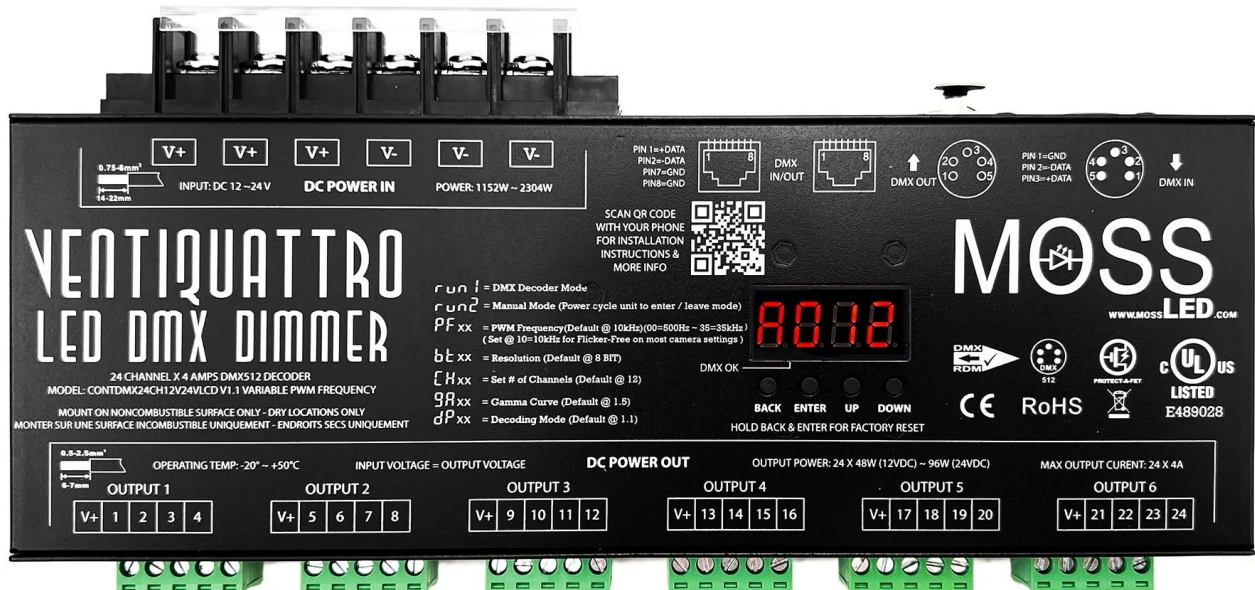




INSTALLATION INSTRUCTIONS



VentiQuattro - LED DMX - 24 Channel Dimmer

SKU: CONTDMX24CH12V24VLED

Version 1 Rev.3 - 240226

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1 Definitions

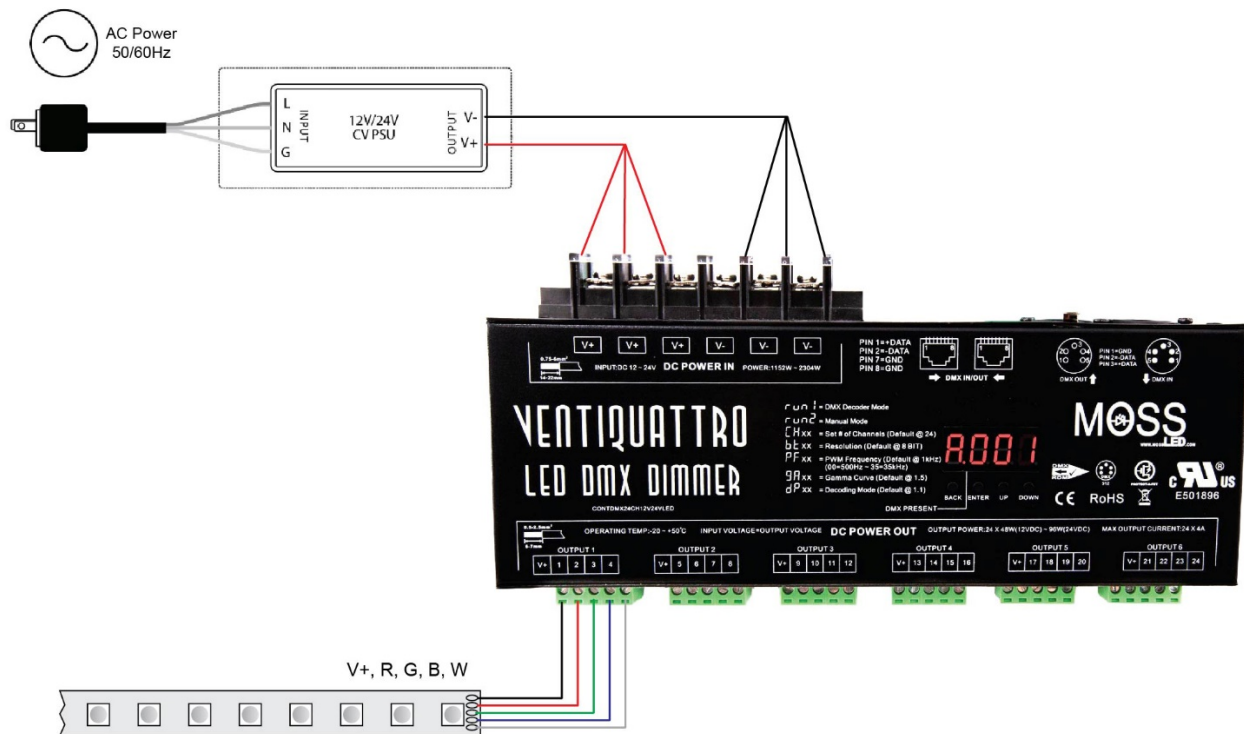
- a. Mains: AC circuit feeding the PSUs
- b. PSU or power supply unit or driver: an AC to DC converter feeding the controllers and LEDs
- c. A CV (Constant Voltage) PSU is capable of keeping the output voltage constant under any load condition up to the maximum rated current
- d. Controllers or Dimmers: devices capable of changing their outputs based on a remote or local control signal. They can have 1 or multiple independent output channels
- e. LED fixture: a luminaire typically containing several LEDs arranged in groups to match the dimmer specifications
- f. Maximum AC or DC load: maximum safe Volts / Amperes / Watts in an AC or DC circuit
- g. This manual refers to model CONTDMX24CH12V24VLED hardware revision 1.1

2 Safety notes

- It is recommended that the unit is installed in an electrical enclosure with input and output wires secured with strain reliefs
- Before commencing any installation or maintenance work, please disconnect the units from the mains
- Do not stack any object on top of it. A 10-15 cm clearance must be kept when the adjacent device is a heat source
- Make sure the installation components match the ingress protection (IP) ratings of the drivers, PSUs, LEDs, cabling etc.
- Do not install on combustible materials
- Current rating of an approved cable should be greater than or equal to the maximum connected load
- Make sure that the power supply has sufficient output power to drive the load(s) connected to it
- Make sure that your controller is capable of powering the luminaires.
- Make sure the total power supply AC requirement (under full load) is within the AC circuit capacity
- Long wire runs in the input and output circuits must be properly sized to prevent performance degradation, power loss, overheating, and voltage drop
- Do not open the drivers or controllers: there are no user serviceable parts inside
- Do not open the drivers or controllers: risk of electric shock
- Always refer to the unit's specifications
- Avoid installing electric equipment where mounting failure may result in personal injury and property damage
- Always refer to a Certified Electrician
- Always follow local Electrical Safety Standards and Guidelines
- Failure to follow above Safety Notes may cause personal injury and property damage

3 Installation

Typical wiring diagram (please see item 3.1 for details)



3.1 Wire Gauges

If drawing less than 30A load you can use single wires for the V(-) and V(+) connections; between 30 and 60A you should use 2 pairs; if above 60A you should use 3 pairs as above diagram.

Outputs Ch1 to Ch24: Use appropriate gauge wire capable of handling at least 10A.

In any case the wires must be appropriate for the distances between PSU / dimmer / loads.

Note: the dimmer electronics alone requires less than 0.5 Amp to operate.

3.2 Important notes

- 1: Our multi-channel dimmers typically have the positive as the common output polarity. For that reason, they supply all the current from all output channels. Wire gauges must be chosen accordingly!
- 2: Some dimmers have multiple input and output connectors to increase connector current capacity. They must be used whenever the current gets close to the connector maximum capacity
- 3: We recommend using one PSU per dimmer. If you plan to use more than 1 PSU per dimmer or more than 1 dimmer per PSU, please contact our technical department in advance.

Please refer to the unit's specifications / user manual for more details

4 Mechanical installation

- a. It is recommended that the unit is installed in an electrical enclosure with input and output wires secured with strain reliefs
- b. Do not stack
- c. A 10-15 cm clearance must be kept when the adjacent device is a heat source
- d. Use the provided mounting holes to secure the unit
- e. Make sure the ambient temperature is within specification
- f. Do not install on combustible materials
- g. Periodically check that all screws are tight (mechanical and electrical)

5 Settings for operating in Manual Mode at full power with minimum heat generation

- a. If the display shows A### (letter A followed by any 3 numbers) when you turn it on, follow this procedure:

1-press DOWN 4x to get PFxx

2-press ENTER

3-press DOWN to get PF00

4-press BACK

5-press DOWN 1x to get run1

6-press ENTER, then UP to change to run2 then BACK

You are in run2 now which is the manual mode.

7-press UP 1x to adjust ch1 power then ENTER, then either UP or DOWN until you get FL (which means Full Load or 100% power), then BACK 2x.

8-press UP 2x to adjust ch2 to 100% as above. Repeat until you have all desired channels set to full load.

- b. If display shows run2 when you turn it on, you will need to change from run2 to run1, adjust settings then go back to run2 as below:

1-press ENTER, DOWN then BACK. Display will go back to A###

2-follow previous procedure

6 Check list

- ❖ Mains AC circuit must be rated for the total power draw from all PSU(s) at maximum load
- ❖ Incoming and outgoing wires must be secured with strain reliefs
- ❖ PSU input volt / amp range must match the AC mains
- ❖ Each PSU input AC cable must be of appropriate gauge and rating for its maximum load
- ❖ PSU output specification must match dimmers and LED luminaires Volts / Amps requirements
- ❖ PSU output cables must match the total load of all dimmer(s) connected to it (all at maximum load)
- ❖ Each dimmer output cable must be rated to match all the LEDs connected to that individual output
- ❖ Individual channel and total dimmer loads must be within dimmer specification

7 Specifications

Parameter	Specification
DC Input voltage	12V to 24V (+ / - 5%)
Maximum Current	96A
DC Input connectors	40A max per position
Maximum Power	1152W @12V / 2304W @ 24V
Output Channels	24
Output Voltage	12V to 24V (+ / - 5%), PWM controlled. Output Volts match input Volts
Output Current per channel	4A max, internal 10A fuse (one per channel), short circuit shut-off
Output connectors	20A max per position, 4mm2 max / 12 AWG
Control signal current	DMX Standard (<250mA @ 7V)
Control signal connectors	2x RJ45, 2x 5 pin XLR, 1x 5 position terminal block
Ambient temperature	-20°C to +50°C
IP rating	20

8 Contact information

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9 Personal Notes (this area was intentionally left blank for your records)