

USER MANUAL

madTEC



Please read the manual before installing and using this lighting device
Keep it for future reference

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PRO

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INTRODUCTION

Thank you for using our products!

Madtec is a very small and light LED Moving head light, its weight is only 3.9 kg. Its beam is very narrow and very bright . It runs extremely fast. It is suitable for bar, disco, stage , decoration ,etc .

This product complies with the following standards:

IEC60598-1:2003

IEC60598-2-17:1984+A2:1990

Main features

36 Pcs high-power 3W CREE XP-E LED

Excellent mixed color system

Dimmer very smooth

Tight, punchy beam

compact, silent design

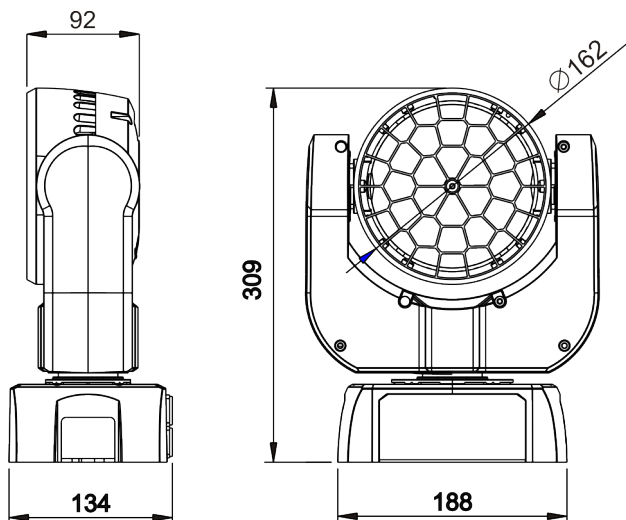
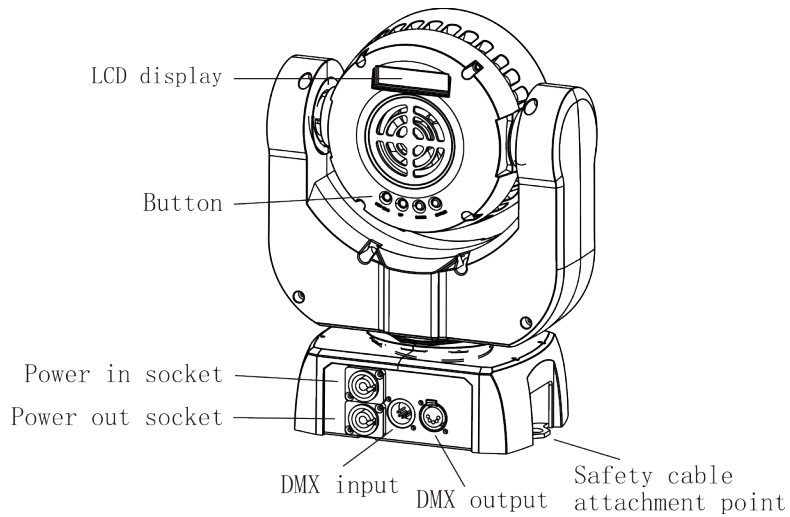
Speedly

Blue LCD display

Standar DMX-512 communication protocol

Easy for power connection

OVERVIEW AND DIMENSIONS



All dimensions are in millimeters

SAFETY INFORMATION

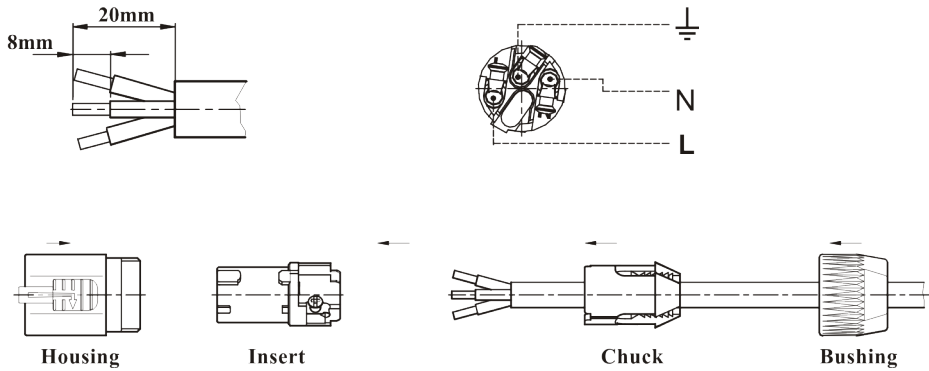
IMPORTANT

Every person involved with the installation , operation and maintenance of this device has to be qualified and follow the instructions of this manual . Manufacturer will not with responsibility for those operation not according to this Instruction

- Verify that the voltage matches the rated voltage.
- When the voltage is 110V , Do not connect more than 10 lightings in total to AC mains power in one interconnected daisy chain
- When the voltage is 220V , Do not connect more than 20 lightings in total to AC mains power in one interconnected daisy chain
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Always ground (earth) the fixture electrically .
- Avoiding hit the Light when you are move or install the light .
- The minimum distance between light-output and the illuminated surface must be more than 0.5 meters. Keep all combustible materials (for example fabric, wood, paper) at least 0.2 meters away from the fixture .
- Do not expose the fixture to rain or moisture.
- Avoid looking directly into the light source (especially those who suffer from epileptic fits)
- Maximum ambient temperature (T_a) is 40°C. Do not operate fixture at temperatures higher than this .
- The Maximum surface temperature is 50°C
- When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.
- Verify that all external covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.

POWER CONNECTION

Installing a Neutrik connector on a power cable



- Put bushing and chuck onto the cable.
- Prepare cable as shown above. The power cable must be a three-conductor 2.5mm² cable.
- Insert the wire into the terminals and fasten the clamping device by a flat screw driver.
- Push insert and chuck into housing (pay attention to the guiding keyway.)
- Fasten bushing.

The color-coding schemes and some possible pin identification schemes; if pins are not clearly identified , or if you have any doubts about proper installation , consult a qualified electrician

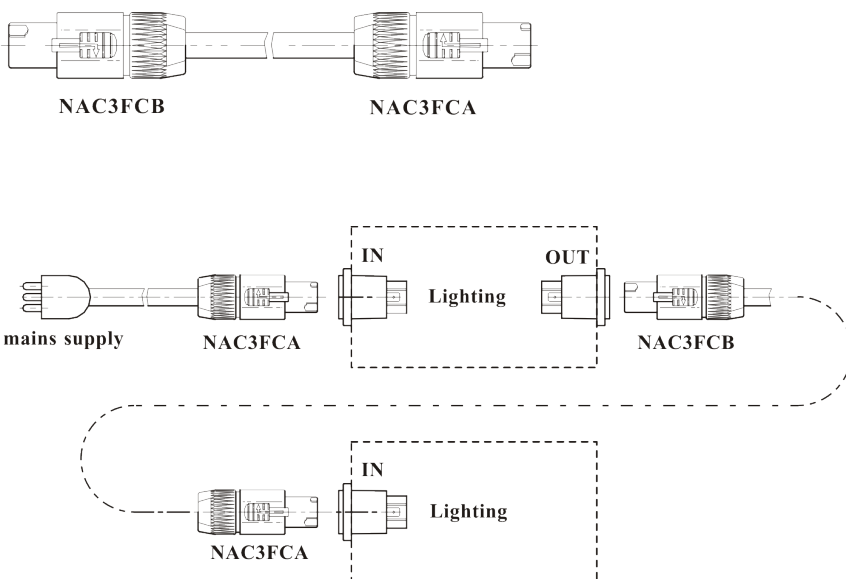
<i>Wire color</i>	<i>Conductor</i>	<i>Symbol</i>
Brown	Live	L
Blue	Neutral	N
Yellow/green	ground	⏏

Handling



Relaying power to other devices

The lightings can be linked in a chain by power cables which installed a blue and a light-gray connectors on the two ends. the light-gray connector connects to the power out socket of the first lighting , and the blue connector connects to the power in socket of the subsequent lighting, and so on.



The power cable must be a three-conductor 2.5mm² cable.

When the voltage is 110V , Do not connect more than 10 lightings in total to AC mains power in one interconnected daisy chain.

When the voltage is 220V , Do not connect more than 20 lightings in total to AC mains power in one interconnected daisy chain .

PHYSICAL INSTALLATION

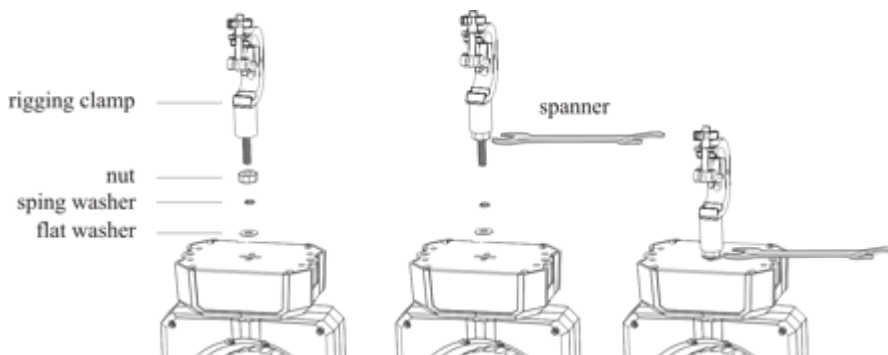
This lighting can be placed on a horizontal surface such as a stage or clamped to a truss or similar rigging structure in any orientation using a rigging clamp.

When suspending the fixture above ground level, verify that the structure can hold at least 10 times the weight of all installed devices.

Verify that all external covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.

How to install a clamp to the lighting:

1. Choose a clamp with M10 bolt , the bolt is 30~40cm.
2. Screw a M10 nut to the clamp bolt , use a spanner to tighten it.
3. Install the clamp into the base of the fixture as below picture.using a spanner to make the clamp, nut, spring washer, flat washer tightly together .



DMX PROTOCOL

This lighting has four Channel modes , 5 channels mode, 7 channels mode, 9 channels mode and 12 channels mode. The default mode is 12 Channels mode. If you want to alter it, enter DMX menu .

12 channels mode

Channel	Value	Function
CH1		Shutter effect
	0 - 19	Shutter closed
	20 - 49	Shutter open
	50 - 64	Strobe 1 (fast → slow)
	65 - 69	Shutter open
	70 - 84	Strobe 2: opening pulse (fast → slow)
	85 - 89	Shutter open
	90 - 104	Strobe 3: closing pulse (fast → slow)
	105 - 109	Shutter open
	110 - 124	Strobe 4: random strobe (fast → slow)
	125 - 129	Shutter open
	130 - 144	Strobe 5: random opening pulse (fast → slow)
	145 - 149	Shutter open
	150 - 164	Strobe 6: random closing pulse (fast → slow)
	165 - 169	Shutter open
	170 - 184	Strobe 7: burst pulse (fast → slow)
	185 - 189	Shutter open
	190 - 204	Strobe 8: random burst pulse (fast → slow)
	205 - 209	Shutter open
	210 - 224	Strobe 9: sine wave (fast → slow)
	225 - 229	Shutter open
	230 - 244	Strobe 10: burst (fast → slow)
	245 - 255	Shutter open

CH2	000-255	Gobal dimmer 0~100%
CH3	000-255	Pan 0~540° /0~630° (the maximum angle base in the setting in menu)
CH4	000-255	Pan fine
CH5	000-255	Tilt 0~240°
CH6	000-255	Tilt fine
CH7	000-009 010-014 015-039 040-044 045-049 050-054 055-059 060-064 065-069 070-074 075-109 110-114 115-119 120-124 125-249 250-255	Fixture control settings No function Reset (hold for 8s) No function Normal motor speed Maximum motor speed Minimum motor speed No function Max. <u>cooling</u> fan speed No function Cooling fan speed trermostatically regulated No function Fast dimmer No function Smooth dimer No function Illuminate display
CH8	000-009 010-014 015-019 020-024 025-029 030-034	Color wheel Dimmer channel enable Moroccan pink Pink Special rose pink Follies pink Fuchsia pink

035-039	Surprise pink
040-044	Congo Blue
045-049	Tokyo Blue
050-054	Deep Blue
055-059	Just Blue
060-064	Medium Blue
065-069	Double CT red
070-074	Grey red
075-079	White yellow
080-084	khaki
085-089	Double CT yellow
090-094	Double CT Blue cyan
095-099	Light Blue
100-104	Medium Blue Green
105-109	Dark Green
110-114	Primary Green
115-119	Moss Green
120-124	Fern Green
125-129	JAS Green
130-134	Lime Green
135-139	Spring Yellow
140-144	Deep Amber
145-149	Chrome Orange
150-154	Orange
155-159	Gold Amber
160-164	Millennium Gold
165-169	Deep Golden Amber
170-174	Flame Red
175-179	Open
	Color wheel rotation effect
180-201	Clockwise, fast→slow
202-206	Stop (this will stop wherever the color is at the time)
207-229	Counter-clockwise, slow→fast

	230-234	Open
	235-239	Random color
	240-244	Fast
	245-249	Medium
	250-255	Slow
		Open
CH9	000-255	Red dimmer 0~100%
CH10	000-255	Green dimmer 0~100%
CH11	000-255	Blue dimmer 0~100%
CH12	000-019	Color temperature control No function
	020-255	100000K → 2500K

9 channels mode

Channel	Value	Function
CH1	0 - 19	Shutter effect
	20 - 49	Shutter closed
	50 - 64	Shutter open
	65 - 69	Strobe 1 (fast → slow)
	70 - 84	Shutter open
	85 - 89	Strobe 2: opening pulse (fast → slow)
	90 - 104	Shutter open
	105 - 109	Strobe 3: closing pulse (fast → slow)
	110 - 124	Shutter open
	125 - 129	Strobe 4: random strobe (fast → slow)
	130 - 144	Shutter open
	145 - 149	Strobe 5: random opening pulse (fast → slow)
	150 - 164	Shutter open
		Strobe 6: random closing pulse (fast → slow)

	165 - 169 170 - 184 185 - 189 190 - 204 205 - 209 210 - 224 225 - 229 230 - 244 245 - 255	Shutter open Strobe 7: burst pulse (fast → slow) Shutter open Strobe 8: random burst pulse (fast → slow) Shutter open Strobe 9: sine wave (fast → slow) Shutter open Strobe 10: burst (fast → slow) Shutter open
CH2	000-255	Gobal dimmer 0~100%
CH3	000-255	Pan 0~540° /0~630° (the maximum angle base in the setting in menu)
CH4	000-255	Pan fine
CH5	000-255	Tilt 0~240°
CH6	000-255	Tilt fine
CH7	000-255	Red dimmer 0~100%
CH8	000-255	Green dimmer 0~100%
CH9	000-255	Blue dimmer 0~100%

7 channels mode

Channel	Value	Function
CH1	000-255	Pan 0~540° /0~630° (the maximum angle base in the setting in menu)
CH2	000-255	Pan fine
CH3		Tilt

	000-255	0~240°
CH4	000-255	Tilt fine
CH5	000-255	Red dimmer 0~100%
CH6	000-255	Green dimmer 0~100%
CH7	000-255	Blue dimmer 0~100%

✚ 5 channels mode

Channel	Value	Function
CH1	000-255	Pan 0~540° /0~630° (the maximum angle base in the setting in menu)
CH2	000-255	Tilt 0~240°
CH3	000-255	Red dimmer 0~100%
CH4	000-255	Green dimmer 0~100%
CH5	000-255	Blue dimmer 0~100%

Button

SET/ESC:

Call the main menu, or escape the current menu(i.e. return to the upper menu and give up the selected item or parameter) .

UP:

Browse the menu item forward or increase the parameter.

DOWN:

Browse the menu item backward or decrease the parameter.

ENTER:

Confirm the selected item or parameter(i.e. enter the next menu, or escape the current menu and save the selected item or parameter)

MENU

Menu navigation

DMX menu ← SET/ESC → **Addr:001** (DMX mode) — ENTER → **DMX address menu**
 UP ↑ ↓ DOWN
SET Menu ← SET/ESC → **Addr:001** (DMX mode) — ENTER → **DMX address menu**
 UP ↑ ↓ DOWN
ManualDimmer ← SET/ESC → **Addr:001** (DMX mode) — ENTER → **DMX address menu**
 UP ↑ ↓ DOWN
Test Menu ← SET/ESC → **Addr:001** (DMX mode) — ENTER → **DMX address menu**
 UP ↑ ↓ DOWN
Macro Menu ← SET/ESC → **Addr:001** (DMX mode) — ENTER → **DMX address menu**
 UP ↑ ↓ DOWN

The Menu functions provided are described in the following [sections](#). (Default settings in bold print.)

DMX menu

Item	Options	Notes
DMX Address	001~507 (5 channels mode)	DMX address (default address = 1). The DMX address range is limited so that the fixture will always have enough DMX channels in the 512 available.
	001~505 (7 channels mode)	
	001~503 (9 channels mode)	
	001~500 (12 channels mode)	
No DMX Signal	Stop Run	Stop if no DMX signal
	Hold Run	Hold if no DMX signal
	Auto Run	Auto if no DMX signal
	Sound Run	Sound trig if no DMX signal
DMX Channels	12 Channels	12 Channels DMX control mode
	9 Channels	9 Channels DMX control mode
	7 Channels	7 Channels DMX control mode
	5 Channels	5 Channels DMX control mode

SET menu

Item	Options		Notes
Reset	Reset:ON		
Machine	Reset:OFF		
Load	Load ON		Return all settings (except calibrations) to factory defaults
Parameter	Load OFF		
Master Alone	Master Mode		Set one device to Master, others to DMX mode, <u>all</u> devices will run synchronously follow the master.only one device can be set to master. Once press the Master to DMX mode, it exits the Master mode
	Alone Mode		The device out of control of anyexternal signal
Auto / Sound	Auto Mode		Operation mode while run <u>Macro(auto)</u>
	Sound Mode		Operation mode while run <u>Macro(Sound trig)</u>
MIC Sense	00~99%		Default=20
TC Switch	TC Switch Mask	ON	Disable TC Switch
		OFF	Enable TC Switch
	TC Switch Temp	TC Temp	Capture the current temperature Yes/ No
		Cap	Capture the current temperature Yes/ No
TC Temp Set		Set the TC <u>temperature</u> (password protected)	
Scan Setting	Reverse Pan	ON	Reverse direction pan control on
		OFF	Reverse direction pan control off
	Reverse Tilt	ON	Reverse direction tilt control on
		OFF	Reverse direction tilt control off
	Scan 16 Bit	ON	Pan and tilt speed-slow
		OFF	Pan and tilt speed-fast
	Pan Degree	630	the max Pan angle rage is 630°
		540	the max Pan angle rage is 540°
	Scan BlackOut	ON	Enable blackout when the pan/tilt move
		OFF	<u>disable</u> blackout when the pan/tilt move
	Feed Back	ON	Enable pan/tilt position feedback/correction system
		OFF	Disable pan/tilt feedback for servicing

Dimmer Curve	Square Law	Inverse square law dimming curve
	Inv Square Law	Inverse square law dimming curve
	S-Vurve	S-curve dimming curve
Dimmer Speed	Smooth	Smooth dimmer
	Fast	Fast dimmer
Dmx Reset	Enabled	Enable reset via DMX
	Disabled	Disable reset via DMX
Fan	Regulated	Thermostatically regulated
	Full	Max. <u>cooling</u> fan speed
Information	Time:tt/mm/ss	Software creation time
	Date:mm/dd/yy	Software creation date
	Use Time	Use Time

ManualDimmer

Item	Options		Notes
Light Switch	ON		Switch on
	OFF		Switch off
Light Red	0~255		DMX value received on that <u>channel</u> (default=255)
Light Green	0~255		DMX value received on that <u>channel</u> (default=255)
Light Blue	0~255		DMX value received on that <u>channel</u> (default=255)
Light Strobe	0~255		DMX value received on that <u>channel</u> (default=255)
Scan Pan	0~255		DMX value received on that <u>channel</u> (default=128)
Scan Tilt	0~255		DMX value received on that <u>channel</u> (default=128)
Scan PanFine	0~255		DMX value received on that <u>channel</u> (default=0)
ScanTiltFine	0~255		DMX value received on that <u>channel</u> (default=0)
Colorwheel	0~255		DMX value received on that <u>channel</u> (default=0)
Light Calibrate (password protection , normal users forbidden)	Cal Red	0~-099	Calibrate red
	Cal Green	0~-099	Calibrate green
	Cal Blue	0~-099	Calibrate blue

Test menu

Item	Options	Notes
Test All	Test:OFF	No test
	Test:ON	Test LEDs and pan/tilt movement
Test LED	Test:OFF	No test
	Test:ON	Test LEDs only
Test P&T	Test:OFF	No test
	Test:ON	Test pan/tilt movement only

Macro Menu

Item	Options	Notes
Motor Run	Auto Run:OFF	Motor do not run while run this program
	Auto Run:ON	Motor run while run this program
Step Quantity	1~62	Built-in program quantity(default=3)
Program Step 01	ChangeColor	Select ChangeColor program to the first program
	Twinkling	Select Twinkling program to the first program
	Fade	Select Fade program to the first program
Program Step 02	ChangeColor	Select ChangeColor program to the second program
	Twinkling	Select Twinkling program to the second program
	Fade	Select Fade program to the second program
Program Step 03	ChangeColor	Select ChangeColor program to the third program
	Twinkling	Select Twinkling program to the third program
	Fade	Select Fade program to the third program
... ..	ChangeColor
	Twinkling
	Fade

TECHNICAL PARAMETERS

Rated voltage: 100~240V
Rated frequency: 50/60Hz
Power: 130W
Light source: 3W CREE XP-E (12R+12G+12B)
LED lifespan: about 50,000 hours
Beam angle: 8°
Pan :540°/630°, self-correcting
Tlit: 240°, self-correcting
Channel quantity: 5, 7, 9, 12
Control mode: DMX512, Master/slave, Sound activated
Protection grade: IP20
Working environment: indoor
Environment temperature: -30~+40°C
Size: 242X134X309mm
Weight: 3.9kg

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AMERICAN PRO develops & improves products constantly.
For this reason, the specifications and consigned information in the present
user manual can be modified without notice.

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