

400W LED CMY SPOT MOVING HEAD

User Manual

(CMY 3IN1)



1. Product Instruction

Input voltage : 100-240V~ 50/60Hz

Power consumption: 500 W

Light source : powerful 400W white LED bulb

Optical System:High - efficiency optical system

Light source life: 50000 hrs

Colour Temperature Output: 7,000K

Pan & Tilt: 540 degrees & 270 degrees (16bit)

Control mode: DMX512, RDM,Auto-run,Sound active,Master-slave,Built-in program

Software upgrede :online software upgrade is available

Channel mode: 22 &26 channels

Color Wheel: 8 colors + white light.

Static Gobo Wheel: 12 gobos plus open

Rotating Gobo Wheel: 7 gobos plus open, convenient replacement

Animation Wheel:animation wheel, rotatable and replaceable, with outstanding water and flame effect

Color Mixing System: Linear CMY color mixing+Variable CTO(3,200-7,000K)

Prism system:6-facet linear prism and 8+8-facet prism

Zoom range:

Beam Mode : 4°~8°

Spot Mode : 4°~35°

Wash Mode : 8°~60°

Dimer:0~100% smooth dimming

Focusing system: Motorized focus

Frost system:Independent frost flitter

Atomization system: independent atomization effect, soft and natural light spot

Strobe: 0-30 times/sec. Adjustable speed strobe effect. Strobe macro function

Cooling system:smart axial fans.(electronic temperature control overheating protection, electronic temperature control automatic power-off protection when the overheating system fails.)

Display: LCD display+4 keys

Protection level: IP20

Product net weight: 22.5KG

Fixture Dimensions:38cm*27cm* 62cm

2. RDM Note

- RDM is an extended version of DMX512-A protocol. It is a remote device management protocol. Traditional DMX512 protocol communication is one-way communication. The protocol is based on RS-485 bus. RS-485 is a time-sharing multi-point, half-duplex protocol. Only one port is allowed to output at the same time. So, when using RDM, we should pay attention to it.

Figure 3 Panel diagram

3. Operation

1. Operate fixture with touch or encoder/button

- The left area is TFT Displayer and touch(product which support touch), chick item or value with finger will to

complete operation of set light setting(parameters) or view light state.

- The area on the right hand side is rotary encoder with button or key, As auxiliary input interface, if fixture disable touch function, the encoder/key can be choose to set or view the item, and then press the encoder button/key to confirm the selection, rotary encoder or push key again set the parameter value, finally, Press encoder button/key one again to save value or setting.

2. Parameter value setting

When the selected item is value need to been modified, the dialog shown in Figure 4 will popup.

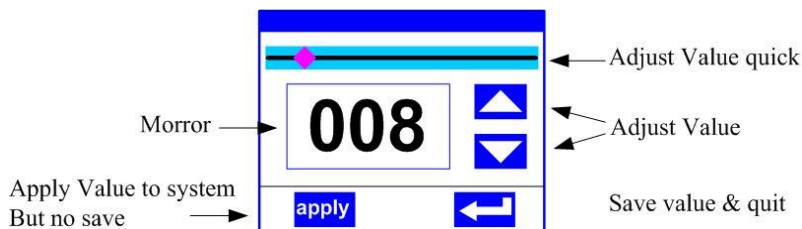


Figure 4 Dialog of value setting

- **Modify value:** Can quickly modify value via pull the slider to the desired position, or click the button of ‘up’ or ‘down’ whit finger on the right side to set the exact desired value, another way is roll encoder on the right hand side of panel.
- **Apply value:** When Value had been modified, Then press the bottom of ‘apply’ in the left corner to apply to the light, but hav’t saved;
- **Save Value:** Any time, click on the lower right corner of the "OK" button, the setting will been saved into internal memory.

3. Boolean parameter setting

- when the selected parameters is a Boolean value (such as ON or OFF), can directly modify setting by chick corresponding item, the setting will been saved right now.
- When the parameter is a key item, chick corresponding item, a dialog shown in Figure 5 will been popup ask for the confirm. Chick ‘sure’ to confirm.

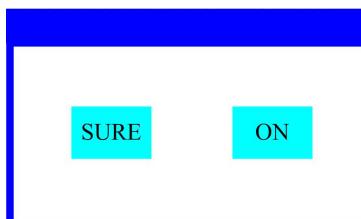
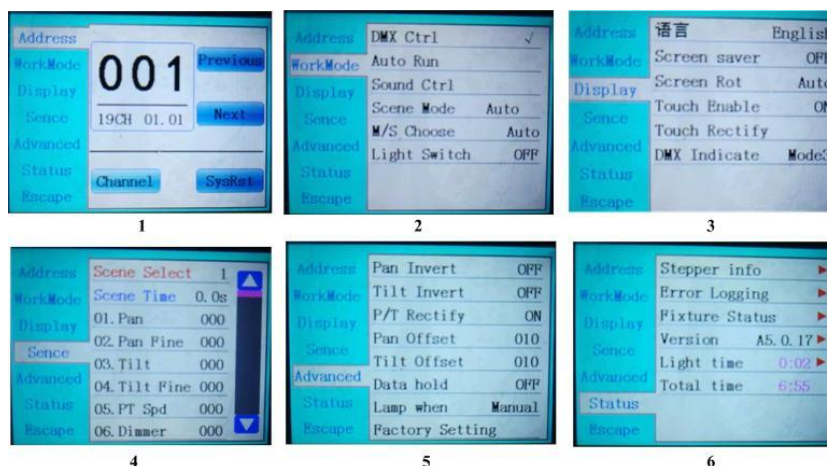


Figure 5 Dialog of confirm

4. Sub Menu (Parameter)



5. Fixture operating mode setting

operating mode

| | | |
|----------------------|---|---|
| DMX Ctrl | DMX mode, receive DMX signal, RDM signal | |
| Auto Run | Fixture run automatically according to built-in programs | |
| Sound Ctrl | When the fixture detects a strong sound, the fixture automatically runs a scene according to the built-in program, otherwise it will stay the last scene | |
| Scene Mode 01 | runs in a set scebe, which supports most of the custom editing of 10 scenes. | |
| | 1~10 | outputs the specified scene |
| | Auto | Automatically loops the output scene in the set scene time (non-zero) order, and the scene with time 0 automatically ignore |
| M/S Choose | Master and slave selection, non-DMX mode takes effect, select the mode of data output, fixture detect DMX cable state automatic switch output, prevent data conflicts | |
| | Mast | fixture runs built-in program. If DMX has no signal, it outputs data er (synchronization), otherwise it does not output data. |
| | Slave | ixture runs built-in program and do not output data |
| | Auto | If DMX has no signal, the fxiture will runs built-in program. Otherwise, the fixture will run in DMX Mode(follow DMX). |
| Lamp switch | (Lamp light source) pop-up confirmation dialog box, select "SURE" to confirm the current operation, turn on or off the lamp, switch time interval limited to 30 seconds | |
| | Off | the current lamp output is off |
| | On | The current lamp output is turned on |

6. Set display

DISPLAY SETTING

| | | |
|---------------------|--|------------------------------|
| Language | display language settings | |
| | English | English display |
| | Chinese | Chinese display |
| Screen saver | Set screen 30 seconds without operation, the screen's display content or method. | |
| | OFF | Keep the last operation page |

| | | |
|----------------------|---|---|
| | Mode1 | Black |
| | Mode2 | Black screen, showing the address code of the current fixture in the lower left corner. |
| | Mode3 | Display trademark information, address code and operation mode. |
| Screen Rot | Set the display direction of the screen. | |
| | OFF | No reverse display |
| | ON | Reverse display |
| | AUTO | Automatically detect the direction of lamps and automatically switch direction. |
| DMX Indicate | Set the indication mode of DMX signal indicator. | |
| | Mode1 | When signal is bright, no signal is off. |
| | Mode2 | When signal is off, no signal is bright. |
| | Mode3 | When signal is flash, no signal is off. |
| Signal Bright | Set the brightness of the signal indicator | |
| | 1~10 | 10 |
| Screen Lihgt | Set the screen backlight for 10 seconds without operation | |
| | 1~10 | 10 |
| Touch switch | Choose whether to disable the touch function. When the screen touch is accidentally damaged, you can disable the touch function and use auxiliary input to set the fixture. | |
| Touch | When the screen touch function work anomaly, you can enter the corrected page correction screen touch | |

7. Scene

SCENE MODE

| | | |
|---------------------|---|--|
| Scene Select | Select the current operation scenario. | |
| | 1~10 | The 10 scenes sets the format |
| Scene Time | Sets the retention time of the current scene when it is automatic, unit in 0.1 seconds. | |
| | 0 | The current scene is not output in automatic scene output. |
| | 1-255 | 0..1s-25.5s |
| 1. PAN | 0-255 | Set up the data of each channel, and the contents and order of the display are one-to-one correspondence with the channel list of fixture. |
| | 0-255 | |
| | 0-255 | |
| N. Function | 0-255 | |

8. Set light run parameter

Enter the page shown in Figure 6-5, adjust the field parameters of fixture, facilitate the installation of fixture, etc.

ADVANCED SETTING

| | | |
|--------------------|------------------------------------|--|
| Pan Invert | Set the rotation direction of PAN | |
| | OFF | |
| | ON | |
| Tilt Invert | Set the rotation direction of TILT | |
| | OFF | |
| | ON | |

| | | |
|------------------------|---|--|
| P/T Rectify | Setting up fixture to detect XY lost step and correct | |
| | OFF | Uncorrected position after out of step |
| | ON | After losing step, the position is automatically corrected and the out of step fault is recorded. |
| Pan Offset | Setting the zero point of the PAN of the fixture | |
| | 4-150 | |
| Tilt Offset | Setting the zero point of the TILT of the fixture | |
| | 4-48 | |
| Data hold | When the fixture is not equipped with DMX signal, the output state of the fixture | |
| | OFF | No signal, so the motor and light source return to the position and state when reset is completed. |
| | ON | No signal, keep the last frame DMX data output. |
| Lamp mode | Set the way to first open the lamp after power up | |
| | Power on | Turn on the lamp at power up and reset the lamp after 30 seconds. |
| | After reset | Reset the fixture after 3 seconds when power-on, and turn on the lamp after reset. |
| | Manual | After reset, manually turn on the lamp through the menu or console. |
| Factory Setting | Pop up the confirmation box, select "SURE", and return the lamp parameters to the factory settings. | |

When choosing power-on mode, the lamp will wait for 30 seconds after power-on, let the lamp fully start, internal voltage is stable enough, then start the reset program, if the field capacity is stable, recommend power-on mode.

When the fixture can not calibrate the position, please check whether the "P/T Rectify" is turned off.

When the signal is unplugged, check the Data Hold setting first if the position of the fixture is not output as expected.

When setting the XY offset, after setting up, please control XY with the maximum stroke first to check that XY will not bump into the positioning rod or shell.

9. Status and information

| | | |
|---------------------|--|--|
| Stepper info | Display information status of all motors and signals in fixture. | |
| | Hall | No display, indicating that the motor has no Hall, 0 indicating that the motor leaves the correction position point, 1 indicating that the motor is in the correction position point |
| | Status | Display motor reset status |
| | PAN | Display real-time position value of PAN optocoupler feedback |
| | TILT | Display real-time position value of TILT optocoupler feedback |
| | PAN OP | Displays the PAN TILT optocoupler two signal level state, binary |
| | Error Logging | Show the latest 8 error records when the fixture is reset and running. The error records are not saved after power failure. The current power cycle is valid. |
| Error Logging | | Total number of failures detected after power on |
| 12: :03 | | The time of power failure when the fault occurs is in minutes. |
| Hall error | | The effective hall signal is not detected when the motor is |

| | | |
|-----------------------|--|--|
| | | reset |
| | Hall short | When the motor is reset, the hall signal of the motor is always effective |
| | Opti error | No effective optocoupler signal is detected when the motor is reset. |
| | Lose stop | The corresponding motor is out of step during its operation. |
| | Hit | Striking the positioning rod when the motor is reset |
| | Lamp error | Lamp explosion accident |
| | NTC error | The temperature sensor signal is abnormal |
| | Fan error | The main fan is not working properly. |
| Fixture status | Displays the critical state data of the current fixture for reference. | |
| | Communication prec | 0~100%, Communication quality of internal data link of lamps and lanterns |
| | Error cnt | The number of erroneous frames was detected after power on, and the total number of erroneous frames was detected. |
| | Light Temperature | Show the temperature of the current light source, "---" means no detection. |
| | Panel Temperatrue | Displays the temperature of the current display panel or the ambient temperature. |
| | Sensor1 Temperatrue | Display the ambient temperature of the motherboard temperature or the motherboard installation position. |
| Version | Display the information and version of the current fixtrue, important reference for after sales maintenance. | |
| | Device | The name of the fixture is the same as the equipment information of RDM. |
| | Model | The type of fixture is the same as the model information of RDM. |
| | Panel | Firmware version and serial number of display panel |
| | Main Board | Firmware version and serial number of mother board 1 |
| Light time | Record the total cumulative time of light source opening, unit minute, user manual cleaning, as a reference for regular maintenance of light source time | |
| Total time | The total accumulated time for recording the opening of fixture is not allowed to be removed. | |

1. Channel table

| CHANN EL1 | CHAN NEL2 | NAME | VALUE | DEFIE |
|-----------|-----------|-----------|-------|---------------|
| CH1 | CH1 | PAN | 0-255 | 0-540 |
| CH2 | CH2 | PAN Fine | 0-255 | |
| CH3 | CH3 | TILT | 0-255 | 0-270 |
| CH4 | CH4 | TILT Fine | 0-255 | |
| CH5 | | XY speed | 0-255 | fast to slow |
| CH6 | CH5 | Dimmer | 0-255 | 0-100% Dimmer |
| CH7 | CH6 | Strobe | 0-3 | Drak |

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| | | | | |
|-------------|-------------------------------|--------------|---------|----------------------------------|
| | | | 4-103 | Slow strobe to fast strobe |
| | | | 104-107 | White |
| | | | 108-155 | Slow strobe to open strobe |
| | | | 156-207 | Slow strobe to close open strobe |
| | | | 208-212 | White |
| | | | 213-251 | Free strobe |
| | | | 252-255 | White |
| CH8 | CH7 | Color | 0-127 | White |
| | | | 128-133 | Color1 |
| | | | 134-138 | Color2 |
| | | | 139-143 | Color3 |
| | | | 144-149 | Color4 |
| | | | 150-154 | Color5 |
| | | | 155-159 | Color6 |
| | | | 160-164 | Color7 |
| | | | 165-170 | Color8 |
| | | | 171-175 | Color9 |
| | | | 176-180 | Color10 |
| | | | 181-185 | Color11 |
| | | | 186-191 | Color12 |
| | | | 192-220 | Rotate forward (fast to slow) |
| | | | 221-224 | Stop |
| 225-255 | Rotate reverse (slow to fast) | | | |
| CH9 | CH8 | C | 0-255 | |
| CH10 | CH9 | M | 0-255 | |
| CH11 | CH10 | Y | 0-255 | |
| CH12 | CH11 | CTO | 0-255 | |
| CH13 | CH12 | Gobo | 0-4 | White |
| | | | 5-9 | GOBO1 |
| | | | 10-14 | GOBO2 |
| | | | 15-19 | GOBO3 |
| | | | 20-24 | GOBO4 |
| | | | 25-29 | GOBO5 |
| | | | 30-34 | GOBO6 |
| | | | 35-39 | GOBO7 |
| | | | 40-44 | GOBO8 |
| | | | 45-49 | GOBO9 |
| | | | 50-54 | GOBO10 |
| | | | 55-59 | GOBO11 |
| | | | 60-64 | GOBO12 |
| | | | 65-69 | Shake slow to fast GOBO2 |
| | | | 70-74 | Shake slow to fast GOBO3 |
| | | | 75-79 | Shake slow to fast GOBO4 |
| | | | 80-84 | Shake slow to fast GOBO5 |
| | | | 85-89 | Shake slow to fast GOBO6 |

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| | | | | |
|-------------|-------------------------------|-------------------|---------|-------------------------------|
| | | | 90-94 | Shake slow to fast GOBO7 |
| | | | 95-99 | Shake slow to fast GOBO8 |
| | | | 100-104 | Shake slow to fast GOBO9 |
| | | | 105-109 | Shake slow to fast GOBO10 |
| | | | 110-114 | Shake slow to fast GOBO11 |
| | | | 115-119 | Shake slow to fast GOBO12 |
| | | | 120-127 | GOBO12 |
| | | | 128-190 | Rotate forward (fast to slow) |
| | | | 191-192 | Stop |
| | | | 193-255 | Rotate reverse (slow to fast) |
| CH14 | CH13 | Rot Gobo | 0-9 | White |
| | | | 10-19 | GOBO1 |
| | | | 20-29 | GOBO2 |
| | | | 30-39 | GOBO3 |
| | | | 40-49 | GOBO4 |
| | | | 50-59 | GOBO5 |
| | | | 60-69 | GOBO6 |
| | | | 70-79 | GOBO7 |
| | | | 80-89 | Shake slow to fast GOBO1 |
| | | | 90-99 | Shake slow to fast GOBO2 |
| | | | 100-109 | Shake slow to fast GOBO3 |
| | | | 110-119 | Shake slow to fast GOBO4 |
| | | | 120-129 | Shake slow to fast GOBO5 |
| | | | 130-139 | Shake slow to fast GOBO6 |
| | | | 140-149 | Shake slow to fast GOBO7 |
| | | | 150-200 | Rotate forward (fast to slow) |
| 201-205 | Stop | | | |
| 206-255 | Rotate reverse (slow to fast) | | | |
| CH15 | CH14 | Gobo rot | 0-127 | 0-400 degrees |
| | | | 128-190 | Rotate forward (fast to slow) |
| | | | 191-192 | Stop |
| | | | 193-255 | Rotate reverse (slow to fast) |
| CH16 | | Gobo fine | 0-255 | |
| CH17 | CH15 | Prism1 | 0-63 | Close prism |
| | | | 64-127 | Lnsert prism1 |
| CH18 | CH16 | Prism1 Rot | 0-127 | 0-400 degrees |
| | | | 128-190 | Rotate forward (fast to slow) |
| | | | 191-192 | Stop |
| | | | 193-255 | Rotate reverse (slow to fast) |
| CH19 | CH17 | Prism2 | 0-63 | Close prism |
| | | | 64-127 | Lnsert prism2 |
| CH20 | CH18 | Prism2 Rot | 0-127 | 0-400 degrees |
| | | | 128-190 | Rotate forward (fast to slow) |
| | | | 191-192 | Stop |
| | | | 193-255 | Rotate reverse (slow to fast) |

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| | | | | |
|-------------|-------------|-------------------|---------|-----------------------------------|
| CH21 | CH19 | Frost | 0-127 | None |
| | | | 128-255 | Insert frost |
| CH22 | | Autofocus | | None |
| CH23 | CH20 | Zoom | 0-255 | small to large |
| CH24 | CH21 | Focus | 0-255 | far to near |
| CH25 | | Focus fine | | |
| CH26 | CH22 | Function | 210-215 | Reset XY(over 6 seconds) |
| | | | 220-235 | Reset effect moto(over 6 seconds) |
| | | | 240-255 | Reset all(over 6 seconds) |