



SCIGATE AUTOMATION (S) PTE LTD

No.1 Bukit Batok Street 22 #01-01 Singapore 659592

Tel: (65) 6561 0488

Fax: (65) 6562 0588

Email: sales@scigate.com.sg

Web: www.scigate.com.sg

Business Hours: Monday - Friday 8.30am - 6.15pm

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PS-365*A → PS-4600

Replacement Guidebook

Introduction

This document introduces the procedures and notes for replacing the PS-365*A with the PS-4600.

The recommended substitute model is listed below.

| Equipment in use | Recommended substitute model |
|--|--|
| PS-3650A *1 (Expansion slot x 1) Model code: PS3650A-T42(-24V) | PS-4600 (Expansion slot x 1) Model code: PFXP*161E*****N00 |
| PS-3651A *1 (No expansion slot) Model code: PS3651A-T42(-24V) | PS-4600 (No expansion slot) Model code: PFXP*160D*****N00 |

*1 Sales terminated as of March 2014

Interpreting the PS-4600 Series Model Code

A portion of the PS-4600 Series model code differs according to the specification. When purchasing the PS-4600 Series, carefully check the model code to order before making your purchase.

PFXP * 1 * * * * * * * * * * 0 0

5
7
8
9
10
11
12
13
14
15
16

| Digit number | | 5 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-------------------|--|---|---|---|---|----|----|----|----|----|----|----|
| Front bezel | Aluminum Standard Model | P | | | | | | | | | | |
| | Rear Mount Model | F | | | | | | | | | | |
| Display | 12-inch (XGA) | | 6 | | | | | | | | | |
| Expansion slot *1 | 0 slot | | | 0 | | | | | | | | |
| | 1 slot = 1 PCI | | | 1 | | | | | | | | |
| | 1 slot = 1 PCI Express | | | C | | | | | | | | |
| | 2 slots = 1 PCI + 1 PCI Express | | | 2 | | | | | | | | |
| | 2 slots = 2 PCI | | | A | | | | | | | | |
| CPU type | Intel® Celeron® M 827E 1.4GHz | | | | D | | | | | | | |
| | Intel® Core™ i3 3217UE 1.6GHz | | | | E | | | | | | | |
| Power supply | AC | | | | | A | | | | | | |
| | DC with interface for UPS Battery Unit | | | | | B | | | | | | |
| | DC | | | | | D | | | | | | |
| | AC with interface for UPS Battery Unit | | | | | U | | | | | | |
| Memory | 1GB | | | | | | 1 | | | | | |
| | 2GB | | | | | | 2 | | | | | |
| | 3GB(2GB+1GB) | | | | | | 3 | | | | | |
| | 4GB | | | | | | 4 | | | | | |
| | 6GB(4GB+2GB) | | | | | | 6 | | | | | |
| | 8GB | | | | | | 8 | | | | | |
| | 12GB(8GB+4GB) | | | | | | C | | | | | |
| | 16GB(8GB+8GB) | | | | | | G | | | | | |

| Digit number | | 5 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|-----------------------|---|---|---|---|---|----|----|----|----|----|----|----|
| OS | None | | | | | | | 0 | | | | |
| | Windows® Embedded Standard 2009 MUI (32-bit) | | | | | | | 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 | | | |
| | CFast (4GB) | | | | | | | | G | | | |
| | CFast (8GB) | | | | | | | | H | | | |
| | CFast (16GB) | | | | | | | | J | | | |
| | Primary CFast 4 GB + Secondary CFast 4 GB (for Windows® Embedded Standard 2009 MUI) | | | | | | | | L | | | |
| | Primary CFast 8 GB + Secondary CFast 4 GB (for Windows® Embedded Standard 7 Premium MUI) | | | | | | | | M | | | |
| | HDD(500GB) with FAN | | | | | | | | P | | | |
| | SSD(60GB) | | | | | | | | T | | | |
| | SSD(128GB) | | | | | | | | U | | | |
| Slide-in Equipment | None | | | | | | | | | 0 | | |
| | DVD multi drive | | | | | | | | | 1 | | |
| | HDD(500GB) | | | | | | | | | 2 | | |
| | SSD(60GB) | | | | | | | | | 3 | | |
| Options | None | | | | | | | | | | 0 | |
| | COM Expansion Board (RS-232C/422/485) | | | | | | | | | | 4 | |
| | COM Expansion Board + COM Expansion Board(RS-232C/422/485) | | | | | | | | | | W | |
| Software Bundle | None | | | | | | | | | | | N |
| | WinGP | | | | | | | | | | | G |

*1 The number in parentheses indicates the number of PCI Express lanes.
To conform to the PL-365*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.

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Chapter 1. Specification Comparison

1.1 PS-3650A and PS-4600 (1 slot) specification comparison



| Display specifications | | | |
|---------------------------------|---|---|---|
| | | PS-3650A | PS-4600 (1 slot) |
| | |  |  |
| Display device | TFT color LCD (12-inch) | | |
| Graphics | XGA (1,024 x 768 pixels) | | |
| Display colors/gradation | 260,000 colors | UP! 16 million colors | |
| Backlight | Cold-cathode tube (replaceable) | 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 | 60,000 hours or more | 50,000 hours or more | |
| Touch panel | Type | Analog resistive | |
| | Resolution | 1,024 x 1,024 | UP! 4,096 x 4,096 |

| Performance specifications | | |
|----------------------------|---|---|
| | PS-3650A | PS-4600 (1 slot) |
| CPU | Intel® Celeron® M (1.5GHz) | UP! Intel® Core™ i3 (1.60GHz) |
| L2 cache | 1 MB | UP! 3 MB |
| Main memory | 1 slots (1 GB max) (DDR 333 MHz) | UP! 2 slots (16 GB max) (DDR3 1,600 MHz) |
| Chipset | Intel® 855GME + ICH-4 | Intel® QM77 |
| Graphics controller | Onboard Intel® 855GME | Intel® HD Graphics 4000 |
| Video memory | 64 MB max (Allocated from main memory) | UP! 1 GB (Allocated from main memory) |
| Video output | Analog | NEW! QXGA (2,048 x 1,536 pixels) or lower |
| | Digital | NEW! FHD (1,920 x 1,200 pixels) or lower |

| General specifications | | |
|--|---|--|
| | PS-3650A | PS-4600 (1 slot) |
| Panel cut dimensions | W301.5 x H227.5 mm [W11.87 x H8.96 in.] | |
| External dimensions | W313 x H239 x D103 mm [W12.32 x H9.41 x D4.06 in.] | W313 x H239 x D114.2 mm [W12.32 x H9.41 x D4.50 in.] → See 2.2 |
| Front bezel material | Die cast aluminum | Aluminum |
| Weight | Approx. 4.5 kg (9.9 lbs) | Approx. 4.1 kg (9.03 lbs) |
| Cooling method | Forced air cooling by fan | UP! Forced air cooling by fan (Intelligent fan control) → See 2.3 |
| Power supply → See 2.9 | AC power supply: 100 to 240 V, DC power supply: 24 V | |
| Power consumption | AC power supply | 110 VA or lower |
| | DC power supply | 80 W or lower |
| Battery backup UPS | Optional (AC power supply only) | UP! Optional → See 2.4 |

| Interface specifications | | | |
|------------------------------|------|--|--|
| | | PS-3650A | PS-4600 (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 2 →See 2.5 |
| | | RS-232C (RI/+5V switchable) x 2 | - |
| RAS | | 25-pin D-sub plug | - |
| Disk | SATA | - | NEW! Slide-in disk: (HDD/SSD/CFast adaptor Unit) x 1 Slide-in slot: (HDD/SSD/DVD-RW) x 1 CFast card slot x 1 →See 2.7 |
| | IDE | CF card (Type-I, Type-II) x 1 | - |
| USB →See 2.6 | | USB x 4 (USB 2.0 compatible, Type-A) Front USB x 1 (USB 1.1 compatible, Type-A) | USB x 4 (USB 3.0 compatible, Type-A) Front USB x 1 (USB 2.0 compatible, Type-A) |
| Ethernet | LAN1 | 10BASE-T/100BASE-TX auto switching | UP! 10BASE-T/100BASE-TX/1000BASE-E-T auto switching |
| | LAN2 | 10BASE-T/100BASE-TX/1000BASE-T auto switching | |
| PCMCIA | | Side x 1 PCMCIA Type II cards can be used. CARD BUS support (Excluding VIDEO ZOOM, SOUND functions) | - |
| Sound | | Line output | UP! Line input or mic input / line output |
| DVI | | - | NEW! DVI-I x 1 |
| PCI | | PCI 1 slot (Rev. 2.2) | |

1.2 PS-3651A and PS-4600 (0 slot) specification comparison

| Display specifications | | | |
|---------------------------------|---|---|---|
| | | PS-3651A | PS-4600 (0 slot) |
| | |  |  |
| Display device | TFT color LCD (12-inch) | | |
| Graphics | XGA (1,024 x 768 pixels) | | |
| Display colors/gradation | 260,000 colors | UP! 16 million colors | |
| Backlight | Cold-cathode tube (replaceable) | 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 | 60,000 hours or more | 50,000 hours or more | |
| Touch panel | Type | Analog resistive | |
| | Resolution | 1,024 x 1,024 | UP! 4,096 x 4,096 |

| Performance specifications | | |
|----------------------------|---|---|
| | PS-3651A | PS-4600 (0 slot) |
| CPU | Intel® ULV Celeron® M (1 GHz) | UP! Intel® Celeron® M 827E (1.4 GHz) |
| L2 cache | 512 KB | UP! 1.5MB |
| Main memory | 1 slot (1 GB max) (DDR 333 MHz) | UP! 2 slots (16 GB max) (DDR3 1,600 MHz) |
| Chipset | Intel® 855GME + ICH-4 | Intel® HM76 |
| Graphics controller | Onboard Intel® 855GME | Intel® HD Graphics 3000 |
| Video memory | 64 MB max (Allocated from main memory) | UP! 1 GB (Allocated from main memory) |
| Video output | Analog | NEW! QXGA (2,048 x 1,536 pixels) or lower |
| | Digital | NEW! FHD (1,920 x 1,200 pixels) or lower |

| General specifications | | |
|---|--|---|
| | PS-3651A | PS-4600 (0 slot) |
| Panel cut dimensions | W301.5 x H227.5 mm [W11.87 x H8.96 in.] | |
| External dimensions | W313 x H239 x D60 mm [W12.32 x H9.41 x D2.36 in.] | W313 x H239 x D59.5 mm [W12.32 x H9.41 x D2.35 in.] → See 2.2 |
| Front bezel material | Die cast aluminum | Aluminum |
| Weight | Approx. 3.8 kg (8.4 lbs) | Approx. 4.0 kg (8.81 lbs) |
| Cooling method | Natural cooling (fanless) | Natural cooling (fanless) (When an HDD is not mounted on Slide-in Disk) → See 2.3 |
| Power supply → See 2.9 | AC power supply: 100 to 240 V, DC power supply: 24 V | |
| Power consumption | AC power supply | 95 VA or lower |
| | DC power supply | 40 W or lower |
| Battery backup UPS | Optional (AC power supply only) | UP! Optional → See 2.4 |

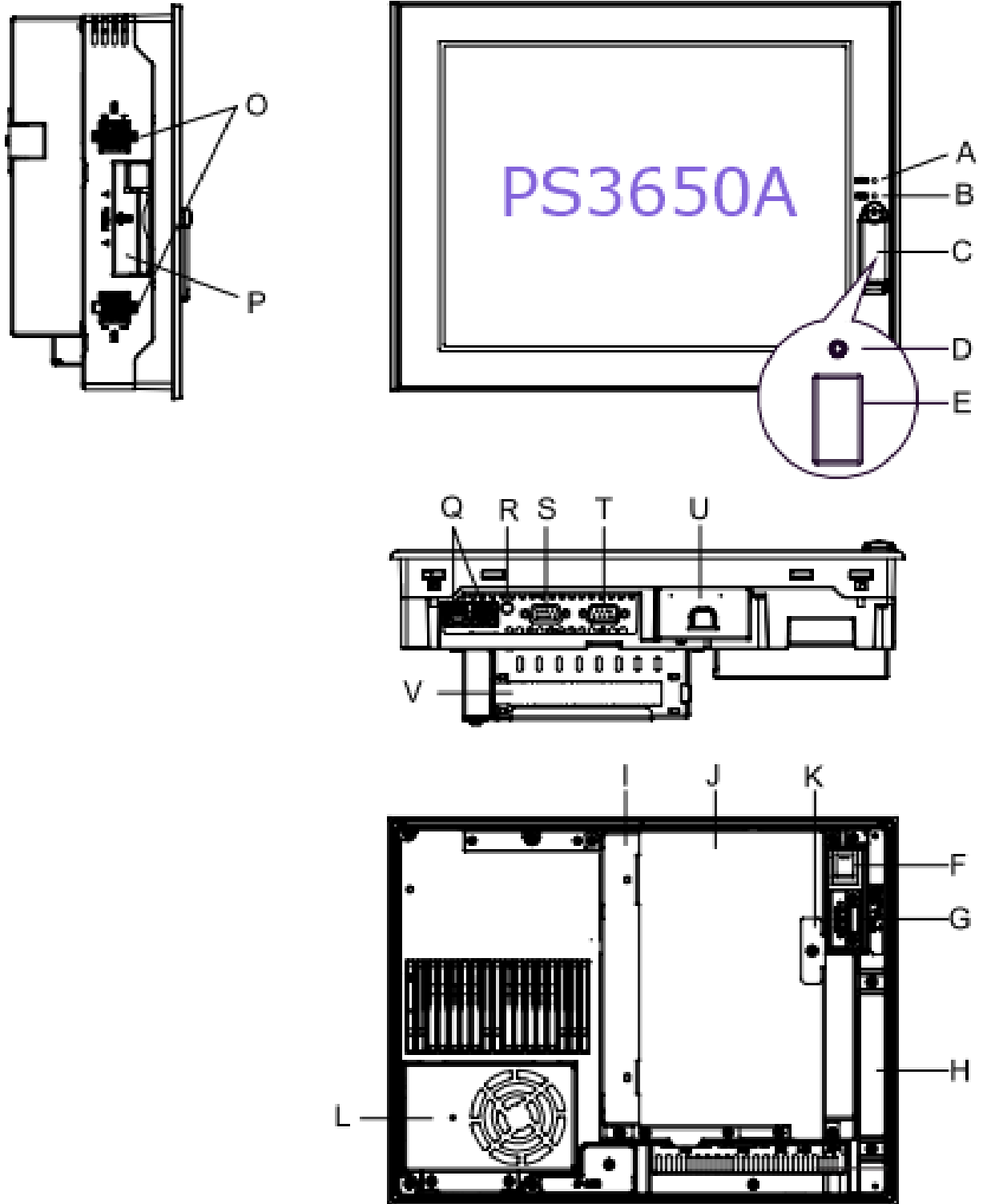
| Interface specifications | | | |
|------------------------------|------|--|--|
| | | PS-3651A | PS-4600 (0 slot) |
| Serial (9-pin D-sub plug) | | - | RS-232C x 2 |
| | | RS-232C/422/485 x 1 | RS-232C/422/485 (optional) x 2 →See 2.5 |
| | | RS-232C (RI/+5V switchable) x 1 | - |
| RAS | | 25-pin D-sub (plug) | - |
| Disk | SATA | - | NEW! Slide-in disk: (HDD/SSD/CFast adaptor Unit) x 1 Slide-in slot: (HDD/SSD/DVD-RW) x 1 CFast card slot x 1 |
| | IDE | CF card (Type-I, Type-II) x 1 | - |
| USB →See 2.6 | | USB x 4 (USB 2.0 compatible, Type-A) Front USB x 1 (USB 1.1 compatible, Type-A) | USB x 4 (USB 3.0 compatible, Type-A) Front USB x 1 (USB 2.0 compatible, Type-A) |
| Ethernet | LAN1 | 10BASE-T/100BASE-TX auto switching | UP! 10BASE-T/100BASE-TX/1000BASE-T auto switching |
| | 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 or mic input / line output |
| DVI | | - | NEW! DVI-I x 1 |
| PCI | | - | |

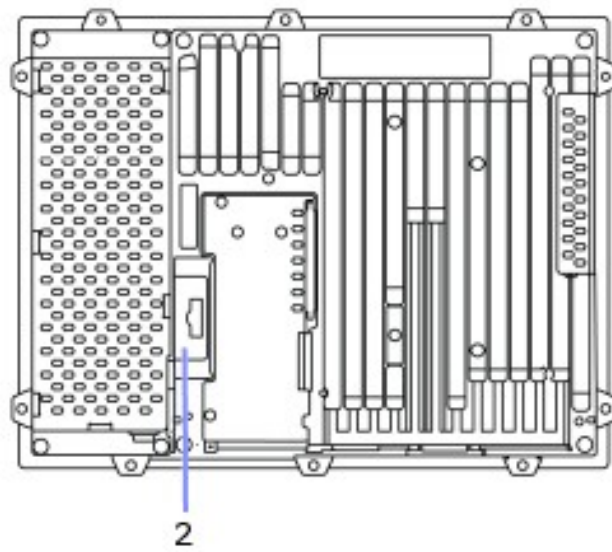
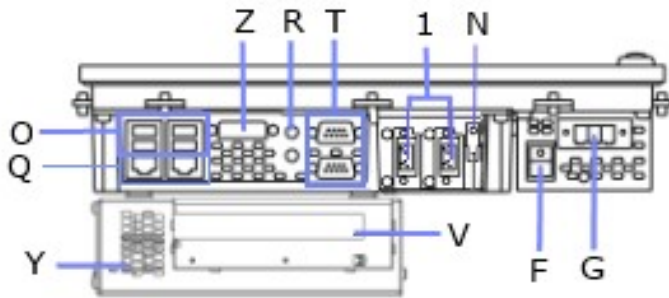
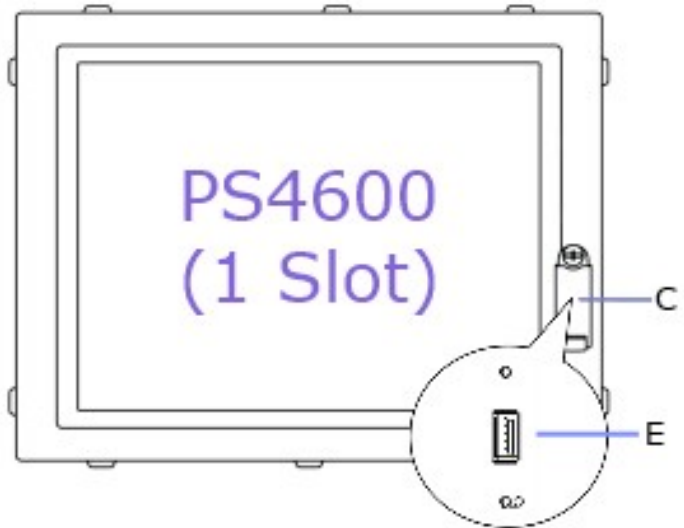
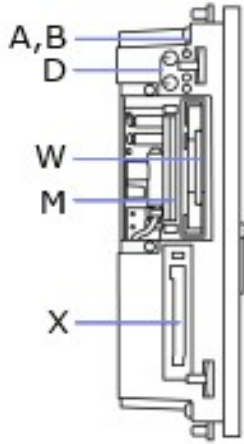
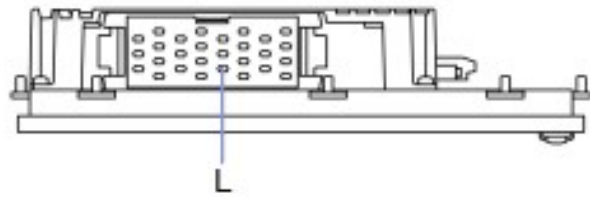
Chapter 2. Hardware Compatibility

2.1 Differences in function locations

The locations of the various functions differ on the PS-365*A and the PS-4600 as shown below.

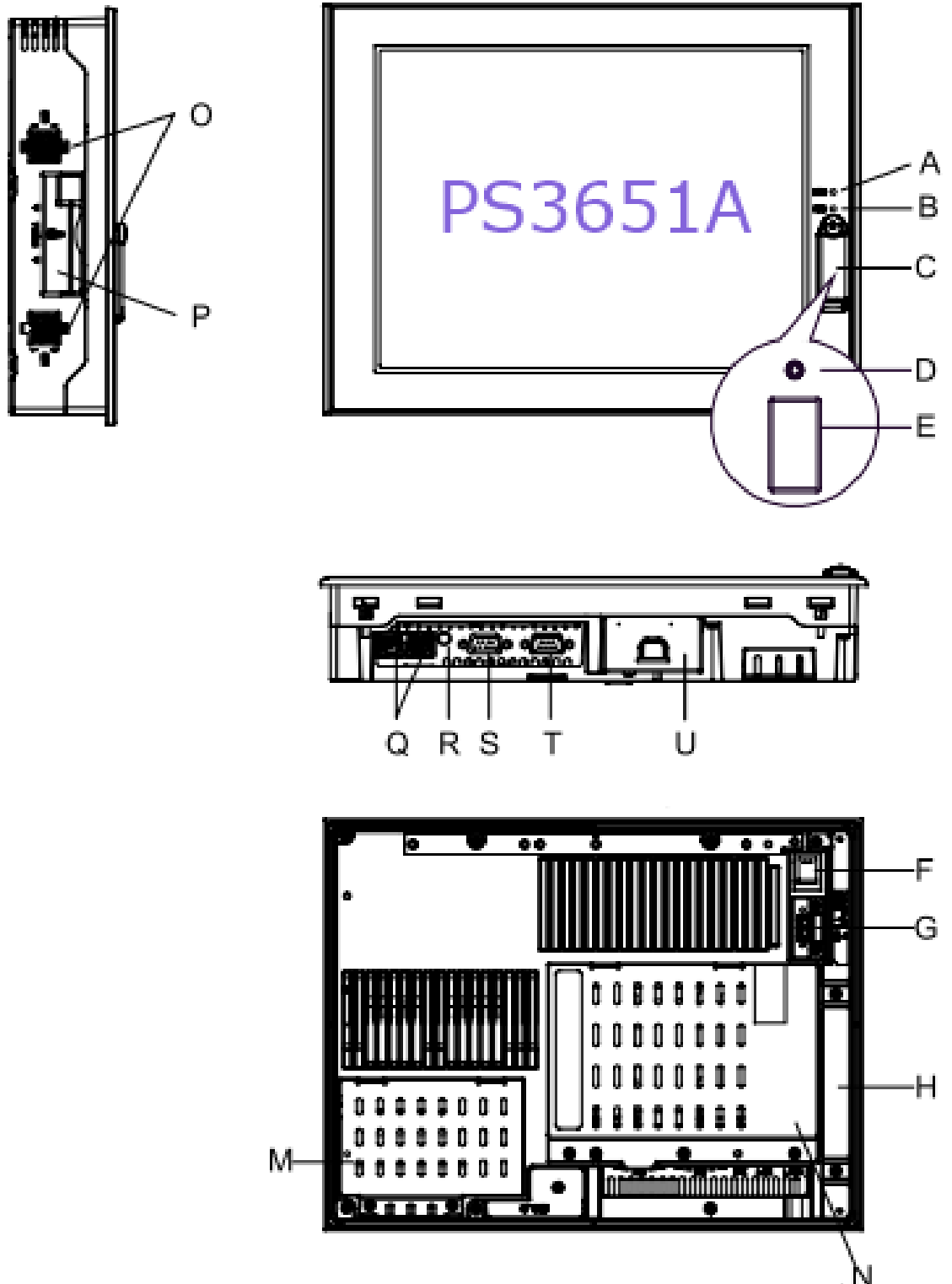
◆PS-3650A and PS-4600 (1 slot) function locations

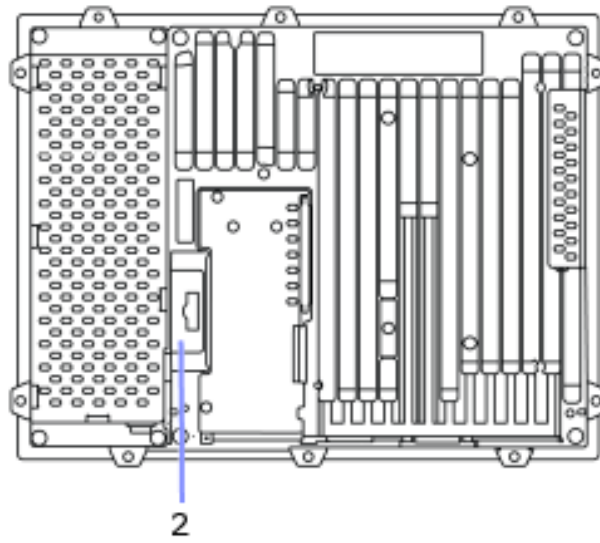
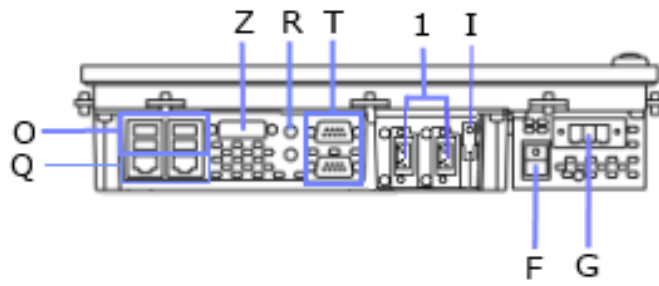
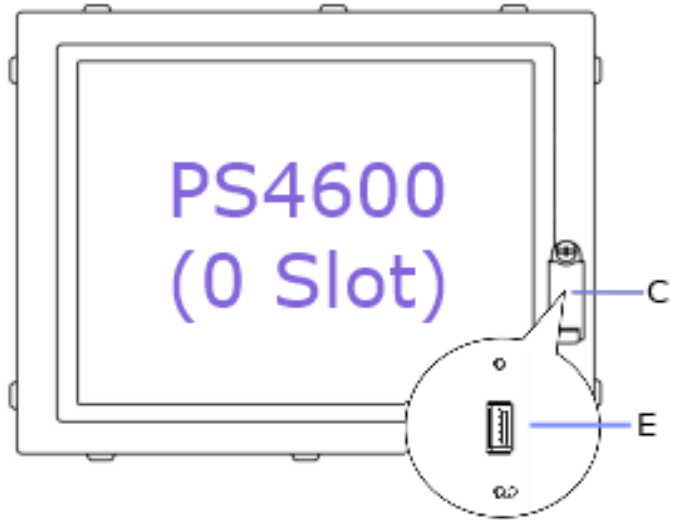
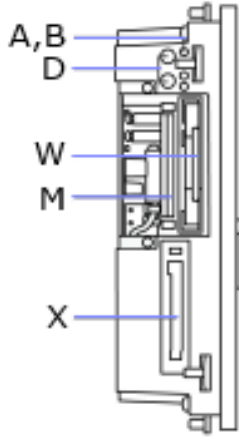
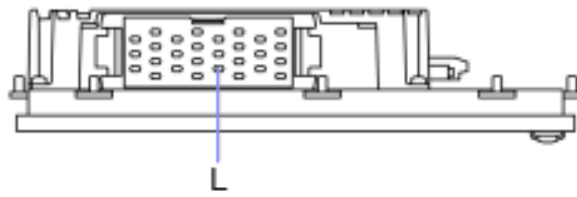




| | PS-3650A | PS-4600 (1 slot) |
|---|---|---|
| A | Power supply LED/RAS status lamp | Status LED (power supply) |
| B | HDD/IDE Access lamp (DISK) | Status LED (Disk access) |
| C | Front cover | |
| D | Hardware Reset Switch (RESET) | Power/ Reset buttons |
| E | Front USB interface | |
| F | Power switch (AC power supply only) | |
| G | Power supply connector | |
| H | Mask Cover | - |
| I | Expansion Board Base | - |
| J | Expansion Board Cover | - |
| K | Expansion Board Support | - |
| L | Fan Unit | Fan Unit (When an HDD is mounted on Slide-in Disk) |
| M | Memory Slot | |
| N | - | Ground connection |
| O | USB interface x 4 | |
| P | PCMCIA Slot Cover | - |
| Q | Ethernet interface (LAN1/LAN2) | |
| R | Speaker output | Line input or mic input / line output |
| S | RAS interface (RAS) / Serial Interface (RS-232C) | - |
| T | Serial I/F (RS-232C/422/485) | Serial I/F (RS-232C) x 2 |
| U | CF Card Cover | - |
| V | Expansion slot PCI | |
| W | - | Slide-in Disk (HDD/SSD/CFast adaptor Unit) |
| X | - | CFast slot/Connection |
| Y | - | Slot expansion and Slide-in Slot (HDD/SSD/DVD-RW) |
| Z | - | DVI-I interface |
| 1 | - | Add-on interface module slot x2 (RS-232C/422/485 I/F or UPS I/F) |
| 2 | - | Backup lithium battery |

◆PS-3651A and PS-4600 (0 slot) function locations



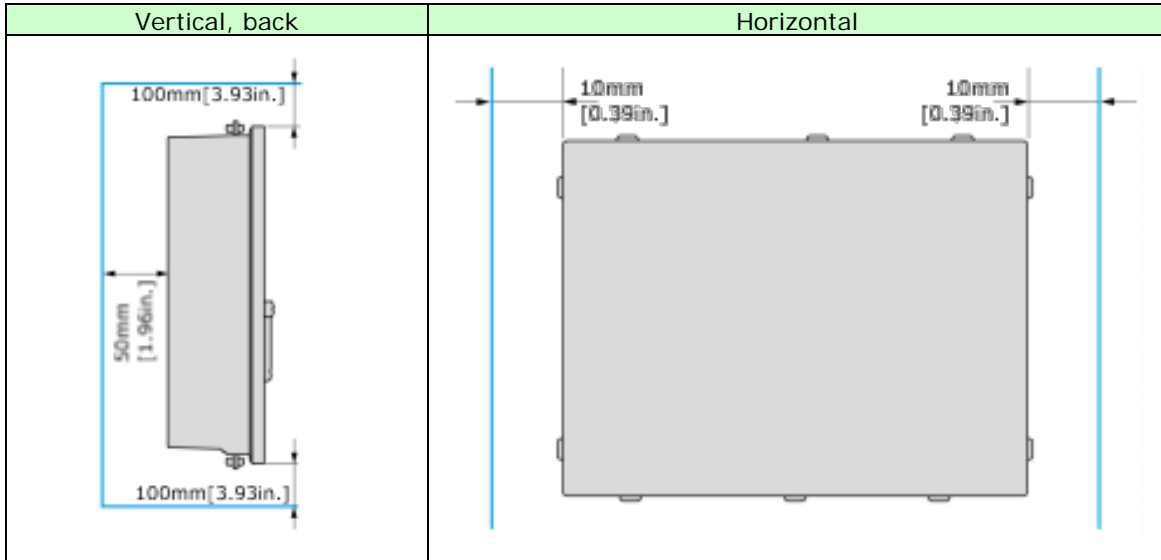


| | PS-3651A | PS-4600 (0 slot) |
|---|---|---|
| A | Power supply LED/RAS status lamp | Status LED (power supply) |
| B | HDD/IDE Access lamp (DISK) | Status LED (disk access) |
| C | Front cover | |
| D | Hardware reset switch | Power/ Reset buttons |
| E | Front USB interface | |
| F | Power switch (AC power supply only) | |
| G | Power supply connector | |
| H | Mask Cover | - |
| I | - | Ground connection |
| L | - | Fan Unit (When an HDD is mounted on Slide-in Disk) |
| M | Memory Slot | |
| N | DISK Cover | - |
| O | USB interface x 4 | |
| P | PCMCIA Slot Cover | - |
| Q | Ethernet interface (LAN1/LAN2) | |
| R | Speaker output | Line input or mic input / line output |
| S | RAS interface (RAS) / Serial Interface (RS-232C) | - |
| T | Serial I/F (RS-232C/422/485) | Serial I/F (RS-232C) x 2 |
| U | CF Card Cover | - |
| W | - | Slide-in Disk (HDD/SSD/CFast adaptor Unit) |
| X | - | CFast slot/Connection |
| Z | - | DVI-I interface |
| 1 | - | Add-on interface module slot x2 (RS-232C/422/485 I/F or UPS I/F) |
| 2 | - | Backup lithium battery |

2.2 External dimensions

Compared with PS-365*A, the depth of PS-4600 is large (about 9 mm larger).
Vertical space is changed from 50 mm to 100 mm.

A guide to ensure the amount of space necessary to safely install the product is listed below.



2.3 Intelligent fan control

In PS-4600, a fan is attached to the Slide-in Disk when an HDD is mounted. When fanless is required, specify other than "P" for 13rd digit of the [model code](#) in the built-in shipping options. When a fan is attached later when an HDD is mounted on the Slide-in Disk, please contact our support division because it is necessary to update the software.

The fan speed for PS-4600 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

By equipping the PS-4600 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 "U" for the 10th digit of the [model code](#) in the built-in shipping options.

2.5 Serial interfaces

For PS-4600, up to 2 ports of serial interfaces which correspond to a communication method (RS-232/ 422/485) can be added. (When a UPS is selected, only 1 port is added.) In the case of addition, specify "4" or "W" for the 15th digit of the [model code](#) in the built-in shipping 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-4600 also uses COM3 internally as the touch panel interface. When adding additional COM ports with expansion boards or USB-SIO, do not use COM3.

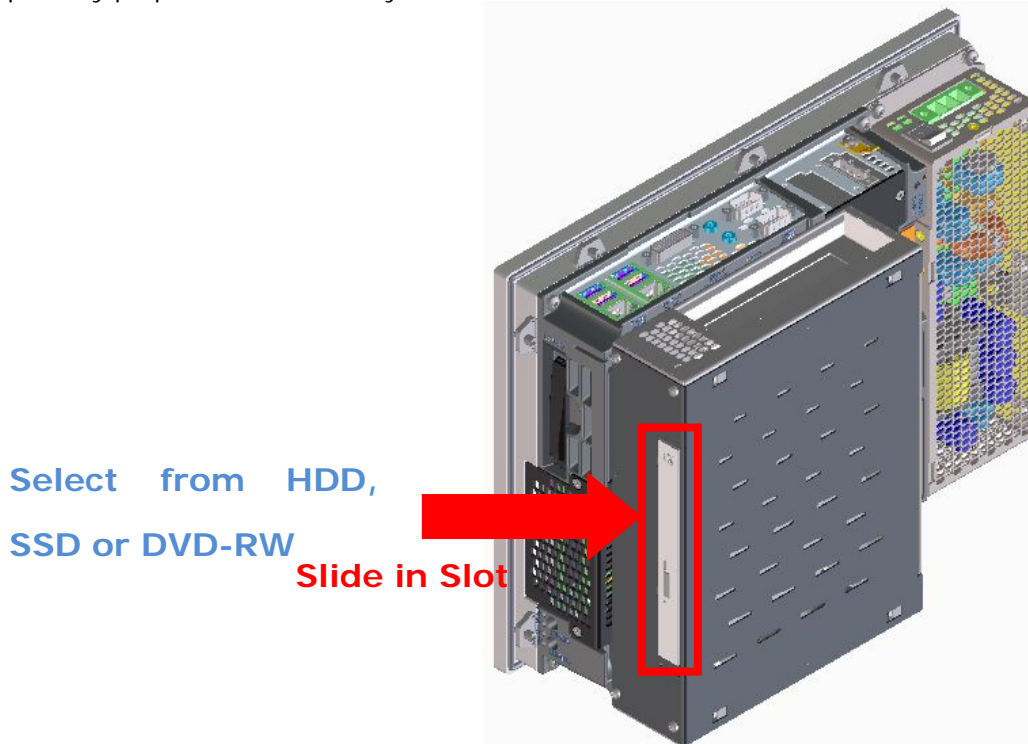
2.6 USB interface

The PS-365*A can be configured not to use the front USB port with the DIP switches, but the PS-4600 does not have this setting.

The Rear Mount Model PS-4600 is not equipped with a USB interface on the front of the touch panel, so there are 4 ports total.

2.7 DVD-RW drive

The DVD-RW drive is connected to the slide-in slot. An expansion slot is required for the slide-in slot. Specify other than "0" for 8th digit of the [model code](#) in the built-in shipping options. 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.



2.8 External HDD, SSD, CFast card, USB devices

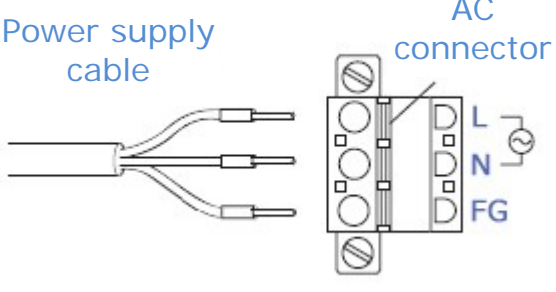
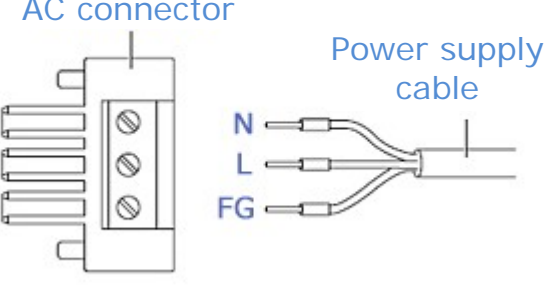
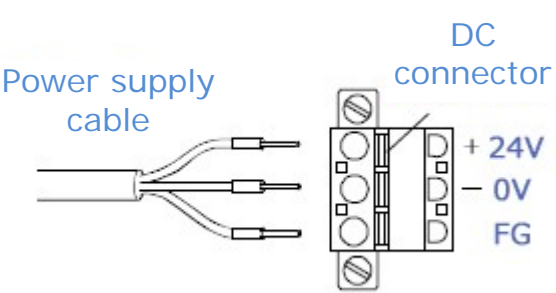
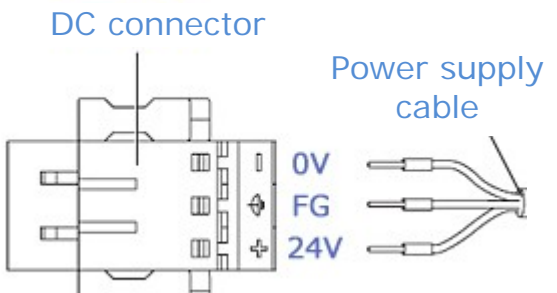
When an external HDD, SSD, CFast card or USB device is connected to a PS-4600 pre-installed with Microsoft Windows Embedded Standard, the system will no longer start. In this situation, the system can be started with the device connected to it by configuring the setting below in the BIOS boot menu.

| Condition | BIOS setting |
|--|--|
| When using only a CFast card with OS installed | Set [SATA 1 Drive] for the [1st Boot Device] settings. |
| When using a CFast card with OS installed and another CFast card for storage | Set [SATA 0 Drive] for the [1st Boot Device] settings. |

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

2.9 Power supply plug

Caution: The power line terminal locations for the power supply plug differ between the PS-365*A and the PS-4600.

| | PS-365*A | PS-4600 |
|-----------------|---|--|
| AC power supply |  <p>Power supply cable</p> <p>AC connector</p> <p>L N FG</p> |  <p>AC connector</p> <p>Power supply cable</p> <p>N L FG</p> |
| DC power supply |  <p>Power supply cable</p> <p>DC connector</p> <p>+ 24V - 0V FG</p> |  <p>DC connector</p> <p>Power supply cable</p> <p>0V FG + 24V</p> |

2.10 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-365*A and their compatibility are listed below.

| Product name | | Model code * | PS-3650A | PS-3651A | PS-4600 |
|----------------------------------|--------|---------------------|----------|----------|---------|
| DIM module DDR2 | 512 MB | PSA-DDR512 | ✓ | ✓ | x |
| | 1 GB | PSA-DDR1G | ✓ | ✓ | x |
| HDD unit | 250 GB | PS365XA-250 | ✓ | ✓ | 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 |
| Industrial hub | | SPIDER8TX-PRO | ✓ | ✓ | ✓ |
| USB front attachment cable (1 m) | | CA5-USBEXT-01 | ✓ | ✓ | ✓ |
| Screen protection sheet (5 pcs.) | | CA7-DFS12-01 | ✓ | ✓ | ✓ |

* 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-365*A and their compatibility are listed below.

| Product name | Model code * | PS-3650A | PS-3651A | PS-4600 |
|--|-----------------|----------|----------|---------|
| Replacement battery unit | PS365XA-BATTU | ✓ | ✓ | x |
| Drip-proof packing | CA3-WPG12-01 | ✓ | ✓ | x |
| Backlight | CA8-BLU12XGA-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.) | CA 5 -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-365*A and the PS-4600 are listed below.

| OS | PS-365*A | PS-4600 |
|---|----------|---------|
| Windows® XP Professional Japanese | ✓ | ✓ |
| Windows® XP Professional Multi-Language | ✓ | ✓ |
| Windows® XP Embedded Multi-Language | ✓ | x |
| Windows® Embedded Standard 2009 | x | ✓ |
| Windows® Embedded Standard 7 | x | ✓ |
| Windows® 7 Ultimate | x | ✓ |

4.2 Supported operating system languages

The supported operating system languages differ between the PS-4600 and the PS-365*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 |
| 365*A | PS-365*A |
| 4600 | PS-4600 |

| Language | WinXP | | WinXP ML | | XPE ML | WES 2009 | WES7 | Win7 |
|-----------------------|-------|------|----------|------|--------|----------|------|------|
| | 365*A | 4600 | 365*A | 4600 | 365*A | 4600 | 4600 | 4600 |
| 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-4600 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-365*A and RS-422/485 communication was being performed, the PS-365*A cannot be replaced with the PS-4600 as is.

→[See 2.6](#)

*2 The PS-365*A driver is DMC's UPDD, but the PS-4600 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-365*A was RAM mode, but the PS-4600 changes to RAM REG.

*5 The PS-365*A had a dedicated tool, but the PS-4600 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-4600 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 Only when an HDD is mounted on the slide-in Disk.

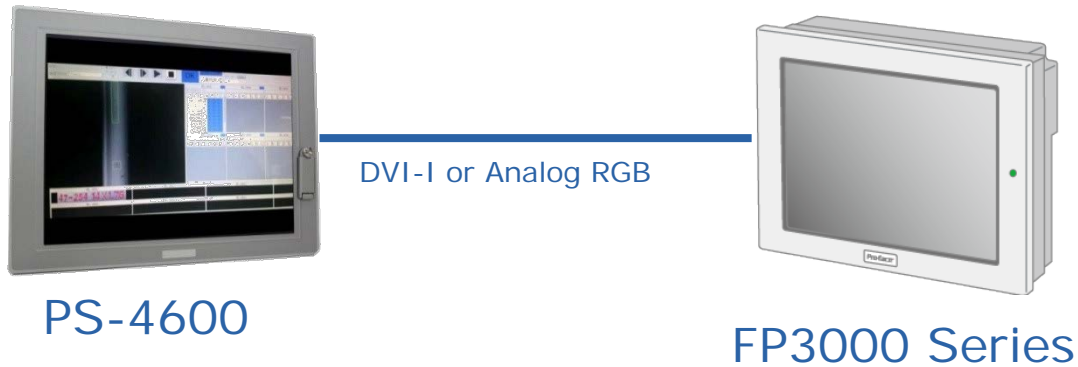
Chapter 5. Appendix

5.1 FP-3000 Series

5.1.1 Connection with the PS-4600

The PS-4600 can connect to the FP-3000 Series by DVI* or analog RGB. PS-4600 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-4600 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 SXGA resolution or higher.

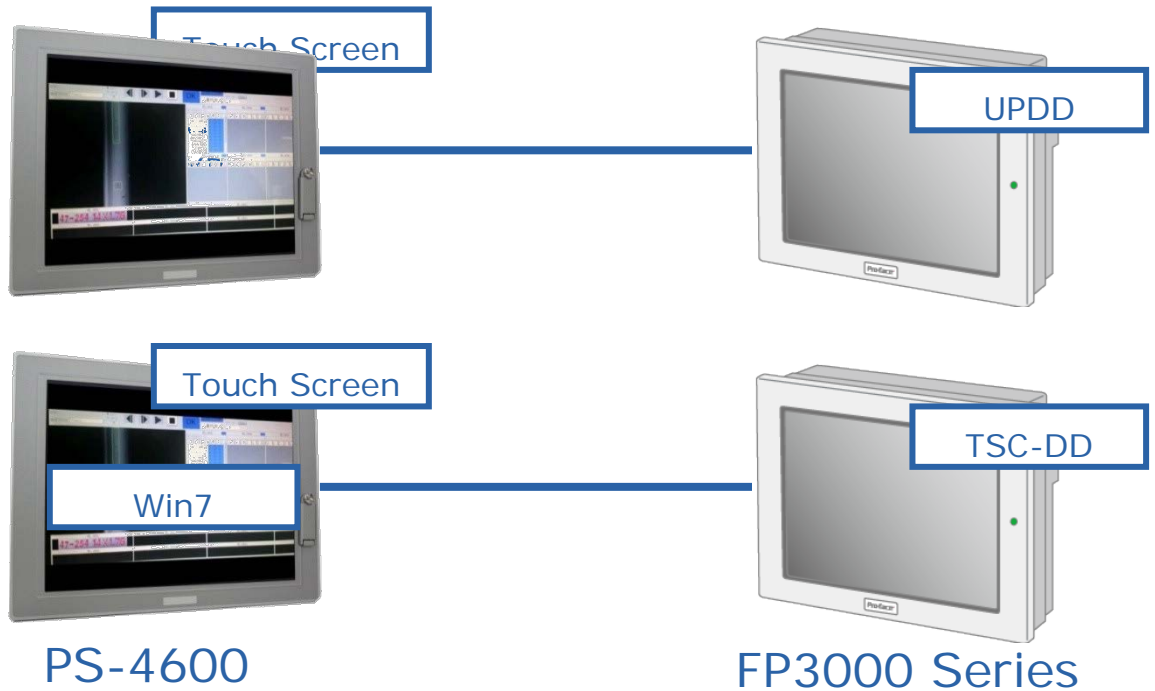
5.1.3 Required touch panel driver

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

| OS | PS-4000 Series | FP-3000 Series | | |
|-----------------------------------|----------------|----------------|-------------------|--------------------------|
| | PS-4600 | 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 |

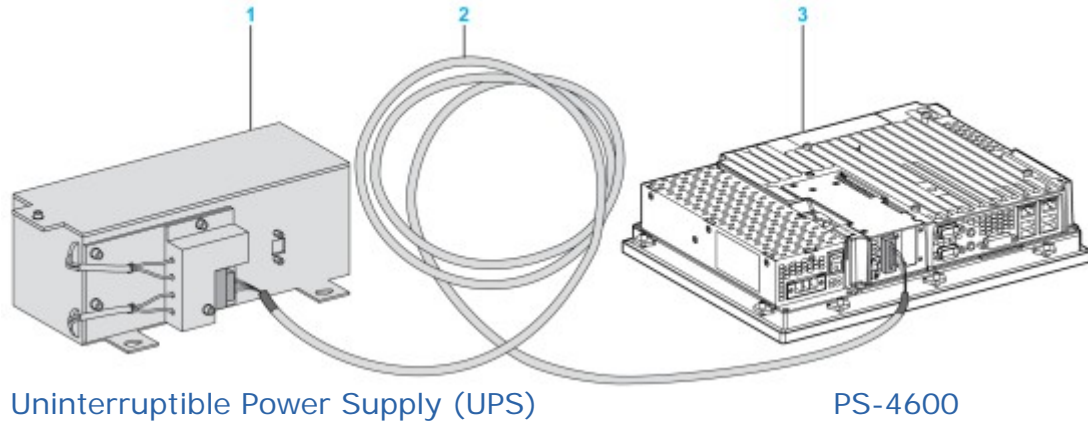


5.2 Uninterruptible power supply (UPS)

5.2.1 Overview

An uninterruptible power supply (UPS) option can be used for both AC and DC power supply type. The diagram below shows PS4600 with the UPS attached.

Attach a UPS I/F board to an IF 1 of an expansion interface module.



1: UPS battery unit (model code: PFXZPSEUUPB2)

2: UPS connection cable 3 m (model code: PFXZPSCBUP32)

3: PS-4600 Series equipped with the UPS interface board (model code: PFXZPSIUUPM2*)

Primary features of the UPS option:

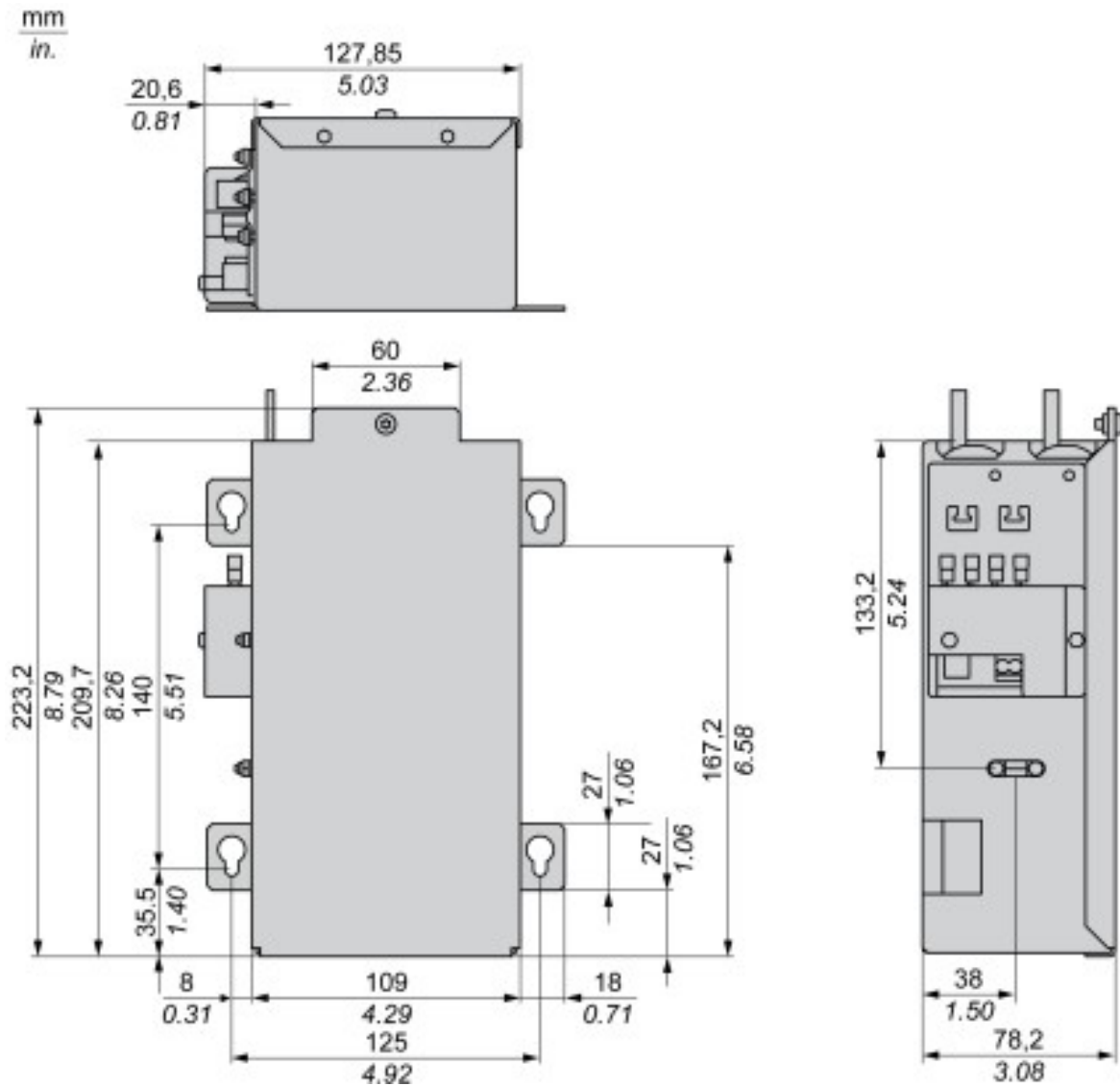
- Rechargeable battery that is maintenance free and lasts a long time
- Communication over the built-in interface
- Temperature sensor
- Over discharge protection

* You must specify "B" or "U" for the 10th digit of the [model code](#) in the built-in shipping options. It is possible for a user to purchase an UPS as an option and attach it to the main unit later.

5.2.2 Specifications

| | |
|----------------------------|---|
| Battery: Type Method | Hawker Cyclon 12 Vdc 4.5 Ah (2 connected in series) Single cell (X cell) |
| Rated Voltage | 24 Vdc |
| Battery Charging Current | 2.88 A maximum |
| Deep discharge protection | Yes |
| Short circuit protection | Yes (This does not apply to the connected battery unit.) |
| Power consumption | 15.0 W maximum at 0.5A |
| Status indicator | Displayed in System Monitor utility |
| Configuration | Configured with System Monitor utility |

5.2.3 Dimensions



5.3 INtime OS

PS-4600 is scheduled to support the INtime OS.
For details, contact TenAsys Corporation.

<http://www.mnc.co.jp/INtime/>

<http://www.tenasys.com/products/intime.php>