

## Deltang Classic Tx22 Transmitter

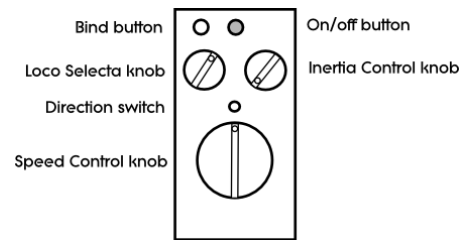
Thank you for buying a **Deltang Classic Tx22** transmitter. This guide aims to get you started. There is more detailed information on the **RC Trains** and **Deltang** websites.

### Getting started

#### Inserting the battery

You will need a 9v PP3 battery. Undo the four screws on the back of the transmitter case, remove the back and connect the battery to the battery connection clip. The battery is quite a tight fit, but should squeeze in below the terminals of the speed control pot. Replace the back and tighten the four screws.

#### A tour of the transmitter



**On/off switch** - *Illuminated push-push switch*. The LED shines steadily during normal operation; it flashes once a second during the binding process; it flickers rapidly while inertia control is in operation (see below) and it flashes erratically when the battery is depleted. It also flashes to guide and confirm **additional functions** (see below).

**Bind button** - *Push button*. After a receiver has been put into 'bind mode' (see receiver instructions), the Bind button is held down while the transmitter is switched on. The button is then released and the LED on the on/off switch will flash regularly in unison with the receiver LED. When the LED remains on steadily, the bind process is complete. During normal operation of the transmitter, the bind button can be used to control accessories through Channel 5.

**Loco Selecta switch** - *12-position rotary switch*. After a receiver has been bound to a position on the switch, the transmitter will control that receiver whenever the switch is in that position. If the switch is moved to a different position while controlling a loco, the loco responding to the first position on the switch will continue at the same speed and in the same direction until the Loco Selecta switch is turned back to that loco's position.

**Inertia Control knob** - *Rotary potentiometer*. The further the knob is turned to the right, the more slowly the loco will increase and decrease its speed. The LED will flicker while the speed control is responding to the inertia setting and will stay on steadily once the loco has reached its final speed or come to a halt.

**Direction switch** - *Two-way switch (centre off)*. The direction switch will change the direction of locos when used with receivers which are programmed to be 'low-off'. When used with 'centre-off' receivers, the speed knob controls both speed and direction and so the direction switch can be used to control accessories on Channel 3 (*high* in one direction and *low* in the other).

**Speed control knob** - *Rotary potentiometer with 300° of rotation and central 'click'*. With 'centre off' receivers, the knob controls speed and direction, with 'low off' receivers, the knob controls speed only - the direction switch being used to control direction. *RCT-Rx65b* receivers can be programmed for 'low off' or 'centre off' using **paperclip settings** (see the RCT website *Support* section or the *RCT-Rx65b* guidance leaflet).

#### Additional functions

The default function of the *Inertia Control* knob is to control inertia on the *Speed Control* (see above), however, this knob can be reprogrammed to control Channel 5 or Channel 4, as follows:

- Hold down the *Bind button* while the Tx is being switched on and the Tx will enter Bind mode (see **Bind button** above).
- Press the *Bind button* for less than 20 seconds while the Tx is controlling a loco and it will normally control Channel 5 (see below).
- Hold down the *Bind button* for 20 seconds or more within the first 60s of turning on the Tx and it will perform **Calibration**. (see below)
- Press the *Bind button* for 20 seconds or more after the first 60 seconds of turning on the Tx and it will change the function of the *Inertia Control* knob.
  1. Turn on the Tx22 on and wait 60+ seconds
  2. Now press and hold the *Bind button*.
  3. Wait 20 s until the LED goes out for 2 seconds. It will then come on for 3 seconds. Release in this time to reprogram the *Inertia Control* knob to control Channel 4

**OR**

4. Wait until the LED goes off and stays off
5. Now release the *Bind button* to reprogram the *Inertia Control* knob to control Channel 5.

Repeat steps 1 to 3 to revert to normal Inertia control.

If the *Inertia Control* knob is being used for inertia, the *Bind button* will control Channel 5 when pressed for less than 20 seconds

If the *Inertia Control* knob has been reprogrammed for Channel 4, the *Bind button* controls Channel 5 when pressed for less than 20 seconds.

If the *Inertia Control* knob has been reprogrammed to control Channel 5, the *Bind button* has no effect on Channel 5 but is still used for binding and reprogramming the *Inertia Control* knob functions.

#### Calibration

The Tx22 is calibrated before despatch, but occasionally it might need recalibration. For example, the *Speed Control* knob clicks at its central position and when it is used with 'centre off' receivers the 'click' on the Tx needs to match the 'off' position in receivers. The 12-way *Loco Selecta* switch can also be calibrated so it associates the same value for each position as other Tx22/24 transmitters.

To recalibrate your Tx22:

1. Turn the *Inertia knob* fully anti-clockwise (left) so it has no effect on the speed control.
2. Centre the *Speed Control Knob* (to its click position)
3. Turn the *Loco Selecta* switch to position 6 (ie the 6 o'clock position (pointing downwards)).
4. Turn on your Tx22 and the LED will come on steadily.
5. Within 60 seconds, press and hold the *Bind button*
6. Keep the *Bind button* held down for about 20 seconds until the LED goes off. The *Speed Control* knob should now be calibrated.
7. Release the *Bind button* now if only the *Speed Control* needs recalibration, otherwise .....
8. Continue holding the *Bind button* down to recalibrate the *Loco Selecta* switch
9. The LED will come on for 3 seconds then will go off again
10. Release the *Bind button* and the *Loco Selecta* switch should now be recalibrated and the LED will come back on.

#### Programming RCT receivers with the Tx22

If the *Inertia Control* knob has been reprogrammed to control Channel 4 as above, the Tx22 can reprogram settings in all *RCT* and some *Deltang* receivers. However, there is a risk of unintended outcomes and so take care. If a receiver is put into programming mode by mistake, turn off the receiver and centre the *Loco Selecta* and *Inertia Control* knobs before turning the receiver back on.

#### To put the Tx22 into programming mode:

1. Program the *Inertia Control* knob to control Channel 4 (as above).
2. Turn off the Tx22
3. Rotate the *Loco Selecta* and the *Inertia Control* knobs fully left or right (ie not centred).
4. Centre the *Direction* switch.
5. Put the *Speed Control* knob in the central 'off' position.
6. Turn on the Tx22

#### To reprogram the receiver

1. Turn on a receiver which has previously been bound to the Tx22. The receiver LED should flash rapidly within a few seconds.
2. Centre the *Loco Selecta* and the *Inertia Control* knobs
3. Use the chart on the *Deltang* website to determine the code which needs to be entered (for more information see my Blog post on programming receivers - <http://riksrailway.blogspot.com/2015/11/programming-deltang-receivers.html>)
4. Move the *Direction* switch to the left and centre again to ADVANCE the number of flashes on the Receiver LED to match those at particular levels on the chart
5. Move the *Direction* switch to the right and centre again to ACCEPT the flashes for that particular level in the chart

**NOTE:** This may sound baffling at first, but reading through my Blog posting and watching the associated video should make it a lot clearer. Once you have understood the basic principles, this guide should hopefully be the only reminder you will need.

#### To disable programming capability:

Reprogram the *Inertia Control* knob to control Channel 5 or Inertia as described above.