

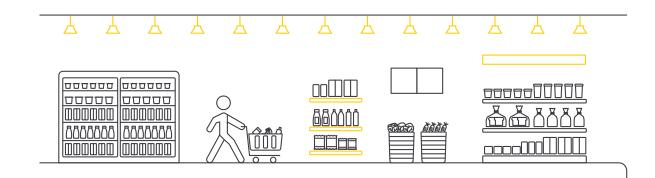
Store Mini Kit

Release 1.1

Easy-to-install lighting control kit for small and medium sized stores

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Introduction

The Store Mini Kit is a system for retail stores that offers simplified lighting controls functionality in a package that is simple to install and extremely simple to operate.

The Store Mini Kit consists of Philips Dynalite lighting controls components. Once they are installed and connected their dedicated software sets up a fully operational system automatically.

The Store Mini Kit is especially aimed at express and convenience retail stores of small to medium size. It is pre-programmed in the factory, consisting of:

- 4 configurable scenes
 - 4 DALI dimmable zones
 - 2 ON/OFF zones

A Warning

- Philips luminaires operating with the Store Mini Kit must be installed by qualified technicians in accordance with all national and local laws, including building codes and safety regulations.
- Do not attempt to install or use a Philips luminaire until you have completely read and understood the installation instructions and safety labels.
- When installing the luminaires in a ceiling, make sure you do not conceal any of the following existing equipment in the building:
 - Fire sprinklers, air vents, PA systems, other security or fire protection sensors or signaling equipment.
- Modifications to any part of the system are not allowed and will void the warranty.

A Caution

- The light source contained in the luminaires should only be replaced by the manufacturer or his service agent, or a similarly qualified person.
- Ensure that no high-velocity airflow (for example, air conditioning system air currents) circulates across the ceilings in which the luminaires are installed. This may lead to accumulation of dirt on the surface of the luminaires.

Contents of the box

The box contains all the controller components needed for installation of this retail solution, as well as the Quick Start Guide.

Note

The Antumbra Display application module can be configured tailored to the demands of the customer and needs to be ordered separately.

If you would like more in-depth information on the system hardware and configuration possibilities, contact Philips Dynalite at www.dynalite.org.



DDBC1200 CFIAR MINI signal dimmer controller

To control the DALI dimmable LED lighting in the store, the DDBC1200 has 12 independent output channels.

■ Note

The outputs on the controller are dedicated to specific dimmable control zones. See chapter 3 Connect the luminaires to the controllers for more information.

① Important

In case the number of light points requires more than one DDBC1200 controller, it's possible to add the specially configured **DDBC1200 CFIAR MINI S** (secondary) controller to the system. Make sure to order additional DDBC1200 CFIAR MINI S controllers separately.



Note

However the secondary signal dimmer controller is supported from system version 1.1.0, there's backwards compatibility with earlier system versions.

★ Tip

When using the secondary signal dimmer controller with an earlier system version than version 1.1.0, there's a risk that over time the dimming levels of both the primary and secondary signal dimmer controller are out of sync. This behavior becomes visible especially after multiple adjustments and can be easily solved by dimming down the output for that configuration to 0%. After doing so, the dim levels are in sync again.

DDRC420FR CFIAR MINI relay controller

Provides up to 4 independent output channels for controlling non dimmable lighting (for example lighting in a display cabinet).

Note

The outputs on the controller are dedicated to specific switchable control zones. See chapter 3 Connect the luminaires to the controllers for more information.



DACM CFIAR MINI DyNet communication module

Acts as the brain and network interface for the Antumbra Display application module.

The languages that show on the Antumbra Display are preprogrammed in the DACM and can be set using the dip-switches on the DACM.



Other items

Antumbra Display (PADPE) application module

The Antumbra Display application module provides an intuitive lighting control interface, allowing the user to switch between four configurable scenes.



★ Tip

You can configure and order the Antumbra using the configurator at: https://www.lighting.philips.com/main/products/lighting-controls/antumbra-configurator.

Essential documentation

Project template and lighting plan

Provides all store specific information relevant for the installation and configuration process (as agreed earlier between the Signify representative and store owner/manager).



Optional components

DDMIDC8 CFIAR MINI dry contact input controller

Allows triggering of the lighting presets by external inputs such as a third-party buttons or key-switches. Provides integration with BMS and/or external alarm systems.

- Eight software selectable digital inputs, configured as dry contacts
- All inputs are optically isolated for high noise immunity
- All inputs have LED status indicators



DDNP1501 network power supply

Provides power to the to the DyNet communication bus in case there are too many devices connected to it.



In general, the DDNP1501 network power supply is only required when there are many Antumbra application modules connected to the system:

- By default, the system can power five Antumbra Display application modules, or nine Antumbra Button application modules.
- In case a DDMIDC8 is present in the system, then the system can power four Antumbra Display application modules, or seven Antumbra Button application modules.
- Connecting more application modules or optional devices may require a DDNP1501 network power supply based on the power consumption calculation. All necessary information for this calculation can be found at www.dynalite.org.

Antumbra Display/Button (PADPE/PABPE) application module It's possible to add additional user interfaces upon customer request. Each application module requires a DACM communication module.

★ Tip

You can configure and order the Antumbra using the configurator at: https://www.lighting.philips.com/main/products/lighting-controls/antumbra-configurator.

Antumbra Display:

- Interface for the store manager including a configuration menu that is protected by a PIN code.
- Scene icons shown on the display.

Antumbra Button:

- Interface for the store staff and used to activate the four available scenes.
- Scene icons can be engraved on the buttons (part of the configuration and ordering process).







Installation procedure

① Important

Before you install the Store Mini Kit, make sure to wire and group the luminaires according to the Lighting Plan.

Unpack the deliveries and check the components.

Essential components

Type number	Description		
Store Mini Kit (12nc: 9137 03	tore Mini Kit (12nc: 9137 033 55609)		
DDBC1200 CFIAR MINI	Primary signal dimmer controller		
DDRC420FR CFIAR MINI	Relay controller 4x 20 A (max. 80 A)		
DACM CFIAR MINI	DyNet communication module, configured for mini kit		
Ordered separately			
PADPE (12nc: per configuration)	Antumbra Display application module		

Optional components

Type number	Description	
DDBC1200 CFIAR MINI S (12nc: 9137 033 69609)	Secondary signal dimmer controller	
DDNP1501 (12nc: 9137 030 90309)	Network power supply	
DDMIDC8 CFIAR MINI (12nc: 9137 033 66809)	Low level input integrator (dry contact interface)	
PADPE (12nc: per configuration)	Antumbra Display application module	
PA4BPE (12nc: per configuration)	Antumbra Button application module, 4 button	
DACM CFIAR MINI (12nc: 9137 033 55709)	DyNet communication module, configured for mini kit	

Note

Follow the instructions packed in the box of the additional and optional components for correct installation.

Installation procedure

Install the Store Mini Kit using the following steps:

- 1. Connect all luminaires.
- 2. Configure the user interface.
- 3. Connect the controllers and user interface in a network.
- 4. Connect the luminaires to the controllers.
- 5. Connect third-party buttons, external BMS scheduler, alarms etcetera to the dry contact input controller.
- 6. Test the luminaire installation.
- 7. Program the system via the user interface on the display.

Note

Once the installation is ready, please complete the 'As Is' installation report in Appendix A and return it to your Signify representative.

The following sections in this guide show the steps to install, commission, configure, and use the Store Mini Kit.

1 Configure the user interface

Configure the Antumbra Display Application Module before installing it. The button panel uses the following components:



Antumbra Display
Application Module



Antumbra Button Application Module



DACM CFIAR MINI Communication Module

Configuring the communication module is required to select the language of choice to show on the display of the button panel.

- 1. Unpack the DACM communication module.
- 2. Find the DIP switches at the rear side of the module.
- 3. Set the switches in the correct position to select the desired language.

Or: when using the Antumbra Button application module, set all switches to ON to select the Staff interface mode.

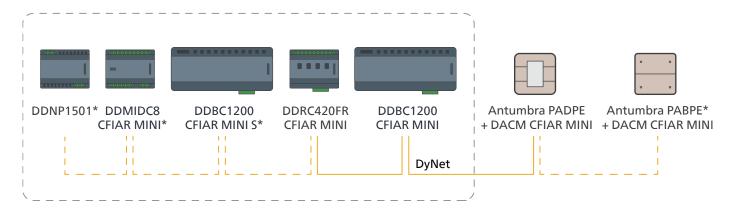
★ Tip

Use a precision screwdriver to move the switches to the required position.

Language	DIP-switch setting	Language	DIP-switch setting
English (factory default)		German	
French		Polish	1 2 3 4 5 6
Italian		Russian	
Spanish		Staff interface (Antumbra button)	1 2 3 4 5 6

2 Connect the controllers in a network

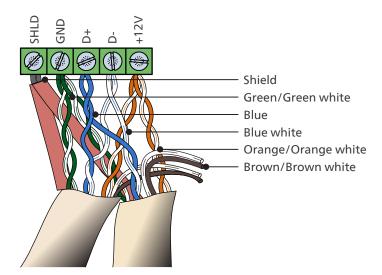
The controllers are connected in a loop-through configuration via Dynalite network, as seen in the principle diagram (Full system connection overview) on page 17.



^{*} Optional

For easy installation use the DyNet color coding.

- 1. The 5-terminal wiring connection is the same for each controller.
- 2. Use only shielded cabling.
- 3. The controllers can be mounted in an existing box if there is room available. Otherwise, they can be mounted in a dedicated box.



3 Connect the luminaires to the controllers

On the DDBC1200 CFIAR MINI DALI controller, use the following channels assignment for connecting the DALI-luminaires in the store:

Channels 1, 5, 9: zone Dim 1
 Channels 2, 6, 10: zone Dim 2
 Channels 3, 7, 11: zone Dim 3
 Channels 4, 8, 12: zone Dim 4

Each channel of the DDBC1200 CFIAR MINI DALI controller can control up to 80 luminaires, with a maximum of 300 luminaires for the whole controller. In case there are more than 80 luminaires present in a zone, it is best practice to balance them over multiple channels that are assigned to that zone. The luminaires must be powered by a separate power supply in the store which must always be set permanently ON. The channels of the DDBC1200 CFIAR MINI do not power the luminaires.

■ Note

In case the system handles more than 300 luminaires, this can be made possible by adding the Secondary signal dimmer controller (DDBC1200 CFIAR MINI S). Adding the secondary signal dimmer controller has no influence on the total number of DALI zones, it enables adding more luminaires per zone.



DDBC1200 CFIAR MINI DALI dimmer controller

Information on which group/zone to connect with can be found in the Project Template (Intake form that is completed upfront).

See Appendix C Wiring diagram for more details.

Connect the luminaires to the controllers

On the DDRC420FR CFIAR MINI relay controller, use the following channels assignment for connecting the switchable luminaires in the store:

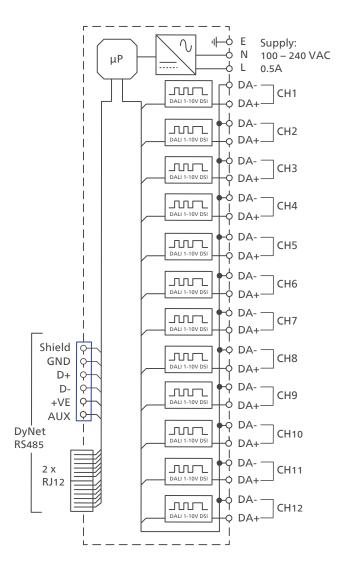
Channel 1, 3: zone On/Off 1 Channel 2, 4: zone On/Off 2

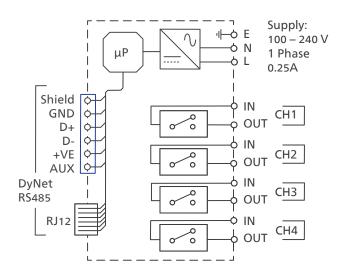




- Luminaires in zone On/Off 1
- Luminaires in zone On/Off 2

DDRC420FR CFIAR MINI relay controller





DDBC1200 CFIAR MINI DALI dimmer controller

DDRC420FR CFIAR MINI relay controller

4 Connect the (optional) external inputs

On the DDMIDC8, all inputs are configured as dry contacts to connect external inputs, like third-party switches, key-switches, external BMS scheduler, and alarms to the lighting system.

Note

Each scene can be triggered by two different inputs. This allows to interface with two external systems, for example, wall switches and alarm systems. Triggering an input always overrides the previous input.

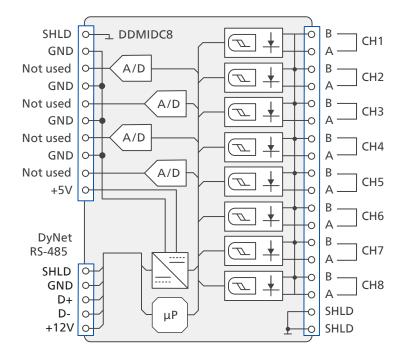
See Appendix C Wiring diagram for more details. See Appendix D Scene names translations for the scene names in the different languages.

- Triggers Scene 1 (Maintenance)
- Triggers Scene 2 (Trade)
- Triggers Scene 3 (Closed)
- Triggers Scene 4 (Night)





DDMIDC8 CFIAR MINI dry contact input controller



5 Full system connection

Dynalite system Information

Data Cable – Use shielded, stranded RS-485 data cable with three twisted pairs. Segregate from mains cables by 300 mm minimum. Connect devices in a 'daisy chain'. A data cable that is connected to an energized device is live. Do not cut or terminate live data cables.

Maximum 100 devices per DyNet cable (controllers, user interface panels) and maximum 1000 meters single DyNet cable length when using DyNet-STP-CABLE-LSZH (12nc. 913703898809).

Maximum 10 devices per DyNet cable (controllers, user interface panels) and maximum 100 meters single DyNet cable length when using DyNet-SFLAT6-CABLE (12nc. 913703095009).

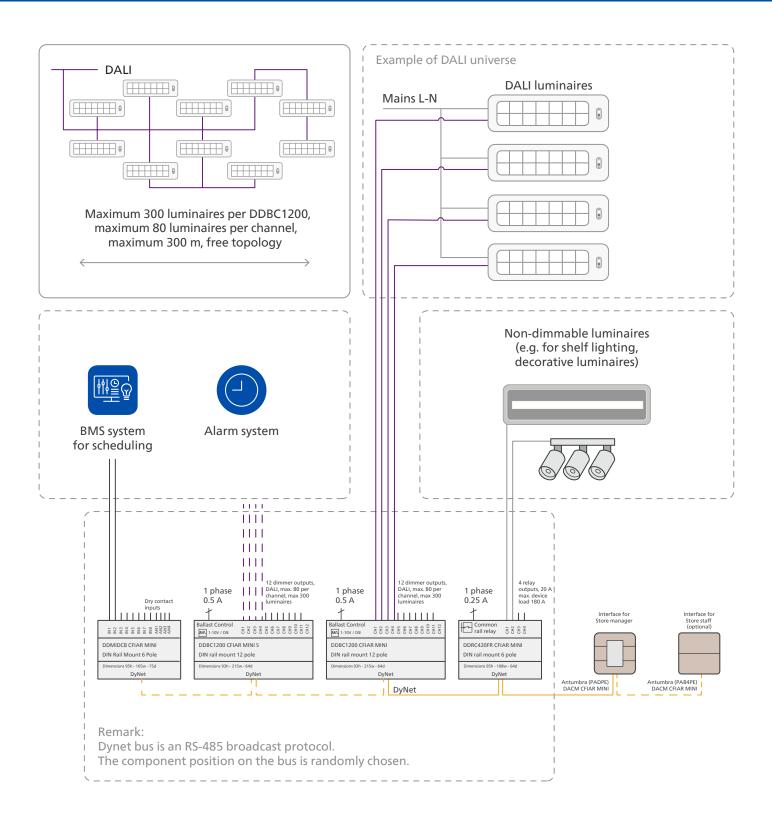
The data signal must never be looped.

For more information, see the Dynalite Hardware Installation Guide that you can download from the Dynalite website. On the website, go to Downloads and select Technical Notes.

■ Note

For the functions of the DDMIDC8, see Appendix C Wiring Diagram.

5 Full system connection



6 Test the luminaire installation

① Important

The following initialization and tests are mandatory to check the integrity of the luminaire installation.

Initialize the DALI ballasts

Press the service switch on the front of the DALI controller quickly four times to initialize the DALI ballasts.



DDBC1200 CFIAR MINI (S)

Test 1

Use the service switch on the DALI controller

- 1. Make sure to switch all channels to OFF using the manual override buttons on the front panel.
- 2. Press the service switch quickly three times to switch on all channels at 100%. If any of the connected luminaires fails, check the wiring between the luminaire and the controller.



DDBC1200 CFIAR MINI

6 Test the luminaire installation

Test 2

Use the manual override buttons on the DALI controller.

- 1. Press the 12 individual manual override buttons of the channels multiple times to switch these channels ON or OFF, indicated by the green LED.
- 2. Check if all luminaires in the channel respond as expected. When the channel is ON, all luminaires are switched ON, and when OFF, all luminaires must be OFF too.
- 3. If any of the checks fails, check the wiring, for example between the luminaire and the controller. When finished with a channel, switch it to OFF.

Test 3

Use the manual override buttons on the RELAY controller

- 1. Using a small screwdriver, manually move the individual manual override switches of the four channels to ON or OFF.
- Check if all luminaires in the channel correspond as expected.
 Switching to ON powers all connected luminaires, which then will light up.
- 3. If any of the checks fails, check the wiring, for example between the luminaire and the controller.
- 4. Press the test button on the right side three times to switch all channels to ON.



DDRC420FR CFIAR MINI

6 Test the luminaire installation

Test 4

Manually test the connections of the dry contact controller (optional) Use the connected external devices to test the connections on the dry contact controller. See Appendix C Wiring diagram for the programmed functionalities of the connections.



DDMIDC8 CFIAR MINI

7 Prepare the installation for handover

As installer, make sure to prepare the installation for handover according to the agreements in the Project template (Intake form).

Using the Antumbra application module, login to the configuration menu to change the settings of the scenes. See section Edit system settings with the interface.

By default, the system uses the following settings:

Zone	Scene 1 (Maintenance)	Scene 2 (Trade)	Scene 3 (Closed)	Scene 4 (Night)
Dim 1 (e.g., Sales floor 1)	60%	100%	30%	0%
Dim 2 (e.g., Sales floor 2)	60%	100%	30%	0%
Dim 3 (e.g., Back of house)	100%	100%	100%	0%
Dim 4 (e.g., Shopping window)	60%	100%	60%	60%
On/Off 1 (e.g., Decorative lighting)	OFF	ON	OFF	OFF
On/Off 2 (e.g., Shelf lighting)	ON	ON	OFF	OFF

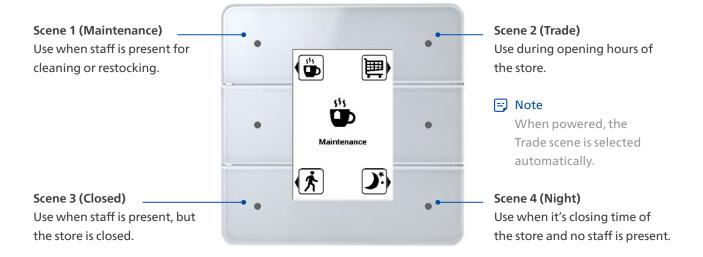
8 Usage of the interface

General usage of the interface

This section shows the usage of the user interface.

The Antumbra application module is used to control the Store Mini Kit. Press one of the corner buttons to change between the scenes.

Home page



■ Note

See Appendix D Scene names translations for the scene names in the different languages.

★ Tip

When using the secondary signal dimmer controller with an earlier system version than version 1.1.0, there's a risk that over time the dimming levels of both the primary and secondary signal dimmer controller are out of sync. This behavior becomes visible especially after multiple adjustments and can be easily solved by dimming down the output for that configuration to 0%. After doing so, the dim levels are in sync again.

9 Configuration of the scenes

Edit system settings with the interface

This section shows the usage of the configuration menu of the user interface.

Note

These pages are intended for the Store Manager only.

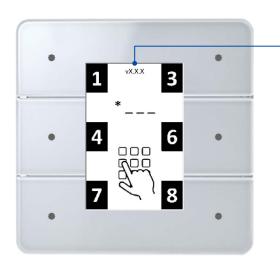
The Antumbra application module is used to configure the Store Mini Kit.

To enter the configuration menu, press and hold the two middle buttons (A and B) for two seconds. The **Login** page shows.



Login

Use the keypad to enter the correct PIN to enter the configuration menu: 6178



System version number

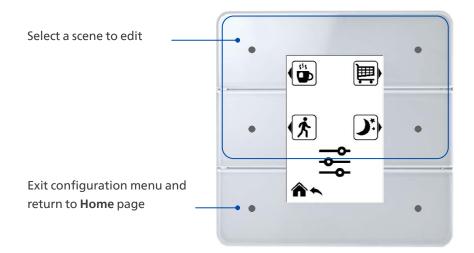
For more information about the firmware versions, see the System Release Notes corresponding with the system version.

□ Note

After 10 seconds of inactivity, the interface returns to the Home page.

9 Configuration of the scenes

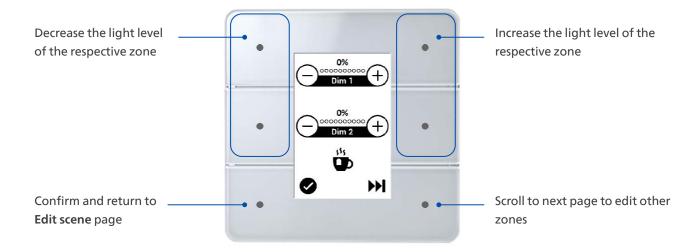
Edit scene



Note

After 20 seconds of inactivity, the interface returns to the Home page.

Edit zone



Note

While editing the light levels of a zone, the light levels of the lights in the store respond to the change of the settings. This helps you selecting the correct setting.

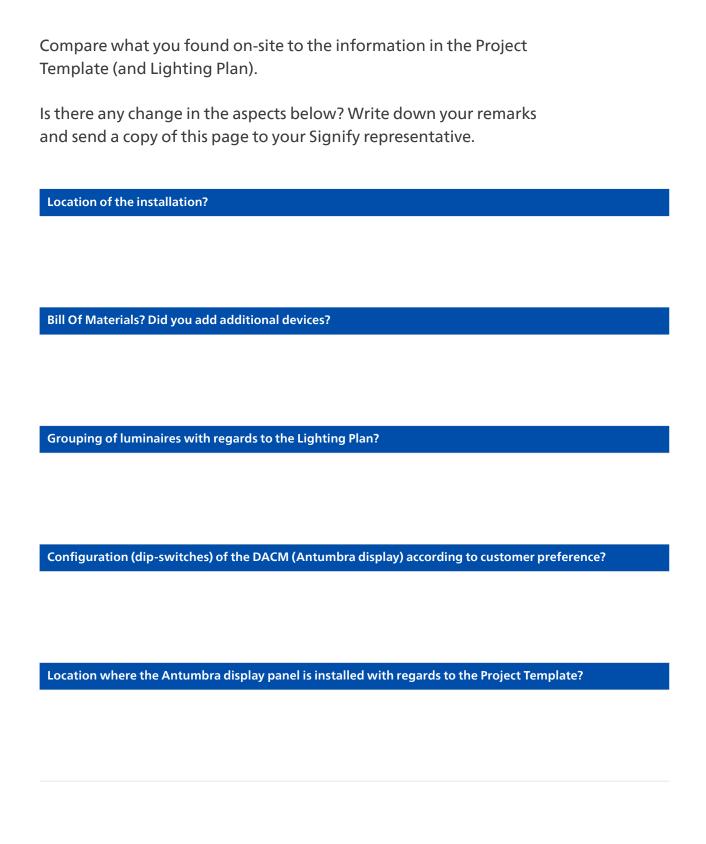
9 Configuration of the scenes

Update configuration

When confirming the changes, the **Update configuration** page shows for about 3 seconds before the interface shows the **Edit scene** page.



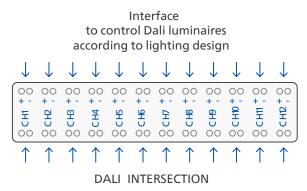
Appendix A - 'As is' installation Report



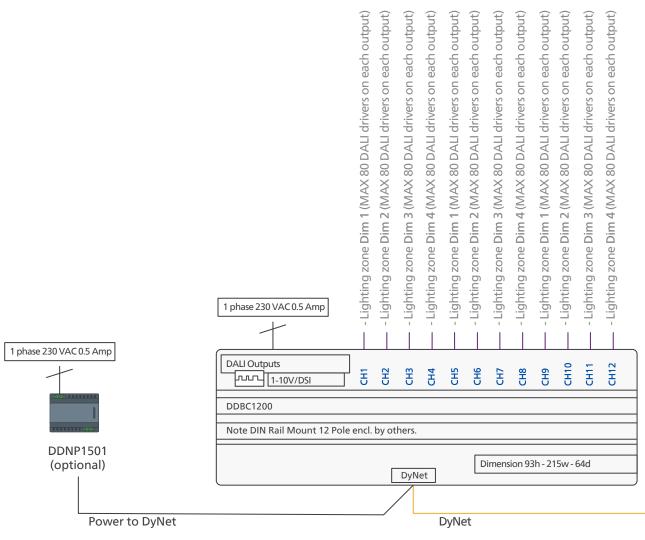
Appendix B - Test Instructions

Test wiring and communication between Store Mini Kit and luminaires					
What to do	Expected outcome	Issues?			
Select the scenes one by one	The luminaires follow the programmed scene levels				
Test the dry contact input (if used)					
What to do	Expected outcome	Issues?			
Trigger inputs from Building Management System	The correct scene is recalled (as per the description of the functionalities of the DDMIDC8 inputs in this document)				

Appendix C - Wiring diagram



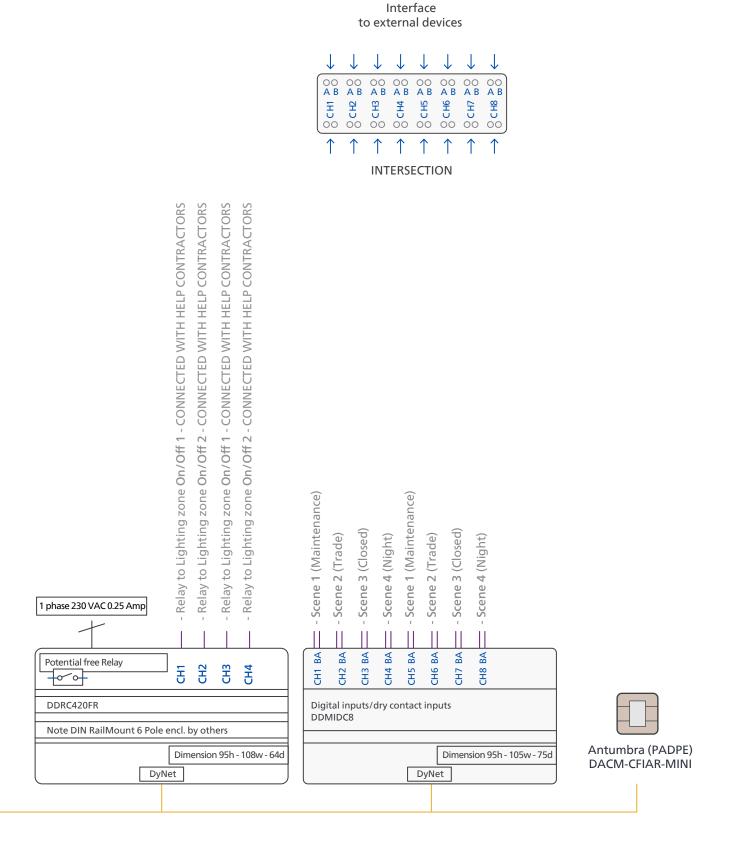
Max 300 DALI drivers per DDBC1200 controller



Note DDBC1200

The channel assignment of the secondary signal dimmer controller is identical to the channel assignment of the primary signal dimmer controller.

Appendix C - Wiring diagram



Appendix D - Scene name translations

Language	Scene 1	Scene 2	Scene 3	Scene 4
English	Maintenance	Trade	Closed	Night
French	Réassort	Vente	Fermeture	Nuit
Italian	Preparazione	Vendita	Chiusura	Notturno
Spanish	Reposición	Apertura	Cierre	Noche
German	Vorraeumzeit	Martkt auf	Markt zu	Nacht
Polish	Zatowarowanie	Handel	Zamknięte	Noc
Russian	Приемка товара	Торговля (день)	Уборка	Торговля (ночь)



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