STICK-CW4

NICOLAUDIE ARCHITECTURAL

Sunlite Touch Sensitive Intelligent Control Keypad

Overview

This DMX controller is aimed at architectural lighting installations requiring an advanced level of programming (color changing effects, specific colors etc). The controller provides a clean and user-friendly panel. Featuring an on/off button, 6 scene buttons and a color wheel, the controller is ideal for hotels, homes and public environments. With 1024 DMX channels, Wi-Fi for remote network control and scene calendar triggers, the CW4 model features many advanced features. USB programmable from a PC or Mac, up to 36 scenes can be stored within the controller and directly recalled via 6 touch sensitive buttons.

www.nicolaudie.com/stick-cw4.htm

Key Features

- DMX stand alone controller
- Compatible with any DMX fixture or DMX LED driver
- Ready-to-use (pre-loaded with 8 scenes and 170 RGB fixtures)
- Sleek, black glass design which sits 11mm from the wall
- Color palette (can also be used for scene selection)
- 12 touch-sensitive buttons. No mechanical parts
- Touch-sensitive wheel allows for accurate color selection
- Built-in flash memory for storing programs
- Up to 36 dynamic or static scenes
- 1024 DMX channels. Control 340 RGB fixtures
- Clock and calendar with Sunrise/Sunset triggering
- Wi-Fi network communication. Control lighting remotely
- USB connectivity for programming and control
- 8 dry contact trigger ports
- OEM customization of the color palette and logo
- Windows/Mac software to set dynamic colors/effects

Technical Data

Input Power	5-10V DC 0.6A
Output Protocol	DMX512 (x2)
Programmability	PC, Mac
Available Colors	Black
Connections	USB, 8 dry contact ports, open drain ouput (for relay)
Memory	In-built flash
Temperature	-10 °C - 45 °C
Battery	LIR2032
Mounting	Single or double-gang wall socket
Dimentions	146x106x11mm
Weight	200g
Standards	EC, EMC, ROHS

Optional Accessories

RJ2BLOCK	RJ45 to connector block converter for POWER+DMX socket
POWER4M	5-10v ACDC power supply

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EASY INSTALLATION

1. Mount an electrical box inside the wall

The controller can be installed in a standard electrical backbox. This box is usually 60mm high and wide, except in Japan and America where it is 83.5mm/3.29 inches high. You can insert the AC/DC adapter inside or outside the backbox.

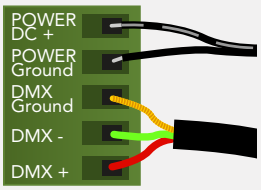
2. Connect the wires

POWER: Connect a 5-10V 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+)

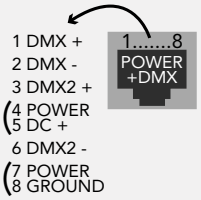
There are 2 ways to connect the power and DMX:

POWER+DMX
WITH THE
CONNECTOR BLOCK



OUTPUT DMX UNIVERSE #1 ONLY

POWER+DMX
WITH THE
RJ45 CABLE



OUTPUT DMX UNIVERSE #1 & #2

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

MAKE SURE THE CONTROLLER IS MOUNTED FLAT WITHOUT OBSTRUCTIONS FROM BEHIND AS THIS CAN PUSH APART THE GLASS

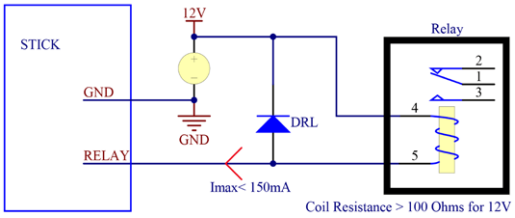
3. Mount the interface on the wall

First, mount the backside of the interface on the wall with 2 or more screws. Secondly, connect the DMX and power (connector block or RJ45).

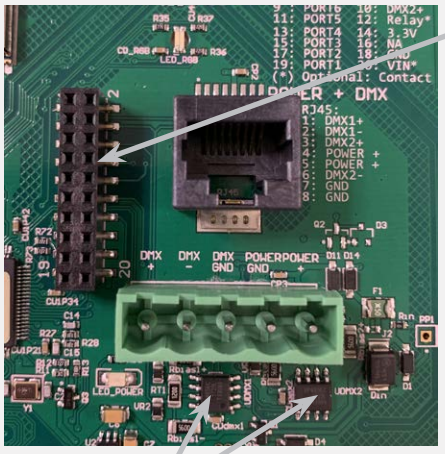
Check the location of the Wi-Fi aerial (see pg3 photo). The front panel is mounted by pressing it against the back plate and then sliding down. Two screws should then be attached underneath to hold the controller in place.

BLACKOUT Relay (energy saving)

A relay can be connected between the RELAY (pin 12) and GND sockets of the 20 pin extension socket. This is an open drain ouput that allows current to flow only when the controller is on. It can be used to turn off other equipment such as lighting drivers to save power.



Other Connections



DMX CHIPS
To replace, solder the DMX chips to the 8 pin connectors.

HE10 EXTENSION socket

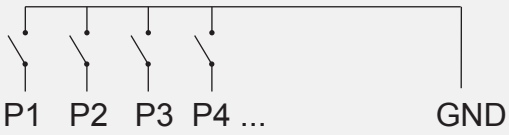
NC	1	2	GND_DMX
NC	3	4	DMX1-
PORT8	5	6	DMX1+
PORT7	7	8	DMX2-
PORT6	9	10	DMX2+
PORT5	11	12	Relay
PORT4	13	14	3.3v
PORT3	15	16	NC
PORT2	17	18	GND
PORT1	19	20	VIN*

*** VIN (pin 20) is not protected and should not be used**

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

Dry Contact Port Triggering

It is possible to start scenes using the dry contact input ports available on the HE10 extension socket. To activate a port, a brief contact of at least 1/25 second must be established between the ports (1...8) and a ground (GND) pin. Note: the scene will not be switched off when the switch is released.



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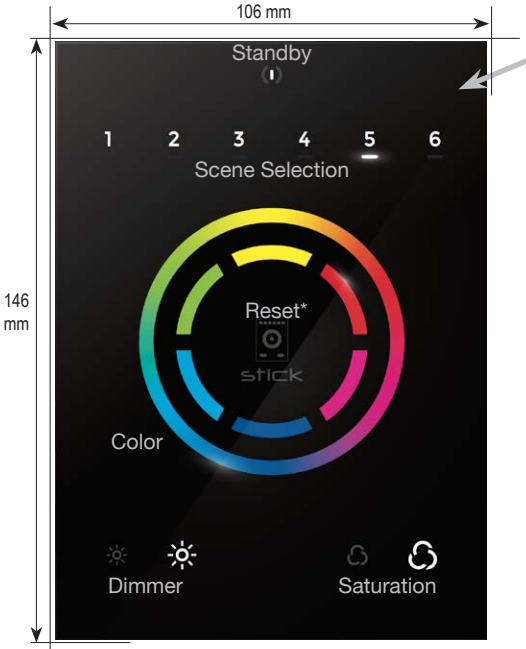
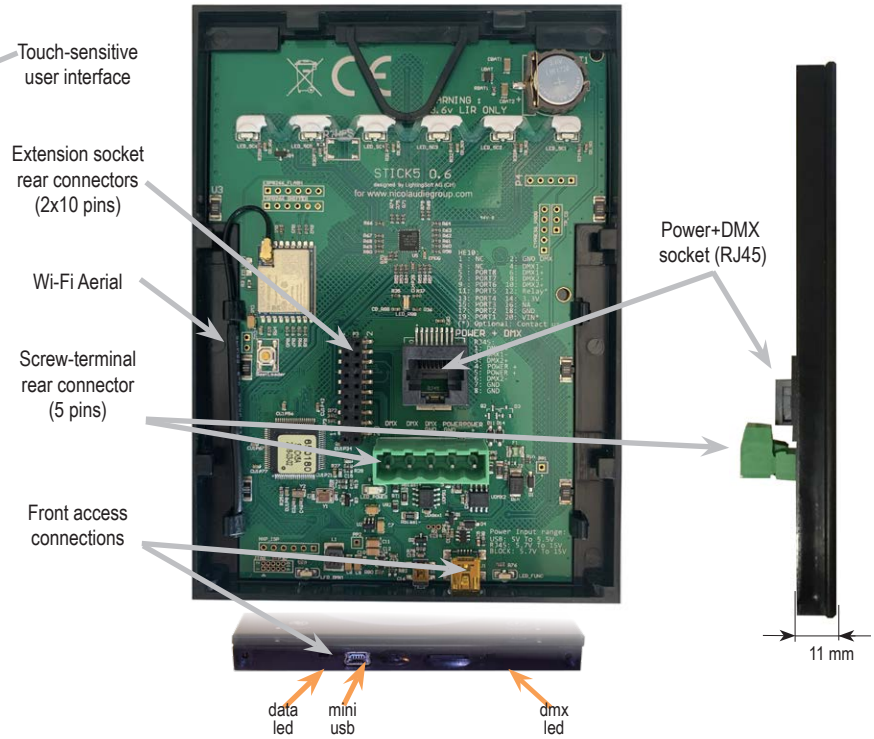
Connections & Hardware Operation



*see *Center Button* section below for further information



Center Button

There are several operation modes for the button in the center of the palette. These can be set within Hardware Manager.

Reset color : the color set on the wheel will be cleared and the default scene will be restored.
Play next scene : the currently selected scene will stop and the next scene will play.
Select next bank : If more than 6 scenes are stored, you can select a scene on another scene bank. 1) press the centre button one or more times to select a scene bank number. The selected bank will flash. 2) Quickly, press a scene number to select a scene from the selected bank. If no scene is selected, it will continue playing the original scene.
Toggle wheel color/scene mode : the wheel can be used to select a color or a scene, depending on the mode. Tapping the button will toggle between scene selection and color selection mode. The center LED will blink when the wheel is set to scene mode.
Disable button : the button will have no function.

Other Settings

There are several other settings which are available within the Hardware Manager.

Miscellaneous:
Name : a custom name for the controller. Usefull if you have several controllers connected.

Parameters:
Color/Dimmer : determines whether the color/dimmer will be reset when a new scene is recalled and whether color/dimmer changes are stored globally, or per scene.

Re-select scene : determines what happens when a playing scene is re-selected.
Reset color : clear any color changes and reset to the scene's color vlaues.
Reset dimmer : clear any dimmer changes and reset to the dimmer values of the scene.
Reset saturation : clear any saturation changes and reset to the saturation values of the scene.

Starting mode (L) : change the language of the text which appears on the screen.

Re-select scene : settings related to the LEDs on the controller.
Scene LED light level : sets the brightness of the LEDs.
RGB LED enable (Live Ch. 1-3) : when enabled, the RGB LED in the center of the wheel will change color depending on the live DMX output of channels 1-3. Only active in live mode (i.e. when connnected to software)
RGB LED enable (Standalone) : enables and disables the RGB LED in the center of the wheel.

Serviceable Parts

- 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 1220 replacement battery
2. Remove the back panel by pulling down and sliding it out
3. Gently pull the battery release wire and the battery will pop out

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Setting up the Controller

Programming the Controller

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

ESA2 Software (Windows/Mac)
http://www.nicolaudie.com/esa2.htm

Network Control

The controller can be connected directly from a computer/ smartphone/tablet (Access Point Mode), or can be connected to an existing local network (Station Mode). The controller is set to work in Access Point (AP) Mode by default.

- In AP Mode, the default network name is Smart DMX Interface XXXXXX where X is the serial number. The default password is 00000000 (8 zeros).
- To connect using Station Mode, use HardwareManager to set the Wifi settings to Station or Dual mode. Then connect your controller to your network by selecting your Wifi router from the Network List. 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 on the Ethernet options screen. If the network has a filewall enabled, allow port 2430.

iPhone/iPad/Android Control

Easy Remote Pro (iPad/iPhone. Android coming soon)
Create an entirely customized remote control interface for your tablet or smartphone. Easy Remote Pro is a powerful and intuitive app, allowing you to add buttons, faders, color wheels and more. Connect to a Wi-Fi network and the app will find all compatible devices on the local network. Available for iOS and Android.

Lightpad
Designed to work seamlessly with the controller, Lightpad provides an easy way to control your lights over a local Wi-Fi network. Connect and you will see a representation of your controller on the screen. Use the on-screen controls as you would the controller in real life.

Troubleshooting

All 7 LED's on the controller are blinking

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 software

Contact us if you see the following errors

Center LED Red, cycling pattern on 6 LEDs - Error1
Center LED Green, cycling pattern on 6 LEDs - Error2
Center LED Blue, cycling pattern on 6 LEDs - Error3

The controller is not detected by the computer

- Be sure the latest software version is installed (use the beta, if available)
- Connect by USB and open the Hardware Manager (found in the software directory). If it is detected, try to update the firmware
- Try another USB cable, port and computer

- Bootloader Mode
  Sometimes the firmware update may fail and the device may not be recognised by the computer. Starting the controller in 'Bootloader' mode forces to the controller to start at a lower level and, in some cases, allows the controller to be detected and the firmware to be written. To force a firmware update in Bootloader Mode :

  1. Power off your interface
  2. Start HardwareManager on your computer
  3. Press and hold the button on the back of the circuit board labelled BootLoader and connect the USB cable at the same time. If successful, your interface will appear in HardwareManager with the suffix _BL.
  4. Update your firmware

The 6 scene LED's are blinking

No showfile has been detected on the controller.
- Download the latest software
- Update to the latest firmware using the included Hardware Manager
- Try re-writing the show file

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

Trouble connecting over a network

- Try disabling any firewalls on your computer (e.g. Windows Firewall)
- Update firmware using the latest HardwareManager from our website
- Allow port 2430 on your network
- Check controller is connected to the same Wi-Fi network
- Close / kill all other dmx software / apps
- Check that you are not connecting to STICK through a VPN. VPNs are not compatible with our network discovery process

Calendar trigger problems

- If scenes are not triggering or are doing so at the incorrect time, check the time stored on the controller using HardwareManager > Clock
- If the controller forgets the time set, replace the battery (see pg2)
- If scenes start triggering 1 hour early/late, check Clock > DST settings
- Sunlite / Sunrise triggers not matching the real world? Check the controller is set to the correct location. Default is Montpellier, France.

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