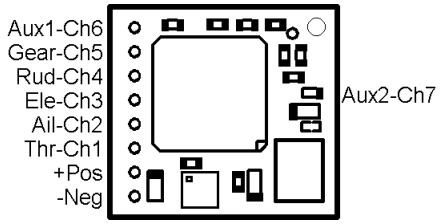
DT 2.4GHz RECEIVER INSTRUCTIONS
Rx32



3-6v may be connected with correct orientation to +/- points.
Points marked Ch1-7 are signal connections. Ch7 is under the board.
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.
The receiver will only work with DSM2 transmitters.
The Tx/Rx may be switched On/Off in any order.

LED:
Led On = perfect reception (real-time indicator).
Led Off = not perfect (useful for range tests/interference indicator).
1 flash = Scanning (~2sec between flashes; wrong model if never stops).
2 flash = Brownout (receiver voltage went too low; check battery/servo load).
4 flash = Failsafe (signal lost for >1s eg: Tx switched off before Rx).
5 flash = Watchdog (program recovery mechanism; should never happen).

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

BINDING:
1. The Rx will go into Bind mode 30 seconds after being switched on if no Tx signal is recognised. The led will flash rapidly when ready for binding.
2. Switch Tx on in bind mode. The Tx bind button may be released once the Rx led stops flashing rapidly. The led will stay off for a few seconds and may flash.
3. As soon as the led comes on and stays on the Rx is bound and ready to use.
4. If led does not come on within 20sec or flashes every 2sec (=scanning), the bind has failed. Allow several flashes then switch Tx and Rx off, move them closer or further apart and start again. Binding is more reliable with no other Tx's on.

OUTPUTS:
Ch1-7 will normally be used for servos, gyro or external ESC. Alternatively, Ch3 can be set to produce a 7 channel data stream suitable for multi/quadcopter type models.

PROGRAMMING:
Some options can be selected over radio link using the Elevator stick.
High/Low selects alternatives and mid-stick then confirms a choice and moves on.
'High' means pushing the elevator stick towards the top of the Tx (if not reversed).

The led flashes the option currently being set (eg: Option 1 = single-flash 1sec apart).
The Rx assigns a value to each option (Low elevator=0; High=option number).
The Rx flashes the sum of all options once complete to confirm settings.

The Tx changes frequencies every time it is switched on. Programming mode can only be entered if the Tx is using the same frequencies as were used during the most recent bind. So you have to perform a successful new bind (led comes on solid), keep the Tx on to maintain the same frequencies, and then power cycle the Rx 3 times making sure the led comes on solid after each power cycle. The led should then give a repeating single-flash every 1 second. This is described in steps below:

PROGRAMMING PROCEDURE:
1. Bind Rx to Tx and led will come on solid.
2. Keeping the Tx ON, switch the Rx OFF then ON until it reconnects again (led on).
3. Perform step 2 three times until led flashes the first program option (single-flash).
4. Use High/Low Elevator to make choices and mid-stick to confirm and move on
5. Switch Tx off at any time to save settings.
6. The led will then flash the sum of new program settings; switch Rx off when done.
7. Switch Rx off before Tx at any time to exit without saving changes.
8. To restore defaults, perform steps 1-3 and switch the Tx off (or select Low elevator on all options). The led will not flash after switching the Tx off because all options are reset to 0/Low.

PROGRAM OPTIONS/FLASHES (L=0=Default or not applicable):
1. L = Sequential PPM DISABLED
   H = Sequential PPM ENABLED
2. L = Serial output DISABLED
   H = Serial output ENABLED

PROGRAMMING EXAMPLES:

EXAMPLE 1: Servo outputs
Option 1-2 Low
Flashes after programming 0

EXAMPLE 2: Sequential PPM for quadcopter enabled
Option 1 High
Option 2 Low
Flashes after programming 1