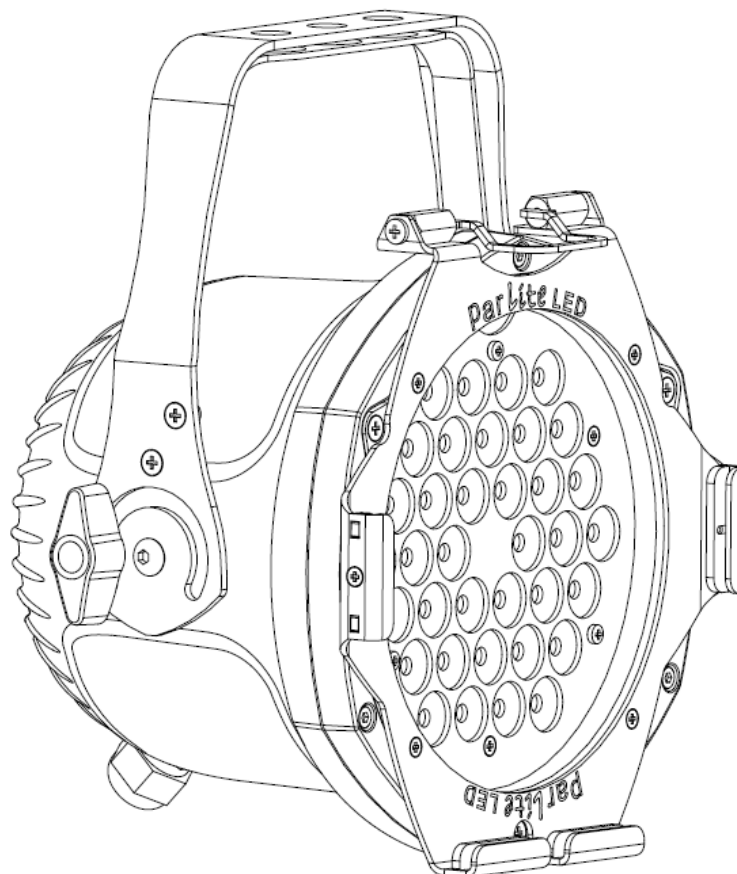


# Par Lite Led

VariWhite



**instruction manual**  
**manuale di istruzioni**

Version 1.0  
DIS139

 **coemar**

# Par Lite Led

## VariWhite

Serial number/numero di serie

Date of purchase/data di acquisto

Retailer/fornitore

Address/indirizzo

Suburb/cap/città

Capital city/provincial

State/stato

Tel./fax

Please note in the space provided above the relative service information of the model and the retailer from whom you purchased your **Par Lite Led VariWhite**: this information will assist us in providing spare parts, repairs or in answering any technical enquiries with the utmost speed and accuracy.

Prendete nota, nello spazio apposite, dei dati relative al modello e al rivenditore del vostro **Par Lite Led VariWhite** questi dati ci permetteranno di assistervi con la massima rapidità e precisione.

**WARNING:** the security of the fixture is granted only if these instructions are strictly followed; therefore it is absolutely necessary to keep this manual.

**ATTENZIONE:** la sicurezza dell'apparecchio è garantita solo con l'uso appropriato delle presenti istruzioni, pertanto è necessario conservarle.

**User Manual Version 1.0**

edition June, 2011

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## English

Congratulations on having purchased a **Coemar** product. You have assured yourself a fixture of the highest quality, both in the componentry and in the technology used. We renew our invitation to you to complete the service information form on the previous page. This will assist in providing prompt and accurate advice from your **Coemar** service centre, which you can thoroughly trust and to which you can submit any requests for service or information. Following the instructions and procedures outlined in this manual you will ensure the maximum efficiency of this product for years to come.

### 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

Make sure the packaging contains:

- 1 Par Lite Led VariWhite
- this instruction manual

#### 1.2 Transportation

**Par Lite Led VariWhite** must be transported exclusively in its original packaging or in an appropriate flight case.

### 2. General information

#### 2.1 Important safety information

##### Fire prevention:

1. Never locate the fixture on any flammable surface.
2. Minimum distance from flammable materials: 0,5m.
3. Minimum distance from the closest illuminated 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.

##### Preventing 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 Led VariWhite** 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.

##### 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 80°C. Never handle the unit until at least 10 minutes have elapsed since the lamp was turned off
4. Never install the fixture in an enclosed area lacking sufficient air flow; the room temperature must not exceed 35°C.

##### Protection rating of the body against liquids and solids:

The fixture is classified ordinary apparatus, its protection grade against penetration by external agents, solid or liquid is IP20.

#### 2.2 Warranty conditions

1. The fixture is guaranteed for a period of 12 months from the date of purchase against manufacturing or materials defects.
2. The warranty does not extend to damage caused by inappropriate usage, use by inexperienced operators or inadequate maintenance.
3. The warranty is immediately void if the projector has been tampered or opened by unauthorized personnel.
4. The warranty does not extend to fixture replacement.
5. Both the serial number and the model of the projector are required for any advice or service from your authorised service centre.

#### 2.3 EC Norms

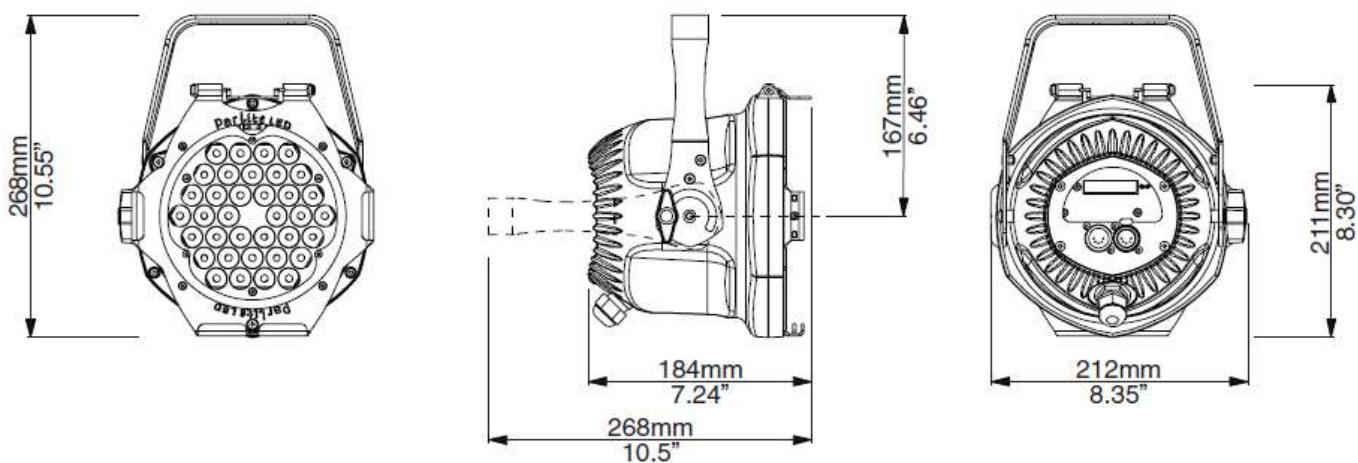
The projector meets all fundamental applicable EC requirements.

3. Product specifications

3.1 Technical characteristics

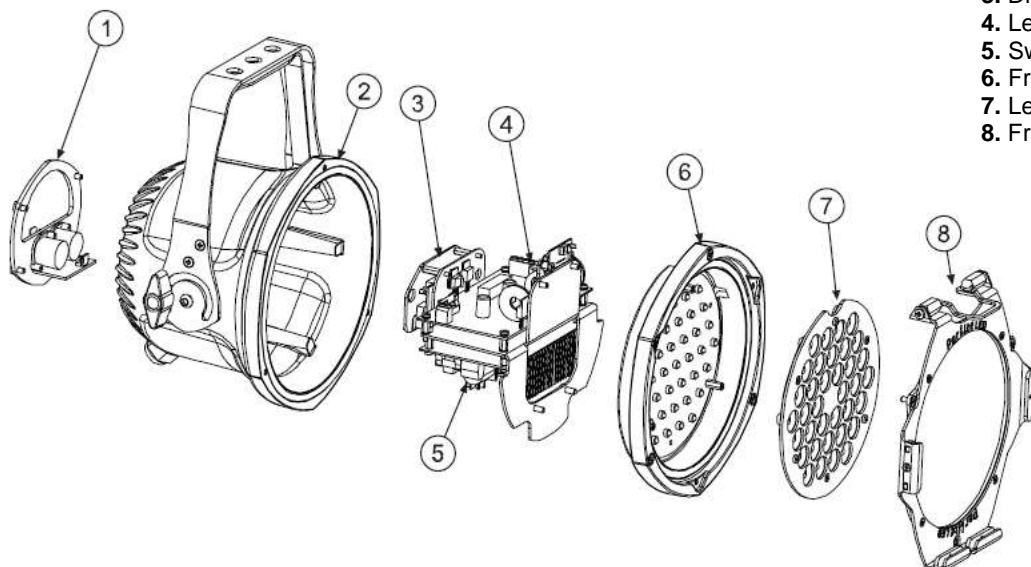
<b>Power :</b>	90/240 VAC 50/60Hz. Autosensing
<b>Maximum current:</b>	0,2A @ 230 VAC 0,5A @ 115VAC
<b>Power factor:</b>	cosφ = 0,8
<b>Light source :</b>	36 LED P4
<b>Minimum room temperature:</b>	-15°C / -5°F
<b>Maximum room temperature:</b>	35°C / 95°F
<b>Weight:</b>	3.6 Kg / 7.9 Lbs

3.2 Dimensions



3.3 Units main components

The main components of **Par Lite Led VariWhite** are shown in the diagram below:



**Components description:**

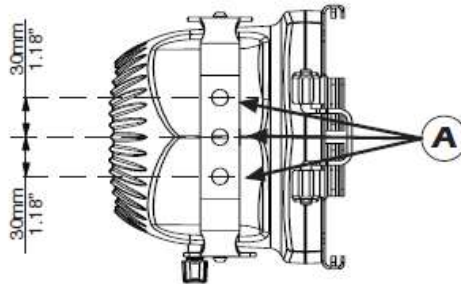
1. Rear panel
2. Projector body
3. Dip-switch panel
4. Led control pcb
5. Switching power supply
6. Front header
7. Lens group
8. Front frame

**4.1 Mechanical installation**

Par Lite Led VariWhite may be floor mounted or hung from an appropriate structure in any position.

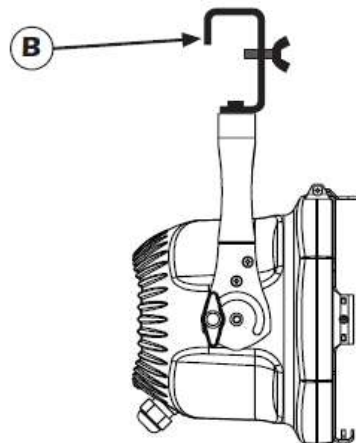
**Permanent installation**

Use the three holes “A” on the yoke of the fixture for robust, permanent installation.



**Mobile installation**

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



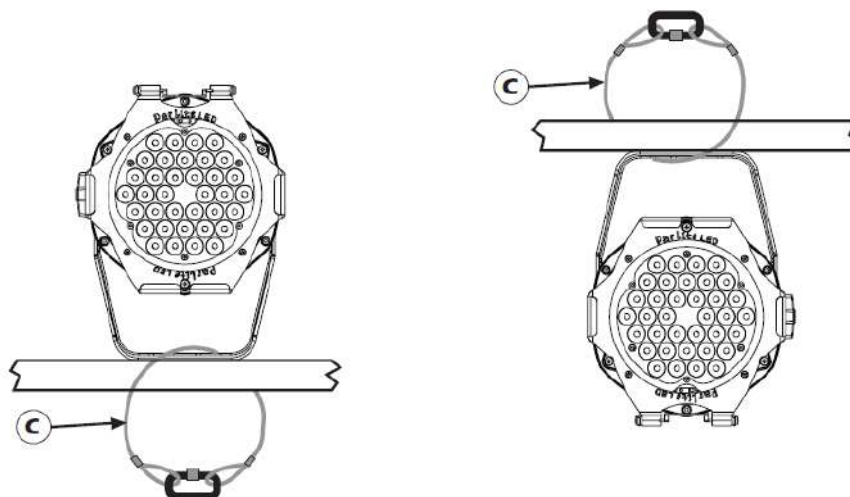
**WARNING!**

**Always ensure that your support structure and fixing (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

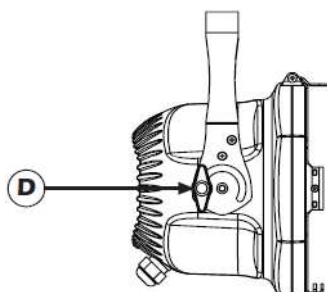
When hanging **Par Lite Led VariWhite** we recommend the use of a safety chain affixed to the body and to the suspension device. The safety chain should be either a metal rope or a metal chain, both suitably for the purpose.



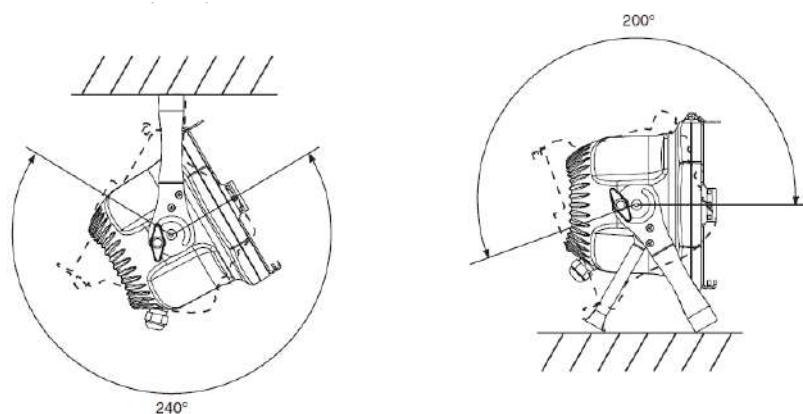
#### 4.3 Adjusting beam direction

**Par Lite Led VariWhite** can be tilted to adjust the beam output. To perform this adjustment, follow the instruction 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 tilt



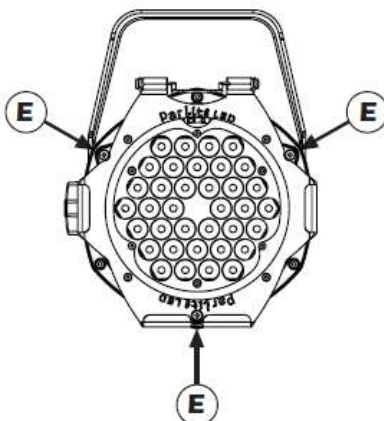
3. Refasten the handle "D" on the side of the projector.

## English

### 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.



You should now have complete access to the internal of the projector and proceed to carry out the procedures described below.

#### ATTENTION !

**Remove mains power prior to opening up the projector.**

To close up the projector, replace the housing and reattach the 3 screws previously removed.

### 4.5 Adjusting the beam angle

Several optional optical groups are available for **Par Lite Led VariWhite**. They are used to vary the beam dimension and make it suitable for different lighting applications and specifically: a group of lenses for a large projection angle, a flood reflector and several filters that can be fitted either internally or externally to the unit.

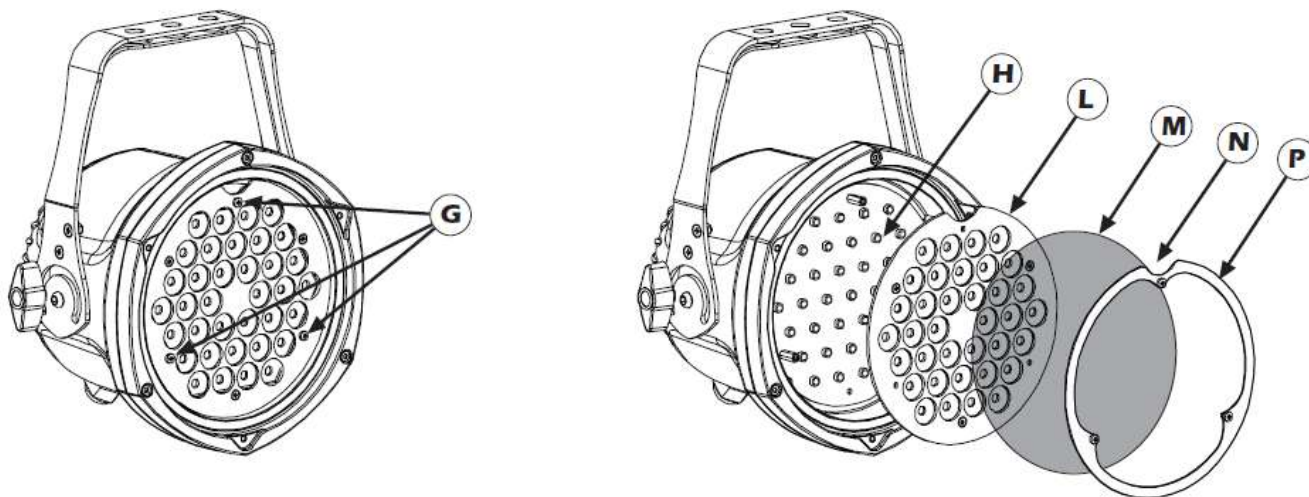
The standard optical group fitted on the product is composed by a group of lenses that gives 12° beam angle.

Here following, you will find instructions to install different optical groups.

1. Open the unit as shown on paragraph 4.4 Open and close the unit.
2. Remove the 3 screws "G".
3. Replace the lenses "L" and ensure that the led of "H" disc fit perfectly in the lenses seats.

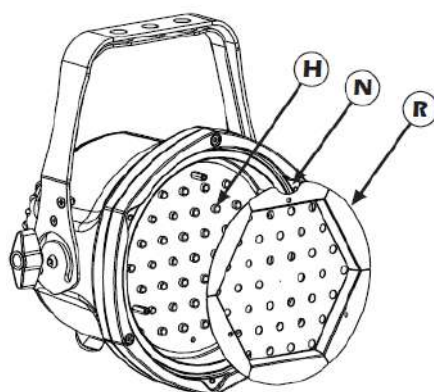
If you wish to use an optional filter holder (cod. CO9169/1) follow the instructions as per point 4 and 5..

4. After having positioned in seat the lenses group, insert the "M" filter.
5. Lock it with the "P" filter holder.
6. Close the unit.

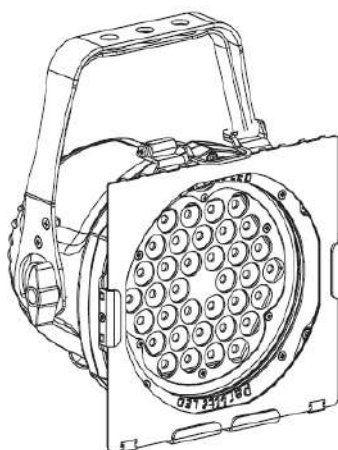




To further increase the beam angle, the “R” reflector is available (cod. CO9168) and it must be fitted instead of the lenses group and filter holder.



To vary the wideness of the beam without opening the unit it's possible to install an external filter holder “S” (cod. CO9169/1) as shown in the following image.



The following table details the range of beam angles and diffusion filters available for **Par Lite Led VariWhite**.

Optical group	Beam Angle
Narrow lenses (standard)	12°
Narrow lenses + Light Frost filter	17°
Narrow lenses + Frost filter	25°
Narrow lenses + Strip Frost filter	Beam shake
Medium lenses (cod 9167)	30°
Medium lenses + Light Frost filter	35°
Medium lenses + Frost filter	45°
Medium lenses + Strip Frost filter	Beam shake
Flood	130°

To shape the beam you can use an external barndoor (cod. CO9164).

### 5.1 Operating voltage and frequency

The unit may operate at voltage ranges from 90 to 250VAC at a frequency of 50 or 60 Hz. It is not needed to effect any setup procedures: **Par Lite Led VariWhite** 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 thermally resistant, complying to the most recent International standards.

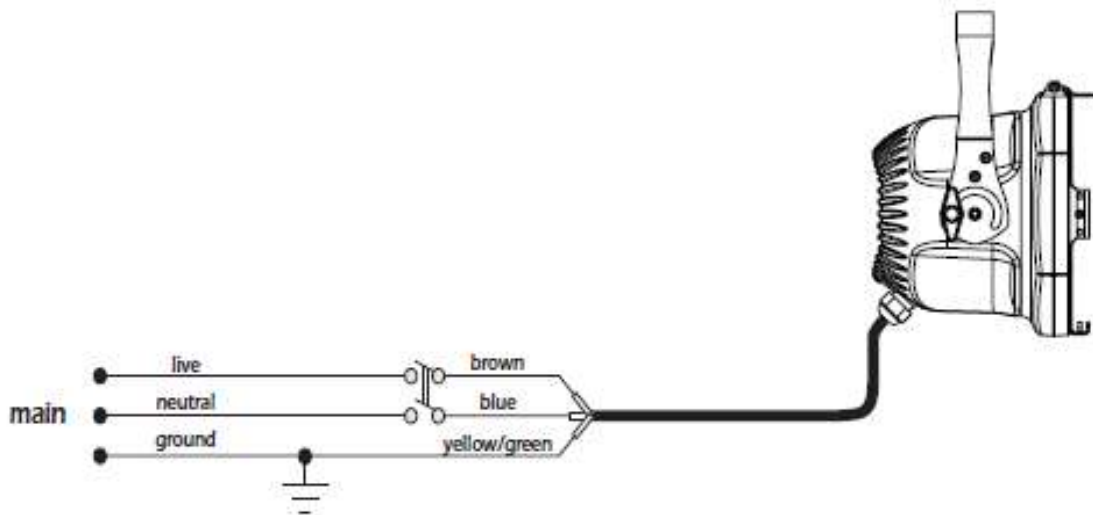
Note: in case of cable replacement, similar cable with comparable thermal resistant qualities must be used exclusively (cable 3 X 1,5  $\varnothing$  external 10 mm, rated 300/500V, tested to 2 KV, operating temperature -40°C + 180°C, **Coemar** cod. CV5311).

#### Connection to mains power

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

- 230/240VAC 0,2 A constant during normal exercise.
- 208VAC 0,25A constant during normal exercise..
- 100/115VAC 0,5A constant during normal exercise..

Locate the mains cable which exits from the unit and connect as shown below:



#### 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 VariWhite VariWhite never must be powered through a dimmer as this may damage the internal switching power supply.
- Prior to connecting the device to mains power, ensure that the power characteristics are within the recommended range for use with Par Lite Led VariWhite.
- A good earth connection is essential for the correct operation of this device. Never install the unit unless the yellow/green earth cable is securely connected.
- All cabling and connections should be carried out by qualified personnel.

## 6. DMX signal functions

## 6.1 Connecting DMX signal

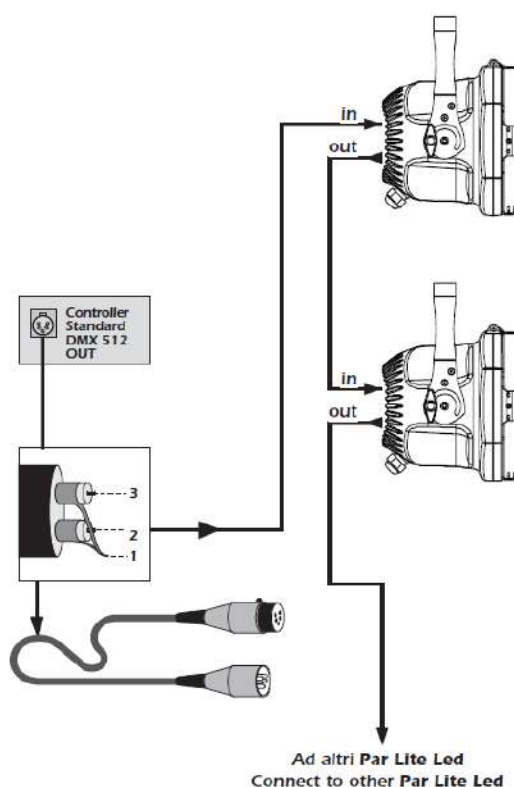
Control signal is digital and is transmitted via two pair screened cables, as required by international standards for the transmission of DMX512. Connection is in serial mode and it will be performed using the XLR3 sockets located on the rear panel of the unit..

**Signal connection via the XLR3 connectors**

The connection meets international standards; it must be carried out as shown in the picture below.

pin 1= GND  
pin 2 = DATA -  
pin 3 = DATA +

If the signal comes from a DMX512 controller with XLR5 connector ( 5 pins) pins 4 and 5 should remain not connected.

**WARNING !**

**Cables and shielding should never come into contact with each other. The pin #1 and the metal housing should never be connected to the earthing of the unit.**

## 6.2 Powering up

After having correctly followed the previous operations, it is possible to proceed in powering up the unit. The POWER Led near the dip-switch panel will turn on.

**Turning on the unit with DMX signal connected.**

The yellow DMX led will blink to indicate that the DMX512 is correctly received. If it is off, it means that DMX signal is not received ( see chapter 9 Diagnostics and maintenance at the end of this manual ).

# English

## 6.3 DMX Addressing

Each **Par Lite Led VariWhite** uses **4** DMX channels for its control. The address can be set by dip-switch panel 1-256 simply by adding the values of each dip switch set as ON; for example: to set the unit to DMX address at 9 you should set to ON dip-switches marked 8 and 1 while to set the unit to DMX address at 12 you should put 4 and 8 switches to on.

## 6.4 DMX chart

channel	function	type of control	effect	decimal		percentage	
1	master dimmer	proportional	adjust luminous output intensity from 0 to 100%	0	- 255	0%	- 100%
2	fine white adjust +10%	step	no effect	0	- 9	0%	- 4%
		proportional	adjust fine color temperature +10% from 4000°K to 6500°K	10	- 255	4%	- 100%
3	fine white adjust -10%	step	no effect	0	- 9	0%	- 4%
		proportional	adjust fine color temperature -10% from 4000°K to 2700°K	10	- 255	4%	- 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%
Fixture: ParLite Led VariWhite 2700/6500°K			Table name: DMX 512 function				
Table number: 317		Edition: 0	Date: 23/03/2014				

## 7. Dip-switch functions chart

The following chart summarizes the functions achievable by setting the unit by dip-switch panel.

dip-switch	DMX function	DR1 function	dip-switch function	LIGHT ON function				dip-switch general functions
1	dmx channel 1	ld value 1		dip-switch 1	dip-switch 2	dip-switch 4	<b>luminous intensity</b>	Dip-switches (from 1 to 256) functions will change depending on Function mode buttons selected
				on	off	off		
2	dmx channel 2	ld value 2		off	on	off	luminous intensity 30%	
				on	on	off	luminous intensity 40%	
4	dmx channel 4	ld value 4		off	off	on	luminous intensity 50%	
				on	off	on	luminous intensity 60%	
8	dmx channel 8	ld value 8		off	on	on	luminous intensity 80%	
				on	on	on	luminous intensity 100%	
8	dmx channel 8	ld value 8		dip-switch 8	dip-switch 16	dip-switch 32	<b>white temperature fine regulation</b>	
				off	off	off		
16	dmx channel 16	ld value 16		on	off	off	3100°K	
				off	on	off	3600°K	
32	dmx channel 32	ld value 32		on	on	off	3900°K	
				off	off	on	4300°K	
64	dmx channel 64	ld value 64		on	off	on	4600°K	
				off	on	on	5500°K	
128	dmx channel 128	ld value 128		on	on	on	6500°K	
256	dmx channel 256	ld value 256						
DIMMER CURVE	N.F.	N.F.	ON			OFF		Active Xenon dimmer curve. On OFF the dimmer curve is halogen (Thungsten)
TEST	N.F.	N.F.	ON			OFF		Quick test of the sequence of channels.
LIGHT ON	OFF	OFF				ON		Leds are on. Intensity e cromaticy is on 7 levels which are set by a combinations of the dip-switches. Dip-switches from 1 to 4 for intensity, dip-switches from 8 to 32 for white color temperature.
1 CH	OFF	OFF	ON			OFF		1 CH function is on, only dimmer works.
COLOR TEMPERATURE	N.F.	N.F.	ON			OFF		ON: Color temperature change with the dimmer like an halogen lamp OFF: Costant color temperature while dimmer works
DR1	N.F.	N.F.				OFF		To by-pass hardware information and to communicate with DR1. All the other dip-switch functions are disabled. The DR1 display allows to operate with every ParLite Led (for example to change address and many other functions). The dip-switch from 1 to 256 is used to set up ParLite Led ID.
N.F.	OFF	ON				OFF		no function
<b>Note 1: the dip-switch TEST-LIGHT ON-DR1 must be set correctly to avoid function conflicts.</b>								
<b>led</b>	<b>function</b>	<b>led off</b>	<b>flashing led</b>					
green	power	no power	not required					
yellow	DMX state	no DMX	DMX ok					

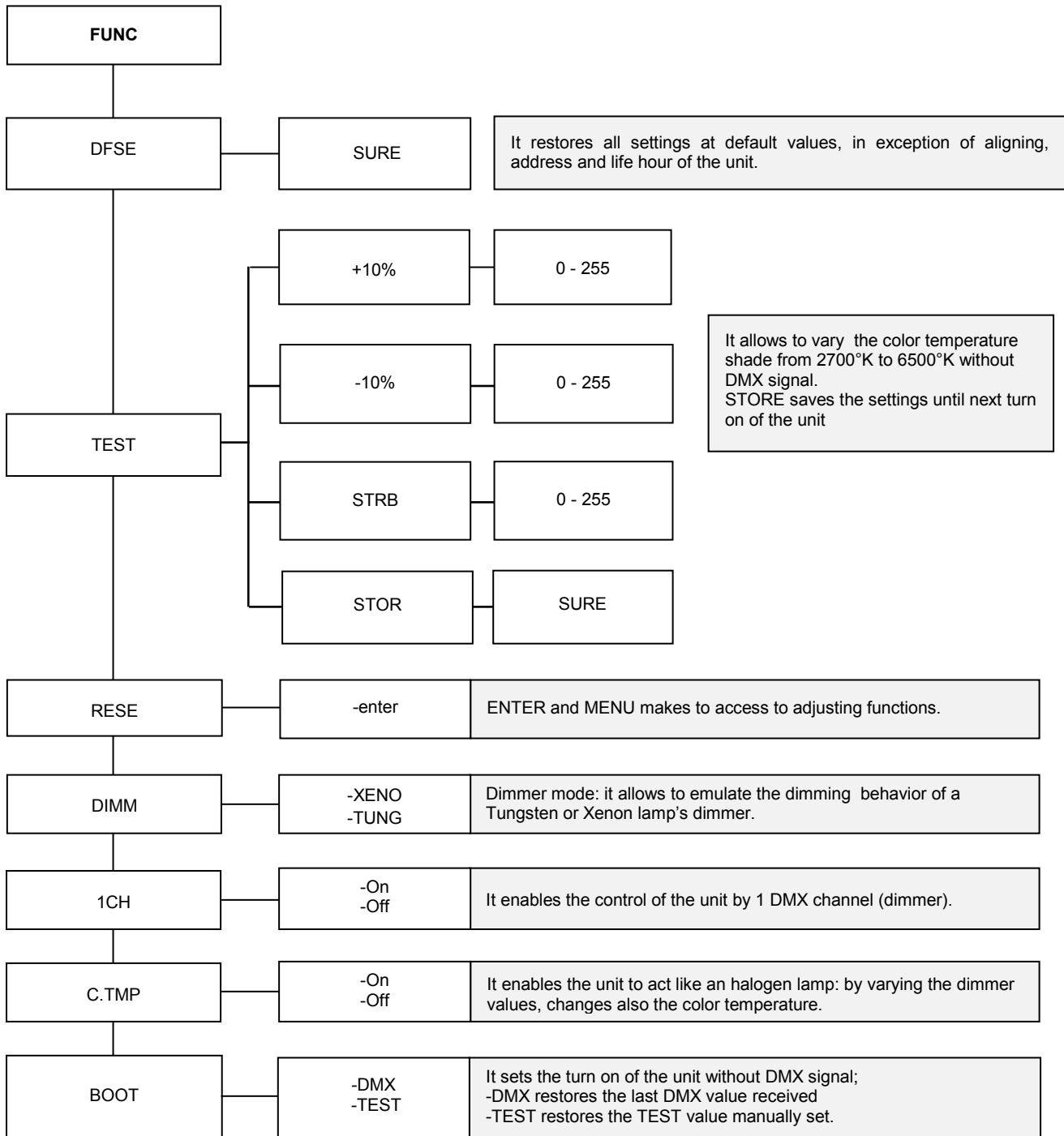
## 8. DR1+ function

DR1+ device ( cod. CO9709) allows to use and benefit of all capabilities of the unit from remote; by DR1+ it is possible to consult all the internal menu of **Par Lite Led VariWhite**, to sed DMX address, to change settings, read the diagnostics and upgrade the firmware.

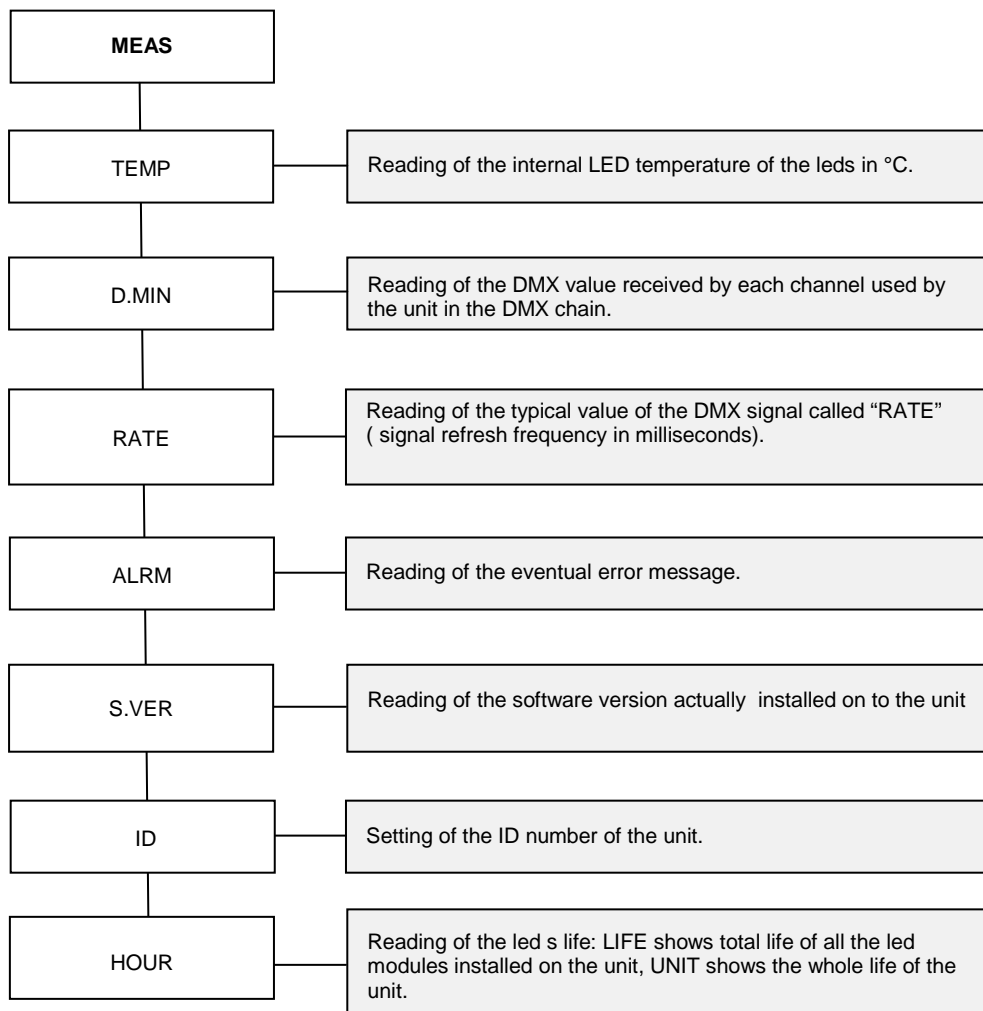
In order to set the unit to work in DR1+ mode is strictly required to activate the function by dip-switch panel ( see previous chapter) and set the ID also by dip-switch panel.

The menu browsing will be emulated on the PC screen on which has been previously installed “DR1+ Lite Interface” software which is included in the DR1+ device package. To browse the menu use “menu”, “enter”, “+” and “-” keys visualized on the PC screen in the same way you are operating on any **Coemar** product with display.

8.1 Functional settings ( FUNC )

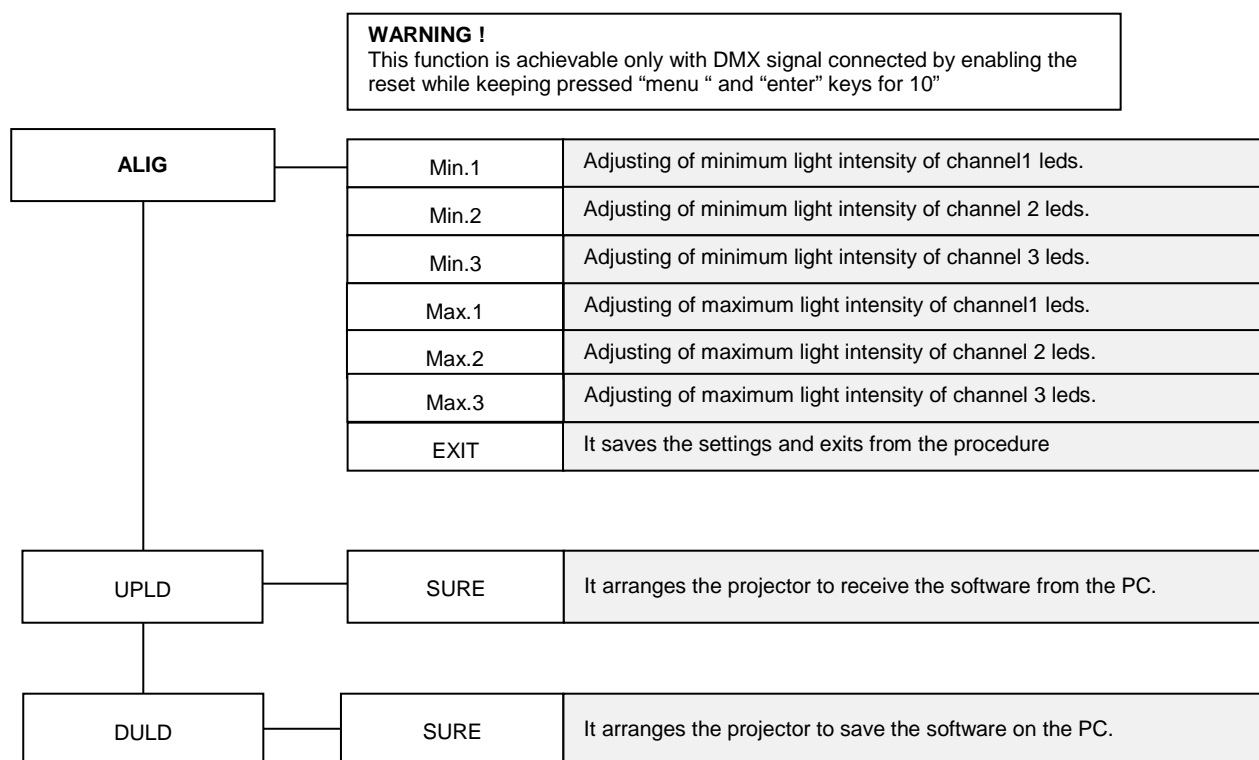


8.2 Disgnostics functions (MEAS)



**8.3 Special functions.**

By this menu, accessible by keep pressed “menu” and “enter” after the reset for about 10”, it is possible to access to aligning functions of the leds and to software upgrading functions.



**8.4 Error messages with DR1+**

Message	Description
<b>DTER</b>	DATA error The initial configuration settings are faulty or have been loaded incorrectly. The projector has loaded its default configuration. Turn the projector off and on again and if the error persists it means that the EEPROM is either defective or absent; refer to your <b>Coemar</b> service center for the check or replacement of the component.
<b>ADER</b>	DMX ADDRESS error The projector is not receiving all the DMX channels necessary for its operation. Check the DMX address and the controller's operation. Note that some controllers may not generate all 512 channels.



## 9. Diagnostics and maintenance

## 9.1 DMX panel warnings

The two leds (green and yellow) sited on the dip-switch panel continuously show **Par Lite Led VariWhite.staus**.

Led	Function	Led steady on	Led off	Led blinking
Verde	Power	Power off	Power off	-
Giallo	Signal reception status	DMX signal not correctly connected.	DMX signal absent	DMX signal correctly recived.

## 9.2 Thermal protection

The internal thermal sensor protects the unit from overheating. The thermal sensor limits the current to the leds in order to protect their integrity if the ambient temperature reaches higher values than those permitted. An eventual loose of output may be due to this reason.

## 9.3 Ordinary maintenance

Although every precautionary has been took to ensure long still efficiency and safety in the use of this equipment we recommend, in function of the operative conditions in which the unit works ( dusty environment, artificial fog or snow), to periodically make the following checks:

**Mechanical parts:** check that the unit is not mechanically damaged; clean often the front screen with a cloth and a specific cleaner product and if necessary replace the damaged parts.

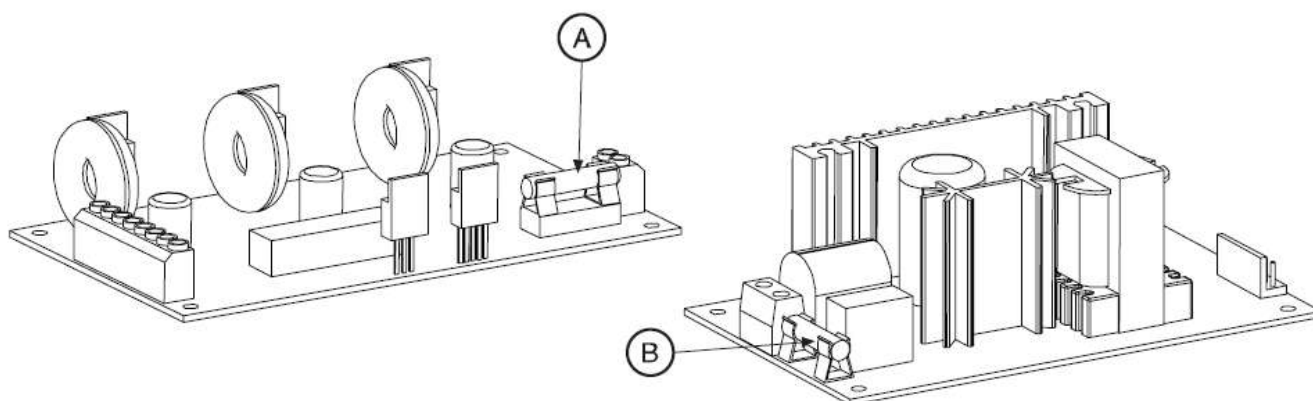
**Electrical parts:** check electric cabling, in particular the grounding and the correct insertion of the signal plugs. Check for the lack of oxidation on electrical contacts, eventually remove it with adequate tools.

## 9.4 Blown fuses replacement

By an adequate instrument check for the status of the fuses; if they are damaged replace them with ones with equal value, dimensions and characteristics. In the following picture are shown positions and characteristics of the fuses.

**WARNING !**

**Always remove main power before open the fixture.**




Fuse A: 2A F250V

Fuse B: 4A T250V

## 9.5 Spare parts

All components of the projector are available as spare parts at **Coemar** Service Centers. Please describe in detail the model of the projector you own, don't forget to give the serial number and with the help of the exploded view, identify the right spare part. Providing the service center with this data you will be better and quickly served.

	<b>Information on disposal of the equipment</b>
	<p>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.</p>

Our equipment has been manufactured and assembled by the rules and the essential requirements of the RoHS directive, so the materials we use and electronic subassemblies that we receive from our suppliers have been checked and are produced in compliance with the Directive in question.

Reference no.	title
2004/108/EC	Directive of the European Parliament and of the Council of 15 December 2004 on the approximation of the laws of the Member States relating to Electromagnetic Compatibility and repealing Directive 89/336/EEC (EMC)
2006/95/EC	Directive of the European Parliament and of the Council of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits (LVD)
2002/95/EC	Directive of the European Parliament and of the Council of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
2002/96/EC & 2003/108/EC	Directive of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipments (WEEE)



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