ERO 506
RGBAWUV LED moving head

User manual

Safety instructions

<table>
<tr><td>⚠️</td><td><h1>WARNING!</h1></td><td>⚠️</td></tr>
<tr><td colspan="3">Always keep this device away from moisture and rain! Hazardous electric shocks may occur!</td></tr>
</table>

<table>
<tr><td>⚠️</td><td><h1>WARNING!</h1></td><td>⚠️</td></tr>
<tr><td colspan="3">Only connect this device to a matching power outlet. This device is intended to work on a specified AC current. Connecting this device to power outlets with other voltages may result in permanent damage and possible hazardous situations, such as fire or electric shocks!</td></tr>
</table>

<table>
<tr><td>⚠️</td><td><h1>WARNING!</h1></td><td>⚠️</td></tr>
<tr><td colspan="3">Be careful when operating this device. Touching live wires inside and outside the unit may cause hazardous electric shocks!</td></tr>
</table>

This unit must be operated by, or under the supervision of, an adult. This device is not suitable for children.

Every person involved with the installation, operation and maintenance of this device must:
- Be qualified
- Follow the instructions of this manual

- Make sure there is no damage caused by transport. If the device seems damaged from the outside, do not use it and contact your dealer for more information.
- To make sure the device remains in perfect condition and for safe operation, the user must follow the instructions and warning notes of this user manual.
- Damage caused by improper use or modifications to the device are not covered by the warranty.
- This device does not have any user-serviceable parts inside. This device must be serviced by qualified technicians.
- The light source of this device is not replaceable. When the light source reaches its end of life, the whole luminaire must be replaced.

Important notes regarding safety and health:
- Never let the power cord come in contact with other cables. Handle the power cord and all mains connectors with caution.
- Never remove any warning or information labels from the unit.
- The ground contact must be connected at all times. Do not cover or remove the ground contact.
- Never leave cables lying around.
- Do not open the device and do not modify any hardware or software.
- Do not insert objects into the air vents of this device.
- Do not connect this device to a dimmer pack.
- Do not switch the system on and off frequently, as this will reduce the lifespan of the device.
- Do not drive the fixture inputs with a signal greater than required to work at full performance.

- Only use this device indoors; avoid contact with water, moisture and other liquids. Do not place items filled with liquids on top of the unit.
- Avoid nearby flames or heat sources; do not place this device near flammable liquids, gas or flammable items.
- Always disconnect the device when it is not in use for a longer period of time, when servicing is needed, or when the device needs cleaning.
- Only handle the power cord by its connectors. Never pull the cable to remove a connector from its socket, as this could lead to damage and electric shocks.
- Always operate this device with a stable AC current.
- Always operate this device with the AC ground wire connected to the electrical system's ground.
- Never use other types of cables than specified in the manual; do not use defective or malfunctioning cables. Contact your dealer if the included or required cables do not work properly with this device.
- If the device has been exposed to considerable temperature changes (for example, transport from outdoors to indoors), do not connect the device immediately. Do not activate the unit until it has reached room temperature, as moisture might build up inside the unit, which may cause short-circuiting and/or electric shocks.

Guidelines and types of use:
- This device is intended to be used by professionals on stage and in theatres, clubs and similar venues.
- This device is used for light effects and entertainment. This product is not suitable for regular household room illumination.
- This device is not suitable for use by children and must always be operated by an adult.
- Only use the device when the environment is suitable and will not cause any damage. Do not use the product in moist or dusty environments, or where long-term damage may occur such as:
        - Indoor swimming pools where chlorine is used.
        - Beaches, where sand and salt are present.
        - Outdoors.
        - Indoor areas where intense heat sources are present or where the temperature exceeds levels that are comfortable for humans.
- Use only the included power cable and only connect the device to a suitable power outlet with the correct output voltage. Connecting the device to a power outlet with the wrong type of voltage or using the product with a wrong type of power supply may cause permanent damage to the device.
- Avoid shocks and collision during use and transport. Do not transport the device while in use. Avoid using brute force during the installation and operation of this device.
- Familiarise yourself with the functions of the device before use. Do not allow operation of the device by unskilled or unqualified people.
- Use of the device in ways other than described in this user manual may cause damage and injury. Ayra can not be held responsible for any damage or injury caused by improper use.

Storage and transport:
- This device is intended for mobile use as well as for use in fixed installations. During transport, use the original product packaging or a fitting flight case, preferably filled with foam.
- This device is not intended for continuous use. Operation breaks will ensure that the lifespan of the device is not reduced.
- If the device is not used for a longer period of time, disconnect it from its power source and store it in its original packaging, or in a fitting flight case.
- Store the device dry and indoors, and do not expose the device to extreme temperature changes.

Housing:
- Inspect the housing of the device frequently. Severe dents, cracks and missing screws should be prevented at all costs. Do not use the device when the housing is not in optimal condition. Contact your dealer or a skilled technician when in doubt about the state of the device.
- Check the fixture and screws for corrosion. Corrosion should not be present on the fixture. Contact your dealer or a skilled technician when corrosion is found on the fixture.
- Every power or signal chassis/connector should be mounted tightly. Do not use the device when connectors are loose.
- Do not use the power cord if the cores are visible. Contact your dealer for a replacement if needed.
- Prevent the build-up of dust and dirt. Clean the exterior of the fixture every month with a dry or damp cloth. If the device is intensively used, the cleaning frequency must be increased. Disconnect the fixture when it is

going to be serviced.

Fuses:
- The main fuse of this device can be found on the rear of the device, usually next to the power inlet.
- Only replace the fuse with a new one of the same type and rating! Do not use a fuse with a higher or lower rating.
- Do not bridge the fuse in any way, as the fuse is used for protection against electric shocks and short-circuiting. The fuse is a safety measure to protect your audience from hazardous electric shocks.
- Always replace the fuse cover over the fuse compartment. Do not use tape or other fastening materials to close the cover. If the fuse holder is broken, contact your local dealer and do not use the fixture.

Symbol clarification:

	WEEE: Dispose of this product properly. This product is part of the WEEE directive – the Waste Electrical and Electronic Equipment directive. The requirements stated in this directive apply to all manufacturers and producers of electronic equipment in the EU. Do not dispose of this product together with regular household trash. Contact your local government for more information about proper disposal and recycling of electronic products in your region. By recycling this product properly after use, we can work together to enjoy these products and also protect our environment from being polluted.
CE	**CE:** The CE mark indicates that the product complies with applicable European directives and regulations.
	Indoor use only: This device is designed exclusively for indoor use. The maximum environmental temperature should not exceed 40 degrees Celsius (104 degrees Fahrenheit)

Box contents

Box contents
1x ERO 506 moving head
1x power cable IEC C13 to Schuko (3x 1mm²)
1x power cable IEC C13 to UK plug (3x 1mm²)
1x hardware pack containing 1 bracket, 1 safety eye bolt, 1 hex wrench and 2 bolts

Unit and accessory inspection
- Always use the supplied power cable to connect the unit to a power supply. If the cable appears broken or has visible damage, do not use it.
- If the unit is not going to be used for a longer period of time, disconnect it from the power supply and store it in a dust-free environment.
- Always check the unit for possible damage before use. If you suspect that something is wrong with the unit, do not connect it to a power source! When you suspect that your unit is broken or damaged, contact your local dealer or a certified technician to inspect the unit.

Device overview

1. Beam output
2. Cooling fan for head
3. Power input (IEC C14) with integrated fuse holder
4. 3p XLR input for DMX
5. 3P XLR output for DMX
6. LED display with menu buttons
7. Cooling fan for body
8. Built-in microphone
9. Safety eye bolt mounting hole
10. Mounting bracket mounting holes
11. Mounting bracket
12. Safety eye bolt
13. Bracket mounting hardware
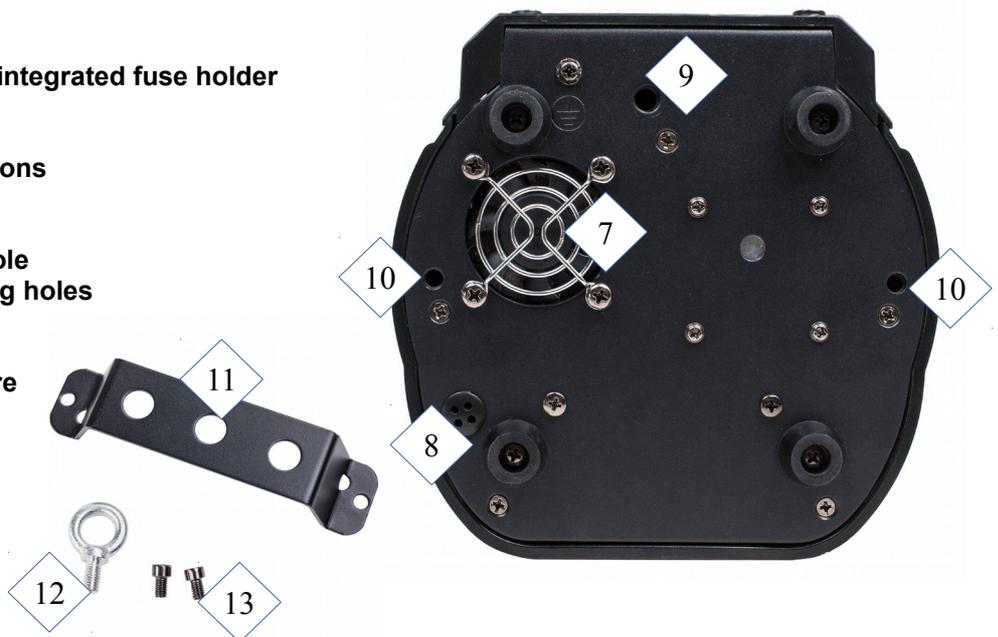
Setting up the unit

To activate the unit, connect the appropriate included power cable to the unit and to a suitable 230V, 50Hz power outlet.

The fixture will start up and show the last chosen setting on the display. For a new product, this is usually the DMX mode with the value set to 001. During start-up the display reads 'Ayra'. After this, the last used mode will be shown and the settings and values can be changed.
The display shows several settings, each with the possibility of setting several values.

Use the display and the menu buttons on the bottom to set preferences, change settings and scroll through the menu. "Enter" is used to save a certain setting or preset; press "Menu" for at least 2 seconds to return to the main menu.

The table below shows an explanation for every feature and value.

display	Mode	Function
ADDR	DMX address setting	A001-A512
CHND	Channel mode	11CH / 15CH
SLND	Master/slave mode	Master (default) Slave 1 - Slave 2
SHND	Show mode	SH1 – SH4 choose program SP1 – SP9 choose speed (only works if Sound Mode is OFF)
SOUN	Sound mode	Sound mode ON/OFF
SENS	Microphone sensitivity	Microphone sensitivity level 0-100
LED	LED display	LED display shutdown option when not used for 30 seconds
DISP	Display inversion	disp – dslp display inversion when mounted upside down
PAN	Pan invert mode	Yes: Invert pan values No: Do not invert pan values
TILT	Tilt invert mode	Yes: Invert tilt values No: Do not invert tilt values
TEST	Self test mode	Test mode used for service and maintenance
HOUR	Working hours	Shows the number of hours the fixture has been used
VER	Firmware version	Firmware version, not user upgradeable
RSET	Reset function	Use this function to reset the fixture

ADDR: DMX address setting, used to determine the DMX starting channel. From this channel on, the fixture will respond to values corresponding with the number of channels that the fixture is occupying. (For example, when you set the starting address to value 003, the fixture will respond to channels 3, 4, 5 etc.)

CHND: The channel mode of the fixture makes it possible to use the correct channel mode setting for every application. The 15CH mode grants access to pan and tilt fine channels, as well as extra functions.

SLND: When using the master/slave function, connect two or more fixtures with standard 3p XLR male - XLR female cables. The first fixture in line needs to be set as master, the others as Slave 1 or 2 (synchronised or mirrored performance in sound-activated mode). This way, the slaves will mimic the behaviour of the master fixture for amazing synchronised light shows. The default setting of the fixture is master.

SHND: Show mode. Select one of the four built-in light shows to use in the automatic or music-controlled mode. Please notice, the function depends on the Sound mode status.
If the Sound mode is turned on, it is only possible to select one of the four built-in shows. During operation, the fixture will respond to the beat of the music, based on the set sensitivity.

If the Sound mode is turned off, it is possible to select one of the four built-in shows. After this, you are able to select a desired speed from one of the nine speed modes. A preview is shown by the fixture so you can be sure that the selected speed matches your preferences. Press Enter to save the selected presets.

SOUN: Activate or disable the built-in sound-controlled mode. When activated, the fixture will respond to the beat of the music. When turned off, you can use the fixture in automatic mode and set a desired automatic speed.

SENS: The sensitivity of the built-in microphone is adjustable, to optimise the built-in sound-controlled mode. For example, when your music source (speakers) is placed far away, it is possible to increase the sensitivity to make sure that the fixture responds to the sound accurately.

LED: LED display on/off. When using this device in a club or theatre, the environment is mostly dark. Therefore, it is possible to shut off the LED menu display when it is not in use. Default setting is set to ON, which states that the LED display remains on all the time.

DISP: Display inverted version. When using the fixture upside down or vertically, it is possible to flip the display, so the characters will be shown upside down. This makes reading the status much easier during maintenance or when changing menu values.

PAN: Function to invert the pan values of the fixture. For example, when using multiple fixtures in a master-slave setup, it is possible to invert the pan values of the slave fixture for wonderful mirrored light shows.

TILT: Function to invert the tilt values of the fixture. For example, when using some fixtures upright and some fixtures upside down, it is possible to invert the tilt values so the movements are synchronised.

TEST: Test mode of the fixture, to check if there are any problems with the LED light source or movements. Mostly used for service and maintenance purposes.

HOUR: The fixture shows how many hours it has been used. This is very practical information for rental companies, who need to perform service intervals on all fixtures after several hours of performance, to ensure all fixtures remain in proper working condition.

VER: Software version. Given values are only informative and can not be changed. Users cannot perform firmware updates on this fixture.

RSET: Reset the function while the device is still powered. It is also possible to unplug and replug the power source, as the fixture will reset and do its start-up routine when plugged in.

Operating modes

The ERO 506 offers various operating modes, each with its own advantages. For simple events there are stand-alone modes, and for advanced situations it's possible to create synchronised light shows. You can also control every feature of the ERO 506 via DMX in two channel modes. A short description for each mode can be found below:

Auto:
Automatic light show with a pre-programmed internal show on a pre-defined speed. Select the AUTO mode to access the built-in programs. When the Sound mode is turned off, you can set a desired speed for the built-in programs. The speed of the internal programs can be adjusted from 1 to 9.

Sound:
Automatic light show with a pre-programmed internal show, in sync with the music, thanks to an internal microphone that picks up the beat of the music and changes a step every time a beat is detected. Use the SENS mode to change the sensitivity of the internal microphone. In this mode, any set speed in the AUTO mode is overruled and the fixture will change effects in sync with the beat of the music.

Slave:
In master/slave mode, it is possible to link several ERO 506 fixtures together, in order to create synchronised light shows in the Auto or Sound mode. The first fixture in the chain must be set in the Auto or Music mode, and the other fixtures must be set to Slave, so they will mimic the behaviour of the first fixture. The master/slave function requires 3p XLR male – XLR female cables (not included).

DMX:
The ERO 506 can be connected to a DMX controller with standard 3p XLR male – XLR female cable. In DMX mode, a DMX terminator must be connected to the last fixture at the end of the DMX chain. This prevents reflections in the DMX signal, which could cause flickering and unwanted behaviour from your intelligent fixtures.
A DMX terminator is an XLR connector with a 120-ohm resistor placed between pin 2 and 3 as a bridge.

NOTE: The ERO 506 has two DMX operating modes. The only difference is that you have extra pan/tilt fine channels in the 13 CH mode, which makes it possible to aim the light source accurately if your purpose requires this.

11CH mode:

CH	Function	Values
CH1	Pan position	000-255
CH2	Tilt position	000-255
CH3	Shutter / strobe mode	000-007 - Not active 008-015 - LED quick start 016-131 – Strobe, slow to fast 140-181 – Slow start, quick close 182-189 – LED quick start 190-231 – Quick start, slow close 232-239 – LED quick start 240-247 – Random strobe 248-255 – open
CH4	Dimmer red 0-100%	000-255
CH5	Dimmer green 0-100%	000-255
CH6	Dimmer blue 0-100%	000-255
CH7	Dimmer white 0-100%	000-255

CH8	Dimmer amber 0-100%	000-255
CH9	Dimmer UV 0-100%	000-255
CH10	Master dimmer 0-100%	000-255
CH11	FX mode	000-069 – No function 070-079 – X/Y move, but LED turned off 080-089 – X/Y move stop, LED turned off 090-239 – No function 240-255 – Independent operation mode (sound controlled)

15CH mode:

CH	Function	Values
CH1	Pan position	000-255
CH2	Pan fine	000-255
CH3	Tilt position	000-255
CH4	Tilt fine	000-255
CH5	X/Y speed (slow-fast)	000-255
CH6	Master Dimmer (0-100%)	000-255
CH7	Shutter / strobe mode	000-007 - Not active 008-015 - LED quick start 016-131 – Strobe, slow to fast 140-181 – Slow start, quick close 182-189 – LED quick start 190-231 – Quick start, slow close 232-239 – LED quick start 240-247 – Random strobe 248-255 – open
CH8	Dimmer red 0-100%	000-255
CH9	Dimmer green 0-100%	000-255
CH10	Dimmer blue 0-100%	000-255
CH11	Dimmer white 0-100%	000-255
CH12	Dimmer amber 0-100%	000-255
CH13	Dimmer UV 0-100%	000-255
CH14	Colour LED macro	000-255
CH15	FX mode	000-069 – No function 070-079 – X/Y move, but LED turned off 080-089 – X/Y move stop, LED turned off 090-239 – No function 240-255 – Independent operation mode (sound controlled)

Installation and connection requirements

The Ayra ERO 506 is a versatile product and can be used in many ways. To use this device as intended and to be sure that the product is used in a safe way, the following requirements must be met during the setup, installation and connection of the device.

Standing installation
The Ayra ERO 506 can be used in a standing position and is equipped with a solid, heavy base with rubber feet, which prevents the fixture from falling over easily. This way, it is possible to place the ERO 506 on a DJ booth or table.

However, when installing this fixture higher than 2 m above the floor, the device must be secured and bolted properly. Use the included mounting gear to mount the fixture to a solid surface and use the safety eye bolt to create a back-up for the primary hardware. This way, the device can not fall down easily if the primary hardware fails for any reason whatsoever.

Suspended installation
The ERO 506 comes with a mounting bracket, which may be used for mobile or permanent installation to a T-bar, truss setup, wall, ceiling, etc.

For suspended installation where the audience or performers can reach the direct environment of the fixture, the device must be securely mounted using the right hardware.

- For setups such as light stands (t-bars) and truss, the use of G-clamps and half couplers is advised.
- Other ways of installation, such as mounting the bar to a ceiling or wall, require special hardware. As the construction materials may vary, it is recommended that you contact an expert to select the right mounting equipment for the installation.

For every suspended installation, the ERO 506 needs to be secured using a proper safety cable. This prevents the fixture from falling if the primary hardware fails for any reason. A safety eyelet is available on the unit. The safety cable must be able to hold at least 10 times the weight of the bar. Pay attention to the length of the cable, which should be no longer than 1.2 times the minimum required length. A safety cable that is too long allows the fixture to fall and swing, thus creating additional force on the safety cable and possibly damaging nearby objects.

Transport and storage
The Ayra ERO 506 can be transported directly after shut-down. As its light sources do not need time to cool down, the device can be stored and transported instantly.

During transport, the device must be securely protected to ensure it stays reliable and in optimal shape. Always use the original box and packaging material to transport the unit, or a fitting flight case or flight bag if the device is transported frequently during mobile use.

DMX lighting troubleshooting

If you have any problems with DMX lighting, consult this troubleshooting section to solve the difficulties with your product. If this troubleshooting section does not solve your problem, contact your dealer for more information and help.

This troubleshooting section contains the most frequent problems and is not a complete collection of possible faults, defects or solutions. The troubleshooting section applies for DMX controllers, DMX cabling and DMX lighting fixtures. It is possible that not all described problems, causes and solutions apply to your situation, as product details may vary from product to product.

Problem	Possible Cause	Solution
The fixture cannot be turned on	Blown fuse	Check the fuse compartment for blown fuses and replace them if necessary
	No power cable plugged in	Plug the power supply into a suitable power outlet
The fixture does not respond to DMX signals	Wrong DMX address	Set the DMX address to the right value
	DMX controller blackout function activated	Deactivate the blackout function of your DMX controller
	Faulty positioning of the DMX polarity switch on the controller	Flip the polarity switch on your DMX controller
	No response or DMX activity signal LEDs are active	Check your DMX cables for possible connector breaks and replace them if necessary
	Wrong operating mode	Switch the operating mode of the device to DMX mode.
The fixture does not respond to sound	Wrong operating mode selected.	Check if the sound-activated mode of the fixture is activated.
	Microphone sensitivity level is set too low	Increase the sensitivity level of the built-in microphone
	Speaker placed too far away or lack of bass	Place your light effect closer to your speakers (or vice versa) and/or increase low-frequency volumes. The microphone will not be triggered by high-pitched sounds.
The beam output is very low	Dirty/dusty optics	Clean the lens and/or other optics with a dry or damp cloth
	Dimmer is not set to full output	Set all dimmer levels to 100% on your DMX console
Sometimes the DMX signal is lost and/or some fixtures are flickering/behaving oddly	Faulty/broken DMX cables	Check your DMX cables for possible connector breaks and replace them if necessary.
	Power cable interference on your DMX signal	Avoid installing the DMX and (high) power cables parallel to each other.
	No DMX terminator	Insert a DMX terminator at the end

	of your DMX chain	
	Signal loss or distortion in DMX values	Insert a DMX booster in your DMX chain after 32 fixtures or fewer. After a maximum of 32 fixtures the DMX signal needs to be refreshed.
The fixture does not respond to all DMX channels	Wrong DMX channel mode	Check the fixture's DMX channel mode. If the wrong value is set, change the channel mode to a different setting and try again.

Technical specifications

- powerful RGBAWUV LED beam moving head
- 5x18W RGBAWUV 6-in-1 LED chips
- unique 6-in-1 LED colour technology!
- use White, Amber and UV to create amazing accents, warm colours and spectacular blacklight effects!
- projection angle: 45 degrees
- X/Y movement: 540 / 180 degrees
- high-quality stepping motors for fast, precise, smooth and silent movement
- special optics for large, intense light beams
- auto mode with user defined speed
- 4 exciting built-in programs for auto and music control
- smooth movement and colour fading when slow speed is selected
- music controlled mode through built-in microphone
- microphone sensitivity adjustable
- master-slave mode with slave 1 and 2 options
- Pan/tilt invert options in every mode
- 3-pin XLR input and output for DMX
- DMX control via 11 or 15 channels
- digital shutter via DMX: strobe and pulse control
- movement speed control in 15CH working mode
- DMX colour macros in 15CH working mode
- LED display with menu buttons
- menu LEDs on/off during operation
- operation status LEDs (DMX signal reception, audio signal, master/slave)

Technical data:
- fixture dimensions:
- operation voltage: 100-240V AC, 50/60 Hz
- power consumption: 57.2 W max.
- Fuse: F3AL250V
- IEC C14 power input
- 3-pin XLR input and output for DMX
- Power factor: 0.522 PF
- AC current: 0.460 A
- LED current: 400 mA
- Minimum and maximum environmental temperature: 0 to 40 degrees Celsius
- Exterior surface temperature during steady use: 40 degrees Celsius

Photometric data:
- Red: 837 lux @ 1 m, 150 lux @ 2 m, 24 lux @ 5 m
- Green: 1,236 lux @ 1m, 308 lux @ 2 m, 47 lux @ 5 m
- Blue: 1,405 lux @ 1 m, 308 lux @ 2 m, 47 lux @ 5 m
- White: 1,874 lux @ 1 m, 383 lux @ 2 m, 60 lux @ 5 m
- Amber: 600 lux @ 1 m, 117 lux @ 2 m, 20 lux @ 5 m
- UV: 375 lux @ 1 m, 126 lux @ 2 m, 23 lux @ 5 m
- Full output: 5,390 lux @ 1 m, 1,201 lux @ 2 m, 202 lux @ 5 m

Included accessories:
- mounting bracket
- bracket hardware
- safety eye bolt
- IEC C14 to Schuko cable (3x 1 mm²)
- IEC C14 to UK cable (3x 1 mm²)

Connectors and wiring schematics:
DMX connectors:

DMX-output

XLR mounting-socket:

1: Ground
2: Signal (−)
3: Signal (+)
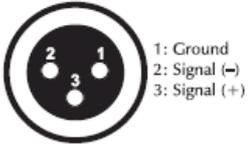
DMX-input

XLR mounting-plug:

1: Ground
2: Signal (−)
3: Signal (+)
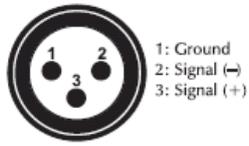
Electrical wiring:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⏚