

# MoodEFX®

ATTITUDE ADJUSTMENT FOR YOUR SPA

U S E R      G U I D E

## MoodEFX LED String Light Installation and Operation Instructions

### MoodEFX LED STRING LIGHTS

DELIVER YEARS OF BRILLIANT LIGHT SHOWS!

JUST PLUG AND PLAY!

LASTS FOR YEARS!

NO MAINTENANCE!

MoodEFX LED String Lights are digital, color-changing lights for hot tubs and spas. Patented Chromacore® technology creates complex, entertaining light displays of deep, rich, saturated colors and dramatic color-changing effects. And since MoodEFX lights have no moving parts or noise, and virtually no heat build up, expect them to last for many years with no maintenance at all. (Under normal conditions, our LEDs are rated to last for over 11 years of continuous, 24-hour-a-day usage!) The built-in, on-board intelligence delivers a wide array of preprogrammed light shows that include color washes, randomly changing colors, color cross fades, and fixed colors from one show to the next.

### MoodEFX LED String Lights

Specifications:

Color range: Thousands of colors

Source: Variable intensity

### Three types of configurations

available are:

- 1) secured by a locking nut,
- 2) push in type, pushed in from the inside to the outside of the spa, and
- 3) push in type, pushed in from the outside towards the inside of the spa.



## Source Life

MoodEFX illumination products utilize high brightness LEDs as the illumination source. LED manufacturers predict LED life of up to 100,000 hours MTBF (mean time between failure), the standard used by conventional lamp manufacturers to measure source life. However, like all basic light sources, LEDs also experience lumen depreciation over time. So, while LEDs can emit light for an extremely long period of time, MTBF is not the only consideration in determining useful life. LED lumen depreciation is affected by numerous environmental conditions such as ambient temperature, humidity and ventilation. Lumen depreciation is also affected by means of control, thermal management, current levels, and a host of other electrical design considerations.

MoodEFX systems are expertly engineered to optimize LED life when used under normal operating conditions [ambient temperature: -4°F to 104°F (-20°C to 40°C), humidity: 0-95% non-condensing humidity, adequate ventilation and air volume] and when operated using typical color-changing effects. Long-term operation outside of these ranges or conditions, or at the upper limits of these ranges or conditions, may subject the product to further degradation of the LED source life, or in extreme cases, failure of internal components. Source life information is based on LED manufacturers' data, as well as other third party testing.

## SAFETY PRECAUTIONS

### Warning

Do not open, alter or tamper with the product. This will void the manufacturer's warranty. Follow all instructions in the user guide, and observe all warnings carefully. Do not attempt to service the electronic components yourself. Non-expert handling may damage the product and cause injury to the user.

### The Don'ts

- Do not allow the MoodEFX light to get wet. Although the products are conformal coated to protect them from moisture, if the light gets wet, unplug it and contact Balboa Instruments' Technical Support Group immediately.
- Do not alter or tamper with the MoodEFX light.
- Do not allow the unit to freeze.
- Do not use the MoodEFX light if it has been damaged.
- Do not store units in dirty, dusty areas.
- Do not attempt to service the electronic components yourself. Non-expert handling may damage the product and cause injury to the user.

### The Do's

- Follow all instructions in this guide and observe all warnings carefully.
- Keep the unit dry. Precipitation and liquids contain minerals that corrode electronic circuits.
- Handle the MoodEFX light as you would any delicate product.

## Technical Support

If any problems occur during usage, unplug the product immediately and call or email Balboa Instruments' Technical Support Group:

**Tel 888.434.1940**

**Tel 714.384.0382**

**Fax 714.384.0323**

**Balboa Instruments, Inc.**

**1382 Bell Ave**

**Tustin, CA 92780**

**[www.balboa-instruments.com](http://www.balboa-instruments.com)**



**DANGER**

### RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

Always disconnect power to the spa at the circuit breaker before servicing the light. Failure to do so could result in death or serious injury to the installer, spa users, or others due to electrical shock.

# Installing the MoodEFX LED

The MoodEFX LED String Light System fits the 12VAC lighting sockets. It is not for use with spas that have dimming systems or electronic transformers.

1. Decide the placement of the LED within the spa.
2. Mark and drill a 1/2" hole.
3. Install and secure.
4. Plug the four connector wires together including the controller box within the loop or string of LED's.
5. Plug the two (black & white wire) terminal into your 12VAC source.
6. Turn the power on to verify that the LEDs are all lit.

Use the spa's existing light switch to turn MoodEFX on and off.

MoodEFX lights are preprogrammed with an assortment of unique light shows.

- Turn MoodEFX OFF and then ON again in 1 second or less, to go to the next show.
- Turn MoodEFX OFF and then ON again in 4 to 5 seconds to reset to the first show.
- Turn MoodEFX OFF for more than 6 seconds and it "remembers" the last show you selected, returning to that show the next time MoodEFX is switched on.

## DESCRIPTION OF SHOWS

### 1. SLOW COLOR WASH\*

Colors transition gracefully from color to color, cycling through the color spectrum. Each color cycle takes approximately 3 minutes.

### 2. FAST COLOR WASH\*

Colors transition from color to color, cycling through the color spectrum. Each color cycle takes approximately 1 minute.

### 3. SLOW RANDOM COLOR\*

Colors step or jump from one color to the next in random order. Each color lasts approximately 10-15 seconds.

### 4. FAST RANDOM COLOR

Colors step or jump from one color to the next in random order. Each color lasts approximately 5 seconds.

### 5. HIGH SPEED RANDOM COLOR

A rapid series of intense flashes of varying colored light.

### 6. CROSS FADE\*

Colors cycle back and forth gracefully between blue and green. Total cycle lasts 1 minute.

### 7-13. FIXED COLORS

Static display of a single color. Available colors include white, pink, lavender, light blue, dark blue, light green, and dark green.

\* These effects begin at a slightly faster speed, then slow down after one or two seconds. This is to help you identify the effect.



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**CHROMACORE®**  
BY COLOR KINETICS

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MoodEFX String LED Lights

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