



LM-WPS41

HD Caption Adder

User

Manual

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Chapter One Installation Notes

For your safety and equipment security, please be sure reading the safety instructions carefully before using the machine.

If you have doubts in the use, please read this manual first. Described in detail in the body of the device's operation. If you still have questions, please contact us, we will give you a satisfactory answer as soon as possible.

Specifications subject to release to change without notice, please understand.

When installing, please note the following:

1. power supply:

This device uses 12V / 3A external power supply, power supports 100-240V AC input voltage, in order to enable the device to work properly, please do not easily replace the brand outside the company and power specifications.

2. power off:

When you need to move equipment or other work must outage, to shut off all power, including the power switch, unplug the power plug, so as to ensure the safety of your equipment.

3. Cable:

Items can not put pressure on the power supply lines, signal lines, communication lines, cable should

keep from trample or extrusion, to prevent the risk of leakage or short circuit.

4. Signal cable:

Inserting or pulling the signal line to the device, the device needs to be outage, so as not to damage the device. Hot plug caused damage not covered under warranty.

5. Vents:

The outer surface of the device may have openings for heat dissipation, do not block these openings, in order to avoid heat build-up, the risk of damage to the equipment or cause fire.

6. Equipment placement:

Should a reasonable settlement for devices such as standard rack mount, chassis, cabinets, or placed on a stable flat work surface to prevent the unit from dropping.

7. surroundings:

Equipment working environment should pay attention to dust, moisture, in particular, to prevent the liquid from soaking and splashing into the interior of the device.

8. service:

All repairs should be done by qualified service personnel , untrained Never attempt to repair equipment. To prevent the risk of electric shock, do not open the cabinet.

9. Safety Precautions:

1). the internal high-voltage equipment, non-professional maintenance personnel shall not open the case, to avoid danger;

2). non-dripping or splashing, prohibited place any container with liquid items on the device;

3). for the prevention of fire,forbiding a device near the fire;

4). for adequate ventilation, equipment should be maintained at least20CM void of the front and rear panels;

5).devices should be immediately unplug the power cord and handled by professional maintenance personnel, such as eerie noise, smell or smoke;

6).In the case of lightning or unused for long periods, unplug the power cord;

7). not stuffed any object to ventilation holes of the device to avoid damage to the equipment or electric shock;

8). not to place the device near water or other damp places;

9). the device should not be placed near heat sink or other high temperature places;

10). properly organize the power cord to prevent breakage;

11). the following conditions should unplug the device's power cord, handled by qualified service personnel:

- the power cord is damaged or frayed;
- When the liquid has been spilled into the device;
- The device is dropped or the cabinet damaged;

- This device malfunction or significant performance changes.
- Regularly check the fan is working properly, if the fan does not work you should turn off the device and disconnect the power supply immediately, handled by the professionals;

This device is not suitable for non-professionals to operate the debugger, users are subject to professional training and guidance.

Please read carefully before using and this manual should be properly preserved for later use.

Chapter two Product Introduction

LM-WPS41 is a versatile image processor, realizing the caption adder, multi-signal fold line switching, signal format conversion, rotate 180 degrees of image, screenshot image, image compression, and other functions through a single piece of equipment.

Product support one composite video, 1 channel VGA, 1 channel HDMI, 1 USB Signal Input, and 1 HDMI, 1 independent audio signal output. input and output signal can support full HD up to 1920 * 1080 / 60HZ. All input signals are support the image and audio synchronization switch.

1. hardware Description

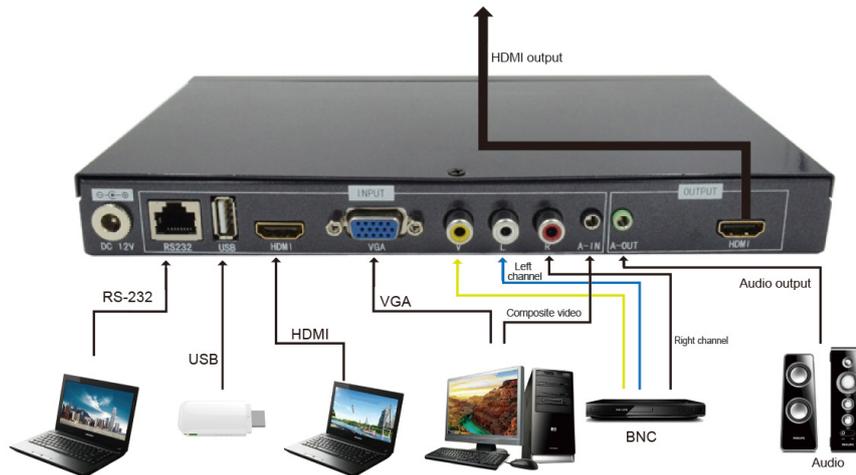


- | | |
|------------------------|-----------------|
| ① Power input (DC 12V) | ⑦ Left channel |
| ② RS232 port | ⑧ Right channel |
| ③ USB input | ⑨ Audio input |
| ④ HDMI input | ⑩ Audio output |
| ⑤ VGA input | ⑪ HDMI output |
| ⑥ Composite video | |

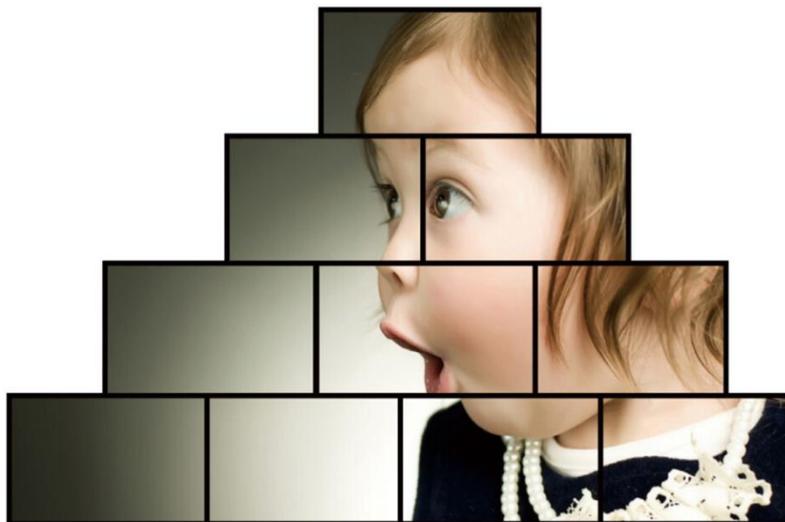


- ⑫ Power indicator
- ⑬ IR

2. the system topology



3. special splicing



Chapter III Machine Installation

1. Unpacking

Check the host and accessories. Including the host, power cable, remote control, RJ-45 to RS-232 adapter, serial cable, warranty card and manual.

2. connecting the cable

Output Connections: The display unit connect with the HDMI interfaces of device's OUTPUT via HDMI cable; If use an external sound, connect the audio cable to the OUTPUT's A-OUT Interface;

Input connection: input signal that contain USB, HDMI, VGA, AV, USB can access U disk and play the videos, pictures inside the U disk and so on. Users connect the signal source to be displayed to the corresponding interfaces inside INPUT box by a cable according to their needs. L, R is the left and right channel audio with binding Composite video ; A-IN audio bind VGA signal.

RS-232 connection: RJ45 to RS-232 adapter which standard configuration with product access RS232 port of device, then connect with the control computer via RS-232 line.

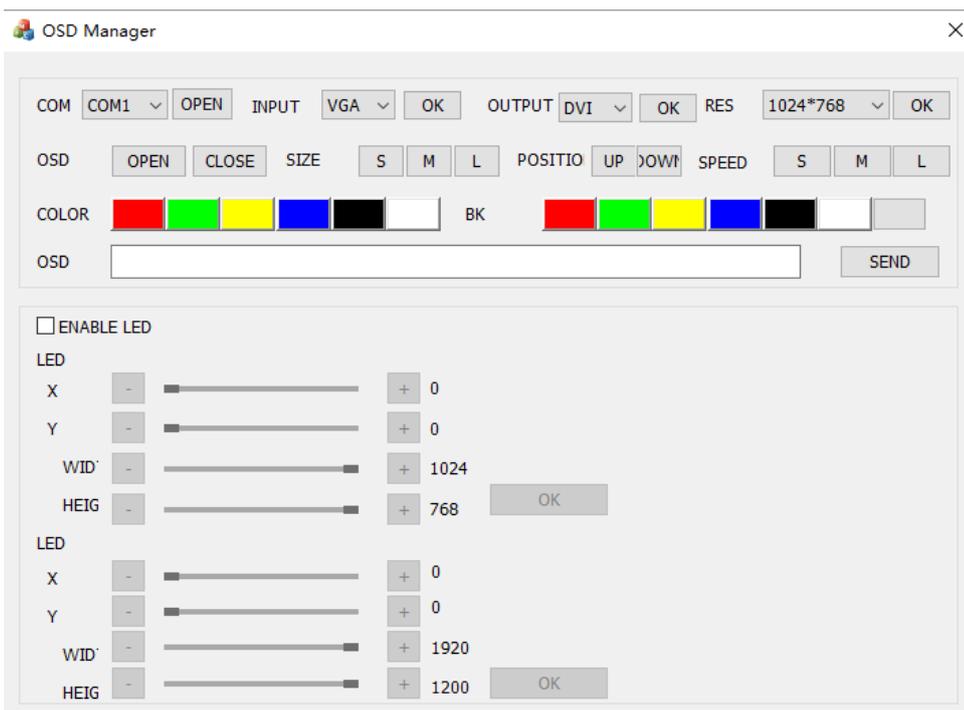
Power connection: 12V DC power supply which standard configuration with product insert the DC 12V,so the hardware connection is completed, the machine can normal work after setting.

Power on: After connecting the cable above, the configured power adapter of the device insert into an AC 100-240V power supply, turn on the power switch, power indicator shows green, indicating that the device is in working condition; red is on standby;on standby state, press the power key of the remote control to boot and into the normal working condition.

Chapter IV software debugging

After completing the hardware connection, to switch the power on by  of remote control, the red light is on standby, the green light is turned on. Please setting software through the following steps:

1. double-click the  OSDManager.exe icon to run the control software, interface as follows:



2. showing the com port number as shown above , you can click directly the **OPEN** of control software communicate with computer. If the control software does not show the COM port number, Check the Windows serial port driver is installed . After installation and displays the port number, then restart the control software to connect.

3. caption adder settings

In **OSD** input character which will be displayed, click **SEND** , click **OPEN** at the where display subtitles, then look at the display unit, you can see the show and the effect of moving of the enter caption; you can also click **CLOSE** to closed captioning display function. And you can set a variety of display effect of captions:

3.1. text color, the color of display font , font color contain red, green, yellow, blue, black and white .

3.2. Background color - Text background color contain red, green, yellow, blue, black, white, transparent color .

3.3. show captions - choose to open, the display unit is displayed subtitle; select Off, the display unit does not display captions.

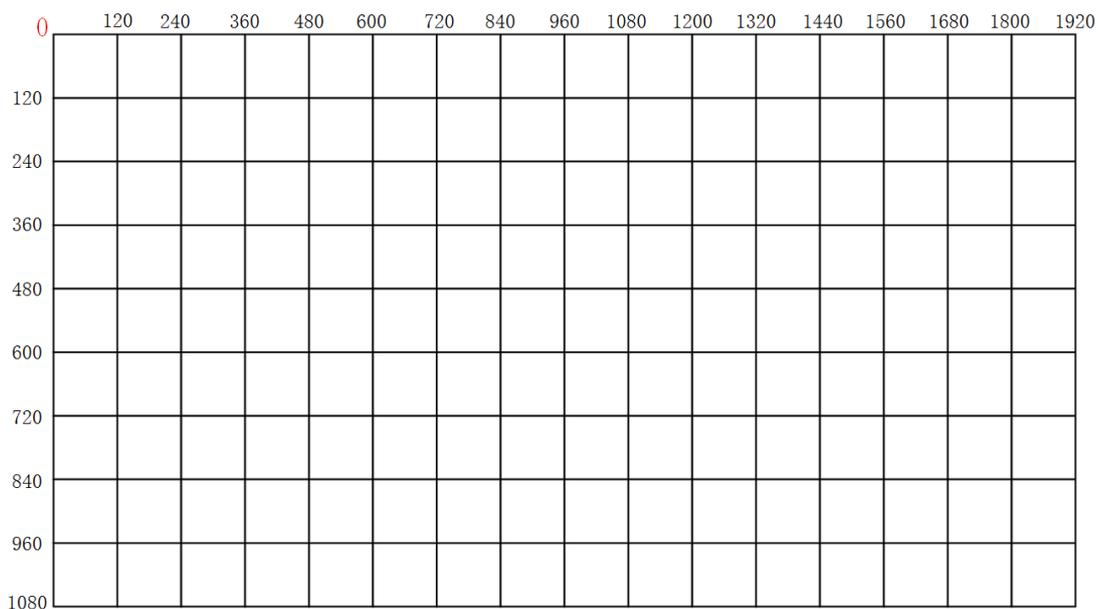
3.4. text size - that is, the font size, optionally, small, medium and large sizes.

3.5. text position - subtitle show above the display unit; the caption display at the bottom of the display unit.

3.6. Font's moving speed - still, text display at the center , do not move; medium-speed, font move from left to right at medium-speed; fast, text fastly moving from left to right.

4. enable the LED function

Click **ENABLE LED** to enable LED function, image can be scaling and screenshots by this feature. Horizontal and vertical coordinate starting marked as 0, the rightward, the greater the transverse coordinates; the downward, the greater the longitudinal coordinates, as shown:

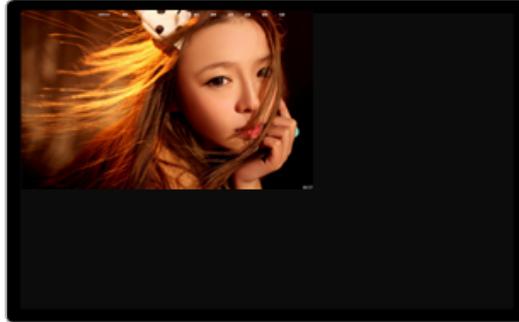


4.1. LED function:

The main role of LED's function is to make a complete video signal compress to show on a part of the display unit, this feature is mainly used in LED full color, as shown below:



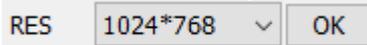
Without compression



After compression

If the user's terminal display is a full-color LED screen, LED screen's pixels of 1680x960, the Send card's resolution of 1920 * 1080, setting in this example:

1. click OK after output resolution of the upper right corner of the control software set to 1920 * 1080, as



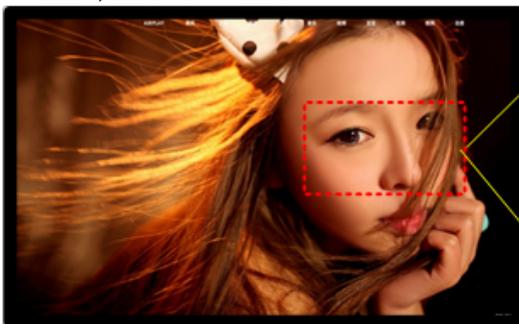
2. enable the LED function;

3. the input image can be displayed in full-screen on LED full-color screen after changing the width of the LED functional areas to 1680, the height to 960 and click OK.

4. change the image's display position of the large screen by adjusting the X and Y's starting point of the region. LED sending card's horizontal and vertical coordinates are generally set to 0, some special places setting depending on the user's demand.

4.2. LED screenshot function

Any part of a complete signal can be intercepted and Zoom to full screen display by LED screenshot function, as shown below:



Without cutout



Full-screen the cut portion

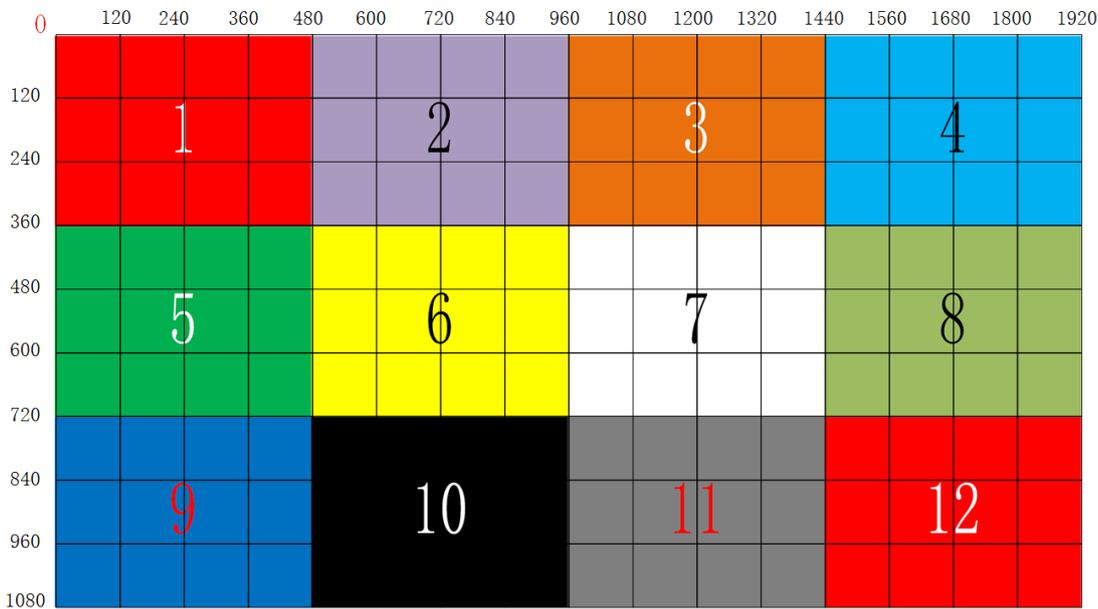
image before intercepting intercepting part of the image and full-screen display

If we want cut out a part of the image, you can estimate the starting point of the X lateral coordinates and Y longitudinal coordinates of the portion of the image, but also to estimate the width and height of the part of the image that to be intercepted. Adjusting the X and Y starting point, width, height of partion of LED screenshot by sliding the mouse to change the value after estimating, and click the "OK" button to complete. After completion, May not be coincided with you purpose of the part of image you want to cut out, then debugging the + or - key of X, Y starting point, width, height, until fully consistent .

The horizontal and vertical resolution of screenshot features, the resolutions of computer output to device shall prevail. Such as, if computer output resolution is 1920 * 1080, so the maximum lateral resolution of 1920 and vertical resolution of 1080, and according to this pixels and ratio of 1920 * 1080

to calculate the part of the screen you wanna intercept when screenshot.

As shown, if the computer input resolution of 1920 * 1080, and you want to cut out the 6th part of the picture, the methods and steps as follows

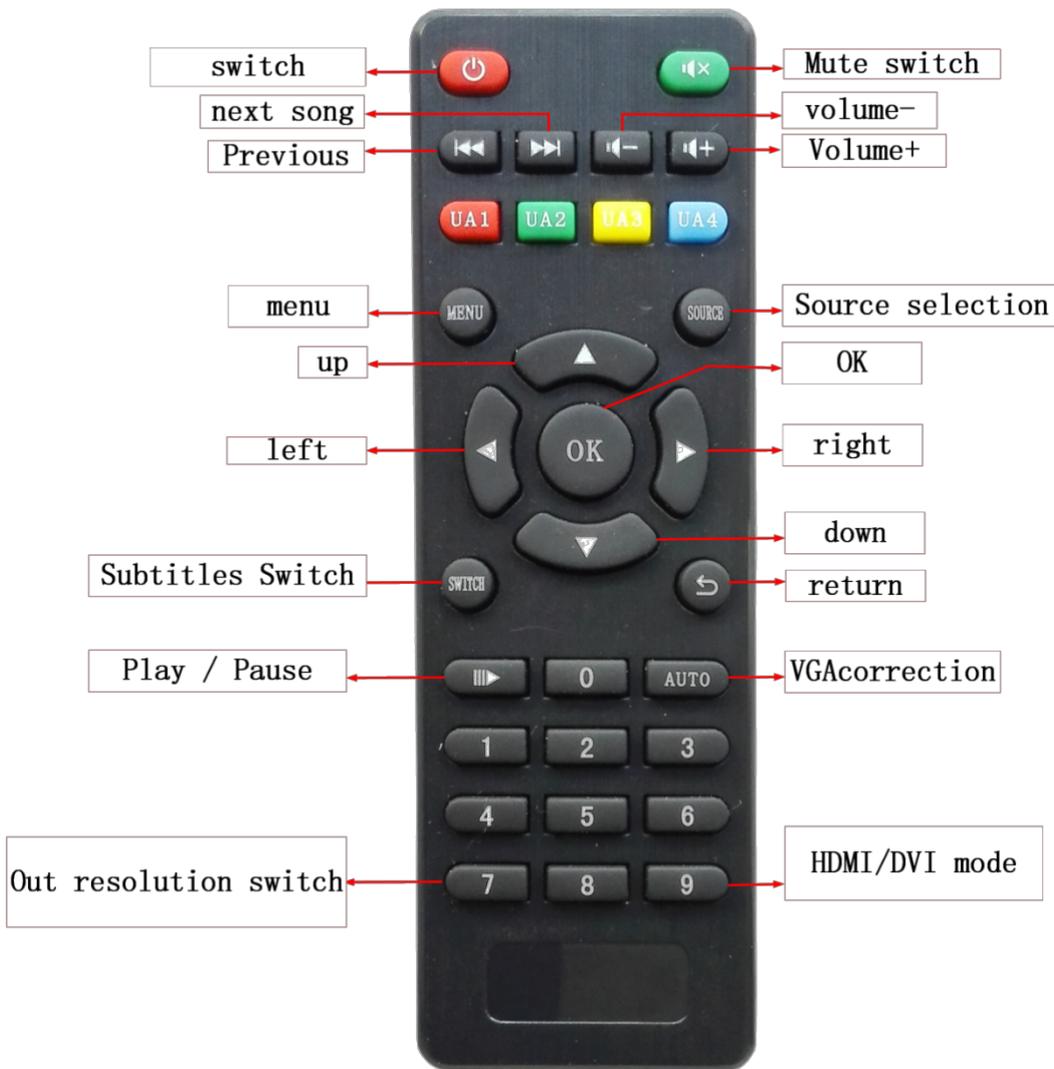


1. the starting point of the transverse direction-X for 480 and the longitudinal direction Y as 360 of this part;
2. estimating the transverse width as 480 and the vertical height as 360 of this section ;
3. by the mouse, pulling to the corresponding value and click OK;
4. After completion, May not be coincided with you purpose of the part of image you want to cut out, then fine tuning the + or - key of X, Y starting point, width, height, until fully consistent .

Chapter V Remote Control Description

Most functions of LM-WPS41 can be done by remote control, like switching the power and standby mode of equipment, mute switch, volume control, play on one and the next track of U disc's video , play / pause of U disk , subtitles superimposed switch, switching the output resolution, source selection, switch DVI and HDMI mode, setting LED's feature, LED screenshot settings and others .

1. picture of remote control as well as functions of each key:



2. Specially Functional Keys:

Most functions of remote control of the device the same as the functions of the common remote control of LCD TV,including the U disk playback function, signal source switching. For common functions not going to describe,only to explain some of the customized features keys of the product:

SWITCH: Click to make subtitles show or closed on the display unit;when display caption, can not invoke the menu if Press MENU, so you need to turn off the subtitles to call out the menu.

AUTO: VGA input signal may show deflected or colour cast,and can be a key calibration by AUTO;

Numeric key 7: Each time you press the numeric key 7 to switch to a different output resolutions, respectively, 1024x768,1280x1024,1440x900,1280x720,1920x1080.

Numeric keys 9: Switch DVI or HDMI output mode;

3. key functions of remote control

on-off key: power and standby switch of splicer;

Mute switch: U disk playback mute on and off function;

On one, the next song: Play the video of the USB signal path, switching program;

Sound + Sound -: Adjust sound volume;

UA1: signal switch to HDMI by a key;

UA2: signal switch to VGA;

UA3: signal switch to composite video by a key;

UA4: a signal switch to USB by a key;

Menu keys: Menu key, used to parameter settings of splicer, after set up press the Menu to save the parameter and exit;

SOURCE: Input signal and pull-down to select;

The up, down, left, right navigation key: used to select the each option of menu;

OK key: used to select the content and set the play mode when USB playback;

SWITCH: stitching on and off, for switch the mosaic wall and single-screen full screen display;

Back key: Under USB signal status, is used to return the playback menu;

Play, Pause: for the video or picture playback or pause under USB;

AUTO: for correcting VGA signal;

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