Astera
LED-Technology

USER MANUAL

Wireless Spotlamp
(AL7-L)

Manual Version: **3.8.2**
Release Date: **October. 16th.2012**

1 Table of Contents

2   Safety

Before you operate the unit, read this manual carefully.

Make sure to keep the manual, in case you need to consult this manual again or you give the unit to another person.

Always make sure to include this manual if you hand out the unit to another person.

Keep in mind that this manual cannot address all possible dangers and environments. Please use your own caution when operating.
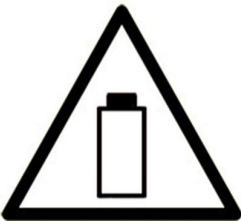
Only qualified personnel may repair this product.

Don't open the case.

Do not operate the unit in areas of temperature conditions or under direct sunlight. It will cause abnormal function or damage the product.

A rechargeable battery is built into this unit, please avoid bumping or plunging, it will cause FIRE or EXPLOSION.

Never store the battery when fully drained. Always recharge immediately when empty.

Make sure to fully charge all AL7 units before storing them.

Partially charged batteries will lose capacity.

Do not store the unit longer than 3 months without re-charging.

3   Specifications

a)   **Wireless spot lamp, for Indoor and outdoor use**

b)   **narrow light beam angle can be widened with diffuser lens**

c)   **Displays more than 16 million colors.**

d)   **Low power consumption**

e)   **Controllable by Radio Frequency Remote Control**

f)   **DMX integration via ART3 Wireless DMX Transmitter**

g)   **8-24 hours operation time without recharging the battery.**

h)   **Up to 300 meter operation distance of the remote control**

i)   **Including easy to adjust stand**

j)   **AL7-L can be mounted into a standard PAR64 can just like any other lightsource for PAR cans**

k)   **RGB LEDs combined with white LEDs for a better color mixing and color appearance**

3.1   Technical Data

Light Sources

Light Sources	**5mm bullet LEDs with 15 degree narrow beam angle (can be widened with diffuser lens)**
Amount or LEDs	**192 (48xR, 48xG, 48xB, 48xW)**
RGB LED Power	**24W**

Power Supply

Power supply unit	**External power supply shipping with the AL7**
Input power	**AC 100-240V, 50/60Hz**
Output power	**DC 28V, 2.5A**
Battery operational time	**8 – 24h (depending on selected colors, brightness, programs)**

Wireless Module

Available remote contro	**RF(radio frequency), IR(infra-red)**
Range	**IR: up to 10m** **RF: 50m up to 300m**
RF Frequency	**Europe: 868.000 MHz – 869.750 MHz** **US: 902MHz – 928 Mhz**

Housing

Material	**metal housing and clear PMMA cover**
Size	**Ø 205mm x H49mm (Ø 8.0" x H 1.7")**
Weight	**1100g (2.4lb)**

Environmental Requirements

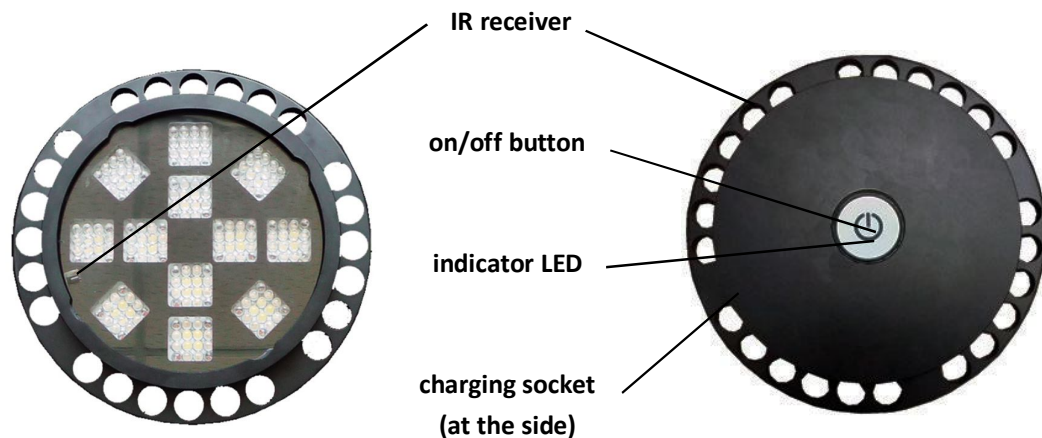|	
Operational Temperature	0 ~ 50 °C work temperature
Environment	Indoor and Outdoor (splash-proof)

4   Quick Start

This Wireless Spot Lamp is designed for event- and stage illumination. Due to its integrated battery and wireless module it offers an uncomplicated setup without the need to lay out cables for control and power supply.

The AL7 can be placed on the floor for uplighting. Mounted on the supporting stand any angle of up-, straight-, and down-lighting can be adjusted. The stand also offers the possibility to attach it to truss frames, walls, ceilings etc.

An AL7 can be used as standalone lamp since basic illumination can be started with the touch button. However, for betters setting of colors and programs and additional functions it is recommended to use it together with the ARC2 remote control or the IR Remote Control.

For a larger setup, AL7s can be grouped and paired with other AL7 units and other wireless Astera lamps. This can be done with the ARC2 remote control or the ART3 Wireless DMX transmitter.

4.1   Overview

IR receiver

on/off button

indicator LED

charging socket
(at the side)

4.2   Advantages

Wireless design --- The AL7 fixtures are easy for installation due to integrated battery and RF receiver.

Smart programing --- The AL7 not only displays complex color-changing programs but also gives you the possibility to use your own customized colors for these programs when controlled by an ARC2 Remote Control. The AL7 can be used as standalone unit or grouped and paired with other Astera lamps and be controlled with an ARC2 RF Remote Control.

Energy saving design --- Low working voltage, low power consumption and additional white LEDs helps to save up to 80% energy so it can reach a maximum operation time of up to 24 hours.

4.3   Button and Operation

To power on the unit, hold the on/off button for 2-3 second.

To power off the unit, hold the on/off button for 2-3 second.

To choose basic colors or a rainbow effect, turn the unit on, then hold down the button and keep the finger until the lamp turns into the blue blinking mode. Push the button several times to cycle through the basic colors until the rainbow effect. When the desired color is displayed, hold the button until the LEDs stop blinking and the lamp turns into normal operation.

To do a Factory Reset, turn the unit on. Then hold down the button and keep the finger until: unit turns off → turns on blue blinking → turns off again
When the unit turns off for the second time and displays red light, a factory reset was done.

While powered up, the indicator LED will show the battery charge state:
red – orange – green corresponding to the charge state

While charging, the LED will blink in green.

5   Battery Runtime

The work temperature is 0~60 Celsius degree.

Should the AL7 not turn on when pressing the power button and the red light keeps blinking the battery is empty and needs to be recharged.

For recharging, simply connect the power adapter to the AL7 and make sure the indicator LED lamp blinks in green color to confirm that charging has started.

The LED POWER MODES drive the lamp as follows.
(the power mode is chosen with the ARC2 remote control in the BRIGHTNESS menu point)

❿   When set to MAXIMUM RUNTIME, the LED power is 50% of full power so the lights will run longer time, but the brightness is reduced to 50%.

❿   When set to NORMAN BRIGHTNESS, the LED power is 70% of full power so the lights will run the normal time stated in the product description.

❿   When set to HIGH BRIGHTNESS, the LED power is 100% but runtime will be shorter then stated in the product description.

Here are estimated battery runtimes:

Color	MAX RUNTIME	NORMAL	HIGH BRIGHTNESS
COLR WHITE	9,6 h	8,0 h	5,6 h
CYAN	11,4 h	9,8 h	7,0 h
MAGENTA	12,9 h	11,1 h	8,1 h
YELLOW	13,5 h	11,7 h	8,5 h
ORANGE	17,3 h	15,1 h	11,1 h
GREEN	18,9 h	16,6 h	12,3 h
BLUE	21,2 h	18,4 h	13,8 h
RED	23,7 h	20,9 h	15,7 h

6   Troubleshooting

Faulty condition	*Cause*	*Troubleshooting*
LED no light when you switch on	Due to the vast number of settings, one cannot always predict behavior of the units, if setup was already done earlier.	Set the brightness to other value.
Units behave incorrectly	Due to the vast number of settings, one cannot always predict behavior of the units, if setup was already done earlier.	Do FACTORY RESET on units and/or remote control.
Couldn't turn on the system	Maybe the battery is drained.	Plug the AC input, and put the system charge 1 hour more, then can turn ON
The indicator not blinking when charging	DC plug or AC input not settled well or battery is already full	Discharge the battery a little or check whether the DC has been plugged or whether the AC input has any problem.
Units will go out of battery after only 6 hours of operation.	The units last only 8 hours with COLD WHITE, if the LED POWER is set to NORMAL. For HIGH BRIGHTNESS the run time is shorter than 8 hours.	Adjust LED POWER and/or see manual of the unit.
When connected with the charger, the units go shortly on, than off, then on, then off but refuse to charge the battery.	The battery is completely empty and not strong enough to light up and charge units at the same time.	While the LEDs are on, switch off the unit by pressing its power button. Charging it for 30mins will give it enough battery power to light up and charge at the same time.

7   Disposal

Follow local ordinances and/or regulations for disposal!

PACKAGING:

The unit is shipped in protective packaging.
This packaging can be recycled!

UNIT:

Don't throw the unit into the garbage at the end of its lifetime.
Make sure to dispose is according to your local ordinances and/or regulations, to avoid polluting the environment!

BATTERIES:

Don't throw empty batteries into the garbage!

Bring them to a collecting point for used batteries!

This instruction manual is part of the device and persons operating the device must have access to it at any time. Safety precautions mentioned in the instruction manual have to be observed. If the device is being sold, this instruction manual has to be included.

Translations

If the device is being sold, this instruction manual has to be translated into the national language of the destination country. If discrepancies occur in the translated text, the original instruction manual has to be used to solve them tor the manufacturer has to be contacted.