shadow-caster LED LIGHTING

SCM-ZC-KIT

MULTI-ZONE LIGHTING CONTROLLER KIT

INSTALLATION & OPERATION MANUAL

shadow-net TECHNOLOGY ENABLED

WWW.SHADOW-CASTER.COM

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SCM-ZC-KIT BOX CONTENTS

- Multi-Zone Lighting Controller (SCM-MZ-LC)
- Zone Controller Remote (SCM-ZC-REMOTE)
- 1m Shadow-NET® Communication Cable (SCM-SCNET-01)
- 4 x SS316 Pan Head 8 x ¾" Mounting Screws
- Installation & Operation Manual
- Warranty and Registration Information

PRODUCT SERIAL NUMBER

You can add your product serial number here for warranty and product registration purposes.

The serial number is located on a white label inside the housing of the SCM-MZ-LC.

My Serial Number:

SCM-ZC-KIT OVERVIEW

The Shadow-Caster® Multi-Zone Lighting Controller Kit (SCM-ZC-KIT) includes a Multi-Zone Lighting Control box (SCM-MZ-LC) and Zone Control Remote (SCM-ZC-REMOTE).

The SCM-MZ-LC Lighting Controller supplies fused power connection for up to 4 separate zones of user selectable RGB or RGBW lighting.

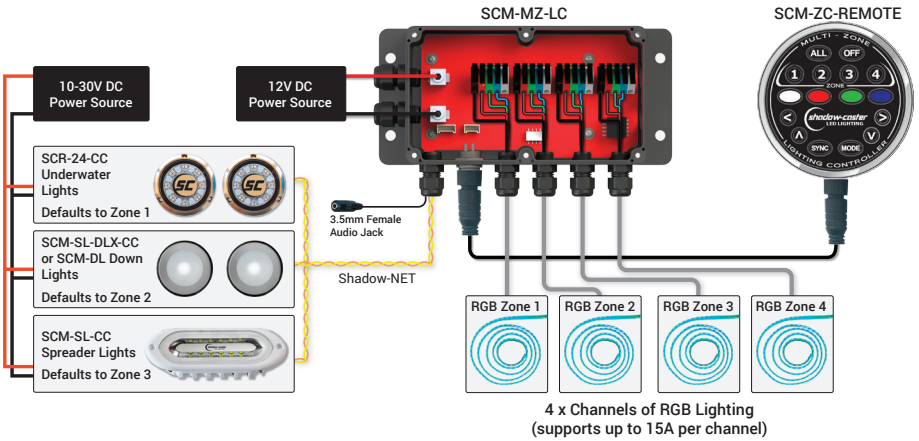
It can receive an analog music input, and also broadcasts multiple channels of digital commands to other devices on the Shadow-NET® bus (orange and yellow wires).

The SCM-ZC-REMOTE is an input device that sends commands to the SCM-MZ-LC. It is connected to the controller through a dedicated control bus with the supplied 1meter SC-NET cable.

When connecting with optional Shadow-NET® devices, underwater lights will respond to Zone 1 commands, Down Lights will respond to Zone 2 commands and Spreader Lights will respond to Zone 3 commands.

At initial power up the Shadow-NET® bus will broadcast messages to tell connected devices to turn off. This allows these devices to be used without a dedicated switch. When the MZ-LC controller receives a command to turn on, it will send a corresponding command to devices connected on the Shadow-NET® bus.

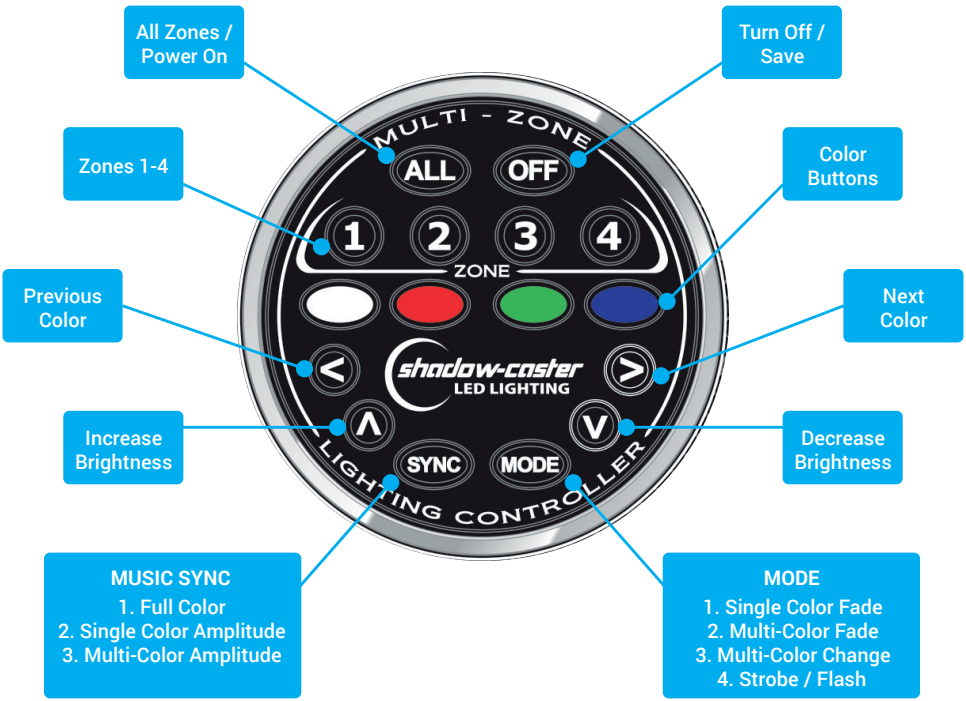
SCM-ZC-KIT TYPICAL WIRING DIAGRAM



SCM-ZC-REMOTE OPERATION

The Shadow-Caster® SCM-ZC-REMOTE provides individual or simultaneous control of 4 independent lighting zones when connected to the Multi-Zone Lighting Controller (SCM-MZ-LC).

Use the tactile keypad to quickly change colors, brightness and lighting effects such as multi-color fade and music synchronization.



TURN CONTROLLER ON/OFF

To turn the controller On press the ALL button.

To turn the controller Off press the OFF button for 2 seconds.

RETURN TO PREVIOUS SETTING AFTER POWERING OFF

If the remote gets powered off and you would like to restore the settings you previously applied, simply click the ALL button twice.

APPLYING ADJUSTMENTS TO ZONES

To make adjustments to a specific zone, press the zone number, then make the desired adjustments. To apply to all zones, click the ALL button instead of a zone number.

TURNING ZONES OFF

Select the desired zone(s) and press OFF.

E.g. Press 3 then OFF turns zone 3 off.

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ADJUST BRIGHTNESS

Select the desired zone(s) and use the buttons.

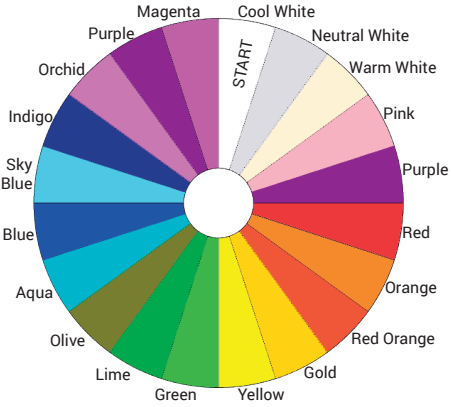
E.g. Press 3 then V V turns zone 3 brightness down by 2 steps.

CHANGING COLORS

Select the desired zone(s) and press a color (white, red, green or blue) or press < or > to advance to the previous/next color in the Color Index (see Color Index Cycle below).

E.g. Press ALL then turns all zones red.

COLOR INDEX CYCLE



CHANGING MODES

Press the MODE button to cycle through lighting effects:

1. Single Color Fade: The selected color will fade off and on.
2. Multi-Color Fade: Fades up and down and cycles between colors depending on selected color sequence.
   a. Blue / White
   b. Red / Green / Blue / White
   c. All Colors
3. Multi-Color Change: Same color sequences as Multi-Color Fade, but maintains brightness on a color before fading to the next color.
4. Strobe / Flash: Flashes a specified color at a specified rate.
   a. To adjust the color of a mode, use the < or > buttons.
   b. To adjust the rate, press and hold the MODE button and use either of the < or > buttons at the same time.

MUSIC SYNC

Select the desired zone(s) and press the SYNC button to activate music sync.

There are 3 different music sync modes:

1. Full Color Frequency: Different frequency ranges from the music drive the intensity of different colors.
2. Single Color Amplitude: Brightness of lights is driven by different intensity of the music. In this use the < or > buttons to select a single color.
3. Multi-Color Amplitude: Similar to Single Color Amplitude, but colors are rotating continuously.

OPTIMIZING MUSIC SYNC

1. Turn music to typical listening volume, and press PAUSE on your stereo system. This will provide the lighting controller with an input signal representative of the audio system background noise.
2. Press and hold SYNC while repeatedly clicking the V button until the lights start blinking, then click ^ button one click at a time until the lights do not blink or flicker - this sets the system sensitivity to just above the audio systems noise floor.
3. While still holding SYNC press PLAY on your stereo system, now adjust < or > to set the signal averaging. This adjusts how quickly the sound responds to the music.

ADJUST BACKLIGHTS OF CONTROLLER

Press and hold the ALL button and use either of the ^ or V buttons until the desired brightness is achieved.

SAVING SETTINGS

Once everything is configured as you wish press the OFF button to save the your settings.

INSTALLATION

SCM-ZC-REMOTE INSTALLATION

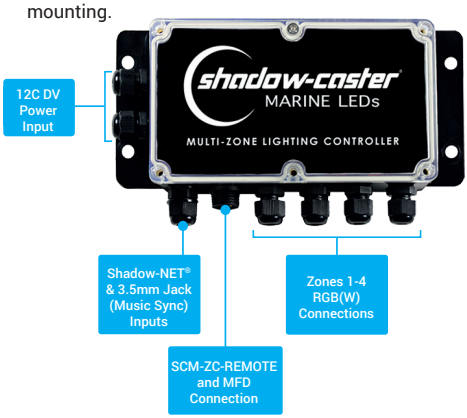
The backlit lighting controller should be panel mount installed in an easy to reach location. The sealed keypad is washdown rated (IP66) and installation in exposed areas is acceptable.

1. Drill a 3" diameter mounting hole.
2. Use the included clamshell bracket to secure.

SCM-ZC-LC LIGHTING CONTROLLER INSTALLATION

Central mounting locations under the helm or in the bilges are acceptable.

1. Orient the cable glands facing down or to the side so that they do not collect water.
2. Cinch cable glands as tightly as possible and fill unused glands so that the box is water tight.
3. Use the included four 8 x ¾" SS pan head screws for mounting.



SELECTING RGB OR RGBW LIGHTING

Set the RGB(W) dip switch within the SCM-MZ-LC, depending on whether a zone is using RGB or RGBW lighting, from left to right, as follows:

Switch	1	2	3	4
↑	ZONE 1 RGB	ZONE 2 RGB	ZONE 3 RGB	ZONE 4 RGB
↓	ZONE 1 RGBW	ZONE 3 RGBW	ZONE 3 RGBW	ZONE 4 RGBW

POWER REQUIREMENTS

See the Shadow-Caster® wire awg recommendations for detailed calculations. It is very important to have sufficient gauge wire feeds for RGB lighting.

It is recommended to separate feeds for lighting and for sensitive stereo power feeds with direct runs to the battery or a heavy gauge distribution point.

The SCM-MZ-LC will support 15 amps per zone. For a total of 60 amps in the entire box. The SCM-MZ-LC comes with 10 amp fuses installed.

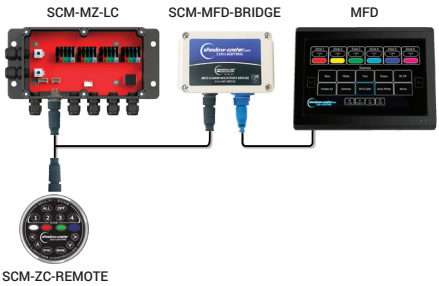
The SCM-MZ-LC will work in 12V or 24V systems. Please note that 12V or 24 compatible RGB(W) products should be used depending on the application.

RECOMMENDED WIRE GAUGES

Scan the QR Code below or click **here** to view our recommended wire gauge chart.

ADDING ADDITIONAL REMOTES AND MULTI-FUNCTION DISPLAYS

Additional SCM-ZC-REMOTES or a Multi-Function Display (MFD) can be added to your installation with our Y-cable and 1m, 2m & 4m extension cables. See Optional Parts section on page 7 for details.



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SHADOW-NET® DEVICES

Connect Shadow-NET® enabled devices to the orange and yellow Shadow-NET® wires coming from the Multi-Zone Lighting Controller.

As soon as the Multi-Zone Lighting Controller receives power, multiple channels of digital messages start broadcasting on these wires. These messages allow Shadow-NET® enabled devices to be connected without a switch. Initially these commands instruct attached lights to turn off. As soon as a command is given to the Multi-Zone Lighting Controller to go to a color, these attached devices will receive a message to go to the corresponding color and brightness.

Please note that different products are pre-programmed to respond to a certain channel. For example, Underwater Lights respond to Zone 1, Down Lights respond to Zone 2 and Spreader Lights respond to Zone 3.

OPTIONAL PARTS

- **SCM-ZC-REMOTE**
  Additional Remote (SCM-ZC-REMOTE)
- **SCM-MFD-BRIDGE-STANDARD**
  MFD-Bridge for connection to Multi-Function Display
- **SCM-SCNET-01** 1 meter Cable
- **SCM-SCNET-02** 2 meter Cable
- **SCM-SCNET-04** 4 meter Cable
- **SCM-SCNET-Y** Y Cable

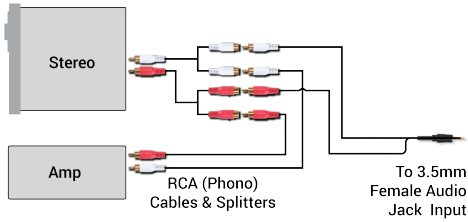
BEST PRACTICES FOR MITIGATING NOISE ISSUES

Noise interface is common in systems with RGB lighting controls and amplified stereo systems. The advanced circuitry in the lighting controller does everything possible to protect from this.

Utilizing installation best practices will further mitigate these issues.

1. Make sure to supply ample gauge power and separate distribution for stereo power and RGB power.
2. Run RGB power wires seperately and as far as possible from the speaker feeds for the stereo. Run separate bundles where possible.

CONNECTING STEREO INPUT FOR STEREO MUSIC SYNC INPUT



TROUBLESHOOTING

MUSIC SYNC NOT WORKING

Verify that an appropriate 3.5mm stereo jack is being used and that there is a usable signal.

If a separate output zone is used, verify that the output is enabled and the output is set to a usable volume.

It is not recommended to use a subwoofer output, as certain sync modes require the full audio range.

SCM-MZ-LC NOT LIGHTING UP

When power is first applied to the lighting controller, the box will flash blue very briefly.

Once it receives a valid control input from a connected controller it will stay blue continuously. If it is not lighting up please double check for correct orientation and reseat the SC-NET cable.

MY SHADOW-NET® LIGHTS STAY ON

If the connected Shadow-NET® lights are not turning off at initial power up then there is a challenge with the Shadow-NET® connection.

Reset the power to the entire controller and lighting system. The Shadow-NET® bus connections will stop broadcasting if issues are detected, such as making connections when the power is on.

Check the orange and yellow wire connections are not reversed and are fully connected.

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