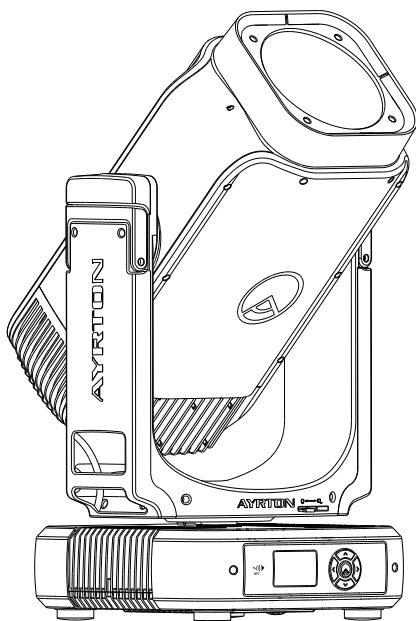


# USER MANUAL

ENGLISH - VERSION 2

# COBRA

## ULTRA BEAM



**AYRTON**  
Digital Lighting



2 Rue de Vitruve,  
91140 Villebon-sur-Yvette,  
France

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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 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 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 indexing

### 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 4 wireless LumenRadio™ receiver
- IP65 XLR 5 pin connectors
- IP65 RJ45 connectors
- IP65 powerCON TRUE1 TOP connectors

### CONTROL

- DMX 512 protocol
- DMX-RDM compatible
- 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 (VO 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: 4 m (13.12 ft)

### COMPLIANCE

- CE, UKCA, ETL

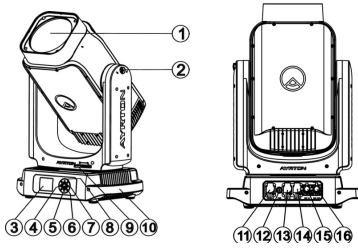
### SIZE

- Product: 415 x 660 x 280 mm (l x h x d)
- Foam: 485 x 565 x 560 mm (l x h x d)

### WEIGHT

- Product: 33 kg

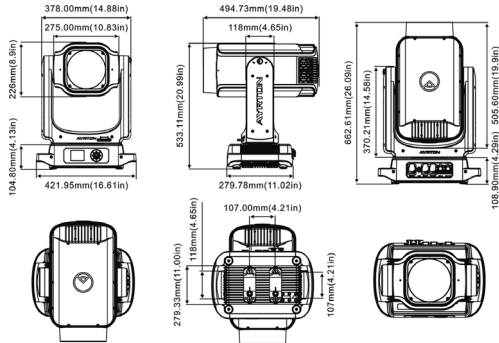
### 3. FIXTURE OVERVIEW



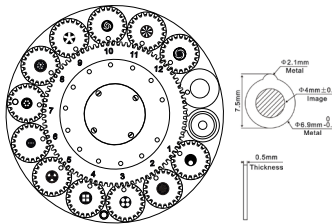
- 1. Front Lens
- 2. Tilt Lock
- 3. Display
- 4. Left-button
- 5. Down-button
- 6. Center-button
- 7. Right-button
- 8. Up-button
- 9. Pan Lock
- 10. Handle
- 11. Power In
- 12. Fuse
- 13. RJ45 In
- 14. RJ45 Out
- 15. DMX In
- 16. DMX Out

### 4. DRAWINGS

#### 4.1 > FIXTURE DIMENSION



#### 4.3 > ROTATING GOBO WHEEL

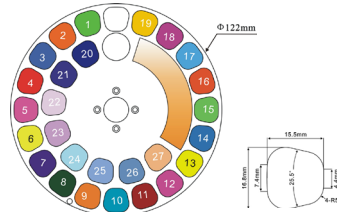


#### GOBO WHEEL 1

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

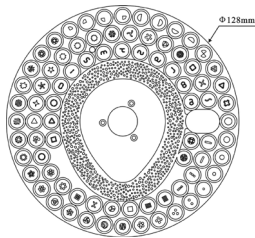
1	Green	GP603050332620
2	Orange	GP603050332630
3	Blue	GP603050332640
4	Red	GP603050332650
5	Pink	GP603050332560
6	Medium Yellow	GP603050332770
7	Deep Purple	GP603050332750
8	Velvet Green	GP603050334490
9	Amber	GP603050332580
10	Light Blue	GP603050334480
11	Light Red	GP603050332720
12	Follies Pink	GP603050334470
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	24	290 Quarter Beam NE
2	304 60% Iris Beam	25	291 Quarter Beam SE
3	306 40% Iris Beam	26	292 Quarter Beam SW
4	308 20% Iris Beam	27	293 Quarter Beam NW
5	312 Dot Line 2	28	296 Half Beam Up
6	326 Dot Triangle 3	29	295 Half Beam Down
7	328 Dot Square 4	30	298 Half Beam Left
8	319 Dot Ring 5	31	299 Half Beam Right
9	257 Zig Zag Light	32	418 Crash Test Icon
10	135 Vortex Light	33	341 Split Triangle 4
11	110 Spiral	34	426 Split Triangle 1
12	118 Helix 5	35	419 Iron Ball Light
13	424 Triangle Beam	36	351 Vertical Line
14	263 Daisy	37	350 Bold Line
15	373 Nested Star	38	371 Square Line 3 V
16	368 Square Ring 8	39	370 Square Line 3 H
17	439 Circular Saw 4	40	353 Four Lines H
18	099 Waves Light	41	354 Four Lines V
19	274 Prison Bars 4	42	330 Square Beam
20	269 Ink Stain	43	363 Rubik Cube
21	260 Arrows	44	437 Split Cross
22	265 Iris 8	45	334 Square Beam 9
23	326 Dot Mix 8	46	320 Dot Ring 6

47	321 Dot Ring 7	64	348 Tilde
48	413 Split Circle 6	65	188 Mirror Ball 9
49	324 Dot Mix	66	417 Split Target
50	340 Triangle Beam	67	422 Split Square 2
51	374 Compass 4	68	427 Split Triangle 2
52	346 Star Line 5	69	411 Split Circle 2
53	345 Star 5	70	450 Number 0
54	378 Star 8	71	451 Number 1
55	380 Star 10	72	452 Number 2
56	382 Star 12	73	453 Number 3
57	262 Arrow Ring 6	74	454 Number 4
58	117 Helix 3	75	455 Number 5
59	342 Five Spokes	76	456 Number 6
60	261 Arrow Ring 3	77	457 Number 7
61	435 Nested Cross	78	458 Number 8
62	421 Split Square 1	79	459 Number 9
63	431 X Cross		

## 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.

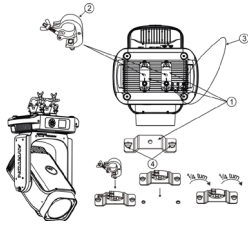
- The installation of the support structure has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.
- The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety rope.
- Never stand directly below 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 yourself. 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.

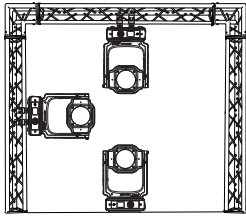


1. Omega bracket
2. Clamp
3. Safety rope
4. Quick-lock fastener

### 5.3 > RIGGING DRAWINGS

#### CAUTION

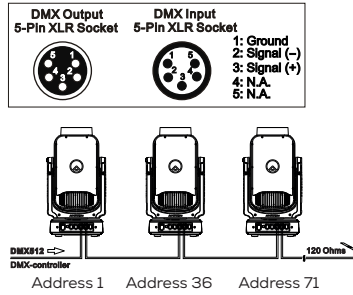
Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, specifying installation/rigging materials, and periodic safety inspection of all installation material as well as the device if you lack these qualifications, do not attempt the rigging of 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 supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.
- 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.
- **CAUTION! 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

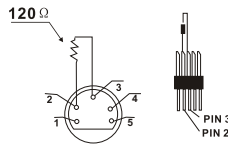
Connect the male side of the XLR cable to the female XLR output of your controller and the female side of the XLR cable to the male XLR input of the device. You can connect multiple devices together in a serial fashion. The cable needed should be two core, screened cable with XLR input and output connectors.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



### 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 LED 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

DMX 512 controller, wireless transmitter, and the fixtures with wireless receiver.

### 9.2 › MESSAGE FROM THE LED INDICATOR

- Rapid flashing red/Green: Logging in to a transmitter.
- Slow flashing Red/Green: Logged on a transmitter and the DMX line is idle (No DMX is connected to transmitter).
- Solid Green: Logged on to a transmitter and receiving DMX data.
- Solid Red: Not logged on to a transmitter (free).

### 9.3 › WDMX IN THE MENU OF THE FIXTURE

On a fixture installed with wireless system, in order to switch between wireless control system and traditional DMX control (with cable), a new menu WDMX is added to the display board.

#### ON (Activate WDMX)

- When the fixture is on power and the WDMX is activated to ON status, but did not connect to the controller and did not log in to the transmitter, the fixture will search for the DMX signal source. If the fixture is connected to the DMX controller it can be controlled by DMX controller; if it is log in to the wireless transmitter, it can be controlled by the Transmitter.
- When the fixture is power off, and the WDMX is in ON status, if the fixture is connected to DMX controller After the fixture is power on, it can be controlled only by the DMX controller which connected. The fixture can log in the wireless transmitter, and receive only radio signal from transmitter but not DMX from the transmitter.

#### OFF (De-activate WDMX)

- In this status, wireless system is not activated, so the fixture can not log in the transmitter.

#### REST (Reset WDMX memory)

- Can remove the fixture from the connection with the transmitter, the fixture become free and ready to log in any transmitter.

### 9.4 › SET UP THE WIRELESS SYSTEM

- Connect the transmitter with the DMX controller.
- To make the fixture installed with wireless receiver log in to the transmitter.
  - Initially the indicator on the receiver fixture should be in Solid red.
  - Press and hold the configuration button on transmitter for less than 3 seconds the red/green LEDs on the transmitter and the receiver fixture will flash rapidly for about 5~10 seconds while the system goes through its setup procedure.
  - Once the receiver fixture is logged in to the transmitter (T1), the fixture with wireless receiver will keep the memory, even if restart the power, this unit will log in the transmitter (T1) automatically.
- Use the DMX 512 to control the fixture.

### 9.5 › REMOVE THE RECEIVERS FROM TRANSMITTER (T1) AND TO LOG IN TO ANOTHER TRANSMITTER (T2)

#### Case 1: Remove a receiver

- On the control board of the fixture, enter menu to activated the function of REST.
- The LED for wireless on the fixture should turn to Solid red; the receiver can log out from the transmitter (T1).
- Press the configuration button on transmitter (T2) for less than 3 second, then the fixture will start to connect with the transmitter (T2).

#### Case 2: Remove all receivers from a transmitter (T1) to log in to T2








- Press and hold the configuration button on the T1 as least 5 seconds, can clear the connection with all the fixtures.
- All the red/green LEDs on the receiver fixtures will turn to Solid red to indicate that the receivers are unassigned and removed from the transmitter (T1).

#### PS:


- Please log the receivers out from the transmitter after every job so that the receivers are in free un assigned state and ready to be assigned to a transmitter.

- Do not connect the fixture which is under the communication of wireless system to the DMX controller, otherwise it will cause interference from the DMX controller.

## 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

Address			
Address	DMX Address: 001-XXX		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 Sun Protection Pan Reverse Tilt Reverse Pan Degree Tilt Degree Feedback Init PAN Init TILT Prerig INIT Reset Mode Pan/Tilt Spd CMY Spd CTO Control Zoom/Focus Spd Reset LED Fade Hibernation DMX Output	Close/  /Auto ON/OFF ON/OFF ON/OFF 630/340 270/540 ON/OFF ON/OFF ON/OFF ON/OFF Fast/All Rot Gobos Medium/Fast/Slow Slow/Medium/Fast Colour/Wheel/Seperate Ch Fast/Medium/Slow ON/OFF OFF 01M-99M ON/OFF	Auto run if no DMX Sun Protection movement Pan Reverse movement Tilt Reverse movement Pan Degree Select Tilt Degree Movement Feedback Init PAN Init TILT Prerig INIT Reset Mode Movement Speed CMY Spd CTO Control Zoom/Focus Spd Reset LED Fade Stand by Mode DMX Output
Service PIN	Service PIN Set IP Set Mask IP DHCP Cross Load SW Clr Laser Timer Clr Error Info	Password = XXX xxx.xxx.xxx.xxx xxx.xxx.xxx.xxx ON/OFF ON/OFF ON/OFF ON/OFF	Service Password="050" Set IP Set Mask IP DHCP Cross Load SW Clr LED Timer Clr Error Info
Fans Control	Fans Speed Stage Silence Super Silence Constant Fans	Auto ON/OFF	Fans Speed select Constant Fans
Disp.Setting	Shutoff Time Flip Display Key Lock DispFlash	02-60m 05m ON/OFF ON/OFF ON/OFF	Display shutoff time Reverse 180 degree Key Lock DispFlash
Signal Select	DMX WDMX Art-Net sACN		DMX WDMX Art-Net sACN

Options		
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	12K 2.4K 16K 25K	Refresh Select
Prism Mode	Simple/Full	Prism Mode
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 Slave Auto Program	PAN.... Slave 1, Slave 2, Slave 3 Master/Alone
Reset Default	ON/OFF	Restore factory set.
Reset User set	Address	DMX address: 001-XXX
	Mode	Stand Mode Basic Mode Extend Mode User Mode A User Mode B User Mode C
	Fans Speed	Auto Stage Silence Super Silence
	Constant Fans	ON/OFF
Info		
Time Info.	Current Time	XXXX(Hours)
	Ttl Life Hrs	XXXX(Hours)
	Last Run Hrs	XXXX(Hours)
	LED Hours	XXXX(Hours)
	Timer PIN	Password = XXX
	Clr Last Run	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	Reset All
	Pan&Tilt	Reset Pan&Tilt
	Colour	Reset Colour
	Gobo Other	Reset Gobo Reset Other
Test Channel	PAN ....	Test function
Manual Ctrl.	PAN =XXX	Fine adjustment of the lamp
Calibration	-Password-	Password "050"
	PAN	Calibrate and adjust the effects to standard/right position
Gobo Replace	Gobo Wheel 1	Gobo Replace

Preset		
Select Prog.	Prog. Part 1 = Program 1 ~ 10 Program 1	Select programs to be run
	Prog. Part 2 = Program 1 ~ 10 Program 2	
	Prog. Part 3 = Program 1 ~ 10 Program 3	
Edit Prog.	Program 1	Program Test
	Program 10	Step 01=SCxxx Step 64=SCxxx
Edit Scenes	Edit Scene 001	Pan,Tilt,....
	~ Edit Scene 250	--Fade Time-- --Scene Time-- Input By Outside
Scenes Input	XX-XX	Scenes Input

## 10.1 > ADDRESS

### 10.1.1. Set DMX Address

With this function, you can adjust the DMX address via the Display.

- Double-click the center button to access the main menu.
- Tap the <Up/Down> button until "Address" is displayed.
- Double-click the center button. The display will show "Set DMX Address".
- Tap the <Up/Down> button. The display will show "001-XXX".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 10.2 > MODE

### 10.2.1. User Mode

With this function, you can create user defined channel orders.

- Double-click the center button to access main menu. Tap the <Up/Down> button until "Mode" is displayed. Double-click the center button to enter.
- Press <Up/Down>, the display will show "User Mode".
- Double-click the center button to enter.
- When in "Extend Mode", press <Up/Down> button to select "Extend Mode", "Rivale Mode", "User Mode A", "User Mode B" and "User Mode C".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.2.2. Edit User Mode

With this function, you can adjust the rest user defined channel order.

- Double-click the center button to access main menu. Tap the <Up/Down> button until "Mode" is displayed. Double-click the center button to enter.
- Press <Up/Down>, the display will show "Edit User Mode".
- Double-click the center button to enter.
- Set up "Max Channel=xxx" and select channel value.
- Set up "Mode B" and "Mode C" by the same way.
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 10.3 > OPTIONS

### 10.3.1. Status Settings

#### No DMX Status

With this function, when no DMX signal is detected, the unit will keep the last DMX status or close the shutter or run an automatic sequence. The default is hold..

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "No DMX Status".
- Double-click the center button to access "No DMX Status". The display will show "Hold". Tap the <Up/Down> button to select "Close", "Auto".

- Double-click the center button to confirm or long-press the center button to return to the main menu.

### Sun Protection

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

- Double-click the center button to access the main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access the "Status" menu. Tap the <Up/Down> button to select "Sun Protection".
- Double-click the center button to access "Sun Protection". The display will show "ON". Tap the <Up/Down> button to select "OFF".
- Double-click the center button to confirm or long-press the center button to return to the main menu.

### Pan Reverse

*With this function you can reverse the Pan-movement.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Pan Reverse".
- Double-click the center button to access "Pan Reverse". The display will show "OFF". Tap the <Up/Down> button to select "NO".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Tilt Reverse

*With this function, you can reverse the Tilt-movement.*

- Double-click the center button to access the main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Tilt Reverse".
- Double-click the center button to access "Tilt Reverse". The display will show "OFF". Tap the <Up/Down> button to select "NO".
- Double-click the center button to confirm or long-press the center button to return to the main menu.

### Pan Degree

*With this function, you can select Pan degree between 630° or 540°.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Pan Degree".
- Double-click the center button to access "Pan Degree". The display will show "540". Tap the <Up/Down> button to select "630".
- Double-click the center button to confirm or long-press the center button to return to the main menu.

### Tilt Degree

*With this function, you can select Tilt degree for 270 or 540.*

- Double-click the center button to access the main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Tilt Degree".
- Double-click the center button to access "Tilt Degree". The display will show "270". Tap the <Up/Down> button to select "540".
- Double-click the center button to confirm or long-press the center button to return to the main menu.

### 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.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Feedback".
- Double-click the center button to access "Feedback". The display will show "ON". Tap the <Up/Down> button to select "OFF".
- Double-click the center button to confirm or long-press the center button to return to the main menu.

### Init PAN

*This function allows you to deactivate the Pan movement during init process.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Init PAN".
- Double-click the center button to access "Init PAN". The display will show "ON". Tap the <Up/Down> button to select "OFF".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Init TILT

*This function allows you to deactivate the Tilt movement during init process.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Init TILT".
- Double-click the center button to access "Init TILT". The display will show "ON". Tap the <Up/Down> button to select "OFF".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Prerig INIT

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Prerig INIT".
- Double-click the center button to access "Prerig INIT". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Reset Mode

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Prerig INIT".
- Double-click the center button to access "Prerig INIT". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**Pan/Tilt Spd**

*With this function, you can select mode from "Medium", "Fast", "Slow".*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Pan/Tilt Spd".
- Double-click the center button to access "Pan/Tilt Spd". The display will show "Medium". Tap the <Up/Down> button to select "Medium", "Fast", "Slow".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**CMY Spd**

*With this function, you can select CMY mode from Slow to Fast.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "CMY Spd".
- Double-click the center button to access "CMY Spd". The display will show "Slow". Turn the rotary knob to select "Slow", "Medium", "Fast".
- Double click the center button to confirm or long press the center button to return to the main menu.

**CTO Control**

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "CTO Control".
- Double-click the center button to access "CTO Control". The display will show "Color Wheel". Turn the rotary knob to select "Seperate Ch".
- Double click the center button to confirm or long press the center button to return to the main menu.

**Zoom/Focus Spd**

*With this function, you can select zoom/focus mode from Fast, Medium and Slow.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Zoom/Focus Spd".
- Double-click the center button to access "Zoom/Focus Spd". The display will show "Fast". Tap the <Up/Down> button to select "Fast", "Medium", "Slow".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**Reset LED Fade**

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Reset LED Fade".
- Double-click the center button to access "Reset LED Fade". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**Hibernation: Standby mode**

*The device and stepper motors will be powered off if the unit stays without DMX signal for 15 mins (Factory default). The fixture will perform a reset sequence once DMX is back.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "Hibernation".
- Double-click the center button to access "Hibernation". The display will show "OFF". Tap the <Up/Down> button to select "01M", "02M" ... "99M".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**DMX Output**

*With this function, you can activate Art-Net to DMX.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Status".
- Double-click the center button to access "Status" menu. Tap the <Up/Down> button to select "DMX Output".
- Double-click the center button to access "DMX Output". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**10.3.2. Service PIN****Password**

*The Password for this function is "050".*

**Set IP**

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Service PIN".
- Double-click the center button to access "Service PIN" menu. Tap the <Up/Down> button to select "Set IP".
- Double-click the center button to access "Set IP". The display will show "XXX.XXX.XXX.XXX".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**Set Mask IP**

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Service PIN".
- Double-click the center button to access "Service PIN" menu. Tap the <Up/Down> button to select "Set Mask IP".
- Double-click the center button to access "Set Mask IP". The display will show "XXX.XXX.XXX.XXX".
- Double-click the center button to confirm or long press the center button to return to the main menu.

**DHCP**

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Service PIN".
- Double-click the center button to access "Service PIN" menu. Tap the <Up/Down> button to select "DHCP".
- Double-click the center button to access "DHCP". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## Cross Load SW

*This function allows you to update one unit from another one.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Service PIN".
- Double-click the center button to access "Service PIN" menu. Tap the <Up/Down> button to select "Cross Load SW".
- Double-click the center button to access "Cross Load SW". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## Clr Laser Timer

*This function allows you to clear the Laser timer.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Service PIN".
- Double-click the center button to access "Service PIN" menu. Tap the <Up/Down> button to select "Clr Laser Timer".
- Double-click the center button to access "Clr Laser Timer". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## Clr Error Info

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Service PIN".
- Double-click the center button to access "Service PIN" menu. Tap the <Up/Down> button to select "Clr Error Info".
- Double-click the center button to access "Clr Error Info". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 10.3.3. Fans Control

### Fans Speed

*With this function, you can set the fans speed. Settings are Auto, Stage, Silence, and Super Silence.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Fans Control".
- Double-click the center button to access "Fans Control" menu. Tap the <Up/Down> button to select "Fans Speed".
- Double-click the center button to access "Fans Speed". The display will show "Auto". Tap the <Up/Down> button to select "Stage", "Silence", "Super Silence".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Constant Fans

*When set to ON, this setting allows the fans to be constantly on to avoid any new noise.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Fans Control".
- Double-click the center button to access "Fans Control" menu. Tap the <Up/Down> button to select "Constant Fans".
- Double-click the center button to access "Constant Fans". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 10.3.4. Disp. Setting

### Shut off Time

*With this function you can shut off the LCD display after 2 to 60minutes. The default is 5 minutes.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Display Setting".
- Double-click the center button to access "Display Setting" menu. Tap the <Up/Down> button to select "Shut off Time".
- Double-click the center button to access "Shut off Time". The display will show "05m". Tap the <Up/Down> button to select "02-60m".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Flip Display

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

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Display Setting".
- Double-click the center button to access "Display Setting" menu. Tap the <Up/Down> button to select "Flip Display".
- Double-click the center button to access "Flip Display". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 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 3seconds if you do not need this function.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Display Setting".
- Double-click the center button to access "Display Setting" menu. Tap the <Up/Down> button to select "Key Lock".
- Double-click the center button to access "Key Lock". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### DispFlash

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

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Display Setting".
- Double-click the center button to access "Display Setting" menu. Tap the <Up/Down> button to select "DispFlash".
- Double-click the center button to access "DispFlash". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 10.3.5. Signal Select

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Signal Select".
- Double-click the center button to access "Signal Select". The display will show "DMX". Tap the <Up/Down> button to select "DMX", "WDMX", "Art-Net", "sACN".

- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.6. Temperature C/F

*With this function you can display the temperature in Celsius or Fahrenheit.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Temperature C/ F".
- Double-click the center button to access "Temperature C/ F". The display will show "Celsius". Tap the <Up/Down> button to select "Fahrenheit".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.7. Initial Pos.

*With this function you can display initial effect position.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Initial Pos".
- Double-click the center button to access "Initial Pos.". The display will show "PAN=XXX".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.8. Wireless

*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.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Wireless DMX".
- Double-click the center button to access "Wireless". The display will show "Activate WDMX". Tap the <Up/Down> button to select "Act & Data Out", "Rest WDMX".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.9. Dim Curve

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Dim Curve".
- Double-click the center button to access "Dim Curve". The display will show "Square Law". Tap the <Up/Down> button to select "Linear".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.10. Refresh Select

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Refresh Select".
- Double-click the center button to access "Refresh Select". The display will show "1.2K". Tap the <Up/Down> button to select "2.4K", "16K", "25K".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.11. Prism Mode

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/

Down> button to select "Prism Mode".

- Double-click the center button to access "Defog". The display will show "Full". Tap the <Up/Down> button to select "Simple".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.12. Reset P/T Fade

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Reset P/T Fade".
- Double-click the center button to access "Reset P/T Fade". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.13. Illumination Limit

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Illumination Limit".
- Double-click the center button to access "Illumination Limit". The display will show "25 m Distance". Tap the <Up/Down> button to select "15 m Distance", "8 m Distance".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.14. Beam Mode

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Beam Mode".
- Double-click the center button to access "Beam Mode" menu. The display will show "Limited Range". Tap the <Up/Down> button to select "Full Range".
- Double click the center button to confirm or long press the center button to return to the main menu

### 10.3.15. 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.*

- Double clicking center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double clicking center button to access "Options". Tap the <Up/Down> button to select "Trigger".
- Double clicking center button to access "Trigger" menu. Tap the <Up/Down> button to select "DMX Value Disp".
- Double clicking center button to access "DMX Value Disp". The display will show "PAN=.....".
- Double click the center button to confirm or long press the center button to return to the main menu.

#### Set To Slave

*With this function, you can define the device as slave.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Trigger".
- Double-click the center button to access "Trigger" menu. Tap the <Up/Down> button to select "Set To Slave".
- Double-click the center button to access "Set To Slave". The display will show "Slave1", "Slave2", "Slave3".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 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.

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Trigger".
- Double-click the center button to access "Trigger" menu. Tap the <Up/Down> button to select "Auto Program".
- Double-click the center button to access "Auto Program". The display will show "Master", "Alone".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.16. Reset Default

With this function, you can select restore factory set for ON or OFF. the default is OFF.

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Reset Default".
- Double-click the center button to access "Reset Default" menu. The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.3.17. Reset User Set

#### Address

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Reset User Set".
- Double-click the center button to access "Reset User Set" menu. Tap the <Up/Down> button to select "Address".
- Double-click the center button to access "Address". The display will show "001-XXX".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### Mode

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Reset User Set".
- Double-click the center button to access "Reset User Set" menu. Tap the <Up/Down> button to select "Mode".
- Double-click the center button to access "Mode". The display will show "Extend Mode". Tap the <Up/Down> button to select "Basic mode", "Stand Mode", "User Mode A", "User Mode B" and "User Mode C".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### Fans Speed

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Reset User Set".
- Double-click the center button to access "Reset User Set" menu. Tap the <Up/Down> button to select "Fans Speed".
- Double-click the center button to access "Fans Speed". The display will show "Auto". Tap the <Up/Down> button to select "Stage", "Silence", "Super Silence".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### Constant Fans

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Options" is displayed.
- Double-click the center button to access "Options". Tap the <Up/Down> button to select "Reset User Set".
- Double-click the center button to access "Reset User Set" menu. Tap the <Up/Down> button to select "Constant Fans".
- Double-click the center button to access "Constant Fans". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 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.

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Time Info".
- Double-click the center button to access "Time Info". Tap the <Up/Down> button to select "Current Time".
- Double-click the center button to access "Current Time". The display will show "XXXX (Hours)".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 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.

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Time Info".
- Double-click the center button to access "Time Info". Tap the <Up/Down> button to select "Ttl Life Hrs".
- Double-click the center button to access "Ttl Life Hrs". The display will show "XXXX (Hours)".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 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.

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Time Info".
- Double-click the center button to access "Time Info". Tap the <Up/Down> button to select "Last Run Hrs".
- Double-click the center button to access "Last Run Hrs". The display will show "XXXX (Hours)".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### Laser Hours

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Time Info".
- Double-click the center button to access "Time Info". Tap the <Up/Down> button to select "Laser Hours".
- Double-click the center button to access "LED Hours". The display will show "XXXX (Hours)".

- Double-click the center button to confirm or long press the center button to return to the main menu.

#### Timer PIN

*With this function, you can display the timer password.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Time Info".
- Double-click the center button to access "Time Info.". Tap the <Up/Down> button to select "Timer PIN".
- Double-click the center button to access "Timer PIN". The display will show "Password=038".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 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.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Time Info".
- Double-click the center button to access "Time Info.". Tap the <Up/Down> button to select "Clear Last Run".
- Double-click the center button to access "Clear Last Run". The display will show "OFF". Tap the <Up/Down> button to select "ON".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.4.2. Temp.Info

*With this function, you can display the temperature on the display board of the base (near CMY-filter) in Celsius.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Temp Info".
- Double-click the center button to access "Time Info.". The display will show "XXX °C / °F".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.4.3. Humidity

*With this function, you can display the percentage of humidity in the unit*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Humidity".
- Double-click the center button to access "Humidity". The display will show "x%".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.4.4. Fan Info.

*With this function, you can display the fans speed.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Fan Info".
- Double-click the center button to access "Fan Info.". The display will show "xxxxRPM".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.4.5. Software Ver

*With this function, you can display the software version of the device.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Software Ver".
- Double-click the center button to access "Software Ver". The display will show "V1.0.....".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.4.6. Network

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Network".
- Double-click the center button to access "Network". The display will show "IP". Turn the center button to select "Mask". "Mac".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.4.7. Error Info

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Info" is displayed.
- Double-click the center button to access "Info". Tap the <Up/Down> button to select "Error Info".
- Double-click the center button to access "Error Info". The display will show "IP". Turn the center button to select "Error Record 1", ".....".
- Double-click the center button to confirm or long press the center button to return to the main menu.

## 10.5 > TEST

#### 10.5.1. Home

*With this function you can reset the device via the Control Board. You can select the different reset functions using the buttons.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Test" is displayed.
- Double-click the center button to access "Test". Tap the <Up/Down> button to select "Home".
- Double-click the center button to access "Home". The display will show "All". Tap the <Up/Down> button to select "All", "Pan&Tilt", "Colour", "Gobo", "Other".
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.5.2. Test Channel

*With this function you can test each channel's function to ensure correct operation.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Test" is displayed.
- Double-click the center button to access "Test". Tap the <Up/Down> button to select "Test Channel".
- Double-click the center button to access "Test Channel". The display will show "Pan". Tap the <Up/Down> button to select other channel.
- Double-click the center button to confirm or long press the center button to return to the main menu.

#### 10.5.3. Manual Control

*When set to Manual Mode, the fixture will be back to factory settings. If you want to adjust brightness, you can adjust by shutter and dimming channel. The channel value is 0-255. Other functions can be set according to user's real need.*

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Test" is displayed.
- Double-click the center button to access "Test". Tap the <Up/Down> button to select "Manual control".
- Double-click the center button to access "Manual control". The display will show "PAN=XXX".

- Double-click the center button to confirm or long press the center button to return to the main menu.

### 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.

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Test" is displayed.
- Double-click the center button to access "Test". Tap the <Up/Down> button to select "Calibration".
- Double-click the center button to access "Calibration". The display will show "Password=050".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.5.5. Gobo Replace

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Test" is displayed.
- Double-click the center button to access "Test". Tap the <Up/Down> button to select "Gobo Replace".
- Double-click the center button to access "Gobo Replace". The display will show "Gobo Wheel 1". "Gobo Wheel 2".
- Double-click the center button to confirm or long press the center button to return to the main menu.

### 10.6 > PRESET

- Double-click the center button to access main menu.
- Tap the <Up/Down> button until "Preset" is displayed.
- Double-click the center button to access "Preset". Tap the <Up/Down> button to select "Select prog.", "Edit prog.", "Edit Scenes", "Scenes Input".
- Double-click the center button to confirm or long press the center button to return to the main menu.

Run the auto program: A master fixture can output to three different program signals to the slave 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 slave fixture will make the selectively receiving according to its own set.



- If the slave fixture chooses Run For Slave 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 slave fixture chooses Run For Slave 2, then it will receive the part 2's automatic program from link.
- Enter the menu of 1-3 Function Mode---Set To Slave. Here to set machine operate which part of the program during the host-slave connection
- Enter the menu of 1-4, 1-5 Function Mode---Set To Master
- 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:**

**Part 1:**



**Part 2:**



**Part 3:**



## 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\_GoboIwheel - 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.

Once the covers removed and before set them back, check the cover gasket to avoid any leak due to gasket damage. Cross tightening the die-casting covers HEX screws at the right torque value. Use a Torque Screwdriver set at 1,4Nm (12,4in/lbf) to fasten correctly the (10) HEX head screws for each cover.

Use a Torque Screwdriver set at 14Kgf.cm (1.4 Nm) for metal cover or 7Kgf.cm (0.7 Nm) 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.

**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	
Vacuum	-35	-5.08	-40	5.80	10
Pressure	25	3.63	30	4.35	10



**AYRTON**

Digital Lighting

