ZEP 360
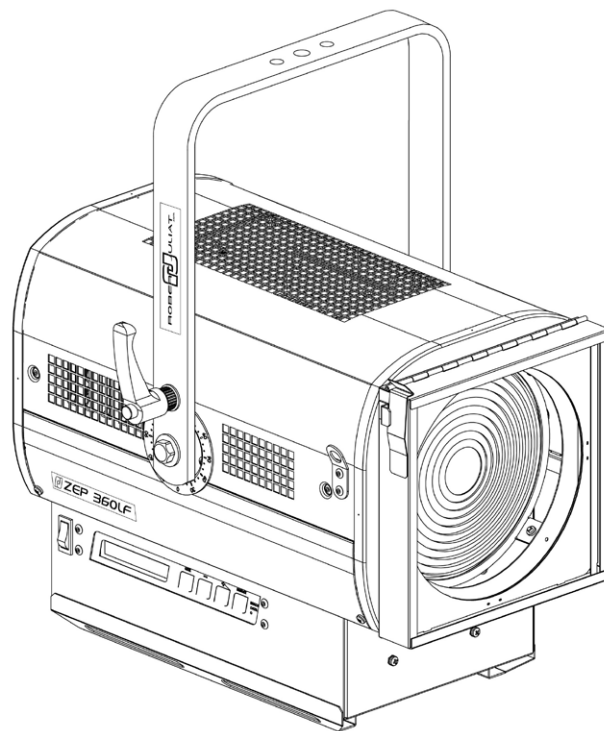
SINGLE LENS LUMINAIRES / PROJECTEURS DE THÉâTRES

360LF & 360CLF

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

MANUAL / POLE OPERATED
COMMANDES MANUELLES / COMMANDES A PERCHE

ROBERT JULIAT

360LF
Version V1

VALIDATION: 18/05/17

DN41085500-A

The EN badge is in the top right corner.

Summary :

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.
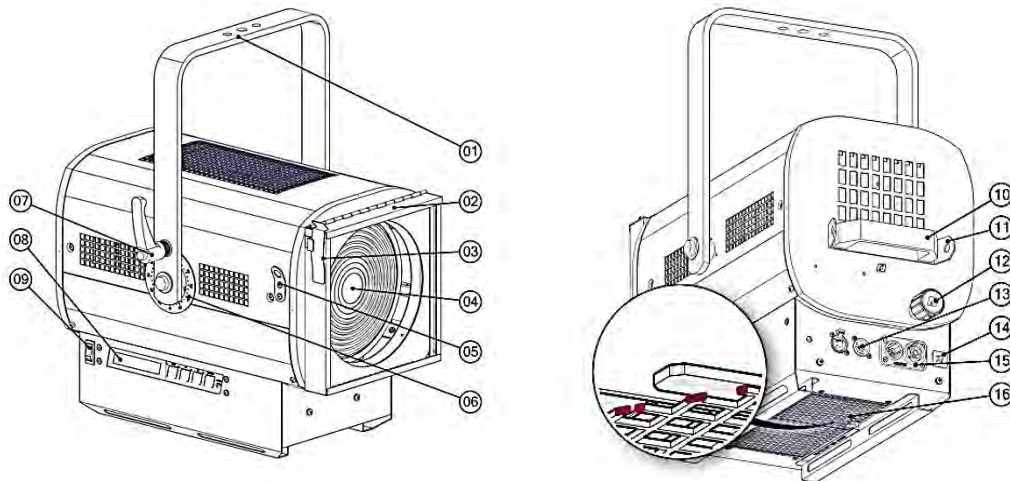
POWER SUPPLY

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.
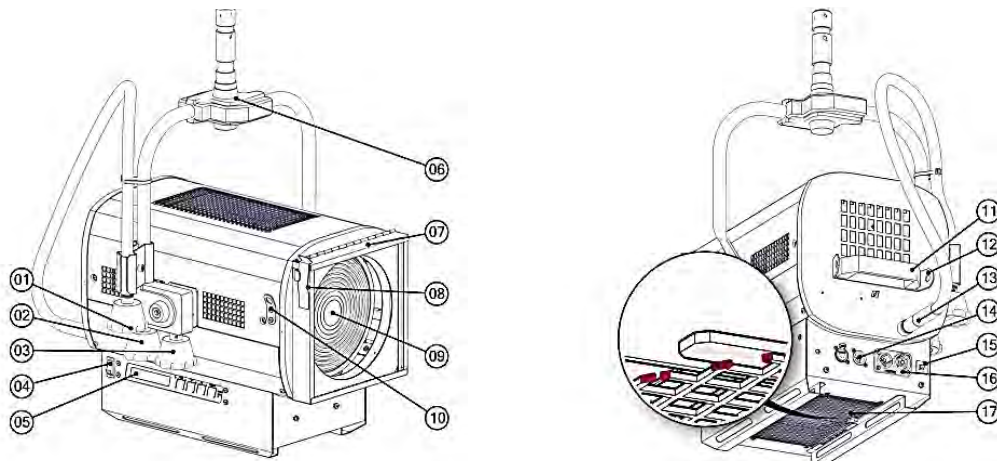
2   Presentation

2.1   360LF – Manually operated

Functions :	
1. Hanging yoke	10. Handle
2. Accessories and colour filter runners	11. Safety cable attachment point
3. Accessories and colour filter runners locking system	12. Focus adjustment
	13. Data connectors (IN and OUT)
4. Fresnel lens	14. Thermal Protection
5. Front accessories safety cable attachment point	15. Power connectors (IN and OUT)
6. Tilt index	16. Front focus internal index
7. Tilt locking handle	
8. Control board and display	
9. ON/OFF Switch	

2.2   360LF – Pole operated

Functions :	
1. Focus adjustment	11. Handle
2. PAN adjustment	12. Safety cable attachment point
3. TILT adjustment	13. Focus adjustment
4. ON/OFF switch	14. Data connectors (IN and OUT)
5. Control board	15. Thermal Protection
6. Hanging yoke	16. Power connectors (IN and OUT)
7. Accessories and colour filter runners	17. Front focus internal index
8. Accessories and colour filter runners locking system	
9. Fresnel lens	
10. Front accessories safety cable attachment point	

2.3 Identification plate

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 ambiant 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
    NDW = Neutral Daylight White
    VW = Variable 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
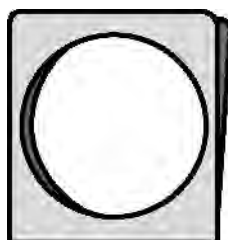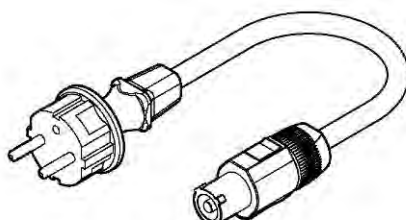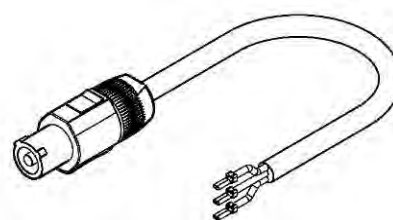
① ② ③

	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
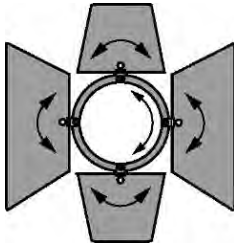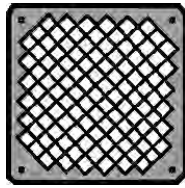
①   ②   ③

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

0.35 m
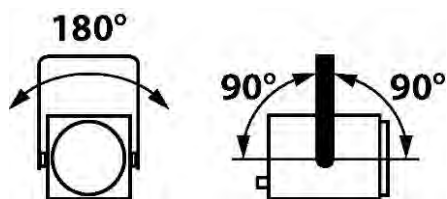
3.1.3   Operating conditions

Minimum :	Maximum :
5°C	40°C
41°F	104°F
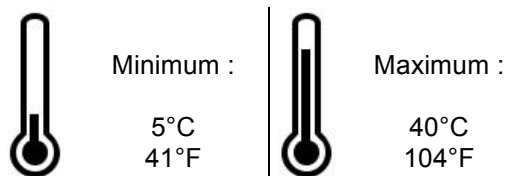
Indice de Protection international:
IP20 – Utilisation intérieure uniquement

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: 15.2 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.
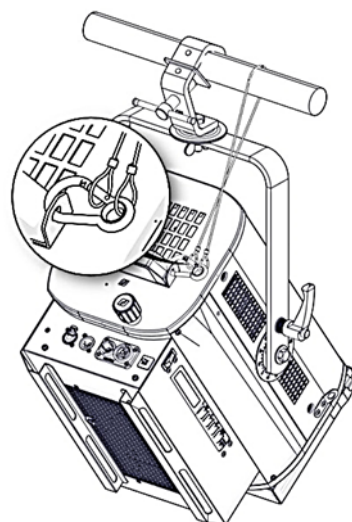- Safety cables or bonds must be securely attached to the back of the fixture and be as short as possible, or rolled up as necessary, to minimise travel distance should the fixture be dislodged.

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	1,4 A / 300 W @ 230V 2,5 A / 300 W @ 120V 3 A / 300 W @ 100V	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: 10 units (230V) / 5 units (110V)**

Daisy chain:

Maximum:
10 units (230V)
5 units (110V)
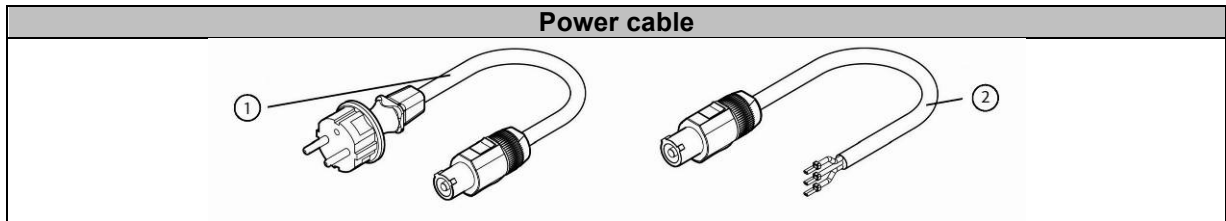
Power cable

	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

Power up
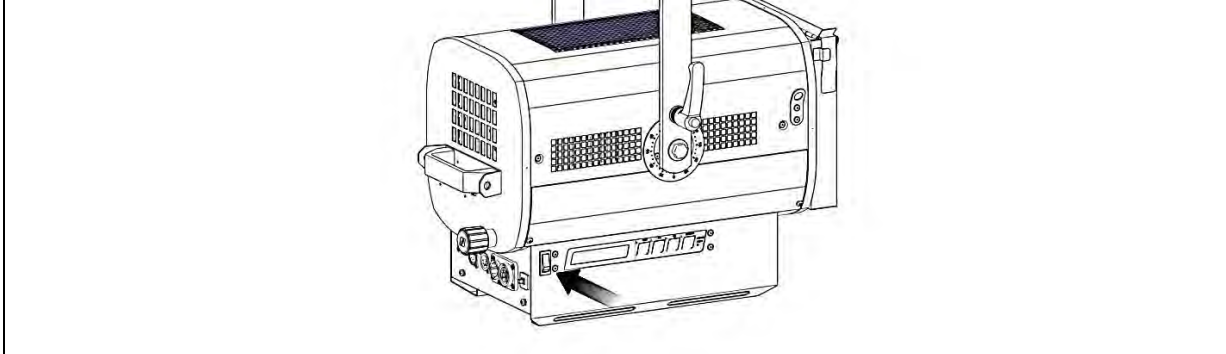
3.2.3 DATA

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 (-)	1st conductor of 1st twisted pair	
3	DMX (+)	2nd conductor of 1st twisted pair	
4	Not used	1st conductor of 2nd twisted pair	
5	Not used	2nd conductor of 2nd twisted pair	
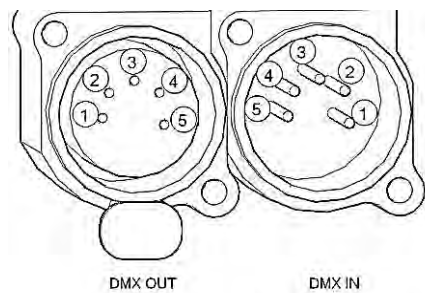
Integrated terminal plug:
If no XLR connector is detected on DMX OUT connector, a 120Ω terminal plug is automatically activated. Additional terminal plug on the last unit is not necessary.
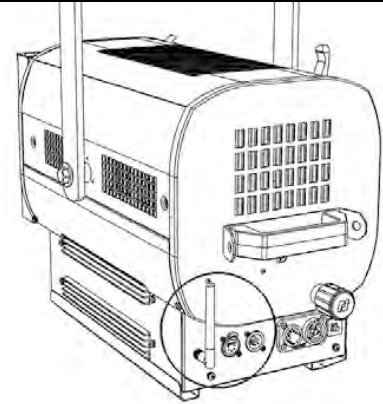
Wireless DMX option

- Protocol: Wireless Solution W-DMX^{TM}
- 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 o the first one via DMX data cable

Maximum:
32 units
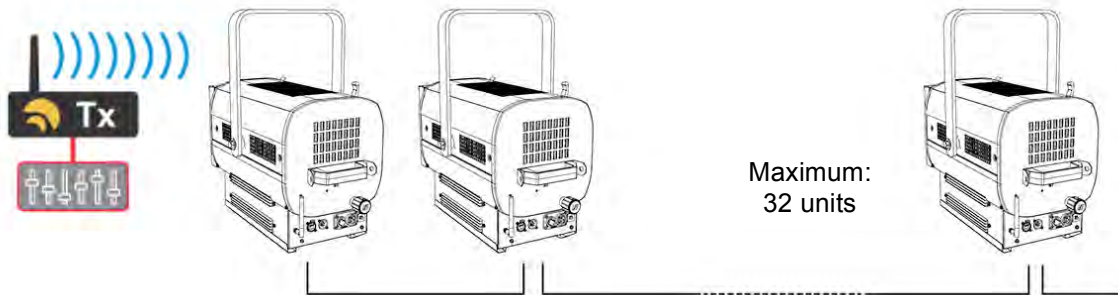
3.3   Accessories

3.3.1   Gel frame

① ②

③
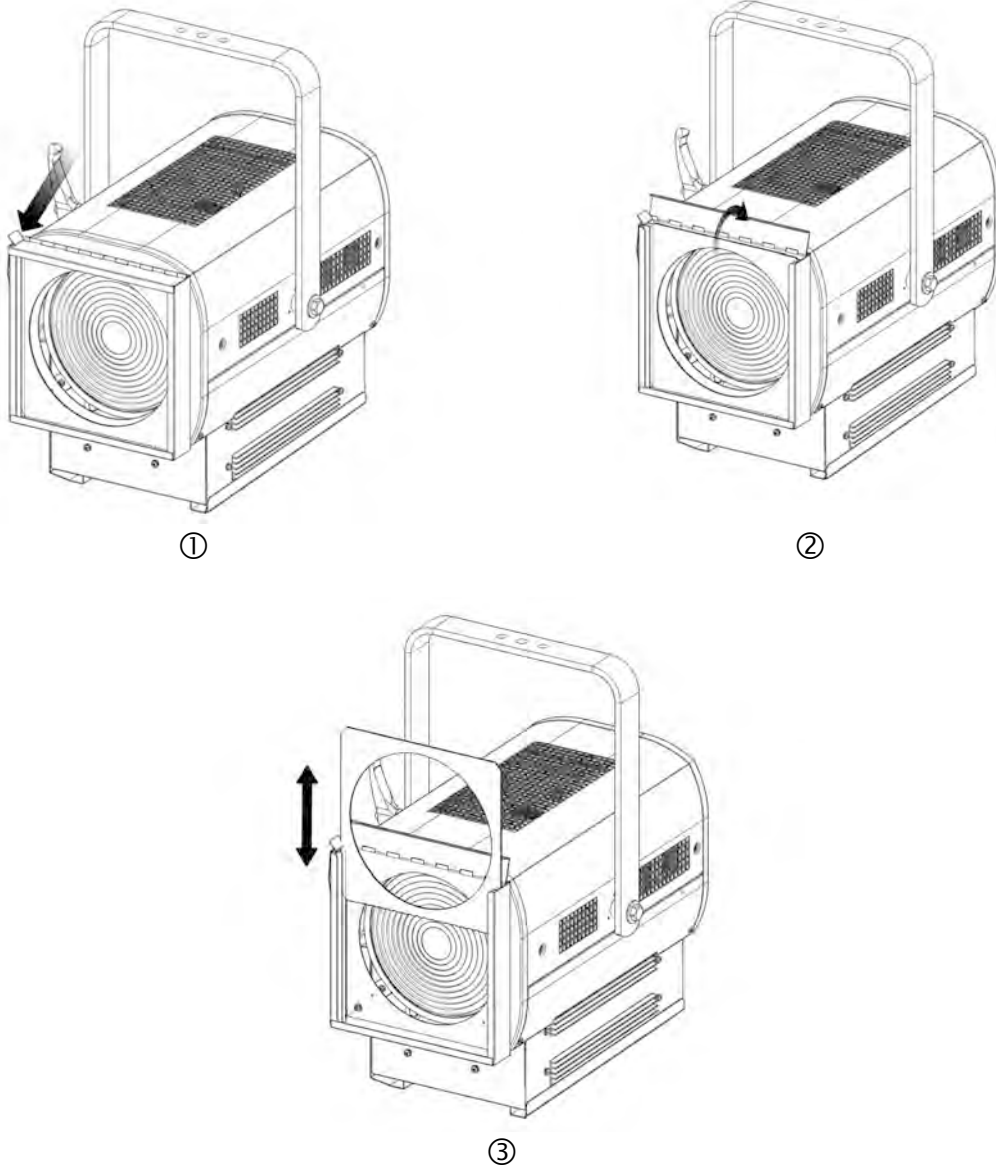
The filter holder includes perforations designed for stapling to keep the gel in position.

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

Front accessories safety cable attachment point

Filter frame slot

Barndoors slot

③

4 Operation

4.1 Light intensity

4.1.1 Range

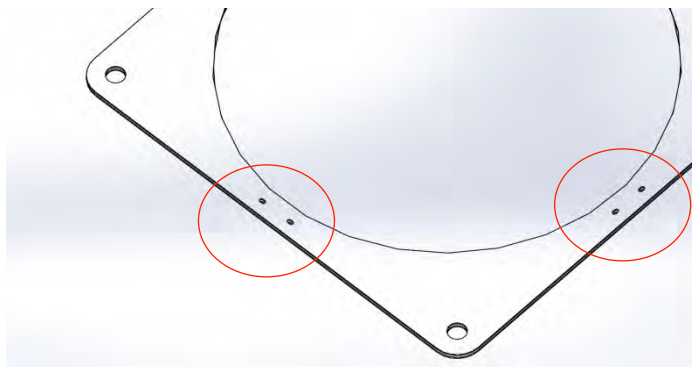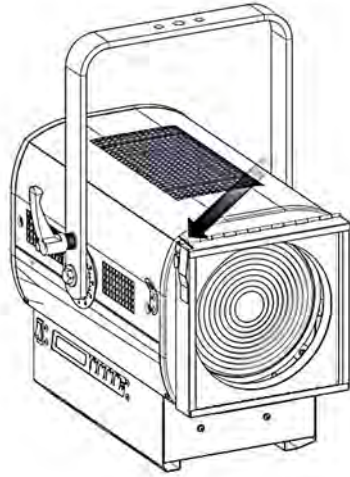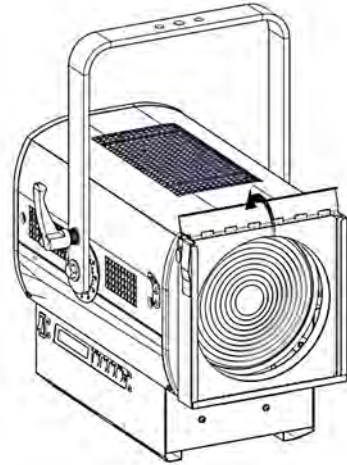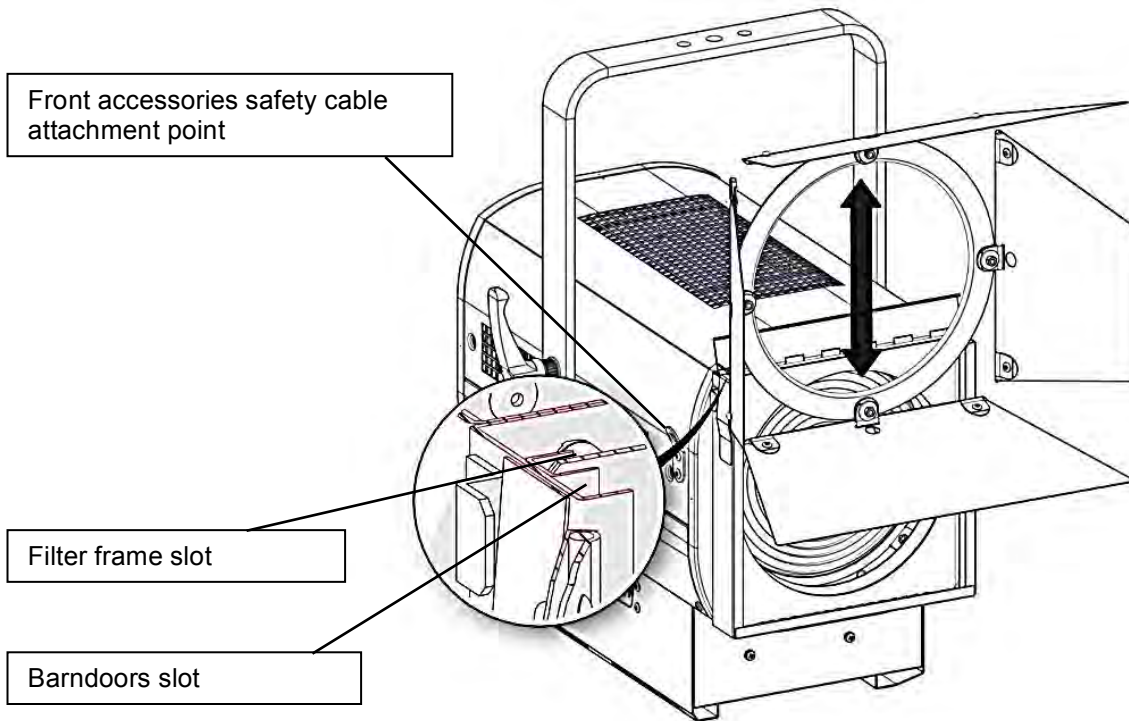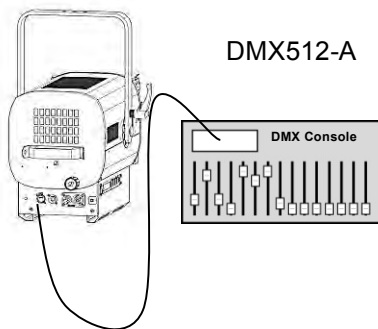0 %   100 %

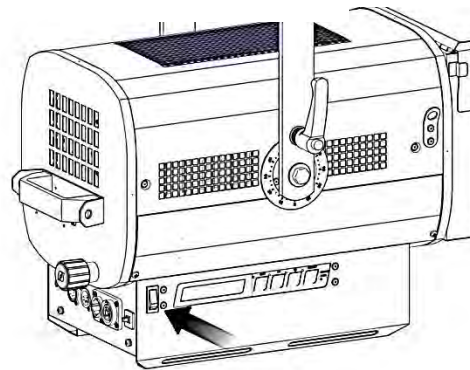### 4.1.2 Control

Remotely with DMX512-A protocol   Locally

DMX512-A

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)

• Curve[1]: Linear / square

4.2 Strobe

4.2.1 Range

0 = OFF   1 Hz   55 Hz

1   255

4.2.2 Control

Remotely with DMX512-A protocol

DMX512-A

DMX Console
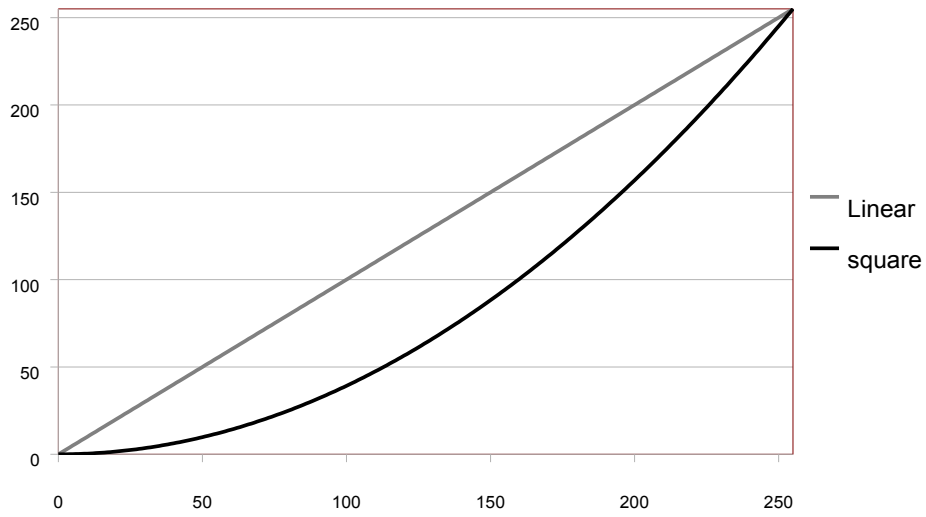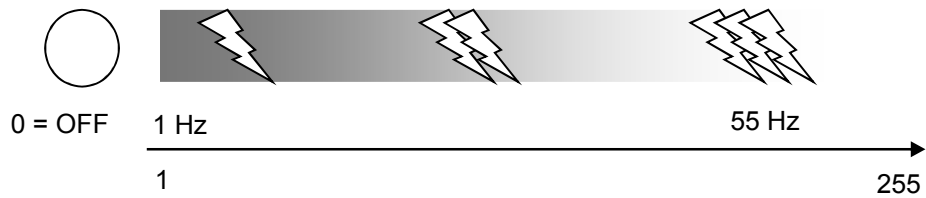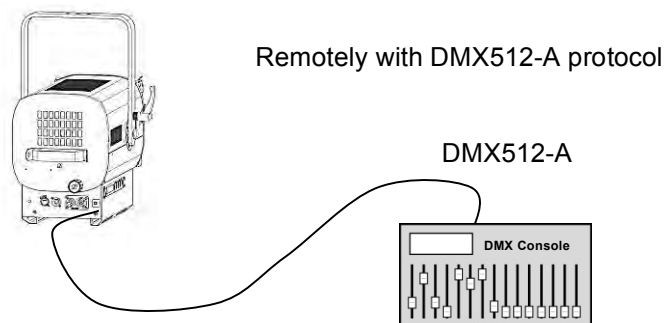
4.3   Beam size adjustment

4.3.1   Range

Beam angle 12°   Field angle 27°

3%
50%
100%
50%
3%

Beam angle 64°   Field angle 93°

3%
50%
100%
50%
3%

0   2   4   6   8   10
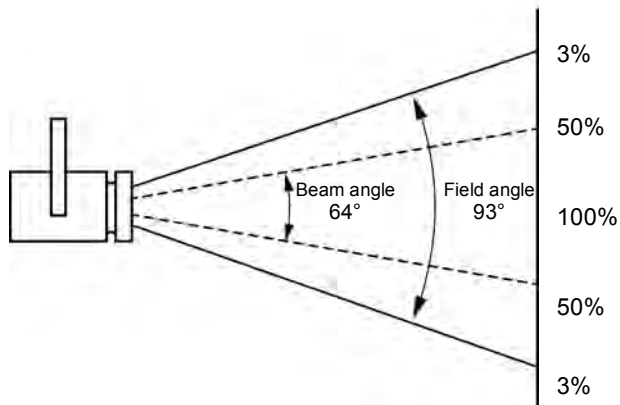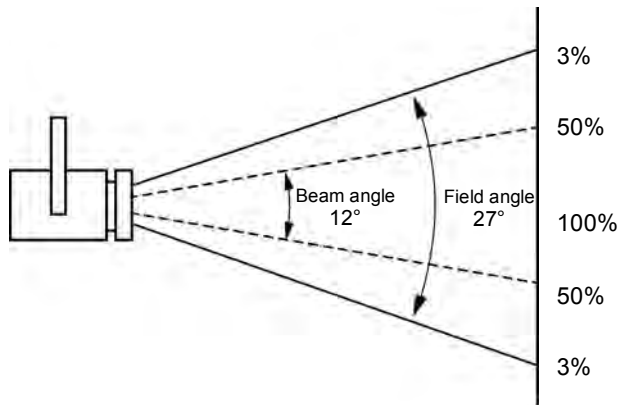
4.3.2 Control – Manually operated
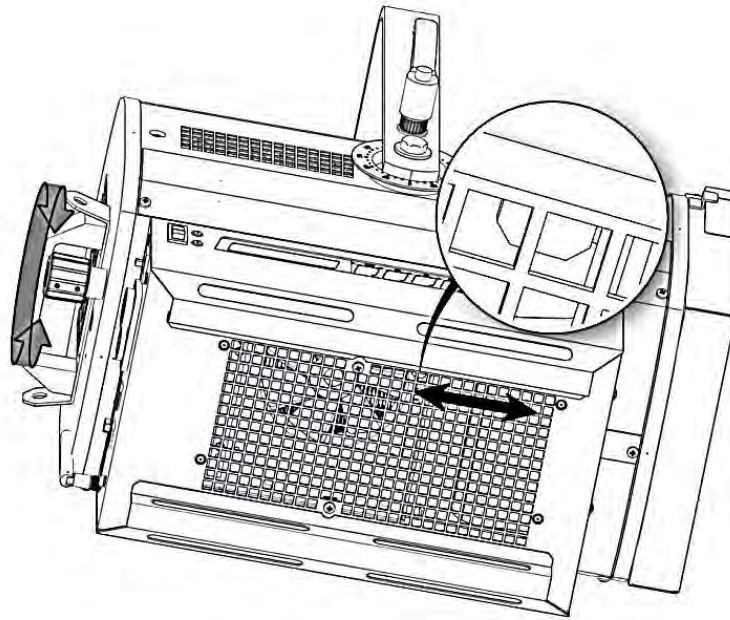
4.3.3 Control – Pole operated
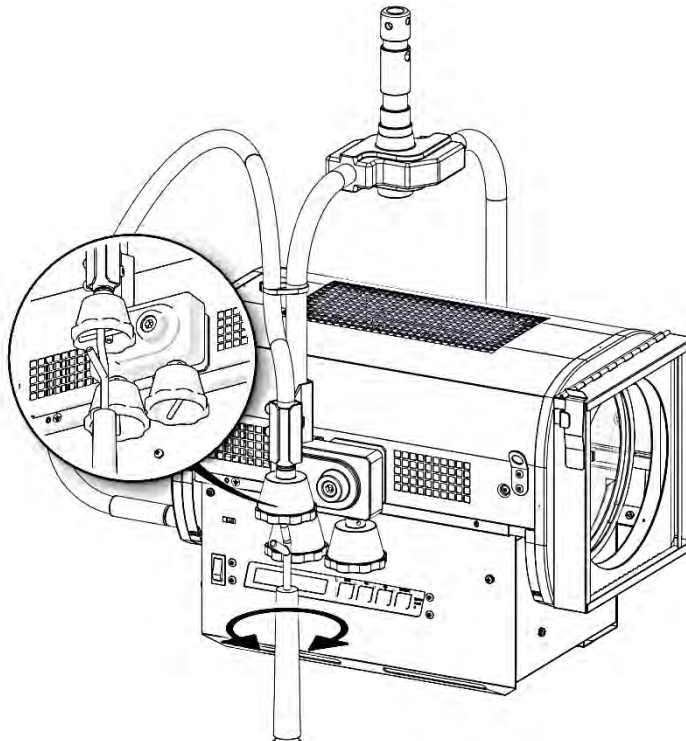
Colour	Function
Yellow	Focus

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
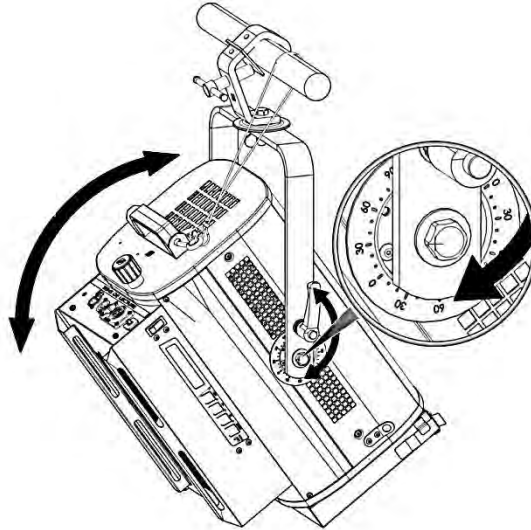
4.4.3 Control – Manually operated
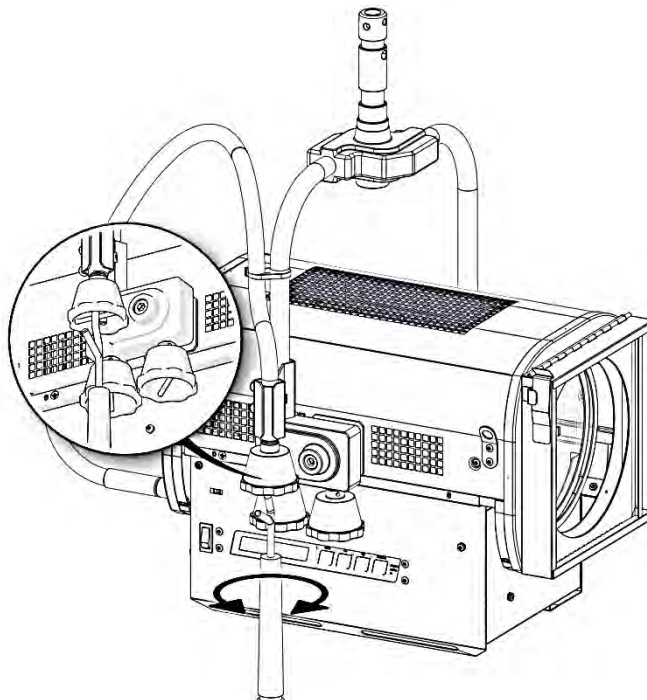
Colour	Function
White	TILT
Blue	PAN

4.5   Colour

- One fixed colour
- Any standard colour / effect filter gel
- See 3.3.1 for installation
- Size:
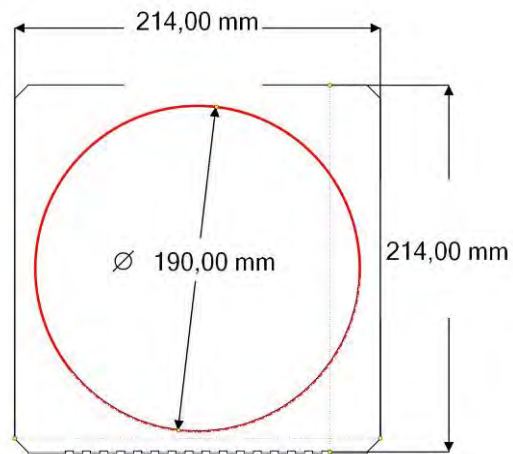
4.6 Beam shaping with barndoors option

4.6.1 Range
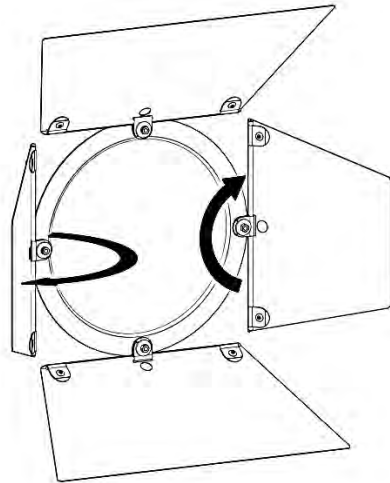
Examples:

| Open | Triangle | Square | Line |

4.6.2 Control
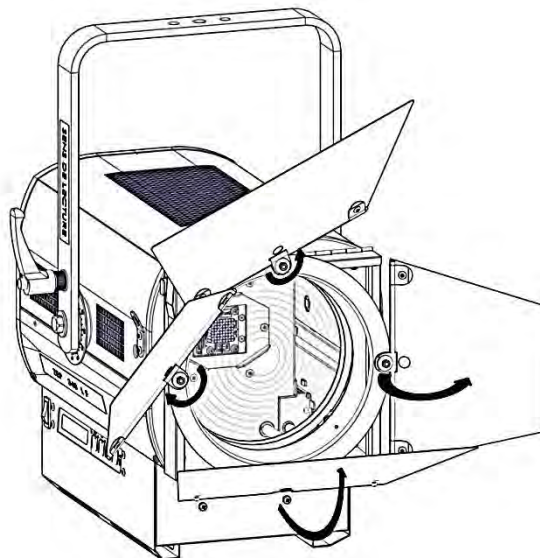
4.7 Control

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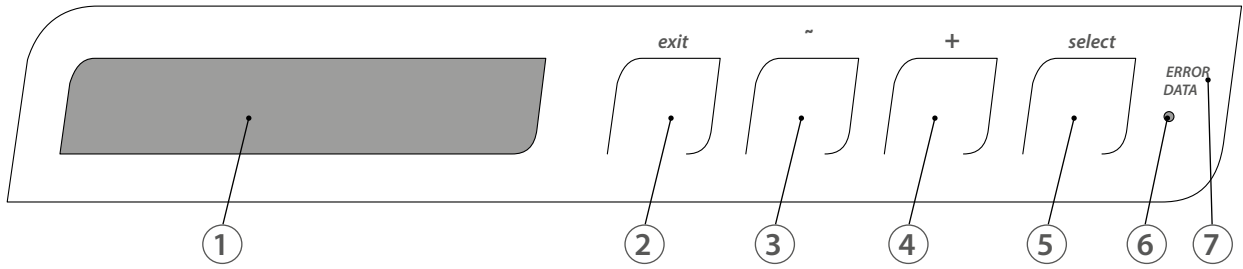
Function	
1	Display
2	Exit the current menu option and/or go back
3	Scrolls through menus and/or Decrease blinking data value
4	Scrolls through menus and/or Increase blinking data value
5	Enter the current menu option and/or valid
6	Hard CPU reset
7	DMX and system LED feedback

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 ⑦ :
    - ➢ 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 *Resolution*	All the units must have the same mode	
		Different *Smoothing*		
		Different *Dimming curve*		
Light switches on when powered on		Manual value is operating when DMX is not connected	*Local values* 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	