

### Servo Center and Range for Spektrum Tx

Travel Percent	Low ( $\mu$ )	Center ( $\mu$ )	High ( $\mu$ )	Range ( $\mu$ )
100	1120	1520	1920	$\pm 400$
125	1020	1520	2020	$\pm 500$
150	920	1520	2120	$\pm 600$

Chart numbers indicate pulse width modulation (PWM) in microseconds ( $\mu$ ) for percent of servo travel. At true 2048 resolution, this would equate to steps of  $\sim .5859375\mu$ . Spektrum rounds this off to  $0.6\mu$

To align the servo arm to the servo, try rotating the servo arm to get it 90 degrees to the control rod if your airplane design requires this alignment. A couple degrees will not make much difference. You must use servo arms with the correct number of teeth.

- 23 Tooth Spline - Airtronics, JR, Spektrum
- 24 Tooth Spline - Hitec
- 25 Tooth Spline - Futaba, Savox

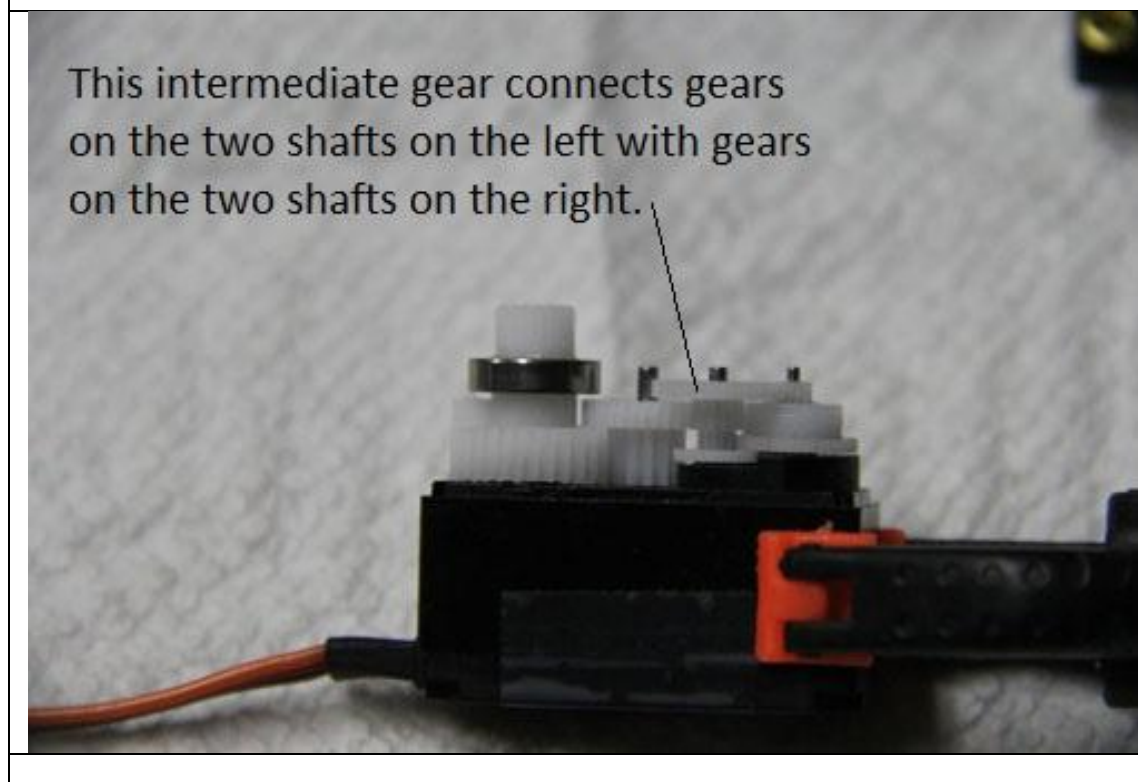
To physically center an analog servo potentiometer (pot), remove the servo arm and then the 4 case screws. Remove one of the gears between the pot (output side with servo arm spline) and the motor side of the gear train. This will allow the motor to spin. Next with the Tx and Rx on, turn the pot shaft until the motor stops spinning. Now carefully remove and replace the output gear with rotation stop in the physical center of travel. This is usually aligned with the servo longitudinal centerline.

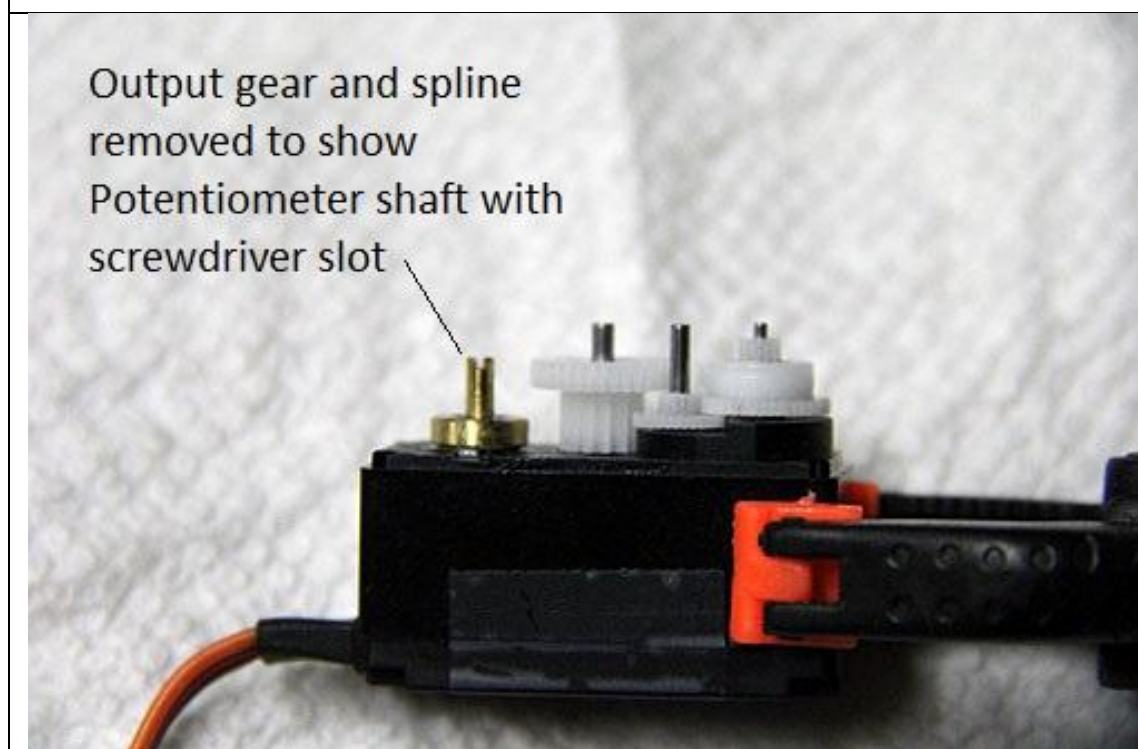
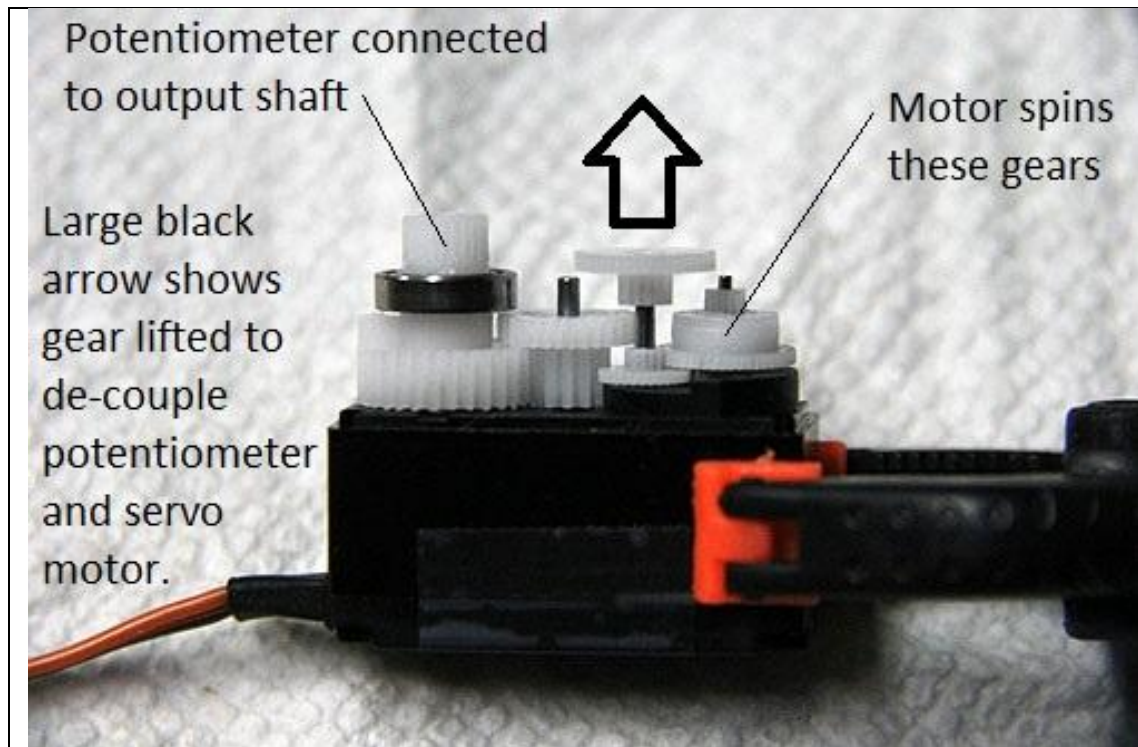
You will not get it perfect, but servo physical travel is usually far greater than electronic travel of the output gear. Most servos only travel about 90 to 120 degrees max. This procedure is usually only required if you have never opened the servo case.

If you have replaced all the gears due to gear teeth damage, you may or may not have to do this procedure. Now is also a good time to remove the bottom of the case and coat the circuit board with CorrosionX if you fly off water and if it is likely the servo may be immersed if the plane flips over in a cross wind.

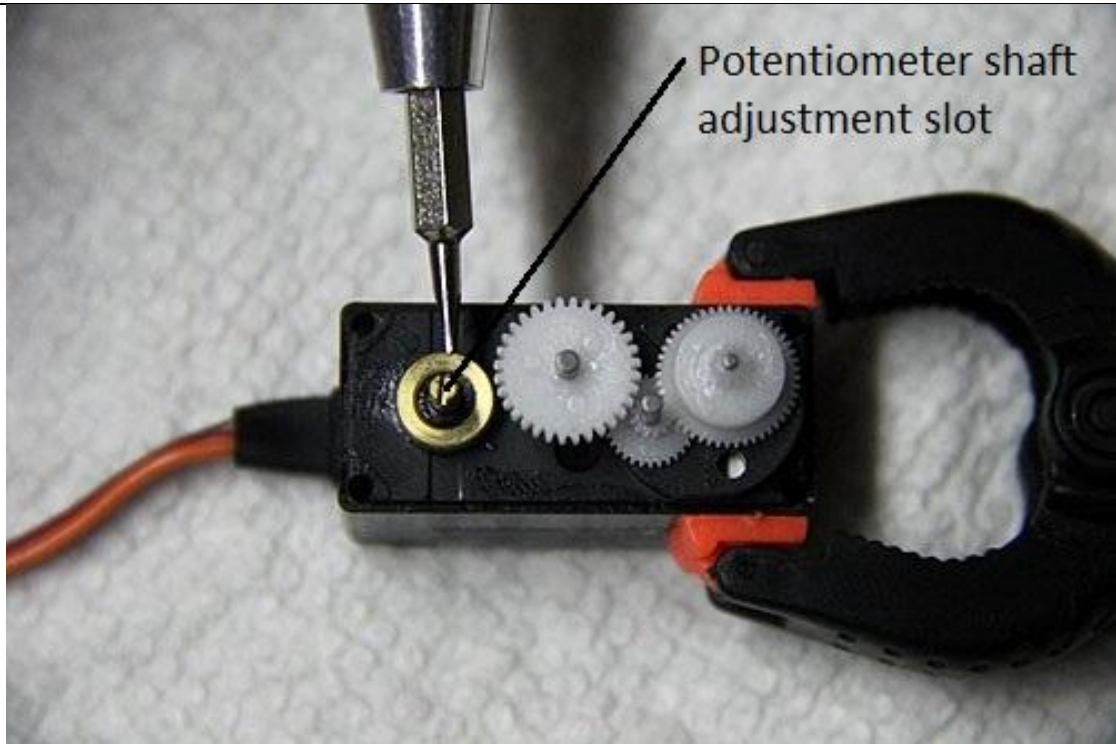
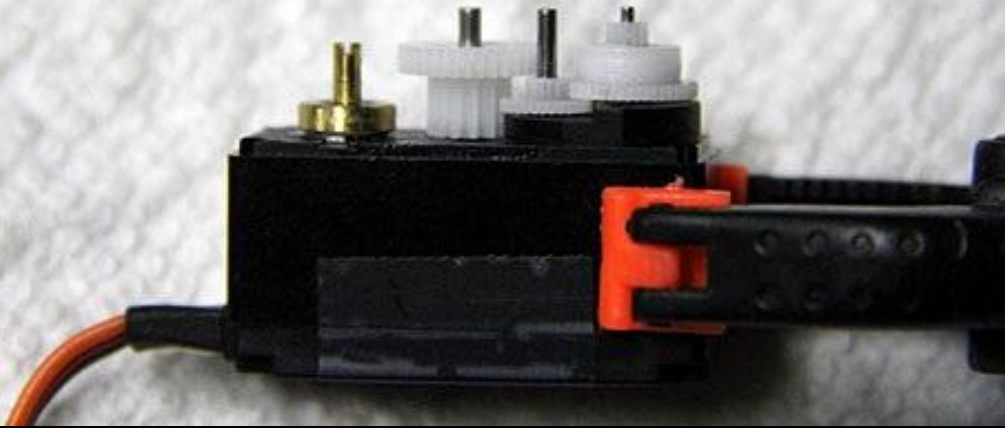
For digital servos, you may be able to use a servo programmer for this procedure.

**See Photos Below:**





If the potentiometer shaft is not at the potentiometer center then the output gears on the right rotate.



Potentiometer shaft adjustment slot



