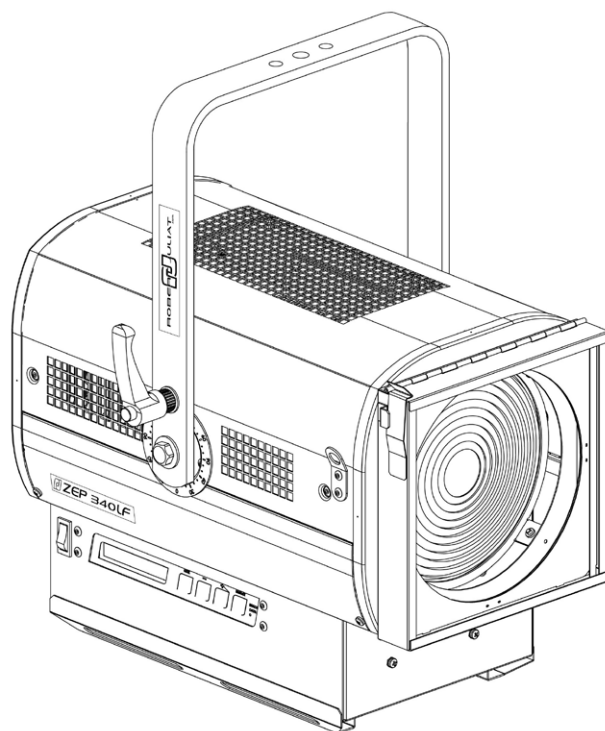


ZEP 340

SINGLE LENS LUMINAIRES /
PROJECTEURS DE THÉÂTRES



340LF & 340CLF

VARIABLE BEAM ANGLE LED WASH LIGHT /
PROJECTEUR A LED TYPE WASH

MANUAL / POLE OPERATED
COMMANDES MANUELLES / COMMANDES A PERCHE

340LF
Version V1

VALIDATION: 18/05/17

DN41035000-A



ROBERT JULIAT

Summary :

1	User's instructions	1
2	Presentation	2
2.1	340LF – Manually operated	2
2.2	340LF – Pole operated	2
2.3	Identification plate	3
2.4	Accessories included	3
2.5	Optional accessories	4
3	Set-up	5
3.1	Mechanics	5
3.1.1	Operating positions	5
3.1.2	Minimum distance between a flammable material and the lighting unit	5
3.1.3	Operating conditions	5
3.1.4	Hanging	5
3.1.5	Safety cable	6
3.2	Electrical	6
3.2.1	LED source	6
3.2.2	Power	6
3.2.3	DATA	7
3.3	Accessories	9
3.3.1	Gel frame	9
3.3.2	Barndoors	10
4	Operation	11
4.1	Light intensity	11
4.1.1	Range	11
4.1.2	Control	11
4.1.3	Parameters	11
4.2	Strobe	12
4.2.1	Range	12
4.2.2	Control	12
4.3	Beam size adjustment	13
4.3.1	Range	13
4.3.2	Control – Manually operated	14
4.3.3	Control – Pole operated	14
4.4	Orientation	15
4.4.1	Range	15
4.4.2	Control – Manually operated	15
4.4.3	Control – Manually operated	15
4.5	Colour	16
4.6	Beam shaping with barndoors option	17
4.6.1	Range	17
4.6.2	Control	17
4.7	Control board	18
4.7.1	Display and Controls	18
4.7.2	Menus and parameters	18
4.7.3	DMXChart	18
4.7.4	Reset	19
4.7.5	Feedback information	19
5	Service	22
5.1	Preventive maintenance	22
5.1.1	Frequency	22
5.1.2	General cleaning	22
5.1.3	General visual check	19
5.1.4	LED source	20
5.1.5	Optics	20
5.2	Analysis	20
5.3	LED reaction according to LED temperature	20
5.4	Thermal protection	20
5.5	Adjusting the maximum light output level	20
5.6	Exploded view / Spare parts list	20
6	Troubleshooting	21

1 User's instructions

GENERAL INSTRUCTIONS

1. Not for residential use.
2. **These fixtures must only be serviced by a qualified technician.**
3. In addition to the instructions indicated on this page, relevant health and safety requirements of the appropriate EU Directives must be adhered to at all times.
4. This fixture is in compliance with section 17 - Lighting appliance for theatre stages, television, cinema and photograph studios. Standards NF EN 60598-1 and NF EN 60598-2-17.
5. This fixture is rated as IP20, and is for indoor use only.

FIXTURE

6. Ensure fixture is correctly mounted on an appropriate support.
7. Protection screens and lenses must be replaced in the event of any damage, such as cracks or deep scratches, since these might reduce performance.
8. When hung or flown the fixture must be secured by an additional hanging accessory (such as a safety cable or bond) of suitable length.
9. Safety bonds or cables must be securely attached to the back of the fixture and be as short as possible, or rolled up as necessary, to minimise travel distance should the fixture be dislodged.
10. Movable accessories (scroller, etc.) must also be secured with a suitable safety cable or bond at the front of the fixture.
11. The combined weight of both the fixture and the accessories must be considered when choosing the load-bearing capability of safety cable or bond.
12. Do not open lighting fixture when the source is on.
13. **WARNING:** LED source become hot during use. Allow fixture to cool before servicing.
14. Do not tamper with design of fixture nor any of its safety features.
15. Tighten electrical mains cable connections regularly and replace with one of identical specification if damaged.
16. Use only with recommended power input.
17. Do not orientate the fixture towards a source of light (sun, fixture), in particular for LED versions.

VENTILATION

18. Keep well away from flammable material.
19. Not for outdoor use. Do not cover. Do not permit fixture to get wet.
20. To avoid overheating, do not obstruct air vents.
21. Ensure any cooling fans are in correct working order. If fans are not working, turn fixture off immediately and service as necessary.

CLEANING

22. Do not touch LED source with fingers.
23. Clean all optical parts with alcohol-based cleaner.
24. Clean all filters regularly.

POWER SUPPLY

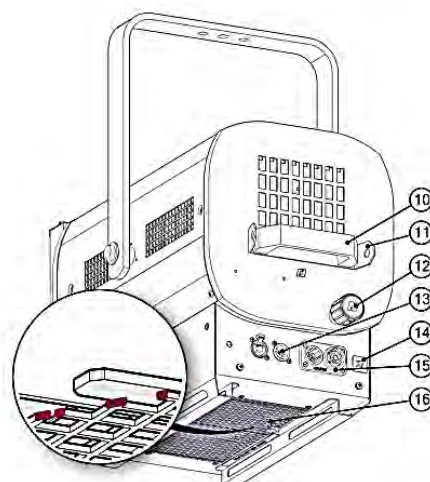
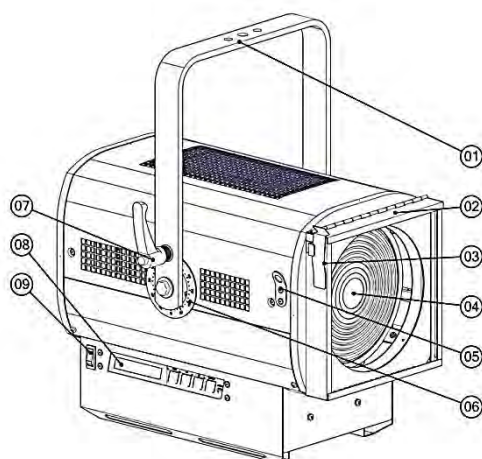
25. Disconnect from the mains before servicing.
26. Mains connection only. Do not connect to "electronic output" such as dimmer.
27. Not for outdoor use. Do not cover.

PLEASE NOTE

These products have been built to conform to European standards relating to professional lighting equipment. Any modification made to our products will void the manufacturers' warranty.

2 Presentation

2.1 340LF – Manually operated

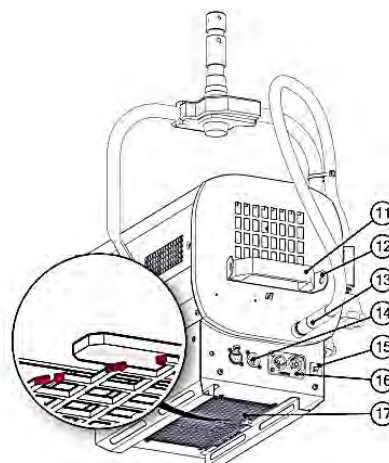
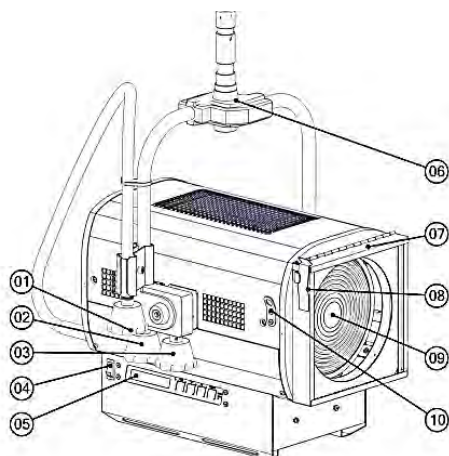


Functions :

1. Hanging yoke
2. Accessories and colour filter runners
3. Accessories and colour filter runners locking system
4. Fresnel lens
5. Front accessories safety cable attachment point
6. Tilt index
7. Tilt locking handle
8. Control board and display
9. ON/OFF Switch

10. Handle
11. Safety cable attachment point
12. Focus adjustment
13. Data connectors (IN and OUT)
14. Thermal Protection
15. Power connectors (IN and OUT)
16. Front focus internal index

2.2 340LF – Pole operated



Functions :

1. Focus adjustment
2. PAN adjustment
3. TILT adjustment
4. ON/OFF switch
5. Control board
6. Hanging yoke
7. Accessories and colour filter runners
8. Accessories and colour filter runners locking system
9. Fresnel lens
10. Front accessories safety cable attachment point

11. Handle
12. Safety cable attachment point
13. Focus adjustment
14. Data connectors (IN and OUT)
15. Thermal Protection
16. Power connectors (IN and OUT)
17. Front focus internal index

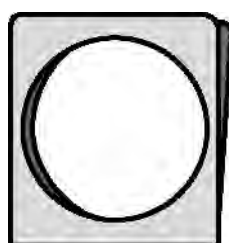
2.3 Identification plate

Units :

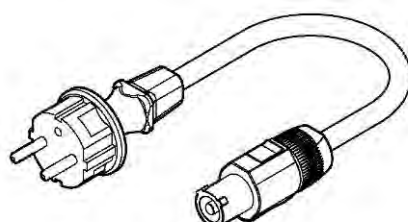
- Dimensions = metre (m) millimetre (mm).
- Weight = kilogram (kg).
- Intensity = Ampere (A).
- Voltage = Volt (V).
- Frequency = Hertz (Hz).
- Temperature = degree Celsius (°C).

Description	
	1. MOD. : Model 2. VERS. : Version 3. U : Nominal voltage input (V) 4. I : Nominal intensity (A) 5. P : Maximum power input (W) 6. IP : International Protection Rating 7. t°a : Maximum ambient temperature (°C) 8. t°c : Maximum external temperature of the unit (°C) 9. Net weight (kg) 10. Minimum distance between a flammable material and the lighting unit (m) 11. Colour temperature version : CW = Cool White WW = Warm White 12. Serial number 13. Replace broken glass 14. Class 1 product label 15. Read manual first label 16. European conformity label 17. WEEE directive label

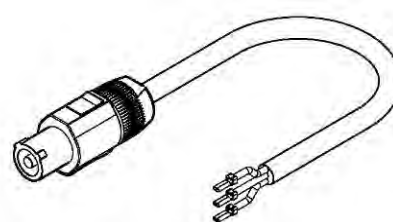
2.4 Accessories included



①



②

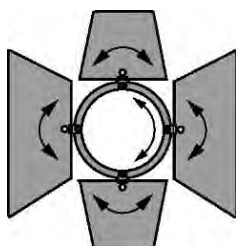


③

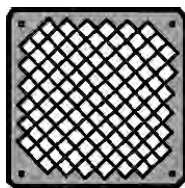
	Reference	Description
1	PF1000M2	215 x 215mm filter holder
2*	FJUC000112	Power cord with CEE7/7 connector
3*	FJUC000113	UL/CSA power cord without connector

(*) Supplied with cord 2 or 3 depending on the country

2.5 Optional accessories



①



②



③



④



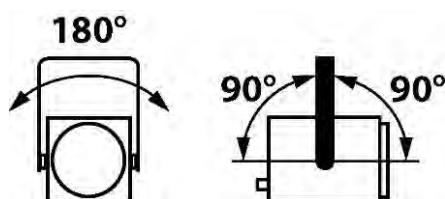
⑤

	Reference	Description
1	CF1000	4 Rotating leaves on a rotating barndoor (without safety cable)
2	G1000	215 x 215 mm safety grid
3	876	40 x 10 mm with 28 mm screw clamp for Ø 35 to 50 mm pipes
4	880	40 x 10 mm with 28 mm screw clamp for Ø 50 to 63 mm pipes
5	CS2	Safety cable (length = 600 mm)

3 Set-up

3.1 Mechanics

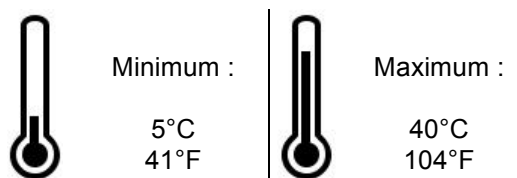
3.1.1 Operating positions



3.1.2 Minimum distance between a flammable material and the lighting unit



3.1.3 Operating conditions



Indice de Protection international:
IP20 – Utilisation intérieure uniquement

3.1.4 Hanging

- Ensure fixture is correctly mounted on an appropriate support.
- The combined weight of both the fixture and the accessories must be considered when choosing the load-bearing capability of safety cable or bond.



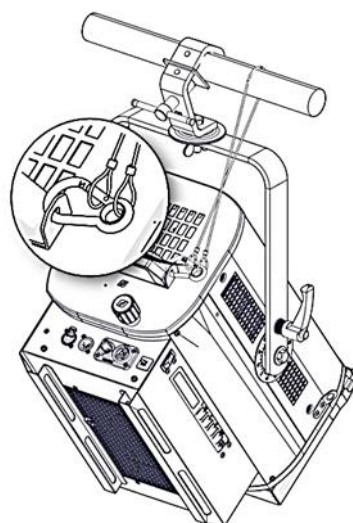
Manual
Net weight: 14.2 Kg



Pole operated
Net weight: TBC

3.1.5 Safety cable

- When hung or flown the fixture must be secured by an additional hanging accessory (such as a safety bond or cable) of suitable length.
- The combined weight of both the fixture and the accessories must be considered when choosing the load-bearing capability of safety cable or bond.
- Safety cables or bonds must be securely attached to the back of the fixture and be as short as possible, or rolled up as necessary, to minimise travel distance should the fixture be dislodged.



3.2 Electrical

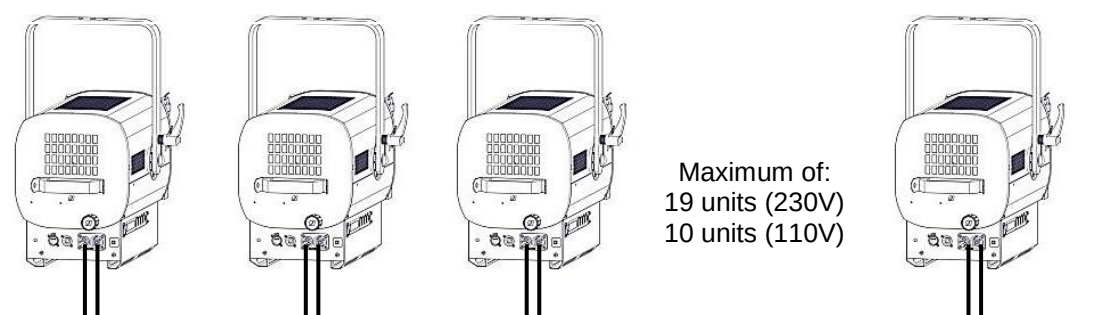
3.2.1 LED source



Never touch or scratch LED surface.

See 5.1.5 LED cleaning procedure if cleaning is necessary.

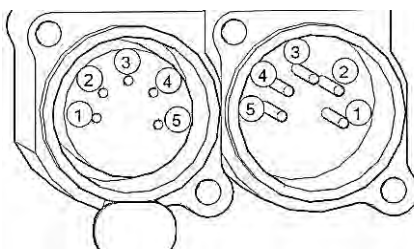
3.2.2 Power

Power supply			
Voltage	Frequency	Input power	Connectors
90 → 264 V	47-63 Hz	0,8 A / 185 W @ 230V 1,5 A / 185 W @ 120V 1,8 A / 185 W @ 90V Max.2,1 A Mode veille: 7 W	Neutrik powerCON TRUE1 Entrée : ref. NAC3PX (max. 20A)
 • Class 1 product. This luminaire must be earthed. • Must be connected directly to AC power. Do not connect to dimmer power • Automatic power detection • On the same breaker, maximum of: 19 units (230V) / 10 units (110V)			
Daisy chain:  Maximum of: 19 units (230V) 10 units (110V)			

Power cable						
① ②						
Power cable		Connector	Mains plug	Cable type	Cable length	Wiring
1	Standard version	Neutrik PowerCon True1	CEE7/7	FJUC000112	3 meters	Live: Brown Neutral: Blue Earth: Yellow/Green
2	North American version		-	FJUC000113	1.5 meter	Live: Black Neutral: White Earth : Green
INLET OUTLET						

3.2.3 DATA

DATA		
Protocol	Input connector	Output connector
USITT DMX 512-A	XLR 5-pin	XLR 5-pin

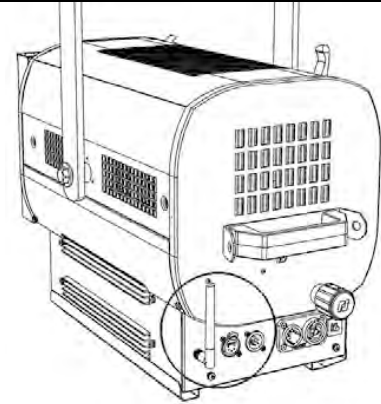
DATA connectors			
PIN #	DMX	Description	
1	0V	Foil & Braided Shield	
2	DMX (-)	1 st conductor of 1 st twisted pair	
3	DMX (+)	2 nd conductor of 1 st twisted pair	
4	Not used	1 st conductor of 2 nd twisted pair	
5	Not used	2 nd conductor of 2 nd twisted pair	

Integrated terminal plug:

If no XLR connector is detected on DMX OUT connector, a 120Ω terminal plug is automatically activated. Additional terminal plug on the last unit is not necessary.

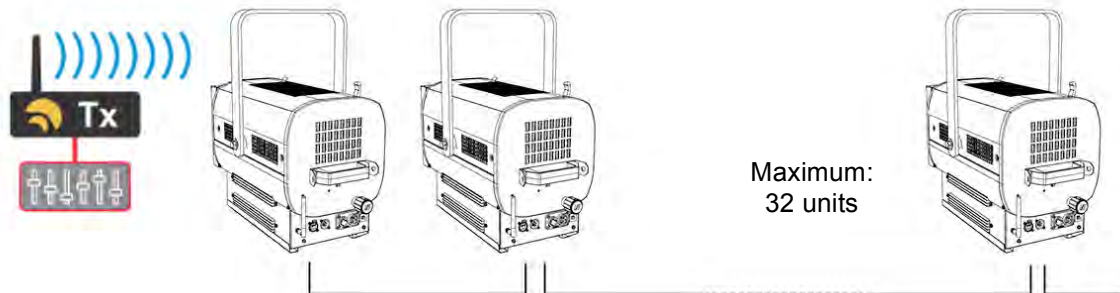
Wireless DMX option

- Protocol: Wireless Solution W-DMX™
- Refer to the OEM User's manual for general recommendations and use of the transmitter : <http://www.wirelessdmx.com>
- The antenna must be clearly visible from the transmitter
- Refer to RJ-LED Software manual for activation procedure (page EN-18)
- **Do not connect a DMX IN data cable in case of wireless DMX use**



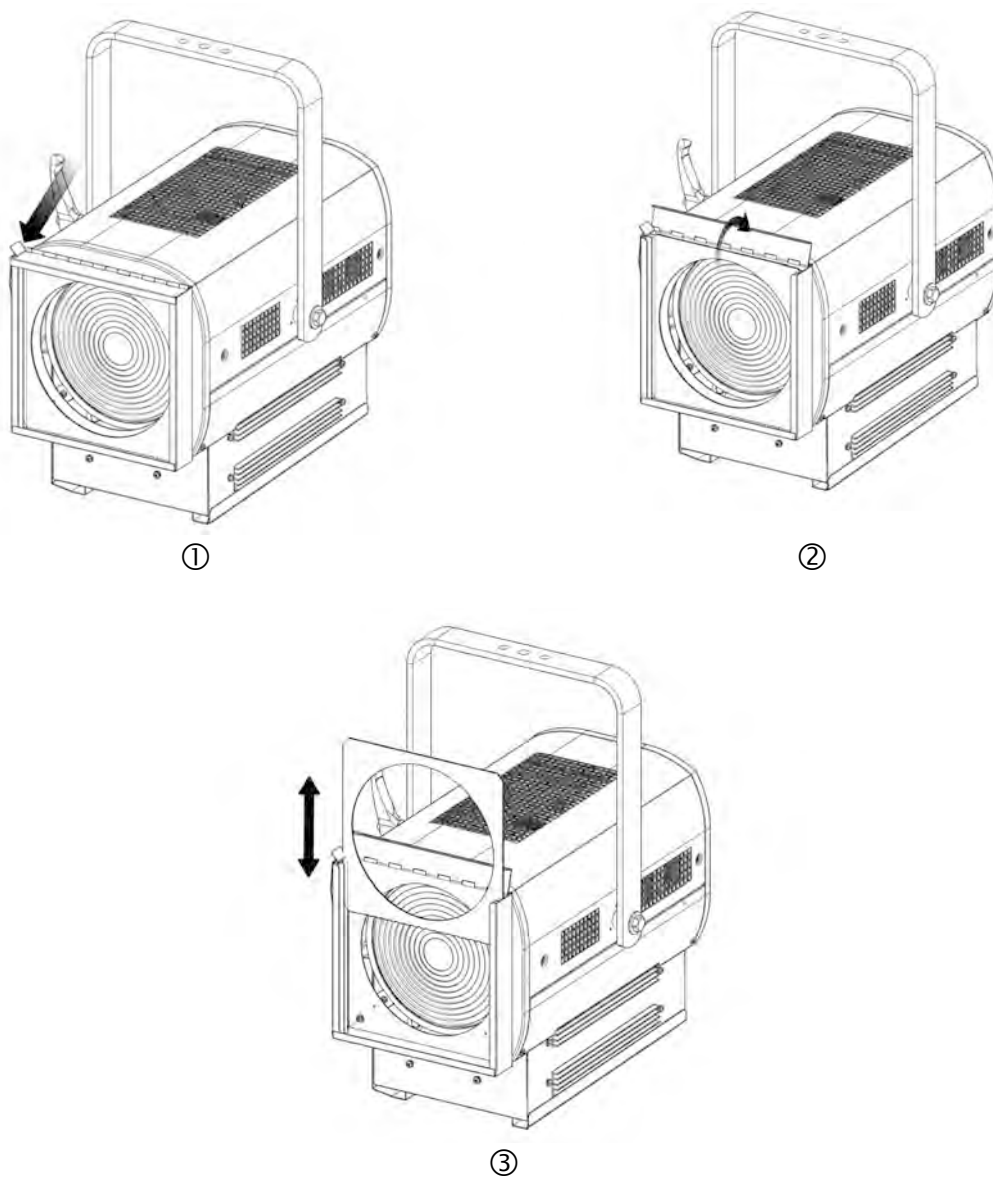
DMX mode:

The first unit receives the DMX signal via the wireless network, then all the other units are connected to the first one via DMX data cable

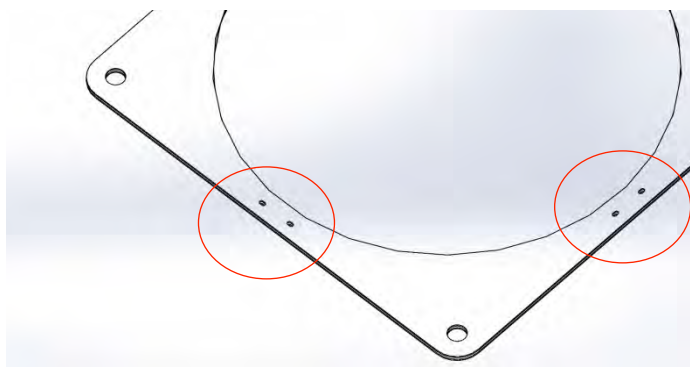


3.3 Accessories

3.3.1 Gel frame

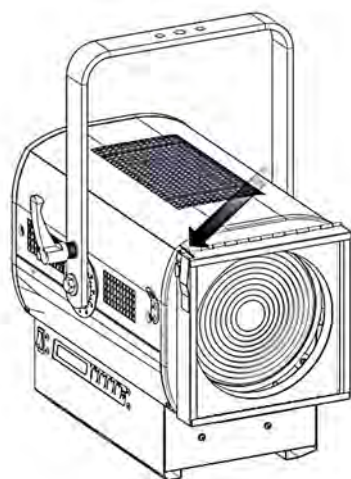


The filter holder includes perforations designed for stapling to keep the gel in position.

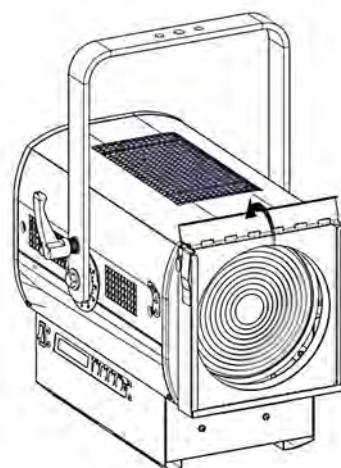


3.3.2 Barndoors

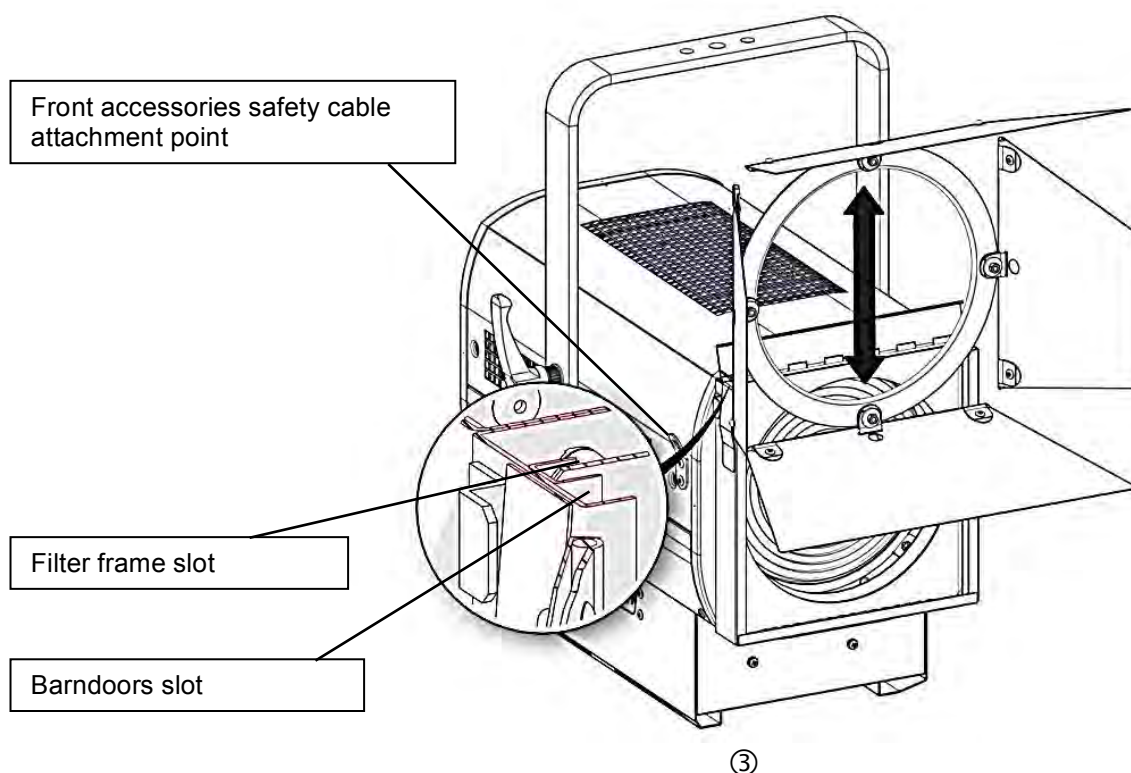
- Movable accessories (barndoors, scroller, etc.) must also be secured with a suitable safety cable or bond at the front of the fixture.



①



②



③

4 Operation



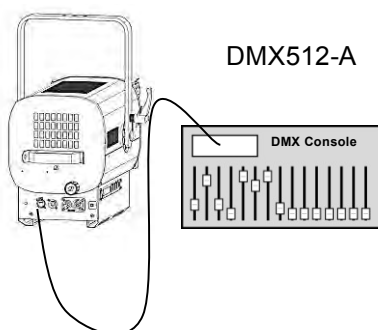
4.1 Light intensity

4.1.1 Range

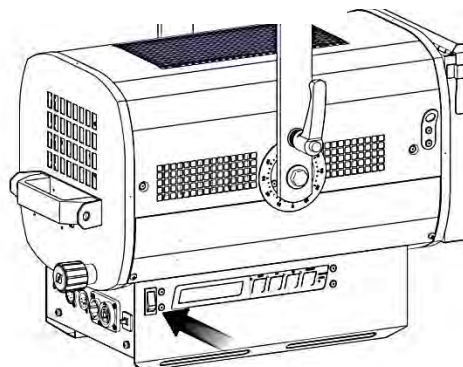


4.1.2 Control

Remotely with DMX512-A protocol



Locally



HTP mode (Highest Takes Precedence):

Light output is the highest value of DMX512 command or local control

Focus mode : when standby screen displayed,

Push *Exit* → Light output = 100% for 1 minute

2x times *Exit* → Light output = 0%

4.1.3 Parameters

- Resolution:

Mode	Resolution
8 bits	255 steps – 1 DMX channel
16 bits	65 535 steps – 2 DMX channels
16 bits + Strobe	65 535 steps – 3 DMX channels

- Smoothing

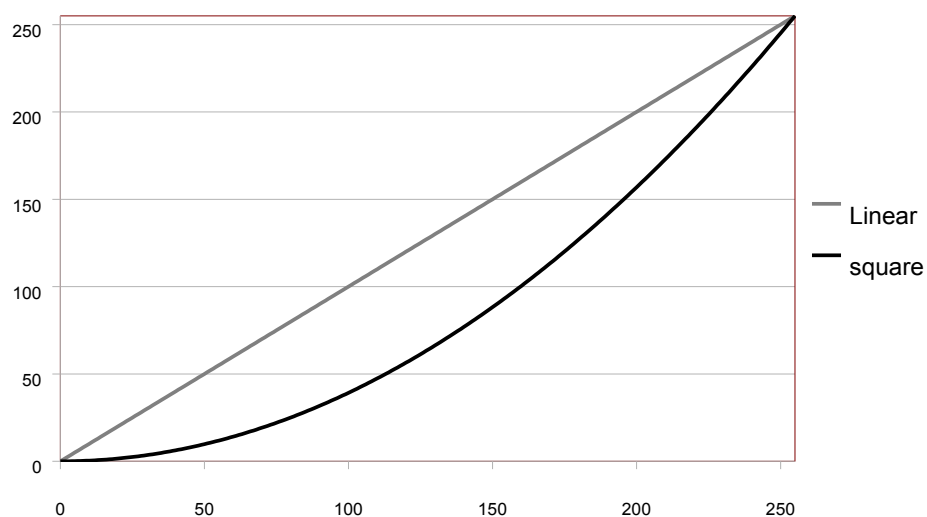
Mode	Smoothing
Slow	Slow transition between 2 levels – equivalent to 1000W filament
Fast	Fast transition between 2 levels – equivalent to 600W filament
Without	Deactivated – Very fast transitions

- Master mode (MASTER CONTROL):

DMX		Local	Light output
8/16bits	Master		
0 → 100%	100%	0%	0 → 100%
0 → 100%	50%	0%	0 → 50%
0%	100%	0 → 100%	0 → 100%
0%	50%	0 → 100%	0 → 50%
50%	100%	0 → 100%	50 → 100%
30%	80%	0 → 100%	30 → 80%

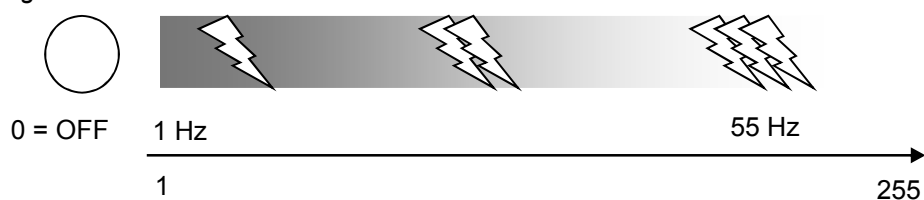
→ Mode required when simultaneous remote and local control are necessary
(example : followspot)

- Curve¹: Linear / square

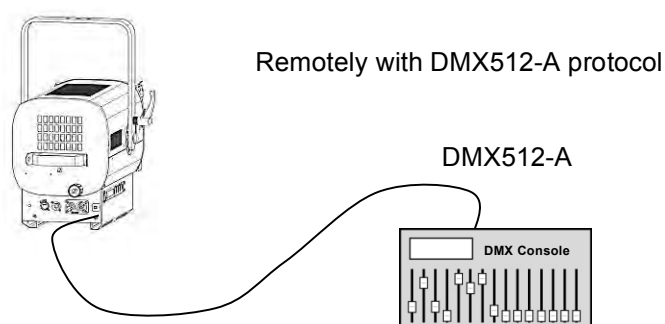


4.2 Strobe

4.2.1 Range

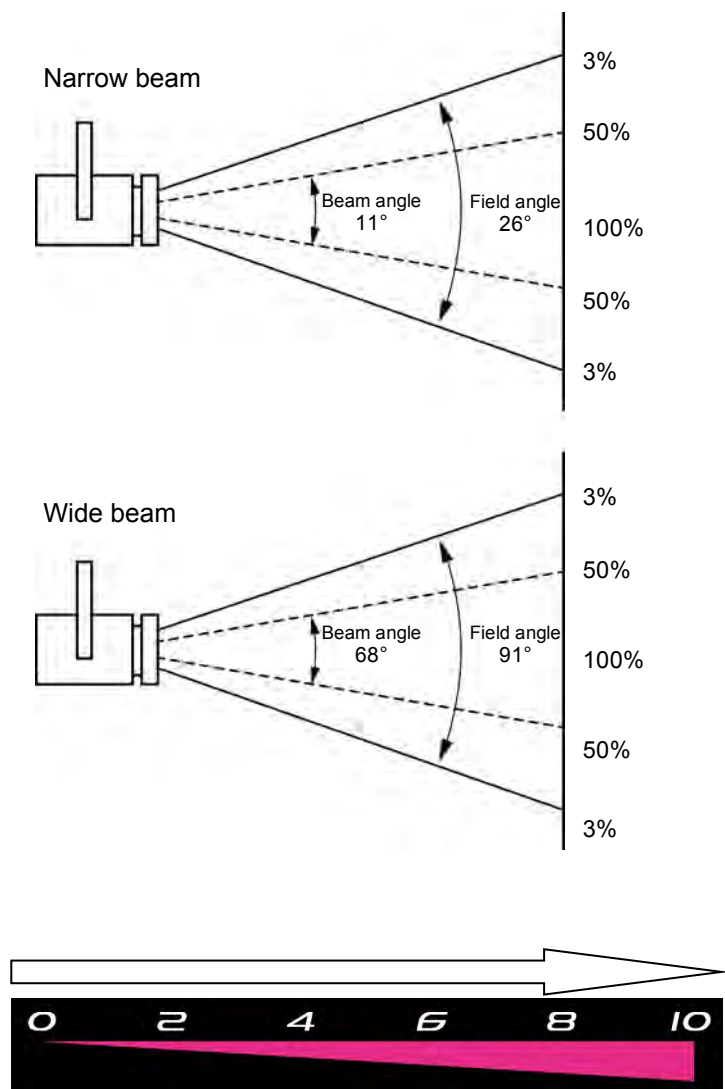


4.2.2 Control

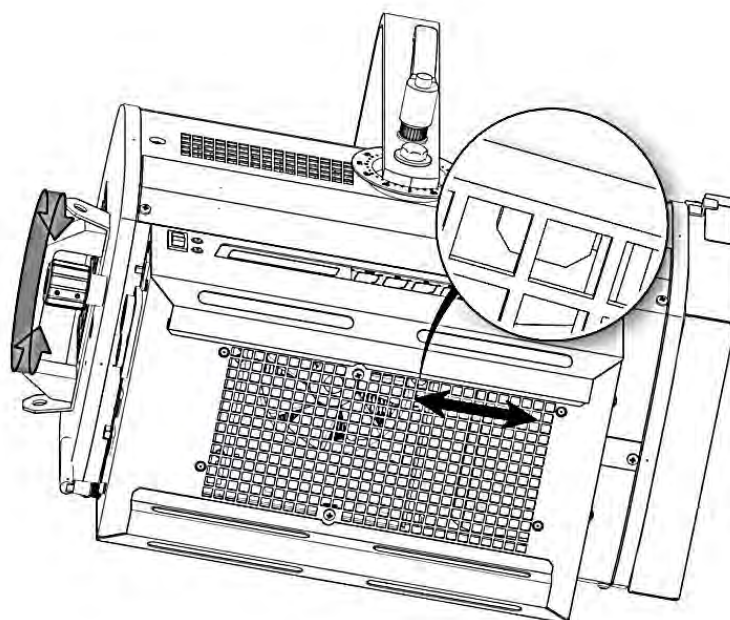


4.3 Beam size adjustment

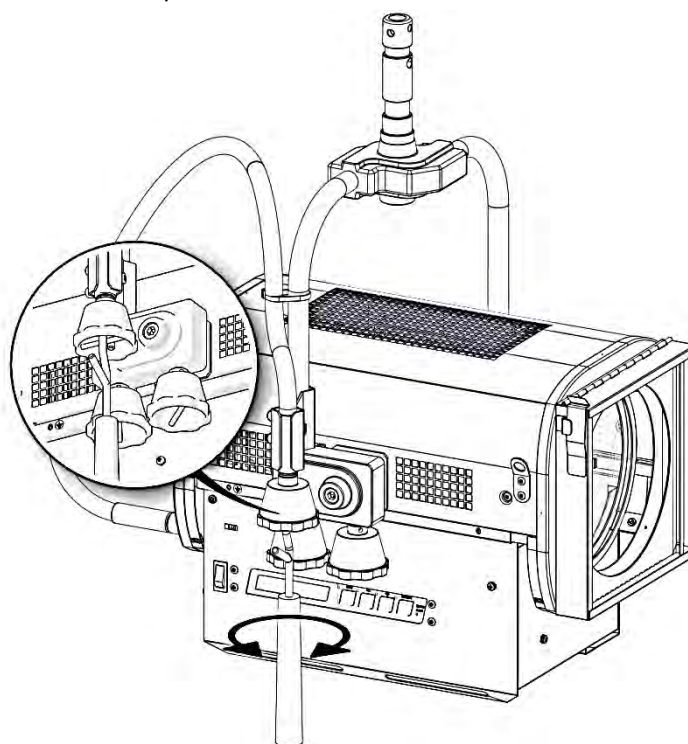
4.3.1 Range



4.3.2 Control – Manually operated



4.3.3 Control – Pole operated



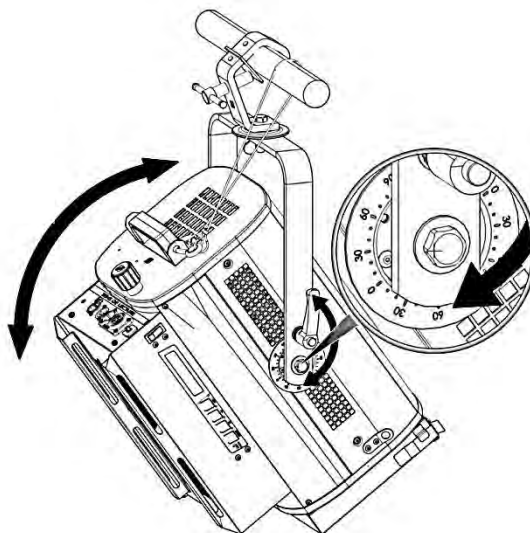
Colour	Function
Yellow	Focus

4.4 Orientation

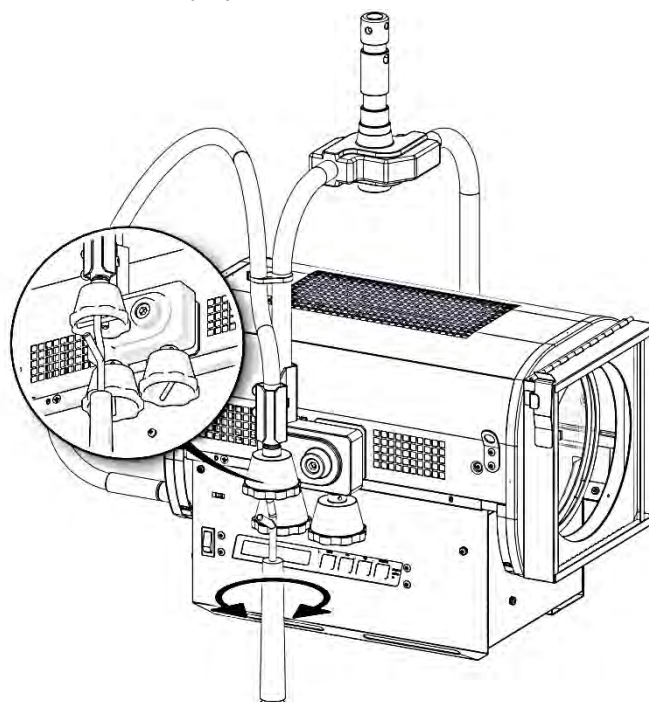
4.4.1 Range

Function	Range	
	Manual	Pole operated
PAN	0 → 360°	0 → 360°
TILT	0 → 360°	0 → 45°

4.4.2 Control – Manually operated



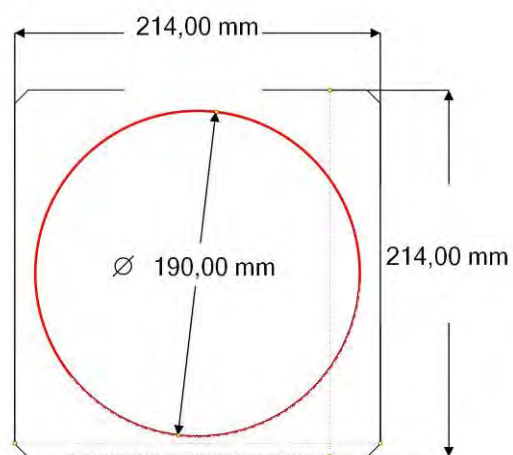
4.4.3 Control – Manually operated



Colour	Function
White	TILT
Blue	PAN

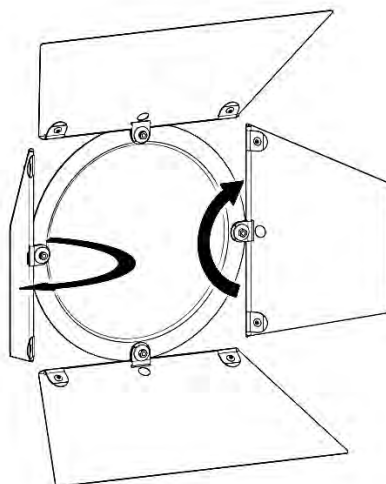
4.5 Colour

- One fixed colour
- Any standard colour / effect filter gel
- See 3.3.1 for installation
- Size:



4.6 Beam shaping with barndoors option

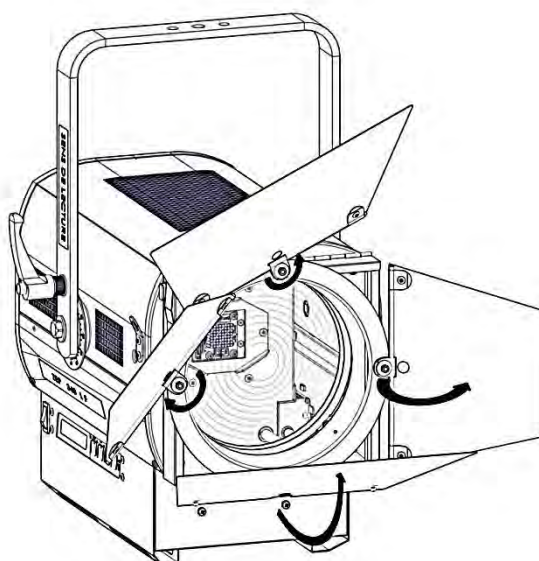
4.6.1 Range



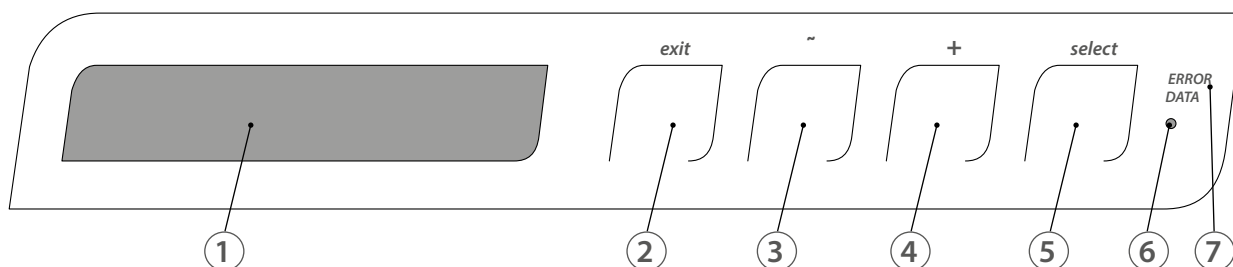
Examples:

Open	Triangle	Square	Line

4.6.2 Control



4.7.1 Display and Controls



Function	
1	Display
2	Exit the current menu option and/or go back
3	Scrolls through menus and/or Decrease blinking data value
4	Scrolls through menus and/or Increase blinking data value
5	Enter the current menu option and/or valid
6	Hard CPU reset
7	DMX and system LED feedback

4.7.2 Menus and parameters

Please scan this QR-Code for the software menu or go to :
www.robertjuliat.com/productSearch.html to find the latest version.



4.7.3 DMX chart

Mode	Theatre	Studio	Followspot	Direct DMX (variable white)
DMX ch.				
1	Dimmer (8 bit)	Dimmer Coarse (8 bit)	Dimmer Coarse (8 bit)	WW Coarse (8 bit)
2		Dimmer Fine (16 bit)	Dimmer Fine (16 bit)	WW Fine (16 bit)
3		CCT 0 → 255 : WW → CW	CCT 0 → 255 : WW → CW	CW Coarse (8 bit)
4		Strobe 0 : OFF ; 1 → 255 : SLOW → FAST	Strobe 0 : OFF ; 1 → 255 : SLOW → FAST	CW Fine (16 bit)
5			Master 0 → 255 : 0 → 100% (FULL)	Strobe 0 : OFF ; 1 → 255 : SLOW → FAST

4.7.4 Reset

- Reset to default settings:
Menu: *Fixture Reset* → press *Select* → *Yes* → press *Select* to validate

4.7.5 Feedback information

- DMX and system LED feedback ⓘ :
 - Green= DMX512 frame detected
 - Red = Problem on DMX512 frame and/or system default – details available in the fixture status
- If DMX512 data lost, the following message is displayed :
“Push select to reset DMX values”
 The last received DMX values are stored but it is possible to inactivate the current values by pressing the Select key (as well as the Master function) in order to get a total control of the fixture locally. When a DMX signal is detected, the DMX control is active again.
- ¥ signal indicates a wireless DMX

Signal	Information
Switched off – no symbol	The fixture is not paired with a transmitter
Slow intermittent display	The fixture is paired with a transmitter but the DMX signal is not detected
Continuous display	The fixture is paired with a transmitter and the DMX signal is detected
Rapid intermittent display	Lost connection with the transmitter or in connection with the transmitter

5 Service

5.1 Preventive maintenance

5.1.1 Frequency

General maintenance should be performed at least once a year or more frequently if the equipment is operated in adverse conditions (smoke, heat, humidity, touring, etc.).

5.1.2 General cleaning

Remove dust from the unit (air vents, printed circuit boards, etc.).



During cleaning:

- LED is protected by a safety glass to avoid any contact. DO NOT spray directly onto the glass.
- Fan blades must be locked.

5.1.3 General visual check

- No trace of heat.
- No loose contacts.
- No missing parts.
- Tighten mechanical assemblies (screws, bolts and nuts, ground connections, etc.).

5.1.4 LED source



- Do not touch the surface of the LED source (no contact with your hands or any tools).
- Do not put compressed air directly on the source.
- Contact a certified RJ distributor in case of residuals or other objects located on the surface of the LED source.

5.1.5 Optics

The cleaning of optical parts (lenses) shall be carried out with solutions containing alcohol.

5.2 Analysis

If there is still a problem after the troubleshooting procedures (see section 6), contact RJ distributor with the following information:

- Model, version and serial number of the product.
- Software version (available in menu *Fixture Status* → *Version*)
- Description of the problem.

5.3 LED reaction according to LED temperature

LED temperature	Fan
5°C → 65°C	Fan rotation at minimum level
65°C → 75°C	Fan rotation increases progressively
75°C → 90°C	Fan at maximum speed LED intensity dims to zero output (overheating protection) DMX and system LED feedback (7) is red

5.4 Thermal protection

In case of thermal protection start :

- Remove the LED compartment (See 5.1.4 *Dismantling the LED compartment*).
- Control possible overheating indications.
- Reassemble the LED compartment.
- Reset the thermal protection by pressing the button.

5.5 Adjusting the maximum light output level

The maximum intensity level of the LED source can be adjusted through the fixture setup in order to have a consistent fixture fleet. The dimming level is then recalculated depending on the limitation.

5.6 Exploded view / Spare parts list

➔ Available on www.robertjuliat.com

6 Troubleshooting

SYMPTOMS		POSSIBLE REASONS	SOLUTIONS	
Display OFF	Display switches on when button is pressed	Display auto off mode activated	Check the AUTO-OFF display in the fixture setup	
	Display still off when button is pressed	No power	Check : • power supply • thermal protection • the power supply connector must be properly interlocked	
System and data display ⑦ switched on in red		Problem with the DMX512 received signal and/or system default	Failure details are available in the fixture setup	
The unit cannot be controlled via DMX (inactivated wireless DMX)	Data display ⑦ switched on in red	DMX protocol problem	Check data signal	The received data protocol can be checked in the DMX setup
		Data cabling problem	Check cabling and data connectors	
	Data display ⑦ switched on in green	DMX address	Check the DMX address	
		The strobe is active and the channel value is void		The value must be at 0 in order to have the light intensity dimmed
When using several units, dimming is not synchronized		Different <i>Resolution</i>	All the units must have the same mode	
		Different <i>Smoothing</i>		
		Different <i>Dimming curve</i>		
Light switches on when powered on		Manual value is operating when DMX is not connected	<i>Local values</i> must be at zero	
Light switches on when using the control board		Use of the Focus mode	See 4.1.2	
Strobe function doesn't work		Strobe function inactive	Check that the selected mode allows the strobe function	
		Strobe function active	Control channel must be higher than 0	