DM-SG-4SM-W

D-Mate scene plate

Overview

The DM-SG-4SM-W is a stylish push-button wall plate that provides control of a D-Mate system. Functions include.

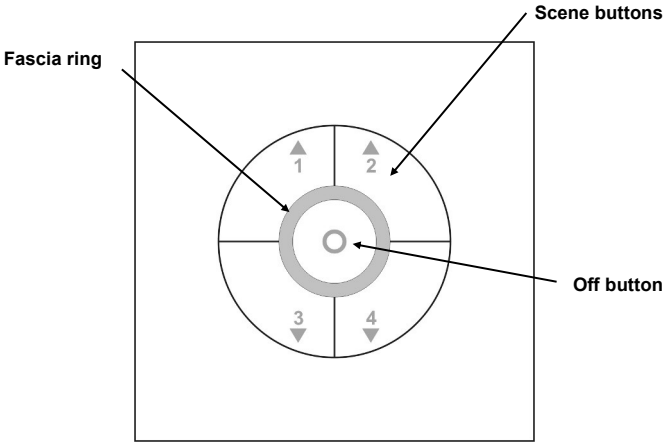
- Lights On / Off
- Raise / Lower Light Levels
- Scene Selection
- Scene Programming
- User programming mode for quick and easy scene setting.

Compact design allows installation into standard UK and European backboxes.

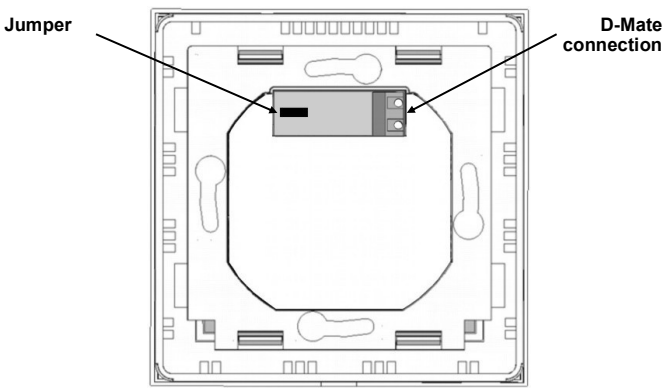
Fascia also available in other finishes.

Features

Front features



Back features



Scene buttons
Four buttons that offer 4 lighting scenes.

Raise and lower function
Use either buttons 1 and 2 to raise the light level.
Use either buttons 3 and 4 to lower the light level.

Off button
Toggle between lights off and last selected Scene.

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

Fascia ring
Glows green when the lights are off aiding location of plate in the dark. The LEDs flash to indicate the that a valid setting has been received via IR and are also used in the programming of scenes. The LEDs will flash in a rotary pattern when a factory reset is applied.

D-Mate connection
Connection to the D-Mate bus. The D-Mate bus is polarity insensitive.

Jumper
Use to select master / slave operation (see page 7).

D-Mate

D-Mate is a Lighting Control System suitable for small to medium scale applications offering the following key benefits:

- 4 independently dimmable lighting circuits. *An additional 4 circuits can be programmed via the UNLCDHS.*
- Scene setting - 4 user programmable scenes (plus an 'off' scene) per Scene plate.
- Scene recall via push-button Scene Plates, Input Units or IR handsets
- Presence and absence operation using detectors
- Lux switching and lux dimming (maintained illuminance) operation

Introduction

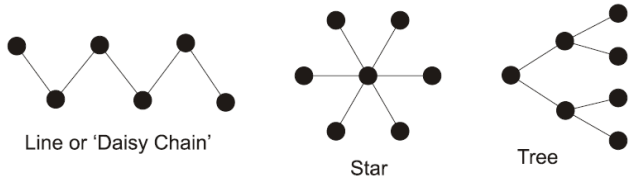
Devices within the D-Mate system communicate via a simple two wire data bus. The bus is powered via the D-Mate PSU and data is passed between devices using a format based around the DALI standard. The bus operates at a nominal voltage of 16 Volts DC which serves to provide operating power to each device connected to the bus. A maximum current of 200mA is available from the PSU. Therefore, in any D-Mate system, the maximum number of devices will be dependant on the total current consumption of all devices, including ballasts.

Note: The use of additional D-Mate PSUs or third party PSUs with a higher current rating is not permitted.

The output from the DM-SL-PSU is fully isolated from the mains input and may be regarded as an SELV device. However, as DALI ballasts only offer basic insulation, all devices on the D-Mate bus must be wired as if carrying mains potential.

Physical requirements

Data bus connections between devices must be made using suitable mains-rated two-core cable, such as two-core flex or bell wire. The minimum recommended core size is 0.75mm^2 for most applications. The data bus may be wired using any convenient network topology (e.g. line, star or tree). However, whichever topology is used, the total length of all cable (including spurs) within a system should not exceed 200m. There is no requirement to use screened cable. However, the routing of cables through electrically 'noisy' environments should be avoided to prevent possible interference on the bus.

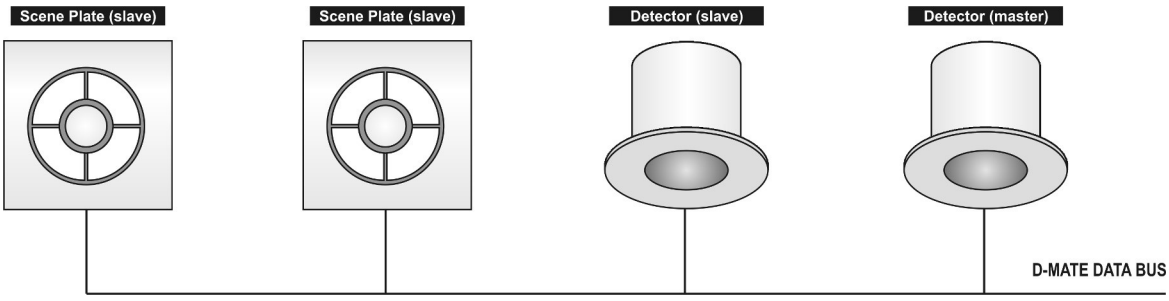


The data bus/power connections to all D-Mate devices are designed to operate correctly with reversed polarity. However, it is good practice to ensure all devices are wired with correct polarity. DALI and DSI ballasts are tolerant to reversed polarity, however, 1-10V ballasts are not.

Multiple Device Control (Master and Slaves)

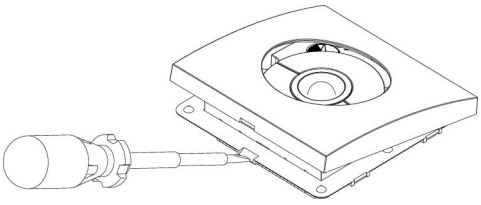
It is possible to use multiple D-Mate control devices, such as detectors and plates in a system. For example there may be a need to have two plates in a room where the master plate controls all the circuits in the room but the slave plate is used to control a subset of circuits. An application of this would be where there are two detectors in a large room, where one would be the master and the other the slave.

Where multiple control devices are used on the same circuit, one device must be designated the 'master'. This is the device that is responsible for sending control messages to the Addressers. The master device also stores the levels for each Scene for the circuit(s) it controls. The other control devices on that circuit must be designated as 'slaves'. These do not control the Addressers directly, but send messages to the master device which then sends messages to the Addressers. Where a detector exists on a circuit it must always be the master device, with any additional detectors or scene plates configured as slaves. Where a single detector is used with one more scene plates, it will automatically set the plates to slaves for the corresponding circuits. When there are no detectors in a system and only plates, one of the plates will need to be set as the master. To set the plate as a master see page 7.



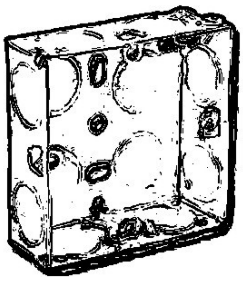
Installation

Remove front cover by using a flathead screwdriver or similar to gently prise off the cover.

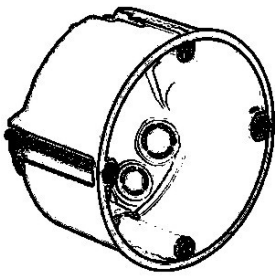


Backbox Compatibility

The DM-SG-4SM-W is designed to fit both UK and EU style backboxes.



BS4662 square back box

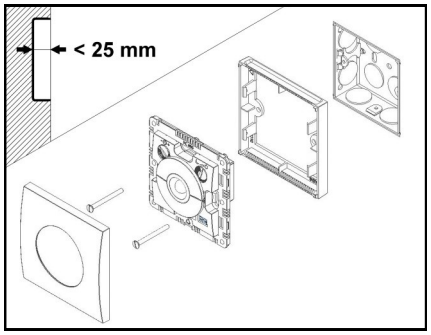


DIN standard round back box

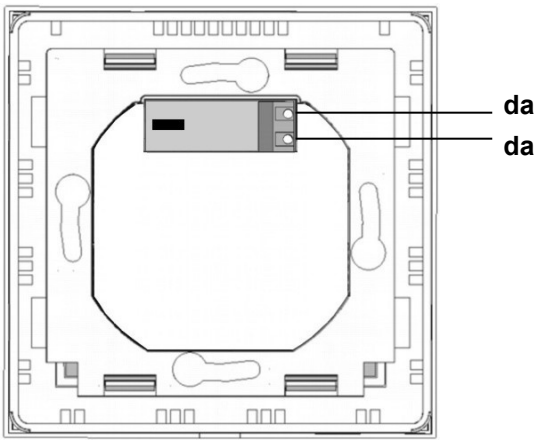
Mounting

Use the extender if there is less than 25mm free space.

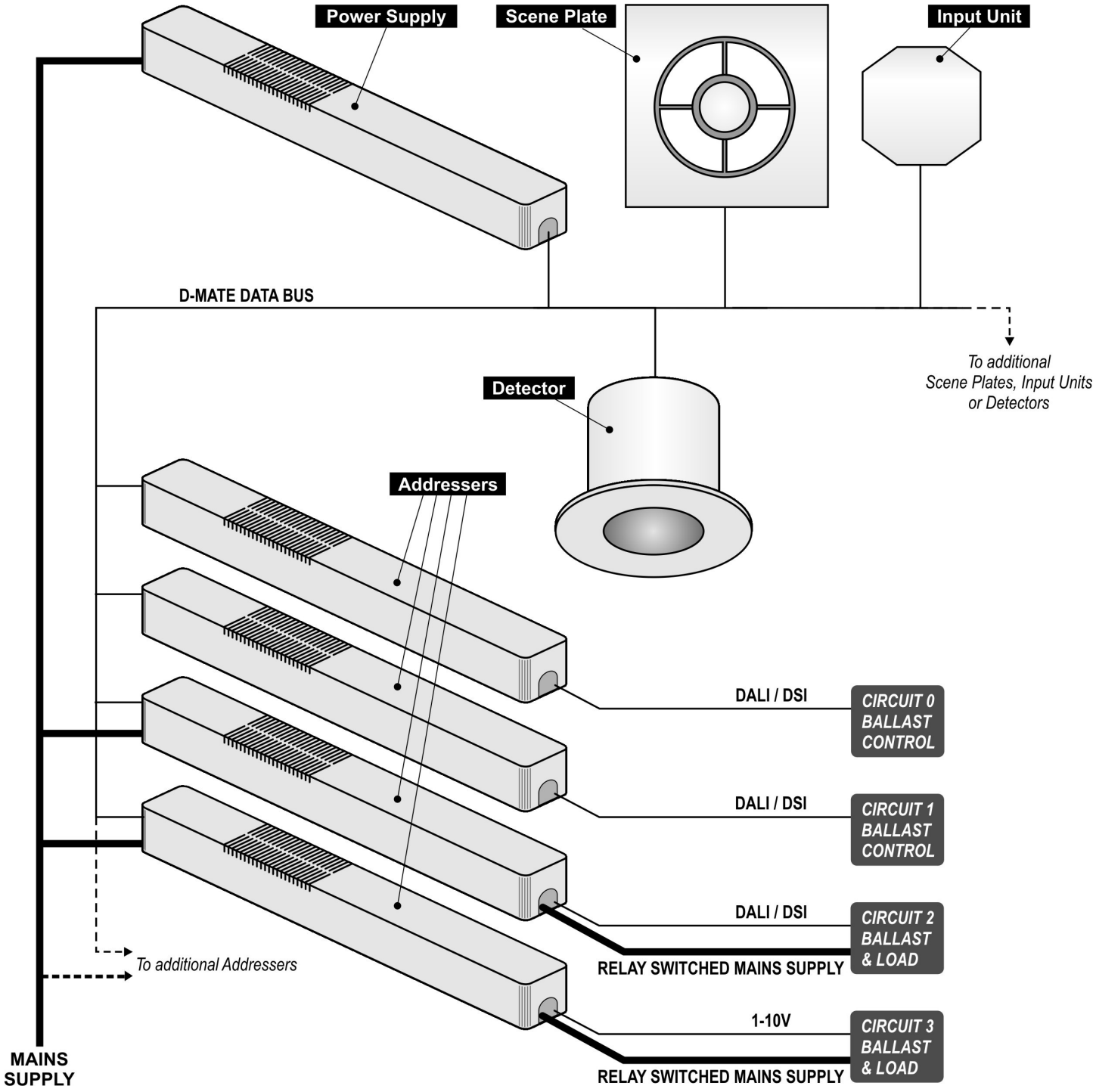
Note: put the wires through the extender before connecting



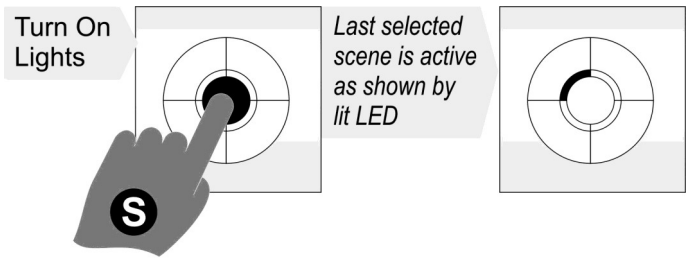
Wiring diagram

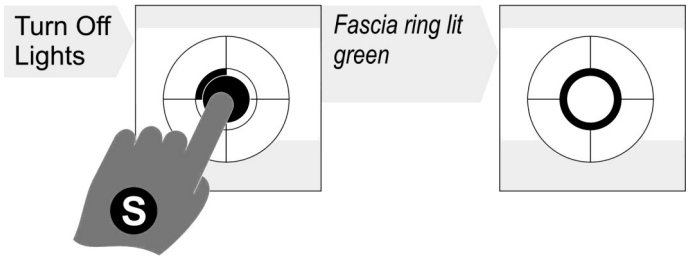


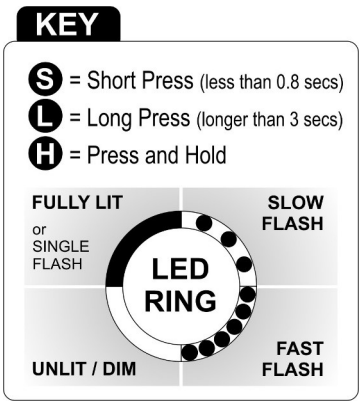
System wiring example



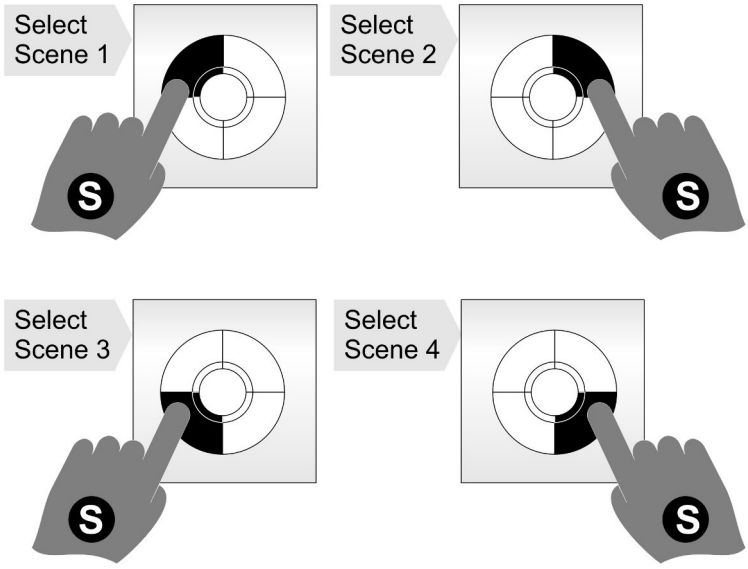
Turning Lights On and Off







Selecting a Scene



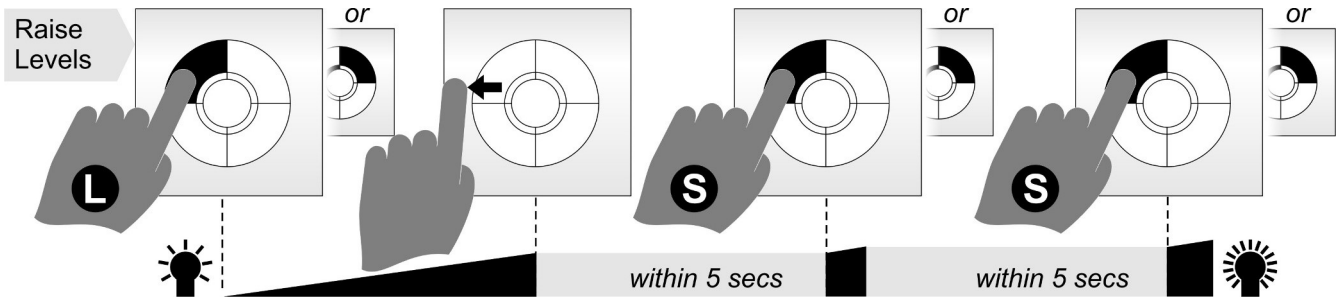
Default Scene Levels

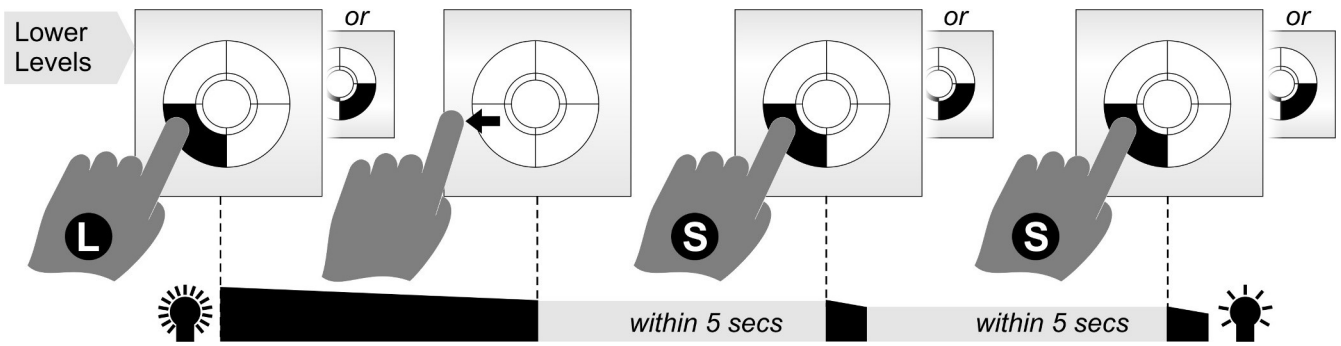
The D-Mate system is factory-set to provide the following scene levels:

- **Scene 1** – all circuits at 100%
- **Scene 2** – all circuits at 75%
- **Scene 3** – all circuits at 50%
- **Scene 4** – all circuits at 25%

To change scene levels see Programming Scenes on page 6.

Adjusting Current Light Levels (Raise / Lower)

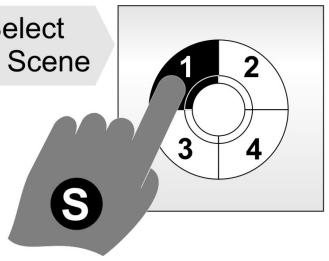




Using the scene plate

Programming Scenes

Select a Scene

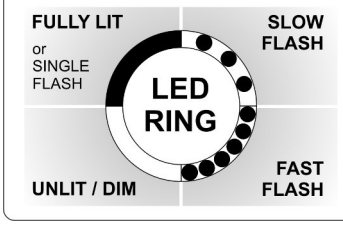


KEY

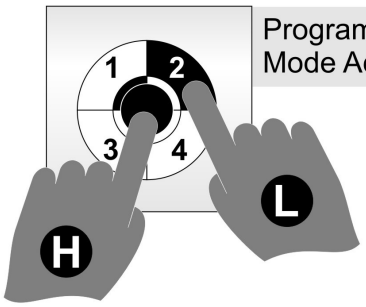
S = Short Press (less than 0.8 secs)

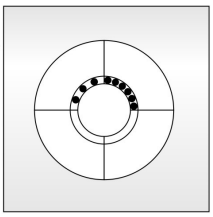
L = Long Press (longer than 3 secs)

H = Press and Hold



Programming Mode Active

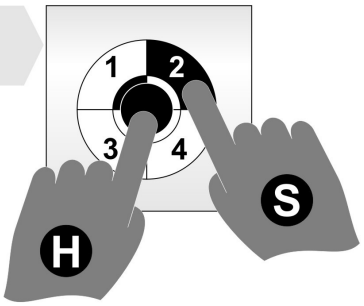




slow flash = scene
fast flash = channel

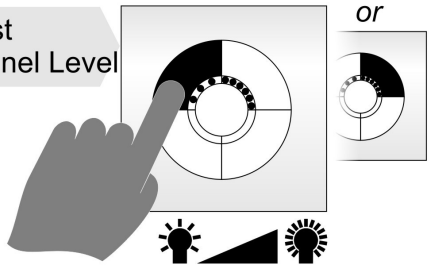
Note: If scene and channel are the same number, the fast flash denotes both

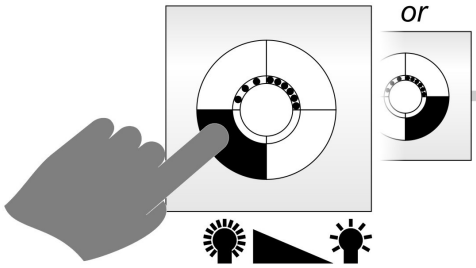
Select a Channel



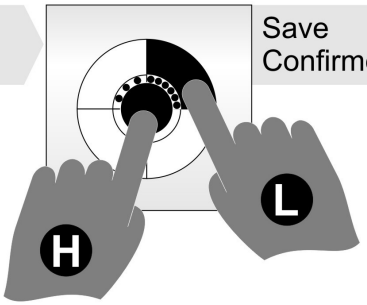
Select another channel if required

Adjust Channel Level

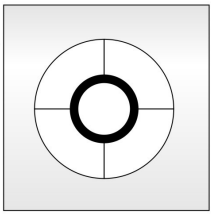




Save Scene



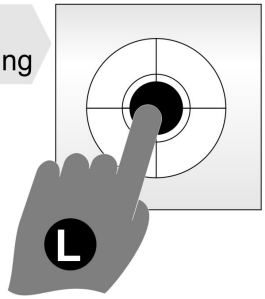
Save Confirmed



Single Flash

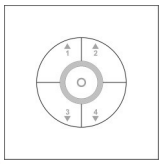
To program another scene start sequence again. If unable to save a scene ths will be because the 'Scene lock' is activated. See page 7 for details of how to unlock.

Quit Programming



or leave panel untouched for longer than 4 minutes

Basic programming



The UHS5 handset has limited functionality when used with the DM-SG-4SM-W.

Point the handset at the plate and send the required programming commands to the unit as shown below.

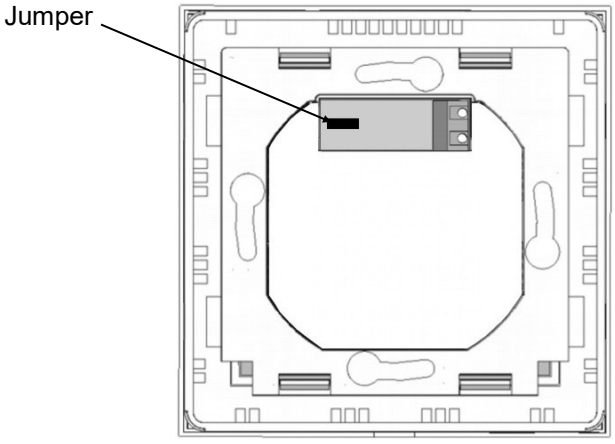
Valid commands will be indicated by a green LED flash.

		Number of Shift key presses					
Parameter Name	**Default Value**	**0** SHIFT 1 ○ SHIFT 2 ○	**1** SHIFT 1 ☼ SHIFT 2 ○	**2** SHIFT 1 ○ SHIFT 2 ☼	**3** SHIFT 1 ☼ SHIFT 2 ☼	**UHS5 Handset Graphics**	**Description**
		Button Activation					
On / Raise		On	Raise				Turn lights on or to raise lights.
Off / Lower		Off	Lower				Turn lights off or to lower lights.
Scene lock *(Walk test button)*	Off	On	Off				Locks / unlocks the plate so that Scenes cannot be saved. To prevent scenes being overwritten.
Defaults				D			Returns the unit to the default settings.
Burn-in *(Only use when plate is a master)*	0	0	50	100			Determines how long the output will be at 100% so that lamps 'burn-in'. The 'burn-in' time is not affected by power supply interruptions.
Preset ABS	Master	A	B	Capped mode R/L (default, see p8)			2 presets for Master / Slave configuration: • A: Master • B: Clear Master
Preset PRS		A	B	Broomstick mode R/L (see p8)			2 presets for Master / Slave configuration: • A: Slave • B: Clear Slave

Master plate activation

When there is a system that has no detectors but has multiple plates, one plate will need to be set as the master. To effect this, either:

- Use the UHS5 to set the plate as a slave using the method above, or
- Use the UNLCHS to set the master, slave configurations (see advanced programming section), or
- To set all but one plate as slaves, remove the jumpers from them. Leave the jumper on one plate to act as the master.



Advanced programming

Parameter Name	Default Value	Range / Options	Description	UHS5	UNLCDHS
Absence Time Out *(Time adjustment)*	30 seconds	0-999 seconds	If the lights are turned on and no activity is detected within the Absence Time out the lights will turn off.	✗	✓
IR Enabled	N	Y or N	Enable or disable device control or programming by IR handset.	✗	✓
Burn-in *(Only use when plate is a master)*	0	0 (disabled) or 1 to 999 hours	Determines how long the output will be at 100% so that lamps 'burn-in'. The 'burn-in' time is not affected by power supply interruptions.	✓	✓
Fade Time	2 (1 second)	1 (0.7s) 2 (1.0s) 3 (1,4s) 4 (2.0s) 5 (2.8s) 6 (4.0s) 7 (5.7s) 8 (8.0s)	Sets the default fade rate for circuits using DALI ballasts. Value is sent to all Addressers on Detector/Plate power up and when changed, and must be set to the same value for all devices.	✗	✓
Max Value	99	0-99%	Sets the maximum light level for all circuits.	✗	✓
Min Value	1	0-99%	Sets the minimum light level for all circuits.	✗	✓
Master Circuit Ch1	0	0-14	First circuit number that device is a master of	✗	✓
Master Circuit Ch2	1	0-14	Second circuit number that device is a master of	✗	✓
Master Circuit Ch3	2	0-14	Third circuit number that device is a master of	✗	✓
Master Circuit Ch4	3	0-14	Fourth circuit number that device is a master of	✗	✓
Slave Circuit Ch1	0	0-14	First circuit number that device is a slave of	✗	✓
Slave Circuit Ch2	1	0-14	Second circuit number that device is a slave of	✗	✓
Slave Circuit Ch3	2	0-14	Third circuit number that device is a slave of	✗	✓
Slave Circuit Ch4	3	0-14	Fourth circuit number that device is a slave of	✗	✓
Scene 0 Levels Ch1-4	0	0-100%	Levels applied to each of the four channels (circuits) when Scene 0 (off scene) is selected.	✗	✗
Scene 1 Levels Ch1-4	100	0-100%	Levels applied to each of the four channels (circuits) when Scene 1 is selected.	✗	✓
Scene 2 Levels Ch1-4	75	0-100%	Levels applied to each of the four channels (circuits) when Scene 2 is selected.	✗	✓
Scene 3 Levels Ch1-4	50	0-100%	Levels applied to each of the four channels (circuits) when Scene 3 is selected.	✗	✓
Scene 4 Levels Ch1-4	25	0-100%	Levels applied to each of the four channels (circuits) when Scene 4 is selected.	✗	✓
Scene 5-9 Levels Ch1-4	100	0-100%	Levels applied to each of the four channels (circuits) when Scene 5, 6, 7, 8 or 9 are selected.	✗	✓

User Modes					
On			Selects last Scene.	✓	✓
Off			Turns lights off.	✓	✓
Raise	-	-	Increase light level. Reverts when occupancy cycle complete.	✓	✓
Lower	-	-	Decrease light level. Reverts when occupancy cycle complete.	✓	✓
Scene up	-	-	Steps up between 9 pre-defined scenes.	✗	✓
Scene down	-	-	Steps down between 9 pre-defined scenes.	✗	✓
Select Scene	-	0-9	Select the individual scene.	✗	✓
Circuit Number	1	1-4	Select the circuit to adjust level of.	✗	✓
Circuit Level	99	0-99%	Set the circuit level for the circuit above. *Note; only operates if the Scene Plate is the Master.*	✗	✓
Save Scene	-	-	Saves the set levels in the selected scene. *Note; only operates if the Scene Plate is the Master.*	✗	✓
Raise from off	Y	Y/N	When scene raising, parameter allows outputs which are off to switch on, as opposed to staying off. Useful for switched loads.	✗	✓
Lower to off	Y	Y/N	When scene lowering, parameter allows outputs to go completely off as opposed to staying at minimum.	✗	✓
Broomstick R/L	N (Capped)	Y/N	Broomstick mode keeps the difference in a scene's channel levels during scene raising lowering and maintained illuminance. *Note; that when the lead channel reaches either 100% or 0% the differentials will reduce till the last channel reaches 100% or 0% .*	✓	✓

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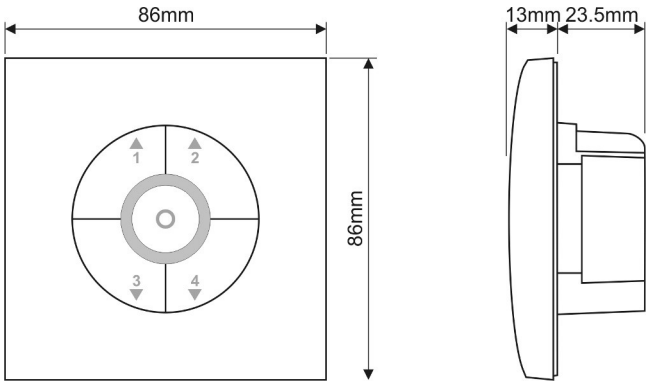
Technical data

Dimensions	See diagram opposite
Weight	0.07kg
Supply Voltage	9.5VDC—22.5VDC via DALI
Supply Current	16mA
D-Mate bus	Cannot be considered as SELV since DALI, DSI and 1-10V ballasts only offer basic insulation, therefore all devices on the D-Mate bus must be wired as if carrying mains potential.
Terminal Capacity	2.5mm^2
Fixing method	Surface fixing 35mm deep plastic surface mount moulded box. Flush fixing 25mm steel backbox or 25mm deep cavity backbox.
Temperature	-10ºC to 35ºC
Humidity	5 to 95% non-condensing
Material (casing)	Flame retardant ABS and PC/ABS
Type	Class 2
IP rating	IP40
Compliance	EMC-2014/30/EU LVD-2014/35/EU

For further compliance information visit www.cpelectronics.co.uk/compliance



Part numbers

	Part number	Description
Scene plate	DM-SG-4SM-W	D-Mate scene plate - white
Accessories	GIFP-ST	GI fascia Silver
	GIFP-BZ	GI fascia Bronze
	UHS5	IR programming handset
	UHS7	IR user handset
	UNLCDHS	Universal LCD programming handset

UK Patent no. GB2467196
International patents pending

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

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