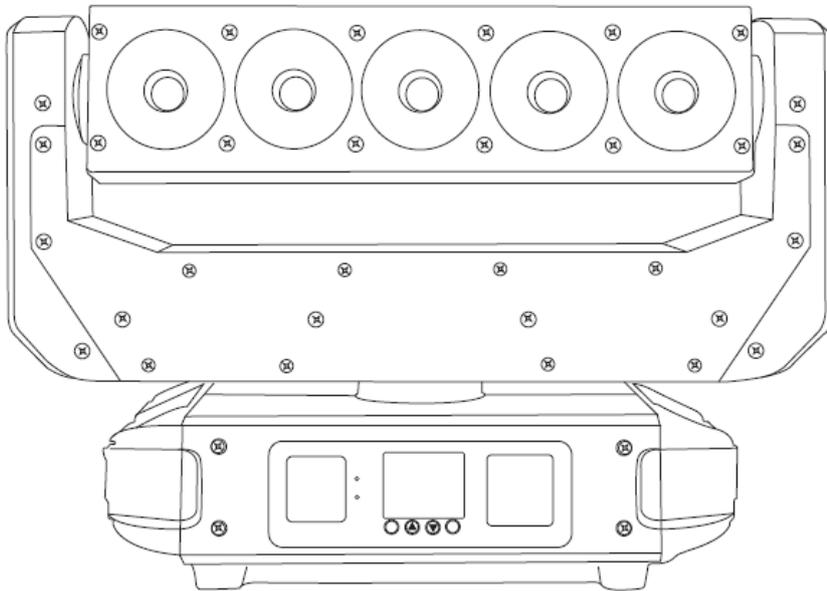


# M WASH 520P



## User Manual

Ver1.0

## Table of contents

INTRODUCTION .....	2
SAFETY INSTRUCTION .....	2
OPERATING DETERMINATIONS .....	3
DESCRIPTION OF THE DEVICE.....	3
INSTALLATION .....	4
MENU MAP .....	5
DMX-protocol.....	6
TECHNICAL SPECIFICATIONS .....	10

### **CAUTION !**

Keep this device away from rain and moisture  
Unplug mains lead before opening the housing

For your own safety, please read this user manual carefully before you initially start-up

Every person involved with installation, operation and maintenance of this fixture has to

- be qualified
- follow the instruction 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 to every future owner or use of the product

## **INTRODUCTION**

Thank you for choosing our fixture, if you follow up the instruction given in this manual we be sure that you will enjoy this product for a long period of time

## **SAFETY INSTRUCTION**

### **CAUTION!**

Be careful with your operations, With a dangerous voltage you can suffer a dangerous electric shock when touching the wires.

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 instruction and warning notes written in this user manual.

Important: Damages caused by the disregard of this user manual are not subject o warranty, the dealer will not accept liability for any resulting defects of problem. If the device had been exposed to drastic temperature fluctuation (e.g. after transportation),do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it had reached room temperature. Please make sure that there are no obvious transport damages, should you notice any damages on the AC connection cable or on the casing, do not take the device into operation and immediately consult your local dealer.

The device falls under protection-class. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and mortal electrical shock.Always plug in the

power plug last. The power plug must always be inserted without force .Make sure that the plug is tightly connected with the outlet.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution! Never touch them with wet hands .as this could lead to mortal electrical shock. Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock. The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal electrical shock. Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

## **OPERATING DETERMINATIONS**

This device is designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects. Do not shake the device. Avoid brute force when installing or operation the device. Never lift the fixture by holding it at the projector-head. As the mechanics may be damaged. When choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cable lying around. Please make sure that the fixture can not be touched or bumped. Your endanger your own and the safety of others.

The housing must never touch surrounding surfaces or objects. Make sure that the area below the installation place is blocked when rigging, dragging or servicing the fixture. For overhead use (mounting height>100cm), always fix the fixture with an appropriate safety-rope. Fix the safety-rope at the correct fixation points only. The safety-rope must never be fixed at the transport handles. Only operate the fixture after having check that the housing is firmly closed and all screw are tightly fastened.

The maximum ambient temperature  $T_a=45^{\circ}\text{C}$  must never be exceeded. Operate the device only after having become familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation. Please use the original packaging if the device is to be transported. Please consider that unauthorized modifications on the device are forbidden due to safety reasons! Never remove the serial barcode from the device as this would make the guarantee void. If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

## **DESCRIPTION OF THE DEVICE**

### **Features**

- > Beam Angle 12 degree
- > 5pcs 15W RGBW LEDS
- > 16/32 channel DMX-512 .
- > Pan :540°/tilt:infinite.
- > Variable electronic strobe.
- > Variable electronic dimmer(0-100%).
- > LCD display menu with invert.
- > Reset to factory settings option.
- > Pan/tilt invert option.
- > Single point control 5 LED
- > Fan cooled.

## INSTALLATION

### Rigging

The installation of the projector has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

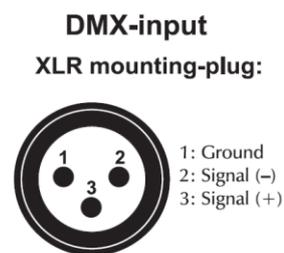
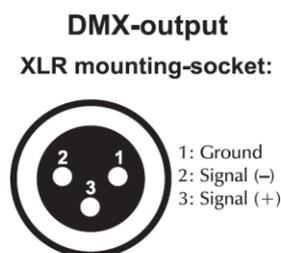
**IMPORTANT!OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE**, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property. The projector had to be installed out of the reach of people

**DANGER OF FIRE!** When installing the device, make sure there is no highly-inflammable material(decoration articles, etc.)within a distance of min.0.5m.

### DMX 512 connection/ connection between fixture

The wires must not come into contact with each other, otherwise the fixture will not work at all or properly. Please note the starting address depends upon which controller is being used. Only use a DMX cable and 3-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture to another

Occupation of the XLR-connection:



Connection with the mains.

The occupation of the connection-cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected. The device must only be connected with an electric installation carried out in compliance with IEC standards.

### OPERATION

After you connected the effect to the mains, The fixture starts running

Stand Alone operation

In the stand alone mode, the fixture can be use without controller

#### Master/slave-operation

The master/slave-operation enables that several devices can be synchronized and controlled by one master-device

#### DMX controlled operation

You can control the projectors individually via your DMX-controller

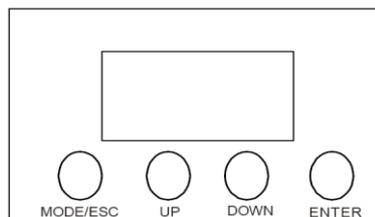
#### Addressing

The control board allows you to assign the DMX starting address,

Note;it's necessary to insert the XLR termination plug (with 120ohm) in the last device in the link in order to ensure proper transmission on the DMX data link.

### CONTROL BOARD

The control board offer several features :you can simple set the starting address, run the pre-programmed program or make a reset



the main menu is accessed by pressing the Mode/Esc-button, Browse through the submenu by pressing Up or Down .Press the Enter-button in order to select the desired menu. You can change the selection by pressing Up or Down, Confirm every selection by pressing the Enter-button. You can leave every mode by pressing the Mode/Esc-button .The functions provided are described in the following setting.

### MENU MAP

The device has two operation modes, It can be operated in Stand Alone or in DMX controlled

Set	Run Mode	DMX/Auto1-4/Sound
-----	----------	-------------------

	DMX Address	0-512
	Channel Mode	16/32CH
	Auto Speed	1-99
	Inverse Pan	ON/OFF
	Inverse Tilt	ON/OFF
	Pan-Tilt Swap	ON/OFF
	Pan-Tilt Encoder	ON/OFF
	NO DMX Signal	Keep/Clear
	Display	DMX Address/Black/off
	Load default	OK/Cancel
Manu	Reset	
	Pan	
	Pan Fine	
	Tilt	
	Tilt Fine	
	Pan-Tilt Speed	
	Red	
	Green	
	Blue	
	White	
Sys	Ver.	
	System Errors	
	Total Fixture Hours	
	Partial Fixture Hours	
Advan		

**Note:** output default setting address code is A001, pan is positive circumrotate、tilt is positive circumrotate、LED positively reveal.

## DMX-protocol

### 16 DMX channel mode

16Channel	Value	Function
1	0-255	<b>Pan Movement</b> Pan Movement
2	0-255	<b>Pan Fine</b> Pan Fine
3	0-255	<b>Tilt Movement</b> Tilt Movement

4	0-255	<b>Tilt Fine</b> Tilt Fine
5	0-255	<b>PAN/TILT speed</b> Decreasing speed
6	0-5 6-149 150-255	<b>Tilt Infinite Movement</b> No Function Forwards rotation with decreasing speed Backwards rotation with increasing speed
7	0-255	<b>Dimmer</b> 0-100% liner dimmer
8	0-255	<b>Red</b> 0-100% Red
9	0-255	<b>Green</b> 0-100% Green
10	0-255	<b>Blue</b> 0-100% Blue
11	0-255	<b>White</b> 0-100% White
12	0-9 10-255	<b>Strobe</b> No Function Strobe from slow to fast
13	0 1-17 18-35 36-53 54-71 72-89 90-107 108-125 126-143 144-161 162-179 180-197 198-215 216-233 234-255	<b>Color Change</b> No Function Red Green Blue White Red+Green Red+Blue Red+White Green+Blue Green+White Blue+White Red+Blue+White Red+Green+White Green+Blue+White Red+Green+Blue+White
14	0-9 10-36 37-63 64-90 91-117 118-144	<b>Built-in Program Program</b> No Function Built-in Program 1 Built-in Program 2 Built-in Program 3 Built-in Program 4 Built-in Program 5

	145-171 172-200 201-230 231-255	Built-in Program 6 Built-in Program 7 Built-in Program 8 Built-in Program 9
15	0-255	<b>Built-in Program Speed</b> Built-in Program Speed from slow to fast
16	0-250 251-255	<b>Macro Function</b> No Function Reset

### 32 DMX channel mode

32Channel	Value	Function
1	0-255	<b>Pan Movement</b> Pan Movement
2	0-255	<b>Pan Fine</b> Pan Fine
3	0-255	<b>Tilt Movement</b> Tilt Movement
4	0-255	<b>Tilt Fine</b> Tilt Fine
5	0-255	<b>PAN/TILT speed</b> Decreasing speed
6	0-5 6-149 150-255	<b>Tilt Infinite Movement</b> No Function Forwards rotation with decreasing speed Backwards rotation with increasing speed
7	0-255	<b>Dimmer</b> 0-100% liner dimmer
8	0 1-17 18-35 36-53 54-71 72-89 90-107 108-125 126-143 144-161 162-179 180-197 198-215 216-233	<b>Color Change</b> No Function Red Green Blue White Red+Green Red+Blue Red+White Green+Blue Green+White Blue+White Red+Blue+White Red+Green+White Green+Blue+White

	234-255	Red+Green+Blue+White
9	0-9 10-36 37-63 64-90 91-117 118-144 145-171 172-200 201-230 231-255	<b>Built-in Program Program</b> No Function Built-in Program 1 Built-in Program 2 Built-in Program 3 Built-in Program 4 Built-in Program 5 Built-in Program 6 Built-in Program 7 Built-in Program 8 Built-in Program 9
10	0-255	<b>Built-in Program Speed</b> Built-in Program Speed from slow to fast
11	0-9 10-255	<b>Strobe</b> No Function Strobe from slow to fast
12	0-255	<b>Red 1</b> 0-100% Red
13	0-255	<b>Green 1</b> 0-100% Green
14	0-255	<b>Blue 1</b> 0-100% Blue
15	0-255	<b>White 1</b> 0-100% White
16	0-255	<b>Red 2</b> 0-100% Red
17	0-255	<b>Green 2</b> 0-100% Green
18	0-255	<b>Blue 2</b> 0-100% Blue
19	0-255	<b>White 2</b> 0-100% White
20	0-255	<b>Red 3</b> 0-100% Red
21	0-255	<b>Green 3</b> 0-100% Green
22	0-255	<b>Blue 3</b> 0-100% Blue
23	0-255	<b>White 3</b> 0-100% White
24	0-255	<b>Red 4</b> 0-100% Red
25	0-255	<b>Green 4</b> 0-100% Green

26	0-255	<b>Blue 4</b> 0-100% Blue
27	0-255	<b>White 4</b> 0-100% White
28	0-255	<b>Red 5</b> 0-100% Red
29	0-255	<b>Green 5</b> 0-100% Green
30	0-255	<b>Blue 5</b> 0-100% Blue
31	0-255	<b>White 5</b> 0-100% White
32	0-250 251-255	<b>Macro Function</b> No Function 无动作 Reset 复位

## TECHNICAL SPECIFICATIONS

Model	M WASH 520P
Voltage	110V- 250V / 50-60Hz
Power consumption:	130W
LED	5pcs 15w RGBW LEDs
Net Weight	8.2Kgs
Dimensions	42x 20 x 30 cm