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## APL3000-HD60 Installation Guide

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The APL3000-HD60 is the hard disk unit (HDD unit) for Pro-face's PL3000 Series (hereafter referred as the "PL") units. This 2.5 inch 60GB hard disk is designed to be installed inside the PL unit.

Corresponding units: PL3000 Series

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### About the Manual

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For the detailed information on PS-A series, refer to the following manuals.

- PL3000 Series Hardware Manual  
(For installing and removing the HDD unit)

Manuals for PL3000 series can be downloaded from Pro-face Home Page.

URL

<http://www.pro-face.com/otasuke/>

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### Safety Cautions

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#### WARNING

- Do not attempt to modify or open the HDD unit, since it can cause a shock or fire.
- When installing the HDD unit, be sure to read this guide "Installation" section's information completely to insure that the unit is correctly installed.

#### To Prevent Accidents

- To prevent from a unit malfunction, be sure to check that the PL unit's power is disconnected before installing the unit.
- Since the HDD unit is a precision instrument, be sure it is neither hit by nor pressed strongly against another object. After unpacking, be sure the unit is not dropped or jolted during installation. Also, a PL unit built in to a larger unit (i.e. operation panel) should be removed and packed separately prior to shipping.
- Be sure water, liquids or metal particles are not allowed to enter the HDD unit. Any of these may cause either a breakdown or an electrical shock.
- Do not place or store this unit in a location where there is direct sunlight, excessive heat, dust or vibration.
- Do not store or operate this unit near chemicals, or where there are chemical fumes.
- Do not allow anyone other than Pro-face's own service staff to perform maintenance or adjustments to this unit.
- Do not move or shift the PL unit while the HDD unit is installed and the PL unit's power is ON.
- Do not use the HDD unit in locations where corrosive gasses are present, since they can lead to a hard disk breakdown.
- To prevent the data damage, be sure to shut down the PL unit's OS according to the

correct procedure before turning OFF the main power.

- To prevent HDD memory leaks, restart the OS periodically.
- The hard disk has the lifetime. To use it longer by steady operation, read the attached “Instructions for Using the Hard Disk” carefully.
- In order to extend the lifetime of the hard disk, Pro-face recommends you set the Windows® [Control panel]-[Performance and Maintenance]-[Power Management option]-[Turn off hard disks] selection to turn the hard disk off when the unit is not being operated. A setting of 5 minutes is recommended.

### Unit Disposal

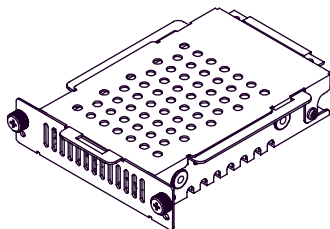
- When this HDD unit is disposed of, it should be done so according to your country’s regulations for similar types of industrial wastes.

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## Package Contents

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- (1) HDD Unit (1) (APL3000-HD60)



- (2) Installation Guide (1) (This Guide)  
(3) Instructions for Using the Hard Disk (1)

Pro-face has taken the utmost care to ensure the quality of this product when it was shipped, however, should, for any reason, problems or damage have occurred during shipping, please contact your Pro-face representative immediately for service.

# Hardware Specifications

## ■ Features

|                    |   |
|--------------------|---|
| Capacity           | 60GB  |
| Average Seek Time  | 12msec (TYP)  |
| Power Consumption  | At Startup : 5.0W (MAX)<br>Read/Write : 1.8W (TYP)<br>During Wait : 0.25W (TYP) |
| Interface          | Serial ATA Rev.1.0a   |
| Operation Lifetime | 5 years, or 20,000 operating hours, whichever comes first                       |
| Weight             | Approx. 200g  |

### IMPORTANT

- This HDD unit has a finite usage lifetime. Therefore, be sure to back up all HDD data periodically and/or prepare a backup HDD unit.
- The HDD unit's lifetime will vary, depending on the usage conditions and environment. The above value is calculated assuming an ambient temperature of 20°C and 333 hours of operation per month. (HDD access frequency of 20% or less)
- To use the hard disk longer by steady operation, read the attached "Instructions for Using the Hard Disk" carefully.

## ■ Environment

|  |  |
|--|--|
| Operating Temperature                  | 5°C to 50°C  |
| Storage Temperature                    | -20°C to +60°C   |
| Ambient Humidity                       | 10%RH to 90%RH (no condensation)<br>(Wet bulb temperature: 29°C or less)                       |
| Noise Resistance (via Noise Simulator) | Noise Voltage: 1500Vp-p<br>Pulse Width: 50ns, 500ns, 1μs                                       |
| Electrostatic Discharge                | 6kV  |
| Vibration Resistance                   | (When Operating)<br>10Hz to 57Hz:single-amplitude 0.075mm<br>57Hz to 150Hz:9.8m/s <sup>2</sup> |
| Shock Resistance                       | 3920m/s <sup>2</sup> (1ms, Half-sine shock pulse)<br>(When Shipping)                           |

### IMPORTANT

- Using the HDD unit in an environment that is excessively hot and/or humid will shorten the disk's usage lifetime. A wet bulb temperature of 29°C or less is recommended. This is equivalent to the following data.

|             |                      |                      |
|-------------|----------------------|----------------------|
| Temperature | at 35°C              | at 40°C              |
| Humidity    | no higher than 64%RH | no higher than 44%RH |

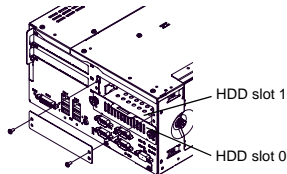
## Installation

### IMPORTANT

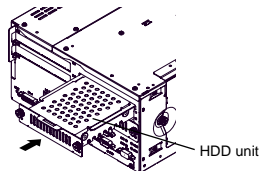
- Since the HDD unit is a precision instrument that has a low resistance to shocks, be sure it is neither hit by nor pressed strongly against another object when installing it.
- The electric power may be supplied to the PL unit even when the screen blacks out (such as the standby mode). Be sure to confirm that the power supply switch on the rear side of the PL unit is OFF.

### NOTE

- To prevent from a unit malfunction, be sure to check that the PL unit's power is disconnected before installing the unit.
- (1) Unscrew the screws (2) of the HDD slot and remove the cover.



- (2) Insert the HDD unit slowly along the guide rail while holding the cover of the HDD unit. Insert the HDD unit all the way in the HDD slot.



- (3) Fix the HDD unit with the two screws. The torque should be 0.2 to 0.3 N·m.

### Inquiry

Do you have any questions about difficulties with this product? Please access our site anytime that you need help with a solution.

<http://www.pro-face.com/otasuke/>

### Note

Please be aware that Digital Electronics Corporation shall not be held liable by the user for any damages, losses, or third party claims arising from the uses of this product.

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