

⚠ WARNING: Disconnect both normal and emergency power supplies before installation or servicing. Ignoring this step may result in serious injury and death.

To be installed and used in accordance with appropriate electrical codes and regulations. Exercise caution when servicing loads controlled by BlueMesh devices. BlueMesh devices may be located in a different room or area than the load and can be unintentionally activated by a user pressing a button on a switch station or APP, a sensor timing out or a programmed timed event. Disconnect both normal and emergency power supplies before installation or servicing to avoid this risk.

BlueMesh enabled devices should never be used to supply power to, or control the On/Off status of medical and/or life support equipment.

Servicing and installation to be performed by a qualified electrician.

INSTALLATION AND COMMISSION

Install the BMW-L109S properly and place it in an appropriate location according to the specification, installation guidance documents and where it will not be accessible to unauthorized personnel. Do not place it in places where wireless signal transmission might be blocked, such as near metal structures, concrete walls, or very far away from other BlueMesh smart lighting controllers.

One BMW-L109S is usually sufficient for one defined Space. Please place the BMW-L109S in a position where its wireless signal can reach all emergency lights and devices. Additional BMW-L109S can be installed within a Space if wireless coverage is a concern.

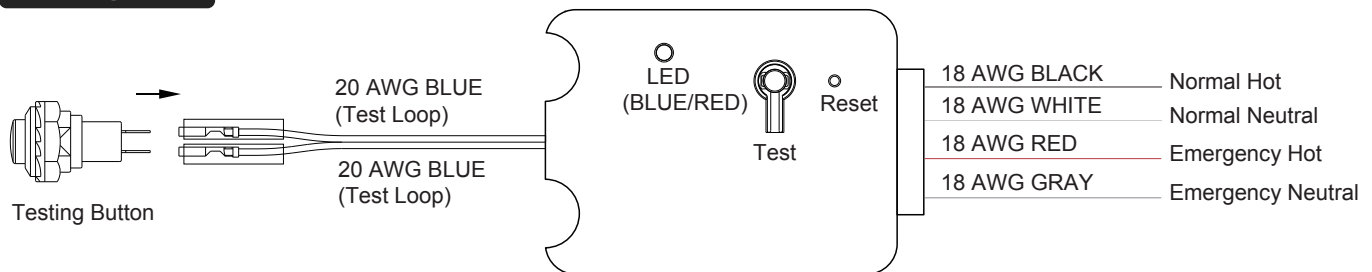
Application:

The emergency controller detects loss of power on a normal circuit and is used to send an emergency action command to the emergency lighting in a space to switch on emergency lighting. The command may also include switching off non-essential lighting loads.

Add BMW-L109S to mesh network:

Add BMW-L109S to mesh network with APP after installing it and powering it on. Please refer to APP instruction for details on adding devices.

WIRING



Blue/Red LED Indicator:

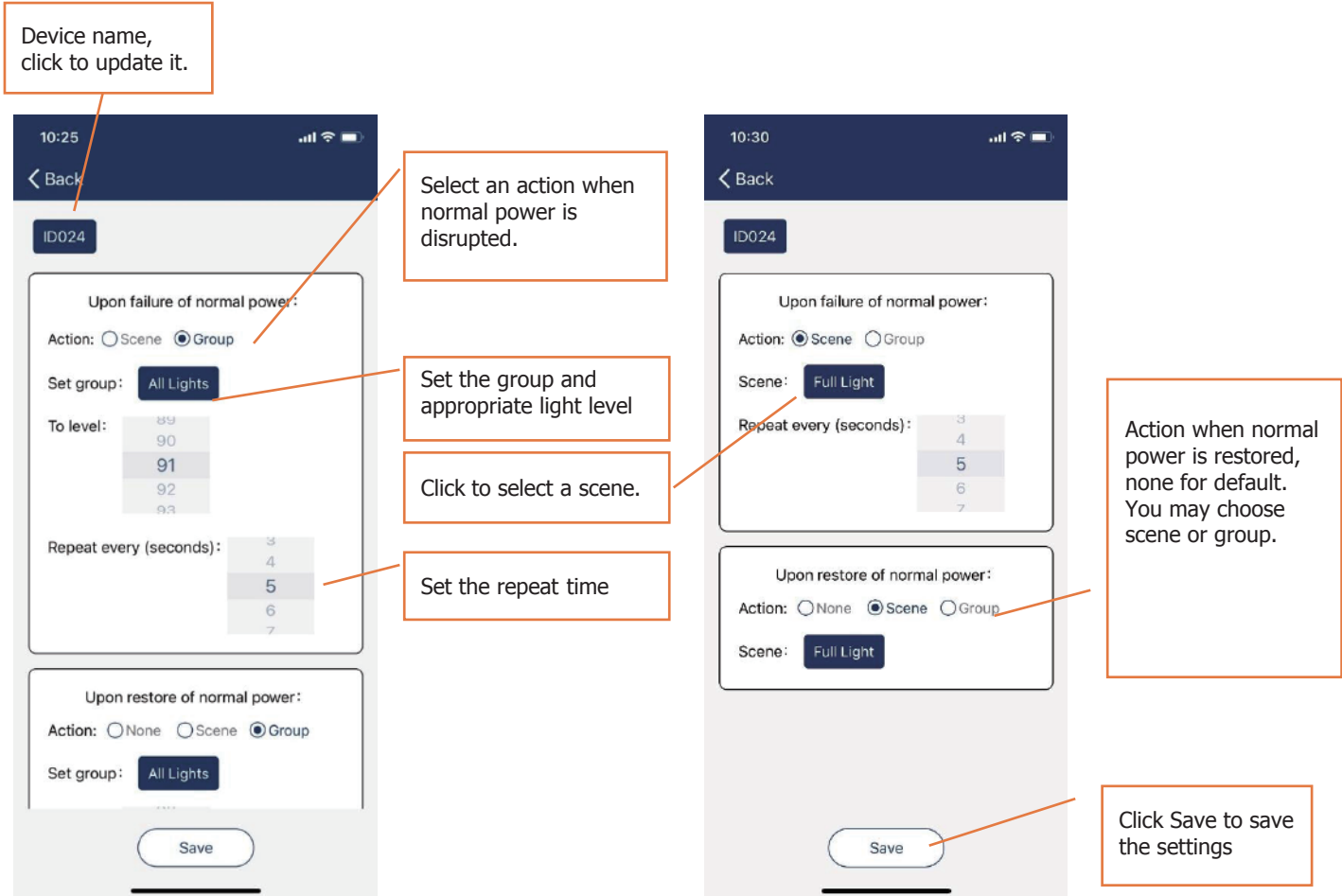
Blue - Normal Power Detected

Red - Emergency Mode/Normal Power Loss

Flashing Red - Emergency power is disrupted

PARAMETER CONFIGURATION

The BMWC-L109S device will appear on the device page of the APP after adding it to network. Long press of the icon will bring out the parameter configuration page.



PARAMETERS

Parameters when normal power is disrupted:

The device enters emergency mode when normal power is disrupted. Parameters for emergency mode that can be configured are indicated below. Configurations should be made to meet UL924 and project specific requirements for building occupant safety.

Action: Either a scene or a group can be selected for activation when the device enters emergency lighting mode. When selecting a group, the light level can be set.

Repeat interval: The BMWC-L109S will repeatedly broadcast the emergency lighting command at the intervals specified. This is for situations where a user mistakenly turns off or dims luminaires manually with the APP or switches, during emergency lighting conditions.

Default parameter configuration:

Default factory parameter configuration: Turn “All lights” group to 100% level and repeat every 5 seconds when normal power is interrupted.

Parameters when normal power is restored:

The device can be configured to send a command to a group or scene when normal power is restored. Normal luminaires with BlueMesh sensors will resume their programmed operation after normal power is restored.

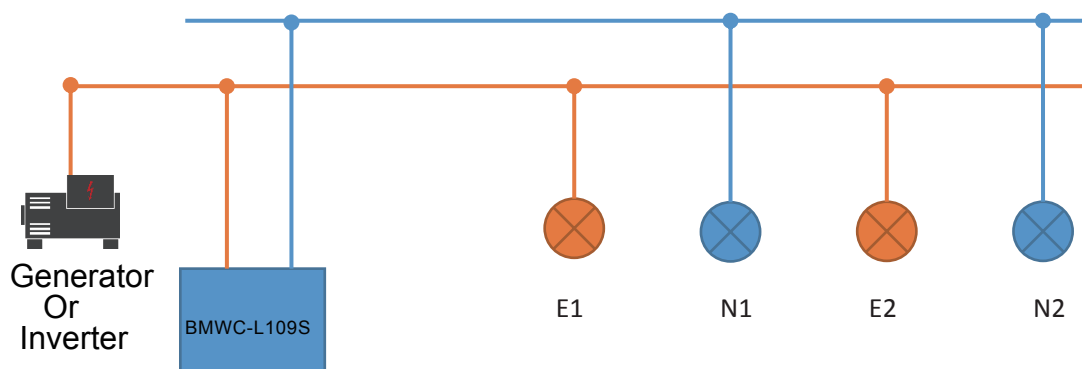
Action: Either a scene or a group can be selected for activation when the device enters normal mode when power is restored. When selecting a group, the light level can be set. Selected None means no scene or group will be activated.

EMERGENCY FUNCTION TEST






There is an emergency function test button on the BMWC-L109S. Pressing and holding down the button simulates the emergency mode function when normal power is disrupted so a user can test the device. Releasing the button will send the device to normal operation.

There is also a pair of connectors for connection of a push button. The button can be remotely installed for remote tests. The connectors could also be wired to a maintained dry contact of a third party fire alarm system.

TYPICAL APPLICATIONS



Legend:

-  Normal power supply
-  Emergency power supply
-  Normal luminaires that provide lighting under normal status
-  Emergency luminaires that provide lighting only under emergency conditions
-  A generator or inverter to provide centralized emergency power supply

Typical application

All luminaires are controlled by Bluemesh smart lighting controllers. Normal luminaires are powered by utility power and operate under normal conditions. Emergency luminaires are powered by a generator or inverter and provide lighting only during a power outage.

Suggested configuration:

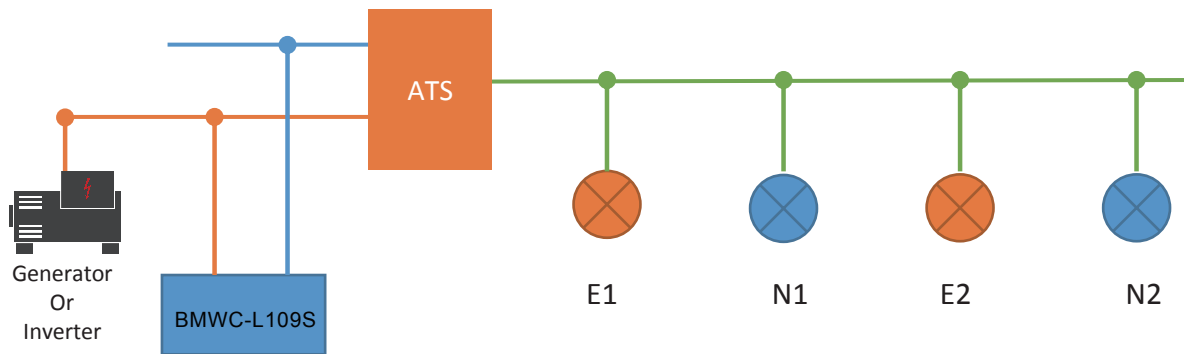
Create a group called “Emergency lights” and add E1/E2 as the group members.

When normal power is disrupted:








Set the action to “group” and set the “Emergency lights” group to “50” light level. (If 50% light level is insufficient to meet emergency lighting requirements, set the light level accordingly.) Repeat every 5 seconds.

When normal power is restored:

Set the action to “group” and set the “Emergency lights” group to “0” light level.



Legend:

-  Normal power supply
-  Emergency power supply
-  Luminaire power supply
-  Automatic Transfer Switch. Automatically switches between normal and emergency power supply to provide continuous power for loads.
-  Normal luminaires, provide lighting under normal conditions.
-  Emergency luminaires that switch on and off with the normal luminaires. only under emergency conditions.
-  A generator or inverter to provide centralized emergency power supply

Typical application

All luminaires are controlled by Bluemesh smart lighting controllers. An ATS provides power to both normal and emergency luminaires and automatically switches to emergency power when normal power is disrupted. Both the normal and emergency lights switch on and off under normal conditions. Only the emergency lights provide illumination during emergency conditions.

Suggested configuration:

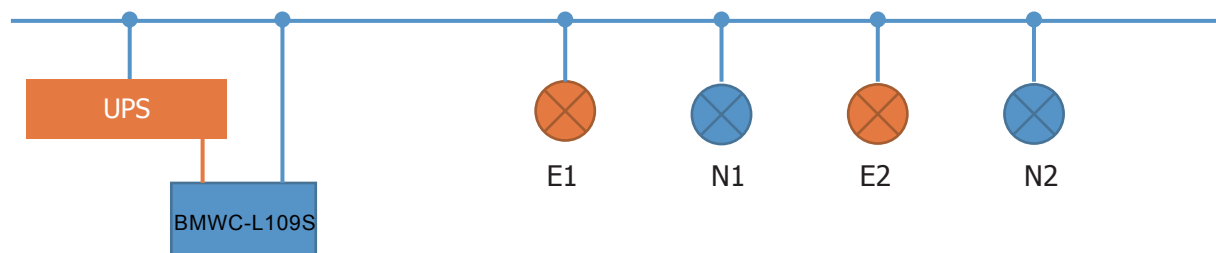
Create a scene called “Emergency lighting”. Set E1/E2 to 50 level in this scene. (If 50% light level is insufficient to meet emergency lighting requirements, set the scene's light level accordingly.) Set N1/N2 to 0% level in this scene to turn them off.

When normal power is disrupted:

Set action to “Scene” and select “Emergency lighting”. Repeat every 5 seconds.

When normal power is restored:

Set action to “group” and set the “All lights” group to “Auto” light level.



Legend:



Normal power supply



Emergency power supply



UPS (Uninterruptible Power Supply) to provide power supply to BMW-C-L109S when normal power is disrupted.



Normal luminaires that provide lighting under normal conditions.



Emergency luminaires with internal chargeable battery that provide lighting under both normal and emergency conditions.

Typical application

All luminaires are controlled by Bluemesh smart lighting controllers. There is only a normal power supply. Emergency luminaires with internal chargeable batteries switch on and off during both normal and emergency conditions. A UPS is provided to power the BMWC-L109S when normal power is disrupted.

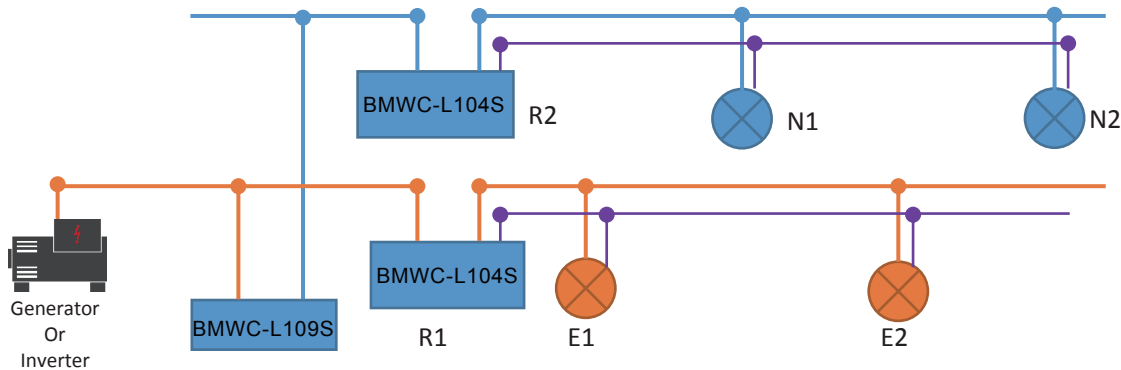
Suggested configuration:

When normal power is disrupted:







Set action to “group” and set the “All lights” group to “50” light level. (If 50% light level is insufficient to meet emergency lighting requirements, set the scene’s light level accordingly.) Repeat every 5 seconds.

When normal power is restored:

Set action to “group” and set the “All lights” group to “Auto” light level.



Legend:

-  Normal power supply
-  Emergency power supply
-  0-10v dimming line
-  Normal luminaires that provide lighting under normal conditions.
-  Emergency luminaires that provide lighting only under emergency conditions.
-  A generator or inverter to provide centralized emergency power supply

Typical application

All luminaires are non-dimmable or 0-10V dimmable without BlueMesh smart lighting controllers. Normal luminaires are powered by utility power and operate under normal conditions. Emergency luminaires are powered by a generator or inverter and provide lighting only during a power outage.

Suggested configuration:

Add BlueMesh Zone Controllers (BMW-L104S) R2 to manage the normal power circuit and R1 to manage the emergency power circuit. Create a group called "Emergency lights" and add R1 as the group members. Create a scene as "Normal lighting" and set R2 to TURN OFF and R1 TURN ON with 100 output level.

When normal power is disrupted:

Set the action to "group" and set the "Emergency lights" group to "50" light level. (If 50% light level is insufficient to meet emergency lighting requirements, set the scene's light level accordingly.) Repeat every 5 seconds

When normal power is restored:

Set action to "Scene" and select "Normal lighting".