MAGMATIC

Prisma Driver 8

User Manual

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DOCUMENT VERSION

Due to additional product features and/or enhancements, an updated version of this document may be available online. Please scan the QR Code with your mobile device or visit www.elationlighting.com for the latest revision/update of this manual, before installation and/or programming.

Date	Document Version	Software Version ≥	DMX Channel Modes	Notes
06/17/2020	1.0	1.01	8 / 9 / 12 Channels	Initial release.
09/15/2020	1.1	1.02	No Change	Updated primary/secondary
05/18/2022	1.2	N/C	No Change	Added RDM, updated General Information.

C O N T E N T S

G E N E R A L   I N F O R M A T I O N

INTRODUCTION

This device can be used to control the following Magmatic units:

- Prisma Mini Bar 20
- Prisma Mini Par 20
- Prisma Mini Par 45

Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this device. These instructions contain important safety and use information. *This product is intended to be used by professionally trained personnel only, and is not suitable for private use.*

UNPACKING

Every device has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton is damaged, carefully inspect the device for damage, and be sure all accessories necessary to install and operate the device have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this device to your dealer without first contacting customer support. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

BOX CONTENTS

Driver Unit (x1)
Twist Locking Power Cable (x1)

CUSTOMER SUPPORT

Contact MAGMATIC Service for any product related service and support needs.
Also visit forums.elationlighting.com with questions, comments or suggestions.

ELATION SERVICE USA – Monday – Friday 8:00am to 4:30pm PST
323-582-3322 | Fax 323-832-9142 | support@elationlighting.com

ELATION SERVICE EUROPE – Monday – Friday 08:30 to 17:00 CET
+31 45 546 85 63 | Fax +31 45 546 85 96 | support@elationlighting.eu

REPLACEMENT PARTS please visit parts.elationlighting.com

⚠ I M P O R T A N T   N O T I C E !

THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT.
DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.

LIMITED WARRANTY (USA ONLY)

A. Magmatic Effects hereby warrants, to the original purchaser, Magmatic products to be free of manufacturing defects in material and workmanship for a period of two years (730 days) from the original date of purchase. This warranty excludes discharge lamps and all product accessories. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Magmatic Effects factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Magmatic Effects will pay return shipping charges only to a designated point within the United States. If any product is sent, it must be shipped in its original package and packaging material. No accessories should be shipped with the product. If any accessories are shipped with the product, Magmatic Effects shall have no liability what so ever for loss and/or or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the product serial number and/or labels are altered or removed; if the product is modified in any manner which Magmatic Effects concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Magmatic Effects factory unless prior written authorization was issued to purchaser by Magmatic Effects; if the product is damaged because not properly maintained as set forth in the product instructions, guidelines and/or user manual.

D. This is not a service contract, and this warranty does not include any maintenance, cleaning or periodic check-up. During the periods as specified above, Magmatic Effects will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Magmatic Effects under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Magmatic Effects. All products covered by this warranty were manufactured after January 1, 1990, and bear identifying marks to that effect.

E. Magmatic Effects reserves the right to make changes in design and/or performance improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with the products described above. Except to the extent prohibited by applicable law, all implied warranties made by Magmatic Effects in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty periods set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said periods have expired. The consumer's and/or dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Magmatic Effects be liable for any loss and/or damage, direct and/or consequential, arising out of the use of, and/or the inability to use, this product.

G. This warranty is the only written warranty applicable to Magmatic Effects products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

WARRANTY RETURNS (USA ONLY)

To obtain warranty service, a Return Material Authorization (RMA) number must first be obtained from MAGMATIC. It is the Customer's responsibility to provide product proof of purchase and serial number by acceptable evidence such as an invoice copy or an approved MAGMATIC Extended Warranty Certificate ("EWC") and any relevant maintenance records at the time warranty service is sought. Failure to provide acceptable evidence of product proof of purchase or EWC and any relevant maintenance records may be cause for denial of warranty service.

Products returned for warranty service must be sent without any accessories (i.e., power, data, and safety cables, brackets, clamps, rigging hardware, frost filters, gel frames, barn doors, lenses, hoses, nozzles, rack mounting hardware, etc.), must be boxed using the original and/or suitable packaging materials (double-box and foam) that provides ample product protection for ground and/or air freight transit, and must be shipped freight pre-paid and insured to MAGMATIC in Los Angeles, CA or a MAGMATIC Authorized Service Center. The RMA number must be clearly written on the outside of the return box, and a brief description of the problem and the RMA number must be documented and included in the box.

Products returned for warranty service without an RMA number clearly marked on the outside of the package will be refused and returned to the shipper at the Customer's expense. Products returned for warranty service, which are received damaged due to inadequate and/or improper packaging and/or due to damage caused by the shipping carrier, may incur additional repair charges before warranty service begins and/or may void this warranty. If any product accessories (included and/or optional) are shipped with the product, MAGMATIC and/or the MAGMATIC Authorized Service Center shall have no liability what so ever for the loss and/or damage to any such accessories, nor the safe return thereof. If the requested warranty repairs or service (including parts replacement) are within the terms of this warranty, MAGMATIC will pay return ground transportation shipping charges to a single designated point within the United States.

SAFETY GUIDELINES

This fixture is a sophisticated piece of electronic equipment. To guarantee smooth operation, it is important to follow all instructions and guidelines in this manual. Magmatic Effects is not responsible for injury and/or damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual. Only qualified and/or certified personnel should perform installation of this fixture and only the original rigging parts included with this fixture should be used for installation. Any modifications to the fixture and/or the included mounting hardware will void the original manufacturer's warranty and increase the risk of damage and/or personal injury.

PROTECTION CLASS 1 – FIXTURE MUST BE PROPERLY GROUNDED

THERE ARE NO USER SERVICEABLE PARTS INSIDE THIS UNIT. DO NOT ATTEMPT ANY REPAIRS YOURSELF; DOING SO WILL VOID YOUR MANUFACTURER'S WARRANTY. DAMAGES RESULTING FROM MODIFICATIONS TO THIS FIXTURE AND/OR THE DISREGARD OF SAFETY INSTRUCTIONS AND GUIDELINES IN THIS MANUAL VOID THE MANUFACTURER'S WARRANTY AND ARE NOT SUBJECT TO ANY WARRANTY CLAIMS AND/OR REPAIRS.

DO NOT PLUG DRIVER INTO A DIMMER PACK!
NEVER OPEN THIS DRIVER WHILE IN USE!
UNPLUG POWER BEFORE SERVICING DRIVER!
NEVER TOUCH FIXTURE DURING OPERATION, AS IT MAY BE HOT!
KEEP FLAMMABLE MATERIALS AWAY FROM FIXTURE!

IP20
FIXTURE IS PROTECTED AGAINST SOLIDS APPROXIMATELY THE SIZE OF AN ADULT FINGER, OR LARGER. FIXTURE IS NOT PROTECTED AGAINST LIQUID INSTRUSION OF ANY KIND.

SAFETY GUIDELINES

- **DO NOT TOUCH** the driver housing during operation. Turn OFF the power and allow approximately 15 minutes for the driver to cool down before servicing.
- **DO NOT** shake driver and avoid brute force when installing and/or operating.
- **DO NOT** operate driver if the power cord is frayed, crimped, damaged and/or if any of the power cord connectors are damaged and do not insert into their sockets securely and with ease. **NEVER** force a power cord connector into a socket. If the power cord or any of its connectors are damaged, replace it immediately with a new one of similar power rating.
- **DO NOT** block any air ventilation slots.
- All fan and air inlets must remain clean and free of dust and debris.
- Allow approx. 6" (15cm) between fixture and other devices or a wall for proper cooling.
- Always disconnect driver from main power source before performing any type of service and/or cleaning procedure. Only handle the power cord by the plug end, and **NEVER** pull out the plug by tugging the wire portion of the cord.
- Consistent operational breaks will ensure driver will function properly for many years.
- **ONLY** use the original packaging and materials to transport the driver for service.

MAINTENANCE GUIDELINES

⚠ DISCONNECT POWER BEFORE PERFORMING ANY MAINTENANCE!

CLEANING

Frequent cleaning is recommended to ensure proper function and an extended life. The frequency of cleaning depends on the environment in which the driver operates: damp, smoky, or particularly dirty environments can cause greater accumulation of dirt on the driver. Clean the external surface periodically with a soft cloth to avoid dirt/debris accumulation.

NEVER use alcohol, solvents, or ammonia-based cleaners.

MAINTENANCE

Regular inspections are recommended to ensure proper function and extended life.

There are no user serviceable parts inside this driver, please refer all other service issues to an authorized MAGMATIC service technician. Should you need any spare parts, please order genuine parts from your local MAGMATIC dealer.

Please refer to the following points during routine inspections:

- A detailed electrical check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition in order to prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation, resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, rigging hardware, and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust or liquids to enter into the driver. Damaged rigging points or unsecured rigging could cause the driver to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue, or sediments.

NEVER remove the ground prong from the power cable.

DRIVER OVERVIEW

1. Mounting Points
2. Display Screen
3. Mode Button
4. Down Button
5. Up Button
6. Enter Button
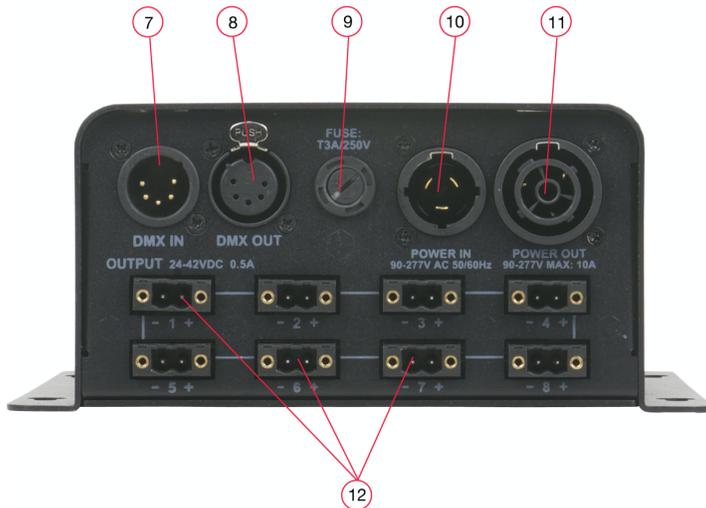
7. 5-pin DMX In
8. 5-pin DMX Out
9. Fuse T3A/250V
10. Power In
11. Power Out
12. Signal Out Ports

INSTALLATION INSTRUCTIONS

⚠ **FLAMMABLE MATERIAL WARNING**
Keep driver minimum 5.0 feet (1.5m) away from flammable materials and/or pyrotechnics.

⚠ **ELECTRICAL CONNECTIONS**
A qualified electrician should be used for all electrical connections and/or installations.

⚠ **DO NOT INSTALL THE DRIVER IF YOU ARE NOT QUALIFIED TO DO SO!**

Driver **MUST** be installed following all local, national, and country commercial electrical and construction codes and regulations.

Before rigging/mounting a single device or multiple interconnected devices for custom matrix designs to any metal truss/structure or placing the device(s) on any surface, a professional equipment installer **MUST** be consulted to determine if the metal truss/structure or surface is properly certified to safely hold the combined weight of the device(s), clamps, cables, and accessories.

Ambient operating temperature range is from **-4°F (-20°C) to 122°F (50°C)**.
Do not operate this device when ambient temperature falls outside this range.

Device(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the device(s) by hand.

INSTALLATION INSTRUCTIONS

PHOENIX CONNECTORS

This driver is compatible for use with the following Magmatic lighting fixtures: **Prisma Mini BAR 20, Prisma Mini PAR 45,** and **Prisma Mini PAR 20.** A set of Phoenix connectors is included with this driver, and may be used to connect these fixtures to the driver.

Begin by inserting the male end of the Phoenix connector into the desired signal output port on the driver, making sure that the latch on the Phoenix connector engages with the signal output port. Tighten the two screws located to each side of the wire terminals, as highlighted in the image to the above right.

Now insert the wire leads from the fixture into the wire terminals of the Phoenix connector, making sure that the bare wire lead ends have been fitted with wire end sheaths. Tighten the two screws above the wire terminals, as shown in the image at above right, to secure the wire leads in the Phoenix connector.

INSTALLATION INSTRUCTIONS

MOUNTING

The driver may be secured to a surface or mounting rail by using the four (4) mounting points located on the mounting brackets on either side of the driver.
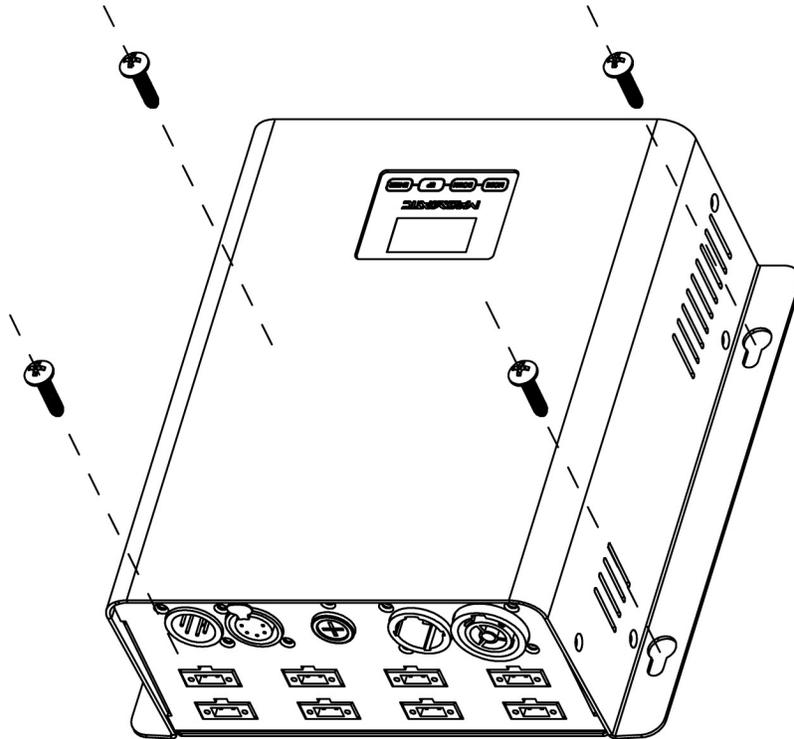
REMOTE DEVICE MANAGEMENT (RDM)

NOTE: In order for RDM to work properly, RDM enabled equipment must be used throughout the entire system, including DMX data splitters and wireless systems.

Remote Device Management (RDM) is a protocol that sits on top of the DMX512 data standard for lighting, allowing the DMX systems of the fixtures to be modified and monitored remotely. This protocol is ideal for instances in which a unit is installed in a location that is not easily accessible.

With RDM, the DMX512 system becomes bi-directional, allowing a compatible RDM enabled controller to send out a signal to devices on the wire, as well as allowing the fixture to respond (known as a *GET* command). The controller can then use its *SET* command to modify settings that would typically have to be changed or viewed directly via the unit's display screen, including the DMX Address, DMX Channel Mode, and Temperature Sensors. Please be aware that not all RDM devices support all RDM features, and therefore it is important to check beforehand to ensure that the equipment that you are considering includes all of the features that you require.

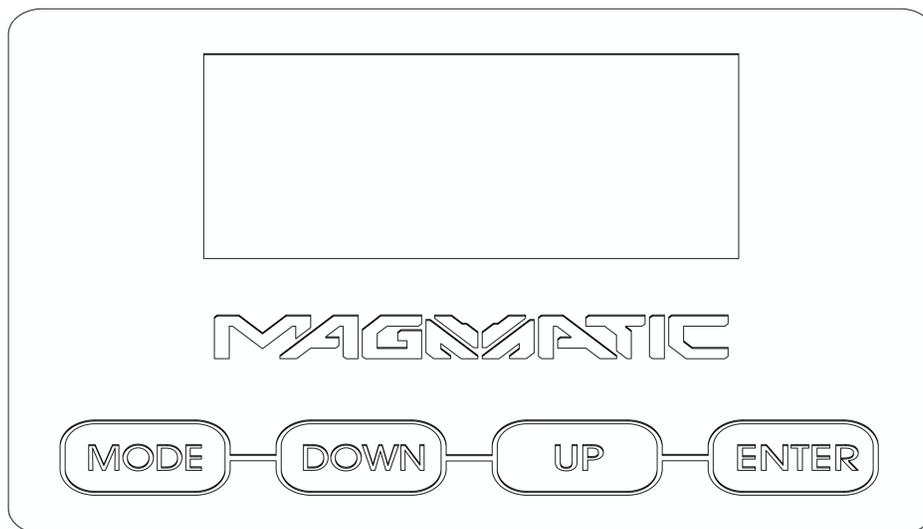The following parameters are accessible in RDM on this device:

Sensor Definition
Sensor Value
Device Model Description
Manufacturer Label
Device Label
DMX Personality
DMX Personality Description
Device Hours
Display Invert

S Y S T E M   M E N U

The fixture includes an easy to navigate system menu. The control panel (see image below) located on the fixture provides access to the main system menu, where all necessary system adjustments can be made. During normal operation, pressing **MODE** button once will access the fixture's main menu. Once in the main menu you can navigate through the different functions and access the sub-menus with the **UP** and **DOWN** buttons. Once you reach a field that requires adjusting, press the **ENTER** button to activate that field and use the **UP** and **DOWN** buttons to adjust the field. Pressing the **ENTER** button once more will confirm your setting. You may exit the main menu at any time without making any adjustments by pressing the **MODE** button.

The display screen will automatically time out after an extended period of inactivity. To unlock the display screen, simply press and hold the **MODE** until the display screen unlocks.

SYSTEM MENU

Magmatic Prisma Driver 8 System Menu				
Default setting shown in **bold**				
ADDRESS	Address XXX	**001** – 504		
USER MODE	Basic (8CH)			
	Standard (9CH)			
	Extended (12 CH)			
FUNCTION	Status	Lost DMX	Black / **Hold**	
	LCD Set	Display	**On** / Off	30-second screen time-out
		Key Lock	**On** / Off	Lock screen keys
		Flash	**On** / Off	Display screen will flash when DMX connection is absent
		Invert	**Off** / On	Flip screen display
	Dim Mode	**Standard**		
		Stage		
		TV		
		Architec		
		Theatre		
		Stage2		
		0.0 s		
		0.1 s		
		0.2 s		
		0.3 s		
		0.4 s		
		0.5 s		
		0.6 s		
		0.7 s		
		0.8 s		
		0.9 s		
		1.0 s		
		1.5 s		
		2.0 s		
		3.0 s		
		4.0 s		
		5.0 s		
		6.0 s		
		7.0 s		
		8.0 s		
		9.0 s		
		10.0 s		
	Disp Set	**ADDR**		
		Disp CH		
		Secondry		Secondary mode
	Dim Curve	**Linear**		
		Square		
		Inv. Squa		
		S Curve		
CONTINUED ON NEXT PAGE				

Magmatic Prisma Driver 8 System Menu			
Default setting shown in **bold**			
Supports Software Versions: 1.01			
FUNCTION *(continued from last page)*	Frequen	900 Hz	
		1000 Hz	
		1100 Hz	
		1200 Hz	
		1300 Hz	
		1400 Hz	
		1500 Hz	
		2500 Hz	
		4000 Hz	
		5000 Hz	
		10000 Hz	
		15000 Hz	
		20000 Hz	
		25000 Hz	
	PrimarySw	On / **Off**	Set device as PRIMARY
	DFSE	On / **Off**	Restore factory default settings
INFO	TimeInfo	Current	Current fixture run time (hours)
		Total	Total fixture run time (hours)
		Last	Clear current fixture run time
		Password	"050" or "060"
		Clear	On / **Off**
	Model Inf	DRIVER 8	
	Software	V1.01	
TEST	ManCtrl	Led1	**000** – 255
		Led2	**000** – 255
		Led3	**000** – 255
		Led4	**000** – 255
		Led5	**000** – 255
		Led6	**000** – 255
		Led7	**000** – 255
		Led8	**000** – 255
		Dimmer	**000** – 255
		Strobe	**000** – 255
	Calibrat	Password	000 – 255
		Led1	050 – 255
		Led2	050 – 255
		Led3	050 – 255
		Led4	050 – 255
		Led5	050 – 255
		Led6	050 – 255
		Led7	050 – 255
		Led8	050 – 255

DMX CHANNEL FUNCTIONS AND VALUES

8-CH BASIC MODE

Magmatic Prisma Driver 8: DMX Channels / Functions		
Supports Software Versions: 1.01		
CHANNEL	VALUE	FUNCTION
1	000 – 255	LED Signal Output 1
2	000 – 255	LED Signal Output 2
3	000 – 255	LED Signal Output 3
4	000 – 255	LED Signal Output 4
5	000 – 255	LED Signal Output 5
6	000 – 255	LED Signal Output 6
7	000 – 255	LED Signal Output 7
8	000 – 255	LED Signal Output 8

9-CH STANDARD MODE

Magmatic Prisma Driver 8: DMX Channels / Functions		
Supports Software Versions: 1.01		
CHANNEL	VALUE	FUNCTION
1	000 – 255	LED Signal Output 1
2	000 – 255	LED Signal Output 2
3	000 – 255	LED Signal Output 3
4	000 – 255	LED Signal Output 4
5	000 – 255	LED Signal Output 5
6	000 – 255	LED Signal Output 6
7	000 – 255	LED Signal Output 7
8	000 – 255	LED Signal Output 8
9		**Dim Mode**
	000 – 020	Standard
	021 – 040	Stage
	041 – 060	TV
	061 – 080	Architectural
	081 – 100	Theatre
	101 – 120	Stage2
		Dimmer Delay Time
	121	0.0 s
	122	0.1 s
	123	0.2 s
	124	0.3 s
	125	0.4 s
	126	0.5 s
	127	0.6 s
	128	0.7 s
	129	0.8 s
	130	0.9 s
	131	1.0 s

CHANNEL	VALUE	FUNCTION
		Dimmer Delay Time (continued from prev page)
	132	1.5 s
	133	2.0 s
	134	3.0 s
9	135	4.0 s
(continued	136	5.0 s
from prev	137	6.0 s
page)	138	7.0 s
	139	8.0 s
	140	9.0 s
	141	10.0 s
	142 – 255	Default (0.1 s)

12-CH EXTENDED MODE

Magmatic Prisma Driver 8: DMX Channels / Functions		
CHANNEL	VALUE	FUNCTION
1	000 – 255	LED Signal Output 1
2	000 – 255	LED Signal Output 2
3	000 – 255	LED Signal Output 3
4	000 – 255	LED Signal Output 4
5	000 – 255	LED Signal Output 5
6	000 – 255	LED Signal Output 6
7	000 – 255	LED Signal Output 7
8	000 – 255	LED Signal Output 8
9	000 – 255	Master Dimmer
10	000 – 255	Dimmer Fine
		Strobe
	000 – 031	Closed
	032 – 063	Open
	064 – 095	Strobe, Slow to Fast
11	096 – 127	Open
	128 – 159	Pulse, Slow to Fast
	160 – 191	Open
	192 – 223	Random Strobe, Slow to Fast
	224 – 255	Open
		Dim Mode
	000 – 020	Standard
	021 – 040	Stage
	041 – 060	TV
	061 – 080	Architectural
12	081 – 100	Theatre
	101 – 120	Stage2
		Dimmer Delay Time
	121	0.0 s
	122	0.1 s
	123	0.2 s
		CONTINUED ON NEXT PAGE

CHANNEL	VALUE	FUNCTION
		Dimmer Delay Time (continued from prev page)
12 *(continued from prev page)*	124	0.3 s
	125	0.4 s
	126	0.5 s
	127	0.6 s
	128	0.7 s
	129	0.8 s
	130	0.9 s
	131	1.0 s
	132	1.5 s
	133	2.0 s
	134	3.0 s
	135	4.0 s
	136	5.0 s
	137	6.0 s
	138	7.0 s
	139	8.0 s
	140	9.0 s
	141	10.0 s
	142 – 255	Default (0.1 s)

DIMMER MODES

Select desired DIMMER MODE (**Standard**, Stage, TV, Architectural, Theatre, Stage2).
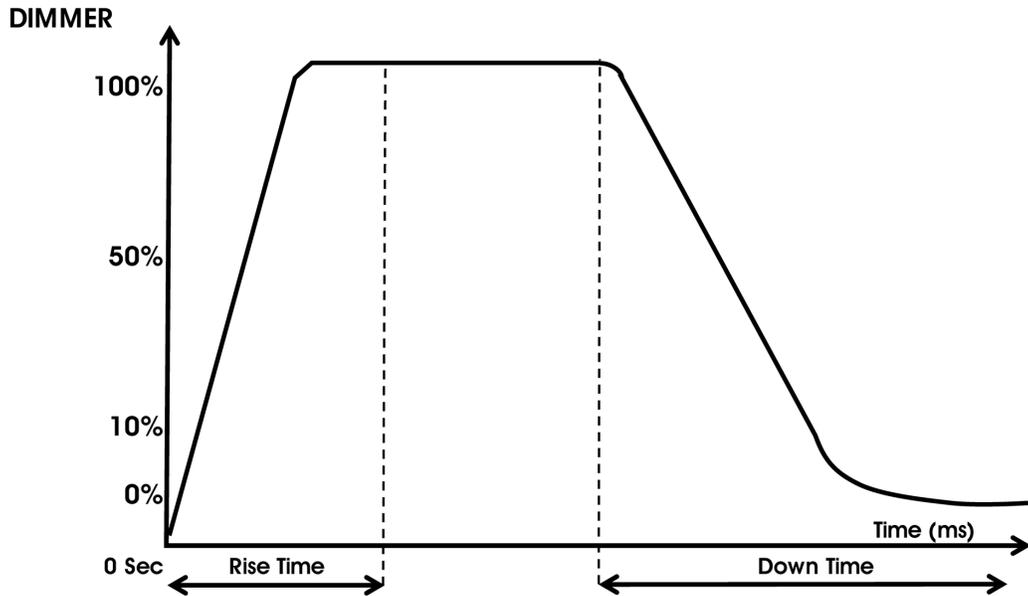
	0 sec Fade Time		1 sec Fade Time	
Dimming Curve Ramp Effect				
	Rise Time (ms)	Down Time (ms)	Rise Time (ms)	Down Time (ms)
Standard (default)	0	0	0	0
Stage	780	1100	1540	1660
TV	1180	1520	1860	1940
Architectural	1380	1730	2040	2120
Theatre	1580	1940	2230	2280
Stage 2	0	1100	0	1660

LINEAR   SQUARE   INVERSE SQUARE   S-CURVE
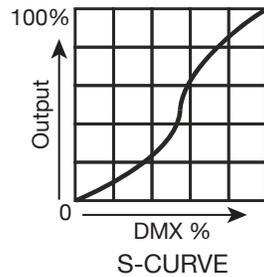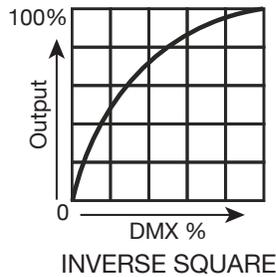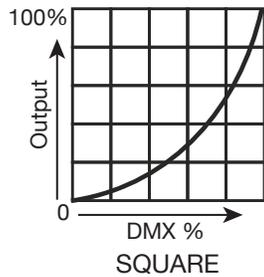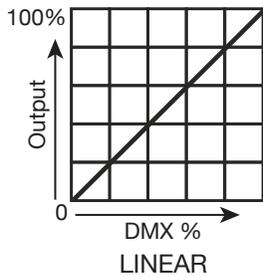
S P E C I F I C A T I O N S

CONSTRUCTION
Rugged Aluminum Housing
Easy Keyhole Slots for Wall/Surface Mounting

CONTROL
Multiple DMX Channel Modes
Onboard 4 Button Touch Control Panel
DMX-512 and RDM Protocol Support

CONNECTIONS
8x 2pin Bare Wire Block Terminals (8 PRISMA MINI fixtures max)
Locking 5pin XLR Connector In/Out
IP65 Locking Power Connector In/Out
With Wired Digital Communication Network

SIZE / WEIGHT
Length: 8.9 in. (225mm)
Width: 8.4 in. (212mm)
Vertical Height: 3.5 in. (88mm)
Weight: 5.7 lbs. (2.6 kg)

ELECTRICAL
AC100-240V 50-60Hz
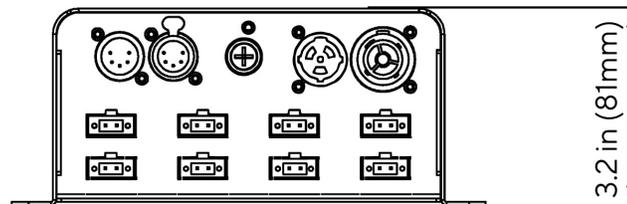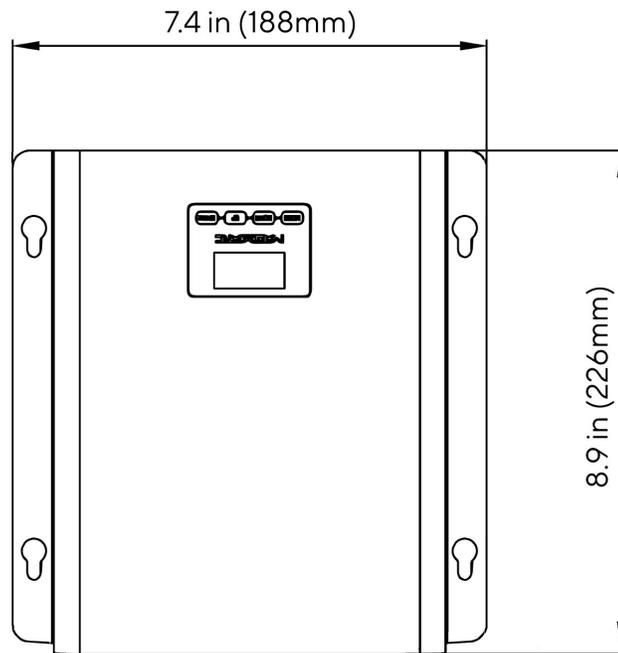48VDC 8.3A
167W Max Power Consumption

THERMAL
Maximum Temperature (Ambient): 113° F (45° C)
Minimum Temperature (Ambient): 14° F (-10°)

APPROVALS / RATINGS
CE | cETLus | IP20

Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

DIMENSIONAL DRAWINGS

7.4 in (188mm)

8.9 in (226mm)

3.2 in (81mm)

Drawings not to scale.