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AP-150 RGBW PAR
LED LUMINAIRE
DMX MAP

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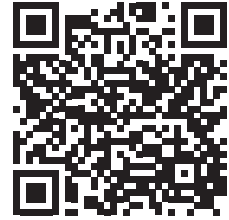
DMX MAP

Preface

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

AP-150 RGBW PAR LED LUMINAIRE

Additional product information can be found on our web site at www.altmanlighting.com or by scanning the QR code to the right.



Have a question regarding this manual?

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Should you have a suggestion or question regarding your Altman Lighting product, we would love to hear from you.

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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.

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Product Luminaire Installation & User's Manual
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DMX Control Maps

RGBW 16 Bit Direct Mode (15 Channels)

RGBW 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. RGBW 16 Bit Direct Mode will produce the highest quality color crossfades and LED control.

Note: If the zoom or fan 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	Description
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	White - High Byte	0 - 65535	Control of White LEDs
10	White - Low Byte		
11	Zoom	0 - 255	Zoom channel settings: Narrow Zoom = DMX 0 Medium Zoom = DMX 127 Wide Zoom = DMX 255 Zoom stop settings: VNSP (Very Narrow Spot) 12° = DMX 0 NSP (Narrow Spot) 26° = DMX 63 MFL (Medium Flood) 38° = DMX 127 WFL (Wide Flood) 50° = DMX 191 XWFL (Extra Wide Flood) 65° = DMX 255
12	Presets / Color Filters	0 - 255	See Page 7 for More Details
13	Strobe	0 - 255	Open = DMX 0 - 2 Closed = DMX 3 - 5 Slow Random (0.4 Hz) = DMX 6 - 7 Med Random (5 Hz) = DMX 8 - 10 Fast Random (30 Hz) = DMX 11 - 12 Strobe Range (0.4-30 Hz) = DMX 13 - 127 (fastest) Pulse + Slow Random (0.4 Hz) = DMX 128 - 129 Pulse + Med Random (5hz) = DMX 130 - 131 Pulse + Fast Random (30hz) = DMX 132 - 133 Pulse + Range (0.4-30 Hz) = DMX 134 - 191 Pulse - Slow Rand (0.4 Hz) = DMX 192 - 193 Pulse - Med Random (5 Hz) = DMX 194 - 195 Pulse - Fast Random (30 Hz) = DMX 196 - 197 Pulse - Range (0.4-30 Hz) = DMX 198 - 255
14	Control (See "Control Channel Notes")	0 - 255	See Page 8 for More Details
15	Fan Control	0 - 255	See Page 8 for More Details

CONTROL CHANNEL NOTES

Channel changes functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling.

RGBW 8 Bit Direct Mode (10 Channels)

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

Note: If the zoom or fan 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	Description
1	Intensity	0 - 255	Control of Intensity Channel
2	Red	0 - 255	Control of Red LEDs
3	Green	0 - 255	Control of Green LEDs
4	Blue	0 - 255	Control of Blue LEDs
5	White	0 - 255	Control of White LEDs
6	Zoom	0 - 255	Zoom channel settings: Narrow Zoom = DMX 0 Medium Zoom = DMX 127 Wide Zoom = DMX 255 Zoom stop settings: VNSP (Very Narrow Spot) 12° = DMX 0 NSP (Narrow Spot) 26° = DMX 63 MFL (Medium Flood) 38° = DMX 127 WFL (Wide Flood) 50° = DMX 191 XWFL (Extra Wide Flood) 65° = DMX 255
7	Presets / Color Filters	0 - 255	See Page 7 for More Details
8	Strobe	0 - 255	Open = DMX 0 - 2 Closed = DMX 3 - 5 Slow Random (0.4 Hz) = DMX 6 - 7 Med Random (5 Hz) = DMX 8 - 10 Fast Random (30 Hz) = DMX 11 - 12 Strobe Range (0.4-30 Hz) = DMX 13 - 127 (fastest) Pulse + Slow Random (0.4 Hz) = DMX 128 - 129 Pulse + Med Random (5hz) = DMX 130 - 131 Pulse + Fast Random (30hz) = DMX 132 - 133 Pulse + Range (0.4-30 Hz) = DMX 134 - 191 Pulse - Slow Rand (0.4 Hz) = DMX 192 - 193 Pulse - Med Random (5 Hz) = DMX 194 - 195 Pulse - Fast Random (30 Hz) = DMX 196 - 197 Pulse - Range (0.4-30 Hz) = DMX 198 - 255
9	Control (See "Control Channel Notes")	0 - 255	See Page 8 for More Details
10	Fan Control	0 - 255	See Page 8 for More Details

CONTROL CHANNEL NOTES

Channel changes functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling.

HSIC Mode (10 Channels)

HSIC mode allows for the high resolution control of hue with a single channel control of intensity, saturation, and CCT. 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.

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 10000K.

Note: If the zoom or fan 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	Description
1	Intensity	0 - 255	Control of Intensity Channel
2	Hue - High Byte	0 - 65535	Control of Hue
3	Hue - Low Byte		Note: Saturation (Channel 3 Hue - Low Byte 4) must be 1% or higher for Hue to take effect.
4	Saturation	0 - 255	Control of Saturation
5	CCT	0 - 255	Control of CCT
6	Zoom	0 - 255	Zoom channel settings: Narrow Zoom = DMX 0 Medium Zoom = DMX 127 Wide Zoom = DMX 255 Zoom stop settings: VNSP (Very Narrow Spot) 12° = DMX 0 NSP (Narrow Spot) 26° = DMX 63 MFL (Medium Flood) 38° = DMX 127 WFL (Wide Flood) 50° = DMX 191 XWFL (Extra Wide Flood) 65° = DMX 255
7	Presets / Color Filters	0 - 255	See Page 7 for More Details
8	Strobe	0 - 255	Open = DMX 0 - 2 Closed = DMX 3 - 5 Slow Random (0.4 Hz) = DMX 6 - 7 Med Random (5 Hz) = DMX 8 - 10 Fast Random (30 Hz) = DMX 11 - 12 Strobe Range (0.4-30 Hz) = DMX 13 - 127 (fastest) Pulse + Slow Random (0.4 Hz) = DMX 128 - 129 Pulse + Med Random (5hz) = DMX 130 - 131 Pulse + Fast Random (30hz) = DMX 132 - 133 Pulse + Range (0.4-30 Hz) = DMX 134 - 191 Pulse - Slow Rand (0.4 Hz) = DMX 192 - 193 Pulse - Med Random (5 Hz) = DMX 194 - 195 Pulse - Fast Random (30 Hz) = DMX 196 - 197 Pulse - Range (0.4-30 Hz) = DMX 198 - 255
9	Control (See "Control Channel Notes")	0 - 255	See Page 8 for More Details
10	Fan Control	0 - 255	See Page 8 for More Details

CONTROL CHANNEL NOTES

Channel changes functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling.

RGB Mode (8 Channels)

RGB Mode allows for medium resolution control of each individual color (excluding the White 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 White Channel.

Note: If the zoom or fan 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	Description
1	Red	0 - 255	Control of Red LED's
2	Green	0 - 255	Control of Green LED's
3	Blue	0 - 255	Control of Blue LED's
4	Zoom	0 - 255	Zoom channel settings: Narrow Zoom = DMX 0 Medium Zoom = DMX 127 Wide Zoom = DMX 255 Zoom stop settings: VNSP (Very Narrow Spot) 12° = DMX 0 NSP (Narrow Spot) 26° = DMX 63 MFL (Medium Flood) 38° = DMX 127 WFL (Wide Flood) 50° = DMX 191 XWFL (Extra Wide Flood) 65° = DMX 255
5	Presets / Color Filters	0 - 255	See Page 7 for More Details
6	Strobe	0 - 255	Open = DMX 0 - 2 Closed = DMX 3 - 5 Slow Random (0.4 Hz) = DMX 6 - 7 Med Random (5 Hz) = DMX 8 - 10 Fast Random (30 Hz) = DMX 11 - 12 Strobe Range (0.4-30 Hz) = DMX 13 - 127 (fastest) Pulse + Slow Random (0.4 Hz) = DMX 128 - 129 Pulse + Med Random (5hz) = DMX 130 - 131 Pulse + Fast Random (30hz) = DMX 132 - 133 Pulse + Range (0.4-30 Hz) = DMX 134 - 191 Pulse - Slow Rand (0.4 Hz) = DMX 192 - 193 Pulse - Med Random (5 Hz) = DMX 194 - 195 Pulse - Fast Random (30 Hz) = DMX 196 - 197 Pulse - Range (0.4-30 Hz) = DMX 198 - 255
7	Control (See "Control Channel Notes")	0 - 255	See Page 8 for More Details
8	Fan Control	0 - 255	See Page 8 for More Details

CONTROL CHANNEL NOTES

Channel changes functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling.

Preset / Color Filters

DMX Channel	Channel Description	DMX Range	Description
16Bit Mode - DMX Channel 12 8 Bit Mode - DMX Channel 7 HSIC Mode - DMX Channel 7 RGB Mode - DMX Channel 5	Presets / Color Filters	0 - 255	Control of Presets and 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 CT Blue = DMX 128 - 130 CF_22_Slate Blue = DMX 131 - 133 CF_23_Regal Blue = DMX 134 - 136 CF_24_Full CT Blue = DMX 137 - 139 CF_25_Half CT 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 Reserved for Future Use = DMX 197 - 255

Control Channel

DMX Channel	Channel Description	DMX Range	Description
16Bit Mode - DMX Channel 14 8 Bit Mode - DMX Channel 9 HSIC Mode - DMX Channel 9 RGB Mode - DMX Channel 7	Control (See "Control Channel Notes")	0 - 255	Default Setting on Console = DMX 0 Display On/Off = DMX 3 - 5 Reserved for Future Use = DMX 6 - 8 Fan Control by DMX = DMX 9 - 11 Fan Speed 0% = DMX 12 - 14** Fan Speed 20% = DMX 15 - 17** Fan Speed 40% = DMX 18 - 20** Fan Speed 60% = DMX 21 - 23** Fan Speed 80% = DMX 24 - 26** Fan Speed 100% = DMX 27 - 29** **Sets fan speed to local control Zoom Control by DMX = DMX 30 - 32*** Zoom VNSP = DMX 33 - 35*** Zoom NSP = DMX 36 - 38*** Zoom MFL = DMX 39 - 41*** Zoom WFL = DMX 42 - 44*** Zoom XWFL = DMX 45 - 47*** ***Sets zoom to local control Preset 1 Store = DMX 48 - 50 Preset 2 Store = DMX 51 - 53 Preset 3 Store = DMX 54 - 56 Preset 4 Store = DMX 57 - 59 Preset 5 Store = DMX 60 - 62 Preset 6 Store = DMX 63 - 65 Preset 7 Store = DMX 66 - 68 Preset 8 Store = DMX 69 - 71 Preset 9 Store = DMX 72 - 74 Preset 10 Store = DMX 75 - 77 Preset 11 Store = DMX 78 - 80 Preset 12 Store = DMX 81 - 83 Preset 13 Store = DMX 84 - 86 Preset 14 Store = DMX 87 - 89 Preset 15 Store = DMX 90 - 92 Preset 16 Store = DMX 93 - 95 Preset 17 Store = DMX 96 - 98 Preset 18 Store = DMX 99 - 101 Preset 19 Store = DMX 102 - 104 Preset 20 Store = DMX 105 - 107 Reserved for Future Use = DMX 108 - 196 Erase all User Presets = DMX 197 - 199 Reserved for Future Use = DMX 200 - 249 Fixture Reset* = DMX 250 - 255

CONTROL CHANNEL NOTES

Channel changes functions of the luminaire. Set control channel value for desired action. Hold value for at least 3 seconds. Set control channel value to 0 without any scaling.

Fan Control Channel

Fan Control is added to the DMX map when the luminaire is set to DMX control via the menu system or via an RDM control channel command.

When the AP-150 RGBW Par LED Luminaire is set to DMX control, the fan will respond to the DMX values of the fan's DMX settings and can be incorporated into cues or looks from the DMX controller. This mode allows for the complete control of the luminaire's sound output. The fan control has a number of different variables to be aware of:

Note: Please note the AP-150 RGBW Par LED Luminaire will always protect itself no matter what the settings are, we call this Progressive Output Management where the unit's logic follows a few rules:

1. When the unit is set to automatic fan control, the fan cooling will slowly increase and decrease based upon the unit's operating temperature.
2. When the unit is set to any of the "fixed" fan speeds - if the LED reaches a threshold temperature- the output of the luminaire will be reduced until thermal equilibrium is reached.
3. When the unit is set to DMX, the luminaire will follow item number 2 above. This mode is generally used when going from a very high-output scene to a low output low-noise scene where the luminaire's fan control and mitigation follows that of the scene characteristics as displayed on stage.

DMX Channel	Channel Description	DMX Range	Description
16Bit Mode - DMX Channel 15 8 Bit Mode - DMX Channel 10 HSIC Mode - DMX Channel 10 RGB Mode - DMX Channel 8	Fan Control	0 - 255	Only operational when Fan Mode is set to DMX.