



iM9

Multi-function Box

User Manual v3.0

Content

Cautions.....	1
1 Appearance	2
2 Hardware connection	3
3 Software configuration	4
3.1 Sensor information.....	4
3.2 Relay control.....	4
3.3 Auto brightness adjust.....	6
3.4 Environment information window	7
3.4.1 Add temperature.....	7
3.4.2 Add humidity.....	7
3.4.3 Add smoke.....	8
3.4.4 Add noise.....	8
3.4.5 Add air quality.....	8
Statement	9

Cautions

To prevent personal injury and to protect the device from damage, read and follow these safety precautions.

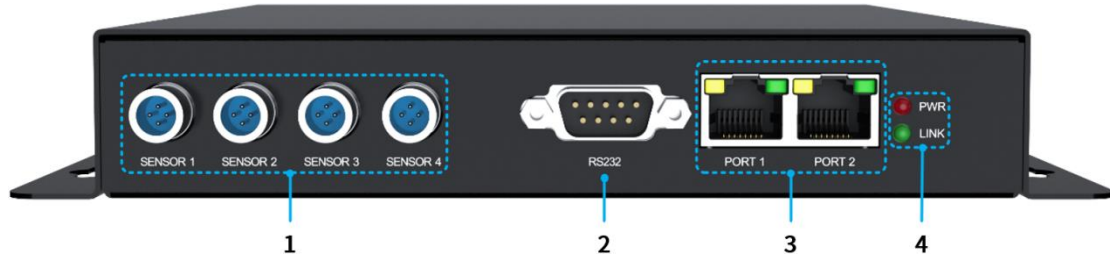
- **Do not disassemble the device**
Only our technicians are allowed to disassemble the device.
- **Only use the power supply and accessories specified by the manufacturer**
The operating voltage of this product is DC 5V. Only use the power cord provided with the product or the power cord that meets the appropriate local rating standards.
- **Prevent function interfaces from contact with charged objects**
This is an electric product. The circuit elements may be damaged if the function interfaces contact charged objects, thus affecting the normal use of the product.
- **Grounding**
To avoid electrical shock, ensure that the product is well grounded.
- **Class A statement**
Warning: Using the product in a residential environment may cause radio interference.
- **Environmental Condition**
Use only at altitudes not more than 5000m above sea level.
- **Avoid Moisture**
This product is not waterproof, so avoid contact with liquid or operating the product in a humid environment.
- **Keep the product away from flammable and explosive hazardous substances.**

Unpacking and inspection

After unpacking, check the items according to the packing list in the box. Please contact the salesman in time if you find the accessories are incomplete.

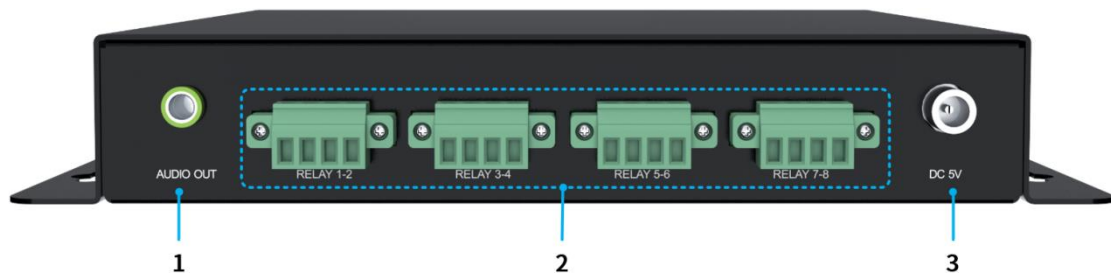
1 Appearance

Front panel



No.	Item	Function
1	SENSOR1~4	External sensor to monitor temperature/humidity/smoke/brightness in real-time. ¹
2	RS232	Serial port for receiving commands of relay control and automatic brightness adjustment.
3	PORT1~2	2xRJ45 Gigabit Ethernet ports. - Connected to a sender or a receiving card. - Both ports support input and output.
4	Indicators	PWR: Power indicator. - Steady red: Normal power supply. LINK: Signal transmission status indicator. - Blinking green: Normal signal input.

Rear panel

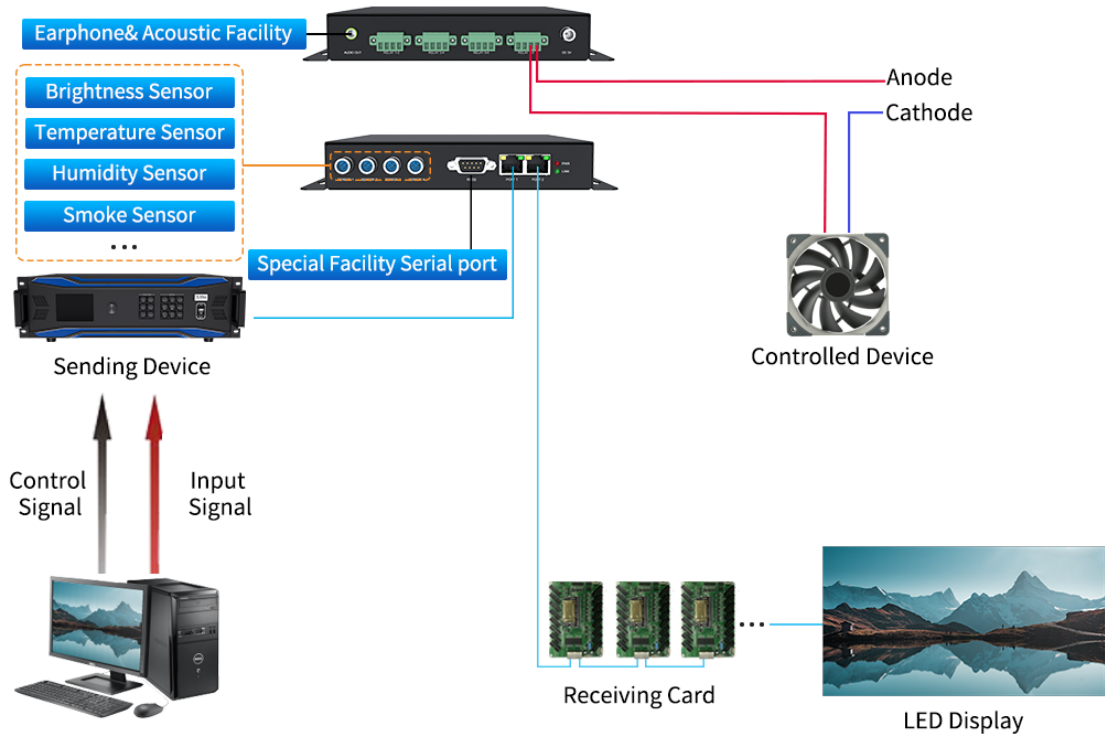


No.	Item	Function
1	AUDIO	Output the audio signal from the sending device.
2	RELAY 1-8 ²	Relay switch control for the auto time delay. - RELAY 1-4 are switches that delay the power on and off. - RELAY 5-8 are controlled switches for temperature and smoke.
3	DC 5V	DC 5V input.

¹ Sensor is optional. Please consult our technicians when using it.

² Current limit: 3A. Voltage limit: DC 30V, AC 42V.

2 Connection



3 Software configuration

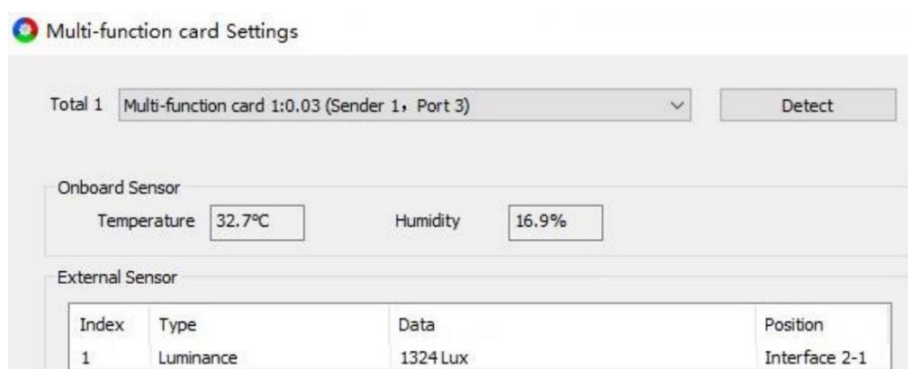
Please use the LEDVISION and LEDSetting software to configure the screen.

- Please make sure the LED screen was set up with the correct receiving card parameters.
- Before setting the parameters, ensure that the hardware is connected correctly, which means the sender and all receiving cards can be detected via software.
- LEDVISION is playback software, and LEDSetting is control software. Visit www.colorlightinside.com to download and install them.

3.1 Sensor information

You can get information about the on-board and external sensors of the Multi-function card automatically via the software. Click **Multi-function card Settings** on the LEDSetting main menu, select **Sensor Information**, then click **Detect**.

- On-board sensors, supporting temperature and humidity monitoring.
- Support external brightness sensor, temperature sensor, humidity sensor, noise sensor, smoke sensor, and air quality sensor.



3.2 Relay control

In order to control the multi-function box relays, click **Multi-function Card Settings** on the LEDSetting main menu and select **Relay Control**.

- The multi-function card time is used for timing control of the screen

power supply (RELAY 1-2, RELAY 3-4). Click **On / Off** to manually control the **Screen Power**. Switch **Delay Time** to change the interval between the manual control of RELAY 1-2 and RELAY 3-4.

RELAY1(J9) Delay Time 1 s

Screen Power RELAY2(J10)

RELAY3(J11) Timing Control **Set**

RELAY4(J12) Auto-Control

- To set timing command, select **Screen Power** (RELAY 1-2, RELAY 3-4) **Timing Control**, then click **Set**, and **Save** it.

Timing Command ✕

Command Execution 10:47:00

Valid Date

Every Day

Limited Date

from 2023/ 4/14

To 2023/ 4/14

Valid Week

No Week Limit

Limited Week Sunday

Monday Tuesday

Wednesday Thursday

Friday Saturday

- To set the auto-control command, select **Screen Power** (RELAY1-2, RELAY3-4) **Auto-Control**, then click **Set**, and **Save** it.

Auto-Control Settings(J9-J12) ✕

Video Signal Control

No signal switch off relays,switch on relays when the signal is recovered

Smoke Control

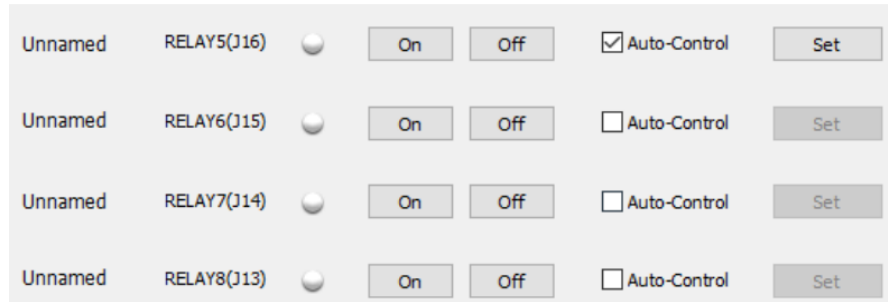
More than 600 ppm (Outdoor) ,switch off relays

Temperature Control

External Sensor Onboard Sensor

More than 60 °C switch off relays.

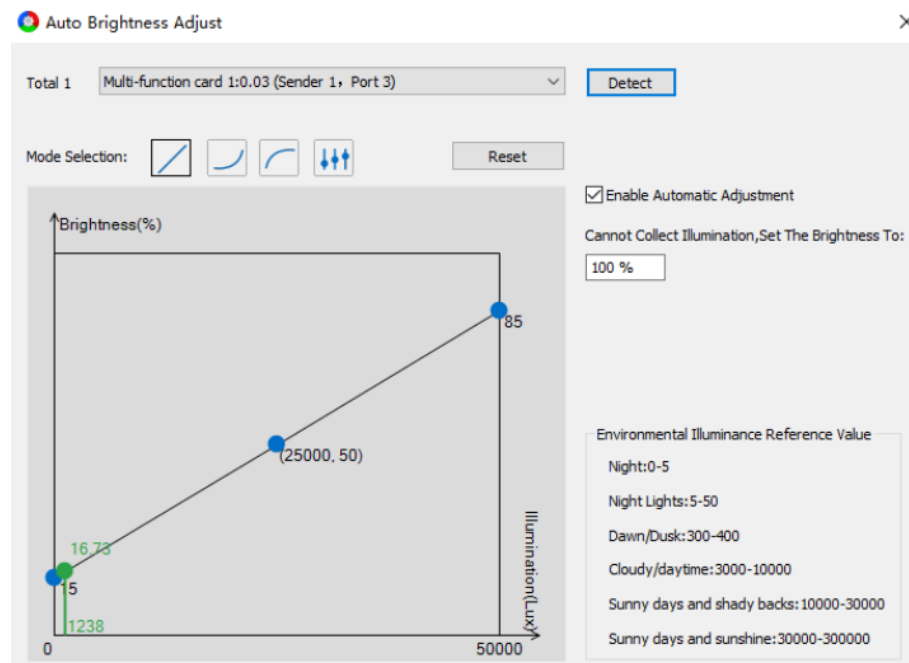
- To control the individual switches (RELAY 5-6, RELAY 7-8), click **On/Off** to manually control the relay switches.



- To set the auto-control command, select relay switches (RELAY 5-6, RELAY7-8) **Auto-Control**, then click **Set**, and **Save** it.

3.3 Auto brightness adjust

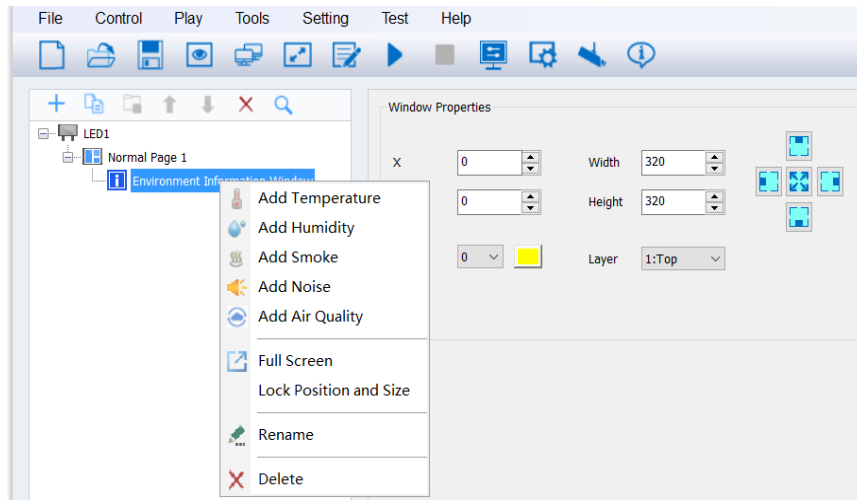
To adjust the brightness of the LED screen, click **Multi-function Card Settings** on the LEDSetting main menu > **Auto Brightness Adjust**, the software can automatically obtain the multi-function card information.



- To turn on the auto-adjustment brightness function, select **Enable Automatic Adjust**. You can switch the brightness adjustment **Mode Selection** as required.
- Drag the **blue dot** on the curve to change the shape of the **auto-brightness curve**.
- If you need to restore the initial curve, click **Reset**.

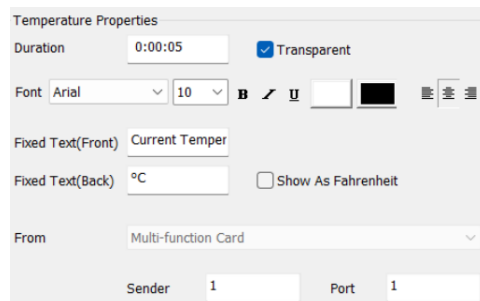
3.4 Environment information window

Right-click LED screen number > click Normal Page > click Environment Information Window to add different monitoring items, such as Add Temperature, Add Humidity, Add Smoke, Add Noise, Add Air Quality, etc. All items will be displayed in a loop.



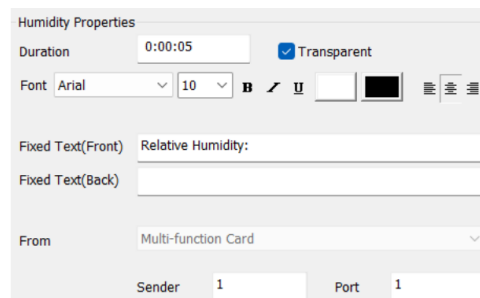
3.4.1 Add temperature information

Right click Environment Information Window > click Add Temperature.³



3.4.2 Add humidity information

Right click Environment Information Window > click Add Humidity.⁴

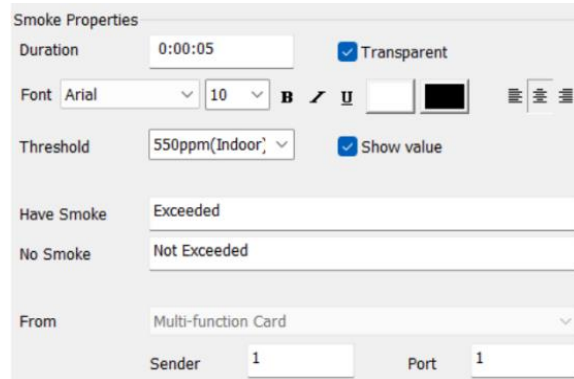


³ Priority display of external temperature sensor monitoring data.

⁴ Priority display of external humidity sensor monitoring data.

3.4.3 Add smoke information

Right click **Environment Information Window** > click **Add Smoke**.
Use with external smoke sensor.

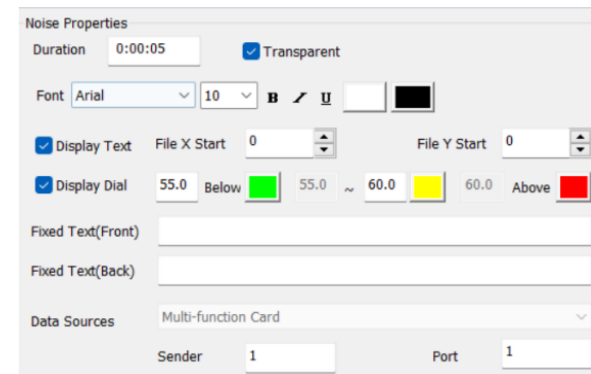


The **Smoke Properties** dialog box contains the following fields and options:

- Duration:** 0:00:05
- Transparent:**
- Font:** Arial, size 10, with bold, italic, and underline icons.
- Threshold:** 550ppm(Indoor), with **Show value** checked.
- Have Smoke:** Exceeded
- No Smoke:** Not Exceeded
- From:** Multi-function Card
- Sender:** 1
- Port:** 1

3.4.4 Add noise information

Right click **Environment Information Window** > click **Add Noise**.
Use with external noise sensor.

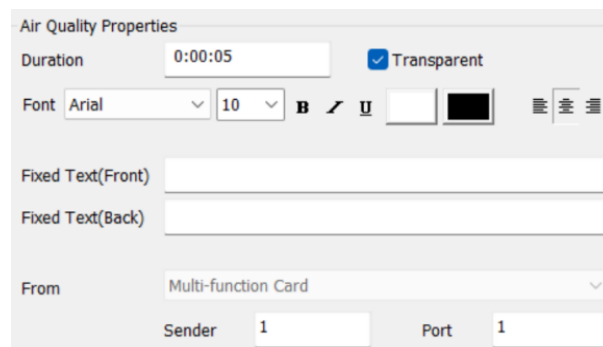


The **Noise Properties** dialog box contains the following fields and options:

- Duration:** 0:00:05
- Transparent:**
- Font:** Arial, size 10, with bold, italic, and underline icons.
- Display Text:** File X Start: 0, File Y Start: 0
- Display Dial:** 55.0 Below (green), 55.0 ~ 60.0 (yellow), 60.0 Above (red)
- Fixed Text(Front):** [Empty field]
- Fixed Text(Back):** [Empty field]
- Data Sources:** Multi-function Card
- Sender:** 1
- Port:** 1

3.4.5 Add air quality information

Right click **Environment Information Window** > click **Add Air Quality**.
Use with external air quality sensor.



The **Air Quality Properties** dialog box contains the following fields and options:

- Duration:** 0:00:05
- Transparent:**
- Font:** Arial, size 10, with bold, italic, and underline icons.
- Fixed Text(Front):** [Empty field]
- Fixed Text(Back):** [Empty field]
- From:** Multi-function Card
- Sender:** 1
- Port:** 1

Statement

Copyright © 2023 Colorlight Cloud Tech Ltd. All rights reserved.

No part of this document may be copied, reproduced, transcribed, or translated without the prior written permission of Colorlight Cloud Tech Ltd., nor be used for any commercial or profit-making purposes in any form or by any means.

This guide is for reference only and does not constitute any form of commitment. Please refer to the actual products (including but not limited to color, size, screen display, etc.).

Service Phone

4008 770 775

Colorlight Cloud Tech Ltd.

Official Website: www.colorlightinside.com

Head Office Address: Room 37F-39F, Building 8, Zone A,

Shenzhen International Innovation Valley, Vanke Cloud City, Dashi Yilu,

Nanshan District, Shenzhen, China

