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# Easy! Smooth!

# PL-3700 → PS-4700

# **Replacement Guidebook**

Third Edition Jan. 2013

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# Introduction

This document introduces the procedures and notes for replacing the PL-3700T with the PS-4700.

The recommended substitute model is listed below.

Equipment in use	Recommended substitute model
<b>PL-3700T *1</b> (2 slots, Core <sup>™</sup> Duo model) Model code: APL3700-TA/TD	<b>PS-4700</b> (2 slots, Core <sup>™</sup> 2 Duo model) Model code: PFXP*172C*****N00
<b>PL-3700T *1</b> (2 slots, Celeron <sup>®</sup> model) Model code: APL3700-TA/TD	<b>PS-4700</b> (2 slots, Atom <sup>™</sup> model) Model code: PFXP*172B*****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.

# $PFXP = \frac{*}{5} \frac{1}{7} \frac{*}{8} \frac{*}{9} \frac{*}{10} \frac{*}{11} \frac{*}{12} \frac{*}{13} \frac{*}{14} \frac{*}{15} N = 0$

\* 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)	В									
	Aluminum	Р									
	Stainless-steel	Т									
	Stainless-steel (Atom Z510)	V									
	Aluminum (Atom Z510)	W									
Display	15-inch (XGA)		7								
	19-inch (SXGA)		8								
	None (built-in type)		В								
Expansion	0 slot			0							
slot *1	1 slot = 1 PCI			1							
	2  slots = 1  PCI + 1  PCI  Exp			2							
	5  slots = 2  PCI + 3  PCI  Exp	ress	(x1)	5							
	2 slots = 2 PCI			Α							
	5  slots = 4  PCI + 1  PCI  Exp	ress	(x1)	В							
CPU type	Atom <sup>™</sup> Z510				Α						
	Atom <sup>™</sup> N270				В						
	Core <sup>™</sup> 2 Duo P8400				С						
Power supply	AC					Α					
	DC (with UPS battery unit I/F)										
	DC		D								
	DC (with marine specification power supply line										
	noise filter)										
	DC (with UPS battery un specification power supply I					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 <sup>®</sup> Embedded Standard 2009 MUI	1						
	Windows <sup>®</sup> XP Pro Japanese Version	2						
	Windows <sup>®</sup> XP Pro MUI	3						
	Windows <sup>®</sup> Embedded Standard 7 MUI (32-bit)	4						
	Windows <sup>®</sup> 7 Ultimate MUI (32-bit)	5						
	Windows <sup>®</sup> 7 Ultimate MUI (64-bit)	6						
Storage	None		Ν					
	CF card (4 GB)		С					
	CF card (8 GB) D							
	HDD		Κ					
	SSD		Т					
Slide-in slot	None			0				
	DVD multi-drive			1				
	HDD			2				
	SSD			3				
	DVD multi-drive + HDD			4				
	DVD multi-drive + SSD			5				
Options	None				0			
	DVI-D port expansion board							
	COM port expansion board (RS-232C/422/485)							
	DVI-D port expansion board + COM port expansion board (RS-232C/422/485)							
	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-3700T, 2 slots is recommended in this document. However, if you are using less PCI slots or have no plans to use the PCI slots when making the replacement, 1 or 0 slot can also be selected.

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# Chapter 1. Specification Comparison

1.1 PL-3700T (Core<sup>™</sup> Duo model) and PS-4700 (Core<sup>™</sup> 2 Duo model) specification comparison

Display specifications						
	PL-3700T	PS-4700				
	(2 slots, Core <sup>™</sup> Duo model)	(2 slots, Core <sup>™</sup> 2 Duo model)				
Display device		CD (15-inch)				
Graphics	XGA (1,024	x 768 pixels)				
Display colors/gradation	260,000 colors	UP! 16 million colors				
Backlight	<b>Revision "5" with no symbol</b> Cold-cathode tube (replaceable)	LED backlight (not user				
Backlight	<b>Revision "5" with symbol</b> LED backlight (not user replaceable, send-back type)	replaceable, send-back type)				
Brightness adjustment	4 levels (adjust on Windows <sup>®</sup> control panel)	UP! Step-less adjustment				
Display device lifespan	50,000 hours					
Backlight lifespan	n 50,000 hours or more					
Touch Type	Analog resistive					
panel Resolution	1,024 x 1,024	<b>UP!</b> 4,096 x 4,096				

	Performance specifications					
		PL-3700T (2 slots, Core <sup>™</sup> Duo model)	PS-4700 (2 slots, Core <sup>™</sup> 2 Duo model)			
СРО		Intel <sup>®</sup> Core <sup>™</sup> Duo (2.0 GHz)	UP! Core <sup>™</sup> 2 Duo P8400 (2.26 GHz)			
L2 c	ache	2 MB	UP! 3 MB			
Main memory		2 slots (4 GB max) (DDR2 533 MHz)	UP! 2 slots (8 GB max) (DDR3 1,066MHz) (Not user upgradeable) → <u>See 2.2</u>			
Chij	oset	Intel <sup>®</sup> 945GME + ICH7M	GM45			
Grap contr	hics	Onboard Intel <sup>®</sup> 945GME	Intel <sup>®</sup> Graphics Media Accelerator (GMA) 4500MHD			
Video n	nemory	64 MB max (Allocated from main memory)	UP! 384 MB (Allocated from main memory)			
Video output	Analog	VGA (640 x 480 pixels) to	UP! QXGA (2,048 x 1,536 pixels) or lower			
	Digital	UXGA (1,600 x 1,200 pixels)	UP! FHD (1,920 x 1,080 pixels) or lower			

General specifications						
		PL-3700T	PS-4700			
			(2 slots, Core <sup>™</sup> 2 Duo model)			
Pane			H282.5 mm			
dimer			H11.12 in.]			
Exte		W425 x H325 x D166 mm	W402 x H301 x D167.5 mm			
dimer		[W16.73 x H12.80 x D6.54 in.]	[W15.82 x H11.85 x D6.59 in.]			
Front mate		Die cast aluminum	Aluminum/stainless-steel			
Wei	abt	Approx. 12.0 kg (26.4 lbs)	UP! AC/DC power supply: Approx. 9 kg (19.8 lbs)			
vvei	gin	Approx. 12.0 kg (20.4 lbs)	Stainless-steel front bezel			
			<b>UP!</b> AC/DC power supply:			
			Approx. 10.3 kg (22.7 lbs)			
<b>a</b> 11			UP! Forced air cooling by fan			
Cooling	method	Forced air cooling by fan	(Intelligent fan control)			
	10		→ <u>See 2.3</u>			
Power	AC power	100 to 240 V				
supply	supply	100 10	5 240 V			
→See	DC					
<u>2.10</u>	power	24	1 V			
2.10	supply	2-	T V			
	AC					
	power	145 VA or lower	UP! 100 W or lower →See 2.11			
Power	supply					
consum	DC					
ption	power	145 W or lower	<b>UP!</b> 100 W or lower → <u>See 2.11</u>			
	supply					
Pottony	baakun		NEW! Optional			
Battery UF		-	(DC power supply only)			
UF	- 5		→ <u>See 2.4</u>			

Interface specifications					
		PL-3700T (2 slots, Core <sup>™</sup> Duo model)	PS-4700 (2 slots, Core <sup>™</sup> 2 Duo model)		
		RS-23	2C x 2		
Ser (9-pin D-s		RS-232C/422/485 x 1	RS-232C/422/485 (optional) x 1 → <u>See 2.5</u>		
		RS-232C (RI/+5V switchable) x 1	-		
RA	S	9-pin D-sub socket	-		
Disk	SATA	2.5-inch HDD/SSD x 2 (Rev. 1.0a)	NEW! Slide-in disk: (HDD/SSD) x 1 Slide-in slot: (HDD/SSD/DVD-RW) x 1 → <u>See 2.8</u>		
	IDE	CF card (Type-I/II, 2 GB) x 1 DVD-ROM/DVD multi-drive	UP! CF card (Type-I, 4 GB/8 GB) x 1 - →See 2.8		
		(optional)			
US → <u>See</u>	_	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)		
	LAN1	10BASE-T/100BASE-TX/1	000BASE-T auto switching		
Ethernet	LAN2	10BASE-T/100BASE-TX auto switching	UP! 10BASE-T/100BASE-TX/ 1000BASE-T auto switching		
Sound		Line output	UP! Line input/line output/mic input		
DVI		DVI-I x 1 (For dual output with a front module, analog RGB output only)	DVI-I x 1		
PCI		PCI 2 slots (Rev. 2.3)	PCI 2 slots (Rev. 2.2)→ <u>See 2.7</u>		

Display specifications						
		PL-3700T	PS-4700			
		(2 slots, Celeron <sup>®</sup> model)	(2 slots, Atom <sup>™</sup> model)			
Display d	evice	TFT color LC	CD (15-inch)			
Graphi	ics	XGA (1,024	x 768 pixels)			
Displa colors/gra		260,000 colors	UP! 16 million colors			
Packlin	abt	<b>Revision "5" with no symbol</b> Cold-cathode tube (replaceable)	LED backlight (not user			
Backlight		<b>Revision "5" with symbol</b> LED backlight (not user replaceable, send-back type)	replaceable, send-back type)			
Brightness adjustment		4 levels (adjust on Windows <sup>®</sup> control panel)	UP! Step-less adjustment			
Display d lifespa	an	50,000 hours				
Backlight li	ifespan	50,000 hours or more				
	Туре	Analog resistive				
panel Re	solution	1,024 x 1,024	<b>UP!</b> 4,096 x 4,096			

1.2 PL-3700T (Celeron  $^{\ensuremath{\mathbb{B}}}$  model) and PS-4700 (Atom  $^{\ensuremath{\mathbb{T}}M}$  model) specification comparison

	Performance specifications					
		PL-3700T	PS-4700			
		(2 slots, Celeron <sup>®</sup> model)	(2 slots, Atom <sup>™</sup> model)			
CF	טי	Intel <sup>®</sup> Celeron <sup>®</sup> M 440 (1.86 GHz)	<b>UP!</b> Atom <sup>™</sup> N270 (1.6 GHz)			
L2 ca	ache	1 MB	512 KB			
Main memory		2 slots (4 GB max) (DDR2 533 MHz)	2 slots (3 GB max) (DDR2 533MHz) (Not user upgradeable) → <u>See 2.2</u>			
Chip	oset	Intel <sup>®</sup> 945GME + ICH7M	945GME			
Grap contr		Onboard Intel <sup>®</sup> 945GME	Intel <sup>®</sup> Graphics Media Accelerator 950			
Video n	nemory	64 MB max (Allocated from main memory)	UP! 224 MB (Allocated from main memory)			
Video	Analog	VGA (640 x 480 pixels) to	U <b>P!</b> QXGA (2,048 x 1,536 pixels) or lower			
output	Digital	UXGA (1,600 x 1,200 pixels)	UP! FHD (1,920 x 1,080 pixels) or lower			

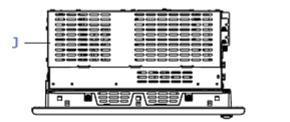
General specifications						
		PL-3700T	PS-4700			
		(2 slots, Celeron <sup>®</sup> model)	(2 slots, Atom <sup>™</sup> model)			
Pane	el cut	W383.5 x H	H282.5 mm			
dimer	nsions	[W15.10 x	H11.12 in.]			
Exte		W425 x H325 x D166 mm	W402 x H301 x D167.5 mm			
dimer	nsions	[W16.73 x H12.80 x D6.54 in.]	[W15.82 x H11.85 x D6.59 in.]			
Front mate		Die cast aluminum	Aluminum/stainless-steel			
Weight		Approx. 12.0 kg (26.4 lbs)	Aluminum front bezel UP! AC/DC power supply: Approx. 9.0 kg (19.8 lbs) Stainless-steel front bezel UP! AC/DC power supply: Approx. 10.3 kg (22.7 lbs)			
Cooling	method	Forced air cooling by fan	UP! Natural cooling (fanless)			
g	AC		y (			
Power	power	100 to 240 V				
supply	supply					
→ <u>See</u>	DC					
<u>2.10</u>	power	24 V				
	supply					
Power	AC power supply	145 VA or lower	<b>UP!</b> 70 W or lower → <u>See 2.11</u>			
consum ption	DC power supply	145 W or lower	<b>UP!</b> 70 W or lower → <u>See 2.11</u>			
Battery backup UPS		-	NEW! Optional (DC power supply only) → <u>See 2.4</u>			

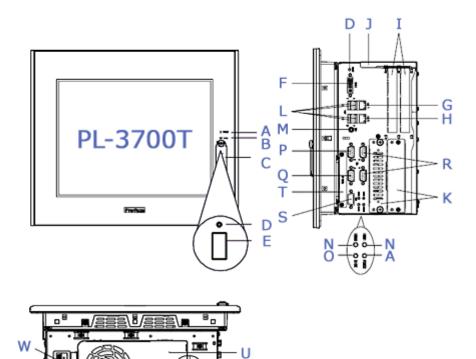
		Interface specification	าร			
		PL-3700T (2 slots, Celeron <sup>®</sup> model)	PS-4700 (2 slots, Atom <sup>™</sup> model)			
		RS-232C x 2				
Ser (9-pin D-s		RS-232C/422/485 x 1	RS-232C/422/485 (optional) x 1 → <u>See 2.5</u>			
		RS-232C (RI/+5V switchable) x 1	-			
RA	S	9-pin D-sub socket	-			
Disk	SATA	2.5-inch HDD/SSD x 2 (Rev. 1.0a)	NEW! Slide-in disk: (HDD/SSD) x 1 Slide-in slot: (HDD/SSD/DVD-RW) x 1 → <u>See 2.8</u>			
	IDE	CF card (Type-I/II, 2 GB) x 1 DVD-ROM/DVD multi-drive	UP! CF card (Type-I, 4 GB/8 GB) x 1 - →See 2.8			
USB → <u>See 2.6</u>		(optional) 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)			
	LAN1	10BASE-T/100BASE-TX/1	000BASE-T auto switching			
Ethernet	LAN2	10BASE-T/100BASE-TX auto switching	UP! 10BASE-T/100BASE-TX/ 1000BASE-T auto switching			
Sound		Line output	UP! Line input/line output/mic input			
DVI		DVI-I x 1 (For dual output with a front module, analog RGB output only)	DVI-I x 1			
PC	:1	PCI 2 slots (Rev. 2.3)	PCI 2 slots (Rev. 2.2)→ <u>See 2.7</u>			

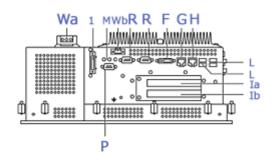
# Chapter 2. Hardware Compatibility

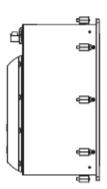
### 2.1 Differences in function locations

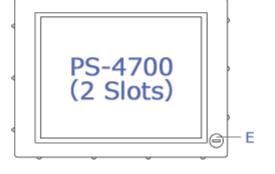
The locations of the various functions differ on the PL-3700T and the PS-4700 as shown below.

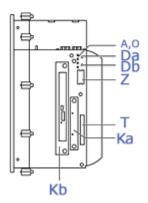


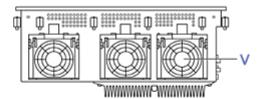


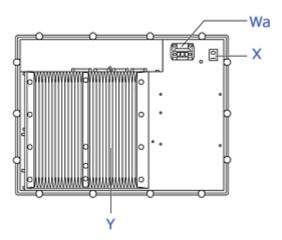












	PL-3700T	PS-4700				
А	Power supply LED/RAS status lamp	Status LED				
В	IDE access lamp		-			
С	Front cover	-				
D	Hardware reset switch	Da	Power supply button			
D	Hardware reset switch	Db	Reset button			
E	USB interface		USB I/F			
			excluding stainless-steel front bezel)			
F	DVI-I ir					
G	Ethernet inte					
Н	Ethernet inte	erface	(LAN2)			
1	Expansion slot (PCI) x 2	la	Expansion slot PCI			
		Ib	Expansion slot (PCI Express x 4)			
J	PCI slot cover	Ка	-			
к	K HDD slot		Slide-in disk (HDD/SSD)			
		Kb	Slide-in slot (HDD/SSD/DVD-RW)			
L	USB interface x 4					
Μ	Speaker output	Line input/speaker output/mic input				
N	HDD status lamp	-				
0	Disk acc					
Р	Serial I/F (RS-232C/422/485)	Sei	rial I/F (RS-232C/422/485, optional)			
Q	Serial I/F (RS-232C, RI/5V switchable)		-			
R	Serial I/F (R	<u>S-232</u>	2C) x 2			
S	RAS interface		-			
Т		slot				
U	Fan cover		-			
V	Coolii	ng fan				
		Wa	Power supply connector			
W	Power supply connector	Wb	(AC power supply only)			
			Power supply connector			
			(DC power supply only)			
X	Power supply switch (AC model only)		Power supply switch			
Y	-		Heat sink			
Z	Equipped internally		Backup lithium battery			
1	-	UPS interface board				

#### 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.  $\rightarrow$  5.4 Exclusive BTO (build to order) options

#### 2.3 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.

#### 2.4 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 <u>model code</u> in the built-in shipping options. Please note that the option cannot be installed after purchase.  $\rightarrow$  5.4 <u>Exclusive BTO (build to order) options</u>

#### 2.5 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" for the 15th digit of the <u>model code</u> in the built-in shipping options. An additional port cannot be added after purchase. Please use caution when ordering.  $\rightarrow$ 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.

#### 2.6 USB interface

The PL-3700T can be configured not to use the front USB port with the DIP switches, but the PS-4700 does not have this setting.

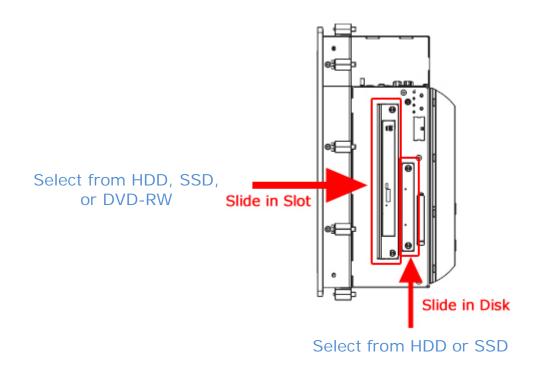
The stainless-steel front bezel PS-4700 is not equipped with a USB interface on the front of the touch panel, so there are 4 ports total.

#### 2.7 PCI slots

Certain PS-4700 models are equipped with PCI Express. If you wish to replace a PCI 1 slot/PCI Express (x4)\* 1 slot model, specify "2" for the 8th digit of the <u>model code</u> in the built-in shipping options. \* The number in parentheses indicates the number of PCI Express lanes.

#### 2.8 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.



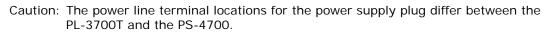
#### 2.9 External HDD, SSD, USB devices

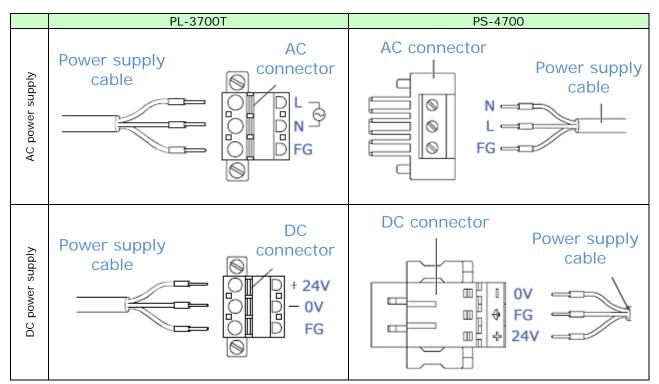
When an external HDD, SSD, or USB device is connected to a PS-4700 pre-installed with Microsoft Windows Embedded Standard, the system will no longer start. In this situation, the system can be made to start with the device connected to it by configuring the setting below in the BIOS boot menu. The setting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

CPU	BIOS setting				
Core <sup>™</sup> 2 Duo	Change [1st Boot Device] setting to "Fourth Master"				
Atom <sup>™</sup> Change [1st Boot Device] setting to "Secondary Master"					
*The notes above are included with medals are installed with Microsoft Windows <sup>®</sup> Embedded					

\*The notes above are included with models pre-installed with Microsoft Windows<sup>®</sup> Embedded Standard.

#### 2.10 Power supply plug





#### 2.11 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 PL-3700T and their compatibility are listed below.

Product name		Model code *	PL-3700T	PS-4700
DIM module DDR2 512 MB		CA7-DDR2-512MB	1	х
	1 GB	CA7-DDR2-1GB	1	х
	2 GB	CA7-DDR2-2GB	1	Х
HDD unit	250 GB	APL3000-HD250	1	х
SSD unit	16 GB	APL3000-SD16	1	Х
CF card	128 MB	CA3-CFCALL/128MB-01	1	Х
	256 MB	CA3-CFCALL/256MB-01	1	Х
	512 MB	CA3-CFCALL/512MB-01	1	Х
	1 GB	CA6-CFCALL/1GB-01	1	Х
	2 GB	CA8-CFCALL/2GB-01	1	Х
Industrial hub		SPIDER8TX-PRO	1	1
Software mirroring utility		APL-SM3000	1	Х
USB cable	5 m	FP-US00	1	1
RS-232C cable	5 m	FP61V-IS00-0	1	1
Analog RGB cable	4.5 m	FP-CV02-45	1	1
DVI-RGB conversion 5 m cable		CA7-CBLCVRGB-01	1	1
DVI-RGB splitter cable 15 cm		CA7-CBLCVDVI-D/RGB-01	1	1
Screen protection sheet (5 pcs.)		CA3-DFS15-01	1	1
AC power supply connector (right angle) (5 pcs.)		CA7-ACCNLR-01	1	х

\* Please check the model code/global code table at http://www.proface.co.jp/product/globalcode.html.

#### 3.2 Maintenance accessories

Maintenance accessories for the PL-3700T and their compatibility are listed below.

Product name	Model code *	PL-3700T	PS-4700
Drip-proof packing	CA7-WPG15-01	~	х
Backlight	CA7-BLU15-01	1	х
Mounting hardware	APL-ATFB-01	1	Х
AC power supply connector (straight) (5 pcs.)	CA7-ACCNL-01	1	х
DC power supply connector (straight) (5 pcs.)	CA7-DCCNL-01	1	Х
AC power supply connector (right angle) (5 pcs.)	CA7-ACCNLR-01	1	х
DC power supply connector (right angle) (5 pcs.)	CA5-DCCNL-01	1	х

\* Please check the model code/global code table at http://www.proface.co.jp/product/globalcode.html.

# Chapter 4. Software Compatibility

#### 4.1 Supported operating systems

The supported operating systems for the PL-3700T and the PS-4700 are listed below. \* See the bottom of this page for the operating system abbreviations used in this table.

PL-3700T PS-4700 OS Atom™ Core<sup>™</sup> Duo Core<sup>™</sup> 2 Duo Celeron<sup>®</sup> M Win2000 1 1 Х Х 1 Win2000 ML х х х WinXP 1 1 1 1 WinXP ML ⁄ ⁄ < 1 XPE ML 1 1 х х WES2009 1 1 х х WES7 1 х х х Win7 / х х х

#### 4.2 Supported operating system languages

The supported operating system languages differ between the PS-4700 and the PL-3700T. They are listed in the table on the following page.

\* The abbreviations and symbols in the table have the following meanings.

1	Supported.
Δ	The language can be used by installing the language pack provided with
	"Otasuke Pro!". Download from the URL below.
	http://www.proface.co.jp/otasuke/download/ps/ps4000/wes7lang.htm
х	Not supported.
Win2000	Windows <sup>®</sup> 2000 Japanese
Win2000 ML	Windows <sup>®</sup> 2000 Multi-Language
WinXP	Windows <sup>®</sup> XP Professional Japanese
WinXP ML	Windows <sup>®</sup> XP Professional Multi-Language
XPE ML	Windows <sup>®</sup> XP Embedded Multi-Language
WES2009	Windows <sup>®</sup> Embedded Standard 2009
WES7	Windows <sup>®</sup> Embedded Standard 7
Win7	Windows <sup>®</sup> 7 Ultimate
3700T	PL-3700T
4700	PS-4700

Language	Wir	۱XP	Wir N		XPE ML	WES 2009	WES7	Win7
	3700T	4700	3700T	4700	3700T	4700	4700	4700
Arabic	х	Х	х	1	Δ	1	Δ	✓
Bulgarian	х	Х	✓	✓	х	х	Δ	✓
Chinese (Simplified)	х	х	✓	✓	Δ	1	Δ	✓
Chinese (Traditional)	х	Х	✓	✓	Δ	1	Δ	✓
Croatian	х	Х	✓	✓	х	х	Δ	✓
Czech	х	х	✓	✓	Δ	✓	Δ	✓
Danish	х	х	✓	✓	Δ	1	Δ	✓
Dutch	х	х	✓	✓	Δ	1	Δ	✓
English	х	х	✓	✓	✓	1	✓	✓
Estonian	х	х	1	1	х	х	Δ	✓
Finnish	х	х	1	~	Δ	>	Δ	✓
French	х	х	1	~	1	>	✓	✓
German	х	х	1	~	1	>	✓	✓
Greek	х	х	1	~	Δ	>	Δ	✓
Hebrew	х	х	х	~	Δ	>	Δ	✓
Hungarian	х	х	1	~	Δ	1	Δ	✓
Italian	х	х	1	~	1	1	✓	✓
Japanese	1	1	х	~	1	1	✓	✓
Korean	х	х	х	~	Δ	1	Δ	✓
Latvian	х	х	1	~	х	х	Δ	х
Lithuanian	х	х	1	~	х	х	Δ	✓
Norwegian	Х	х	х	~	Δ	1	Δ	✓
Polish	х	х	1	~	Δ	1	Δ	✓
Portuguese	х	х	1	<	Δ	~	Δ	✓
Portuguese (Brazil)	х	х	1	~	Δ	1	Δ	✓
Romanian	х	х	1	~	х	х	Δ	✓
Russian	х	х	1	~	Δ	1	Δ	✓
Serbian Latin	Х	х	х	х	х	х	Δ	✓
Slovak	Х	х	1	~	х	х	Δ	✓
Slovenian	х	х	1	1	х	х	Δ	1
Spanish	х	х	1	~	1	~	✓	✓
Swedish	х	х	1	~	Δ	~	Δ	✓
Thai	х	х	1	1	х	х	Δ	1
Turkish	х	х	1	1	Δ	~	Δ	1
Ukrainian	х	х	х	х	х	х	Δ	✓

#### 4.3 Supported software

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

Software	Software mirroring (APL-SM3000)	Х
	WinGP *1	1
Utilities	System Monitor	✓
	Touch panel driver *2	1
	Keyboard emulator *3	✓
	Remote shutdown	Х
	EWF Setting Tool *4	✓
	XP Embedded CF card backup/recovery tool *5	Х
	Lang Shell *6	х
	Language selection Shell update *7	✓
API-DLL *8	System Monitor	х
	EWF	х

\*1 When WinGP was installed on the PL-3700T and RS-422/485 communication was being performed, the PL-3700T cannot be replaced with the PS-4700 as is. →See 2.5

\*2 The PL-3700T 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<sup>®</sup> 7 Ultimate and Windows<sup>®</sup> Embedded Standard 7.

\*4 The PL-3700T was RAM mode, but the PS-4700 changes to RAM REG.

\*5 The PL-3700T 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<sup>®</sup> Embedded Standard 7 standard function.
- \*7 Only supported by Windows<sup>®</sup> 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	х
	Buzzer	х
	Popup Message	х
	Shutdown	х
Fan *1	DOUT	Х
	LED	✓
	Buzzer	✓
	Popup Message	1
	Shutdown	✓
Temperature	DOUT	х
	LED	× ✓
	Buzzer	✓
	Popup Message	1
	Shutdown	✓
Backlight	DOUT	Х
-	LED	х
	Buzzer	х
	Popup Message	Х
Watchdog Timer	DOUT	х
	LED	Х
	Buzzer	х
	Popup Message	х
	Shutdown	х
*1 Core™ 2 Duo mo	Hardware Reset	х

Monitor item	Error Action	
SMART	DOUT	Х
	LED	1
	Buzzer	1
	Popup Message	1
DIN	DOUT	Х
	LED	х
	Buzzer	х
	Popup Message	х
	Shutdown	х
Remote Reset	-	х
Remote RAS	-	Х
Battery	DOUT	х
	LED	х
	Buzzer	<
	Popup Message	<ul> <li>Image: A start of the start of</li></ul>
	Shutdown	✓
	Shutdown Time	0-60 Sec

\*1 Core<sup>™</sup> 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 5 M DVI USB		CA7-CBLCVRGB-01 or CA7-CBLCDVI-D/RGB-01 + FP-CV02-45
		FP-DV01-50 *1
		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.

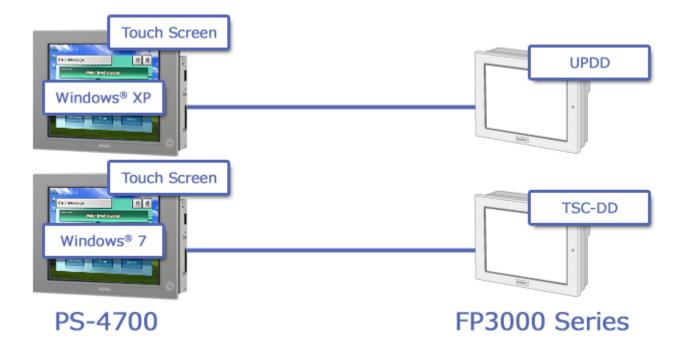
#### 5.1.3 Required touch panel driver

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

	PS-4000 Series	FP-3000 Series			
OS	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.

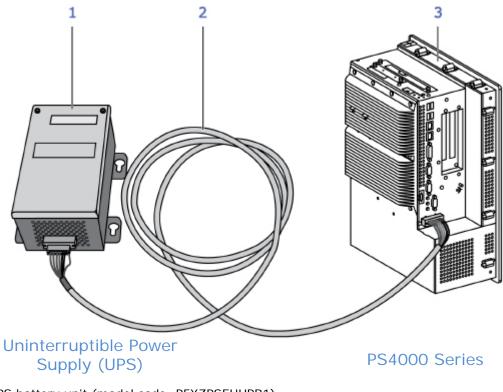
WinXP JP	Windows <sup>®</sup> XP Professional Japanese
WinXP ML	Windows <sup>®</sup> XP Professional Multi-Language
WES2009	Windows <sup>®</sup> Embedded Standard 2009
WES7	Windows <sup>®</sup> Embedded Standard 7
Win7	Windows <sup>®</sup> 7 Ultimate



#### 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.



- 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\*)

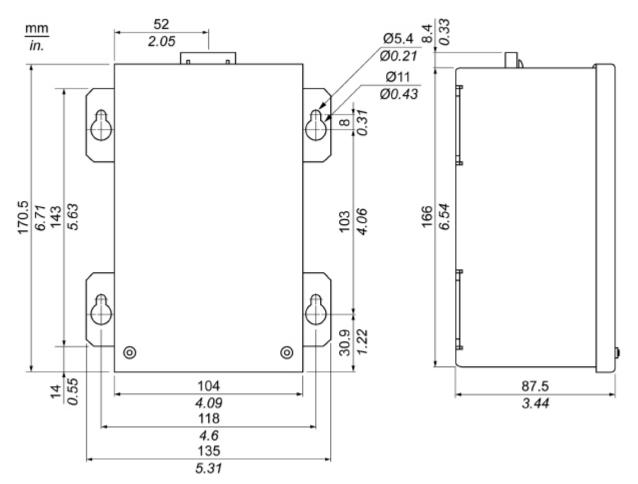
Primary features of the UPS option:

- · 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 <u>model code</u> 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. <u>http://www.mnc.co.jp/INtime/</u> <u>http://www.tenasys.com/products/intime.php</u>

#### 5.4 Exclusive BTO (build to order) options

The products introduced below are optional products that can be built-in to the PS-4700 when purchased. The products below can be built-in by specifying the <u>order model code</u> as shown in red. Please note that the options cannot be installed after purchase.

Product name		Order model code
Main memory	1 GB	PFXP*172** <mark>1</mark> ****N00
	2 GB	PFXP*172** <mark>2</mark> ****N00
	3 GB (2 GB + 1 GB)	PFXP*172** <mark>3</mark> ****N00
	4 GB (2 GB + 2 GB)	PFXP*172** <mark>4</mark> ****N00
	6 GB (4 GB + 2 GB)	PFXP*172** <mark>6</mark> ****N00
	8 GB (4 GB + 4 GB)	PFXP*172** <mark>8</mark> ****N00
UPS battery unit I/F unit (DC power supply model)		PFXP*172* <mark>B</mark> *****N00
UPS battery unit I/F unit		
(DC power supply model, with marine specification power		PFXP*172* <mark>G</mark> *****N00
supply line noise filter)		
COM port expansion board (RS-232C/422/485)		PFXP*172*****4N00