

Transmitter:

When power is turned on, the LED will flash very shortly then turn red for approx 2 seconds. This indicates, that the transmitter is booting.

If the **button is not pressed** while booting, it can go into 2 modes:

Constant Green

This indicates normal mode, PPM is detected and the transmitter is running.

Flashing red

This indicates missing PPM. The transmitter will also enter this mode, if the PPM-signal disappears at any point. As appose to the old firmware, the link will still be established, but the receiver will go into failsafe.

Menu

If the **button is pressed** while booting:

Holding down the button while booting, makes it possible to enter one if the 4 modes below. Hold down the button, wait for the quick flashes and approx 2 seconds red - and release the button when the LED indicates the menu you want to enter.

1) Green - Micro power

Indication: flashing green

Function: This is for range testing. The transmitter will transmit with very low power, making it possible to actually do range-tests without having to drive for 20 kilometers 😊

Note: TX must be power-cycled to exit this mode

2) Orange/yellow - Bind

Indication: Quickly flashing orange/yellow.

Function: Enter this mode when binding a new receiver, or binding after an ID-change. It's always recommended to bind a new or updated receiver, as more information than just PPM-info is stored in this process.

Note: When entering this mode, the LED will very shortly turn red while validating the PPM-input. If no PPM-signal is detected, it will not be able to enter bind-mode. power-cycle TX to exit bind-mode.

3) Red - Servo test

Indication: Red/green alternating

Function: This function is used as servo-tester. The transmitter will cycle all servos from absolute minimum to maximum. Note that this will be done on all channels detected in the bind-process - which means an eventual motor will also be running. Use this as servo-tester, while range-testing etc.

Note: Simply press the button to exit this mode again.

4) Led off - change ID

Indication: Nothing

Function: Entering this menu, will change the ID of the transmitter. This is recommended on all new equipment and after software-update, to make sure a random ID is selected.

Note: Re-cycle TX after this and bind your transmitters to the new ID.

Receiver

When booting, all 3 LED's will turn on. Afterwards, only the red will stay on.

At first, the receiver will shortly look for a bind-signal. If a TX trying to bind is found, the green LED will go on, indicating a successful binding. After a bind, the receiver must be power-cycled. If the blue link led goes on, it will successfully have established connection to the transmitter. Note that the link-led will flash for every package lost. There's a very good margin and a few flashes now and then is acceptable, but it should be very close to solid blue.

RSSI

The behavior of RSSI have changed a lot in this new firmware. The RSSI is scaled from 0 volt to approx 3 volts. With the TX off, the RSSI will be 0 volt. Even at 0.1 volt, you should just barely have control.

One of the new things done with RSSI, is that lost packages is included as a part of the final output. In the old firmware, a lot of lost packages due to interference etc. would not necessarily be indicated on the RSSI value, as the actual signal strength is still good. To give a better idea of the total signal quality, we have decided to take everything into account. This means, that heavy interference will actually show lower RSSI. If you fly with a lot of other people, the RSSI value will also be useful to see the actual signal received.

Overall notes:

- Calibration is no longer used. Everything is done automatic
- We don't use jumpers for anything
- Number of PPM-channels out will be the same as the TX. (not active now) If a headtracker is used, 2 channels will be added (max 12 channels)

Things to be aware of

- If the transmitter is power-cycled in very close proximity to the RX, the receiver can in some cases get an invalid link, going in and out of failsafe. This should never happen if the TX is power-cycled with a few meters separation or more.