

# Epson Home Projector EF-12

## User's Manual

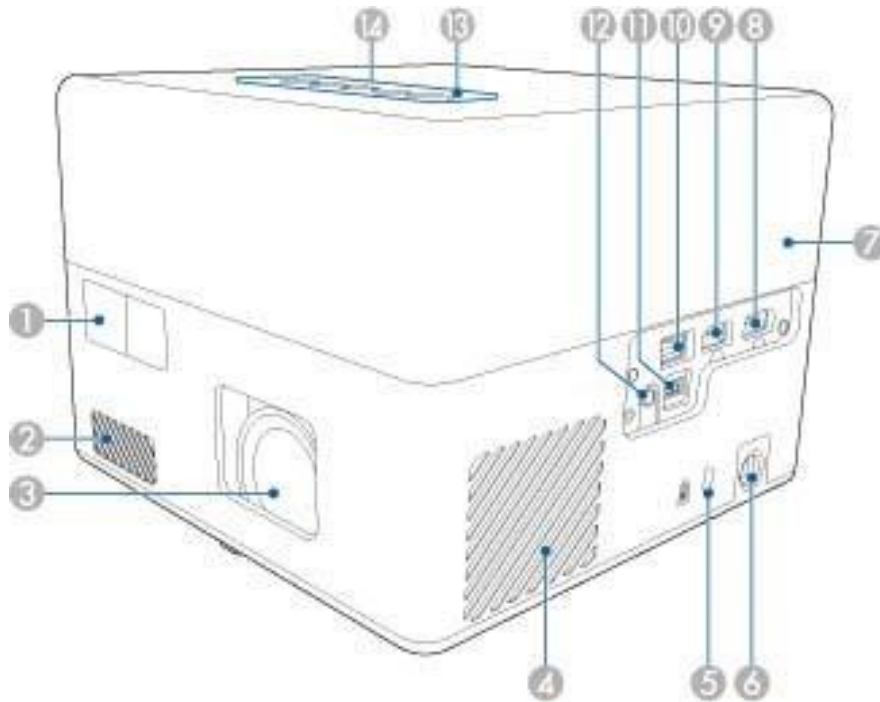


## Index

- 1 Introduction to Your Projector
- 2 Setting Up the Projector
- 3 Adjusting the Projector Settings
- 4 Appendix

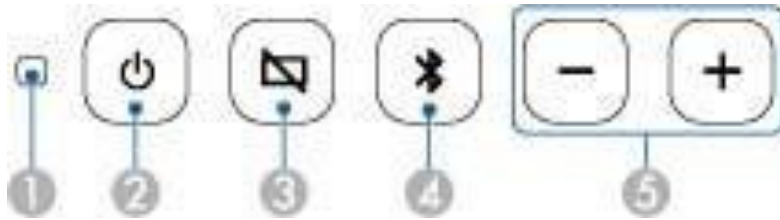
# 1 Introduction to Your Projector

## 1.1 Projector Parts - Front/Top



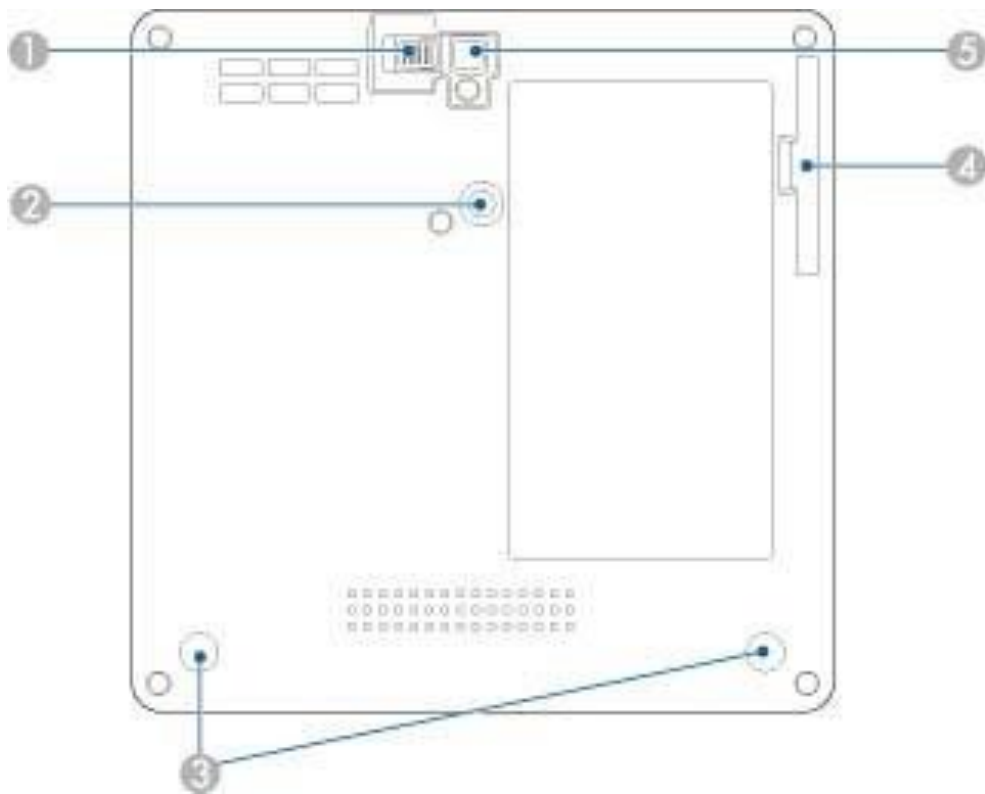
Name	Functions
① Remote receiver	Receives signals from the remote control.
② Air intake vent	Takes in air to cool the projector internally.
③ Lens	Images are projected from here.
④ Air intake vent (air filter)	Takes in air to cool the projector internally.
⑤ Security slot	The security slot is compatible with the Microsaver Security System manufactured by Kensington.
⑥ AC adapter port	Connects the AC adapter.
⑦ Speaker	Outputs audio.
⑧ HDMI1 port	Inputs video signals from HDMI compatible video.
⑨ HDMI2 (ARC) port	Inputs video signals from HDMI compatible video.
⑩ USB-A port	Connects a USB memory device or a digital camera.
⑪ Service port	This port is not normally used.
⑫ Audio Out port	Outputs audio from the current input source to headphones.
⑬ Status indicator	Indicates the projector's status.
⑭ Control panel	Operates the projector.

## 1.2 Projector Parts - Control Panel



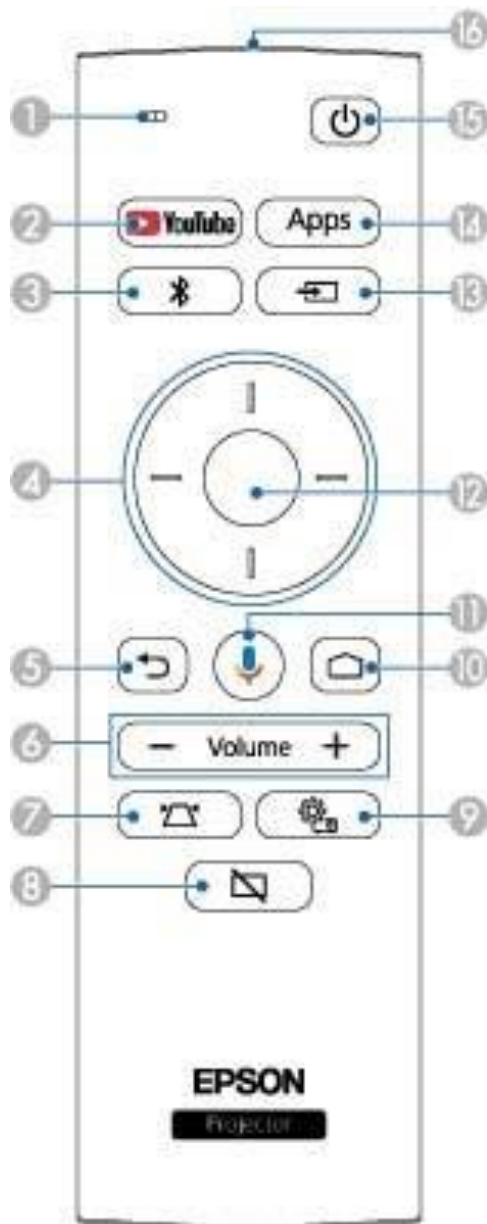
Name	Functions	
①	Status indicator	Indicates the projector's status.
②	Power button	Turns the projector on or off.
③	V mute button	Turns the video on or off temporarily.
④	Bluetooth Speaker Mode button	Enter the Bluetooth Speaker Mode.
⑤	Volume up/down buttons	Adjusts the volume for the speaker and headphones.

### 1.3 Projector Parts – Base



Name		Functions
①	Foot release lever	Press the foot release lever to extend and retract the front adjustable foot.
②	Mount plate fixing point	Attach the optional or supplied mount plate here.
③	Rear feet (Mount plate fixing points)	Loosen these feet by turning them counterclockwise, and then remove them to attach the optional or supplied mount plate.
④	Air filter cover	Open to access the air filter.
⑤	Front adjustable foot	When setup on a surface such as a desk, extend the foot to adjust the position of the image.

## 1.4 Projector Parts - Remote Control



Name	Functions
① Indicator	Turns on when outputting signals from the remote control.
② YouTube button	Starts the YouTube application.
③ Bluetooth Speaker Mode button	Enter the Bluetooth Speaker Mode.
④ Directional pad	Selects menu items on the projector.
⑤ Esc button	Switches to the next input source.
⑥ Volume up/down buttons	Adjusts the volume for the projector.

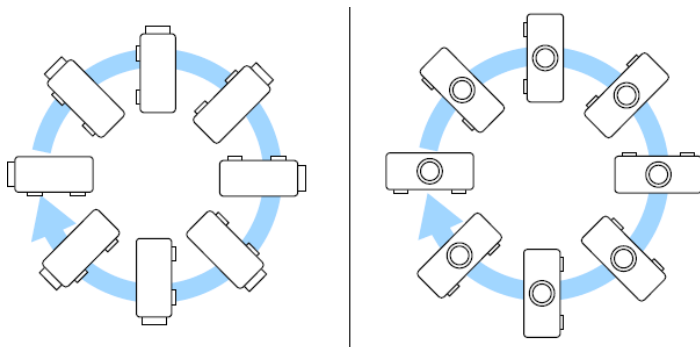
⑦	Keystone button	Corrects the projected image.
⑧	V mute button	Turns the video on or off temporarily.
⑨	Projector Settings button	Displays and closes the Projector Settings menu. You can use the projector's menus to adjust the settings that control how your projector works.
⑩	Home button	Displays the Android TV™ home screen.
⑪	Mic button	Allows you to operate your Android TV™ using voice commands. When you press this button, the remote control's microphone starts listening for voice commands.
⑫	Enter button	Enters the current selection and moves to the next level while displaying the projector's menu.
⑬	Source Search button	Switches to the next input source.
⑭	Apps button	Displays a list of the applications available on the Android TV™.
⑮	Power button	Turns the projector on or off.

## 2 Setting Up the Projector

### 2.1 Projector Placement

You can place the projector on almost any flat surface to project an image.

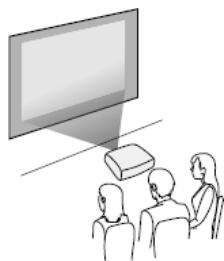
The projector can be installed at various angles. There is no vertical or horizontal limit to how the projector can be installed.



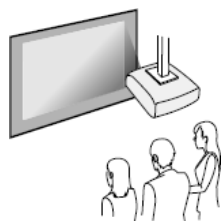
### 2.1.1 Projector Setup and Installation Options

You can set up or install your projector in the following ways:

Front (Standard)



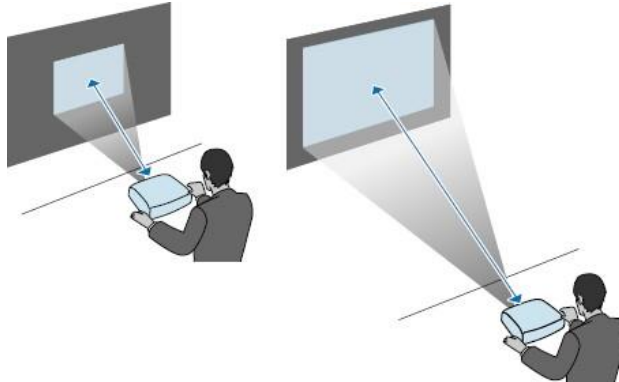
Front Ceiling (Upside down)



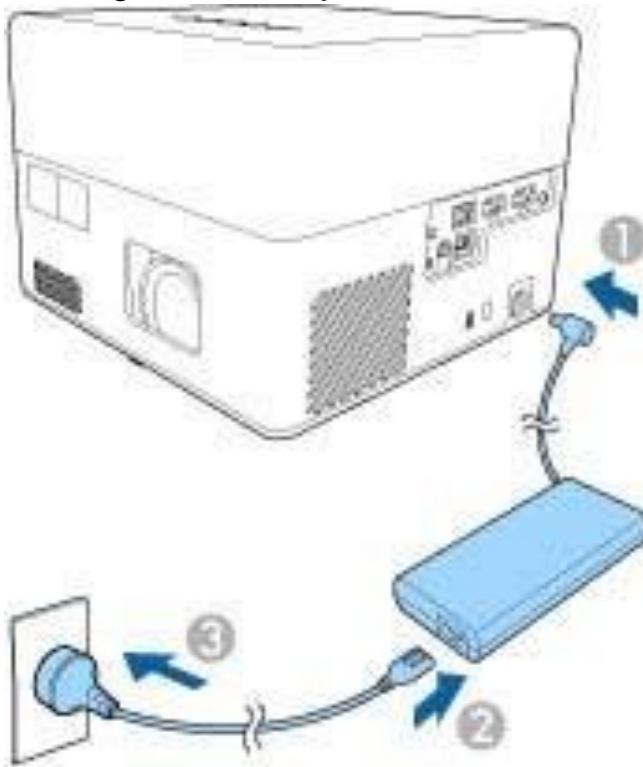
### 2.1.2 Projection Distance

The distance at which you place the projector from the screen determines the approximate size of the image. The image size increases the farther the projector is

from the screen, but can vary depending on the zoom factor, aspect ratio, and other settings.



## 2.2 Turning On the Projector



1. Connect the AC adapter to the projector's AC adapter port.
2. Connect the power cord to the AC adapter
3. Plug the power cord into an electrical outlet.
4. Press the power button on the control panel or remote control to turn on the projector.

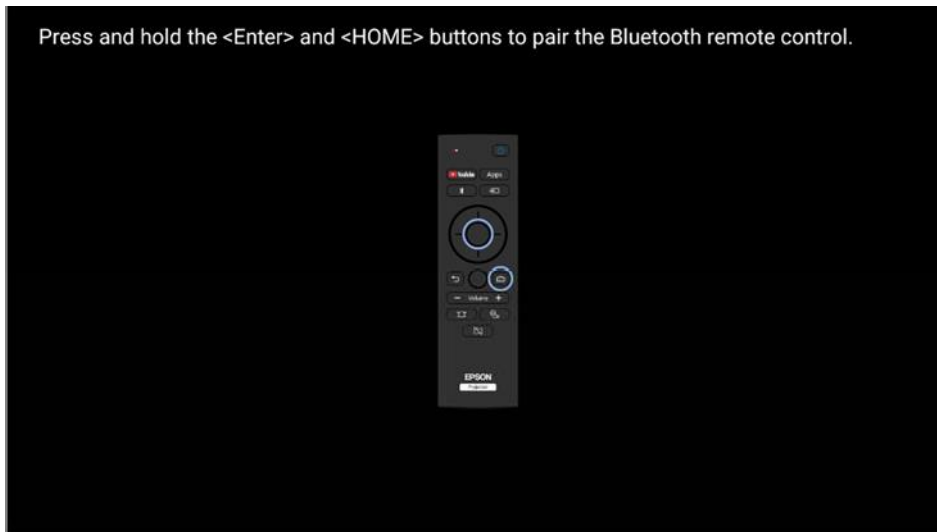
## 2.3 Turning Off the Projector

1. Press the power button on the control panel or remote control.  
The light source will turn off.



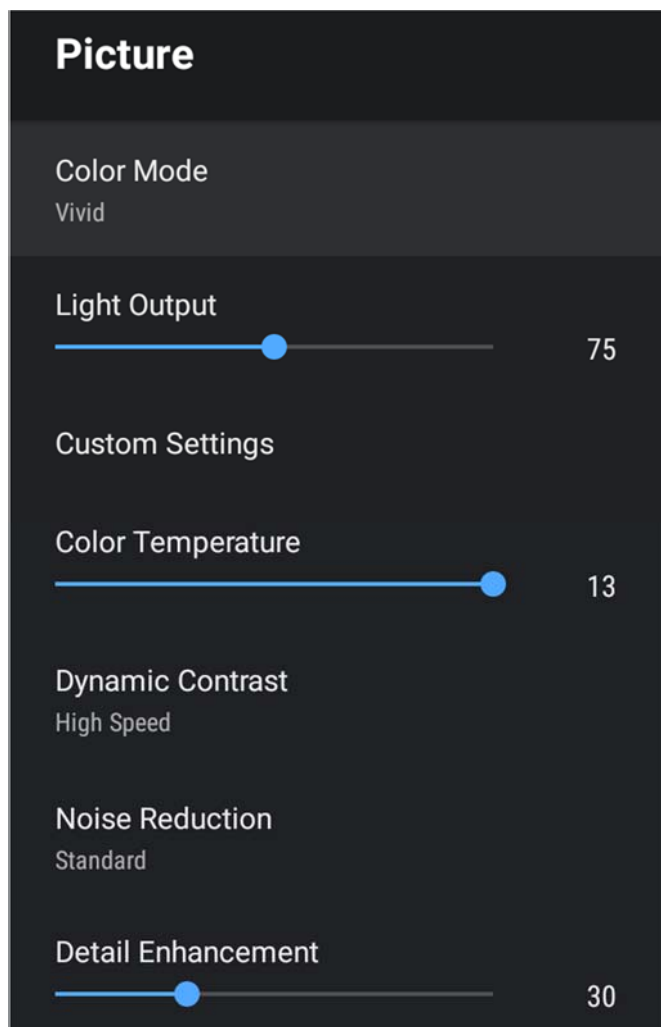
## 2.4 Pairing the Remote Control

If the remote control and the projector have not been paired, follow the on-screen instructions and press and hold the Enter and Home buttons on the remote control to pair.



### 3 Adjusting the Projector Settings

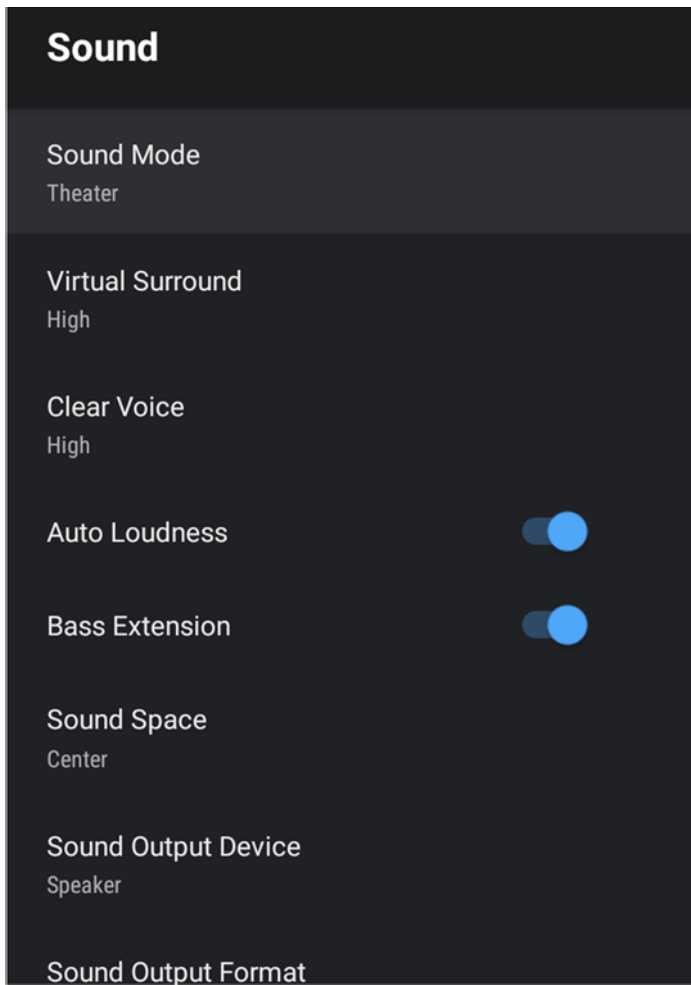
#### 3.1 Picture



Setting	Options	Description
Color Mode	Dynamic Vivid Bright Cinema Cinema Natural	Adjusts the vividness of image colors for various image types and environments.
Light Output	50 % ~ 100 %	Adjusts the brightness for the light source.
Custom Settings	Brightness Contrast	<b>Brightness:</b> Lightens or darkens the overall image.

	Saturation Tint Sharpness	<p><b>Contrast:</b> Adjusts the difference between light and dark areas of the image.</p> <p><b>Saturation:</b> Adjusts the intensity of the image colors.</p> <p><b>Tint:</b> Adjusts the balance of green to magenta tones in the image.</p> <p><b>Sharpness:</b> Adjusts the sharpness or softness of image details.</p>
Color Temperature	0 ~ 13	Adjusts the focus of the projected image manually.
Dynamic Contrast	High Speed Normal Off	Selects the way the projector faces the screen so the image is oriented correctly.
Noise Reduction	Standard Strong Weak Off	Reduces flickering in analog images.
Detail Enhancement	0 ~ 100	Creates a more emphatic texture and material feel of the image.
Aspect Ratio	Normal Full Zoom	Sets the aspect ratio (width-to-height ratio) for the input source.
HDMI Video Range	Auto Full Limited	Sets the video range to match the setting of the device connected to the HDMI port.

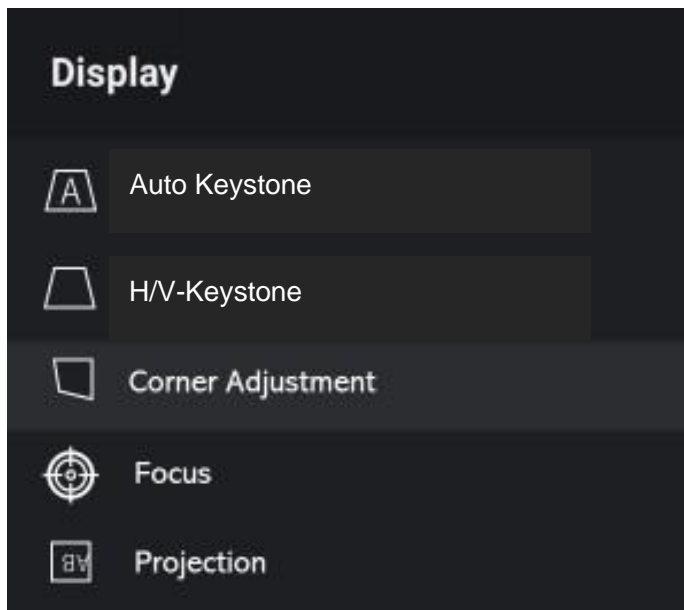
## 3.2 Sound



Setting	Options	Description
Sound Mode	Theatre TV Studio Stadium Concert Karaoke Mode	<b>Theatre:</b> The surround effect recreates the acoustic environment of a movie theater. Allows you to enjoy realistic and powerful sound. <b>TV:</b> Plays back voice clearly. This is ideal for watching news, documentaries, and other TV shows. <b>Studio:</b> With a wide frequency range of playback and balanced sound quality, this feature reproduces the sound intended by creators and artists.

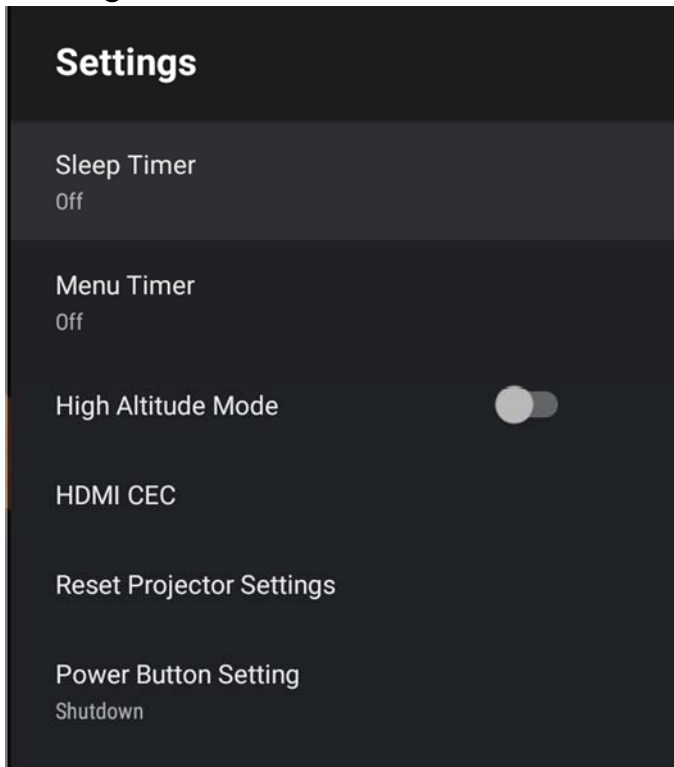
		<p><b>Stadium:</b> This realistically reproduces the atmosphere of stadiums and crowds, providing you with clear, live voice play back. Allows you to enjoy watching sports in a realistic atmosphere.</p> <p><b>Concert:</b> This reproduces the echoes and expanse of a concert venue, giving you a true sense of elation.</p> <p><b>Karaoke mode:</b> This is ideal for playing back karaoke content as it reproduces the echoes and expanse of a concert venue. Allows you to play songs without sacrificing the vocal effects provided by karaoke apps and microphones.</p>
Virtual Surround	High Low Off	Adjusts the strength of the surround effect.
Clear Voice	High Low Off	Adjusts the voice so that it can be heard clearly.
Auto Loudness	On Off	Even when playing at low volumes, this automatically corrects the balance between high and low tones in the audio so that they are not out of balance.
Bass Extension	On Off	Emphasizes the bass levels to reproduce a powerful bass.
Sound Space	Right Center Left	Adjusts the sound quality to suit your viewing position.
Sound Output Device	Speaker ARC	This function sets the output destination of the audio signal.
Sound Output Format	PCM AUTO	Set the audio output format.
Audio Output Latency	0 ~ 200	Function to adjust audio delay according to HDMI video signal.

### 3.3 Display



Setting	Options	Description
Auto Keystone	On Off	Automatically corrects projected images.
H/V-Keystone	H-Keystone V-Keystone	Manually corrects the shape of the projected image.
Corner Adjustment	-	Performs the curvature correction (8-point correction) manually.
Focus	-	Adjusts the focus of the projected image manually.
Projection	Standard Upside down	Selects the way the projector faces the screen so the image is oriented correctly.

### 3.4 Settings



Setting	Options	Description
Sleep Timer	Off ~ 120 min.	Automatically turns off the projector after an interval of inactivity (when On).
Menu Timer	Off ~ 240 sec.	Automatically turns off the menu display after an interval of inactivity (when On).
HDMI CEC	-	<p><b>CEC Switch:</b> Enables / disables HDMI link.</p> <p><b>Device Auto Power Off:</b> Enables / disables the power off interlock on the connected device.</p> <p><b>Auto Language Change:</b> Enables / disables automatic language switching.</p> <p><b>HDMI2 ARC:</b> Enables / Disables HDMI ARC function</p>
Reset Projector Settings	-	Resets all adjustment values on the Projector Settings menu to their default settings.
Power Button Setting	Suspend Shutdown	<b>Suspend:</b> When the power is turned off, the projector enters the suspend state. In the

		<p>suspended state, some functions are enabled because the projector operates with only the minimum required power.</p> <p><b>Shutdown:</b> When the power is turned off, the projector enters the deep standby state. The projector is not working.</p>
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## 4 Appendix

### 4.1 Projector Specifications

Product name	EF-12
Dimensions	175 (W) × 58 (H) × 175 (D) mm (not including raised section)
LCD panel size	0.62 inch
Display method	Poly-silicon TFT active matrix
Resolution	Full HD
Light source	Laser diode
Power consumption	Operating: 102 W
Standby power consumption	0.4 W(TBD)
Operating altitude	Altitude 0 to 3,000 m
Bluetooth	Bluetooth 5.0 Class 2 (2.4 GHz)
Supported OS	Android OS
Supported VOD Platform	Android TV
Video Output Resolution	Up to 3,840 x 2,160 60fps 4:4:4
Mass	2.7 kg (TBD)









### 4.2 AC Adapter Specifications









Manufacturer	EPSON
Model	AD10370LF
Input power	100-240V AC ±10% 50/60Hz 1.75A
Output power	24.0V DC 5.0A 120.0W




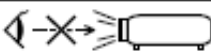






\* Use the included AC adapter (model number: AD10370LF) for this projector.





### 4.3 List of Safety Symbols and Instructions

The following table lists the meaning of the safety symbols labeled on the equipment.

No.	Symbol mark	Approved standards	Description
①		IEC60417 No. 5007	"ON" (power) To indicate connection to the mains.
②		IEC60417 No. 5008	"OFF" (power) To indicate disconnection from the mains.
③		IEC60417 No. 5009	Stand-by To identify the switch or switch position by means of which part of the equipment is switched on in order to bring it into the stand-by condition.
④		ISO7000 No. 0434B, IEC3864-B3.1	Caution To identify general caution when using the product.
⑤		IEC60417 No. 5041	Caution, hot surface To indicate that the marked item can be hot and should not be touched without taking care.
⑥		IEC60417 No. 6042 ISO3864-B3.6	Caution, risk of electric shock To identify equipment that has risk of electric shock.
⑦		IEC60417 No. 5957	For indoor use only To identify electrical equipment designed primarily for indoor use.
⑧		IEC60417 No. 5926	Polarity of d.c. power connector To identify the positive and negative connections (the polarity) on a piece of equipment to which a d.c. power supply may be connected.

No.	Symbol mark	Approved standards	Description
9		—	The same as No. 8.
10		IEC60417 No. 5001B	Battery, general On battery powered equipment. To identify a device for instance a cover for the battery compartment, or the connector terminals.
11		IEC60417 No. 5002	Positioning of cell To identify the battery holder itself and to identify the positioning of the cell(s) inside the battery holder.
12		—	The same as No. 11.
13		IEC60417 No. 5019	Protective earth To identify any terminal which is intended for connection to an external conductor for protection against electric shock in case of a fault, or the terminal of a protective earth electrode.
14		IEC60417 No. 5017	Earth To identify an earth (ground) terminal in cases where neither the symbol No. 13 is explicitly required.
15		IEC60417 No. 5032	Alternating current To indicate on the rating plate that the equipment is suitable for alternating current only; to identify relevant terminals.
16		IEC60417 No. 5031	Direct current To indicate on the rating plate that the equipment is suitable for direct current only; to identify relevant terminals.

No.	Symbol mark	Approved standards	Description
17		IEC60417 No. 5172	Class II equipment To identify equipment meeting the safety requirements specified for Class II equipment according to IEC 61140.
18		ISO 3864	General prohibition To identify actions or operations that are prohibited.
19		ISO 3864	Contact prohibition To indicate injury that could occur due to touching a specific part of the equipment.
20		—	Never look into the optical lens while the projector is on.
21		—	To indicate that the marked item don't place anything on projector.
22		ISO3864 IEC60825-1	Caution, laser radiation To indicate the equipment has a laser radiation part.
23		ISO 3864	Disassembly prohibition To indicate a risk of injury, such as electric shock, if the equipment is disassembled.
24		IEC60417 No. 5266	Standby, partial standby To indicate that part of the equipment is in the ready status.
25		ISO3864 IEC60417 No. 5057	Caution, movable parts To indicate that you must keep away from movable parts according to protection standards.
26		IEC60417 No. 6056	Caution (Moving Fan Blades) As a safety precaution, stay away from the moving fan blades.

No.	Symbol mark	Approved standards	Description
27		IEC60417 No. 6043	Caution (Sharp Corners) To indicate sharp corners that should not be touched.
28		—	To indicate that looking into the lens while projecting is prohibited.
29		ISO7010 No. W027 ISO 3864	Warning, Optical radiation (such as UV, visible radiation, IR) Taking care to avoid injury to eyes and skin when in the vicinity of optical radiation.
30		IEC60417 No. 5109	Not to be used in residential areas. To identify electrical equipment which is not suitable for a residential area.

## 4.4 Laser Safety Information

This projector is a Class 1 laser product that complies with the IEC/EN60825-1:2014 international standard for lasers.

Follow these safety instructions when using the projector.

### **Warning**

- Do not open the projector's case. The projector contains a high-powered laser.
- Possibly hazardous optical radiation emitted from this product. Do not look at operating light source. Eye injury may result.

### **Caution**

Do not disassemble the projector when disposing of it. Dispose according to your local or national laws and regulations.



The projector uses a laser as the light source. The laser has the following characteristics.

- Depending on the surroundings, the brightness of the light source may decline. The brightness declines a lot when the temperature gets too high.
- The brightness of the light source declines the longer it is used. You can change the relationship between usage time and decline in brightness settings.

### 4.4.1 Laser Warning Labels

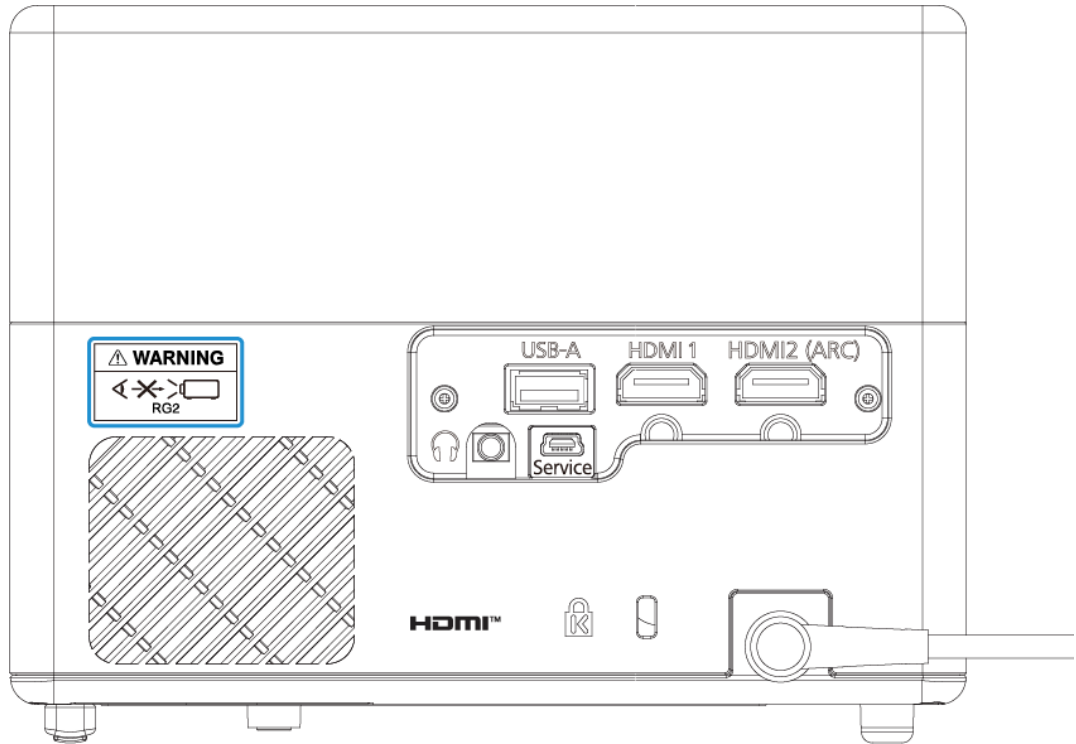
Laser warning labels are attached on the projector.

Inside



## Side

As with any bright source, do not stare into the beam, RG2 IEC/EN 62471- 5:2015.



- 4.5 Indication of the manufacturer and the importer in accordance with requirements of EU directive

## 4.6 Trademarks

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### **FCC Compliance Statement**

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.

### **Canadian Compliance Statement**

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference, and
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radioexempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.





## Regulatory Compliance Information

Contains wireless LAN with Bluetooth module Model: STI6200-D101

Bluetooth remote controller Model: RC4261804

## Notices

This document provides safety instructions and describes the specifications. Read this document carefully before use to ensure your safety and product performance. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This equipment (without Bluetooth remote controller) should be installed and operated keeping the radiator at least 20cm or more away from person's body. This device is restricted to indoor operations only.

## Japan

本製品を正しく使用するために、はじめにマニュアルをお読みください。お読みになった後は、大切に保管してください。

### ⚠ 警告

- 心臓ペースメーカーに電磁妨害をおよぼし、誤作動の原因となることがあります。お使いの前に、心臓ペースメーカーを使用した人が近くにいないことを確認し、心臓ペースメーカーの装着位置から20cm以上離れた場所でご使用ください。
- 医療機器に電磁妨害をおよぼし、誤作動の原因となることがあります。お使いの前に、医療機器が近くにないことを確認してください。
- 無線通信機能は、自動ドア、火災報知器などの自動制御機器の近くで使用しないでください。電波が機器に影響を及ぼしたり、誤動作による事故の原因となるおそれがあります。
- 本機を継続して使用するときは、人体から20cm以上離れた場所でご使用ください。  
(Bluetooth remote controller model: R4261804を除く)

この機器の使用周波数帯では、電子レンジ等の産業・科学・医療用機器のほか工場の製造ライン等で使用されている移動体識別用の構内無線局（免許を要する無線局）及び特定小電力無線局（免許を要しない無線局）並びにアマチュア無線局（免許を要する無線局）が運用されています。

1. この機器を使用する前に、近くで移動体識別用の構内無線局及び特定小電力無線局並びにアマチュア無線局が運用されていないことを確認して下さい。

2. 万一、この機器から移動体識別用の構内無線局に対して有害な電波干渉の事例が発生した場合には、速やかに使用周波数を変更するか又は電波の発射を停止した上、弊社インフォメーションセンターにご連絡頂き、混信回避のための処置等（例えば、パーティションの設置など）についてご相談して下さい。

3. その他、この機器から移動体識別用の特定小電力無線局あるいはアマチュア無線局に対して有害な電波干渉の事例が発生した場合など何かお困りのことが起きたときは、弊社インフォメーションセンターへお問い合わせ下さい。



## Europe

Operating CH frequency:

for STI6200-D101

2402-2480MHz, Below 20dBm EIRP

2412-2472MHz, Below 20dBm EIRP

5180-5240MHz, Below 23dBm EIRP

for RC4261804

2402-2480MHz, Below 20dBm EIRP

## Singapore

Complies with  
IMDA Standards  
DB101624

## Korea



R-C-EKL-EER-STI6200

R-R-EKL-EER-RC4261804

기기의 명칭/모델명: 특정 소출력 무선기기

(무선랜을 포함한 무선접속시스템용 무선기기)

STI6200-D101, RC4261804

인증받은 자의 상호: 한국엡손(주)

제조사/제조국가: SEIKO EPSON CORPORATION/중국

해당 무선설비가 전파통신 가능성이 있으므로 인명안전과 관련된 서비스는 할 수 없음.

수입원: 한국엡손(주) TEL 1566-3515