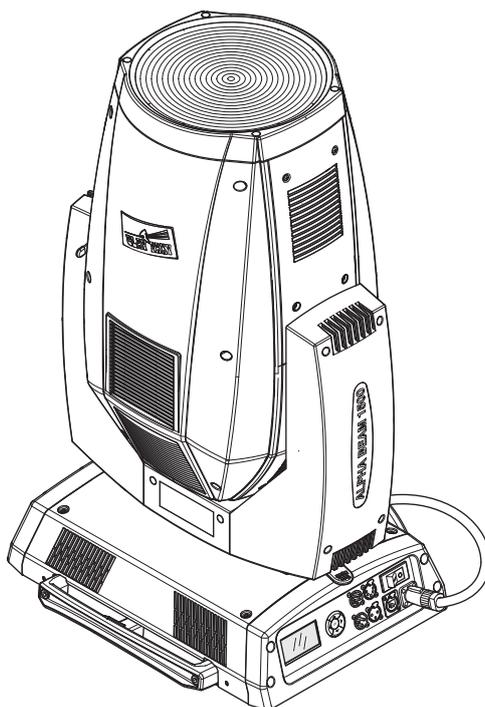




## INSTRUCTION MANUAL



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5	Control panel
7	Menu setting
14	Maintenance
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22	Cause and solution of problems
23	Channel functions

*Congratulations on choosing a Clay Paky product!*

*We thank you for your custom.*

*Please note that this product, as all the others in the rich Clay Paky range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.*

Carefully read this instruction manual in its entirety and keep it safe for future reference. It is essential to know the information and comply with the instructions given in this manual to ensure the fitting is installed, used and serviced correctly and safely.

CLAY PAKY S.p.A. disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this instruction manual, which must always accompany the fitting.

CLAY PAKY S.p.A. reserves the right to modify the characteristics stated in this instruction manual at any time and without prior notice.

## SAFETY INFORMATION

### • Installation

Make sure all parts for fixing the projector are in a good state of repair.

Make sure the point of anchorage is stable before positioning the projector.

The safety chain must be properly hooked onto the fitting and secured to the framework, so that, if the primary support system fails, the fitting falls as little as possible.

If the safety chain gets used, it needs to be replaced with a genuine spare.

### • Minimum distance of illuminated objects

The projector needs to be positioned so that the objects hit by the beam of light are at least 10 metres (32' 10") from the lens of the projector.

### • Minimum distance from flammable materials

The projector must be positioned so that any flammable materials are at least 0.20 metres (8") from every point on the surface of the fitting.

### • Mounting surfaces

It is permissible to mount the fitting on normally flammable surfaces.

### • Maximum ambient temperature

Do not operate the fixture if the ambient temperature ( $T_a$ ) exceeds 40° C (104° F).

### • IP20 protection rating

The fitting is protected against penetration by solid bodies of over 12mm (0.47") in diameter (first digit 2), but not against dripping water, rain, splashes or jets of water (second digit 0).

### • Protection against electrical shock

Connection must be made to a power supply system fitted with efficient earthing (**Class I** appliance according to standard EN 60598-1).

It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

### • Connection to mains supply

Connection to the electricity mains must be carried out by a qualified electrical installer.

Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label.

This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading.

### • Temperature of the external surface

The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 150°C (302°F).

### • Maintenance

Before starting any maintenance work or cleaning the projector, cut off power from the mains supply. After switching off, do not remove any parts of the fitting for at least 10 minutes. After this time the likelihood of the lamp exploding is virtually nill. If it is necessary to replace the lamp, wait for another 20 minutes to avoid getting burnt.

The fitting is designed to hold in any splinters produced by a lamp exploding. The lenses must be mounted and, if visibly damaged, they have to be replaced with genuine spares.

### • Lamp

The fitting mounts a high-pressure lamp that needs an external igniter. This igniter is fitted onto the apparatus.

- Carefully read the "operating instructions" provided by the lamp manufacturer.
- Immediately replace the lamp if damaged or deformed by heat.

### • Battery

This product contains a rechargeable lead-acid battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force. Instructions on how to remove the battery from the product are available on [www.claypaky.it](http://www.claypaky.it)

1500W 

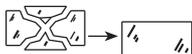


$t_a$  40°C

IP20



$t_c$  150°C



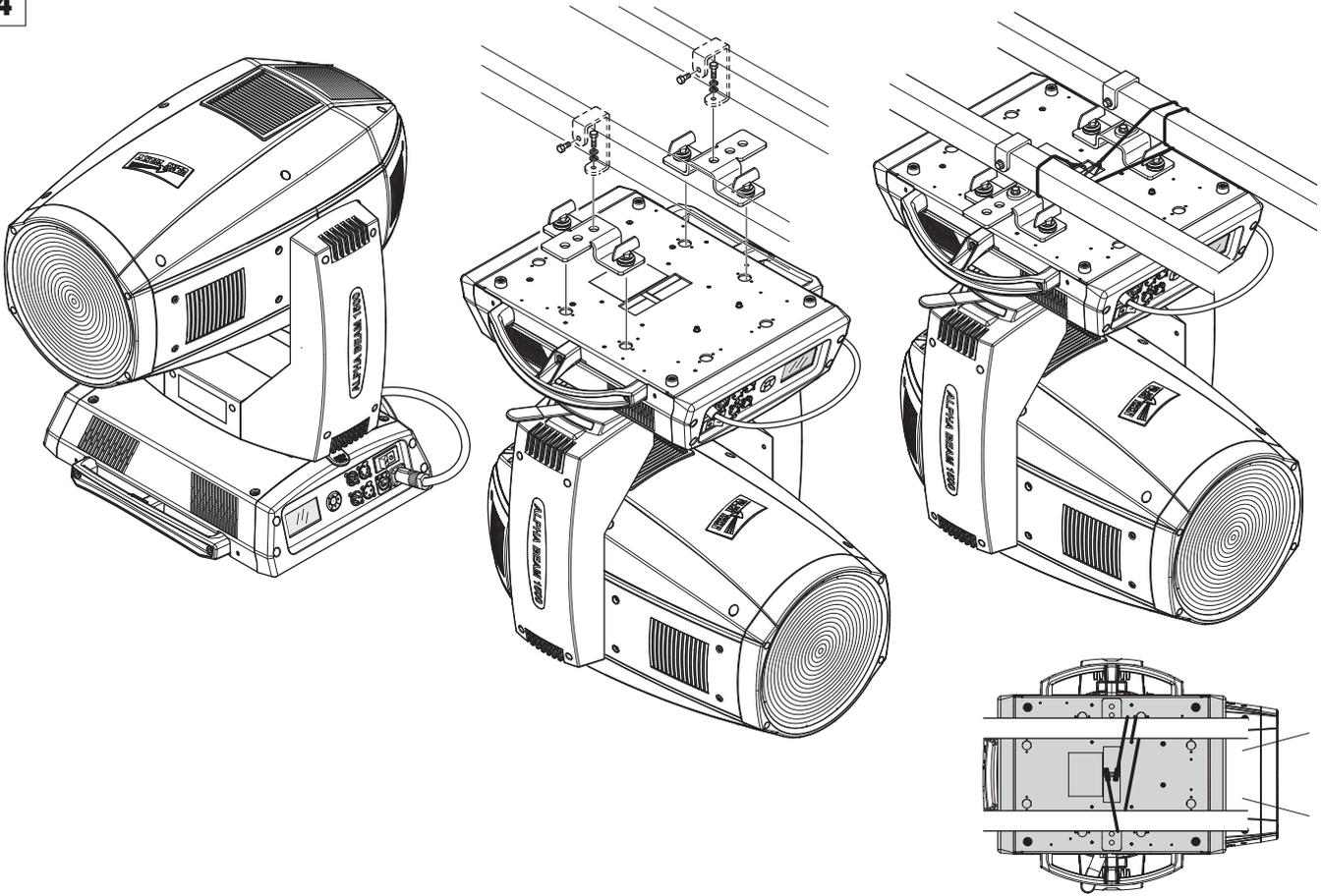
The products referred to in this manual conform to the European Community Directives to which they are subject:

- Low Voltage 2006/95/CE
- Electromagnetic Compatibility 2004/108/CE



## INSTALLATION AND START-UP

4

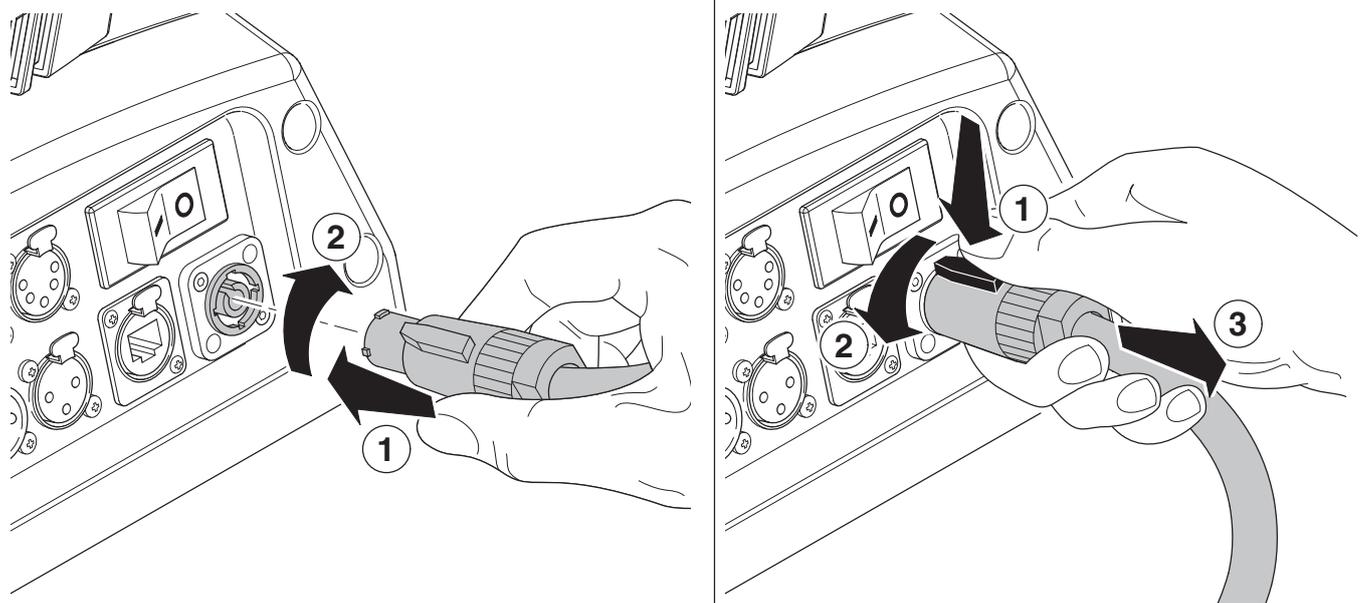


### Installing the projector - Fig. 4

The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.

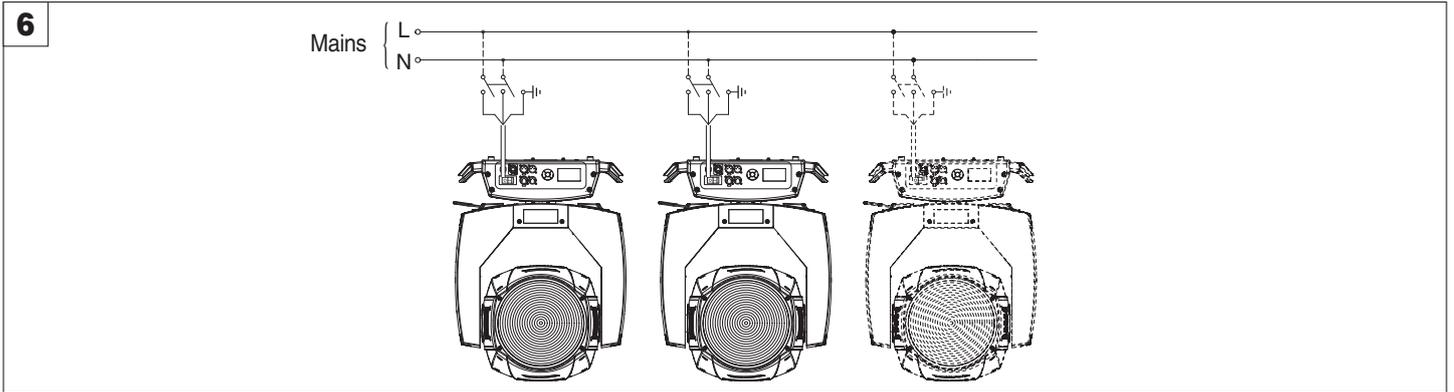
**WARNING:** with the exception of when the projector is positioned on the floor, the safety cable must be fitted. (Cod. 105041/003 available on request). This must be securely fixed to the support structure of the projector and then connected to the fixing point at the centre of the base.

5

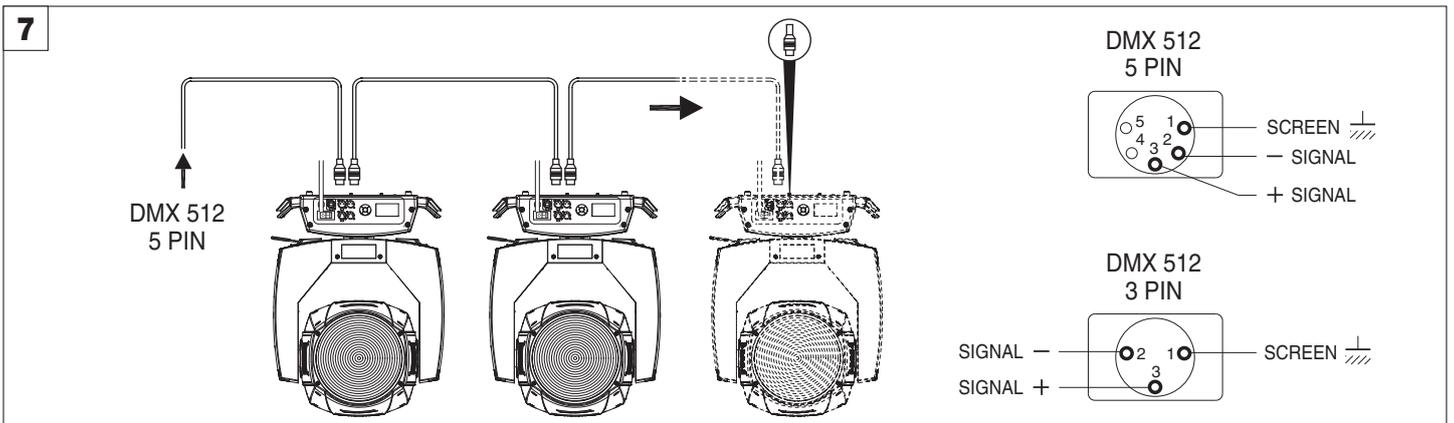


Connecting and disconnecting power cable - Fig. 5

# CONTROL PANEL



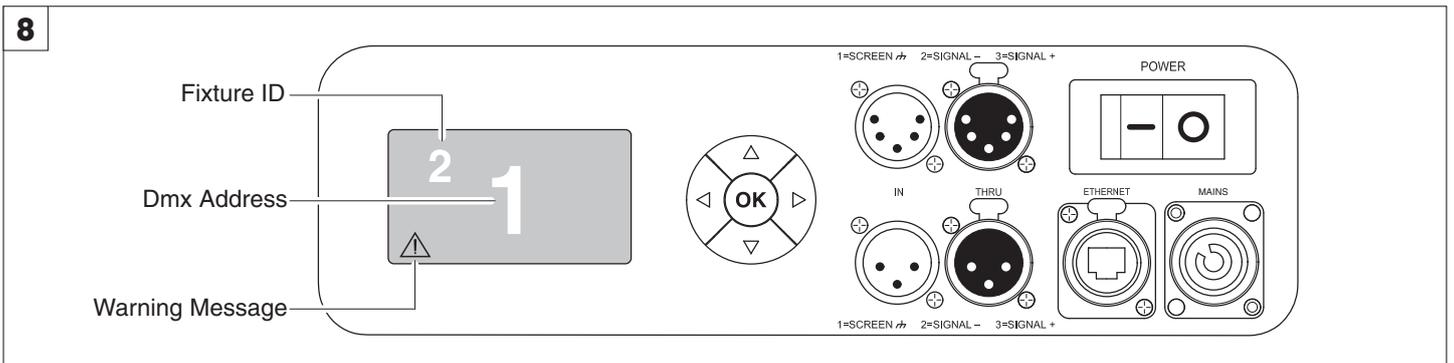
6 Connecting to the mains supply - Fig. 6



7 Connecting to the control signal line (DMX) - Fig. 7

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.

**IMPORTANT:** The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.



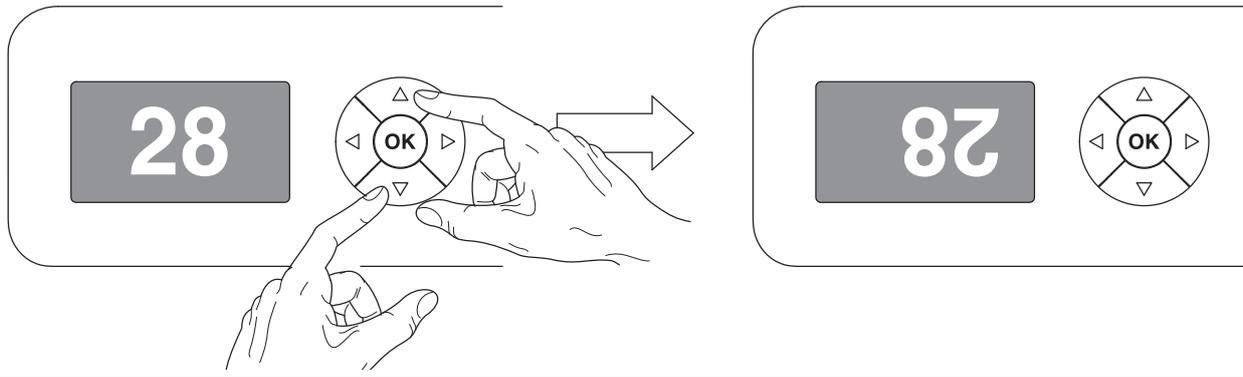
8 Switching on the projector - Fig. 8

Press the switch. The projector starts resetting the effects. At the same time, the following information scrolls on the display:

	<b>Model</b> Alpha BEAM 1500	<b>Firmware</b> Version X.X.X Date - Hour	<b>xxx (Fixture ID)</b> Dmx Address xxx	<b>System errors</b> E: ..... W: .....
--	------------------------------------	---	--	--

On conclusion of resetting in case of the absence of dmx signal, Pan and Tilt move to the "Home" position (Pan 50% - Tilt 50%). The control panel (Fig. 8) has a display and buttons for the complete programming and management of the projector menu. The display can be in one of two conditions: rest status and setting status. When it is in the rest status, the display shows the projector's DMX address and the Fixture ID address (if set).

During menu setting status, after a wait time (about 30 seconds) without any key having been pressed, the display automatically returns to rest status. It should be noted that when this condition occurs, any possible value that has been modified but not yet confirmed with the **OK** key will be cancelled.



#### Reversal of the display - Fig. 9

To activate this function, press UP  and DOWN  keys simultaneously while the display is in the rest mode. This status will be memorised and maintained even for the next time it will be switched on. To return to the initial state, repeat the operation all over again.

#### Setting the projector starting address

On each projector, the starting address must be set for the control signal (addresses from 1 to 512).

The address can also be set with the projector switched off.

Setting the address: see pag. 8.

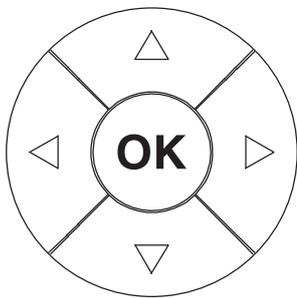
#### Setting the projector Fixture ID

On each projector, the Fixture ID address must be set for an easy identification of the fixtures in an installation (ID from 1 to 255).

The Fixture ID address can be set with the projector switched off.

Setting the Fixture ID: see pag. 8

## Functions of the buttons - Using the menu



Confirms the displayed value, or activates the displayed function, or enters the successive menu.



Decreases the value displayed (with auto-repetitions) or passes to the next item in the menu.



Increases the value displayed (with auto-repetitions) or passes to the previous item in a menu.



Return to the top level



Commute from units, tens, hundreds, in the "Address", "Fixture ID" and "Calibration" menu.

#### USING THE MENU:

- 1) Press  once – "Main Menu" appears on the display.
- 2) Use the UP  and DOWN  keys to select the menu to be used:
  - Setup (Setup Menu): To set the setting options.
  - Option (Option Menu): To set the operating options
  - Informations (Informations Menu): To read the counters, software version and other information.
  - Manual Control (Manual control Menu): To trigger the test and manual control functions.
  - Test (Test Menu): To check the proper functioning of effects
  - Advanced (Advanced Menu): Access to the "Advanced menu" is recommended for a trained technical personnel.

To enable the "Advanced" see pag.13
- 3) Press  to display the first item in the selected menu.
- 4) Use the UP  and DOWN  keys to select the MENU items.

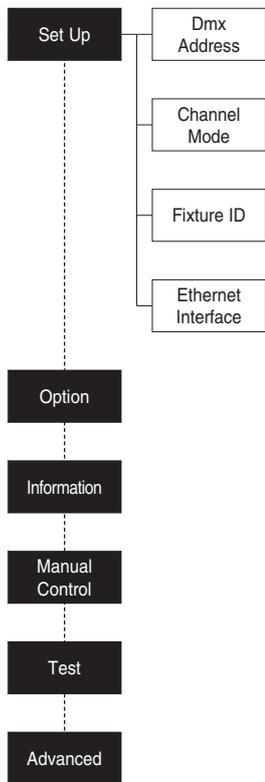
#### Setting addresses and options with the projector disconnected

The projector's DMX address, as well as other possible operating options, can also be set when the appliance is disconnected from the electricity supply. All that is needed is to press  to momentarily activate the display and thus access the settings. Once the required operations have been carried out, the display will switch off again after a wait time of 30 seconds.

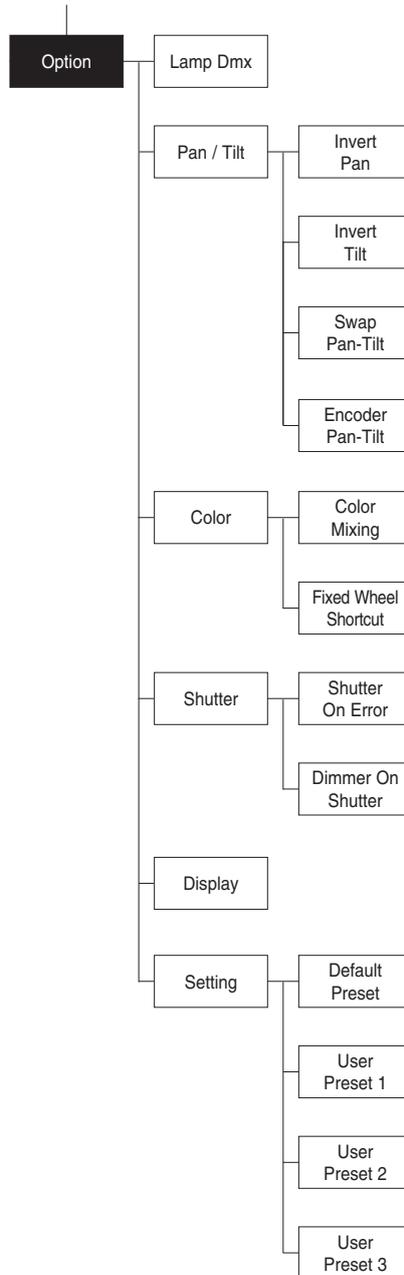
# MENU SETTING

## MAIN MENU

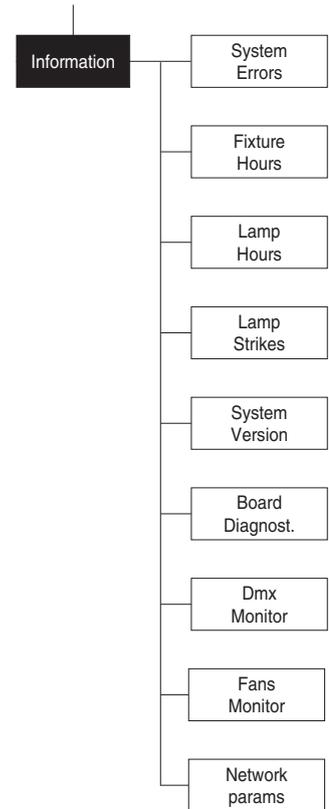
1



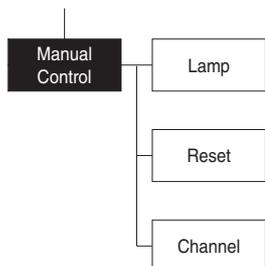
2



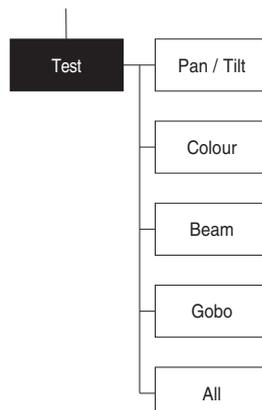
3



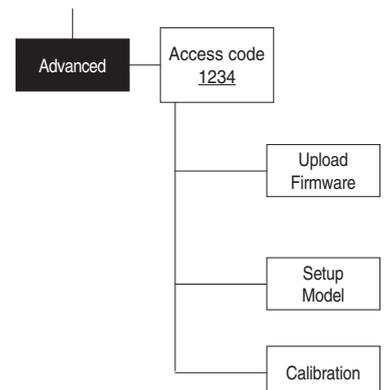
4



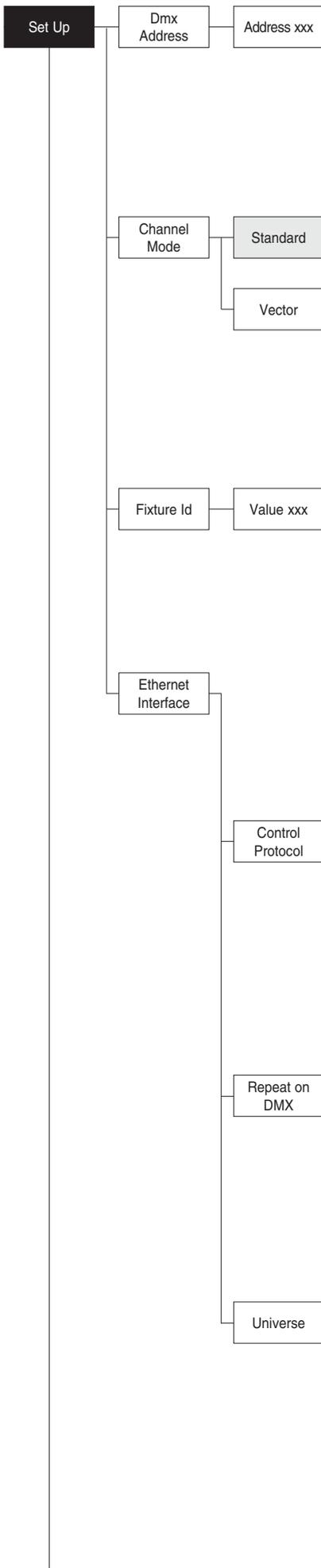
5



6



NOTE: On grey the default options



## SET UP MENU

### DMX ADDRESS

**NOTE: without the DMX signal the Address (XXX) flashing**

Allows you to select the DMX ADDRESS

- 1) Press **OK** - the current DMX Address appear on the display.
- 2) Use the UP **▲**, DOWN **▼**, RIGHT **▶** keys to plan the DMX Address.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

### CHANNEL MODE

Allows you to select a channel arrangement from the two available.

- 1) Press **OK** - the current settings appear on the display (Standard or Vector).
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
  - **Standard**
  - **Vector**
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

### FIXTURE ID

Allows you to select the FIXTURE ID

- 1) Press **OK** - the current Fixture ID appear on the display.
- 2) Use the UP **▲**, DOWN **▼**, RIGHT **▶** keys to plan the Fixture ID.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

### ETHERNET INTERFACE

It lets you set the Ethernet settings to be attributed to the projector.

- 1) Premere **OK**.
- 2) Use the UP **▲** and DOWN **▼** keys to select the "Ethernet Interface" options to set:

#### Control Protocol

It lets you select the "Control Protocol" Art-net to assign according to the control unit used:

- 1) Press **OK** the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
  - **Disabled**
  - **Art-net on IP 2**
  - **Art-net on IP 10**
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.

#### Repeat on DMX

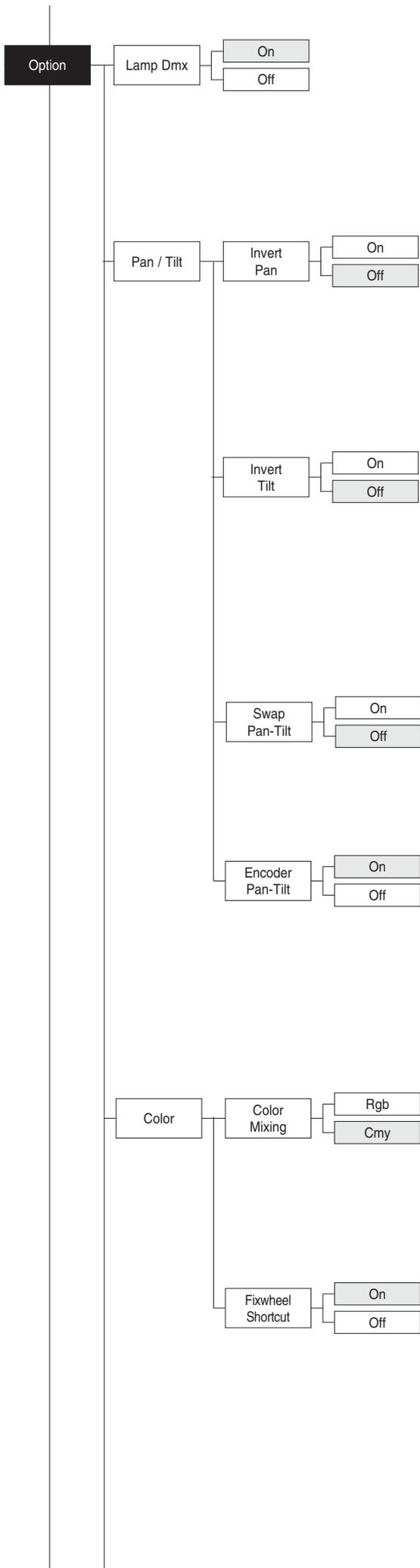
It lets you enable the transmission of the Ethernet protocol by DMX signal to all the connected projectors.

- 1) Press **OK** the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
  - **Disabled:** DMX transmission disabled.
  - **Enabled on primary:** DMX transmission enabled.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.

#### Universe

It lets you assign the "Universe" number to be assigned to a series of projectors.

- 1) Press **OK** - the current Universe address appears on the display.
- 2) Use the UP **▲**, DOWN **▼**, RIGHT **▶** keys to set the Universe address.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.



## OPTIONS MENU

### LAMP DMX

Used for enabling lamp remote control channel.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) the lamp remote control channel.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

### PAN / TILT

#### Invert pan

Used for reversing Pan movement.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) PAN inversion.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

#### Invert tilt

Used for reversing tilt movement.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) Tilt inversion.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

#### Swap Pan-Tilt

Used for swapping Pan and Tilt channels (as well as Pan fine and Tilt fine).

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) Pan and Tilt channel swap.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

#### Encoder Pan-Tilt

Used for enabling the Pan / Tilt encoders.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) Pan / Tilt encoders.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

### COLOR

#### Color mixing

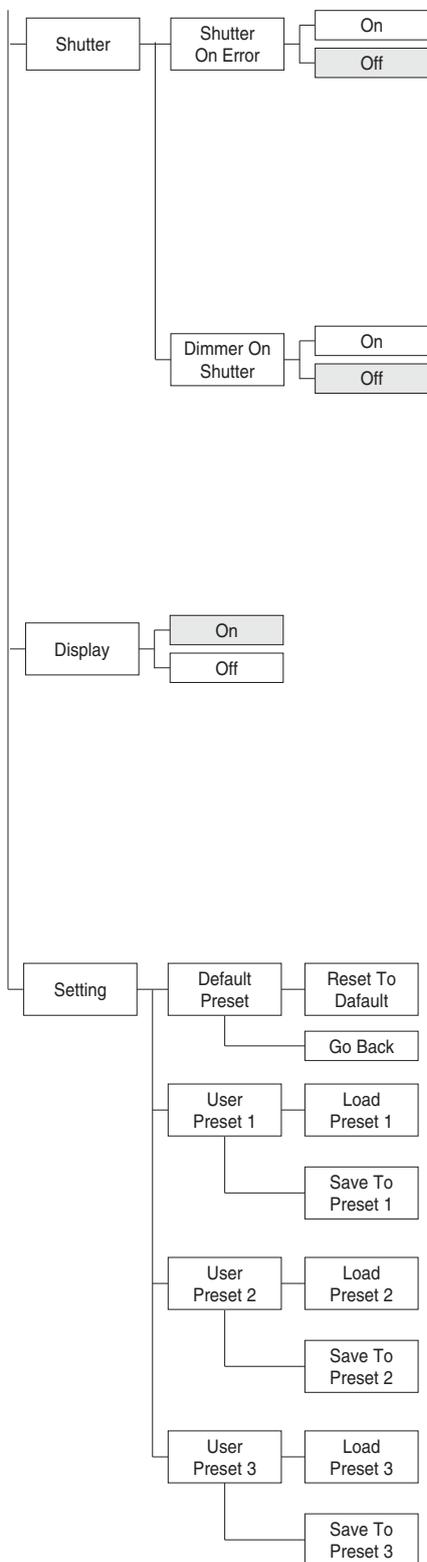
Used for reversing the CMY color mixing system.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys select one of the following settings:  
RGB color mixing mode  
CMY color mixing mode
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

#### Fixed wheel short-cut

Used for optimizing color change time so that the disc turns in the direction that requires shorter movement.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) color change optimization.
- 3) Press **OK** to confirm the selection, or LEFT **◀** to keep current settings.



## SHUTTER

### Shutter on error

Used for automatically closing the stop/strobe in the event of Pan/Tilt position error.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) automatic stop/strobe closing in the event of Pan/Tilt position error.
- 3) Press **OK** to confirm the selection, or LEFT **◀** to keep current settings.

### Dimmer on Shutter

Enables automatic closing of the dimmer when the strobe is completely closed.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) the automatic closing of the dimmer.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

## DISPLAY

Used for automatically reduce brightness on the display after about 30 seconds in idle.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) the decreasing of display brightness.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

## SETTING

Used to save 3 different settings of the items in the options menu and relative submenus.

- 1) Press **OK** - "Default preset" appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following configurations:
  - Default preset (\*)
  - User preset 1
  - User preset 2
  - User Preset 3
- 3) Press **OK** - "Load preset X" appears on the display.
- 4) Use the UP **▲** and DOWN **▼** keys to select:
  - Load preset X to recall a previously stored configuration.
  - Save to preset X to store the current configuration.
- 5) Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.

### (\*) DEFAULT PRESET

Used for restoring default values on all options menu items and relevant submenus.

- 1) Press **OK**, a confirmation message (Are you sure?) appears on the display.
- 2) Select YES to confirm the selection or NO to keep current setting.

OPTION	DEFAULT
Lamp DMX	On
Invert Pan	Off
Invert Tilt	Off
Swap Pan-Tilt	Off
Encoder Pan-Tilt	On
Colour mixing	CMY
Fixed Wheel Shortcut	On
Shutter on error	Off
Dimmer on Shutter	Off
Display	On

System Errors

Fixture Hours

Total	XXX
Partial	XXX
Reset...	

Lamp Hours

Total	XXX
Partial	XXX
Reset...	

Lamp Strikes

Total	XXX
Partial	XXX
Reset...	

System Version

Board	Revis.	Hw.rv.
CPU brd	x.x.x	x.x
com.dev	x.x	
0: PT-3f	x.x	x.x
1: 8-Ch	x.x	x.x
2: 8-Ch	x.x	x.x

## INFORMATION MENU

### SYSTEM ERRORS

Shows a list of warnings and messages relevant to errors occurred since the fixtures switching-on.

- 1) Pressing **OK** you are allowed to reset the SYSTEM ERRORS list.  
A confirmation message (Are you sure you want to clear error list ?) appears on the display.
- 2) Select YES to reset the list or NO to go back.

### FIXTURE HOURS

Used for displaying projector operating hours (total and partial).

- 1) Press **OK** - Hours total and partial appears on the display.

#### Total counter

Counts the number of projector working life hours (from manufacture to date).

#### Partial counter

Counts the number of partial projector working life hours since the last reset to date.

- 2) Press **OK** to reset partial projector working hours a confirmation message (Are you sure?) appears on the display.
- 3) Select YES to reset partial projectors counter or NO to keep the current setting and return to the top menu level.

### LAMP HOURS

Used for displaying the lamp working hours (total and partial).

- 1) Press **OK** - Hours total and partial appears on the display.

#### Total counter

Counts the number of projector working hours with the lamp on (from manufacture to date).

#### Partial counter

Counts the number of lamp working hours since the last reset to date.

- 2) Press **OK** to reset partial lamp working hours, a confirmation message (Are you sure ?) appears on the display.
- 3) Select YES to reset partial counter or NO to keep the current setting and return to the top menu level

### LAMP STRIKES

Used for displaying the number of times the lamp was turned on (total and partial).

- 1) Press **OK** - the number of times the lamp was turned on (total and partial) appears on the display.

#### Total counter

Counts the number of times the lamp was turned on (from manufacture to date).

#### Partial counter

Counts the number of times the lamp was turned on since the last reset to date.

- 2) Press **OK** to reset partial lamp strikes hours, a confirmation message (Are you sure ?) appears on the display.
- 3) Select YES to reset partial counter or NO to keep the current setting and return to the top menu level

### SYSTEM VERSION

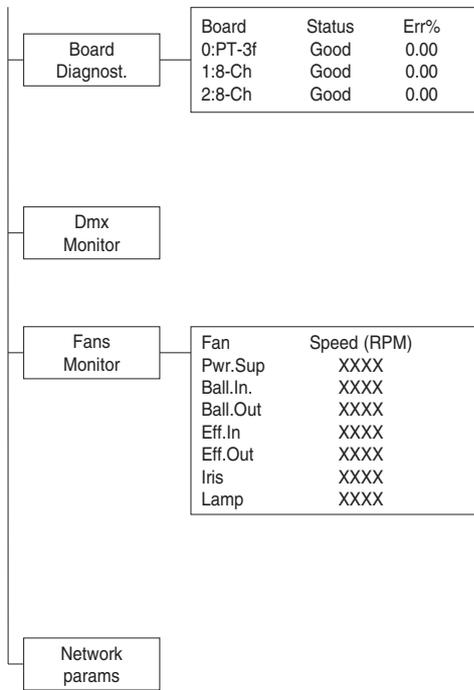
Used for displaying the software and hardware version of each board installed in the projector.

CPU brd (CPU board)

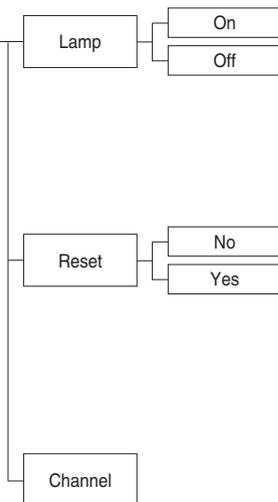
0: PT-3f (Pan / Tilt board)

1: 8-Ch (8 channel board)

2: 8-Ch (8 channel board)



**Manual Control**



**BOARD DIAGNOSTIC**

Used for displaying the status error of each board installed in the projector:

- 0: PT-3f (Pan / Tilt board)
- 1: 8-Ch (8 channel board)
- 2: 8-Ch (8 channel board)

**DMX MONITOR**

Used for displaying the projector DMX channel level in bit (Val) and in percentage (Perc).

**FANS MONITOR**

Used for displaying the speed of each fan installed in the projector:

- Pwr.Sup (Power supply Fan)
- Ball. IN (Ballast IN Fan)
- Ball. Out (Ballast OUT Fan)
- Eff.IN (Effects IN Fan)
- Eff.OUT (Effects OUT Fan)
- Iris (Iris Fan)
- Lamp (Lamp Fan)

**NETWORK PARAMS**

Allows the "Network" parameters of the projector to be displayed or:

- IP address:** Internet Protocol address (two projectors must not have the same IP address)
- IP mask:**
- Mac address:** Media Access Control: the projector's Ethernet Address.

**MANUAL CONTROL**

**LAMP**

Used for turning lamp on and off from the projector control panel.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to turn the lamp on (On) or off (Off)
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings and return to the top level.

**RESET**

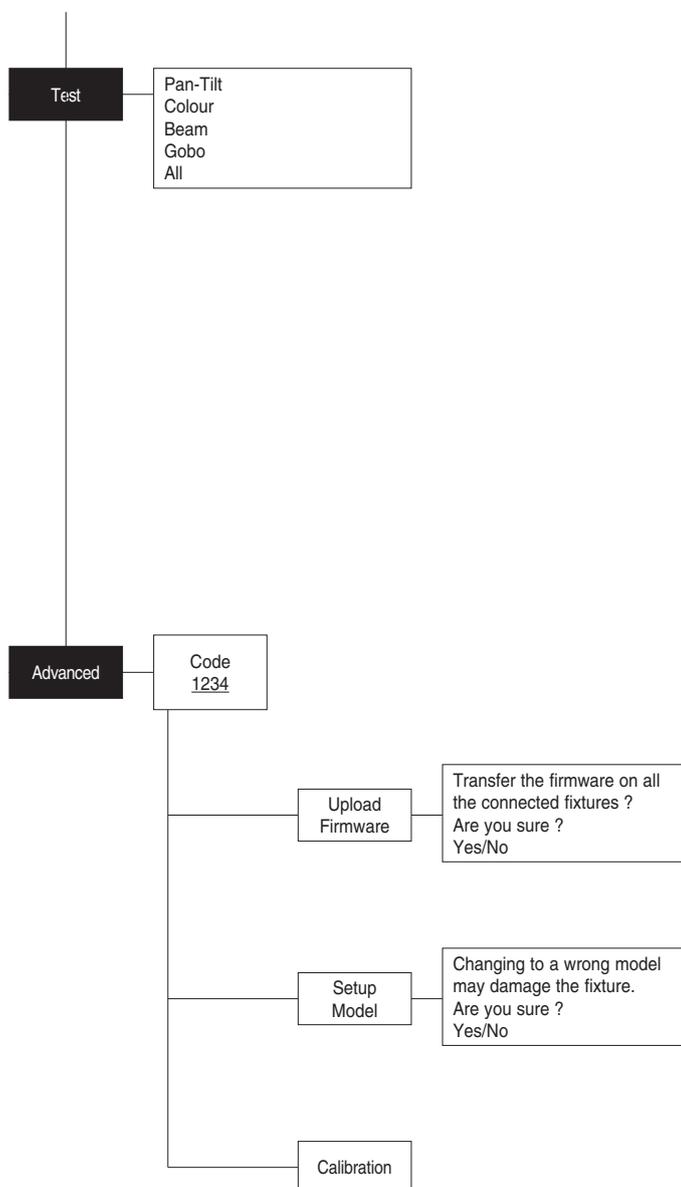
Used for resetting the projector.

- 1) Press **OK** to reset the projectors, a confirmation message (Are you sure ?) appears on the display.
- 2) Select YES to starting reset the fixture or NO to keep the current setting and return to the top menu level.

**CHANNEL**

Used for setting channel levels from the projector control panel.

- 1) Press **OK** - the first channel appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select the required channel:
- 3) Press **OK** and use the UP **▲** and DOWN **▼** keys to select the required DMX level (value between 0 and 255).
- 4) Press LEFT **◀** to return to the top menu level.



## TEST MENU

### AUTOTEST

Allows you to check the proper functioning of effects.

- 1) Press **OK**.
- 2) Use the UP **▲** and DOWN **▼** keys to select the required test.
- 3) Press **OK** to confirm the selection or LEFT **◀** to return to the top menu level.

Test sequence:

Pan - Tilt effects (Pan & Tilt)

Colour effects (CMY, colour wheel)

Beam effects (Stopper-Strobe / Dimmer / Iris / Prism / Frost)

Gobo effects (Fixed gobo / Rotating gobo)

All effects

## ADVANCED MENU

To enable the "Advanced Menu" set up the "Access code" (1234) using the UP **▲**, DOWN **▼**, RIGHT **▶** keys.

Press **OK** - "Menu advanced" appears on the display

### UP LOAD FIRMWARE

Allows you to transfer the firmware from 1 fixture to all the connected fixtures.

- 1) Press **OK**, a confirmation message appears on the display.
- 2) Select YES to start the firmware loading or NO to keep the current setting and return to the top menu level

### SETUP MODEL

Allows you to change the default model of projector.

- 1) Press **OK** a confirmation message appears on the display.
- 2) Select YES to define the model of projector or NO to keep the current setting and return to the top menu level.

### CALIBRATION

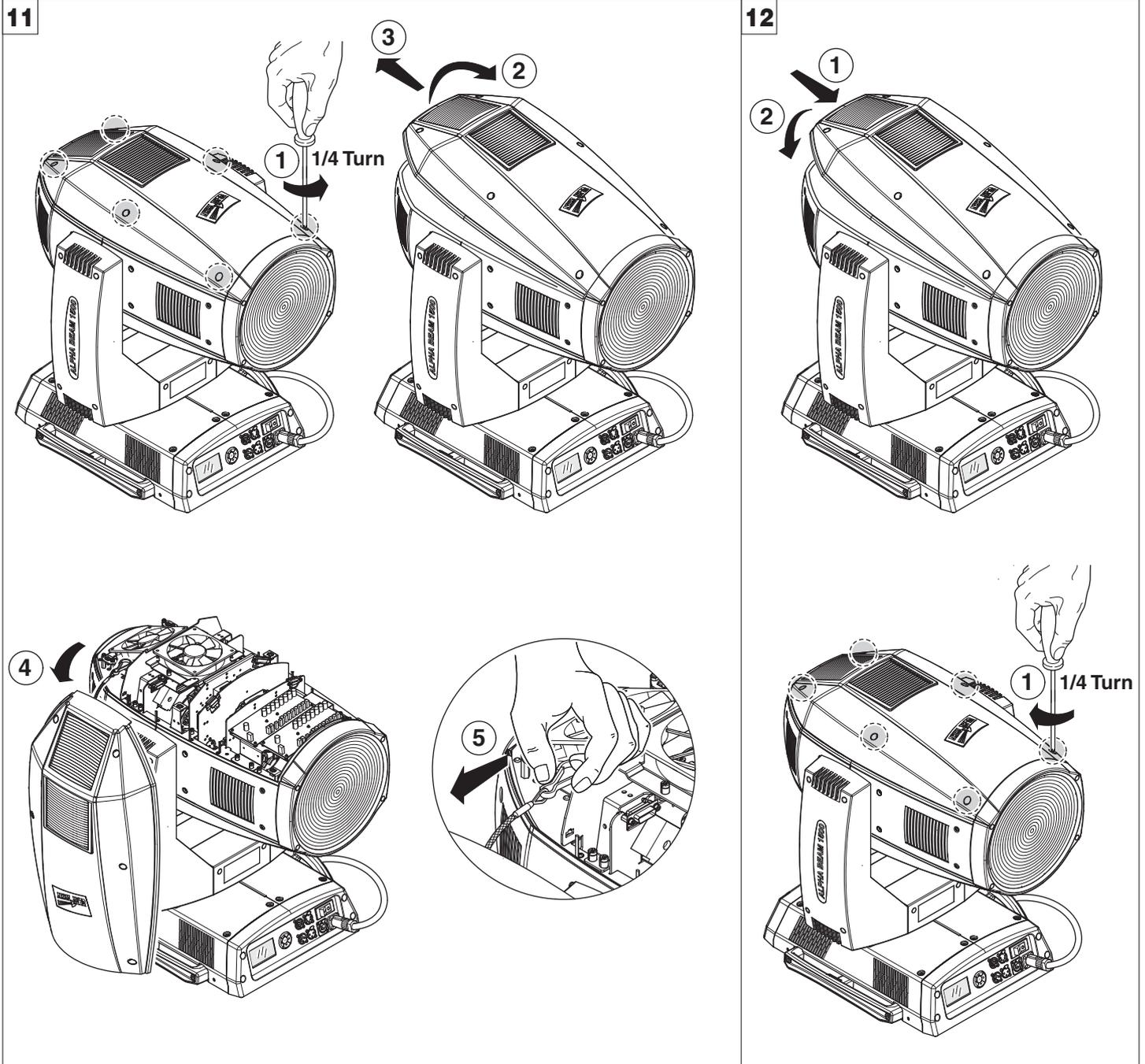
Allows you to adjust effects from the control panel to obtain perfect uniformity between the projectors.

- 1) Press **OK** - "channels" appears on the display.
- 2) Using the UP **▲** and DOWN **▼** keys, select the effect you wish to regulate.
- 3) Press **OK** and use the RIGHT **▶**, UP **▲** and DOWN **▼** buttons to make the adjustment by setting a value between 0 and 255.
- 4) Press **OK** to confirm the selection or LEFT **◀** to keep current settings and return to the top level.

### FACTORY DEFAULT

Allows you to restore default values of all channels (128).

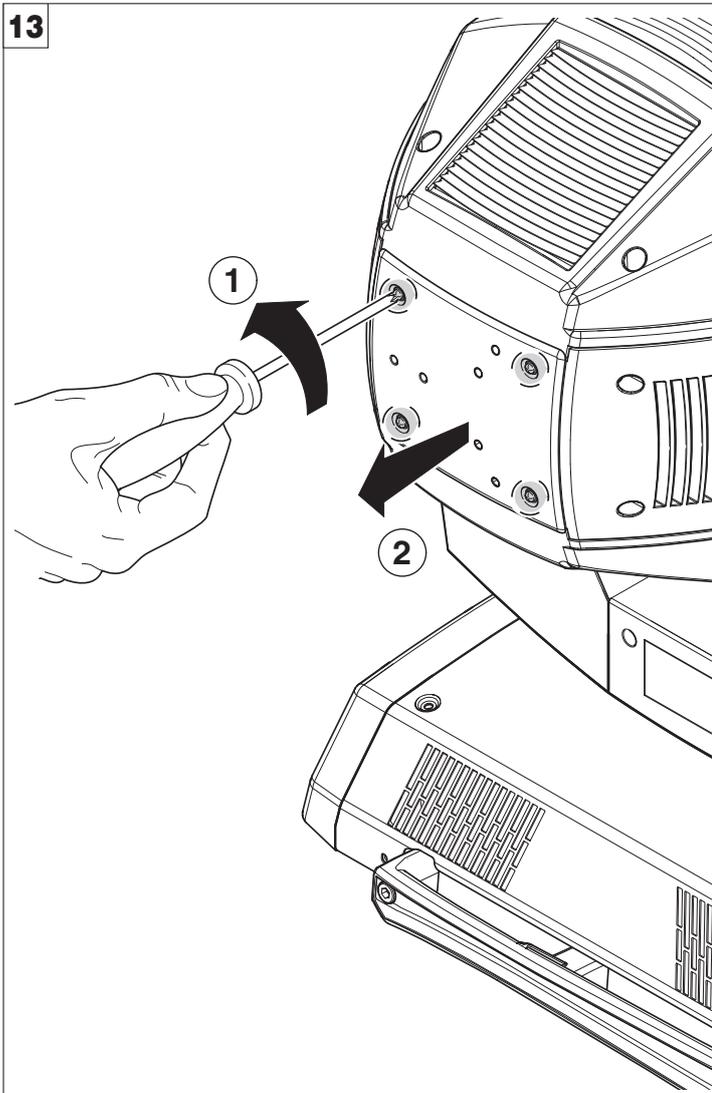
- 1) Press **OK** - a confirmation message appears on the display (Reset calibration to factory default ?).
- 2) Select YES to reset calibration to factory default or NO to keep the current setting and return to the top menu level.



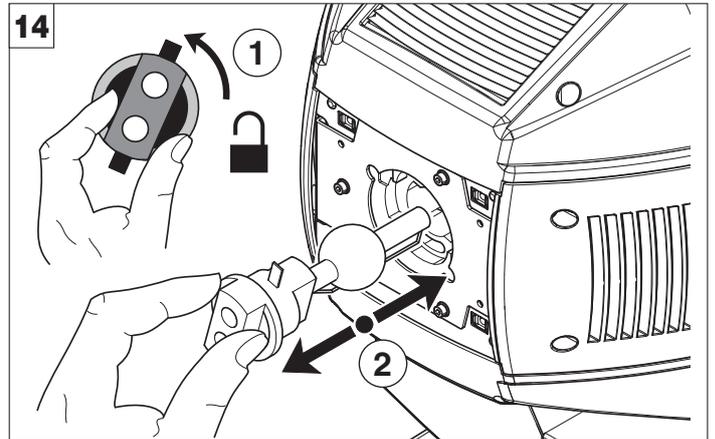
Locking and releasing Pan and Tilt movements - Refer to the instructions in the UNPACKING AND PREPARATION section.

Opening the head covers - Fig. 11.

Closing the head covers - Fig. 12.



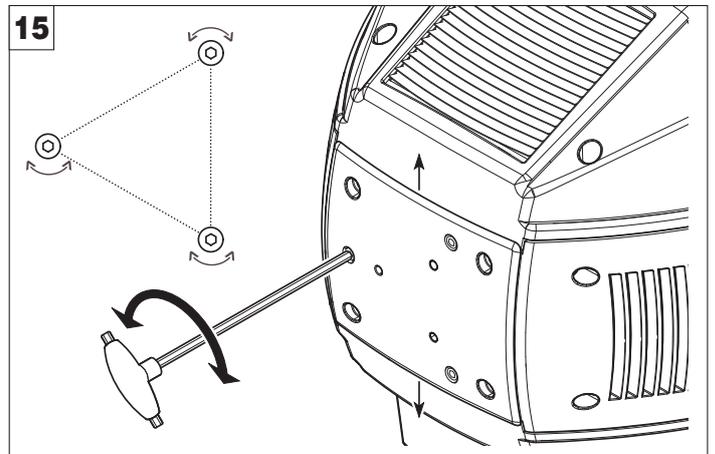
Opening and closing lamp compartment - Fig. 13



Lamp change - Fig 14

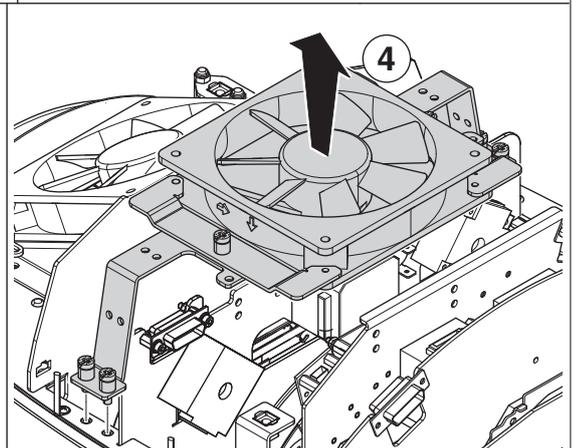
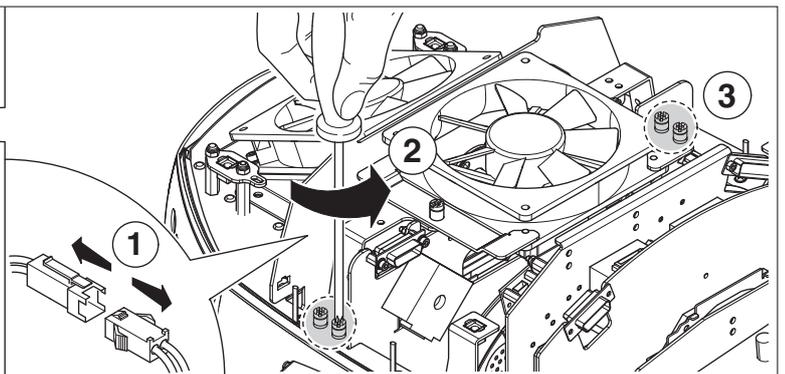
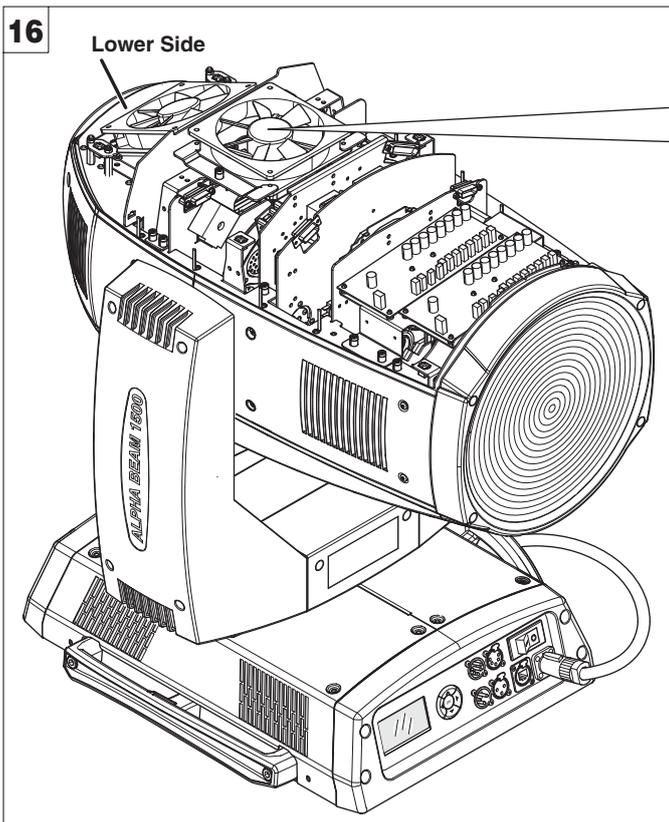
Take the new lamp out of its package and insert in the fitting.

**WARNING: do not touch the lamp's envelope with bare hands. Should this happen, clean the bulb with a cloth soaked in alcohol and dry it with a clean, dry cloth.**

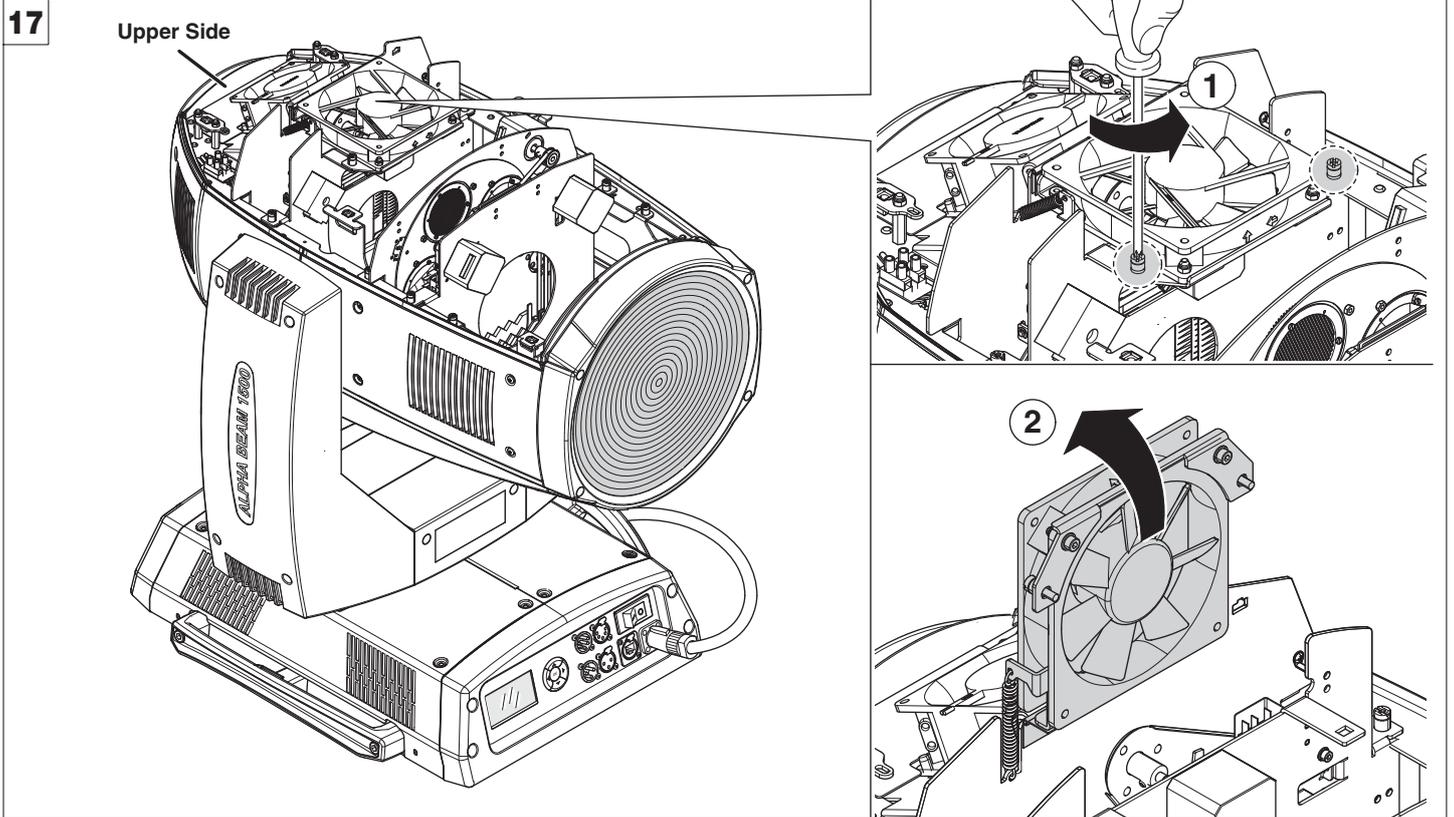


Lamp regulation - Fig. 15

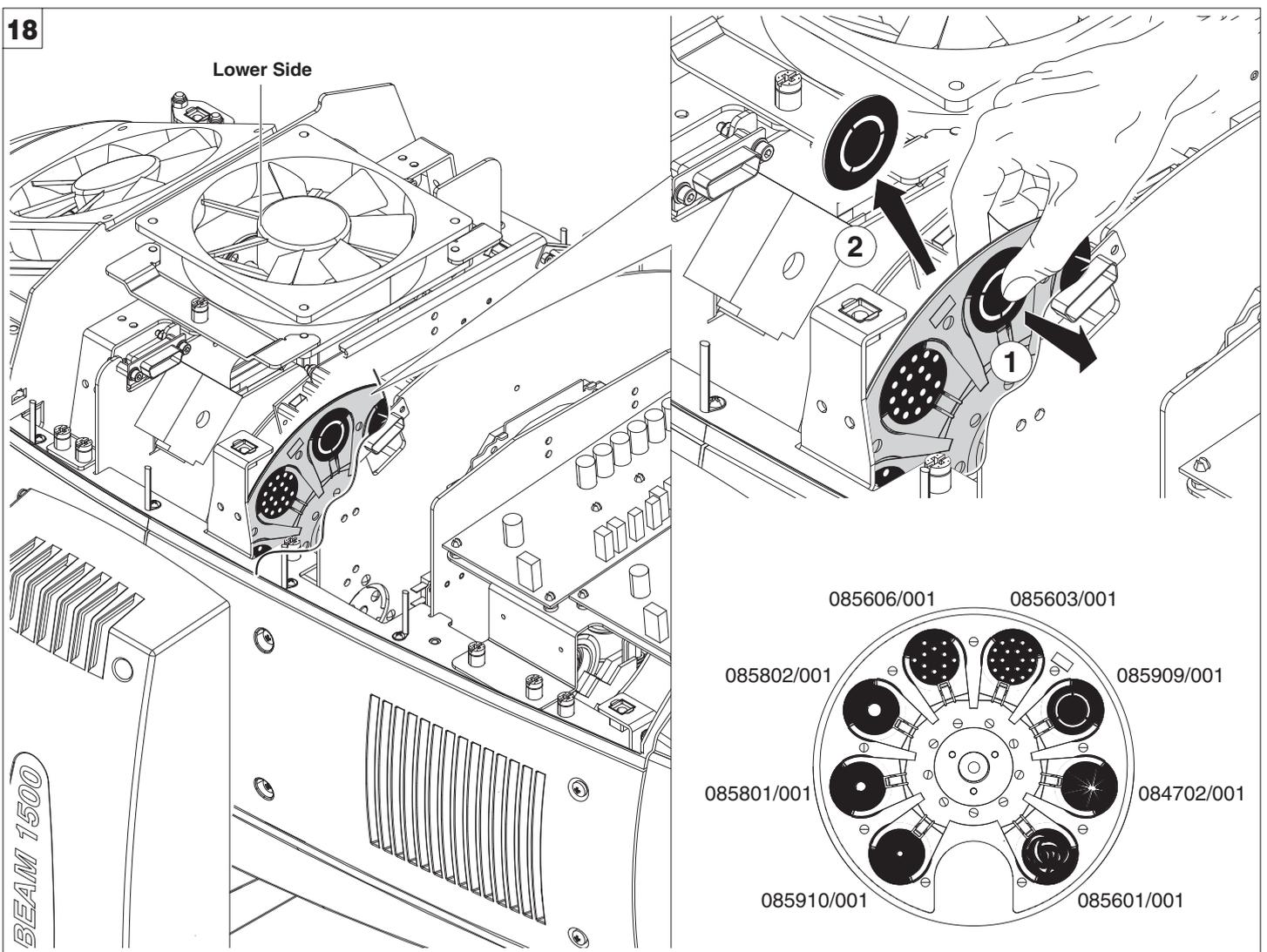
To centre the lamp, turn the three adjusting screws as shown in the figure.



Fan support plate opening and closing (Lower side) - Fig. 16

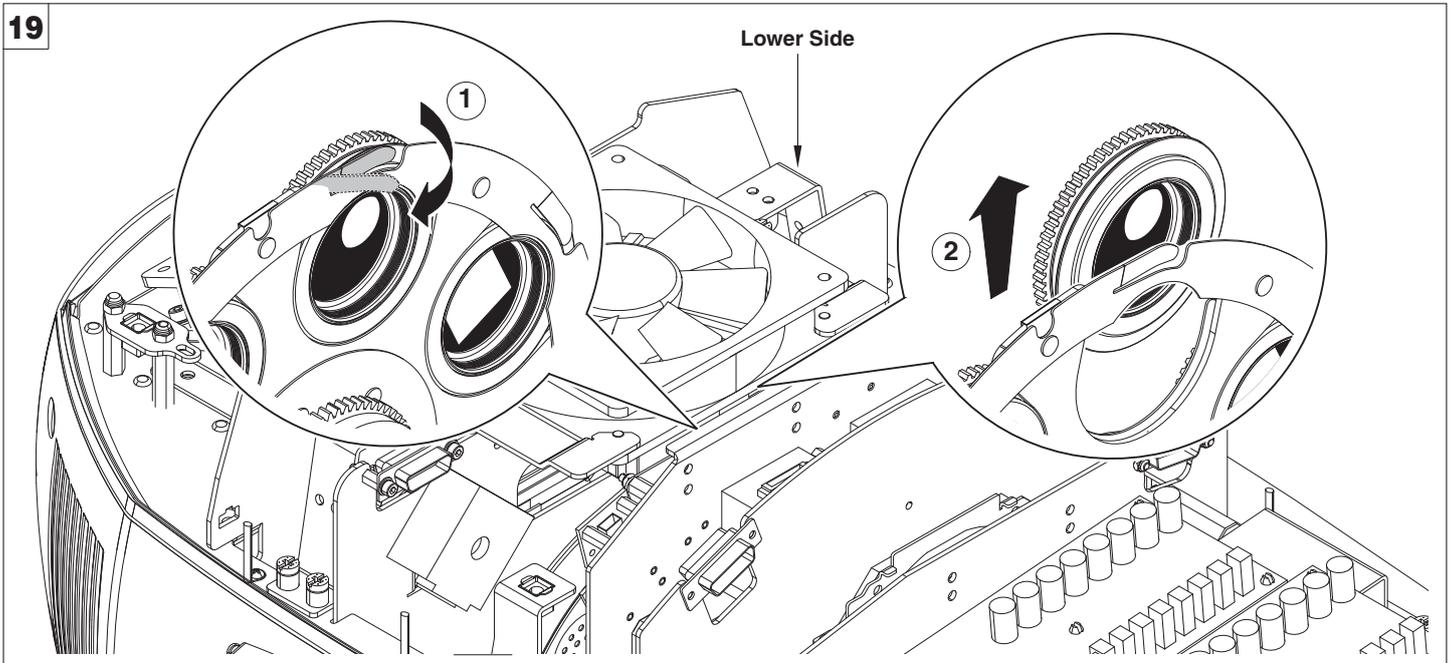


Fan support plate opening and closing (Upper side) - Fig. 17

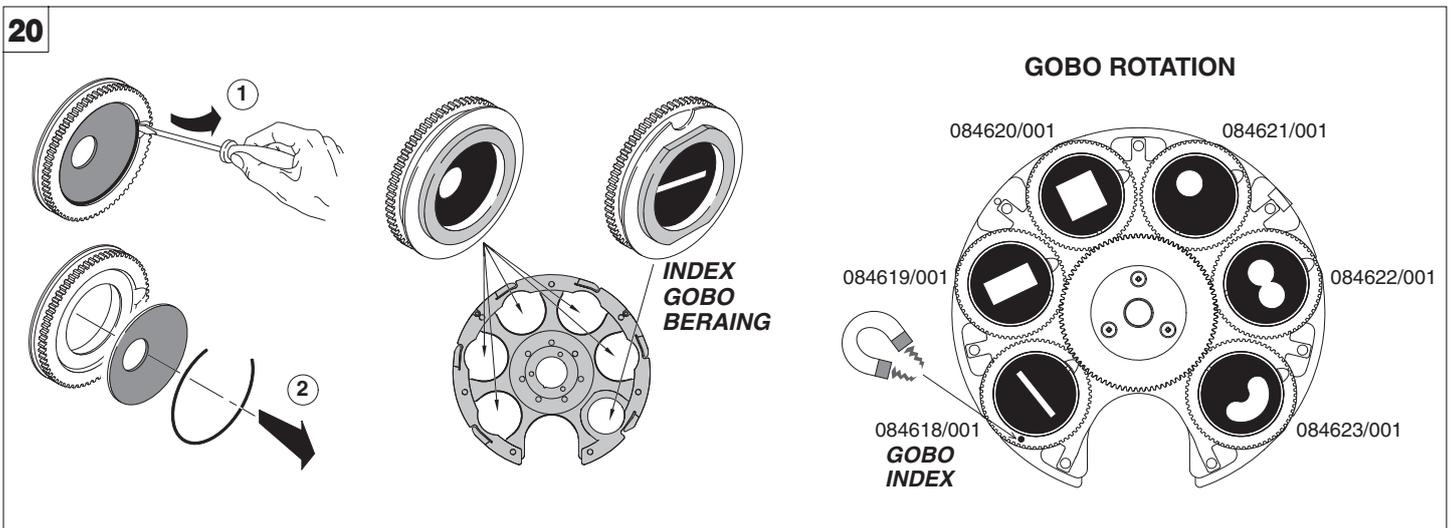


Replacing fixed gobos ( $\varnothing$  31.5 mm - max 25 mm image - thickness max 1 mm) - Fig. 18

**WARNING:** Before using personalised gobos contact Clay Paky.



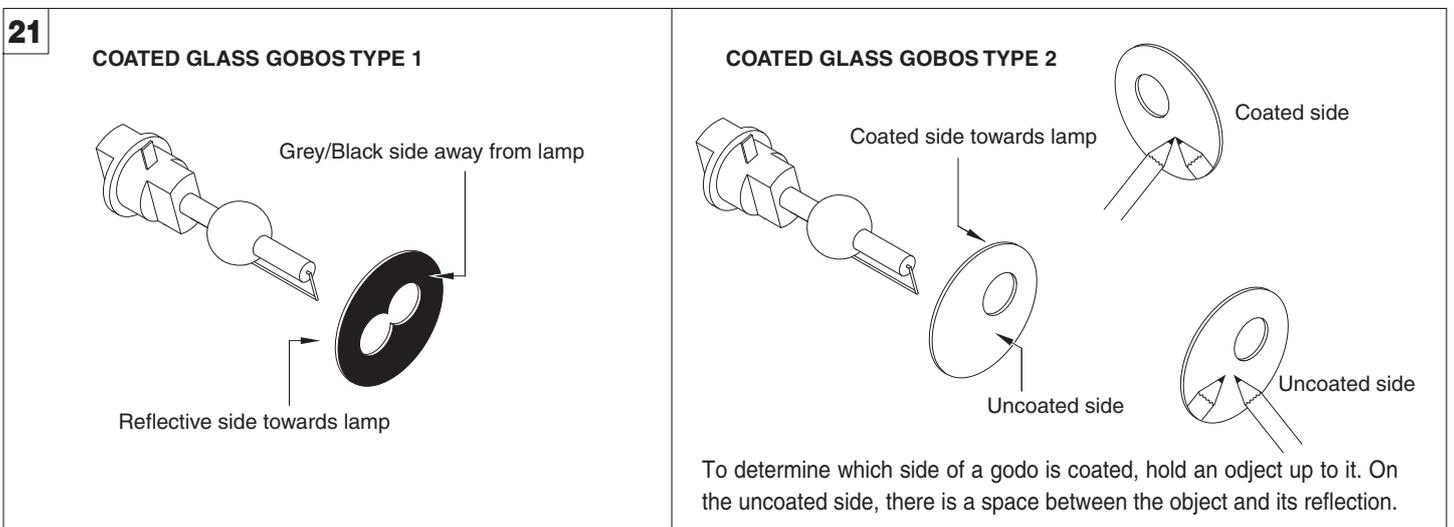
Bearing group replacement - Fig. 19



Replacing rotating gobos ( $\varnothing$  37.5 mm - max 25 mm image – thickness 1 mm) - Fig. 20

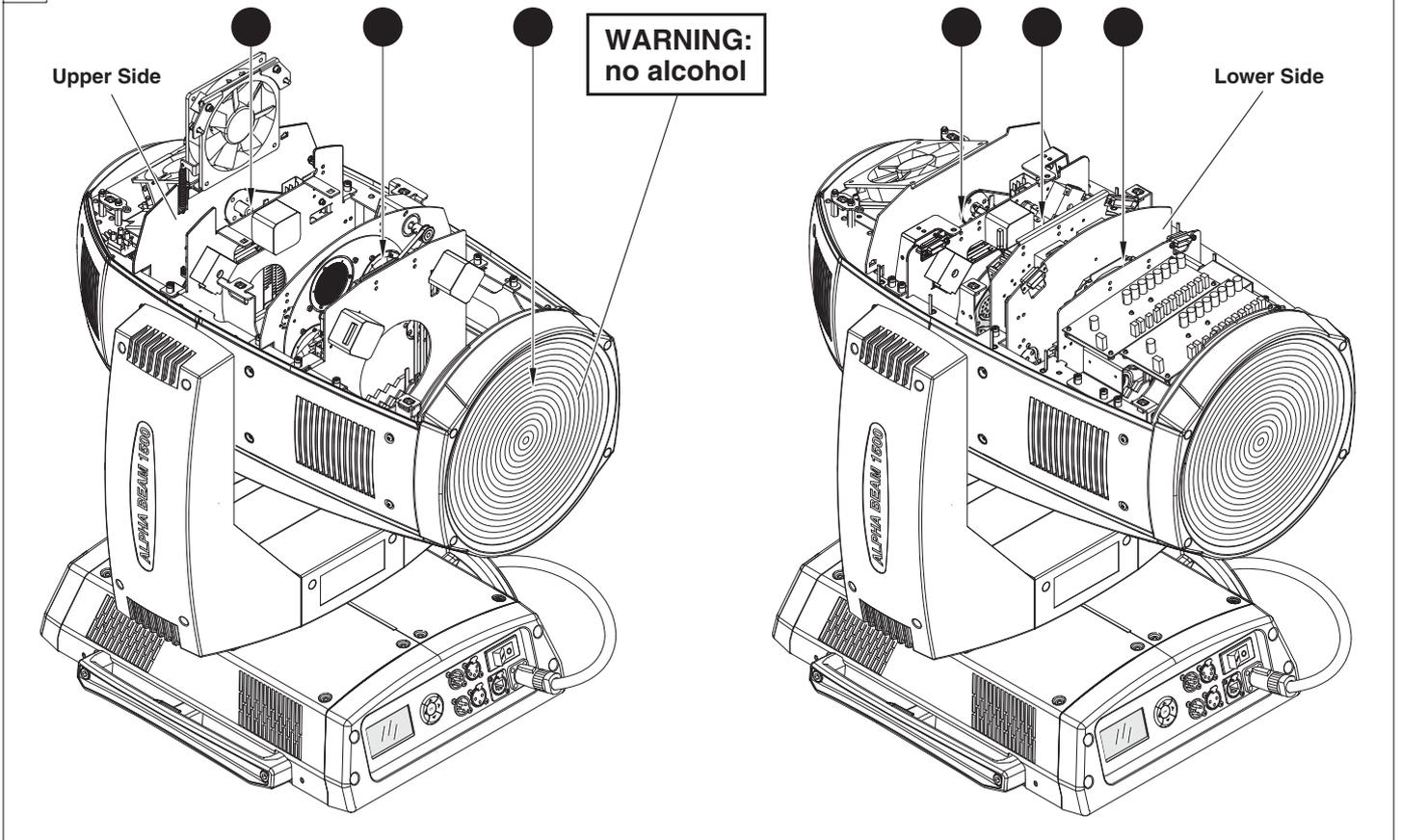
**IMPORTANT:** Use only glass gobos on the rotating gobos wheels.

**WARNING:** Before using personalised gobos contact Clay Paky.



Gobo orientation - Fig. 21

The pictures shown the correct gobos orientation.



#### Periodical cleaning - Fig. 22

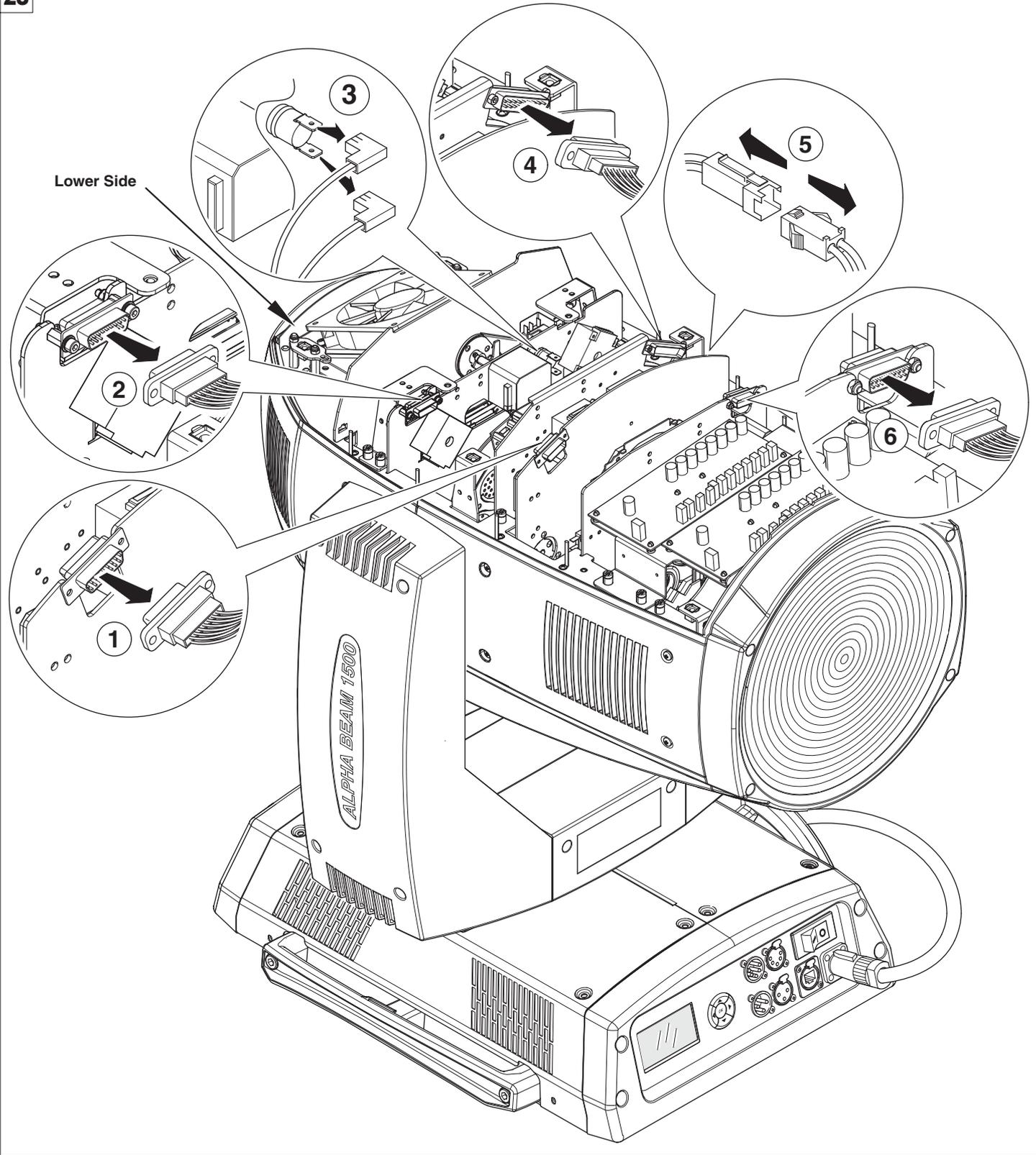
To ensure optimal operation and performance for a long time it is essential to periodically clean the parts subject to dust and grease deposits. The frequency with which the following operations are to be carried out depends on various factors, such as the amount of the effects and the quality of the working environment (air humidity, presence of dust, salinity, etc.).

Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors, from the lenses and filters. It is recommended that the projector undergoes an annual service by a qualified technician for special maintenance involving at least the following operations:

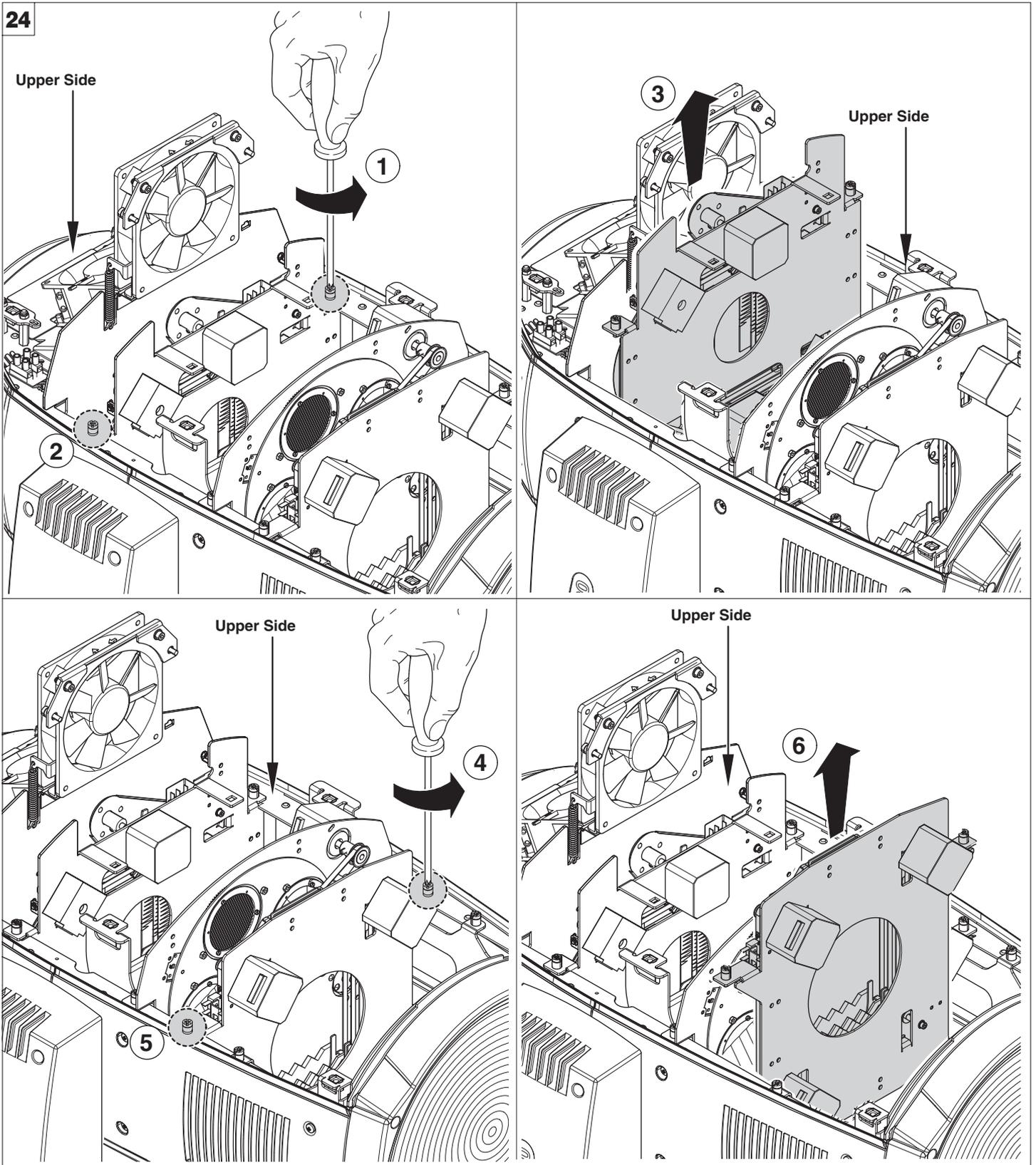
- General cleaning of internal parts.
- Restoring lubrication of all parts subject to friction, using lubricants specifically supplied by Clay Paky.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.

#### Cleaning the Fresnel lens

Only use neutral soap and water to clean the Fresnel lens, then dry it carefully with a soft, non-abrasive cloth. (WARNING: the use of alcohol or any other detergent could damage the lens).



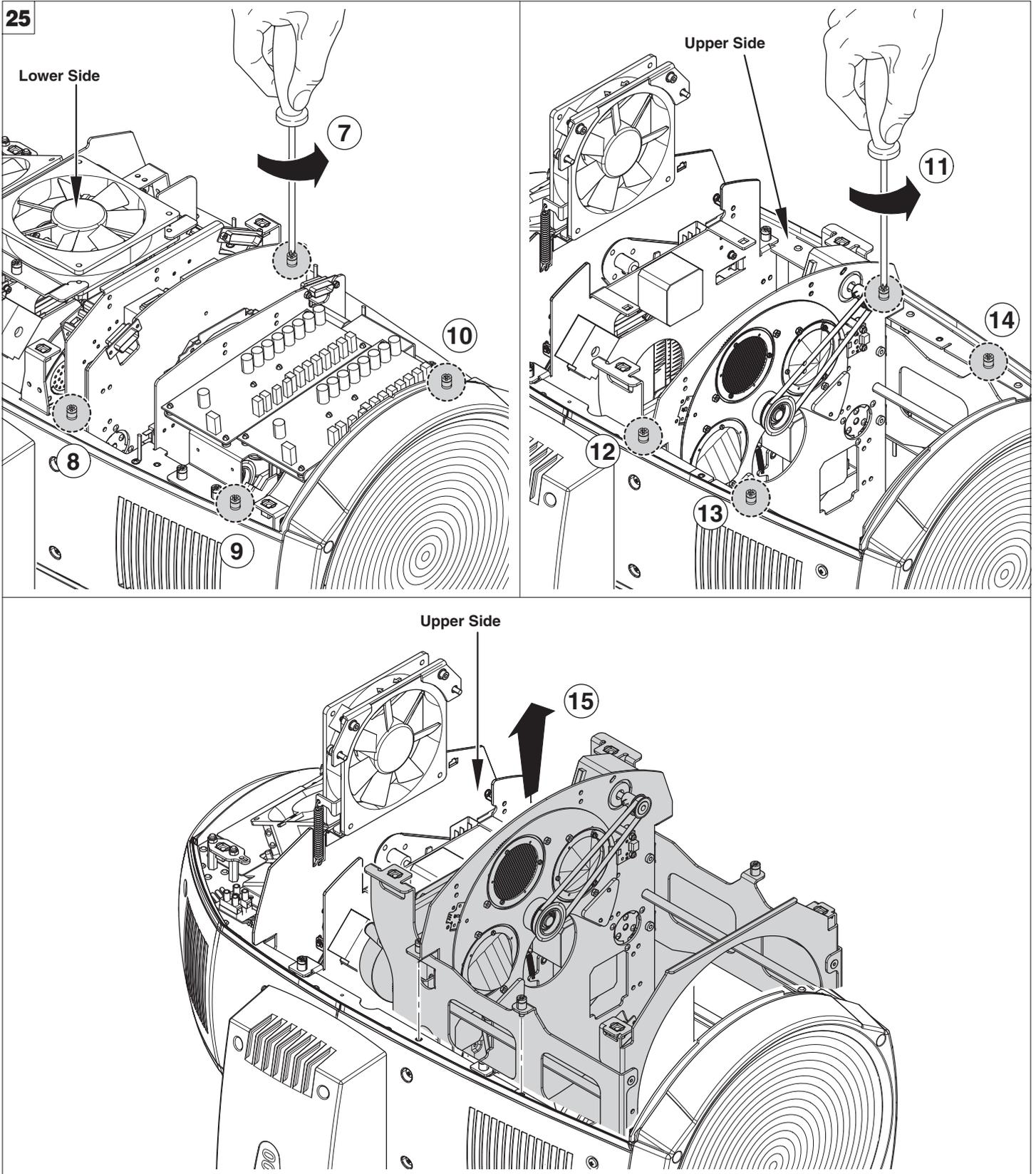
Extraction of the effect modules: Preliminary operations - Fig. 23



Extraction of the effect modules - Fig. 24

**IMPORTANT:** Grasp the modules using the support structure and not the details which could get damaged.

**Insertion of the effect modules:** Repeat the operations indicated in Fig. 24 and 25 in reverse order



Extraction of the effect modules - Fig 25

**IMPORTANT:** Grasp the modules using the support structure and not the details which could get damaged.

**Insertion of the effect modules:** Repeat the operations indicated in Fig. 24 and 25 in reverse order

## TECHNICAL INFORMATION

### Power supplies available

200-240V 50/60Hz

### Input power

- 2000VA a 230V 50Hz.

### Lamp

Discharge lamp.

- Type HTI 1500W/60/P50 Lok-it (Osram) (L10102)
  - Cap PGJ50
  - Colour temperature 6000 K
  - Luminous flux 135000 lm
  - Average life 750 h
  - Any working position

### Motors

20 stepper motors, operating with microsteps, totally microprocessor controlled.

### Optical unit

- Elliptic reflector with high luminous efficiency

### Channels

Max 28 control channels.

### Inputs

- DMX 512

### Movable body

- Movement by means of two stepper motors, controlled by microprocessor.
- Automatic repositioning of PAN and TILT after accidental movement not controlled by control unit.
- Travel:
  - PAN = 540°
  - TILT = 252°
- Maximum speeds:
  - PAN = 4.0 sec (360°)
  - TILT = 3.2 sec (252°)
- Resolution:
  - PAN = 2.11°
  - PAN FINE = 0.008°
  - TILT = 0.98°
  - TILT FINE = 0.004°

### IP20 protection rating

- Protected against the entry of solid bodies larger than 12mm (0.47").
- No protection against the entry of liquids.

### CE Marking

In conformity with the European Union Low Voltage Directive 2006/95/CE and Electromagnetic compatibility Directive 2004/108/CE.

### Safety Devices

- Bipolar circuit breaker with thermal protection.
- Automatic break in power supply in case of overheating or failed operation of cooling system.

### Cooling

Forced ventilation with axial fans.

### Body

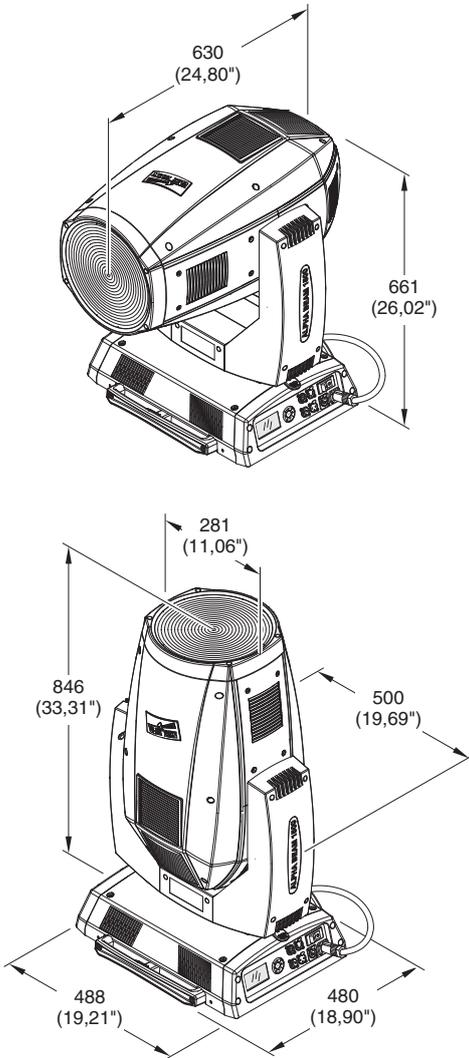
- Aluminium structure with die-cast plastic cover.
- Two side handles for transportation.
- Device locking PAN and TILT mechanisms for transportation and maintenance.

### Working position

Functioning in any position.

### Weights

- Weight: about 40 kg (88 lbs).



## CAUSE AND SOLUTION OF PROBLEMS

THE PROJECTOR WILL NOT SWITCH ON			PROBLEMS
ELECTRONICS NON-OPERATIONAL			
DEFECTIVE PROJECTION			
REDUCED LUMINOSITY			
POSSIBLE CAUSES		CHECKS AND REMEDIES	
●		No mains supply.	Check the power supply voltage.
●	●	Lamp exhausted or defective.	Replace the lamp. (See instructions).
	●	Signal transmission cable faulty or disconnected.	Replace the cables.
	●	Incorrect addressing.	Check addresses (see instructions).
	●	Fault in the electronic circuits.	Call an authorised technician.
	●	Lenses or reflector broken	Call an authorised technician.
	● ●	Dust or grease deposited.	Clean (see instructions).

## CHANNEL FUNCTION

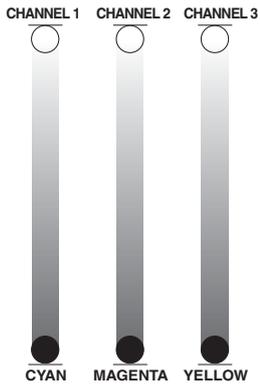
### ALPHA BEAM 1500

CHANNEL	CHANNEL MODE	
	STANDARD	VECTOR
1	CYAN	CYAN
2	MAGENTA	MAGENTA
3	YELLOW	YELLOW
4	COLOUR WHEEL	COLOUR WHEEL
5	STOP / STROBE	STOP / STROBE
6	DIMMER	DIMMER
7	DIMMER FINE	DIMMER FINE
8	IRIS	IRIS
9	STATIC GOBO CHANGE	STATIC GOBO CHANGE
10	ROTATING GOBO CHANGE	ROTATING GOBO CHANGE
11	GOBO ROTATION	GOBO ROTATION
12	ROTATING PRISM CHANGE	ROTATING PRISM CHANGE
13	PRISM ROTATION	PRISM ROTATION
14	LIGHT FOST	LIGHT FROST
15	MEDIUM FROST	MEDIUM FROST
16	HEAVY FROST	HEAVY FROST
17	FOCUS	FOCUS
18	PAN	PAN
19	PAN FINE	PAN FINE
20	TILT	TILT
21	TILT FINE	TILT FINE
22	FUNCTION	FUNCTION
23	RESET	RESET
24	LAMP CONTROL (with Option "Lamp Dmx" ON)	LAMP CONTROL (with Option "Lamp Dmx" ON)
25		PAN - TILT TIME
26		COLOUR TIME
27		BEAM TIME
28		GOBO TIME

NOTE: On conclusion of resetting in case of absence of DMX signal, Pan & Tilt move to the "Home" position (Pan 50% - Tilt 50%) all the others channels stay at 0%.

• COLOUR MIXING - channel 1 - 2 - 3

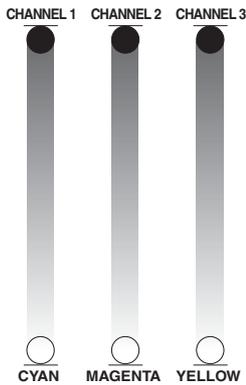
Operation with option color mixing: RGB



BIT	%	EFFECT
255	100	COLOUR EXCLUDED
.....	.....	.....
0	0.0	COLOUR INSERTED

**IMPORTANT:** The lamp dim to half power 1 second after all the 3 channels stay at 0% level. The lamp goes back to full power when the channels level is put higher than 0%.

Operation with option color mixing: CMY



BIT	%	EFFECT
255	100	COLOUR INSERTED
.....	.....	.....
0	0.0	COLOUR EXCLUDED

**IMPORTANT:** The lamp dim to half power 1 second after all the 3 channels stay at 100% level. The lamp goes back to full power when the channels level is put lower than 100%.

• COLOUR WHEEL - channel 4



BIT	%	EFFECT
255	100	FAST ROTATION (160 rpm)
.....	.....	.....
128	50.0	SLOW ROTATION (0.2 rpm)
119-127	46.7-49.7	BLUE + WHITE
110-118	43.2-46.2	BLUE
101-109	39.5-43.0	ORANGE + BLUE
92-100	36.0-39.0	ORANGE
83-91	32.5-35.5	AQUAMARINE + ORANGE
74-82	29.0-32.0	AQUAMARINE
64-73	25.0-28.7	GREEN + AQUAMARINE
55-63	21.7-24.7	GREEN
46-54	18.0-21.2	CTO 3200 + GREEN
37-45	14.2-17.5	CTO 3200
28-36	11.0-14.0	RED + CTO 3200
19-27	7.5-10.5	RED
10-18	4.0-7.0	WHITE + RED
0-9	0.0-3.7	WHITE

• STOP / STROBE - channel 5



BIT	%	EFFECT
252 - 255	98.7 - 100	OPEN
239 - 251	93.7 - 98.2	RANDOM FAST STROBE
226 - 238	88.7 - 93.2	RANDOM MEDIUM STROBE
213 - 225	83.7 - 88.2	RANDOM SLOW STROBE
208 - 212	81.7 - 83.2	OPEN
207	81.2	FAST PULSATON
.....	.....	.....
108	42.5	SLOW PULSATON
104 - 107	41.0 - 42.0	OPEN
103	40.5	FAST STROBE (12 flash/sec)
.....	.....	.....
4	1.7	SLOW STROBE (1 flash/sec)
0 - 3	0.0 - 1.2	CLOSED

**IMPORTANT:** The lamp dim to half power 1 second after the channel stay at 0% level. The lamp goes back to full power when the channel level is put higher than 0%.

• DIMMER - channel 6



BIT	%	EFFECT
255	100	
.....	.....	.....
0	0.0	

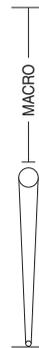
The lamp is linearly dimmed from full power to half power electronically and mechanically from half power to off.

• DIMMER FINE - channel 7



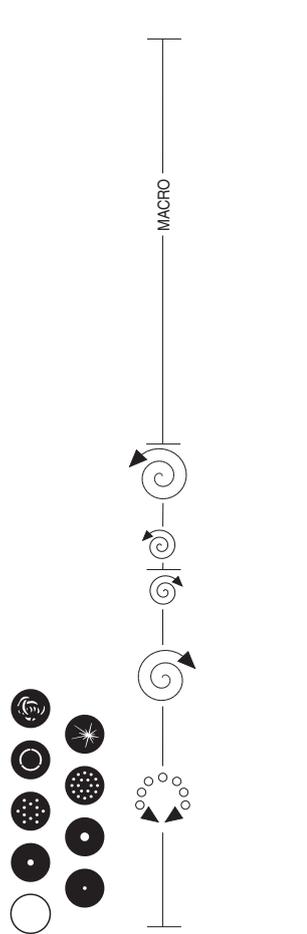
BIT	%	EFFECT
255	100	
.....	.....	.....
0	0.0	

• IRIS - channel 8



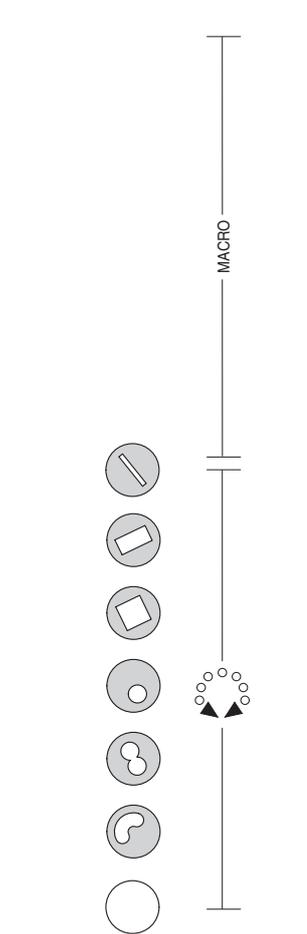
BIT	%	EFFECT
252 - 255	98.7 - 100	MAXIMUM APERTURE
251	98.2	FAST PULSATON, FAST CLOSING
.....	.....	.....
212	83.2	SLOW PULSATON, FAST CLOSING
211	83	FAST PULSATON, FAST OPENING
.....	.....	.....
172	67.5	SLOW PULSATON, FAST OPENING
171	67	FAST PULSATON
.....	.....	.....
132	51.7	SLOW PULSATON
128 - 131	50.0 - 51.2	MAXIMUM APERTURE
.....	.....	.....
0	0.0	MINIMUM APERTURE

• STATIC GOBO CHANGE - channel 9



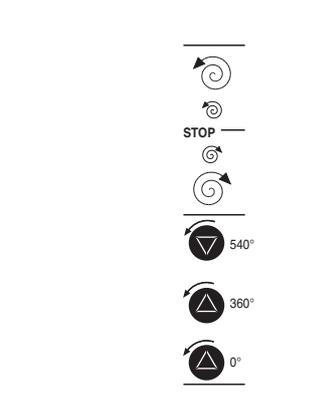
BIT	%	EFFECT
255	100	GOBO 8 SHAKE, FAST SPEED
.....	.....	.....
244	95.5	GOBO 8 SHAKE, SLOW SPEED
243	95.0	GOBO 7 SHAKE, FAST SPEED
.....	.....	.....
232	91.0	GOBO 7 SHAKE, SLOW SPEED
231	90.5	GOBO 6 SHAKE, FAST SPEED
.....	.....	.....
220	86.2	GOBO 6 SHAKE, SLOW SPEED
219	86.0	GOBO 5 SHAKE, FAST SPEED
.....	.....	.....
208	81.7	GOBO 5 SHAKE, SLOW SPEED
207	81.2	GOBO 4 SHAKE, FAST SPEED
.....	.....	.....
196	76.7	GOBO 4 SHAKE, SLOW SPEED
195	76.2	GOBO 3 SHAKE, FAST SPEED
.....	.....	.....
184	72.0	GOBO 3 SHAKE, SLOW SPEED
183	71.7	GOBO 2 SHAKE, FAST SPEED
.....	.....	.....
172	67.5	GOBO 2 SHAKE, SLOW SPEED
171	67.0	GOBO 1 SHAKE, FAST SPEED
.....	.....	.....
160	63.0	GOBO 1 SHAKE, SLOW SPEED
159	62.5	FAST ROTATION (100 rpm)
.....	.....	.....
118	46.2	SLOW ROTATION (5 rpm)
114 - 117	44.7 - 46.0	STOP
113	44.2	SLOW ROTATION (5 rpm)
.....	.....	.....
72	28.2	FAST ROTATION (100 rpm)
64 - 71	25.0 - 28.0	GOBO 8
56 - 63	22.0 - 24.7	GOBO 7
48 - 55	18.7 - 21.7	GOBO 6
40 - 47	15.5 - 18.2	GOBO 5
32 - 39	12.5 - 15.0	GOBO 4
24 - 31	9.5 - 12.0	GOBO 3
16 - 23	6.2 - 9.0	GOBO 2
8 - 15	3.2 - 6.0	GOBO 1
0 - 7	0 - 3.0	WHITE

• ROTATING GOBO CHANGE - channel 10



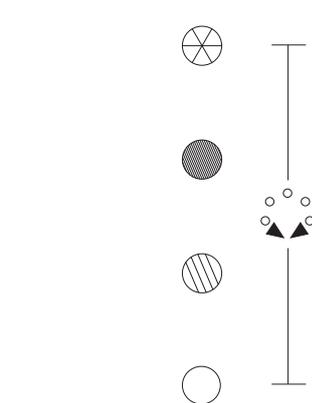
BIT	%	EFFECT
255	100	GOBO 6 SHAKE, FAST SPEED
.....	.....	.....
235	92.0	GOBO 6 SHAKE, SLOW SPEED
234	91.7	GOBO 5 SHAKE, FAST SPEED
.....	.....	.....
214	84.0	GOBO 5 SHAKE, SLOW SPEED
213	83.7	GOBO 4 SHAKE, FAST SPEED
.....	.....	.....
193	75.5	GOBO 4 SHAKE, SLOW SPEED
192	75.0	GOBO 3 SHAKE, FAST SPEED
.....	.....	.....
172	67.5	GOBO 3 SHAKE, SLOW SPEED
171	67.0	GOBO 2 SHAKE, FAST SPEED
.....	.....	.....
151	59.0	GOBO 2 SHAKE, SLOW SPEED
150	58.7	GOBO 1 SHAKE, FAST SPEED
.....	.....	.....
130	51.0	GOBO 1 SHAKE, SLOW SPEED
112-129	44.0-50.5	GOBO 6
.....	.....	.....
93-111	36.2-43.7	GOBO 5
.....	.....	.....
75-92	29.5-36.0	GOBO 4
.....	.....	.....
56-74	22.0-29.0	GOBO 3
.....	.....	.....
38-55	14.7-21.7	GOBO 2
.....	.....	.....
19-37	7.5-14.2	GOBO 1
.....	.....	.....
0-18	0-7.0	WHITE

• GOBO ROTATION - channel 11



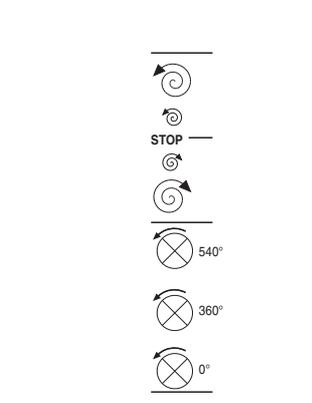
BIT	%	EFFECT
255	100	FAST ROTATION (150 rpm)
.....	.....	.....
193	75.5	SLOW ROTATION (2,2 rph)
191 - 192	74.7 - 75.0	STOP
190	74.2	SLOW ROTATION (2,2 rph)
.....	.....	.....
128	50.0	FAST ROTATION (150 rpm)
127	49.7	540° POSITION
105	41.7	450° POSITION
84	33.0	360° POSITION
63	24.7	270° POSITION
42	16.2	180° POSITION
21	8.2	90° POSITION
0	0.0	0° POSITION

• ROTATING PRISM CHANGE - channel 12



BIT	%	EFFECT
192-255	75.0-100	6 FACE PRISM
.....	.....	.....
128-191	50.0-74.7	OWALYZER
.....	.....	.....
64-127	25.0-49.7	5 FACE PRISM
0 - 63	0.0 - 24.7	WHITE

• PRISM ROTATION - channel 13



BIT	%	EFFECT
255	100	FAST ROTATION (120 rpm)
.....	.....	.....
193	75.5	SLOW ROTATION (3 rph)
191 - 192	74.7 - 75.0	STOP
190	74.2	SLOW ROTATION (3 rph)
.....	.....	.....
128	50.0	FAST ROTATION (120 rpm)
127	49.7	POSITION 540°
105	41.7	POSITION 450°
84	33.0	POSITION 360°
63	24.7	POSITION 270°
42	16.2	POSITION 180°
21	8.2	POSITION 90°
0	0.0	POSITION 0°

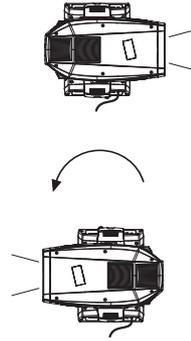
• LIGHT FOST - channel 14



BIT	%	EFFECT
255	100	FROST INSERTED
0	0.0	FROST EXCLUDED

• PAN - channel 18

Operation with option InvertPan  $\diamond$  Off  
(Tilt conventionally represented at 14% and option Invert Tilt  $\diamond$  Off)



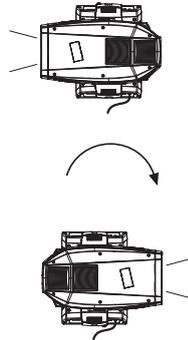
BIT	%
255	100
0	0.0

• MEDIUM FROST - channel 15



BIT	%	EFFECT
255	100	FROST INSERTED
0	0.0	FROST EXCLUDED

Operation with option InvertPan  $\diamond$  On  
(Tilt conventionally represented at 14% and option Invert Tilt  $\diamond$  Off)



BIT	%
255	100
0	0.0

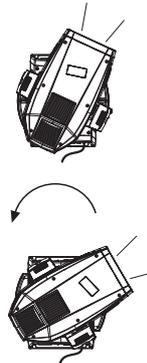
• HEAVY FROST - channel 16



BIT	%	EFFECT
255	100	FROST INSERTED
0	0.0	FROST EXCLUDED

• PAN FINE - channel 19

Operation with option InvertPan  $\diamond$  Off  
(Tilt conventionally represented at 14% and option Invert Tilt  $\diamond$  Off)



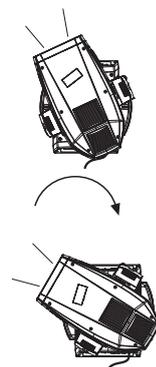
BIT	%
255	100
0	0.0

• FOCUS - channel 17



BIT	%	EFFECT
255	100	NEAR
0	0.0	DISTANT

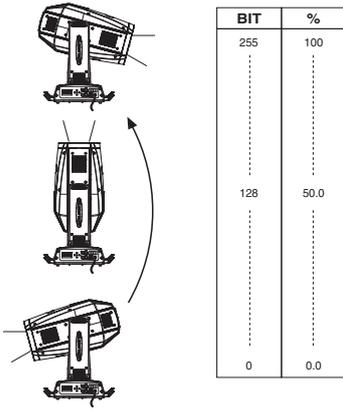
Operation with option InvertPan  $\diamond$  On  
(Tilt conventionally represented at 14% and option Invert Tilt  $\diamond$  Off)



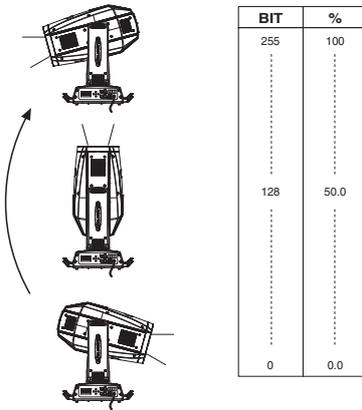
BIT	%
255	100
0	0.0

• **TILT - channel 20**

Operation with option Invert Tilt  $\diamond$  Off  
(Pan conventionally represented at 0% and option Invert Pan  $\diamond$  Off)

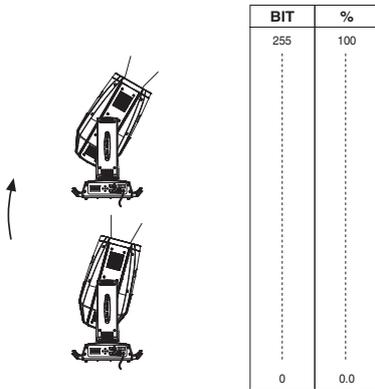


Operation with option Invert Tilt  $\diamond$  On  
(Pan conventionally represented at 0% and option Invert Pan  $\diamond$  Off)

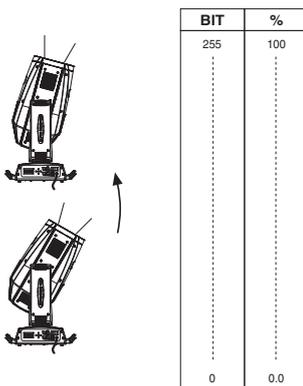


• **TILT FINE - channel 21**

Operation with option Invert Tilt  $\diamond$  Off  
(Pan conventionally represented at 0% and option Invert Pan  $\diamond$  Off)



Operation with option Invert Tilt  $\diamond$  On  
(Pan conventionally represented at 0% and option Invert Pan  $\diamond$  Off)



• **FUNCTION - channel: 22**

BIT	%	EFFECT	
255	100	UNUSED RANGE	
...	...		
63	24.7		
51-62	20.0-24.2		DIMMER CURVE FUNCTION
38-50	14.7-19.5		
25-37	9.7-14.2	PAN-TILT FUNCTION	
12-24	4.7-9.5		FAST (Default)
0-11	0.0-4.2	UNUSED RANGE	

The functions are activated passing through unused range and staying 5 seconds in necessary level.

• **RESET - channel: 23**

BIT	%	EFFECT
255	100	COMPLETE RESET
...	...	Complete reset is activated passing through the unused range and staying 5 seconds in complete reset levels.
128	50.0	COMPLETE RESET PAN / TILT RESET
127	49.7	
...	...	Pan / Tilt reset is activated passing through the unused range and staying 5 seconds in Pan / Tilt reset levels.
77	30.0	PAN / TILT RESET EFFECTS RESET
76	29.7	
...	...	Effects reset is activated passing through the unused range and staying 5 seconds in Effects reset levels.
26	10.0	EFFECTS RESET
25	9.7	
0	0.0	UNUSED RANGE

• **LAMP CONTROL (only with option LAMP DMX On) - channel: 24**

**IMPORTANT:** Alpha Beam 1500 is not provided with hot strike igniter

BIT	%	EFFECT
255	100	LAMP ON (FULL POWER)
...	...	Lamp ignition after 5 s in full power levels. Immediate transition from half to full power.
180	70.5	LAMP ON (FULL POWER) LAMP ON (HALF POWER)
179	70.0	
...	...	Immediate transition from full to half power. Lamp ignition not allowed in half power.
101	39.5	LAMP ON (HALF POWER) LAMP OFF
100	39.0	
...	...	Lamp switch off passing through the unused range and staying 5 s in Lamp OFF levels.
26	10.0	LAMP OFF
25	9.7	
0	0.0	UNUSED RANGE



## TIMING CHANNELS

	Timing Channel	Channel function
25	Pan - Tilt time	Pan - Tilt - (Pan fine - Tilt fine)
26	Colour time	CMY - Colour wheel
27	Beam time	Dimmer - Light Frost - Medium Frost - Heavy Frost - Iris - Rotating Prism Change
28	Gobo time	Fixed Gobo - Rotating Gobo Change

## TIME TABLE

BIT	Seconds										
0	Full	43	8.6	86		129		172		216	
1	0.2	44	8.8	87	24	130	41	173	58	217	170
2	0.4	45	9	88		131		174		218	
3	0.6	46	9.2	89	25	132	42	175	59	219	180
4	0.8	47	9.4	90		133		176	59	220	
5	1	48	9.6	91	26	134	43	177		221	190
6	1.2	49	9.8	92		135		178	60	222	
7	1.4	50	10	93	27	136	44	179	60	223	190
8	1.6	51	10.2	94		137		180	65	224	200
9	1.8	52	10.4	95	28	138	44	181	65	225	
10	2	53	10.6	96		139		182		226	190
11	2.2	54	11	97	28	140	45	183	70	227	210
12	2.4	55		98		141		184	70	228	
13	2.6	56	12	99	29	142	46	185	75	229	220
14	2.8	57		100		143		186	75	230	
15	3	58	13	101	30	144	47	187		231	230
16	3.2	59		102		145		188	80	232	230
17	3.4	60	14	103	30	146	47	189	80	233	
18	3.6	61		104		147		190	85	234	240
19	3.8	62	14	105	31	148	48	191	85	235	
20	4	63	15	106		149		192		236	250
21	4.2	64		107	32	150	49	193	90	237	
22	4.4	65	15	108		151		194	90	238	250
23	4.6	66	16	109	33	152	50	195	95	239	
24	4.8	67		110		153		196	95	240	260
25	5	68	17	111	34	154	50	197		241	
26	5.2	69		112		155		198	100	242	270
27	5.4	70	18	113	34	156	51	199	100	243	
28	5.6	71		114		157		200	110	244	280
29	5.8	72	18	115	35	158	52	201	110	245	
30	6	73	19	116		159		202		246	290
31	6.2	74		117	36	160	53	203	120	247	
32	6.4	75	19	118		161		204	120	248	290
33	6.6	76	20	119	37	162	54	205	130	249	
34	6.8	77		120		163		206	130	250	300
35	7	78	21	121	38	164	55	207	130	251	
36	7.2	79		122		165		208	140	252	310
37	7.4	80	21	123	38	166	55	209	140	253	
38	7.6	81	22	124		167		210	150	254	
39	7.8	82		125	39	168	56	211	150	255	Follow cue Data
40	8	83	23	126		169		212	160		
41	8.2	84		127	40	170	57	213			
42	8.4	85		128		171		214	160		
								215			