SUNRICHER SR-2102P RDM Enabled Decoder Instruction Manual

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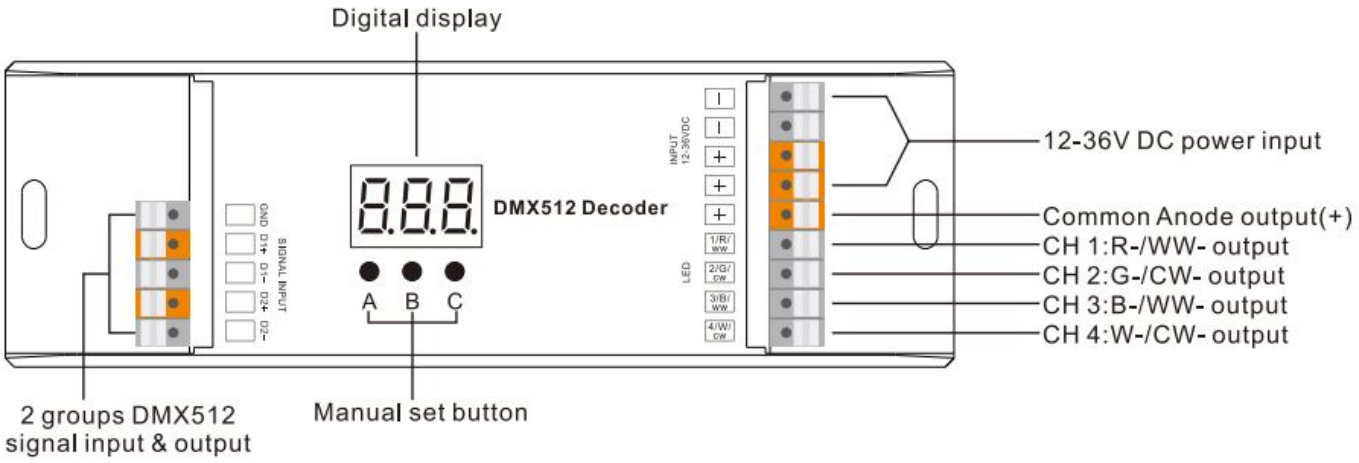
SUNRICHER SR-2102P RDM Enabled Decoder

Important: Read All Instructions Prior to Installation

Function introduction



Product Data

No.	Input Voltage	Output Current	Output **Power**	Remarks	Size(LxWxH)
1	12-36VDC	4x5A	4x(60-180)W	Constant voltage	166×53.4x23mm
2	12-36VDC	4x350mA	4x(4.2-12.6)W	Constant current	166×53.4x23mm
3	12-36VDC	4x700mA	4x(8.4-25.2)W	Constant current	166×53.4x23mm

- Standard DMX512 compliant control interface.
- Supports RDM function.
- 4 PWM output channels.
- DMX address manually settable.
- DMX channel quantity from 1 CH-4CH settable.
- Output PWM frequency from 200HZ – 35K HZ settable.
- Output dimming curve gamma value from 0.1 – 9.9 settable.
- To work with power repeater to expand output power unlimitedly.
- Waterproof grade:IP20.

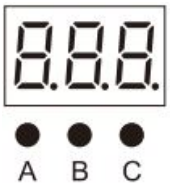
Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.

Operation

To set desired DMX512 address through buttons,

- button A is to set the “hundreds” position,
- button Bis to set “tens” position,
- button C is to set “unit” position.



Set DMX address (Factory default DMX address is 001)

Press and hold down any of the 3 buttons for over 3 seconds, digital display flashes to enter into address setting, then keep short pressing button A to set “hundreds” position, button B to set “tens” position, button C to set “units” position, then press and hold down any button for >3 seconds to confirm the setting.

You will get this after power on the decoder, it means this decoder supports firmware OTA update function. This function can be used when there is a firmware update from the manufacturer, the update can be executed through a Windows computer and an USB to serial port converter, the converter will connect the computer and the decoder’s hard wire DMX port. A software RS485-OTW on the computer will be used to push the firmware to the decoder. Connect the computer and the decoder through the USB to serial port converter, if you need to update multiple decoders’ firmware, connect the converter to first decoder’s DMX port, then connect other decoders to the first decoder in daisy chain through the DMX port. Please do not power on the decoders. Run the OTA tool RS485-OTW on the computer, select the correct communication port “USS-SERIAL” , baud rate “250000”, and data bit “9”, use default settings for other configurations. Then click “file” button to select the new firmware from the computer, then click “Open Port”, the firmware will be loaded. Then click “Download Firmware”, the right side state column of the OTA tool will show “send link”. Then power on the decoders before “wait erase” displaying on the state column, the digital display of the decoders will show RP. . Then “wait erase” will show on the state column, which means the updating starts. Then the OTA tool starts writing data to the decoders, the state column will show the progress, once writing data finishes, the digital display of the decoders will flash RP. I , which means firmware updated successfully.

Restore to Factory Default Setting

Press and hold down both buttons A+C for over 3 seconds until the digital display turns off and then turns on again, all settings will be restored to factory default. Default settings are as follows:

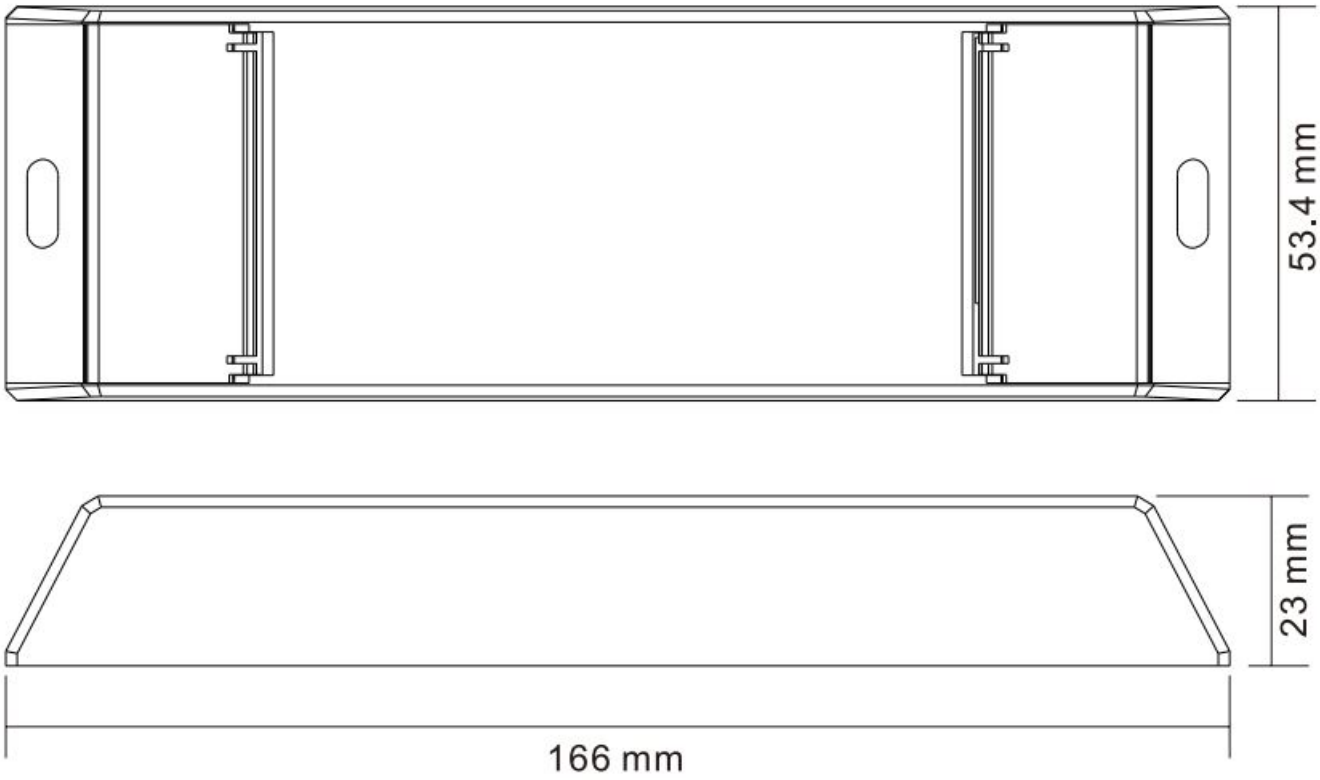
- **DMXAddress:** 001
- **DMXAddress Quantity:** 4CH
- **PWM Frequency:** PF1
- **Gamma:** g1.0

RDM Discovery Indication:
When using RDM to discover the device, the digital display will flash and the connected lights will also flash at the same frequency to indicate. Once the display stops flashing, the connected light also stops flashing. The supported RDM PIDs are as follows:

- DISC UNIQUE BRANCH
- DISC-MUTE
- DISC-UN MUTE
- DEVICE INFO
- DMX START ADDRESS
- IDENTIFY DEVICE
- SOFTWARE VERSION LABEL
- DMX PERSONALITY

- OMX-PERSONALITY DESCRIPTION
- SLOT INFO
- SLOT DESCRIPTION
- MANUFACTURER LABEL
- SUPPORTED PARAMETERS

Product Dimension



DMX signal indicator:
When OMX signal input is detected, the indicator on the display following after the digit of “hundreds” position of DMX address turns on red an I . If there is no signal input, the dot indicator will not turn on, and the “hundreds” position of OMX address will flash.

Choose DMX Channel (Factory default DMX channel is 4CH)

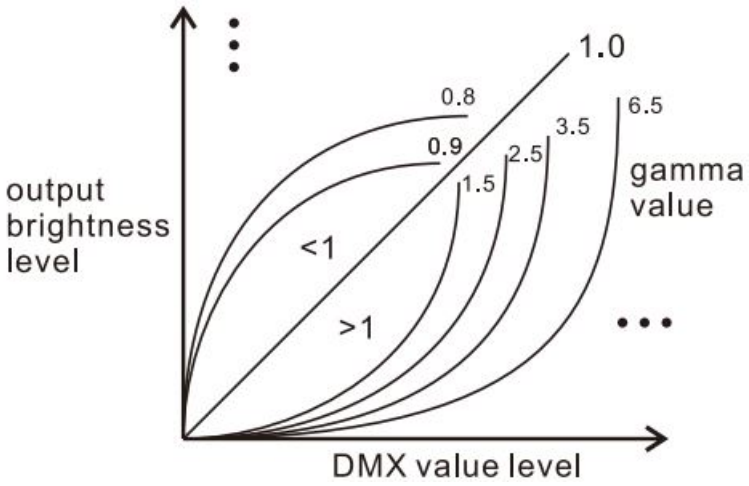
- Press and hold down both buttons B+C simultaneously for over 3 seconds, CH digital display flashes, then keep short pressing button A to choose 1/2/3/4, which means total 1 /of 2/3/4 channels.
- Press and hold down button A for >3 seconds to confirm the setting. Factory default is 4 DMX channels. For example, the OMX address is already set as 001.
- 1 CH=1 OMX address for all the output channels, which all will be address 001 .
- 2CH=2 OMX addresses , output 1 &3 will be address 001, output 2&4 will be address 002
- 3CH=3 DMX addresses, output 1, 2 will be address 001, 002 respectively, output 3&4 will be address 003 4CH=4 DMX addresses, output 1, 2, 3, 4 will be addressing 001, 002, 003, 004 respectively

Choose PWM frequency (Factory default PWM frequency is PF1 1 KHz)

- Press and hold down both buttons A+B simultaneously for over 3 seconds, the digital display will show PF1, PF means output PWM frequency, the digit 1 will flash, which means frequency, then keep short pressing button C to select a frequency from 0-9 and A-L, which stand for following frequencies:
  0=500Hz, 1 =1 KHz, 2=2KHz, .. . , 9=9KHz, A=10KHz, B=12KHz, C=14KHz, D=16KHz, E=18KHz, F=20KHz, H=25KHz,J=35KHz, L=200Hz.
- Then press and hold down button C for >3 seconds to confirm the setting.

Choose Dimming Curve Gamma Value (Factory default dimming curve value is g1 .0)

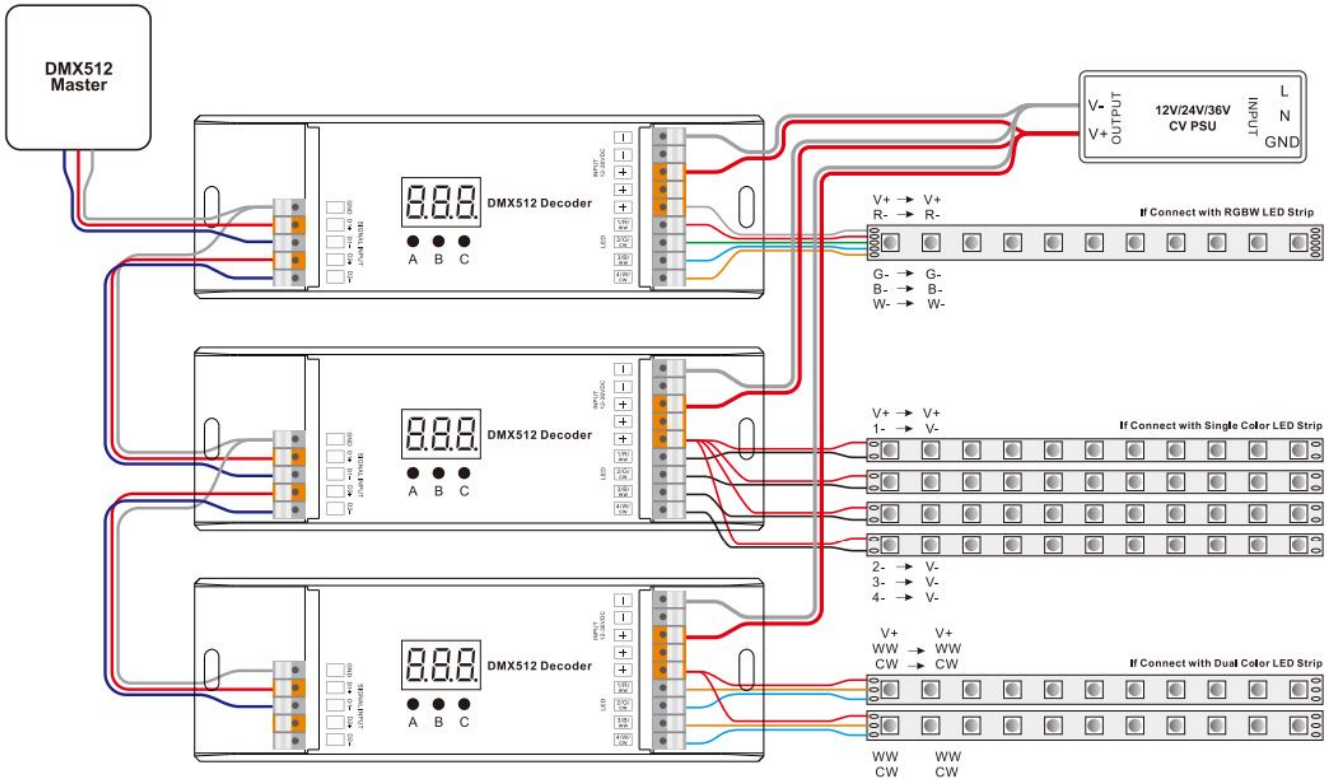
- Press and hold down all buttons A+B+C simultaneously for over 3 seconds, digital display flashes g1 .0, 1.0 means the dimming curve gamma value, the value is selectable from 0.1-9.9
- Keep short pressing button B and button C to select corresponding digits, then press and hold down both buttons B+C for >3 seconds to confirm the setting.



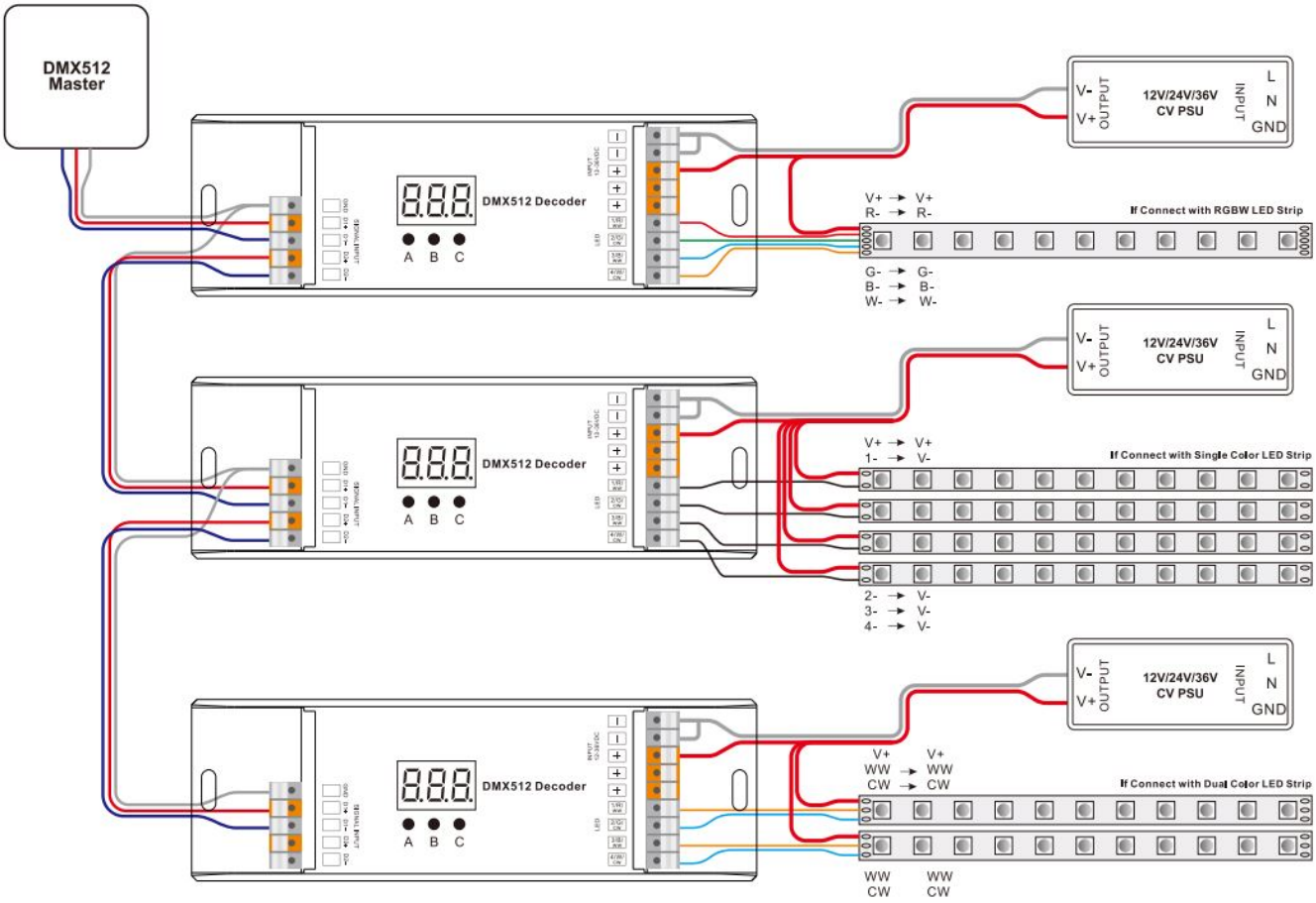
Firmware OTA update

Wiring diagram

1. When total load of each receiver is not over 1 OA



2. When the total load of each receiver is over 1 OA



Documents / Resources

	SUNRICHER SR-2102P RDM Enabled Decoder [pdf] Instruction Manual SR-2102P, SR-2112P, SR-2114P, SR-2102P RDM Enabled Decoder, RDM Enabled Decoder, Enabled Decoder, Decoder

Manuals+.