L-Series®

L5

User Manual

November 2018

Dimensions

Content

Safety Information

Always follow these instructions to protect against injury to yourself and damage to the product or other objects.

Explanations of Warning Signs and Indications

Possible risk of injury or damage to equipment.

Risk of fire or electric shock. Possible risk of injury or damage to equipment.

Caution! Hot surface. Possible high surface temperature. Risk of injury through burns.

Caution! High intensity light emission. Risk of eye injury.

Note: Indicates further information.

General Notes

• This document contains important instructions and notes to handle the product safe.

• Always follow all safety information for your own protection.

• Please follow the user manual of accessories and third party accessories for the product such as battery packs and battery chargers. They contain important safety and security information.

• Retain this user manual for further reference and possible new owners of this product.

• This product is intended for professional use and may only be operated by qualified persons. They are not for household use.

• Help protecting the environment by disposing the package material at your local recycling center.

• All components comply to the guidelines listed below:

    Low voltage directive 2014/35/EU
    EMC directive 2014/30/EU
    RoHS directive 2011/65/EU

General Safety Information

⚠ *Read and understand all safety information and operation instructions before you operate or install the product.*

⚠ *Use only genuine spare parts or accessories that have been recommended or approved by ARRI. Other accessories or spare parts may cause hazards, damage the product or invalidate the warranty.*

⚠ *Check all cables and devices for visible damage before you work with the system. Defective electric or electronic devices must not be used. Take special care of the following components:*

Component	Possible damage
Housing, lens	Cracks, cuts, deformation
Cables	Cuts, deformation, burns
Connectors	Cracks, deformation, burns
Cable connectors	Damaged
Inner threads	Overwound

⚠ *In the event of visible damage to the product or accessory, the product or accessory must no longer be used. Replace or repair the respective part. In case of repairs, please contact an authorized ARRI service center.*

⚠ *Never attempt to repair any part of the product on your own. Maintenance and repair work is only to be carried out by authorized ARRI service centers.*

⚠ *Do not operate the product if the ambient temperature exceeds 45° C (113° F). Do not expose the product to rain or moisture. Observe all information given in chapter "Specifications" on page 46.*

⚠ *Do not bypass any safety feature of the product.*

⚠ *Do not open the product. There are no user serviceable parts inside. The housing is sealed with an adhesive seal that will break immediately when trying to open the housing. Doing so will invalidate the warranty.*

⚠ *In addition to regular visible checks ARRI recommends that all electric components are checked for electrical safety by a professional every 12 month. Keep the protocol of the check.*

Specific Safety Information

Intensive use can cause the surface and the heat sink to become hot. Let the product cool down complete before you handle it.

Never cover air vents and the heat sink during operation. Keep a minimum clearance around the product of 0.5 m (1.65 ft).

WARNING: Intense light. The product is equipped with high intensity LEDs which emit at high luminance levels. Never look direct into the light source.

Never point a light beam from another luminaire into the light source. Do not place the product on heat sources. Intense heat cause automatic power off during operation.

Devices and accessories must be secured against fall when mounted above floor level. Always observe common and local safety regulations.

Never use the cables for transportation. Never hang the product on its cables. Do not hang a battery pack on its connection cable to the product.

CAUTION: High voltage! Always disconnect the product complete from mains voltage before you connect or disconnect a cable or replace the fuse of the product.

Always check that the local AC power matches the voltage and frequency range printed on the type label of the product before use. Never use the product when the AC power does not match.

Always check that the supply voltage of the battery pack matches the voltage range printed on the type label of the product before use.

Never connect the product to a dimmer-system or a dimmer-channel in non-dim mode. To do so will damage the electronics. Damages caused by connecting the product to a not suitable power source are not covered by the warranty.

Never bypass any fuse.

Always keep cables away from the product during operation. Do not tilt the power cable directly after the connector. Water could immerse and cause short circuits and damage the connector.

Disconnect all cables prior to transport.

⚠️ *Please observe the NEUTRIK PowerCON True1 safety information from November 2017. The safety information is available for free download in the service area of the ARRI website www.arri.com.*

Not to observe these safety information or to ignore common sense may cause serious injury or even death. Damage to the product or other devices is possible.

Please observe the information given in the „Safety leaflet ARRI lampheads" (L5.40731.E). The leaflet is available for download on our web site www.arri.com.

To Replace the Light Source

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

Maintenance Information

• Do not clean the surface of the product with solvents or strong detergents.

• Clean the product with a soft cloth wetted with a mild detergent. Do not rub the surface: lift stuck particles off with a soft repeated press.

• Clean soiled electric contacts with cotton swabs wetted with isopropyl alcohol.

• Keep electric contacts clean and replace corroded parts.

Intended use

This product is intended to illuminate persons and objects in a dry environment.

Always follow the safety information.

Any usage other than described above is not permitted and can damage the product and lead to associated risks such as short-circuit, fire, electric shock, etc. You are not allowed to modify the product.

This product fulfills European and national requirements.

Introduction

Thank you for selecting a LED luminaire of the L-Series from ARRI. The ARRI L5 are fresnel-luminaires equipped with a high precision, micro-processor controlled LED light source. The ARRI L5 is a perfect and easy replacement for conventional fresnel-luminaires with tungsten lamps.

The L5-Series combines the advantages of the LED technology with the ease of use of a traditional fresnel-luminaire. The L5-Series integrates seamless into established working practice. LED luminaires are much more efficient than light sources with conventional tungsten lamps. The optical system offers real fresnel characteristics with an extreme smooth beam and clean shadows. The half peak angle can be adjusted continuously from 15° - 50°.

The ARRI L5 emits white or colored light with adjustable color temperature and adjustable green / magenta saturation. Please find more detailed information in chapter "Specifications" on page 46. The light spectrum is optimized for excellent color rendition and fulfills perfect the demands of modern, digital cameras. All models of the ARRI L5 can be controlled using the common DMX512-A protocol or the fixture menu.

The ARRI L5 can be powered by AC power, low voltage DC power sources and battery packs. Please find more detailed information about the use of battery packs in the section "Power" on page 18.

Features

Focus
Traditional fresnel-luminaires are able to spot and flood the beam as needed. Whether it is a flood field for a pullback or a tight spot for a bright highlight, the continuous focusability of the ARRI L5 performs just as expected.

Versatile beam characteristics
The ARRI L5 provides the same ability as conventional fresnel-luminaires to cut set elements and shape the beam with barndoors and flags.

Even light field
Clean, defined shadows have traditionally been a trait only of single source tungsten and daylight fixtures. ARRI L5 fresnel-luminaires provide the same single shadow properties lighting designers expect, delivering natural results.

Vibrant colors, full spectrum lighting
True-to-life color rendition is an outstanding feature of the ARRI L5, comparable to a full spectrum tungsten source. The fully tuneable white light of the ARRI L5-C can be adjusted for different skin tones, camera sensors and mixed light environments. Full gamut color mixing enables the rendition of all color shades, making color filters dispensible.

Cool light beam
Like all LED light sources the ARRI L5 does not emit infrared or UV radiation and thus does not forward heat, making actors feel comfortable in the light beam.

Properties

Focus knob

The TRUE BLUE® style focus knobs provide precise adjustment and rapid flood-to-spot with only three turns. Knobs on both sides of the fixture ensure easy access from all positions.

Sliding stirrup

The sliding stirrup design enables precise compensation for front end accessories.

Yoke

With an extreme slim profile, the extruded aluminum yoke provides high strength without added weight. An optional, pole operated yoke allows full operation of pan and tilt from the floor and is therefore a popular choice for many studios.

Tilt-lock

The high strength tilt-lock provides extreme secure locking. It eliminates movement and slippage and ensures that the fixtures will stay where you put them.

DMX-control

All functions of the ARRI L5 are controllable through DMX. The ARRI L5 is also fully RDM compatible and is equipped with a feedback channel for reporting all set parameters including system status.

Fixture menu

For location applications the ARRI L5 is equipped with a fixture menu for manual adjustment of intensity, color temperature and plus/minus green as well as hue and saturation (functions available depending on type).

To Unpack

The ARRI L5 is supplied with:

• Power cable with power plug or bare ends

• Stirrup

• Short 28 mm spigot with 16 mm hole (mounted on p.o. stirrups)

• Short instructions

Please refer to chapter "Accessories" on page 47 for more information about optional accessories.

Overview

Top latch · Spigot · Latch · Stirrup · Tilt lock · Tilt lock lever · Focs knob · Safety catch · Stirrup bracket · Focus knob · Connectors · Fixture menu

Pan

Tilt

Focus
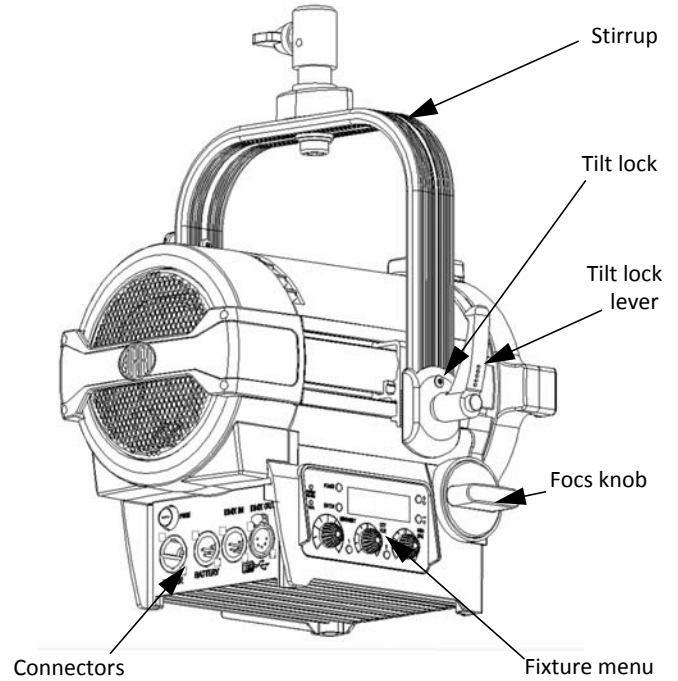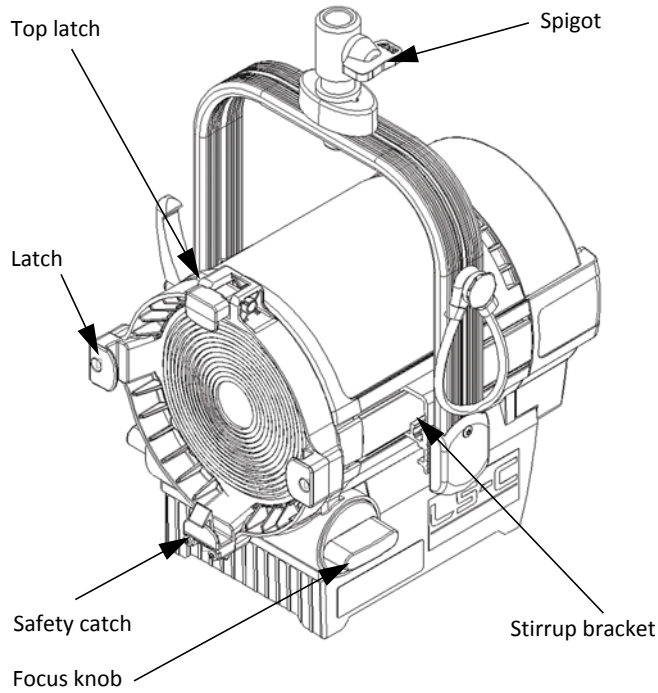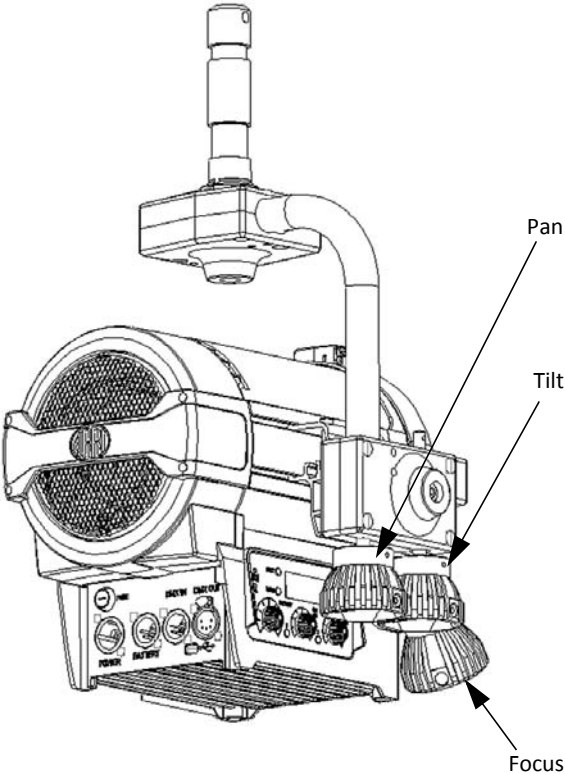
Physical Installation

⚠️ *WARNING! Attach an approved safety-cable to secure the product against clamp or bracket failure. Lead the safety-cable through the stirrup (or the eyelet when using a P.O. version) and keep it as short as possible. The safety-cable needs to be approved at least 10 times the weight of the product including all accessories mounted at the product. Secure all accessories mounted at the product with additional safety-cables to protect them from fall down and cause injuries and damages.*

⚠️ *WARNING! The rigging structure needs to be approved for at least 10 times the weight of all devices, equipment and cables installed on it.*

⚠️ *IMPORTANT! Do not illuminate the display and the fresnel-lens by high power light beams from a short distance. The display and the light engine are damaged by high brightness and heat radiation within very short time.*

To adjust the stirrup

You need

• a Torx20 screw driver,

• a 10 mm allen key and

• a torque wrench (37 ft-lbs)

to adjust the stirrup.

On delivery the stirrup is in the basic position (tilted back). Loosen the Torx20 screws on both sides of the stirrup bracket slightly and pull the stirrup bracket towards the rear of the product. Loosen the lever of the tilt-lock and tilt the stirrup upwards.

Slide the stirrup to the point of balance. The point of balance is dependent on the accessories mounted at the product. Tighten both Torx20 screws of the stirrup brackets. Do not overtighten the screws. Tilt the stirrup to the desired position and tighten the tilt-lock by using the lever. For better leverage, press the knob on the tilt-lock-lever and turn the lever to the desired position.

To mount the spigot

Place the spigot and the distance plate on the 13 mm hole in the middle of the stirrup. Insert the allen screw with washer and spring washer and tighten it with a torque wrench to 37 ft-lbs torque.

To mount the device

Always observe all safety information listed in chapter "Physical Installation" on page 15 when you mount the product and accessories:

Be aware of the maximum tilt angle 90° upwards and 90° downwards.

Ensure that you install all accessories correct when you mount the product above floor level:

• Top latched locked, safety catch snapped in.

• Set up tripods in a stable position. Tripods need to be approved for the load they need to carry.

• Always observe the additional load of cables and accessories!

⚠️ *ATTENTION! Lateral load can cause deformation or breaking of the spigot and the stirrup!*

Please observe the information given in the „Safety leaflet ARRI lampheads" (L5.40731.E), which is available for download on our web site www.arri.com.

To mount the safety cable at the p.o. stirrup

Lead the safety-cable through the eye bolt at the p.o. stirrup as shown in the illustration below.

Keep the safety-cable as short as possible. Do not limit the range of movement of the product.
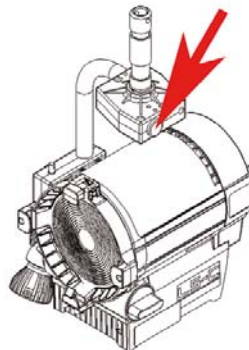
Basic features

Pan and tilt

Loose the mounting screw of the tripod or the appropriate fixing screw of the mounting clamp to pan the product. Tighten the screw to avoid unintended movement. Loose the tilt-lock to tilt the product to the desired angle. Tighten the tilt-lock-lever to avoid unintended movement.

To adjust the beam angle

Turn one of the focus knobs beneath the lens tube to adjust the beam angle continuously. The entire lens tube moves in and out. Two mechanisms protect the product from being damaged:

• A predetermined braking point prevents the product from damage, when the focus knob is turned with too high torque at either end of the focus range.

• The self-impeding focus gear prevents the lens tube to move itself in or out when the product is operated in a tilted position.

Use of accessories for beam shaping and light design

You can mount accessories such as a barndoor, filter holder or scrim on the front side of the product:

• Firmly press the button at the side of the top latch to open the top latch.

• Insert the accessory from the upside into the brackets until the safety catch engages. Slightly tilt the safety catch with your finger for support.

• Close the top latch. Make sure that the hook of the top latch engages into the holding ring of the accessory.

DMX/RDM-interface

The product has a DMX/RDM-interface. It has 5-pin XLR connectors for DMX/RDM data input and output. Please find more detailed information to establish a DMX/RDM data-link in chapter "DMX data link" on page 27.

USB-interface

The product has a mini-USB connector to upload firmware and set parameters. The USB-interface can be used for service purpose like download error reports and set certain data. To do so you need a software tool, the ARRI lighting Service Manager (ALSM). Download it free of charge from the ARRI web site www.arri.com.

Please find more detailed information to work with the ALSM in the user manual of the software. The manual is included in the download package.

### Turn on and use the product

Turn on the power switch or connect the product to AC power. The product initializes for some seconds and is ready for operation. The product will operate with the settings made on the fixture menu or received by DMX. Please observe the following section to use the product.

Control options

You can set up or control the product with the options listed in the table below:

Option	Control	Configuration	Information
Fixture menu	yes	yes	page 20
DMX	yes	no	page 26
RDM	yes	yes	page 31
ALSM	no	yes	page 31
Stellar App	yes	no	www.arri.com/stellar

Connector Panel
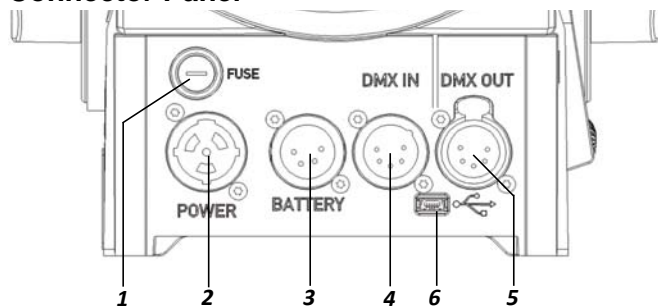
1 Fuse holder
2 AC power in
3 Connector for battery pack

4 DMX input
5 DMX output
6 USB connector

Power

WARNING! For protection from electric shock, always connect the product electrically to ground (earth) when connected to AC power. The AC mains power supply must be fitted with a fuse or circuit breaker and ground-fault (earth-fault) protection.

IMPORTANT! Ensure that persons do not look at the light emission aperture when the product is connected to AC power or a battery pack. The product can light up suddenly. The high intensity of the ARRI L5 can cause eye irritation or injury when not respecting the safety distance.

IMPORTANT! Always connect the ARRI L5 direct to AC power. Do not connect it to a dimmer-system. Doing so will damage the product.

AC power

The products of the ARRI L5 has an auto-sensing switch-mode power supply that automatically adapts to AC power at 90 - 250 V ~, 50 - 60 Hz (nom.).

Before you connect the product to AC power or a battery pack, check that:

• the dimmer knob at the fixture menu is set to 0%, and

• no DMX signal is present at the DMX-input of the ARRI L5.

You can hard-wire the ARRI L5 to a building electrical installation. You can install a power plug that is suitable for the local power outlets on the power cable. Socket outlets or external power switches that supply the product with power must be located near the product and easily accessible so that the product can easily be disconnected from power.

The ARRI L5 requires a power input cable with a Neutrik® PowerCON® True1 NAC3FX-W cable connector. Cable requirements are listed in chapter "Specifications" on page 46.

ARRI offers power cables with PowerCON® cable connectors and different plugs or bare ends (see "Accessories" on page 47).

To insert and remove the PowerCON® cable connector
• Line up the raised key of the connector and the keyway of the input socket. Insert the cable connector without force in the power input socket.

To lock the cable connector:

• Turn it a full quarter-turn clockwise.

To unlock the cable connector:

• Push the connector lock backwards and turn the cable connector counter-clockwise. Pull the cable connector out of the power input socket.

To use a battery pack

The ARRI L5 can be powered independently from AC power with a battery pack.

The battery pack must meet the following requirements:

Output voltage	23 - 36 V=
Battery operating temperature	68° F - 113° F
Minimum capacity	5,5 Ah
Power outlet connector	4-pin XLR connector

Mains power and battery should not be used in the ARRI L5 at the same time. This could cause a temporary error to occur.

The product has a 4-pin XLR male connector for battery power and DMX data input. The pin-out is:

Pin	Assignment
1	0 V
2	Data -
3	Data +
4	+ 23 V - 36 V=

IMPORTANT! Check that the pin-out of the battery pack matches the pin-out of the product. Wrong assigned pin-outs damage the ARRI L5 and / or the battery pack.

Always follow the safety information for the battery pack. Use only battery packs that meet all requirements listed above. The use of battery packs that do not fulfill the requirements damage the product and / or the battery pack.

Note: The ARRI L5 switches off when the battery voltage drops below 22 V=. The product will be damaged, when the battery voltage exceeds 45 V=.

To insert and remove the 4-pin XLR cable connector

To insert the 4-pin XLR cable connector:

• The main switch of the battery pack must be turned off, if possible.

• Align the raised key of the cable connector with the keyway of the input socket. Insert the cable connector without force in the input socket.

• The cable connector must lock. Repair or replace cable connectors that do not lock.

To remove the 4-pin XLR cable connector:

• Switch of the battery pack, if possible.

• Press down the locking pin of the cable connector and remove the cable connector.

Tips for the use of battery packs

The ARRI L5 draws 115 W power at full intensity. Use the following rule of thumb to calculate the likely operating time with a fully charged battery pack at constantly 100% brightness:

$$\text{Operating time [min]} = \frac{\text{(capacity [Ah]*nom. voltage [V]*54}}{115\ W}$$

It is not possible to calculate the operating time exactly when brightness changes often. The possible operating time is dependent from age, state of charge and type of the battery pack.

Fixture menu

Overview of the fixture menu
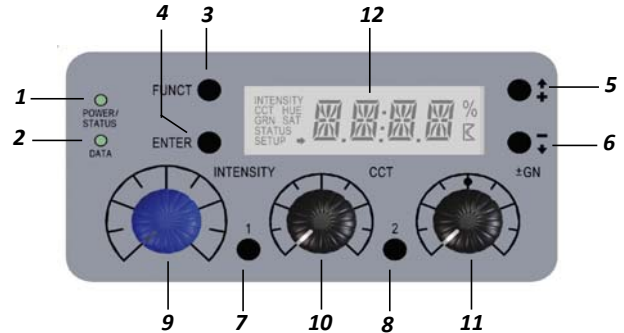
Features of the fixture menu

Status indicator POWER/STATUS (1):

Color	Indication
Green	Fixture switched on. No error.
Red flashing (0,5s rhythm)[*]	Warning fixture over temperature
Red[*]	Fixture over temperature
Change from red to green[*]	Fixture normal temperature
Red flashing (0,25s rhythm)[*]	Calibration data not loaded
Display lights up red when STATUS-LED is lit red	

DATA (2)

The DATA indicator lights blue, when a valid DMX signal is detected on the DMX-input.

FUNCT (3)

The FUNCT button has two functions:

• Normal operation: Switches between CCT and HSI mode (only ARRI L5-C).

• Fixture menu open: Jump UP one menu level.

ENTER (4)

The ENTER button has three functions:

• Normal operation: Activate blinking arrow for calling up MEM1 or MEM2.

• Fixture menu open: OPEN next menu level, or

• Confirm a setting.

+ / [up] (5)

The + / [up] button navigates the menu or increases a value. Press the button long to activate the fast-run feature.

- / [down](6)

The - / [down] button navigates the menu or decreases a value. Press the button long to activate the fast-run feature.

INTENSITY (9)

The rotary knob sets the intensity level.

CCT / HUE (10)

The rotary knob sets the color temperature (CCT) or the hue (only ARRI L5-C in color mode).

GN / SAT (11)

The rotary knob sets the green/magenta saturation or the color saturation (SAT, only ARRI L5-C in color mode).

MEMORY 1 and MEMORY 2 (7 and 8)

Activate or store a memory.

During operation the mode and recent values are displayed. On the first menu level the values for INTENSITY, CCT/HUE (only ARRI L5-C) and GN/SAT (only ARRI L5-C) can be retrieved via the + / [up]/- / [down] buttons. The menu STATUS, confirmed with ENTER, calls up the next level which displays information on faultless operation and the temperature of the light engine. To retrieve values for operating hours, DMX-version and
firmware-version, press ENTER to call up the third level. The FUNCT button jumps up one menu level.

A detailed overview of the fixture menu is listed in chapter "Fixture Menu" on page 28.

To set the operation mode (only ARRI L5-C)

Press the FUNCT button to switch from CCT mode to HSI mode and vice versa.

IN CCT mode the product generates white light with optimized color rendition. In HSI mode the product generates colored light. If saturation is set very low, the product generates white light, but not with optimized color rendition.

To set the color temperature and green/magenta saturation in CCT mode

Set the color temperature continuously with the rotary knob CCT/HUE. Set the green/magenta saturation continuously with the rotary knob GN/SAT.

Press the + / [up] or - / [down] button until GRN is displayed left in the display (e.g. +0.23) to retrieve the currently set green/magenta value. The color temperature is always displayed (e.g. 4.150K).

To set the color in HSI mode (only ARRI L5-C)

Set the hue continuously with the rotary knob CCT/HUE. Set the saturation continuously with the rotary knob GN/SAT.

Press the + / [up] or - / [down] button until SAT is displayed left in the display (e.g. 45) to retrieve the currently set saturation value. The hue is always displayed (e.g. 118°).

To set the brightness in both operating modes

Set the brightness in both operating modes continuously with the rotary knob INTENSITY

Press the + / [up] or - / [down] button until INTENSITY is displayed left in the display (e.g. 24%) to retrieve the currently set brightness value.

To set the fan mode

Set the fan mode using the fixture menu:

• Press the + / [up] or - / [down] button, until SETUP is displayed left in the display.

• Confirm with the ENTER button. Press the + / [up] or - / [down] button until FAN is displayed.

• Confirm with the ENTER button. The current fan mode is displayed.

• Press the + / [up] or - / [down] button to select the fan mode (see the table below). Confirm the selected mode with the ENTER
button. The fan mode is activated immediately.

• Press the FUNCT button two times to leave the menu.

Fan mode	Description
LOW	Fan operates constantly at low speed (silent)
VARI	The temperature of the light engine controls the fan speed. The fan starts running at app. 70% brightness.
HI45	Use this mode for ambient temperatures up to 45° C / 113° F. The fan runs at maximum speed. The maximum brightness is reduced by app. 15%.

To set the DMX address
- Press the + / [up] or - / [down] button, until SETUP is displayed left in the display.

- Confirm with the ENTER button. Press the + / [up] or - / [down] button until DMX is displayed.

- Confirm with the ENTER button. Press the + / [up] or - / [down] button until CHAN is displayed.

- Confirm with the ENTER button. The current DMX address is displayed.

- Press the + / [up] or - / [down] button to select the DMX address. Confirm the selected address with the ENTER button. The DMX address blinks three times for confirmation.

- Press the FUNCT button to leave the menu.

To set the Signal lost behavior
Set the signal lost behavior:
- Press the + / [up] or - / [down] button, until SETUP is displayed left in the display.

- Confirm with the ENTER button. Press the + / [up] or - / [down] button until DMX is displayed.

- Confirm with the ENTER button. Press the + / [up] or - / [down] button until LSIG is displayed.

- Confirm with the ENTER button. The current setting is displayed.

The following options are available:
- HOLD: The last received DMX values are used until the fixture is switched off or valid DMX data is received again.

- BOUT: The fixtures douses to 0% intensity.

- H2MF: The last received DMX values are used for 2 minutes. After 2 minutes the fixture douses to 0% intensity. When valid DMX data is received after less than 2 minutes, these data will be used.

- Press the + / [up] or - / [down] button to select the signal lost behavior. Confirm the selected mode with the ENTER button. The option blinks three times for confirmation.

- Press the FUNCT button to leave the menu.

To set the DMX mode
Set the DMX mode using the fixture menu:
- Press the + / [up] or - / [down] button, until SETUP is displayed left in the display.

- Confirm with the ENTER button. Press the + / [up] or - / [down] button until DMX is displayed.

- Confirm with the ENTER button. Press the + / [up] or - / [down] button until PROT is displayed.

- Confirm with the ENTER button. The current DMX mode is displayed.

• Press the + / [up] or - / [down] button to select the DMX mode. Confirm the selected mode with the ENTER button. The DMX mode blinks three times for confirmation.

• Press the FUNCT button to leave the menu.

To set the display illumination and status indicators

To switch the display illumination and status indicators on or off:

• Press the + / [up] or - / [down] button, until SETUP is displayed left in the display.

• Confirm with the ENTER button. Press the + / [up] or - / [down] button until INDC is displayed.

• Confirm with the ENTER button. The current setting is displayed.

• Press the + / [up] or - / [down] button to select the option ON or OFF. Confirm the selected mode with the ENTER button.

• Press the FUNCT button to leave the menu.

To read out fixture information

To display fixture information:

Operating hours
• Press the + / [up] or - / [down] button, until STATUS is displayed left in the display.

• Confirm with the ENTER button. Press the + / [up] or - / [down] button until HOUR is displayed.

• Confirm with the ENTER button. The current operating hours are displayed (e.g. 501h).

• Press the FUNCT button to leave the menu.

Version of the DMX protocol
To display the version of the DMX protocol:

• Press the + / [up] or - / [down] button, until STATUS is displayed left in the display.

• Confirm with the ENTER button. Press the + / [up] or - / [down] button until DMXV is displayed.

• Confirm with the ENTER button. The current version is displayed (e.g. 3.1).

• Press the FUNCT button to leave the menu.

Firmware-version
To display the firmware-version:

• Press the + / [up] or - / [down] button, until STATUS is displayed left in the display.

• Confirm with the ENTER button. Press the + / [up] or - / [down] button until SW is displayed.

• Confirm with the ENTER button. The current firmware version is displayed (e.g. 2.0).

Recent temperature

To display the recent temperature of the light engine:

• Press the + / [up] or - / [down] button, until STATUS is displayed left in the display.

• Confirm with the ENTER button. Press the + / [up] or - / [down] button until the temperature (e.g. 42,1°) is displayed.

• Press the FUNCT button to leave the menu.

Error status

To display the error status:

• Press the + / [up] or - / [down] button, until STATUS is displayed left in the display.

• Confirm with the ENTER button.

• If there is no error, OK will be displayed. Otherwise the error code is displayed (see "Error messages" on page 32).

• Press the FUNCT button to leave the menu.

Short cuts

The demo mode, setting the DMX address and DMX mode can be called up via short cuts in the fixture menu:

• Press and hold the ENTER button, until JUMP is displayed in the display (from every menu).

• Press and hold the FUNCT button to activate the demo mode. Press the ENTER button again to deactivate the demo mode.

• Press the + / [up] button to set the DMX address.

• Press the - / [down] button to set the DMX mode.

The JUMP menu closes 3 sec. after the last key press or after pressing the ENTER button.

Demo mode

In demo mode the fixture calls up an endless loop with all features the product supports.

• **ARRI L5-TT and ARRI L5-DT:** Change of the color temperature from warm to cold and vice versa. Set the intensity with the dimmer knob. Set the speed with the CCT knob from 0-100% (60 s - 1 s).

• **ARRI L5-C:** Call up the color spectrum or change the color temperature from warm to cold and vice versa. Set the intensity with the dimmer knob. Set the speed with the CCT knob from 0-100% (60 s - 1 s). The GN knob sets the saturation and changes between color and color temperature sequence. With GN at „0" the color temperature loop is active. Turn the GN knob clockwise to increase the saturation to 100%.

• Press the JUMP and FUNCT button or the FUNCT button alone to deactivate the demo mode.

As an alternative activate and deactivate the demo mode in the menu Setup -> DEMO.

Shift key

This short cut is only available in the main menu. Press the ENTER button, until a small arrow starts blinking in the display. Memory 1 or memory 2 calls up one of two factory settings.

DMX control

DMX mode

The ARRI L5 offers, depending on the model, up to 15 DMX modes. Use the 8 bit modes with basic DMX controllers like dimmer consoles. The most common modes for operation via DMX are mode 1 and mode 2.

ARRI recommends the use of the 16 bit modes in combination with DMX controllers supporting 16 bit resolution to obtain best results. The high resolution provides smooth dimming and precise color adjustments.

The coarse/fine modes utilize two DMX channels for most parameters and provide higher resolution compared to the 8 bit modes in combination with DMX controllers that do not support 16 bit resolution. One channel sets the coarse value of the function which is divided in 256 increments using the fine channel.

The setting can be changed any time using the rotary knobs of the fixture menu.

White and RGBW

This is the most common mode of operation. It provides control of intensity, color temperature, +/- green and individual channels for controlling the red, green, blue and white color.

White

Simple white-only mode. It is used when the number of available channels of the DMX controller is very limited. It provides control of intensity, color temperature and +/- green.

White & HSI

Provides control of intensity, color temperature, +/- green, hue and saturation (HSI = hue, saturation, intensity). In HSI mode the color and intensity is very even over the fixtures as it is controlled using color algorithms which take the tolerances of the light engines into account during calculation.

RGBW

Simple mode for controlling red, green, blue and white when only a limited number of DMX channels is available.

HSI

Simple mode for controlling hue, saturation and intensity when only a limited number of DMX channels is available.

Please find a detailed description of all modes in chapter "DMX protocol" on page 34.

Note: Depending on the selected DMX mode the channels required for each product should be allocated in the DMX controller to provide independent control of all products connected to the controller.

DMX data link

For controlling the ARRI L5 via DMX you need a DMX data link.

The ARRI L5 has 5-pin locking XLR sockets for DMX and RDM data input and output. The default pin-out of both sockets is:

Pin 1 = Shield
Pin 2 = Data - (cold)
Pin 3 = Data + (hot).

Pins 4 and 5 are not used by the ARRI L5 but are bridged between input and output sockets. These pins can therefore be used as a pass-through connection for an additional data signal if required.

Pin 4 = Data - (cold)
Pin 5 = Data + (hot).

You must not connect more than 32 products per data link. Depending on the channel requirements the address space of a data link (512 channels) may not be enough to control all products connected. You may set more than one product to identical DMX addresses to obtain identical behavior. For independent control every product needs to be assigned an individual address range.

If you need to control more products individual, you need to set up additional DMX data links.

Tips for reliable data transmission

• Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft.). Heavier gauge cable and/or an amplifier is recommended for longer runs.

• To split the data link, use a DMX splitter.

• Install a DMX termination plug on the last product of every DMX data link.

To connect the data link

IMPORTANT! When using the 5-pin XLR data input, do not use the data input of the 4-pin powerDMX at the same time and vice versa. When the ARRI L5 receives control signals on both data inputs it will behave strange and erratically. You will not be able to control the ARRI L5 via DMX.

• Connect the DMX data output from the controller to the data input (male XLR) of the ARRI L5.

• Run the data link from the data output (female XLR) to the data input of the next product.

• Terminate the data link by connecting a 120 Ohm, 0.25 Watt resistor between the data 1 hot (+) and cold (-) conductors (and between data 2 hot and cold if used) at the data output of the last product on the link.

Fixture Menu

From firmware-version 2.0

Note: The small, horizontal arrow in the displays indicates sub-menus. Press the ENTER button to access the sub-menus.

Level 1	Level 2	Level 3	Level 4	Description (Default = bold)
Intensity				Displays the recent intensity level when turning the dimmer knob in %.
CCT				Only in CCT mode: Displays the recent color temperature when turning the CCT/HUE knob in K
HUE				Only in HUE mode (only ARRI L5-C): Displays the recent hue when turning the CCT/HUE knob in ° (0-360°)
GRN				Only in CCT mode: Displays the recent green / magenta value when turning the GRN/SAT knob in %
SAT				Only in HUE mode (only ARRI L5-C): Displays the recent saturation when turning the GRN/SAT knob in %

Status Messages

From firmware-version 2.0

Note: The small, horizontal arrow in the displays indicates sub-menus. Press the ENTER button to access the sub-menus.

Note: In setup and status mode the options keep available until another function is called up. All other modes return to the appropriate mode after 2 sec.

Level 1	Level 2	Level 3	Level 4	Description
STATUS	**OK**			Product ready for operation, no errors
	ERROR			Error message (see "Error messages" on page 32)
	SW			Firmware version
	DMX V	**X.X**		Version of the DMX protocol
	HOUR	**XXXX t**		Hours of operation
	XX.X°C			Recent temperature of the light engine
	VBAT	**XX.XV**		Recent voltage of the battery pack

Fixture Menu

From firmware-version 2.0

Note: The small, horizontal arrow in the displays indicates sub-menus. Press the ENTER button to access the sub-menus.

Note: In setup and status mode the options keep available until another function is called up. All other modes return to the appropriate mode after 2 sec.

Level 1	Level 2	Level 3	Level 4	Description (Default setting = bold)
SETUP	DMX	PROT	**P.001**...P.015	Set the DMX mode
		LSIG	**HOLD**	**DMX values are hold when DMX signal is lost**
			BOUT	Product douses when DMX signal is lost
			H2MF	Product douses 2 min after DMX signal is lost
		CHAN	**1**...512[-Mode]	Set the DMX start address. Max. start address = 512 - channels used by the DMX mode chosen
	FACT	**NO**		**Do not load the factory defaults**
		YES		Load the factory defaults
	DEMO	ON		Activate the demo sequence (see page 25)
		OFF		**De-activate the demo sequence**
	INDC	**ON**		**The status indicators and the illumination of the display stay ON**
		OFF		The status indicators and the illumination of the display switch OFF
	FAN	LOW		Fan mode LOW
		VARI		**Fan mode VARI**
		HI45		Fan mode HI45

RDM commands

Please find a complete overview of all supported RDM commands for free download on the ARRI web site www.arri.com.

ARRI Lighting Service Manager

Please find information about the features and the functionality of the ARRI Lighting Service Manager (ALSM) in the user manual for the ALSM, which can be downloaded with the ALSM software-bundle from the ARRI web site www.arri.com free of charge.

Error messages

From Firmware-version 2.0

Code	Error	Remedy
E.003	Controller over temperature. STATUS lit up red.	Let the product cool down. The STATUS indicator changes to green when the product reaches the safe temperature operating zone again. Turn the dimmer knob to „0" or send an intensity value „0" via DMX to activate the light engine again.
E.004	Light engine over temperature	See E.003
E.005	Power supply over temperature	See E.003
E.006	Calibration data of light engine faulty or EEPROM error.	WARNING: Loss of calibration data. This error can only be fixed by re-calibrating the light engine. Please contact the ARRI service.
E.007	Invalid PWM value calculation	Notice: The product can be used on. This message is more a notification than an error.
E.008	Invalid values during calculation	See E.007
E.009	Invalid values during calculation	See E.007
E.010	Fan error. The detected fan speed deviates from the pro-grammed fan speed or the fan doesn't run at all.	**CAUTION: Only a trained service person is allowed to fix this error!** Set the fan to LOW or HI and see if it starts rotating, in order to determine if there is an electrical malfunction. All mechanical tests or repairs may only be carried out by a trained service technician.
E.011	Fixture menu module not be detected.	If the fixture menu is working, error E.011 can be ignored. However, if the fixture menu remains dark (no LED lights up) we recommend to contact the ARRI service. They can then carry out detailed analyses.
E.012	Temperature sensor(s) are defective or deviation within NTC values too high.	One or more temperature sensors are defective or the deviation within the individual NTCs or BNTCs exceeds the variation tolerance of 12° C / 54° F. Check the error log (LSeries Manager) to see which temperature sensors are affected. Contact the ARRI service.

Code	Error	Remedy
E.013	Calibration data of controller faulty or EEPROM error.	WARNING: Loss of calibration data. This error can only be fixed by re-calibrating the controller. Please contact the ARRI service.
E.014	Watchdog error	Notice: The product can be used on. This message is more a notification than an error.
E.015	LED channel faulty	Notice: The product can be used on. This message is more a notification than an error.
E.016	Battery voltage protection active	The battery input detected an input voltage higher than 44 V=.
E.017	Low battery shut off	The output voltage of the battery pack is lower than 23 V=. Change the battery pack. The product will not react to commands until you disconnect it from the power source.

DMX protocol

ARRI L5-TT (Tungsten Tuneable)

From firmware-version 2.0

Overview

8 bit, 1 channel per function	16 bit, 2 cannels per function	Coarse / fine, 1-2 channels per function
DMX mode 1[*]	DMX mode 2	DMX mode 3

[*] = Factory default

GN saturation

The value describes the shift from the neutral point to full minus green or full plus green in percent.
(Reference: Rosco Cinegel #3304 and #3308)

Mode 1: 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed $\rightarrow$ open
2	0-255	0-100	**Color temperature CCT** 2.600 K $\rightarrow$ 3.600 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% $\rightarrow$ -1% neutral / no effect 1% $\rightarrow$ 99% full plus green

Mode 2: 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	**Dimmer** closed → open
2	LO			
3	HI	0-65535	0-100	**Color temperature** 2.600 K → 3.600 K
4	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO			

Mode 3: Coarse / fine channel per function

Each of the 256 coarse steps is divided in 256 fine steps. Use this mode when your lighting control desk does not support true 16 bit resolution.

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Color temperature coarse** 2.600 K → 3.600 K
4	0-255	0-100	**Color temperature fine**
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

ARRI L5-DT (Daylight Tuneable)

From firmware-version 2.0

Overview

8 bit, 1 channel per function	16 bit, 2 channels per function	Coarse / fine, 2 channels per function
DMX mode 1[*]	DMX mode 2	DMX mode 3

[*] = Factory default

GN saturation

The value describes the shift from the neutral point to full minus green or full plus green in percent.
(Reference: Rosco Cinegel #3304 and #3308)

Mode 1: 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed → open
2	0-255	0-100	**Color temperature CCT** 5.000 K → 6.500 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 2: 16 bit resolution per function

Channel		Value	Percent	Function
1	HI			**Dimmer**
2	LO	0-65535	0-100	closed → open
3	HI			**Color temperature CCT**
4	LO	0-65535	0-100	5.000 K → 6.500 K
5	HI	0-5.000	0-7	**GN saturation**
		5.001-10.000	8-15	neutral / no effect
		10.001-29.999	16-46	full minus green
		30.000-40.000	46-61	-99% → -1%
6	LO	40.001-59.999	61-92	neutral / no effect
		60.000-65.535	92-100	1% → 99%
				full plus green

Mode 3: Coarse / fine channel per function

Each of the 256 coarse steps is divided in 256 fine steps. Use this mode when your lighting control desk does not support true 16 bit resolution.

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Color temperature coarse** 5.000 K → 6.500 K
4	0-255	0-100	**Color temperature fine**
5	0-10	0-4	**GN saturation** neutral / no effect
	11-20	5-8	full minus green
	21-119	8-46	-99% → -1%
	120-145	47-57	neutral / no effect
	146-244	57-96	1% → 99%
	245-255	96-100	full plus green

ARRI L5-C

From firmware-version 2.0

Overview

8 bit, 1 channel per function	16 bit, 2 cannels per function	Coarse/fine, 1-2 channels per function
DMX mode 1[*] White & RGBW	DMX mode 6 White & RGBW	DMX mode 11 White & RGBW
DMX mode 2 White	DMX mode 7 White	DMX mode 12 White
DMX mode 3 White & HSI	DMX mode 8 White & HSI	DMX mode 13 White & HSI
DMX mode 4 RGBW	DMX mode 9 RGBW	DMX mode 14 RGBW
DMX mode 5 HSI	DMX mode 10 HSI	DMX mode 15 HSI

[*] = Factory default

GN saturation

The value describes the shift from the neutral point to full minus green or full plus green in percent.
(Reference: Rosco Cinegel #3304 and #3308)

Mode 1: White & RGBW, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed → open
2	0-255	0-100	**Color temperature CCT** 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	**Xfade to color** White → RGBW color
5	0-255	0-100	**Intensity red** 0% → 100%
6	0-255	0-100	**Intensity green** 0% → 100%
7	0-255	0-100	**Intensity blue** 0% → 100%
8	0-255	0-100	**Intensity white** 0% → 100%

Mode 2: White, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed → open
2	0-255	0-100	**Color temperature CCT** 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 3: White & HSI, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed → open
2	0-255	0-100	**Color temperature CCT** 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	**Xfade to color** White → RGBW color
5	0-255	0-100	**Hue** 0° → 360°
6	0-255	0-100	**Saturation** 0 → full saturated

Mode 4: RGBW, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed → open
2	0-255	0-100	**Intensity red** 0% → 100%
3	0-255	0-100	**Intensity green** 0% → 100%
4	0-255	0-100	**Intensity blue** 0% → 100%
5	0-255	0-100	**Intensity white** 0% → 100%

Mode 5: HSI, 8 bit resolution per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer** closed → open
2	0-255	0-100	**Hue** 0° → 360°
3	0-255	0-100	**Saturation** 0 → full saturated

Mode 6: White & RGBW, 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	**Dimmer** closed → open
2	LO			
3	HI	0-65.535	0-100	**Color temperature CCT** 2.800 K → 10.000 K
4	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO			
7	HI	0-65.535	0-100	**Xfade to color** White → RGBW color
8	LO			
9	HI	0-65.535	0-100	**Intensity red** 0% → 100%
10	LO			
11	HI	0-65.535	0-100	**Intensity green** 0% → 100%
12	LO			
13	HI	0-65.535	0-100	**Intensity blue** 0% → 100%
14	LO			
15	HI	0-65.535	0-100	**Intensity white** 0% → 100%
16	LO			

Mode 7: White, 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	**Dimmer** closed → open
2	LO			
7	HI	0-65.535	0-100	**Color temperature** 2.800 K → 10.000 K
8	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999	0-7 8-15 16-46	**GN saturation** neutral / no effect full minus green -99% → -1%
6	LO	30.000-40.000 40.001-59.999 60.000-65.535	46-61 61-92 92-100	neutral / no effect 1% → 99% full plus green

Mode 8: White & HSI, 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	**Dimmer** closed → open
2	LO			
7	HI	0-65.535	0-100	**Color temperature** 2.800 K → 10.000 K
8	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999	0-7 8-15 16-46	**GN saturation** neutral / no effect full minus green -99% → -1%
6	LO	30.000-40.000 40.001-59.999 60.000-65.535	46-61 61-92 92-100	neutral / no effect 1% → 99% full plus green
7	HI	0-65.535	0-100	**Xfade to color** White → RGBW color
8	LO			
9	HI	0-65.535	0-100	**Hue** 0° → 360°
10	LO			
11	HI	0-65.535	0-100	**Saturation** 0 → full saturated
12	LO			

Mode 9: RGBW, 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	**Dimmer** closed → open
2	LO			
3	HI	0-65.535	0-100	**Intensity red** 0% → 100%
4	LO			
5	HI	0-65.535	0-100	**Intensity green** 0% → 100%
6	LO			
7	HI	0-65.535	0-100	**Intensity blue** 0% → 100%
8	LO			
9	HI	0-65.535	0-100	**Intensity white** 0% → 100%
10	LO			

Mode 10: HSI, 16 bit resolution per function

Channel		Value	Percent	Function
1	HI	0-65535	0-100	**Dimmer** closed → open
2	LO			
3	HI	0-65.535	0-100	**Hue** 0° → 360°
4	LO			
5	HI	0-65.535	0-100	**Saturation** 0 → full saturated
6	LO			

Mode 11: White & RGBW, Coarse/fine per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Color temperature coarse** 2.800 K → 10.000 K
4	0-255	0-100	**Color temperature fine**
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	0-255	0-100	**Xfade to color** White → RGBW color
7	0-255	0-100	**Intensity red coarse** 0% → 100%
8	0-255	0-100	**Red fine**
9	0-255	0-100	**Intensity green coarse** 0% → 100%
10	0-255	0-100	**Green fine**
11	0-255	0-100	**Intensity blue coarse** 0% → 100%

Channel	Value	Percent	Function
12	0-255	0-100	**Blue fine**
13	0-255	0-100	**Intensity white coarse** 0% → 100%
14	0-255	0-100	**White fine**

Mode 12: White, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Color temperature coarse** 2.800 K → 10.000 K
4	0-255	0-100	**Color temperature fine**
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green

Mode 13: White & HSI, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Color temperature coarse** 2.800 K → 10.000 K
4	0-255	0-100	**Color temperature fine**
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	**GN saturation** neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	0-255	0-100	**Xfade to color** White → RGBW color
7	0-255	0-100	**Hue coarse** 0 → 360°
8	0-255	0-100	**Hue fine**
9	0-255	0-100	**Saturation coarse** 0 → full saturated
10	0-255	0-100	**Saturation fine**

Mode 14: RGBW, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Intensity red coarse** 0% → 100%
4	0-255	0-100	**Red fine**
5	0-255	0-100	**Intensity green coarse** 0% → 100%
6	0-255	0-100	**Green fine**
7	0-255	0-100	**Intensity blue coarse** 0% → 100%
8	0-255	0-100	**Blue fine**
9	0-255	0-100	**Intensity white coarse** 0% → 100%
10	0-255	0-100	**White fine**

Mode 15: HSI, Coarse / fine channel per function

Channel	Value	Percent	Function
1	0-255	0-100	**Dimmer coarse** closed → open
2	0-255	0-100	**Dimmer fine**
3	0-255	0-100	**Hue coarse** 0 → 360°
4	0-255	0-100	**Hue fine**
5	0-255	0-100	**Saturation coarse** 0 → full saturated
6	0-255	0-100	**Saturation fine**

Overview of typical CCT values as DMX values

CCT-Value	DMX-Value (8 bit)			DMX-Value (16 bit)		
	L5-TT	L5-DT	L5-C	L5-TT	L5-DT	L5-C
3.200 K	153	--	14	39.321	--	3.670
5.600 K	--	102	99	--	26.214	25.493
6.000 K	--	170	113	--	43.712	29.098
6.500 K	--	100%	131	--	65.535	33.685

To calculate CCT values in DMX % and vice versa

Use the following formulas to transform CCT values in DMX % values and vice versa:

$$CCT_{\text{Target}} = \frac{(CCT_{\max} - CCT_{\min}) \times DMX_{\text{in percent}}}{100} \times CCT_{\min}$$

$$DMX_{\text{in percent}} = \frac{CCT_{\text{recent}} - CCT_{\min}}{CCT_{\max} - CCT_{\min}} \times 100$$

CCT values for the ARRI L5 models:

L5-TT (Tungsten Tuneable)

$CCT_{\min}$ = 2.600 K

$CCT_{\max}$ = 3.600 K

L5-DT (Daylight Tuneable)

$CCT_{\min}$ = 5.000 K

$CCT_{\max}$ = 6.500 K

L5-C

$CCT_{\min}$ = 2.800 K

$CCT_{\max}$ = 10.000 K

Specifications

Physical

Dimension. . . . . See dimensional drawings on page 3
Weight (manual version, w/o accessories) . . . . . . 5.1 kg (11.2 lbs.)
Weight (P.O. version, w/o accessories) . . . . 7.0 kg (15.4 lbs.)

Light source

Type . . . . ARRI LED Lightengine
Typ. LED lifetime L70 . . . . 50.000 h
White light. . . . . 2.800 K - 10.000 K
. . . . 2.600 K - 3.600 K (ARRI L5-TT)
. . . . 5.000 K - 6.500 K (ARRI L5-DT)
Colored light . . . . .RGBW color mixing
Color rendering index . . . . typ. CRI >94
Green/Magenta saturation . . . . . . +/- 1 (full green to full magenta)

Optical path

Type . . . . .Fresnel, focussable
Lens diameter. . . . . .137 mm / 5"
Half peak angle. . . . . 15° - 50°

Dynamic functions

Dimmer. . . . . electronic, 0 - 100%
Color mixing . . . . .RGBW color mixing
. . . . (Hue and saturation, only ARRI L5-C)

Control and Programming

DMX channels . . . . . 1-16 channels, depending on type and mode
Setting and addressing. . . . . .Fixture menu and RDM
DMX compliance . . . . ESTA DMX 512A
RDM compliance . . . . ESTA DMX 512A
Firmware update. . . . . USB interface and ALSM

Construction

Color . . . . Blue/silver or black
Housing . . . . Composite housing with aluminum frame
Protection rating . . . . IP 20
Protection class I
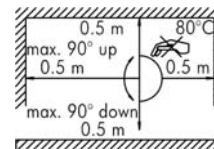
Installation

Mounting. . short 28 mm (1.1 in.) spigot with 16 mm (0.63 in.) hole
Orientation . . . . +/- 90°
Minimum clearance around fixture . . . . 0,5 m (19.7 in.)
Minimum view distance to light aperture . . . . 0,5 m (19.7 in.)

Connections

AC power input. . . . . Neutrik® PowerCON® True1
Battery power input. . . . . 4-pin locking XLR connector
DMX and RDM data in/out . . . . 5-pin, locking XLR connector
USB connector . . . . Mini-USB-A

Electrical

AC power . . . . 90 - 250 V~, 50 - 60 Hz AC
Power supply . . . . Auto-sensing switching-mode power supply
Fuse . . . . 2 A T, 250 V~, 5 x 20 mm
Battery voltage . . . . .23 - 36 V =

Typical Power

230 V, 50 Hz. . . . . 115 W
cos φ. . . . . > 0.9
Measurements made at nominal voltage with all LEDs at full intensity. Allow for a deviation of +/- 10%

Noise emission

Ambient temperature = 35° C (95° F). . . . . < 20dB(A)
Ambient temperature = 45° C (113° F). . . . . < 30dB(A)

Thermal

Minimum ambient temperature (t_a). . . . .-20° C (-4° F)
Maximum ambient temperature (t_a) . . . . 45° C (113° F)
Cooling . . . . .Silent, temperature-controlled fan cooling

Approvals

RISK GROUP 1 - No Risk

No photobiological hazard under normal behavioral limitations.
EU safety . . . . EN / IEC 60598-2-17
EN / IEC 60598-1
EN / IEC 62471
EN / IEC 62493
EU EMC . . . . EN 55015
EN / IEC 61000-3-2
EN / IEC 61000-3-3
EN / IEC 61547
CISPR 15
US safety UL1573
US EMC . . . . .FCC CFR 47 Part 2
FCC CFR 47 Part 15
Canada safety . . . . CAN/CSA C22.2 No. 166
CAN/CSA C22.2 No. 9.0
CAN/CSA C22.2 N0. 9.0S1
Canada EMC ICES-003

Included items

Short 28 mm spigot with 16 mm hole,
and short fixing screw (set). L2.40701.2
Short instructions L5.0001304
Power input cable

Accessories

Mains cable 1,5 m, EN, PowerCON TRUE1, bare end L2.0001485
Mains cable 3,0 m, EN, Switch, PowerCON TRUE1,
 Schuko plug L2.0001486
4-leaf barndoor (168 mm, 6.6 ") L2.79470.0
8-leaf barndoor (168 mm, 6.6 ") L2.79500.0
Filter frame (168 mm, 6.6 ") L2.79490.0

Order information

L5-C, P.O., black, bare end L0.0001952
L5-C, P.O., blue/silver, bare end L0.0001953
L5-C, MAN., black, bare end L0.0001954
L5-C, MAN., blue/silver, Schuko (3 m) L0.0001955
L5-C, MAN., blue/silver, Edison (7 m) L0.0001956
L5-C, MAN., blue/silver, bare end L0.0001958

Specification subject to change without notice. For the latest product specification including photometric data, see www.arri.com

In case of technical problems, please visit us at www.arri.com, to find the next ARRI service center.

www.arri.com

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with Vari-Lite system, service, and safety guidelines, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his/her own expense.