

SkyPanel Pro

USER MANUAL

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Document Revision History

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Version	Release	Date	Note
0.8		November 2024	Preliminary version
1.0		December 2024	First released version
1.01		January 2025	Smaller additions and modifications
1.02		March 2025	Updated to LiOS 3.2.1 (changed default values, harmonize wording)

Imprint

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Original version.

Initial Language

The initial language of this user manual is English. User manuals in other languages are translations from English.

In the event of conflict between the respective languages (i.e. if any translation(s) of present document has/have been prepared for convenience or any other purpose), with regards to the meaning or interpretation of a word or an instruction etc., the contents and provisions of the English language version shall prevail.

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1 About this Document

This user manual contains detailed information about the features and functionalities of the device. Please visit the website www.arri.com to download the operating manual and much more information about this and other ARRI products.

The separate operating manual is aimed at everyone involved in using the device. It provides directions on how to operate it safely and as intended. To ensure safe and correct use, all users must read the operating manual before using the device for the first time.

Keep all manuals and all other operating and assembly instructions belonging to the device in a safe place for future reference and possible subsequent owners

For useful information in addition to these manuals please have a look at the [ARRI learn & help](#) section on the [ARRI website](#).

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1.1 Product Information Resources

The ARRI documentation portal provides important documents on the product for free download.

Please enter the following searchkeys in the search bar to retrieve the documents for the product:

SkyPanel Pro, L1.0052046, L1.0052047

[ARRI documentation portal](#)



For more details about the product, please refer to the ARRI website at:

[SkyPanel Pro product page](#)



1.2 How to Use this Manual

All directions are given from an operators point of view. For example, device right side refers to the right side of the device when standing behind the device and operating it in a normal fashion.

Connectors are written in all capital letters, for example "USB connector".

Buttons are written in italic typeface capital letters, for example "*PLAY button*".

Menu paths are written in italic typeface, with menu and home in capital letters, for example "*MENU > Display Orientation > Normal*".

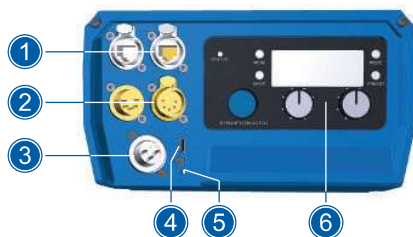
2 Product Overview

2.1 Back View



- | | | | |
|---|---|----|------------------------------|
| 1 | Yoke (Safety rope attachment) | 7 | Type Plate |
| 2 | Handle | 8 | Power IN / THROUGH |
| 3 | Accessory Mounting Rail | 9 | Rest Foot / Handle |
| 4 | Cover Strip | 10 | Connector Panel with Display |
| 5 | Top Latches (Left and Right) | 11 | Tilt Lock Lever |
| 6 | Diffuser Panel (front side, not shown here) | | |

2.2 Connector Panel

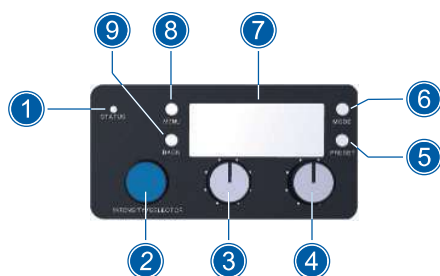


- | | |
|---|-----------------------|
| 1 | LAN connectors (RJ45) |
| 2 | DMX IN / THROUGH |
| 3 | Battery IN |
| 4 | USB-C Port |
| 5 | Reset Button |
| 6 | Device Menu |

3 Device Menu

This section describes the device menu of the SkyPanel Pro.

3.1 Overview of the Device Menu



- 1 STATUS LED
- 2 ENCODER (Knob and Button)
- 3 CENTRAL Knob
- 4 RIGHT Knob
- 5 PRESET Button
- 6 MODE Button
- 7 Display
- 8 MENU Button
- 9 BACK Button

3.2 Features of the Device Menu

STATUS LED (1)

Color	Indication
Green	No error. Normal temperature.
Green / Blue	Normal Operation with Art-Net, DMX, Wireless DMX, sACN data traffic receiving
Blue	DMX data traffic
Orange blinking	Warning (Degraded)
Red	Error (Fail Safe)

ENCODER (2)

The *ENCODER* has two functions:

- Device menu closed: The *ENCODER* sets the intensity.
- Device menu open: Use the *ENCODER* to scroll through the menu, open sub menus, set parameters and confirm settings.

CENTRAL knob (3)

Use the *CENTRAL knob* to set the color temperature (CCT) or the color hue (HUE). The current function of the *CENTRAL knob* is shown in the display above the knob.

RIGHT knob (4)

Use the *RIGHT knob* to set the green / magenta point or the color saturation (SAT) or, dependent on the active color mode, categories or parameters. The current function of the *RIGHT knob* is shown in the display above the knob.

PRESET (5)

The SkyPanel Pro provides two types of presets:

- **Lighting Presets** to store and recall a snapshot of beam parameters (scenes) or transfer scenes to another device, and
- **DMX Presets** to store and recall device settings or transfer device settings to another device.

Lighting Preset

The SkyPanel Pro can store up to 246 Lighting Presets. Push *PRESET* short to call up a list of available lighting presets. Push *PRESET* long to store a lighting preset.

Please see section “Lighting Presets [► 21]” for a detailed explanation of Lighting Presets.

DMX Preset

Push *MENU* and *PRESET* short and simultaneously to open up the list of all available DMX presets.

- 1) Turn the *ENCODER* to select one of 10 DMX presets.
- 2) Push the *ENCODER* twice to activate the DMX preset.

To store a DMX preset

Push *MENU* and *PRESET* long (> 3 sec.) and simultaneously to open up the DMX preset list.

- 1) Turn the *ENCODER* to select one of 10 DMX presets.
- 2) Select a slot and push the *ENCODER* to store the DMX preset. *BACK* returns to the main screen.

MODE (6)

- 1) Push *MODE* short to swap between CCT, HSI, GEL, Source Matching, RGBW mode and x,y mode of the SkyPanel Pro.
- 2) Push *MODE* long (> 3 sec.) to activate the extended color control.

The extended color control feature is not available in RGBW mode unless *Calibrated Color* is activated.

DISPLAY (7)

The display shows the current settings and other information during normal operation. Push *MENU* to open or close the menu. Use the *ENCODER* and *BACK* to navigate through the menu.

MENU (8)

MENU opens the device menu. Push *MENU* when the menu is open to close the menu and abort an action (Escape). Use the *ENCODER* to scroll through the menu, open sub menus and set parameters.

Push *MENU* long to display the menus which are used most.

BACK (9)

BACK closes a sub menu and aborts an action (Escape). Compared to *MENU*, *BACK* only closes the sub menu, but not the device menu.

Push *BACK* long to display the last used menus.

To lock the device menu

Use the feature to prevent an accidental change of settings.

- 1) Push the *ENCODER* in the home screen for 5 seconds to lock all buttons and knobs.
- 2) The word LOCKED appears on the display when locked.
- 3) Push the *ENCODER* in the home screen for 5 seconds again to unlock all buttons and knobs.

3.3 Color Mode

Push *MODE* to switch from CCT to HSI to GEL to Source to RGBW to x,y and back to CCT mode.

In CCT mode the SkyPanel Pro generates white light with optimized color rendition. In HSI mode the SkyPanel Pro generates colored light. If saturation is set very low, the SkyPanel Pro generates white light, but not with optimized color rendition. The GEL mode offers an extensive color gel library. In Source mode the SkyPanel Pro generates the light of traditional light sources. Use the RGBW mode to generate a RGBW color using the control panel. The x,y mode generates a color defined by its x,y coordinates.

4 DMX Control Modes

The SkyPanel Pro offers 39 DMX control modes. Use the 8 bit DMX control modes with basic controllers like simple fader consoles.

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

Below is a short overview of the different DMX control modes. Please find a detailed overview of all DMX control modes in the document *SkyPanel Pro DMX Protocol Specification* which is available for free download on the ARRI website www.arri.com.

CCT

The CCT mode provides control of intensity, color temperature and green / magenta point.

CCT and RGBW

This DMX control mode provides control of intensity, color temperature, green / magenta point and individual channels for controlling the red, green, blue and white color.

CCT and HSI

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

RGBW

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

HSI

Simple mode for controlling hue, saturation and intensity.

GEL

The GEL mode offers an extensive color filter list. The intensity and the color temperature can be controlled as usual.

x, y Coordinates

The x, y mode determines the color displayed by its xy coordinates in the CIE 1931 diagram. Set the x and y coordinate with 8 bit or 16 bit resolution.

Source Matching

Source Matching saves a lot of time when you need a specific illumination. Set the light source which fits best to your demands from 50 different light sources.

Lighting Effects

The SkyPanel Pro is equipped with an extensive effect generator supporting a lot of different lighting effects. Activate a lighting effect via the control panel, DMX, Art-Net or sACN and set the parameters to get exactly the effect you need.

5 Creative Functions

5.1 Set Lighting Parameters in CCT Mode

Set the color temperature continuously with the *CENTRAL knob*. Set the green / magenta point continuously with the *RIGHT knob*. The current setting is displayed above the knobs.

5.2 Set Color in HSI Mode

Set the hue continuously with the *CENTRAL knob*. Set the saturation continuously with the *RIGHT knob*. The current setting is displayed above the knobs.

5.3 Set Lighting Parameters in Gel Mode

Use the *CENTRAL knob* to set the color temperature 3.200 K or 5.600 K. The *RIGHT knob* offers two options: *Best color* displays the gel with optimized color quality, *Brightest* displays the gel with optimized brightness.

- 1) Push the *ENCODER* to open the gel library.
- 2) Choose the gel manufacturer (Rosco or LEE) with the *CENTRAL knob*.
- 3) Use the *RIGHT knob* to activate a gel category as shown in the table below.
- 4) Turn and push the *ENCODER* to call up a gel list and select a gel from the gel list.
- 5) Push *BACK* to close the gel list and set the intensity with the *ENCODER*.
- 6) Push the *ENCODER* again, to re-open the gel list.

Rosco	LEE
Color Correction	Color Correction
CalColor	Color Filters
Storaro Selection	600 Series
Cinelux	Cosmetic
	700 Series

5.4 Set the Light Source in Source Matching Mode

Start the source mode and push the *ENCODER* to call up a list of the light sources available. Use the *RIGHT knob* to set the category (please see *SkyPanel Pro DMX Protocol Specification* for a detailed list). Turn the *ENCODER* to select a light source. The SkyPanel Pro activates the light source in real time. Push the *ENCODER* to use the selected light source.

5.5 Set the Color in RGBW Mode

Use the *RIGHT knob* to set the functionality of the *ENCODER*. Dependent on the *RIGHT knob*, the *ENCODER* is used to set the overall intensity of the red, green, blue and white color. Please note the setting *Direct Control* or *Calibrated Color*. You can store the RGBW color as a lighting preset.

5.6 Set the Color in x,y Mode

The x,y mode defines a color using its x,y coordinates. Use the *RIGHT knob* to set the functionality of the *ENCODER*. Dependent on the *RIGHT knob*, the *ENCODER* is used to set the intensity, the x or y coordinate of the color. The range of both the x and y coordinate is 0.0000 to 0.8000.

5.7 Extended Color Control

The extended color control allows the modification of the selected color in an intuitive way. It can be used via the device menu.

To Use the Extended Color Control

Push **MODE** for approximately 3 sec in the home screen to activate the extended color control. If the RGBW color space **Direct Control** is active, the extended color control is not available. Please activate the RGBW color space **Direct Control** (see section Set the Calibrated Color Space [► 16]) to be able to activate the extended color control. If the extended color control is active, a short push of **MODE** switches between the operation modes (see section Set the Operation Mode).

If an effect is active, push **MODE** for at least 3 sec to switch between the color mode, the extended color control screen and the effect parameter screen.

The picture below shows the color control screen.



In the upper left and right corner of the display the active special and operation modes are displayed similar to the home screen (in the picture above HSI color mode).

- Each parameter available is shown as a slider.
- Neutral parameters are indicated with the solid horizontal line at the middle of the bar.
- The horizontal bar of each slider indicates the value of each parameter.
- The selected parameter is indicated by a small bar under its slider.
- The name of the parameter and its value is shown under the sliders in the display.

From left to right, the bars in the extended color control screen stand for the following parameters:

Description	Parameter	Range
Color temperature	Warmer / Cooler	-1.000 > 0.000 > +1.000
Saturation	Saturate / Desaturate	
Red portion of current color	+ Red / - Red	
Green portion of current color	+ Green / - Green	
Blue portion of current color	+ Blue / - Blue	
Cyan portion of current color	+ Cyan / - Cyan	
Magenta portion of current color	+ Magenta / - Magenta	
Yellow portion of current color	+ Yellow / - Yellow	

Select the parameter using the *RIGHT knob*. Set the value of the parameter with the *ENCODER*. Please note:

- The resolution of the *ENCODER* adapts dynamically to the moving speed.
- Clockwise turn increments the value of the parameter.
- Counter-clockwise turn decrements the value of the parameter.
- Double press within 800 ms resets the selected parameter to neutral (0).
- Triple press within 1200 ms resets all parameters to neutral (0).

When changing the color mode the current values of the parameters are stored and restored when activating the color mode the next time. After a power cycle, the SkyPanel Pro extended color control parameters are restored for each color mode.

With activated extended color control:

- A star next to the active operation mode indicates the activated extended color control,
- the parameters are stored with each lighting preset. Lighting presets which contain parameters of the extended color control are marked with a star,
- modifying an extended color control parameter leaves any active lighting preset.

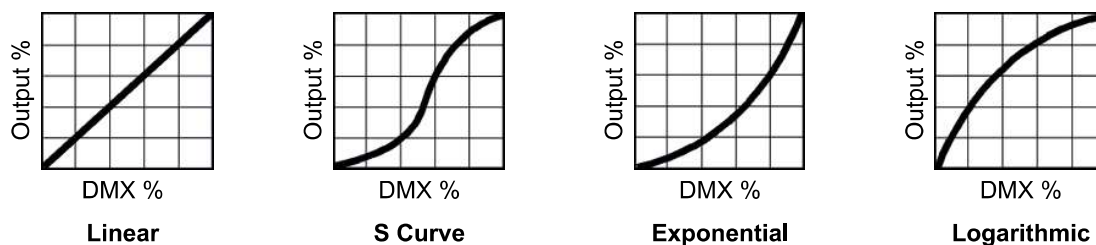
5.8 Set the Brightness in all Color Modes

Set the brightness in all color modes continuously with the *ENCODER*. The setting is dynamic: Turn the *ENCODER* fast to change the intensity in coarse steps, turn it slow to change the intensity in fine steps.

To match the dimming behavior of a SkyPanel Classic, see “Match SkyPanel Classic [► 15]”.

5.9 Set the Dimming Curve

The SkyPanel Pro offers four dimming curves. The dimming curves are global: They affect both the intensity control via the device menu or DMX, wireless DMX, Art-Net and sACN.



- **Linear:** The intensity changes proportional to the *ENCODER* or the channel value.
- **S Curve:** The resolution is both high at lower and higher intensity levels and low at intensity levels in between. Use this dimming curve for a high resolution at low and high intensity levels.
- **Exponential:** The resolution is high at lower intensity levels and low at higher intensity levels. Use this dimming curve for a high resolution at low intensity levels. This is the default setting.
- **Logarithmic:** The resolution is low at lower intensity levels and high at higher intensity levels. Use this dimming curve for a high resolution at high intensity levels.

To set the dimming curve

- 1) Open *Light Control > Dimming Curve*.
- 2) Turn and push the *ENCODER* to select and activate a dimming curve.



NOTICE

The dynamic of an effect using the intensity is very low, when you choose a basic intensity value in a flat area of the dimming curve. Activate a different effect or select another dimming curve to create a more dynamic effect.

5.10 Set Tungsten or High Speed Mode

The SkyPanel Pro offers two special lighting control modes, Tungsten Mode and High Speed Mode. The special lighting control modes are global: They affect both the intensity control via the device menu or DMX, wireless DMX, and Art-Net or sACN.

Tungsten Mode

The Tungsten Mode mimics the dimming curve and strike on-and-off effect of a traditional tungsten lamp. The CCT warms as the intensity is dimmed. When the intensity drops to zero quickly there is a short afterglow of warm light. This mode is perfect for mixing the SkyPanel Pro with tungsten sources or for producing a familiar effect.

High Speed Mode

The High Speed Mode generates flicker-free light for High Speed photography. It has been tested up to 25.000 fps and down to 2° shutter angle with no flicker or roll bars.

To set a special lighting control mode:

- 1) Open *Light Control*.
- 2) Turn and push the *ENCODER* to select and activate a special lighting control mode.
- 3) Push *MENU* to close the menu.

Overview of the Tungsten Mode and High Speed Mode

Control Mode	Application	Dimming Behavior	Flicker Behavior
Tungsten Mode	Simulation of a tungsten source	Good through whole range	Unlikely to cause flicker
Normal Mode (no Tungsten or High Speed Mode active)	Normal dimming	Good through whole range	Unlikely to cause flicker
High Speed Mode	High Speed Applications	Acceptable	Flicker free

5.11 Match SkyPanel Classic

The SkyPanel Pro can match the lower output of the SkyPanel Classic (C versions only). The output matching can be based on the original Light Engine Generation 1, or the later Light Engine Generations 2 or higher.

For best results, we recommend these settings:

- RGBW color space is set to Calibrated Color at the SkyPanel Classic and the SkyPanel Pro.
- Output matching (*Light Control > Output Matching*) shall be activated and set to the corresponding light engine generation of the SkyPanel Classic.

5.12 Set the Host / Client Mode

In Host / Client mode the clients mimic the host without delay. The host generates a DMX signal on the 5-pin DMX Thru connector.

Connect a maximum of 32 devices to a DMX data link. Choose one device to be the host.



NOTICE

There shall not be more than one device in the data link set to host mode.

Setting more than one device to host mode or connecting a DMX controller to the data link causes one or all host devices to stop the host mode.

To set the Host and Client:

- 1) Open *Light Control > Host / Client Mode*.
- 2) Set all devices in the data link to *OFF* (default setting) to stop host mode. Set one device in the data link to *ON* to set the device as host.
- 3) Push *MENU* to close the menu.

All devices in the data link will mimic the host automatically and independent from their settings.

Please note when using the Host / Client mode:

- Art-Net and sACN are stopped on all devices in the data link.
- Changing the color mode on the host (CCT, HSI, GEL, Source Matching, RGBW) changes the mode on all clients accordingly.
- Starting the extended color control on the host starts the extended color control on clients supporting extended color control.
- The settings DMX address, tungsten mode, fans and signal loss behavior are changed accordingly to the settings of the host.
- Lighting presets are not available.



NOTICE

Compatibility to other LiOS devices

- ▶ The "SkyPanel Classic Matching" setting is transferred from any SkyPanel Pro to another SkyPanel Pro in Host / Client mode in the data link.
- ▶ If any other LiOS device is sending in Host / Client mode as a host, every SkyPanel Pro in the data link acts with its "personal" "SkyPanel Classic Matching" setting.
- ▶ If a SkyPanel Pro is the host and any other LiOS device is the client, the setting is ignored.



NOTICE

Color Behavior in Host / Client Mode

Pay attention to the color modes!

- ▶ The color modes *Direct Control* or *Calibrated Color* have a strong influence on the color reproduction. Using different color modes in a Host / Client setup may result in very different light colors across the devices.
- ▶ You should use the **Calibrated Color mode only** in a Host / Client setup with identical devices.
- ▶ You shall use the **Calibrated Color mode only** in a Host / Client setup with different types of devices.

5.13 Set the Calibrated Color Space

By default, the SkyPanel Pro generates colors in a calibrated color space (Kodak Pro Photo Color Gamut / ESTA standard E1.54). The calibrated color space setting only affects color control via the device menu and only in RGBW modes. DMX modes with RGBW features are forced to use the *Calibrated Color* mode.

Direct Control generates the color with optimized brightness within the specified tolerances. The color in *Direct Control* mode will not be calibrated, and there can be differences from device to device.

Use the *RIGHT knob* to set either the red, green, blue or white channel, and then turn the *ENCODER* to adjust the channel. Turn the *RIGHT knob* further clockwise to set and adjust the white point and green / magenta point of the current color.

To Activate and Stop the Calibrated Color Space:

- 1) Open *Light Control > RGBW Color Space*.
- 2) Select *Direct Control* to generate colors with optimized intensity. Select *Calibrated Color* to generate a calibrated color.
- 3) Push *MENU* to close the menu.

5.14 Select a Lighting Effect

The SkyPanel Pro offers an effect library with a wide variety of lighting effects used on set or in a TV studio. The SkyPanel Pro replaces many special effect devices with its unique effect library.

You can call up all lighting effects using the menu or via DMX, Art-Net or sACN. Each lighting effect offers specific parameters. A lighting effect can be stored as a favorite for quick access at a later point.

To select and start a lighting effect:

- 1) Open *Lighting Effects > [Desired Lighting Effect]*.
- 2) Push the *ENCODER* to activate the lighting effect.
- 3) Set the parameters, as described below.

To stop a lighting effect:

- 1) Open *Lighting Effects*.
- 2) Select the option *Off*. Push the *ENCODER* to confirm.

Start / Stop function of a lighting effect

When a lighting effect is active, push the *ENCODER* to stop the lighting effect execution. Push the *ENCODER* again to restart the lighting effect from the beginning. While stopped, the device performs a black out and a *P:<Effect>* shows the status in the display. The start / stop function is only available in the lighting effects control screen.

The SkyPanel Pro provides the following lighting effects in DMX modes 22, 36, 38 (8 bit) and 23, 37, 39 (16 bit):

Party Effect

The Party effect calls up the color spectrum or changes the color temperature from warm to cold and vice versa in an endless loop.

Parameters: Saturation, Speed

Candle

Low flickering of a warm light, slower than fire and less energetic. The light gently fades in CCT and brightness with periods of static behavior in between. It consists of „flutters“ and static periods.

Parameters: CCT Range, Speed

Clouds Passing

Slow variations in intensity and CCT that can be offset. The lighting effect is most useful when using several SkyPanel Pro that are offset to prevent a simultaneous lighting effect on different devices.

Parameters: Offset, Passing Speed, Sync

Club Lights

Random colors that pulse, flash and fade.

Parameters: Color Variety, Speed, Sync

Color Chase

Creates a color chasing lighting effect over the surface of the SkyPanel Pro using multiple LED light engines.

Parameters: Saturation, Speed, Sync, Offset

Cop Car

Creates an on-board blue and red flashing effect to mimic a police car, an ambulance or a fire brigade. Do not use the lighting effect in public areas without permission.

Parameters: Color Combination, Flash Pattern

Explosion

A bright flash of light with a fast attack and a semi-slow decay.

Parameters: Trigger, Decay

Fire

Creates a flickering fire effect.

Parameters: CCT Range, Flicker Speed

Fireworks

Bright flashes of color and have a quick start and fade to zero intensity.

Parameters: Color Combination, Speed

Fluorescent Flicker

Fluorescent color with static periods and then periods of the light flickering on and off.

Parameters: Frequency, Speed

Light Strobe

Generates a white or colored strobe effect with adjustable speed from 25 flashes / sec to 1 flash / sec.

DANGER

DANGER! Risk of injury or death through epileptic seizure.

Do not use the light strobe effect near stairways, in corridors or near public exits.

Provide advance notice that strobe lighting is in use. Display advisory notices on the set, at the point of ticket sales, on tickets if possible, in the program, and at the entrance(s) to the venue or studio.

Avoid extended periods of continuous flashing, particularly at frequencies of 10 to 20 flashes per second. At flash rates below 5 flashes per second, it is estimated that only 5% of flicker-sensitive persons will be at risk of seizure.

Make sure that personnel at the venue are trained in the care of a person who is having an epileptic seizure and able to provide care if necessary.

If strobes are in use and a person has a seizure, switch the strobes off immediately.

Mount strobes as high above head height as practicable.

Parameters: CCT, Green / Magenta Point, Crossfade, Saturation, Flash Speed

Lightning

Creates an on-board flashing lightning effect. Intensity, speed and frequency of flashing can be controlled.

Parameters: CCT, Green / Magenta Point, Sync, Speed, Frequency

Paparazzi

Lighting effect that mimics a flash bulb or modern camera flash.

Parameters: CCT, Flash Type, Frequency

Process

Fading on and off white light that moves from one light engine to the next.

Parameters: Direction, Speed

Pulsing

A pulsing or throbbing lighting effect where the color and speed can be set.

Parameters: CCT, Green / Magenta Point, Crossfade, Color, Saturation, Frequency, Span

Television

Creates an on-board TV effect. Cool CCT that changes intensity every few seconds.

Parameters: CCT Range, Speed

Welding

Quick bright flashes on different light engines with a fast decay.

Parameters: Minimum Brightness, Speed

5.15 Handle Lighting Effects through the Menu

The *CENTRAL* and *RIGHT knob* adjust the effect parameters when a lighting effect is running. For all lighting effects applies:

The lighting effect set is displayed in the left top corner of the display. The *ENCODER* adjusts the intensity. To set the lighting effect parameters:

- 1) Push the *ENCODER* to stop the lighting effect (black out).
- 2) Push the *ENCODER* again to restart the lighting effect.
- 3) Push *MODE* long (> 1 sec) to start the parameters described below (column Mode, not available for all lighting effects).
- 4) Push *MODE* again to close the lighting effect control and regain normal control.



NOTICE

When changing a parameter of a running lighting effect through the menu or via DMX, the internal effect generator recalculates the lighting effect in real time. The lighting effect can stutter, step or be unsmooth for a short period. Do not change parameters of a running lighting effect if it needs to run smooth.

Lighting Effect	Mode	Knob	Parameter
Party Effect		Central	Saturation
		Right	Speed
Candle		Central	CCT Range
		Right	Speed
Clouds Passing		Central	Offset
		Right	Speed
Club Lights		Central	Color Range
		Right	Speed
Color Chase		Central	Offset
	X	Central	Saturation
		Right	Speed
Cop Car		Central	Color Combination
		Right	Flash Pattern
Explosion		Press Encoder	Trigger
		Right	Decay
	X		Color Mode
Fire		Central	CCT Range
		Right	Speed
Fireworks		Central	Color Combination
		Right	Speed
Fluorescent Flicker		Central	Speed
		Right	Frequency
	X		Color Mode
Light Strobe	X	Central	Speed
		Central	Normal Functionality
		Right	Normal Functionality
Lightning		Central	Frequency
	X	Central	CCT Range
		Right	Speed
	X	Right	Green-Magenta Point
Paparazzi		Central	Frequency
	X	Central	CCT Range
		Right	Flash Bulb
	X	Right	Green-Magenta Point
Process		Central	Speed
		Right	Direction
	X		Color Mode
Pulsing		Central	Normal Functionality
	X	Central	Span
		Right	Normal Functionality
	X	Right	Frequency
Television		Central	CCT Range
		Right	Speed
Welding		Central	Speed
		Right	Minimum Brightness
	X		Color Mode

6 Other Functions

6.1 Display Behavior

You can set the intensity of the background illumination, the contrast, the behavior of the background illumination and the orientation of the display content via the device menu.

To set the display behavior:

- 1) Open *Display Setup* > [*Desired Display option*].
- 2) Select the desired behavior and push the *ENCODER* to confirm the selection.

Please refer to section “Device Menu [► 9]” for a detailed explanation of the options.

6.2 USB Functions

The SkyPanel Pro has an USB-C port. The load capacity is 500 mA at 5V voltage. Do not overload the USB-C port. The device accepts FAT32 formatted USB memory sticks. The following USB functions are available:

- Update the firmware
- Save and load a Lighting Preset list
- Save and load a DMX Preset list
- Save and load fixture settings
- Save the error and service log

You can update the LiOS firmware of the device through a USB memory stick:

To Update the LiOS Firmware:

Copy the SkyPanel Pro update file to the root of an USB memory stick.

- 1) Connect the USB memory stick to the USB-C connector of the SkyPanel Pro .
- 2) After a short time the device detects the update file on the USB memory stick.
- 3) Confirm the update with *Yes*.
- 4) Wait until the update is finished and the device has rebooted with the new firmware.
- 5) Remove the USB memory stick.



NOTICE

Disconnect all DMX cables from the device before using an USB memory stick. The data transfer between the device and the USB memory stick might be disturbed due to interferences.

Do not remove the USB memory stick during an update or data transfer. The file system might be corrupted. You might need to perform a recovery update to return the device to a functional state.

6.3 Lighting Presets

A Lighting Preset is a snapshot of the recent beam parameters in the moment you store it.

The SkyPanel Pro can store up to 246 Lighting Presets.

To store a lighting preset:

- Open *Presets* > *Save Light Preset*.
- Push *MODE* long to store the recent setting as a Lighting Preset.

To load a Lighting Preset:

- Open *Presets* > *Load Light Preset*.
- Turn and push the *ENCODER* to select and activate a Lighting Preset.

To delete a Lighting Preset:

- Open *Presets > Clear Light Preset*.
- Turn and push the *ENCODER* to select and delete a Lighting Preset.



NOTICE

Numbering of Lighting Presets

Please note:

- ▶ The last saved Lighting Preset is always placed at the top of the Lighting Preset list.
- ▶ The Lighting Preset is automatically assigned the first free Lighting Preset Number.
- ▶ When you delete a Lighting Preset, its preset number becomes available again. For example, if you have deleted Lighting Preset 2, the next Lighting Preset you store is assigned number 2, even though it is at the top of the list.
- ▶ This behavior can be useful if, for example, you want to modify a specific Lighting Preset but cannot or do not want to change the programming of the lighting control desk. Lighting Preset 2 will still be called up as Lighting Preset 2 with new parameters.

6.4 Lighting Preset List

The Lighting Preset list can be saved to an USB memory stick and be uploaded to another SkyPanel Pro.

To Save a Lighting Preset List:

- 1) Connect an USB memory stick to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions > Light Presets > Save Presets*.
- 3) Select *Yes* and push the *ENCODER* to confirm the setting. Select *No* to cancel the procedure.
- 4) The Lighting Preset list will be saved on the USB memory stick.

Up to 30 Lighting Preset lists can be stored in the root directory of the USB memory stick. The file name is *<product serial number>-Presetxx.json*. The SkyPanel Pro is looking for *Presetxx.json* to identify a Lighting Preset list on an USB memory stick. Be sure to keep the string when renaming a Lighting Preset list. Otherwise the file will not be found by the SkyPanel Pro.

To Load a Lighting Preset List:

- 1) Connect an USB memory stick with one or more preset lists to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions > Light Presets > Load Presets*.
- 3) Push the *ENCODER* to open the list of the Lighting Preset lists available in the root directory of the USB memory stick.
- 4) Turn and push the *ENCODER*, to select and load a Lighting Preset list. The internal Lighting Preset list of the SkyPanel Pro will be overwritten.

6.5 Save and Load Settings

You can save the device settings to an USB memory stick and upload them to a different SkyPanel Pro. The file contains all settings except the DMX address and IP settings.

To Save the Settings:

- 1) Connect an USB memory stick to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions > Fixture Setting > Save Settings*.
- 3) Select *Yes* and push the *ENCODER* to confirm the setting. Select *No* to cancel the procedure.
- 4) The settings will be saved on the USB memory stick.

Up to 30 settings files can be stored in the root directory of the USB memory stick. The file name is *<product serial number>-Clonexx.json*. The SkyPanel Pro is looking for *Clonexx.json* to identify a settings file on an USB memory stick. Be sure to keep the string when renaming a settings file. Otherwise the file will not be found by the SkyPanel Pro.

To Load Settings:

- 1) Connect an USB memory stick with one or more settings files to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions > Fixture Setting > Load Settings*.
- 3) Push the *ENCODER* to open the list of the settings files available in the root directory of the USB memory stick.
- 4) Turn the *ENCODER*, to select a settings file.
- 5) Push the *ENCODER* to load the settings. The SkyPanel Pro restarts with the new settings after successful upload.

6.6 Save the Error and Service Log

For diagnosis purpose you can be asked to send the error and service log to the ARRI service. You can download the log files to an USB memory stick. The file name contains the date, time and serial number of the device.

To save the log files:

- 1) Connect an USB memory stick to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions > Save Error Log*.
- 3) Select *Yes* and push the *ENCODER* to confirm the setting. Select *No* to cancel the procedure.
- 4) The log files will be saved on the USB memory stick.

6.7 Read out Information and Change Settings

To read out device information and settings and change settings:

- 1) Open *Enabled Menu*.
- 2) Turn the *ENCODER* to scroll through the list.
- 3) Push and turn the *ENCODER* to change a setting.

6.8 Factory Reset

A factory reset resets the device to the factory settings. This might be useful to create a defined starting point when setting up a device. To perform a factory reset.

- 1) Open *Factory Reset*.
- 2) Select *Yes* to perform a factory reset. Select *No* or push *BACK* to cancel the procedure.

The SkyPanel Pro reboots with its factory settings.

7 DMX Control

7.1 DMX Priorities

The device can be controlled via DMX, sACN or Art-Net. Please observe the priority rules below when using more than one control method at a time:

Control Method	Priority
DMX	DMX commands overwrite sACN and Art-Net commands.
sACN	sACN commands overwrite Art-Net commands, but are overwritten by DMX commands.
Art-Net	Art-Net commands are overwritten by sACN and DMX commands.

7.2 DMX Address

When you control the SkyPanel Pro through DMX, you shall assign a DMX address to the device.

To assign a DMX address:

- 1) Open *DMX Setting > DMX Address*.
- 2) Turn and push the *ENCODER* to set the DMX address.
- 3) Push *MENU* to close the menu.

7.3 DMX Mode

The SkyPanel Pro offers different DMX modes. Please find a detailed overview of all DMX modes in the document *SkyPanel Pro DMX Protocol Specification* which is available for free download on the ARRI website www.arri.com.

To set the DMX Mode:

- 1) Open *DMX Setting > DMX Mode*.
- 2) Turn and push the *ENCODER* to set the DMX mode.
- 3) Push *MENU* to close the menu.

7.4 DMX Signal Loss Behavior

You can set the behavior of the device when the control signal is lost. The table below shows the available options:

Option	Description
Hold Last Command	The last received DMX values are used until the device is switched off or valid DMX data is received again.
Black Out	The device douses to 0% intensity immediately.
Hold 2 Min. Fade Out	The last received DMX values are used for 2 minutes. After 2 minutes the device douses to 0% intensity. When valid DMX data is received after less than 2 minutes, these data will be used.

To set the DMX-Signal-Loss Behavior:

- 1) Open *DMX Setting > DMX Loss Behavior*.
- 2) Turn and push the *ENCODER* to set an option.
- 3) Push *MENU* to close the menu.



NOTICE

The setting of the DMX signal loss behavior is part of a DMX preset. The setting can change when calling up a DMX preset.

7.5 DMX Frame Filter

As a default setting, the SkyPanel Pro checks the integrity of the received control data. If certain parameters of the data stream (e.g. the number of received DMX channels) change, the device displays a warning message and checks the data stream again before accepting it as a valid control signal. If the length of the data stream changes repeatedly, the check may cause unexpected behavior of the device. Therefore this function can be disabled. The device then accepts all received control data without further checking.

To Activate and De-activate the DMX Frame Filter:

- 1) Open *DMX Settings > DMX Framefilter*.
- 2) Turn and push the *ENCODER* to set the option.
- 3) Push *MENU* to close the menu.

7.6 Wireless DMX

The SkyPanel Pro has a wireless DMX receiver. It supports the LumenRadio CRMX and CRMX2 protocol.

When no DMX traffic is received through a wired interface (DMX, Art-Net or sACN) and wireless DMX is started via the device menu, the SkyPanel Pro can be linked to a wireless DMX transmitter via an RDM command. After successful linking, the SkyPanel Pro processes wireless DMX data. The DMX data of the received DMX universe is available at the 5-pin XLR through connector for other devices.

The device responds to RDM requests only via the wireless link.

The STATUS LED on the device menu fades from blue to green followed by a 2 second fade from green to blue as soon as CRMX is started AND CRMX data is received and processed by the SkyPanel Pro.

If the CRMX Data State is set to OFF, no wireless DMX and no wireless RDM traffic will be processed.

To link a SkyPanel Pro with a wireless DMX transmitter:

- 1) Open *DMX Settings > CRMX Settings > CRMX Connection*.
- 2) To enter an 8 digit key push the *ENCODER* and turn the *ENCODER* to enter or change the 8-digit-linking-key.
- 3) Set the digits with the *CENTRAL and RIGHT knob* or push the *ENCODER* to set the next digit. When you change the key, the digit is shown in inverse mode.
- 4) Push the *ENCODER* when the cursor is at the most right position to finish entering the 8-digit-linking-key and to proceed to the next step.
- 5) Turn and push the *ENCODER* to set the CRMX mode (CRMX Classic or CRMX2).
- 6) Turn and push the *ENCODER* to set the Output number (Range A...H (CRMX 2); A, C, E, G (CRMX classic)).
- 7) The linking procedure is finished. A CRMX transmitter can now detect the device.
- 8) Push *MENU* to close the menu.

To unlink a SkyPanel Pro from a wireless DMX transmitter:

- 1) Open *DMX Settings > CRMX Settings > CRMX Data State*.
- 2) Push the *ENCODER* to set *Off*. The device is now unlinked from the transmitter.
- 3) Push *MENU* to close the menu.

As soon as DMX or RDM traffic is detected via the wired interface, any wireless DMX or RDM data will be ignored. The SkyPanel Pro processes the wired DMX/RDM traffic.



NOTICE

Please find a detailed overview of all DMX modes in the document *SkyPanel DMX Protocol Specification*. It is available for free download on the ARRI website www.arri.com.

7.7 DMX Presets

The SkyPanel Pro supports 10 user-defined DMX presets with the following parameters:

DMX address	Art-Net / sACN state	DMX frame filter
DMX mode	Merge mode	DMX protocol version
DMX ECC channels	DMX / RDM gateway	RDM state
CRM data state	DMX loss behavior	
Art-Net universe (if applicable - Not visible for sACN)		
sACN universe (if applicable - Not visible for Artnet)		
Art-Net Net (if applicable - Not visible for sACN)		
Art-Net Subnet (if applicable - Not visible for sACN)		

To save a DMX Preset List:

- 1) Push *MENU* and *PRESET* long and simultaneously to save a DMX preset list independent from the current page shown on the display.
- 2) Turn and push the *ENCODER* to save the DMX preset list in the desired slot.

To activate a DMX Preset List:

- 1) Push *MENU* and *PRESET* short and simultaneously to open the DMX preset list independent from the current shown page on the display.
- 2) Turn and double push the *ENCODER* to activate a DMX preset list.



NOTICE

If Host / Client Mode was started: Activating a DMX Preset disables the Host / Client Mode as the user expects the new settings.

7.8 Save and Load DMX Settings

You can save the DMX preset list to an USB memory stick and upload the list to another SkyPanel Pro.

To Save a DMX Preset List:

- 1) Connect an USB memory stick to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions* -> *DMX Presets* -> *Save DMX Preset*.
- 3) Turn and push the *ENCODER* to set the DMX preset list. Select *Yes* to confirm the setting. Select *No* to cancel the procedure.
- 4) The DMX settings will be saved on the USB memory stick.

You can save up to ten DMX preset lists in the root directory of the USB memory stick. The file name is *<text>-DMXPres<No>.json*. The SkyPanel Pro is looking for this string to identify a DMX preset file on an USB memory stick. Be sure to keep the string when renaming a DMX preset file. Otherwise the file will not be found by the device.

To Load a DMX Preset List:

- 1) Connect an USB memory stick to the USB-C connector of the SkyPanel Pro.
- 2) Open *USB Functions* -> *DMX Presets* -> *Load DMX Preset*.
- 3) Turn and push the *ENCODER* to select the DMX preset list. Select *Yes* to confirm the setting. Select *No* to cancel the procedure.
- 4) The DMX preset list will be loaded in the device. It overwrites the DMX settings of the device.

7.9 DMX Monitor

When valid control data is received, the SkyPanel Pro automatically opens the DMX monitor in the display. The top right corner will say DMX, and the top left corner will note any active special settings.

Information displayed in the DMX monitor:

- DMX mode and description
- DMX address and channels used
- DMX footprint size

8 Network Control



NOTICE

Unpredictable Behavior in Network / Gateway Modes

To change the setup during operation can lead to temporary loss of the device.

- ▶ Do not change the setup (e.g. adding devices to or removing devices from the network) during a live situation. The network will be rebuilt when changes are made. This can lead to short-term, unpredictable behavior of individual devices.

8.1 Art-Net and sACN

The SkyPanel Pro supports Art-Net. Art-Net is a network protocol to control devices.

Here is a brief explanation of some basic terms being used by Art-Net. For more detailed information, please visit the web site of the Art-Net developers: www.artisticlicence.com.

The device is capable of processing Art-Net for up to ten universes with one sender and three universes with two senders.

General rules of thumb:

- Maximum of 4 universes of Art-Net Art-DMX unless you really have to,
- All universes of sACN.

Please find more information about sACN in the standard ANSI E1.31. Please observe all information given there to set up a proper network.

Art-Net IP Address

When setting the IP address manually, please take care the address is in the range 2.0.0.1 to 2.255.255.255 (Network switch off) or 10.0.0.1 to 10.255.255.255 (Network switch on). Any other range is not according to the Art-Net standard and problems might occur.

Art-Net Net

A group of 16 consecutive Sub-Nets or 256 consecutive Universes is referred to as a net. There are 128 Nets in total.

Sub-Net

A group of 16 consecutive universes is referred to as a sub-net. (Not to be confused with the subnet mask).

Universe

A single DMX512 frame of 512 channels is referred to as a Universe.

Art-Net Merge Mode

The Art-Net protocol allows multiple nodes or controllers to transmit ArtDmx data to the same universe. Merging is limited to two sources. If there are additional sources, merging will be deactivated.

The Merger can act as an LTP or HTP merger (LTP = Latest Takes Precedence, HTP = Highest Takes Precedence).

DMX / RDM Gateway

With enabled DMX / RDM Gateway the SkyPanel Pro makes all 512 channels of the used universe available at its DMX connectors.

The menu Art-Net Settings contains all parameters to set up a SkyPanel Pro in an Art-Net network. Please find a detailed description in the section *Features of the Device Menu*.

The DMX / RDM Gateway is RDM capable. All RDM compatible devices in a network can be detected by the integrated RDM controller. RDM management over Art-Net / sACN is supported.

8.2 Network Settings

The *Network Settings* menu contains various parameters for setting up the SkyPanel Pro in a network.

Link shows if the device is connected to a network.

IP displays the IP address of the device when it is connected to a network.

Mode sets the IP mode. In DHCP mode, the IP address, gateway, DNS1 and DNS2 are automatically assigned to the fixture by the network. You should use this mode if possible.

Art-Net 2.x.x.x.x and *Art-Net 10.x.x.x* are used to set up the fixture in an Art-Net network.

AutoIP negotiates an IP address automatically when connected to a PC which is set to AutoIP in the range 169.x.x.x.

Manual enables the assignment of a fixed IP address.

Mask shows the network mask.

Gateway shows the gateway address.

DNS1 / DNS2 shows the DNS addresses of the device.

MAC shows the MAC address of the device.

BONJ The SkyPanel Pro can be found automatically in a network via the Bonjour application. Start or stop Bonjour in the BONJ menu. You can also set the status via RDM or the Web Portal.

When Bonjour is stopped, the device cannot be automatically detected by ALSM.

MDNS displays the MDNS address of the device (ID and serial number).

8.3 ARRI Lighting Service Manager

Please find information about the features and the functionality of the ARRI Lighting Service Manager in the user manual for the ARRI Lighting Service Manager. You can download it with the ARRI Lighting Service Manager software-bundle from the ARRI web site www.arri.com/lightingsoftware free of charge.

8.4 Web Portal

The SkyPanel Pro provides a web page accessible via http, when connected to a network. Type in the IP address of the SkyPanel Pro in your web browser to open the web portal and change the settings listed below. The web portal can also be found by using a Bonjour service to discover the device and open the web portal without needing to know the IP address.

The web portal features:

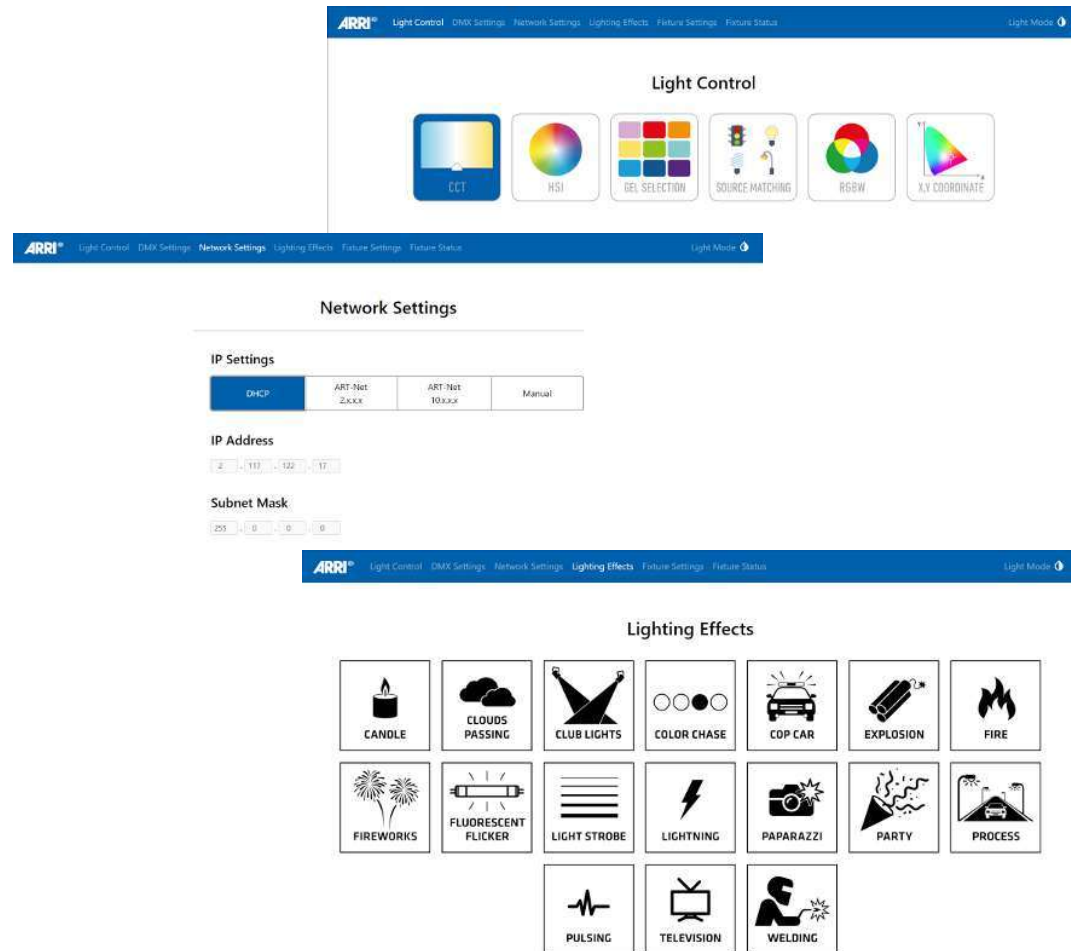
- Set the control mode
- Start and stop lighting effects
- Read and modify DMX settings
- Read and modify network settings
- Read and modify device settings
- Read the device state
- DMX Monitor



NOTICE

Always use the latest version of your web browser. Earlier versions might not be compatible to the web portal of the device. The following browsers has been tested successful with the ARRI web portal: Safari, Chrome, Firefox, Opera, IE 11.

Please do not access the web portal during a show. The data exchange with the web portal might cause delayed reaction and cause unexpected behavior of the device.



9 Menu Structure and Error Codes

For firmware LiOS 3.2.1

Open and close the menu with *MENU*. *BACK* closes a sub menu and aborts an action.

Turn the *ENCODER* to scroll. Push the *ENCODER* to select an item.

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
DMX Settings	DMX Address	001 – 512		Start address
	DMX Mode	P1 – P39		DMX Mode
	DMX Loss Behavior	Hold Last Command		Device holds the last received control values
		Black Out		Device douses the dimmer
		Hold 2 Min Fade Out		Hold last received values 2 min., then douse
	DMX Mode Spec.	4.4		Version of the DMX protocol
	DMX Termination	Off		DMX Termination off
		On		DMX Termination active
	DMX Pres. Act. Conf.	Off		DMX Preset Active Confirmation off
		On		DMX Preset Active Confirmation active
	DMX Dimmer Smoothing	Off		DMX Dimmer smoothing off
		On		DMX Dimmer smoothing active
	DMX Transition Type	Direct		Direct Xfade
		Through Black		Xfade through black
		Through White		Xfade through white
		Over White point		Xfade over white point
		Under White point		Xfade under white point
	RDM State	Off		RDM communication off
		On		RDM communication active
	DMX / RDM Gateway	Off		DMX / RDM Gateway off
		On		DMX / RDM Gateway active
	DMX Frame Filter	Off		DMX Frame Filter off
		On		DMX Frame Filter active
Fan/ Operational Mode	Vari Fan			Temperature controlled fan speed, variable
	High Temp			High fan speed
	Low Noise			Low fan speed
	ARRI ALEXA Vari Fan			Temperature controlled fan speed, variable
	ARRI ALEXA High Temp			High fan speed
	ARRI ALEXA Low Noise			Low fan speed
Light Mode	CCT			White light, color temperature and green / magenta correction adjustable
	H S I			Colored light, hue and saturation adjustable
	Gel			GEL mode, gel library available, color temperature 3.200 K or 5.600 K
	Source Matching			The device emulates a specific light source.
	RGBW			Color mixing in RGBW mode.
	x,y Coord.			Setting the color via its x, y coordinates

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
Light Control	Dimming Curve	Exponential		Exponential dimming curve
		Logarithmic		Logarithmic dimming curve
		Linear		Linear dimming curve
		'S' Curve		Combination of exponential and logarithmic dimming curve
	Tungsten Mode	Off		Color temperature linear when dimming
		On		Color temperature mimics tungsten when dimming
	RGBW Color Space	Direct Control		The color is mixed in RGBW mode direct (optimized brightness).
		Calibrated Color		The RGBW color is calibrated (optimized hue)
	HSI White Point	CCT		Set CCT color temperature
		G/M		Set green / magenta point
	High Speed Mode	Off		High Speed mode off
		On		High Speed mode active
	Host / Client Mode	Off		Host / Client Mode off
		On		Host / Client Mode active
	Output Matching	Off – Full Ouput		No lighting match to SkyPanel Classic
SkyPanel Gen 1			Lighting match to SkyPanel Classic with light engine generation 1	
SkyPanel Gen >= 2			Lighting match to SkyPanel Classic with light engine generation 2 or above	
Lighting Effects	Off			No lighting effect active
	Party Effect			Lighting effect active
	Candle			
	Clouds Passing			
	Club Lights			
	Color Chase			
	Cop Car			
	Explosion			
	Fire			
	Fireworks			
	Fluorescent Flicker			
	Light Strobe			
	Lightning			
	Paparazzi			
	Process			
	Pulsing			
	Television			
	Welding			
	Display Setup	... Illumination	Always On	
Off After 10 Sec.				Display backlight douses 10 sec. after last menu action
... Brightness		0 – 100		Brightness of the display backlight
... Contrast		0 ... 5 ... 10		Contrast of the display content
... Orientation		Normal		No rotation of the display content
		Upside Down		Display content 180° rotated

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)	
USB Functions	Light Presets	Save Presets	No	Abort action	
			Yes	Save favorites to an USB memory stick	
		Load Presets	[List]	Load favorites list from an USB memory stick. Select favorite list with the encoder.	
	DMX Preset	Save DMX Presets	No	Abort action.	
			Yes	Store preset list to an USB memory stick.	
		Load DMX Presets	No	Abort action.	
			Yes	Load preset list from an USB memory stick. Select preset list with the encoder.	
	Fixture Settings	Save Settings	No	Abort action.	
			Yes	Store fixture settings to an USB memory stick.	
		Load Settings	[List]	Load fixture settings from an USB memory stick. Select fixture settings with the encoder	
Save Error Log			Store error and service log to an USB memory stick.		
Update LiOS			Perform a firmware update		
Art-Net & sACN	Art-Net / sACN State	Automatic		Device accepts both protocols	
		Art-Net only		Device accepts Art-Net only	
		sACN only		Device accepts sACN only	
		Off		Device accepts no network protocol	
	Art-Net Universe	0 – 15		Set Art-Net universe in Art-Net subnet	
	Merge Mode	Latest Takes Precedence		Set Merge-Mode „LTP“ (Last Take Precedence)	
		Highest Takes Precedence		Set Merge-Mode „HTP“ (High Take Precedence)	
	sACN Universe	1 ... 65.000		sACN universe	
	IP Mode >			Shortcut to Network settings -> Mode (see below)	
Network Settings	Link	Connection OK		Connection started	
		Not Connected		Connection stopped	
	IP	AAA.BBB.CCC.DDD		The devices IP address (assigned via DHCP, if active) If manual mode is started: AAA = 10, 172 or 192 BBB = 0 - 255, 16 - 31 or 168 CCC = 0 - 255 DDD = 0 - 255 If changed, the IP mode is automatically set to „Manual“	
		Mode	DHCP		Use DHCP mode
			Art-Net 2.B.C.D		Use Art-Net net 2.B.C.D
			Art-Net 10.B.C.D		Use Art-Net net 10.B.C.D
			Manual		Jumps to „IP Address“
			Auto IP		
	Mask	255.255.255.0		Cannot be changed via the device menu.	
	GW	x.x.x.x		Cannot be changed via the device menu.	
	DNS1	x.x.x.x		Cannot be changed via the device menu.	

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
Network Settings	DNS2	x.x.x.x		Cannot be changed via the device menu.
	MAC	XX:XX:XX:XX:XX:XX		MAC address
	BONJ	On		Bonjour State
		Off		
	MDNS	Sxx-xxxxxxx-xxxx		Serial number
Enabled Menu	Fan/Op. Mode			Shows the settings of each option. Press the ENCODER to change the setting of the selected option.
	Dimm. Curve			
	Tungsten			
	RGBW C-Space			
	High Speed			
	Host / Client			
	Output Match.			
	Effect			
	Art-Net/sACN			
	CRMX			
	Bluetooth			
	DMX Term.			
	DMX Pres. Act.			
	DMX Smoothing			
	RDM State			
	DMX / RDM Gateway			
	IP Mode			
	Bonjour			
Wireless Settings	CRMX State	Off		CRMX module off
		On		CRMX module active
	CRMX Connection	Enter Linking Key		Enter CRMX linking key
		Unlink		Unlink CRMX connection
		State		State of CRMX connection
		Name		Name of CRMX connection
	Bluetooth State	Off		Bluetooth Link Off
		On		Bluetooth Link active
	Bluetooth Code	Enter Code		Enter 6-digit code
Clear Code			Clear Bluetooth code	
Presets	Load Light Preset	[Light Preset List]		Select light preset and activate
	Save Light Preset			Save light preset on next free slot
	Clear Light Preset	[Light Preset List]		Delete light preset from list
	Load DMX Preset	[DMX Preset List]		Select DMX preset and activate
	Save DMX Preset	[DMX Preset List]		Save DMX preset on next free slot
	Clear DMX Preset	[DMX Preset List]		Delete DMX preset from list

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
Fixture Info	Fixture Status	Power: Data: Status: -> Clear		No error or Error message (see Error Codes [► 35])
	Light Engine Temp.	xx.x °C xx.x °F		Recent light engine temperature
	Hour Counter	Light Engine: System:		Working hours of the light engines and of the system since production of the fixture
	Fixture Serial No.	L1.xxxxxxx-xxx		Fixture serial number
	Firmware Version	FW: x.xx.xx.xxxx		Installed firmware version
Factory Reset	No			Do not load factory settings
	Yes			Load factory settings

9.1 RDM Commands

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

9.2 Error Codes

When the device detects a **warning**, it enters the degraded mode:

- A warning message appears on the control panel,
- All menu functions are still available,
- Operation continues as in normal operation mode,
- Light output continues,
- The device switches back to normal operating mode as soon as the causing fault(s) disappeared.
- If no display is connected, the status LED indicates the type of warning that caused the degraded mode.

When the device detects an **error**, it enters the fail safe mode:

- An error message appears on the control panel,
- Light output is stopped,
- If the power supply of the controller is disturbed, the fixture may switch off, otherwise the main controller is kept alive and an error message is shown on the display.
- If no display is connected, the status LED indicates that the device is in degraded mode. (red status light).

NOTICE! If a problem, a warning or an error persists, contact a certified ARRI service center or ARRI service.

Code	Error or Warning	Error or Warning Message	Remedy
E.001	E	File system not found	Restart the device.
E.002	E/W	Config files missing. Default values are applied	Perform a reset by pressing the reset button (5 s).
E.003	E	LED supply voltage not detected	Restart device.
E.004	E	LED driver not found.	
E.005	E	Light engine not found	

Code	Error or Warning	Error or Warning Message	Remedy
E.006	E	LED channel fault.	Restart device.
E.007	E	Calibration fault	
E.008	E/W	Light engine temperature high / critical	Reduce intensity level to avoid malfunction or failure due to high temperature. Avoid mounting or setup conditions that might block the airflow.
E.009	E/W	LED driver temperature high / critical	
E.010	E/W	Mainboard temperature high / critical	
E.011	E	PSU Temperature critical	Turn the device off or set intensity to 0 % via Control Panel or DMX to start cool down process. Restart or increase intensity after a few minutes.
E.012	E	NTC temperature sensor deviation	Reduce intensity level to avoid malfunction or failure due to high temperature.
E.013	W	Fan speed issue	Turn off the device and clean the fans.
E.014	E/W	DC input voltage low	DC input voltage too low. Increase voltage or switch to mains power supply.
E.015	W	Flash drive power supply not detected	Restart the device.
E.016	W	Flash drive not found	Remove the USB flash drive, wait some seconds and reconnect it. If the problem persists, format to FAT or try a different USB flash drive.
E.017	W	Flash drive read/write not possible	
E.018	W	Factory default values not found	Perform a reset by pressing the reset button (5 s).
E.019	W	DMX signal lost	Check DMX network and cables or enable DMX termination. Manual control via control panel is still possible.
E.020	W	DMX data collision	External gateway or host (Host / Client mode) detected. Device stops acting as gateway or host.
E.022	W	LiOS update failed	Repeat firmware update procedure.
E.023	W	PWM values invalid	Restart device.
E.024	W	Fan power supply not detected	
E.029	W	Sensor missing	Please contact a certified ARRI service center or ARRI service.
E.032	E/W	DC input voltage high / critical	DC input voltage too high. Decrease voltage or switch to mains power supply.
E.034	E/W	CPU temperature high / critical	Reduce intensity level to avoid malfunction or failure due to high temperature. Avoid mounting or setup conditions that might block the airflow.
E.037	E	LED driver error	Restart device.
E.038	W	High system workload	Wait some seconds.
E.039	E	LED driver watchdog elapsed	

Code	Error or Warning	Error or Warning Message	Remedy
E.040	W	Received DMX data frame too short	Ensure that the used DMX controller supports sending 512 channels. Select a lower DMX start address or change to a mode with a smaller footprint. Deactivate the DMX valid filter.
E.042	W	RTC - Clock not set correctly	Contact certified ARRI service center for battery change. Log files may show incorrect time and date.
E.043	W	CRMX module not found	Restart device.
E.044	E	System error	
E.051	W	System watchdog elapsed	
E.053	W	Dim to zero	Dim to zero or clear error state to enable light output.
E.060	E	Light engine mismatch	Incompatible light engines found. Contact a certified service partner or ARRI service.
E.061	W	Light Engine Statistics missing	Restart device.
E.062	W	Fan Analyzer found problems	
--	W	Communication error (Message only in CP)	Reconnect control panel and/or restart device.
HTTP-Error	W	HTTP-Error (not for CP; only for direct access via any other http client like curl)	Check physical network connection for bad connection and/or network settings.

Notes

[illegible]

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