Elevator
Equipment
Limited









Registered in England No. 4398327 Director: M Spencer C Moore

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# **General Specification:**

- □ 240VAC Supply.
- □ Up to 6 INTELCO LED spot driving capability.
- □ Brightness adjustment in normal and ECO mode.
- □ Battery 12V/1,3Ah backup system.
- □ Microcontroller based intelligent battery charger.
- □ Up to 3 Hours backup light.
- $\Box$  10 min 70min time delay.
- □ Various light operation schemes (including normal and emergency operation).
- □ Single dry contact to trigger the operation.
- □ DC output over voltage & over current protection.
- □ AC input under & over voltage protection.





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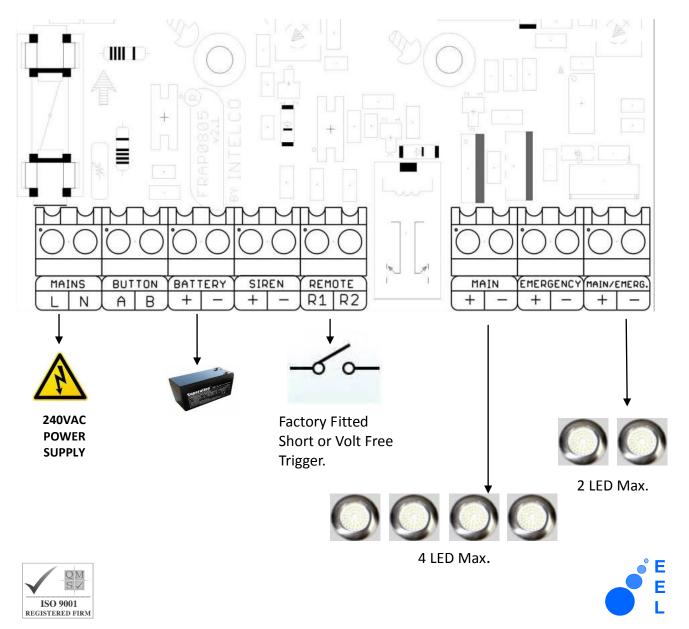
Website: www.elevatorequipment.co.uk

## **Installation:**

The Mains/Emergency Unit operates in various connection setups and with variations in load combinations (using EEL LED spots). A typical connection setup consists of:

TWO/FOUR EEL LED spots as "MAIN" light sources, TWO EEL LED spots as "MAIN/EMERGENCY" light sources.

The typical connection diagram is shown as below. Only two EEL LED lights in (Main/Emergency.) will operate in emergency conditions.



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### **Standard Operation:**

#### 1. Standard Factory Set Up: All Dip Switches are in the OFF position. R1, R2 SHORTED.

With the LED Spots connected, battery terminals connected and the power supply on, the LED spot lights will now operate – Red power light on. The emergency backup battery is now charging. The blue battery indication light will flash as per Battery Status Table.

#### (No dimmer operation available on this set up).

Note: When the battery is charging a hissing sound may occur sometimes. This is normal and will stop once the battery is full charged.

#### 2. Dimmer Option: All Dip Switches are in the OFF position. R1, R2 short removed.

With the LED Spots connected, battery terminals connected and the power supply on, the LED spot lights will now operate – Red power light on. The emergency backup battery is now charging. The blue battery indication light will flash as per Battery Status Table.

You can now dim the LED spot lights via the blue dimmer control dial within the control box. Clockwise – full light output, Anti-Clockwise – All lights are off.

#### 3. Key Switch Option: All Dip Switches are in the OFF position. R1, R2 Connected to a Car Light Switch. 1 x Normal Open Contact.

With the LED Spots connected, battery terminals connected and the power supply on, the LED spot lights will now operate – Red power light on. The emergency backup battery is now charging. The blue battery indication light will flash as per Battery Status Table.

#### (No dimmer operation available on this set up).

Turn Blue Dimmer Control Dial within the control box <u>fully Anti-Clockwise</u>. You can now turn the car light switch on and off to operate the LED spot lights.

Note: If your lift control panel is fitted with an ECO saving system you can connect your switch signal into R1, R2 instead off a car light switch. Blue Dimmer Control Dial must be turned fully Anti-Clockwise in this operation.





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## **ECO Timer Operation:**

DIP	1	2	C	Λ	Dolou Timo
SWITCH	1	2	3	4	Delay Time
Number					(Min)
	OFF	OFF	OFF	OFF	0
	ON	OFF	OFF	OFF	10
	OFF	ON	OFF	OFF	20
DIP					
SWITCH	ON	ON	OFF	OFF	30
Position	OFF	OFF	ON	OFF	40
	ON	OFF	ON	OFF	50
	OFF	ON	ON	OFF	60
	ON	ON	ON	OFF	70



With the LED Spots connected, battery terminals connected and the power supply on, the LED spot lights will now operate – Red power light on. The emergency backup battery is now charging. The blue battery indication light will flash as per Battery Status Table.

#### The short at R1, R2 should be removed and replaced with your volt free contact switch.

Please note your volt free contact can be from the door open or closed contactor, a switch fitted to the door operator or any other lift signal.

Dimmer adjustment of the lamps in <u>main running mode is NOT possible</u> when using the timing facility. The lamps will always be on full power.

Now set your dip switch positions (shown in the chart above) to the time you wish your lights to switch off or dim between 10-70 minutes. If the unit hasn't received a volt free signal after this set length of time it will automatically switch the lights off or dim to your selected setting.

By turning the Blue Dimmer Control fully Anti-Clockwise you can set the lights to turn completely off. If you require to dim to 5% light output, turn the dial slightly less in the anticlockwise direction to set to your preferred brightness. The more you turn the dial anticlockwise the dimmer the light setting you choose.





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# Warning Notice:

# For your information please note the following when using the ECO timer operation.

If you have set your lamps to <u>switch off completely</u> then please be aware that the maximum time setting possible is 70 mins. This means that if the lift breaks down for any reason, <u>other than power failure</u>, the lights will automatically switch off after the time you have set. Passengers need to be released before the time setting that you have chosen. Selecting a shorter time on the dip switches means that your response times to release passengers will need to be quicker. If this is an issue we suggest setting the lights to dim to 5% levels only and not switch off completely.

Any breakdown due to power failure will automatically switch the lamps into emergency mode and 2 lamps will remain on full power for 3 hours.





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### **Battery Status:**

LED Activity	Battery Status		
ON	Battery Charging		
	Progress > 90%		
Blinking	Battery Charging		
Rate: 2.5sec – on	Progress		
0.5sec – off	90% > Bat > 75%		
Blinking	Battery Charging		
Rate: 0.5sec – on	Progress		
0.5sec – off	75% > Bat > 50%		
Blinking	Battery Charging		
Rate: 0.5sec – on	Progress		
2.5sec – off	50% > Bat > 25%		
OFF	Battery Charging		
	Progress < 25%		
	Possible Battery		
	Failure		



**Flashing Blue Battery Status Indication** 

The above chart reflects the battery status after a 24 hour full charge.

## **Emergency Operation:**

When the mains power supply fails, the Mains/Emergency Control Unit automatically enters the EMERGENCY operation. The "MAIN" group of EEL LED spots are now off, and the "MAIN/EMERGENCY" group remain on.

At this operation the "REMOTE" connector input is ignored. The brightness of EEL LED spots is 100%, when the battery is fully charged. When the mains voltage is present again, the Mains/Emergency Control Unit automatically returns to NORMAL operation.

The Mains/Emergency Control Unit monitors the battery health, with actual load, and represents it to the battery status Blue LED as per the Battery Status table above.





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# **Technical Specifications:**

	Count	Unit	Tolerance
Mains AC Input Voltage	230	VAC	
Mains AC Input Frequency	50	HZ	
Spots Output Voltage	12	VDC	+/-5%
Spots Output Current	1.66	A	+/-5%
DC Output Ripple	33	Mv	
Battery Charging Voltage	13.8*	VDC	+/-10%
*using Adaptive Load charging			
control this count will be variable and			
dynamically changes			
Efficiency	80.2	%	At Full Load
Fuse Rating	1	A	Fast Blow
Standby Duration	3	Hours	+/-1%
DC Output Overvoltage Protection	15	V	+/-1%
Threshold			
DC Output Short Circuit Protection	2	A	+/-1%
Threshold			
Mains AC Input Overprotection	250	VAC	+/-10%
Mains AC Input Under Voltage	198	VAC	+/-10%
Protection			



