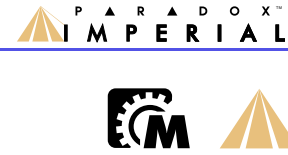


# MSA8H/V: 8 Button Wall Switch V1.0



MSA8H (horizontal)



MSA8V (vertical)

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

## Features

- 8 buttons to control outputs (lights, sprinklers, shutters, etc.) or macros (group of outputs)
- Multiple switches can control the same output (max. 510)
- Custom designer colors available
- Set in Toggle mode (1 button on/off) or Switch mode (1 button on / 1 button off)
- Adjustable Day/Night LED brightness
- Remote firmware upgrade via Multibus using RS485 at 57.6Kbps
- All programming is done using BabyWare PC Software
- Connects to Multibus: 4-wire encrypted 13.8 VDC communication bus
- Bi-directional Module Locate feature
- Single gang box installation (for dimensions, refer to Specifications)

## Description

The MSA8H/V is designed to work with the Imperial system's MAMA home automation engine. Each button can be programmed to control a single output, multiple outputs, or macros. The wall switch can provide on/off control of lights, sprinklers or macros, set lights to a fixed dimming level, or open motorized shutters to a preset height.

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. Since the wall switches use low-voltage bus communication, 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 lights
- 3) Button label window and label lights
- 4) Multibus feedback LEDs
- 5) Label trays
- 6) 4-wire Multibus connection

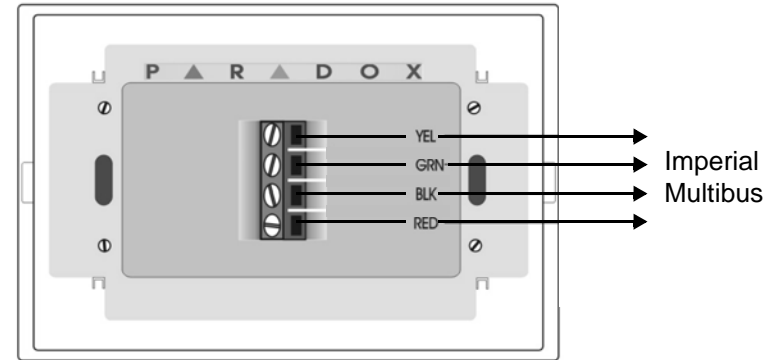


## Specifications

Multibus rating	13.8 VDC Class 2; 45 mA
Dimensions	7.4 X 11 X 2.5 cm (2.9 X 4.3 X 1 in.)
Operating temperature	-10°C to 50°C (14°F to 122°F)

## Wiring

### Connecting an MSA8H/V



**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				
<b>BUS</b>	<input type="checkbox"/>	OK: Communication in progress	<b>BUS</b> <input checked="" type="checkbox"/>	Com fail: GRN/YEL reversed
<b>RX</b>	<input checked="" type="checkbox"/>		<b>RX</b>	<input checked="" type="checkbox"/>
<b>TX</b>	<input checked="" type="checkbox"/>		<b>TX</b>	<input checked="" type="checkbox"/>
<b>BUS</b>	<input checked="" type="checkbox"/>	Com fail: GRN/YEL short / no data / Multibus in RS485 mode	<b>BUS</b> <input checked="" type="checkbox"/>	Bus power too low
<b>RX</b>	<input type="checkbox"/>		<b>RX</b>	<input type="checkbox"/>
<b>TX</b>	<input type="checkbox"/>		<b>TX</b>	<input type="checkbox"/>
<b>BUS</b>	<input checked="" type="checkbox"/>	Com fail: too many modules / wrong data	<b>BUS</b> <input checked="" type="checkbox"/>	Module Locate mode
<b>RX</b>	<input type="checkbox"/>		<b>RX</b>	<input checked="" type="checkbox"/>
<b>TX</b>	<input checked="" type="checkbox"/>		<b>TX</b>	<input checked="" type="checkbox"/>
<b>Button 1 LED</b>		Firmware upgrade in progress		

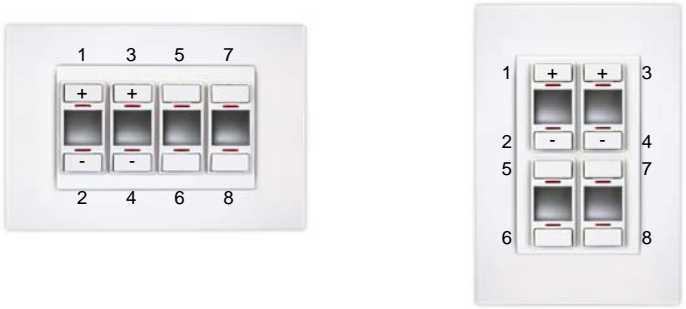


**BUTTONS**  
Press to activate/deactivate the button's associated output or action (refer to Programming an MSA8H/V Wall Switch in the Imperial System Guide).  
 Button activated  
 Button deactivated

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

## 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:

1	Enter light adjustment mode. For: <b>“Day”</b> intensity press and hold button <b>1</b> , or for <b>“Night”</b> intensity* press and hold button <b>2</b>  <i>The switch beeps, and all button lights turn on.</i>	<p style="text-align: center;"><b>Button numbers</b></p> 
2	Adjust the intensity of: <b>Button</b> lights with buttons <b>1 (+)</b> and <b>2 (-)</b> , and <b>Label</b> lights** with buttons <b>3 (+)</b> and <b>4 (-)</b>	
3	To save changes and exit, press and hold the same button used in step 1.  <i>The switch beeps, and all button lights return to their current status.</i>	
<p>* The “Night” intensity start and end time is defined by the Night Schedule set in BabyWare (see Programming an MSA8H/V Wall Switch in the Imperial System Guide).</p> <p>** If the <b>“Use same intensity for button lights”</b> option is enabled in BabyWare (see Programming an MSA8H/V Wall Switch in the Imperial System Guide), the label lights cannot be adjusted, but will follow the intensity the button lights in “Night” mode.</p> <p><b>Notes:</b></p> <ul style="list-style-type: none"><li>• Any adjustments made to the label lights will affect both the day and night settings</li><li>• If no action is taken for 60 seconds, the switch will exit without saving</li></ul>		

**Patents:** One or more of the following US patents may apply: 7046142, 6215399, 6111256, 6104319, 5920259, 5886632, 5721542, 5287111, 5119069, 5077549 and RE39406 and other pending patents may apply. Canadian and international patents may also apply.

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