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Quick setup guide for Taranis

The Taranis/OpenTX system works completely unlike other transmitters. It is rather unusual, but if one understands the principle it becomes clear that the possibilities are endless.

Basic setup

The Taranis system works in a way that input channels are coupled to output channels via mixers. First the inputs are specified (sticks and sliders on the radio, then the outputs are entered (servo's connected to channels on the receiver) and finally the mixers glue the input and output together.

First we go to the input screen.

Input screen

In this screen, the inputs are specified. In other words, everything that the pilot can control to be able to fly the plane. Sticks, Sliders and Switches. For instance:

- Throttle
- Aileron
- Elevator
- Rudder
- Brakes

The following items are specified in the Input screen.

- Name of the input (Throttle. Rudder, Elevator, etc.)
- Weight. Leave that on 100%
- Offset. Leave that on 0.
- Expo. ***This is where to specify expo on the stick***

Outputs screen

Here, all servo's are specified, and coupled to receiver-channels. Unlike most receivers, the sequence of channels id completely free. Also, the physical limitations of the servo is specified here.

The output screen can contain for instance:

- Channel 1 (CH1) Throttle
- Channel 2 (CH2) Elevator
- Channel 3 (CH3) Rudder
- Channel 4 (CH4) Left Aileron
- Channel 5 (CH5) Right Aileron

Or any other sequence.

The following items are specified in the Input screen.

- *Subtrim*. *This is where to specify the **center of the servo***
- *Min – Max values* *This is where to specify **physical limits of the servo travel***
- *Direction* *This is where to specify the **servo direction***

Mixers screen

Now, the inputs can be coupled to the output channels. Per channel, one or more mixers can be specified to move the servo according to a certain input stick, slider or switch

Per mixer the following can be specified:

- *Name* (throttle, rudder, etc)
- *Source*. What stick or slider is used as input? ([01]Elev, [02]Rud, etc)
- *Weight*. What part of stick-travel is used (0%- 100%). Limit the travel for flaps on the aileron channel, or limit the travel for rudder.
- *Offset*: Remember. The center of the servo is not specified here. Offset is used to change a setting according to a switch setting, or part of a flight mode. Use offset to lower the ailerons in thermal mode, for instance.
- *Switch*, not used for now
- *Flight mode*, select all modes

Using this basic settings one can fly. More advanced settings can be added later, for instance the use of Flight Modes.

In short:

Function	**Setting**	**Screen**
Expo	Curve, select expo	Inputs
Sensitivity	Mixer, Weight	Mixers
Differential	Mixer, Curve	Mixers
Servo center	Subtrim or PPM Center	Output
Servo direction	Direction	Output
Servo travel	Min / Max	Output

More advanced setup

Flight Modes

One step more advanced is the use of flight modes.

Flight modes are simple. Connect them to a (3-way) switch and add mixers for this specific flight mode. For example, if the ailerons must be lowered for flight mode *thermal*, create a mixer for each aileron. Set the input to MAX and specify an offset of 10% (depending on the model specific settings). Attach this mixer to the right flight mode and you are done.

Audible warnings

To be explained