

# WestPower 300™ DC Dimmer Pack

- 3 Channel DMX / Manual LED Dimmer Pack
- 10 Amps / Channel (25 Amps maximum/pack)
- DMX-512 / or Potentiometer Adjustable
- Liquid-Tungsten® Brightness Slewing



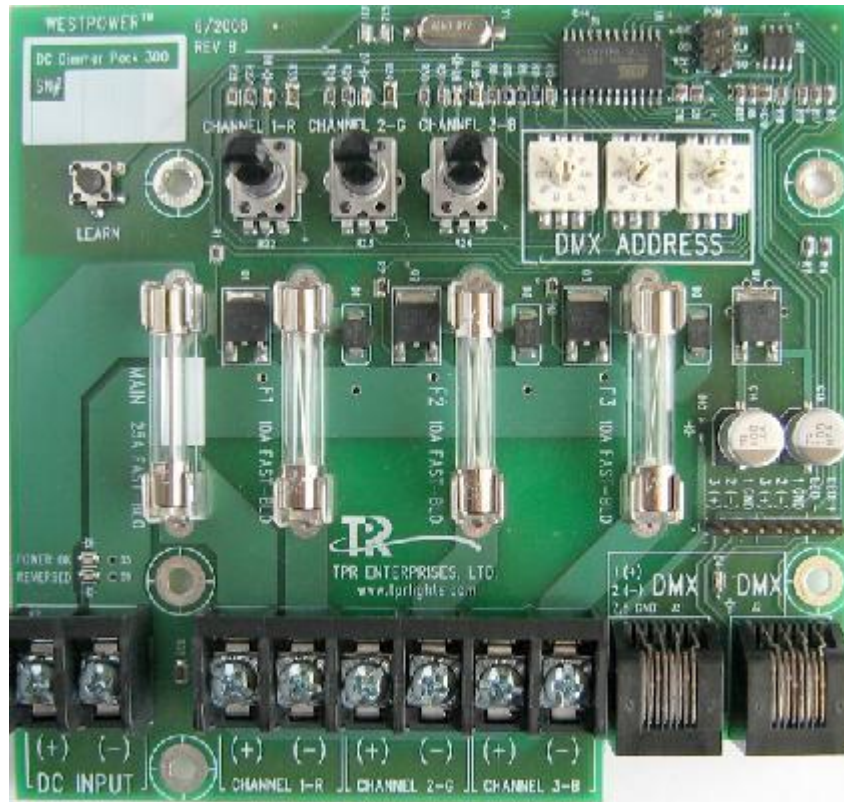
FRONT COVER  
SCREWS  
4 X 6-32

MOUNTING  
HOLES  
4 X #6

1/2" KNOCK OUTS  
4-BOTTOM 1-TOP

OPTIONAL  
STATUS LED

KNOCK OUTS FOR  
OPTIONAL XLR  
CONNECTORS



## Liquid-Tungsten® Brightness Slew

Liquid Tungsten is a software package that smoothes out the DMX steps, to make a LED act as if it were a quartz lamp.

## Auto Powered

The WestPower 300 circuitry derives its power from the external DC supply. No AC is supplied to the circuit board.

## 10 Amps / channel

LED Power: Externally supplied, 12-24 Volts DC.

Transient voltage suppression engages at 25 volts.

Leds must include current limiting resistors or constant current circuitry.

LED's must be capable of operation at a fixed voltage

## POWER INDICATOR'S

A Green LED indicated the DC power is on and the polarity (plus/minus) is correct.

A Red LED indicated the polarity is reversed\*.

\*NOTE: This condition will not damage the Westpower 300™

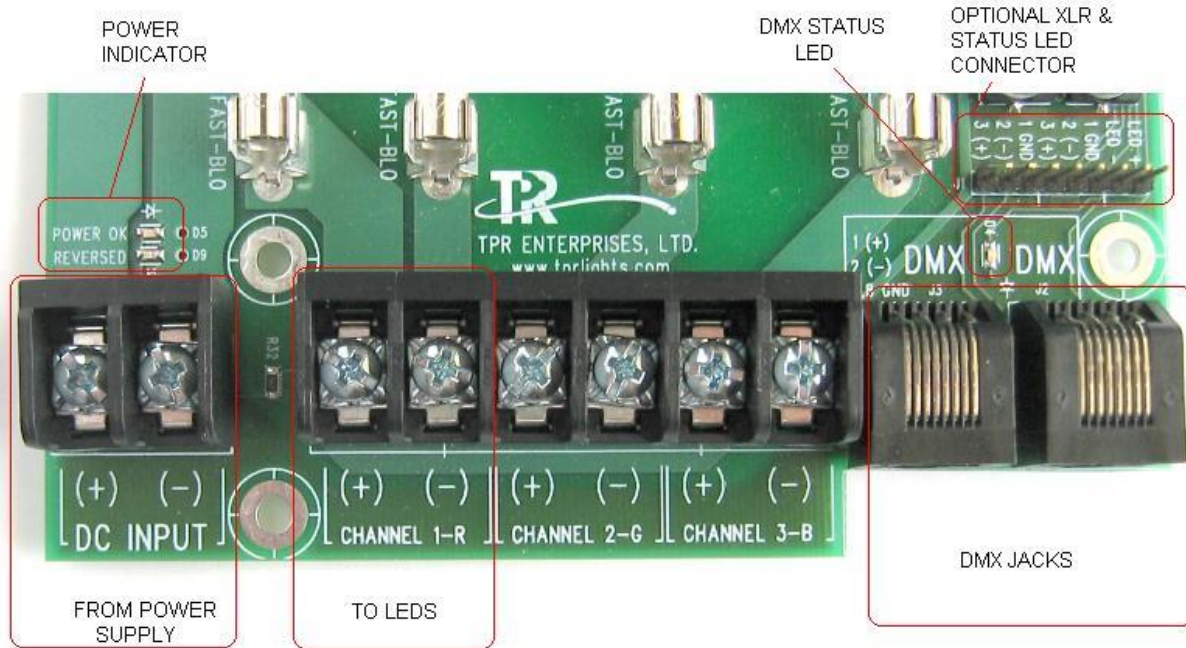
## DMX-512

Two RJ-45 connectors for input and output (feed through). Either RJ45 can be an input or feed through. DMX signals will pass through an unpowered unit.

Uses standard (not crossover) Ethernet cables.

## Status Led

The Status Led above & between the RJ-45's - when lit indicates the presents of DMX.



## DMX Address is selected using Rotary Switches

Channel 1 will be controlled at the address shown on the rotary switches

Channel 2 will be controlled at the address chosen by the rotary switches plus 1

Channel 3 will be controlled at the address chosen by the rotary switches plus 2



EXAMPLE DMX ADDRESS SET TO 016  
NOTICE THE POINTER ON THE SHAFT

## Selectable Modes

Selecting a special DMX address then pressing the “LEARN” stores the new mode into non-volatile memory.

After engaging any of the selectable modes, you must select a DMX address (001-512) or Stand-Alone Mode (000) to return to standard operation. No “learn” press required.

**Reset to Factory Default:** DMX address: 999 then press “LEARN”

## Channel to DMX Address modes:

DMX address: 701 \*(Default)

Ch-1 is at the DMX address,

Ch-2 is at the DMX address plus 1

Ch-3 is at the DMX address plus 2

DMX address: 702

All three outputs controlled from the one DMX address chosen by the rotary switches.

## Digital Output modes: Dim or Non-Dim

This changes the output from Pulse-Width-Modulation ( PWM ), to full On or Off ( Digital ).

This can be used to drive an external relay or similar device.

DMX data below 50% is off, above 50% is on. Requires a “LEARN” press to engage.

DMX address: 721 Ch-1 to PWM \*(Default)

DMX address: 722 Ch-2 to PWM \*(Default)

DMX address: 723 Ch-3 to PWM \*(Default)

DMX address: 731 Ch-1 to Digital

DMX address: 732 Ch-2 to Digital

DMX address: 733 Ch-3 to Digital

Channel to DMX Address modes remain intact.

See [Channel to DMX Address modes: 701-702](#).



## Stand Alone / Master

With the DMX address set to zero ( 0 0 0 ), the three pots control the level of their corresponding output channels. If you connect additional Westpower 300's (must be addressed at 0 0 1 ) to this pack's DMX output, using Ethernet or DMX cables, their outputs will mimic the outputs of the master dimmer pack, with the entire system controlled by the Master's pots. Either or both RJ45 connectors can be used as outputs from the Master.

*\*\*\*Note: no other DMX controller may be connected to this system while the Master pack is transmitting on the DMX daisy chain\*\*\**

# Pulse Width Modulation Frequency - 1000 HZ

## Demo modes:

Demo mode addresses are not stored with a “LEARN” switch press. No switch press is required to engage them. Simply set the DMX address to go into Demo mode.

**Demo mode 1.** Ch-1, 2, 3 Overlapped Smooth Up-Down, then all up, then all down, Repeat.

DMX address: **991** Demo mode 1, Fixed speed.

DMX address: **990** Demo mode 1, Speed is set by Potentiometer #2.

**Demo mode 2.** Ch-1 & 2 & 3 All Together Smooth Up then Down.

Ch-1 4096 steps from off to full on.

Ch-2 256 steps from off to full on, (standard DMX)

Ch-3 100 steps from off to full on. (some Consoles)

DMX address: **993** Demo mode 2, Fixed speed.

DMX address: **992** Demo mode 2, Speed is set by Potentiometer #2.

**Demo mode 3.** Ch-1, then 2, then 3 each Full On, Repeat.

DMX address: **995** Demo mode 3, Fixed speed.

DMX address: **994** Demo mode 3, Speed is set by Potentiometer #2.

**Demo mode 4.** Ch-1, then 1+2, then 1+2+3, then 1+2, then 1, then black, Repeat.

DMX address: **997** Demo mode 4, Fixed speed.

DMX address: **996** Demo mode 4, Speed is set by Potentiometer #2.

**Demo mode 5.** Ch-1, then 1+2, then 1+2+ 3, then 2+3, then 3, then black, Repeat.

DMX address: **998** Demo mode 5, Speed is set by Potentiometer #2.

**WARNING** Do not supply less than 12 volts DC or more than 24 volts DC. Higher voltage will cause damage to the Transient Voltage Suppression.

Using voltages beyond 12-24 Volts DC - voids the warranty.

### Operating Power

Derived from external DC power supply 100 mA control circuitry.

### Fuses

Input is fused at a Maximum 25 AMP Fast-Blow.

Each of the three outputs is fused at a maximum 10 AMP Fast-Blow.

### Wiring

DC power input & LED power outputs connections are made using captive screw terminals.

The circuit board has labels defining the input and output with the polarity

Note – if DC power input is incorrect (Negative & Plus reversed) the red LED will light

If DC power input is correct – the green LED above the barrier will light

### RJ-45 connectors

5-Pin, male & female, in and loop-through out.

Pin-1 DMX (+) Pin-2 DMX (-)

Pins 7 & 8 DMX GND

Pins 3, 4, 5 & 6 are pass through.

### Dimensions (H x W x D)

7” x 8.5” x 2”

### Operating Temperature

-20-122°F / -28-50°C

### Operating Humidity

5-95%, (Non-Condensing)

### Weight

Approx. 3.0 Lbs.

### Finish

Enclosure Steel Black Powder Coat Paint

# **USER INFORMATION**

DO NOT ATTEMPT TO INSTALL OR USE WESTPOWER 300™ UNTIL YOU READ AND UNDERSTAND THE INSTALLATION INSTRUCTIONS AND SAFETY LABELS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR, INSTALLER, PURCHASER, OWNER AND USER TO INSTALL, MAINTAIN AND OPERATE WESTPOWER 300™ IN SUCH A MANNER AS TO COMPLY WITH ALL STATE AND LOCAL LAWS, ORDINANCES, REGULATIONS AND THE AMERICAN NATIONAL STANDARDS INSTITUTE SAFETY CODE.

DO NOT MODIFY OR ALTER THE WESTPOWER 300™.

CONFIRM THE VOLTAGE/CURRENT OF THE DC POWER SUPPLY REQUIRED FOR THE LED'S TO BE CONTROLLED.

12-24 VOLT DC ONLY!! OPERATE WITHIN SPECIFIED DC VOLTAGE.  
SEE PRODUCT LABEL ON UNIT.

ENSURE THAT POWER IS DISCONNECTED BEFORE INSTALLING, WIRING OR SERVICING. DO NOT HOT SWAP. ENSURE THE WESTPOWER 300™ IS OFF BEFORE CONNECTING OR DISCONNECTING FIXTURES.

REMOVE COVER TO REPLACE BLOWN FUSES.  
SHUT POWER OFF BEFORE REPLACING FUSES  
USE ONLY RECOMMENDED FUSES. SEE PRODUCT LABEL.

PRODUCT SERIAL # CAN BE FOUND ON PRODUCT LABEL ON UNIT CIRCUIT BOARD.  
PLEASE HAVE THIS SERIAL # AVAILABLE WHEN CALLING FACTORY.

MOUNTING HOLES PROVIDED ON REAR OF CHASSIS – TO THE LEFT & RIGHT OF CIRCUIT BOARD USE FOUR #6 SCREWS

INSTALLATION OF WESTPOWER 300™ MUST BE DONE WHILE CONFORMING TO ALL APPLICABLE NEC AND LOCAL ELECTRICAL AND SAFETY STANDARDS. THE POWER SUPPLY MUST BE UL OR ETL LISTED. ONLY QUALIFIED PERSONNEL SHOULD BE ALLOWED TO PERFORM INSTALLATIONS.

FOR EXTERIOR USE, WESTPOWER 300™ MUST BE ENCLOSED IN WATER RESISTANT ENCLOSURE. CONSULT FACTORY. DAMAGE BY CORROSION WILL NOT BE HONORED AS A MATERIALS DEFECT CLAIM. IT IS THE USER'S RESPONSIBILITY TO PROVIDE SUITABLE PROTECTION AGAINST CORROSIVE AGENTS SUCH AS MOISTURE AND CONDENSATION AND OTHER HARMFUL ELEMENTS.

THE INSTRUCTIONS AND PRECAUTIONS SET FORTH IN THIS USER GUIDE ARE NOT NECESSARILY ALL-INCLUSIVE, OR RELEVANT TO ALL APPLICATIONS AS TPR CANNOT ANTICIPATE ALL CONCEIVABLE OR UNIQUE SITUATIONS.

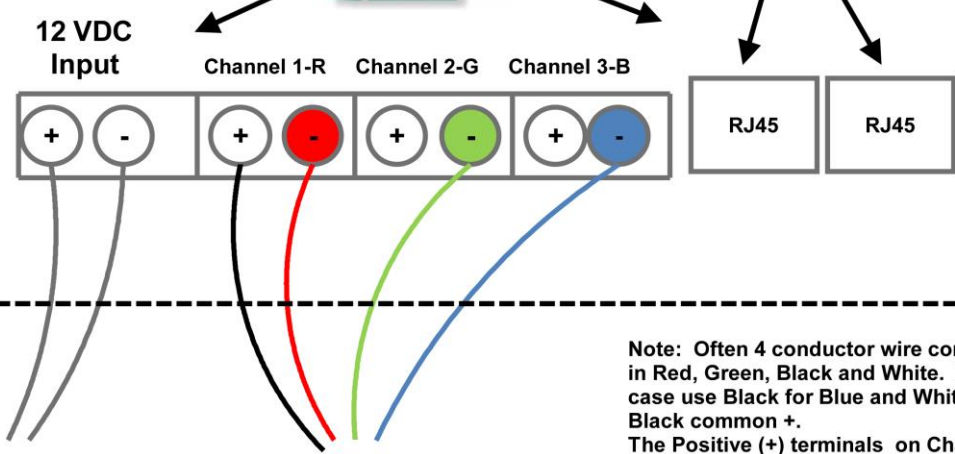
# Westpower 300 Terminal Blocks



DMX Jacks. Doesn't matter which you use for In and Out.

Pin 1 = DMX +  
Pin 2 = DMX -  
Pins 7,8 = Ground

(Stay consistent throughout your chain of Westpowers).



To Power Supply. Up to 300W Max. Maintain Polarity!

4 Conductor to RGB Tape Light.

Note: Often 4 conductor wire comes in Red, Green, Black and White. In this case use Black for Blue and White for Black common +. The Positive (+) terminals on Channels 1,2 and 3 are bussed so it doesn't matter which you use.

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