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## PS345XA-HD40 Installation Guide

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The PS345XA-HD40 is the hard disk unit (HDD unit) for Pro-face's PS-3450A Series (hereafter referred as the "PS-A") units and PS3000-BA Series (hereafter referred as the "PS-B") units. This 2.5 inch 40GB hard disk is designed to be installed inside the PS-A/PS-B unit.

Corresponding units:

PS-3450A/PS-3451A Series  
PS3000-BA

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### About the Manual

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

- PS-3450A Series Hardware Manual
- PS-3000B Series Hardware Manual

Manuals 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

- Be sure to check that the PS-A/PS-B unit's power is disconnected before installing the unit, in order to prevent an electrical shock.
- 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

- 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 PS-A/PS-B 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 PS-A/PS-B unit while the HDD unit is installed and the PS-A/PS-B 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 PS-A/PS-B 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

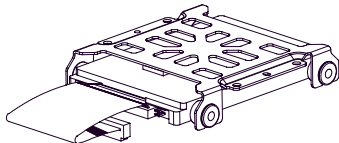
- When this HDD unit is disposed of, it should be done so according to your country's regulations for similar types of industrial wastes.

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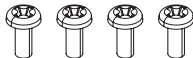
## Package Contents

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- (1) HDD Unit (1) (PS345XA-HD40)



- (2) Attachment Screws (4)



- (3) Jumper Plug (1)  
(Attached to the HDD Unit)
- (4) Installation Guide (1) (This Guide)
- (5) 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           | 40GB                                                                               |
| Average Seek Time  | 12msec (TYP)                                                                       |
| Power Consumption  | At Startup : 5.0W (TYP)<br>Read/Write : 1.8/1.8W (TYP)<br>During Wait : 0.2W (TYP) |
| Interface          | PATA                                                                               |
| 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                     | PS-3450A<br>PS3000-BA                                                    | 5°C to 50°C |
|                                           | PS-3451A                                                                 | 5°C to 45°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<br>(via Noise Simulator) | Noise Voltage: 1500Vp-p<br>Pulse Width: 50ns, 500ns, 1μs                 |             |
| Electrostatic Discharge                   | 6kV                                                                      |             |
| Vibration Resistance                      | 4.9m/s <sup>2</sup> (10Hz to 25Hz) (When Operating)                      |             |
| Shock Resistance                          | 3920m/s <sup>2</sup> (1ms, Half-sine shock pulse) (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.

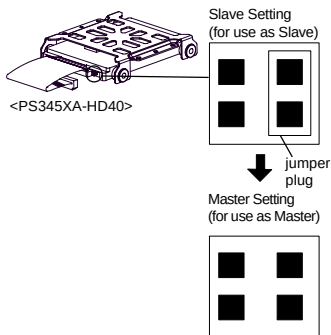
|             |                      |                      |
|-------------|----------------------|----------------------|
| Temperature | at 35°C              | at 40°C              |
| Humidity    | no higher than 64%RH | no higher than 44%RH |

## Hard Disk Unit Settings

The PS345XA-HD40 is one of the Expansion Options for PS-A/PS-B Series, when shipped, set as the PS-A/PS-B's Slave drive (Second Hard Disk). When using the PS345XA-HD40 as the PS-A/PS-B's Master drive, be sure to perform the following setup.

### IMPORTANT

- If PS-A/PS-B units have this HDD Unit as a built-in hard disk, the HDD unit, when shipped, is set as the PS-A/PS-B's Master. If set as the PS-A/PS-B's Slave, except for the jumper plug included, do NOT use any other jumper plugs with the PS345XA-HD40, since it can cause a malfunction or damage the unit.
- Pro-face's PS-A/PS-B Unit built-in Windows® XP Embedded and PS345XA-HD40 should be used as the factory settings (CF card is set to the PS-A/PS-B's Master drive and HDD unit is set to the PS-A/PS-B's Slave drive).



## Installation

### ⚠ WARNING

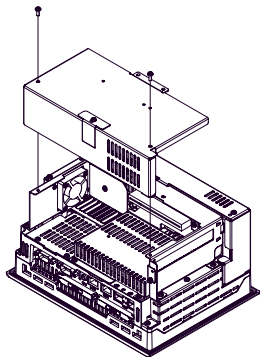
- Shock Danger! Be sure to unplug the PS-A/PS-B unit from its power supply prior to installing the HDD unit.

### IMPORTANT

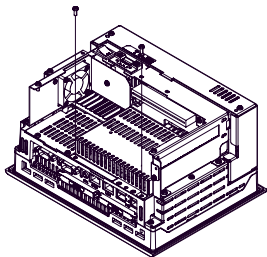
- Since the HDD unit is a precision instrument that has a low resistance to shocks, be sure it is neither hit by nor pressed strongly against another object when installing it.
- Even when the PS-A/PS-B unit's screen display disappears, the power might be distributed inside (such as the "Standby" status etc). Be sure to confirm that the power supply switch on the rear side of the PS-A unit or the top of the PS-B unit is OFF.

■ When attaching the HDD to the PS-3450A

- (1) Unscrew the screws (2) from the Expansion Board Cover, and remove the cover. When replacing the cover, the torque required for these screws is 0.5 to 0.6 N•m.

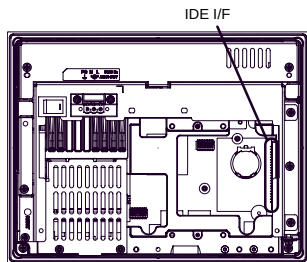
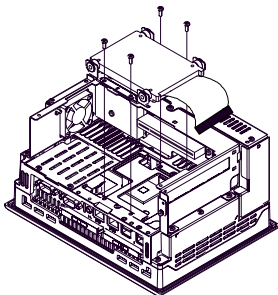


- (2) Unscrew the screws (2) of the HDD cover and remove the HDD cover. When replacing the cover, the torque required for these screws is 0.5 to 0.6 N•m.



- (3) Unscrew the screws (4) of the HDD unit, remove the cable connector from IDE I/F while lifting up the HDD unit, and remove it.

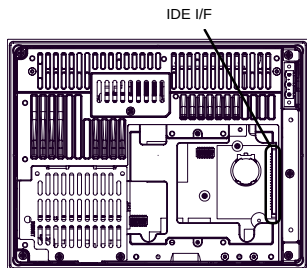
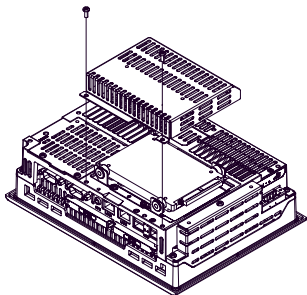
To replace the HDD unit, connect the cable connector to IDE I/F securely and fix the HDD unit with the screws (4). The torque required for these screws is 0.5 to 0.6 N•m.



Inside of the PS-3450A's rear

■ When attaching the HDD to the PS-3451A

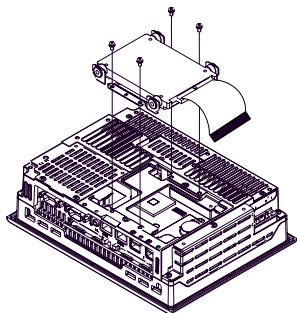
- (1) Unscrew the screws (2) of the HDD cover and remove the HDD cover.  
When replacing the cover, the torque required for these screws is 0.5 to 0.6 N•m.



Inside of the PS-3451A's rear

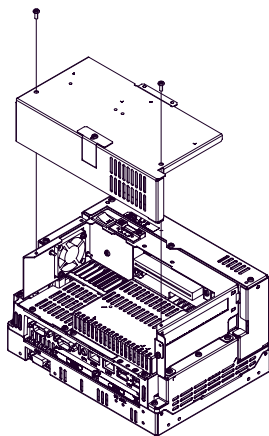
- (2) Unscrew the screws (4) of the HDD unit, remove the cable connector from IDE I/F while lifting up the HDD unit, and remove it.

To replace the HDD unit, connect the cable connector to IDE I/F securely and fix the HDD unit with the screws (4).  
The torque required for these screws is 0.5 to 0.6 N•m.

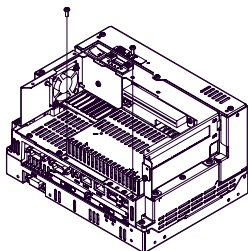


■ When attaching the HDD to the PS3000-BA

- (1) Unscrew the screws (2) from the Expansion Board Cover, and remove the cover. When replacing the cover, the torque required for these screws is 0.5 to 0.6 N•m.

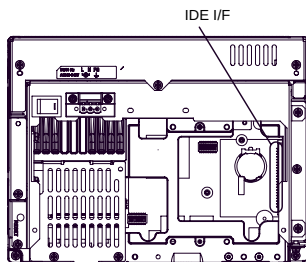
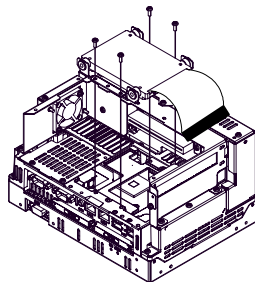


- (2) Unscrew the screws (2) of the HDD cover and remove the HDD cover. When replacing the cover, the torque required for these screws is 0.5 to 0.6 N•m.



- (3) Unscrew the screws (4) of the HDD unit, remove the cable connector from IDE I/F while lifting up the HDD unit, and remove it.

To replace the HDD unit, connect the cable connector to IDE I/F securely and fix the HDD unit with the screws (4). The torque required for these screws is 0.5 to 0.6 N•m.



Inside of the PS3000-BA's top

## 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.

Digital Electronics Corporation

8-2-52 Nanko-higashi

Suminoe-ku, Osaka 559-0031

JAPAN

TEL: +81-(0)6-6613-3116

FAX: +81-(0)6-6613-5888

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

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