

ElektraLite LED eyeBall RGBWA (5-in-1) USER MANUAL



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1. Unpacking

Thank you for choosing the **ElektraLite eyeBall RGBWA (5-in-1)** fixture. For your own safety, please read this manual before installing the device. This manual covers important information on installation and applications. Please keep this manual for future reference.

ElektraLite eyeBall (5-in-1) wash fixture uses 7 high powered 12 watt quad leds, derated to run at 10 watts in a balanced arrangement giving incredible output. Please unpack the **ElektraLite eyeBall (5-in-1)** carefully and check whether it was damaged in shipping. The following item should be in the box with the fixture:-

2 part yoke 2 knobs for yoke 1 DMX 5 pin cable 1 Turnaround 3 to 5 pin cable 1 Turnaround 5 to 3 pin cable 1 IEC power cable

1 IEC jumper cable (for daisy chaining the power between fixtures)

Please handle the fixture with care at all times. Do not drop. Do not hit the front lens assembly.

2. Safety Instructions.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual. **ElektraLite eyeBall (5-in-1)** is a high voltage fixture. Be careful when dealing with high voltages.

Please read this manual. If you do not read this manual and damages occur to the ElektraLite eyeBall (5-in-1), then it could void the warranty.

During shipping, the **ElektraLite eyeBall (5-in-1)** may have been exposed to high temperature changes or humidity changes. So, as a precaution, do not switch the **ElektraLite eyeBall (5-in-1)** on immediately. Condensation can damage the **ElektraLite eyeBall (5-in-1)** so leave the **ElektraLite eyeBall (5-in-1)** so leave the **ElektraLite eyeBall (5-in-1)** switched off until it has reached room temperature. The **ElektraLite eyeBall (5-in-1)** is an **INDOOR** operational fixture. Do <u>not</u> operate this fixture **outdoors** or anywhere there is high **humidity**.

The electric connection must carry out by a qualified person and it is absolutely essential that the **ElektraLite eyeBall (5-in-1)** be **grounded**. So under no circumstances break off the ground pin on the Edison plug or use the fixture where a ground is not present. A ground pin, like the fuse for the **ElektraLite eyeBall (5-in-1)** is there for safety.

Always disconnect the **ElektraLite eyeBall (5-in-1)** from the power source, when the fixture is not in use or before cleaning it. Only unplug **ElektraLite eyeBall (5-in-1)** from the power source holding onto the Edison plug. Never pull out the Edison plug out by just pulling on the power cord itself.

Please keep the **ElektraLite eyeBall (5-in-1)** away from children and the general public. Please be intelligent and use common sense when operating the **ElektraLite eyeBall (5-in-1)**.

3. General Guidelines.

ElektraLite eyeBall (5-in-1) is a lighting fixture for professional use on stages, in clubs, theatres, churches etc.

ElektraLite eyeBall (5-in-1) should only be operated at between 120 to 240 volts and only indoors. **ElektraLite eyeBall (5-in-1)** should not be operated 24/7 (24 hours a day; 7 days a week). **ElektraLite eyeBall (5-in-1)** needs operation breaks to ensure that it will work for a long time without problems. Please do not shake the **ElektraLite eyeBall (5-in-1)** and avoid using brute force when installing or operating it.

Please read this below. It is important to understand and realize the following:-

The lens encapsulates each of the leds. This way the maximum output is attained. However this means that, if the fixture is dropped or the front lens assembly is struck, then it is possible for leds to be crushed. So please exercise care and attention. This is not a par64 that can be abused at will!

When choosing the location to install the **ElektraLite eyeBall (5-in-1)**, please make sure that it is not exposed to extreme heat, moisture or dust and never install it outdoors. Make sure that the fixture has a good amount of free space around it for air flow. Do not install it in a confined space or have insulation around the fixture. The minimum distance between the **ElektraLite eyeBall (5-in-1)** and the illuminated surface must be more than 3 feet.

Always mount the **ElektraLite eyeBall (5-in-1)** with an appropriate safety cable.

Operate the **ElektraLite eyeBall (5-in-1)** only when you are familiar with the features on the fixture. Do not permit operation by persons not qualified.

All modifications to the ElektraLite eyeBall (5-in-1) will invalidate the warranty. There are absolutely no exceptions.

If **ElektraLite eyeBall (5-in-1)** is operated in any way different to the one described in this manual, **ElektraLite eyeBall (5-in-1)** maybe damaged and the guarantee will be void.

4. Installation

Please ensure that the **ElektraLite eyeBall (5-in-1)** is hung using the appropriate "C" clamp or half cheeseboro. A safety chain or cable should also be used as a secondary point of holding the fixture in case the clamp comes loose. Never hang the fixture without a safety chain or cable. Make sure the Gel frame (Gel holder) is clipped into position correctly and cannot come loose.

If you are not qualified or have any doubts about hanging the **ElektraLite eyeBall (5-in-1)** then do **NOT** hang it.

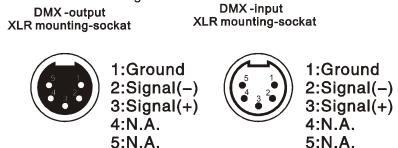
Do not clamp the safety cable to the U bracket or clamp. That is <u>not</u> a secondary safety point.

A secondary safety point is any point that will adequately hold the **ElektraLite eyeBall (5-in-1)** if the "C" clamp or half cheesboro fails. Then the safety cable would be the backup and stop the fixture from falling to the ground. So do **NOT** fix the safety cable to the same place that the "C" clamp is attached.

5. DMX-512 Control Connection

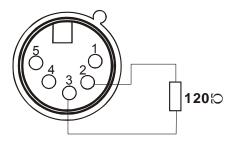
Connect an XLR cable to the female 5-pin XLR output of your **ElektraLite CP16/24** or other DMX controller. The other end should be connected to the male 5-pin XLR input of the **ElektraLite eyeBall** (5-in-1). Then daisy-chain out of the first **ElektraLite eyeBall (5-in-1)** into the next **ElektraLite eyeBall** (5-in-1) or other dmx device. Never "Y" split the DMX connection.

If you need more cable, then it should be two core, screened cable fitted with a 5 pin XLR input and output connector. Please refer to the diagram below.



DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically "noisy" environment, it is recommended that a DMX terminator is used. This helps prevent corruption of the digital control signal. The DMX terminator is simply a 5 pin XLR plug (male) with a 120 Ω resistor connected between pins 2 and 3. It is then plugged into the output XLR socket of the <u>last</u> **ElektraLite** eyeBall (5-in-1) or other dmx device in the chain. Please see illustration below.



6. Menus in the fixture. Root Menu Sub Menu 1 Sub Menu 2

Root Menu		Sub Menu 2
STAT (STATIC LOOK)	RED	000-255
	GREEN	000-255
	BLUE	000-255
	WHITE	000-255
	AMBER	000-255
	STROBE	000-255
AUTO (AUTOMATIC) ((AUTOMPROGRAMS)	RED	
	GREEN	
	BLUE	
	WHITE	
	AMBER	
	YELLOW	
	CYAN	
	PURPLE	
	RGBWA (ALL AT MAX OUTPUT)	
	EFFECT 1 (inbuilt program 1)	
	EFFECT 2 (inbuilt program 2)	
	EFFECT 3 (inbuilt program 3)	
RUN	DMX 512	
	SLAVE	
ADDRESS	ASSIGN DMX CHANNEL	001-512
	ASSIGN ID ADDRESS	001-255
PERS (PERSONALITY)	STAG(E)	
	ARC1	
	ARC1D	
	ARC2	
	AR2D	
	AR2S	
	ARC3	
	AR3.D	
	AR3.S	
	HSV	
SETTINGS	DIMMER (FADE CURVE)	000(OFF) TO 004(LONGEST)
	RESET	PASSWORD REQUIRED
	RGB(WA) TO WHITE	ON or OFF
	DTV	NTSC or PAL
RGB(WA) to WHITE	RED	000-255
	GREEN	000-255
	BLUE	000-255
	WHITE	000-255
	AMBER	000-255
FANS	AUTO	
	OFF	
	LOW	
	NORMAL	
	HIGH	
KEY	OFF	

7. Static Look.

The ElektraLite eyeBall (5-in-1) can be set to a single static look quickly.

Use the Menu button to get to STAT.

Press Enter.

The next screen will read R000. This is addressing the RED leds.

If Red is to be in the static look, then use the \uparrow or \downarrow to increase the value of the red. Numbers are expressed in DMX values so 0 is no output and 255 is highest output. Press Enter to save the value.

The screen will automatically advance to the next color Green.

If Green is to be in the static look, then use the \uparrow or \downarrow to crease the value of green. Press Enter to save the value.

The screen will automatically advance to the next color Blue.

If Blue is to be in the static look, then use the \uparrow or \downarrow to crease the value of blue.

Press Enter to save the value.

The screen will automatically advance to the next color White.

If White is to be in the static look, then use the \uparrow or \downarrow to crease the value of white.

Press Enter to save the value.

The screen will automatically advance to the next color Amber.

If Amber is to be in the static look, then use the \uparrow or \downarrow to crease the value of amber.

Press Enter to save the value.

The screen will automatically advance to the strobe function.

If the strobe function is to be in the static look, then use the \uparrow or \downarrow to crease the value of strobes flash rate.

Press Enter to save the value.

This is the last entry and the static look is complete. Pressing the Enter key just continues around if you need to make fine adjustments to the color of the static look.

Do not press MENU as this will get you out to the Root directory and out of the static look.

8. Auto Programs.

In Auto Program the **ElektraLite eyeBall (5-in1)** can be set to output a selection of fixed colors or run some inbuilt programs (shows). The choice of colors are Red, Green, Blue, White, Amber, Yellow, Cyan, Purple and "combined white". "Combined white" is made by bringing all colors to maximum output.

The three programs (or shows) in the **ElektraLite eyeBall (5-in-1)** are Effect 1, Effect 2 and Effect 3. Chose the one best suit for the venue.

To run a color or program in Auto mode use the Menu button to get to AUTO. Press ENTER.

Use the \uparrow or \downarrow key to get to the program. Press Enter.

The program will start running.

9. Run.

Run allows the fixture to operate in either DMX or Slave operation. Using the Menu button in the root menu go to RUN. Press Enter to get to DMX mode. To get to SLAV mode use the \uparrow or \downarrow And press enter to save this setting.

10. Address (For DMX & ID)

DMX Address

Sets up the address for the dmx.

Using the Menu button in the root menu go to DMX

Press Enter to get into DMX and the display will read the current dmx channel.

The display will read for example DMX:

001

This means the fixture's current address is **1**

To change it, use the ↑ or ↓ buttons to get to the correct address. Press Enter to save the address. Now immediately Enter is pressed, the ID address for the fixture is shown. See below for ID address information; otherwise press Enter to exit out and back to the Root Menu again.

ID Address

An **ElektraLite eyeBall (5-in-1)** can be addressed (controlled) through the dmx or instead it can have its own unique ID address.

There are a total of 255 different ID addresses from 001 to 255.

To set up the address for a fixture, use the Menu button in the root menu go to ID

Press Enter and then using the \uparrow or \downarrow buttons,to select the ID address.

Press Enter to save the address.

For the ID address to work you must chose a **Personality** that uses the ID. For example STAG This allows you to access the ID address system on channel 4.

Set the DMX address to 001 for the fixture. So if ID address 123 is chosen then go to channel 4 on the lighting board and set the level at 123. You will then be controlling only fixture(s) with ID address 123. ID address 001 is the default and in ID address 001 all fixtures will be under control.

11. Personalities.

There are several different choices on how the fixture will operate.

What these "Personalities" do in terms of their channel assignments is detailed in the tables on pages 12 and 13.

To change a Personality use the Menu button to get to PERS

Press Enter then using the \uparrow or \downarrow buttons go to the personality required.

Press Enter to save the Personality.

The <u>one</u> Personality not defined in the tables is **STAG. STAG** is short for STAGE and it is the full dmx number of channels as detailed in the DMX Channel Assignments shown on pages 12 & 13. The full dmx number of channels is 12.

Settings. (Set has several Sub Menus which allow the following functions to be used).

1). DIMMER

The Dimmer function allows different Dimmer curves to be chosen. There are 5 choices.

Choice 1 :- this is Dim off. The Dimmer curve is 0 which means any change in dimmer level is instantaneous.

Choice 2:- Dim 1. The dimmer curve has the shortest fade in and fade out time.

Choice 3:- Dim 2. The dimmer curve has the 2nd shortest fade in and fade out time. Choice 4:- Dim 3. The dimmer curve has the 3rd shortest fade in and fade out time

Choice 5:- Dim 4. The dimmer curve has the longest fade in and the fade out time.

To access the DIM function go through the Root Menu until **DIMMER** is found. Press Enter and then use the \uparrow or \downarrow buttons to get to the DIM choice required.

Please note the DIM function under the Set menu in the fixture does not work when in the STAG mode. When is STAG mode you can operate/access the DIM function directly through channel 10 on your lighting controller.

2). RESET

This resets all values to their default.

Go through the Root Menu until Settings is displayed. Press Enter and then use the ↑ or ↓ buttons to get to RESET. Press Enter. The display will have the cursor flashing across the bottom. The password needs to be entered. The password is the following sequence using the \uparrow and \downarrow buttons.

then press Enter once complete. The display will read OK followed by a return 1 to the RESET sub menu. The Menu button will need pressing to return to the Root Menu. Only once at the Root Menu will the dmx control function once more. Please note the Reset also takes the dmx address back to 001.

3).RGB to WHITE

The **RGB** to **WHITE** setting allows the ability to calibrate the white achieved when mixing RGBWA.

When **RGB** to WHITE is set to OFF, the output when Red, Green, Blue, White and Amber is at maximum is 255 for all five colors. By definition this combination produces a white which may not be the "blend" of white that cameras and other video equipment may want to "see".

When **RGB** is set to ON, the output can be white balanced to whatever looks good on camera. It also serves to balance the white into a "warm" white which makes people look a lot better when they are in the light!

See **RGB** to WHITE, for how to calibrate the white when the **RGB** to WHITE is turned ON.

To turn **RGB** either OFF or ON, go through the Root Menu until **RGB to WHITE** is found. Press Enter and then use the \uparrow or \downarrow buttons to get to either OFF or ON. Once chosen, press Enter to save the setting and then Menu to exit out back to the Root Menu.

4). DTV

The **DTV** setting allows the ability of the leds to not flicker when using video camera.

The choices are NTSC or PAL. NTSC is the USA system.

To set the **DTV** setting, go through the Root Menu until **DV**. Press Enter and then use the ↑ or↓ buttons to get to either NTSC or PAL. Once chosen, press Enter to save the setting and the Menu to exit back to the Root Menu.

13. RGB to WHITE

When **RGB to WHITE** is turned on under the SETTINGS menu, then the RGB to WHITE calibration can be done in the root menu. In fact it is a little bit misleading saying the RGB to white calibration because in fact the eyeBall will allow you to calibrate white using all the "raw components"....meaning RGBW and A. This gives the cameras and lighting designers the maximum palette to work with regarding white balance.

To adjust the white balance, go through the Root Menu until **RGB to white** is reached. Then press Enter. The screen will display RED at 255, use the \uparrow or \downarrow to set the Red component to the value required. Press Enter to save and the screen will automatically advance to the value for GREEN (G255 for example). Again, use the \uparrow or \downarrow to make the adjustment you require for the Green leds. Press Enter to save and the screen will automatically advance to the value of BLUE. Use the \uparrow or \downarrow to make the adjustment you require for the Blue leds. Press Enter to save and the screen will automatically advance to the value of White. Use the \uparrow or \downarrow to make the adjustment you require for the White leds. Press Enter to save and the screen will automatically advance to the value of Amber. Use the \uparrow or \downarrow to make the adjustment you require for the Amber leds. Press Enter to save and the screen will automatically advance back to Red. At this stage, if happy with the calibration, press Menu to exit the **RGB to WHITE** menu and return to the root menu.

14. Fans

There are several different control options for the fans.

Auto:- The fans come on when the temperature exceeds its pre-set value.

The fan turns off when the temperature falls below its pre-set value.

High:- The fans are constantly on at a high rotational speed.

Normal:- The fans are constantly on at their normal rotational speed.

<u>Low</u>:- The fans are constantly on at a lower than normal level. If the leds exceed their operational pre-set temperature level, then the output is reduced as the fans are "locked" at lower rotational speed. <u>Off</u>:- The fans are sent to be OFF. If the leds exceed their operational pre-set temperature level, then the output is reduced as the fans are "locked" OFF.

15. KEY LOCK

The Key function is an access password for the fixture. The **KEY** can be turned OFF or ON which then deactivates or activates the password.

To set the **KEY LOCK** on, go through the Root Menu until **KEY LOCK** is found. Press Enter and use the \uparrow or \downarrow to set the **KEY LOCK** to either OFF or ON. If the **Key LOCK** is turned ON then a password is required to go into sensitive Menus and to change functions.

The password is $\uparrow \downarrow \uparrow \downarrow \uparrow \downarrow (Up + Down + Up + Down + Up + Down)$ Enter.

16. Personality tables.

(for the personality **STAG** please refer to the DMX channel assignments on pages 12 & 13. **STAG** uses all 12 channels as shown in the dmx channel assignment table). **ARC1**

RED 0-255 1 0-255 GREEN 2 3 0-255 BLUE 0-50 Linear dimmer speed (DIM=OFF) 51-100 4 nonlinear speed1 (DIM1) 101-150 nonlinear speed 2 (DIM2) 151-200 nonlinear speed 3 (DIM3) 201-255 nonlinear speed 4 (DIM4) ARC1+D 0-255 MASTER DIMMER 0-255 2 RED GREEN 3 0-255 4 0-255 BLUE 0-50 Linear dimmer speed (DIM=OFF) 51-100 nonlinear speed 1 (DIM1) 5 101-150 nonlinear speed 2 (DIM2) 151-200 nonlinear speed 3 (DIM3) 201-255 nonlinear speed 4 (DIM4) ARC2 0-255 RED 1 0-255 GREEN 2 3 0-255 BLUE 4 0-255 WHITE 0-50 Linear dimmer speed (DIM=OFF) 5 51-100 nonlinear speed 1 (DIM=1) 101-150 nonlinear speed 2 (DIM=2) 151-200 nonlinear speed 3 (DIM=3) 201-255 Nonlinear speed 4 (DIM=4) ARC2+D 0-255 MASTER DIMMER 0-255 2 RED 3 0-255 GREEN BLUE 4 0-255 5 0-255 WHITE 0-50 Linear dimmer speed (DIM=OFF) 6 51-100 Nonlinear speed 1 (DIM1) 101-150 Nonlinear speed 2 (DIM2) 151-200 Nonlinear speed 3 (DIM3) 201-255 Nonlinear speed 4 (DIM4)

16. Personality tables (Cont).

C3		
1	0-255	RED
2	0-255	GREEN
3	0-255	BLUE
4	0-255	WHITE
5	0-255	AMBER
	0-50	Linear dimmer speed (DIM=OFF)
6	51-100	Nonlinear speed 1 (DIM1)
	101-150	Nonlinear speed 2 (DIM2)
	151-200	Nonlinear speed 3 (DIM3)
	201-255	Nonlinear speed 4 (DIM4)

ARC3+D

1	0-255	MASTER DIMMER
2	0-255	RED
3	0-255	GREEN
4	0-255	BLUE
5	0-255	WHITE
6	0-255	AMBER
	0-50	Linear dimmer speed (DIM=OFF)
7	51-100	nonlinear speed 1 (DIM1)
	101-150	nonlinear speed 2 (DIM2)
	151-200	nonlinear speed 3 (DIM3)
	201-255	nonlinear speed 4 (DIM4)

HSV

1	0-255	H hue
2	0-255	S saturation level
3	0-255	V brightness
	0-50	Linear dimmer speed (DIM=OFF)
4	51-100	nonlinear speed 1 (DIM1)
	101-150	nonlinear speed 2 (DIM2)
	151-200	nonlinear speed 3 (DIM3)
	201-255	nonlinear speed 4 (DIM4)

17. DMX Channel Assignments.

1	Grand Master for RGBWA	0-255
2	RED Leds	0-255
3	GREEN Leds	0-255
4	Blue Leds	0-255
5	White Leds	0-255
6	Amber Leds	
7	No effect	0-010
	Snap to Red 255	011
	Crossfade Red 255→000 Green 000→255	012-050
	Crossfade Green 255→000 Blue 000→255	051-090
	Crossfade Red 000→255 Blue 255→000	091-130
	CrossfadeRed 255 \rightarrow 000White 000 \rightarrow 255	131-150
	Crossfade Blue $000 \rightarrow 255$ White $255 \rightarrow 000$	151-170
	Snap to Red 255 Green 255 Blue 255 White 255	171-200
	Snap to White 1 (approximately 3200°K)	201-205
	Snap to White 2 (approximately 3400°K)	
	Snap to White 3 (approximately 4200°K)	
	Snap to White 4 (approximately 4900°K)	216-220
	Snap to White 5 (approximately 5600°K)	221-225
	Snap to White 6 (approximately 5900°K)	226-230
	Snap to White 7 (approximately 6500°K)	231-235
	Snap to White 8 (approximately 7200°K)	236-240
	Snap to White 9 (approximately 8000°K)	241-245
	Snap to White 10 (approximately 8500°K)	246-250
	Snap to White 11 (approximately 10000°K)	251-255
8	Strobe effect	000-255
9	No effect/function	000-050
	Fan Off	011-020
	Fan Low	021-025
	Fan High	026-030
	Fan Auto	031-040
	No effect/function	041-050
	Red	051-060
	Green	061-070
	Blue	071-080
	White	081-090 091-100
	Amber	
	Yellow	
	Cyan	
	Purple	
	RGBWA all at max output	
	Effect program 1 (The speed at which this program changes is controlled by ch 10)	
	Effect program 2 (The speed at which this program changes is controlled by ch 10)	
	Effect program 3 (The speed at which this program changes is controlled by ch 10)	211-255

17. DMX Channel Assignments (Cont.)

10	Speed control for Effects program 01-03 on channel 09. (000 stops the program. 255 is max speed for the program).	000-255
11	Dim 00 (straight line dimmer)	000-009
	Dim 01 (dimmer curve 1. Shortest fade time)	010-069
	Dim 02 (dimmer curve 2. 2 nd Shortest fade time)	070-129
	Dim 03 (dimmer curve 3. 3 rd Shortest fade time)	130-189
	Dim 04 (dimmer curve 4. Longest fade time)	190-255
12	All fixtures are address	000
	ID 01 through 255 correspond to dmx addresses 001 through 255 respectively	001-255

18. Cleaning and maintenance.

Now ignoring maintenance and cleaning is very good way of creating problems "down the road" and many companies and installations do just that. However the net result is, no matter what the fixture, premature failure!

Changing the oil in a car most people do on a regular basis.

So with the fixtures regular maintenance it an excellent practice, if you want the fixtures to last. So what is the maintenance for the fixture?

Clean the fan! That's really it!

Turn off the ElektraLite eyeBall (5-in-1).

Using a small vacuum cleaner, suck the dust and "fur balls" out.

Do not use a can of co². That will just blast the dust and dirt everywhere!

The fans keep the LEDs cool and keep the electronics cool too.

Without the fans working efficiently and dust free, the fixtures will fail and that will be a lot more costly than having someone vacuum the fixtures on a regular basis.

How often should the fans be cleaned? It depends on where the fixtures are; in a very dusty atmosphere once a week. So check the fan on a regular basis, it may not need cleaned every week but a quick "visual inspection" should be done.

The clear front plastic cover for the lenses should be cleaned so the light output is maintained. With the **ElektraLite eyeBall (5-in-1)** turned off, use only a moist lint-free cloth, and clean the plastic cover. Never use alcohol or solvents to clean the fixture. Never spray anything onto the fixture at the front or in any place on the fixture.

19. Technical Specification.

- Operating voltage 100 250v
- Frequency 50 60 Hertz
- 7 x quad 10watt leds
- 80 VI
- Fan cooled
- 162.5mm x 162.5mm x 218.5mm
- 6.5" x 6.5" x 8.6"
- 2.1 kgs
- 4.6 pounds

ElektraLite is a division of Group One. Group One and its divisions are constantly improving their product range and we reserve the right to make changes without prior notice.

20. Other Products.

For other great products that are manufactured under the ElektraLite product line, please go to the website at <u>www.myElektraLite.com</u> A preview of the products include:-



ElektraLite eyeKandy



ElektraLite ML602



ElektraLite LightStream



ElektraLite DazerIP65 in white