ENGLISH

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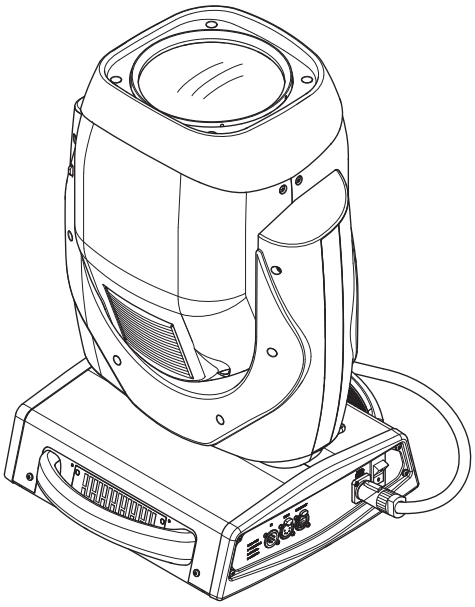
SUPERSHARPY

C61390

INSTRUCTION MANUAL

PRELIMINARY



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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 objects hit by the beam of light are at least 18 metres (59'1") 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

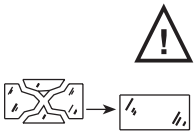
• IP20 protection rating
The fitting is protected against penetration by solid bodies of over 12mm (0.47") in diameter (first digit 2), but not against dripping water, rain, splashes or jets of water (second digit 0).

• 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, to avoid getting burnt for at least 35 minutes. After this time the likelihood of the lamp exploding is virtually nill.
The fitting is designed to hold in any splinters produced by a lamp exploding. The lenses must be mounted and, if visibly damaged, they have to be replaced with genuine spares.

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

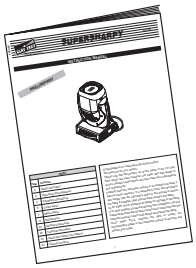
• Battery
This product contains a rechargeable lead-acid or lithium iron tetraphosphate battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

NOT FOR RESIDENTIAL USE

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

UNPACKING AND PREPARATION

1



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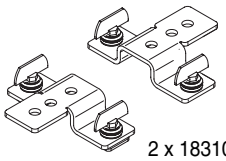
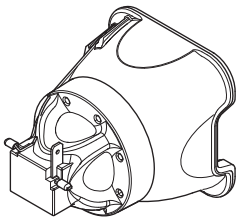
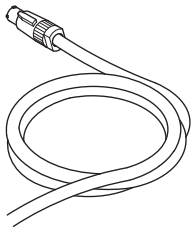


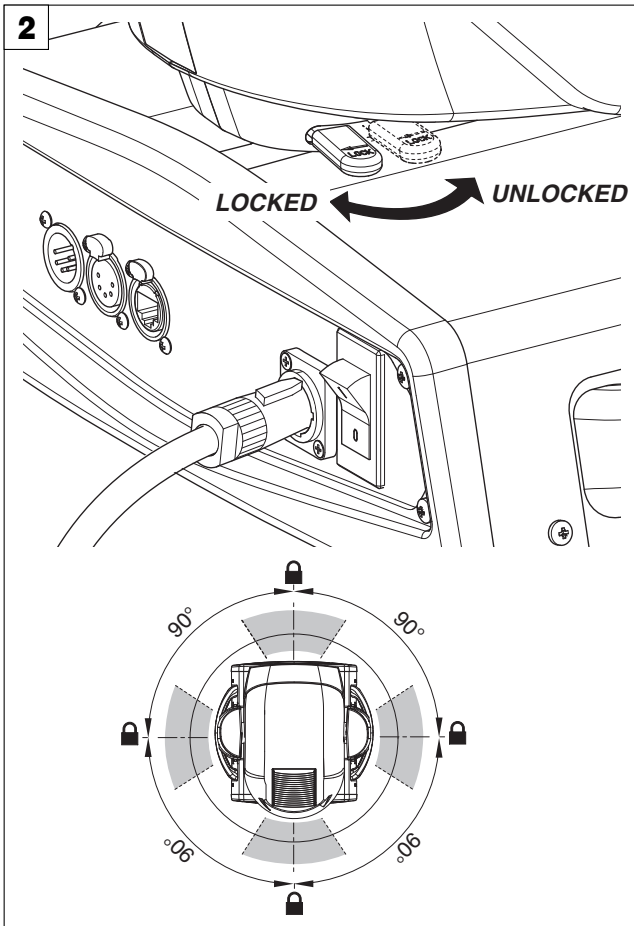
2 x 183102/805





Packing contents - Fig. 1

2



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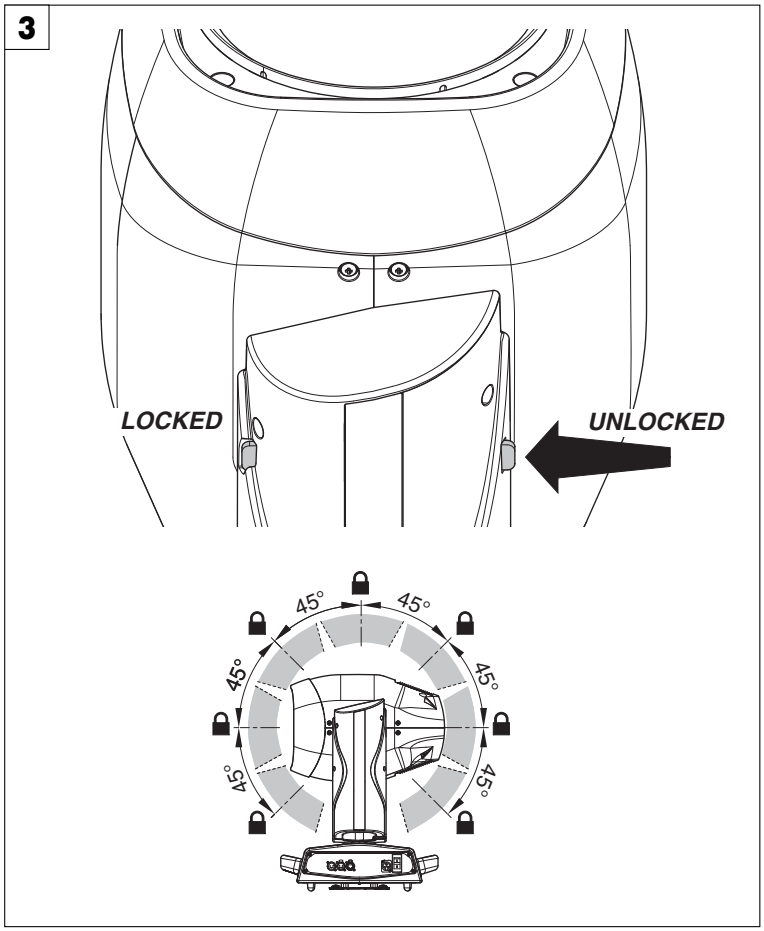
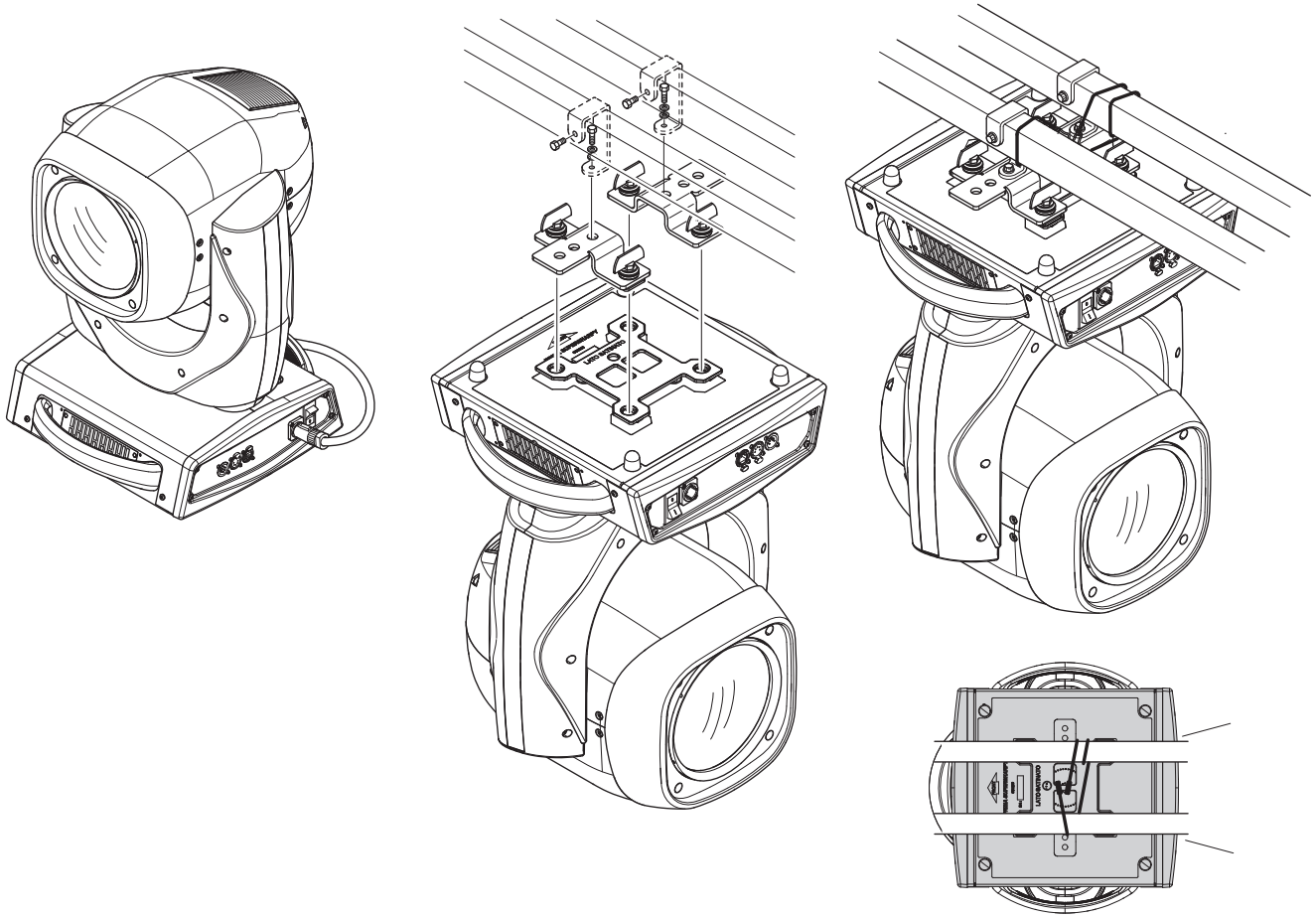


PAN Mechanism Lock and Release (every 90°) - Fig. 2

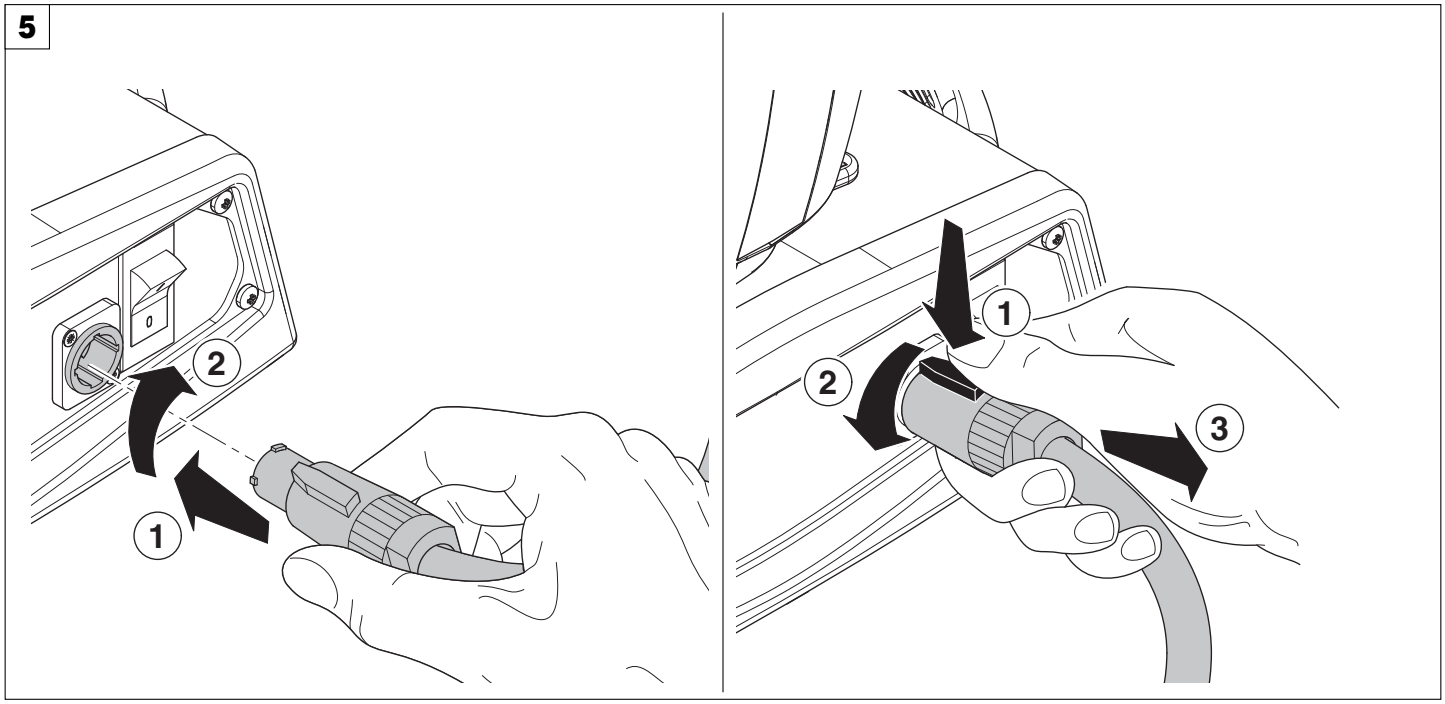
TILT Mechanism Lock and Release (every 45°) - Fig. 3

4



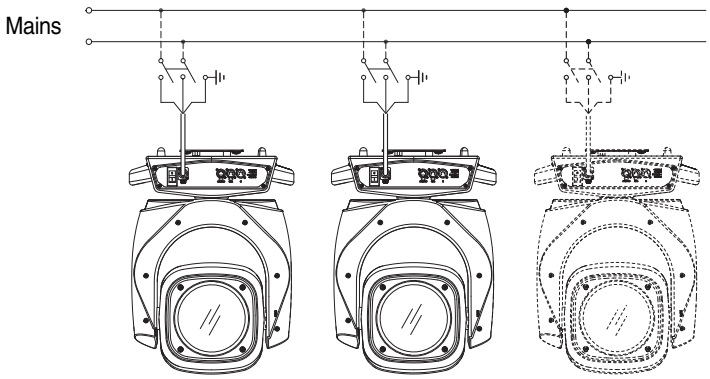
Installing the projector - Fig. 4
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.
WARNING: ***with the exception of when the projector is positioned on the floor, the safety cable must be fitted. (Cod. 105041/003 available on request). 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



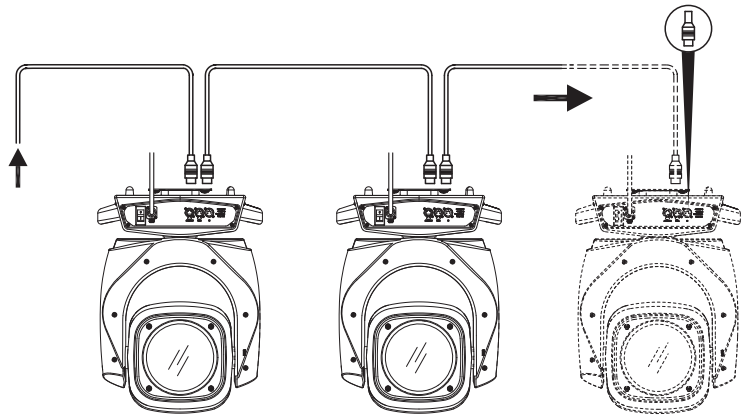
Connecting and disconnecting power cable - Fig. 5

6



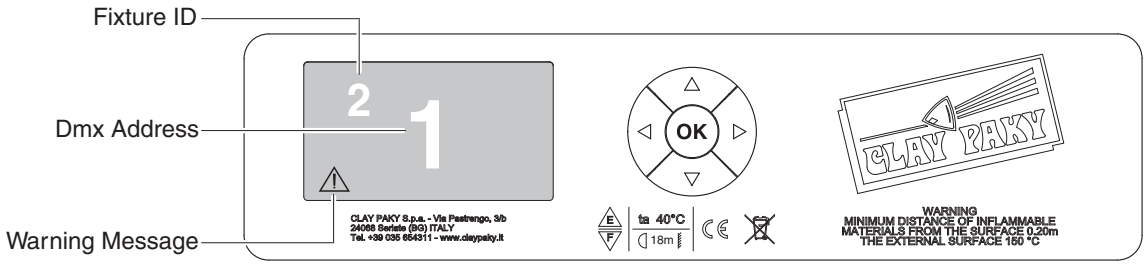
Connecting to the mains supply - Fig. 6

7



Connecting to the control signal line (DMX) - Fig. 7
Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.
IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

8



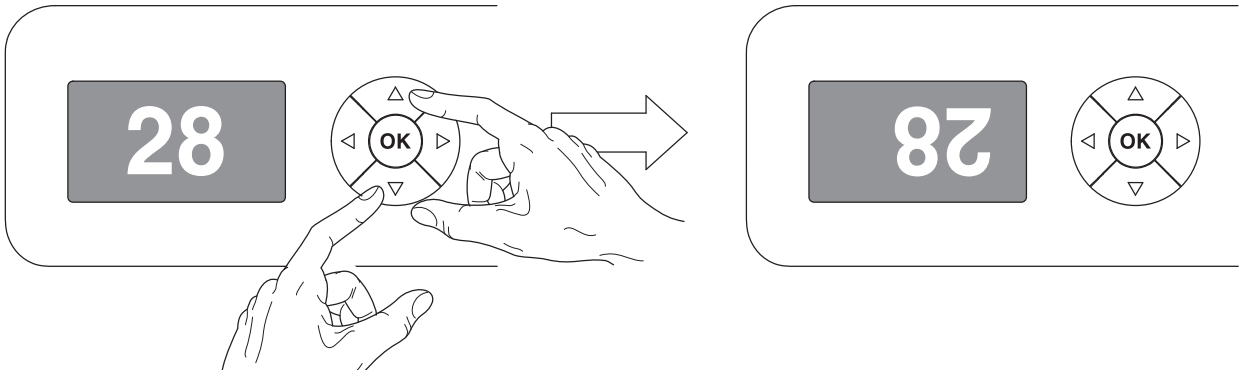
Switching on the projector - Fig. 8
Press the switch. The projector starts resetting the effects. At the same time, the following information scrolls on the display:

CLAY PAKY	**Model** **SUPERSHARPY**	**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 OK key will be cancelled.

Continue →

9



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.

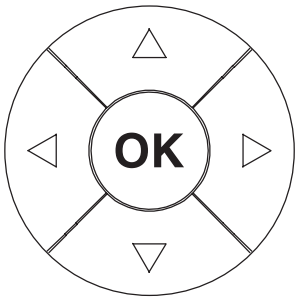
Setting the projector Fixture ID

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 OK once – “Main Menu” appears on the display.
2) Use the UP ⊕ and DOWN ⊖ keys to select the menu to be used:
   - Setup (Setup Menu): To set the setting options.
   - Option (Option Menu): To set the operating options
   - Informations (Informations Menu): To read the counters, software version and other information.
   - Manual Control (Manual control Menu): To trigger the test and manual control functions.
   - Test (Test Menu): To check the proper 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 OK to display the first item in the selected menu.
4) Use the UP ⊕ and DOWN ⊖ keys to select the MENU items.

Setting addresses and options with the projector disconnected

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

MENU SETTING

Main Menu	Level 1	Level 2	Level 3	Choices / *Values*
SET UP	DMX Address			001-512
	Channel Mode			Standard Vector
	Fixture ID			000-255
	Ethernet Interface	Control Protocol		Disabled Art-net IP 2.x.x.x. Art-net IP 10.x.x.x.
		Repeat on DMX		Disabled Enabled on primary
		Universe		000-255
OPTIONS	Lamp DMX			On / Off
	Safety Black Out			On / Off
	Pan / Tilt	Invert Pan		On / Off
		Invert Tilt		On / Off
		Swap Pan-Tilt		On / Off
		Encoder Pan-Tilt		On / Off
		P/T Homing mode		Standard Sequenced
		Pan Home Def Pos		0 degree 90 degrees 180 degrees 270 degrees
		Tilt Home Def Pos		0 % 12.5 % 25 % 50 % 75 % 87.5 % 100 %
	Color	CMY Shortcut		On / Off
		Linear Movement		On / Off
	Shutter	Shutter On Error		On / Off
		Dimmer on Shutter		On / Off
	Dimmer Filter Type			DMX follower Position dependent
	Display			On / Off
	Safety Beam			On / Off
	Settings	Default Preset		Reset To Default 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

Continue →

Main Menu	Level 1	Level 2	Level 3	Choices / *Values*
INFORMATION	System Errors			Read / Reset
	Fixture Hours	Total Hours		Read
		Partial Hours		Read / Reset
	Lamp Hours	Total Hours		Read
		Partial Hours		Read / Reset
	Lamp Strikes	Total Strikes		Read
		Partial Strikes		Read / Reset
	System Version	CPU brd		Fw.rev. / Hw.rev.
		com.dev		Fw.rev.
		0:PT-3f		Fw.rev. / Hw.rev.
		1:6-Ch		Fw.rev. / Hw.rev.
		2:6-Ch		Fw.rev. / Hw.rev.
	Board Diagnostic	0:PT-3f		Status / Err%
		1:6-Ch		Status / Err%
		2:6-Ch		Status / Err%
	DMX Monitor	Channels		*Value / Percentage*
	Fans Monitor	PwrSp		Speed (RPM)
		PwrSp		Speed (RPM)
		Lamp		Speed (RPM)
		Lamp		Speed (RPM)
		Lamp		Speed (RPM)
	Head Position			X Y Z Good Pkt Bad Pkt Uart Err
	Sensor status	Channels		n.a / On / Off
	Rot Gobs Indexing			
	Network parameters	IP Address		
		IP Mask		
		MAC Address		
MANUAL CONTROL	Lamp			On / Off
	Reset			Yes / No
	Channels			Value / Percentage
TEST				
ADVANCED	Access Code 1234	Service Mode		On / Off
		Upload Firmware		Yes / No
		Setup Model		Yes / No
		Calibration	Channels	000 - 255
		Rot. Gobo Indexing		Yes / No

SET UP MENU

DMX ADDRESS

PLEASE NOTE: Without the DMX input signal, the displayed address (DMX Address) blinks.

It lets you select the address (DMX Address) for the control signal. A DMX address between 001 and 512 can be selected.

CHANNEL MODE

This lets you select the projector operating mode, selecting one of the two available modes:

- **Standard (23 DMX channels occupied,** see Channel Function)
- **Vector (27 DMX channels occupied,** see Channel Function**)**

FIXTURE ID

It lets you set the “Fixture ID” to be assigned to the projector. An “ID” between 000 and 255 can be assigned.

ETHERNET INTERFACE

It lets you set Ethernet settings to be assigned to the projector as indicated below:

Control Protocol

It lets you select the “Control Protocol” Art-net to be assigned according to the control unit used; the options available are the following:

- Disabled:
- Art-net on IP 2
- Art-net on IP 10

Repeat on DMX

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

- Disabled: DMX transmission disabled.
- Enabled on primary: DMX transmission enabled.

Universe

It lets you set the “DMX Universe” to be assigned to a series of projectors with values between 000 and 255.

Continue →

OPTIONS MENU

LAMP DMX
It lets you enable (ON) the lamp remote control channel. Select OFF to turn off or disable this option.

SAFETY BLACK OUT
This allows the Dimmer's automatic lock option to be activated (ON) after 3 seconds with no incoming DMX signal. Select OFF to turn off or disable this option.

PAN / TILT
Invert Pan
It lets you enable (ON) Pan reverse movement. Select OFF to turn off or disable this option.

Invert Tilt
It lets you enable (ON) Tilt reverse movement. Select OFF to turn off or disable this option.

Swap Pan-Tilt
It lets you enable (ON) Pan and Tilt channel inversion (and simultaneously Pan fine and Tilt fine). Select OFF to turn off or disable this option.

Encoder Pan-Tilt
It lets you enable (ON) or disable (OFF) Pan and Tilt Encoder operations.

P/T Homing Mode
It lets you set the initial Pan and Tilt Reset mode.
- **Standard**: Pan & Tilt are simultaneously reset.
- **Sequenced**: Tilt is reset first followed by Pan.

Pan Home Def Pos
It lets you assign the Pan channel “home” position at the end of Reset (without a DMX input signal), selecting one from the 4 available positions:
- **0 degree**
- **90 degrees**
- **180 degrees**
- **270 degrees (default)**

Tilt Home Def Pos
It lets you assign the Tilt channel “home” position at the end of Reset (without a DMX input signal), selecting one from the 7 available positions:
- **0%**
- **12.5%**
- **25%**
- **50% (default)**
- **75%**
- **87.5%**
- **100%**

COLOR

CMY short-cut

It lets you optimise (ON) the color change time of the color wheel since the disk rotates in the direction that requires the shortest and thus quickest movement. Select OFF to turn off or disable this option.

Linear Movement

It lets you enable (ON) the linear color wheel movement. Select OFF to turn off or disable this option.

SHUTTER

Shutter on error

It lets you activate (ON) automatic "Stopper/Strobe" closing in the event of Pan/Tilt positioning error. Select OFF to turn off or disable this option.

Dimmer on Shutter

Select ON to enable automatic Dimmer closing when the Strobe is fully closed. Select OFF to turn off or disable this option.

DIMMER FILTER TYPE

It lets you best optimise the "Dimmer curve" according to that set on the control panel. One of the following 2 options can be selected:

DMX follower

Dimmer movement speed/linearity follows the DMX values set by the panel.

Position dependent

Dimmer movement speed follows the DMX values set by the panel taking into account the physical Dimmer starting position.

DISPLAY

It lets you activate (ON) display brightness reduction after about 30 seconds in idle status. Select OFF to turn off or disable this option.

SAFETY BEAM

It lets you turn ON a light beam temperature reduction when Focus movement is 50% over its stroke, if no CMY colour wheels are inserted, Frost is automatically inserted on the Cyan wheel.

Continue →

SETTINGS
Used to save 3 different settings of the items in the option menu and relevant submenus.

- Default preset (*)
- User preset 1
- User preset 2
- User Preset 3

  - **Load preset 'X'** is used to recall a previously stored configuration.
  - **Save to preset 'X'** is used to save the current configuration.

(*) DEFAULT PRESET
It lets you restore default values on all option menu items and relevant submenus.
Press the left and right arrows/keys simultaneously in the "main menu" to quickly restore default values (DEFAULT PRESET).

Default options

- Lamp DMX → On
- Invert Pan → Off
- Invert Tilt → Off
- Swap Pan-Tilt → Off
- Encoder Pan-Tilt → On
- P/T Homing Mode → Standard
- Pan Home Def Pos → 270 degrees
- Tilt Home Def Pos → 50%
- CMY Shortcut → On
- Linear Movement → Off
- Shutter on error → Off
- Dimmer on shutter → Off
- Dimmer filter type → DMX follower
- Display → On
- Safety Beam → Off

INFORMATION MENU

SYSTEM ERRORS
It displays a list of errors that occurred when the projector was turned on.
To reset the SYSTEM ERRORS list, press OK. A confirmation message appears (Are you sure you want to clear error list?). Select YES to confirm reset.
From the menu

FIXTURE HOURS
It lets you view projector working hours (total and partial).
Total counter
It counts the number of projector working life hours (from construction to date).
Partial counter
It counts the number of projector partial working life hours from the last reset to date.

Press OK to reset the partial counter. A confirmation message appears on the display (Are you sure ?)
Select YES to confirm reset.

LAMP HOURS
It lets you view lamp working hours (total and partial).
Total counter
It counts the number of projector working hours with the lamp on (from construction to date).
Partial counter
It counts the number of lamp partial working hours from the last reset to date.

Press OK to reset the partial counter. A confirmation message appears on the display (Are you sure ?)
Select YES to confirm reset.

LAMP STRIKES
It lets you view how many times the lamp was turned on (total and partial).
Total counter
It counts the number of times the lamp was turned on (from construction to date).
Partial counter
It counts the number of times the lamp was turned on from the last reset to date.

Press OK to reset the partial counter. A confirmation message appears on the display (Are you sure ?)
Select YES to confirm reset.

SYSTEM VERSION
It lets you view the hardware and software versions for each electronic board 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
It lets you view the percent errors for each electronic board installed in the projector
- 0: PT-3f (Pan / Tilt board)
- 1: 6-Ch (6-channel board)
- 2: 6-Ch (6-channel board)

DMX MONITOR
It lets you view the level of projector DMX channels in bit (Val) and in percent.

FANS MONITOR
It lets you view the speed of each fan installed in the projector:
- Lamp (lamp cooling fan)
- Pwr.Sup (PSU cooling fan)

HEAD POSITION
It lets you view the projector head position with reference to the X, Y and Z axes. It also provides further information on:
- Good pkt: number of correctly received signal packets
- Bad pkt: number of incorrectly received signal packets
- Uart Err.: UART reception errors

SENSOR STATUS
It lets you check the correct operations of each "sensor" installed in the projector, each channel is associated with one of the following three parameters:
- n.a.= sensor not available
- ON= sensor working
- OFF= sensor defective

ROT GOBOS INDEXING
It lets you check whether the rotating gobo wheel gobo indexing procedure should be run, if indexed, "Indexing Active" appears on the display, otherwise "Indexing required!" appears

If necessary, indexing should be activated from the Advanced menu.

NETWORK PARAMS
Lets you view the projector "Network" parameters meaning:
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
It lets you turn the lamp on (ON) or off (OFF) from the projector control panel.

RESET
It lets you reset the projector from the projector control panel.

CHANNEL
It lets you set the channel DMX levels from the projector control panel (value between 0 and 255 bit or between 0% and 100%).

TEST MENU

It lets you test the correct operations of effects using saved Tests.
Available test sequences:

ADVANCED MENU

To open the “Advanced Menu”, enter the code (1234)

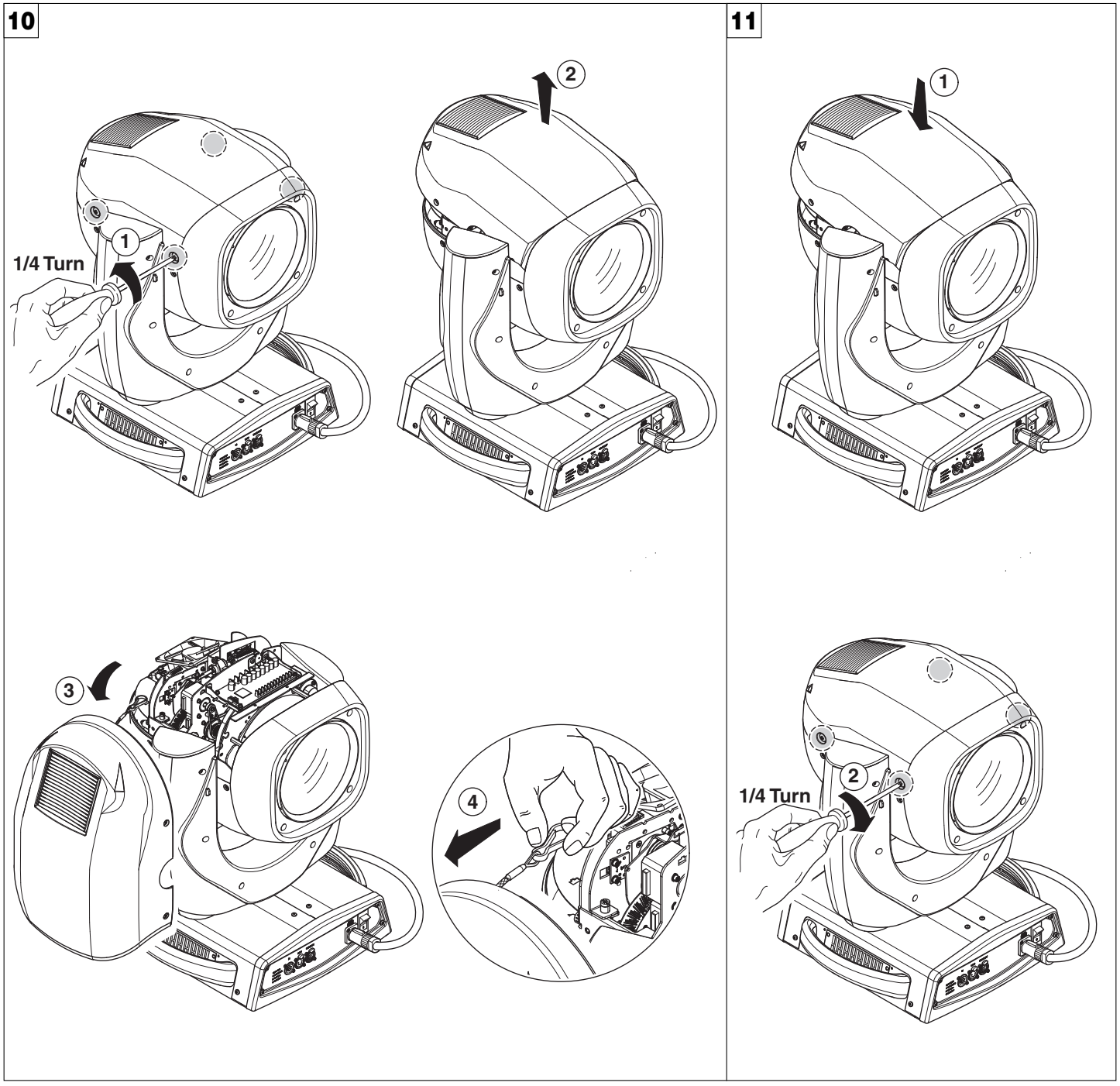
SERVICE MODE
It lets you disable (ON) the projector Beam operating mode.

UP LOAD FIRMWARE
It lets you transfer "firmware" from one projector to all other connected projectors. A confirmation message appears on the display (Are you sure ?) Select YES to confirm or NO to abort this operation.

SETUP MODEL
It lets you change the projector model (operation probably necessary after replacing the CPU during repairs). A confirmation message (Are you sure ?) appears on the display Select YES to confirm (the list of available and selectable projectors appears) or NO to abort this operation.

CALIBRATION
It lets you make small mechanical adjustments on some effects to perfectly align projectors from the control panel.
Factory default
It lets you restore default "Calibration” values (128 bit) on all channels.

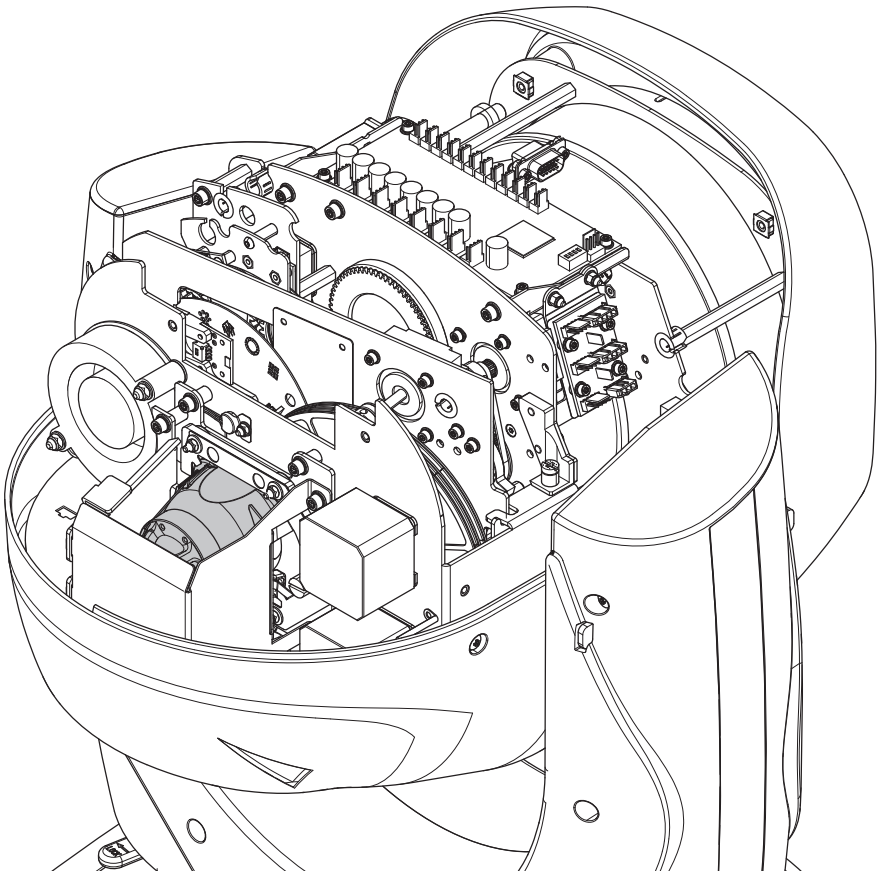
ROT GOBOS INDEXING
It lets you run the rotating gobo wheel gobo indexing procedure. This operation may be necessary after projector maintenance/cleaning.



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.

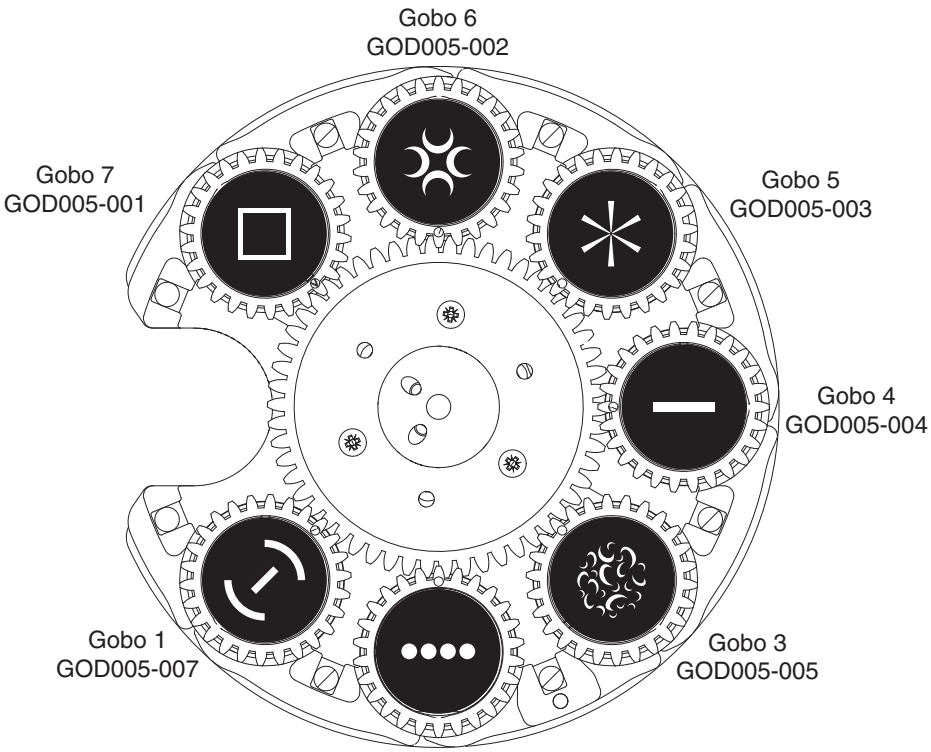
12



IMPORTANTE:

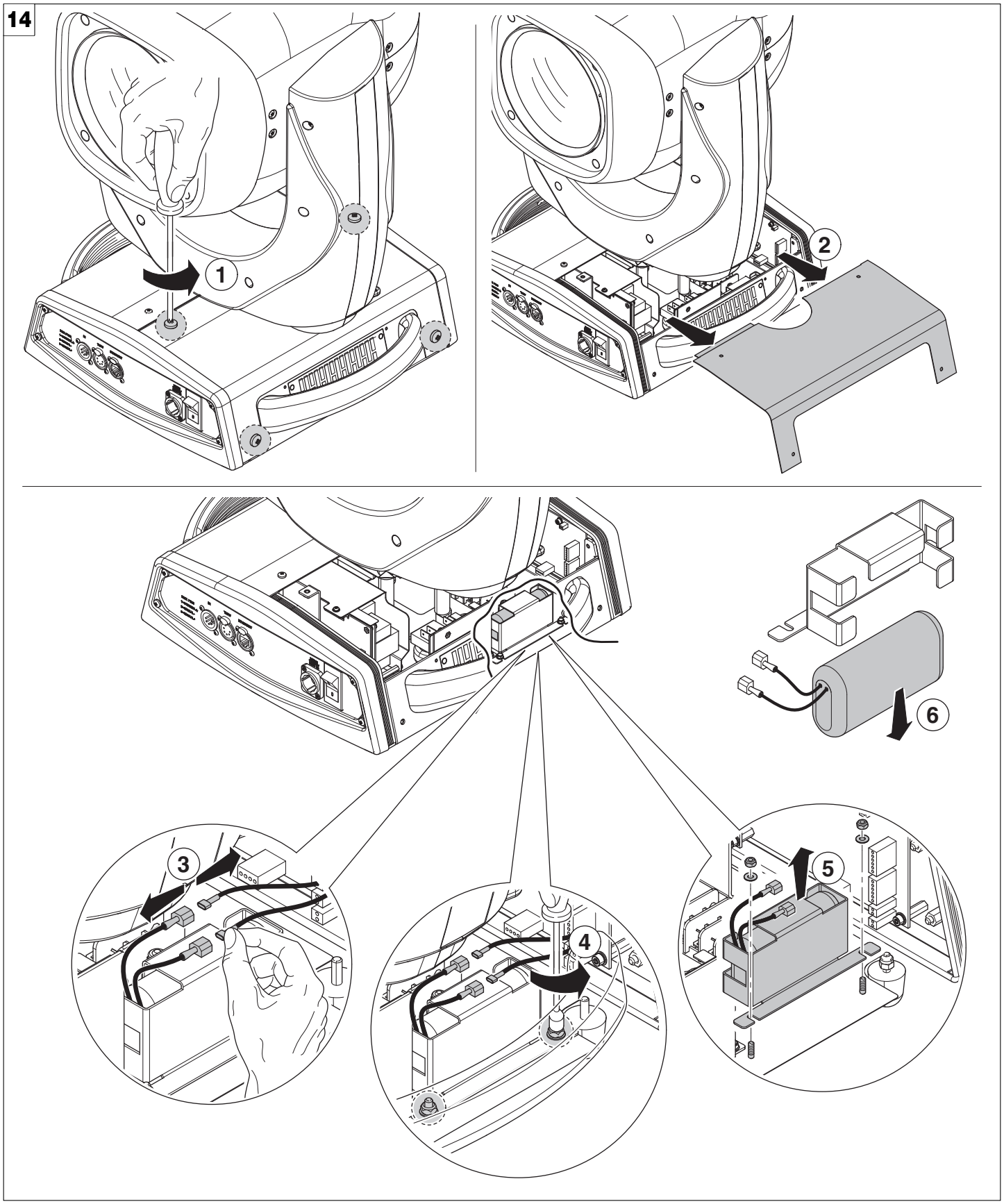
Before switch off the fixture, is necessary to keep closed the dimmer channel for at least 5 seconds, this is to ensure a better working / reliability of the lamp itself (it is recommended to turn off the lamp when it is dimmed).

13



ATTENTION:

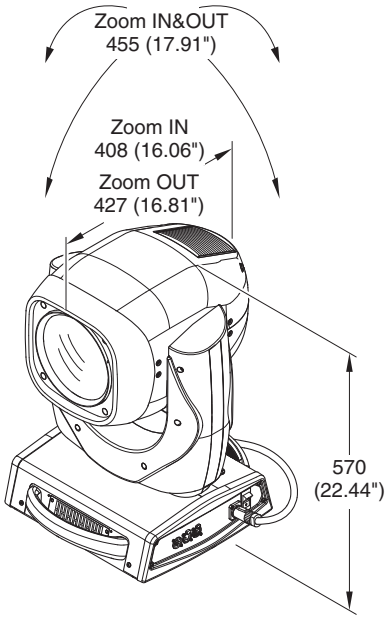
- **Before use custom gobos contact Clay Paky;**
- **The original gobos have a special coating designed specifically to resist to the high temperatures in the Prima Supersharpy;**
- **The rotating gobo wheel only use dichroic glass gobos (it is not possible to use metal gobos);**
- **For more information contact Clay Paky;** - Fig. 13

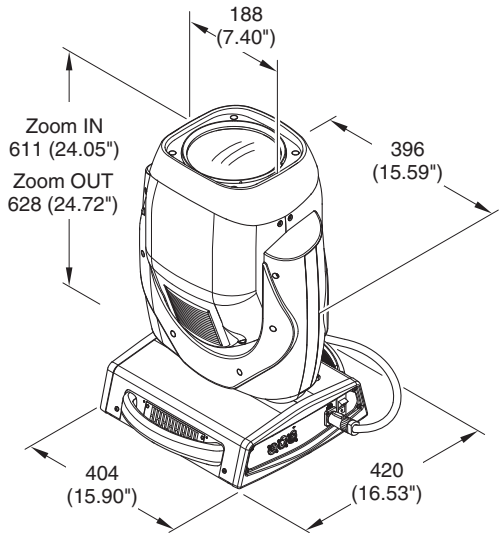


Battery removal - Fig. 14

LiFePO4
Pb

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.





TECHNICAL INFORMATION

Power supplies available
115/230V 50/60Hz

Input power
700VA a 230V 50Hz.

Total output
Max 23800 lumens

Lamp
Philips MSD Platinum 20R (LAM00F)
- Output Lamp power: 470 W
- Colour temperature: 8,000 K
- Average lifetime: 1500 h
- Any working position
- Socket: Faston TM 250
- Luminous flux: >23,000 lm

Motors
15 stepper motors, operating with micro-steps, totally microprocessor controlled.

Channels
Max 24 control channels.

Inputs
- DMX 512 (5 poles XLR input and output)
- Ethernet

Moving head
- Movement by means of two stepper motors, controlled by microprocessor.
- Automatic repositioning of PAN and TILT after accidental movement not controlled by control unit.
- Angle:
  - PAN = 540°
  - TILT = 252°
- Resolution:
  - PAN = 2.11°
  - PAN FINE = 0.008°
  - TILT = 0.98°
  - TILT FINE = 0.004°

IP20 protection rating
- Protected against the entry of solid bodies larger than 12mm (0.47").
- No protection against the entry of liquids.

CE Marking
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, cooling system monitoring.

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

Working position
Working in any position.

Weight
30 Kg (66 lbs).

CAUSE AND SOLUTION OF PROBLEMS

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

SUPERSHARPY

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

CHANNEL	CHANNEL MODE	
	STANDARD	VECTOR
1	CYAN COLOUR WHEEL	CYAN COLOUR WHEEL
2	MAGENTA COLOUR WHEEL	MAGENTA COLOUR WHEEL
3	YELLOW COLOUR WHEEL	YELLOW COLOUR WHEEL
4	COLOUR 1	COLOUR 1
5	COLOUR 2	COLOUR 2
6	COLOUR 3	COLOUR 3
7	STOPPER / STROBE	STOPPER / STROBE
8	DIMMER	DIMMER
9	STATIC GOBO CHANGE	STATIC GOBO CHANGE
10	ROTATING GOBO SELECT	ROTATING GOBO SELECT
11	GOBO ROTATION	GOBO ROTATION
12	FINE GOBO ROTATION	FINE GOBO ROTATION
13	PRISM INSERTION	PRISM INSERTION
14	PRISM ROTATION	PRISM ROTATION
15	FROST	FROST
16	FOCUS	FOCUS
17	PAN	PAN
18	FINE PAN	FINE PAN
19	TILT	TILT
20	FINE TILT	FINE TILT
21	FUNCTION	FUNCTION
22	RESET	RESET
23	LAMP CONTROL	LAMP CONTROL
24	-	PAN-TILT TIME
25	-	COLOUR TIME
26	-	BEAM TIME
27	-	GOBO TIME

Channel Mode		DMX Value	Function
Standard	Vector		
1	1		**CYAN COLOUR WHEEL**
		0 - 255	Linear Cyan movement
2	2		**MAGENTA COLOUR WHEEL**
		0 - 255	Linear Magenta movement
3	3		**YELLOW COLOUR WHEEL**
		0 - 255	Linear Yellow movement
4	4		**COLOUR 1**
		0	Empty position
		28	Empty + Frost
		50	Frost
		80	Frost + Lavender
		100	Lavender
		129	Lavender + TC246
		150	TC246
		181	TC246 + TC260
		204	TC260
		235	TC260 + UV Filter
		255	UV Filter
5	5		**COLOUR 2**
		0	Empty position
		28	Empty + Dark Green
		50	Dark Green
		75	Dark Green + DL070
		100	DL070
		129	DL070 + Blue
		150	Blue
		178	Blue + H.M. Green
		200	H.M. Green
		235	H.M. Green + Red
		255	Red

Continue →

Channel Mode		DMX Value	Function
Standard	Vector		
6	6		**COLOUR 3**
		0	Empty position
		28	Empty + Green
		50	Green
		75	Green + Pink
		100	Pink
		129	Pink + Aquamarine
		150	Aquamarine
		178	Aquamarine + Orange 1
		200	Orange 1
		235	Orange 1 + Orange 2
		255	Orange 2
7	7		**STOPPER / STROBE**
		0 - 3	Light OFF
		4 - 103	Strobe at linearly variable frequency from low (1 flash/sec) to high (25 flashes/sec)
		104 - 107	Light ON
		108 - 207	Pulsation at linearly variable speed from slow (0.5 flash/sec) to fast (25 flash/sec)
		208 - 212	Light ON
		213 - 225	Random Strobe at low frequency
		226 - 238	Random Strobe at medium frequency
		239 - 251	Random Strobe at high frequency
		252 - 255	Light ON
8	8		**DIMMER**
		0 - 255	Light output linearly increase from no-light to maximum brightness. Dimmer blades move from totally closed to totally open in 0.02 seconds at maximum speed.

Channel Mode		DMX Value	Function
Standard	Vector		
9	9		**STATIC GOBO CHANGE**
		0	Empty position
		4	Gobo 1
		8	Gobo 2
		12	Gobo 3
		16	Gobo 4
		19	Gobo 5
		23	Gobo 6
		27	Gobo 7
		31	Gobo 8
		35	Gobo 9
		38	Gobo 10
		42	Gobo 11
		46	Gobo 12
		50	Gobo 13
		54	Gobo 14
		57	Gobo 15
		61	Gobo 16
		65	Gobo 17
		69	Gobo 18
		72 - 113	Continuous gobo wheel clockwise rotation at linearly variable speed from fast (60 rpm) to slow (5 rpm)
		114 - 117	Stop rotation
		118 - 159	Continuous gobo wheel counter-clockwise rotation at linearly variable speed from slow (5 rpm) to fast (60 rpm)
		160 - 165	Gobo 1 shakes at variable speed from slow (24 bpm) to fast (600 bpm)
		166 - 170	Gobo 2 shakes at variable speed from slow (24 bpm) to fast (600 bpm)
		171 - 175	Gobo 3 shakes …
		176 - 181	Gobo 4 shakes …
		182 - 186	Gobo 5 shakes …
		187 - 191	Gobo 6 shakes …
		192 - 197	Gobo 7 shakes …
		198 - 202	Gobo 8 shakes …
		203 - 207	Gobo 9 shakes …
		208 - 214	Gobo 10 shakes …
		215 - 218	Gobo 11 shakes …
		219 - 223	Gobo 12 shakes …
		224 - 229	Gobo 13 shakes …
		230 - 234	Gobo 14 shakes …
		235 - 239	Gobo 15 shakes …
		240 - 245	Gobo 16 shakes …
		246 - 250	Gobo 17 shakes …
		251 - 255	Gobo 18 shakes …

Continue →

Channel Mode		DMX Value	Function
Standard	Vector		
10	10		**ROTATING GOBO SELECT**
		0 - 16	Empty position
		17 - 32	Gobo 1
		33 - 48	Gobo 2
		49 - 64	Gobo 3
		65 - 81	Gobo 4
		82 - 97	Gobo 5
		98 - 113	Gobo 6
		114 - 129	Gobo 7
		130 - 147	Gobo 1 shakes at variable speed from slow (24 bpm) to fast (600 bpm)
		148 - 165	Gobo 2 shakes at variable speed from slow (24 bpm) to fast (600 bpm)
		166 - 183	Gobo 3 shakes …
		184 - 201	Gobo 4 shakes …
		202 - 219	Gobo 5 shakes …
		220 - 237	Gobo 6 shakes …
		238 - 255	Gobo 7 shakes …
11	11		**GOBO ROTATION**
		0 - 21	Gobo indexing: 0° to 90° range
		21 - 42	Gobo indexing: 90° to 180° range
		42 - 63	Gobo indexing: 180° to 270° range
		63 - 84	Gobo indexing: 270° to 360° range
		84 - 105	Gobo indexing: 360° to 450° range
		105 - 127	Gobo indexing: 450° to 540° range
		128 - 190	Continuous gobo rotation at linearly variable speed from fast (180 rpm) to slow (2.2 rph)
		191 - 192	Stop rotation
		193 - 255	Continuous gobo rotation at linearly variable speed from slow (2.2 rpm) to fast (180 rpm)
12	12		**FINE GOBO ROTATION**
		0 - 255	Fine Gobo Indexing
13	13		**PRISM INSERTION**
		0 - 127	Prism out
		128 - 255	Prism into the light beam
14	14		**PRISM ROTATION**
		0 - 21	Prism indexing: 0° to 90° range
		21 - 42	Prism indexing: 90° to 180° range
		42 - 63	Prism indexing: 180° to 270° range
		63 - 84	Prism indexing: 270° to 360° range
		84 - 105	Prism indexing: 360° to 450° range
		105 - 127	Prism indexing: 450° to 540° range
		128 - 190	Continuous prism rotation at linearly variable speed from fast (43 rpm) to slow (1.1 rph)
		191 - 192	Stop rotation
		193 - 255	Continuous prism rotation at linearly variable speed from slow (1.1 rpm) to fast (43 rpm)

Channel Mode		DMX Value	Function
Standard	Vector		
15	15		**FROST**
		0 - 255	Frost moves linearly into the light beam Frost blades move from no-diffusion to maximum diffusion in 0.02 seconds at maximum speed.
16	16		**FOCUS**
		0 - 255	Focus moves linearly from far to near position. Focus lenses move from farest to nearest position in 1.11 seconds at maximum speed.
17	17		**PAN**
		0 - 255	Pan movement/positioning from 0° to 540° (speed?)
18	18		**FINE PAN**
		0 - 255	Fine Pan positioning
19	19		**TILT**
		0 - 255	Tilt movement/positioning from 0° to 252° (speed?)
20	20		**FINE TILT**
		0 - 255	Fine Tilt positioning
21	21		**FUNCTION**
		0 - 11	Unused range
		12 - 24	Fast Pan / Tilt speed (default)
		25 - 37	Normal Pan / Tilt speed
		38 - 50	Conventional Dimmer curve
		51 - 62	Linear Dimmer curve (default)
		63 - 75	CMY Full Range (default)
		76 - 87	CMY Limited range
		88 - 101	CMY shortcut ON (default)
		102 - 114	CMY shortcut OFF
		115 - 255	Unused range
			The functions are activated/selected passing through the unused levels range and staying in the necessary range for 5 seconds.
22	22		**RESET**
		0 - 25	Unused range
		26 - 76	Zoom Reset Zoom Reset sequence is activated passing through the unused levels range and staying in this range for 5 seconds
		77 - 127	Pan / Tilt Reset Pan/Tilt Reset sequence passing through the unused levels range and staying in this range for 5 seconds.
		128 - 255	Complete Reset All-effects Reset sequence passing through the unused levels range and staying in this range for 5 seconds.
23	23		**LAMP CONTROL**
		0 - 25	Unused range
		26 - 100	Lamp OFF Lamp switch-off passing through the unused levels range and staying in this range for 5 seconds.
		101 - 255	Lamp ON Lamp switch-on passing through the unused levels range and staying in this range for 5 seconds.

Continue →

Channel Mode		DMX Value	Function
Standard	Vector		
-	24		**PAN-TILT TIME**
			Pan - Fine Pan - Tilt - Fine Tilt
-	25		**COLOUR TIME**
			Cyan - Magenta - Yellow
-	26		**BEAM TIME**
			Dimmer - Frost – Prism – Focus
-	27		**GOBO TIME**
			Static Gobo – Rotating Gobo

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	
56	12
57	
58	13
59	
60	14
61	
62	
63	15
64	
65	16
66	
67	
68	17
69	
70	18
71	
72	
73	19
74	
75	20
76	
77	
78	21
79	
80	
81	22
82	
83	23
84	
85	

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

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

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

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

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