

Remote control high-power LED panels



User´s Manual



THELIGHT Luminary for cine and TV, S.L.

October 2012

INTRODUCTION

This guide provides information about how to use the product functions to illuminate with this equipment as well as warnings on his use.

The 4LONG, 4LIGHT and 6LIGHT are products of professional use for interior locations or studio and must be operated only by qualified technical personnel.

To obtain the maximum features, please read the following operating instructions very carefully before using this fixture for the first time. Please keep these operating instructions for you and subsequent users to reference in the future.

THELIGHT Luminary for cine and TV, S.L.

Safety Precautions

For your own safety, please read and follow all safety instructions and warnings.

Exemption from Liability

THELIGHT Luminary for cinema and TV, S.L. does not assume any responsibility for lighting failures caused by malfunction of this product.

The manufacturer disclaims liability for any damage to persons or property caused by inappropriate operation, damage of this kind lies in the responsibility of the operator.

Warranty

This product is manufactured to local specifications and the warranty is valid within the country of purchase. Should the product fail or malfunction while you are abroad, the manufacturer assumes no responsibility for servicing the product locally or bearing the expenditure incurred thereof.

www.thelight.com.es

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SAFETY PRECAUTIONS

Various symbols are used throughout this instruction manual and on the product to prevent physical harm to you or other people and damage to property. The symbols and their meanings are explained below.

	Warning	Possible risk of injury or damage to equipment
	Danger	This symbol indicates the risk of electric shock or fire danger that could result in injury or damage to equipment.

This equipment has been checked and meets the requirements of general safety for electronic devices. These requirements are specified to provide a reasonable protection against electromagnetic interferences when the equipment is used in commercial environments.

This equipment generates, uses and can emit waves of radio frequency, and if not properly used following the instructions of this manual can produce interferences in radio communications. The use of this equipment in residential areas can produce interference, the user will be the only responsible of correcting them.

CAUTION: Though the light generated by LED does not produce any heat, for what his use turns out to be very comfortable for the actors, the lamp head acts as a heat sink through its back part. Surface can reach a temperature between the 50 °C and the 80 °C. Please use protective gloves if you touch the lamp head at the heat sink.

	Danger	<p>Do not attempt to open any of the device or component housings. To reduce the risk of electric shock, do not remove lamp head or Control Unit cover. No user-serviceable parts inside. Maintenance and repair work to be carried out only by THELIGHT Service Centre.</p> <p>Do not cover the aluminium lamp head heat sink while using it. Proper ventilation must be provided. Avoid exposing the lamp head to the heat radiation of other light fixtures.</p> <p>The lamp head is equipped with high power LED. Due to their high light-output intensity don't stare directly into the light source.</p>
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	Warning	In order to protect against risk of electric shock, the installation should be properly grounded. Defeating the purpose of the grounding type plug will expose you to the risk of electric shock.
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Marking



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1. MAIN FEATURES

4LONG / 4LIGHT / 6LIGHT are LED panels housing a total of 192 high power LED (4LONG) / 96 high power LED (6LIGHT) / 144 high power LED (6LIGHT). They have been specially designed and their colorimetry calibrated for professional photography, cinematography and television industry use. THELIGHT luminaries main innovative features are:

- Variable Colour Temperature with almost no lost in light output
- Stable colour dimming
- Green/magenta correction
- Adjustable light beam from 30° up to 125° without changing lenses
- Silent fan-free operation
- High-power Phillips LED 50,000 hours life
- 90 CRI digitally calibrated light
- Robust aluminium construction
- Digital control and through DMX
- Flicker free up to 3,000 fps
- Very high light output
- Low power draw

NOTE ABOUT MEASURING COLOUR TEMPERATURE (CCT)

4LONG / 4LIGHT / 6LIGHT incorporate the innovative THELIGHT technology based on high-power LED triplets + Fresnel lens + CPU control software to obtain the wide range of calibrated colour temperatures combined with a high colour rendering index CCT.

We must remark that colour meters in use today are designed for a full spectrum source such as incandescent lights and therefore cannot be used to accurately read the correlated colour temperature (CCT) of the light emitted by THELIGHT and other LED light fixtures.

The eventual diversions to green display as CC5M or CC10M in hand-held colour meters are due to these unaccuracy on reading of the light emitted by LED and must not be considered.

THELIGHT guarantees pure white light and correct colorimetry of the light delivered by its high power LED luminaries which have been calibrated in laboratory according to CIE 13.3-1995 international standards for measurement of the CRI and chromatic coordinates (x, and CIE-1931).

The reliability of this digital equipment is supported by the calibration THELIGHT has made in laboratory by spectrophotometer, which precision is half-yearly calibrated according to the National Institute of Standards (NIST) of the United States and of the Physikalisch-Technische Bundesanstalt (PTB) of Germany.

In order that the advanced THELIGHT luminaries could be used together with other light sources, THELIGHT has accurately calibrated both the CCT and the chromatic coordinates to match them with traditional light sources following tungsten and daylight standards.

The digital Control Unit allows a further and precise green/magenta correction.

NOTE ABOUT 2012 PRODUCTS ELECTRONIC COMPATILITY WITH OLDER VERSIONS



Warning

Every 2012 Control Units are made to be used exclusively with 2012 4LONG / 4LIGHT / 6LIGHT lamp heads.

Do not connect 2012 or newer Control Units with older versions of 4LONG / 4LIGHT / 6LIGHT lamp heads. Do not connect older versions Control Units with with 2012 or newer 4LONG / 4LIGHT / 6LIGHT lamp heads.

You will easily identify the 2012 or newer products by the blue label fixed in every connector.

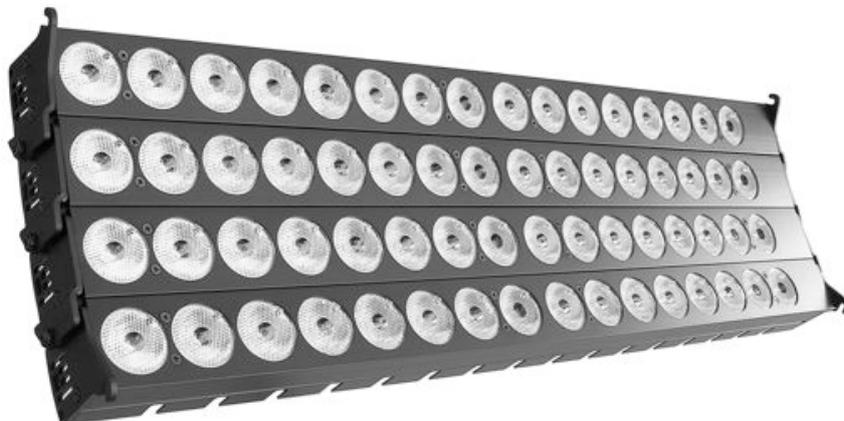
2. COMPONENTS AND ACCESSORIES

Each THELIGHT kit is composed by:

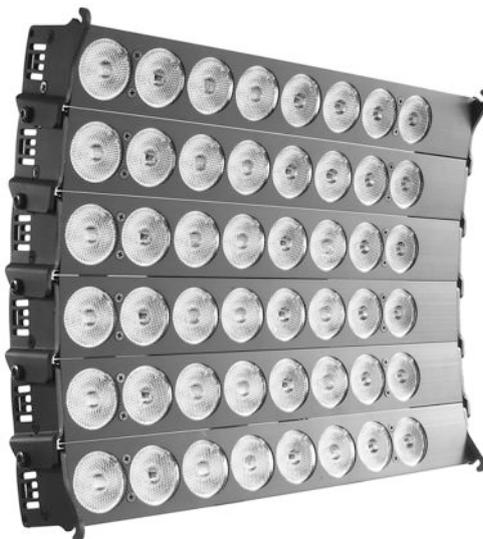
1x **HIGH-POWER LED PANEL**

Either of the following models:

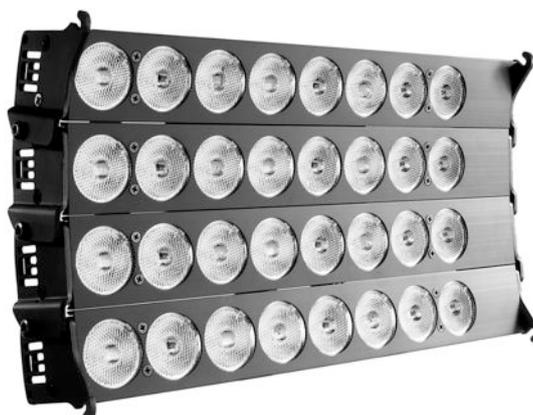
4LONG high-power LED panel
ref. 4LAC-14000



6LIGHT high-power LED panel
ref. 6LAC-12500



4LIGHT high-power LED panel
ref. 4LDC-7000



1x REMOTE CONTROL UNIT

Either of the following models:

VAC Control Unit 2.0

ref. VAC-CPU-2.0

Compatible with 4LIGHT, 6LIGHT and 4LONG.

Exclusively AC powered.



AC/DC Control Unit

ref. AC/DC-CPU

Compatible with 4LIGHT, 6LIGHT and 4LONG.

Can be powered AC or DC.



VDC Control Unit 2.0

ref. VDC-CPU-2.0

Exclusively compatible with 4LIGHT.

Can be powered DC or AC through external power supply accessory ref. 180W-PSU



1x **MOUNT**

Either of the following models:

Quick link swivel-ball head with 3/8" (10mm) pin
ref. QLS



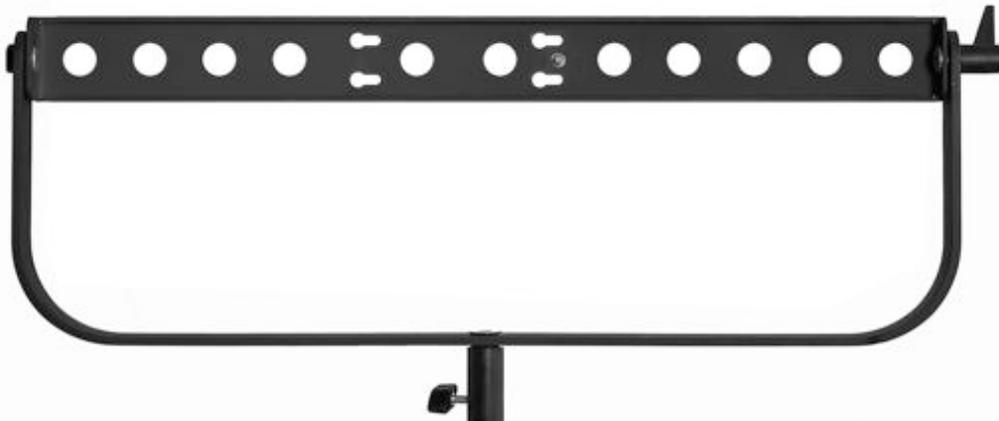
Quick link ball head with 5/8" (16mm) female
ref. QLS-F



6LIGHT/4LIGHT Yoke with 28mm pin
ref. 6LAC-12500-Y



4LONG Yoke with 28mm pin
ref. 4LAC-14000-Y



2x REMOVABLE BARN DOORS

Either of the following models:

Short panel removable barn doors
ref. 4S-RB



Long panel removable barn doors
ref. 4L-RB



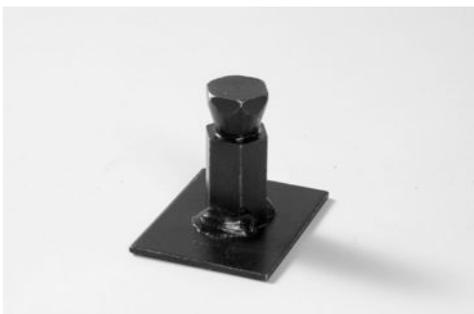
1x **2,5 meters power cable** ref. ACC2.5m
ref. ACC2.5m



1x **3,5 meters extension cable** ref. DCC3.5m-2.0
5 meters extension cable ref. DCC5m-2.0
10 meters extension cable ref. DCC10m-2.0



1x **Hexagonal 5/8" (16mm) baby spud**
ref. HS



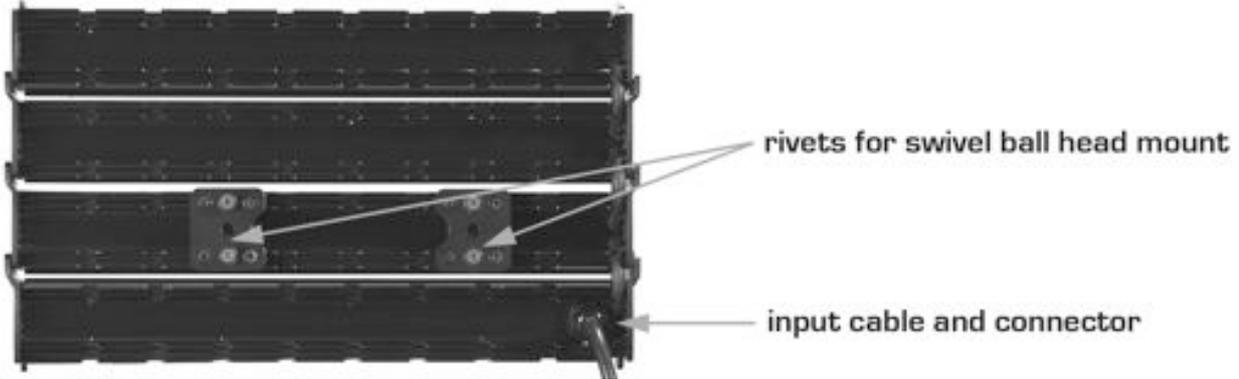
1x **4LIGHT Softbox diffuser** quarter kit
ref. 4LDC-7000-SF
1x **6LIGHT Softbox diffuser** quarter kit
ref. 6LAC-12500-SF
1x **4LONG Softbox diffuser** quarter kit
ref. 4LAC-14000-SF



3. NAMES AND PARTS

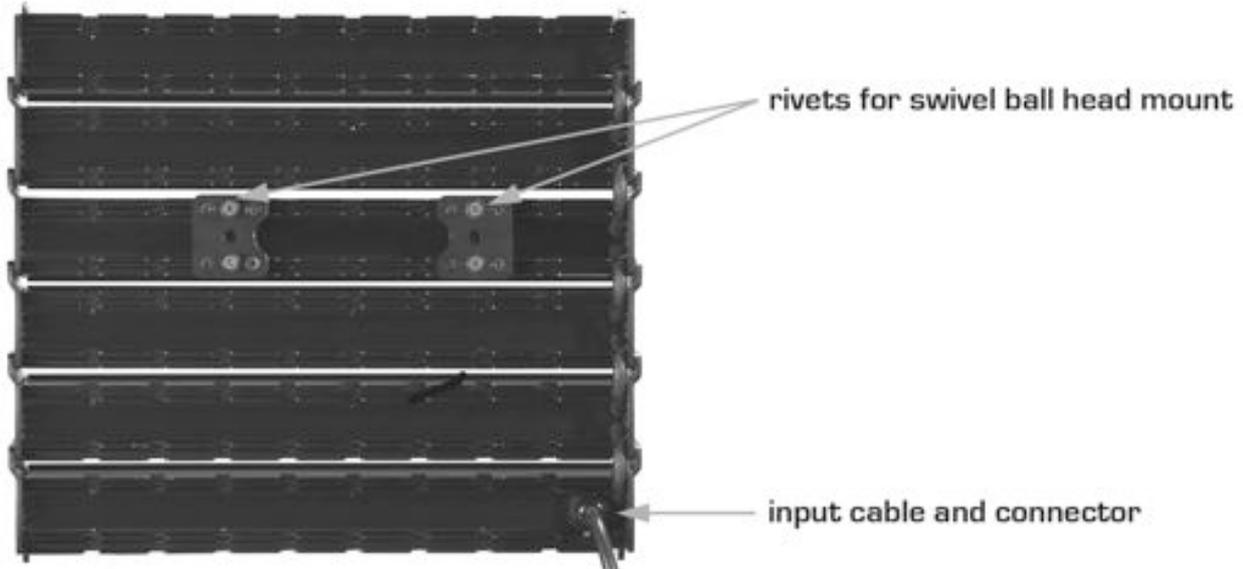
4LIGHT high-power LED panel

Rear view



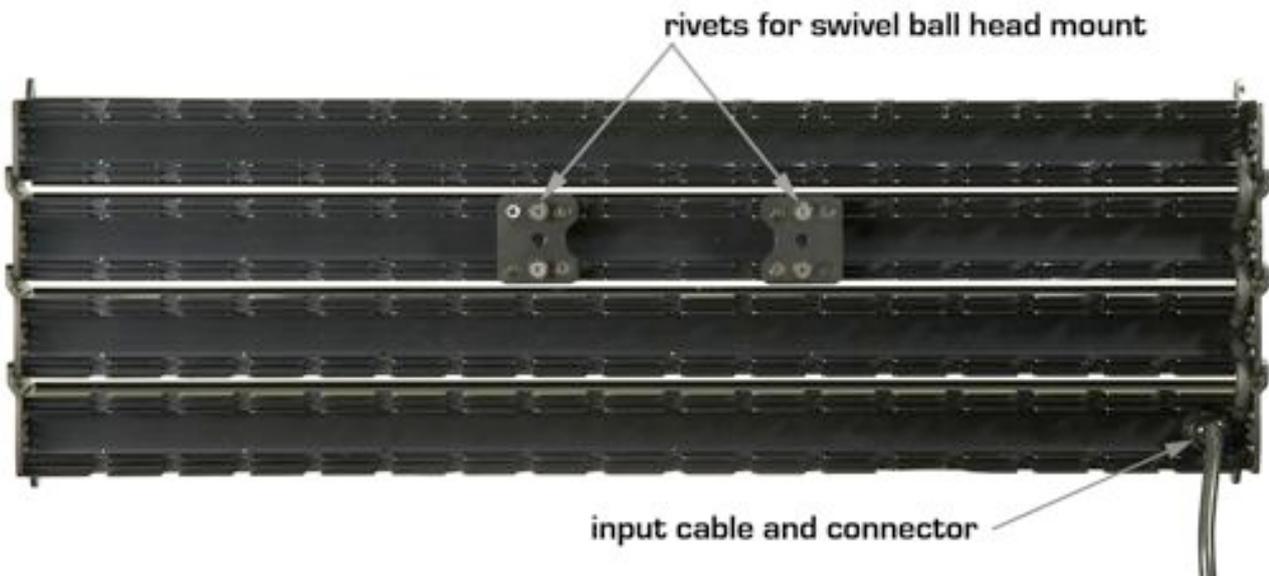
6LIGHT high-power LED panel

Rear view



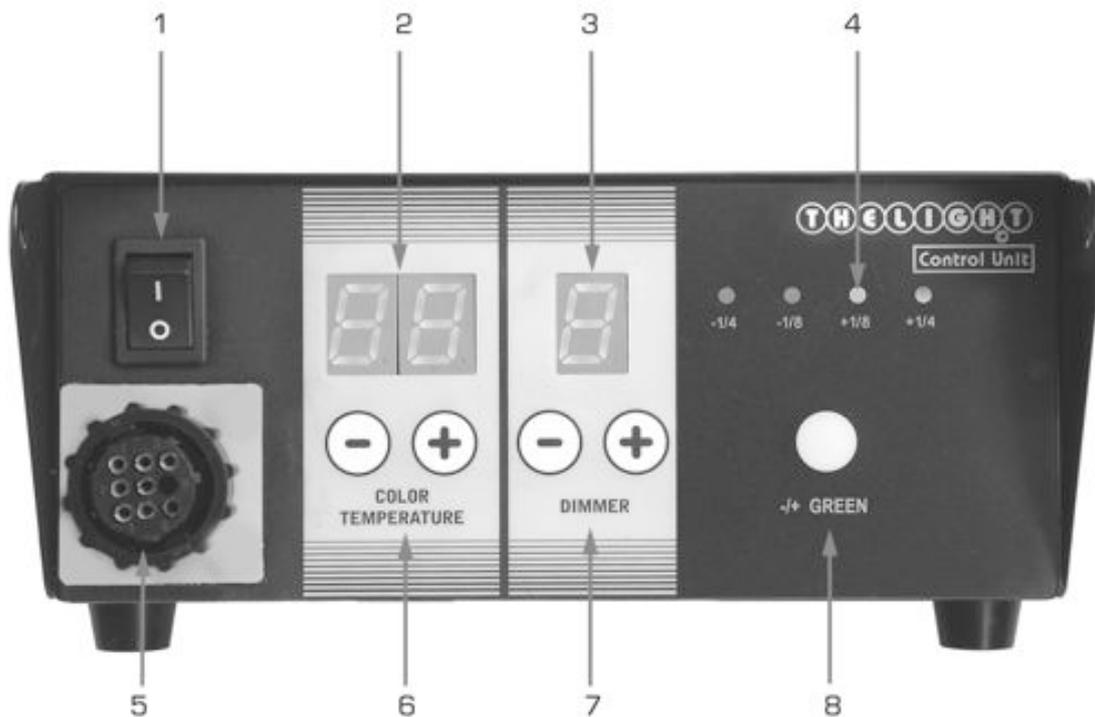
4LONG high-power LED panel

Rear view



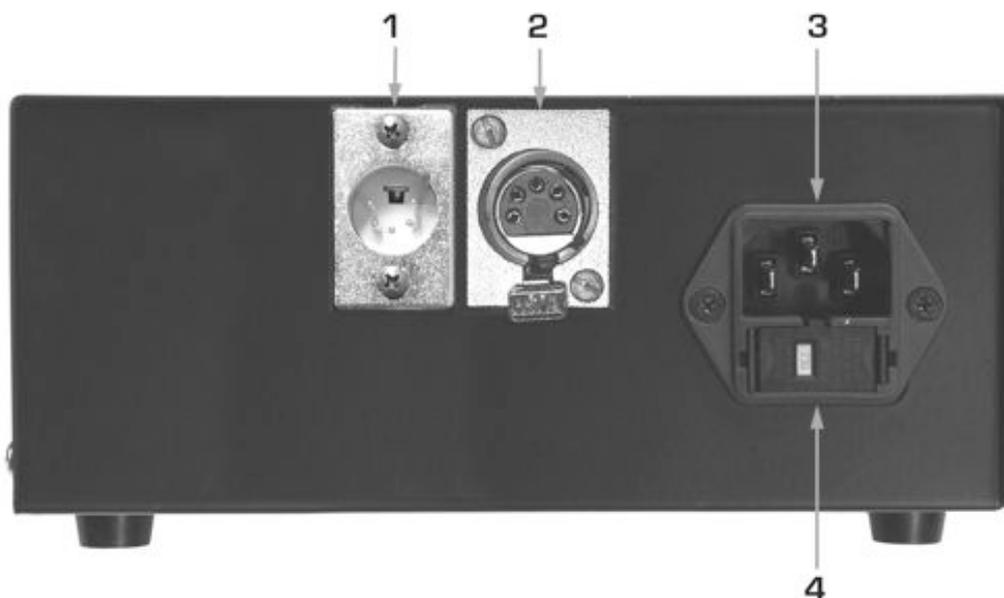
VAC Control Unit 2.0

Front view



- 1 Power switch
- 2 Colour temperature digital display
- 3 Intensity level digital display
- 4 Green/magenta offset status LED
- 5 Power output female connector
- 6 Colour temperature adjustment buttons
- 7 Intensity adjustment buttons
- 8 Green/magenta adjustment button

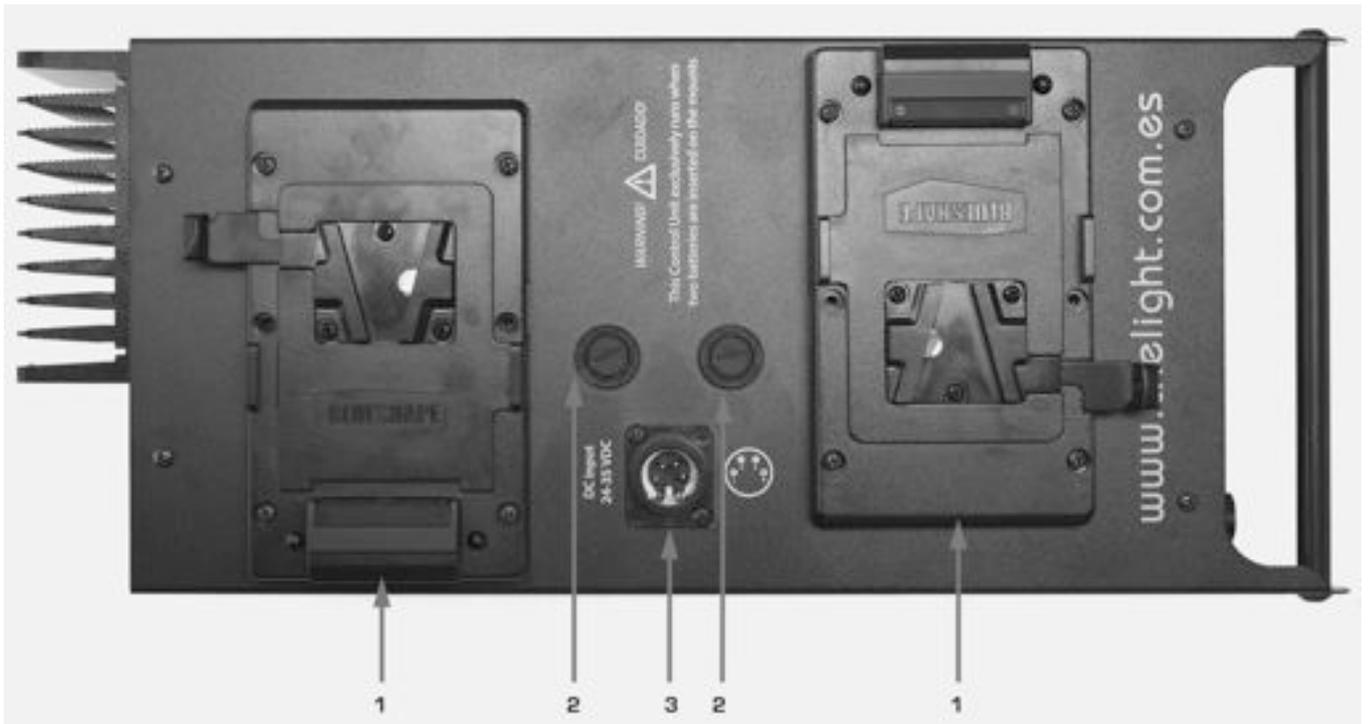
Rear view



1. XLR DMX input
2. XLR DMX output
3. Mains power input
4. Fuse receptacle (2 x 2,5A)

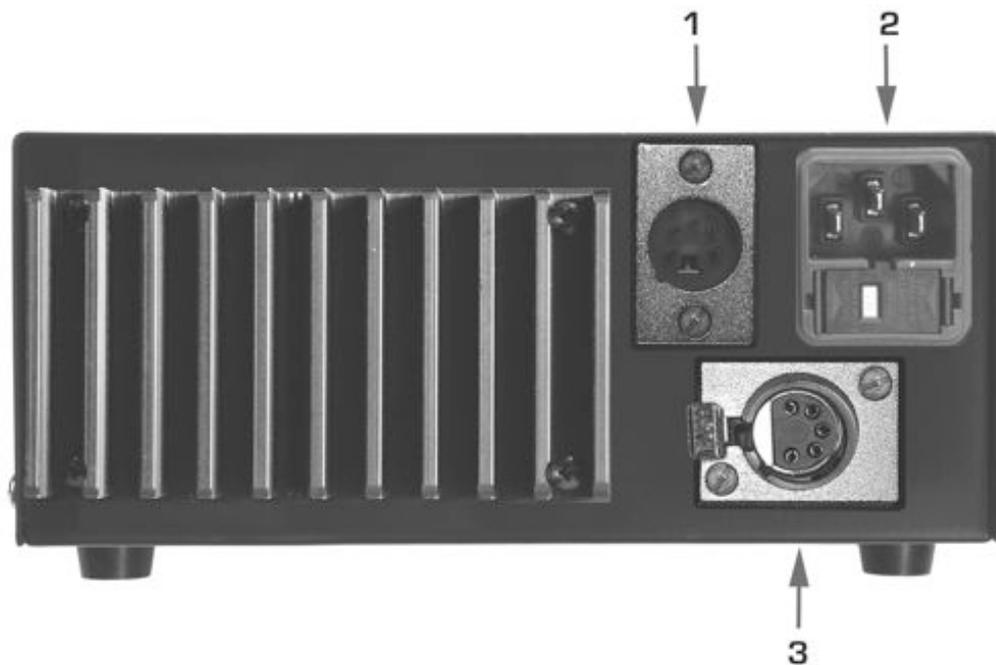
AC-DC Control Unit 2.0

Top view



- 1 Vlock battery mounts (Gold mounts optional)
- 2 DC fuse receptacles (1x 15A on each one)
- 3 XLR4 DC input 24-35VDC

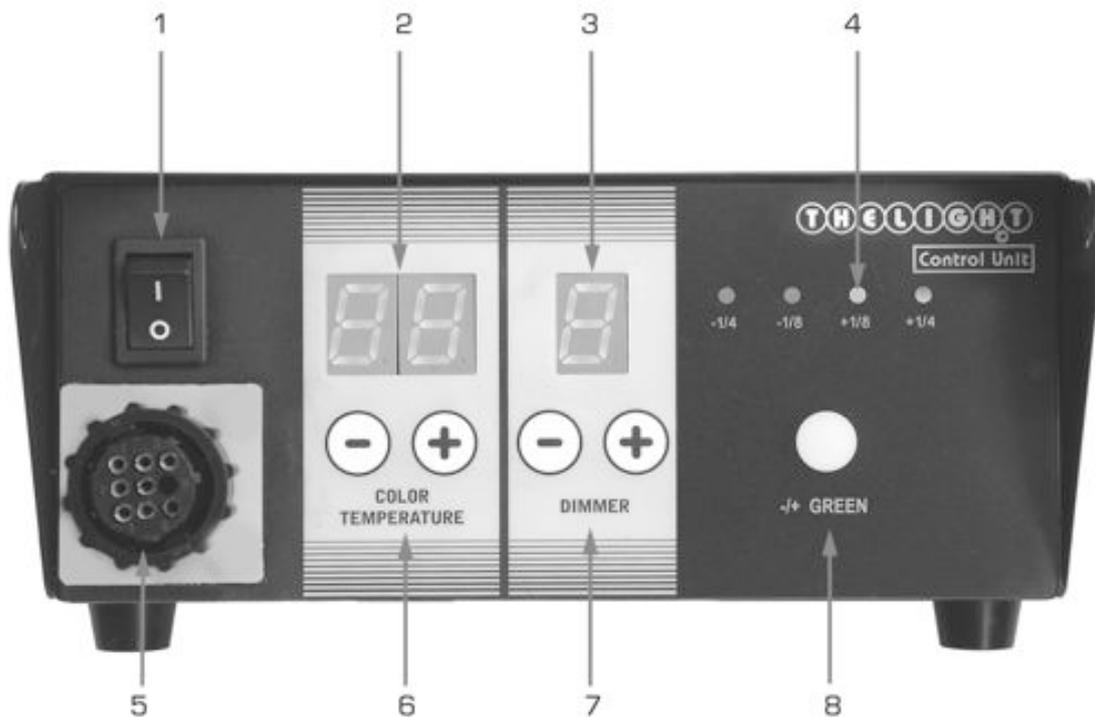
Rear view



- 1. XLR DMX input
- 2. Mains power input with fuse receptacle (2 x 2,5A)
- 3. XLR DMX output

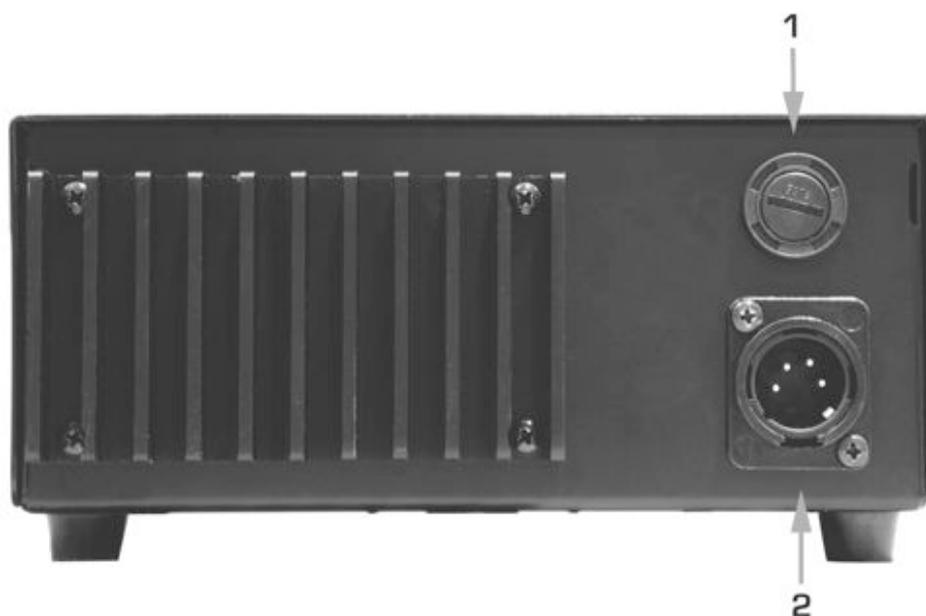
VDC Control Unit 2.0

Front view



- 1 Power switch
- 2 Colour temperature digital display
- 3 Intensity level digital display
- 4 Green/magenta offset status LED
- 5 Power output female connector
- 6 Colour temperature adjustment buttons
- 7 Intensity adjustment buttons
- 8 Green/magenta adjustment button

Rear view



1. Fuse receptacle (1 x 15A)
2. XLR4 DC input 10-35VDC

4. PLACING INTO OPERATION

1. Quick link swivel ball head mounting

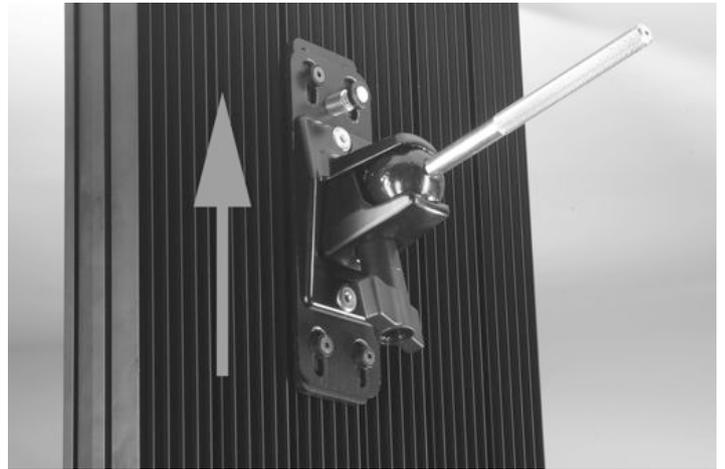
Align the swivel ball head plate to the four rivets located at the back of the lamp head as shown in the picture.



Warning

On mounting the lamp head on any type of support, tripod or ceiling grid make sure the swivel ball head handle is facing down towards the ground.

Slide the swivel ball head plate until the four shoulder rivets drop into the receptacle. The locking pin will snap into place when the plate is properly seated.



Warning

Make sure the locking pin has totally entered in his housing before proceeding to use the light fixture.

The standard swivel ball head comes with a 3/8" pin to be clamped into a grip head and allows the lamp head to be oriented and locked in a broad range of angles.

Removing the quick link swivel ball head

Pull up on the locking pin and slide the swivel ball head plate until the four rivets get free. Extract the swivel ball head by pulling it upwards.

5. POWER CONNECTION

VAC Control Unit 2.0

Exclusively AC powered and is compatible with 4LIGHT, 6LIGHT and 4LONG.
The AC range is 90 to 264 VAC, 50/60Hz

AC-DC Control Unit 2.0

Designed to use either AC or DC power and is compatible with 4LIGHT, 6LIGHT and 4LONG.
The AC range is 90 to 264 VAC, 50/60Hz.

Either the V-lock mounts (or optional Gold mounts) or the XLR4 receptacle can be used for powering the AC-DC by battery.

When powered through the XLR4 receptacle any battery from 24 to 35 V can be used.

VDC Control Unit 2.0

Can be powered DC or AC through external power supply accessory ref. 180W-PSU
Exclusively compatible with 4LIGHT.

NOTE: Exclusively compatible with 4LIGHT.

Either the V-lock mount (or optional Gold mount) or the XLR4 receptacle can be used for powering the VDC by battery.

When powered through the XLR4 receptacle any battery from 9 to 36 V can be used.

1. Connecting the power cable to the VAC / AC-DC Control Unit

Connect the power cable to the plug located in the rear side of the VAC / AC-DC Control Unit.
Connect the power plug with a mains power outlet.



Danger

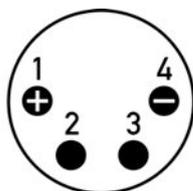
To avoid electric shocks and/or damages in the equipment the power switch located at the VAC / AC-DC Control Unit front panel must be off before connecting or disconnecting cables.

2. Connecting batteries on the VDC / AC-DC Control Units

Either the V-lock mounts (or optional Gold mounts) or the XLR4 receptacle can be used for powering the VDC / AC-DC by battery.

Relevant information on battery use

Use only original chargers. Don't short the battery. Respect the service and the safety manual of the battery.



**XLR4 pinout
power connector**

When powering the VDC / AC-DC through the XLR4 connector check the proper polarity as shown in the picture at the Control Unit bottom.

To ensure maximum performance of the equipment use only high-load capacity batteries with a high continuous draw meaning a Discharge Current of at least 9A..

NOTE: When operated on batteries the AC-DC Control Unit exclusively runs when two Vlock (or Gold Mount) batteries are inserted on the mounts.

3. Connecting Control Unit and lamp head through the extension cable

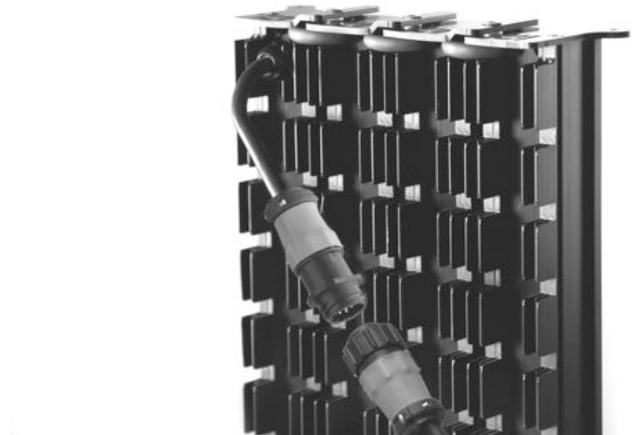
Connect the male connector in the circular receptacle at the Control Unit front panel.

Verify the correct alignment of the connectors before inserting them.

Rotate the receptacle locking ring until it clicks into the lock position.



Connect the same way the female connector located at the other end of the extension cable in the input male plug coming out from the lamp head.



NOTE: The lamp heads can operate with a maximum extension cable length of 10 meters.

NOTE: THELIGHT VAC and AC-DC Control Units has been designed to supply power to the 4LONG, the 4LIGHT or the 6LIGHT lamp heads. With either of these connected the light emitted will always be correct.

Disconnecting the extension cable

Grab the connector firmly, turn the ring to unlock it and pull to extract it.

4. Placing the Control Unit in the stand mast

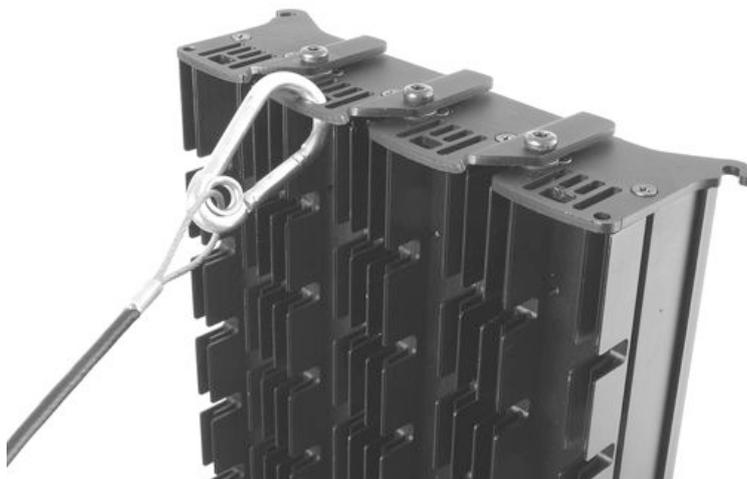
You can place the Control Unit in the stand mast for a handy use close to the lamp head. To do so you will need to use a regular Super Clamp (not included in the kit) and insert the Hexagonal 5/8" (16mm) baby spud.

Once installed the hexagonal spud just slide the holder located at the Control Unit bottom over the spud plate until properly seated, as shown in the picture.



5. Security cables

The lamp head is provided with several holes specially design to insert one or more 5mm snaps and their safety cable.



Warning

When the lamp head and any other component is mounted in a hanging position it must be secured with a safety cable rated at a minimum of ten times the weight of the light fixture including its accessories.

6. DIGITAL ADJUSTMENTS

The Control Unit doubles as power supply and digital remote controller of the following light parameters through its programmed CPU:

- Calibrated Colour Temperature variation
- Stable colour dimming
- Green/magenta correction

Turning the Power On/Off

Turn on the equipment by switching on the power button. The light settings always remain stored when the Control Unit is powered off.



Danger

Both the lamp head and the Control Unit are electrically protected against power failures but to avoid possible electric shocks and/or equipment damages make sure the power switch will be off before connecting or disconnecting cables.

In case of extreme over tension when using the VAC Control Unit replace the 5mm 2,5Ah fuses from inside the fuse holder located at the back.

In case of extreme over AC tension when using the AC-DC Control Unit replace the 5mm 2,5Ah fuses from inside the fuse holder located at the back.

In case of extreme over DC tension when using the AC-DC Control Unit replace the 15Ah fuses from inside the fuse holders located at the top.

In case of extreme over tension when using the VDC Control Unit replace the 15Ah fuse from inside the fuse holder located at the back.

NOTE:

If a power failure would happen or the cables would be accidentally disconnected the Control Unit would entry on Error mode and the number 8 would show in the digital display.

To reset the equipment and resume the light values turn the switch power off, connect the cables and switch on the power button.

COLOR TEMPERATURE Variation

Colour temperature can be easily increased or reduced through the +/- buttons located at the Control Unit front panel. Above them a digital display indicates at all times the selected colour temperature. The value 3.2 corresponds to 3200K and the value 3.3 to 3300K and so on.

Push the + button to increase colour temperature or push the - button to decrease it. If you keep pushed any of the buttons the you will get a continuous variation.

NOTE:

Every push on the buttons will increase or decrease the colour temperature in increments of 100 Kelvin.

DIMMER Light intensity variation

The dimmer of the Control Unit is totally digital and guarantees the regulation of light intensity with minimal changes in the selected colour temperature.

Light intensity can be easily increased or reduced through the +/- buttons located at the Control Unit front panel. Above them a digital display indicates the selected dimmer value from a minimum of 1 to a maximum of 9.

Push the + button to increase light intensity or push the - button to decrease it. If you keep pushed any of the buttons the you will get a continuous variation.

NOTE: Every push on the buttons will increase or decrease the light intensity in increments of 1 stop.

-/+ GREEN Green/magenta correction

Green/magenta bias button located at the Control Unit front panel lets you easily alter the colour of the light towards green or magenta in increments of +/- 1/8 and " .

Push the +/- Green button to offset the selected white light. A magenta or a green LED turns on the selected value to warn that the light emitted no longer guarantees the correct chromaticity.

NOTE: THELIGHT guarantees the correct colorimetry for light emitting from their high power LED light fixtures, calibrated in the laboratory according to current international standards of the CIE 13.3-1995 for the average CRI and the chromatic co-ordinates (x, y CIE-1931). This certifies that our luminaries have no green/magenta deviation.

NOTE: Full adjustment is possible in a range of colour temperatures from 2500K to 5600K. From 5600K to 6500K the adjustment is only possible on 1/8 and 1/4 plusgreen.

7. DMX 512 CONTROL (not available on VDC Control Unit)

THELIGHT lightning fixtures have been designed for a full DMX control from the 5-pin DMX port located at the back of the VAC / AC-DC Control Unit.

Connect the DMX cable coming from your console into the DMX IN male connector located at the back of the Control Unit. Beside the DMX IN there is also a DMX OUT connector to daisychain fixtures.

Addressing channels

Push both + and - COLOR TEMPERATURE buttons at the same time and then switch on the power button. Wait a few seconds for the three digital displays to blink.

Now you can define the start address. To do so just push the + or - DIMMER buttons to increase or decrease the first fixture address. Once you have chosen the desired address number push the -/+ GREEN button to save the selection.

Keep in mind the following points regarding DMX control:

THELIGHT DMX protocol uses 3 channels per fixture

After the DMX address is entered the Control Unit will automatically assign the following two channels.

If you wish to control several THELIGHT fixtures at the same values you will have to set them to the same address.

If you wish to control several THELIGHT fixtures independently you will have to offset their address by 3 channels. Example:

fixture1 address 001 – fixture2 address 004 – fixture3 address 007

DMX Channels

When you connect your console to the Control Unit you will be able to control THELIGHT fixtures through 3 channels:

Channel 1 (start address)	COLOUR TEMPERATURE
From 2.5 to 6.5 (from 2500Kelvin to 6500Kelvin)	
Fader at 0	2.5 means 2500Kelvin
Fader at 100	6.5 means 6500Kelvin
Channel 2 (start address + 1)	DIMMER
Channel 3 (start address + 2)	GREEN/MAGENTA correction
fader at 0%	-1/4 Green
fader at 25%	- 1/8 Green
fader at 50%	standard position (green/magenta at 0)
fader at 75%	+1/8 Green
fader at 100%	+1/4 Green

NOTE:

Do not use microphone cables or other general purpose two-core cables designed for audio or signal use. They are not suitable for DMX 512. Problems due to wrong cabling may not be immediately perceptible. Microphone cables may appear to work fine, but systems built with such cables may fail or be susceptible to random errors. Cable must comply with RS-485 DMX protocol (EIA485).

NOTE:

A DMX terminator should be plugged into the final, empty, OUT connector of the last slave on the daisy chain. A terminator is a stand-alone male connector with a built-in 120 ! resistor, matching the cable characteristic impedance, connected across the primary data signal pair.

NOTE for Avolites consoles users:

THELIGHT luminaries DMX working personality can be configured to be recognised by Avolites consoles. Download the personality files to install into Avolites consoles from www.avolitesdownload.com/PersonalityLibrary/?mainPage=Main.asp&ID=3516

8. MECHANICAL ADJUSTMENTS

Beam angle variation

Hold the lamp head from the outer segments and bend it in or out to the wanted concave or convex shape. Choose the light beam angle you need and the lamp head will remain at the chosen setting. When the lamp head is positioned at standard flat setting the light beam angle is 35°. The maximum light beam angle is given when the lamp head is bend at its more convex setting.



Barn doors installation

Place the barn door axle into the external lamp head segment grooves. Then insert one end of the axle into the hole located at the lamp head exterior segment as shown in the picture. The right mounting position is achieved when the product name is visible facing outwards.



Insert the other barn door axle end into the opposite hole located at the lamp head exterior segment.

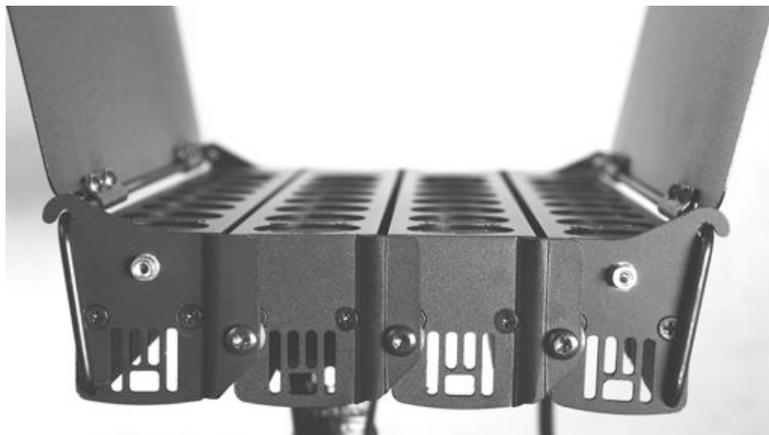


Softbox diffuser installation

Position the lamp head in its standard flat setting.

Align the side wings captive screws with their respective threaded inserts located on the lamp head.

Screw the captive screws to attach the two side wings to the lamp head.



Set the barn doors open as shown in the picture.

Wrap the Softbox cloth around the side wings and barn doors.



NOTE: The " silent grid cloth Softbox softens and broadens the light beam with minimal colour temperature shift. Excellent for softening harsh edges.

SOFTBOX CLOTH FLAMEPROOF RATING

The Rosco softbox has been manufactured with Cinebounce black cloth which meets the flameproof standard UNE EN 13773:2003 class 1.

9. SPECIFICATIONS

4LONG

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimmbable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA CORRECTION	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
CRI	90
DIMENSIONS	622 x 205 x 70 mm
WEIGHT	4,4 kg
POWER DRAW	147W Nominal, 196W Maximum
BEAM ANGLE	variable from 30° to 75° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with a selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING OPTIONS	quick link swivel-ball head with 10mm pin, adjustable yoke, 4x4 adjustable yoke to mount up to four lamp heads
ACCESSORIES	softbox diffuser (hilite, quarter, half and full silent grid cloth options), removable barn doors, waterproof case

6LIGHT

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimmbable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA CORRECTION	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
CRI	90
DIMENSIONS	340 x 300 x 70 mm
WEIGHT	3,5 kg
POWER DRAW	110W Nominal, 145W Maximum
BEAM ANGLE	variable from 30° to 125° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with a selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING OPTIONS	quick link swivel-ball head, adjustable yoke
ACCESSORIES	softbox diffuser (hilite, quarter, half and full silent grid cloth options), removable barn doors

4LIGHT

COLOUR TEMPERATURE	adjustable from 2500K a 6500K (100K increments)
LIGHT INTENSITY	dimnable with minimal colour shift (1/2 stop increments)
GREEN/MAGENTA CORRECTION	adjustable +/- 1/4 y 1/8 steps from 2500K to 5600K
CRI	90
DIMENSIONS	340 x 205 x 70 mm
WEIGHT	2,4 kg
POWER DRAW	100W 28V (maximum 108W)
BEAM ANGLE	variable from 30° to 75° (standard 35°)
LED RATED LIFE	more than 50.000 hours
THELIGHT LED TECHNOLOGY	UME (Minimum Emitting Unit) made up of: 3 Phillips high-power LED with a selected BIN + Fresnel lens + CPU control with THELIGHT software
RIGGING OPTIONS	quick link swivel-ball head with 10mm pin, adjustable yoke
ACCESSORIES	quick link swivel-ball head with 16mm female, softbox diffuser (hilite, quarter, half and full silent grid cloth options), removable barn doors, waterproof case

VDC Control Unit 2.0

DIMENSIONS	172 x 173 x 87 mm
WEIGHT	1,5 kg
POWER SUPPLY	10-35 VDC through XLR4 connector
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps still photography up to 1/6000 sec
FUSE	1 x 15 A
BATTERY MOUNT OPTIONS	Vlock or Gold battery mount
ACCESSORIES	hexagonal 16mm baby spud to mount on a stand, 5 or 10 meters extension cables

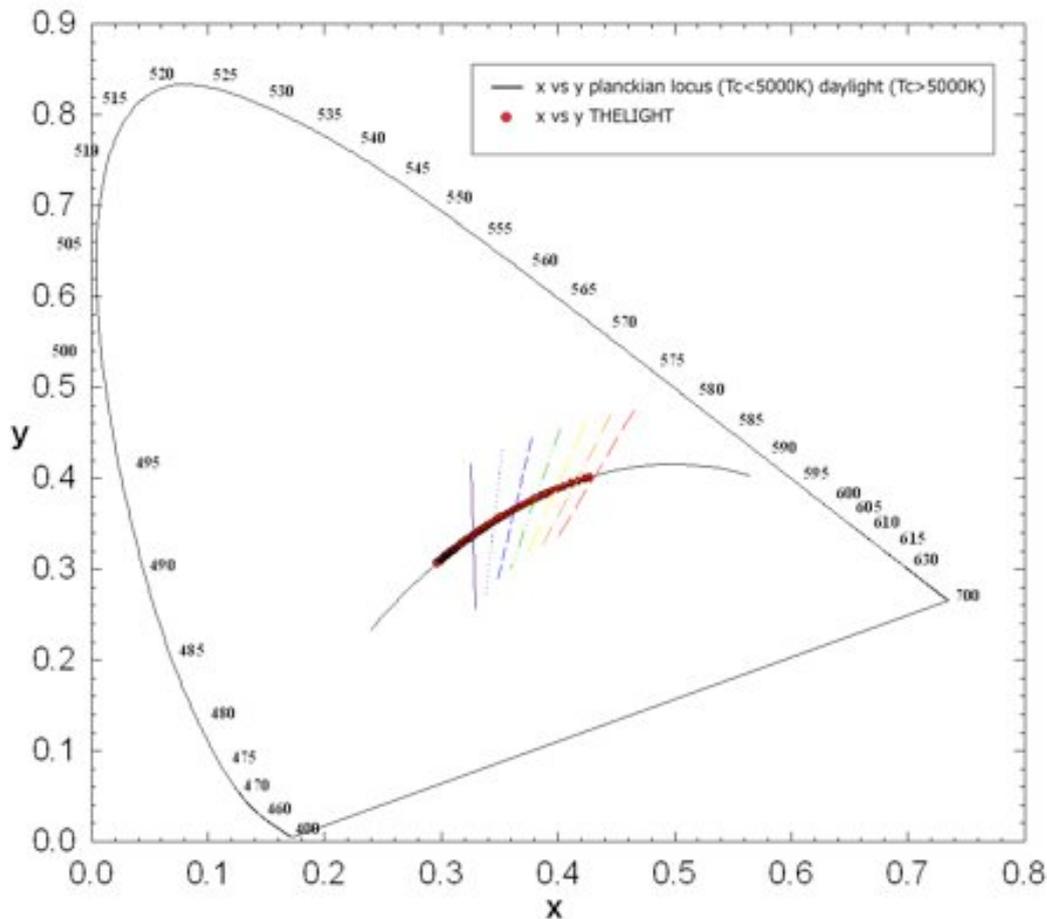
VAC Control Unit 2.0

DIMENSIONS	334 x 173 x 87 mm
WEIGHT	2,7 kg
POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps still photography up to 1/6000 sec
FUSE	2 x 2,5 A
DMX512	XLR5 in&out connectors
ACCESSORIES	hexagonal 16mm baby spud to mount on a stand, 5 or 10 meters extension cables

AC/DC Control Unit

DIMENSIONS	390 x 173 x 87 mm
WEIGHT	3,4 kg
DC POWER SUPPLY	24-35 VDC through XLR4 connector
AC POWER SUPPLY	Universal 90-264 VAC
INPUT FREQUENCY	50/60Hz
OUTPUT FREQUENCY	20KHz flicker-free up to 3000fps still photography up to 1/6000 sec
DC FUSE	2 x 15 A
AC FUSE	1 x 2,5 A
BATTERY MOUNT OPTIONS	Vlock or Gold battery mount
DMX512	XLR5 in&out connectors
ACCESSORIES	hexagonal 16mm baby spud to mount on a stand, 5 or 10 meters extension cables

(x, y CIE-1931)



Shown on the diagram are the THELIGHT lamp head chromaticity coordinates (x, y CIE-1931) feed and digitally controlled by its Control Unit and they are compared with the reference illuminants. These reference illuminants are the Planckian locus radiator set below 5000K and the CIE daylight reference is set over 5000K. The Planckian locus radiator references the chromaticity for several tungsten lamps colour temperatures while the daylight locus typify daylight type D illuminants.

The diagram evidence the light emanated by THELIGHT luminary at every colour temperature entirely matches with the described locus reference so that the colour of the light produced is essentially the same as incandescent and daylight. It is also remarkable the minimum green/magenta deviation over the locus reference along the range of colour temperatures (means minimal difference between THELIGHT chromaticity coordinates and the ideal reference line).

CALIBRATION

The Instrument Systems scanning spectrometer, model Spectro 320, serial number 30932004, with its accessory TOP-100 has been calibrated according to the United States National Institute of Standards (NIST) and the german Physikalisch-Technische Bundesanstalt (PTB) standard references.

ACCURACY

The Instrument Systems scanning spectrometer, model Spectro 320, serial number 30932004, with its accessory TOP-100 has an imprecision over the spectral radiometric results delivered lower than 1%.

24 fps / 500 ASA

4LONG						
5600K				3200K		
Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
14000	22	1300	1	1110	22	12000
1800	8 1/3	165	3	148	8	1600
500	4 1/3	46	6	39	4	420

4LIGHT						
5600K				3200K		
Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
7000	16 1/3	650	1	580	16	6800
900	5,6 1/3	83	3	78	5.6	740
300	2.8 1/3	28	6	26	2.8 1/3	280

6LIGHT						
5600K				3200K		
Lux	F-Stop	Fc	meters	Fc	F-Stop	Lux
12500	22	1160	1	925	16 2/3	10000
1500	8	130	3	110	5.6 2/3	1200
450	4	41	6	35	2.8 2/3	380

Readings made with scanning spectrometer at stable temperature, Control Unit set at maximum light intensity (Turbo On and dimmer at 9 setting), lamp head at standard flat setting and measurement instrument positioned perpendicular over the luminary surface center.

CALIBRATION

The Instrument Systems scanning spectrometer, model Spectro 320, serial number 30932004, with its accessory TOP-100 has been calibrated according to the United States National Institute of Standards (NIST) and the German Physikalisch-Technische Bundesanstalt (PTB) standard references.

ACCURACY

The Instrument Systems scanning spectrometer, model Spectro 320, serial number 30932004, with its accessory TOP-100 has an imprecision over the spectral radiometric results delivered lower than 1%.

REGULATIONS

This equipment is designed to meet the following regulations and safety standards for battery powered technology equipment:

ENVIRONMENTAL

THELIGHT devices are certified and intended for indoor use (lamp head IP21, Control Unit IP41)

LAMP HEAD OPERATION TEMPERATURE	from -20° to +40° C
CONTROL UNIT OPERATION TEMPERATURE	from -20° to +50° C
OPERATING HUMIDITY	from 30 to 90% RH non condensing
FUSE	2 x 2,5 A



Mark: THELIGHT

Test n°: 2010 - 790

2 Models

Date: 27 - 9 - 2010

Serial n°: 6 / 0

REPORT

ELECTROMAGNETIC COMPATIBILITY

Test Laboratory, CE mark



TESTS AND MEASURES REQUESTED:

DIRECTIVE:

2004/108/CE Electromagnetic Compatibility (E. M. C.)

STANDARD:

(CEC) EN 61000-6-1:2008 Electromagnetic compatibility, Generic immunity standard, Residential and light industry

(CEC) EN 61000-6-3:2008 Electromagnetic compatibility, Generic EMI standard, Residential and light industry

EN 301489-1 v1.3.1 (2008-02) Radio Electric Spectrum Protection (3 - 6 GHz Band)

(CEC) EN 61000-3-2:2001/A2:2008 Harmonic current emissions a. c. Mains

(CEC) EN 61000-3-3:1997/A2:2008 Voltage fluctuations and Flicker a. c. Mains

UNE-EN 55015:2007+A1:2008+A2:2008 EM of electrical lighting and similar equipment (CISPR 15:2005)



Laboratorio de Ensayos, marcado CE

Test Laboratory, CE mark



Marca Mark	THELIGHT
Modelo Model	4LONG high power LED luminary + VAC Control Unit BLIGHT high power LED luminary + VAC Control Unit
Descripción Description	Luminary for cine and TV
ENSAYOS Y MEDIDAS TESTS AND MEASUREMENTS Norma Standard	Seguridad Eléctrica. (Electric Safety) EN 61 000-6-1:2005 EN 61 000-6-3:2005 EN 61000-3-2:2001/A2:2006 EN 61000-3-3:1997/A2:2006 EN 55015:2007+A1:2008+A2:2008 EN 301489-1 v1.8.1 (2008-02)
Resultado en el informe de los ensayos Nº. Show in summary in test report Nº.	2010-788 2010-790
Verificado Verified	V
Fecha Date	27-8-2010
Sello de la compañía y firma. Company seal and signature F. J. Garcia Ing. T. Telecom.	

Laboratorio de Ensayos, marcado CE

Test Laboratory, CE mark



Marca Mark	TRILIGHT
Modelo Model	4LJ(S)HT high power LED luminary + VDC Control Unit
Descripción Description	Luminary for cine and TV
ENSAYOS Y MEDIDAS TESTS AND MEASUREMENTS	Seguridad Eléctrica. (Electric Safety)
Norma Standard	EN 61 000-6-1:2005 EN 61 000-6-3:2005 EN 55018:2007+A1:2008+A2:2009 EN 301489-1 v1.8.1 (2008-02)
Resultado en el informe de los ensayos Nº Show in summary in test report Nº	2010-793 2010-794
Verificado Verified	V
Fecha Date	27-9-2010
Sello de la compañía y firma Company seal and signature F. J. Garcia Ing. T. Telecom	 <p> TELPRO Av. Gran Siniel, 36 08160 Sant Cugat, Vallès Occ. BARCELONA TEL: 93 589 01 69 F: 93 581 69 11 </p>

DECLARATION OF CONFORMITY TO EMC DIRECTIVE 2004/108 EC

MANUFACTURER'S NAME: Thelight luminary for cine and tv, S.L.
MANUFACTURER'S ADDRESS: Plaza Val 1
22148 Colungo
HUESCA – SPAIN
info@thelight.com.es
www.thelight.com.es

declares that the products

MODELS: 4LIGHT LED panel, 6LIGHT LED panel, 4LONG LED panel
VDC Control Unit, VAC Control Unit, AC/DC Control Unit
4LONG-STUDIO, 3LONG-STUDIO, 2LONG-STUDIO, 6LIGHT-STUDIO,
5LIGHT-STUDIO, 4LIGHT-STUDIO, 3LIGHT-STUDIO, 2LIGHT-STUDIO.

MANUFACTURED BY: Thelight luminary for cine and tv, S.L.
MANUFACTURED IN: Badalona (BARCELONA) SPAIN
MARK: THELIGHT

COMPLY WITH THE CE DIRECTIVES:

GENERAL SECURITY:

2001/95/CE

EN 60598-1:2003+A1:2006 Luminaries: general requirements

DIRECTIVE:

2004/108/CE Electromagnetic Compatibility (E.M.C.)

ELECTROMAGNETIC COMPATIBILITY:

THELIGHT is intended to Electromagnetic Environment E2 (Commercial and light industrial).

STANDARD:

EN 61000-6-1:2005. Electromagnetic Compatibility, Generic immunity standard. Residential and light industry.

EN 61000-6-3:2005. Electromagnetic Compatibility, Generic EMI standard. Residential and light industry.

(IEC) EN 61000-6-4: 2005. Generic. Industrial environments emission (radiated)

EN 301489-1 v1.8.1 (2008-02) Radio Electric Spectrum (1 – 6 GHz Band)

EN 61000-3-2:2001/A2:2006 Harmonic current emissions a.c. Mains

EN 61000-3-3:1997/A2:2006 Voltage fluctuations and Flicker a.c. Mains

UNE-EN 55015:2007+A1:2008+A2:2009 EMI of electrical lighting and similar equipment (CISPR 15:2005)

EN 55015-1:2006 Lighting and similar equipment radioelectric radiation (conducted emissions, radiated current)

Badalona, 27th August 2012



A handwritten signature in black ink, appearing to read "Javier Fdez. De Valderrama".

Javier Fdez. De Valderrama
Authorized Administrator

WARRANTY

THELIGHT high power LED light equipments are guaranteed to be free from defects in workmanship and parts in a warranty period of two (2) years from the date of purchase. Defects that occur within this warranty period, under normal use and care will be repaired or replaced at THELIGHT discretion, solely at our option with no charge for parts or labour.

In the event of the equipment malfunction, contact the dealer from which you purchased the product. Please note that you will not be reimbursed for the cost of bringing the equipment to the THELIGHT Repair Centre.

THELIGHT reserves the right to replace the product or relevant part with the same or equivalent product or part, rather than repair it. Where a replacement is provided the products or part replaced becomes the property of THELIGHT. THELIGHT may replace parts with refurbished parts. Replacement of the product or a part does not extend or restart the Warranty period.

Returns or exchanges from the customers will be accepted within 15 days of delivery and will not include the actual shipping costs. Item(s) must be in original packaging and condition, must not be assembled, and must include its original user manual.

This warranty does not cover any damage resulting from:

- Failure to follow the instructions in the instruction manual;
- Repair, modification or overhaul not conducted by any authorized THELIGHT personnel.
- Fire, natural disaster, act of God, lightning, abnormal voltage, etc;
- Submergence in water (flooding), exposure to alcohol or other beverages, infiltration of sand or mud, physical shock, or dropping of the equipment and other unnatural causes.

This warranty only applies to the lamp head and the Control Unit and not to the accessories, such as the diffuser or barn doors, nor does it apply to the fuses and other consumables provided.

Any consequential damages arising from failure of the equipment, such as expenses incurred in taking pictures or recording images or loss of expected profit, will not be reimbursed whether they occur during the warranty period or not.

Parts essential to the servicing of the light equipment (that is, components required to maintain the functions and quality of the fixture) will be available for a period of five years after the product is discontinued.

THELIGHT Luminary for cine and tv, S.L.
www.thelight.com.es

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