



Digital Projector User Manual

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It is the sole responsibility of the user if problems (such as data loss and system failure) occurred due to non-factory installed software, parts, and/or non-original accessories.

Warranty

BenQ warrants this product against any defects in material and workmanship, under normal usage and storage.

Proof of purchase date will be required with any warranty claim. In the event this product is found to be defective within the warranty period, BenQ's only obligation and your exclusive remedy shall be replacement of any defective parts (labor included). To obtain warranty service, immediately notify the dealer from which you purchased the product of any defects.

Important: The above warranty shall be void if the customer fails to operate the product in accordance with BenQ's written instructions, especially the ambient humidity must be in-between 10% and 90%, temperature in-between 0°C and 40°C, altitude lower than 2000 meters, and avoiding to operate the projector in a dusty environment. This warranty gives you specific legal rights, and you may have other rights which vary from country to country.

For other information, please visit www.BenQ.com.

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In addition, BenQ is not involved in any transactions you conduct in the websites or similar resources maintained by third parties.

You should contact the content or service providers for any questions, concerns, or disputes.

Product support

You are strongly recommended to upgrade the product to the latest firmware version and refer to the most up-to-date user manual to make best use of the product.

This document aims to provide the most updated and accurate information to customers, and thus all contents may be modified from time to time without prior notice. Please visit the website for the latest version of this document and other product information. Available files vary by model.

- 1. Make sure your computer is connected to the Internet.
- 2. Visit the local website from Support.BenQ.com. The website layout and content may vary by region/country.Look for the following regularly to get the most up-to-date information.
 - · User manual and related document

- · Firmware and application
- · Frequently asked questions

Servicing

- If misuse or other accident occurs, contact qualified service personnel for servicing.
- Contact your place of purchase or visit the local website from Support.
 BenQ.com for more support.



Support.BenQ.com

Q&A index

Start with the topics you are interested in:

Setup

How do I set up the projector and turn it on? Choosing a location Powering on and initial setup	27 32
mage adjustment	
How do I adjust the focus of the projected image? Fine-tuning the image clarity How do I fit the projected image to the screen?	46
Keystone Screen Fit	47 48
Usage How do I project wirelessly? Wireless projection (screen casting)	58
How do I play music via the projector? Playing music with your projector	62
Maintenance and product support	
What should I do if I don't plan to use the projector for a long time?	3
Storing the projector	80

Table of Contents

Copyright 2 Disclaimer 3 Warranty 3 Statement regarding hyperlinks and third-party websites 4 Product support 4 Servicing 5 Q&A index 6 Safety instructions 1 Package contents 16 Introduction 17 Projector overview 17 Overview 17 Keypad 19 I/O ports 20 Dimensions 2 Projector connections 2 Wireless connection 2 Wired connection (USB-A port) 2 Wired connection (HDMI port) 2 Wired connection (USB-C port) 2 Remote control effective range 2 Installation 2 Choosing a location 2 Obtaining a preferred image size 2 Projection dimensions 2 Using the projector at high altitude 3 Getting started 3	Copyright & disclaimer	2
Warranty		
Statement regarding hyperlinks and third-party websites	Disclaimer	3
Product support 2 Servicing 5 Q&A index 6 Safety instructions 1 Package contents 16 Introduction 17 Projector overview 17 Overview 17 Keypad 18 I/O ports 20 Dimensions 2 Projector connections 2 Wireless connection 2 Wired connection (USB-A port) 2 Wired connection (USB-C port) 2 Wired connection (USB-C port) 2 Remote control 2 Remote control effective range 2 Installation 2 Choosing a location 2 Obtaining a preferred image size 2 Projection dimensions 2 Using the projector at high altitude 3	Warranty	3
Servicing 5 Q&A index 6 Safety instructions 1 Package contents 16 Introduction 17 Projector overview 17 Overview 17 Keypad 19 I/O ports 20 Dimensions 22 Projector connections 22 Wireless connection 22 Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 22 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Statement regarding hyperlinks and third-party website	es4
Q&A index 6 Safety instructions 1 Package contents 16 Introduction 17 Projector overview 17 Overview 17 Keypad 19 I/O ports 20 Dimensions 27 Projector connections 22 Wireless connection 22 Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 22 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Product support	4
Safety instructions 1 Package contents 16 Introduction 17 Projector overview 17 Overview 17 Keypad 19 I/0 ports 20 Dimensions 22 Projector connections 22 Wireless connection 22 Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 25 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Servicing	5
Package contents	Q&A index	6
Introduction 17 Projector overview 17 Overview 17 Keypad 19 I/O ports 20 Dimensions 27 Projector connections 22 Wireless connection 22 Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 22 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 28 Projection dimensions 29 Using the projector at high altitude 3	Safety instructions	11
Projector overview 17 Overview 17 Keypad 19 I/O ports 20 Dimensions 27 Projector connections 22 Wireless connection 25 Wired connection (USB-A port) 25 Wired connection (HDMI port) 25 Wired connection (USB-C port) 25 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 28 Projection dimensions 29 Using the projector at high altitude 3	Package contents	16
Overview 17 Keypad 19 I/O ports 20 Dimensions 27 Projector connections 22 Wireless connection 22 Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 25 Remote control 26 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Introduction	17
Keypad 19 I/O ports 20 Dimensions 27 Projector connections 22 Wireless connection 22 Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 22 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Projector overview	17
1/0 ports	Overview	17
Dimensions	Keypad	19
Projector connections	I/O ports	20
Wireless connection	Dimensions	21
Wired connection (USB-A port) 22 Wired connection (HDMI port) 22 Wired connection (USB-C port) 22 Remote control 22 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Projector connections	22
Wired connection (HDMI port) 22 Wired connection (USB-C port) 22 Remote control 24 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Wireless connection	22
Wired connection (USB-C port) 22 Remote control 22 Remote control effective range 26 Installation 27 Choosing a location 27 Obtaining a preferred image size 29 Projection dimensions 29 Using the projector at high altitude 3	Wired connection (USB-A port)	22
Remote control	Wired connection (HDMI port)	22
Remote control effective range	Wired connection (USB-C port)	22
Installation	Remote control	24
Choosing a location	Remote control effective range	26
Obtaining a preferred image size	Installation	27
Projection dimensions	Choosing a location	27
Using the projector at high altitude3	Obtaining a preferred image size	29
	Projection dimensions	29
Getting started32	Using the projector at high altitude	31
	Getting started	32

Powering on and initial setup	32
Power LED indicator	33
Power settings and options for saving power	35
Shutting down the projector	
Accessing helpful BenQ apps	37
Apps downloaded to your projector	37
Download SmartRemote for BenQ Projector app to your	
mobile device	37
Upgrading your projector	38
Updating the operating system	38
Advanced firmware updating	38
Mounting	39
Tripod mounting (purchased separately)	39
Screw location	39
Flexible setup	39
Working with a tripod plate	40
Ceiling mounting	42
Screw location	42
Working with a ceiling mount	43
Using the top adjustable foot	45
Adjusting the projected image	46
Fine-tuning the image clarity	46
Fitting the image to your screen	47
Keystone	47
Screen Fit	48
Obstacle avoidance	49
Projection size and position adjustment (Digital zoom and image reposition)	49
Adjusting screen brightness	50
Activating smart eye protection	
Optimizing image quality by Auto Cinema mode	

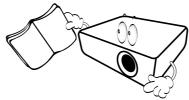
Changing the input source	51
Watching streaming videos	52
Google TV home screen	52
Dashboard	53
Choosing a proper picture mode for video streaming	54
Choosing a proper sound mode for video streaming	55
Enhancing gaming experience	57
Auto Low Latency Mode (ALLM)	57
Gaming boost	57
Projection	58
Wireless projection (screen casting)	58
Screen casting from iOS/macOS device devices	58
Screen casting from Android™ OS devices with Google Cast™	59
Screen casting from Android™ OS devices with Google Home	59
Screen casting from PC devices with Google Cast™	60
Wired projection	61
Playing music with your projector	62
Making your projector a Bluetooth speaker	62
Bluetooth speaker mode LED indicator	63
Connecting the projector to an external Bluetooth speake	er /
headphone	er / 64
headphone Making your projector a wireless speaker	er / 64 64
headphone Making your projector a wireless speaker Turning the screen off during music playback	er / 64 64
headphone Making your projector a wireless speaker Turning the screen off during music playback Playing multimedia files from a USB flash drive	er / 64 65 66
headphone Making your projector a wireless speaker Turning the screen off during music playback Playing multimedia files from a USB flash drive Power delivery to a USB-C device	er / 64 65 66
headphone Making your projector a wireless speaker Turning the screen off during music playback Playing multimedia files from a USB flash drive Power delivery to a USB-C device USB-C power delivery notice	er / 64 65 66 67
headphone	er / 64 65 66 67
headphone	er / 64 65 66 67 68
headphone	er / 64 65 66 67 68 68

Display & Sound	74
Network & Internet	78
Accounts & Profiles	78
Privacy	79
Apps	79
System	79
Accessibility	79
Remotes & Accessories	79
Help & Feedback	79
Maintenance	80
Care of the projector	80
Cleaning the lens	80
Storing the projector	80
Transporting the projector	81
Light source information	81
Troubleshooting	82
Specifications	85
Projector specifications	85
Timing chart	87
HDMI input	87
USB-C input	90
Supported file formats	92
Video	92
Audio	93

Safety instructions

Your projector is designed and tested to meet the latest standards for safety of information technology equipment. However, to ensure safe use of this product, it is important that you follow the instructions mentioned in this manual and marked on the product.

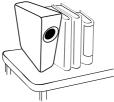
Please read this user manual before you operate your projector.
 Keep this manual in a safe place for future reference.



- 2. Always place the projector on a level, horizontal surface during operation.
 - Do not place the projector on an unstable cart, stand, or table as it may fall and be damaged.
 - Do not place inflammables near the projector.
 Do not use if tilted at an angle of more than 10 degrees left to right, nor at angle of more than 15 degrees front to back.



3. Do not store the projector on end vertically. Doing so may cause the projector to fall over, causing injury or resulting in damage.

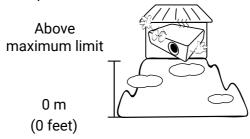


- 4. Do not place this projector in any of the following environments.
 - Space that is poorly ventilated or confined. Allow at least 50 cm clearance from walls and free flow of air around the projector.
 - Locations where temperatures may become excessively high, such as the inside of a car with all windows rolled up.
 - Locations where excessive humidity, dust, or cigarette smoke may

contaminate optical components, shorten the projector's lifespan and darken the screen.



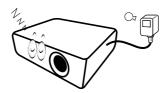
- · Locations near fire alarms.
- Locations with an ambient temperature goes beyond the maximum limit stated in the product specifications.
- Locations where the altitudes exceed the maximum limit specified in the product specifications.



- 5. Do not block the vents holes while the projector is on (even in power-saving mode).
 - · Do not cover the projector with any item.
 - Do not place the projector on a blanket, bedding or any other soft surface.



6. In areas where the mains power supply voltage may fluctuate by ±10 volts, it is recommended that you connect the projector through a power stabilizer, surge protector or uninterruptible power supply (UPS) as appropriate to your situation.



7. Do not step on the projector or place any objects upon it.



 Do not place liquids near or on the projector. Liquids spilled into the projector will void your warranty. If the projector does become wet, disconnect it from the power point and call BenQ to have the projector repaired.



9. Do not look straight into the projector lens during operation. It may harm your sight.



10. Do not operate the projector laser beyond the rated laser life.



11. Do not attempt to disassemble this projector. There are dangerous high voltages inside which may cause death if you should come into

contact with live parts.

Under no circumstances should you ever undo or remove any other covers. Refer servicing only to suitably qualified professional service personnel.



Warning

- Please keep the original packing for possible future shipment.
- If you need to pack your projector after use, adjust the projection lens to an appropriate position, put the lens cushion around the lens, and fit the lens cushion and projector cushion together to prevent damage during transportation.
- 12. When you think service or repair is required, take the projector only to a suitably qualified technician.



Moisture condensation

Never operate the projector immediately after moving it from a cold location to a hot location. When the projector is exposed to such a change in temperature, moisture may condense on the crucial internal parts. To prevent the projector from possible damage, do not use the projector for at least 2 hours when there is a sudden change in temperature.

Avoid volatile liquids

Do not use volatile liquids, such as insecticide or certain types of cleaner, near the projector. Do not have rubber or plastic products touching the projector for a long time. They will leave marks on the finish. If cleaning with a chemically treated cloth, be sure to follow the cleaning product's safety instructions.

Disposal

This product contains the following materials which are harmful to human bodies and environment.

· Lead, which is contained in solder.

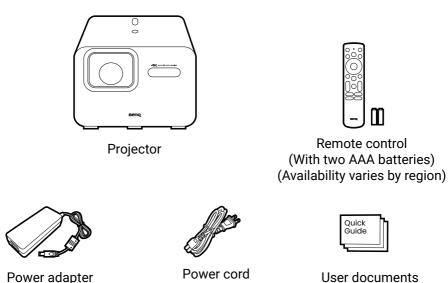
To dispose of the product, consult your local environment authorities for regulations.

Note

- The illustrations and the images shown in this document are for your reference.
- The actual content may vary by the product supplied for your region.

Package contents

Carefully unpack and verify that you have all of the items shown below. Some of the items may not be available depending on your region of purchase. If any of these items are missing, please contact your place of purchase.



Note

- · Actual product's features and specifications are subject to change without notice.
- · Some of the accessories may vary by region.
- The warranty card is only supplied in some specific regions. Please consult your dealer for detailed information, or check warranty information online.

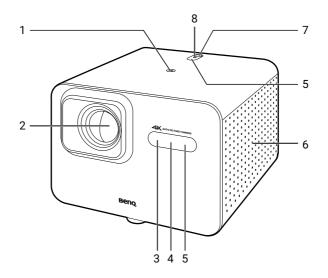
(Varies by region)

- · Use original accessories to ensure compatibility.
- · Power cord plug type may change based on regional requirements.

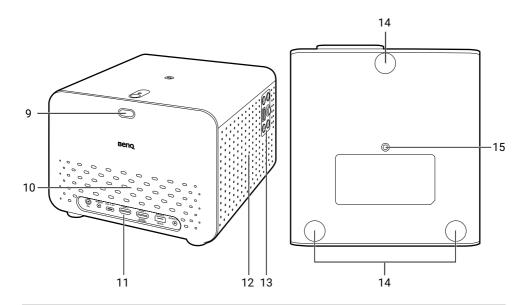
Introduction

Projector overview

Overview

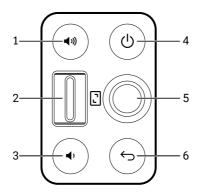


No.	Descriptions
1.	Tripod screw hole See "Tripod mounting (purchased separately)" on page 39 for details.
2.	Projection lens
3.	Auto focus camera
4.	Time of Flight (ToF) sensor
5.	IR remote control sensor
6.	Right speaker and vents
7.	Top adjustable foot See "Using the top adjustable foot" on page 45 for details.
8.	Ambient Light Sensor (ALS)



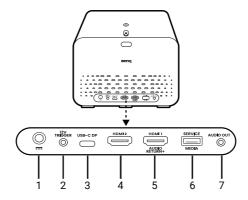
No.	Descriptions
9.	Top adjustable foot button See "Using the top adjustable foot" on page 45 for details.
10.	Air vents
11.	I/O ports See the following for details. • "I/O ports" on page 20 • "Projector connections" on page 22
12.	Left speaker and vents
13.	Keypad See "Keypad" on page 19 for details.
14.	Projector feet / ceiling mount screw holes See "Ceiling mounting" on page 42 for details. Note You can access the ceiling mount screw holes after removing the projector feet.
15.	Tripod screw hole See "Tripod mounting (purchased separately)" on page 39 for details.

Keypad



No.	Descriptions
1.	Volume up button
2.	Zoom in/zoom out switch • Mechanically and digitally zooms in/out for TK705i • Digitally zooms in/out for TK705STi
3.	Volume down button
4.	Power button and LED See the following for details. • "Power LED indicator" on page 33 • "Bluetooth speaker mode LED indicator" on page 63
5.	Joystick
6.	Back

I/O ports

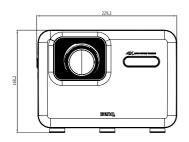


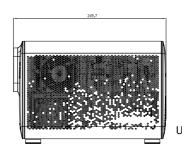
No.	Descriptions	
1.	Power adapter port	
2.	12V/0.5A power trigger output port Note The 12V/0.5A power trigger output delivers 12V/0.5A power to power on and lower the motorized electronic projection screen simultaneously when the projector is powered on. When the projector is powered off, the screen will be powered off and raised simultaneously as the 12V power is cut off from the screen. Refer to the user manual of the motorized electric projection screen for instructions about how to connect the projector with the projection screen via the 12V/0.5A power trigger output port.	
3.	USB Type-C port See the following for details. • "Wired projection" on page 61 • "Playing multimedia files from a USB flash drive" on page 66 • "Power delivery to a USB-C device" on page 67	
4.	HDMI 2 input port See "Wired projection" on page 61 for details.	
5.	HDMI 1 input port (with Audio Return Channel+) See "Wired projection" on page 61 for details.	
6.	USB Type-A port (for service and media reader) See the following for details. • "Advanced firmware updating" on page 38 • "Playing multimedia files from a USB flash drive" on page 66	
7.	3.5mm audio output jack	

Dimensions

229.2 (W) x 249.7 (D) x 168.2 (H) mm (9.02 x 9.83 x 6.62 in)

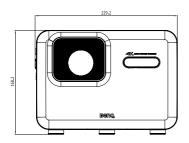
TK705i

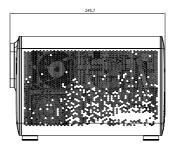




Unit: mm

TK705STi





Unit: mm

Projector connections

You can connect your device to the projector in various ways to project video content.

Wireless connection

- Smartphone, tablet, laptop/PC (see "Wireless projection (screen casting)" on page 58)
- Bluetooth devices (speakers, headphone, mouse, etc.)

Before making any wireless connections, be sure to place the projector within range of the wireless AP you plan to connect it to.

Wired connection (USB-A port)

 USB-A flash drive (see "Playing multimedia files from a USB flash drive" on page 66)

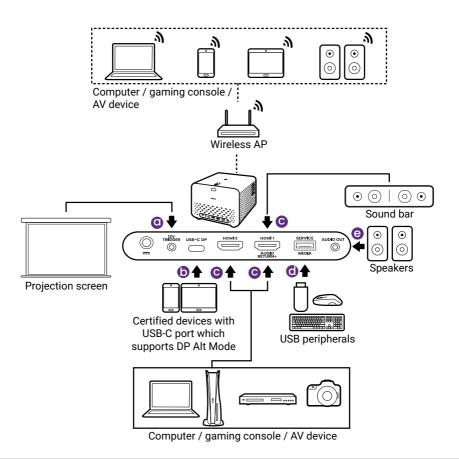
Wired connection (HDMI port)

- A/V device
- · Smartphone, tablet, laptop/PC

Wired connection (USB-C port)

- Smartphone, tablet, laptop/PC (see "Wired projection" on page 61)
- USB-C flash drive (see "Playing multimedia files from a USB flash drive" on page 66)

Before making any wired connections, be sure to use the correct cable with corresponding functions (e.g., DP Alt Mode or Power Delivery) for each source and that it is plugged in securely. Connection with USB-C cables/devices certified by USB-IF may increase compatibility.



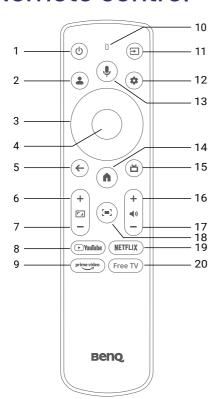
No.	Descriptions	No.	Descriptions
a.	12V/0.5A trigger for electronic projection screen control	d.	USB flash drive for media reader and peripherals
b.	Certified DP Alt mode USB-C cable	e.	Audio cable
	HDMI cable		

HUMII cable

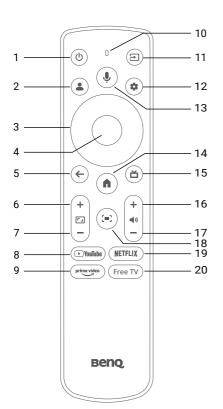
Note

- In the connections above, some cables may not be included with the projector (see "Package contents" on page 16). They are commercially available from stores.
- · The connection illustrations are for reference only.
- If the selected video image is not displayed after the projector is turned on and the correct video source has been selected, check that the video source device is turned on and operating correctly. Also check that the signal cables have been connected correctly.
- The built-in speaker(s) will be muted when the AUDIO OUT jack is connected.

Remote control



No.	Descriptions
1.	() Power
2.	Profiles
3.	Arrow keys
4.	OK
5.	← Back
6.	Zoom in
7.	Zoom out
8.	▶ YouTube
9.	Prime Video
10.	MicrophoneBluetooth pairing status indicator LED
	Note When a button on the remote control is pressed, the LED will blink red if the remote control is not paired with the projector via Bluetooth, and blink blue if it is paired with the projector via Bluetooth.
11.	→ Source
12.	☼ Dashboard
13.	♣ Voice search
14.	↑ TV home screen
15.	HDMI source



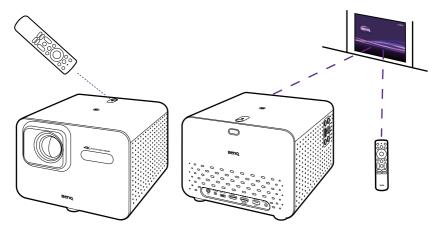
No.	Descriptions
16.	Volume up
17.	Volume down
18.	 Screen adjustment Auto Cinema mode (See page 50) Note When Picture Mode is set to Auto Cinema, pressing this button will activate both the screen adjustment function and the Auto Cinema mode setting. When Picture Mode is not set to Auto Cinema, pressing this button will activate only the screen adjustment function.
19.	NETFLIX Netflix
20.	Free TV/Live TV Note The Free TV/Live TV streaming
	service app availability varies by region.

Tip

You are provided with the SmartRemote for BenQ Projector app as an alternative of remote control. Install the app on your mobile device and make it your new remote control. Check "Accessing helpful BenQ apps" on page 37 for more information.

Remote control effective range

The projector has one IR remote control sensor located at the front of the projector and another sensor at its top side with a range of 8 meters (~26 feet) at an angle of 30 degrees (left and right) and 20 degrees (up and down). Prior to remote control pairing process during the setup wizard (see "Powering on and initial setup" on page 32), the remote control can only be used either by pointing it directly at the IR sensor or by reflecting the IR signal off of a wall/screen, making sure that there are no obstacles between the remote control and the IR sensors on the projector.



Once the remote control has been paired to the projector, you will be able to use it at any angle within a range of 8 meters (\sim 26 feet).

Note

Voice search functionality on the remote control is only available after the remote control has been paired to the projector. See "Powering on and initial setup" on page 32 for more details.

Installation

Choosing a location

Before choosing an installation location for your projector, take the following factors into consideration:

- · Size and position of your screen
- · Electrical outlet location
- Location and distance between the projector and the rest of your equipment
- Location and distance between the projector and the wireless access point

You can install your projector in the following ways from * > All settings > Projector > Advanced Settings > Projection Mode.

Auto

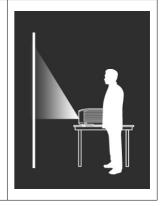
Changes the projection mode automatically by detecting whether the projector is placed upside down between **Front** and **Front Ceiling** by the using scenario (upward or downward). The audio channels are switched accordingly to go with the projector position.

Note

Auto is the default projection mode.

Front

Select this location with the projector placed near the floor in front of the screen. This is the most common way to position the projector for quick setup and portability.

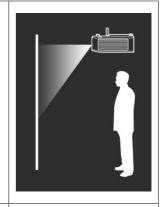


Front Ceiling

Select this location with the projector elevated near the ceiling in front of the screen. The audio channels are switched accordingly to go with the projector position.

Note

The projector does not feature ceiling mount components/ equipment. When choosing to use a ceiling location, you must place it on an elevated and even shelf purchased separately. Make sure the shelf is stable enough to support the projector's weight. Secure the shelf properly and keep the projector from falling.

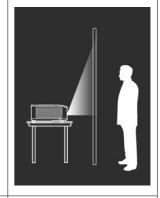


· Rear

Select this location with the projector placed near the floor behind the screen. The audio channels are switched accordingly to go with the projector position.

Note

A special rear projection screen is required.

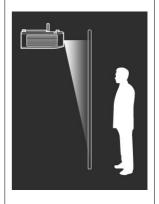


· Rear Ceiling

Select this location with the projector elevated from the ceiling behind the screen.

Note

- · A special rear projection screen is required.
- The projector does not feature ceiling mount components/equipment. When choosing to use a ceiling location, you must place
 it on an elevated and even shelf purchased separately. Make
 sure the shelf is stable enough to support the projector's weight.
 Secure the shelf properly and keep the projector from falling.

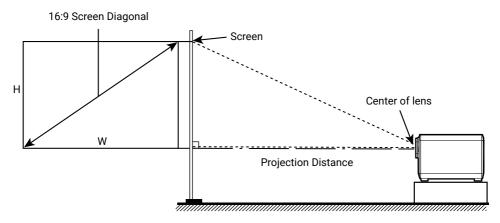


Obtaining a preferred image size

The distance from the projector lens to the screen, the zoom setting, and the video format each factors in the projected image size.

Projection dimensions

The screen aspect ratio is 16:9 and the projected picture is in a 16:9 aspect ratio.



TK705i

Screen size		\// (mm)	□ (mm)	Projection Distance (mm)	
Inch	mm	W (mm)	H (mm)	Wide: TR1.00	Tele: TR1.30
50	1270	1107	623	1107	1439
60	1524	1328	747	1328	1727
70	1778	1550	872	1550	2015
80	2032	1771	996	1771	2303
90	2286	1992	1121	1992	2591
100	2540	2214	1245	2214	2878
110	2794	2435	1370	2435	3166
120	3048	2657	1494	2657	3454
130	3302	2878	1619	2878	3742
140	3556	3099	1743	3099	4030
150	3810	3321	1868	3321	4317

Screen size		W (nana)	H (mm)	Projection Distance (mm)	
Inch	mm	W (mm)	— (ППП)	Wide: TR1.00	Tele: TR1.30
160	4064	3542	1992	3542	4605

TK705STi

Screen size		\\\ (mama)	11 (2000)	Dusingtion Distance (man)	
Inch	mm	W (mm)	H (mm)	Projection Distance (mm)	
50	1270	1107	623	886	
60	1524	1328	747	1063	
70	1778	1550	872	1240	
80	2032	1771	996	1417	
90	2286	1992	1121	1594	
100	2540	2214	1245	1772	
110	2794	2435	1370	1949	
120	3048	2657	1494	2126	
130	3302	2878	1619	2303	
140	3556	3099	1743	2480	
150	3810	3321	1868	2657	
160	4064	3542	1992	2834	

For example, if you are using a 100-inch screen, the recommended projection distance is 2,214/2,878 mm (for TK705i) or 1,772 mm (for TK75STi).

If your measured projection distance is 1,992/2,591 mm (for TK705i) or 1,594 (for TK705STi), the projected screen size is 90-inch.

Note

- All measurements are approximate and may vary from the actual sizes.
- BenQ recommends that if you intend to permanently install the projector, you should physically
 test the projection size and distance using the actual projector in situ before you permanently
 install it, so as to make allowance for this projector's optical characteristics. This will help you
 determine the exact mounting position so that it best suits your installation location.

Using the projector at high altitude

We recommend you use the **High Altitude Mode** when your environment is between 1500 m - 2000 m above sea level and the ambient temperature is between 0°C to 40°C.

Operation under the **High Altitude Mode** may cause a higher decibel of operating noise level because of the increased fan speed necessary to improve overall system cooling and performance.

If you use this projector under other extreme conditions excluding the above, it may display auto shut-down symptoms, which is designed to protect your projector from over-heating.

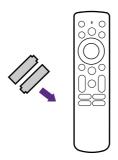
In cases like this, you should switch to **High Altitude Mode** to solve these symptoms. Go to ****** > **All settings** > **Projector** > **Energy & Performance** > **High Altitude Mode**.

However, this is not to state that this projector can operate under any and all harsh or extreme conditions.

Getting started

Powering on and initial setup

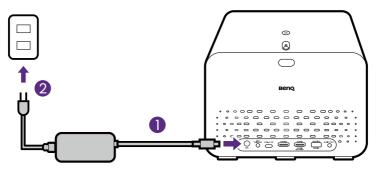
- 1. Choose a preferred location and image size as instructed in "Choosing a location" on page 27.
- 2. Install the remote control's batteries.



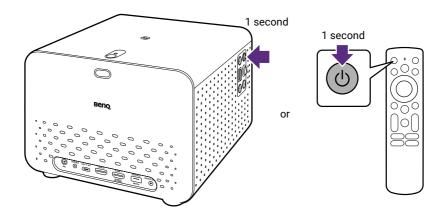
Note

Avoid leaving the remote control and batteries in an excessively hot or humid environment like the kitchen, bathroom, sauna, sunroom or in a closed car.

3. Connect power to the projector.



4. Press and hold the power button () on the projector for 1 second or press the power button () on the remote control. The power LED will flash green when the projector is powering and then turn solid green when the projector is ready for use.



Note

- When supplying power directly to the projector via the supplied power adapter please use the supplied power cable to avoid possible dangers such as electric shock and fire.
- Prior to pairing the remote control to your projector you must ensure that your remote control is in range of the projector's IR sensor. See "Remote control effective range" on page 26 for more details.
- 5. Follow the on-screen instructions to complete the initial set up. Pair your remote control properly in the first step.
- 6. When prompted, select **Set up Google TV**. Google TV[™] brings together movies, shows, and more from across your apps and subscriptions and organizes them just for you.
- 7. In next step, select **Set up on TV instead** on the lower part of the screen to access Google TV.
- 8. Check if an updated firmware is available for your product. Refer to "Upgrading your projector" on page 38.
- 9. Go for a preferred scenario.
 - "Watching streaming videos" on page 52
 - "Projection" on page 58
 - "Playing music with your projector" on page 62

Power LED indicator

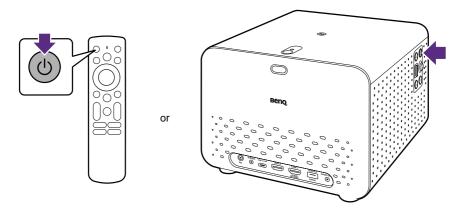
LED status	Power status
Flashing green	Powering on properly
Solid green	Powered on and ready to use
Flashing orange	Powering off properly
Solid orange	On Standby Mode/Network Standby Mode

LED status	Power status
Flashing red	Downloading firmware
Flashing orange/blue	In Audio Only mode

Power settings and options for saving power

To save power, by default the projector will be automatically switched off (i.e., enter Network Standby mode) after being inactive for 20 minutes or after 4 hours of watch time.

To manually enable Network Standby mode, briefly press the power key () on the remote control / projector for 1 second.



You can change the network standby setting from * > All settings > System > Power & Energy > Shut-Off Timer > When inactive. This setting does not power off the projector.

To navigate more power menus, go to * > All settings > System > Power & Energy. Set according to your preferences. Here are some settings under Power & Energy that may help.

Item	Descriptions
Shut-Off Timer	Allows you to set up a timer to power off the projector automatically after a set time of inactivity or watching.
Scheduled power on/off	 Allows you to set up a timer to automatically power on/off the projector automatically at the set time. Allows you to set up a timer to automatically power off the projector automatically after a set time of use.

Note

The projector will power off after 20 minutes of inactivity by default. If you prefer to extend the standby time, go to **\overline{\text{\$\scrt{\$\color{100}}}} > \text{All settings} > \text{System} > \text{Power & Energy} > \text{Shut-Off Timer} > \text{When inactive} and select *\text{Never} or an option that is more than 20 minutes.}

Shutting down the projector

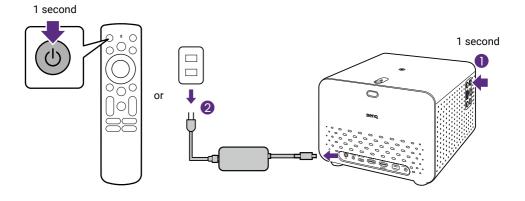
Press and hold the power key (1) on remote control / projector for 1 second and the projector will shut down directly.

The power LED will flash orange. The fans may continue to run in order to cool the system.

If the projector will not be used for an extended period, unplug the power cable from the power outlet and remove the batteries from the remote control.

Note

- If you prefer to switch the projector to Network Standby mode automatically, set **Shut-Off Timer** first. See "Power settings and options for saving power" on page 35 for details.
- The system will automatically enter Standby mode once the power adapter's DC output is connected.



Accessing helpful BenQ apps

You can install certain BenQ apps to extend the functionalities of your projector.

Apps downloaded to your projector

- BenQ Projector Assistant: provides tips, FAQs, and product support.
- Screen Sharing for iOS: helps cast your content from iOS/macOS device wirelessly. See "Screen casting from iOS/macOS device devices" on page 58 for more information.

To install apps on your projector, go to the **Apps** tab on the top of your home screen to search for your preferred app.

Download **SmartRemote for BenQ Projector** app to your mobile device

SmartRemote for BenQ Projector: pairs your mobile device with the projector to handle basic functions (adjusting volume, moving the directional keys, focusing, etc.), and advanced control of hotkeys for streaming services, text input, and a touchpad, making the usage smarter and more convenient.









Upgrading your projector

It is suggested that you update the projector with the latest version of the firmware to optimize the user experience.

Updating the operating system

When operating system updates are available for your projector, a notification will appear on the Google TV home screen. Follow the on-screen instructions from the notification to complete the update. Notifications will only appear on the home screen when your projector is connected to a wireless network.

Alternatively, go to * > All settings > System > About > System update to check for update manually.

Advanced firmware updating

If a USB flash drive is required, use one with USB-A connector in FAT32 disk format.

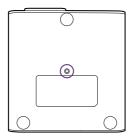
- Visit Support.BenQ.com and download the new firmware files (if available) of your projector. Upgrade procedures may vary by hardware component. Find out the updates and instructions from the upgrade notice. You should download the latest projector user manual for reference as well.
- 2. Keep stable power supply to the projector via the power adapter. Do not power off the projector.
- 3. The way to perform advanced firmware update may vary. Refer to the firmware upgrade notice for instructions to complete the upgrade.

Mounting

Tripod mounting (purchased separately)

The projector features two tripod screw holes individually located at the top and bottom. Please ensure that the accessory you purchase separately supports a $\frac{1}{4}$ " standard screw type and has a minimum weight capacity of at least 4 kg.

Screw location



Bottom side Screw type: 1/4" Screw hole length: 10mm

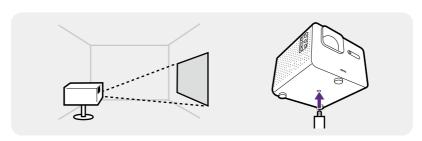


Top side Screw type: 1/4" Screw hole length: 10mm

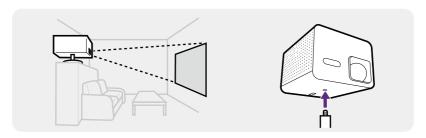
Flexible setup

With the two tripod screw holes, you can easily mount the projector on a tripod (purchased separately) for flexible setup to accommodate different room settings.

Front projection



· Upside down projection



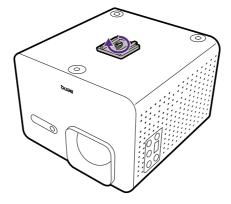
Note

You can also use the top adjustable foot to project upside down without a tripod. See "Using the top adjustable foot" on page 45.

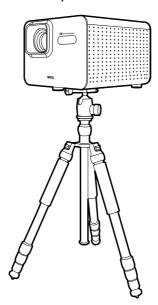
Working with a tripod plate

To use a tripod plate to mount the projector onto a tripod:

1. Install the tripod's quick release plate to the projector's tripod screw hole and tighten the plate's screw.

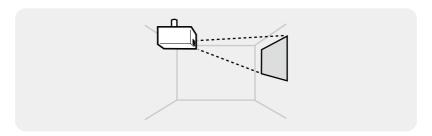


2. Install the projector onto the tripod.



Ceiling mounting

The projector features installation points on the bottom for a traditional ceiling mount.



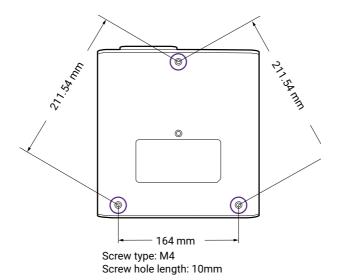
Please ensure that the ceiling mount you purchase separately supports an M4 screw type and has a minimum weight capacity of at least 4 kg.

Note

The projector is compatible with the BenQ CM00G3 universal ceiling mount.

Screw location

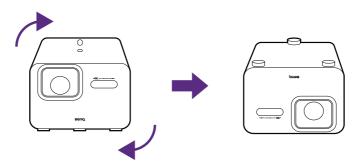
You can access the ceiling mount screw holes after removing the projector feet from its bottom side.



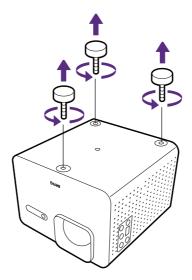
Working with a ceiling mount

To install the projector onto a ceiling mount:

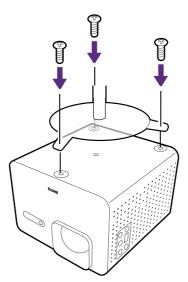
1. Place the projector upside down on a flat surface.



2. Using your hand, remove the three adjustable feet from the bottom side of the projector to access the ceiling mount screw holes.

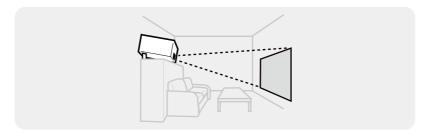


3. Install the projector onto the ceiling mount and secure it in place with the ceiling mount's screws.



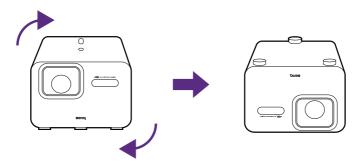
Using the top adjustable foot

The projector features an adjustable foot on its top side with a button to release it at the rear side. The foot allows you to project upside down without a tripod.

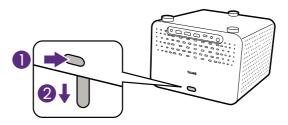


To use the top adjustable foot:

1. Place the projector upside down on a flat surface.



2. Slightly tilt the projector to create space below the adjustable foot and then push the button at the rear side of the projector to release the adjustable foot from the slot.



Note

There is no mechanism to eject the adjustable foot out of the projector. It can only be pulled out of its slot by gravity when the the button is pushed while the projector is held upside down.

Adjusting the projected image

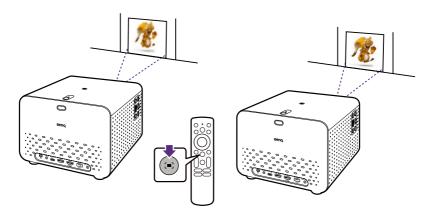
Fine-tuning the image clarity

To sharpen the picture, adjust the focus.

- Real-time focus & keystone adjustment: Your projector adjusts focus and keystone automatically at startup by default. This function will be performed automatically as well when the projector is moved. To check/change the auto focus setting, go to ♣ > All settings > Projector > Focus > Focus Settings. The effective distance from the projection lens to the screen is 1.3 − 4.9 meters.
- One-click screen adjustment: Press the [=] button on the remote control and the projector will automatically focus the image and adjust keystone. Make sure the full keystone pattern is displayed on the screen to ensure a successful correction.

Note

When Picture Mode is set to Auto Cinema, pressing the [=] button on the remote control will activate both the screen adjustment function and the Auto Cinema mode setting.



Manual focus: Go to ❖ > All settings > Projector > Focus > Manual Focus. Press up/down keys to make adjustment. When the focus is completed, press ← to leave.

Note

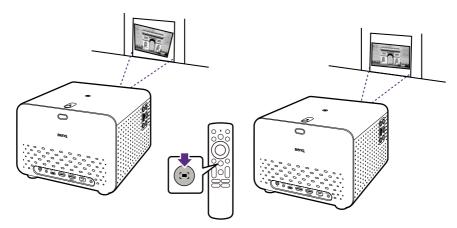
A focus pattern is displayed to ensure image focus adjustment by default. It is recommended to display the focus pattern for better focus adjustment during video playback in particular. If you prefer not to be distracted by the pattern during adjustment process, you can manually disabled the pattern from > All settings > Projector > Focus > Focus Settings > Deep Focus Always On.

Fitting the image to your screen

Keystone

The keystone effect refers to the situation where the projected image is noticeably wider at the top / bottom / left / right. It occurs when the projector is not perpendicular to the screen. Make sure the keystone pattern is completely visible on the screen to ensure a successful correction.

- Real-time focus & keystone correction: Your projector adjusts focus and keystone automatically at startup by default. The real-time focus & keystone function is also enabled by default. As a result, the projector automatically adjusts focus and runs keystone correction whenever it is touched or moved. To check/change the auto keystone setting, go to All settings > Projector > Keystone Correction > Keystone Correction Settings. The effective range of auto keystone is as follows:
 - Vertical: ± 30 degrees (single axis)
 - Horizontal: ± 20 degrees (single axis)
 - · Distance from lens to wall: 2 meters



One-click screen adjustment: Press the [=] button on the remote
control and the projector will automatically focus the image and adjust
keystone. Make sure the full keystone pattern is displayed on the
screen to ensure a successful correction.

Note

When Picture Mode is set to Auto Cinema, pressing the [m] button on the remote control will activate both the screen adjustment function and the Auto Cinema mode setting.

- - Vertical: ± 30 degrees (single axis)
 - Horizontal: ± 20 degrees (single axis)
 - · Distance from lens to wall: 2 meters

Note

The way to adjust keystone varies by projection distance and the displayed pattern varies accordingly. This will not change the corrected result, however.

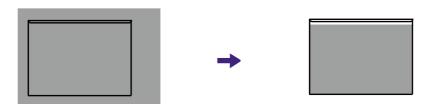
Screen Fit

If the projector is placed off-centered, the image may be distorted and exceeded your screen. With the Screen Fit function, you can adjust the image to align with 4 borders of the screen to fit the screen properly. Note that the Screen Fit function works only when at least two borders of the screen are detected by the focus/keystone camera.

- 1. Make sure the projection covers the whole screen and is larger than the screen.
- 2. Go to * > All settings > Projector > Advanced Settings > Fit to Screen.
- 3. Follow the on-screen instructions. Make sure the full keystone pattern is displayed on the screen to ensure a successful correction. The projection will fit into the screen automatically.

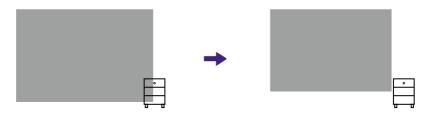
Tip

To perform this function automatically when the [m] button on the remote control is pressed, go to All settings > Projector > Keystone Correction > Keystone Correction Settings > Auto Fit to screen via Remote Control. Toggle the switch on.



Obstacle avoidance

With this function, the projector detects if the screen is shaded by any object, and resizes the projected image automatically to avoid the object. Go to > All settings > Projector > Advanced Settings > Avoid Obstacles. The projector will automatically resize to avoid the object shading the screen. Make sure the full keystone pattern is completely displayed on the screen to ensure a successful correction.



Note

The **Fit to Screen** and **Avoid Obstacles** functions cannot work together. The correction result will be based on screen detection.

Projection size and position adjustment (Digital zoom and image reposition)

Resize and shift the projected image to fit your space with the digital zoom and reposition functions easily.

- 1. To resize an image to a smaller space, press the digital zoom in/ out keys on the remote control. The maximum size is the image you projected in the first place.
- 2. Press OK to switch to image reposition function. Use the arrow keys on the remote control to move the image. Follow the on-screen instructions to switch between digital zoom and image reposition.
- 3. Press ← to save and exit.

Tip

To access the menu, go to ****** > **All settings** > **Projector** > **Keystone Correction** > **Image Adaptation** > **Image Reposition**.

Adjusting screen brightness

Go to 🌣 > All settings > Projector > Energy & Performance > Light Source Mode.

Item	Descriptions
Normal	Provides full light brightness.
ECO	Lowers brightness to extend the light life and decreases the fan noise.
Custom	Ten levels of brightness are provided to decrease the current peak brightness.

Activating smart eye protection

This function reduces the screen brightness when an object/person is detected within 2 meters in front of the projection lens.

To activate this function, go to > All settings > Projector > Advanced Settings > Smart Eye Protection.

Optimizing image quality by Auto Cinema mode

Auto Cinema mode allows the projector to automatically optimize the image quality by adjusting parameters such as saturation, brightness, contrast, and sharpness in real time based on changes in environmental conditions, e.g., ambient light, projector position, screen distance, and the color of the wall to which the image is projected.

Auto Cinema mode can be triggered by moving the projector or pressing the screen adjustment button on the remote control. Under these circumstances the projector will project the calibration pattern and automatically optimize the aforementioned image parameter settings. Auto Cinema mode is available between a projection distance of 1.2 and 4.0 meter for TK705i or 1.0 and 3.0 meter for TK705STi.

Go to ***** > **All settings** > **Display & Sound** > **Display** > **Picture Mode** to switch picture mode.

Changing the input source

By default, the projector will display the Google TV home screen any time it is powered on.

Connect a device to one of the projector's input ports. Press the source $ext{key} \Rightarrow ext{on}$ the remote control and select the desired input source from the source menu.

You can also press the home button n on the remote control to return to the Google TV home screen at any time.

Note

A USB flash drive is not considered as an input source. To play files from a USB flash drive, see "Playing multimedia files from a USB flash drive" on page 66.

Watching streaming videos

Make sure the projector has been connected to a wireless network and you are signed into your Google Account.

Google TV home screen

Upon initial startup or when you press the n key on the remote control, the projector will display the Google TV home screen.



Note

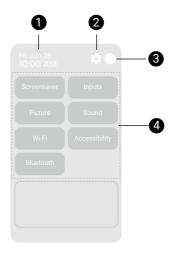
Actual screen and features may vary depending on your country/region.

No.	Item	Description
0	Profile	Signed-in profile.
2	For You	Access to home screen.
3	Movies	Browse a variety of movies.
4	Shows	Explore an assortment of shows.
6	Apps	Download new apps or access installed apps.
6	Library	Access to your personalized watchlist.
7	Search	Enables text input to search.
8	Dashboard	Quick access to setting menu and certain functions (See page 53).

No.	Item	Description
9	Recommendations	Discover movies and shows from across your apps with personalized suggestions.
•	Your Apps	Browse your installed apps.

Dashboard

Use the side panel dashboard to quickly access certain functions and settings.



No.	Item	Descriptions
0	System time	Displays the time.
2	Settings	Access to the settings menus.
3	Profiles	Switch to different user profiles.
4	Default frequently used menus	Access to frequently used menus/functions.

Note

Actual screen may vary by the availability of network and Google TV version. It may also subject to change without prior notice.

Choosing a proper picture mode for video streaming

You are provided with a variety of picture modes for different scenarios in **Picture Mode**. Go to * > **All settings** > **Display & Sound** > **Display** > **Picture Mode** for selection. Usually **Energy Saving** is recommended for watching movies.

Available options vary by content. When HDR/HLG/HDR10+ content is available, some options under **Picture** support HDR/HLG/HDR10+ content. Compared to its standard picture mode, an HDR mode helps deliver High Dynamic Range effects with higher contrasts of brightness and colors.

Option	Descriptions
Energy Saving	With accurate colors and deepest contrast at a lower brightness level, this mode is suitable for playing movies in an environment with a bit of ambient light.
Auto Cinema / HDR Auto Cinema	Automatically adjusts color settings based on wall color, ambient light, and screen size. In an environment with a bit of ambient light, this mode is suitable for playing movies with authentic colors and deepest contrast at a lower brightness level. Under a small amount of ambient light, this mode is suitable for playing streaming TV with well-saturated colors and fine-tuned sharpness. See "Optimizing image quality by Auto Cinema mode" on page 50 for more information.
RPG / FPS / HDR RPG / HDR FPS	Picture settings appropriate for playing Role Playing Games or First-Person Shooters. This mode especially enhances details in dark scenes so that enemies cannot hide. Note Noise reduction is not available in this mode.
User / HDR User / HDR10+ User / HLG User	Accesses the customized settings.
Bright	Maximizes the brightness of the projected image. This mode is the brightest mode on your projector.

Option	Descriptions
HDR10	Delivers High Dynamic Range effects with higher contrasts of brightness and colors.
HDR10+	Delivers High Dynamic Range effects with higher contrasts of brightness and colors especially for HDR Blu-ray movies.
HLG	Delivers Hybrid Long Gamma effects by adding a logarithmic curve with extra brightness over the top of the signal.

Choosing a proper sound mode for video streaming

In general, you can select a sound mode from **Sound Mode** to suit your scenario. Go to ***** > **All settings** > **Display & Sound** > **Sound Mode** for selection. Usually **Cinema** is recommended for watching movies.

Option	Descriptions
Cinema	This mode balances the background music and movie sound effect and especially enhances vocal dialogue for clear whispered voices and stereo bass sound effect for explosive action scenes, such as gunshots and firefights.
Music	This mode emphasizes total balance (low, middle, and high frequency) to fully display the timbre of musical instruments, rhythm of symphonies, and solos of singers in hot concerts or in live halls for different types of music, like pop, rock, and jazz.
Game	This mode emphasizes clear position and spatial dynamic to enhance directional sound; therefore game players can recognize the direction of gunshots or footsteps from right to left so that enemies cannot hide when in an action or fighting game.

Option	Descriptions
Sport	This mode allows users to enjoy the rich vividness of sport broadcasts and light entertainment programs. The commentators' voice is clear and high pitch shrill cheers from the audience is processed.

Enhancing gaming experience

To enhance your gaming experience, you are provided with picture and sound modes that are suitable for gaming. In general, **RPG / FPS / HDR RPG / HDR FPS** (picture mode) and **Game** (sound mode) are recommended for gaming.

Auto Low Latency Mode (ALLM)

Auto Low Latency Mode (ALLM) is designed to provide a smooth gaming experience with low input lag. It allows the projector to automatically switch to low latency mode when it detects gaming signals sent from a gaming console, PC, laptop, or other device. In low latency mode, once the projector detects the gaming signal has ended, it will return to its standard display mode.

ALLM is only available when the input source is HDMI and the picture mode is set to **RPG / FPS / HDR RPG / HDR FPS**.

ALLM is disabled by default. To enable this function, go to *> All settings > Display & Sound > Display > HDMI Display Settings > ALLM.

Gaming boost

When you have already set the picture mode to RPG / FPS / HDR RPG / HDR FPS and want to have an even more responsive gaming experience, go to > All settings > Display & Sound > Display > HDMI Display Settings > Game Mode to enable Gaming Boost.

Note

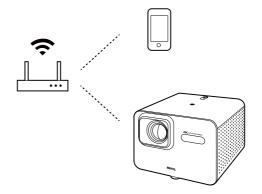
- Gaming Boost is available only when Picture Mode is set to RPG / FPS / HDR RPG / HDR FPS and the input source is either HDMI or USB-C.
- Once Gaming Boost is enabled, the keystone correction value will be automatically set to zero.
 Therefore, before enabling Gaming Boost, ensure the project is placed perpendicular to the screen.
- To use the keystone correction function in the RPG / FPS / HDR RPG / HDR FPS mode, go to All settings > Display & Sound > Display > Expert Settings > HDMI Display Settings > Game Mode to disable Gaming Boost .

Projection

Wireless projection (screen casting)

To screen cast from your mobile device, tablet or computer to your projector, ensure that both devices are connected to the same wireless network.

Depending on your mobile device, different procedures and options are required. Follow the instructions.



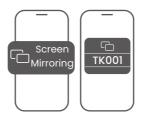
Screen casting from iOS/macOS device devices

- Install and launch the Screen Sharing for iOS app from > All settings > Projector > Advanced Settings > Screen Sharing for iOS.
- 2. Go to **Apps** from the Google TV home screen on the projector, and launch the **Screen Sharing for iOS** app.



3. Follow the on-screen instructions to grant the access right.

- 4. Make sure your mobile device and the projector are connected to the same wireless network.
- Enable the screen mirroring function from your iOS/macOS device.
 Choose **TK001** (the default device name of your projector) from the device list. If you have changed the name, look for the new name from the device list.



Tip

Some of the streaming apps use portrait screens only and may not be projected in full screen in a landscape projection. You can press the left / right key to rotate the screen when casting an iOS/MacOS device.

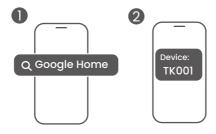
Screen casting from Android™ OS devices with Google Cast™

- 1. Make sure your mobile device and your projector are connected to the same wireless network.
- 2. Open a Google Cast-enabled app on your mobile device.
- 3. Select the content you would like to cast from your mobile device to your projector.
- 4. Tap the Cast icon (5) on your mobile device and select **TK001** (the default device name of your projector) as the device you would like to cast to.

Screen casting from Android™ OS devices with Google Home

- 1. Make sure your mobile device and the projector are connected to the same wireless network.
- 2. Go to **Google Play** on your mobile device. Install and launch the **Google Home** app.
- 3. Follow the on-screen instructions. Select **TK001** (the default device name of your projector) as your cast device from **Google Home** to

enable the screen mirroring function from your mobile device. If you have changed the name, look for the new name from the device list.



Screen casting from PC devices with Google Cast™

- 1. Make sure your computer and the projector are connected to the same wireless network.
- 2. Enable the screen mirroring (cast) function from the browser (e.g. Chrome) of your computer. Available name and access to the screen mirroring function may vary by program. Note that the projector is named **TK001** by default. If you have changed the name, look for the new name from the device list.

Windows



Wired projection

Using an HDMI or certified USB-C 3.0 cable you can connect a device that is equipped with HDMI or DP Alt Mode capabilities to broadcast videos or images on the projector.

Note

Not all devices with a USB-C port have DisplayPort functionality. Check your device's documentation for clarification.

- 1. Connect the device to the HDMI or USB-C port on the projector with a certified cable.
- 2. Press the source key \implies , and then select the corresponding port in the source menu.
- 3. Use the source menu or press the home button
 to exit and go back to the Google TV home screen.
- 4. If the device remains connected and you want to project its video again, press the source button →, and then select the corresponding port in the source menu.

Note

- Some computers feature HDMI ports that do not transmit audio. In such cases a separate audio cable must be connected to the projector.
- Some laptops do not turn on their external video ports when connected to a projector. Usually a
 key combination like Fn + F3 or CRT/LCD key turns the external display on/off. Locate a function
 key labeled CRT/LCD or a function key with a monitor symbol on the laptop. Press Fn and the labeled function key simultaneously. Refer to your laptop's documentation to discover your laptop's
 key combination.

Tip

Your projector features video/audio transfer and power delivery from the USB-C port. With this feature, you can charge your gaming console (with USB-C video output) directly during gaming without any other docking. See "Power delivery to a USB-C device" on page 67 for details.

Playing music with your projector

With the built-in speakers, you can enjoy music playback via the projector without a projection screen. The projector can work as an ordinary speaker or a wireless speaker.

Making your projector a Bluetooth speaker

Available when input source is set to Google TV.

- 1. Go to All settings > Projector > Bluetooth Speaker Mode to enable the projector's Bluetooth function.
- Enable your device's Bluetooth function as well. Select **TK001** (the
 default device name of your projector) from the device list for pairing.
 If you have changed the name, look for the new name from the device
 list
- 3. After the pairing is done successfully, you can output the audio from your device to the projector.
- 4. To stop the music playback from the projector and disconnect Bluetooth connection, press any key and press and hold the back button ← on the remote control.



Note

The projector does not support automatic re-connections with previously paired devices. In order to re-connect to a paired device or connect to another device, repeat the steps above.

Bluetooth speaker mode LED indicator

Note

The Bluetooth speaker mode LED indicator is on the power button, sharing the same location as the power LED indicator. See "Keypad" on page 19 for the location of the power button.

Scenario	LED status	Bluetooth status
	Flashing blue	Bluetooth speaker mode enabled
Switching to Bluetooth speaker mode, or		Waiting for Bluetooth device to pair and connect
pairing and connecting a Bluetooth device		Bluetooth device pairing and connecting in progress
	Solid blue	Bluetooth device connected successfully
Disconnecting and unpairing a Bluetooth	Flashing blue	Bluetooth device unpairing and disconnecting in progress
device		Bluetooth device disconnected
Exiting Bluetooth speaker mode	Off	Off

Connecting the projector to an external Bluetooth speaker / headphone

Available when input source is set to Google TV.

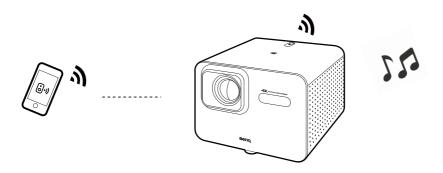
- Go to All settings > Remotes & Accessories > Pair accessory on your projector.
- 2. Activate Bluetooth-pairing mode on the speaker or headphones.
- 3. Select the speaker / headphones from the device list.
- 4. Select Pair.
- Once the projector and speaker / headphones have successfully connected, you can output the audio from your projector to the speaker / headphones.

Note

The projector does not support automatic re-connections with previously paired devices. In order to re-connect to a paired device or connect to another device, repeat the steps above.

Making your projector a wireless speaker

- 1. Power on the projector (see "Powering on and initial setup" on page 32).
- 2. Connect your mobile device and the projector to the same wireless network.
- 3. Cast your audio from the mobile device to the projector as instructed in "Wireless projection (screen casting)" on page 58.
- Go to > All settings > Display & Sound > Audio Only Mode on your projector to turn off the screen. See "Turning the screen off during music playback" for details.
- Launch the music app on your mobile device and use the casting function through Google Cast as instructed in "Wireless projection (screen casting)". Find TK001 as the casting device to enjoy music streaming.



Turning the screen off during music playback

You can enjoy music playback via the projector without a projection screen. Go to \$\frac{1}{40}\$ > All settings > Display & Sound > Audio Only Mode on your projector to turn off the screen while the music playback continues. You can adjust volume by pressing the volume adjustment keys without a projection screen.

To stop the playback or to perform other operations, press any key (except the power and volume adjustment keys) on the remote control to bring the projection screen back.

Playing multimedia files from a USB flash drive

A media reader app required. Install one before accessing files from a USB flash drive.

To play media files stored on a USB flash drive, you must make connections and settings properly.

- 1. Connect your USB flash drive to the USB-A / USB-C port of the projector.
- You are prompted when the USB storage device is detected. Follow the on-screen instructions. On the home screen go to Apps > Search "media player" and download a preferred app.
- 3. Launch a media reader app on your projector to access the multimedia files stored on your USB flash drive. Supported file formats for playback may vary by app.

Note

Supported USB flash drive formats: NTFS, FAT, and FAT32.

Power delivery to a USB-C device

Available only when the projector is supplied power via the included power adapter.

With the power delivery function, your projector is able to supply power to a connected USB-C device certified by USB-IF.

Supported USB-C power delivery:

- 5V/2A
- 9V/2A
- 12V/1.5A
- 15V/2A

USB-C power delivery notice

- The information is based on the standard testing criteria and is provided for reference. The compatibility is not guaranteed as the user environments vary. When a separately purchased USB-C cable is used, make sure the cable is certified by USB-IF and is full-featured with power delivery function.
- A connected device needs to be equipped with a USB-C connector that supports charging function via USB power delivery.
- If the connected device requires more than the power supplied by your projector for operation or for boot up, use the original power adapter that came with the device.

Menu navigation

To let you make various adjustments or settings on the projector, the projector provides a settings menu. To access the menu, go to > All settings.

Actual menu and options may vary depending on your country/region. Here are some menus related to projector settings. Visit https://tv.google/formore information on menus and options.



Set your device name

You can change the projector's name if desired.

Input

All Settings > input		
Item	Options and descriptions	
Switch Input	Allows you to switch the input source.	
Input	HDMI 1/AUDIO RETURN+ / HDMI 2 / USB-C Note The settings below apply to all the three input sources (HDMI 1/AUDIO RETURN+, HDMI 2, and USB-C). • Show this input Enables/disables this specific input source to be displayed in the Input section of the OSD menu. • PIN lock Allows you to set up a PIN for this specific input source and enable/disable its PIN lock function. When enabled, changing to this input requires this input's PIN. • Edit names Allows you to select or customize a name for this input source. • No signal standby timeout Allows you to set up a timer to turn off the projector automatically after the set time when the projector detects no signal input from this input. • HDMI EDID Version Allows you to select an EDID version for this input.	
	Global CEC control Enables/disables global CEC control. When enabled, the projector and connected devices can control each other via CEC. Allow projector to turn off connected devices Enables/disables the projector's HDMI CEC auto power off function. When enabled, powering off the projector will also power off the connected devices that support CEC.	

	Allow connected devices to turn on projector Enables/disables the projector's HDMI CEC auto power on function. When enabled, powering on the connected devices that support CEC will also power on the projector.
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Projector

> All settings > Projector

Item	Options and descriptions
Focus	Allows you to adjust the image clarity and the focus settings.
	Auto Focus Automatically adjusts the image clarity.
	Manual Focus Shows the focus pattern and allows you to manually adjust the image clarity.
	 Focus Settings Auto Focus at Startup Enables/disables the projector to run auto focus when the projector is starting up. Auto Focus After Movement Enables/disables the projector to run auto focus after the projector is moved. Deep Focus Always On Enables/disables the deep focus function for a clearer image.
Keystone Correction	Allows you to run keystone correction, fit the screen, scale and shift projection images, and adjust keystone correction settings.
	Auto Keystone Correction Automatically adjusts the image to a rectangular shape and avoids obstacles. See "Keystone" on page 47.

Item	Options and descriptions
	Manual Keystone Correction Allows you to perform keystone correction manually. See "Keystone" on page 47.
	 Auto Keystone Correction at Startup Enables/disables the projector to run auto keystone correction when it is starting up. Auto Keystone Correction After Movement Enables/disables the projector to automatically adjust the image to a rectangular shape after it is moved. Auto Keystone Correction Via Remote Control Enables/disables the projector to run auto keystone correction when the screen adjustment button ([-]) on the remote control is pressed. Auto Fit to screen via Remote Control Enables/disables the projector to run the fit-to-screen function during a keystone correction process when the screen adjustment button ([-]) on the remote control is pressed. See "Screen Fit" on page 48. Avoid Obstacles Always On Enables/disables the projector's ability to avoid
	obstacles during a keystone correction process. See "Obstacle avoidance" on page 49.
	Image Adaptation
	 Zoom Allows you to scale the projection image size proportionally. Image Reposition Allows you to shift the projected image.
	Reset to Default Image Resets the image adjustments.

Item	Options and descriptions
Advanced Settings	Access the advanced projector functions.
	Screen Sharing for iOS Installs or launches the Screen Sharing for iOS app for screen casting from an iOS/macOS device. See "Screen casting from iOS/macOS device devices" on page 58.
	Fit to Screen Automatically aligns the image with a screen. See "Screen Fit" on page 48.
	Avoid Obstacles Detects if the screen is shaded by any objects and automatically resizes the image to avoid the obstacle. See "Obstacle avoidance" on page 49.
	Smart Eye Protection Enables/disables the smart eye protection function. When enabled, the projector will lower image brightness when a person is detected near the projection lens to protect their eyes. See "Activating smart eye protection" on page 50.
	Projection Mode Allows you to change the installation location of your projector. See "Choosing a location" on page 27.
	Wall Color Allows you to select the color of the wall to which the image will be projected so as to adjust the image color based on the selected wall color. You can choose from White, Sky Blue, Ivorine, Cream Yellow, Egg Green, Light Pink, or Auto. When the Wall Color is set to Auto, the projector will detect the wall color and automatically adjust the image color accordingly.

Item	Options and descriptions
	Focus Calibration Calibrates the focus function. Note Place the projector on a flat surface that is 1.5-2 meters away from the screen when performing the Focus Calibration function.
	Keystone Calibration Calibrates the keystone correction function.
	ALS Calibration Calibrates the ambient light sensor (ALS) function.
	12V Trigger Enables/disables the 12V/0.5A power output from the 12V/0.5A power trigger output port. Note
	See "I/O ports" on page 20 for the location of the power trigger output port.
	Advanced Firmware Update Upgrades the MCU firmware from a USB-A device connected to the service USB Type-A port.
Energy & Performance	Allows you to adjust screen brightness and improve projector performance.
	Light Source Mode Allows you to adjust screen brightness. See "Adjusting screen brightness" on page 50.
	High Altitude Mode Enables/disables High Altitude Mode. See "Using the projector at high altitude" on page 31.
	Light Source Usage Time Displays the amount of time (in hours) that the light source has been used.
	System Acceleration Helps to free memory space to improve projector performance.
Bluetooth Speaker Mode	Allows you to switch the projector to Bluetooth speaker mode. See "Making your projector a Bluetooth speaker" on page 62.

Display & Sound

* > All settings > Display & Sound

Item	Options and descriptions
Display	Allows you to adjust picture image settings.
	Picture Mode Allows you to choose a proper picture mode for the content. See "Choosing a proper picture mode for video streaming" on page 54.
	Brightness Allows you to adjust the brightness of the projected image in the range of 0 to 100.
	Contrast Allows you to adjust the contrast of the projected image in the range of 0 to 100.
	Saturation Allows you to adjust the saturation of the projected image in the range of 0 to 100.
	Hue Allows you to adjust the hue of the projected image in the range of -50 to 50.
	Sharpness Allows you to adjust the sharpness of the projected image in the range of 0 to 20.

Expert Settings

Gamma

Allows you to adjust the gamma setting.

DNR

Allows you to adjust the Digital Noise Reduction (DNR) setting.

MPEG NR

Allows you to adjust the Moving Picture Experts Group (MPEG) noise reduction setting.

Global Contrast Enhancer

Allows you to adjust the global contrast enhance setting.

· Local Contrast Enhancer

Allows you to adjust the local contrast enhance setting.

MEMC

Allows you to adjust the Motion Estimate and Motion Compensation (MEMC) setting.

Dynamic Color Booster

Allows you to adjust the dynamic color booster setting.

Color Tuner

Allows you to adjust the color tuner setting.

11 Point white balance

Allows you to adjust the white balance of the projected image.

Audio Only Mode

Turns off the projector's light source.

Note

To turn on the light source again, press any key (except the power and volume adjustment keys).

HDMI Display Settings

· Game Mode

Allows you to adjust the game mode settings.

ALLM

Enables/disables the **ALLM** function. See "Auto Low Latency Mode (ALLM)" on page 57.

HDMI RGB Range

Allows you to adjust the HDMI RGB color range setting.

Reset to Default

Resets image settings to their factory defaults.

Screen

Allows you to adjust the aspect ratio of the projected image.

Note

This setting is not available when the projector is in Google TV mode.

Auto

Scales an image proportionally to fit the projector's native resolution based on its width or height.

Full

Scales an image so that it fully fits the screen.

Unscaled

Projects an image with the original aspect ratio the same as the input source without scaling the image.

4:3

Scales an image so that it is displayed in the center of the screen with a 4:3 aspect ratio.

Movie expand 14:9

Scales an image so that it is displayed in the center of the screen with a 14:9 aspect ratio.

Movie expand 16:9

Scales an image so that it is displayed in the center of the screen with a 16:9 aspect ration.

Sound

Allows you to select a sound mode and adjust the speakers settings.

Sound Mode

Allows you to choose a proper sound mode for the content. See "Choosing a proper sound mode for video streaming" on page 55.

Basic Settings

Balance

Allows you to adjust the audio balance setting of the speakers.

Bass

Allows you to adjust the low frequency of the speakers.

Treble

Allows you to adjust the high frequency of the speakers.

Equalizer Detail

Allows you to adjust the equalizer settings of the speakers.

Auto Volume Control

Enables/disables the projector to adjust the speakers' volume automatically.

Speakers

Turns on/off the projector's speakers.

Speaker Delay

Allows you to adjust the delay time between the audio output and image projection in the range of 0 to 250 ms.

Downmix Mode

Allows you to select a downmix mode including **Stereo** and **Surround**.

Dialog Enhancer

Allows you to enable/disable **Dialog Enhancer** and configure the level of enhancement from **Low**, **Medium**, or **High**.

	Reset to Default Resets the sound mode and speakers settings to their factory default.
Audio Output	Allows you to adjust the audio output settings.
	Digital Output

Digital Output

Allows you to configure the format of the audio signal output to Auto, Bypass, PCM, MAT,

Dolby Digital Plus, or Dolby Digital.

When **Auto** is selected, the projector will detect the input source and set an audio format automatically.

Digital Output Delay

Allows you to adjust the audio output delay time in the range of 0 to 250 ms when the audio is output via the projector's internal speakers or an external wired audio device.

Bluetooth Delay

Allows you to adjust the audio output delay time in the range of 0 to 500 ms when the audio is output via a Bluetooth audio device connected to the projector.

Audio Output Device

Allows you to select the audio output device from among Auto, TV Speaker, HDMI eARC, Bluetooth, or Headphone.

When **Auto** is selected, the projector will detect and automatically select the audio output device.

Network & Internet

> All settings > Network & Internet

Sets the network connection. You can activate or deactivate wireless connection.

Accounts & Profiles

> All settings > Accounts & Profiles Manages accounts.

Privacy

> All settings > Privacy
Manages your privacy settings.

Apps

> All settings > Apps
Manages the installed apps.

System

> All settings > System Accesses device settings.

Accessibility

> All settings > Accessibility Configures accessibility settings.

Remotes & Accessories

> All settings > Remotes & Accessories
You can manually pair a remote via Bluetooth, or manage a paired device.

Help & Feedback

> All settings > Help & Feedback

Accesses Google TV help page or sends feedback.

Maintenance

Care of the projector

Your projector needs little maintenance. The only thing you have to do on a regular basis is to keep the lens clean.

Never remove any parts of the projector. Contact your dealer or local customer service center if the projector fails to operate as expected.

Cleaning the lens

Clean the lens whenever you notice dirt or dust on the surface. Please be sure to turn off the projector and let it cool down completely before cleaning the lens.

- Use a canister of compressed air to remove dust.
- If there is dirt or smears, use lens-cleaning paper or moisten a soft cloth with lens cleaner and gently wipe the lens surface.
- Never use any type of abrasive pad, alkaline/acid cleaner, scouring powder, or volatile solvent, such as alcohol, benzene, thinner or insecticide. Using such materials or maintaining prolonged contact with rubber or vinyl materials may result in damage to the projector surface and cabinet material.

Note

Never use wax, alcohol, benzene, thinner or other chemical detergents. These can damage the case.

Storing the projector

If you need to store the projector for an extended time, please follow the instructions below:

- Make sure the temperature and humidity of the storage area are within the recommended range for the projector. Please refer to "Specifications" on page 85 or consult your dealer about the range.
- · Remove the batteries from the remote control.
- · Pack the projector in its original packing or equivalent.

Transporting the projector

It is recommended that you ship the projector with its original packing or equivalent.

Light source information

To check the light usage time, go to *> All settings > Projector > Energy & Performance > Light Source Usage Time.

Troubleshooting



The LED indicator is flashing.

Power LED status	Scenario
Solid red	Fan error
Flashing red/green	Temperature error
Flashing orange/green	Light source life exhausted
Flashing green/purple	DLP communication error
Flashing purple/red	G-sensor error
Solid purple	Driver board error
Flashing purple	TOF sensor error

Contact customer service for assistance.

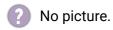
Note

Refer to "Power LED indicator" on page 33 for power LED indicator details.



The projector does not turn on.

Possible cause	Remedy
There is no power from the power cord.	Plug the power cord into the AC power jack on the projector, and plug the power cord into the power outlet. If the power outlet has a switch, make sure that it is switched on.
Attempting to turn the projector on again during the cooling process.	Wait until the cooling down process has completed.



Possible cause	Remedy
The video source is not turned on or connected correctly.	 Check if the video source is properly connected. The projector may be in Audio-only or Network Standby mode. Press the power key to disable.
The projector is not correctly connected to the input signal device.	Check the connection.
The input signal has not been correctly selected.	Select the correct input signal with the → key.

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Blurred image

Possible cause	Remedy
The projection lens is not correctly focused.	Manually adjust the focus of the lens. See "Fine-tuning the image clarity" on page 46.
The projector and the screen are not aligned properly.	Adjust the projection angle and direction as well as the height of the projector if necessary.
The auto keystone function did not work.	Adjust the projection angle.
The ToF sensor is dirty.	Clean the sensor gently with a cleaning cloth. Remove dust or fingerprint carefully.



Remote control does not work.

Possible cause F	Remedy
The batteries are out of R	deplace both of the batteries with new ones.
power	
There is an obstacle R between the remote control and the projector.	demove the obstacle.

Possible cause	Remedy
You are too far away from the projector	Stand within 8 meters (26 feet) of the projector.

Specifications

Projector specifications

Display Brightness (ANSI lumens) 3000 Native Resolution UHD (3840 x 2160) Native Aspect Ratio 16:9 Contrast Ratio (FOFO) 600,000:1 Display Color 30 Bits (1.07 billion colors) Light Source LED Light Source Life Eco: 30000 hours Normal: 20000 hours Optical Throw Ratio -TK705i: 1.0 - 1.3	
Native Aspect Ratio 16:9	
Contrast Ratio (FOFO) 600,000:1 Display Color 30 Bits (1.07 billion colors) Light Source LED Light Source Life Eco: 30000 hours Normal: 20000 hours Optical Throw Ratio -TK705i: 1.0 - 1.3	
Display Color 30 Bits (1.07 billion colors)	
Light Source LED Light Source Life Eco: 30000 hours Normal: 20000 hours Optical Throw Ratio -TK705i: 1.0 - 1.3	
Light Source Life Eco: 30000 hours Normal: 20000 hours Optical Throw Ratio - TK705i: 1.0 - 1.3	
Normal: 20000 hours Optical Throw Ratio - TK705i: 1.0 − 1.3	
The same of the sa	
- TK705STi: 0.8	
Zoom Ratio Fixed	
Mechanic Zoom - TK705i: 1.3 - TK705STi: N/A	
Lens - TK705i: F/# = 1.8-1.85, f = 10.55- mm - TK705STi: F/# = 1.8, f = 8.498 mi	
Projection Offset (Full-Height) 100%	
Keystone Adjustment (Auto) Vertical: ± 30 degrees (sing Horizontal: ± 20 degrees (single at	
Clear Image Size 60" – 150"	
Projection Size 30" – 300"	
Picture Rec. 709 Coverage 98%	
Compatibility Resolution Support VGA (640 x 480) to 4K UHD (3840	x 2160)
Horizontal Frequency 15 kHz – 102 kHz	
Vertical Scan Rate 23 Hz - 120 Hz	
HDTV Compatibility 480i, 480p, 576i, 567p, 720p, 1080 2160p	i, 1080p,
I/O Interface HDMI in (x2) - HDMI-1 (CEC) - HDMI-2 (CEC / Audio Return+ with multichannel audio output)	th
USB Type-A (x1) USB 2.0 (5V 1.5A): For service and supply (up to 5V/1.5A) / USB read Firmware upgrade	
USB Type-C (x1) Display Port 1.4 / PD output 5V (2 9V (2A) / 12V (1.5A) / 15V (2A) / I reader USB 2.0	
12V/0.5A Trigger (x1)	

Category	Item	Descriptions
Audio	Speaker	(x2) 8 W
	Audio out (3.5mm Mini Jack)	(x1)
	HDMI Audio Return+	eARC, bypass 5.1 channel, 7.1 channel
Environment	Power Supply	AC 100 V to 240 V, 50 Hz / 60 Hz
	Power Consumption	250 W (Max.); < 0.5 W (Standby)
	Power consumption in networked standby / standby mode	2 W / < 0.5 W
	Acoustic Noise (Typ./Eco.)(dB)	28 dBA / 24 dBA
	Operating Temperature	0°C - 40°C
	Storage Temperature	-20°C – 60°C, without condensation
	Operating Relative Humidity	10% – 90% RH, without condensation
	Storage Relative Humidity	10% – 90% RH, without condensation
Smart Features	Bluetooth	Bluetooth 5.2
	Wi-Fi Standard	802.11 a/b/g/n/ac/ax (2.4G / 5G)
Dimensions and	Net Weight (kg)	3.8 kg
Weight	Net Weight (lb)	8.4 lb
	Dimensions (WxDxH) (mm)	229.2 (W) x 249.7 (D) x 168.2 (H)
	Dimensions (WxDXH) (inch)	9.02 (W) x 9.83 (D) x 6.62 (H)
Projection System	Projection System	DLP
	DMD size	0.47"

Note

- LED life results will vary depending on environmental conditions and usage.
 The performance of Wi-Fi and Bluetooth might be disturbed by distance and obstacles.

Timing chart

HDMI input

PC

Resolution	Mode	Vertical frequency (Hz)	Horizontal frequency (KHz)	Dot Clock Frequency (MHz)
640 x 480	VGA_60	59.940	31.469	25.175
800 x 600	SVGA_60	60.317	37.879	40.000
1024 x 768	XGA_60	60.004	48.363	65.000
1280 x 720	1280 x 720_60	60	45.000	74.250
1280 x 800	WXGA_60	59.810	49.702	83.500
1600 x 1200	UXGA	60.000	75.000	162.000
1600 x 1200	1920 x 1080_60	60.00	74.04	154.00
1920 x 1080@60HZ	1920 x 1080_60 (CEA-861)	60	67.5	148.5
2560 x 1440@60HZ	2560 x 1440_60	59.951	88.787	241.5
3840 x 2160	3840 x 2160_30 (For 4K/2K model)	30	67.5	297
3840 x 2160	3840 x 2160_60 (For 4K/2K model)	60	135	594

Video

Timing	Resolution	Vertical frequency (Hz)	Horizontal frequency (KHz)	Dot Clock Frequency (MHz)
480i	720(1440) x 480	60	15.73	27
480p	720 x 480	59.94	31.47	27
576i	720(1440) x 576	50	15.63	27
576p	720 x 576	50	31.25	27
720/50p	1280 x 720	50	37.5	74.25
720/60p	1280 x 720	60	45.00	74.25
1080/24P	1920 x 1080	24	27	74.25
1080/25P	1920 x 1080	25	28.13	74.25
1080/30P	1920 x 1080	30	33.75	74.25
1080/50i	1920 x 1080	50	28.13	74.25
1080/60i	1920 x 1080	60	33.75	74.25
1080/50P	1920 x 1080	50	56.25	148.5
1080/60P	1920 x 1080	60	67.5	148.5
2160/24P	3840 x 2160	24	54	297
2160/25P	3840 x 2160	25	56.25	297
2160/30P	3840 x 2160	30	67.5	297
2160/50P	3840 x 2160	50	112.5	594
2160/60P	3840 x 2160	60	135	594

Note

As the timings available are limited to the EDID file and VGA graphic card, the user may not be able to select some of the above timings on the VGA display card.

Audio format

• 1.4.1 Audio Format Code: LPCM

Channels: 2

Sampling Freq: 32 kHz, 44.1 kHz, 48 kHz

Sampling Size (bit): 24, 20, 16

• 1.4.2 Audio Format Code: Dolby Digital

Channels: 6

Sampling Freq: 32 kHz, 44.1 kHz, 48 kHz

Max Bit Rate: 640 kbps

• 1.4.3 Audio Format Code: Dolby Digital Plus

Channels: 8

Sampling Freq: 44.1 kHz, 48 kHz

USB-C input

PC

Resolution	Mode	Vertical frequency (Hz)	Horizontal frequency (KHz)	Dot Clock Frequency (MHz)
640 x 480	VGA_60	59.94	31.469	25.175
800 x 600	SVGA_60	60.317	37.879	40
1024 x 768	XGA_60	60.004	48.363	65
1280 x 720	1280 x 720_60	60	45	74.25
1280 x 768	1280 x 768_60	59.87	47.776	79.5
1280 x 800	SVGA_60	59.81	49.702	83.5
1280 x 1024	SXGA_60	60.02	63.981	108
1280 x 960	1280 x 960_60	60	60	108
1360 x 768	1360 x 768_60	60.015	47.712	85.5
1440 x 900	WXGA+_60	59.887	55.935	106.5
1440 x 1050	SXGA+_60	59.978	65.317	121.75
1680 x 1050	1680 x 1050_60	59.954	65.29	146.25
1920 x 1080@60HZ	1920 x 1080_60 (CEA-861)	60	67.5	148.5

Video

Timing	Resolution	Vertical frequency (Hz)	Horizontal frequency (KHz)	Dot Clock Frequency (MHz)
480i	720(1440) x 480	59.94	15.73	27
480p	720 x 480	59.94	31.47	27
576i	720(1440) x 576	50	15.63	27
576p	720 x 576	50	31.25	27
720/50p	1280 x 720	50	37.5	74.25
720/60p	1280 x 720	60	45.00	74.25
1080/24P	1920 x 1080	24	27	74.25
1080/25P	1920 x 1080	25	28.13	74.25
1080/30P	1920 x 1080	30	33.75	74.25
1080/50i	1920 x 1080	50	28.13	74.25
1080/60i	1920 x 1080	60	33.75	74.25
1080/50P	1920 x 1080	50	56.25	148.5
1080/60P	1920 x 1080	60	67.5	148.5
1440/60P	2560 x 1440	59.951	-	241.5
2160/60P	3840 x 2160	60	-	-
2160/50P	3840 x 2160	50	-	-
2160/30P	3840 x 2160	30	-	-
2160/25P	3840 x 2160	25	-	-
2160/24P	3840 x 2160	24	-	-

Note

As the timings available are limited to the EDID file and VGA graphic card, the user may not be able to select some of the above timings on the VGA display card.

Audio format (based on DP-Alt mode)

· Audio Format Code: LPCM

Channels: 2

Sampling Freq: 32 kHz, 44.1 kHz, 48 kHz

Sampling Size (bit): 24, 20, 16

Supported file formats

Video

MPEG-2 video decoder

- IISO/IEC 11172-2 MPEG-1 video format decoding
- ISO/IEC 13818-2 MPEG-2 video MP@HL and HD level
- Supports resolutions up to HDTV (1,080p60, 1,080i, 720p) and SDTV
- Supports bitrate up to 60 Mbps
- Supports FHDp60 2x fast forwarding playback

MPEG-4/H.263 video decoder

- IISO/IEC 14496-2 MPEG-4 ASP@L5/SP@L6
- Supports resolutions up to HDTV (1,080p@60fps)
- · Supports bitrate up to 60 Mbps

AVC/H.264 video decoder

- ITU-T H.264, ISO/IEC 14496-10 (MP/HiP/CBP up to level 5.2) video decoding
- Supports resolutions up to 4K@60fps + 720p@30fps
- Supports bitrate up to 135 Mbps

HEVC/H.265 video decoder

- Supports HEVC/H.265 video decoding
- · Supports main/main-10 profile, level 5.1
- · Supports 8-bit/10-bit color depth
- Supports resolutions up to 4K@60fps + 720p@30fps
- Supports the maximum bitrate up to 100 Mbps

VP8 video decoder

- · Supports Google VP8 decoder
- Supports resolutions up to 1,920x1,080@60fps
- Supports the maximum bitrate up to 40Mbps

VP9 video decoder

- Supports Google VP9 decoder
- Supports Profile 0/2 and 8-bit/10-bit color depth
- Supports resolution up to 4K@60fps + 720p@30fps
- Supports the maximum bitrate up to 100 Mbps

AVI video decoder

- · Supports AV1 video decoding
- · Supports main profile, level 5.1
- Supports 8-bit/10-bit color depth
- Supports resolution up to 4K@60fps + 720p@30fps
- Supports the maximum bitrate up to 100 Mbps

VC-1 video decoder

- Supports SMPTE-421M (VC-1 video) decoding up to AP@L4
- Supports resolutions up to HDTV (1,080p@60fps)
- Supports bitrate up to 60 Mbps

Audio

Supported digital audio formats:

- MPEG-1
- MPEG-2 (Layer I/II)
- MP3
- · AAC-LC
- HE-AAC
- WMA
- WMA9 Pro



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