weatronic brief instruction Servo impuls adjustment



1 Information

Servos and similar components like actuators, electronic vales and so on are controlled by voltage impulse. The information to which position the servo should move is given by the length of this voltage impulse. Normally the impulse is between 1,0 and 2,0 ms

The voltage impulse is repeated in frequent time lags. This time lag is called **Impulsrate** or **Frame rate**.



2 Servo Outputs

Every weatronic receiver is capable to adjust the Frame rate for **each servo output separately**. This allows you to connect every available servo, from the "ancient" ones to the modern digital brushless extremely fast "gyro" gimbal servos. Also combinations are possible!

Furthermore the servo impulses are stabilized to 5 volt.

3 Adjustments

Go to the servo mapping tab and **<u>right - click</u>** on the green field which is assigned to the servo-output which you want to adjust.



Now a new Window will open:



here you can choose on the top the pulse rate.

18ms is default for every servo output. Please consider the chart at chapter 4 as a rough guideline.

Especially the digital servos are reacting way faster with smaller pulse rates. PLEASE NOTE: analog servos will not handle smaller pulse rates, so you can destroy them or at least shorten the gear life time. If you are not sure please adjust high rates or leave the default at 18ms.

PLEASE NOTE: weatronic will not take any responsibility for any damage due to wrong adjustments of pulse rates.

4 Chart - Impulsrate

PULSE RATE:	Comment:
18ms (<u>default</u>)	all common servos work proper
21ms + 30ms	 see as above some analog servos could loose some torque could cause issue with switch points at regulators or magnetic valves
15ms	 faster response time should be now problem for common digital servos analog servos could start to have a slight shacking. causes the servos to get warm and maybe reduces the life span. could be improve the torque at some analog servos
9ms + 6ms	 even faster response time only recommended for digital servos DO not use for analog servos
3ms (exception)	 especially for "fast Gyro-Servos" extremely fast response time NEVER use for normal servos. DAMAGE the servo!

If you have any question don't hesitate to contact our service.

or **Phone: +49 (0) 33 75 / 24 66 0 88** per Mail : <u>support@weatronic.com</u>

Wildau the 07.04.2014

weatronic GmbH

Schmiedestraße 2A D-15745 Wildau Telefon: +49 (0) 3375 24 60 89 - 0 Telefax: +49 (0) 3375 24 60 89 - 1 E-Mail: <u>info@weatronic.com</u> www.weatronic.com

Subject to change - No liability for errors and printing errors - april 2014 weatronic ® GmbH - Schmiedestraße 2A - 15745 Wildau