

SOLARIS™



Mozart One User Manual

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Introduction

PRODUCT OVERVIEW

Mozart One is controlled via DMX512 protocol with RDM functionality, allowing bidirectional feedback controllers and devices over a standard DMX line. Mozart One's compact size and low profile make it ideal for stage sets and scenery.

Mozart One features one pixel comprised of six RGBW Cree® LEDs beneath single lens. A camera-friendly 1200 Hz refresh rate, 8-bit color dimming control, and three operating modes – 1 pixel WHITE (1 ch), 1 pixel RGB (3 ch), and 1 pixel RGBW (4 ch) – make Mozart One the most versatile single-lens LED fixture available.

- One RGBW, single-lens "pixel"
- 1, 3, or 4 channels – White, RGB, or RGBW
- IP65 Rated. Dust and water resistant. Silent operation!
- Perfect for set lighting and stages

UNPACKING INSTRUCTIONS

Upon receipt of the fixture, carefully unpack the carton and check the contents to ensure that all parts are present and in good condition. Notify the shipper immediately and retain packing material for inspection if any parts appear to be damaged from shipping or if the carton itself 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.

POWER REQUIREMENTS

Before powering the unit, make sure the line voltage is within the range of accepted voltages. This fixture accommodates 100-240VAC, 50/60Hz, powered by an external Mozart Drive unit. All fixtures must be powered directly from a switched circuit and cannot be operated with a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel is used solely for a 0-100% switch.

When powered up, the fixture name and software version will show on the 7-segment display.



FREQUENCY SETTINGS

Depending on location, change the Default Frequency setting to match the mains power (e.g. North America should be set at 60Hz). Proper frequency setting will ensure minimum number of visible artifacts when using Solaris on camera.

SAFETY INSTRUCTIONS



Please read these instructions carefully. This user guide contains important information about the installation, usage and maintenance of this product.

- Please keep this User Guide for future reference. If unit is sold to another user, make sure they also receive this instruction booklet.
- Ensure fixture and Mozart Drive are connected to proper voltage, and that line voltage is not higher than that stated on the fixture.
- Make sure there are no flammable materials close to the unit while operating.
- Always disconnect from the power source before servicing or fuse replacement. Always use the fuse specified in this manual..
- Always use a safety cable when hanging fixture overhead.
- Maximum ambient temperature (Ta) is 40°C (104°F). Do not operate fixture at temperatures above this rating.
- In the event of a serious operating problem, stop using the unit immediately. Repairs must be carried out by trained, authorized personnel. Contact the nearest authorized technical assistance center. Only OEM spare parts should be used.
- Do not connect the device to a dimmer pack.
- Make sure the 3-conductor Power+Data cord is never crimped or damaged.
- Never disconnect 3-conductor Power+Data cord by pulling or tugging on the cord.
- Avoid direct eye exposure to the light source during operation.

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 your distributor.



Disconnect the power cord before replacing a fuse and always replace with the same type fuse.



FUSE REPLACEMENT

The Mozart Drive PortableMount uses a 4A, 250V, slow-blow, 5x20mm (0.2x0.8 in.) fuse. Mozart One fixtures have no fuse. To replace fuse:

1. With a screwDriver turn the fuse cap counter-clockwise to remove fuse cap with fuse.
2. Replace fuse attached to fuse cap.
3. Reinsert fuse cap with new fuse and tighten clockwise.

MOUNTING/RIGGING – MOZART DRIVE, PORTABLEMOUNT

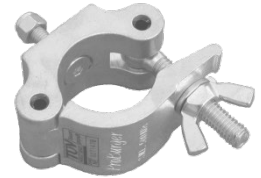
Orientation

The Mozart Drive PortableMount may be mounted on truss or pipe, in any position, using the yoke supplied with the unit. Always make sure there is adequate room for ventilation.

Rigging – Always consult a certified rigging engineer before suspending any fixture overhead!

Use ProBurger® couplers or equivalent C- or O-type clamps for attaching to truss. After establishing the desired position, retighten both knobs.

- Always use safety cables!
- When selecting installation location, consider routine maintenance.
- Never mount Mini enclosure where it will be exposed to moisture, high humidity, extreme temperatures, or restricted ventilation.



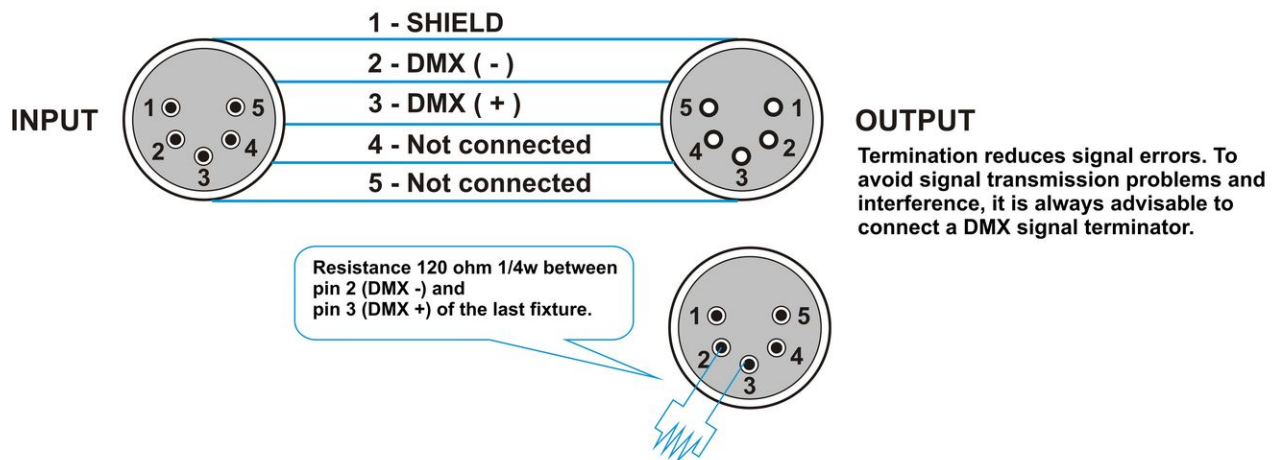
Setup

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 THE MOZART DRIVE



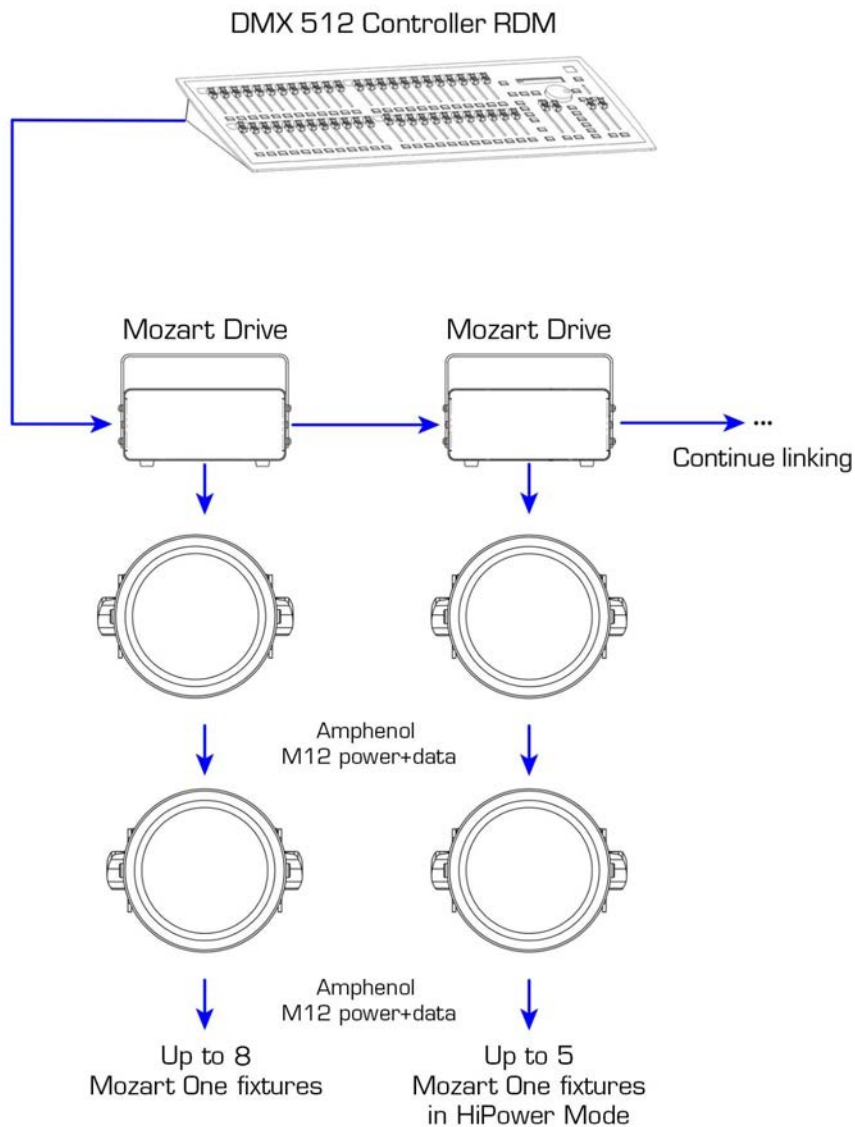


Do not allow contact between the common and the fixture's chassis ground. Grounding the common can cause a ground loop, and your fixture may perform erratically. Test cables with an ohm meter to verify correct polarity and to make sure the pins are not grounded or shorted to the shield or each other.

SETTING UP A DMX SERIAL LINK

1. Connect the (male) 5-pin connector side of the DMX cable to the output (female) 5-pin connector of the DMX console.
2. Connect the opposite end of the cable (female) to the input connector of the Mozart Drive consisting of a (male) 5-pin connector.
3. Proceed to connect from the Drive output as stated above to the input of the following Drive and so on.
4. Continue linking until the last fixture is connected in your DMX chain.

FIXTURE LINKING



Operating Instructions

PIXEL MAP

Mozart One consists of six Cree XM-L LEDs beneath a single lens. There are three control modes for Solaris Mozart One fixtures:

- 1) White: 1-pixel unit (1-channel mode)
- 2) RGB: 1-pixel unit (3-channel mode)
- 3) RGBW: 1-pixel unit (4-channel mode)

Modes can be changed within the Mozart Drive via RDM protocol.

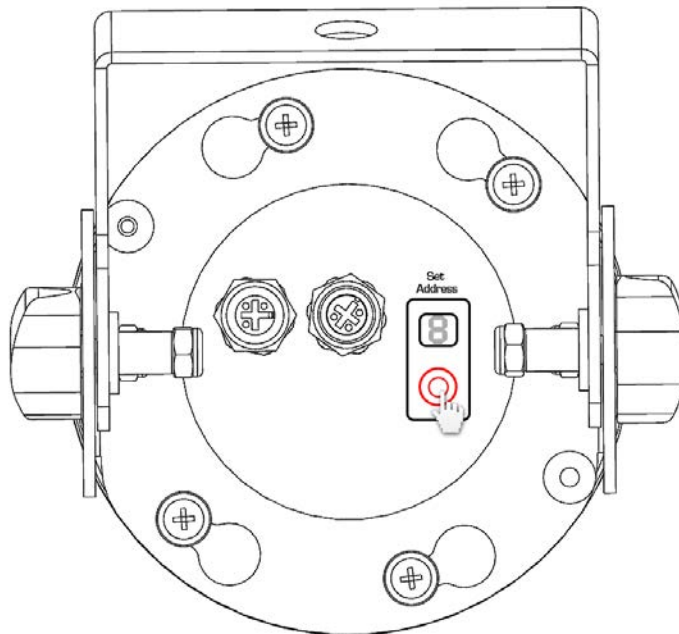
INTERNAL ADDRESS SET

The external Mozart Drive has a user definable DMX starting address, adjusted via RDM.

Additionally, each Mozart One also has an independent ID that will indicate its position in the DMX universe. Each connected Mozart One can be given an independent ID number, or they can all be the same (up to 10 fixtures linked in Regular mode; 5 fixtures linked in HiPower Mode).

Follow these steps to set the internal fixture ID of Mozart One fixtures (1-10 in Regular mode, or 1-5 in HiPower mode)

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



The internal fixture ID will appear (1-10).

To change this number, press the <Set Address> button again. The next ID number will appear. Repeat until the desired ID number is shown on the 7-segment display.

Using “DMX 1” for a starting address on the Mozart Drive, following are examples of the Mozart One fixture ID:

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

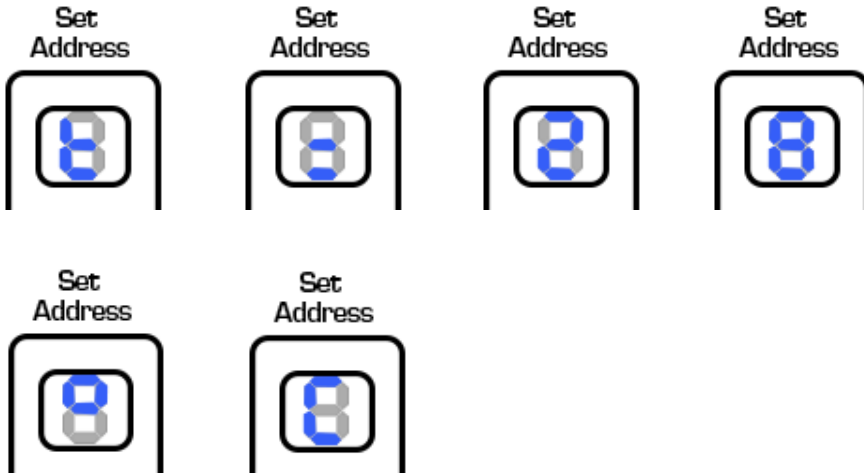
DMX CH		FIXTURE ID
		1 PIX
1	R	1
2	G	
3	B	
4	R	2
5	G	
6	B	
7	R	3
8	G	
9	B	

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 . . .

TEMPERATURE

To check the temperature of the Mozart One, tap the address set button and the 7-segment display will show the temperature (e.g. 28 °C):



Appendix

RDM FUNCTIONALITY

Mozart Drives have RDM functionality. Below are the RDM functions available in these devices. TMB has many options for RDM control of your devices: ProPlex RDMigo and IQ RDM Manager Software; ProPlex Striker; and ProPlex MasterFade. Additionally, ProPlex RDM Opto-Splitters and the ProPlex IQ product range offer many means of RDM over DMX data distribution.

Main	Voltage (V)	Current (A)
Mode	Present value	Present value
DMX address	Highest value	Highest value
RDM version	Lowest value	Lowest value
Software version		

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 disconnect power to the 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 surroundings 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 to 60 days.

LIMITED WARRANTY

Solaris LED fixtures (the Product) are warranted by TMB against defective materials or workmanship for a period of two (2) years from the date of original sale by TMB.

TMB's warranty shall be restricted to the repair or replacement of any part that proves to be defective and for which a claim is submitted to TMB before the expiration of the applicable warranty periods.

This Limited Warranty is void if the defects of the Product are the result of:

- Opening the casing, repair, or adjustment by anyone other than TMB or persons specifically authorized by TMB
- Accident, physical abuse, mishandling, or misapplication of the product.
- Damage due to lightning, earthquake, flood, terrorism, war, or act of God.

TMB will not assume responsibility for any labor expended, or materials used, to replace and/or repair the Product without TMB's prior written authorization. Any repair of the Product in the field, and any associated labor charges, must be authorized in advance by TMB. Freight costs on warranty repairs are split 50/50: Customer pays to ship defective product to TMB; TMB pays to ship repaired product, ground freight, back to Customer.

This warranty DOES NOT cover consequential damages or costs of any kind.

A Return Merchandise Authorization (RMA) Number must be obtained from TMB prior to return of any defective merchandise for warranty or non-warranty repair. For all repairs please contact TMB Tech Support Repair using the contact information below or email TechSupportRepairNA@tmb.com.

527 Park Ave., San Fernando, CA 91340

Tel: +1 818.899.8818

Fax: +1 818.899.8813

tmb-info@tmb.com

www.tmb.com

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 TMB 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. TMB 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.

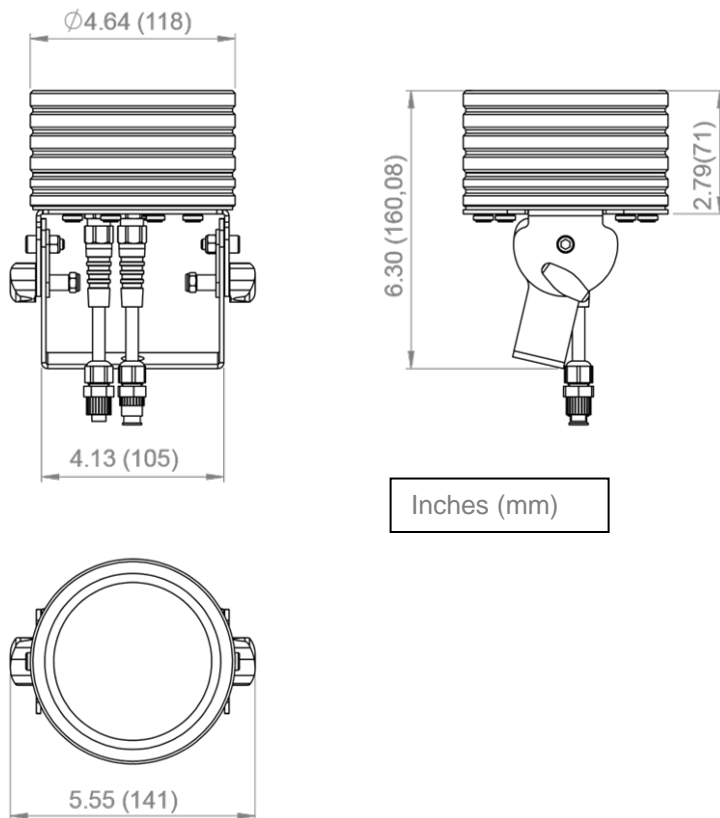
Note: If you are given an RMA #, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number

- 4) The RMA #
- 5) A brief description of the symptoms

MOZART ONE – TECHNICAL SPECIFICATIONS

Mozart ONE	
LED Light sources	6 Cree LEDs (single lens)
Pixels per fixture	1
DMX Channels per fixture	1, 3, 4
Color LEDs	RGBW
Color Mode	White, RGB, RGBW
Refresh rate	1200 HZ
Intensity Control	8 bit
Control	Mozart Drive
DC power	48 VDC
Power Consumption	20 W or 40 W (HiPower mode)
Cooling	Convection
IP Rating	IP65
Operating Temperature	-20°C - +40°C
Control/Power Connectors	In/Out - Amphenol M12
Dimensions (HxWxD)	4.6 x 5.6 x 6.3 in (118 x 141 x 160 mm)
Weight	3.74 lb. (1.7 kg)



MOZART DRIVE PORTABLEMOUNT – TECHNICAL SPECIFICATIONS

Mozart Drive PortableMount	
Control	DMX-512 with RDM
DMX channels	3, 12, 48
DMX input	Locking 5-pin XLR male socket
DMX output (linking)	Locking 5-pin XLR female socket
DMX output (Mozart One)	8 max. (5 max. high power mode)
Power IN	100-240 VAC
Power OUT (Mozart One)	48 VDC
Power Consumption	200 W max (8 Mozart Ones @ standard power; 5 @ HiPower)
Cooling	Convection
IP Rating	IP20
Operating Temperature	-4 to +104 °F (-20 to +40 °C)
Control/Power Connectors	In/Out - Amphenol M12
Dimensions w/yoke (HxWxD)	5.3 x 7.9 x 10.7 in (135 x 202 x 272 mm)
Dimensions w/o yoke (HxWxD)	3.4 x 7.7 x 10.7 in (87 x 196 x 272 mm)
Weight	9.85 lb (4.5 kg)

