

---

## PS-3650A/PS-3651A Series (PS365XA-HD60) Installation Guide

---

The PS365XA-HD60 is the hard disk unit (HDD unit) for Pro-face's PS-3650A/PS-3651A Series (hereafter referred as the "PS-A") units. This 2.5 inch 60GB hard disk is designed to be installed inside the PS-A unit.

Corresponding units:

PS-3650A/PS-3651A Series  
(only for the units installing a Serial ATA interface)

---

### About the Manual

---

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

- PS-3650A/PS-3651A Series Hardware Manual

The manual can be downloaded from Pro-face Home Page.

URL

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

---

### Safety Cautions

---

#### WARNING

- Be sure to check that the PS-A 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 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 unit while the HDD unit is installed and the PS-A 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 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

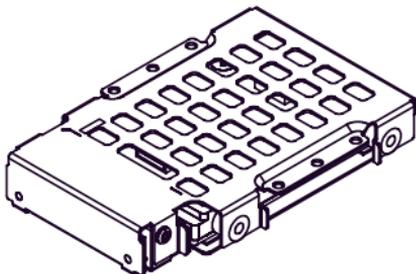
- When this HDD unit is disposed of, it should be done so according to your country's regulations for similar types of industrial wastes.

---

## Package Contents

---

- (1) HDD Unit (1) (PS365XA-HD60)



- (2) Attachment Screws (4)



- (3) Installation Guide (1) (This Guide)  
(4) 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.

### IMPORTANT

- This HDD unit has a finite usage life-time. Therefore, be sure to back up all HDD data periodically and/or prepare a backup HDD unit.

## Hardware Specifications

### ■ Features

Capacity	60GB
Average Seek Time	12msec
Power Consumption	At Startup : 5.0W (TYP) Read/Write : 1.8W (TYP) 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. 400g

### 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

Surrounding Air Temperature	PS-3650A Series	5°C to 50°C
	PS-3651A Series	5°C to 45°C
Storage Temperature		-20°C to +60°C
Ambient Humidity		10%RH to 90%RH (no condensation) (Wet bulb temperature: 29°C or less)
Storage Humidity		10%RH to 90%RH (no condensation) (Wet bulb temperature: 39°C or less)
Noise Immunity (via Noise Simulator)		Noise Voltage: 1,500Vp-p Pulse Width: 50ns, 500ns, 1μs
Electrostatic Discharge Immunity		6kV
Vibration Resistance		10Hz to 57Hz single-amplitude 0.0375mm 57Hz to 150Hz Constant acceleration 4.9m/s <sup>2</sup> X,Y,Z directions: 10 cycles (for 80 minutes)
Concussion Resistance		3,920m/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

## Installation

### WARNING

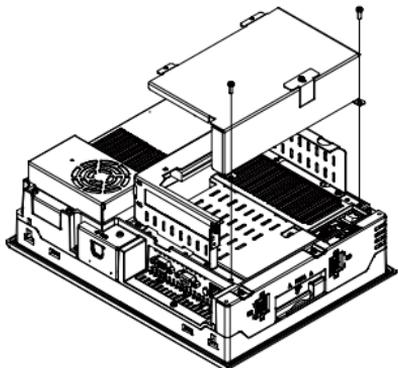
- Shock Danger! Be sure to unplug the PS-A unit from its power supply prior to installing the HDD unit.

### IMPORTANT

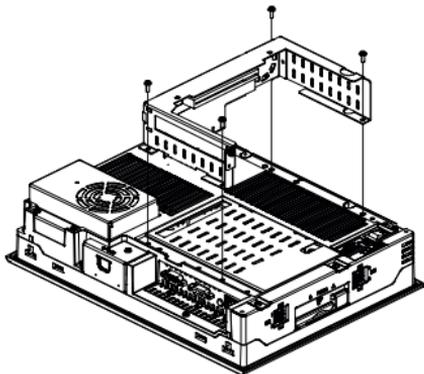
- Since the HDD unit and PS-A's the circuit board are a precision instrument that has a low resistance to shocks, be sure it is neither hit by nor pressed strongly against another object when installing it.
- The electric power may be supplied to the PS-A unit even when the screen blacks out (such as the standby mode). Be sure to confirm that the power cable on the rear side of the PS-A is disconnected.

### ■ When attaching the HDD unit to the PS-3650A

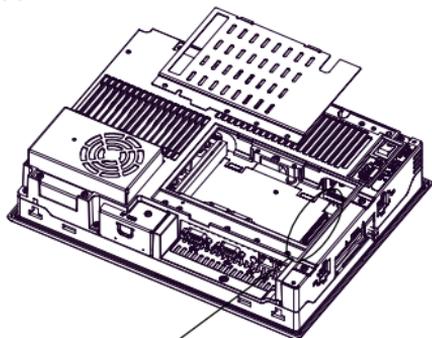
- (1) Turn OFF the power switch of the PS-A and remove the power cable. Place the PS-A on a flat, level surface facing the display face downwards.
- (2) Unscrew the expansion board cover's screws (2) and remove the expansion board cover.



- (3) Unscrew the expansion board base's screws (4) and remove the expansion board base.



- (4) Remove the DISK cover.

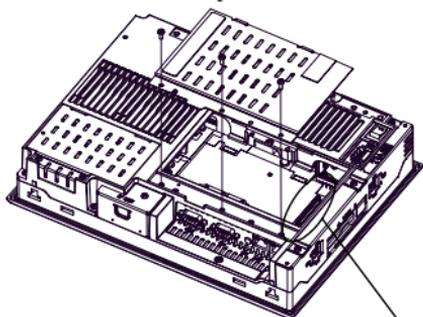


Serial ATA Interface

- (5) Mount the HDD unit vertically on the circuit board and plug the HDD unit cable connector in the Serial ATA interface.

■ When attaching the HDD unit to the PS-3651A

- (1) Turn OFF the power switch of the PS-A and remove the power cable. Place the PS-A on a flat, level surface facing the display face downwards.
- (2) Unscrew the DISK cover's screws (3) and remove the expansion board base.



Serial ATA Interface

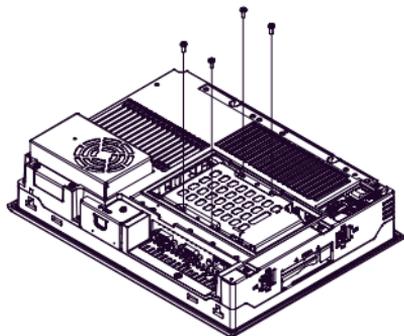
**IMPORTANT**

- Mount the HDD unit vertically and thoroughly not to hit the circuit board. Otherwise, it may cause a malfunction or damage the HDD unit and PS-A.
- (6) Fix the HDD unit with the screws (4) which are contained in your package. The torque required to tighten these screws is 0.5 to 0.6 N·m.

- (3) Mount the HDD unit vertically on the circuit board and plug the HDD unit cable connector in the Serial ATA interface.

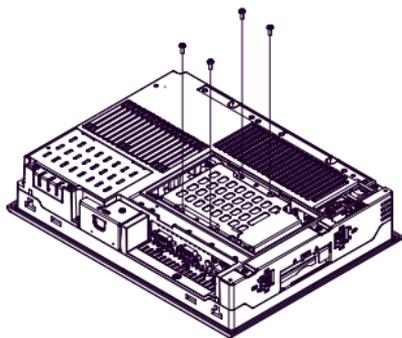
**IMPORTANT**

- Mount the HDD unit vertically and thoroughly not to hit the circuit board. Otherwise, it may cause a malfunction or damage the HDD unit and PS-A.



- (7) With opposite procedure above, set the DISK cover, expansion board base, and expansion board cover to the PS-A unit, respectively. The torque required to tighten these screws is 0.5 to 0.6 N·m.

- (4) Fix the HDD unit with the screws (4) which are contained in your package. The torque required to tighten these screws is 0.5 to 0.6 N·m.



- (5) With opposite procedure above, set the DISK cover to the PS-A unit. The torque required to tighten these screws is 0.5 to 0.6 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.

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/>

© Copyright 2009 Digital Electronics Corporation. All rights reserved.