OMNI Tx-3.1 Servo 2.4GHz Handheld Transmitter

You no longer need that big transmitter anymore! The programmable ***OMNI Tx-3.1 Servo*** handheld transmitter will control your garden railway live steam or electric locomotives perfectly from the palm of your hand. An ***Omni Rx-3, Rx23 or FRx22*** receiver will work with the ***OMNI Tx-3.1*** transmitter.

2.4GHz gives perfect glitch free control for up to 800 metres range.

Four servos can be controlled from an OMNI Tx-3.1 Transmitter. Two infinitely variable and two with stop positions. When used with an FRx 22, the Tx3.1 gives control of one or two ESCs and three function outputs. Cruise control is possible by turning off the transmitter while the train is running. Turn back on to instantly regain control.

Black Push Buttons 1. 2 . and 3

Buttons 1 and 2 control Servo 3. Button 3 controls Servo 4 and BIND
When used with FRx22, the buttons operate Functions F1, F2 and F3

Press 1 and the servo moves to the left. Press again and it returns to centre. Press button 2 for Right movement and again for centre. Ideal for Operating Forwards and reverse on locos with no cut-off

Press button 3 and Servo 4 swings from left to right. Release and the arm swings back. Excellent for operating whistles and couplings etc.
Buttons 1,2 and 3 are also employed in re-programming the transmitter

ON/OFF Slide switch
Slide down for ON

S2 Servo 2 or ESC
For infinitely variable servo movement. Centre detent useful for gas valve simmer position, blower just open or reverser mid gear

2 x 1.5v AAA Battery box lid

More Info

For more information see overleaf

S1 Servo 1 or ESC
For infinitely variable servo movement on regulator or forwards and reverse with Electronic Speed Controller Centre Detent indicates off position for ESC

If Alkaline batteries are used up to 200 hours of continuous use is possible.
Rechargeable cells should not be used as the voltage is insufficient.

OMNI Tx-3.1 Servo

Programmable 2.4GHz Transmitter

For Locos with ESC and switcher units or servos

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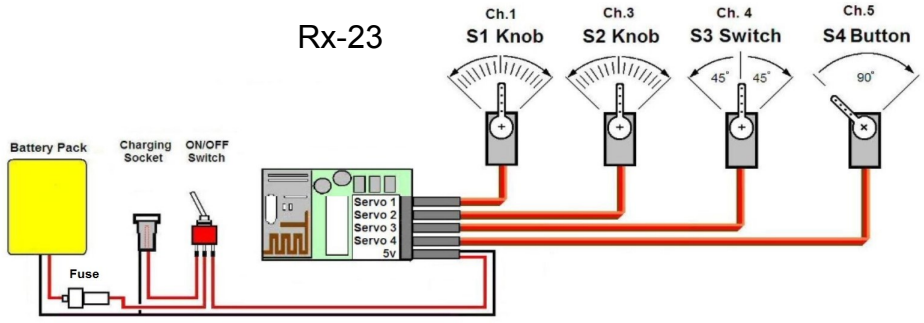
Programmable Four Servo Operation
S1 and S2 infinitely variable. S3 three position,S4 two position
Centre detent on S1 regulator control and S2
2.4GHz Technology by Timpdon
Requires an ***OMNI Rx-3 or Rx23*** receiver.
Up to 800 metres range
Telemetry feedback on LED 2
Ideal for use with older installed systems



Rx-23 receiver circuit diagram for use with a four Servos.

Binding Procedure.

Now simpler than ever!

1. Turn on the Receiver (or the model, if it's already fitted inside) then….
2. Hold down black buttons 1 and 3, then turn on the transmitter
3. Successful binding is indicated by LED 2 going fully ON.
4. Release the two buttons and the job is done. .

Low battery warning

When the batteries in the handset get too low for reliable operation, both LED 1 and 2 start flashing together. Replace them with quality alkaline AAA cells for the best results,

Setting Servo travel and direction

By default, each servo channel is set for a 90 degree swing but this can quickly and easily be changed from the OMNI handset. The direction of movement can also be changed by reversing the start and end positions.

The OMNI receiver stores the settings, not the handset, so any Tx3 handset can be used for setting and then a different handset can then be bound to the receiver for operation.

Each Channel must have START, MID and END positions set (except for Ch.4 which has no Mid position.

In the calibration mode, it is possible to change all or just one of the servo movements. The start, end and mid position (Except ch.4) of each servo swing is adjustable.

Calibrating Servo start, mid and end positions.

Each servo can have it's START, MID and END settings adjusted independently.
The S1 servo knob is used to adjust all four servo settings.
The transmitter and receiver must be already bound together and tested.
It's on video, if you prefer , see our website for the link.

With handset turned OFF :-

1 Set regulator knob to centre position (to avoid straining servo when entering cal.)
2 Press and hold buttons 2 and 3, then turn Transmitter **ON**
3 Wait until both LEDS go solid, then release the buttons, you are now in calibration mode and the only exit is to power off the transmitter.
4 LED 1 will be flashing the selected SERVO, use Button 1 to move to the next one.
5 LED 2 will be flashing indicating which servo position you wish to set, use button 2 to move to the next one:
One flash = Start position of servo swing (Where the servo arm will be when the knob is fully anticlockwise in operation OR when Button 1 is pressed on Channel 3)

Two flash = Mid position of servo swing - where the servo arm will be in operation when the knob is at centre position (On Ch.3 before either button pressed or either button pressed twice (Not available on servo 4)

Three flash = End position of servo swing (where the servo arm will be when the knob is fully clockwise or when button 2 is pressed on Ch.3)

6 Having selected the servo and the position you wish to set, use the S1 (Regulator) knob to set the position of the servo arm (ignore the actual position of the knob) and then SAVE the position by pressing button 3.
7 You can now go on to set more positions or leave the process by turning off the transmitter, then back on again to check the results of your efforts.

Re-Programming Servo 3 and 4 to momentary or latching mode

Servo 3, when set to latching, toggles between mid and end positions on buttons 1 and 2, when set to momentary, will move from mid to start on button 1 and mid to end on button 2, then back to the middle again.
Servo 4, when set to latching, toggles position from one end to the other on each press of button 3 and when set to momentary moves from start to end position and back again.
With handset turned OFF :-

1 Press and hold buttons 1 and 2, then turn Transmitter **ON**
2 Wait until both LEDS go solid, then release the buttons, you are now in calibration mode and the only exit is to power off the transmitter.
3 LED2 now indicates which servo is being set, one flash for SERVO 3 and 2 flashes for SERVO 4. Use button 2 to move to the next one.
4 Set the S1 (Regulator) knob to fully Anticlockwise for Momentary or fully Clockwise for latching mode.
5 Press button 3 to save this setting.
6 Proceed with further settings OR power off the transmitter to leave the procedure.

For further advice, contact us by email at: **sales@fosworks.co.uk** or call us on 01254 814675

You can also watch a video on our YouTube channel. See LINKS page on our website.