HALO 80 LED

Beam moving head

USER MANUAL/MANUAL DE USUARIO

PLEASE READ THE INSTRUCTIONS CAREFULLY BEFORE USE
POR FAVOR LEA LAS INSTRUCCIÓNES ANTES DE USAR

TECSHOW

1. OVERVIEW

HALO 80 LED

Beam moving head – 1 x 80W White LED

Halo 80 LED is a compact and powerful beam moving head that sports 1 x 80W White LED, comparable to a 1R lamp. Its sharp 2º beam angle stands out naturally in small and medium-scale mobile applications. The equipment has a wheel of 13 colors + white + rainbow effect and an independent wheel of 6 colors + white that allows gobos in rainbow effect. Halo 80 LED has also two independent 8 and 24 facets prisms that can be operated independently or together, thus providing multiple options at the time of a staging.

Source & Optics

- Light Source: 1 x 80W White LED
- LEDs life: 50,000 horas
- Beam angle: 2°
- Color Temperature: 7800K

Photometric data

- 2º beam angle: 100.000 Lux @ 5m (16 ft.)

Effects & Functions

- Color Wheel: 13 colors + White + Rainbow effect
- 7-color effect: Independent 6-color effect + white that allows rainbow effect gobos
- Gobos: 11 fixed + white
- Gobo shake
- Frost filter
- Double Prism: 8 and 24 facet prisms
- Focus: linear adjustable de 0-100%
- Dimmer: Full range 0-100%
- Strobe effect: Synchronized and random
- Advanced RDM function
- High efficiency cooling system, temperature control, overheating auto-protection.

Control

- DMX Channels: 16/20
- Operational modes: DMX, Master/Slave, Auto & Sound/Active

Movement

- Pan: 540°
- Tilt: 270°
- 16-bit resolution
- Auto repositioning

Physical

- DMX coonectors: 2 XLR (XLR-3 in & out)
- Power supply: PowerCON® in/out
- LCD display
- Dimensions: 280x215x510 mm. / 11x8.5x20.1 in.
- Weight: 11.9 Kg. / 26.2 Lbs.

2. SAFETY INSTRUCTIONS

Warning To prevent or reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.

Caution There are no user serviceable parts inside this unit. Do not attempt any repairs yourself. Doing so will void your manufactures warranty. In the unlikely event your unit may require service please contact us.

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is Ta: 40°. Do not operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 85°. Do not touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- Do not touch any wire during operation as high voltage might be causing electric shock.

Warning

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- Do not open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

- If using a 230V 50Hz power supply, do not connect in series more than 11 units; use another main supply for the next 11 fixtures.
- If using a 120V 60Hz power supply, do not connect in series more than 5 units; use another main supply for the next 5 fixtures.

Installation

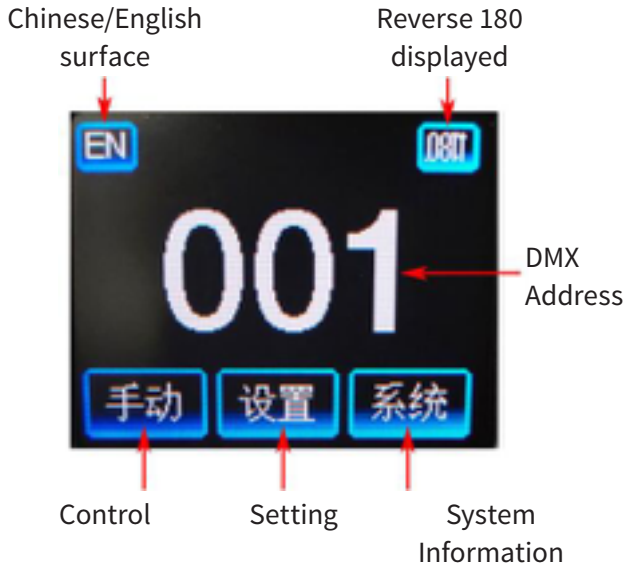
The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to sup-

port a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

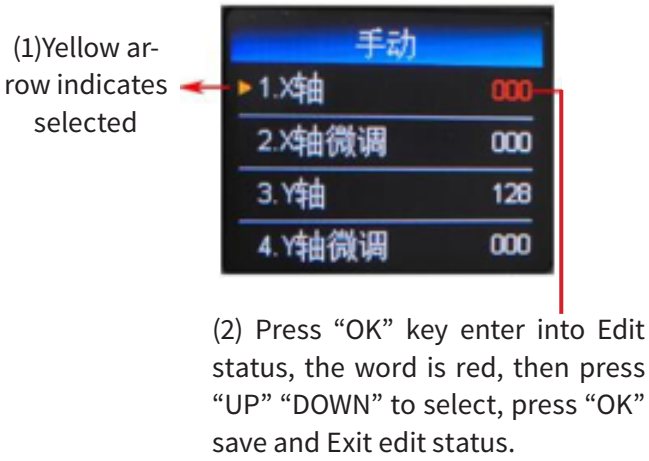
3. INTERFACE DESCRIPTION

Main Interface



Subinterface

Manual Control



This interface is used to control the current luminaire and automatically enters the host state (does not receive the DMX signal and sends a DMX signal to the slave to the host).

The manual menu will display 16 channels or 20 channels according to the standard 16-channel or extended 20-channel mode set in the setup menu.

Option	Description	
1CH. Pan	0-255	Yellow arrow indicates selected, Press "OK" key enter into Edit status, the word is red, then press "UP" "DOWN" to select, press "OK" save and Exit edit status.
……	0-255	
15CH. Frost	0-255	
16CH. Reset		Press "OK" to see the confirmation dialog box, press "OK" again to enter the reset interface, all motor reset
17CH. Pan/Tilt Speed	0-255	Channel Mode is"Extended 20-channel" can display
18CH. Color Wheel Speed	0-255	

19CH.Dimmer-Prism-Frost Speed	0-255	
20CH. Gobo Wheel Speed	0-255	

Setting

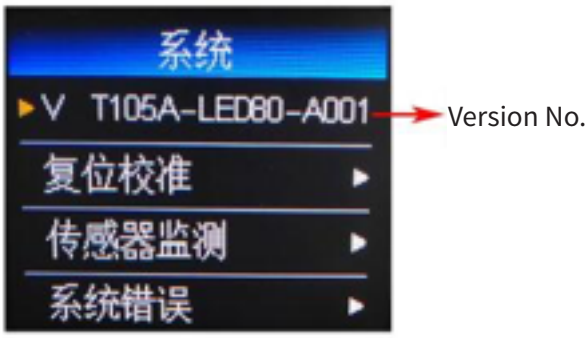
(1)Yellow arrow indicates selected

(2) Press “OK” key enter into Edit status, the word is red, then press “UP” “DOWN” to select, press “OK” save and Exit edit status.

Option	Description	
Run Mode	DMX	Slave status: Receive DMX signals from the console or Master
	AUTO 1	Auto run ;
	AUTO 2	Master status: Auto run and send DMX signal to slave
	Random	
	Sound	
DMX Address	001-512	Press “OK” key enter into edit status, then press “UP” “DOWN” to change DMX address. press “OK” key save and exit edit status.
Channel Mode	16 CH	Standard 16 Channel Mode, 17-20CH No Function
	20 CH	Extend 20 Channel Mode, 17-20CH for speed control (please check the detail on Channel table.)
Invert Pan	OFF	ON for starting and ending , the default is OFF.
	ON	
Invert Tilt	OFF	ON for starting and ending , the default is OFF.
	ON	
Pan-Tilt Swap	OFF	
	ON	Exchange Pan/Tilt channel (include Pan/Tilt Fine)
Pan-Tilt Encoder	ON	Use encoder (optocoupler) to determine out of step and automatically correct position
	OFF	Correct position without encoder (optocoupler)
DMX Signal	KEEP	Continue running as it is
	CLEAR	All motors return to the position and stop running.

Linear Color	ON	Color liner change
	OFF	Color nonlinear change, half color change
Load Default		Press the “OK” button to see the confirmation dialog, press “OK” again. The key restores the default settings

System



Option	Description	
Version No.(V)		Version No.
Reset Calibration	Pan Calibration	After entering the sub-interface, you can adjust the motor such as X-axis and Y-axis. Reset position to compensate for errors in hardware installation, Adjustment range -128~+127, +0 means no adjustment.
	Tilt Calibration	
	Color Calibration	
	Gobo Calibration	
	Focus Calibration	
	Prism1 Calibration	
	Prism2 Calibration	
	Rainbow Calibration	
	Frost Calibration	
Sensor Monitor	Pan Hall	0 when magnetic is detected, otherwise 1
	Tilt Hall	
	Color Hall	
	Gobo Hall	
	Focus Hall	
	Prism1 Hall	
	Prism2 Hall	
	Panwheel State	2 digits, each corresponding to a photoelectric switch in the encoder disc
	Tiltwheel State	

	Panwheel Step	When walking in the positive direction, the step value should increase, when going back, The step value should be reduced. The value is the same every time you go to a certain point.
	Tiltwheel Step	
System Error	(See common mistakes Rear)	If the red ERR indicator is lit, the luminaire is running. An error can be made by going to the sub-interface for details. After viewing, you can press the “Clear” button to clear the error record.
DMX Monitor		This enters the sub-interface and displays the channel values as values for viewing.

Error	Description
MT board connection failed	The driver board did not respond. Serial communication line connecting display panel and driver board. There is a problem, or there is a problem with the driver board.
Pan Reset failed	X-axis photoelectric switch, or problem with X-axis motor
Tilt Reset failed	Y-axis photoelectric switch, or problem with Y-axis motor
Pan Hall failed	Pan Hall have problem
Tilt Hall failed	Tilt Hall have problem
Color Wheel Reset failed	Color Wheel Hall , or Color Wheel motor have problem
Gobo Wheel Reset failed	Gobo Wheel Hall , or Gobo Wheel motor have problem
Focus Reset failed	Focus Hall , or Focus motor have problem

DMX Channel Table

CH	Channel Mode	
	16CH	20CH
1	Pan	Pan
2	Pan Fine	Pan Fine
3	Tilt	Tilt
4	Tilt Fine	Tilt Fine
5	Dimmer	Dimmer
6	Strobe/Shutter	Strobe/Shutter
7	Color Wheel	Color Wheel
8	Gobo Wheel	Gobo Wheel

9	Prism 1	Prism 1
10	Prism 1 Rotation	Prism 1 Rotation
11	Prism 2	Prism 2
12	Prism 2 Rotation	Prism 2 Rotation
13	Focus	Focus
14	7-Color Effect	7-Color Effect
15	Frost	Frost
16	Reset	Reset
17		Pan/Tilt Speed
18		Color Wheel Speed
19		Dimmer-Prism-Frost Speed
20		Gobo Wheel Speed

16/20 DMX Channel Description

CH	Function	Value	Effect
1	Pan	000-255	Pan 540 degree scan
2	Pan Fine	000-255	Pan 1.2 degree scan
3	Tilt	000-255	Tilt 270 degree scan
4	Tilt Fine	000-255	Tilt 1.2 degree scan
5	Dimmer	000-255	From dark to bright
6	Strobe	000-003 004-251 252-255	OFF Strobe from slow to fast ON→(control by dimmer channel)
7	Color Wheel	000-004 005 -009 010 – 014 015 – 019 020 – 024 025 – 029 030 – 034 035 – 039 040 – 044 045 – 049 050 – 054 055 – 059 060 – 064 065 – 069 070 – 074	White White + Color1 Color 1 Color 1 + Color 2 Color 2 Color 2 + Color 3 Color 3 Color 3 + Color 4 Color 4 Color 4 + Color 5 Color 5 Color 5 + Color 6 Color 6 Color 6 + Color 7 Color 7

		075 – 079	Color 7 + Color 8
		080 – 084	Color 8
		085 – 089	Color 8 + Color 9
		090 – 094	Color 9
		095 – 099	Color 9 + Color 10
		100 -104	Color 10
		105 -109	Color 10 + Color 11
		110 -114	Color 11
		115 -119	Color 11 + Color 12
		120 -124	Color 12
		125 -129	Color 12 + Color 13
		130 -134	Color 13
		135 -139	Color 13 + White
		140 -200	Positive flow (from fast to slow)
		201 - 255	Reverse flow (from slow to fast)
8	Gobo Wheel	000 – 004	Gobo 1
		005 – 009	Gobo 2
		010 – 014	Gobo 3
		015 – 019	Gobo 4
		020 – 024	Gobo 5
		025 – 029	Gobo 6
		030 – 034	Gobo 7
		035 – 039	Gobo 8
		040 – 044	Gobo 9
		045 – 049	Gobo 10
		050 – 054	Gobo 11
		055 – 059	Gobo 12
		060 – 064	Gobo 1 shake (from slow to fast)
		065 – 069	Gobo 2 shake (from slow to fast)
		070 – 074	Gobo 3 shake (from slow to fast)
		075 – 079	Gobo 4 shake (from slow to fast)
		080 – 084	Gobo 5 shake (from slow to fast)
		085 – 089	Gobo 6 shake (from slow to fast)
		090 – 094	Gobo 7 shake (from slow to fast)
		095 – 099	Gobo 8 shake (from slow to fast)
		100 – 104	Gobo 9 shake (from slow to fast)
		105 – 109	Gobo 10 shake (from slow to fast)
		110 – 114	Gobo 11 shake (from slow to fast)
		115 – 119	Gobo 12 shake (from slow to fast)
		120 – 189	Positive flow (from fast to slow)
		190 – 255	Reverse flow (from slow to fast)
9	Prism 1	000-127	Prism 1 out
		128-255	Prism 1 in

10	Prism 1 Rotation	000-127 128-190 191-192 193-255	Prism angle adjustment Reverse rotation (from fast to slow) Stop Forward rotation (from slow to fast)
11	Prism 2	000-127 128-255	Prism 2 out Prism 2 in
12	Prism 2 Rotation	000-127 128-190 191-192 193-255	Prism angle adjustment Reverse rotation (from fast to slow) Stop Forward rotation (from slow to fast)
13	Focus	000-255	Pattern definition from far to near
14	7-Color Effect	000-127 128-255	7-Color Effect out 7-Color Effect in
15	Frost	000-127 128-255	Frost out Frost in
16	Reset	000-049 050-099 100-199 200-255	No Function Small Motor Reset Big Motor (Pan/Tilt) Reset All Motor Reset
Extend Channel			
17	Pan/Tilt Speed	000-255	Speed from fast to slow
18	Color Wheel Speed		
19	Dimmer-Prism-Frost Speed		
20	Gobo Wheel Speed		

4. SPECIAL INSTRUCTIONS

1. During the reset process, press and hold the 5 seconds “OK” button to interrupt the reset.
2. Press and hold the “OK” key during power-on to interrupt the reset process and enter test mode.
3. Set the DMX address to 512, return to the main interface, press and hold the 10 seconds “OK” button to set the “display”.Or “hidden” the LOGO.
4. Signal indicator:
   - The ERR red indicator flashes to indicate that there is an error message and enters the “System Information” -> System Error” view information.
   - DMX green indicator light, steady light indi-

cates that the DMX signal is received, and frequent off indicates no DMX signal.

- The green indicator on the motor drive board flashes quickly at 1 second intervals, indicating that it is received.The serial port signal sent by the display board; if it flashes slowly at 2 second intervals, it means no string Port signal, the flashing of the light is used to indicate that the system is running; if the indicator light is always on or off, it means There is a problem with the motor drive board.

Design and product specifications are subject to change without prior notice.