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# DMX Map Guide
Chalice 200 Pendant

Preface

The document provides basic information on installation and operational instructions for a qualified, trained installer. These instructions provide information for the following product:

Chalice 200 Pendant

Additional product information can be found on our web site at www.altmanlighting.com or by scanning the QR code to the right.
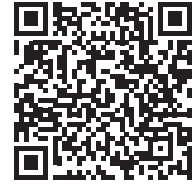
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Should you have a suggestion or question regarding your Altman Lighting product, we would love to hear from you.

You can reach us at:

Altman Lighting
1400 East 66th Ave.
Denver, CO. 80229
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Note: Information contained in this document may not be duplicated in full or in part by any person without prior written approval of Altman Lighting Its sole purpose is to provide the user with conceptual information on the equipment mentioned. The use of this document for all other purposes is specifically prohibited.

Our Commitment

Altman Lighting continually engages in research related to product improvement. New materials, production methods and design refinements are introduced into existing products without notice as a routine expression of the philosophy. For this reason any current Altman Lighting product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise noted.

Document Number: **49-0423**　　　　　　　　　　　　　　**Chalice 200 Pendant** DMX Manual
Version as of: **July 1st 2024**　　　　　　　　　　　　　© Altman Lighting 2024. All rights reserved.

Important Information

Product Safety Notices

When using electrical equipment, basic safety precautions should always be followed including the following:

1. <u>READ AND FOLLOW ALL SAFETY INSTRUCTIONS.</u>
2. Do not mount near gas or electric heaters.
3. Equipment should be mounted in locations and at heights where it will not readily be subjected to tampering by unauthorized personnel.
4. Operate only in approved environments. Do not operate outside unless product is designed to do so.
5. The use of accessory equipment not recommended by the manufacturer may cause an unsafe condition.
6. Do not use this equipment for other than intended use.
7. Refer service to qualified personnel.

SAVE THESE INSTRUCTIONS.

Warnings

WARNING: You must have access to a main circuit breaker or other power disconnect device before installing any wiring. Be sure that power is disconnected by removing fuses or turning the main circuit breaker off before installation. Installing the device with power on may expose you to dangerous voltages and damage the device. A qualified electrician must perform this installation.

WARNING: Refer to National Electrical Code® and local codes for cable specifications. Failure to use proper cable can result in damage to equipment or danger to personnel.

WARNING: This equipment is intended for installation in accordance with the National Electric Code® and local regulations. Before any electrical work is performed, disconnect power at the circuit breaker or remove the fuse to avoid shock or damage to the control. It is recommended that a qualified electrician perform this installation.

WARNING: This Lighting Fixture IS NOT for residential installation or use.

WARNING: The structure where fixture(s) is to be mounted must be capable of supporting the weight of the fixture and its accessories. This fixture is for temporary, portable mounting only.

WARNING: The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.

CE PRODUIT DOIT ÊTRE INSTALLÉ SELON LE CODE D'INSTALLATION PERTINENT, PAR UNE PERSONNE.

CONSULT A QUALIFIED ELECTRICIAN TO ENSURE CORRECT BRANCH CIRCUIT CONDUCTOR. CONSULTER UN ÉLECTRICIEN QUALIFIÉ POUR VOUS ASSURER QUE LES CONDUCTEURS DE LA DÉRIVATION SONT ADÉQUATS.

FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Altman Lighting Product Warranty

Warranty Terms

Altman Lighting, Inc., a subsidiary of Altman Stage Lighting Company, Inc., herein referred to as Altman, warrants each new product (except for spare parts or products Altman does not manufacture) for a period of TWO (2) years from date of shipment to correct by repair or replacement any part defect due to faulty material or workmanship. Under these same terms products with an LED light source shall be warranted for a period of FIVE (5) years and One (1) day.

Altman warrants for NINETY (90) days any spare part it manufactures. On spare parts or products Altman does not manufacture, including, but not limited to, lamps, sockets, lenses, roundels, electronics, ignitors, ballasts, etc.; Altman will grant the same warranty given Altman by its vendors. Altman assumes no responsibility for damage or faulty per-formance caused by misuse, improper installation, careless handling or where repairs have been attempted by others. This warranty is in lieu of all warranties or guarantees expressed or implied and no representative or person is autho-rized to assume Altman any other liability with the sale of Altman's products.

Altman assumes no responsibility for damage or faulty performance caused by misuse, improper Installation, careless handling or where repairs have been attempted by others.

This warranty is in lieu of all warranties or guarantees expressed or implied and no representative or person is autho-rized to assume Altman any other liability with the sale of Altman's products.

Warranty Service

The customer must receive a Return Material Authorization (RMA) number prior to return, return shipment must be vis-ibly marked with the RMA number and the product must be returned (shipping prepaid) to the factory at:

1400 East. 66th Avenue
Denver, CO 80229 USA
+1-303-500-7072
support@altmanlighting.com

The return must be within THIRTY (45) days of receiving the RMA from Altman. Altman warrants for NINETY (90) days any spare part it manufactures. On spare parts or products Altman does not manufacture, such as lamps, sockets, lenses, roundels, electronics, ignitors, ballasts, etc. Altman will grant the same warranty given Altman by its vendors.

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DMX Control Modes

This section covers the available DMX mapping options and their control.

RGBL 16 Bit Direct Mode

RGBL (Red, Green, Blue, Lime) 16 Bit Direct Mode allows for the direct control of both coarse and fine (high and low byte) of color and the master intensity channels, as well as zoom, preset, strobe, control, and fan channels. RGBL 16 Bit Direct Mode will produce the highest quality color cross fades and LED control.

RGBL 16 BIT DIRECT MODE

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-65535	Control of Intensity Channel
2	Intensity - Low Byte		
3	Red - High Byte	0-65535	Control of Red LEDs
4	Red - Low Byte		
5	Green - High Byte	0-65535	Control of Green LEDs
6	Green - Low Byte		
7	Blue - High Byte	0-65535	Control of Blue LEDs
8	Blue - Low Byte		
9	Lime - High Byte	0-65535	Control of Lime LEDs
10	Lime - Low Byte		
11	Zoom	0-255	When in Spot Mode: 6.5°-32° When in Wash Mode: 8°-50°
12	Preset / Color Filters	0-255	**See Page 10 for More Details**
13	Strobe	0-255	**See Page 11 for more Details**
14	Duration	0-255	
15	Control	0-255	**See Page 11 for more Details**

RGBL 8 Bit Direct Mode

RGBL (Red, Green, Blue, Lime) 8 Bit Direct Mode allows for the direct control of each individual color with a separate master intensity channel. RGBL 8 Bit Direct Mode will produce the good quality color cross fades and LED control.

> If the zoom settings are set to anything other than DMX via the control channel they will default to Local (manual). If control of these channels are to be DMX controlled either set each to DMX CONTROL via the control channel, RDM, or rear display.

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-255	Control of Intensity Channel
2	Red - High Byte	0-255	Control of Red LEDs
3	Green - High Byte	0-255	Control of Green LEDs
4	Blue - High Byte	0-255	Control of Blue LEDs
5	Lime - High Byte	0-255	Control of Lime LEDs
6	Zoom	0-255	When in Spot Mode: 6.5°-32° When in Wash Mode: 8°-50°
7	Preset / Color Filters	0-255	**See Page 10 for More Details**
8	Strobe	0-255	**See Page 11 for more Details**
9	Duration	0-255	
10	Control	0-255	**See Page 11 for more Details**

CMY 16-bit Mode

CMY (Cyan, Magenta, Yellow) 16bit mode allows for control of the Red, Green, Blue and Lime LEDs with a layer of logic applied to mimic the behavior of a subtractive color mixing fixture. Instead of adding colors to mix a new color, the logic of CMY is to start with white and dial in colors by subtracting cyan, magenta, and yellow until the desired color is made.

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-65535	Control of Intensity Channel
2	Intensity - Low Byte		
3	Cyan - High Byte	0-65535	Control of Red LEDs
4	Cyan - Low Byte		
5	Magenta - High Byte	0-65535	Control of Green LEDs
6	Magenta - Low Byte		
7	Yellow - High Byte	0-65535	Control of Blue LEDs
8	Yellow - Low Byte		
9	Zoom	0-255	When in Spot Mode: 6.5°-32° When in Wash Mode: 8°-50°
10	Preset / Color Filters	0-255	**See Page 10 for More Details**
11	Strobe	0-255	**See Page 11 for more Details**
12	Duration	0-255	
13	Control	0-255	**See Page 11 for more Details**

CMY 8 Bit Mode

CMY (Cyan, Magenta, Yellow) 8bit mode allows for control of the Red, Green, Blue and Lime LEDs with a layer of logic applied to mimic the behavior of a subtractive color mixing fixture. Instead of adding colors to mix a new color, the logic of CMY is to start with white and dial in colors by subtracting cyan, magenta, and yellow until the desired color is made.

If the zoom settings are set to anything other than DMX via the control channel they will default to Local (manual). If control of these channels are to be DMX controlled either set each to DMX CONTROL via the control channel, RDM, or rear display.

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-255	Control of Intensity Channel
2	Cyan - High Byte	0-255	Control of Red LEDs
3	Magenta - High Byte	0-255	Control of Green LEDs
4	Yellow - High Byte	0-255	Control of Blue LEDs
5	Zoom	0-255	When in Spot Mode: 6.5°-32° When in Wash Mode: 8°-50°
6	Preset / Color Filters	0-255	**See Page 10 for More Details**
7	Strobe	0-255	**See Page 11 for more Details**
8	Duration	0-255	
9	Control	0-255	**See Page 11 for more Details**

HSIC Mode

HSIC (Hue, Saturation, Intensity, Color Point) mode allows for the high resolution control of hue with a single channel control of intensity, saturation, and CCT (Correlated color temperature). HSIC mode will produce color fades around a color space with a variable CCT channel in the center to adjust the color temperature of the luminaire. In this mode we define hue as color and saturation as the amount of color. Adding CCT to this allows for a value or white point to be added into the mix.

The figure to the right is an example the HSIC color concept where red is 0% DMX and as DMX values increase they move clockwise through the example color wheel ending at red (again) at 100% (DMX value of 255).

As Saturation is added, the movement of the color moves from the center of the wheel to the outside, thus adding or removing white. The CCT channel sets the white point in the center of the wheel - the lower the DMX value, the lower the CCT value becomes. The CCT range is from 2700K to 6500K.
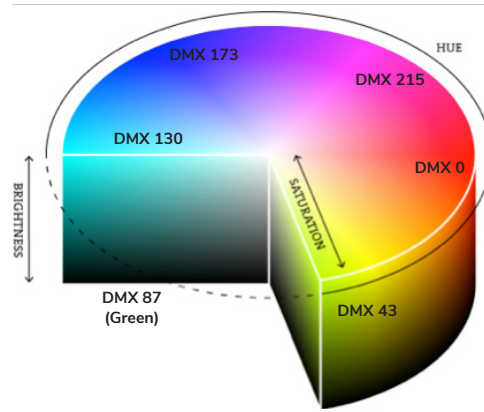
DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity	0-255	Control of Intensity Channel
2	Hue - High Byte	0-65535	Control of Hue
3	Hue - Low Byte	0-65535	Control of Hue
4	Saturation	0-255	Control of Saturation
5	CCT	0-255	Control of White Point
6	Zoom	0-255	When in Spot Mode: 6.5°-32° When in Wash Mode: 8°-50°
6	Preset / Color Filters	0-255	**See Page 10 for More Details**
7	Strobe	0-255	**See Page 11 for more Details**
8	Duration	0-255	
9	Control	0-255	**See Page 11 for more Details**

RGB Mode

RGB Mode allows for medium resolution control of each individual color (excluding the Lime channel) and conserves the amount of DMX channels the fixture uses for control while maintaining control of the zoom, preset, strobe and control settings. When in RGB Mode the Presets and Color Filter output still uses the Lime Channel.

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-255	Control of Intensity Channel
2	Red - High Byte	0-255	Control of Red LEDs
3	Green - High Byte	0-255	Control of Green LEDs
4	Blue - High Byte	0-255	Control of Blue LEDs
5	Control	0-255	**See Page 11 for more Details**

Compact Mode

Compact mode provides direct 8-bit control over the color channels and strobe with no other attributes. This mode is the smallest DMX footprint on Chalice 200. Zoom and other attributes can still be set manually.

Zoom, control, duration, and color presets are not available through DMX control in this mode.

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-255	Control of Intensity Channel
2	Red - High Byte	0-255	Control of Re LEDs
3	Green - High Byte	0-255	Control of Green LEDs
4	Blue - High Byte	0-255	Control of Blue LEDs
5	Lime - High Byte	0-255	Control of Lime LEDs
6	Strobe Control	0-255	**See Page 11 for more Details**

Compact Zoom Mode

Compact mode provides direct 8-bit control over the color channels and strobe and zoom with no other attributes. Other attributes can still be set manually.

Control, duration, and color presets are not available through DMX control in this mode.

DMX CHANNEL	CHANNEL DESCRIPTION	DMX RANGE	FUNCTION
1	Intensity - High Byte	0-255	Control of Intensity Channel
2	Red - High Byte	0-255	Control of Re LEDs
3	Green - High Byte	0-255	Control of Green LEDs
4	Blue - High Byte	0-255	Control of Blue LEDs
5	Lime - High Byte	0-255	Control of Lime LEDs
6	Zoom Control	0-255	When in Spot Mode: 6.5°-32° When in Wash Mode: 8°-50°
7	Strobe	0-255	**See Page 11 for more Details**

Preset / Color Filters Channel

CHANNEL DESCRIPTION	FUNCTION	
Presets / Color Filters	Channel OFF (disabled)	= DMX 0-4
	Preset_1	= DMX 5-7
	Preset_2	= DMX 8-10
	Preset_3	= DMX 11-13
	Preset_4	= DMX 14-16
	Preset_5	= DMX 17-19
	Preset_6	= DMX 20-22
	Preset_7	= DMX 23-25
	Preset_8	= DMX 26-28
	Preset_9	= DMX 29-31
	Preset_10	= DMX 32-34
	Preset_11	= DMX 35-37
	Preset_12	= DMX 38-40
	Preset_13	= DMX 41-43
	Preset_14	= DMX 44-46
	Preset_15	= DMX 47-49
	Preset_16	= DMX 50-52
	Preset_17	= DMX 53-55
	Preset_18	= DMX 56-58
	Preset_19	= DMX 59-61
	Preset_20	= DMX 62-64
	CF_0_OFF	= DMX 65-67
	CF_1_10000K	= DMX 68-70
	CF_2_8000K	= DMX 71-73
	CF_3_6500K	= DMX 74-76
	CF_4_5600K	= DMX 77-79
	CF_5_5000K	= DMX 80-82
	CF_6_4500K	= DMX 83-85
	CF_7_4000K	= DMX 86-88
	CF_8_3200K	= DMX 89-91
	CF_9_3000K	= DMX 92-94
	CF_10_2700K	= DMX 95-97
	CF_11_Moroccan Pink	= DMX 98-100
	CF_12_Pink	= DMX 101-103
	CF_13_Special Rose Pink	= DMX 104-106
	CF_14_Follies Pink	= DMX 107-109
	CF_15_Fuchsia Pink	= DMX 110-112
	CF_16_Surprise Pink	= DMX 113-115
	CF_17_Congo Blue	= DMX 116-118
	CF_18_Deep Blue	= DMX 119-121
	CF_19_Just Blue	= DMX 122-124
	CF_20_Medium Blue	= DMX 125-127
	CF_21_Double C.T Blue	= DMX 128-130
	CF_22_Slate Blue	= DMX 131-133
	CF_23_Regal Blue	= DMX 134-136
	CF_24_Fullt C.T Blue	= DMX 137-139
	CF_25_Half C.T Blue	= DMX 140-142
	CF_26_Steel Blue	= DMX 143-145
	CF_27_Lighter Blue	= DMX 146-148
	CF_28_Light Blue	= DMX 149-151
	CF_29_Medium Blue- Green	= DMX 152-154
	CF_30_Dark Green	= DMX 155-157
	CF_31_Primary Green	= DMX 158-160
	CF_32_Moss Green	= DMX 161-163
	CF_33_Fem Green	= DMX 164-166
	CF_34_JAS Green	= DMX 167-169
	CF_35_Lime Green	= DMX 170-172
	CF_36_Spring Yellow	= DMX 173-175
	CF_37_Deep Amber	= DMX 176-178
	CF_38_Chrome Orange	= DMX 179-181
	CF_39_Orange	= DMX 182-184
	CF_40_Gold Amber	= DMX 185-187
	CF_41_Millennium Gold	= DMX 188-190
	CF_42_Deep Golden Amber	= DMX 191-193
	CF_43_Flame Red	= DMX 194-196
	Reserves(Future use)	= DMX 197-255

Strobe Channel

CHANNEL DESCRIPTION	FUNCTION	
Strobe	Open Closed Slow Rand(0.4hz) Med Rand(5hz) Fast Rand(30hz) Strobe Range(0.4-30hz) Pulse - Slow Rand(0.4hz) Pulse + Med Rand(5hz) Pulse + Fast Rand(30hz) Pulse + Range(0.4-30hz) Pulse - Slow Rand(0.4hz) Pulse - Med Rand(5hz) Pulse - Fast Rand(30hz) Pulse - Range(0.4-30hz)	= DMX 0 - 2 = DMX 3 - 5 = DMX 6 - 7 = DMX 8 - 10 = DMX 11 - 12 = DMX 13 - 127 (fastest) = DMX 128 - 129 = DMX 130 - 131 = DMX 132 - 133 = DMX 134 - 191 = DMX 192 - 193 = DMX 194 - 195 = DMX 196 - 197 = DMX 198 - 255

Control Channel

CHANNEL DESCRIPTION	FUNCTION	
Control	Default Setting on Console Display On/Off Reserved Spot Mode Wash Mode Zoom Control by DMX Zoom VNSP Zoom NSP Zoom MFL Zoom WFL Zoom XWFL Preset 1 Store Preset 2 Store Preset 3 Store Preset 4 Store Preset 5 Store Preset 6 Store Preset 7 Store Preset 8 Store Preset 9 Store Preset 10 Store Preset 11 Store Preset 12 Store Preset 13 Store Preset 14 Store Preset 15 Store Preset 16 Store Preset 17 Store Preset 18 Store Preset 19 Store Preset 20 Store Erase all user presets Reserved Frequency 600 hz Frequency 1.2K hz Frequency 2.4K hz Frequency 4.8K hz Frequency 9.6K hz Frequency 16K hz Frequency 20K hz Frequency 25K hz Curves_Linear Curves_Incandescent Curves_Standard TungstenSIM_Off TungstenSIM_750W TungstenSIM_1000W TungstenSIM_1200W TungstenSIM_2000W TungstenSIM_2500W Color Cal._Off Color Cal._On Strobe Enabled Strobe Disabled Reserved Fixture Reset* Reserved Future Use	= DMX 0 = DMX 3 - 5 = DMX 6 - 23 = DMX 24 - 26 = DMX 27 - 29 = DMX 30 - 32 = DMX 33 - 35 = DMX 36 - 38 = DMX 39 - 41 = DMX 42 - 44 = DMX 45 - 47 = DMX 48 - 50 = DMX 51 - 53 = DMX 54 - 56 = DMX 57 - 59 = DMX 60 - 62 = DMX 63 - 65 = DMX 66 - 68 = DMX 69 - 71 = DMX 72 - 74 = DMX 75 - 77 = DMX 78 - 80 = DMX 81 - 83 = DMX 84 - 86 = DMX 87 - 89 = DMX 90 - 92 = DMX 93 - 95 = DMX 96 - 98 = DMX 99 - 101 = DMX 102 - 104 = DMX 105 - 107 = DMX 108 - 110 = DMX 111 - 149 = DMX 150 - 152 = DMX 153 - 155 = DMX 156 - 158 = DMX 159 - 161 = DMX 162 - 164 = DMX 165 - 167 = DMX 168 - 170 = DMX 171 -173 = DMX 174 - 176 = DMX 177 - 179 = DMX 180 - 182 = DMX 183 - 185 = DMX 186 - 188 = DMX 189 - 191 = DMX 192 - 194 = DMX 195 - 197 = DMX 198 - 200 = DMX 201 - 203 = DMX 204 - 206 = DMX 207 - 209 = DMX 210 - 212 = DMX 213 - 249 = DMX 250 - 252 = DMX 253 - 255

Recording Color Presets from a Console

Similar to recording a preset or "look" to a cue the Chalice 200 LED Pendant Luminaire can record and playback a color preset from the lighting controller and store it locally in the luminaire's memory. There are twenty (20) user edit-able presets built into the fixture. This feature becomes very powerful when using multiple Chalice 200 LED Pendant together or when looking for single channel play back of prerecorded colors.

Color Presets can be recorded, edited, and stored. Color filters cannot be edited.

To record a color preset from a control console:

1. Set each color for your desired color mix.
2. Set the control channel to the desired value from control channel.
3. Wait 3 seconds.
4. Return control channel to 0.

These settings must be performed without any channel scaling between each of the DMX values. It is recommended that either a direct key entry is done from the console or use control channel macros.

CCT DMX Values

The following dmx settings can be used to set the Chalice 200 LED Pendant Luminaire values to a desired CCT color from a DMX console or controller.

Note: The following settings can only be achieve when the fixture is either set to DMX Map 8bit or 16bit.

Note: For a more accurate CCT output it is recommended to turn on Calibration. See Chalice 200 Pendant Quick Start Guide for more information.

	RED	GREEN	BLUE	LIME
2700K	100%	0%	11%	87%
3000K	100%	5%	19%	100%
3200K	100%	14%	24%	100%
4000K	100%	44%	46%	100%
4500K	100%	58%	61%	100%
5000K	100%	72%	75%	100%
5600K	100%	85%	92%	100%
6500K	71%	71%	100%	100%
8000K	28%	38%	100%	100%
10000K	0%	15%	100%	100%

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