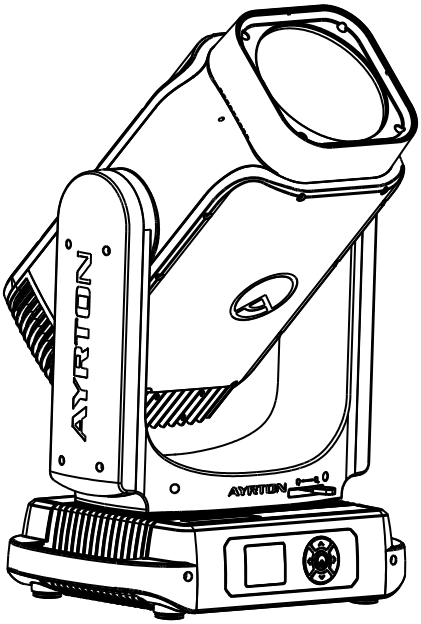
USER MANUAL

ENGLISH - VERSION 125

Upd. 28/01/2026

COBRA

ULTRA BEAM



AYRTON

Digital Lighting

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Keep this manual for future needs.

Errors and omissions for all information given in this user manual are possible.
All information is subject to change without prior notice.

1. SAFETY INSTRUCTIONS

1.1 › IMPORTANT SAFETY WARNINGS

This device has left the factory in perfect condition. In order to maintain this condition and to ensure safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

In order to install, operate and maintain the lighting fixture safely and correctly we suggest that the installation and operation be carried out by qualified technicians and these instructions be carefully followed.

The light source of this product is made of laser diodes. It complies with the related safety standard and classified as: Class 1 Laser product (IEC 60825-1:2014) & RG3 (IEC 62471:2006).

Laser projectors shall not be delivered to any other party under an agreement of sale, lease or loan unless and until the recipient demonstrates that they have a variance in effect at the time of delivery that permits them to produce laser light shows incorporating such projector(s).

No direct exposure to the beam shall be permitted.

Operators shall control access to the beam within the hazard distance or install the product at a height that will prevent eye exposure within the hazard distance.

CAUTION

	Risk group 3. Possibly hazardous optical radiation emitted from this product. Do not look at operating lamp source. Eye injury may result.
	High voltage. Risk of severe or fatal electric shock.
	Always disconnect mains supply before removing any fixture covers.
	Never look directly into the light source. Sensitive persons may suffer an epileptic shock.
	Never touch the device during operation. covers may be hot.
	The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 58.3 m is not expected.
	**Warning**: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. **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.

CAUTION

- **Damage caused by the disregard of this user manual is not subject to warranty. The dealer and manufacturer will not accept liability for any resulting defects or problems.**
- **Under no circumstances should the fixture be pointed at the sun. Sunlight, combined with the high efficiency lenses used in the product can cause significant damage to the fixture.**
- **Be aware that even when lens is not pointed directly at the sun damage may occur. It is best practice to ensure that the lens is pointed away from the sub, preferably in the opposite direction.**
- **Always dry and clean your fixture before storing it for any length of time.**
- **Never use any abrasive cleaning products on the fixture as this may damage the coating of the fixture impacting its anti-corrosion protection.**

- If the device has been exposed to temperature changes due to environmental conditions, do not power on immediately. The resulting condensation could damage the device. Leave the device powered off until it has reached room temperature.
- Ensure the sealing rubber covers of powerCON TrueOne and XLR connectors are fitted properly when the device is not in use, to avoid water ingress.
- This device falls under protection-class I. Therefore, it is essential that the device be earthed.
- If either lenses or display are damaged (damage may include cracks or gashes in the material) they must be replaced.
- Electrical connections, such as replacing the power plug, must be performed by a qualified person.
- Make sure that the available voltage is not higher than that which is stated in this manual.
- Make sure the power cord is never crushed or damaged by sharp edges. If this should be the case, replacement of the cable must be done by an authorized dealer.
- If the external flexible power cord of this device is damaged, it shall be exclusively replaced by the manufacturer or their service agent or a similar qualified person in order to avoid injury.
- Before performing maintenance, always disconnect the device from the mains. Only handle the power cord from the plug. Never pull the plug out of a socket by tugging the power cord.
- When powered on for the first time, some smoke or smell may occur. This is caused by coating on metal parts when heated and is normal. If you are concerned, please contact your distributor..
- Do not focus the beam onto flammable surfaces. The minimum distance between the exiting lens of the device and the illuminated surface must be:
  - Min. 25.0 m distance to the illuminated surface (narrowest zoom with full power)
  - Min. 15.0 m distance to the illuminated surface (narrowest zoom with 78% intensity)
  - Min. 8.0 m distance to the illuminated surface (narrowest zoom with 51% intensity)
- According to IEC 62471-5, the distance from RG3 to RG1 is 45 meters.

CAUTION

Please be aware that damage caused by any modifications to the device are not subject to warranty Keep away from children and non-professionals.

1.2 › GENERAL GUIDELINES

- This device is a lighting effect for professional use on stages, in discotheques, theatres, etc. The device was designed for outdoor use.
- Scanning, projection, or reflection of laser and collateral radiation into audience or other accessible uncontrolled areas shall not be permitted except for diffuse reflections produced by the atmosphere, added atmospheric scattering media, and target screens.
- Laser radiation levels in excess of the limits of Class I shall not be permitted at any point less than 3.0 meters above any surface upon which persons other than operators, performers,

or employees are permitted to stand or 2.5 meters below or in lateral separation from any place where such persons are permitted to be. Operators, performers, and employees shall not be required or allowed to view radiation above the limits of Class I or be exposed to radiation above Class IIIa.

- All laser light shows shall be under the direct and personal control of trained, competent operator(s). The operator(s) shall:
  - Be an employee of the variance holder who will be responsible for the training and the conduct of the operator;
  - Be located where all beam paths can be directly observed at all times;
  - Immediately terminate the emission of light show radiation in the event of any unsafe condition; or for outdoor shows, upon request by any air traffic control officials.
- The projection system shall be securely mounted or immobilized to prevent unintended movement or misalignment. Beam masking will be provided as an inherent part of the system design to prevent overfilling of screens, beam stops, targets, etc..
- This fixture is only allowed to be operated within the maximum alternating current as stated in the technical specifications in section 2 of this manual.
- Handle the device with care, avoid shaking or using force when installing or maintaining the device.
- If you use the quick lock cam when rigging the device, make sure the quick lock fasteners are located in the quick lock holes correctly and securely.
- Operate the device only after having familiarized yourself with its functions. Do not permit operation by persons not qualified for operating the device. Most damage is the result of unprofessional operation.
- Please use the original packaging if the device is to be transported.
- The applicable temperature for the device is between -20 °C to 45 °C. Do not use the device outside of this temperature range. (Note: When the temperature detected by laser source between -20 °C to 0 °C, it needs to wait some minutes for the heater to heat up the temperature to be above 0 °C before lighting on.)

CAUTION

For safety reasons, please be aware that all modifications to the device are forbidden. If this device is operated in any way different to the ones described in this manual, the product may suffer damage and the warranty becomes void. Furthermore, any other operation may lead to short-circuits, burns, electric shocks, etc.

2. FEATURES

POWER SUPPLY
- AC100-240 V~, 50/60 Hz
- Power Consumption: 480 W

LIGHT SOURCE
- Laser: 260W, White, Color Temperature 9,000~10,000 K
- Extremely long Life: >12,000 h

MOVEMENT
- Pan movement: 540 °/ 630 °/ 360 ° (16 bit)
- Tilt movement: 270 ° / 540 ° / 360 ° (16 bit)
- Pan and tilt automatic repositioning
- Range: Infinite pan and tilt rotation

COLOURS
- CMY + CTO color mixing, uniform, linear and speed can be adjustable
- 1 Colour wheel: 27 dichroic filters + open, indexable

GOBOS
- Rotating gobo wheel: 12 interchangeable, rotating and indexable gobo + open
- "Slot in & out"gobo wheel system
- Static gobo wheel: 79 + open, with different speed gobo shaking and gobo indexingo

FROST
- 2 frost filters: one light, one heavy

PRISMS
- 8 Rotating Prisms: 6-facet circular (2), 8-facet circular, 16-facet circular, 4-facet linear (2), 6-facet linear (2)

EFFECTS
- Focusable graphic animation effect-wheel
- Continuous rotation in both directions

DIMMER / STROBE
- Electronic dimmer from 0 to 100%
- Strobe effect: 1 to 25 flashes per second

HARDWARE FEATURES
- Graphic LCD display with flip function
- 5 menu buttons to set functions
- Integrated wireless LumenRadio™ receiver
- IP65 XLR 5 pin connectors
- IP65 RJ45 connectors
- IP65 powerCON TRUE1 TOP connectors

CONTROL
- DMX 512 protocol
- DMX-RDM compatible
- Wireless DMX
- Stand-alone mode, local control panel
- ArtNet™ & sACN protocol
- Choice of 3 DMX modes (from 35 to 45 DMX channels)

COOLING SYSTEM
- Advanced liquid cooling system
- Selectable ventilation user modes
- Excess temperature protection

HOUSING
- Skeleton made of aluminium
- Base in die-cast composite alloy
- Heatsinks in aluminium and copper
- Moulded covers ABS PC (V0 class)
- 4 handles on the yoke
- 4 heavy-duty feet
- IP65 protection rating (IP66 optional)

INSTALLATION
- 2 Omega ¼ turn brackets
- 4 ¼ turn mounting points
- Safety cable attachment point

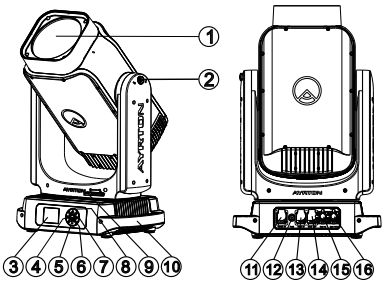
OPERATING PARAMETERS
- Maximum permitted: 45 °C (113 °F)
- Minimum permitted: -20 °C (-4 °F)
- Minimum usage distance: 25 m (82 ft) at full power with a converge beam

COMPLIANCE
- CE, UKCA, ETL

SIZE
- Product: 422 x 663 x 280 mm (l x h x d)
- Foam: 560 x 565 x 485 mm (l x h x d)

WEIGHT
- Product: 33 kg

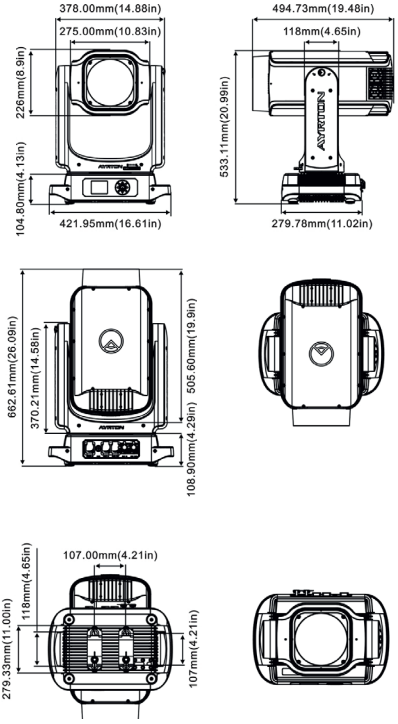
3. FIXTURE OVERVIEW



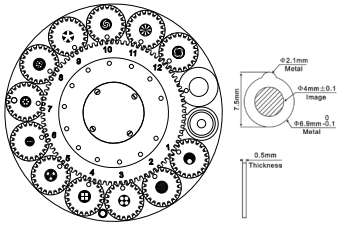
1. Front Lens
2. Tilt Lock
3. Display
4. Left-button
5. Down-button
6. Center-button
7. Right-button
8. Up-button
9. Pan Lock
10. Handle
11. Power In
12. Fuse
13. RJ45 In
14. RJ45 Out
15. DMX In
16. DMX Out

4. DRAWINGS

4.1 › FIXTURE DIMENSION



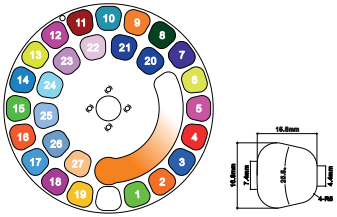
4.3 › ROTATING GOBO WHEEL



GOBO WHEEL 1

Rotating Gobo			
1	310	Eccentric Dot	GP60303052013
2	358	Lines Mix	GP60303052029
3	328	Dot Square 4	GP60303052003
4	332	Square Beam 4	GP60303052030
5	149	Nuclear	GP60303052031
6	314	Dot Line 4	GP60303052073
7	320	Dot Ring 6	GP60303052015
8	324	Dot Mix	GP60303052032
9	342	Five Spokes	GP60303052033
10	114	Nested Half Rings	GP60303052066
11	343	Eight Spokes	GP60303052002
12	111	Nested Ring Lights	GP60303052034

4.2 › COLOUR WHEEL

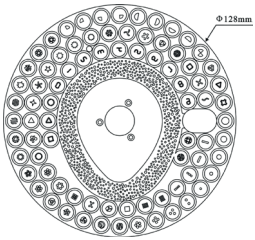


COLOUR WHEEL

Outer Ring Colour		
1	Green	GP603050332620
2	Orange	GP603050332630
3	Blue	GP603050332640
4	Red	GP603050332650
5	Pink	GP603050332560
6	Medium Yellow	GP603050332770
7	Deep Purple	GP603050332750
8	Velvet Green	GP603050334490
9	Amber	GP603050332580

10	Light Blue	GP603050334480
11	Light Red	GP603050332720
12	Follies Pink	GP603050334470
13	Yellow	GP603050332780
14	Slate Blue	GP603050334500
15	Dark Green	GP603050334430
16	Dark Amber	GP603050332790
17	Medium Blue	GP603050334440
18	Magical Magenta	GP603050332740
19	Oklahoma Yellow	GP603050334460
Inner Ring Colour		
20	Congo Blue	GP603050332610
21	UV	GP603050332570
22	Minus Green 1/4	GP603050332540
23	Minus Green 1/2	GP603050332550
24	CTB 1/4	GP603050332590
25	CTB 1/2	GP603050332530
26	CTB	GP603050332680
27	Light Amber	GP603050334450

4.3 › FIXED GOBO WHEEL



GOBO WHEEL

Rotating Gobo					
1	302	80% Iris Beam	11	110	Spiral
2	304	60% Iris Beam	12	118	Helix 5
3	306	40% Iris Beam	13	424	Triangle Beam
4	308	20% Iris Beam	14	263	Daisy
5	312	Dot Line 2	15	373	Nested Star
6	326	Dot Triangle 3	16	368	Square Ring 8
7	328	Dot Square 4	17	439	Circular Saw 4
8	319	Dot Ring 5	18	099	Waves Light
9	257	Zig Zag Light	19	274	Prison Bars 4
10	135	Vortex Light	20	269	Ink Stain
21	260	Arrows	51	374	Compass 4
22	265	Iris 8	52	346	Star Line 5
23	329	Dot Mix 8	53	345	Star 5
24	290	Quarter Beam NE	54	378	Star 8
25	291	Quarter Beam SE	55	380	Star 10
26	292	Quarter Beam SW	56	382	Star 12
27	293	Quarter Beam NW	57	262	Arrow Ring 6
28	296	Half Beam Up	58	117	Helix 3
29	295	Half Beam Down	59	342	Five Spokes
30	298	Half Beam Left	60	261	Arrow Ring 3
31	299	Half Beam Right	61	435	Nested Cross
32	418	Crash Test Icon	62	421	Split Square 1
33	341	Split Triangle 4	63	431	X Cross
34	426	Split Triangle 1	64	348	Tilde
35	419	Iron Ball Light	65	188	Mirror Ball 9
36	351	Vertical Line	66	417	Split Target
37	350	Bold Line	67	422	Split Square 2
38	371	Square Line 3 V	68	427	Split Triangle 2
39	370	Square Line 3 H	69	411	Split Circle 2
40	353	Four Lines H	70	450	Number 0
41	354	Four Lines V	71	451	Number 1
42	330	Square Beam	72	452	Number 2
43	363	Rubik Cube	73	453	Number 3
44	437	Split Cross	74	454	Number 4
45	334	Square Beam 9	75	455	Number 5
46	320	Dot Ring 6	76	456	Number 6
47	321	Dot Ring 7	77	457	Number 7
48	413	Split Circle 6	78	458	Number 8
49	324	Dot Mix	79	459	Number 9
50	340	Triangle Beam			

5. INSTALLATION INSTRUCTIONS

5.1 › RIGGING THE DEVICE

CAUTION

Please consider the respective national norms during the installation. The installation must only be carried out by a qualified person.

- The installation of the support structure has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.
- The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety rope.
- Never stand directly below the device when mounting, removing or servicing the fixture.
- The operator has to make sure the safety relating and machine technical installations are approved by an expert before taking the device into operation for the first time.

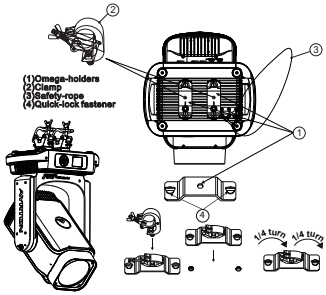
- These installations have to be approved by a skilled person once a year.
- Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yo urself. Improper installation can result in bodily injury.

5.2 › RIGGING USING THE OMEGA BRACKETS

CAUTION

This step is very important to ensure safe rigging of the fixture.

- Fix the clamp to the bracket by tightening the M12 nut and bolt to the bracket through the Φ13 hole in the middle of the bracket.
- Insert the quick lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick lock fasteners fully clockwise.
- Install the second Omega holder.
- Pull the safety cable through the holes on the bottom of the base and over the trussing system or another suitable rigging point. Insert the end into the carabiner and tighten the safety screw.

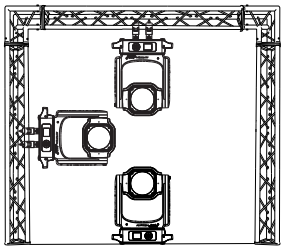


1. Omega bracket
2. Clamp
3. Safety rope
4. Quick-lock fastener

5.3 › RIGGING DRAWINGS

CAUTION

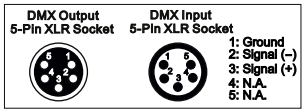
Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, specifying installation/rigging materials, and periodic safety inspection of all installation material as well as the device If you lack these qualifications, do not attempt the rigging of this device yourself. Improper installation/rigging can result in serious bodily injury.

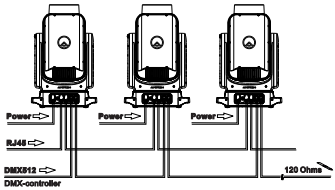


- Be sure this fixture is kept at least 0.1 m away from any flammable materials (decoration etc.).
- Always use and install a safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.
- **WARNING! Always use and install original Ayrton accessories to ensure a safe installations and use of the unit. Ayrton WILL NOT be responsible for the use of third party accessories.**
- Rig the projector high enough to provide clearance for people who may walk beneath the beam path or establishing a restricted access area that extends beyond the beam hazard distance.
- While fixed installation at locations other than cinema theaters should be installed at a height not lower than 3 m vertically. The lowest tip of the Hazard Zone should be no lower than 3 m measured vertically above the floor. Horizontal clearance to the Hazard Zone should be 2.5 m measured horizontally. Any human access to the Hazard Zone, if applicable, is to be restricted by barriers. The fixed installation should be performed by authorized installers, who are trained to perform installations in accordance with the manufacturer's instructions.
- **WARNING! Please DO NOT let other external intense lights to shine through the fixture front lens, it may cause significant internal damages!**
- When install fixture outdoor at day time (with power off), please make sure that the fixture front lens is NOT facing the sun.
- When use fixture outdoor at day time (with power on), please avoid fixture front lens facing the sun.
- When fixture is on standby outdoor at day time (with power ON and no DMX signal), please make sure the "sun protection" mode is ON (default).

6. DMX-512 CONTROL CONNECTION

Connect the male side of the XLR cable to the female XLR output of your controller and the female side of the XLR cable to the male XLR input of the device. You can connect multiple devices together in a serial fashion. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



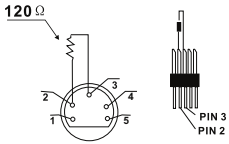


Address 1 Address 36 Address 71

7. DMX-512 CONNECTION WITH DMX TERMINATION

For installations where the DMX cable has to run over a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal caused by electrical noise. The DMX terminator is an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output (female) XLR socket of the last fixture in the chain.

Please see illustrations below.



8. DEVICE DMX START ADDRESS SELECTION

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals This digital starting address is the channel number from which the fixture starts to "listen" to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct address number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each fixture individually.
If you set the same address on all devices, all the devices will start to "listen to" the same control signal from the same channel number In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set a different address, each unit will start to "listen to" the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected device.

In the case of the LASER moving head, in 35 channel mode, you should set the starting address of the first unit to 1, the second unit to 36 (35+ 1), the third unit to 71 (35 + 36), and so on.

9. OPERATING INSTRUCTIONS OF THE INTERNAL DMX WIRELESS SYSTEM

9.1 › EQUIPMENTS

This product is equipped with a Lumen radio Timo DMX receiver

9.2 › MESSAGE FROM THE LED INDICATOR

- Solid Green: Logged on to a transmitter and actively receiving DMX data.
- Solid Red: Not logged on to any transmitter (available) or not receiving DMX data.

9.3 › WDMX IN THE MENU OF THE FIXTURE

In the sub menu Wireless DMX, you'll find the option "Rest WDMX." Selecting this will disconnect the fixture from its current transmitter.

9.4 › SET UP THE WIRELESS SYSTEM

To connect the fixture to a transmitter, the transmitter must be in pairing mode.

You can activate this mode by selecting "Rest WDMX" from the fixture's menu or by performing a factory reset on the fixture.

Once the transmitter is ready, press its pairing button to link the devices.

Important Notes:

- ***After each job, please log out all receivers from the transmitter. This ensures the receivers return to an unassigned state and are ready for future pairings.***
- ***Do not connect a fixture that is wirelessly linked to a transmitter to a DMX controller via cable. Doing so may cause signal interference.***

10. DISPLAY

- The Display offers several features: you can set the starting address run the pre-programmed program or reset the device.
- The main menu is accessed by double clicking ⏶ button until the display starts flashing.
- Browse through the menu by pressing ⏶, ⏷, ⏴ or ⏵ button.
- Press ⏶ for 2 seconds in order to exit menu, double click ⏶ for confirm. After accessing the edit mode, the unit will automatically exit to the main menu after 15 seconds from the last button press.
- When the unit is powered on if no data signal is connected after 1 minute then the display will switch off automatically.

DEFAULT SETTINGS SHADED - V124

Address			
Address	DMX Address: 001-XXX Decimal Universe:XXXXX Net:XX Sub-Net:X Universe:X Signal: DMX/WDMX/Art-Net/sACN		DMX Address setting
Mode			
User Mode	Stand Mode Basic Mode Extend Mode User Mode A User Mode B User Mode C		User's mode to change channel numbers
Edit User ModeA :	Max channel PAN :		Preset User modes A,B,C
Options			
Status	No DMX Mode	Close/Hold/Auto	Auto run if no DMX
	Sun Protection	ON/OFF	Sun Protection movement
	Pan Reverse	ON/OFF	Pan Reverse movement
	Tilt Reverse	ON/OFF	Tilt Reverse movement
	Pan Degree	630/540/360SC	Pan Degree Select
	Tilt Degree	270/540/360SC	Tilt Degree
	Feedback	ON/OFF	Movement Feedback
	Init PAN	ON/OFF	Init PAN
	Init TILT	ON/OFF	Init TILT
	Prerig INIT	ON/OFF	Prerig INIT
	Reset Mode	Fast/All Rot Gobos	Reset Mode
	Pan/Tilt Spd	Medium/Fast/Slow	Movement Speed
	CMY Spd	Slow/Medium/Fast	CMY Spd
	CTO Control	Colour Wheel/Seperate Ch	CTO Control
	Zoom/Focus Spd	Fast/Medium/Slow	Zoom/Focus Spd
	Reset LASER Fade	ON/OFF	Reset LASER Fade
	Hibernation	OFF, 01M~99M	Stand by Mode
	DMX Output	ON/OFF	DMX Output
Service PIN	Service PIN	Password = XXX	Service Password"=050"
	Set IP	xxx.xxx.xxx.xxx	Set IP
	Set Mask IP	xxx.xxx.xxx.xxx	Set Mask IP
	DHCP	ON/OFF	DHCP
	Cross Load SW	ON/OFF	Cross Load SW
	Clr LASER Timer	ON/OFF	Clr LASER Timer
	Clr Error Info	ON/OFF	Clr Error Info
Fans Control	Fans Speed	Auto Stage Silence Super Silence	Fans Speed select
	Constant Fans	ON/OFF	Constant Fans
Disp.Setting	Shutoff Time	02~60m 05m	Display shutoff time
	Flip Display	ON/OFF	Reverse 180 degree
	Key Lock	ON/OFF	Key Lock
	DispFlash	ON/OFF	DispFlash
Temp. C/F	Celsius Fahrenheit		Temperature switch between °C / °F
Initial Pos.	PAN =XXX		Initial effect position
Wireless DMX	Activate WDMX Rest WDMX		Activate WDMX Rest WDMX
Dim Curve	Square Law Linear		Dim Curve
Refresh Select	1.2K 2.4K 16K 25K		Refresh Select
Prism Mode	Simple/Full		Prism Mode

Options			
Reset P/T Fade	ON/OFF		Reset P/T Fade
Illumination Limit	25 m Distance/15 m Distance/8 m Distance		Illumination Limit
Beam Mode	Limited Range/Full Range		Beam Mode
Trigger	DMX Value Disp. Set to Follower Auto Program	PAN..... Follower 1, Follower 2, Follower 3 Leader/Alone	DMX Value Disp. Set to Follower Auto Program
Reset Default	ON/OFF		Restore factory set.
Reset Options	ON/OFF		Reset options
Reset User set	Address	DMX address: 001-XXX Decimal Universe: XXXXX Net: XX Sub-Net: X Universe: X Signal: DMX/WDMX/Art-Net/sACN	DMX Address setting
	Mode	Stand Mode Basic Mode Extend Mode User Mode A User Mode B User Mode C	User's mode to change channel numbers
	Fans Speed	Auto Stage Silence Super Silence	Fans Speed select
	Constant Fans	ON/OFF	Constant Fans
Zoom Behaviour	OFF Cobra 2		Compatible with FDA version zoom
Info			
Time Info.	Current Time Ttl Life Hrs Last Run Hrs LASER Hours Timer PIN Clr Last Run		XXXX(Hours) XXXX(Hours) XXXX(Hours) XXXX(Hours) Password = XXX ON/OFF
Temp. Info	Head Temp.		XXX°C/°F
Humidity	x%		Humidity Information
Fan Info.	xxxx RPM		Fan information
Software Ver	V1.0.....		Software version
Network	IP, Mask, Mac		Network
Error Info.	Error Record 1 .		Error Info.
Test			
Home	All Pan&Tilt Colour Gobo Other		Reset All Reset Pan&Tilt Reset Colour Reset Gobo Reset Other
Test Channel	PAN		Test function
Manual Ctrl.	PAN =XXX .		Fine adjustment of the lamp
Calibration	-Password- PAN .		Password "050" Calbrate and adjust the effects to standard/right position
Preset			
Gobo Replace	Gobo Wheel 1		Gobo Replace

Preset			
Select Prog.	Prog. Part 1 = Program 1 ~ 10 Program 1 Prog. Part 2 = Program 1 ~ 10 Program 2 Prog. Part 3 = Program 1 ~ 10 Program 3		Select programs to be run
Edit Prog.	Program 1 . Program 10	Program Test Step 01=SCxxx Step 64=SCxxx	Testing program Program in loop Save and exit
Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,..... --Fade Time-- --Scene Time-- Input By Outside	Save and automatically return manual scenes edit
Scenes Input	XX~XX		Scenes Input

10.1 › ADDRESS

10.1.1. Address

With this function, you can adjust the DMX address, the Universe and the selection of the control signal.

10.2 › MODE

10.2.1. User Mode

With this function, you can choose user defined channel orders

10.2.2. Edit User Mode

With this function, you can edit user defined channel orders of User Mode A/B/C.

10.3 › OPTIONS

10.3.1. Status Settings

No DMX Status

With this function, you can choose the unit behavior in case no signal is detected between Close (all dmx value to 0), Hold (keep the last dmx value), and Auto (start auto mode).

Sun Protection

When this function is activated, the unit will automatically tilt down its head toward the ground when no signal is detected.

Pan Reverse

With this function you can reverse the Pan-movement.

Tilt Reverse

With this function, you can reverse the Tilt-movement

Pan Degree

With this function, you can select the total Pan degree range between 630 or 540.

Tilt Degree

With this function, you can select the total Tilt degree range between 270 or 540.

Feedback

This function allows you to activate or deactivate the automatic repositioning of the Pan & Tilt in case of an accidental/manual move of the yoke.

Init PAN

This function allows you to deactivate the Pan movement.

Init TILT

This function allows you to deactivate the Tilt movement.

Prerig INIT

Allows you to activate a special initialisation process: Pan reset then Tilt reset process when unit is used in prerig trusses.

Reset Mode

This function allows you to choose the reset process for the gobo.

- Fast: The fixture only check the direction of the first gobo
- All Rot Gobo: The fixture is checking all the position of each gobo to make sure all the gobo are in the same position (Useful if using a custom Gobo)

Pan/Tilt Spd
With this function, you can select Pan & Tilt speed from "Fast", "Medium", "Slow", "FS Mode", "Tracking 360".

CMY Spd
With this function, you can select CMY speed from "Fast", "Medium", Slow".

CTO Control
With this function, you can select if the control of the CTO is on the Color Wheel channel or on a dedicated one.

Zoom/Focus Speed
With this function, you can select Zoom/Focus speed from "Fast", "Medium", "Slow".

Reset LASER Fade
Allows the Light output to fade out and in during the reset process.

Hibernation: Standby mode
The device and stepper motors will be powered off if the unit stays without DMX signal for the User defined times (in Minutes). The fixture will perform a reset sequence once DMX is back .

DMX Output
With this function, the unit can transmit the signal received via WDMX or ArtNet/sACN through the DMX output.

10.3.2. Service PIN

Password
The Password for this function is "050".

Set IP
This function allows you to set the IP of the Unit.

Set Mask IP
This function allows you to set the IP Mask of the Unit.

DHCP.
This function allows you to enable or disable the DHCP.

Cross Load SW
This function allows you to upload the current SW version to other units using a DMX connection. Do not disconnect the units before the process is complete.

Clr LASER Timer
This function allows you to clear the error info list.

Clr Error Info
This function allows you to clear the error info list.

10.3.3. Fans Control

Fans Speed
With this function, you can set the fans speed. Settings are Auto, Stage, Silence, and Super Silence.
- Auto: The LASER module delivers **high** output and the fans ramp up and down depending on the ambient temperature and the temperature of the LASER module itself.
- Stage: The LASER module delivers **full** output and the fans remain at full speed regardless of the temperature of the LASER module.
- Silence: The LASER module is limited to **medium** output and the fans rotate at a slower speed.
- Super Silence: The LASER module is limited to a **lower** output and the fans rotate at the slowest speed.

For specific output details, refer to photometry document.

Constant Fans
Enables you to set the fans to run continuously, even when the LASER is off .

10.3.4. Disp. Setting

Shut off Time
With this function, you can select the delay before the LCD display turns off. Choose between 2 to 60 minutes. The default is 5 minutes.

Flip Display
With this function you can rotate the display by 180° (when the unit is rigged)

Key Lock
With this function you can activate the automatic key lock function. If this function is activated. the keys will be locked automatically after exiting the edit mode for 15 seconds. keeping press the ‹MODE/ESC› key for 3 seconds if you do not need this function.

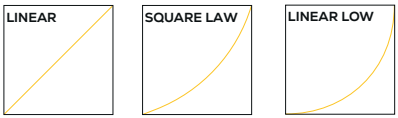
DispFlash
With this function activated, display will flash if no signal is detected.

10.3.5. Temperature C/F
With this function you can display the temperature in Celsius or Fahrenheit.

10.3.6. Initial Pos.
With this function you can display initial effect position.

10.3.7. Wireless DMX
From factory. this projector is prepared for wireless data transmission (W-DMX) .If you wish to de-activate W-DMX control. you can select the function "De-activate WDMX" by turning the encoder. With the function "rest". you can log out the projector from the wireless sender.

10.3.8. Dim Curve
With this function you can select the Dimmer Curve.



10.3.9. Refresh Select
With this function you can select the PWM rate.
- 1.2K & 2.4K : provides superior dimming quality, especially for smooth fadeouts at lower levels
- 16K & 25K : are ideal for broadcast use

10.3.10. Prism Mode
This function lets you choose how the zoom behaves when a prism is inserted. Previously, the zoom range was limited to prevent the prism from blocking light or cutting off beams inside the fixture. With Prism Mode enabled, the full zoom range is available, giving the user full control over the effect–even if it means light loss may occur. (Enable by default)

10.3.11. Reset P/T Fade
This function allows you to choose the reset speed of the pan/tilt motors to avoid fast movement

10.3.12. Illumination Limit
With this function, you can select different Illumination Limit, the power is limited to make the limit lower.

10.3.13. Beam Mode
This function allows you to select between two zoom range options (Beam Mode only):
- Limited Range: Restricts the zoom to prevent reaching the maximum aperture.
- Full Range: Provides unrestricted zoom across the full aperture range.

10.3.14. Trigger

DMX Value Disp.
With this function you can display the DMX 512 value of each channel. The display automatically shows the channel with a value

changing.

Set to Follower
With this function, you can define the device as follower.

Auto Program
With this function. you can run the internal program. You can select the desired program under "**Select program**". You can set the number of steps under "**Edit program**" . You can edit the individual scenes under "**Edit scenes**". With this function. you can run the individual scenes either automatically. i.e. with the adjusted Step-Time.

10.3.15. Reset Default
With this function, you can restore default setting (highlighted value in the above chart).

10.3.16. Reset Options
This function restores only the altered options settings (highlighted values in the chart above) to their default state.

10.3.17. Reset User Set
With this function, you can define the following "restore user" values:
- Address
- Mode
- Fans Speed
- Constant Fans

10.3.18. Zoom Behaviour
Make the Zoom/Focus range of the Cobra, behave same as the Cobra 2
When using Cobra Original alongside Cobra 2 outside the U.S., Cobra Original can be set to Zoom Behaviour: Cobra 2 to match optically for consistent performance.

10.4 › INFO

10.4.1. Time Info.

Current Time
With this function. you can display the temporary running time of the device from the last power on. The display shows "XXXX". "XXXX" stands for the number of hours. The counter is reset after turning the device off.

Ttl Life Hrs
With this function. you can display the running time of the device. The display shows "XXXX". "XXXX" stands for the number of hours.

Last Run Hrs
With this function. you can display last the running time of the device. The display shows "XXXX". "XXXX" stands for the number of hours.

LASER Hours
With this function. you can display the time of LED. The display shows "XXXX". "XXXX" stands for the time of LASER.

Timer PIN
With this function. you can display the timer password.

Clr Last Run
With this function. you can clear last run time of the fixture. The display shows "ON" or "OFF". Press "Enter" to confirm.

10.4.2. Temp.Info
With this function you can display the different temperature of the fixture.
- L: Light engine
- B: Base
- H: Head

10.4.3. Humidity
With this function you can display all the different humidity values available in the fixture
- B: Base
- H: Head

10.4.4. Fan Info.
With this function, you can display all the fan speed values available in the unit.

10.4.5. Software Ver
With this function, you can display the software version of the device.

10.4.6. Network
With this function, you can display the Network information.

10.4.7. Error Info
With this function, you can Read the error record of the Unit.

10.5 › TEST

10.5.1. Home
With this function you can reset the device. You can select which functions you want to reset by using the submenu.

10.5.2. Test Channel
With this function you can test each channel's function to ensure correct operation.

10.5.3. Manual Control
Allows you to manually control each feature of the unit

10.5.4. Calibration
With this function. you can calibrate and adjust the effect wheels to their correct positions. The password of calibrate values is 050.

10.5.5. Gobo Replace
This function allows you to select the gobo you want to replace. The chosen gobo will be rotated into position, making it easy to swap out.

10.6 › PRESET

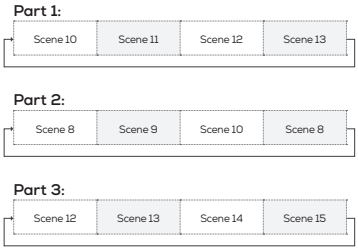
Run the auto program: A leader fixture can output to three different program signals to the follower fixture to operate. It means the host will send cyclically in the following orders. (The host will keep operating the program of Part 1). Then the follower fixture will make the selectively receiving according to its own set.



- If the follower fixture chooses Run For Follower 1 from the menu of 1-3,then it will receive the part 1's automatic program from link, in the same way, when the follower fixture chooses Run For Follower 2, then it will receive the part 2's automatic program from link.
- Enter the menu of 1-3 Function Mode---Set To Follower. Here to set machine operate which part of the program during the host-follower connection
- Enter the menu of 1-4, 1-5 Function Mode---Set To Leader
- Enter the menu of 8-1 Edit Program---Auto Program Part1. The host outputs three groups driven program---Part1, Part2, Part3 (Part1 program runs the same effect as the host)
- Enter the menu of 8-2 Edit Program---Edit Program. Edit the program's connection, connect the scene in order
- The editor of the scene, there are as many as 250 scenario editors, and every scene can have a program connection of 10.

Note:
Part 2, Part 3 repeat in accordance with the Part1's repeat. For example: When Part 1 uses Program 2, Part 2 uses Program 4, Part 3 uses Program 6, Assume:Program 2 includes scene of 10, 11, 12, 13. Program 4 includes scene of 8, 9, 10; Program 6 includes scene of 12, 13, 14, 15. Then it will run as below.

Example:



10.7 › SHORTCUT MENU

10.6.1. Flip display
With this function you can rotate the display by 180° (when the unit is rigged)

10.6.2. Restore Factory
With this function, you can restore default setting (highlighted value in the above chart).

10.6.3. Restore User
With this function, you can restore User settings (Setting can be edit under Options/Reset User Set).

10.6.4. Rst DMX addr 1
With this function you can only set the address to 1.

10.6.5. Rst Options
This function restores only the altered options settings (highlighted values in the chart above) to their default state.

10.6.6. Product SN
With this function, you can display the serial number of the Unit.

10.6.7. LASER SN
With this function, you can display the serial number of the LASER.

10.6.8. RDM UID
With this function, you can display the RDM UID of the Unit (Also QRCode)

10.6.9. Pressure
Under this menu, you can manage the pressure of the Unit :

- Pressure Test: Under this menu you can Run the Pressure test
- Test Result: Under this menu you can display the result of the last pressure test
- Head/Base Pres: Under this menu you can display the value of the Head and Base Pressure

11. DMX PROTOCOL

Scan the QR code on the cover page to download the DMX CHART.

12. ERROR MESSAGES

When you turn on the device, it will first perform a reset. The display may show "Err channel is XX" should there be problems with one or more functions. "XX" stands for channel 1, 2, 3, 4, 5, 6 etc whose sensor has encountered a problem. For example, when the display shows "Err channel is Pan movement", it means there is an error on channel 1. If there are errors on channel 1, channel 3, channel 6 at the same time, you may see the error message, "Err channel is Pan movement", "Err channel is Tilt movement", "Err channel is Shutter", flash twice, and then the device will generate a second reset. If the error messages persist after performing a reset more than twice, the channels which have errors may not work properly however, all other functions can work as usual. Please contact your dealer or manufacturer for service. Self repair is not allowed.

PAN- movement Er
(PAN- yoke movement error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (Optical Sensor or Magnetic Sensor fails) or the stepper motor is defective (or its driving IC on the main PCB). The PAN-movement is not located in the default position after the reset.

TILT- movement Er
(TILT- head movement error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (Optical Sensor or Magnetic Sensor fails) or the stepper motor is defective (or its driving IC on the main PCB). The TILT-movement is not located in the default position after the reset..

Zoom wheel Er
(Zoom wheel error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (Optical Sensor or Magnetic Sensor fails) or the stepper motor is defective (or its driving IC on the main PCB). The Zoom -movement is not located in the default position after the reset.

Focus wheel Er
(Focus wheel error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (Optical Sensor or Magnetic Sensor fails) or the stepper motor is defective (or its driving IC on the main PCB). The Focus -movement is not located in the default position after the reset.

Colour wheel Er
(Colour wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The Colour - movement is not located in the default position after the reset.

Cyan Colour wheel Er
(Cyan Colour wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The CMY -movement is not located in the default position after the reset.

Magenta Colour wheel Er
(Magenta Colour wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The CMY -movement is not located in the default position after the reset.

Yellow Colour wheel Er
(Yellow Colour wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The CMY -movement is not located in the default position after the reset.

Rot_Gobo wheel Er
(Rot_Gobo1wheel - error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The Rot_Gobo1 - movement is not located in the default position after the reset.

Fix_Gobo wheel Er
(Fix_Gobo wheel - error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The Fix_Gobo - movement is not located in the default position after the reset.

Prism wheel Er

(Prism wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The Prism - movement is not located in the default position after the reset.

Frost wheel Er

(Frost wheel - error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The Frost - movement is not located in the default position after the reset.

13. CLEANING AND MAINTENANCE

CAUTION

Disconnect from mains before starting maintenance operation

Always run an IP test using the Ayrton IP test kit following any maintenance operation! Failure to comply with this clause will void the warranty!

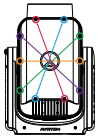


Ayrton IP Kit

The operator must follow strictly the vacuum and pressure setting values as below, or use the corresponding preset fixture menu to run the IP test. any overpressure operation may cause accidental damage or injury.

	Minimum value		Maximum value		Steady time (Hold time)
	Kpa	Psi	Kpa	Psi	S
Vacuum	-35	-5.08	-40	5.80	10
Pressure	25	3.63	30	4.35	10

To ensure that the cover is pressed evenly all around the seal, we recommend following the attached tightening order:



- ***Check the seal, it must be clean and undamaged, properly seated to avoid any damage when tightening.***
- ***First lightly tighten the screws into position and then tighten with a torque screwdriver.***

Torque value : 14Kgf.cm for metal cover or 7Kgf.cm for plastic cover.

The following points have to be considered during inspection:

- ***All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.***
- ***There must not be any deformations to the housing, lenses, rigging and installation points (ceiling, suspension, trussing).***
- ***Motorized parts must not show any signs of wear and must move smoothly without issue.***
- ***The power supply cables must not show any damage, material fatigue or sediment.***

Checking and replacing the desiccant

The desiccant is used as humidity indication in the fixture. Dry desiccant is in blue Colour, if it is saturated with water, its Colour changes to light red. If the desiccant Colour changes to pink, the desiccant is losing efficacy, it must be replaced.

CAUTION

Unplug the fixture from mains before checking or replacing desiccant!

Do not check or replace desiccant in a damp environment!

Further instructions depending on the installation location and usage have to be adhered to by a qualified installer and any safety concerns have to be removed.

In order to ensure the device remains in good condition and does not fail prematurely, we suggest regular maintenance.

- Clean the outside lens each week to avoid loss of output due to accumulation of dust/ dirt on the lens.
- Clean the fans each week to ensure maximum airflow and efficient thermal cooling. This will ensure the light source is operated in the best possible condition.
- A detailed electrical check by an approved electrician every quarter to make sure that the circuit contacts are in good condition. This will prevent poor circuit contacts and the resultant overheating.

We recommend frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents. Please refer to the instructions under "Installation instructions".

Should you need any spare parts, please order genuine parts from your local dealer.

AYRTON

Digital Lighting

SCAN FOR MORE

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