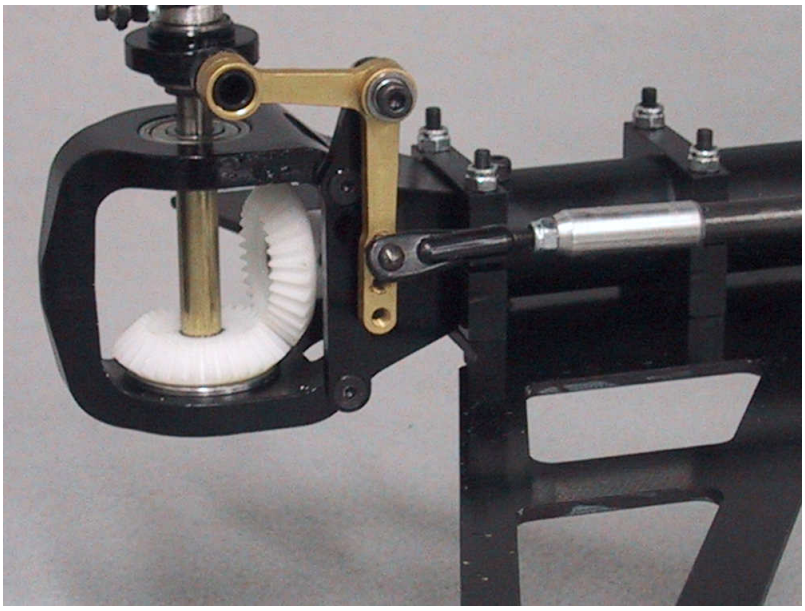

Figure 2

Looking at the tail pitch slider, it should be centered by adjusting the length of the carbon fiber pushrod (Figure 3).

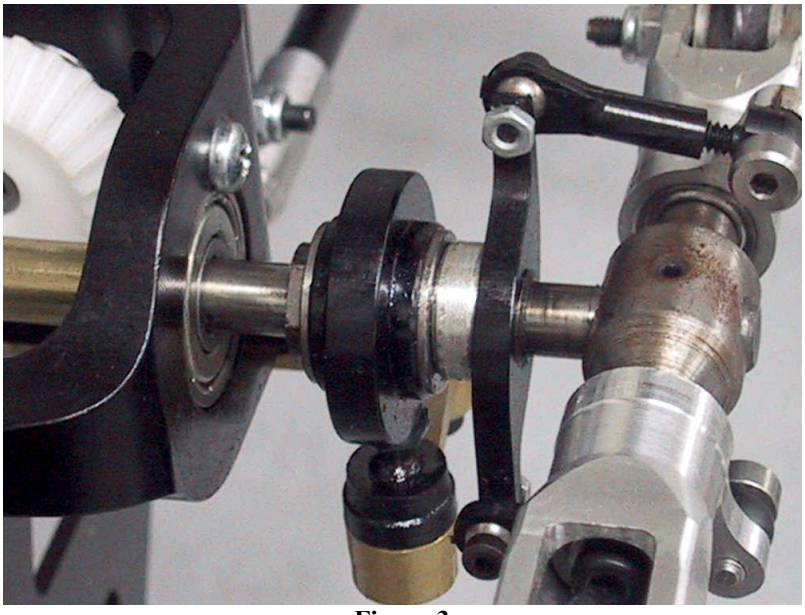

Figure 3

Now give full rudder stick deflection, checking that the throw is equal on both sides (Figure 4). If it bottoms out in either direction, reduce the travel amount on the gyro. If the throw is not equal on both sides, ensure the slider is centered (adjust the pushrod), and setup in the radio is as described above.

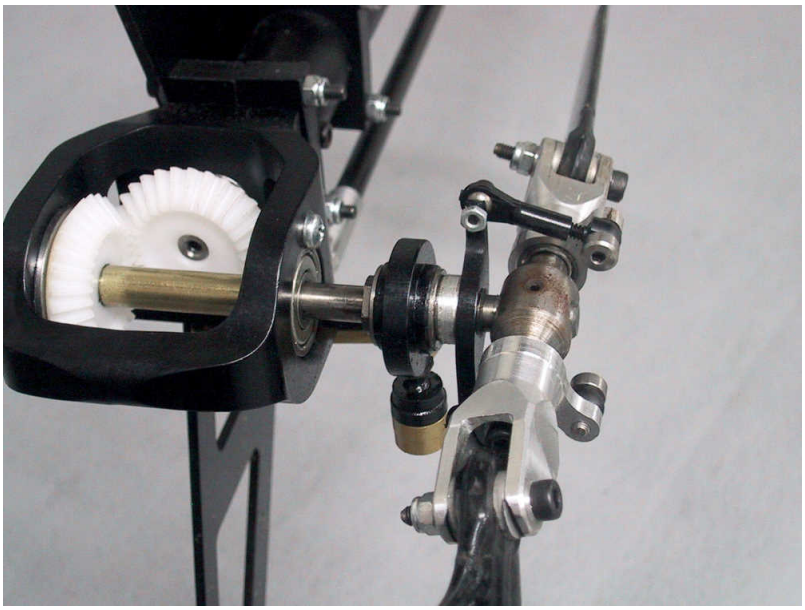

Figure 4

Now adjust the travel amount on the pot on the gyro itself to between 100 and 120. On my Turbine I have it set at about 115. This should give full travel on the slider without binding at the gearbox or tail hub.

Set the pirouette rate (how fast it spins) in your radio using the rudder ATV. Start at 80% and work your way up.

Set the gyro gain at 80% in heading hold, 70% in non-heading hold, to start with. I have been able to get as high as 110% on my gasser using the green anti vibration gel from Zeal.

Check servo direction and gyro direction before flying.

After getting the engine tuned in close, and the main blades tracked, hover the helicopter with heading hold turned OFF. It will probably drift one way or the other.

To trim out the drift, **do not** adjust the carbon fiber pushrod. Instead, adjust the length of the plastic ball links between the pitch slider and the tail blade grips (Figure 5). Turn them both equally to maintain tail blade tracking. When the drift is trimmed out, turn heading hold on and go fly!! The tail will be locked in, and should not overheat the servo.

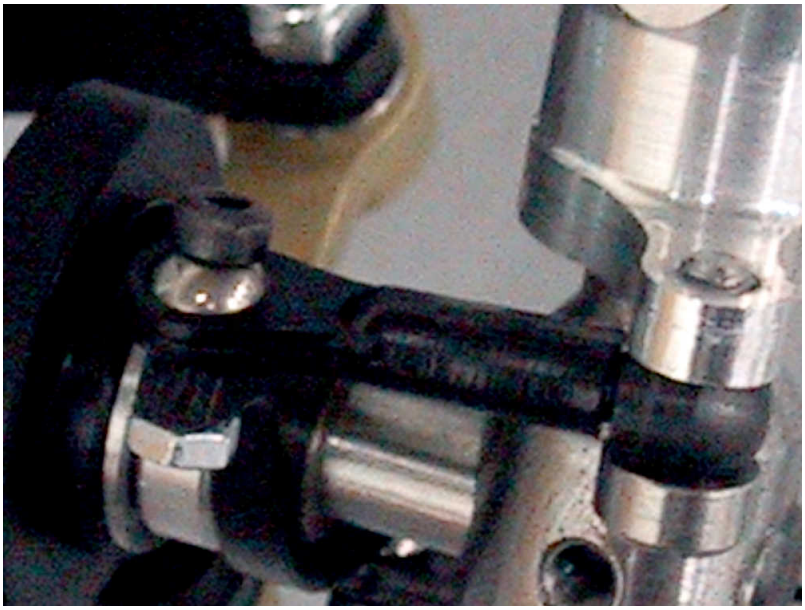

Figure 5