

# Preface

The PS365XA-HD40 is the hard disk unit (HDD unit) for Pro-face's PS-3650A/PS-3710A Series (hereafter referred as the "PS-A") units. This 2.5 inch 40GB hard disk is designed to be installed inside the PS-A unit.

Corresponding units: PS-3650A/PS-3651A Series, PS-3710A/PS-3711A Series

## Essential Safety Precautions

### 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's "3. Installation" section's information completely to ensure that the unit is correctly installed.

#### To prevent Accidents

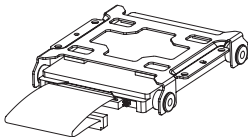
- Since the HDD unit is a precision instrument, be sure it is neither hit by nor pressed strongly against another object. After unpacking, be sure the unit is not dropped or jolted during installation. Also, a PS-A unit built in to a larger piece of equipment (i.e. operation panel) should be removed 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 the HDD 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 the HDD 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 damage to your data, be sure to shut down the PS-A unit's OS before turning OFF the main power.
- To prevent hard disk memory leaks, restart the OS periodically.
- A hard disk has a usage lifetime. In order to use your hard disk longer and more stable, read through the attachment guide, "Instructions for Using the Hard Disk".
- In order to extend the lifetime of the hard disk, Pro-face recommends you set the Windows® [Control panel]-[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

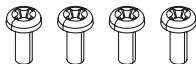
- When this HDD unit is disposed of, it should be done so according to your country's regulations for similar types of industrial wastes.

# Package Contents

HDD Unit (1) (PS365XA-HD40)



Attachment Screws (4)



Jumper Plug (1)  
(Included only when HDD unit is purchased alone.)

Installation Guide (This Guide)

Instructions for Using the Hard Disk (1)

Pro-face has taken the utmost care to insure 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.

## 1 Hardware Specifications

### ■ Performance

Capacity	40GB
Average Seek time	12msec (TYP)
Power Consumption	At Startup: 4.5W (TYP)
	Read/Write: 1.6/1.6W (TYP)
	During Wait: 0.2W (TYP)
Interface	PATA
Operation Lifetime	5 years, or 20,000 operating hours, whichever comes first
Weight	Approx. 200g

#### **IMPORTANT**

- The HDD unit has a finite usage lifetime. Therefore, be sure to back up all HDD data periodically 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.

## ■ Environmental

The specifications given here are for a HDD unit installed in a PS-A unit.

Operating Temperature	PS-3710A, PS-3650A	+5°C to +50°C
	PS-3711A, PS-3651A	+5°C to +45°C
Storage Temperature		-10°C to +60°C
Ambient Humidity		10%RH to 90%RH (No condensation) (Wet bulb temperature: 29°C or less)
Noise Resistance (via Noise Simulator)		Noise Voltage: 1,500Vp-p (via noise simulator) Pulse Width: 50ns, 500ns, 1μs
Electrostatic Discharge Immunity		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.

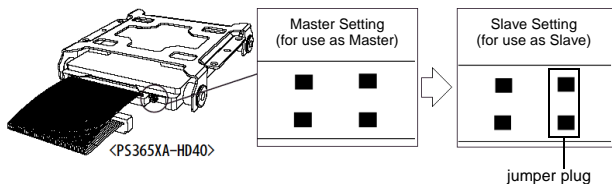
Temperature	Humidity
at 35°C	no higher than 64%RH
at 40°C	no higher than 44%RH

## 2 Hard Disk Unit Settings

The PS365XA-HD40 is one of the Expansion Options for PS-A Series, when shipped, set as the PS-A's Master drive (First Hard Disk). When using the PS365XA-HD40 as the PS-A's Slave drive (Second Hard Disk), be sure to attach the jumper plug in a package.

### IMPORTANT

- Pro-face's PS-A Unit built-in Windows® XP Embedded and PS365XA-HD40 should be used as the factory settings (CF card is set to the PS-A's Master drive and HDD unit is set to the PS-A's Slave drive).



### 3 Installation

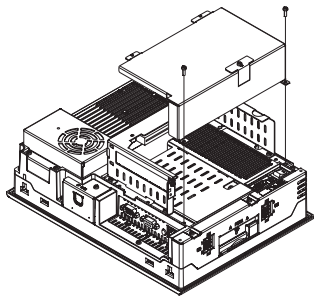
## ⚠ WARNING

- 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 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 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 is OFF.

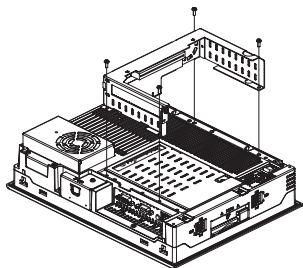
#### ■ When attaching the HDD to the PS-3650A



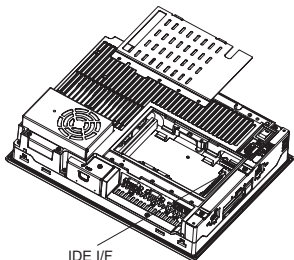
- (1) Turn off the power switch of the PS-A unit, remove the power cable. Put the PS-A on the horizontal place while the display side of it is downside.
- (2) Unscrew the screws (2) from the Expansion Board Cover, and remove the Cover.

### NOTE

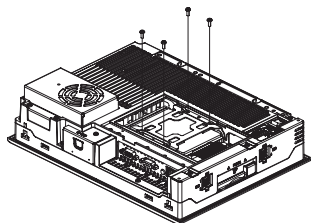
- When using the PCI board, it is required to remove the Expansion Board Support first. Then remove the Expansion Board Cover and the PCI board.



- (3) Unscrew the screws (4), which are seen on the left figure, and remove the Expansion Board Base.



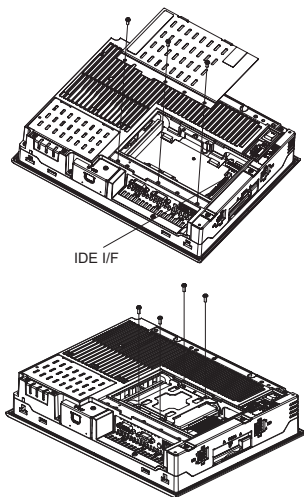
- (4) Remove the IDE cover and plug the HDD unit cable connector in the IDE's interface (Seen the figure on the left).



- (5) Install the HDD unit like the left figure, and fix it with the screws (4) which are contained in your package. The torque strength for the fixing should be a range of 0.5 to 0.6 N•m.

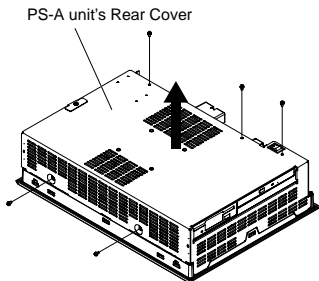
- (6) With opposite procedure above, set the IDE cover, Expansion Board Base, and Expansion Board Cover to the PS-A unit, respectively.

■ When attaching the HDD to the PS-3651A

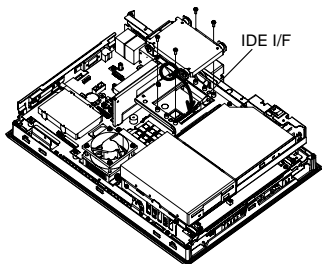


- (1) Turn off the power switch of the PS-A unit, remove the power cable. Put the PS-A on the horizontal place while the display side of it is downside.
- (2) Unscrew the screws (3) of the IDE cover and remove the IDE cover. Plug the HDD unit cable connector in the IDE's interface (See the figure on the left).
- (3) Install the HDD unit like the left figure, and fix it with the screws (4) which are contained in your package. The torque strength for the fixing should be a range of 0.5 to 0.6 N•m.
- (4) Place the IDE cover back and fix it with the screws (3) of the IDE cover.

■ When attaching the HDD to the PS-3710A

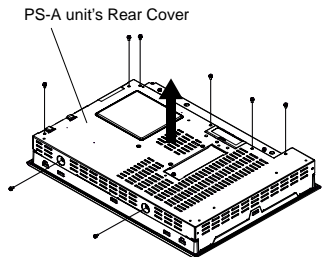


- (1) Place the PS-A unit face down and unscrew five (5) attachment screws. (See diagram).
- (2) Lift the PS-A unit's Rear Cover off of the PS-A unit.

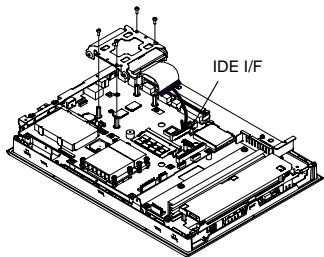


- (3) Insert the HDD unit cable connector completely into the IDE I/F. Attach HDD unit using four (4) attachment screws. The torque should be 0.5 to 0.6 N•m.
- (4) Replace the PS-A unit's Rear Cover and reattach five (5) attachment screws. The torque should be 0.5 to 0.6 N•m.

■ When attaching the HDD to the PS-3711A



- (1) Place the PS-A unit face down and unscrew eight (8) attachment screws. (See diagram).
- (2) Lift the PS-A unit's Rear Cover off of the PS-A unit.



- (3) Insert the HDD unit cable connector completely into the IDE I/F. Attach the HDD unit using four (4) attachment screws. The torque should be 0.5 to 0.6 N•m.
- (4) Replace the PS-A unit's Rear Cover and reattach eight (8) attachment screws. The torque should be 0.5 to 0.6 N•m.

## Inquiry

Do you have any questions or comments about this product?

Please access our site anytime you need help with a solution.

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

### Note

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