# **SVT BEAM 450W SMART**



Thank you for using our products, is safe and effective use of this product to you, before you use this product, please read this instruction manual carefully complete. This manual contains: the performance of the product is and how to safely install, and use of important information, please properly keep, in order to use as a reference. When installing and using relevant instructions must be strictly observed.

## 1. Product description

SVT BEAM 450W SMART light, Which the new revolution of head lamp. Faster... The X/Y axis moves faster, smoother and less noisy. The software band corrects positioning function, makes up the hardware error, the positioning accuracy is quite high. Completely solve X/Y position! Brighter... 3 in combination with optical lens, the color temperature reaches 8500K, which is higher than 700W, 1500W beam light and higher color temperature. The beam feels stronger, the parallel light is sharper. Intelligent light bulb switch control to extend bulb life.

16CH / 20CH channel: 13 colors, 17 designs, rotating 8 prisms, atomization, strobe.

## 2. Operation parameters

- 1. Power: AC 100-240V, 50/60Hz 600W
- 2. Lamp: SVT 20R 450
- 3. Color: 13 colors + white
- 4. Gobo: 17 gobos + white
- 5. Channel: 16 CH
- 6. Movement range: Pan 540° / Tilt 270°
- 7. Display: LCD +Scroll
- 8. Control Signal: DMX 512
- 9. Carton Size: 36×29×58cm
- 10.G.W.: 17kg



## 3. Function description

- 1. The international standard control signal: DMX512
- 2. The number of tong: 16 ch.
- 3. The number of motor: a total of 12 mute motor
- 4. 650000 touch the TFT color LCD interface, easy operation, interface aesthetics, reverse display interface can be 180 degrees.
- 5. The X axis rotate for 540 °C, the Y axis vertical rotation of 270 °C, with automatic correction.

- 6. X, Y axis can reconcile the micro, running software correction positioning function, high precision.
- 7. The dimming: 0-100% linear adjustment.
- 8. Stroboscopic: double chip stroboscopic (0.5-9 times/SEC), completely linear dimming and variable stroboscopic speed.
- 9. Color wheel: with 14 kinds of color + blank (can create sharp air beam effect)
- 10. Pattern wheel: with a 17 fixed pattern piece + blank (let you quickly change the beam shape)
- 11. A prism: rotating eight prism, can be bi-directional rotation, rotation speed is adjustable, making a richer pattern projection effect
- 12. Itemization: soft light effect, the design of soft dream effect.
- 13. Focus: adopting the combination of three groups of optical lens effect is much better than the beam of light, usually can reflects the pattern of hid
- 14. The beam Angle: parallel beam Angle: 0-3.8
- 15. Overheating intelligent protection
- 16. Smart bulb switch control, prolong the service life of the bulb)

#### 3.1 Connection of DMX512 signal:

The lamps and lanterns use DMX512 signal control model, the control signal of lamps and lanterns is a parallel relationship, the connection is more than one signal lamps and lanterns, it is best to use double core shielded cables. Connection, all through the lamps and lanterns of lamps and lanterns DMX signal on jack (context) INPUT (INPUT) and OUTPUT (OUTPUT) are connected, connect the line of lamps and lanterns 3 core XLRXL plug terminal must correspond to each other, when the connection signal lamps and lanterns, it is recommended to use DMX signal terminal. Can be avoided, due to electrical noise damage control signal, DMX signal terminal device is a XLR plugs connection between 2 and 3 feet a 120 ohm resistance of 1 w, and connect it on the last stage of lamps and lanterns of the OUTPUT (OUTPUT) jack.

#### **3.2** The initial address code calculation method of lamps and lanterns:

The starting address code of the current light fixture is equal to (the initial address code of the last light fixture) + (the number of channels of the lamp) :

1. The initial address code of the first lamp is A001.

2: the basic channel number of the controller should be greater than or equal to the total number of use channels.

Note: when using any controller, each lamp should have its own initial address code. If the initial address code of the first light lamp is set A001, the number of the luminaire number is 16CH; The starting address of the second light fixture is set to A017. The starting address code of the third light fixture is set to A033; And so on and so forth, (this setting also needs to be determined by different control tables)

#### **3.3 Description of installation of lamps and lanterns:**

This luminaire can be placed horizontally, slanting and hanging upside down, and must pay attention to the installation method when hanging and hanging upside down.

Fixed installation of lamps and lanterns: before the positioning of lamps and lanterns, to ensure the stability of the installation site, when the reverse hanging installation, must ensure that the lamps and lanterns is not tumbled down on the supporting frame and handle with a safety rope through the racks and lamps and lanterns, assist hanging; In order to ensure safety. To prevent fall and slide of lamps and lanterns, lamps and lanterns in the installation and debugging, the ban pedestrians pass, regularly check whether the safety rope appear wear away, whether hook screws loosen, if because hanging installation is not stable, lead to fall all consequences arising from the lamps and lanterns manufacturer does not assume any responsibility.

#### 3.4 Light bulb installation:

- 1. When replacing the bulb, remove the plastic shell of the lamphead first.
- 2. Good quality light bulbs are recommended.
- 3. Uncharged installation, remove the bulb.
- 4. Hand untouchable parts of the bulb.
- 5. Tighten the screws after replacing the bulb.

6. the light bulb work at high temperature, and gas discharge can not continue to supply the physical characteristics of bubble, must therefore be in every time, when the power is completely cooling ability to operate in about 10 minutes, otherwise it will lead to high voltage discharge, short circuit burn out components on the computer console.

# 4. Software features

- 1. LCD 650,000 color touch TFT interface, easy to operate and beautiful interface.
- 2. Physical buttons and touch are both completely independent and can be used

in combination

- 3. Complete all operations independently with the physical keys
- 4. Complete all operations independently with touch
- 5. Use the physical buttons and touch mode to complete all operations 6. Intelligent height
- 7. For example: check hall, the decoupling error in the reset, and give hints.
- 8. Reset calibration (zero calibration) 9. X axis, Y axis, color wheel,

pattern disk

#### 4.1. Key instructions:



The "left" and "right" keys function the same way: return to the previous interface "Up" and "down" key: select and edit

"Determine" key (that is, "OK" key) : execute function, begin edit, exit edit

#### 4.2 Main interface specification



The following is an example of "modifying DMX address code" to describe the use of keys:

1. If it is not the main interface, press the "left" button (one or more times) to return to the main interface

2. Select the "Settings" button under the "upper" or "lower" keys under the main interface

Press "ok" to enter the "Settings" interface

4. Select the "DMX address" by pressing the "up" key or "under" key under the

"setting" interface

Press "ok" to enter edit status

5. Modify the DMXDM address code by pressing "up" or "down" key Press "ok" to exit edit status

#### If it's a touch screen, the process is more convenient:

- 1. Touch the "Settings" button in the main interface to enter the "Settings" interface
- 2. The same (both physical and touch-based buttons can be used) are the same as the previous 4-7 steps.

#### 4.3 Set the interface

options	instructions	
The operation mode	DMX From the machine status: receiving DMX signal from the controller or host	
	automati c Host: run automatically, and send the DMXD signal from machine	
	Voice control	Receiving external sound or vibration, run the built-in application effect

DMX address	1-512	<ul> <li>Press "OK" button to enter edit state. At this point is selected to one hundred, according to the "up" "down"</li> <li>Key change address code. Press the "OK" button once again and selected 10 editing. Press again</li> <li>"OK" button to select bits editor. Then exit the editor state at a time.</li> </ul>	
The channel model	16	17-20 channel is invalid	
	20	17-20 channel control speed (see channel table)	
X inversion	Guan/op	pen	
Y inversion	Guan/oj	pen	
XY	guan	Do not use the encoder (light coupling) correct position	
The encoder	op	Using encoder (light coupling) judging out-of-step and automatically correct position	
No DMX signal	keep	According to the original state continues to run	
	reset	The motor return, stop running	
The screen saver	open	Close the backlit idle for 30 seconds	
	gua	Back lit yongliang	
Switch on light	open	When start the lamps and lanterns, lamp light up automatically	
bubble	guan	Start the lamps and lanterns, the bulb is not bright	
Restore the default	no		
Settings	yes	Press "ok" is to restore the default Settings	

# 4.4 Information interface

options	instructions
Software version	The current software version
A total of time	Cumulative time (accurate to minutes)
The use of time	The use of this boot since time (down to minute)
Total light soaking time	Total light bubble time (accurate to minutes)
The light soaking time	The light of this boot since bubble time (down to minute)
DMX channel value	In the condition of DMX, showing all channels of value (number), thus the child into the interface, display as a percentage value and channel value for viewing

System error	If red ERR lights shine, then failed to reset run out of step, can enter child
record	interface for details. After the view can press "ok" the error record to empty

#### 4.5 Manual control interface

This interface is used to control the current lamps and lanterns, neither belongs to the state machine from machine shape (not receiving DMX signal) also does not belong to the host shape (not send DMX signal)

options	instructions		
reset	Click "ok" button after see confirmation dialog, press the "ok" key once again, after carry into the interface, reset all motor		
The light bulb control	Open/guan		
The color wheel	0-255	Press "ok" button to enter edit state. At this point is selected, click on "next" button to change channels values, press the "ok" button once again and exit the editor.	
	0-255		
Pattern plate speed	0-255		

#### 4.6 Advanced interface

To enter the show advanced interface, please enter the password: XXXXXX. Specific operation process: press the up and down key to choose Numbers (a \*) at a time. Password input after fully, finally press the "ok" key password authentication.

options	instructions		
The biggest bright time	0-9999	Can be set up on time	
Encryption scheme	guan		
	The number of Can be set up the use of lamps and lanterns		
	time	Can install the use time of lamps and lanterns	
Encryption parameters (frequency/time)	0-9999	After the encryption mode to open the work. Can be set up the use of lamps and lanterns (number/time)	

#### 4.7 Thou hast interface

Click "ok" button, the interface inversion can be 180 degree show.

#### 4.8 English interface

Click "ok" button, the interface, switch to English mode.

#### 4.9 Chinese interface

Click "ok" button, the interface, switch to the Chinese model.

#### 5.0 The factory interface

Enter the factory interface, display, please enter the password: XXXXXX. Specific operation process: press the up and down key to choose Numbers (a \*) at a time. Password input after fully, finally press the "OK" (OK) key password authentication.

options	instructions		
	0-255	X calibration	
	0-255	Y calibration	
	0-255	The dimming calibration	
Reset the	0-255	Color wheel alignment	
calibration (fine)	0-255	Pattern plate of the calibration	
	0-255	Focusing calibration	
	0-255	Prism calibration	
	0-255	Fog lens calibration	
Channel Can be set up channel switch		nnel switch	
Settings			
Screen saver	Pattern 1	According to address code	
mode	Pattern 2	According to factory LOGO	
	Pattern 3	No display (reserve)	
Bright time	NO/YES		
reset			

## 5. The channel table

CHANNEL	NAME	VALUE	DEFIF
CH1	Х	0-255	0-540°
CH2	Y	0-255	0-270°

СН3	X bit	0-255	0-2°
CH4	Y bit	0-255	0-1°
CH5	XY Speed	0-255	Fast to slow
CHC		0-63	None
CH6	Frost	64-255	Insert Frost
		0-3	Drak
		4-104	From Slow to fast strobe (Pulse strobe)
	Strobe	105-109	White
CH7		110-207	From Slow to fast strobe (Frequency strobe)
		208-212	White
		213-251	From Slow to fast strobe (Random strobe)
		252-255	White
CH8	Dimmer	0-255	0-100°
	Color	0-9	White
		10-14	White + COLOR1
CH9		15-19	COLOR1
		20-24	COLOR1 + COLOR2
		25-29	COLOR2

CH9	Color	30-34	COLOR2 + COLOR3
		35-39	COLOR3
		40-44	COLOR3 + COLOR4
		45-49	COLOR4
		50-54	COLOR4 + COLOR5
		55-59	COLOR5
		60-64	COLOR5 + COLOR6
		65-69	COLOR6
		70-74	COLOR6 + COLOR7
	CH9	CH9 Color	$ \begin{array}{r} 35-39\\ 40-44\\ 45-49\\ 50-54\\ 55-59\\ 60-64\\ 65-69\\ \end{array} $

		75-79	COLOR7
		80-84	COLOR7 + COLOR8
		85-89	COLOR8
		90-94	COLOR8 + COLOR9
		95-99	COLOR9
		100-104	COLOR9 + COLOR10
		105-109	COLOR10
		110-114	COLOR10 + COLOR11
		115-119	COLOR11
		120-124	COLOR11 + COLOR12
		125-129	COLOR12
		130-134	COLOR12 + COLOR13
		135-139	COLOR13
		140-149	COLOR13 + White
		150-203	Rotate forward (fast to slow)
		204-255	Rotate reverse (slow to fast)
		0-63	None
CH10	Rainbow	64-255	Insert Rainbow
CH11	Gobo	0-4	White
		5-9	GOB01
		10-14	GOBO2
		15-19	GOBO3
		20-24	GOBO4
		25-29	GOBO5
		30-34	GOBO6
		35-39	GOB07
		40-44	GOB08

45-49	GOB09
50-54	G0B010
55-59	G0B011
60-64	G0B012

CH11	Gobo	65-69	GOB013
		70-74	GOB014
		75-79	GOB015
		80-84	GOB016
		85-89	GOB017
		90-95	Shake slow to fast GOB01
		96-100	Shake slow to fast GOB02
		101-105	Shake slow to fast GOB03
		106-110	Shake slow to fast GOB04
		111-115	Shake slow to fast GOB05
		116-120	Shake slow to fast GOBO6
		121-125	Shake slow to fast GOB07
		126-130	Shake slow to fast GOB08
		131-135	Shake slow to fast GOB09
		136-140	ShakeslowtofastGOB010
		141-145	ShakeslowtofastGOB011
		146-150	ShakeslowtofastGOB012
		151-155	ShakeslowtofastGOB013
		156-160	ShakeslowtofastGOB014
		161-165	ShakeslowtofastGOB015
		166-170	ShakeslowtofastGOB016
		171-174	ShakeslowtofastGOB017
		175-180	White
		181-214	Rotate forward (fast to slow)
		215-220	White
		221-255	Rotate reverse (slow to fast)

CH12	Prism 1	0-127	White
		128-255	Insert Prisml
CH13	Focus	0-255	From far to near
CH14	Prism 2	0-127	White
		128-255	Insert Prism2
CH15	Prism Rot	0-127	0-400°
		128-191	Rotate forward (slow to fast)
		192-255	Rotate reverse (slow to fast)
CH16	Reset	100-105	Closelampover3sencods
		200-205	Open 1amp over 3 sencods
		250-255	Reset over 3 sencods

### 6. DMX Notes

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 1200hm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 1200hm (minimum 1/4 W) between terminals 2 and 3.

IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

