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 bit).

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

## - COLOUR WHEEL - channel 1



- STOP / STROBE - channel 2



## - DIMMER - channel 3



| BIT | EFFECT |
| :---: | :---: |
| 255 | 0\% $\%$-100\%: 0.02 sec |
| ! |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| 0 |  |

- STATIC GOBO CHANGE - channel 4

- PRISM INSERTION - channel 5

- PRISM ROTATION - channel 6


| BIT | EFFECT |
| :---: | :--- |
| 255 | FAST ROTATION (43 rpm) |
| $\vdots$ |  |
| $\vdots$ |  |
| 193 | SLOW ROTATION (1.1 rph) |
| $191-192$ | STOP |
| $\vdots 90$ | SLOW ROTATION ( 1.1 rph ) |
| $\vdots$ |  |
| 128 | FAST ROTATION (43 rpm) |
| 127 | POSITION 5400 |
| 105 | POSITION $450^{\circ}$ |
| 84 | POSITION $360^{\circ}$ |
| 63 | POSITION $270^{\circ}$ |
| 42 | POSITION $180^{\circ}$ |
| 21 | POSITION $90^{\circ}$ |
| 0 | POSITION $0^{\circ}$ |

- EFFECTS MOVEMENT - channel 7

- FROST - channel 8

| BIT | EFFECT |  |
| :---: | :---: | :---: |
|  | 255 | FROST INSERTED |
|  |  |  |
|  |  |  |
|  |  |  |

- FOCUS - channel 9


| BIT | EFFECT |
| :---: | :--- |
| 255 | NEAR |
| $\vdots$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| 0 | $0 \%-100 \%: 1.11$ sec |
| 0 | DISTANT |

- PAN - channel 10

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


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


- PAN FINE - channel 11

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


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


- TILT - channel 12

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


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


- TILT FINE - channel 13

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



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


- FUNCTION - channel: 14

| BIT | EFFECT |
| :---: | :---: |
| 255 |  |
|  | UNUSED RANGE |
| 63 |  |
| 51-62 | LINEAR (Default) |
| 38-50 | CONVENTIONAL - FUNCTION |
| 25-37 | NORMAL |
| 12-24 | FAST (Defaut) - FUNCTION |
| 0.11 | UNUSED RANGE |

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

- RESET - channel: 15

| BIT | EFFECT |
| :---: | :---: |
| 255 | COMPLETE RESET |
|  | Complete reset is activated passing throug the unused range and staying 5 seconds in complete reset levels. |
| 128 | COMPLETE RESET |
| 127 | PAN/TILT RESET |
|  | Pan/Tit reset is activated passing throug the unused range and staying 5 seconds in Pan/Tilt reset levels. |
| 77 | PAN/TILT RESET |
| 76 | EFFECTS RESET |
|  | Effects reset is activated passing throug the unused range and staying 5 seconds in Effects reset levels. |
| $\begin{aligned} & 26 \\ & 25 \\ & \hline \end{aligned}$ | EFFECTS RESET |
|  | UNUSED RANGE |

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

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

IMPORTANT: SHARPY is not provided with hot restrike ignition


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

TIMING CHANNELS

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

## TIME TABLE

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

## INSTRUCTION MANUAL



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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

SAFETY INFORMATION
IMPORTANT: Clay Paky recommends you carefully read and keep the safety information on this product, also available in digital format at the following link:
http://www.claypaky.it/en
Ref: [FIS010 - Safety Information Sharpy]

## IT INFORMAZIONI DI SICUREZZA

IMPORTANTE: Clay Paky raccomanda di leggere accuratamente e conservare le informazioni di sicurezza relative a questo prodotto, sempre reperibili in versione digitale al seguente link:
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Rif: [FIS010 - Safety Information Sharpy]

INFORMATIONEN ZUR SICHERHEIT
WICHTIG: Clay Paky empfiehlt, die Sicherheitsinformationen bezüglich dieses Produkts genau zu lesen und aufzubewahren. Sie sind in Digitalversion immer unter folgendem Link auffindbar:
http://www.claypaky.it/en/download
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http://www.claypaky.it/en/download
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Réf. : [FIS010 - Safety Information Sharpy]

ИНСТРУКЦИЮ ПО ТЕХНИКЕ БЕЗОПАСНОСТИ
ВАЖНО: Clay Paky рекомендует внимательно прочитать и сохранить инструкцию по технике безопасности данного изделия, которая всегда доступна в электронном формате по следующей ссылке:
http://www.claypaky.it/en/download
Наименование: [FIS010 - Safety Information Sharpy]


Lamp 189W (fitted into projector)


Packing contents - Fig. 1


PAN Mechanism Lock and Release (every $90^{\circ}$ ) - Fig. 2
TILT Mechanism Lock and Release (every $45^{\circ}$ ) - 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.


Connecting and disconnecting power cable - Fig. 5

## CONTROL PANEL

6


Connecting to the mains supply - Fig. 6


Connecting to the control signal line - 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 1200 hm (minimum $1 / 4 \mathrm{~W}$ ) 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.
To prevent EMI disturbances, in some condition it might be necessary to clip around the Ethernet cable, as close as possible to the projector, an appropriate ferrite bead. Shielded cables must always be used.

## 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:

| HLRY RRXY | Model SHARPY | Firmware Version X.X.X Date - Hour | xxx (Fixture ID) Dmx Address xxx | System errors <br> E: $\qquad$ <br> W: $\qquad$ |
| :---: | :---: | :---: | :---: | :---: |

On conclusion of resetting in case of absence of the dmx signal, Pan and Tilt move to the "Home" position (Pan 128 bit - Tilt 128 bit). 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.

9


Reversal of the display - Fig. 9
To activate this function, press UP $\Theta$ and DOWN $\ominus$ 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 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.

## Functions of the buttons - Using the menu

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

## USING THE MENU:

1) Press ® once - "Main Menu" appears on the display.
2) Use the UP $\Theta$ and DOWN $\ominus$ 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.

3) Press © to display the first item in the selected menu.
4) Use the UP $\Theta$ and DOWN $\Theta$ 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.


## 2




## 3



## 5





## DMX ADDRESS

NOTE: without the DMX signal the Address (XXX) flashing
Allows you to select the DMX ADDRESS.

1) Press © - the current DMX Adress appear on the display.
2) Use the UP © and DOWN $\odot$, RIGHT © keys to plan the DMX Address.
3) Press œ to confirm the selection or LEFT (c) 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 $\Theta$ and DOWN $\Theta$ keys to select one of the following settings:

- Standard
- Vector

3) Press © to confirm the selection or LEFT (4) 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 $\Theta$, DOWN $\Theta$, RIGHT © keys to plan the Fixture ID.
3) Press œ to confirm the selection or LEFT (4) to keep current settings.

## ETHERNET INTERFACE

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

1) Premere ®.
2) Use the UP $\Theta$ and DOWN $\odot$ 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 $\Theta$ and DOWN $\Theta$ keys to select one of the following settings:

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

3) Press © to confirm the selection or LEFT (4) to keep the current setting.

If the Control Protocol option is set on Disabled, when an IP address
(IP2, IP10 or IP Custom) is selected, the projector immediately initializes the IP address that was just selected.
If the Control Protocol option is enabled (IP2, IP10 or IP Custom) and a new one is selected that is different from the previous one, the projector must be restarted so that it will be correctly initialized.

## Repeat on DMX

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

1) Press © the current setting appears on the display.
2) Use the UP $\Theta$ and DOWN $\Theta$ 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 (1) to keep the current setting.

## Universe

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

1) Press œ - the current Universe address appears on the display.
2) Use the UP $\Theta$, DOWN $\Theta$, RIGHT © keys to set the Universe address.
3) Press ® to confirm the selection or LEFT (4) to keep the current setting.

## Custom IP address

Allows you to set the IP address manually by the user default.

## Custom IP mask

Allows you to set manually the Subnet Mask by the user default.


## LAMP DMX

Used for enabling lamp remote control channel.

1) Press ®) - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) the lamp remote control channel.
3) Press © to confirm the selection or LEFT (c) to keep current settings.

## SAFETY BLACK OUT

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

1) Press ®- the current setting (On or Off) appears on the display.
2) Use the UP $\Theta$, DOWN $\Theta$ keys to enable (ON) or disable (Off) the Dimmer's lock option after 3 seconds with no incoming DMX signal.
3) Press ® to confirm the selection or LEFT (4) to keep the current setting.

## PAN / TILT

## Invert pan

Used for reversing Pan movement.

1) Press ® - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\ominus$ keys to enable (On) or disable (Off) PAN inversion.
3) Press © to confirm the selection or LEFT (c) to keep current settings.

## Invert tilt

Used for reversing tilt movement.

1) Press œ - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) Tilt inversion.
3) Press © to confirm the selection or LEFT (c) to keep current settings.

## Swap Pan-Tilt

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

1) Press œ - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) Pan and Tilt channel swap.
3) Press © to confirm the selection or LEFT ( $(1)$ to keep current settings.

## Encoder Pan-Tilt

Used for enabling the Pan / Tilt encoders.

1) Press ®) - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) Pan / Tilt encoders.
3) Press œ to confirm the selection or LEFT (4) to keep current settings. You can quickly disable the Pan and Tilt Encoder by simultaneously pressing the UP $\Theta$ and DOWN $\ominus$ keys in the "Main Menu".

## P/T Homing Mode

Lets you set the initial projector Reset mode.

1) Press ®, the current setting appears on the display.
2) Use the UP $\Theta$ and DOWN $\ominus$ keys to select one of the following settings:
Standard: Pan \& Tilt are simultaneously reset.
Sequenced: Tilt is reset first followed by Pan.
3) Press @ to confirm the selection or LEFT (4) to keep the current setting.

## Pan Home Def Pos

Lets you assign the Pan channel "home" position at the end of Reset, without a DMX input signal.

1) Press © , the current setting appears on the display.
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to select one of the following settings:
0 degree
90 degrees
180 degrees

## 270 degrees (default)

3) Press © to confirm the selection or LEFT (4) to keep the current setting.

## Tilt Home Def Pos

Lets you assign the Tilt channel "home" position at the end of Reset, without a DMX input signal.


1) Press ®, the current setting appears on the display.
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to select one of the following settings: 0\%
12.5\%

25\%
50\% (default)
75\%
87.5\%

100\%
3) Press © to confirm the selection or LEFT (4) to keep the current setting.

## COLOR

## Fixed wheel short-cut

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

1) Press @) - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\ominus$ keys to enable (On) or disable (Off) color change optimization.
3) Press © to confirm the selection, or LEFT (c) to keep current settings.

## Linear Movement

It enables the linear movement of the colour wheel.

1) Press @ - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) the linear movement of the colour wheel.
3) Press $\circledast$ (to confirm the selection, or LEFT (4) to keep current settings.

## SHUTTER

## Shutter on error

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

1) Press ®) - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) automatic stop/strobe closing in the event of Pan/Tilt position error.
3) Press © to confirm the selection, or LEFT (4) to keep current settings.

## DIMMER FILTER TYPE

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

## - DMX follower

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

## - Position dependent

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

## 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 $\Theta$ and DOWN $\Theta$ keys to enable (On) or disable (Off) the decreasing of display brightness.
3) Press © to confirm the selection or LEFT (4) 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 $\Theta$ and DOWN $\ominus$ keys to select one of the following configurations:

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

3) Press ® - "Load preset $X$ " appears on the display.
4) Use the UP $\Theta$ and DOWN $\Theta$ keys to select:

- Load preset X to recall a previously stored configuration.
- Save to preset $X$ to store the current configuration.
a confirmation message (Are you sure?) appears on the display.

5) Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.
(*) DEFAULT PRESET
By pressing the RIGHT (1) key and the LEFT (4) key simultaneously once entered in the "main menu" it is possible to quickly (short cut) reset the default settings (DEFAULT PRESET).



## SYSTEM VERSION

Used for displaying the software and hardware version of each board installed in the projector.
CPU brd (CPU board)
0: PT-3f (Pan / Tilt board)
1: 8-Ch (8 channel board)

## BOARD DIAGNOSTIC

Used for displaying the status error of each board installed in the projector:
0: PT-3f (Pan / Tilt board)
1: 8-Ch (8 channel board)

## DMX MONITOR

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

## FANS MONITOR

Used for displaying the speed of each fan installed in the projector:
Lamp (Lamp Fan)
Ball. IN (Ballast IN Fan)
PwrSp (Power Supply Fan)

## 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
- $\mathrm{ON}=$ sensor working
- OFF= sensor defective


## NETWORK PARAMS

Allows the "Network" parameters of the projector to be displayed or:
IP address: Internet Protocol address (two projectors must not have the same IP address)
IP mask: 255.0.0.0
Mac address: Media Access Control: the projector's Ethernet Address

## MANUAL CONTROL

## LAMP

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

1) Press @ - the current settings appear on the display (On or Off).
2) Use the UP $\Theta$ and DOWN $\odot$ keys to turn the lamp on (On) or off (Off)
3) Press © to confirm the selection or LEFT (4) to keep current settings and return to the top level.

## RESET

Used for resetting the projector.

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

## CHANNEL

Used for setting channel levels from the projector control panel.

1) Press œ - the first channel appears on the display.
2) Use the UP $\Theta$ and DOWN $\Theta$ keys to select the required channel:
3) Press ® and use the UP $\theta$ and DOWN $\Theta$ keys to select the required DMX level (value between 0 and 255).
4) Press LEFT (4) to return to the top menu level.

## TEST MENU

## TEST

Allows you to check the proper functioning of effects.

1) Press © to return to the top menu level.
2) Use the UP $\Theta$ and DOWN $\ominus$ keys to select the required test.
3) Press œ to confirm the selection or LEFT (1) to keep current settings.

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

## ADVANCED MENU

To enable the "Advanced Menu" set up the "Access code" (1234) using the UP $\Theta$, DOWN $\ominus$, RIGHT © keys.
Press ® - "Menu advanced" appears on the display

## UP LOAD FIRMWARE

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

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

## SETUP MODEL

Allows you to change the default model of projector.

1) Press Æ 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 $\Theta$ and DOWN $\Theta$ keys, select the effect you wish to regulate.
3) Press $\circledast$ and use the RIGHT $(1)$, UP $\Theta$ and DOWN $\ominus$ buttons to make the adjustment by setting a value between 0 and 255 .
4) Press ® to confirm the selection or LEFT (4) to keep current settings and return to the top level.

## FACTORY DEFAULT

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

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

## MENU LOCKING

It allows you to assign a password to lock the access to the user menu, so that only users know the password can change settings. The password is 4-digit number.


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

## Closing the head covers - Fig. 11.



Opening and closing lamp compartment - Fig. 12

## Lamp change - Fig 13

Take the new lamp out of its package and insert in the fitting.
WARNING: do not touch the lamp's envelope with bare hands. Should this happen, clean the bulb with a cloth soaked in alcohol and dry it with a clean, dry cloth.

Lamp regulation - Fig. 14
To centre the lamp, turn the adjusting screw as shown in the figure.
WARNING: The lamp must be adjusted with the projector switched off. After adjusting, close the effects covers, switch on the projector and check that the adjustment has been correctly made. If necessary, switch off the projector, remove the effects covers and repeat lamp adjustment.
NOTE: To adjust the lamp vertically (with regard to the Y axis) after having replaced it, it may be necessary to operate the Calibration in the Menu Advanced on the Fixed Gobo Wheel channel.

CAUTION:
Fast lamp ON-OFF cycles (for example 10 minutes ON / 10 minutes OFF) will reduce the lamp life.


Anti IR/UV filter support template - Fig. 15

## WARNING:

During maintenance and lamp replacement, we recommend you pay close attention to correct anti IR/UV filter support tilt. Incorrect tilt compromises lamp performance.


Replacing fixed gobos wheel - Fig. 16
WARNING: Before using personalised gobos wheel contact Clay Paky.


Periodical cleaning - Fig. 17
To ensure optimal operation and performance for a long time it is essential to periodically clean the parts subject to dust and grease deposits. The frequency with which the following operations are to be carried out depends on various factors, such as the amount of the effects and the quality of the working environment (air humidity, presence of dust, salinity, etc.).
Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors and filters. It is recommended that the projector undergoes an annual service by a qualified technician for special maintenance involving at least the following operations:

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



## Extraction of the effect modules: Preliminary operations - Fig. 18



Extraction of the effect modules - Fig. 19
IMPORTANT: Grasp the modules using the support structure and not the details which could get damaged.
Insertion of the effect modules: Repeat the operations indicated in Fig. 17 and 18 in reverse order.


## Battery removal - Fig. 20

$\xrightarrow{\text { LiFePO4 }}$
This product contains a rechargeable lithium iron tetraphosphate battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

## OPTIONAL ACCESSORIES

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C61190


## Heat screen filter - Fig. 21

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


[^0]
## TECHNICAL INFORMATION



## Power supplies available

115/230V 50/60Hz

## Input power:

350 VA a 230 V 50 Hz .

## Total output

Max 8000 lumens
Lamp:
Lamp system with a short arc burner in a reflector
Philips MSD Platinum 5R (L10103)

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

Osram Sirius HRI 190+ (LAM002)

- Output Lamp power: 190W
- Colour temperature 8200 K
- Luminous flux 81001m
- Average life 3000h
- Any working position


## Motors:

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

## Channels:

Max 20 control channels.

## Inputs:

DMX 512
Ethernet

## 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
$-\mathrm{TILT}=252^{\circ}$
- Maximum speeds:
- PAN = 2.45 sec
- TILT = 1.30 sec
- Resolution:
- PAN = $2.11^{\circ}$
- PAN FINE $=0.008^{\circ}$
- TILT $=0.98^{\circ}$
- TILT FINE $=0.004^{\circ}$
- Accuracy:
- Resolution $\pm 0,15^{\circ}$ (Range $0,3^{\circ}$ )


## IP20 protection rating:

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

Safety Devices:

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


## Cooling:

Forced ventilation with axial fans.

## Body:

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


## Working position

Functioning in any position.

## Weights:

about 19 Kg (41lbs 13ozs)

## CAUSE AND SOLUTION OF PROBLEMS

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

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 bit).

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

## - COLOUR WHEEL - channel 1



- STOP / STROBE - channel 2

- DIMMER - channel 3


| BIT | EFFECT |
| :---: | :---: |
| 255 |  |
| $\vdots$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

- STATIC GOBO CHANGE - channel 4

- PRISM INSERTION - channel 5

| BIT | EFFECT |
| :---: | :---: |
| 255 |  |
| $\vdots$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
| 128 | PRISM INSERTED |
| $12 \%-100 \%: 0.36$ sec |  |
| 127 |  |
| $\vdots$ |  |
|  |  |
|  |  |
|  |  |
|  |  |

- PRISM ROTATION - channel 6


| BIT | EFFECT |
| :---: | :--- |
| 255 | FAST ROTATION (43 rpm) |
| $\vdots$ |  |
| $\vdots$ |  |
| 193 |  |
| $191-192$ | SLOW ROTATION (1.1 rph) |
| 190 | STOP |
| $\vdots$ |  |
| $\vdots$ |  |
| 128 | FAST ROTATATION (1.1 rph) |
| 127 | POSITION $540^{\circ}$ |
| 105 | POSITION $450^{\circ}$ |
| 84 | POSITION $360^{\circ}$ |
| 63 | POSITION $270^{\circ}$ |
| 42 | POSITION $180^{\circ}$ |
| 21 | POSITION $90^{\circ}$ |
| 0 | POSITION $0^{\circ}$ |

- EFFECTS MOVEMENT - channel 7

| BIT | EFFECT |
| :---: | :---: |
| 255 |  |
| $:$ |  |
| $\vdots$ |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## - FROST - channel 8

| BIT | EFFECT |  |
| :---: | :---: | :---: |
|  | 255 | FROST INSERTED |
|  |  |  |
|  |  |  |

- FOCUS - channel 9


| BIT | EFFECT |
| :---: | :--- |
| 255 | NEAR |
| $\vdots$ |  |
| $\vdots$ |  |
|  |  |
|  |  |
|  |  |
|  | $0 \%-100 \%: 1.11 \mathrm{sec}$ |
| 0 | DISTANT |

- PAN - channel 10

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


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


- PAN FINE - channel 11

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


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


- TILT - channel 12

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


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


- TILT FINE - channel 13

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


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


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

## TIME TABLE

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

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[^0]:    C61190 accessory can be placed inside the projector when not in use - Fig. 22

