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Service Training

Canopus-PJ1

Product Overview

Models are there in the Series

- ## XGA （ 1024 x 768）
  - Canopus-PJ1qxL: PJ X6480, 8800lm
  - Canopus-PJ1qxH: PJ X6590, 10000lm
- ## WUXGA （ 1920 x 1200）
  - Canopus-PJ1qwuL: PJ WU6480, 7500lm
  - Canopus-PJ1qwuH: PJ WU6590, 9000lm
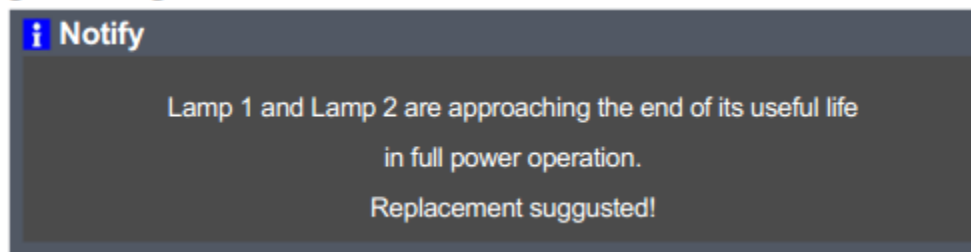
Main Specification

Canopus—PJ1			
qxL	qwuL	qxH	qwuH

	qxL	qwuL	qxH	qwuH
Manufacturer	Qisda			
Device	1Chip-DLP			
Brightness*1	8,800	7,500	10,000	9,000
Resolution	XGA	WUXGA	XGA	WUXGA
Contrast Ratio	XGA 750:1 WUXGA 1000:1			
Weight	21.0kg			
Light Source	Mercury lamp 365Wx2			
Lamp Life	Standard 2500h/Eco 3000h Portrait 1500h(sRGB picture mode)			
4-point correction	Yes			
Focus	Motorized			
Zoom				
Zoom Ratio	Depends on lens(Motorized)			
Lens Shift				
Throw Ratio				

	qxL	qwuL	qxH	qwuH
Power Consumption * Full/@100-120V figures is the same as the rating plate. The rest of the figures is for typical.	Full: 890W@100-120V, 780W@220-240V ECO: 740W@100-120V, 700W@220V-240V		Full: 980W@100-120V, 870W@220-240V ECO: 740W@100-120V, 700W@220V-240V	
Standby Power	<0.5V(100-240V)			
Noise	Normal 40dB, Eco 34dB			
Speaker	NA			
PIP/PBP	NA			
Portrait projection	Yes			
360-degree tilt free	Yes(can be installed at any vertical angle)			
Crestron/AMX PJ-Link/EXTRON	Yes			
Interface	D-sub-in x1, D-sub-out x1 Video in x1, S-video in x1 Component video (5BNC) x1 HDMI(MHL) x1, Control LAN x1 HDBaseT x1(qwuL/H only) RS232 x2(In/out) 5V 2A x1, USB-B(mini) x1 12V Trigger x2 3D VESA x1, Wired remote x2 3G-SDI x1(qwuH only)			

Serviceability features

- This product can be installed by users, except when mounted on a ceiling or wall.

- This product is designed for user maintenance. Regular on-site maintenance is not needed.

- LEDs show the machine status and symptoms for troubleshooting.
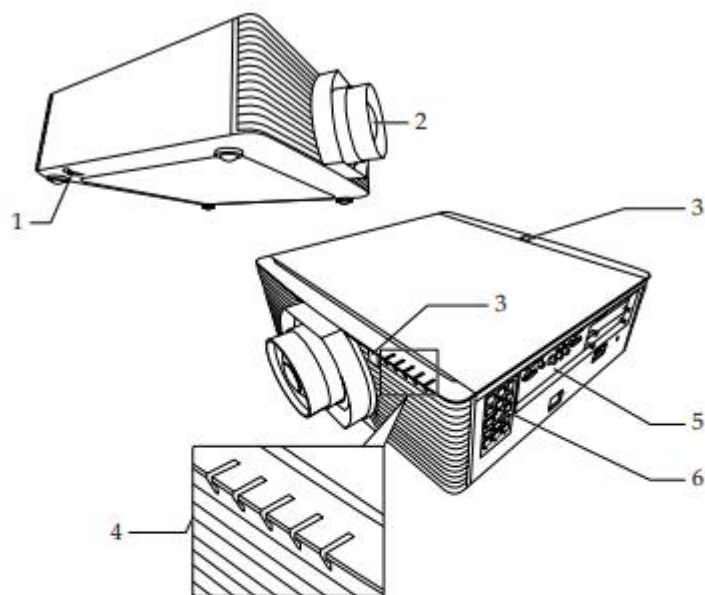
- A service mode is available.

Supplies

- RICOH PJ Replacement Lamp Type29
  - 365W mercury lamp
  - Life 2500hrs（Normal mode）
          3000hrs（Eco mode）

    - There may be a 50% decrease in brightness at the end of the lamp's life.

Lamp end alert

- The lamp end alert occurs when the machine calculates that the life time has expired.

    - Normal mode 2,500hrs

    - Eco mode 3,000hrs

    - If the user switches between modes, the projector calculates when to display the alert based on how long the lamp was used in each mode.

Notify

Lamp 1 and Lamp 2 are approaching the end of its useful life

in full power operation.

Replacement suggusted!

Disposal of broken lamps

- Projector lamps normally contain mercury vapor.

- These lamps can rupture due to impact or being used longer than their life expectancy.
  - The time that the breakage will occur differs widely for each lamp and its circumstances of use.

- These lamps must be disposed of in accordance with local environmental regulations.
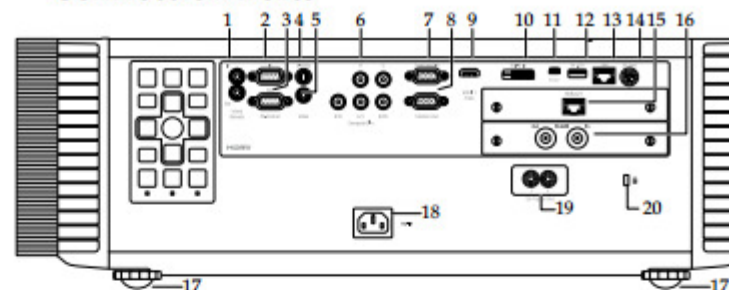
External view

Connection Ports

Note

✧ The interface is subject to model's specifications.

✧ Compatible with MHL version 2, the charging power 5V@0.9A.

✧ HDBaseT terminal is available for PJ WU6590/PJ WU6480.

✧ 3G-SDI terminal is available for PJ WU6590.

1. Security bar
2. Projection lens (optional)
3. Remote receiver
4. Indicator LED
5. Connection ports
6. Control panel

1. Wired remote control In terminal
   Wired remote control Out terminal
2. PC-Contorl (Out) terminal
3. RC-Control (In) terminal
4. S-Video In terminal
5. Video In terminal
6. Computer2 In terminal
7. Computer1 In terminal
8. Monitor Out terminal
9. HDMI 1/MHL terminal
10. DVI-D In terminal
11. Service terminal
12. USB-A terminal
13. LAN terminal
14. 3D sync terminal
15. HDBaseT terminal / Optional slot *
16. 3G-SDI terminal (In/Out) / Optional slot *
17. Adjustable feet
18. AC In socket
19. 12V Trigger Out terminals
20. Anti-theft lock hole (Kensington™ lock)

Basic Points About Service

Service mode (Factory mode)

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By Keypad

1. Press keypad **Power** and image will show power-down OSD menu.
2. Press keypad **Left→Left→Menu**, then it will enter the Factory Mode.

By RS-232 command

page1	W	06 14 00 04 00 34 0C 20 01 79
Page2	W	06 14 00 04 00 34 0C 20 02 7A
Page3	W	06 14 00 04 00 34 0C 20 03 7B
Page4	W	06 14 00 04 00 34 0C 20 04 7C
Page5	W	06 14 00 04 00 34 0C 20 05 7D
Page6	W	06 14 00 04 00 34 0C 20 06 7E
Page7	W	06 14 00 04 00 34 0C 20 07 7F

LED indicator message

LED Name	Detailed Description
Power LED	Display the power on/off sequence status
Temperature Status LED	Display the Thermal status (Fan Fail, Over Temperature, etc.)
Lamp1/2 Status LED	Display the Lamps status (Lamp fail, Lamp spoil etc.)
Filter LED	**Display the filter or liquid pump status**

	Power_LED BLUE	Power_LED RED	Temp_LED RED	Lamp1_LED RED	Lamp2_LED RED	Filter_LED RED
Power Plug		Flash ON to OFF	Flash ON to OFF	Flash ON to OFF	Flash ON to OFF	Flash ON to OFF
Standby	--	ON	--	--	--	--
Power button ON	ON	--	--	--	--	--
Lamp retry	flashing	--	--	--	--	--
Cooling state	--	flashing	--	--	--	--
Power button OFF: Cooling completed; Standby Mode	--	ON	--	--	--	--
Firmware Download	--	ON	ON	ON	ON	ON
Thermal sensor error. OSD shows "Projector Overheated"	ON	--	ON	--	--	--
Fan lock error OSD shows red "Fan Fail, Will automatically turn off soon"	ON	--	flashing	--	--	--
Lamp1 error (Lamp, ballast)	ON	--	--	ON	--	--
Lamp2 error (Lamp, ballast)	ON	--	--	--	ON	--
Both lamp error(Lamp, ballast)	ON			ON	ON	
Color Wheel fail	ON	--	--	flashing	--	--
Filter Blocked	ON	--	--	--	--	ON
Liquid Pump Warning	ON		ON			ON

After replacing parts

- Please check the projector works properly after repair. Perform following adjustment if the situation demands it.

Action	Spare parts					Memo
	Main PCB	Color wheel	OP engine	Lens shift module	Lamp	
Calibration RGB	v	v	v			Only if abnormal color issue
CW delay	v	v				Only if abnormal color issue
Lamp time reset	v				v	
Angle Calibration	v					Only when abnormal auto-keystone function
Lens Sensor Calibration	v			v		Do it after changing the limit sensor on shift module.

Replacing Main board

- Main board data can be downloaded by using Service tool.

- If possible, reload original main board information after replacing main board.

Click "Load From Data" to load the data saved and "Retrieve System" to write data into new MB.
It will show "Write Complete" when it's done.

OSD reset

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- Reset function in OSD menu returns the adjustments and settings to the factory default values.
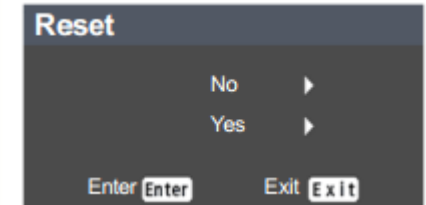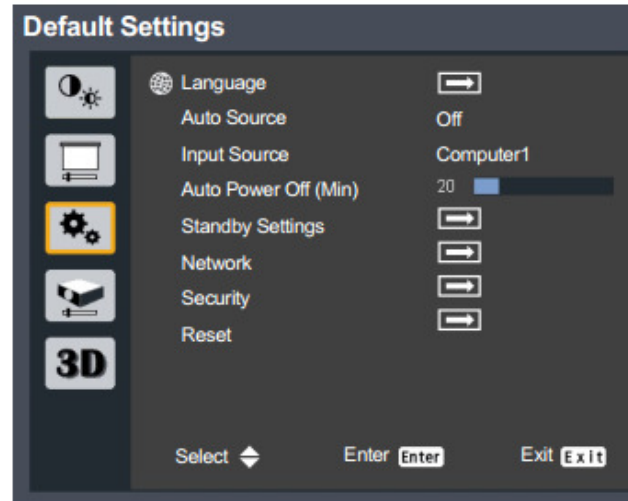
- Factory Reset function in service mode will returns all settings in both OSD/service menu, and clear all Failure Log.

Firmware upgrade
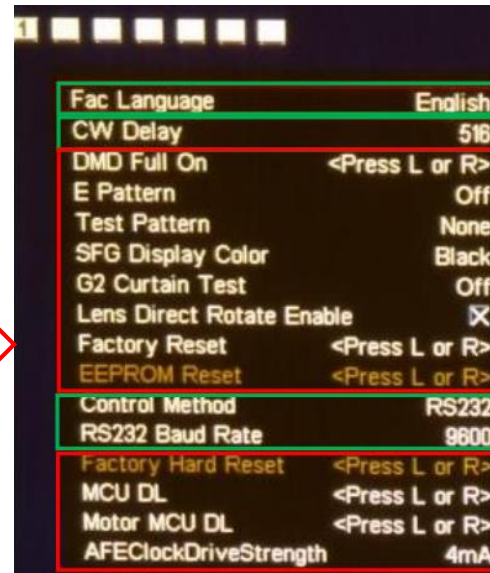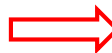
Updating the system firmware

- Unless a major problem is found, the firmware of the projector is generally not required to be updated. If necessary, Ricoh will announce and provide firmware and parameter file downloads. Refer to the service manual for the update method.