Setup for the RX2610V2 Receiver with 3-Axis Gyro and the Walkera WK-2801 Pro Transmitter.

(Version 1.8) By Tom Z

*** First set the RX2610V2 Dip Switches. ***

RX Dip Switch factory positions are both down from the factory.

Set these to the following:

BAL switch down (On) and PIT. REV up (Off).

You can also see my picture below for these settings.

The RX2610V2 is made for the V120D02 which has a longer main shaft than the 4G6 has so when you put the RX2610V2 on the 4G6 you must compensate for the shorter main shaft with custom pitch curves that I listed in Step #8 for the 4G6 Flybar head.
Also the RX2610V2 has reverse pitch curves so on the 4G6 only you must reverse the pitch curves like I did or reverse the blade grips.

RX2610V2 Weight = 7.1 grams

You can do the tilt test after setup to see if the gyros are working and in the correct direction. For the RX2610V2 you do not need to give throttle or disconnect the motor. Just tilt the helicopter.
For the RX2610S (like in this video) you need to give throttle to do the tilt test or disconnect the motor and give throttle then tilt the helicopter.

http://www.youtube.com/watch?v=6SaGjYmiPsA

IMPORTANT!

The PIT and ALIE Servo RX locations will vary between different V120D02 helicopters and different RX2610V's.
Try Option #1 first. If your radio sticks are working correctly you are all set. If not use Option #2.
Also see my pictures below.

RX2610V Servo Hookup Option #1

PIT Servo Plug goes into the PIT RX Socket.

ALIE Servo Plug goes into the ALIE RX Socket.

Also see my picture below.

RX2610V Servo Hookup Option #2

PIT Servo Plug goes into the ALIE RX Socket.

ALIE Servo Plug goes into the PIT RX Socket.

Also see my picture below.

Step 1. Create a new model (or reset a current model) in the WK-2801 Pro TX.

Step 2. Set to stick mode 2801 if it isn't already set to it. Stay in 2801 stick mode.
Make sure STICK is set to MODE2 Sometimes it will default to MODE1.

Set the throttle trim all the way down to zero. Default is center.

Step 3. Go into REVERS and set to:

1 2 3 4 5 6 7 8
N N N N N N N N

Step 4. Go into SWASH and set to 1SERVO NORM

Step 5. Go into CURVES THRCURVE and set to:

Norm 0%-25%-50%-75%-100%

ST-1 & ST-2 100%-100%-100%-100%-100%

Another option for ST1 & ST2 if 100% across is too much RPM for your motor is to use these settings.

ST-1 & ST-2 100%-90%-80%-90%-100%

I use this setup. ST-1 is a V Shaped Throttle Curve, ST-2 is 100% across.

ST-1 100%-90%-80%-90%-100%

ST-2 100%-100%-100%-100%-100%

Step 6. Go into CURVES PITCURVE and set to:

For the Walkera FBL Head - This is the Flybarless Head on the V120D02 helicopter.

Norm 36.5%-41%-50%-65%-80%

ST-1 & ST-2 20%-35%-50%-65%-80%

HOLD 20%-35%-50%-65%-80%

With these settings you will have in normal mode -3* to +11* pitch (Depending what the lengths of your servo to swash links are at it could be a little more or less).
In ST-1 & ST-2 mode you will have +/- 11* pitch (Depending what the lengths of your servo to swash links are at it could be a little more or less).

For the 4G6 Flybar Head, Dkfuji FBL Head, or if your made your own Flybarless Head from the Stock 4G6 Head.

Norm 49.5%-45%-37%-21%-5%

ST-1 & ST-2 69%-53%-37%-21%-5%

HOLD 69%-53%-37%-21%-5%

With these settings you will have in normal mode -3* to +13* pitch (Depending what the lengths of your servo to swash links are at it could be a little more or less).
In ST-1 & ST-2 mode you will have +/- 13* pitch (Depending what the lengths of your servo to swash links are at it could be a little more or less).
If this is too much pitch for you (EX: your motor bogs) then you can adjust the pitch curves to whatever you want like Norm -3* to +10*, Stunt Mode +/- 10*, etc.

To change the pitch curve range you want to change the first and last pitch curves first. So pitch curve L and H. Start with the settings I listed then for every 4 clicks of the TX button will give you +/- 1* of pitch.
So if you take pitch curve H for ST mode which is 5% (13*) and push the TX button 4 clicks and increase this to 7% you will then have 12* pitch.
4 more clicks would be 9% (11* pitch), 4 more clicks would be 11% (10* pitch).
Then for the pitch curve L for ST mode which is 69% (13*) push the TX button 4 clicks and decrease this to 67% (12*). 4 more clicks would be 65% (11* pitch), 4 more clicks would be 63% (10* pitch).
Then set pitch point #1 to be in between pitch curve L and pitch curve #2.
Set pitch point #3 to be in between pitch curve H and pitch curve #2.

Pitch point #2 will always stay 37% which is zero degrees pitch at mid stick.

So for a 12* pitch curve you would want these settings:

Norm 49.5%-45%-37%-22%-7%
-3* to +12* pitch

ST-1 & ST-2 67%-52%-37%-22%-7%
+/- 12* pitch

HOLD 67%-52%-37%-22%-7%

Note:

Put the throttle at half stick (zero degrees pitch) and adjust the servo to swash links if needed so that there is no wind from the main blades going up or down from them.
Use the pitch point #2 to adjust and set zero degrees pitch at mid stick.
If you don't have zero degrees pitch at mid stick at 37% and you need to go to a higher percent than 37% to get zero degrees pitch at mid stick
then shorten the swash links. If you need less than 37% to get zero degrees pitch at mid stick then lengthen the swash links. See picture below.

You want the Guide Ball Flybar Pivot to be in the middle of the long head slot at half stick and you want equal travel from the center to full negative pitch and from the center to full positive pitch.
If you don't have equal travel make adjustments so you do. Also you don't want any binding or bottoming out at full negative pitch or full positive pitch. See picture below.

Step 7. Go into GYRHLD, GYROSENS and change INH to GYRO/AUX2

Set to 0: 78%
Set to 1: 78%

0: - This is for HH Mode which is 50%-100%
1: - This is for Rate Mode which is 0%-49%

I like to set both for HH Mode. I don't use Rate Mode anyway.

Step 8. Go into GYRHLD, THROHOLD, and change INH to THRO HOLD

ACT
HOLD Pos. -15%

Step 9. Go into TRVADJ and set to:

All 100% except Rudder = L120% R120%

Step 10. Go into DR&EXP:

Set D/R and EXPO to your personal needs/preference.
I use 60% D/R and +35% EXPO. I have the Servo EXT on max on the RX.

Set AUTO to:

ST-1 ACT

ST-2 ACT

HOLD ACT

Step 11.

Bind Radio and RX.



Step 1.



Step 1-2.



Step 2.



Step 3.



Step 4.



Step 5-1.



Step 5-2.



Step 5-3.



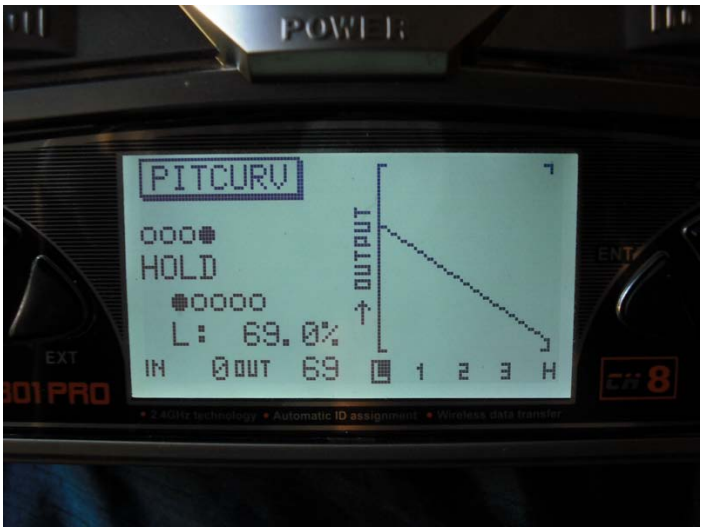
Step 6.



Step 6-1.



Step 6-2.



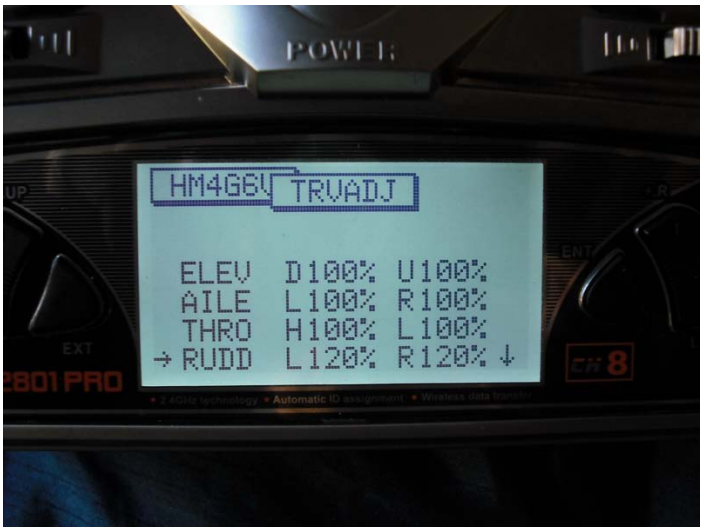
Step 6-3.



Step 7.



Step 8.



Step 9.



Step 10.



Step 10-1.



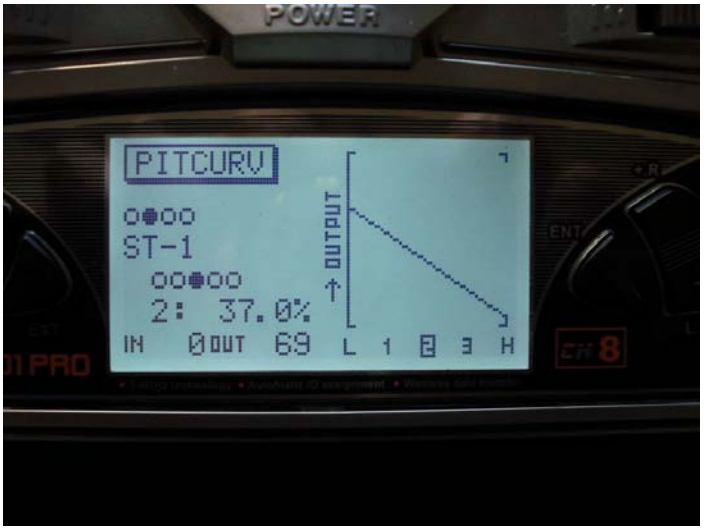
Step 11.



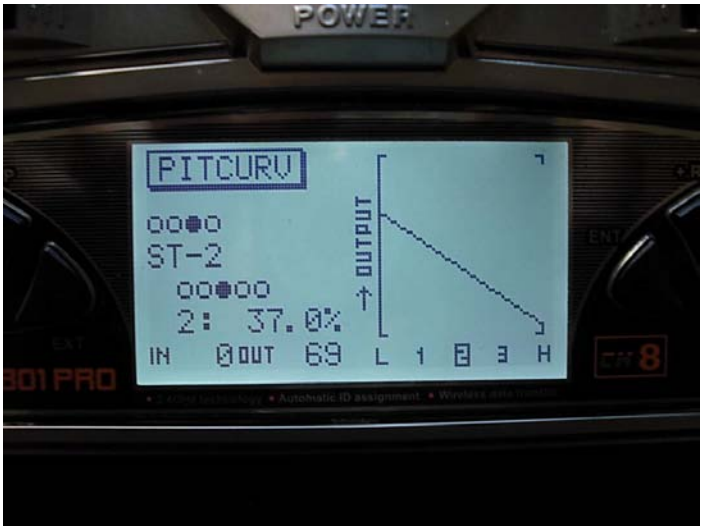
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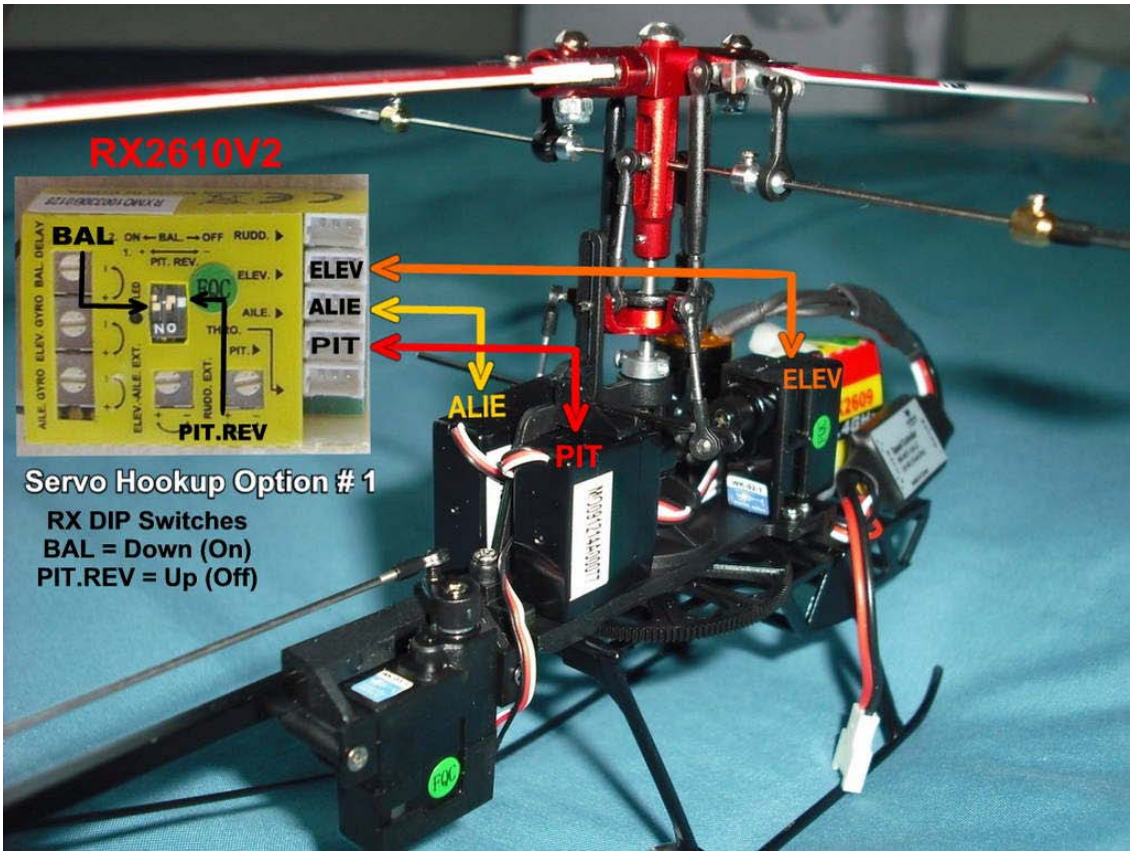
Pitch point #2 at 37% = Zero degrees pitch at mid stick.



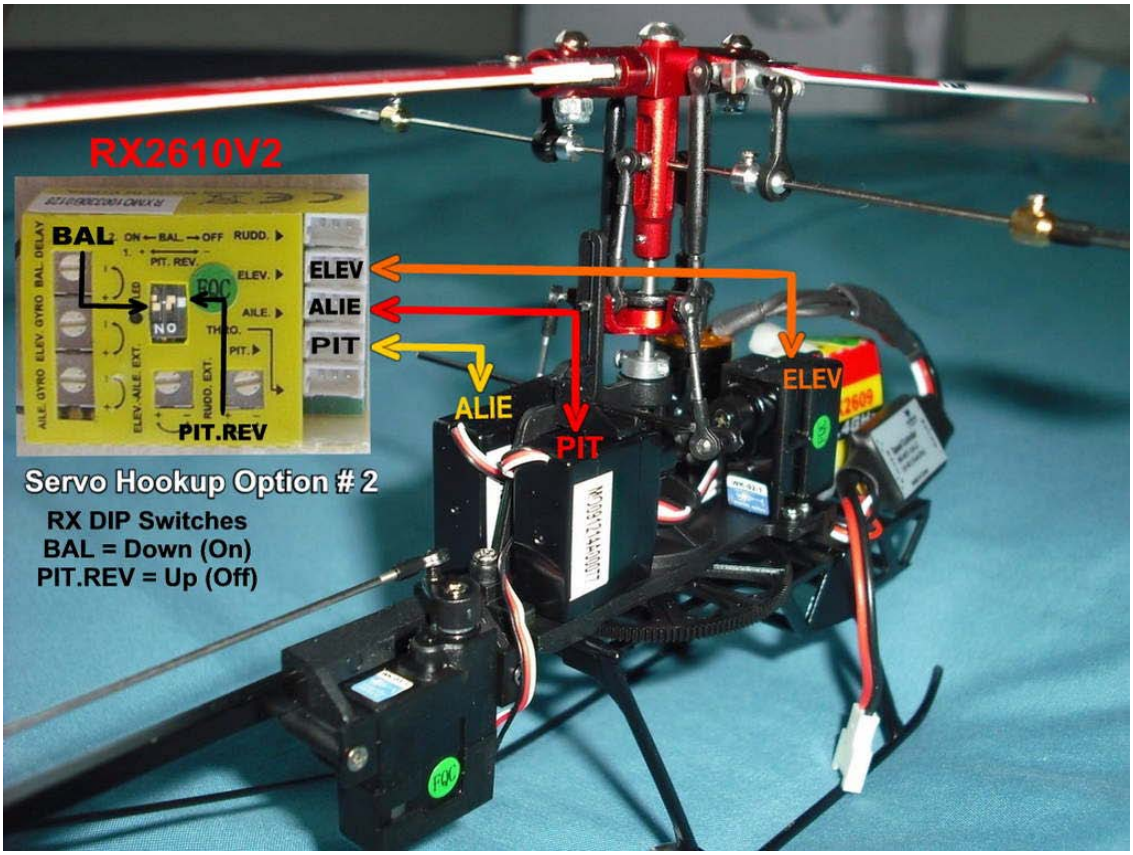
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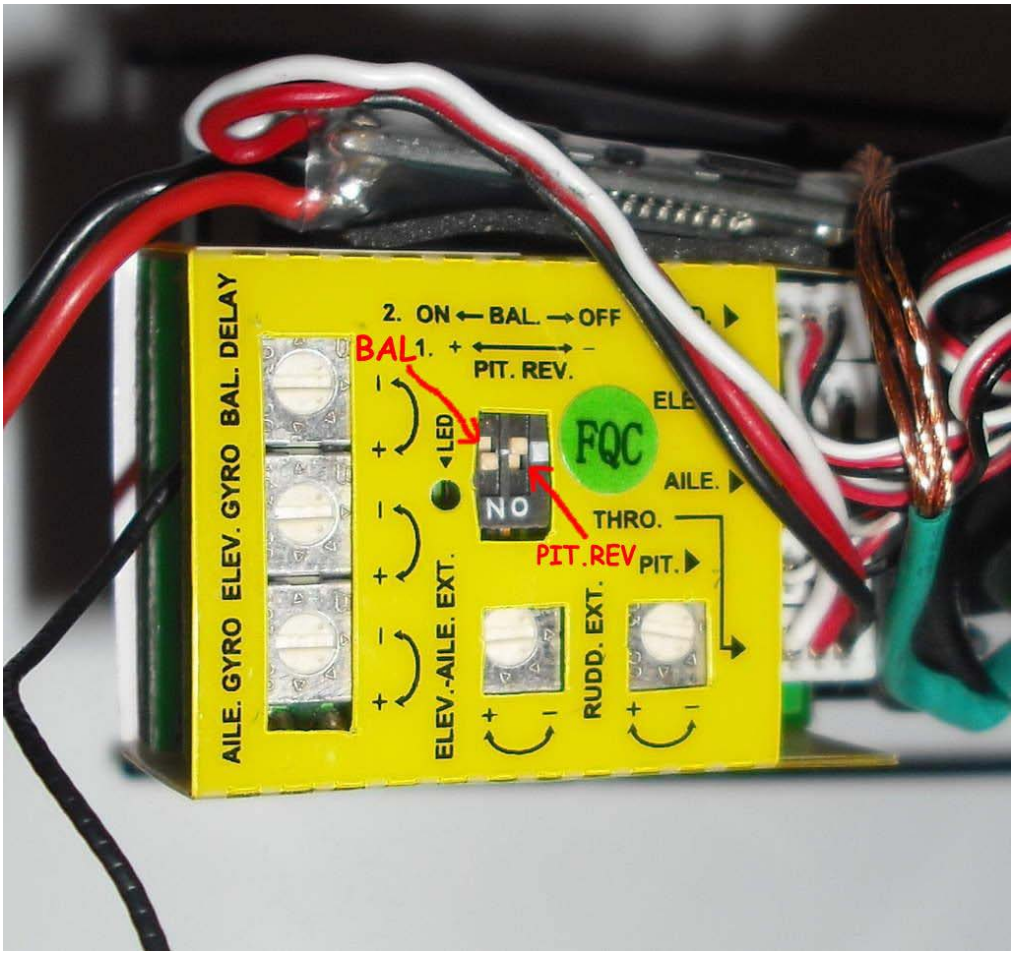
Pitch point #2 at 37% = Zero degrees pitch at mid stick.



RX2610V Servo Hookup Option #1



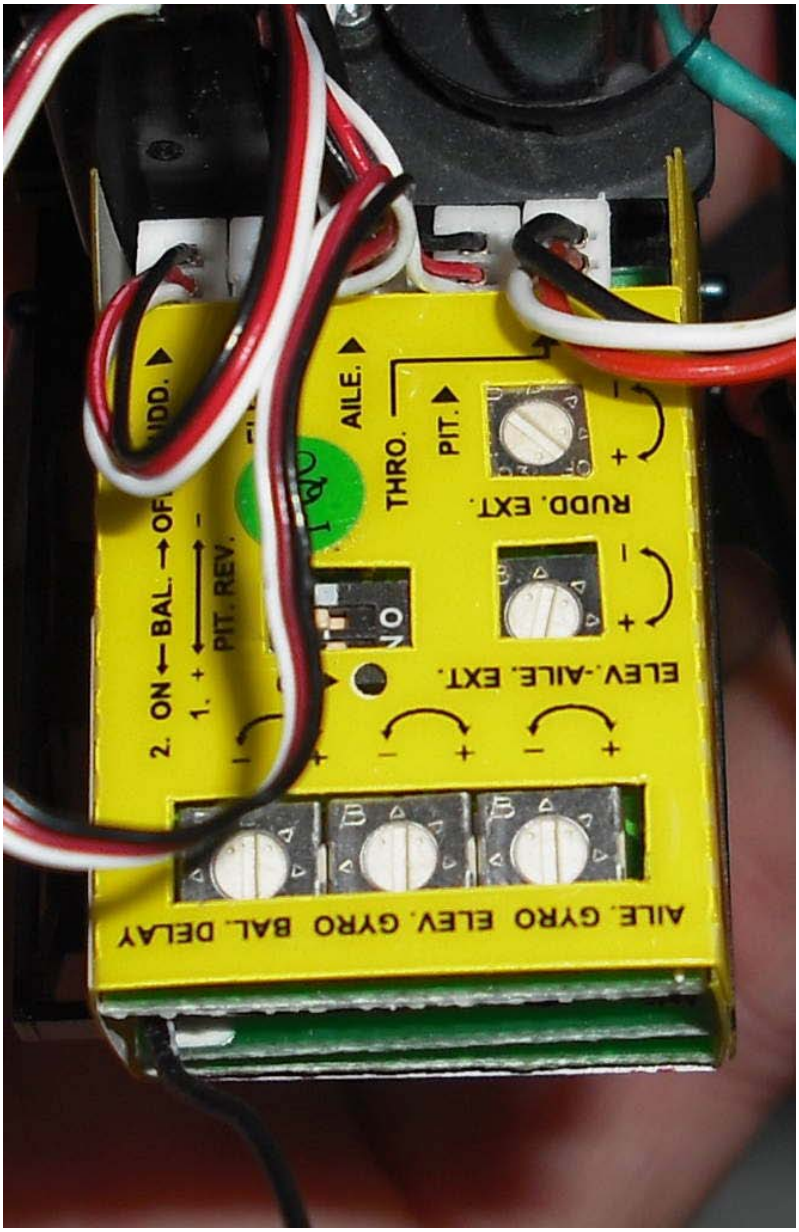
RX2610V Servo Hookup Option #2



RX Dip Switch Settings.

Set these to the following:

BAL switch down (On) and PIT. REV up (Off).



RX Factory Pot Settings.