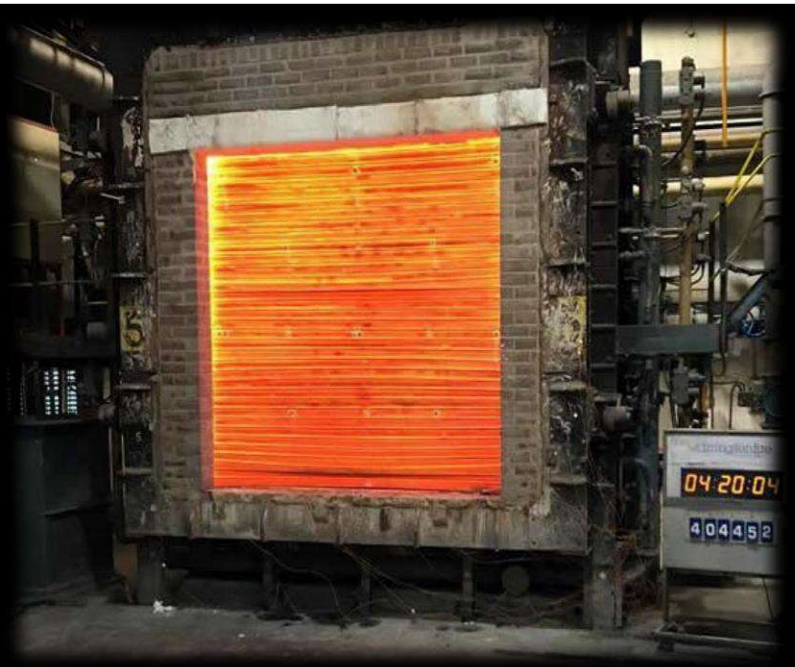
FLAME ARMOUR FIRE SHUTTER

INSTALLATION MANUAL.

INSTALLATION MANUAL – INSTRUCTIONS FOR INSTALLING A FLAME ARMOUR ROLLER SHUTTER.

E60, E120 & E240 Fire Resistance Ratings | Gravity Fail-safe options | Inline or tubular motor options | Flexible or Rigid structure tested

TEST TO BOTH RIGID AND FLEXIBLE STRUCTURES.



CE MARK TO BS EN 16034

We recommended using the following:

RED EARTH FARM – PLANTATION ROAD – TURTON – BOLTON – BL7 0DD
TEL: 01204853243 EMAIL: sales@sssindustrialdoors.co.uk

INSTALLATION MANUAL.

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TABLE OF CONTENTS **NUMBER:**

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Use the following installation manual as guidance for installing the 'Flame Armour' roller shutter. It is highly recommended that you follow each step carefully and do not skip ahead. SSS Industrial Doors Limited is not liable for any damage caused to the property, yourself or others whilst installing the fire shutter. Please seek advice if you are unsure about any process during the installation of the roller shutter.

1.1 Safety Information

Before you proceed to install the following product, you must be made aware of the potential dangers to yourself or others regarding the installation of a roller shutter. Roller shutters can be manufactured to various sizes and can often be quiet large in proportions. Due to the moveable components and parts it is advisable that you comply with the instructions within this booklet to ensure that you install the Flame Armour Fire shutter correctly and safety.

The items and components within a roller shutter / fire shutter can cause injury or a fatality, therefore please heed the advice within this manual. If you are ever in doubt, please contact our offices on 01204 853243.

Please review the following potential hazards and how to prevent them.

POTENTIAL HAZARD:		PREVENTATIVE MEASURE:
	**Pinned or Crushed by closing door.**	• Keep yourself and any other person(s) clear of the opening while the doors is in motion. • Do not allow others to stand near or operate door, unless qualified. • Do not operate if the door becomes jammed or broken.
	**Electrical shock.**	• Ensure that only a qualified electrician wires the motor, panel or electrical components. • Make sure electrical operators are correctly ground. • Ensure that all power sources are turned off prior to installing the panels, motors or wiring the mains power source. • Avoid pinching wires when installing the motor cover / canopy.
	**Falling from height**	• The shutter must be installed in accordance with the Work at Height Regulations (2005) and the Manual Handling (Operations) Regulations (1992). • You must comply with these regulations and use appliances and restraint systems as appropriate.
	**Pinched by movable components**	• Make sure that the motor is turned off and unplugged before working with moving parts (sprockets, gears & hand chain). • Identify the possible pinch points prior to installation of the motor, barrel or component. • Do not operate the door whiles someone is nearby.
	**Objects falling from height**	• Ensure that the correct supplied fittings are used as instructed. • Ensure the motor is firmly installed and cannot adjust or loosen itself when being operated. • Ensure that flags, barrel and canopy is correctly bolted into position as instructed. • Always wear protective head gear when installing the product.

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1.2 Pre-Installation Checks

To ensure that the Flame Armour Fire Shutter has been installed correctly and complies with regulations please complete the following installation checks.

- ✓ Upon delivery, check the condition of the components for damages.
  If damages have occurred during transit, the installation should not proceed without authorization.

- ✓ If the installation is stopped due to damages, do the following:
  - ❑ Take pictures of the damaged components.
  - ❑ Do not move material from point of delivery to other premises once the damaged components are discovered.
  - ❑ Do not continue to unpack the product, if the damage is visible prior to removing the packaging.
  - ❑ Refer to the drawing for a RDS number and contact our offices on 01204 853243.

- ✓ How to return the damaged components or parts:
  - ❑ If there is a technical issue with the installation of the component (ie. Motor), please contact our offices prior to altering or modifying the motor. Technical support for installations of motors and components can be given over the phone. If you damage the component you will be liable to be charged.
  - ❑ If a part breaks during installation and cannot be fixed, please contact our offices for support and arranging a replacement part.
  - ❑ If sizes need altering due to measurement errors by yourself or others, not by an SSS Industrial Doors engineer. You are liable for pre-checking the drawing in conjunction with the site survey report before installation occurs. It could be possible to return with the components and make adjustments in our workshop.

- ✓ Returns regarding shipment or container.
  - ❑ Obtain permission from the carrier to return.
  - ❑ Route the return shipment via the identical carrier(s) involved in the original shipment.
  - ❑ Notify the manufacturer when the shipment is returned to the manufacturing factory.

- ✓ Check that all components have arrived:
  - ❑ Product drawings, CE Marked stickers, D.O.P Document, OMMs and fitting instructions.
  - ❑ Check guides assemblies to drawing specifications.
  - ❑ Check flags are designed to drawing specifications.
  - ❑ Check barrel to drawing specifications.
  - ❑ Check curtain (lath) to drawing specifications.
  - ❑ Check canopy (possible motor cover and fascia) to drawing specifications.
  - ❑ Check correct motor has been included / installed in the barrel.
  - ❑ Check fixing are included within the pack.
  - ❑ Check additional components / panels have been included.
  - ❑ Ensure that the battery backup has been fully charged prior to installation.

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1.3 Pre-Installation Information

Please take care and read the entire installation manual thoroughly. The manufacturer will not be held responsible for any changes incurred due to improperly installed components.

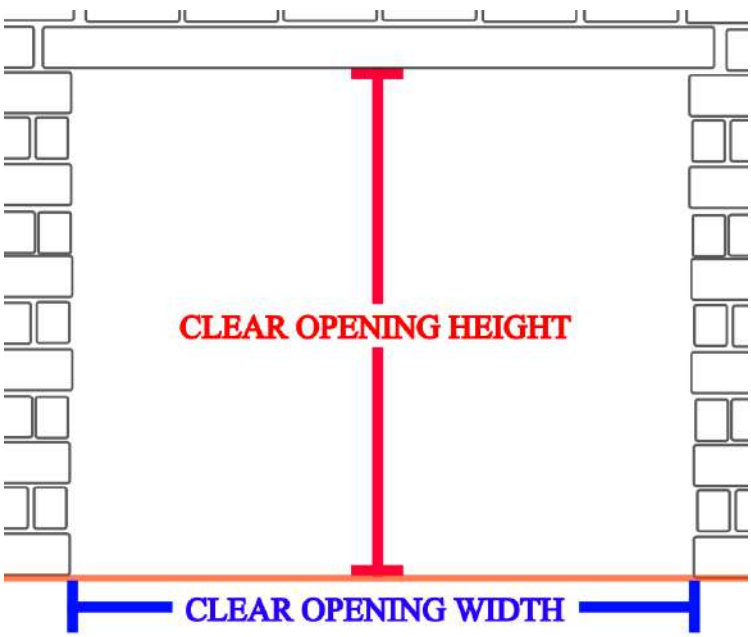
- ✓ Only fully trained engineers / technicians should perform measuring and installations
- ✓ Only a qualified electrician should wire the motor, control panels and any other electrical components. A certified fire alarm installation company should connect the fire shutter to the fire alarm system to ensure it is complaint to regulations and standards.
- ✓ Refer to the drawing and documentation at all times.
- ✓ If there are multiple shutters, ensure that the RSD number and job numbers align with each product and do not interchange parts / components from one door to another.

- If the opening dimensions differ from those on the product drawing, do not proceed, check with the manufacturer to ensure that the calculations are correct.

To ensure the installation is as smooth as possible, ensure that the environment is clear so that you are well-prepared for installing the fire shutter.

The clear opening should be prepared and cleaned prior to installation. Before you begin, layout the components in order of installation.

Ensure that debris or rough surfaces do not impede upon the installation.



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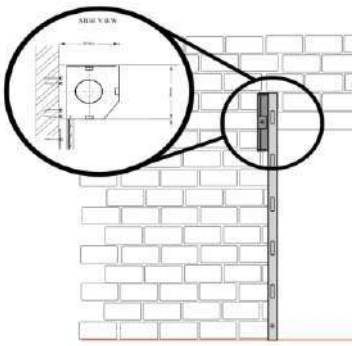
We recommended using the following:

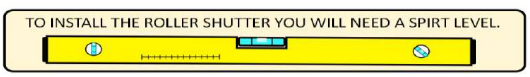
2.1 Installation of Flags

*Please refer to product drawings continuously when following this manual.



First ensure that all fixing are inserted at the top of the punched slot angle. This is for allowing expansion during the fire as the nylon washers will melt under the heat and angle will expand upwards.

Ensure that you align the left flag next to the clear opening. Begin with face fixing the angle to the wall through the designated slotted holes (Ensure it at the top).



Using a spirt level, ensure the left hand flag is horizontally and vertically straight.

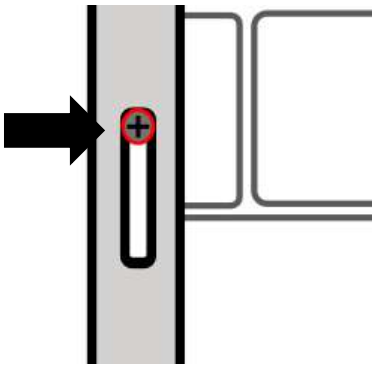
Now begin to install the right flag by face fixing the angle to the wall through the designated pre-drilled holes. Use the fixings which are supplied, these could either be M8 or M10 bolts.

Finally, check the right flag with a spirt level to ensure the right hand flag is horizontally and vertically straight.

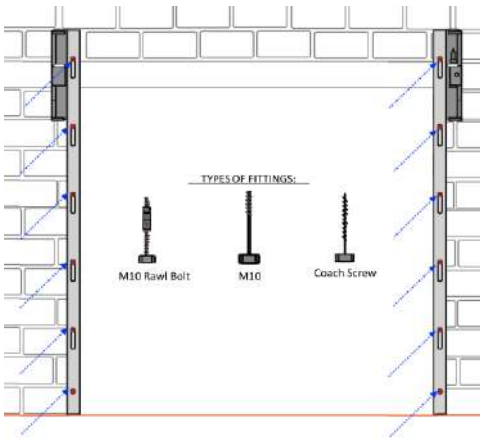
First, unpack and check the product has been supplied undamaged and ready for installation.

Refer to the product drawing and check all components are included.

Using a tape measure, ensure that accurate measurements on the drawing have been followed (refer to 1.2 for damages).



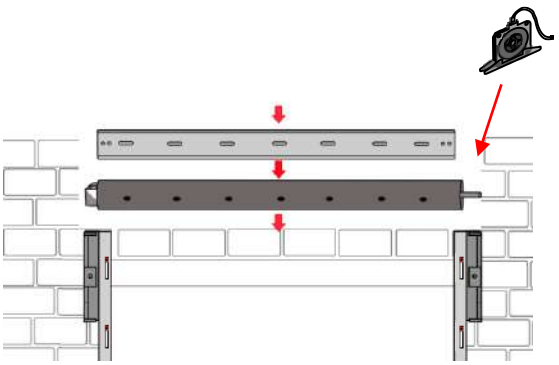
Use the fixings which are supplied with the door, these M8 or M10 bolts must installed at the **top** of the slotted angle (as shown). FAILURE TO COMPLY WILL RESULT IN A NON-COMPLIANT FIRE SHUTTER.



INSTALLATION MANUAL.

INSTALLATION MANUAL – INSTRUCTIONS FOR INSTALLING A FLAME ARMOUR ROLLER SHUTTER.

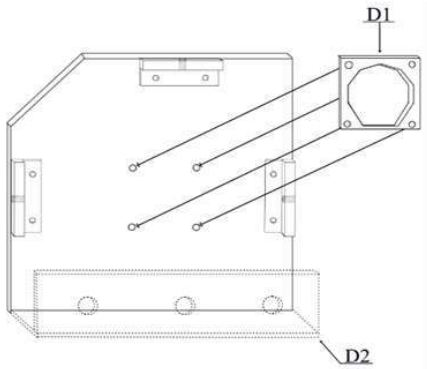
2.2 Installation of Barrel & Safety Brake



It is recommended that two people install the barrel using appropriate safety means (ie. Scissor Lift).

Using the supplied product drawing, determine the orientation of the brake and motor. This should be determined prior to installing and during the measuring of the clear opening.

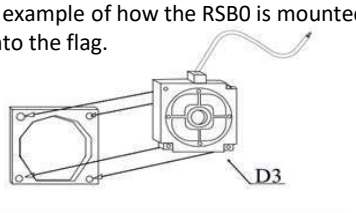
Now place the safety brake on the correct position of the barrel (refer to product drawing). Gently lower the barrel into position. Depending on the brake type this will alter the type of mounting to the flag, for example a RSBO are mounted directly onto the flag whilst other brakes rest on a small shelf within the plate. The motor is mounted by the warm plate which has pre-drilled holes.



RSB0 – Directly mounted onto the flag.

Tubular Motor application a warm plate(D1) is used to connect the safety brake (D3) directly onto the flag (D2).

This diagram is an example of how the RSB0 is mounted from the barrel onto the flag.

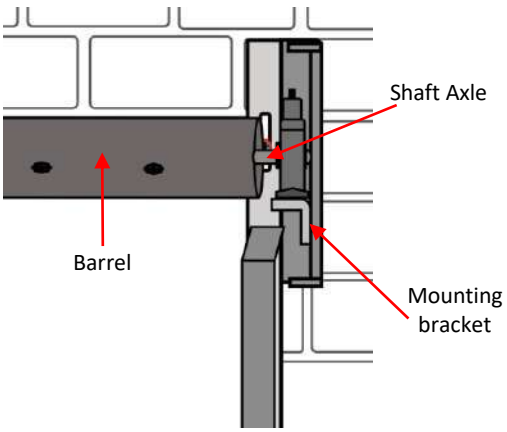


RSB1/2, RSB2/3, RSB4 – Mounted onto bracket.

For larger applications, a external chain driven motor is required. Due to the shaft axle diameter increasing as per our EXAP Annex B of BS EN 15269-10:2011 instructions, the RSB0 safety brake would not be compatible.

Therefore the following safety brakes are required depending on the axle diameter stated.

RSB0 – 16.5mm Axle Diameter.
RSB1/2 – 30mm Axle Diameter.
RSB2/3 – 40mm Axle Diameter.
RSB4 - 50mm Axle Diameter.



3.0 Wiring a UPS-FDI Interface

ENSURE THAT ONLY A CERTIFIED ELECTRICIAN

INSTALLS AND WIRES ALL ELECTRICAL COMPONENTS.

SSS Industrial Doors are not liable for incorrect installation or wiring in which damage to property or person(s) occurs. It is advised that a certified electrician completes the installation to ensure the manufacturers warranty is not voided during the installation process.

Instructions

These instructions are for "SLEEP MODE BATTERY BACK UP UNITS ONLY

- Apply all connections to terminals where shown
- **The "Volt Free Control" connection must be used attached in place of either "key-switch or pushbutton" connection of item to be controlled**
- If fire signal is to be used, move the jumper to select the travel direction upon activation
- Connect Wake up lead to BBU connection

Operation With Mains Power Available

- Ensure all connections between the **BBU** and **INTERFACE PANEL** are made i.e.. mains supply in, power out and the RJ11 wake up cable
- Ensure the BBU is switched **"OFF"** by the power switch on its front panel
- Operate the key-switch in the direction required, after approximately 2 seconds the BBU emit a signal then **"WAKE"** the unit will operate in dead-man for the direction selected
- Upon releasing key-switch the unit will stop and the **BBU** will return to **"SLEEP"**

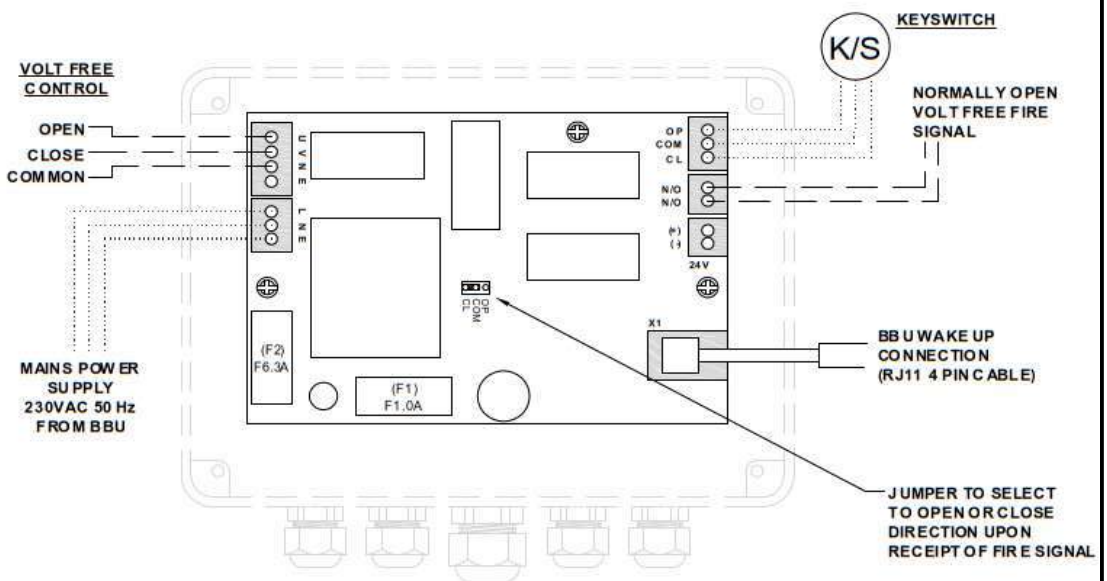
Operation Upon Mains Power Failure

Should the mains supply fail the unit will still remain operational to drive the motor via the batteries of the BBU The time available in this condition will reduce depending on the amount of operations the unit undertakes whilst the mains power is off

- Operate the key-switch in the direction required, after approximately 2 seconds the BBU emit a signal then **"WAKE"** the unit will operate in dead-man for the direction selected
- Upon releasing key-switch the unit will stop and the **BBU** will return to **"SLEEP"**

Fire Signal Operation

- Upon receipt of a normally open volt free fire alarm signal the BBU will **"WAKE"**
- The unit will operate for the direction selected by the jumper for as long as the fire alarm remains activated



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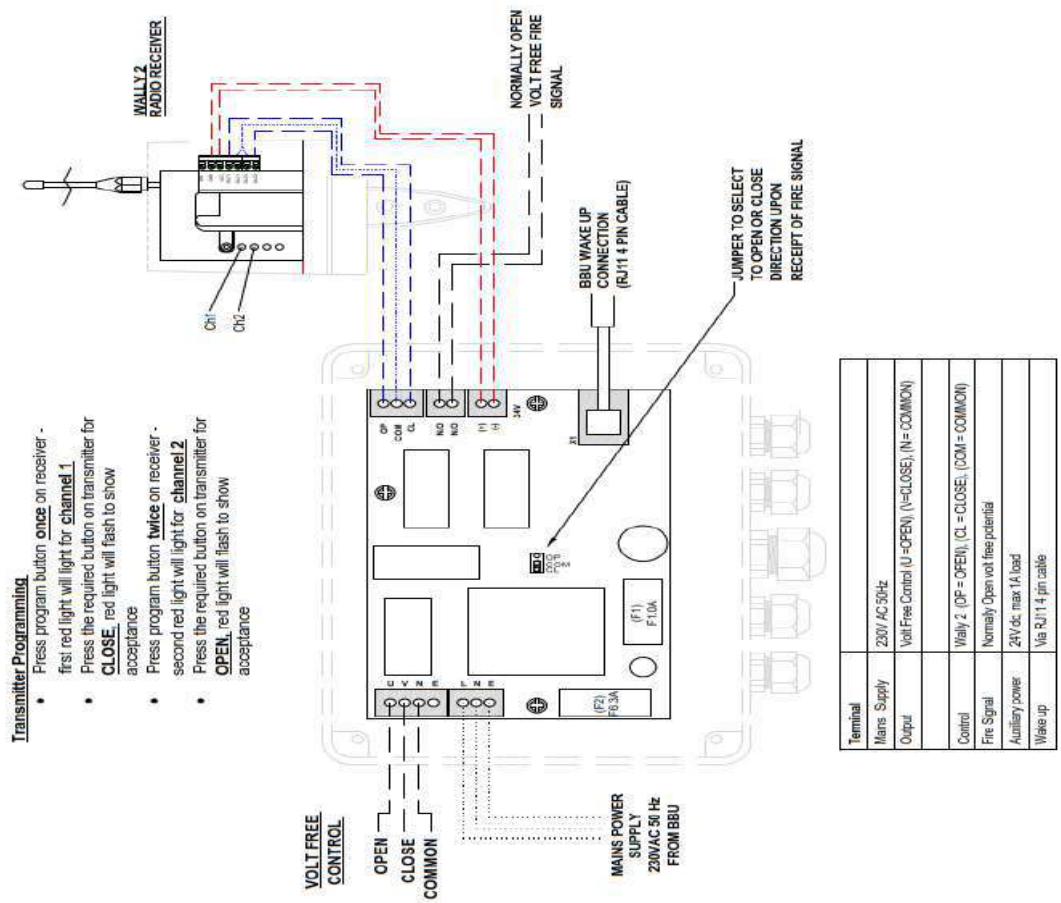
3.0 ENSURE THAT ONLY A CERTIFIED ELECTRICIAN INSTALLS AND WIRES ALL ELECTRICAL COMPONENTS.



Terminal	
Mains Supply	230V AC 50Hz
Output	Volt Free Control (U =OPEN), (N=CLOSE), (N= COMMON)
Control	Wally 2 (OP = OPEN), (CL = CLOSE), (COM = COMMON)
Fire Signal	Normally Open volt free potential
Auxiliary power	24V dc max 1A load
Wake up	Via RJ11 4 pin cable

Transmitter Programming

- Press program button **once** on receiver - first red light will light for **channel 1**
- Press the required button on transmitter for **CLOSE**, red light will flash to show acceptance
- Press program button **twice** on receiver - second red light will light for **channel 2**
- Press the required button on transmitter for **OPEN**, red light will flash to show acceptance

Instructions

These instructions are for "SLEEP MODE BATTERY BACK UP UNITS ONLY

- Apply all connections to terminals where shown
- **The "Volt Free Control" connection must be attached in place of either "key-switch or pushbutton" connection of item to be controled**
- If fire signal is to be used, move the jumper to select the travel direction upon activation
- Connect Wake up lead to BBU connection

Operation With Mains Power Available

- Ensure all connections between the **BBU** and **INTERFACE PANEL** are made ie. mains supply in, power out and the RJ11 wake up cable
- Ensure the BBU is switched **"OFF"** by the power switch on its front panel
- Operate **OPEN** or **CLOSE** button of the transmitter after approximately 2 seconds the BBU emit a signal then **"WAKE"** the unit will move in dead-man in the direction selected
- Upon releasing either button the motor will stop and the **BBU** will return to **"SLEEP"**

Operation Upon Mains Power Failure

All operation is as above but should the mains supply fail, the unit will still remain operational via the batteries of the BBU
The time available in this condition will reduce depending on the amount of operations the motor undertakes whilst the mains power is off

Fire Signal Operation

- Upon receipt of a normally open volt free fire alarm signal the BBU will wake
- The shutter will move in the direction selected by the jumper for as long as the fire alarm remains activated

RED EARTH FARM – PLANTATION ROAD – TURTON – BOLTON – BL7 0DD
TEL: 01204853243 EMAIL: sales@sssindustrialdoors.co.uk

3.0 Wiring a UPS-FDI Interface

First, mount the UPS-FDI panel using the appropriate screws. Next, feed the mains power 230VAC 50hz from the battery back-up into the panel. Install the Yellow/Green wire into third terminal which is the Earth terminal ('E'), the Blue wire into the second terminal ('N') and then finally the Brown live wire into the first terminal block ('L').

Next, insert the motor wire into the panel. Connect the Green/Yellow wire into the ('E') fourth terminal to earth the motor. Then connect the blue/grey wire into the COMS terminal. Following this you then need to connect the directional wires for the motor.

LH Motor – **Brown** wire is down.
RH Motor – **Brown** wire is up.

Please note if this is incorrectly wired and the direction is opposite than the intended, change the wiring of the first and second terminal.

The first terminal is '**open**'.
The second terminal is '**close**'.
The third terminal is '**COMMON**'.
The fourth terminal is '**Earth**'.

<- Key switch
<- Volt free fire alarm signal
<- 24volt supply

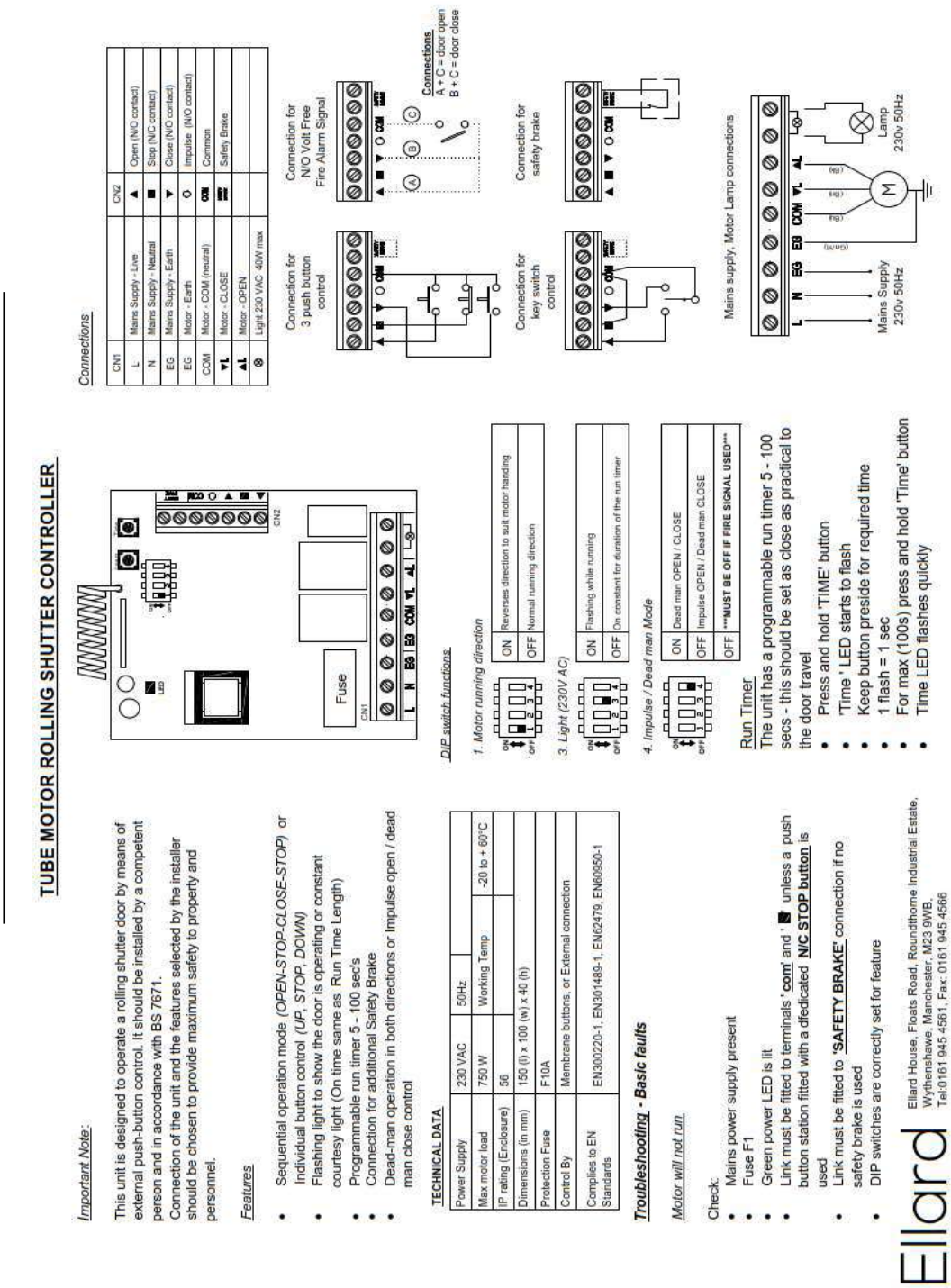
<- RJ11 connector for installing a sleep mode battery backup

To install the key switch wire, first connect the Brown wire into the first terminal which is 'open'. Next, install the Grey/Blue wire into the second terminal which is the 'COMMON' connection. The third terminal is the 'Close' function which is connected by the Black wire.

In this example, you can clearly see that the Earth cable for the key switch is then extended across the panel and linked to the mains 'Earth' terminal. Please refer to Ellard's schematic for more information.

3.1 Wiring a Easy-Fit FDI Panel

ENSURE THAT ONLY A CERTIFIED ELECTRICIAN
INSTALLS AND WIRES ALL ELECTRICAL COMPONENTS.



EASY-FIT CONTROL PANEL WIRING EXAMPLE

TUBE MOTOR ROLLING SHUTTER CONTROLLER

Important Note:

This unit is designed to operate a rolling shutter door by means of external push-button control. It should be installed by a competent person and in accordance with BS 7671.
Connection of the unit and the features selected by the installer should be chosen to provide maximum safety to property and personnel.

Features

- Sequential operation mode *(OPEN-STOP-CLOSE-STOP)* or Individual button control *(UP, STOP, DOWN)*
- Flashing light to show the door is operating or constant courtesy light (On time same as Run Time Length)
- Programmable run timer 5 - 100 sec's
- Connection for additional Safety Brake
- Dead-man operation in both directions or Impulse open / dead man close control

TECHNICAL DATA

Power Supply	230 VAC	50Hz	
Max motor load	750 W	Working Temp	-20 to + 60°C
IP rating (Enclosure)	56		
Dimensions (in mm)	150 (l) x 100 (w) x 40 (h)		
Protection Fuse	F10A		
Control By	Membrane buttons, or External connection		
Complies to EN Standards	EN300220-1, EN301489-1, EN62479, EN60950-1		

***Troubleshooting* - Basic faults**

Motor will not run

Check:

- Mains power supply present
- Fuse F1
- Green power LED is lit
- Link must be fitted to terminals '**com**' and '■' unless a push button station fitted with a dfedicated **N/C STOP button** is used
- Link must be fitted to **'SAFETY BRAKE'** connection if no safety brake is used
- DIP switches are correctly set for feature

Ellard House, Floats Road, Roundthorne Industrial Estate, Wythenshawe, Manchester, M23 9WB.
Tel:0161 945 4561, Fax: 0161 945 4566

Connections

CN1		CN2	
L	Mains Supply - Live	▲	Open (N/O contact)
N	Mains Supply - Neutral	■	Stop (N/C contact)
EG	Mains Supply - Earth	▼	Close (N/O contact)
EG	Motor - Earth	○	Impulse (N/O contact)
COM	Motor - COM (neutral)	COM	Common
▼L	Motor - CLOSE	▲■	Safety Brake
▲L	Motor - OPEN		
⊗	Light 230 VAC 40W max		

Connection for 3 push button control

Connection for N/O Volt Free Fire Alarm Signal

Connections
A + C = door open
B + C = door close

Connection for key switch control

Connection for safety brake

Mains supply, Motor Lamp connections

Mains Supply 230v 50Hz

Lamp 230v 50Hz

DIP switch functions

1. Motor running direction

ON	Reverses direction to suit motor handing
OFF	Normal running direction

3. Light (230V AC)

ON	Flashing while running
OFF	On constant for duration of the run timer

4. Impulse / Dead man Mode

ON	Dead man OPEN / CLOSE
OFF	Impulse OPEN / Dead man CLOSE
OFF	***MUST BE OFF IF FIRE SIGNAL USED***

Run Timer

The unit has a programmable run timer 5 - 100 secs - this should be set as close as practical to the door travel

- Press and hold 'TIME' button
- 'Time ' LED starts to flash
- Keep button preside for required time
- 1 flash = 1 sec
- For max (100s) press and hold 'Time' button
- Time LED flashes quickly

CONTACT ELLARD TECHNICAL FOR FURTHER INFORMATION
0161 945 4561

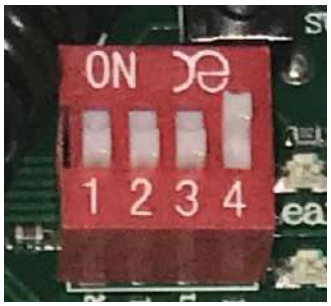
3.1 Wiring a Easy-Fit FDI Panel

First, take the black front cover off the Easy-Fit FDI panel by sliding it up. As you can see from the image, you need to wire the mains into the first terminal block.

Install the Brown wire into the first terminal block which is the live ('L'), the Blue wire into the second terminal ('N') and finally the Yellow/Green into the Earth ('EG') terminal.

Next, insert the motor wire into the panel. Connect the Green/Yellow wire into the ('EG') fourth terminal to earth the motor. Then connect the blue/grey wire into the COMS terminal which is number five. Following this you then need to connect the directional wires for the motor.

LH Motor – **Brown** wire is down.
RH Motor – **Brown** wire is up.



Please note if this is incorrectly wired and the direction is opposite than the button pressed, change switch 1 on the red dip switch. If the dip switch is at the top it is 'ON', for an example see switch four is currently on.

We advise that the fourth DIP switch is 'ON' as this put the key switch into 'Deadman' mode. Which requires the user to hold the intended direction path on the key switch otherwise it would not operate.

To wire the key switch into the control panel, first ensure that the Yellow/Green Earth cable is connected to either the third or fourth terminal (see sticker on the back of the external black casing for terminal labelling). This then ensure that the Key switch is Earth correctly prior to wiring. Connect the following wires into the following terminals, however handling of the motor will effect the wiring of the grey and black cables (this can be altered via the DIP switch 1).

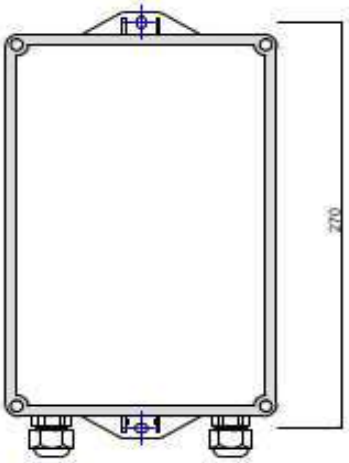
T10 – Black wire (Open), **T12** – Grey wire (Close), **T11** & **T14** looped, **T14** – Brown wire (Coms).

3.2 Wiring a FDCP Lite Panel

ENSURE THAT ONLY A CERTIFIED ELECTRICIAN
INSTALLS AND WIRES ALL ELECTRICAL COMPONENTS.

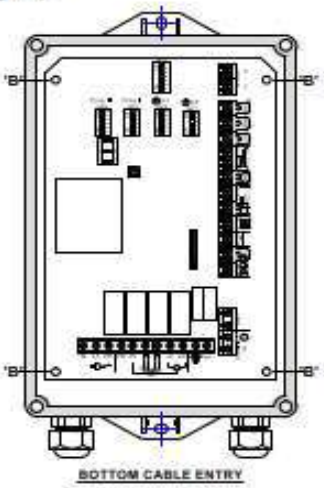
- **The enclosure should be mounted vertically and secured using the provided fixing holes (see fig 3.1)**
- **Consideration must be given to the incoming cables and the panel rotated accordingly to give top or bottom entry (see fig 3.2)**
- **To protect both motor and personnel, this product must be connected to a suitable EARTH point**
- **All electrical work should be undertaken by a suitable competent person**

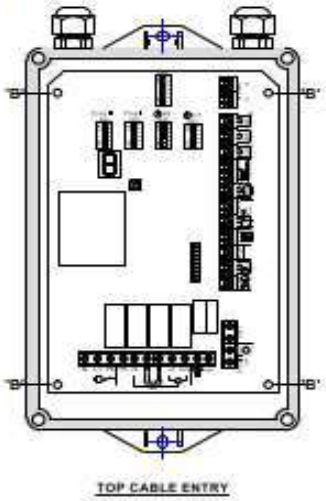
Mounting
Mount the unit using the fixing holes provided (Fig 3.1)



Lid Removal
To Remove Lid remove Fixing screws 'A' (Fig 3.2)

Cable Entry
The *"FCP Lite"* is designed so the cable entry can be positioned at the top or bottom of the panel by means of removing the PCB fixing screws, then rotating either board or box 180° and refitting *(Fig 3.3)*





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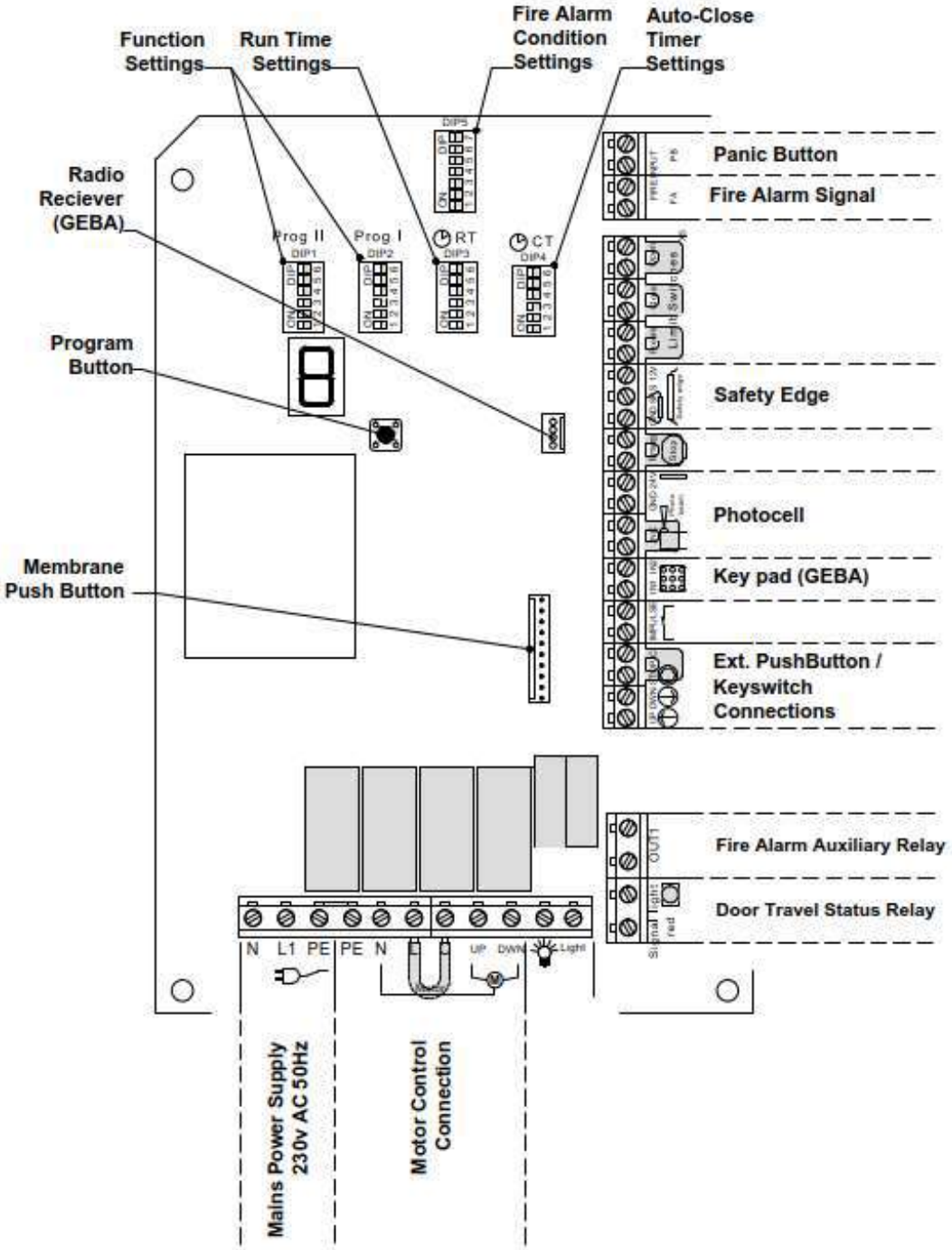
0161 945 4561

3.2 Wiring a FDCP Lite Panel

ENSURE THAT ONLY A CERTIFIED ELECTRICIAN
INSTALLS AND WIRES ALL ELECTRICAL COMPONENTS.



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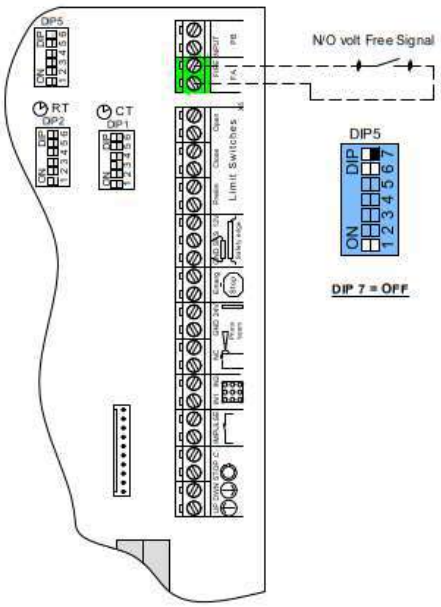
3.2 Wiring a FDCP Lite Panel

5.10) Fire Signal connection
Normally Open (N/O) Volt Free signal



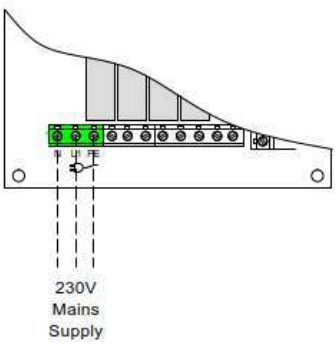
N/O (normally open) Volt Free Fire Signal - Notes

Fire Condition Operation

1. *This signal is selected by DIP5 (7 = OFF)*
2. *On receipt of a fire signal, all directional controls and the photocell is "disabled"*
3. *The panel will being flashing and emit an audible tone*
4. *This Audio visual warning will continue for the time set by DIP5 (switches 1 - 6)*
5. *When this time has elapsed the shutter will begin to close and will continue to drive to the fully close position or as far as practical (should an obstruction be present), there will be no means of interruption providing the mains power supply remains*

5) Connections

5.1) 230 Volt Mains Power

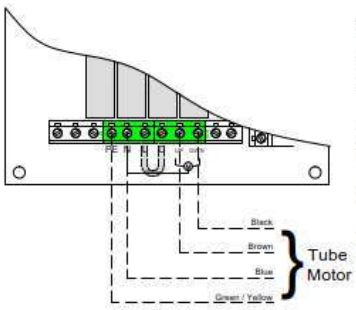


Mains Power Connection

PE	=	EARTH	(Grn/Yel)
L1	=	LIVE	(Brown)
N	=	NEUTRAL	(Blue)

Use these terminals as a direct connection for 230v (1ph) Mains power supply to the ***'FCP Lite'*** Controller
This connection should connected to a be fused spur or outlets rated at 13A (max)

5.2) 230v Tube Motor Connection



Connection to a typical 230v Tube Motor

PE	=	EARTH	(Grn/Yel)
N	=	NEUTRAL	(Blue)
UP	=	OPEN DIRECTION	(Brown)
DWN	=	CLOSE DIRECTION	(Black)

Use these terminals as a direct connection for a tube motor to the ***'FCP Lite'*** Controller

Note:
The voltage feed link between "L" and "C" must remain fitted

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3.3 Wiring a FDCP Panel

1) Specification and Installation

General	
Power Supply	230v - 50Hz
Max Motor Load	6.3A @ 230v
Max Accessories Load	4A @ 24v d.c
Working Temp	-20 to +70°C
Protection Fuses	Ext 24v d.c: F1 = T4A, Delayed Mains: F2 = T200mA, Delayed Relays: F3 = T6.3A, Delayed
Batteries	2 x 12V 1.3Ah
Dimensions (mm)	236 (w) x 286 (h) x 108 (h)
Weight (Kg)	3.0

Standards and Conformity	
The FDCP complies to the following EMC and Low Voltage standards and directives	
EMC Directive:	Directive 2004/108/EC
Low Voltage Requirements:	Directive 2006/95/EC
and in association with:	EN 60204-1: 2006+A1: 2009 EN 61000-6-1: 2007 EN 61000-6-2: 2005 EN 61000-6-3: 2007+A1: 2011 EN 61000-6-4: 2007+A1: 2011 EN 12453:2001 EN 50272-2: 2001

Mounting

Mount the unit using the fixing holes provided (see Fig 1.1)

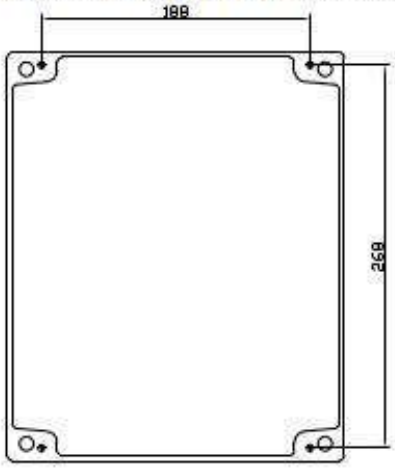
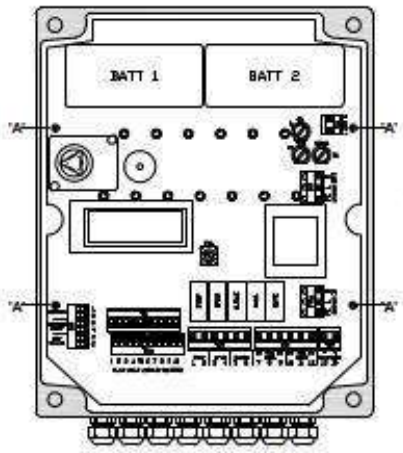


Fig 1.1
Enclosure Mounting

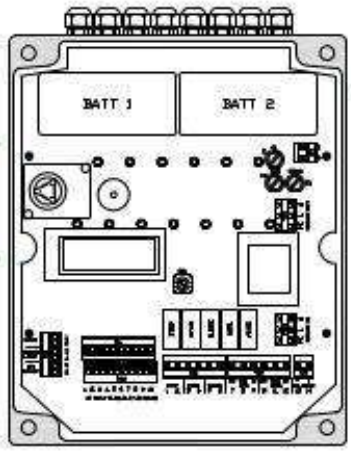
Cable Entry

The **FDCP** is designed so the cable entry can be positioned at the top or bottom of the panel by means of removing the PCB fixing screws, then rotating either board or box 180° and refitting *(see Fig 1.2)*



BOTTOM CABLE ENTRY

Fig 1.2
Cable entry positions
Remove fixing screws 'A' and rotate board or box



TOP CABLE ENTRY

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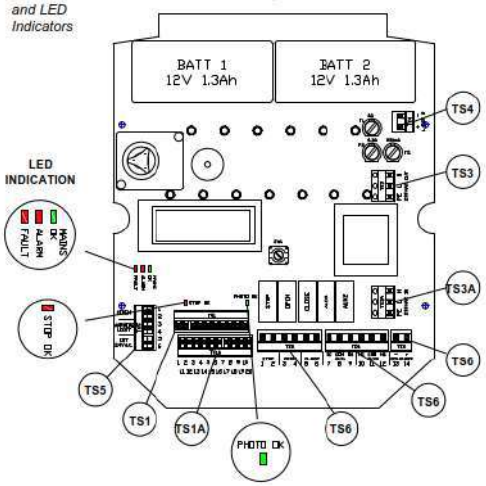
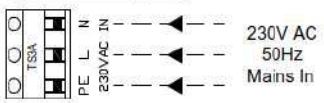
3.3 Wiring a FDCP Panel

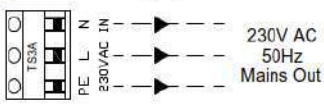
Terminal Block Positions and LED Indicators



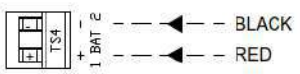
2.1) Mains Power - In (TS3A)



2.2) Mains Power - Out (TS3)



2.3) Battery (TS4)



2.4) Fire Signals (Connections and types)

2.4.1) Alarm Zone 1 - Main Fire Alarm Signal

Normally Open (N/O)
Triggers the panel by a N/O volt free signal which **CLOSES** when the fire alarm is activated
Note: an 8k2 resistor must be fitted across input connections

Normally Close (N/C)
Triggers the panel by a N/C volt free signal which **OPENS** when the fire alarm is activated

+24v d.c
Triggers the panel by removing a permanently connected +24v d.c fire signal when the fire alarm is activated

2.4.2) Alarm Zone 2 - Local Fire Alarm Signal

Normally Open (N/O)
Triggers the panel by a N/O volt free signal which **CLOSES** when the fire alarm is activated
Note: an 8k2 resistor must be fitted across input connections

Normally Close (N/C)
Triggers the panel by a N/C volt free signal which **OPENS** when the fire alarm is activated

+24v d.c
Triggers the panel by removing a permanently connected +24v d.c fire signal when the fire alarm is activated I

OFF
Disables Zone 2 Input

Fig 1. Activation by a N/O Fire Signal (select Normally Open)

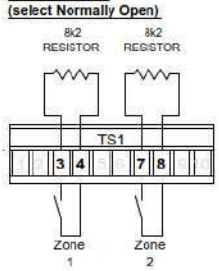


Fig 2. Activation by a N/C Fire Signal (Select Normally Closed)

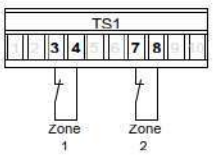


Fig 3. Activation by removal of a Permanent +24v d.c Fire Signal (Select +24V)

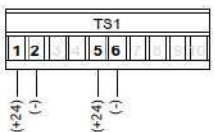
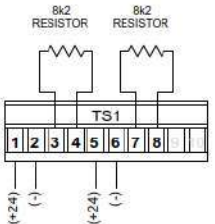


Fig 4. Activation by Applying a +24v d.c Fire Signal (Select N/O)



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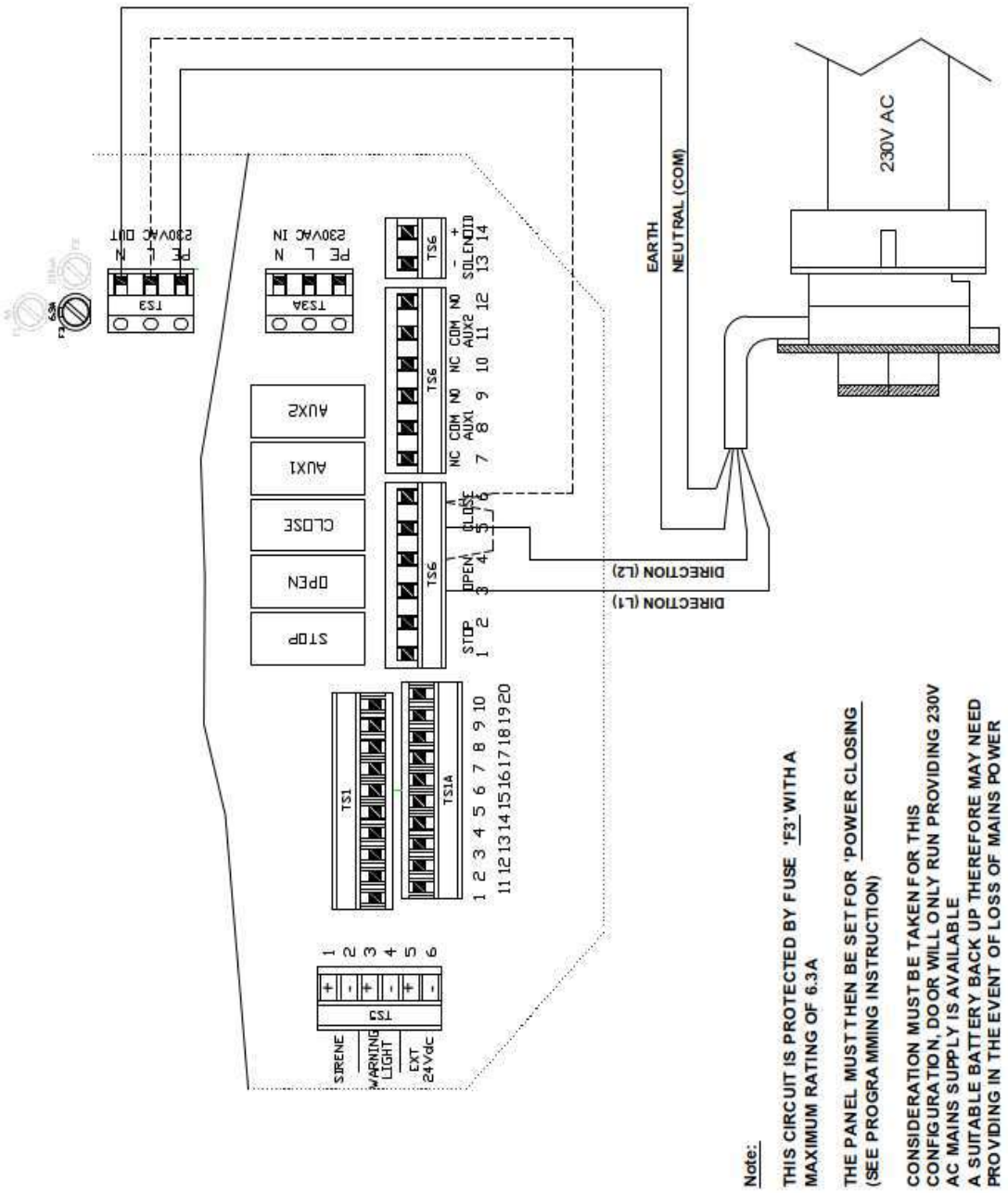
3.3 Wiring a FDCP Panel

Typical Connection for 230v AC Tubular Motors

(Use with "Power Closing" or "2 Stage Closing")



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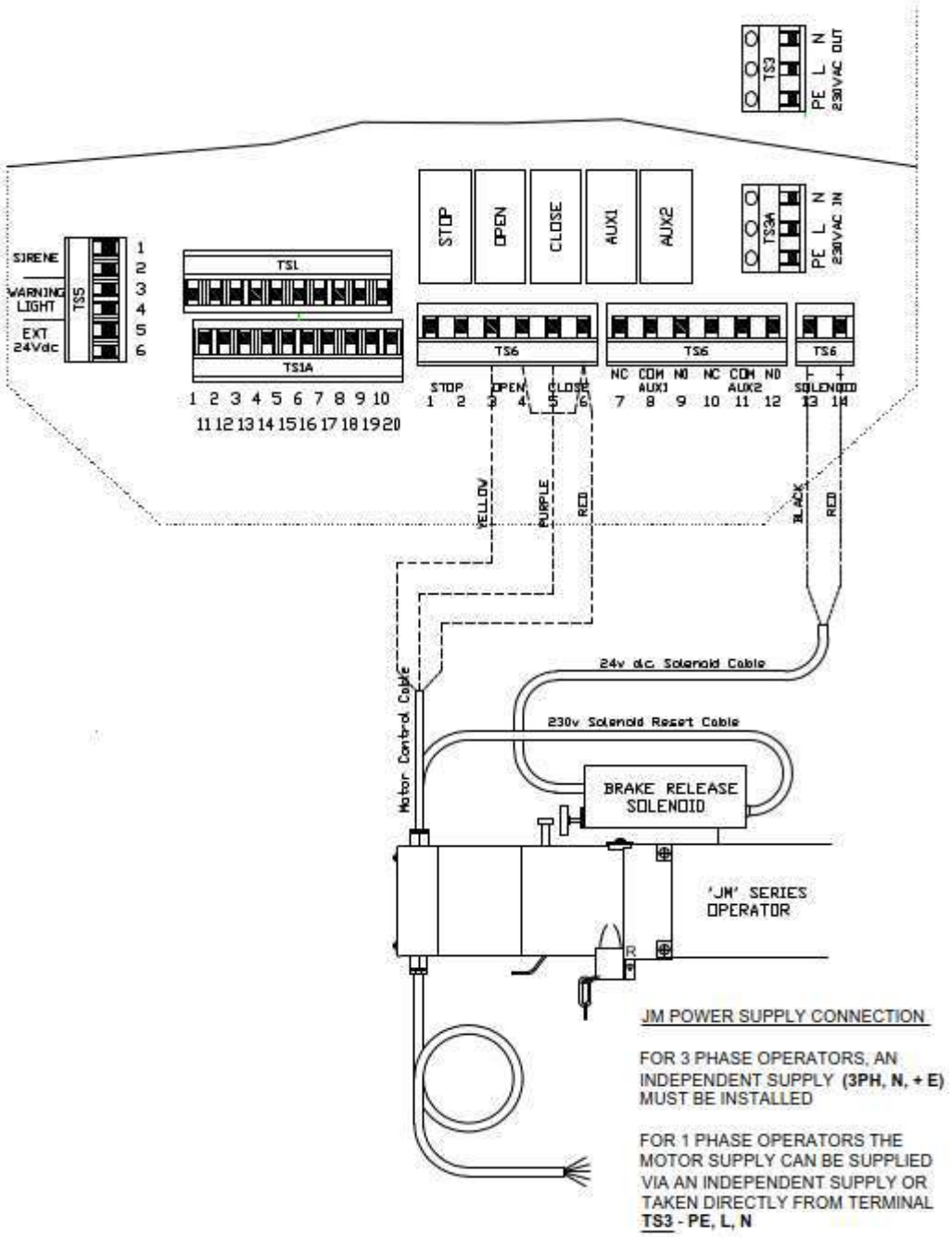
3.3 Wiring a FDCP Panel

Connection for 'JM' series motors
fitted with 24V DC brake release solenoid unit
(Use with "Power Closing" , "2 Stage Closing" and Solenoid Only")



JM POWER SUPPLY CONNECTION

FOR 3 PHASE OPERATORS, AN INDEPENDENT SUPPLY **(3PH, N, + E)** MUST BE INSTALLED

FOR 1 PHASE OPERATORS THE MOTOR SUPPLY CAN BE SUPPLIED VIA AN INDEPENDENT SUPPLY OR TAKEN DIRECTLY FROM TERMINAL **TS3 - PE, L, N**

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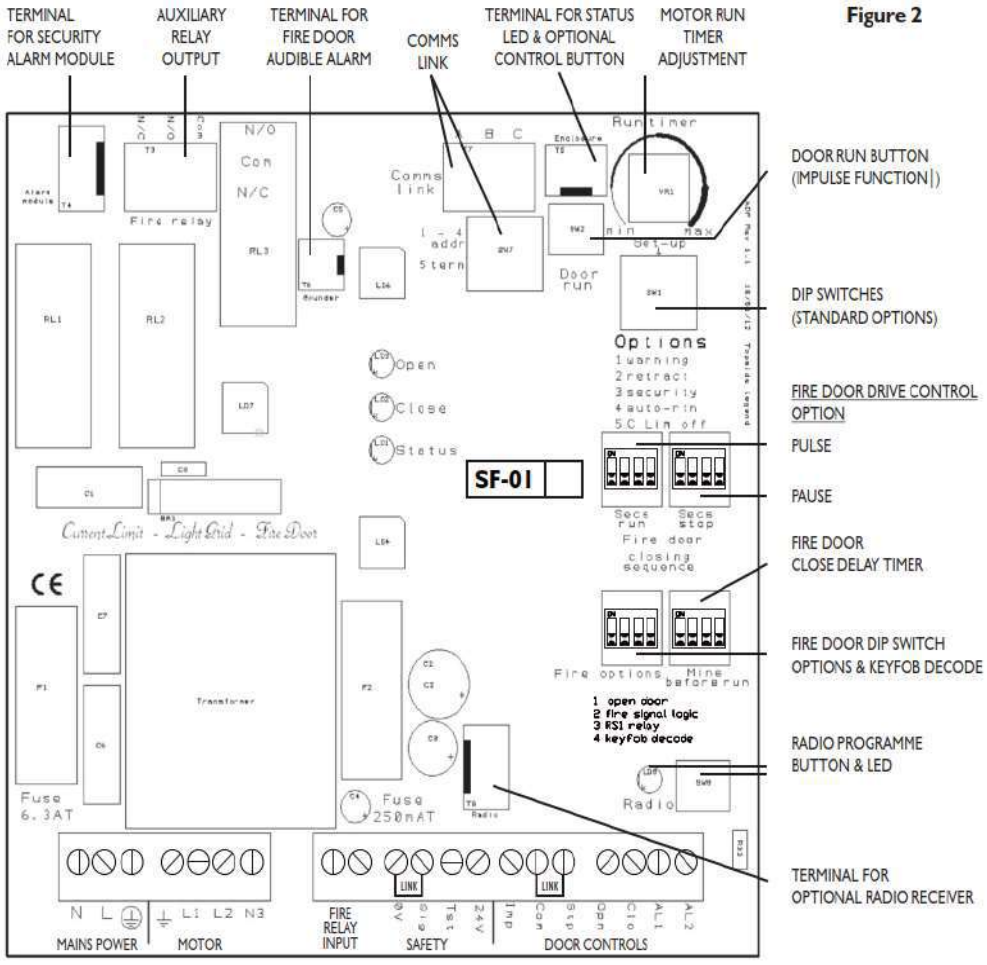
3.4 Wiring a NRG FCP01

3 - SF-01 Control Board Overview

Figure 2



4 - Electrical Connections

Always switch off the mains power supply before making any connections! Electrical connections should be carried out by a competent person. If in doubt consult a qualified electrician! Cables should enter the control unit through the cable glands fitted to the bottom of the SF-01 unit.

4.1 Basic Setup

Connect the mains power supply and tubular motor drive cables to the SF-01 Control Unit and adjust the motor limit switch settings before programming advanced options & settings.

Fig 3

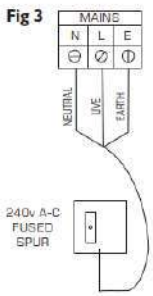
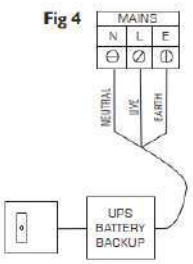


Fig 4



4.2 - Power

Connect the power supply to terminals marked MAINS, N, L, ⏚ The supply should include fuse or circuit breaker protection to suit the door motor size and rating. If possible, connect to the "essential services" electrical supply.

A range of UPS battery backup systems are available from NRG Automation.

Note:
Switch on Dip switch 5 (standard options) when using UPS systems.

RED EARTH FARM – PLANTATION ROAD – TURTON – BOLTON – BL7 0DD
TEL: 01204853243 EMAIL: sales@sssindustrialdoors.co.uk

3.4 Wiring a NRG FCP01

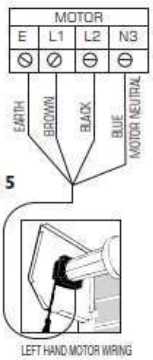


Fig 5

Check SF-01 open & close LEDs match door direction

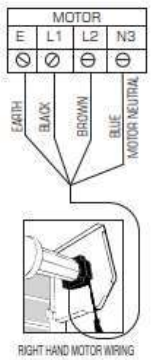
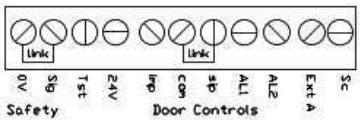


Fig 6

4.3 Motor

Connect the motor lead to the terminals marked MOTOR, E, L1, L2, N3. The blue motor neutral cable must be connected to the terminal marked N3. Connect the yellow/green earth cable to the terminal marked E. Connect the brown and black motor power cables to terminals L1 & L2. Ensure that motor direction matches the open and close LEDs and if necessary interchange the motor cables at terminals L1 & L2 (See figures 5 and 6).

Fig 7



4.4 Stop & Safety Circuits

The safety circuit terminals 0v and SIG and the door control stop terminals COM and STP must be bridged before commissioning the door. Factory links are fitted as standard.

16 Alarm System - Type AL-12 H/W (optional)

16.1 Function

The AL-12 H/W System is an intruder alarm designed to protect an attempted break in through the Seceurofire door. The system automatically arms when the door is closed and is automatically disarmed whenever the door is opened using the keyfob transmitters or other access controls. The alarm module is fitted with a 90db siren and alarm status indicator. The alarm module is also equipped with volt free terminals which provide the option to connect the system direct to the main security alarm. The system uses a sealed magnetic switch and magnet to trigger the alarm if an attempt is made to force the door open.

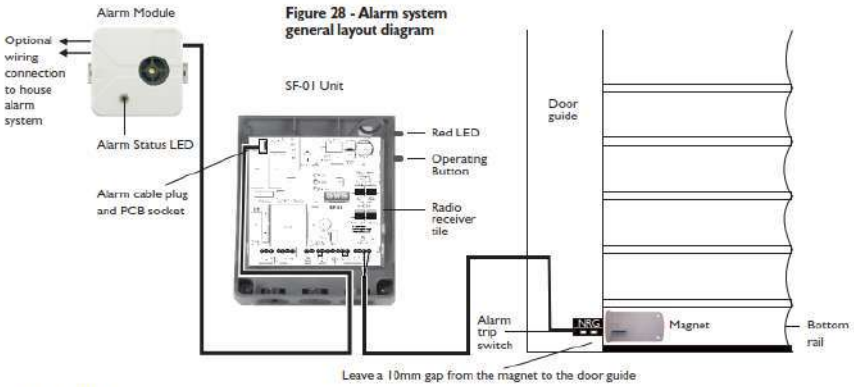


Figure 28 - Alarm system general layout diagram

16.2 Installation

- **Fitting the alarm module**
  Fix the Alarm Module to th left of the SF-01 Control Unit using the plugs and screws provided. Pass the connection lead and plug through the right hand cable gland entry and route the cable as shown away from the radio receiver tile and connect the plug to the alarm socket on the SF-01 circuit board. NOTE - Do not fit the Alarm module next to the Radio receiver tile.
- **Fit the Alarm Magnet**
  Operate the motor override and position the door at shoulder height. Fit the alarm magnet to the bottom rail using the self drill/self tapping screws provided and leave a 10mm gap to the door guide.
- **Fit the Alarm Trip Switch**
  Fit the alarm trip switch 'horizontally' as shown to the door guide channel (can be fitted to either guide channel) using the self adhesive pad supplied. Route the 2 core connection lead neatly and connect to the SF-01 control unit as shown in figure 9a. and neatly connect the wires to the SF-01 terminals AL1 and AL2.
  Self adhesive fittings & nail clips are provided to secure the alarm module & trip switch cables to the door guide and opening structure.

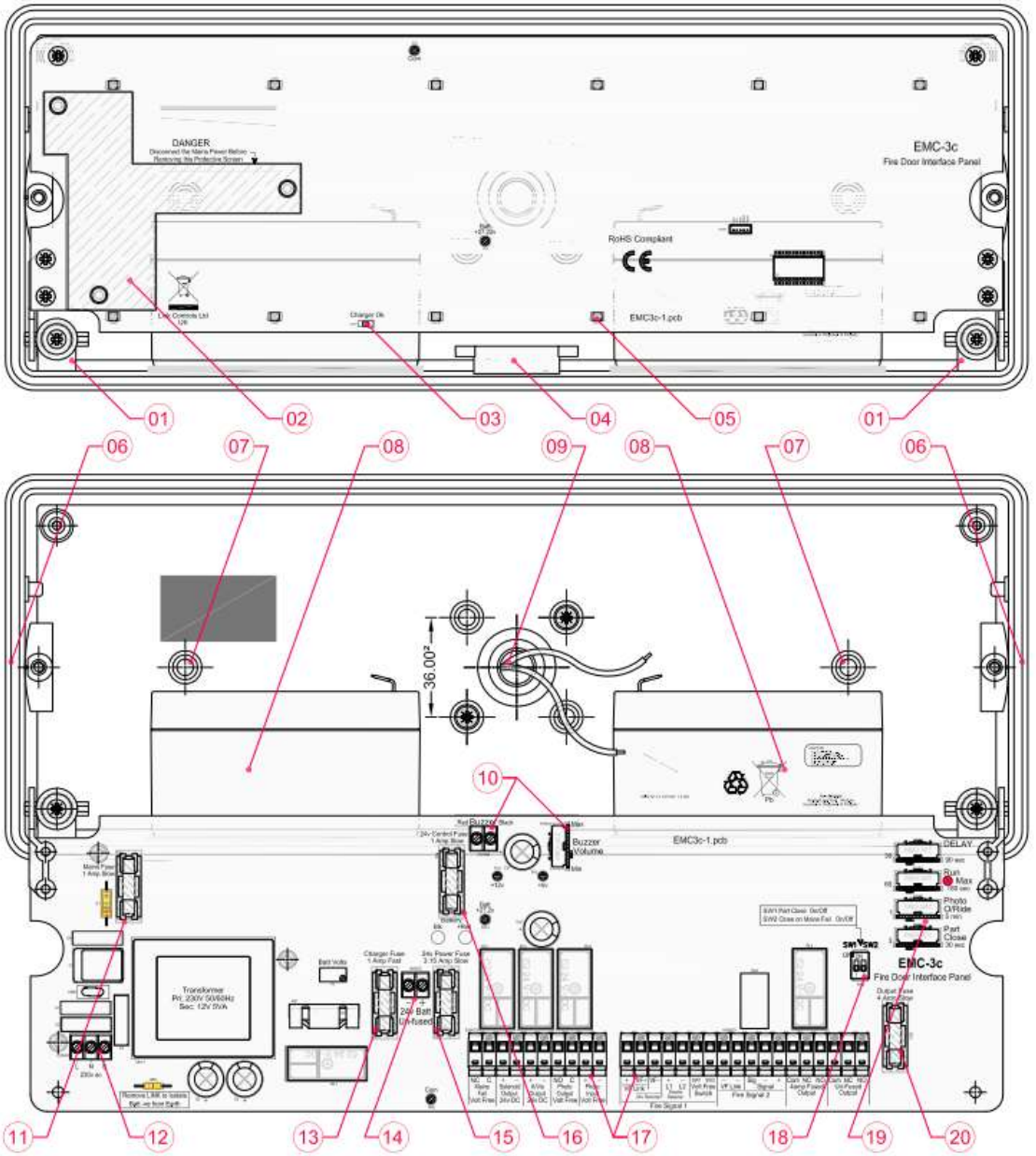
16.3 Operation

The unit automatically arms on closure. A 'break in' alarm signal is transmitted if the bottom rail is forced open due to interruption of the magnet and transmitter. Note the alarm automatically resets 15 minutes after it is activated.

16.4 Testing

Wait at least 1 minute after the door closes for the system to arm. Use the manual override to raise the door slightly. The alarm should activate (90 DB sounder). Operate the keyfob to switch off the alarm.

3.5 Wiring a EMC-3C Audio Visual



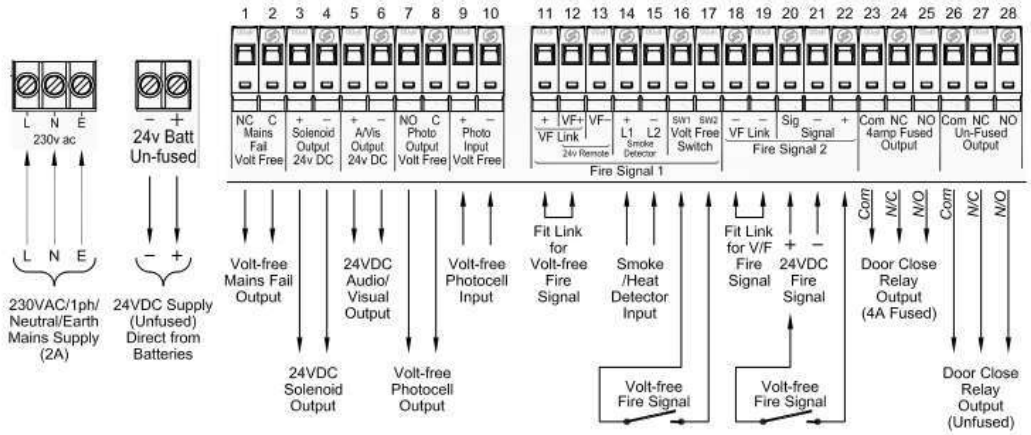
Key	Description	Key	Description
01	Printed Circuit Board Hinges	11	1A Mains Input Fuse
02	Protective mains insulation cover (**DANGER!** Risk of electric shock if removed)	12	230VAC Mains Supply Terminals
03	Charge O.K. L.E.D.	13	1A Battery Charger Fuse
04	Sounder - If it is constant then check the fuses & that the battery voltage is within range (>20V...<28V)	14	24VDC (Unfused) Auxiliary Terminals
05	High Efficiency L.E.D.`s	15	3.15A 24VDC Fuse
06	Alternative Conduit/Cable entry positions	16	1A Control Fuse
07	Mounting Holes: 2 x Ø6.00mm Holes @ 240.00mm apart	17	Control Input/Output Terminals
08	2 x 1.3Ah 12VDC Batteries	18	Function D.I.L. Switches
09	Terminal Box Fixings (4 x Ø6.00mm Holes @ 36.00mm² apart)/Cable Entry Holes (Recommended)	19	Timer Selection Potentiometers
10	Sounder Terminals & Volume Control Potentiometer	20	4A Relay Output Fuse

3.5 Wiring a EMC-3C Audio Visual

Recommended Conduit Fixing & Cable Lengths

It is preferable that the EMC-3c Audio/Visual control panel is mounted on a conduit end box to aid wiring.
Maximum cable length from conduit terminal box mounting position to terminals should not exceed 300mm

Terminal Layout

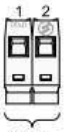


Terminal Connection Details

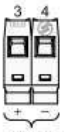
Power Connections

Connect a suitable 1ph/230VAC (2A) supply to terminals `L`, `N` & `E`.

Control Connections



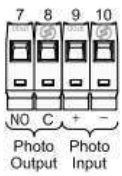
Provides a volt-free signal if the mains supply is lost.
i.e. a Normally Open contact that closes.



Provides a 24VDC output to energise the solenoid.
Note:-
Only active if the power has failed or until 1 second before the panel is reset.
1 second pulse before reset is required to ensure that the fire shutter will always close e.g. a faulty door supply, etc.

A 24VDC output will be present to drive a Slave Audio/Visual Unit, if required.

Photocell Connections

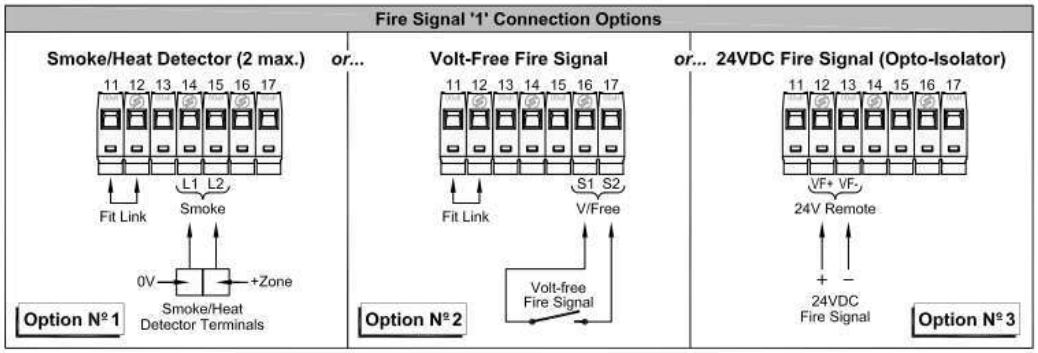


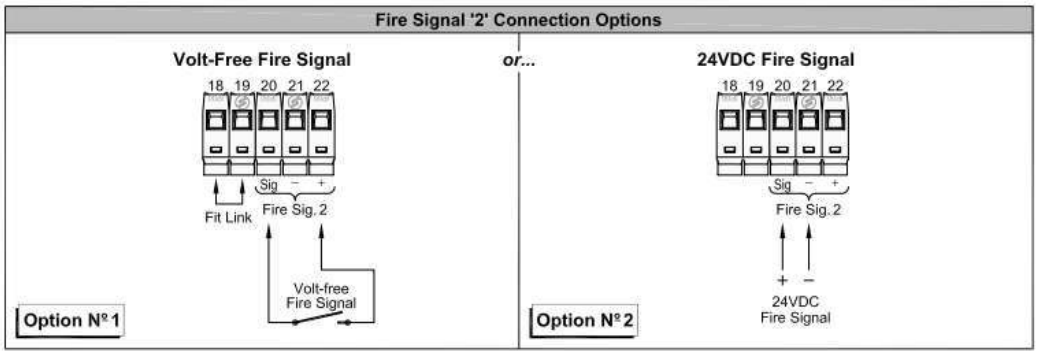
A N/C volt-free output will be present across terminals '7' & '8' when a N/C photocell is connected to terminals `9` & `10` to slave the photocell input.
The N/C output on terminals '7' & '8' will be overridden by the 'Photocell Override Timer' upon activation of a fire signal. This allows the fire door to close, overriding the photocell, even if the photocell is damaged or blocked.

Note:-
Fit link if not used, otherwise the 'Photocell Override Timer' will always run, effectively extending the 'Delay' time before closing.

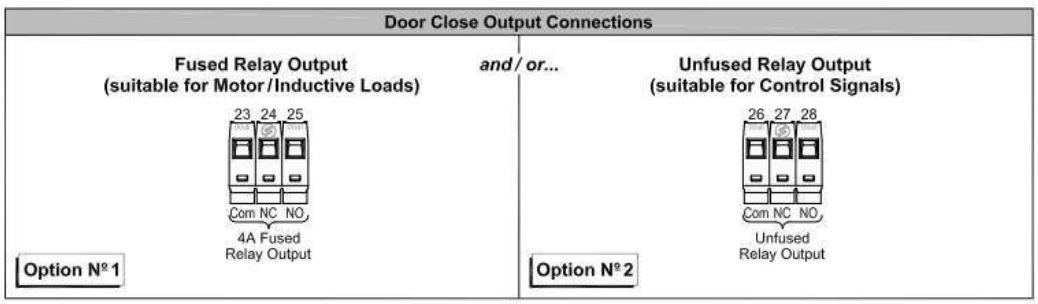
3.5 Wiring a EMC-3C Audio Visual

Terminal Connection Details





WARNING! Never connect more than one EMC-3c Audio/Visual F.D.I. panel to any volt-free Fire signal Do Not connect the EMC-3c in parallel - If more than one EMC-3c is to be triggered by a single Fire signal, then the '24VDC Fire Signal' option must be selected.



D.I.L. Switch & Potentiometer Function Details

D.I.L. Switch / Potentiometer	Basic Operation D.I.L. Switch '1' OFF	Part-Close Operation D.I.L. Switch '1' ON
Delay	**Audio/Visual Delay** Min. 30 seconds / Max. 90 seconds	**Fully Closed Timer (Smoke Curtain)** Min. 0 seconds / Max. 330 seconds
Run	**Run Timer** Min. 60 sec / Max. 180 sec <95%< Infinite: *Note:-* Max. L.E.D. will illuminate and the sounder 'Beep' if the Max. (Infinite) 'Run' timer is selected. Red L.E.D.	**Run Timer** Min. 60 sec / Max. 180 sec <95%< Infinite: *Note:-* Max. L.E.D. will illuminate and the sounder 'Beep' if the Max. (Infinite) 'Run' timer is selected. Red L.E.D.
Photo O/Ride	**Photocell Override Timer** Min. 60 seconds / Max. 5 minutes	**Photocell Override Timer** Min. 60 seconds / Max. 5 minutes Timer pauses at part close position
Part Close	No Function	**Part Close Timer (Smoke Curtain)** Min. 3 seconds / Max. 30 seconds

3.5 Wiring a EMC-3C Audio Visual

EMC-3c Audio/Visual Control Panel Operation

DIL Sw. Settings	Description
DIL Sw.1 OFF DIL Sw.2 OFF	**Basic Operation** On receipt of a Fire signal, the audio/visuals will activate. After a time set by the 'DELAY' pot., the relay output activates and the door will begin to close via solenoid release or power. Once the 'Run' timer has timed out the relay output is de-activated. ***Fire signal ⇩ 'DELAY' ⇩ Door closes ⇩ 'Run' Timer expires***
DIL Sw.1 OFF DIL Sw.2 OFF	**Part Close (Smoke Curtain) Operation** On receipt of a Fire signal, the audio/visuals will activate. After a time set by the 'DELAY' pot., the relay output activates and the door will begin to power close. Once the 'Run' timer has timed out, the relay output is de-activated and the door will stop. The Part Close position is determined by the difference between the 'DELAY' and 'Run' timers, i.e. 60s 'Run' timer and 50s 'DELAY' = 10s Motor close time. ***Fire signal ⇩ 'DELAY' ⇩ Door closes ⇩ 'Run' Timer expires ⇩ Door stops part way***
DIL Sw.1 ON DIL Sw.2 OFF	**Part Close (2-Stage Close) Operation** On receipt of a Fire signal, the audio/visuals will activate and the relay output activates. The door will power close for the time set by the 'Part Close' pot. and stop. After a time set by the 'DELAY' pot., the relay output will re-activate and the door will power close to the fully closed position. Once the 'Run' timer has timed out the relay output is de-activate. ***Fire signal ⇩ Door closes for Part Close time ⇩ Door stops ⇩ 'DELAY' ⇩ Relay re-activates & Door closes ⇩ 'Run' Timer expires***
DIL Sw.1 OFF DIL Sw.2 ON	**Mains Fail - Basic Operation** In the event of a Mains Power failure, the audio/visuals will activate. After a time set by the 'DELAY' pot., the relay output activates and the door will begin to close via solenoid release. Once the 'Run' timer has timed out the relay output is de-activated. The audio/visuals will remain active until mains power is restored. ***Mains failure ⇩ 'DELAY' ⇩ Door closes ⇩ 'Run' Timer expires***

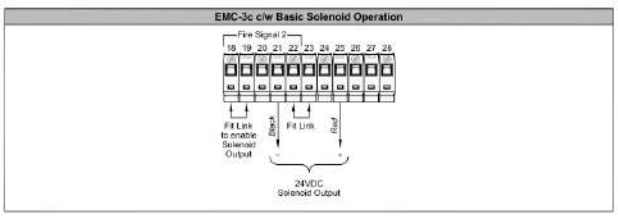
Photocell Operation

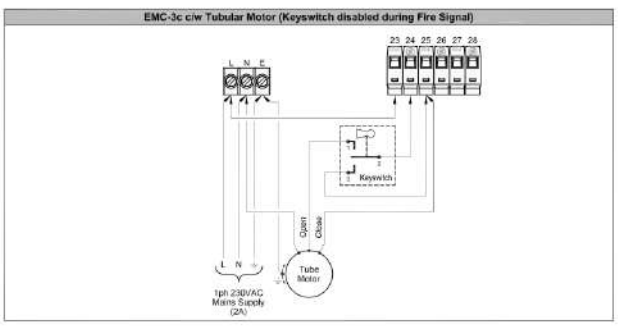
In the event of the photocell activating during a fire sequence, the photocell and relay output will both de-activate. When the photocell is no longer blocked, both of the outputs will re-activate. After either 5 activations or being blocked for the time set by 'Photo O/Ride', the photocell will be overridden.

Notes:-

* The audio/visual will remain active until all the fire signals are reset/removed.
* If Max. 'Run' time is selected, the relay output will also remain active until all fire signals are reset/removed
* At the end of a fire close sequence/before the panel resets, the panel will pulse the solenoid output as an extra 'back-up' to ensure that the door is always closed.

Example Wiring Connections



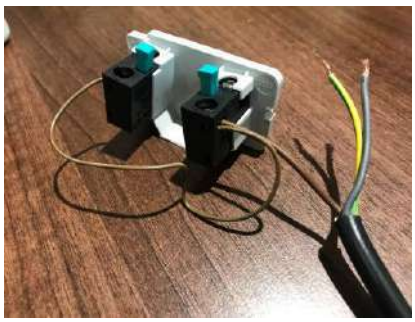


3.6 Wiring a Key switch

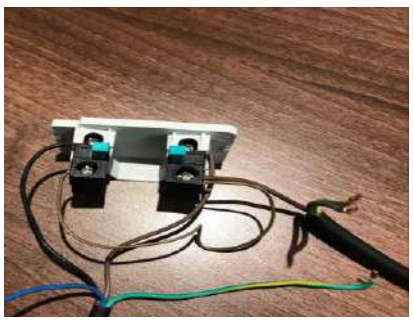
First, unscrew the screw which is located on the front of the key switch. Then insert and turn the key to a 45° degree angle (clockwise) and pull. You will now have access to the internals of the key switch.

Located inside the key switch are two switches, which are activated when the internal key presses down upon them. Remove the black square which allows you to feed the wires into the key switch compartment.

We recommended mounting the key switch onto the wall before proceeding.



Using the wire which will deliver power from either the mains or a plug socket. Feed the brown live power supply wire (socket/mains) into the first frontal connector. Then using another brown wire, loop the first black switch into the second black switch. It is recommended that you use the same connector on the other switch. Leave the two connectors on the switch for the motor connection wires.

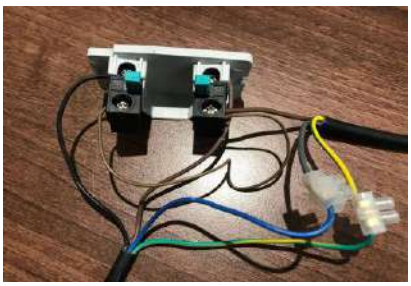


Feed the motor wire into the key switch, depending on the position of the motor this will alter its rotation.

LH Motor – BROWN is **DOWN**.
RH Motor – BROWN is **UP**.

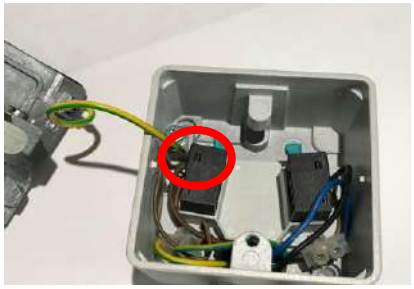
Feed the black and brown wires from the motor into the second connector of the switches, refer to the image for guidance.

3.6 Wiring a Key switch



Once you have connected the motor and power supply wires into the black switches, now connect the blue neutral wires (in this example it is blue to grey) using a connecting block. Next, connect the yellow and green Earth wires together using a connecting block. Ensure that the key switch is earthed.

Now that the black switches have been connected, place the plastic unit back inside the key switch (refer to the image for guidance). Ensure there is space between the black switches so that internal locking section can rotate and trigger the green switches by pushing them down.



Once this is completed, you now need to Earth the key switch itself. To do this you need to connect the Earth cable from the back section of the key switch (face) by unscrewing the screw in the top left corner of the key switch. Then screw down the yellow and green earth wire to ensure the key switch has been grounded.

If you haven't already mounted the key switch, please mount it to the desired location.

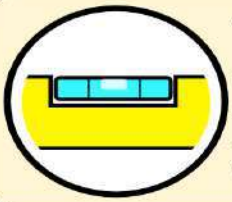
Now the wiring has been completed, ensure the key is positioned at a 45° degree angle (clockwise) and gently close the key switch unit. Once the key switch has been tightly closed, ensure it is encased by screwing the screw back into the key switch which is underneath the key insert.

INSTALLATION MANUAL.

INSTALLATION MANUAL – INSTRUCTIONS FOR INSTALLING A FLAME ARMOUR ROLLER SHUTTER.

4.0 Ensure the barrel is secure

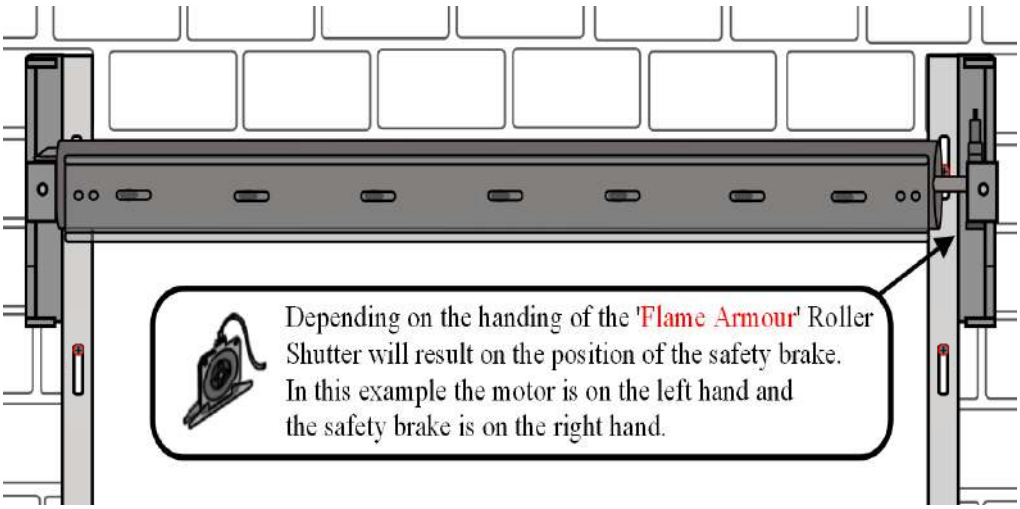
TO INSTALL THE ROLLER SHUTTER YOU WILL NEED A SPIRT LEVEL.



You **must** use a spirt level when installing the roller shutter.

You need to make sure that both flags are level before installing the barrel. A decrease or increase of **5mm** will result in door failure and warranty being void, therefore you **must** ensure that the barrel is level before proceeding to operate the roller shutter.

For the roller shutter to be manufactured and compliant with European Standard BS EN 12453:2001, in-relation to electrically powered doors, then a safety brake is a necessary. This device stops the roller shutter door from dropping suddenly, in the event of any mechanical or electrical failure. Safety brakes / anti -fall back devices are necessary to comply with UK regulations.

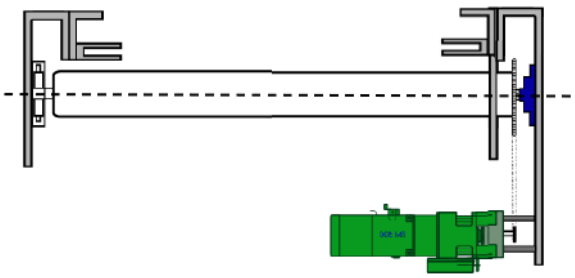


Depending on the handing of the 'Flame Armour' Roller Shutter will result on the position of the safety brake. In this example the motor is on the left hand and the safety brake is on the right hand.

YOU **MUST** ENSURE THE BARREL IS LEVEL BEFORE PROCEEDING AS THIS WIL VOID YOUR MANUFACTURERS WARRANTY IF OPERATED WHILST NOT LEVEL.

5.0 Chain Driven installation of motor

For larger applications, our Extend Application (EXAP) guidelines state that the motor can be mounted externally to the coil casing and operated by a external gearset.



This diagram of the external chain driven motor shows that the sprocket, gear, bearing and motor are all external. A secondary end plate is required to ensure that the barrel coil is protected from the flames.

The motor is designed with a automatic solenoid release, this means that that when the flames melt the fusible link it will release the curtain and activate the gravitational descent.

Extended plate for bolting the motor in place.

The external plate is extended to ensure that the motor can be bolted onto the plate.

Depending on the motor type, it may require a top hat with will allow you to connect the motor to the plate. This will give necessary space for the chain to rotate around the sprocket.

Wire the motor directly into the panel supplied.

Ensure the bearing is connected to the plate to allow the axle shaft to be held in position. Using a spirt level ensure that the plate is level.

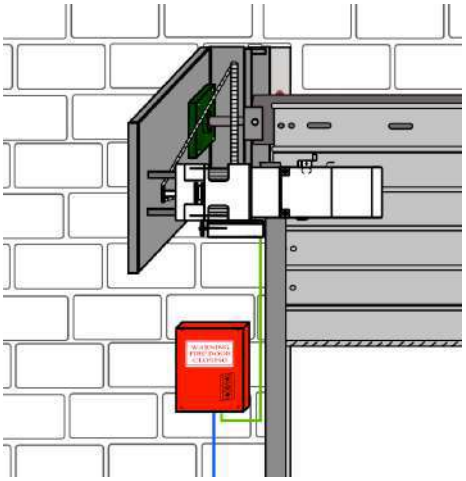
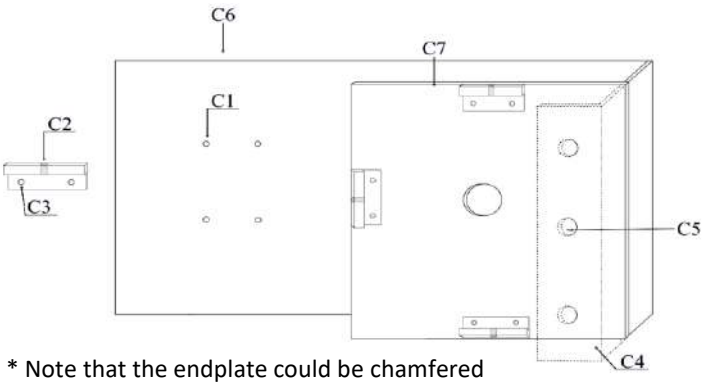


Diagram of extended plate:

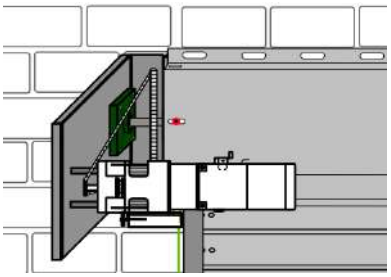


* Note that the endplate could be chamfered

KEY:
C1 – Motor mounting holes.
C2 – Canopy mounting holes
C3 – Bracket mounting holes.

C4 – Endplate packer.
C5 – Packer for mounting holes.

C6 – Extended plate.
C7 – Internal plate.



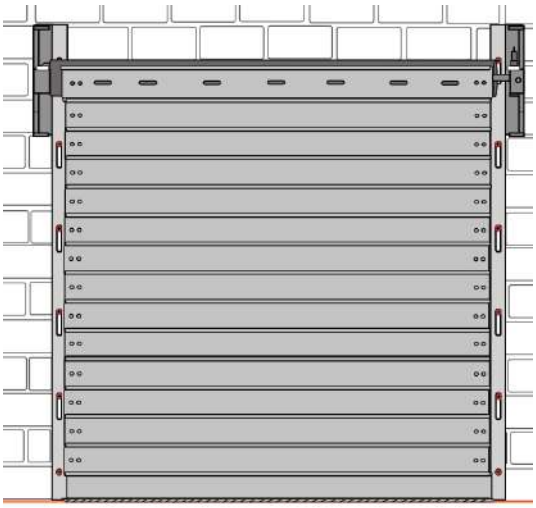
Once the canopy has been installed, the motor can either have a motor box to match or be exposed.

The motor is external to the coil casing and is bolted onto the plate NOT the canopy.

If you require assistance when installing the motor, please contact our offices.

INSTALLATION MANUAL.

5.1 Installing the curtain.

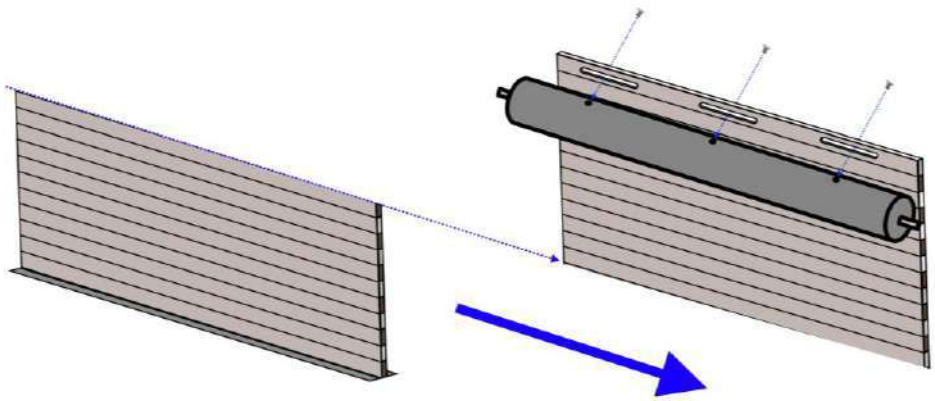


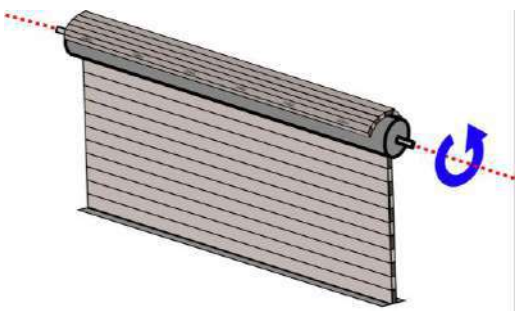
Once the barrel has been carefully mounted to both flags by the safety brake and motor, you need to start with the top section of lath. You can identify the top section of lath by the pre-slotted holes that are positioned at the top, these align with the bolts on the barrel. Typically, each individual bundle of lath is rolled in either 6s or 8s depending on the weight of the curtain. Ensure that you start with the top section of the lath.

ALWAYS SEND THE DOOR DOWN TO ITS BOTTOM LIMIT PRIOR TO FITTING THE CURTAIN.

5.2 Sliding the curtain together.

Depending on the height of the roller shutter will reflect the amount of bundles of lath supplied with the door. Unpack each section and begin to slide the curtain together. This may require gently bending the end locks to allow the curtain to slide onto the top section which is hanging from the barrel.

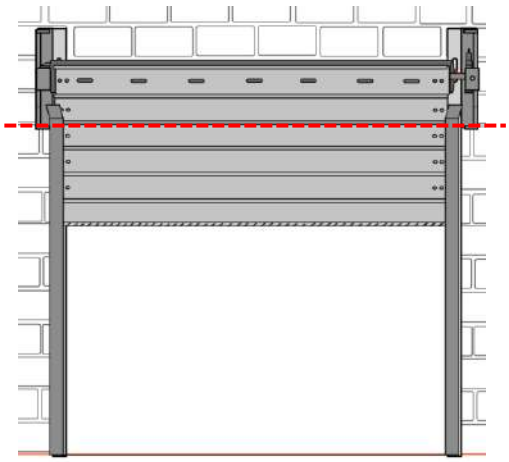


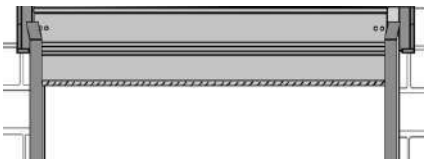


Once the whole curtain has been slid together then carefully operate the door and allow the lath to roll up to the barrel.

Make sure that the whole lath does not wrap around the barrel, allow for a few sections of lath to dangle below the barrel (as shown in the image) See section 9 for more information.

6.0 Setting the digit limits.



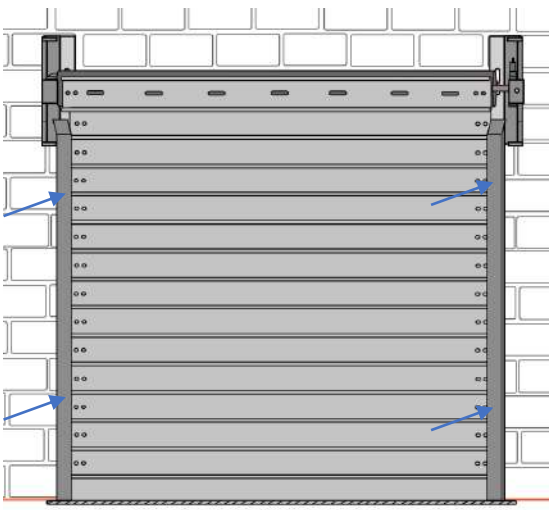


It is recommended to stop the bottom rail once it is level with the flags plate (Red Line).

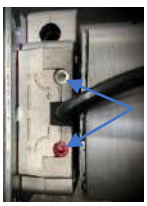
Now install the guides vertically and fix them to the angle, there are pre-drilled holes and the guides will align with angle.

To set the digit limits, use the supplied wand to rotate either hexagonal eyelet to positive or negative differentiational.

Depending on the handing of the roller shutter, this will effect the orientation of the eyelets. The arrows indicate the rotation of the motor whilst in the barrel, turn this accordingly to set the limits.



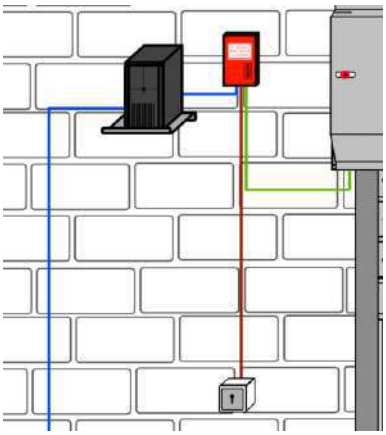
Arrows denoting rotation



Eyelet

Once the guides are installed, you will be able to operate the roller shutter and ensure the bottom rail rests on the floor, when closed.

7.0 Installing the battery backup



Particularly, the tube motor fire shutter requires a maintained electrical supply. If this cannot be achieved then the shutter will effectively require a battery backup unit.

We strongly advise buying a sleep mode battery backup that can last longer without a mains power supply. The maximum standby period is six/eight hours.

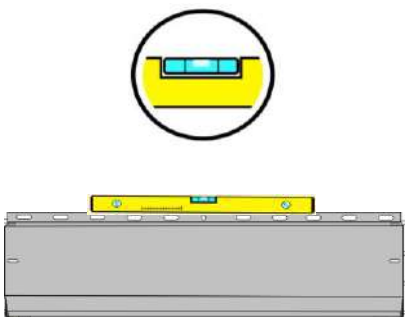
If under fire conditions there is a power failure, the shutter must have a means of ensuring the closure of the shutter. The battery backup supplied will provide the facility for at least one operation under fire conditions.

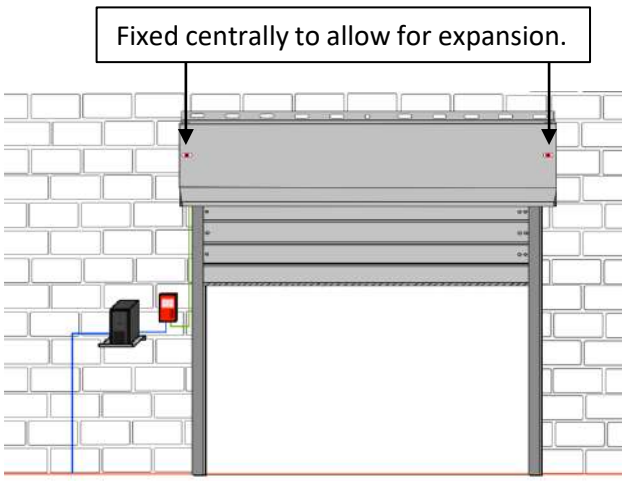
The battery backup unit must remain plugged in at all time, or alternatively you can wire this into a fused spur. In effect, the shutter should always receive a signal from the fire alarm. The unit comes complete with a wall mounted bracket.

The typical life time of the battery backup is 3-5 years depending on the number of cycles and operating temperature.

Allow for the battery backup to full charge before operating. Refer to the manual supplied within the box before operating.

7.1 Installing the Canopy





Now install the canopy, this is required to protect the motor and barrel from the flames.

Place the canopy over the plates which are attached the flags and screw them into the wall through the pre-drilled holes. Use a spirt level to ensure the canopy has been installed correctly.

Finally, attach the CE Labelled stickers to ensure that the door complies with current legislation.

8.0 Terms and Conditions

¤ Prior to manufacturing, it is highly recommended that a site survey is conducted before a product drawing is signed off by the customer. If the customer wants to proceed without a site survey occurring by an SSS engineer then they are liable for the measurements supplied.

¤ We recommend that a roller shutter is fitted by a qualified SSS Industrial Doors engineer to ensure that CE marking and standards are adhered too. Installation of a roller shutter by a third-party will result in CE Marking, regarding to safe installation will be void. Third-party installation teams are liable for damages if they occur.

¤ All sizes provided by a customer are assumed to be the clear opening sizes and a product drawing will be supplied to the customer prior to manufacturing. Once this has been approved by the customer then the door will be manufactured to those specific details and measurements.

¤ SSS Industrial Doors Limited are not liable for any amendments, errors or unforeseen issues that occur during the installation process. Once a customer has approved a product drawing then the door must be installed to measurements supplied, a differentiation of 5mm in installation will result in the warranty being void, please follow the product drawing.

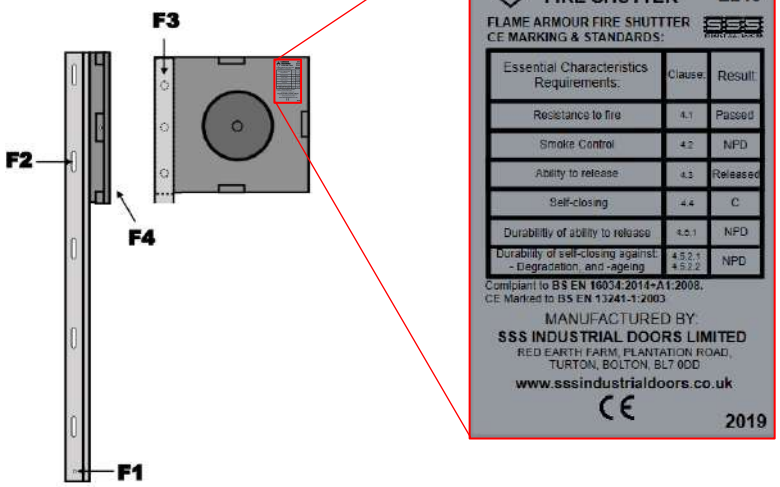
¤ Any damage which occurs during installation either to property, person(s) or to the product is a result of incorrect or unsafe installation of the roller shutter and SSS Industrial Doors Limited are not liable.

¤ Regarding the wiring of the electrical components, the instructions and guidance supplied in this manual are for a qualified and certified electrician only. We highly recommend that no customer attempts to wire the electrical components unless they have the relevant electricians qualifications.

¤ Whilst using this manual, it is only intended as guidance on how a roller shutter is installed. Any damages, injury or loss of life during the installation process and there after, is the result of an unsafe installation and the person(s) who installed the roller shutter are responsible and liable for damages. SSS Industrial Doors Limited are not liable, nor at fault for any damages which occur from a third-party installation as standard checks during the installation process cannot be confirmed.

¤ If any components are faulty, for example an electrical motor, SSS Industrial Doors will supply a new component and require the faulty one to be returned. If the faulty component is deemed operational and working then charges may occur.

CE MARKING



F1- 10.5mm Fixing hole, F2-punched fixing slots, F3-Endplate mounting holes.

The door must be traceable to the manufacturer. Therefore for our fire shutter to be compliant to BS EN 16034:2014 it is required that a Essential Characteristic are displayed on the product.

We therefore apply a CE Marked sticker in the internals of the end plate so that it is out of view from the end user.

This sticker must state the manufacturers address, contact details, date of certification and the standards achieved.

DO NOT REMOVE THIS STICKER, THE PRODUCT CANNOT BE CE MARKED IF REMOVED.

INSTALLATION MANUAL.

9. CERTIFICATION BY A NOTIFIED BODY:

Below is the Essential Characteristics of the results from the test specimen, which was tested to BS EN 1634-1 and CE Marked to BS EN 16034:2014.

warringtonfire
Proud to be part of element

Notified body No. 1121

Certificate of constancy of performance

1121-CPR-RA5006

In compliance with *Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011* (the Construction Products Regulation or CPR), this certificate applies to the construction product

Flame Armour 60/120/240

Product: **Fire resisting roller shutter covered by EN 13241-1**

Intended use: **Fire compartmentation and/or escape routes**

Essential characteristics	Performance	Harmonised technical specification
Resistance to Fire	E60 / E120 / E240	EN 16034: 2014
Smoke control (only for applications where limitation of smoke spread is required)	NPD	
Ability to release	released	
Self Closing (only for self closing fire resistance and/or smoke control doorsets and/or openable windows)	C	
Durability of ability to release	NPD	
Durability of self-closing	NPD	

DIGITALLY VIEW OUR CERTIFICATION:

Scan the following QR Code to gain access to our certification by WarringtonFire. Use any smart device and enable camera mode, position the device in front of the QR code and it will automatically redirect your device to our website. You will then be able to see the electronic copy of our certification.

You will then be able to save the certificate as a PDF file.

SCAN THIS QR CODE

INSTALLATION MANUAL.

INSTALLATION MANUAL – INSTRUCTIONS FOR INSTALLING A FLAME ARMOUR ROLLER SHUTTER.

10. CHECK LIST POST INSTALLATION:

Once the 'Flame Armour' Roller Shutter has been installed, please complete the following check list to ensure that door has been installed to the correct standard.

CHECK THE FOLLOWING:	CHECKED BY: (Initials)	ADDITIONAL NOTES:
Use supplied fittings with nylon washers for installation.		
Use Spirt Level during installation and ensure the door is level prior to hand over.		
Ensure the safety brake has been installed correctly.		
Install the supplied battery backup, test after installation.		
Ensure the correct limits are set.		
Check wiring is correct and that the door operates manually.		
Test fire relay works correct, triggering the fire alarm after the set allotted time.		
Stick the CE Marked product label onto the guide or control panel (supplied within the pack).		
Commission the door & hand over all documentation.		

DATE OF INSTALLATION:		SIGNATURE OF ENGINEER:	

SERVICE PLAN:

DATE OF SERVICE:	CHECKED BY:	NOTES REGARDING SERVICE(s):	ACTION REQUIRED: (IF NECESSARY)

ENSURE A QUALIFIED TECHNICAIN WIRES THE CONTROL PANELS CORRECTLY

Upon completion of the installation, please attach this documentation to the hand over pack. This document could be relied upon in the event of failure to operate or incident resulting injury, therefore the following installation guide should only be used by a fully qualified roller shutter installation engineer.