

MAINFORCE 740

7 x 40W LED



USER MANUAL

Keep this manual for future needs

Table of contents

Caution!	3
Introduction	3
Safety instructions	3
Installation	4
Read 'Safety information' before installing the fixture	4
Fastening the fixture to a flat surface	4
Mounting the fixture on a truss	4
Securing with a safety cable	4
DMX-512 connection/connection between fixtures	5
Operation	6
Addressing	6
Universal DMX Control	6
Auto run mode	6
Master-Slave Operation	6
Control Menu Map	7
DMX Protocol	8
Fixture Cleaning	11
Fuse Replacement	11
Troubleshooting	11
The fixture does not work, no light	11
No response to the sound	11
Specifications	12

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!

Wear protective glasses and other PPE (personal protective equipment) when working on or near the fixture.



Always make sure you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label. Make sure it is grounded when using it!

Unplug mains lead before opening the housing!

Make sure that the power cord is never crimped or damaged by sharp edges. Check the fixture and the powercord from time to time.

Make sure to replace the fuse with another of the same type and rating.



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

Follow operating safety precautions and pay attention to warning signs methods and equipment on the user manual.



Warning! This symbol indicates a hot surface. Certain parts of the housing can become hot during operation. After use, wait for a cool-down period of at least 10 minutes before handling or transporting the device.



Indoor use only! To prevent risk of fire or shock, do not expose this product to rain or moisture. IP 20 rating.

The ambient temperature must always be between -5° C and +45° C.

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 Mainforce 740. 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 fixture is an extremely sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow the guidelines in this manual. The manufacturer of this device will not accept responsibility for damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual.

This device has left our premises in absolutely perfect condition. 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.

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. 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

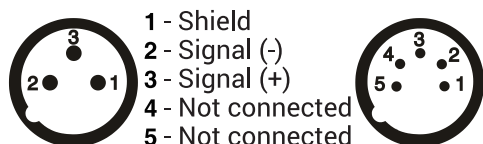
unsecured if it separates from the bracket.

DMX-512 connection/connection between fixtures

Occupation of the XLR-connection:

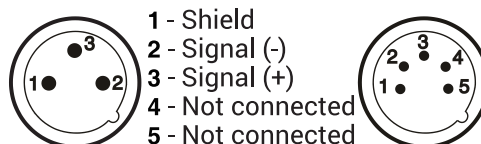
DMX - output

XLR mounting-sockets (rear view):



DMX-input

XLR mounting-plugs (rear view):



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:

The Mainforce 740 is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.

This fixture must be earthed. To use the fixture, a plug must be fixed.

The correct assembly of a sufficient plug may be done by professional persons only.

Connect the device to the mains with the enclosed power supply cable.

The occupation of the connection cables as below:

Cable color	Connection	International
Brown	Live	L
Blue	Neutral	N
Yellow/green	Earth(Ground)	

Operation

The Mainforce 740 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 Mainforce 740, which is 11 / 17 / 18 / 38 channels fixture. If you set, for example, the address in the 11 channel mode to channel 12, the device will use the channel 12 to 22 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.

Auto run mode

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

1. Press the MENU button until **"Fixture"** is displayed, and press ENTER.
2. Press the UP or DOWN button so that **"Run mode"** is displayed.
3. Press the UP or DOWN button to select **"Host"**.
4. The unit will now run auto mode without a DMX controller.

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. For the Master unit press the **Fixture - Run mode - Host**.
3. For the slave units press the **DMX address** icon in the touch screen. Set the DMX address to 001.

4. The slave units will now follow the Master unit.

Control Menu Map

Default settings=**bold** print

Notice: Please do not refer to the channel mode displayed in standby mode, it's showed **WRONG. Just set the correct channel mode in the DMX mode.*

Main Menu	Level 1	Level 2	Function
DMX Address	001 - 512		DMX address setting
Fixture	DMX Mode	HSI	11 channel mode
		STD	17 channel mode
		GUI	18 channel mode
		EXT	38 channel mode
	Run Mode	DMX / Host	Run as DMX or master unit
	Pan Invert	Close / Open	Pan reverse 180°
	Tilt Invert	Close / Open	Tilt reverse 180°
Manual	Pan	000 - 255	Manual on-board settings
	Pan Fine	000 - 255	
	Tilt	000 - 255	
	Tilt Fine	000 - 255	
	...		
Information	Time	Current Time	Fixture information
		Total Time	
		Power Count	
Sensor	Pan	TRUE / FALSE	Sensor status
	Tilt	TRUE / FALSE	
	Zoom	TRUE / FALSE	
	Temp	TRUE / FALSE	
	Fan	TRUE / FALSE	
Temperature	Head Temp	xx°C	Fixture temperature
	Fan Speed	xxxxRPM	Fan speed
Software Version	Panel	Vx.xx	Software version
	Motor	Vx.xx	
	Dim	Vx.xx	

Factory	Password	xxx	Only qualified technicians should perform this function. Inquire your local dealer for password.
	Pan		Fixture calibration
	Tilt		
	Zoom		
	Red		
	Green		
	Blue		
	White		
Reset	Motor Reset	Cancel / Run	Motor reset
	Factory	Cancel / Run	Factory reset
Display	Language	EN / CH	Language select
	Display Flip	OFF / ON	Display reverse 180°
	Display Mode	Show / 60S	Display shut off time

DMX Protocol

HSI 11 CH mode	Function	DMX value	Function Control
1	Pan	000 - 255	Pan movement control
2	Pan Fine	000 - 255	Pan fine control
3	Tilt	000 - 255	Tilt movement control
4	Tilt Fine	000 - 255	Pan fine control
5	P/T Speed	000 - 255	Pan and tilt speed, decreasing
6	Strobe	000 - 255	Strobe with speed increasing
7	Hue	000 - 255	Hue
8	Saturation	000 - 255	Saturation
9	Intensity	000 - 255	Intensity
10	Zoom	000 - 255	Zoom
11	Reset / Prog	000 - 059	No function
		060 - 099	Reset
		100 - 200	Auto program
		201 - 255	No function

STD 17 CH mode	Function	DMX value	Function Control
1	Pan	000 - 255	Pan movement control
2	Pan Fine	000 - 255	Pan fine control
3	Tilt	000 - 255	Tilt movement control
4	Tilt Fine	000 - 255	Pan fine control
5	P/T Speed	000 - 255	Pan and tilt speed, decreasing
6	Dimmer	000 - 255	Master dimmer
7	Dim fine	000 - 255	Dimmer fine

8	Strobe	000 - 003	Closed
		004 - 103	Slow strobe - fast Strobe
		104 - 107	Open
		108 - 207	slow pulsation - fast pulsation
		208 - 212	Open
		213 - 225	Random slow strobe
		226 - 238	Random medium strobe
		239 - 251	Random fast strobe
		252 - 255	Open
9	Red	000 - 255	Red dimmer
10	Green	000 - 255	Green dimmer
11	Blue	000 - 255	Blue dimmer
12	White	000 - 255	White dimmer
13	CCT	000 - 255	Color temperature from cold white to warm white
14	Color marco	000 - 255	Color marco
15	Effect	000 - 255	Closed
		001 - 100	Wave
		101 - 200	Dream
		201 - 255	Auto
16	Zoom	000 - 255	Zoom
17	Reset / Prog	000 - 059	No function
		060 - 099	Reset
		100 - 200	Auto program
		201 - 255	No function

GUI 18 CH mode	Function	DMX value	Function Control
1	Pan	000 - 255	Pan movement control
2	Pan Fine	000 - 255	Pan fine control
3	Tilt	000 - 255	Tilt movement control
4	Tilt Fine	000 - 255	Pan fine control
5	P/T Speed	000 - 255	Pan and tilt speed, decreasing
6	Dimmer	000 - 255	Master dimmer
7	Strobe	000 - 003	Closed
		004 - 103	Slow strobe - fast Strobe
		104 - 107	Open
		108 - 207	slow pulsation - fast pulsation
		208 - 212	Open
		213 - 225	Random slow strobe
		226 - 238	Random medium strobe
		239 - 251	Random fast strobe
		252 - 255	Open
8	Red	000 - 255	Red dimmer
9	Green	000 - 255	Green dimmer
10	Blue	000 - 255	Blue dimmer
11	White	000 - 255	White dimmer
12	Color marco	000 - 255	Color marco
13	Shape	000 - 255	Shape and shape effect
14	Speed	000 - 255	Shape speed

15	Shape back	000 - 255	Shape black light colors
16	Back dim	000 - 255	Shape back light dimmer(CH15 dimmer)
17	Zoom	000 - 255	Zoom
18	Reset / Prog	000 - 059	No function
		060 - 099	Reset
		100 - 200	Auto program
		201 - 255	No function

EXT 38 CH mode	Function	DMX value	Function Control
1	Pan	000 - 255	Pan movement control
2	Pan Fine	000 - 255	Pan fine control
3	Tilt	000 - 255	Tilt movement control
4	Tilt Fine	000 - 255	Pan fine control
5	P/T Speed	000 - 255	Pan and tilt speed, decreasing
6	Dimmer	000 - 255	Master dimmer
7	Dim fine	000 - 255	Dimmer fine
8	Strobe	000 - 003	Closed
		004 - 103	Slow strobe - fast Strobe
		104 - 107	Open
		108 - 207	Slow pulsation - fast pulsation
		208 - 212	Open
		213 - 225	Random slow strobe
		226 - 238	Random medium strobe
		239 - 251	Random fast strobe
		252 - 255	Open
9	R1	000 - 255	Red 1 dimmer
10	G1	000 - 255	Green 1 dimmer
11	B1	000 - 255	Blue 1 dimmer
12	W1	000 - 255	White 2 dimmer
13	R2	000 - 255	Red 2 dimmer
14	G2	000 - 255	Green 2 dimmer
15	B2	000 - 255	Blue 2 dimmer
16	W2	000 - 255	White 2 dimmer
17	R3	000 - 255	Red 3 dimmer
18	G3	000 - 255	Green 3 dimmer
19	B3	000 - 255	Blue 3 dimmer
20	W3	000 - 255	White 3 dimmer
21	R4	000 - 255	Red 4 dimmer
22	G4	000 - 255	Green 4 dimmer
23	B4	000 - 255	Blue 4 dimmer
24	W4	000 - 255	White 4 dimmer
25	R5	000 - 255	Red 5 dimmer
26	G5	000 - 255	Green 5 dimmer
27	B5	000 - 255	Blue 5 dimmer
28	W5	000 - 255	White 5 dimmer
29	R6	000 - 255	Red 6 dimmer
30	G6	000 - 255	Green 6 dimmer
31	B6	000 - 255	Blue 6 dimmer

32	W6	000 - 255	White 6 dimmer
33	R7	000 - 255	Red 7 dimmer
34	G7	000 - 255	Green 7 dimmer
35	B7	000 - 255	Blue 7 dimmer
36	W7	000 - 255	White 7 dimmer
37	Zoom	000 - 255	Zoom
38	Reset / Prog	000 - 059	No function
		060 - 099	Reset
		100 - 200	Auto program
		201 - 255	No function

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.

Fuse Replacement

This fuse is located in a fuseholder next to the MAINS OUT socket on the connections panel.

To replace a fuse:

1. Disconnect the fixture from power and allow it to cool for at least 10 minutes.
2. Unscrew the cap of the fuseholder and remove the fuse. Replace with a fuse of the same size and rating only.
3. Reinstall the fuseholder cap 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.

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- Check the sound sensitivity level. Make sure it is not set to a low sensitivity level.

Specifications

Model	Mainforce 740
Power supply:	AC100 - 240V, 50/60Hz
Light source:	7 x 40W RGBW LED
Power consumption:	290Watt max.
Pan:	540°
Tilt:	270°
Zoom:	5° - 50°
Power connection:	PowerCON in & out
Signal connection:	3-pin XLR in & out, 5-pin XLR in & out
DMX channels:	11 / 17 / 18 / 38
Control mode:	DMX 512, Auto program, Master-slave
Housing:	Colour black, Plastic
Size:	390 x 225 x 305mm(15.3 x 8.8 x 12in)
N.W.:	8.7kg(19.2lb)
G.W.:	10.5kg(23.2lb)
Enviroment:	IP20

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