

**SWS UK**

# Fitter's Handbook

SWS Technical Information



## Issue 4

## Technical Information

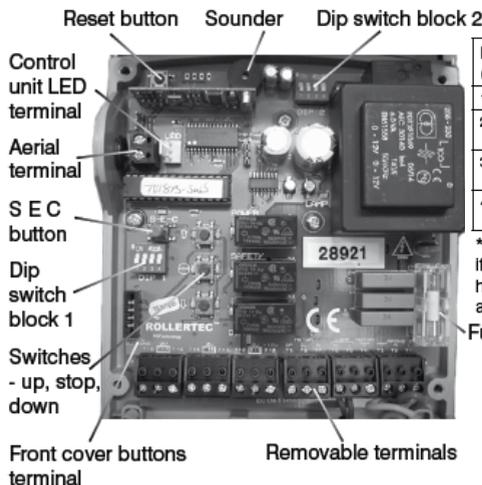
- PDT handset coding & wiring
- Somfy motor wiring & limits
- Somfy RTS Motor Setup
- Important contact info



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## Rollertec V2 & Above—Wiring Diagram



DIP SWITCH (up)	BLOCK 1	BLOCK 2*
1	PEC self check	Stall detect off
2	Hold to run operation when opening	Generator supply
3	Hold to run operation when closing	Any motor
4	Adding hand transmitters	Stop and then longer pause before return

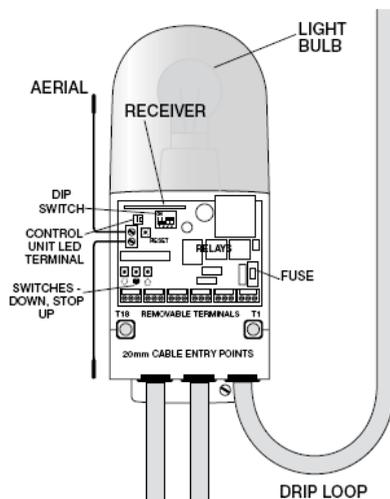
\*The dip switches on BLOCK 2 are only read on power-up so if you change the dip switch positions on this block you will have to press the reset button or turn the power off then on again for the change to take effect.

### WIRING OF TERMINAL CONNECTORS

REMOVABLE TERMINALS	T1		Mains live (brown/red)	<b>N.B.</b> The Control Unit indicator LED connects to the white three-pin terminal block on the PCB
	T2		Mains neutral (blue/black)	
	T3		Mains earth (yellow & green)	
	T4		Motor earth (yellow & green)	
	T5		Lamp live	
	T6		Lamp neutral	
	T7		Motor neutral (blue)	<b>Please note the photo electric cell is optional</b>
	T8		Motor down close (black r/h motor or brown l/h motor)	
	T9		Motor up open (brown r/h motor or black l/h motor)	
	T10		Photo electric cell + 12V (brown)	
	T11		Photo electric cell OV (blue)	
	T12		Link always required	
	T13		Push button	
	T14		Push button	
	T15		Push button	
	T16		Photo electric cell auto test (black)	
	T17		Link removed only if photo electric cell is installed	
	T18		Photo electric cell safety input (white)	

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## Rollertec V1—Wiring Diagram



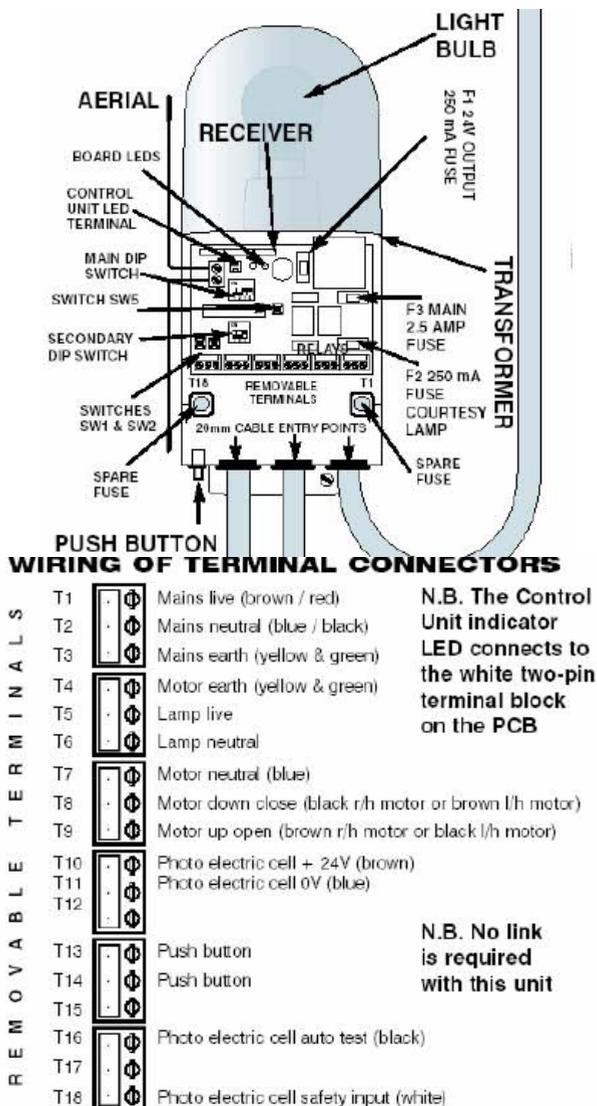
### WIRING OF TERMINAL CONNECTORS

REMOVABLE TERMINALS	T1		Mains live (brown/red)
	T2		Mains neutral (blue/black)
	T3		Mains earth (yellow & green)
	T4		Motor earth (yellow & green)
	T5		Lamp live
	T6		Lamp neutral
	T7		Motor neutral (blue)
	T8		Motor down close (black r/h motor or brown l/h motor)
	T9		Motor up open (brown r/h motor or black l/h motor)
	T10		Photo electric cell + 12V (brown)
	T11		Photo electric cell OV (blue)
	T12		Link always required
	T13		Push button
	T14		Push button
	T15		Push button
	T16		Photo electric cell auto test (black)
	T17		Link removed only if photo electric cell is installed
	T18		Photo electric cell safety input (white)

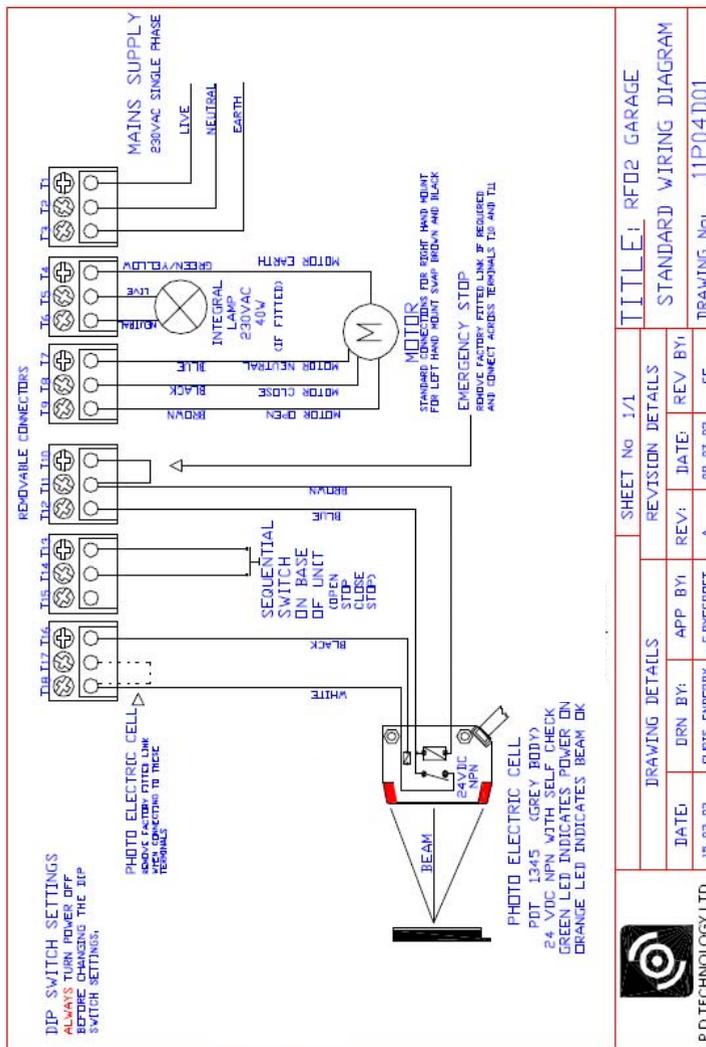
**N.B.**  
The Control Unit indicator LED connects to the white three-pin terminal block on the PCB

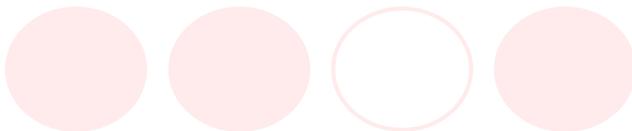
Please note the photo electric cell is optional

## RF03—Wiring Diagram



# RF02—Wiring Diagram





## Photocell Wiring—Grey Unit

### Wiring

	T18	T17	T16	T12	T11	T10
Rollertec	White		Black	Link T11	Blue	Brown
RF03	White		Black	No Link	Blue	Brown
RF02	White		Black	Blue	Brown	Link T11

### Dipswitch Block 1 Settings

	Dip 1	Dip 2	Dip 3	Dip 4
Rollertec	ON	OFF	OFF	OFF
RF03	OFF	OFF	ON	ON
RF02	OFF	OFF	ON	ON



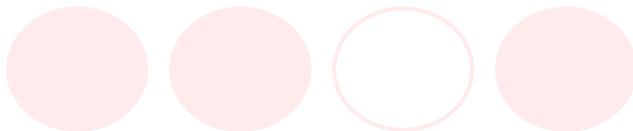
## Photocell Wiring—Blue Unit

### Wiring

	T18	T17	T16	T12	T11	T10
Rollertec	White	Black		Link T11	Blue	Brown
RF03	White	Black		No Link	Blue	Brown
RF02	White	Black		Blue	Brown	Link T11

### Dipswitch Block 1 Settings

	Dip 1	Dip 2	Dip 3	Dip 4
Rollertec	OFF	OFF	OFF	OFF
RF03	OFF	OFF	ON	OFF
RF02	OFF	OFF	ON	OFF



## Rollertec V1—V3 Adding Keyfob instructions

### Adding Transmitters (Grey, 4-Button) Maximum 30 Transmitters

1. Move the Dipswitches on Block 1 to: 1 off, 2 off, 3 off, 4 on  
*Wall Unit LED will flash amber*
2. Press the open button on the PCB  
*Wall Unit LED will flash green*
3. Now press the top green button once on each new transmitter  
*Wall Unit LED will go solid for 2 seconds for each transmitter added*

To exit programming mode set dipswitch 4 to OFF

### Deleting

- Turn Dipswitch 1, 2 & 3 OFF and 4 ON, wait 2 seconds.  
*The lid-mounted signal LED will give a quick YELLOW flash.*
- Press and hold down the stop button on the board until the following sequence has been carried out  
*The flashing LED will change from flashing YELLOW to a fast flashing RED. After 10 seconds it will turn solid RED, after a further 5 seconds it will turn solid YELLOW and then after a further 2 seconds solid GREEN for 2 seconds.*  
*You must release the stop button when the LED is GREEN.*
- To exit programming mode set dipswitch 4 to OFF



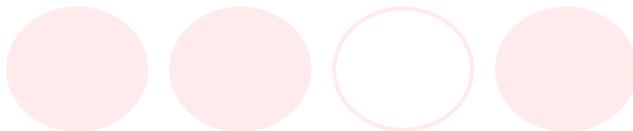
## RF03 Adding Keyfob instructions

### Adding Transmitters (Grey, 4-Button) Maximum 14 Transmitters

1. Isolate the power to the unit.
2. Go to the unit on the wall and remove the cover (Take Care: Lid is attached to circuit board)
3. You will see a blue block in the top left hand corner of the board. In the block are four mini white switches.
4. Make a note of the current position of these switches.
5. Change the settings of the switches to 1 on, 2 off, 3 off, 4 on
6. Turn the power to the unit back on.
7. Take the key fob that needs loading on to the system. Press the top green button once, the light on the front of the unit will flash once.
8. Repeat step 7 with any other key fobs that need adding to the system.
9. Isolate the power to the unit.
10. Reset the dipswitches to their original setting
11. Turn the power back on to the unit.

### Deleting

1. Isolate the power to the unit.
2. Go to the unit on the wall and remove the cover (Take Care: Lid is attached to circuit board)
3. You will see a blue block in the top left hand corner of the board. In the block are four mini white switches.
4. Make a note of the current position of these switches.
5. Change the settings of the switches to 1 off, 2 on, 3 off, 4 off
6. Power up the unit for 10 seconds
7. Reset the dipswitches to their original setting
8. Turn the power back on to the unit.



## RF02 Adding Keyfob instructions

### Adding Transmitters (Grey, 4-Button) Maximum 14 Transmitters

1. Isolate the power to the unit.
2. Go to the unit on the wall and remove the cover (Take Care: Lid is attached to circuit board)
3. You will see a blue block in the top left hand corner of the board. In the block are four mini white switches.
4. Make a note of the current position of these switches.
5. Change the settings of the switches to 1 on, 2 off, 3 off, 4 off
6. Turn the power to the unit back on.
7. Take the key fob that needs loading on to the system. Press the top green button once, the light on the front of the unit will flash once.
8. Repeat step 7 with any other key fobs that need adding to the system.
9. Isolate the power to the unit.
10. Reset the dipswitches to their original setting
11. Turn the power back on to the unit.

### Deleting

1. Isolate the power to the unit.
2. Go to the unit on the wall and remove the cover (Take Care: Lid is attached to circuit board)
3. You will see a blue block in the top left hand corner of the board. In the block are four mini white switches.
4. Make a note of the current position of these switches.
5. Change the settings of the switches to 1 off, 2 on, 3 off, 4 on
6. Power up the unit for 10 seconds
7. Reset the dipswitches to their original setting
8. Turn the power back on to the unit.



## Multi-Channel Adding Keyfob instructions

Channel	NEW LED Sequence	OLD LED Sequence
ONE	1 X RED FLASH	YELLOW-RED-RED-RED
TWO	2 X RED FLASH	YELLOW-GREEN-GREEN-GREEN
THREE	3 X RED FLASH	YELLOW-GREEN-GREEN-RED
FOUR	4 X RED FLASH	YELLOW-GREEN-RED-GREEN
FIVE	5 X RED FLASH	YELLOW-GREEN-RED-RED
SIX	6 X RED FLASH	YELLOW-RED-GREEN-GREEN
SEVEN	7 X RED FLASH	YELLOW-RED-GREEN-RED
EIGHT	8 X RED FLASH	YELLOW-RED-RED-GREEN

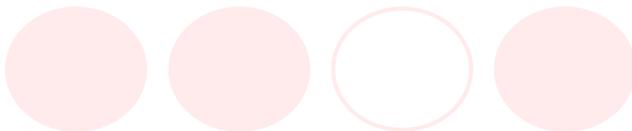
### Selecting and Commissioning a Channel on the key fob

1. Press and hold down the grey button on an existing key fob and release the button when the LED on the key fob starts to flash Yellow.
2. Whilst the LED is flashing yellow 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 LED on the RollerTec™ will flash green and then yellow, press the top green button again the LED will flash green and then yellow. Pressing the top green button a third time will display the commissioned channel on the LED. The LED will then go out.

### Adding the Multi-channel Key fob to the Wall Unit

N.B. Firstly on each of the doors, delete the all handsets off the system. See pg. 18

1. Place each of the transmitters on the correct channel using the grey key fob button e.g. 1 flash for door 1, or 2 flashes for door 2 etc.
2. On Block 1 put Dipswitch 1, 2 & 3 OFF and 4 ON and then wait 2 seconds.
3. Press the open button on the board.
4. Now press the top green button on the first of the new transmitters twice and release. The Wall unit led will flash to indicate the channel loaded.
5. Then repeat step 4 with each consecutive handset waiting for the led to return to flashing green before pressing the top green button twice.
6. Put Dip 4 down



## Wireless Keypad

**Factory setting operating user code = 1111**

**Factory setting master code = See sheet with each individual product**

### Normal Operating Mode

1. Press any key to cancel power save mode—LED flashes once
2. Enter the operating code followed by the bell symbol—LED will illuminate
3. Press 2—Open, 5—Stop, 8—Down, 0—Grey button

The unit will time out after 20 seconds from the last button press or after the bell symbol is pushed

### Adding keypad to Rollertech unit

1. On the PCB put the Dipswitches on Block 1 to: 1 off, 2 off, 3 off, 4 on
2. Press the open button on the PCB—The Wall Unit LED will flash green
3. On the keypad, press any key to cancel power save mode—LED flashes once
4. Enter the operating code followed by the bell symbol—LED will illuminate
5. Press 2—Open once



### **Changing the master code**

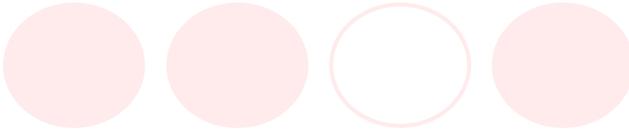
1. Press 'P' on the Keypad—LED will flash
2. Enter current master code
3. Press the bell symbol—LED will flash fast
4. Press the 'P' Key—LED will flash faster
5. Enter new master code followed by the bell symbol—LED will go out

### **Changing the operating code**

1. Press 'P' on the Keypad—LED will flash
2. Enter current master code
3. Press the bell symbol—LED will flash fast
4. Enter new operating code followed by 1 to indicate your finished
5. Press the bell symbol—LED will go out

### **Restoring the keypad to default settings**

1. Open the unit and disconnect the battery
2. Move the jumper link from J1 to J2
3. Reconnect the battery
4. Press any key on the keypad
5. Move the jumper link to J1



## Auto Return Kit Wiring & Dip Settings

**Note:** The Rollertec must be connected to a PEC and Commissioned with a Safety Edge System.

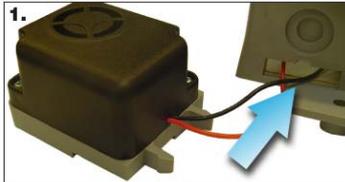
**Note:** Turn the Power to the Rollertec board off before connecting the ATR board.

- 1) The ATR board plugs into the 2 sets of 3 pin connectors located in the top left hand corner of the Rollertec board labelled J10 and J12.
- 2) DIP 3 switch settings for ATR:

Required delay	Switch 1	Switch 2	Switch 3	Switch 4
disabled	off	off	off	off
10 sec delay	off	on	off	off
15 sec delay	off	on	off	on
20 sec delay	off	on	on	off
30 sec delay	on	off	off	off
40 sec delay	off	on	on	on
45 sec delay	on	off	off	on
60 sec delay	on	off	on	off
90 sec delay	on	on	off	off
120 sec delay	on	off	on	on
135 sec delay	on	on	off	on
180 sec delay	on	on	on	off
360 sec delay	on	on	on	on



## V3 Alarm Module



1. Attach the alarm module to the receiver unit.

1.	2.	3.	<p>1. Press and hold the stop button.</p> <p>2. Whilst holding down the stop button press the close button.</p> <p>3. Release both buttons at the same time.</p>
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### Activating the alarm option

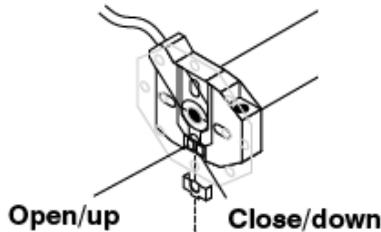
1.	<p>1. Press and release the open button on the hand transmitter. The alarm can not be switched off by the receiver unit. The alarm is triggered when the bottom slat transmitter goes up past the bottom magnet without receiving an instruction from the receiver unit.</p>
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### Turning off the alarm

	T18	T17	T16	T12	T11	T10
Rollertec without Photocell			Black (Alarm)	Link		Red (Alarm)
Rollertec With Photocell	White (Photocell )	Black (Photocell )	Black (Alarm)	Link to T11	Blue (Photocell )	Brown (Photocell ) Red (Alarm)

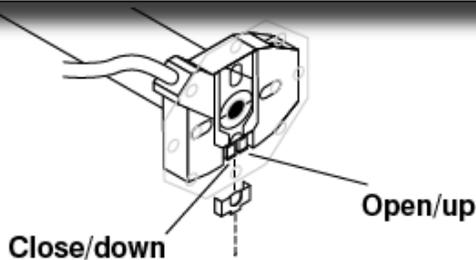
Note: If an Alarm & Photocell is being installed at the same time then dip switch 1 on block 1 should remain in the off position.

## Rollertec Motors limits & Switch Terminals



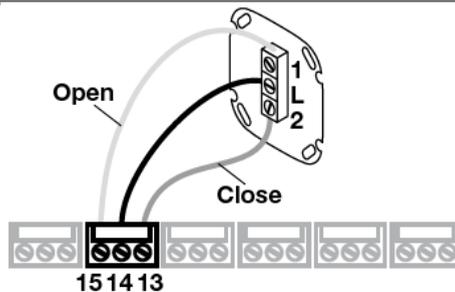
### Left Hand Motor

Fully press in limit switch to activate. Press and release switch when door has been set to stop in correct position. The yellow limit switch activates the OPEN/UP limit. The white limit switch activates the CLOSE/DOWN limit.



### Right Hand Motor

Fully press in limit switch to activate. Press and release switch when door has been set to stop in correct position. The yellow limit switch activates the CLOSE/DOWN limit. The white limit switch activates the OPEN/UP limit.



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## Motor / Axle Selection & Slat Weights

As an aid to the improvement of installation quality and product durability this brief guide covers the selection, installation, wiring and limit switch setting of standard tubular motors.

Please read carefully and do not hesitate to contact our technical sales office for further clarification (01524 772400).

**SWS** U.K.

### TUBE MOTOR SELECTION

Motor type	Motor Ref	Output Torque (Nm)	Output Speed (rpm)	Voltage (volts)	Current (amps)	Power (w)	Rating (mins)	Lifting Capacity (kg)					
								60mm. Oct. Barrel	70mm. Oct. Barrel	80mm. Barrel/collar	90mm. Collar	102mm Barrel/collar	127mm Barrel
LT 50	Jat	10	12	240	0.45	90	4	24	20	18	16	14	
LT 50	Atlas	15	12	240	0.5	120	4	35	30	27	24	21	
LT 50	Meteor	20	12	240	0.65	140	4	48	41	36	32	29	
LT 50	Hallos	30	12	240	0.75	160	4	71	61	54	48	43	
LT 50	Marinar	40	12	240	1.1	240	4		82	72	64	58	
LT 50	Vactran	50	12	240	1.1	240	4		102	90	80	72	
LT 60	Yaps	60	12	240	1.25	280	4		122	107	96	86	67
LT 60	Sirus	80	12	240	1.5	320	4			144	128	116	89
LT 60	Titan	100	12	240	1.9	410	4				160	144	112
CS150	Meteor CSI	20	17	240	0.75	160	4	48	41	36	32	29	
CS150	Gemini CSI	25	17	240	0.8	170	4	60	51	45	40	36	
CS150	Hallos CSI	30	17	240	1.1	240	4	71	61	54	48	43	
CS150	Marinar CSI	40	17	240	1.2	270	4		82	72	64	58	
CS160	Crion CSI	55	17	240	1.5	320	4			100	88	77	61
CS160	Yaps CSI	60	12	240	1.25	280	4			107	96	86	67
CS160	Sirus CSI	80	12	240	1.5	320	4			144	128	116	89
CS160	Titan	100	12	240	1.9	410	4					144	112
CS160	Taurus	120	12	240	2.1	450	4					172	134
CS80	Harokes	150	8	240	2.1	480	4					216	168
CS80	Harokes	200	8	240	3.0	680	4					288	224

1) LT denotes non-manual override motor. CS & CSI denotes manual override motor.

2) Tubular motors can be used continuously for a maximum period of 4 minutes.

They are therefore designed for infrequent use and incorporate thermal trips to prevent overuse. The trip will reset itself when the motor has cooled, allowing further use.

Warranty period on motors 5 years.

### RECOMMENDED MAXIMUM SAFE BARREL LOADS BY EVENLY DISTRIBUTED WEIGHT

Outside dia of tube In mm	Length of Tube in mm - values in table are kgs								
	3000	3500	4000	4500	5000	5500	6000	6500	7000
60mm octagonal 20g	80	53	35	21					
70mm octagonal 18g	176	117	77	46	24				
102mm round 16g	379	272	202	153	117	90	69	52	38
102mm round 10g	586	420	311	235	180	138	105	79	57
127mm round 10g	1182	856	642	494	387	306	244	194	154

### TYPICAL WEIGHTS OF ROLLING SHUTTER LATHS

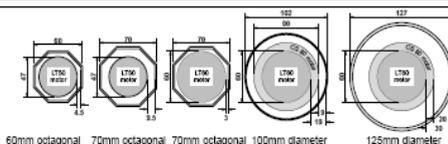
Product	Description	Shutter curtain weight
SecuroScreen 1500	40mm foam filled aluminium	4.5 kgs/sq.mtr
SecuroShield 3800/3801	38mm extruded aluminium	8.0 kgs/sq.mtr
SecuroShield 4000	40mm foam filled steel	10.0 kgs/sq.mtr
SecuroShield 5500	55mm foam filled steel	10.0 kgs/sq.mtr
SecuroShield 6000	55mm extruded aluminium	9.0 kgs/sq.mtr
SecuroShield 7500 22g	76mm perforated galvanised steel	8.0 kgs/sq.mtr
SecuroShield 7500 22g	77mm foam filled aluminium	10.0 kgs/sq.mtr
SecuroShield 7700 & SecuroGlide	77mm single skin galvanised steel	5.0 kgs/sq.mtr
SecuroVision 8000	punched single skin extruded aluminium	7.6 kgs/sq.mtr
SecuroVision 8000	punched and glazed single skin extruded aluminium	8.45 kgs/sq.mtr
SecuroVision 9000	150 x 70 spacing aluminium grille	6.0 kgs/sq.mtr
SecuroVision 9000	75 x 70 spacing aluminium grille	7.0 kgs/sq.mtr

### TUBE MOTOR CLEARANCES IN BARREL TUBES

#### IMPORTANT NOTE

When connecting the shutter lath to the barrel, ensure that the lifting devices do not prevent the FREE running of the tube around the motor. The drawings indicate the clearances available for each of the tube types.

Do not "knock" the motor into the tube.



Produced in association with Somfy

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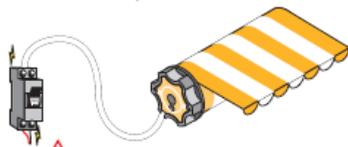
## Somfy RTS Motor—Limits Setup

### Commissioning procedure

#### 1 Identify the correct motor mode

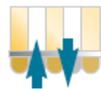
In order to identify which mode the motor is in, make sure that you pay attention to whether the awning performs a double shunt when power is applied.

Switch on the power to the motor.



⚠ Only connect one motor at a time.

Did the awning perform a double shunt?



YES - Go to step 2  
NO - Go to step 3

#### 2 YES - double shunt

Press and hold simultaneously the Up and Down button. The awning should double shunt.



After the double shunt proceed to step 8.

#### 3 NO - double shunt

Press and hold simultaneously the Up and Down button. The awning should double shunt.



After the double shunt continue to step 4.

#### 4 Check the correct direction of rotation

Press and hold the Down button.  
Does the Awning extend?



YES - The awning extends while pressing the down button - Go to step 6

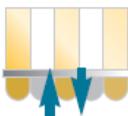


NO - The awning retracts while pressing the down button - Continue to step 5

#### 5 Reverse the direction of rotation

To reverse the direction of the motor, press and hold the Stop button until the awning double shunts.

Press for <5 secs



Press and hold the Down button to test that the motor direction is correct.



Continue to step 6

## Somfy RTS Motor—Limits Setup

### Commissioning procedure

#### 6 Limit setting procedure

Press and hold the Up button until the awning is fully closed.

Press and hold the Stop and Down buttons until the awning starts to extend.

Stop the awning at the desired limit position (adjust with Up or Down if required).

#### 7 Record the outboard limit

Press and hold the Stop and Up button until the awning starts to close.

The awning will automatically close and stop.

Press and hold the Stop button until the awning double shunts to confirm the limit settings.

Press for <3 secs

The limits have been recorded – Proceed to step 8 if you want to record a control

#### 8 Programming the RTS control to the motor

Press the program button on the RTS control until the awning double shunts.

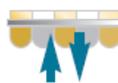


Centralis RTS

OR



Telis RTS



Double shunt =  
Control recorded ✓



Use only 1 RTS control throughout the commissioning procedure.



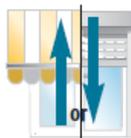
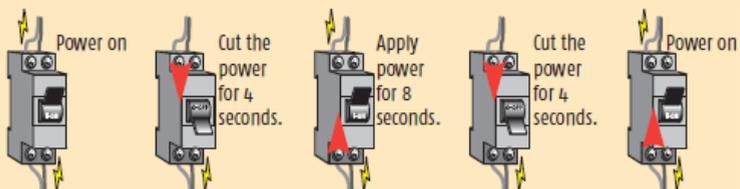


## Somfy RTS Motor—Full Reset

### Erasing the memory of the motor

Altus RTS, Orea RTS, Sonesse 30/50 and Wirefree Roll Up RTS

#### 1 Perform a double power cut with time delays



The product moves up or down for 5 seconds

The motor is now ready to accept a command from a RTS control



Centralis RTS

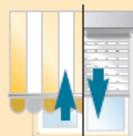
or

Press for <7 secs



Telis RTS

Press for <7 secs



2 x Double shunt = Motor memory erased ✓

Then go to page 20 to complete the motor setup.

SWS UK

## Somfy RTS Motor—Keyfob Setup

### Recording a new RTS control to the motor

Altus RTS, Orea RTS, Sonesse 30/50 and Wirefree Roll Up RTS

#### 1 Set the motor in programming mode with an existing RTS control

RTS control  
already assigned  
to the motor



OR



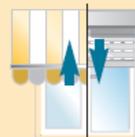
Motor ready to record new control

#### 2 Record the new RTS control

New RTS control  
to assign to the  
motor



OR



New control recorded

### Removing a RTS control from the motor

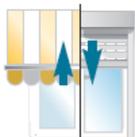
Altus RTS, Orea RTS, Sonesse 30/50 and Wirefree Roll Up RTS

#### 1 Set the motor in programming mode with an existing RTS control

RTS control  
already assigned  
to the motor



OR



Motor ready to remove control

#### 2 Remove the RTS control

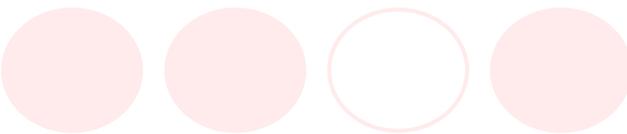
RTS control  
to be removed  
from the motor



OR

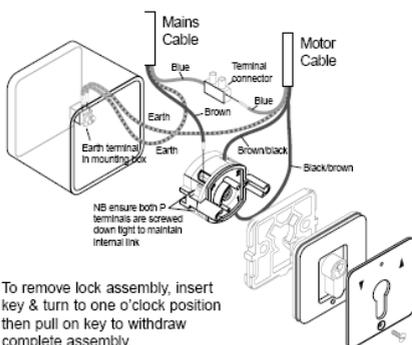


Control removed



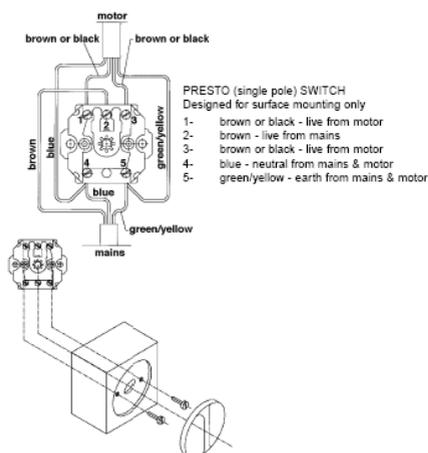
## Wired Keyswitch / Inis Uno / Inis Duo

**GEBA ECO4050 two way momentary key switch for operating one shutter only.**



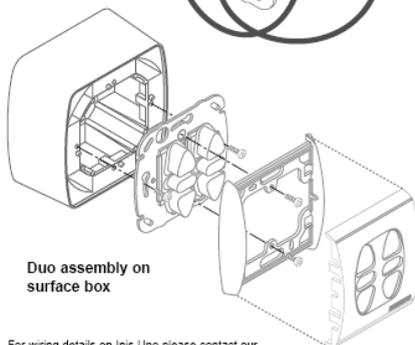
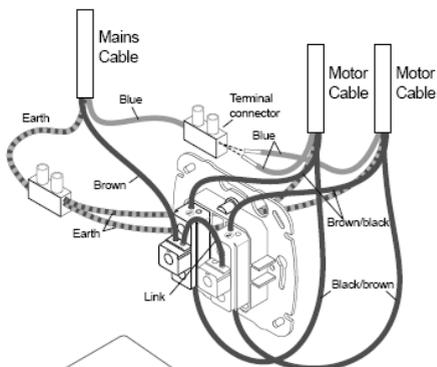
To remove lock assembly, insert key & turn to one o'clock position then pull on key to withdraw complete assembly.

**EC22000 single pole switch for operating one shutter only.**



- (1) Disconnect power to motor before undertaking any work.
- (2) Only one motor to be attached to a single pole switch.
- (3) Sequencing relay required when operating one shutter by more than one switch.
- (4) Safety measures must be provided when shutters are operated from out of sight of the main switch.
- (5) Group commands must be used where multiple motors are to be operated from one switch.
- (6) Full remote control operation available - details on request.
- (7) Only SWS approved momentary switches may be used

**Inis Duo double pole switch for operating two shutters.**



**Duo assembly on surface box**

For wiring details on Inis Uno please contact our technical sales office for further details

**Note: PCB connections - T13 (Close), T14 (Common), T15 (Open)**

## RB04 Wiring

### **IMPORTANT ALWAYS ISOLATE THE RBO4 BEFORE REMOVING THE LID**

#### **WIRING THE RBO4**

The circuit board is fitted with a removable connector block to assist when wiring the group controller. To simplify the wiring procedure we recommend that the following steps are taken.

- STEP 1** Connect the unit to the mains supply via terminals marked T1 LIVE, T3 NEUTRAL & T5 EARTH.
- STEP 2** Connect the Tubular Motor earth wire (yellow/green) to T6, 7, 8 & 9 respectively
- STEP 3** Each Tubular Motor has it's own connection point,

T10 & T11 (Black & Brown) for directions T12 (Blue) neutral, For motor 1.  
T13 & T14 (Black & Brown) for directions T15 (Blue) neutral, For motor 2.  
T16 & T17 (Black & Brown) for directions T18 (Blue) neutral, For motor 3.  
T19 & T20 (Black & Brown) for directions T21 (Blue) neutral, For motor 4.

#### **ALL SWITCHES ARE OPERATED AT 24 VOLTS DC AND THEREFORE CAN BE WIRED IN ALARM TYPE CABLE.**

- STEP 4** Connect the control switch as follows, common to COM, Open to U & CLOSE to V.
- STEP 5** A facility for an alarm input is provided and works in conjunction with the 3 position jumpers (next to the IC1)

The jumper facility (JP1) is selectable, Centre & V for Close or Centre & U for Open, when the alarm input is broken the tubular motors will default to the selected position.

If the alarm input is not used it should be linked out using a short length of wire.

#### **IF YOU REQUIRE INDIVIDUAL AND SUB-GROUP CONTROL IN ADDITION TO GROUP CONTROL, A DAUGHTER BOARD (RBO4-DB) IS REQUIRED.**

#### **WIRING THE RBO4-DB**

Fix the Daughter Board to the three support towers with the screws provided, then connect the ribbon cable to the RBO4 main board. Ensure that the pins are lined up, then firmly press down on the connector.

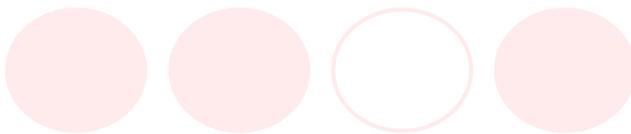
Connect the individual switches for the tubular motor, which require individual control, to the connections on the daughter board as follows.

**Motor 1.** Common to COM, 1U to OPEN, 1V to CLOSE.

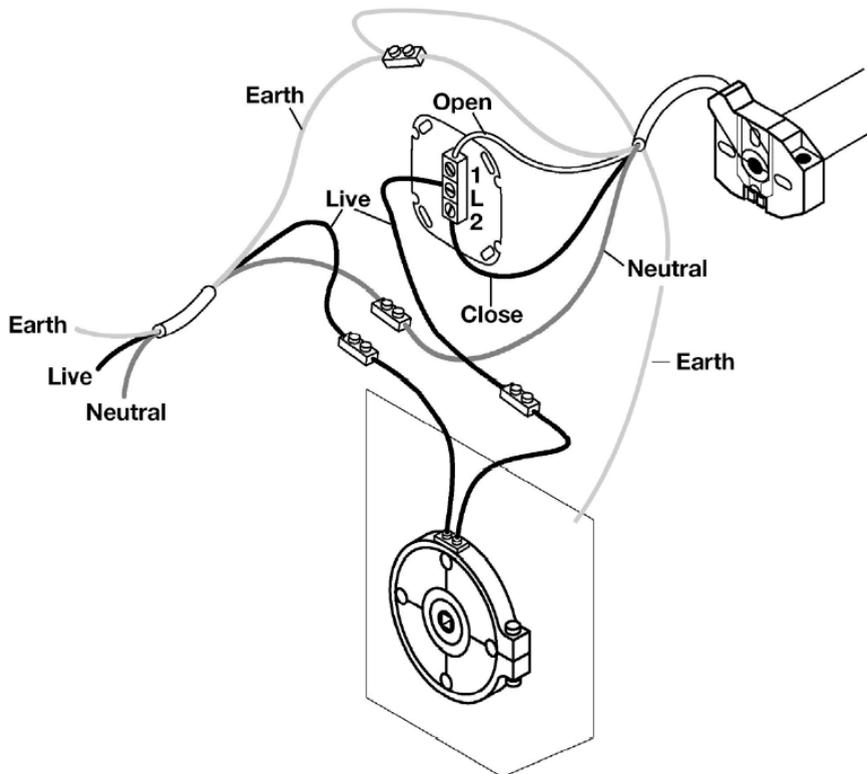
**Motor 2.** Common to COM, 2U to OPEN, 2V to CLOSE.

**Motor 3.** Common to COM, 3U to OPEN, 3V to CLOSE.

**Motor 4.** Common to COM, 4U to OPEN, 4V to CLOSE.



## Safety Brake Wiring



**N.B. If a safety brake is in use with a Rollertec unit place the wires from the brake in to terminals 11 & 12**

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## RDU Types & Mode Changing

### V3 / V2 RDU



Decom Button

These instructions enable the RDU to switch between normal mode and NIF mode.

NIF mode can be accidentally activated when the RDU has been decommissioned via the internal decom button.

To switch between modes follow these instructions

1. Connect the RDU to the safety edge
  2. Press the 'decom' button once to light up the RDU LED dim.
  3. Then press the button 4 times to decommission the RDU.
- On the forth press of the 'decom' button, hold your finger down.  
The LED on the front of the RDU will stay on bright for 3 seconds. Then if NIF is activated the led will blink with a dim light quickly. If the RDU is in normal mode the LED will just go out.

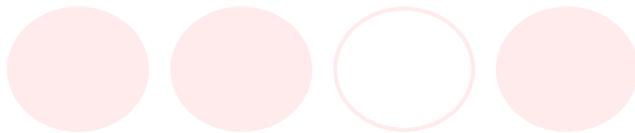
A beep will also sound from the wall unit to indicate the successful decommission.

### V1 RDU

The V1 RDU will only work with V1 PCB's, see page 5.

The V2 & V3 RDU will not work with the V1 PCB's

The V1 RDU is identical to the above picture except that the 'decom' button is missing



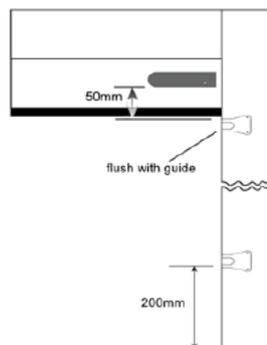
## PDT Fault Codes

DOOR POSITIONS	
LED SIGNAL	STATUS
GREEN solid	open limit activated
GREEN flashing	door opening
RED solid	close limit activated
RED flashing	door closing
YELLOW solid	door stationary between the open and close limits

Please note: If the bottom slat of the curtain hits an object before it reaches the top magnet, whilst travelling in a downwards direction, the motor will continue to turn for a short while before stopping automatically.

SYSTEM STATUS		
LED SIGNAL/FAULT	CAUSE	SOLUTION
RED rapid flashing	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 which may be in the doorway (once you have removed the obstacle the signal light will change to solid yellow).</li> <li>2. Ensure the photocell and reflector are clean.</li> <li>3. Re-align the photo cell and reflector.</li> <li>4. Turn dip switch 1 off.</li> <li>5. Replace the link between terminals 17 and 18.</li> </ol>
RED flash then two YELLOW flashes	A motor stall has been detected	<ol style="list-style-type: none"> <li>1. Disengage manual locking device</li> <li>2. Remove any objects which may have jammed in the guide rail, curtain or roll.</li> <li>3. Ensure nobody is attempting to ride up on the curtain.</li> <li>4. Ensure a non-approved item has not been attached to the curtain.</li> <li>5. In extreme conditions the door may have frozen to the guide rails or floor. Try to operate the door again or defrost the frozen section.</li> </ol>
RED flash then three YELLOW flashes	The thermal trip has activated on the motor or the motor is not connected.	<ol style="list-style-type: none"> <li>1. Allow the motor to cool for approximately 30minutes before attempting to operate the door again.</li> <li>2. The motor may not be connected to the remote control unit. Check wiring and re-set the motor limits.</li> </ol>
RED flash then four YELLOW flashes	Door overrun time out; the door has been opening or closing for over 60 seconds without detecting a final end limit position.	<ol style="list-style-type: none"> <li>1. Re-set the motor limits</li> <li>2. If the motor limits can not be set the motor may be faulty.</li> </ol>
A rapid RED, GREEN then YELLOW single flash	Indicates that a signal has been received from either a transmitter that has not been loaded on to the system or the transmitter's manufacturer's code does not match with the SecuroSmart control unit.	<ol style="list-style-type: none"> <li>1. Load the transmitter on to the system as per the 'Adding transmitters' section.</li> </ol>
Long YELLOW then two shorter RED flashes	PEC has failed Self Check test.	<ol style="list-style-type: none"> <li>1. Check the PEC wiring.</li> <li>2. Replace faulty PEC</li> </ol>
Long RED then short RED		Check link between T11 and T12 on the receivers circuit board
Reduced operating range	Batteries in transmitter are flat or aeriels may not be fitted to remote control unit or they may be touching.	<ol style="list-style-type: none"> <li>1. Transmitter LED does not illuminate when flat and if batteries low it flashes when button pressed. Replace batteries.</li> <li>2. Ensure aeriels are not touching, replace aeriels if they are missing.</li> <li>3. The door can be closed by pressing and holding a close button. Release the button once the door is fully down and locked.</li> </ol>
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 bottom slat safety edge is installed).	Signal interference.	A local device (such as a RR detector, a weather station or a TV signal booster) is transmitting a signal on the same frequency. The receiver will wait for the signal to stop before operating the door again.
	Aeriels are touching or have been removed.	Ensure aeriels are present and are not touching.
	The top magnet is missing or in wrong location.	If the magnet is on the guide rail ensure that it is located at least 50mm below the bottom slat transmitter when the door is fully open.
	Fault detected in safety edge circuit	If the bottom slat transmitter is flashing 6 or 8 times contact your supplier.

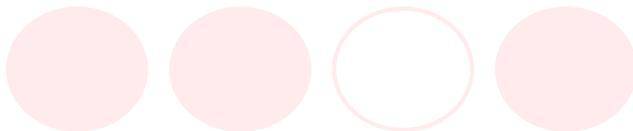
## PDT Fault Finding Basic Checks



**Make sure the door is still set up as above. If there is less than 50mm gap between the bottom slat transmitter and top magnet move the top magnet accordingly. Do not raise the motor limit unless totally necessary as the top limit may drift down again. It will not further drift from its current position on arrival on site. Check magnets are still in the holders by holding a screw driver up to them. Check that the floor level has not changed**

### PCB Checks

- **Check the aerials are still installed on the PCB, ensure they are pointing up and down and not touching.**
- **Check the dipswitches are all in the correct position. See pages**
- **Check that the remotes still operate the door, if not attempt to add them, ensure the LED on the PCB flashes each time you press the button, if not the receiver tile in the wall unit could be faulty. Alternatively, there may be strong localised interference on 433Mhz or flat batteries in the key fob.**
- **Check the operation of the door with the ribbon cable unplugged**
- **Check the wall unit is within 12 foot of door.**
- **Check no additions have been made to door since installation i.e. alarm contact**
- **Check motor limits are set (Led red when fully closed, Green when fully open)**
- **Check the RDU Batteries see page 36**



## PDT Fault Finding V1—Full Reset

### Removing Safety Edge System

1. Bring door to half way
2. Put dipswitch 4 to on
3. Press and hold the close button until the following sequence is completed

*1 flashing red 15 seconds*

*2 Solid red 8 seconds*

*3 Solid amber 5 seconds*

*4 Solid green 2 seconds release on green*

4. Put dipswitch 4 to off

### Adding Safety edge System

1. Bring door to half way
2. Put dipswitch 4 to on
3. Press the close button and release it (LED flashes green)
4. Swipe the magnet downwards only past the RDU 4 times (RDU LED comes on dimly)

*No led – read switch faulty replace RDU*

*6 flashes- short circuit on edge, replace the edge and RDU*

*8 flashes – unscrew RDU and check it is plugged in correctly, if so, open circuit on edge so replace edge and RDU*

5. Swipe the magnet downwards only past the RDU 1 more time (RDU LED flashes brightly once)
6. Push up on safety edge, (RDU LED flashes rapidly)
7. Put dipswitch 4 to off

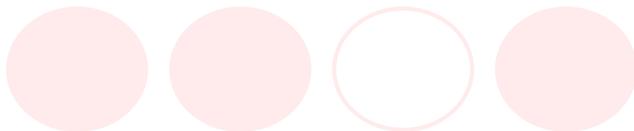
*Fault If flashing green the bottom slat transmitter is not transmitting or the receiver tile on PCB is faulty replace PCB and RDU.*



## PDT Fault Finding V1 Cont.—Full Reset

### Safety Edge Commissioning

1. Put dip 1,2,3 on, 4 off
2. Press the reset button on the PCB
3. Swipe the magnet downwards only past the RDU 4 times (RDU LED comes on dimly)
4. Swipe the magnet downwards only past the RDU 1 more time (RDU LED flashes brightly once)
5. Swipe the magnet downwards only past the RDU once again (RDU LED flashes brightly twice)
6. Push up on safety edge, (courtesy light flashes once)
7. Press up (door travels to top and courtesy light flashes once)
8. Position 50 mm block + 10-15mm screw driver under door and press down (door travels down, hits block and courtesy light flashes once)
9. Press up (door travels to first magnet on guide rail stops and courtesy light flashes once)
10. Remove the block and position only the 10-15mm screw driver handle under the door
11. Press down (the door travels to the floor, hits the handle and light courtesy flashes)
12. Turn all the dipswitches to off, bring the door to the top and test.



## PDT Fault Finding V1—Quick Reset

1. Complete basic setup up and PCB Checks
2. Bring door to half way
3. Check all dip switches are down
4. Swipe a magnet downwards 4 times past the end of the RDU until the RDU LED lights up with a constant dim light

**At this point a fault may be indicated**

***No led – The RDU is dead, replace it***

***6 flashes- short circuit on edge, replace the edge***

***8 flashes – check it is plugged in correctly, if so, open circuit on edge so replace edge and RDU***

5. Swipe the magnet past once more and the RDU LED will flash once.
6. Swipe the magnet past once more and the RDU LED will flash twice.
7. Swipe the magnet past once more and the RDU LED will flash three times.
8. Push up against the rubber safety edge & the RDU LED should flash dimly
9. Press the up button on the PCB & the door will go up to the open position
10. Test the Safety Edge works. If the safety edge doesn't activate or the door stops on it's way down then the instructions on page 26 need to be followed to fully reset the safety edge system.



## PDT Fault Finding V2 & above —Quick Reset

1. Complete basic setup up and PCB Checks
2. Bring door to half way
3. Unscrew the RDU
4. Locate the decom Button on the back of the RDU
5. Press it once whilst looking at the LED on the front of the RDU. The light should come on dimly for 20 seconds
6. At this point a fault may be indicated

*No led—The RDU is dead, replace it  
6 flashes—Short circuit on edge, replace the edge  
8 flashes—check it is plugged in correctly, replace the edge*

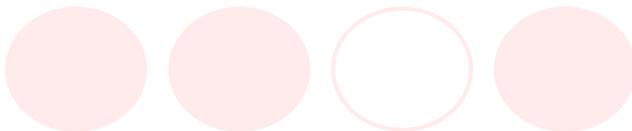
7. Continue to press the Decom button repeatedly until the PCB emits a loud prolonged beep.

*If there is no beep check handsets work to check receiver tile is ok on PCB*

8. Operate the door downwards passed a magnet, the LED should flash rapidly.

*No flashing LED—ensure the RDU passes within 10mm of the magnet.  
Continous LED—RDU mode may need changing, see page 27*

9. Put the door to the top, ensure the LED on the wall unit is Green
10. Position a 10-15mm screw driver handle under the door.
11. Press and hold the blue sec button on the PCB until it beeps. The door should now go through it's commissioning cycle. The PCB will beep three times to indicate it has commissioned fully and then fully open.



## Misc Fault Finding

- **Door Hitting Floor and returning (v1/v2/v3)**

Replicate fault and check fault code on PCB LED

If the PCB LED is flashing Red Amber Amber, reset the bottom limit, experiment with raising and lowering the bottom limit.

If the PCB LED is rapid Amber ensure the bottom magnet is still on the guide rail.

Ensure the bottom magnet position is 200 mm from the floor and within 10mm passing distance of the RDU

- **Indicating Thermal Trip, (Red amber amber amber) (v1/v2/v3)**

Check motor wiring on PCB as per fitting instructions

Check motor cable has not been damaged

Push in both limit switches on the motor and test, beware that the motor will have no defined limits and you will have to stop it.

If it still does not work attach motor to motor test leads, test operation and set limits again

*If the motor fails to work on a test lead then replace the motor*

If motor works ok on test leads attach to PCB and test again,

*If motor fails to work when reattached to PCB then call Tech Support see pg 3.*

- **Motor Stall (red amber amber)**

Ensure nothing is stopping the curtain from running in the guides

Disconnect the motor from the PCB and test motor on test leads, if it fails to work push in the limits and try

*If the motor fails to work on test leads then replace motor*

If motor works on test leads re connect to the PCB and attempt resetting the limits

*If motor fails to work when reattached to the PCB call Tech Support see pg 3.*

- **Door not operating PCB beeping every few seconds (v1/v2/v3)**

A power spike has knocked the handsets off the PCB add handsets

Dip 4 up, up button on PCB then top green on each handset

Commission if needed.



## Misc Fault Finding

- **Door not operating flashing rapid red on PCB LED (V1/V2/V3)**

If photocell is installed check alignment and wiring (both LED's on photo cell need to be on)

If no photocell installed check links between T17 and T18, If ok swap terminal block for T13, 14 15 for terminal block 16,17,18 and move the link across  
Check dip 1 dip switch 1 is turned off

*If problem persists replace PCB and RDU accordingly*

- **Door not operating flashing long red short red on PCB LED (V1/V2/V3)**

If emergency stop is installed check wiring (T11+T12)

Check link between T11 and T12, if seems ok, swap terminal block for T13/T14/T15 for T10/T11/T12 and move link

*If problem persists replace PCB and RDU accordingly*

- **Door not operating flashing red and green on PCB LED (V1/V2/V3) (Relay Weld)**

Check door is not in programming mode,

Reset the PCB

*If problem persists replace PCB and RDU accordingly*

- **Phantom Operations (V1/V2/V3)**

Check a handset button is not permanently depressed

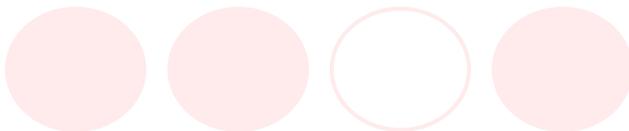
Check handset still has hand set cover on it to prevent accidental operations

Replace ribbon on PCB as this may be shorted

- **PCB Clicking no operation or only partial operation (V1/V2/V3)**

Remove and replace ribbon cable

Check photocell Alignment



## RDU Maintenance:

The RDU may need to be serviced if the batteries get discharged to below 3 volts.

The door will stop at the top magnet if the RDU needs to be serviced. The safety edge could be another reason for the door to stop on the way down and therefore should be checked with a multi-meter to ensure there is a reading of 1.2ohms. The steps to change the batteries without the need to re-commission are listed below.

1. Remove the RDU lid and PCB from the bottom slat
2. Disconnect the safety edge cable from the two pins on the PCB
3. Remove the PCB from the RDU lid by removing PCB screws
4. Remove the batteries from the holders by pushing them out with a plastic object
5. Put in position the new batteries with the plus sign and ref code facing up (Always use CR2032 coded batteries 3V)
6. Reposition PCB into RDU lid
7. Reconnect cable ensuring both pins are covered
8. Refix the RDU to the bottom slat

If the door still stops on the way down then the system reset procedure will need to be followed to reintroduce the RDU to the wall unit. See page 30 for the V1 system, page 33 for the V2 & above. To determine which system you have see page 27.



## Important Changes / Bulletins

- |                 |  |
|-----------------|--|
| <b>01/05/05</b> | <b>V1 SeceuroSmart System Released</b>                   |
| <b>19/07/06</b> | <b>V2 SeceuroSmart System Released</b>                   |
| <b>15/09/06</b> | <b>Safety Edge Shroud Updated</b>                        |
| <b>15/12/06</b> | <b>Safety Edge Resistor Updated</b>                      |
| <b>19/02/07</b> | <b>Safety Edge R/F Welded</b>                            |
| <b>12/03/07</b> | <b>V3 SeceuroSmart System Released</b>                   |
| <b>24/09/07</b> | <b>All Somfy Motors Checked At SWS Prior To Dispatch</b> |
| <b>03/06/08</b> | <b>V5 SeceuroSmart System Released</b>                   |
| <b>04/05/09</b> | <b>Push Button Ribbon Cable Modified</b>                 |