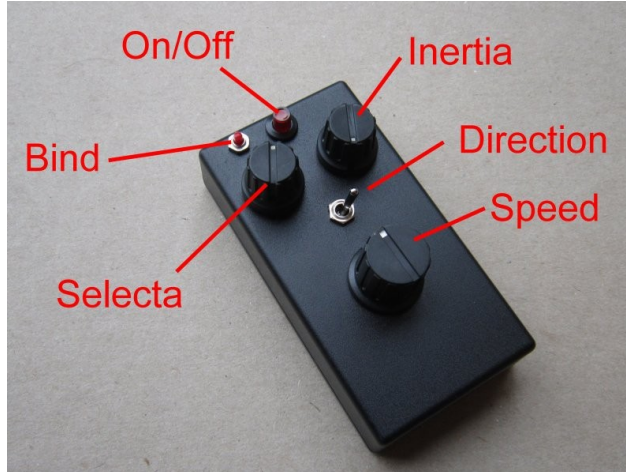


DT Tx22 Transmitter

User Information

Tx22 is a hand-held wireless transmitter intended to control up to 12 model railway trains. It has controls for Speed, Direction, Inertia, Lights and Loco selection.



Technology:

- Tx22 uses the 2.4GHz band which requires no frequency channel control and is very resilient against interference.
- Any number of receivers can be bound to your Tx22 but a maximum of 12 can be switched on at a time to operate them independently. Tx22 can select one of the 'active' receivers to operate it in a form of 'cab control'.
- Range is suitable for indoors and small outdoor sites.
- Tx22 is compatible with all DSM2 receivers. This includes all DT receivers.
- Knob and switch positions are transmitted as separate 'channels' (1-7) which must match those used in receivers.

Battery:

- Tx22 uses a PP3 9V battery.
- Remove the 4 screws holding the back of the case to insert or replace the battery.
- There are some bare wires inside so care needs to be taken when installing the battery to avoid short circuits.
- Make sure that the power on/off button is off (up) before adding a removing a battery.
- The connector will only clip onto the battery one way.

On / Off Push Button:

- Tx22 has an illuminated push-button on/off switch. It is best to switch the transmitter on before the receiver.
- The LED flickers slightly while an Inertia transition is in progress.
- The LED flashes more boldly when Binding.

Speed / Throttle Knob:

- 300° rotary control with 'center click'.
- Full rotation is either 'low off' 0-100% motor control or 'center off' (depends on receiver setup).
- The Speed knob controls transmitter channel 1 and channel 6.

Direction Switch:

- The Direction switch is used to select forward/reverse with receivers that have 'low off' motor control.
- The switch can control lights instead of direction with receivers that have 'centre off' motor control.
- The switch has a centre off position which is not used for Direction control, but useful when controlling lights.
- The Direction switch controls transmitter channel 3.

Inertia / Momentum / Brake Knob:

- Inertia 'dampens' or slows down changes to Throttle (channel 1 and channel 6).
- The Speed knob sets a 'target' and Inertia changes throttle slowly until it reaches that target. The LED flickers while a change is in progress.
- **To stop quickly Throttle and Inertia must be in the 'off' position.** Inertia is off when turned fully to the left.

Selecta

- This is a 12-way rotary switch with positions matching those of a clock.
- Allows 12 locos to be brought in and out of service without touching them (requires **Selecta** enabled receivers eg: Rx41d-22-v5, Rx6x-22 and Rx102).
- The Selecta knob controls Channel 2.

Bind Button:

If a receiver has not previously been bound, it has to be 'paired' with the transmitter. Binding is only required once per receiver.

1. Put your receiver into Bind mode (if a DT receiver, switch it on and wait for the LED to flash fast).
2. Choose the Tx22 Selecta switch position for the loco.
3. Press and hold the Bind push-button on the transmitter.
4. Switch the transmitter on by pushing the Power button and then release the Bind button.
5. Binding is complete when the receiver LED stops flashing.

Once the transmitter is switched on, the Bind button, if pressed for less than 20s, acts as a simple switch controlling transmit channel 5. If the Bind button is pressed for more than 20s, it alters how the Inertia knob is used:

- if the Bind button is pressed for 20s or more within the first 60s of switching the Tx on, it will perform calibration of the throttle knob centre position
- if the Bind button is pressed for 20s or more **after** the first 60s of switching the Tx on, it will toggle what the Inertia pot is used for – Inertia or control of channel 5.

The default behaviour of the Inertia knob is to control throttle / brake inertia as described above. To toggle the Inertia knob function:

1. switch the Tx on and wait 90s without touching the Bind button
 2. press and hold the bind button
 3. after 20s the power LED will go off for 2s and then come on for 3s; release the Bind button in this 3s to **toggle** the Inertia knob between controlling Inertia or controlling channel 4.
 4. after a total of 25s (i.e. after the 3s of LED on) the power LED will go off and stay off until you release the Bind button; this causes the Inertia knob to control channel 5
 5. repeat steps 1 to 3 to revert to the the Inertia knob controlling throttle inertia.
- If the Inertia knob is being used for Inertia or channel 4, the Bind button controls channel 5 if pressed for less than 20s
 - If the Inertia knob is being used for channel 5, the Bind button has no effect on channel 5 but is still used for binding and toggling what the Inertia pot is used for.

Receiver Programming with Tx22:

If the Inertia pot is used to control Channel 4, Tx22 can change settings in some DT receivers (e.g.: Rx6x and Rx4x series). This creates a risk of unintended changes so care is needed. If the receiver is put into programming mode by mistake, simply switch the receiver off and centre the Channel 2 and Channel 4 knobs before switching the receiver on.

Refer to the DT web site www.deltang.co.uk for details on programming sequences for a specific receiver.

To Enter Programming Mode:

1. Set the Inertia knob to control Ch4 (described above).
2. Rotate the Channel 2 (Selecta) and Channel 4 (Inertia) knobs fully left or right (not centred).
3. Centre the Channel 3 (Direction) switch.
4. Put Channel 1 (Throttle) in the 'off' position.
5. Switch Tx22 on.

To make changes to receiver settings:

1. Switch ON a receiver which has previously been bound. The receiver led should flash fast within a few seconds. Centre the Channel 2 (Selecta) and Channel 4 (Inertia) knobs.
2. Toggle the Channel 3 (Direction) switch left and centre again to make 'NO' choices.
3. Toggle the Channel 3 (Direction) switch right and centre again to make 'YES' choices.

To disable programming mode:

1. Change the Inertia knob back to controlling Channel 5 or Inertia (described above).