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Design Information and Technical Data used to prepare submittal		
Equipment Data Sheets / Schedules :	<ul> <li>P5-ARP-Z0-SP-Z-0011_iss1_revT01</li> <li>•</li> </ul>	
Particular Specification:	<ul> <li>P5-ARP-Z0-SP-Z-0004_iss2_revT02</li> <li>•</li> </ul>	
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Atta	Attachments (Tick as appropriate)		
V	Catalogue Details		
	Design Check Calculations		
	Manufacturing Drawings		
	Wiring/Control Diagrams		
	Sample List		
	BWIC requirements		
	Assembly / installation details		
	O&M instructions		
	List of recommended spares		
	Interface and coordination with other packages		
	FAT / SAT Test Requirements		
	Description of Operation		



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ecification Compliance Statement	
Technical Submission fully compliant	
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If no then proposed deviations are:	
Specification Requirement	Proposed Deviation



# 1- Catalogue Details









# **RAPID Area Controller**

The Area Controller allows all RAPID lighting control modules on a floor to communicate with one another, as well as allowing communication between floors and/ or a computer front end package. It also allows the system to be sub-divided into discreet areas, or zones.

#### **Outputs and Addressability**

The RAPID Area Controller has 3 switchable field BUS outputs for connection of floor networks including LCMs, hardwired modules, and DALI gateways. In addition to this there are 3 corresponding RJ45 ports for RAPID field BUS monitoring via the engineer's laptop.

There is also optional TCP/IP addressability via an on board Ethernet Port which allows for connectivity to the building network.

#### Connectivity

Mains is connected and looped (if required) by the dual Live, Earth, and Neutral terminals. 8 ELV inputs also allow for direct connection of switches to the Area Controller, there is also an integrated volt free output for connection of emergency test or other interfaces.

### **Timed Events**

Built into the new Area Controller is a time scheduler with battery back up to allow for timed events such as local lighting and emergency test schedules. Functions such as emergency lighting test can now be easily implemented via the push buttons and numerical keypad on the front of the Area Controller.

Pre-programmed emergency test durations of 3 hours, 1 hour and 10 minutes are available. The numerical keypad allows for a PIN lock as well as three levels of access for an engineer, contractor, or facilities management. There are also status LED's for each RAPID field BUS network and the backbone network between area controllers.

### **Key features**

- 3 switchable Field Bus outputs
- Ethernet connection
- 8 ELV switch inputs
- Numerical keypad with
   3 access level PIN lock
- Time scheduled events
- Manufactured in flame retardant material
- 5 year warranty
- Manufactured in the UK

#### Programming

An Infra-red programming port is also included to allow for uploading commands via the UNLCDHS with a status LED to confirm receipt of command. The Infra-Red (IR) port has an activation button to allow 30 second upload intervals. This ensures that when programming other components contained in the Area Controller enclosure no erroneous commands are received. The software is also boot loadable allowing for remote upload of updates.

#### **Technical Specification**

Electrical data	
Supply Voltage	220 - 240VAC +/- 10%
Frequency	50Hz
Relay rating	Normally open relay 5A
	Normally closed relay 5A
Terminal Capacity	2.5mm <sup>2</sup>
Compliance	
Compliance	EMC-2004/108/EC LVD-2006/95/EC
Environmental data	
Temperature range	-10°C to 35°C
Humidity	5 to 95% non-condensing
Material (casing)	Flame retardant ABS and PC/ABS

Classification	S		
Insulation		Class II	
Purpose		Operating control	
Construction		Independently mounted control for surface mounting	
Type of action	ı	Type 1.B action micro disconnection	
Software clas	s	Class A	
Pollution		Degree 2	
Dimensions			
Dimensions	See Right		
Weight	0.40kg		

**Important:** For lighting purposes only with suitable circuit protection. For fixed wiring only. Must be mounted in a suitable enclosure such that terminals are not exposed.

60000000 00000000 00000000

Order Codes		
Control Module	EBR-DIN-AC	DIN rail area controller module
	EBR-DIN-AC-ET	DIN rail area controller module with Ethernet
Accessories	UNLCDHS	Professional commissioning handset









# CP Electronics

IMPORTANT NOTICE:

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# **EBR-DIN-DALIG64**

# **DINrail DALI lighting control module**

### Overview



The EBR-DIN-DALIG64 is a Rapid lighting control module designed for controlling 64 addressable DALI devices such as fluorescent or LED lighting ballasts. There are two relays providing a switched live output and a third relay for emergency test. Additionally there is a volt free contact to control external devices.

This LCM also has a total of 8 switch inputs and 2 DALI connections.

Used in conjunction with our range of DALI presence detectors a single DALI cable can be run to digitally control all the lighting and power the sensors. This saves time and money on additional specialist cable. It is ideal for chilled beam, continuous run lighting, and core areas.

Please speak to our technical team for further information.

# Features

### Front features



#### **Mains connections**

- SELV switch inputs
- 8 SELV switch inputs.

Live, Earth, Neutral.

#### Volt free outputs

- 3 x normally open 10A 230VAC rated Voltage free relays. Used to switch external peripherals, such as HVAC and BMS systems.
- 1 x normally closed 6A 230VAC rated Voltage free relay. Suitable for emergency testing.

#### **Communication ports**

- 2 x power and Rapid network bus ports
- 2 x DALI connections

# System wiring example



# **DALI bus loading**

Detector and ballast combinations for 200mA supply.

This assumes that the sensor LEDs are all on, and the sensor is receiving IR communication.

- 4 detectors and up to 64 ballasts
- 5 detectors and up to 55 ballasts
- 6 detectors and up to 44 ballasts
- 7 detectors and up to 33 ballasts
- 8 detectors and up to 22 ballasts
- 9 detectors and up to 12 ballasts
- 10 detectors and up to 2 ballasts

In most realistic scenarios, only one LED is on at a time and only one detector is receiving IR; guidance changes to.

- 10 detectors up to 50 ballasts
- 8 detectors up to 64 ballasts

To use a higher number of detectors then ensure only one detector has walk test enabled per DALI bus.

# **Technical data**

Dimensions Weight Supply Voltage Frequency Relay rating Terminal Capacity	See diagrams opposite 0.40kg 220 - 240VAC 50Hz Normally open relays 10A Normally closed relay 6A Volt free output 10A 2.5mm <sup>2</sup>		2	
DALI Voltage DALI Output Current DALI bus	16VDC via DALI 250mA (maximum) Cannot be considered as SELV since DALI, ballasts only offer basic insulation, therefore all devices on the DALI bus must be wired as if carrying mains		Q	
Temperature	-10°C to 35°C			
Humidity	5 to 95% non-condensing			
Material (casing)	Flame retardant ABS and PC/ABS			
Classifications	Insulation Purpose Construction Type of action	Class II Operating contr Incorporated co Type 1.B action micro disconnec	ol ntrol	
	Pollution	Degree 2		Importa For lial
Compliance	EMC-2004/1 LVD-2006/95	08/EC 5/EC	CE	protect Must b



ant

hting purposes only with suitable circuit tion. For fixed wiring only.

e mounted in a suitable enclosure such that terminals are not exposed.

## Part numbers

	Part number	Description
Control module	EBR-DIN-DALIG64	DINrail DALI lighting control module
	EBR-DIN-DALIG64-EG	DINrail DALI lighting control module + energy measurement
Accessories	UNLCDHS	Universal LCD programming handset

**IMPORTANT NOTICE!** 

This device should be installed by a qualified electrician in accordance with the latest edition of the IEE Wiring Regulations and any applicable Building Regulations.



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# EBR-CPIR-DALI

# **DALI network ceiling PIR with photocell**

# Overview



The EBR-CPIR-DALI presence detector provides automatic control of lighting. It is connected to the RAPID DALI Gateway via a DALI network.

Functioning as a presence detector, the unit can turn lights on when a room is occupied and off when the room is empty.

An adjustable internal light sensor provides light level information to the RAPID system to allow lights to be kept off if sufficient daylight is present, and to enable maintained illuminance for dimming systems.

An integral IR sensor in the unit allows the unit to be commissioned, and used in conjunction with a remote control handset (part no: UHS) to:

- Act as a conventional dimmer
- Override the unit on or off

# Features

#### **PIR Sensor**

Detects movement within the unit's detection range, allowing load control in response to changes in occupancy.

#### **IR Receiver**

Receives control and programming commands from an IR (infrared) handset.

#### **Light Level Sensor**

Measures the overall light level in the detection area

#### **Status LEDs**

The LED flashes Red or Green to indicate the following:

Walk Test LED active	- when movement is detected
Valid setting received	-ġ-

#### **DALI** connection

Connection to the DALI bus via pluggable screw terminals. The DALI bus is polarity insensitive.





# Installation

### **Choosing a Suitable Location**

The EBR-CPIR-DALI is designed to be ceiling mounted and must satisfy the following criteria:

- Avoid positioning the unit where direct sunlight may enter the sensor element.
- Do not site the sensor within 1m of any lighting, forced air heating or ventilation.
- Do not fix the sensor to an unstable or vibrating surface.
- Do not exceed maximum length of cable (200m) on data bus.
- Do not exceed maximum bus loading (200mA).

# System wiring example



# Installation

The EBR-CPIR-DALI is designed to be mounted using either:

- Flush fixing, or
- Surface fixing, using the optional Surface Mounting Box (part no. DBB).

Both methods are illustrated below.



### Wire stripping details





#### Important

Ensure that the cables are formed as shown before affixing the cable clamp. The clamp MUST clamp the outer sheath(s) only.

Bend cores as shown.

# DALI bus loading

Detector and ballast combinations for 200mA supply.

This assumes that the sensor LEDs are all on, and the sensor is receiving IR communication.

- 4 detectors and up to 64 ballasts
- 5 detectors and up to 55 ballasts
- 6 detectors and up to 44 ballasts
- 7 detectors and up to 33 ballasts
- 8 detectors and up to 22 ballasts
- 9 detectors and up to 12 ballasts
- 10 detectors and up to 2 ballasts

In most realistic scenarios, only one LED is on at a time and only one detector is receiving IR; guidance changes to.
 10 detectors up to 50 ballasts

8 detectors up to 64 ballasts

To use a higher number of detectors then ensure only one detector has walk test enabled per DALI bus.

# **Technical data**

Dimensions Weight Supply Voltage Supply Current

DALI bus

See diagrams opposite 0.07kg 9.5VDC-22.5VDC via DALI 8mA

Cannot be considered as SELV

**Terminal Capacity** Temperature Humidity Material (casing) Type IP rating IP40

since DALI, ballasts only offer basic insulation, therefore all devices on the DALI bus must be wired as if carrying mains potential. . 2.5mm<sup>2</sup> -10°C to 35°C 5 to 95% non-condensing Flame retardant ABS and PC/ABS Class 2

EMC-2004/108/EC

LVD-2006/95/EC

Compliance

(F





### DBB - Surface mounting box



# Detection diagram



Area of high sensitivity

Part number

DBB

UHS UHS3

UHS3 (2) UNLCOHS

EBR-CPIR-DALI

Area of lower sensitivity

# Part numbers

Sensor Accessories Description

DALI network ceiling PIR with photocell Surface mounting box User handset override on/off; lux up/lux down User override remote handset on/off User override remote handset, off only Universal LCD programming handset

### **IMPORTANT NOTICE!**

This device should be installed by a qualified electrician in accordance with the latest edition of the IEE Wiring Regulations and any applicable Building Regulations.







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# EBR-BB-IN-DALI





Lighting Control System

# **DALI** switch input unit

The EBR-BB-IN-DALI input unit provides an interface between a RAPID DALI lighting control system and external devices such as switches, security systems and AV equipment. The unit features 7 Volt-free switch inputs that can be activated by the contact closure of push-buttons, switches or relays. Activating an input causes the unit to transmit a scene, raise or lower light levels messages to the DALI system.



This device should be installed by a qualified electrician in accordance with the latest edition of the IEE wiring regulations.

DALI is not SELV or ELV and should be treated as mains wiring.

Ref WD853 issue 2



### USING WITH A DALI GATEWAY



This input unit is compatible only with the equipment listed and is not a general purpose DALI unit. It cannot be used with other systems, or any other CP Electronics product with DALI outputs.

- 1. DALI Gateway DG64
- 2. DALI bus
- 3. EBR-BB-IN-DALI
- 4. EBR-CPIR-DALI
- 5. EBR-MINPIR-DALI
- 6. Luminaire
- 7. Neutral blue
- 8. Live brown

Maximum number of control devices for a DALI Gateway = 5 input units of 7 channels each + 10 detectors.

Maximum number of ballasts is dependent on the number of control devices (this assumes LEDs are off and not using IR readback at the same time):

- 10 devices + 64 ballasts
- 11 devices + 60 ballasts
- 12 devices + 55 ballasts
- 13 devices + 50 ballasts
- 14 devices + 48 ballasts
- 15 devices + 44 ballasts

### WIRING



### **TECHNICAL DATA**

Weight kg	0.03
Supply voltage DC	9V - 22.5V over DALI
Current consumption	8 mA
Terminal capacity	2.5mm²
Humidity	5 to 95% non-condensing
Operational temp. ºC	-10 to 35
IP rating	40
Material (casing)	Flame retardant PC
Compliance	EMC-2014/30/EU; LVD- 2014/35/EU

### Without brackets:



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### With brackets:





EMS 534520

OHS 642036

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# **2- Control and Emergency Monitoring**







### LIGHTING CONTROL UCLH

### Application:-FULLY ADDRESSABLE DALI DIMMABLE LIGHTING CONTROL

We are proposing a fully network system with an Area controller on each floor. The area controller are networked together by one of the below options

#### Backbone networks

Preferred cable type	Rapid network connection cores	Suitable to run with mains?
CatSe	<ul> <li>CAN A = white/blue and blue</li> <li>CAN B = white/orange and orange</li> <li>Ground = white/green and green</li> </ul>	No
Cat6	<ul> <li>CAN A = white/blue and blue</li> <li>CAN B = white/orange and orange</li> <li>Ground = white/green and green</li> </ul>	No
Belcom 4969	<ul> <li>CAN A = white/blue and blue</li> <li>CAN B = white/orange and orange</li> <li>Ground = white/green and green</li> </ul>	Yes

The backbone can also be connected to a head end PC.

The area controller is where all the field bus wires are connected to from the Modular Wiring MDBs. As shown below.





Above is the connections for the area controller, ELV inputs can be a fire alarm input (one input for whole building, or per floor)..

The connections from the area controller to the floor LCMs is as follows.

#### Floor networks

Preferred cable type	Rapid network connection cores	Suitable to run with mains?
Сабе	<ul> <li>CAN A = white/blue and blue</li> <li>CAN B = white/orange and orange</li> </ul>	No
Cat6	<ul> <li>CAN A = white/blue and blue</li> <li>CAN B = white/orange and orange</li> </ul>	No
Belden 8719	CAN A = white     CAN B = black	Yes
Belcom 4969	<ul> <li>CAN A = white/blue and blue</li> <li>CAN B = white/orange and orange</li> </ul>	Yes



Physical connections at the area controller are

Connections at the LCMs are made off site as LCMs are supplied with modular wiring tee pieces.

#### Connections at the LCM

All our sensors are combined sensors and can be fitted anywhere on the drawing (except for DALI PIRS as these must be connnected to the DALI line and not wired back to an LCM.

The LCM and PIRS will be given a three digit address which will be done on site with an infra hand tool. Our experience says this ways is preferrable to installers than sending out pre-addressed and them being told to fit according to a drawing. Our Cad drawing will show port numbers and numbers for sensors and LCMs also input references.

Connection of our sensors to LCMs is as follows with pre made leads

The power used by 1 microwave detector is the same as that used by 2 PIR detectors. These LCMs can supply power to a maximum of either 3 microwave detectors or 6 PIR detectors. You can connect combinations of microwave and PIR detectors, but this power limitation means that if you connect 1 microwave detector you can only have a maximum of 4 PIRs; if you have 2 microwave detectors you can have a maximum of 2 PIRs.

The previous pages covers the tenants areas but below is more details regarding the Landlords.

For the landlords areas we prepose a flexible DALI system using our DALI 64 units which connect all the lights and sensors on a DALI string which is polarity neutral.

The DALI Units (EBR-HW-DALI 64) have outputs for the lighting but also volt free outputs which can be used for solenoid valves in the toilets.



All sensors can be set for daylight saving however on Cat A projects where there is no carpet finish this is not achievable as the reading from the sensor looking down from the ceiling would be very high.

The LCMs that are proposed have an option of four more ports and these can be easily added in Cat B. The ports can be analogue, DALI or volt free to suit the Cat B clients wishes.

Interfaces to third party equipment is achievable via our Bacnet interface unit or our RS232 interface.

The RS232 interface is mainly for AV interfacing as is done through our wireless system because the AV rack is normally floor mounted and is left until the end so wireless is seen as a good otion.

The time out of sensors are easily re configurable using our commissioning handset with the infra red connections via the PIRs.

# **EBR-DIN-DALIG64**

# **DINrail DALI lighting control module**



The EBR-DIN-DALIG64 is a Rapid lighting control module designed for controlling 64 addressable DALI devices such as fluorescent or LED lighting ballasts. There is a relay providing a switched live output and a second relay for emergency test. Additionally there is a volt free contact to control external devices.

This LCM also has a total of 8 switch inputs and 2 DALI connections.

Used in conjunction with our range of DALI presence detectors a single DALI wire can be run to digitally control all the lighting and power the sensors. This saves time and money on

additional specialist cable. It is ideal for chilled beam, continuous run lighting, and core areas. A maximum of 7 detectors and 64 ballasts is permitted on any single DALI network cable run. The amount of detectors can be increased if the ballast number is decreased.

### PC head end

Please see attached info

# **Quick Guide To Rapid Front End**

### Introduction

The Rapid Lighting Control System is a network of LCMs (lighting control modules), DALI Gateways, Detectors and Interfaces connected together to provide a system for the control of lighting within a building. The Rapid Front End connects into the system and allows the user to monitor and report the states of the system components, check the output devices, allow user overrides, set up timing of events, set up emergency testing and report the results, allow changes to the configuration of the devices, and many other essential functions.

Using the Rapid Front End, facilities managers can see at a glance the number and location of any lamp faults (when used in conjunction with standard DALI ballasts); with the emergency monitoring suite, the location and failure modes of any emergency luminaire faults which have been detected (when used in conjunction with compatible gear). A schedule of emergency tests can be set up months in advance, leaving the Building Manager free for other tasks, and reports can be generated and printed off detailing any component failures for the maintenance team to rectify.

### About this document

This document shows a selection of commonly used screens together with a brief description of how the program is used.

## 1. Startup

On starting the program, a splash screen is displayed while the program is loading.



Once the license agreement has been accepted, the user can log on.





### 2. Floor View

Once the user has logged in, the *Floor View* screen is displayed. This shows a "zoomed out" view of the selected floor. Floor level configuration and control can be done at this level and reports can be generated. The layout of the floor is visible together with icons showing the status of various components: red squares show the location of emergency fittings with faults; orange squares show lamp faults. A status bar shows a summary of all current faults.

A blue zoom box can be dragged around the screen to select an area for a detailed view.



### 3. Detail View

When an area has been chosen with the zoom box, the *Detail View* shows the icons for luminaires, detectors and switches. In this window a floor overview in the lower left corner can be used to navigate around the floor. The status of each item is shown using coloured borders on the icons, whilst a Tooltip shows the item's properties. For a more detailed view of the item, double click the icon to bring up the *Device Properties* window.



### 4. Device Properties

Properties of Emergence	cy fitting (dimmable) : Unlocke				
ID	103				
Channel	3				
Туре	19				
Location	Near door				
Description	Luminaire Type AB1				
State	Lamp On				
Output Level	51% (128)				
Weeks Run	86				
ELT Group					
Last Test Date					
Lamp Fault	Lamp OK				
Emergency Lamp Status	Emergency Lamp Failed				
Battery Fault	Battery Pack OK				
Comms Fault (LCM-Ballast)	DALI Bus Comms OK				
Ballast Fault	Ballast OK				
Power Rating	58				
Configure Request	Commands Tables				
Clear Count Fault History	Control Dependencies				
	Cancel OK				

The *Device Properties* window is used to display all of the device properties including live data and any information about the device. Where permissions allow, the data can be edited.

The location and description are free text fields that can be used for notes about the device.

The buttons at the bottom allow access to a range of further screens:

- Control brings up a mimic panel to control the device
- Commands allows full device configuration
- Tables allows detailed device configuration read back
- Dependencies read back and edit of the detectors and interfaces that control output devices
- Fault History historical record of faults reported by DALI ballasts (see later)



For more immediate control of a luminaire, simply right click and adjust using the slider control.

A dimmable control is shown, although switching fittings can also be controlled in this way.

Selecting Auto will revert to automatic control, although a safeguard on the system revert to auto after 2 hours.

### 5. Timed Events

The *Time Schedule* screen is used for setting regular lighting times for the building on a 7 day basis. *Special Events* are entered separately using a calendar, see below. Regular events are easily set up by selecting a floor, group and times and days of the week. Once set, the regular events are stored in hardware modules local to each floor and run independently of the PC. The modules have a battery backup to cover power outages and are resynchronised daily with the current time and new events.

			Ti	me Schedule				×
Area	Time Scheduler ID		ime Scheduler ID Description C				Days	
Ground Floor	10		Weekday office	•	06:30	18:30	MTWTF	
Edit	Ren	nove						
Event Area	1	Ground F	loor	~	Glob	al		
Time Sched	luler ID	10 (Regu	lar events)	~				
Description	Weekda	y office						
Time On	06:30	✓ Enable	ed					
Time Off	18:30	🖌 Enabl	ed				Every Day	
✓ Monday	✓ Tue:	sday 🔽	] Wednesday	✓ Thursday	Friday [	Saturda	y 🗌 Sund	ay
							Add	
				Update B	uilding U	pdate Site	Cancel	

Special Events are set using this calendar based screen, and run instead of the regular events. A floor, group, date and time is added to the calendar, and the special event is subsequently shown as bold on the display.

		Linergen			1				
Area	Time On	Time Off	Description	TimeSc	•	Nove	mber 2013		
Ground Fl	10:00	22:00	Special Event Day	11	Mon Tu 28 2 4 11 1 18 1 25 2 2	ue Wed 29 30 5 6 12 13 19 20 26 27 3 4 T	Thu Fri 31 1 7 8 14 15 21 22 28 29 5 6 oday: 29/10	Sat 9 16 23 30 7 /2013	S
Event	Global	ove				his he of the	went in an	v Aro	-
Area	Ground Floo	ir v	Time On 10:00	Enabled		nlight if E	vent in di	улю	
Area	Ground Floo eduler ID 1	nr ∨ l1 (Oc ∨	Time On         10:00           Time Off         22:00	<ul> <li>✓ Enabled</li> <li>✓ Enabled</li> </ul>	Higi		Save date Building		
Area Time Sch Descriptio	Ground Floo eduler ID 1 n Special E	or v L1 (Oc v Event Day	Time On         10:00           Time Off         22:00	<ul> <li>✓ Enabled</li> <li>✓ Enabled</li> </ul>	Higi		Save date Building Jpdate Site		

## 6. Emergency Test Scheduling

Setting up an emergency test schedule is as easy as a scheduled event. For manual entry, select an area, group, date, start time and duration; or the auto-schedule function can be used to insert test dates automatically for the currently selected group according to the relevant IEC emergency test standard.

				Caler	ndar						-		×
Calendar Ba	sed Lighting Even	ts Emergency Te	est			_							
Area	ELT Group	Description		Start	Duration		4		Oct	ober 2	013		Þ
							Mon	Tue	Wed	Thu	Fri	Sat	Sun
							30	1	2	3	4	12	12
							14	15	16	17	18	12	20
							21	22	23	24	25	26	27
							28	29	30	31	1	2	3
							4	<u>ک</u>		/ 	8	9	10
										ouuy.	23/10	/2013	
Edit	Rem	ove											
Event													
Area	Ground Floo	r v	Start 1	Time	11:43		Пн	iahlia	iht if E	vent i	in an	v Are	а
												,	
ELT Gro	up 11 (Grour	nd floor en 🗸	Durati	on 3 hou	irs 🗸								
C Keys	witch									Save	в		
Autom	natic Emergenc	y Testing							Up	date B	uilding		
Stand	ard IEC62034	4 🗸		AutoSchedu	le					Indata	Sito		
										puare	JIC		



To perform a functional test immediately, right click on icon for the emergency test switch and click.

This function will work equally well for standard and EM-PRO fittings.

For standard fittings the LCM drops out the permanent live feed to achieve the test.

Functional tests that are run by the EM-PRO are carried out by the ballast; run for 30 seconds and check operation of all the ballast functions.

The system keeps a log and a history of faults detected for EM-PRO systems.

# 7. Reporting

To use the reporting screen, choose a floor and a report type. An instant on-screen report is generated, which can be printed or exported. Depending on the report type, reports can be selected to only show failed items or to show all items.

Ø			Rep	orting	- 🗆 🗙
Areas	s irst Floor second Flo hird Floor	oor All None	Report Type Lamp & Ballast Fail	ure I Only S	✓ Go 3how Failures
Impo	ort & Validate	·	Print	Export	Count : 1
ID	Channel	Floor	Location	Description	Value
105	4	Ground Floor			Ballast Failed
Repo	rt Status : D	irectly generated	I Source :	Database	Report Date : 29/10/2013 11:40:24

Types of report available:



The Lamp Run Time report shows a power rating to allow spreadsheet calculation of approximate power usage.

The communications report checks the PC to device network.

Reports can be printed directly to an attached printer (network or local) without going through an intermediate program. To ensure the report data has not been edited or corrupted, the report is signed and can be validated on-screen.

CP A Lam	CP Automated Lighting - Rapid Lighting Control System Lamp Failure Report Building : Main Building Generated On : 12/06/2007 15:22:07 By : admin									
Number of items in report : 6 Report Digital Signature : 23012914816725812024242261783492169168143										
ID	Ch	Floor	Location	Description	Value					
103	3	Ground Floor		-	Lamp Failed					
103	5	Ground Floor			Lamp Failed					
105	1	Ground Floor			Lamp Failed					
105	2	Ground Floor			Lamp Failed					
105	4	Ground Floor	1		Ballast Failed					
105	6	Ground Floor			Lamp Failed					

Reports can be exported to third-party spreadsheet or database programs, using the common CSV format (TDV and plain text is also available) for further analysis or formatting.

	A	В	С	D	E	F	G		
1	CP Automated Lighting - Rapid Lighting Control System								
2	2 Lamp Failure Report Building : Main Building								
3	3 Generated On : 12/06/2007 15:22:07 By : admin								
4	Number o	if items in r	eport:6						
5	Report Di	gital Signat	ture : 23012914816	6725812024	2422617834921	69168143			
6	ID	Channel	Floor	Location	Description	Value			
7	103	3	Ground Floor			Lamp Faile	ed		
8	103	5	Ground Floor			Lamp Faile	ed		
9	105	1	Ground Floor			Lamp Faile	ed		
10	105	2	Ground Floor			Lamp Faile	ed		
11	105	4	Ground Floor			Ballast Fa	iled		
12	105	6	Ground Floor			Lamp Faile	ed		
13									

🕕 History of Emerg	ency fitting (di 🗕 🗆 🗙
Date	Status
06/06/2007 10:08:12	Lamp Failed;Emergency Lamp Failed
08/05/2007 16:19:43	Battery Pack Open Circuit
	Print Close

Further detailed reporting can be achieved using the *Fault History* option in device properties. This screen can be directly printed to an attached printer (local or network) for record-keeping.

### 8. Setup and System Level Screens

Finally, some less commonly used screens are covered. When initially setting up the system or making changes, the Design screen allows icons to be added, deleted or moved. A menu of devices is available on the left hand side of the screen for selection.

When an LCM is dropped onto the drawing, it comes with a set of luminaires. The luminaire type (e.g. DSI, emergency, switched etc.) is pre-configurable before selection and it can be changed per luminaire after selection.

Device IDs and other settings can be changed in the Detail view screen without having to enter Design view where the user has the correct login rights.



The Rapid Front End is fully configurable to user preferences, with many options. For example, the colours used are selectable, just click on a colour swatch.



The program has a built in automatic and manual backup to keep the database safe, copied to two locations to guard against hardware failure. A user can restore from a previously backed up database without restarting the program.

Ø		Backup and Restore			×
Backup	Backup Now			Browse	
Backup location				2.0100	
C:\ProgramData\(	CP Electronics\Rapid FE\backup	s			
Restore					
Primary O	Secondary				
2013_10_29_1	11_45_SiteSpecific.bak		Restore N	ow	
				Close	
		Ready			

### **On Installation**

- A site specific database is set up including importing Autocad drawings
- The system is fully addressed, commissioned and tested
- End user training is given
- Handover of O&M manuals
- Handover of re-installation CD
- Handover of software licence certificate
- Advice on database backup media
- Remote connection set up for engineering access to allow remote fixes and upgrades broadband/LAN or direct dial-up modem required.