



**De Sisti Lighting S.p.a.**

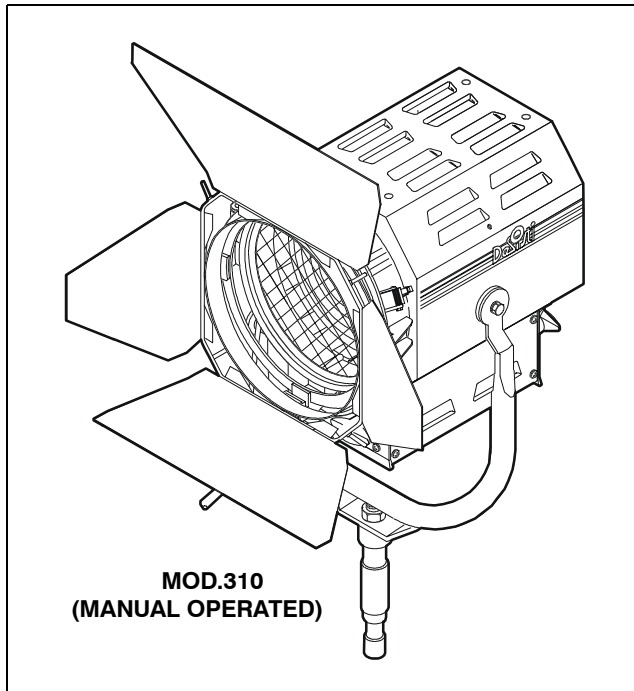
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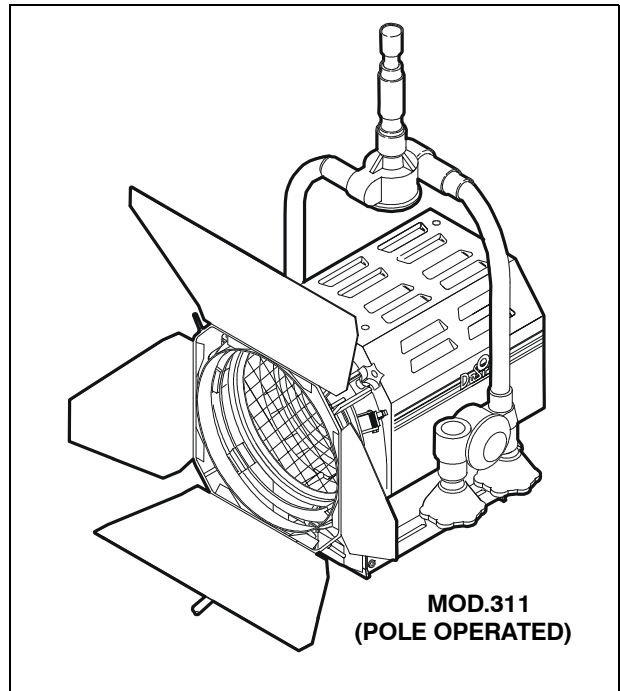
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## **LEONARDO 1.000 W** *Quartz - Halogen Fresnel SPOTLIGHT*

### **INSTRUCTION MANUAL**



**MOD.310**  
**(MANUAL OPERATED)**



**MOD.311**  
**(POLE OPERATED)**

#### **MANUFACTURER**

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#### **REPRESENTATIVE**

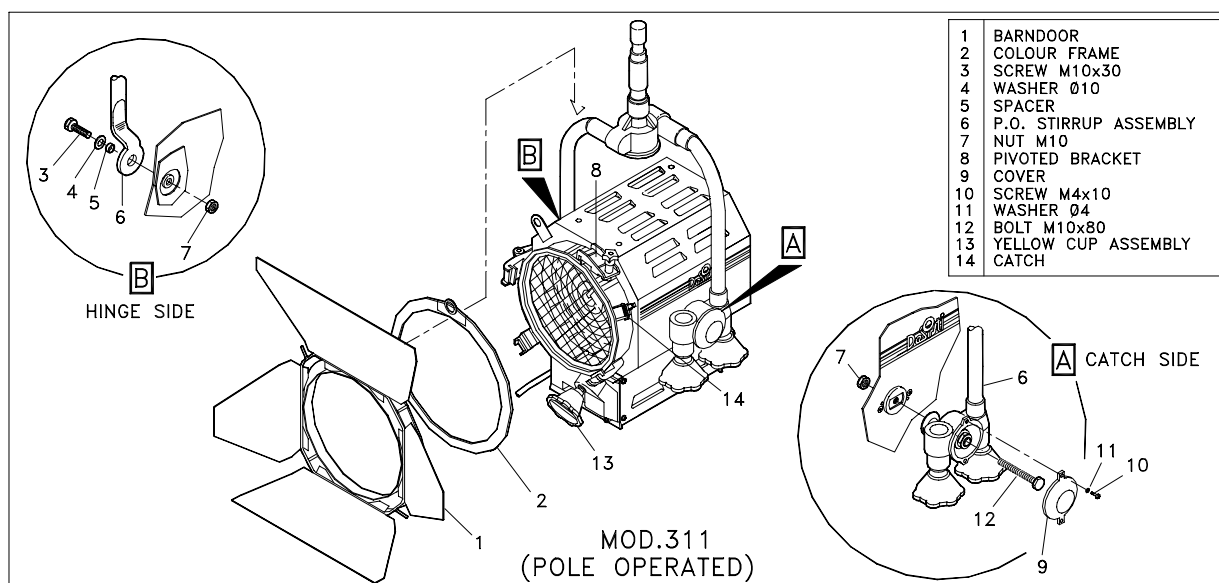
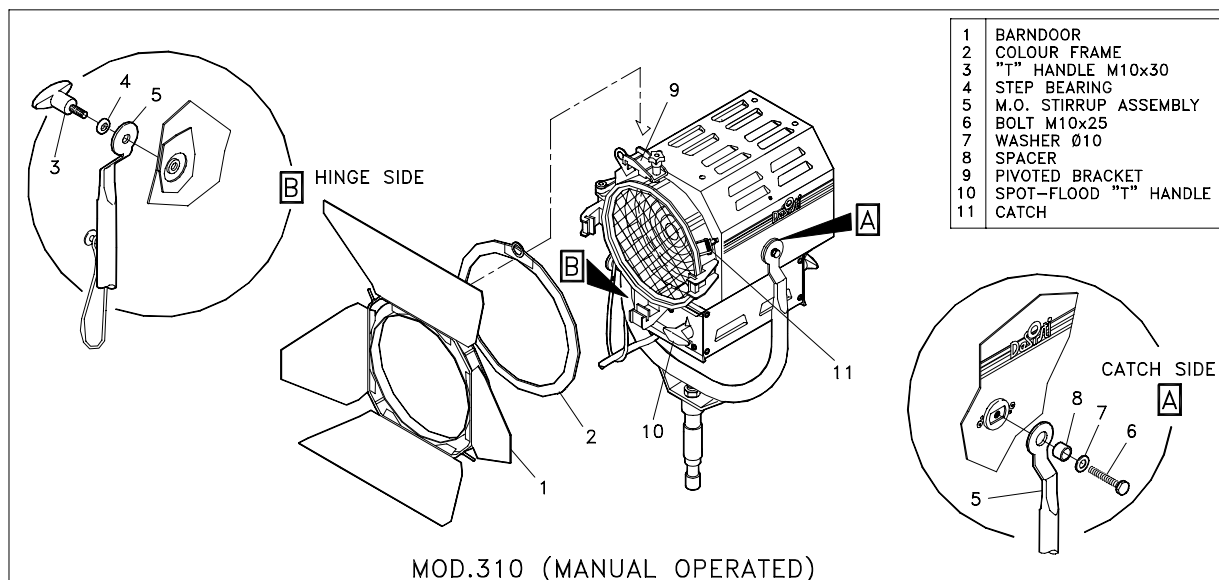
### **1. INTRODUCTION**

Congratulations on your purchase of a LEONARDO 1 kW lighting fixture from De Sisti Lighting, our commitment to Total Customer Satisfaction and a consolidated experience in leading the innovation in the manufacturing of lighting products for the professional Entertainment Industry mean you can depend upon the quality of this product.

The LEONARDO 1 kW is a compact, highly efficient Fresnel lens spotlight using tungsten-quartz-halogen filament lamps having G22 socket, L.C.L. of 63,5 mm. and max. 1 kW power (max. 1,2 kW – available at 230V).

NOTE: Also available , on special request , a version using tungsten-quartz-halogen filament lamps having GX 9.5 socket, L.C.L. of 55 mm. and max. 1 kW power.

## 2. YOKE AND ACCESSORIES ASSEMBLY



## 3. SAFETY INSTRUCTIONS


⇒ **Professional use:** This luminaire has been designed for professional use and must be operated by qualified personnel only. **Not for residential use.**

⇒ **Grounding: WARNING:** THIS LUMINAIRE MUST BE GROUNDED

⇒ **Electrical connections: IMPORTANT** The cores in this mains lead are colored in accordance with the following code:

	<b>Europe</b>	<b>America</b>
<i>Ground</i>	Green & yellow	Green or green & yellow
<i>Neutral</i>	Blue	White
<i>Live</i>	Brown	Black

In case the colors of the cores do not correspond to the colors of the connection points on your plug, please proceed as follows:

- the green or green and yellow core must be connected to the connection point marked with the letter E or with the symbol  or colored in green or in green - yellow;
- the blue (or white) core must be connected to the connection point marked with the letter N or colored in black;
- the brown (or black) core must be connected to the connection point marked with the letter L or colored in red.

## 4. WORKING CONDITIONS

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↻ Working Position	Lighting fixture: Max. Tilting $\pm 90^\circ$ from horizontal			Lamp: S90
↻ Ambient Temperature, $t_a$	+45° C Max			
↻ Minimum distances from inflammable surfaces	Top	Back	Sides	Front
	0,3 m.	0,1 m.	0,1 m.	1 m.

The luminaire should never be OPERATED close to inflammable materials. The ones indicated in the above table are the minimum distances recommended. Other requirements for safe use are:

- A. Do not cover the apertures of the luminaire housing. They are essential for correct ventilation. Do not use on the floor. It reduces the ventilation.
- B. Use only original accessories and spares from De Sisti Lighting.
- C. Before hanging the luminaire ensure that the suspension point (or the stand) is properly rated to accept the luminaire weight.
- D. In case of pole operated use, fit only a P.O. stirrup from De Sisti Lighting.
- E. A suitable secondary safety suspension device (safety cable, chain or equivalent) must be fitted between the suspension point and the eyelet at the front of the body .

**WARNING** : DO NOT MOUNT THE LUMINAIRE ON A NORMALLY FLAMMABLE SURFACE .

## 5. INSTALLATION INSTRUCTIONS

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Before connecting the luminaire to the electrical mains ensure that:

- A. Earth line is present on the power socket.
- B. The mains voltage is within the rated range of the luminaire (see technical data on the rating label)
- C. The lamp fitted:
  - is among the usable lamps ( see point 6 or check with your De Sisti dealer )
  - has the same nominal voltage as the mains supply
  - has a nominal power not higher than maximum power of the luminaire.
- D. The front safety shields against the lamp explosion are present and in good condition. They consist of fresnel lens plus wire guard . The fresnel lens is made by borosilicate untoughened glass  $D = 150 \text{ mm}$  , thickness = 5 mm typ ( 3 min ) , compliant to DIN 15560 . The wire guard is a mesh 25 mm x 25 mm ( or smaller ) , wire  $D = 0.8 \text{ mm}$  typ , made by nickel coated or stainless steel .

**WARNING** : SHIELDS, LENSES SAFETY OR DICHROIC GLASSES SHALL BE CHANGED IF THEY HAVE BECOME VISIBLY DAMAGED TO SUCH AN EXTENT THAT THEIR EFFECTIVENESS IS IMPAIRED, FOR EXAMPLE BY CRACKS OR DEEP SCRATCHES.

THE LUMINAIRE SHALL ONLY BE USED COMPLETE WITH ITS PROTECTIVE SHIELD .

## 6. LAMP INSTALLATION AND REPLACEMENT

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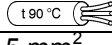
The following procedure should be adopted:

- A. Ensure the luminaire is electrically isolated from the power supply.
- B. WAIT LEAST 5 MINUTES FROM SWITCHING OFF to avoid risk of injury from possible lamp explosion. Then open lens door .

**WARNING:** AFTER THE ABOVE MENTIONED TIME THE LAMP MAY STILL BE VERY HOT, USE PROPER THERMAL PROTECTION (EG. GLOVES).
- C. Check that the new lamp is of the correct type ( see item 5 .C).
- D. Replace the lamp taking good note of the following:
  - do not touch the bulb with bare-hands; oil and grease can contaminate the bulb surface and then reduce the performance and the lamp life.
  - The plastic cover which protects the lamp should not be removed until after fitting.
  - Should the bulb become dirty due to hand contact or for any other reason, it can be cleaned with a cloth moistened with alcohol
- E. Ensure that the lens door is securely closed.

**WARNING** : THE LAMP MUST BE REPLACED IF IT HAS BECOME DAMAGED OR DEFORMED .

## 7. CHARACTERISTICS AND PERFORMANCE DATA

DESCRIPTION	VALUE	
↻ Amperage	<b>Europe - 230 V</b>	<b>America - 120 V</b>
	5,3 A ( 1200W)	8.4 A ( 1000 W)
↻ Power supply	<b>Europe</b>	<b>America</b>
	230 V / 0-60 Hz	120 V / 0-60 Hz
↻ Switch on the fixture	<b>M.O. &amp; P.O.</b>	
	Toggle : 16A\125V- 8A\250V	<b>Studio MO\PO</b>
↻ Lamp Holder	<b>Standard Version</b>	<b>Special Version</b>
	G22 Lever Type	GX9.5 Spring Type
↻ Power Cable	<b>Europe</b> 	<b>America</b>
	3 x 1,5 mm <sup>2</sup> H07RN-F 90°C	3 x 16 AWG TYPE SO 90°C
↻ Protection Class	Class 1- ground connection required	
↻ Protection Type	IP 22	
↻ Max. Housing Surface Temperature	220° C	
↻ Weight of Fixture	<b>M.O.</b>	<b>P.O.</b>
	6,3 kg.	7,6 kg.
↻ Weight of Barndoor	<b>4 leaf</b>	<b>8 leaf</b>
	0,63 kg.	0,85 kg.
↻ Size of Barndoor ring	<b>Seat Diameter</b>	<b>Ring Diameter</b>
	192 mm	190 mm ( 7" <sup>1</sup> / <sub>2</sub> )
↻ Weight of color frame	0,13 kg.	
↻ Size of scrims & color frame	<b>Seat Diameter</b>	<b>Accessory Diameter</b>
	187 mm	185 mm ( 7" <sup>1</sup> / <sub>4</sub> )
↻ Lens diameter	150 mm.	

USABLE LAMPS base-watt-filament	230 v		120 v	
	ANSI	LIF	ANSI	LIF
G22 - 500 w - MP	Not available		EGN	
G22 - 650 w - MP	FKH	CP 39	Not available	
G22 - 650 w - BP		CP 68	Not available	
G22 - 750 w - MP	Not available		EGR	
G22 -1000 w - MP	FKJ	CP 40	EGT	
G22 - 1000 w - BP	FKJ	CP 71	EGT	
G22 - 1200 w - BP		CP 93	Not available	
GX9.5 -650 w - MP		CP 23		CP23
GX9.5 - 650 w - BP	FVC	CP 67	Not available	
GX9.5 - 1000 w -MP		CP 24	Not available	
GX9.5 - 1000 w -BP	FVA	CP 70	Not available	

GX 9.5 only on special version

## 8. PERIODIC INSPECTION

- The condition of the internal wiring insulation and of the input cable shall be inspected and tested every 500 working hours and at least once a year. This frequency may need to be increased if rough or unknown (eg. rental) treatment is incurred. Replace only with original De Sisti Lighting spare parts. Non-original cables may not withstand the thermal and mechanical conditions of use
- The lamp condition must be checked every 100 working hours. For lamp replacement follow the procedure of point 5 and the instruction of the lamp manufacturer .
- Check the condition of the safety shield (see chapter 5-D: Installation Instructions) before every use.

## 9. SAFETY STANDARDS

<b>Europe:</b> The product conforms the Applicable European Directives & Standards	<b>America:</b> the product conforms NEC & UL stds.
↻ Low Voltage Directive: 73/23/EEC (as amended by 93/68/EEC)	UL Standard : 1573
↻ EMC Directive: 89/336/EEC (as amended by 92/31/EEC & by 93/68/EEC)	Approved by UL: file E116219
↻ European Standards:: EN 60598-2-17, EN 60598-1 , EN 55015 , EN 61547	

