

# SC-UN/SC-UN-FT

## Universal Source Controller

### Programming Guide & User Manual



# Contents

<b>Important Information</b>	<b>3</b>	9: Configure Scene Values	25
<b>Introduction</b>	<b>4</b>	10: Edit the Emergency Scene	26
Welcome	4	11: Connect and configure contact inputs	27
Product Overview	4	12: Configure wallstations using the Wallstation Wizard	28
Terminology used in this guide	5	13: Verify each wallstation	30
<b>Basic Control Panel Operation</b>	<b>7</b>	14: Enable the timeclock	30
Using the control panel	7	15: Configure the time, date, coordinates and daylight saving time	31
Menu navigation	8	16: Configure timeclock events	33
Accessing the menus	9	17: Configure Ethernet	35
Menu layouts	9	18: Configure DMX	36
<b>Commissioning an Installation</b>	<b>11</b>	19: Configure passwords	38
1: iCANnet control wiring	12	<b>Other Useful Features</b>	<b>39</b>
2: Visually inspect all wiring & components	14	Overriding Outputs	40
3: Power up the Source Controller	16	Viewing power data	40
4: Energize each Output one at a time to determine the location, type and current draw of its load.	17	Choose communications	41
5: Configure Output behaviors	20	Restore default settings	41
6: Remove the bypass jumpers on used Outputs.	23	<b>Appendix 1</b>	<b>42</b>
7: Covers and Source Controller and power the unit	23	Placing wallstations into announce mode	42
8: Verify proper control of each Output using the Output Override option	24	<b>Index</b>	<b>43</b>

See page 11 for the list of commissioning steps

## Important Information

- Do not discard this programming guide. Please keep for future reference.
- Please read and follow all warnings given in this guide.
- Always disconnect all power before wiring.
- Use only as intended and at the listed voltage.
- All installation service must be performed by qualified personnel or service technicians.
- Install in accordance with National Electrical Code (NEC) and any other codes that may apply.
- High Voltage is present inside the enclosure. Use extreme caution when performing maintenance on this equipment. Failure to follow this warning and proper safety procedures could result in severe injury or death and/or damage to the equipment.
- Document all wiring that is terminated at the Source Controller so that the system can be properly configured and programmed for operation.

# Introduction

## Welcome

The iLumin SC-UN Universal Source Controller from Cooper Lighting Solutions has been designed to provide flexibility in both installation and operation. Each model in the product family can accept a variety of industry standard control options including iCANbus, DMX, Ethernet, and RS485. Also, every model can drive a wide range of lighting source types including incandescent, dimmable fluorescents, LEDs, neon/cold cathode, MLV (Magnetic Low Voltage), ELV (Electronic Low Voltage), and non-dimmable fluorescents.

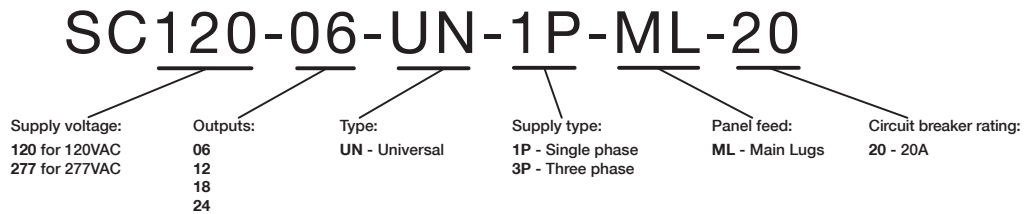
All Universal Source Controller models feature a fold-out control panel which provides access to an intuitive configuration menu to allow quick and flexible configuration.

This guide provides full information about programming the Source Controller using the control panel. For details about mounting and connecting iLumin SC-UN Universal Source Controller products, please refer to the accompanying Installation Guide (73-830-00 IM8476), for Feed Through Panel refer to Installation Guide (73-833-00 IM8853).

## Product Overview

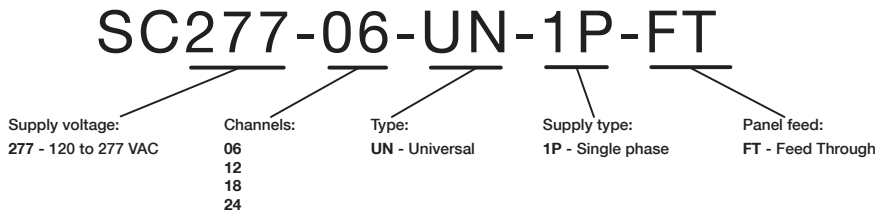
Each model is specified using a part number in the following format:

### For SC-UN with Breakers



Model number	Supply voltage	Supply type	Outputs	Feed	Maximum load
SC120-06-UN-1P-ML-20	120VAC	1 phase	6	Main lugs	16A per channel
SC120-12-UN-1P-ML-20			12		
SC120-06-UN-3P-ML-20		3 phase	6		
SC120-12-UN-3P-ML-20			12		
SC120-18-UN-3P-ML-20			18		
SC120-24-UN-3P-ML-20			24		
SC277-06-UN-1P-ML-20	277VAC	1 phase	6	Main lugs	16A per channel
SC277-06-UN-3P-ML-20		3 phase	6		
SC277-12-UN-3P-ML-20			12		
SC277-18-UN-3P-ML-20			18		
SC277-24-UN-3P-ML-20			24		

### For SC-UN-FT



Model number	Supply voltage	Supply type	Circuits	Maximum load
SC277-06-UN-1P-FT	120 to 277VAC	1 phase	6	16A per channel
SC277-12-UN-1P-FT			12	
SC277-18-UN-1P-FT			18	
SC277-24-UN-1P-FT			24	

See page 11 for the list of commissioning steps

# Terminology Used in this Guide

This guide uses standard terminology to describe the various aspects of equipment and operation. This brief section provides an overview of certain terms.

## Source Controller

A cabinet containing power dimming and/or switching circuitry to which lighting (or other) loads are directly connected.

## Control Panel

A compact fold out console which is contained within the front panel door of the SC-UN Source Controller. The control panel has an LCD screen and a keypad, and permits many configuration settings to be made to the SC-UN Source Controller.

## Output

An Output is physical circuit where electrical loads are connected and controlled. SC-UN Source Controllers can have between six and twenty four separate Outputs, depending on the model.

All SC-UN Outputs can be configured to dim or switch high voltage loads and can also provide low voltage dimming control signals where required.

Each Output within the SC-UN Source Controller has a physical number which cannot be altered.

## Zone

A Zone is a virtual representation of one or more Outputs. For instance, a room might contain three lights, each of which is connected to a separate Output on the Source Controller. If all three lights need to be switched On or dimmed in the same way, then it makes sense to represent them all as a single Zone.

The Outputs represented by a Zone do not need to be within the same Source Controller, they could be spread across any number of different Source Controllers.

Once the Outputs are represented by a Zone, the physical number related to each Output is only of relevance within the Source Controller that contains it. To all other devices, the Zone is the only item of interest.

## Scene

A Scene is a collection of settings for any number of Zones. They are the equivalent of **cues** in theatrical lighting.

For example, a hotel restaurant has breakfast, lunch and evening sittings. There are four Zones: Ceiling spots, wall washers, chandeliers and table lights. The manager wants to create a different mood for each sitting. Rather than adjusting each of the four Zones individually every time, you can collect different dimming levels for the channels into three separate Scenes (one for each sitting) and apply each to a different button on the wallstation.

Changing between the sittings becomes simple and consistent thanks to easy Scene selection.

## Area

An Area is a collection of one or more Zones that might have related operations. The most common example for an Area would be a single room. Imagine a restaurant with three zones: main ceiling lighting, worktop task lights and a pendant lamp over the table. The room has two wallstations. By grouping the three Zones into a single Area, it becomes straightforward to allow each wallstation to adjust any of the Zones within the room.

## Contact Closure Input

Each Source Controller has two volt-free contacts which can be used to accept inputs from external devices like fire and intruder alarms so that lighting can be automatically taken to a predetermined level to assist with visibility.

## Source Type

There are many different technologies that are used in today's buildings to create light. Incandescent, Fluorescent (dimnable and non-dimnable), LED, Neon/Cold Cathode, MLV - Magnetic Low Voltage, and ELV - Electronic Low Voltage are examples of source types.

## Wallstation

A wall mounted User Interface with either physical buttons or a touchscreen that allows occupants of a room to adjust lighting levels or controlling other devices like A/V equipment or shades.

## Device

Any iLumin equipment. For example, an Ineo is a Device. A Source Controller is also a Device.

## Node

Any iLumin Device connected to the iCAN network. For example, Source Controllers, Ineo's and Revio's connected to the iCAN network are Nodes.

## Segment

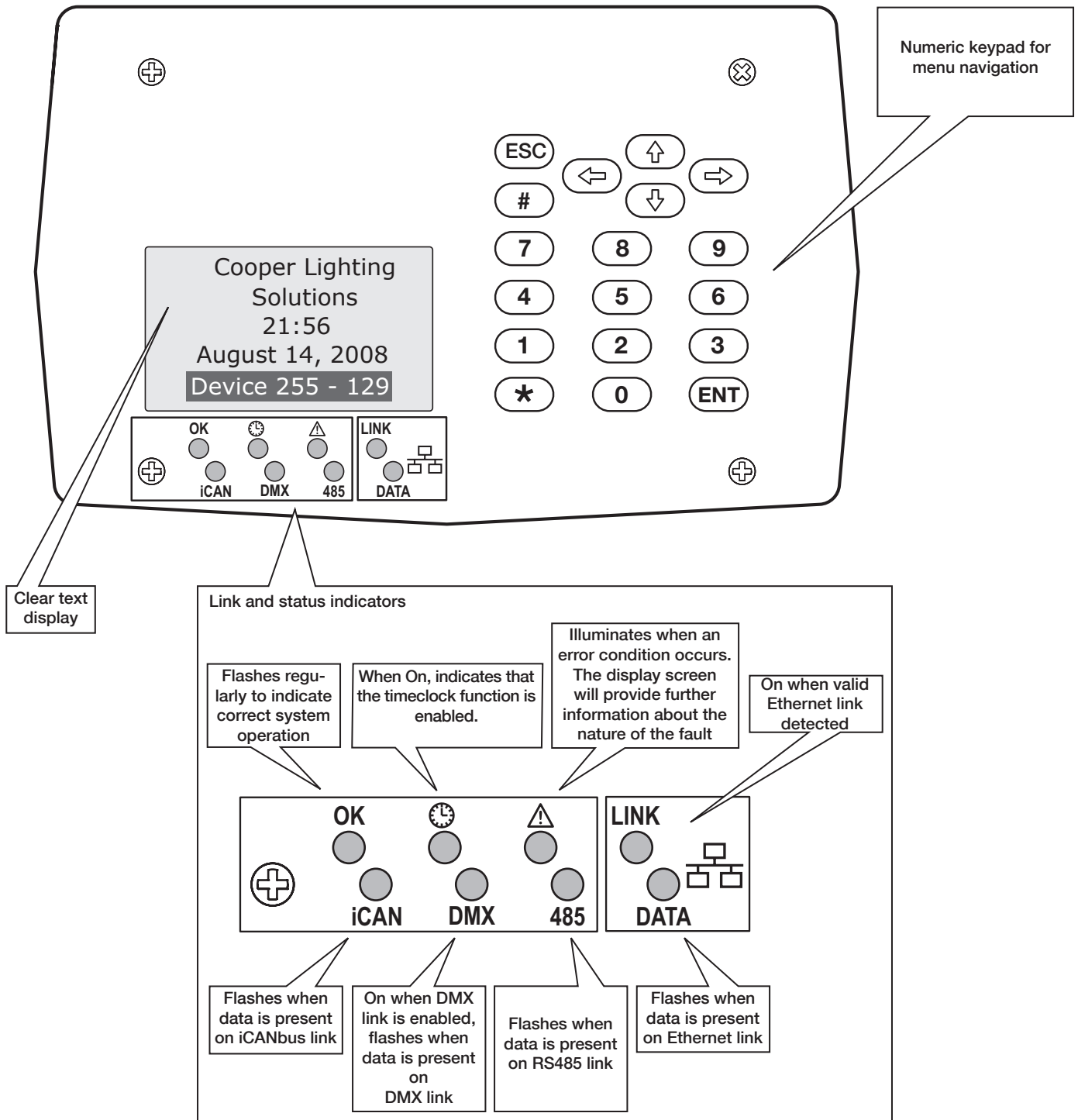
Devices connected together on the iCAN network in a daisy chain. Each Segment is terminated with 120-ohm resistors at both ends of the daisy chain. A Segment can contain up to 100 Nodes.

See page 11 for the list of commissioning steps

# Basic Control Panel Operation





## Using the Control Panel


Each Universal Source Controller provides a control panel to make programming and operation as straightforward as possible. To access the control panel, open the main panel door on the front of the unit.





## Menu Navigation

Within the control panel menu system, use the following buttons to navigate:

    Press to select an item or to save changes.

 Press to enter an option or select an item.

 Press to escape from an option and return to the previous level.

 The Asterisk will be used on some Scenes to perform special functions.

The menu system is comprised of two main sections:

- **The Operation menu**

Contains functions for users to operate the system. Functions include: Output override, Timeclock functions, Power data figures, etc.

- **The Configuration menu**

Provides functions primarily used during initial commissioning and subsequent fine tuning of the installation by engineers.

To prevent unauthorized access, use the Password Manager to configure four-digit passwords for the Operation and Configuration menus.

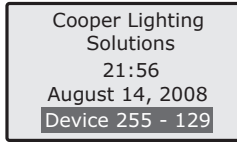
Please see the next pages for more detailed information about the Operation and Configuration menus.

See page 11 for the list of commissioning steps



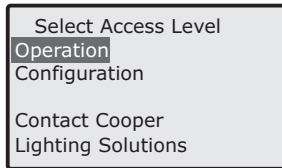
# Accessing the Menus

During normal operation, the control panel screen shows only the time, date and device number ⇨



## To access the menus

1. Press the **ENT** button to display the Select Access Level menu ⇨
2. Use the **↓** or **↑** buttons to highlight the required menu (Operation or Configuration) and then press the **ENT** button to select.
3. If requested, enter the four-digit password and press the **ENT** button.

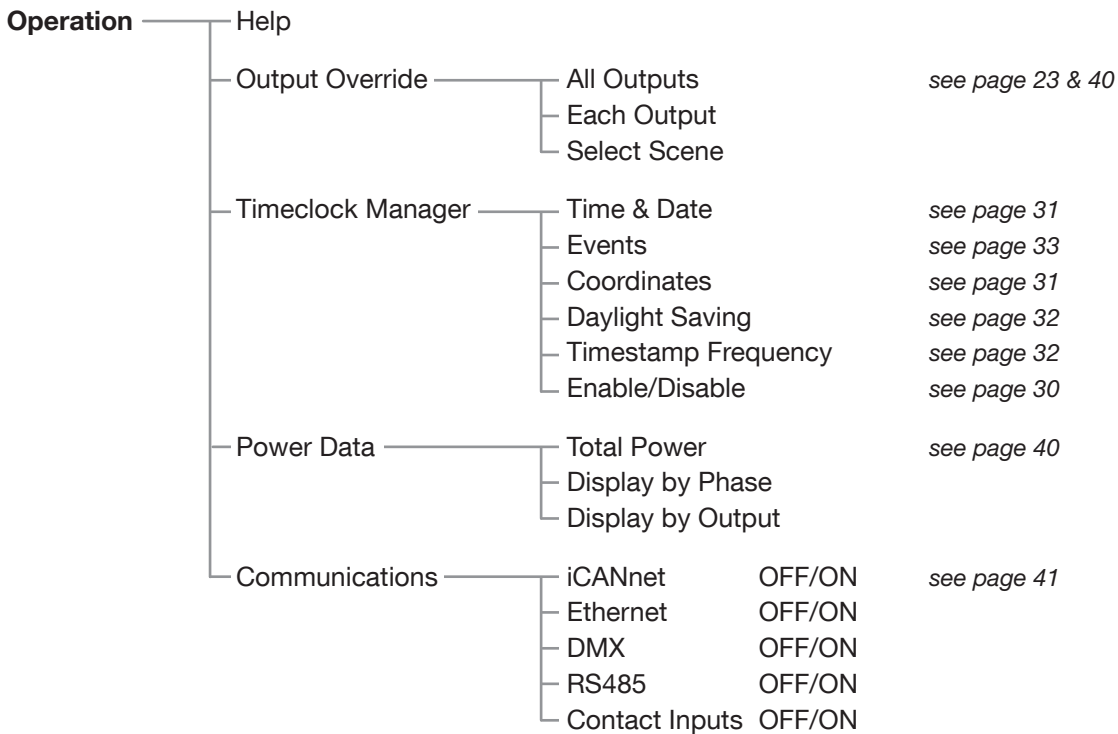
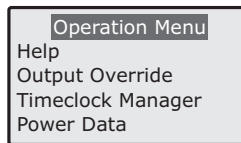


*Note: When the unit is supplied, there are initially no passwords - see the section 'Configuring passwords'.*

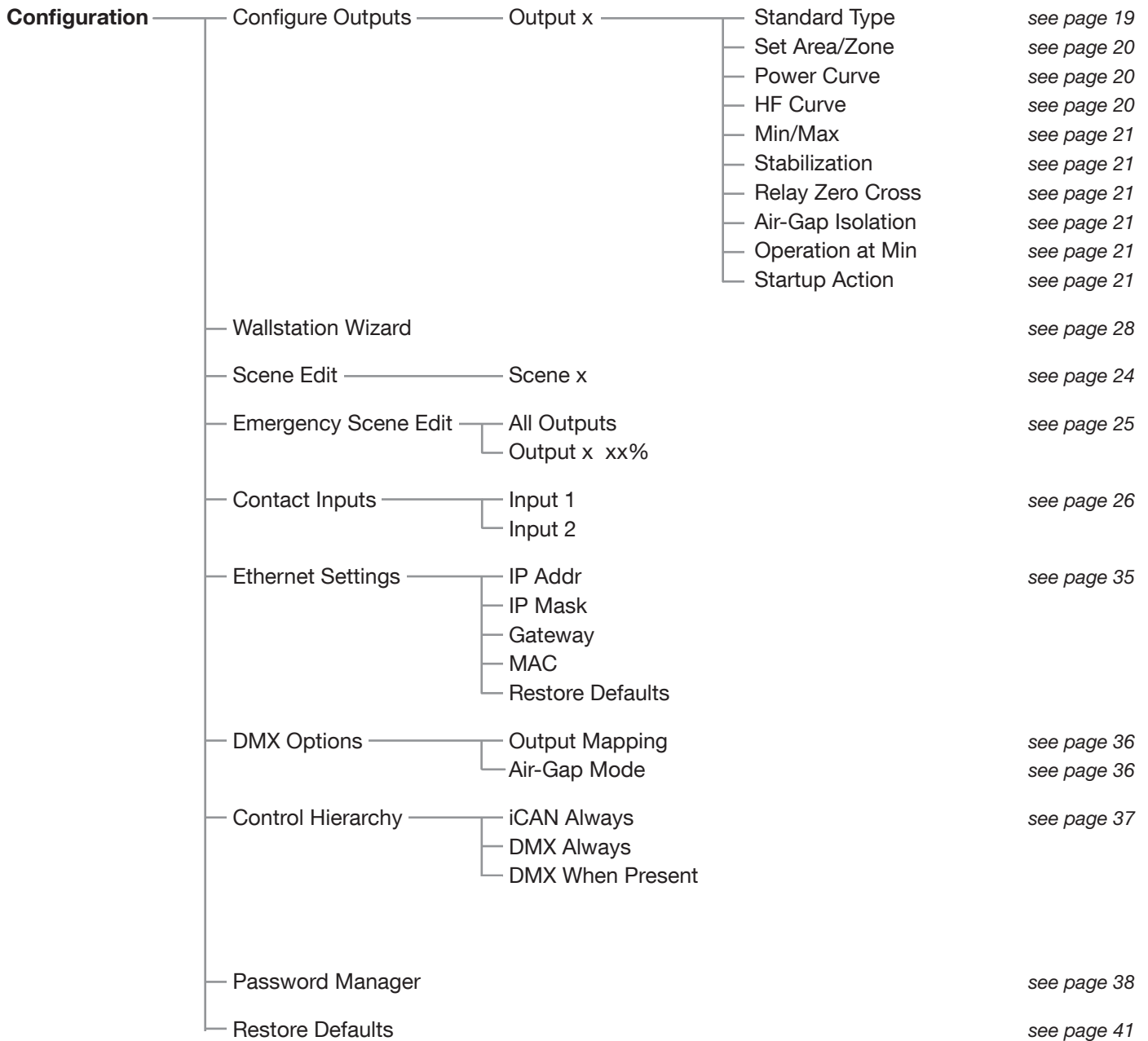
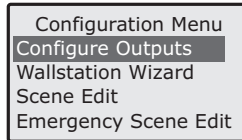
4. If the password is accepted, the chosen menu will be displayed.

# Menu Layouts

## Operation menu layout



# Configuration menu layout



See page 11 for the list of commissioning steps



# Commissioning an Installation

This section presents the required steps for commissioning a new installation or modifying an existing installation.

## Commissioning Steps:

STEP	ACTION	PAGE
1:	iCANnet control wiring	11
2:	Power down the Source Controller, remove panels and visually inspect all wiring and components	13
3:	Power up the Source Controller	15
4:	Energize each Output one at a time to determine the location, type and current draw of its load	16
5:	Configure Output behaviors	18
6:	Remove the bypass jumpers on used Outputs	21
7:	Covers the Source Controller and power the unit	21
8:	Verify proper control of each Output using the Output Override option	22
9:	Configure Scene Values	23
10:	Edit the Emergency Scene	24
11:	Connect and configure contact inputs	25
12:	Configure wallstations using the Wallstation Wizard	26
13:	Verify each wallstation	28
14:	Enable the timeclock	28
15:	Configure the time, date, coordinates and daylight saving time	29
16:	Configure timeclock events	31
17:	Configure Ethernet	33
18:	Configure DMX	34
19:	Configure passwords	36

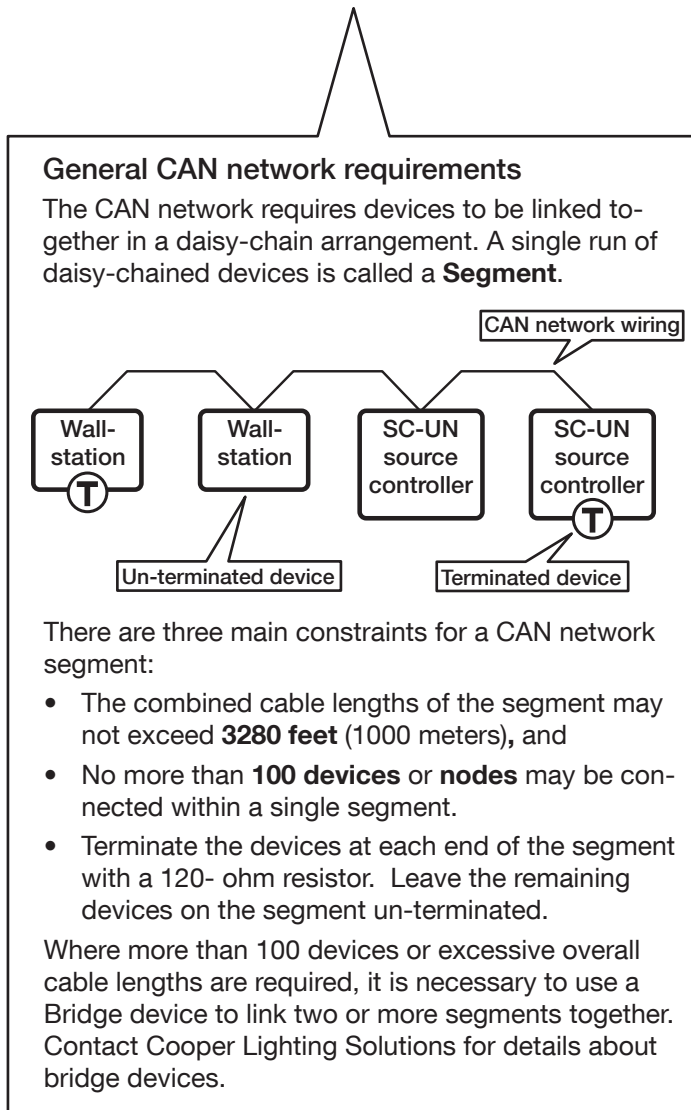
**Commissioning complete**

## Step 1: iCANnet control wiring

**Objective:** To identify the layout of the CAN network (also known as **iCANnet**) and connect the SC-UN Source Controller (and other devices) to it. Verify the electrical characteristics of the network and terminate the end devices.

### To identify the CAN network wiring layout

1. Use the installation plans to determine the layout of the installed CAN network.
2. Determine where the SC-UN Source Controller(s) are connected in the CAN network. In particular, identify the devices that are located at either end of the CAN network segment - these are the devices that must be terminated.



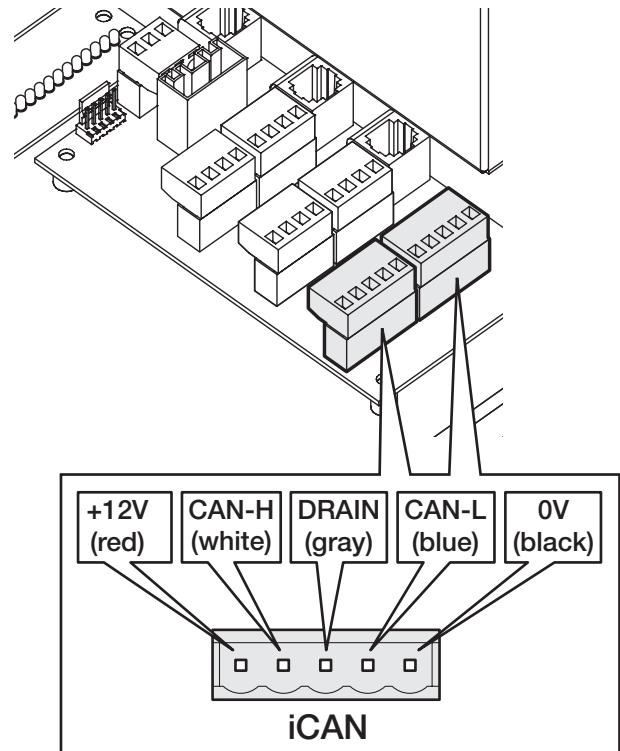
### To wire all devices to the CAN network

1. Open the main panel door.
2. Remove the small access hatch cover located at the base of the central panel by removing the four retaining screws.
3. If not already done, feed the CAN network cable(s) via one of the four base knockouts through to the control board area.

**Note:** There should be two CAN network cables unless the SC-UN Source Controller is at the end of the network segment, in which case there will only be one cable.

**IMPORTANT:** Keep all low voltage control wiring separate from high voltage power cabling to ensure safety and noise immunity.

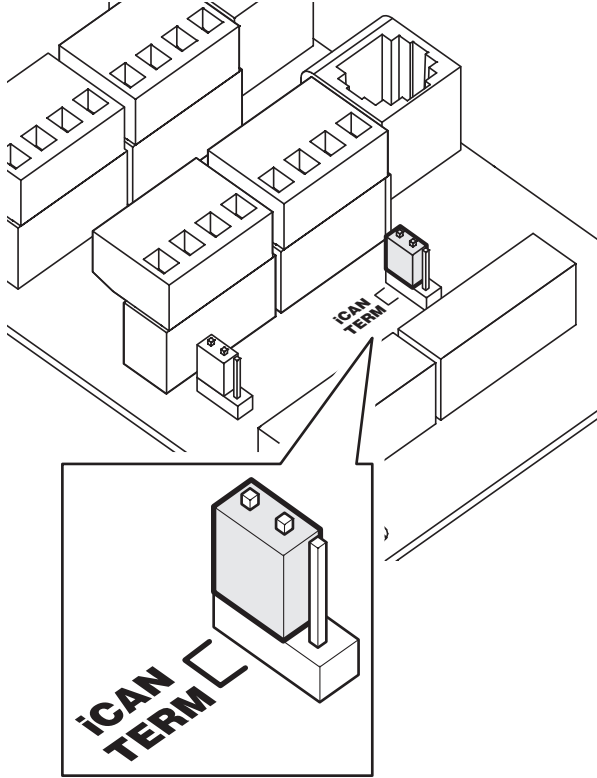
4. Connect the CAN network cable(s) to the iCAN connector(s) on the control board according to the following pin-outs:



5. Connect all other remaining devices to the CAN network according to the installation plans and the specific instructions for each device.

## To terminate end devices

1. Locate the iCAN termination jumper on the control board of the SC-UN Source Controller. It is next to one of the two iCAN connectors.



2. Set the jumper according to the position of the SC-UN Source Controller within the CAN network layout:
  - If the SC-UN is one of the end devices, set the jumper to the 'iCAN TERM' position.
  - If the SC-UN is NOT one of the end devices in the network, set the link to the other end of the jumper block.
3. Check all remaining devices to ensure that only the end devices are terminated.

**Note:** Some devices use jumper links (like the SC-UN) for termination control, others require a 120 Ohm resistor to be placed between the CAN-L and CAN-H connections. Check the documentation for each device.
4. Replace the small access hatch cover and secure with the four screws removed earlier.

## Step 2: Visually inspect all wiring and components and Power up the Source Controller

**Objective:** To verify proper wiring and mounting.

To ensure the Source Controller is powered down

### **For SC-UN**

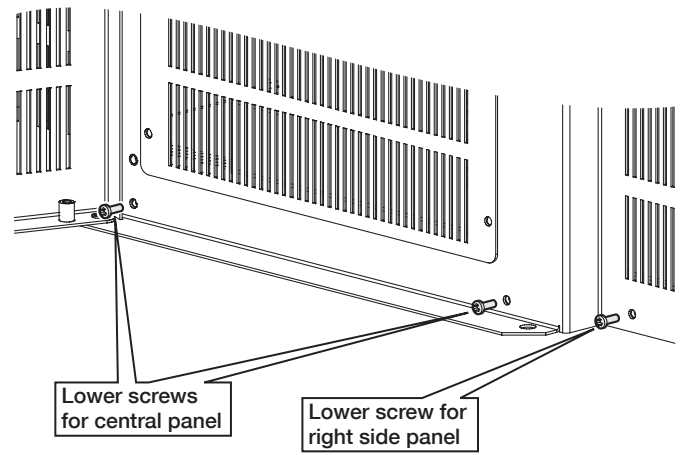
1. Locate the main breaker that feeds the Source Controller.
2. Turn off the main breaker.

### **For SC-UN-FT**

1. Locate the breaker that feeds the main power supply.
2. Turn off the power supply breaker.
3. Locate each breaker that feeds the dimmer cards.
4. Turn off each breaker that feeds the dimmer cards.

### To remove the front panels

1. Open the main panel door.
2. Remove the two upper and two lower screws that hold the central panel in place and carefully lift off the complete panel.
3. Now remove the single upper and single lower screw holding the right side panel in place. Carefully lift off the panel.

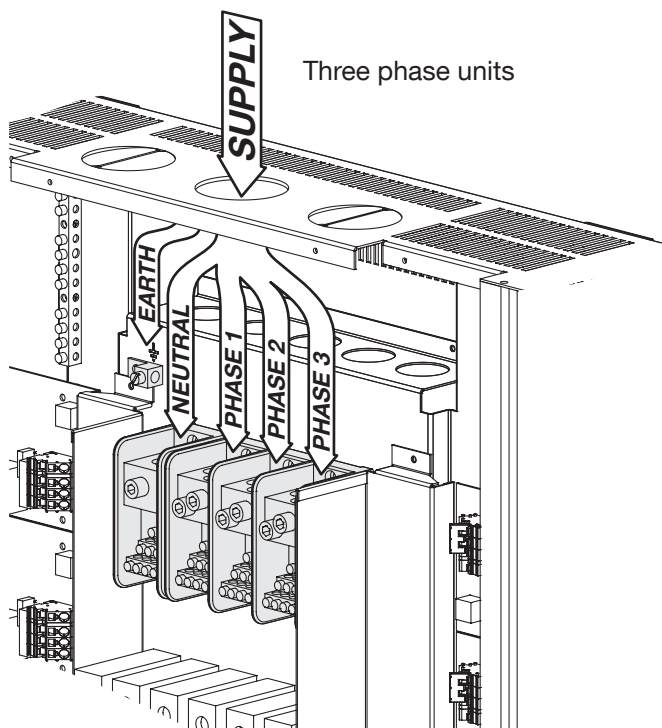
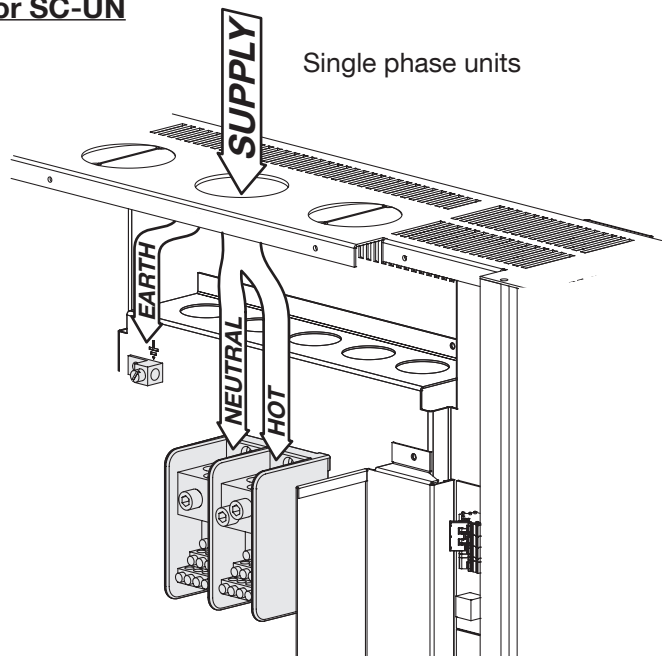


4. For 18 and 24 circuit models, repeat step 3 for the left side panel.

## To inspect all wiring and components

1. First check that the supply cabling safely enters via the top central knockout and is correctly and securely attached to the input contacts. Also check that the insulation for each cable is fully intact up to the point where it is stripped to enter the input contacts:

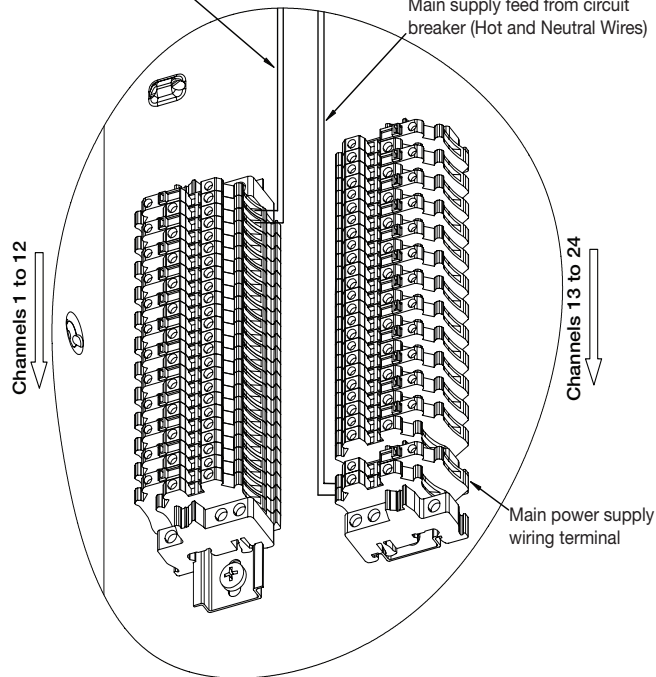
### For SC-UN



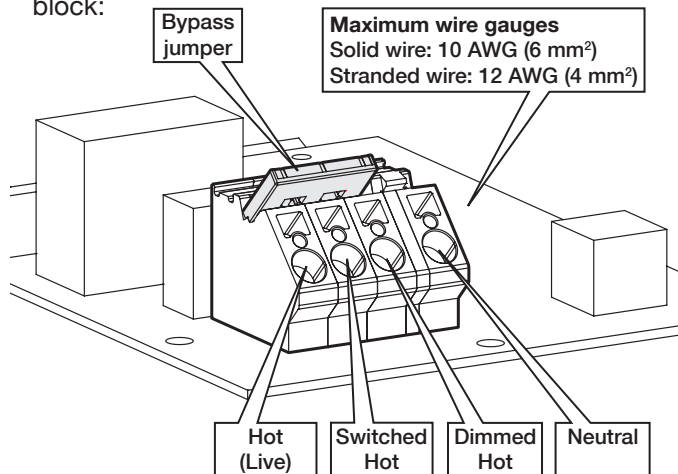
### For SC-UN-FT

Dimmer Channel feed from circuit breaker (Hot and Neutral Wires)

Main supply feed from circuit breaker (Hot and Neutral Wires)



2. Check that the load wiring has been correctly connected to each Output circuit and that each wire is fully insulated to the point at which it enters the connector block:

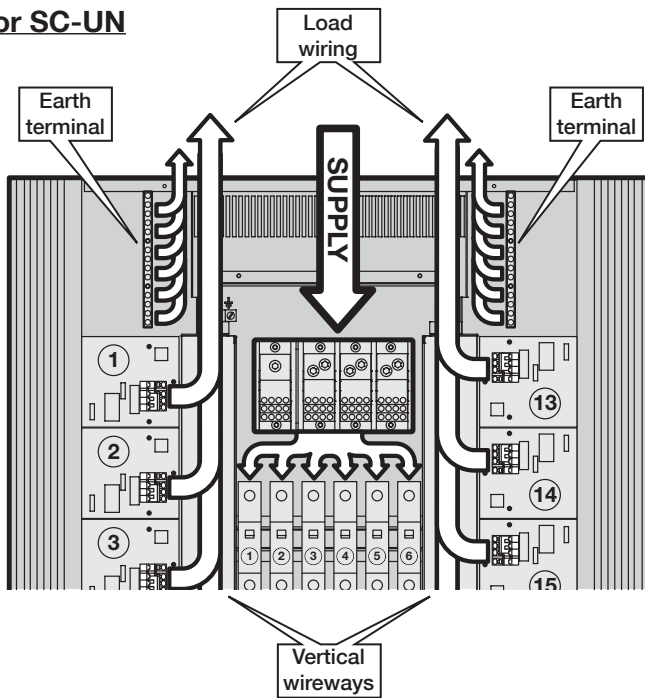


Inspect each Output circuit board for signs of any damage to components during installation.

3. Check that all load wires follow the vertical wireway(s) and exit through the appropriate knockouts into conduit and a wireway. Also check the earth links for each load in the terminal(s) at the top of the cabinet.

4. Wherever possible check the wiring out to the luminaires and also ensure that the total load on any single circuit will not exceed 16 amps.

#### For SC-UN



### Step 3: Power up the Source Controller

**Objective:** To power up the Source Controller.

#### To Power up the Source Controller

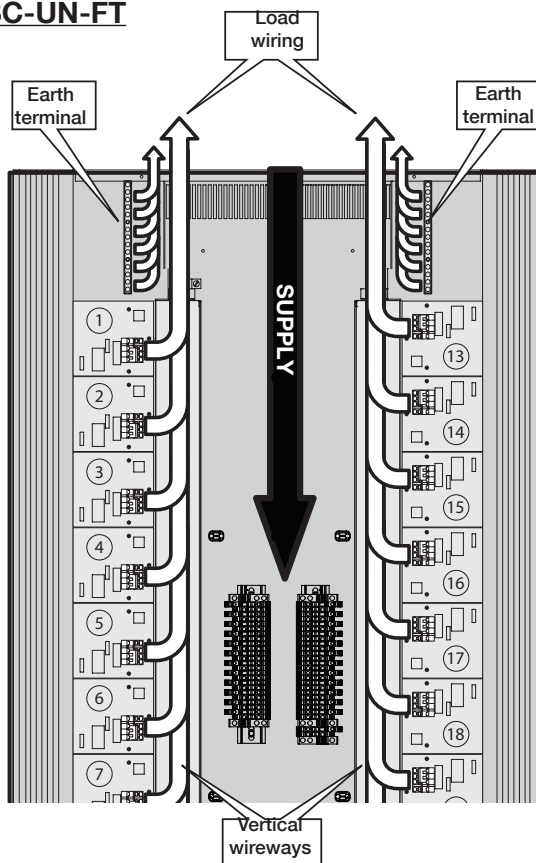
##### For SC-UN

1. Locate the main breaker that feeds the Source Controller.
2. If necessary, unlock the breaker from its off position.
3. Place the main breaker into its ON position.
4. Verify that the control panel on the unit is showing a lit screen and one or more indicator lights.

##### For SC-UN-FT

1. Locate the breaker that feeds the Source Controller's power supply.
2. Place the breaker in the on position.
3. Verify that the control panel on the unit is showing a lit screen and one or more indicator lights.

#### For SC-UN-FT





## Step 4: Energize each Output one at a time to determine the location, type and current draw of its load.

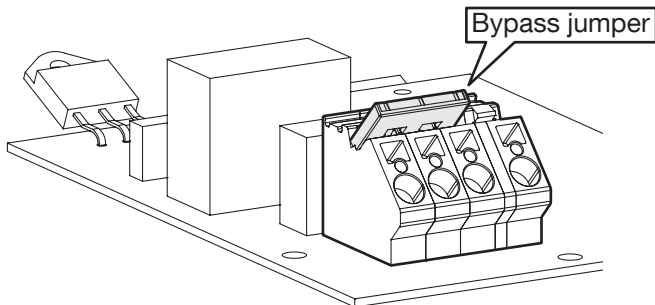
**Objective:** To confirm the location, type and current of the loads attached to each Output, prior to removing the bypass jumper.

To apply power to each Output and determine the location and type of the load

**WARNING:** Before applying power to any Output, check that the associated load wiring and load(s) are in a safe condition and are ready to be energized. With the bypass jumper in place on the Output card, power will be fed through to the load as soon as the breaker is switched on.

### For SC-UN

1. For a single Output, place the associated breaker into the ON (Up) position to supply power to that Output.
2. Using the installation plans as a guide, walk around the installation site and identify which luminaires have been energized as a result of switching on the breaker.

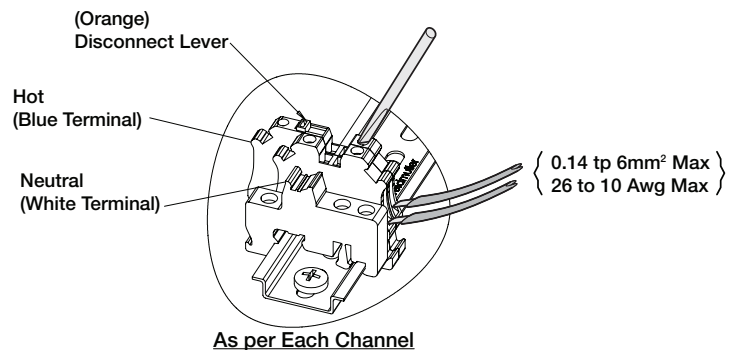


3. Log a description of the luminaires against the Output number. Also note the type of luminaires used as this information will be needed when setting the Output behaviors prior to removing the bypass jumpers.
4. Leave all unused breakers in the down (off) position.

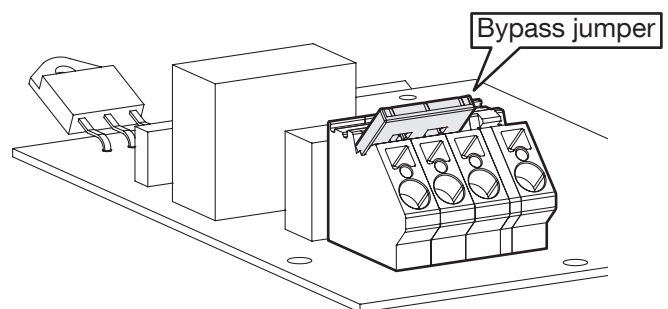
**WARNING:** Before applying power to any Output, check that the associated load wiring and load(s) are in a safe condition and are ready to be energized. With the bypass jumper in place on the Output card, power will be fed through to the load as soon as the channel HOT screw terminal is connected.

### For SC-UN-FT

1. For each used Output, make certain that the orange disconnect lever on the breaker wiring terminal block is engaged across the hot terminal. Ensure that the bypass jumper is still in place on the output card.



2. Locate the circuit breaker that feeds the first dimmer output.
3. Energize the circuit breaker.
4. Using the installation plans as a guide, walk around the installation site and identify which luminaires have been energized as a result of switching on the breaker.
5. Log the breaker panel and circuit number that feeds each Output. Log a description of the luminaires against the Output number. Also note the type of luminaires used as this information will be needed when setting the Output behaviors prior to removing the bypass jumpers

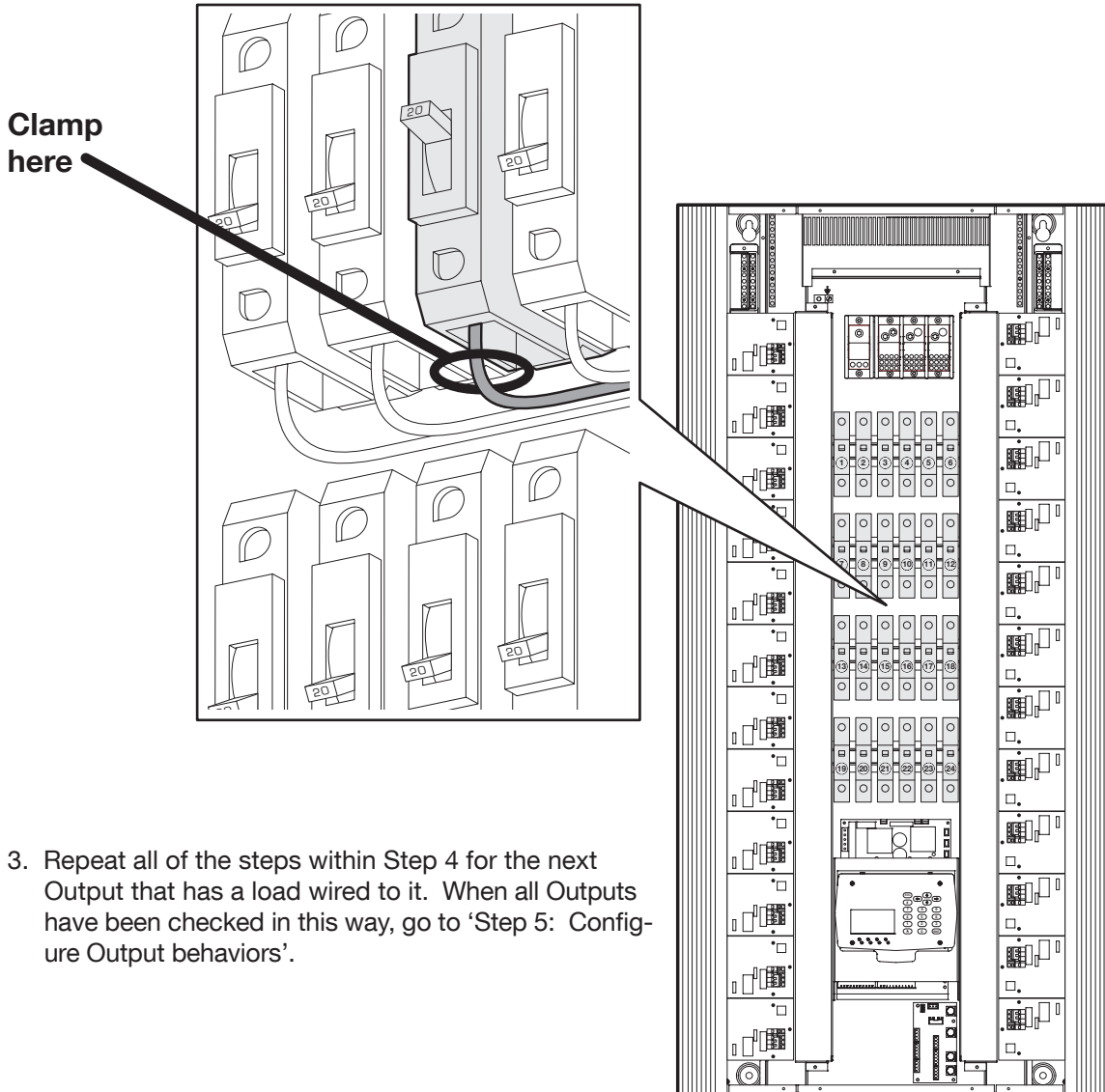


## Step 4 (continued)

### Measure the current draw of the load

#### For SC-UN

1. For the Output that is currently energized, locate the live wire that exits from the base of the breaker.
2. Carefully place a clamp meter around the wire and read the current. If the reading exceeds 16 amps then you must not proceed any further with this circuit. There may be a short circuit or the load is too large. Check all wiring and each luminaire. If necessary, consider splitting the load across more than one Output.

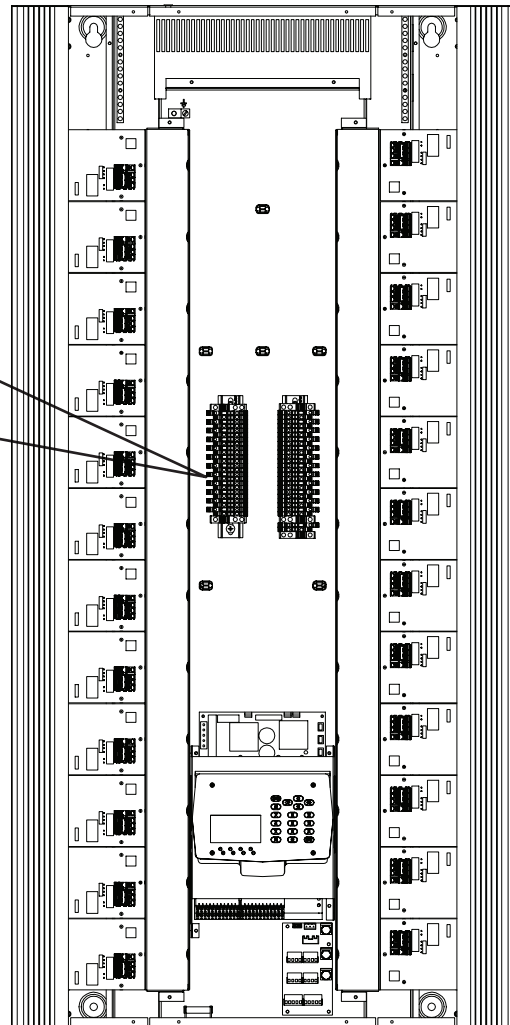
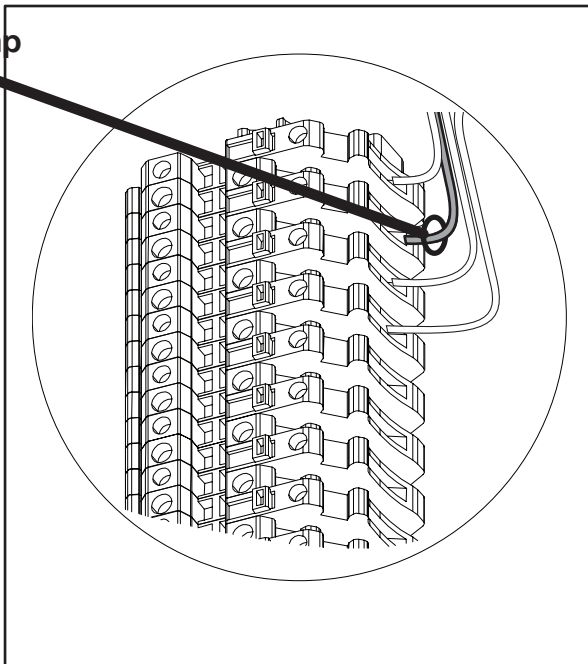


3. Repeat all of the steps within Step 4 for the next Output that has a load wired to it. When all Outputs have been checked in this way, go to 'Step 5: Configure Output behaviors'.

## For SC-UN-FT

1. For the Output that is currently energized, locate the live wire that exits the HOT terminal block.
2. Carefully place a clamp meter around the wire and read the current. If the reading exceeds 16 amps then you must not proceed any further with this circuit. There may be a short circuit or the load is too large. Check all wiring and each luminaire. If necessary, consider splitting the load across more than one Output.
3. Repeat all of the steps within Step 4 for the next Output that has a load wired to it. When all Outputs have been checked in this way, go to 'Step 5: Configure Output behaviors'.

Clamp  
here



## Step 5: Configure Output behaviors

**Objective:** To configure each Output to properly control the connected load type.

### To configure the behavior of an Output

- From the Configuration menu, highlight the 'Configure Outputs' option and press the (ENT) button. The display will show a summary of the settings for the first output:

**Output 1**  
Power curve: Square  
HF curve: Switched  
Min 5% Max 90%  
< > for more

- Use the (↓) or (↑) buttons to navigate the Outputs.
- Press the (ENT) button to edit details for the current Output number:

Configure Output 1  
Standard Type  
Set Area and Zone  
Power Curve (Square)  
HF Curve (Switched)

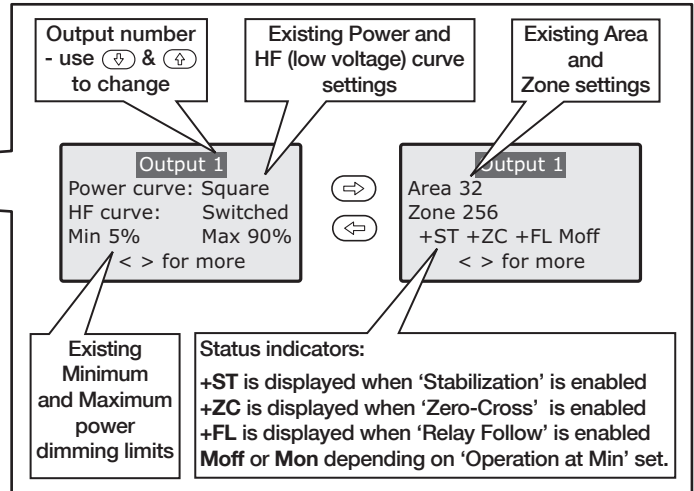
- Highlight the 'Standard Type' option and press the (ENT) button. The list of standard lighting loads will be displayed:

Output 1 Standard Type  
Incandescent/MLV  
Non-Dim Source  
Electronic Low Voltage  
0-10V Driver/Ballast

- Highlight the type that most closely matches the load connected to the Output and press the (ENT) button. Once selected, all basic parameters will be set for the load (as summarized right) and you will be returned to the 'Configure Output x' menu. Other options can be changed here, however, for most standard installations no further changes are required. See the next two pages for details about all of the available options in the Configure Output menu.

**Note:** The 'Set Area and Zone' option allows you to assign the chosen Output to a particular Area and Zone - these operations can also be performed later using the iCANsoft application.

- Press the (ESC) button to return to the summary of settings for the Output. From here, either:
  - Select another Output number using the (↓) or (↑) buttons, or
  - Press the (ESC) button to return to the Configuration menu.



Load Type	Power Curve	HF Curve	Min	Max	Stabilization	Operation at Min	Relay Zero Cross	Air-Gap Isolation
Incandescent/MLV	Square Law	0-10V	0	90	✓	Off	✓	✓
Non-dim source	Switched	Switched	0	100	✗	Off	✓	✓
Electronic Low Volt.	Square Law	0-10V	5	90	✓	Off	✓	✓
0-10V driver/ballast	Switched	0-10V	0	100	✗	Off	✓	✓
1-10V driver/ballast	Switched	1-10V	0	100	✗	Off	✓	✓
3-wire fluorescent	Square Law	0-10V	20	90	✗	Off	✓	✓
2-wire fluorescent	Square Law	0-10V	12	100	✓	Off	✓	✓
Neon	Square Law	0-10V	20	90	✓	Off	✓	✓

When all Outputs are configured, go to Step 6

## Options when configuring Output behaviors

There are various options available to configure the behaviors of each Output to suit their connected loads. These pages summarize all of the options.

### Standard Type

Use this option to quickly configure all of the default settings for a particular type of load connected to an Output. The various default settings are summarized below:

Configure Output 1
Standard Type
Set Area and Zone
Power Curve (Square)
Min/Max (0/100)
Stabilization
Relay Zero Cross *
Air-Gap Isolation *
Operation at Min (Off)
Startup Action (Last sc)

Once the standard type settings are in place for the Output, you can then optionally visit the other options separately to adjust the configuration if required.

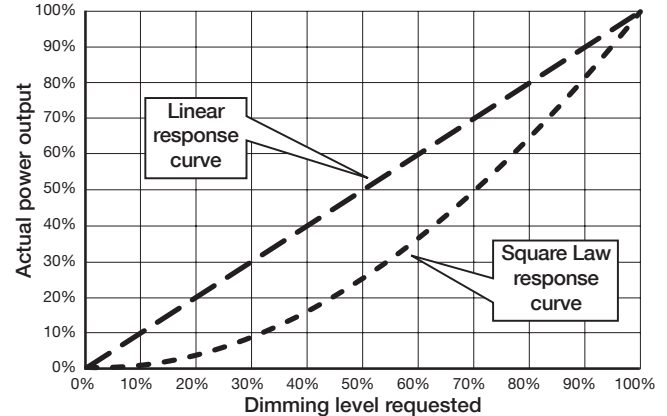
### Set Zone/Area

This option allows you to assign the Output to a Zone and Area number, without the need to use the iCAN-soft application. The Zone number will be used to identify the Output across the iCANnet network.

### Power Curve

This option determines the relationship between the requested dimmer level and the actual power level supplied to the load. There are three options to cover the various load types that can be controlled.

- **Linear** produces a like-for-like response, i.e. 40% level requested, 40% power level supplied.



- **Square Law** modifies the relationship to account for how the human eye adapts to reduced light levels. The above graph reflects the difference between the linear and square law power response curves.
- **Switched** is either fully on or fully off. Any dimming level request above zero will cause full power to be instantly supplied.

### HF Curve

This option defines the relationship of the low voltage (0-10V) Output to the dimmer level. The ranges that can be selected are: 1-10V, 0-10V, 10-1V, 10-0V.

### Min/Max

Allows you to define the minimum and/or maximum dimming levels. This option is used primarily when loads of certain types are used, such as neons, which become unstable at extremely low dimming levels. Both settings are expressed as percentages of the total standard dimming range. When the range of an Output is configured in this way, its reduced dimming range will be scaled to fit within the normal 0 to 100% dimming instructions received from wallstations and other controllers.

### Stabilization

This option invokes a system that filters fluctuations in the main power source to maintain a consistent true voltage level to the connected load.

### Relay Zero-Cross

When this option is set to 'Switch at 0 Volts', the opening and closing of the relay will be synchronized with the zero-crossing point of the sine wave in order to protect the relay contacts from arc damage.

In most instances, you should leave this option enabled.

### Air-Gap Isolation

This option relates to the operation of the relay which is used within each output to ensure full 'air gap' load isolation when the dimming level is at zero.

When this option is set to 'Open at 0%', the relay will isolate the circuit when the dimming level reaches zero.

When this option is set to 'Disabled', the relay will maintain contact continually and will not isolate the circuit at any time.

### Operation at Min

This option determines what the Output should do when the chosen Minimum level is reached.

When this option is set to 'Turn Off', the Output will switch off when the corresponding minimum level is reached.

When this option is set to 'Stay at Min', the Output will remain at the corresponding minimum level.

### Startup Action

This option determines how the selected Output should recover from a power failure once the supply is restored. There are three settings available:

- **Restore Last Scene** reinstates the scene that was being displayed when the power outage occurred.
- **Use Emergency Scene** will display the scene that is defined within the 'Configuration' > 'Emergency Scene Edit' option.
- **Select Scene** allows you to assign any standard scene numbered up to 128. When you select this setting, a sub page will request the scene number.

## Step 6: Remove the bypass jumpers on used Outputs.

**Objective:** To release each active Output circuit so that dimming control becomes possible.

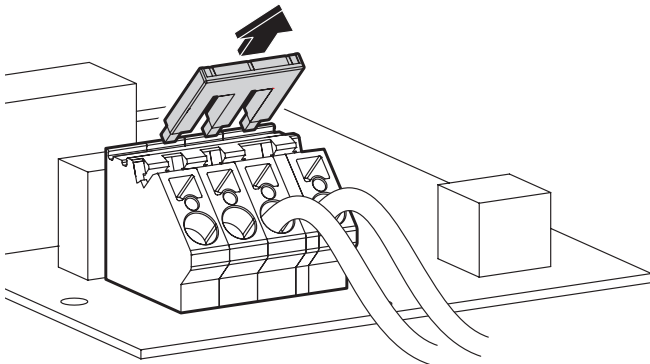
### To remove the bypass jumper

#### For SC-UN

1. Locate the main breaker that feeds the Source Controller. Turn off the main breaker.
2. If they are not already taken off, remove the front panels from the Source Controller. See step 2 for details.
3. Carefully remove the bypass jumper from the Output board. Insert the tip of a flatblade screwdriver at the indentation by the intersection of the terminal block and jumper and twist the flatblade to remove the jumper.
4. Repeat step 3 (above) for all other active Output circuits.
5. Replace the front panels onto the Source Controller. See Step 7 for details.

#### For SC-UN-FT

1. Locate the breaker that feeds the main power supply. Turn off the power supply breaker.
2. If they are not already off, locate each breaker that feeds the dimmer cards. Turn off each breaker that feeds the dimmer cards.
3. If they are not already taken off, remove the front panels from the Source Controller. See step 2 for details.
4. Carefully remove the bypass jumper from the Output board. Insert the tip of a flatblade screwdriver at the indentation by the intersection of the terminal block and jumper and twist the flatblade to remove the jumper.
5. Repeat step 4 (above) for all other active Output circuits.

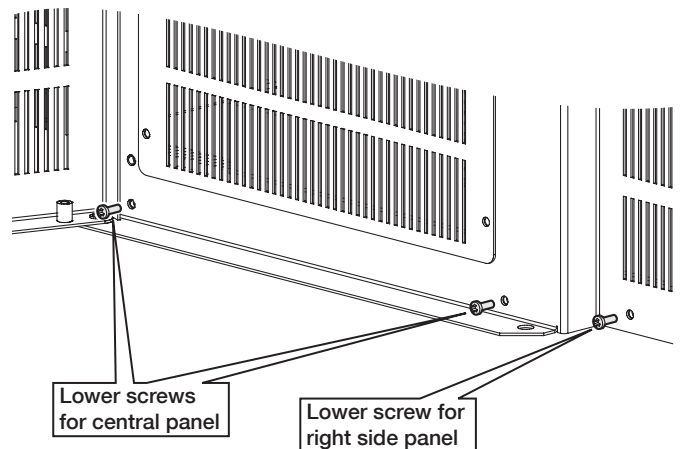


## Step 7: Cover the Source Controller and power the unit

**Objective:** To make safe the Source Controller and apply power to it.

### To replace the front panels

1. Replace the side panel(s) first. Place the right side panel onto the chassis and replace the upper and lower fixing screws.
2. For 18 and 24 circuit models, repeat step 1 for the left side panel.
3. Place the central panel onto the chassis and open the door. Replace the two upper and two lower fixing screws.



### To Power up the Source Controller

#### For SC-UN

1. Locate the main breaker that feeds the Source Controller.
2. If necessary, unlock the breaker from its off position.
3. Place the main breaker into its ON position.
4. Verify that the control panel on the unit is showing a lit screen and one or more indicator lights.

#### For SC-UN-FT

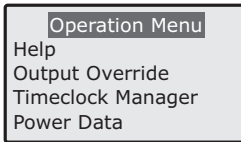
1. Locate the breaker that feeds the Source Controller's power supply. Place the breaker in the on position.
2. Locate the breakers that feed the dimmer Outputs. Place the breakers in the on position.
3. Verify that the control panel on the unit is showing a lit screen and one or more indicator lights.6. Replace the front panels onto the Source Controller. See Step 7 for details.



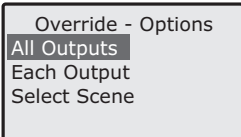
## Step 8: Verify proper control of each Output using the Output Override option

**Objective:** To prove that each Output can be controlled by dimming commands.

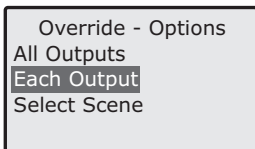
To use the Output Override option



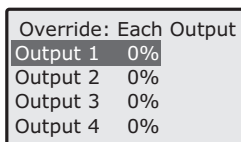
1. From the Operation menu, highlight the 'Output Override' option and press the (ENT) button. The display will show the available options:



2. Use the (↓) or (↑) buttons to highlight the 'Each Output' option and press the (ENT) button.



3. Use the (↓) or (↑) buttons to highlight each Output sequentially and then, either:



- Use the (←) or (→) buttons to decrease or increase the dimming level, or
  - Use the numeric keypad to enter a dimming level from 0 to 100% and then press the (ENT) button to set the Output to the selected level.
4. Check that the load responds as expected and then return the dimming level to zero using either of the above two methods.
  5. Repeat Steps 3 & 4 for each Output. If the loads do not respond correctly, verify the output programming from Step 5 on Page 18.



## Step 9: Configure Scene Values

**Objective:** Configure the Scene value for each Output.

### To set local Scene Value

1. From the Configuration menu, highlight the 'Scene Edit' option and press the **(ENT)** button. The display will show a list of Scene numbers ranging from 1 to 128:

Scene config: Scene	
Scene 1	(empty)
Scene 2	(empty)
Scene 3	(empty)
Scene 4	(empty)

2. Use the **(↓)** or **(↑)** buttons to highlight the required Scene number and press the **(ENT)** button. The display will show a list of the Outputs contained within the Source Controller and their dimming levels within the scene.
3. Use the **(↓)** or **(↑)** buttons to highlight the required Output number and then change its value in any of the following ways:

Scene 1 Levels	
Output 1	10%
Output 2	50% SM
Output 3	Ignore
Output 4	Ignore

- Press the **(←)** or **(→)** buttons to decrease or increase the dimming level,
- Use the numeric keypad to directly enter the required dimming level, from 0 to 100% and press the **(ENT)** button to set the Output to the selected level.
- Press the **(\*)** button to change between the dimming level, the dimming level with an 'SM' (Scene Modify) suffix and the 'Ignore' option.

During normal operation, Scene Modify commands may be issued by a controller on the iCANnet network or from the 'Events' section within the Source Controller. Any Outputs that are marked with 'SM' in the Scene will be adjusted (in proportion) by a stated amount from their normal Scene levels. Outputs without the 'SM' suffix will remain unaffected by any Scene Modify commands. Outputs configured to 'Ignore' a Scene selection will remain uncharged at their previous state whenever this Scene is selected.

4. Repeat step 3. for all other Outputs, as necessary.
5. To save all changes press the **(ENT)** button. To exit and return to the previous screen, press the **(ESC)** button.

### To select a Scene

1. From the Operation menu, highlight the 'Output Override' option and press the **(ENT)** button. The display will show the available options:

Override - Options	
All Outputs	
Each Output	
Select Scene	

2. Use the **(↓)** or **(↑)** buttons to highlight the 'Select Scene' option and press the **(ENT)** button.

Override - Options	
All Outputs	
Each Output	
Select Scene	

3. Choose the required Scene number in either of two ways:

Override: Select Scene	
Select Scene	
1	

- Press the **(←)** or **(→)** buttons to decrease or increase the required Scene number.
  - Use the numeric keypad to directly enter the required Scene number and press the **(ENT)** button to select the scene.
4. To exit, press the **(ESC)** button to return to the previous screen.

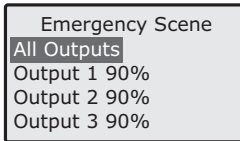
## Step 10: Edit the Emergency Scene

**Objective:** To configure the desired Output levels for the Emergency Scene.

The Emergency Scene is pre-configured to set all Output levels to 100%. If you do not need to edit the Emergency Scene as part of your commissioning process, then go straight to Step 11.

### To edit the Emergency Scene

1. From the Configuration menu, highlight the 'Emergency Scene Edit' option and press the **(ENT)** button. The display will show a list of the configured Output settings:



2. You can alter Output levels collectively or individually, as required:

**Collectively** - Highlight the 'All Outputs' option and either type the required dimming level using the keypad or use the **(←)** or **(→)** buttons to adjust the current value for all Outputs and press the **(ENT)** button.

**Individually** - Highlight the required Output and either type the required dimming level using the keypad or use the **(←)** or **(→)** buttons to adjust the current value and press the **(ENT)** button to set the Output value.

3. To exit, press the **(ESC)** button to save all changes and return to the previous screen.

### What is the Emergency Scene?

The Emergency Scene is a group of settings for one or more Outputs that will only be used in cases of emergency, generally to provide evacuation lighting. The Emergency Scene can be invoked in any of four ways:

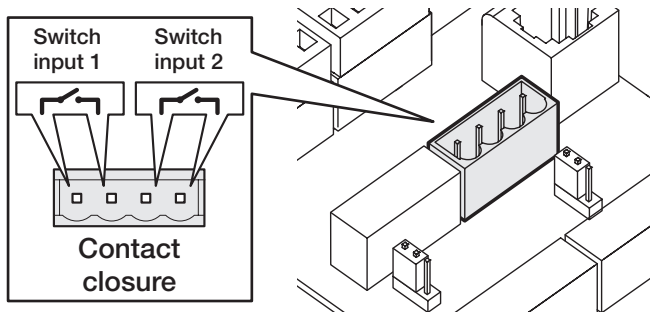
- When a Contact Closure Input places the Source Controller into the Emergency State (a condition where most CAN messages are ignored and the Emergency Scene is displayed until such time that the Emergency State is cancelled).
- During the restoration of the supply following a power outage (dependant on the setting within the Configure Outputs Startup Action option - see page 20).
- By using the 'Operation' > 'Output Override' > 'Select Scene' option and selecting Scene 132.
- On receipt of an iCANnet Emergency message.

## Step 11: Connect and Configure Contact Inputs

**Objective:** To connect and configure the volt-free inputs that allow event triggers from devices and other building systems to invoke appropriate reactions from the Source Controller.

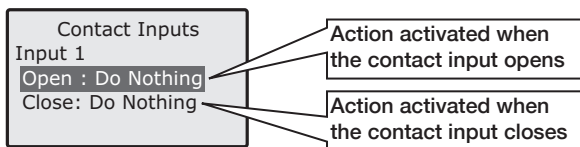
### To connect contact inputs

1. Access the control board located at the base of the SC-UN cabinet, as discussed in Step 1.
2. Connect the input wires from the external system to either switch input 1 or switch input 2 of the Contact Closure connector.

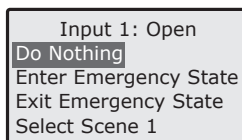


### To configure contact inputs

1. From the Configuration menu, highlight the 'Contact Inputs' option and press the **(ENT)** button. The display will show the current settings for the first input:



2. Use the **(↓)** or **(↑)** buttons to highlight the required contact input condition ('Open' or 'Close') and press the **(ENT)** button. The display will show the actions that are available for the chosen contact input condition:

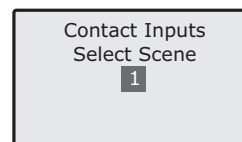


- **Do Nothing** The Source Controller will ignore the input state.
- **Enter Emergency State** When the contact input condition becomes true, the Source Controller

**Note:** The input from the external system should just provide a volt free contact between the two input terminals when it is active; it should not introduce any external voltage onto either wire.

will enter the special Emergency State. While in this state, the dimming levels configured for the Emergency Scene will be used and the unit will not respond to most iCAN messages until the Emergency State is cancelled. The Emergency State can be cancelled either upon receipt of a special iCAN message or by using the 'Exit Emergency State' on the opposing contact input condition.

- **Exit Emergency State** When the contact input condition becomes true, the Emergency State will be cancelled, all iCAN messages will be accepted and normal operation will resume with the scene last displayed before the Emergency State.
- **Select Scene xxx** When the contact input condition becomes true, the outputs of the Source Controller will change to those defined within the selected scene number. When this setting is chosen and you press the **(ENT)** button, a second screen will prompt you to enter a scene number:



Enter the appropriate scene number and press the **(ENT)** button.

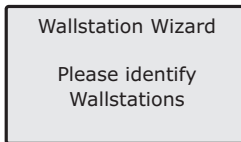
3. Repeat step 2. for the alternate condition within the same contact input. For instance, if the 'Close' contact input condition is set to 'Enter Emergency State', then the corresponding 'Open' condition should be set to 'Exit Emergency State' in order to return the Source Controller back to normal operation.
4. If necessary, configure the other contact input by using either the **(↓)** button to scroll down to 'Input 2' or the **(↑)** button to scroll up to 'Input 1'.

## Step 12: Configure wallstations using the Wallstation Wizard

**Objective:** Use the Wallstation Wizard to quickly locate wallstations and program them directly from the SC-UN control panel. If you do not need to configure wallstations as part of your commissioning process, then go straight to Step 13.

### To use the Wallstation Wizard

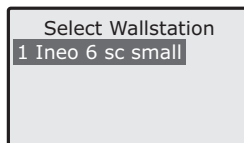
- From the Configuration menu, highlight the 'Wallstation Wizard' option and press the **(ENT)** button. The display will request you to identify:



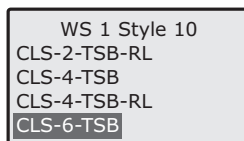
- Go to each wallstation and prompt each one in turn to send out an 'announcement' message over the iCANnet network. The Wallstation Wizard will listen for announcements and will add any response to its list of devices.

**Note:** The various models of wallstations each have their own method to cause an announcement message. Please see Appendix 1 of this guide for more information.

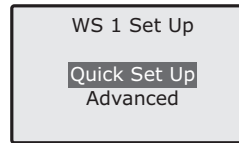
When the first announcement message is received, the Wallstation Wizard will list the device:



- Press the **(ENT)** button to select the highlighted device. The screen will now show the expected style for the wallstation. This relates to the button layout, of which there can be many for each type of wallstation. You may need to check the details of the wallstation to discover its exact style options.
  - If the button layout style is correct, press the **(ENT)** button to choose the highlighted 'OK' option - go to step 4.
  - If the button layout style does not match the wallstation, move the highlight to the 'Change' option and press the **(ENT)** button. Each wallstation contains a style number. Select the style that matches the style number printed on the wallstation. The available styles will be listed:



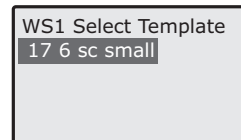
Move the highlight to the desired style and press the **(ENT)** button to select. The Select Template screen will be displayed - go to step 5.



- The screen will now allow you to choose between the 'Quick Set Up' or 'Advanced' methods:
  - Quick Set Up creates standard settings for the whole wallstation based upon just three details that you provide.
  - Advanced allows you to program each button individually.
 Highlight the required mode and press the **(ENT)** button.

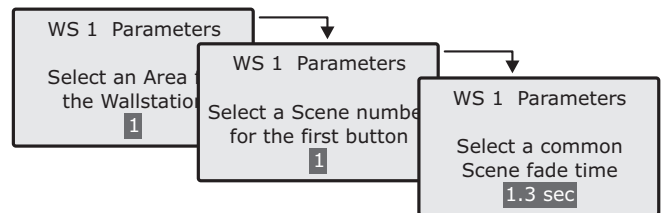
- Use the chosen mode to program the wallstation:

### Quick Set Up



- In Quick Set Up, your first action is to choose the programming template to be used:

In many cases there may just be one template, however, some wallstations may provide a choice. If so, highlight the appropriate template and press the **(ENT)** button.



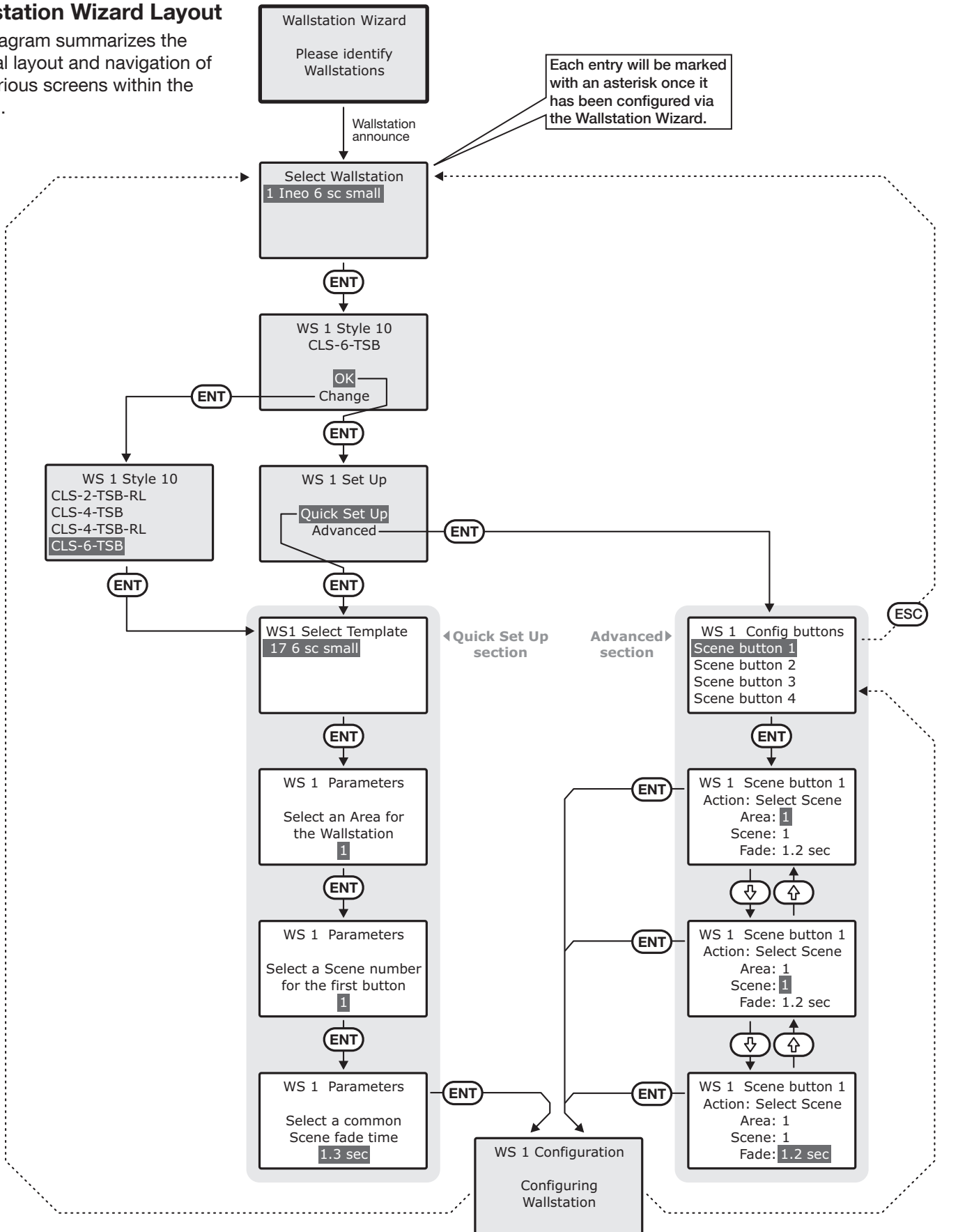
- You will be asked for three parameters: An Area number, an initial Scene number and a common fade time: Use the keypad to enter the first two items, and the **(←)** and **(→)** buttons to adjust the fade time. The buttons will all be programmed with the same Area and Fade details and increment Scene numbers from your initial Scene parameter.

### Advanced

- The initial advanced screen will show all of the buttons. Highlight a button and press the **(ENT)** button.
- You can now adjust the Area, Scene and Fade details for the chosen button. Use either the keypad (not for fade) or the **(←)** and **(→)** buttons to adjust each entry and then press the **(ENT)** button to send your changes to the wallstation and return to the main advanced screen.
- When you have finished programming the buttons, press the **(ESC)** button to return to the 'Select Wallstation' screen.

# Wallstation Wizard Layout

The diagram summarizes the general layout and navigation of the various screens within the wizard.



## Step 13: Verify each Wallstation

**Objective:** To confirm the configuration of each wallstation.

### To verify a wallstation

1. Go to the wallstation and, in turn, press the buttons that are known to have been programmed to select Scenes.
2. Check that the response of the controlled lighting circuits to each button press match what is expected.
3. Repeat steps 1. to 3. for each wallstation.
4. Press the buttons on each wallstation to verify their operation. If the lights do not respond as expected, check the Wallstation programming (Step 12), the Scene Output Values (Step 9), or the Output Area Settings (Step 5).

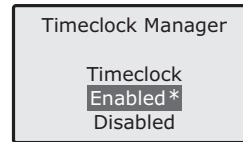
## Step 14: Enable the Timeclock

**Objective:** Enable the timeclock on one SC-UN Source Controller.

**Note:** We recommend using only one Source Controller Timeclock to control all of the devices on a Segment.

### To enable the timeclock

1. From the Operation menu, highlight the 'Timeclock Manager' option and press the **(ENT)** button.
2. Use the **(↓)** or **(↑)** buttons to highlight the 'Enable/Disable' option and press the **(ENT)** button. The display will show the timeclock options with the currently active setting marked with an asterisk:



3. Use the **(↓)** or **(↑)** buttons to highlight the desired setting and press the **(ENT)** button. The chosen setting will be saved and the display will return to the Timeclock Manager menu.

To exit without saving any changes, press the **(ESC)** button.

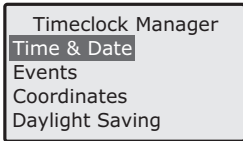
**Note:** When the timeclock feature is enabled, the  will illuminate in red.

# Step 15: Configure the Time, Date, Coordinates and Daylight Saving Time

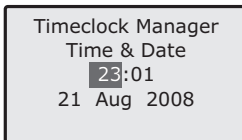
**Objective:** To ensure that the Source Controller has the correct time and location related settings.

## To set the time and date

1. From the Operation menu, highlight the 'Timeclock Manager' option and press the (ENT) button. The display will show the available options:



2. Highlight the 'Time & Date' option and press the (ENT) button. The display will show the current time and date:

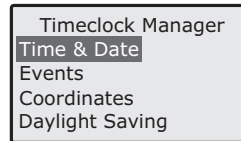


3. Use the (↓) or (↑) buttons to move the highlight between the items: hour, minute, day, month or year. Use the (←) or (→) buttons to change the highlighted item, as required.
4. When all items have been updated, press the (ENT) button to save and exit. To exit without saving your changes, press the (ESC) button.

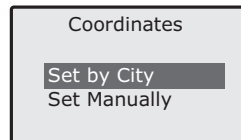
## To set the location and time zone

**Note:** Location and time zone information can also be edited from within the iCANsoft application.

1. From the Operation menu, highlight the 'Timeclock Manager' option and press the (ENT) button. The display will show the available options:



2. Use the (↓) or (↑) buttons to highlight the 'Coordinates' option and press the (ENT) button. The display will give you the options to 'Set by City' or 'Set Manually'.

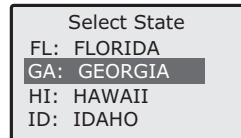


## To 'Set by City'

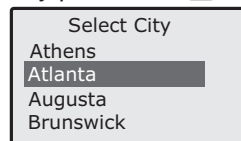
1. Use the (↓) or (↑) buttons to highlight the "Set by City" option and press the (ENT) button. The display will show you the available options:



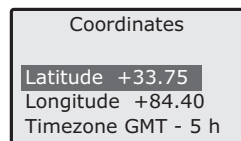
2. Highlight your Country of choice and press the (ENT) button. The display will show the available States.



3. Use the (↓) or (↑) buttons to highlight the closest city press the (ENT) button.






The Latitude, Longitude, and Time Zone coordinates will automatically update based on your city selection and will show on the display for approximately 3 seconds.

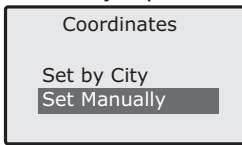






## Step 15 (continued)

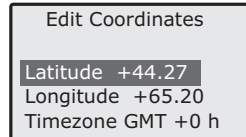
### To 'Set Manually'







1. Use the  or  buttons to highlight the "Set Manually" option and press the  button..




The display will display the 'Edit Coordinates' screen.

2. Use the  or  buttons to move the highlight between the items: Latitude, Longitude and Time zone.




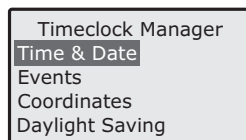
3. Press the  button to enter the edit screen for the highlighted item:
  - Use the  or  buttons to increment/decrement the current value.
  - Use the numeric keypad to directly enter the new value.
  - Press the  button to save and exit.
  - Press the  button to exit without saving.
4. Repeat steps 2. and 3. for each entry and when all items have been updated, press the  button to save and exit.




To exit without saving your changes, press the  button.

### To set daylight saving


The daylight saving time setting allows the Source Controller to automatically adjust itself for the annual one hour time shift every spring and fall.

1. From the Operation menu, highlight the 'Timeclock Manager' option and press the  button. The display will show the available options:










2. Use the  or  buttons to highlight the 'Daylight Saving' option and press the  button. The display will show the current daylight saving time settings:



3. Press the  button to begin editing, whereupon the highlight will appear on the 'Start' entry.




**Note:** The 'DST Rules' option has the following settings: 'Manual', 'Disabled', 'EEC', 'Europe' and 'USA'. Changes to the 'Start' and 'End' date options will only be accepted if 'DST Rules' is set to 'Manual'.

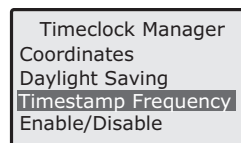
To prevent any automatic time shifting from occurring, change the 'DST Rules' option to 'Disabled'.


- Use the  or  buttons to move the highlight between the items.
  - Use the  or  buttons to increment/decrement the current value.
  - Press the  button to save and cease editing.
  - Press the  button to cease editing without saving.
4. Repeat step 3. for each entry and when all items have been updated, press the  button a second time to exit from the screen.

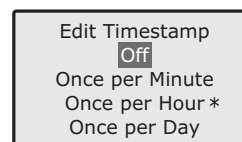
### To set the timestamp frequency




The Timestamp Frequency determines how often a time synchronization message should be sent across the iCAN network in order to update any other units.


1. From the Operation menu, highlight the 'Timeclock Manager' option and press the  button. The display will show the available options:
2. Use the  or  buttons to highlight the



'Timestamp Frequency' option and press the  button. The display will show the full range of timestamp frequency options with the currently active setting marked with an asterisk:



3. Use the  or  buttons to highlight the required setting and press the  button. The chosen setting will be saved and the display will return to the Timeclock Manager menu.

To exit without saving any changes, press the  button.

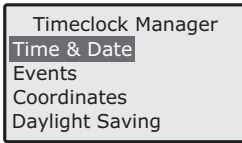


## Step 16: Configure Timeclock Events

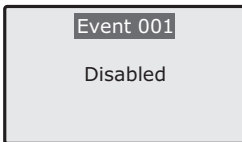
**Objective:** To configure automated events based either upon fixed times or variable occurrences such as dawn and dusk relative to the global location of the installation.

### To view, create and edit timeclock events

1. From the Operation menu, highlight the 'Timeclock Manager' option and press the (ENT) button. The display will show the available options:

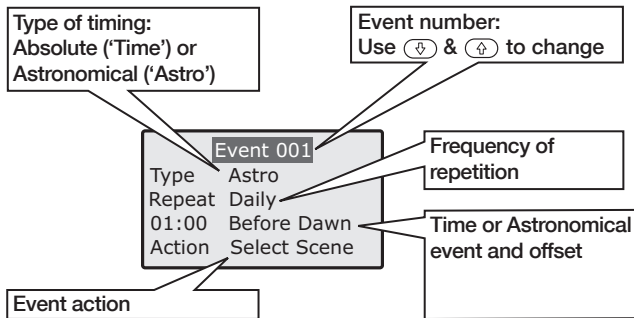


2. Use the (↓) or (↑) buttons to highlight the 'Events' option and press the (ENT) button. The display will show the status of Event 001. If the first event is disabled, you will see:



To activate it, press the (ENT) button twice and change the Event Type setting from 'Disabled' to either 'Time' or 'Astro'.

If the first event is not disabled, you will see a summary of its settings:



3. Use the (↓) or (↑) buttons to change the event number - between 001 and 255. As each event number is selected, the display will either show a summary screen of the existing settings or will show 'Disabled'.

4. Press the (ENT) button to begin editing the required event number. The highlight will move to the first option within the summary screen. You can now:

- Use the (↓) or (↑) buttons to move the highlight between the options.
- Press the (ENT) button to change the setting of the currently highlighted option:
  - ◇ Within an option, use the (↓) or (↑) buttons to move the highlight to the required setting and then press the (ENT) button to select it.
  - ◇ Alternatively, press the (ESC) button to exit from the list of settings without changing the setting.
  - ◇ Where the option is numerical, i.e. the time setting, use the (←) or (→) buttons to change each value, the (↓) or (↑) buttons to move the highlight and the (ENT) button to save your changes and return to the summary screen.

A listing of all options available within this section is shown on the next page.

## Step 16 (continued)

### Event options

#### Type

This option determines whether the event should be based on an absolute time ('Time') or a variable occurrence ('Astro') such as dawn or dusk. A 'Disabled' setting allows you to make the current event inactive.

#### Repeat

**Exact Time** - Begins the selected action only at a specified time, day, month and year.

**Daily** - Begins the selected action at the specified time every day.

**Specific Days** - Begins the selected action at the specified time on every day that is chosen within this option. When you first choose this option, the screen will show: 'No days selected'. Press the numeric buttons between 1 and 7 (button 1 = Sunday, 2= Monday, etc.) to include or exclude the days when the event should occur.

**Annually** - Begins the selected action once a year at the specified time and date.

#### Time (and date) setting

The time (and date, where appropriate) setting has different effects depending on the setting of the 'Type' option:

- If 'Type' is set to 'Time' then this setting provides an absolute start time for the chosen action.
- If 'Type' is set to 'Astro' then this setting provides an offset period for the chosen action, from the astronomical event. For example, if the 'Before Dusk' option is set and the time setting shows 02:00, then the event will be started two hours before dusk.

#### Astronomical setting

These options appear only when the 'Type' option is set to 'Astro'. This setting will appear in the summary screen, immediately after the time setting. The system uses the location coordinates as well as the time and date to calculate when each astronomical event should occur.

**Absolute Time** - Changes the 'Type' option from 'Astro' back to 'Time'.

**Before Dawn** - Begins the selected action at a period (defined by the time setting) before dawn.

**After Dawn** - Begins the selected action at a period (defined by the time setting) after dawn.

**Before Dusk** - Begins the selected action at a period (defined by the time setting) before dusk.

**After Dusk** - Begins the selected action at a period (defined by the time setting) after dusk.

#### Action

The list of actions are collected into two groups: 'Basic' and 'Advanced' (there are links from one group to the other within the list). In all cases, the chosen action occurs when the corresponding event's time conditions are met.

#### Basic

**No Action** - Effectively disables the event.

**Select Scene** - Displays a Scene (within a particular Area) over a selected fade time.

**Zone Level** - Applies a final dimming level to a single Zone (within a particular Area) over a selected Fade time.

#### Advanced

**Zone Increment** - Increases the dimming level of a single Zone (within a particular Area) by a chosen percentage over a selected Fade time.

**Zone Decrement** - Decreases the dimming level of a single Zone (within a particular Area) by a chosen percentage over a selected Fade time.

**Scene Modify** - Selectively alters the dimming level of any currently displayed Scene within a particular Area over a set fade time. Within each Scene, only those Outputs that have been previously marked as 'Scene Modify' (in iCANsoft) or 'SM' (in the Source Controller menu) will be altered. All Outputs that have not been marked will remain unaffected by this action. See Step 9 for details about applying the 'SM' mark.

**Zone Toggle** - Changes between the current dimming level of a single zone (within a particular Area) and the level entered in this option over a selected Fade time.

**Start Sequence** - Sets a pre-programmed sequence (created using the iCANsoft application) running, beginning at any chosen step from 1 to 30.

**Stop Sequence** - Stops a pre-programmed sequence at any chosen step from 1 to 30.

**Pause Sequence** - Pauses a pre-programmed sequence.

**Send CAN message** - Transmits a CAN message that has been pre-programmed using iCANsoft.

**Enable Event** - Allows another event to become active when the parameters of this event become true. This is useful for confining repetitive event actions to occur only within a set period of time.

**Disable Event** - Changes an active event to its disabled state when the parameters of this event become true.

# Step 17: Configure Ethernet

**Objective:** Configure Ethernet

## To configure Ethernet settings

1. From the Configuration menu, highlight the 'Ethernet Settings' option and press the **(ENT)** button. The current settings will be displayed:

```
Ethernet Settings
IP Addr  0.0.0.0
IP Mask  0.0.0.0
Gateway  0.0.0.0
MAC      AABBCDDDEEFF
Restore Defaults
```

2. Use the **(↓)** or **(↑)** buttons to highlight the required setting and press the **(ENT)** button.

The **IP Address**, **IP Mask** and **Gateway** settings are all edited in a similar manner:

```
Ethernet Settings
Enter IP Address
192 . 168 . 0 . 1
```

Use the **(↓)** or **(↑)** buttons to move the highlight between the four octet values.

Use the numeric keypad to change the highlighted value.

Press the **(ENT)** button to save the address and return to the previous menu.

The **MAC** (Media Access Control) setting cannot be edited and is shown for information purposes only:

```
Ethernet Settings
MAC Address
OUI 170-187-204
NI 221-238-255
AA-BB-CC-DD-EE-FF
```

Press the **(ENT)** or the **(ESC)** buttons to exit back to the previous menu.

Use the Restore Defaults option to clear previous address settings.

```
Ethernet Settings
Restore Defaults?
YES
NO
```

Highlight the 'YES' option and press the **(ENT)** button to restore default values and return to the previous menu.

3. Press the **(ESC)** button to exit to the Configuration menu.

See next page for DMX related options

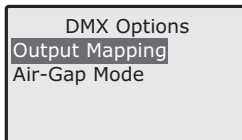
## Step 18: Configure DMX

**Objective:** Configure DMX to allow DMX consoles to control the Source Controller Outputs.

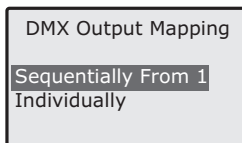
### To map Outputs to DMX channels

**DMX Output Mapping** allows you assign the SC-UN Outputs to any DMX control channels between 1 and 512. This can either be done sequentially from a particular DMX channel or you can assign each Output individually.

1. From the Configuration menu, highlight the 'DMX Options' entry and press the **(ENT)** button. The following options will be displayed:

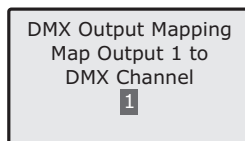


2. Ensure that the 'Output Mapping' option is highlighted and press the **(ENT)** button. The display will show two options:



#### Sequential mapping

- a. Highlight that the 'Sequentially From...' option is highlighted and press the **(ENT)** button.

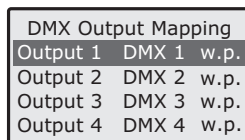


- b. Enter the DMX channel number (1 - 512) to which Output 1 should be assigned and press the **(ENT)** button.

All Outputs within the SC-UN will be assigned to DMX channels in succession from your initial number and then you will be returned to the DMX Output Mapping menu.

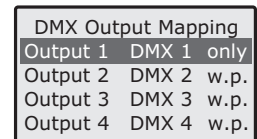
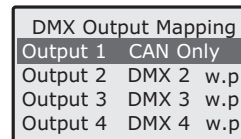
#### Individual mapping

- a. Highlight the 'Individually' option and press the **(ENT)** button.



**Note:** The default for each Output is set to "w.p."- 'DMX When Present'. This means that DMX controls the output when present, otherwise CAN does.

- b. To change from the default of 'DMX when Present', press the **(\*)** button to toggle thru the control hierarchy options:
  1. 'CAN Only', which means DMX does not affect the output.
  2. 'DMX only', which means that CAN does not affect the output. (see below)



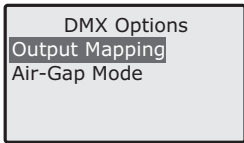
- c. Press the **(ENT)** button to save and exit.
- d. Use the **(↓)** or **(↑)** buttons to highlight the Output number and repeat step b. for each Output and then press the **(ENT)** button to save and exit.

## To set the DMX Air-Gap mode

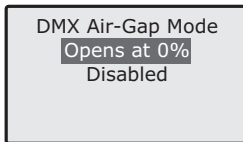
The Air-Gap mode is a standard feature which ensures that the load circuits connected to each Output are isolated (via opened relay contacts at the live terminal) when the dimming level reaches zero. In certain cases this may be undesirable, for instance when lights are regularly being dimmed or flashed on and off, due to slight delays in lamp response that may be caused.

A DMX input from a theater-style controller may often be used to induce such behavior, therefore, this option provides an ability to disable the air-gap relay protection only when the control signals are being received via the DMX input.

1. From the Configuration menu, highlight the 'DMX Options' entry and press the **(ENT)** button. The following options will be displayed:



2. Highlight the 'Air-Gap Mode' option and press the **(ENT)** button. The display will show the following two settings:



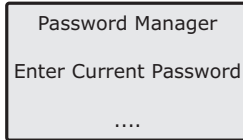
3. Highlight the required option and press the **(ENT)** button:
  - When set to 'Opens at 0%', the relay will open when the dimming level reaches zero.
  - When this option is set to 'Disabled', the relay will maintain contact continually and will not isolate the circuit at any time while under DMX control.

## Step 19: Configure passwords

**Objective:** To configure passwords for the Operation and Configuration sections of the menu to prevent unauthorized access.

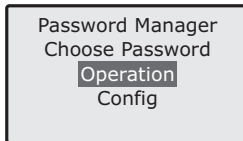
### To configure passwords

1. From the Configuration menu, highlight the 'Password Manager' option and press the **(ENT)** button. You will be asked to enter the current (Configuration) password:

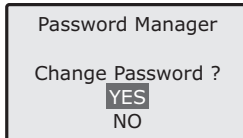


2. Enter the current four-digit Configuration password and press the **(ENT)** button. If no password is set, just press the **(ENT)** button.

You will now be asked to choose which password you wish to change:



3. Use the **(↓)** or **(↑)** buttons to highlight either the 'Operation' or 'Config' option and press the **(ENT)** button.
4. Enter the new four-digit password and press the **(ENT)** button or press the **(\*)** button to clear the current password.
5. Re-enter the new four-digit password and press the **(ENT)** button.



You will now be asked to confirm the change:

6. Ensure that the 'YES' option is highlighted and press the **(ENT)** button.

## Commissioning complete

If you have followed and completed all relevant steps within this guide then the installation should be commissioned.

CONGRATULATIONS! Your Source Controller is now fully commissioned and ready for use.

# Other Useful Features

During normal operation, or when commissioning, there are a number of other useful features available within the menu system.

## Other useful features

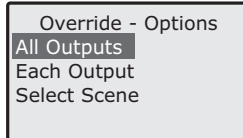
- **Overriding Outputs** page 38  
*Allows you to override any Output individually, or all Outputs collectively, from their current dimmed or switched levels. This option also allows you to select any of the currently stored Scenes (including the Emergency Scene - number. 132).*
- **Viewing power data** page 38  
*A useful feature for checking power distribution across the Source Controller. Using this option you can view real time power consumption figures, arranged either by phase or by individual Outputs.*
- **Choosing communications** page 39  
*Allows you to enable/disable any of the control communication methods used by the Source Controller.*
- **Restore default settings** page 39  
*Allows you to quickly clear all configuration settings from the Source Controller and return it to its standard factory condition.*
- **Adjusting the date and time** page 29  
*The Source Controller has an integral battery backup for its timeclock functions so adjustment is not normally required, even after a power outage. However, when adjustment is required, the Timeclock Manager contains all time related features.*

## Overriding Outputs

On occasions it may be necessary to override the levels of one or more Outputs. This option provides the ability to affect Outputs individually or all of them collectively. You may also select any of the first 128 standard Scenes or even the Emergency Scene (Scene 132).

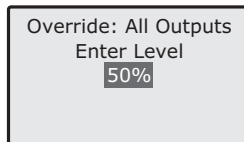
### To override Outputs

- From the Operation menu, highlight the 'Output Override' option and press the (ENT) button. The display will show the available options:



- Use the (↓) or (↑) buttons to highlight the required option and press the (ENT) button to select:

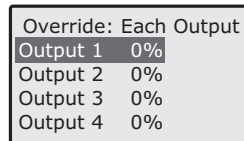
- All Outputs**



Use (←) and (→), or the keypad (and (ENT)) to select the dimming level (0 to 100%).

Press the (ESC) button to exit.

- Each Output**



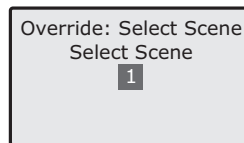
Use (↓) and (↑) to highlight the required Output.

Use (←) and (→), or the keypad (and (ENT)) to select the dimming level (0 to 100%).

Press the (ESC) button to exit.

To Flash the selected Output press the (\*) button. Press the (\*) button a second time to stop the channel from flashing.

- Select Scene**



Use (←) and (→), or the keypad (and (ENT)) to select the required Scene.

Press the (ESC) button to exit.

**Note:** If there are no settings within a selected Scene, the display will show 'Scene Empty'.

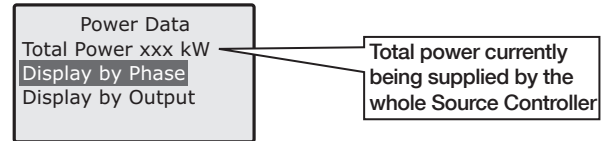
- Press the (ESC) button to return to the Operation menu.

## Viewing Power Data

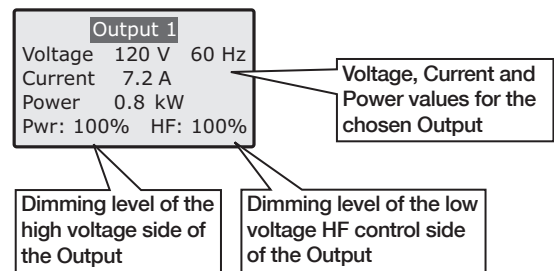
The Power Data section provides useful feedback and confirmation of the total power demanded within the Source Controller, listed as a total for the whole unit, as totals by phase or values for individual Outputs.

### To view power data from the menu

- From the Operation menu, highlight the 'Power Data' option and press the (ENT) button. The display will show the available options:



- Use the (↓) or (↑) buttons to highlight the 'Display by Output' option and press the (ENT) button to select:



- Use (↓) and (↑) to view the required Output number.
- When finished, press the (ESC) button to exit to the previous level and then press the (ESC) button to return to the Operation menu.

**Note:** On SC-UN-FT controllers only, please refer to the Total Power information and Display by Output information only. Display by phase may not be accurate as feeding breakers are not housed within the controller.



## Choose Communications

This option allows you to enable/disable any of the control communication methods used by the Source Controller. This may be useful, for instance, when temporary control methods are introduced and standard ones need to be suspended.

This feature can also be useful when diagnosing control problems on Source Controllers with multiple control inputs. The ability to quickly disable any input can help to isolate the problem.

### To choose communications

1. From the Operation menu, highlight the 'Communications' option and press the **(ENT)** button. The display will show the current status of each control input:

Communications Options	
iCANnet	ON
Ethernet	OFF
DMX	OFF
RS485	OFF
Contact Inputs OFF	

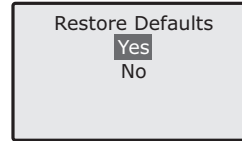
2. Use the **(↓)** or **(↑)** buttons to highlight the required option and then use the **(←)** or **(→)** buttons to change the highlighted option between 'ON' and 'OFF'.
3. Press the **(ESC)** button to return to the Operation menu.

## Restore Default Settings

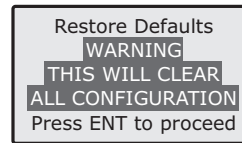
The Restore Defaults option allows you to quickly clear all configuration settings from the Source Controller and return it to its standard factory condition.

### To restore default settings

1. From the Configuration menu, highlight the 'Restore Defaults' entry and press the **(ENT)** button. The following options will be displayed:



2. Ensure that the 'Yes' option is highlighted and press the **(ENT)** button. The display will show the following warning:



3. If you are sure that you wish to proceed, press the **(ENT)** button to clear all settings and return to the Configuration menu.

# Appendix 1

## Placing Wallstations into Announce Mode

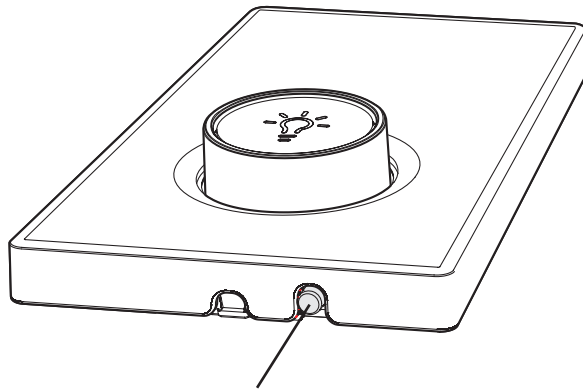
To assist with identification within complex lighting systems, some iLumin wallstations have an 'Announce Mode' where they transmit their identity across the CAN network for a short period. The way in which 'Announce Mode' is invoked varies between products.

### Ineo wallstation

Press and hold any button other than the raise/lower and ON/OFF button for five seconds.

### Revio wallstation

Press and release the cleaner switch which is located on the underside of the wallstation. The unit will remain in announce mode for ten seconds and then return to normal operation.



Cleaner switch - press to temporarily invoke the announce mode

# Index

- A**
  - Address
    - IP setting 33
  - Air-Gap
    - for Output 20
  - Area
    - terminology 4
- C**
  - Commissioning
    - list of tasks 10
  - Configuration menu
    - layout 9
  - Contact Inputs
    - configuration 25
  - Control panel
    - menu navigation 7
    - status indicators 6
    - terminology 4
    - using 6
  - Coordinates
    - configuration 29
- D**
  - Date
    - adjustment 29
  - Daylight saving
    - configuration 30
  - DST Rules
    - daylight saving 30
  - DMX
    - configuration 34
- E**
  - Emergency Scene
    - editing 25
  - Emergency State
    - by contact input 25
  - Events
    - time related 32
- G**
  - Gateway
    - IP settings 33
- I**
  - IP
    - address and mask 33
- L**
  - Latitude
    - coordinate input 30
  - Linear
    - response curve 19
  - Location
    - configuration 29
  - Longitude
    - coordinate input 30
- M**
  - Mask
    - IP setting 33
  - Media Access Control (MAC) 33
  - Menus
    - accessing 8
    - Configuration layout 9
    - navigation 7
    - Operation layout 8
  - Min/Max
    - for Output 20
- O**
  - Operation at Min
    - for Output 20
  - Operation menu
    - layout 8
  - Output
    - override 37
    - releasing from bypass 21
    - setting behaviors 18
    - terminology 4
  - Override outputs 37
- P**
  - Part number 3
  - Password
    - configuration 36
  - Power Curve
    - for Output 19
- R**
  - Relay Zero Cross
    - for Output 20
  - Restore Defaults
    - for Configuration 39
    - for Ethernet only 33
- S**
  - Scene
    - creating/editing 23
    - select 23
    - terminology 4
  - Scene 132 editing 24
  - Set Zone
    - for Output 18
  - Square Law
    - response curve 19
  - Stabilization
    - for Output 20
  - Standard Type
    - for Output 18
  - Startup Action
    - for Output 20
  - Status indicators
    - on control panel 6
  - Switched
    - response curve 19
- T**
  - Time
    - adjustment 29
  - Timeclock
    - enable/disable 28
  - Timestamp frequency
    - configuration 30
  - Time zone
    - configuration 29
- W**
  - Wallstation
    - announce mode 40
    - terminology 5
  - Wallstation Wizard 26
- Z**
  - Zero-cross
    - for Output 20
  - Zone
    - terminology 4

**Cooper Lighting Solutions**

1121 Highway 74 South  
Peachtree City, GA 30269  
P:770-486-4800  
[www.cooperlighting.com](http://www.cooperlighting.com)

All products manufactured by Cooper Lighting Solutions and identified with the iLumin/iLight brand are warranted to be free from defects in material and workmanship and shall conform to and perform in accordance with Seller's written specifications.

For detailed warranty information, visit our website at [www.cooperlighting.com](http://www.cooperlighting.com)

This warranty will be limited to the repair or replacement, at Seller's discretion, of any such goods found to be defective, upon their authorized return to Seller. This limited warranty does not apply if the goods have been damaged by accident, abuse, misuse, modification or misapplication, by damage during shipment or by improper service.

There are no warranties, which extend beyond the hereinabove-limited warranty, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS.

No employee, agent, dealer, or other person is authorized to give any warranties on behalf of the Seller or to assume for the Seller any other liability in connection with any of its goods except in writing and signed by the Seller. The Seller makes no representation that the goods comply with any present or future federal, state or local regulation or ordinance. Compliance is the Buyer's responsibility.

The use of the Seller's goods should be in accordance with the provision of the National Electrical Code, UL and/or other industry or military standards that are pertinent to the particular end use. Installation or use not in accordance with these codes and standards could be hazardous.

**North America Headquarters**

1121 Highway 74 South  
Peachtree City, GA 30269  
P: 770-486-4800

[www.cooperlighting.com](http://www.cooperlighting.com)  
[ControlsSales@cooperlighting.com](mailto:ControlsSales@cooperlighting.com)

**International Headquarters**

20 Greenhill Crescent  
Watford Business Park  
Watford, Herts, WD18 8XG. UK

P: +44 (0)1923 495495  
F: +44 (0)1923 228796

[www.cooperlighting.com](http://www.cooperlighting.com)  
[enquiries@cooperlighting.co.uk](mailto:enquiries@cooperlighting.co.uk)