

Operation Manual  
*Mozart ONE*



# 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 ( $T_a$ ) 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.**

## Description

Mozart One is one of the Mozart LED family fixtures controlled via 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. Due to its size and appearance, it is great to be used as a part of scenery. Mozart has got 1 pixel which consists out of 6 RGBW CREE XM-L LEDs beneath single lens. It has a 1200 Hz refresh rate and 8bit colour dimming control, as well as three operating modes- 1-pixel WHITE (1ch), 1-pixel RGB (3ch) and 1-pixel RGBW (4 ch).

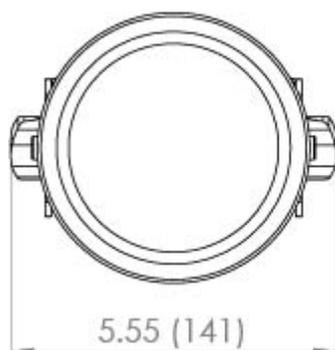
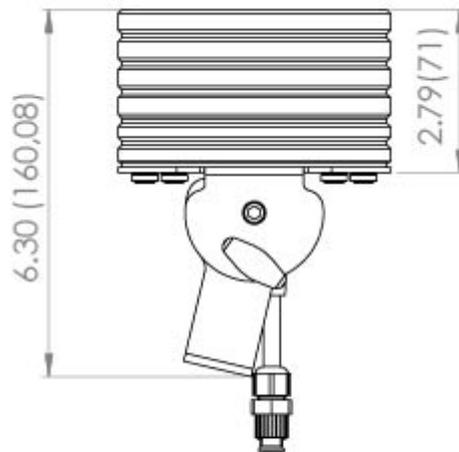
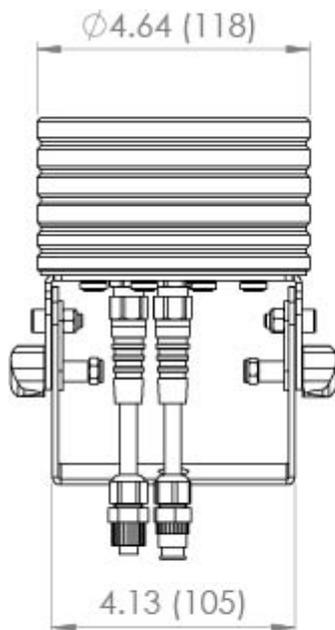
Mozart ONE is silent, dust and water resistant (**IP65**).

To keep Mozart as 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.

## Specifications

Mozart ONE	
LED Light sources	6 CREE XM-L LEDs (beneath single lens)
Pixels per fixture	1
DMX Channels per fixture	1, 3, 4
Color LED's	RGBW
Color Mode	WHITE, RGB, RGBW
Refresh rate	1200 HZ
Intensity Control	8bit
Control	Mozart PSU
DC power	48 V
Power Consumption	20 W or 40 W (in high power mode)
Cooling	Convection
IP Rating	IP65
Operating Temperature	-20°C - +40°C
Control/Power Connectors	In/Out - Amphenol M12
Unit Dimensions (H x W x D)	118 x 141 x 160 mm (4.64 x 5.55 x 6.3 in)
Weight	1,7 kg (3.74 lbs.)

Dimensions in inches (mm)



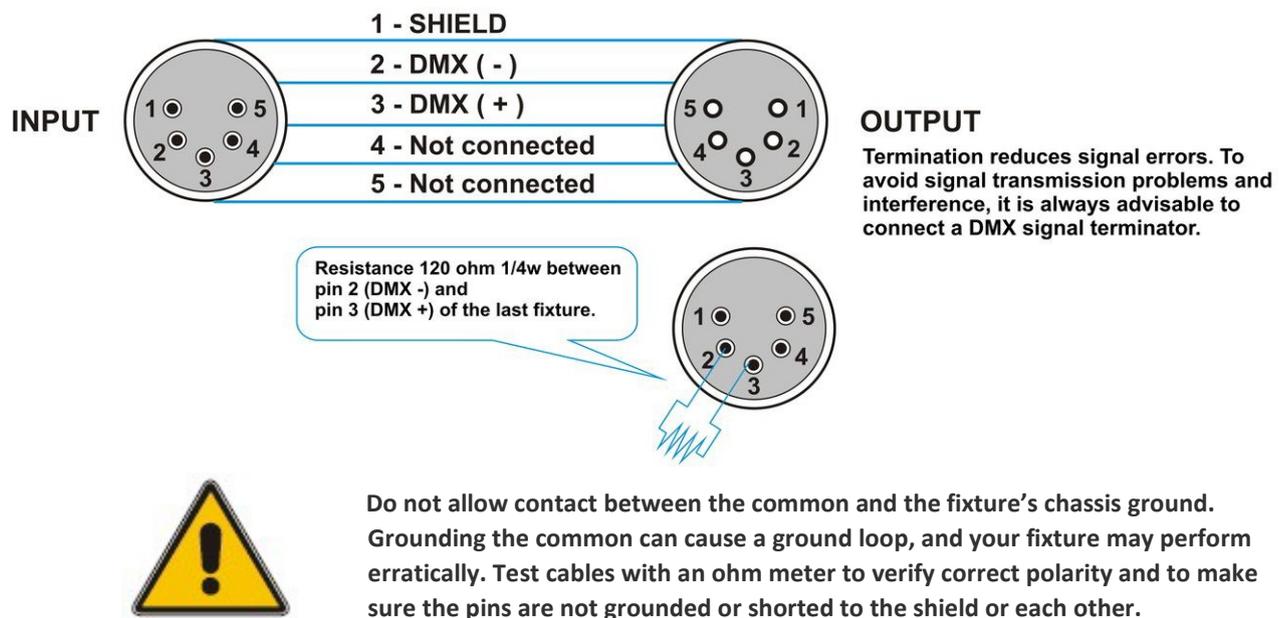
## Setup

A DMX data link is needed to run light shows of one or more fixtures using a DMX-512 lighting console. The combined number of channels required by all of the fixtures on the DMX data link will determine the number of fixtures the DMX data link can support.

**Important: Fixtures on a DMX data link must be daisy-chained in one single line. To comply with the EIA-485 standard, no more than 32 devices should be connected on one data link. Connecting more than 32 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.**

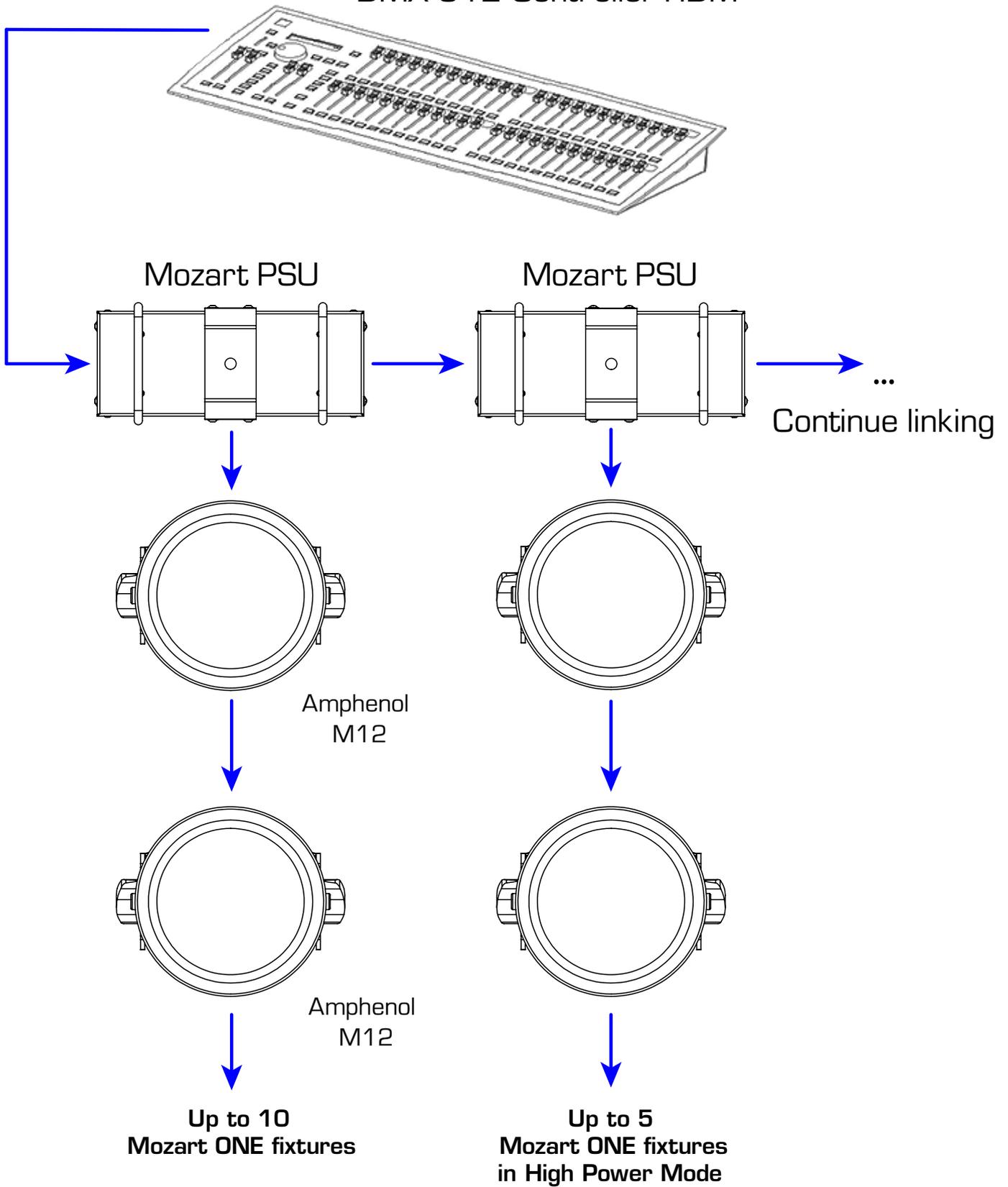
Maximum recommended DMX data link distance between fixtures: 300 meters (984 ft.)

### DMX CONNECTOR CONFIGURATION FOR MOZART 10-WAY PSU



# Fixture linking

DMX 512 Controller RDM



## Pixel Map

Mozart ONE in total consists out of 6 CREE XM-L LEDs (beneath single lens)

There are 3 possible ways how to control Mozart through Mozart PSU:

- 1) As WHITE 1-pixel unit (**1** channel mode)
- 2) As RGB 1-pixel unit (**3** channel mode)
- 3) As RGBW 1-pixel unit (**4** channel mode)

**You can change the DMX address and color modes only by using RDM protocol.**

## Sensors

Mozart has 3 sensors:

- Temperature sensor
- Bus current sensor
- DC voltage sensor

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

## Internal address set

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

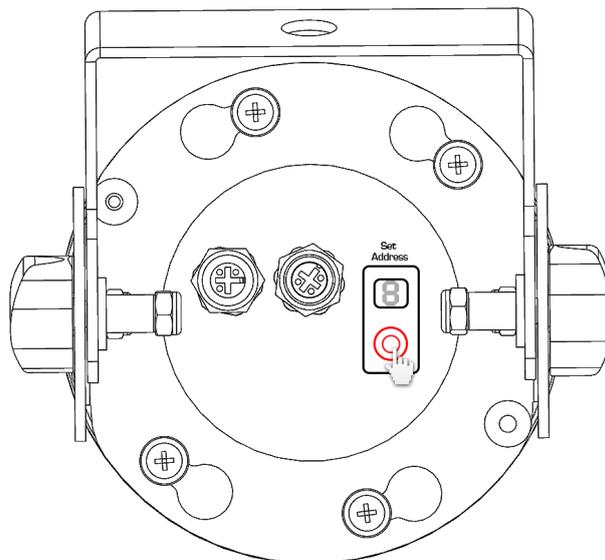
To set fixture ID Nr. for Mozart ONE, at first you have to set DMX address for the Mozart PSU.

For instance: DMX address for the Mozart PSU is set to the DMX channel 0-255.

Now the user has to set fixture ID for Mozart ONE sequence.

To set internal Fixture ID of Mozart fixtures (1-10 or 1-5 in HP mode), you have to follow these steps:

Press and hold **<Set Address>** button located at the back of the Mozart.



The current internal fixture ID will appear (1-8).

To **change** this number:

press **<Set Address>** button. The next addressing number will appear. Repeat until the desired fixture number is shown on the tile

**Note! Pressing the button once and not holding it will make the temperature information to occur. The information will show by steps on the 7-segment display.**

Using a starting address of DMX 1 on the 10-way PSU, this chart is an example of the Mozart fixture ID

DMX CH		FIXTURE ID
		1 PIX
1	W	1
2	W	2
3	W	3

DMX CH		FIXTURE ID
		1 PIX
1	R	1
2	G	
3	B	
4	R	2
5	G	
6	B	
7	R	3
8	G	
9	B	

DMX CH		FIXTURE ID
		1 PIX
1	R	1
2	G	
3	B	
4	W	
5	R	2
6	G	
7	B	
8	W	
9	R	3
10	G	
11	B	
12	W	

...continue as necessary

# 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+). Company NA 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 once a month. Dust build up reduces light output performance and can cause overheating. This can lead to reduced LED count 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 30 days. Clean the internal optics at least every 60 / 90 days.

## RETURN PROCEDURE

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labelled with a Return Merchandise Authorization Number (RMA #). Products returned without an RMA # will be refused. Call 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 customer's 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 are given an 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.