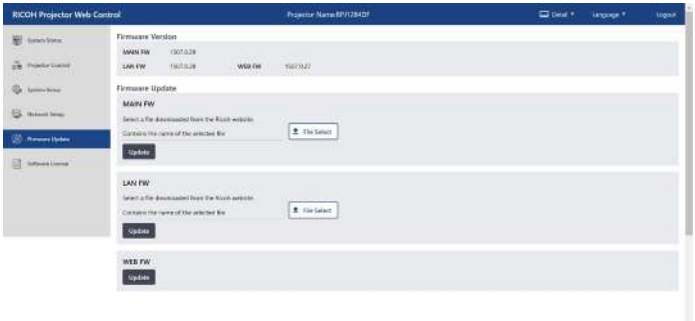
Firmware Update

Note

- Do not turn off the power during firmware update. Doing so will require repair by a service person.



- Firmware Version: Displays the projector firmware version number.
- Firmware Update: Please upload files downloaded from RICOH website (See page 100) as required. Click [Update].

Software License

- Software License: Software license information is dispayed.

How to update the firmware

Web Control allows you to update the firmware of the projector. There are three types of firmware that can be updated:

- MAIN FW (firmware for controlling the entire projector)
- LAN FW (firmware for network control)
- WEB FW (firmware for Web Control)

Notes on firmware updates

- Please update the firmware at your own risk. If firmware update fails due to power outage, communication error, etc., repair costs may be charged.
- Please use the firmware for this projector.
- Do not perform any operation on the PC other than updating or touch the projector while the firmware is being updated. The firmware may not be updated properly.

Get the latest firmware

The latest firmware can be downloaded from RICOH's website.
<NA>
https://www.pfu-us.ricoh.com/support/warranties-manuals-datasheets
<EMEA>
https://www.pfu-emea.ricoh.com/en-gb/support/smart-meeting/projectors/

Firmware update procedure

1. Please save the firmware file downloaded from Ricoh's website on your computer.
   - If you are using a laptop computer, connect the computer to a power source.
   - Make sure that the power cables of the PC and the product are securely connected.
2. Connect the PC and the projector to the network via a wired LAN.
3. Start a Web browser on the PC, enter the IP address of the projector, and open Web Control.
4. Open the firmware update page.

(In case of MAIN FW/LAN FW)
5. Click [File Select] to select the firmware file on your PC.
6. Click [Update] to start updating. The update will take several minutes.
7. After the update is complete, turn the power of the projector off and on before use it.
(In the case of WEB FW)
8. Click [Update] to go to the update page.
9. Click [File Select] to select the firmware file on your PC.
10. Click [Upload] to start updating.

Note.

During the firmware update, please note the followings.
- Do not disconnect network communication.
- Do not turn off the power to the projector.
- Do not close the web browser.
- Do not turn off the power of the PC.

The firmware version can be checked at
-[System Status] page of Web Control
-[Display Status]>[FW Version] in the projector's menu.

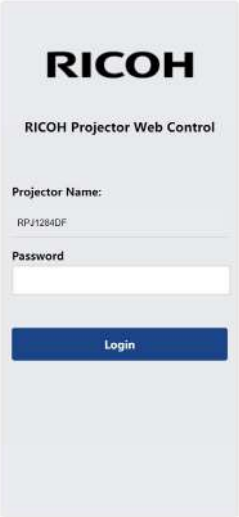
Access from the Web Browser (Smart Phone)

Login

Open the web control page.

Enter the password to the [Password] field and click [Login].

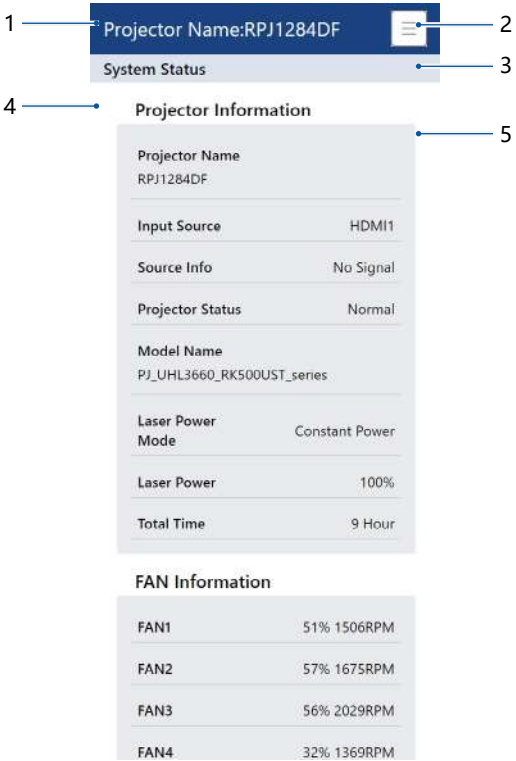
* The password setting screen will be displayed when you start up for the first time. Please set a password to use the web page.



Control and view status of the projector.

For details, see Access from the Web Browser (PC) on page 95.

When accessed from a smartphone or tablet, a simple screen is displayed. Some adjustments, settings and firmware update cannot be made as compared to accessing Web Control from a PC. Press the Menu button in the upper right corner of the screen and select [Display Settings]. Select [Detail] under [Display Selection] to display the same screen as when accessed from a PC.



1. Projector Name: Displays the name of the projector.
2. Main menu button, click the selected menu to switch the page.
3. The main menu of the current page is displayed.
4. The title of the secondary menu under the main menu.
5. You can check the information and change the settings.

Control the Projector via the Projector Management Utility

Note

- This software is to control and monitor projectors manufactured by our company. The software may not work properly when used to control other projectors.

Projector Management Utility conforms to the PJLink class 1 standards, and is compatible with all class 1 commands.

A maximum of 100 projectors connected to the network can be managed using one computer.

Projector Management Utility operating environment is described below.

- Supported operating system
  - Windows 10 (32-bit/64-bit version) , Windows 11
- Memory size

  Recommended memory size for the operating system of the computer you are using
- Display resolution

  800 × 600 pixels or more

Installing the software

Note

- Log in to the computer with administrator privileges to install or uninstall the utilities.
- [PJLink Password] is not specified by factory defaults. It is recommended to register a password as soon as possible. If you forget the password, register a new password in [System Setup] in the Network Control pages. (See page 97)

You can download the Utility from the RICOH website via the Internet.
<NA>

https://www.pfu-us.ricoh.com/support/warranties-manuals-datasheets

<EMEA>

https://www.pfu-emea.ricoh.com/en-gb/support/smart-meeting/projectors/

1. Close all applications.
2. Double click the installer file.
3. Execute the installation procedure according to the instruction displayed on the screen.
4. After installation is complete, start Projector Management Utility from the [Start] menu or desktop shortcut.

Specify the following settings to use the Utility:

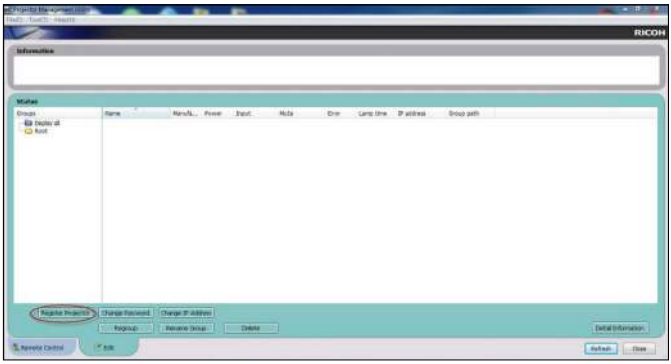
- Connect the projector to a network. Set **[Default Settings] > [Network control]** in the menu system appropriately.

- Make sure to set **[Default Settings] > [Network Functions] > [PJLink]** to [On] in the menu system.
- Make sure to set **[Options] > [Power Settings] > [Network Control (Standby)]** to [On] in the menu system.

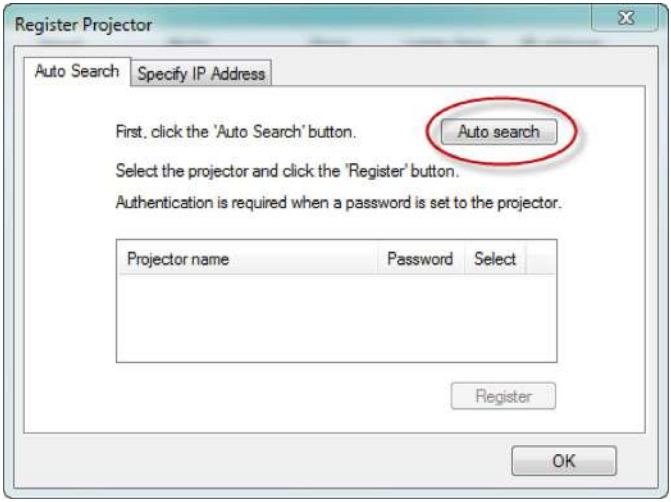
Register projectors

1. Registers the projectors with Auto search

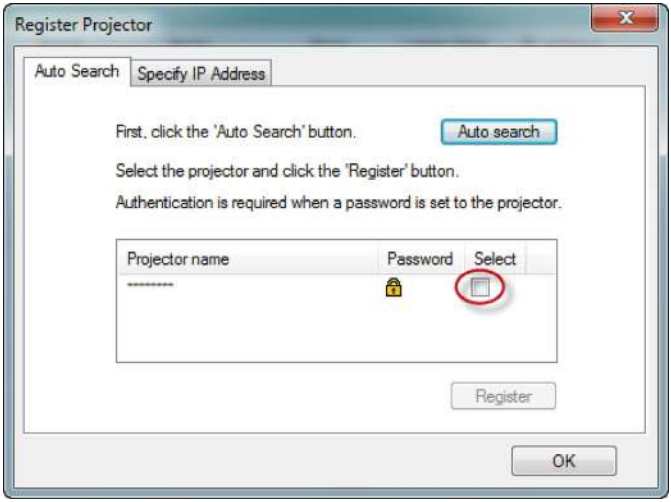
-Click [**Register Projector**] button.



-Click [**Auto Search**] button.

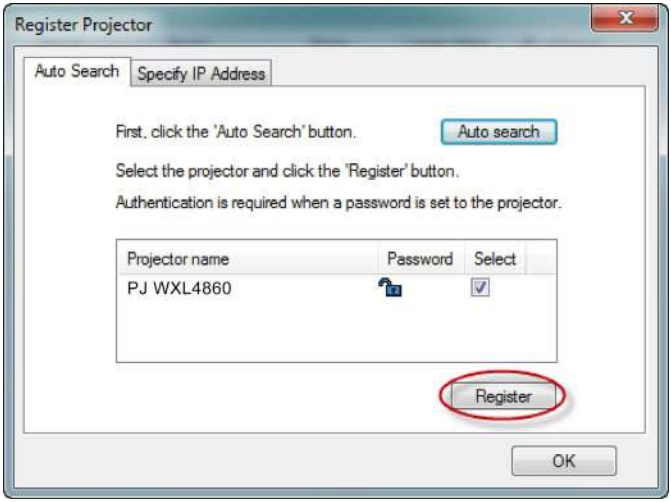


-List of projectors which support PJLink are displayed in the window. Projector name is displayed as "********" until authorization if password is enable.



-Select the desired projector and click [**Register**] button. Password authorization is required if password of the projector is set to enable.

-Click [**OK**] button to return to the original screen.



2. Directly specifies the IP address and registers the projector.

-Enter IP address of the desired projector and click [Confirm] button then the projector name will be displayed. After confirming the projector name, click [Register] button.

Click [**Remote Control**] tab and select the desired projector in the list. You can control the selected projector by clicking control buttons in the bottom of the window.

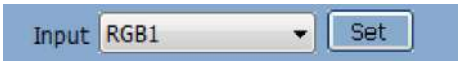
[Power] button

Turn On/Off the power of the projectors or groups selected from the Projector (/Group) List.

[Input] button

Switches the input source of the projectors or groups selected from the Projector (/Group) List.

Input source will not be changed if the projector doesn't support the selected input source.



A Table of input source name in the projector and the projector management utility.

The projector	The projector Management Utility
HDMI1	DIGITAL 1
HDMI2	DIGITAL 2
Memory Viewer	STRAGE 1
Wireless	NETWORK 1
HDBaseT	NETWORK 2

[Detail Information] button

Show detail information of the selected projector.

Monitoring the Projector Using RICOH PJ Monitoring & Setting Software

Note

- See the RICOH PJ Monitoring & Setting Software Manual for how to use RICOH PJ Monitoring & Setting Software.

RICOH PJ Monitoring & Setting Software allows you to perform batch management and remote control of multiple projectors on a Windows terminal.

RICOH PJ Monitoring & Setting Software operating environment is described below.

Supported operating system.

- Windows 10
- Windows 11
- Windows Server 2019

Installing the software

You can download RICOH PJ Monitoring & Setting Software from the RICOH website via the Internet.

<NA>

https://www.pfu-us.ricoh.com/support/warranties-manuals-datasheets

<EMEA>

https://www.pfu-emea.ricoh.com/en-gb/support/smart-meeting/projectors/

1. Double click the installer file.
2. Execute the installation procedure according to the instruction displayed on the screen.
3. After installation is complete, start RICOH PJ Monitoring & Setting Software from the [Start] menu or desktop shortcut.

Settings Required to Use the software

Specify the following settings to use RICOH PJ Monitoring & Setting Software:

- Connect the projector to a network. Set **[Default Settings] > [Network Control]** in the menu system appropriately.

- Make sure to set **[Default Settings] > [Network Functions] > [Telnet]** to [On] in the menu system.
- Make sure to set **[Options] > [Power Settings] > [Network Control (Standby)]** to [On] in the menu system.

For details, see page 77 “Network Control”, page 78 “Network Functions”, page 82 “Power Settings”.

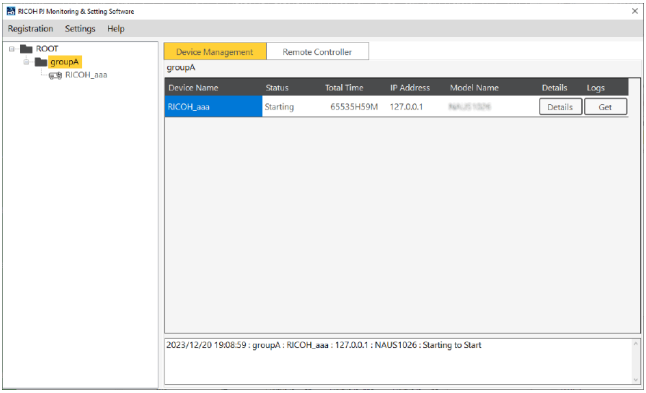
Note

- Depending on the setting in [Network (Standby)], the projector does not respond in standby mode. In such case, press the [Power] button or change the set [Network Control (Standby)] to [On] so that the projector can be turned on from standby mode via a network.

Monitor the projector with the software

The projector must be registered in advance. For details, see the RICOH PJ Monitoring & Setting Software Manual.

The information (Status, Total time, IP Address, Model Name) for the projectors detected by the application is displayed.



The available functions are as follows.

- Projector Status Monitoring
- Email notification when the projector is in an error state
- Confirm projected image from network camera
- Save projector monitoring log
- Remote control of the projector
- Setting the Distortion Correction

Troubleshooting

If you experience trouble with the projector, refer to the following information. If the problem persists, please contact your local dealer or service center.

- Ensure that the projector is correctly connected to the peripheral device.
- Ensure that all devices are connected to an power socket and the power supply is connected.

Problem: Image cannot be displayed

- Make sure all cables and power sources are properly connected.
- Make sure that the power of the projector is turned on. It takes up to 30 seconds for the screen to appear after the power is turned on.
- Check if the signal you are inputting is on the “Compatible signal list.
- Check whether the temperature exceeds the specified operating temperature.
- Make sure that [AV Mute] is not set to [On].

Problem: Image is displayed partially, incorrectly, or in rolling mode

- Adjust the display settings of the computer. Ensure that the resolution is set to less than or equal to 3840×2160 pixels. View the operating system help file.

Problem: Image is not clear

- Adjust the focus.
- The image is not stable immediately after the power is turned on. Wait at least 30 minutes after the start of projection before adjusting the size and focus of the image.
- Make sure the projection window is free of dirt.
- Ensure that there is no condensation in the projection window. For example, if the projector is moved from a cool environment to a warmer environment, there might be condensation on the projection lens or projection window. If this happens, wait until the condensation disappears before turning on the projector.

- After distortion correction or partial enlargement, the image is less clear than before correction or enlargement. This is due to digital signal processing and is not a malfunction.

Problem: Image is not bright enough

- Check whether the contrast or brightness is appropriate.
- Check whether an appropriate image mode is specified.
- Check that [Laser Power] and [Laser Setting] settings are appropriate.
- Ensure that the projection screen is within the required projection range.

Problem: Image is deformed

- Press the [Aspect] button on the remote control, or on the OSD menu, choose [Screen] > [Aspect Ratio], and specify an appropriate display aspect ratio.
- Make sure the projector is placed at a right angle to the screen.
- If necessary, use [Distortion] to adjust the shape of the image.

Problem: Projected image is too small or too big

- Adjust the distance between the projector and the projection screen.
- Press the [Aspect] button on the remote control, or on the OSD menu, choose [Screen] > [Aspect Ratio], and specify an appropriate display aspect ratio.

Problem: Projected image rotated upside down

- Press the [Menu] button on the control or on the remote control, then choose [Screen] > [Screen Type].

Problem: Unable to adjust the focus. The motorized focus may get stuck when projecting a bright image in Bright mode for a long period of time.

- Turn off the power and wait for 15 minutes. Then turn on the power and adjust Focus according to the normal procedure, please refer to "Adjust the Projector Focus" on page 51 for details.

Problem: The image position shifts when the focus is adjusted.

- When the focus is adjusted, the position of the projected image may shift. The position of the image shifts significantly when you change the focus adjustment direction. For this reason, we recommend that you adjust the focus in one direction. If you go too far, adjust it in the opposite direction and then adjust it again in the original direction.

Problem: Indicators lights up or Flashs

- Normal: Indicates the indicator display status of the projector during normal operation.
- Error: The display status of the indicator when the projector has a problem and an error is reported.
- Warning: The display status of the indicator when the projector has a warning.

Note

- The time marked in the preceding table is an Indicators Flashing interval.
- Flash*1 Repetition to light on for 0.5 seconds/off for 0.5 seconds.
- Flash*2 Repetition to light on for 0.5 seconds/off for 1.0 seconds.
- Flash*3 Repetition to light on for 0.5 seconds/off for 2.0 seconds.
- Flash*4 Repetition to light on for 0.5 seconds/off for 0.5 seconds/light on for 2.0 seconds.

● ...Red
● ...Flashs red
● ...Blue
● ...Flashs blue
○ ...Off

Projector status	NO.	Indicators			Content (condition, sequence, check item, etc.)
		Power (Red,Blue)	Status (Red)	Temp (Red)	
Normal	1	●	○	○	Standby
	2	●	○	○	Power On
	3	● Blue (Flash*1)	○	○	Warming up
	4	● Red (Flash*1)	○	○	Cooling down
Error	5	○	●	●	Fan 1 Error
	6	○	● Red (Flash*1)	●	Fan 2 Error
	7	○	●	● Red (Flash*1)	Fan 3 Error
	8	○	● Red (Flash*2)	●	Fan 4 Error
	9	○	●	● Red (Flash*2)	Fan 5 Error
	10	○	○	●	Temprature1 Error (external temperature)
	11	○	○	● Red (Flash*1)	Temprature 2 Error (laser1)
	12	○	○	● Red (Flash*2)	Temprature 3 Error (laser2)

Problem: Indicators lights up or Flashs (Continued)

Projector status	NO.	Indicators			Content (condition, sequence, check item, etc.)
		Power (Red,Blue)	Status (Red)	Temp (Red)	
Error	13	○	○	Red (Flash*3)	Temprature 4 Error (LD driver)
	14	○	○	Red (Flash*4)	Temprature 5 Error (DMD)
	15	●	●	○	1) Phosphorwheel 1 error 2) Phosphorwheel 2 error 3) Colorwheel error
Normal	16	●	●	●	Initialize
	17	●	●	○	Buttonlock/RC ID mis-match
Warning	18	●	Red (Flash*4)	○	Laser1 error
	19	●	Red (Flash*1)	○	Laser2 error
Error	20	●	Red (Flash*1)	○	Laser1&2 error
Warning	21	●	Red (Flash*2)	○	Network IC communication is abnormal
	22	●	Red (Flash*3)	○	HDMI Receiver communi-cation is abnormal
Error	23	Red (Flash*1)	●	○	DLPC communication is abnormal
	24	Red (Flash*1)	Red (Flash*1)	○	Temperature sensor com-munication is abnormal
	25	Red (Flash*1)	Red (Flash*2)	○	Fan control IC communica-tion is abnormal

Problem: Indicators lights up or Flashs (Continued)

Projector status	NO.	Indicators			Content (condition, sequence, check item, etc.)
		Power (Red,Blue)	Status (Red)	Temp (Red)	
Error	26	Red (Flash*1)	Red (Flash*3)	○	Main IC communication is abnormal
Normal	27	Red (Flash*2)	Red (Flash*1)	○	Main firmware update is in progress
	28	Red (Flash*2)	Red (Flash*3)	○	DLPC firmware update is in progress
Error	29	Red (Flash*2)	Red (Flash*2)	○	Main firmware update is failed
	30	Red (Flash*2)	Red (Flash*4)	○	DLPC firmware update is failed
	31	Red (Flash*3)	Red (Flash*1)	○	LAN firmware update is failed
	32	●	●	●	Remote off

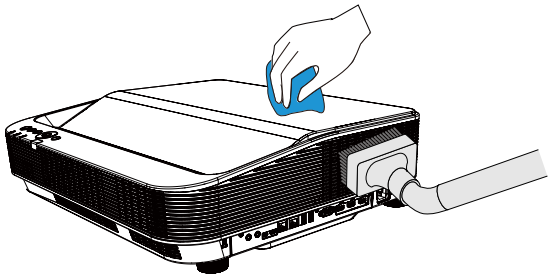
Before Maintenance

Before maintaining or replacing a component, ensure that the power is turned off. For details, see the section of "Turn off the projector".

Clean casing of your projector

Gently wipe the casing with clean and soft cloth dampened with small amount of neutral detergent to remove heavy dirt. Do not over apply cleaner to the casing. Abrasive cleaner, solution, or other rough chemical may scratch the casing surface.

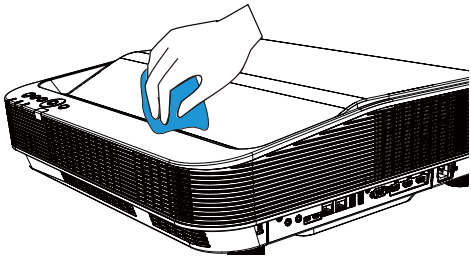
Place your projector in proper container after use to protect it from dirt and dust and being scratched.



Clean the projection window

Wipe the lens with clean cloth dampened with non-abrasive camera lens cleaner or clean it with lens cleaning paper or air blower.

Do not over apply cleaner to the lens. Abrasive cleaner, solution, or other rough chemical may scratch the lens.



List of Compatible Signals

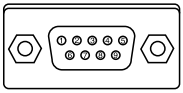
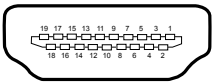
A. HDMI Signal							
No	OSD Display	Source		Resolution	Pixelrate/ MHz	V frequen-cy(Hz)	H frequen-cy(KHz)
		HDMI	HDBT				
1	640X480@60Hz	○	○	640X480@60Hz	25.175	60	31.5
2	800X600@60Hz	○	○	800X600@60Hz	40	60.32	37.88
3	480p@60Hz	○	○	720X480P@60Hz	27.027	60	31.5
4	576P@50Hz	○	○	720X576P@50Hz	27	50	15.63
5	480i@60Hz	○	○	720(1440)X480i@60Hz	27.028	59.94	15.734
6	576i@50Hz	○	○	720(1440)X576i@50Hz	27	50	15.625
7	1024X768@60Hz	○	○	1024X768@60Hz	65	60	48.36
8	1152X864@75Hz	○	○	1152X864@75Hz	108	75	67.5
9	720P@50Hz	○	○	1280X720P@50Hz	74.25	50	37.5
10	720P@60Hz	○	○	1280X720P@60Hz	74.25	60	45
11	1280X800@60Hz	○	○	1280X800@60Hz	83.5	59.81	49.702
12	1280X960@60Hz	○	○	1280X960@60Hz	108	60	60
13	1280x1024@60Hz	○	○	1280x1024@60Hz	108	60.02	63.981
14	1440X900@60Hz	○	○	1440X900@60Hz	106.5	59.887	55.935
15	1440X900@75Hz	○	○	1440X900@75Hz	136.75	74.98	70.64
16	1600X1200@60Hz	○	○	1600X1200@60Hz	162	60	75
17	1680X1050@60Hz	○	○	1680X1050@60Hz	146.25	59.954	65.29
18	1080i@50Hz	○	○	1920X1080i@50Hz	74.25	50	28.13
19	1080i@60Hz	○	○	1920X1080i@60Hz	74.25	60	33.75
20	1080P@24Hz	○	○	1920X1080P@24Hz	74.25	24	27
21	1080P@25Hz	○	○	1920X1080P@25Hz	74.25	25	28.13
22	1080P@30Hz	○	○	1920X1080P@30Hz	74.25	30	33.75
23	1080P@50Hz	○	○	1920X1080P@50Hz	148.5	50	56.25
24	1080P@60Hz	○	○	1920X1080P@60Hz	148.5	60	67.5
25	2560X1080P@60Hz	○	○	2560X1080P@60Hz	198	60	66
26	3840X2160P@24Hz	○	○	3840X2160P@24Hz	297	24	54
27	3840X2160P@25Hz	○	○	3840X2160P@25Hz	297	25	56.25
28	3840X2160P@30Hz	○	○	3840X2160P@30Hz	297	30	67.5

29	3840X2160P@50Hz	○	-	3840X2160P@50Hz	594	50	112.5
30	3840X2160P@60Hz	○	-	3840X2160P@60Hz	594	60	135
31	4096X2160P@24Hz	○	○	4096X2160P@24Hz	297	24	54
32	4096X2160P@25Hz	○	○	4096X2160P@25Hz	297	25	56.25
33	4096X2160P@30Hz	○	○	4096X2160P@30Hz	297	30	67.5
34	4096X2160P@50Hz	○	-	4096X2160P@50Hz	594	50	112.5
35	4096X2160P@60Hz	○	-	4096X2160P@60Hz	594	60	135

Note

- "○" Shows input signal source support this format.
- "-" Shows input signal source DO NOT support.

Configurations of Terminals

PC Control Terminal (D-SUB-9)				
	**1**	-----	**6**	-----
	2	RXD	**7**	-----
	3	TXD	**8**	-----
	4	-----	**9**	-----
	5	GND		
LAN terminal				
	1	TX +	**5**	-----
	2	TX -	**6**	RX -
	3	RX +	**7**	-----
	4	-----	**8**	-----
HDBaseT terminal				
	1	TX +	**5**	-----
	2	TX -	**6**	RX -
	3	RX +	**7**	-----
	4	-----	**8**	-----
HDMI terminal (HDMI Type A 19)				
	1	TMDS Data2+	11	TMDS Clock Shield
	2	TMDS Date2 Shield	12	TMDS Clock-
	3	TMDS Date2-	13	CEC
	4	TMDS Date1+	14	Reserved(N.C. on device)
	5	TMDS Datel Shield	15	SCL
	6	TMDS Datel-	16	SDA
	7	TMDS Date0+	17	DDC/CEC Ground
	8	TMDS Date0 Shield	18	+5V Power
	9	TMDS Date0-	19	Hot Plug Detect
	10	TMDS Clock+		

USB terminal				
	1	VBUS	5	-----
	2	D-	6	-----
	3	D+	7	-----
	4	GND	8	-----
Service terminal				
	1	VBUS	**6**	-----
	2	D-	**7**	-----
	3	D+	**8**	-----
	4	NC	**9**	-----
	5	GND	**10**	-----

Specifications

Item	RICOH PJ UHL3660 series
Optical	
Projection System	DLP
DMD Type	0.65″ DMD
Display Resolution	4K UHD (3840*2160) (1080p DMD under Pixel shift)
Throw Ratio	0.24
Zoom	Fixed
Focus	Powered
Throw Distance (m)	0.46m to 0.83m
Image Size(inch)	85" ~ 160"
Dust Proof (Optical engine)	IP6X
Electrical	
Terminal Interface	• Remote In • Audio Out • Service 1&2 • LAN • HDBaseT(*) • USB Type-A • 5V 2A • PC Control • HDMI 1 In • HDMI 2 In • HDMI Out
Power consumption	• Normal(Constant Power): 460W MAX. • ECO: 225W MAX. • Standby: <0.5W • Network Standby: ≤2W
Rating Current(A)	4.3A-2.1A (100-240V~ 50/60Hz)
Noise	• Normal(Constant Power)(Typ.): 36dB(A) • ECO(Typ.): 32dB(A)
Mechanical	
Keystone	V: -20 ~ +5° H: ± 15°
Adjust feet	Max 3°
Dimensions	530 mm (W)×470mm (D)×139 mm(H) (not including feet) 530 mm (W)×470mm (D)×159 mm(H) (including feet)
Weight	Approx. 11.9kg

Environment	• Operating temperature **Laser Power Mode: Constant Power/Constant Luminance/Long Life** 0℃~40℃ (0~2500ft/0~760m Altitude) / 0℃~35℃ (2501ft~10000ft/761m~3000m Altitude) **Laser Power Mode: ECO** 0℃~45℃(0~10000ft/0~3000m Altitude) • Operating Humidity: 20~85%RH (non-condensing) • Storage temperature: -10℃~60℃ • Storage Humidity: 20~85%RH (non-condensing)

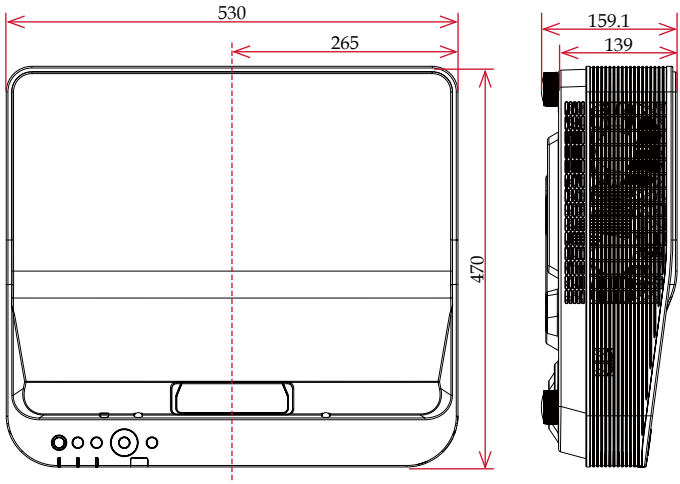
Note

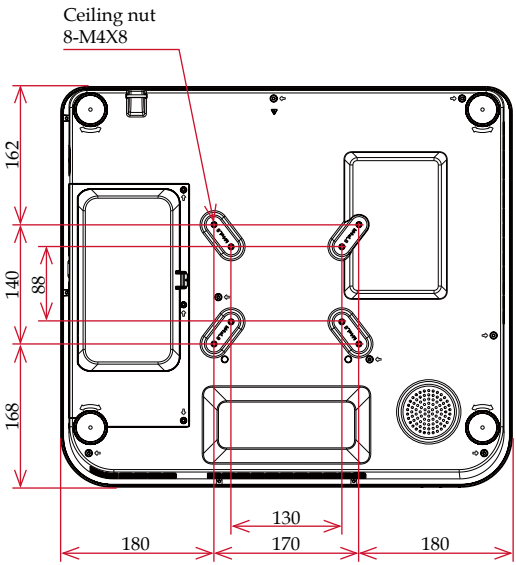
- This model complies with the above specifications.
- Designs and specifications are subject to change without notice.
- This model may not be compatible with features and/or specifications that may be added in the future.
- If the operating ambient temperature exceeds 38°C, the power of the light source is automatically reduced.
- * The HDBaseT terminal supports serial communication functions, but not LAN functions.
- The wireless projection function of this projector uses a wireless projection module manufactured by Action Microelectronics.
- This projector is compatible with Extron systems. For more information, please visit the Extron website: https://www.extron.com

External Dimensions

Tapped holes used for ceiling installation.
Screw: M4
Depth: 8mm

Unit: mm





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