

# User Guide

## AC Triac DMX Dimmer

The Triac DMX512 dimmer is designed with 100-240VAC input and 100-240VAC output, safe and reliable full isolation design to dim and switch single color LED lamps, traditional incandescent and halogen lights. The DMX512 dimmer is designed with standard DMX512 compliant control interface with digital numeric display to set and show DMX address freely, can be compatible with a variety of DMX512 masters. The AC dimmer is both triac dimmable and mosfet dimmable and comes with 2 channel output.

### Feature

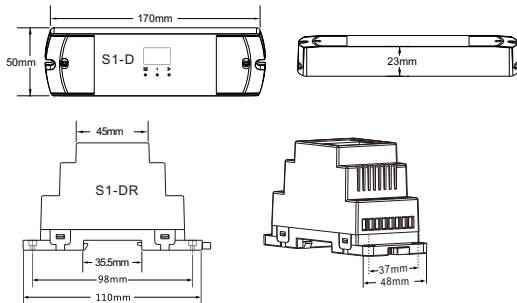
- AC phase-cut mosfet dimmer with DMX512 function, digital display, two channel output.
- DMX decode mode / Stand-alone 2 channel dimmer mode / Stand-alone dynamic mode.
- Standard DMX512 compliant interface, DMX address display, set DMX address freely.
- RDM bi-directional communication function.
- Under stand-alone dimmer mode, each channel adjust brightness independently, and save up to 8 groups brightness.
- Under stand-alone dynamic mode, have 4 mode.
- 1/2 DMX channel decode optional.
- Reverse-phase dimming or forward-phase dimming optional.
- Minimum brightness set from 1% to 40%.
- To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
- For S1-DR, din rail or screw mounted optional.

### Technical parameter

Model	Input voltage	Output voltage	Output current	Output power	Size(mm)
S1-D	100-240VAC	100-240VAC	2x1.0A	2x(100-240)W	170x50x23
S1-DR	100-240VAC	100-240VAC	2x1.2A	2x(120-288)W	115x48x67

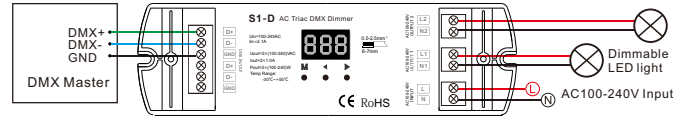
**Note:** When calculating the maximum number of load lamps or drivers, the input power or input current parameters of a single lamp or driver must be used, the output power parameters can not be used, otherwise, the product will be overloaded and damaged.

### Dimension

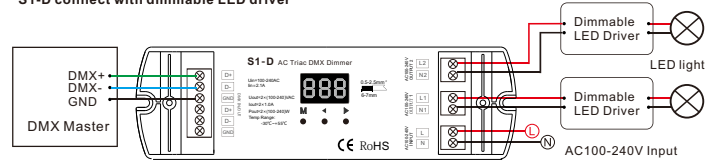


## Wiring diagram

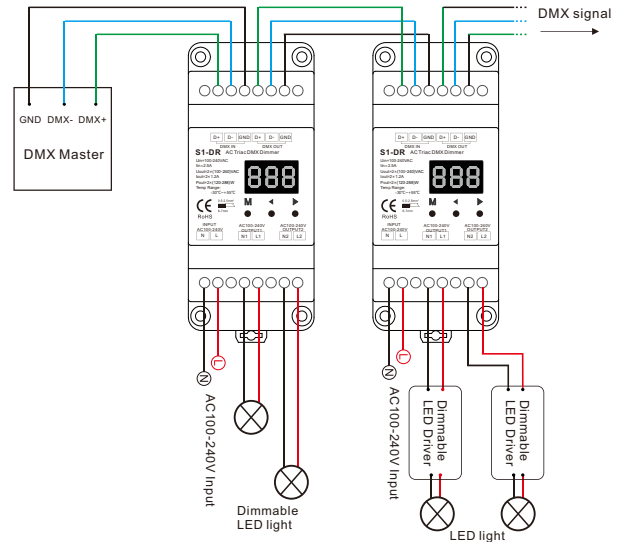
### S1-D connect with dimmable LED light



### S1-D connect with dimmable LED driver



### S1-DR connect with dimmable LED light or LED driver

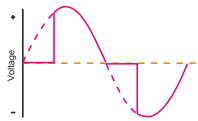


## Operation

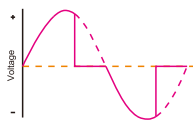
### System parameter setting

- Long press M and ◀ key for 2s, prepare for setup system parameter: decode mode, control method, minimum brightness curve, automatic blank screen.  
short press M key to switch four item.
- Decode mode: short press ◀ or ▶ key to switch one-channel decode("d-1"), or two-channel decode("d-2"). For one channel decode, two outputs are same.
- Control method: short press ◀ or ▶ key to switch forward-phase("C-F") or reverse-phase("C-R").

Forward-phase control dimmer



Reverse-phase control dimmer



- Minimum brightness: short press ◀ or ▶ key to set minimum brightness, from 1% to 40%("b01" to "b40"). You need set suitable minimum brightness to avoid flick.
- Automatic blank screen: short press ◀ or ▶ key to switch enable("bon") or disable("boF") automatic blank screen.
- Long press M key for 2s or timeout 10s, quit system parameter setting.

### DMX mode

- Short press M key, when display 001~999, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode address(001~999), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.



DMX mode  
(001~999)

### Stand-alone dimmer mode

- Short press M key, when display L-1~L-8, enter stand-alone dimmer mode.
- Press ◀ or ▶ key to change dimmer mode number(L-1~L-8).
- Each dimmer mode can adjust each channel brightness independently.  
Long press M key for 2s, prepare for setup two channel brightness.  
Short press M key to switch two channel(100-1FF, 200-2FF).  
Press ◀ or ▶ key to setup brightness value of each channel.  
Long press M key for 2s, or timeout 10s, quit setting.

- Enter stand-alone dimmer mode only when DMX signal is disconnected or lost.



Stand-alone dimmer mode  
(L-1~L-8)

### Stand-alone dynamic mode

- Short press M key, when display P-1~P-4, enter stand-alone dynamic mode.
- Press ◀ or ▶ key to change dynamic mode number(P-1~P-4).

- Each mode can adjust speed and brightness.

- Long press M key for 2s, prepare for setup mode speed, brightness.  
Short press M key to switch two item.

- Press ◀ or ▶ key to setup value of each item.

Mode speed: 1-10 level speed(S-1, S-9, S-F).

Mode brightness: 1-10 level brightness(b-1, b-9, b-F).

- Long press M key for 2s, or timeout 10s, quit setting.

- Enter stand-alone dynamic mode only when DMX signal is disconnected or lost.



Stand-alone dynamic mode  
(P-1~P-4)



Speed  
(8 level)



Brightness  
(10 level, 100%)

### Dynamic mode list

No.	Name
P-1	2ch light on/off synchronously
P-2	2ch single light on/off in sequence
P-3	2ch light fadein and fadeout synchronously
P-4	2ch light fadein and fadeout in sequence

### Restore factory default parameter

- Long press ◀ and ▶ key for 2s, restore factory default parameter, display "RES".
- Factory default parameter: DMX decode mode, DMX first address is 1, two channel decode, reverse-phase control, 10% minimum brightness, dimmer mode number is 1, dynamic mode number is 1, disable automatic blank screen.

## Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong brightness	1. DMX decode address error.	1. Set correct decode address.

## Safety information

1. The product shall be installed and serviced by a qualified person.
2. This product is non-waterproof. Please avoid the sun and rain.
3. Good heat dissipation will prolong the working life of the controller, please ensure good ventilation.
4. Ensure all wire connections and polarities are correct and secure before applying power to avoid any damages to the LED lights.
5. If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.