

# Elf Spot user's manual



Please read the instruction manual carefully before use

## 1.Safety guidance:

Thank you for using our product. In order to use this product safely and effectively, you use this product, Please read the entire contents of this manual carefully before. This manual contains: an introduction to this product and Important information such as safe installation and use, please keep it for reference. Related to installation and use The instructions must be strictly followed.

**Note :** The equipment is packed in good condition when leaving the factory. Please operate according to the user manual. Failure to follow the manual operation will cause failures and problems, or human failure will cause the machine to fail.

- Before using the product, please open it and check carefully to ensure that the lamp has no damage caused by transportation.
- The lamp is suitable for use in dry environments.
- Installation and operation of lamps should be performed by professionals.
- Use a secure rope when fixing the device, and hold the bottom when moving the light.
- The equipment must be installed in a well-ventilated area.
- Make sure that the vents are clear to prevent the lamp from overheating during operation.
- Before operation, ensure that the power supply voltage matches the power supply voltage required by the device.
- Ground the conductor to prevent electric shock.
- Do not use the lamp in the environment above 40 °C .
- There may be a small amount of smoke or odor when the new lamp is working, and it will disappear after 15 minutes of operation.
- Do not place flammable objects next to the lamp during operation to prevent fire.
- Before turning on the lamp, please carefully check the power cord for damage, and replace it immediately if damaged.
- The surface temperature of the lamp can reach 75 ° C during operation. Do not touch it with bare hands.
- Avoid flammable liquid, water or metal conductors entering the lamp to avoid electric shock or fire. If foreign objects enter the lamp, please cut off the power immediately.
- Avoid operating in dirty and messy environments, and regularly clean and maintain the lamps.
- Do not touch the wires when the lamp is running to prevent electric shock.
- Avoid twisting the power cord with other wires.

- A serious operational failure has occurred, please stop using it immediately.
- Do not operate the machine by yourself. Operation by non-professional personnel will cause damage to the equipment or malfunction. If repair is required, please contact the nearest authorized service center.
- If the lamp is not used for a long time or please cut off the power during maintenance
- To avoid fire hazards or electric shock, do not expose the luminaire to rain or wet areas.

## **2.Product description:**

Elf Spot Is a compact, high performance beam moving head light product, it has: RDM features , Console-adjustable address code , Small size for easy transportation , LED light source , Low power, high light efficiency, long life, environmental protection ; Faster speed, strong beam, sharpness, etc.Very suitable for use in: bars, clubs, music restaurants, KTV halls, indoor multi-purpose halls and other places.

### Technical Parameters

Voltage: AC100-240V 50/60HZ

Light source: Super brightness LED lamp beads, 7 RGBW 4-in-1 lamp beads (Dyeing used)

Operating mode: DMX512, Master-slave, self-propelled, sound/voice-activated

Control channel: 16 channel/20 channel

Dimmer: 0-100% LED linear dimming

Shutter: High-speed electronic strobe

Pan、Tilt: 540° 、 270° ; 16bit

Rotating gobo wheel: 6 gobos (4 metal gobos + 2 glass gobos)

Fixed gobo wheel: 8 gobos

Color wheel: 7 Color and white, Half color, rainbow effect

Prism: 3 prism

Focusing: Electronic focusing

Beam angle: 16°

Display board: Color LCD display, Switch between Chinese and English, Forward and reverse display

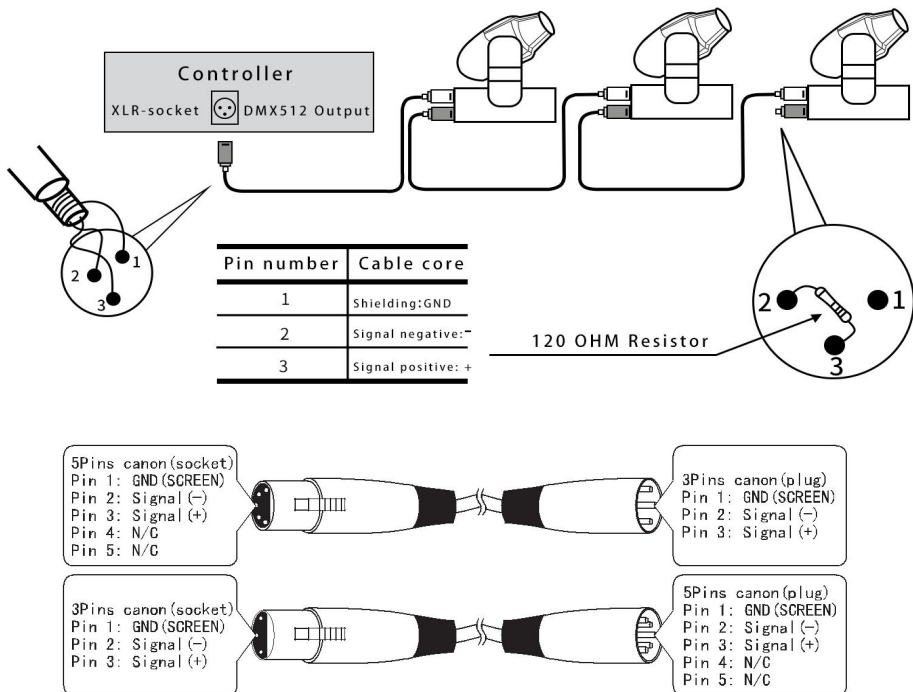
Size: 22.5 \* 21 \* 36CM

Weight: 6.3KG

### 3.Wiring method:

- A: In order to reduce signal errors and avoid signal attenuation and interference during transmission, the DMX input of the last machine can be used. Out Add a 120 OHM 1 / 4W resistor between the 2 and 3 pins on the end.
- B: Use the XLR signal cable to connect the lamp, one end to the output port of the lamp, and the other end to the input port of the next lamp. XLR signal lines can only be used in series, not in parallel. The DMX512 signal transmission speed is very fast. If the signal line is damaged, the welding place is not strong, the contact is not good, etc., it will affect the signal transmission, resulting in signal loss or interference.
- C: When a machine is powered off, the DMX output and input connections are bypassed to maintain DMX line connectivity.
- D: 3-pin XLR connectors are more common than 5-pin XLR:
- 3-pin XLR: PIN 1: GND, PIN 2: negative signal, PIN 3: positive signal.
- 5-pin XLR: PIN 1: GND, PIN 2: negative signal, PIN 3: positive signal, PIN4 / PIN5: not used.

The wiring method is as follows

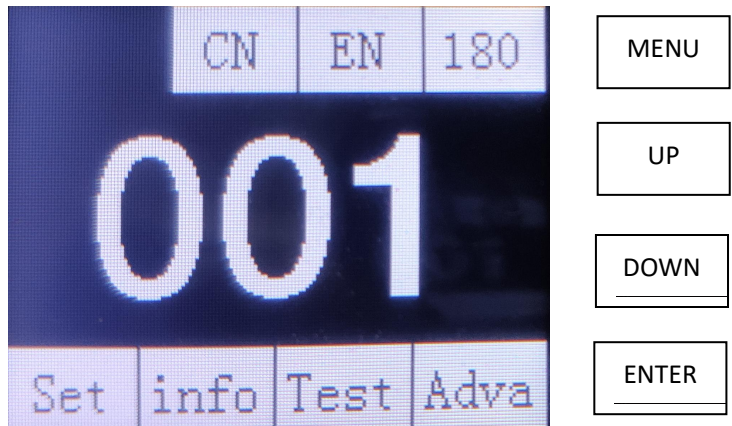


#### 4.Installation Precautions

In order to ensure the stability of the installation site during the installation of the lamp, it is necessary to ensure the firmness of the connection between the lamp pole and the lamp hook when reversing the installation, and use a safety rope to assist the suspension; In order to prevent the lamp from falling and slipping, pedestrians are forbidden to pass when installing and debugging, and regularly check whether the safety rope is worn, whether there are hook screws, loose, and prevent accidents due to unstable installation due to hanging installation.

#### 5.Menu description:

A:Control instructions



“MUNU” The functions are:Exit, return to the previous interface menu

“UP” The functions are:Select the previous item or the value plus

“DOWN” The functions are:Select next item or value minus

“ENTER” The functions are:OK, save, execute commands

#### B: Interface introduction

##### ①Main interface

Two LED indicators on the left: Green --- (DMX signal indicator)

Blue --- (host self-propelled voice-activated indicator)

The three buttons in the upper right corner are used for:

CN: Chinese, language switch

EN: English, language switch

180: Screen display rotated 180 ° , upside down

## ②Set interface

► Set	
Run Mode	DMX/RDM
DMX Address	001
Channel Mode	16
X inversion	OFF
Y inversion	OFF
X/Y swap	OFF

► Set	
Reset	NO
XY encoder	ON
No DMX Signal	KEEP
Screensaver	ON
Load Default	NO

Option	Description	
Run Mode	DMX/RDM	Slave state: receive DMX signal or RDM signal from console or host
	Fast	Master status: run fast and send DMX signal to slave
	Slow	Master status: run slow and send DMX signal to slave
	Sound	Master status: sound running, and send DMX signal to slave
DMX Address	001-512	Used to modify the address
Channel Mode	16	16 Channel mode
	20	20 Channel mode
X inversion	OFF	normal
	ON	Invert PAN direction
Y inversion	OFF	normal
	ON	Invert TILT direction
X/Y SWAP	OFF	normal
	ON	Swap PAN/TILT channels (Including fine-tuning)
Reset	NO	normal
	YES	Select "Yes" to confirm reset
XY encoder	ON	Use encoder (optical coupler) to judge out of step and automatically correct position
	OFF	Not corrected
NO DMX Signal	KEEP	Keep the current state
	CLEAR	Reset to initial position and stop running
Screen saver	ON	Turn off the backlight after 30 seconds of inactivity
	OFF	Backlight always on
Load Default	NO/YES	Select "Yes" to confirm and restore the default settings

③Info interface

Option	Description
Version	current software version
Total Fix	Cumulative use time
Fixture time	Usage time since this boot
Total Lamp	Accumulated lamp bead usage time
Lamp time	This time, the time taken by the lamp beads
temperature	℃ Light source temperature

④Test interface

This interface is used to manually control the current luminaire. It is neither in the slave state (not receiving DMX signals) nor in the master state (not sending DMX signals).

Option	Description	
PAN	0~255	Press the "OK" key to enter the editing state. Press the "Up" and "Down" keys to change the value. Press the "OK" key again to exit the editing state
.....	.....	

⑤Adva interface

Factory debugging use, non-professionals, please do not enter

## 6: DMX 512 Channel table:

This light has 2 channel modes: 16-channel mode and 20-channel mode, as shown below:

16-channel mode, as follows:

16 Channel	Function	DMX number	Function description
CH 1	PAN	0-255	Rotate horizontally: 0-540°
CH 2	TILT	0-255	Vertical rotation: 0-270°
CH 3	PAN Fine	0-255	Fine horizontal: 0%-100%
CH 4	TILT Fine	0-255	Fine vertical: 0%-100%
CH 5	PAN/TILT Speed	0-255	From fast to slow
CH 6	Dimmer 1	0-255	From dark to light
CH 7	Shutter 1	0-9	Nothing
		10-120	Linear strobe (slow-fast)
		121-130	Nothing
		131-190	Pulse strobe (slow-fast)
		191-200	Nothing
		201-245	Random strobe (slow-fast)
		246-255	Nothing
CH 8	Focusing	0-255	Far-Near
CH 9	Colour	0-12	White light
		13-25	Color 1
		26-38	Color 2
		39-51	Color 3
		52-64	Color 4
		65-77	Color 5
		78-90	Color 6
		91-103	Color 7
		104-116	White light+Color 1
		117-129	Color 1+Color 2
		130-142	Color 2+Color 3
		143-155	Color 3+Color 4
		156-168	Color 4+Color 5
		169-181	Color 5+Color 6
		182-194	Color 6+Color 7



CH 9	Colour	195-225	Color flowing-Positive (Fast to slow)
		226-255	Color flowing-anti (slow to Fast)
CH 10	Rotating gobo 1	0-14	White light
		15-29	gobo 1
		30-44	gobo 2
		45-59	gobo 3
		60-74	gobo 4
		75-89	gobo 5
		90-104	gobo 6
		105-119	gobo 1 shake Slow-fast
		120-134	gobo 2 shake Slow-fast
		135-149	gobo 3 shake Slow-fast
		150-164	gobo 4 shake Slow-fast
		165-179	gobo 5 shake Slow-fast
		180-194	gobo 6 shake Slow-fast
		195-225	Gobo Rotate-Positive (Fast to slow)
		226-255	Gobo Rotate-anti (slow to Fast)
CH 11	Gobo 1 rotation	0-127	0-360° Rotation position
		128-191	Rotate-Positive (Fast to slow)
		192-255	Rotate-anti (slow to Fast)
CH 12	Fixed Gobo 2	0-9	White light
		10-19	gobo 1
		20-29	gobo 2
		30-39	gobo 3
		40-49	gobo 4
		50-59	gobo 5
		60-69	gobo 6
		70-79	gobo 7
		80-89	gobo 8
		90-99	gobo 1 shake Slow-fast
		100-109	gobo 2 shake Slow-fast
		110-119	gobo 3 shake Slow-fast
		120-129	gobo 4 shake Slow-fast
		130-139	gobo 5 shake Slow-fast

CH 12	Fixed Gobo 2	140-149	gobo 6 shake Slow-fast
		150-159	gobo 7 shake Slow-fast
		160-169	gobo 8 shake Slow-fast
		170-212	Gobo Rotate-Positive (Fast to slow)
		213-255	Gobo Rotate-anti (slow to Fast)
CH 13	Prism	0-63	Nothing
		64-127	Prism insertion
		128-255	Prism rotation (slow to fast)
CH 14	Dyeing Macro	0-9	Nothing
		10-19	Red
		20-29	Green
		30-39	Blue
		40-49	White
		50-59	Red +Green
		60-69	Red + Blue
		70-79	Red+White
		80-89	Green+blue
		90-99	Green+White
		100-109	Blue+White
		110-119	Red +Green+ Blue
		120-129	All on
		130-137	Red Strobe
		138-145	Green Strobe
		146-153	Blue Strobe
		154-161	White Strobe
		162-169	Red +Green Strobe
		170-177	Red + Blue Strobe
		178-185	Red+White Strobe
		186-193	Green+blue Strobe
		194-201	Green+White Strobe
		202-209	Blue+White Strobe
		210-217	Red +Green+ Blue Strobe
		218-225	All on Strobe
		226-235	Transient Fast to slow

CH 14	Dyeing Macro	236-245	Gradually Fast to slow
		246-255	Pulse Fast to slow
CH 15	Automatic/Sound	0-63	Nothing
		64-127	Run fast
		128-191	Run slow
		192-255	Sound
CH 16	Reset	0-63	Nothing
		64-127	Small motor reset
		128-191	PAN/TILT reset
		192-255	Whole machine reset

20-channel mode, as follows:

20 Channel	function	DMX number	Function description
CH 1	PAN	0-255	Rotate horizontally: 0-540°
CH 2	TILT	0-255	Vertical rotation: 0-270°
CH 3	PAN Fine	0-255	Fine horizontal: 0%-100%
CH 4	TILT Fine	0-255	Fine vertical: 0%-100%
CH 5	PAN/TILT Speed	0-255	From fast to slow
CH 6	Dimmer 1	0-255	From dark to light
CH 7	Shutter 1	0-9	Nothing
		10-120	Linear strobe (slow-fast)
		121-130	Nothing
		131-190	Pulse strobe (slow-fast)
		191-200	Nothing
		201-245	Random strobe (slow-fast)
		246-255	Nothing
CH 8	Focusing	0-255	Far-Near
CH 9	Colour	0-12	White light
		13-25	Color 1
		26-38	Color 2
		39-51	Color 3
		52-64	Color 4
		65-77	Color 5

CH 9	Colour	78-90	Color 6
		91-103	Color 7
		104-116	White light+Color 1
		117-129	Color 1+Color 2
		130-142	Color 2+Color 3
		143-155	Color 3+Color 4
		156-168	Color 4+Color 5
		169-181	Color 5+Color 6
		182-194	Color 6+Color 7
		195-225	Color flowing-Positive (Fast to slow)
		226-255	Color flowing-anti (slow to Fast)
CH 10	Rotating gobo 1	0-14	White light
		15-29	gobo 1
		30-44	gobo 2
		45-59	gobo 3
		60-74	gobo 4
		75-89	gobo 5
		90-104	gobo 6
		105-119	gobo 1 shake Slow-fast
		120-134	gobo 2 shake Slow-fast
		135-149	gobo 3 shake Slow-fast
		150-164	gobo 4 shake Slow-fast
		165-179	gobo 5 shake Slow-fast
		180-194	gobo 6 shake Slow-fast
		195-225	Gobo Rotate-Positive (Fast to slow)
		226-255	Gobo Rotate-anti (slow to Fast)
CH 11	Gobo 1 rotation	0-127	0-360° Rotation position
		128-191	Rotate-Positive (Fast to slow)
		192-255	Rotate-anti (slow to Fast)
CH 12	Fixed Gobo 2	0-9	White light
		10-19	gobo 1
		20-29	gobo 2
		30-39	gobo 3
		40-49	gobo 4

CH 12	Fixed Gobo 2	50-59	gobo 5
		60-69	gobo 6
		70-79	gobo 7
		80-89	gobo 8
		90-99	gobo 1 shake Slow-fast
		100-109	gobo 2 shake Slow-fast
		110-119	gobo 3 shake Slow-fast
		120-129	gobo 4 shake Slow-fast
		130-139	gobo 5 shake Slow-fast
		140-149	gobo 6 shake Slow-fast
		150-159	gobo 7 shake Slow-fast
		160-169	gobo 8 shake Slow-fast
		170-212	Gobo Rotate-Positive (Fast to slow)
		213-255	Gobo Rotate-anti (slow to Fast)
CH 13	Prism	0-63	Nothing
		64-127	Prism insertion
		128-255	Prism rotation (slow to fast)
CH 14	Dimmer 2 / Shutter2	0-7	Nothing
		8-135	dimmer 2 dark to light
		136-239	Strobe 2 Slow to fast
		240-255	Open light
CH 15	Red	0-255	From dark to light
CH 16	Green	0-255	From dark to light
CH 17	Blue	0-255	From dark to light
CH 18	White	0-255	From dark to light
CH 19	Automatic/Sound	0-63	Nothing
		64-127	Run fast
		128-191	Run slow
		192-255	Sound
CH 20	Reset	0-63	Nothing
		64-127	Small motor reset
		128-191	PAN/TILT reset
		192-255	Whole machine reset

## 7: Troubleshooting

The following are some of the problems that often occur during operation, with some suggestions for troubleshooting:

A. The light does not work, there is no light, and the fan does not turn.

① Check power contacts and fuses.

② Detection voltage.

③ Check the power switch indicator.

B. Not under the control of the controller

① After receiving the DMX signal, the indicator must be on. If it is off, check the DMX signal connector and signal cable to see if it is connected correctly. ② If the DMX indicator is on but there is no response to the channel control, check if the address code is set correctly.

③ If the DMX signal transmission is intermittent, check whether the connection between the XLR and the signal cable is good.

④ Try it with another controller.

⑤ Check whether the distance between the DMX signal line and the high-voltage line is too close, which will damage or interfere with the signal circuit.

C. Failure of a channel

① Stepper motor or motor leads may be damaged.

② The drive circuit of the motor may be damaged.

## 8: Routine maintenance

The equipment requires regular cleaning and maintenance by professionals. The service life of the equipment depends greatly on the operating environment and daily cleaning and maintenance.

**Clean optics:** The optical parts should be wiped lightly. Use a soft odorless cotton cloth, water or a special glass cleaner to wipe off the dust and fog, and dry the parts carefully.

**Clean air duct:** Use a soft brush, tissue paper, air cleaner, or air to blow the dust at the fan and the air inlet. Clean the dust from the fan and air holes to keep the air duct open.