CHiQ

Laser Theater Projector

For Home Installation

Sichuan Changhong Electric Co., Ltd.

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JUN0.018.5758 V1.0

Please read carefully before using

◼◼Dolby Vision·Atmos | dts HD | 4K | MEMC | DLP TEXAS INSTRUMENTS

Table of Contents

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

Lifting screws×4

	Prompt Information
①	Please note that product accessories may be increased or decreased due to product upgrades; the appearance of remote control shall be subject to the real object
②	Due to differences in product application in each country (region), the product accessories may vary in some countries (regions)
③	The diagrams in this product manual are only examples, and may differ from the actual product, please refer to the actual product (this statement is throughout this product manual)

2. Product Introduction

2.1 Product Specification

Product Specification Parameters					
Product Model	B8U	Movement System	Android Intelligent Movement		
Display	Laser light source +DLP technology	Network connection	Wired network + wireless network		
Resolution	3840×2160	Method of remote	Bluetooth		
Recommended Display Size	100''	Built-in speakers	10W×2		
		Implementation standard	Q20541230-8.154-2019		
Power Supply	100-240V~, 3A, 50/60Hz	Body size (approx.)	486mm×326mm×133mm		
Port	LAN ×1 COAX ×1 AUDIO OUT×1 S/PDIF ×1 RS-232×1 USB×2 HDMI ×2	Net weight of main unit	10.5Kg		
		Environment	Run	Temperature	0~35℃
				Relative humidity	20%~80%
			Storage	Temperature	−20~50℃
				Relative humidity	20%~80%
💬	This device contains the model approval code: CMIIT ID：2021AP10608（M） or CMIIT ID: 2021AP8949 radio transmission module				

2.2 Appearance

2.2.1 Main Unit Structure

Figs. 1 to 4 Structure
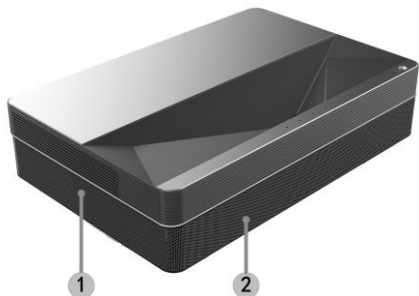

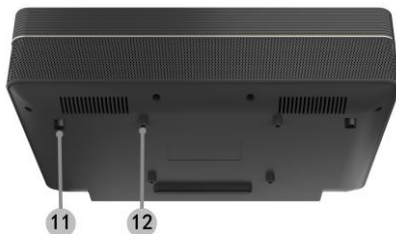Fig. 1 45° left top

Fig. 2 Front top

Fig. 3 Rear view

Fig. 4 30° bottom view

Main Unit Structure	
No.	Name
①	Ventilation mesh
②	Voice emitting hole of built-in speaker
③	Infrared protective sensor
④	Camera
⑤	Light emitting hole
⑥	Power key and indicator
⑦	Ventilation mesh
⑧	Port
⑨	Power input
⑩	Anti-theft lock hole
⑪	Height adjusting Kickstand
⑫	Lifting screw hole

2.2.2 Ports

Fig. 5 Port

	💬	
①	As the starting current of USB mobile hard disk is big, when the file in USB mobile hard disk is playing in the device, please do not plug another USB mobile hard disk into/out other USB interfaces, so as to avoid damaging the device or causing other malfunctions	
②	HDMI does not support DTS-CD audio decoding	

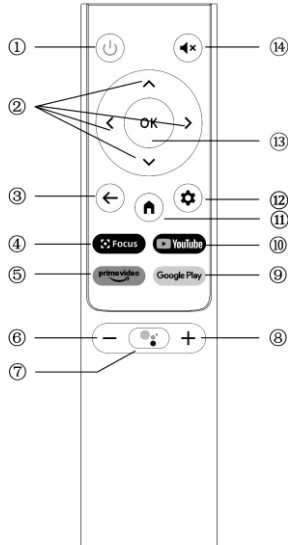| Port		
No.	Name	Function
①	LAN	For wired network connections
②	COAXIAL	The "coaxial output" mainly provides the transmission of digital audio signals and can be connected to an external sound system
③	AUDIO OUT	Provide output of analog audio signal (L/R)
④	SPDIF	Fiber interface for digital audio output
⑤	RS232	Control interface
⑥	USB	For connection with USB devices, such as flash disk, mobile hard disk drive, etc
⑦	USB	For connection with USB devices, such as flash disk, mobile hard disk drive, etc
⑧	HDMI 2(eARC)	For connection with external devices with HDMI ports (ARC)
⑨	HDMI 1	For connection with external devices with HDMI ports

2.2.3 Remote Control

Fig 6 Remote Control

No.	Name	Function
Keys and Functions		
①	Power key	Standby switch
②	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 the system is executed
③	Return key	Return to the previous menu
④	Focus key	Open the focus menu
⑤	Hot key	One key goes to APP
⑥	Volume - key	Volume down
⑦	Voice Control	Press to start voice interactive
⑧	Volume + key	Volume up
⑨	Hot key	One key goes to APP
⑩	Hot key	One key goes to APP
⑪	Home key	Call up the main scene
⑫	Setting Key	Open setting menu
⑬	OK key	Enter the page of selection
⑭	Mute Key	Press to open/close mute

Matching of remote control

  The remote controller for this projector bounded with IR and Bluetooth function together. To use remote controller in Bluetooth model, please follow the following guide to pair remote controller with projector at the first using.
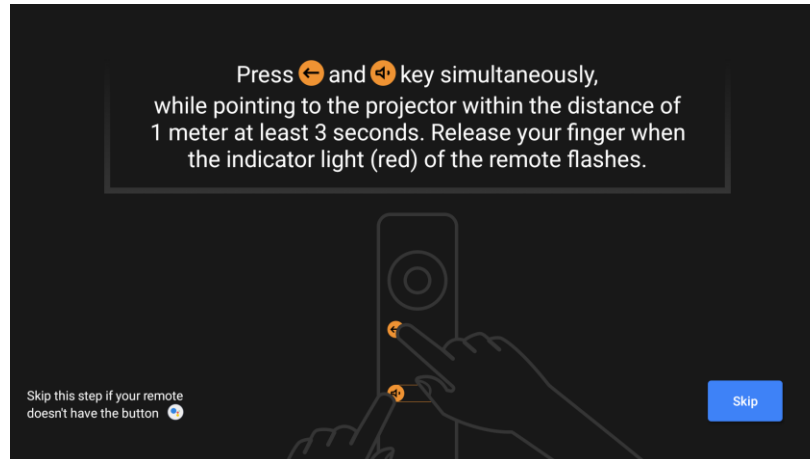

Fig 7 Remote control pairing

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

The display mode (front desktop, rear lifting, front lifting and rear desktop) needs to be changed and set from the OSD menu due to different applications.
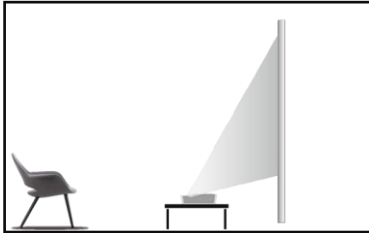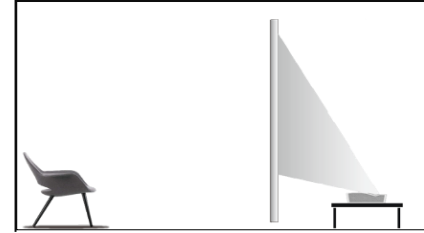
Fig. 8 Desktop Front Projection
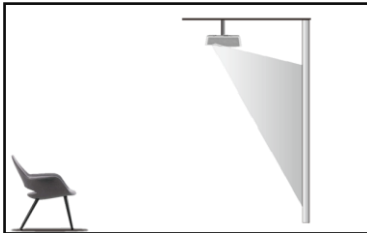
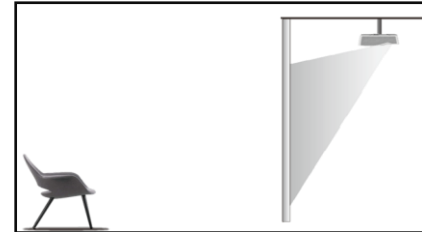Fig. 9 Desktop Rear Projection

Fig. 10 Lifting Front

Fig. 11 Lifting Rear

3.1.2 Screen Size and Installation Distance

The distance between projector and screen is proportionate to display size, the closer the projector and the screen, the smaller the display size. Conversely, the bigger the display size. Please read screen user manual carefully before installing, Laser Theater is precise optical device, it is recommended to be installed by authorized professional technicians. Please follow the below steps to install.

a. Confirm display size and projector position: confirm display size and projector position according to screen size and installation environment.

b. Image position: put projector onto TV bench, adjust focusing to make clear the image, move projector to confirm image size(same as screen display area) and position.

c. Projector position: Mark projector position, easy to recover if projector moving is required.

d. Screen position: keep image stable, mark screen position with the help of screen user manual, move away the projector.

e. Screen installation: install screen according to screen user manual.

f. Projector position: put the projector back to the place which we marked.

g. Adjust image: start projector, adjust focusing, move projector position, make sure the image covers all screen surface.

Screen Size and Display Distance			Unit: mm
Screen Size	Display Width	Display Height	Distance between Projector and Screen①
80"	1771	996	102
90"	1992	1121	148
100"	2214	1245	195
110"	2435	1370	241
120"	2657	1494	288
🗨	1. Viewing distance is recommended to be 1.5 times than screen diagonal length, it will influence eye vision if watching screen in near distance for long time. 2. It is recommended to use screen which has the same display ratio as the projector. 3. The above data is for reference only, There may be deviations, please note.		

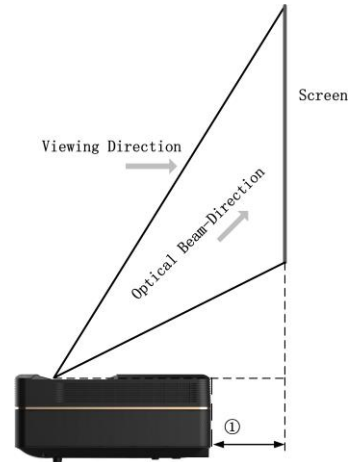
Fig. 12 Installation distance

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.
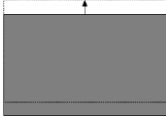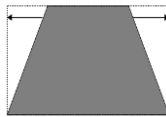
a．Connect the power supply and start the main unit;

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.

Fig. 13 Height adjusting screw

Following sheet shows the projection image relative

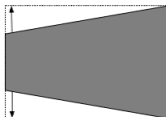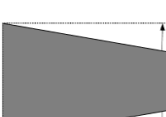| Description	Appearance	Adjustment	Description	Appearance	Adjustment
Image smaller than screen		Pull out the projector	Image down from the screen		Move projector up or move screen down
Image bigger than screen		Push in the projector	down trapezoid		Drive the screw counterclockwise the height adjusting screw
Image at the left of screen		Move projector to right	Up trapezoid		Drive the screw clockwise the height adjusting screw
Image at the right of screen		Move projector to left	Left trapezoid		Move projector counterclockwise
Image up from the screen		Move projector down or move screen up	Right Trapezoid		Move projector clockwise

3.2.2 Focus Adjustment

a． Press the "focus" key or follow the steps below, press the remote control "Setting" key -> select "Projector settings" -> select "Focus Adjustment";

b． Adjust the focus according to the screen prompts until the screen becomes clear from blurry.
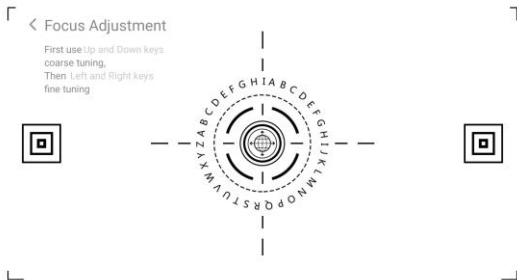

Fig. 14 Focus adjustment

3.2.3 Image Ajustment

a． Press the "focus" key or follow the steps below, press the remote control "Setting" key -> select "Projector settings" -> select "Picture Calibration";

b． After entering the image ajustment menu, follow the screen prompts to correct the image through the arrow keys on the remote control.
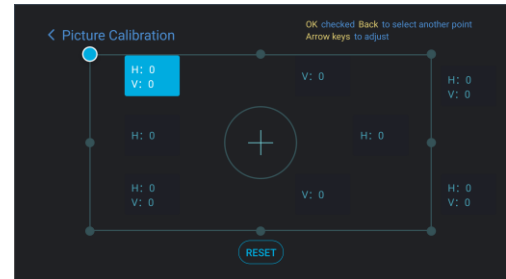

Fig. 15 Image Ajustment

4. Operating Instructions

![icon]	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

4.1 Boot guidance

   You can follow the "Boot guidance" prompts for country and language, remote control pairing, quick Settings, network Settings, login Google account, set password lock, set the region and other Settings.   The boot guidance can be started after the first boot or factory Settings are restored.   The following is an excerpt from the boot guidance
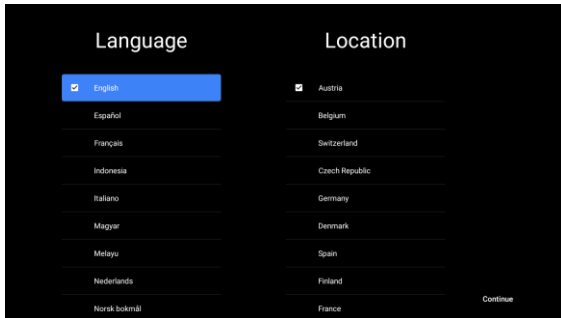

Fig. 16 boot guidance graphic expression 1
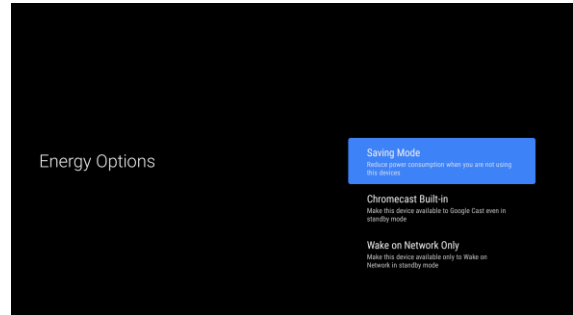
Fig. 17 boot guidance graphic expression 2

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4.2 System Home Page

a. Press the "Home" key to enter the "Main Scene" interface;
b. The home page displays a list of commonly used apps. Select the corresponding App icon and hold down the OK key to call out sub-menus such as "Open" and "Sort";
c. Select Apps to open the list of common Apps;
d. Use the shortcut icon in the upper left corner of the home page to access the Voice Menu and Search menus;
e. Use the shortcut icon in the upper right corner of the homepage to access the menus of Notifications, Inputs, Network&Internet, and Settings.

Fig. 18 System Home Page

No.	Graphic expression	Title
①		open"Apps"
②		The voice menu
③		The search menu
④		Notifications
⑤		inputs
⑥		Network&Internet
⑦		Settings

4.3 AI PONT

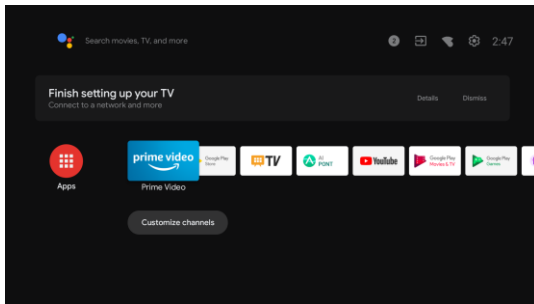a. "AI PONT" is used to display and control installed applications. The functions include opening applications, sorting applications, displaying application information, and uninstalling applications;
b. Click the AI PONT application icon from the home page to enter "AI PONT";
c. Display content is related to application attributes;
d. Select Uninstall. The application uninstallation page is displayed. Only user-arranged applications can be uninstalled. Pre-installed applications cannot be uninstalled.
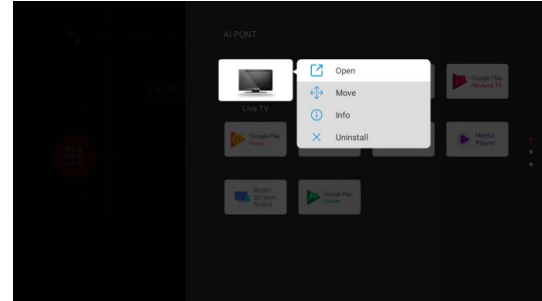
Fig. 20 AI PONT submenu
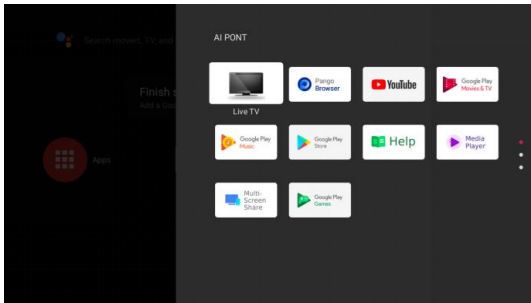
Fig. 19   AI PONT
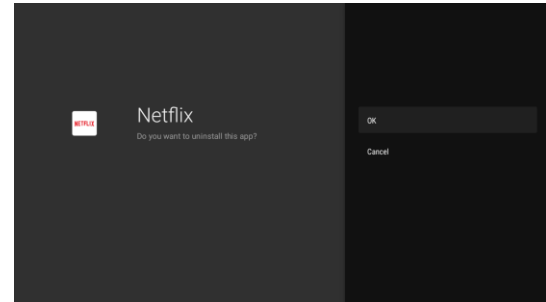
Fig. 21 uninstall app

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4.4 Help

On the home page, select the Help application icon to open the application. Help is used to briefly introduce the usage methods and procedures of the main functions of the local system.   The options include Interface, Homepage, Application, Settings, Google Assistant, Multi-Screen, Disclaimer, and Troubleshooting.
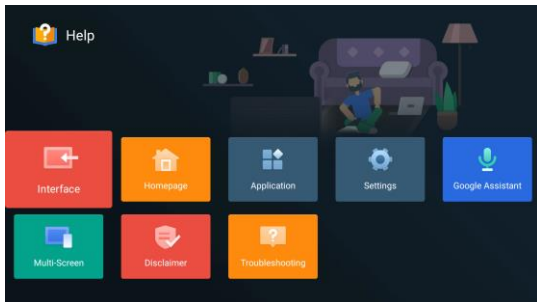
Fig. 22 Help

No.	Item	Instruction
①	Interface	describes the connection mode and usage of each interface on the TV body
②	Homepage	The use and introduction of TV home page function
③	Application	This section describes how to search for, download, install, uninstall, and upgrade apps in the Google Play Store and Amazon Prime Video
④	Settings	This paper introduces how to set the access mode of TV network, Channels management, steps to log in to TV with Google account, application management, device preference setting, Bluetooth pairing and operation method of checking system update.
⑤	Google Assistant	This section describes how to use Google Assistant
⑥	Multi-Screen	List the possible failures of TV hardware function modules and their solutions
⑦	Disclaimer	Display disclaimer
⑧	Troubleshooting	List the possible failures of TV hardware function modules and their solutions

4.5 TV Manager

You can enter it by clicking the TV Manager app icon on the home page or in the list of apps. TV Manager includes Usage detection, Optimize, Clean, Memory Boost, Uninstall Apps, Install Apps, and Intelligent Diagnosis.

Fig. 23 TV Manager

4.6 Media Player

a. Select the Media Player application icon from the App list on the home page.

b. The media center supports audio and video file playback control, picture presentation and application installation

Can;

c. The media center divides multimedia content into four types: video, picture, music and all types. Browse related content by selecting corresponding categories;

d. The media center supports file browsing and access from external storage devices. Only FAT32 hard disks or USB disks are supported, and a maximum of 2 TB storage devices are supported.
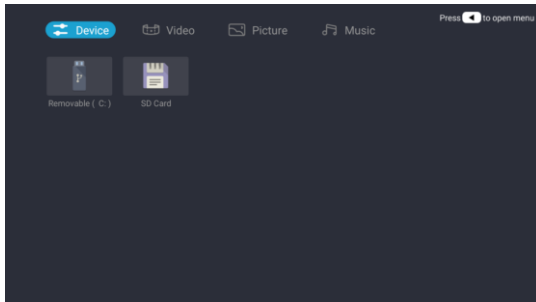
Fig. 24 Media Player

4.7 Settings

Setting menu opening mode:

a. Click the icon ⚙ in the upper right corner of the home page.

b. Press the remote control Settings button to enter. At this point, the items displayed in the Settings menu may be different in different application scenarios.

c. In Live TV, press the remote control button ⚙ and click "Settings" to enter the Settings menu.

d. On the home page, the Settings icon is displayed. Tap to access the Settings menu.

Fig. 25 Settings

1
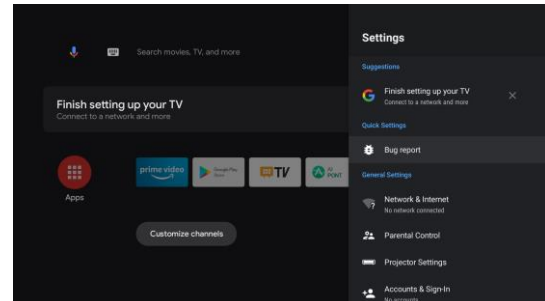
Settings menu list

No.	Item	Instruction
①	Suggertions	When a notification is displayed, the content of the first notification in the notification list is displayed. You can tap to enter the corresponding function
②	Bug report	Bug report menu
③	Network & Internet	Network Connection menu
④	Parental Control	The password for Parental Control is a four-digit password set in the boot wizard
⑤	Projector Settings	Laser TV commonly used setting menu
⑥	Accounts&Sign-in	After the network connection is successful, log in as prompted
⑦	Apps	App view and permission management menu
⑧	Device Preferences	Device preferences menu
⑨	Remotes&Accessories	Bluetooth Device Management menu

Projector Settings menu list

No.	Item	Instruction
①	Dolby Vision	Display different screen sizes according to the distance
②	Picture Calibration	Image correction menu
③	Focus Adjustment	Focusing menu
④	Display Mode	Display mode selection menu
⑤	Eye Protection Mode	Eye protection mode switch
⑥	Lighting Settings	Light Settings menu

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	Prompt Information:The product is evaluated to be Class 1 according to IEC/EN60825-1: 2014.

⑥	For your safety, please select the right viewing direction
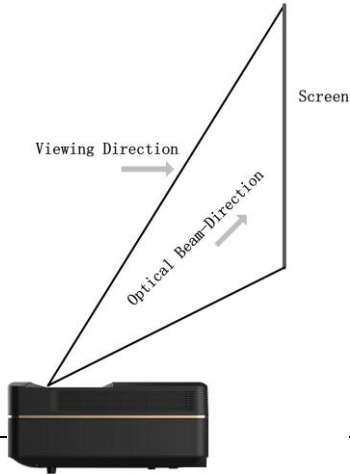
Fig. 26 Viewing direction

⚠	Precautions	
①	As with any bright light source, do not stare into the beam, R2 IEC 62471-5:2015	
②	Do not install the machine on unstable tables and shelves to avoid falling	
③	Please insert the power plug completely into the power socket and ensure that the power plug is placed in an accessible position	

④	Do not pull the power cable. When pulling out the power cord, please hold the plug to pull it out
⑤	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
⑥	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 open the machine for inspection
⑦	Do not block the air vent and install the machine in a well-ventilated place to prevent the machine from overheating
⑧	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
⑨	Do not place the machine directly in areas with poor ventilation such as carpets, cushions, bookshelves or closets.
⑩	To facilitate ventilation, please ensure that the distance between the ventilation opening of the machine and the wall is greater than 30cm
⑪	Do not place flammable spray or other flammable substances beside this machine
⑫	If there is a gas leak, please do not touch or switch the wall socket. Open the window immediately for ventilation
⑬	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
⑭	Do not place any objects on the machine
⑮	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
⑯	Do not install the unit in a damp environment
⑰	Do not place any liquid in the accessories of the machine

⑱	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
⑲	Risk of explosion if the battery is replaced by an incorrect type
⑳	If the machine is not used for a long time, please remove the power supply and cover the machine with dust bag

⚠	Clean
①	When cleaning, do not spray the machine directly with water to prevent water from entering the machine
②	Remove the power plug before cleaning the unit
③	Please wipe the surface of the machine gently with a soft cloth
④	Do not use alcohol, wax, or thinner when cleaning plastic parts. The quality may change or discolor
⑤	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
⑥	Please clean the dust on the vent window net regularly to avoid the high temperature of the machine caused by dust accumulation

⚠	Battery
①	Do not mix old and new batteries or different brands of batteries
②	Please install the battery correctly according to the polarity mark when using
③	When the remote control is not used for a long time or the battery is exhausted, please remove the battery to prevent leakage
④	disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery, that can result in an explosion

⑤	leaving a battery in an extremely high temperature surrounding environment that can result in an explosion or the leakage of flammable liquid or gas
⑥	a battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas
⑦	Do not charge non-rechargeable batteries
⑧	Please place the spent battery in the designated disposal area

FCC Warning

15.19 Labeling requirements.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
15.21 Information to user.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

Absorption Rate (SAR) information:

This device meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health.

FCC RF Exposure Information and Statement The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. This device was tested for typical body-worn operations with the head 0mm and 10mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a appropriate separation distance between the user's body and the back of the device. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided. Use only the supplied or an approved antenna.

FCC RF Radiation Exposure Statement:

-This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

-This equipment complies with RF radiation exposure limits set forth for an uncontrolled environment.

-This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.

RED Caution

1.Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.

2.The product shall be connected to a USB interface of version USB2.0 or higher.

Only indoor use for band 5150-5350MHz.

Hereby, Sichuan Changhong Electric Co., Ltd. declares that this product is in compliance with essential requirements and other relevant provisions of Directive 2014/53/EU. This product is allowed to be used in all EU member states.

Frequency bands	Maximum output power(EIRP)
2412-2472MHz	16.35dBm
2402-2480MHz	13.71dBm
5150-5725MHz	16.18dBm
5725-5850MHz	13.45dBm

Operating authorizations must exist to operate the product in the following member states of the European Union, refer to the table below.

	AT	FI	SE	PL
	BE	FR	BG	PT
	CZ	UK	HR	RO
	DE	IT	EL	SK
	DK	LU	HU	SI
	ES	NL	IE	EE

6. Recycling

♻	It indicates that packaging materials can be recycled, please do not discard them at will
⑩	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. Trademark

HDMI® HIGH-DEFINITION MULTIMEDIA INTERFACE	HDMI,HDMI High-Definition Multimedia Interface,and the HDMI Logo are trademarks or registered trademarks of HDMI Licensing Administrator,Inc
▶◀Dolby Vision·Atmos	Dolby, Dolby Vision, Dolby Atmos, and the double-D symbol are registered trademarks of Dolby Laboratories Licensing Corporation. Manufactured under license from Dolby Laboratories.Confidential unpubished works.Copyright © 2012-2022 Dolby Laboratories.All rights reserved.
dts HD	For DTS patents, see http://patents.dts.com. Manufactured under license from DTS Licensing Limited. DTS, DTS-HD, and the DTS-HD logo are registered trademarks or trademarks of DTS, Inc. in the United States and other countries. © 2021 DTS, Inc. ALL RIGHTS RESERVED
DLP TEXAS INSTRUMENTS	The DLP logo are registered trademarks of Texas Instruments
CE	The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU. and adio Equipment Directive 2014/53/EU.

8. Statement

Without the permission of the Company, all contents of this product manual shall not be reproduced, transmitted, transcribed or stored in a retrievable system in any form, or translated into other languages. The contents of this user manual are subject to change without prior notice.

9. 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/region 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.

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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/regional 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/region shall prevail.

Warranty Card

Date of Installation: _____/_____/_____

User name			Tel	
Address				
Machine model			Shopping mall	
Invoicing date			Invoice No.	
Body barcode				

Service Status: □ Screen Installation and Commissioning □ Mount Installation and Commissioning □ Separate Onsite Debugging

Please confirm the wall properties for screen installation: □ Solid Brick Wall □ Hollow Wall Brick □ Wooden Wall □ Other

The appearance of the machine and the electrical performance are in good condition after installation: □ normal □ abnormal

User Satisfaction Survey: □ Satisfied □ Not Satisfied

User signature:

Authorized Dealer Information