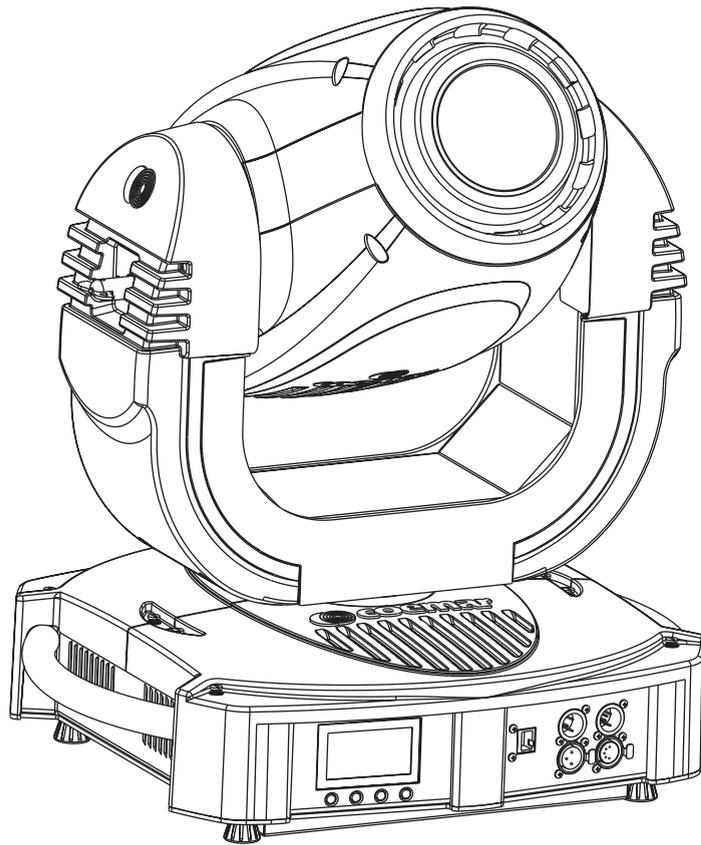


# ∞ **Infinity Spot S**



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

**Version 1.1**  
DIS111

 **coemar**  
L I G H T E M O T I O N

# **Infinity Spot S**

serial number/numero di serie

date of purchase/data di acquisto

retailer/fornitore

address/indirizzo

suburb/cap/città

capital city/provincia

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 **Infinity Spot S**: 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 apposito, dei dati relativi al modello e al rivenditore del vostro **Infinity Spot S**: 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.*

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## English

Congratulations on having purchased a Coemar product. You can be assured that you have 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 after 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.

## 1. Packaging and transportation

### 1.1. Packaging

Open the packaging and ensure that no part of the equipment has suffered damage in transit. In case of damage to the equipment, contact your carrier immediately by telephone or fax, following this with formal notification in writing.

Packing list

Ensure the packaging contains:

- 1 Infinity Spot S
- 1 instruction manual
- 1 Cam-lock support brackets

### 1.2. Transportation

The **Infinity Spot S** should be transported in its original packaging or in an appropriate flight case.

## 2. General information

### 2.1. Important safety information

#### Fire prevention:

1. **Infinity Spot S** utilises a Philips MSR GOLD 300 FastFit; the use of any alternative lamp is not recommended and will null and void the warranty of the fixture.
2. Never locate the fixture on any flammable surface.
3. Minimum distance from flammable materials: 0,5 m.
4. Minimum distance from the closest illuminable surface: 2 m.
5. Replace any blown or damaged fuses only with those of identical values. Refer to the schematic diagram if there is any doubt.
6. Connect the projector to mains power via a thermal magnetic circuit breaker.

#### Preventing electric shock:

1. High voltage is present in the internals of the unit. Isolate the projector from mains supply prior to performing any function which involves touching the internals of the unit, including lamp replacement.
2. For mains connection, adhere strictly to the guidelines outlined in this manual.
3. The level of technology inherent in the **Infinity Spot S** 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 proper functioning of the projector. Never operate the unit without proper earth connection.
5. Mains cables should not come into contact with other cables.
6. Do not operate the projector with wet hands or in an area where water present
7. The fixture should never be located in an exposed position, or in areas of extreme humidity. A steady supply of circulating air is essential.

#### Protection against ultraviolet radiation:

1. Never turn on the lamp if any of the lenses, filters, or the carbon fibre housing is damaged; their respective functions will only operate efficiently if they are in perfect working order.
2. Never look directly into the lamp when it is operating.

#### Safety:

1. The projector should always be installed with bolts, clamps, and other fixings which are suitably rated to support the weight of the unit.
2. Always use a secondary safety chain of a suitable rating to sustain the weight of the unit in case of the failure of the primary fixing point.
3. The external surface of the unit, at various points, may exceed 150°C. Never handle the unit until at least 10 minutes have elapsed since the lamp was turned off.
4. Always replace the lamp if any physical damage is evident.
5. Never install the fixture in an enclosed area lacking sufficient air flow; the ambient temperature should not exceed 35°C.
6. Wait at least 10 minutes after the unit has been turned off prior to attempting to replace the lamp. Always use gloves while replacing the lamp.
7. The projector contains electronic and electrical components which should under no circumstances be exposed to contact with water, oil or any other liquid. Failure to do so will compromise the proper functioning of the projector.

#### Articulated movement

The projector has a pan range of 540° in its base and a tilt range 262° in its yoke; do not obstruct the projector whilst it is undertaking articulated movement.

#### Forced ventilation

You will note several air vents on the body of the projector. To avoid any problems associated with overheating, never obstruct any of these vents as this may seriously compromise the proper operation of the unit.

**Protection rating against penetration by external agents:**

The fixture is classified ordinary apparatus ; its protection grade against penetration by external agents,solid or liquid, is IP 20.

**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 or use by inexperienced operators.
- 3.The warranty is immediately void if the projector has been operated or dismantled by unauthorised personnel.
- 4.The warranty does not extend to fixture replacement.
- 5.The serial number of the projector is required for any advice or service fro your authorised Coemar service centre.

**2.3. CE norms**

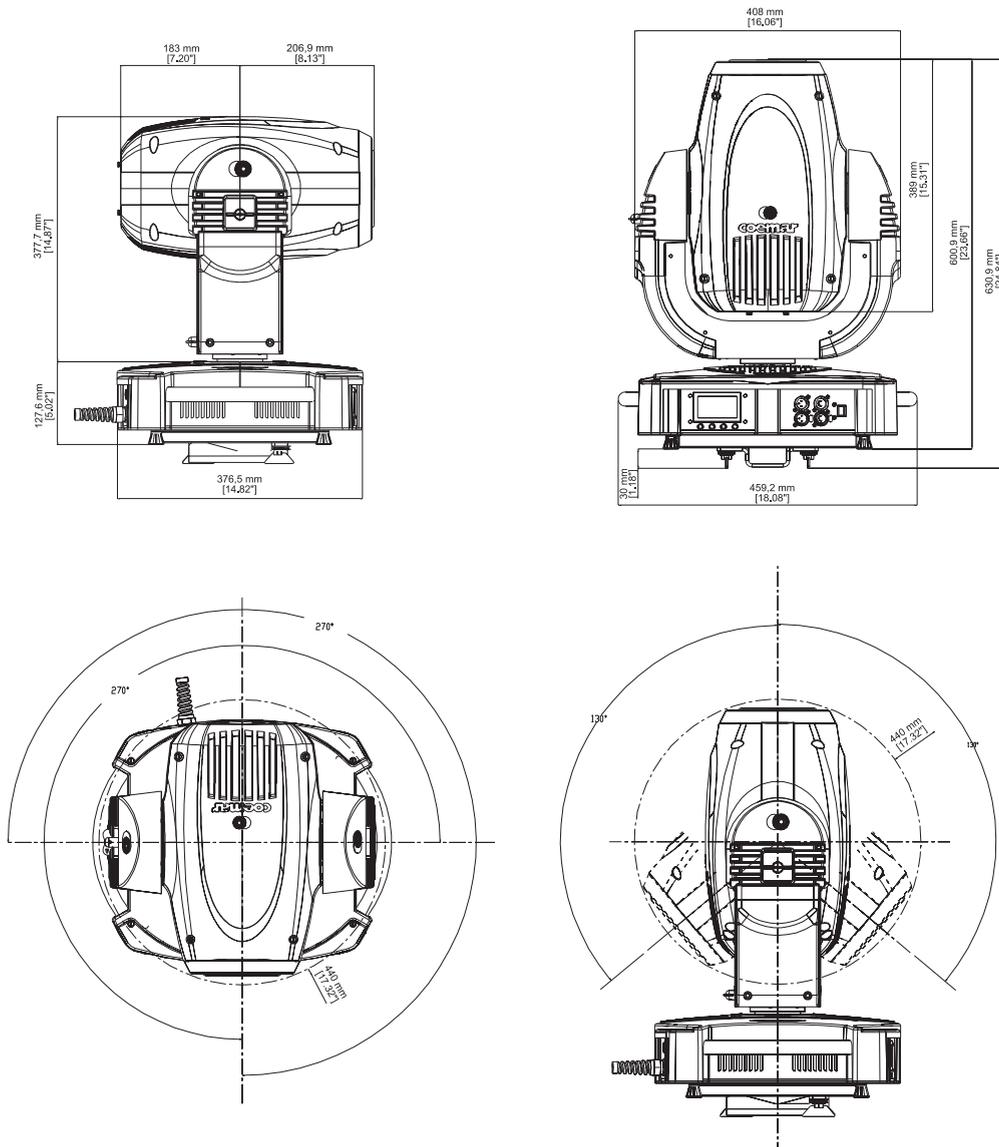
The projector meets or exceeds all applicable CE requirements.

**3. Product specifications**

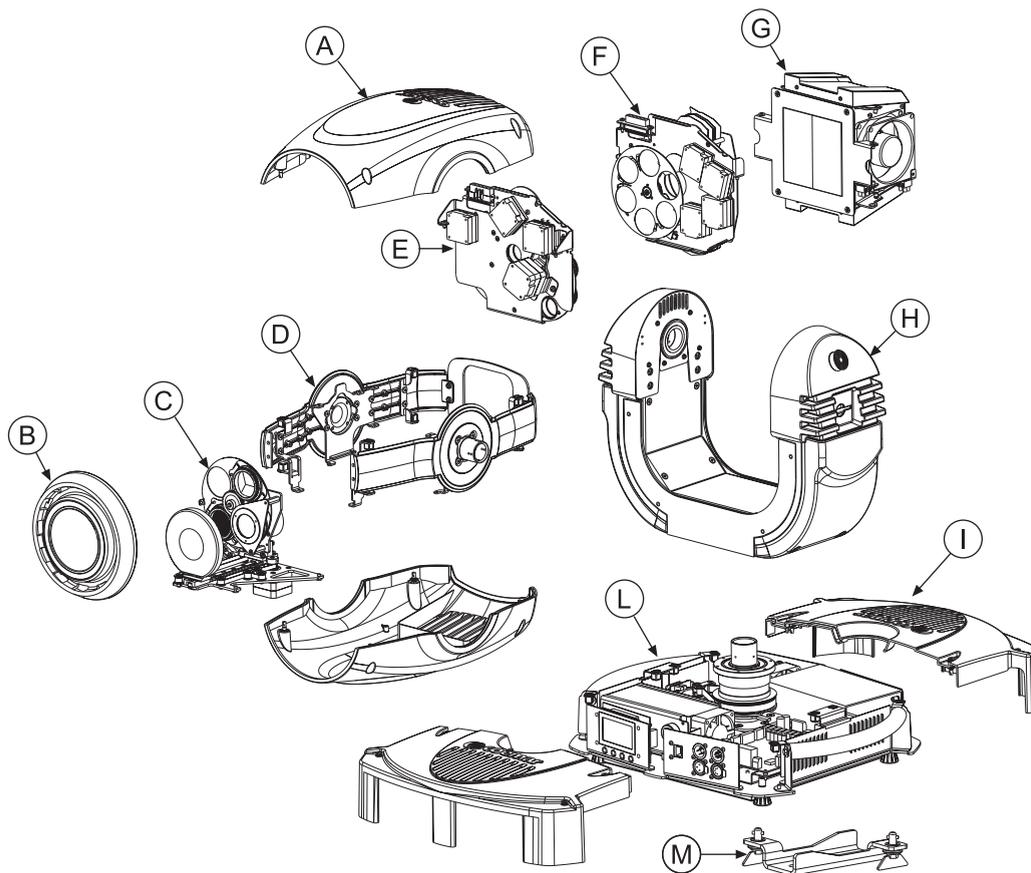
**3.1 Technical characteristics**

**Power:** 90-260 Vac 50/60Hz Autosensing  
**Maximum current:** 2 A@ 230V – 4,4 A@ 115 V  
**power factor:** cos φ =0,9  
**Lamp wattage:** 300W  
**maximum ambient temperature:** 35°C / 95°F  
**Weight:** 55.11 lbs.  
**IP rating:** IP20

**3.2 Dimensions**



3.3 Components



| Components description |                         |
|------------------------|-------------------------|
| <b>A</b>               | Body housing            |
| <b>B</b>               | Lens group              |
| <b>C</b>               | Zoom assembly           |
| <b>D</b>               | Chassis                 |
| <b>E</b>               | Gobos assembly          |
| <b>F</b>               | Colour changer assembly |
| <b>G</b>               | Reflector group         |
| <b>H</b>               | Yoke                    |
| <b>I</b>               | Base housing            |
| <b>L</b>               | Base                    |
| <b>M</b>               | Cam lock plate          |

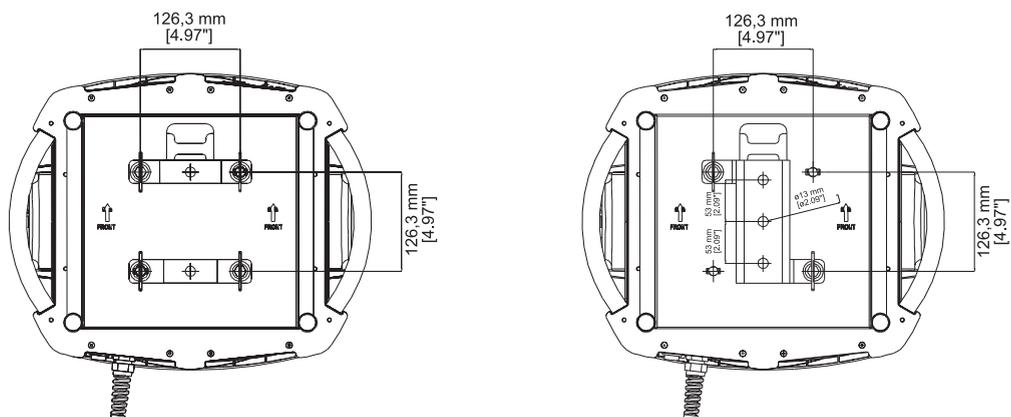
4. Installation

4.1 Mechanical installation

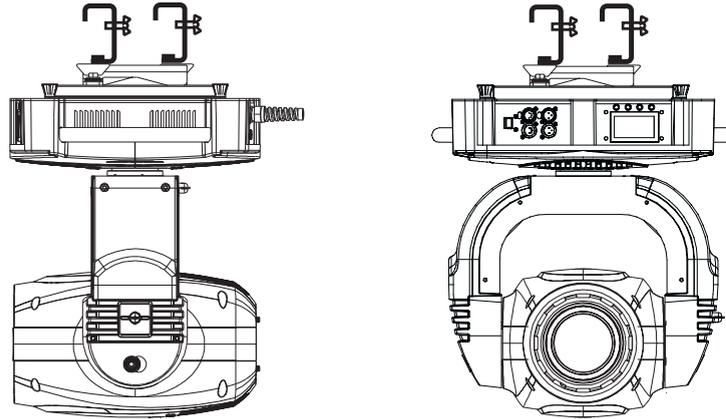
**Infinity Spot S** may be either floor or ceiling mounted. For floor mounting, the unit is provided with four rubber feet mounted on the its base allowing its top to be placed on a level surface.

For ceiling mounted installations, **Coemar** includes two cam-lock support brackets.

The cam-lock brackets are affixed via a 1/4 nut. Before using them for supporting the projector, ensure that they are correctly seated and firmly tightened into position. Optional brackets, common to other Coemar products are available as spare parts (CO9109).



For ceiling mounted installations we suggest the use of appropriate clamps or fixings to attach the fixture to the mounting surface. Clamps may be attached to the central hole provided in the cam-lock brackets, as shown in the following diagram.



#### WARNING !

Ensure that the structure the unit is hanging from as well as the fixing parts (bolts and nuts, clamps etc.) are suitable for holding the weight of the unit.

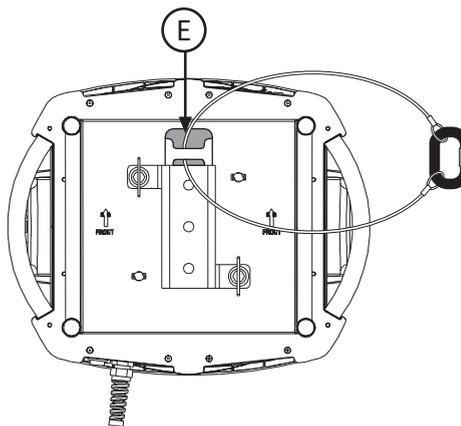
The structure from which the unit is hung should be of sufficient rating to hold the weight of the unit, as should any clamps used to hang the unit. The structure should also be sufficiently rigid so as not to move or shake whilst the projector moves during its operation.

Do not install the projector in locations where it is readily accessible by authorised or untrained personnel.

#### 4.2 Safety connections

If the **Infinity Spot S** is fixed to a structure, the use of a safety chain is recommended in order to meet the relevant safety standards. The safety chain should pass through the holes "E" located in the base of the fixture itself.

If using a safety chains or steel cables which have not been manufactured by Coemar, ensure that they are suitable for holding the weight of the unit.



## 5. Powering up

#### 5.1 Mains cable characteristics

The mains cable provided is thermally resistant, complying to the most recent international standards. It meets or exceeds VDE and IEC norms, IEC 331, IEC 332 3C, CEI 20 35.

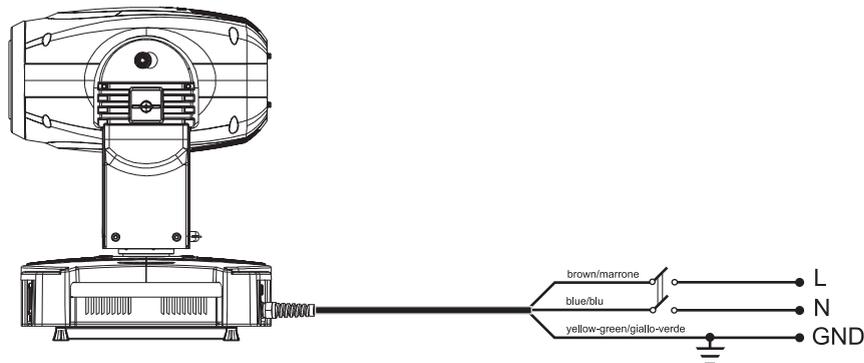
NB: In case of cable replacement, similar cable with comparable thermal resistant qualities must be used exclusively (cable 3x1.5 ø external 10 mm, rated 300/500V, tested to 2KV, operating temperature -40° +180°, Coemar cod. CV5309).

#### Connecting to mains power

For connection purposes, ensure your plug is of a suitable rating to sustain the maximum current:

•200/208/230/240 VAC 4.5 amps constant current in normal operation

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



**WARNING !**

- The use of a thermal magnetic circuit breaker is recommended for each projector. Strict adherence to all regulatory norms is highly recommended.
- Infinity Spot S should never be supplied mains power via a Dimmer; this is potentially dangerous.
- Prior to powering up the projector, ensure that the model you own correctly matches the mains supply available to you.
- A good earth connection is essential for the correct operation of the Infinity Spot S. Never connect the projector to main power if the green/yellow earth cable is not correctly connected.
- All cable and plug connection should be carried out by fully qualified and licenced personnel only.

**6. Control signal connection**

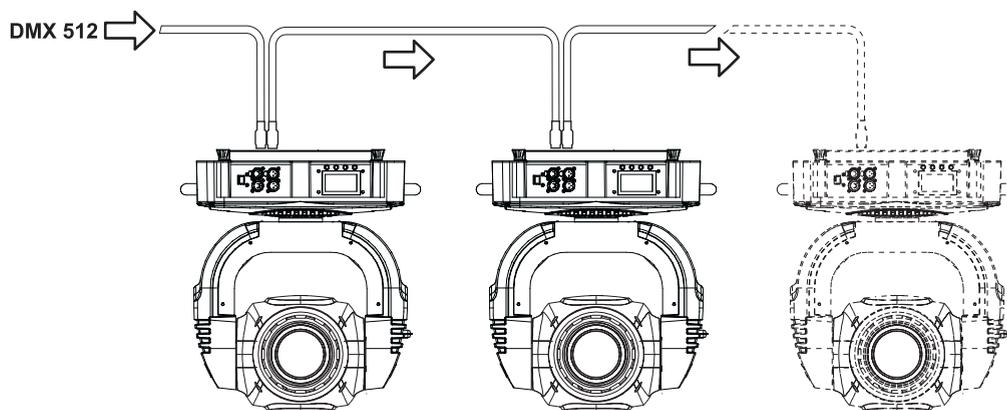
Control signal is digital and is transmitted via two pair screened  $\varnothing 0.5\text{mm}$  cable as per international standards for the transmission of DMX512 data. Connection is serial, utilising XLR3 and XLR5, male and female sockets located on the base of the **Infinity Spot S**, labeled DMX 512 IN and OUT (see diagram).

Plug/socket connections for XLR3 and XLR5 connectors:

Pin connections conform to the international standard as per the following table:

|  |  |                |
|--|--|----------------|
|  |  | Pin 1 = GROUND |
|  |  | Pin 2 = DATA - |
|  |  | Pin 3 = DATA + |
|  |  | Pin 4 = NC     |
|  |  | Pin 5 = NC     |

When signal arrives from a DMX512 console with Cannon XLR (5 poles), pin 4 and pin 5 do not have to be connected.



**WARNING !**

Ensure that all data conductors are isolated from one another and the metal housing of the connector. Pin n# 1 should never be connected to the device's power supply.

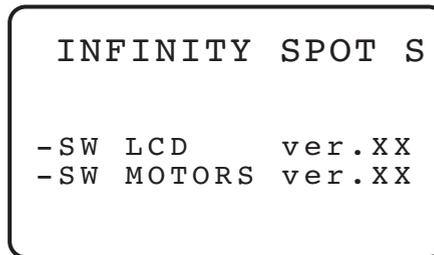
**6.1 Connecting through ArtNet protocol.**

ArtNet protocol allows to all the suitable fixtures to behave as a network device such as a normal PC is seen in a network.

Infinity S is ready, as it is, to be included in a ArtNet network without the need for further settings. It just needs to connect the RJ45 connector (found on the panel near DMX connectors) to a generic Ethernet HUB by using a RJ45 patch. The HUB itself, must be connected to an ArtNet controller. Each Coemar Fixture has its own IP address, so it's not needed to set it in order to include one fixture in your network. Anyway, Coemar fixtures allow to set custom addressing if exist particular network needs, In order to customise the IP address, follow this menu path: MAIN FUNCTION/PROJECTOR CONTROL MODE/ARTNET ONLY (or ARTNET TO DMX) /CUSTOM IP ADDRESS (see complete menu at chapter 8.3 ).

## 7. Turning on the projector

After having followed the preceding steps, turn on the projector via the main power switch. The display will show in sequence the software version installed on the onboard microprocessors . For example, upon turning on power, the **Infinity Spot S** may show:



Software version currently installed on the electronic boards of the fixture.

The projector will perform a reset function on all the internal and external motors. This will last only few seconds, after which it will be subject to the external signal from the controller. The display will remain fixed indicating the correct DMX 512 signal reception.



During the reset the display will blink for few seconds...



...then the DMX address of the fixture will appear.

If the display is flashing and the “NO DMX SIGNAL” appears, it means that the DMX signal is not received. Check your cabling and your controller.

### 7.1 DMX addressing

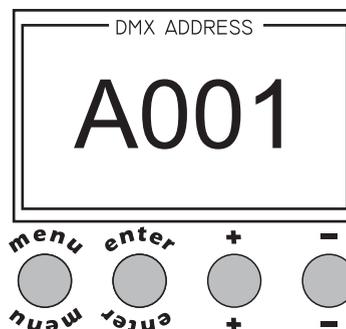
Each projector utilises 22 channels of DMX 512 for complete operation (for further information, see section 7.2. DMX functions).

#### DMX addresses

When powered up initially, each projector will show A001 which indicates DMX address 001; a projector thus addressed will respond to commands on channel 1 to 22 from your DMX controller. A second unit should be addressed for example as A023 and so on until the final projector has been addressed. The operation must be carried out on every Infinity S that has an address different to A001.

#### Altering DMX addresses

1. Press the + or - buttons until the display shows the required DMX address. The characters in the display will flash to indicate that the selection is not yet stored in memory.
2. Press the enter button to confirm your selection. The display panel will cease to flash and the projector will now respond to the new DMX 512 address.



Important Note: holding down the + or - buttons will cause the display to alter at an increased speed, allowing a faster selection to be made.

#### WARNING !

If you alter the DMX with no DMX controller connected, the characters in the display panel will continue to flash even after you have pressed ENTER button .

# English

## 7.2 DMX functions

**Note:** factory default setting is 16 bit / 24 channels

| channel   |       | function  | type of control | effect  | decimal |       | percentage |        |
|---|-------|---|-----------------|---|---------|-------|------------|--------|
| 16 bit  | 8 bit |   |                 |   |         |       |            |        |
| 1   | 1     | X axis, base movement (pan) coarse                          | proportional    | proportional coarse control of the base motor movement  | 0       | - 255 | 0%         | - 100% |
| 2   | 2     | X axis, base movement (pan) fine                            | proportional    | proportional fine control of the base motor movement  | 0       | - 255 | 0%         | - 100% |
| 3   | 3     | Y axis, yoke movement (tilt) coarse                         | proportional    | proportional coarse control of the yoke motor movement  | 0       | - 255 | 0%         | - 100% |
| 4   | 4     | Y axis, yoke movement (tilt) fine                           | proportional    | proportional fine control of the yoke motor movement  | 0       | - 255 | 0%         | - 100% |
| 5   | 5     | movement speed  | step            | standard (fast)   | 0       | - 10  | 0%         | - 4%   |
|   |       |   | step            | ultra fast movement (best for programming positions)  | 11      | - 25  | 4%         | - 10%  |
|   |       |   | proportional    | vector mode (from fast to slow)   | 26      | - 127 | 10%        | - 50%  |
|   |       |   | proportional    | tracking mode (from fast to slow)   | 128     | - 247 | 50%        | - 97%  |
|   |       |   | step            | tracking mode (slow)  | 248     | - 255 | 97%        | - 100% |
| 6   | 6     | dimmer  | proportional    | gradual adjustment of luminous intensity from 0 to 100%   | 0       | - 255 | 0%         | - 100% |
| 7   | 7     | strobe, shutter and zap effect                              | step            | shutter closed (zap off)  | 0       | - 9   | 0%         | - 4%   |
|   |       |   | proportional    | strobe effect with variable speed from slow to fast   | 10      | - 66  | 4%         | - 26%  |
|   |       |   | step            | shutter open (zap off)  | 67      | - 68  | 26%        | - 27%  |
|   |       |   | proportional    | sequenced pulse effect, slow closing, fast opening (with variable speed from slow to fast)  | 69      | - 125 | 27%        | - 49%  |
|   |       |   | step            | shutter open (zap off)  | 126     | - 127 | 49%        | - 50%  |
|   |       |   | proportional    | sequenced pulse effect, fast closing, slow opening (with variable speed from fast to slow)  | 128     | - 184 | 50%        | - 72%  |
|   |       |   | step            | shutter open (zap off)  | 185     | - 187 | 73%        | - 73%  |
|   |       |   | proportional    | random strobe effect, non-synchronised, variable speed from slow to fast  | 188     | - 244 | 74%        | - 96%  |
| 7   | 7     | strobe, shutter-profile                                     | step            | shutter closed (zap off)  | 0       | - 9   | 0%         | - 4%   |
|   |       |   | proportional    | strobe effect with variable speed from slow to fast   | 10      | - 66  | 4%         | - 26%  |
|   |       |   | proportional    | proportional control of the shutter-profile, from open to closed  | 67      | - 187 | 26%        | - 73%  |
|   |       |   | proportional    | random strobe effect, non-synchronised, variable speed from slow to fast  | 188     | - 244 | 74%        | - 96%  |
|   |       |   | step            | shutter open (zap off)  | 245     | - 255 | 96%        | - 100% |
| <b>Note 1 :</b> channel 7 will vary according to the selection made for channel 22 (16 bit) / 21 (8 bit)  |       |   |                 |   |         |       |            |        |
| 8   | 8     | iris diaphragm (LIN-Linear)                                 | step            | open  | 0       | - 9   | 0%         | - 4%   |
|   |       |   | proportional    | from maximum to minimum aperture  | 10      | - 255 | 4%         | - 100% |
| 8   | 8     | iris diaphragm (with internal PULS effect)                  | step            | open  | 0       | - 9   | 0%         | - 4%   |
|   |       |   | proportional    | from maximum to minimum aperture  | 10      | - 124 | 4%         | - 49%  |
|   |       |   | step            | minimum diameter  | 125     | - 129 | 49%        | - 51%  |
|   |       |   | proportional    | pulsing with proportional increase in speed   | 130     | - 189 | 51%        | - 74%  |
|   |       |   | step            | open  | 190     | - 192 | 75%        | - 75%  |
|   |       |   | proportional    | pulse and flash effect with proportional increase in speed  | 193     | - 255 | 76%        | - 100% |
| <b>Note 2:</b> the iris diaphragm operation will vary according to the selection made for IRIS on the display panel (linear LIN or with internal PULS effect) |       |   |                 |   |         |       |            |        |
| 9   | 9     | zoom  | proportional    | proportional control of zoom effect wheel from narrow to wide beam  | 0       | - 255 | 0%         | - 100% |
| 10  | 10    | focus   | proportional    | proportional control of focus   | 0       | - 255 | 0%         | - 100% |
| 11  | 11    | aerial gobo selection (standard)                            | step            | nogobo  | 0       | - 10  | 0%         | - 4%   |
|   |       |   |                 | gobo 1  | 11      | - 36  | 4%         | - 14%  |
|   |       |   |                 | gobo 2  | 37      | - 62  | 15%        | - 24%  |
|   |       |   |                 | gobo 3  | 63      | - 88  | 25%        | - 35%  |
|   |       |   |                 | gobo 4  | 89      | - 114 | 35%        | - 45%  |
|   |       |   |                 | gobo 5  | 115     | - 140 | 45%        | - 55%  |
|   |       |   |                 | gobo 6  | 141     | - 166 | 55%        | - 65%  |
|   |       |   |                 | gobo 7  | 167     | - 192 | 65%        | - 75%  |
|   |       |   | proportional    | continuous rotation of the gobo wheel from slow to fast   | 193     | - 255 | 76%        | - 100% |
| 11  | 11    | aerial gobo selection (effect activated from channel 23/22) | step            | nogobo  | 0       | - 10  | 0%         | - 4%   |
|   |       |   | proportional    | from gobo 1 to gobo 7 through 360°<br>gobo 1 (central value 33)<br>gobo 2 (central value 55)<br>gobo 3 (central value 78)<br>gobo 4 (central value 101)<br>gobo 5 (central value 124)<br>gobo 6 (central value 147)<br>gobo 7 (central value 169) | 11      | - 192 | 4%         | - 75%  |
|   |       |   |                 | continuous rotation of the gobo wheel from slow to fast   | 193     | - 255 | 76%        | - 100% |
| <b>Note 3 :</b> channel 11 will vary according to the selection made for channel 23 (16 bit) / 22 (8 bit)   |       |   |                 |   |         |       |            |        |

|  |  |   |              |   |     |     |      |     |     |      |
|--|--|---|--------------|---|-----|-----|------|-----|-----|------|
| 12   | 12   | indexing gobo rotation through 360°                           | step         | noeffect  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   | proportional | proportional indexing of the gobos through 360°   | 11  | -   | 255  | 4%  | -   | 100% |
| 13   |  | fine indexing of the gobos 16 bit                             | proportional | fine indexing of the gobo   | 0   | -   | 255  | 0%  | -   | 100% |
| 14   | 13   | gobo rotation   | step         | noeffect  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   | proportional | continuous rotation of the gobo in a clockwise direction with proportional control over decreasing speed  | 11  | -   | 131  | 4%  | -   | 51%  |
|  |  |   | step         | gobostop  | 132 | -   | 134  | 52% | -   | 53%  |
|  |  |   | proportional | continuous rotation of the gobo in a counter-clockwise direction with proportional control over increasing speed  | 135 | -   | 255  | 53% | -   | 100% |
| <b>Note 4 :</b> when channel 12 is set to a level between 0 and 10, gobo rotation does not effect indexing, the gobo stops instantly |  |   |              |   |     |     |      |     |     |      |
| 15   | 14   | break up gobo selection (standard)                            | step         | nogobo  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   |              | gobo 1  | 11  | -   | 36   | 4%  | -   | 14%  |
|  |  |   |              | gobo 2  | 37  | -   | 62   | 15% | -   | 24%  |
|  |  |   |              | gobo 3  | 63  | -   | 88   | 25% | -   | 35%  |
|  |  |   |              | gobo 4  | 89  | -   | 114  | 35% | -   | 45%  |
|  |  |   |              | gobo 5  | 115 | -   | 140  | 45% | -   | 55%  |
|  |  |   |              | gobo 6  | 141 | -   | 166  | 55% | -   | 65%  |
|  |  |   | gobo 7       | 167   | -   | 192 | 65%  | -   | 75% |      |
| proportional   | continuous rotation of the gobo wheel from slow to fast  | 193   | -            | 255   | 76% | -   | 100% |     |     |      |
| 15   | 14   | break up gobo selection (effect activated from channel 23/22) | step         | nogobo  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   | proportional | from gobo 1 to gobo 7 through 360°<br>gobo 1 (central value 33)<br>gobo 2 (central value 55)<br>gobo 3 (central value 78)<br>gobo 4 (central value 101)<br>gobo 5 (central value 124)<br>gobo 6 (central value 147)<br>gobo 7 (central value 169) | 11  | -   | 192  | 4%  | -   | 75%  |
|  |  |   |              | continuous rotation of the gobo wheel from slow to fast   | 193 | -   | 255  | 76% | -   | 100% |
| <b>Note 5 :</b> channel 15 (16 bit) / 14 (8 bit) will vary according to the selection made for channel 23 (16 bit) / 22 (8 bit)      |  |   |              |   |     |     |      |     |     |      |
| 16   | 15   | effects selection   | step         | noeffect  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   |              | effect 1  | 11  | -   | 92   | 4%  | -   | 36%  |
|  |  |   |              | effect 2  | 93  | -   | 174  | 36% | -   | 68%  |
|  |  |   |              | effect 3  | 175 | -   | 255  | 69% | -   | 100% |
| 17   | 16   | effect index-rotation   | step         | noeffect  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   | proportional | proportional indexing of the effect through 360°  | 11  | -   | 127  | 4%  | -   | 50%  |
|  |  |   | proportional | continuous rotation of the effect in a clockwise direction with proportional control over decreasing speed  | 128 | -   | 190  | 50% | -   | 75%  |
|  |  |   | step         | effectstop  | 191 | -   | 192  | 75% | -   | 75%  |
| proportional   | continuous rotation of the effect in a counter-clockwise direction with proportional control over increasing speed | 193   | -            | 255   | 76% | -   | 100% |     |     |      |
| 18   | 17   | color wheel selection   | step         | white beam  | 0   | -   | 5    | 0%  | -   | 2%   |
|  |  |   |              | color 1   | 6   | -   | 14   | 2%  | -   | 5%   |
|  |  |   |              | color 2   | 15  | -   | 22   | 6%  | -   | 9%   |
|  |  |   |              | color 3   | 23  | -   | 30   | 9%  | -   | 12%  |
|  |  |   |              | color 4   | 31  | -   | 38   | 12% | -   | 15%  |
|  |  |   | color 5      | 39  | -   | 45  | 15%  | -   | 18% |      |
| proportional   | from white to white beam (color 1-2-3-4-5), proportional positions   | 46  | -            | 127   | 18% | -   | 50%  |     |     |      |
|  | rainbow effect from fast to slow in an counter-clockwise direction   | 128   | -            | 190   | 50% | -   | 75%  |     |     |      |
|  | rainbow effect from slow to fast in a clockwise direction  | 191   | -            | 255   | 75% | -   | 100% |     |     |      |
| 19   | 18   | cyan  | proportional | proportional control of the percentage of cyan color in the light beam from 0 to 100%   | 0   | -   | 255  | 0%  | -   | 100% |
| 20   | 19   | magenta   | proportional | proportional control of the percentage of magenta color in the light beam from 0 to 100%  | 0   | -   | 255  | 0%  | -   | 100% |
| 21   | 20   | yellow  | proportional | proportional control of the percentage of yellow color in the light beam from 0 to 100%   | 0   | -   | 255  | 0%  | -   | 100% |
| 22   | 21   | zap effect (effect varies depending upon channel 7 strobe)    | step         | noeffect  | 0   | -   | 10   | 0%  | -   | 4%   |
|  |  |   |              | zap effect synchronised with the strobe effect, speed and mode selected by strobe channel 7   | 11  | -   | 30   | 4%  | -   | 12%  |
|  |  |   |              | zap effect, flicker and speed adjustable, speed and mode selected by strobe channel 7   | 31  | -   | 128  | 12% | -   | 50%  |
|  |  |   |              | proportional movement of the strobo profile   | 129 | -   | 249  | 51% | -   | 98%  |
|  |  |   |              | black-out of the light beam during PAN/TILT movement, gobos wheel, colors wheel and effects wheel   | 250 | -   | 255  | 98% | -   | 100% |

|                     |     |                              |      |  |     |      |     |     |   |      |
|---------------------|-----|------------------------------|------|--|-----|------|-----|-----|---|------|
| 23                  | 22  | gobo effect selection        | step | no effect  | 0   | -    | 10  | 0%  | - | 4%   |
|                     |     |                              |      | proportional movement of the gobo wheels through 360°      | 11  | -    | 133 | 4%  | - | 52%  |
|                     |     |                              |      | proportional-step movement of the gobo wheels through 360° | 134 | -    | 255 | 53% | - | 100% |
| 24                  | 23  | lamp on/off and motors reset | step | park, no function  | 0   | -    | 10  | 0%  | - | 4%   |
|                     |     |                              |      | lamp off   | 11  | -    | 29  | 4%  | - | 11%  |
|                     |     |                              |      | pan and tilt reset (once only)                             | 30  | -    | 65  | 12% | - | 25%  |
|                     |     |                              |      | all motor reset except dimmer, pan and tilt (once only)    | 66  | -    | 100 | 26% | - | 39%  |
|                     |     |                              |      | all motor reset except dimmer (once only)                  | 101 | -    | 135 | 40% | - | 53%  |
|                     |     |                              |      | reset of all the motors (once only)                        | 136 | -    | 170 | 53% | - | 67%  |
|                     |     |                              |      | LCD display off  | 171 | -    | 185 | 67% | - | 73%  |
|                     |     |                              |      | LCD display on   | 186 | -    | 199 | 73% | - | 78%  |
|                     |     |                              |      | lamp on - standard focus                                   | 200 | -    | 228 | 78% | - | 89%  |
| lamp on - autofocus | 229 | -                            | 255  | 90%  | -   | 100% |     |     |   |      |

Note 6: the display panel may be used to disable the switching off of the lamp via DMX

Note 7: turning off the lamp and all reset functions are delayed by 6 seconds to prevent accidental activation

Note 8: the lamp on/off function can only be effected if an opposite level is set

Projector: **InfinitySpot S**

Table name: DMX 512 functions

Tabella numero: 272

Edition: 1

Date: 17/01/2009

## 8. Display panel functions

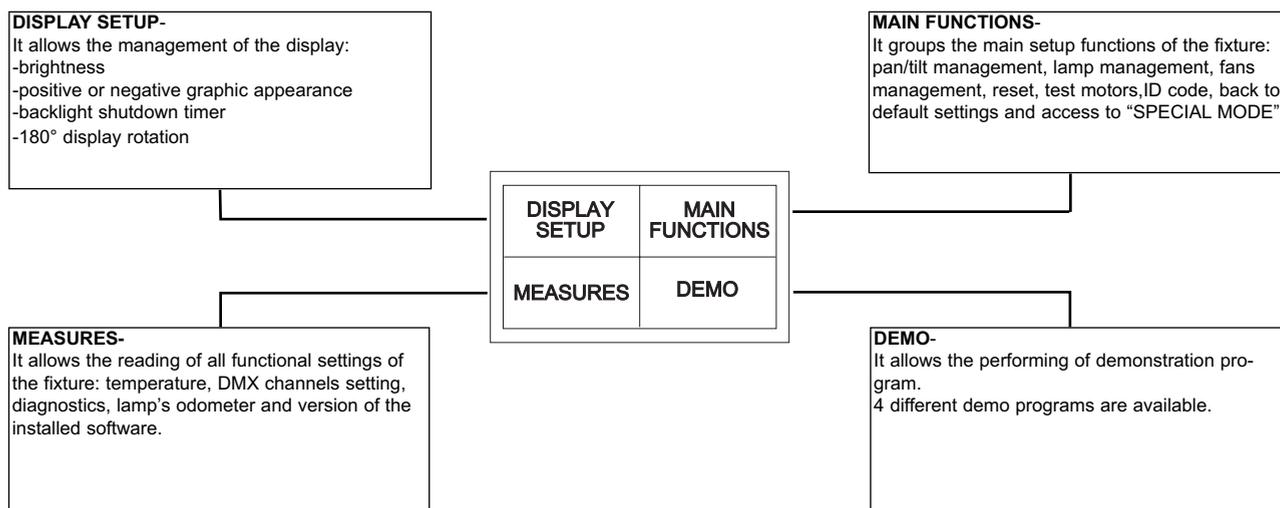
The display panel of the **Infinity Spot S** shows all the functions available; it is possible to change some of those parameters and to add some functions.

Changing the preset settings made by **Coemar** can vary the functions of the device so that it may respond in different ways depending on the controller, therefore carefully follow the instructions before carrying out any possible selection.

### 8.1 Quick guide to menu

In order to access to the functions, just push the menu button: a screen divided into four sections will appear; the sections will highlight cyclically one by one every time a + or - button is pushed. To select the desired function, press enter.

The following diagram shows the content of every section.



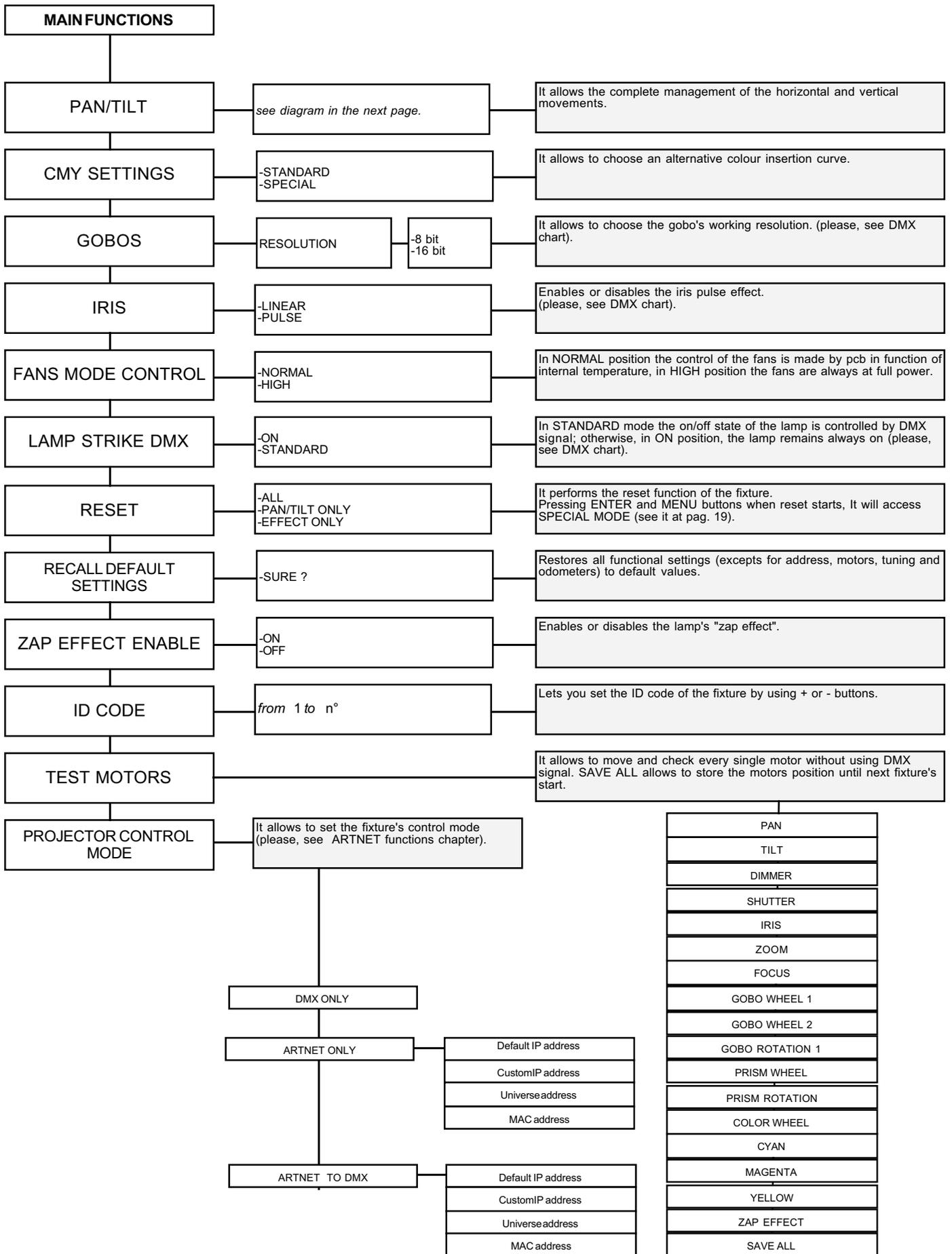
### 8.2 Rapid scrolling

Via the **Infinity Spot S** display it is possible to rapidly scroll through the various numbers displayed in the menu in the following manner:

1. Pressing the + or - buttons will cause the number to scroll more quickly.
2. Pressing and holding the + button and then the - button will cause the numbers to jump to the highest value.
3. Pressing and holding the - button and then the + button will cause the numbers to jump to the lowest value.

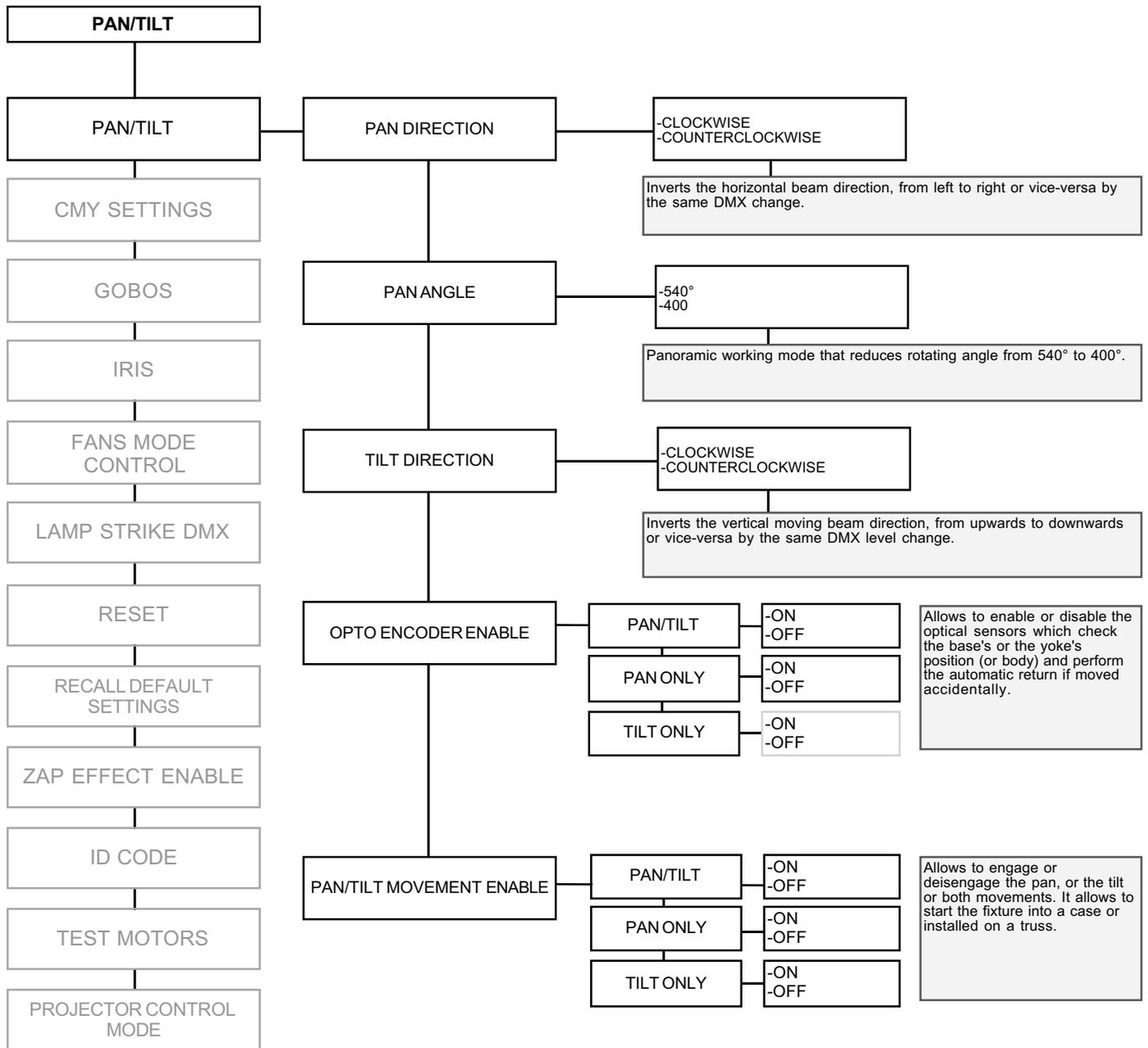
8.3. Main functions

This section gives the opportunity to change and customize some functional settings of the fixture.



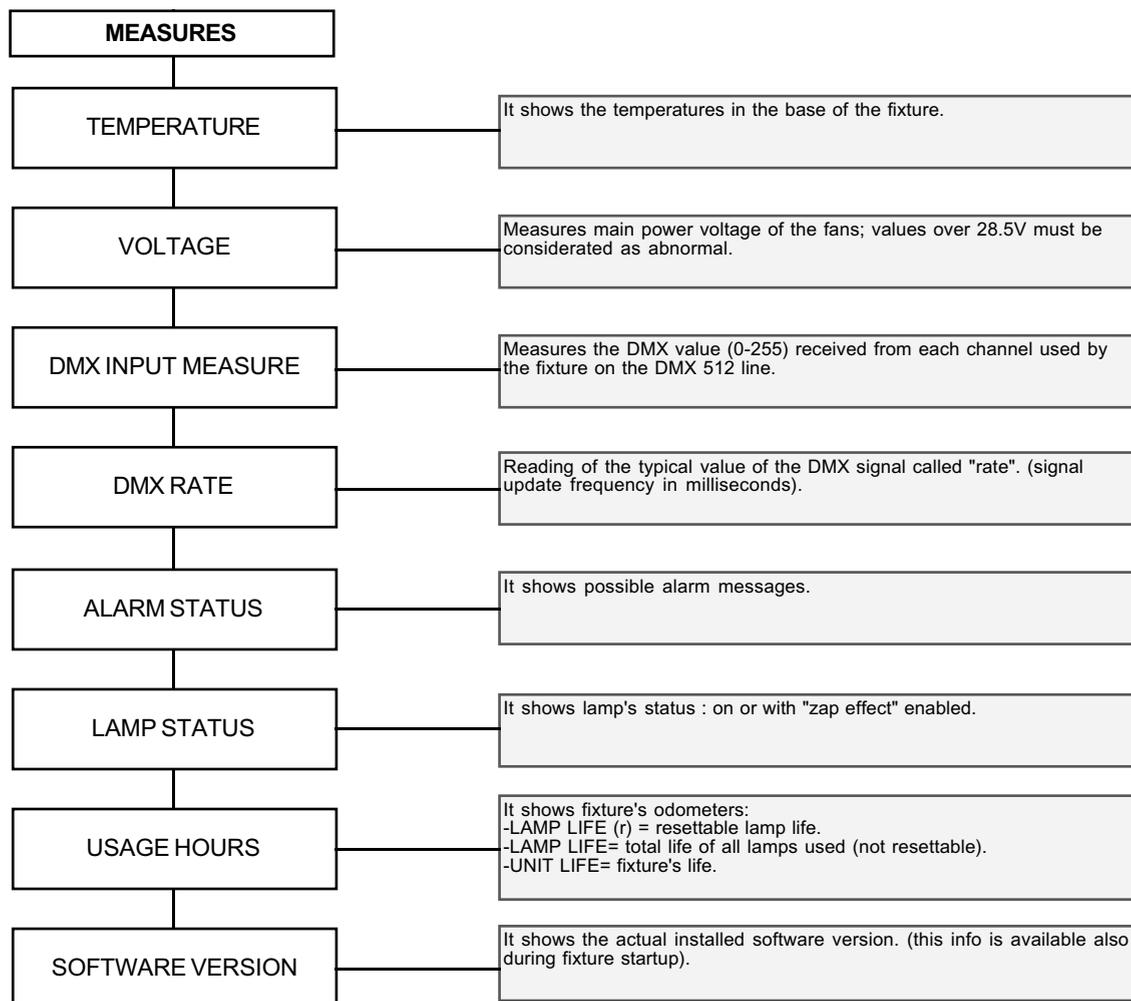
# English

The following diagram explains the sub menu for the management of pan and tilt, regarding the pan/tilt menu item described in the diagram at previous page.



## 8.4 Measures

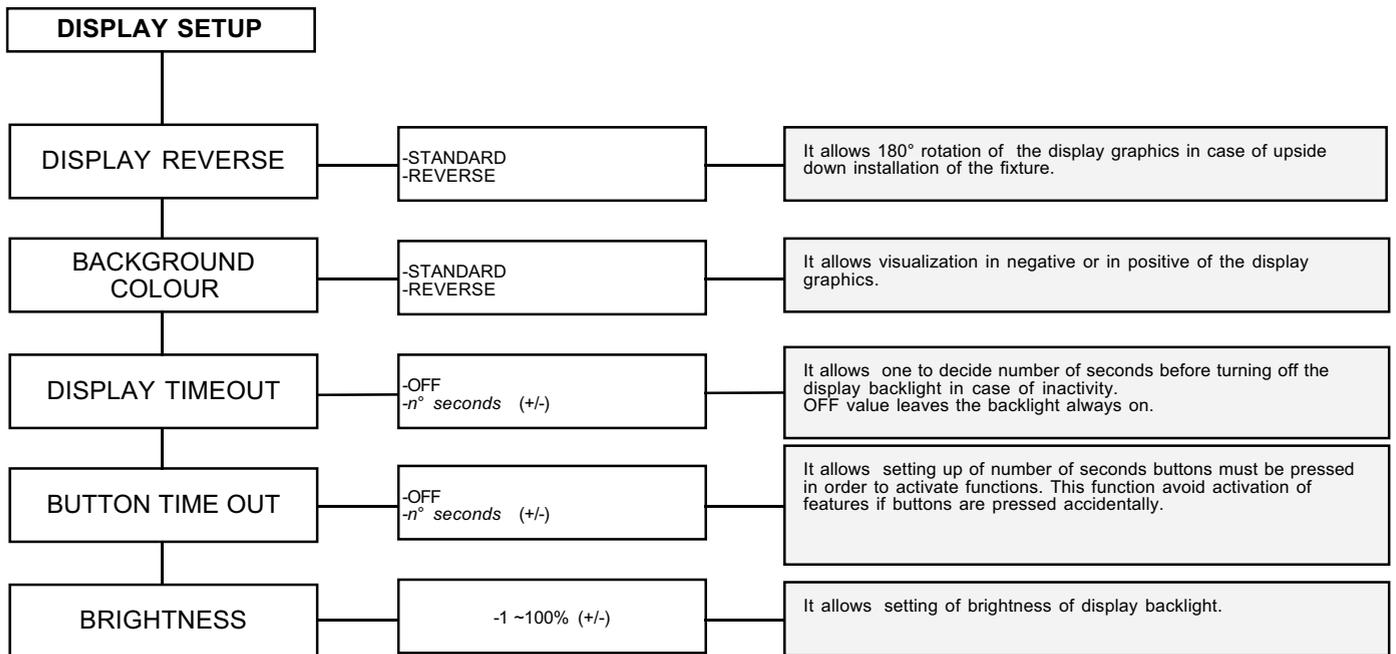
The internal microprocessor of the **Infinity Spot S** allows for several diagnostic and output parameters to be displayed.



# English

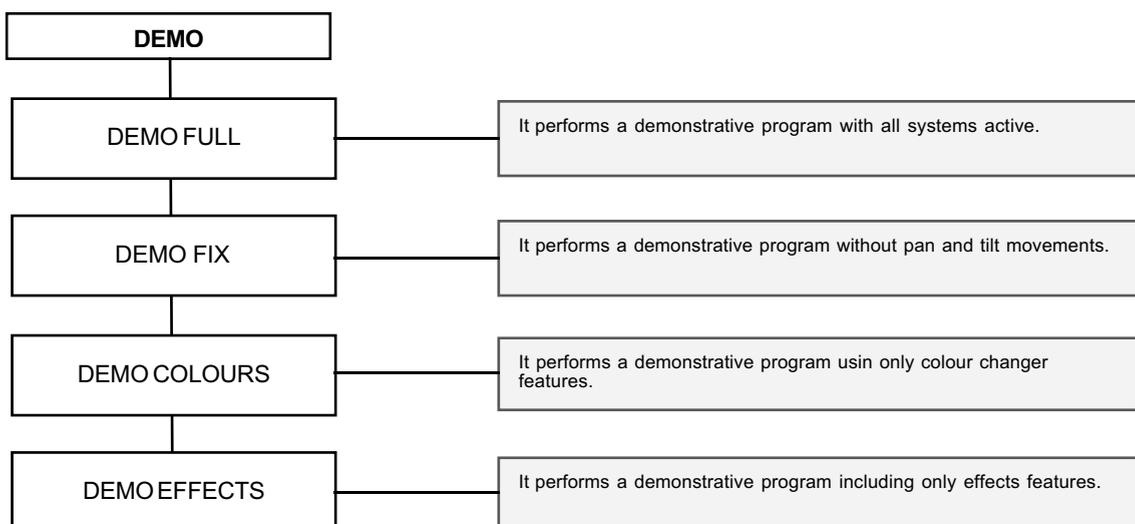
## 8.5 Display setup

The Display setup allows to tune the **Infinity Spot S** functions according to your needs. The following diagram shows the section features.



## 8.6 Demo mode

Demo mode allows the fixture to perform up to 4 different demonstration programs **Infinity Spot S**.



8.7 Special mode and electronic motor adjustment

**WARNING !**

This section is reserved for the exclusive use of qualified and experienced technical personnel.

“SPECIAL MODE” menu allows the access to the motor adjustment section and to special functions like lamp odometer reset, software upload and download. To enter “SPECIAL MODE” reach the reset page in the “MAIN FUNCTIONS” menu, start reset choosing “ALL” and press simultaneously enter and menu button for about 10 second nearly while the reset is being completed.

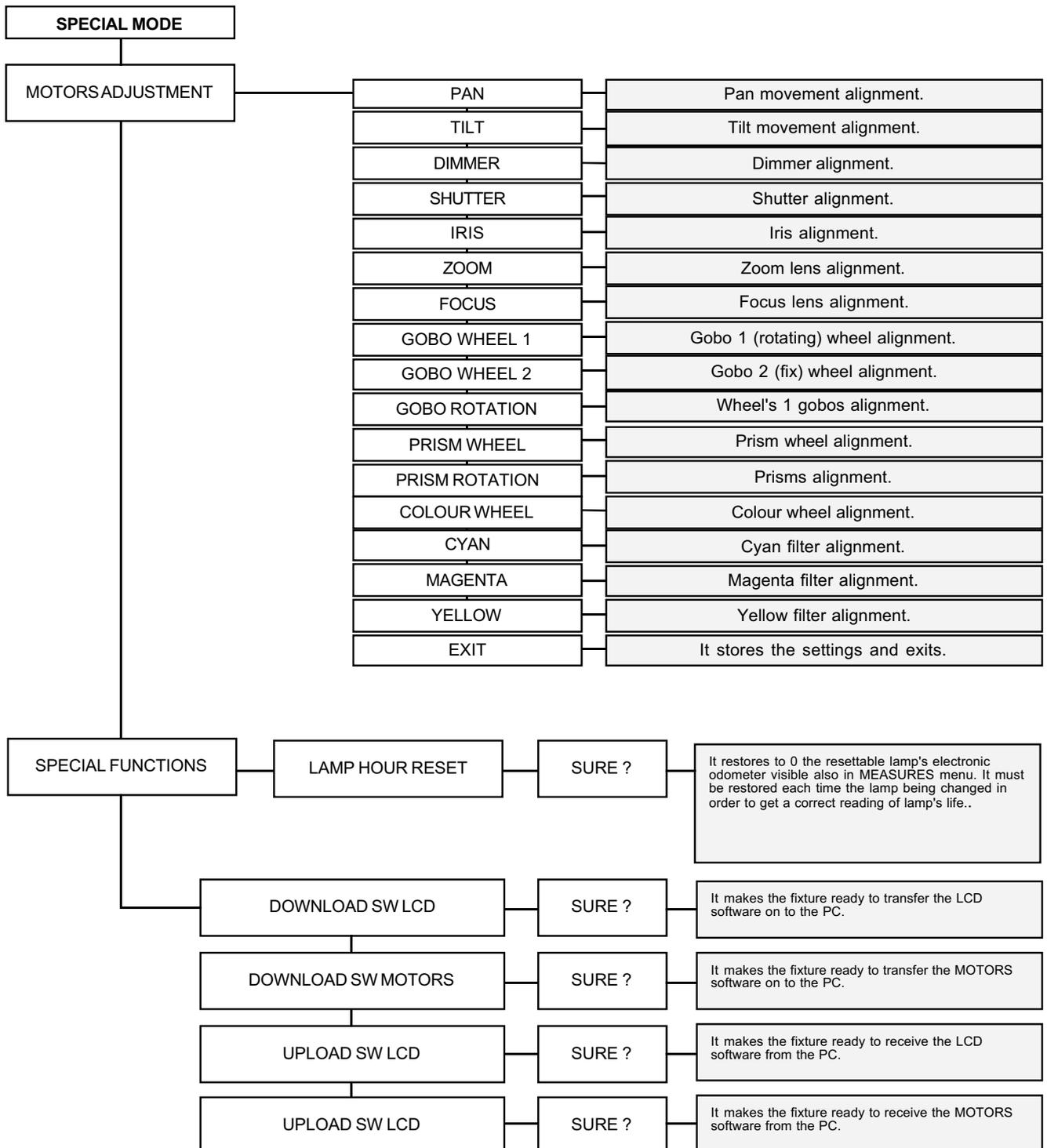
**WARNING !**

The electronic tuning procedure is only actuable with DMX512 signal present.

The display panel of the **Infinity Spot S** allows for the electronic alignment of the projector motors in the optical system. This procedure is performed by **Coemar** at the factory. It may be useful to perform this procedure in order to obtain particular effects or in the case of internal components being replaced.

Altering the factory settings may radically alter the functioning of the projector. Carefully read all of the following prior to attempting any changes.

Note: pressing the buttons + and - simultaneously the setting returns to 128 (default).



9. lamp installation and alignment

**Infinity S** can mount three types of 300 W Metal Halide Discharge lamp with PGJX28 base lamps. The use power is 300W. These lamps are available as spare parts at your Coemar's distributor or service center.

| Lamp               | General Electric CSR300/2 TAL | General Electric CSD300/2 TAL | Philips MSR Gold 300/2 Mini Fast Fit |
|--------------------|-------------------------------|-------------------------------|--------------------------------------|
| Coemar part number | L105820/1                     | L105820/2                     | L105820                              |
| Power range        | 300 W                         |                               |                                      |
| Lighting flow      | 23000 lm                      | 20500 lm                      | 22000 lm                             |
| Color temp.        | 7700 K                        | 9800 K                        | 8000                                 |
| Base               | PGJX28                        |                               |                                      |
| Average life span  | 750 h                         | 2000 h                        | 750 h                                |

**WARNING !**

**Disconnect the unit from main power prior to attempting lamp's installation or replacement. Make sure that the unit is cooled sufficiently.**

The unit's internal temperature can reach 250°C after 5 minutes, with a maximum peak of 350°C; ensure that the lamp is cold prior to attempting its removal: the fixture should be allowed to stand and cool for at least 10 minutes.

The metal halide lamps used in this product contains mercury vapor and must be handled very carefully. The lamp operates at high internal pressure so, exists the risk of its explosion if used beyond its recommended life.

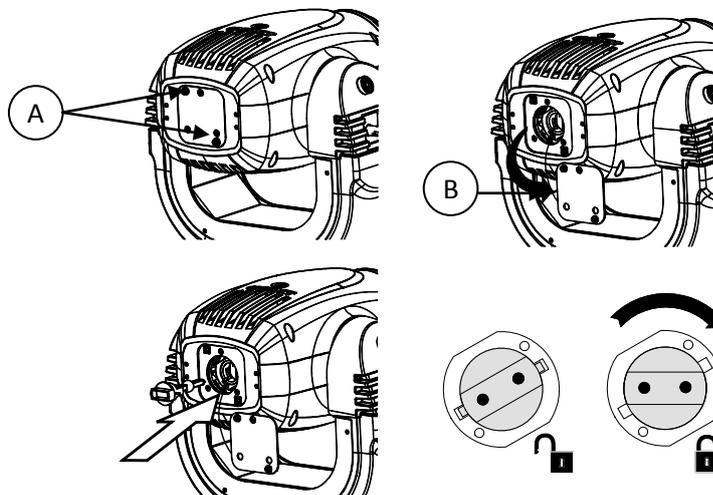
We recommend, therefore, to replace the lamps within the life span declared by the manufacturer.

**9.1 Lamp installation**

1. Use a suitable screwdriver to loosen the four screw marked "A" which fix the lamp cover at the rear of the projector.
2. Remove the lamp holder cover marked "B".
3. Identify the lamp holder "C" and insert the lamp correctly.
4. Insert the lamp and gently rotate it clockwise until it locks without force. Do not use undue force if the lamp refuses to lock. The lamp is made of quartz glass and should be handled with care; always adhere to the instructions supplied in the lamp's packaging. Never touch the glass with bare hands but use the tissue provided in the lamp's packaging or gloves.
5. Replace the lamp holder cover in its original position and fix the screws back in.

**WARNING !**

- Never use undue force where the procedure appears difficult.
- Never put pressure on the glass of the lamp.
- Never touch the glass of the lamp with bare hands.



**WARNING !**

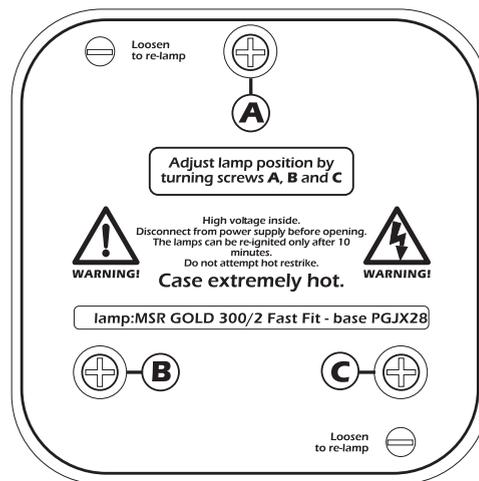
- Each time you change the lamp, we recommend the following be carried out:
- realign the lamp in the optical path to avoid overheating filters and/or effects
  - reset the lamp's odometer

**9.2 Aligning the lamp in the optical path.**

Aligning the lamp in the optical system is achieved via the 3 adjusters at the rear of the projector. This procedure should be undertaken to maximise output, to avoid the possible overheating of the internal components due to the incorrect focusing of the beam onto components not predisposed to high temperature. It is extremely important to obtain a uniform distribution of light on all beams.

**Alignment procedure**

Alignment is carried out by using the 3 screws A, B and C showed in the picture below. The lamp should be on, black-out and dimmer fully open, and no colours selected. If the lamp is not correctly aligned, a hot-spot will be readily noticeable. Using the 3 adjusters in unison, you will need to bring the hot-spot to the most central part of the beam possible and then flatten the beam to maximum uniformity. The combined regulation of the three adjusters allows horizontal, vertical and axial regulation of the lamp.

**10. Operating on inside groups**

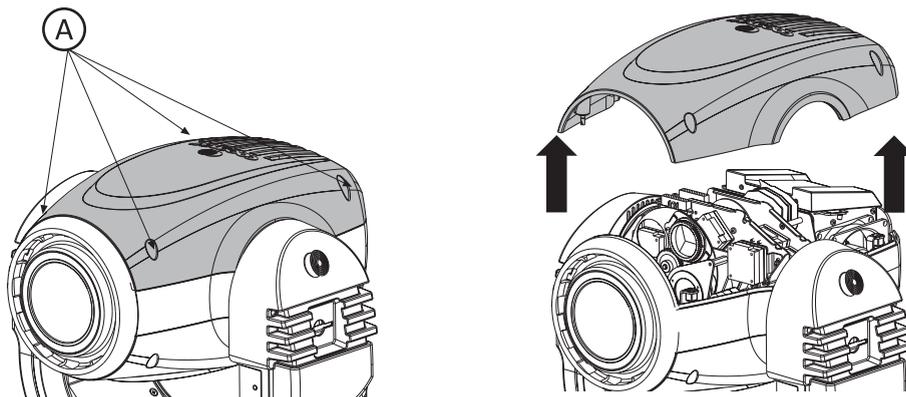
Infinity Spot S allows extraction of both gobos and colour changer assemblies in order to facilitate inspection, gobos replacing and cleaning of coloured filters and lens.

**WARNING !**

- The following procedures should be undertaken by qualified and experience technical personnel.  
handle with extreme care.  
Always disconnect all cables before proceeding and ensure that the unit is sufficiently cool.

**10.1 How to open the projector.**

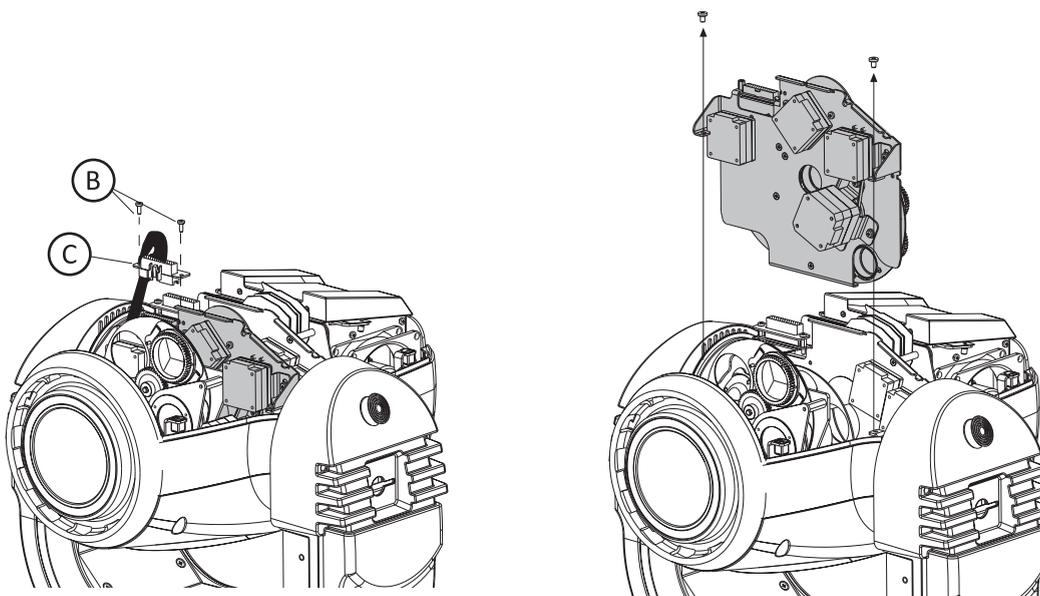
Using an appropriate screwdriver, remove the screws "A" which fix the housings and remove it. To identify which part of the projector must be removed, position the unit so that the labels of the lamp holder group can be read and are in the upright position. Now lock the unit by the locking device and remove the upper cover.



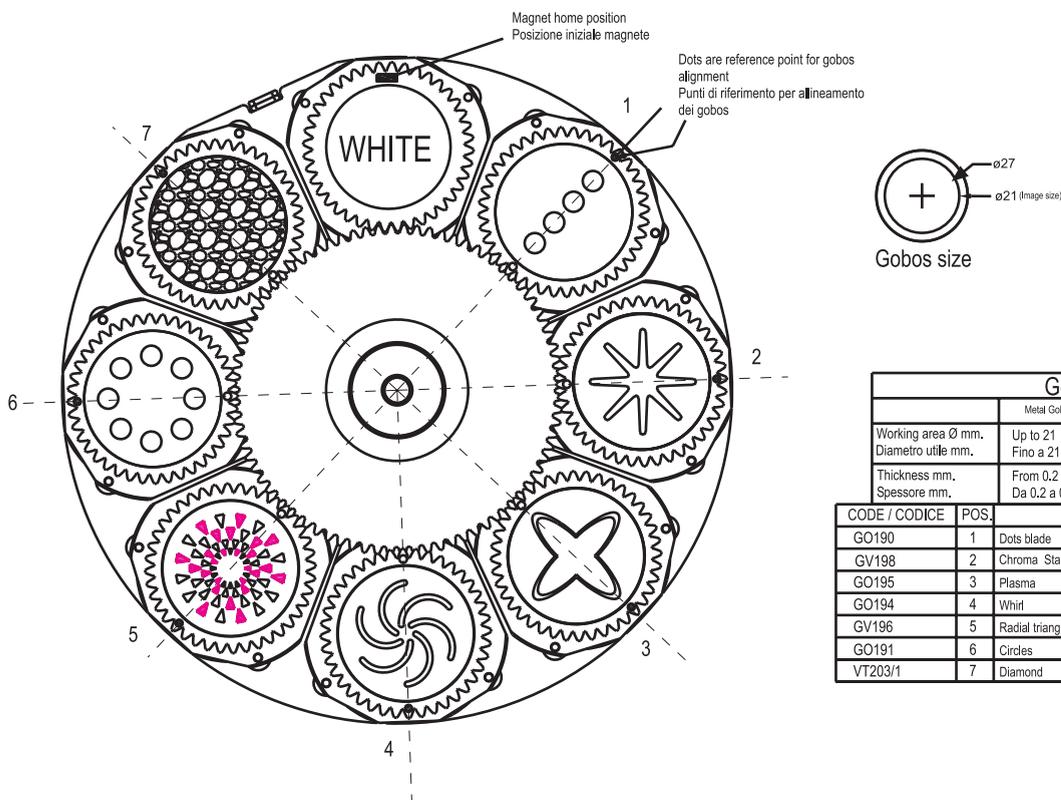
# English

## 10.2 How to extract the gobos assembly.

- 1-Remove "B" screws on the connector labelled "GOBOS" and gently remove the "C" connector.
- 2.Remove fixing screws of the gobos assembly and gently take it out. If the assembly refuses to exit, do not force it but rotate manually the gobo wheel until the assembly is free to exit.



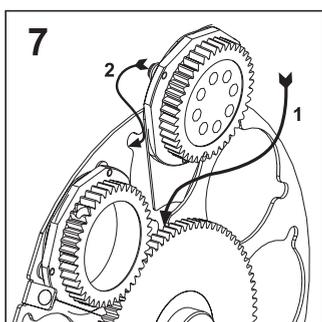
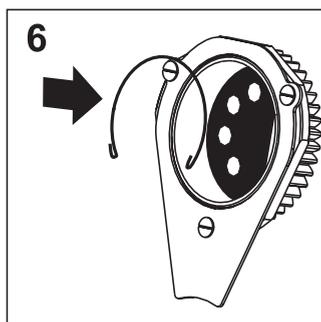
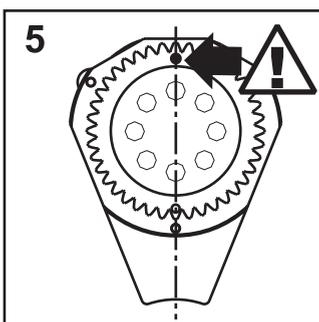
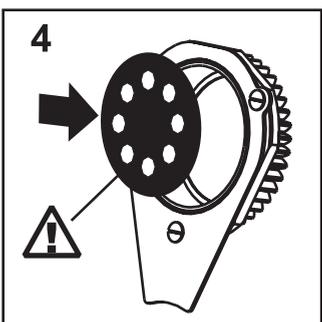
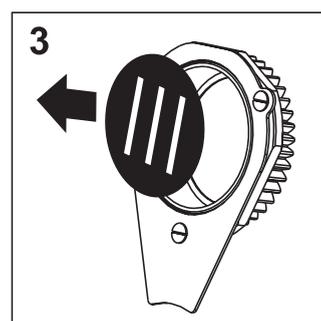
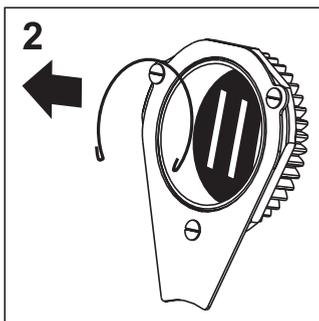
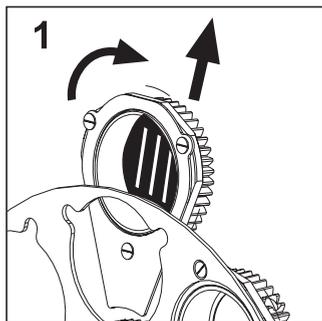
## 10.3 Standard gobos wheel configuration.



| Gobos size                               |                                 |                         |                         |
|--|---------------------------------|-------------------------|-------------------------|
|  | Metal Gobos                     | Glass Gobos undefined   | Glass Gobos defined     |
| Working area Ø mm.<br>Diametro utile mm. | Up to 21<br>Fino a 21           | Up to 27<br>Fino a 27   | Up to 21<br>Fino a 21   |
| Thickness mm.<br>Spessore mm.            | From 0.2 to 0.5<br>Da 0.2 a 0.5 | From 1 to 4<br>Da 1 a 4 | From 1 to 4<br>Da 1 a 4 |
| CODE / CODICE                            | POS.                            | DESCRIPTION             | N°PCS                   |
| GO190                                    | 1                               | Dots blade              | 1                       |
| GV198                                    | 2                               | Chroma Star             | 1                       |
| GO195                                    | 3                               | Plasma                  | 1                       |
| GO194                                    | 4                               | Whirl                   | 1                       |
| GV196                                    | 5                               | Radial triangles        | 1                       |
| GO191                                    | 6                               | Circles                 | 1                       |
| VT203/1                                  | 7                               | Diamond                 | 1                       |

**10.4 How to replace gobos:**

1. Lift and gently extract the support which contains the gobo you are going to replace from the gobos wheel.
2. Remove the spring that fixes the gobo to the support.
3. Insert the new gobo respecting the coated side. Locate the reference point on the gear and use it to orient the gobo and fix on to the projector.
4. Mount the spring.
5. Mount the support on the wheel with the reference point looking outwards (see picture).
6. Check the gobos freely rotate and mount the gobos assembly in the fixture following backwards the procedure explained in the previous section.



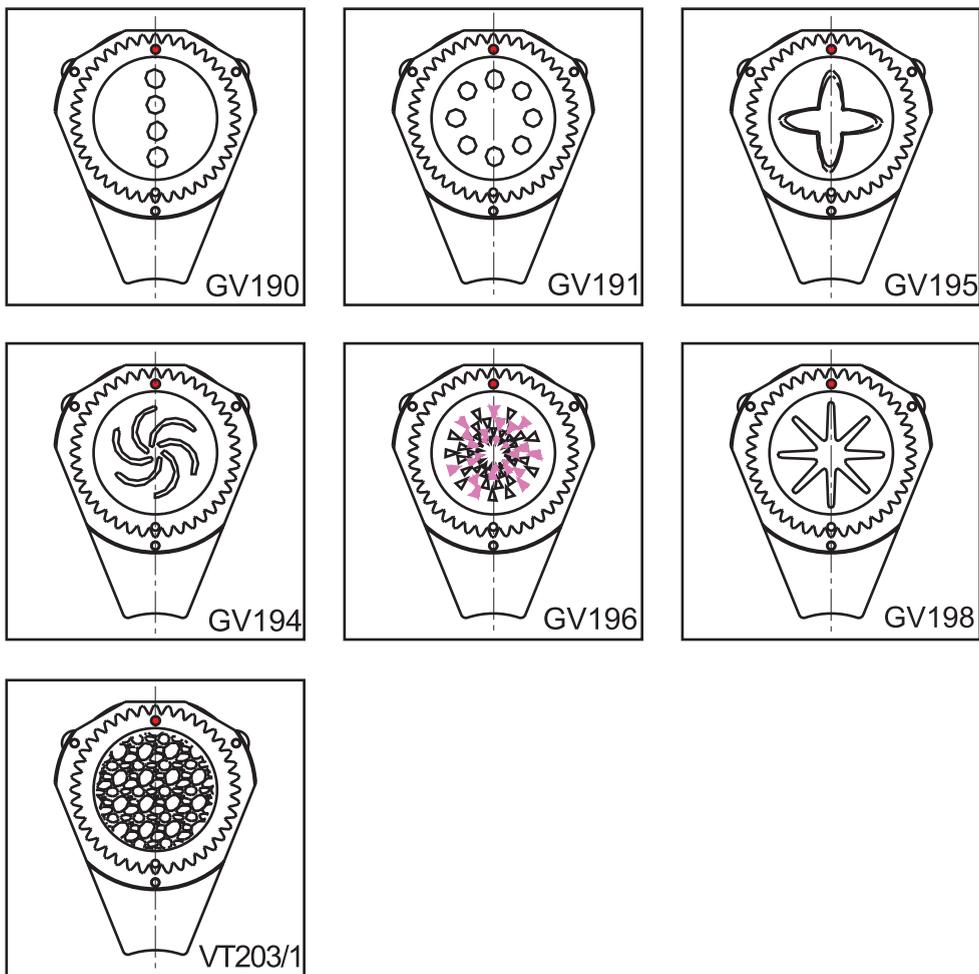
# English

The gobos wheel only accepts gobos with the following features:

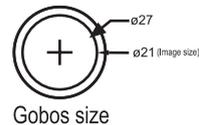
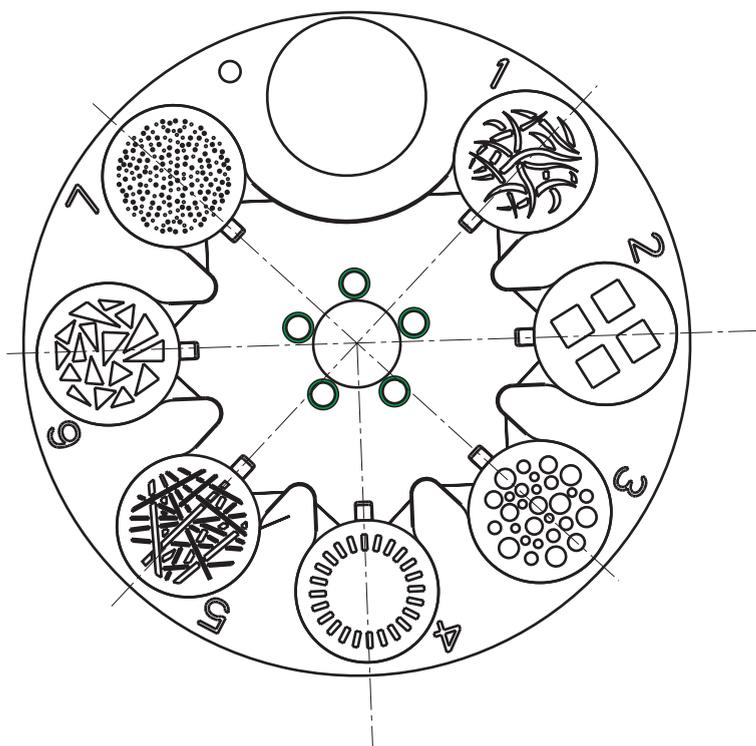
External diameter 27mm.

Working area diameter 21 mm

Thickness: metal gobos from 0,2 to 0,5 mm, glass gobos up to 4 mm



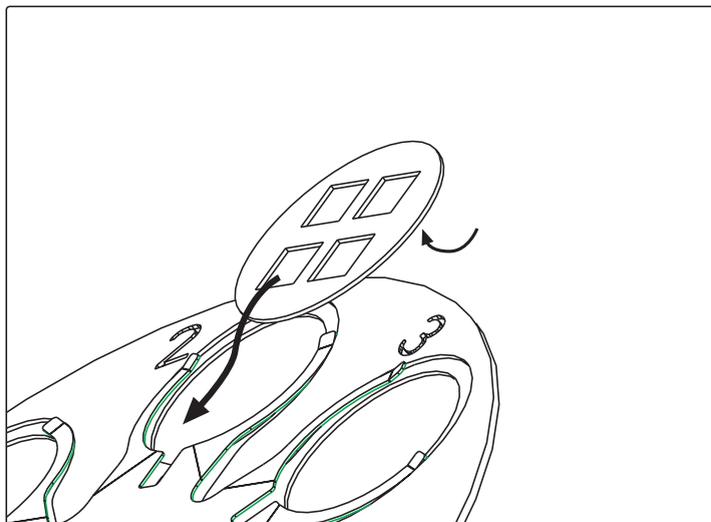
## 10.5 Standard fixed gobos wheel configuration.



| CODE / CODICE | POS. | DESCRIPTION       | N°PCS |
|---------------|------|-------------------|-------|
| G068          | 1    | Snakes            | 1     |
| G069          | 2    | Window            | 1     |
| G070          | 3    | Bubbles           | 1     |
| G071          | 4    | Breakup dashes    | 1     |
| G072          | 5    | Pickup sticks     | 1     |
| G073          | 6    | Breakup triangles | 1     |
| G074          | 7    | Universe          | 1     |

### 10.6 How to replace gobos on gobos 2 wheel.

1. Facing the front side of the wheel, gently hold the gobo you want to replace with thumb and finger, then lift it up pushing it with your finger, then remove it.
2. Insert the new gobos making it slip under the spring until it locks; refer to the nick in the spring to keep a useful point of reference to orient the gobos.

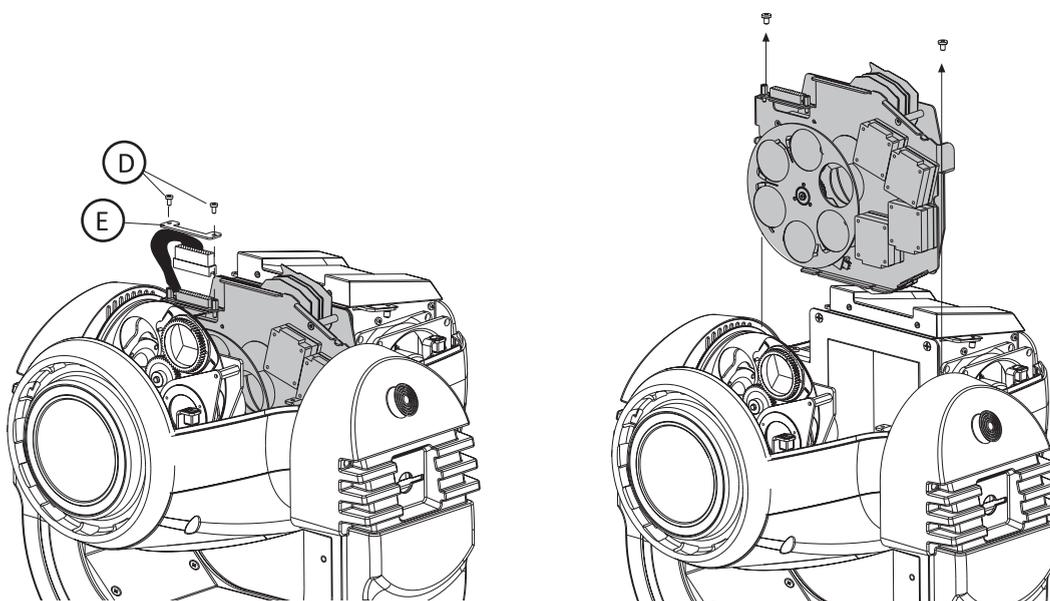


### 10.7 How to extract the colour assembly.

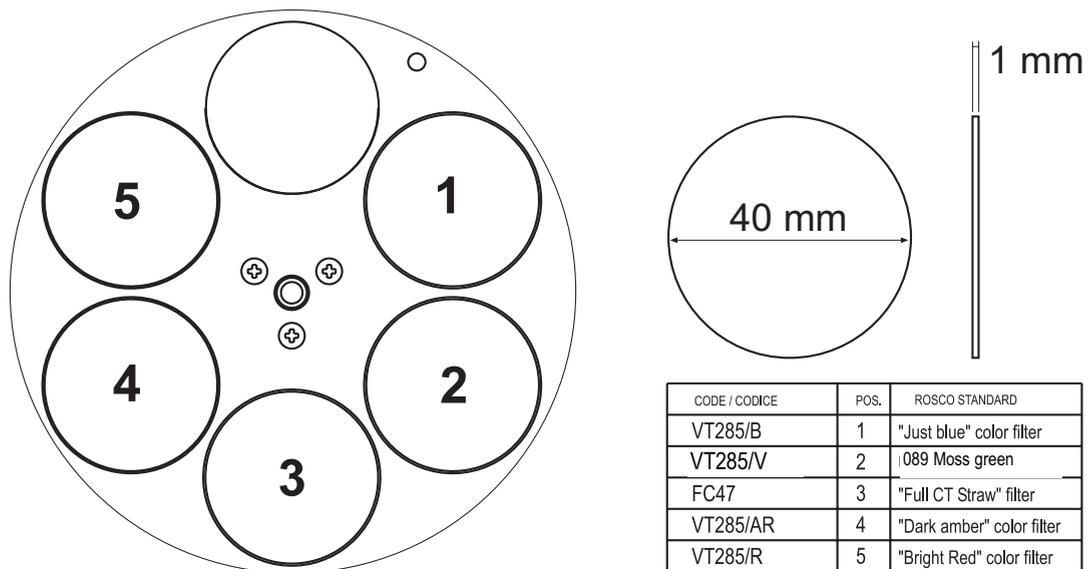
**WARNING!**

If it has not been done before, extract the gobos assembly now or it will not be possible to proceed otherwise; refer to previous section

- 1-Remove "D" screws on the connector labelled "COLOUR CHANGER" and gently remove the "E" connector.
- 2.Remove the fixed screws of the colour changer assembly and gently extract it. Now it is possible to inspect, clean and replace the filters.

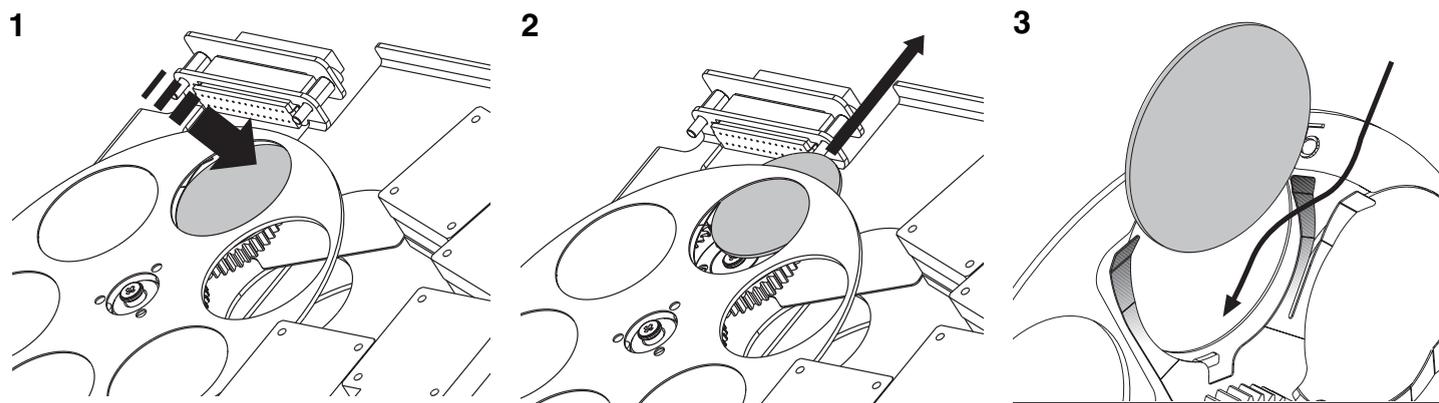


10.8 Standard color wheel configuration

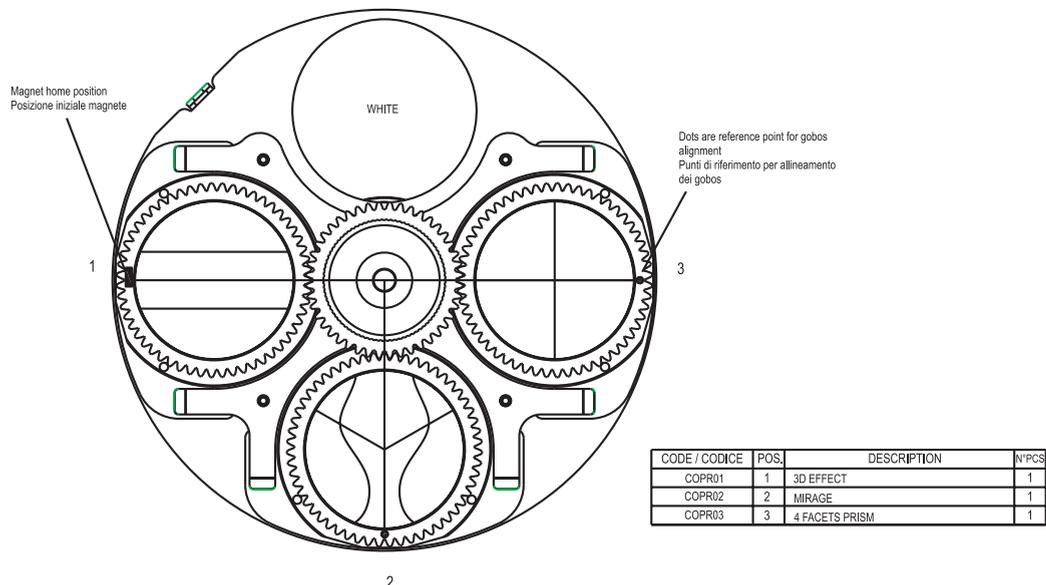


10.9 How to replace filters

1. Facing the front side of the colour wheel, gently hold the filter you want to replace with thumb and finger, then put a little pressure down and extract the filter.
  2. Insert the new filter making it slip under the spring until it locks; respect the coated side of the filter which must be placed on the part where the spring is.
- The wheel only accepts glass filters or gobos with a maximum diameter of 40 mm and thickness of no more than 1 mm.

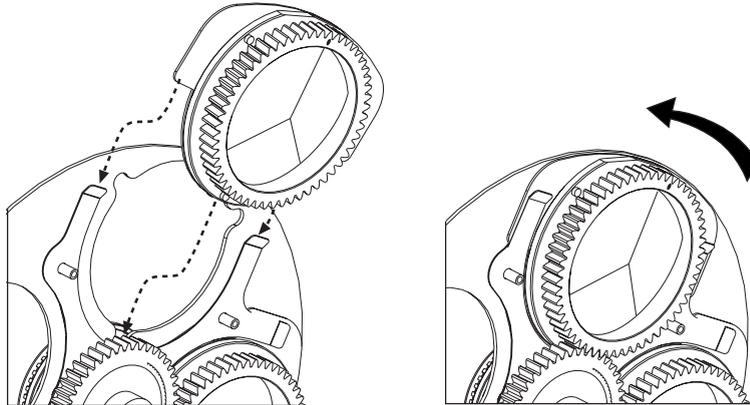


10.10 Standard Effect wheel configuration



### 10.11 How to replace effects

1. Lift and gently extract from the wheel the support which contains the effect you are going to replace.
2. Slide the new support under the spring, making sure that it enters in place through the two pins on the back of the support.



## 11. Maintenance

### 11.1 Periodic cleaning

#### Lenses and filters

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

#### Fans and air passages

The fans and air passages must be cleaned approximately every 6 weeks; the period for this periodic cleaning will depend, of course, upon the conditions in which the projector is operating. Suitable instruments for performing this type of maintenance are a brush and a common vacuum cleaner or an air compressor.

If necessary do not hesitate to carry this out even after a shorter period of time.

### 11.2 Periodic maintenance

#### Lamp

Check the lamp and replace it if there is any observable damage or deformation due to heat (check with the resettable counter).

#### Mechanical parts

Periodically check all mechanical devices for wear and tear; gears, guides, belts, etc., replacing them if necessary. Check the projector is not mechanically damaged. If necessary, replace the worn parts.

Check the tension of the belts and adjust them if necessary.

#### Electrical components

Check all electrical components for correct earthing and proper attachment of all connectors. Press the connectors if necessary and reposition as before.

### 11.3 Fuse replacement

Locate the fuse, which protects the lamp and electronics, in the base of the **Infinity Spot S**.

Using a multimeter, test the condition of the fuse, replacing it with one of equivalent type if necessary.

## 12. Spare parts

All the components of the **Infinity Spot S** are available as replacement spares from your authorised Coemar service centre. Accurate description of the fixture, model number, and type will assist us in providing for your requirements in an efficient and effective manner.

| Coemar code | Description  |
|-------------|--|
| CO9109      | Optional Camlock bracket common to other Coemar products |

### 13. Error messages

If you have to check a malfunction, Infinity Spot S has an auto-diagnostic system that visualises in the lower part of the display one or more intermittent messages, preceded by "ERR".

The following table will help you to understand these messages correctly. If the problem persists despite carrying out the suggested procedure, contact your Coemar Customer Service Centre.

| Error message                  | Description and suggested solution  |
|--------------------------------|---|
| <b>ERR: PAN</b>                | PAN ENCODER Error:<br>This messages indicates that there is a problem with the PAN encoders. Check the sensors on the encoder wheel located near the pan movement motor, as well as the relevant cabling.   |
| <b>ERR: TILT</b>               | TILT ENCODER Error:<br>This message indicates that there is a problem with the TILT encoder located on the fixture's yoke. Check the sensors on the encoder wheel located near the tilt movement motor, as well as the relevant cabling   |
| <b>ERR: SENSORS LINE #2</b>    | Control circuit error relating to position sensors for 4 motors located in the yoke.(GOBOS).<br>Check for the presence of power in the pcb and the condition of the connectors and cabling between the pcb and the sensors. Additionally, check motors and/or cogs for any impediments as well as the proper position of the cabling connectors.                |
| <b>ERR: SENSORS LINE #3</b>    | Control circuit error relating to position sensors for 4 motors located in the yoke.(EFFECTS, ZOOM, FOCUS).<br>Check for the presence of power in the pcb and the condition of the connectors and cabling between the pcb and the sensors. Additionally, check motors and/or cogs for any impediments as well as the proper position of the cabling connectors. |
| <b>ERR: SENSORS LINE#5</b>     | Control circuit error relating to position sensors for 5 motors located in the yoke.(COLOUR WHEEL).<br>Check for the presence of power in the pcb and the condition of the connectors and cabling between the pcb and the sensors. Additionally, check motors and/or cogs for any impediments as well as the proper position of the cabling connectors.         |
| <b>ERR: COLOUR WHEEL</b>       | Position error in COLOR WHEEL: sensor does not recognize magnet<br>Check the functioning and the correct positioning of the magnetic sensor of the colour wheel.  |
| <b>ERR: GOBO</b>               | Position error in GOBOS WHEEL: sensor does not recognize magnet<br>Check the functioning and the correct positioning of the magnetic sensor of the gobos wheel.   |
| <b>ERR: GOBO INDEX</b>         | Position error in GOBOS home position: sensor does not recognize magnet<br>Check the functioning and the correct positioning of the magnetic sensor placed on the white gobos 2.  |
| <b>ERR: GOBO 2</b>             | Position error in GOBOS WHEEL 2 (FIXED): sensor does not recognize magnet<br>Check the functioning and the correct positioning of the magnetic sensor of the gobos wheel.   |
| <b>ERR: EFFECT WHEEL</b>       | Position error in EFFECT (PRISMS) WHEEL: sensor does not recognize magnet<br>Check the functioning and the correct positioning of the magnetic sensor of the effect wheel.  |
| <b>ERR: EFFECT INDEX</b>       | Position error in EFFECT home position: sensor does not recognize magnet<br>Check the functioning and the correct positioning of the magnetic sensor of the empty support gear on the effect wheel.   |
| <b>ERR: LINE SYNC</b>          | Network sync Error:<br>Contact Coemar service center.   |
| <b>ERR: FLASH</b>              | EEPROM Error:<br>The EEPROM is either absent or defective; refer to your Coemar service center to check or for a replacement component.   |
| <b>ERR: CFG DATA FAILURE</b>   | DATA Error:<br>The initial parameter settings are incorrect or corrupted; the fixture has reloaded its factory default setting. Turn the fixture off and on again. Should the error reoccur, refer the unit to your authorised Coemar service center.   |
| <b>ERR: NO SLAVE LINK</b>      | COMMUNICATION Error:<br>This message indicates that the motherboard within the unit is not communicating properly with the control source. Check the connectors located on both boards.   |
| <b>ERR: DMX ADDRESS</b>        | DMX ADDRESSING Error:<br>The fixture is not receiving all DMX channels needed to operate correctly. Check the DMX address indicated on the display and the channel numbers being outputted from the controller. Note that not all controllers will output all 512 channels.   |
| <b>ERR: DMX FRAME</b>          | DMX FRAME Error:<br>DMX signal present but frame too short; the controller has not sufficient channels to drive Infinity Spot S   |
| <b>ERR: SLAVE MEM. FAILURE</b> | Memory write Error motors pcb :<br>Contact Coemar service center.   |

## 14. Frequently asked questions

| Question   | Possible cause  | Suggested solution  |
|--|---|---|
| The projector is completely still.   | <p>Projector not powered up.</p> <p>The circuit breaker is switched off</p> <p>The protection fuse is blown</p> | <p>Check that the mains power cable is connected to power.</p> <p>Set the circuit breaker to ON.</p> <p>Disconnect the projector and replace the fuse.</p>  |
| The projector resets correctly, but either does not respond, or responds incorrectly, to DMX signal. | <p>Incorrect signal connection</p> <p>Incorrect DMX address</p>   | <p>Inspect the signal cable, rectify any incorrect wiring, repair or replace any damaged cables or connectors.</p> <p>Check the DMX address.</p>  |
| The lamp functions intermittently or does not turn on at all.  | The projector is too hot.   | <p>Let the fixture cool down.</p> <p>Check that the air vents above the cooling fans are not obstructed and that the fans are working correctly.</p> <p>Ensure that the ambient temperature is below 35 °C.</p> |



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