



SKYPANEL 

User Manual

April 2016

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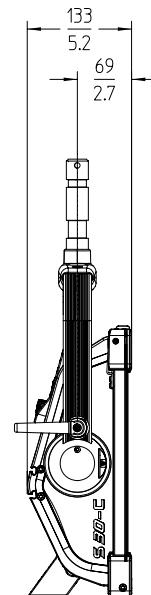
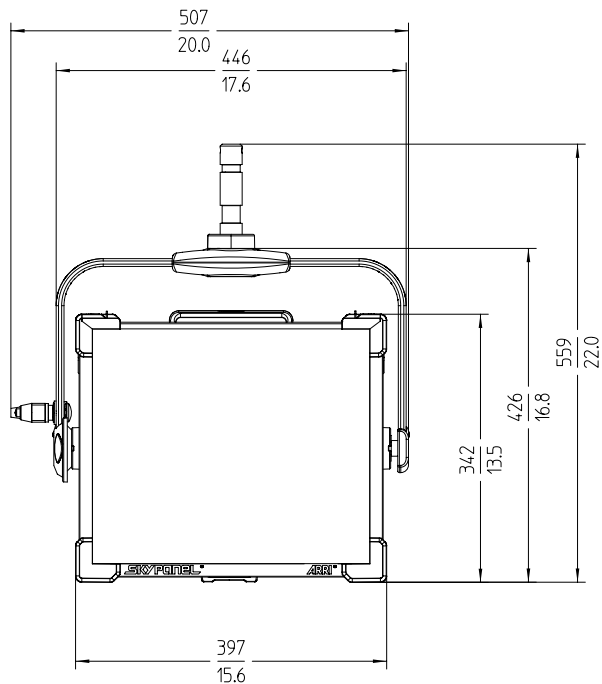
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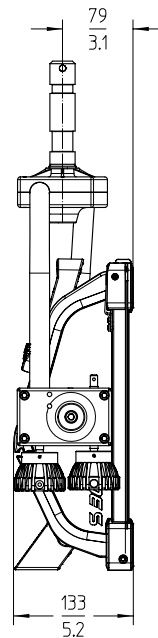
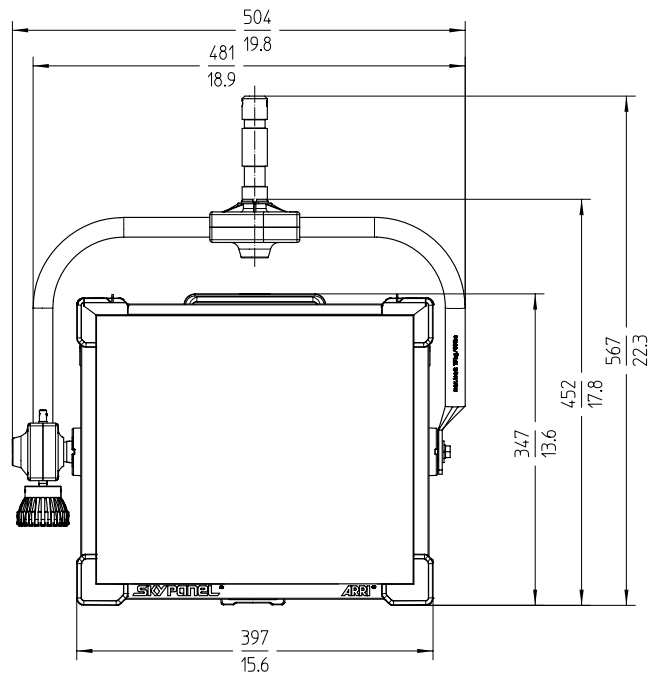
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Dimensions

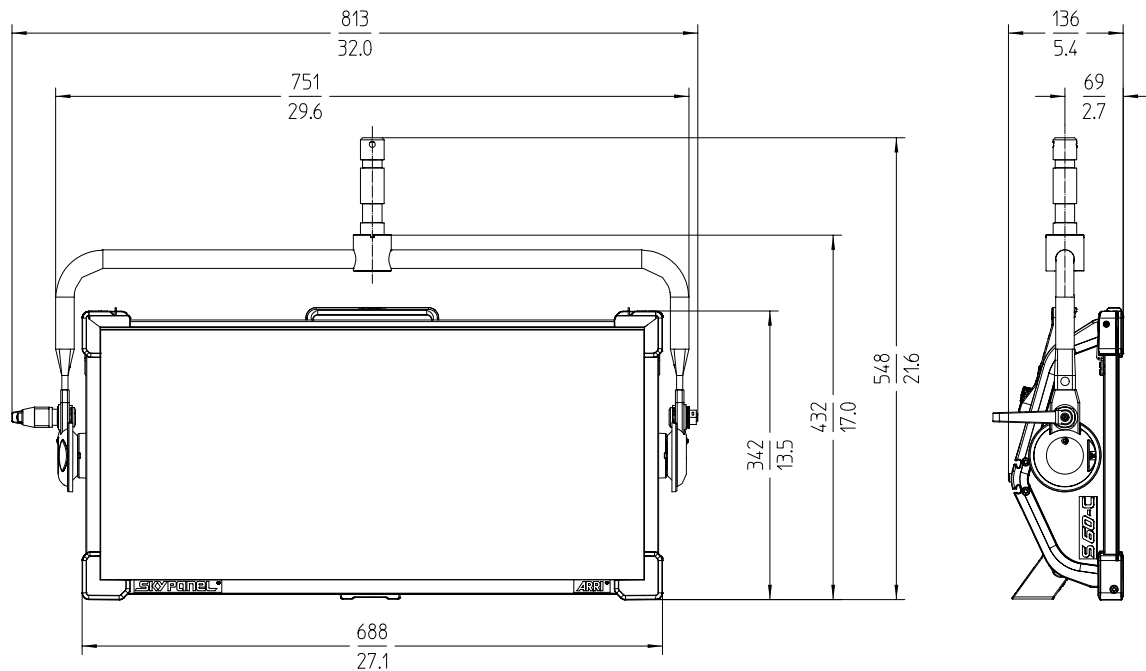
SkyPanel S30 (manual version)



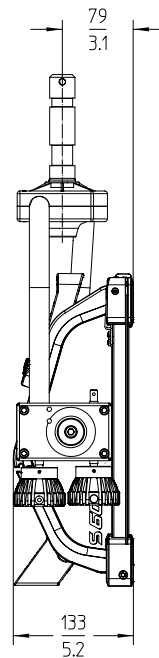
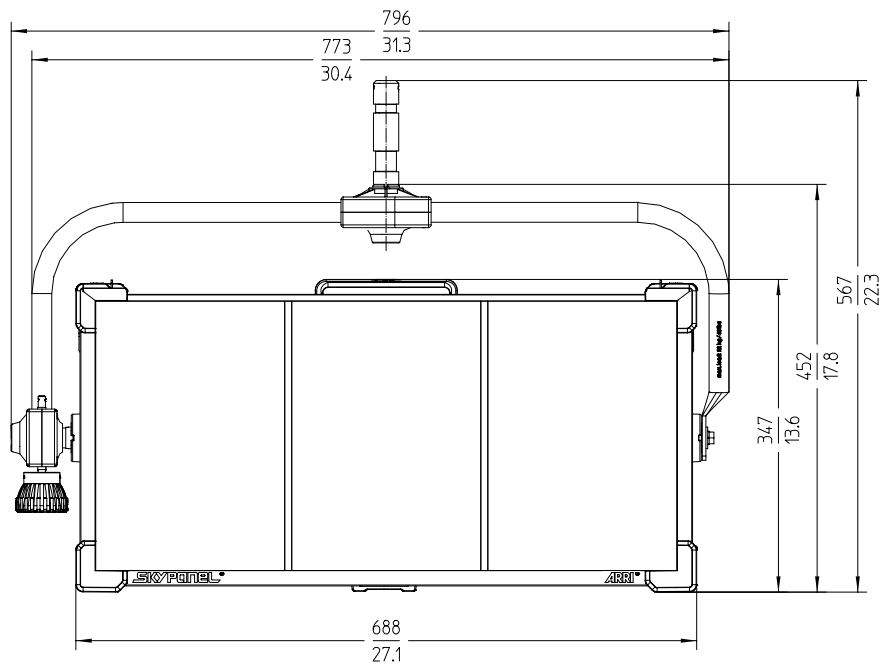
SkyPanel S30 (P.O. Version)



SkyPanel S60 (manual version)



SkyPanel S60 (P.O. Version)



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Safety Information



Always follow these instructions and instructions printed on the product or given in the documentation shipped with the product to protect against injury to yourself and damage to the product or other objects.

Explanation of Warning Signs and Indications



Possible risk of injury or damage to equipment.



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



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



Caution! High intensity light emission. Risk of irreversible eye injury. Wear protection glasses.



Do not stare at the operating light source.

Note: Indicates further information.

General Notes

- This document contains important instructions and notes to handle the product safe.
- Always follow all safety information for your own protection.
- Please contact a trained ARRI® service technician to do any service and maintenance not described in this manual.
- Please follow the user manual of accessories and third party accessories such as battery packs and battery chargers. They contain important safety and security information.
- Retain this user manual and all user and installation manuals shipped with the system for further reference and possible new owners of this product.
- ARRI® SkyPanel® products are intended for professional use and may only be operated by qualified persons. They are not for household use.
- Help protecting the environment by disposing the package material at your local recycling center.
- All components comply to the guidelines listed below:

Low voltage directive 2014/35/EU

EMC directive 2014/30/EU

RoHS directive 2011/65/EU

General Safety Information



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



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



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

Component	Possible damage
Housing, diffuser	Cracks, cuts, deformation
Cables	Cuts, deformation, burns
Connectors	Cracks, deformation, burns
Cable connectors	Damaged
Threads	Damaged



If the product or accessory is visibly damaged, the product or accessory must no longer be used. Replace or repair the respective part. In case of repairs, please contact an authorized ARRI service center.



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



Do not operate the product if the ambient temperature exceeds 45° C. Observe all information given in chapter "Specification" on page 66.



Do not expose the product to rain or moisture. Do not use the product for 2 h when it was exposed to big temperature differences as condensed moisture may damage the product electrically when switched on.



Do not bypass any safety feature of the product.



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



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

Specific Safety Information



Not to observe the safety information or general rules of reason may cause injury or death to yourself and others or damage to equipment.



Intensive use can cause the surface to become warm. Let the product cool down complete before you handle it.



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



WARNING: Intense light. Never look direct into the light source.



The product must not be used without a diffuser installed. Products with defective safety switches (SkyPanel RP) must not be used.



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



The stirrup shipped with the product must be mounted hanging or standing vertically. Lateral load can cause deformation or breaking of the spigot and the stirrup.



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



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



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



When using a battery pack, always check that the voltage matches the voltage range printed on the type label of the product before connecting the battery pack to the product.



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



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



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



Disconnect all cables prior to transport.

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

Replacing the Light Source

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

Firmware Downgrade

Note: Please observe, that it is not possible to downgrade the firmware to a version lower 1.0.0 after updating to version 1.0.0 or higher.

Maintenance Information

- Do not clean the surface of the product with solvents or strong detergents.
- Clean the product with a soft cloth wetted with a mild detergent. Do not rub the surface: lift stuck particles off with a soft repeated press.
- Clean soiled electric contacts with cotton swabs wetted with isopropyl alcohol.
- Keep electric contacts clean and replace corroded parts.

Intended use

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

Always follow the safety information.

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

This product fulfils European, national and international requirements.

Introduction

Thank you for selecting the SkyPanel LED softlight from ARRI. The SkyPanel is a compact, ultra-bright and high-quality LED softlight. It is much more efficient than a softlight with a conventional light source.

The SkyPanel combines the advantages of the LED technology with the characteristic of a conventional softlight. The SkyPanel integrates seamlessly into established working practice. Lighting designers as well as Studios don't need to change its workflow. The optical system produces a soft, homogeneous light field.

The different models of the SkyPanel emit white light with a fixed color temperature or colored light with adjustable color temperature and adjustable green / magenta saturation (see "Specification" on page 66). The light spectrum is optimized for excellent color rendition and fulfills perfect the demands of modern, digital cameras. All models of the SkyPanel can be controlled using the common DMX512-A protocol, the Art-Net protocol or the fixture menu.

The SkyPanel is powered by AC power or a battery pack. Please find more detailed information in section "To Power the SkyPanel" on page 24.

Features

Light Field

The SkyPanel offers the same functionality as a conventional softlight.

Even Light Field

The SkyPanel softlight produces a homogeneous, single-shadow light field, delivering natural results.

Vibrant Colors, Full Spectrum Lighting

True-to-life color rendition is an outstanding feature of the SkyPanel. The fully tuneable white light of the C version can be adjusted for different skin tones, camera sensors and mixed light environments. Full gamut color mixing enables the rendition of all color shades. The extensive gel library (from firmware version 2.0) offers a wide range of familiar colors at the user's fingertips.

Cool Light Beam

The SkyPanel does not emit any infrared or UV radiation and thus does not forward heat, making actors feel comfortable in the light beam.

Properties

Guiding Rails

Diffuser plates and other accessories for shaping the light like a barndoor are inserted in the locking guiding rails at the front of the fixture.

Stirrup

The stirrup provides high strength with minimum weight. The external power supply unit can be mounted on the stirrup. An optional, pole operated yoke allows full operation of pan and tilt from the floor and is therefore a popular choice for many studios.

Tilt-Lock

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

Control

All functions of the SkyPanel are controllable through DMX or Art-Net. The SkyPanel is also fully RDM compatible (both via DMX and Art-Net with suitable controllers) and is equipped with a feedback channel for reporting all set parameters including system status.

Fixture Menu

For location applications the SkyPanel is equipped with a fixture menu for manual adjustment of intensity, color temperature and plus/minus green as well as hue and saturation (dependent on model).

Unpacking

The SkyPanel is supplied with:

- External power supply unit (PSU)
- Power cable with a powerCON TRUE1 connector and a power plug or bare ends
- Connector cable between power supply unit and SkyPanel
- Stirrup
- 28 mm spigot
- Short instruction
- 10 mm allen key (manual version)
- 8 mm allen key (p.o. version)
- 4 mm allen key

Please refer to chapter “Specification” on page 66 for more information about optional accessories.

Overview

Manual Version

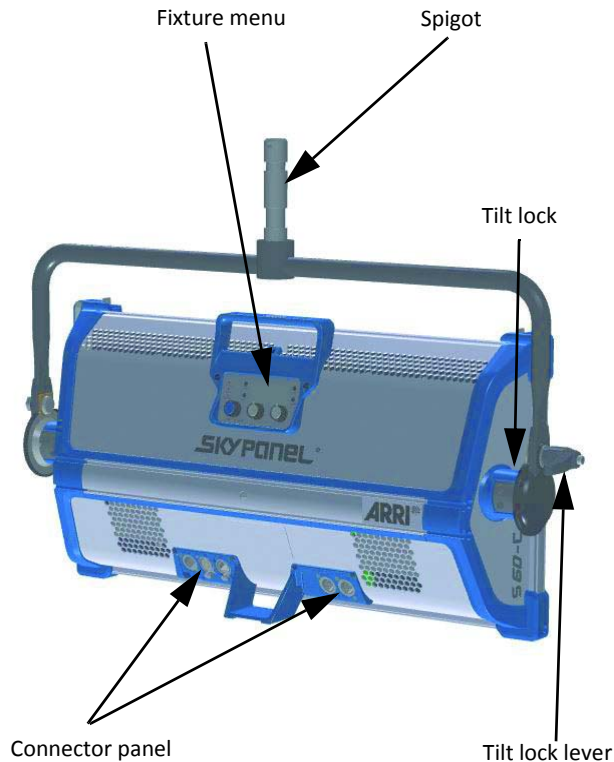
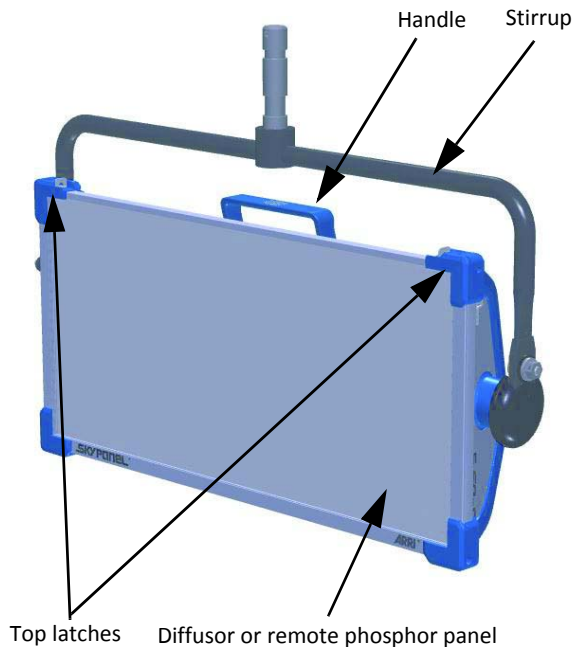


Figure 1: Front and back view, manual version (the figure shows the S60)

P.O. Version

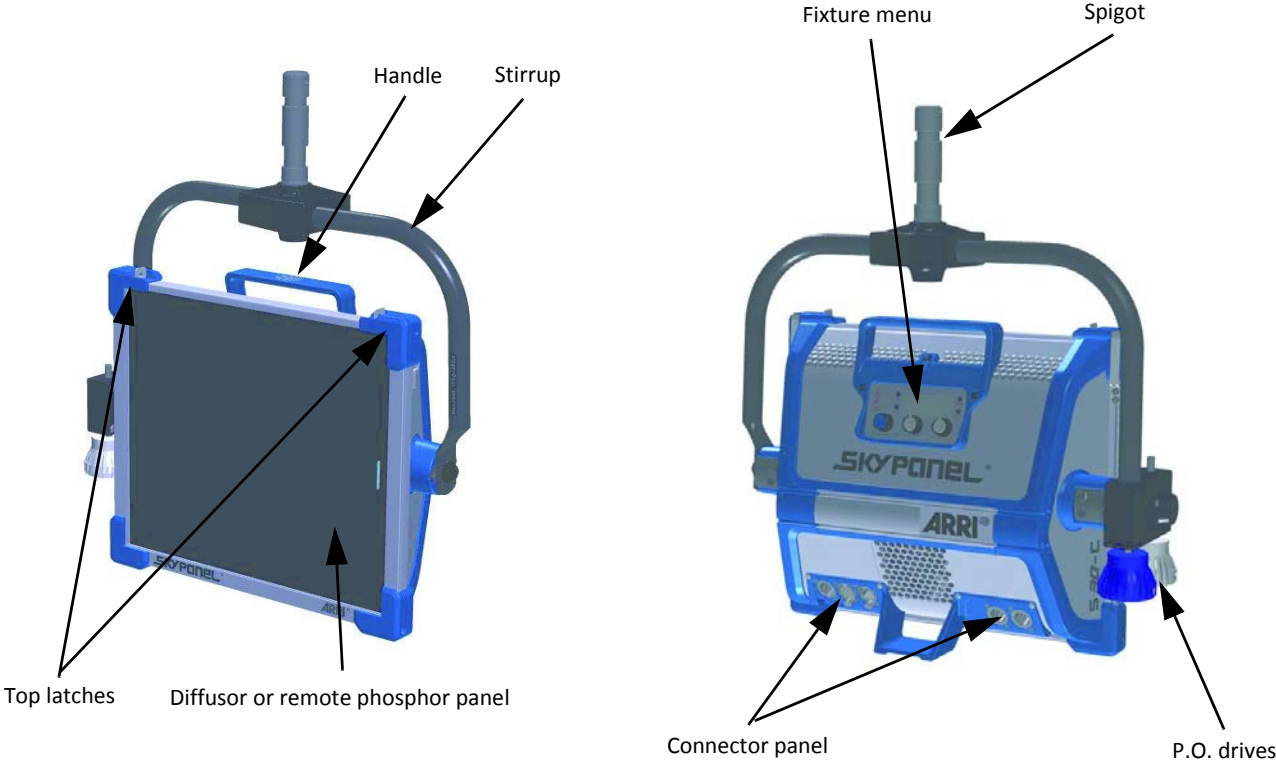


Figure 2: Front and back view, P.O. version (the figure shows the S30)

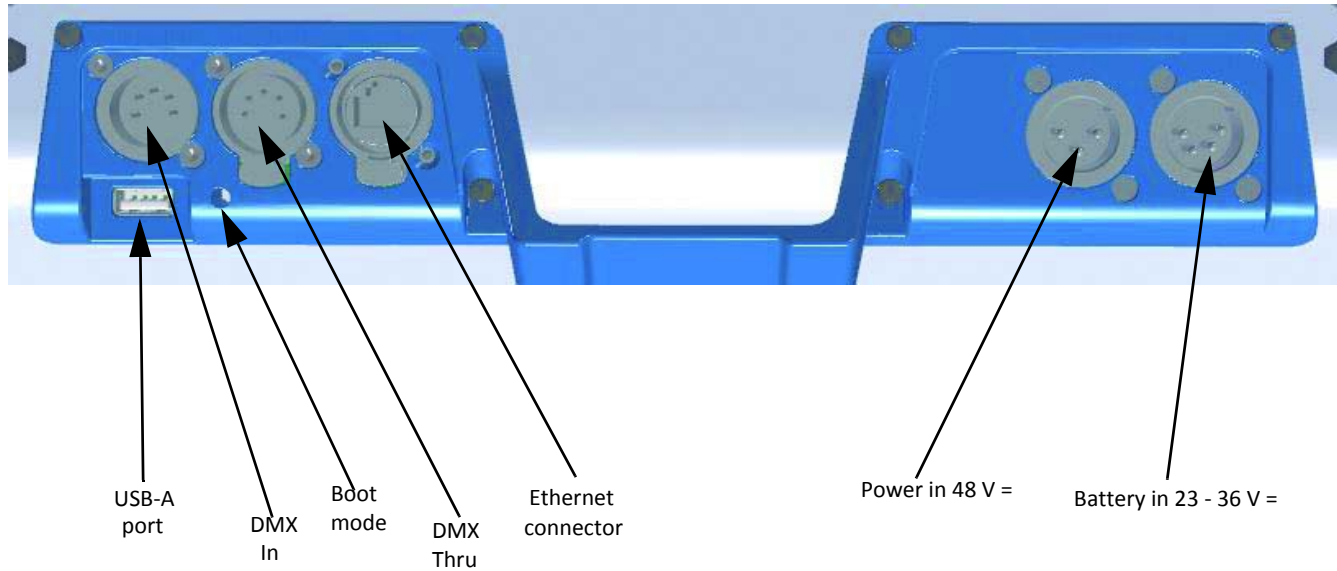


Figure 3: Connector panel

Power Supply Unit S60

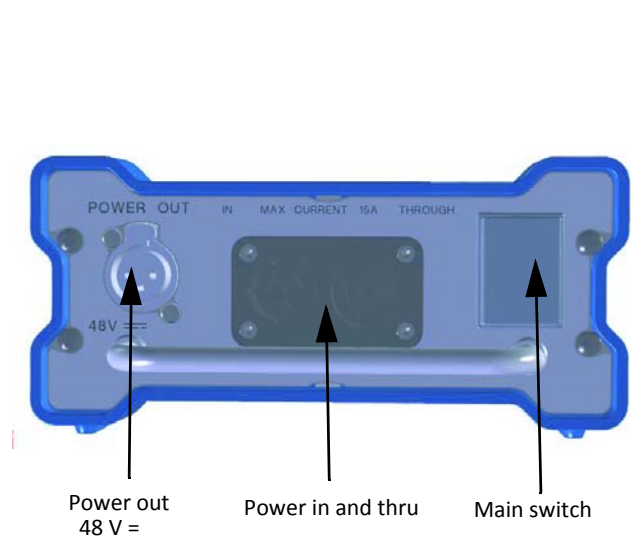


Figure 4: Power supply unit S60

Power Supply Unit S30

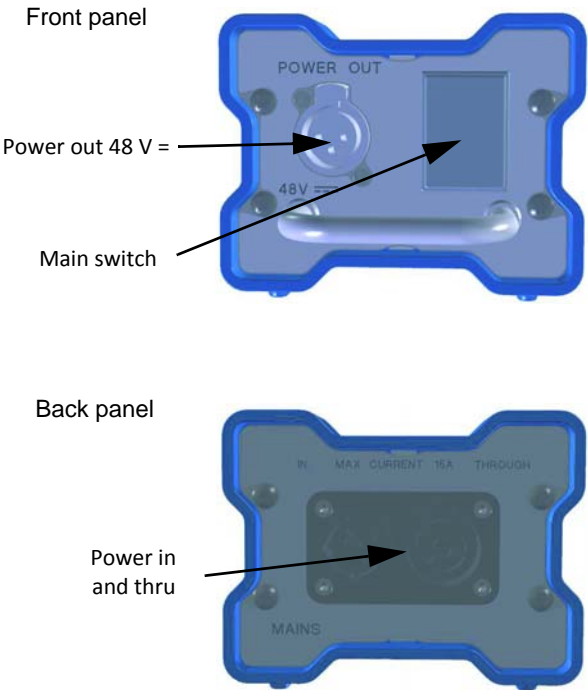


Figure 5: Power supply unit S30

Physical Installation



WARNING! Attach an approved safety-cable to secure the product and accessories against clamp or bracket failure when the product is mounted above floor. The safety-cable needs to be approved at least 10 times the weight of the product including all accessories mounted at the product. The safety cable must comply with EN 60598-2-17 Section 17.6.6 and be approved by an official body such as TÜV. Lead the safety-cable through the stirrup and keep it as short as possible. The handle and the floor stand must not be used as an anchor for the safety-cable.



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



WARNING! The stirrup must be mounted hanging or standing vertically. Lateral load can cause deformation or breaking of the spigot and the stirrup.



CAUTION! Block access below the work area and work from a stable platform whenever installing, servicing or moving the product or accessories.



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

To Mount the Stirrup And the Spigot

You need:

- a 10 mm allen key (manual version)
- a 8 mm allen key (p.o. version)
- a 4 mm allen key
- a torque wrench with 10 mm or 8 mm and 4 mm allen socket

To Mount the Spigot (manual version)

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

To Mount the Spigot (p.o. version)

Insert the allen screw with washer and spring washer in the spigot. Place the spigot on the upper side of the gear in the middle of the spigot. Tighten the allen screw with a torque wrench to 22 ft-lb. torque.

To Mount the Stirrup

- Place the SkyPanel with the lighting aperture facing downwards on an even and clean surface.
- Remove two allen screws (4 mm allen key) on each side of the product.
- Insert both connector elements on both sides of the stirrup into the holder on each side of the SkyPanel (see Figure 6).
- Mount the stirrup with two allen screws on each side of the product (4 mm allen key, recommended torque: 5 ft-lb.).

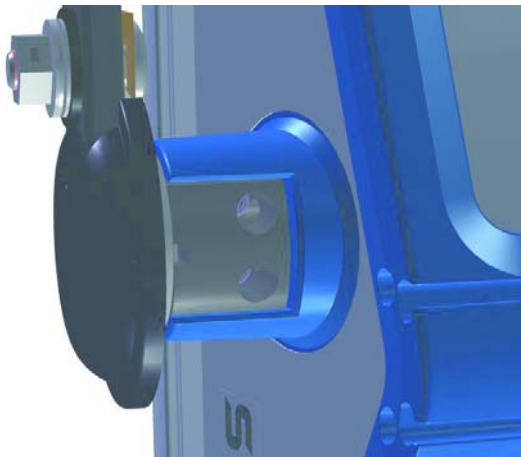


Figure 6: To mount the stirrup

To Mount the Safety Loop Brackets

The stirrup holders can be used to attach the safety loop brackets in conjunction the Center mount yoke (L2.0008078) and Fixed center mount yoke (L2.0008080). The brackets are intended to be used as an anchor point for a safety cable.

To Dismantle the Stirrup:

- Place the SkyPanel with the lighting aperture facing downwards on an even and clean surface.
- Loosen and remove two allen screws on each side of the product (4 mm allen key, see Figure 6).
- Remove the stirrup.

To Mount the Safety Loop Brackets:

- Place the SkyPanel with the lighting aperture facing downwards on an even and clean surface.
- Place one safety loop bracket in the holder on each side of the SkyPanels (see Figure 7).
- Mount the safety loop brackets with two allen screws on each side of the product (4 mm allen key, torque: 5 ft-lb.).

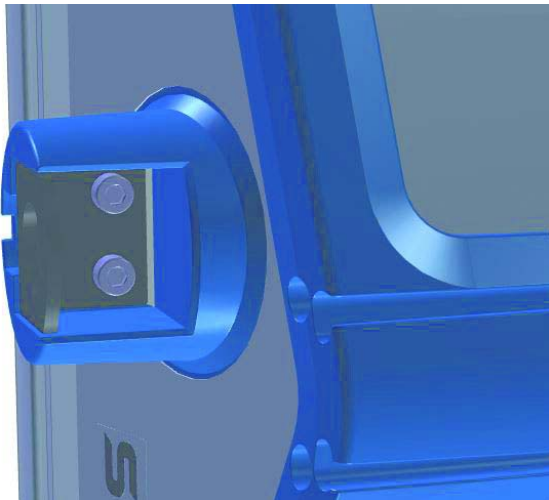


Figure 7: To mount the safety loop brackets

To Install the SkyPanel

Always observe all safety information given above when mounting the SkyPanel and accessories. Keep care that:

- Both guiding rails are locked.
- Tripods are set up in a stable position. Tripods need to be approved for the load they need to carry.

Always observe the additional load of cables and accessories!



Top latch unlocked



Top latch locked

Figure 8: Locking top latches

Basic Features

Pan and Tilt

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

Use of Accessories for Beam Shaping

You can mount accessories using the guiding rails on the front side of the SkyPanel:

- Un-lock both top latches by sliding both levers completely inwards and open the cover strip (see Figure 8).
- Insert the accessory from the top completely into the guiding rails.
- Close the cover strip.
- Lock both top latches by sliding both levers completely outwards (see Figure 8).

To Mount a Barndoor

A barndoor is mounted using the outer guiding rails (see Figure 9).

- Close the cover strip. Lock both top latches by sliding both levers completely outwards (see Figure 8).
- Insert the barndoor completely into the outer guiding rails until both safety catches snap in.

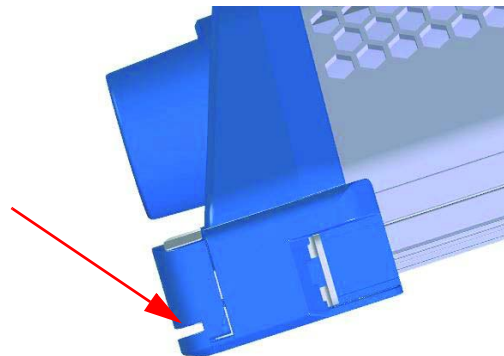


Figure 9: To mount a barndoor

DMX / RDM-interface

The SkyPanel has a DMX / RDM-interface. It has locking 5-pin XLR connectors for DMX / RDM data input and throughput. Please find more detailed information how to establish a DMX / RDM data-link in chapter "DMX" on page 37.

USB-interface

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

The SkyPanel has an USB-A connector to upload firmware, upload and download fixture settings and preset lists or download error and service logs using an USB memory stick. The memory stick must be formatted with the FAT32 file system. The firmware upload file must be stored in the root directory of the memory stick.

Note: The USB-A connector can power small USB devices. The maximum current is 500 mA @ 5V. Do not overload the USB-A connector.

Ethernet-interface

The SkyPanel has an RJ45 Ethernet port for the control via Art-Net, uploading firmware and setting parameters. The Ethernet port can be used for service purpose like downloading error reports from the product and set certain data. To do so you need a software tool, the ARRI Lighting Service Manager ALSM and an RJ45 network cable to connect your PC with the SkyPanel.

Download the ALSM free of charge from the ARRI web site www.arri.com/lightingsoftware.

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

To Power and use the SkyPanel



WARNING! Intense light! Danger of eye injury!

After switching on the SkyPanel initializes for a few seconds and is ready for operation. The SkyPanel will operate with the settings made on the fixture menu or received by DMX or Art-Net. Please observe the following section how to use the SkyPanel.

Control Options

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

Option	Control	Configuration	Information
Fixture menu	yes	yes	page 27
DMX	yes	no	page 37
RDM	no	yes	page 42
Art-Net	Yes	no	page 36
ALSM	no	yes	page 47

To Power the SkyPanel



WARNING! Use only an ARRI power supply unit and an ARRI connector cable. The use of other power supply units and connector cables might cause malfunction and damage of the product.



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



IMPORTANT! Use an eye protection! Ensure that persons do not look at the light emission aperture without eye protection when the product is connected to AC power or a battery pack. The product can light up suddenly. The high intensity light beam of the product can cause eye irritation or injury when not respecting the safety distance.



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

AC Power

The SkyPanel is powered by an external power supply unit (PSU). The PSU is an auto-sensing switch-mode power supply that automatically adapts to AC power at 110 - 240 V ~, 50 / 60 Hz (nom.).

Make sure that no person stares at the light output aperture and the product is isolated from DMX before you connect it to a power supply unit or a battery pack.

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

The external power supply unit of the SkyPanel requires a power input cable with a Neutrik® PowerCON® True1 NAC3FX-W cable connector. Cable requirements are listed in section “Specification” on page 66.

ARRI offers power cables with PowerCON® cable connectors and different plugs or bare ends (see “Specification” on page 66).

The connector cable between the external power supply and the SkyPanel is available in different length as an accessory. Use only ARRI connector cables (see “Specification” on page 66).

To Insert and Remove the PowerCON® Cable Connector

- Line up the raised key of the connector and the keyway of the input socket. Insert the cable connector without force in the power input socket.
- Turn the cable connector a full quarter-turn clockwise to lock the cable connector.
- To unlock the cable connector, push the connector lock backwards and turn the cable connector counter-clockwise. Pull the cable connector out of the power input socket.

To Insert and Remove the XLR Connector of the Connector Cable

To insert the cable connectors:

- Disconnect the external power supply unit from AC power.
- Line up the keyway of the female cable connector and the raised key of the 48 V DC power in socket of the product (see Figure 3 on page 17). Insert the cable connector without force in the power in socket until it locks.
- Line up the raised key of the male cable connector and the keyway of the power out socket of the power supply unit. Insert the cable connector without force in the power out socket until it locks.

To remove the cable connectors:

- Press the connector lock and pull the cable connector out of the socket.

Power Through

- The external power supply is equipped with a Neutrik® PowerCON® True1 power output socket to supply other external power supplies for the SkyPanel from one power outlet. The voltage and frequency of the power through is identical to the voltage and frequency of the power input. Connect a maximum of
 - four (4) SkyPanel power supply units at 120 V voltage, and
 - eight (8) SkyPanel power supply units at 230 V voltage
 with one power outlet which is fitted with a 16 A fuse.

To Use a Battery Pack

The SkyPanel can be powered independently from AC power with a battery pack. The battery pack must meet the following requirements:

Output voltage	23 - 36 V=
Battery operating temperature	68° F - 95° F
Minimum capacity	10 Ah
Power outlet connector	4-pin XLR connector

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

Pin	Assignment
1	0 V
2	n.c.
3	n.c.
4	+ 23 V - 36 V=



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

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

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

To Insert and Remove the 4-pin XLR Cable Connector

To insert the 4-pin XLR cable connector:

- The main switch of the battery pack must be turned off, if possible.
- Align the raised key of the cable connector with the keyway of the input socket (see Figure 3 on page 17). Insert the cable connector without force in the input socket.
- The cable connector must lock. Repair or replace cable connectors that do not lock.

To remove the 4-pin XLR cable connector:

- Switch of the battery pack, if possible.
- Press down the locking pin of the cable connector and remove the cable connector.

Tips for the use of Battery Packs

It is not possible to calculate the operating time of the battery pack exactly. The operating time is dependent from age, state of charge, type of the battery pack and use of the SkyPanel.

The Fixture Menu of the SkyPanel

Overview of the Fixture Menu

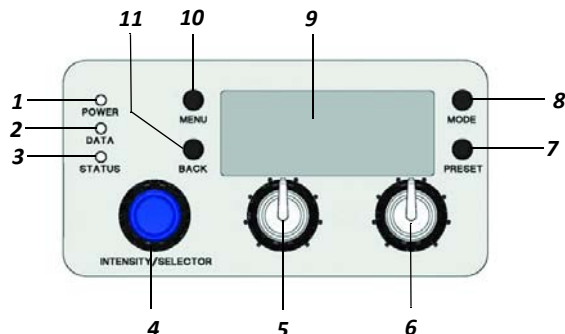


Figure 10: Fixture menu

Feature of the Fixture Menu

POWER-LED (1):

Color	Indication
Green	Fixture switched on. No error.
No color	Fixture switched off.

DATA-LED (2):

Color	Indication
Blue	The fixture receives a valid control signal.
Red	No communication between fixture menu and main processor.
No light	The fixture receives no valid control signal.

STATUS-LED (3):

Color	Indication
Green	No error. Normal temperature.
Red flashing (0,5s rhythm)*	Warning fixture over temperature (only with fan modes LOW and High Speed).
Red*	Fixture over temperature.
Change from red to green*	Fixture normal temperature.
Red flashing (0,25s Rhythm)*	Calibration data no loaded.
*Display lights up red when STATUS-LED is lit red	

INTENSITY/SELECTOR (I/S, 4)

The INTENSITY/SELECTOR encoder I/S has two functions:

- Fixture menu closed: Setting the intensity.
- Fixture menu open: Use I/S to scroll through the menu, open sub menus and set parameters. Pressing the knob opens sub menus and confirms settings.

Central Rotary Knob (5, only SkyPanel-C)

Use the rotary knob to set the color temperature (CCT) or the color hue (HUE). The current function of the rotary knob is shown in the display (9) above the knob.

Right Rotary Knob (6, only SkyPanel-C)

Use the rotary knob to set the green / magenta saturation or the color saturation (SAT). The current function of the rotary knob is shown in the display (9) above the knob.

PRESET (7)**To call up a preset**

A short press of the PRESET knob brings up the list of all available presets. Turn I/S (4) to select a preset. Press I/S (4) to activate the preset.

To store a preset

Use the fixture menu to adjust the settings. Press PRESET, until the preset save dialog opens. Turn I/S (4) to select a preset memory slot. Press I/S (4) to store the preset. Close the dialog with BACK.

MODE (8)

MODE swaps between CCT, HSI and GEL mode (only SkyPanel-C). Press the MODE long to open „Light Mode“.

DISPLAY (9)

The display shows the current settings and other information during normal operation. Press the MENU button (4) to open or close the fixture menu. Use I/S (4) and the BACK button (11) to navigate through the fixture menu.

MENU (10)

The MENU button opens the fixture menu. Press MENU when the fixture menu is open to close the menu and abort an action (Escape). Use I/S (4) to scroll through the menu, open sub menus and set parameters.

BACK (11)

The BACK button closes a sub menu and aborts an action (Escape). Compared to the MENU button (10) the BACK button only closes the sub menu, but not the fixture menu.

Please find a detailed overview in chapter “Fixture Menu” on page 38.

To Set the Operation Mode (only SkyPanel-C)

Press the MODE button (8) to switch from CCT to HSI to GEL mode.

In CCT mode the SkyPanel generates white light with optimized color rendition. In HSI mode the SkyPanel generates colored light. If saturation is set very low, the SkyPanel generates white light, but not with optimized color rendition. The GEL mode offers an extensive color gel library.

To set the Color Temperature and Green / Magenta Saturation in CCT Mode (only SkyPanel-C)

Set the color temperature continuously with the central rotary knob (5). Set the green / magenta saturation continuously with the right rotary knob (6). The current setting is displayed above the rotary knobs.

To set the Color in HSI Mode (only SkyPanel-C)

Set the hue continuously with the central rotary knob (5). Set the saturation continuously with the right rotary knob (6). The current setting is displayed above the rotary knobs.

To set the Color Temperature and the Color in GEL Mode (only SkyPanel-C)

Use the central rotary knob (5) to set the color temperature 3.200 K or 5.600 K. The right rotary knob (6) offers two options: „Best color“ displays the gel with optimized color quality, „Brightest“ displays the gel with optimized brightness.

Press I/S (4) to open the gel library. Choose the gel manufacturer (Rosco or LEE) with the central rotary knob (5). Use the right rotary knob (6) to activate a gel category as shown in the table below.

Rosco	LEE
Color Correction	Color Correction
CalColor	Color Filter
Storaro Selection	600 Series
Cinelux	Cosmetic

Turn I/S (4) to call up a gel from the gel set. Press BACK (11) to close the gel set and set the intensity with I/S (4). Press I/S (4) again, to re-open the gel set.

To set the Brightness in all Operating Modes

Set the brightness in both operating modes continuously with the encoder I/S (4). The setting is dynamic: Turning the encoder fast changes the intensity in coarse steps, turning it slow changes the intensity in fine steps.

To set the dimming curve

The SkyPanel supports four dimming curves. The dimming curves are global: They affect both the intensity control via the fixture menu or DMX and Art-Net.

- **Linear:** The intensity changes proportional to the encoder I/S (4) or the channel value.
- **Exponential:** The resolution is high at lower intensity levels and low at higher intensity levels. Use this dimming curve when you need a high resolution at low intensity levels.
- **Logarithmic:** The resolution is low at lower intensity levels and high at higher intensity levels. Use this dimming curve when you need a high resolution at high intensity levels.
- **„S“ curve:** The resolution is both high at lower and higher intensity levels and low at intensity levels in between. Use this dimming curve, when you need a high resolution at low and high intensity levels.

To set the dimming curve:

- Press the MENU button (10) to open the fixture menu.

- Turn I/S, until „Light Control“ is selected. Press I/S to open the menu.
- Turn I/S, until „Dimming Curve“ is selected. Press I/S to open the menu.
- Select the dimming curve by turning I/S. Press I/S to confirm the setting.
- The menu „Light Control“ closes automatically. Press the MENU button to force closing the menu.

To set a special control mode

The SkyPanel supports two special control modes. The special control modes are global: They affect both the intensity control via the fixture menu or DMX and Art-Net.

- **Low End Mode:** The Low End Mode optimizes the dimmer quality at low intensity levels and enables SkyPanel to generate accurate CCTs with high color rendition and smooth dimming at very low light levels. The Low End Mode can cause flickering when used with cameras shooting at high frame rates.
- **Tungsten Mode:** The tungsten Mode can mimic the dimming curve and strike on-and-off effect of a traditional tungsten lamp. The CCT warms as the light is dimmed and when the intensity drops to zero quickly there is a short afterglow of warm light. This mode is perfect for mixing the SkyPanel with tungsten sources or for producing a familiar effect.

To set a special dimmer mode:

- Press the MENU button (10) to open the fixture menu.

- Turn I/S, until „Light Control“ is selected. Press I/S to open the menu.
- Turn I/S, until „Special Modes“ is selected. Press I/S to open the menu.
- Select the special mode by turning I/S. Press I/S to confirm the setting.
- The menu „Light Control“ closes automatically. Press the MENU button to force closing the menu.

To set the DMX address

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „DMX Settings“ is displayed. Press I/S to open the menu.
- Turn I/S, until „DMX Address“ is displayed. Press I/S to open the menu.
- Select the DMX address by turning I/S. Press I/S to confirm the setting.
- The menu „DMX Address“ closes automatically. Press the MENU button to force closing the menu.

To set the DMX Protocol

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „DMX Settings“ is displayed. Press I/S to open the menu.
- Turn I/S, until „DMX Protocol“ is displayed. Press I/S to open the menu.

- Select the DMX mode by turning I/S. Press I/S to confirm the setting.
- The menu „DMX Protocol“ closes automatically. Press the MENU button to force closing the menu.

To set the DMX-Signal-Loss Behavior

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „DMX Settings“ is displayed. Press I/S to open the menu.
- Turn I/S, until „DMX Loss Behavior“ is displayed. Press I/S to open the menu.
- Select the setting by turning I/S. Press I/S to confirm the setting.
- The menu „DMX Loss Behavior“ closes automatically. Press the MENU button to force closing the menu.

Option	Description
Hold Last Command	The last received DMX values are used until the fixture is switched off or valid DMX data is received again.
Blackout	The fixtures douses to 0% intensity immediately.
Hold for 2 min. then fade out	The last received DMX values are used for 2 minutes. After 2 minutes the fixture douses to 0% intensity. When valid DMX data is received after less than 2 minutes, these data will be used.

To set the fan Mode

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „Fan Mode“ is displayed. Press I/S to open the menu.
- Select the Fan mode by turning I/S. Press I/S to confirm the setting.
- The menu „Fan Mode“ closes automatically. Press the MENU button to force closing the menu.

Fan mode	Description
Low Fan Speed	Fan operates constantly at low speed (silent).
Vari Fan Speed	The temperature of the light engine controls the fan speed. The fan starts running at app. 70% brightness.
High Fan Speed	Use this mode for ambient temperatures up to 45° C / 113° F. The fan runs at maximum speed.

Stand-Alone Lighting Effects (only SkyPanel-C)

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „Lighting Effects“ is displayed. Press I/S twice to open the menu.
- „Party Effects“ activates a stand-alone demo sequence, „Off“ de-activates the demo sequence.

The demo sequence calls up the color spectrum or changes the color temperature from warm to cold and vice versa in an endless loop. Set the intensity with I/S. Set the speed with the central rotary knob from 0-100% (60 s - 1 s). The right rotary knob sets the saturation and changes between color and color temperature sequence. With the right rotary knob at „0“ the color temperature loop is active. Turn the right rotary knob clockwise to increase the saturation to 100%.

To set the Display Behavior

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „Display Setup“ is displayed. Press I/S to open the menu.
- Turn I/S, until „Display Illumination“ is displayed. Press I/S to open the menu. Select the desired setting by turning I/S. Press I/S to confirm the setting.
- Turn I/S, until „Display Brightness“ is displayed. Press I/S to open the menu. Select the desired brightness by turning I/S. Press I/S to confirm the setting.
- Turn I/S, until „Display Contrast“ is displayed. Press I/S to

open the menu. Select the desired contrast by turning I/S. Press I/S to confirm the setting.

- Turn I/S, until „Display Rotation“ is displayed. Press I/S to open the menu. Select the desired setting by turning I/S. Press I/S to confirm the setting.
- Turn I/S, until „Error Mode Display“ is displayed. Press I/S to open the menu. Select the desired setting by turning I/S. Press I/S to confirm the setting.

Please refer to section „Fixture Menu“ on page 38 for a detailed explanation of the options.

To save and load a Preset List

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

The fixtures preset list can be saved to an USB memory stick and uploaded to another SkyPanel.

To save a preset list:

- Connect an USB memory stick to the USB-A connector of the SkyPanel.
- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „USB Functions“ is selected. Press I/S to open the menu.
- Turn I/S, until „Save Light Presets“ is selected. Press I/S to open the menu.

- Select „Yes“ and press I/S to confirm the setting. Select „No“ to abort saving the preset list.
- The preset list will be saved on the USB memory stick.

Up to 30 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 is looking for „Presetxx.json“ to identify a preset list on an USB memory stick. Be sure to keep the string when renaming a preset list. Otherwise the file will not be found by the SkyPanel.

To load a preset list:

- Connect an USB memory stick with one or more preset lists to the USB-A connector of the SkyPanel.
- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „USB Functions“ is selected. Press I/S to open the menu.
- Turn I/S, until „Load Light Presets“ is selected. Press I/S to open the list of the preset lists available in the root directory of the USB memory stick.
- Turn I/S, to select a preset list.
- Press I/S to load the selected preset list. The internal preset list of the SkyPanel will be overwritten by the selected preset list.

To save and load Fixture Settings

The fixtures settings can be saved to an USB memory stick and

uploaded to another SkyPanel. The file contains all fixture settings except the DMX address and IP settings.

To save the fixture settings:

- Connect an USB memory stick to the USB-A connector of the SkyPanel.
- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „USB Functions“ is selected. Press I/S to open the menu.
- Turn I/S, until „Save Fix. Settings“ is selected. Press I/S to open the menu.
- Select „Yes“ and press I/S to confirm the setting. Select „No“ to abort saving the fixture settings.
- The fixture settings will be saved on the USB memory stick.

Up to 30 fixture 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 is looking for „Clonexx.json“ to identify a fixture settings file on an USB memory stick. Be sure to keep the string when renaming a fixture settings file. Otherwise the file will not be found by the SkyPanel.

To load fixture settings to the SkyPanel:

- Connect an USB memory stick with one or more fixture settings files to the USB-A connector of the SkyPanel.
- Press the MENU button (10) to open the fixture menu.

- Turn I/S, until „USB Functions“ is selected. Press I/S to open the menu.
- Turn I/S, until „Load Fix. Settings“ is selected. Press I/S to open the list of the fixture settings files available in the root directory of the USB memory stick.
- Turn I/S, to select a fixture settings file.
- Press I/S to load the selected fixture settings. The SkyPanel restarts with the new fixture settings after successful upload.

To Save the Error and Service log

For diagnosis purpose you might be asked to send the error and service log to the ARRI service. The log files can be downloaded to an USB memory stick.

The file name contains the date, time and serial number of the fixture.

To save the log files:

- Connect an USB memory stick to the USB-A connector of the SkyPanel.
- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „USB Functions“ is selected. Press I/S to open the menu.
- Turn I/S, until „Save Error Log“ is selected. Press I/S to open the menu.
- Select „Yes“ and press I/S to confirm saving the log files. Select „No“ to abort saving the log files.

- The log files will be saved on the USB memory stick.

To read out Fixture Information

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „Fixture Settings“ is displayed. Press I/S to open the menu.
- Turn and press I/S to display readouts.

Please refer to section „Fixture Menu“ on page 38 for a detailed explanation of the options.

To Perform a Factory Reset

- Press the MENU button (10) to open the fixture menu.
- Turn I/S, until „Factory Reset“ is displayed. Press I/S to open the menu.
- Turn I/S to choose the option „Yes“ and perform a factory reset. Press BACK (11) to abort.
- The SkyPanel reboots with its factory settings.

Fixture Control

The SkyPanel offers, depending on the model, up to 16 control modes. Use the 8 bit modes (mode 1 and 2) with basic controllers like dimmer consoles.

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

The coarse / fine modes utilize two channels for most parameters and provide higher resolution compared to the 8 bit modes in combination with controllers that do not support true 16 bit resolution. One channel sets the coarse value between 0 and 255 of the function. Each step is divided in 256 increments using the fine channel. This way it is possible to control the light very precise without using a true 16 bit resolution.

CCT and RGBW (only SkyPanel-C)

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

CCT (only SkyPanel-C)

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

CCT & HSI (only SkyPanel-C)

Provides control of intensity, color temperature, +/- green, hue and saturation (HSI = hue, saturation, intensity). In HSI mode

the color and intensity is very even over the fixtures as it is controlled using color algorithms which take the tolerances of the light engines into account during calculation.

RGBW (only SkyPanel-C)

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 (only SkyPanel-C)

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

GEL (only SkyPanel-C)

The GEL mode offers an extensive color filter list. The color temperature has two settings, 3.200 K and 5.600 K. The intensity can be controlled as usual.

Please find a detailed description of all modes in chapter "Protocol" on page 48.

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

Art-Net

From firmware version 2.0 the SkyPanel supports Art-Net. Art-Net is a network protocol for controlling devices.

Art-Net supports all modes of the SkyPanel.

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.

Art-Net IP Address

When setting the IP address manually, please take care the 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, any additional sources will be ignored by the Node.

Art-Net Gateway

With enabled Art-Net gateway the SkyPanel makes all 512 channels of the used universe available at its DMX connectors. Please follow the information given in chapter "DMX" on page 37 when using the DMX data.

The menu „Art-Net Settings“ contains all parameters to set up a SkyPanel in an Art-Net network. Please find a detailed description in the chapter "Fixture Menu" on page 38.

DMX

To control the SkyPanel via DMX you need a DMX data link. The SkyPanel has 5-pin locking XLR sockets for DMX / RDM data input and output. The default pin-out of both sockets is:

Pin 1 = Shield

Pin 2 = DMX Data - (cold)

Pin 3 = DMX Data + (hot)

Pin 4 = DMX Data - (cold)

Pin 5 = DMX Data + (hot)

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

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

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

Tips for a Reliable Data Transmission

- Use shielded twisted-pair cable designed for RS-485 devices or CAT 6 network cables. Standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft.). Heavier gauge cable and/or an amplifier is recommended for longer runs.
- To split the data link, use a DMX splitter. Use an RDM compatible splitter when you use the RDM functionality.
- Install a DMX termination plug on the last product of every DMX data link. Terminate the DMX data link on both ends, when you use the RDM functionality. Ask your system specialist for details.

To Connect the Data Link

- Connect the DMX data output from the controller to the data input (male XLR) of the first product on the data link.
- Run the data link from the data output (female XLR) to the data input of the next product.
- Terminate the data link by connecting a 120 Ohm, 0.25 Watt resistor between the data 1 hot (+) and cold (-) conductors (and between data 2 hot and cold if used) at the data output of the last product on the link.

Fixture Menu

From firmware version 2.0

Note: Open and close the fixture menu the MENU button. BACK closes a sub menu and aborts an action.

Rotate INTENSITY / SELECTOR to scroll. Press INTENSITY / SELECTOR to select an item

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
DMX Settings	DMX Address	1 .. 512		Start address
	DMX Protocol	P1 .. P16		Protocol (see page 48)
	DMX Loss Behavior	Hold Last Command		Fixture holds the last received control values
		Black Out		Fixture douses the dimmer
		Hold 2 Min Fade Out		Hold the last received values for 2 min. then douse
DMX Protocol Version	Version x.y		Version of the DMX protocol	
Fan Mode	Low Fan Speed			Low fan speed, silent operation
	Vari Fan Speed			Temperature regulated fan speed
	High Fan Speed			High fan speed, best cooling
Light Mode	CCT			White light, color temperature and green / magenta correction adjustable
	HSI			Colored light, hue and saturation adjustable
	GEL			GEL mode, gel library available, color temperature 3.200 K or 5.600 K

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
Light Control	Dimming Curve	Linear		Linear dimming curve
		Exponential		Exponential dimming curve
		Logarithmic		Logarithmic dimming curve
		„S“ Curve		Combination of exponential and logarithmic dimming curve
	Special Modes	Low End Mode	Off	Flicker free light
			On	Optimized dimming behavior at low intensity levels
		Tungsten Mode	Off	Color temperature optimized when dimming
			On	Emulates the behavior of a tungsten light
Lighting Effects	Off			No stand-alone effect
	Party Effect			Stand-alone effect (see page 32)
Display Setup	Display Illumination	Always On		Display illumination always on
		Off After 10 Sec.		Display illumination douses 10 sec. after last menu action
	Display Brightness	0 .. 10		Brightness of the display illumination
	Display Contrast	01 .. 03 .. 10		Contrast of the display content
	Display Rotation	Normal		No rotation of the display content
		Upside-Down		Display content 180° rotated
	Error Mode Display	Normal		Show error codes, switch status LED and display illumination to red.
		Hidden		Show error codes. Status LEDs and display illumination off.

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
USB Functions	Light Presets	Save Light Presets	No	Store preset list to an USB memory stick (see page 32)
			Yes	
	Load Light Presets	[List]	Load preset list from an USB memory stick. Select pre- set list with Intensity / Selector (see page 32)	
	Fixture Settings	Save Fix. Settings	No	Store fixture settings to an USB memory stick (see page 33)
			Yes	
	Load Fix. Settings	[List]	Load fixture settings from an USB memory stick. Select fixture settings with Intensity / Selector (see page 33)	
Save Error Log	No		Store error and service log to an USB memory stick (see page 34)	
	Yes			
Art-Net Settings	Art-Net Net	0 ... 127		Select Art-Net net (see page 36)
	Art-Net Subnet	0 ... 15		Select Art-Net subnet in Art-Net net
	Art-Net Universe	0 ... 15		Select Art-Net universe in Art-Net subnet
	Art-Net Merge Mode	LTP		Select Merge-Mode „LTP“ (Last Take Precedence)
		HTP		Select Merge-Mode „HTP“ (Highest Take Precedence)
	Art-Net State	Disabled		Art-Net disabled
		Enabled		Art-Net enabled
	Art-Net Gateway	Off		Gateway disabled
		On		Gateway enabled (see page 36)
IP Settings				Shortcut to menu „Fixture Settings“

Level 1	Level 2	Level 3	Level 4	Explanation (default setting = bold)
Fixture Settings	Fixture Status	System Ready		No error
		<Error Message>		Error message (see page 46)
	Light Engine Temp.	xx.x °C xx.x °F	Recent light engine temperature	
	Hour Counter	xxh - Light Engine yyh - System		Working hours of the light engines and of the system.
	Battery Voltage	x.y V		Recent voltage of an external battery
	IP Settings	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		Set network address manual (see page 36)
	IP Address	A.B.C.D.		The fixtures IP address
	MAC Address	u:v:w:x:y:z		The fixtures MAC address
	Network Name	Sxx-xxxxxxx-xxx		The fixtures network name (ident and serial number)
	Fixture Serial No.	L1.xxxxxxx-xxx		The fixtures serial number
	Firmware Version	x.xx.xx.xxxx		The fixtures firmware version
	Display Version	x.xx.xx.xxxx		The displays firmware version
	USB Mode	Normal		USB port powered
Service		USB port not powered. Do not change this setting unless being asked by ARRI service. Risk of damage!		
Factory Reset	No			Abort action
	Yes			Load factory settings

RDM commands

From firmware version 2.0

Command	Description	GET	SET
Discover Unique Branch	Searches RDM device	X	X
Discover Mute	Mutes the RDM device, no response messages	X	X
Discover Unmute	Activates device for response messages	X	X
Supported Parameters	Shows a list of all supported RDM commands	X	
Parameter Description	Shows a list of commands that are not standard rdm commands, mostly commands from manufacturer. Describes the data type and shows if Set or Get or both are supported for the listed commands.	X	
Device Info	Lists RDM protocol version, device model ID, product category, software version ID (from Main), DMX footprint, DMX personality, sub-device count and sender count.	X	
Software Version Label	Shows the software version string from main, e.g. Main 1.66.1 Yes 16 2012 19:10:26	X	
DMX Start Address	DMX address	X	X
Identify Service	Identify Flag -> physically flash the light, SkyPanel-C flashes Blue and all other White	X	X

Required RDM command extensions

Command	Description	GET	SET
Status Message	Display of actual warning / error message of the fixture.	X	
Status ID Description	Detailed description of each warning / status report.	X	
Device Label	This parameter allows you to generate an informative label for each fixture. It can be utilized to identify the rack number of a dimmer or to determine the position of a fixture	X	X
Product Detail ID List	This parameter is utilized to retrieve technical details of a fixture. S shows LED with PWM control	X	
Device Model Description	A text description of up to 32 characters for the model type of the fixture. SkyPanel-C, SkyPanel RP	X	
Manufacturer Label	Display the company name ARRI Lighting	X	
Boot Software Version ID	PrBo SW Version e.g. „2.03.00“	X	
Boot Software Version Label	Shows text from PrBo Bootloader, e.g. PrBo 2.03.00 Jan 16 2012 19:10:26	X	
DMX Personality	DMX mode	X	X
DMX Personality Description	Displays a text description of a DMX mode with up to 32 characters, shown exactly as in the description in the ALSM	X	
Slot Info	Shows a description for each DMX channel in use in the requested DMX mode	X	
Slot Description	Shows a text description with max. 32 characters for each DMX channel from the requested DMX mode	X	
Default Slot Value	Shows the default DMX channel value from the requested DMX mode	X	
Sensor Definition	Shows the definition from a specific sensor and a text description	X	
Sensor Value	Shows the actual sensor value	X	
Device Hours	Shows the actual device hours of the fixture	X	

Command	Description	GET	SET
Lamp Hours	Shows the actual lamp hours of the fixture	X	
Factory Defaults	This command deletes all user parameters and sets the fixture to factory default	X	X
Device Power Cycles	Shows the power cycle value, counts every cold start (switch or power-up)	X	
Reset Device	Fixture makes a software reset (warm start) and carries out a reboot	X	X
Power State	Power state of the fixture, supported power states: POWER_STATE_STANDBY (0x02), POWER_STATE_NORMAL (0xFF), POWER_STATE_FULL_OFF (0x00) POWER_STATE_SHUTDOWN (0x01)	X	X
Perform Selftest	Supported test modes and demo modes	X	X
Self Test Description	Shows a description for each test / demo mode	X	

Manufacturer commands

Command	Description	GET	SET
RDM Fan Mode PID: 0x8001	Changes the FAN mode of the fixture - this message supports Set and Get commands - the first data byte is used to show / change the fan mode USER_FAN_MODE_LOW = 1 USER_FAN_MODE_VARI = 2 USER_FAN_MODE_HIGH = 3	X	X
RDM Status LED PID: 0x8002	Switch on /off indication LEDs and LCD back light - this message supports Set and Get commands - the first data byte is used to switch indication LEDs on and off LEDs and LCD back light on = 0 LEDs and LCD back light off = 1	X	X

Command	Description	GET	SET
Supported values from -1 to +1			
RDM DMX Signal Lost Mode PIS: 0x8005	If the DMX signal gets lost or the DMX device is unplugged the LED fixture holds the last valid signal, or it holds the last valid signal for two minutes and then douses or switches off immediately. Supported values: 0 -> hold 1 -> hold 2 minutes 3 -> switch off	X	X

Error Codes

Code	Error	Remedy
E.003	Controller over temperature. STATUS LED lit up red.	Let the SkyPanel cool down. The STATUS indicator changes to green when the SkyPanel has cooled down. Turn the dimmer knob to „0“ or send an intensity value „0“ via DMX to activate the light engine again.
E.004	Light engine over temperature	See E.003
E.005	Missing LED supply.	The LED power supply is faulty. Please contact the ARRI service.
E.006	Calibration data of light engine faulty or EEPROM error.	WARNING: Loss of calibration data. This error can only be fixed by re-calibrating the light engine. Please contact the ARRI service.
E.007	Invalid PWM value calculation	Notice: The SkyPanel can be used on. This message is more a notification than an error.
E.008	Invalid values during calculation	See E.007
E.009	Invalid values during calculation	See E.007
E.010	Fan error. The fan speed deviates or the fan doesn't run at all.	Set the fan to LOW or High Speed and see if it starts rotating, in order to determine if there is an electrical malfunction. All mechanical tests or repairs may only be carried out by a trained service technician.
E.011	Fixture menu module not be detected.	If the fixture menu is working, error E.011 can be ignored. However, if the fixture menu remains dark (no LED lights up) we recommend to contact the ARRI service. They can then carry out detailed analyses.
E.012	Temperature sensor(s) are defective or deviation within NTC values too high.	One or more temperature sensors are defective or the deviation within the individual NTCs or BNTCs exceeds the variation tolerance of 12° C / 54° F. Check the error log (LSeries Manager) to see which temperature sensors are affected. Contact the ARRI service.
E.013	Calibration data faulty.	WARNING: Loss of calibration data. Fixture needs to be re-calibrated.
E.014	Watchdog error	Notice: The SkyPanel can be used on. This message is more a notification than an error.
E.015	LED channel faulty	Notice: The SkyPanel can be used on. This message is more a notification than an error.

Code	Error	Remedy
E.0016	Boost over temperature	Let the SkyPanel cool down. The STATUS indicator changes to green when the SkyPanel has cooled down. Turn the dimmer knob to „0“ or send an intensity value „0“ via DMX to activate the light engine again.
E.017	Battery voltage too low	Battery voltage below 20.5 V. Change the battery pack or switch to AC power.
E.018	PWM driver not found	Switch the SkyPanel off and on again. If the problem persists, please contact the ARRI service.
E.019	Diffuser removed	The diffuser was removed. The protection circuit is active (only RP-version).
E.020	Update with errors	This will be seen if the update process has detected an error during the update. Please look at the error log for more information to see which model or component had a problem with the update.
E.021	Flash init error. No filesystem mounted.	This will happen if the flash disc has a problem with its file system.
E.022	Missing Boost	The Boost board can not be identified during startup. Switch the SkyPanel off and on again. If the problem persists, please contact the ARRI service.
E.023	12V Missing	The 12V power is missing during startup. Please contact the ARRI service.
E.024	5V Missing	The 5V power is missing during startup. Please contact the ARRI service.

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, which can be downloaded with the ARRI Lighting Service Manager software-bundle from the ARRI web site www.arri.com/lightingsoftware free of charge.

Protocol

Protocol V4.1 is set as default. Use the ALSM to change to Protocol V3.4. ARRI recommends to reserve 4 channels more for each fixture when using Protocol V3.4. This way you do not need to change the patch when you want to use additional features which will become available with Protocol V4.1.

The Protocol V4.1 uses 4 Channels more.

SkyPanel-RP

From Firmware-Version 2.0

8 bit, 1 channel per function	16 bit, 2 channels per function	Coarse/fine, 1-2 channels per function
Mode 1	Mode 2	Mode 3

Mode 1: 8 bit Resolution per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2 <i>Reverts to fixture setting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
3-5			Reserved (only V4.x)

Mode 2: 16 bit Resolution per Function

Channel		Value	Percent	Function
1	HI	0-65.535	0-100	Dimmer closed → open
2	LO			
3 <i>Reverts to fixture setting when signal lost.</i>		0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
4-6				Reserved (only V4.x)

Modus 3: Coarse / Fine per Function

Channel	Value	Prozent	Funktion
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3 <i>Reverts to fixture setting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
4-6			Reserved (only V4.x)

SkyPanel-C

From Firmware-Version 2.0

Overview

8 bit, 1 channel per function	16 bit, 2 channels per function	Coarse/fine, 1-2 channels per function
Mode 1 CCT & RGBW	Mode 6 CCT & RGBW	Mode 11 CCT & RGBW
Mode 2 CCT	Mode 7 CCT	Mode 12 CCT
Mode 3 CCT & HSI	Mode 8 CCT & HSI	Mode 13 CCT & HSI
Mode 4 RGBW	Mode 9 RGBW	Mode 14 RGBW
Mode 5 HSI	Mode 10 HSI	Mode 15 HSI
		Mode 16 GEL

GGN saturation

The value describes the shift from the neutral point to full minus green or full plus green in percent.

(Reference: Rosco Cinegel #3304 and #3308)

Mode 1: CCT & RGBW, 8 bit Resolution per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	Xfade to color White → RGBW color
5	0-255	0-100	Intensity red 0% → 100%
6	0-255	0-100	Intensity green 0% → 100%
7	0-255	0-100	Intensity blue 0% → 100%
8	0-255	0-100	Intensity white 0% → 100%
9 <i>Reverts to fixture setting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off

Channel	Value	Percent	Function
10-12			Reserved (only V4.x)

Mode 2: CCT, 8 bit Resolution per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
5-7			Reserved (only V4.x)

Mode 3: CCT & HSI, 8 bit Resolution per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Color temperature CCT 2.800 K → 10.000 K
3	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	0-255	0-100	Xfade to color white → RGBW color
5	0-255	0-100	Hue 0° → 360°
6	0-255	0-100	Saturation 0 → full saturated
7 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
8-10			Reserved (only V4.x)

Mode 4: RGBW, 8 bit Resolution per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Intensity red 0% → 100%
3	0-255	0-100	Intensity green 0% → 100%
4	0-255	0-100	Intensity blue 0% → 100%
5	0-255	0-100	Intensity white 0% → 100%
6 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
7-9			Reserved (only V4.x)

Mode 5: HSI, 8 bit Resolution per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer closed → open
2	0-255	0-100	Hue 0° → 360°
3	0-255	0-100	Saturation 0 → full saturated
4 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
5-7			Reserved (only V4.x)

Mode 6: CCT & RGBW, 16 bit Resolution per Function

Channel		Value	Percent	Function
1	HI	0-65.535	0-100	Dimmer closed → open
2	LO			
3	HI	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
4	LO			
5	HI			
6	LO			
7	HI	0-65.535	0-100	Xfade to color white → RGBW color
8	LO			
9	HI	0-65.535	0-100	Intensity red 0% → 100%
10	LO			
11	HI	0-65.535	0-100	Intensity green 0% → 100%
12	LO			
13	HI	0-65.535	0-100	Intensity blue 0% → 100%
14	LO			
15	LO	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off

Channel	Value	Percent	Function
16-19			Reserved (only V4.x)

Mode 7: CCT, 16 bit Resolution per Function

Channel		Value	Percent	Function
1	HI	0-65.535	0-100	Dimmer closed → open
2	LO			
3	HI	0-65.535	0-100	Color temperature CCT 2.800 K → 10.000 K
4	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO			
7	LO			
8	LO			
9	LO	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
10	LO			Reserved (only V4.x)

Mode 8: CCT & HSI, 16 bit Resolution per Function

Channel		Value	Percent	Function
1	HI	0-65.535	0-100	Dimmer closed → open
2	LO			
3	HI	0-65.535	0-100	Color temperature CCT 2.800 K → 10.000 K
4	LO			
5	HI	0-5.000 5.001-10.000 10.001-29.999 30.000-40.000 40.001-59.999 60.000-65.535	0-7 8-15 16-46 46-61 61-92 92-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	LO			
7	HI	0-65.535	0-100	Xfade to color white → RGBW color
8	LO			
9	HI	0-65.535	0-100	Hue 0° → 360°
10	LO			
11	HI	0-65.535	0-100	Saturation 0 → full saturated
12	LO			
13 <i>Reverts to fixture set- ting when signal lost</i>		0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
14-16				Reserved (only V4.x)

Mode 9: RGBW, 16 bit Resolution per Function

Channel		Value	Percent	Function
1	HI	0-65.535	0-100	Dimmer closed → open
2	LO			
3	HI	0-65.535	0-100	Intensity red 0% → 100%
4	LO			
5	HI	0-65.535	0-100	Intensity green 0% → 100%
6	LO			
7	HI	0-65.535	0-100	Intensity blue 0% → 100%
8	LO			
9	HI	0-65.535	0-100	Intensity white 0% → 100%
10	LO			
13 <i>Reverts to fixture set- ting when signal lost</i>		0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
12-14				Reserved (only V4.x)

Mode 10: HSI, 16 bit Resolution per Function

Channel		Value	Percent	Function
1	HI	0-65.535	0-100	Dimmer closed → open
2	LO			
3	HI	0-65.535	0-100	Hue 0° → 360°
4	LO			
5	HI	0-65.535	0-100	Saturation 0 → full saturated
6	LO			
7 <i>Reverts to fixture set- ting when signal lost</i>		0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
8-10				Reserved (only V4.x)

Mode 11: CCT & RGBW, Coarse / Fine per Function

Channel		Value	Percent	Function
1		0-255	0-100	Dimmer coarse closed → open
2		0-255	0-100	Dimmer fine
3		0-255	0-100	Color temperature CCT coarse 2.800 K → 10.000 K
4		0-255	0-100	Color temperature CCT fine

Channel	Value	Percent	Function
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	0-255	0-100	Xfade to color white → RGBW color
7	0-255	0-100	Intensity red coarse 0% → 100%
8	0-255	0-100	Red fine
9	0-255	0-100	Intensity green coarse 0% → 100%
10	0-255	0-100	Green fine
11	0-255	0-100	Intensity blue coarse 0% → 100%
12	0-255	0-100	Blue fine
13	0-255	0-100	Intensity white coarse 0% → 100%
14	0-255	0-100	White fine
15	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
16-18			Reserved (only V4.x)

Mode 12: CCT, Coarse / Fine per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	CCT coarse 2.800 K → 10.000 K
4	0-255	0-100	CCT fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
7-9			Reserved (only V4.x)

Mode 13: CCT & HSI, Coarse / Fine per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine

Channel	Value	Percent	Function
3	0-255	0-100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0-255	0-100	Color temperature fine
5	0-10 11-20 21-119 120-145 146-244 245-255	0-4 5-8 8-46 47-57 57-96 96-100	GN saturation neutral / no effect full minus green -99% → -1% neutral / no effect 1% → 99% full plus green
6	0-255	0-100	Xfade to color white → RGBW color
7	0-255	0-100	Hue coarse 0 → 360°
8	0-255	0-100	Hue fine
9	0-255	0-100	Saturation coarse 0 → full saturated
10	0-255	0-100	Saturation fine
6 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
12-14			Reserved (only V4.x)

Mode 14: RGBW, Coarse / Fine per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Intensity red coarse 0% → 100%
4	0-255	0-100	Red fine
5	0-255	0-100	Intensity green coarse 0% → 100%
6	0-255	0-100	Green fine
7	0-255	0-100	Intensity blue coarse 0% → 100%
8	0-255	0-100	Blue fine
9	0-255	0-100	Intensity white coarse 0% → 100%
10	0-255	0-100	White fine
11 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
12-14			Reserved (only V4.x)

Mode 15: HSI, Coarse / Fine per Function

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer coarse closed → open
2	0-255	0-100	Dimmer fine
3	0-255	0-100	Hue coarse 0 → 360°
4	0-255	0-100	Hue fine
5	0-255	0-100	Saturation coarse 0 → full saturated
6	0-255	0-100	Saturation fine
7 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
8-10			Reserved (only V4.x)

Overview of typical CCT values as DMX values

CCT-value	DMX-value (8 bit)			DMX-value (16 bit)		
Sky-panel			C			C
3.200 K			14			3.670
5.600 K			99			25.493
6.000 K			113			29.098
6.500 K			131			33.685

To calculate CCT values in DMX % and vice versa

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

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

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

CCT values SkyPanel-C

$$CCT_{\text{min}} = 2.800 \text{ K}$$

$$CCT_{\text{max}} = 10.000 \text{ K}$$

Mode 16: GEL, 8 bit per function, Base channels

Channel	Value	Percent	Function
1	0-255	0-100	Dimmer geschlossen → offen
2	0-128 129-255	0-50 51-100	Color temperature CCT 3.200 K 5.600 K
3	0-128 129-255	0-50 51-100	Color Matching Best Color <i>Color quality optimized</i> Brightest <i>Color brightness opt.</i>
4	0-128 129-255	0-50 51-100	Gel manufacturer <i>Category on ch. 5</i> <i>Gel on ch. 6</i> Rosco LEE Filters
5	0-50 51-101 102-152 153-203 204-255	0-20 21-39 40-60 61-80 81-255	Gel category <i>Manufacturer on ch. 4</i> Category 1: Rosco: Color Correction LEE: Color Correction Category 2: Rosco: CalColor LEE: Color Filters Category 3: Rosco: Storaro Selection LEE: 600 Series Category 4: Rosco: Cinelux LEE: Cosmetic Filters No function

Kanal	Wert	Prozent	Funktion
6	0-255	0-100	Gel See tables below
7 <i>Reverts to fixture set- ting when signal lost.</i>	0-9 10-60 61-120 121-180 181-250 251-255	0-4 5-23 24-47 48-70 71-98 99-100	Fan Control No function Low Variable High Fan max. speed Fan off
8-10			Reserved (only V4.x)

Mode 16: GEL, gel selection

Category 1, Rosco, Color correction

Chan.	Value	Gel name	Number
6	0 - 1	Full CTB	3202
	2 - 3	3/4 CTB	3203
	4 - 5	1/2 CTB	3204
	6 - 7	1/3 CTB	3206
	8 - 9	1/4 CTB	3208
	10 - 11	1/8 CTB	3216
	12 - 13	Double CTB	3220
	14 - 15	Full CTO	3407
	16 - 17	3/4 CTO	3411
	18 - 19	1/2 CTO	3408
	20 - 21	1/4 CTO	3409
	22 - 23	1/8 CTO	3410
	24 - 25	Double CTO	3420
	26 - 27	Full CTS	3441
	28 - 29	1/2 CTS	3442
	30 - 31	1/4 CTS	3443
	32 - 33	1/8 CTS	3444
	34 - 35	Full Plusgreen	3304
	36 - 37	1/2 Plusgreen	3315
	38 - 39	1/4 Plusgreen	3316
	40 - 41	1/8 Plusgreen	3317
	42 - 43	Full Minusgreen	3308
	44 - 45	3/4 Minusgreen	3309
	46 - 47	1/2 Minusgreen	3313
	48 - 49	1/4 Minusgreen	3314
	50 - 51	1/8 Minusgreen	3318
	52 - 53	Fluorofilter	

Chan.	Value	Gel name	Number
6	54 - 55	Industrial Vapor	3310
	56 - 57	Urban Vapor	3150
	58 - 59	Tough Y-1	3152
	60 - 61	Tough MT 54	3107
	62 - 63	Tough MTY	3134
	64 - 65	Tough MT2	3106
	66 - 255	Reserved	3102

Category 2, Rosco, CalColor

Chan.	Value	Gel name	Number
6	0 - 1	15 Blue	4215
	2 - 3	30 Blue	4230
	4 - 5	60 Blue	4260
	6 - 7	90 Blue	4290
	8 - 9	7 Cyan	4307
	10 - 11	15 Cyan	4315
	12 - 13	30 Cyan	4330
	14 - 15	60 Cyan	4360
	16 - 17	90 Cyan	4390
	18 - 19	15 Green	4415
	20 - 21	30 Green	4430
	22 - 23	60 Green	4460
	24 - 25	90 Green	4490
	26 - 27	15 Yellow	4515
	28 - 29	30 Yellow	4530
	30 - 31	60 Yellow	4560
	32 - 33	90 Yellow	4590
	34 - 35	15 Red	4615
	36 - 37	30 Red	4630
	38 - 39	60 Red	4660
	40 - 41	90 Red	4690
	42 - 43	15 Magenta	4715
	44 - 45	30 Magenta	4730
	46 - 47	60 Magenta	4760
	48 - 49	90 Magenta	4790
	50 - 51	15 Pink	4815
	52 - 53	30 Pink	4830

Chan.	Value	Gel name	Number
	54 - 55	60 Pink	4860
	56 - 57	90 Pink	4890
	58 - 59	15 Lavender	4915
	60 - 61	30 Lavender	4930
	62 - 63	60 Lavender	4960
	64 - 65	90 Lavender	4990
	66 - 255	Reserved	

Category 3, Rosco, Storaro Selection

Chan.	Value	Gel name	Number
6	0 - 1	VS Red	2001
	2 - 3	VS Orange	2202
	4 - 5	VS Yellow	2003
	6 - 7	VS Green	2004
	8 - 9	VS Cyan	2005
	10 - 11	VS Azure	2006
	12 - 13	VS Blue	2007
	14 - 15	VS Indigo	2008
	16 - 17	VS Violet	2009
	18 - 19	VS Magenta	2010
	20 - 255	Reserved	

Category 4, Rosco Cinelux

Chan.	Value	Gel name	Number
6	0 - 1	Bastard Amber	2
	2 - 3	Pale Bastard Amber	302
	4 - 5	No Color Straw	6
	6 - 7	Pale Gold	8
	8 - 9	Daffodil	310
	10 - 11	Straw	12
	12 - 13	Light Amber	16
	14 - 15	Gallo Gold	316
	16 - 17	Light Flame	17
	18 - 19	Flame	18
	20 - 21	Mayan Sun	318
	22 - 23	Golden Amber	21
	24 - 25	Soft Golden Amber	321
	26 - 27	Orange	23
	28 - 29	Henna Sky	325
	30 - 31	Light Red	26
	32 - 33	No Color Pink	33
	34 - 35	Blush Pink	333
	36 - 37	Flesh Pink	34
	38 - 39	Pale Rose Pink	37
	40 - 41	Salmon	41
	42 - 43	Deep Salmon	42
	44 - 45	Middle Rose	44
	46 - 47	Light Rose Purple	47
	48 - 49	Surprise Pink	51
	50 - 51	No Color Blue	60
	52 - 53	Clearwater	360

Chan.	Value	Gel name	Number
6	54 - 55	Booster Blue	62
	56 - 57	Tipton Blue	362
	58 - 59	Blue Bell	364
	60 - 61	Daylight Blue	65
	62 - 63	Tharon Delft Blue	365
	64 - 65	Cerulean Blue	375
	66 - 67	Bermuda Blue	376
	68 - 69	Green Blue	77
	70 - 71	Alice Blue	378
	72 - 73	Primary Blue	80
	74 - 75	Baldassari Blue	381
	76 - 77	Medium Blue	83
	78 - 79	Pale Yellow Green	87
	80 - 81	Light Green	88
	82 - 83	Moss Green	89
	84 - 85	Primary Green	91
	86 - 87	Turquoise	92
	88 - 89	Blue Green	93
	90 - 91	Chocolate	99
	92 - 255	Reserved	

Category 1, LEE Color Correction

Chan.	Value	Gel name	Number
6	0 - 1	Double CTB	200
	2 - 3	Full CTB	201
	4 - 5	3/4 CTB	281
	6 - 7	1/2 CTB	202
	8 - 9	1/4 CTB	203
	10 - 11	1/8 CTB	218
	12 - 13	Double CTO	287
	14 - 15	Full CTO	204
	16 - 17	3/4 CTO	285
	18 - 19	1/2 CTO	205
	20 - 21	1/4 CTO	206
	22 - 23	1/8 CTO	223
	24 - 25	1 1/2 CTB	283
	26 - 27	1 1/2 CTO	286
	28 - 29	Full CTS	441
	30 - 31	1/2 CTS	442
	32 - 33	1/4 CTS	443
	34 - 35	1/8 CTS	444
	36 - 37	Full CTO + .3 ND	207
	38 - 39	Full CTO + .6 ND	208
	40 - 41	L.C.T. Yellow (Y1)	212
	42 - 43	White Flame Green	213
	44 - 45	LEE Fluorescent Green	219
	46 - 47	Super Correction L.C.T. Yellow	230
	48 - 49	Super Correction W.F. Green	232
	50 - 51	H.M.I. (to Tungsten)	236
	52 - 53	C.I.D. (to Tungsten)	237

Chan.	Value	Gel name	Number
6	54 - 55	C.S.I. (to Tungsten)	238
	56 - 57	LEE Fluorescent 5700 Kelvin	241
	58 - 59	LEE Fluorescent 4300 Kelvin	242
	60 - 61	LEE Fluorescent 3600 Kelvin	243
	62 - 63	LEE Plus Green	244
	64 - 65	1/2 Plus Green	245
	66 - 67	1/4 Plus Green	246
	68 - 69	1/8 Plus Green	278
	70 - 71	LEE Minus Green	247
	72 - 73	1/2 Minus Green	248
	74 - 75	1/4 Minus Green	249
	76 - 77	1/8 Minus Green	279
	78 - 255	Reserved	

Category 2, LEE Color Filters

Chan.	Value	Gel name	Number
6	0 - 1	Rose Pink	002
	2 - 3	Lavender Tint	003
	4 - 5	Medium Bastard Amber	004
	6 - 7	Pale Yellow	007
	8 - 9	Dark Salmon	008
	10 - 11	Pale Amber Gold	009
	12 - 13	Medium Yellow	010
	14 - 15	Straw Tint	013
	16 - 17	Surprise Peach	017
	18 - 19	Fire	019
	20 - 21	Medium Amber	020
	22 - 23	Gold Amber	021
	24 - 25	Dark Amber	022
	26 - 27	Scarlet	024
	28 - 29	Sunset Red	025
	30 - 31	Bright Red	026
	32 - 33	Light Pink	035
	34 - 35	Medium Pink	036
	36 - 37	Dark Magenta	046
	38 - 39	Rose Purple	048
	40 - 41	Light Lavender	052
	42 - 43	Paler Lavender	053
	44 - 45	Lavender	058
	46 - 47	Mist Blue	061
	48 - 49	Pale Blue	063
	50 - 51	Sky Blue	068
	52 - 53	Evening Blue	075

Chan.	Value	Gel name	Number
6	54 - 55	Just Blue	079
	56 - 57	Deeper Blue	085
	58 - 59	Lime Green	088
	60 - 61	Moss Green	089
	62 - 63	Dark Yellow Green	090
	64 - 65	Spring Yellow	100
	66 - 67	Yellow	101
	68 - 69	Light Amber	102
	70 - 71	Straw	103
	72 - 73	Deep Amber	104
	74 - 75	Primary Red	106
	76 - 77	Light Rose	107
	78 - 79	English Rose	108
	80 - 81	Light Salmon	109
	82 - 83	Middle Rose	110
	84 - 85	Dark Pink	111
	86 - 87	Magenta	113
	88 - 89	Peacock Blue	115
	90 - 91	Steel Blue	117
	92 - 93	Light Blue	118
	94 - 95	Deep Blue	120
	96 - 97	LEE Green	121
	98 - 99	Fern Green	122
	100 - 101	Dark Green	124
	102 - 103	Smokey Pink	127
	104 - 105	Bright Pink	128
	106 - 107	Marine Blue	131

Chan.	Value	Gel name	Number
6	108 - 109	Golden Amber	134
	110 - 111	Deep Golden Amber	135
	112 - 113	Pale Lavender	136
	114 - 115	Special Lavender	137
	116 - 117	Pale Green	138
	118 - 119	Summer Blue	140
	120 - 121	Pale Violet	142
	122 - 123	Pale Navy Blue	143
	124 - 125	No Color Blue	144
	126 - 127	Apricot	147
	128 - 129	Bright Rose	148
	130 - 131	Gold Tint	151
	132 - 133	Pale Gold	152
	134 - 135	Pale Salmon	153
	136 - 137	Pale Rose	154
	138 - 139	Chocolate	156
	140 - 141	Pink	157
	142 - 143	No Color Straw	159
	144 - 145	Slate Blue	161
	146 - 147	Bastard Amber	162
	148 - 149	Flame Red	164
	150 - 151	Daylight Blue	165
	152 - 153	Lilac Tint	169
	154 - 155	Deep Lavender	170
	156 - 157	Dark Steel Blue	174
	158 - 159	Loving Amber	176
	160 - 161	Dark Lavender	180
	162 - 163	Light Red	182

Chan.	Value	Gel name	Number
6	164 - 165	Flesh Pink	192
	166 - 167	Surprise Pink	194
	168 - 169	Zenith Blue	195
	170 - 171	True Blue	196
	172 - 173	Alice Blue	197
	174 - 175	Palace Blue	198
	176 - 177	Regal Blue	199
	178 - 255	Reserved	

Category 3,LEE 600 Series

Chan.	Value	Gel name	Number
6	0 - 1	Arctic White	600
	2 - 3	Silver	601
	4 - 5	Platinum	602
	6 - 7	Moonlight White	603
	8 - 9	Full CT 85	604
	10 - 11	Industry Sodium	650
	12 - 13	HI Sodium	651
	14 - 15	Urban Sodium	652
	16 - 17	LO Sodium	653
	18 - 255	Reserved	

Category 4, LEE Cosmetic Filters

Chan.	Value	Gel name	Number
6	0 - 1	Cosmetic Peach	184
	2 - 3	Cosmetic Silver Rose	186
	4 - 5	Cosmetic Rouge	187
	6 - 7	Cosmetic Highlight	188
	8 - 9	Cosmetic Silver Moss	189
	10 - 11	Cosmetic Aqua Blue	191
	12 - 13	Lily Frost	705
	14 - 15	Shanklin Frost	717
	16 - 17	Half Shanklin Frost	718
	18 - 19	Durham Daylight Frost	720
	20 - 21	Hampshire Rose	749
	22 - 23	Durham Frost	750
	24 - 25	Soft Amber Key 1	774
	26 - 27	Soft Amber Key 2	775
	28 - 29	Moroccan Frost	791
	30 - 31	Blue Diffusion	217
	32 - 33	Blue Frost	221
	34 - 35	Daylight Blue frost	224
	36 - 255	Reserved	

Specification

Physical, SkyPanel S30, manual version

Depth	133 mm (5.2 in.)
Wide	507 mm (19.9 in.)
Height	347 mm (13.6 in., w/o stirrup)
Weight (w/o accessories)	8 kg (17.6 lbs)

Physical, SkyPanel S30, p.o. version

Depth	133 mm (5.2 in.)
Wide	504 mm (19.8 in.)
Height	347 mm (13.6 in., w/o stirrup)
Weight (w/o accessories)9 kg (20 lbs)

Physical, SkyPanel S60, manual version

Depth	133 mm (5.2 in.)
Wide	813 mm (32.0 in.)
Height	347 mm (13.6 in., w/o stirrup)
Weight (w/o accessories)	12 kg (26.5 lbs)

Physical, SkyPanel S60, p.o. version

Depth	133 mm (5.2 in.)
Wide	796 mm (31.3 in.)
Height	347 mm (13.6 in., w/o stirrup)
Weight (w/o accessories)	13 kg (28.7 lbs)

Physical, external power supply unit S30

Depth	383 mm (15 in.)
Wide	90 mm (3.5 in.)
Height	116 mm (4.6 in.)
Weight	2,2 kg (4.8 lbs)

Physical, external power supply unit S60

Depth	380 mm (15 in.)
Wide	190 mm (7.5 in.)
Height	90 mm (3.5 in.)
Weight	3,7 kg (8.2 lbs)

Light source

Type	ARRI LED Light Engine
Typ. LED lifetime L70	50.000 h
White light.	2.800 K - 10.000 K (SkyPanel-C)
White light.	Color temperature defined
.....	by remote phosphor panels (SkyPanel-RP)
Colored light	RGBW color mixing (SkyPanel-C)
Color rendition index.	typ. CRI >94
Green / Magenta saturation	+/- 1 (full green to full magenta)
.....	(SkyPanel-C)

Optical path

Type	soft light with diffuser plate (SkyPanel-C)
.....	remote phosphor panel (SkyPanel-RP)
Light aperture	355 x 300 mm (14 x 11.8 in)
.....	.645 x 300 mm (25.4 x 11.8 in)

Dynamic functions

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

Control and Programming

Channels	7-18 channels, depending on type and mode
Setting and addressing	Fixture menu, ALSM
DMX compliance	ESTA DMX512A
RDM compliance	ESTA DMX512A
Art-Net	Version 3
Firmware update	USB interface, network, ALSM

Construction

Color	Blue / silver or black
Housing	Composite and aluminum
Protection rating	IP 20

Installation

Mounting	28 mm spigot or 16 mm / 28 mm combo pin
Orientation	+/- 90°
Minimum clearance around fixture	0.5 m
Minimum view distance to light aperture	1.0 m

Connectors

DC power input	Neutrik® locking 3-pin XLR
Battery pack connector	Neutrik® locking 4-pin XLR
DMX / RDM in / thru	Neutrik® locking 5-pin XLR
Art-Net connector	RJ45 Ethernet connector
USB interface	USB-A

Electrical

SkyPanel

Power input	48 V =
Max. cable length between PSU and luminaire	49 ft.

External power supply unit

Power input	110 - 240 V ~, 50 / 60 Hz (nom.)
Power output	48 V =
Power supply	Auto-sensing switching-mode power supply

Typical power

230 V, 50 Hz	210 W nom. (SkyPanel S30)
	420 W nom. (SkyPanel S60)
cos φ	> 0,9
Measurements made at nominal voltage with all LEDs at full intensity.	
Allow for a deviation of +/- 10%	

Noise emission

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

Thermal

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

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

Order Information

ARRI SkyPanel S30

All S30 versions include

- S30 Power supply unit (PSU)
- Rail mount adapter for SkyPanel PSU
- Standard diffusion panel (only C-Version)

Manual versions include additional

- Aluminum yoke with 16 mm / 28 mm combo pin
- DC header cable 48 V= (XLR 3-pin), l = 3 m (10 ft)
- PowerCON TRUE1 mains cable, l = 3 m (10ft) with mains connector

P.O. versions include additional

- Steel yoke with 28 mm junior pin
- DC header cable 48 V= (XLR 3-pin), l = 1 m (3.3 ft)
- PowerCON TRUE1 mains cable, l = 3 m (10ft) with bare ends
- Pole operation for pan and tilt

ARRI SkyPanel S30-C

**Color Controllable - Tuneable White (2,800 K - 10,000 K),
Green-Magenta Adjustment and Full RGBW Color Gamut**

- S30-C, MAN, blue/silver, Edison L0.0007711
- S30-C, MAN, blue/silver, Schuko L0.0007712
- S30-C, MAN, blue/silver, Chinese L0.0007713
- S30-C, P.O., blue/silver, bare end L0.0007714
- S30-C, P.O., black, bare end L0.0007716

Accessories

- Standard Diffusion S30. L2.0007325
- Heavy Diffusion S30. L2.0007326
- Lite Diffusion S30 L2.0007327
- Intensifier S30. L2.0007328

ARRI SkyPanel S30-RP

White Light - Interchangeable Remote Phosphor Panels

- S30-RP, MAN, blue/silver, 3.200 K, Edison L0.0007717
- S30-RP, MAN, blue/silver, 3.200 K, Schuko L0.0007718
- S30-RP, MAN, blue/silver, 3.200 K, Chinese L0.0007720
- S30-RP, P.O., blue/silver, 3.200 K, bare ends L0.0007721
- S30-RP, P.O., black, 3.200 K, bare ends L0.0007722
- S30-RP, MAN, blue/silver, 5.600 K, Edison L0.0007723
- S30-RP, MAN, blue/silver, 5.600 K, Schuko L0.0007724
- S30-RP, MAN, blue/silver, 5.600 K, Chinese L0.0007725
- S30-RP, P.O., blue/silver, 5.600 K, bare ends L0.0007726
- S30-RP, P.O., black, 5.600 K, bare ends L0.0007727

Accessories

- Remote Phosphor Panel S30, 2.700 K. L2.0007520
- Remote Phosphor Panel S30, 3.200 K. L2.0007521
- Remote Phosphor Panel S30, 4.300 K. L2.0007522
- Remote Phosphor Panel S30, 5.600 K. L2.0007523
- Remote Phosphor Panel S30, 6.500 K. L2.0007524
- Remote Phosphor Panel S30, 10.000 K. L2.0007789
- Remote Phosphor Panel S30, Chroma Green L2.0007525

Accessories for SkyPanel S30-C and S30-RP

4-leaf barndoor S30	L2.0008187
4-chamber eggcrate S30	L2.0008048
Honeycomb 60° S30	L2.0008064
Honeycomb 30° S30	L2.0008065
Chimera Lightbank with frame S30	L2.0008196
DoP Choice SnapGrid 40° S30	L2.0008142
DoP Choice SnapBag S30	L2.0008141
DoP Choice SnapGrid for SnapBag S30	L2.0008140
Snoot S30	L2.0008019
Extra Diffusion slot S30	L2.0008189
Power supply unit S30 blue/silver	L2.0007735
Power supply unit S30 black	L2.0007886
Double vertical yoke S30	L2.0008184
Safety cable 4 mm, l = 1 m, with Carabiner	L2.76990.0

ARRI SkyPanel S60

All S60 versions include

- S60 Power supply unit (PSU)
- Rail mount adapter for SkyPanel PSU
- Standard diffusion panel (only C-Version)

Manual versions include additional

- Aluminum yoke with 28 mm junior pin
- DC header cable 48 V= (XLR 3-pin), l = 3 m (10 ft)
- PowerCON TRUE1 mains cable, l = 3 m (10ft) with connector

P.O. versions include additional

- Steel yoke with 28 mm junior pin and p.o. drives
- DC header cable 48 V= (XLR 3-pin), l = 1 m (3.3 ft)
- PowerCON TRUE1 mains cable, l = 3 m (10ft) with bare ends

ARRI SkyPanel S60-C

Color Controllable - Tuneable White (2,800 K - 10,000 K), Green-Magenta Adjustment and Full RGBW Color Gamut

S60-C, MAN, blue/silver, Edison	L0.0007063
S60-C, MAN, blue/silver, Schuko	L0.0007064
S60-C, MAN, blue/silver, Chinese	L0.0007065
S60-C, P.O., blue/silver, bare end	L0.0007066
S60-C, P.O., black, bare end	L0.0007067

Accessories

Standard Diffusion S60	L2.0003345
Heavy Diffusion S60	L2.0003903
Lite Diffusion S60	L2.0003904
Intensifier S60	L2.0007818

ARRI SkyPanel S60-RP

White Light - Interchangeable Remote Phosphor Panels

S60-RP, MAN, blue/silver, 3.200 K, Edison	L0.0007068
S60-RP, MAN, blue/silver, 3.200 K, Schuko	L0.0007069
S60-RP, MAN, blue/silver, 3.200 K, Chinese	L0.0007070
S60-RP, P.O., blue/silver, 3.200 K, bare ends	L0.0007071
S60-RP, P.O., black, 3.200 K, bare ends	L0.0007072
S60-RP, MAN, blue/silver, 5.600 K, Edison	L0.0007073
S60-RP, MAN, blue/silver, 5.600 K, Schuko	L0.0007074
S60-RP, MAN, blue/silver, 5.600 K, Chinese	L0.0007075
S60-RP, P.O., blue/silver, 5.600 K, bare ends	L0.0007076
S60-RP, P.O., black, 5.600 K, bare ends	L0.0007077

Accessories

Remote Phosphor Panel S60, 2.700 K.	L2.0003347
Remote Phosphor Panel S60, 3.200 K.	L2.0003348
Remote Phosphor Panel S60, 4.300 K.	L2.0003349
Remote Phosphor Panel S60, 5.600 K.	L2.0003350
Remote Phosphor Panel S60, 6.500 K.	L2.0003346
Remote Phosphor Panel S60, 10.000 K.	L2.0007778
Remote Phosphor Panel S60, Chroma Green.	L2.0003351

Accessories for SkyPanel S60-C and S60-RP

4-leaf barndoor S60	L2.0007530
8-chamber eggcrate S60	L2.0007977
Honeycomb 60° S60.	L2.0008058
Honeycomb 30° S60.	L2.0008059
Chimera Lightbank with frame S60	L2.0008197
Chimera Lightbank shallow with frame S60	L2.0008195
DoP Choice SnapGrid 40° S60	L2.0008144
DoP Choice SnapBag S60.	L2.0008143
DoP Choice SnapGrid 40° for SnapBag S60	L2.0008145
Snoot S60.	L2.0007999
Extra diffusion slot S60.	L2.0008188
Power supply unit S60 blue/silver.	L2.0007573
Power supply unit S60 black	L2.0007878
Double vertical yoke S60	L2.0008098
Space Light silk mounting adapter S60	L2.0008185
Safety cable 5 mm, l = 1 m, with Carabiner	L2.80864.0

Accessories for all models (S30-C, S30-RP, S60-C, S60-RP)

Mains cable, powerCON TRUE1, l = 3 m, Schuko.	L2.0007516
Mains cable, powerCON TRUE1, l = 3 m, Edison	L2.0007515
Mains cable, powerCON TRUE1, l = 3 m, China	L2.0007514
Mains cable, powerCON TRUE1, l = 3 m, bare ends.	L2.0005974
DC cable 48 V=, XLR 3-pol., l = 0,5 m	L2.0007492
DC cable 48 V=, XLR 3-pol., l = 1 m	L2.0007491
DC cable 48 V=, XLR 3-pol., l = 3 m	L2.0007493
DC cable 48 V=, XLR 3-pol., l = 10 m	L2.0007494
DC cable 48 V=, XLR 3-pol., l = 15 m	L2.0007860
Battery DC cable, XLR 4-pin, l = 0,5 m	L2.0008499
Battery DC cable, XLR 4-pin, l = 3 m	L2.0008500
Battery adapter plate for Anton/Bauer	L2.0008071
V-Mount Battery adapter plate	L2.0008070
Center mount yoke	L2.0008078
Fixed center mount yoke	L2.0008080
Rail mount adapter for SkyPanel PSU	L2.0008082
Super clamp adapter for SkyPanel PSU	L2.0006921

RISK GROUP 2 - moderate risk

CAUTION! Possibly hazardous optical radiation emitted from this product.

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

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

www.arri.com

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