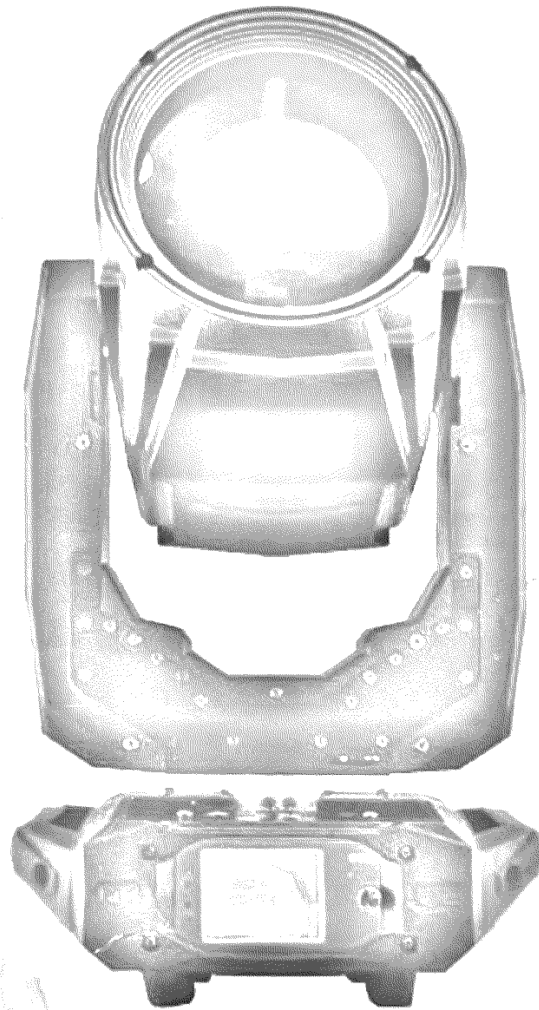


# **DAGE**

DAGE Stage Lighting Master Co., Ltd

**AV-2320 Super Bumblebee 230W 7R Beam Light**

## User Manual



**CE, RoHS APPRIVED**

**(Before operating this item, please read this instruction carefully)**

### DAGE NOTICE ON SAFETY

Thank you for purchasing 20CHS AV-2320 (230W) 7R Beam Light

- **PLEASE READ AND FOLLOW THE FOLLOWING OPERATING PROCEDURES:**
- Power requirements for this item is **AC110V-260V, 50-60HZ.** In order to minimize the possibility of short circuits which may cause damage it should be located **in dry and well ventilated area.**
- Do not install near a heat source, in order to avoid the fixture from overheating which may result in damage to the lamp.
- Don't jam the vent hole, ensure the ventilation and heat dissipation in good condition.
- Always connect with a grounded power supply which is consistent with the rated voltage.
- Due to the characteristics of gas discharge lamp, **NEVER** turn the switch on/off. If the power is cut off and needs to start again, **WAIT 15 MINUTES** too ensure the fixture has cooled down, **otherwise the bulb will be seriously damaged.**
- If the bulb, lenses, fuse or stepper motor is damaged, they should be replaced with the same type.
- There is no any spare parts inside, need to ask DAGE for the original one when maintaining.
- Working temperature must be not over 40°C.
- Any requirement of maintenance, please connect with DAGE professional staff or DAGE agency which is the nearest from you.

### LAMP

**Never** touch lamp with bare hands! In order to avoid the oil pollution this will shorten the life of the lamp.

The fixture movement is allowed after cooling, avoid violent vibration.

Do not look directly at the bulb when it is lighting this may cause sever eye damage. The distance from light to other object should be 1.5 meters

Do not use the bulb over its life time.

### DAGE INSTALLATION INSTRUCTIONS

- Fixture installation

It's suitable for ceiling installation or setting on the ground, for the fixed ceiling installation please choose G type hook, the lamp body's handle and the G type hook must be fastened together tightly, then hang on the scaffold, suggest to install the security rope.

Notice: Do not install in places where it is easy to vibrate and become loose!

Do not install in near curtains or flammable materials!

### ● Bulb's installation and replacement

- \* Turn off the power for cooling with 20 minutes, after the lamp body cooling down then operate again.
- \* Don't turn on the power again when it was turn off within 5 minutes, for preventing the bulb will explode.
- \* Removing the light bulb, the first step you should screw the four screws out of the casing then according to the actual situation, open the removable metal plate which was used for fixing the bulb and replace the bulb, adjusting the position of the bulb accurately, the light will achieve more ideal effect.
- \* Replace defective bulbs with the same type, after fixing the metal plate, screw the casing with four screws.
- \* For ensuring the best effect , the bulb must be installed in central location .

### DAGE FUNCTION INSTRUCTION

Large beam 230W light beam (rhubarb peak) using the international standard DMX 512 receiving work, through the LCD touch screen and rotary buttons, operation-related functions, can accept any, with international standards DMX 512 signal output light console.

### Technology Parameters:

Item	AV-2320 (230W) (7R)	Voltage	AC100V-220V
Name	【Bumblebee】 Beam light	Gobo	1 fixed (metal) gobo wheel (13 gobo+white)
Lamp	DAGE 230W (7R)	Color	13colors+white
Strobe	1-15times/second	Prism	8+40+56(honeycomb prism effect)
Control	International DMX512	Cooling	Fan convection cooling, high temperature protection

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X	540°	Y	260°
Size	250×350×513 (mm)	N/W	13.5kg

Channel	Channel Mode
	20CHS
1	X
2	Y
3	XY /speed
4	Dimmer
5	Stop/strobe
6	Color wheel
7	Gobo wheel
8	Gobo shaking
9	Frost
10	Six-color mirror
11	Prism 1
12	Prism 1 rotation
13	Prism 2
14	Prism 2 rotation
15	Focus
16	Prism macro function
17	Lamp control
18	Reset
19	X Fine tuning
20	Y Fine tuning

Channel parameter value:

PAN – channel **【X】** 01 (omit)

TILT - channel **【Y】** 02 (omit)

Pan-Tilt time - channel 03

BIT	Timing Channel	Effect	Remark
0- 255,slow-fast	Pan-Tilt time	Pan-Tilt-(Panfine-Tilt fine)	0- 255,alow-fast
255-0,fast-slow			255-0,fast-slow

DIMMER - channel 04

BIT	EFFECT	Effect	Remark
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4-255	100%	Brightness 0%-100%	dark to brightness, 255 is full open.
0-3	CLOSED	Shut the light	light is fully closed

### STOP/STOBE - channel 05

BIT	EFFECT	Effect	Remark
250-255	OPEN	shutter open	Dimming channel control
11-250	STROBE	strob(slow to fast)	strob(slow to fast), on the contrary,(fast to slow)
0-10	CLOSED	Shutter closed	light is fully closed

### COLOUR WHEEL - channel 06

BIT	EFFECT	Effect	Remark
201-255	Slow to fast rotation (Reverse)	Slow to fast rotation (Reverse)	For remember easily, color value was settled as multiple of 5.
140-200	Slow to fast rotation (Positive)	Slow to fast rotation (Positive)	
135-139	Heating (Cold light) and White half-color	Heating (Cold light) and White half-color	
130-134	Heating (Cold light)	Heating (Cold light)	Linear variation: Color ratio is adjustable.
125-129	Pink and Warm half-color (cold light)	Pink and Warm half-color (cold light)	For example: if value is 5, white 50%, Crimson 50%,if the value is
120-124	Pink	Pink	4, white 60%, Crimson 40%.
115-119	Shallow sky blue and pink half-color	Shallow sky blue and pink half-color	if the value is 6 ,white 40%,Crimson 60%.
110-114	Shallow sky blue	Shallow sky blue	Non-linear variation: Color to be adjusted with color units. Color film can be "linear"and "non-linear" selected by setting
105-109	Cooling lenses and Shallow sky blue half-color	Cooling lenses and Shallow sky blue half-color	
100-104	Cool color (2500K) / warm color	Cool color (2500K) / warm color	
95-99	Orange and coling half-color (warm color)	Orange and coling half-color (warm color)	
90-94	Orange	Orange	
85-89	Sky blue and sky orange red halftone	Sky blue and sky orange red halftone	
80-84	Sky blue	Sky blue	
75-79	Light green and sky blue	Light green and sky blue	

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	half-color	half-color	menu.
70-74	Light green	Light green	
65-69	Orange and light green half-color	Orange and light green half-color	
60-64	Orange	Orange	
55-59	Rose red and orange half-color	Rose red and orange half-color	
50-54	Rose red	Rose red	
45-49	Yellow and rose red half-color	Yellow and rose red half-color	
40-44	Yellow	Yellow	
35-39	Blue and yellow halftone	Blue and yellow halftone	
30-34	Blue	Blue	
25-29	Green and blue half-color	Green and blue half-color	
20-24	Green	Green	
15-19	Red and Green half-color	Red and Green half-color	
10-14	RED	Red	
5-9	Red and white alternating half-color	Red and white halftone	
0-4	WHITE	WHITE	

## STATIC GOBO CHANGE - channel 07

BIT	EFFECT	Effect	Remark
200-255	Pattern Slow to Fast Transition (Reverse)	Pattern Slow to Fast Transition (Reverse)	Each 10 values corresponds to a pattern
140-199	Pattern Slow to Fast Transition (Forward)	Pattern Slow to Fast Transition (Forward)	
130-139	GOBO 13	GOBO13	The value of the switching pattern is always a multiple of ten
120-129	GOBO 12	GOBO12	
110-119	GOBO 11	GOBO11	
100-109	GOBO 10	GOBO10	
90-99	GOBO 9	GOBO9	
80-89	GOBO 8	GOBO8	
70-79	GOBO 7	GOBO7	
60-69	GOBO 6	GOBO6	
50-59	GOBO 5	GOBO5	

40-49	GOBO 4	GOBO4	
30-39	GOBO3	GOBO3	
20-29	GOBO 2	GOBO2	
10-19	GOBO1	GOBO1	
0-9	WHITE	WHITE	

### GOBO SHAKE - channel 08

BIT	EFFECT	Effect	Remark
190-255	The pattern shake still	The pattern shake still	Prerequisite pattern is greater than 10 less than 190 will jitter
2-190	Patterns from slow jitter to fast jitter	Patterns from slow jitter to fast jitter	
0	The pattern jitter stops	The pattern jitter stops	

### FROST - channel 9

BIT	EFFECT	EFFECT	REMARK
128-255	FROST INSERTED	FROST INSERTED	
0-127	FROST EXCLUDED	FROST EXCLUDED	

### FROST2 - channel 10

BIT	EFFECT	EFFECT	REMARK
128-255	FROST INSERTED	FROST INSERTED	
0-127	FROST EXCLUDED	FROST EXCLUDED	

### PRISM1- channel 11

BIT	EFFECT	EFFECT	REMARK
128-255	PRISM1 INSERTED	PRISM1 INSERTED	
0-127	PRISM1 EXCLUDED	PRISM1 EXCLUDED	

### PRISM1 ROTATION- channel 12

191-255	Prism 1 from slow to fast rotation (reverse)	Prism 1 from slow to fast rotation (reverse)	When the prism 1 is inserted and rotated, the prism 1 retracts and stops the rotation.
128-190	Prism 1 from fast to slow rotation (positive)	Prism 1 from fast to slow rotation (positive)	

0-127	POSITION	POSITION	
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### PRISM1- channel 13

BIT	EFFECT	EFFECT	REMARK
128-255	PRISM1 INSERTED	PRISM1 INSERTED	
0-127	PRISM1 EXCLUDED	PRISM1 EXCLUDED	

### PRISM2 ROTATION- channel 14

191-255	Prism 2 from slow to fast rotation (reverse)	Prism 2 from slow to fast rotation (reverse)	When the prism 2 is inserted and rotated, the prism 2 retracts and stops the rotation.
128-190	Prism 2 from fast to slow rotation (positive)	Prism 2 from fast to slow rotation (positive)	
0-127	POSITION	POSITION	

### FOCUS - channel 15

BIT	EFFECT	EFFECT	REMARK
1-255	100%	100%	focus up and down sliding range
0	0%	0%	The most primitive state

### Prism Function- channel 16

BIT	EFFECT	EFFECT	REMARK
150-255	PRISM1 INSERTED	PRISM1 INSERTED	
0-149	PRISM1 EXCLUDED	PRISM1 EXCLUDED	

### LAMP CONTROL - channel 17

BIT	EFFECT	EFFECT	REMARK
201-210	LAMP ON	LAMP ON	Lamp switch passing through the unused range and staying 5 seconds.
101-110	LAMP OFF	LAMP OFF	
其它值	UNUSED RANGE	UNUSED RANGE	

### RESET - channel 18

BIT	EFFECT	EFFECT	REMARK
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250-255	COMPLETE RESET	COMPLETE RESET	Reset is activated passing through the unused range and staying 5 seconds.
0-249	UNUSED RANGE	UNUSED RANGE	In addition to the motor reset range of data, the other was invalid data

PAN FINE – channel      19 (Omit)    【X Fine tuning】  
TILT FINE - channel    20 (Omit)    【Y Fine tuning】

### DAGE OPERATING INSTRUCTIONS

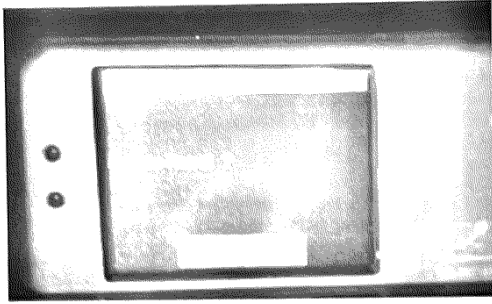
#### Display function keys description

- 1、 In the main interface, turn the wheel, select the "setting" button
- 2、 Press the wheel and release, go to "settings" interface
- 3、 In the "setting" interface, turn the wheel, select the function
- 4、 Press the wheel and release, enter the Edit State
- 5、 Turn the wheel, modify the function you want
- 6、 After modification, press the wheel and release, exit Edit State
- 7、 Turn the wheel select "back" and then press the wheel and release, back to the main interface
- 8、 LCD screen touch also has the same operation function.

#### 1.1. Main Interface



- 一、 1、 The upper right corner of the three buttons for language switching and screen rotation。  
2、 The bottom row of 4 functions corresponding sub-interface is described below。  
3、 Sub-interface mode of operation is to touch and wheel, if it is with the wheel, the corresponding relationship is as follows:
  - (1) Turn Left
  - (2) Turn Right
  - (3) Down wheel
- 二、 Use the wheel to operate:



If want "OK", please down wheel. If "Cancel", please turn the wheel.

### 1.2. Setting the interface

Options	Instructions	
Operating Mode	DMX	Slave status: Receive DMX signal from controller or host
	Auto	Host status: Auto-operation, and send DMX signal to Slave. Attention: It won't light bulb automatically if the bulb is in extinguished state before. If you need to see the light effects, please light bulb first then into automatic state
DMX address	1~512	Press OK key to enter the Edit State. Hundred is selected, press "up" "down" key to adjust address code. Press again the OK button to select the ten edits. Press again the OK key to select the single edit. Press again to exist the Edit State
X reverse	OFF	
	ON	
Y reverse	OFF	
	ON	
XY exchange	OFF	
	ON	Exchange the channels of the XY-axis(including fine)
XY encoder	ON	Use an encoder(optocoupler) to judge out of step and automatically correct position
	OFF	To correct position without encoder(optocoupler)
No DMX signal	Stay	According to the original state continues to run
	Clear	Motor return, stop running
Screen protection	ON	Turn off the backlight after 30s idle
	OFF	The backlight always on
Power on light bulb	OFF	Direct reset after power on, with the bulb off(need to use menu or console to manually light bulb)
	ON	Auto light bulb after power on, and reset after the bulb light eventually
Restore default settings		Press the OK button after seeing the confirmation dialog box, press OK key to restore the default setting

### 1.3. Information interface

Options	Instructions
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Software version	The current software version
Total use time	Cumulative time(to the minute)
This use of time	Since the start of the use of time(accurate to the minute)
DMX channel value	Enter the sub interface, channel values are displayed in numerical and percentage for viewing
<b>Error information</b>	<b>Instructions</b>
Motor reset failed, serial port error	The driver board does not respond. There is a problem with the serial communication line connecting the display board and the driver board, or there is a problem with the drive board.
X-axis reset failed	X-axis photoelectric switch, or X-axis motor problems
Y-axis reset failed	Y-axis photoelectric switch, or Y-axis motor problems
X-axis Hall error	X-axis Hall problem
Y-axis Hall error	Y-axis Hall problem
Color wheel reset failed	The color wheel, or the color wheel motor has a problem
Gobo reset failed	A pattern plate, or a problem with the gable plate motor
Focus Reset failed	Focusing the hall, or the focus motor has a problem
Prism Focus Reset failed	Prism Focusing Hall, or Prism Focusing Motor has a problem
Lamp control failed	Bright bubble or bubble failure, light or bulb problems
Bright bubble for too long, please change bubble!	The cumulative light bulb time than the "Advanced" menu set the maximum time of the bubble, prompting the user in time for the gun. After the bubble change in the "Advanced" menu to clear the bubble time, bright bubble time to recount.

### 1.4 Manual control interface

This interface is used to control the current lamps, neither slave state ( does not receive DMX signal, nor the host state( do not send DMX signal)

Options	Instructions	
Reset		After press the OK key seeing the confirmation dialog box, click the OK button again, enter the reset interface, all motor reset
Color wheel	0~255	Press OK key to enter the Edit State. Hundred is selected, spin "left" "right" keys changing the channel value. Press again the OK button select the ten edit. Press again OK key to select the single digit edit. Press again to exit the Edit State
...	0~255	
Gobo speed	0~255	
Lamp control	ON	
	OFF	

### 1.4. Advanced interface

1. The password is "up and down up and down", it is for the runner "left right left right"
2. Runner processes: one to the left ( the 1th\*\*), then turn right (the 2<sup>nd</sup>\*\*), then turn left( the 3rd\*\*), then turn right( the 4th\*\*), and finally press wheel for password validation.

Instructions	
After entering the calibration interface, follow the crosshairs prompts to touch the corresponding position. If the correct data is received at all four positions, complete the calibration and save the calibration data If the calibration fails, the process will continue to cycle, you can at any time by pressing the "OK" key interrupt calibration	
Into the sub-interface, you can adjust the X-axis, Y-axis, such as the reset position of the motor to make up for hardware installation error Unlike the address and channel values, the reset calibration does not support one, ten, or hundred digits, respectively, and does not support long press, but must be calibrated in steps of 1 <b>Notice: Do not perform a reset calibration while the motor is running! If the motor is running, allow it to stop before performing a reset calibration</b> If necessary, perform a reset operation before performing a reset calibration	
Maximum bright bubble time	0-9999 hours, the maximum operating time of the system will have a warning prompt
Bright bubble time is cleared	After clearing, the bright bubble time is recalculated
Sensor monitoring	Real-time monitoring lights on a variety of photoelectric switches, Hall and other sensor status

Connect the fixture to the console

Using three-pin XLR plug to connect the lamp, from the DMX512 signal console output port is connected to the No. 1 lamp input port, in the No. 1 lamp output port is connected to No. 2 lamp input,

### DAGE FAULTS AND MAINTENANCE

Faults	Solutions
Lamp does not work Lamp does not operate	<ul style="list-style-type: none"> <li>● Check the power line, the fuse is damaged, if damaged, please replace the related accessories, if there still have problem after replacement, please find DAGE light or professional repair</li> <li>● Test voltage is normal</li> </ul>
Low light intensity	<ul style="list-style-type: none"> <li>● Check the reflector and lens is dust and damaged</li> </ul>
Out of DMX signal control	<ul style="list-style-type: none"> <li>● Check the signal lines connected, whether bad or damaged</li> </ul>

	<ul style="list-style-type: none"><li>● Check the DMX address is set correctly</li><li>● Check for interference from around power lines</li></ul>
Scanning motion out of step	<ul style="list-style-type: none"><li>● Check if each stepper motor can rotate freely, if any other questions, you can ask DAGE light or other professional repair</li></ul>
No voice in the voice mode	<ul style="list-style-type: none"><li>● Turn up the audio voice or tapping your fingers on the "MIC" microphone, if still no sound, you should look for DAGE light or other professional repair</li></ul>

### DAGE CLEANING AND MAINTENANCE

In order to ensure that the lamp has good lighting effect, reflector and lens must be cleaned frequently, the cleaning frequency is decided on your own.

- To wipe clean with flannel or clean paper
- Use the dedicated glass cleaner
- Recommended to clean once in every 30 day

### DAGE DECLARATION

This product is manufactured good, packaging integrity. All the users are advised to strictly follow the safety warnings and operating instructions stated above, any damage caused by misuse are not covered in our company's warranty, and the ignoring of instructions for use which lead to breakdowns and problems are not within the range of dealer's responsibility.

Note: Based on our ongoing product improvement, the data contained in this manual may change, and there will be no further notice, the company has the power to improve the relevant specifications, any inconvenience, please understand.