CLAY PAKY ®

www.claypaky.it

SHARPY WASH 330

C61378

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
20	Technical information
20	Cause and solution of problems
21	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.

• 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.

330W | ....5....m

• MINIMUM DISTANCE OF ILLUMINATED OBJECTS
The projector needs to be positioned so that the objects hit by the beam of light are at least 5 metres (16'5") 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.

t_a 40°C

• Maximum ambient temperature
Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C (104° F).

IP20

• 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.

t_c 100°C

• 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 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.
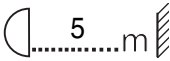
• Lamp
The fitting mounts a high-pressure lamp that needs an external driver. This driver is fitted onto the apparatus.
- Carefully read the "operating instructions" provided by the lamp manufacturer.
- Immediately replace the lamp if damaged or deformed by heat.

• 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.
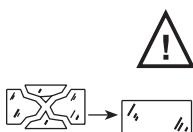
LiFePO4
Pb
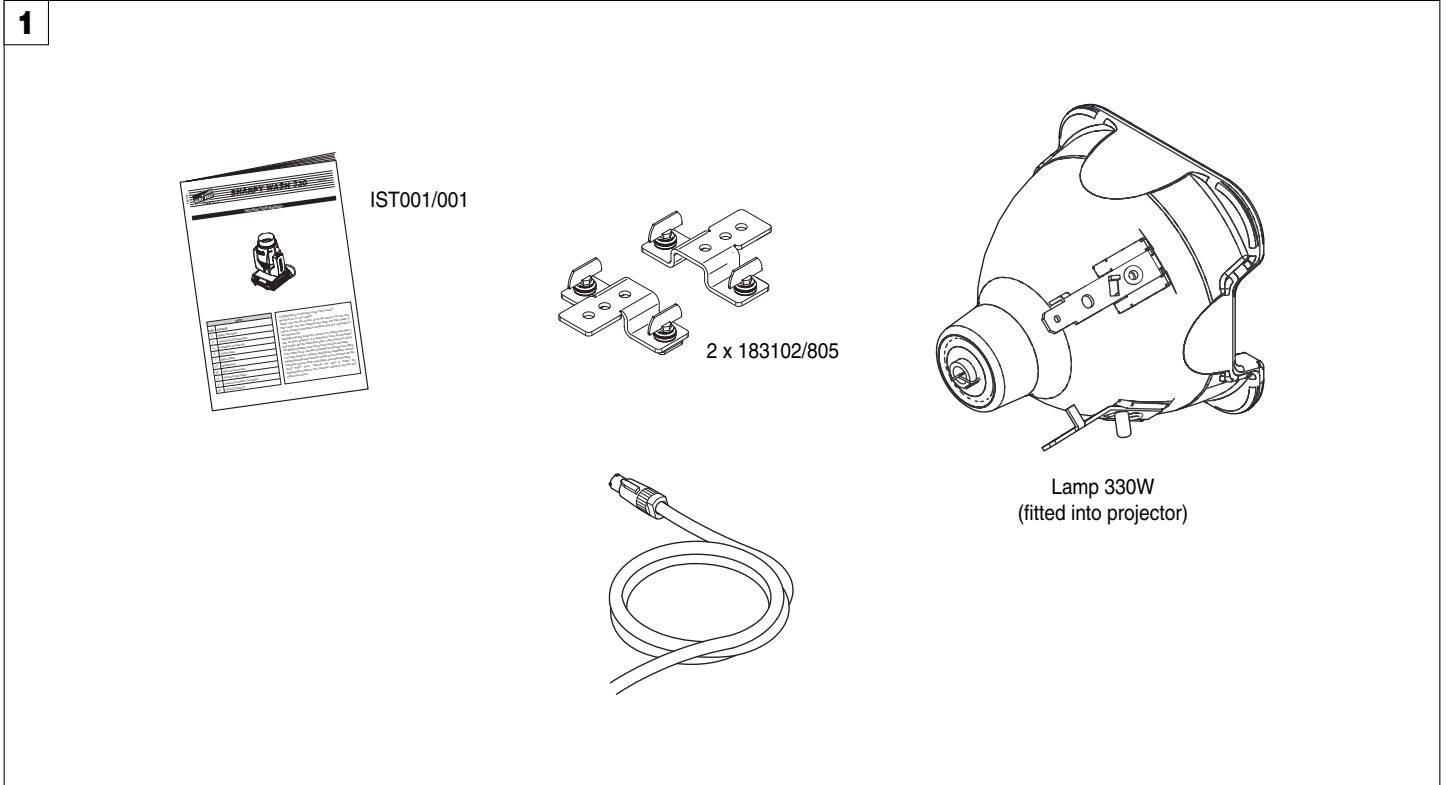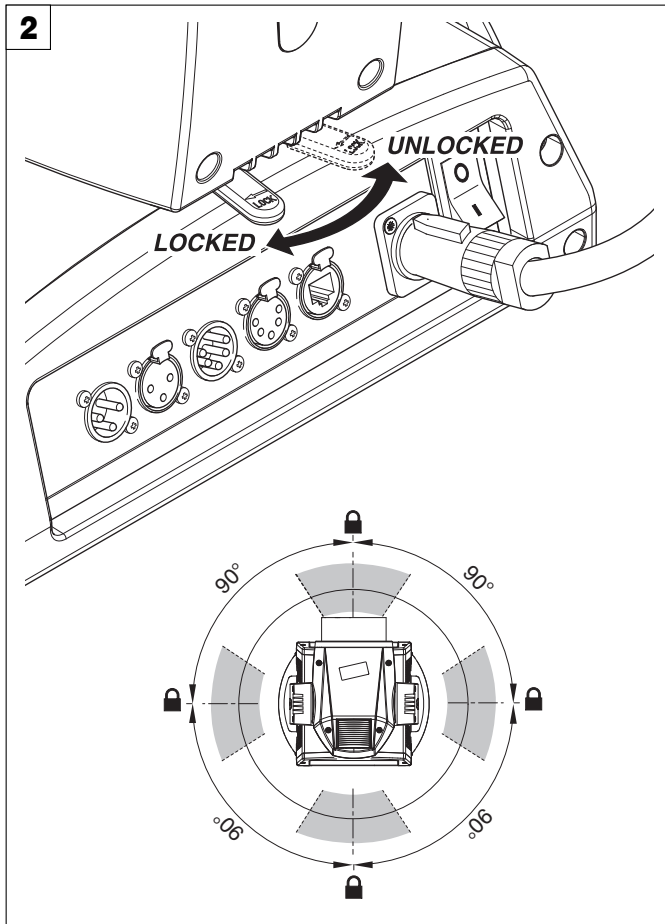
The products to which this manual refers comply with the European Directives pursuant to:
• 2006/95/EC - Safety of electrical equipment supplied at low voltage (LVD)
• 2004/108/EC - Electromagnetic Compatibility (EMC)
• 2011/65/EU - Restriction of the use of certain hazardous substances (RoHS)
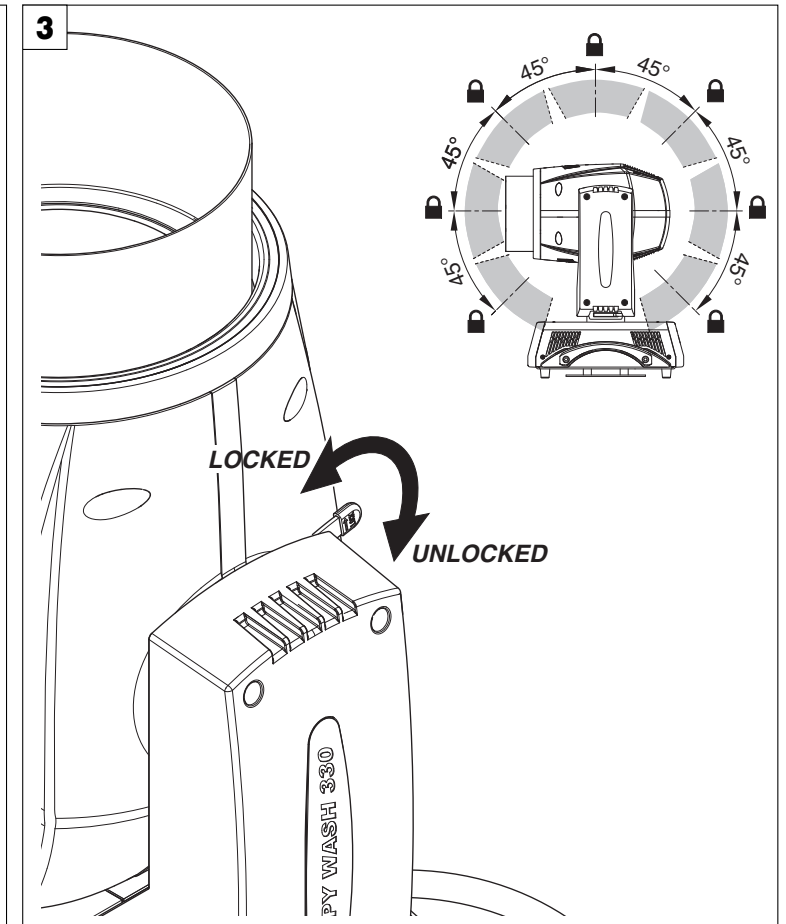
C E

UNPACKING AND PREPARATION

1

IST001/001

2 x 183102/805

Lamp 330W
(fitted into projector)

Packing contents - Fig. 1

2

UNLOCKED

LOCKED

90° 90°

90° 90°

3

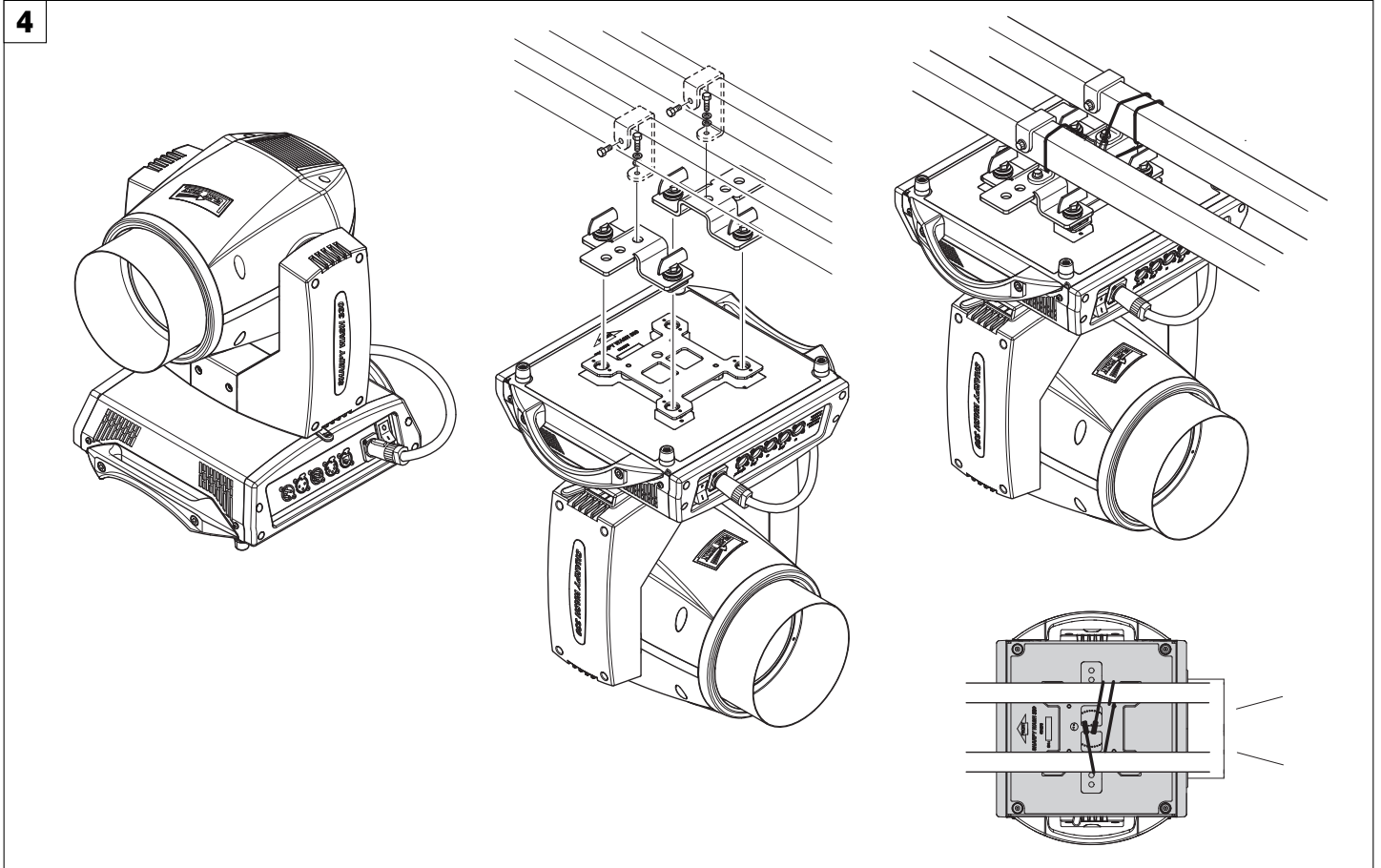45° 45°

45° 45°

45° 45°

LOCKED

UNLOCKED

SHARPY WASH 330

PAN Mechanism Lock and Release (every 90°) - Fig. 2
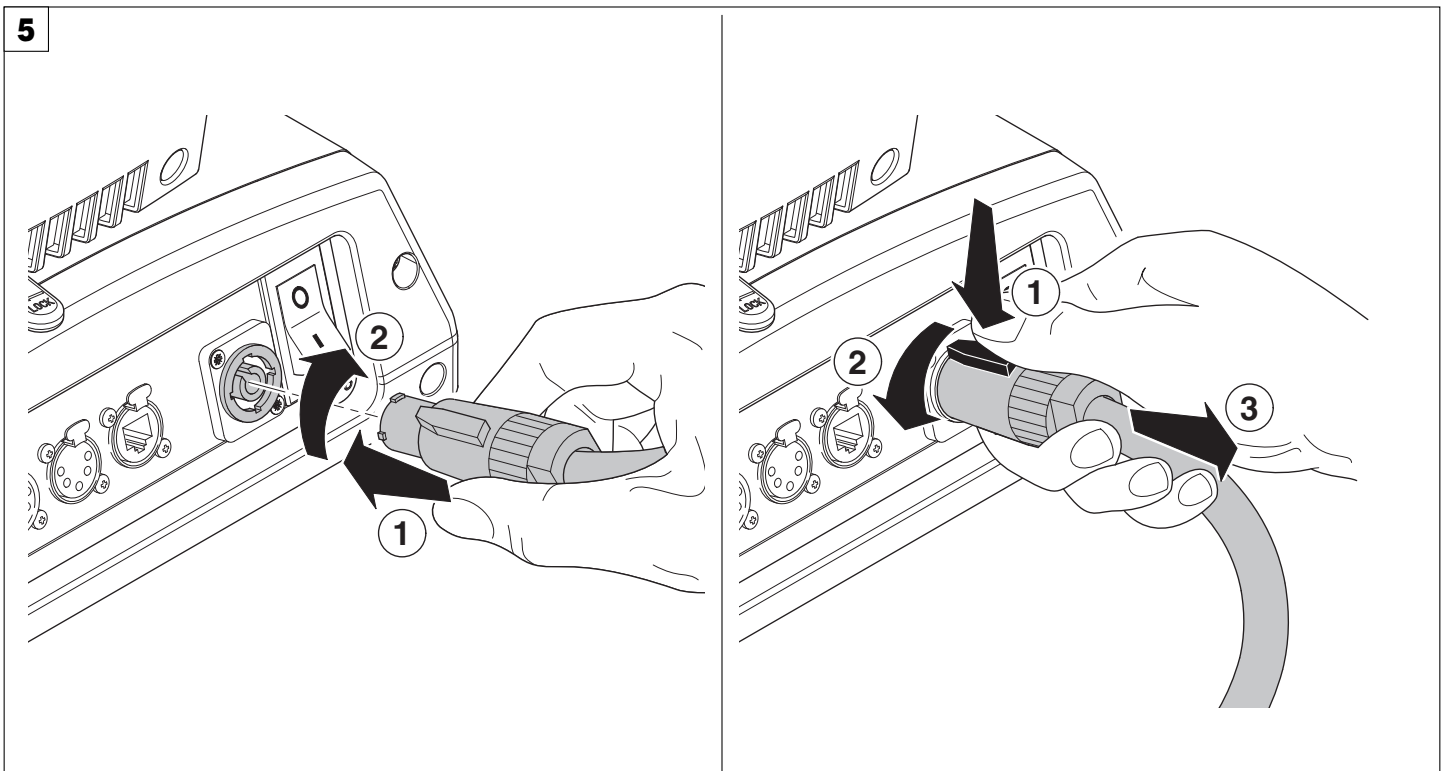
TILT Mechanism Lock and Release (every 45°) - Fig. 3

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

6
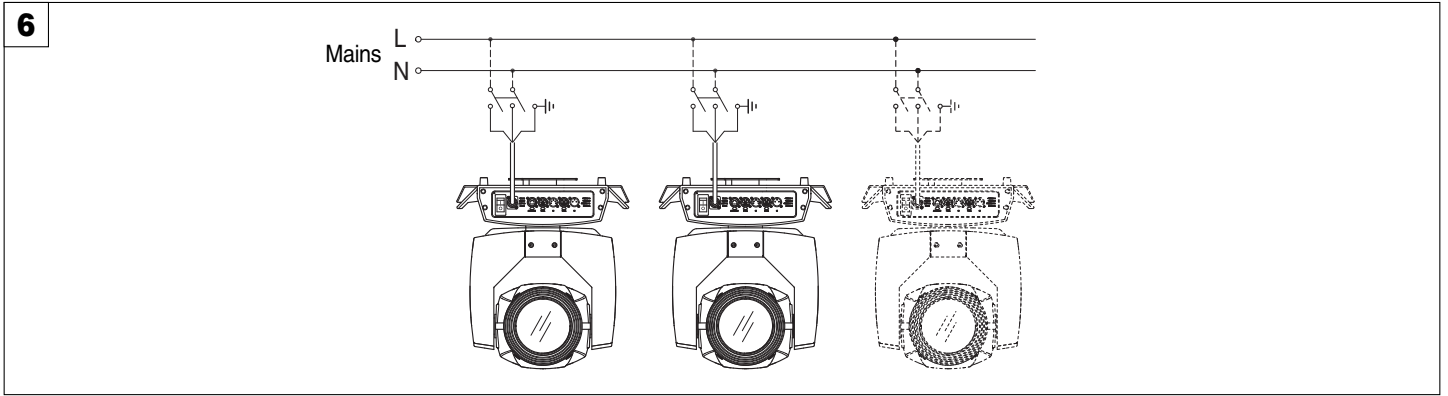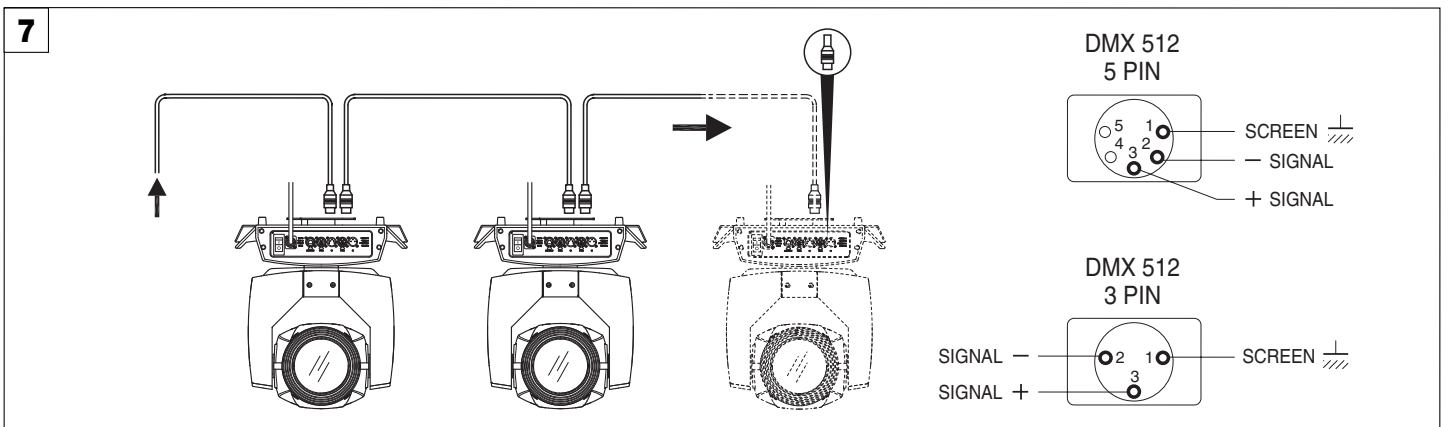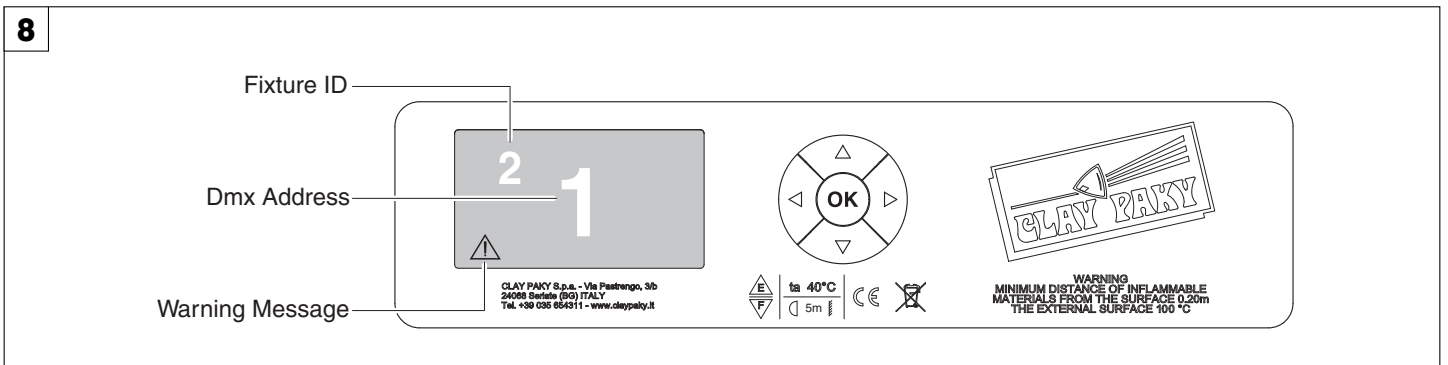
Mains L
N

Connecting to the mains supply - Fig. 6

7

DMX 512
5 PIN

SCREEN
─ SIGNAL
+ SIGNAL

DMX 512
3 PIN

SIGNAL ─
SIGNAL +
SCREEN

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

Fixture ID
Dmx Address
Warning Message

2
1

OK

CLAY PAKY S.p.a. - Via Pastrengo, 3/b
24068 Seriate (BG) ITALY
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ta 40°C
5m

CE

WARNING
MINIMUM DISTANCE OF INFLAMMABLE
MATERIALS FROM THE SURFACE 0.20m
THE EXTERNAL SURFACE 100 °C

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:

CLAY PAKY	Model SHARPY WASH 300	Firmware Version X.X.X Date - Hour	xxx (Fixture ID) Dmx Address xxx	System errors E: .... W: ....

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 than when this condition occurs, any possible value that has been modified but not yet confirmed with the ⊙K key will be cancelled.
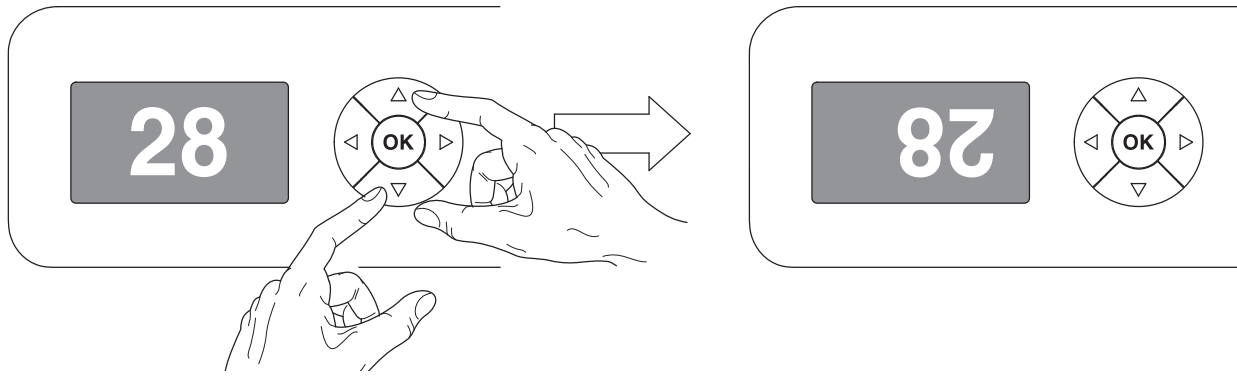
Reversal of the display - Fig. 9

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.
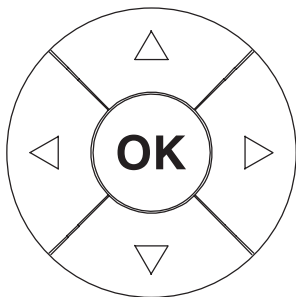
Setting the address: see pag. 8.

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

	(OK)	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" menù.

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 functionning of effects

 • Advanced (Advanced Menu): Access to the "Advanced menu" is recommended for a trained technical personnel.

 To enable the "Advanced" see pag.13
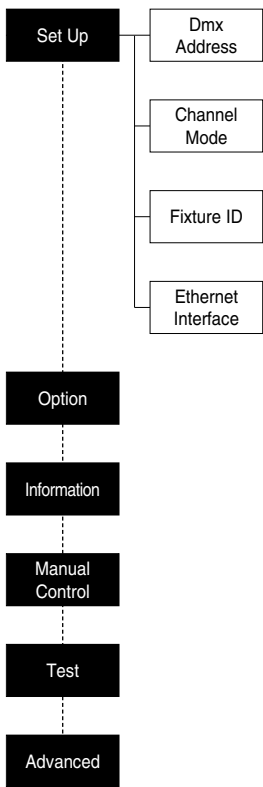
3) Press ⊛ to display the first item in the selected menu.

4) Use the UP ⊕ and DOWN ⊖ keys to select the MENU items.

Setting addresses and options with the projector disconnected
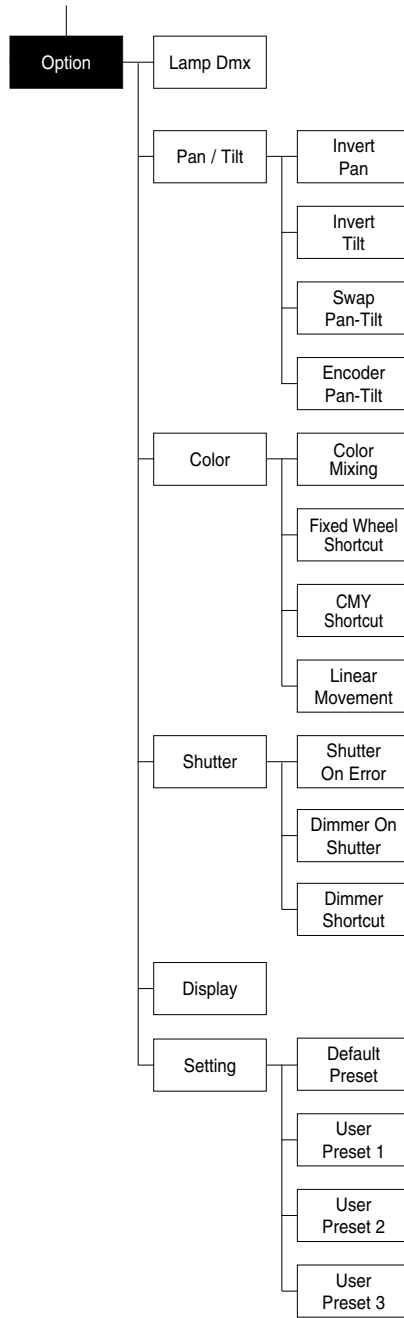
The projector's DMX address, as well as other possible operating options, can also be set when the appliance is disconnected from the electricity supply. All that is needed is to press ⊛ to momentarily activate the display and thus access the settings. Once the required operations have been carried out, the display will switch off again after a wait time of 30 seconds.
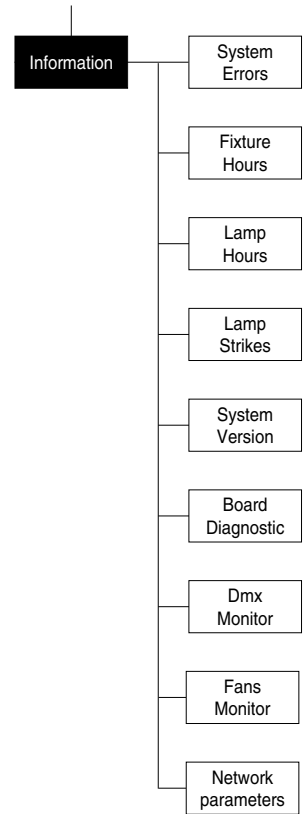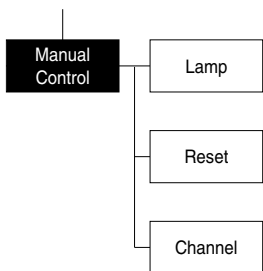
1

Set Up
- Dmx Address
- Channel Mode
- Fixture ID
- Ethernet Interface

Option

Information

Manual Control

Test

Advanced

2

Option
- Lamp Dmx
- Pan / Tilt
  - Invert Pan
  - Invert Tilt
  - Swap Pan-Tilt
  - Encoder Pan-Tilt
- Color
  - Color Mixing
  - Fixed Wheel Shortcut
  - CMY Shortcut
  - Linear Movement
- Shutter
  - Shutter On Error
  - Dimmer On Shutter
  - Dimmer Shortcut
- Display
- Setting
  - Default Preset
  - User Preset 1
  - User Preset 2
  - User Preset 3

3

Information
- System Errors
- Fixture Hours
- Lamp Hours
- Lamp Strikes
- System Version
- Board Diagnostic
- Dmx Monitor
- Fans Monitor
- Network parameters

4

Manual Control
- Lamp
- Reset
- Channel

5

Test
- Pan / Tilt
- Colour
- Beam
- All

6

Advanced — Access code 1234
- Upload Firmware
- Setup Model
- Calibration

Set Up	Dmx Address	Address xxx
	Channel Mode	Standard
		Vector
	Fixture ID	Value xxx
	Ethernet Interface	
		Control Protocol
		Repeat on DMX
		Universe

SET UP MENU

DMX ADDRESS

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

Allows you to select the DMX ADDRESS.

1) Press ⊛ - the current DMX Adress appear on the display.
2) Use the UP ⬆ and DOWN ⬇, RIGHT ▶ keys to plan the DMX Address.
3) Press ⊛ 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 ⊛ - 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 ⊛ to confirm the selection or LEFT ◀ to keep current settings.

FIXTURE ID

Allows you to select the FIXTURE ID.

1) Press ⊛ - the current Fixture ID appear on the display.
2) Use the UP ⬆, DOWN ⬇, RIGHT ▶ keys to plan the Fixture ID.
3) Press ⊛ 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 ⊛.
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 ⊛ 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 ⊛ to confirm the selection or LEFT ◀ to keep the current setting.

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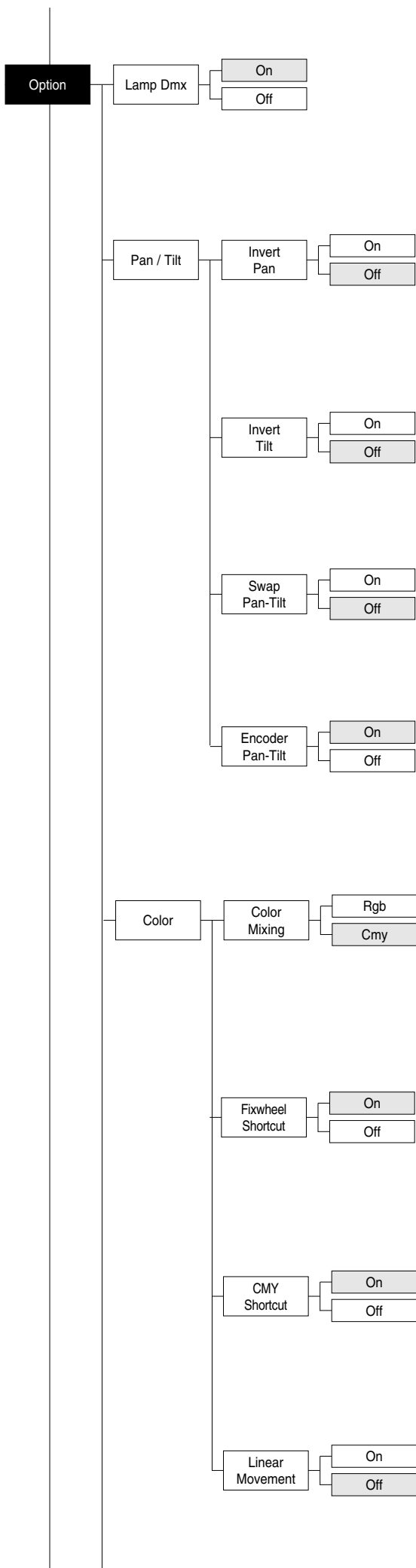
It lets you enable the transmission of the Ethernet protocol by DMX signal to all the connected projectors.

1) Press ⊛ 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 ⊛ 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 ⊛ – the current Universe address appears on the display.
2) Use the UP ⬆, DOWN ⬇, RIGHT ▶ keys to set the Universe address.
3) Press ⊛ to confirm the selection or LEFT ◀ to keep the current setting.

OPTIONS MENU

Option → Lamp Dmx → On / Off

Pan / Tilt → Invert Pan → On / Off

Invert Tilt → On / Off

Swap Pan-Tilt → On / Off

Encoder Pan-Tilt → On / Off

Color → Color Mixing → Rgb / Cmy

Fixwheel Shortcut → On / Off

CMY Shortcut → On / Off

Linear Movement → On / Off

LAMP DMX
Used for enabling lamp remote control channel.
1) Press ⓞⓚ - 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 ⓞⓚ to confirm the selection or LEFT ◀ to keep current settings.

PAN / TILT
Invert pan
Used for reversing Pan movement.
1) Press ⓞⓚ - 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 ⓞⓚ to confirm the selection or LEFT ◀ to keep current settings.

Invert tilt
Used for reversing tilt movement.
1) Press ⓞⓚ - 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 ⓞⓚ 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 ⓞⓚ - 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 ⓞⓚ to confirm the selection or LEFT ◀ to keep current settings.

Encoder Pan-Tilt
Used for enabling the Pan / Tilt encoders.
1) Press ⓞⓚ - 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 ⓞⓚ to confirm the selection or LEFT ◀ to keep current settings.

COLOR
Color mixing
Used for reversing the CMY color mixing system.
1) Press ⓞⓚ - 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 ⓞⓚ 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 ⓞⓚ – 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 ⓞⓚ to confirm the selection, or LEFT ◀ to keep current settings.

CMY short-cut
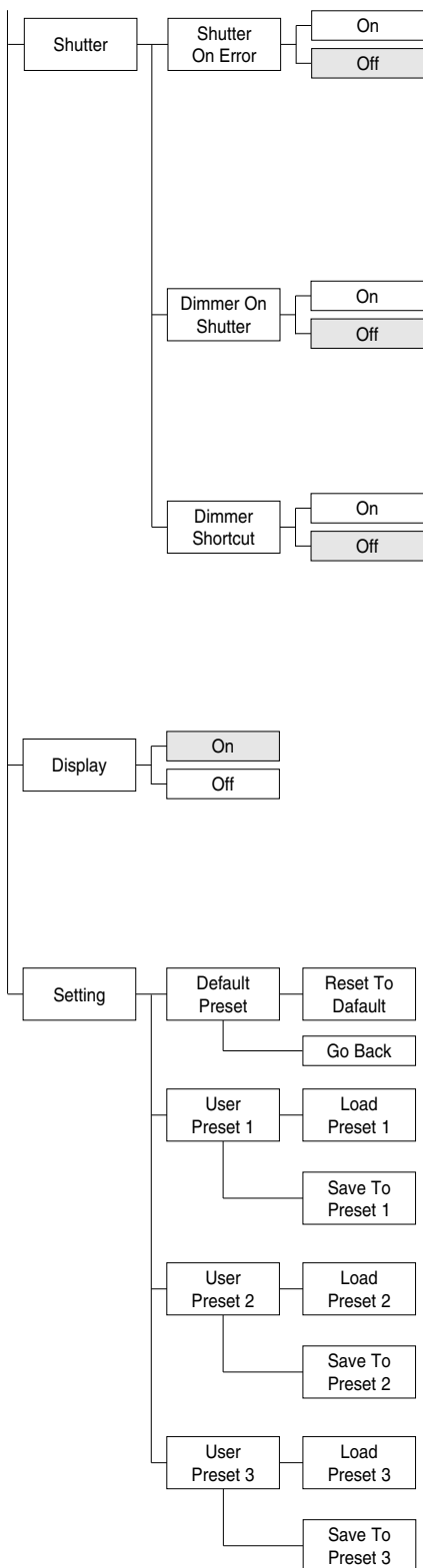Used for optimizing CMY change time so that the disc turns in the direction that requires shorter movement.
1) Press ⓞⓚ – the current settings appear on the display (On or Off).
2) Use the UP ⬆ and DOWN ⬇ keys to enable (On) or disable (Off) CMY change optimization.
3) Press ⓞⓚ to confirm the selection, or LEFT ◀ to keep current settings.

Linear Movement
It enables the linear movement of the colour wheel.
1) Press ⓞⓚ – 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 ⓞⓚ to confirm the selection, or LEFT ◀ to keep current settings.

Menu Tree (left column)

- **Shutter**
  - **Shutter On Error** → On / **Off**
  - **Dimmer On Shutter** → On / **Off**
  - **Dimmer Shortcut** → On / **Off**
- **Display** → **On** / Off
- **Setting**
  - **Default Preset** → Reset To Dafault / Go Back
  - **User Preset 1** → Load Preset 1 / Save To Preset 1
  - **User Preset 2** → Load Preset 2 / Save To Preset 2
  - **User Preset 3** → Load Preset 3 / Save To Preset 3

SHUTTER

Shutter on error

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

1) Press ⓞⓚ - 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 ⓞⓚ 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 ⓞⓚ – 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 ⓞⓚ to confirm the selection, or LEFT ◀ to keep current settings.

Dimmer short-cut

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

1) Press ⓞⓚ – the current settings appear on the display (On or Off).
2) Use the UP ⬆ and DOWN ⬇ keys to enable (On) or disable (Off) Dimmer change optimization.
3) Press ⓞⓚ 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 ⓞⓚ - 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 ⓞⓚ 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 ⓞⓚ - "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 ⓞⓚ - "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.
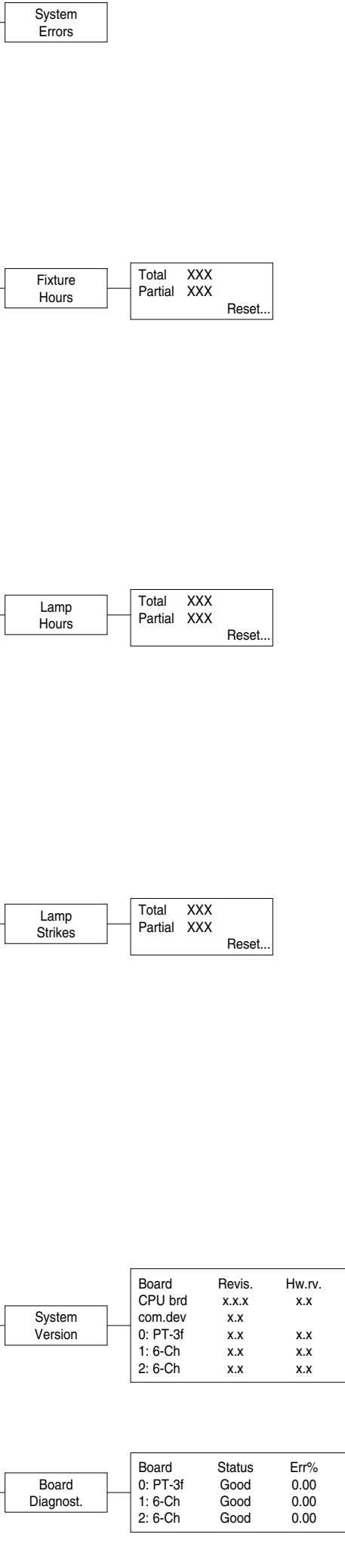5) Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.

(*) 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 ⓞⓚ , a confirmation message (Are you sure?) appears on the display.
2) Select YES to confirm the selction 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
Fixed Wheel Shortcut	On
Colour Mixing	CMY
CMY Shortcut	On
Linear Movement	Off
Dimmer on Shutter	Off
Dimmer Shortcut	On
Shutter on error	Off
Display	On

| Information | 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: 6-Ch	x.x	x.x
2: 6-Ch	x.x	x.x

| Board Diagnost. |
Board	Status	Err%
0: PT-3f	Good	0.00
1: 6-Ch	Good	0.00
2: 6-Ch	Good	0.00

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
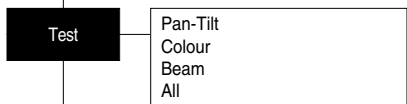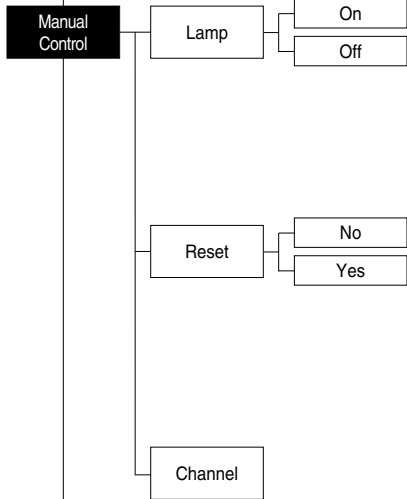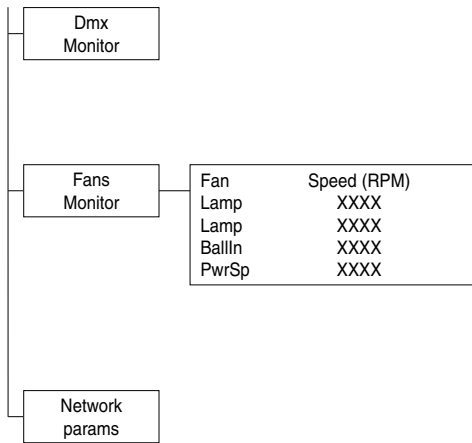
SYSTEM VERSION

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: 6-Ch (6 channel board)
2: 6-Ch (6 channel board)

BOARD DIAGNOSTIC

Used for displaying the status error of each board installed in the projector:
0: PT-3f (Pan / Tilt board)
1: 6-Ch (6 channel board)
2: 6-Ch (6 channel board)

Menu Tree (left column)

```
Dmx
Monitor

Fans          Fan       Speed (RPM)
Monitor       Lamp         XXXX
              Lamp         XXXX
              BallIn       XXXX
              PwrSp        XXXX

Network
params

Manual        Lamp        On
Control                   Off

              Reset       No
                          Yes

              Channel

Test          Pan-Tilt
              Colour
              Beam
              All
```

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 (PSU 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 ⓞⓚ - 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 ⓞⓚ to confirm the selection or LEFT ◀ to keep current settings and return to the top level.

RESET

Used for resetting the projector.
1) Press ⓞⓚ 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 ⓞⓚ - the first channel appears on the display.
2) Use the UP ⬆ and DOWN ⬇ keys to select the required channel:
3) Press ⓞⓚ 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 ⓞⓚ to return to the top menu level.
2) Use the UP ⬆ and DOWN ⬇ keys to select the required test.
3) Press ⓞⓚ to confirm the selection or LEFT ◀ to keep current settings.

Test sequence:
Pan - Tilt effects (Pan & Tilt)
Colour effects (Colour wheel - CMY)
Beam effects (Stopper-Strobe / Dimmer / Beam shaper / Zoom / Frost)
All effects
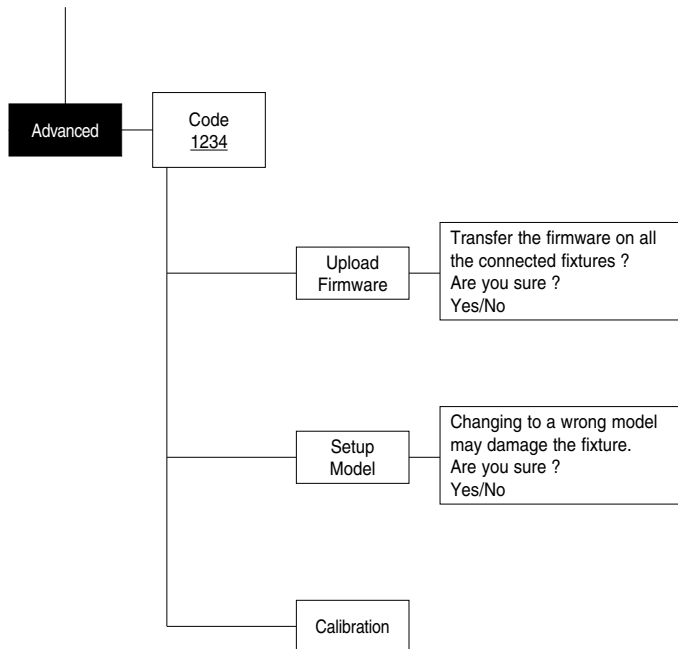
ADVANCED MENU

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.

Advanced

Code 1234

Upload Firmware — Transfer the firmware on all the connected fixtures ? Are you sure ? Yes/No

Setup Model — Changing to a wrong model may damage the fixture. Are you sure ? Yes/No

Calibration

10

1 **1/4 Turn**

2

3 **4**

11

1

2 **1/4 Turn**
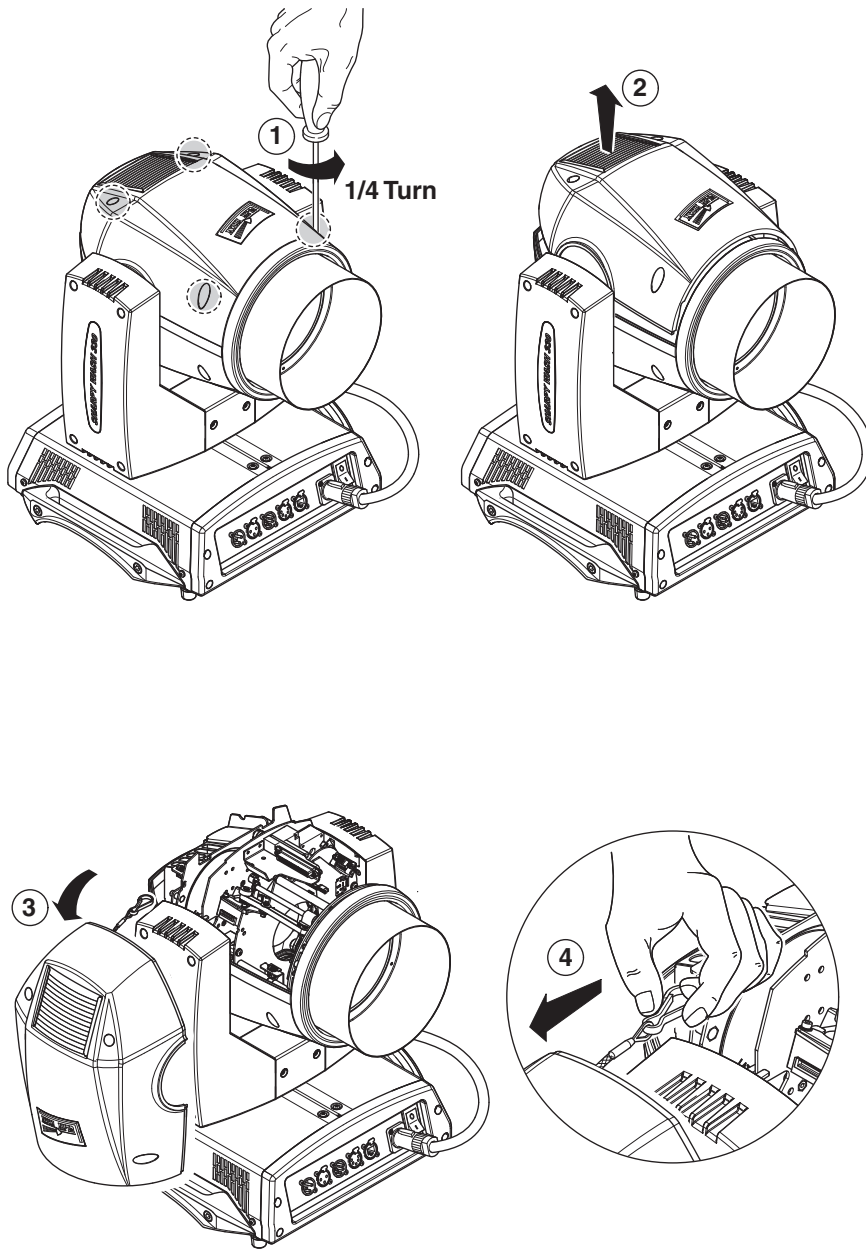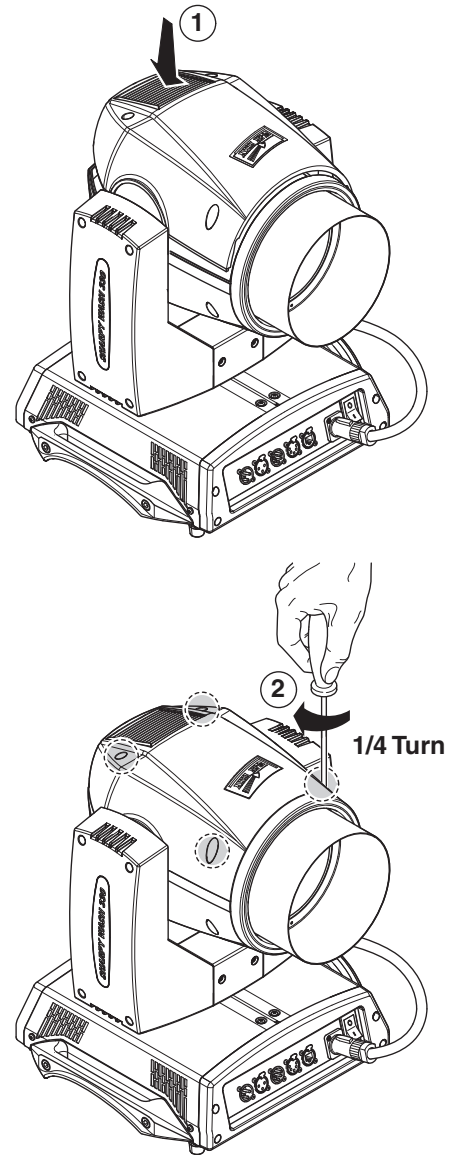
Locking and releasing Pan and Tilt movements - Refer to the instructions in the UNPACKING AND PREPARATION section.
Opening the head covers - Fig. 10.

Closing the head covers - Fig. 11.

12

2

1 **1/4 Turn**

13

Upper Side

2

1

14

2

1

15

2

1
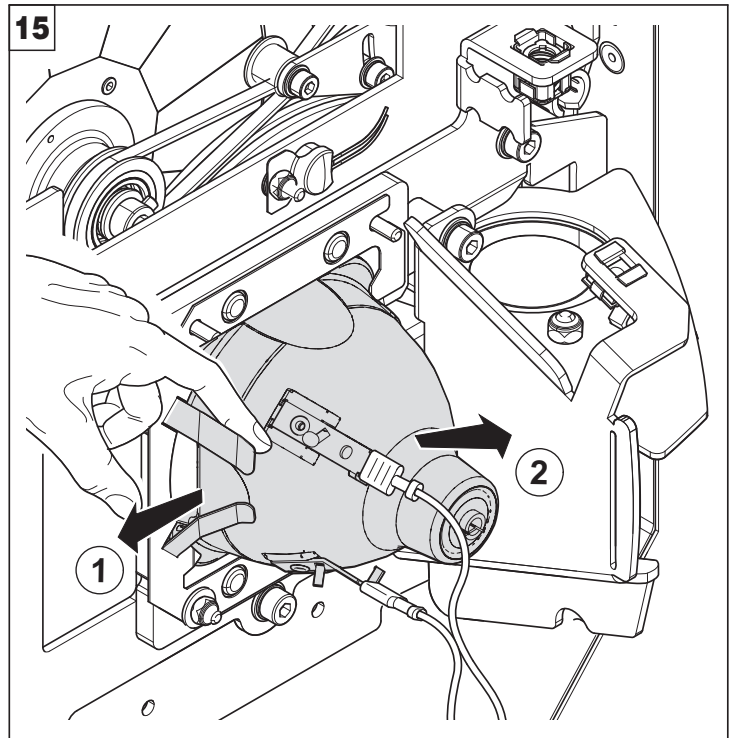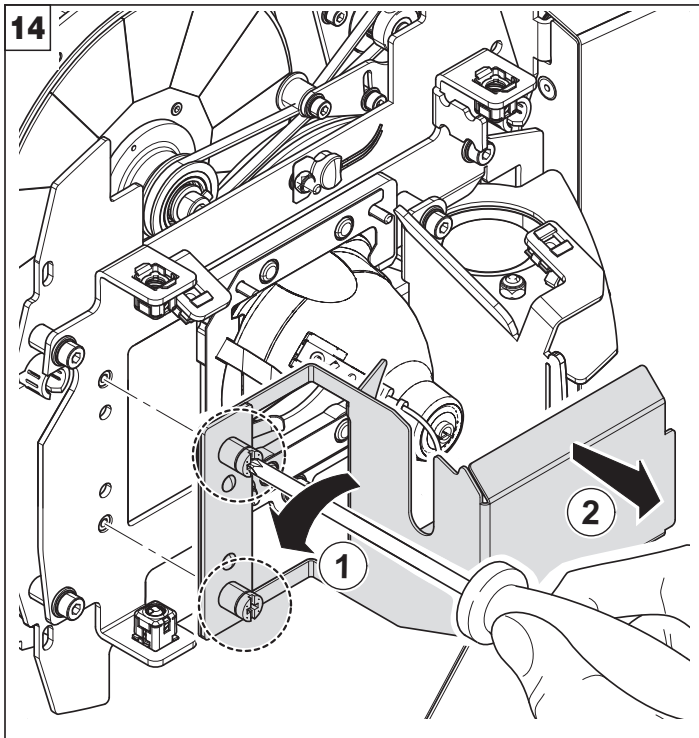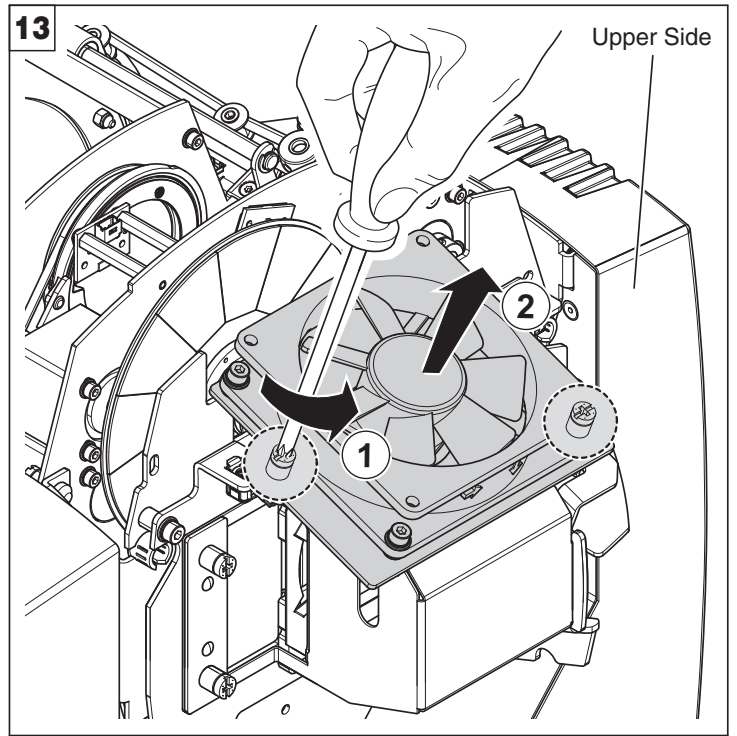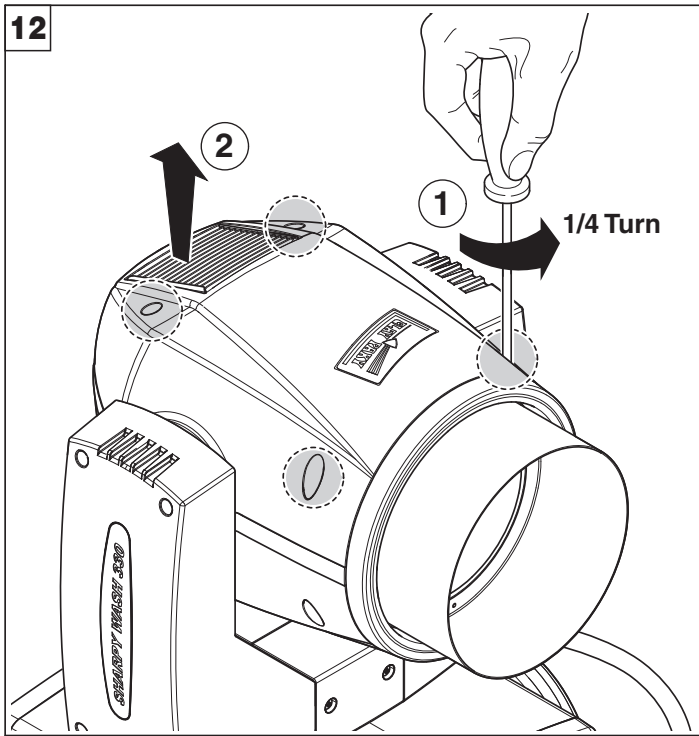
Lamp change - Fig 12, 13, 14, 15.

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.*

16

Lower Side
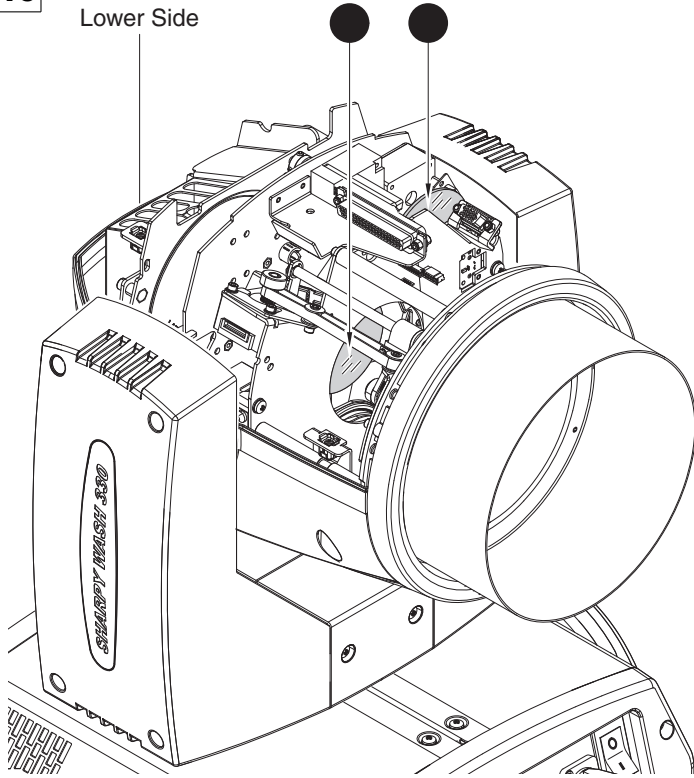
Lower Side
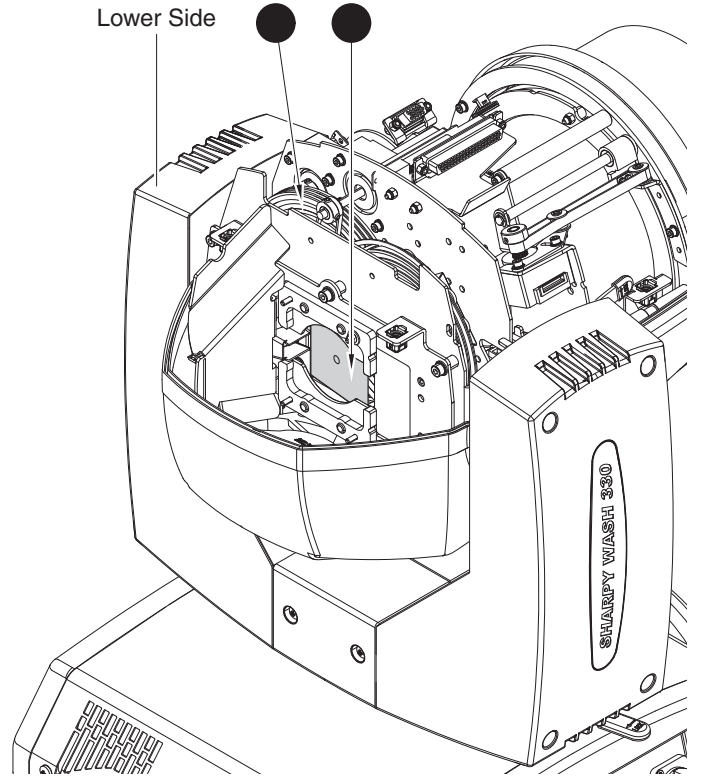
Upper Side
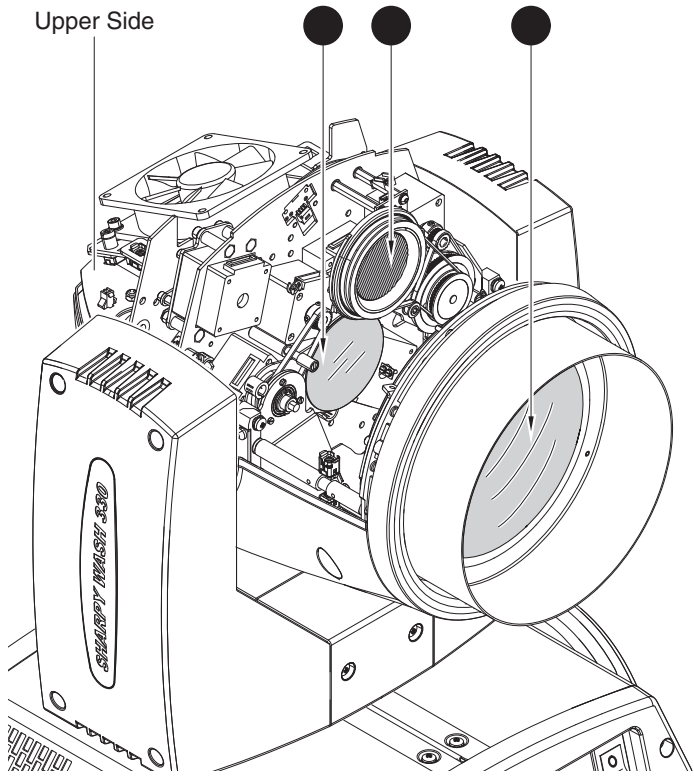
Upper Side
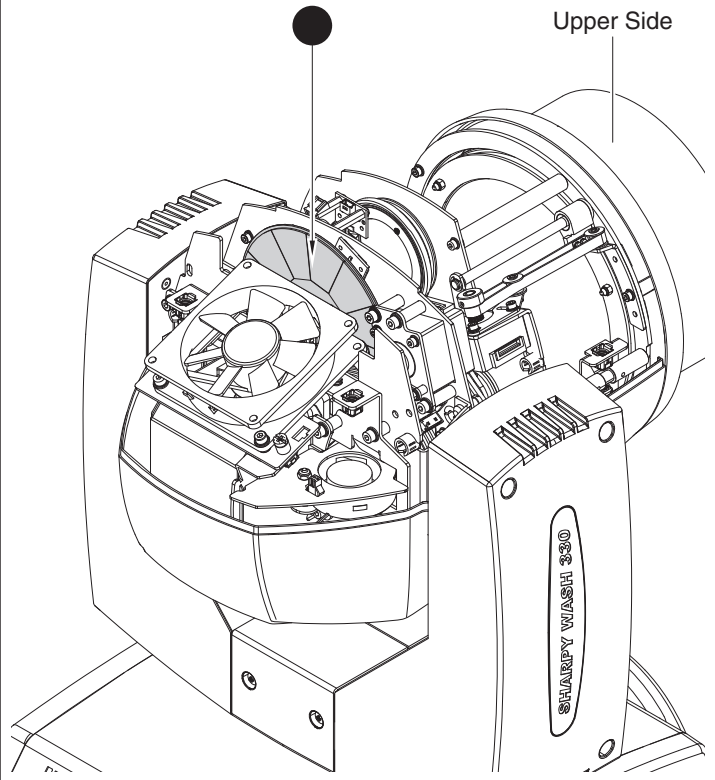
Periodical cleaning - Fig. 16

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.

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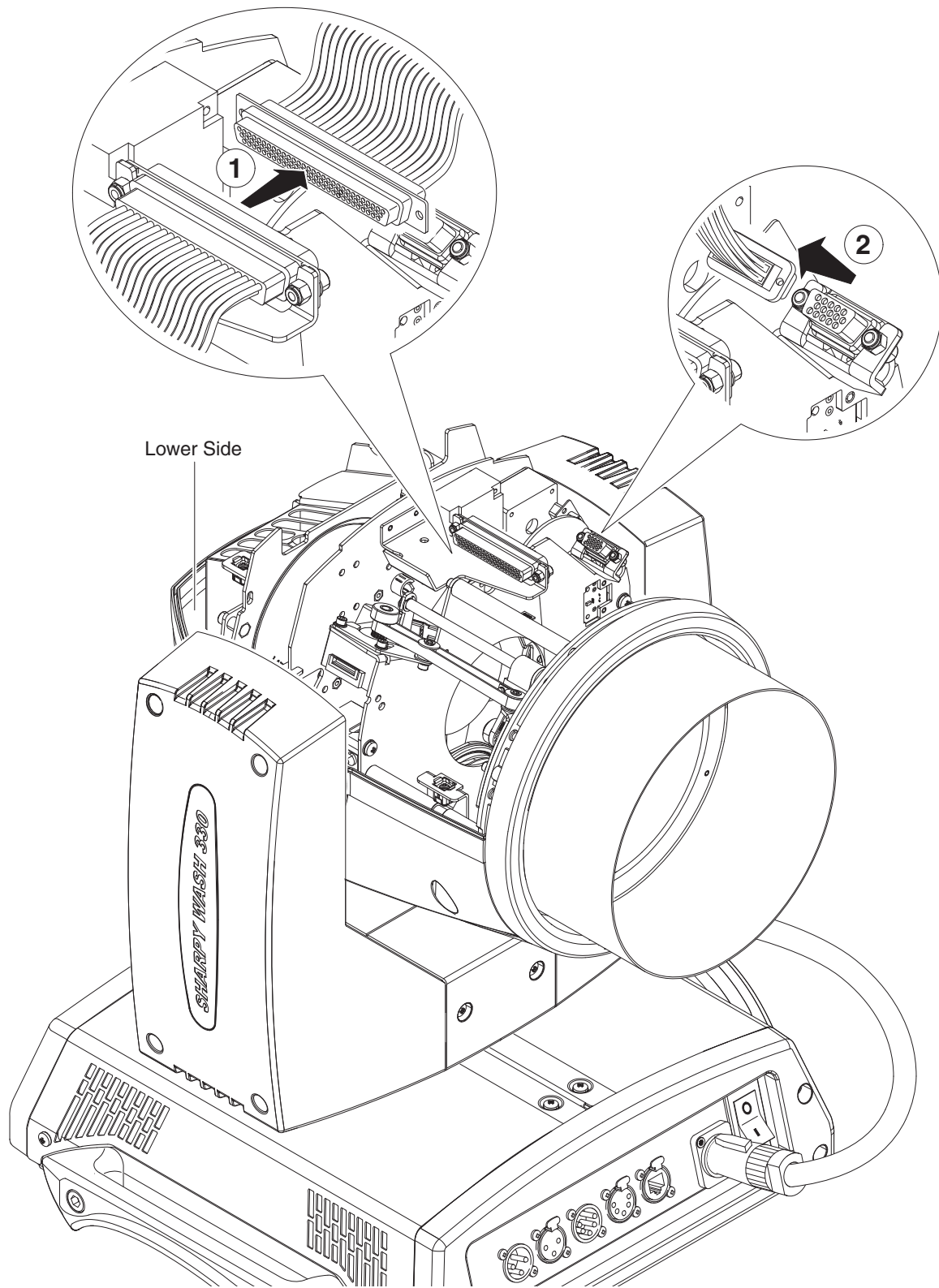
Extraction of the effect modules: Preliminary operations - Fig. 17

18 Upper Side

Upper Side

1

2

Upper Side

Upper Side

4

3
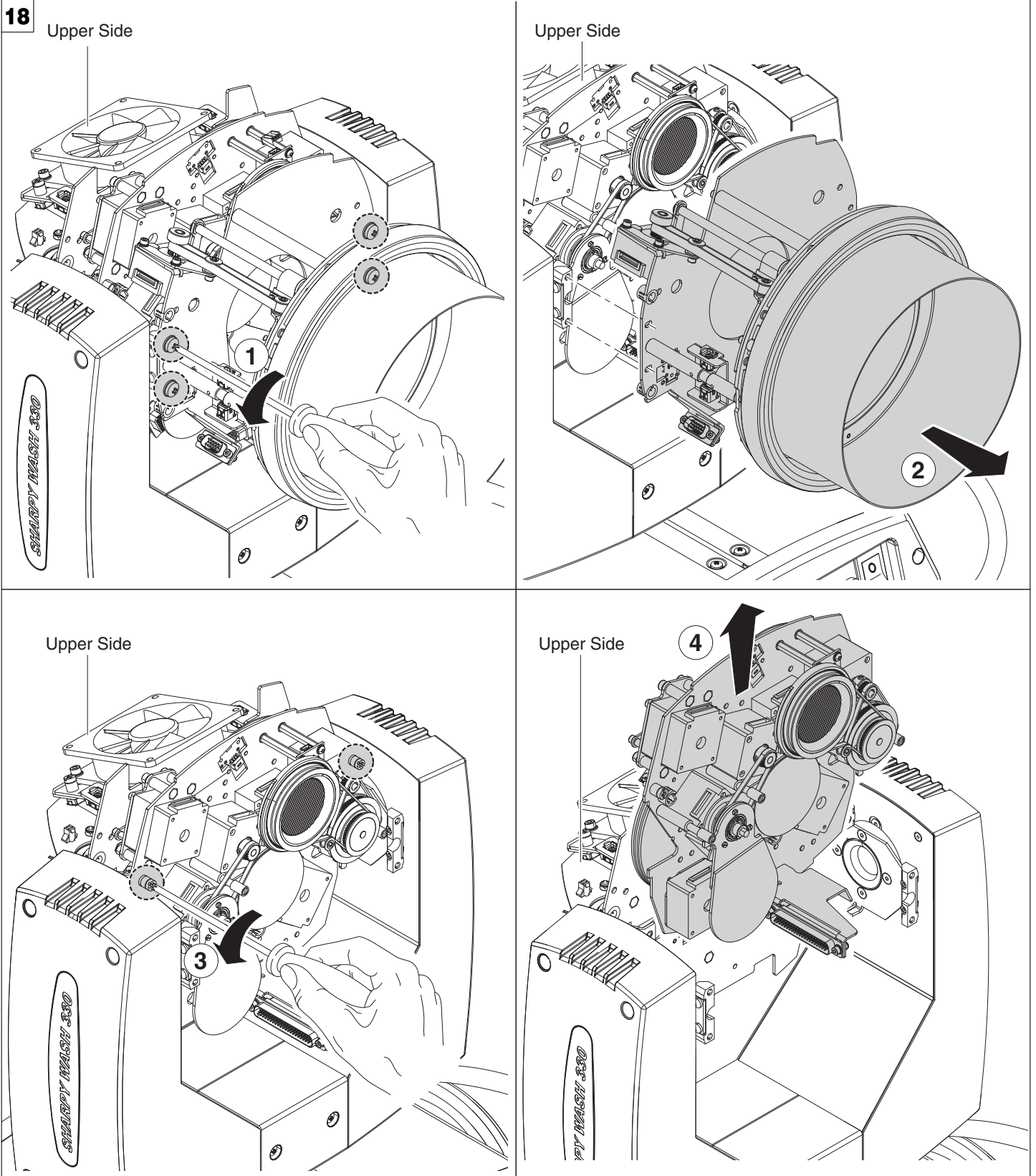
Extraction of the effect modules - Fig. 18

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.
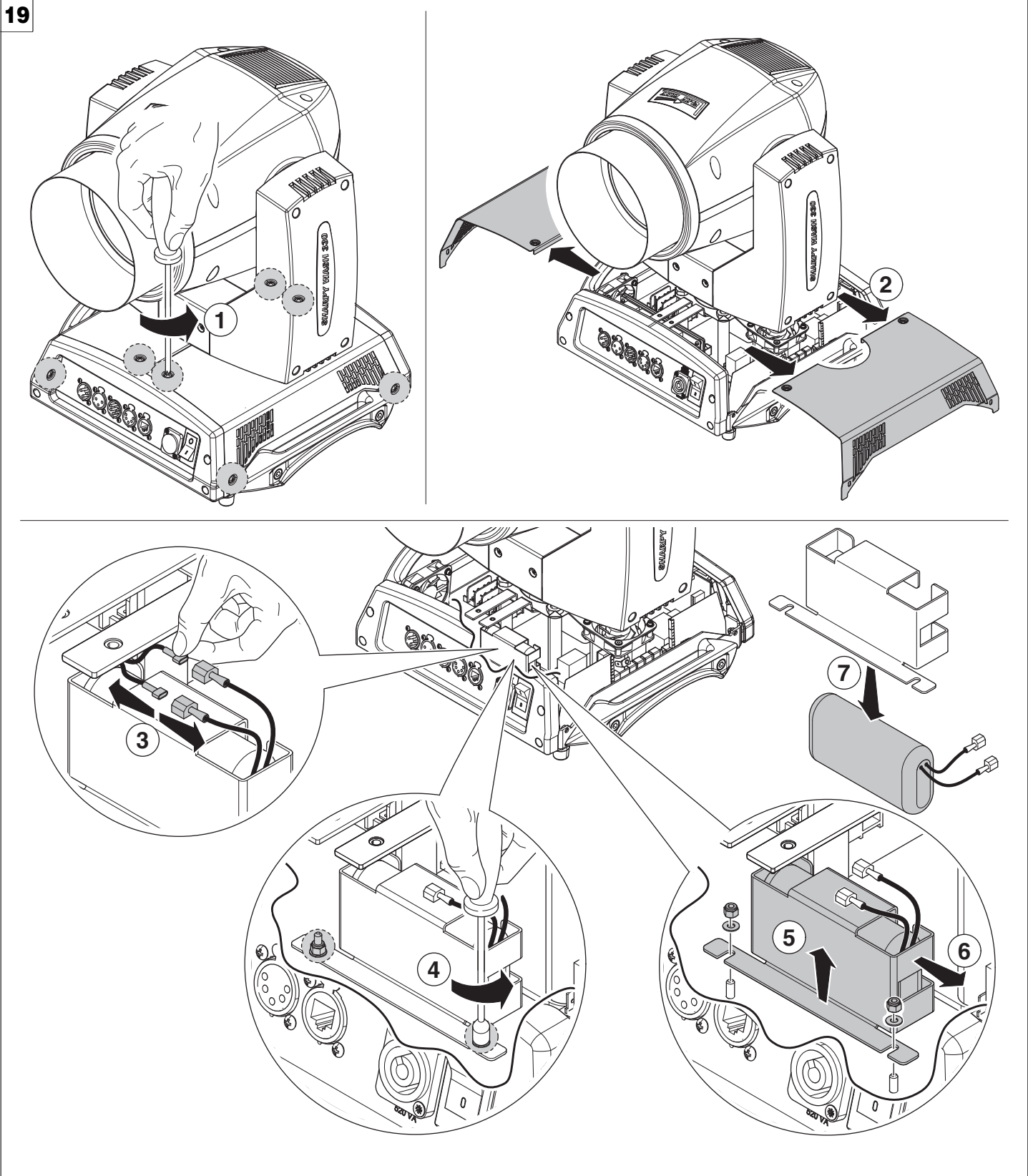
Battery removal - Fig. 19

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.

LiFePO4
Pb

TECHNICAL INFORMATION

490
(19.29")
Top Hat OUT

390
(15.35")
Top Hat IN

320
(12.60")

465
(18.30")

205
(8.07")

345
(13.58")

520
(20.47")

330
(12.99")

405
(15.94")

172
(6.77")

63
(2.48")
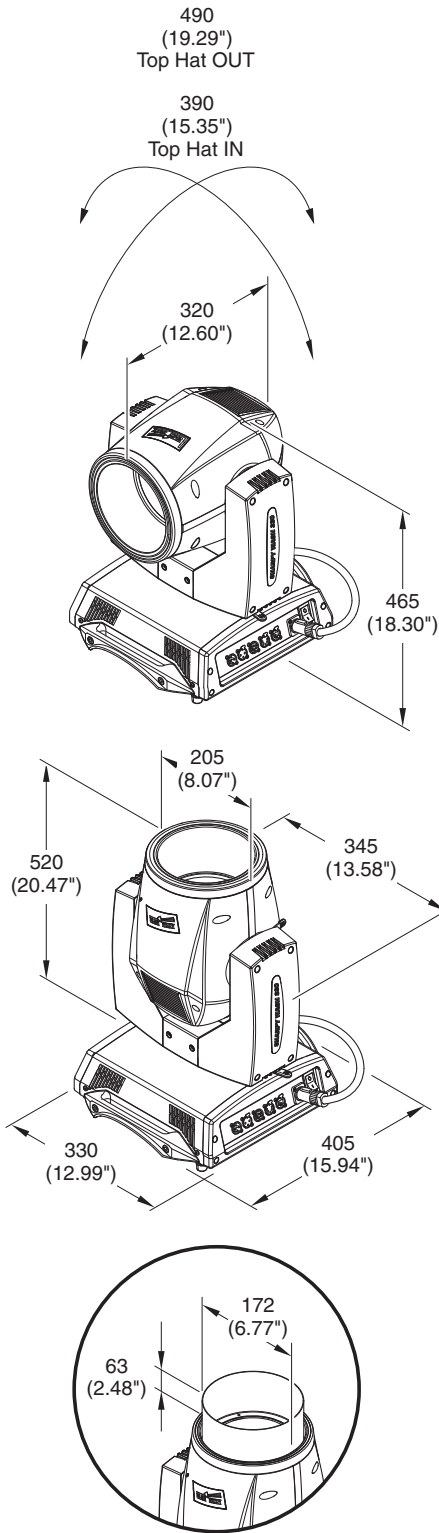
Power supplies available
115/230V 50/60Hz

Input power:
520VA a 230V 50Hz.

Total output
Max 17300 lumens

Lamp:
Lamp system with a short arc burner in a reflector
• Type Philips MSD Platinum 16R (LAM00E)
  - Output Lamp power: 330W
  - Colour temperature 8000° K
  - Average life 1500 h
  - Any working position
  - Luminous flux rated: 16000 lumens

Motors:
14 stepper motors, operating with microsteps, totally microprocessor controlled.

Channels:
Max 22 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 = 240°
• 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.

Weight:
about 19 Kg (41lbs 13ozs).

CAUSE AND SOLUTION OF PROBLEMS

				POSSIBLE CAUSES	CHECKS AND REMEDIES
THE PROJECTOR WILL NOT SWITCH ON					PROBLEMS
	ELECTRONICS NON-OPERATIONAL				
		DEFECTIVE PROJECTION			
			REDUCED LUMINOSITY		
●				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).

SHARPY WASH 330

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	DMX Modality	
	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	BEAM SHAPER INSERTION	BEAM SHAPER INSERTION
9	BEAM SHAPER ROTATION	BEAM SHAPER ROTATION
10	HEAVY FROST	HEAVY FROST
11	LIGHT FROST	LIGHT FROST
12	ZOOM	ZOOM
13	PAN	PAN
14	PAN FINE	PAN FINE
15	TILT	TILT
16	TILT FINE	TILT FINE
17	FUNCTION	FUNCTION
18	RESET	RESET
19	LAMP ON/OFF	LAMP ON/OFF
20		PAN - TILT TIME
21		COLOUR TIME
22		BEAM TIM

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%.

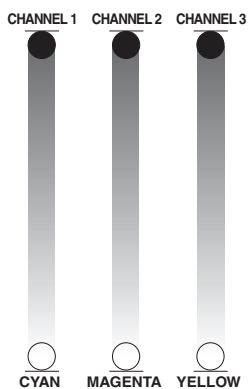### • COLOUR MIXING - channel 1 - 2 - 3

Operation with option color mixing: RGB

BIT	EFFECT
255	COLOUR EXCLUDED
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	COLOUR INSERTED
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	FAST ROTATION (RIGHT DIRECTION) 160 rpm
193	SLOW ROTATION (RIGHT DIRECTION) 0,2 rpm
191-192	STOP ROTATION
190	SLOW ROTATION (LEFT DIRECTION) 0,2 rpm
128	FAST ROTATION (LEFT DIRECTION) 160 rpm
123	BLUE + WHITE
118	BLUE
112	HALF MINUS GREEN + BLUE
107	HALF MINUS GREEN
102	TC 190 + HALF MINUS GREEN
96	TC 190
91	TC 260 + TC 190
86	TC 260
80	UV FILTER + TC260
75	UV FILTER
70	PINK + UV FILTER
64	PINK
59	LIGHT GREEN + PINK
54	LIGHT GREEN
48	GREEN + LIGHT GREEN
43	GREEN
38	AQUAMARINE + GREEN
32	AQUAMARINE
27	ORANGE + AQUAMARINE
22	ORANGE
16	RED + ORANGE
11	RED
6	WHITE + RED
0	WHITE

• STOP / STROBE - channel 5

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

• DIMMER - channel 6

BIT	EFFECT
255	DIMMER OPEN
0	DIMMER CLOSED

• DIMMER FINE - channel 7

BIT	EFFECT
255	
0	

• BEAM SHAPER INSERTION - channel 8

BIT	EFFECT
255	
	PRISM INSERTED
128	
127	
	PRISM EXCLUDED
0	

• BEAM SHAPER ROTATION - channel 9

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°

STOP

540°

360°

0°

• HEAVY FROST - channel 10

BIT	EFFECT
255	FROST INSERTED
0	FROST EXCLUDED

• LIGHT FROST - channel 11

BIT	EFFECT
255	FROST INSERTED
0	FROST EXCLUDED

• ZOOM - channel 12

BIT	EFFECT
255	WIDE BEAM
0	NARROW BEAM

• PAN - channel 13
Operation with option InvertPan ↕ Off
(Tilt conventionally represented at 14% and option Invert Tilt ↕ Off)

BIT
255
0
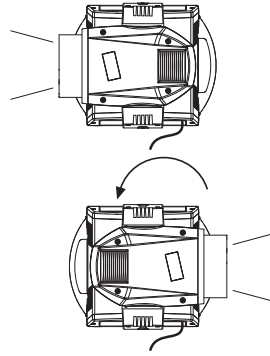
Operation with option InvertPan ↕ On
(Tilt conventionally represented at 14% and option Invert Tilt ↕ Off)

BIT
255
0

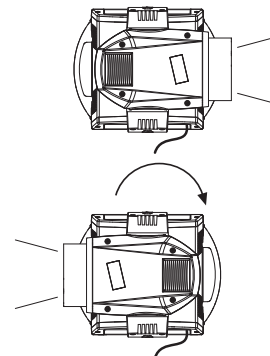**• PAN FINE - channel 14**
Operation with option InvertPan ↕ Off
(Tilt conventionally represented at 14% and option Invert Tilt ↕ Off)

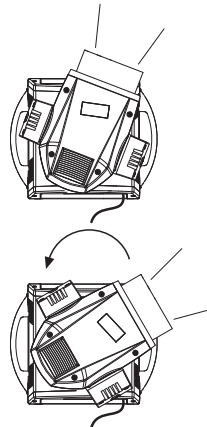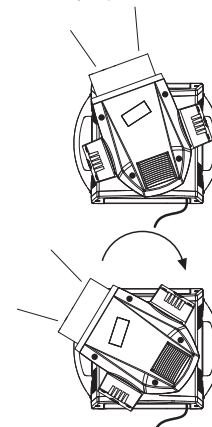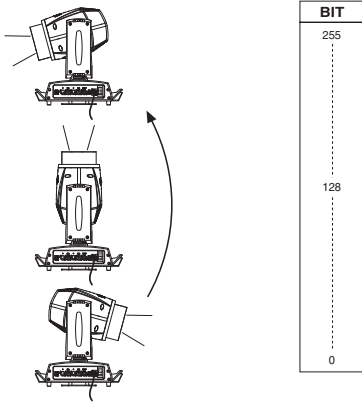| BIT |
|---|
| 255 |
| 0 |

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

BIT
255
0

• TILT - channel 15

Operation with option Invert Tilt ↕ Off
(Pan conventionally represented at 0% and option Invert Pan ↕ Off)

BIT
255
128
0

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

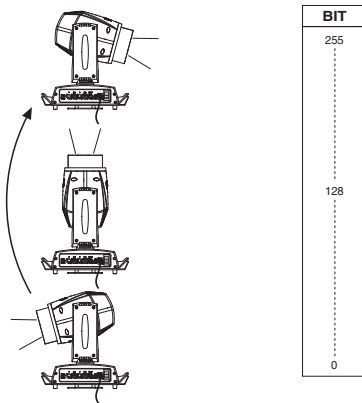| BIT |
|-----|
| 255 |
| 128 |
| 0 |

• TILT FINE - channel 16
Operation with option Invert Tilt ↕ Off
(Pan conventionally represented at 0% and option Invert Pan ↕ Off)

BIT
255
0

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

BIT
255
0
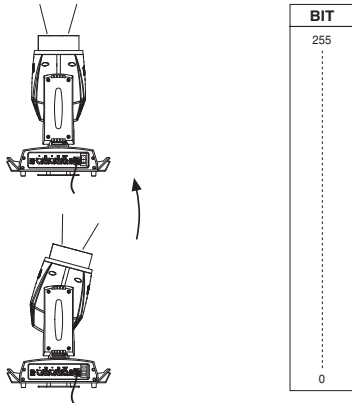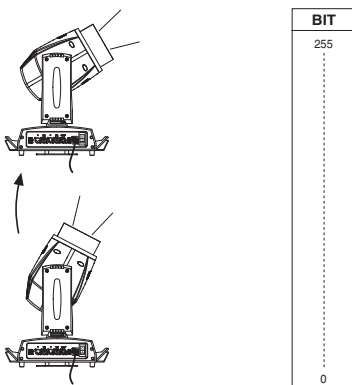
• FUNCTION - channel: 17

BIT	EFFECT	
255		
	UNUSED RANGE	
88		
76-87	CMY Limited range	CMY CURVE FUCTION
63-75	CMY Full range (Default)	
51-62	LINEAR (Default)	DIMMER CURVE FUNCTION
38-50	CONVENTIONAL	
25-37	NORMAL	PAN-TILT FUNCTION
12-24	FAST (Default)	
0-11	UNUSED RANGE	

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

• RESET - channel: 18

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

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

• LAMP CONTROL (only with option LAMP DMX On) - channel: 19

IMPORTANT: SHARPY is not provided with hot restrike ignition

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

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

	Timing Channel	Channel function
20	Pan - Tilt time	Pan - Tilt - (Pan fine - Tilt fine)
21	Colour time	Colour wheel - CTO
22	Beam time	Dimmer - Frost

TIME TABLE

BIT	Seconds
0	Full
1	0.2
2	0.4
3	0.6
4	0.8
5	1
6	1.2
7	1.4
8	1.6
9	1.8
10	2
11	2.2
12	2.4
13	2.6
14	2.8
15	3
16	3.2
17	3.4
18	3.6
19	3.8
20	4
21	4.2
22	4.4
23	4.6
24	4.8
25	5
26	5.2
27	5.4
28	5.6
29	5.8
30	6
31	6.2
32	6.4
33	6.6
34	6.8
35	7
36	7.2
37	7.4
38	7.6
39	7.8
40	8
41	8.2
42	8.4

BIT	Seconds
43	8.6
44	8.8
45	9
46	9.2
47	9.4
48	9.6
49	9.8
50	10
51	10.2
52	10.4
53	10.6
54	11
55	11
56	12
57	12
58	13
59	13
60	14
61	14
62	14
63	15
64	15
65	15
66	16
67	16
68	17
69	17
70	17
71	18
72	18
73	19
74	19
75	20
76	20
77	20
78	21
79	21
80	21
81	22
82	22
83	23
84	23
85	23

BIT	Seconds
86	24
87	24
88	25
89	25
90	25
91	26
92	26
93	27
94	27
95	27
96	28
97	28
98	28
99	29
100	29
101	30
102	30
103	30
104	31
105	31
106	32
107	32
108	32
109	33
110	33
111	34
112	34
113	34
114	35
115	35
116	36
117	36
118	36
119	37
120	37
121	38
122	38
123	38
124	39
125	39
126	39
127	40
128	40

BIT	Seconds
129	41
130	41
131	41
132	42
133	42
134	43
135	43
136	43
137	44
138	44
139	45
140	45
141	45
142	46
143	46
144	47
145	47
146	47
147	48
148	48
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