



CHANGHONG Laser Projector

For Education/Corporation Installation

Sichuan Changhong Electric Co., Ltd.

Add: 35 Mianxing East Road, High-tech Zone, Mianyang, Sichuan, China.
Changhong Laser Display: laser.changhong.com
Changhong Official Website: www.changhong.com

JUN0.018.2612 V1.0

Please read carefully before using

1. Packaging Overview

The packing box of this machine contains the following items. Please check carefully whether the following items are complete. If there are any missing items, please contact your local distributor.



Main Unit × 1



Product User Manual × 1



Remote Control × 1




Power Cord × 1



AAA Battery × 1




Lifting Screws × 4

	Prompt Information
①	Please note that product accessories may be increased or decreased due to product upgrades
②	Due to differences in product application in each country (region), the product accessories may vary in some countries (regions)

2. Product Introduction

2.1 Product Specification Parameters

Product Specification Parameters								
Product Model	E5X36	E5W36	E5F36	Movement System	Android Intelligent Movement			
Display Technology	Laser light source + DLP technology			Network	Wired network + wireless network			
Resolution	1024×768	1280×800	1920×1080	Image correction	Yes			
Picture size	90"~135"			Built-in speakers	5W×1			
Sound Amplification	15w			Implementation	Q20541230-8.154-2019			
Standby power	≤0.5W			Power Supply	AC 110-240V, 50/60Hz			
Port	Network Port × 1 Analog Audio × 1 AV Input × 1 VGA Input/Output × 1 Digital Audio × 1 USB × 1 HDMI × 2 Factory Debug × 1 RS-232 × 1 Audio Input × 1 VGA Input × 1			Body size		381mm×382mm×147mm		
				Net weight of main		8Kg		
				Environment	Run	Temperature	0~35°C	
						Relative humidity	20%~80%	
					Storage	Temperature	- 20~50°C	
						Relative humidity	20%~80%	
 This device contains a radio transmission module with model approval code: CMIIT ID: 2016AP1162								

2.2 Appearance

2.2.1 Main Unit Structure

Figs. 1 to 4 below show the structure of the unit.



Fig. 1 45° left top

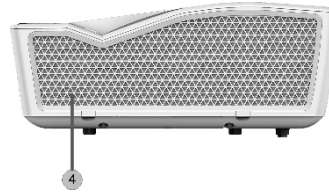


Fig. 2 Right



Fig. 3 Rear

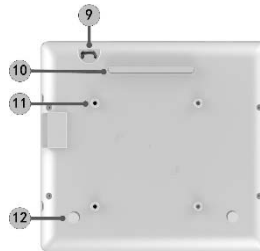


Fig. 4 Bottom

Main Unit Structure	
No.	Name
①	Ventilation mesh
②	Control panel
③	Projection window
④	Ventilation mesh
⑤	Anti-theft lock hole
⑥	Built-in speaker
⑦	Port
⑧	Power jack
⑨	Anti-theft lock catch
⑩	Kickstand
⑪	Lifting hole
⑫	Kickstand

2.2.2 Ports

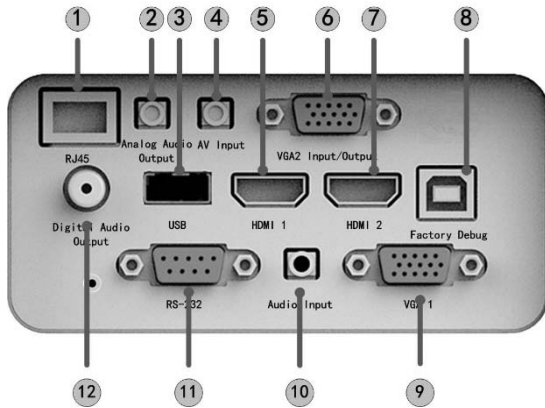


Fig. 5 Port

Port		
No.	Name	Function
①	Network	For wired network connections
②	Analog audio output	Provide output of analog audio signal (L/R)
③	USB	For connection with USB devices, such as flash disk, mobile hard disk drive, etc.
④	AV input	For connection with audio/video equipment, such as DVD, etc.
⑤	HDMI1	For connection with external devices with HDMI ports
⑥	VGA2 input/output	For connection with personal computers or other devices with VGA ports. This port is an input/output multiplexing port and can be set through OSD menu
⑦	HDMI2	For connection with external devices with HDMI ports
⑧	Factory Debug	For factory commissioning tooling only, do not insert any signal wires
⑨	VGA1	For connection with computers or other devices with VGA ports (input ports)
⑩	Audio Input	Analog audio output for connecting audio and video playback equipment
⑪	RS-232	Application of System Integrated Control
⑫	Digital audio output	The "coaxial output" mainly provides the transmission of digital audio signals and can be connected to an external sound system

2.2.3 Remote Control

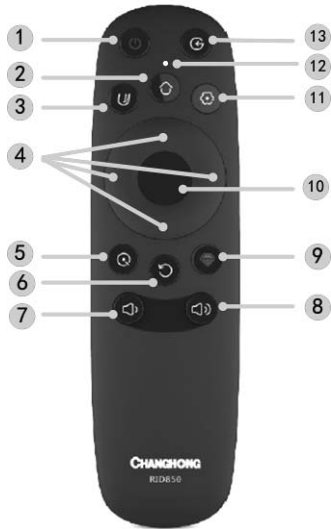


Fig. 6 Remote Controller

Keys and Functions		
No.	Name	Function
①	Power key	Standby state switch
②	Home key	Short press this key to call up the main scene; Long press this key to turn on/off the projector light source
③	Watch Key	Open umax
④	Up/Down/Left/Right	When a menu is displayed, it is menu Up/Down/Left/Right; When the media plays without menu, the function defined by is executed
⑤	Shortcut key	Call up the display settings menu
⑥	Return key	Press this key to return to the previous program/signal source; Return to the previous menu;
⑦	Volume + key	Volume Down
⑧	Volume + key	Volume up

3. Installation and Commissioning

3.1 Installation

According to different application scenarios, the machine supports four installation methods: desktop front projection, desktop back projection, lifting front projection and lifting back projection.

3.1.1 Installation Method

When changing the installation mode, the display mode (front desktop, rear lifting, front lifting and rear desktop) needs to be changed and set from the OSD menu.

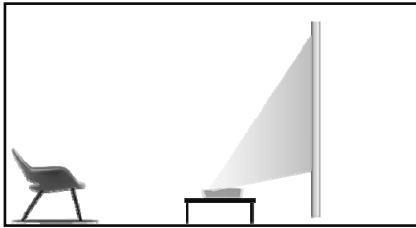


Fig. 9 Desktop Front Projection

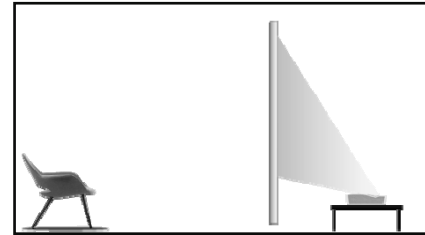


Fig. 10 Desktop Rear Projection

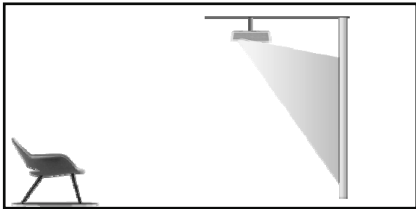


Fig. 11 Lifting Front Projection

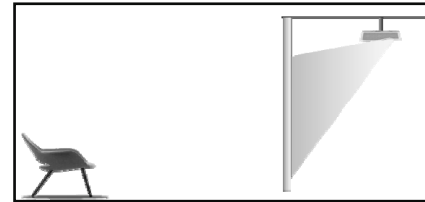


Fig. 12 Lifting Rear Projection

3.1.2 Screen Size and Installation Distance

The distance between the main unit and the screen is proportional to the image size. The closer the main unit is to the screen, the smaller the image size will be; vice versa. The following is a brief description of the relationship between screen size and installation distance, with the desktop front projection as an example. Please refer to the following data to determine the approximate installation distance.

Prompt Information			
①	"①" in Fig. 13 is the distance between the back end of the main unit and the screen	②	"②" in Fig. 13 is the height of the top of the main unit relative to the bottom of the screen
③	It is suggested that the viewing distance should be more than 1.5 times of the diagonal length of the screen	④	The under data are for users' reference only. Please be noted that there may be deviations in actual use

Screen size and installation distance (E5X36)				Unit: mm	
Screen Size	Width of Display Area	Height of Display Area	Projection distance ①	Height from main unit to screen ②	
70"	1422	1067	428	160	
80"	1626	1219	484	183	
90"	1829	1372	542	206	
100"	2032	1524	605	229	
110"	2235	1676	652	251	
120"	2438	1829	712	274	
135"	2743	2057	791	309	

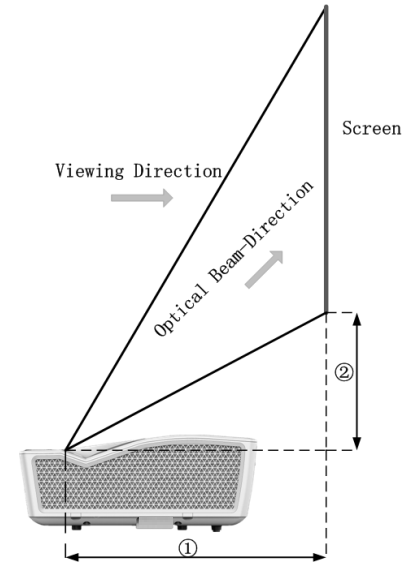


Fig. 13 Installation distance

Screen size and installation distance (E5W36)				Unit: mm
Screen Size	Width of Display Area	Height of Display Area	Projection distance①	Height from main unit to screen②
70"	1508	942	351	141
80"	1723	1076	402	161
90"	1938	1211	452	182
100"	2153	1346	502	202
110"	2369	1481	552	222
120"	2584	1615	602	242
135"	2908	1817	678	273

Screen size and installation distance (E5F36)				Unit: mm
Screen Size	Width of Display Area	Height of Display Area	Projection distance①	Height from main unit to screen②
70"	1550	872	361	153
80"	1771	996	413	174
90"	1992	1121	464	196
100"	2214	1245	516	218
110"	2435	1370	567	240
120"	2657	1494	619	262
135"	2989	1681	696	294

3.2 Picture Adjustment

3.2.1 Adjust Image Position

This section takes the installation method of desktop front projection as an example to explain the picture adjustment for users' reference.

- a. Connect the power supply and start the main unit;
- b. According to the picture display, adjust the size and position of the picture by moving the main unit forward, backward, left and right or rotating the height adjustment kickstand.

3.2.2 Focus Adjustment

- a. Call out the electric focusing screen through the user menu: long press the "Menu" key of the remote controller → select **Display Setting** → select the **Electric Focusing**;
- b. Adjust the focal length by pressing the "Left/Right" key of the remote controller until the picture becomes clear from blur.

3.2.3 Image Correction

E5F36:

- a. Long press the "Menu" key of the remote controller → select **Display Settings** → select **Image Correction** to enter the **Image Correction** menu;
- b. Select the position to be corrected through the "Up/Down/Left/Right" key of the remote controller and press the "OK" key;
- c. Adjust vertically through the "Up/Down" key of the remote controller and horizontally through the "Left/Right" key;
- d. After completing the correction of one position, press the "Return" key, and then repeat the operations of b and c until the correction of the whole picture is completed.

E5X36 and E5W36

- a. Long press the "Menu" key of the remote controller → select **Display Settings** → select **Image Correction** to enter the **Image Correction** menu;
- b. When the picture is narrow at the top and wide at the bottom, press the "Left" key to correct, and when the picture is narrow at the bottom and wide at the top, press the "Right" key to correct;
- c. According to the distortion of the picture, use the "Left/Right" key to make geometric correction until the picture becomes square.


4. Operating Instructions

4.1 Basic Settings Menu

- a. Under the program source and local media, press the "Menu" key to open the "Settings" menu, and press the "Up/Down" key to cycle through the adjustment items of the first-level menu, and press the "OK" key or the "Right" key to enter the next-level menu. When any parameter adjustment option is selected, press the "OK" key to confirm the selection or enter for adjustment, and then use the arrow key and the "OK" key to adjust.
- b. Under any scene, long press the "Menu" key to call up the "All Settings" menu, and press the "Up/Down" key to select various menus, and then press the "OK" key to enter;
- c. The parameters such as sound, image, network, system, etc. can be set in the "Settings" and "All Settings" menus;
- d. After completing the required operations, press the "return" key to return to the previous menu interface step by step, or press the "Menu" key to exit the menu directly.

4.2 System Home Page

- a. Short press the "Home" key to enter the "Main Scene" interface;
- b. There are submenus such as Settings, Memory Optimization, Program Source, TV Manager, Personalization, Weather, Media Center, Multi-Screen Interaction, App Lock, Display Settings, WPS Projection, etc. under the home menu, which can be configured according to specific requirements.

	Prompt Information
①	Some options in the user's operation interface are not selectable, displayed or hidden automatically in different models, signal sources or states
②	The user operation interface can be updated through software upgrade. If there is any difference between the user manual and the final product, the actual display shall prevail

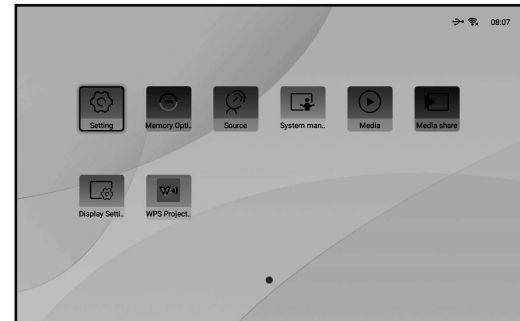



Fig. 14 System Home Page

5. Safety Precautions

This machine contains a laser module. For your safety, please follow the following tips.

	Precautions
①	Do not look directly at the bright light emitted by this machine, otherwise it may cause eye injury
②	Do not open or disassemble the machine, which may cause damage due to exposure to laser radiation
③	Do not use some optical instruments (such as magnifying glass and microscope for experiments) to observe the laser output, otherwise eye injury may be caused
④	Wear professional laser protection glasses when there is a need to have direct contact with bright light
⑤	Appropriate instructions for assembly, operation and maintenance, including preventive measures and clear warnings to avoid possible exposure to laser light and accompanying excessive radiation reaching Class 1 emission limits
⑥	For your safety, please select the right viewing direction

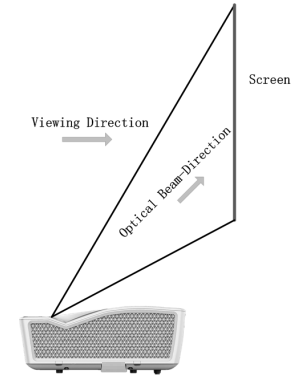



Fig. 15 Viewing Direction

Prompt Information:

- Conforming to Class 3B laser equipment conforming to 60825-1: 2014 (Third Edition) .




	<h2 style="text-align: center;">Precautions</h2>
①	Do not place the machine near heat sources such as direct sunlight, radiator, fire or stove
②	When the machine is moved from a low temperature environment to a high temperature environment, condensation may occur inside the machine. Please do not use it immediately
③	In case of any abnormality or malfunction, such as no image, no sound, smoking or unusual odor, please disconnect the power supply immediately, unplug and contact our after-sales service personnel to start the machine for inspection
④	Do not block the air vent and install the machine in a well-ventilated place to prevent the machine from overheating
⑤	Do not use flammable materials such as books and cardboard to block the light beam emitted by the machine. Flammable materials may melt or ignite objects or even cause fire when exposed to the light beam for a long time
⑥	Do not place the machine directly in areas with poor ventilation such as carpets, cushions, bookshelves or closets.
⑦	To facilitate ventilation, please ensure that the distance between the ventilation opening of the machine and the wall is greater than 30cm
⑧	Do not place flammable spray or other flammable substances beside this machine
⑨	If there is a gas leak, please do not touch or switch the wall socket. Open the window immediately for ventilation
⑩	Do not touch or wipe the lens with hands or ordinary cleaning cloth. To remove dust from the lens, please use an ear syringe ball
⑪	When installing the machine by hoisting, professional technicians shall use corresponding professional tools for installation. Improper installation may cause the machine to fall, thus causing personal injury or damage to the machine
⑫	Please contact your dealer or Changhong After-sales Service Center for inspection, adjustment or maintenance. Non-professional operation may cause electric shock or damage to the machine

6. Environmental protection statement

In order to realize cleaner production of products, improve resource utilization efficiency, protect the environment and human health, and promote the sustainable development of the industry, the toxic and harmful substances in this machine are controlled according to the requirements of *Measures for Pollution Control and Management of Electronic Information Products*. The relevant information is as follows:

Part Name	Toxic and Harmful Substances or Elements					
	Lead and its Compound	Mercury and its compounds	Cadmium and its compounds	Hexavalent chromium compound	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ether (PBDE)
Laser light source	×	○	○	○	○	○
Circuit board assembly	×	○	○	○	○	○
Optical machine assembly	×	×	○	○	○	○
Power Switch	○	○	×	○	○	○
Remote Control	×	○	○	○	○	○
*: Circuit board components include printed circuit boards and their components, such as resistors, capacitors, integrated circuits, etc.						
○: indicates the content of the toxic and harmful substance in all homogeneous materials of the component is below the limit specified in the standard of GB/T26572						
×: indicates that the content of the toxic and harmful substances in at least one homogeneous material of the component exceeds the limit requirements specified in the standard of GB/T26572						

Note: The reason why the content of toxic and harmful substances or elements in the above-mentioned product components exceeds the limit specified in the standard is that there is no fully mature substitute for the time being due to the limitation of current industry technology and technological level

	It indicates that packaging materials can be recycled, please do not discard them at will
	It indicates that the environmental protection service life of the product is 10 years under normal working and using conditions, and the product can be used safely within the environmental protection service life
	In order to protect the environment, used batteries and products can be recycled by regular dealers or manufacturers. Please do not discard them at will

7. Warranty Service

Dear user,

Thank you for your favor to CHIQ products! Please fill in the warranty card timely and accurately to ensure that you can get better service after purchasing the product. In the future using process, if there is product failure or you have any comments/suggestions, please contact us through authorized local dealers:

Or you can reach us directly by visiting our website: laser.changhong.com

About after-sale service including installation, service and maintenance, the local country laws and authorized local dealer's policy shall prevail.

Regards,
Sichuan Changhong Electric Co., Ltd.

Please paste the purchase invoice and local dealer's warranty service guarantee terms card here.

Warranty

- a. During the warranty period, if there is any fault caused by the product quality issues, you can enjoy maintenance service with the completed service warranty card and purchase invoice.
- b. Please properly keep the service warranty card and the purchase invoice as the warranty certificate.
- c. The warranty will automatically become invalid once the service warranty card and the purchase invoice are altered.
- d. Matters not covered shall be implemented with reference to relevant national laws and regulations or industry regulations.

Under any of the following circumstances, the warranty service will not be applicable, and you will be provided with charged maintenance services:

- a. Exceeding the validity period.
- b. Damage caused by improper use, maintenance and storage.
- c. Damage caused by dismantling by unauthorized persons.
- d. Lack of warranty card and invoice (unless the product can be proved that it is within the validity period).
- e. Altering the warranty card without authorization.
- f. The product model or number of the warranty card does not conform to the actual goods.

In case of any changes in the list above, the newly formulated relevant regulations of the company or the relevant laws and regulations updated by the country shall prevail.

Warranty Card

Date of Installation: ____/____/____

User name		Tel	
Address			
Machine model		Shopping mall	
Invoicing date		Invoice No.	
Body barcode			
Service Status: <input type="checkbox"/> Screen Installation and Commissioning <input type="checkbox"/> Mount Installation and Commissioning <input type="checkbox"/> Separate Onsite Debugging			
Please confirm the wall properties for screen installation: <input type="checkbox"/> Solid Brick Wall <input type="checkbox"/> Hollow Wall Brick <input type="checkbox"/> Wooden Wall <input type="checkbox"/> Other			
The appearance of the machine and the electrical performance are in good condition after installation: <input type="checkbox"/> normal <input type="checkbox"/> abnormal			
User Satisfaction Survey: <input type="checkbox"/> Satisfied <input type="checkbox"/> Not Satisfied			
User signature:			
<i>Authorized Dealer Information</i>			

The first copy is retained by customer (warranty card)



Warranty Card

Date of Installation: ____/____/____

User name		Tel	
Address			
Machine model		Shopping mall	
Invoicing date		Invoice No.	
Body barcode			
Service Status: <input type="checkbox"/> Screen Installation and Commissioning <input type="checkbox"/> Mount Installation and Commissioning <input type="checkbox"/> Separate Onsite Debugging			
Please confirm the wall properties for screen installation: <input type="checkbox"/> Solid Brick Wall <input type="checkbox"/> Hollow Wall Brick <input type="checkbox"/> Wooden Wall <input type="checkbox"/> Other			
The appearance of the machine and the electrical performance are in good condition after installation: <input type="checkbox"/> normal <input type="checkbox"/> abnormal			
User Satisfaction Survey: <input type="checkbox"/> Satisfied <input type="checkbox"/> Not Satisfied			
User signature:			
<i>Authorized Dealer Information</i>			

The second copy (retained by authorized dealer)

