



PAN Manual

control of your pan servo



gent360 PAN allows **slower rotation, better position control, and guaranteed zero creep** on servos modified for endless 360° rotation and controlled by a standard RC system - commonly used for panning aerial photography rigs.

gent360 is connected in series with modified servos that have their end-stops removed and

the feedback potentiometer disconnected according to Method 3, 4, or 5 of www.kaper.us/basics/Bas_360_R.html.

NOTE: This device WILL NOT control an unmodified servo.

One-off Servo Calibration

You must calibrate the modified servo to stop it rotating. Some servos are purchased “ready for use with **gent360**”, but any 360° modified servo can be calibrated to work with **gent360**.

1. Carefully disassemble the servo and perform the required mechanical modifications (and if applicable to the servo type - addition of a multi-turn 5Kohm potentiometer). Each servo is different.



2. Before reassembling the servo, connect it to a 4.8V battery via **gent360** as shown above. Note the orientation of the supplied “Calibration Link”, and the servo orientation, with the yellow wire to yellow spot.
3. The servo will turn fast and continuously. Adjust the servo potentiometer carefully; find the null point to stop the servo turning. Adjust so that you find the centre of the null if using a multi-turn adjust.

Calibration is now complete, and only needs to be repeated if you use a different servo.

Normal Operation

In normal operation the device is simply connected in series between the RC receiver channel and the modified servo. Note the yellow spot!



The servo will not move with the stick centred. Use the transmitter *trim* setting to adjust this if necessary. As the stick moves away from the centre speed will increase.

As well as eliminating servo creep, the speed of rotation is significantly reduced. Whether your final output shaft is geared down or not, **gent360** PAN gives better control over the position.

Timings may vary slightly between servo types, makes and sizes, however rotational speed is slowed up to 5 times with **gent360** PAN.

Specification

Supply Voltage	3 to 5.5V. (Absolute maximum voltage, 6.5V)
Supply Current	Maximum 1mA. (in addition to servo current)
Servo Pulses	No movement between 1.4 and 1.6mS, Servo speed increases until 1mS and 2mS. Pulses should be less than Supply V + 0.7V.
Weight	1.7 grams including wires & connectors.

Diagnostics

In calibration mode ensure the battery and calibration link are correctly oriented. In calibration mode an unmodified servo is driven to its centre point. Is the transmitter trim control set to stop servo movement when central?