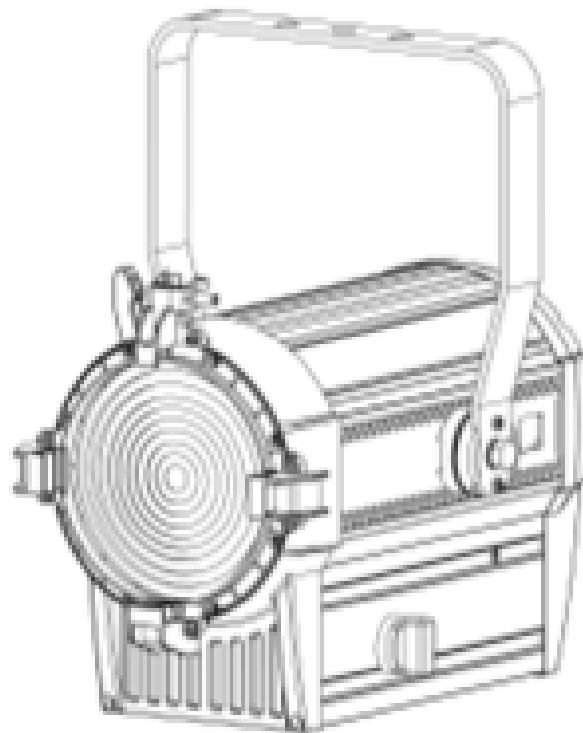


LED Fresnel RGBAL

LEDFRE102

USER MANUAL

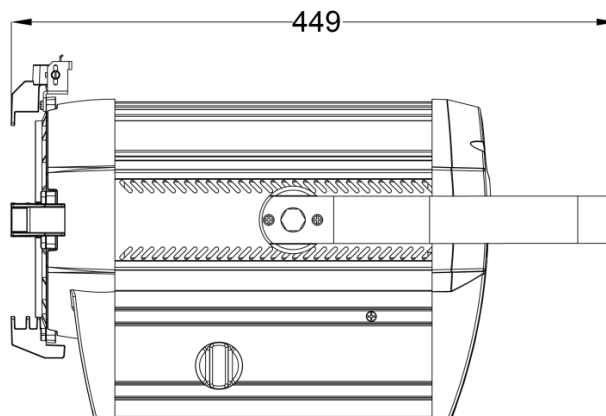
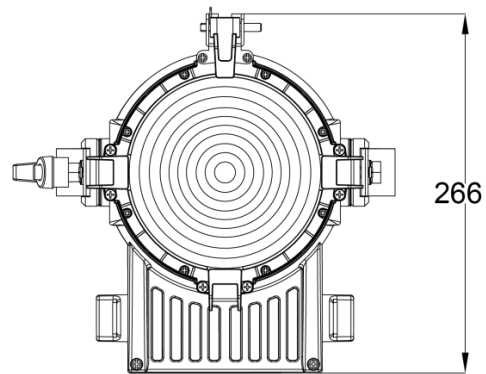
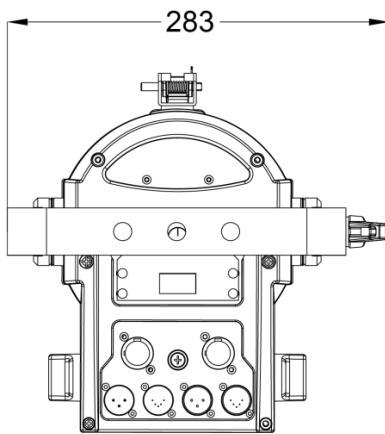


1 PRODUCT

1.1 TECHNICAL SPECIFICATIONS

Type	LED Fresnel RGBAL
LED colors	Red, Green, Blue, Amber, Lime
Power	100W
Voltage Range	AC100~240V,50/60Hz
Protection	IP20
Operation Temperature	0°C~45°C
Dimensions	449x283x266mm
Weight	5.62KG

DIMENSIONAL DRAWINGS



1.2 Safety Notes

IMPORTANT

- This product must be installed by a qualified professional.
- To keep the product in good condition, and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes in this manual.
- The manufacturer will not accept liability for any resulting damage caused by the non-observance of this manual or any unauthorized modification to the device.

CAUTION!

- Make sure that the available voltage is not higher than stated on the rear panel.
- Do not touch the power cables if your hands are wet.
- The earth wire must always be connected to the ground. It is essential to connect the yellow/green conductor to earth.
- Make sure that the power cord is never crimped or damaged by sharp edges. Check the device and the power cord from time to time for damage. Electrical connection, repairs and servicing must be carried out by a qualified person.
- Always disconnect the power input cable to completely remove power from the unit when not in use, or before cleaning or servicing the fixture.
- Do not switch the fixture on and off in short intervals as this could reduce the life of the fixture.
- Do not touch the device's housing bare hands during its operation as the housing becomes hot. The surface of the product's casing can reach up to 60°C (140°F) during operation. Avoid contact with people and materials. Do not install the product in a location where there is a risk of accidental contact. Allow the product to cool for at least 10 minutes before handling.
- When replacing use lamps and fuses of the same type and rating only.
- Please protect the fixture from damage during transport and installation. If there is any damage to the coating, the shell may be corroded.
- When hanging lamps and lanterns, it is necessary to verify that facilities and hooks can bear at least 10 times the weight of lamps and lanterns.
- Attach the safety wire to the correct holes only. Only operate the fixture after having checked that the housing is closed, and all screws are tightly fastened.
- The maximum ambient temperature of 45°C must never be exceeded. Do not operate the product if the ambient temperature (T_a) exceeds 45°C (115°F).

Electrical Warning

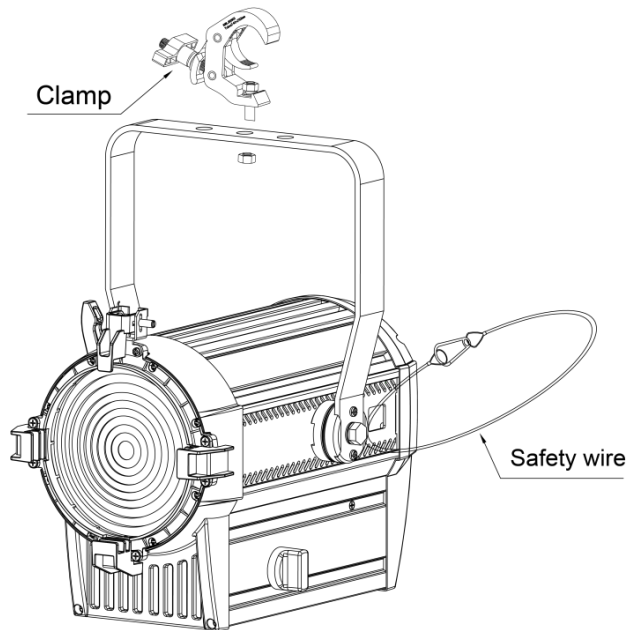
- The light source contained in this luminaire shall only be replaced by the manufacturer or qualified service agent, or a similar qualified person.

2 INSTALLATION

2.1 MOUNTING

UPRIGHT

- ◆ For overhead use, always install a safety cable that can hold at least 10 times the weight of the fixture.
- ◆ Ensure that the structure (truss) to which you are attaching the fixture is secure.



Hanging layout

2.2 POWER CONNECTIONS

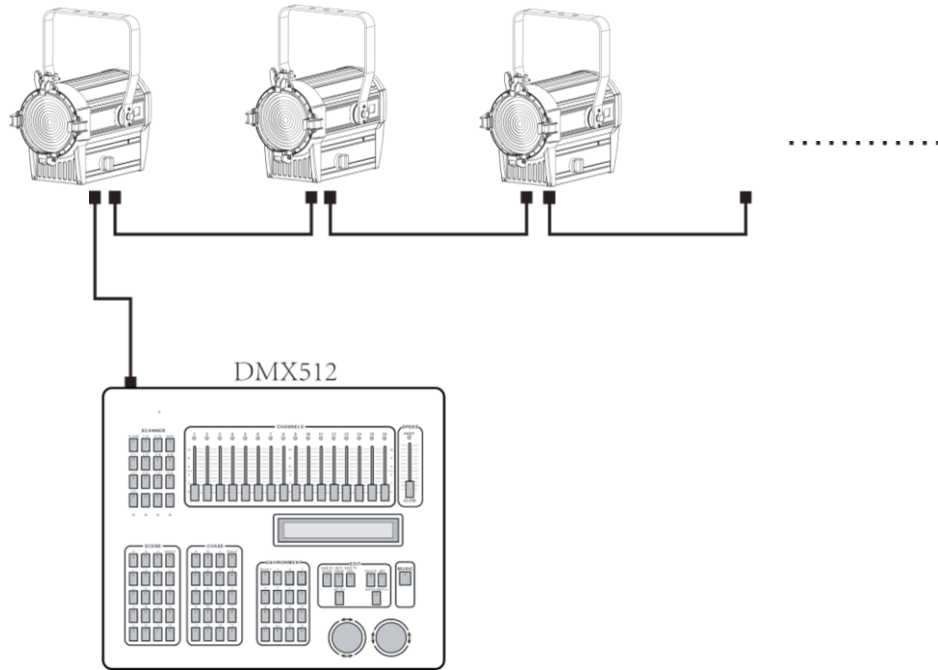
- ◆ POWER Linking: 13 units@110V; 25 units@220V.
- ◆ This product has an auto-ranging power supply that can work with an input voltage range of 100–240 VAC, 50/60 Hz.

AC Plug

Connection	Wire (U.S.)	Wire (Europe)	Screw Color
AC Live	Black	Brown	Yellow/Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

2.3 Data network requirements

- ◆ Connect the DMX controller to the units in series. A DMX 512 data link is required to control the fixture via DMX. The fixture has 3/5-pin XLR connectors for DMX data input and output.
- ◆ Each unit has N DMX channels so the DMX Addresses should increase by increments of 1, (Nx1) +1, (Nx2) +1, (Nx3) +1...
- ◆ Any DMX address in the range from 001 to 512 may be used.



3 FUNCTIONS AND SETTINGS

3.1 DISPLAY OPERATION

- ◆ MENU: Used to access the menu or to return a previous menu option.
- ◆ ENTER: Used to select and store the current menu or confirm the current function value or option within a menu.
- ◆ UP: Navigates downwards through the menu list and increases the numeric value when in a function.
- ◆ DOWN: Navigates upwards through the menu list and decreases the numeric value when in a function.

3.2 Menu Map

KNOB MODE	Mode 1	1. Dimmer 2. CCT 3. Green		Knob mode select
	Mode 2	1. CYAN 2. MAGENTA 3. YELLOW		
	Mode 3	1.H 2.S 3.I		
STATIC	MANUAL	RED	0-255	Combine RED, GREEN, BLUE, LIME, AMBER to create an infinite range of colors (0-255). Set the value of the STROBE (0-25Hz).
		GREEN	0-255	
		BLUE	0-255	
		AMBER	0-255	
		LIME	0-255	
		STROBE	0-255	
	CCT	1800K		Color temperature selection
		2200K		
		2700K		
		3000K		
		3200K		
		4000K		
		4500K		
		5000K		
		5600K		
		6000K		
		6500K		
		7000K		
		8000K		
	10000K			
PRESET COLOR	COLOR 1		Preset colour (See Annex I for details)	
	COLOR 2			
	...			
	COLOR 48			
CMY	CYAN		CYAN, MAGENTA, YELLOW colour mixing	

		MAGENTA				
		YELLOW				
		C+M				
		C+Y				
		M+Y				
ADDRESS	001-512 (default001)				Set the DMX ADDRESS	
RUN MODE	DMX (default)				DMX Using the DMX 512 controller to control SLAVE Master--Slave operation.	
	SLAVE					
PERSONALITY	HSIC				Use the menu to select desired channel mode	
	SSP					
	TOUR (default)					
	TR16					
	CMY					
AUTO PROGRAM	AUTO 1	0-255			Selects automatic AUTO program and AUTO program speed. Programs CUSTOM 1 and CUSTOM 2 are fully programmable and can be edited in EDIT mode.	
	AUOT 2	0-255				
	...	0-255				
	AUTO 10	0-255				
	PR 1					
	PR 2					
EDIT	PROGRAM 1-2	SCENE 01-10	RED	0-255	Enter the EDIT mode to edit the custom programs PROGRAM01 and PROGRAM2. Each custom program has 30 scenes that can be edited. Fade transition time can be set from 0-255 (units in seconds), fade time setting should be less than time setting. After editing the program, Play in AUTO.	
			GREEN	0-255		
			BLUE	0-255		
			AMBER	0-255		
			LIME	0-255		
			STROBE	0-255		
			CCT	0-255		
			COLOR	0-255		
			TIME	0-255		
	FADE	0-255				
	UPLOAD	****	SEND		Select UPLOAD to upload the custom programs	
SETTING	****	RESET	****	RESET	Restore factory settings	
		DIMMER	DIM4 (default)			Dimming curves DIM1 (fast) to DIM4 (slow)
			OFF			
		DMX	SAVE (default)			Hold after loss of DMX signal
		ERROR	BLACK			Blackout after loss of DMX signal
		LED PWM	1200HZ (default)			Sets the PWM frequency
			2400HZ			
4000HZ						
6000HZ						

			25000HZ		
		PERFORM	LIVE (default)	Fan mode low speed	
			POWER	Fan at full power	
			STUDIO	Automatic rotation of fan	
		DISP KEY	ON (default)	Locks display (passcode is UP, DOWN, UP, DOWN, ENTER)	
			OFF		
		DISP TIME	ON	Display backlight always on	
			10s	Turns off display backlight after 10s/30s /2min of inactivity	
			30s (default)		
			2min		
		LANGUAGE	****	Language Selection	
			中文		
			ENGLISH		
		Color Cali	OFF	Full power operation	
			UC	RED 0-255	Manual correction of full bright colors
				GREEN0-255	
				BLUE0-255	
				AMBER 0-255	
				LIME 0-255	
		Factory Calibration	Factory Calibration mode		
INFO	FIXTURE HOURS			Hours of fixture use	
	VERSION			Software versions	
	RDM	UID	0x388Axxxxxxx	Check fixture's ID	
		LABEL		Check fixture's LABEL	
All passwords for this product are UP, DOWN, UP, DOWN, ENTER					

4 USING A DMX512 CONTROLLER

4.1 DMX CONTROL

HSIC (7CH)	Value	Function
CH.1	0-255	INTENSITY
CH.2	0-255	HUE
CH.3	0-255	HUE FINE
CH.4	0-255	SATURATION
CH.5	CCT	
	0-10	NO FUNCTION
	11-28	1800K
	29-46	2200K
	47-64	2700K
	65-82	3000K
	83-100	3200K
	101-118	4000K
	119-136	4500K
	137-154	5000K
	155-172	5600K
	173-190	6000K
	191-208	6500K
	209-226	7000K
	227-244	8000K
245-255	10000K	
CH.6	STROBE	
	0-9	NO FUNCTION
	10-99	STROBE FROM SLOW TO FAST (0-25Hz)
	100-109	NO FUNCTION
	110-179	THUNDER STROBE
	180-189	NO FUNCTION
190-255	RANDOM SROBE	
CH.7	CONTROL (EXECUTE AFTER 3 SECONDS)	
	000-010	NO FUNCTION
	011-060	RESERVED
	061-070	LIVE
	071-080	STUDIO
	081-090	POWER
	091-100	RESERVED
101-110	DIMMER OFF	

	111-120	DIMMER DIM4
	121-150	RESERVED
	151-160	1200Hz
	161-170	2400Hz
	171-180	4000Hz
	181-190	6000Hz
	191-200	25000Hz
	201-210	ALL RESET
	211-255	RESERVED

SSP (8CH)	TOUR (12CH)	TR16 (18CH)	Value	Function
CH.1	CH.1	CH.1	0-255	MASTER DIMMER
--	--	CH.2	0-255	MASTER DIMMER FINE
CH.2	CH.2	CH.3	0-255	RED
--	--	CH.4	0-255	RED FINE
CH.3	CH.3	CH.5	0-255	GREEN
--	--	CH.6	0-255	GREEN FINE
CH.4	CH.4	CH.7	0-255	BLUE
--	--	CH.8	0-255	BLUE FINE
CH.5	CH.5	CH.9	0-255	AMBER
--	--	CH.10	0-255	AMBER FINE
CH.6	CH.6	CH.11	0-255	LIME
--	--	CH.12	0-255	LIME FINE
--	CH.7	CH.13	PRESET COLOR	
			0-10	NO FUNCTION
			11-255	PRESET COLOUR (See Annex I for details)
--	CH.8	CH.14	CCT	
			0-10	NO FUNCTION
			11-28	1800K
			29-46	2200K
			47-64	2700K
			65-82	3000K
			83-100	3200K
			101-118	4000K
			119-136	4500K
			137-154	5000K
			155-172	5600K
			173-190	6000K
191-208	6500K			

			209-226	7000K
			227-244	8000K
			245-255	10000K
--	CH.9	CH.15	Effects	
			0-40	NO FUNCTION
			41-50	AUTO 1
			51-60	AUTO 2
			61-70	AUTO 3
			71-80	AUTO 4
			81-90	AUTO 5
			91-100	AUTO 6
			101-110	AUTO 7
			111-120	AUTO 8
			121-130	AUTO 9
			131-140	AUTO 10
			141-150	PROGRAM 1
			151-160	PROGRAM 2
161-255	NO FUNCTION			
--	CH.10	CH.16	0-255	AUTO SPEED ADJUSTMENT
CH.7	CH.11	CH.17	STROBE	
			0-9	NO FUNCTION
			10-99	STROBE FROM SLOW TO FAST (0-25Hz)
			100-109	NO FUNCTION
			110-179	THUNDER STROBE
			180-189	NO FUNCTION
			190-255	RANDOM SROBE
CH.8	CH.12	CH.18	CONTROL (EXECUTE AFTER 3 SECONDS)	
			000-010	NO FUNCTION
			011-060	RESERVED
			061-070	LIVE
			071-080	STUDIO
			081-090	POWER
			091-100	RESERVED
			101-110	DIMMER OFF
			111-120	DIMMER DIM4
			121-150	RESERVED
			151-160	1200Hz
			161-170	2400Hz
171-180	4000Hz			

		181-190	6000Hz
		191-200	25000Hz
		201-210	ALL RESET
		211-255	RESERVED

CMY (10CH)	Value	Function
CH.1	0-255	DIMMER
CH.2	0-255	CYAN
CH.3	0-255	MAGENTA
CH.4	0-255	YELLOW
CH.5	PRESET COLOR	
	0-10	NO FUNCTION
	11-255	PRESET COLOUR (See Annex I for details)
CH.6	CCT	
	0-9	NO FUNCTION
	10 - 24	1800K
	25 - 39	2200K
	40 - 54	2700K
	55 - 69	3000K
	70 - 84	3200K
	85 - 99	4000K
	100 - 114	4500K
	115 - 129	5000K
	130 - 144	5600K
	145 - 159	6000K
	160 - 174	6500K
	175 - 189	7000K
	190 - 204	8000K
205 - 255	10000K	
CH.7	Effects	
	0-40	NO FUNCTION
	41-50	AUTO1
	51-60	AUTO2
	61-70	AUTO3
	71-80	AUTO4
	81-90	AUTO5
	91-100	AUTO6
	101-110	AUTO7
	111-120	AUTO8

	121-130	AUTO9
	131-140	AUTO10
	141-150	CUSTOM1
	151-160	CUSTOM2
	161-255	NO FUNCTION
CH.8	0-255	AUTO SPEED ADJUSTMENT
CH.9	STROBE	
	0-9	NO FUNCTION
	10-99	STROBE FROM (SLOW TO FAST ,0-25Hz)
	100-109	NO FUNCTION
	110-179	LIGHTNING STROBE
	180-189	NO FUNCTION
	190-255	RANDOM STROBE
CH.10	CONTROL (EXECUTE AFTER 3 SECONDS)	
	000-010	NO FUNCTION
	011-060	RESERVED
	061-070	LIVE
	071-080	STUDIO
	081-090	POWER
	091-100	RESERVED
	101-110	DIMMER OFF
	111-120	DIMMER DIM4
	121-150	RESERVED
	151-160	1200Hz
	161-170	2400Hz
	171-180	4000Hz
	181-190	6000Hz
	191-200	25000Hz
	201-210	ALL RESET
	211-255	RESERVED

Annex 1

PRESET COLOR	Value	Color Names	x	y
	0-10	NO FUNCTION		
COLOR 1	11-15	L176 Loving Amber	0.407	0.321
COLOR 2	16-20	R40 Light Salmon	0.499	0.321
COLOR 3	21-25	L24 Scarlet	0.561	0.296
COLOR 4	26-30	L164 Flame Red	0.659	0.302
COLOR 5	31-35	L747 Easy White	0.389	0.344
COLOR 6	36-40	R303 Warm Peach	0.448	0.353
COLOR 7	41-45	L08 Dark Salmon	0.498	0.347
COLOR 8	46-50	L25 Sunset Red	0.566	0.359
COLOR 9	51-55	L04 Medium Bastard Amber	0.37	0.335
COLOR 10	56-60	L237 CID (To Tungsten)	0.43	0.365
COLOR 11	61-65	R321 Soft Golden Amber	0.477	0.406
COLOR 12	66-70	L652 Urban Sodium	0.535	0.399
COLOR 13	71-75	L212 LCT Yellow(Y1)	0.34	0.363
COLOR 14	76-80	L765 LEE Yellow	0.389	0.412
COLOR 15	81-85	L513 Ice And A Slice	0.38	0.447
COLOR 16	86-90	L100 Spring Yellow	0.41	0.502
COLOR 17	91-95	L244 LEE Plus Green	0.324	0.388
COLOR 18	96-100	R4430 CalColor 30 Green	0.318	0.44
COLOR 19	101-105	L122 Fern Green	0.234	0.543
COLOR 20	106-110	L90 Dark Yellow Green	0.184	0.641
COLOR 21	111-115	L243 LEE Fluorescent3600K	0.286	0.37
COLOR 22	116-120	R92 Turquoise	0.235	0.36
COLOR 23	121-125	R94 Kelly Green	0.185	0.459
COLOR 24	126-130	L327 Forest Green	0.162	0.496
COLOR 25	131-135	L191 Cosmetic Aqua Blue	0.3	0.318
COLOR 26	136-140	L728 Steel Green	0.256	0.302
COLOR 27	141-145	L117 Steel Blue	0.223	0.278
COLOR 28	146-150	L354 Special Steel Blue	0.173	0.265
COLOR 29	151-155	L53 Paler Lavender	0.284	0.284
COLOR 30	156-160	L501 New Colour Blue	0.246	0.249
COLOR 31	161-165	L174 Dark Steel Blue	0.204	0.205
COLOR 32	166-170	L165 Daylight Blue	0.159	0.158
COLOR 33	171-175	L136 Pale Lavender	0.288	0.254
COLOR 34	176-180	L194 Surprise Pink	0.24	0.183
COLOR 35	181-185	L142 Pale Violet	0.209	0.148
COLOR 36	186-190	L700 Perfect Lavender	0.177	0.07
COLOR 37	191-195	L35 Light Pink	0.335	0.289
COLOR 38	196-200	L794 Pretty'n Pink	0.335	0.251
COLOR 39	201-205	L328 Follies Pink	0.335	0.18
COLOR 40	206-210	L795 Magical Magenta	0.327	0.138
COLOR 41	211-215	L154 Pale Rose	0.35	0.318
COLOR 42	216-220	L127 Smokey Pink	0.397	0.265
COLOR 43	221-225	L192 Flesh Pink	0.41	0.237
COLOR 44	226-230	L332 Special Rose Pink	0.465	0.193
COLOR 45	231-235	L790 Moroccan Pink	0.378	0.324
COLOR 46	236-240	L157 Pink	0.457	0.272
COLOR 47	241-245	R332 Cherry Rose	0.489	0.295
COLOR 48	246-250	L128 Cool LED Bright Pink	0.57	0.263
	251-255	NO FUNCTION		