Kelvin

Epos 600

User Manual

English

DRAFT

English Version DRAFT
Epos 600 User Manual
www.kelvinlight.com

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Introduction

The Kelvin Epos 600 is an RGBACL LED COB studio light with full color spectrum for professional use in the film industry. The lighting technology developed by Rift Labs enables especially high accuracy and quality of the light emitted across the full color spectrum, giving the users a much more predictable and continuous quality in their creative use.

The technology is combined with high attention to user and customer experience in usability and digital/physical UX, exceeding market standards. It is designed and constructed for longevity in a rough working environment. Made to withstand life on set and beyond.

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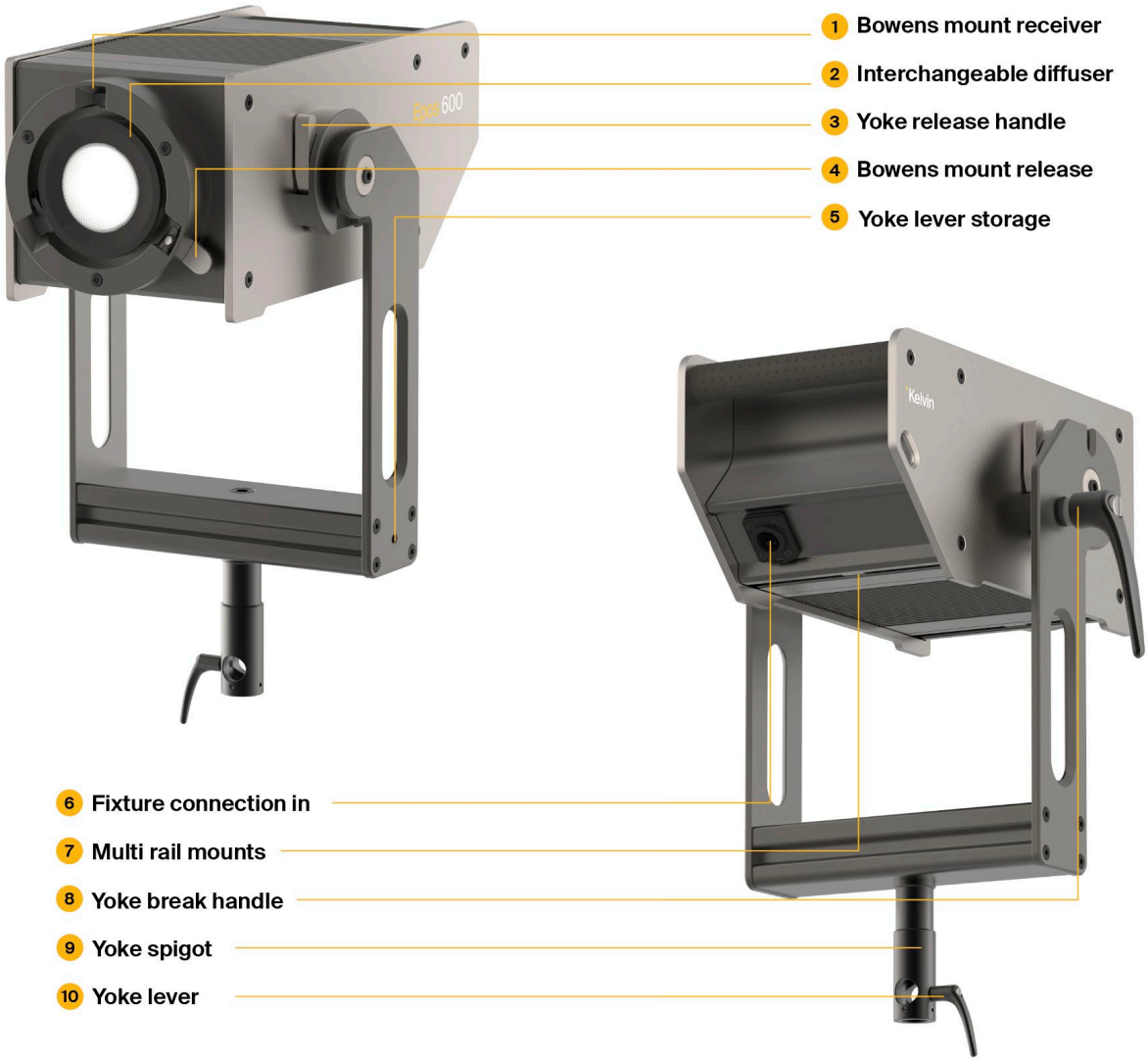
Studio light	COB
Full Color SpectrumTM	1700-20000K
Max power consumtion	600W
Light engine	Cantastoria
App for control	Kelvin Narrator

Overview of Epos 600

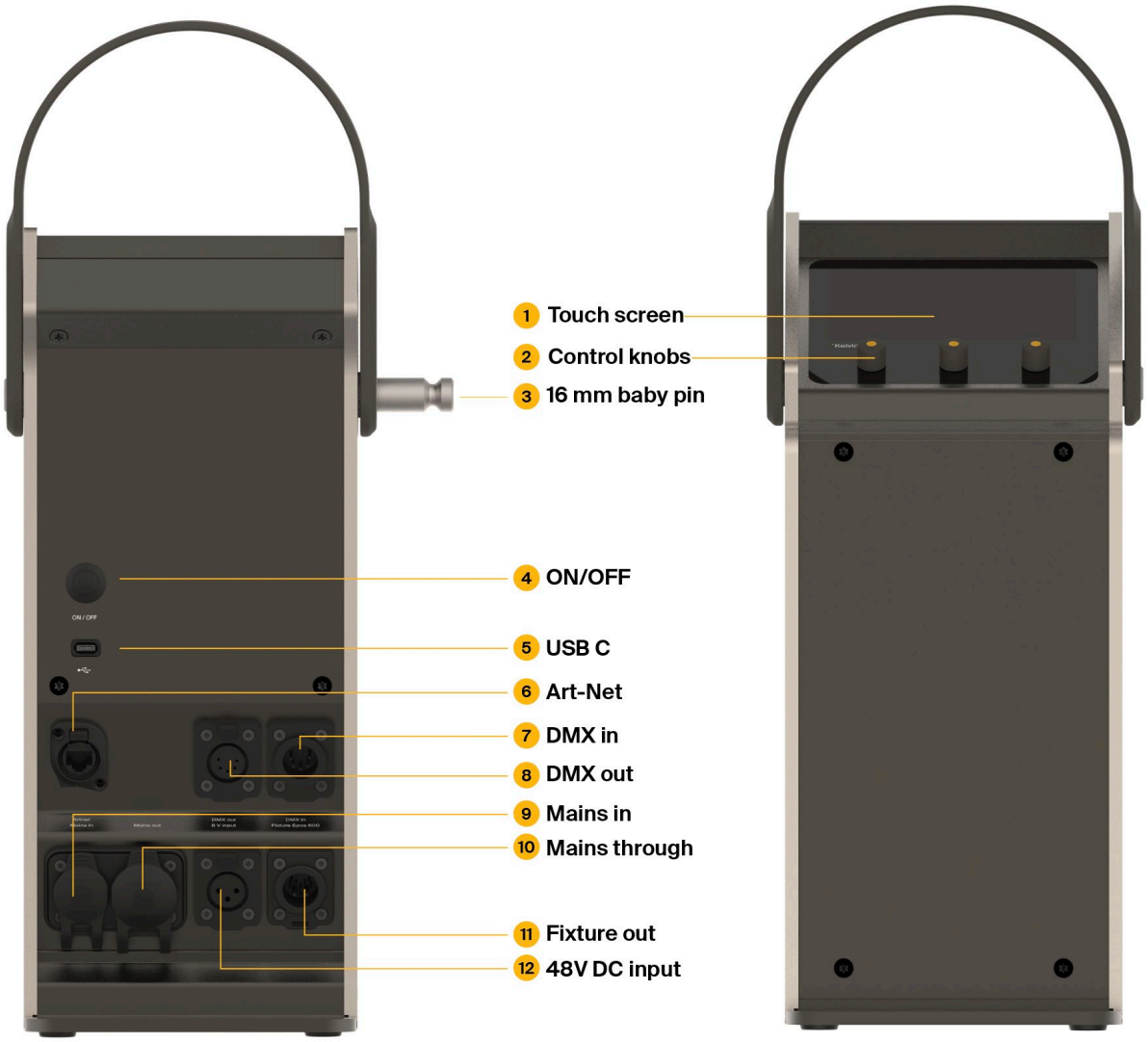
Features of the fixture



1	**Bowens mount receiver**	Attach Bowens compatible accessories
2	**Interchangeable diffuser**	Magnetically mounted diffuser that can be changed
3	**Yoke release handle**	Quick release for yoke
4	**Bowens mount release**	Press to release
5	**Yoke lever storage**	Place the handle here when not in use
6	**Fixture connection in**	Cable from Epos 600 Controller unit

7	**Multi rail mounts**	For mounting other accessories (e.g. umbrella)
8	**Yoke break handle**	Lock or unlock rotation of lamp head
9	**Yoke spigot**	For mounting yoke on stand
10	**Yoke lever**	Lock or unlock mounting on stand

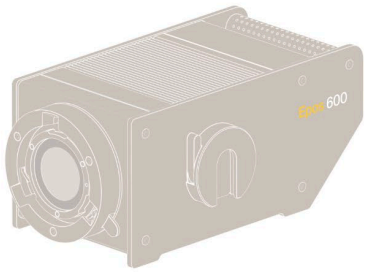
Features of the PSU / controller



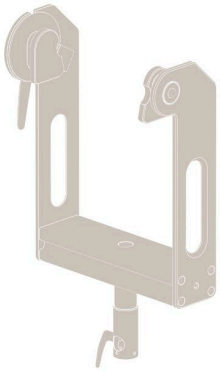
1	**Touch screen**	Select and set parameters
2	**Control knobs**	Select and set parameters
3	**Baby pin mount**	For attaching the controller to a clamp, for example on a stand
4	**ON/OFF button**	Turning the luminaire on or off

5	**USB C**	Power output for use with external devices
6	**Art-Net**	RJ45 connector for controlling the luminaire via IP network
7	**DMX in**	XLR 5 pin male for controlling the luminaire via DMX
8	**DMX out**	XLR 5-pin socket for looping through the DMX signal
9	**Mains in**	PowerCon True 1 to attach mains cable
10	**Mains through**	PowerCon True 1 out to daisy chain mains power
11	**Fixture out**	Cable to lamp head (NC10 Top feeding power and data to lamphead)
12	**48V DC input (external)**	XLR 3-pin female for powering by 48V DC power supplies

In the box



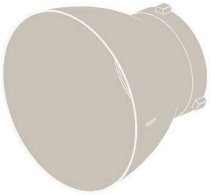
Lamp head



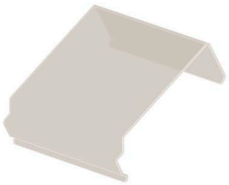
Yoke

Control and Power Supply Unit (CPSU)

High Performance Lens

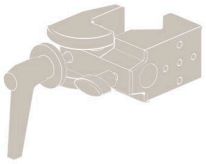


Reflector



Display protection cap

Head protection cap



Super clamp

Safety cable

Mains cable

Fixture cable

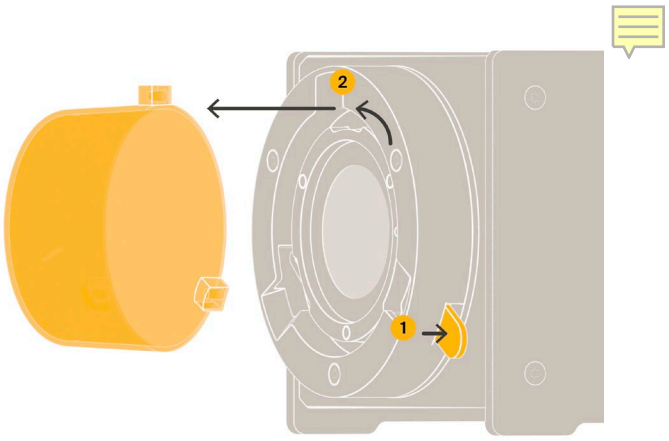
Travel bag

Note: There may be variations due to continuously product development and releases of new versions, please refer the product itself.

Setting up your Epos 600

Use of Protection Cap

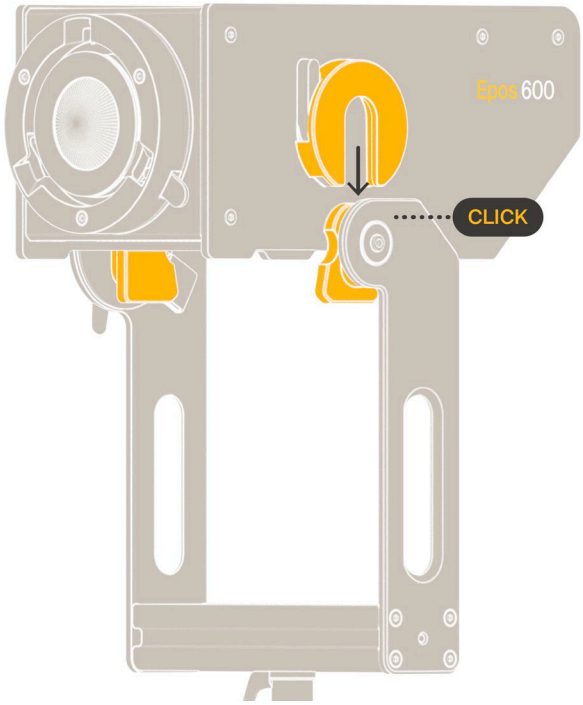
Remove the protection cap before turning on the light.
Mount the cap back after use when you are packing the light away to ensure your light stays protected.



Attaching the head to the yoke

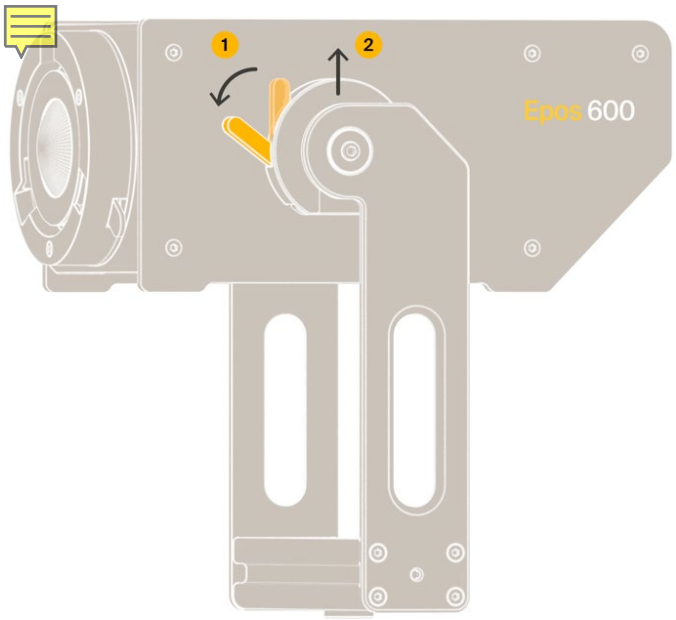
Attach to yoke

To mount the lamp head to the yoke, align the quick release plates on the lamp head with the yoke. Insert until locked (you will hear a click).



Detach from yoke

To unmount the lamp head, open the release levers on both sides of the lamp head and lift the lamp head to disengage from the yoke



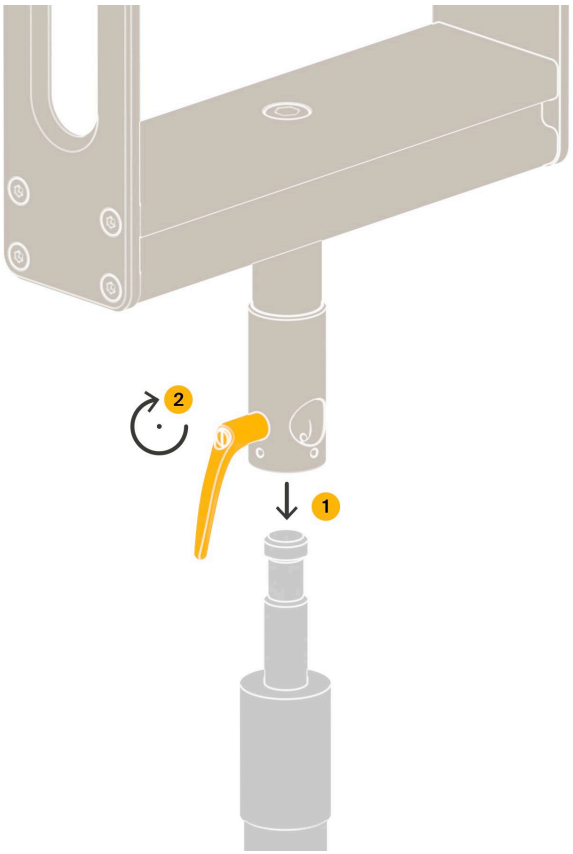
Mounting Epos 600 on a light stand

Mounting the lamp head

Mounting on Baby pin

Loosen the mounting lock and place the receiver over the light stand's 16 mm / 5/8-inch pin (Baby Pin). Tighten the handle until secured.

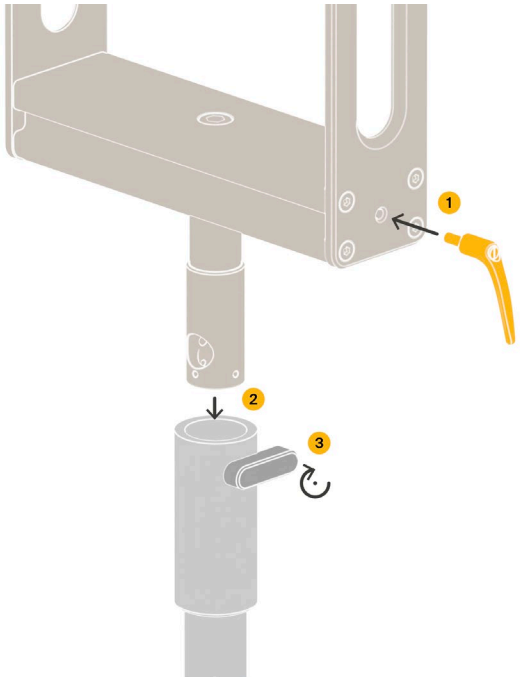
Do we say anything about mounting to a horizontal spigot?
Do we say anything about security holes/pin on the yoke receiver?



Mounting on Junior Pin receiver

The mounting on a stand with a 28 mm / 1 1/8'' Junior Pin is recommendedPlace the spigot into the Junior Pin receiver and secure it with the handle on the stand.

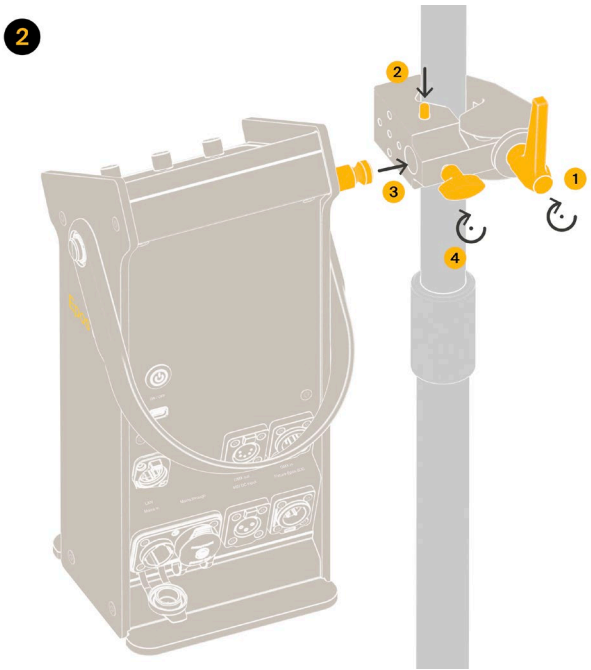
Note: If you're unable to turn the tilt lock handle 360°, pull the handle out, reposition it, and push it back in until it reengages.



Mounting the Control and Power Supply Unit (CPSU)

The Baby pin has a push-latch mechanism. Push in and slightly rotate to extend the Baby pin. Twist and push to seat the Baby pin again.

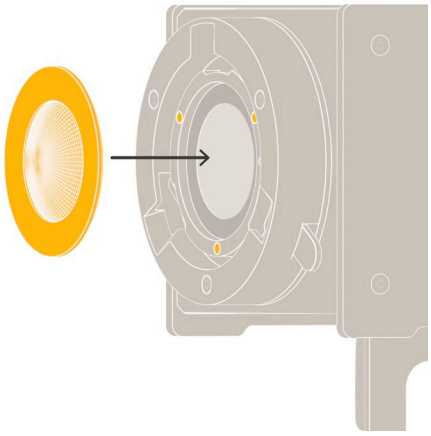
The Baby pin is useful to mount the controller to a stand. You can use it with the provided clamp.



Use of Light Modifiers

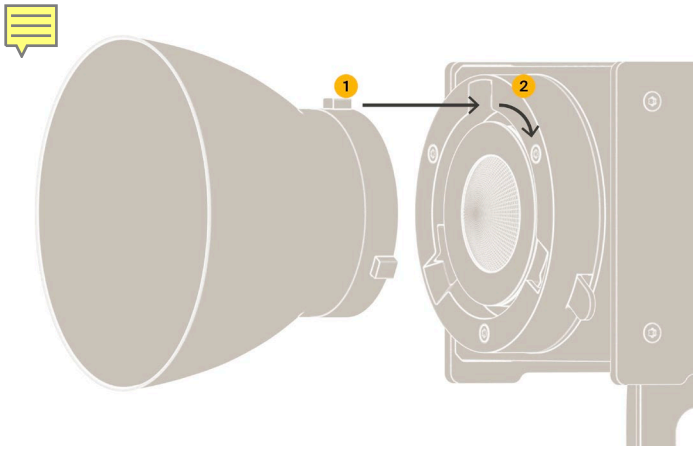
Attach light diffusers

Attach the High Performance Lens or other magnetic Epos diffusers on the front of the lamp head. Should be attached before use of Bowens Mount



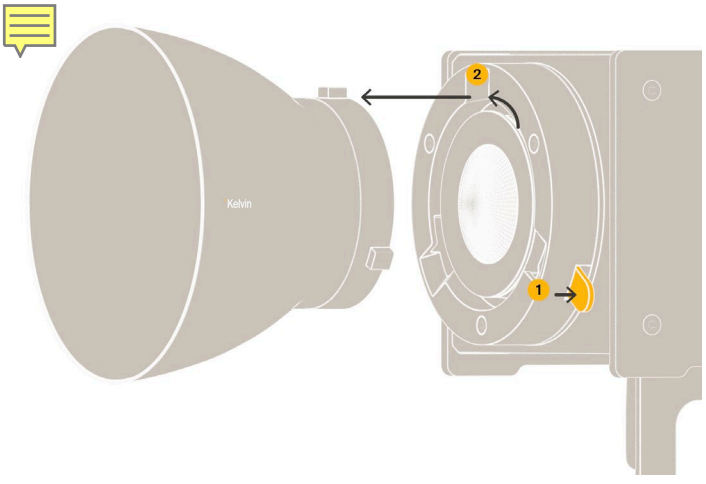
Attach Bowens equipment:

Attach the Bowens Mount reflector by inserting the reflector into the Bowens mount and rotate it counterclockwise. You will hear a click when it is locked in place.



Detach Bowens equipment:

Press the release button and rotate the reflector clockwise to release it.

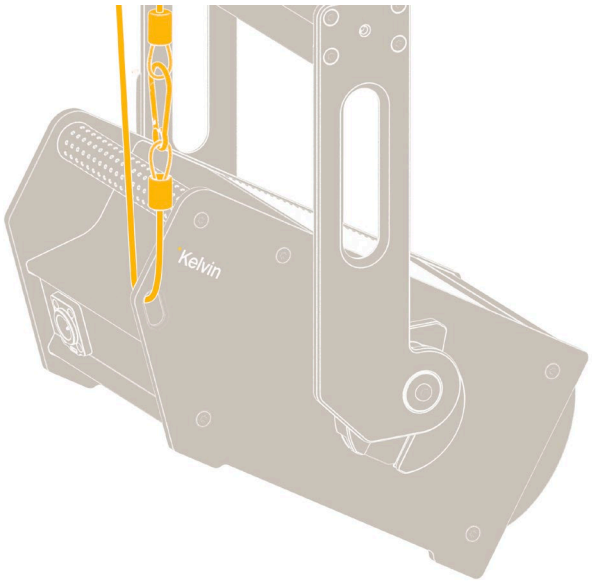


Using the safety cable

It is important to always secure the lamp when hung in a location where a fall can be a risk of damage.

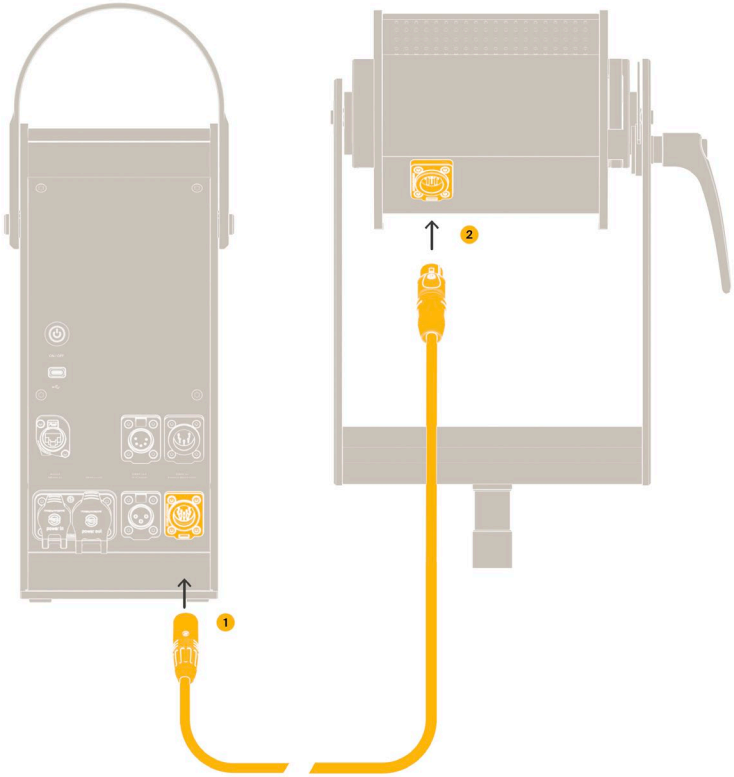
Safety cable can either be used through the hole on the lamp head or on one of the yoke side bars.

Warning: Operation handle must not be used for securing with safety cable.



Connecting Lamphead and CPSU

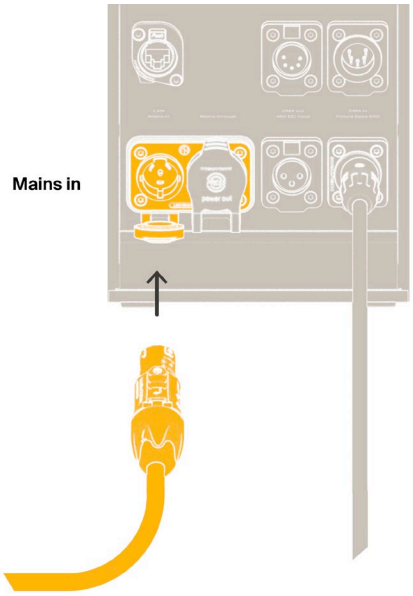
Use the XLR 10-pin head cable to connect the Lamphead with the Control and Power Supply Unit.



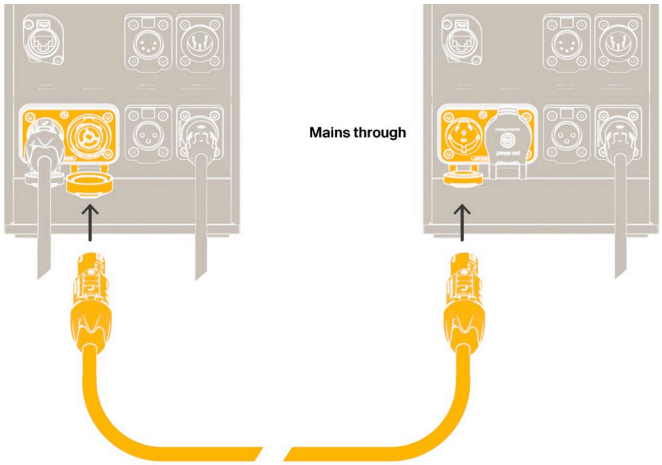
Powering the Epos 600

AC Power

Connect the cable with PowerCon True1 connector between **Mains in** on the controller and a mains power outlet.



1. The connector marked **Mains through** can be used to daisy-chain several controllers. The max power rating in EU is 16 A, 250 V AC (EN 60320-1), the max rating in the US is 20 A, 250 V AC (UL 498).



Note: The related cable has to be purchased separately; it is not part of the box content

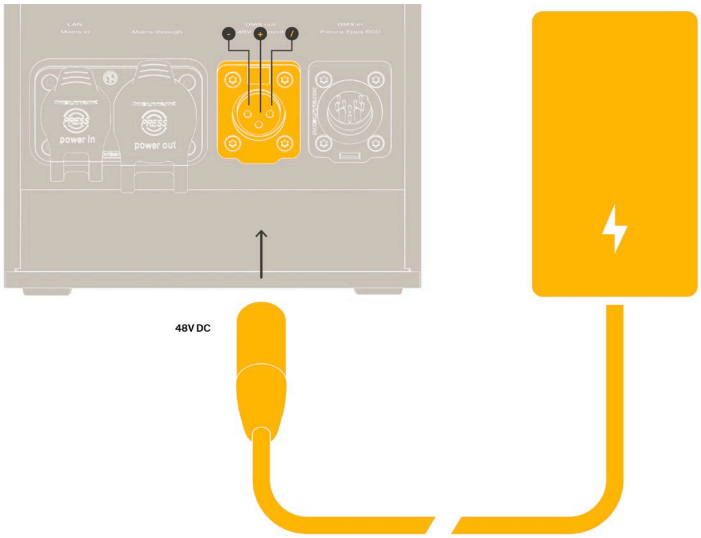
Battery Power

Connect a 3-pin XLR cable between a 48V DC power supply e.g. a block battery and the 3-pin male XLR connector on the Epos 600 CPUS marked 48-volt DC.

The wiring of the 3-pin XLR connector:

- Pin1: - NEG
- Pin2: + POS
- Pin3: N/C

If the Epos 600 is connected to both a 48-volt block battery and AC mains power, the Epos 600 will prefer the AC mains whenever possible.



Turn ON and OFF

After connecting power, use the power button on the back of the controller to turn the light ON or OFF.

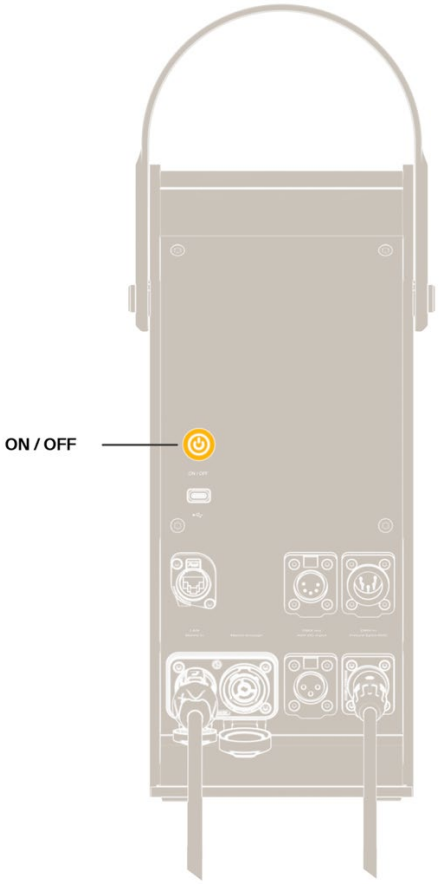
The Power Button works like this:

If the light is turned off using the Power Button, the light will not come on when mains power is applied. It must be turned on again with the Power Button.

If the light is cut by removing mains power, the light will turn on again when mains power is restored. In this case you do not need to use the Power Button.

In both cases the light comes on with the same settings it had when turned off.

Note: Do not cover the light while the mains cable is still connected. If it was not turned off with the power button, it will turn on when mains power is restored.



USB-C

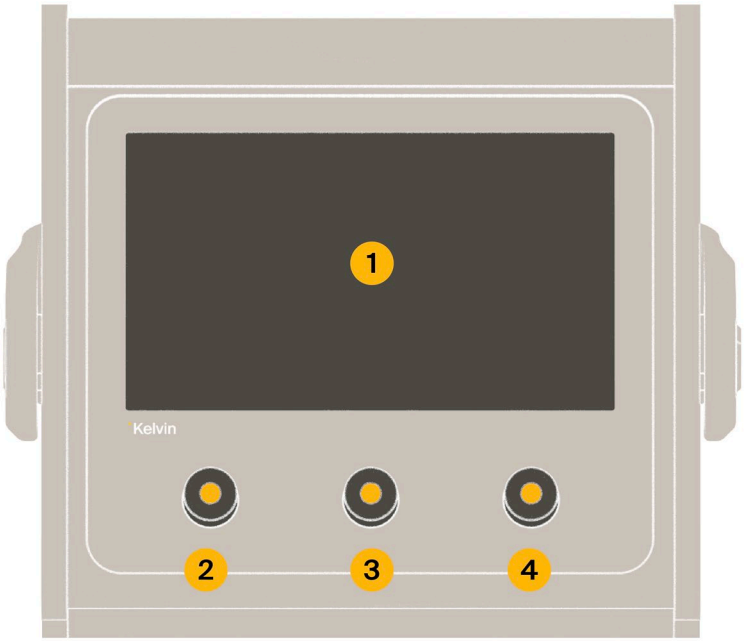
The USB connector can be used for powering or charging external devices, for example a phone or pad. The USB-C port is PD compliant and can deliver 5V to 12V up to 3A to an external USB PD device. If you connect a device that is not USB PD compliant, the voltage is 5V only as per the USB standard.

If you are powering the Epos 600 from the 48V input, the USB-C power will not deliver power by default. This is to avoid using one battery to charge another battery. You can adjust this behaviour in settings.

It is possible to communicate with the Epos 600 through the USB-C connector if you are a programmer and need a direct computer to light interface for some reason. Contact Kelvin if you need details on how to interface with the Epos 600 through the USB port. We strongly suggest you prefer the other standard communication options already available like wired DMX, wireless CRMX, Art-Net, sACN or Bluetooth.

Controlling the Epos 600

General navigation



The function dials implement the action or access the menu indicated on the LCD screen next to the button.

1 Touch screen:

The main way to navigate the Epos features and modes. All that is accessible via touch is also possible to access with the dials.

Dials

The dials is a quick and tactile way to adjust parameters in the various modes. If necessary, they can also be used to navigate.

2 Left Dial: Intensity, Dimming, Menu

- **Intensity adjustment:** In all operation modes, the Intensity dial adjusts to the intensity from 100% to 0% in 0.1% increments.
- **Black out:** In all operation modes, press the Intensity dial to toggle between the set intensity and 0%.
- **Main menu:** Long press to constant/maximum mode.

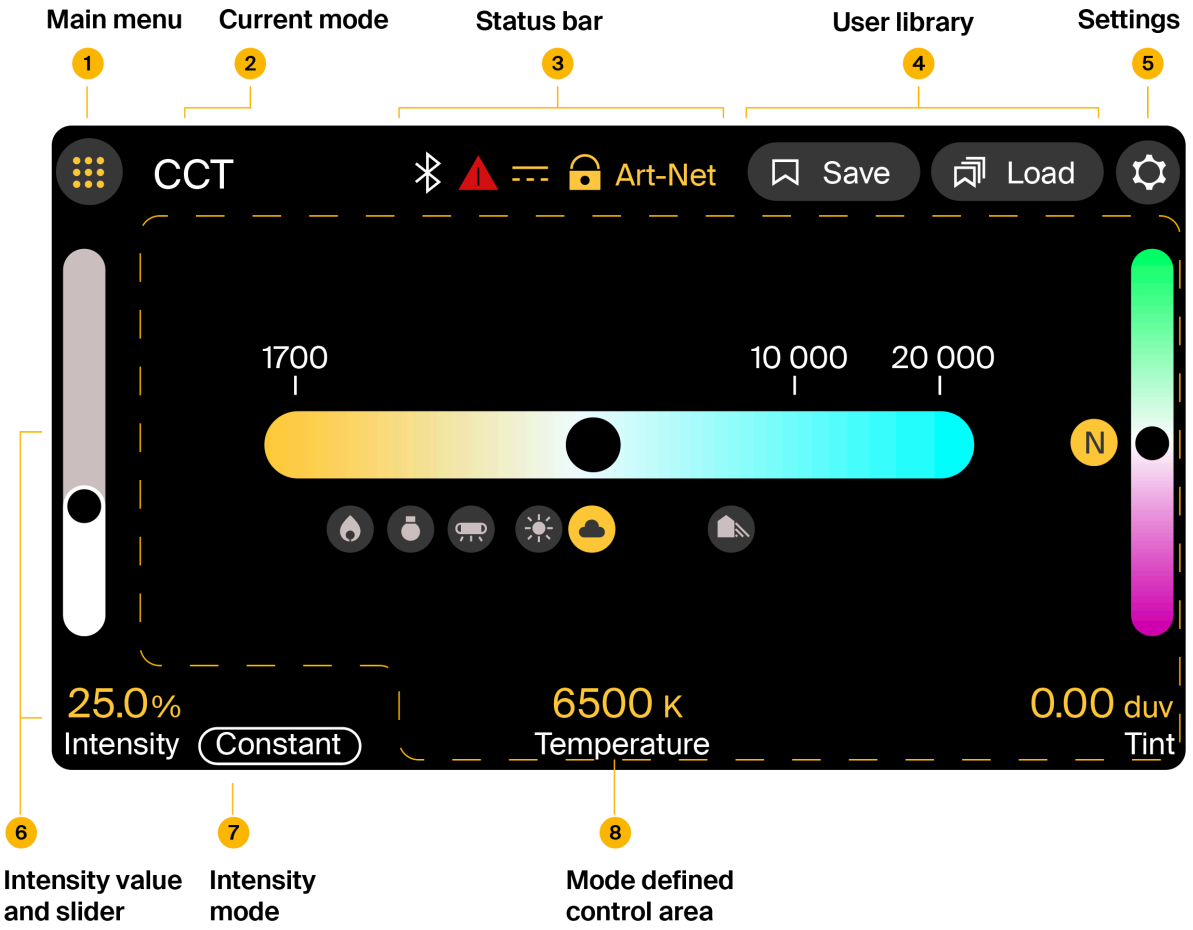
3 Middle Dial: Mode specific

- **Parameter adjustment/ navigation:** Depending on mode, you can adjust parameters or navigate between functions.
- **Shortcut / select:** Depending on mode, this gives you a shortcut to preset parameter adjustments, or enters the selected category/function.
- **Lock screen:** Long press to lock and unlock screen.

4 Right Dial: Mode specific

- **Parameter adjustment/ navigation:** Depending on mode, you can adjust parameters or navigate between functions.
- **Toggle parameter / select:** Depending on mode, this toggles between relevant paramters, is a shortcut to preset parameter adjustments, or enters the selected category/function.
- **Shortcut:** Mode dependent.

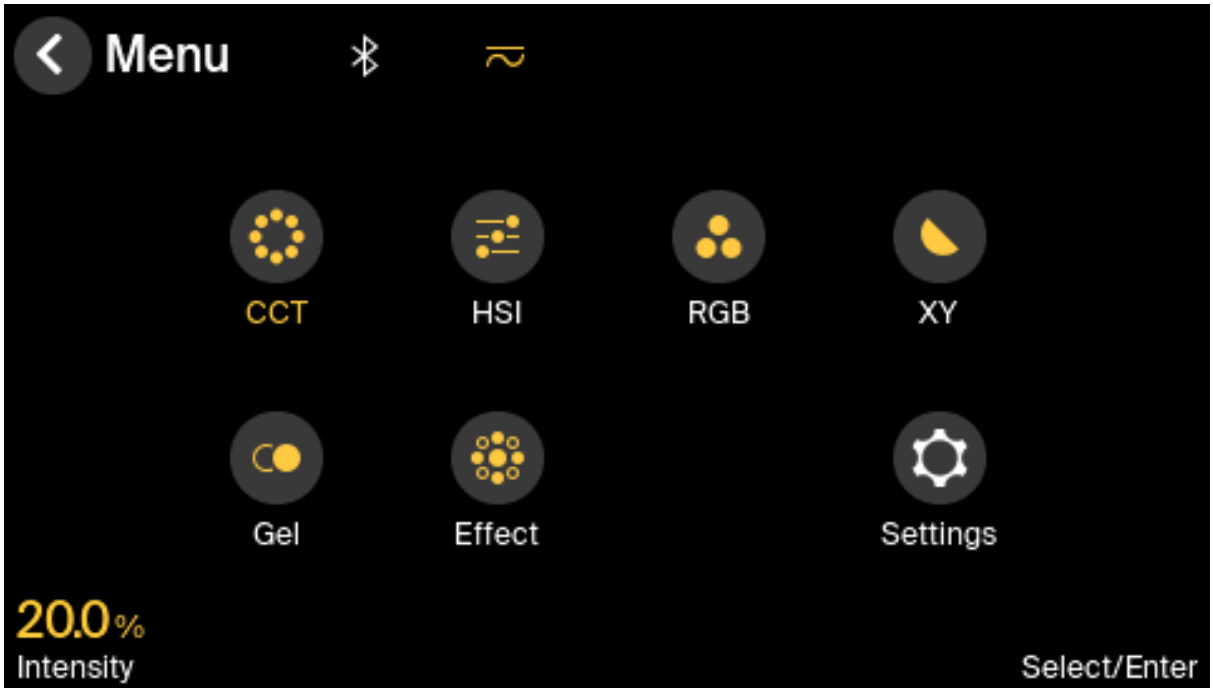
General layout of main screen



Status bar

Bluetooth connection		Bluetooth on Device connected Bluetooth off
Warning		Click symbol to see warning message
Power source		AC: Power source with AC DC: Power source with DC
Locked device		Device screen locked: Long press on middle dial to unlock.
Art-Net		Device is connected to a source that controls it via Art-Net
CRMX		Device is controlled via DMX
DMX		Device is controlled via CRMX
sACN		Device is controlled via sACN

Main menu



The main menu gives access to light modes, effects, and settings. To enter the menu screen, press the top left button or long press left dial.

Knob interface:

- Right knob turning, steps through the available modes and settings buttons. Currently selected button has its button name highlighted.
- Right knob press, enter the mode/settings.
- Left knob turning, adjusts the intensity.
- Left knob short press, toggles the light output between current intensity and no intensity.
- Left knob long press, toggles stable between stable and maximum light output. (See Modes and Intensity section for more information.)

Touch interface:

- Menu button, return to the previous light mode.
- Mode buttons, enter the respective mode.
- Settings button, enter the Epos settings.

Intensity

The light intensity can be controlled via Bluetooth using the Kelvin Narrator App for iOS/Android, wired DMX, Lumen Radio/Wireless DMX (built-in) or from the separate control unit. The left knob on the controller is dedicated to light intensity throughout, while the intensity touch slider is available on operating screens such as CCT, HSI, Gel, XY and Effects.

The output light intensity can be controlled in two different modes: *stable* and *maximum*. *Stable* intensity caps the max light output to be equally bright across all color mixing possibilities for the specific mode being used. *Maximum* intensity removes the light output cap and allows max brightness for the exact color mix.

Knob control:

- Turn the knob to increase or decrease the light intensity.
- Short press the knob to dim the light between 0% and the current light intensity. Adjusting the intensity after the light has been dimmed will reset the current light intensity.
- Long press the knob to toggle between stable and maximum light output.

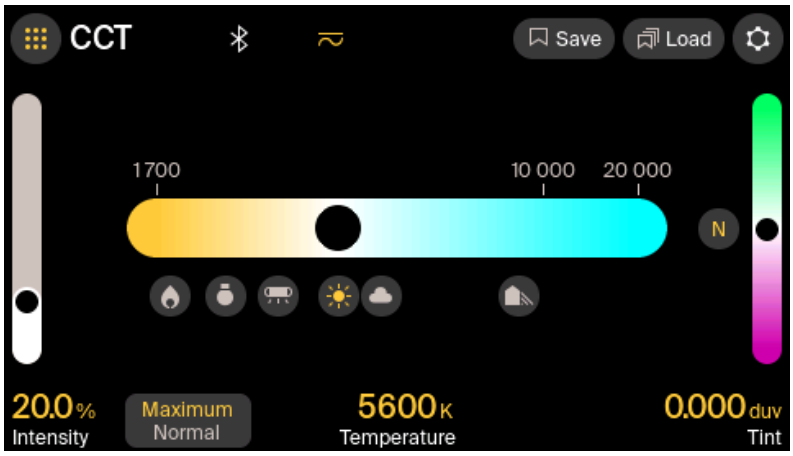
Touch control:

- Slider adjusts the output light intensity.
- Stability button (next to the intensity indicator) toggles between stable and maximum light output.

Modes

CCT

Correlated colour temperature



CCT mode is used for setting the white light output using color temperature and tint (green-magenta). The Epos 600 allows the user to choose between two CCT ranges, regular range (2800-10000K) and extended range (2000-20000K).

Knob control

- Turn the middle knob to adjust the color temperature.
- Turn the right knob to adjust the tint.

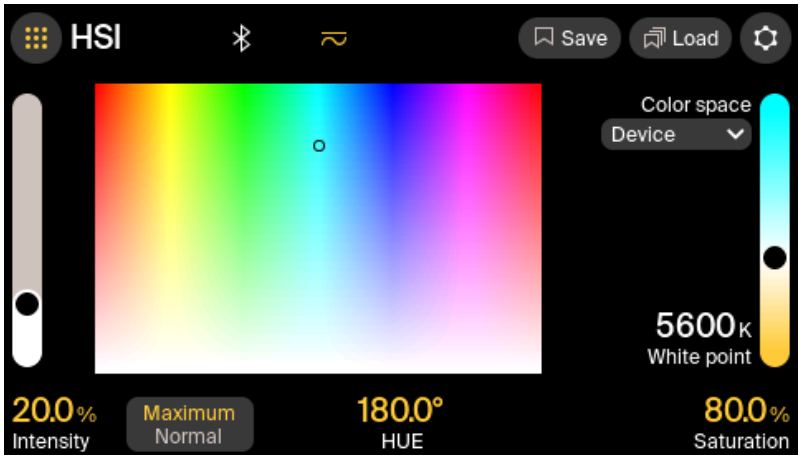
- Press the right knob to reset the tint to neutral (0.0).

Touch control

- Sliders adjust the color temperature and tint.
- Range button (above CCT slider) toggles between regular and extended color temperature range.
- Preset buttons (below the CCT slider) sets the color temperature to preset temperature points, candle (3200K), daylight (5600K) and cloudy (7200K).
- Neutral button (next to the tint slider) resets the tint point to neutral (0.0 Δuv).

HSI

Hue, saturation and intensity



HSI mode is used for setting the light output with hue and saturation. The white point of the HSI mode can be set to either standardized color spaces (S RGB, Adobe 1988, Adobe Wide or Pro Photo) or to the color space of the Epos 600 (Device). When *device* color space is selected, the white point can be further adjusted.

Knob control

- Turn the middle knob to adjust the hue in degrees (0^{o}-360^{o}) and loop back around if the endpoints are exceeded.
- Press the right knob to toggle between adjusting the saturation or the white point (only if device color space is selected). Parameter labels turn yellow to indicate which parameter is selected for adjustment.
- Turn the right knob to adjust the saturation (by default) or the white point if selected.

Touch control

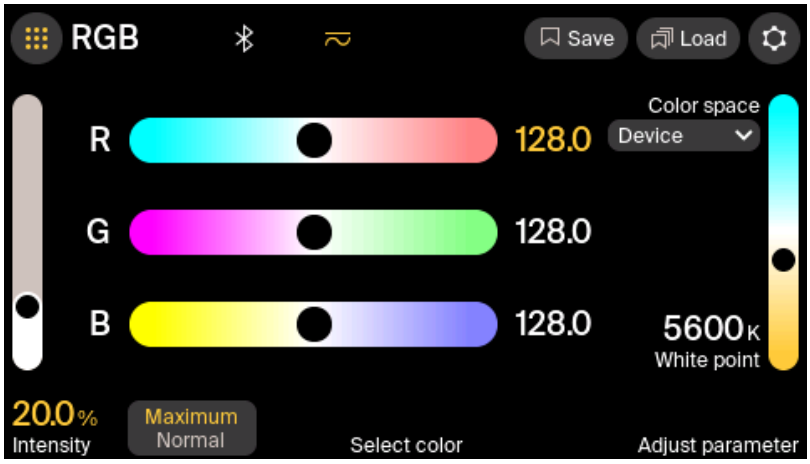
- Pressing/dragging the HSI color map adjusts the hue (horizontally) and saturation (vertically).
- Color space dropdown selects color space (Device, S RGB,

Adobe 1988, Adobe Wide or Pro Photo).

- The white point slider adjusts the white point if *device* color space is selected.

RGB

Red, green and blue



RGB mode is used to set the light output by adjusting the red, green, and blue channels (0-255). As in HSI mode, the white point of the light output can be adjusted to standardized color spaces or the device color space.

Knob control

- Turn the middle knob to select a color parameter to adjust (red, green, or blue). The selected parameter is indicated with the relative label color turning yellow.
- Turn the right knob to adjust the selected color parameter (by default) or the white point if enabled and selected.
- Press the right knob to toggle between adjusting the selected color parameter or the white point if the device color space is set.

Touch control

- Color sliders adjust the respective colors.
- Color space dropdown selects the color space.
- White point slider adjusts the white point (if device color space is selected).

XY

XY mode is used to set the light output by adjusting the x and y coordinates in the CIE-1931 diagram. The valid coordinate area is indicated with the white border and is unique for each lamp head. By default, the area is set to some arbitrary value and is then updated once a lamp head is detected.

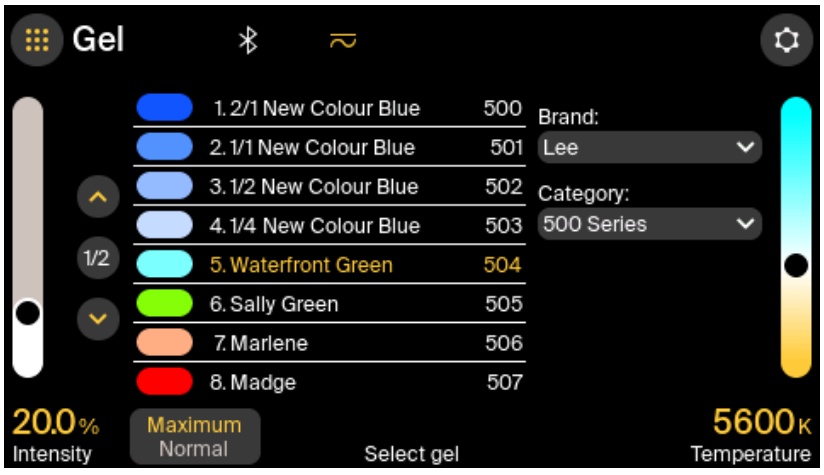
Knob control

- Middle knob turn adjusts the X parameter (horizontally).
- Right knob turn adjusts the Y parameter (vertically).

Touch control

- Pressing/dragging on the CIE-1931 diagram adjusts the X and Y parameters.

Gel



Gel mode sets the light output by combining a filter from the library and the color temperature. The Epos has gels available from the gel brands Rosco and Lee.

Knob control

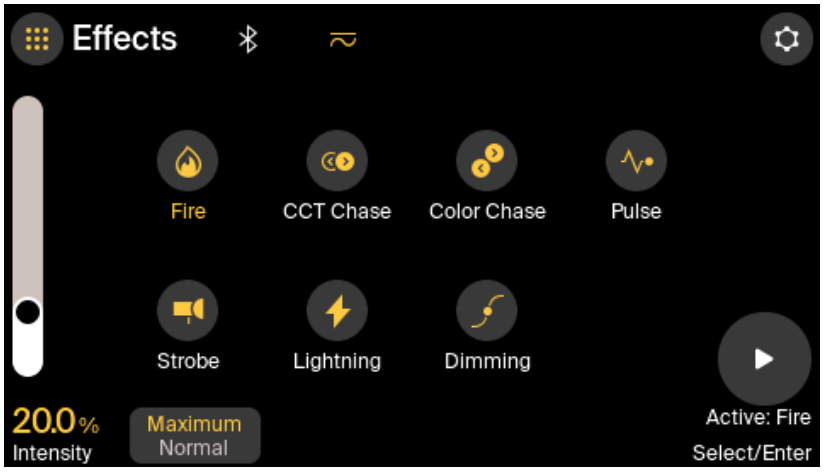
- Middle knob turn selects gels in the selected brand category. Stepping beyond the visible gels will load the previous/next page of gels within the same category.

- Right knob turn adjusts the color temperature.

Touch control

- Pressing one of the gels on the list selects the gel for output.
- Pressing the up/down buttons loads previous/next gel page of the selected category. The indicator between the buttons shows the current page number and the number of pages within the selected category.
- Brand dropdown selects brand.
- Category dropdown selects the category within the selected brand.
- Temperature slider sets the color temperature.

Effect



Effect mode is a selection of different effects that have their own sets of parameters and functionalities. The effect menu screen has the available effects listed, and a play/pause button to play or pause the active effect.

Knob control:

- Middle knob turn steps though most parameters within the effects. Color type in pulse and strobe effect are the exceptions. These are only accessed with touch. Selected parameter is highlighted with a yellow color.
- Right knob turn adjusts numeric parameters or steps through dropdown options.

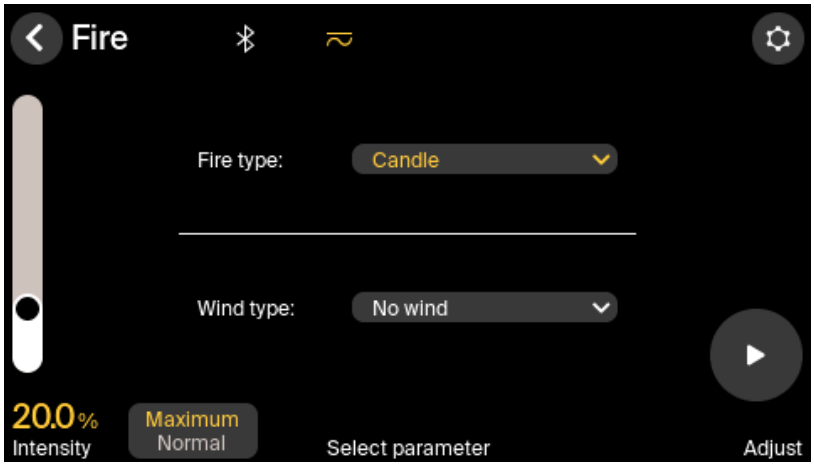
Touch control:

- Adjusting sliders.

- Opening dropdowns and selecting dropdown options.
- Back button press, returning to the effect menu.
- Play/pause button pressing, sets the respective effect as active and toggles the effect between play and pause.

Effect modes

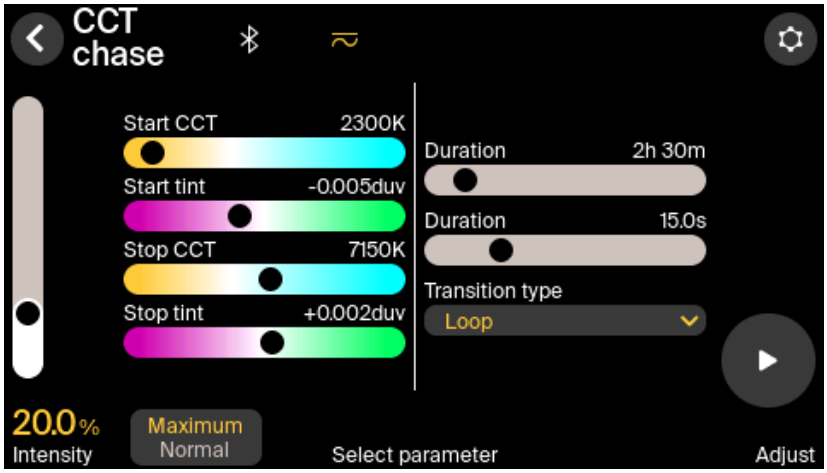
Fire effect



Simulates different fire sources affected by different wind conditions. Available parameters:

- Fire type. Select fire source.
- Wind type. Select wind conditions.

CCT chase effect



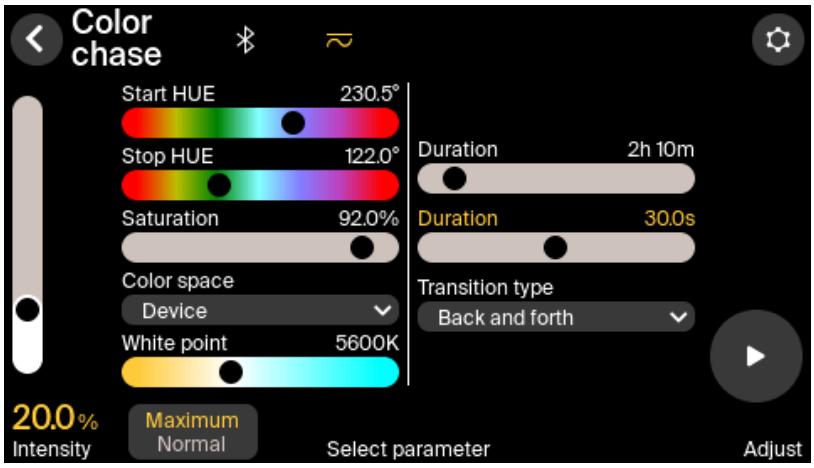
This effect enables transitioning between two different CCT points. Available parameters:

- Start CCT and tint. Setting the color temperature and tint for the start point.
- Stop CCT and tint. Setting the color temperature and tint

for the stop point.

- Duration. Setting the time it takes to transit from the start point to the stop point.
- Transition type. Select if the transition should only happen once (No loop), repeat (Loop) or transition back and forth (Back and forth).

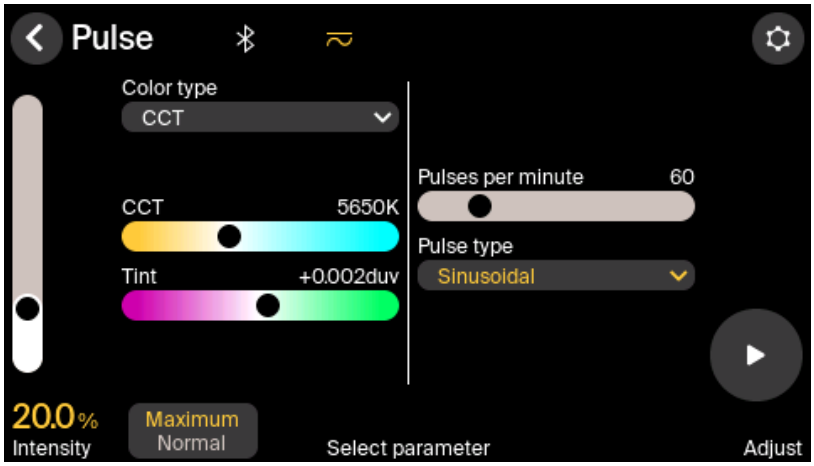
Color chase effect

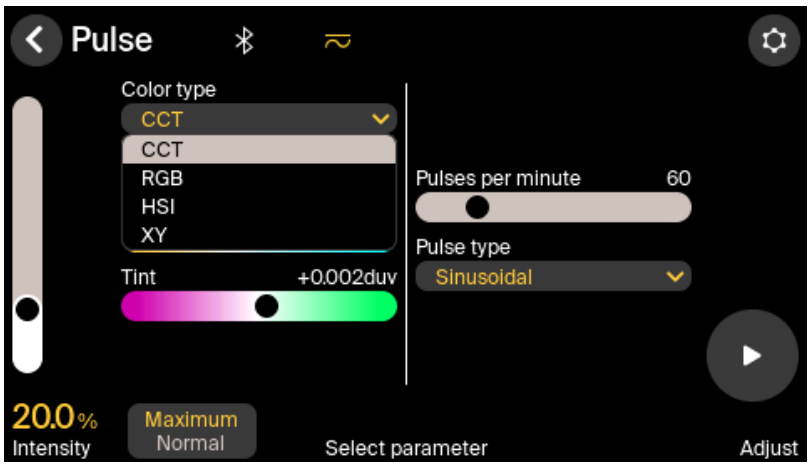


This effect enables transitioning between to different HSI points. Available parameters:

- Start hue, setting the starting color point.
- Stop hue, setting the stopping color point.
- Saturation, setting saturation for both start and stop color points.
- Color space, selecting which color space to use as white point base.
- White point, setting the white point if the device color space is selected.
- Duration. Setting the time it takes to transit from the start point to the stop point.
- Transition type. Select if the transition should only happen once (No loop), repeat (Loop) or transition back and forth (Back and forth).

Pulse effect

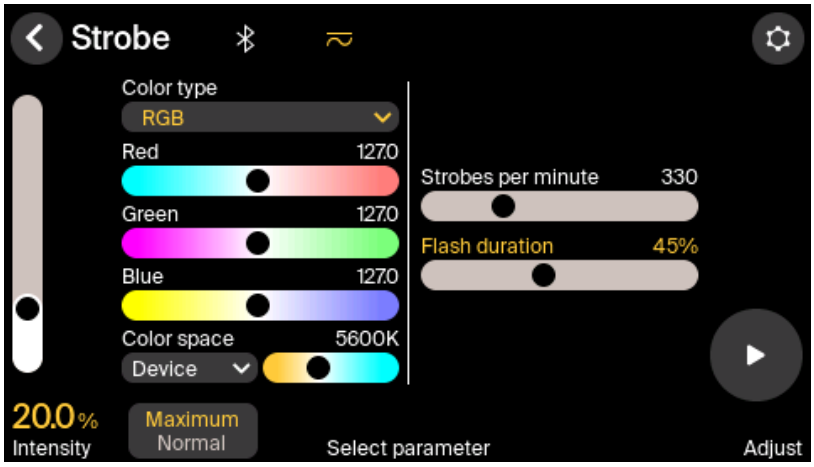




This effect generates continues pulses of a selected color type.
Available parameters:

- Color type, selecting a color output (CCT, HSI, RGB or XY) that is to be pulsated. Input descriptions for the different color types can be found in their respective mode sections.
- Pulses per minute, setting the number of pulses to be generated per minute (speed).
- Pulse type, selecting the form of the pulse. Sinusoid, logarithmic, exponential, or triangular.

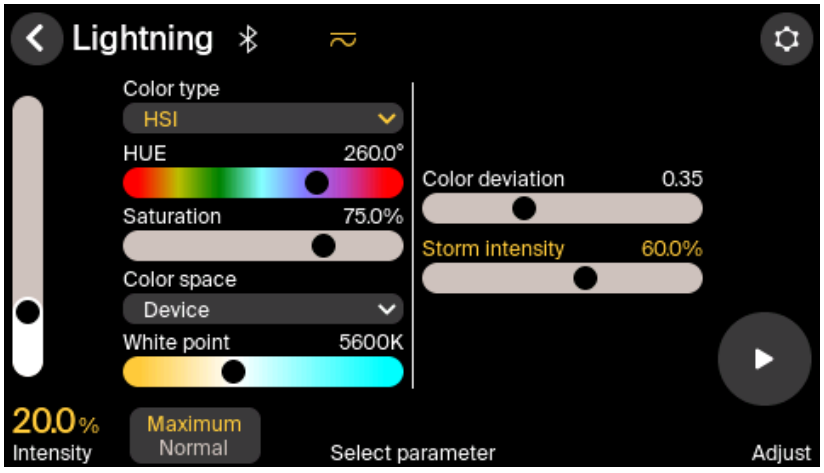
Strobe effect



This effect generates continuous flashes of a selected color type. Available parameters:

- Color type, selecting a color output (CCT, HSI, RGB or XY) that is to be flashed. Input descriptions for the different color types can be found in their respective mode sections.
- Strobes per minute, setting the flashed period base on one minute.
- Flash duration, setting the flash duration as a percentage of the flash period (5%-95%).

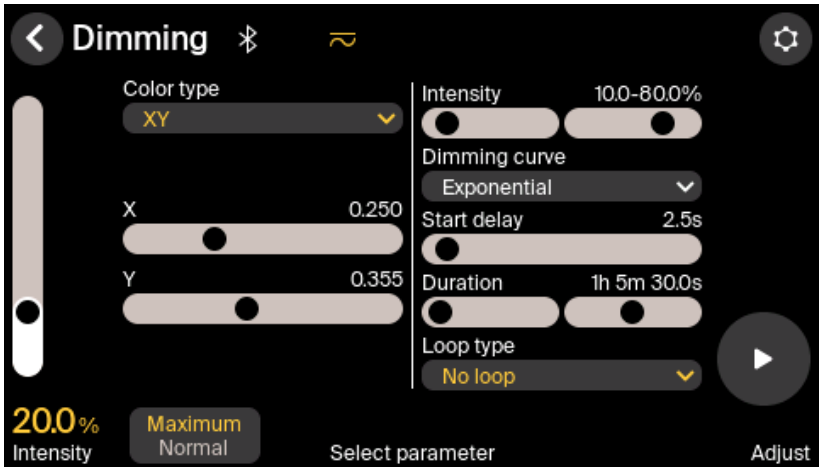
Lightning



This effect generates a random flash pattern that simulates lightning of a storm in white or different colors. Available parameters:

- Color type, selecting a color output (CCT, HSI, RGB or XY) that is to be flashed. Input descriptions for the different color types can be found in their respective mode sections.
- Color deviation, setting how much the output light flash color can deviate from the selected color (0.00-1.00).
- Storm intensity, setting the duration between the lightning sequences (0.0%-100.0%).

Dimming

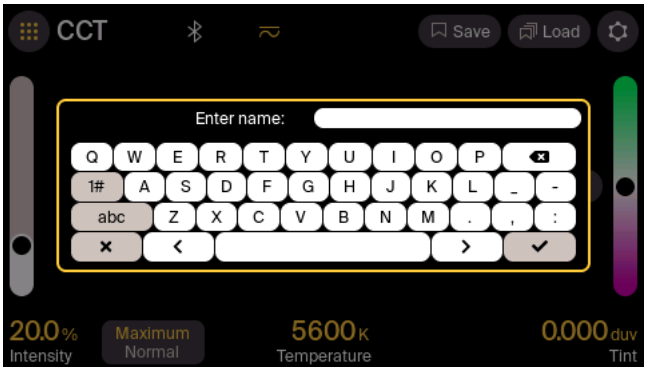


This effect transitions between two intensity levels based on a selected output color. Available parameters:

- Color type, selecting a color output (CCT, HSI, RGB or XY) that is to be flashed. Input descriptions for the different color types can be found in their respective mode sections.
- Intensity, setting the two intensity points the effect should transition between (0.0%-100.0%).
- Dimming curve, setting transition style based on mathematical shapes (4 options).
- Start delay, setting a start delay for the beginning of the transition (0.0-60.0s).
- Duration, setting the duration of the effect transition between the two intensity points (0.0s-24h0m59.9s)
- Loop type, setting the loop type if wanted (3 options).

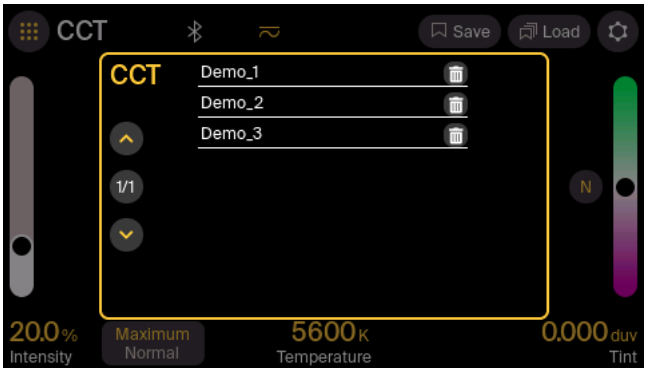
Library

Save settings



Save current mode settings at any time by pressing “Save” at the top bar. Enter a name for your setting and

Load stored settings



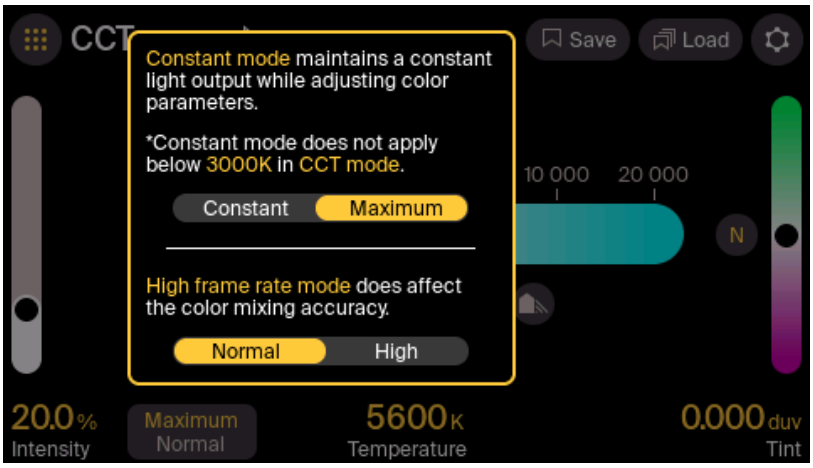
Load your saved settings for the current mode by pressing “Load” and choose your preset from the list.

Light output settings

Output stability

Constant / maximum

Maximum
Normal



From the mode control window, click the button next to Intensity to set your preferred operating mode for the light output.

"Constant" mode maintains a constant light output/strength across the possible color mixes for the used color/effect mode.

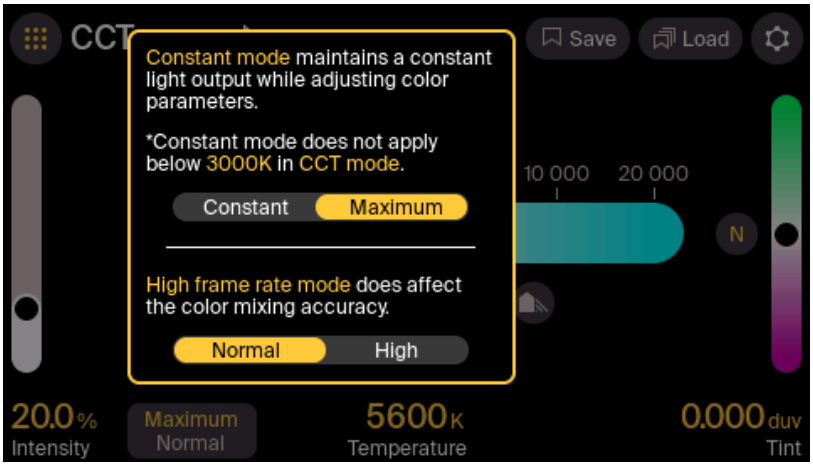
> **Note:** Constant mode does not apply below 3000K in CCT mode.

"Maximum" mode ensures that the light output/strength is in reference to the maximum light output for the selected color mix. Changing color parameters will result in varied light strength.

Frame rate adaption

Normal / high

Maximum
Normal



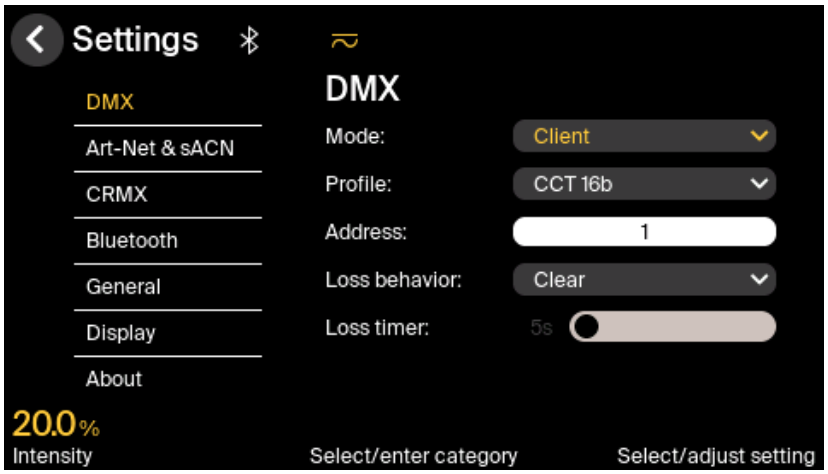
"Normal" mode uses PWM signals to control the emitter and gives better color accuracy but is not suited for high framerate tasks which can result in flickering.

"High" mode uses analog signals to control the emitter. This reduces the color accuracy but allows for higher framerates to be recorded.

Settings

DMX

Root DMX settings that are used by wired DMX receiver and, the wireless and ethernet DMX protocols.



Mode: client or host

- Client mode: the controller/fixture can be controlled by a remote DMX controller
- Host mode: the controller/fixture can control other DMX clients via wired DMX or wireless CRMX. Note that the channel configuration is set by the selection of available profiles and thus only the Kelvin DMX protocol can be used. This also means that the controller can remote control other Kelvin fixtures unless a third party fixture has matching profiles.

Profile: A list of available DMX profiles for the Epos 600 in 8 and 16

bit resolutions

- The full list of profiles can be found in the Kelvin DMX protocol document.

Address: The start address for the DMX data to be read from (client mode) or written to (host mode) by the fixture.

- 1-512

Loss behavior: Select what happens when a DMX connection is lost or terminated. (Client mode only)

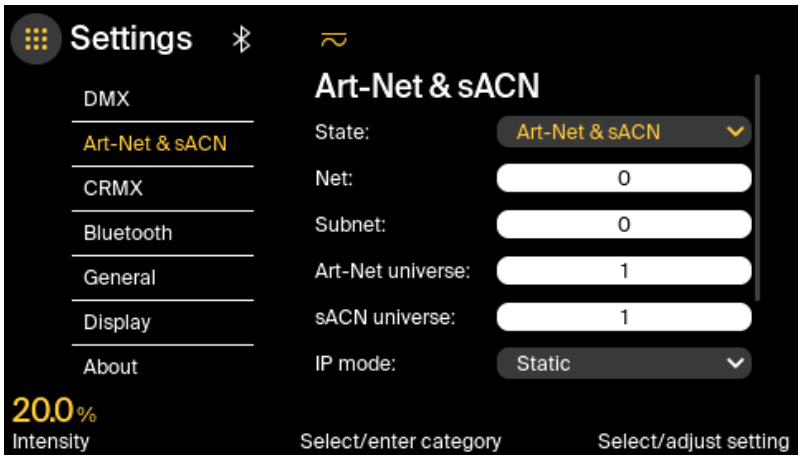
- Hold: The last DMX frame is kept after the connection is lost.
- Clear: The current DMX frame is cleared, and the light output will turn off.
- Timed clear: The current DMX frame is cleared after a given time set by the loss timer. This option is useful if the DMX connection is a bit unstable.

Loss timer: Selecting the duration from when a DMX connection is lost until the device should clear the DMX output. (Client mode and timed clear selection only).

- 1-300 seconds

Art-Net & sACN

Settings and options related to DMX protocols over ethernet.



State: selects what state the DMX ethernet protocols are in.

Off: The ethernet port is off and no protocol is in use.

Art-Net: This protocol is enabled and can be used for remote control with DMX and RDM.

sACN: This protocol is enabled and can be used for remote control with DMX.

Art-Net & sACN: Both protocols are available for remote control with DMX and RDM. Note that DMX frames sent via the sACN protocol will be prioritized over the Art-Net DMX frames.

Net: Art-Net net selection

0-127

Subnet: Art-Net subnet selection

0-15

Art-Net universe: Art-Net universe selection

0-15

sACN universe: sACN universe selection

1-63999

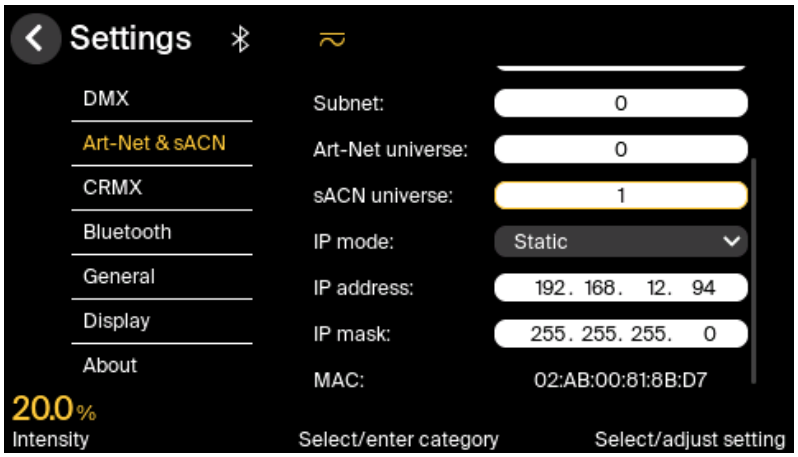
IP mode: Selecting the IP mode option for the ethernet socket and for the Art-Net network.

DHCP: IP address and mask is assigned by a DHCP server on the network.

Static: The user can assign IP address and mask manually.

2.X.X.X: Art-Net “Network Switch Off” address that begins with 2 and has the rest of the address set with regard to MAC address and OEM code. IP mask is 255.0.0.0.

10.X.X.X: Art-Net “Network Switch On” address that begins with 10 and has the rest of the address set with regard to MAC address and OEM code. IP mask is 255.0.0.0.



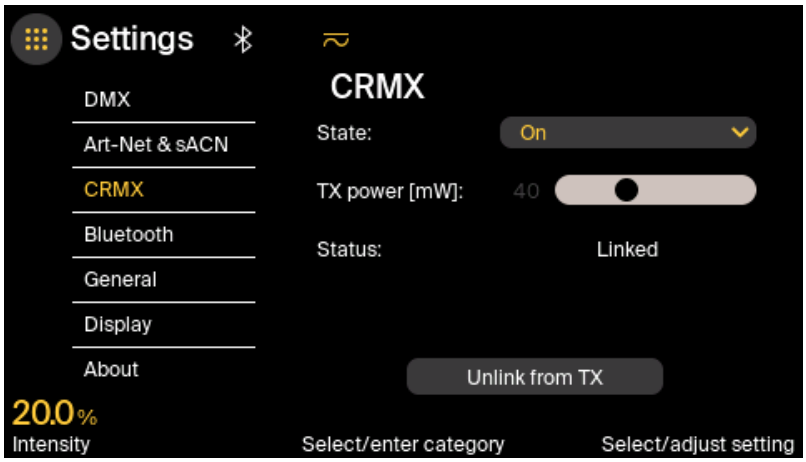
IP address: IP address of the ethernet socket and the Art-Net network. Only available when Static IP mode is selected, otherwise it is assigned automatically.

IP mask: IP mask of the ethernet socket and the Art-Net network. Only available when Static IP mode is selected, otherwise it is assigned automatically.

MAC: Displaying the MAC address for the ethernet port.

CRMX

Settings for configuring and controlling the Lumen CRMX radio.



State:

Off: The Lumen CRMX and BLE radios are turned off.

On: The Lumen CRMX and BLE radios are turned on.

TX power: Selecting the transmitting power of the CRMX radio. Only available when in DMX host mode.

100, 40, 13 and 3 mW

Status: Indicated which status the CRMX radio is in.

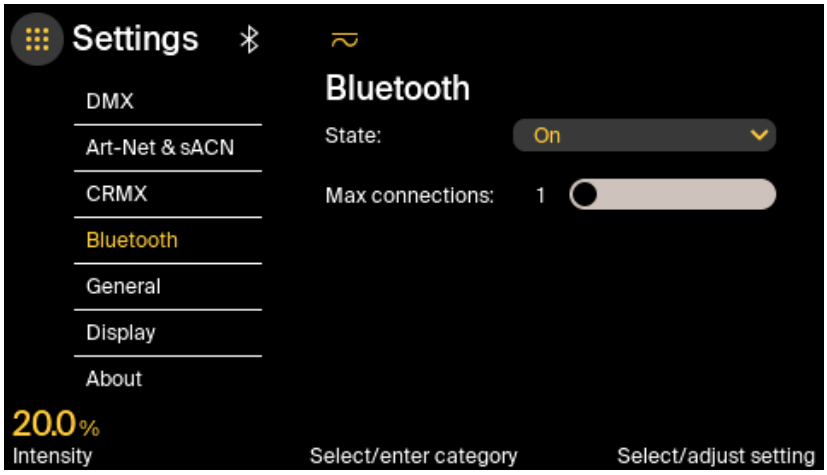
See Epos 300 for state explanations*.

Button: Button to start linking or unlinking the CRMX radio.

Unlink from TX: Unlink the CMRX radio from current host. Only available in DMX client mode.

Link to RX: To start linking available CMRX clients. Only available in DMX host mode.

Bluetooth



State: Turning on or off the BLE radio

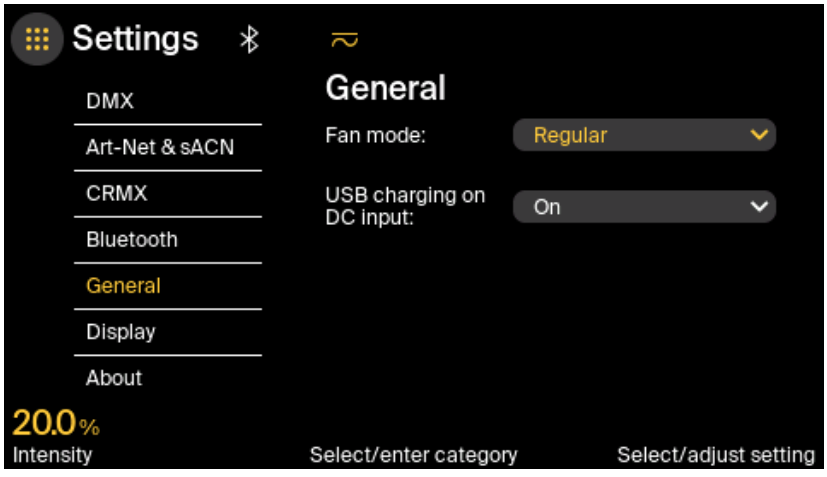
On

Off

Mac connections: set the maximum Bluetooth connections allowed at the same time.

1-2

General



Fan mode: Select what fan mode the lamp head will use.

Silent: The fans will run very slowly to stay silent. Note: this mode will limit the output power to ***150W***.

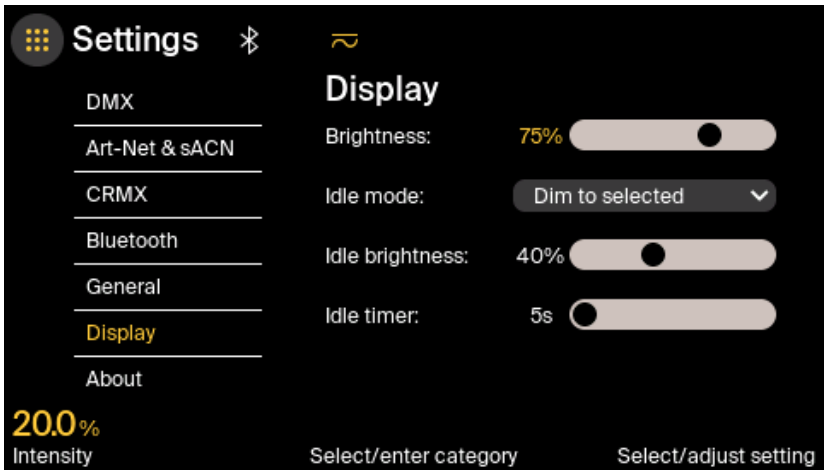
Quiet: The fans will run slower than normal. ***The lamp head might

overheat much quicker than usual.

Regular: The fans run at normal speed.

High: The fans run at a higher speed to cool the lamp head better***.

Display



Brightness: Select how bright the display should be under use.

10-100%

Idle mode: Select what happens when the user interface has not been used for a time.

Always on: The display brightness is not changed if controller interaction is idle.

Dim to selected: The display brightness changes to the set idle display brightness after the selected idle time threshold.

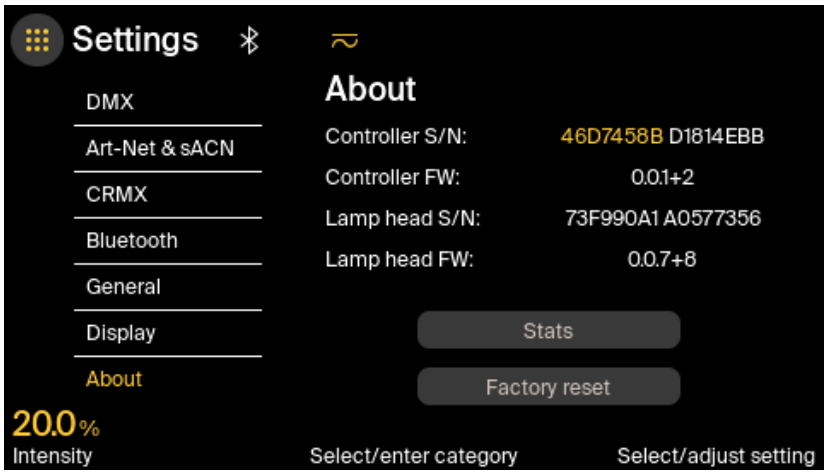
Idle brightness: Display brightness when user interface is idle. Only available in “Dim to selected” mode.

0-90%

Idle timer: The time that must pass before the display changes to idle brightness. Only available in “Dim to selected” mode.

5-300 seconds

About



Controller S/N: Show the serial number of the device. This number might be useful for remote connections and control.

Controller FW: Shows which firmware version the controller is running on.

Lamp head S/N: Show the serial number of the connected lamp head. Will only show if a lamp head is connected.

Lamp head FW: Show the firmware version of the connected lamp head. Will only show if a lamp head is connected.

Stats button: Opens the stats screen where various device information can be seen.

Factory reset button: Used to reset the device to default settings and states. Confirmation of factory reset is required to perform the reset. Note that this process will also erase all stored data like mode presets.

DMX Operation

Control Epos 600 remotely using DMX.

Please find detailed overview available for free download on https://www.kelvinlight.com/support/download/

ADD EXPLANATION OF DMX

1. Use Kelvin protocol to set up
2. Use 3rd party app for setting up
    a. Lumen Air

The DMX (Digital Multiplex) protocol is used to control devices remotely. The DMX protocol can be divided into multiple data regions/profiles to transmit/broadcast multiple data sets. The DMX devices connected to the DMX network choose which data set to *listen* to by selecting the start address of the chosen data set within the DMX frame. The DMX controller/host and the DMX node/client thus need to know the data set structure/profile on beforehand. DMX profiles are usually provided by the DMX device manufacturer or found in DMX profile databases online.

The RDM (Remote Device Management) protocol is used to communicate with devices. This bi-directional communication allows the host to retrieve information from the client and to configure available parameters. This is useful for reading the available DMX profiles supported by the device, and to get or set the DMX address for the device.

The Epos 600 supports DMX and RDM over multiple communication technologies.

- Serial RS-485, traditional method using XLR cables.
- Wireless 2.4GHz
    - CRMX, using Lumen radio modules.
    - BLE (Bluetooth Low Energy), using regular Bluetooth chips found in most standard devices such as smart phones.

        - Note: BLE does not support RDM.

- Ethernet protocol RJ45, using ethernet networks.
    - Art-Net
    - sACN
        - Note: sACN does not support RDM.

How to set up DMX on Epos 600

1. Choose whether to receive DMX data from a DMX controller (using Client mode) or to send DMX data to other DMX devices (using Host mode).
2. Choose which DMX profile to be used.
3. Choose which address in the DMX frame the profile data will start at.
4. Choose how the light should handle loss of DMX connections.
    a. Note: DMX loss behaviour

*These root DMX parameters are valid for all communication interfaces.

The different communication interfaces for DMX:

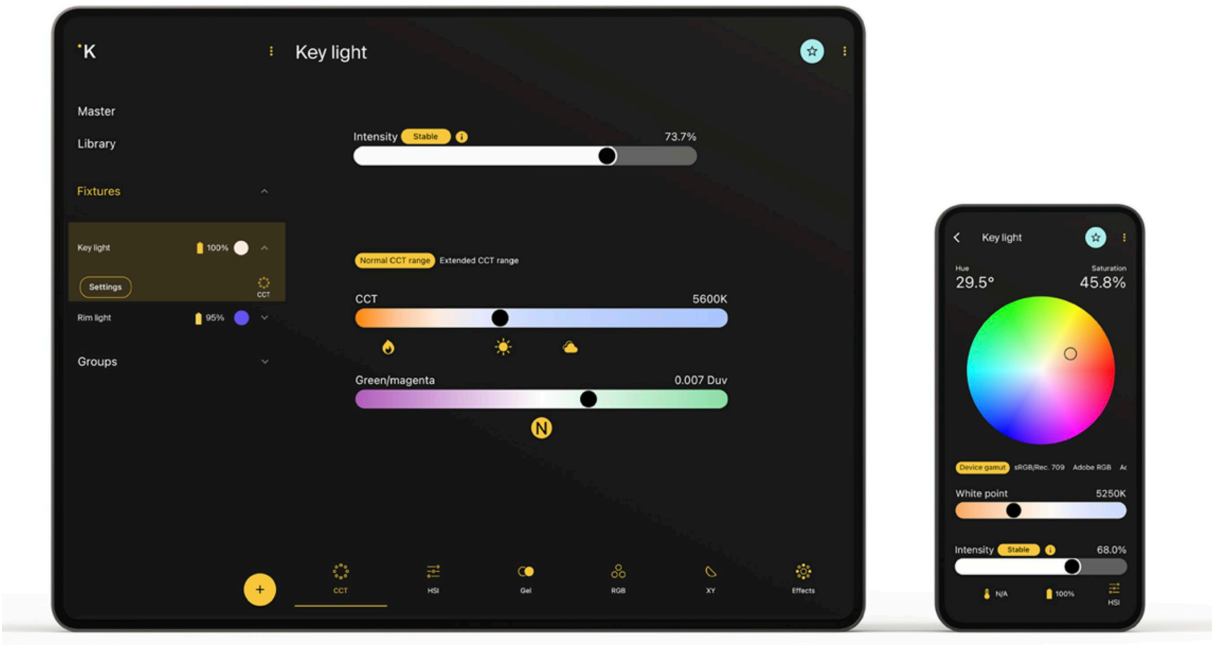
- Serial RS-485 is used by analog and digital DMX boards/consols to broadcast via XLR cables.
- CRMX is a proprietary wireless protocol that uses the 2.4GHz radio bands to transmit and receive data. The protocol features allow for stable and strong connections between linked modules. Consols or dongles with integrated CRMX radio modules are needed to use the CMRX communication interface.
- BLE services for DMX run on regular Bluetooth stacks. Mobile applications such as Luminair and Blackout allow smart phones and tablets to control DMX devices via BLE. RDM is not supported via this interface.
- Art-Net is an Ethernet protocol for broadcasting and unicasting data between Art-Net controllers and Art-Net nodes. Art-Net is useful when controlling and managing DMX networks with many devices connected to it. Art-Net capable software or consols are required to control the Art-Net network.
    - For more information on how to set up the Art-Net network, please read about the Art-Net protocol standard online.
- sACN is a standard protocol for multicasting DMX data over the network. Compared to Art-Net, sACN is more efficient in sending DMX data, reducing the network traffic. sACN does, however, not support RDM. sACN capable software or consols are required to control the sACN network.

Kelvin Narrator App

The Epos 600 can be controlled from the Kelvin Narrator App. Here you can add and control several Kelvin fixtures simultaneously.

Updates of the Kelvin Narrator App are available through the App Store and the Google Play Store.

Read more about the app here: https://www.kelvinlight.com/app-narrator/



Download on the App Store

GET IT ON Google Play

Firmware updates

Firmware and software updates for the Epos 600 are available through the Kelvin Narrator Bluetooth App.

Warnings and errors

There are two types of messages, *INF* and *ERR*. INF are information/warning level messages that give information about non-critical conditions. ERR are error level messages that inform of conditions causing the light output to be turned off.

Controller

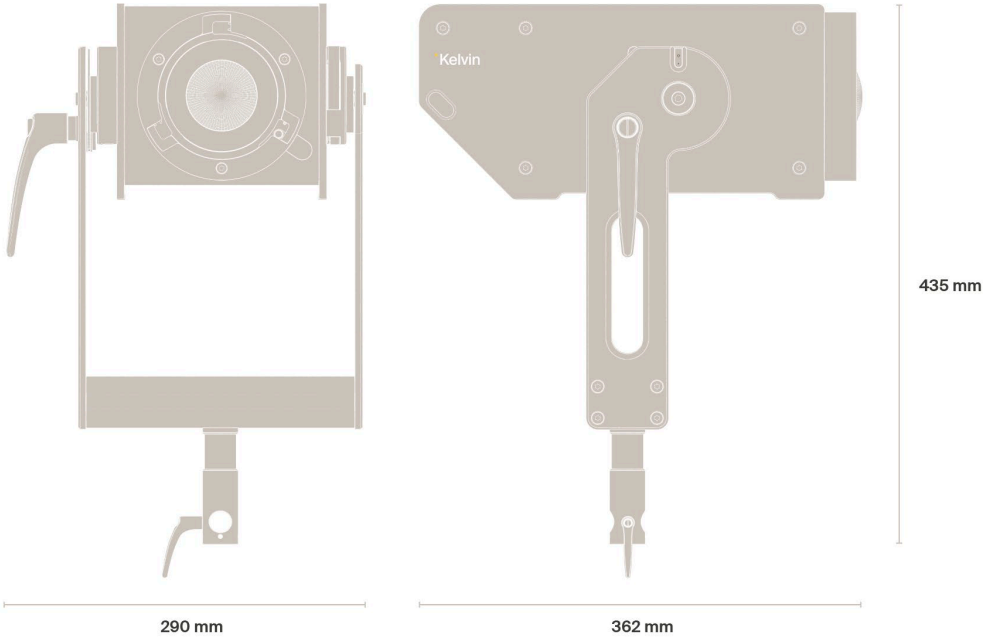
Controller temperature is too high	This condition is caused by the internal controller temperature being too high and will result in light output being turned off. To resolve this problem, make sure the controller air intakes are not covered.
Power failure	This condition is caused by internal power circuits of the controller not working properly. In this case the controller should be sent for inspection.

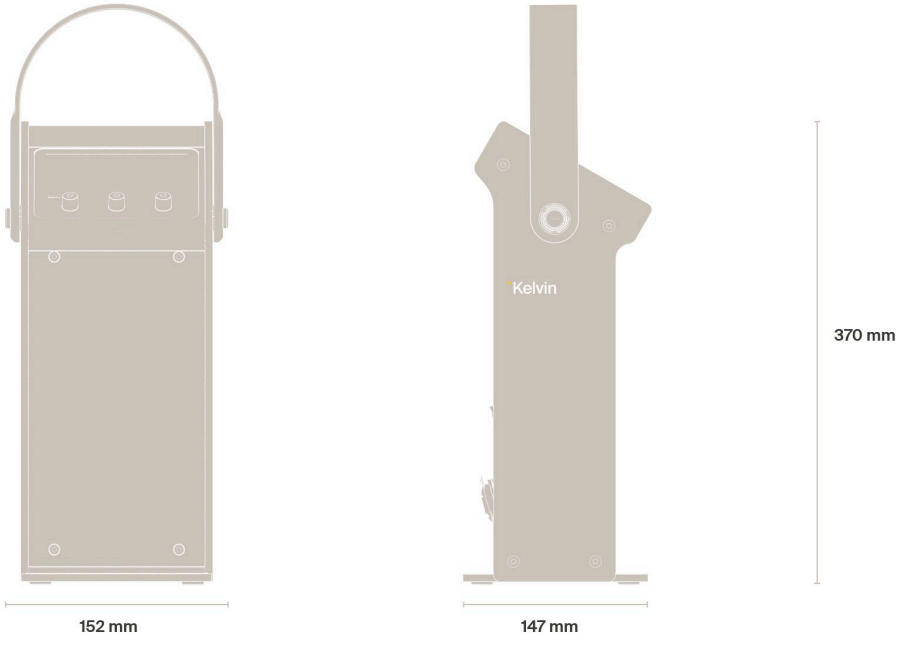
Lamp head

Lamp head temperature is too high	This condition is caused by the internal lamp head temperature being too high and will result in light output being turned off. To resolve this problem, make sure the lamp head air intakes are not covered and that both fans are spinning when connected to the controller. If the temperature is too high and the fans are not spinning, please contact customer support.
Unknown power source	This condition is caused by invalid power source(s) and results in light output being turned off. The root cause of this condition might be unsupported or damaged batteries or power supply. Make sure to use batteries that meet the specified requirements, or a power supply provided by Kelvin.

Specifications

Dimensions





Photometrics

Please see detailed specifications available here including Photometrics:
https://www.kelvinlight.com/product/epos_300_full_color_spectrum_rgbacl_led_studio_light/

Technical information

Light Engine	Cantastoria (RGBACL) Six-Color
Color Temperature	1 700 to 20 000 K ±100 K
Modes	CCT, HSI, RGB, GELS, EFFECTS, XY
Dimming	0-100% in 0.1% steps
Display	1.3” TFT LCD
LEDs	RGBACL LEDs in 18 clusters of 6 LEDs, 108 LEDs in total
Panel Size	131 x 53 mm
Expected Lamp Life	50 000 hours
Beam angle	106°
Light Intensity	941 lux at 5 600 K / 0.5 m
Color Accuracy Standard	CRI 98 | TLCI 99 | CQS 97 | SSI 86 @3200K | SSI 74 @5600K
Connectors	1 x USB C
Wireless Connections	Bluetooth 5.2 with extended range Wireless DMX (CRMX from LumenRadio with RDM)
Remote operation	Kelvin Narrator App Wireless DMX (built-in CRMX from LumenRadio with RDM) Bluetooth
Wireless Range	≤100m
Power Source	?? V
Battery charging	NA?
Max Power Consumption	600W?
Cooling System	Active fan cooled
Fixture Mount	Spigot (junior/baby?)
Accessory Mount	Bowens mount and Kelvin magnetic mount?
Housing Material	Aluminium (see material section for extended list)

Fixture Dimensions	See illustration under “Dimensions”
Fixture Weight	?? kg
Operating Temperature	?? kg
IP Rating	67?
Certifications	FCC CE IC ROHS NCC KC WEEE RoHS

Material information

Enclosure	Aluminum	
O-rings and gaskets	Silicone rubber or nitrile rubber	
Knobs and handles	POM with TPE overmold	
Other plastic parts	PC/ABS	
LED screen and emitter seal	Aluminosilicate glass (“gorilla glass”)	
Baby pin CAM mechanism	Nylon 66	
Controller feet	Polyurethane	
Screws **Baby pin load bearing parts** **Pins and other fasteners**	Steel	
Lens and diffusers	PC	
Thermal pads	Ceramic filled silicone	

Magnets	Neodymium (NdFeB)
Hand levers	Zinc
Chassis connector housing	Polyamide (PA)
Friction plate and clamp **Parts of levers** **Washers, other fasteners** **Springs**	Stainless steel

Electronic and mechanical parts are all RoHS and REACH compliant and do not contain Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr6+), Polybrominated biphenyls (PBB) or Polybrominated diphenyl ether (PBDE). The device also does not contain PVC or Beryllium:

RoHS compliant	The RoHS directive defines the limit values for the proportion of the ten substances in all homogeneous materials for electrical and electronic equipment.	RoHS
WEEE compliant	The product should not be discarded as unsorted waste but must be sent to separate collection facilities for recovery and recycling	
REACH compliant	REACH addresses the risks associated with chemicals and promotes alternative methods for the hazard assessment of substances.	

3 Years Keep Rolling Warranty

Our philosophy of creating a light for cinema professionals doesn't stop at the product itself. Life on set doesn't always go as planned. And we are prepared. The Keep Rolling Warranty is Kelvin's way of giving back to the cinema community.

Latest updated version available at **www.kelvinlight.com.**

By purchasing a Kelvin light, you will have peace of mind. Your projects are our highest priority, so if anything goes wrong – we make sure you have a light to keep rolling**.**

1. Definitions

1.1. For the purposes of this Warranty Policy, the following words and expressions shall have the following meaning unless the context otherwise requires:

1.2. **"Solution"** means the specified version of Our delivery as further agreed, which may include Our patented Kelvin LED software and intelligent lightning control systems, its software and firmware, mobile application, and any appurtenant products and services.

1.3. **"We", "Us" or "Our"** means Rift Labs AS, a limited liability company incorporated under the laws of Norway, bearing the Norwegian organization no. 895 734 942, including entities within the same company group.

1.4. "**You", "Your" or "Yourself"** means the party that have placed an order for Our Solution. When acting on behalf of a business, company or other legal entity or private individual, the reference to "You" and "Your" herein shall include, refer and apply to you personally, that particular business, company or other legal entity and that particular private individual, as well as any other entities, employees and all other individuals which is granted access to the Solution.

2. Warranty

2.1. We firmly believe that the key to Our success rests solely on customers such as Yourself being satisfied with the Solution. As such, it is Our great pleasure to warrant to You that the Solution will be of good quality and workmanship and free from material defects.

2.2. As part of Our commitment to customer satisfaction, we provide a Keep Rolling three-year warranty against defects in materials and workmanship in the Solution, under the laws of the country where You have made the purchase of the Solution.

2.3. Notwithstanding Clause 2.2 above, a Solution sold to You as refurbished is

warranted for a period of ninety (90) days.

2.4. Every Solution is sold with lifetime customer support, which entails that You are entitled to remote customer assistance by mail or phone for the Solution even if the warranty period has expired.

2.5. Upon the expiration of the time periods identified herein, Our liabilities will cease. In no event shall We be liable for consequential damages.

3. Repairs and replacements

3.1. In the event of a claim covered by Our warranty, We will repair or replace (at Our sole discretion) the Solution with a new, rebuilt or refurbished product of equal or similar features and functionality. We may use refurbished parts for repairs or replacements. Certain Solution may be subject to a separate software license agreement.

3.2. We may provide You with a replacement Solution while the repair or re-delivery procedures are being undertaken. Any replacement Solution must be returned to Us free from damage and in its original packaging.

3.3. Any parts replaced by Us during the warranty repair are the property of Us and will not be returned to You.

3.4. Any repaired or replaced Solution shall be warranted for a period the greater of (i) the balance of the existing warranty period or (ii) ninety (90) days after it is received by You. Only the components that were repaired or replaced will be eligible for the 90-day period as set forth above. Any parts replaced during warranty repair is Our property and will not be returned to You.

4. Refunds

4.1. Any reimbursements will be made to the card used by You when paying for the Solution.

5. Exclusions

5.1. We do not honor warranty agreements extended by third parties. Only warranty agreements granted by Us will be honored.

5.2. Our warranty does not extend to maintenance, repair or replacement necessitated by loss or damage of or to a Solution resulting from any cause other than normal use and operation of the Solution in accordance with the Our specifications and manuals, including but not limited to:

5.2.1. Alterations, modifications or repairs by You or unauthorized third parties.

5.2.2. Exposure to weather conditions.

5.2.3. Water damage.

5.2.4. Operator negligence

5.2.5. Use of improper electrical/power supply.

5.2.6. Accidents and droppage.

5.2.7. Improper handling or storage

5.2.8. Transportation damage, save for Our initial shipment of the Solution.

5.2.9. Damage caused by third party products.

5.2.10. Cosmetic damage or other non-operating parts

5.2.11. Defective batteries.

5.2.12. Battery leakage.

5.2.13. Lack of maintenance.

5.2.14. Use of cables or accessories provided by third parties.

5.3. The warranty does not apply to merchandise, accessories or associated software of the Solution, nor does it apply to software that is etched directly into a piece of hardware within or on top of the Solution ("firmware").

5.4. Except as specifically set forth above, all other warranties, conditions, representation or terms, express or implied, whether by statute, common law, custom, usage or otherwise as to the Solution are, to the fullest extent permitted by any applicable law, excluded from this Warranty Policy including any warranty as to the performance or result of the Solution.

5.5. The sole remedy under Our warranty shall be the repair, replacement, or credit for defective parts of the Solution as stated above. This warranty is the sole warranty provided by Us and is in lieu of any other warranties either express or implied.

5.6. This warranty extends to You and is non-transferable to other third parties. We will not be liable for any property damage, lost time, or lost data resulting from the failure of any Solution or from delays in service or the inability to render service.

6. Exercising the warranty

6.1. If You wish to make a warranty return in accordance with the above terms, You must provide Us with a notice clearly indicating Your desire to do so.

6.2. Following the notification described in Clause 6.1, You must ship the Solution to Us in accordance with the instructions provided by Us. You are responsible for delivering at Your sole risk and cost the damaged Solution to such address as is noted by Us. Furthermore, You are responsible for any shipping costs incurred in returning the Solution and We highly recommended that You use a traceable and insurable form of mail for shipment.

7. Compliance

7.1. You agree to comply with all applicable export and re-export restrictions and regulations of the Department of Commerce and any other United States, European Union or foreign agencies and authorities in connection with Your use of

the Solution. You agree to not violate any local, state, federal or foreign laws and not to transfer or authorize the transfer of any materials to a prohibited country in violation of any laws. By using any materials in the Solution subject to any such restrictions and regulations, You represent and warrant that You are not located in, under the control of, or a national or resident of any such country or on any such list.

7.2. You acknowledge that You have been advised of the dangerous goods shipping requirements relating to lithium-ion batteries. If Your return includes a lithium-ion battery, You agree to have the battery shipped by a certified shipper of dangerous goods. You further agree not to attempt to ship any lithium-ion battery that has been physically damaged.

Trademarks

Kelvin ® is a registered trademark of Rift Labs. © 2023 Rift Labs AS. All rights reserved.

Product name, logo, brands, and other trademarks featured or referred to within Kelvin and Rift Labs are the property of their respective trademark holders.

Documents

https://tsdr.uspto.gov/#caseNumber=90705176&caseType=SERIAL_NO&searchType=statusSearch

https://tsdr.uspto.gov/#caseNumber=97672213&caseType=SERIAL_NO&searchType=statusSearch

https://tsdr.uspto.gov/#caseNumber=97672213&caseType=SERIAL_NO&searchType=statusSearch

https://euipo.europa.eu/eSearch/#details/trademarks/018469270

Approved Accessories

Bowens mount

The Epos 600 is a Bowens mount compatible light, this means that in theory every off-the-shelf Bowens mount accessories like modifier, optics, fresnels, etc. should fit. However, due to there not being any standard on the depth or shape of lights, we have chosen to create a list of modifiers that we have tried and approved for use with an Epos 600. There might also be many more that works fine as well. We have also designed several different diffusers for the Epos 600, so that it is possible to fine tune the quality of light when using it in combination with other modifiers. The recommended diffusion is listed with each modifier.

For latest updates, please visit https://www.kelvinlight.com/products/category/accessories/.

Kelvin modifiers

The difference in output between the different diffusers is minimal; 00 is a 0% light loss, 90 is around 0.1 of a stop and 75 is around 0.1 of a stop again.

High performance lens

The High performance lens enhances the light produced from the emitter by diffusing/angling %/angle. It attaches via magnets, and can be changed with other performance lenses and diffusers from Kelvin to modify the light accordingly.

Diffuser D90

D90 has a light loss of 0.1 stop compared to the D100, this diffuser mixes the colors a little more to allow for no color fringing when used with more advanced accessories

Dome Diffuser

Dome Diffuser is the perfect diffuser for use with an octadome or other softboxes where you want the softest light possible, and also the perfect match for umbrellas or parabolic light modifiers**.**

Other modifiers

The Epos 600 will work with most off-the-shelf Bowens mount accessories like modifier, optics, fresnels and others, and the choice of diffusion will be defined by how much of the silver you use. The D100 filling the least and the D75 filling the most, we have also created a dome diffuser which allows for a much wider and truer to traditional softbox/tungsten bulb type quality of light when working with softboxes, umbrellas and so on.

FCC Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

IC Warning

This device complies with Industry Canada’s licence-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil nedoit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

IC RF Statement:
When using the product, maintain a distance of 20cm from the body to ensure compliance with RF exposure requirements.

Déclaration IC RF:
Lors de l'utilisation du produit, maintenez une distance de 20 cm du corps pour garantir conformité aux exigences d'exposition aux RF.

Precautions

The light fixture is used for professional lighting. The lighting system and accessories must be used by professional or trained personnel. All operations must follow the relevant safety instructions:

- All instructions must be read and understood before use, including the transport, installation, and operation of the equipment;
- The weight of the lamp head and light accessories must be considered when handling and lifting;
- Check all cable connections before using. Make sure all cables are appropriately labelled to prevent tripping;
- In case the cables and wires are damaged, it must be replaced with the same kind of cables and wires;
- In case the light source is damaged, it can only be serviced by an authorized Kelvin service centre or authorized Kelvin service personnel;
- The lamp head may reach elevated temperatures when operating. To prevent burns, staff must operate carefully when touching the lamp body. It is recommended to wear appropriate protective devices;
- Be alert to fire and burn hazards and do not place flammable materials and objects in front of the lamp;
- Make a full inspection of the lamp head electrical connection, safety isolation, and insulation protection before using;
- To prevent overheating, do not block or cover the light head vents;
- Do not operate the lamp head when the light ventilation is closed or covered, or when protective cap mounted, as this may cause overheating;
- Before each usage, make a visual inspection. Ensure regular electrical inspection at least every 6 months. Record the results in an archive;
- Operating in an explosive environment is prohibited;
- Do not use the equipment in a humid or dusty environment, which may cause short circuits and the risk of electric shock;
- Do not operate damaged equipment until an authorized professional service personnel has checked it;
- The lamp head and accessories must be safely connected or secured to prevent falling;
- Before cleaning, or doing maintenance or repair, the product must be shut down and the power cable must be removed from the power outlet;
- Do not immerse the lamp head in water or other liquids as this may cause damage to equipment and risk of electric shock;
- When repair or service is required, do not remove or open the lamp head on your own, as

this will void the warranty. The product must be handed over to designated qualified maintenance personnel. Incorrect removal may damage the equipment or even cause electric shock when re-using;

- Do not place cables, plugs, and contact parts in water as this may cause a risk of electric shock;
- Radiation and glare from the head of the lamp can cause damage to people and animals (e.g. sunburn, impaired vision). Within the minimum distance (2.5m) specified in the equipment and operating instructions, exposure to the beam for a prolonged period has a risk of serious injury and potential blindness;
- Do not use non-recommended batteries, cables, and other accessories, as this may damage the equipment, or even cause fire or electric shock;
- When maintenance or service is required, you must contact designated authorized maintenance personnel. Any malfunction caused by unauthorized self-removal is not within the scope of the repair, and will void the warranty;
- Make sure that the lamp head and controller has all necessary protection to ensure safe operation, such as making sure the unit is placed in weatherproof positions, under protective roofs, and ensure that airflow around the headlights is unrestricted;
- Check and make sure that the weight of the lamp head, accessories, and cables is lower than the maximum safety load of the light bracket;
- When the lamp head is fixed on the light bracket, the mounting screws must be tightened, and make sure the bracket itself is balanced to prevent falls which may damage the equipment and threaten personal safety;
- This product is certified FCC, CE, RoHS, UKCA, IC, KC, NCC, PSE, BIS, UL. Please strictly refer to the relevant national standards for operation and use. Incorrect use causes damage to the equipment and is not covered by the product warranty.
- Limitation of Liability. Under no circumstances shall the company, its subsidiaries, brands or its affiliates, partners, suppliers or licensors be liable for any indirect, incidental, consequential, special or exemplary damages arising out of or in connection with your access or use of the product, any errors in the material, or omission of information, and any third-party content and services, whether or not the damages where foreseeable and whether or not company was advised of the possibility of such damages. Without limiting the generality of the foregoing, company's aggregate liability to you (whether under contract, tort statute or otherwise) shall not exceed the amount of one dollar. The foregoing limitations shall apply even if the above stated remedy fails its essential purpose.

Wireless Communication

Bluetooth communication with Kelvin Narrator app
Module: Raytac MDBT50 p/n: MDBT50Q-U1MV2 (containing Nordic nRF52840 SoC)
Frequency: 2.4 GHz
RF output: -20dBm (100mW)
LumenRadio Wireless DMX and RDM
Chip: LumenRadio TimoTwo p/n: 800-8107
Frequency: 2.402 ~ 2.480 GHz
RF output: -20dBm (100mW)

For more details, visit [www.kelvinlight.com.](http://www.kelvinlight.com)