

## Models 221E-WALL - 621E-WALL DMX512 Combine Units



### Safety Notice:

There are no user serviceable parts in the Model 221E-WALL - 621E-WALL series. Refer any service needs to a qualified service technician.

### Description:

All inputs are isolated from the output by optical couplers. Every input has its own power supply and line receiver. Indicators on each input display signal status. A 'Mimic 1' indicator displays the relative level of channel 1.

This series of combiners is designed to be mounted on any flat surface. Signal wires are connected to the unit using pluggable terminal block connectors.

This series of combine units allows multiple control consoles to be used to operate one set of dimmers, moving lights, etc.

### Connections:

**Line Cord.** The combiners are fitted with a non-detachable line cord with a male parallel blade connection.

The combiners are designed to work on any voltage between 100 and 120 volts 50/60 Hz, or from 220 - 240 volts. 50/60 Hz. Alternate power cords are available to adapt to local power outlets. If a choice of line voltages are available, selecting the lower voltage will allow the splitter to run cooler.

**DMX Inputs.** DMX input signals are applied to the DMX IN terminal block connectors labeled A - F.

**DMX Output.** The DMX output signal is available on the DMX OUT terminal block connector.

**Termination.** For maximum reliability each DMX512 control run needs to be terminated. All inputs to the combiner are automatically terminated. The output needs to be terminated at the end of its control run. Sometimes termination is built into the receiver. In other cases a terminator should be plugged into the feed-through connector of the last device.

### Indicators:

**Power Indicator.** The red POWER LED will illuminate when power is applied to the combine unit.

**Mimic 1 Indicator.** The green 'Mimic 1' indicator dims to a level representative of the level of channel one.

**Signal Indicators.** The green signal indicators (A - F) will illuminate when a valid DMX signal is being received on the associated input.

**Specifications:**

Baud rate: 250 Kilobaud

Input circuit: EIA-485 receiver protected by two self resetting fuses  
120 ohm input terminator protected by a self resetting fuse  
Four *transorb* diodes: two on +Data, two on -Data

Input signal: 0.5 volts minimum, 12 volts maximum  
Input can withstand up to 240 volts without damage, transients up to 5KV

Output circuit: "Slew rate limited" EIA-485 driver protected by two 1/10 amp fuses  
(Slew rate limited outputs reduce the errors caused by unterminated lines)

Output signal: EIA-485 driver yields an approximate 3 volt signal into 120 Ohms  
Outputs can withstand up to 12 volts without damage, transients up to 5KV

Connectors: 3 conductor pluggable terminal blocks

Isolation: 2500 volt optical coupler, 5000 volt split bobbin transformer

Power input: 100 - 120 volts or 220 - 240 volts, 50/60 hertz, 0.1 amp (24 watts)

Color: Silver hammertone

Size & Weight: 2.0"H x 10.5"D x 8.5"W, 4.9 pounds

**Limited Manufacturer's Warranty**

Products manufactured by Doug Fleenor Design (DFD) carry a five-year parts and labor warranty against manufacturing defects. It is the customer's responsibility to return the product to DFD at the customer's expense. If covered under warranty, DFD will repair the unit and pay for return ground shipping. 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.

This warranty covers manufacturing defects. It does not cover damage due to abuse, misuse, negligence, accident, alteration, or repair by other than by Doug Fleenor Design.

Most non-warranty repairs are made for a fixed \$50.00 fee, plus shipping.

**Doug Fleenor Design, Inc.**

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