

DTRx43d Instructions



DelTang YouTube Channel: <http://www.youtube.com/user/now4dt>
DelTang website: <http://www.deltang.co.uk>

VERSION: 3.4.3

1. GENERAL:

3-6v may be connected with correct orientation to +/- points.
The Rx is not insulated so take care to avoid short circuits.
The PCB is thin so do not bend it or exert great force on it.

2. LED:

Led On = perfect reception (real-time indicator).
1 flash = Scanning (~2sec between flashes; wrong model if never stops).
2 flash = Brownout (receiver voltage went too low; check battery/servo load).

3. FAILSAFE:

Outputs are not driven (do nothing) on startup and while scanning.
Outputs 'hold' on short signal losses (<1sec) and then do nothing (>1s).

4. BINDING: (YouTube Video link - <http://youtu.be/eYeutjiS8vc>)

1. Switch Rx on and wait ~20s until led flickers fast.
2. Switch Tx on in bind mode and Rx led should flash slowly and then go solid.
3. Change distance between Tx/Rx if binding does not work.

5.1 'SERVO' OUTPUTS:

Pads 1-4 will normally be used for servos or an external ESC on Pad1.
Pad 2 can be set to Sum-PPM for quadcopter type models.
Pad 4 can be set to drive a second external ESC for 'dual-brushless' (see 5.4).

5.2 BRUSHED ESC's:

Set Ch1/Throttle throws to 100%.
Close throttle to arm the ESC's.
Differential thrust steering mix can be enabled by setting 'mix' to 12.5-100% (0%=disabled).
A 3.0v LVC is enabled by default.
The ESC will rearm if the throttle is closed briefly.
The led will have a 2-flash if LVC is triggered.

5.3 'ACTUATOR' OUTPUTS:

Set channel throws to 100%.
The actuator outputs can drive brushed motors with 2-direction (reversible) control.

5.4 'DUAL BRUSHLESS':

Pads 1 and 4 can drive two external ESC's (eg: brushless) with steering mix. This feature is programmed with Levels 3 and 4 both set to 2 flashes.

6.1 PROGRAMMING:



1. Switch Transmitter on with left/right sticks in towards middle of Tx.
2. Switch Receiver on and wait for the Led to flicker very fast then release all sticks.
3. The led flashes the setting for the first 'Level' (eg: 1 flash = 0% Steering Mix).
4. Yes = push the Ch3 (Elevator) stick forward (to top of Tx) to accept choice and advance to next Level.
5. No = pull the Ch3 (Elevator) stick back (to bottom of Tx) to see next choice for same Level.
6. Continue through all Levels until Led comes on solid.
7. Settings are saved automatically at the end so switch off at any time to abort.
8. Say 'yes' to every item to just see what is currently set.

Example – To enable twin-steering: (YouTube Video link - <http://youtu.be/l7Jbo2nw9Mk>)

Level 1: 1-flash NO, 2-flash NO, 3-flash YES = Option 3 (25%) & move to next level

Level 2-6: YES to all.

6.2 PROGRAM LEVELS / NUMBER OF FLASHES:

Level 1: Steering Mix %

1 = 0% (Default)

2 = 12.5%

3 = 25%

4 = 50%

5 = 100%

Use 'Travel Adjust' in the Transmitter to fine-tune steering sensitivity.

Level 2: Steering channel (for mix)

1 = Ch4/Rudder

2 = Ch2/Aileron (Default)

Level 3: Pad 1 output ('brushless 1')

1 = Normal Ch1/Throttle (Default)

2 = Throttle + Steering mix

Level 4: Pad 4 output ('brushless 2')

1 = Normal Ch4/Rudder output (Default)

2 = Throttle + Steering mix

Level 5: Low Voltage Cutoff (brushed ESC's only)

1 = Disabled

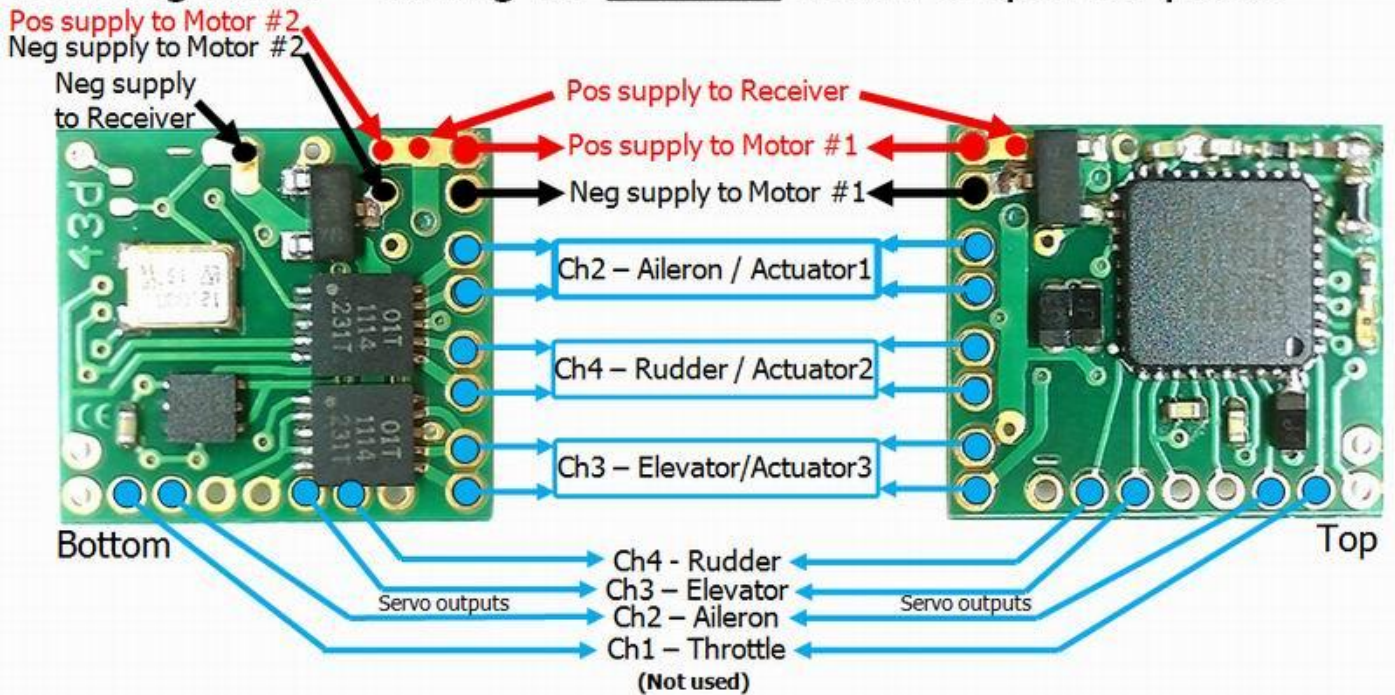
2 = Enabled (Default)

Level 6: Servo/Sum-PPM outputs

1 = Sum-PPM on Pin3

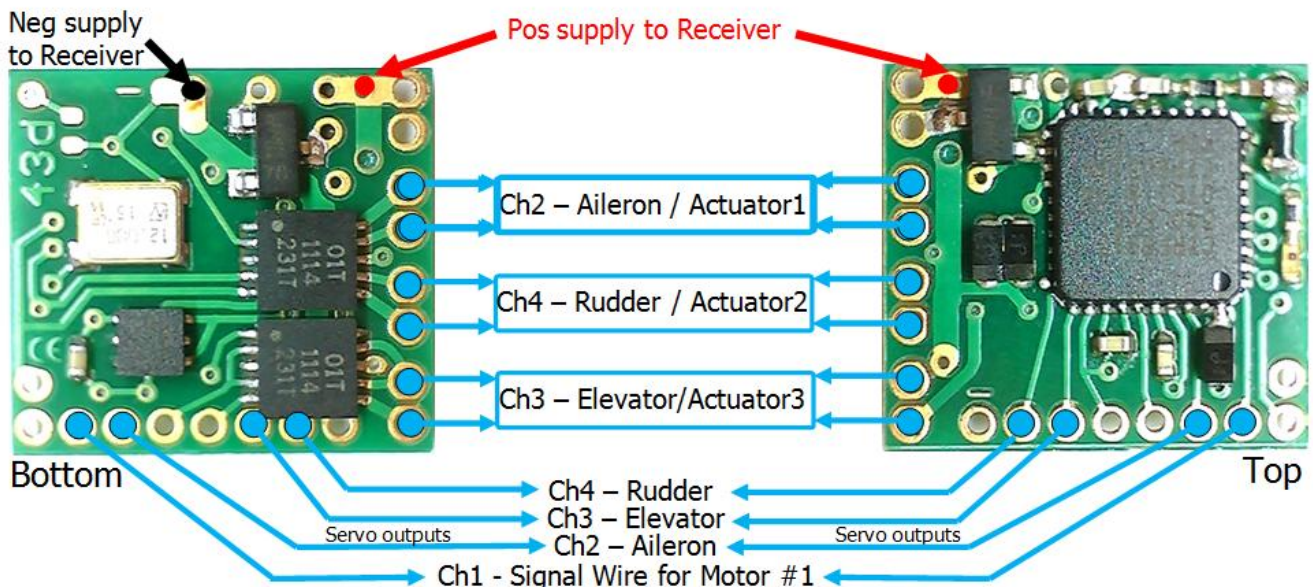
2 = Normal Servo outputs on all pads (Default)

DelTangRx43d – Wiring for brushed motor output for plane



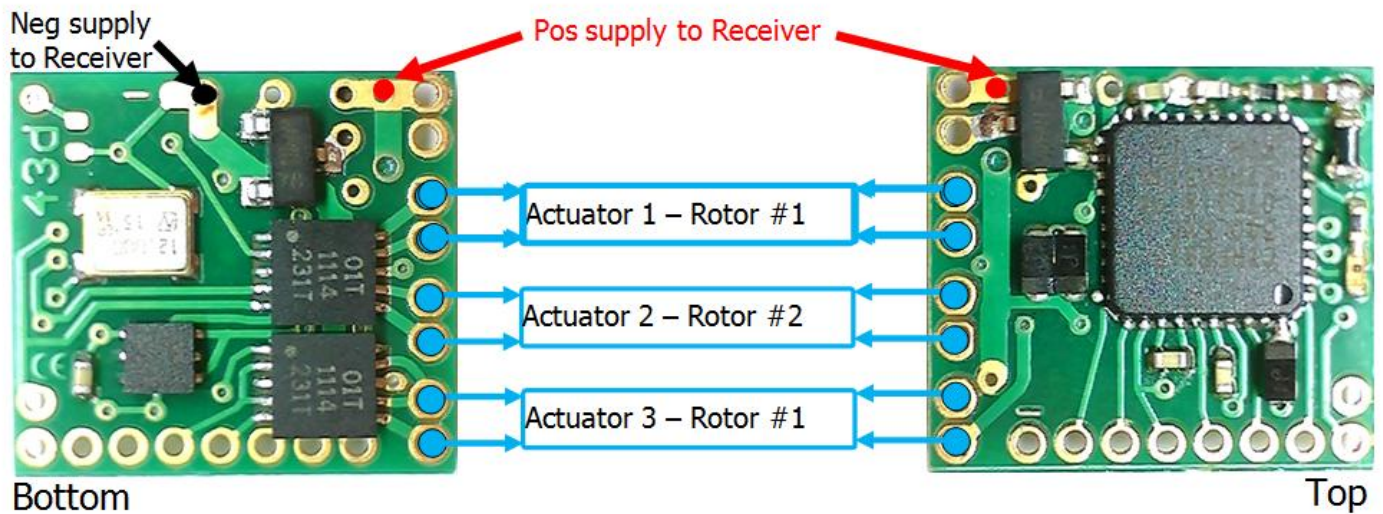
This example is the simplest wiring scenario for a plane. You can choose just one motor or two motors to take advantage of the onboard dual ESCs and differential thrust steering. Differential thrust steering can be set by programming the receiver with the transmitter. You also have the choice of either servo or actuator control. Note that pos and neg power for servos must be drawn collectively from the pads where power is supplied to the receiver or directly from the battery.

DelTangRx43d – Wiring for brushless motor output for plane



When using a brushless motor servo Ch-1 supplies the signal to your ESC unit. Pos and Neg power to the ESC unit comes directly from the battery. Dual brushless motors can also be set up and in this case the signal for motor 2 comes from Ch-4 and you can then set up differential steering as well. Note that pos and neg power for servos must be drawn collectively from the pads where power is supplied to the receiver or directly from the battery.

DelTangRx43d – Wiring for brushed motor output for helicopters



For helicopters power is supplied to the brushed motors via the actuator outputs. Actuators 1 and 2 power the contra rotating main rotors and Actuator 3 powers the motor for the tail (up down) rotor.

DTRx43d Main Features

The Rx43d is a versatile receiver. It's ability to be programmed allows it to be used for planes, helicopters and quadcopters. It also gives you the added advantage of being able to work with either servos or actuators.

For planes, you can run a single brushed motor driven by the onboard 2Amp ESC. Also, the dual onboard ESCs can drive 2 x 2Amp brushed motors with optional differential steering mixing. This, coupled with the ability to choose either servos or actuators makes this receiver a solution to fit a wide range of applications.

For helicopters, two of the actuator outputs can be configured to drive contra rotating motors with differential speed mixing, while the other can drive a reversible motor for the tail.

For quadcopters this receiver can be configured for 7ch Sum-PPM output.

The DTRx43d is a DSM2 compatible receiver unit which can be bound to a Spektrum DSM2 capable transmitter or any other transmitter which is DSM2 capable.