CONTROLLER

LATAB
Industrial LED Lighting

Installation and users guide

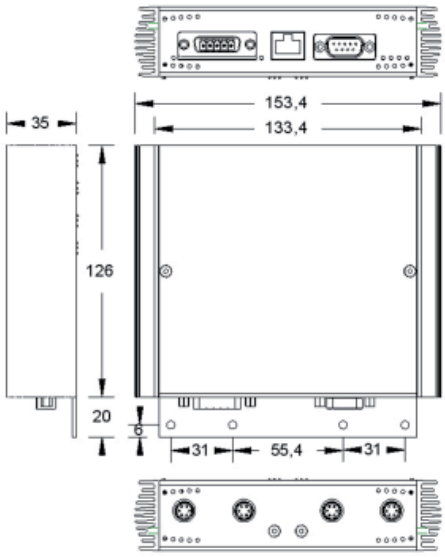
Rev 1.1 (2012-09-24)

Steady State, 4 Ch, 1 A, PAD2 4436/1 Ethernet operated

This package consists of:

-PAD2 4436/1, Steady State control unit.
-LKA1 1431, Power cable, 5m.
OPTION: LKA1 1033T Trigg. cable, 5m.

Specifications	
Voltage supply	24 VDC (±10%)
Current requirement	max. 2.5 A
Protection class	IP30
Operation temperature	0°C ....+65 °C
Storage temperature	-40°C....+80 °C
Storage humidity	max. 80%
Power output	max. 1 A
Light intensity	0 to 100%.
Communication	Ethernet



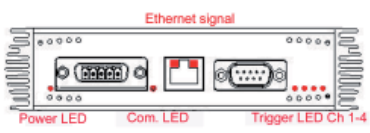
Warning!
Do not connect to other than 24 V DC!

Power cable Phoenix 5-pin connector		
Red	24 VDC	Pin 5
Black	0 V	Pin 4

Trigger cable 9-pin D-sub	Tr+ white cable	Tr– brown cable
Channel 1	Pin 1	Pin 6
Channel 2	Pin 2	Pin 7
Channel 3	Pin 4	Pin 8
Channel 4	Pin 5	Pin 9

Trigger input: Optically isolated
Range: 5-24 VDC, 20mA.

LED indication



Light head connector:

Pull back the spring-loaded housing before connecting and disconnecting.

EEC compatibility:
This product, PAD2 4436/1 follow the EG-directive for EMC-compatibility, 897336, additional 9321/EEG and 93/86//EEG

Member of the Polytec organization

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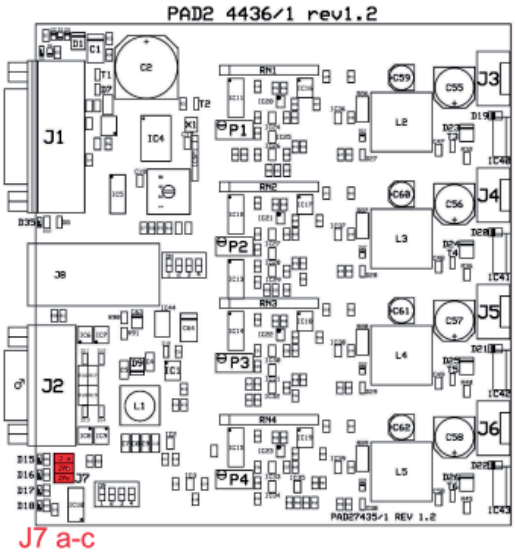
Adjustable settings:

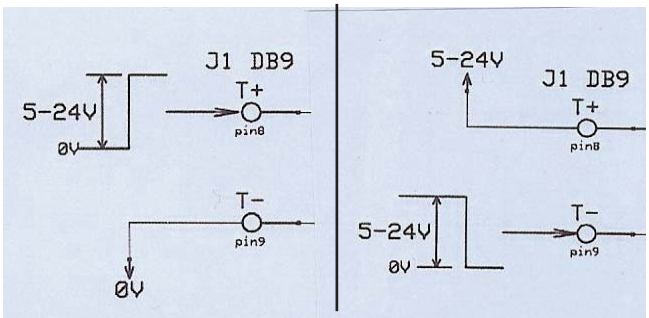
- Light Intensity; 0 - 100 %. 0 - 200 % in Double Intensity Mode.
- External On/Off control (or Long Flash) Mode.

Installing jumper J7a-c, see fig. below, enables Ch 2-4 to be triggered simultaneously with the master channel Ch 1.



Trigger configuration

Positive edge | Negativ edge



Ext. On/Off control (Long Flash) mode.

This feature enables remote control; light head ON/OFF following the state of an input signal. As long as the trigger signal is applied the light head output is enabled.

200% light intensity.

At Double Intensity, 200% (DI) mode, the maximum ON-time is five seconds after which the controller automatically turns OFF the light head for five seconds in order to cool down.

Note:
Keeping the unit continuously set to the Double Intensity mode combined with turned on light head (from using either cmd 01 or 03 + trig. signal applied) will result in a slow oscillation turning the light on and off, in periods of five seconds each.

Ethernet interface:

The Ethernet interface concists of a module with everything needed housed in a single RJ45 package manufactured by Lantronix.
The unit is factory configured for dynamic IP addressing. However, a fixed address is recommended when installed in the application.
To assign/change IP address use special soft ware “Device Installer” on Lantronix.com: **http://ltxfaq.custhelp.com/app/answers/detail/a_id/644** or available on the USB-mem. stick delivered with the controller.
This software is also helpful when using LATAB PC-control software. It detects the connected unit and displays the assigned IP addresses which is then to be entered into LATAB PC Control.
Please referr to ”ReadMeFirst.doc” for installation guidence.

Factory default settings:

- IP address: dynamic (other on request).
- Port no 10001.

PAD2 4436/1 control protocol

The control protocol is of binary type. The commands do NOT utilize header nor termination characters. The commands are listed below, presented in HEX format.

Note: The commas and spaces in the examples are for byte separation only - not parts of the actual command.

Global commands - affecting all channels:

00 = Light Head outputs OFF. One byte cmd.

01 = Light Head outputs ON. One byte cmd.

02, (00 - FF) x 4 = Set Intensity, 0 - 100% for ch1-4. Five byte cmd.

03 = Set External On/Off (or LF) mode On. A trig. signal is required to turn on the light. **The unit will NOT respond to the On, Off commands in this mode.** One byte cmd.

04 = Set Double Intensity (DI) mode ON. One byte cmd.

05 = Set Normal mode (LF & DI = OFF). One byte cmd.

06 = Save settings. All settings stored in EEPROM to be recalled at power-on. One byte cmd.

Example - Set Intensity (5 bytes):
02, FF, FF, 7F, 7F => Ch 1&2 = 100%, Ch 3&4 = 50%.

Single channel commands:

Byte **1** = Command (cmd):

00 = Light Head output OFF.
01 = Light Head output ON.
02 = Set Intensity.
03 = Long Flash (LF) mode ON.
04 = Double Intensity mode ON.
05 = Normal mode (External On/Off =OFF)

Byte 2 = Channel ID;

01-04.

Byte 3 = Intensity data - cmd 02 only:

00 - FF = 0 - 100% light intensity.

Example 1:
00, 01 => Turn light OFF - Channel 1.

Example 2:
02, 02, FF = Set intensity - Channel 2 = 100%.
Controller to host messaging (ASCII):
“OK” = Valid command received and executed.
“Sx” = Start of 5 sec. light. Shut-down after 5 sec.
“Nx” = End of 5 sec. shut-down.
x = Channel ID.

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