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WARNING
SAFETY INFORMATION

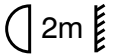
**READ ALL CAUTIONS AND WARNINGS PRIOR TO OPERATE THIS EQUIPMENT.
INSTRUCTION TO PREVENT INJURY OR DAMAGE DUE TO ELECTRIC SHOCK, FIRE, MECHANICAL HAZARDS,
UV RADIATION HAZARDS AND DANGEROUS MATTERS.**

• PROTECTION AGAINST DANGEROUS MATTERS

At the end of its working life, the product must not be disposed of as urban waste. It must be taken to a special local authority differentiated waste collection centre or to a dealer providing this service. The wrong disposal must be cause of environment and people damages in the presence of possible dangerous matters. There are provided for sanctions to a unauthorized disposal of these products.

**• PROTECTION AGAINST FIRE**

- 1) This equipment is designed for use with the following lamps only:
MSD 575, MSR 575/2, HPL 575 halogen. DO NOT USE ANY OTHER TYPE LAMP!
- 2) Maintain minimum distance of 0.5 meter from walls or any other type flammable surfaces.
- 3) Maintain minimum distance to lighted objects of 2.0 meters.
- 4) Replace fuses only with the specified type and rating.
- 5) Do not install the spot close to heat sources. Do not lay the connection cable on the spot when it is warm.

**• PROTECTION AGAINST ELECTRIC SHOCK**

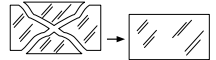
- 1) This equipment must be earthed.
- 2) Class I equipment. The power supply cord includes a protective earthing conductor as part of the cord.
- 3) The equipment must be connected to branch circuit having a circuit- breaker In=6.3A Id=0.03A (230VAC)
- 4) Disconnect power before lamp's replacement or servicing (service personnel).

**• PROTECTION AGAINST MECHANICAL HAZARDS**

- 1) Use secondary safety chain when fixing this equipment.
- 2) Hot lamp explosion hazard. Do not open the equipment for 5 minutes after switching off.
- 3) Equipment surface may reach temperature higher than 130°C. Allow about five minutes before handling.
- 4) Replace the lamp if it is damaged or thermally deformed.

• PROTECTION AGAINST UV RADIATION HAZARDS

- 1) Do not start on this equipment without lamp enclosure or if the protection screens, or ultraviolet screens are damaged.
- 2) The protection screens, the lenses, or the ultraviolet filters must be replaced if they are visibly damaged and their effectiveness has been reduced, for example, by cracks or deep scratches.
- 3) Do not look directly at the lamp while lamp is lit-up.



INTRODUCTION

Thank you for choosing the CS1 wash light moving head!

The CS1 is a moving head wash light projector: it's equipped with four different lenses for four different beam angles: **15°** (very narrow beam), **19°** (narrow beam), **21°x34°** (medium beam), **30°x51°** (wide beam).

The CS1 comes in two versions:

- Art. 03071 CS1 575 for discharge lamp
- Art. 03072 CS1 575 for halogen lamp

The input protocol is the DMX 512. To drive the CS1 we suggest to use either our controller Control Show 512, Control Five, Fancy or the Easy Control.

To make the most of its possibilities and for a correct functioning of this unit in the years to come, we suggest you to read carefully this manual before connecting or putting the spot into use. By doing so you will gain experience with its commands and connections and you will be easily able to use it.

YOUR REFERENCE

Always remember to give the serial number and to specify the model any time you address the seller for information or assistance.

BASIC KIT

The basic kit of the CS1 moving head consists of:

- Projector
- Four lenses
- User's manual
- Power connector
- Standard fixing bracket
- Studio Due warranty

Available on request:

- Lamp
- art. Clamp: clamp to hang the fixture to any structure and regulate its position
- art. FL2: kit 2 fast lock
- art. 0501 CS1/dimmer: mechanical dimmer (for CS1 discharge)
- art. 0502 CS1/color scroller: color scroller (for CS1 halogen)



WARNING

Check that the fixture has not been damaged during transport. If it has been damaged or it does not work, address the seller. Whether the fixture has been shipped to you directly, please contact the shipping company. Only the consignee (person or company) can claim for these damages.

TECHNICAL FEATURES**• SOURCE**

Art. 03071: CS1 575W discharge
MSD 575 or MSR 575/2

Color temperature: 6.000° K (MSD575) or 7.200° K (MSR575)

Lamp life: 3.000 hrs (MSD575) or 1.000 hrs (MSR575)

Luminous flux: 43.000 lm (MSD575) or 49.000 lm (MSR575)

Color rendering index (Ra): 75 (MSD575) or 80 (MSR575)

Art. 03072: CS1 575W halogen
HPL 575

Color temperature: 3.150° K

Lamp life: 300 hrs

Luminous flux: 15.000 lm

• OPTIC

Equipped with 4 version of lenses for 4 beam angles (50%)

15° with VNSP lens (very narrow beam)

19° with NSP lens (narrow beam)

21°x34° with MFL lens (medium beam)

30°x51° with WFL lens (wide beam)

• PAN TILT

Movement: stepper motor 8 or 16 bit resolution:

540° Pan, 270° Tilt

Encoder close loop with autorepositioning

• ELECTRONIC PROGRESSIVE DIMMER

for CS1 575W halogen: electronic dimmer 100%-0%

for CS1 575W discharge: electronic dimmer 100%-60% (mechanical 100% - 0% with art. 0501: CS dimmer)

• CONTROL INPUT

Standard interface: RS-485, opto-coupled input

Protocol: USITT DMX512

• SETTING

Built-in microprocessor with display and buttons

• DMX CHANNELS

1= motor speed

2= aux

3= reset/lamp off

4= dimmer

5= pan coarse

6= pan fine

7= tilt coarse

8= tilt fine

• POWER SUPPLY

Rated voltage: 90-240V; 50/60Hz, electronic ballast

(for CS1-575 halogen lamp, it is necessary to utilize the

lamp code OSRAM: 93725 for 117V, 93728 for 230V)

• PHYSICAL

dimensions (wxdxh) - weight

Art. 03072 (halogen): mm 400x320x525 - Kg 10

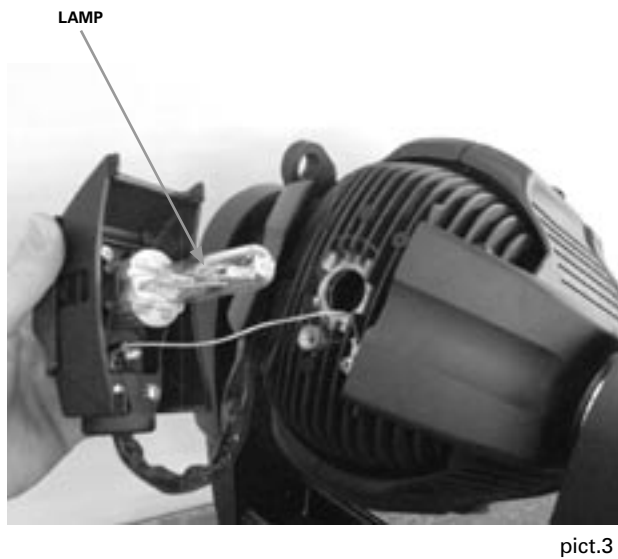
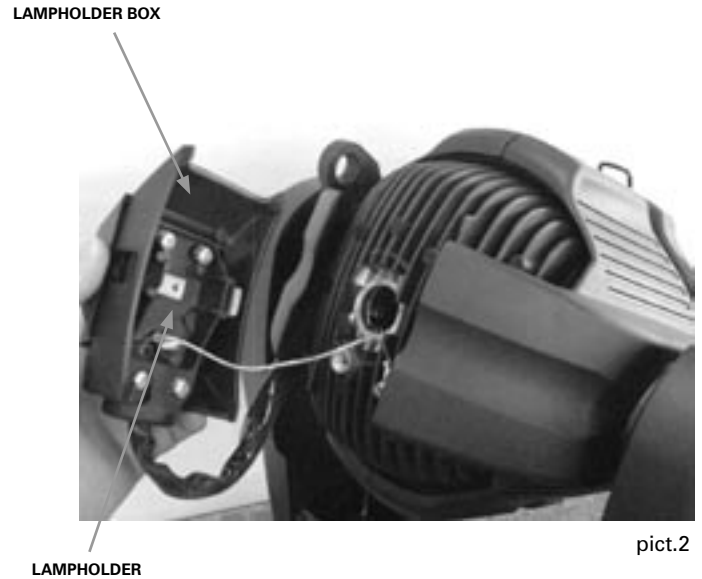
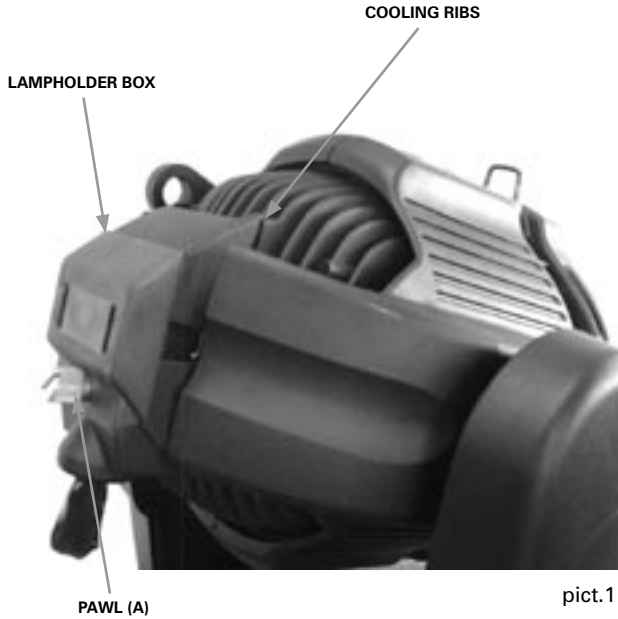
Art. 03071 (discharge): mm 435x320x525 - Kg 12



WARNING

In case of replacement of the lamp or maintenance, do not open the fixture unless 5 minutes have passed from the switching off.

- 1) Disconnect power before the lamp installation or lamp replacement. Wear gloves and goggles.
- 2) Unscrew the lampholder pawl "A" on the back of the head fixture. (pict.1)
- 3) Open the lampholder on the back of head fixture. (pict.2)
- 4) Insert the lamp into the lampholder socket (pict.3). Do not touch the quartz bulb with fingers. If this happens, clean the bulb before use with cloth and alcohol. Polish with a dry cloth.
- 5) Close again the lampholder (pict.4) and screw the pawl "A".
- 6) Check if the lampholder box is wedged into the cooling ribs (pict.1)

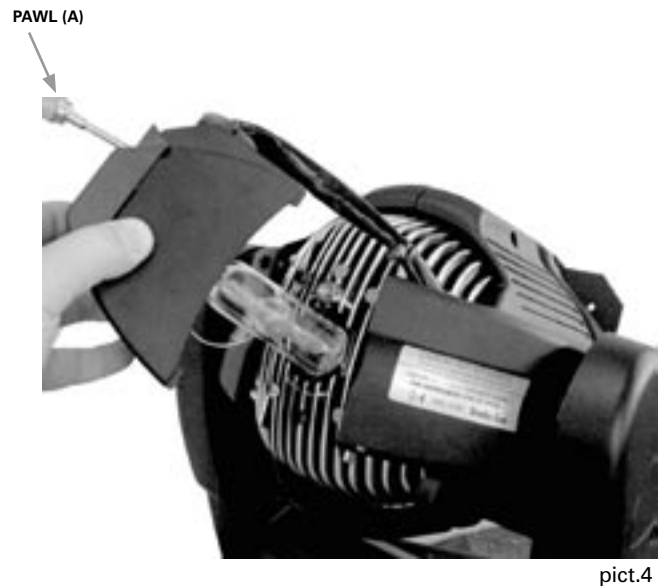
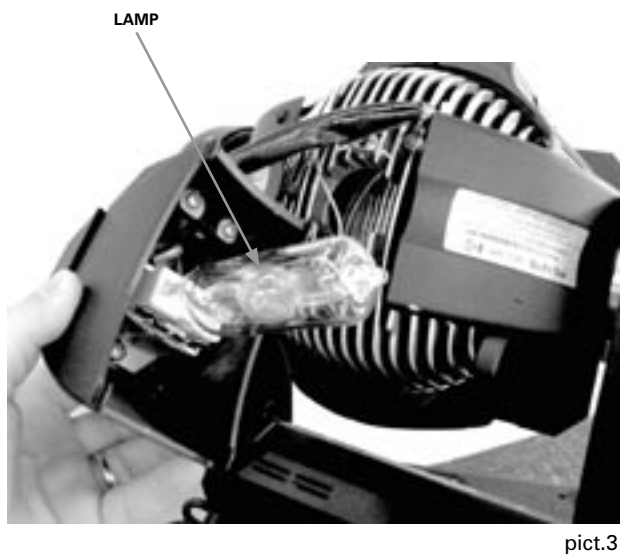
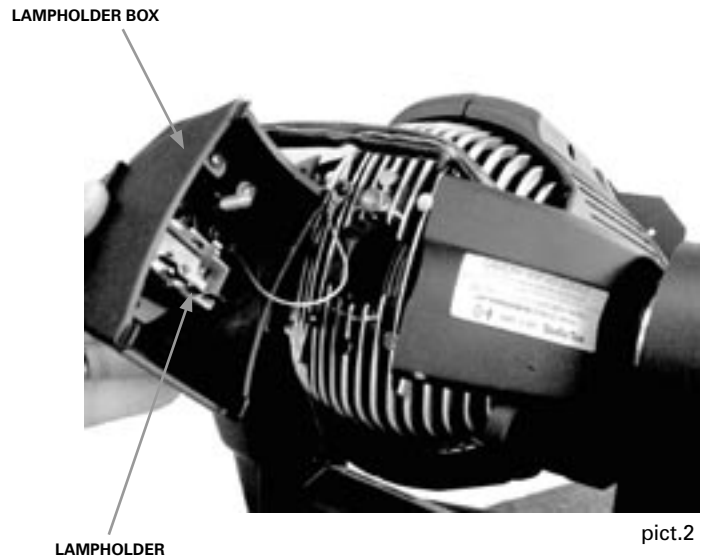




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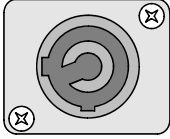


CONNECTION TO THE MAIN POWER

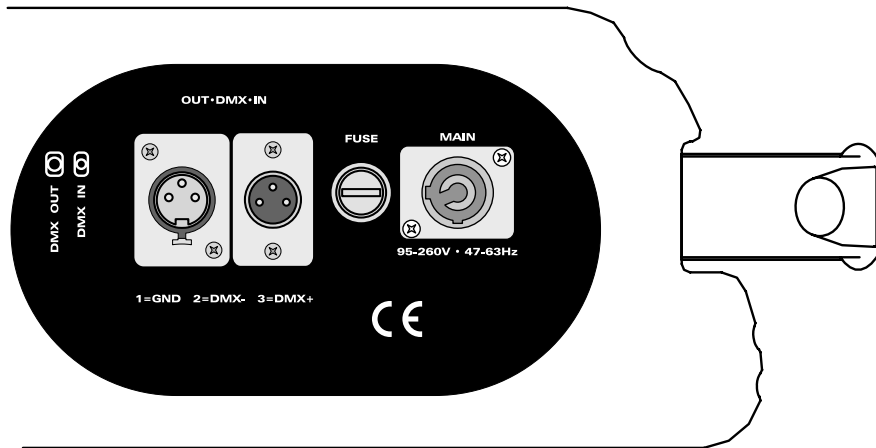
This equipment must be earthed.
Class I equipment. The power supply cord includes a protective earthing conductor as part of the cord.

MAIN IN

Power input
L=LIVE (brown)
N=NEUTRAL (blue)
⏏=EARTH (green/yellow)




Rated voltage
100-240 Volts / 50-60 Hz

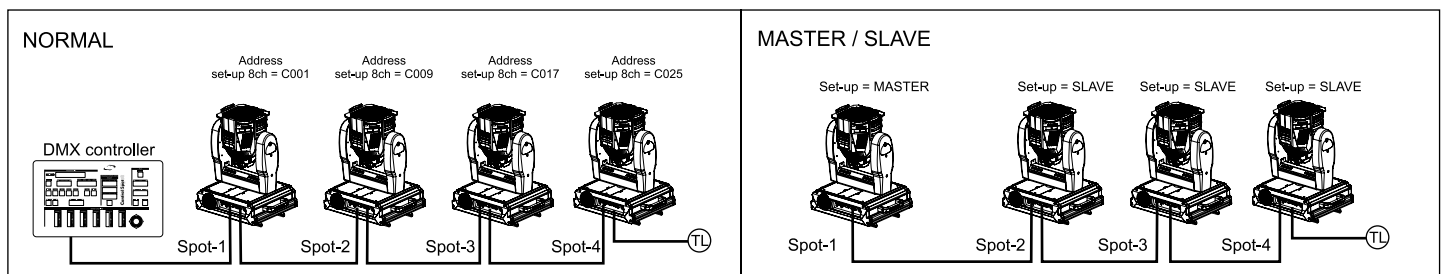


DMX TERMINAL LINE

The wrong connection of the terminal line or its non-connection are probably the most frequent reasons for the defective functioning of the DMX line. The terminator is a terminal resistor fitted at the end of the cable furthest from the transmitter. The terminal resistor should have the same value as the impedance of the connection cable. We suggest to use a terminal with a 100 ohm resistor. It is recommended that all DMX 512 systems have the terminal resistor fitted in the DMX output of the last fixture.



PIN	WIRE	SIGNAL
1	SHIELD	GROUND/RETURN/OV
2	INNER CONDUCTOR	DATA COMPLEMENT (-, INVERTED)
3	INNER CONDUCTOR	DATA TRUE (+, NOT INVERTED)



HALOGEN/DICHARGE FIXTURE CONTROL PANEL

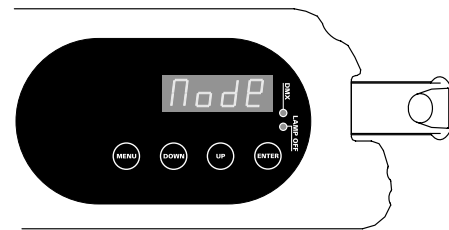
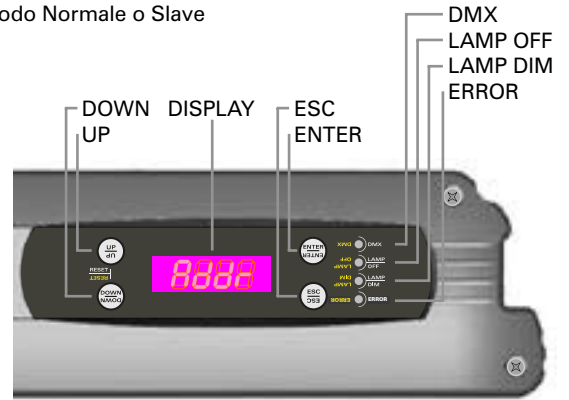
On the control panel of the fixture you can find, besides the display, the leds and the buttons to use to set the spot.
Sulla base dell'apparecchio troverete il pannello dei comandi per il SetUp composto da 4 tasti, un display e 4 led di controllo.

- LED**
- "DMX" led ----- flashing: **DMX input present** / presenza del segnale DMX
off: **no DMX input** / DMX assente
 - "LAMP OFF" led ----- flashing: **the lamp switching off is remotely controlled** / la lampada è spenta dal controllo remoto
off: **lamp switched on** / la lampada è accesa
 - "LAMP DIM" led* ----- flashing: **the lamp dimmered 0/40% off is remotely controlled** / la lampada risulta dimmerata dal controllo remoto
off: **lamp switched on 100%** / la lampada è al 100%
 - "ERROR" led ----- flashing: **SetUp Fixture in mode music synch** / è in funzione il modo sincronismo musicale
off: **SetUp Fixture in mode Normal os Slave** / è in modo Normale o Slave

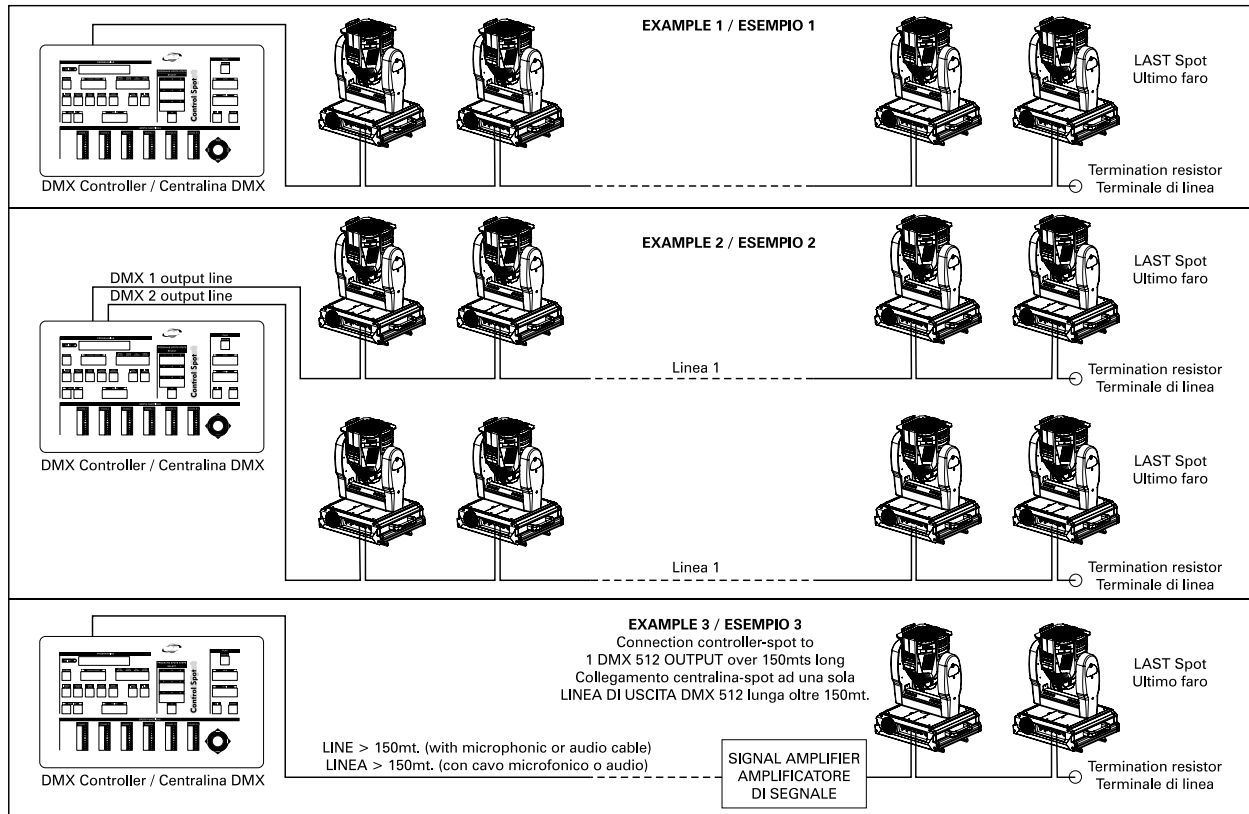
BUTTONS
Four buttons are used to programme the spot:
Usare i quattro pulsanti per la programmazione:

- ESC - **exit from menu and return to a previus menu level**
- esce dal menu e torna ad un livello inferiore
- DOWN - **to go backward in the selected options**
- scorrimento indietro
- UP - **to go forward in the selected options**
- scorrimento avanti
- ENTER - **to confirm the selected options**
- conferma delle opzioni selezionate
- UP + DOWN = **Fixture reset**
reset dell'apparecchio

DISPLAY
Shows the various menus and the selected options.
Mostra i vari menu e le opzioni selezionate.

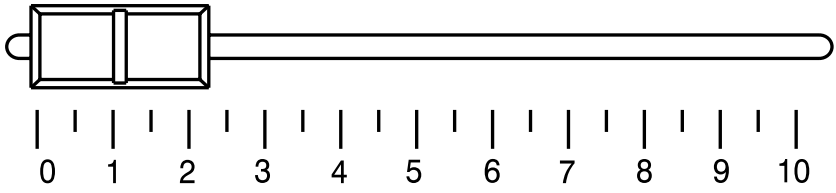



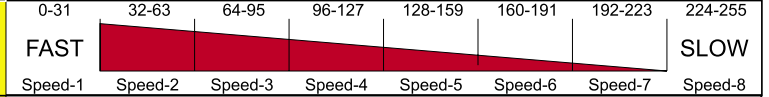
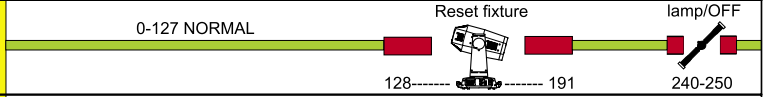
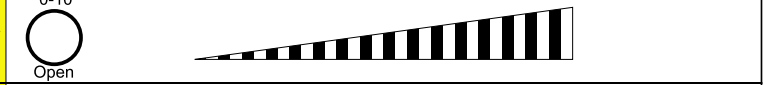
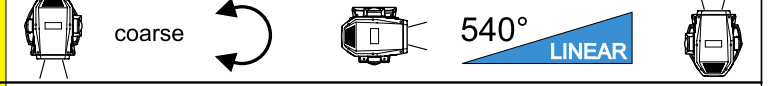
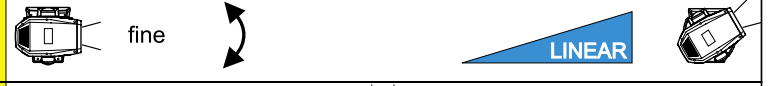
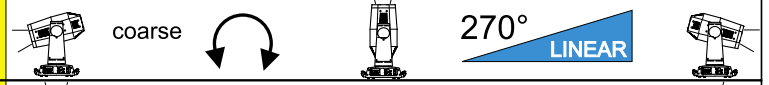
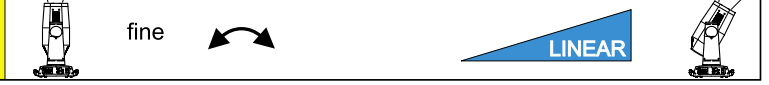
EXAMPLE OF CONNECTION DMX CONTROLLER-SPOT



DMX LISTING

DMX Listing
 **CS-1**
 discharge



8bit	16bit	8bit +remote	16bit +remote	FUNCTION	
					
Ch1	Ch1	Ch1	Ch1	Motor Speed	
Ch2	Ch2	Ch2	Ch2	Aux	No Functions
Ch3	Ch3	Ch3	Ch3	Reset/Lamp off	
Ch4	Ch4	Ch4	Ch4	Dimmer * halogen only	
Ch5	Ch5	Ch5	Ch5	PAN coarse	
	Ch6		Ch6	PAN fine	
Ch6	Ch7	Ch6	Ch7	TILT coarse	
	Ch8		Ch8	TILT fine	



8888	-8888 = led test				
C001	-C001 = CH-default				
Addr	-Addr = address DMX	C001 ÷ C504			
Pt	-Pt = menu PAN-TILT	IPan -IPan = ON/OFF inversion PAN			
		itLt -itLt = ON/OFF inversion TILT			
		Fdbc -Fdbc = ON/OFF feedback encoder			
HSCn	-HSCn = hours counter	LHrS -LHrS = lamp hours			
		FHrS -FHrS = fixture hours			
dISP	-dISP = menu display	FLIP -FLIP = ON/OFF 180° rotation display			
		BrGt -BrGt = brightness= 0...7			
		LSHd -LSHd = led shutdown			
EFFS	-EFFS = effects	dMMd -dMMd = dimmer mode			
		<ul style="list-style-type: none"> - MOD1= ch4 = 0; dimmer fully closed ch4 = 255; dimmer fully opened 			
		<ul style="list-style-type: none"> - MOD2= ch4 = 0; dimmer fully opened ch4 = 255; dimmer fully closed 			
dMSP	-dMSP = remote DMX functions	rSEt -rSEt = remote reset = ON/OFF			
		LAMP -LAMP = remote lamp on/off = ON/OFF			
SrvC	-SrvC = service	rSEt -rSEt = reset			
		tEST -tEST = fixture autotest = ON/OFF press any key to exit			
		FrMt -FrMt = format			
		MdIM -MdIM = ON/OFF (for optional art. dimmer and color scroller)			
On	-On = ON / activated	OFF	-OFF = OFF / not activated	8888	-PULSE = Holding to confirm ENTER
FErr -FErr = Format ERROR // // RESET OR CONTACT StudioDue DISTRIBUTOR // //					