Throttle Calibration

For use with Fixed Endpoints or Governor Mode on Helicopters

By calibrating the Fixed Endpoints or ATV's on the throttle channel in your Tx, the exact zero and full throttle input the esc is looking for can be set accurately.

*If possible disabling the Throttle Trim in your Tx is recommended.

*This is vital for a directly porportional throttle stick on airplanes or helicopters using a linear 0 – 100 throttle curve!

*Caution - For safety please remove the prop from the aircraft or disengage the motor from the main gear on helicopters when calibrating the ATV's

Using the Castle Link go to the throttle tab & choose Fixed Endpoints. (This option can also be choosen via the stick programming mode as well).

*If Vehicle Type is Helicopter, calibrate in the Normal Throttle Curve with linear values of 0-50-100. These values will change when setting up Governor Mode but need to be 0-50-100 for calibration purposes.

* Governor Mode instead of Fixed Endpoints can be selected on the esc for helicopters at this time but a linear 0 – 50 – 100 throttle curve must still be used as described above.

*If you intend to use the Auto-Rotate Enable function please enable it on the controller before proceeding. If the function is chosen after calibration it is recommended to recalibrate again because the Low ATV value will change.
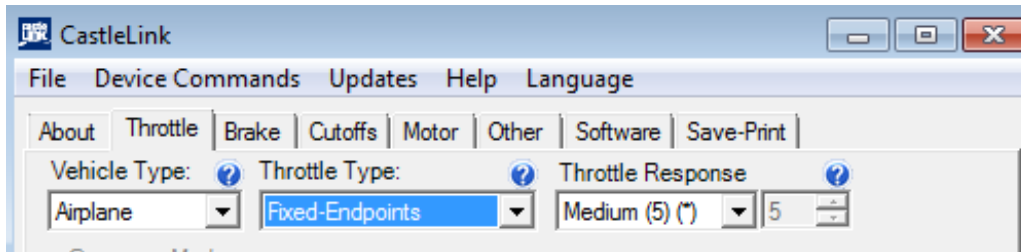
With the controller installed remove the prop on airplanes or disengage the pinion from the main gear for helicopters.

In your Tx. go to the ATV or Travel Adjust Screen.

On both Hi & Low throttle bring the ATV closer to zero. Your default setting will more than likely be 100 / 100 on Hi & Low so bring both settings in to around 50. (Airplane calibration may require you to bring the Low ATV down to 45 to start). With the Tx on, place the throttle at the Hi position & plug in your battery. You will hear the speed control initialize but you will not get the final tone normally heard when entering the stick programming mode. The indicator light will also be flashing rapidly. Slowly increase the ATV value higher, pausing at each increment. When the controller sees the value equal to full throttle you will get the last initialization tone and if applicable, the red indicator light will now have a slow steady flash. Add 2 more points on the ATV value.

Now move the throttle stick to the Low position. (If the speed control initializes at the ATV setting you have, disconnect the battery & move the low ATV closer to zero or lower.) Repeating the same steps we did for Hi throttle, we now want to slowly bring the low ATV value higher, pausing briefly at each increment until you hear the controller arm. Again add 2 more points. The indicator light, if applicable will flash a slow steady amber. Now your Tx knows exactly where the zero and full

throttle signatures the esc is looking for are on a scale directly porportional to the throttle stick.

- In Airplane mode it is not uncommon to see a Low calibration between 50 – 60 on the ATV so do not be alarmed by this low value.

- In Helicopter mode where the Auto Rotation feature is enabled it is normal to have a Low ATV value much greater than 100

** Note – If you are using the Spektrum AR7200BX Flybarless Rx you must rebind the Rx to the Tx after the calibration is complete or on the next power up the esc will not arm.

Happy Flying!

Castle Creations