

RGBW LED beam movinghead

User manual

Safety precautions

WARNING: This unit may cause serious injury to the eyes when used incorrectly. It is therefore strongly advised to read this user manual carefully, to get familiance yourself with the functions of this device.

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

WARNING: Do not look directly into the beam from a short distance. This may cause serious injury to the eyes. Ayra is not responsible for any injuries caused by incorrect use of this device.

Installation requirements:

- Always check the power supply to which you want to connect the device. If the voltage requirements do not meet, do not connect the device as this may cause serious damage.

This device must be installed by a professional technician, in a standing or hanging position. Only use the included mounting bracket if you want to position the unit against a ceiling or truss system.
When installed in a hanging position above your audience, this unit **MUST** be secured by using a safety cable, capable of holding 10x the weight of this device.

- The unit is designed to be installed with a halfcoupler or G-clamp, by using the included mounting bracket. Direct installation with proper bolts is also possible.

- Make sure there are no flammable objects in the direct environment of the device.
- Do not block the beam-exit and fan.
- Keep a minimum distance of 0.25 meter from any walls to provide sufficient cooling.
- Make sure the beam-exit and fan are not blocked by any objects in the near environment.
- Always use the included power supply. Contact your local dealer for a replacement unit if necessary.

Maintenance and protection

- Keep the unit away from dusty environments, as this may have negative effects on the fan-cooling system and optics. Clean the optics and fan with a small, soft brush and vacuum cleaner when needed. Clean the housing of the unit with a damp cloth. **WARNING:** Always disconnect the unit from the power supply when cleaning the unit. Reconnect the unit only when any moist on the fixture has evaporated completely.

- Do not switch the power on and off frequently, as this may cause serious damage to the unit.

- Avoid heavy shocks and collision during transport and use, as this may cause damage to the LED light source, electronic circuit, optics and housing.

- Keep the device away from moisture, rain, water or any liquids as this may cause a short circuit and/or electric shocks. If any liquid enters the unit, power supply or housing of the unit, disconnect the unit immediately and do not reconnect the power supply. Contact your local dealer or technician to inspect the unit for any damage.

Box contents

Box contents

1x ERO 3108 movinghead

1x power cable

1x XLR-XLR signal cable

1x installing bracket

1x safety cable

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.

- When your device does not generate any light, do not look directly into the lens. When the fixture suddenly produces a beam, it may cause injury to your eyes.



Device overview



- 1. Beam output
- 2. Control panel with display and menu-functions
- 3. On/off switch
- 4. Fuse
- 5. Power input (Twist-lock connector)
- 6. DMX input
- 7. DMX output
- 8. Transport handles

Setting up the unit

To activate the unit, connect the included power supply to the unit and a suitable 230V, 50 Hz power outlet. Switch the on/off switch to the 'ON' position, the LED movinghead will activate.

Give the movinghead time to calibrate the stepping motors, which are used to determine the position of the head. You may hear and see some shaking, which is normal. The stepping motors use an end point to determine the beginning and end of their movement. After calibration, the movinghead will start the previously used mode, but by default it is set to DMX mode.

The display shows several settings, each with the possibility to set several values. In the table below is an explanation for every feature and value.

Menu item	Description	Values/options	'Enter' triggers action	Followed by
DMX ADDRE	Press enter and use up/down to change the DMX address	1 – 512	Set DMX address	Press Menu to return to the main menu
PAN INVERT	Press enter and use up/down to change the pan inversion	Yes / no	When 'yes' is selected, the behavior of the pan function will be inverted	Press Menu to return to the main menu
PAN ANGLE	Press enter and use up/down to change the pan angle	540 / 630	Choose between a pan angle of maximum 540 or 630 degrees	Press Menu to return to the main menu
TILT INVERT	Press enter and use up/down to change the tilt inversion	Yes / no	When 'yes' is selected, the behavior of the tilt function will be inverted	Press Menu to return to the main menu
MODE	Use the up/down buttons and enter to choose a working mode	DMX 512 SLAVE AUTO SOUND	Scroll and press enter to select an operating mode	Press Menu to return to the main menu
MANUAL	Press enter to access the manual operating mode	CH:XX Date(XXX)	Select a channel (CH:XX) and a value for the channel (Date(XXX)).	Press Enter to save the setting.
RESTORE	Press enter to access the Motor and Factory reset	Motor reset = recalibrate the pan and tilt motors Factory reset = Reset the fixture to factory settings	motors or factory reset.	

The display will automatically shut down after 30 seconds of inactivity. When pressing one of the menu buttons, the menu backlight will re-activate.

The ERO 3108 is equipped with several working modes, each with its own advantages. For simple events there are stand-alone modes, for advanced situations there are options to create synchronized lightshows, or controlled with a DMX-512 controller. A short description for each mode can be found below:

Auto:

Automatic lightshow with a pre-programmed internal show, on a pre-defined speed.

Sound:

Automatic lightshow with a pre-programmed internal show, on the beat of the music, thanks to an internal microphone which senses the beat of the music and will change a step every time a beat is detected.

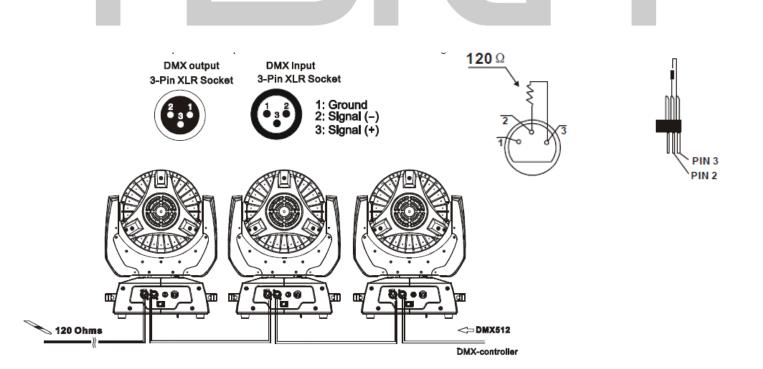
Slave:

In master/slave mode, it is possible to link several ERO 3108 movingheads together, to create synchronized lightshows in the Auto or Sound mode. The first fixture in the chain needs to be set in the Auto or Music mode. All the next fixtures need to be set to Slave and will mimic the behavior of the first fixture. The master/slave function requires XLR – XLR cables (not included).

DMX:

The ERO 3108 movinghead can be connected to a DMX-controller with standard XLR – XLR cable. While doing so, 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 behavior from your intelligent fixtures.

A DMX terminator is a XLR connector with a resistor of 120 Ohm, placed between pin 2 and 3 as a bridge. See the illustrations below for more information.



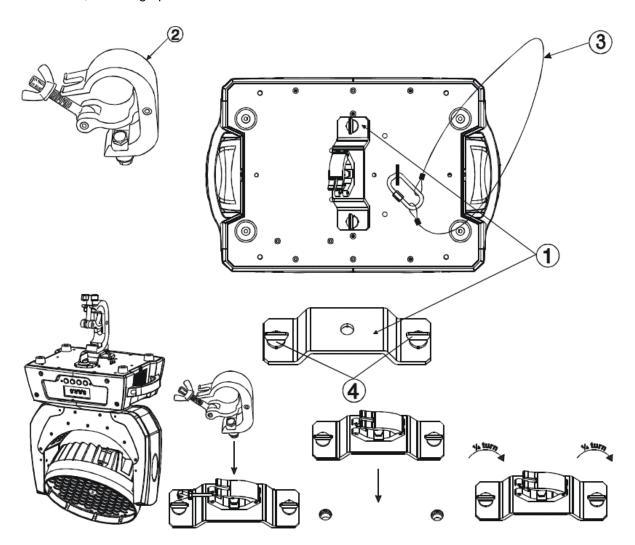
With the following channel assignment, it is possible to control the ERO 3108 movinghead:

Channel	Function	Value	Description	
1	Pan	0-255	Pan movement 8-bit	
2	Tilt	0-255	Tilt movement 8-bit	
3	Dimmer	0-255	Dimmer function 0-100%	
4	Strobe	0-6	No function	
		7-65	Strobe function Slow – Fast	
		66-69	No function	
		70-128	Pulse strobe (Slow – Fast)	
		129-132	No function	
		133-191	Strobe fade in (Slow – Fast)	
		192-195	No function	
		296-255	Strobe fade out (Slow – Fast)	
5	Red	0-255	Red 0-100% dimmer	
6	Green	0-255	Green 0-100% dimmer	
7	Blue	0-255	Blue 0-100% dimmer	
8	White	0-255	White 0-100% dimmer	
9	Motor speed	0-255	Fast – Slow movement speed	
10	RGB macro function	0-4	No function	
		5-44	Eight fixed colors	
		45-49	No function	
		50-94	Eight jumping colors (9 speeds)	
		95-99	No function	
		100-149	8 fading colors (5 speeds)	
		150-154	No function	
		155-166	Red + Green, 0-100%	
		167-178	Green + Red, 100-0%	
		179-190	Green + Blue, 0-100%	
		191-202	Blue + Green, 100-0%	
		203-214	Blue + Red, 0-100%	
		215-226	Red + Blue, 100-0%	
		227-238	RGB, 0-100%	
		239-250	Blue + Red 0-100%, green 100-0%	
		251-255	Master RGBW output 100%	
11	Auto	0-127	No function	
		128-255	Auto	
12	Reset	0-250	No function	
		251-255	Reset (after 3 seconds on the same	
			value)	

Installation and maintenance

Mounting the bracket

The included omega-type bracket is designed for this movinghead and makes it easy to mount en remove a mounting hook to your fixture. A G-clamp, halfcoupler or triggercoupler can be mounted to the omega bracket, which on his turn can be mounted to the fixture with quick-lock fastners. With a clockwise rotation of 90 degrees, the omega-type bracket is mounted to the fixture. When using the omega bracket, a safety cable must be connected to the safety eye of the fixture. For more information, see the graphic instructions below.



- 1. Omega-type bracket
- 2. Clamp (Triggerclamp, not included)
- 3. Safety cable
- 4. Quick-lock fastners

Cleaning

Make sure to clean the exterior of the unit frequently, as the build-up of dust and dirt may have negative effects on the cooling and optics of the fixture.

The exterior (plastic parts) of the unit can be cleaned with a damp cloth. The optics of the fixture can be cleaned with a clean cloth or paper towel, with the addition of a non-aggressive glass cleaning solution.

Clean the fan outlet and the cooling vents with a small brush, while using vacuum cleaner suction to remove any loose dust and/or dirt.

Clean the exterior of this fixture once a month. When using this fixture intensively, the frequency of maintenance needs to be increased.

Transport

When using this fixture in mobile setups, provide sufficient protection during transport. Use the original packaging of this unit, or use a professional flightcase with proper foam inlay. This way the electronics, optics and housing are protected against severe shocks, exterior damage and failing electronics.

Make sure the moving parts of the movinghead (pan and tilt motors) are secured during transport. Shocks and fierce movement of the pan and tilt stepping motors may cause permanent damage.

After use, let the unit cool down for at least 10 minutes. When using DMX, use the 'black out' option on your DMX controller. This way the unit is positioned in a static stand-by mode and the internal fan is able to cool down the internal electronics, which decreases the chance of damage during transport.

Replacing the internal fuse

First check whether a failing power supply may be the cause of malfunction. When you suspect that the internal fuse is broken, the fuse can be replaced by removing the fuse cover, located directly below the power inlet.

WARNING: Before changing the fuse, always disconnect the fixture from your wall outlet or any other power supply to prevent electric shocks.

Always replace a broken fuse with a fuse that has the same type and rating. After the fuse has been replaced, always close the fuse-cover. Reconnect the fixture to your power supply and check whether the problem is solved. When this does not solve your problem, contact your local dealer for help. **IMPORTANT:** A spare fuse is located inside a special compartiment of the fuse holder.

Spare parts

This unit has no user serviceable parts inside. When any damage to internal components occurs, contact your local dealer or a specialized technician in order to repair the fixture.

Checkup

To prevent dangerous situations, make sure your fixture is in optimal condition before using it. Check your fixture frequently by using the following checklist:

- All screws must be mounted tightly.

- Check all screws and metal parts for corrosion. No visible corrosion may be present.

- The exterior of your fixture must be in optimal condition. Check your fixture for dents, cracks or missing parts.

- Your installation spot must be in optimal condition. Check your installation spot for corrosion, cracks, dents and strength.

- Electrical components (connectors and cables) must be in optimal condition. Any form of damage (cuts, exposed wire cores or any other visual deformities should not be present.

If any visual or mechanical damage is detected, contact your local dealer or a specialized technician. Do not use a damaged or failing fixture.

Connectors and wiring schematics:

DMX-connections: DMX-output

XLR mounting-socket:



DMX-input XLR mounting-plug:



Electrical wiring:				
Cable	Pin	International		
Brown	Live	L		
Blue	Neutral	N		
Yellow/Green	Earth			

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Technical specifications

- RGBW LED beam movinghead
- 108x 3 Watt high power Edison LEDs, spread over red (24), green (28), blue (28) and white (28)
- expected lifespan LEDs: 50.000h
- low power consumption
- 8-bit smooth and precise pan and tilt movement
- 540 or 630 degrees pan, 270 degrees tilt
- scan position memory function with autocorrect
- RGBW color mix system
- LED shutter (electronic)
- LED dimmer (0-100% variable)
- LED rainbow effect
- LED macro effect
- LED strobe effect (0-18 Hz) with pulse
- master dimmer + dimmer for each color
- 12 DMX channels
- 2x16 character LCD display with blue backlight
- display auto dim function when not used for 30 seconds
- power requirements: 90-240V AC, 50/60 Hz
- power consumption: 120W (stand-by), 344W (max.)
- dimensions: 350 x 260 x 350 mm
- packing dimensions: 425 x 295 x 400 mm
- net weight: 9 kg
- gross weight: 11 kg

Connectors:

- DMX: 3p XLR male and female
- Power: Twist-lock connector (power cable to Schuko included)

Included accessories:

- Mounting bracket
- XLR-XLR signal cable
- Twist-lock to Schuko power cable
- Safety cable