

# STICK-KE1

*Sunlite Touch Sensitive Intelligent Control Keypad*



## Overview

This complete stand alone wall-mounted DMX controller is the perfect answer to interior lighting control expectations. Along with a state of the art design, the product comes with amazing features such as 1024 DMX channels, touch sensitive panel, clock/calendar, remote control, Ethernet facilities, and much much more....

The lighting levels, color and effects can be programmed from a PC, Mac, Android, iPad or iPhone using the included software.

## Key Features

- 8 touch sensitive scene buttons
- Color/dimmer/speed fader
- Touch sensitive buttons. No mechanical parts
- Touch sensitive fader allows for accurate color selection
- Multi-zone microSD memory
- Multi-room control with 200 scenes, 5 zones
- 1024 DMX channels. Control 340 RGB fixtures
- USB & Ethernet connectivity for programming and control
- RS232, Dry Contact Ports and an Infra Red input port
- Clock and calendar with Sunrise/Sunset triggering
- Network communication. Control lighting remotely
- Catalog of designs including black and white frame
- OEM customization
- Windows/Mac software to set dynamic colors/effects
- iPhone/iPad/Android remote and programming apps

## Technical Data

<b>Input Power</b>	6-9V DC 0.6A
<b>Output Protocol</b>	DMX512 (x2)
<b>Programmability</b>	PC, Mac, Tablet, Smartphone
<b>Available Colors</b>	Black / White
<b>Connections</b>	USB, Ethernet, RS232, Clock, 8 dry contact ports, Output Relay
<b>Memory</b>	microSD card
<b>Temperature</b>	-10 °C to 50 °C
<b>Mounting</b>	Single or double gang wall socket
<b>Dimensions</b>	168x128x11.5mm
Complete Package	250x150x55mm
<b>Weight</b>	200g
<b>Standards</b>	EC, EMC, ROHS, ETL (some are in progress)

## Optional Accessories

**POWER4M** 6V ACDC power supply

## EASY INSTALLATION

### 1. Mount an electrical box inside the wall

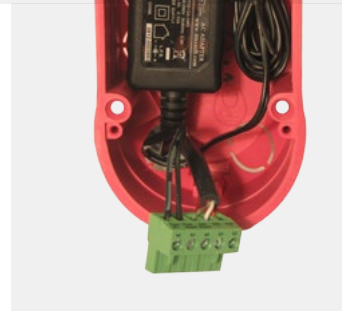
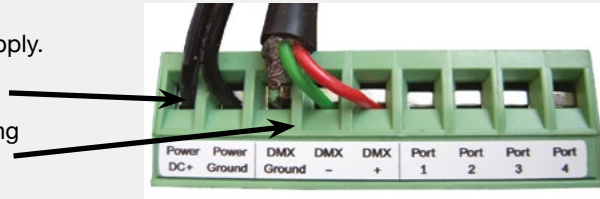
The controller can be installed in any standard electrical backbox. If you use a double size box, you can insert the power supply inside.



### 2. Connect the wires

**POWER:** Connect a 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+)



### 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)
- Ethernet cable

The front panel is mounted by clipping the 2 tabs along the top edge to the back plate and then arching down. 1 screw should then be attached underneath to hold the controller in place. A bottom cover plate can also be attached with 2 screws to cover the sockets and switches.



**\*\*CHECK PIN CONFIGURATIONS. APPLYING POWER TO THE DMX INPUT WILL DAMAGE THE CONTROLLER\*\***

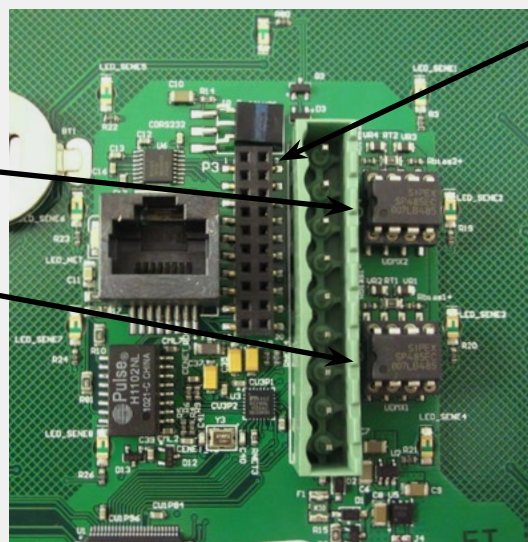
### 2x10 pins EXTENSION socket

DMX CHIP replacement

DMX universe #1

DMX universe #2

Ref: SP485ECN-L  
MAX485 CSA



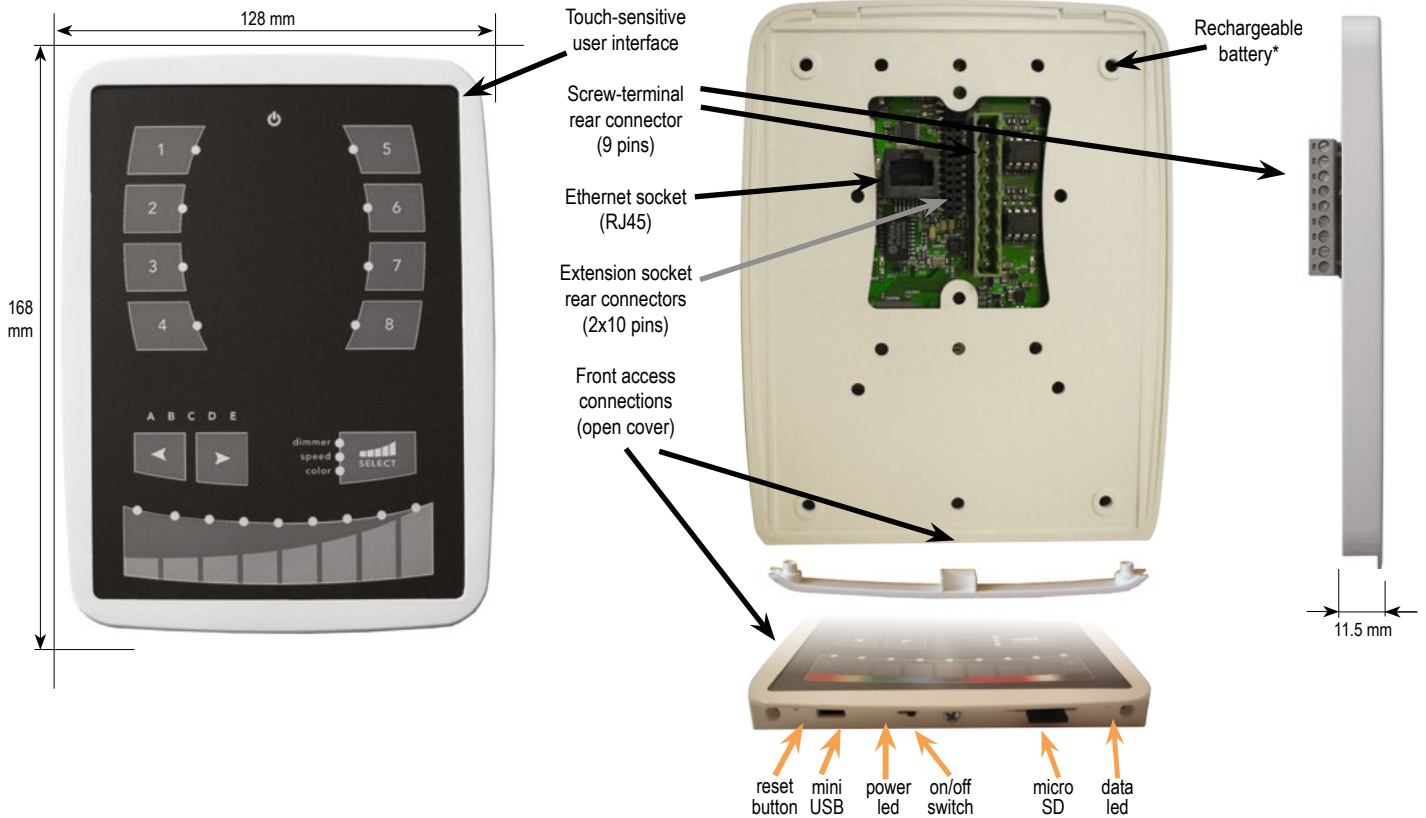
### EXTENSION socket

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

### 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

## Connections



SPECIFICATIONS / CONNECTIONS		Built-in features	screw-terminal rear connector (9 pins)	extension socket rear connectors (2x10 pins)	front access connections (open cover)
<b>Power Supply</b>	6V DC 0.65A, supplied		•		USB
<b>DMX Output #1</b>	First universe, 512 channels DMX512 output		•		
<b>DMX Output #2</b>	Second universe, 512 channels DMX512 output (*)			•	
<b>USB</b>	USB 2.0 communication for PC/software				•
<b>Ethernet</b>	Advanced networking features	•			
<b>Ports 1,2,3,4</b>	4 Contact closure inputs, connect to ground for operating		•	•	
<b>Ports 5,6,7,8</b>	4 Contact closure inputs, connect to ground for operating			•	
<b>User interface</b>	14 buttons, 1 fader, 28 leds (Touch-sensitive keypad)	•			power/data leds
<b>SDCARD</b>	Micro sd card for stand alone memory use (supplied)				•
<b>RESET</b>	Push button for reset operation				•
<b>RS232</b>	RS232 Serial communication for external synchronisation			•	
<b>Output relay</b>	Automatic Stand by 5V signal			•	
<b>Clock</b>	Real time clock and calendar	•			
<b>Infrared receiver</b>	Easy learning triggering from any 36Khz remote control	•			

### Service

Servicable parts include:

- Memory card - used to store the scenes
- Battery - used to store the clock/calendar
- DMX Chips - used to drive the DMX (see p2.)

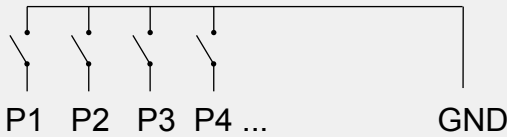
**\*To replace the Li-Ion rechargeable battery :**

1. You need a rechargeable 3.6v LIR 2032 replacement battery
2. Remove the back panel by pulling down and sliding it out.
3. Using a paper clip push the battery from the bottom so it slides out of its cage.
4. Slide the replacement battery in from the top, making sure the positive side is facing up.
5. Replace the back panel by pushing it up into place.

## Setting up the Controller

### 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.



### RS232 Triggering

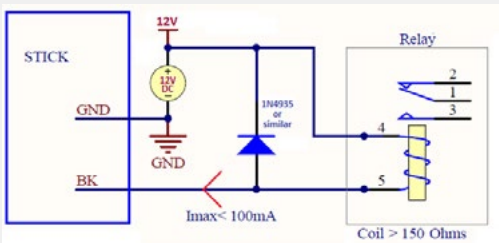
Make a cable using the 3 pins : TX, RX and G (GND)  
 Set the RS232 parameters to : 9600bds 8 bits, no Parity, 2 Stop bits

- To play a scene, send 3 bytes : **1 x 255**
- To stop a scene, send 3 bytes : **2 x 255**
- To pause a scene, send 3 bytes : **3 x 255**
- To release a pause, send 3 bytes : **4 x 255**
- To reset a scene, send 3 bytes : **5 x 255**

The scene number (x) can be from 1 to 40. For instance, 11 means Page B Scene #3

### BLACKOUT Relay (energy saving)

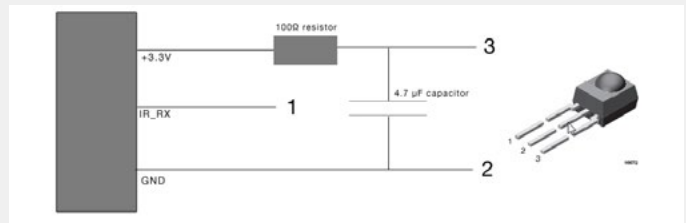
A relay can be connected between the RELAY and GND sockets of the 20 pin extension socket. This can be used to turn off other equipment such as lighting drivers. The signal is connected when the controller is in standby.



Example of relay : FINDER Ref. 22.23.9.012.4000

### Infra Red

The controller works with the official IR remote control, however there is no receiver. A 36khz infra red receiver can be connected, such as the TSOP34836 by Vishay Semiconductors. Farnell ref: 4913127. This can be attached to the 20 pin connector. It's a good idea to add a resistor and capacitor to surpress power supply disturbance.



### iPhone/iPad/Android Control

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

#### STICK Remote

Designed to work seamlessly with the controller, STICK Remote provides an easy way to control your lights over a local WiFi network. Use the slider to change the dimmer, color or speed, and the 8 scene buttons to select scenes and effects just like the wall panel.

#### 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.

<http://www.nicolaudie.com/smartphone-tablet-apps.htm>

### UDP Triggering

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

### 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 port 2430

### Programming the Controller

The controller be programmed from a PC, Mac, Tablet or Smartphone using the software available on our website. Refer to the corresponding software manual for more information. The firmware can be updated using the Hardware Manager which is included with the programming software.

**ESA Pro Software (Windows) - Timeline + Multi-Zone**

<http://www.nicolaudie.com/en/esapro.htm>

**ESA2 Software (Windows/Mac) - Single Zone**

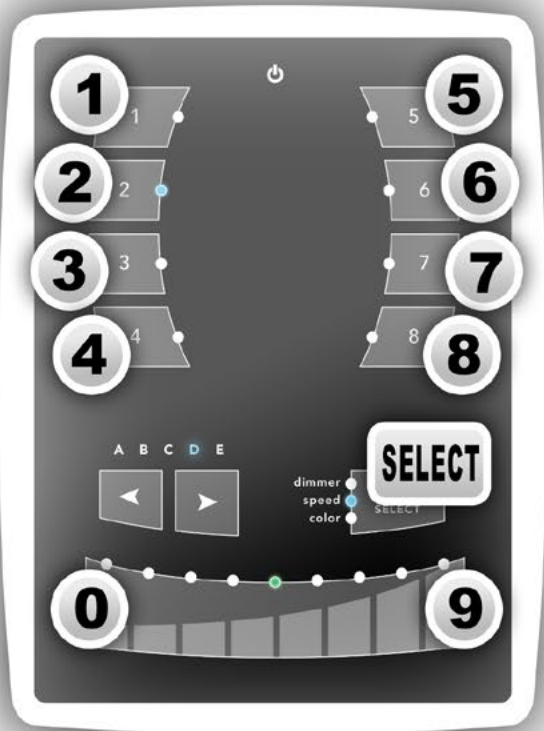
<http://www.nicolaudie.com/esa2.htm>

**Hardware Manager (Windows/Mac) - Firmware, clock..**


<http://www.dmxsoft.com/global/ftp/hardwaremanager.zip>

<http://www.dmxsoft.com/global/ftp/HardwareManager.dmg>


Some functions are available directly from the controller keypad using the SELECT button.
















**⚠ WARNING**

 = 3:30pm  
 3:30pm = 15:30  
 15:30 = **1530**

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 = 5 DEC 2008  
 5 DEC 2008 = **051208**

	View time	Example : view 2:45pm = 14:45 = <b>1445</b>  <b>1445</b> = 2:45pm (USA) or 14:45 (Europe)
	View date	Example : view 6 SEP. 2009 date = <b>060909</b>  <b>060909</b> = September 6th 2009
	Set time	Example : set 3:30pm = 15:30 = <b>1530</b>   = <b>1530</b>
	Set date	Example : set 5 DEC 2008 date = <b>051230</b>   = <b>051208</b>
	Set Fade time	Example : set 01'32" fade time = 1 minute and 32 seconds = <b>0132</b>   = <b>0132</b>
	Lock function	 This function locks the keypad (disabled by default) Use the TOOLS program to enable it and set the 4-digit code
	Set IR	Example : assign an IR key to Scene #2  
	Firmware version	Example : view 1.02 firmware version = <b>0102</b>  <b>0102</b> = firmware version 1.02

# Troubleshooting

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## The 8 Scene LEDs on the controller are flickering

The controller is in bootloader mode. This is a special 'startup mode' which is run before the main firmware loads.

- Check that there is nothing metallic touching the back of the controller
- Try re-writing the firmware with the latest hardware manager
- Try formatting or replacing the SD card

## All LEDs on the controller are flashing

There is no SD card detected.

- Check the SD card is properly connected
- Try formatting the SD card in the computer
- Try re-writing the show file
- Try replacing the SD memory card

## The controller is not detected by the computer

- Be sure that the latest software version is installed
- Connect by USB and open the Hardware Manager (found in the software directory). If it's detected here, try to update the firmware

## All LEDs on the controller are flickering except the standby LED

There is no showfile detected on the SD memory card.

- Try formatting the SD card in the computer
- Try re-writing the show file
- Try replacing the SD memory card

## The lights are not responding

- Check the DMX +, - and GND are connected correctly
- Check that the driver or lighting fixture is in DMX mode
- Be sure that the DMX address has been set correctly
- Check there are no more than 32 devices in the chain
- Check that the DMX LED is flickering to the right of the SD card
- Connect with the computer and open Hardware Manager (found in the software directory). Open the DMX Input/Output tab and move the faders. If your fixtures respond here, it is possibly a problem with the show file