M1H250W

250W LED Hybrid Moving Head with Zoom

USER MANUAL

For safety, please read this user manual carefully before initial use.

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Version: 1.0

Safety Instructions

Warning

- Do not open this device, there are no user-serviceable parts inside. Risk of electric shock.
- Do not look at the light source when the device is on.

Caution: This unit's housing may be hot during and after operation.

- Install this device in a location with adequate ventilation, at least 20 inches (50 cm) from adjacent surfaces.
- Do not leave any flammable material within 50 cm of this unit while operating or connected to power.
- Use a safety chain when mounting this device overhead.
- Do not operate this device outdoors or in any location where dust, excessive heat, water, or humidity may affect it.
- Do not operate this device if the housing, lenses, or cables appear damaged.
- Do not connect this device to a dimmer or rheostat.
- ONLY connect this device to a grounded and protected circuit.
- ONLY use the hanging bracket to carry this device.
- In case of a serious operating problem, stop using immediately.
- The maximum ambient temperature is 104° F (40° C). Do not operate this device at higher temperatures.

Power Input & Power Linking

This device has an auto-switching power supply work with input voltage range of 100~240 VAC, 50/60 Hz.
Link up to the maximum 15A. DO NOT exceed this.

Fuse Replacement

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead.

Procedure:

Step 1: Unscrew the fuse holder on the rear panel with a fitting screwdriver from the housing (anticlockwise).
Step 2: Remove the old fuse from the fuse holder.
Step 3: Install the new fuse in the fuse holder.
Step 4: Replace the fuse holder in the housing and fix it.

Product Installation

- This device can be mounted in many orientations provided each individual device is secured by the use of correct mounting bracket.
- Use a safety chain when mounting this device overhead.

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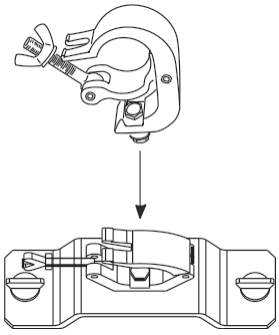
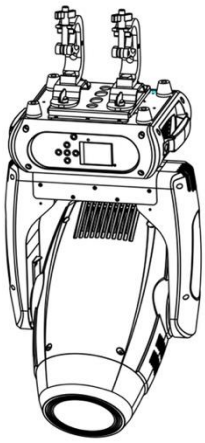
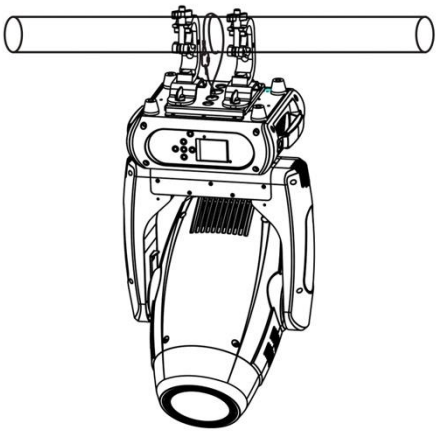
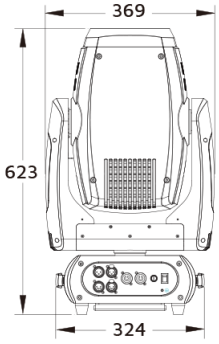
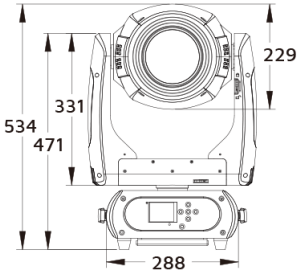


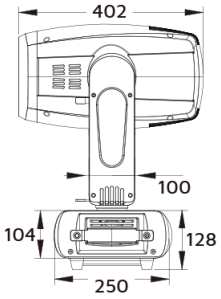




Dimensions

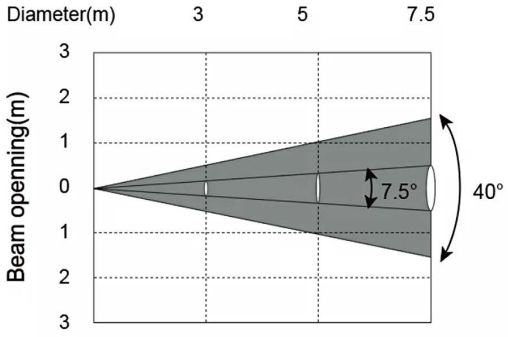






Lux Chart

Beam Angle: 7.5°- 40°

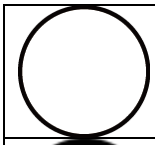
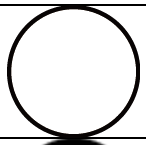
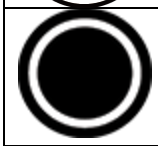
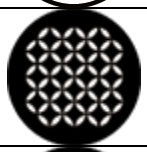
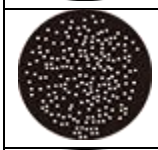
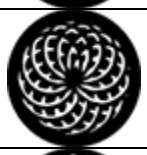
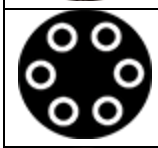
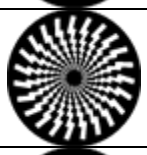
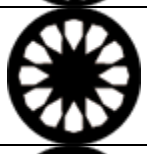
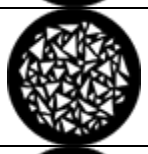
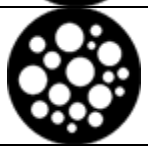


Diameter(m)	Φ0.44 Φ2.16	Φ0.75 Φ3.82	Φ1.0 Φ4.98
Intensity LUX	90172 3918	32462 1411	14250 680

Colour Wheel

	Open
	Magenta
	Orange
	Sky Blue
	Pink
	Yellow
	Green
	Blue
	Red

Rotating Gobo Wheel Static Gobo Wheel

	Position 1		Position 1
	Position 2		Position 2
	Position 3		Position 3
	Position 4		Position 4
	Position 5		Position 5
	Position 6		Position 6
	Position 7		Position 7
	Position 8		Position 8

Menu Operation

Description of icons in the menu

CONNECT	LIGHT	INFOMATION	SET	PROGRAM
				

Menu

Connect	DMX Address ①	XXX		DMX address setting
	Wireless①			Wireless Enabled
Light	Turn On / Off	ON/OFF		Turn On the lamp
	Automatic	ON/OFF		Lamp On/Off when power on
	DMX Control	ON/OFF		DMX Control or not
	Max Temperature①	80~139℃90℃ /176~282℉194℉		Lamp off if temperature continuously over for 5 minutes
	Lamp Adjust①	PAN……		Adjust value of channel
Information	Time Info.	Current XXXX(Hours) Fixture Life XXXX(Hours) Lamp Life XXXX(Hours)		Fixture boot time Fixture total run time Lamp total run time
	Temperature	Near Lamp Temp (depends on fixture)		Temperature Sensors
	Fans Speed	Near Lamp Fan (depends on fixture)		Fan speed Sensors
	Channel Value	PAN……		Display value of channel
	Error Message	Pan,Tilt……		Error channels
	Fixture Model	xxxxxxxxxxxx		Display model brand and model
	Software Ver	1U01 V1.0.00……		Version of each IC
Set	Reset	All Pan&Tilt Colors Gobos Others		Reset all Reset Pan&Tilt Reset Colors Reset Gobos Reset Others
	Movment	Pan Reverse① Tilt Reverse① Pan Degree① Encoders① Pan/Tilt Mode①	ON/OFF ON/OFF 630/540 ON/OFF Stand/Smooth	Pan Reverse Tilt Reverse Choose Pan Degree Encoder wheel on/off Choose pan/tilt mode
	UI Set	Mic Sens. ③ No Signal① Temperature. C/F ① Fans Mode① Hibernation① Backlight① Flip Display① Display Bright③ Brand Show① Key Lock① Language③	0~99%,60% Close/Hold/Auto/Music Fahrenheit /Celsius Auto Speed /High Speed OFF, 01M~99M, 15M 02~60m 02m ON/OFF 00~31 10 ON/OFF ON/OFF En/简/繁/Fr/Sp	Sensitivity of Mic Mode when no signal Temperature at ℃/℉ Fans mode Sleeping mode Show backlight time Display 180° reverse Display Brightness Show brand or not Key lock on/off Language Select

	Users	User Mode①	Standard Extended Basic-8bit Basic-16bit User		Standard mode Extended mode Basic-8bit mode Basic-16bit mode User program mode
		Edit User③	Max Channel = XX PAN = CH01 :		Edit users mode
	Calibration③	-Password- Color :	=XXX =XXX :		Password: 050 Calibrate channel value
	Fixture ID③	Name -Password- PID Code			Name Password: 050 Set PID of RDM
	Wireless Set①	DMX On Cable Reset Connect	ON/OFF ON/OFF		DMX Send Out Reset Connect
	Reload Default	Basic Reload(①) Program Reload(②) ---Password--- Private Reload(③) All Reload	ON/OFF ON/OFF XXX ON/OFF ON/OFF		Basic Reload Program Reload Password: 050 Private Reload All Reload
Program	Play①	DMX Receive Slave Receive Sequence Music	Slave Receive 1,2,3 Master / Alone Master / Alone		DMX Receive Choose slave position Run Sequence Music mode
	Select Chase②	Chase Part 1 Chase Part 2 Chase Part 3	Chase 1 ~ 8 Chase 1 Chase 1 ~ 8 Chase 2 Chase 1 ~ 8 Chase 3		Select and run auto program
	Edit Chase②	Chase 1 : Chase 8	Chase Test Step 01 Step 64	=SCxxx =SCxxx	Test Beginning scene Ending scene
	Edit Scenes②	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,…… --Fade Time-- --Secne Time-- DMX Input	=xxx =xxx =xxx	Input manual scene Modify manually fading time Modify manually scene time Input scene from exterior controller
	Scenes Record	ScXX=>ScXX			Auto Input scenes

The default selection for each setting is highlighted.

Items marked with ① can be reset with Basic Reload.

Items marked with ② can be reset with Program Reload.

Items marked with ③ can be reset with Private Reload.

Press the Up and Down buttons simultaneously for 3 seconds to reverse the display.

DMX Chart

- This fixture is controlled by the universal DMX512 protocol. The DMX address is the first channel used to receive instructions from the external controller. For independent control, each fixture must be assigned a unique address for each of its control channels. For example, this device has three channel modes: 17/15/19, if it's set to 17 channel mode, and there are several fixtures need to be independently controlled, we just simply address the first fixture at 1, and second fixture at 18, third one at 35, etc.
- If multiple fixtures have the same DMX address, they will behave synchronically.
- Display will flash when no DMX signal is received.

Mode/Channel				Name	Function	Min DMX	Max DMX
St	Ex	Ba1	Ba2				
1	1	1	1	Pan	Pan Coarse	0	255
2	2		2	Pan fine	Pan Fine	0	255
3	3	2	3	Tilt	Tilt Coarse	0	255
4	4		4	Tilt fine	Tilt Fine	0	255
5	5	3	5	Movement Speed	Fastest to Slowest	0	255
	6			Movement Function	Normal	0	15
					Movement With Blackout	16	31
					TBD	32	255
6	7			Shutter Function	Normal Shutter Functions	0	15
					Pulse-effect Forward	16	31
					Pulse-effect Reverse	32	47
					Random Strobe	48	63
					TBD	64	255
7	8			Shutter	Normal Shutter Functions		
					Close	0	31
					Strobe Rate (slow to fast)	32	223
					Open	224	255
					Pulse-effect Forward		
					Close	0	31
					Strobe Rate (slow to fast)	32	223
					Open	224	255
					Pulse-effect Reverse		
					Close	0	31
					Strobe Rate (slow to fast)	32	223
					Open	224	255
					Random Strobe		
					Close	0	31
					Strobe Rate (slow to fast)	32	223
					Open	224	255

		4	6	Shutter	Shutter closed	0	31
					No function (shutter open)	32	63
					Strobe effect slow to fast	64	95
					No function (shutter open)	96	127
					Pulse-effect in sequences	128	159
					No function (shutter open)	160	191
					Random strobe effect slow to fast	192	223
					No function (shutter open)	224	255
8	9	5	7	Dimmer	Dimmer (Close to Open)	0	255
9	10			Colour Function	Indexed	0	15
					Indexed With Blackout	16	31
					Forward Spin	32	47
					Reverse Spin	48	63
					Continuous	64	79
					Colour Bounce	80	111
					TBD	112	255
10	11			Colour	Indexed & Indexed With Blackout & Colour Bounce		
					Position 1 (Open)	0	13
					Position 2	14	27
					Position 3	28	41
					Position 4	42	55
					Position 5	56	69
					Position 6	70	83
					Position 7	84	97
					Position 8	98	111
					Position 9	112	125
					Position 10	126	139
					Position 11	140	153
					Position 12	154	167
					Position 13	168	181
					Position 14	182	195
					Position 15	196	209
					Position 16	210	223
					Position 17	224	237
					Position 18	238	255
					Forward Spin		
					Stop to fastest	0	255
					Reverse Spin		
					Stop to fastest	0	255
					Continuous		
					Positioning from 0-360 degrees	0	255
		6	8	Colour	Indexed		

					Position 1 (Open)	0	2
					Position 2	3	5
					Position 3	6	8
					Position 4	9	11
					Position 5	12	14
					Position 6	15	17
					Position 7	18	20
					Position 8	21	23
					Position 9	24	26
					Position 10	27	29
					Position 11	30	32
					Position 12	33	35
					Position 13	36	38
					Position 14	39	41
					Position 15	42	44
					Position 16	45	47
					Position 17	48	50
					Position 18	51	53
					Indexed With Blackout		
					Position 1 (Open)	54	56
					Position 2	57	59
					Position 3	60	62
					Position 4	63	65
					Position 5	66	68
					Position 6	69	71
					Position 7	72	74
					Position 8	75	77
					Position 9	78	80
					Position 10	81	83
					Position 11	84	86
					Position 12	87	89
					Position 13	90	92
					Position 14	93	95
					Position 15	96	98
					Position 16	99	101
					Position 17	102	104
					Position 18	105	106
					Indexed With Bounce		
					Position 1 (Open)	107	119
					Position 2 Red	120	132
					Position 3 Blue	133	145
					Position 4 Green	146	158
					Position 5 Yellow	159	171

					Position 6 Pink	172	184
					Position 7 Sky blue	185	197
					Position 8 Orange	198	210
					Position 9 Magenta	211	223
					Forward Wheel Spin		
					Stop to fastest	224	239
					Reverse Wheel Spin		
					Stop to fastest	240	255
11	12			Rot Gobo Function	Indexed	0	15
					Indexed With Blackout	16	31
					Forward Spin	32	47
					Reverse Spin	48	63
					Continuous	64	79
					Shake	80	95
					TBD	96	255
12	13			Rot Gobo	Indexed & Indexed With Blackout & Shake		
					Position 1 (Open)	0	31
					Position 2	32	63
					Position 3	64	95
					Position 4	96	127
					Position 5	128	159
					Position 6	160	191
					Position 7	192	223
					Position 8	224	255
					Forward Wheel Spin		
					Stop to fastest	0	255
					Reverse Wheel Spin		
					Stop to fastest	0	255
					Continuous		
					Positioning from 0-360 degrees	0	255
		7	9	Rot Gobo	Indexed		
					Position 1 (Open)	0	5
					Position 2	6	11
					Position 3	12	17
					Position 4	18	23
					Position 5	24	29
					Position 6	30	35
					Position 7	36	41
					Position 8	42	47
					Indexed With Blackout		
					Position 1 (Open)	48	53
					Position 2	54	59
					Position 3	60	65

					Position 4	66	71
					Position 5	72	77
					Position 6	78	83
					Position 7	84	89
					Position 8	90	97
					Indexed With Shake		
					Position 2	98	115
					Position 3	116	133
					Position 4	134	151
					Position 5	152	169
					Position 6	170	187
					Position 7	188	205
					Position 8	206	223
					Forward Wheel Spin		
					Stop to fastest	224	239
					Reverse Wheel Spin		
					Stop to fastest	240	255
13	14			Gobo Rot Function	Continuous	0	15
					Forward Spin	16	31
					Reverse Spin	32	47
					Forward Animate Rotate	48	63
					Forward Animate Rotate With Blackout	64	79
					Reverse Animate Rotate	80	95
					Reverse Animate Rotate With Blackout	96	111
					TBD	112	255
14	15			Gobo Rot	Continuous		
					Positioning from 0-360 degrees	0	255
					Forward Spin		
					Stop to fastest	0	255
					Reverse Spin		
					Stop to fastest	0	255
					Forward Animate Rotate & Forward Animate Rotate With Blackout		
					Stop to fastest	0	255
					Reverse Animate Rotate & Reverse Animate Rotate With Blackout		
					Stop to fastest	0	255
		8	10	Gobo Rot	Continuous		
					Positioning from 0-360 degrees	0	191
					Forward Animate Rotate		
					Stop to fastest	192	207
					Reverse Animate Rotate		

					Stop to fastest	208	223
					Forward Spin		
					Stop to fastest	224	239
					Reverse Spin		
					Stop to fastest	240	255
15	16			Gobo Function	Indexed	0	15
					Indexed With Blackout	16	31
					Forward Spin	32	47
					Reverse Spin	48	63
					Continuous	64	79
					Shake	80	95
					TBD	96	255
16	17			Fixed Gobo	Indexed & Indexed With Blackout & Shake		
					Position 1 (Open)	0	31
					Position 2	32	63
					Position 3	64	95
					Position 4	96	127
					Position 5	128	159
					Position 6	160	191
					Position 7	192	223
					Position 8	224	255
					Forward Wheel Spin		
					Stop to fastest	0	255
					Reverse Wheel Spin		
					Stop to fastest	0	255
					Continuous		
					Positioning from 0-360 degrees	0	255
		9	11	Fixed Gobo	Indexed		
					Position 1 (Open)	0	5
					Position 2	6	11
					Position 3	12	17
					Position 4	18	23
					Position 5	24	29
					Position 6	30	35
					Position 7	36	41
					Position 8	42	47
					Indexed With Blackout		
					Position 1 (Open)	48	53
					Position 2	54	59
					Position 3	60	65
					Position 4	66	71
					Position 5	72	77

					Position 6	78	83
					Position 7	84	89
					Position 8	90	95
					Indexed With Shake		
					Position 2	98	115
					Position 3	116	133
					Position 4	134	151
					Position 5	152	169
					Position 6	170	187
					Position 7	188	205
					Position 8	206	223
					Forward Wheel Spin		
					Stop to fastest	224	239
					Reverse Wheel Spin		
					Stop to fastest	240	255
17	18	10	12	Prism	Indexed & Indexed With Blackout		
					Position 1 (Open)	0	3
					Forward Spin		
					Stop to fastest	0	127
					Reverse Spin		
					Stop to fastest	128	255
18	19	11	13	Frost	Frost 0-100%	0	255
19	20			Focus Function	Continuous	0	15
					5m Auto Focus	16	31
					7.5m Auto Focus	32	47
					10m Auto Focus	48	63
					15m Auto Focus	64	79
					>20m Auto Focus	80	95
					TBD	96	255
20	21	12	14	Focus	Continuous		
					Focus In to Focus Out	0	255
					Auto Focus		
					Focus In to Focus Out Fine	0	255
21	22	13	15	Zoom	Continuous		
					Zoom Small to Big	0	255
22	23			Iris Function	Indexed	0	15
					Pulse opening With Forward Blackout	16	31
					Pulse opening With Reverse Blackout	32	47
					Pulse closing With Forward Blackout	48	63
					Pulse closing With Reverse Blackout	64	79
					TBD	80	255

23	24			Iris	Indexed		
					Max. diameter to Min. diameter	0	255
					Pulse opening & Pulse closing		
					Pulse Slow to Fast	0	255
		14	16	Iris	Indexed	0	191
					Pulse opening With Forward Blackout	192	207
					Pulse opening With Reverse Blackout	208	223
					Pulse closing With Forward Blackout	224	239
					Pulse closing With Reverse Blackout	240	255
24	25	15	17	Control	Normal	0	7
					Reset All	8	15
					Pan & Tilt Reset	16	23
					Colour Reset	24	31
					Gobo Reset	32	39
					TBD	40	47
					Other Reset	48	55
					Display Off	56	63
					Display On	64	71
					TBD	72	79
					TBD	80	87
					Hibernation	88	95
					TBD	96	255

More Functions

- Remote Device Management (RDM), which allows users to remotely control the device. This allows functions including changing the DMX address, reversing pan/tilt setting, checking fixture information such as temperature, fan speed, etc, to be done using an RDM-capable controller. Every device has an RDM code programmed during manufacture to distinguish between each other. It is not recommended to change this code.
- Software upgrade via DMX. Firmware for this fixture can be upgraded using a software upgrade box, without the need to change mechanical parts. The upgrade box is not included, if you require any assistance, please contact your dealer.
- Hibernation. The device will enter sleep mode after a period of not receiving any DMX signal in order to save power. The fixture will wake from sleep once a DMX signal is received.
- Display back-up communication IC. There is a back-up communication installed in the display PCB, so users can replace it at once if the original one is broken.
- Display flip. By pressing up and down buttons for more than 3 seconds, the display will flip.

Technical Specifications

Photometrics

- Light Source: 250 W White LED Module, 8,000 K
- Beam Angle: 7.5°~40°
- Output: 6,239 lumen, 57,000 lux on @ 2.5m @ 7.5°
- PWM: 1,200 Hz
- LED Lifespan: 60,000 hours

Colour

- 8 Colours + Open

Gobos

- Fixed: 1 x 7 + Open Fixed Gobo Wheel
- Rotating: 1 x 7 + Open Interchangeable Rotating Gobo Wheel (Outside Ø27mm, Inside Ø20mm).

Effects

- Dimming: 0~100%
- Strobe: 0.5~26 Hz
- Focus: Motorised
- Prism: 3-facet
- Frost: Yes
- Iris: Yes
- Zoom: Motorised, 7.5° to 40°

Movement

- 16 bit Auto Reposition
- Pan: 630° (4.3 sec) or 540° (3.9 sec)
- Tilt: 233°(2.2 sec)

Power

- Input Voltage: 100~240V AC, 50/60 Hz, 275 W
- Connection: Neutrik® PowerCON in/out

Control

- Operation Modes: DMX, auto, sound active, master/slave
- Control Protocol: DMX512, RDM (optional: W-DMX™)
- RDM: Change DMX Address, Display Flip, X/Y Reverse
- DMX Channels: 24 / 25 / 15 / 17
- Interface: 3-pin XLR, 5-pin XLR
- Display: 2.4″ colour LCD control panel with battery power.
- Software Upgrade via DMX: Yes

Housing

- Materials: ABS & Steel, matte black finish
- Cooling: Multi-sensor thermostat controlled variable speed fan
- IP rating: IP20
- Net Weight: 25 kg
- Rigging: 2x omega brackets with 1/4-turn quick locks

Optional Accessories

- Road case: MCASE1LS, MCASE2LS

Warranty

Please refer to your local dealer or contact Event Lighting Pty Ltd