

# **ArcControl SU**



**USER MANUAL** 

Version 1.0

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## 1. 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 10mm 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
- 512 DMX channels. Control 170 RGB fixtures
- USB connectivity for programming and control
- 8 dry contact trigger ports
- Windows/Mac software to set dynamic colors/effects
- Programmable through the included USB cable and control software

## 2. 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:





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

#### 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).

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.

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

## 3. Other Connections



DMX CHIP Solder the DMX chip to the 8 pin connector on the right of the RJ45 socket. Be sure that the chip is facing downwards

**HE10 EXTENSION** socket GND DMX NC NC DMX+ PORT8 - DMX-5 6 PORT7 8 NC - NC PORT6 9 10

16

18

NC

NC

GND

VIN

- NC

11 12

13 14

15

17

19 20

PORT5

PORT4

PORT3

PORT2

PORT1

Compatible header connectors: WURTH ELEKTRONIK ref: 61301021121 MOLEX ref: 10-99-7202 TE Connectivity ref: 1-87227-0 FCI ref: 77313-101-20LF HARWIN ref: M20-9981046 SAMTEC ref: TSW-110-xx-TD FARNELL ref: 1841232 RS ref: 763-6754 673-7554 251-8165 MOUSER ref: K38-10-89-7202 DIGIKEY ref: WM26820-ND

## **Dry Contact Port Triggering**

It is possible to start scenes using the dry contract input ports available on the HE10 extension socket. To activate a port, a brief contact of atleast 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.



## 4. Connections and Hardware Operation



#### **Center Button**

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

#### ArcControl SU

**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 in the controller, the next bank will be selected. One of the 6 scene selection buttons will flash for 1 second to indicate the selected bank number.

**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.

## 5. 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 values. Reset dimmer : clear any dimmer changes and reset to the scene's dimmer values. Reset saturation : clear any saturation changes and reset to the scene's saturation values.

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** : enables and disables the RGB LED in the center of the wheel.

## 6. 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. The firmware can be updated using the Hardware Manager which is included with the programming software.

#### ESA2 Software (Windows/Mac)



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



## 7. 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

#### 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

#### 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 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.

## The controller is not detected by the computer

-Be sure that 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's detected here, try to update the firmware.

-Try another USB cable, port and computer

## 8. Technical specifications

Input Power: 5-10V DC 0.6A Output Protocol: DMX512 Programmability: PC, Mac Connections: USB, 8 dry contact ports Memory: In-built flash Temperature: -10 °C - 45 °C Mounting: Single or double-gang wall socket Dimentions: 146x106x10mm Weight: 200g Standards: EC, EMC, ROHS Package: ArcControl SU, USB stick with software, USB cable, connector block

## Optional accessories: DC power supply (P/N. 1305 1648)

Specifications are subject to change without notice. March 27, 2017