Instructions Manual
PD405D

Quadrant *is a trade mark from* **LEID Lda.**

This product was manufactured by LEID Lda.
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Quadrant

The Switches should be those with Weights 64+8+4+2+1, or in other words Switches Nrs. 7, 4, 3, 2, 1.

In order to prevent the unit from external interferences, the Dip-Switches are scanned only at Power-On. So, if you change Dip-Switch configuration after Power-On, no change should be noticed. To validate new switch configuration you should turn Power-Off and On, or use the easiest way: Reset the Unit turning Switch Nr 10 On and Off (this is most important if you are on the ceiling, and the General M.C.B. is far from).

The unit is now ready to work.

TECNICAL SPECIFICATION

Max Power Output: 1,200W @ 240Vac per Channel

Protocol: DMX 512 (XLR-5)

Internal Decoder Unit: Micro-Controler

Air Cooling: Convection

Protection: 6.3 Amp. Fuse (S Type) per Channel.

Congratulations for purchasing your new **PD405D** from ***Quadrant***. This device is mainly designed for professional fixed installations, such as Lighting Control in Discos, Bars, or any other application were a small appliance is needed.

PD405D from ***Quadrant*** is a Four Channel Digital Dimmer Pack projected to achieve several applications… And for that purpose we have designed a special and versatile metal case that allows you to install it on a Rack mount Panel (Rear or Front) or even on a wall or ceiling.

To achieve DMX 512 Standards, input - output signal is made through a 5 Pin XLR (male and female), and a 16MHz Micro-Controller rules the DMX decoder. A Bi-colour LED informs the user if the unit is ON (LED = Red), or if a valid DMX is present at the INPUT (LED = Green). All four channels have monitoring LED's, and Triac triggering signal is transmitted through four 600V. Opto-Couplers.

All output power connectors are so robust, they are prepared to deliver an impressive 40 Amps. current.

On the **PD405D** you select the DMX channel through a normal DIP-Switch.

POWER INSTALLATION

First you need to check you have enough power to supply all units you are planning to install. Remember each unit, at maximum load, needs 25 Amperes. As those units are cooled by convection you need to find an appropriate place to install them.

A bad choice (not enough air flow) can eventually create overeating triac problems.

The user should remember that any dimmer should be supplied with correct cables (if possible with over-dimensioned section, specially Neutral cable), and the connectors should be well screwed, in order to avoid contact eating problems.

DMX512 INSTALLATION

The user should consider that DMX512 signal is a data signal, not an audio signal, and therefore should be treated with some care.

We recommend the use of a twisted pair data cable instead of a Microphone cable… Nowadays those data cables have such a small price that you can't afford to have data transmission problems.

Like other DMX equipment, **PD405D** has no internal termination option, though, **it's very important you terminate the last unit of your DMX chain with a 120 Ohm resistor between PIN's 2 and 3**. If you do not follow this rule, specially if you are using "long" cables, flickering due to signal reflection, or even an incapacity of legal DMX signal detection could happen.

XLR-5 connector should be wired as follows:

PIN 1: Ground
PIN 2: Data –
PIN 3: Data +

DMX CHANNEL SETUP

To select the DMX Channel, you should find the right switch (or switches) to turn on or off.

The first 9 Dip Switches are controlling the 9 Address Bits that can give 512 combinations:

Switch n.1 = Weight 1
Switch n.2 = Weight 2
Switch n.3 = Weight 4
Switch n.4 = Weight 8
Switch n.5 = Weight 16
Switch n.6 = Weight 32
Switch n.7 = Weight 64
Switch n.8 = Weight 128
Switch n.9 = Weight 256

Suppose you want to Setup one unit to DMX Channel 79:

1- Find the highest weight less than 79: ***64***.
2- Add to 64, a weight to have the best approximation under 79: ***64+8=72***.
3- Add to 72, a weight to have the best approximation under 79: ***72+4=76***.
4- Add to 76, a weight to have the best approximation under 79: ***76+2=78***.
5- Add to 78, a weight to have the best approximation to 79: ***78+1=79***.