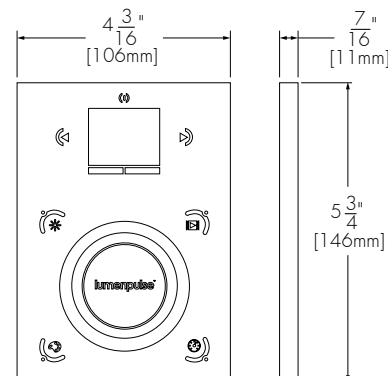
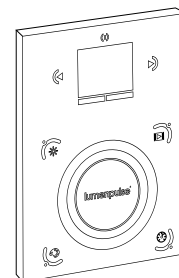


Client _____ Project name _____

Order# _____ Type _____ Qty _____

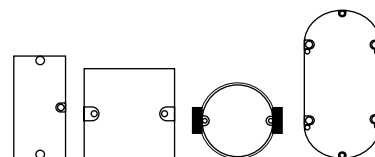
FEATURES AND BENEFITS

- Flat wall mounted lighting controller
- Can be used without a computer in stand alone mode
- Universal mounting plate compatible with most electrical backboxes
- MINI-USB connection for software programming
- Touch sensitive control panel
- 2 DMX universes (1024 channels)
- Unlimited memory via Micro SDCARD
- Integrated clock/calendar
- RS 232 serial and I/O ports
- Universal infrared receiver
- Standard with ETHERNET card



PACKAGE CONTENT

- Lumentouch hardware (stand alone wall mounted DMX controller)
- Mini-USB cable
- Micro SDCARD and adapter
- UL listed 6V DC power supply (100-240V AC input voltage) with connector block for DMX connection
- Compatible with Windows (XP, VISTA and 7, 32-bit or 64-bit)
- PDF User manual available for download on the Lumenpulse website
- Troubleshooting Tips document available for download on the Lumenpulse website
- Lumenstudio programming software available for download on the Lumenpulse website (Hardware manager is part of the Lumenstudio Software download)



Universal back mounting plate

Hole pattern to fit most standard junction boxes

*Extended back boxes are recommended for all installations.

HOW TO ORDER

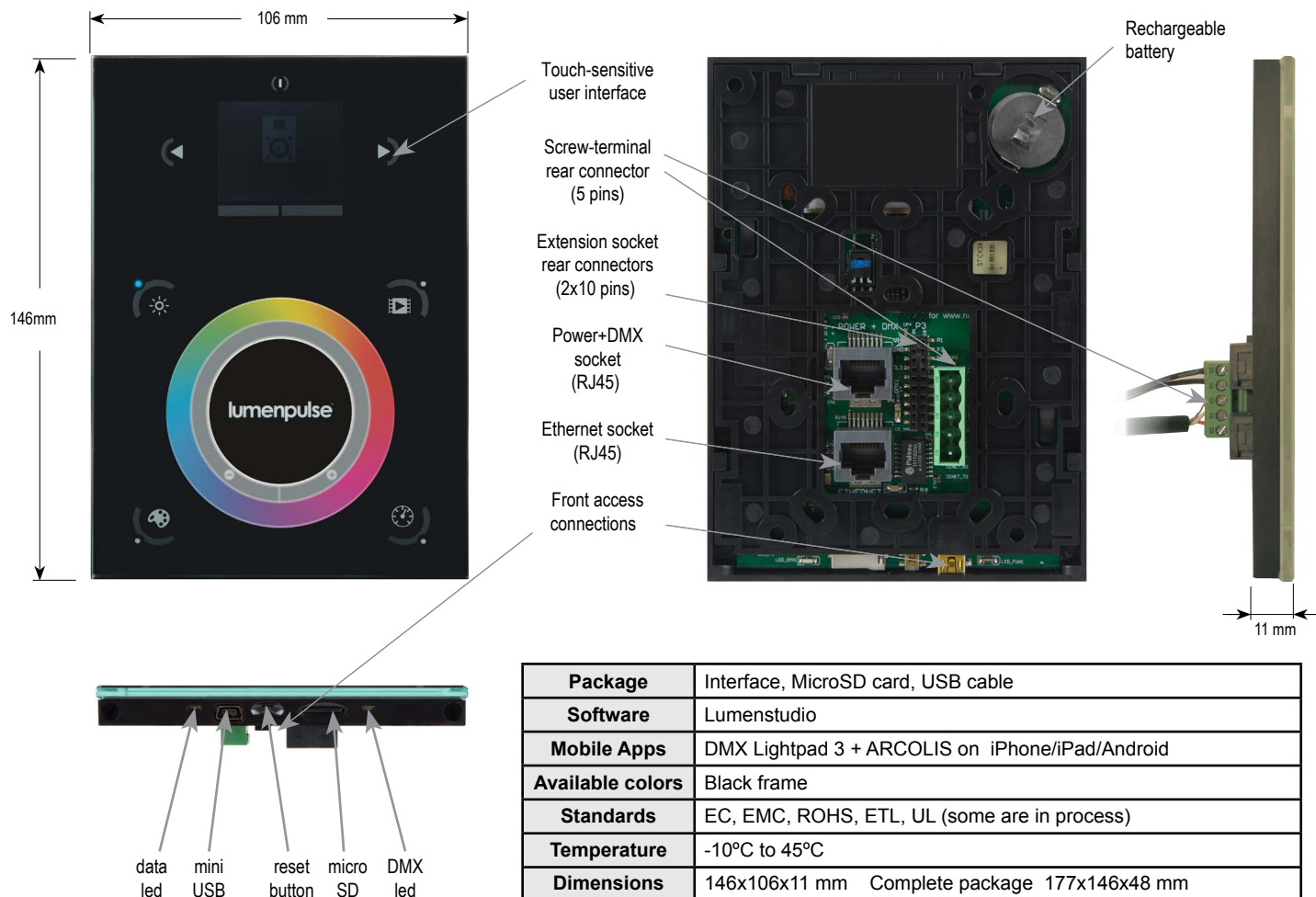
LTO2

Housing

1

* Please remove protective film before use to ensure proper operation of the controller.

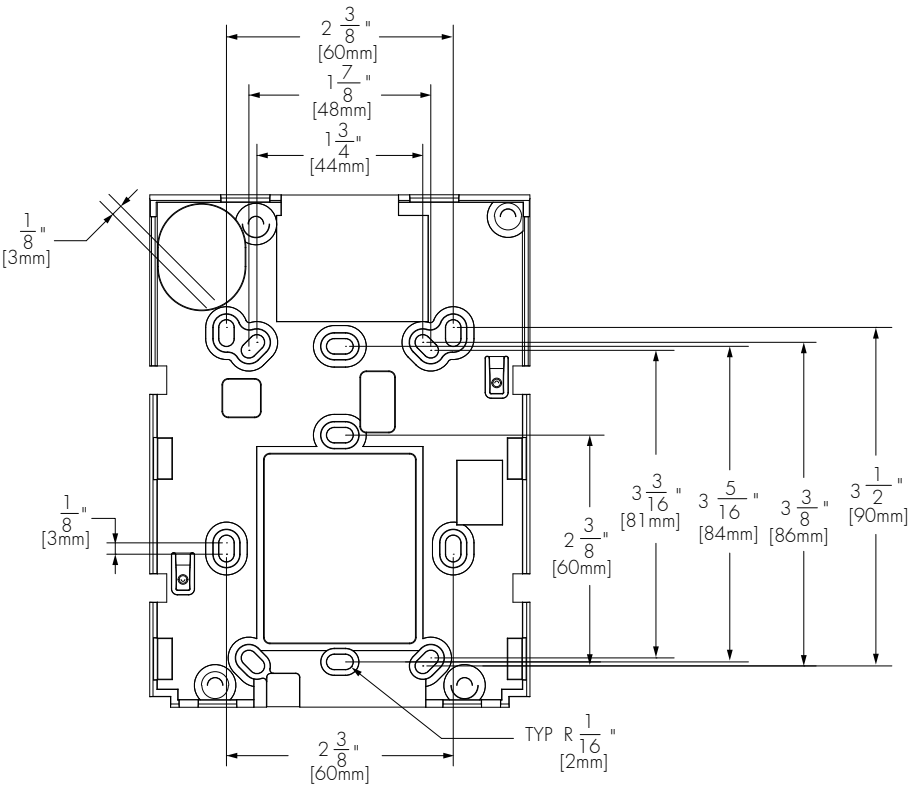
CONNECTIONS



Package	Interface, MicroSD card, USB cable
Software	Lumenstudio
Mobile Apps	DMX Lightpad 3 + ARCOLIS on iPhone/iPad/Android
Available colors	Black frame
Standards	EC, EMC, ROHS, ETL, UL (some are in process)
Temperature	-10°C to 45°C
Dimensions	146x106x11 mm Complete package 177x146x48 mm
Weight	247 g 8.71 oz Complete package 492 g 17.4 oz

CONNECTION SPECIFICATIONS		Built-in features	Screw-terminal rear connector (5 pins)	Extension socket rear connectors (2x10 pins)	Power+DMX socket (RJ45)	Ethernet socket (RJ45)	Front access connections
Power Supply	6V DC 0.6A, optional. 5.5v max with USB		•		•		USB
DMX Output #1	First universe, 512 channels DMX512 output		•	•	•		
DMX Output #2	Second universe, 512 channels DMX512 output			•	•		
USB	USB communication for PC software						•
Ethernet	Advanced networking features					•	
Ports 1,2,...,8	8 Contact closure inputs, connect to ground for operating			•			
User interface	10 buttons, 1 wheel, 1 color display, 5 leds (Touch-sensitive keypad)	•					power/data leds
SD card	Micro sd card for stand alone memory use (supplied)						•
Reset	Push button for feet operation						•
RS232	RS232 serial communication for external synchronisation			•			
Output relay	Automatic standby 5V signal			•			
Clock	Real-time clock and calendar	•					

MOUNTING PATTERN



MOUNTING HOLE PATTERN

*Extended electrical back boxes are recommended for all installations

INSTALLATION

1. Mount an electrical box inside the wall

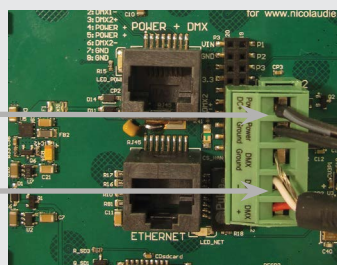
The controller can be installed in any standard electrical backbox. If you use a double size box, you can insert the power supply inside.



2. Connect the wires

POWER: Connect a 5.5V or 6V DC 0.6A ACDC supply. Be sure to not invert the + and the ground.

DMX: Connect the DMX cable to the lighting receivers (Leds, Dimmers, Fixtures..) (for XLR: 1=ground 2=dmx- 3=dmx+)



Wire Identification

(From power supply to connector block)



POWER DC + (white trace wire)

POWER GROUND (black wire)

Wire Identification

(From power supply to wall plug)



VDC + (blue wire)

VDC - (brown wire)

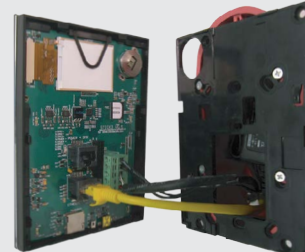
3. Mount the interface on the wall

First, mount the back side of the interface on the wall with 2 or more screws

Secondly, plug the connectors :

- DMX and power (connector block or RJ45)
- Ethernet cable

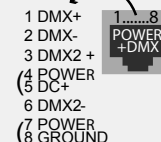
The front panel is mounted by pressing it against the back plate and then sliding down. 2 screws should then be attached underneath to hold the controller in place.



POWER+DMX WITH THE CONNECTOR BLOCK



POWER+DMX WITH THE RJ45 CABLE



EXTENSION CONNECTORS

****CHECK PIN CONFIGURATIONS. APPLYING POWER TO THE DMX INPUT WILL DAMAGE THE CONTROLLER****
****MAKE SURE THE CONTROLLER IS MOUNTED WITHOUT TOO MUCH FORCE BEHIND AS THIS CAN PUSH APART THE GLASS****
****LUMENPULSE RECOMMENDS USING A GANG BOX EXTENSION IF POSSIBLE**
TO INCREASE THE VOLUME OF THE WIRING COMPARTMENT FOR EASE OF INSTALLATION**

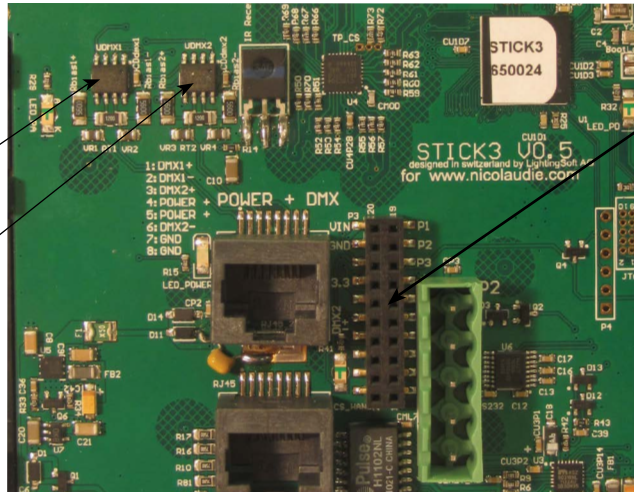
2x10 pins EXTENSION connector

DMX CHIP replacement

DMX universe #1

DMX universe #2

Ref: SP485ECN-L
MAX485 CSA



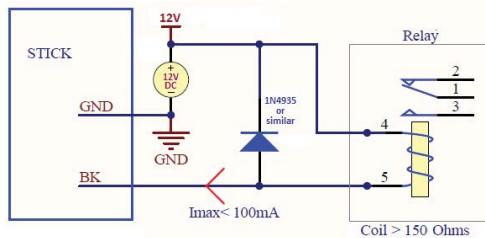
EXTENSION socket

VIN	20	19	PORT1
GND	18	17	PORT2
IR_RX	16	15	PORT3
3.3V	14	13	PORT4
Relay	12	11	PORT5
DMX2+	10	9	PORT6
DMX2-	8	7	PORT7
DMX1+	6	5	PORT8
DMX1-	4	3	RS232 RX
GND_DMX	2	1	RS232 TX

Compatible header connectors:
 WURTH ELEKTRONIK ref: 61301021121
 MOLEX ref: 10-89-7202
 TE Connectivity ref: 1-87227-0
 FCI ref: 77313-101-20LF
 HARWIN ref: M20-9981046
 SAMTEC ref: TSW-110-xx-T-D
 FARNELL ref: 1841232
 RS ref: 763-6754 673-7534 251-8165
 MOUSER ref: 538-10-89-7202
 DIGIKEY ref: WM26820-ND

BLACKOUT Relay (energy saving)

A relay can be connected between the RELAY and GND sockets of the 20 pin extension socket. This can be used to turn off other equipment such as lighting drivers. The signal is connected when the controller is in standby.



Example of relay :
 FINDER Ref.
 22.23.9.012.4000

RS232 triggering

Make a cable using the 3 pins : TX, RX and G (GND)
 Set the RS232 parameters to : 9600bds 8 bits, no Parity, 2 Stop bits
 Messages should be hexadecimal (not ASCII)
 - To play a scene, send 4 bytes : **1 x y 255**
 - To stop a scene, send 4 bytes : **2 x y 255**
 - To pause a scene, send 4 bytes : **3 x y 255**
 - To release a pause, send 4 bytes : **4 x y 255**
 - To reset a scene, send 4 bytes : **5 x y 255**
 When (y)=0, (x) can be set between 0 and 255
 -to stop scene 145, send the command: 2 145 0 255
 When (y)=1, (x) can be set between 0 and 243 to trigger scenes 256-499
 -to play scene 300, send the command: 1 44 1 255

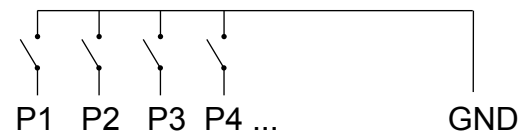
Network Control

The controller can be connected to a local network, allowing it to be controlled from a smartphone or tablet over WiFi.

- Connect the controller to a router or switch with an RJ45 cable
- The controller is set by default to get an IP address from the router via DHCP. If the network is not working with DHCP, a manual IP address and subnet mask can be set using the Hardware Manager
- If the network has a firewall enabled, allow ports 2430 and 2431

Dry Contact Port Triggering

It is possible to start scenes using the input ports (contact closure). To activate a port, a brief contact of at least 1/25 second must be established between the ports (1...8) and the ground (GND). Note: the scene will not be switched off when the switch is released.



TCP Triggering

The controller can be connected to an existing automation system over a network and triggered via TCP package on port 2431 or UDP packets on 2430. Refer to the remote protocol document for more information.

SETTING UP THE CONTROLLER

iPhone/iPad/Android Control

The controller can be used with one of 3 different apps. Each available at Google Play and the App store.

DMX Lightpad 3

Designed to work seamlessly with the controller, DMX Lightpad 3 provides an easy way to control your lights over a local WiFi network. Use the wheel to change the dimmer, color or speed, and the arrows to select scenes and effects just like the wall panel. Swipe down to reveal quick access scene selection buttons.

Easy Remote

Create an entirely customized remote controller for your tablet or smartphone. Easy Remote is a powerful and intuitive app allowing you to easily add buttons, faders, color wheels and more. Connect to a WiFi network and the app will find all compatible devices.

Arcolis

The Arcolis application is a comprehensive tool allowing you to directly control and re-program the controller from your smartphone or tablet. This is a simple application which can be used by just about everyone in any situation. Mobile, easy to use and powerful, Arcolis is the ideal controller for dimming or switching traditional, LED and RGB color mixing DMX lighting fixtures. Program static and dynamic lighting scenes and effects.

Programming the Controller

The controller be programmed from a PC using the software available on our website.

Refer to the corresponding user manual for more information. The firmware can be update using the Hardware Manager which is included with the programming software.

Lumenstudio Software and hardware (Windows)

<http://www.lumenpulse.com/en/product/128/lumentouch-20>