Easy! Smooth!

PS-371*A → PS-4700

Replacement Guidebook

Second Edition Dec. 2012

Introduction

This document introduces the procedures and notes for replacing the PS-371*A with the PS-4700.
The recommended substitute model is listed below.

Equipment in use	Recommended substitute model
PS-3710A *1 (Expansion slot x 1) Model code: PS3710A-T42(-24V)	**PS-4700** (Expansion slot x 1) Model code: PFXP*171C******N00
PS-3711A *1 (No expansion slot) Model code: PS3711A-T42(-24V)	**PS-4700** (No expansion slot) Model code: PFXP*170B******N00

*1 Sales terminated as of September 2012

Interpreting the PS-4000 Series Model Code

A portion of the PS-4000 Series model code differs according to the specification. When purchasing the PS-4000 Series, carefully check the model code to order before making your purchase.

PFXP ✱1✱✱✱✱✱✱✱✱✱✱N 0 0
    5 7 8 9 10 11 12 13 14 15

* The gray-shaded cells in the table cannot be selected with the models (PS-4700) introduced in this document.

Digit number		5	7	8	9	10	11	12	13	14	15
Front bezel	None (built-in type)	B									
	Aluminum	P									
	Stainless-steel	T									
	Stainless-steel (Atom Z510)	V									
	Aluminum (Atom Z510)	W									
Display	15-inch (XGA)		7								
	19-inch (SXGA)		8								
	None (built-in type)		B								
Expansion slot *1	0 slot				0						
	1 slot = 1 PCI				1						
	2 slots = 1 PCI + 1 PCI Express (x4)				2						
	5 slots = 2 PCI + 3 PCI Express (x1)				5						
	2 slots = 2 PCI				A						
	5 slots = 4 PCI + 1 PCI Express (x1)				B						
CPU type	Atom^{TM} Z510					A					
	Atom^{TM} N270					B					
	Core^{TM} 2 Duo P8400					C					
Power supply	AC						A				
	DC (with UPS battery unit I/F)						B				
	DC						D				
	DC (with marine specification power supply line noise filter)						F				
	DC (with UPS battery unit I/F and marine specification power supply line noise filter)						G				

Digit number		5	7	8	9	10	11	12	13	14	15
Memory	1 GB						1				
	2 GB						2				
	3 GB (2 GB + 1 GB)						3				
	4 GB (2 GB + 2 GB)						4				
	6 GB (4 GB + 2 GB)						6				
	8 GB (4 GB + 4 GB)						8				
OS	None							0			
	Windows® Embedded Standard 2009 MUI							1			
	Windows® XP Pro Japanese Version							2			
	Windows® XP Pro MUI							3			
	Windows® Embedded Standard 7 MUI (32-bit)							4			
	Windows® 7 Ultimate MUI (32-bit)							5			
	Windows® 7 Ultimate MUI (64-bit)							6			
Storage	None								N		
	CF card (4 GB)								C		
	CF card (8 GB)								D		
	HDD (250 GB)								K		
	SSD (32 GB)								T		
Slide-in slot	None									0	
	DVD multi-drive									1	
	HDD (250 GB)									2	
	SSD (32 GB)									3	
	DVD multi-drive + HDD (250 GB)									4	
	DVD multi-drive + SSD (32 GB)									5	
Options	None										0
	DVI-D port expansion board										2
	COM port expansion board (RS-232C/422/485)										4
	DVI-D port expansion board + COM port expansion board (RS-232C/422/485)										5
	PS-4700 (Z510) Ethernet I/F expansion board										8

*1 The number in parentheses indicates the number of PCI Express lanes.
  To conform to the PL-371*A, 1 or 0 slot is recommended in this document. However, if you wish to use more PCI slots when making the replacement, the 2 slot model can also be selected.

Contents

Chapter 1. Specification Comparison

1.1 PS-3710A and PS-4700 (1 slot) specification comparison

Display specifications		
	PS-3710A	**PS-4700 (1 slot)**
Display device	TFT color LCD (15-inch)	
Graphics	XGA (1,024 x 768 pixels)	
Display colors/gradation	260,000 colors	**UP!** 16 million colors
Backlight	**Revision "5" with no symbol** Cold-cathode tube (replaceable)	LED backlight (not user replaceable, send-back type)
	Revision "5" with symbol LED backlight (not user replaceable, send-back type)	
Brightness adjustment	4 levels (adjust on Windows® control panel)	**UP!** Step-less adjustment
Display device lifespan	50,000 hours	
Backlight lifespan	50,000 hours or more	
Touch panel Type	Analog resistive	
Touch panel Resolution	1,024 x 1,024	**UP!** 4,096 x 4,096

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Performance specifications		
	PS-3710A	**PS-4700 (1 slot)**
CPU	Intel® Pentium® M (1.6 GHz)	**UP!** Core™ 2 Duo P8400 (2.26 GHz)
L2 cache	1 MB	**UP!** 3 MB
Main memory	2 slots (2 GB max) (DDR 333 MHz)	**UP!** 2 slots (8 GB max) (DDR3 1,066 MHz)→See 2.2
Chipset	Intel® 855GME + ICH-4	GM45
Graphics controller	Onboard Intel® 855GME	Intel® Graphics Media Accelerator (GMA) 4500MHD
Video memory	64 MB max (Allocated from main memory)	**UP!** 384 MB (Allocated from main memory)
Video output — **Analog**	-	**NEW!** QXGA (2,048 x 1,536 pixels) or lower
Video output — **Digital**	-	**NEW!** FHD (1,920 x 1,080 pixels) or lower

General specifications		
	PS-3710A	**PS-4700 (1 slot)**
Panel cut dimensions	W383.5 x H282.5 mm [W15.10 x H11.12 in.]	
External dimensions	W395 x H294 x D100 mm [W15.55 x H11.57 x D3.94 in.]	W402 x H301 x D153.2 mm [W15.82 x H11.85 x D6.03 in.] →See 2.3
Front bezel material	Die cast aluminum	Aluminum/stainless-steel
Weight	Approx. 8.0 kg (17.6 lbs)	**Aluminum front bezel** AC power supply: approx. 8.8 kg (19.4 lbs), DC power supply: approx. 8.5 kg (18.7 lbs) **Stainless-steel front bezel** AC power supply: approx. 10.1 kg (22.3 lbs), DC power supply: approx. 9.8 kg (21.6 lbs)
Cooling method	Forced air cooling by fan	**UP!** Forced air cooling by fan (Intelligent fan control) →See 2.4
Power supply →See 2.11	AC power supply: 100 to 240 V, DC power supply: 24 V	
Power consumption — **AC power supply**	150 VA or lower	**UP!** 100 W or lower →See 2.12
Power consumption — **DC power supply**	110 W or lower	**UP!** 100 W or lower →See 2.12
Battery backup UPS	-	**NEW!** Optional (DC power supply only) →See 2.5

Interface specifications		
	PS-3710A	**PS-4700 (1 slot)**
Serial (9-pin D-sub plug)	RS-232C x 1	RS-232C x 2
	RS-232C/422/485 x 1	RS-232C/422/485 (optional) x 1 →See 2.6
	RS-232C (RI/+5V switchable) x 2	-
RAS	25-pin D-sub plug	-
PS/2 keyboard	PS/2 interface x 1 (6-pin mini DIN socket)	-
Disk — **SATA**	-	**NEW!** Slide-in disk: (HDD/SSD) x 1 Slide-in slot: (HDD/SSD/DVD-RW) x 1 →See 2.9
Disk — **IDE**	2.5-inch HDD/SSD x 1	-
	CF card (Type-II, 2 GB) x 1	**UP!** CF card (Type-I, 4 GB/8 GB) x 1
	DVD-ROM	- →See 2.9
USB →See 2.7	USB x 5 (USB 2.0 compatible, Type-A)	USB x 5 (aluminum front bezel) USB x 4 (stainless-steel front bezel) (USB 2.0 compatible, Type-A)
Ethernet — **LAN1**	10BASE-T/100BASE-TX auto switching	**UP!** 10BASE-T/100BASE-TX/1000BASE-T auto switching
Ethernet — **LAN2**	10BASE-T/100BASE-TX/1000BASE-T auto switching	
PCMCIA	Side x 2 PCMCIA Type II, Type III cards can be used. CARD BUS support (Excluding VIDEO ZOOM, SOUND functions)	-
Sound	Line input/line output/mic input	
DVI	-	**NEW!** DVI-I x 1
PCI	PCI 1 slot (Rev. 2.2)→See 2.8	
Floppy disk	2 mode 3.5-inch floppy disk, side	-

1.2 PS-3711A and PS-4700 (0 slot) specification comparison

Display specifications		
	PS-3711A	**PS-4700 (0 slot)**
Display device	TFT color LCD (15-inch)	
Graphics	XGA (1,024 x 768 pixels)	
Display colors/gradation	260,000 colors	**UP!** 16 million colors
Backlight	**Revision "5" with no symbol** Cold-cathode tube (replaceable)	LED backlight (not user replaceable, send-back type)
	Revision "5" with symbol LED backlight (not user replaceable, send-back type)	
Brightness adjustment	4 levels (adjust on Windows® control panel)	**UP!** Step-less adjustment
Display device lifespan	50,000 hours	
Backlight lifespan	50,000 hours or more	
Touch panel / **Type**	Analog resistive	
Touch panel / **Resolution**	1,024 x 1,024	**UP!** 4,096 x 4,096

Performance specifications		
	PS-3711A	**PS-4700 (0 slot)**
CPU	ULV Intel® Celeron® M (1 GHz)	**UP!** Atom™ N270 (1.6 GHz)
L2 cache	512 KB	
Main memory	1 slot (1 GB max) (DDR 333 MHz)	**UP!** 2 slots (3 GB max) (DDR3 1,066 MHz)→See 2.2
Chipset	Intel® 855GME + ICH-4	945GME
Graphics controller	Onboard Intel® 855GME	Intel® Graphics Media Accelerator 950
Video memory	64 MB max (Allocated from main memory)	**UP!** 224 MB (Allocated from main memory)
Video output — **Analog**	-	**NEW!** QXGA (2,048 x 1,536 pixels) or lower
Video output — **Digital**	-	**NEW!** FHD (1,920 x 1,080 pixels) or lower

General specifications		
	PS-3711A	**PS-4700 (0 slot)**
Panel cut dimensions	W383.5 x H282.5 mm [W15.10 x H11.12 in.]	
External dimensions	W395 x H294 x D60 mm [W15.55 x H11.57 x D2.36 in.]	W402 x H301 x D109 mm [W15.82 x H11.85 x D4.29 in.] →See 2.3
Front bezel material	Die cast aluminum	Aluminum/stainless-steel
Weight	Approx. 6.0 kg (13.2 lbs)	**Aluminum front bezel** AC power supply: approx. 7.5 kg (16.5 lbs), DC power supply: approx. 7.0 kg (15.4 lbs) **Stainless-steel bezel** AC power supply: approx. 8.8 kg (19.4 lbs), DC power supply: approx. 8.3 kg (18.3 lbs)
Cooling method	Natural cooling (fanless)	
Power supply →See 2.11	AC power supply: 100 to 240 V, DC power supply: 24 V	
Power consumption — **AC power supply**	70 VA or lower	70 W or lower →See 2.12
Power consumption — **DC power supply**	90 W or lower	**UP!** 70 W or lower →See 2.12
Battery backup UPS	-	**NEW!** Optional (DC power supply only) →See 2.5

| Interface specifications		
	PS-3711A	**PS-4700 (0 slot)**
Serial **(9-pin D-sub plug)**	-	RS-232C x 2
	RS-232C/422/485 x 1	RS-232C/422/485 (optional) x 1 →See 2.6
	RS-232C (RI/+5V switchable) x 1	-
RAS	25-pin D-sub (plug)	-
PS/2 keyboard	PS/2 interface x 1 (6-pin mini DIN socket)	-
Disk — **SATA**	-	**NEW!** Slide-in disk: (HDD/SSD) x 1
Disk — **IDE**	2.5-inch HDD/SSD x 1	-
	CF card (Type-II, 2 GB) x 1	**UP!** CF card (Type-I, 4 GB/8 GB) x 1
USB →See 2.7	USB x 5 (USB 2.0 compatible, Type-A)	USB x 5 (aluminum front bezel) USB x 4 (stainless-steel front bezel) (USB 2.0 compatible, Type-A)
Ethernet — **LAN1**	10BASE-T/100BASE-TX auto switching	**UP!** 10BASE-T/100BASE-TX/1000BASE-T auto switching
Ethernet — **LAN2**	10BASE-T/100BASE-TX/1000BASE-T auto switching	
PCMCIA	Side x 2 PCMCIA Type II, Type III cards can be used. CARD BUS support (Excluding VIDEO ZOOM, SOUND functions)	-
Sound	Line output	**UP!** Line input/line output/mic input
DVI	-	**NEW!** DVI-I x 1
PCI	-	
Floppy disk	-	

Chapter 2. Hardware Compatibility

2.1 Differences in function locations

The locations of the various functions differ on the PS-371*A and the PS-4700 as shown below.
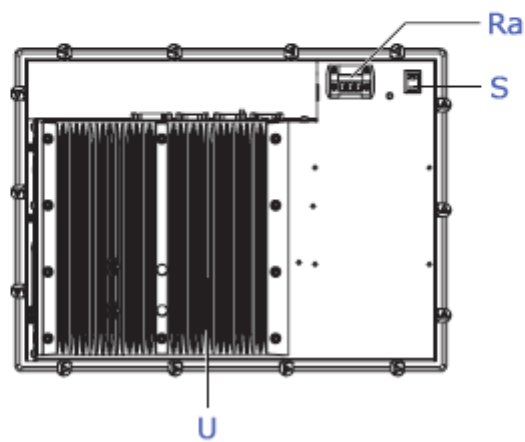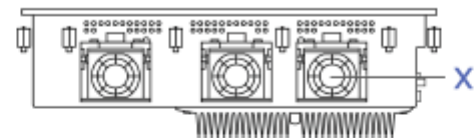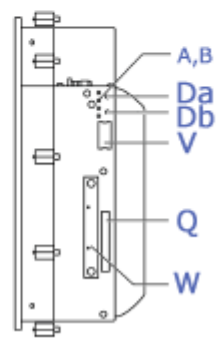
◆PS-3710A and PS-4700 (1 slot) function locations
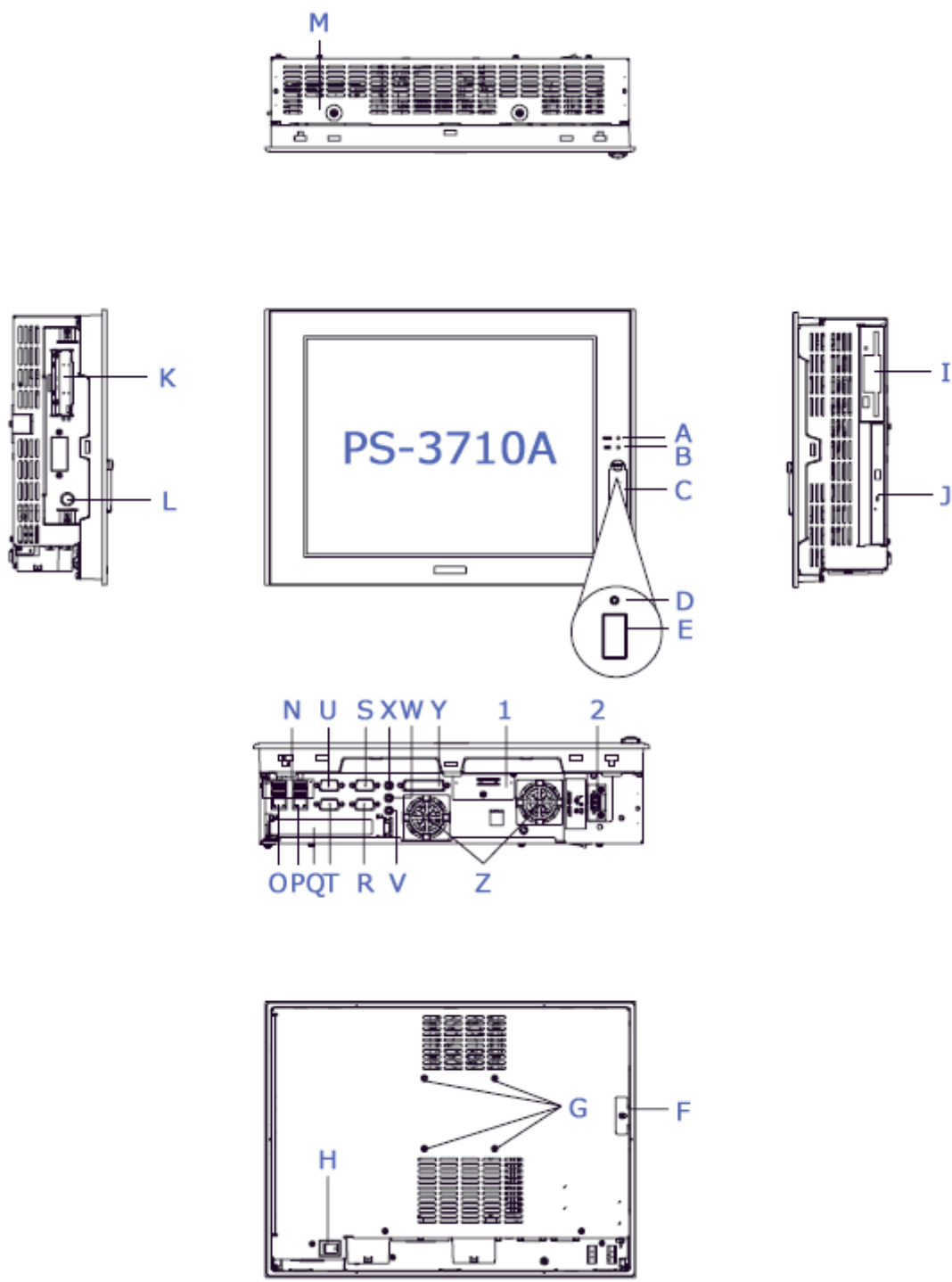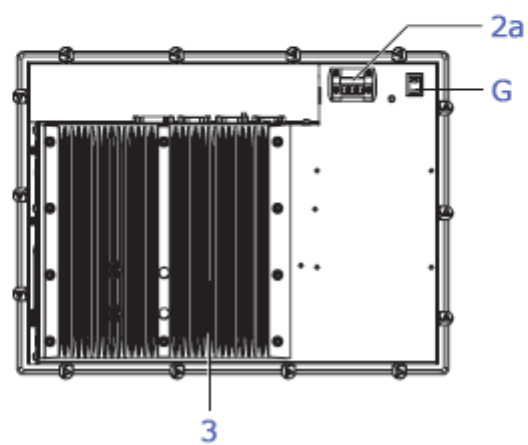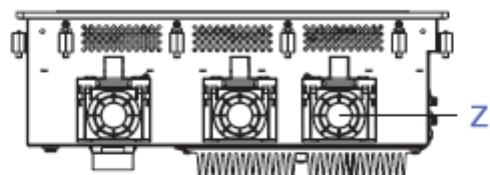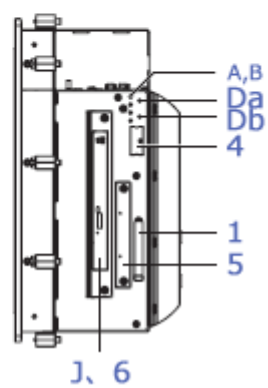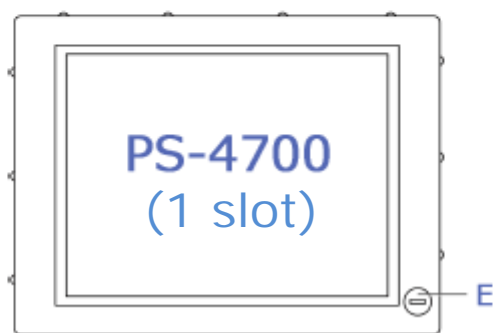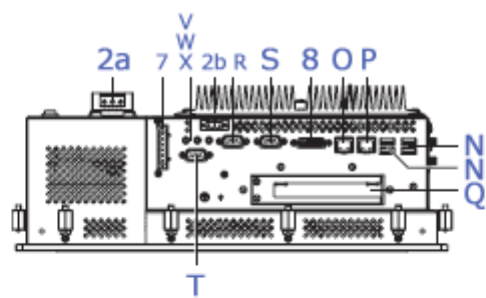
PS-4700
(1 slot)

	PS-3710A	PS-4700 (1 slot)		
A	Power supply LED/RAS status lamp	Status LED (power supply)		
B	IDE access lamp	Status LED (disk access)		
C	Front cover	-		
D	Hardware reset switch	Da	Power supply button	Db	Reset button
E	USB interface	USB I/F (excluding stainless-steel front bezel)		
F	Arm installation hole	-		
G	Power supply switch			
H	Expansion board supporter	-		
I	FD drive	-		
J	DVD-ROM drive	DVD-RW drive (connected to slide-in slot)		
K	PCMCIA interface	-		
L	PS/2 keyboard interface	-		
M	Rear cover	-		
N	USB interface x 4			
O	Ethernet interface (LAN1)			
P	Ethernet interface (LAN2)			
Q	Expansion slot PCI			
R	Serial I/F (RS-232C, RI/5V switchable)	-		
S	Serial I/F (RS-232C, RI/5V switchable)	-		
T	Serial I/F (RS-232C/422/485)	Serial I/F (RS-232C/422/485, optional)		
U	Serial I/F (RS-232C)	Serial I/F (RS-232C) x 2		
V	Line input			
W	Speaker output			
X	Mic input			
Y	RAS interface	-		
Z	Cooling fan			
1	CF slot			
2	Power supply connector	2a	Power supply connector (AC power supply only)	
		2b	Power supply connector (DC power supply only)	
3	-	Heat sink		
4	Equipped internally	Backup lithium battery		
5	-	Slide-in disk (HDD/SSD)		
6	-	Slide-in slot (HDD/SSD/DVD-RW)		
7	-	UPS interface board		
8	-	DVI-I interface		

◆PS-3711A and PS-4700 (0 slot) function locations

K

G
H
I
J

PS-3711A

A
B
C

D
E

L M N O P   Q   R S

F

T   Q
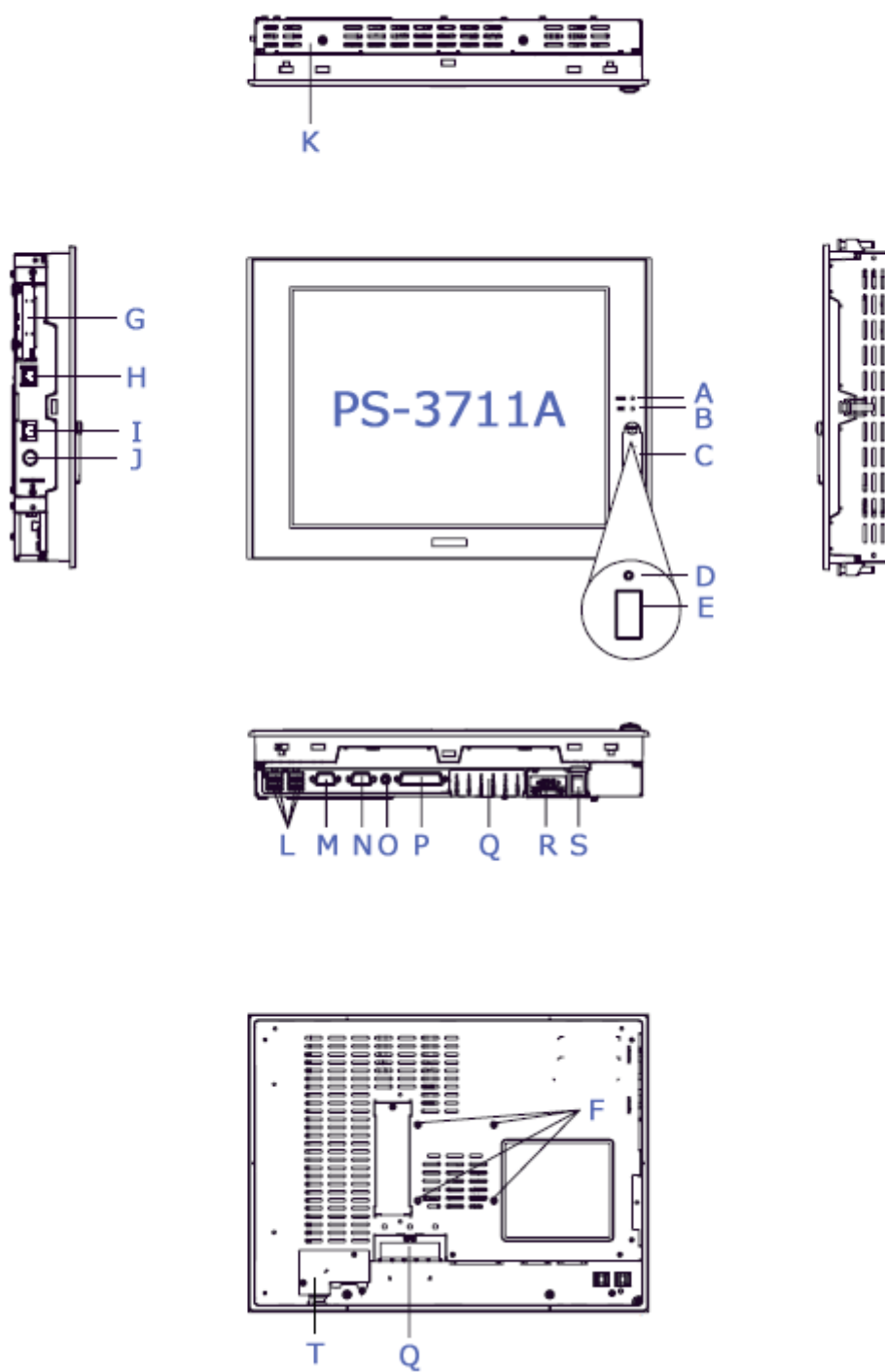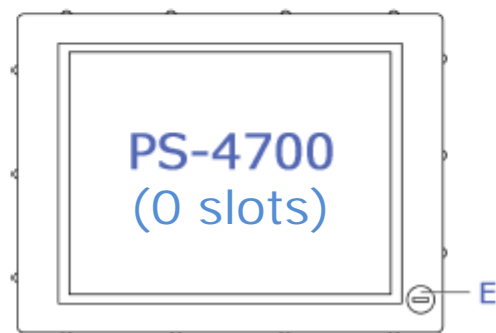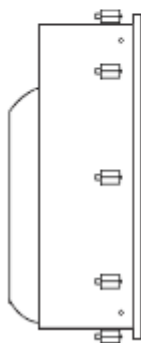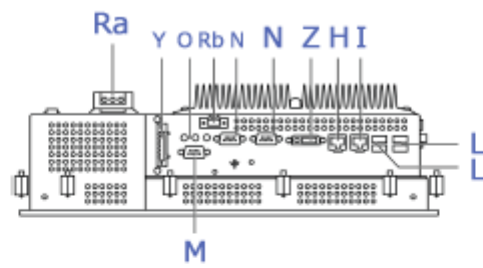
PS-4700
(0 slots)

	PS-3711A	PS-4700 (0 slot)		
A	Power supply LED/RAS status lamp	Status LED (power supply)		
B	IDE access lamp	Status LED (disk access)		
C	Front cover	-		
D	Hardware reset switch	Da	Power supply button	Db	Reset button
E	USB interface	USB I/F (excluding stainless-steel front bezel)		
F	Arm installation hole	-		
G	PCMCIA interface	-		
H	Ethernet interface (LAN1)			
I	Ethernet interface (LAN2)			
J	PS/2 keyboard interface	-		
K	Rear cover	-		
L	USB interface x 4			
M	Serial I/F (RS-232C/422/485)	Serial I/F (RS-232C/422/485, optional)		
N	Serial I/F (RS-232C, RI/5V switchable)	-		
	-	Serial I/F (RS-232C) x 2		
O	Speaker output	Line input		
		Speaker output		
		Mic input		
P	RAS interface	-		
Q	CF slot			
R	Power supply connector	Ra	Power supply connector (AC power supply only)		
		Rb	Power supply connector (DC power supply only)		
S	Power supply switch			
T	Power supply cover	-		
U	-	Heat sink		
V	Equipped internally	Backup lithium battery		
W	-	Slide-in disk		
X	-	Heat sink		
Y	-	UPS interface board		
Z	-	DVI-I interface		

2.2 Main memory

The memory in the PS-4700 cannot be upgraded by the customer after it is purchased. The amount of memory selected in the built-in shipping options is the maximum amount of memory. For example, models with a maximum amount of memory of 8 GB in their specification cannot be upgraded with additional memory if they have been purchased with 4 GB specified in the built-in shipping options. Please use caution when ordering. →5.4 Exclusive BTO (build to order) options

2.3 External dimensions

The PS-4700 is slightly bigger when compared to the PS-371*A. In particular, the depth stretches back approximately 50 mm, so ensure a sufficient amount of space during installation. A guide to ensure the amount of space necessary to safely install the product is listed below.

Vertical, back	Horizontal
1. Intake, 2. exhaust	
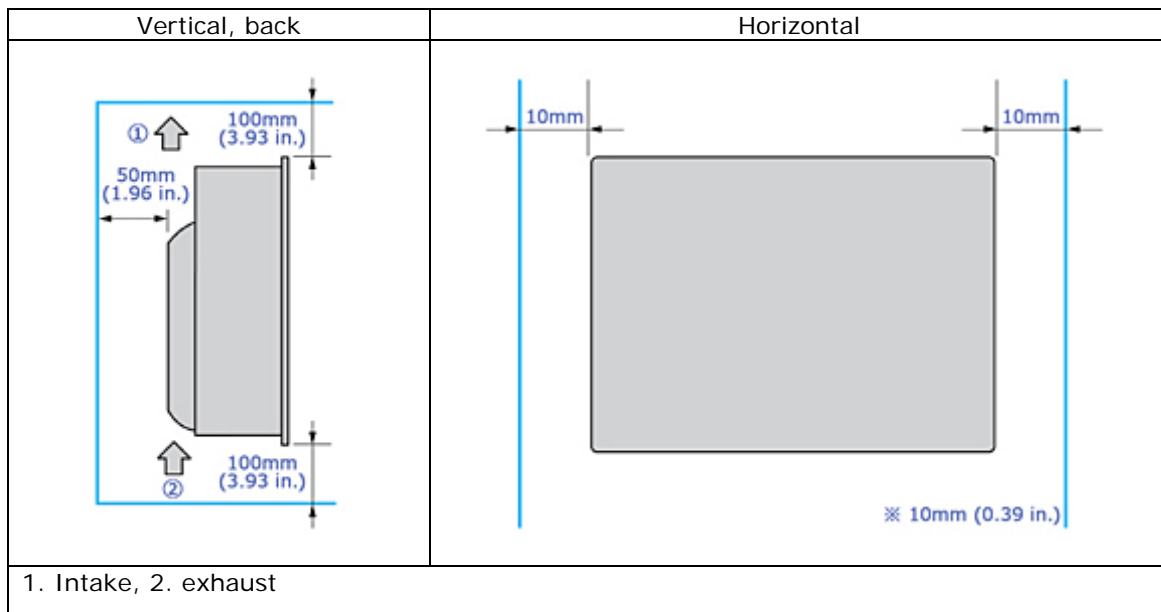
2.4 Intelligent fan control

The fan speed for PS-4700 models equipped with a fan is controlled according to the internal temperature. The fan does not operate until the internal temperature reaches a specific temperature.

2.5 Battery backup UPS (DC power supply models only)

By equipping the PS-4700 with a UPS battery unit, power can continue to be supplied even when there is a loss of power due to a power failure and running programs can be correctly terminated by the UPS software.
To connect a UPS battery unit, specify "B" or "G" for the 10th digit of the model code in the built-in shipping options. Please note that the option cannot be installed after purchase. →5.4 Exclusive BTO (build to order) options

2.6 Serial interfaces

One additional serial interface port can be added to the PS-4700 that corresponds to the communication method (RS-232/422/485). To add an additional port, specify "4" or "5" for the 15th digit of the model code in the built-in shipping options. An additional port cannot be added after purchase. Please use caution when ordering. →5.4 Exclusive BTO (build to order) options
To perform RS-422/485 communication with the additional serial interface, software is required to switch the RTS lines each time the driver sends or receives data. The RTS lines are not switched automatically.
The PS-4700 also uses COM3 internally as the touch panel interface. When adding additional COM ports with expansion boards or USB-SIO, do not use COM3.

2.7 USB interface

The PS-371*A can be configured not to use the front USB port with the DIP switches, but the PS-4700 does not have this setting.
The stainless-steel front bezel PS-4700 is not equipped with a USB interface on the front of the touch panel, so there are 4 ports total.

2.8 PCI slots

Compared to the PS-3710A, the PCI card slot depth for the PS-4700 is shorter. Half size (106.7 mm x 177.7 mm [4.2 x 7 in.]) or shorter PCI cards can be connected. Check in advance whether the PCI card connected in the PS-3710A can be used in the PS-4700.
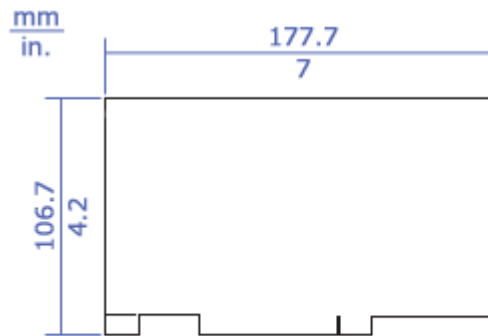
2.9 DVD-RW drive

The DVD-RW drive is connected to the slide-in slot. When an HDD or SSD is connected to the slide-in slot, the DVD-RW drive cannot be used. Separately prepare a commercially available DVD drive that can connect via USB.

Select from HDD, SSD, or DVD-RW

Slide in Slot
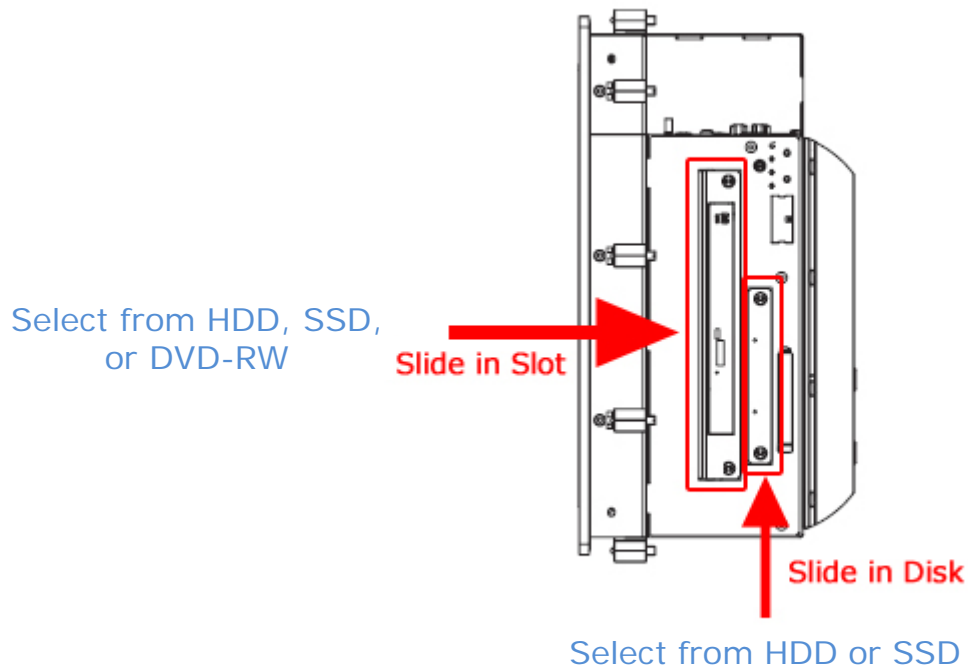
Slide in Disk

Select from HDD or SSD

2.10 External HDD, SSD, USB devices
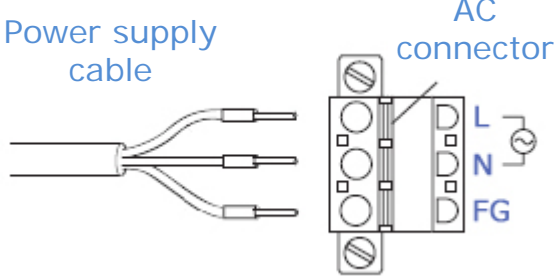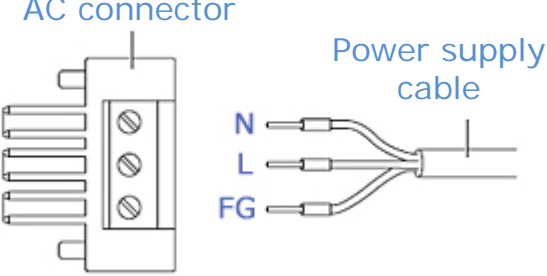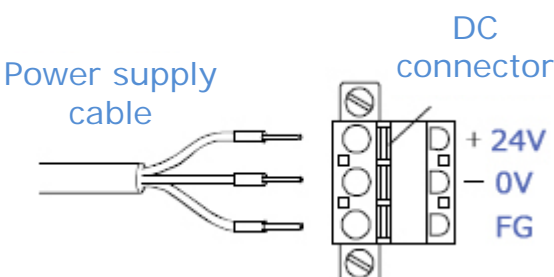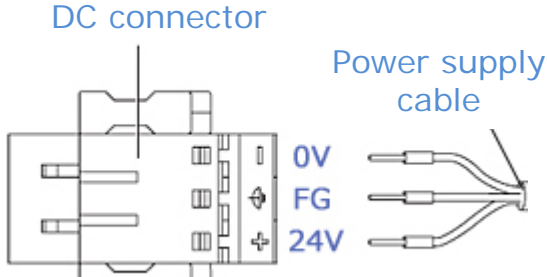
When an external HDD, SSD, or USB device is connected to a PS-4700 pre-installed with Microsoft Windows Embedded Standard, the system will no longer start. In this situation, the system can be started with the device connected to it by configuring the setting below in the BIOS boot menu. The setting depends on the CPU as shown below.

CPU	BIOS setting
Core^{TM} 2 Duo	Change [1st Boot Device] setting to "Fourth Master"
Atom^{TM}	Change [1st Boot Device] setting to "Secondary Master"

*The notes above are included with models pre-installed with Microsoft Windows® Embedded Standard.

2.11 Power supply plug

Caution: The power line terminal locations for the power supply plug differ between the PS-371*A and the PS-4700.

	PS-371*A	PS-4700
AC power supply		
DC power supply		

2.12 Power consumption

The power consumption does not include the value of power supplied to devices in the provided expansion slots and to USB devices. The maximum power consumption of the entire product including the value of supplied power is 130 W.

Chapter 3. Compatibility with Accessories

3.1 Individual accessories

Individual accessories for the PS-371*A and their compatibility are listed below.

Product name		Model code *	PS-3710A	PS-3711A	PS-4700
DIM module DDR2	512 MB	CA7-DDR2-512MB	✓	✓	x
	1 GB	CA7-DDR2-1GB	✓	✓	x
HDD unit	60 GB	PS371XA-HD60P	✓	✓	x
SSD unit	16 GB	PS371XA-SD16P	✓	✓	x
CF card	128 MB	CA3-CFCALL/128MB-01	✓	✓	x
	256 MB	CA3-CFCALL/256MB-01	✓	✓	x
	512 MB	CA3-CFCALL/512MB-01	✓	✓	x
	1 GB	CA6-CFCALL/1GB-01	✓	✓	x
	2 GB	CA8-CFCALL/2GB-01	✓	✓	x
CF card adapter		GP077-CFAD10	✓	✓	x
Stand		CA4-STD15-01	x	✓	x
Plastic cover		CA4-CVR15-0	x	✓	x
Power supply unit		CA4-PWU15-01	x	✓	x
Industrial hub		SPIDER8TX-PRO	✓	✓	✓
USB front attachment cable (1 m)		CA5-USBEXT-01	✓	✓	✓
Screen protection sheet (5 pcs.)		CA3-DFS15-01	✓	✓	✓

* Please check the model code/global code table at http://www.pro-face.com/product/globalcode.html.

3.2 Maintenance accessories

Maintenance accessories for the PS-371*A and their compatibility are listed below.

Product name	Model code *	PS-3710A	PS-3711A	PS-4700
Drip-proof packing	CA7-WPG15-01	✓	✓	x
Backlight	CA7-BLU15-01	✓	✓	x
Mounting hardware	CA3-ATFALL-01	✓	✓	x
AC power supply connector (straight) (5 pcs.)	CA7-ACCNL-01	✓	✓	x
DC power supply connector (straight) (5 pcs.)	CA7-DCCNL-01	✓	x	x
DC power supply connector (right angle) (5 pcs.)	CA5-DCCNL-01	✓	✓	x

* Please check the model code/global code table at http://www.pro-face.com/product/globalcode.html.

Chapter 4. Software Compatibility

4.1 Supported operating systems

The supported operating systems for the PS-371*A and the PS-4700 are listed below.

OS	PS-371*A	PS-4700	
		Core™ 2 Duo	Atom™
Windows® 2000 Japanese	✓	x	x
Windows® 2000 Multi-Language	✓	x	x
Windows® XP Professional Japanese	✓	✓	✓
Windows® XP Professional Multi-Language	✓	✓	✓
Windows® XP Embedded Multi-Language	✓	x	x
Windows® Embedded Standard 2009	x	✓	✓
Windows® Embedded Standard 7	x	✓	x
Windows® 7 Ultimate	x	✓	x

4.2 Supported operating system languages

The supported operating system languages differ between the PS-4700 and the PS-371*A.
They are listed in the table on the following page.
* The abbreviations and symbols in the table have the following meanings.

✓	Supported.
Δ	The language can be used by installing the language pack provided with "Otasuke Pro!". Download from the URL below. http://www.pro-face.com/otasuke/download/ps/ps4000/wes7lang.htm
x	Not supported.
WinXP	Windows® XP Professional Japanese
WinXP ML	Windows® XP Professional Multi-Language
XPE ML	Windows® XP Embedded Multi-Language
WES2009	Windows® Embedded Standard 2009
WES7	Windows® Embedded Standard 7
Win7	Windows® 7 Ultimate
371*A	PS-371*A
4700	PS-4700

Language	WinXP		WinXP ML		XPE ML	WES 2009	WES7	Win7
	371*A	4700	371*A	4700	371*A	4700	4700	4700
Arabic	x	x	x	✓	Δ	✓	Δ	✓
Bulgarian	x	x	✓	✓	x	x	Δ	✓
Chinese (Simplified)	x	x	✓	✓	Δ	✓	Δ	✓
Chinese (Traditional)	x	x	✓	✓	Δ	✓	Δ	✓
Croatian	x	x	✓	✓	x	x	Δ	✓
Czech	x	x	✓	✓	Δ	✓	Δ	✓
Danish	x	x	✓	✓	Δ	✓	Δ	✓
Dutch	x	x	✓	✓	Δ	✓	Δ	✓
English	x	x	✓	✓	✓	✓	✓	✓
Estonian	x	x	✓	✓	x	x	Δ	✓
Finnish	x	x	✓	✓	Δ	✓	Δ	✓
French	x	x	✓	✓	✓	✓	✓	✓
German	x	x	✓	✓	✓	✓	✓	✓
Greek	x	x	✓	✓	Δ	✓	Δ	✓
Hebrew	x	x	x	✓	Δ	✓	Δ	✓
Hungarian	x	x	✓	✓	Δ	✓	Δ	✓
Italian	x	x	✓	✓	✓	✓	✓	✓
Japanese	✓	✓	x	✓	✓	✓	✓	✓
Korean	x	x	x	✓	Δ	✓	Δ	✓
Latvian	x	x	✓	✓	x	x	Δ	x
Lithuanian	x	x	✓	✓	x	x	Δ	✓
Norwegian	x	x	x	✓	Δ	✓	Δ	✓
Polish	x	x	✓	✓	Δ	✓	Δ	✓
Portuguese	x	x	✓	✓	Δ	✓	Δ	✓
Portuguese (Brazil)	x	x	✓	✓	Δ	✓	Δ	✓
Romanian	x	x	✓	✓	x	x	Δ	✓
Russian	x	x	✓	✓	Δ	✓	Δ	✓
Serbian Latin	x	x	x	x	x	x	Δ	✓
Slovak	x	x	✓	✓	x	x	Δ	✓
Slovenian	x	x	✓	✓	x	x	Δ	✓
Spanish	x	x	✓	✓	✓	✓	✓	✓
Swedish	x	x	✓	✓	Δ	✓	Δ	✓
Thai	x	x	✓	✓	x	x	Δ	✓
Turkish	x	x	✓	✓	Δ	✓	Δ	✓
Ukrainian	x	x	x	x	x	x	Δ	✓

4.3 Supported software

The software that the PS-4700 supports is listed below.

Software	WinGP *1	✓
Utilities	System Monitor	✓
	Backlight brightness adjustment	✓
	Touch panel driver *2	✓
	Keyboard emulator *3	✓
	Remote shutdown	x
	EWF Setting Tool *4	✓
	XP Embedded CF card backup/recovery tool *5	x
	Lang Shell *6	x
	Language selection Shell update *7	✓
API-DLL *8	System Monitor	x
	EWF	x

*1 When WinGP was installed on the PS-371*A and RS-422/485 communication was being performed, the PS-371*A cannot be replaced with the PS-4700 as is.
　　→See 2.6
*2 The PS-371*A driver is DMC's UPDD, but the PS-4700 uses software called Touch Screen.
　Please be aware that right click operations change to touch and hold.
　The touch sound is also issued when the finger is lifted from the screen, not when the screen is pressed.
*3 Use the user assistance screen keyboard standard in Windows® 7 Ultimate and Windows® Embedded Standard 7.
*4 The PS-371*A was RAM mode, but the PS-4700 changes to RAM REG.
*5 The PS-371*A had a dedicated tool, but the PS-4700 does not support it.
　When backup/recovery is required, prepare a normal tool (commercially available product, free software).
*6 Can be configured with the Windows® Embedded Standard 7 standard function.
*7 Only supported by Windows® Embedded Standard 7.
*8 API-DLL is not supported.

4.4 Functions supported by System Monitor

The System Monitor functions that the PS-4700 supports are listed below.

Monitor item	Error Action	
Voltage	DOUT	x
	LED	x
	Buzzer	x
	Popup Message	x
	Shutdown	x
Fan *1	DOUT	x
	LED	✓
	Buzzer	✓
	Popup Message	✓
	Shutdown	✓
Temperature	DOUT	x
	LED	✓
	Buzzer	✓
	Popup Message	✓
	Shutdown	✓
Backlight	DOUT	x
	LED	x
	Buzzer	x
	Popup Message	x

| Monitor item	Error Action	
Watchdog Timer	DOUT	x
	LED	x
	Buzzer	x
	Popup Message	x
	Shutdown	x
	Hardware Reset	x
SMART	DOUT	x
	LED	✓
	Buzzer	✓
	Popup Message	✓
DIN	DOUT	x
	LED	x
	Buzzer	x
	Popup Message	x
	Shutdown	x
Remote Reset	-	x
Remote RAS	-	x

*1 Core^{TM} 2 Duo models only

Chapter 5. Appendix

5.1 FP-3000 Series

5.1.1 Connection with the PS-4700

The PS-4700 can connect to the FP-3000 Series by DVI* or analog RGB. PS-4700 images can also be output to a separate location.

* Its Rev.2 or later of FP3000 Series supports DVI
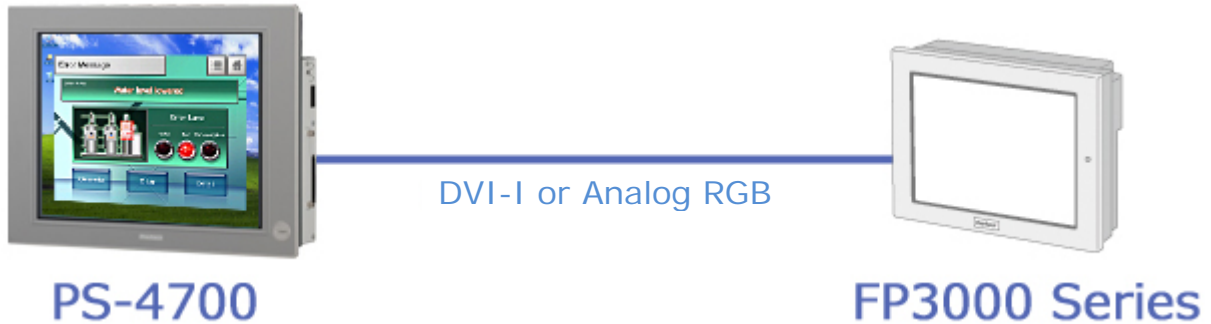
5.1.2 Remote installation distances and cables

The distances the FP-3000 Series can be remotely installed and the cables that support those distances are listed below.

Cable		Model code
5 m	Analog RGB	CA7-CBLCVRGB-01 or CA7-CBLCDVI-D/RGB-01 + FP-CV02-45
	DVI	FP-DV01-50 *1
	USB	FP61V-IS00-O or FP-US00
10 m	DVI	PFXZPBCBDV101 *2

*1 To connect the FP-3000 Series to the PS-4000 Series, only revision "2" FPs with the symbol can be used.
*2 The maximum cable length for DVI standard is 5m. Because the 10m cable is non-standard, the exact performances is not guaranteed. According to environment or equipment configuration, video images may not be displayed properly, so be sure to check performances every time environment or equipment configuration is changed. A 5m cable is recommended when using in SXGA resolution or higher.

5.1.3 Required touch panel driver
The required touch panel driver for each monitor is listed below.

OS	PS-4000 Series	FP-3000 Series		
	PS-4700/4800	FP-3710T	FP-3710K/FP-3900T	FP-3600T *1/ FP-3650T
WinXP JP, WinXP ML, WES2009	Touch Screen	UPDD		
Win7, WES7		TSC-DD		

*1 Win7 and WES7 do not officially support a SVGA (800 x 600 pixels) resolution, but we have verified that the screen is displayed without problems.

WinXP JP	Windows® XP Professional Japanese
WinXP ML	Windows® XP Professional Multi-Language
WES2009	Windows® Embedded Standard 2009
WES7	Windows® Embedded Standard 7
Win7	Windows® 7 Ultimate

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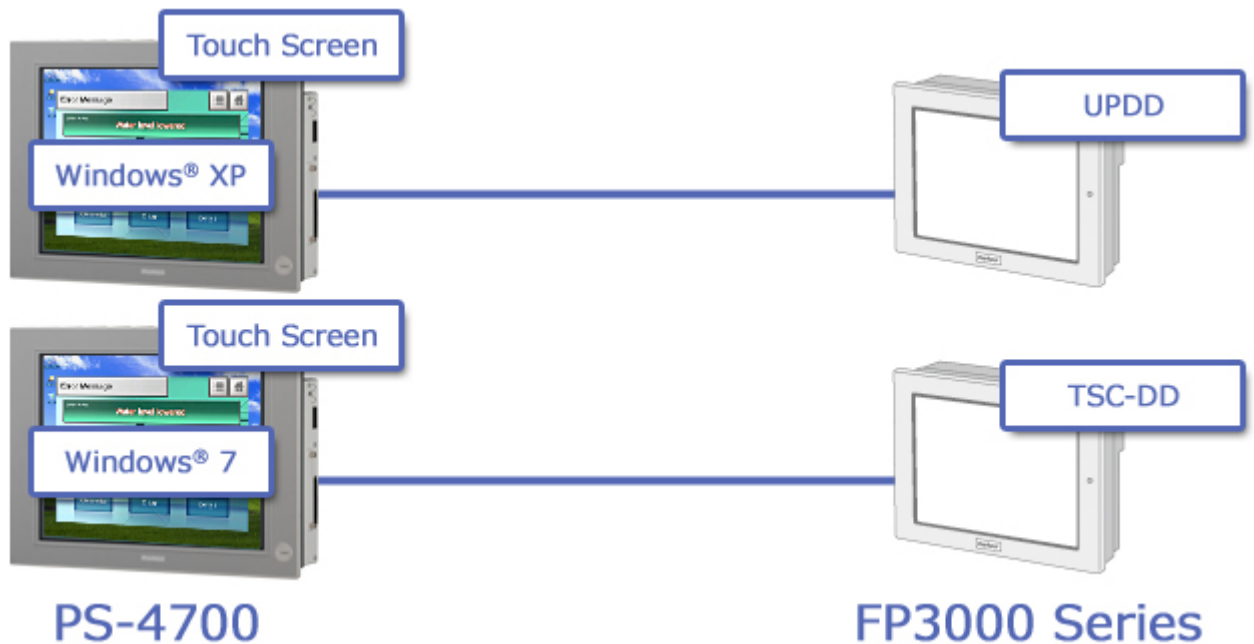
5.2 Uninterruptible power supply (UPS)

5.2.1 Overview

The uninterruptible power supply (UPS) option can only be used with DC power supply types. The diagram below shows the PS-4000 Series with an attached UPS.

Uninterruptable
Power Supply (UPS)
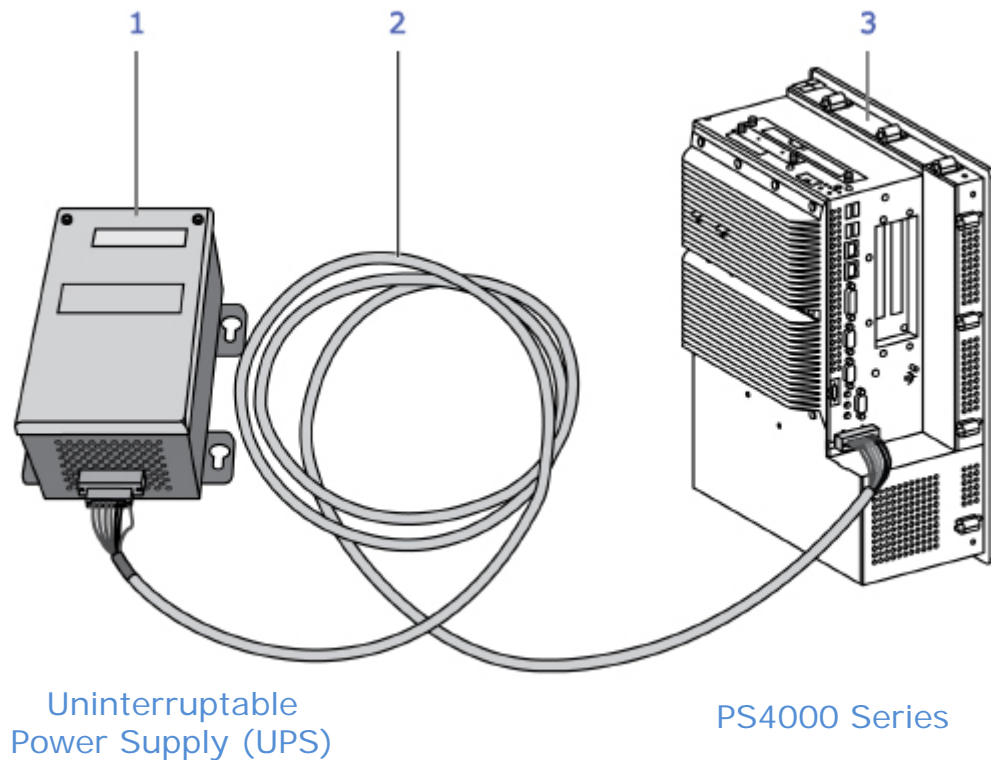
PS4000 Series

1: UPS battery unit (model code: PFXZPSEUUPB1)
2: UPS connection cable 3 m (model code: PFXZPSCBUP3)
3: PS-4000 Series equipped with the UPS interface board (installed when shipped*)

Primary features of the UPS option:

・Rechargeable battery that is maintenance free and lasts a long time

・Communication over the built-in interface

・Temperature sensor

・Over discharge protection

* You must specify "B" for the 10th digit of the model code in the built-in shipping options.
 Please note that the option cannot be installed after purchase.

5.2.2 Specifications

Main power supply/battery powered switching threshold	15 / 13 V
Power failure backup time	20 minutes maximum (at 150 W load)
Charging current	0.5 A maximum
Over discharge protection	10 V on battery unit
Short circuit protection	None
Power consumption	7.5 W maximum
Status indicator	Displayed in System Monitor utility
Configuration	Configured with System Monitor utility

5.2.3 Dimensions
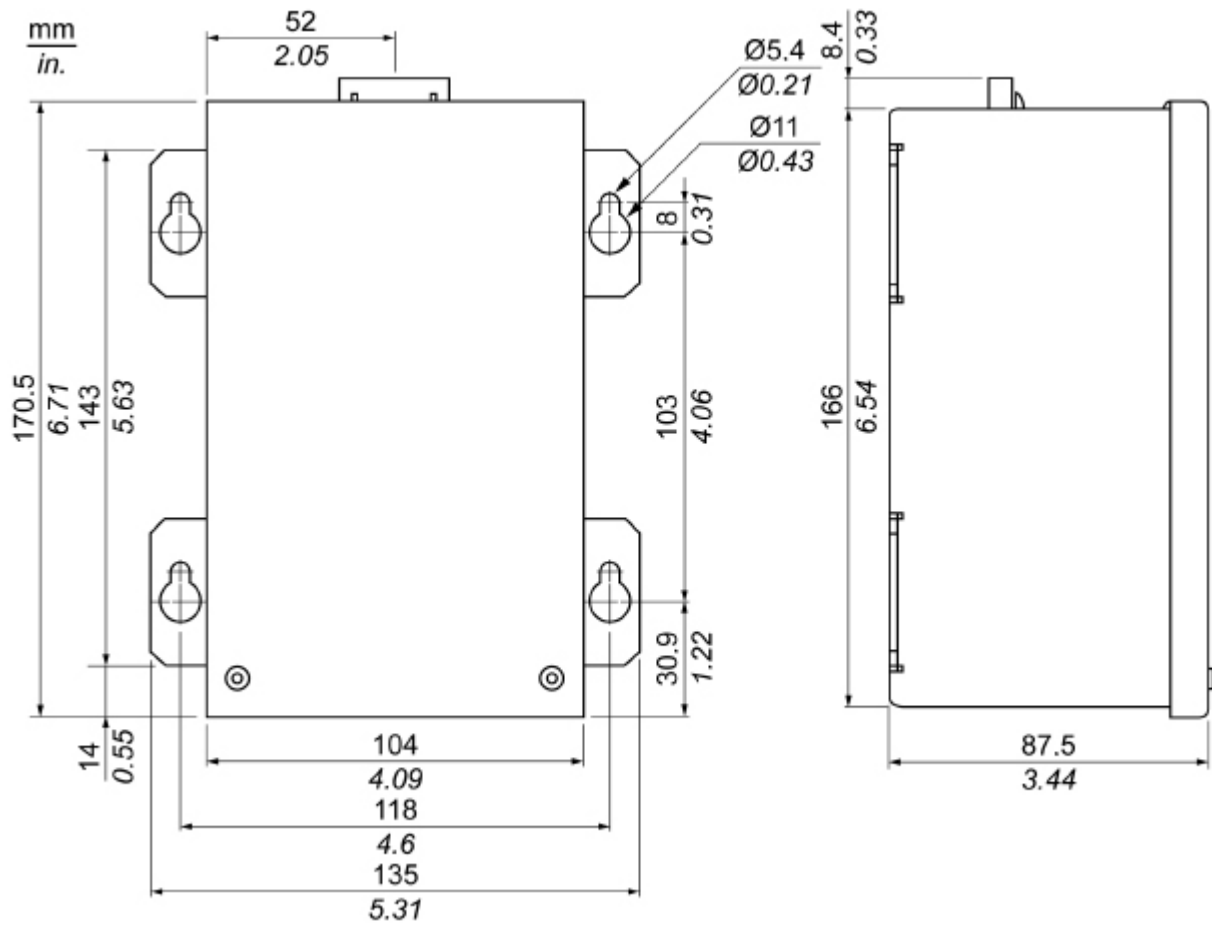
5.3 INtime OS

The PS-4700 supports the INtime OS.
For details, contact TenAsys Corporation.
http://www.mnc.co.jp/INtime/
http://www.tenasys.com/products/intime.php

5.4 Exclusive BTO (build to order) options

The products introduced below are optional products that can be built-in to the PS-4000B when purchased. The products below can be built-in by specifying the order model code as shown in red. Please note that the options cannot be installed after purchase.

Product name		Order model code
Main memory	1 GB	PFXP*17***1****N00
	2 GB	PFXP*17***2****N00
	3 GB (2 GB + 1 GB)	PFXP*17***3****N00
	4 GB (2 GB + 2 GB)	PFXP*17***4****N00
	6 GB (4 GB + 2 GB)	PFXP*17***6****N00
	8 GB (4 GB + 4 GB)	PFXP*17***8****N00
UPS battery unit I/F unit (DC power supply model)		PFXP*17**B*****N00
UPS battery unit I/F unit (DC power supply model, with marine specification power supply line noise filter)		PFXP*17**G*****N00
COM port expansion board (RS-232C/422/485)		PFXP*17*******4N00