

37*15W MOVING HEAD BEEHIVE

INSTRUCTION MANUAL



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Congratulations on choosing our product!

We thank you for your custom.

Please note that this product, 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.

Up 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.

Up reserves the right to modify the characteristics stated in this instruction manual at any time and without prior notice.

| Features |
|--|
| No1:4-60 degree electroic zoom range |
| No2:Bi-directional rotating front lens |
| No3:Wash,beam kaleido effect |
| No4:0-100% liner |
| Product Description |

| Specification |
|---|
| Modle XY-k20 |
| Input voltage 110-240v/50-60hz |
| Power Consumption 750 |
| Lamp 37 osram Ostar RGBW leds |
| Led Nominal wattage 15w |
| Led life 50000hours |
| Channels 21CH 35CH 132CH 169CH |
| White CT emulation 2500-8000k |
| Pan/tilt resolution 16bit |
| Dimmer resolution 16bit |
| DMX Protocol signal DMX 512 |
| DMX signal connection 3&5pin inout and output |
| Display Lcd display |
| Strobe 1-25flash/s |
| N.W 22KG |

| Fuction and effects |
|---|
| Three operating modes:wash,beam,FX(kaleido effects) |
| Bi-directional Rotating front lens |
| Digital wash-beam franing effect |
| Beam edge softening control(in wash mode) |
| Pixel patterning macros with enhanced control |
| 0-100% linear electronic dimmer |
| Adjustable speed stop/strobe effect,with instantaneous blackout |
| Dedicated channel for color temperature setting |

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 0.20 metres (8") from the lens of the projector.

• Minimum distance from flammable materials

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

• Mounting surfaces

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

• Maximum ambient temperature

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

• IP20 protection rating

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

• Protection against electrical shock

Connection must be made to a power supply system fitted with efficient earthing (**Class I** appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

• Connection to mains supply

Connection to the electricity mains must be carried out by a qualified electrical installer. Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label. This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading. A.leda B-EYEK20: the user must determine, in consultation with the supply authority, that the equipment is connected only to a supply with a maximum permissible system impedance Z_{max} , at the interface point of the user's supply, equal to 0.29 Ω or less.

• 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 90° C (194° F).

• Maintenance

Before starting any maintenance work or cleaning the projector, cut off power from the mains supply.

• Light collimation system

This product contains internal light collimation system. Avoid intense light from any angle.

• Photobiological Safety


CAUTION. Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.

This product is intended for the following areas of application:

studios, stages, theaters, exhibitions, trade fairs, events, theme parks, entertainment venues, architectural lighting and similar

Not suitable for household illumination

Not for residential use

LED  0.2...m



t_a 40°C

IP20



t_c 90°C



Risk Group 2
According to
EN 62471





• **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.



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

- CE Certificate
- ROHS Certificate
- EMC report
- LVD report

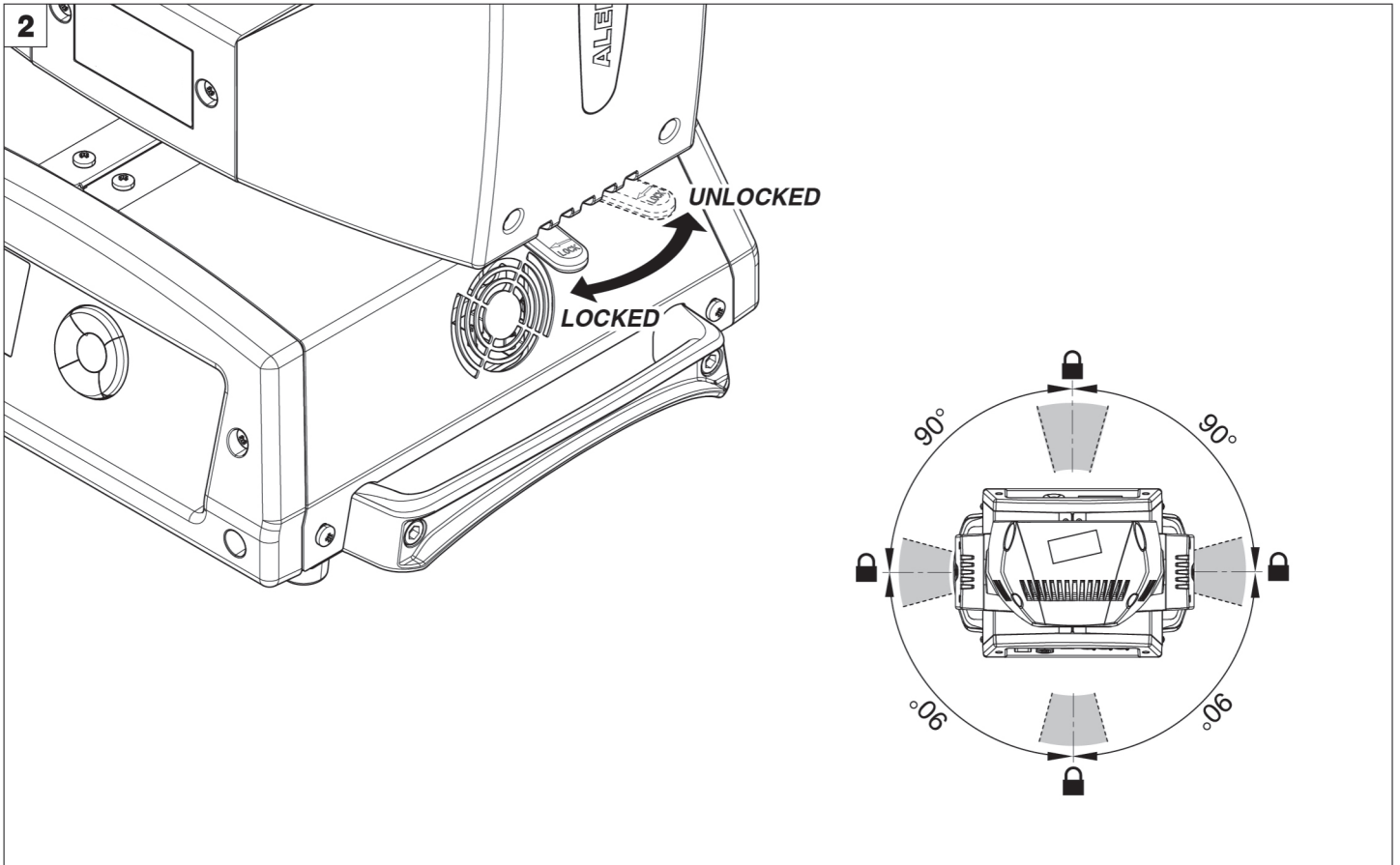
1

Accessories for each light



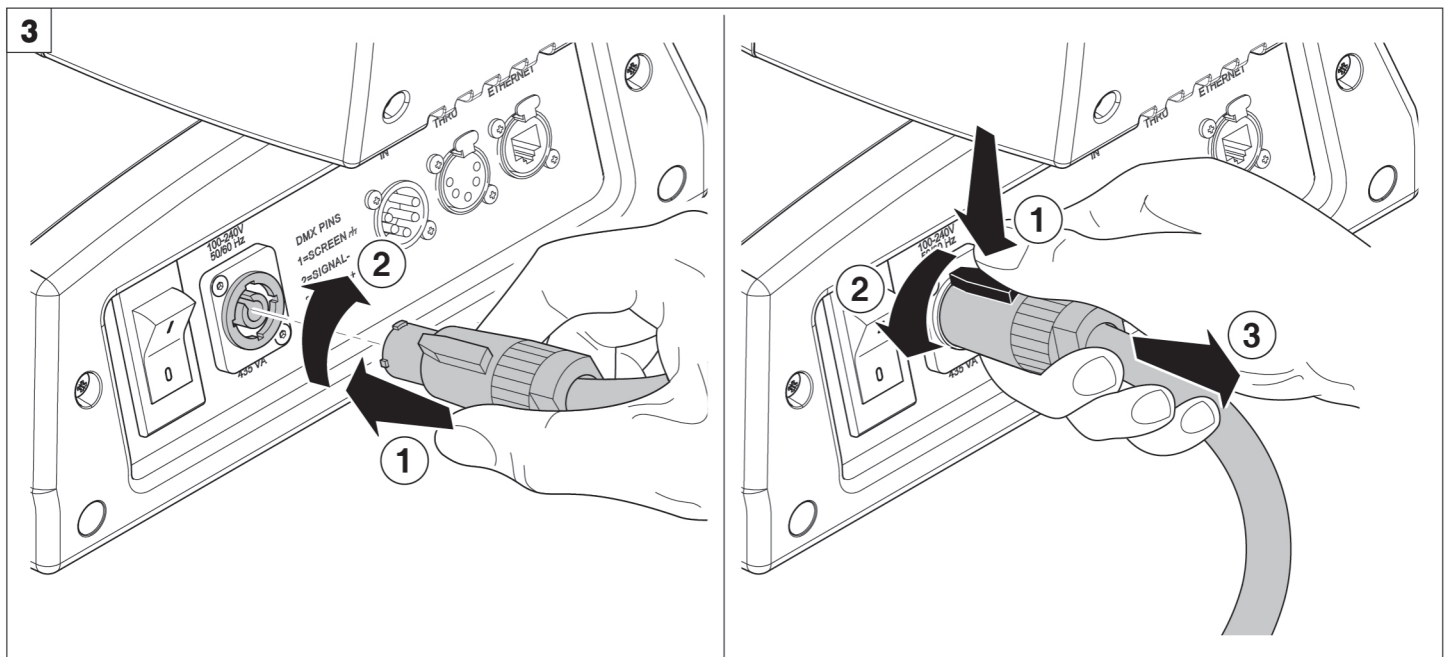
Packing contents





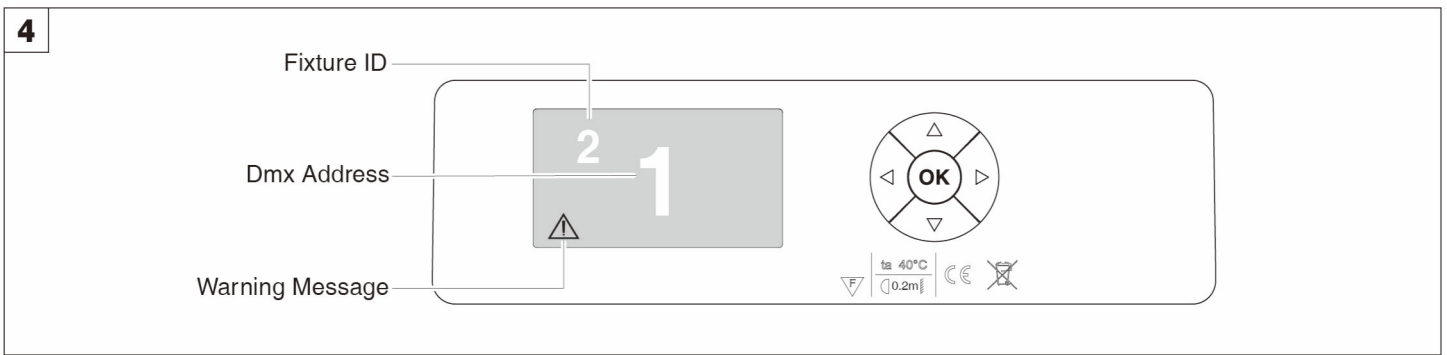
PAN Mechanism Lock and Release (every 90°)

INSTALLATION AND START-UP



Connecting and disconnecting power cable - Fig. 3

CONTROL PANEL

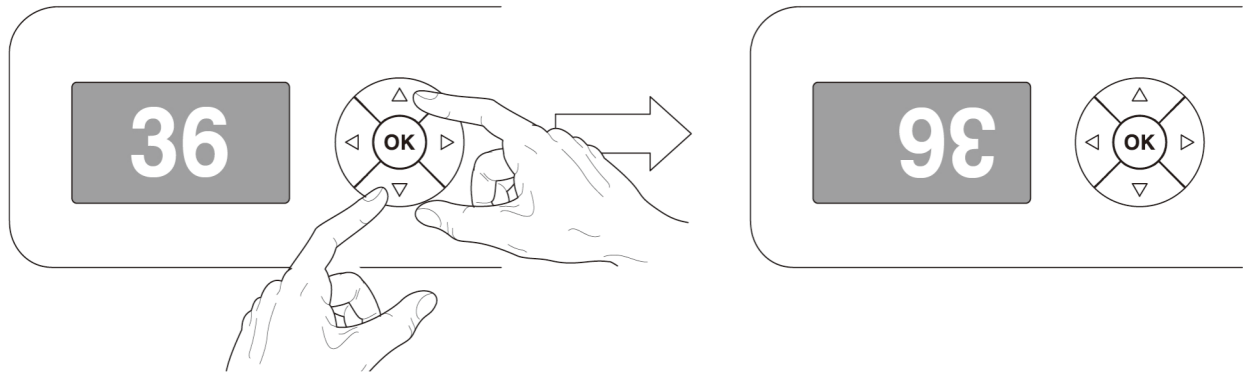


Switching on the projector - Fig. 4

Press the switch. The projector starts resetting the effects. At the same time,

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. 4) has a display and buttons for the complete programming and management of the projector menu. The display can be in one of two conditions: rest status and setting status. When it is in the rest status, the display shows the projector's DMX address and the Fixture ID address (if set).

During menu setting status, after a wait time (about 30 seconds) without any key having been pressed, the display automatically returns to rest status. It should be noted that when this condition occurs, any possible value that has been modified but not yet confirmed with the **OK** key will be cancelled.



Reversal of the display - Fig. 5

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. 11.

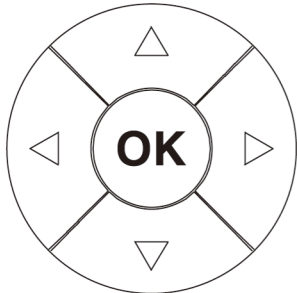
Setting the projector Fixture ID

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. 11.

Functions of the buttons - Using the menu



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



DOWN

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



UP

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



LEFT

Return to the top level.



RIGHT

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

USING THE MENU:

- 1) Press **OK** once – "Main Menu" appears on the display.
- 2) Use the UP ▲ and DOWN ▼ keys to select the menu to be used:
 - Setup (Setup Menu): To set the setting options.
 - Option (Option Menu): To set the operating options
 - Informations (Informations Menu): To read the counters, software version and other information.
 - Manual Control (Manual control Menu): To trigger the test and manual control functions.
 - Test (Test Menu): To check the proper functioning of effects
 - Advanced (Advanced Menu): Access to the "Advanced menu" is recommended for a trained technical personnel.

To enable the "Advanced" see pag. 15.
- 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.

CAUSE AND SOLUTION OF PROBLEMS

| THE PROJECTOR WILL NOT SWITCH ON | | | <i>PROBLEMS</i> |
|----------------------------------|-----|---|-------------------------------------|
| ELECTRONICS NON-OPERATIONAL | | | |
| DEFECTIVE PROJECTION | | | |
| REDUCED LUMINOSITY | | | |
| <i>POSSIBLE CAUSES</i> | | <i>CHECKS AND REMEDIES</i> | |
| ● | | No mains supply. | Check the power supply voltage. |
| ● | ● | LED exhausted or defective. | Call an authorised technician. |
| ● | | 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). |

MENU SETTING

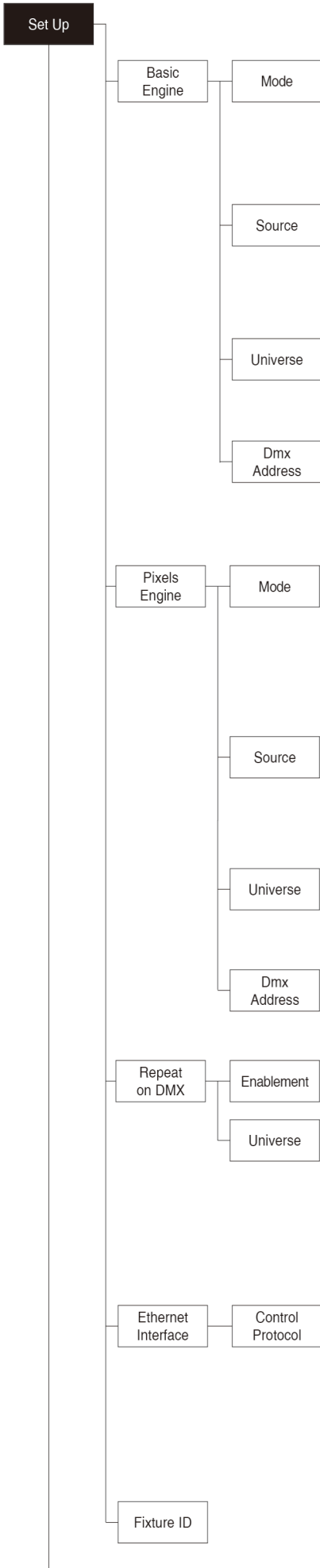
XXX = default value

| Main Menu | Level 1 | Level 2 | Level 3 | Choices / Values |
|-----------|--------------------|------------------|---------|---|
| SET UP | Basic Engine | Mode | | Standard Shape |
| | | Source | | DMX Art-net |
| | | Universe | | 0 - 255 |
| | | DMX Address | | 1 - 512 |
| | Pixels Engine | Mode | | Disabled RGB RGBW |
| | | Source | | DMX Art-net |
| | | Universe | | 0 - 255 |
| | | DMX Address | | 1 - 512 |
| | Repeat on DMX | Enablement | | Disabled Enabled on primary |
| | | Universe | | 0 - 255 |
| | Ethernet Interface | Control Protocol | | Disabled Art-net on IP 2.x.x.x Art-net on IP 10.x.x.x |
| | Fixture ID | | | 0 - 255 |

| Main Menu | Level 1 | Level 2 | Level 3 | Choices / Values | |
|-----------|-------------------|-------------------|---------|--|---|
| OPTION | 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 % | |
| | Silent Mode | | | Standard Quiet | |
| | Fan Speed Mode | | | Auto Full | |
| | Display | | | On / Off | |
| | Special Functions | Pan/Tilt speed | | | Normal Fast |
| | | Dimmer curve | | | Curve 1 Curve 2 Curve 3 Curve 4 |
| | | RGB Gamma | | | Gamma 1.0 Gamma 1.5 Gamma 2.0 |
| | | Halogen Mode | | | Halogen OFF Halogen Lamp 1 Halogen Lamp 2 Halogen Lamp 3 Halogen Lamp 4 Halogen Lamp 5 |
| | Setting | 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 |

| Main Menu | Level 1 | Level 2 | Level 3 | Choices / Values |
|--------------------|---------------------------|-----------------|----------------------------------|---|
| INFORMATION | System Errors | | | Read / Reset |
| | Fixture Hours | Total Hours | | Read |
| | | Partial Hours | | Read / Reset |
| | LED Energy Tot | Total Hours | | Read |
| | | Partial Hours | | Read / Reset |
| | System Version | Aleda fw | | Fw.rev. |
| | | CPU board | | Hw.rev. |
| | | com.dev | | Fw.rev. |
| | | 0:PT-3f | | Fw.rev. / Hw.rev. |
| | | 1:Ld-k20 | | Fw.rev. / Hw.rev. |
| | Board Diagnostic | 0:PT-3f | | Status / Err% |
| | | 1:Ld-k20 | | Status / Err% |
| | DMX Monitor | Channels | | Value / Percentage |
| | Fans Monitor | PwrSp | | Speed (RPM) |
| | | PwrSp | | Speed (RPM) |
| | | Head | | Speed (RPM) |
| | Sensor Status | Pan | | ON / OFF / n.a. |
| Tilt | | | ON / OFF / n.a. | |
| Zoom Rotation | | | ON / OFF / n.a. | |
| Zoom | | | ON / OFF / n.a. | |
| Network parameters | IP Address | | | |
| | IP Mask | | | |
| | MAC Address | | | |
| MANUAL CONTROL | Reset | | | Yes / No |
| | Channels | | | Value / Percentage |
| TEST | Pan / Tilt | | | |
| | Colour | | | |
| | Zoom | | | |
| | Rotation | | | |
| | All | | | |
| | Zoom Rotation Sensor Test | | | |
| ADVANCED | Access Code <u>1234</u> | Upload Firmware | | Yes / No |
| | | Setup Model | | Yes / No |
| | | Calibration | Channels | 000 - 255 |
| | | LED calibration | LED Selection 01-37 | Red 0-255 Green 0-255 Blue 0-255 White 0-255 |
| | | | Reset To Default LED Calibration | |

NOTE: On grey the default options



SET UP MENU

For greater programming ease using the DMX control unit and Media-server Art-net, channel mapping is divided into BASIC ENGINE and PIXEL ENGINE (see details in Channel Function).

BASIC ENGINE

Mode

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

- Standard (see channel mapping in Channel Function)
- Shape (see channel mapping in Channel Function)

Source

It lets you assign the input source the projector receives signals from dedicated to BASIC ENGINE. One of the two available sources can be selected:

- DMX
- Art-net

Universe

It lets you set “DMX Universe” for BASIC ENGINE mode to assign values between 000 and 255 to a series of projectors (This option is valid only if Source= Art-net)

DMX Address

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

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

PIXELS ENGINE

Mode

This lets you select the projector operating mode for PIXELS ENGINE, selecting one of the three available modes:

- Disabled
- RGB (see channel mapping in Channel Function)
- RGBW (see channel mapping in Channel Function)

Source

It lets you assign the input source the projector receives signals from dedicated to PIXELS ENGINE. One of the two available sources can be selected:

- DMX
- Art-net

Universe

It lets you set “DMX Universe” for PIXELS ENGINE mode to assign values between 000 and 255 to a series of projectors (This option is valid only if Source= Art-net)

DMX Address

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

REPEAT ON DMX

Enablement

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 assign values between 000 and 255 to a series of projectors. In this case it refers to an Art-net input not read by the projector and re-transmitted to other projectors.

ETHERNET INTERFACE

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

Control Protocol

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

- Disabled
- Art-net on IP 2.x.x.x
- Art-net on IP 10.x.x.x

FIXTURE ID

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

OPTIONS MENU

PAN / TILT

Invert pan

Used for reversing Pan movement.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) PAN inversion.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

Invert tilt

Used for reversing tilt movement.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) Tilt inversion.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

Swap Pan-Tilt

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

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) Pan and Tilt channel swap.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

Encoder Pan-Tilt

Used for enabling the Pan / Tilt encoders.

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

You can quickly disable the Pan and Tilt Encoder by simultaneously pressing the UP **▲ and DOWN **▼** keys in the "Main Menu".**

P/T Homing Mode

Lets you set the initial projector Reset mode.

- 1) Press **OK**, the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - Standard:** Pan & Tilt are simultaneously reset.
 - Sequenced:** Tilt is reset first followed by Pan.
- 3) Press **OK** to confirm the selection or LEFT **◀** 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 **OK**, the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - 0 degree**
 - 90 degrees**
 - 180 degrees**
 - 270 degrees (default)**
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.

Tilt Home Def Pos

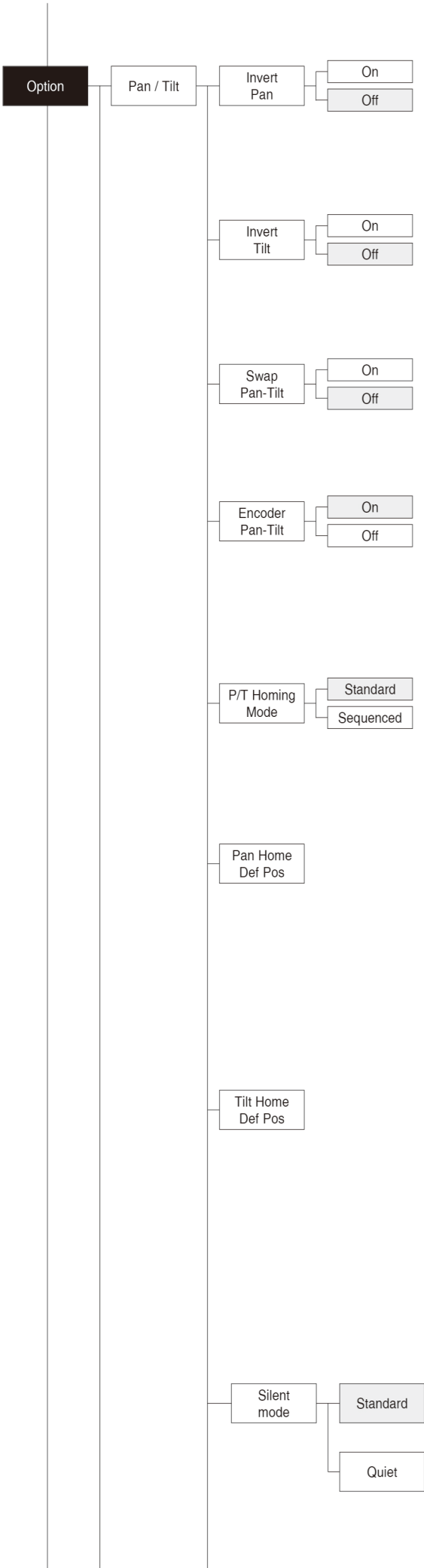
Lets you assign the Tilt channel "home" position at the end of Reset, without a DMX input signal.

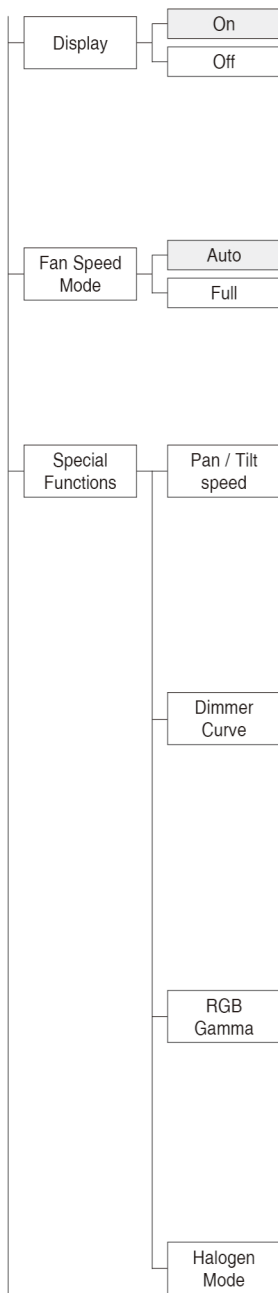
- 1) Press **OK**, the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - 0%**
 - 12.5%**
 - 25%**
 - 50% (default)**
 - 75%**
 - 87.5%**
 - 100%**
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.

SILENT MODE

It lets you select the "Silent Mode" from the two available.

- 1) Press **OK** the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - Standard:** Maximum speed and consequently maximum effects/fans noise level.
 - Quiet:** Regulates the speed of the effects (Pan, Tilt, Zoom, Zoom rotation) and of the fans thereby reducing their noise level.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep the current setting.





DISPLAY

Used for automatically reduce brightness on the display after about 30 seconds in idle.

- 1) Press **OK** - the current settings appear on the display (On or Off).
- 2) Use the UP **▲** and DOWN **▼** keys to enable (On) or disable (Off) the decreasing of display brightness.
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

FAN SPEED MODE

Allows you to set how to manage the fan speed of the head of the fixture, select between the two available:

- **Auto**: the head's fan varies the speed depending on the temperature detected on the LED.
- **Full**: the head's fan is always at full speed.

SPECIAL FUNCTIONS

Pan / Tilt speed

Lets you select two different Pan and Tilt speeds.

- 1) Press **OK** - the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - Normal
 - Fast
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

Dimmer Curve

Lets you select four different Dimmer channel curves.

- 1) Press **OK** - the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - Curve 1
 - Curve 2
 - Curve 3
 - Curve 4
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

RGB Gamma

Lets you select three different RGBW gamma curves.

- 1) Press **OK** - the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - Gamma 1.0
 - Gamma 1.5
 - Gamma 2.0
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

Halogen Mode

Lets you select five different halogen lamp simulations.

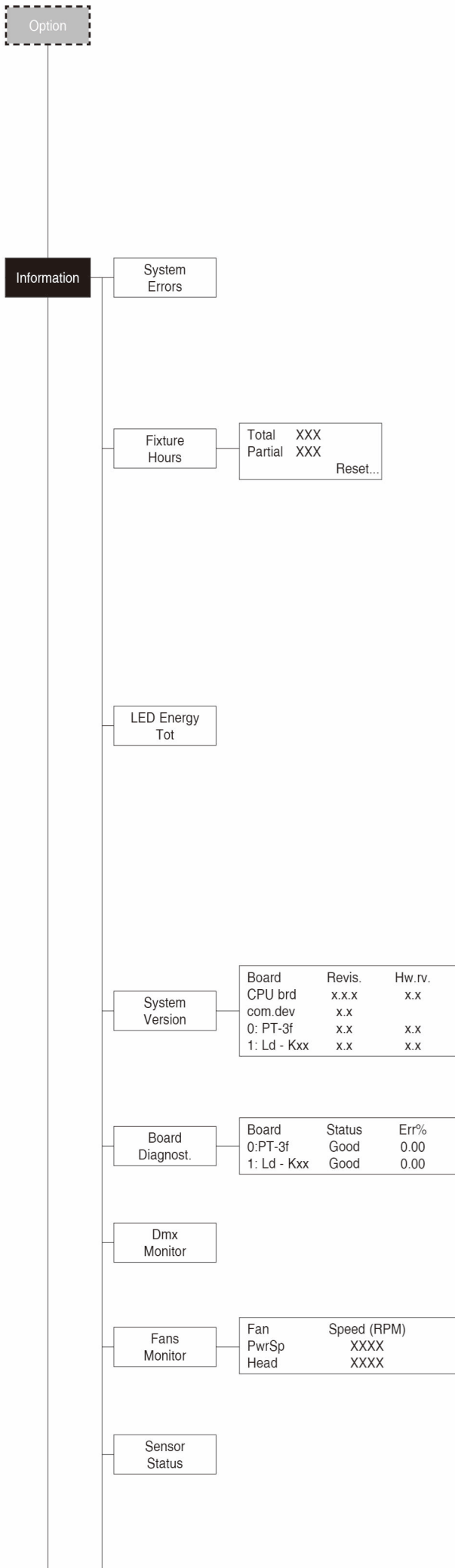
- 1) Press **OK** - the current setting appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following settings:
 - Halogen OFF
 - Halogen Lamp 1 - 750 W
 - Halogen Lamp 2 - 1000 W
 - Halogen Lamp 3 - 1200 W
 - Halogen Lamp 4 - 2000 W
 - Halogen Lamp 5 - 2500 W
- 3) Press **OK** to confirm the selection or LEFT **◀** to keep current settings.

SETTING

Used to save 3 different settings of the items in the options menu and relative submenus.

- 1) Press **OK** - "Default preset" appears on the display.
- 2) Use the UP **▲** and DOWN **▼** keys to select one of the following configurations:
 - Default preset (*)
 - User preset 1
 - User preset 2
 - User preset 3
- 3) Press **OK** - "Load preset X" appears on the display.
- 4) Use the UP **▲** and DOWN **▼** keys to select:
 - Load preset X to recall a previously stored configuration.
 - Save to preset X to store the current configuration.
 a confirmation message (Are you sure?) appears on the display.
- 5) Select YES to confirm the selection or NO to keep the current setting and return to the next higher level.

(*) DEFAULT PRESET



By pressing the RIGHT key and the LEFT key simultaneously once entered in the "main menu" it is possible to quickly (short cut) reset the default settings (DEFAULT PRESET).

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

- 1) Press , a confirmation message (Are you sure?) appears on the display.
- 2) Select YES to confirm the selection or NO to keep current setting.

INFORMATION MENU

SYSTEM ERRORS

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

- 1) Pressing 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.
- 3) Select YES to reset partial projectors counter or NO to keep the current setting and return to the top menu level.

LED ENERGY TOT

Lets you view total LED working hours.

- 1) Press - to display total and partial Watts/hour:

Total

Total LED working hours from construction to date.

Partial

LED working hours from last reset to date.

- 2) Press to reset the partial counter. A confirmation appears on the screen (Are you sure?)
- 3) Select YES to reset the partial counter or NO to keep the current setting and open the next menu level.

SYSTEM VERSION

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

CPU brd (CPU board)

0: PT-3f (Scheda Pan / Tilt)

1: Ld - Kxx (Scheda LED)

BOARD DIAGNOSTIC

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

0: PT-3f (Scheda Pan / Tilt)

1: Ld - Kxx (Scheda LED)

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:

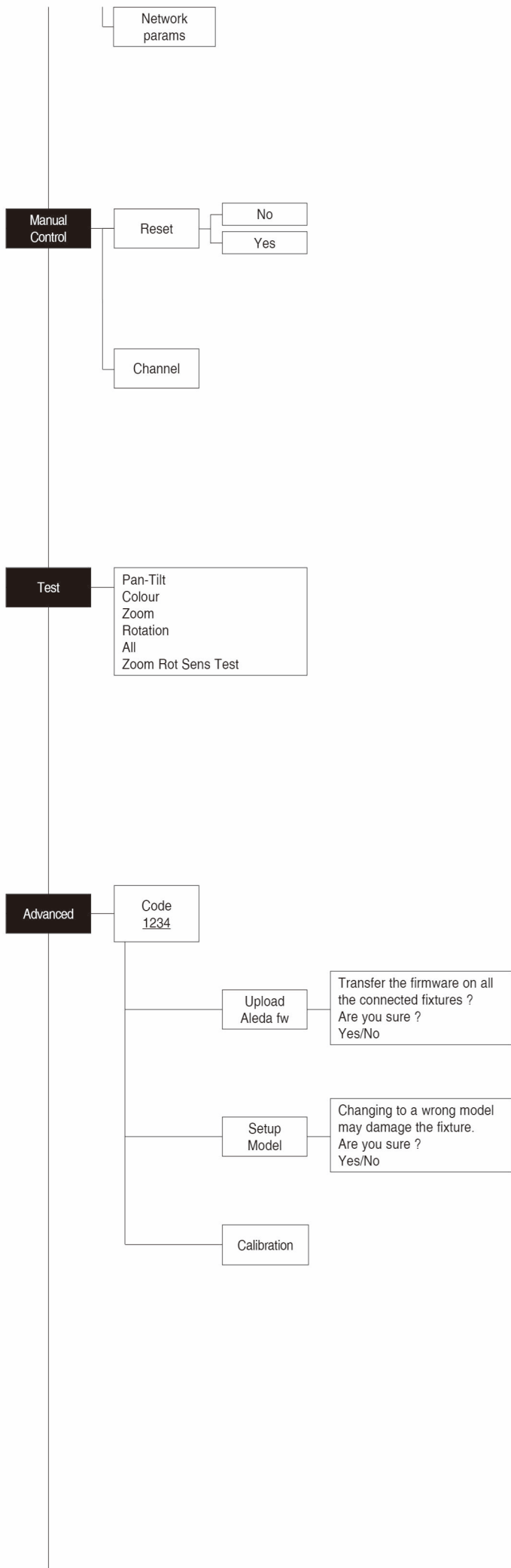
PwrSp (fan PSU)

Head (fan head)

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



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

RESET

Used for resetting the projector.

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

CHANNEL

Used for setting channel levels from the projector control panel.

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

TEST MENU

TEST

Allows you to check the proper functioning of effects.

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

Test sequence:

Pan - Tilt effects (Pan & Tilt)

Colours

Zoom

Zoom rotation

All effects

Zoom Rotation Sensor Test

ADVANCED MENU

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

Press **OK** - "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 **OK**, 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 **OK** 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 **OK** - "channels" appears on the display.
- 2) Using the UP **▲** and DOWN **▼** keys, select the effect you wish to regulate.
- 3) Press **OK** and use the RIGHT **▶**, UP **▲** and DOWN **▼** buttons to make the adjustment by setting a value between 0 and 255.
- 4) Press **OK** 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 **OK** - 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.

CHANNEL FUCTION

STANDARD

| CHAN-NEL | CHANNEL MODE |
|----------|-------------------|
| 1 | Red |
| 2 | Red fine |
| 3 | Green |
| 4 | Green fine |
| 5 | Blue |
| 6 | Blue fine |
| 7 | White |
| 8 | White fine |
| 9 | CTO |
| 10 | Macro colour |
| 11 | Strobe |
| 12 | Dimmer |
| 13 | Dimmer Fine |
| 14 | Pan |
| 15 | Pan Fine |
| 16 | Tilt |
| 17 | Tilt Fine |
| 18 | Function |
| 19 | Reset |
| 20 | Zoom |
| 21 | Lenses rotatation |

SHAPES

| CHAN-NEL | CHANNEL MODE |
|----------|----------------------|
| 1 | Red |
| 2 | Red fine |
| 3 | Green |
| 4 | Green fine |
| 5 | Blue |
| 6 | Blue fine |
| 7 | White |
| 8 | White fine |
| 9 | CTO |
| 10 | Macro colour |
| 11 | Strobe |
| 12 | Dimmer |
| 13 | Dimmer Fine |
| 14 | Pan |
| 15 | Pan Fine |
| 16 | Tilt |
| 17 | Tilt Fine |
| 18 | Function |
| 19 | Reset |
| 20 | Zoom |
| 21 | Lenses rotatation |
| 22 | Shape Selection |
| 23 | Shape Speed |
| 24 | Shape Smoothing |
| 25 | Shape Red |
| 26 | Shape Green |
| 27 | Shape Blue |
| 28 | Shape White |
| 29 | Shape Intensity |
| 30 | Background Intensity |
| 31 | Shape Transition |
| 32 | Shape Offset |
| 33 | Foreground Strobe |
| 34 | Background Strobe |
| 35 | Background Select |

EXTENDED

| CHAN-NEL | CHANNEL MODE |
|----------|-------------------|
| 1 | Red |
| 2 | Red fine |
| 3 | Green |
| 4 | Green fine |
| 5 | Blue |
| 6 | Blue fine |
| 7 | White |
| 8 | White fine |
| 9 | CTO |
| 10 | Macro colour |
| 11 | Strobe |
| 12 | Dimmer |
| 13 | Dimmer Fine |
| 14 | Pan |
| 15 | Pan Fine |
| 16 | Tilt |
| 17 | Tilt Fine |
| 18 | Function |
| 19 | Reset |
| 20 | Zoom |
| 21 | Lenses rotatation |
| 22 | Red LED 1 |
| 23 | Green LED 1 |
| 24 | Blue LED 1 |
| 25 | Red LED 2 |
| 26 | Green LED 2 |
| 27 | Blue LED 2 |
| 28 | Red LED 3 |
| 29 | Green LED 3 |
| 30 | Blue LED 3 |
| 31 | Red LED 4 |
| 32 | Green LED 4 |
| 33 | Blue LED 4 |
| 34 | Red LED 5 |
| 35 | Green LED 5 |
| 36 | Blue LED 5 |
| 37 | Red LED 6 |
| 38 | Green LED 6 |
| 39 | Blue LED 6 |
| 40 | Red LED 7 |
| 41 | Green LED 7 |
| 42 | Blue LED 7 |
| 43 | Red LED 8 |
| 44 | Green LED 8 |
| 45 | Blue LED 8 |
| 46 | Red LED 9 |
| 47 | Green LED 9 |
| 48 | Blue LED 9 |
| 49 | Red LED 10 |
| 50 | Green LED 10 |
| 51 | Blue LED 10 |
| 52 | Red LED 11 |
| 53 | Green LED 11 |
| 54 | Blue LED 11 |
| 55 | Red LED 12 |
| 56 | Green LED 12 |
| 57 | Blue LED 12 |
| 58 | Red LED 13 |
| 59 | Green LED 13 |
| 60 | Blue LED 13 |
| 61 | Red LED 14 |
| 62 | Green LED 14 |
| 63 | Blue LED 14 |
| 64 | Red LED 15 |
| 65 | Green LED 15 |
| 66 | Blue LED 15 |

| CHAN-NEL | CHANNEL MODE |
|----------|--------------|
| 67 | Red LED 16 |
| 68 | Green LED 16 |
| 69 | Blue LED 16 |
| 70 | Red LED 17 |
| 71 | Green LED 17 |
| 72 | Blue LED 17 |
| 73 | Red LED 18 |
| 74 | Green LED 18 |
| 75 | Blue LED 18 |
| 76 | Red LED 19 |
| 77 | Green LED 19 |
| 78 | Blue LED 19 |
| 79 | Red LED 20 |
| 80 | Green LED 20 |
| 81 | Blue LED 20 |
| 82 | Red LED 21 |
| 83 | Green LED 21 |
| 84 | Blue LED 21 |
| 85 | Red LED 22 |
| 86 | Green LED 22 |
| 87 | Blue LED 22 |
| 88 | Red LED 23 |
| 89 | Green LED 23 |
| 90 | Blue LED 23 |
| 91 | Red LED 24 |
| 92 | Green LED 24 |
| 93 | Blue LED 24 |
| 94 | Red LED 25 |
| 95 | Green LED 25 |
| 96 | Blue LED 25 |
| 97 | Red LED 26 |
| 98 | Green LED 26 |
| 99 | Blue LED 26 |
| 100 | Red LED 27 |
| 101 | Green LED 27 |
| 102 | Blue LED 27 |
| 103 | Red LED 28 |
| 104 | Green LED 28 |
| 105 | Blue LED 28 |
| 106 | Red LED 29 |
| 107 | Green LED 29 |
| 108 | Blue LED 29 |
| 109 | Red LED 30 |
| 110 | Green LED 30 |
| 111 | Blue LED 30 |
| 112 | Red LED 31 |
| 113 | Green LED 31 |
| 114 | Blue LED 31 |
| 115 | Red LED 32 |
| 116 | Green LED 32 |
| 117 | Blue LED 32 |
| 118 | Red LED 33 |
| 119 | Green LED 33 |
| 120 | Blue LED 33 |
| 121 | Red LED 34 |
| 122 | Green LED 34 |
| 123 | Blue LED 34 |
| 124 | Red LED 35 |
| 125 | Green LED 35 |
| 126 | Blue LED 35 |
| 127 | Red LED 36 |
| 128 | Green LED 36 |
| 129 | Blue LED 36 |
| 130 | Red LED 37 |
| 131 | Green LED 37 |
| 132 | Blue LED 37 |

EXTENDED RGBW

| CHAN- NEL | CHANNEL MODE |
|--------------|-------------------|
| 1 | Red |
| 2 | Red fine |
| 3 | Green |
| 4 | Green fine |
| 5 | Blue |
| 6 | Blue fine |
| 7 | White |
| 8 | White fine |
| 9 | CTO |
| 10 | Macro colour |
| 11 | Strobe |
| 12 | Dimmer |
| 13 | Dimmer Fine |
| 14 | Pan |
| 15 | Pan Fine |
| 16 | Tilt |
| 17 | Tilt Fine |
| 18 | Function |
| 19 | Reset |
| 20 | Zoom |
| 21 | Lenses rotatation |
| 22 | Red LED 1 |
| 23 | Green LED 1 |
| 24 | Blue LED 1 |
| 25 | White LED 1 |
| 26 | Red LED 2 |
| 27 | Green LED 2 |
| 28 | Blue LED 2 |
| 29 | White LED 2 |
| 30 | Red LED 3 |
| 31 | Green LED 3 |
| 32 | Blue LED 3 |
| 33 | White LED 3 |
| 34 | Red LED 4 |
| 35 | Green LED 4 |
| 36 | Blue LED 4 |
| 37 | White LED 4 |
| 38 | Red LED 5 |
| 39 | Green LED 5 |
| 40 | Blue LED 5 |
| 41 | White LED 5 |
| 42 | Red LED 6 |
| 43 | Green LED 6 |
| 44 | Blue LED 6 |
| 45 | White LED 6 |
| 46 | Red LED 7 |
| 47 | Green LED 7 |
| 48 | Blue LED 7 |
| 49 | White LED 7 |
| 50 | Red LED 8 |
| 51 | Green LED 8 |
| 52 | Blue LED 8 |
| 53 | White LED 8 |
| 54 | Red LED 9 |
| 55 | Green LED 9 |
| 56 | Blue LED 9 |
| 57 | White LED 9 |

| CHAN- NEL | CHANNEL MODE |
|--------------|--------------|
| 58 | Red LED 10 |
| 59 | Green LED 10 |
| 60 | Blue LED 10 |
| 61 | White LED 10 |
| 62 | Red LED 11 |
| 63 | Green LED 11 |
| 64 | Blue LED 11 |
| 65 | White LED 11 |
| 66 | Red LED 12 |
| 67 | Green LED 12 |
| 68 | Blue LED 12 |
| 69 | White LED 12 |
| 70 | Red LED 13 |
| 71 | Green LED 13 |
| 72 | Blue LED 13 |
| 73 | White LED 13 |
| 74 | Red LED 14 |
| 75 | Green LED 14 |
| 76 | Blue LED 14 |
| 77 | White LED 14 |
| 78 | Red LED 15 |
| 79 | Green LED 15 |
| 80 | Blue LED 15 |
| 81 | White LED 15 |
| 82 | Red LED 16 |
| 83 | Green LED 16 |
| 84 | Blue LED 16 |
| 85 | White LED 16 |
| 86 | Red LED 17 |
| 87 | Green LED 17 |
| 88 | Blue LED 17 |
| 89 | White LED 17 |
| 90 | Red LED 18 |
| 91 | Green LED 18 |
| 92 | Blue LED 18 |
| 93 | White LED 18 |
| 94 | Red LED 19 |
| 95 | Green LED 19 |
| 96 | Blue LED 19 |
| 97 | White LED 19 |
| 98 | Red LED 20 |
| 99 | Green LED 20 |
| 100 | Blue LED 20 |
| 101 | White LED 20 |
| 102 | Red LED 21 |
| 103 | Green LED 21 |
| 104 | Blue LED 21 |
| 105 | White LED 21 |
| 106 | Red LED 22 |
| 107 | Green LED 22 |
| 108 | Blue LED 22 |
| 109 | White LED 22 |
| 110 | Red LED 23 |
| 111 | Green LED 23 |
| 112 | Blue LED 23 |
| 113 | White LED 23 |
| 114 | Red LED 24 |

| CHAN- NEL | CHANNEL MODE |
|--------------|--------------|
| 115 | Green LED 24 |
| 116 | Blue LED 24 |
| 117 | White LED 24 |
| 118 | Red LED 25 |
| 119 | Green LED 25 |
| 120 | Blue LED 25 |
| 121 | White LED 25 |
| 122 | Red LED 26 |
| 123 | Green LED 26 |
| 124 | Blue LED 26 |
| 125 | White LED 26 |
| 126 | Red LED 27 |
| 127 | Green LED 27 |
| 128 | Blue LED 27 |
| 129 | White LED 27 |
| 130 | Red LED 28 |
| 131 | Green LED 28 |
| 132 | Blue LED 28 |
| 133 | White LED 28 |
| 134 | Red LED 29 |
| 135 | Green LED 29 |
| 136 | Blue LED 29 |
| 137 | White LED 29 |
| 138 | Red LED 30 |
| 139 | Green LED 30 |
| 140 | Blue LED 30 |
| 141 | White LED 30 |
| 142 | Red LED 31 |
| 143 | Green LED 31 |
| 144 | Blue LED 31 |
| 145 | White LED 31 |
| 146 | Red LED 32 |
| 147 | Green LED 32 |
| 148 | Blue LED 32 |
| 149 | White LED 32 |
| 150 | Red LED 33 |
| 151 | Green LED 33 |
| 152 | Blue LED 33 |
| 153 | White LED 33 |
| 154 | Red LED 34 |
| 155 | Green LED 34 |
| 156 | Blue LED 34 |
| 157 | White LED 34 |
| 158 | Red LED 35 |
| 159 | Green LED 35 |
| 160 | Blue LED 35 |
| 161 | White LED 35 |
| 162 | Red LED 36 |
| 163 | Green LED 36 |
| 164 | Blue LED 36 |
| 165 | White LED 36 |
| 166 | Red LED 37 |
| 167 | Green LED 37 |
| 168 | Blue LED 37 |
| 169 | White LED 37 |

NOTE: On conclusion of resetting in case of absence of DMX signal, Pan & Tilt move to the "Home" position (Pan 128 bit - Tilt 128 bit) all the others channels stay at 0 bit.

• RED
GREEN
BLUE
WHITE



| BIT | EFFECT |
|-----|---------|
| 255 | LED ON |
| 0 | LED OFF |

• RED FINE
GREEN FINE
BLUE FINE
WHITE FINE



| BIT | EFFECT |
|-----|--------|
| 255 | UP |
| 0 | LOW |

• LINEAR CTO

| BIT | EFFECT |
|-----|--------------|
| 255 | 2500 K |
| ... | ... |
| 224 | 3200 K |
| ... | ... |
| 188 | 4000 K |
| ... | ... |
| 144 | 5000 K |
| ... | ... |
| 117 | 5600 K |
| ... | ... |
| 99 | 6000 K |
| ... | ... |
| 54 | 7000 K |
| ... | ... |
| 10 | 8000 K |
| 0-9 | UNUSED RANGE |

Note: If CTO channel is active, the WHITE channel is disabled.

• MACRO COLOUR

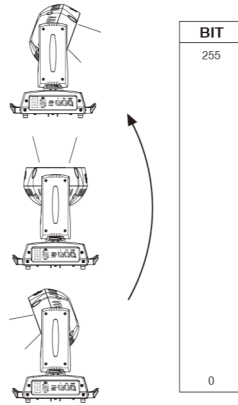
| BIT | LEE REFERENCE | COLOUR | BIT VALUE | | | |
|---------|---------------|-------------------|-----------|-----|-----|-----|
| | | | R | G | B | W |
| 209-255 | - | White | 255 | 235 | 66 | 255 |
| 208 | - | Dirty White | 255 | 255 | 122 | 255 |
| 207 | 197 | Alice Blue | 128 | 255 | 143 | 0 |
| 191-206 | 181 | Congo Blue | 77 | 0 | 255 | 0 |
| 184-190 | 174 | Dark Steel Blue | 181 | 255 | 95 | 0 |
| 180-183 | 170 | Deep lavender | 255 | 168 | 64 | 0 |
| 179 | 169 | Lilac Tint | 255 | 199 | 49 | 0 |
| 175-178 | 165 | Daylight Blue | 82 | 214 | 90 | 0 |
| 174 | 164 | Flame Red | 255 | 46 | 2 | 0 |
| 172-173 | 162 | Bastard Amber | 255 | 181 | 28 | 0 |
| 168-171 | 158 | Deep Orange | 222 | 84 | 0 | 0 |
| 162-167 | 152 | Pale Gold | 253 | 171 | 26 | 0 |
| 157-161 | 147 | Apricot | 255 | 143 | 13 | 0 |
| 151-156 | 141 | Bright Blue | 0 | 255 | 87 | 0 |
| 149-150 | 139 | Primary Green | 77 | 255 | 0 | 0 |
| 147-148 | 137 | Special lavender | 219 | 197 | 79 | 0 |
| 146 | 136 | Pale Lavender | 255 | 197 | 61 | 0 |
| 145 | 135 | Deep Golden Amber | 255 | 58 | 0 | 0 |
| 142-144 | 132 | Medium Blue | 0 | 255 | 143 | 0 |
| 138-141 | 128 | Bright Pink | 255 | 53 | 36 | 0 |
| 136-137 | 126 | Mauve | 227 | 41 | 56 | 0 |
| 134-135 | 124 | Dark Green | 84 | 255 | 13 | 0 |
| 131-133 | 121 | Leaf Green | 206 | 255 | 0 | 0 |
| 129-130 | 119 | Dark Blue | 0 | 186 | 255 | 0 |
| 128 | 118 | Light Blue | 74 | 255 | 82 | 0 |
| 127 | 117 | Steel Blue | 206 | 255 | 56 | 0 |
| 126 | 116 | Med Blu Green | 206 | 255 | 56 | 0 |
| 125 | 115 | Peacock Blue | 51 | 255 | 51 | 0 |
| 123-124 | 113 | Magenta | 255 | 20 | 15 | 0 |
| 121-122 | 111 | Dark Pink | 255 | 109 | 33 | 0 |
| 120 | 110 | Middle Rose | 217 | 130 | 28 | 0 |
| 119 | 109 | Light Salmon | 255 | 138 | 31 | 0 |
| 118 | 108 | English Rose | 255 | 148 | 23 | 0 |
| 117 | 107 | Light Rose | 255 | 141 | 31 | 0 |
| 115-116 | 105 | Orange | 255 | 122 | 0 | 0 |
| 114 | 104 | Deep Amber | 255 | 166 | 0 | 0 |
| 113 | 103 | Straw | 230 | 160 | 0 | 69 |
| 112 | 102 | Light Amber | 237 | 163 | 0 | 0 |
| 110-111 | 100 | Spring Yellow | 245 | 202 | 0 | 0 |
| 100-109 | 90 | Dark yellow green | 41 | 219 | 0 | 0 |
| 89-99 | 79 | Just Blue | 0 | 194 | 130 | 0 |
| 78-88 | 68 | Sky Blue | 0 | 255 | 135 | 0 |
| 68-77 | 58 | Lavender | 243 | 117 | 133 | 199 |
| 62-67 | 52 | Light Lavender | 243 | 117 | 39 | 197 |
| 49-61 | 39 | Pink Carnation | 255 | 107 | 0 | 130 |
| 46-48 | 36 | Medium Pink | 255 | 87 | 0 | 107 |
| 45 | 35 | Light Pink | 255 | 112 | 0 | 141 |
| 35-44 | 25 | Sunrise Red | 255 | 83 | 2 | 0 |
| 32-34 | 22 | Dark Amber | 255 | 65 | 0 | 0 |
| 31 | 21 | Gold Amber | 255 | 100 | 0 | 0 |
| 30 | 20 | Medium Amber | 255 | 135 | 0 | 0 |
| 29 | 19 | Fire | 255 | 56 | 0 | 0 |
| 27-28 | 17 | Surprise Peach | 198 | 114 | 9 | 0 |
| 23-26 | 13 | Straw Tint | 152 | 115 | 9 | 0 |
| 20-22 | 10 | Medium Yellow | 156 | 126 | 0 | 0 |
| 19 | - | Black | 0 | 0 | 0 | 0 |
| 18 | - | White 5000 K | 255 | 137 | 0 | 193 |
| 17 | - | White 3700 K | 255 | 201 | 25 | 255 |
| 16 | - | White 7000 K | 216 | 237 | 61 | 255 |
| 15 | - | Magenta | 255 | 0 | 255 | 0 |
| 14 | - | Yellow | 255 | 255 | 0 | 0 |
| 13 | - | Cyan | 0 | 255 | 255 | 0 |
| 12 | - | Blue | 0 | 0 | 255 | 0 |
| 11 | - | Green | 0 | 255 | 0 | 0 |
| 10 | - | Red | 255 | 0 | 0 | 0 |
| 0-9 | - | Macro color OFF | - | - | - | - |

• STOP STROBE - FOREGROUND STROBE - BACKGROUND STROBE

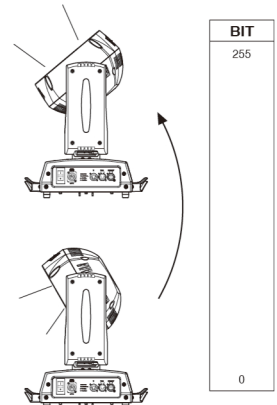


| BIT | EFFECT |
|-----------|--------------------------------|
| 252 - 255 | OPEN |
| 239 - 251 | RANDOM FAST STROBE |
| 226 - 238 | RANDOM MEDIUM STROBE |
| 213 - 225 | RANDOM SLOW STROBE |
| 208 - 212 | OPEN |
| 207 | FAST PULSATION (25 flash/sec) |
| 108 | SLOW PULSATION (0,5 flash/sec) |
| 104 - 107 | OPEN |
| 103 | FAST STROBE (25 flash/sec) |
| 4 | SLOW STROBE (1 flash/sec) |
| 0 - 3 | CLOSED |

• TILT

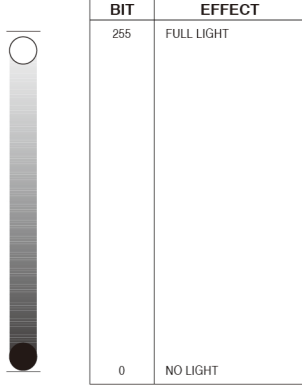


• TILT FINE

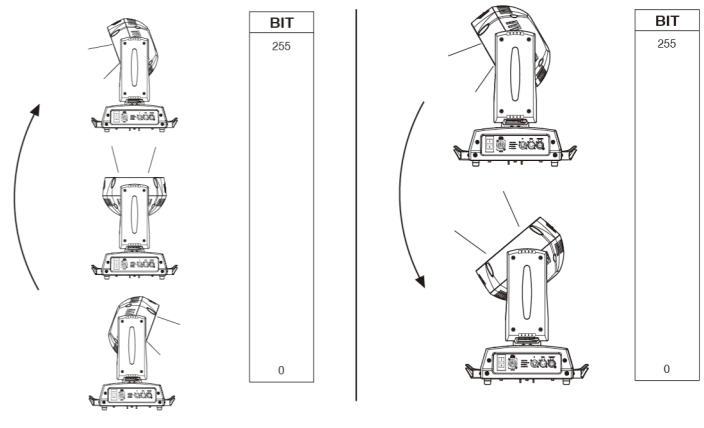
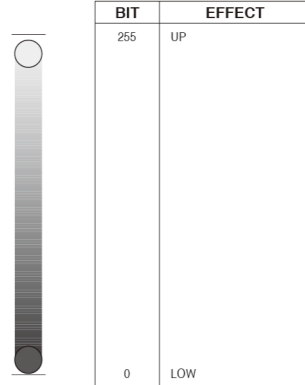


Operation with option InvertTilt \diamond Off

• DIMMER

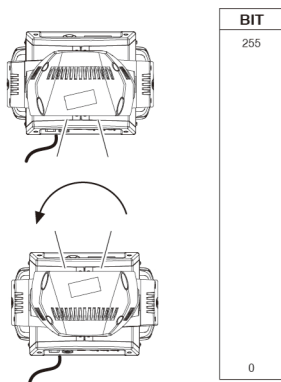


• DIMMER FINE

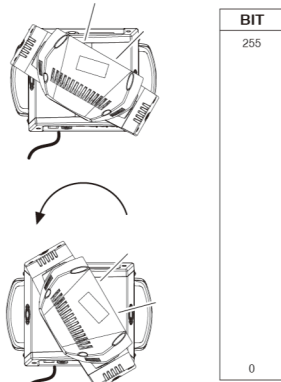


Operation with option InvertTilt \diamond On

• PAN



• PAN FINE

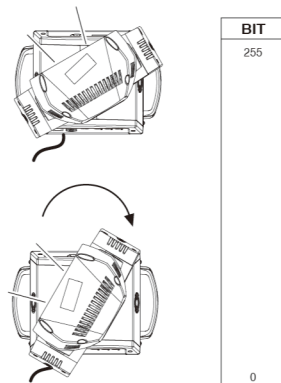
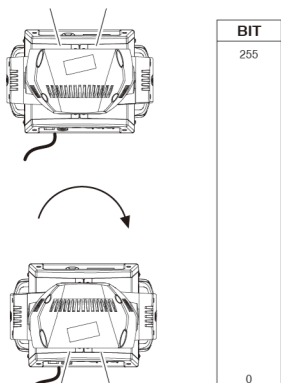


Operation with option InvertPan \diamond Off

• FUNCTION

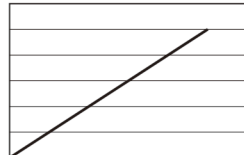
| BIT | EFFECT |
|-----------|--|
| 106 - 255 | Reserved |
| 103 - 105 | Pixel map enabled |
| 98 - 102 | Halogen Lamp Simulation Linear CTO @ 0 bit |
| 93 - 97 | Halogen Lamp Simulation Linear CTO @ 0 bit |
| 88 - 92 | Halogen Lamp Simulation Linear CTO @ 0 bit |
| 83 - 87 | Halogen Lamp Simulation Linear CTO @ 0 bit |
| 78 - 82 | Halogen Lamp Simulation Linear CTO @ 0 bit |
| 73 - 77 | Halogen Lamp Simulation OFF (Default) |
| 68 - 72 | RGBW Gamma curve 3 - gamma = 2.0 |
| 63 - 67 | RGBW Gamma curve 2 - gamma = 1.5 |
| 58 - 62 | RGBW Gamma curve 1 - gamma = 1.0 |
| 52 - 57 | Dimmer Curve 4 |
| 48 - 52 | Dimmer Curve 3 |
| 43 - 47 | Dimmer Curve 2 |
| 38 - 42 | Dimmer Curve 1 |
| 24 - 37 | Pan Tilt Normal |
| 12 - 24 | Pan Tilt Fast (Default) |
| 0 - 11 | Function off - rearmed |

The functions are activated passing through the "unused range" and staying 5 seconds in necessary level.
Last selected function still active. Enable setting a new function.

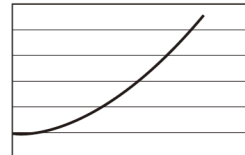


Operation with option InvertPan \diamond On

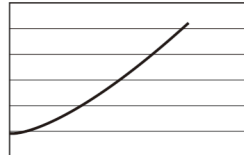
DIMMER CURVE 1 - GAMMA 1 LINEAR



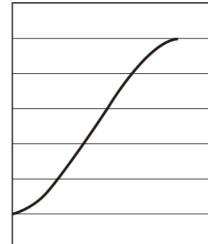
DIMMER CURVE 3 - GAMMA 2,0



DIMMER CURVE 2 - GAMMA 1,5



DIMMER CURVE 4 - S



• RESET

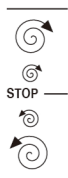
| BIT | EFFECT |
|------------|---|
| 255 | COMPLETE RESET Complete reset is activated passing through the unused range and staying 5 seconds in complete reset levels |
| 128 127 | COMPLETE RESET PAN / TILT RESET Pan / Tilt reset is activated passing through the unused range and staying 5 seconds in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

• ZOOM



| BIT | EFFECT |
|-----|-------------|
| 255 | WIDE BEAM |
| 0 | NARROW BEAM |

• ZOOM ROTATION



| BIT | EFFECT |
|-----------|-----------------|
| 255 | FAST ROTATION |
| 193 | SLOW ROTATION |
| 191 - 192 | STOP |
| 190 | SLOW ROTATION |
| 128 | FAST ROTATION |
| 127 | FAST ROTATION |
| 0 | LINEAR ROTATION |

• ZOOM ROTATION (available on zoom channel from 0 bit to 42 bit)

| BIT | MACRO EFFECT |
|---------|--|
| 193-255 | CCW Rotation, speed from 3 RPH to 10 RPM |
| 191-192 | Stop rotation |
| 128-190 | CW Rotation, speed from 10 RPM to 3 RPH |
| 127 | Indexed zone. Lens angle = 60.00 |
| 126 | Indexed zone. Lens angle = 59.52 |
| | |
| 3 | Indexed zone. Lens angle = 1.42 |
| 2 | Indexed zone. Lens angle = 0.94 |
| 1 | Indexed zone. Lens angle = 0.47 |
| 0 | Indexed zone. Lens angle = 0 |

• ZOOM ROTATION (available on zoom channel at 255 bit only)

| BIT | MACRO EFFECT |
|---------|---------------------------------|
| 128-255 | Lens offset angle: 0.00 degree |
| 127 | Lens offset angle: +4.00 degree |
| 126 | Lens offset angle: +3.94 degree |
| 125 | Lens offset angle: +3.87 degree |
| | |
| 1 | Lens offset angle: +0.06 degree |
| 0 | Lens offset angle: 0.00 degree |

- RED LED 1 to...
- GREEN LED 1 to...
- BLUE LED 1 to...
- WHITE LED 1 to...



| BIT | EFFECT |
|-----|---------|
| 255 | LED ON |
| 0 | LED OFF |

SHAPE SPEED - SHAPE OFFSET - SHAPE FADE - BACKGROUND SELECT

| Shape Selection | Shape Slot | Macro Name | On K10 | On K20 | Description | Random colors *1 | SHAPE SPEED | SHAPE OFFSET | SHAPE FADE | BACKGROUND SELECT (*3)(*4) |
|-----------------|------------|--|--------|--------|--|------------------------------|--|---|--|---|
| 0-7 | | Macro OFF | Yes | Yes | | N.a. | N.a. | N.a. | N.a. | N.a. |
| 8 | 1 | Pixel 1 | Yes | Yes | Static effects. The ring or rings used by the macro are turned-on with the foreground colour. | N.a. | N.a. | N.a. | 0-15 = Snap effect 16-255 = Fade effect and gamma selection | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-255 = wash For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-255 = wash |
| 9 | 2 | Ring 1 | Yes | Yes | | | | | | |
| 10 | 3 | Ring 2 | Yes | Yes | | | | | | |
| 11 | 4 | Ring 3 | No | Yes | | | | | | |
| 12 | 5 | Pixel 1+Ring 1 | Yes | Yes | | | | | | |
| 13 | 6 | Pixel 1+Ring 2 | Yes | Yes | | | | | | |
| 14 | 7 | Pixel 1+Ring 3 | No | Yes | | | | | | |
| 15 | 8 | Single ring (Ramp -/+) | Yes | Yes | | Yes | 0-63 = Radius size, static. 64-158 = max to min speed, Closing effect 159-160 = STOP 161-255 = min to max speed, Opening effect | 0-9 → continuous 10-255 → random distribution of flash | 0-15 = Snap effect 16-255 = Fade effect and gamma selection | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-255 = wash For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-255 = wash |
| 16 | 9 | Filled rings (ramp -/+) | Yes | Yes | Yes | | | | | |
| 17 | 10 | Open/Close 1 | Yes | Yes | Yes | | | | | |
| 18 | 11 | Open/Close 2 | Yes | Yes | Yes | | | | | |
| 19 | 12 | Random pixels 1 | Yes | Yes | | Yes | 0-63 = STOP 64-158 = max to min speed, Instant-on + fadeout. 159-160 = STOP. 161-255 = min to max speed, FadeIn + FadeOut. | 0-255 → select random distribution from 2 up to 20 fixtures | 0-15 = Snap effect 16-255 = Fade effect and gamma selection | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-254 = wash For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-254 = wash All Fixtures: 255 = Mirror Effect |
| 20 | 13 | Random pixels 2 | Yes | Yes | Yes | 0-255 → select pixel density | | | | |
| 21 | 14 | Rainbow 1 (Variable speed) | Yes | Yes | | N.a. | 0-63 = Angle 0-360°, static. 64-158 = max to min speed, c.cw rotation 159-160 = STOP 161-255 = min to max speed, cw rotation | 0-255 → angle offset from 0 to 360° | 0-15 = Snap effect 16-255 = Fade effect and gamma selection | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-255 = wash For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-255 = wash |
| 22 | 15 | Rainbow 2 (Fixed speed with variable color offset) | Yes | Yes | | N.a. | 0-63 = STOP 64-158 = c.cw rotation 159-160 = STOP 161-255 = cw rotation The value 64-158 or 161-255 change the rainbow angle offset (the orange starting angle). | N.a. | 0-15 = Snap effect 16-255 = Fade effect and gamma selection | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-255 = wash For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-255 = wash |
| 23 | 16 | Fan | Yes | Yes | | N.a. | 0-63 = angle offset, 0-360° 64-158 = max to min speed, c.cw rotation 159-160 = STOP 161-255 = min to max speed, cw rotation | 0-255 → angle offset from 0 to 360° | 0-15 = Snap effect 16-255 = Fade effect and gamma selection | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-255 = wash For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-255 = wash For all fixtures: - Macro 25, 26 255 = Mirror Effect with bkgnd color - Macro 27, 28, 29 255 = Show Alternative Color |
| 24 | 17 | Bar 1 | Yes | Yes | | | | | | |
| 25 | 18 | Half moon | Yes | Yes | | | | | | |
| 26 | 19 | Triangle | Yes | Yes | | | | | | |
| 27 | 20 | Segment 1 | Yes | Yes | | | | | | |
| 28 | 21 | Arc 1 | Yes | Yes | | | | | | |
| 29 | 22 | Arc 2 | Yes | Yes | | | | | | |

| Shape Selection | Shape Slot | Macro Name | On K10 | On K20 | Description | Random colors *1 | SHAPE SPEED | SHAPE OFFSET | SHAPE FADE | BACKGROUND SELECT (*3)(*4) | |
|-----------------|------------|--------------------------|----------|--------|-------------|------------------|---|---------------------------------------|-----------------------------|--|------|
| 30 | 23 | Bar 2 (Variable size) | Yes | Yes | | N.a. | 0-63 = STOP, indexed speed 64-158 = max to min speed, c.cw rotation. 159-160 = STOP. 161-255 = min to max speed cc rotation. | 0-255 → select shape width | Linear fade | For K10: 0-7 = wash 8-15 = Bkgnd rings selection 16-254 = wash 255 = Mirror effect with bkgnd color For K20: 0-7 = wash 8-23 = Bkgnd rings selection 24-254 = wash 255 = Mirror effect with bkgnd color Note: Mirror effect unavailable for macro 31. Macro 67, 68, 69: the mirror effect is available only for options 1, 3, 9 | |
| 31 | 24 | Random explosion | Yes | Yes | | Yes | | 0-255 → select random distribution | Linear fade and wake length | | |
| 32 | 25 | Segment 2 | Yes | Yes | | | | 0-255 → select shape width | | | |
| 33 | 26 | x Bump | No | Yes | | | | 0-255 → select macro offset | Linear fade | | |
| 34 | 27 | Image | No | Yes | | | | | | | |
| 35 | 28 | Bumping section | Yes | Yes | | | | | | | |
| 36 | 29 | Ramp by 6 | Yes | Yes | | | | 0-255 → select shape width | Linear fade and wake length | | |
| 37 | 30 | Ramp by 4 | Yes | Yes | | | | | | | |
| 38 | 31 | Left/Right scrolling bar | Yes | Yes | | | | | | | |
| 39 | 32 | Up/Down scrolling bar | Yes | Yes | | | | | | | |
| 40 | 33 | Bar 3 | Yes | Yes | | | | 0-255 → select macro offset | Linear fade | | |
| 41 | 34 | Vertical arc 1 | No | Yes | | | | | | | |
| 42 | 35 | Vertical arc 2 | Yes | Yes | | | | | | | |
| 43 | 36 | Horizontal arc 1 | No | Yes | | | | | | | |
| 44 | 37 | Horizontal arc 2 | Yes | Yes | | | | | | | |
| 45 | 38 | Mirrored pixel | Yes | Yes | | | | 0-255 → select shape width | Linear fade and wake length | | |
| 46 | 39 | Pixel animation 1 | Yes | Yes | | | | | | | |
| 47 | 40 | Pixel animation 2 | Yes | Yes | | | | | | | |
| 48 | 41 | Pixel animation 3 | Yes | Yes | | | | | | | |
| 49 | 42 | Pixel animation 4 | Yes | Yes | | | | | | | |
| 50 | 43 | Pixel animation 5 | Yes | Yes | | | | | | | |
| 51 | 44 | Semi arc (Ramp /+) | Yes | Yes | | | | | | | |
| 52 | 45 | Bumping arc section | Yes | Yes | | | | 0-255 → select macro offset | Linear fade | | |
| 53 | 46 | Pixel animation 6 | Yes | Yes | | | | | | | |
| 54 | 47 | Vertical ramp by 2 | Yes | Yes | | | | 0-255 → select shape width | Linear fade and wake length | | |
| 55 | 48 | Following pixel by 2 | Yes | Yes | | | | | | | |
| 56 | 49 | Syncopation | Yes | Yes | | | | 0-255 → select macro offset | Linear fade | | |
| 57 | 50 | Bumping 1 | Yes | Yes | | | | | | | |
| 58 | 51 | Bumping 2 | Yes | Yes | | | | | | | |
| 59 | 52 | Bumping 3 | Yes | Yes | | | | | | | |
| 60 | 53 | Vertical pixel scrolling | Yes | Yes | | | | 0-255 → select macro width | Linear fade and wake length | | |
| 61 | 54 | Random vertical section | Yes | Yes | | | | 0-255 → select random distribution | Linear fade | | |
| 62 | 55 | Random central section | Yes | Yes | | Yes | | | | | |
| 63 | 56 | Random ring 2 | Yes | Yes | | Yes | | | | | |
| 64 | 57 | Random ring 3 | No | Yes | | Yes | | | | | |
| 65 | 58 | Random ring 1+3 | Yes (*2) | Yes | | Yes | | | | | |
| 66 | 59 | Random ring 2+3 | Yes (*2) | Yes | | Yes | | | | | |
| 67 | 60 | Single pixel ring 1 | Yes | Yes | | | | 0-255 → select the number of rotating | Linear fade and wake length | | |
| 68 | 61 | Single pixel ring 2 | Yes | Yes | | | | | | | |
| 69 | 62 | Single pixel ring 3 | No | Yes | | | | | | | |
| 70 | 63 | Spiral | Yes | Yes | | | | 0-255 → select macro width | Linear fade and wake length | | |
| 71-255 | 64 | | | | | N.a. | | N.a. | N.a. | | N.a. |

• SHAPE FADE

| BIT | EFFECT |
|---------|---|
| 246-255 | Smooth, fading curve with automatic gamma * |
| 245 | Smooth, fading curve gamma 2 |
| 243 | Smooth, fading curve gamma 1,986 |
| 244 | Smooth, fading curve gamma 1,993 |
| ... | |
| 18 | Smooth, fading curve gamma 0.513 |
| 17 | Smooth, fading curve gamma 0.506 |
| 16 | Smooth, fading curve gamma 0,5 |
| 0-15 | Snap |

• SHAPE TRANSITION

| BIT | EFFECT |
|-----|---------|
| 255 | 4 sec |
| ... | |
| 216 | 3 sec |
| ... | |
| 171 | 2 sec |
| ... | |
| 113 | 1 sec |
| ... | |
| 73 | 0,5 sec |
| ... | |
| 5 | 100 ms |
| 0-4 | No fade |

• SHAPE RGBW
SHAPE DIMMER
BACKGROUND DIMMER



| BIT | EFFECT |
|-----|---------|
| 255 | LED ON |
| ... | |
| 0 | LED OFF |

Background select

| BIT | EFFECT |
|--------|------------------------------------|
| 24-255 | No selection |
| ... | |
| 23 | Pixel 1 + Ring 2 + Ring 4 |
| 22 | Pixel 1 + Ring 3 + Ring 4 |
| 21 | Ring 2 + Ring 4 |
| 20 | Pixel 1 + Ring 3 |
| 19 | Ring 2 + Ring 3 |
| 18 | Pixel 1 + Ring 4 |
| 17 | Ring 3 + Ring 4 |
| 16 | Ring 2 + Ring 3 + Ring 4 |
| 15 | Pixel 1 + Ring 2 + Ring 3 + Ring 4 |
| 14 | Pixel 1 + Ring 2 + Ring 3 |
| 13 | Pixel 1 + Ring 2 |
| 12 | Ring 4 |
| 11 | Ring 3 |
| 10 | Ring 2 |
| 9 | Pixel 1 |
| 8 | No selection |