Programming a Throttle Lockout on the Spektrum DX6i

The following is a programming procedure, developed by David of the RC Wingers club, which lets you convert the Gear toggle switch on the Spektrum DX6i into a Throttle Lockout for individual electric planes in that radios Model Memory. While I have been able to recreate this on my DX6i radios we have to be extremely careful! The FIRST thing you do is remove the prop and prop adapter hardware from the plane. There is still a possibility that the throttle could go to full On unexpectedly! Do not put the prop back on the plane until you have thoroughly tested the radio in this new configuration and are satisfied that it works as expected.

There are other "downsides" to this procedure.

First, it is plane-specific so you have to repeat the programming for each electric plane that you wish to use it with in the Model Memory of that DX6i transmitter. Also, this programming uses most of the DX6i resources so you can't add any other mixes or use flaps for that specific electric airplane.

It is also wise to copy your current plane in Model Match to a vacant location within the list and use that for testing. You can always copy the new tested and proven programming to the original location when you are comfortable with its performance.

The programming

Make sure the travel adjustments for GEAR servo are at 100% and the sub trim is at 0

MIX 1

GEAR -> GEAR Mix

Rate: 0%, -100%

Sw: ON

TRIM: ACT

MIX 2

THRO -> GEAR Mix

Rate: +100%, +100%

Sw: GEAR

TRIM: ACT

The throttle "servo" plug at the receiver needs to come OUT of the throttle terminal and be connected at the GEAR terminal instead.

You then have to re bind the plane to the transmitter for this plane position in your Model Match.

Then with the prop still removed turn on the radio, plug in the battery and test the operation of the GEAR switch. When the GEAR switch is forward (towards you, #1 position as per the switch label) the throttle stick is armed and functions normally. Flip the GEAR switch to the rear or ON position (0 position as per switch labeling) the throttle stick should operate the motor normally.

So what happens is...

When the GEAR switch is in the 0 (off) position it holds the same position as zero throttle, regardless of the throttle stick position the engine will not run.

When the GEAR switch is in the 1 (on) position the gear servo output exactly mirrors the throttle servo output so that you have full range of throttle operation and control.

Remember that this programming is only effective if you remember to use the GEAR switch! You still must use due caution when working on or around the prop! Humans are not infallible and you can still be injured if you forget to use the switch or make some other mistake!