

# **PS-2000B Series Windows® 2000 Multi Language Preinstalled Hard Disk Unit Installation Guide**

The PS-2000B Series Windows® 2000 Multi Language Preinstalled Hard Disk Unit is a set that includes the HDD drive with Microsoft corporation's preinstalled Windows® 2000 operating system, as well as other driver and utility software used when operating Pro-face's PS-2000B Series computers, hereafter referred to collectively as the "PS-B".

Corresponding models: PS-2000B Series units

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Windows® 2000: Microsoft Corporation

Symantec Ghost™ : Symantec Corporation

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This HDD unit contains a preinstalled version of Windows® 2000 Professional. Be sure to read and agree with all conditions stated herein prior to using this product. If you do not agree to all the conditions stated in this agreement, please return the entire product.

# COA Data

*\* This Installation Guide is an important part of this product. Be sure to keep it in an easy to find location.*

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FOR EMBEDDED SYSTEMS (1-2 CPU VERSION)  
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# Safety Cautions



## WARNINGS

- **Be sure to check that the PS-B'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 the following "2. 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-B 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-B while the HDD unit is installed and the 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 damage to file data, be sure to shut down the PS-B unit's OS before turning OFF the main power.
- To prevent HDD memory leaks, restart the OS periodically.
- 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.

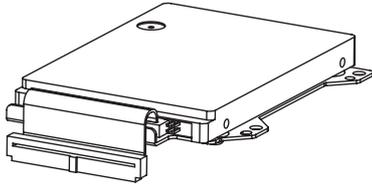
### Unit Disposal

- When the product is disposed of, it should be done so according to your country's regulations for similar types of industrial waste.

# Package Contents

Please check that the following items are all included in your package.

- Windows® 2000 Multi Language Preinstalled HDD unit
- Installation Guide (this guide)



- Symantec Ghost™ EULA (1)

- Recovery CD (3)



- Attachment Screws (4)



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.

## 1 Hardware Specifications

### ■ Features

Capacity	20GB
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	ATA
Operation Lifetime	5 years, or 20,000 operating hours, whichever comes first
Weight	Approx. 200g



- 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 depends on the type of usage and the operation environment, which may either lengthen or shorten the figure given here. This figure is for reference purposes only.

## ■ Environment

<b>Operating Temperature</b>	5°C to 50°C
<b>Storage Temperature</b>	-10°C to +60°C
<b>Ambient Humidity</b>	10%RH to 85%RH (no condensation) Wet bulb temperature: 29°C or less
<b>Noise Resistance</b> (via Noise Simulator)	Noise Voltage: 1500Vp-p Pulse Width: 50ns, 500ns, 1μs
<b>Electrostatic Discharge Immunity</b>	6kV
<b>Vibration Resistance</b>	4.9m/s <sup>2</sup> (10Hz to 25Hz) (When Operating)
<b>Shock Resistance</b>	3920m/s <sup>2</sup> (1ms, Half-sine shock pulse)



- The environment specifications given here are for a unit installed in a PS-B.
- Pro-face does not guarantee the preservation of any data stored on the HDD unit if the HDD unit has an accident, malfunctions or is damaged in any way. Therefore, the regular backing up of important HDD unit data to either a floppy disk, or other type of suitable magnetic media is strongly recommended.
- This HDD unit has a finite usage lifetime. The lifetime figure given in this document is for reference, and the periodic replacement of the current HDD unit with a new HDD unit is strongly advised.
- 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

- 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.

## 2 Installation

Use the following steps to install the HDD unit in the PS-B.

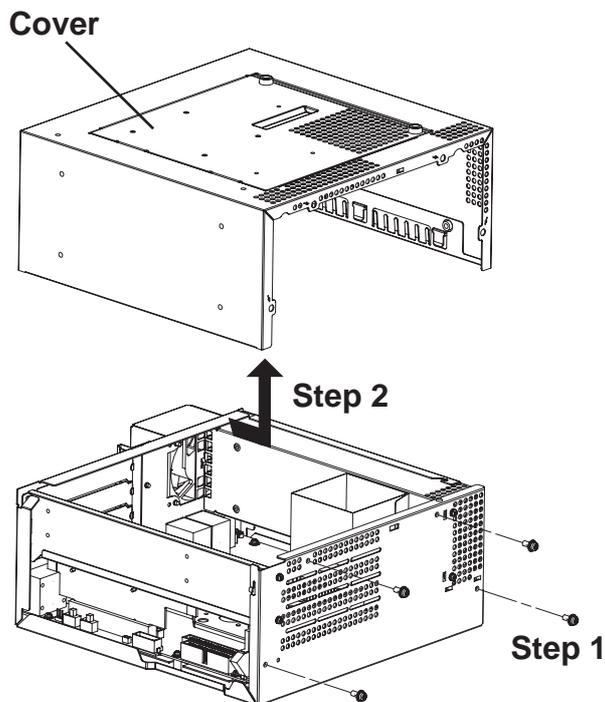


### WARNING

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



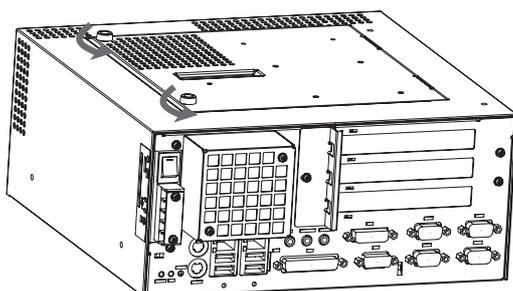
Since the HDD unit is a precision instrument that has a low resistance to shocks, be sure it is neither hit by nor pressed strongly against another object when installing it.



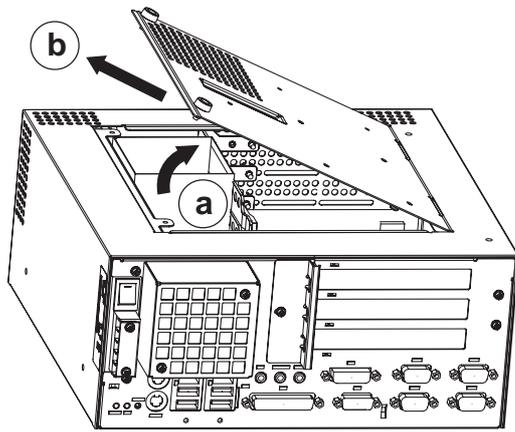
1) Lay the PS-B unit on its side and unscrew the four (4) cover attachment screws.

2) Slide the cover horizontally in the direction shown by the arrow (see diagram) and lift it out from the PS-B unit. (Go to step 3.)

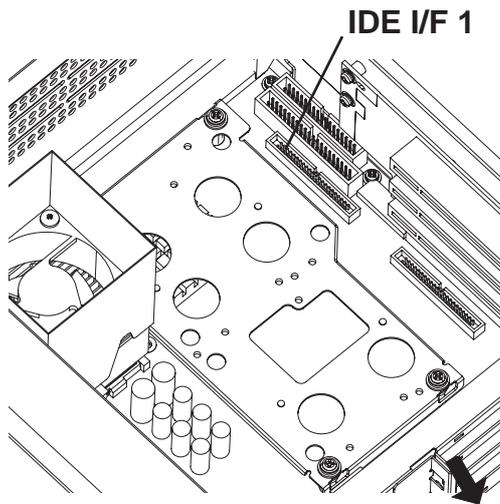
You can also remove only the maintenance cover and install the HDD unit.  
To do this, please perform the following steps.



1) Loosen the two (2) maintenance cover attachment screws.

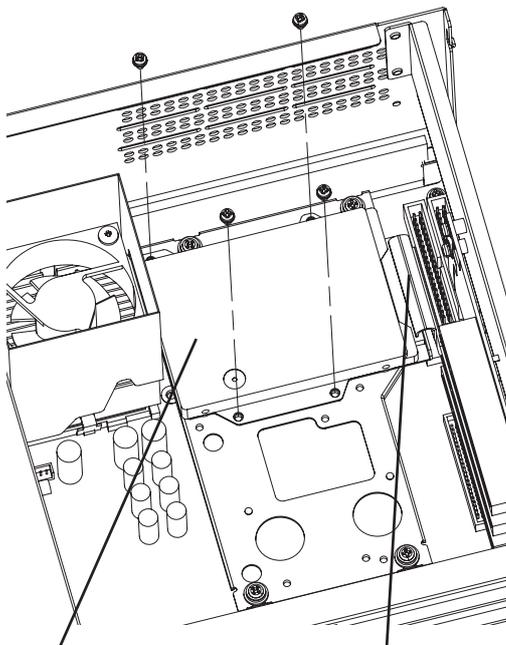


2) Tilt the maintenance cover up as shown by arrow (a) and lift it out in the direction shown by arrow (b) (see diagram).  
(Go to step 3.)



Front of PS-B unit

3) Insert the HDD unit's cable connector completely into IDE I/F 1.



HDD unit

Cable

4) Attach the HDD unit using the four (4) attachment screws. (See diagram) The torque should be 0.5 to 0.6 N•m.

5) Replace the PS-B unit's cover and reattach all four (4) attachment screws. The torque should be 0.6 to 0.8 N•m. If you used the maintenance cover, replace that cover and fasten the its two (2) attachment screws. The torque should be 0.5 to 0.6 N•m.

### 3 Hardware Setup

The HDD unit's installation and system data settings are as follows.

- 1) Install the HDD unit in the PS-B. Refer to **2 Installation** for details. If the HDD unit is already installed, this step is not necessary.
- 2) Connect a keyboard to the PS-B.
- 3) Turn on the PS-B unit's power supply and use the following steps to set up the system data and recognize the HDD unit.



- *Normally, use the factory (initial) settings.*
- *Your PS-B unit's system data screen menus may differ slightly from these due to installation of newer software.*
- *The following explanation uses the PS-B unit's factory settings.*

- 4) When the start-up screen appears, press your PC's [F2] key to go to the BIOS Setup Screen. In the Setup Screen, select [Standard CMOS Features], then select [IDE Primary Master]. The following screen will appear.

Phoenix- AwardBIOS CMOS Setup Utility		Item Help
IDE Primary Master		
IDE HDD Auto-Detection	[Press Enter]	
IDE Primary Master	[Auto]	Menu Level ▶ ▶
Access Mode	[Auto]	To auto-detect the HDD's size, head...on this channel
Capacity	0 MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	
↑↓→←: Move   Enter:Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1:General Help F5:Previous Values   F6:Fail-Safe Defaults   F7:Optimized Defaults		

- 5) Confirm whether "AUTO" is selected for IDE Primary Master. Also, confirm whether "AUTO" is selected for the [Access Mode]. If AUTO is not selected, change these settings to AUTO. If AUTO is selected in both, disk parameters will be automatically read when the PS-B is turned ON. The factory setting is AUTO and recommended for most users.
- 6) After all changes are made, press the ESC key and select [Save & EXIT Setup] to save the settings. The OS will then start.

## 4 OS Setup

### ■ Software Design

Your Windows® 2000 Multi Language preinstalled hard disk unit contains the following software.

- Microsoft corporation's Windows® 2000 Professional OS
- Pro-face's PS-B utility software and drivers

### ■ Windows® 2000 Setup Procedure



- **A detailed explanation of the software, as well as a list of the revisions made after the printing of this document can be found in the HDD unit's README.txt file.**

- **A keyboard is required in order to set up OS.**

- 1) Once the PS-B unit's power is turned ON, this HDD unit's [Windows 2000 Setup] screen, and then the [Welcome to the Windows 2000 Setup Wizard] will appear. Click on [Next].
- 2) The [License Agreement] screen will appear.  
After reading the contents, press [I accept this agreement] if you agree, and click [Next] to continue.
- 3) The [Regional Settings] screen will appear.  
After entering the data for your area, click [Next] to continue.
- 4) The [Personalize Your Software] screen will appear  
After entering your name [Name] and [Organization], click on [Next] to continue.
- 5) The [Your Product Key] screen will appear.  
After entering the product key data, click on [Next] to continue.
- 6) The [Computer Name and Administrator Password] screen will appear.  
Enter the [Computer Name and Administrator Password], and [Confirm Password], then click [Next] to continue.  
When entering the [Computer Name], if the name shown on the display is not correct, you can enter another name. When the computer is connected to a network, be sure to ask your network manager what is the correct name for this field.
- 7) The [Date and Time Settings] setting screen will appear.  
After entering these settings, click the [Next] button.
- 8) The [Network Settings] screen will appear. Choose whether to use typical or custom settings depending on your PC circumstance.

- 9) The [Workgroup or Computer Domain] screen will appear. Choose whether to make your PC on a network or not depending on your PC circumstance.
- 10) [Performing Final Tasks] is automatically done by the PS-B, then, [Completing the Windows 2000 Setup Wizard] will appear. Press the [Finish] button and the system will automatically restart.
- 11) When the [Network Identification Wizard] and the [Welcom to the Network Identification Wizard] is started, please press the [Next] button. The [Users of This Computer] screen will appear. After entering the desired settings, press the [Next] button and then press the [Finish] button.

## 5 The Languages

The Windows® 2000 Multi Language Preinstalled Hard Disk Unit contains the following languages;

Chinese (Simplified)	English	Hungarian	Russian
Chinese (Traditional)	Finnish	Italian	Spanish
Czech	French	Polish	Swedish
Danish	German	Portuguese (Brazil)	Turkish
Dutch	Greek	Portuguese (Portugal)	

### ■ Designating the Language

- 1) Select the Windows® 2000 [Start] menu's [Settings], then [Control Panel] command.
- 2) Select the [Regional Options] command.
- 3) Select the appropriate language from "Menu and dialogs:" in the "General" tab.

## 6

# HDD Recovery Procedure



- ***After performing hard disk recovery, the PS-B unit's hard disk is returned to its factory shipped condition.***
- ***For recovery, the following things are required; The PS-B unit, HDD to be recovered, a CD-ROM drive (PSBCD/FD01 or a commercial USB-type CD-ROM drive), and a PS/2 keyboard.***

Use the following steps used to recover the Windows® 2000 Multi-Language Preinstalled Hard Disk.

1. Insert the Recovery CD's Disk 1 into the CD-ROM drive and turn the PS-B unit's power ON. Immediately after the power turns ON, keep pressing the [F2] key. The unit's BIOS Setup Screen will appear.
2. Select [CDROM] for [First Boot Device] of [Advanced BIOS Features]. (When using a commercial USB-type CD-ROM drive, select [USB-CDROM] for [First Boot Device].)
3. Press the [F10] key to save the setting and restart the PS-B unit.
4. After the PS-B unit restarts, the Symantec Ghost™ will automatically start.
5. After the Symantec Ghost™ starts, the [Question] dialog box will appear. "Partition sizes correct?"
6. The volume displayed in New Size will be recovered. After confirming it, press the [Yes] button. To change it, press the [No] button and go to the [Destination Drive Details] dialog box. In the [Destination Drive Details] dialog box, change the size of the New Size and press the [OK] button.
7. The [Question] dialog box will appear. Press the [Yes] button. It will be reconfirmed that the data of the hard disk is all reset to the original values at the time of delivery.  
"Proceed with disk restore?  
Destination drive will be permanently overwritten."
8. The Recovery CD's Disk 1's hard disk recovery program will start. You will be prompted several times. Please replace the Recovery CD Disk each time as instructed.

9. After the recovery operation finishes, Symantec Ghost™ finishes and the following message will appear. After the message appears, turn off the power supply of the unit.  
"Please turn off the computer."
10. After turning on the power supply once again, push the [F2] key to go to the BIOS Setup Screen.
11. In the Setup screen, set Load Optimized Defaults to reset all BIOS settings to their original values at the time of delivery. When using FD, set [1.44M, 3.5 in] for [Drive A] of [Standard CMOS Features]. Press the [F10] key to save the settings and restart the unit.
12. After the unit restarts, set up your OS.

**Reference** 4 OS Setup



- ***If the hard disk unit breaks down due to a hardware problem, (Ex. if BIOS cannot find the hard disk, if the hard disk's lifetime expires, or it breaks down), Symantec Ghost™ cannot recover the hard disk. Pro-face recommends that in this case you contact your local PS-B distributor for instructions about hard disk recovery or replacement.***
- ***Pro-face does not guarantee the preservation of any data stored on the HDD unit if the HDD unit has an accident, malfunctions or is damaged in any way. Therefore, the regular backing up of important HDD unit data to either floppy disks, or other type of suitable magnetic media is strongly recommended.***

**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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