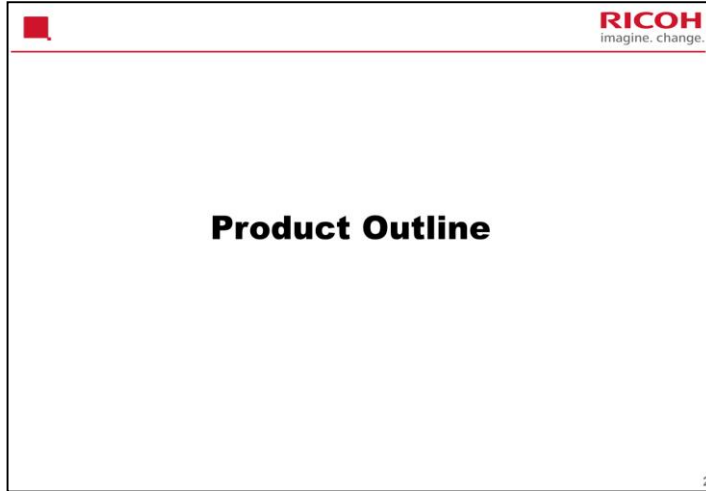


This course explains how to service the Deneb-PJ1 projector.

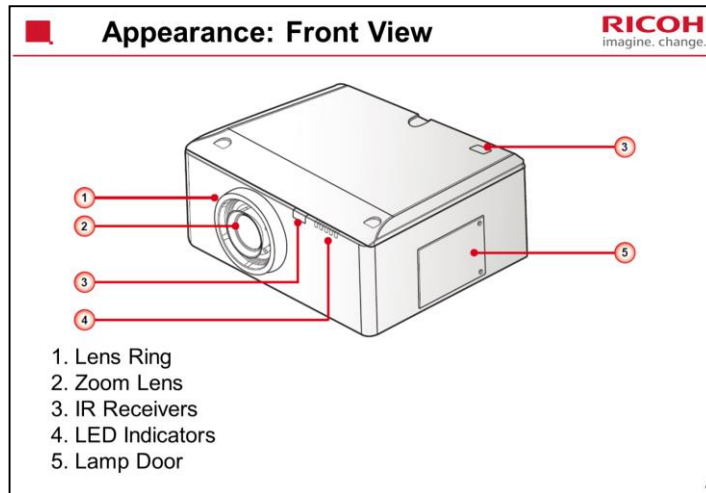


No additional notes

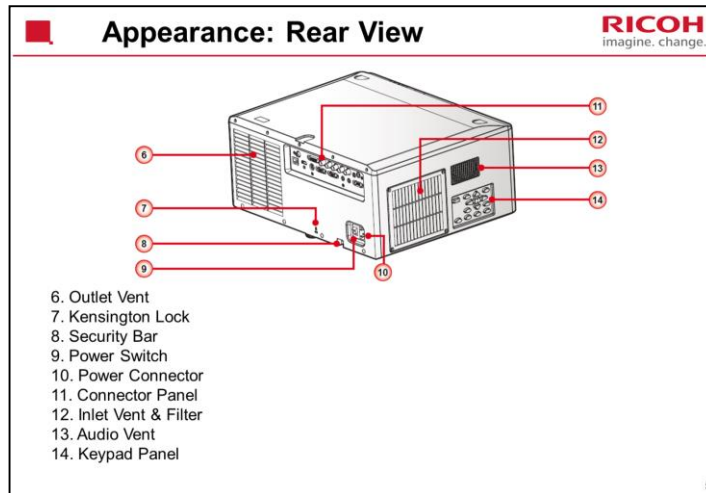


- **Deneb-PJ1: PJ K7000**
 - This is a DLP projector with network function, and interchangeable lenses for short throw, long throw, and standard.throw
 - Y121: Standard Lens Type 2 (standard)
 - Y122: Replacement Lens Type 5 (short throw)
 - Y123: Replacement Lens Type 6 (long throw)
 - Other options
 - Y124: Option Board Type 1 (also called the GEO board). This board does the following
 - If the screen is not flat, the Deneb-PJ1 can adjust the image to make the image appear a normal rectangular image
 - Two Deneb-PJ1s can project the same image, to make the image brighter
 - Two Deneb-PJ1s can project a wide image, with one unit projecting the left part of the image, and the other projecting the right part.

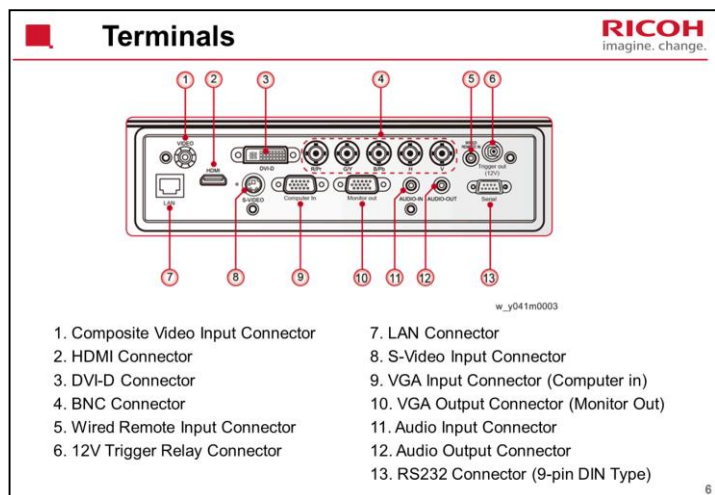
No additional notes



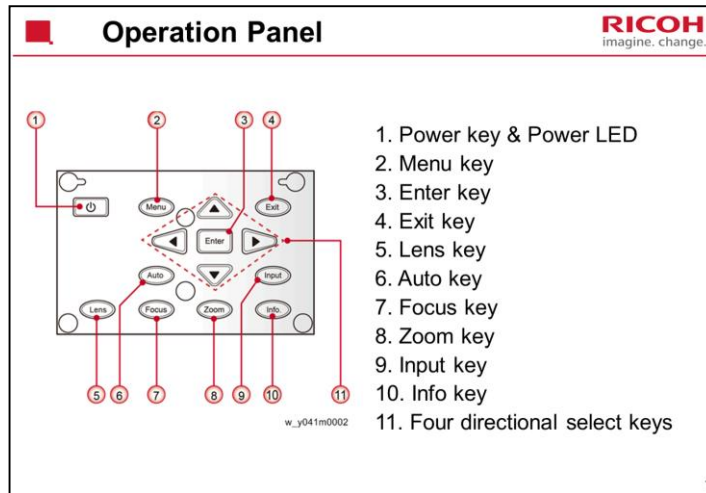
No additional notes



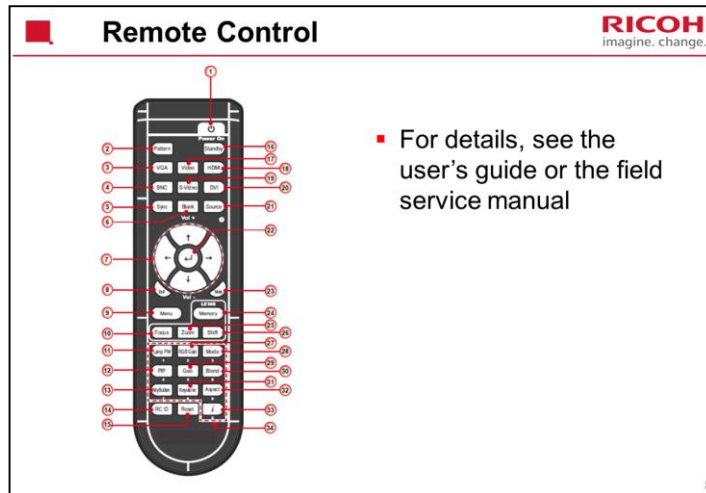
No additional notes



No additional notes



Press the Menu button to access the On-Screen Display (OSD) menu, which is sometimes mentioned in the service manual.

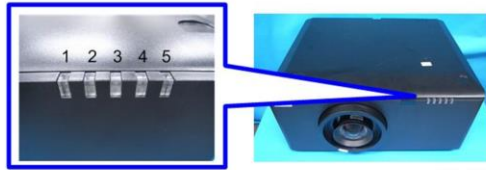


No additional notes



Front Panel LEDs

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- The status of these LEDs tells you about the machine condition.
- See the 'Front Panel LEDs' section of the service manual for details on the meanings of the various states of these LEDs,

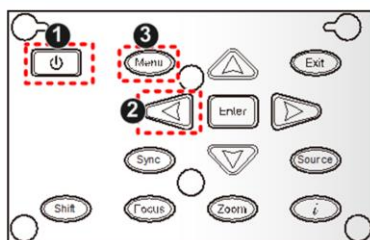
9

1. Filter LED
2. Error LED
3. Temp LED
4. Lamp LED
5. Power LED



How to Enter Service Mode

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y041m0013

- Press the "Power [1]", "Left [2]", "Left [2]" and "Menu [3]" buttons sequentially.
- See the 'Service Mode' section of the service manual for a list of functions in the service mode menu.

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No additional notes



Specifications

11

No additional notes



General Specifications

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- Native Resolution: XGA (1024x768), WXGA (1280x800)
- Throw ratio
 - 0.99-1.26 (Replacement Lens Type 5)
 - 1.26-1.58 (Standard Lens Type 2)
 - 1.58-3.00 (Replacement Lens Type 6)
- Lamp life
 - 1500 Hours @370W, 50% Survival Rate (Normal Mode)
 - 2000 Hours @280W, 50% Survival Rate (ECO Mode)
- Brightness
 - 6,000
- Power Consumption
 - Normal mode: 500W
 - ECO mode: 370W
 - Standby mode (LAN off) < 0.5W

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For more details, see the field service manual.



This projector is installed by the customer. However, please study the installation procedure in the user's guide to be familiar with the procedure, because some customers may need help.




Installation by the Customer

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- This projector is installed by the customer.
- However, please study the installation procedure in the user's guide to be familiar with the procedure, because some customers may need help.

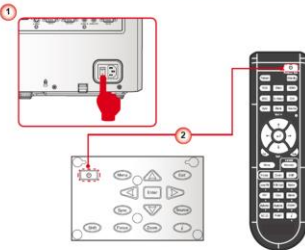
14

No additional notes



Turning the Power On

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1. Plug in the power cable and turn on the power switch next to the cable inlet.

2. Turn on the lamp by pressing the power button on the control panel or on the remote control.


- The Power LED will turn blue.
- The startup screen will display in approximately 10 seconds.
- The first time you use the projector, you will be asked to select a language and power saving mode.

3. Turn on and connect the source that you want to display on the screen (computer, video player, etc). The projector will detect the source automatically.

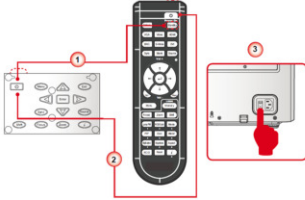
- If not, push the menu button and go to "OPTIONS".
- Make sure that "Auto Source" has been set to "Off".
- If you connect multiple sources at the same time, press the direct source buttons on the control panel or on the remote control to switch between inputs.

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No additional notes



Turning the Power Off



1. Press the "Standby" button on the remote control or the power button on the control panel. 'Power off? Press power key again' will be displayed. Press the "Standby" button on the remote control or the power button on the control panel again within 15 seconds, or the message will disappear.
 - When you press for the second time, the projector will shut down.
2. The cooling fans will execute the cooling cycle for about 60 seconds and the POWER LED will flash Blue. The projector has entered standby mode. Do not try to turn power on again until the cooling cycle has finished.
 - If you wish to turn the projector back on, you must wait until the projector has completed the cooling cycle and has entered standby mode. Once in standby mode, press the power button either on the control panel or on the remote control to restart the projector.
3. Turn off the power switch, then disconnect the power cord.
 - When switching the projector off, please ensure the cooling cycle has been completed before disconnecting power. Allow 60 seconds for the projector to cool down.

16

No additional notes



Important Notes

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- Remove the projector lens before transporting the projector.

17

No additional notes



Maintenance

18

No additional notes



Tools Required

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- You need the following tools to update the firmware, and to make adjustments after replacing the optical engine or main board.
 - RS-232C cable (cross)
 - LAN cable
 - Portable PC

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No additional notes



Caution

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- Operators should wear straps for discharging static electricity when disassembling the machine.
- When removing or disassembling the optical engine, please note that specific environmental conditions (clean room) are required.

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No additional notes



After Replacing Components

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- After replacing certain parts, some adjustment procedures must be performed.
- See the table in the “Required Action After Replacing Parts” section for which adjustments are required and where to find them in the manual.
 - Whenever you replace a component, check this table to see if you have to do any of these procedures. The text in the Replacement and Adjustments procedures does not always refer to this table.

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No additional notes



Removing the Projector Lens

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Incorrect



Correct



- Note the correct way to hold the assembly.
 - Do not touch the motor.
- After replacing the lens, do the lens calibration procedure in the service manual.
- Users can replace the lens. There are three types of lens, as mentioned earlier.

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No additional notes



Replacing the Filter

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- After replacing the filter, you must replace the filter counter.
 - Procedure: Service Manual > 4. System Maintenance > Service Mode > Reset the Filter Counter

23

No additional notes



- The main board contains a record of the lamp usage hours.
- If you have to change the main board, make a note of the lamp hours before you remove the board.
- Then use the 'Rewrite Lamp Hours' procedure after you install the new board, to store this number in the new board.

No additional notes



Replacing the Main Board - 2

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- The machine's serial number must be stored in the new main board after it has been installed.
- See the 'Rewrite SN' procedure in the service manual.

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No additional notes



Replacing the Lamp - 1

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- When the lamp reaches its end of life, 'Lamp Warning, lamp life exceeded' is displayed. Replace the lamp as soon as possible.
- Allow the projector to cool for at least 30 minutes before you open the lamp cover.
- Replace with a lamp of the same type.
 - Replacement Lamp Type 13 (service part only)

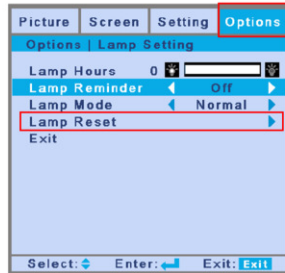
26

No additional notes



Replacing the Lamp - 2

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- After you replace the lamp, do the Lamp Reset procedure.
 - Press the Menu button on the operation panel or remote control.
 - Then select Options - Lamp Settings - Lamp Reset – Yes.


27

No additional notes




- Adjust if there are yellowish or bluish parts in the image.

No additional notes



Updating the System Firmware



- There are three modules.
 - PIC, PW392, DDP2431
- Equipment Needed
 - Firmware Download Software
 - Download this software, and run it to automatically update the three firmware modules in succession.
 - Hardware
 - RS232 cable (female-to-female)
 - PC or Laptop
 - Procedure
 - Connect the PC and projector with the RS232C cable.
 - Run the firmware download application, and follow the procedure in the service manual to update all three modules.

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The detailed procedure is in the System Maintenance – PIC/PW392/DDP2431 FW Update section of the service manual.



■ Equipment Needed

- Software
 - Network firmware file (*.bin)
- Hardware
 - LAN cable
 - PC or Laptop

■ Procedure

- Set up the projector and your computer.
 - Your browser must not be set up to use a proxy server.
 - The IP addresses of the projector and the PC must not be the same.
- Use a web browser on your computer to update the firmware.
- The procedure takes about 1 minute.

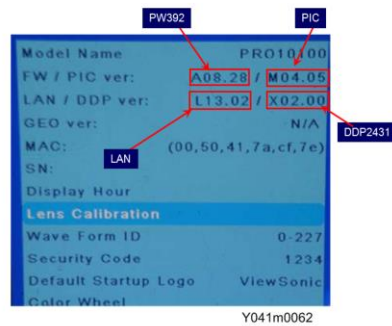
The detailed procedure is in the System Maintenance – LAN Firmware Update section of the service manual.



Checking the Firmware Version

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- Restart the projector.
- Press "Power > Left > Left > Menu".
- See the four versions on the screen on the right.



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No additional notes



The End