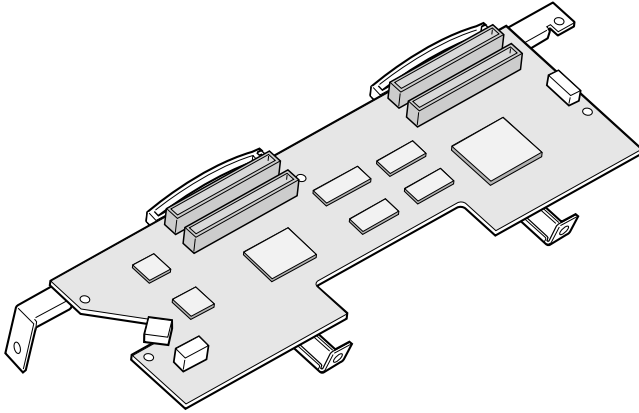


Panasonic



RAID Board Instructions

Model No. **WJ-NDB301**

Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.

Warning: All work related to the installation of this product should be qualified service personnel or system installer.

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FEATURES

The RAID Board WJ-NDB301 is an option for installation into the Network Disk Recorder WJ-ND300. The RAID board enables the network disk recorder to use the RAID 5 function that can recover data even though one of the hard disk drives is failed.

RAID level 5 regards 3 or more drives as one drive, and it is possible to read data by attaching error correction data even though one of the drives is broken automatically. (It is impossible to recover data if two drives are simultaneously damaged or the second drive data fails during the data recovery process.)

When using the RAID function, the logical disk size of the extension unit will be as below.

Logical disk size = Smallest size of the disk among the disks in the extension unit x (Number of the disks in the extension unit – 1)

Note: Depending on the model of a hard disk drive, the logical disk size may be a few percent smaller than the size resulting from the formula above.

Read the operating instructions included in the Network Disk Recorder for details.

PRECAUTIONS

Unplug the power cord from the WJ-ND300 before installing the board.

This board is exclusively designed for the WJ-ND300 (sold separately).

Do not install this board in other devices or use this board independently.

Keep unused board in an antistatic bag.

The board is shipped in an antistatic bag. Discharge static electricity from your body by touching a metal object such as a metal locker before opening the bag to protect the board from static electricity.

Do not touch the parts (circuits) on the board.

The parts (circuits) on the board are vulnerable to static electricity.

Do not touch the parts on the board directly to prevent the board from damage caused by static electricity.

Discharge static electricity before touching the board.

Before touching the board, discharge static electricity from your body by touching a metal object such as a metal locker. When handling the board, hold only the back end part (connector side) even after discharging static electricity.

Fix the board with the screws firmly.

Make sure that the board is firmly fixed in Network Disk Recorder by tightening the fixing screws.

If the board is not fixed firmly, it may damage both the board and the Network Disk Recorder.

Handle with care.

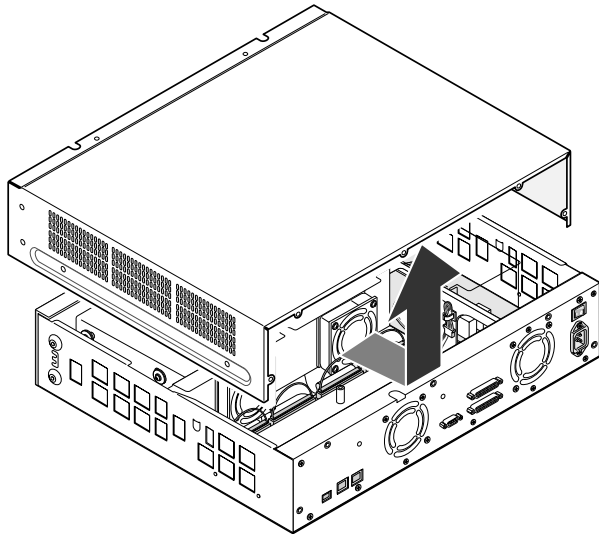
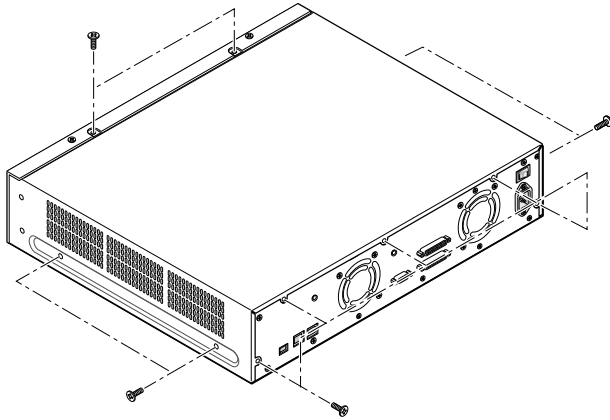
Do not strike or shake the board, as this may cause damage.

Contact a dealer when having a problem.

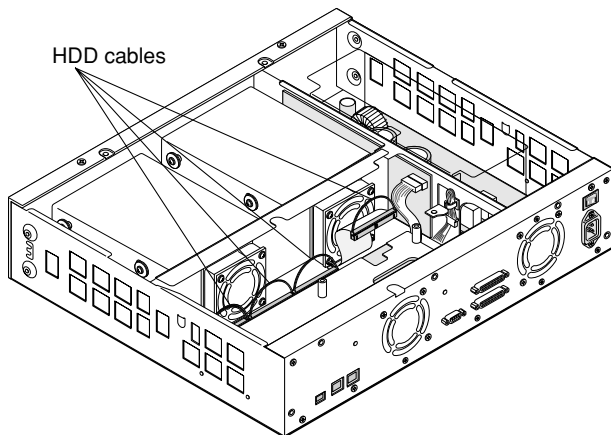
Turn off the power of the Network Disk Recorder immediately and unplug the power plug from the AC outlet, and then contact qualified service personnel.

INSTALLATIONS

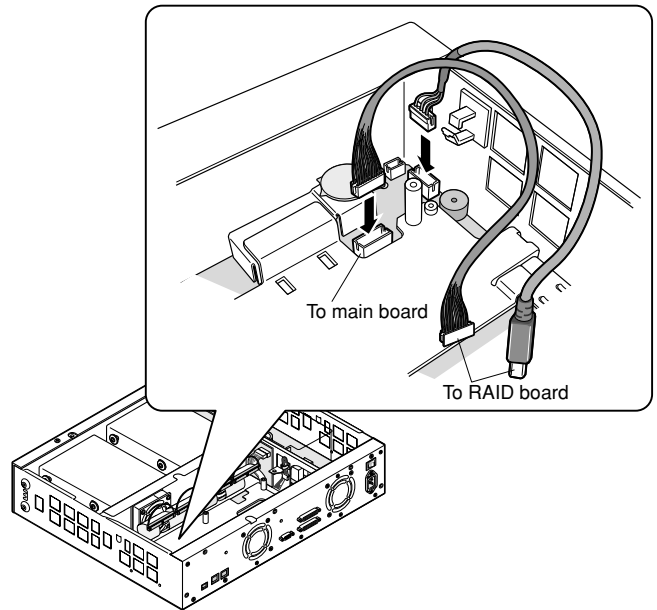
1. Unscrew WJ-ND300 (2 screws from top, 4 screws from sides, and 5 screws from rear) and remove the top cover.



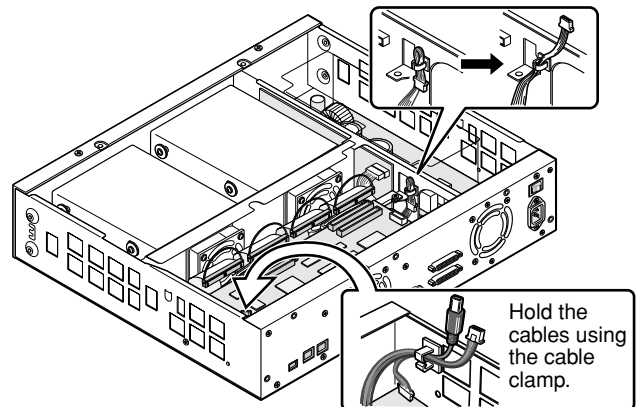
2. Disconnect all of the HDD cables.



3. Connect between the main and RAID boards with 2 cables that belong to the main board.

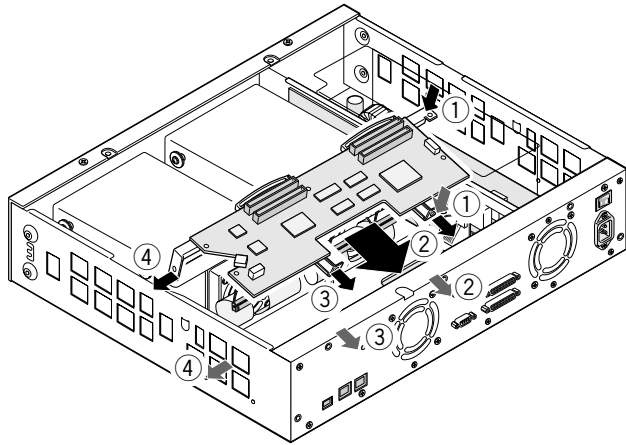


4. Detach the cable from the cable clamp to unbind it, and pass the cable through the cable clamp as shown in the illustration below.

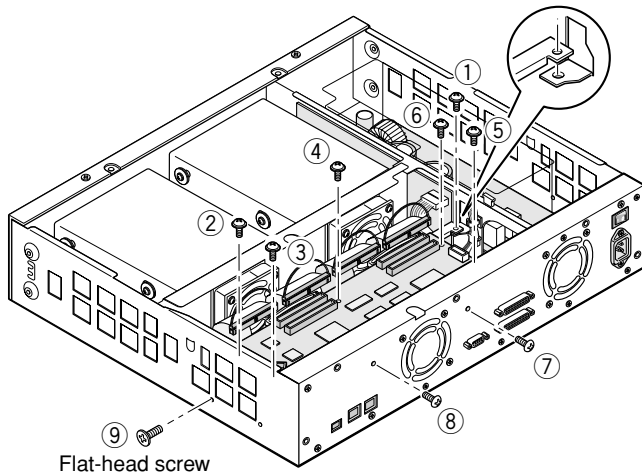


5. Mount the RAID board.

- (1) Mount the RAID board so that the mounting holes (① to ④) of the RAID board are aligned with the mounting holes (① to ④) of the main unit (WJ-ND300) respectively by referring the illustration.

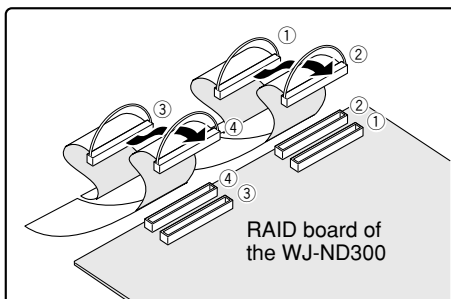


- (2) Secure the RAID board to the main unit with the screws (6 screws with washer for top of the board, 2 screws for rear of WJ-ND300, and 1 flat-head screw for side of WJ-ND300) attached to the board.

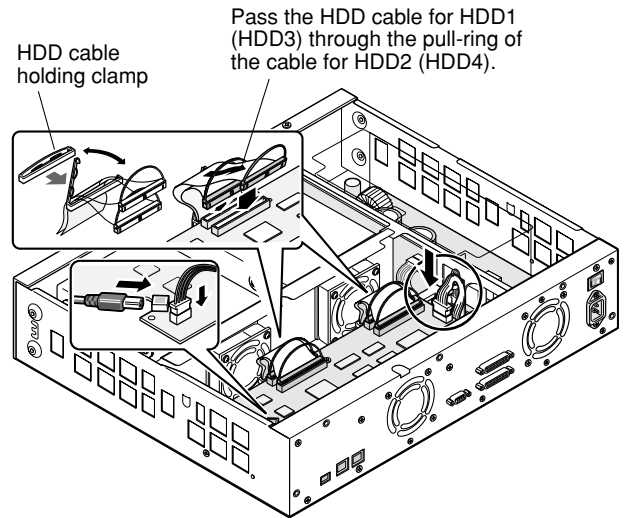


6. Connect the cables to the RAID board.

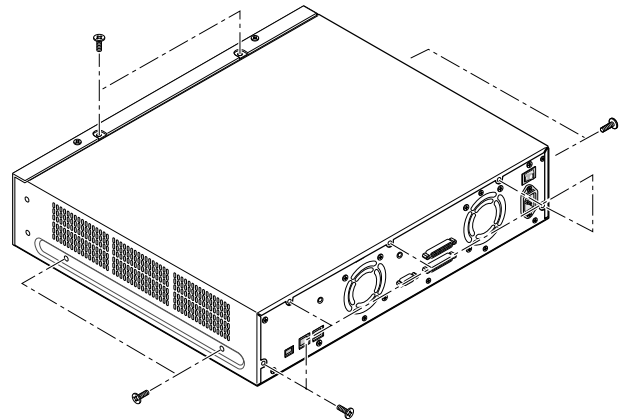
The original positions of the HDD cable connectors on the main board of the WJ-ND300 and the positions of the RAID board are as shown in the illustration below (Fig.1).



- (1) Use the HDD cable holding clamps attached to the RAID board to bundle two of the HDD cables each disconnected in Step 2.
- (2) Connect all of the HDD cables and 3 cables to the RAID board.



7. Put the top cover back and secure it with the screws removed in Step 1.



SETUP

- The settings relating to the RAID function can be performed on the setup menu displayed on the LCD on the front panel of the unit. Refer to the Installation Guide for further information.
- Refer to the operating instructions of the Network Disk Recorder WJ-ND300 for descriptions of the connections.

TROUBLESHOOTING

Problem	Check item/Remedy
<p>The hard disk drive is not recognized.</p>	<ul style="list-style-type: none"> • Is the HDD cable connected to the RAID board correctly and firmly? • Is the HDD cable connected to the hard disk drive correctly and firmly? • Is the HDD power cable connected to the hard disk drive correctly and firmly? • Is the provided cable connected correctly and firmly? • Is the jumper setting on the HDD set as the master?
<p>The unit runs in the SINGLE mode.</p>	<ul style="list-style-type: none"> • Set the unit to the RAID5 mode. • Set the extension unit to the RAID5 mode.
<p>MIX ERROR occurs. (The SYS-2 SINGLER RAID MIX ERROR indication appears.)</p>	<ul style="list-style-type: none"> • Is the unit running in the RAID5 mode? • Is the extension unit running in the RAID5 mode?
<p>The HDD access indicator lights/blinks red.</p>	<ul style="list-style-type: none"> • The respective HDD is failed in the RAID 5 mode. Refer to the dealer. • The indicator respective to the HDD that failed first will light red and the indicators for the other failed HDD will blink red.
<p>The HDD access indicator lights red and orange when operating in the RAID 5 mode.</p>	<ul style="list-style-type: none"> • The system error occurred. Refer to the dealer. <p>The system error status will be displayed with the HDD indicators as follows.</p> <p>○ : Red, ● : Orange</p> <ul style="list-style-type: none"> ○ ● ● ● : Hardware malfunction ● ○ ● ● : Hardware malfunction ○ ○ ● ● : Hardware malfunction ● ● ○ ● : Hardware malfunction ○ ● ○ ● : Hardware malfunction ● ○ ○ ● : Hardware malfunction ○ ○ ○ ● : Hardware malfunction ● ● ● ○ : Hardware malfunction ○ ○ ● ○ : Hardware malfunction ● ● ○ ○ : Hardware malfunction ● ○ ○ ○ : Disk CRC error

SPECIFICATIONS

Required Power:	+5 V DC (Supplied from WJ-ND300)
Power Consumption:	1.2 A at +5 V DC
Operating Temperature:	From +5°C (41°F) to +45°C (113°F)
Dimensions:	31 mm (W) x 109.5 mm (H) x 35 mm (D) 1-1/4" (W) x 4-5/16" (H) x 1-3/8" (D)
Weight:	200 g (0.44 lbs)

Weight and dimensions indicated are approximate.
Specifications are subject to change without notice.

STANDARD ACCESSORIES

Instructions (this document)	1 pc.
Board Fixing Screws	8 pcs
Board Fixing Screw (flat-head)	1 pc.
Cable	2 pcs.

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)



This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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