## 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 $\mathrm{X} / \mathrm{Y}$ position! Brighter... 3 in combination with optical lens, the color temperature reaches 8500 K , which is higher than $700 \mathrm{~W}, 1500 \mathrm{~W}$ beam light and higher color temperature. The beam feels stronger, the parallel light is sharper. Intelligent light bulb switch control to extend bulb life. $16 \mathrm{CH} / 20 \mathrm{CH}$ channel: 13 colors, 17 designs, rotating 8 prisms, atomization, strobe.

## 2. Operation parameters

1. Power: AC $100-240 \mathrm{~V}, 50 / 60 \mathrm{~Hz} 600 \mathrm{~W}$
2. Lamp: SVT 20R 450
3. Color: 13 colors + white
4. Gobo: 17 gobos + white
5. Channel: 16 CH
6. Movement range: Pan $540^{\circ}$ / Tilt $270^{\circ}$
7. Display: LCD +Scroll
8. Control Signal: DMX 512
9. Carton Size: $36 \times 29 \times 58 \mathrm{~cm}$
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 $540{ }^{\circ} \mathrm{C}$, the Y axis vertical rotation of $270{ }^{\circ} \mathrm{C}$, with automatic correction.
6. $\mathrm{X}, \mathrm{Y}$ 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 16 CH ; 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
6. For example: check hall, the decoupling error in the reset, and give hints.
7. 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 <br> controller or host |
|  | automati <br> c | Host: run automatically, and send the DMXD signal from <br> machine |
|  | Voice <br> control | Receiving external sound or vibration, run the built-in application <br> effect |


| DMX address | 1-512 | Press "OK" button to enter edit state. At this point is selected to one hundred, according to the "up" "down" <br> Key change address code. Press the "OK" button once again and selected 10 editing. Press again <br> "OK" button to select bits editor. Then exit the editor state at a time. |
| :---: | :---: | :---: |
| The channel model | 16 | 17-20 channel is invalid |
|  | 20 | 17-20 channel control speed (see channel table) |
| X inversion | Guan/open |  |
| Y inversion | Guan/open |  |
| XY <br> The encoder | guan | Do not use the encoder (light coupling) correct position |
|  | 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 bubble | open | When start the lamps and lanterns, lamp light up automatically |
|  | guan | Start the lamps and lanterns, the bulb is not bright |
| Restore the default Settings | no |  |
|  | yes | Press "ok" is to restore the default Settings |

### 4.4 Information interface

| options | instructions |
| :---: | :--- |
| Sof tware 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 <br> soaking time | Total light bubble time (accurate to minutes) |
| The light soaking <br> time | The light of this boot since bubble time (down to minute) <br> DMX channel valueIn the condition of DMX, showing all channels of value (number), thus the child <br> into the interface, display as a percentage value and channel value for viewing |


| System error <br> record | If red ERR lights shine, then failed to reset run out of step, can enter child <br> 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 <br> carry into the interface, reset all motor |  |
| The light bulb <br> control | Open/guan |  |
| The color <br> wheel | $0-255$ | Press "ok" button to enter edit state. At this point is selected, click on <br> "next" button to change channels values, press the "ok" button once again <br> and exit the editor. |
| $\ldots . .$. | $0-255$ |  |
| Pattern plate <br> 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 ( $\mathrm{a}^{*}$ ) at a time. Password input after fully, finally press the "ok" key password authentication.

| options | instructions |  |
| :---: | :--- | :--- |
| The biggest <br> 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 <br> parameters <br> (frequency/time) | $0-9999$ | After the encryption mode to open the work. Can be set up the <br> 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 ( $\mathrm{a}^{*}$ ) at a time. Password input after fully, finally press the "OK" (OK) key password authentication.

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

## 5. The channel table

| CHANNEL | NAME | VALUE | DEFIF |
| :---: | :---: | :--- | :--- |
| CH1 | X | $0-255$ | $0-540^{\circ}$ |
| CH2 | Y | $0-255$ | $0-270^{\circ}$ |


| CH3 | X bit | 0-255 | $0-2{ }^{\circ}$ |
| :---: | :---: | :---: | :---: |
| CH4 | Y bit | 0-255 | $0-1{ }^{\circ}$ |
| CH5 | XY Speed | 0-255 | Fast to slow |
| CH6 | Frost | 0-63 | None |
|  |  | 64-255 | Insert Frost |
| CH7 | Strobe | 0-3 | Drak |
|  |  | 4-104 | From Slow to fast strobe (Pulse strobe) |
|  |  | 105-109 | White |
|  |  | 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 | $0-100^{\circ}$ |
| CH9 | Color | 0-9 | White |
|  |  | 10-14 | White + C0LOR1 |
|  |  | 15-19 | COLOR1 |
|  |  | 20-24 | COLOR1 + COLOR2 |
|  |  | 25-29 | COLOR2 |


| CH9 | Color | 30-34 | COLOR2 + COLOR3 |
| :---: | :---: | :---: | :---: |
|  |  | 35-39 | C0LOR3 |
|  |  | 40-44 | COLOR3 + COLOR4 |
|  |  | 45-49 | COLOR4 |
|  |  | 50-54 | COLOR4 + COLOR5 |
|  |  | 55-59 | C0LOR5 |
|  |  | 60-64 | COLOR5 + COLOR6 |
|  |  | 65-69 | COLOR6 |
|  |  | 70-74 | COLOR6 + COLOR7 |



| $45-49$ | GOB09 |
| :--- | :--- | :--- |
| $50-54$ | GOB010 |
| $55-59$ | GOB011 |
| $60-64$ | GOB012 |


| CH11 | Gobo | 65-69 | GOB013 |
| :---: | :---: | :---: | :---: |
|  |  | 70-74 | G0B014 |
|  |  | 75-79 | G0B015 |
|  |  | 80-84 | GOB016 |
|  |  | 85-89 | G0B017 |
|  |  | 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 GOB06 |
|  |  | 121-125 | Shake slow to fast GOB07 |
|  |  | 126-130 | Shake slow to fast GOB08 |
|  |  | 131-135 | Shake slow to fast G0B09 |
|  |  | 136-140 | ShakeslowtofastG0B010 |
|  |  | 141-145 | ShakeslowtofastG0B011 |
|  |  | 146-150 | ShakeslowtofastGOB012 |
|  |  | 151-155 | ShakeslowtofastG0B013 |
|  |  | 156-160 | ShakeslowtofastGOB014 |
|  |  | 161-165 | ShakeslowtofastG0B015 |
|  |  | 166-170 | ShakeslowtofastGOB016 |
|  |  | 171-174 | ShakeslowtofastG0B017 |
|  |  | 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 Prism1 |
| CH13 | Focus | 0-255 | From far to near |
| CH14 | Prism 2 | 0-127 | White |
|  |  | 128-255 | Insert Prism2 |
| CH15 | Prism Rot | 0-127 | $0-400^{\circ}$ |
|  |  | 128-191 | Rotate forward (slow to fast) |
|  |  | 192-255 | Rotate reverse (slow to fast) |
| CH16 | Reset | 100-105 | Closelampover3sencods |
|  |  | 200-205 | Open lamp 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 1200 hm (minimum $1 / 4 \mathrm{~W}$ ) 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.


