

PS-2000B Series
Replacement Guidebook

Preface

This guidebook introduces the procedures to replace your unit in the PS-2000B series with the PL3000 or PS3000 series. The recommended replacement models are as follows:

Model in use	Replacement Model
PS-2000B Series	PL-3000B Series
	PS3000-BA
	PS3001-BD

Notations of operation systems:

Win95: Windows 95

WinNT: Windows NT Workstation 4.0

Win98: Windows 98 Second Edition

Win2000: Windows 2000 Professional

WinXP: Windows XP Professional

WinXPE: Windows XP Embedded

ML: Multilingual

1st Edition: February 2010

Table of Contents

<u>PREFACE</u>	<u>2</u>
<u>TABLE OF CONTENTS</u>	<u>3</u>
<u>CHAPTER 1: REPLACEMENT MODELS FOR PS-2000B SERIES</u>	<u>5</u>
<u>CHAPTER 2: SPECIFICATION COMPARISON</u>	<u>6</u>
2.1 SPECIFICATIONS OF PS-2000B SERIES AND PL-3000B SERIES	6
2.2 SPECIFICATIONS OF PS-2000B SERIES AND PS3000-BA	8
2.3 SPECIFICATIONS OF PS-2000B SERIES AND PS3001-BD	10
<u>CHAPTER 3: COMPATIBILITY OF HARDWARE</u>	<u>12</u>
3.1 LOCATIONS OF INTERFACES	12
3.1.1 PL-3000B SERIES	12
3.1.2 PS3000-BA	13
3.1.3 PS3001-BD	14
3.1.4 NAMES OF INTERFACES	15
3.1.4.1 PL-3000B SERIES	15
3.1.4.2 PS-3000B SERIES	16
3.2 DIMENSIONS	17
3.2.1 PL-3000B (2-SLOT TYPE)	17
3.2.2 PL-3000B (4-SLOT TYPE)	18
3.2.3 PS3000-BA	19
3.2.4 PS3001-BD	20
3.3 MAIN MEMORY	21
3.4 PRINTER, KEYBOARD, MOUSE, FLOPPY DISK DRIVE INTERFACE	21
3.5 RAS INTERFACE	21
3.6 HARD DISK	22
3.7 CD / DVD DRIVE UNIT	22
3.8 DVI-I INTERFACE	22
3.9 EXPANSION SLOT	22
3.10 POWER SUPPLY	22

CHAPTER 4: COMPATIBILITY OF SOFTWARE **23**

4.1 COMPATIBILITY OF OS	23
4.2 SOFTWARE FOR PL SERIES	24
4.3 SUPPORTED OPERATION SYSTEMS	25
4.3.1 FOR USE OF HDD UNIT	25
4.3.2 FOR USE OF SSD UNIT	25



Chapter 1: Replacement Models for PS-2000B Series

Find the model best suited to your environment in the following flow chart:

	Product Name	Expansion Slots	RAS	COM	Reference
	PS-2000B Series	3	Y	4	-
Replacement	PL-3000B Series	4	Y	4	→ See 2.1
	PS3000-BA	1	N	2	→ See 2.2
	PS3001-BD	0	N	2	→ See 2.3



Chapter 2: Specification Comparison

2.1 Specifications of PS-2000B Series and PL-3000B Series

		PS-2000B Series	PL-3000B Series
			
CPU		Celeron 566MHz or Pentium III 1GHz	UPI Intel® Core™ Duo 2.0GHz or Intel® Celeron® M 440 1.86GHz
Main Memory		1 slot (Max. 512MB)	UPI 2 slots (Max. 4GB) → See 3.3
L2 Cache Memory (built into CPU)		Celeron: 128KB Pentium III: 256KB	UPI Celeron: 1MB Core™ Duo: 2MB
Graphics		VGA (640 x 480 pixels) - UXGA (1600 x 1200 pixels)	VGA (640 x 480 pixels) - UXGA (1600 x 1200 pixels)
External Dimensions		W4.65 x H10.43 x D11.78 inch (not including the protruding part on the rear of a unit)	W4.94 x H9.57 x D11.38 inch (2 slots) W6.93 x H9.57 x D11.38inch (4 slots) (no fastener attached, vertical position) * The number of slots is that of extension slots.
Serial	COM 1	RS-232C (Switchable between RI and +5V)	UPI RS-232C/422/485 (Switchable between RI and +5V)
	COM 2	RS-232C	RS-232C (Switchable between RI and +5V)
	COM 3	RS-232C (Switchable between RI and +5V)	RS-232C
	COM 4	RS-232C	RS-232C
Printer		USB	USB → See 3.4
Keyboard		PS/2	USB → See 3.4



Mouse		PS/2	US → See 3.4
USB		USB Ver.1.1 Type A x 4	UP! USB Ver.2.0 Type A x 4
Ethernet	LAN1	10BASE-T/100BASE-TX	UP! 10BASE-T/100BASE-TX /1000BASE-T
	LAN2	10BASE-T/100BASE-TX	10BASE-T/100BASE-TX
RAS		Yes	Yes → See 3.5
Disk	FDD	2 modes, 3.5" FDD slot x 1	USB → See 3.4
	HDD	IDE I/F x 2 2.5" HDD unit x 1	NEW! Serial ATA Rev.1.0a x 2 2.5" HDD unit or SSD unit SSD unit → See 3.6
	CD / DVD	CD-ROM I/F x 1	NEW! DVD drive I/F x 1
	CF	No	NEW! CF card I/F x 1 (Type I/II compatible)
Sound		Line Input, Speaker Output, Microphone Input	Speaker Output
Video	RGB	Analog RGB I/F	NEW! DVI-I I/F (DVI-RGB Conversion Cable required)
	DVI	DVI-D I/F	NEW! DVI-I I/F (10m cable available only for the connection to the FP3000 series) → See 3.8
Expansion Slot		PCI bus x 3	NEW! PCI bus x 4 → See 3.9

2.2 Specifications of PS-2000B Series and PS3000-BA

		PS-2000B Series	PS3000-BA
			
CPU		Celeron 566MHz or Pentium III 1GHz	UPI ULV Intel® Celeron® M (1GHz)
Main Memory		1 slot (Max. 512MB)	UPI 1 slot (Max. 1GB) → See 3.3
L2 Cache Memory (built into CPU)		Celeron: 128KB Pentium III: 256KB	No
Graphics		VGA (640 x 480 pixels) – UXGA (1,600 x 1,200 pixels)	VGA (640 x 480 pixels) - (1,920 x 1,080 pixels)
External Dimensions		W4.65 x H10.43 x D11.78 inch (not including the protruding part on the rear of a unit)	W4.88 x H6.46 x D8.54 inch (no fastener attached, vertical position)
Serial	COM 1	RS-232C (switchable between RI and +5V)	RS-232C
	COM 2	RS-232C	UPI RS-232C/422/485 (switchable between RI and +5V)
	COM 3	RS-232C (switchable between RI and +5V)	No
	COM 4	RS-232C	No
Printer		USB	USB → See 3.4
Keyboard		PS/2	USB → See 3.4
Mouse		PS/2	USB → See 3.4
USB		USB Ver.1.1 Type A x 4	UPI USB Ver.2.0 Type A x 4
Ethernet	LAN1	10BASE-T/100BASE-TX	10BASE-T/100BASE-TX
	LAN2	10BASE-T/100BASE-TX	UPI 10BASE-T/100BASE-TX /1000BASE-T
RAS		Yes	No
Disk	FDD	2 modes, 3.5" FDD slot x 1	USB → See 3.4

	HDD	IDE I/F x 2 2.5" HDD unit	IDE I/F x 1 2.5" HDD unit
	CD / DVD	CD-ROM I/F x 1	USB → See 3.4
	CF	No	NEW! CF card I/F x 2 (Type I/II compatible)
Sound		Line Input, Speaker Output, Microphone Input	Speaker Output
Video	RGB	Analog RGB I/F	Analog RGB I/F
	DVI	DVI-D I/F	No
Expansion Slot		PCI bus x 3	NEW! PCI bus x 1

2.3 Specifications of PS-2000B Series and PS3001-BD

		PS-2000B Series	PS3001-BD
			
CPU		Celeron 566MHz or Pentium III 1GHz	UPI ULV Intel® Celeron® M (600MHz)
Main Memory		1 slot (Max. 512MB)	UPI 1 slot (Max. 1GB) →3.3 参照
L2 Cache Memory (built into CPU)		Celeron: 128KB Pentium III: 256KB	UPI 512KB
Graphics		VGA (640 x 480 pixels) - UXGA (1,600 x 1,200 pixels)	SVGA (800 x 600 pixels) - (1,920 x 1,080 pixels)
External Dimensions		W4.65 x H10.43 x D11.78 inch (not including the protruding part on the rear of a unit)	W2.72 x H6.46 x D8.54 inch (no fastener attached, vertical position)
Serial	COM 1	RS-232C (switchable between RI and +5V)	RS-232C
	COM 2	RS-232C	UPI RS-232C/422/485 (switchable between RI and +5V)
	COM 3	RS-232C (switchable between RI and +5V)	No
	COM 4	RS-232C	No
Printer		USB	USB → See 3.4
Keyboard		PS/2	USB → See 3.4
Mouse		PS/2	USB → See 3.4
USB		USB Ver.1.1 Type A x 4	UPI USB Ver.2.0 Type A x 4
Ethernet	LAN1	10BASE-T/100BASE-TX	10BASE-T/100BASE-TX
	LAN2	10BASE-T/100BASE-TX	UPI 10BASE-T/100BASE-TX /1000BASE-T
RAS		Yes	No
Disk	FDD	2 modes, 3.5" FDD slot x 1	USB → See 3.4

	HDD	IDE I/F x 2 2.5" HDD unit	USB → See 3.6
	CD /DVD	CD-ROM I/F x 1	USB → See 3.4
	CF	No	NEW! CF card I/F x 2 (Type I/II compatible)
Sound		Line Input, Speaker Output, Microphone Input	Speaker Output
Video	RGB	Analog RGB I/F	Analog RGB I/F
	DVI	DVI-D I/F	No
Expansion Slot		PCI bus x 3	No

Chapter 3: Compatibility of Hardware

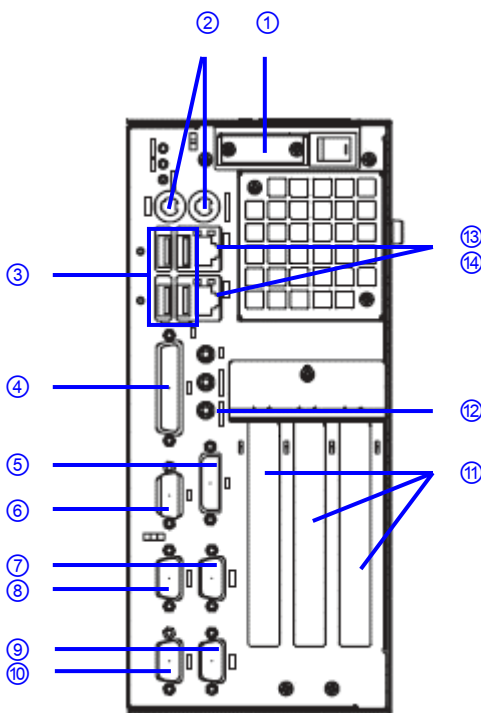
3.1 Locations of Interfaces

The following pictures show locations of interfaces in the PS-2000B series and the PL-3000B series.

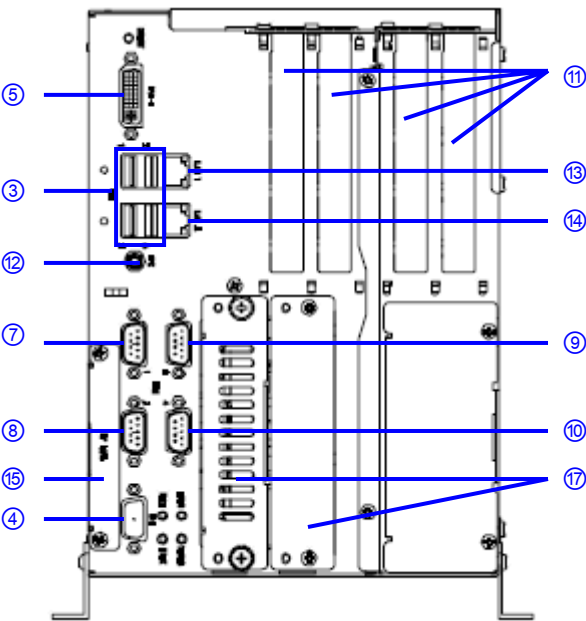
3.1.1 PL-3000B Series

* The pictures are of a 4-slot PL-3000B when it is installed in vertical position.

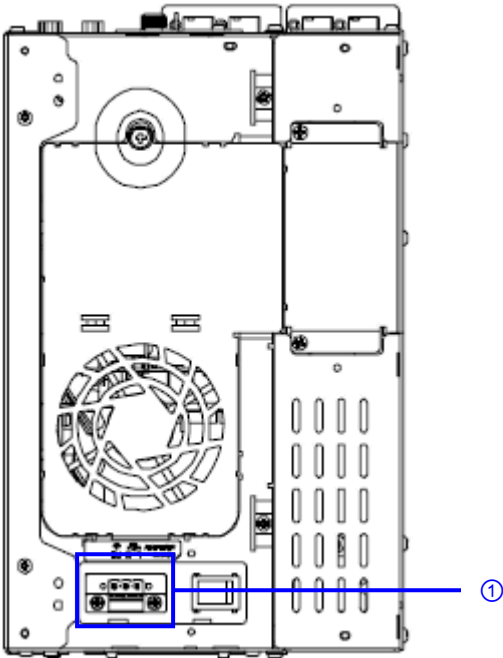
◆ PS-2000B Series (Front View)



◆ PL-3000B Series (Front View)



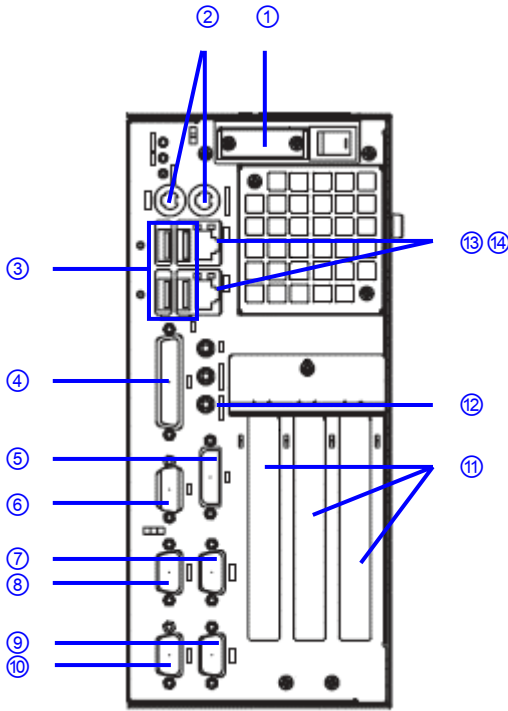
◆ PL-3000B Series (Bottom View)



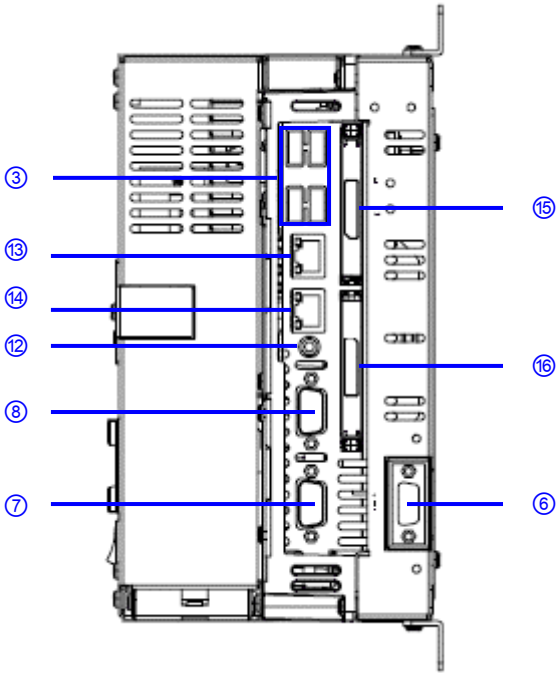
3.1.2 PS3000-BA

* The pictures are of a PS3000-BA when it is vertically installed on an operation panel.

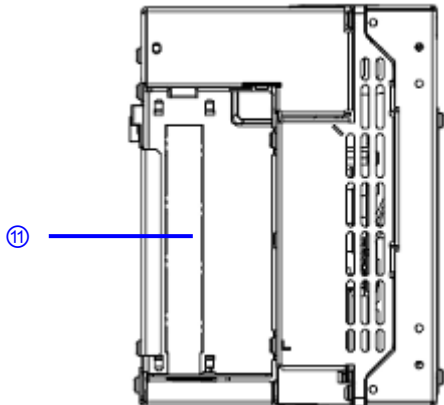
PS-2000B Series (Front View)



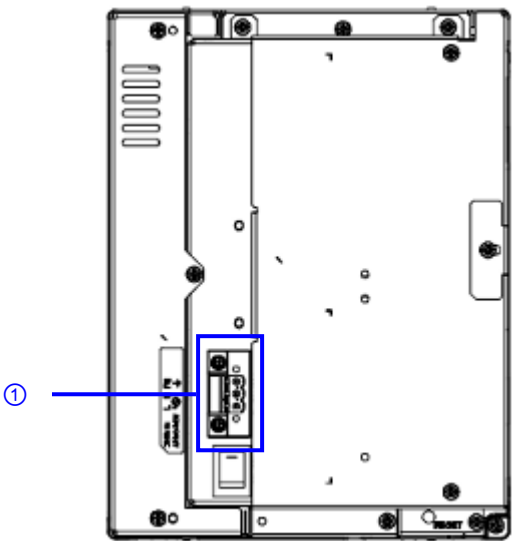
PS3000-BA (Front View)



PS3000-BA (Top View)



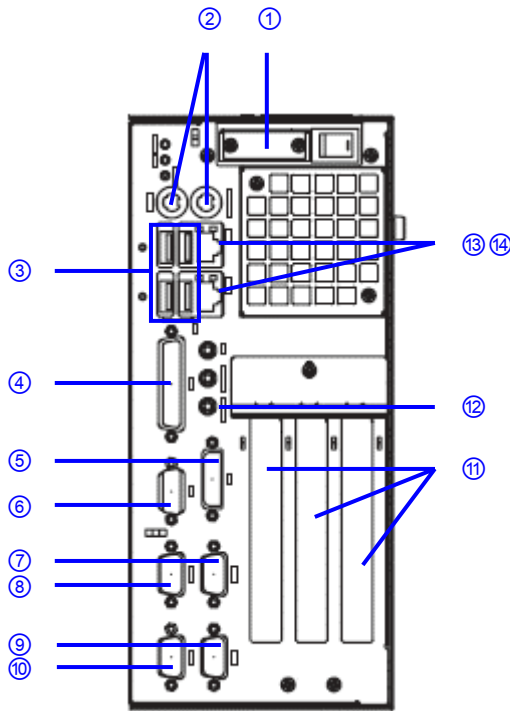
PS3000-BA (Left View)



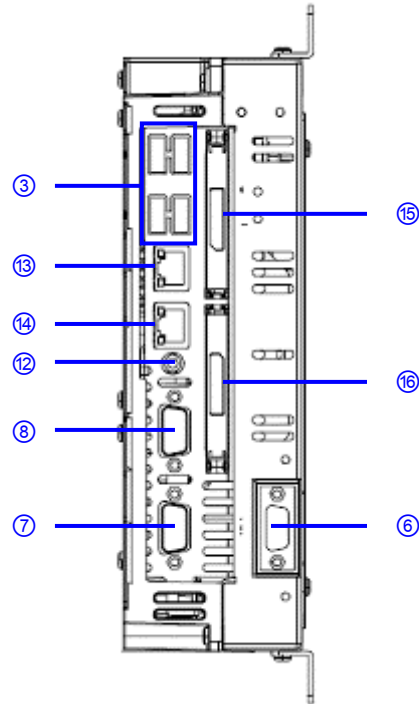
3.1.3 PS3001-BD

* The pictures are of a PS3001-BD when it is vertically installed on an operation panel.

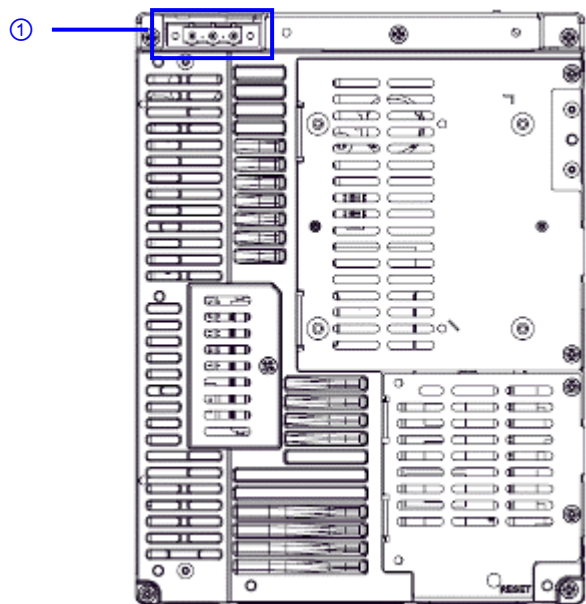
PS-2000B Series (Front View)



PS3001-BD Series (Front View)



PS3001-BD Series (Left View)



3.1.4 Names of Interfaces

3.1.4.1 PL-3000B Series

	PS-2000B Series	PL-3000B Series	
		Interface	Remarks
①	Power Input Terminal	Power Supply Connector (Plug Type)	Not compatible with the PS-2000B series because the PL-3000B series has a plug-type connector. → See 3.10
②	Keyboard Connector (KEYBOARD) Mouse Connector (MOUSE)	No	A USB keyboard and mouse is required.
③	USB Connector (USB1.1)	USB I/F (USB2.0)	Compatible with the PS-2000B series.
④	RAS Connector	RAS I/F	Cable re-wiring is required because the pin-out changes to 9 pins. → See 3.5
⑤	DVI-D Connector (DVI)	DVI-I I/F (DVI-I)	Compatible with the PS-2000B series.
⑥	Analog RGB Connector (VGA)	No	Devices connected to the connector in a PS-2000B unit can be connected to DVI-I I/F (⑤) in a PL-3000B unit with an Analog RGB Conversion Cable.
⑦	RS-232C Connector (COM1)	Serial I/F (COM1)	Compatible with the PS-2000B series.
⑧	RS-232C Connector (COM2)	Serial I/F (COM2)	Compatible with the PS-2000B series.
⑨	RS-232C Connector (COM3)	Serial I/F (COM3)	Only COM1 (⑦) and COM2 (⑧) are switchable between RI and 5V.
⑩	RS-232C Connector (COM4)	Serial I/F (COM4)	Compatible with the PS-2000B series.
⑪	Expansion Slot	Expansion Slot	Compatible with the PS-2000B series.
⑫	Speaker Output (SPEAKER)	Speaker Output I/F (SPK)	Compatible with the PS-2000B series.
⑬	LAN Connector	Ethernet I/F (LAN1)	Compatible with the PS-2000B series.
⑭	LAN Connector	Ethernet I/F (LAN2)	Compatible with the PS-2000B series.
⑮	No	Primary CF Card I/F	-
⑰	HDD Slot (Built-in a unit)	HDD Slot (Left: HDD Slot 0, Right: HDD Slot 1)	Not compatible with the PS-2000B series. → See 3.6 Please use a HDD for the PL-3000B series.

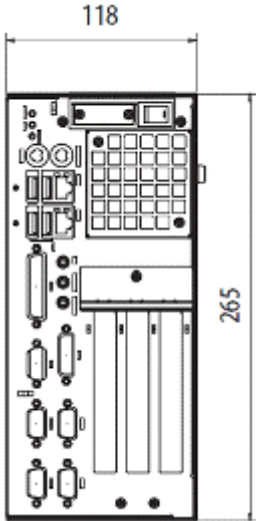
3.1.4.2 PS-3000B Series

	PS-2000B Series	PS-3000B Series	
		Interface	Remarks
①	Power Input Terminal	Power Supply Connector (Plug Type)	Not compatible with the PS-2000B series because the PL-3000B series has a plug-type connector. → See 3.10
②	Keyboard Connector (KEYBOARD) Mouse Connector (MOUSE)	No	A USB keyboard and mouse is required.
③	USB Connector (USB1.1)	USB I/F (USB2.0)	Compatible with the PS-2000B series.
④	RAS Connector	No	-
⑤	DVI-D Connector (DVI)	No	-
⑥	Analog RGB Connector (VGA)	Analog RGB I/F	Compatible with the PS-2000B series.
⑦	RS-232C Connector (COM1)	Serial I/F (COM1)	Only COM2 (⑧) are switchable between RI and 5V.
⑧	RS-232C Connector (COM2)	Serial I/F (COM2)	Compatible with the PS-2000B series.
⑨	RS-232C Connector (COM3)	No	-
⑩	RS-232C Connector (COM4)	No	-
⑪	Expansion Slot	Expansion Slot (not applicable to PS3001-BD)	Compatible with the PS-2000B series.
⑫	Speaker Output (SPEAKER)	Speaker Output I/F (SPK)	Compatible with the PS-2000B series.
⑬	LAN Connector	Ethernet I/F (LAN1)	Compatible with the PS-2000B series.
⑭	LAN Connector	Ethernet I/F (LAN2)	Compatible with the PS-2000B series.
⑮	No	Primary CF Card I/F	-
⑯	No	Secondary CF Card I/F	-
⑰	HDD Slot (Built-in a unit)	HDD Slot	Not compatible with the PS-2000B series. → See 3.6 Use a HDD for the PS-3000B series.

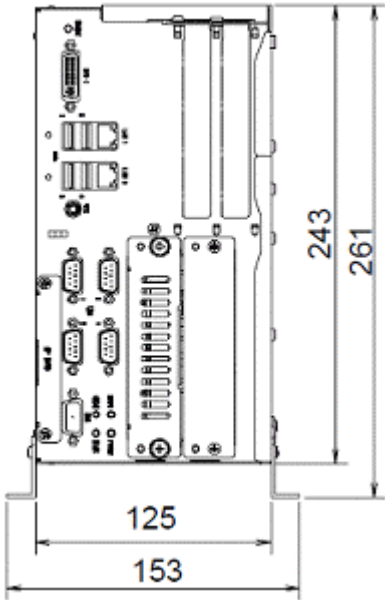
3.2 Dimensions

3.2.1 PL-3000B (2-slot type)

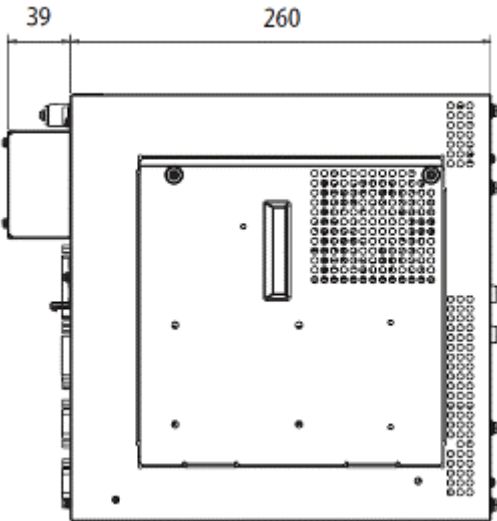
PS-2000B Series (Front View)



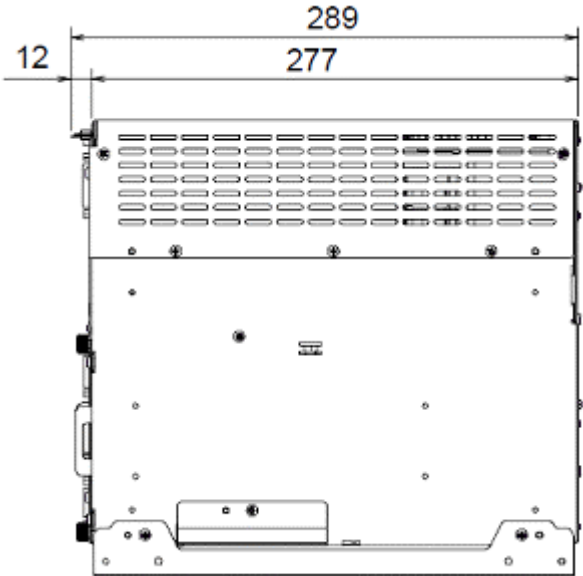
PL-3000B Series (Front View)



PS-2000B Series (Side View)

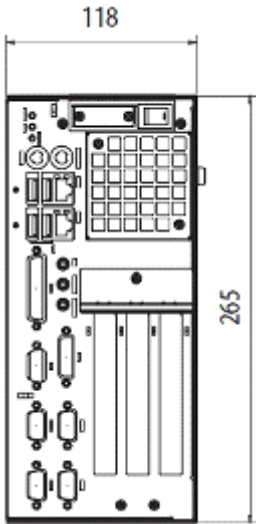


PL-3000B Series (Side View)

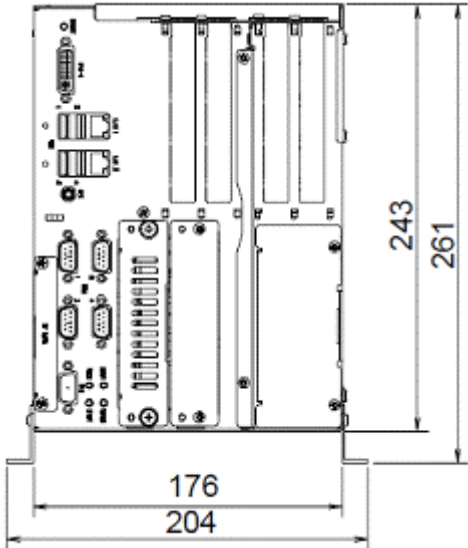


3.2.2 PL-3000B (4-slot type)

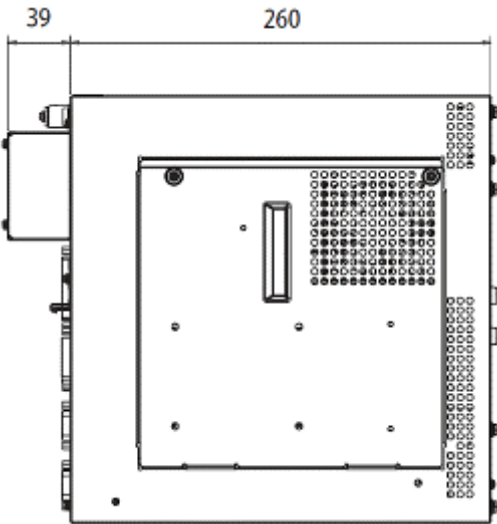
PS-2000B Series (Front View)



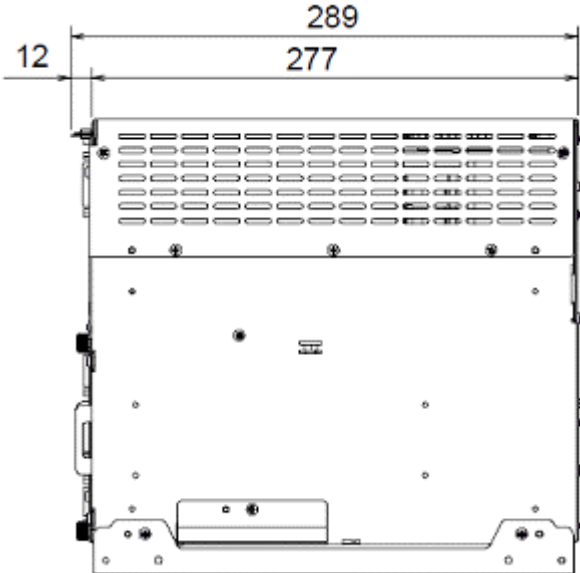
PL-3000B Series (Front View)



PS-2000B Series (Side View)

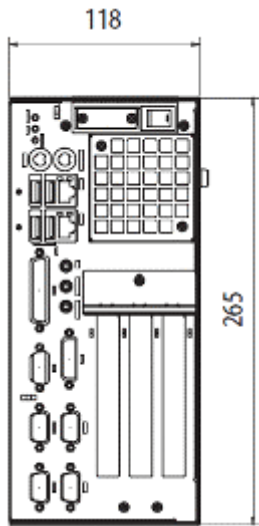


PL-3000B Series (Side View)

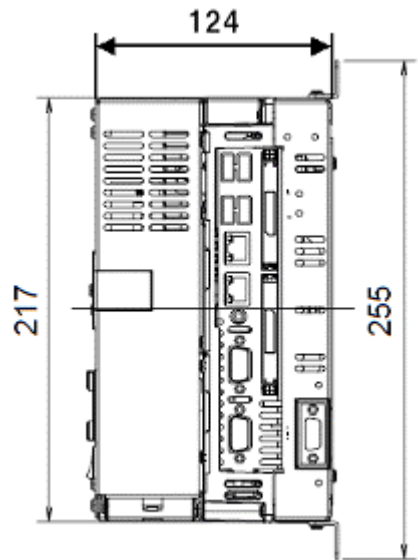


3.2.3 PS3000-BA

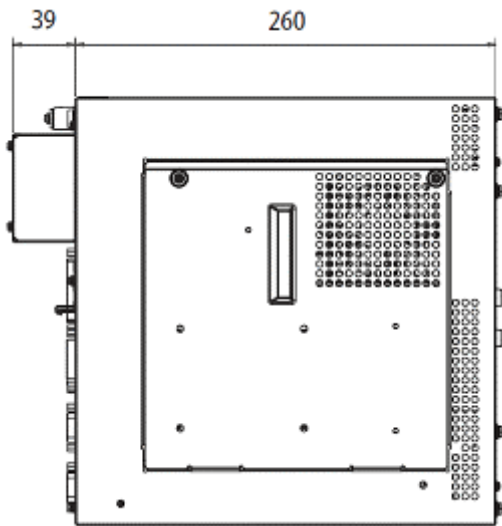
PS-2000B Series (Front View)



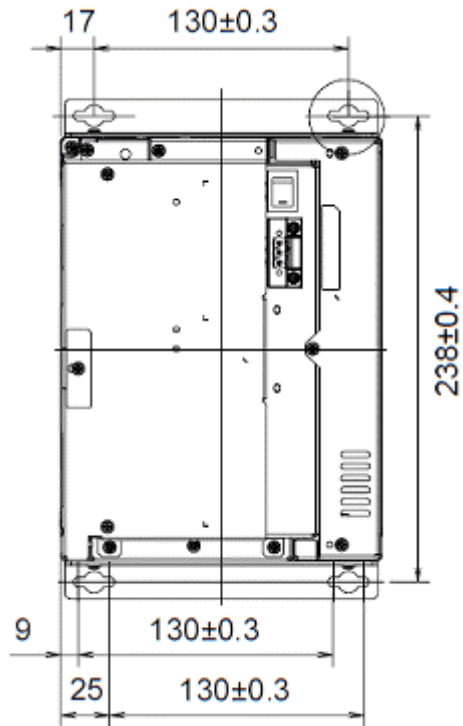
PS3000-BA Series (Front View)



PS-2000B Series (Side View)

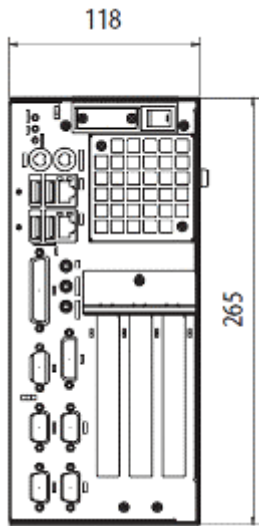


PS3000-BA Series (Side View)

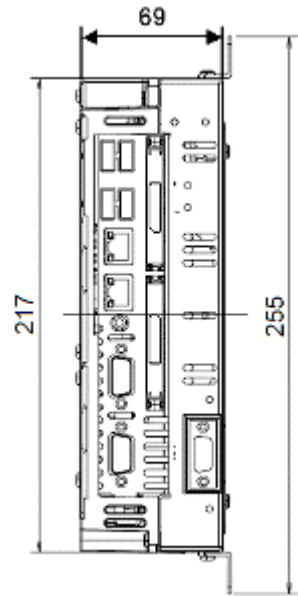


3.2.4 PS3001-BD

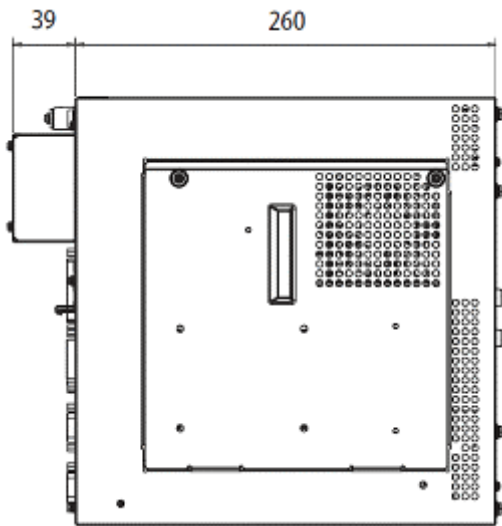
PS-2000B Series (Front View)



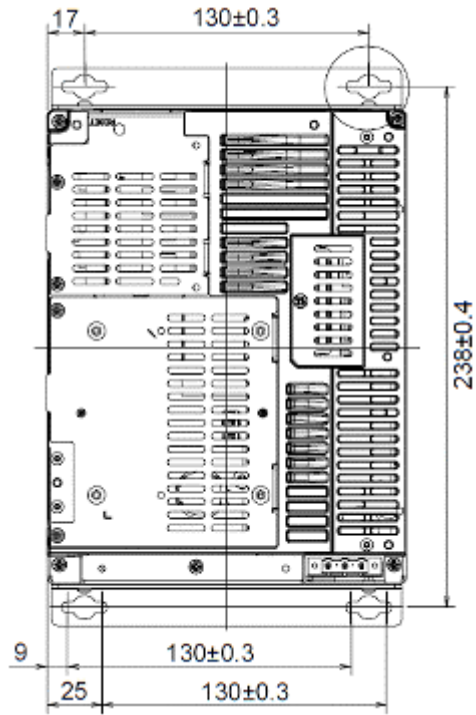
PS3001-BD Series (Front View)



PS-2000B Series (Side View)



PS3001-BD Series (Side View)



3.3 Main Memory

The PL-3000B and PS-3000B series are different in memory type from the PS-2000B series. The memory used in a PS-2000B cannot be installed on the replacement unit. According to the specifications of Windows, the available size of memory area in a PL-3000B is approximately 3.5GB even if a 4GB memory is installed.


3.4 Printer, Keyboard, Mouse, Floppy Disk Drive Interface

The PL-3000B and PS-3000B series do not have a Centronics (parallel), PS/2, or floppy disk drive interface. To connect a printer, keyboard, mouse or floppy disk drive to a PL-3000B or PS-3000B, these peripherals must be USB-compliant. A Centronics-interface printer can be connected by a general Centronics-USB converter.

3.5 RAS Interface

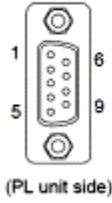
The RAS interface in a PL-3000B is a female 9-pin D-Sub port, and that in a PS-2000B is a male 25-pin D-Sub port. Because of the different pin-outs and shapes of the ports, cable re-wiring is required.

PS-2000B Series



Pin No.	Signal Name	Pin No.	Signal Name
1	GND	14	GND
2	+5V (100 mA max.)	15	+5V
3	+12V (100 mA max.)	16	DIN3 (+)
4	NC	17	DIN3 (-)
5	DIN2 (+)	18	RST (+)
6	DIN0 (+)	19	DOUT1 (-)
7	DOUT2 (-)	20	DOUT1 (+)
8	DOUT2 (+)	21	DOUT3 (-)
9	DOUT0 (-)	22	DOUT3 (+)
10	DOUT0 (+)	23	RST (-)
11	DIN2 (-)	24	DIN1 (-)
12	DIN0 (-)	25	NC
13	DIN1 (+)		

PL-3000B/PS-3000B Series

Pin Arrangement	Pin No.	Signal Name	Description
 (PL unit side)	1	+12 V	Output Current: 100mA or less Output Voltage: DC12V±5%
	2	DOUT0(+)	Data out 0(+)
	3	DOUT1(+)	Data out 1(+)
	4	DIN0(+)	Data in 0(+)
	5	DIN1(+)	Data in 1(+) ^{*1}
	6	GND	Ground
	7	DOUT0(-)	Data out 0(-)
	8	DOUT1(-)	Data out 1(-)
	9	DINCOM	Data in common

3.6 Hard Disk

The PL-3000B series is different in hard disk interface standard from the PS-2000B series. A built-in HDD is not available to a PS3001-BD. An external USB HDD is required for use in a PS3001-BD.

3.7 CD / DVD Drive Unit

The PL-3000B series supports the following CD and DVD media options.

- **DVD-ROM Drive Unit** (read only)

- **DVD Multi-drive Unit** (read and write)

The PS-3000B series does not have an interface for a CD or DVD drive unit, a general USB CD or DVD drive unit is required for use in a PS-3000B.

3.8 DVI-I Interface

In connection of the FP3000 series to the PL-3000B series, the distance between the units can be extended up to 10m with a Digital's DVI-D cable (FP-DV01-10). In addition, for the dual output with a front module for the PL-3000B series, only an analog RGB monitor can be connected via the DVI-I interface.

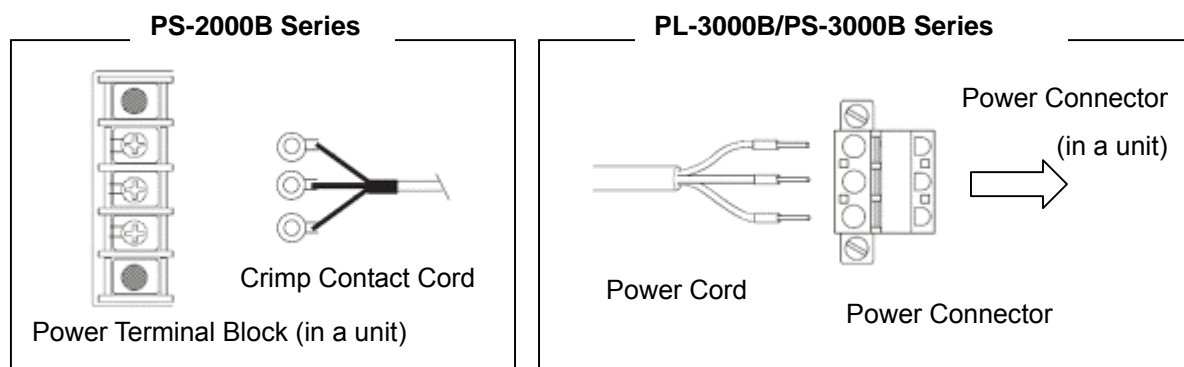
3.9 Expansion Slot

The BTO menu allows you to customize your PL-3000B with 2 slots of PCI buses. For the details, contact your nearest Pro-face office or local distributor.

3.10 Power Supply

The PL-3000B and PS-3000B series are different in power wiring from the PS-2000B series.

In the PS-2000B series, a power terminal block is connected by a crimp contact cord; on the other hand, in the PL-3000B and PS-3000B series, a power cord is tied to a power connector plugged to a power connector in a unit. Therefore, cable re-wiring is required for replacement.



Chapter 4: Compatibility of Software

4.1 Compatibility of OS

The operating system environment used in the PS-2000B series cannot be used in the PL-3000B or PS-3000B series. Install a new operating system on a hard disk for the PL-3000B or PS-3000B series.

For shift of general Windows software, conform to the software's operation environment.

For details of installation of operation system, see the following manual:

■ Setup of OS

Model	Manual	URL	Page
PL-3000B	PL3000 Series Reference Manual	http://www.pro-face.com/otasuke/files/manual/pl_hard/PL3000_eng.pdf	14
PS-3000B	PS-3450A/PS3451A Series Reference Manual	http://www.pro-face.com/otasuke/files/manual/psa_hard/ps345xae.pdf	8

To use a hard disk without operating system, connection of a separate CD/DVD-ROM drive is required to read the disk of the operating system.

For the setup, refer to the following manual:

■ Connection of CD/DVD-ROM drive, Setup procedures

Model	Manual	URL	Page
PL-3000B	PL3000 Series Reference Manual	http://www.pro-face.com/otasuke/files/manual/pl_hard/PL3000_eng.pdf	8
PS-3000B	PS-3450A/PS3451A Series Reference Manual	http://www.pro-face.com/otasuke/files/manual/psa_hard/ps345xae.pdf	6

4.2 Software for PL Series

While the software for the PS-2000B series cannot be installed on the PL-3000B or PS-3000B series, software with equivalent features (such as mouse emulator) is available.

Software created referring to API-DLL needs to be reprogrammed in the DDL file for the PL-3000B and PS-3000B series. For the setups of the operating system and the software for the PL-3000B and PS-3000B series, see the following manual:

■Setup of software for PL Series

Model	Manual	URL	Page
PL-3000B	PL3000 Series Reference Manual	http://www.pro-face.com/otasuke/files/manual/pl_hard/PL3000_eng.pdf	14
PS-3000B	PS-3450A/PS3451A Series Reference Manual	http://www.pro-face.com/otasuke/files/manual/psa_hard/ps345xae.pdf	8

In case of a hard disk without an operating system, users are required to download the software for the PL-3000B and PS-3000B series. Download the program from the following PL/PS series download page.

■PL3000/PS3000 Series download page

機種名	URL
PL-3000B	http://www.pro-face.com/otasuke/download/pl/pl3000/pl3000_series.htm
PS-3000B	http://www.pro-face.com/otasuke/download/ps/psb/

4.3 Supported Operation Systems

Operating systems supported by each model are as follows:

4.3.1 for use of HDD unit

Model	OS									
	MS-DOS	Win95	Win98SE	WinNT	Win2000		Win XP		Win XPE	
					JPN	ML	JPN	ML	JPN	ML
PS-2000B	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
PL-3000B	No	No	No	No	Yes	Yes ^{*1}	Yes	Yes	Yes ^{*2}	Yes
PS-3000B	No	No	No	No	Yes	Yes	Yes	Yes	Yes ^{*3}	Yes

4.3.2 for use of SSD unit

Model	OS									
	MS-DOS	Win95	Win98SE	WinNT	Win2000		Win XP		Win XPE	
					JPN	ML	JPN	ML	JPN	ML
PS-2000B	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes
PL-3000B	No	No	No	No	Yes	Yes	Yes	Yes	Yes ^{*2}	Yes

^{*1} Supported by only the PL-3000B Celeron® M440 models.

^{*2} 2GB CF card preinstalled Windows XP Embedded Multilingual type supports Japanese too.

^{*3} Supported by only the 1GB CF card preinstalled Windows XP Embedded