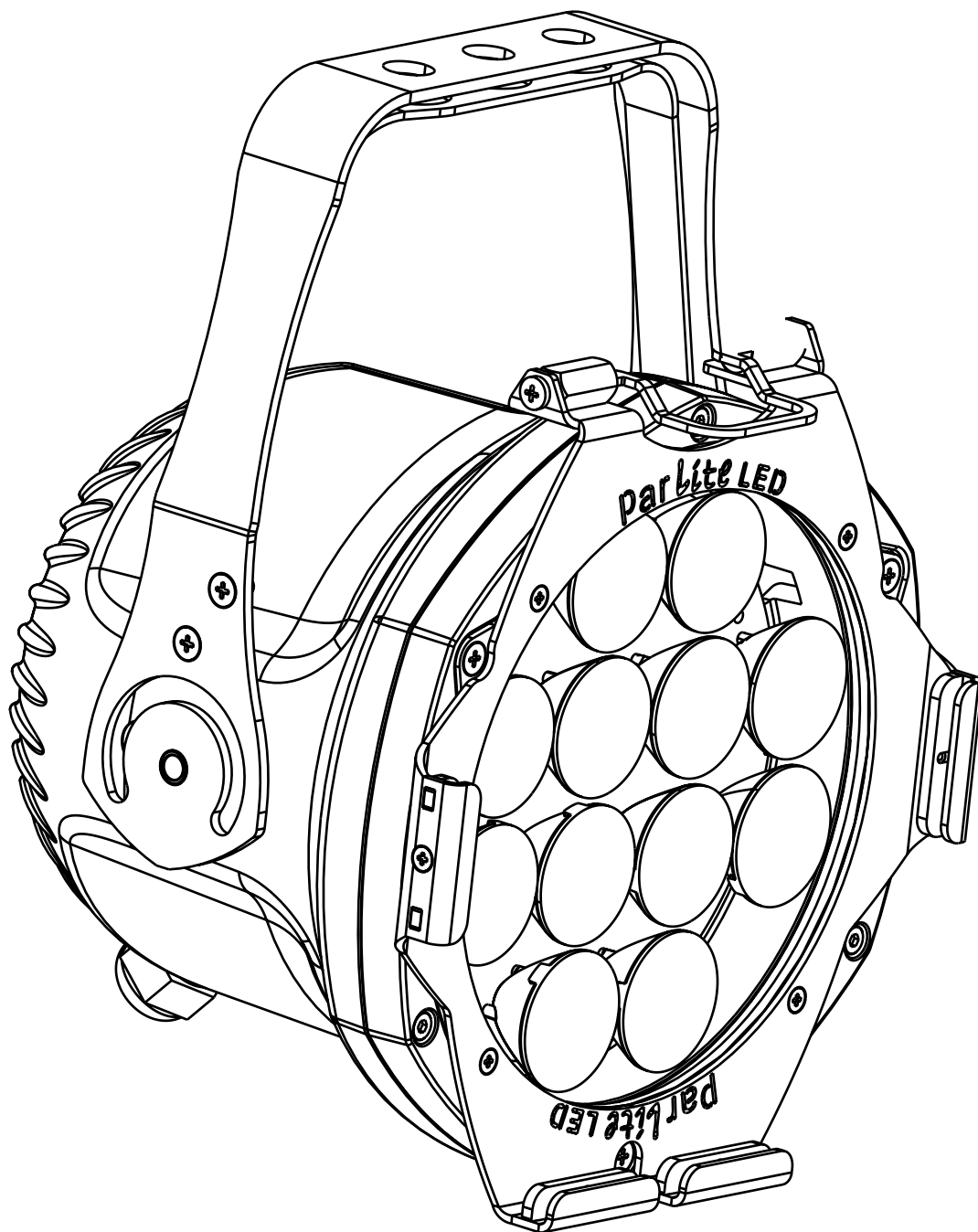


Par Lite ACL



USER MANUAL
vrs. 2.0 - 31.05.2023



 **coemar**

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Congratulations on having purchased a **Coemar** product. You have assured yourself of a fixture of the highest quality, both in componentry and in the technology used. We renew our invitation to you to complete the service information on the previous page, to expedite any request for service information or spares (in case of problems encountered either during, or subsequent to, installation). This information will assist in providing prompt and accurate advice from your **Coemar** service centre. Following the instructions and procedures outlined in this manual will ensure the maximum efficiency of this product for years to come.

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1. Packaging and transportation

1.1 Packaging

Open the packaging and make sure that no part of the equipment has suffered any damage during the transportation. In case of damage to the fixture, contact your carrier and your supplier immediately by telephone, fax or email, and inform them you will formally notify them in writing through registered letter.

Packing list

Ensure the packaging contains:

1 Par^{Lite} ACL

1 Instruction manual

1.2 Transportation

The **Par^{Lite} ACL** should be transported in either its original packaging or in an appropriate flight case.

2. General information

2.1 Safety informations

Fire prevention:



1. Never locate the fixture on any flammable surface.
2. Minimum distance from flammable materials: 0,5m.
3. Minimum distance from the closet illuminable surface: 0,5m.
4. Replace any blown or damaged fuse only with those of identical values. Refer to the schematic diagram if there is any doubt.
5. Connect the projector to mains power protected by a thermal magnetic circuit breaker.

Prevention from electric shock:



1. Presence of high voltage inside of the fixture. Insulate the projector from mains supply before opening or performing any function which involves touching the inside of the fixture, including lamp replacement.
2. For the connection to the mains, adhere strictly to the guidelines outlined in this manual.

3. The level of technology of **Par^{Lite} ACL** requires the use of specialised personnel for all service applications; refer all work to your authorised **Coemar** service centre.
4. A good earth connection is essential for the proper functioning of the projector. Never connect the fixture if there is no earth connection.
5. Mains cables must not come into contact with other cables.
6. Do not operate the projector with wet hands or in an area where water is present.
7. The fixture must never be located in an exposed position, or in areas of extreme humidity.

Safety:



1. The projector must always be installed with bolts, clamps, or other fixing devices which are suitably rated to support the weight of the projector.
2. Always use a secondary safety fixing device with chain or steel wire of a suitable rating to sustain the weight of the unit in case of failure of the principal fixing point.
3. The external surfaces of the unit, at various points, may reach 60°C. Never handle the unit until at least 10 minutes have elapsed since the LED was turned off.
4. Never install the fixture in an enclosed area lacking sufficient air flow; the room temperature must not exceed 40°C.
5. The projector contains electronic and electrical components which must under no circumstances be in contact with water, oil or any other liquid. Failure to do so will compromise the proper functioning of the projector.

2.2 Warranty conditions

1. The fixture is under warranty for 24 months from the purchase date against factory defections.
2. Damage ought to unskillfulness, inappropriate use, or lack of suggested maintenance are excluded from the warranty.
3. Warranty expires when the projector is opened by unauthorized personnel.
4. Warranty doesn't include the replacement of the fixture.
5. Serial number and model of the fixture are necessary to retrieve informations and assistance from the dealer.

2.3 EC Norms

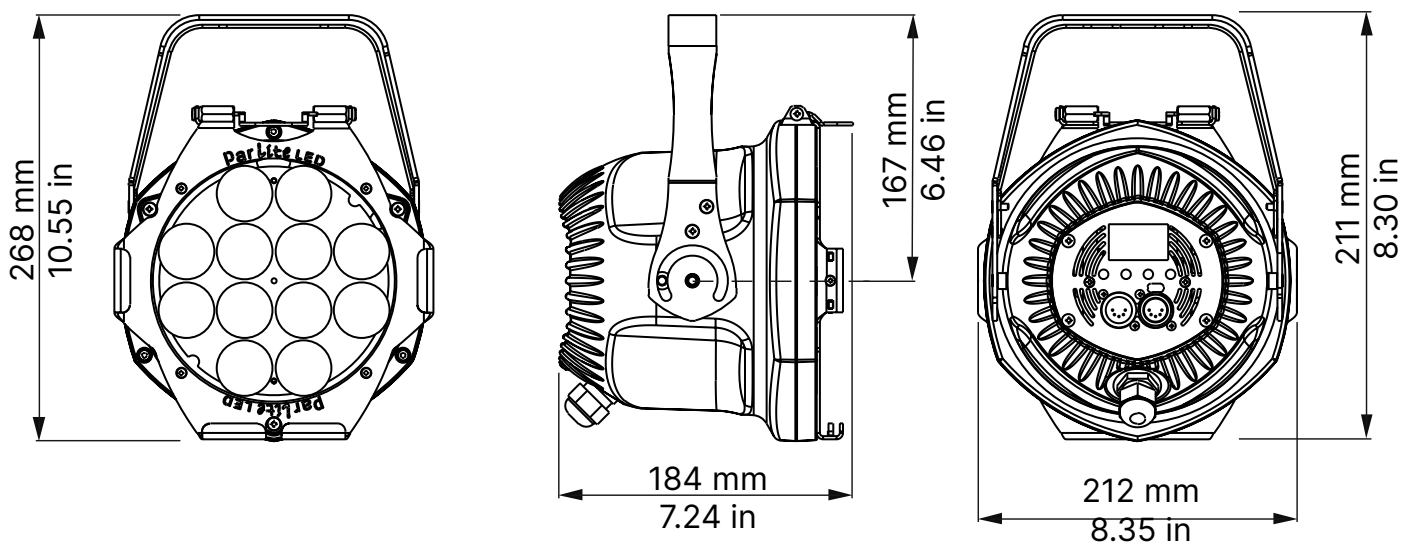
1. The fixture satisfies the essential requirements of the directive 2004/108/EC, 2006/95/EC, 2011/65/EC, 2002/96/EC & 2003/108/EC.
2. The fixture is in accordance with the standard EN 50419 (RoHS) and satisfies the requirements of the directive 2002/96/EC (WEEE).

3. Product specifications

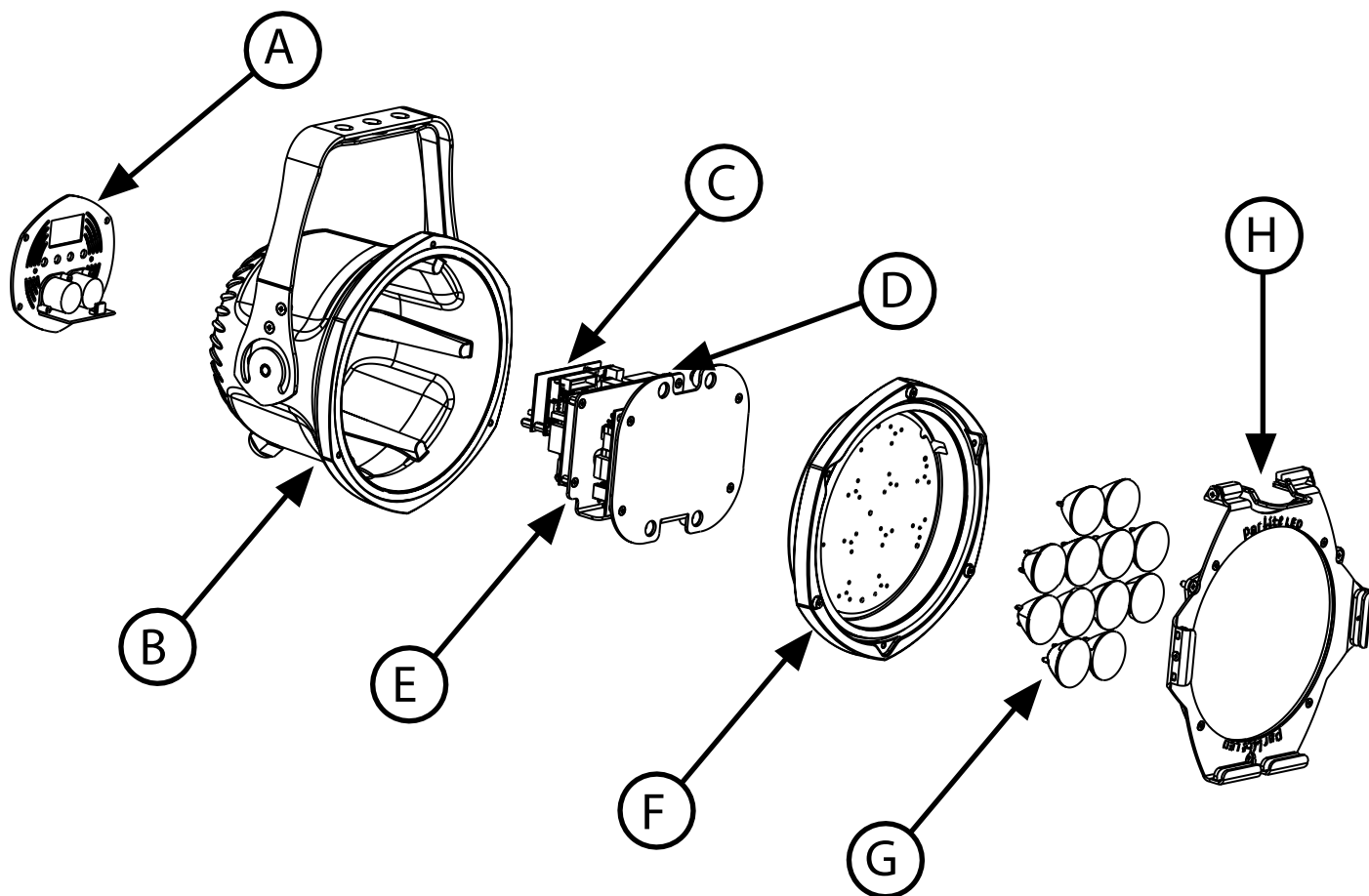
3.1 Technical characteristics

Power supply	100-250 V, 50/60 Hz, auto-sensing
Maximum current	0.22 A at 230V, 0.44 A at 115V
Power factor	cosφ 0.9
Power consumption	45 W
Color temperature	Fixed white 3.200 K
Weight (without optic)	3.5 Kg - 7.72 lbs.
Ambient Operating Temperature	-40°C - +40°C (-40°F - 104°F)
IP rating	IP20 or 65

3.2 Dimensions

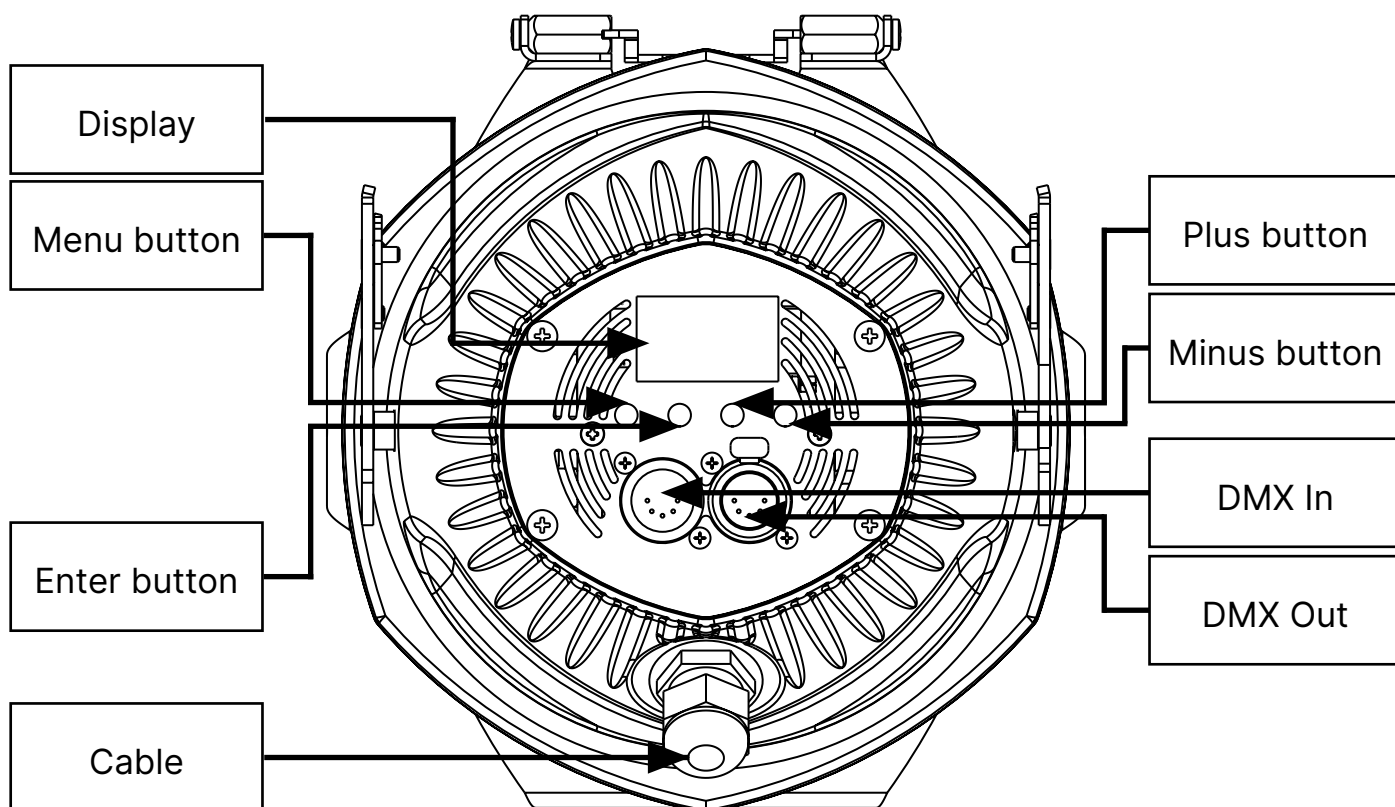


3.3. Unit's main components



Components description	
A	IP20 rear panel
B	Projector body
C	Display
D	Led control PCB
E	Switching power supply
F	Head
G	Lens group
H	Front frame

3.4 Back panel description



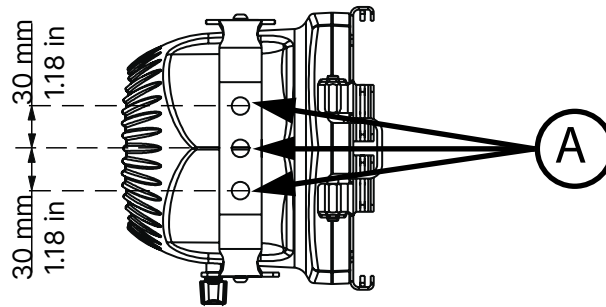
4. Installation

4.1 Mechanical installation

Par^{Lite} ACL may be floor mounted or hung from an appropriate structure in any position.

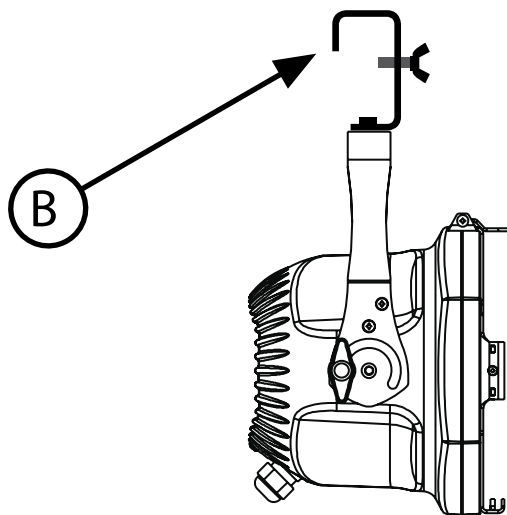
Permanent installation

Use the three holes “**A**” on the yoke of the **Par^{Lite} ACL** for robust, permanent installation.



Mobile installations

If hanging the fixture from a lighting truss or similar, we recommend the use of appropriate clamps “**B**”, affixed to the yoke in the holes “**A**” provided, as shown in the following diagram.



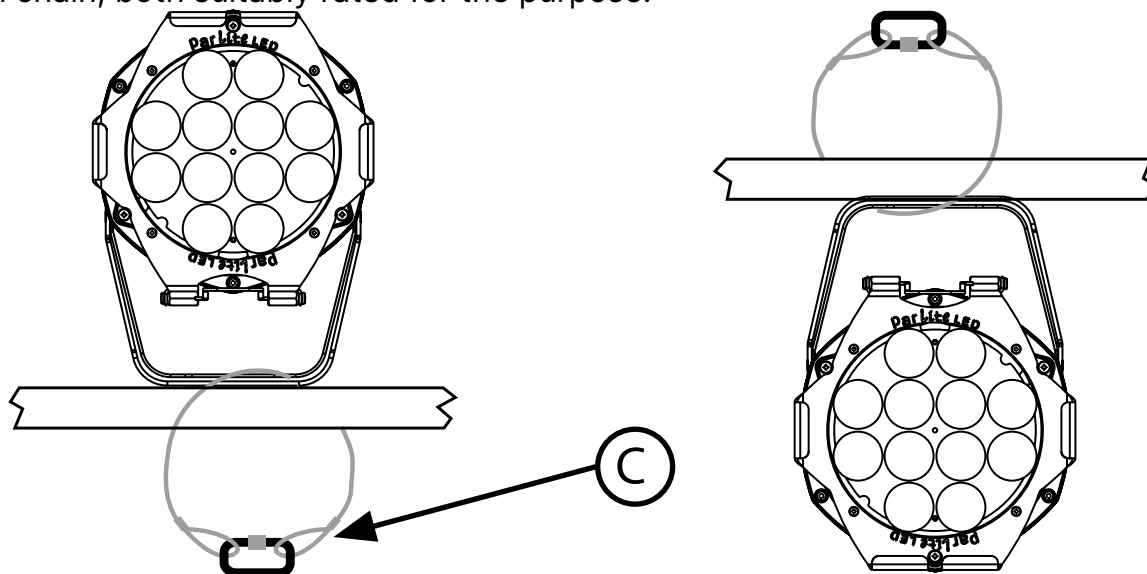
Warning!!

Always ensure that your support structure and fixings (bolts, clamps, etc.) are rated to support the weight of the fixture.

Never install the fixture in an accessible position to personnel who may ignore or be unaware of the safety directions mentioned in this manual.

4.2 Safety chain

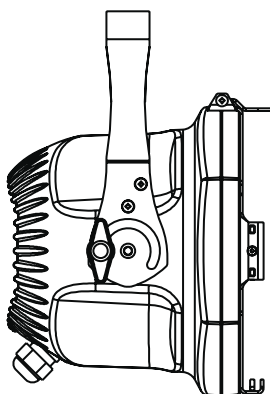
When hanging **Par^{Lite} ACL** it is recommended to use a safety chain “**C**” affixed to the yoke and to the suspension device. The safety chain should be either a metal wire rope or a metal chain, both suitably rated for the purpose.



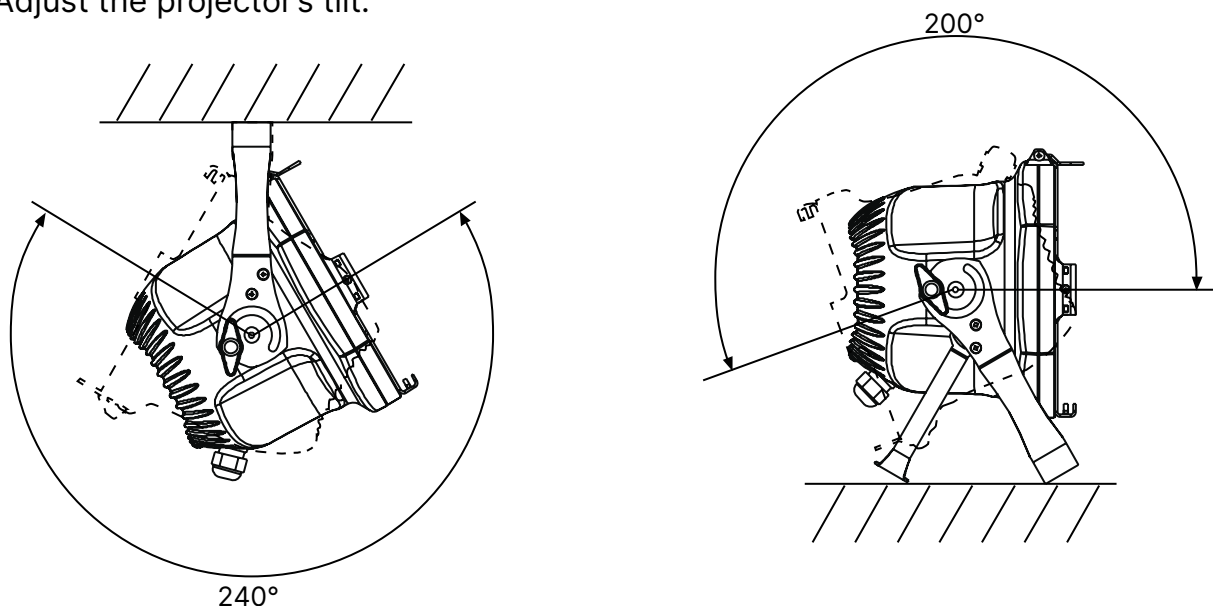
4.3 Adjusting beam direction

The **Par^{Lite} ACL** can be tilted to adjust the beam output. To perform this adjustment, follow the instructions set out below.

1. Loosen the handle “**D**” located on the side of the projector, thus allowing the inclination to be changed.



2. Adjust the projector's tilt.

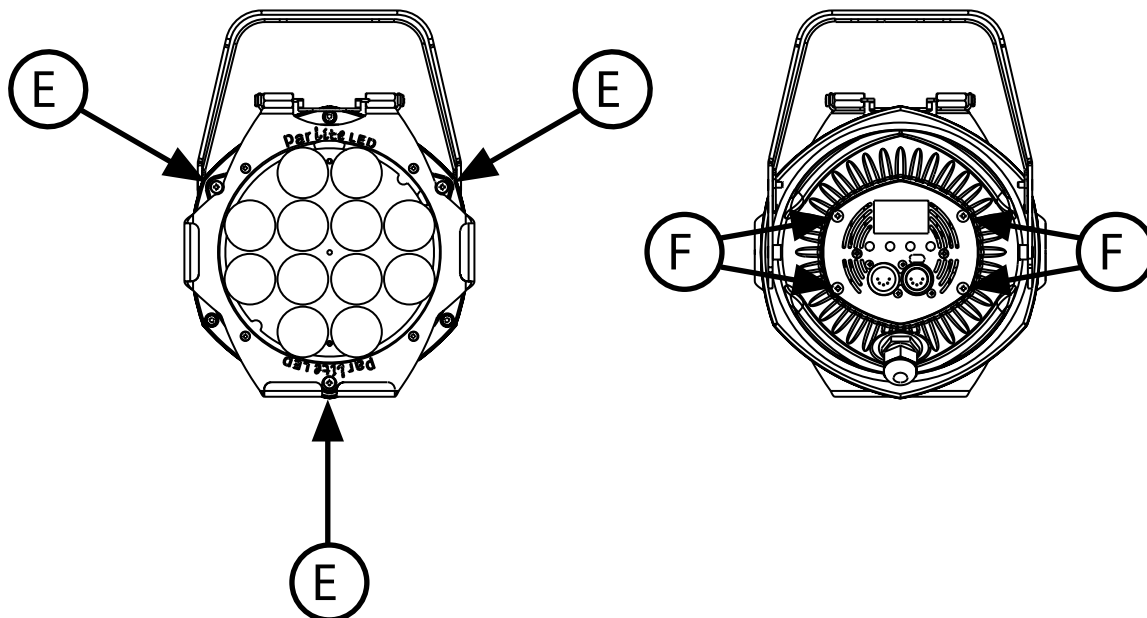


3. Refasten the handle “**D**” on the side of the projector.

4.4 Opening and closing up the projector

The various procedures which follow can only be performed with the projector housing removed. To gain access to the internal of the projector use a suitable screwdriver to remove the 3 screws "E" which affix the front frame and remove it.

In the IP version, to access the rear area (switch panel), fully untighten the 4 screws "F" that fix of the rear panel and remove it from the unit.



You should now have complete access to the internal of the projector and can proceed to carry out the procedures described below. Close the unit by following the previous points the other way round.

Warning!!

Remove mains power prior to opening up the projector.

In the IP version, before close up the unit, check that the garnishings are inserted in their places. Both screws "E" and "F" must be uniformly fixed, screwing them alternately in short steps.

5. Powering up

5.1 Operating voltage and frequency

The unit may operate at voltage ranges from 100 to 250V_{aC} at a frequency of 50 or 60 Hz. It is not needed to effect any setup procedures: **Par^{Lite} ACL** will automatically adjust its operation to suit any frequency or voltage within this range.

5.2 Connection to mains power

Mains cable characteristics

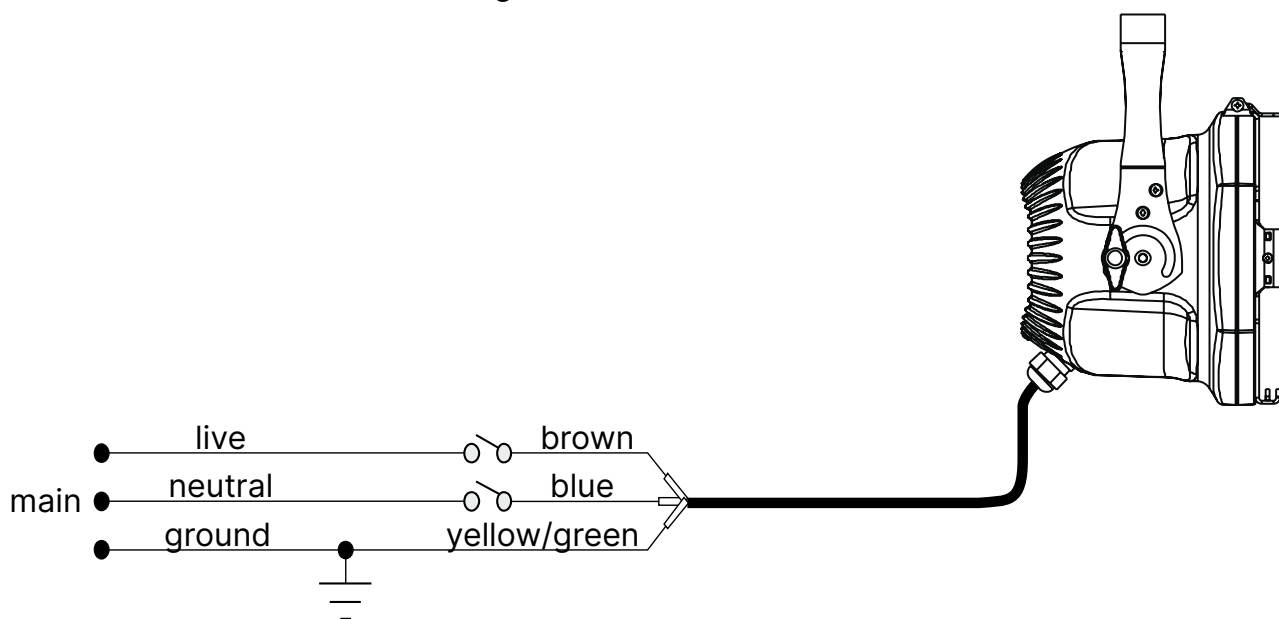
The mains cable provided is a neoprene type HQ7RN-F suitable for outdoor applications and complying to the most recent international standards: CEI 20-19, UNEL 35364, CENELEC HD 22.

N.B. In case of cable replacement, similar cable with comparable qualities must be used exclusively (cable 3×1.5 \varnothing external 10 mm, rated 450/750V, operating temperature -25° +60°).

Connection to mains power

for connection purposes, ensure you plug is of a suitable rating:

- 0.22 A @ 230 Vac constant during normal exercise.
- 0.44 A @ 115 Vac constant during normal exercise.



Warning!!

The use of a thermal/magnetic circuit breaker for each fixture is recommended.

Strict adherence to regulatory norms is strongly recommended.

Par Lite Led should not be powered through a Dimmer as this may damage the internal switching powersupply.

Prior to connecting the device to mains power, ensure that the mains characteristics are within the recommended range for use with the Par Lite Led.

A good earth connection is essential for the correct operation of the Par Lite Led.

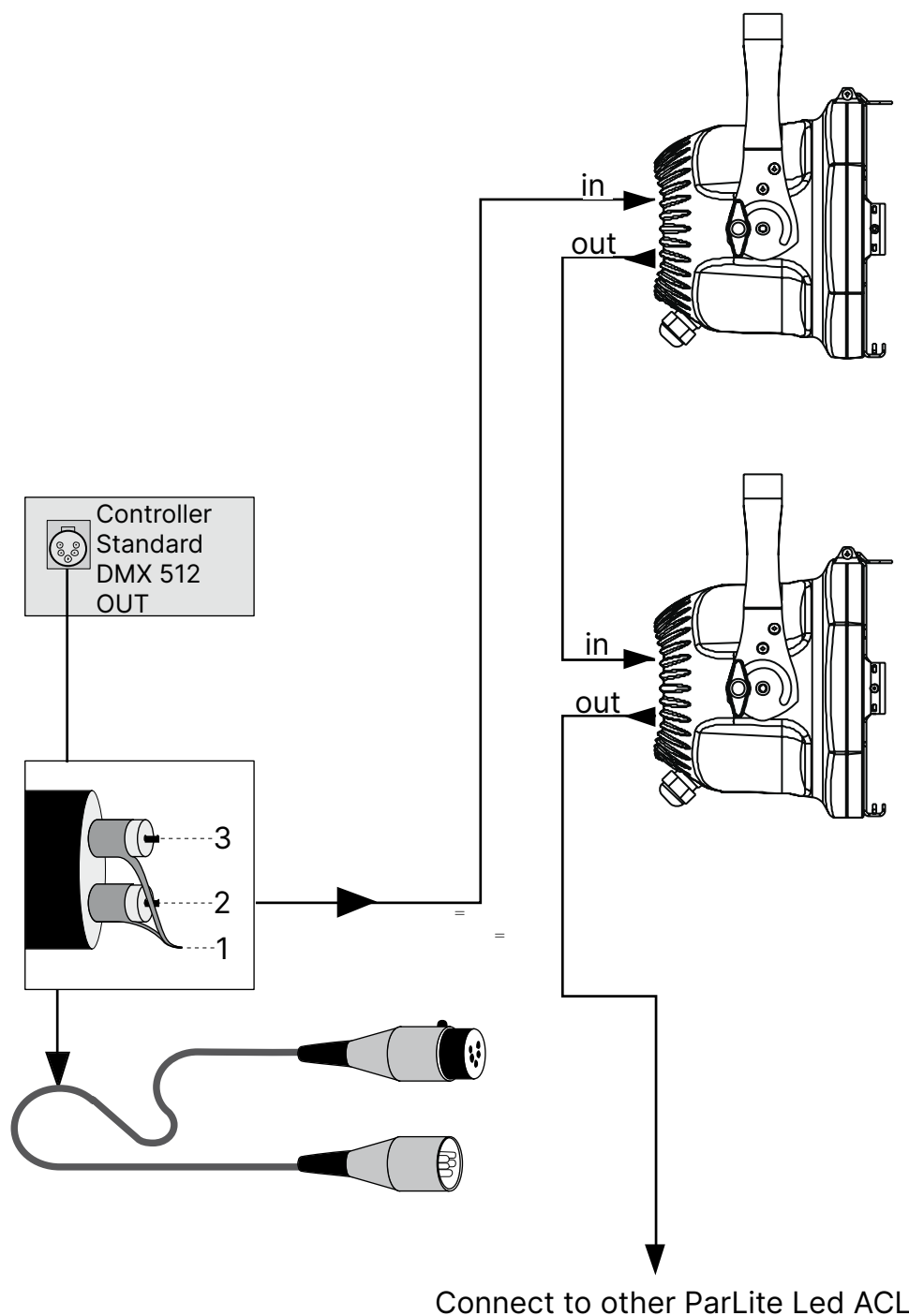
Never install the unit unless the yellow/green earth cable is securely connected.

All cabling and connections should be carried out by suitably qualified personnel.

6. Control signal connections

6.1 Control signal connection by XLR5 plugs

The digital control signal is transmitted to the projector via a two pole cable screened in according to the International standards for DMX 512 data transmission. The connection must be serial, using connectors XLR5 male and female located on the back of **ParLite ACL** labelled DMX512 IN e OUT.



Warning!

Make sure that screening and conductors are not in contact one another or with the metal housing of the connector.

Pin#1 and housing must never be connected to the power supply unit.

7. Turning on the projector

After having followed the preceding steps described, proceed with the power supply and turn on the projector connecting it to the mains power.

The software version installed on the internal microprocessors will be shown on the display, suddenly it will show the current DMX addressing. If the address blinks, it means that the DMX signal has not been received. Check the connection cable and the mixer functioning.

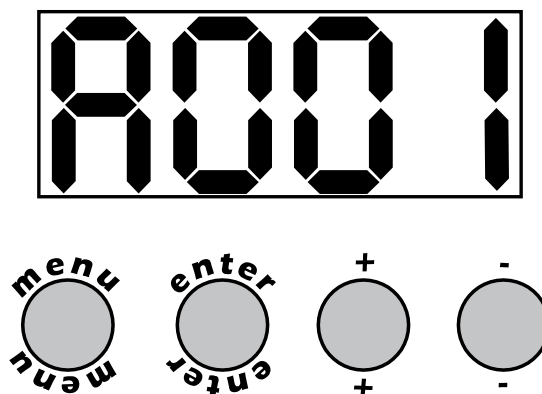
7.1 DMX address of the unit

Each projector can use 5 or 1 channel for its complete operation and is controlled by a DMX 512 signal.

Altering the DMX address:

1. Press the + or – button until the display shows the required DMX address. The digits on the display will blink to indicate that the variation has not been registered.
2. Press the enter key to confirm your selection. The digits on the display panel will cease to blink and the projector will now respond to the new address.

Note: by holding the + or – button down the scrolling will be faster; thus allowing a faster selection.



Warning!!

If you alter the DMX address with no DMX signal connected, the digits on the display panel will continue to flash even after you have pressed ENTER button to confirm the address.

8. DMX chart

8.1 DMX chart 5, 1 channels

channel		function	type of control	effect	decimal	percentage
1	1	master dimmer	proportional	adjust luminous output intensity from 0 to 100%	0 - 255	0% - 100%
-	2	spare channel	step	no effect	0 - 255	0% - 100%
-	3	dimmer fine	proportional	fine dimmer control 16 bit	0 - 255	0% - 100%
-	4	strobe	step	no effect	0 - 9	0% - 4%
			proportional	variable speed strobing effect, from slow to fast	10 - 57	4% - 22%
			step	stop strobe	58 - 59	23% - 23%
			proportional	sequenced pulse effect, slow closing, fast opening (variable speed pulsing, from slow to fast)	60 - 108	24% - 42%
			step	stop strobe	109 - 110	43% - 43%
			proportional	sequenced pulse effect, fast closing, slow opening (variable speed pulsing, from slow to fast)	111 - 159	44% - 62%
			step	stop strobe	160 - 161	63% - 63%
			proportional	random strobe effect with variable speed from slow to fast	162 - 207	64% - 81%
			step	stop strobe	208 - 209	82% - 82%
			proportional	random strobe effect with variable speed from slow to fast	210 - 255	82% - 100%
-	5	special functions	step	park, no effect	0 - 9	0% - 4%
				600Hz	10 - 84	4% - 33%
				fan at low-noise speed	85 - 96	33% - 38%
				fan at auto-silent speed	97 - 108	38% - 42%
			proportional	fan speed control from minimum to maximum	109 - 120	43% - 47%
			step	fan at maximum speed	121 - 133	47% - 52%
				enables the automatic display blackout	134 - 185	53% - 73%
				disables the automatic display blackout	186 - 199	73% - 78%
				LED control frequency tuning 1000Hz	200 - 205	78% - 80%
				LED control frequency tuning 3000Hz	206 - 211	81% - 83%
				LED control frequency tuning 6000Hz	212 - 217	83% - 85%
				LED control frequency tuning 8000Hz	218 - 223	85% - 87%
				LED control frequency tuning 10000Hz	224 - 229	88% - 90%
				LED control frequency tuning 12000Hz	230 - 235	90% - 92%
				LED control frequency tuning 14000Hz	236 - 241	93% - 95%
				LED control frequency tuning 16000Hz	242 - 247	95% - 97%
				LED control frequency tuning 19000Hz	248 - 255	97% - 100%

9. Display panel functions

9.1 Quick guide to menu

To access the functions menus just press the MENU button. Then press + or – buttons to scroll the pages and press the ENTER button to access to any other function.

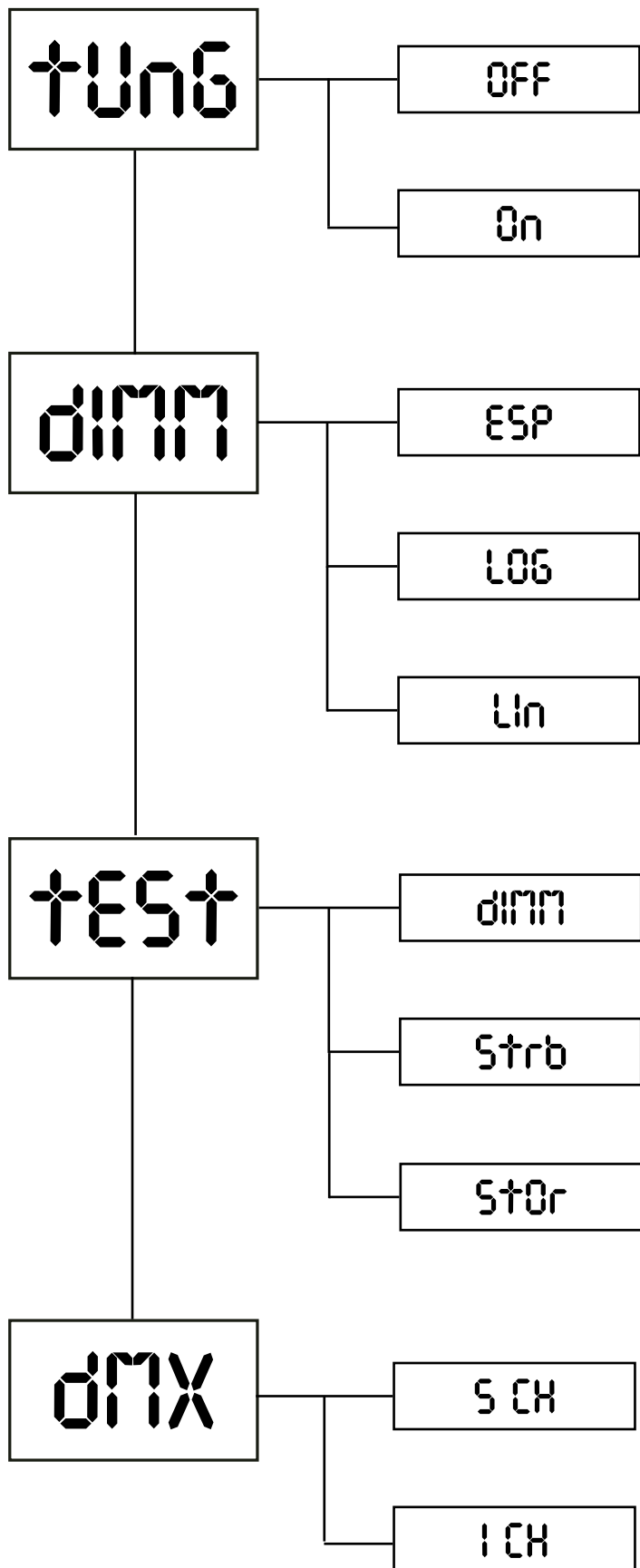
By suitably using all the functions of **Par^{Lite} ACL**, which can be activated through its display panel, it is possible to change some of the parameters and to add some functions. Changing the preset settings made by **Coemar** can vary the functions of the projector so that it will respond differently to the controller; therefore carefully read about the functions described here before carrying out any possible selection.

9.2 Rapid count

Through the display panel of **Par^{Lite} ACL** it is possible to quickly change the various numbers displayed for the different functions in the following 3 manners:

1. Pressing the + or – buttons will cause the count to be quicker.
2. Pressing first + and then – and then holding them down simultaneously will cause the numbers to jump to the highest value.
3. Pressing first – and then + and then holding them down simultaneously will cause the number to jump to the lowest value.

9.3 Main functions menu



Tungsten:

Allows to imitate the slow dimmer curve of the tungsten lamp.

Dimmer:

- Allows to choose the dimmer curve;

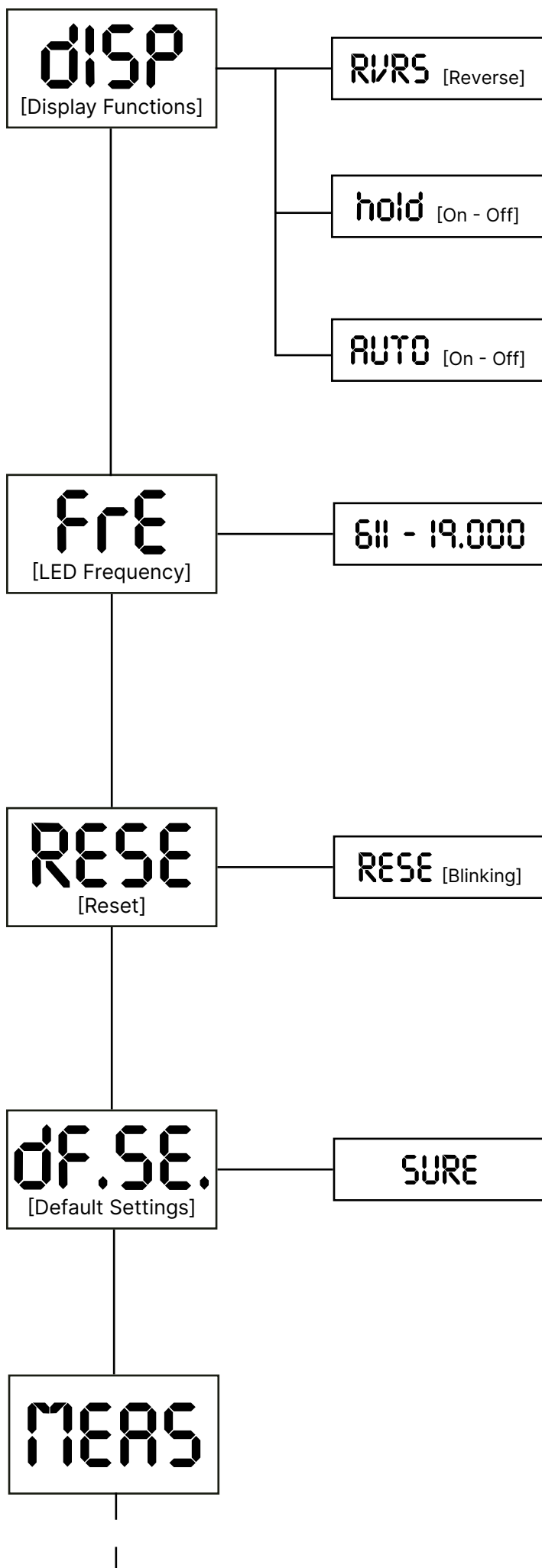
Test:

Allows to manually set the DMX channels controlled by a DMX console:

- **Dimmer:** sets the luminous intensity;
- **Strobe:** manually sets the strobe DMX channel;
- **Store:** stores the modifications that will be set at the next times the fixture will be turned on;

DMX Channels:

Allows to choose the number of channels to operate in DMX.



Display functions:

Changes the display settings:

- **Reverse:** rotates the display of 180°;
- **Auto:** Sets or disables the automatic display turn off function, which would occur after 10 seconds of inactivity;
- **Hold** Sets or disables the automatic display lock function that occurs after 10 seconds of inactivity;

Note: The AUTO and HOLD function become active only when the DMX address selection is displayed (A001). The effect of AUTO and HOLD trigger after 10 seconds of keyboard inactivity. To turn on the display it is enough to push a button, to unlock the keyboard it is necessary to hold any button down for a few seconds.

LED Frequency:

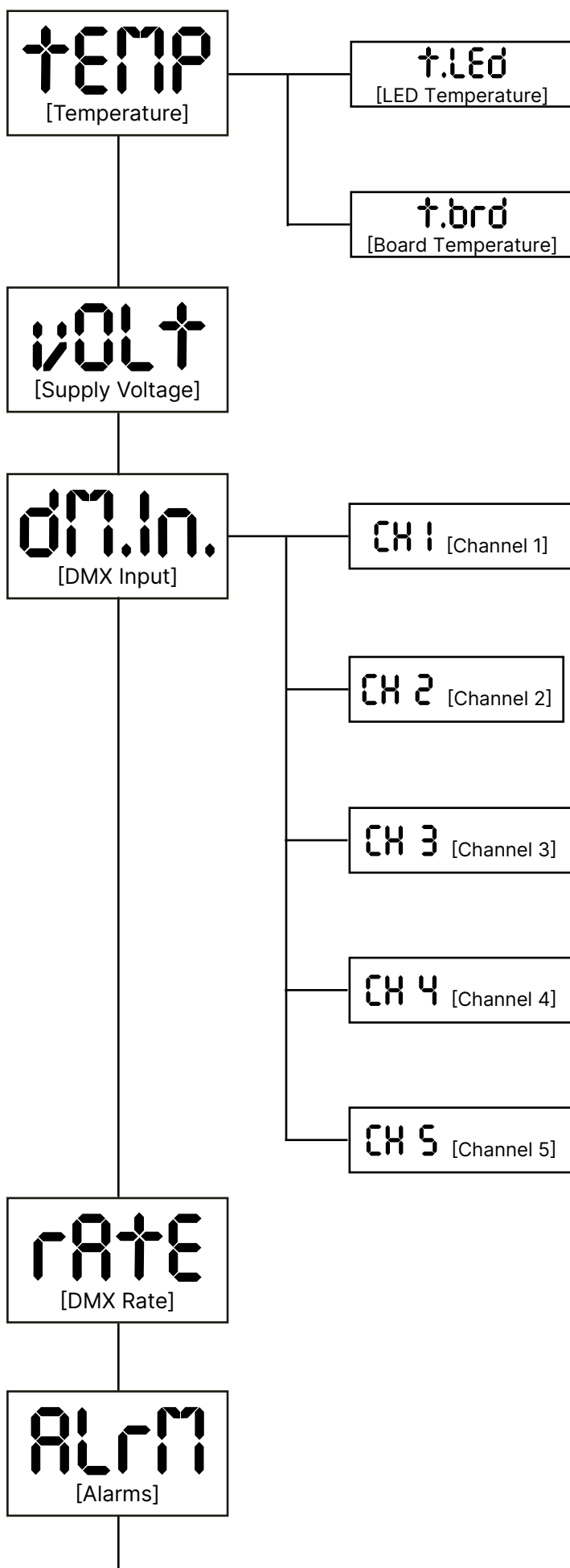
Allows to choose the operating frequency of the LEDs in order to avoid flickering issues with video recording devices. The excursion varies from 600Hz to 19000Hz.

Reset

Default Settings:

Allows to restore the factory default of the fixture, with exception of DMX address and LED alignment.

9.4 Measures menu (MEAS)



Temperature:

Shows the current temperature values:

- **LED:** shows the LED module temperature;
- **Board:** shows the electronic board temperature.

Volt:

Shows the power supply voltage.

DMX Input:

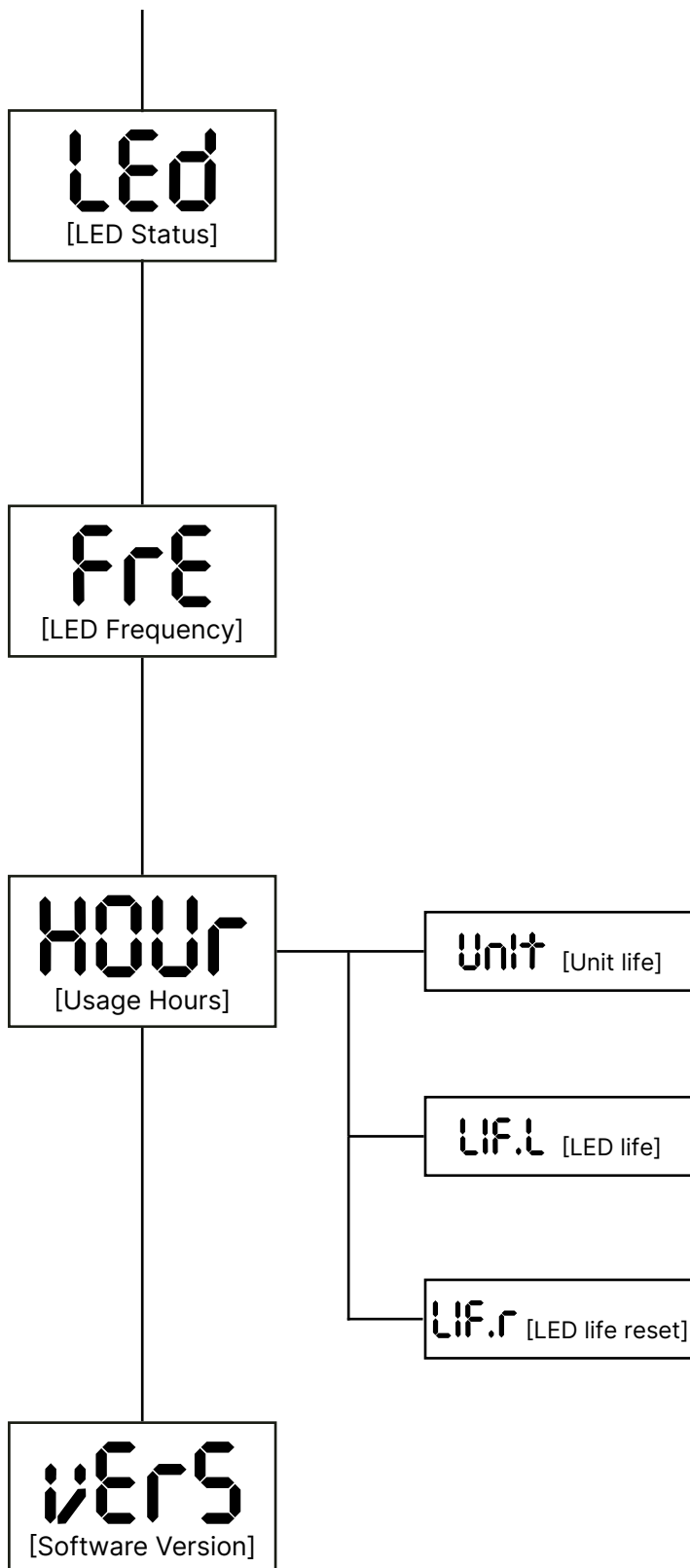
Shows the value of the DMX channels received by the fixture on every channel that the fixture occupies on the line.

Rate:

Shows the refresh rate of the DMX signal sent by the console.

Alarm:

This menu shows the alarm statuses if there is any.

**LED:**

Shows the percentage value of the LED status.

Fre:

Shows the operating frequency of the LED (611 Hz as default).

Usage hours:

Shows the hour counter of the fixture:

- **Unit:** shows the overall hours of life of the fixture;
- **LED life:** shows the overall LED module life;
- **LED life reset:** shows the overall LED module life currently installed.

Note: this items can be reset in case of LED module replacement;

Software version:

Shows the software version currently installed in the fixture.

9.5 Electronic alignment of the LEDs

The display panel of **Par^{Lite} ACL** allows the electronic alignment of the LEDs, this procedure is performed by **Coemar** at the time of testing, this procedure may be useful for special effects or in case of replacement of internal components (PCBs, LEDs, etc...).

Altering the settings made by **Coemar** may radically alter the operation of the projector's functions.

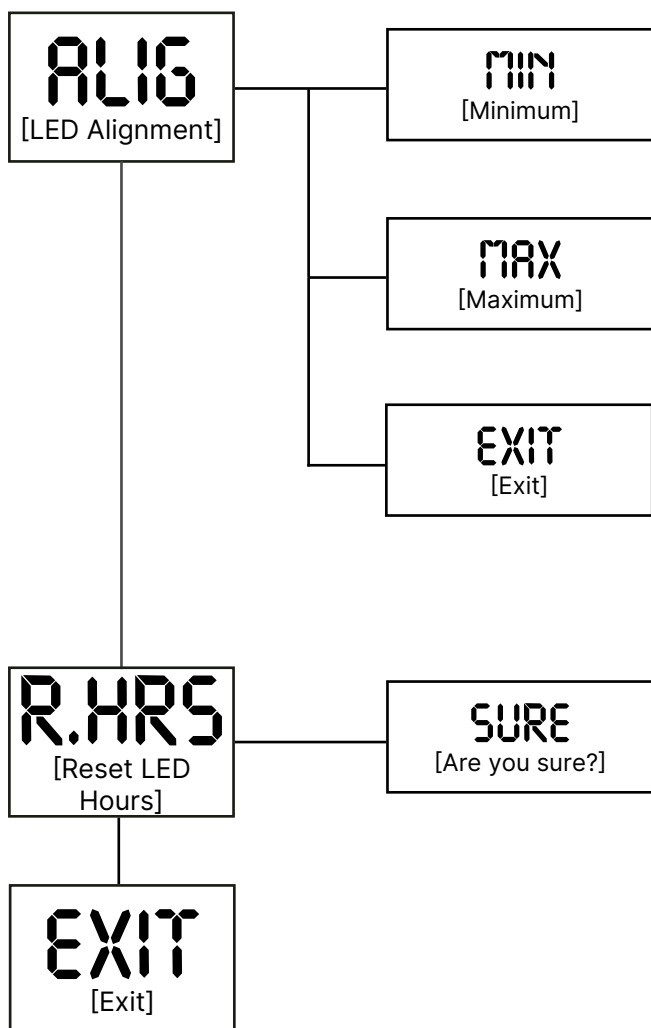
Carefully read the following prior to attempting any changes.

Warning!!

This chapter should be considered for the exclusive use of technicians and qualified personnel.

Warning!!

This menu can only be accessed in the **DFSE** [Default Settings] menu by pressing at the same time **ENTER** and **MENU** buttons. This menu shall be accessed only by authorized technicians.



LED alignment:

This item allows to align the minimum and the maximum level of intensity of the LEDs:

- **Minimum:** raise or lowers the minimum intensity to level the dimming between the fixtures;
- **Maximum:** aligns the maximum output level between each fixture;
- **Exit:** Exits the menu and stores the changes;

Reset hours:

Allows to erase the hours of operation of the LED module in case of replacement;

Exit:

Exits the menu and stores the new alignment parameters.

9.6 Special functions of the fixture

Storing the DMX signal

To use the fixture without an active DMX console it is possible to store the DMX settings in two ways:

- Through the TEST menu;
- Disconnecting the DMX signal when the fixture is on. When the signal is unconnected the fixtures stores the signal;

Automatic fan standby

To decrease the noise and the power consumption the cooling fan turns off after 10 minutes of fixture inactivity.

9.7 Error messages

If a malfunction occurs, **Par^{Lite} ACL** has a self-diagnostic system that will show the error message on the display. The following table will explain in detail the most common errors. If, despite of suggested intervention, the problem persists, call the **Coemar** Service Center.

Error code	Description
noal [No Alarm]	No Alarm The projector self-diagnostic routine didn't find any issue.
DTERR [Data Error]	Data error Initial data loading has failed the projector loaded the default data settings: restart the fixture again, and if the error persists contact the Coemar assistance center.
ADERR [Address Error]	Address error The projector does not receive all channels of DMX needs to function properly. Check the DMX address indicated on the display and the number of channels generated by the mixer control. We recall in this connection that some controllers do not generate all the 512 channels.
LED [Data Error]	LED error Auto diagnostic routine found that the LED module may damaged, contact Coemar assistance for the module replacement. IMPORTANT: To ensure the sensor is giving correct readings, set the LED to the maximum light output level.

10. Accessories and spare parts

All **Par^{Lite} ACL**'s components are available as spare parts from your Coemar service centers. Specifying in detail the projector model and the replacement part requested, will help the service center to serve you in the best way.

11. Maintenance

11.1 Firmware update

The firmware of **Par^{Lite} ACL** can be updated through the RDM protocol (ANSI E1.20). Contact Coemar assistance to receive the software and the device updater.

11.2 Periodic cleaning

Lenses

Even a thin layer of dust can reduce the luminous output and alter the consistency of the beam. Regularly clean all filters and lenses using a soft cotton cloth, dampened with a special lens cleaning solution.

Cleaning of the unit

Use a soft brush or a common vacuum cleaner or a source of compressed air for removing dust. For the cleaning of the housing use a soft cloth and a non-aggressive cleaner. Check that the internal fans and heat exchanger must be perfectly clean.

11.3 Periodic controls

Mechanical components

Check the correct working of the mechanical parts and, if needed, replace them. Make sure the projector is not mechanically damaged. If necessary, replace the worn parts.

Electrical components

Check all electrical connections, in particular for correct grounding and correct attachment of all extractable connectors. Press the connectors if necessary and reposition as before.

11.4 Fuses

Par^{Lite} ACL has an automatic fuse that in most cases does not need to be replaced.

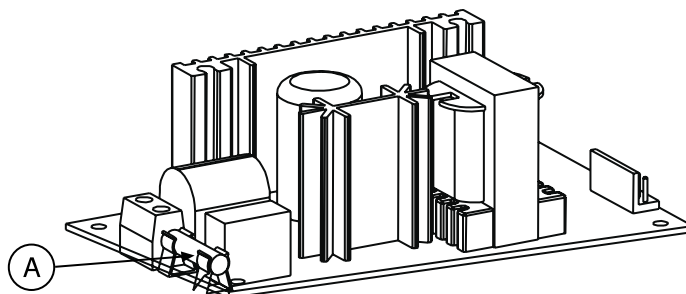
ATTENTION!!

Always remove mains power prior to opening up the fixture!

11.5 Fuse replacement

Use a multimeter to check the fuse, replacing any faulty or damaged fuses with ones of equal value, dimensions and characteristics.

The following diagram indicates the positioning and characteristics of the protection fuse in the fixture.



Fuse S: 4A T
250V

12. F.A.Q. and answers

The following list shows common issues that may be simply solved. If issues persist, the unit must be repaired by a qualified personnel or just contact your **Coemar** service near you.

Question	Possible solution
Par^{Lite} ACL does not emit light	Projector not powered on: <ul style="list-style-type: none">• Make sure the power cord is plugged in or test the input voltage; Wrong DMX address: <ul style="list-style-type: none">• Check the DMX Address setting and the output signal of the controller;
Par^{Lite} ACL is not responding to DMX signal	DMX signal may not reach Par^{Lite} ACL : <ul style="list-style-type: none">• Inspect the cable connection, correct poor connections or inefficient repair or replace damaged cables;• Check DMX address of the unit;

User notes

[illegible]



Information on disposal of the equipment

The equipment at the end of its useful life must be disposed of at an appropriate recycling center for waste electrical and electronic equipment. The treatment and disposal of environmentally friendly, helps prevent potential negative environmental and health and promote the reuse and / or recycling of materials making up the equipment. Illegal disposal by the user includes the application of administrative sanctions provided by law.



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Coemar reserves the right to change specifications without prior notice