LED CONTROLLER S50A

LED controller S50 allows driving digital LED strips (or pixels) by using comfortable radio remote controller with touchbuttons. Controller has over 90 built-in effects and allows you to control zones (one remote and many independent lights).

Controller version (marked at housing):

S50-1000M music version 1000 LED pixel (100m of WS2811 strip or 33m of WS2812 strip)
WARNING: Controller has two outputs. If there is stated that controller can drive 1000 pixels it means that we have signal for 500 pixels at each output. Given strip lenghts are for 30 LED/m strip.

Pairing controller with remote (should be done):

Each controller can be driven by selected remote and selected zone at remote (buttons 5.).
If we don't do this, controller will not respond to remote commands. To do this, You should:
- connect digital LED to controller
- turn the power ON and within 2 sec. after power on touch shortly "M" button then "I" button at zone buttons area (5.) LED's should blink

Using the remote controller.

With the main power switch (1.) You can turn the lights on and off . If You need
to have white light then You should hold the "I" button near the main power switch or at zone buttons area (5.) for few seconds. Holding down the button changes white color temperature.

With color wheel (2.) You can select color or set of colors for generated effects. Some effects (rainbow for example) are not affected by color wheel.

Brightness slider (3.) is utilized to adjust brightness of light.

Program change buttons (4.) "S-" and "S+" are utilized for selecting desired animation. Long press of "S+" button turns on auto program change mode (with 35sec. interval).
"M" button (4.) allows adjusting speed of effects. Long press applied to this button turns on still color mode (without animation).

Zone power buttons (5.) is used to get in zone control mode for selected zone. If You need to revert back into all zones control mode You should touch main power button (1.)

Slider (6.) - affects color saturation.

Slider (7.) - affects white color temperature..

White color switch (8.) - turns white light on/off. Consecutive button pressing changes the temperature of white color.

Deleting remote from controller memory.

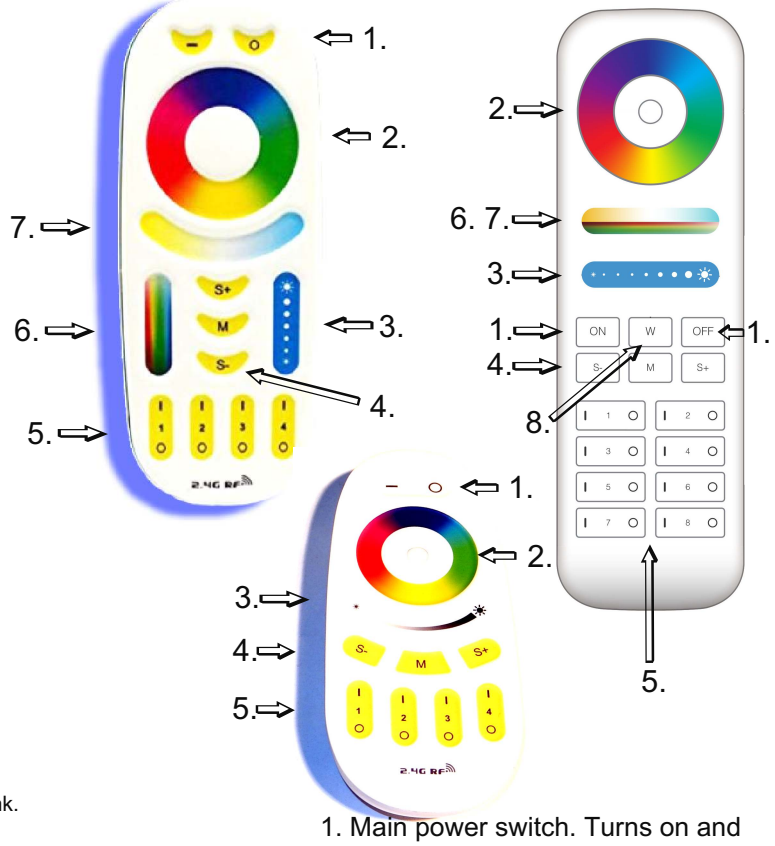
- connect digital LED to controller
- turn the power on and within 2 sec. after powering up touch shortly "M" and then "0" at any of power buttons in zone area (5.). LED's should blink.

Deleting all remotes from controller memory.

- connect digital LED to controller
- turn the power on and within 2 sec. after powering up touch shortly "M" and then "0" at main power switch (1.). LED's should blink.

WARNING! When using remote You have touched (it can be done by accident) other zone button that saved in controller then controller will not respond to remote. It's clear, because this is the point of zone control mode (You can control 4 zones using one remote). Unwanted touching the other zone can be observed as not existing malfunction.

REMOTE CONTROLLERS



1. Main power switch. Turns on and off light at all zones.
2. Color wheel (color select).
3. Brightness slider.
4. Program change buttons (S+ S-) and speed button (M).
5. Four zones power switches.
6. Color saturation slider.
7. White temperature slider.
8. White light switch on/off

Music reacting controllers (music version).

Music controller automatically detects tempo of the song and adjusts sensitivity to volume level. Quality of music synchronization depends on the genre of music. Controller is optimized for dance / disco music (with regular, significant beat).
Controller reacts to bass sounds therefore it will not work with music played from small speakers (laptop, phone).

Settings memory. Controller saves settings after 10 sec. from last remote usage.

Many controllers - controller synchronization and settings up main microphone (if we are not using music it's not necessary to do that).

If we own more than one controller they will synchronize witch each other. It affects reaction to music too. In this case, for best effect, we should decide which controller has to use microphone and forward rhythm to next controllers. For setting main microphone controller You should:

-connect digital LED strip to the first output of controller then turn the power on
-touch shortly, three times "S-" button, then two times "M" and two times "S+".
It's important to not touch any buttons after turning power on.
-fifth LED (or 3 LED section) should blink.
-wait at least 3 sec. and turn power off.

For unset main microphone setting You should do the same steps with only difference at first step - touch "S-" two times instead of three times. You shouldn't set more than one controller as main microphone.

Microphone off function. Controller allows to turn off the built in microphone. To do that, You should:

-connect digital LED strip to the first output of controller then turn the power on
-touch shortly, three times "S-" button, next to that two times "M" and two times "S+".
It's important to not touch any buttons after turning power on.
-fifth LED (or 3 LED section) shows microphone state. If it blinks or is lit up then microphone is turned on.
If it's not lightened up at all that means microphone is turned off.
-You should touch "M" button at remote for microphone turn on and off
-wait at least 3 sec. and turn power off.

Reversed colors - colors setting.

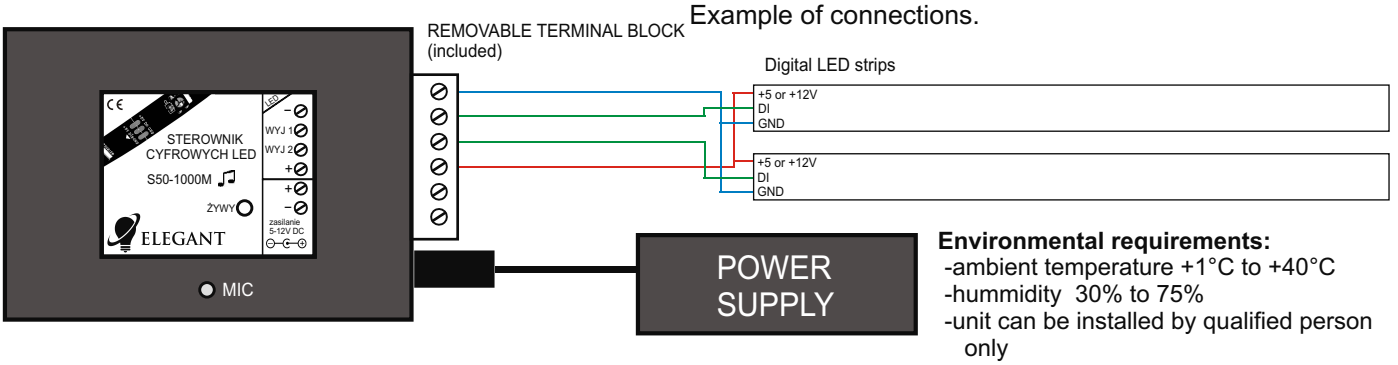
Digital LED strip, depends on manufacturer, can have reversed color order. To fix that problem You should:

-connect digital LED strip to the first output of controller then turn the power on
-touch shortly, three times "S-" button, then two times "M" and two times "S+".
It's important to not touch any buttons after turning power on.
-LED should lit up. Now, Your goal is to have first three sections at LED strip in that color order RED, GREEN, BLUE. To adjust the color order, You should touch multiple times "0" button at main power switch.
-wait at least 3 sec. and turn power off.

Controller specification.

-supply voltage: 5...24V
-supported digital LED IC controllers: WS2811, WS2812S, WS2812B, WS2812D, PD9823, SK6812, SM16703, TM1803, TM1804, TM1809, UCS1903, UCS1909, UCS1912, UCS2903, UCS2909, UCS2912, APA104
-maximum LED current when using DC socket (5.5/2.1mm): 5A
-maximum LED current when using terminal block: 9A
If there is more current drawn by LED's that specified above You should connect LED's directly to the power supply. In this case controller should be connected to the LED strip with three wires (ground, supply voltage and signal)
-dimmensions: 60 x 84 x 30mm
-remote operating frequency: 2.4GHz, power source: 2 x AAA cells

Example of connections.



Environmental requirements:

-ambient temperature +1°C to +40°C
-hummidity 30% to 75%
-unit can be installed by qualified person only

-LED driving wire (connected to controller output) shouldn't be longer than 10cm. If there are needed longer wires shielded cable should be used. Fitter is obligated to select propper wiring.

-connected digital LED strip or digital LED modules should conform EMC requirements.

-installation must be done with disconnected power only
-unit can't be used next to heat sources or strong electromagnetic radiation

-For cleaning housing use smooth wetted wiper, with power disconnected from unit.
-If unit has visible damage You can't connect it to the power supply.
-Unit should be protected from direct contatct with water and other liquids.

Storage requirements:

-only indoor storage, where environment is free from vapors and caustic agents.
-ambient temperature -30°C to +40°C, hummidity: 30% to 90% (without condensation)

The manufacturer is not responsible for possible consequences resulting from incorrect installation, improper use of the device, usage no specified in this manual and self-made repairs.