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**Electric Screen Radio Remote Control  
Data Sheet**

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## **Electric Screen Radio Remote Control**

Description of use:

The radio control system consists of two parts. The radio receiver, which incorporates the necessary relays to control the roller screen motion and the hand held transmitter "fob".

The system is designed to work with Harkness Screens range of top roller screens and can be retrofitted to an existing installation.

Specification:

Radio receivers are available to operate on 240v 50 Hz or 110v 60 Hz single phase electrical supply.

Maximum current rating is 10 amps; the nominal power consumption is 2 amps for a roller screen motor.

The unit is designed to operate within a temperature range of -20 ~ +60 ° C.

The radio operates a four channel receiving range, using frequencies 433.92 MHz with  $\pm 70$  KHz intermediate frequency and a bandwidth of  $\pm 300$  KHz.

Installation:

Before commencing installation, please read these instructions carefully.

Only competent personnel should carry out the installation.

The receiver unit should be located near the roller screen. The receiver case can be secured to a suitable surface with two screws.

Only qualified personnel should carry out the electrical installation.

Removing the two small screws on the front of the case accesses the receiver printed circuit board. Take care to avoid damage when handling the printed circuit board.

The brown wire, attached to the printed circuit board, is the radio antenna and must be pulled through the small hole in the front of the case. Take care when extending the antenna not to damage the wire or the solder joint.

There are two terminal blocks on the printed circuit board. The block with three terminals is for the three-position rocker switch (as supplied with the roller screen). The block with six terminals is to connect the electrical supply and the three wires for the motor.

Note: Both the supply and the motor wiring has an "Earth" wire and these "earth" wires MUST be connected via a separate terminal block, outside the receiver case.

There are four wires attached to the roller screen motor. The colour coding depends on UK or US versions of the roller screen.

The UK version is:- GREEN/YELLOW = earth - BLUE = common - BLACK and BROWN = up and down. (Note! Depending on the wrap of the screen on the roller, the black and brown wires may be reversed).

The US version is :- GREEN = ground - WHITE= common - RED and Black = up and down. (Note! Depending on the wrap of the screen on the roller, the red and black wires may be reversed).

The three-position switch is connected to the radio receiver with three wires. Use a 1.5 mm<sup>2</sup> three-core cable.

See wiring diagram (Figure # 1)

Programming the system:

Before the hand held transmitter will work with the receiver it must be programmed.

The receivers are manufactured with sufficient frequency separation to enable several receivers to operate within the same location.

To program the hand held transmitter press the red button for 1 second. The red LED on the printed circuit board will illuminate, (See photograph figure #2).

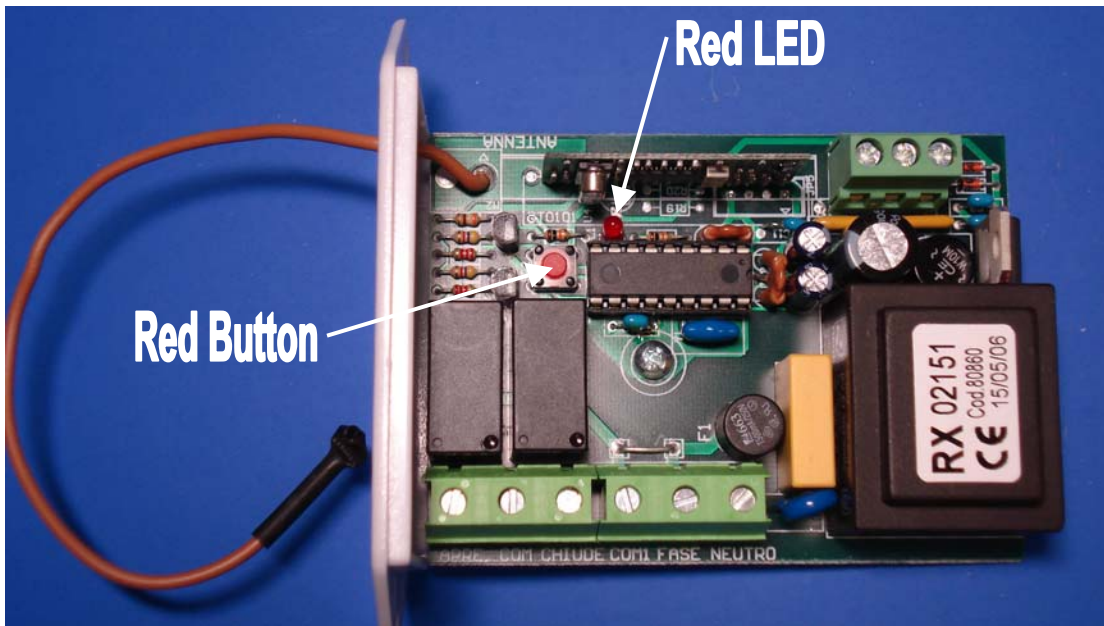


Figure #2

Press one of the four buttons on the hand held transmitter (we suggest the button nearest and to the left of the transmission indicator). Remember which button was pressed. (See photograph figure #3).

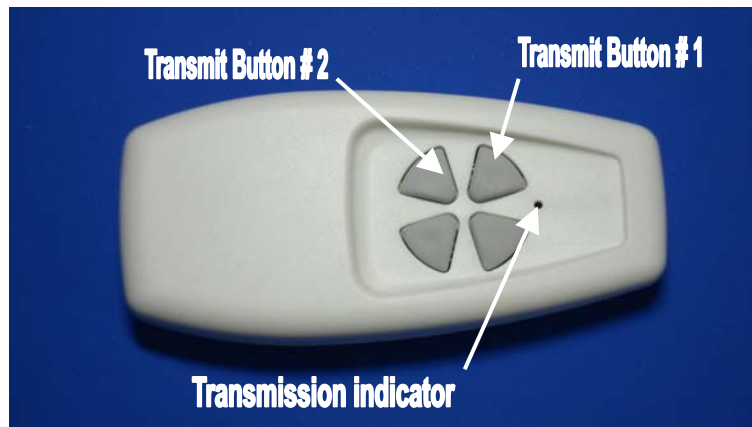


Figure #3

The red LED on the printed circuit board will extinguish.

Press the same button, again, on the hand held transmitter. The red LED on the printed circuit will flash 3~4 times and then remain illuminated. The frequency from the hand held transmitter has been accepted.

Once the hand held transmitter is programmed TWO of the buttons are used to control the roller screen. The other buttons on the hand held transmitter can be used to control another radio receiver unit and are programmed in the same manor.

#### Operation:

The button # 1 programmed on the hand held transmitter controls the “down” (extend) function of the roller screen. The system of operation incorporates a roller screen “stop” function, therefore to make the roller screen move it may be necessary to push the button “twice”. If the roller screen does not operate, it may be necessary to swap the wires at the receiver terminals:

- for UK product, swap BLACK and BROWN wires
  - for US product, swap BLACK and RED wires
- DO NOT SWAP ANY OTHER WIRES.

The roller screen extends until the internal limit switch is activated.

The button # 2 on the hand held transmitter controls the “up” (retract) function of the roller screen. Press and release this button twice will initiate the roller retracting back into the case.

If the roller screen is to be stopped before reaching the fully “down” condition, push button # 2 only once. Pushing button # 2 again rolls the screen back “up” and pushing button # 1 continues rolling the screen “down”.

The roller screen can be operated via the three-position rocker switch. The “stop” function is also operated via the rocker switch.

To extend the roller screen, push and release the “down” side of the rocker switch. It may be necessary to push the button “twice” to operate the screen.

To retract the roller screen, push and release the “up” side of the rocker switch, twice.

If the roller screen is to be stopped before reaching the fully “down” condition, push the “up” button only once. Pushing the “up” button again rolls the screen back “up” and pushing the “down” button continues rolling the screen “down”.

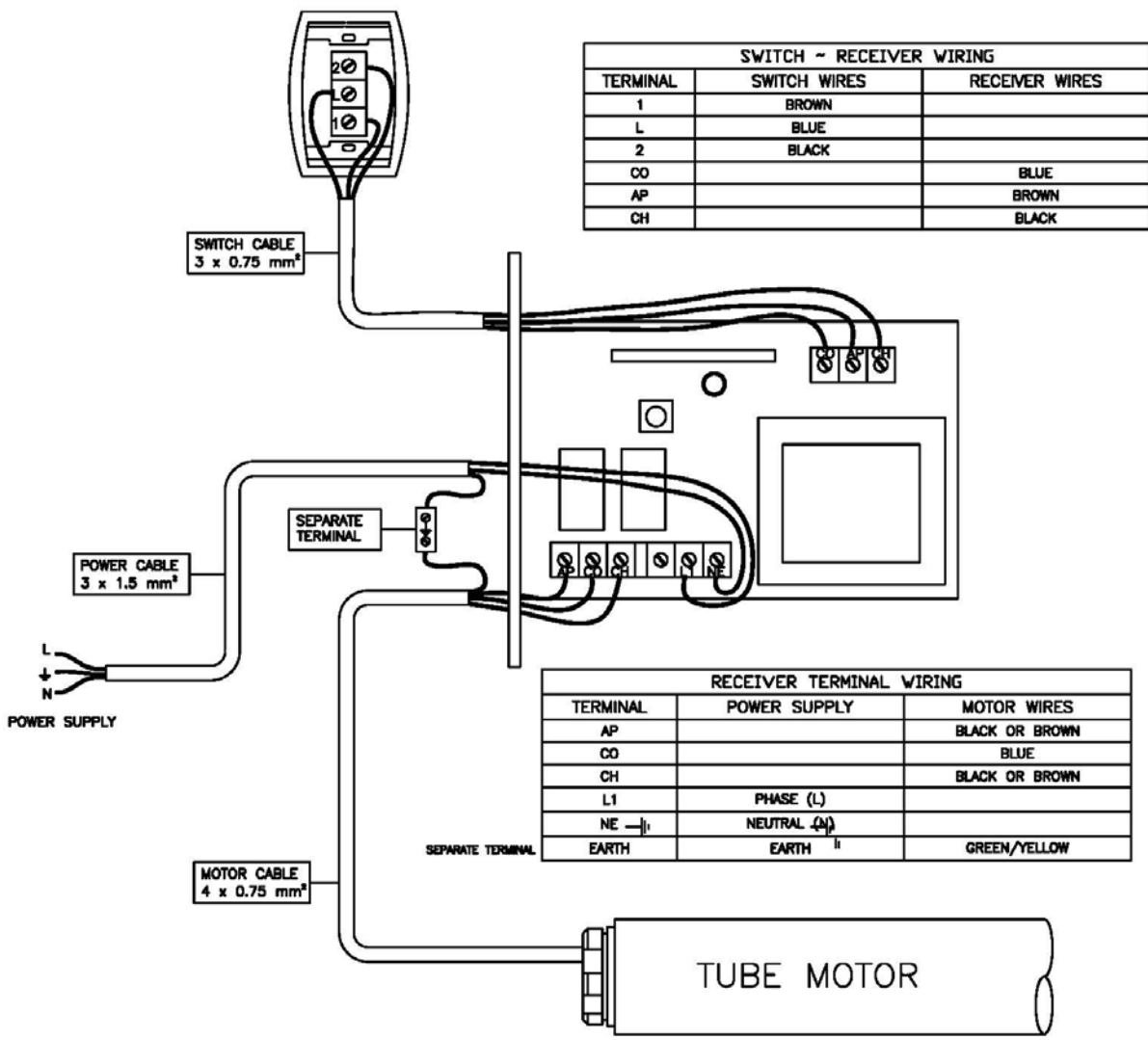


Figure # 1 Wiring Diagram