



CASTER Series

User manual

April 2015

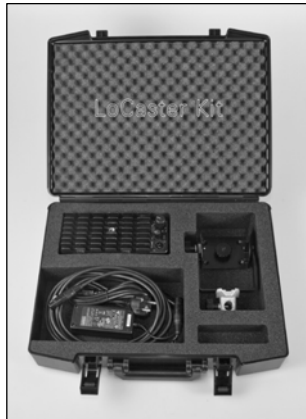
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L5.0002888

L02583

LoCaster 2 Plus Kit



Quantity	Ident-No.	Description
1	L1.0001329	LoCaster 2 Plus LED Panel 35 W, 11 - 36 V=, onboard control
1	L2.30083.0	Caster series power supply, XLR 4 pin, 24 V= / 60 W
1	L2.30081.0	PowerDMX extension cable XLR 4 pin, 3 m
1	L2.30089.0	Caster stirrup with battery pack attachment
1	L2.30099.0	Case LoCaster
1	L5.30035.0	Caster plus series user manual
1	L2.30061.0	2-leaf barndoor
1	L2.30059.0	Filter frame

* Barndoor and filter frame only shipped with kit P/N L0.0002337

BroadCaster 2 Plus LED Panel 35 W



LoCaster 2 Plus LED Panel 35 W



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Safety Information



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

Explanations of Warning Signs and Indications



Possible risk of injury or damage to equipment.



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



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

Note: Indicates further information.

General Notes

- This document contains important instructions and notes to handle the product safe.
- Always follow all safety information for your own protection.
- Please follow the user manual of accessories and third party accessories for the Caster series such as battery packs and battery chargers. They contain important safety and security information.
- Retain this user manual for further reference and possible new owners of this product.
- ARRI® Caster series 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 2006/95/EG
 - EMC directive 2004/108/EG
 - RoHS directive 2002/95/EG

General Safety Information



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



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



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

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



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



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



Do not operate the product if the ambient temperature exceeds 45° C. Do not expose the product to rain or moisture.



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 guarantee, where applicable.



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

Specific Safety Information



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



Never cover air vents and the heat sink during operation.



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



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



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



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



CAUTION! High voltage! Never try to open the power supply. Replace defective power cables. Do not use the product with defective power cables.



Only use the ARRI Caster power supply products described in this manual. Never use other power supply products as this products can be damaged or damage the connected products.



Never bypass any fuse.



Always keep cables away from the product during operation.



Disconnect all cables prior to transport.



CAUTION! High intensity light beam! Never look direct into the light beam!

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

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 isopropyle 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 and national requirements.

Legal disclaimer

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Product description

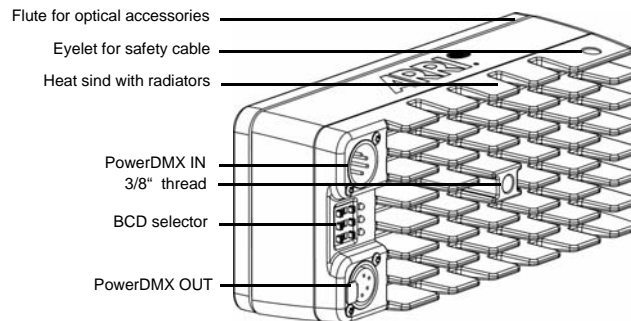
The ARRI Caster series utilizes a special optical system and LED arrangement to provide efficient and powerful lighting characteristics in a compact package. Specially designed accessories, such as a 2-leaf barndoor, intensifier, and a range of mounting options expand the Caster Series flexibility.

BroadCaster 2 Plus

The ARRI BroadCaster plus unit is designed for remote control via DMX. Using a DMX control console or software, both intensity, color temperature and \pm green attributes can be controlled independently.

Specification

Input voltage	11 - 36 V= *
Luminous intensity	1000 cd at 66° HPA
Max. power draw	35 W
Operating temperature	-4° F - 95° F
Storage temperature	-4° C - 140° F
Protection class	IP 20 **
Electrical safety	III (SELV)
Dimensions (l x w x h)	8.7 x 3.75 x 2.75 in
Weight	0.22 lb.
Color temperature	2.800 K to 6.500 K



*The luminous intensity will be limited to 90% with input voltages lower than 20 V.

**IP 20: The product is not protected against ingress of water. Use the product only in dry environments.

When mounting the product above peoples heads, secure the product with an additional safety cable using the eyelet. Please respect your local safety regulations.

Notes: Use the 3/8" thread to mount accessories to the product (see "Grip accessories" on page 19).

XLR-4 PowerDMX pin-out

The pin-out of the 4-pin XLR is:

Pin	Assignment
1	0 V
2	DMX Data -
3	DMX Data +
4	11 - 36 V=

Auto Power-off function

The LED panel is equipped with an auto power-off function to protect the LEDs from damage by over temperature or over voltage.

- The LED panel switches off automatically when exceeding a dangerous heat level.
- The red status LED indicates, that the auto power-off function is active.
- Reset the product by disconnecting and re-connecting the power source.

Suppressor element

The BroadCaster 2 Plus is shipped with two suppressor elements. The suppressor elements can be ordered as an accessory (ident number L2.0007041). Please the chapter "To attach the suppressor elements" on page 22 for more information.

Status indicators

Red	Over temperature or over voltage. The auto power-off function is active.
Green	The product is switched on. No error condition.
Blue	The product receives a valid DMX signal.



Intensive use causes the heat sink to become very hot. The surface temperatures can reach up to 80° C / 176° F. Use gloves if you touch the LED panel at the heat sink.



Do not cover the heatsink or the radiators during use.



Avoid exposure of the LED panel to the heat radiation of other products. Do not place it on other heat sources. Intense heating can cause automatic power-off while using the product.

LoCaster 2 Plus

The ARRI LoCaster 2 Plus is designed for mobile use in TV broadcast and film location applications. It utilizes modern LED technology. You can control intensity and color temperature independently from each other and directly on the device.

Specification

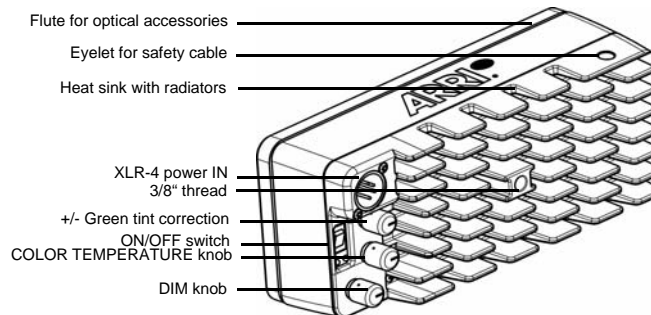
The technical specification of the LoCaster 2 Plus is equal to the specification of the BroadCaster 2 Plus.

Auto Power-off function

The LoCaster 2 Plus features the same auto power-off function as the BroadCaster 2 Plus.

Status indicators

Red	Over temperature or over voltage. The auto power-off function is active.
Green	The product is switched on. No error condition.



Notes: For mounting, a variety of accessories can be attached using the 3/8" thread on the backside of the LED Panel (see "Grip accessories" on page 19).

When mounting the product above peoples heads, secure the product with an additional safety cable using the eyelet. Please respect your local safety regulations.

BroadCaster 2 Plus power supply

The BroadCaster 2 Plus power supply features three PowerDMX outputs. Each output can deliver a maximum of 100 W of power. Do not overload the output. Doing so will damage the output. PowerDMX distributes both power and DMX data through a single 4-pin cable, enabling each BroadCaster 2 Plus panel to operate through a single cable connection.

Specification

Input voltage	100 - 240 V~, 50 / 60 Hz
Output voltage	24 V=, 6 A max
Protection class	IP 20 *
Electrical safety	III (SELV)
Dimensions (l x w x h)	16.1 x 5.5 x 2.76 in
Weight	6.6 lbs

* IP 20: The product is not protected against ingress of water. Use the product only in dry environments.



XLR-4 PowerDMX pin-out

Pin	Assignment
1	0 V
2	DMX Data -
3	DMX Data +
4	11 - 36 V=

Notes: The power supply is protected by two fuses.

Use only fuses of the type 5x20mmT:

For input voltages 120 VAC (L2.30084.A): 4 A

For input voltages 230 VAC (L2.30084.0): 2 A

The design of the mains connector and the mains socket is regionally different. A NEMA adapter cable for North America is included with the power supply unit. Additional adapter cables for other countries can be purchased at local electrical device retailers.



This power supply is designed for indoor use only. Do not use it outside.



Please refer to the information given in chapter "Safety Information" on page 5.

LoCaster 2 Plus power supply

The LoCaster 2 Plus power supply 24V= / 60W is designed for mobile use with the LoCaster 2 Plus due to its compact size. The power supply can power a single LoCaster 2 Plus.

Specification

Input voltage	100 - 240 V~, 50 / 60 Hz
Output voltage	24 V=, 2,5 A max
Dimensions (l x w x h)	4.7 x 2.17 x 1.4 in
Weight	0.66 lbs

POWER OUT pin-out

Pin	Assignment
1	0 V
2	n.c.
3	n.c.
4	+24 V=



Notes: The design of the mains connector and the mains socket is regionally different. A NEMA adapter cable for North America is included with the power supply unit. Further adapter cables for other countries can be purchased at local electrical device retailers.



This power supply is not designed to charge the LoCaster 2 Plus battery pack. Please use the Caster battery charger (Ident-No. L2.30086.0).



Please refer to the information given in chapter "Safety Information" on page 5.

NiMH battery pack

The LoCaster 2 Plus battery pack can power a single LED Panel for about two hours independent from mains source.

To check the capacity of the battery pack:

- Push the capacity status check button on the top side of the battery pack to display the remaining capacity with the LED indicators.

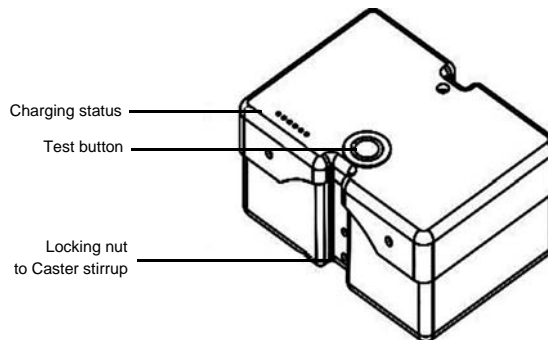
Specification

Output voltage	30 V=
Capacity	81 Wh
Dimension (l x w x h)	5.1 x 3.94 x 2.17 in
Weight	2.65 lbs

Note: ARRI recommends the use of the described battery system. If you use a different 24V battery system, different pin configurations might cause malfunction. In this case please contact your local ARRI Service Center.



Please follow the handling and safety instructions of the manufacturer. Always observe the safety information given by the manufacturer.



Avoid heating the device by other heat sources or by intense radiation from the sun or other products. Never throw it into fire.



Store the battery pack in a cool and dry place. Do not store it at a very hot or very cold place.



Never short circuit the battery pack. Do not touch the connector's pins with conducting items. Do not try to open or modify the product.

Battery pack charger

To charge the Caster battery pack:

- Use the supplied XLR-4 male-to-male adaptor to connect the battery pack with the battery charger.
- Connect the power cable supplied with the battery charger to the battery charger unit.
- Plug the mains connector into a mains socket nearby.

Specification

Input voltage	100 - 240 V~, 50 / 60 Hz
Output voltage	30 V=
Dimensions (l x w x h)	5.1 x 3.9 x 1.6 in
Weight	0.8 lbs

Note: The LoCaster 2 Plus battery charger must only be used to charge the LoCaster 2 Plus battery pack.



Please also refer to the safety and handling instructions provided by the manufacturer. Always follow the safety instructions of third party manufacturers.



POWER OUT pin-out

Pin	Assignment
1	0 V
2	n.c.
3	n.c.
4	+24 V=

Optical accessories

The optical accessories can be used for the LoCaster 2 Plus and the BroadCaster 2 Plus. They are inserted into the flute at the front of the LED panel's housing. The gel frame can only be used in combination with the 2-leaf barndoor or the intensifier.

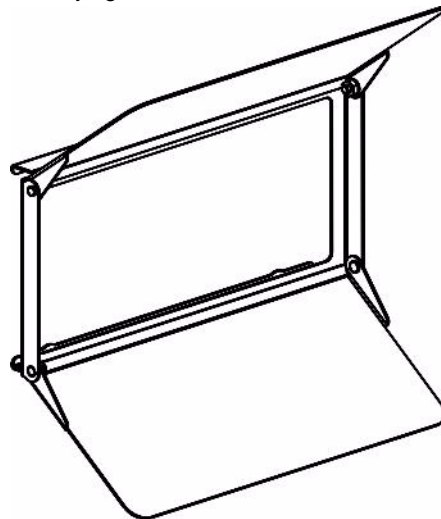
Note: The flute features two slots on each side to lock the attached accessory.



Always ensure that the accessory snaps in into its correct position. Otherwise the accessory may loosen or even fall off.

2-leaf barndoor

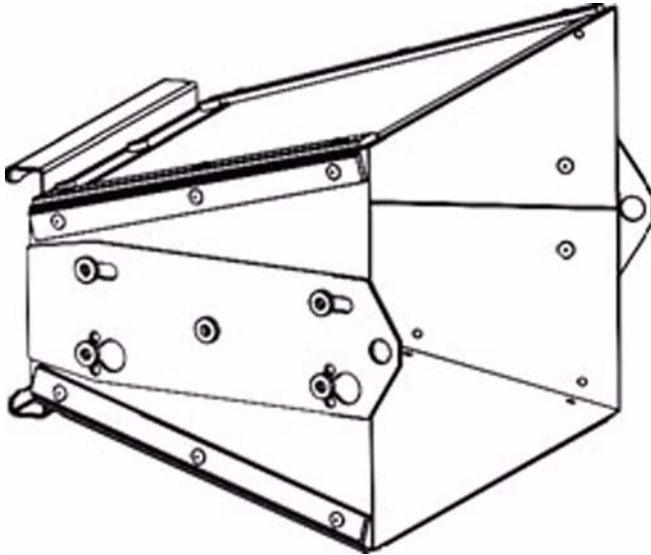
The 2-leaf barndoor can be used to limit the light distribution or to minimize stray light.



Intensifier

The intensifier doubles the luminous intensity of a Caster LED panel.

The intensifier folds flat for easy transport and storage. To restore its shape, simply align and lock the side plates into place.



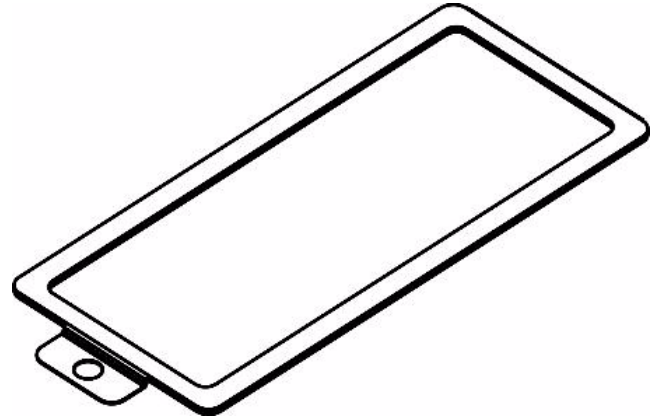
Gel frame

The gel frame provides the possibility to use the Caster LED panels with gels.

The gel frame is not inserted into the flute at the LED panel's housing. It can only be used in combination with either the 2-leaf barndoor or the intensifier.

To insert the gel frame, please do the following:

- Insert either the intensifier or the 2-leaf barndoor into the flute on the LED panel's housing.
- Make sure the accessory snaps in place.
- Insert the gel frame into the gap between LED panel and accessory.



Grip accessories

The grip accessories can be used for the LoCaster 2 Plus and the BroadCaster 2 Plus.

They attach to the LED panel via the 3/8" thread.



Always tighten the clamp locks.

Always seize the screw threads.

Caster stirrup

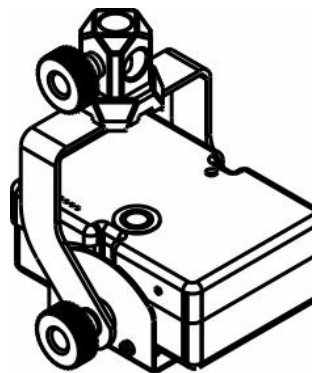
The Caster stirrup can be used to mount a Caster LED panel on 16 mm accessories. It can also carry the battery pack.

- To attach the stirrup to the LED Panel, screw the knurled head screw into the 3/8" thread of the product. The stirrup can be attached to the LED Panel in both horizontal and vertical orientation.

Additional grip accessories

In addition to the Caster stirrup the following grip accessories are available:

Ident-No.	Description
L2.30992.0	ARRI swiveling / Noga arm
L2.30991.0	Hot shoe 3/8" adaptor
L2.88681.0	Adaptor 1/4" bolt and 3/8" thread
L2.88639.0	Adaptor, 16 mm thread with 3/8" bolt
L2.30088.0	Stud 16 mm, length 120 mm, for GoboHead
L2.76100.0	Super clamp with ballast / power supply attachment plate for L2.30084.0/A



To secure suspended loads

When the LED panel or any other component is suspended or mounted in a hanging position, it must be secured with a safety cable and a coupling device rated at a minimum of 10 times the weight of the products including accessories.

The safety cable must be as short as possible.

Note: When using the LED panels in a hanging position above people's heads, ARRI advises using the Caster stirrup. Utilize the stirrup as a location in which to attach a safety cable.



The safety cable (or similar system) and all of its coupling links must be able to carry at least 10 times the weight of the products, including accessories. Always follow further regional regulations.

To power the LoCaster

To use a battery pack

To use the LoCaster with the battery pack, please do the following:

- Make sure the battery pack is fully charged.
- Plug the XLR-4 connector of the battery pack into the POWER IN connector of the LoCaster LED panel.

Note: For battery operation of the LoCaster with a battery pack other than the LoCaster battery pack, please use the battery cable L2.30105.0.

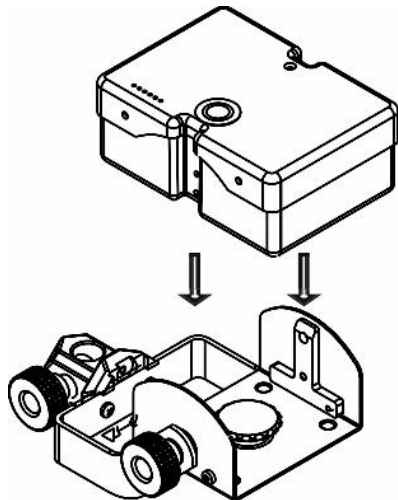


Always discharge the battery pack complete before recharging. This way the lifetime of the battery pack is extended.

Battery Pack on Caster Stirrup

The battery pack can be directly attached to the stirrup:

- The battery pack is attached to the stirrup by pushing it into the stirrup vertically. Make sure the pins on both sides of the battery pack snap into the slots in the T-shaped components of the stirrup.
- To remove the battery pack, simply pull the knob on top of the battery pack.



To use a power supply

To use the LoCaster with power supply, please do the following:

- Connect the POWER IN plug of the LoCaster with the XLR-4 connector of the power supply 24 V= / 60 W using a XLR-4 cable.
- Connect the correct power cable to the power supply unit.
- Plug the mains connector into a mains socket nearby.

Note: You can also use the power supply 24V= / 300 W to power the LoCaster. Obey all information regarding the power supply given on page 12. In this case the DMX functionality of the BroadCaster power supply is not used.

To use a car power adaptor

- The product can also be powered by a car using the 12V car battery.
- Use the car power adapter (L2.72937.0) in place of the power supply.

Note: With the car power adapter only one LED panel can be powered at a time.



Do not try to charge the battery pack with the car power adapter.

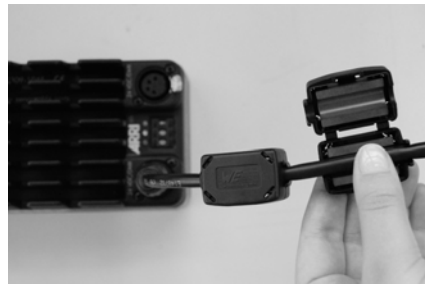
To power the BroadCaster

To attach the suppressor elements

The suppressor elements have to be attached to the power supply output cable between the power supply and the BroadCaster 2 Plus. Attach the elements as near as possible to the power DMX input of the luminaire. Do not attach the suppressor elements when the luminaire is powered by a battery.

To attach and de-attach the suppressor elements

- Unfold the suppressor element and put it around the cable.



- Gently press both sides together to close the suppressor element.



- To open push the key in the two holes in the suppressor element until the element opens.



To use the power supply

When powering the BroadCaster, make sure the product receives a valid DMX512 signal in addition to a correct input voltage (PowerDMX). Therefore using the DMX512 capable power supply unit 24V= / 300 W is recommended.

- Connect a DMX512-capable control device via a XLR-5 cable to the DMX IN of the power supply.
- Connect the BroadCaster via XLR-4 cables to the PowerDMX outputs of the power supply. Obey all information regarding the power supply given on page 12.
- To connect more than one BroadCaster unit to one PowerDMX output, use the PowerDMX OUT on the BroadCaster to daisy-chain the signal to another BroadCaster via a XLR-4 cable.
- Connect the correct power cable to the power supply unit.
- Plug the mains connector into a mains socket nearby.
- Switch on the power supply unit. The ON/OFF switch is illuminated when the unit is powered.

Notes: Do not overload the outputs of the power supply.

To loop through the incoming DMX signal to other devices (e.g. to other power supplies), please use the DMX output on the backside of the power supply unit.



Make sure the ventilation openings in the housing are never covered while using the product.



Disconnect the unit from mains before connecting the products.



Always make sure the XLR connectors snap in with a clearly audible click sound. Otherwise the connections may loosen while using the system.

You can use the BroadCaster with the power supply unit 24 V= / 60 W. However there will be no DMX functionality available. Only the backup modes of the BroadCaster will be available.



Make sure to only connect a single LED panel when using the power supply unit 24 V= / 60 W. To daisy chain the input voltage to another device is not permitted.

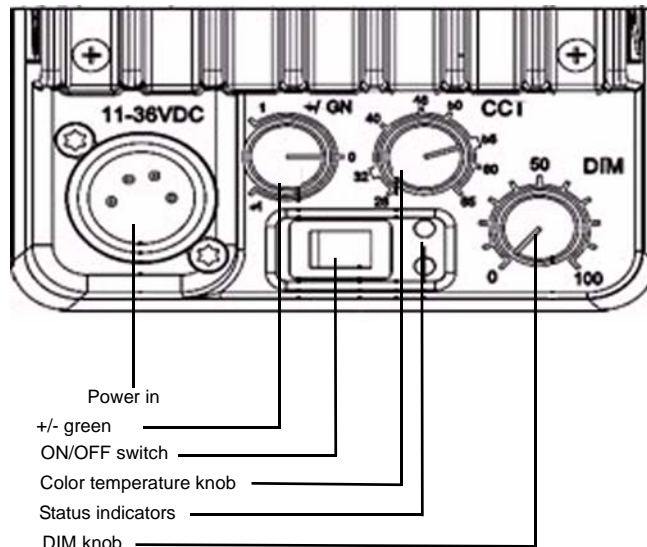
To operate the LoCaster 2 Plus

To operate the LoCaster 2 Plus:

- Power the system with one of the sources described. The green status LED indicates a correct input voltage.
- Switch on the LoCaster 2 Plus using the ON/OFF switch. The product immediately outputs light at the selected color temperature and intensity.
- Turn the DIM knob to continuously adjust the intensity within a range of 10% to 100%.
- Turn the CT knob to tune to the desired color temperature between 2800K and 6500K stepless.
- If required, it is possible to adapt the light of the product to a possible green or magenta tint of the main light source in the scene. Simply turn the +/- green tint correction knob to stepless adjust.

Note: The color does not shift when dimming, not even at very low intensities.

The intensity does not change when selecting a different color temperature preset.



To operate the BroadCaster 2 Plus

To set up the BroadCaster 2 Plus for DMX control:

- Power the BroadCaster 2 Plus unit with a valid PowerDMX signal.
- Use the BCD selector to choose the desired DMX start address.

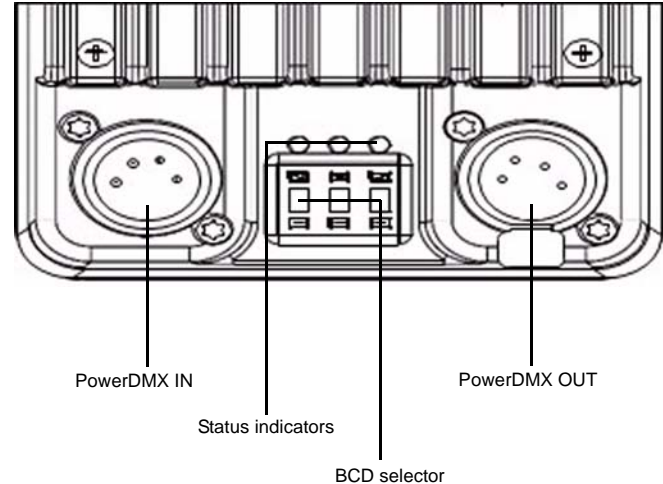
The BroadCaster uses the following DMX protocol:

DMX address	function	description
DMX address	Intensity	0-100% (log)
DMX address + 1	Color temperature	2.800 K - 6.500 K
DMX address + 2	+/- Green	+/- Green
DMX address + 3	no function	

Notes: Both the green and the blue status indicators need to be illuminated in order to guarantee a correct input voltage and a valid DMX signal.

The BroadCaster requires four consecutive DMX channels. The fourth channel is reserved for future use.

Six color temperature presets are programmed from BCD selector DMX start address no. 900 through 905 for backup and testing reasons. The color temperatures are 2.800K, 3.200K, 4.000K, 4.800K, 5.600K and 6.500K.

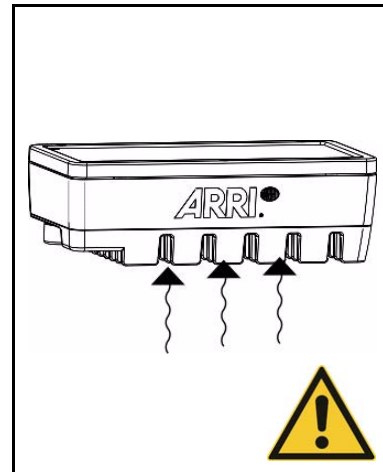
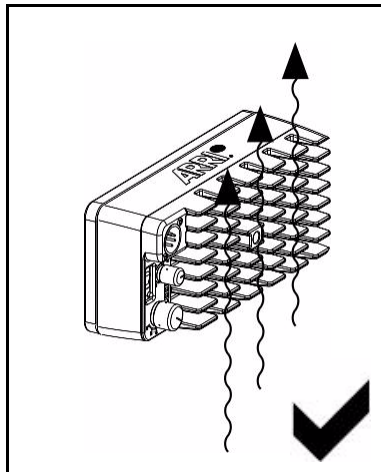
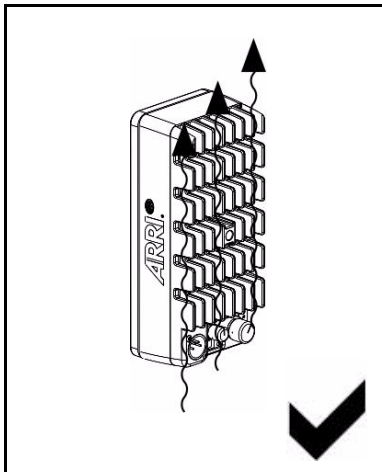


PowerDMX output

You can connect additional LED panels to the PowerDMX output of the BroadCaster unit:

- Connect another BroadCaster unit to the first one using a XLR-4 cable.
- Use the BCD selector to choose the desired DMX start address.

Notes on convection cooling



- LEDs can become very hot at high intensities.
- Sufficient cooling via the aluminium heat sink on the back side of the LED panel must be provided at all times.
- Make sure the convective flow of heat is never constrained.



Intensive usage can cause the heat sink to become very hot. Surface temperatures up to 80°C / 176° F can be reached. Please use gloves if you touch the LED panel at the heat sink.



Danger of over-temperature: Do not place the product on a table or other solid surface with the heat sink pointing towards the surface.

FCC declaration

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when this equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with 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/her own expense.

Complies with the Canadian ICES-003 Class A specifications. Cet appareil numérique de la classe A est conforme a la norme NMB-003 du Canada.

Design and specifications are subject to change without notice!

For any additional technical information or questions please visit the ARRI website
or contact the ARRI service centers.

www.arri.com

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