This course explains how to service the Castor-PJ1 short-throw projector.

To learn about this machine, please study the user's guide and the field service manual in addition to this TTP.

Product Outline

No additional notes

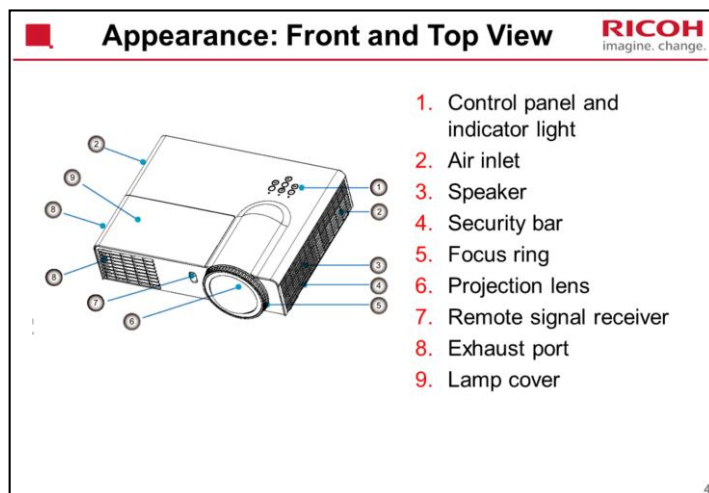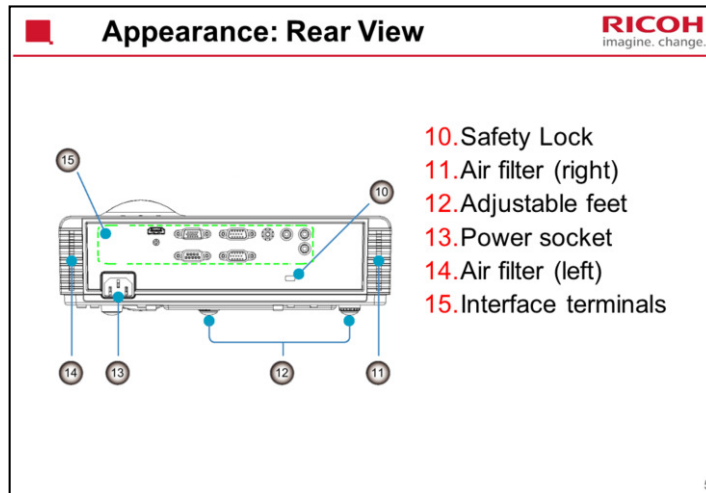**Basic Specifications**

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- Castor-PJ1: PJ K360
  - Brightness: 3000lm
  - No network function
  - Single DLP type: 0.55"
  - Projection distance: 0.51m~2.54m
  - Lens: F#2.8 f=7.26mm
  - Lamp: High-pressure mercury lamp (240W)
    - ECO 1: 190W, ECO 2: 160W
  - Speaker: 8W (Mono)
  - Image size: 40 - 200 inch
  - Resolution: 1024 x 768 pixels (XGA)
    - Other resolutions possible but may result in some loss of image clarity.
  - Lamp Life: 3500 hours typical (Full Mode), 5000 hours typical (ECO1/ECO2 Mode), 10000 hours typical (Auto Mode)
  - Firmware update only via serial port
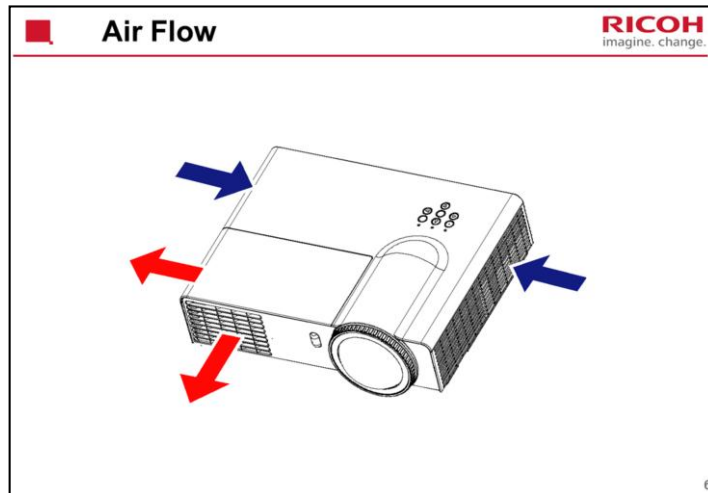 - Power consumption: 295W (240W in ECO mode)

The brightness spec of 3000 lm is a marketing spec. Typical brightness is more like 2700 lm.

Appearance: Front and Top View

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1. Control panel and indicator light
2. Air inlet
3. Speaker
4. Security bar
5. Focus ring
6. Projection lens
7. Remote signal receiver
8. Exhaust port
9. Lamp cover

No additional notes

Appearance: Rear View

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10. Safety Lock
11. Air filter (right)
12. Adjustable feet
13. Power socket
14. Air filter (left)
15. Interface terminals

No additional notes

The customer should clean the air filters every three months (if the area is dusty, it should be done more often)
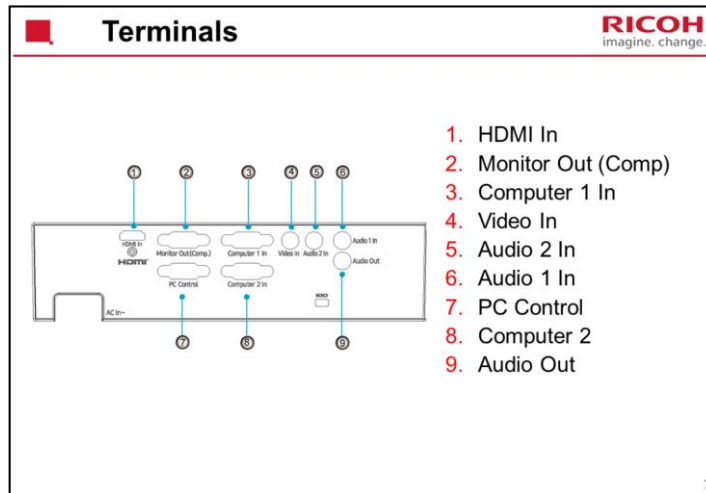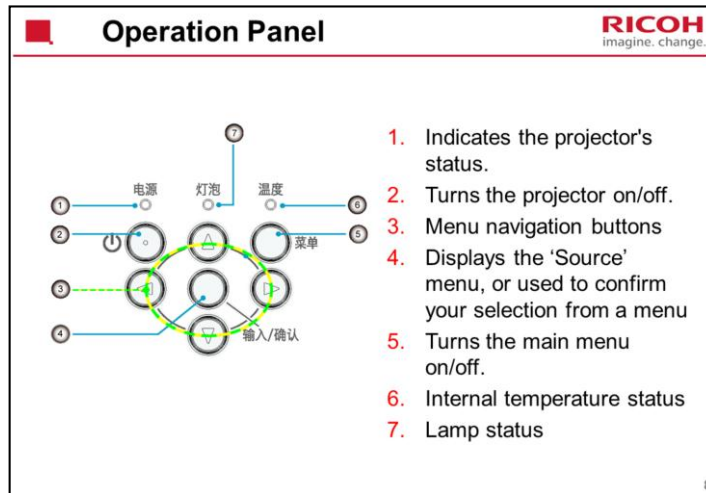
Monitor Out (Comp): Output the RGB or component signal from 3 or 8 to another monitor.

Audio 2 In: Audio for the video equipment connected to Video in

Audio 1 In: Audio for the computer connected at 3 or 8

PC Control: Connect the serial control cable to this terminal when using RS-232C to control the projector from a computer

HDMI In: If connected to a computer via a HDMI-VI conversion cable, only the video signal is input, The analog signal is not input.

Operation Panel — RICOH imagine. change.

1. Indicates the projector's status.
2. Turns the projector on/off.
3. Menu navigation buttons
4. Displays the 'Source' menu, or used to confirm your selection from a menu
5. Turns the main menu on/off.
6. Internal temperature status
7. Lamp status

No additional notes

No additional notes

Adjustable Feet

2.7°   6°
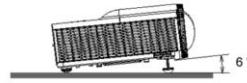
- Do not adjust to a higher angle than shown above.

No additional notes

- Y222: Replacement Lamp Type 15 (240W)

No additional notes

Turning Power On and Off

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- Follow the procedures in the user's guide when turning the power on or off.

12

No additional notes

Maintenance

No additional notes

After Replacing Parts

- After replacing certain parts, adjustments must be made as shown in the following table.
  - Example: After replacing the main board, update the firmware, do OSD Reset, Waveform Download and Fan Calibration, and Color Wheel Index Adjustment
  - For details of each adjustment: Service Manual > Replacement and Adjustment > Repair Action

	Main Board	Firmware	Lamp Module	Ballast	Blower	Optical Engine Module
Version Update	Yes	Yes				
Reset Lamp Hours			Yes			
OSD Reset	Yes	Yes				
Waveform Download and Fan Calibration	Yes	Yes		Yes	Yes	
Color Wheel Index Adjustment	Yes	Yes				Yes

14

Lamp replacement is normally done by the user. The procedure is in the user guide.

The lamp hours reset procedure is as follows.

Main menu > Options > Lamp Settings > Clear Lamp Hours

No additional notes

Updating the Firmware - 1

- The full procedure is in this section of the service manual.
  - 4. System Maintenance > SYS Firmware Upgrade Procedure
- Here is a summary.
  - Install DLP Composer Lite 11.1.1 in a portable PC.
  - Unplug the projector from the power source.
  - Hold the "Power" button and plug in the power cord.
  - When the Power LED lights orange, and the Temp and Lamp LEDs light red, release the "Power" button.
  - Connect the projector to the portable PC with an RS-232C Cable (9P(F) TO 9P(M)).
    - Use a USB-RS232C conversion adaptor if your computer does not have RS232C.
  - Start DLP Composer Lite 11.1.1 and configure "11.1.1 FlashDeviceParameters". See the procedure in the manual for details.
  - Browse for the firmware file (*.img).
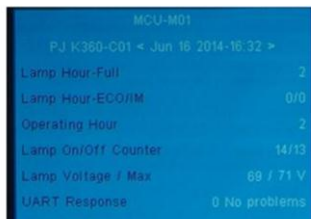 - Erase the flash memory.
  - Update the firmware.

16

No additional notes

No additional notes

The End