

# Mozart MFL USER MANUAL

# 1. BEFORE YOU BEGIN

## WHAT IS INCLUDED IN MOZART MFL PACKAGE

- ▶ 1x Mozart
- ▶ Warranty Card
- ▶ Users Manual

## UNPACKING INSTRUCTIONS

Immediately upon receiving a fixture, carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton it self shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

## CONTACT US

**General Information**   **Company NA**  
**9 Lambertu street**  
**Marupe, LV-2167, Latvia**  
 Phone: +371 6780 111  
 Fax: +371 6755 6505  
 e-mail: [na@na.lv](mailto:na@na.lv)  
 web: [www.na.lv](http://www.na.lv)

## SAFETY INSTRUCTIONS



**Please read these instructions carefully, which includes important information about the installation, usage and maintenance of this product.**



- Please keep this User manual for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Always make sure that you are connecting to the proper voltage, and that the line voltage you are connecting to is not higher than that stated on the decal or rear panel of the fixture.
- Make sure there are no flammable materials close to the unit while operating.
- Always disconnect from power source before servicing or replacing fuse and be sure to replace with same fuse source.
- Secure fixture to fastening device using a safety chain.
- Maximum ambient temperature (Ta) is (40°C). Do not operate fixture at temperatures higher than this.
- In the event of a 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.
- Don't connect the device to a dimmer pack.
- Make sure the power cord is never crimped or damaged.
- Never disconnect the power cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source while it is on.

**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: „Company NA” at: +37167801110.*

## 2. DEVICE DESCRIPTION

**MOZART MFL** - LED fixture, the successor of the Mozart- smallest LED fixture ever made by Company NA, also- one of the smallest DMX512 controlled LED fixtures in the market. Due to its size and appearance, Mozart is great to use as a part of scenery. Mozart MFL has got 16 pixels with 1 Cree RGBW LED chip each.

It has 6 operating modes- **1** pixel RGB (**3ch**), **4** pixel RGB (**12ch**) and **16** pixel RGB (**48ch**) + **1** pixel RGBW (**4ch**), **4** pixel RGBW (**16ch**) and **16** pixel RGBW (**48ch**).

Also, Mozart MFL is silent (makes no sound at all) and waterproof (**IP65**).

To keep Mozart small as possible, there is a power supply unit made for Mozart (Mozart PSU) which is used to provide the DMX signal and power for Mozart.

This fixture is controlled by DMX512 protocol, using **RDM**- DMX512 protocol enhancement which allows bi-directional communication between a lighting or system controller and attached RDM compliant devices over a standard DMX line.

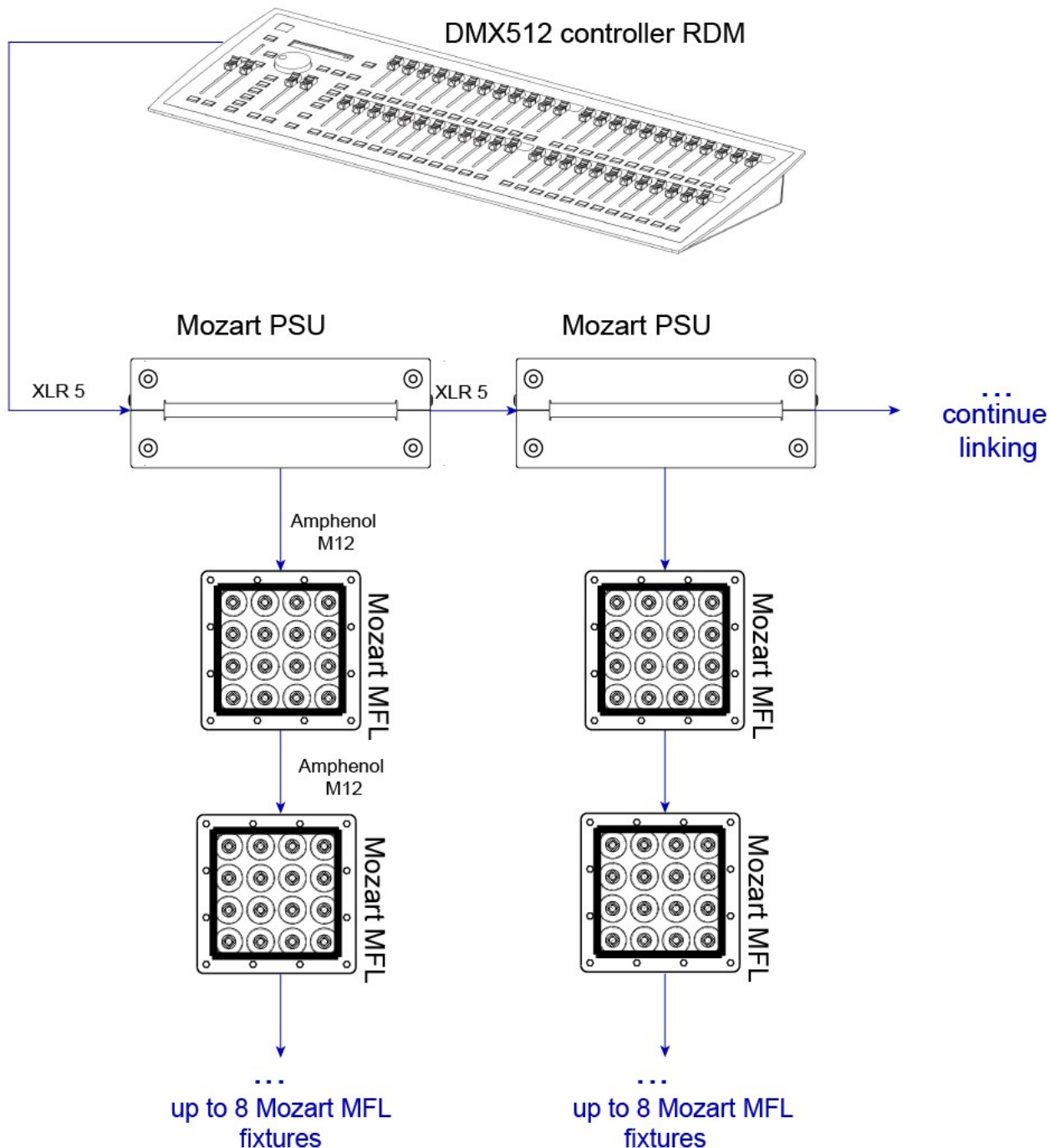
- 16 CREE XM-L RGBW LED chips
- DMX-512A control with RDM protocol
- Power consumption- 25W at peak
- Amphenol M12 DMX and power connectors
- 1, 4 or 16 pixels
- 3, 4, 12, 16, 48 or 64 channel controls (depending on pixel count and RGB/ RGBW control modes)
- 8 bit colour dimming control
- Beam spread of 36°
- Up to 8 Mozart MFL fixtures connectable to 1 Mozart PSU unit. It is allowed to connect only 1 type of Mozart fixtures together.

| Fixture Specifications   |                              |
|--------------------------|------------------------------|
| LED Light sources        | 16 CREE®                     |
| Pixels per fixture       | 1, 4, or 16                  |
| DMX Channels per fixture | 3, 4, 12, 16, 48 or 64       |
| Beam Spread              | 36°                          |
| Color LEDs               | RGBW                         |
| Refresh rate             | 1200 Hz                      |
| Intensity control        | 8bit                         |
| Control                  | DMX-512A, RDM                |
| DC Power                 | 48V                          |
| Power Consumption        | 25W                          |
| Cooling                  | Convection                   |
| IP Rating                | IP65                         |
| Operating Temperature    | -20°C - +40°C                |
| Control/Power Connectors | In/Out - Amphenol Sensor M12 |
| Unit Dimensions (HxWxD)  | 120 x 120 x 49 mm            |
| Unit Weight              | 1 kg                         |

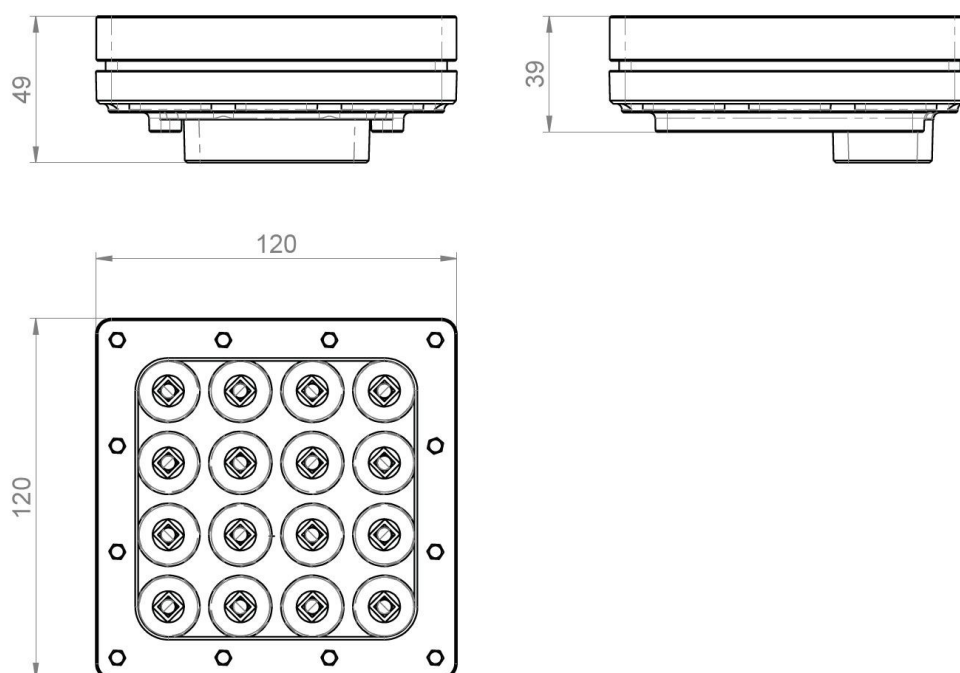


## FIXTURE LINKING

# Fixture linking



## MOZART MFL DIMENSIONS



# 3. OPERATING INSTRUCTIONS

## PIXEL MAP

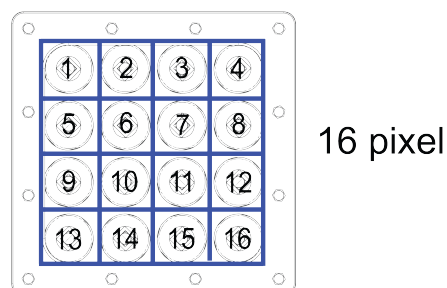
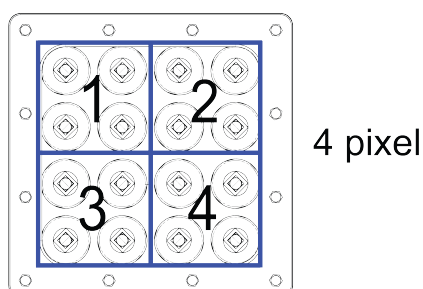
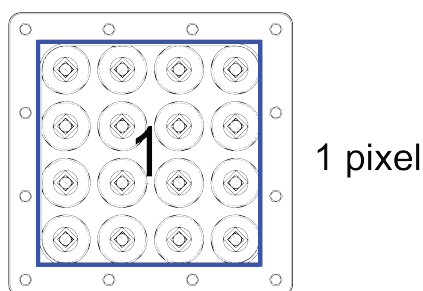
Mozart MFL in total consists out of 16 **RGBW 1 chip engines** which are located in **4 rows** and **4 columns**.

There are 6 possible ways how to control Mozart:

- 1) As RGB **1** pixel unit (**3** channel mode)
- 2) As RGBW **1** pixel unit (**4** channel mode)
- 3) As RGB **4** pixel unit (**12** channel mode)
- 4) As RGBW **4** pixel unit (**16** channel mode)
- 5) As RGB **16** pixel unit (**48** channel mode)
- 6) As RGBW **16** pixel unit (**64** channel mode)

You can change these modes only by using RDM protocol.

Illustration of **Mozart MFL pixel map**:





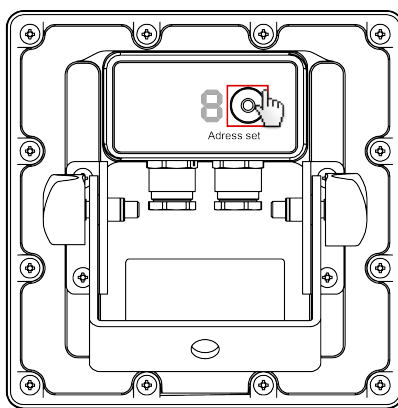
## INTERNAL ADDRESS SET

To keep the Mozart MFL as small as possible, we have made a power supply units for Mozarts which also includes a controlling device whose settings has to be set up using RDM.

To **set address** for MFL Mozarts, at first you have to set address for the Mozart PSU. For instance: DMX address for the Mozart PSU is set to the DMX channel 1.

Now the user has to set internal addressing for MFL Mozart sequence. To set internal addressing of Mozart fixtures (1-8), you have to follow these steps:

Press and hold **<Adress set>** button located at the back of the Mozart.



The current internal addressing number will appear (1-8). To **change** this number, press **<Adress set>** button. The next addressing number will appear. Repeat until the wanted addressing number is shown on the 7 segment display.

## SENSORS

NA Mozart has 3 sensors:

**Temperature sensor;**

**Bus current sensor;**

**Main voltage sensor.**

Bus current and main voltage values can be seen only using RDM compliant lighting control device (for example, **NA MasterFade**).

# APPENDIX

## DMX PRIMER

There are 512 channels in a DMX-512 connection. Channels may be assigned in any manner. A fixture capable of receiving DMX 512 will require one or a number of sequential channels. The user must assign a starting address on the fixture that indicates the first channel reserved in the lighting console. There are many different types of DMX controllable fixtures and they all may vary in the total number of channels required. Choosing a start address should be planned in advance. Channels should never overlap. If they do, this will result in erratic operation of the fixtures whose starting address is set incorrectly. You can, however, control multiple fixtures of the same type using the same starting address as long as the intended result is that of unison movement or operation. In other words, the fixtures will be slaved together and all respond exactly the same.

DMX fixtures are designed to receive data through a DMX Chain. A DMX chain connection is where the DMX OUT of one fixture connects to the DMX IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a lighting console communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures using shielded two conductor twisted pair cable with three pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is data Negative (S-) and pin 3 is data positive (S+). TMB carries 3-pin and 5-pin XLR DMX compliant cables.

## GENERAL MAINTENANCE

To maintain optimum performance and minimize wear fixtures should be cleaned frequently. Usage and environment are contributing factors in determining frequency. As a general rule, fixtures should be cleaned at least twice a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced lamp life and increased mechanical wear. Be sure to power off fixture before conducting maintenance.

Unplug fixture from power. Use a vacuum or air compressor and a soft brush to remove dust collected on external vents and internal components. Clean all glass when the fixture is cold with a mild solution of glass cleaner or isopropyl alcohol and a soft lint free cotton cloth or lens tissue. Apply solution to the cloth or tissue and drag dirt and grime to the outside of the lens. Gently polish optical surfaces until they are free of haze and lint.

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.

## RETURN PROCEDURE

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Please contact Company NA and request RMA # prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customers responsibility.

Company NA reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

### Note:

**If you have RMA #, please include the following information on a piece of paper inside the box:**

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) The RMA #
- 5) A brief description of the symptoms

## CLAIMS

Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise. It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Any other claim for items such as missing component/part, damage not related to shipping, and concealed damage, must be made within seven (7) days of receiving merchandise.