MCB1H/V: 1 Dial / 4 Button Combo Wall Switch V1.0

PARADOX IMPERIAL

MCB1H (horizontal)

MCB1V (vertical)

NOTE: For more detailed installation and programming instructions, refer to the Imperial System Guide.

Description

The MCB1H/V is designed to work with the Imperial system's MAMA home automation engine. Each dial/button can be programmed to control a single output, multiple outputs, or macros. The buttons can provide on/off control of lights, sprinklers or macros, and set lights/motorized shutters to a preset level. The dial can provide adjustable control (32 dimming steps) of dimmable lights, motorized shutters, or other adjustable devices. Set the dial to the desired position without waiting for the light intensity or shutter position to change, the system will adjust automatically including the displays on all controlling devices.
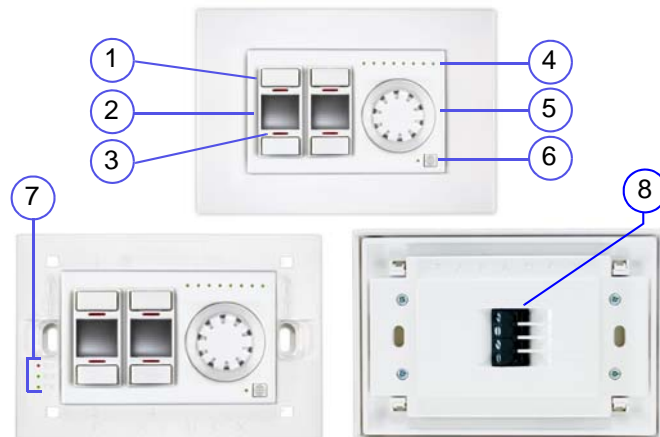
Unique to MAMA, the light intensity/shutter position can be saved by pushing and holding the dial. The next time the dial is pushed it will automatically set the lights/shutters to the saved intensity/position.

All wall switches are driven by the V32 Main Controller's 4 wire low-voltage Multibus. This means that the high voltage wiring is not connected directly to the switch as in regular electrical systems. This also means they can be installed anywhere including wet areas or outdoors (avoiding direct sunlight, or exposure to rain/snow).

Up to 510 wall switches can be programmed to control one output, as opposed to a maximum of 3 switches or 1 dimmer knob in regular electrical systems.
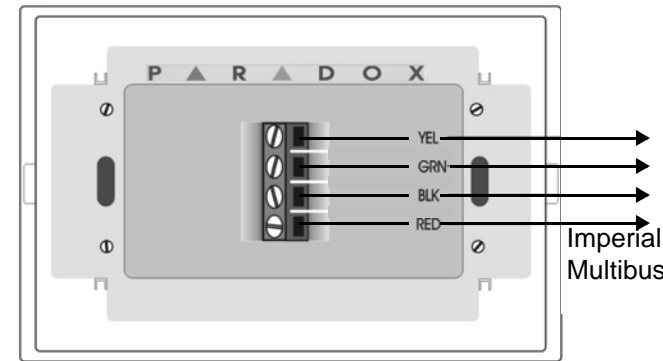
Overview

1) Output and macro control buttons
2) Button label window and label lights
3) Button lights
4) Light intensity / shutter position LEDs
5) Output and macro control dial
6) Global button
7) Multibus feedback LEDs
8) 4-wire Multibus connection

Features

Buttons
- 4 buttons to control outputs (lights, sprinklers, shutters, etc.) or macros (group of outputs)
- Set in Toggle mode (1 button on/off) or Switch mode (1 button on / 1 button off)
- Adjustable Day/Night LED brightness

Dial
- 1 rotary dial with push on/off action to dim outputs (lights, shutters) or macros (group of outputs)
- 32 dimming steps
- Save light intensity level or shutter position (push dial to go to the saved position)
- Global button to control an alternate device or macro
- Emergency stop for motorized shutters
- Adjustable day/night LED brightness

General
- Multiple switches can control the same output (max. 510)
- Custom designer colours available
- Remote firmware upgrade via Multibus using RS485 at 57.6Kbps
- All programming is done using BabyWare PC Software
- Connects to Multibus: 4-wire encrypted 12.8 VDC communication bus at 500 bps
- Bi-directional Locate feature from module to software and vice versa
- Single gang box installation (for dimensions, refer to *Specifications*)

Specifications

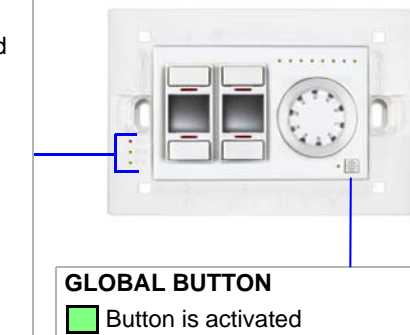| Multibus rating	13.8 VDC Class 2; 60 mA
Dimensions	7.4 X 11 X 2.5 cm (2.9 X 4.3 X 1 in.)
Operating temperature	-10ºC to 50ºC (14ºF to 122ºF)

Wiring

Imperial Multibus

WARNING: To avoid damage when installing and servicing, observe proper ESD precautions.

NOTE: Wiring methods must be in accordance with the National Electrical Code ANSI/NFPA 70.

LED Feedback

R = Red   G = Green   B = Blue   ☐ = Off   ▨ = On   ▥ = Flashing

MULTIBUS

BUS ☐ **RX** G **TX** G	OK: Communication in progress	**BUS** R **RX** G **TX** G	Com fail: GRN/YEL reversed
BUS R **RX** ☐ **TX** ☐	Com fail: GRN/YEL short / no data / Multibus in RS485 mode	**BUS** R **RX** ☐ **TX** ☐	Bus power too low
BUS R **RX** ☐ **TX** G	Com fail: too many modules / wrong data	**BUS** R **RX** G **TX** G	Module Locate mode

Global LED   Firmware upgrade in progress

 ← Rapid flash

GLOBAL BUTTON

☐ Button is activated

NOTE: "BUS" LED may be labeled "ERR" on some hardware versions.

Save Dimmer Intensity / Shutter Position (Dial)

Pressing the dimmer dial toggles the device's state between Off and the default setting. To program a new default setting, set the device to the desired level, press and hold the dimmer dial button for 2 seconds. The status bar flashes to confirm the new setting.

Shutter Calibration Mode (Dial)

In order to control a shutter, you must first "teach" the dimmer dial. This is necessary to account for different shutter sizes and motor speeds. Because shutters come in different sizes, this calibration method can only be used when only one shutter is assigned to a dimmer dial. Calibration can also be performed locally at the HV8D, or using BabyWare (coming soon).

To calibrate a dimmer dial for a window shutter:
1) To enter shutter calibration mode, press and hold the Global button and the dial. The shutter closes.
2) When the shutter reaches the bottom, press the dimmer dial. The shutter opens.
3) When the shutter reaches the top, press the dimmer dial. The shutter closes again.
4) When the shutter reaches the bottom, press the dimmer dial. The shutter opens to about 50%.
5) If the shutter is not at exactly 50%, adjust it manually by turning the dimmer dial one click at a time.
6) To save and exit, press the dimmer dial. If no action is taken for 4 minutes, the switch will exit shutter calibration mode without saving.

Emergency Shutter Stop (Dial)

If a window shutter is in motion, pressing the dimmer dial immediately stops the shutter motor. To restart the shutter, turn the dimmer dial to select a new shutter position.

Global Button (Dial)

The Global button allows the dimmer dial to control two devices (or groups of devices). For example if a dimmer dial's primary function is to control the kitchen window shutters, by pressing the Global button, the dial could switch to its secondary function which could be to control all window shutters in the house. Global function could even be programmed with a completely unrelated function e.g. control the kitchen lights. All button and dimmer dial functions can be programmed using BabyWare.

Adjusting Button and Label Lights

You can set the intensity of the button lights and the label window lights. The button LED lights can have a different intensity during the day than during the night. At night, you may prefer that the button lights in the bedroom have a lower intensity. These intensities can be adjusted either in BabyWare or locally:

		Button numbers
1	Enter light adjustment mode. For: "**Day**" intensity press and hold button **1**, or for "**Night**" intensity* press and hold button **2** *The switch beeps, and all button lights turn on.*	
2	Adjust the intensity of: **Button** lights with buttons **1 (+)** and **2 (-)**, and **Label** lights** with buttons **3 (+)** and **4 (-)**	
3	To save changes and exit, press and hold the same button used in step 1. *The switch beeps, and all button lights return to their current status.*	

* The "Night" intensity start and end time is defined by the Night Schedule set in BabyWare (see *Programming an MCB1 Wall Switch* in the Imperial System Guide).

** If the **"Use same intensity for button lights"** option is enabled in BabyWare (see *Programming an MCB1 Wall Switch* in the Imperial System Guide).

Notes:
- Any adjustments made to the label lights will affect both the day and night settings
- If no action is taken for 60 seconds, the switch will exit without saving