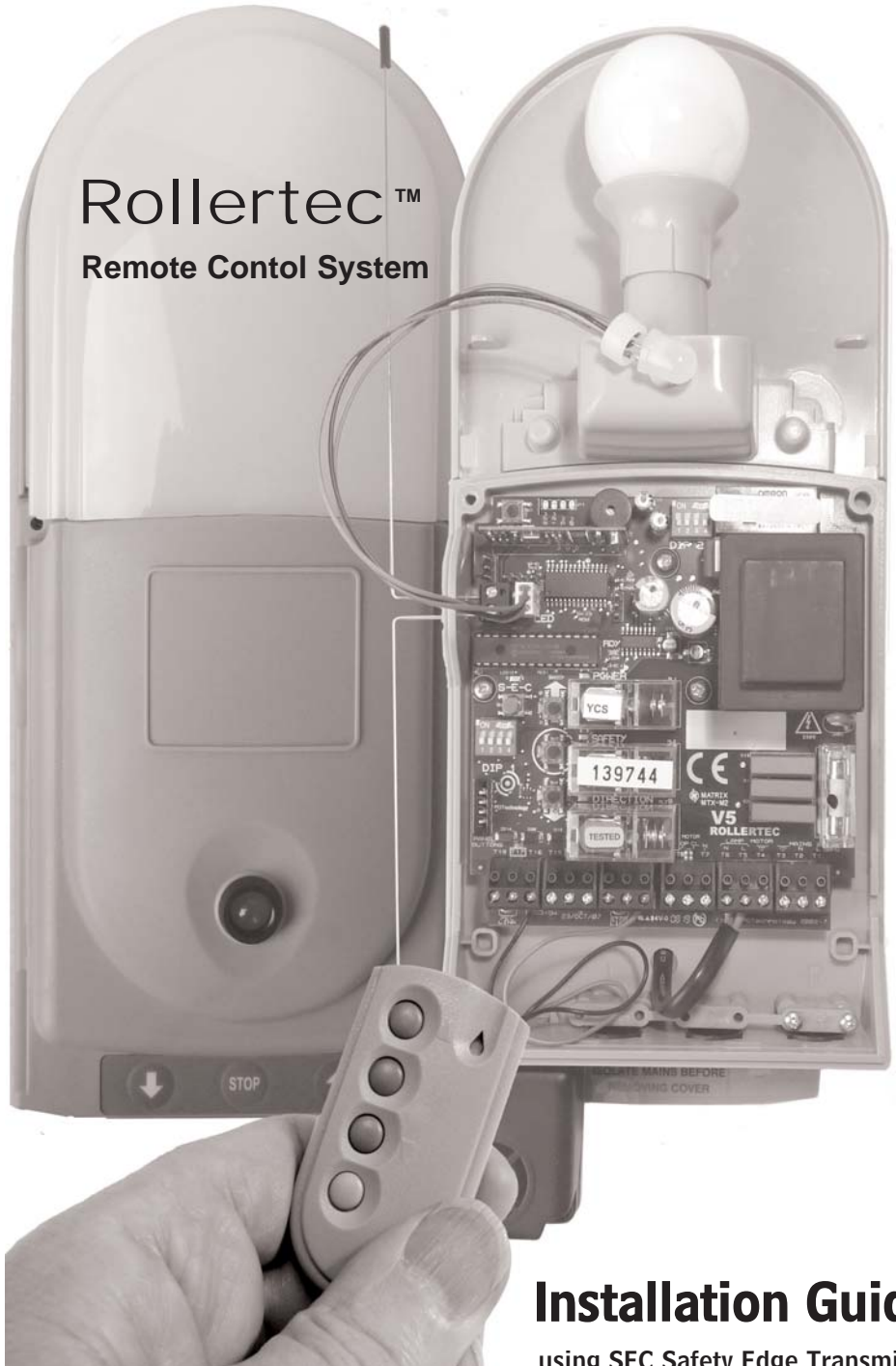


# Rollertec™

Remote Control System



## Installation Guide

using SEC Safety Edge Transmitter



# Rollertec™

## Remote Control System

# Installation Guide



**1**

Install the roller door as per the manufacturer's instructions and fit control unit to wall



**2**

Wire the control unit



**3**

Set motor limits



**4**

Attach safety edge transmitter to the roller door



**5**

Position the magnet on the door guide and connect safety edge transmitter



**6**

Commission the roller safety edge



**7**

Troubleshoot installation



**8**

Add and delete 4 button transmitters



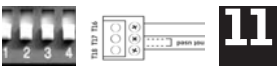
**9**

Configure multi-channel transmitters



**10**

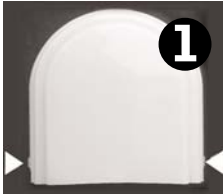
Optional extras



**11**

Dipswitches, wiring information, specification and identification

# 1 Fit control unit to wall



1. Carefully remove the **control unit** from its box. Remove the **light cover** from the top of the unit by pressing in at the bottom on both sides (see arrows) and lifting it away from the unit. The **front cover** can now be lifted a few centimetres clear of the unit.

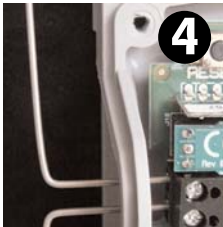


## While holding the front cover:

2. Push the **LED** from the front side of the **front cover** until it exits at the back.



3. Unplug the **front cover buttons connector lead** from its socket on the **main PCB**, gripping it firmly between finger and thumb. Place the **front cover** to one side. Remove the bayonet **bulb** from its holder to expose the top fixing screw.



4. Take the two **aeriels** from the packaging and attach them to the unit (entry point and terminals in top left hand corner). Make sure that the **aeriels** are not touching and that they point in opposite directions (one up and one down parallel with the side of the control unit).



5. Mount the unit on the same side of the door as the pre-drilled **safety edge transmitter holes**. The unit must be installed with the **light holder** at the top. Hold the **control unit** against the wall and mark the position of the fixing holes. Using the installation kit, attach the **control unit** to the wall.

Replace the **light bulb** in its holder.

# 2 Wire the control unit

Full wiring diagram on Page 31

T1		mains live (brown/red)	N.B. The control unit LED connects to the white 3 pin terminal block on the printed circuit board labelled LED
T2		mains neutral (blue/black)	
T3		mains earth (yellow/green)	
T4		motor earth (yellow/green)	N.B. The control unit LED connects to the white 3 pin terminal block on the printed circuit board labelled LED
T5		lamp live	
T6		lamp neutral	
T7		motor neutral (blue)	N.B. The control unit LED connects to the white 3 pin terminal block on the printed circuit board labelled LED
T8		motor down close (black-RH motor/ brown-LH motor)	
T9		motor up open (brown-RH motor/black-LH motor)	
T10		+12V DC photo-electric cell (brown) Alarm sounder (red)	N.B. The control unit LED connects to the white 3 pin terminal block on the printed circuit board labelled LED
T11		0V DC photo-electric cell (blue)	
T12		link to T11 only removed if external stop switch is installed	
T13		push button Open input *	N.B. The control unit LED connects to the white 3 pin terminal block on the printed circuit board labelled LED
T14		push button common	
T15		push button Close input	
T16		photo-electric cell auto test (black) or Alarm Sounder (black)**	N.B. The control unit LED connects to the white 3 pin terminal block on the printed circuit board labelled LED
T17		link to T18 removed only if photo-electric cell is installed	
T18		photo-electric cell safety input (white)	

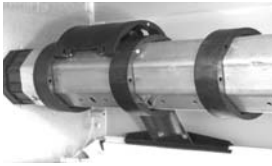
\*when an **external switch** is installed on version 5 of the **control unit printed circuit board**, link **T13** to **T15** and connect the **switch** across **T14** and **T13** to allow sequential control.

If any cables enter the **control unit** from above they must incorporate a drip loop to prevent moisture entering the **control unit**.

Connection to the mains supply should be through a standard household 13amp socket outlet or fused spur unit.

**N.B. \*\***

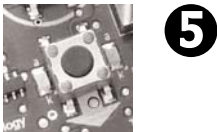
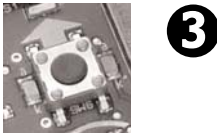
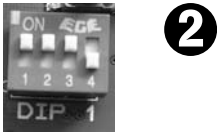
If an **alarm** is fitted to the **control unit**, the red cable is wired to **T10** and the black cable to **T16**. If a **photoelectric cell** is also fitted, the **T17-T18** link is removed and the **PEC** black cable is wired to **T17**. The white cable is wired to **T18**. **Dipswitch 1.1** should be **off**



### 3 Set motor limits

The sequence described here is based on the Somfy motor. For other motors, consult the manufacturer's handbook.

If the board is powered from a generator, set **Dipswitch 2.2** to **on** and press the **reset button** before commissioning the **roller door**.



- 1 Remove the **protective cover** from the **limit switch housing**.
- 2 On **Dipswitch 1** set switches **1.1**, **1.2** and **1.3** to **on** . This puts the control unit in dead man mode and disables transmitter operation.
- 3 Press the **open button** until the **roller door** is the correct distance from the top of the **roller guides**.
- 4 Set the **open limit switch** in accordance with the manufacturer's instructions.
- 5 Press the **close button** until the roller door is in the fully closed position.
- 6 Set the **close limit switch** in accordance with the manufacturer's instructions.
- 7 Reset all **switches** on **Dipswitch 1** to **off**. Leave **Dipswitch 1.1** **on** (**self-check active**) if a **PEC** is fitted.

Replace **protective cover** to the **limit switches**.

## 4 Attach Safety Edge transmitter to roller door



3

If the board is powered from a generator, set **Dipswitch 2.2** to **on** and press the **reset button** before commissioning the **roller door**.

1. Take the **safety edge transmitter** from the box.
2. Place the **back** against the bottom slat of the **roller door**.
3. Feed the the **safety edge cable** through the hole and attach the **safety edge transmitter back** to the door with the screws provided. The square end of the **transmitter** must be mounted within **10mm** of the **guide** to which the **magnets** are to be fixed. **Do not** fit the **safety edge transmitter front**.

**Do not use a power screwdriver or use excessive force or you may damage the printed circuit board.**

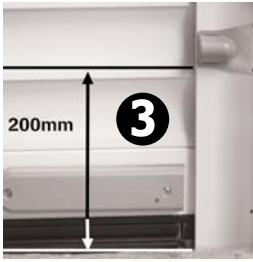


## 5 Position the magnets on the door guide and connect safety edge transmitter



1

- 1 Start with the **roller door** at its top limit. To position the **top magnet** you should measure down **50mm** from the bottom of the **safety edge transmitter**. The **top magnet** housing should be placed flush with the edge of the **guide** (See photo).
- 2 Clean the area first with the **wipe** supplied and allow to dry. Fix the **top magnet** to the **guide** using the **adhesive pad** provided until the **roller door** is commissioned.



3 To position the **bottom magnet**, close the **roller door**. Mount the **magnet** flush with the edge of the **guide** so that the top of the **magnet** is level with the top of the **safety edge transmitter**.



4. Clean the area first with the wipe in your kit and allow to dry. Fix the **bottom magnet** to the **guide** using the **adhesive pad** provided until door is commissioned.

5. Once the **magnets** are located in place the **roller door** should be moved to a mid position.

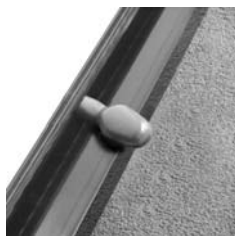


6. Hold the **safety edge transmitter front** and attach the **safety edge cable socket** to the **connector pins** on the **PCB**. It does not matter which way round the socket is connected to the pins.



7. Fit the **safety edge transmitter front** onto the back with the screws provided.

## 6 Commissioning the roller safety edge



1 Open the **roller** fully and ensure all **dipswitches** on **dipswitch 1** and **dipswitch 2** are **off** and that the **control unit LED** is **solid green**.



2 Place a screwdriver on the floor so that the **roller door** can close on to the shaft next to the handle (a gap of 10 - 15 mm) during the commissioning process. If the floor is uneven, place the screwdriver at the highest point on the floor.

3 Press and hold the **SEC button** until you hear a **beep** (this takes about 5 seconds). The **control unit** will now automatically cycle through the six stage commissioning sequence as detailed over-leaf.

Stage	Action	Confirmation Signal
1	The door will travel <b>down</b> past the top magnet and stop	Single beep
2	The door will travel <b>up</b> to the fully open position and stop	Single beep
3	The door will travel <b>down</b> and detect the screwdriver	Single beep
4	The door will travel <b>up</b> past the <b>bottom</b> magnet and stop	Single beep
5	The door will travel <b>down</b> and detect the screwdriver again	Three beeps
6	The door will travel <b>up</b> to the fully open position and stop	Sequence complete

The safety edge is now commissioned and can be tested by pressing the rubber edge strip upwards as the roller door is closing. When pressed the roller door should stop and then re-open a short distance.

## If the roller safety edge fails to commission



If the commissioning sequence fails to complete, the roller door will stop and the control unit will emit a long beep.

1 Check that the magnets are positioned as in **Section 5**.



2 Repeat **Step 3** while observing the **LED** on the safety edge transmitter. If the **LED** emits **6 or 8 bright flashes** there is a problem with the safety edge. Check that the **connector** is plugged in correctly (see **Section 4**).

## Resetting the safety edge transmitter

If the safety edge transmitter has been previously commissioned it will need to be reset.





Unscrew the **safety edge transmitter** from the **roller door** but leave it connected to the **two core cable**. On the **safety edge transmitter printed circuit board** there is a small button labelled **decom**. Press this **once**. The **LED** on the front of the unit should give a **constant dim light**. If it flashes **6 or 8 times** there is a fault on the **safety edge**. Press the **decom button four times**. The **LED** should give **one bright flash for each press**. The **LED** should then remain bright for **4 seconds** and then go out. The **control unit** should then give a **short beep**. The **safety edge transmitter** is now ready to be recommissioned. If on the **final press of the button** the **LED stays on bright but then flickers before going out** the unit is in the wrong mode. To correct this press the **decom button 4 times holding it in on the final press until the LED goes out**. Then release the **decom button**.

Fault Indication	Solution
The LED on the safety edge transmitter...	
<b>1. does not illuminate when the roller door descends past the top magnet</b>	Check the positioning of the <b>safety edge transmitter</b> and <b>magnet holder</b> (see section 5) and that there is a magnet in the holder.
<b>2. glows dimly as it travels down but the roller door stops about one metre from the top and the control unit LED flashes one amber and three reds, or slow red</b>	The <b>control unit</b> is not receiving the signal from the <b>safety edge transmitter</b> . Check that both <b>aerials</b> are fitted, the top one pointing up, the bottom one down. Check that the <b>safety edge transmitter</b> is loaded onto the <b>control unit</b> . It may not be the one originally supplied with the control unit. Follow the instructions in section 6 to <b>DELETE</b> the one loaded and then <b>ADD</b> this one.

Fault Indication (continued)	Solution
The LED on the safety edge transmitter...	
3. gives a series of six bright flashes, then the roller door stops part way down.	This indicates that there is a short circuit on the safety edge or water ingress to the transmitter or safety edge. Contact your supplier.
4. gives a series of eight bright flashes, then the roller door stops part way down.	This indicates that the safety edge is open circuit, there may be a fault on the safety edge or the cable connecting it to the transmitter may be unplugged or damaged. Check that the two core cable is plugged into the transmitter.



## 7 Troubleshoot installation

N.B. Always isolate the power before attempting to make any adjustments or repairs. Untrained operators are advised to contact an approved installer.

### System Status Indication

The status of the control unit and roller door is indicated by the control unit LED. The LED is a three-colour red, green and amber lamp mounted on the front of the control unit. The status indications are detailed below:

Roller Door Positions	
LED signal	Status
GREEN solid	open limit activated
GREEN slow flashing	door opening
RED solid	close limit activated
RED slow flashing	door closing
AMBER solid	door stationary between open and close limits

## Programming Mode (using a transmitter)

<b>AMBER rapid flashing</b>	control unit in programming mode
-----------------------------	----------------------------------

## Programming Mode (using the buttons)

<b>RED and GREEN flashing alternately</b>	Unit timed out during programming. You need to press the <b>stop button</b>
---	--

<b>AMBER rapid flashing</b>	Control unit in programming mode
-----------------------------	----------------------------------

## System Status

<b>LED signal and cause</b>	<b>Solution</b>
<b>RED rapid flash</b>  Photo Electric Cell (PEC) beam broken.  No PEC connected to the receiver. Link missing between terminals 17 and 18.	<ol style="list-style-type: none"><li>1. Remove any obstacles that may be in the doorway (once you have removed the obstacle the <b>control unit LED</b> will change to indicate the <b>roller door</b> position).</li><li>2. Ensure the <b>photocell</b> and <b>reflector</b> are clean.</li><li>3. Re-align the photo cell and reflector.</li><li>4. Check position of <b>dipswitch 1.1.</b> (see P20)</li><li>5. Replace the <b>link</b> between <b>terminals 17 and 18.</b></li></ol>
<b>RED flash then 2 AMBER flashes</b>  A motor stall has been detected.	<ol style="list-style-type: none"><li>1. Disengage <b>manual locking device</b></li><li>2. Remove any objects that may have jammed in the <b>guide rails, curtain</b> or <b>roll.</b></li><li>3. Ensure nobody is attempting to ride on the <b>curtain.</b></li><li>4. Ensure a non-approved item has not been attached to the <b>curtain.</b></li><li>5. In extreme conditions the <b>roller door</b> may have frozen to the guide rails or floor. Try to operate the <b>roller door</b> again or defrost the frozen section.</li><li>6. Check that the <b>motor</b> is the correct size and capable of raising the <b>roller door.</b></li></ol>

# System Status

LED signal and cause	Solution
<p><b>RED flash then 3 AMBER flashes</b></p> <p>The thermal trip has activated on the motor or the motor is not connected. The roller shutter door motor limits are set on top of one another.</p>	<ol style="list-style-type: none"> <li>1. Allow the <b>motor</b> to cool for approximately 30 minutes before attempting to operate the <b>roller door</b> again.</li> <li>2. The <b>motor</b> may not be connected to the <b>control unit</b>. Check wiring and reset the <b>motor</b> limits.</li> </ol>
<p><b>RED flash then 4 AMBER flashes</b></p> <p>Door overrun time out; the door has been opening or closing for over 60 seconds without detecting a final end limit position.</p>	<ol style="list-style-type: none"> <li>1. Check <b>roller door</b> operation</li> <li>2. Reset the <b>motor</b> limits.</li> <li>3. If the <b>motor</b> limits cannot be set, the <b>motor</b> may be faulty.</li> </ol>
<p><b>A rapid RED, AMBER, GREEN single flash</b></p> <p>Indicates that a signal has been received from a transmitter that has not been loaded onto the system. If a keyfob fails to load, check that the manufacturer's transmitter code is correct.</p>	<p>Load the transmitter on to the system as per the <b>Add and delete standard transmitters section.8 p12</b></p>
<p><b>Long AMBER then 2 short RED flashes</b></p> <p>Photo electric cell has failed Self Check test.</p>	<ol style="list-style-type: none"> <li>1. Check the <b>PEC</b> wiring.</li> <li>2. Check that <b>PEC</b> has self-check facility.</li> <li>3. Check position of <b>Dipswitch 1. 1.</b></li> <li>4. Close <b>roller door</b> with the <b>close button</b>, releasing the button when closed.</li> </ol>
<p><b>Long RED then short RED flash</b> Stop input active</p>	<p>Check link between T11 and T12 on the <b>control unit circuit board</b>.</p>

# System Status

System Indication and Cause	Solution
<p><b>Reduced operating range on handheld transmitters</b></p> <ol style="list-style-type: none"> <li>1. Batteries in transmitter are flat</li> <li>2. Aerials may not be fitted to control unit</li> <li>3. Aerials may be touching or not vertical</li> <li>4. Interference</li> </ol>	<ol style="list-style-type: none"> <li>1. <b>Transmitter LED</b> does not illuminate when batteries are flat. If batteries are low it flashes when a button is pressed. Replace batteries.</li> <li>2. Replace <b>aerials</b> if they are missing.</li> <li>3. Ensure <b>aerials</b> are not touching and are installed vertically — <b>top one up, bottom one down</b> and that they are away from metalwork or cables.</li> </ol>
<p><b>The door stops automatically after the bottom edge of the door has passed the top magnet when the door is closing (this only applies when a safety edge is installed).</b></p> <ol style="list-style-type: none"> <li>1. Signal interference.</li> <li>2. Aerials are touching or have been removed.</li> <li>3. The top magnet is missing or in wrong location.</li> <li>4. Fault detected in safety edge circuit</li> <li>5. Top limit position on motor has moved</li> </ol>	<ol style="list-style-type: none"> <li>1. A local device (a PIR detector, weather station or TV signal booster) is transmitting on the same frequency. The receiver will wait for the signal to stop before operating the door.</li> <li>2. Ensure <b>aerials</b> are not touching,</li> <li>3. Follow instructions for positioning and fitting <b>top magnet</b>.</li> <li>4. If the <b>safety edge transmitter flashes 6 or 8 times</b> contact your supplier. <b>(see Page 8 Fault Indication)</b></li> <li>5. Close <b>roller door</b> with <b>close</b> button, releasing button when closed.</li> </ol>

# 8 Add and delete Standard Transmitters

The two transmitters supplied with the control unit are pre-loaded. Extra transmitters (up to **30 grey standard** or **60 blue multi-channel transmitters** or a combination of both types in a **1:2 ratio**) can be added either by using the on board **dipswitches** or with a **transmitter** that is already loaded onto the **control unit**. (For multi-channel see section 9)

## Method 1



**1**

### Adding transmitters using dipswitch 1

1. Make a note of the current dipswitch positions
2. Turn **dipswitch 1.4 on**, then wait 2 seconds. The **control unit LED** will give a **rapid amber flash**.
3. Press the **open button** on the board. The **LED** will change from **flashing amber** to **flashing green**.
4. On the **transmitter** you are adding to the system press the **top green button** once and release. The **flashing green LED** will change to **continuous green** for 1 second each time it accepts a new **transmitter**. If the **LED** goes off for one second, the **transmitter** may not be compatible.



**2**



**3**

Repeat **step 4** for each **transmitter** to be added to the system.

If you do not complete **section 4** the unit will time out and flash **control unit LED red-green**. To return to **flashing amber** press the **stop button** on the **board** and continue with **step 3** above. To exit programming mode set **dipswitch 1.1, 1.2 and 1.3** to their **original positions** and **1.4** to **off**.

## Method 2

### Adding transmitters using an existing transmitter



1. Press and hold down the **grey button** on a **transmitter** that is already loaded onto the **control unit**.

The **control unit LED** will flash **amber slowly**; keep the **grey button** held down until it flashes **amber rapidly**. This takes about 6 seconds.



2. Release the **grey button**. The **control unit LED** will continue to flash **amber rapidly**.
3. Press and release the **top green button** on the **transmitter** once. The flashing **LED** will change from flashing **amber** to flashing **green**.



4. Now press and release the **top green button** on the **new transmitter** once and release. The flashing **LED** will change to **continuous** for 1 second each time it accepts a new **transmitter**.

Repeat **step 4** for other **transmitters** to be added to the system.



When the final **transmitter** has been added, press the **top green button** a second time to return the unit to normal running mode.

**NB** The manufacturer's code for the transmitter must match the code for the receiver. If they do not match, you cannot add the transmitter to the system.

The LED will flash red-amber-green once quickly if the transmitter is not added to the system.

# Deleting Standard Transmitters

Transmitters can either be deleted using the on board dip switches or with a transmitter that is already loaded onto the control unit.

## Method 1

### Deleting transmitters using Dipswitches

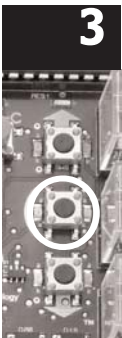
**Warning:** this will remove ALL the existing transmitters, key pads and wireless switches from the system.



2

1. Make a note of the current **dipswitch** positions.

2. Turn **dipswitch 1.4** on, then wait 2 seconds. The **control unit LED** will give a **slow amber** flash.



3

3. Press and hold down the **stop button** on the **main PCB** until the following sequence has been carried out:

The flashing **LED** will change from **flashing amber** to a **fast flashing red**. After **10 seconds** it will turn **solid red**, after a **further 5 seconds** it will turn **solid amber**, then after a **further 2 seconds solid green for 2 seconds**. You must release the **stop button** when the **LED** is **green**.

4. All **transmitters** have now been deleted from the system. The **control unit LED** will flash **red-amber-green** repeatedly until **dip switch 1.4** is turned **off**.



4

If section 2 is not completed the unit will time out and the **LED** will flash **red-green**. To return to **flashing amber** press and release the **stop button** on the **main PCB**. To exit programming mode set **dipswitch 1.4** to **off** and **1.1, 1.2 and 1.3** to their original positions.



## Method 2

### Using Existing transmitter

**Warning:** this will remove **ALL** the existing transmitters, key pads and wireless switches from the system except for the one you are using.



**1**

1. Press and hold down the **grey button** on the transmitter. The **control unit LED** will flash **amber slowly**. Continue to hold the **grey button** down until the **LED** flashes **amber rapidly**.



**2**

2. Release the **grey button**. The **control unit LED** will continue to flash **amber**.
3. Press and hold down the **stop button** on the transmitter until the following sequence has been carried out:



**3**

The **control unit LED** will change from **flashing amber** to a **fast flashing red**. After 10 seconds it will turn **solid red**, After a further 5 seconds it will turn **solid amber** and then after a further 2 seconds **solid green** for 2 seconds.

**You must release the stop button when the control unit LED displays green.**

All **transmitters** except the one used have now been deleted from the system. The system will return automatically to normal running mode.

## 9 Multi-Channel Transmitter

### Selecting & Deleting Channels

The **multi-channel transmitter** has been designed to control up to 8 separate **roller doors**. The **transmitter** has 8 separate **channels** and gives the user individual **open**, **stop** and **close buttons** for each **roller door**. Before adding a transmitter to the control unit you must first select the appropriate channel on the transmitter.

Channel 1 is pre-loaded. The 8 different **channels** are indicated via the small **LED** in the top right hand corner of the **transmitter** and are as follows:

Channel	New LED sequence	Old LED sequence
1	1x red flash	amber-red-red-red
2	2x red flash	amber-green-green-green
3	3x red flash	amber-green-green-red
4	4x red flash	amber-green-red-green
5	5x red flash	amber-green-red-red
6	6x red flash	amber-red-green-green
7	7x red flash	amber-red-green-red
8	8x red flash	amber-red-red-green

### Selecting and Commissioning a Channel



1. Press and hold down the **grey button** on the transmitter. Release the **grey button** when the **LED** on the transmitter starts to flash **amber**.



2. Whilst the **LED** is flashing **amber** press the **grey button** again to begin scrolling through the **channels**. Each press of the **grey button** will select the next **channel** in the sequence. Stop when you reach the **channel** you require.
3. To commission the channel press the **top green button** once. The **transmitter LED** will flash **green** and then **amber**. Press the **top green button** a second time and the **transmitter LED** will again flash **green** and then **amber**. Pressing the top green button a third time will display the commissioned **channel sequence** on the **transmitter LED**. The **transmitter LED** will then go out.

## Deleting a Channel



1

1. Press the **grey button** consecutively until the channel you require is displayed on the **LED** in the top right hand corner.

3

2. Wait for 10 seconds

3. Press and hold down the **grey button** until the **LED** on the **transmitter** starts to flash **amber**, then release.



4

4. Press and hold down the **red button**. The **LED** shows **red** first, then **amber** for 2 seconds, then **green** for 2 seconds. Release the **red button** while the **LED** is solid **green**. This takes about 15 seconds. The **LED** will flash **red, amber, green** four times to confirm that the **channel** was deleted successfully.

## Adding Multi-Channel Transmitters

(Blue — Maximum 60 Transmitters)

**Transmitters** can either be added using the onboard **dipswitches** or with a **transmitter** already loaded onto the control unit.

### Dipswitch Method



2

1. Note the current dipswitch positions.
2. Turn **dipswitch 1.1, 1.2 & 1.3** off and **1.4** on and then wait 2 seconds. The **control unit LED** will give a rapid **amber** flash.



3

3. Press and release the **open button** on the **board**. The flashing **LED** will change from flashing **amber** to flashing **green**. If other **multi-channel transmitters** are loaded on the system, the **current transmitter channel sequence** will be displayed before the **LED** flashes green.



4

4. Now press and release the top **green button** on the **new transmitter** twice. The **LED** will display the **added channel sequence**. The **LED** will then revert to flashing **green**.

Repeat **step 4** for all other transmitters to be added to the system, waiting for the flashing green LED between each one.

If you do not select add mode the unit will time out and the control unit LED will flash red / green. To return to flashing amber press and release the stop button on the main PCB. To exit programming mode set dipswitch 1.1, 1.2 and 1.3 to their original positions and dipswitch 1.4 to off.

### Existing Transmitter Method (standard transmitters)



1. Press and hold down the **grey button** on a **transmitter** that is already loaded onto the **control unit**. The **control unit LED** will flash **amber** slowly; keep the **grey button** held down until it flashes **amber rapidly** (this takes 6 seconds).



2. Release the **grey button**. The **control unit LED** will continue to flash **amber rapidly**.



3. Press and release the top **green button** on the **same transmitter** once. The flashing **LED** will change from **amber** to **green** (after displaying the **channel sequence** for the channel the **transmitter** will be added to).

4. Now press the top **green button** on the **new transmitter twice** and release. The **LED** will display the added **channel sequence**, showing that the **transmitter** was successfully added. The **LED** will revert to flashing **green**.

Repeat **step 4** to add additional **transmitters** to the system. Wait for the flashing **green LED** before repeating **step 4**.

Thirty seconds after loading the last **transmitter** the **LED** changes to flashing **amber** for ten seconds and then returns to normal running mode. Pressing the **green button** of a **transmitter** that has just been loaded will return the **control unit** to normal running mode.

### Deleting Transmitters (Blue multi-channel)

**Warning:** this will remove **ALL** the existing transmitters, key pads and wireless switches from the system. Please follow the instructions on **Page 14**.

## Rollertec Vacation Mode

When the **control unit** is in **vacation mode** the **open button** on the **control panel lid** is disabled. If someone gains access to the **control unit** they cannot open the **roller door** using the **control unit**. The **control unit** remains in **vacation mode** until the **roller door** is opened using a **transmitter**. Use of the **transmitter** reactivates the **open button**.

**Vacation mode** is activated by simultaneously pressing and holding the **stop** and **close buttons** on one of the hand **transmitters** for a period of **2 seconds**. As the buttons are released the **cover LED** will flash **red/amber/green** to confirm that **vacation mode** is active. This indication **repeats every 10 seconds**. To return the **control unit** to **normal running mode**, operate the **roller door** by pressing and releasing the **open button** on one of the **transmitters**.

## Service Counter

The **service counter** displays the number of **roller door** operations and is incremented on receipt of an **open** command when the **roller door** is in the **fully closed** position. To display the **service counter** press and hold the **stop button**, press and release the **reset button** on the **main printed circuit board** and then release the **stop button** when the sequence starts. The **control unit LED** indicates the count as follows:

- number of **red** flashes = number of thousands
- number of **amber** flashes = number of hundreds
- number of **green** flashes = number of tens
- subsequent **red** flashes = number of units (long flash = 0, short flashes = count)

The **service counter** cannot be used in any **5 wire motor mode**.

## Transmitter count

The **transmitter count** displays the number of **transmitters** loaded onto the **control unit**. To display the number of **multi-fob transmitters** loaded turn **dipswitch 1.4** on, press and hold the **open button**, press and release the **reset button** and release the **open button** when the sequence starts. To display the number of **standard transmitters** on the system, turn **dipswitch 1.4** on, press and hold the **close button**, press and release the **reset button** and release the **close button** when the sequence starts. The **control unit LED** indicates the count as follows:

- number of **green** flashes = number of tens
- number of **red** flashes = number of units (long flash = 0, short flashes = count)

# 10 Optional Extras

## Attaching the Photo Electric Cell — PEC (Optional)

Take the **photo-electric cell**, the **reflector**, the 2 grey plastic **fixing brackets** and the **fixing screws** from the box. Measure 500-700mm (car bumper height) up the **guide** from the floor. Attach the **PEC unit** to the wall adjacent to the **guide** and on the same side of the **roller door** as the **control unit**. The **reflector** is installed on the wall on the other side of the **roller door**. Wire the **PEC unit** to the **control unit** (see **Section 2** for connections). Remove the **link** from **T17-T18**. If an **alarm** is **not** fitted, connect the **auto test lead** (black) to **T16** . Set **dipswitch 1.1** to **on**. If an **alarm** is fitted, connect the **auto test lead** to **T17** and set **dipswitch 1.1** to **off**.

When the **PEC unit** is connected correctly the **LED** on the **PEC unit** will illuminate. Use a cord between the **PEC unit** and its **reflector** to ensure that the **photo-electric cell** is correctly aligned. When correct alignment is achieved the **photo-electric cell LED** will show **green** and **orange**.

**Note:** Installing the PEC to the roller shutter guides is not recommended as movement in the guides could cause PEC misalignment and false triggering. The PEC should also be between 40-70mm back from the front face of the guide to allow for roller door movement in severe weather conditions.

## The Alarm (Optional)

The **alarm** works in conjunction with the **safety edge transmitter**. The **red** cable is wired to **T10** and the **black** cable is wired to **T16**. If a **photo-electric cell** is also wired to the **control unit**, the **photo-electric cell black** cable is wired to **T17** and the **T17-T18 link** removed. **Dipswitch 1.1** should be set to **off**. The **alarm** sounds for five minutes if the **roller** is lifted manually above the **bottom magnet**.

1. To reset the **alarm** you should press the **top green button** on a **transmitter**. The **roller door** will move **upwards**.



When the **roller door** is commissioned the **alarm** needs to be initialised. Move the **roller door** to the **fully open** position and then press the **stop** and **close buttons** simultaneously for two seconds on one of the **transmitters**. When the buttons are released the **control unit LED** will flash **red/amber/green** every 8 seconds to confirm initialisation.

## Power Pilot Residential Battery Backup (PPR)

In the event of a mains supply failure, the **PPR unit** will provide power for 30 seconds before entering **low-power sleep mode**. Battery power is conserved until a **keyfob** transmission occurs, when the **PPR unit** activates and provides power from its internal battery. During sleep mode the **PPR unit** checks for **transmitter** transmissions every three seconds. This interval increases to 7 seconds if power failure exceeds 16 hours. The **front panel LED** blinks **red** and **green** to indicate that checking is active. When power is restored, the unit automatically resumes **mains on** mode.



1

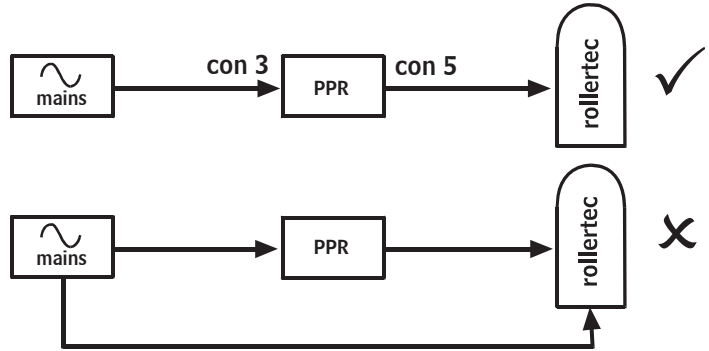


### Installation

The unit should be installed near to the input power supply and **control unit**. Allow 200mm space around the unit for maximum ventilation. For optimum radio reception, mount the unit away from structural metal-work, cable runs or other sources of interference.

1. Connect the power supply to the inlet socket **connector 3**.
2. Connect the **Rollertec control unit** to **connector 5**.
3. Switch the **PPR unit** on.

**N.B.** The control unit must only be connected to a power supply via the PPR (See diagram on Page22).



## PPR Operating Instructions

These units are wired in line with the mains supply and have power passing through them all the time. If the main supply fails they enter **sleep** mode to conserve battery charge. If the mains supply is restored they resume normal operation. When in **sleep** mode the unit can only be activated by a **transmitter**.

To operate the **roller door** during a power failure:

1. Press and hold down the **top green button** on a transmitter. Release the button when an audible beep is heard from the **PPR** (this may take up to 7 seconds).
2. Wait for the **control unit** to beep and the **control unit LED** to become stable.
3. Press and release the appropriate **transmitter** button to operate the door.

The **PPR** will automatically return to sleep mode after 30 seconds. Repeat steps **1 - 3** every time you need to operate the **roller door**. The **buttons** on the front of the **control unit** cannot be used to wake the **PPR** during a power failure.





## Wireless Key Switch and Rocker Switch

The **Orion Wireless Keyswitch** is coded as a **multi-channel transmitter** operating on **channel 1**. It is added to the **control unit** using the following procedure:

### Adding using Dipswitch Method



**2**

1. Note the current dipswitch 1 switch positions
2. Turn **dipswitch 1.1, 1.2 & 1.3 off and 1.4 on** and then wait 2 seconds. The **control unit LED** will give a **rapid amber flash**.



**3**

3. Press the **open button** on the board. The **control unit LED** will change from flashing **amber** to flashing **green**

**N.B.** If there are **Multi-Channel Transmitters** currently on the system, the current transmitter channel sequence will be displayed before the control unit LED flashes green.



**4**

#### 4. Key Switch

Turn the **key switch** to the **open** position twice with a short pause between turns.



#### or Rocker Switch

Press and release the top half of the **rocker switch** twice with a short pause between presses.

5. The **control unit LED** should show **one red flash** to indicate that the device has been added to the system then return to **rapid green**. You may now add a second device or proceed to **step 6**.



**6**

6. Return **Dipswitch 1.4** to off and **1.1, 1.2 and 1.3** to their original positions.

## Adding using Existing Standard Transmitter



**1**

**2**

1. Press and hold down the **grey button** on a transmitter that is already loaded onto the **control unit**. The **control unit LED** will flash **amber slowly**. **Hold down the grey button** until the **LED** flashes **amber rapidly** (this takes 6 seconds).

2. Release the **grey button**. The **control unit LED** will continue to flash **amber rapidly**.



**3**

3. Press and release the top **green button** on the same transmitter once. The flashing **LED** will change from **amber to green**. If there are **multi-channel transmitters** currently on the system the current transmitter channel sequence will be displayed before the **control unit LED** flashes **green**.



**4**

4. **Key Switch**  
Turn the **key switch** to the **open** position twice with a short pause between turns.



### or **Rocker Switch**

Press and release the top half of the **rocker switch** twice with a short pause between presses.

5. The **control unit LED** should show **one red flash** to indicate the device has been added to the system then return to rapid green. You may now add a second device or proceed to **step 6** below.



**6**

6. Either wait 40 seconds for the **control unit** to time out or press the **top green button** on the transmitter once to return to normal running mode.

## Deleting

The **Wireless Keyswitch** and **Rocker Switch** can be deleted in the same way as other transmitters as detailed in **Section 8 Pages 14-15**.

## Operating the Roller Door



To open the **roller door** with the **wireless key switch**, turn the key to the **open** position and release it. To open with the **rocker switch**, press and release the top half of the switch. To stop the door in mid-travel, repeat the action.



To close the **roller door** with the **wireless key switch**, turn the key to the **close** position and release it. To **close** with the **rocker switch**, press and release the top half of the switch. To stop the door in mid-travel, repeat the action.

To change the direction of the **roller door** while in motion select the desired direction by turning the **key switch** or pressing the **rocker switch**.

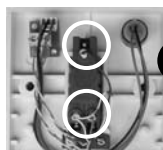
**N.B.** If the control unit is set for dead man operation (Dipswitch Settings Page 30) the switches must be held to operate the door.

## Remote Door Indicator Panel (RDI)

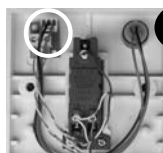


The surface mounted unit features a multi-colour **LED** and rocker switch. If the switch is absent the **LED** is positioned in the centre of the panel. The panel requires 6 core alarm cable if the **rocker switch** is present or 3 core for the **LED** alone.

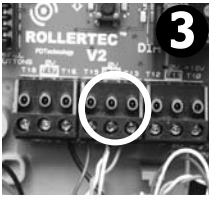
## Connecting the RDI Panel



The unit is connected via an L shaped **PCB** which attaches to the **main PCB** of the **control unit** via its two three way sockets.



1. Connect 3 cores of the cable to the rear of the **RDI panel** at terminals **L1, L2 and COM** as shown in the circuit diagram overleaf.
2. Connect the three remaining cores of the cable to the **RDI panel interface board connector terminal** as shown in the circuit diagram overleaf (p26).



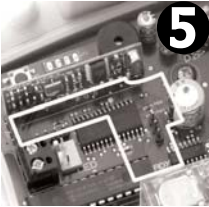
**3**

3. Connect the three cores from terminals **L1, L2** and **com** to **terminal block T13-15** as shown in the circuit diagram below.



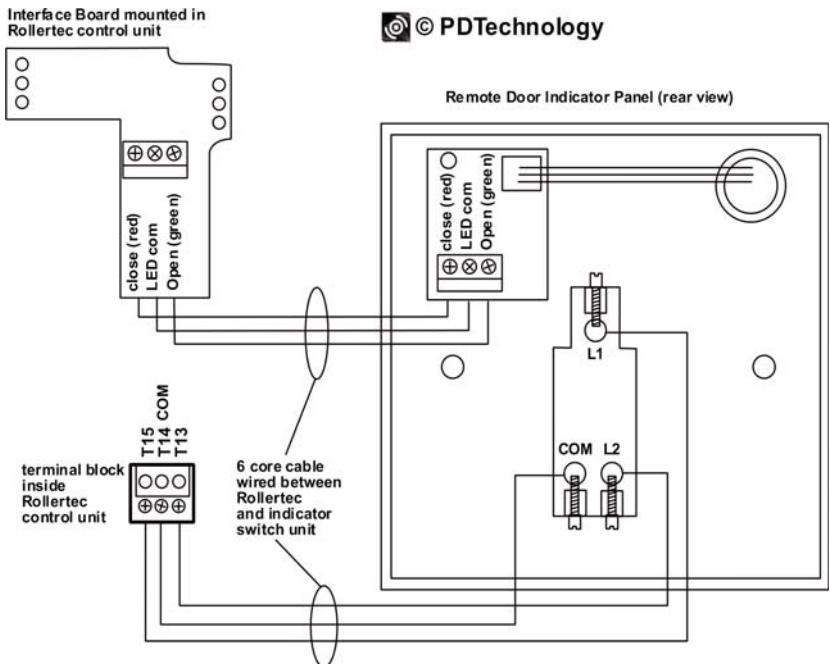
**4**

4. Connect the remaining cores to the **remote door indicator interface board terminal block** as shown in the circuit diagram below
5. Connect the **remote door indicator interface board** via its two sockets to the **control unit PCB**.



**5**

Operate the roller door with the **top** (roller open) and **bottom half** (roller close) of the **remote door indicator panel switch**.





## Wireless Standard and Anti-vandal Keypads

The **Wireless Keypad** is designed to work with the PDT range of control equipment, allowing the user to select a unique operating code up to a maximum of eight digits (see programming menu).

On entering a valid user code, intelligent software converts specific numbers on the **keypad** to replicate the **transmitter buttons: 2=open, 5=stop, 8=down and 0=grey.**

**Factory Setting Operating Code = 1111.**

**This master code is unique and must be stored securely**

When the **keypad** is not in use, power saving technology is employed to conserve battery life. Pressing any **key** on the **keypad** cancels sleep mode.

Every keystroke is acknowledged with a **single green flash** of the **LED.**

If the user code is entered incorrectly the **control unit** will lock out for **5 seconds.**

### Normal operating mode



1. Press any key on the **keypad** to cancel sleep mode.

2. Enter the allocated user code (up to 8 digits).

3. Press the **bell symbol**. The **green LED** will illuminate.

4. The specific keypad numbers (2, 5, 8 and 0) are now activated for,  
a) a preset period from the last number press, or  
b) until the bell symbol is pressed.



The **green LED** will then go out. The **keypad** is now de-activated.

## Adding the Keypad to the Control Unit.

### Using dipswitches (dipswitch 1) on the main PCB



**2**

1. Make a note of the current **dipswitch** positions.
2. Turn **dipswitch 1.1, 1.2 and 1.3 off and 1.4 on**, then wait 2 seconds. The **control unit LED** will give a **rapid amber flash**.



**3**

3. Press and release the **open button** on the **control unit PCB**. The **LED** will change from flashing **amber** to flashing **green**.



**4**

4. Press **any key** to activate the **keypad**,



**6**

5. Enter the **user code** on the **keypad**.
6. Press the **bell key**. The **keypad LED** will stay on.



**7**

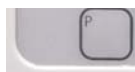
7. Press **2 (open)** on the **keypad**. The **control unit LED** will show **steady green for 1 second** and then return to **flashing green**.



**8**

8. Set **dipswitch 1.4 to off**. The **control unit LED** will return to normal. The **keypad** is now operational.

### Changing the user code



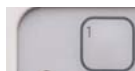
**1**

1. Press **P** on the **keypad**. The **green LED** will flash.



**3**

2. Enter the current **Master Code (not User Code)**.
3. Press the **bell key**. The **green LED** will flash faster.



**5**

4. Enter a new **user code** of up to 8 digits.



**6**

5. Press **1** on the **keypad**.
6. Press the **bell key**. The **LED** will go out, showing the new **user code** has been accepted. **Store the code details securely**.

## Restoring the Factory Setting



**1**

1. Open the **wireless keypad unit** and disconnect the **battery**.



**2**

2. Move the **jumper link** from **J1** to **J2**.



**3**

3. Reconnect the **battery**.



**4**

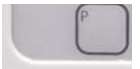
4. Press any **key** on the **keypad**. The **green LED** will illuminate.



**5**

5. Move the **jumper link** back to **J1**. You must now enter a **new user code**. Refer to **changing the user code**.

## Changing the Master Code



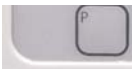
**1**

1. Press **P** on the **keypad**. The **green LED** will flash.
2. Enter the current **MASTER code**.



**3**

3. Press the **bell symbol**. The **green LED** will flash faster.



**4**

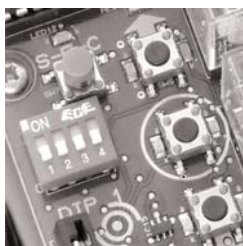
4. Press the **P** key. The **green LED** will flash more rapidly.
5. Enter a **new master code** (up to 8 digits).



**6**

6. Press the **bell symbol**. The **LED** will go out showing the **new master code** has been accepted. **Store the code securely**.

# 11 Dipswitch 1 and 2 Settings



Dipswitch 1 is located on the left side of the PCB just below the centre.



Dipswitch 2 is at the top of the PCB

Dipswitch Settings	standard operating mode
<b>Dipswitch 1</b>	
Dipswitch 1.1 on	PEC self-check software on
Dipswitch 1.1 off	PEC self-check software off
Dipswitch 1.2 on	Dead Man open
Dipswitch 1.2 off	Push to Run open
Dipswitch 1.3 on	Dead Man Close
Dipswitch 1.3 off	Push to Run Close
Dipswitch 1.4 on	Programming Mode
Dipswitch 1.4 off	Normal Running Mode
<b>Dipswitch 2</b>	
Dipswitch 2.1 on	Stall Detect disabled
Dipswitch 2.1 off	Normal Running Mode
Dipswitch 2.2 on	Generator Mode Enabled
Dipswitch 2.2 off	Normal Running Mode
Dipswitch 2.3 on	5 Wire Motor Mode Enabled
Dipswitch 2.3 off	Standard Tube motor Mode
Dipswitch 2.4 on	Slow Stop and Return Mode Enabled
Dipswitch 2.4 off	Normal Running Mode

NB Press the reset button after altering Dipswitch 2 settings



## Dip Switch Settings Standard Operating Modes

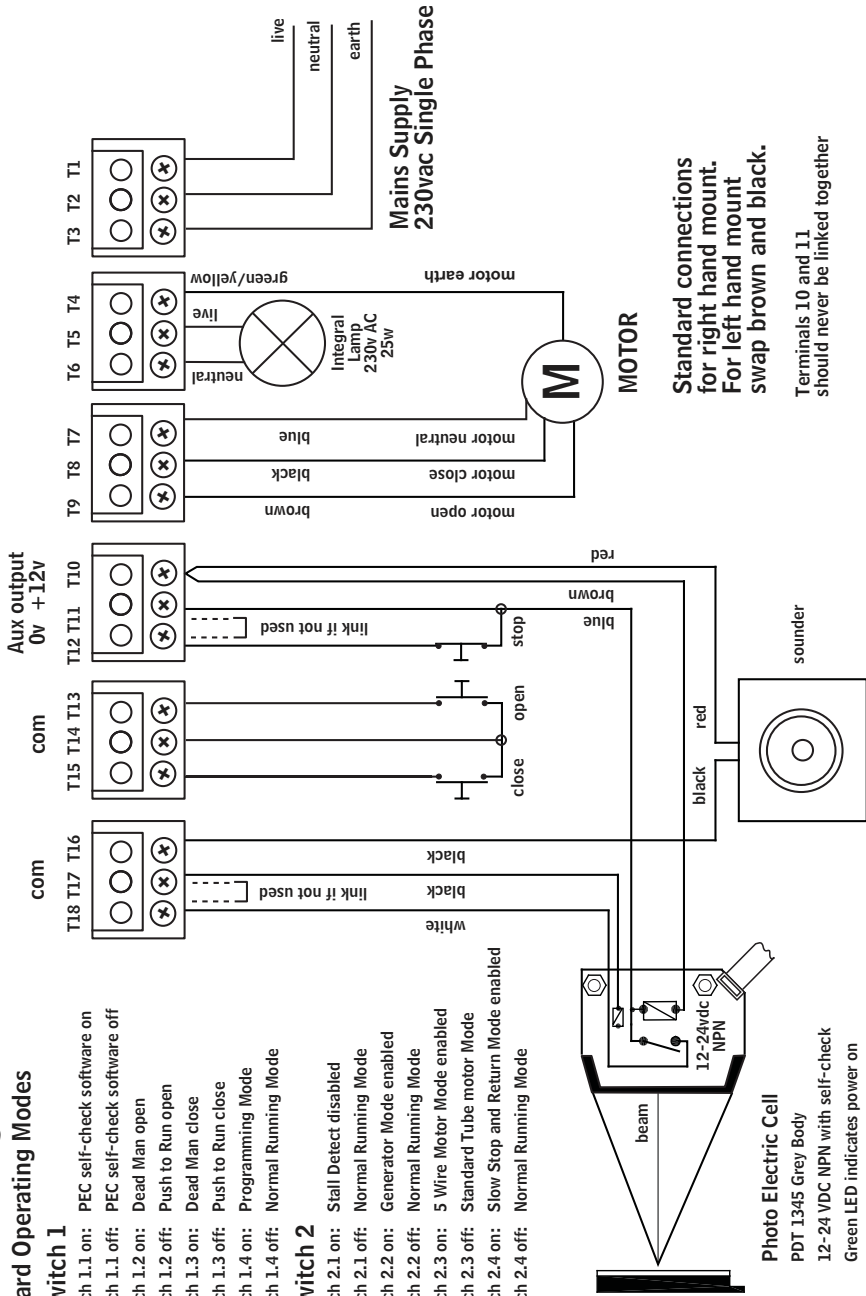
### Dip Switch 1

- Dip Switch 1.1 on: PEC self-check software on
- Dip Switch 1.1 off: PEC self-check software off
- Dip Switch 1.2 on: Dead Man open
- Dip Switch 1.2 off: Push to Run open
- Dip Switch 1.3 on: Dead Man close
- Dip Switch 1.3 off: Push to Run close
- Dip Switch 1.4 on: Programming Mode
- Dip Switch 1.4 off: Normal Running Mode

### Dip Switch 2

- Dip Switch 2.1 on: Stall Detect disabled
- Dip Switch 2.1 off: Normal Running Mode
- Dip Switch 2.2 on: Generator Mode enabled
- Dip Switch 2.2 off: Normal Running Mode
- Dip Switch 2.3 on: 5 Wire Motor Mode enabled
- Dip Switch 2.3 off: Standard Tube motor Mode
- Dip Switch 2.4 on: Slow Stop and Return Mode enabled
- Dip Switch 2.4 off: Normal Running Mode

## Removeable Connectors



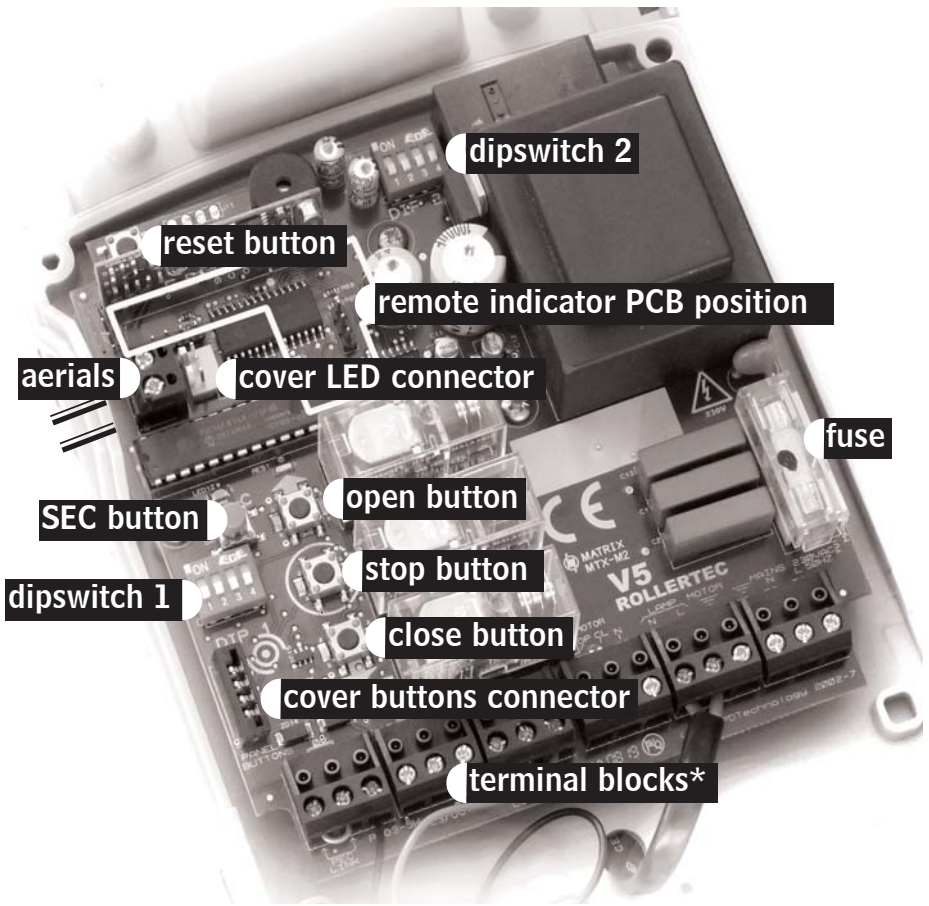
Standard connections  
for right hand mount.  
For left hand mount  
swap brown and black.

Terminals 10 and 11  
should never be linked together



**Rollertec with PEC and Alarm**  
© PD Technology Limited January 2008

<b>Supply Voltage</b>	220-240Vac 50Hz
<b>Fuse Size</b>	T6.3AH 250 V 20mm HRC
<b>Max Motor Power</b>	5A
<b>Courtesy Light Enclosure</b>	25W
<b>Ambient operating Temperature (Centigrade)</b>	-10 to +40
<b>Auxiliary 12VDC</b>	20mA
<b>Radio Frequency</b>	433.92 MHz
<b>Max number of Transmitters</b>	30 Standard or 60 Multi-channel
<b>IP Rating</b>	44
<b>Photo Electric Cell Input</b>	NPN
<b>Hand Transmitter Batteries</b>	2 X CR2016
<b>Expected Life</b>	2 Years- Dependent On Use
<b>Safety Edge Transmitter Batteries</b>	4 X CR2032
<b>Expected Life</b>	8 Years- Dependent On Use
<b>Dimensions (mm)</b>	H 325 / W140 / D 70



\*the two terminal blocks can be unplugged from the main PCB

### Transmitter Buttons



- green — up
- red — stop
- green — down
- grey — programming or channel select on a multi-channel transmitter

