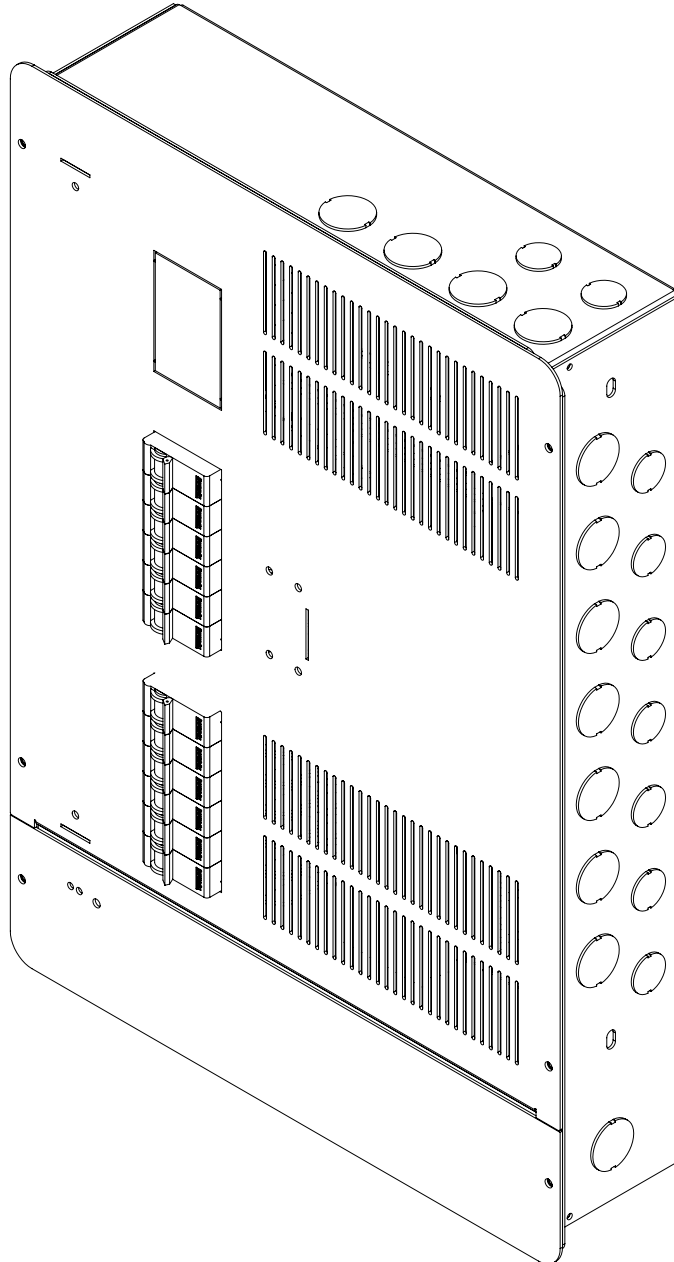

DMC2

Dynalite Modular Controller (2 Output Modules) Installation Instructions



Warning.....	2	Final Checks.....	6
Features.....	2	Dimensions.....	7
Important Safeguards.....	2	Specifications.....	8
Internal View.....	3		
Mounting.....	4		
Module mounting.....	5		



WARNING

ISOLATE FROM MAINS SUPPLY BEFORE TERMINATING OR ADJUSTING ANY TERMINALS. NO SERVICEABLE PARTS INSIDE. SERVICE BY QUALIFIED PERSONNEL ONLY.

Important Safeguards

Manual Override Keypad – The Manual Override Keypad does not provide permanent isolation. Isolate at the supply before performing work on load circuits.

Read the Instructions – We recommend that you read this document prior to commencement of installation. Do not energize the DMC until all steps of the installation procedure on page 6 are complete.

Installation of the home and building automation and control system shall comply with HD60364-4-41 where applicable.

Special Programming – Once assembled, powered and terminated correctly, this device will operate in basic mode. A new Philips Dynalite user interface on the same network will turn all output lighting channels on from button 1 and off from button 4 allowing testing of network cables and terminations. Advanced functions and custom presets can then be configured via the EnvisionProject commissioning software.

If commissioning services are required, contact your local distributor for details.

Power Sources – This device should only be operated from the type of supply specified on installed modules. This device *must* be earthed.

High Voltage Insulation Test – Do not Megger test any circuitry connected to the dimming system, as damage to the electronics may result.

Mounting Location – This device must be mounted upright on a vertical surface (refer to page 4 for mounting instructions), with a minimum clearance of 200mm on **all** sides of the front cover.

Install in a dry, well-ventilated location.

Controllers may emit some audible noise such as humming or relay chatter. Take this into account when deciding the mounting location.

Data Cable – The recommended cable for connections to the serial port is screened stranded RS485 compatible CAT-5E data cable with three twisted pairs. Refer to the installation instructions for the communication module for more cabling information. This cable must be segregated from mains and Class 1 cables as per local electrical code. If anticipated cable runs are over 600 meters for serial cables, consult your dealer for advice. Do not cut or terminate live data cables.

Features

- **Two Control Module Locations**

Wide range of interchangeable output modules available to meet the capacity and control type needs of any project.

Modules supplied separately.

The DMC2 is only compatible with Philips Dynalite modules.

- **Communication Module**

Allows the controller to be used with a variety of supported protocols.

- **Convection Cooled**

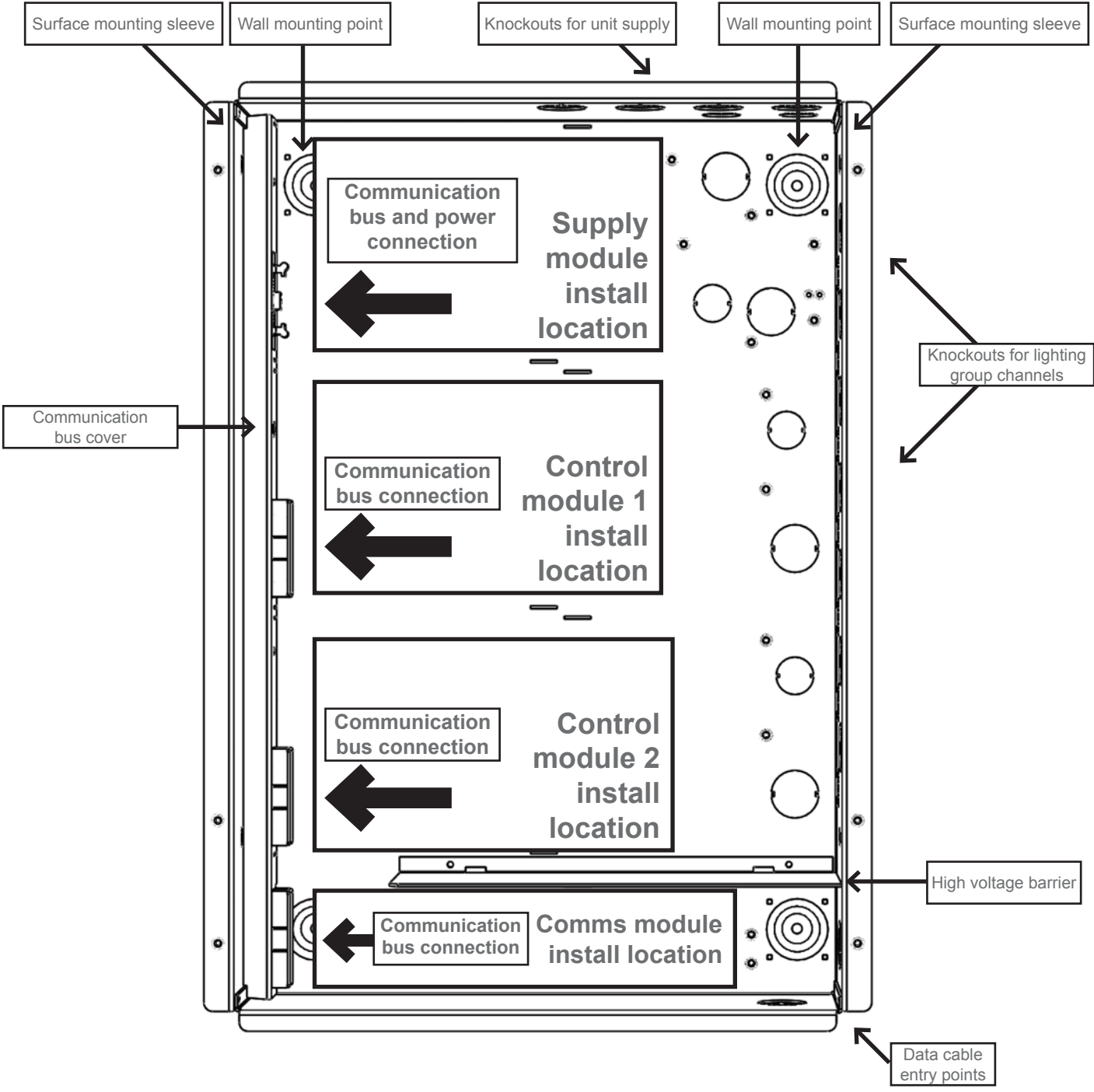
The DMC2 is ventilated, and requires no active cooling system when installed in accordance with these instructions.

- **Multiple Control Options**

The DMC2 is designed to operate as part of a network system that can be structured to meet the project's needs.

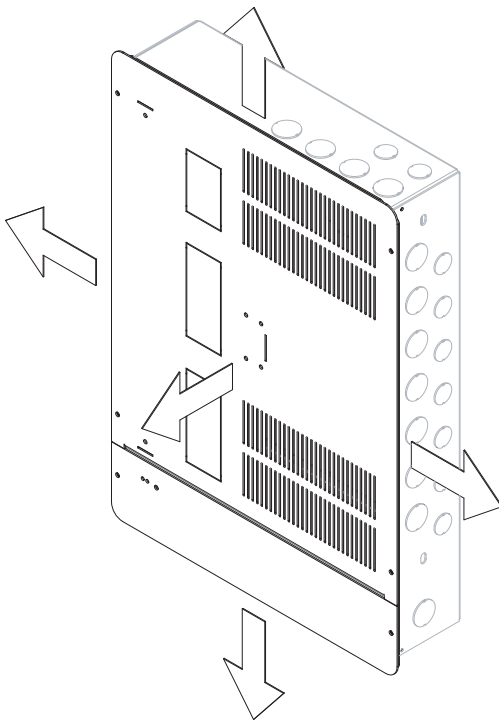
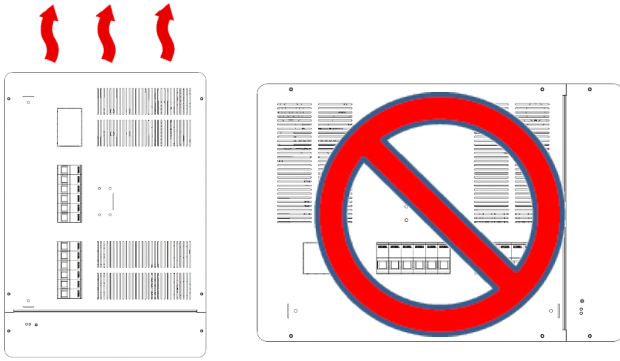
- **Simple Installation**

The enclosure is suitable for both surface and recess mount. Cabling knockouts for supply and load cables are provided at the top, side and back of the enclosure for supply and load cables. Cabling knockouts for Control cables (Class 2 / SELV) are located at the bottom of enclosure.



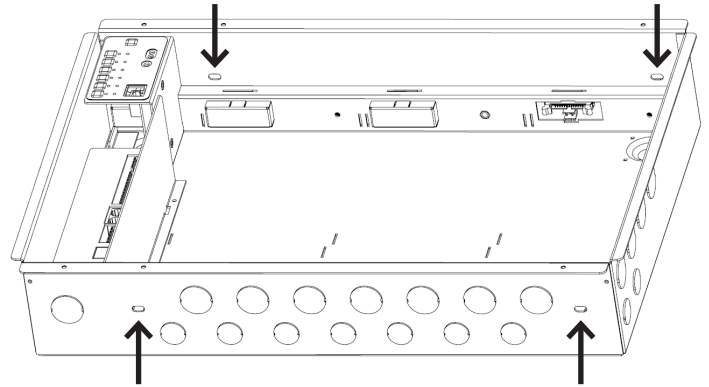
For spare parts, please call your nearest Philips Dynalite Customer Service Centre.

Mounting



For surface mounting, four mounting points have been provided. Refer to the location of the mounting points in the dimension drawings on page 7 of this document.

For recess mounting, four holes suitable for M6 (1/4") fasteners have been provided on side walls as shown below. Minimum spacing between studs is 380mm (15"), minimum mounting depth 103mm (4.1")



Ensure no dust or other debris enters the device during installation. Do not leave the front cover off for any length of time. Excessive dust and dirt can impede the cooling of internal components.

Allow for Cable Entry

Supply and load cables can enter the enclosure through knockouts at the top, side or back. An alternative method is to stand the enclosure off from the mounting surface by mounting it on a cable tray or a Unistrut-style product.

The control cables enter at the bottom of the enclosure. Control cables should never be run in the mains voltage sections of the enclosure.

Select a suitable location

This device is designed for indoor use only. If installing in an outdoor location, the DMC2 must be housed in a suitable well-ventilated enclosure. Choose a dry location that will be accessible after the installation is complete. To ensure sufficient cooling, the DMC2 must be mounted vertically, as shown above. The DMC2 requires a minimum air gap of 200mm (8") around the front, sides, top and bottom of the front cover. This air gap is also required to ensure serviceability of the DMC2 without complete removal from the mounting surface.

The device may emit some audible noise during operation. Take this into account when deciding the mounting location.

Energizing the Device

If it is necessary to energize load circuits for test purposes before any control cables are connected, it is acceptable to replace the top cover and energize the device, as the default factory programming is to have all channels set to 100% output. Use the manual override keypad on the communication module to control individual channels.

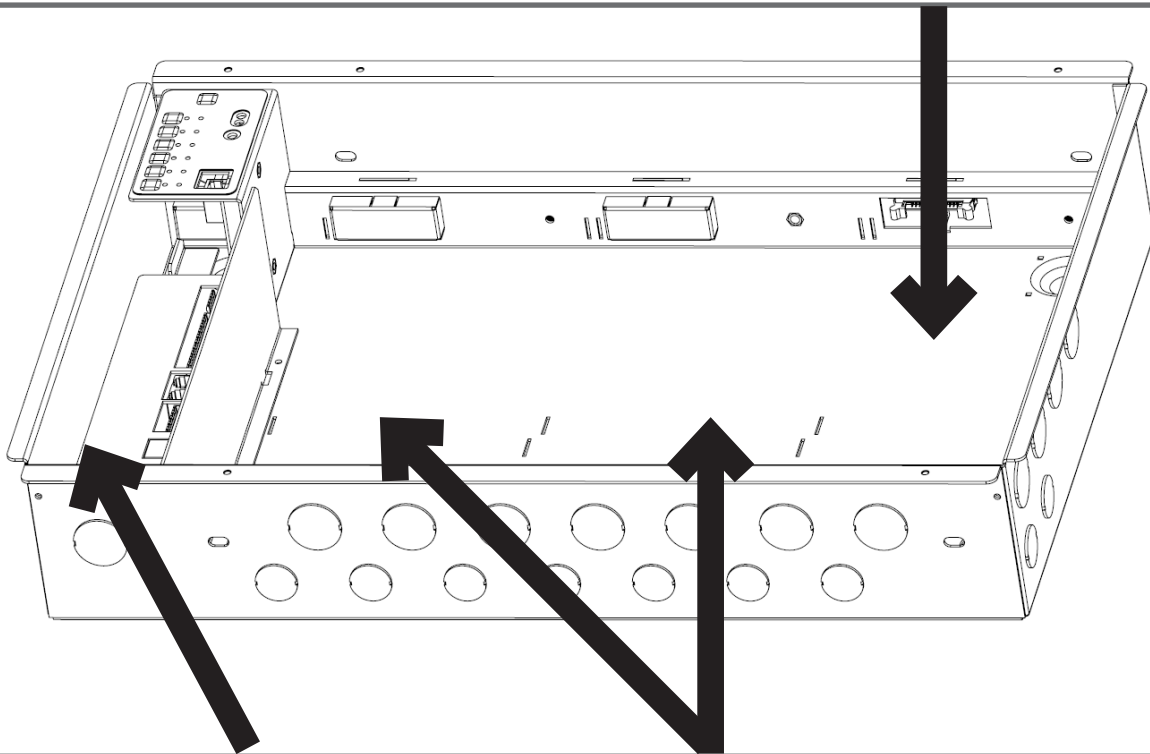
This device should be de-energized before terminating the control and data cables.

Before starting:

Remove the knockouts you intend to run the supply cables through – lighting group supply and network supply first – then mount the DMC2 (surface or recessed, as required). Once the unit is secured to the intended mounting wall follow the steps below for the different module mounting.

Supply Cables:

The supply input terminals are located on the DSM Module toward the top of the enclosure and consist of Neutral and Phase terminals, all of which will accept up to 16mm² cables. The supply cables should have a capacity of 32A per phase for three-phase supply or up to 63A for single phase, to allow the device to be loaded to its maximum capacity. The earth bar is located in the DMC unit near the top of the case.

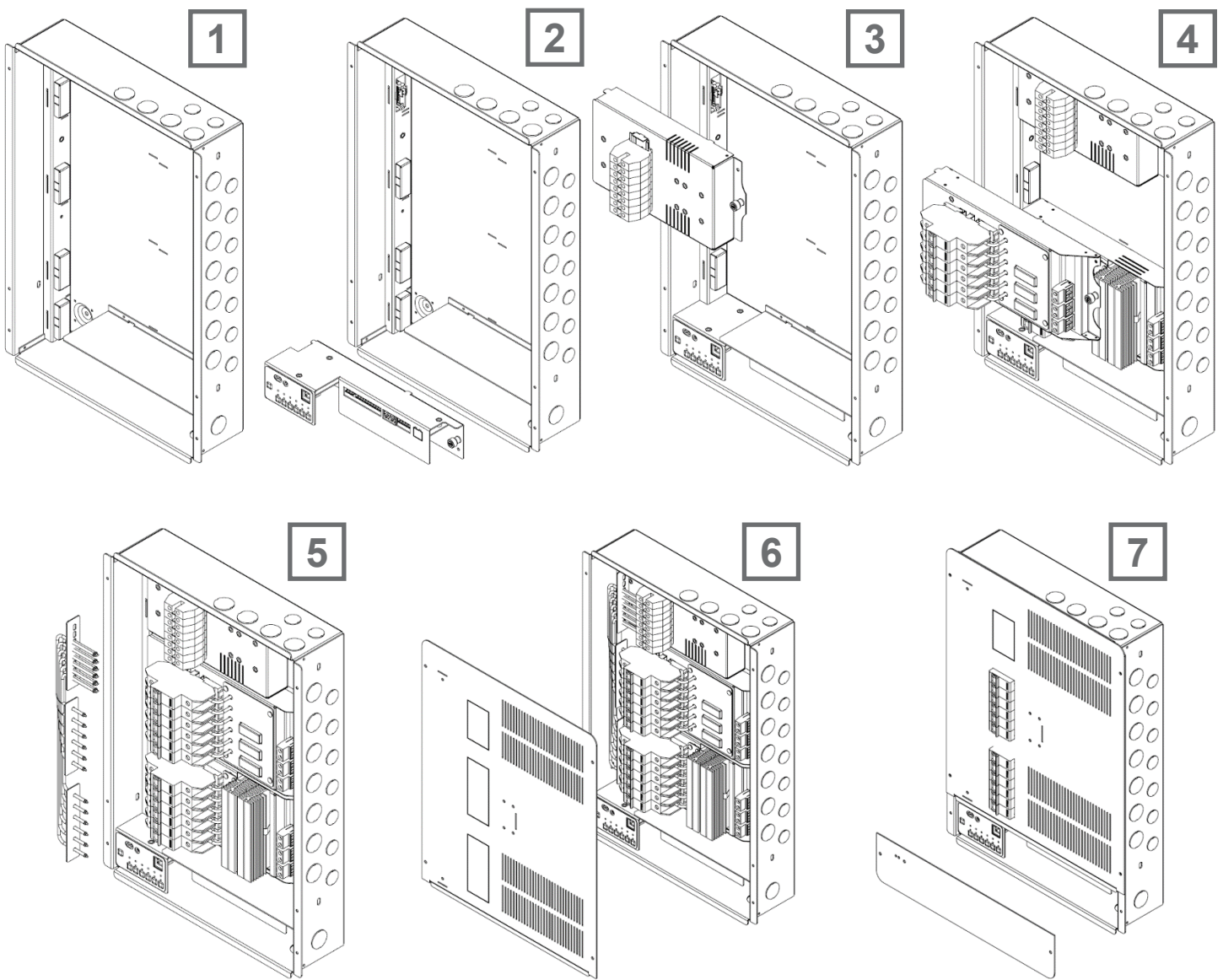


To install the Communication, Supply and Control modules:

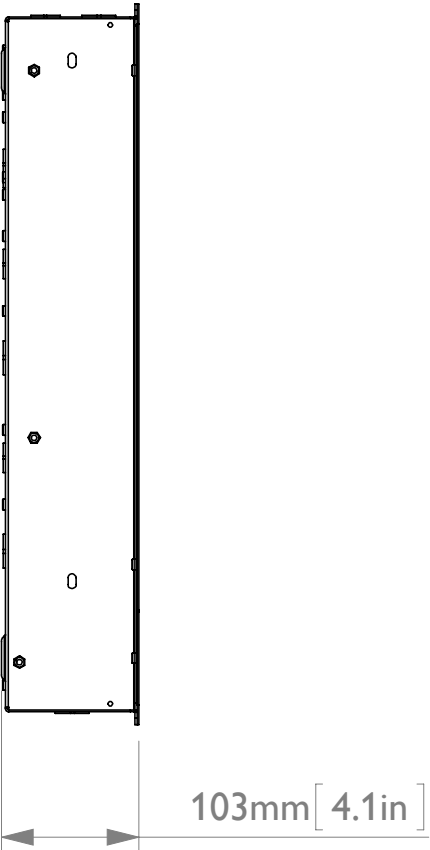
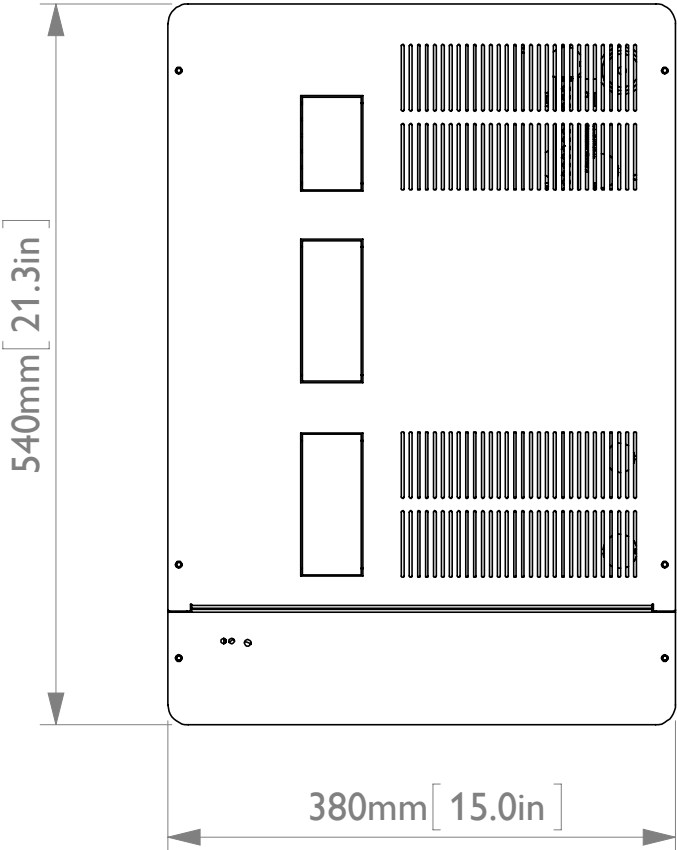
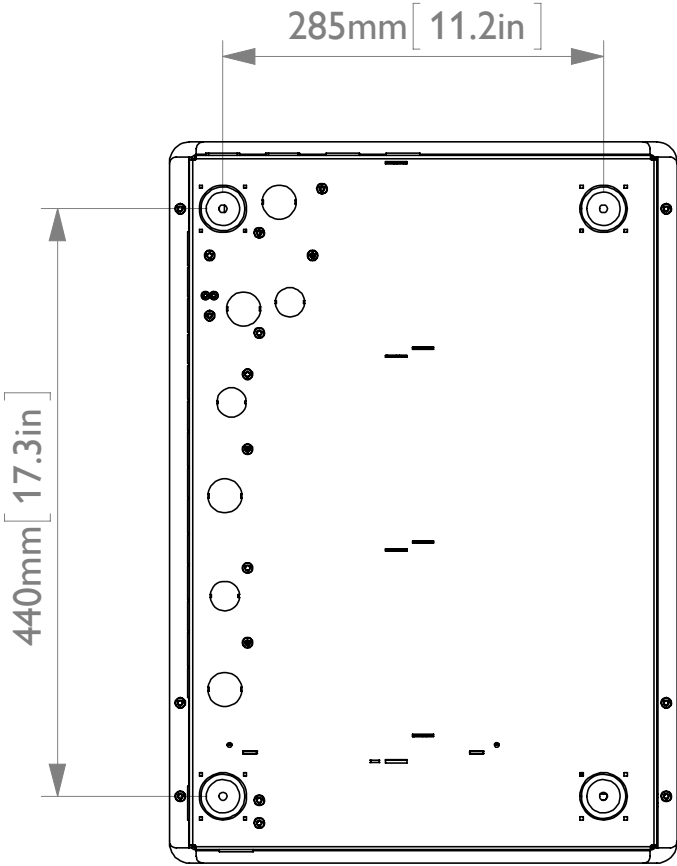
1. Connect the module ribbon cable to its respective plug.
2. On the left hand side of the module there are two locating tabs which will line up with the DMC communication bus cover. Slide the tabs into these locations and secure the module by tightening the fixing screw to the enclosure.
3. Connect the modules to the internal wiring harness and field wiring as applicable.

There are two control module bays within the DMC2. Any control module can be fitted to any of the two locations.

Check the supplied module installation instructions for additional advice.



1. After removing both front covers and the required knockouts for the power supply, networking cable and lighting group channels, mount the unit in its desired location. Once secured, the DMC2 unit is ready for the internal modules to be mounted.
2. Mount the communication module below the high-voltage barrier of the DMC2. Refer to the communications module installation instructions for more details before proceeding.
3. Mount the power supply module in the top of the DMC2. Refer to the power supply module installation instructions for more details before proceeding.
4. Mount the control modules in the remaining module spaces. Any control module can be mounted in any location and any module location can be left empty. Refer to the control module installation instructions for more details.
5. Connect the supplied wiring loom to the DMC2 as shown. Use only the loom supplied with the unit, and do not break or modify the loom in any way. Make sure the labels on the loom correspond to the wiring on each module. For modules requiring termination, remove the black insulating caps from the loom before terminating to the load and supply modules. For any module location that is not populated or does not require termination, the corresponding insulating caps (or mains-rated isolating electrical terminators) must remain in place on the harness. Terminate the correctly rated supply to each module but do not energize.
6. Check and retighten all terminals. Remove the knockout detail on the front cover as required. Replace the top and bottom cover plates, and make sure all screws are tightened securely. Stick the labels provided with the modules on the cover plate to indicate which module is installed in each location.
7. The unit is now ready to be energized. If required, the bottom cover can be removed when energized to access the override key matrix.



Specification

Control Modules: 2 x Control module locations

Cable Entry: Supply/Control

Top:	4 x 28.2mm (1.1")	2 x 22.2mm (0.87")
Side:	7 x 28.2 (1.1")	7 x 22.2mm (0.87")
Back:	4 x 28.2mm (1.1")	3 x 22.2mm (0.87")

Data

Side:	1 x 28.2mm (1.1")
Bottom:	1 x 28.2mm (1.1")

Note:

28.2mm (1.1") opening is suitable for 3/4" conduit
22.2mm (0.87") opening is suitable for 1/2" conduit

Compliance: **DMC2-UL:** UL, CSA, CE, RCM, FCC, ICES-003
Overvoltage category III, Pollution Degree II
DMC2-CE: CE, RCM, Overvoltage category III, Pollution Degree II

NOTE:

- The temperature limits and current-carrying capacities of the communication wires specified in HD 384.5.523 shall not be exceeded.
- Installation of home and building automation control shall comply with HD 60364-4-41.
- Network Topology for installation is Daisy Chain.

Input: Voltage rating: 120/230/277 VAC +10% / -15%
50/60 Hz 3-Phase, 4-Wire (Y), or Single Phase
Current rating: 32 A per phase for 3-phase supply, or single phase 63 A max

Operating Environment: 0°C to 40°C (32°F to 104°F) ambient temperature
0% to 90% RH non-condensing

Shipping and Storage: -25°C to 60°C (-13°F to 140°F) ambient temperature
0% to 90% RH non-condensing

Construction: Galvanized Steel case with powder coated front covers

Dimensions: **H:** 540mm (21.3")
W: 380mm (15")
D: 106mm (4.2")

Weight: 7.71 kg (17 lbs) (excluding all modules)

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Any modifications not approved by the manufacturer of this device could void the user's authority to operate this device.

Compliance to Industry Canada ICES-003: CAN ICES-3(B)/NMB-3(B)

DMC2 Installation Instructions Rev 03 Specifications subject to change without notice

Dynalite manufactured by WMGD Pty Ltd (ABN 33 097 246 921) Unit 6, 691 Gardeners Road Mascot NSW 2020 Australia Tel: +61 2 8338 9899 Fax: +61 2 8338 9333

E-Mail: support.controls@philips.com Web: <http://philips.com/dynalite>