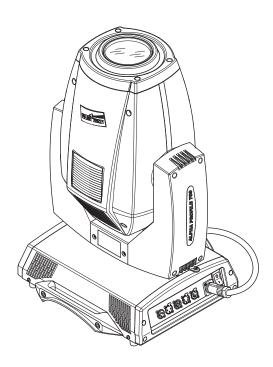
INSTRUCTION MANUAL



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22	Cause and solution of problems			
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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 projector needs to be positioned so that the objects hit by the beam of light are at least 3 metres (9'10") from the lens of the projector.

• Minimum distance from flammable materials

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

Mounting surfaces

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

· Maximum ambient temperature

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

IP20 protection rating

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

Protection against electrical shock

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

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

· Connection to mains supply

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

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

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

• Temperature of the external surface

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

• Maintenance

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

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

• Lamp

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

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

Battery

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

$C \in$

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

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





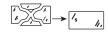
ta 40°C

IP20





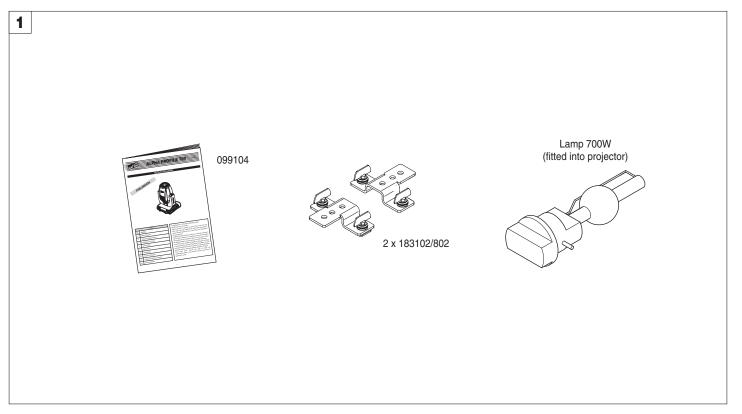




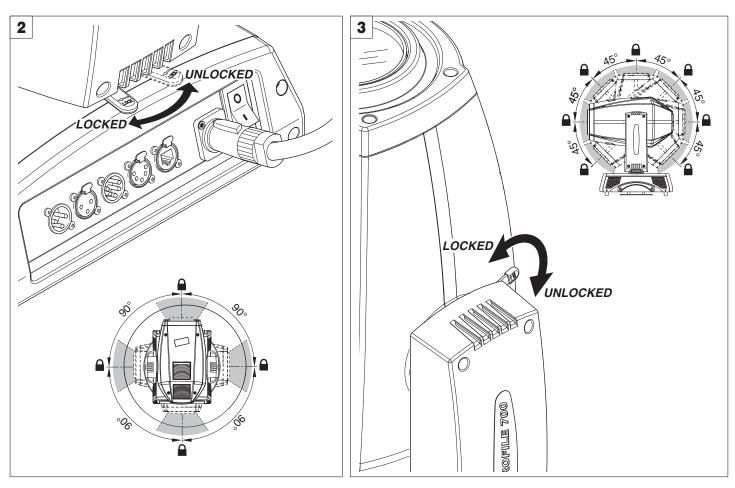




UNPACKING AND PREPARATION



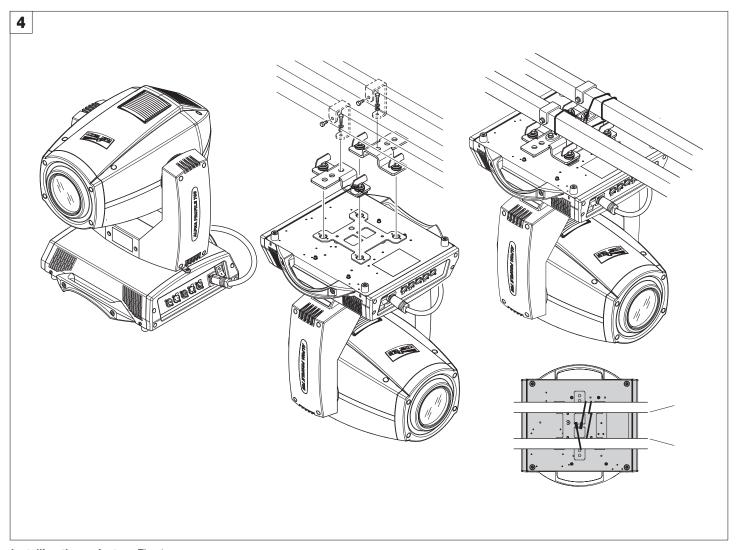
Packing contents - Fig. 1



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

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

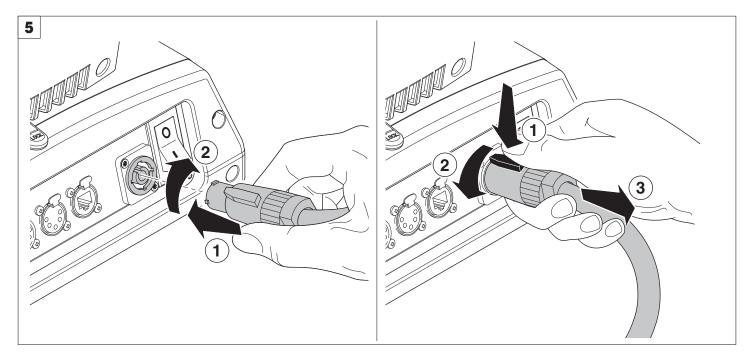
INSTALLATION AND START-UP



Installing the projector - Fig. 4

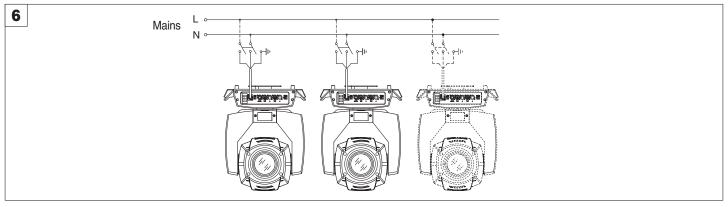
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.

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.

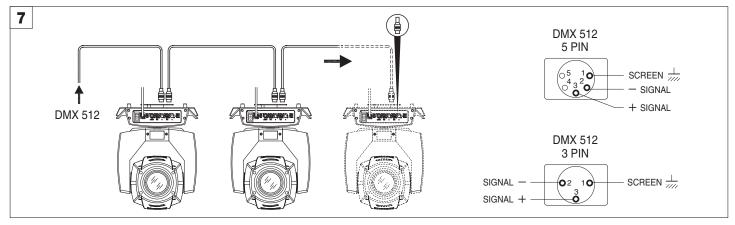


Connecting and disconnecting power cable - Fig. 5

CONTROL PANEL



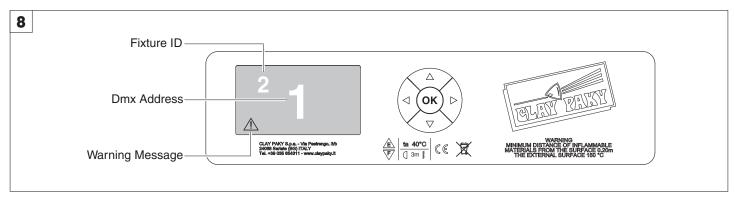
Connecting to the mains supply - Fig. 6



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

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 1200hm 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 1200hm (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:



Model Alpha PROFILE 700 Firmware Version X.X.X Date - Hour

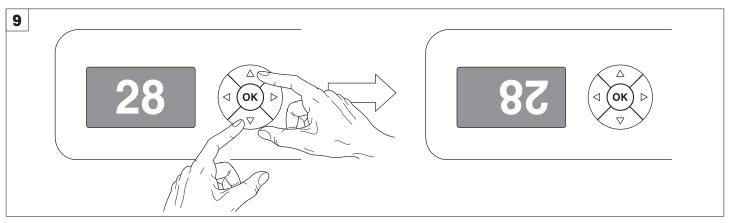
xxx (Fixture ID) Dmx Address xxx

System errors
E:
W:

On conclusion of resetting in case of absence of 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 🕲 key will be cancelled.

ALPHA PROFILE 700 5



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.

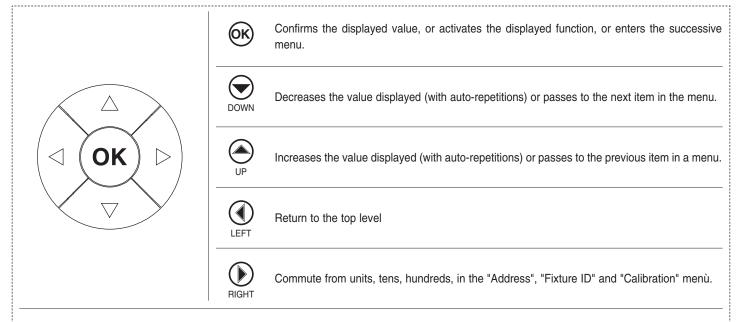
Setting the projector Fixture ID

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



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.

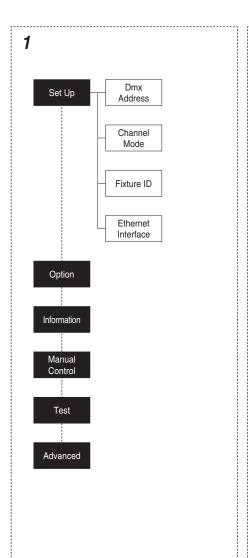
To enable the "Advanced" see pag.13

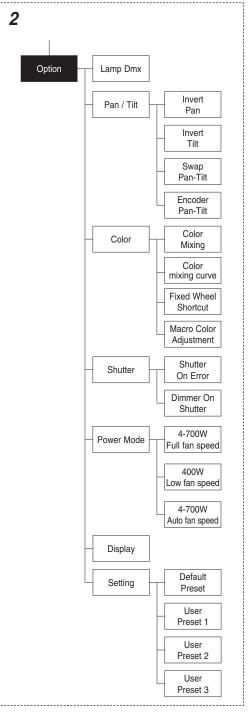
- 3) Press (x) to display the first item in the selected menu.
- 4) Use the UP
 and DOWN
 keys to select the MENU items.

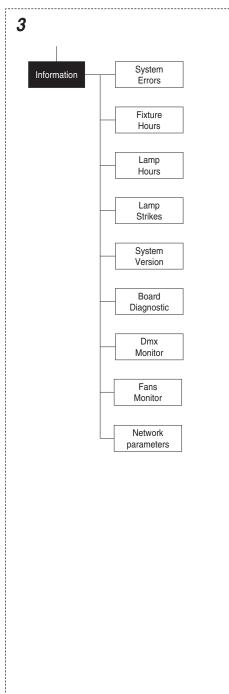
Setting addresses and options with the projector disconnected

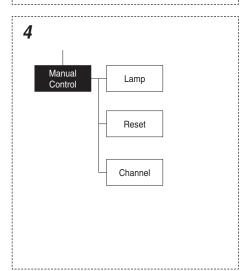
The projector's DMX address, as well as other possible operating options, can also be set when the appliance is disconnected from the electricity supply. All that is needed is to press to momentarily activate the display and thus access the settings. Once the required operations have been carried out,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

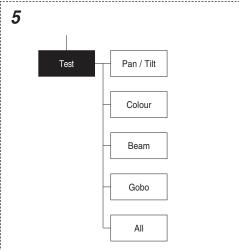
MENU SETTING

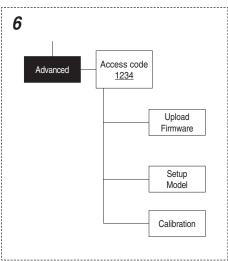




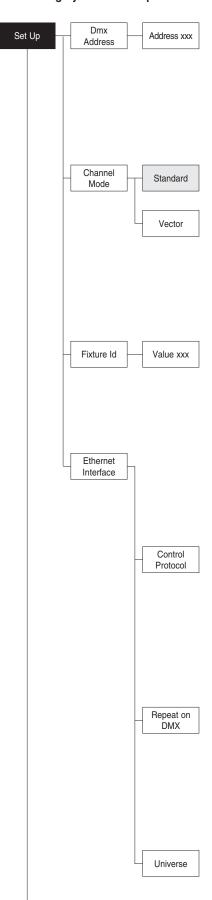








NOTE: On grey the default options



SET UP MENU

DMX ADDRESS

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

Allows you to select the DMX ADDRESS

- 1) Press 🕟 the current DMX Adress appear on the display.
- Use the UP , 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 (A), DOWN (B), RIGHT (D) keys to plan the Fixture ID.
- 3) Press (ix) to confirm the selection or LEFT (1) to keep current settings.

ETHERNET INTERFACE

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

- 1) Press 🕪.
- 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 (x) to confirm the selection or LEFT (1) 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 (x) the current setting appears on the display.
- 2) Use the UP (a) and DOWN (b) 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

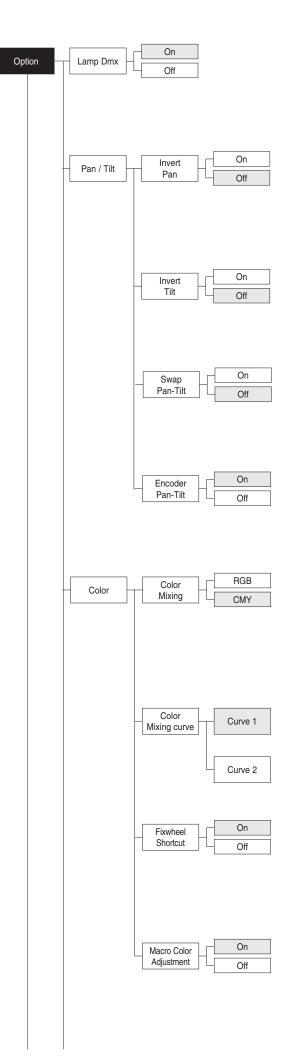
It lets you assign the "Universe" number to be assigned to a series of projectors.

- 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

LAMP DMX

Used for enabling lamp remote control channel.

- 1) Press (%) the current settings appear on the display (On or Off).
- 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).
- Use the UP and DOWN keys to enable (On) or disable (Off)
- 3) Press (x) to confirm the selection or LEFT (1) to keep current settings.

Invert tilt

Used for reversing tilt movement.

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

Color mixing curve

It lets you select the "Color mixing curve" from the two available.

- 1) Press (the current setting appears on the display.

Curve 2

3) Press (x) to confirm the selection or LEFT (1) to keep the current setting.

Fixed wheel short-cut

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

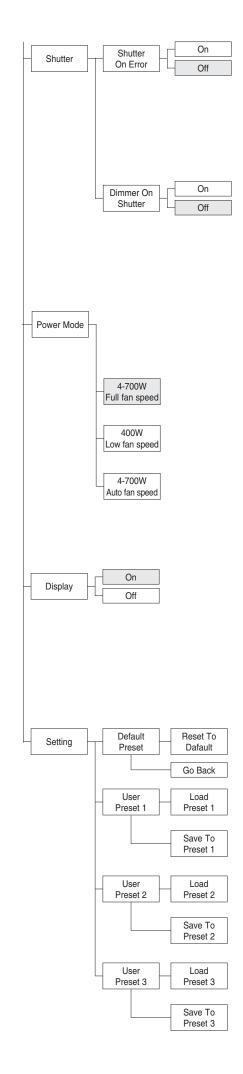
- 1) Press (N) the current settings appear on the display (On or Off).
- 2) Use the UP
 and DOWN
 keys to enable (On) or disable (Off) color change optimization.
- 3) Press (x) to confirm the selection, or LEFT (1) to keep current settings.

Macro color adjustment

It lets you enable the overwriting of a "Macro Colour" with the Cyan, Magenta, Yellow, CTO and Colour wheel channels.

Press (the current setting appears on the display.

- Use the UP
 and DOWN
 keys to enable (On) or disable (Off) the overwriting.
- 2) Press (to confirm the selection or LEFT (to keep the current setting.



SHUTTER

Shutter on error

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

- 1) Press (ix) 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 (x) to confirm the selection, or LEFT (1) to keep current settings.

Dimmer on Shutter

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

- 1) Press (R) 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

POWER MODE

Allows you to select a Power Mode from the three available.

- 1) Press (the current settings appear on the display.
- 2) Use the UP and DOWN keys to select one of the following settings:
 - 4-700W Full fan speed: Lamp can change from full-power (700W) to half-power (400W) using the LAMP CONTROL channel. Fans always work at Full speed.
 - 400W Low fan speed: Lamp constantly works in half-power mode (400W) while the Fan always works at Low speed. With LAMP CONTROL channel you can only switch the lamp ON and OFF.
 - **4-700W Auto fan speed**: Lamp can change from full-power (700W) to half-power (400W) using the LAMP CONTROL channel. Automatically the fans switch from Full speed to Low speed respectively.
- 3) Press (to confirm the selection or LEFT (to keep current setting.

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 (ix) to confirm the selection or LEFT (1) 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 (R) "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.
- Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.

(*) DEFAULT PRESET

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

 Press (R), a confirmation message (Are you sure?) appears on the display.

System Information Total XXX Fixture Partial XXX Hours Reset. Total XXX Lamp Partial XXX Hours Reset. Total XXX Lamp Partial Strikes

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 Colour mixing **CMY** Color mixing curve Curve 2 Fixed Wheel Shortcut On Maco color adjustment On Shutter on Error Off

Power Mode 4-700W Full fan speed

Display On

INFORMATION MENU

Off

SYSTEM ERRORS

Dimmer on Shutter

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

- 1) Pressing (No 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 🕟 - 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 (to reset partial projector working hours a confirmation message (Are you sure?) appears on the display.
- 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 % - 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 (x) to reset partial lamp working hours, a confirmation message (Are you sure?) appears on the display.
- 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 $\overline{\text{(total and partial)}}$.

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

Total counter

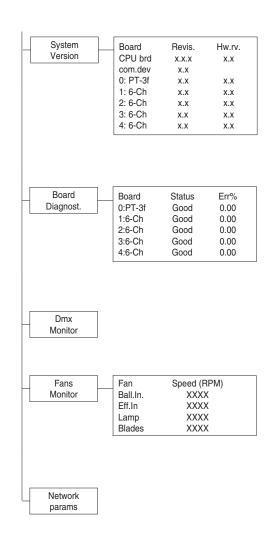
Counts the number of times the lamp was turned on (from manufacture to date).

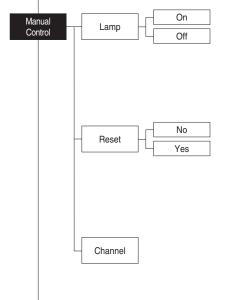
Partial counter

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

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

11 Continue →





SISTEM 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)

3: 6-Ch (6 channel board)

4: 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)

3: 6-Ch (6 channel board)

4: 6-Ch (6 channel board)

DMX MONITOR

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

FANS MONITOR

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

Ball. IN (Ballast IN Fan)

Eff.IN (Effects IN Fan)

Lamp (Lamp Fan)

Blades (Blades 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 (CK) 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 (x) to confirm the selection or LEFT (1) to keep current settings and return to the top level.

RESET

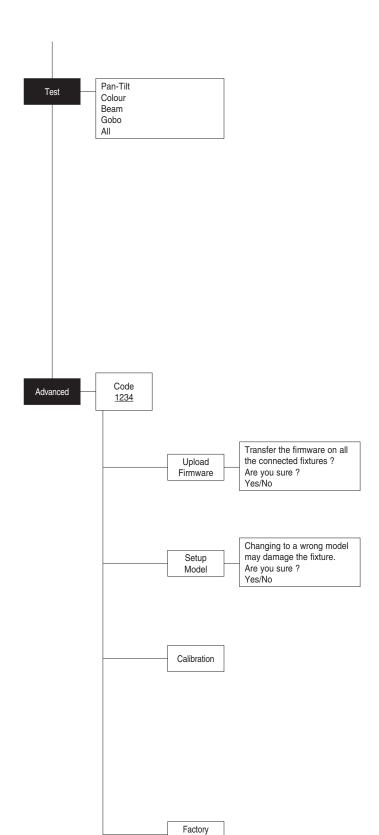
Used for resetting the projector.

- 1) Press on the display.
- 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 (1) to return to the top menu level.



Default

TEST MENU

AUTOTEST

Allows you to check the proper functioning of effects.

- 1) Press (%).
- 2) Use the UP
 and DOWN
 keys to select the required test.
- Press to confirm the selection or LEFT to return to the top menu level.

Test sequence:

- Pan-Tilt effects (Pan & Tilt)
- Colour effects (CMY / CTO / Color wheel)
- Beam effects (Stopper-Strobe / Dimmer / Iris / Prism / Frost / Focus / Zoom / Blades / Framing rotation)
- Gobo effects (Rotating gobo)
- All effects

ADVANCED MENU

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

Press 🔊 - "Menu advanced" appears on the display

UPLOAD FIRMWARE

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

- 1) Press (R), 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.

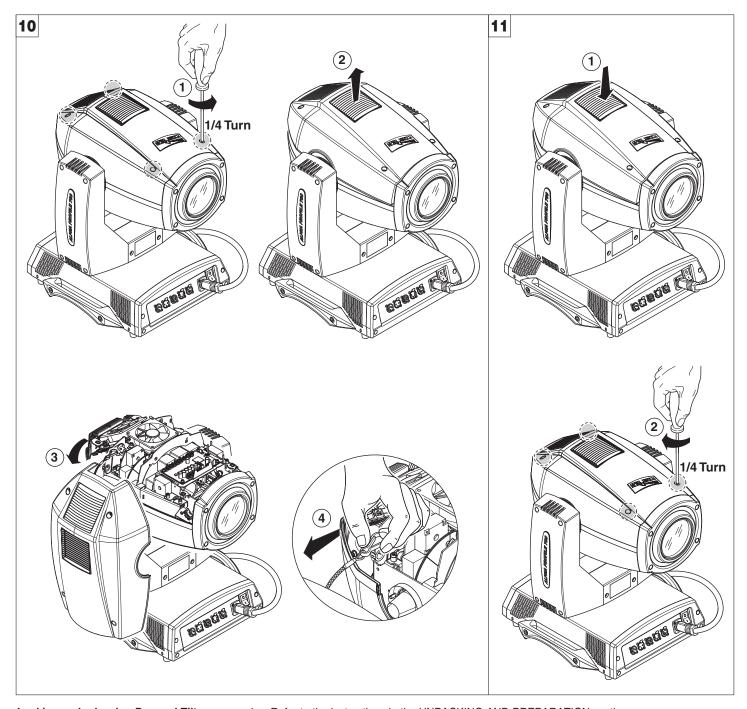
- 1) Press 🕟 "channels" appears on the display.
- 2) Using the UP
 and DOWN
 keys, select the effect you wish to regulate.
- 3) Press ♠ and use the RIGHT ♠, UP ♠ and DOWN ๗ buttons to make the adjustment by setting a value between 0 and 255.
- 4) Press (to confirm the selection or LEFT (to keep current settings and return to the top level.

FACTORY DEFAULT

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

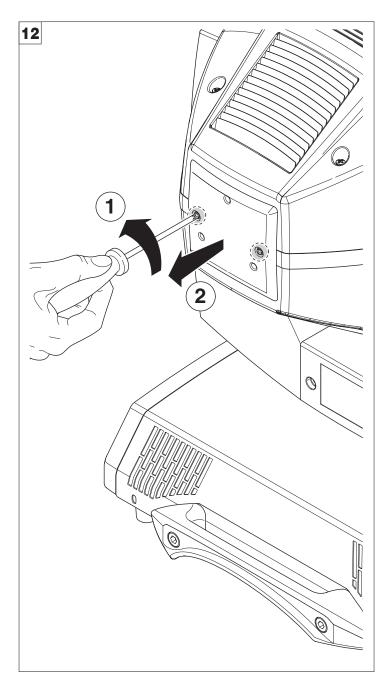
- 1) Press 🕟 a confirmation message appears on the display (Reset calibration to factory default ?).
- Select YES to reset calibration to factory default or NO to keep the current setting and return to the top menu level.

MAINTENANCE

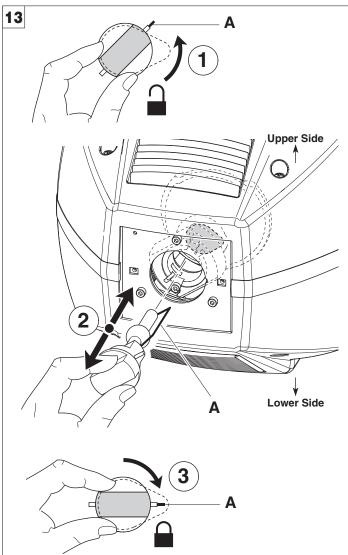


Locking and releasing Pan and Tilt movements - Refer to the instructions in the UNPACKING AND PREPARATION section. **Opening the head covers** - Fig. 10

Closing the head covers - Fig. 11



Opening and closing lamp compartment - Fig. 12

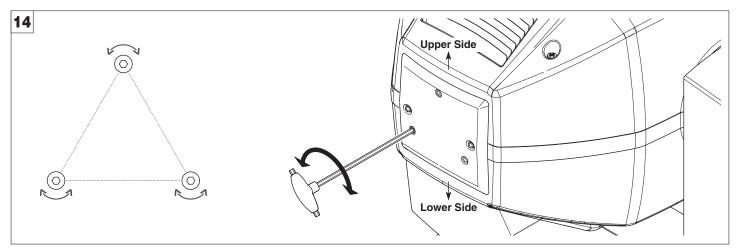


Lamp change - Fig 13

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.

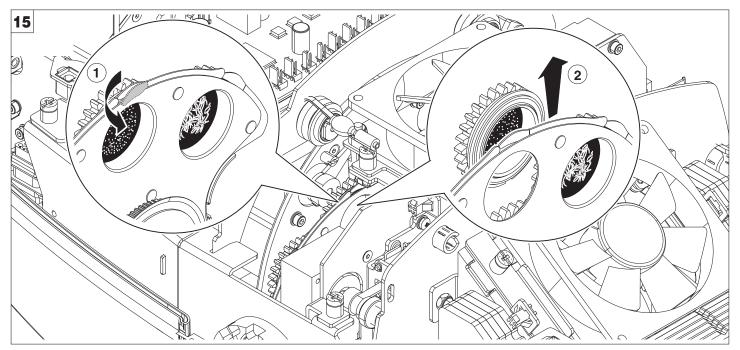
IMPORTANT: Make sure the lamp is inserted with the external contact (A) facing the elliptical reflector's slot.



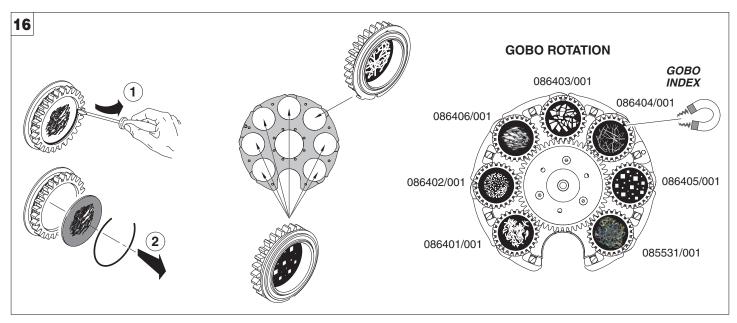
15

Lamp regulation - Fig. 14

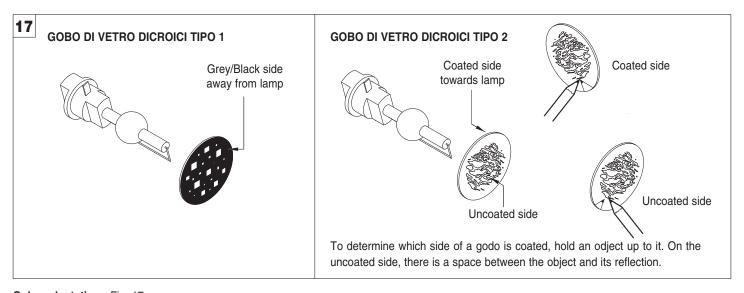
To centre the lamp, turn the three adjusting screws as shown in the figure.



Bearing group replacement - Fig. 15

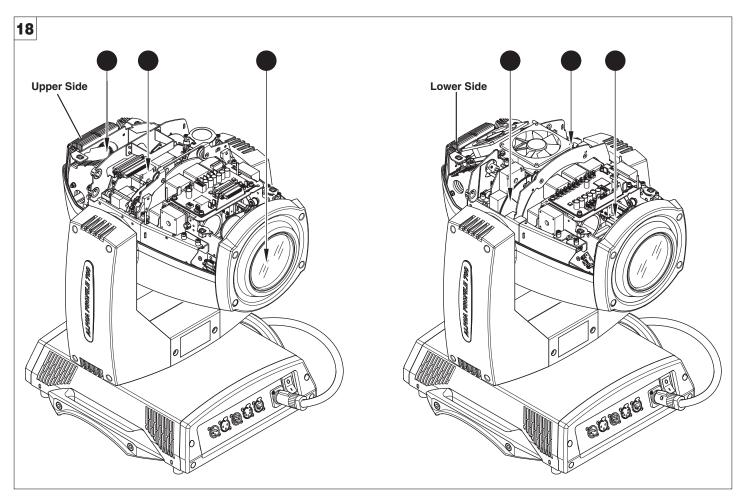


Replacing rotating gobos (ø 25.7 mm - max 19 mm image – thickness 1.1 mm) - Fig. 16 IMPORTANT: Please contact CLAY PAKY before using customized gobos.



Gobo orientation - Fig. 17

The pictures shown the correct gobos orientation.



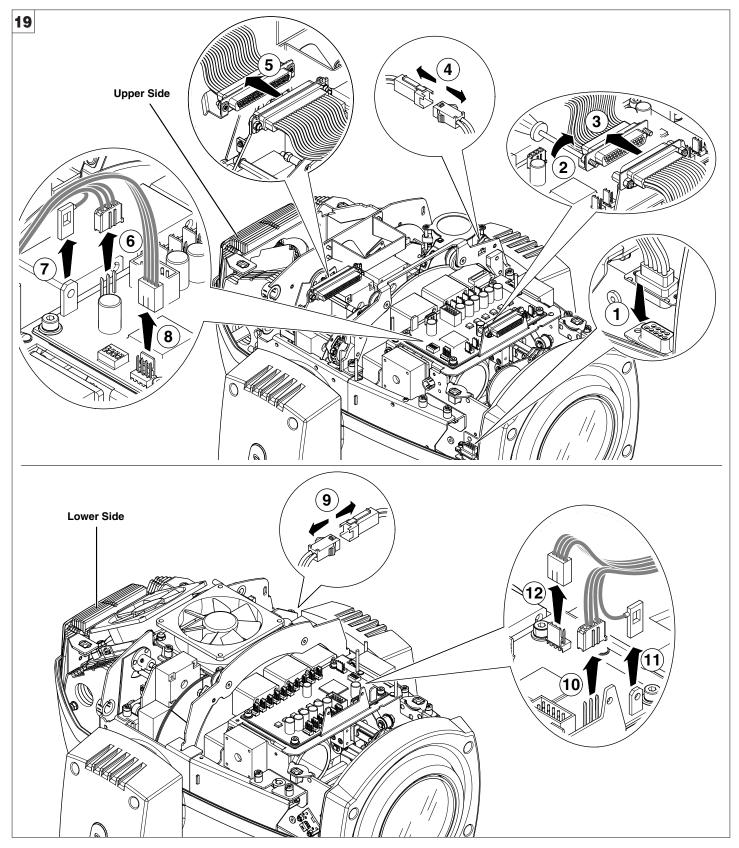
Periodical cleaning - Fig. 18

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

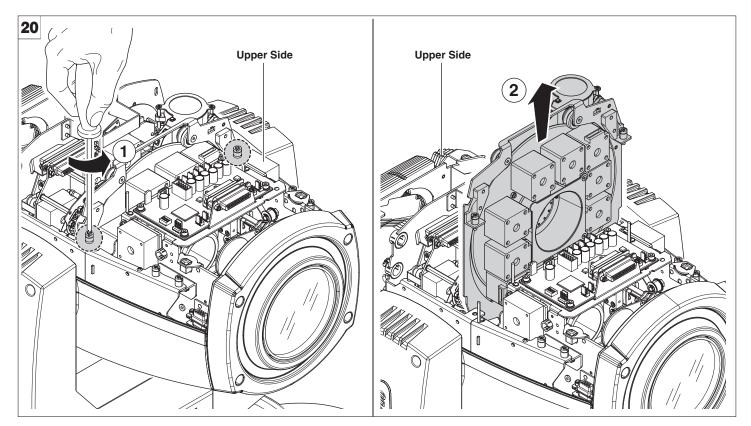
Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors, from the lenses and filters. It is recommended that the projector undergoes an annual service by a qualified technician for special maintenance involving at least the following operations:

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

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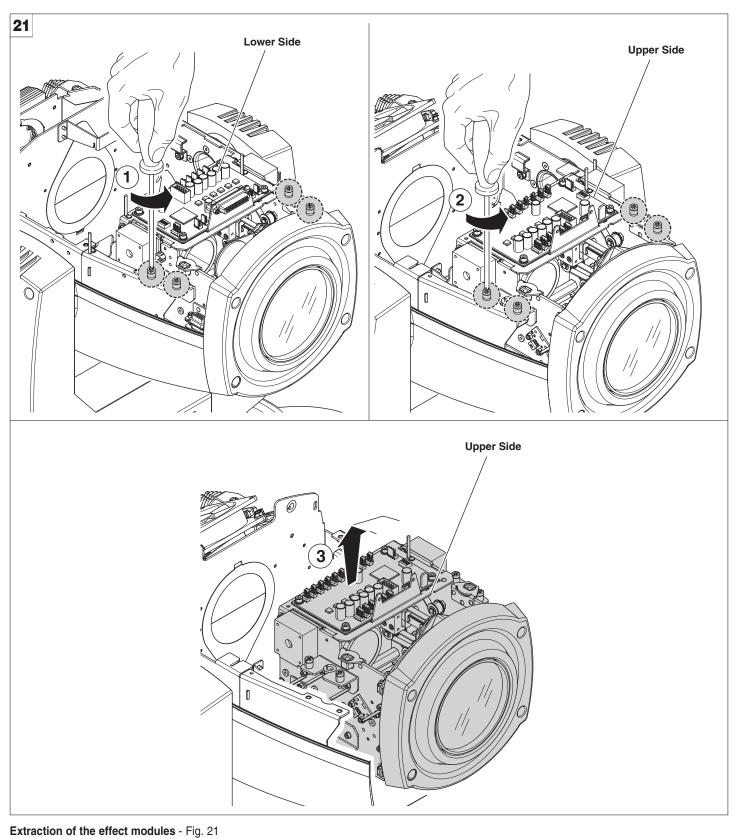


Extraction of the effect modules: Preliminary operations - Fig. 19

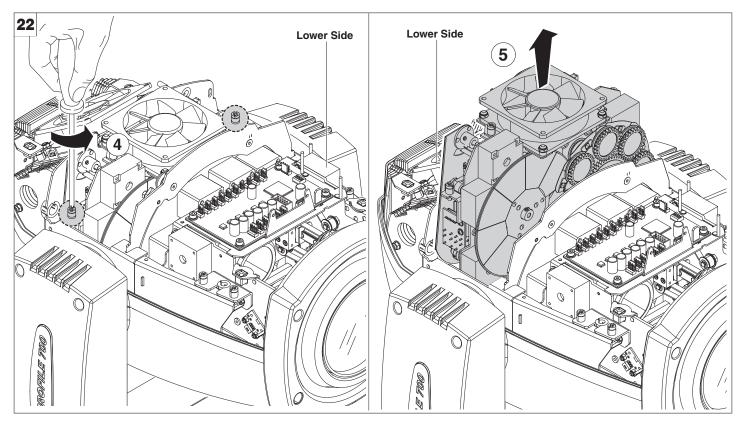


Extraction of the effect modules - Fig. 20 IMPORTANT: Grasp the modules using the support structure and not the details which could get damaged. Insertion of the effect modules: Repeat the operations indicated in Fig. 20, 21 and 22 in reverse order.

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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. 20, 21 and 22 in reverse order.

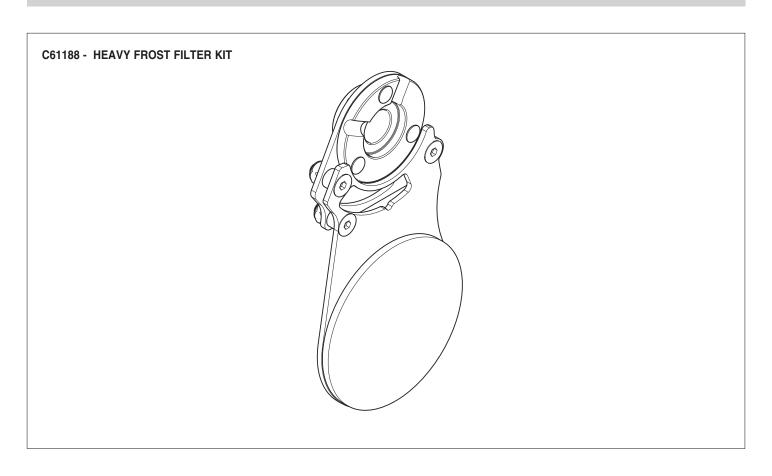


Extraction of the effect modules - Fig. 22

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. 20, 21 and 22 in reverse order.

OPTIONAL ACCESSORIES



TECHNICAL INFORMATION

Power supplies available:

100-120V 50/60Hz 200-240V 50/60Hz

Input power:

1050VA a 230V 50Hz.

Lamp:

Discharge lamp.

- Type MSR Gold 700/2 Mini Fast Fit (L10098)
- Cap PGJX28
- Colour temperature 7200 K
- Luminous flux 50000 lm
- Average life 750 h
- Any working position

Motors:

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

Optical unit:

Elliptic reflector with high luminous efficiency

Channels:

Max 41 control channels.

Inputs:

525

(20,67")

• 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°
- Maximum speeds:
- PAN = 4.78 sec
- TILT = 2.33 sec
- Resolution:
- PAN = 2.11°
- PAN FINE = 0.008°
- $-TILT = 0.98^{\circ}$
- TILT FINE = 0.004°

IP20 protection rating:

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

CE Marking:

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

Directive 2004/108/CE.

Safety Devices:

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

Coolina:

Forced ventilation with axial fans.

Body:

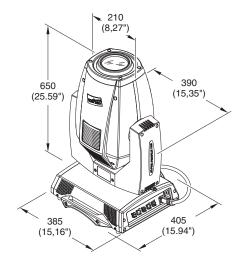
- Aluminium structure with die-cast plastic cover.
- Two side handles for transportation.
- Device locking PAN and TILT mechanisms for transportation and maintenance.

Working position

Functioning in any position.

Weights:

about 31,50 Kg.



530

(20,87"

455 (17,91")

CAUSE AND SOLUTION OF PROBLEMS

	THE	E PI	ROJ	ECTOR WILL NOT SWITCH ON			
		EL	ECT	RONICS NON-OPERATIONAL	DDOD! EMO		
			DE	FECTIVE PROJECTION		PROBLEMS	
				REDUCED LUMINOSITY			
				POSSIBLE CAUSES	CHECKS AND R	EMEDIES	
•				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.		
П		•	•	Dust or grease deposited.	Clean (see instructions).		

CHANNEL FUNCTION

ALPHA PROFILE 700

0114411151	CHANNEL MODE				
CHANNEL	STANDARD	VECTOR			
1	CYAN	CYAN			
2	MAGENTA	MAGENTA			
3	YELLOW	YELLOW			
4	С.Т.О	C.T.O			
5	COLOUR WHEEL	COLOUR WHEEL			
6	MACRO COLOURS	MACRO COLOURS			
7	STOP/STROBE	STOP/STROBE			
8	DIMMER	DIMMER			
9	DIMMER FINE	DIMMER FINE			
10	IRIS	IRIS			
11	ROTATING GOBO CHANGE	ROTATING GOBO CHANGE			
12	GOBO ROTATION	GOBO ROTATION			
13	GOBO FINE	GOBO FINE			
14	PRISM	PRISM			
15	FROST	FROST			
16	BLADE UP1	BLADE UP1			
17	BLADE UP2	BLADE UP2			
18	BLADE DW1	BLADE DW1			
19	BLADE DW2	BLADE DW2			
20	BLADE RG1	BLADE RG1			
21	BLADE RG2	BLADE RG2			
22	BLADE LF1	BLADE LF1			
23	BLADE LF2	BLADE LF2			
24	FRAMING ROTATION	FRAMING ROTATION			
25	FOCUS	FOCUS			
26	FOCUS FINE	FOCUS FINE			
27	ZOOM	ZOOM			
28	AUTOFOCUS DISTANCE	AUTOFOCUS DISTANCE			
29	AUTOFOCUS ADJUSTMENT	AUTOFOCUS ADJUSTMENT			
30	MACRO EFFECTS	MACRO EFFECTS			
31	PAN	PAN			
32	PAN FINE	PAN FINE			
33	TILT	TILT			
34	TILT FINE	TILT FINE			
35	FUNCTION	FUNCTION			
36	RESET	RESET			
37	LAMP CONTROL (with Option "Lamp DMX" ON)	LAMP CONTROL (with Option "Lamp DMX" ON)			
38		PAN-TILT TIME			
39		COLOUR TIME			
40		BEAM TIME			
41		GOBO TIME			

• COLOUR MIXING - channel 1 - 2 - 3

Operation with option color mixing: RGB



BIT	%	EFFECT
255	100	COLOUR EXCLUDED
0	0.0	COLOUR INSERTED

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

Operation with option color mixing: CMY



BIT	%	EFFECT
255	100	COLOUR INSERTED
0	0.0	COLOUR EXCLUDED

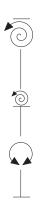
IMPORTANT: The lamp dim to half power 1 second after all the 3 channels stay at 100% level. The lamp goes back to full power when the channels level is put lower than 100%.

• C.T.O. - channel 4



BIT	%	EFFECT
255	100	FILTER INSERTED
0	0.0	FILTER EXCLUDED

• COLOUR WHEEL - channel 5



255	100	FAST ROTATION (160 rpm)		
128 127 120 120 105 97 90 82 75 67 60 52 45 37 30 22 15 8	50.0 49.7 47.0 44.0 44.2 38.0 35.0 32.0 29.5 26.2 23.7 20.5 14.2 11.7 6.0 3.2 0.0	SLOW ROTATION (0.2 rpm) BLUE - WHITE BLUE BLUE BLUE BLUE BLUE BLUE BLUE BLU		

EFFECT

BIT %

• MACRO COLOURS - channel 6

COLOR NAME	BIT	%	ROSCO CODE	CODE	CYAN BIT	MAGENTA BIT	YELLOW BIT	CTO BIT	WHEEL BIT
Unused Range	148-255	58,0-100	-	-	-	-	-	-	-
Half CT straw	146-147	57,0-57,5	442	442	0	0	34	190	0
Lighter blue Glacier blue	144-145 142-143	56,2-56,7 55,5-56,0	353 352	353 352	226 220	0	149 129	138 138	0
Fuschia pink	140-141	54,7-55,0	345	345	109	186	77	120	0
Mallard green	138-139	54,0-54,2	325	325	255	0	0	236	58
Jade	136-137	53,2-53,7	323	323	127	0	162	0	77
3/4 CT Orange	134-135	52,5-53,0	285	285	0	36	61	217	0
3/4 CTB	132-133	51,7-52,0	281	281	85	79	87	54	0
Half minus green	130-131	51,0-51,2	248	248	60	19	86	75	39
Minus green	128-129	50,0-50,5	247	247	60	71	86	75	39
1/4 CTO 1/2 CTO	126-127 124-125	49,5-49,7	206	206 205	62 25	71 26	123 45	122 131	0
Full CT Orange	122-123	48,7-49,0 48,0-48,2	203	203	0	44	58	234	0
1/4 CTB	120-121	47,0-47,5	203	203	75	54	91	109	0
1/2 CTB	118-119	46,2-46,7	202	202	85	71	84	89	0
Full CTB	116-117	45,5-46,0	201	201	94	79	80	0	0
Alice Blue	114-115	44,7-45,0	197	197	236	51	0	205	0
Congo Blue	112-113	44,0-44,2	181	181	251	241	0	255	0
Dark Lavender	110-111	43,2-43,7	180	180	195	170	0	160	0
Chrome Orange	108-109	42,5-43,0	179	179	0	98	255	255	0
Lagoon blue Deep Lavender	106-107 104-105	41,7-42,0	172 170	172 170	224 100	0 129	121 77	40 120	79 0
Liliac tint	102-103	41,0-41,2 40,0-40,5	169	169	41	59	39	120	0
Daylight Blue	100-101	39,0-39,5	165	165	210	73	105	88	0
Flame red	98-99	38,2-38,7	164	164	0	255	227	255	97
Bastard amber	96-97	37,5-38,0	162	162	0	26	0	199	0
Deep Orange	94-95	36,7-37,0	158	158	0	148	255	255	0
Pink	92-93	36,0-36,2	157	157	0	159	0	255	0
Pale rose	90-91	35,0-35,5	154	154	0	48	0	189	0
Pale Gold	88-89	34,2-34,7	152	152	0	60	98	138	0
Bright rose	86-87	33,7-34,0	148	148	0	255	0	255	0
Apricot Bright Blue	84-85 82-83	33,0-33,2 32,0-32,5	147	147 141	0 182	81 0	55 99	255 92	0 77
Primary green	80-81	31,2-31,7	139	139	0	0	0	231	58
Light green	78-79	30,5-31,0	121	121	0	0	255	0	77
Pale green	76-77	29,7-30,0	138	138	105	0	179	100	0
Special Lavender	74-75	29,0-29,5	137	137	97	105	72	90	0
Pale Lavender	72-73	28,2-28,7	136	136	73	102	44	120	0
Deep golden amber	70-71	27,5-28,0	135	135	0	255	255	255	0
Golden amber	68-69	26,7-27,0	134	134	0	142	234	110	0
Medium blue	66-67	26,0-26,2	132	132	255	152	127	0	77
Marine blue	64-65 62-63	25,0-25,5	131 128	131 128	60 0	0 255	106 0	73 197	77 0
Bright pink Mauve	60-61	24,2-24,7 23,7-24,0	126	126	0	255	0	255	74
Fern Green	58-59	23,0-23,2	122	122	173	0	235	89	0
Leaf green	56-57	22,0-22,5	121	121	136	0	241	64	0
Deep Blue	54-55	21,2-21,7	120	120	255	229	58	128	77
Dark blue	52-53	20,5-21,0	119	119	255	161	0	0	77
Light blue	50-51	19,5-20,0	118	118	245	0	145	138	0
Steel blue	48-49	18,7-19,0	117	117	167	0	141	165	0
Medium blue green	46-47	18,0-18,2	116	116	189	0	157	91	77
Peacock blue	44-45	17,0-17,5	115	115	136	0	128	91	77
Dark pink Light Salmon	42-43 40-41	16,2-16,7 15,5-16,0	111	111 109	0 50	139 121	0 58	220 230	0
English rose	38-39	14,7-15,0	109	109	0	62	0	247	0
Light rose	36-37	14,0-14,2	107	107	0	95	0	220	0
Primary red	34-35	13,2-13,7	106	182	0	0	0	0	20
Orange	32-33	12,5-13,0	105	105	0	182	255	76	0
Deep amber	30-31	11,7-12,0	104	104	0	26	199	223	0
Straw	28-29	11,0-11,2	103	103	58	17	104	176	0
Light amber	26-27	10,0-10,5	102	102	0	0	171	193	0
Yellow	24-25	9,5-9,7	101	101	0	0	255	149	0
Spring yellow Dark Yellow Green	22-23	8,7-9,0	100	100 90	80 255	0	227	157 204	0
Lime green	20-21 18-19	8,0-8,2 7,0-7,5	90	90 88	255 118	0	255 241	204 124	0
Just Blue	16-17	6,2-6,7	79	79	255	77	0	204	0
Tokyo Blue	14-15	5,5-6,0	71	71	255	255	0	180	77
Sky blue	12-13	4,7-5,0	068	068	245	77	64	173	0
Pale blue	10-11	4,0-4,2	063	063	122	0	112	127	0
Lavender	8-9	3,2-3,7	058	058	165	186	77	0	0
Bright Red	6-7	2,5-3,0	026	026	0	255	0	255	21
Med Yellow	4-5	1,7-2,0	010	010	48	0	239	115	0
Med bastard amber Random Macro Color	2-3	1,0-1,2	004	004	0	62	78	159	0
(only for Macro effects)	1	0,5	-	-	-	-	-	-	-
Unused Range	0	0,0	.	-	_		-	-	_
J-	-	.,,,	ш						

• STOP / STROBE - channel 7



BIT	%	EFFECT
252 - 255	98.7 - 100	OPEN
239 - 251	93.7 - 98.2	RANDOM FAST STROBE
226 - 238	88.7 - 93.2	RANDOM MEDIUM STROBE
213 - 225	83.7 - 88.2	RANDOM SLOW STROBE
208 - 212	81.7 - 83.2	OPEN
207	81.2	FAST PULSATION
108	42.5	SLOW PULSATION
104 - 107 103	41.0 - 42.0 40.5	OPEN FAST STROBE (12 flash/sec)
100	40.0	TAGE GENOBE (12 Hash/sec)
4	1.7	SLOW STROBE (1 flash/sec)
0 - 3	0.0 - 1.2	CLOSED

 $\label{lem:lemportant:} \textbf{IMPORTANT:} \ \text{The lamp dim to half power 1 second after the channel stay at 0\% level.}$ The lamp goes back to full power when the channel level is put higher than 0%.

• DIMMER - channel 8



BIT	%	EFFECT
255 255	100	EFFECT DIMMER OPEN
0	0.0	DIMMER CLOSED

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

• DIMMER FINE - channel 9



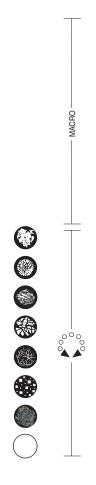
BIT	%	EFFECT
255	100	
0	0.0	

• IRIS - channel 10



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

• ROTATING GOBO CHANGE - channel 11



BIT	%	EFFECT
255	100	GOBO 7 SHAKE, FAST SPEED
238 237	93.2 93.0	GOBO 7 SHAKE, SLOW SPEED GOBO 6 SHAKE, FAST SPEED
220 219	86.2 86.0	GOBO 6 SHAKE, SLOW SPEED GOBO 5 SHAKE, FAST SPEED
202 201	79.0 78.7	GOBO 5 SHAKE, SLOW SPEED GOBO 4 SHAKE, FAST SPEED
184 183	72.0 71.7	GOBO 4 SHAKE, SLOW SPEED GOBO 3 SHAKE, FAST SPEED
166 165	65.0 64.7	GOBO 3 SHAKE, SLOW SPEED GOBO 2 SHAKE, FAST SPEED
148 147	58.0 57.5	GOBO 2 SHAKE, SLOW SPEED GOBO 1 SHAKE, FAST SPEED
130	51.0	GOBO 1 SHAKE, SLOW SPEED
114-129	44.7-50.5	GOBO 7
98-113	38.2-44.2	GOBO 6
82-97	32.0-38.0	GOBO 5
65-81	25.5-31.7	GOBO 4
49-64	19.0-25.0	GOBO 3
33-48	13.0-18.7	GOBO 2
17-32	6-7-12.5	GOBO 1
0-16	0.0-6.2	WHITE

• GOBO ROTATION - channel 12



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

• GOBO FINE - channel 13









BIT	%
255	100
127	50.0
0	0.0

BIT	%	EFFECT
255	100	PRISM INSERTED
128 127	50.0 49.7	
		PRISM EXCLUDED
0	0.0	

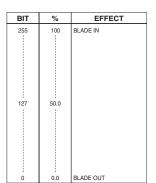
• FROST - channel 15



BIT	%	EFFECT
255	100	FROST INSERTED
		50007 5000 11050
0	0.0	FROST EXCLUDED

• BLADE UP 1 - channel: 16

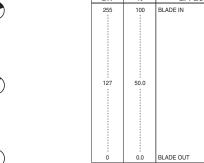




EFFECT

BLADE UP 2 - channel: 17





BIT

• BLADE DW 1 - channel: 18







BIT	%	EFFECT
255	100	BLADE IN
127	50.0	
0	0.0	BLADE OUT

• BLADE DW 2 - channel: 19





BIT	%	EFFECT
255	100	BLADE IN
127	50.0	BLADE OUT

• BLADE RG 1 - channel: 20







BIT	%	EFFECT
255	100	BLADE IN
127	50.0	
0	0.0	BLADE OUT

• BLADE RG 2 - channel: 21







BIT	0/	EFFECT
ВП	%	EFFECI
255	100	BLADE IN
	1	
	1	
	:	
127	50.0	
0	0.0	BLADE OUT
-	0.0	DEADE OUT

• BLADE LF 1 - channel: 22



BIT	%	EFFECT
255	100	BLADE IN
127	50.0	
0	0.0	BLADE OUT

• BLADE LF 2 - channel: 23







BIT	%	EFFECT
255	100	BLADE IN
1		
127	50.0	
;		
		DI ADE QUE
0	0.0	BLADE OUT

Important:
The lamp automatically dim to half power in any condition in which the blades completely shut the light beam.

• FRAMING ROTATION - channel: 24















• FOCUS - channel 25



	BIT	%	EFFECT
	255	100	NEAR
- '	1	1	112.111
	1		
	1		
	i	i i	
	1		
	1		
	i	1	
	1	;	
	1	1 :	
	1	1	
	1	;	
	1		
	1		
	i	i i	
	1	;	
	1	1 :	
	1	1	
	1		
	1	1 :	
	1		
	i	i i	
	1		
	0	0.0	DISTANT

• FOCUS FINE - channel 26



BIT	%	EFFECT
255	100	NEAR
0	0.0	DISTANT

• ZOOM - channel: 27







BIT	%	EFFECT
255	100	NARROW BEAM
- 1	1	
	j	
	1	
i	i	
	1	
- 1	1	
	i	
- 1	1	
1	1	
i	;	
0	0.0	WIDE BEAM

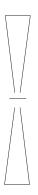
• AUTOFOCUS DISTANCE - channel 28

AUTOFOCUS priority:

- 1 Blades 2 Rotating Gobo
- 3 Iris

BIT	%	EFFECT
255	100	100 METRES
26	10.0	10 METRES
23	9.0	9 METRES
20	8.0	8 METRES
18	7.0	7 METRES
15	6.0	6 METRES
13	5.0	5 METRES
10	4.0	4 METRES
7	3.0	3 METRES
0-6	0.0-2.5	AUTOFOCUS OFF

• AUTOFOCUS ADJUSTMENT - channel 29



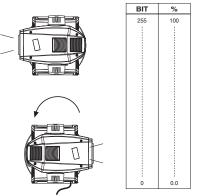
BIT	%	EFFECT
255	100	FOCUS FINE
128	50.0	
0	0.0	FOCUS FINE

• MACRO EFFECTS - channel 30

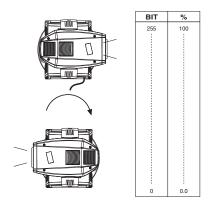
BIT	%	EFFECT
232-255	91,0-100	STAND BY BLACK
220-231	86,2-90,5	RANDOM MACRO 8
208-219	81,7-86,0	RANDOM MACRO 7
196-207	76,7-81,2	RANDOM MACRO 6
184-195	72,0-76,2	RANDOM MACRO 5
172-183	67,5-71,7	RANDOM MACRO 4
160-171	63,0-67,0	RANDOM MACRO 3
148-159	58,0-62,5	RANDOM MACRO 2
136-147	53,2-57,5	RANDOM MACRO 1
112-135	44,0-53,0	STAND BY BLACK
100-111	39,0-43,7	MACRO 8
88-99	34,2-38,7	MACRO 7
76-87	29,7-34,0	MACRO 6
64-75	25,0-29,5	MACRO 5
52-63	20,5-24,7	MACRO 4
40-51	15,5-20,0	MACRO 3
28-39	11,0-15,0	MACRO 2
16-27	6,2-10,5	MACRO 1
12-15	4,7-6,0	STAND BY BLACK
8-11	3,2-4,2	STAND BY
0-7	0,0-3,0	MACRO OFF
I	I	

• PAN - channel 31

Operation with option InvertPan $\,\,\hat{\circ}\,$ Off (Tilt conventionally represented at 14% and option Invert Tilt $\,\,\hat{\circ}\,$ Off)

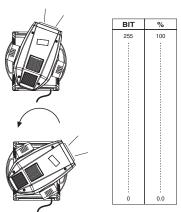


Operation with option InvertPan $\,\hat{\circ}\,$ On (Tilt conventionally represented at 14% and option Invert Tilt $\,\hat{\circ}\,$ Off)

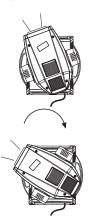


• PAN FINE - channel 32

Operation with option InvertPan $\,\,\hat{\circ}\,$ Off (Tilt conventionally represented at 14% and option Invert Tilt $\,\,\hat{\circ}\,$ Off)



Operation with option InvertPan $\,\hat{\circ}\,$ On (Tilt conventionally represented at 14% and option Invert Tilt $\,\,\hat{\circ}\,$ Off)





• TILT - channel 33

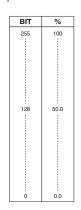
Operation with option Invert Tilt $\,\hat{\circ}\,$ Off (Pan conventionally represented at 0% and option Invert Pan $\,\hat{\circ}\,$ Off)





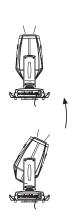
Operation with option Invert Tilt $\, \hat{\circ} \,$ On (Pan conventionally represented at 0% and option Invert Pan $\, \hat{\circ} \,$ Off)





• TILT FINE - channel 34

Operation with option Invert Tilt $\,\,\hat{\circ}\,$ Off (Pan conventionally represented at 0% and option Invert Pan $\,\,\hat{\circ}\,$ Off)





Operation with option Invert Tilt $\, \hat{\circ} \,$ On (Pan conventionally represented at 0% and option Invert Pan $\, \hat{\circ} \,$ Off)



%
100
:
1
l :
1
1
l :
1
l :
1 :
1 :
1
1 1
1
0.0

• FUNCTION - channel: 35

BIT	%	EFFECT
255	100	UNUSED RANGE
63	24.7	
51-62	20.0-24.2	LINEAR (Default) —
38-50	14.7-19.5	CONVENTIONAL —————FUNCTION
0-37	0.0-14.2	UNUSED RANGE

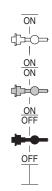
The functions are actived passing through unused range and staying 5 seconds in necessary level.

• RESET - channel: 36

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

• LAMP CONTROL (only with option LAMP DMX On) - channel: 37

IMPORTANT: Alpha Profile 700 is not provided with hot restrike igniter



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

TIMING CHANNELS

	Timing Channel	Channel function	
38	Pan - Tilt time	Pan – Tilt – Pan Fine – Tilt Fine	
39	Colour time	Cyan - Magenta - Yellow - C.T.O Color wheel	
40	Beam time	Dimmer – Zoom – Focus – Frost - Prism – Iris	
41	Gobo time	Rotating Gobo change - Framing - Framing rotation	

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	4.4				
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					
34	6.6				
35	6.8				
36	7.2				
37	7.2				
38	7.4				
39	7.8				
40	8				
41	8.2				
42	8.4				
74	0.4				

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	4.4			
55	11			
56	10			
57	12			
58	13			
59	13			
60				
61	14			
62				
63	15			
64	10			
65				
_66	16			
67				
68	17			
69	17			
70				
71	18			
72				
73	19			
_74	10			
75				
76	20			
_77				
78				
79	21			
80				
81	22			
_82				
83	_			
84	23			
1 OF	1			

BIT	Seconds			
86	24			
_87	24			
88				
89	25			
90				
91	26			
92				
93				
94	27			
95				
96	28			
97	20			
98				
99	29			
100				
101				
102	30			
103				
104	04			
105	31			
106				
107	32			
108				
109				
110	33			
111				
112	34			
113				
114	0.5			
115	35			
116				
117	36			
118				
119				
120	37			
121				
122	38			
123	_			
124				
125	39			
126				
127				
128	40			
120				

BIT	Seconds		
129			
130	41		
131			
132	40		
133	42		
134			
135	43		
136			
137	4.4		
138	44		
139			
140	45		
141			
142	40		
143	46		
144			
145	47		
146			
147	40		
148	48		
149			
150	49		
151			
152			
153	50		
154			
155	F.4		
156	51		
157			
158	52		
159			
160			
161	53		
162			
163	54		
164			
165			
166	55		
167			
168	56		
169			
170	F-7		
171	57		
	l		

BIT	Seconds		
172			
173	58		
174			
175			
176	59		
177			
178			
179	60		
180			
181	65		
182			
183	70		
184	70		
185			
186	75		
187			
188	80		
189	00		
190			
191	85		
192			
193	90		
194			
195			
196	95		
197			
198	100		
199			
200			
201	110		
202			
203	400		
204	120		
205			
206	130		
207	100		
208	440		
209	140		
210			
211	150		
212			
213	400		
214	160		
215			

BIT	Seconds		
216	170		
217	170		
218			
219	180		
220			
221	100		
222	190		
223			
224	200		
225			
226			
227	210		
228			
229	000		
230	220		
231			
232	230		
233			
234			
235	240		
236			
237	250		
238			
239			
240	260		
241			
242	270		
243			
244			
245	280		
246			
247	290		
248			
249			
250	300		
251			
252			
253	310		
254			
	Follow cue		
255	Data		
	Data		

85