



TPR ENTERPRISES, LTD.

DMX WALL CONTROL • WC-DMX-S

1 Zone for 4 DMX512 Dimmers Logic with 5 Scenes

Dimming and Animation Controller

DMX512 compatible



USER MANUAL

DMX WALL CONTROL • WC-DMX-S

Maximum Outside Dimensions

MODEL	WIDTH	HEIGHT	DEPTH	GANG
DDL15	2.400" 61 mm	4.600" 117 mm	1.650" 042 mm	Single

DEPTH (D) includes circuit board with components

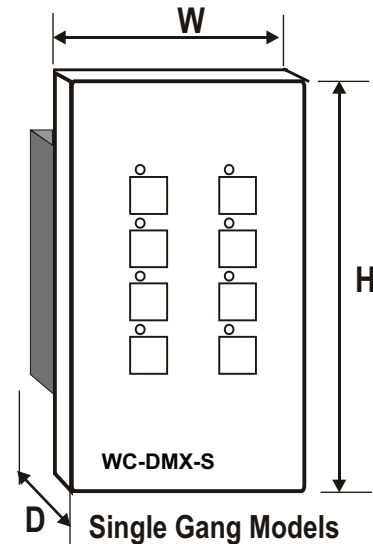


Fig. 1

INTRODUCTION

The **WC-DMX-S** is a one zone control for 3 or 4 **DMX512** channels with 5 preset levels (5 scenes). This new design employs the latest electronic technology and presents a control panel with a sleek modern look and simple to use controls. The **WC-DMX-S** is designed for applications requiring a master dimmer control for several **DMX512** dimmer loads. It is compatible with our line of **DMX512** dimmers or any other manufacturer's. The **WC-DMX-S** could be used to control a multitude of our LED dimmer modules.

WC-DMX-S FEATURES

- DMX512 standard output
- 1 Zone Logic controls DMX512 dimmers
- 5 levels (scene) programmable
- Blackout Switch
- Nonvolatile Memory
- Simple Pushbutton Operation
- LED Indicators

APPLICATIONS

- Architectural & Decorative Lighting
- Landscape Lighting
- Museums and Art Galleries
- Used with TPR DMX512 DC dimmers (LED Dimmers)

Physical and Electrical Specifications

Back Plate:	Metal Construction
Dimensions:	See Table Above
Power:	Max. 120 mA at 10 VAC or VDC
Data Output:	RS485 Compliant
Output Drive:	Standard RS485
Data Format:	Standard DMX-512 Protocol
Data Retention:	10 years, no batteries required
ESD Protection:	15 KV on data input and output
DS Port:	hard wired
	Available with pigtail DMX512

DMX512 DIMMER Packs

The **WC-DMX-S** requires an external dimmer pack with a DMX cable. Any DMX512 compatible dimmer may be used. TPR Enterprises, LTD. manufactures high quality low cost DMX512 dimmer packs.

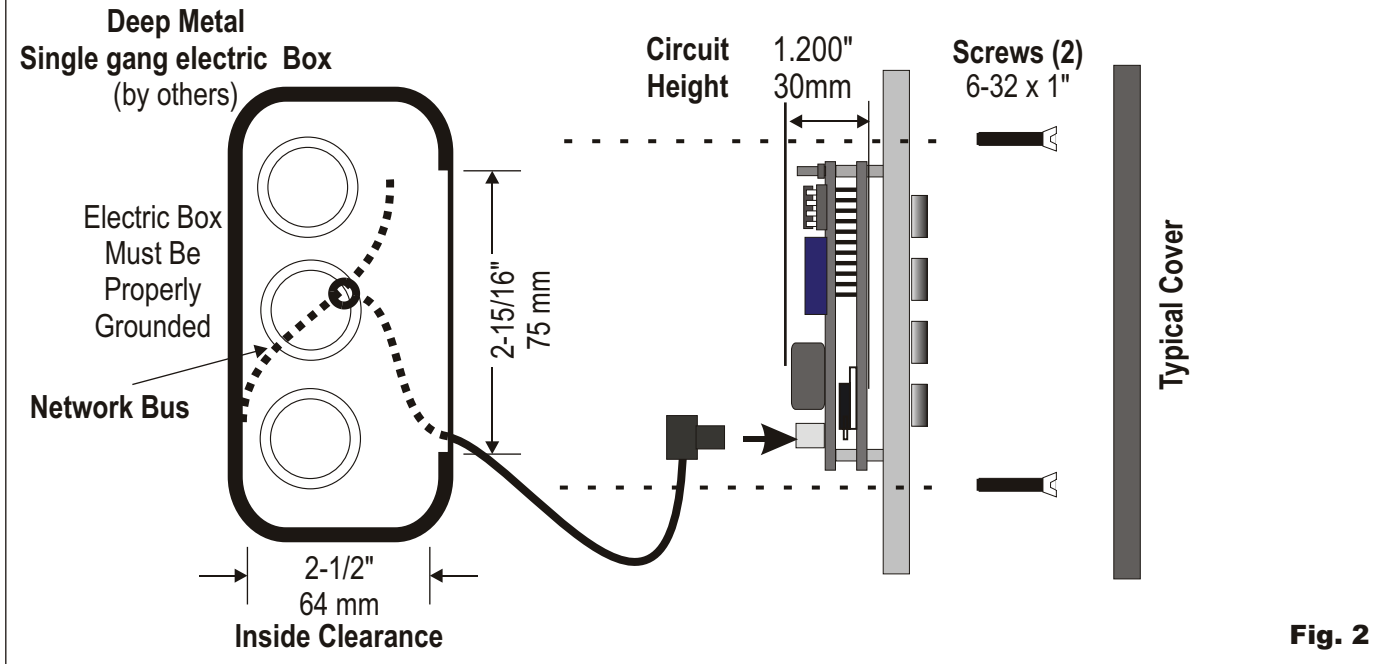


Fig. 2

Mounting requirements

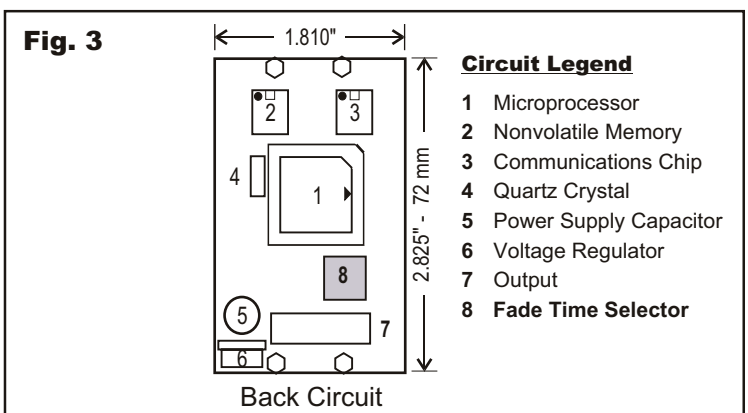
- The **WC-DMX-S** mounts in Single-gang deep electric box.
- To avoid damage to equipment due to electrostatic discharge use Grounded Metal Boxes only. Or ground the chassis of the WC-DMX-S.

Wiring Notes

- All wiring between the WC-DMX-S and dimmer packs is low voltage (NEMA Class 2) and must be a shielded twisted pair cable.
- Standard industry DMX512 cables may be used with the WC-DMX-S.
- Do not run DMX cable in the same conduit with non-class 2 circuits.
- Installation must conform to local and/or NEC code requirements.

Ordering Information

WC-DMX-S: 1 Zone /4-Channel
Dimming Controller, 1-Gang Size



Circuit Legend

- 1 Microprocessor
- 2 Nonvolatile Memory
- 3 Communications Chip
- 4 Quartz Crystal
- 5 Power Supply Capacitor
- 6 Voltage Regulator
- 7 Output
- 8 Fade Time Selector

A - General Information

The **WC-DMX-S** controllers use low-power electronic components and do not directly connect to high voltage supply or electric loads. They are powered by an external low-voltage transformer. The loads connect to a separate DMX512 compatible dimmer pack(s). The **WC-DMX-S** controls the outputs of the dimmer pack(s) by sending a series of digital dimming levels over a low voltage cable. Several DMX dimmer packs may be connected to the same control cable in a daisy-chain configuration. The DMX information is received by all dimmers and each pack extracts and uses the portion of the information that is intended for it. This is accomplished by setting each dimmer pack to a different DMX address by way of address selectors. It is possible to have several dimmer packs set to the same address when controlling loads that exceeds the dimmer's output capacity. Loads may be broken into smaller sections and still be controlled as a single load by any particular DMX channel.

B - WC-DMX-S Output

The information sent by the **WC-DMX-S** is in accordance with the DMX512 standard control protocol. The **WC-DMX-S** sends control information over the first 4 DMX addresses. All remaining addresses, up to 512, are sent a DMX off-level. Figure 4 below shows the various DMX outputs generated by the **WC-DMX-S** according to the number of channels setting.

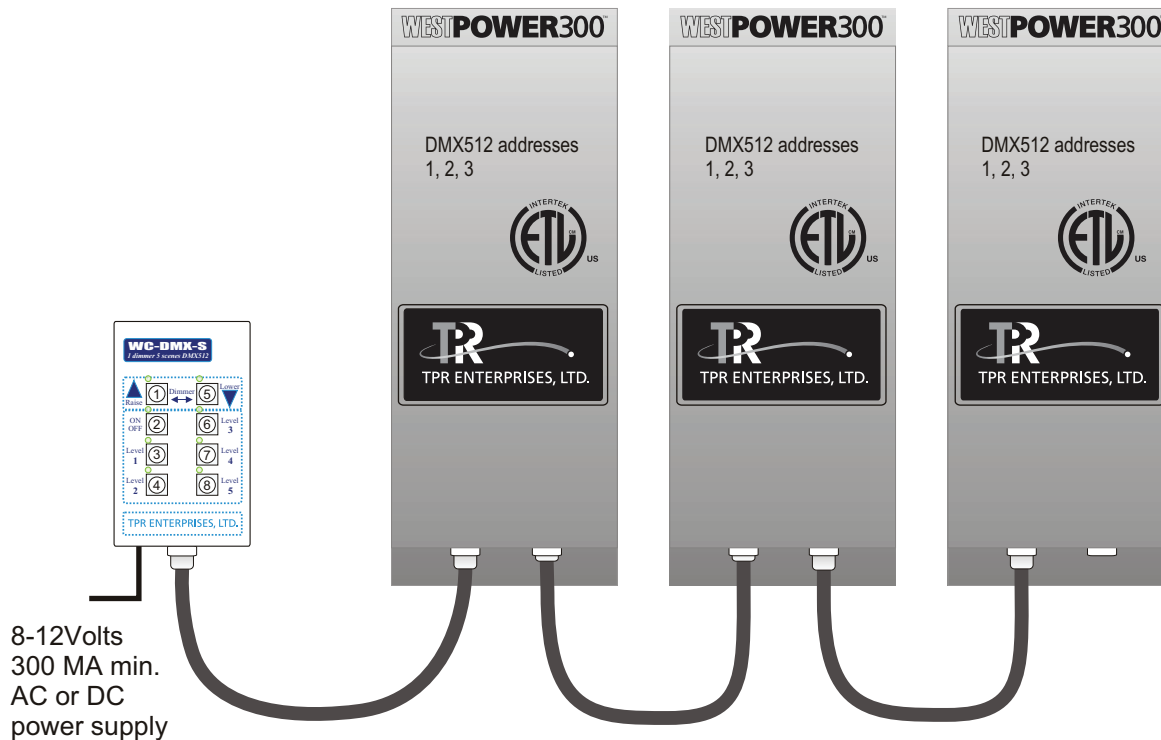
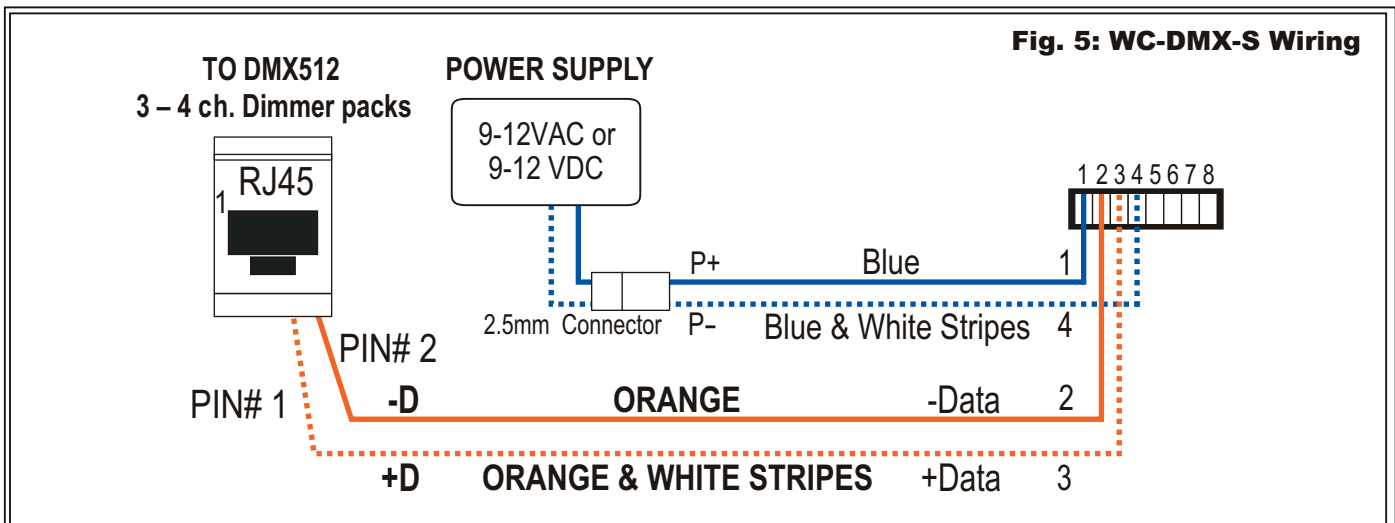


Fig. 4

C - Installation Instructions (See Figs. 5 & 6 below).

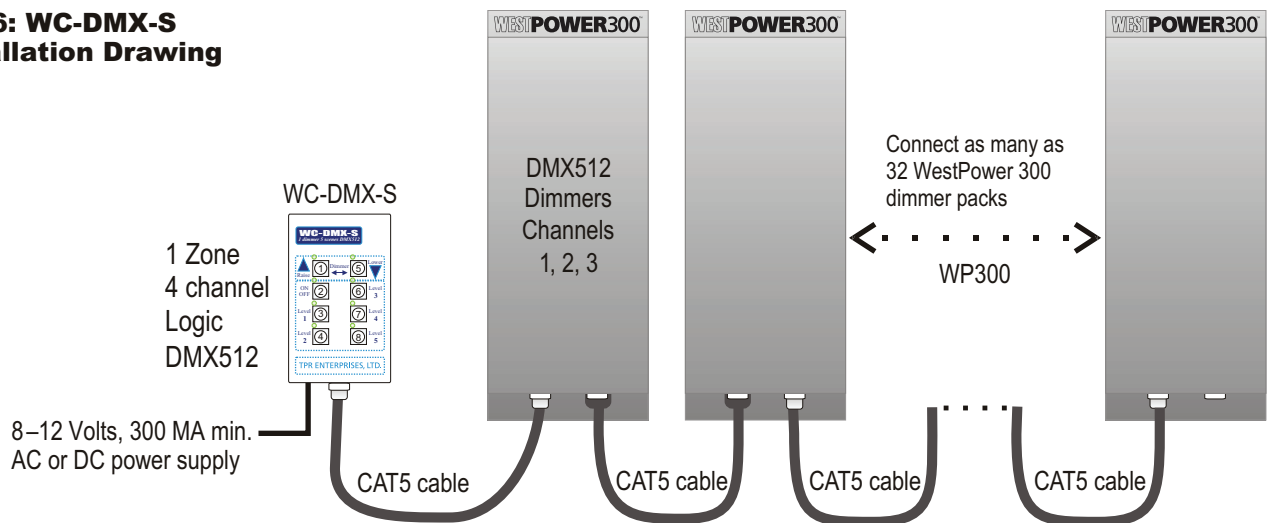
1. Install the **WC-DMX-S** in a convenient location. Fig. 6 shows a **WC-DMX-S** wiring. **WC-DMX-S** is mounted in a deep single gang box and hard wired to DATA and 9V powerthrough a 2 twisted pairs cable (See Fig. 2).
2. Provide 8–12 volts AC or DC to power the wall control. You may use a supplemental power supply or transformer. You may also use the 12 volt DC generated from one of our PS series power supplies that is powering the LED dimmer/tapelight.
3. Install the DMX dimmer pack and follow the wiring instructions in its user manual.



WC-DMX-S DMX512 DATA and Power Connections

The **WC-DMX-S** is supplied with a pigtail with 4 wires to be spliced to the DATA/9VAC bus as shown in FIG 6. The **WC-DMX-S** is to be installed in a single Gang electric box as shown in FIG # 2

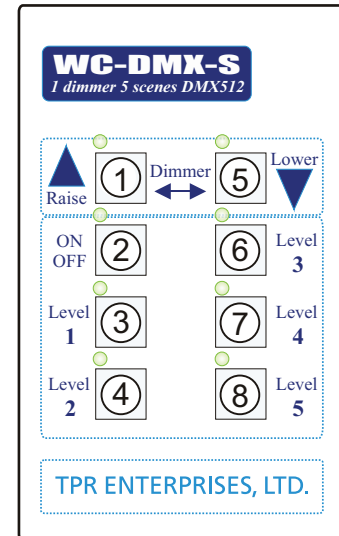
Fig. 6: WC-DMX-S Installation Drawing



I. Introduction

The WC-DMX-S DMX512 is a 1 ZONE dimmer addressed to control the first 4 DMX512 channels 1 to 4. It allows the storage and recall of 5 Level presets (scenes).

**Fig. 7:
The WC-DMX-S
Front Panel**



II. The Control Panel

Buttons # 1 & 5 Dimmer control

Push and hold Button # 1 to raise the dimmers to the desired level.

Push and hold Button # 5 to Lower the dimmers to the desired level.

The level of the outputs can be adjusted to any level between 0% and 100% by utilizing buttons 1 & 5.

The LED above button # 1 will come On when the Level is between 1% and 100 %.

The LED above button # 5 will come On when the Level is between 0% and 99 %.

Button # 2 ON/OFF

Push and release Button # 2 in order to Toggle the dimmers from their current Level to OFF (0%)

The LED above button # 2 comes ON to indicate that the dimmers are OFF.

Buttons # 3, 4, 6, 7 & 8; Level Presets (scenes)

Buttons 3 (Level 1), 4 (Level 2), 6 (Level 3), 7 (Level 4), 8 (Level 5) are preset level (scene) buttons. Pushing and releasing them will recall a stored Level and send it to the dimmers.

To adjust the fade time use selector on back of unit. 0 = instantaneous, 1 = slowest, F = fastest.

Programming of the scenes is performed as follows:

The **WC-DMX-S** has a default lock for the Level Presets to avoid overwriting by mistake.

To unlock the scenes push the recessed reset button (between buttons (1 and 5) under face plate). Or power down the unit.

During the Reset cycle, while all LED indicators of the WC-DMX-S are ON, Push and Hold simultaneously Buttons 1 & 5 until the LED indicators go off.

This will unlock the scenes for level programming.

Adjust Light levels with buttons 1 & 5 to get the desired Level. Press and hold any of the Level Buttons (3, 4, 6, 7, 8) till the LEDs on the panel light up one time (after 5 seconds) to record the level.

Repeat till all 5 scenes are programmed.

Relock scenes by resetting WC-DMX-S.