

# Models DMX12DIM ELV Installation and Operations Manual



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## Product description

The DMX12DIM ELV is a 12 channel, 100 Watt per channel dimmer pack. It is fed by a single 120VAC 15A branch circuit. Each of the dimmers can be separately controlled using a DMX512-based lighting controller. The dimmers use MOSFET power devices. The dimmed outputs are Electronic Low Voltage (ELV) compatible using reverse phase (aka: trailing edge) control techniques. The DMX12DIM ELV is housed in an enclosure suitable for portable use or for mounting in a standard 19" rack. The DMX12DIM ELV occupies 1U of rack space. The DMX12DIM ELV provides grounded parallel blade output connectors.

## Safety warnings

- There are no user serviceable parts in the DMX12DIM ELV. Servicing should be referred to qualified service personnel.
- Do not connect or disconnect loads to the DMX12DIM ELV with the power on.

## Environmental

Operating temperature: 0-40° C

Operating humidity: 10-90% non-condensing

Indoor use only

## Electrical ratings

Input: 120VAC, 60Hz, 15A

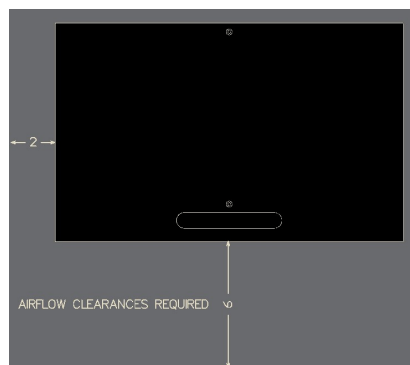
Output: 12 outputs, 120VAC, 100W each, 1,200W maximum total

## Certification

The DMX12DIM ELV is ETL Listed under safety Standard UL 508

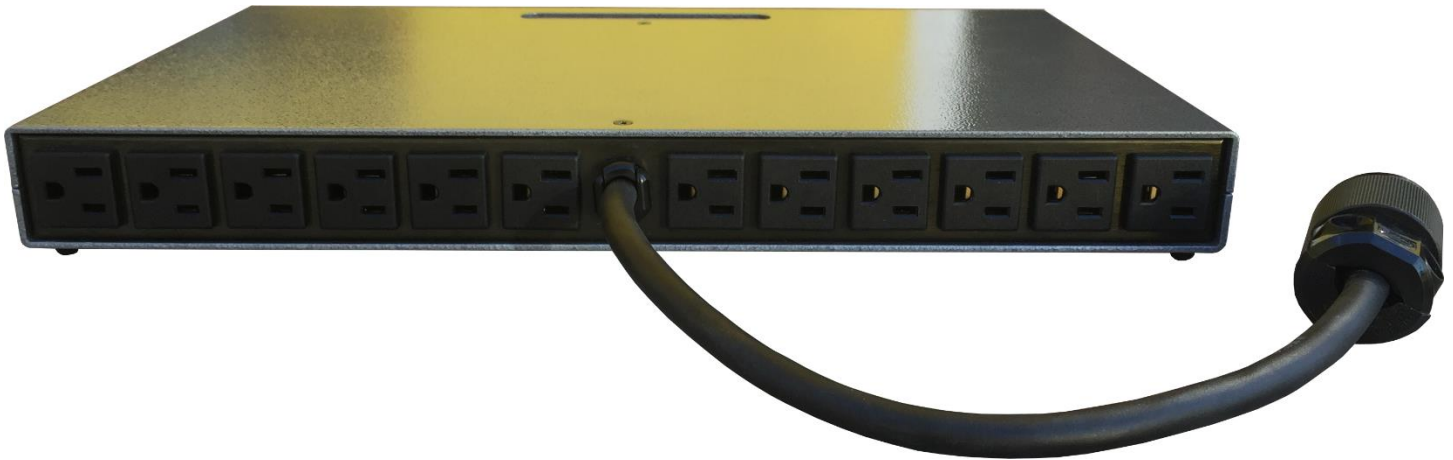
## Mounting/installation

The DMX12DIM ELV can be used as a portable unit or it can be mounted in a standard 19" equipment rack. Care must be taken to allow for unobstructed airflow around the unit. There must be at least 6 inches of clearance in front of the DMX12DIM ELV and two inches of clearance on the left side of the enclosure (as viewed from the front panel). No blank spaces are required above or below the DMX12DIM ELV when it is rack mounted.



## Power input (line) wiring

The DMX12DIM ELV should be connected to a standard 15A 120VAC grounded outlet. The outlet must be protected by an appropriate over-current protection device.



## Power output (load) wiring

Each output can supply a 100W (maximum) 120VAC load. The DMX12DIM ELV uses grounded parallel blade connectors (NEMA5-15). Cables should only be connected and disconnected while the dimmer outputs are off or the input power to the unit is removed.

## Control cable wiring

Standard 5 pin XLR cables should be used to connect DMX512 signals to the connectors on the front panel of the DMX12DIM ELV. A male input is provided and a passive female “thru” output is provided. There is no internal termination. The last device in the DMX512 daisy chain should be fitted with a DMX512 terminator.

Only pins 1, 2, and 3 are used by the DMX12DIM ELV, however all 5 pins are passed through to the “thru” connector.



## Selecting dimmer modes of operation

All dimmers in the DMX12DIM ELV are configured for reverse phase firing (ELV) operation. Individual dimmers may be set for forward phase firing or non-dim operation. Contact Doug Fleenor Design for guidance on how to change these configurations in the field.

## Setting the address switches

The front panel address switches are used to select the DMX512 starting address for the DMX12DIM ELV. Any starting address from 1 - 512 can be selected. The address shown on the switches will be the DMX512 address for the first dimmer output. The next 11 consecutive DMX512 levels will be applied to the remaining dimmer channels.

When the address switches are set to 000, the DMX12DIM ELV operates as if the address switches were set to 001.

The address switches are also used for a local test function described below.



## Local control

Local control mode is used to turn on an output without the use of a DMX512 signal source. To use local control, set the DMX address switches to 601 to turn on channel 1, 602 for channel 2, etc.

Setting the address switches to 699 will cause all outputs to go to full with no DMX512 signal present.

Setting the address switches to 698 will cause all outputs to go to full if a valid DMX512 signal is being received. All outputs will turn off while no DMX512 signal is present.

Setting the address switches to 697 will cause all outputs to go to full if any DMX512 level is above 1%. All outputs will turn off while no DMX512 signal is present.

## LED indicators

The LED indicators on the front of the DMX12DIM ELV have the following functions:

| LED label | Function                                                          |
|-----------|-------------------------------------------------------------------|
| SIGNAL    | On when DMX is present, flashes when local control is active      |
| MIMIC 1   | Tracks the current level of dimmer 1 for troubleshooting purposes |
| PWR       | On when power is on                                               |

## Loss of DMX512 signal

Upon loss of the DMX512 input, the DMX12DIM ELV will set all of its outputs to zero.

## Maintenance and cleaning

The DMX12DIM ELV fan intake on the front panel and the exhaust ports on the left side of the enclosure should be cleaned periodically (see photos below). The frequency of cleaning depends upon the working environment and the amount of time the dimmers are running. Compressed air and a soft cloth should be used to remove excess dirt and lint. Power to the DMX12DIM ELV must be disconnected while cleaning.



## Fan operation

The fan in the DMX12DIM ELV runs at all times when power is present.

## Warranty

Products manufactured by Doug Fleenor Design carry a five year parts and labor warranty against manufacturing defects. It is the customer's responsibility to return the product to Doug Fleenor Design (at the customer's expense) for service. Doug Fleenor Design will repair the unit and return it to the customer (at Doug Fleenor Design's expense). If a trip is necessary to the customer's site to solve a problem, the expenses of the trip must be paid by the customer.

1. Note that this warranty is against Manufacturing Defects. It does not include damage due to misuse or abuse. Most non-warranty repairs are made for a fixed \$30.00 fee.