INSTALLATION & FUNCTIONAL INSTRUCTION Wireless DMX LED Controller - 3 CHANNELS CTR-WDMX-3CH



SAFETY INSTRUCTION

IMPORTANT: NEVER attempt any work without shutting off the electricity.

- Always turn off power at fuse box prior to installation to prevent electrical shock.
- Intended for indoor use. Dry and damp locations.
- Install in accordance with national electric code, and local regulations.
- Consult with local inspector to assure compliance.
- Do not submerge, or install within 5 feet of a swimming pool.
- Do not connect the unit directly to 120V AC Line

CAUTION - TO REDUCE RISK OF FIRE AND ELECTRICAL SHOCK

- Read all instructions before installing.
- Handle product with care.
- To reduce the risk of overheating and potential fire risk, make sure all connections are tight.
- Do not modify or disassemble product beyond instructions or warranty will be void.
- Failure to follow safety warnings, and installation instruction will void the warranty

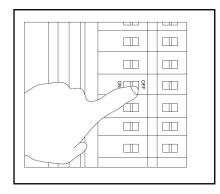
ATTENTION - AFIN DE RÉDUIRE LES RISQUES D'INCENDIE ET DE CHOC ÉLECTRIQUE

- Lire toutes les instructions avant d'installer.
- Manipuler le produit avec soin.
- Afin de réduire le risque de surchauffe et d'incendie potentiel, s'assurer que toutes les connexions sont bien serrées.
- Ne pas modifier ou démonter le produit au-delà des instructions sous peine d'annuler la guarantie.
- Ne pas respecter les avertissements de sécurité et des instructions d'installation annulera la garantie.

WIRING AND INSTALLATION:

Turn Power off at circuit breaker (See FIG. 1)

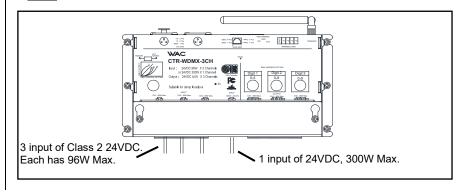
FIG. 1



2. Wireless DMX LED Controller has 2 ways for power feed.

Option A: 3 input power terminals on the left of side. Class 2 Input only. Each input terminal can be linked with only 24VDC, 96W maximum. (See FIG. 2) Option B: 1 input power terminal in the center. This center input terminal can be linked with 24VDC, 300W maximum. (See FIG. 2)

FIG. 2



Pay attention to where input and output are.

Using 300W Power Supply

All output 1-3 will receive power and provide 96W maximum on each output channel.

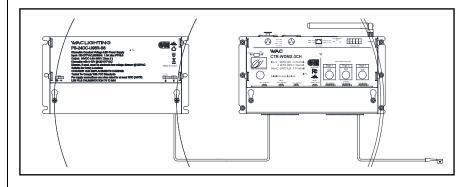
Using 96W Class 2 Power Supply

Output 1 will receive power from Input 1 only. Output 2 will receive power from Input 2 only. Output 3 will receive power from Input 3 only.

If the power feeding is on different input, the light product might not receive power to operate correctly.

Mounting remote power supply and Wireless DMX LED Controller at desired location and wire the power to DMX LED Controller. (See FIG. 3)

FIG. 3



INSTALLATION & FUNCTIONAL INSTRUCTION Wireless DMX LED Controller - 3 CHANNELS





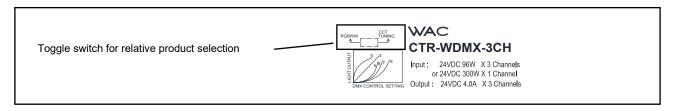
For wiring between wireless DMX LED Controller to the linear or light sheets products, please refer to an instruction sheet of those light products.

GENERAL FUNCTIONAL INSTRUCTION:

1. RELATIVE PRODUCT SELECTION

To select either RGBWW or TUNABLE WHITE (CCT Tuning), toggle the switch as shown in FIG. 4. All 3 output channels are associated with either RGBWW or Tunable White products; there is no option to select some output for one and some for the other. This product selection switch applies to both controls modes: DMX & Wi-Fi Mobile App Control. For Mobile App control, relative product selection must be chosen before power on for a correct operation mode.

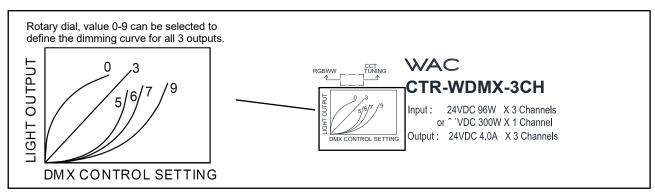
FIG. 4



DIMMING CURVE ADJUSTMENT

The dimming curve for all three outputs can be defined by selecting a value on the rotary dial ranging from 0 to 9. Please refer to Figure 5 for more details.

FIG. 5



DMX INPUT CONTROL INSTRUCTION:

DMX INPUT

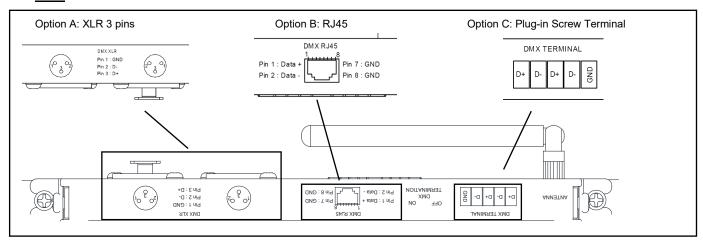
Three different options for inserting DMX input have been provided as alternatives. (Refer to Fig. 6.)

Option A: XLR 3 pins

Option B: RJ45

Option C: Plug-in screw terminal

FIG. 6



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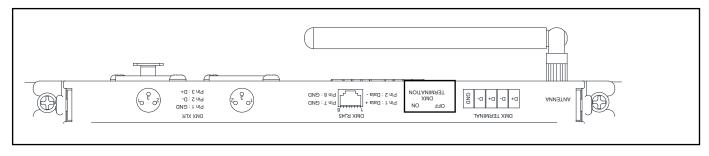
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2. DMX TERMINATION

Improper DMX termination can cause faults in the system, including signal reflection and erratic behavior. To maintain a healthy DMX network, it is critical to use DMX termination. If the switch is in the "OFF" position, there is no DMX termination at the end of the line. However, in the "ON" position, DMX termination is applied by adding a 120 Ohm resistor across the DMX signal line. (See Fig. 7)

FIG. 7



DMX DECODER ADDRESS SETTING

This wireless DMX LED controller has three outputs, with the DMX starting address set by rotating a rotary dial using a flat head screwdriver. The DMX addresses for output channels 1 to 3 are consecutively aligned, as shown in Figure 8 and 9.

FIG. 8

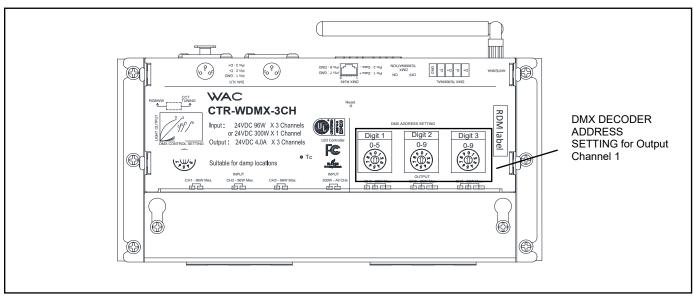
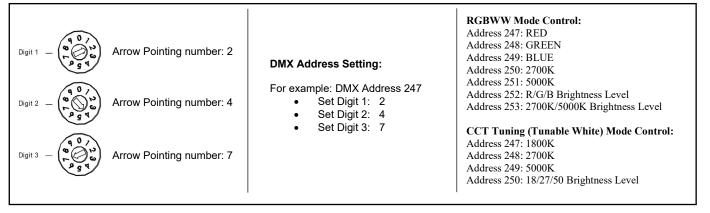


FIG. 9



DMX CHANNEL LINE UP

DMX Controller has the following DMX channel lineup for different product mode selection

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RGBWW Mode: Each output on this DMX LED controller will have a consecutive lineup of 7 DMX channels, starting with RED, GREEN, BLUE, 2700K, 5000K, RGB Brightness Level, and ending with 2700-5000K Brightness Level, as illustrated in Table 1.

Tunable White (CCT Tuning) Mode: Each output of the DMX LED Controller is set up with a lineup of four DMX channels, which will be arranged in consecutive order, starting with 1800K, followed by 2700K, 5000K, and 1800K-2700K-5000K Brightness level. These channel arrangements and associated values are shown in detail in Table 2.

Table 1:

RGBWW Mode:

Output 1: Set DMX address 025		DMX Address is consequenctially aligned			
Address: 025	RED	Address: 032	RED	Address: 039	RED
Address: 026	GREEN	Address: 033	GREEN	Address: 040	GREEN
Address: 027	BLUE	Address: 034	BLUE	Address: 041	BLUE
Address: 028	2700K	Address: 035	2700K	Address: 042	2700K
Address: 029	5000K	Address: 036	5000K	Address: 043	5000K
Address: 030	R/G/B Brightness Level	Address: 037	R/G/B Brightness Level	Address: 044	R/G/B Brightness Level
Address: 031	2700K/5000K Brightness	Address: 038	2700K/5000K Brightness	Address: 045	2700K/5000K Brightness
	Level		Level		Level

IMPORTANT NOTE:

Either RGB or 2700K/5000K can be turned on at the same time, but the DMX controller prevents all RGB and white lights from being on simultaneously to avoid thermal issues. RGB brightness level takes priority over 2700K/5000K brightness level. For example, if 2700K/5000K white light is needed in RGBWW mode, the DMX value of RGB brightness level address: 030 must be set to zero, as address 031 will not turn off the RGB lights. The RGB lights will remain on as long as the DMX value of address 030 is greater than or equal to one, regardless of the DMX value at address 031.

Table 2:

TUNABLE WHITE (CCT TUNING) Mode:

Output 1: Set DMX address 025		DMX Address is consequenctially aligned			
Address: 025	1800K	Address: 029	1800K	Address: 033	1800K
Address: 026	2700K	Address: 030	2700K	Address: 034	2700K
Address: 027	5000K	Address: 031	5000K	Address: 035	5000K
Address: 028	1800K/2700K/5000K	Address: 032	1800K/2700K/5000K	Address: 036	1800K/2700K/5000K
	Brightness Level		Brightness Level		Brightness Level

IMPORTANT NOTE:

The DMX controller allows only two CCTs to be on simultaneously due to thermal limitations. The 1800K CCT has the highest priority. Therefore, when mixing 2700K and 5000K CCTs, the DMX value for address 025 (1800K) must be zero. If not, 1800K and 2700K will be mixed instead of 5000K, as address 025, 1800K, takes precedence over the other CCT addresses.

The priority for the CCT settings is established as follows: 1800K has the highest priority, followed by 2700K and 5000K. The brightness for all channels can be controlled using the DMX address assigned to 1800K/2700K/5000K, allowing the CCT setting to remain consistent even as the light output is adjusted.

5. REMOTE DEVICE MANAGEMENT (RDM) SUPPORT

The DMX LED Controller supports RDM protocol, allowing for remote configuration of both DMX starting address and DMX controller for each channel. Once connected to an RDM controller and the DMX address is set, the hardware setting of DMX address through the rotary dial will be overridden. However, as long as the DMX address assigned through the rotary dial remains the same, the RDM controller will stay in control. If the DMX address setting is changed through the rotary dial, the RDM controller will lose control and the DMX address setting will be assigned through the rotary dial again. While in RDM control mode, the RDM controller can only set up one DMX address, which will line up all addresses in sequence, as shown in Table 3.

<u>Table 3</u>
For example, RDM send the command to have DMX starting address setting: 395 **RGBWW Mode:**

Output 1		Output 2		Output 3	
Address: 395	RED	Address: 402	RED	Address: 409	RED
Address: 396	GREEN	Address: 403	GREEN	Address: 410	GREEN
Address: 397	BLUE	Address: 404	BLUE	Address: 411	BLUE
Address: 398	2700K	Address: 405	2700K	Address: 412	2700K
Address: 399	5000K	Address: 406	5000K	Address: 413	5000K
Address: 400	R/G/B Brightness Level	Address: 407	R/G/B Brightness Level	Address: 414	R/G/B Brightness Level
Address: 401	2700K/5000K Brightness	Address: 408	2700K/5000K Brightness	Address: 415	2700K/5000K Brightness
	Level		Level		Level

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TUNABLE WHITE (CCT TUNING) Mode:

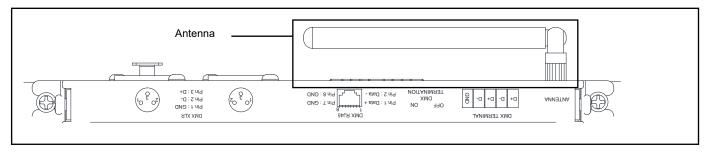
Output 1		Output 2		Output 3	
Address: 395	1800K	Address: 399	1800K	Address: 403	1800K
Address: 396	2700K	Address: 400	2700K	Address: 404	2700K
Address: 397	5000K	Address: 401	5000K	Address: 405	5000K
Address: 398	1800K/2700K/5000K	Address: 402	1800K/2700K/5000K	Address: 406	1800K/2700K/5000K
	Brightness Level		Brightness Level		Brightness Level

Wi-Fi & MOBILE APP CONTROL INSTRUCTION:

ANTENNA

Antenna is required to operate on Wi-Fi & Bluetooth, screw in Wi-Fi antenna to the CTR-WDMX-3CH unit as shown in Fig. 6.

FIG. 10



CONFIGURE WIRELESS DMX LED CONTROLLER WITH WAC APP

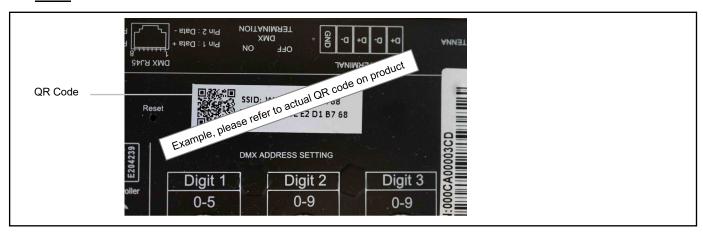
Product relation selection defines whether to operate in RGBWW or Tunable White mode. Mobile application has no option to choose product mode. Product relation mode must be selected before power on. Refer to GENERAL FUNCTIONAL INSTRUCTION - RELATIVE PRODUCT SELECTION in above section for instruction.

In addition to compatibility with DMX control, you can configure and control your wireless DMX LED controller through the WAC App. To use the WAC App, download it for free from the App Store (iOS) or Google Play (Android) under "MyWAC" and follow app instruction. You can click on the link below to access web page to download "MyWAC" mobile app. https://www.waclighting.com/apps/



During the setup process, the app will prompt you to scan the QR code located on the actual product. Please refer to the example shown in Figure 10.

FIG. 10



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CTR-WDMX-3CH



Wi-Fi setting can be reset by inserting a pin into a pinhole reset button while unit is power on. Press and hold the reset button or 10 seconds, then release the button. Wait a few seconds, follow the mobile app instruction to add new device.

AMAZON ALEXA INTEGRATION

PINHOLE RESET

- Install and connect the Wireless DMX LED controller to the "MyWAC" app. Please note that Amazon Alexa can only control all three output channels together. It cannot control each output channel individually because Amazon Alexa defines one light per one controller/fixture. For example, if you ask Alexa to change the RGBWW product to green, it will change all three output channels of that controller to green.
- Rename your controller name to your preference. This name will be used to call the controller with Alexa voice assistant. You can rename the 2. controller by following these steps on the "MyWAC" app: Menu - Setting - Location Details - XXX - Devices - Select your device to rename it.
- Rename the product group to your preference. This name will be used to call the group with Alexa voice assistant. You can rename the group 3. by following these steps on the "MyWAC" app: Menu - Groups - XXX - Name.
- Download and open the Amazon Alexa app.
- Under the devices section, select "Your Smart Home Skill" and click "Enable Smart Home Skills." 5.
- Search for the "MyWAC" Smart Home Skill. 6.
- 7 Fnable the skill
- 8 Authorize the connection between Amazon Alexa and your MyWAC account.
- Alexa will start looking for connected devices under the same Wi-Fi network. 9.
- Follow Alexa's steps to set up the location of each device.

Please note that Amazon Alex needs Internet connectivity to control it. If internet went down and you would like to control it, "MyWAC" can be used to control and operate without internet connectivity.

Alexa had pre-defined set of color name as following example:

Alexa colors: Red and pink Dark Red Firebrick Orange Red Red Deep Pink Hot Pink Light Pink Maroon Medium Violet Red Pale Violet Red Pink

Alexa colors: Orange and peach Chocolate Dark Orange Orange Web Maroon Coral Light Coral Light Salmon Salmon Sienna

Alexa colors: Yellow Gold Goldenrod Lime Olive Yellow

Alexa colors: Green Chartreuse Dark Green Dark Olive Green Dark Sea Green Forest Green Green Green Yellow Lawn Green Light Green Lime Green Medium Sea Green Medium Spring Green Olive Drab Pale Green Sea Green Spring Green Web Green Yellow Green

Alexa colors: Blue

Plum

Tomato

Blue Cadet Blue Cyan Dark Blue Dark Cyan Dark Slate Blue Dark Turquoise Deep Sky Blue Dodger Blue Light Blue Light Sea Green Light Sky Blue Medium Blue Medium Turquoise Midnight Blue Navy Blue Pale Turquoise Powder Blue Royal Blue Sky Blue Slate Blue Steel Blue Teal

Turauoise

Alexa colors: Purple Blue Violet Cornflower Dark Magenta Dark Orchid Dark Violet Fuchsia Indigo Lavender Magenta Medium Orchid Medium Purple Orchid Purple Rebecca Purple

Rosy Brown

Web Purple

Violet

Antique White Blanched Almond Cornsilk Dark Khaki Floral White Gainsboro Ghost White Honeydew Ivory Khaki Lavender Blush Lemon Chiffon Light Cyan
Light Goldenrod Light Steel Blue Light Yellow Linen Mint Cream Misty Rose Moccasin Old Lace Pale Goldenrod Papaya Whip Peach Puff Seashell Silver Snow Tan Thistle Wheat

Alexa colors: White

Alice Blue

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White Smoke

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