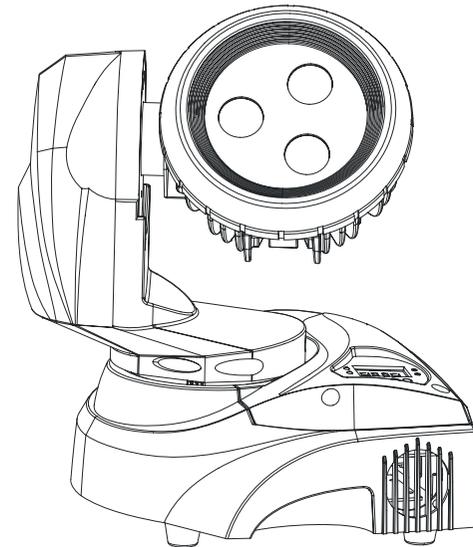


ACME[®]

MICRO FUSION



CM-30 RGBW

User Guide

Professional Entertainment Technology

Innovation, Quality, Performance

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EC Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC.

EN55014-2: 1997 A1: 2001, EN61000-4-2: 1995; EN61000-4-3: 2002;
EN61000-4-4: 1995; EN61000-4-5: 1995, EN61000-4-6: 1996,
EN61000-4-11: 1994.

&

Harmonized Standard

EN60598-1: 2000+ALL: 2000+A12: 2002
Safety of household and similar electrical appliances
Part 1: General requirements

1. Safety Instruction



WARNING

Please read carefully the instruction, which includes important information about the installation, usage and maintenance.

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there is no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. Don't handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is $t_a: 40^{\circ}\text{C}$. Don't operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 85°C . Don't touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- Do not touch any wire during operation as high voltage might be causing electric shock.

Warning

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- Do not open the unit within five minutes after switching off.

- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution

There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

Installation

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

2. Technical Specification

DMX control: 9/16 channels.

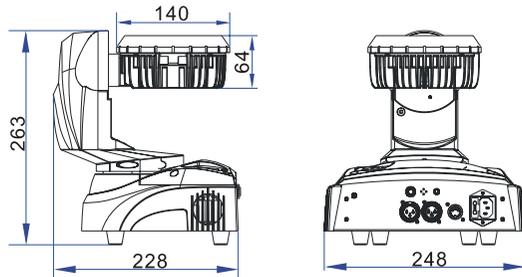
3 operation modes: DMX, Master/Slave and Sound Active.

Great built-in lighting shows under Master/Slave mode triggered by music.

Optional CA-8 easy controller or CA-9 RTX (wireless easy control kit) for instant lighting shows.

Smooth 0~100% dimming and variable strobe speeds.

Ideal for pubs, clubs, Mobile DJs, etc.



6. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth using normal glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin 4/Pin 5:
Not used.

5. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/ slave mode signal.
2. Wrong DMX address in the unit. Set the proper address.

D. No response to the sound

1. Make sure the unit does not receive DMX signal.
2. Check microphone to see if it is good by tapping the microphone

E. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor's drive IC on the PCB might be out of condition

Voltage: AC110V-230V, 50/60HZ

Power consumption: 57.5 W

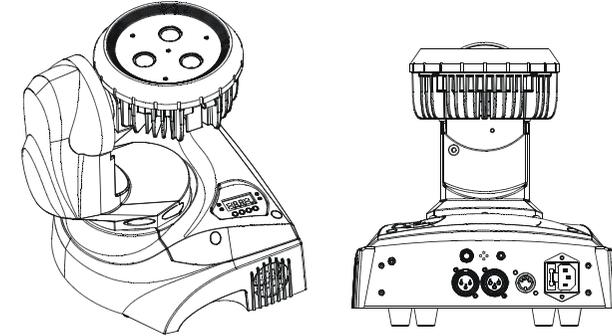
Light source: 3×10W Quad colour LED

Dimension: 263X228X248 mm

Weight: 4 kg

3. How To Set The Unit

3.1 Control panel



Display

To show the various menus and the selected functions

LED

DMX	On	DMX input present
MASTER	On	Master Mode
SLAVE	On	Slave Mode
SOUND	Flashing	Sound activation

Button

MENU	To select the programming functions
DOWN	To go backward in the selected functions
UP	To go forward in the selected functions
ENTER	To confirm the selected functions

Only for remote control

Connecting with CA-8/CA-9/CA-9RTX to control the unit for Stand by, Function and Mode function.

Mains input

Connect to power supply.

DMX input/output

For DMX512 link, use 3/5-pin XLR cable to link the unit together.

Microphone

Receive audio signal for sound activated.

Sensitivity

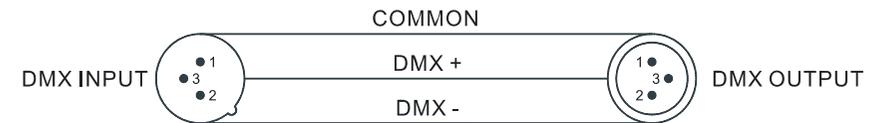
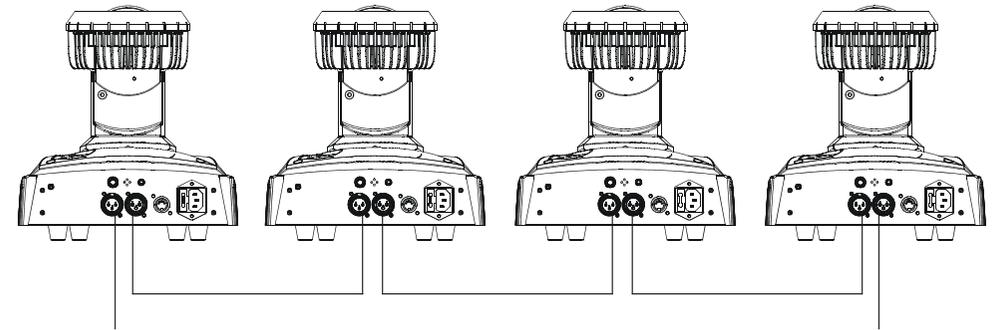
Adjust the sound-input sensitivity.

3.2 Main Function

To select any of the given functions, press the **MENU** button up to when the required one is showing on the display. Select the function by **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the mode. Once the required mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

The main functions are showing below:

4.5 DMX512 Connection



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal. (Resistance 120 ohm 1/4W) between pin2(DMX-) and pin3(DMX+) of the last fixture.



1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.
2. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
3. Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable can not branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
4. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
5. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
6. The end of the DMX 512 system should be terminated to reduce signal errors.
7. 3 pin XLR connectors are more popular than 5 pin XLR.
3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

16 channel mode

DMX512 Configuration							
16 Channel Mode							
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
Pan	Pan Fine	Tilt	Tilt Fine	Pan/Tilt Speed	Pan/Tilt Macro	Macro Speed	Special Function
255 ← 540° 0 → 0°	255 0	255 ← 270° 0 → 0°	255 0	255 ← Slow 0 → Fast	236-255 Macro12 216-235 Macro11 196-215 Macro10 176-195 Macro 9 156-175 Macro 8 136-155 Macro 7 116-135 Macro 6 096-115 Macro 5 076-095 Macro 4 056-075 Macro 3 036-055 Macro 2 016-035 Macro 1 000-015 Stop	255 ← Slow 0 → Fast	240-255 Stand alone 210-239 No function 200-209 Reset 090-199 No function 80-89 Disable blackout while pan or tilt move 70-79 Enable blackout while pan or tilt move 000-069 No function
Ch9	Ch10	Ch11	Ch12	Ch13	Ch14	Ch15	Ch16
Dimmer	Strobe	Red	Green	Blue	White	Color	Fade Speed
255 ← 100% 0 → 0%	248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow close Fast open 182-189 Open 140-181 Slow open fast close 132-139 Open 16-131 ⚡ 8-15 Open 0-7 Blackout	255 ← 100% 0 → 0%	255 ← 100% 0 → 0%	255 ← 100% 0 → 0%	255 ← 100% 0 → 0%	192-255 Color Fade 1-16 128-191 Color Macro 1-16 8-127 Color 1-32 0-7 Normal	255 ← Fast 0 → Slow

Addr	512	DMX512 Address Setting	
ChMd	9 CH 16CH	Channel Mode	
SLMd	SL 1 SL 2	Slave Mode "Normal" Slave Mode "2light show"	
ShMd	Sh 0 Sh 1 : Sh 4	Show Mode	
SOUn	on off	Sound Mode on Sound Mode off	
BLMd	YES no	Blackout Mode "Yes Blackout" Blackout Mode "No Blackout"	
LED	on off	LED on LED off	
PRn	YES no	Pan Inversion Pan Normal	
TLTt	YES no	Tilt Inversion Tilt Normal	
dISP	dISP dSIP	Normal Inversion	
BALR	rEd GrEE bLUe	125 : 255	White Balance
MANu	PRn TLTt rEd GrEE bLUe WHIt dINN Stor	0 : 255	Manual Test
EESt			Self-test
LEDt			LED Temperature
CPUt			CPU Temperature
FhrS			Fixture Hours
vEr			Software Version
rSEt			Reset

Addr DMX 512 Address Setting

Press the **MENU** button to show **Addr** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the DMX512 address. Once the address has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Chnd Channel Mode

Press the **MENU** button to show **Chnd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **9 CH** (9 channel) or **16CH** (16 channel) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

SLnd Slave Mode

Press the **MENU** button to show **SLnd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **SL 1** (normal) or **SL 2** (2 light show) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

SHnd Show Mode

Press the **MENU** button to show **SHnd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **SH 0** (random show) or **SH 1** (show 1) or... or **SH 4** (show 4) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

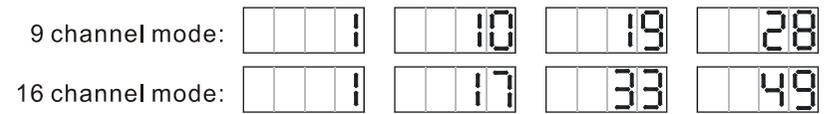
SOnd Sound Mode

Press the **MENU** button to show **SOnd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **on** (sound on) or **off** (sound off) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

4.3 DMX Controller

By using a universal DMX controller to control the units, you have to set DMX address from 1 to 512 channel so that the units can receive DMX signal.

Press the **MENU** button up to when the **Addr** is showing on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the DMX512 address. Once the address has been selected, press and keep **ENTER** button pressed up to when the display stops blinking or storing automatically 8 seconds later. To go back to the functions without any change press the **MENU** button again. If you use please refer to the following diagram to address your DMX512 channel for the first 4 units:



4.4 DMX 512 Configuration

9 channel mode

DMX512 Configuration								
9 Channel Mode								
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8	Ch9
Pan	Tilt	Strobe	Red	Green	Blue	White	Dimmer	Special Function
255 540°	255 270°	248-255 240-247 232-239 190-231 182-189 140-181 132-139	255 100%	255 100%	255 100%	255 100%	255 100%	240-255 210-239 200-209 090-199 80-89 70-79 000-069
0 0°	0 0°	Open Random Strobe Open Slow close Fast open Open Slow open fast close Open ⚡ ⚡ ⚡ Open Blackedout	0 0%	0 0%	0 0%	0 0%	0 0%	Stand alone No function Reset No function Disable blackout white pan or tilt move Enable blackout white pan or tilt move No function

No need to turn the unit off when you change the DMX address, as new DMX address setting will be effect at once. Every time you turn the unit on, it will show **0030** on the display and move all the motors to their 'home' position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built in programs.

4.1 Master/Slave Built In Preprogrammed Function

By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show. You have to set the first unit in master mode **ShMd** and select **Sh0** (random show) or **Sh1** (show 1) or... or **Sh4** (show 4) mode. Its DMX input jack will have nothing plugged into it, and Its master LED will be constantly on and sound LED will flash to the music. The other units will have to set in slave mode **SLNd** and select **SL1** (normal) or **SL2** (2 light show) mode, Their DMX cables plugged into the DMX input jacks (daisy chain) and the slave led lights will constantly on.

2-light show

In **SLNd** (slave mode), **SL1** means the unit works normally and **SL2** means 2-light show. In order to create a great light show, you can set **SL2** on the second unit to get contrast movement to each other, even if you have two units only.

4.2 Easy Controller

The easy remote control is used only in master/slave mode. By connecting to the 1/4" microphone jack of the first unit, you will find that the remote control on the first unit will control all the other units functions press the MENU button again.



Stand By	Blackout the unit			
Function	1. Strobe in synchronization 2. Strobe in desynchronization 3. Strobe by music	Select Show 1-4	1. Slow 2. Middle 3. Fast	Holder to adjust 1. Pan position 2. Tilt position 3. Dimmer
Mode	Sound(LED OFF)	Movement (LED ON)	GOGO/Color Speed (LED slow blink)	Latch (LED fast blink)

go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

blNd Blackout Mode

Press the **MENU** button to show **blNd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **YES** (yes blackout) or **no** (no blackout) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

LEd Led Display

Press the **MENU** button to show **LEd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **on** (Led on) or **off** (Led off) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

PAh Pan Inversion

Press the **MENU** button to show **PAh** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **no** (normal) or **YES** (pan inversion) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

tiLE Tilt Inversion

Press the **MENU** button to show **tiLE** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **no** (normal) or **YES** (tilt inversion) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

dISP Display Inversion

It is good for you to install the unit on the floor or under ceiling. Press the **MENU** button to show **dISP** on the display. Press the **ENTER** button to change to the mode **dISP**

(display normal), It will automatically store after 8 seconds. Or press the **ENTER** button again return to the mode **DISP** (display inversion). To go back to the functions press the **MENU** button. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

DISP Display normal mode for the fixture putting on the floor.

DISP Display inversion mode for the fixture fixing under ceiling.

BALA White balance

Press the **MENU** button to show **BALA** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **RED** (Red) or **GREEN** (Green) or **BLUE** (Blue) mode. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to adjust the value from **125** to **255**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

MANU Manual Test

Press the **MENU** button to show **MANU** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **PAN** (Pan) or **TILT** (Tilt) or **RED** (Red) or **GREEN** (Green) or **BLUE** (Blue) or **WHITE** (White) or **DIMM** (Dimmer) or **STOR** (Strobe) mode. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button adjust the value from **0** to **255** to test the unit. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

TEST Self-Test

Press the **MENU** button to show **TEST** on the display. Press the **ENTER** button and the unit will run self-test by built-in program. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

LEDT LED Temperature

Press the **MENU** button to show **LEDT** on the display. Press the **ENTER** button and the display will show the LED temperature of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

CPUT LED Temperature

Press the **MENU** button to show **CPUT** on the display. Press the **ENTER** button and the display will show the CPU temperature of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

FHRS Fixture Hours

Press the **MENU** button to show **FHRS** on the display. Press the **ENTER** button and the display will show the number of working hours of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

VER Software version

Press the **MENU** button to show **VER** on the display. Press the **ENTER** button and the display will show the version of software of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

RSET Reset

Press the **MENU** button to show **RSET** on the display. Press the **ENTER** button and all channels of the unit will return to their standard position. To go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

4. How To Control The Unit

You can operate the unit in three ways:

1. Master/slave built-in preprogram function
2. Easy controller
3. Universal DMX controller