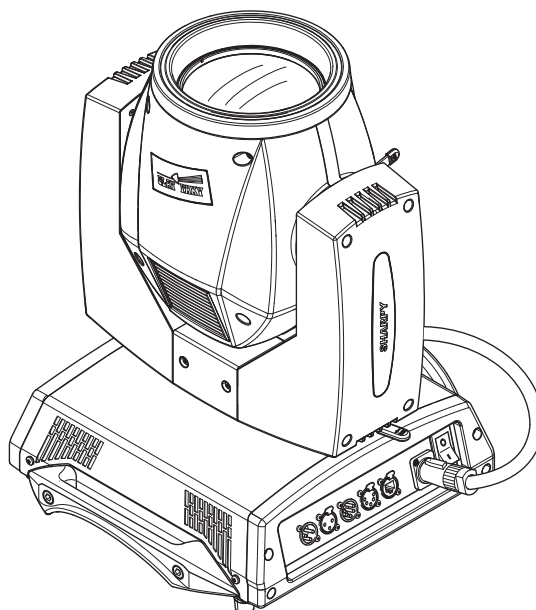


## INSTRUCTION MANUAL



### INDEX

Page	Contents
2	Safety information
3	Unpacking and preparation
4	Installation and start-up
5	Control panel
7	Menu setting
14	Maintenance
21	Optional accessories
22	Technical information
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 12 metres (39'4") 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 100°C (212°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, to avoid getting burnt for at least 35 minutes. After this time the likelihood of the lamp exploding is virtually nil.

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 or lithium iron tetraphosphate battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

189W  12 m

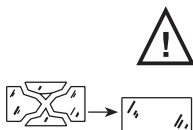


$t_a$  40°C

IP20



$t_c$  100°C

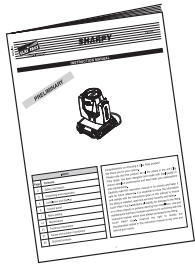


The products to which this manual refers comply with the European Directives pursuant to:

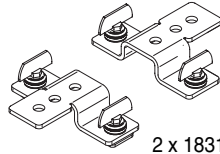
- 2006/95/EC - Safety of electrical equipment supplied at low voltage (LVD)
- 2004/108/EC - Electromagnetic Compatibility (EMC)
- 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS)

# UNPACKING AND PREPARATION

1

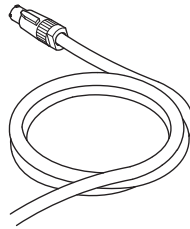
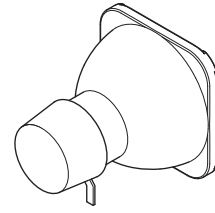


IST005/001



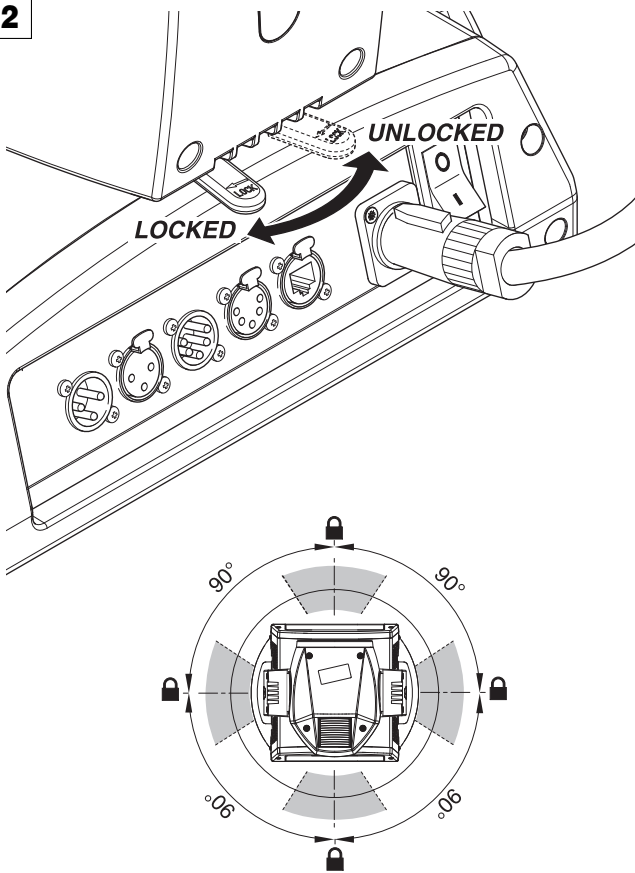
2 x 183102/805

Lamp 189W  
(fitted into projector)



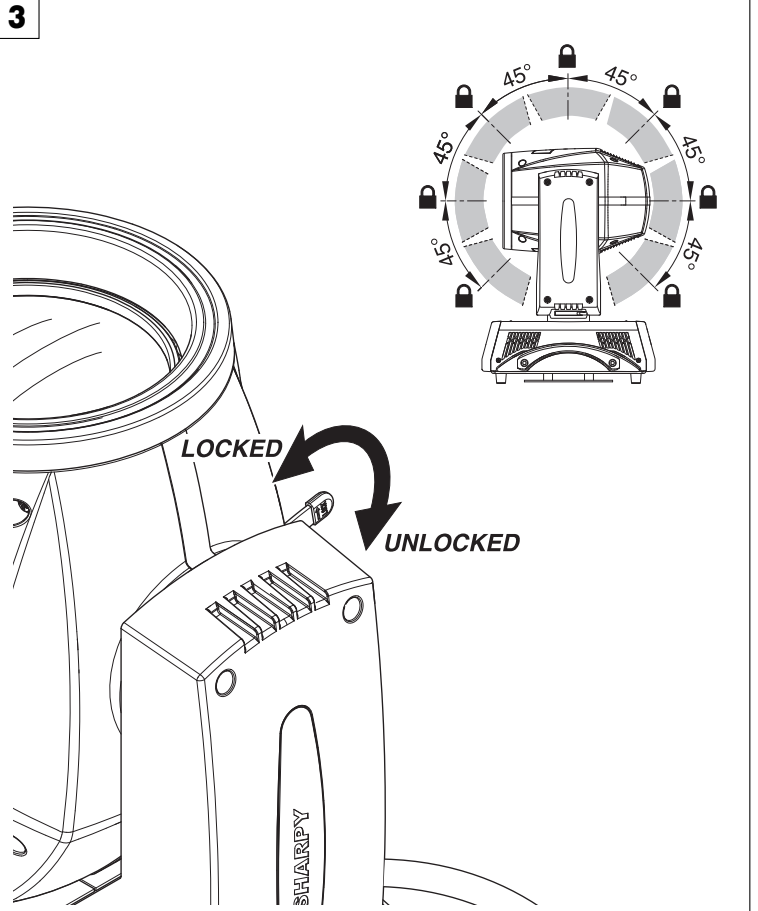
Packing contents - Fig. 1

2



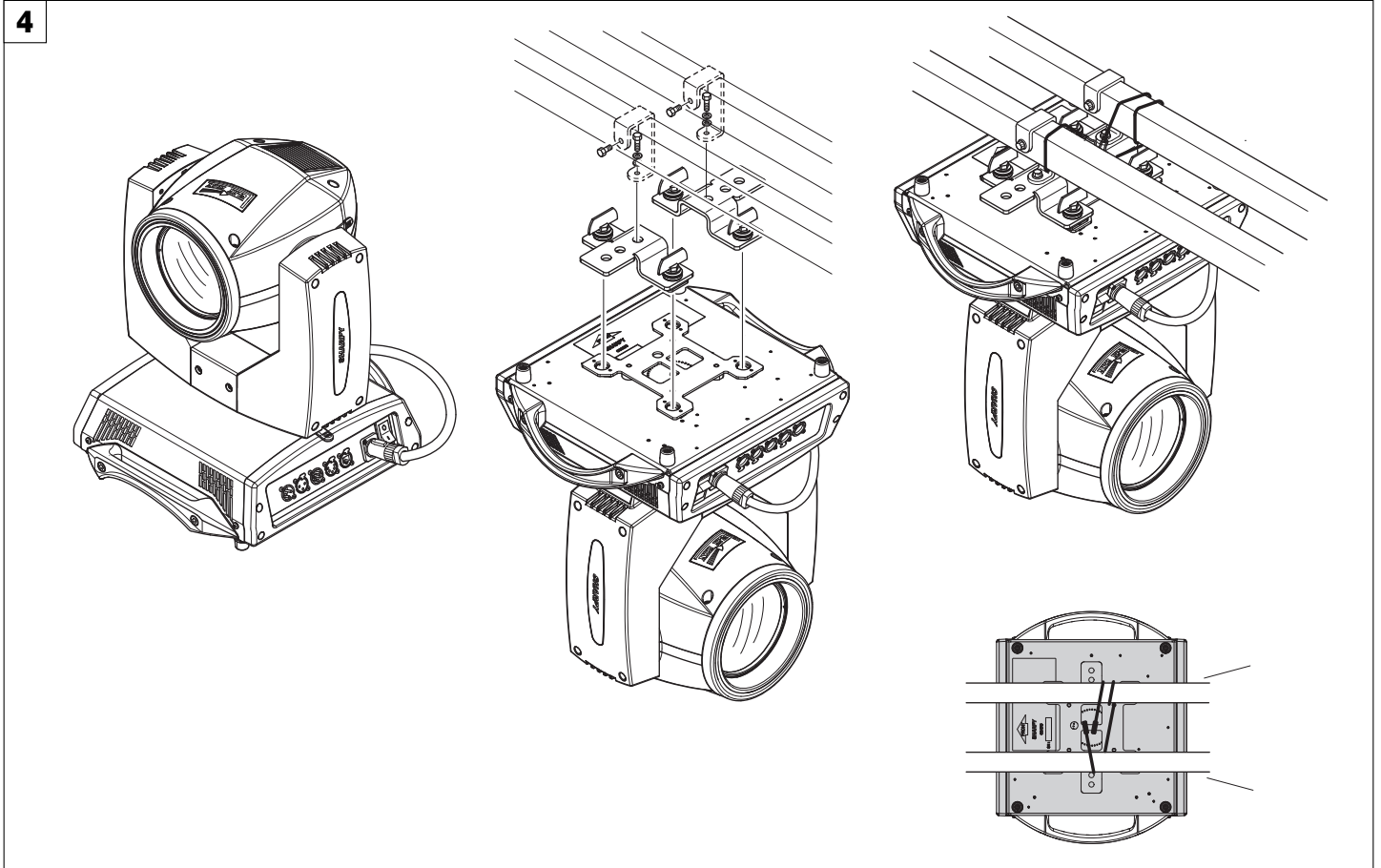
PAN Mechanism Lock and Release (every 90°) - Fig. 2

3



TILT Mechanism Lock and Release (every 45°) - Fig. 3

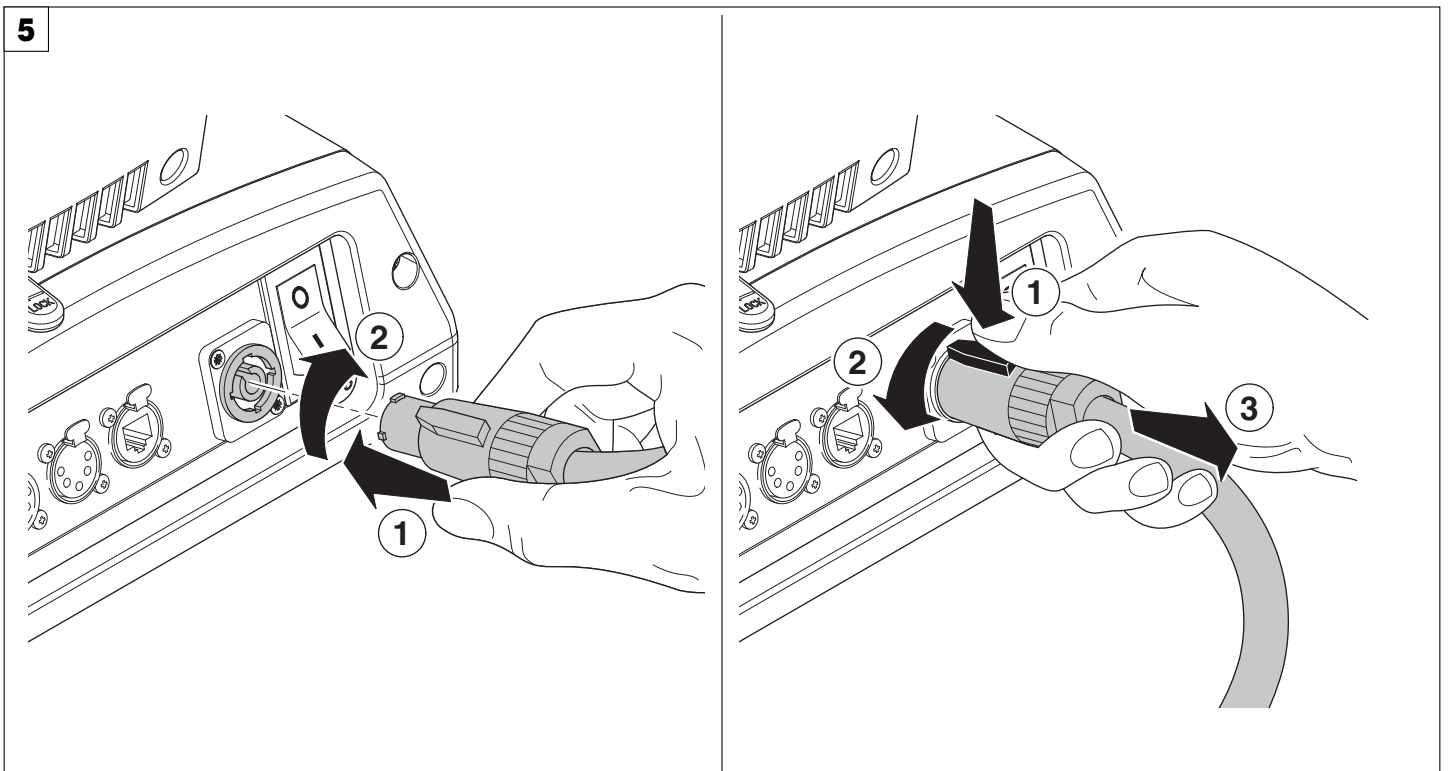
## INSTALLATION AND START-UP



Installing the projector - Fig. 4

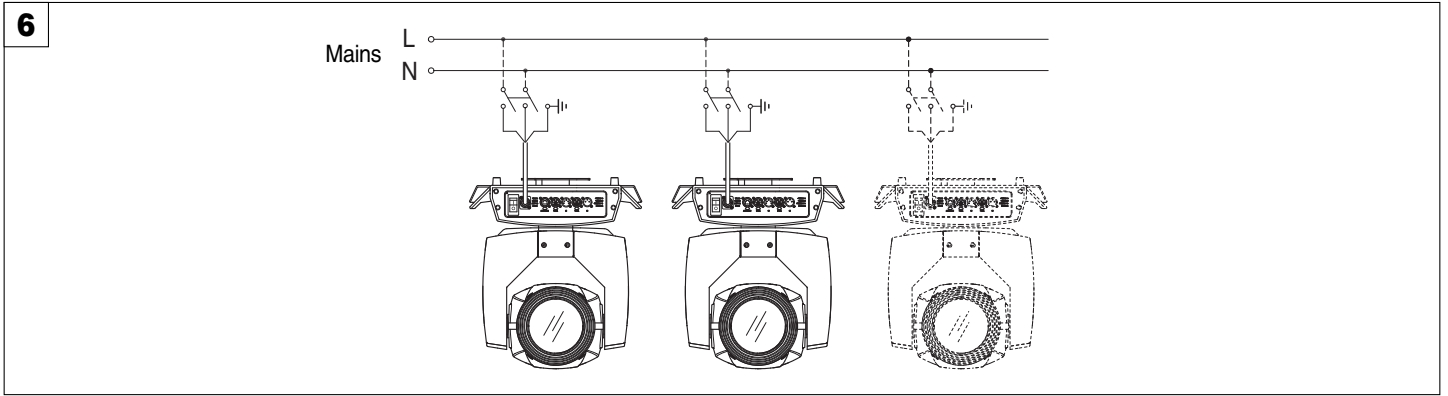
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.

**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.

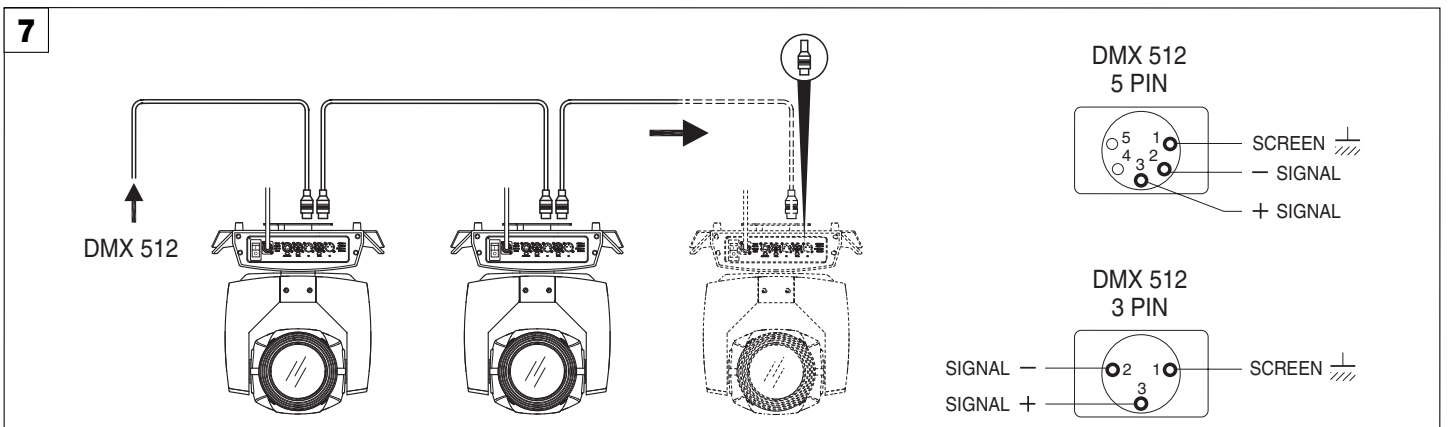


Connecting and disconnecting power cable - Fig. 5

## CONTROL PANEL



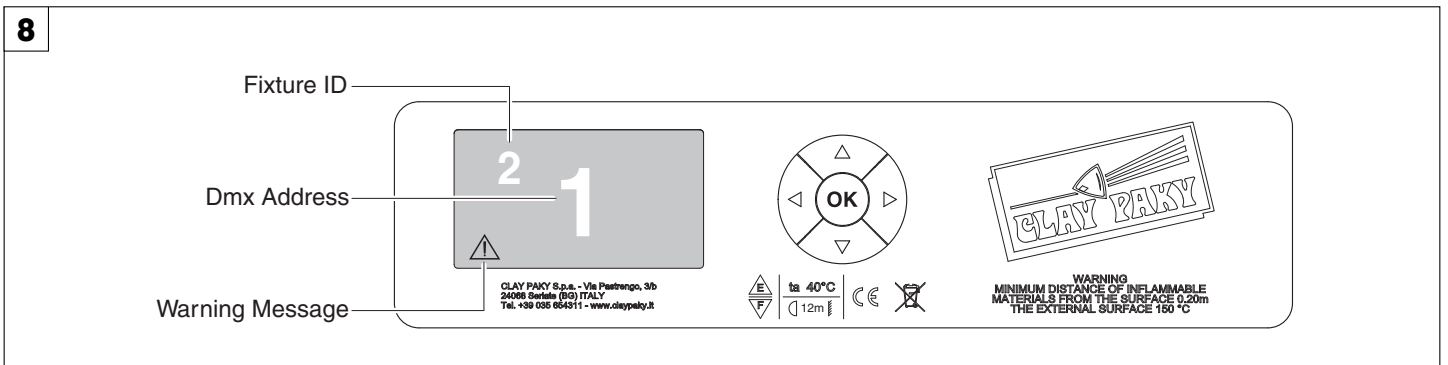
**Connecting to the mains supply - Fig. 6**



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

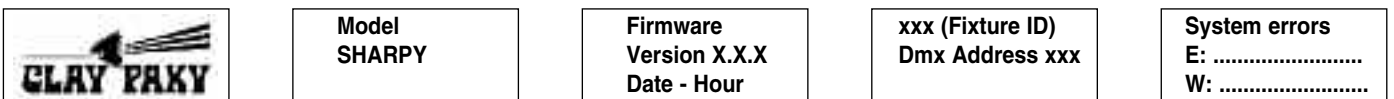
Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female 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.



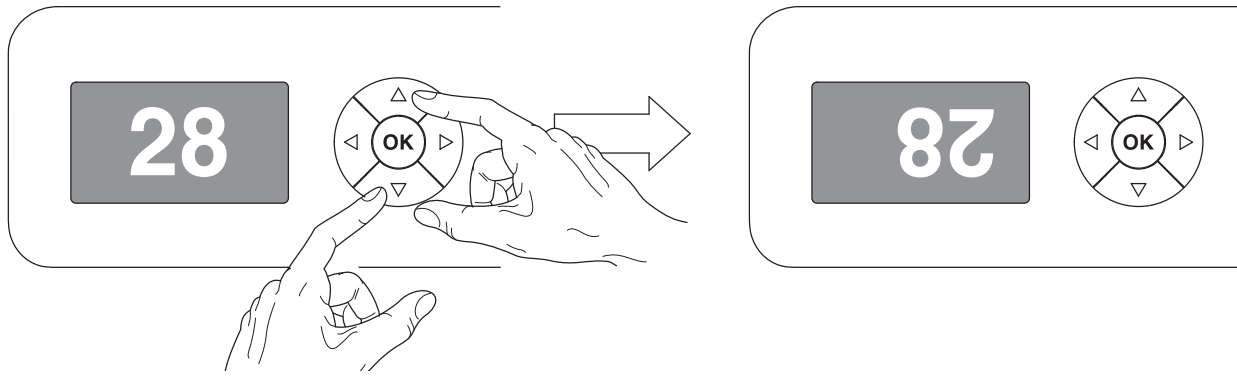
**Switching on the projector - Fig. 8**

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



On conclusion of resetting in case of absence of the 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.

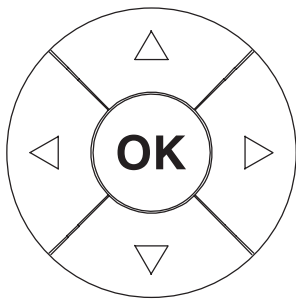
### Setting the projector Fixture ID

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.



DOWN

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



UP

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



LEFT

Return to the top level



RIGHT

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

### USING THE MENU:

1) Press **OK** 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 **OK** to display the first item in the selected menu.

4) Use the UP ▲ and DOWN ▼ keys to select the MENU items.

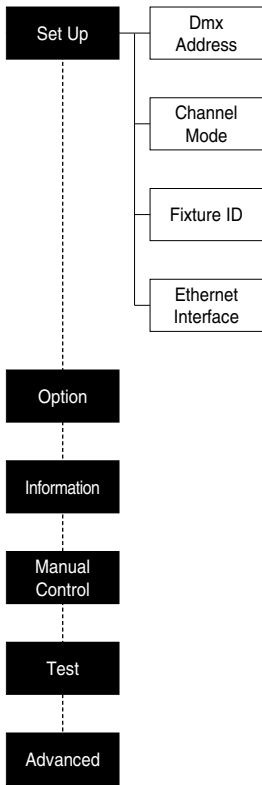
### Setting addresses and options with the projector disconnected

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 **OK** 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.

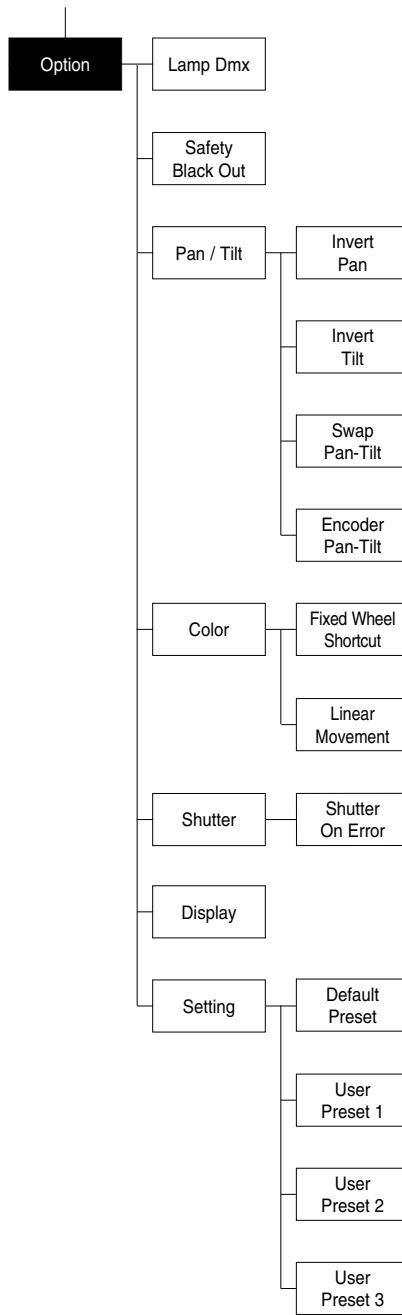
# MENU SETTING

## MAIN MENU

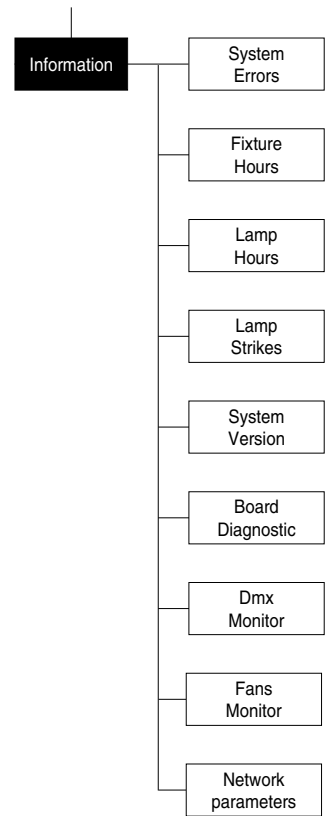
1



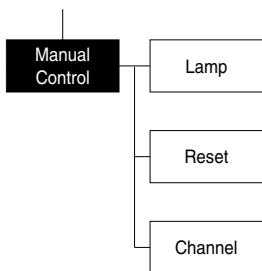
2



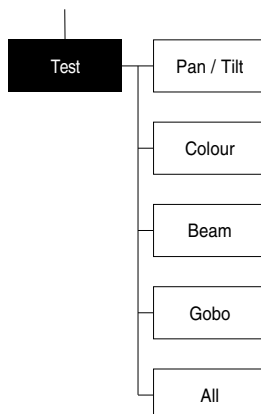
3



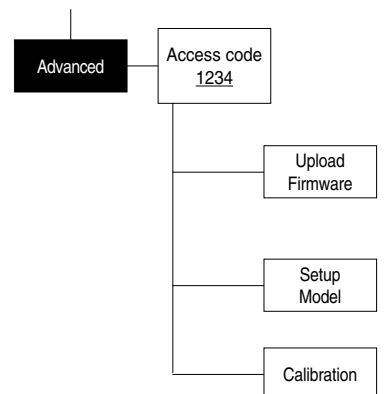
4



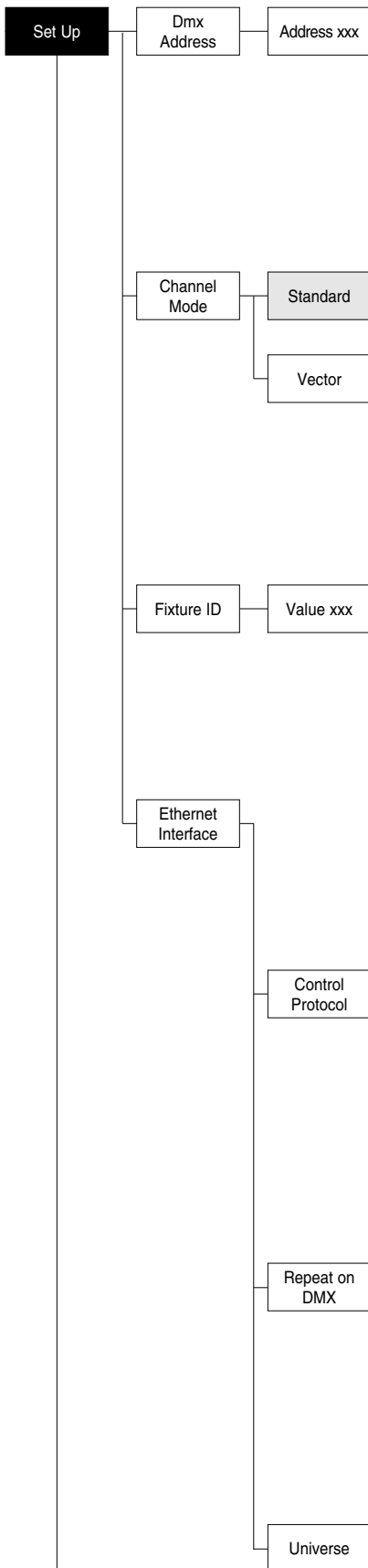
5



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 **▲** and 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.

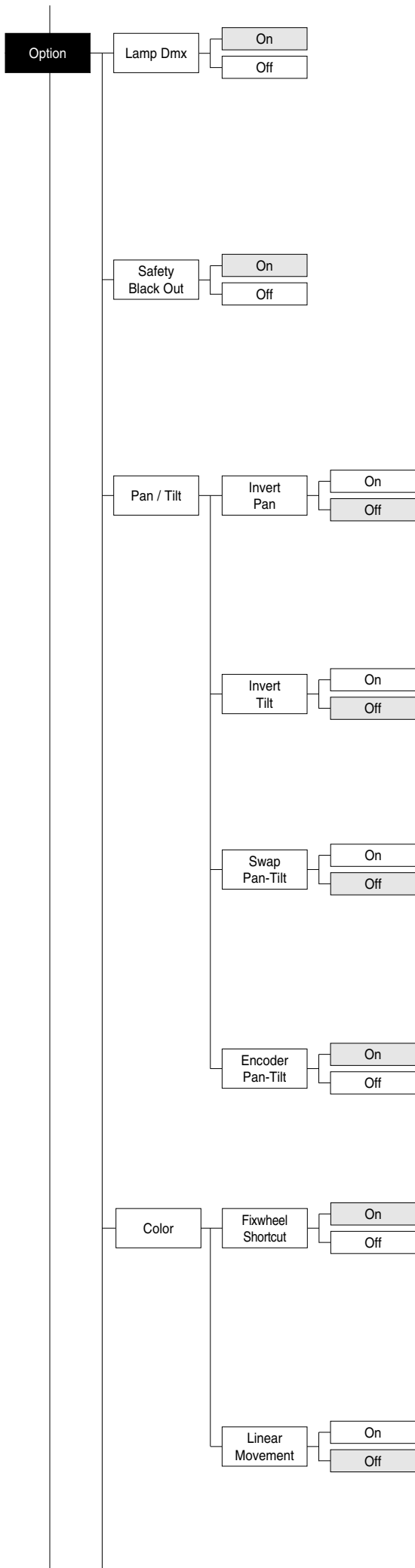
- 1) Press **OK** the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
  - **Disabled:** DMX transmission disabled.
  - **Enabled on primary:** DMX transmission enabled.
- 3) Press **OK** to confirm the selection or LEFT **◀**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

### SAFETY BLACK OUT

This allows the Dimmer's automatic lock option to be activated after 3 seconds with no incoming DMX signal.

- 1) Press **OK** - the current setting (On or Off) appears on the display.
- 2) Use the UP **▲**, DOWN **▼** keys to enable (ON) or disable (Off) the Dimmer's lock option after 3 seconds with no incoming DMX signal.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.

### 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

#### Fixed wheel short-cut

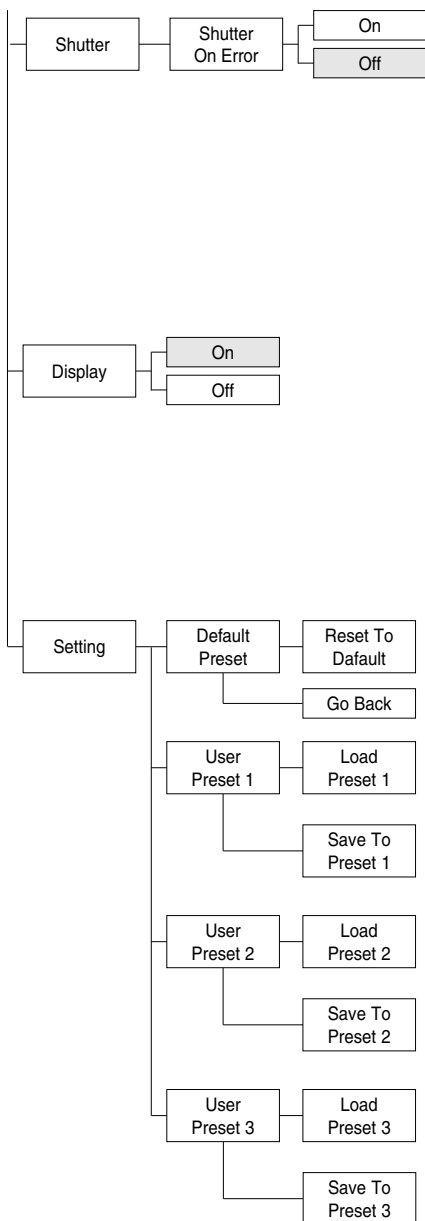
Used for optimizing color change time so that the disc turns in the direction that requires shorter movement.

- 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.

#### Linear Movement

It enables the linear movement of the colour wheel.

- 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 linear movement of the colour wheel.
- 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.

## 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.
 a confirmation message (Are you sure?) appears on the display.
- 5) Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.

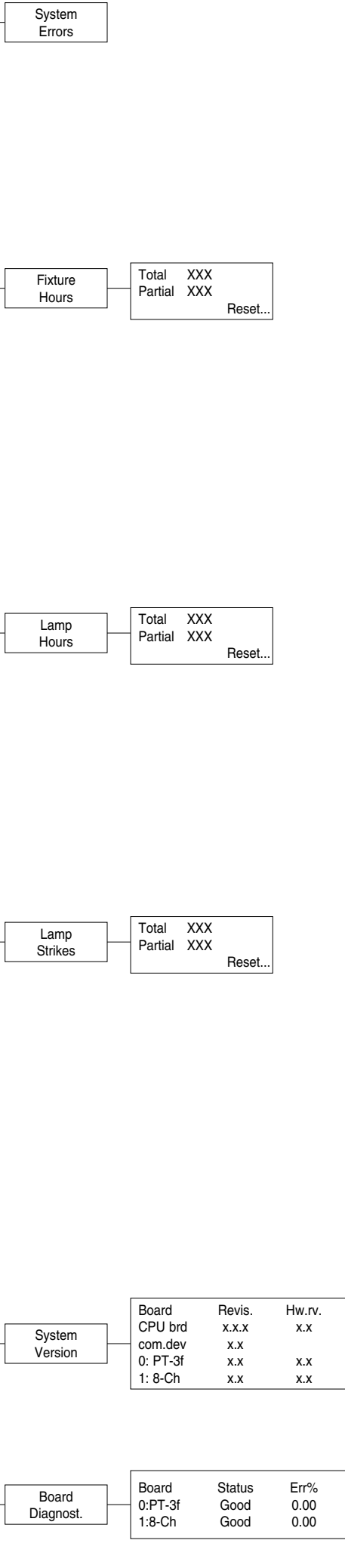
(\*) DEFAULT PRESET

**By pressing the RIGHT **▶** key and the LEFT **◀** key simultaneously once entered in the "main menu" it is possible to quickly (short cut) reset the default settings (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
Safety Black Out	Off
Invert Pan	Off
Invert Tilt	Off
Swap Pan-Tilt	Off
Encoder Pan-Tilt	On
Fixed Wheel Shortcut	On
Shutter on error	Off
Display	On



## 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

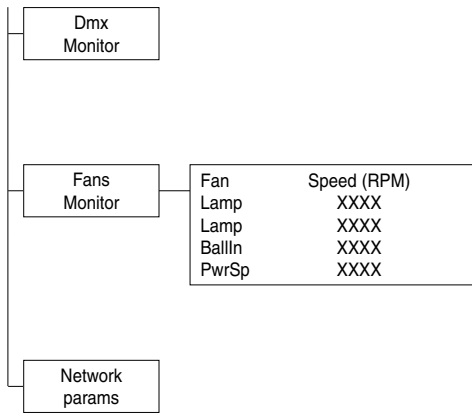
Used for displaying the software and hardware version of each board installed in the projector.

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

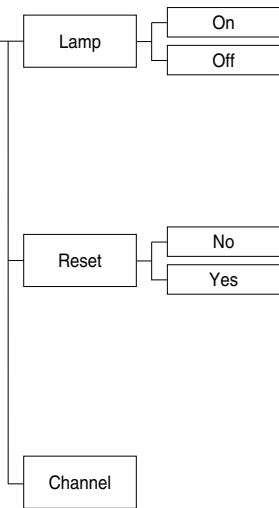
### BOARD DIAGNOSTIC

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

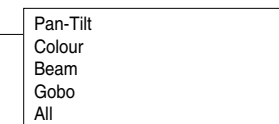
- 0: PT-3f (Pan / Tilt board)  
 1: 8-Ch (8 channel board)



**Manual Control**



**Test**



**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:  
 Lamp (Lamp Fan)  
 Ball. IN (Ballast IN Fan)  
 PwrSp (Power Supply 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:** 255.0.0.0  
**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**

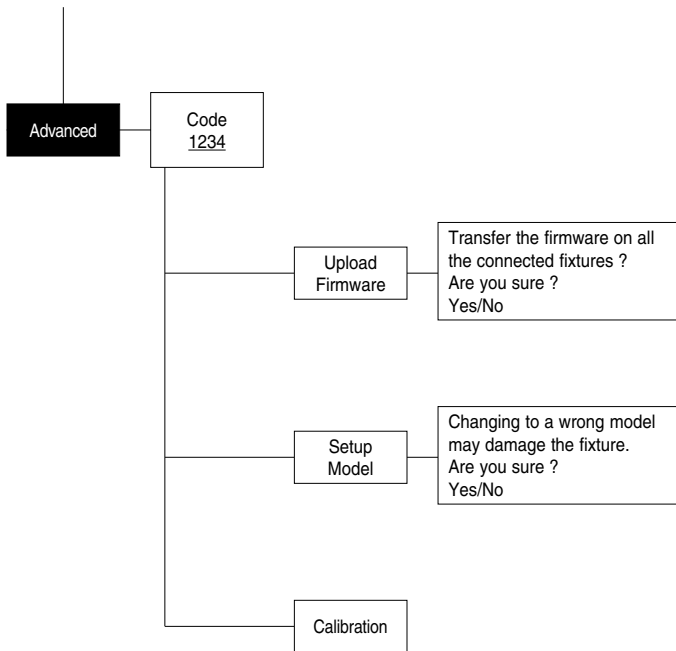
Used for setting channel levels from the projector control panel.  
 1) Press **OK** - the first channel appears on the display.  
 2) Use the UP **▲** and DOWN **▼** keys to select the required channel:  
 3) Press **OK** and use the UP **▲** and DOWN **▼** keys to select the required DMX level (value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

**TEST MENU**




**TEST**


Allows you to check the proper functioning of effects.  
 1) Press **OK** to return to the top menu level.  
 2) Use the UP **▲** and DOWN **▼** keys to select the required test.  
 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

Test sequence:  
 Pan - Tilt effects (Pan & Tilt)  
 Colour effects (Colour wheel)  
 Beam effects (Stopper-Strobe / Dimmer / Prism / Frost)  
 Gobo effects (Static gobo)  
 All effects




## ADVANCED MENU

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

Press  - "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 , 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  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.

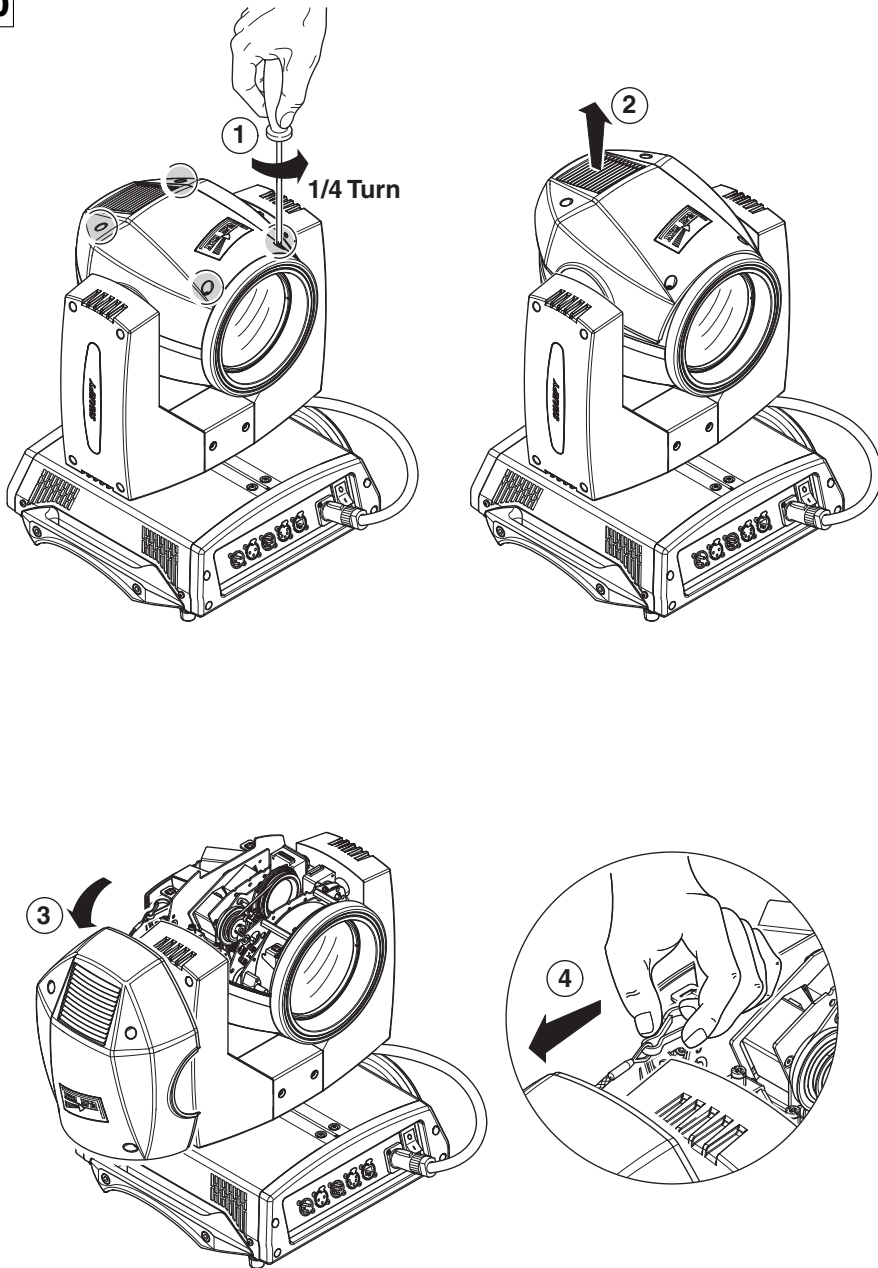
- 1) Press  - "channels" appears on the display.
- 2) Using the UP  and DOWN  keys, select the effect you wish to regulate.
- 3) Press  and use the RIGHT , UP  and DOWN  buttons to make the adjustment by setting a value between 0 and 255.
- 4) Press  to confirm the selection or LEFT  to keep current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

### FACTORY DEFAULT

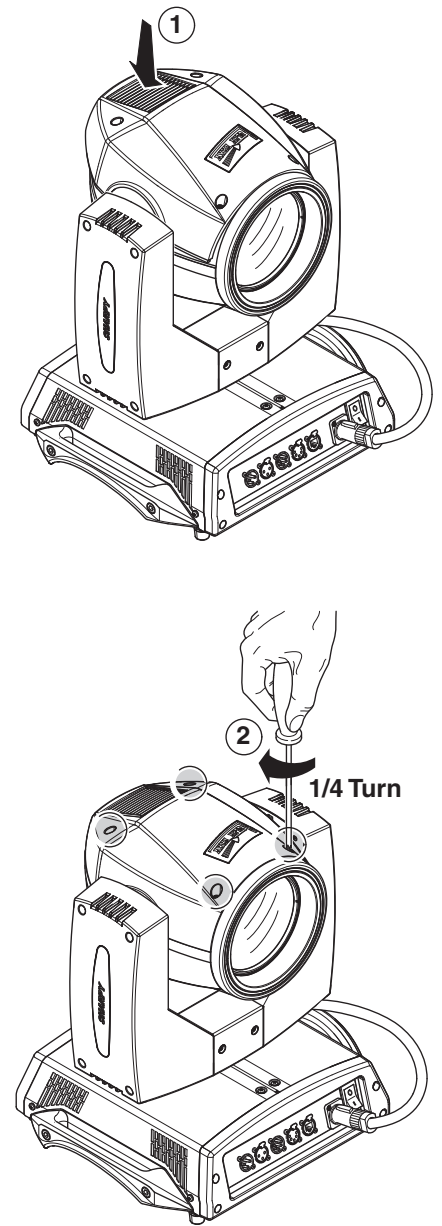
Allows you to restore default values of all channels (128).

- 1) Press  – 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.

10

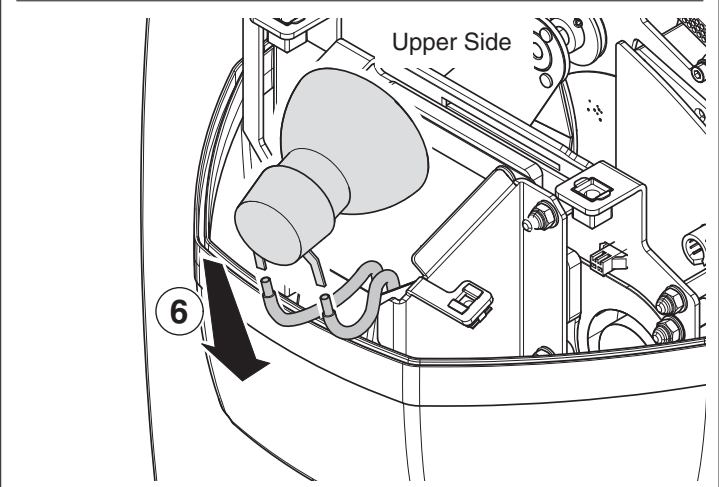
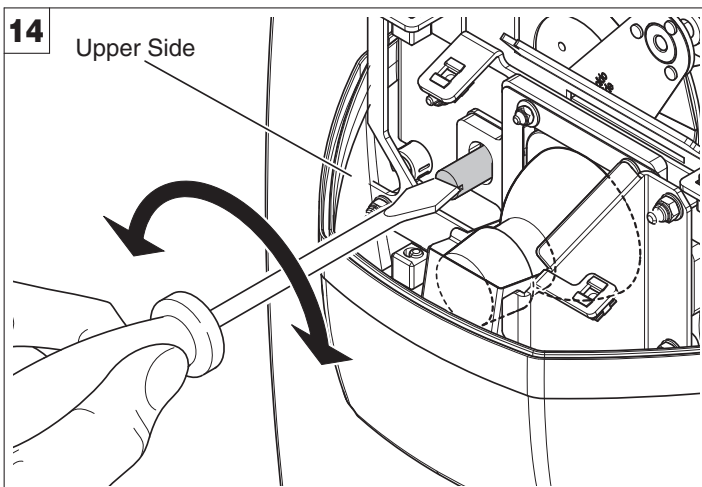
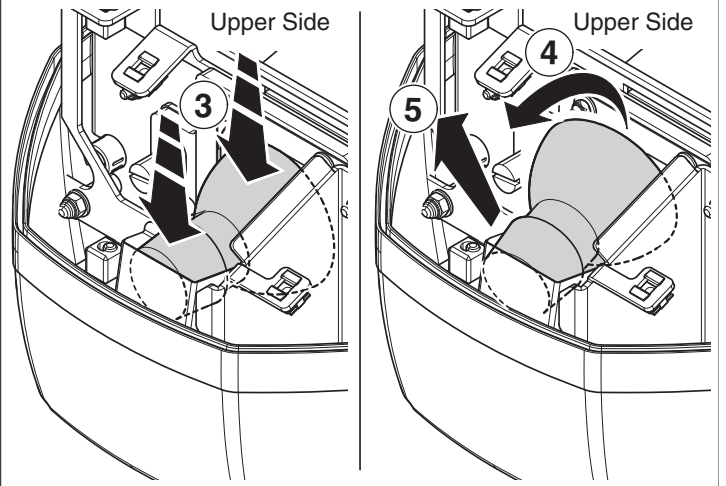
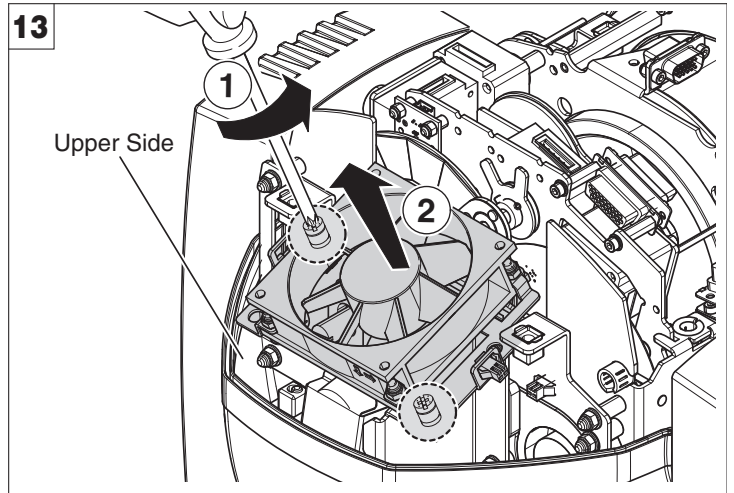
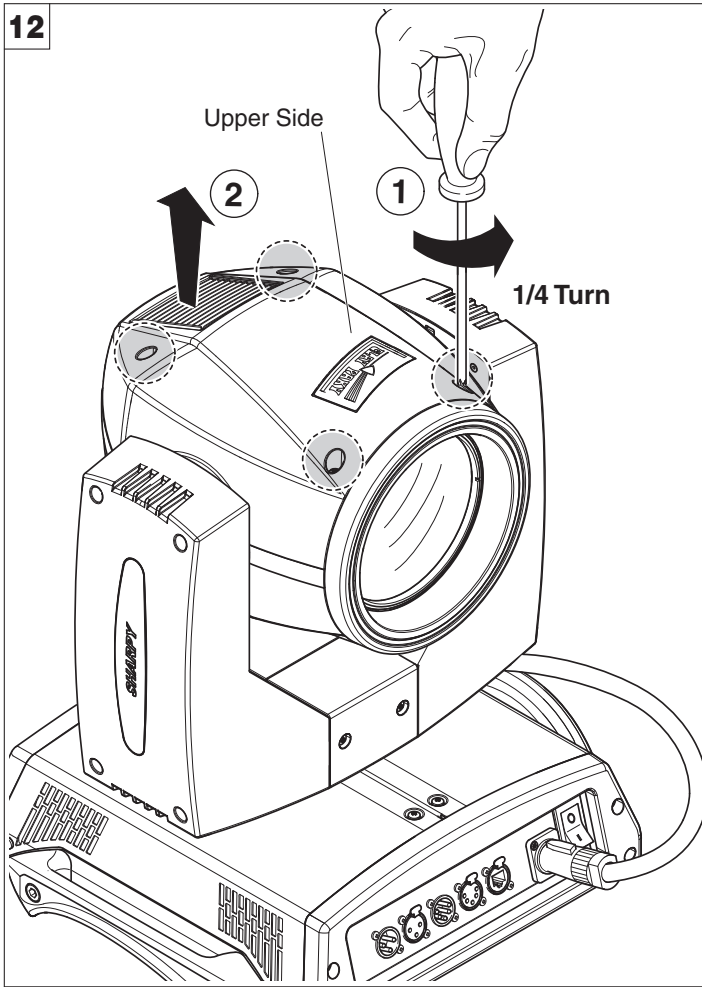


11



Locking and releasing Pan and Tilt movements - Refer to the instructions in the UNPACKING AND PREPARATION section.  
Opening the head covers - Fig. 10.

Closing the head covers - Fig. 11.



Opening and closing lamp compartment - Fig. 12

**Lamp change - Fig 13**

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.

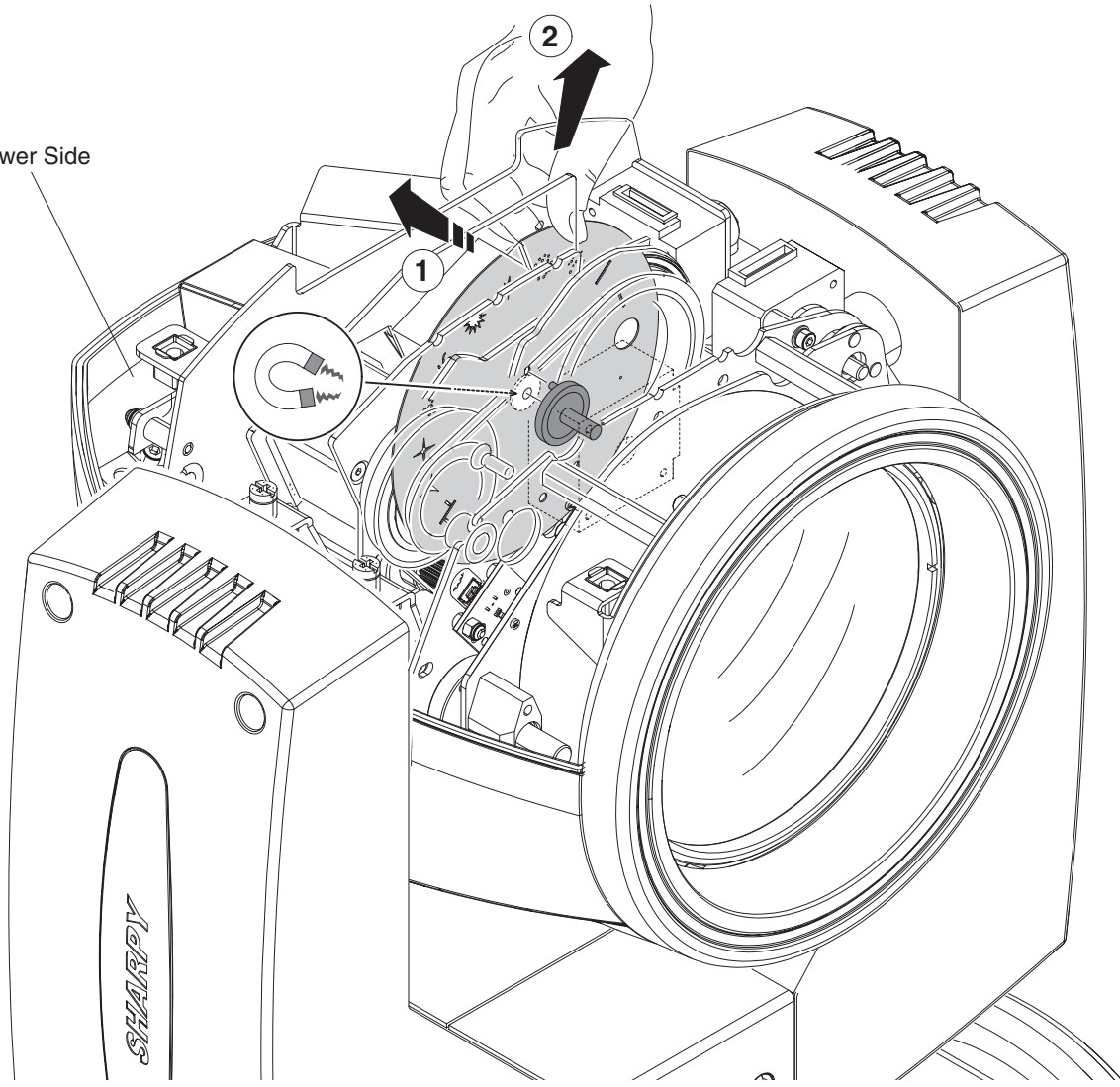
**Lamp regulation - Fig. 14**

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

**WARNING:** The lamp must be adjusted with the projector switched off. After adjusting, close the effects covers, switch on the projector and check that the adjustment has been correctly made. If necessary, switch off the projector, remove the effects covers and repeat lamp adjustment.

**NOTE:** To adjust the lamp vertically (with regard to the Y axis) after having replaced it, it may be necessary to operate the Calibration in the Menu Advanced on the Fixed Gobo Wheel channel.

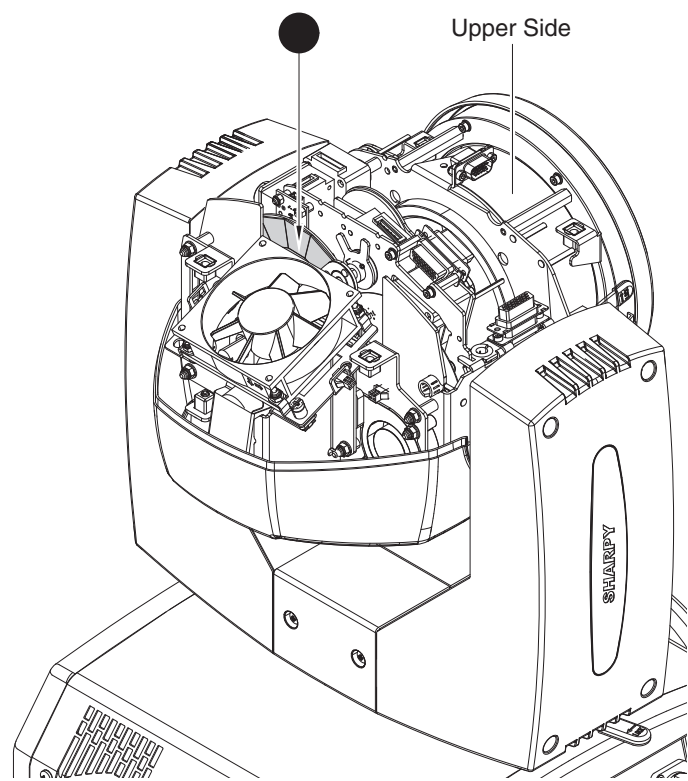
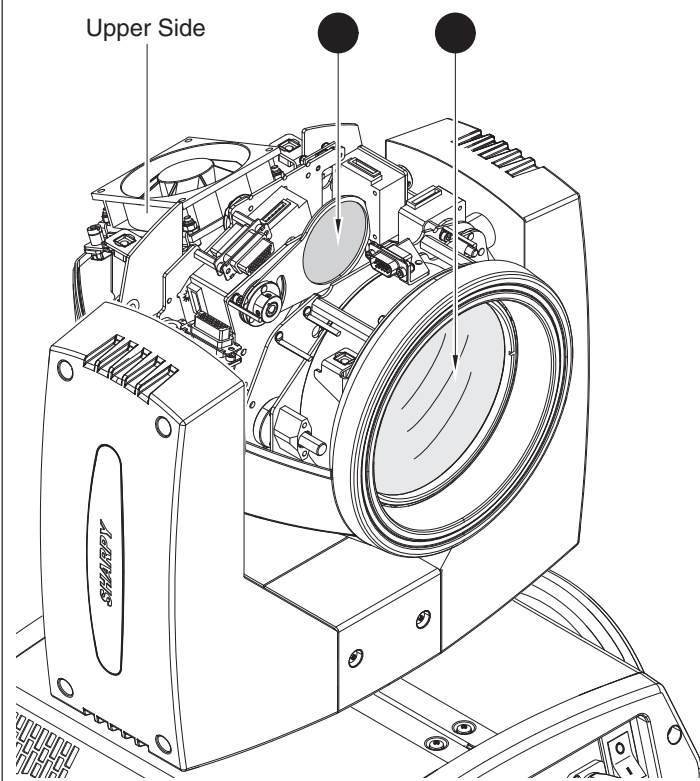
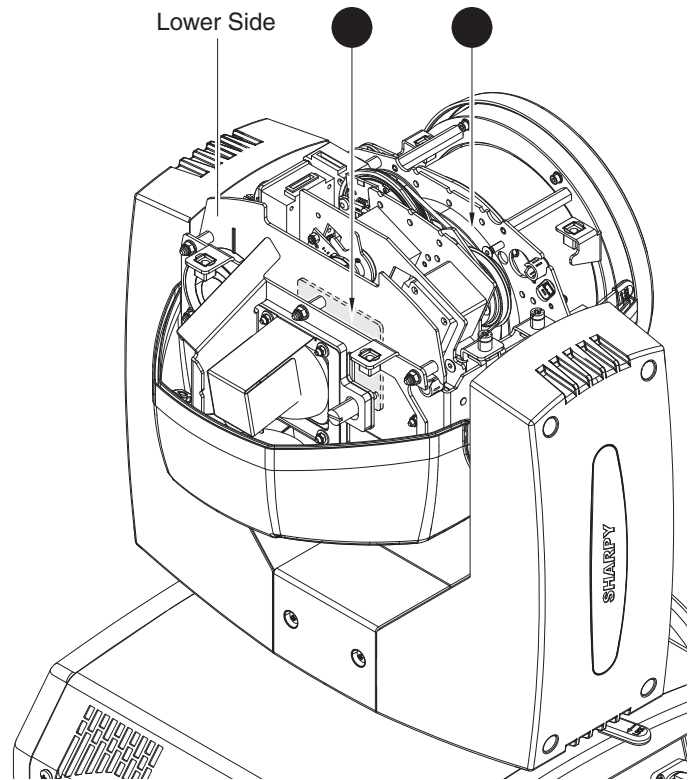
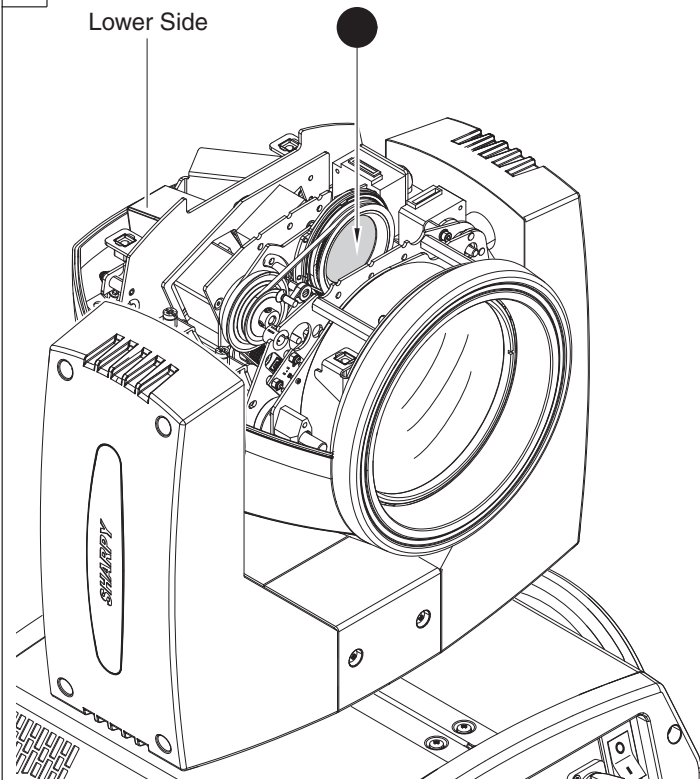
Lower Side



Replacing fixed gobos wheel - Fig. 15

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



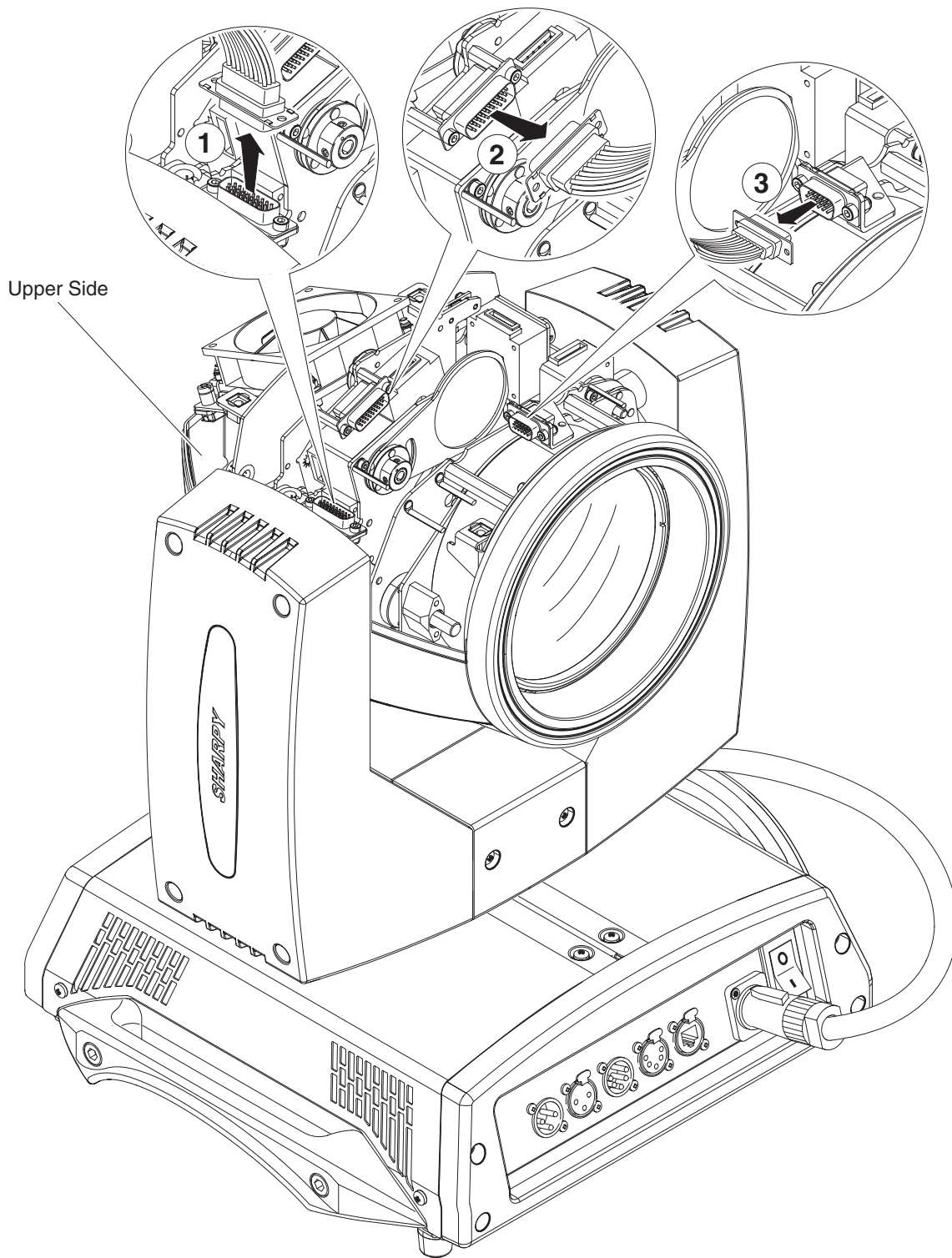
**16**

### Periodical cleaning - Fig. 16

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.).

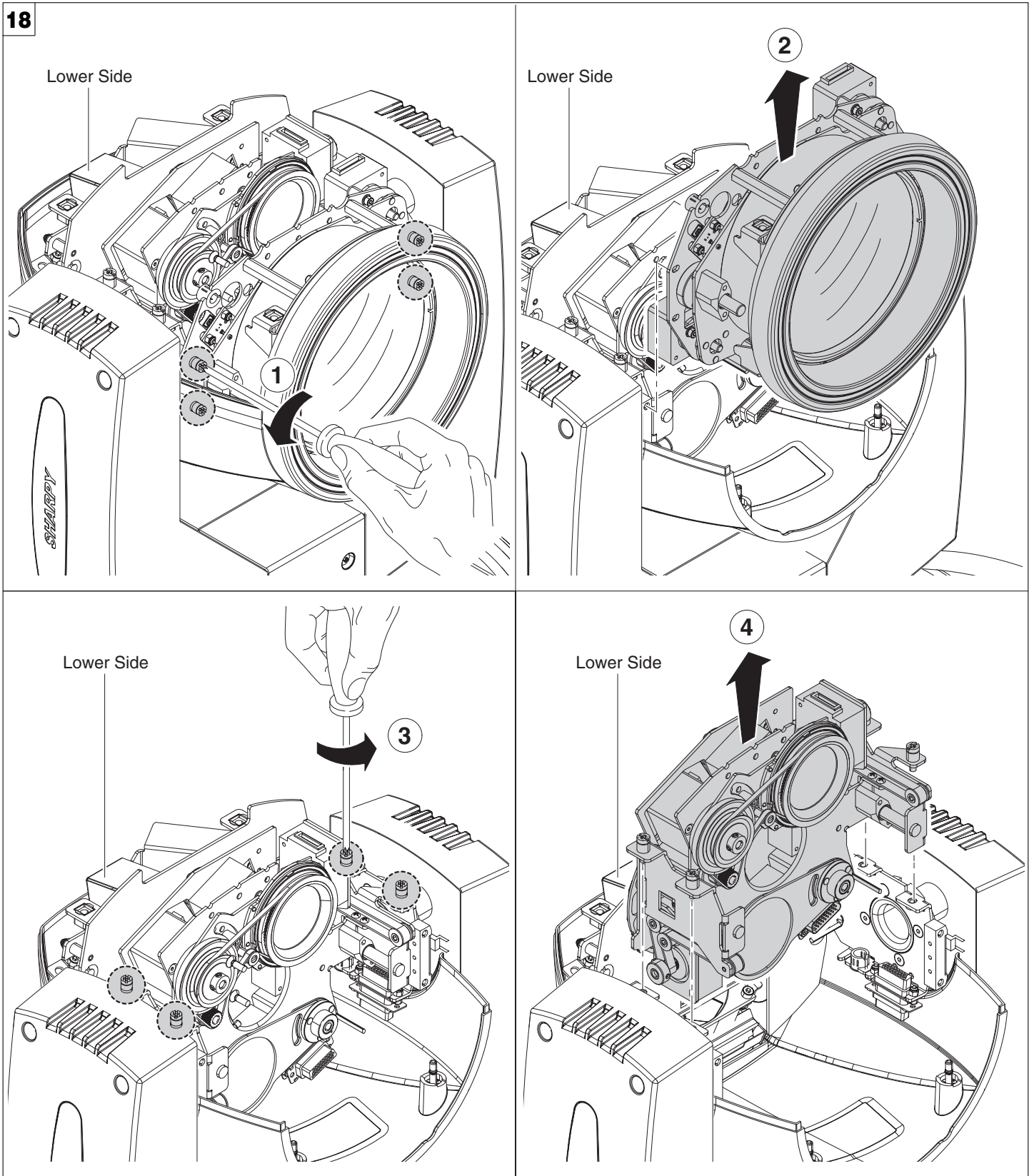
Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors and filters. It is recommended that the projector undergoes an annual service by a qualified technician for special maintenance involving at least the following operations:

- 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.



Extraction of the effect modules: Preliminary operations - Fig. 17

18

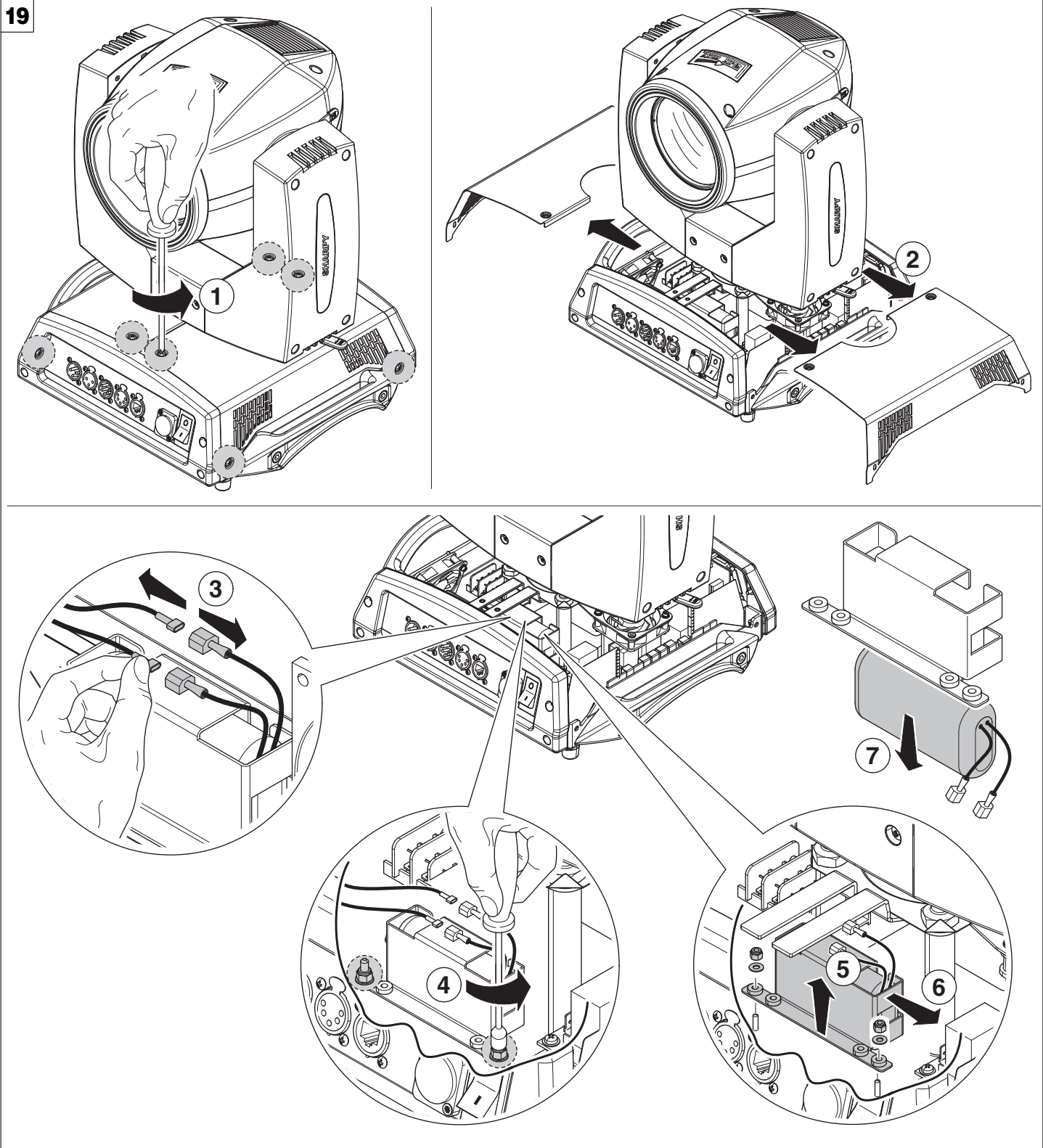


Extraction of the effect modules - Fig. 18

**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. 17 and 18 in reverse order.



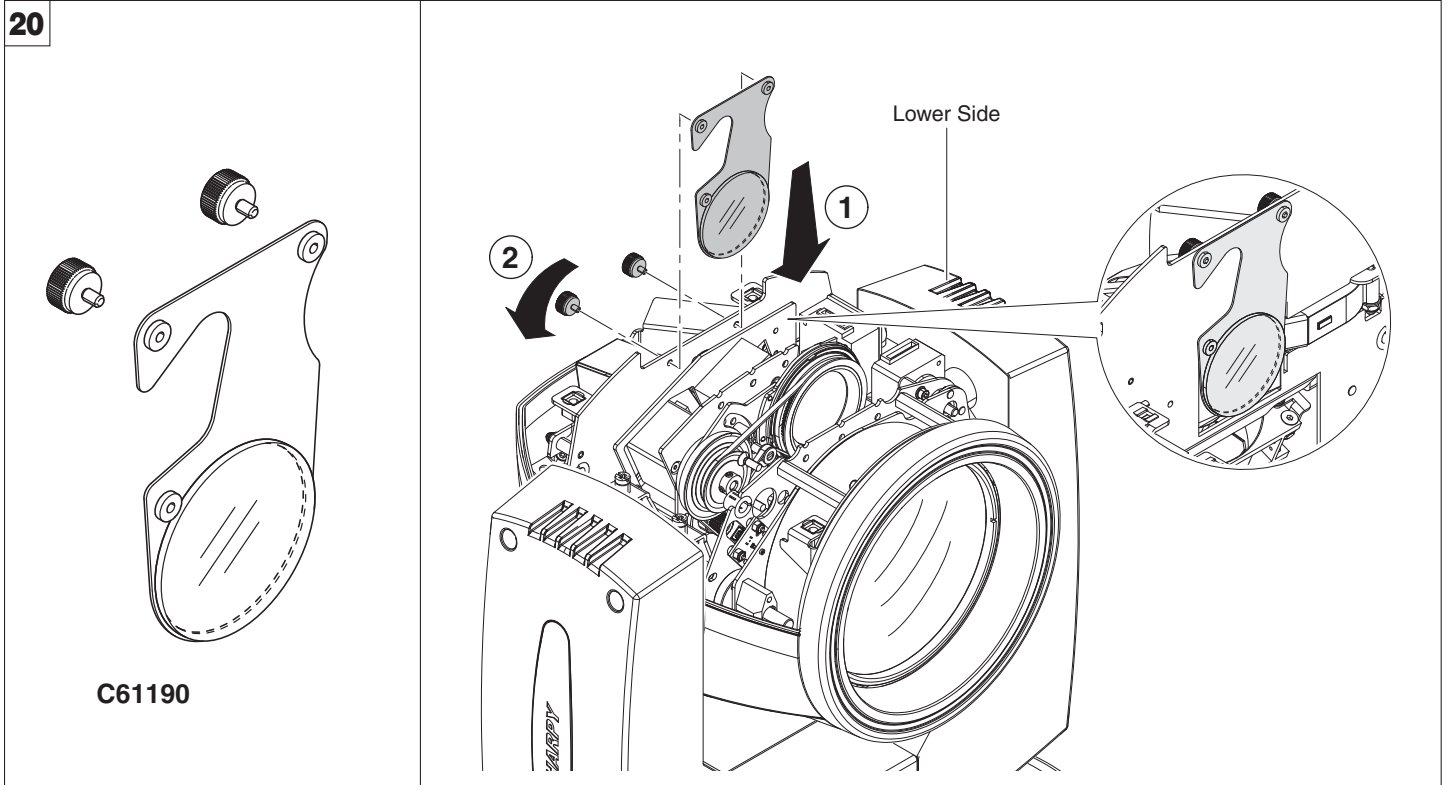


Battery removal - Fig. 19



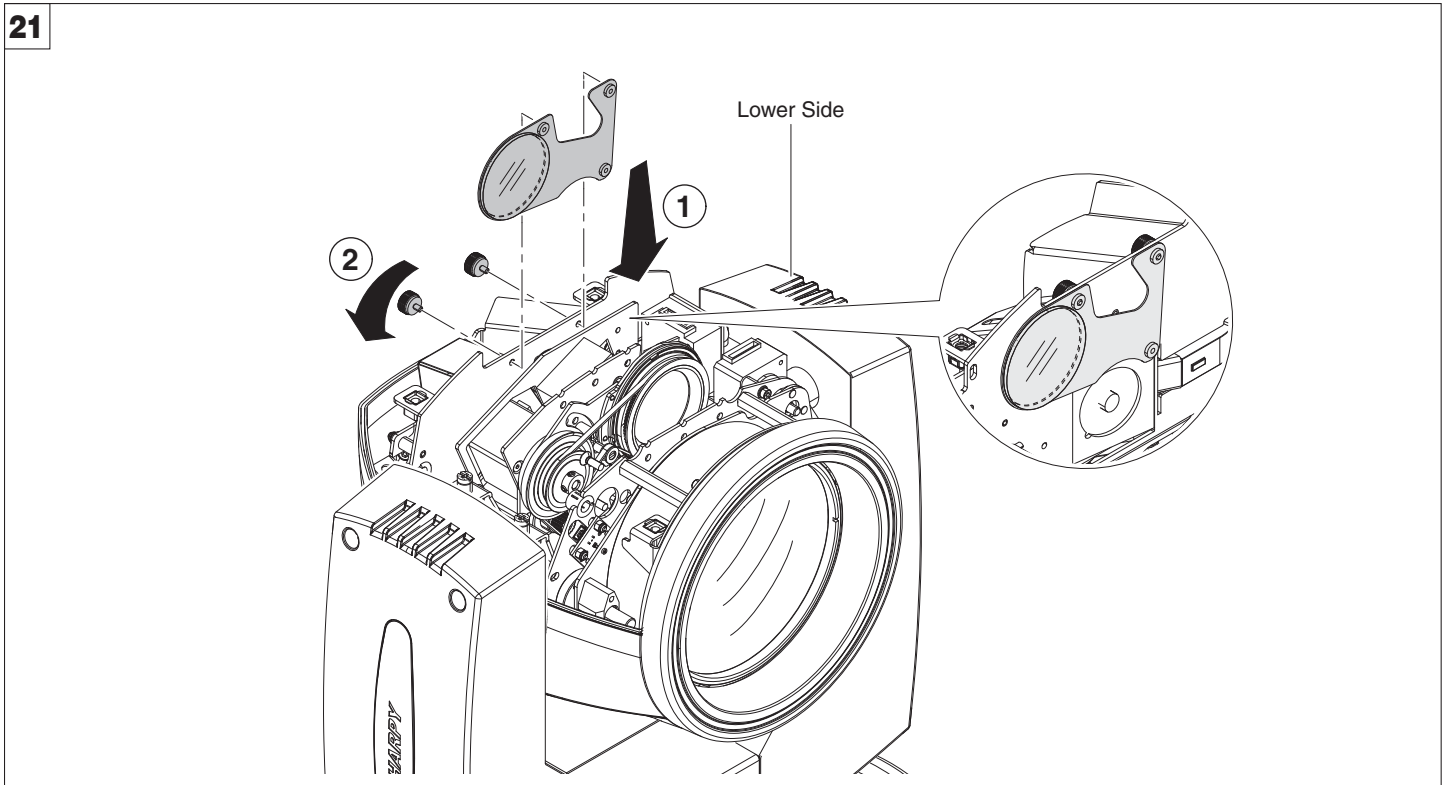
This product contains a rechargeable lead-acid or lithium iron tetraphosphate battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

## OPTIONAL ACCESSORIES



Heat screen filter - Fig. 20

An optional filter kit is also available when the SHARPY projector is used in environments that do not meet the minimum allowed distance of **12 metres** from illuminated objects; when this kit is assembled, the projector can be used at a minimum distance of **8 metres** from illuminated objects.



C61190 accessory can be placed inside the projector when not in use - Fig. 21

## TECHNICAL INFORMATION

### Power supplies available

115/230V 50/60Hz

### Input power:

350VA a 230V 50Hz.

### Total output

Max 7937 lumens

### Lamp:

Lamp system with a short arc burner in a reflector  
Type MSD Platinum 5R (L10103)

- Output Lamp power: 189W
- Colour temperature 8000 K
- Luminous flux 7950lm
- Average life 2000 h
- Any working position

### Motors:

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

### Channels:

Max 20 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 = 2.45 sec
  - TILT = 1.30 sec
- 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:

Complies with the following European Directives

- 2006/95/EC (LVD)
- 2004/108/EC (EMC)
- 2011/65/EU (RoHS).

### 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:

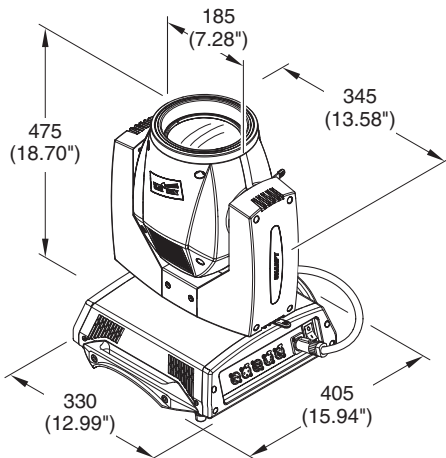
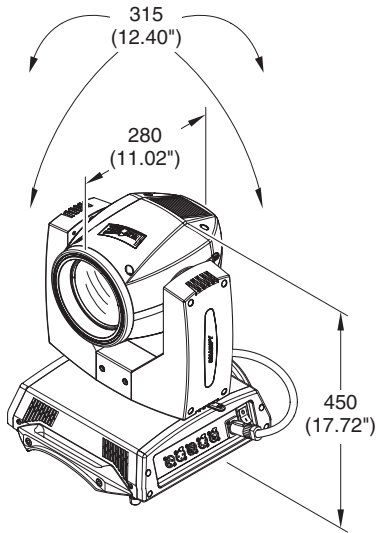
- Aluminium structure with die-cast plastic cover.
- Two side handles for transportation.
- Device locking PAN and TILT mechanisms for transportation and maintenance.

### Working position

Functioning in any position.

### Weights:

about 19 Kg (41lbs 13ozs).



## 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

**SHARPY**

**NB:** To prevent accidental breakage of the effects, which could collide with each other during transport, before switching the projector OFF check that all the projector Channels have been excluded (DMX level = 0%).

CHANNEL	CHANNEL MODE	
	STANDARD	VECTOR
1	COLOUR WHEEL	COLOUR WHEEL
2	STOP / STROBE	STOP / STROBE
3	DIMMER	DIMMER
4	STATIC GOBO CHANGE	STATIC GOBO CHANGE
5	PRISM INSERTION	PRISM INSERTION
6	PRISM ROTATION	PRISM ROTATION
7	EFFECTS MOVEMENT	EFFECTS MOVEMENT
8	FROST	FROST
9	FOCUS	FOCUS
10	PAN	PAN
11	PAN FINE	PAN FINE
12	TILT	TILT
13	TILT FINE	TILT FINE
14	FUNCTION	FUNCTION
15	RESET	RESET
16	LAMP CONTROL (with Option "Lamp Dmx" ON)	LAMP CONTROL (with Option "Lamp Dmx" ON)
17		PAN - TILT TIME
18		COLOUR TIME
19		BEAM TIME
20		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 WHEEL - channel 1**



BIT	EFFECT
255	FAST ROTATION (160 rpm)
...	...
128	SLOW ROTATION (0.2 rpm)
124	BLUE + WHITE
120	BLUE
116	CTB 8000 + BLUE
111	CTB 8000
107	CTO 190 + CTB 8000
103	CTO 190
99	CTO 250 + CTO 190
94	CTO 250
90	CYAN + CTO 250
86	CYAN
82	MAGENTA + CYAN
77	MAGENTA
73	YELLOW + MAGENTA
69	YELLOW
64	PINK + YELLOW
60	PINK
56	LAVENDER + PINK
52	LAVENDER
47	LIGHT GREEN + LAVENDER
43	LIGHT GREEN
39	GREEN + LIGHT GREEN
35	GREEN
30	AQUAMARINE + GREEN
26	AQUAMARINE
22	ORANGE + AQUAMARINE
18	ORANGE
13	RED + ORANGE
9	RED
5	WHITE + RED
0	WHITE

**• STATIC GOBO CHANGE - channel 4**



BIT	EFFECT
255	GOBO 16 SHAKE FAST SPEED (600 bpm)
250	GOBO 16 SHAKE, SLOW SPEED (24 bpm)
249	GOBO 15 SHAKE FAST SPEED
244	GOBO 15 SHAKE, SLOW SPEED
243	GOBO 14 SHAKE FAST SPEED
237	GOBO 14 SHAKE, SLOW SPEED
236	GOBO 13 SHAKE FAST SPEED
231	GOBO 13 SHAKE, SLOW SPEED
230	GOBO 12 SHAKE FAST SPEED
224	GOBO 12 SHAKE, SLOW SPEED
223	GOBO 11 SHAKE FAST SPEED
218	GOBO 11 SHAKE, SLOW SPEED
217	GOBO 10 SHAKE FAST SPEED
212	GOBO 10 SHAKE, SLOW SPEED
211	GOBO 9 SHAKE FAST SPEED
205	GOBO 9 SHAKE, SLOW SPEED
204	GOBO 8 SHAKE FAST SPEED
199	GOBO 8 SHAKE, SLOW SPEED
198	GOBO 7 SHAKE FAST SPEED
192	GOBO 7 SHAKE, SLOW SPEED
191	GOBO 6 SHAKE FAST SPEED
186	GOBO 6 SHAKE, SLOW SPEED
185	GOBO 5 SHAKE FAST SPEED
180	GOBO 5 SHAKE, SLOW SPEED
179	GOBO 4 SHAKE FAST SPEED
173	GOBO 4 SHAKE, SLOW SPEED
172	GOBO 3 SHAKE FAST SPEED
167	GOBO 3 SHAKE, SLOW SPEED
166	GOBO 2 SHAKE FAST SPEED
160	GOBO 2 SHAKE, SLOW SPEED
159	FAST ROTATION (60 rpm)
118	SLOW ROTATION (5 rpm)
114-117	STOP
113	SLOW ROTATION (5 rpm)
72	FAST ROTATION (60 rpm)
68-71	GOBO 17
64-67	GOBO 16
60-63	GOBO 15
56-59	GOBO 14
52-55	GOBO 13
48-51	GOBO 12
44-47	GOBO 11
40-43	GOBO 10
36-39	GOBO 9
32-35	GOBO 8
28-31	GOBO 7
24-27	GOBO 6
20-23	GOBO 5
16-19	GOBO 4
12-15	GOBO 3
8-11	GOBO 2
4-7	GOBO 1
0-3	WHITE

**• STOP / STROBE - channel 2**



BIT	EFFECT
252 - 255	OPEN
239 - 251	RANDOM FAST STROBE
226 - 238	RANDOM MEDIUM STROBE
213 - 225	RANDOM SLOW STROBE
208 - 212	OPEN
207	FAST PULSATION (360 bpm)
108	SLOW PULSATION (30 bpm)
104 - 107	OPEN
103	FAST STROBE (12 flash/sec)
4	SLOW STROBE (1 flash/sec)
0 - 3	CLOSED

**• PRISM INSERTION - channel 5**

BIT	EFFECT
255	
...	...
128	PRISM INSERTED
127	0%-100%: 0.36 sec
...	...
0	PRISM EXCLUDED

**• DIMMER - channel 3**



BIT	EFFECT
255	
...	...
0	0%-100%: 0.02 sec

**• PRISM ROTATION - channel 6**



BIT	EFFECT
255	FAST ROTATION (43 rpm)
...	...
193	SLOW ROTATION (1.1 rph)
191 - 192	STOP
190	SLOW ROTATION (1.1 rph)
128	FAST ROTATION (43 rpm)
127	POSITION 540°
105	POSITION 450°
84	POSITION 360°
63	POSITION 270°
42	POSITION 180°
21	POSITION 90°
0	POSITION 0°



• EFFECTS MOVEMENT - channel 7

BIT	EFFECT
255	0%-100%: 0.33 sec
0	

• FROST - channel 8



BIT	EFFECT
255	FROST INSERTED
0	FROST EXCLUDED

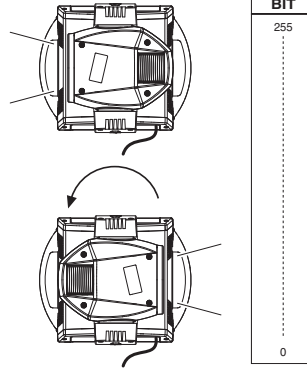
• FOCUS - channel 9



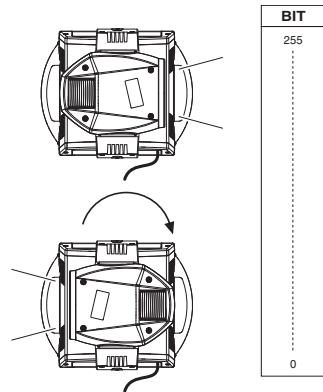
BIT	EFFECT
255	NEAR
0	DISTANT

• PAN - channel 10

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

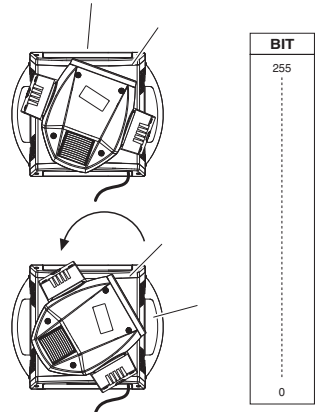


Operation with option InvertPan  $\diamond$  On  
(Tilt conventionally represented at 14% and option Invert Tilt  $\diamond$  Off)

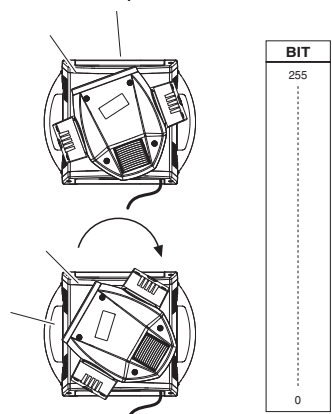


• PAN FINE - channel 11

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

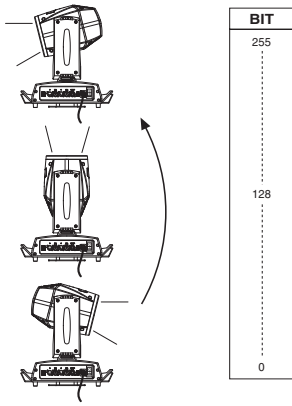


Operation with option InvertPan  $\diamond$  On  
(Tilt conventionally represented at 14% and option Invert Tilt  $\diamond$  Off)

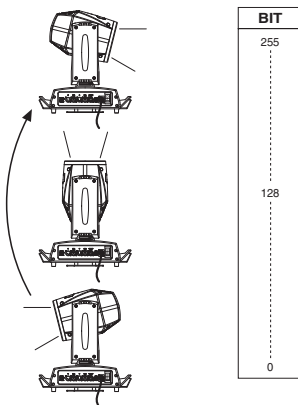


• **TILT - channel 12**

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

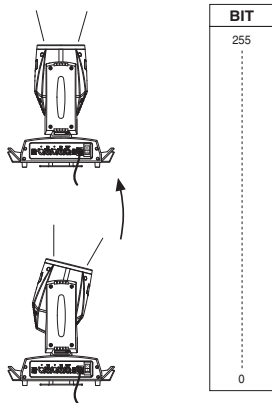


Operation with option Invert Tilt  $\diamond$  On  
 (Pan conventionally represented at 0% and option Invert Pan  $\diamond$  Off)

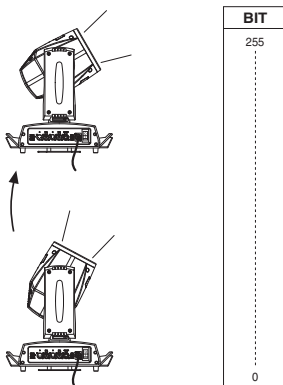


• **TILT FINE - channel 13**

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: 14**

BIT	EFFECT	
255	UNUSED RANGE	
63		
51-62		DIMMER CURVE FUNCTION
38-50		
25-37		PAN-TILT FUNCTION
12-24	FAST (Default)	
0-11	UNUSED RANGE	

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

• **RESET - channel: 15**

BIT	EFFECT
255	COMPLETE RESET
254	Complete reset is activated passing through the unused range and staying 5 seconds in complete reset levels.
128	
127	COMPLETE RESET PAN / TILT RESET
126	Pan / Tilt reset is activated passing through the unused range and staying 5 seconds in Pan / Tilt reset levels.
77	
76	PAN / TILT RESET EFFECTS RESET
75	Effects reset is activated passing through the unused range and staying 5 seconds in Effects reset levels.
26	
25	EFFECTS RESET
0	UNUSED RANGE

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

• **LAMP CONTROL (only with option LAMP DMX On) - channel: 16**

**IMPORTANT:** SHARPY is not provided with hot restrike ignition

BIT	EFFECT
255	LAMP ON
254	Lamp switch-on passing through the unused range and staying 5 sec in Lamp ON levels.
101	
100	LAMP ON LAMP OFF
99	Lamp switch off passing through the unused range and staying 5 s in Lamp OFF levels.
26	
25	LAMP OFF
0	UNUSED RANGE



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

## TIMING CHANNELS

	Timing Channel	Channel function
17	Pan - Tilt time	Pan - Tilt - (Pan fine - Tilt fine)
18	Colour time	Colour wheel
19	Beam time	Dimmer - Frost - Prism
20	Gobo time	Static Gobo

## TIME TABLE

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

