



SquareLED - MRX Bar MKII

# Manual | MRX Bar MKII (LED BAR 18x12W RGBW OUTDOOR)

## Caution!

- Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!
- Avoid looking directly into the light source!
- Keep this device away from rain and moisture!
- Make sure it is grounded when using it!
- Unplug mains lead before opening the housing!
- For your own safety, please read this user manual carefully before you initial start-up.
- Every person involved with the installation, operation and maintenance of this device has to
  - be qualified
  - follow the instructions of this manual
  - consider this manual to be part of the total product
  - keep this manual for the entire service life of the product
  - pass this manual on to every further owner or user of the product
  - download the latest version of the user manual from the Internet

## Introduction

Thank you for having chosen Kongfu 18 Matrix MKII. You will see you acquired a powerful and versatile device. Unpack your item. Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

## Safety instructions

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

Always disconnect from the mains, when the device is not in use or before cleaning it. Keep away children and amateurs from the device! There are no serviceable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers.

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## Installation

### Read 'Safety information' before installing the fixture

The fixture is designed for indoor use only and must be used in a dry location with adequate ventilation. Ensure that none of the fixture's ventilation slots are blocked. Fasten the fixture to a secure structure or surface. Do not stand it on a surface or leave it where it can be moved or fall over. If you install the fixture in a location where it may cause injury or damage if it falls, secure it as directed in this user manual using a securely anchored safety cable that will hold the fixture if the primary fastening method fails.

### Fastening the fixture to a flat surface

The fixture can be fastened to a hard, fixed, flat surface that is oriented at any angle. Ensure that the surface and all fasteners used can support at least 10 times the weight of all fixtures and equipment to be installed on it.

Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or fall over. If you install the fixture in a location where it may cause injury or damage if it falls, secure it as directed below with a securely anchored safety cable that will hold the fixture if the primary fastening method fails.

### Mounting the fixture on a truss

The fixture can be clamped to a truss or similar rigging structure in any orientation. When installing the fixture hanging vertically down, you can use an open-type clamp such as a G-clamp. When installing in any other orientation, you must use a half-coupler clamp that completely encircles the truss chord.

#### To clamp the fixture to a truss:

1. Check that the rigging structure can support at least 10 times the weight of all fixtures and equipment to be installed on it.
2. Block access under the work area.
3. Fold the legs of the mounting bracket together and bolt a rigging clamp securely to the mounting bracket. The bolt used must be M10, grade 8.8 steel minimum. It must pass through both mounting bracket legs and be fastened with a self-locking nut.
4. Working from a stable platform, hang the fixture with its clamp on the truss and fasten the clamp securely.
5. Secure the fixture with a safety cable as directed below.

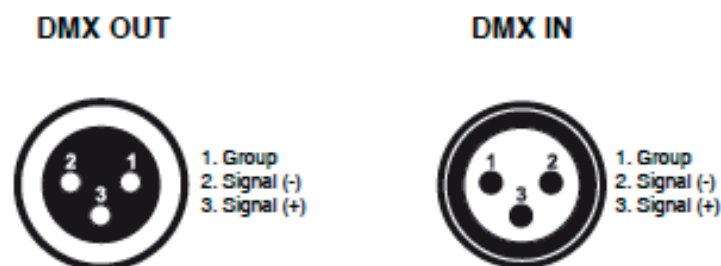
### Securing with a safety cable

Secure the fixture with a safety cable (or other secondary attachment) that is approved for the weight of the fixture so that the safety cable will hold the fixture if a primary attachment fails. Loop the safety cable through the eyebolt in the back of the fixture and around a secure anchoring point. Do not loop the safety cable around the fixture's mounting bracket only, as this will leave the fixture unsecured if it separates from the bracket.

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## DMX-512 connection/connection between fixtures

Occupation of the XLR-connection:



If you are using controllers with this occupation, you can connect the DMX-output of the controller directly with the DMX-input of the first fixture in the DMX-chain. If you wish to connect DMX-controllers with other XLR-outputs, you need to use adapter-cables.

### Building a serial DMX-chain:

Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

### DMX-512 connection with DMX terminator:

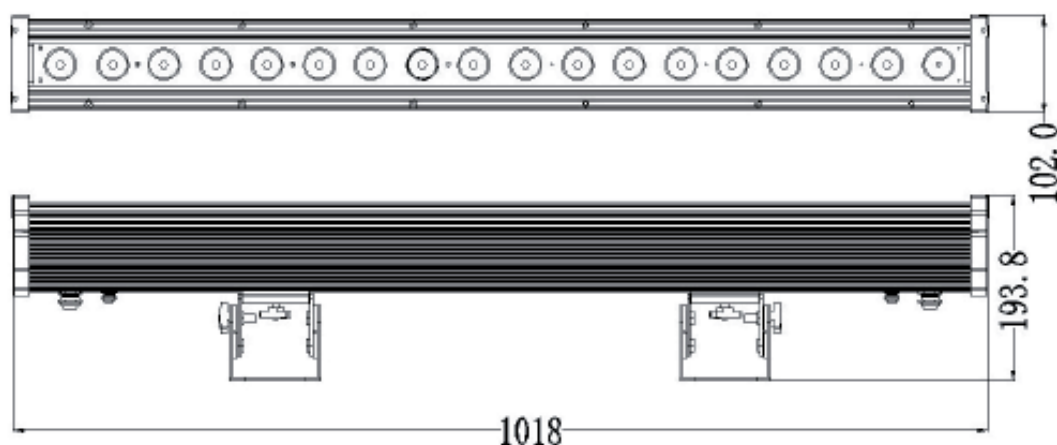
For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain.

### Caution:

At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 resistor between Signal (-) and Signal (+) into a 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

**Connection with the mains:** Connect the device to the mains with the enclosed power supply cable.

## Fixture overview



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## Operation

The Kongfu 18 Matrix MKII can operate in three different modes. In each mode you can run the fixture as a stand alone fixture or in a master/slave configuration. This next section will detail the differences in the operating modes.

## Addressing

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to listen to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.

If you set the same address, all the units will start to listen to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set a different address, each unit will start to listen to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.

In the case of the Kongfu 18 Matrix MKII, which is 6/19/29/77 channels fixture. If you set, for example, the address in the 19 channel mode to channel 20, the device will use the channel 20 to 38 for control.

## Universal DMX Control

This function allows you to use a universal DMX-512 controller to control the chases and patterns, dimmer and strobe. A DMX controller allows you to create unique programs tailored to your individual needs.

**Note: Always set MENU to address mode(A.001-A.512) when using DMX control!**

## Stand-alone Mode

In this mode, you can run internal program without a controller.

1. Press the MENU button until "Prxx" is displayed, and press ENTER.
2. Press the UP or DOWN button to select from "Pr01" to "Pr26", which represent 25 preset programs.
3. The unit will run built-in programs.

## Sound Active Mode

This mode allows either single unit or several units linked together, to run to the beat of the music.

1. Press the MENU button until "Auto"/"Aud1" is displayed, and press ENTER.
2. Press the UP or DOWN button so that "Aud1" is displayed. Press ENTER. The unit will now run to the beat of the music.

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## Master-Slave Operation

This function will allow you to link up to 16 units together and operate without a controller. In a Master-Slave set up one unit will act as the controlling unit and the others will react to the controlling units programs. Any unit can act as a Master or as a Slave.

1. Using approved DMX data cables, daisy chain your units together via the XLR connector on the rear of the units.
2. The followings can be operate as master mode: r001-r255, G001-G255, b001-b255, H001-H255, Pr01-Pr26, Auto/Aud1. For the Master unit press the MENU button and select any of these mode. Press ENTER.
3. For the slave units press the MENU button until "A001" is displayed, and Press ENTER.
4. The slave units will now follow the Master unit.

## Control Menu Map

MENU	SUB-MENU	FUNCTION INSTRUCTION
d001	d001-d512	DMX address setting
r000	r000-r255	Red dimmer
G000	G000-G255	Green dimmer
B000	B000-B255	Blue dimmer
H000	H000-H255	White dimmer
PR01	Pr01-PR26	Internal programs
sp01	SP01-sp16	Internal program speed increasing
LD01	LD01	Dimmer curve-linearly
	LD02	Dimmer curve-exponential(delay)
SP01	sp01-sp16	Internal programs speed increasing
Auto	Auto	Auto Mode
	Aud1	Sound mode
dISP	dISP	Display reverse off
	dSIP	Display reverse 180 degrees
5CH	5/19/29/77 CH	Channel mode

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## DMX Protocol

5 CH	Fuction	Description
CH1	Dimmer	0-255 0-100% linear dimmer
CH2	Red	0-255 Red dimming 0-100%
CH3	Green	0-255 Blue dimming 0-100%
CH4	Blue	0-255 Green dimming 0-100%
CH5	White	0-255 White dimming 0-100%

19 CH	Fuction	Description
CH1	Dimmer	0-255 0-100% linear dimmer
CH2	Strobe	0-255 Speed increasing
CH3	Red	0-255 Red dimming 0-100%
CH4	Green	0-255 Blue dimming 0-100%
CH5	Blue	0-255 Green dimming 0-100%
CH6	White	0-255 White dimming 0-100%
CH7	Internal program speed	0-255 Speed increasing
CH8	Internal program	0-14 No func. 15-255 Internal program
CH9	Colour temperature	0-10 No func. 11-255 Colour temperature increasing
CH10	Colour mixing	0-9 No func. 10-255 Various colour mixing effect
CH11	Colour marco	0-5 No func. 6-128 Various colour mixing effect 129-170 Colour switching(jumping) 171-212 Colour fading 213-255 Internal programs
CH12	Red(Group 1, LED 1-9)	0-255 Red dimming 0-100%
CH13	Green(Group 1, LED 1-9)	0-255 Blue dimming 0-100%

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CH14	Blue(Group 1, LED 1-9)	0-255 Green dimming 0-100%
CH15	White(Group 1, LED 1-9)	0-255 White dimming 0-100%
CH16	Red(Group 2, LED 10-18)	0-255 Red dimming 0-100%
CH17	Green(Group 2, LED 10-18)	0-255 Blue dimming 0-100%
CH18	Blue(Group 2, LED 10-18)	0-255 Green dimming 0-100%
CH19	White(Group 2, LED 10-18)	0-255 White dimming 0-100%

**Note: From the opposite side of the display, LED 1 is the first LED...LED 18 is the last LED.**

29 CH	Fuction	Description
CH1	Dimmer	0-255 0-100% linear dimmer
CH2	Strobe	0-255 Speed increasing
CH3	Red(LED 1-3)	0-255 0-100% 3 LED of first group
CH4	Green(LED 1-3)	0-255 0-100% 3 LED of first group
CH5	Blue(LED 1-3)	0-255 0-100% 3 LED of first group
CH6	White(LED 1-3)	0-255 0-100% 3 LED of first group
CH7	Red(LED 4-6)	0-255 0-100% 3 LED of second group
CH8	Green(LED 4-6)	0-255 0-100% 3 LED of second group
CH9	Blue(LED 4-6)	0-255 0-100% 3 LED of second group
CH10	White(LED 4-6)	0-255 0-100% 3 LED of second group
CH11	Red(LED 7-9)	0-255 0-100% 3 LED of third group
CH12	Green(LED 7-9)	0-255 0-100% 3 LED of third group
CH13	Blue(LED 7-9)	0-255 0-100% 3 LED of third group
CH14	White(LED 7-9)	0-255 0-100% 3 LED of third group
CH15	Red(LED 10-12)	0-255 0-100% 3 LED of fourth group
CH16	Green(LED 10-12)	0-255 0-100% 3 LED of fourth group
CH17	Blue(LED 10-12)	0-255 0-100% 3 LED of fourth group
CH18	White(LED 10-12)	0-255 0-100% 3 LED of fourth group
CH19	Red(LED 13-15)	0-255 0-100% 3 LED of fifth group
CH20	Green(LED 13-15)	0-255 0-100% 3 LED of fifth group
CH21	Blue(LED 13-15)	0-255 0-100% 3 LED of fifth group



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CH22	White(LED 13-15)	0-255 0-100% 3 LED of fifth group
CH23	Red(LED 16-18)	0-255 0-100% 3 LED of sixth group
CH24	Green(LED 16-18)	0-255 0-100% 3 LED of sixth group
CH25	Blue(LED 16-18)	0-255 0-100% 3 LED of sixth group
CH26	White(LED 16-18)	0-255 0-100% 3 LED of sixth group
CH27	Colour mixing	0-255 Various colour mixing effect
CH28	Internal program	0-10 No func. 11-255 Internal programs
CH29	Internal program speed	0-255 Speed increasing

**Note: From the opposite side of the display, LED 1 is the first LED...LED 18 is the last LED.**

77 CH	Fuction	Description
CH1	Dimmer	0-255 0-100% linear dimmer
CH2	Strobe	0-255 Speed increasing
CH3	Red(LED 1)	0-255 0-100% LED 1
CH4	Green(LED 1)	0-255 0-100% LED 1
CH5	Blue(LED 1)	0-255 0-100% LED 1
CH6	White(LED 1)	0-255 0-100% LED 1
CH7	Red(LED 2)	0-255 0-100% LED 2
CH8	Green(LED 2)	0-255 0-100% LED 2
CH9	Blue(LED 2)	0-255 0-100% LED 2
CH10	White(LED 2)	0-255 0-100% LED 2
CH11	Red(LED 3)	0-255 0-100% LED 3
CH12	Green(LED 3)	0-255 0-100% LED 3
CH13	Blue(LED 3)	0-255 0-100% LED 3
CH14	White(LED 3)	0-255 0-100% LED 3
CH15	Red(LED 4)	0-255 0-100% LED 4
CH16	Green(LED 4)	0-255 0-100% LED 4
CH17	Blue(LED 4)	0-255 0-100% LED 4
CH18	White(LED 4)	0-255 0-100% LED 4

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CH19	Red(LED 5)	0-255 0-100% LED 5
CH20	Green(LED 5)	0-255 0-100% LED 5
CH21	Blue(LED 5)	0-255 0-100% LED 5
CH22	White(LED 5)	0-255 0-100% LED 5
CH23	Red(LED 6)	0-255 0-100% LED 6
CH24	Green(LED 6)	0-255 0-100% LED 6
CH25	Blue(LED 6)	0-255 0-100% LED 6
CH26	White(LED 7)	0-255 0-100% LED 7
CH27	Red(LED 7)	0-255 0-100% LED 7
CH28	Green(LED 7)	0-255 0-100% LED 7
CH29	Blue(LED 7)	0-255 0-100% LED 7
CH30	White(LED 7)	0-255 0-100% LED 7
CH31	Red(LED 8)	0-255 0-100% LED 8
CH32	Green(LED 8)	0-255 0-100% LED 8
CH33	Blue(LED 8)	0-255 0-100% LED 8
CH34	White(LED 8)	0-255 0-100% LED 8
CH35	Red(LED 9)	0-255 0-100% LED 9
CH36	Green(LED 9)	0-255 0-100% LED 9
CH37	Blue(LED 9)	0-255 0-100% LED 9
CH38	White(LED 9)	0-255 0-100% LED 9
CH39	Red(LED 10)	0-255 0-100% LED 10
CH40	Green(LED 10)	0-255 0-100% LED 10
CH41	Blue(LED 10)	0-255 0-100% LED 10
CH42	White(LED 10)	0-255 0-100% LED 10
CH43	Red(LED 11)	0-255 0-100% LED 11
CH44	Green(LED 11)	0-255 0-100% LED 11
CH45	Blue(LED 11)	0-255 0-100% LED 11
CH46	White(LED 11)	0-255 0-100% LED 11
CH47	Red(LED 12)	0-255 0-100% LED 12
CH48	Green(LED 12)	0-255 0-100% LED 12

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CH49	Blue(LED 12)	0-255 0-100% LED 12
CH50	White(LED 12)	0-255 0-100% LED 12
CH51	Red(LED 13)	0-255 0-100% LED 13
CH52	Green(LED 13)	0-255 0-100% LED 13
CH53	Blue(LED 13)	0-255 0-100% LED 13
CH54	White(LED 13)	0-255 0-100% LED 13
CH55	Red(LED 14)	0-255 0-100% LED 14
CH56	Green(LED 14)	0-255 0-100% LED 14
CH57	Blue(LED 14)	0-255 0-100% LED 14
CH58	White(LED 14)	0-255 0-100% LED 14
CH59	Red(LED 15)	0-255 0-100% LED 15
CH60	Green(LED 15)	0-255 0-100% LED 15
CH61	Blue(LED 15)	0-255 0-100% LED 15
CH62	White(LED 15)	0-255 0-100% LED 15
CH63	Red(LED 16)	0-255 0-100% LED 16
CH64	Green(LED 16)	0-255 0-100% LED 16
CH65	Blue(LED 16)	0-255 0-100% LED 16
CH66	White(LED 16)	0-255 0-100% LED 16
CH67	Red(LED 17)	0-255 0-100% LED 17
CH68	Green(LED 17)	0-255 0-100% LED 17
CH69	Blue(LED 17)	0-255 0-100% LED 17
CH70	White(LED 17)	0-255 0-100% LED 17
CH71	Red(LED 18)	0-255 0-100% LED 18
CH72	Green(LED 18)	0-255 0-100% LED 18
CH73	Blue(LED 18)	0-255 0-100% LED 18
CH74	White(LED 18)	0-255 0-100% LED 18
CH75	Colour mixing	0-255 Various colour mixing effect
CH76	Internal program	0-10 No func. 11-255 Internal programs
CH77	Internal program speed	0-255 Speed increasing

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## Fixture Cleaning

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses and mirror should be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates (I.e. smoke, fog residue, dust, dew). In heavy club use we recommend cleaning on a monthly basis. Periodic cleaning will ensure longevity, and crisp output.

### To clean the fixture:

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Vacuum or gently blow away dust and loose particles from the outside of the fixture with low-pressure compressed air.
3. Clean the surfaces by wiping gently with a soft, clean lint-free cloth moistened with a weak detergent solution. Do not rub glass surfaces hard: lift particles off with a soft repeated press. Dry with a soft, clean, lint-free cloth or low-pressure compressed air. Remove stuck particles with an unscented tissue or cotton swab moistened with glass cleaner or distilled water.
4. Check that the fixture is dry before reapplying power.

## Troubleshooting

Listed below are a few common problems that you may encounter, with solutions.

### The fixture does not work, no light

- Check the connection of power and main fuse. Be sure the external fuse has not blown.
- Measure the mains voltage on the main connector.

### No response to the sound

- Make sure the fixture does not receive DMX signal.
- Low frequencies (bass) should cause the unit to react to sound. Tapping on the microphone, quiet or high pitched sounds may not activate the unit.
- Check the sound sensitivity level. Make sure it is not set to a low sensitivity level.

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## SPECIFICATIONS

- **Model:**  
MRX Bar MKII (18 Matrix)
- **Power supply:**  
electronic auto-ranging
- **Voltage:**  
100V ~ 240V/50~60Hz
- **Light source:**  
18\*12W RGBW 4in1 LEDs
- **Power connection:**  
waterproof 3-pin power cable
- **Power Consumption:**  
220W
- Individual control of each LED
- 26 internal programs
- **IP rating:**  
IP65
- **Dimensions:**  
L 1018mm \* W 193mm \* H 120mm
- **Net Weight:**  
9.2 kg
- **DMX Modes:**  
5/19/29/77 DMX Channels

**Please note: All information is subject to change without prior notice.**

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