

STW6000 Series

Hardware Manual

STW6000-MM01-EN_03
10/2020

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries (hereinafter, referred to as Schneider Electric) shall be responsible or liable for misuse of the information that is contained herein. If you have any suggestions for improvements or amendments or have found errors in this publication, please notify us.

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All pertinent state, regional, and local safety regulations must be observed when installing and using this product. For reasons of safety and to help ensure compliance with documented system data, only the manufacturer should perform repairs to components.

When devices are used for applications with technical safety requirements, the relevant instructions must be followed.

Failure to use Schneider Electric software or approved software with our hardware products may result in injury, harm, or improper operating results.

Failure to observe this information can result in injury or equipment damage.

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Safety Information



Important Information

NOTICE

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.



The addition of this symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER

DANGER indicates a hazardous situation which, if not avoided, **will result in** death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, **could result in** death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, **could result in** minor or moderate injury.

NOTICE

NOTICE is used to address practices not related to physical injury.

PLEASE NOTE

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction and operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

About the Book



At a Glance

Document Scope

This manual describes how to use this product.

Validity Note

This documentation is valid for this product.

The technical characteristics of the device(s) described in this manual also appear online at <http://www.pro-face.com>.

The characteristics presented in the present document should be the same as those that appear online. In line with our policy of constant improvement we may revise content over time to improve clarity and accuracy. In the event that you see a difference between the document and online information, use the online information as your reference.

Registered Trademarks

Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Product names used in this manual may be the registered trademarks owned by the respective proprietors.

Related Documents

You can download the manuals related to this product, such as the software manual, from our support site at <https://www.pro-face.com/trans/en/manual/1085.html>.

Product Related Information

If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. This product is designed to use 24 Vdc. Always check whether your device is DC powered before applying power.

Failure to follow these instructions will result in death or serious injury.

DANGER

POTENTIAL FOR EXPLOSION

- Do not use this product in hazardous environments.
- Do not connect or disconnect this product unless power has been switched off or the area is known to be non-hazardous.
- Do not attempt to install, operate, modify, maintain, service, or otherwise alter this product except as permitted in this manual.
- Confirm that the USB cable has been attached with the USB cable clamp before using the USB interface.

Failure to follow these instructions will result in death or serious injury.

Critical alarm indicators and system functions require independent and redundant protection hardware and/or mechanical interlocks.

When you cycle power, wait at least 10 seconds after it has been turned off. If this product is restarted too quickly, it may not operate correctly.

In the event the screen cannot be properly read, for example, if the backlight is not functioning, it may be difficult or impossible to identify a function. Functions that may present a hazard if not immediately executed, such as a fuel shut-off, must be provided independently of this product. The machine's control system design must take into account the possibility of the backlight no longer functioning and the operator being unable to control the machine or making mistakes in the control of the machine.

WARNING

LOSS OF CONTROL

- The designer of any control scheme must consider the potential failure modes of control paths and, for certain critical control functions, provide a means to achieve a safe state during and after a path failure. Examples of critical control functions are emergency stop and overtravel stop, power outage and restart.
- Separate or redundant control paths must be provided for critical control functions.
- System control paths may include communication links. Consideration must be given to the implications of unanticipated transmission delays or failures of the link.
- Observe all accident prevention regulations and local safety guidelines.
- Each implementation of this product must be individually and thoroughly tested for proper operation before being placed into service.
- The machine control system design must take into account the possibility of the backlight no longer functioning and the operator being unable to control the machine, or making errors in the control of the machine.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

For additional information, refer to NEMA ICS 1.1 (latest edition), "Safety Guidelines for the Application, Installation, and Maintenance of Solid State Control" and to NEMA ICS 7.1 (latest edition), "Safety Standards for Construction and Guide for Selection, Installation and Operation of Adjustable-Speed Drive Systems" or their equivalent governing your particular location.

⚠ WARNING**UNINTENDED EQUIPMENT OPERATION**

- The application of this product requires expertise in the design and programming of control systems. Only persons with such expertise should be allowed to program, install, alter, and apply this product.
- Follow all local and national safety standards.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

⚠ WARNING**UNINTENDED EQUIPMENT OPERATION**

- Do not use this product as the only means of control for critical system functions such as motor start/stop or power control.
- Do not use this equipment as the only notification device for critical alarms, such as device overheating or overcurrent.
- Use only the software provided with this product. If you use another software, please confirm the operation and safety before use.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

The following characteristics are specific to the LCD panel and are considered normal behavior:

- LCD screen may show unevenness in the brightness of certain images or may appear different when seen from outside the specified viewing angle. Extended shadows, or crosstalk may also appear on the sides of screen images.
- LCD screen pixels may contain black and white colored spots and color display may seem to have changed.
- When experiencing vibrations within a certain frequency range and vibration acceleration is above what is acceptable, the LCD screen may partially turn white. Once the vibration condition ends, the whitening of the screen is resolved.
- When the same image is displayed on the screen for a long period, an afterimage may appear when the image is changed.
- The panel brightness may decrease when used for a long time in an environment continuously filled with inert gas. To prevent deterioration of panel brightness, regularly ventilate the panel. For more information, please contact customer support.
<http://www.pro-face.com/trans/en/manual/1015.html>

NOTE: Change the screen image periodically and try not to display the same image for a long period of time.

WARNING

SERIOUS EYE AND SKIN INJURY

The liquid in the LCD panel contains an irritant:

- Avoid direct skin contact with the liquid.
- Wear gloves when you handle a broken or leaking unit.
- Do not use sharp objects or tools in the vicinity of the LCD panel.
- Handle the LCD panel carefully to prevent puncture, bursting, or cracking of the panel material.
- If the panel is damaged and any liquid comes in contact with your skin, immediately rinse the area with running water for at least 15 minutes. If the liquid gets in your eyes, immediately rinse your eyes with running water for at least 15 minutes and consult a doctor.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Cybersecurity Best Practices

To help keep your Pro-face products secure and protected, we recommend that you implement the cybersecurity best practices. Following the recommendations may help significantly reduce your company's cybersecurity risk. For the recommendations, refer to the following URL:

<https://www.pro-face.com/trans/en/manual/1087.html>

Chapter 1

Overview

What Is in This Chapter?

This chapter contains the following topics:

Topic	Page
Model Numbers	12
Package Contents	13
Certifications and Standards	14

Model Numbers

Series	Model name	Model number
STW6000 Series	STW-6200WA	PFXSTW6200WAD
	STW-6400WA	PFXSTW6400WAD
	STW-6500WA	PFXSTW6500WAD
	STW-6600WA	PFXSTW6600WAD
	STW-6700WA	PFXSTW6700WAD

The following describes the configuration of model numbers.

Digit position												
1	2	3	4	5	6	7	8	9	10	11	12	13
P	F	X	(model)			(series)	(size)	(type)		(LCD)	(touch panel)	(power supply)
			STW			6	2: 4" 4: 7" 5: 10" 6: 12" 7: 15"	00: (Reserved)		W: Wide TFT	A: Analog	D: DC

Global Code

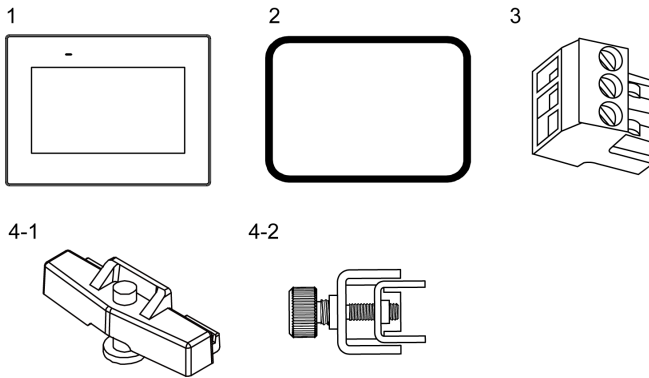
A global code is assigned to every Pro-face product as a universal model number. For more information on product models and their matching global codes, please refer to the following URL.

<http://www.pro-face.com/trans/en/manual/1003.html>

Package Contents

NOTE: This product has been carefully packed with special attention to quality. However, should you find anything damaged or missing, please contact customer support immediately.

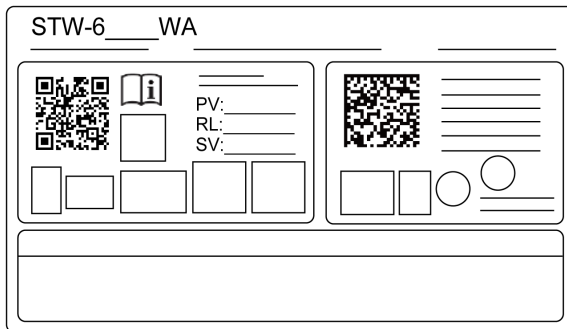
Verify all items listed here are present in your package:



- 1 STW-6•00WA x 1
- 2 Installation gasket (attached to this product) x 1
- 3 DC power supply connector x 1
- 4-1 Installation fastener for: STW-6200WA x 2 pieces
- 4-2 Installation fastener for: STW-64/65/6600WA x 4 pieces, STW-6700WA x 6 pieces
- 5 Installation guide x 1
- 6 Warning/Caution Information x 1

Revision

You can identify the product version (PV), revision level (RL), and the software version (SV) from the product label.



Certifications and Standards

Some products are not subject to certification and standards. And some products have not received their certification and standards but are scheduled for assessment.

The certifications and standards listed below may include those that are not yet acquired for this product. For the latest certifications and standards that this product has acquired, please check the product marking or the following URL.

<http://www.pro-face.com/trans/en/manual/1002.html>

Agency Certifications

Schneider Electric submitted this product for independent testing and qualification by third-party listing agencies. These agencies have certified this product as meeting the following standards.

- Underwriters Laboratories Inc., UL 61010-2-201 and CSA C22.2 N°61010-2-201, Industrial Control Equipment

Compliance Standards

Europe:

CE

- Directive 2014/35/EU (Low Voltage)
- Directive 2014/30/EU (EMC)
 - Programmable Controllers: EN 61131-2
 - EN61000-6-4
 - EN61000-6-2

Australia

- RCM
 - EN61000-6-4

Korea

- KC
 - KN11
 - KN61000-6-2

Qualifications Standards

Schneider Electric voluntarily tested this product to additional standards. The additional tests performed, and the standards under which the tests were conducted, are specifically identified in Structural Specifications (*see page 35*).

Hazardous Substances

This product is designed to be compliant with the following environmental regulations, even if the product may not fall directly in the scope of the regulation:

- WEEE, Directive 2012/19/EU
- RoHS, Directive 2011/65/EU and 2015/863/EU
- RoHS China, Standard GB/T 26572
- REACH regulation EC 1907/2006

End of Life (WEEE)

The product contains electronic boards. It must be disposed of in specific treatment channels. The product contains cells and/or storage batteries which must be collected and processed separately when they have run out and at the end of product life (Directive 2012/19/EU).

Refer to Maintenance (*see page 91*) when extracting cells and batteries from the product. These batteries do not contain a weight percentage of heavy metals over the threshold notified by European Directive 2006/66/EC.

European (CE) Compliance

The product described in this manual comply with the European Directives concerning Electromagnetic Compatibility and Low Voltage (CE marking) when used as specified in the relevant documentation, in application for which they are specifically intended, and in connection with approved third-party products.

KC Markings사용자안내문

기종 별	사 용 자 안 내 문
A급 기기 (업무용 방송통신기자재)	이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며, 가정외의 지역에서 사용하는 것을 목적으로 합니다.

Chapter 2

Device Connectivity

What Is in This Chapter?

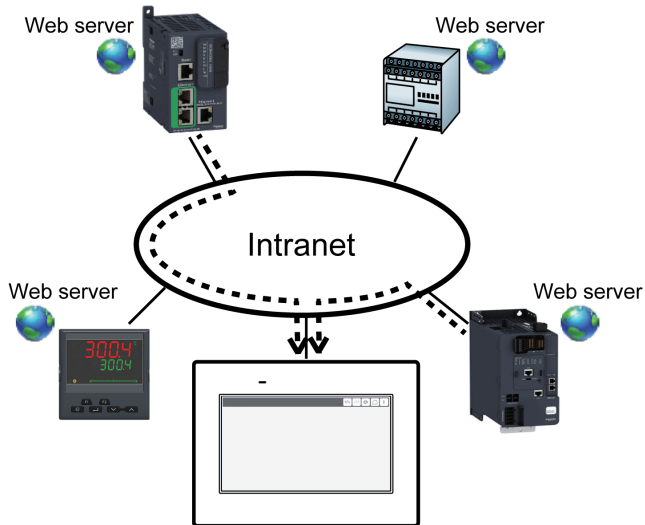
This chapter contains the following topics:

Topic	Page
System Design	18
Accessories	20

System Design

Introduction

This product is a display unit that uses a Web browser to act as a Web client to visualize internal contents of PLCs and other devices*¹ that run Web servers on the same Intranet. After turning on this product, you need to set up its display and Web browser settings. For information about settings, refer to Display/Browser Settings (*see page 77*).

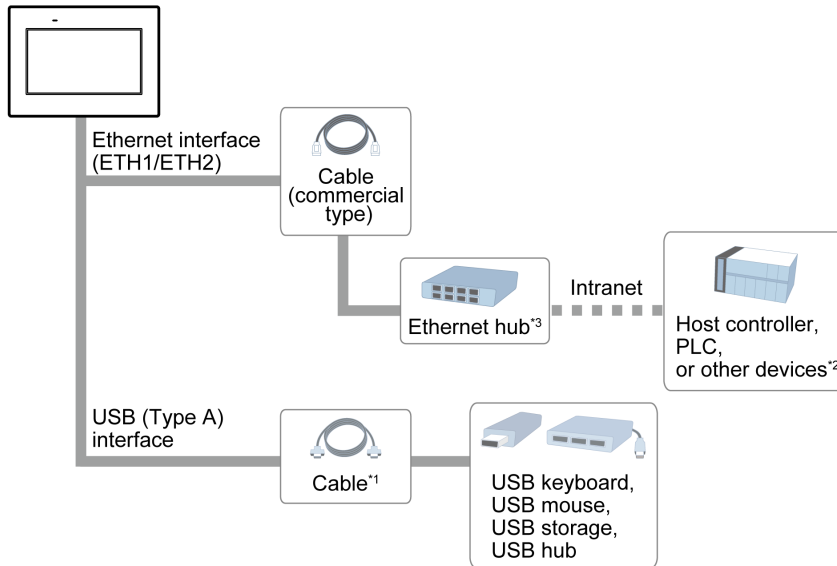


*¹ For supported models, refer to our support site at <http://www.pro-face.com/trans/en/manual/1001.html>.

NOTE:

- You cannot use this product on the Internet.
- HMI applications do not run on this product.

Structure



*1 Refer to Accessories (*see page 20*).

*2 For supported models, refer to our support site at <http://www.pro-face.com/trans/en/manual/1001.html>.

*3 Only for STW-6200WA, an Ethernet hub is required to connect to the Intranet.

Accessories

Product name	Product number	Description
USB (Type A) Interface		
USB Front Cable (1 m)	CA5-USBEXT-01	Extension cable that attaches USB interface to front panel.
USB Clamp Type A (1 port)	PFXZCBCLUSA1	Clamp to prevent disconnection of USB cable (USB Type A, 1 port, 5 clamps/set).
Others		
Screen Protection Sheet	PFXZCDDS122	Disposable, dirt-resistant sheet for 12-inch Wide screen (5 sheets/set).
UV Protection Sheet	PFXZCFUV122	Sheet to protect the display from dirt and ultraviolet light, for 12-inch Wide (1 sheet).
Screen Protection Sheet with UV Protected	PFXZCIDS42	Disposable, dirt-resistant and ultraviolet protection sheet for 4-inch Wide screen (1 sheet /set).
	PFXZCIDS72	Disposable, dirt-resistant and ultraviolet protection sheet for 7-inch Wide screen (1 sheet /set).
	PFXZCIDS102	Disposable, dirt-resistant and ultraviolet protection sheet for 10-inch Wide screen (1 sheet /set).
	PFXZCIDS152	Disposable, dirt-resistant and ultraviolet protection sheet for 15-inch Wide screen (1 sheet /set).
Spring Clip	XBTZ3002	Fasteners to attach this product to the mounting surface for STW-6200WA.

Maintenance Accessories

Product name	Product number	Supported product	Description
Installation Fastener			
ZC9AF31	STW-6200WA		Installation fastener (2 pieces/set).
PFXZCIAFTF1	STW-6400WA, STW-6500WA, STW-6600WA, STW-6700WA		Installation fastener (2 pieces/set).
Installation Gasket			
PFXZCIWG43	STW-6200WA		Provides dust and moisture resistance when this product is installed into a solid panel (1 piece).
PFXZCIWG73	STW-6400WA		
PFXZCIWG103	STW-6500WA		
PFXZCIWG123	STW-6600WA		
PFXZCIWG153	STW-6700WA		
DC Power Supply Connector			
CA5-DCCNM-01	All		Connector to connect DC power supply cables.

Chapter 3

Parts Identification and Functions

What Is in This Chapter?

This chapter contains the following sections:

Section	Topic	Page
3.1	Parts Identification	22
3.2	LED Indications	29

Section 3.1

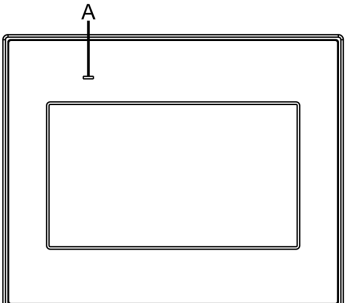
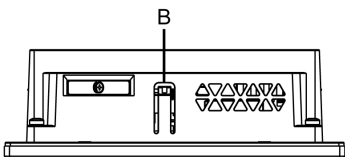
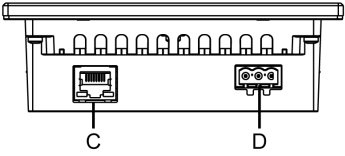
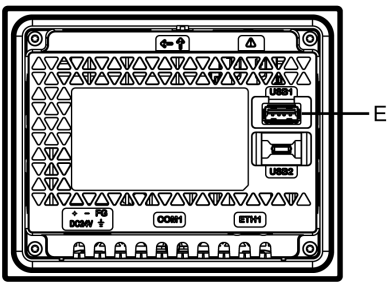
Parts Identification

What Is in This Section?

This section contains the following topics:

Topic	Page
STW-6200WA	23
STW-6400WA	25
STW-65/66/6700WA	27

STW-6200WA

Side	STW-6200WA
Front	
Top	
Bottom	
Rear	

A: Status LED^{*1}

B: Hook

C: Ethernet interface (ETH1)^{*2}

D: Power plug connector

E: USB (Type A) interface^{*2}

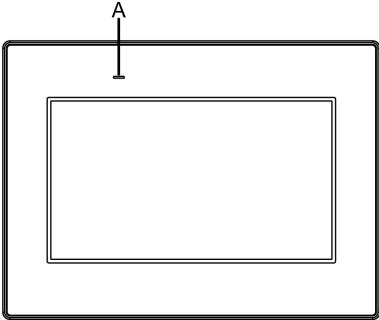
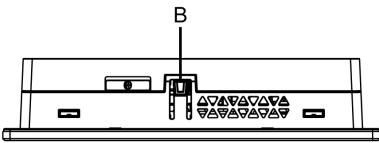
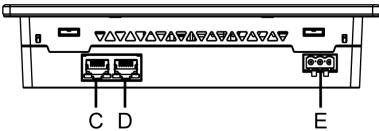
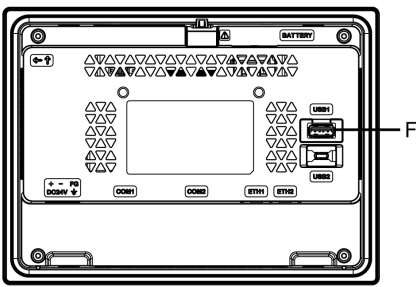
^{*1} Refer to LED Indications (*see page 29*).

^{*2} Refer to Interface Specifications (*see page 40*).

NOTE:

- This product does not have a battery and a serial interface (COM1).
- The USB (micro-B) interface is disabled.

STW-6400WA

Side	STW-6400WA
Front	
Top	
Bottom	
Rear	

A: Status LED*¹

B: Hook

C: Ethernet interface (ETH2)*²

D: Ethernet interface (ETH1)*²

E: Power plug connector

F: USB (Type A) interface*²

*1 Refer to LED Indications (see page 29)

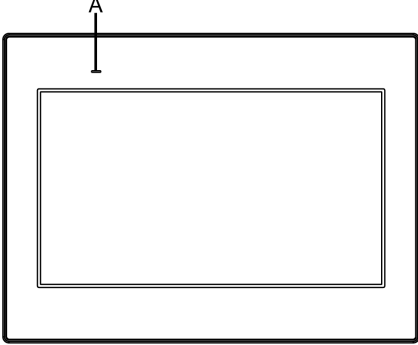
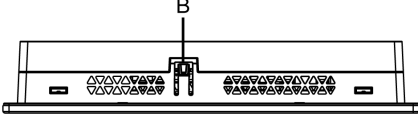
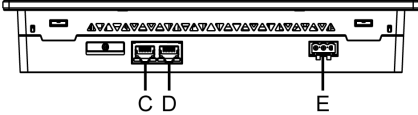
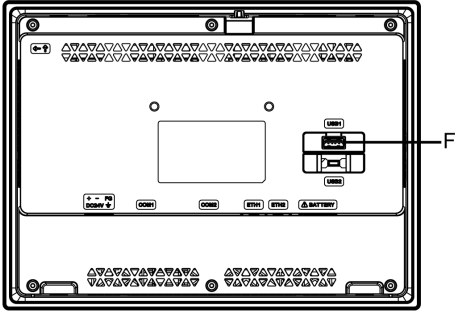
*2 Refer to Interface Specifications (see page 40)

NOTE:

- This product does not have a battery and serial interfaces (COM1 and COM2).
- The USB (micro-B) interface is disabled.
- ETH1 and ETH2 have the same IP address and MAC address.

STW-65/66/6700WA

NOTE: The figures below show STW-6500WA.

Side	STW-65/66/6700WA
Front	
Top	
Bottom	
Rear	

A: Status LED*¹

B: Hook

C: Ethernet interface (ETH2)*²

D: Ethernet interface (ETH1)*²

E: Power plug connector

F: USB (Type A) interface*²

*1 Refer to LED Indications (*see page 29*)

*2 Refer to Interface Specifications (*see page 40*)

NOTE:

- This product does not have a battery and serial interfaces (COM1 and COM2).
- The USB (micro-B) interface is disabled.
- ETH1 and ETH2 have the same IP address and MAC address.

Section 3.2

LED Indications

Status LED

Color	Indicator	HMI operation
Green	ON	Offline
		In operation
	Flashing once every 5 seconds	Backlight OFF (Standby Mode)
Orange	Flashing	Software starting up
Red	ON	Power is ON.
-	OFF	Power is OFF.

Chapter 4

Specifications

What Is in This Chapter?

This chapter contains the following sections:

Section	Topic	Page
4.1	General Specifications	32
4.2	Functional Specifications	37
4.3	Interface Specifications	40

Section 4.1

General Specifications

What Is in This Section?

This section contains the following topics:

Topic	Page
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Structural Specifications	35

Electrical Specifications

Specification	STW-6200WA	STW-6400WA	STW-6500WA	STW-6600WA	STW-6700WA	
Rated input voltage	24 Vdc					
Input voltage limits	19.2...28.8 Vdc					
Voltage drop	2 ms or less	5 ms or less	10 ms or less			
Power consumption	Max	6.9 W	9 W	12.6 W	18.4 W	18.5 W
	When power is not supplied to external devices	3.6 W or less	5.5 W or less	9.6 W or less	15 W or less	15 W or less
	When screen turns off the backlight (standby mode)	2.8 W or less	3.6 W or less	4.6 W or less	5.9 W or less	5.4 W or less
	In-rush current	30 A or less				
Noise immunity	Noise voltage: 1,000 Vp-p, pulse duration: 1 μ s, rise time: 1 ns (via noise simulator)					
Dielectric strength	1,000 Vac for 1 minute (between power terminal and FG terminal), leakage current: 20 mA or less					
Insulation resistance	500 Vdc, 10 M Ω or more (between power terminal and FG terminal)					

Environmental Specifications

Physical environment	
Ambient air temperature	0...50 °C (32...122 °F)
Storage temperature	-20...60 °C (-4...140 °F)
Ambient air and storage humidity	10%...90% RH (Non condensing, wet bulb temperature 39 °C [102.2 °F] or less)
Dust	0.1 mg/m ³ (10 ⁻⁷ oz/ft ³) or less (non-conductive levels)
Pollution degree	For use in Pollution Degree 2 environment
Corrosive gases	Free of corrosive gases
Atmospheric pressure (operating altitude)	800...1,114 hPa (2,000 m [6,561 ft] or lower)
Mechanical environment	
Vibration resistance	IEC/EN 61131-2 compliant 5...9 Hz Single amplitude 3.5 mm (0.14 in) 9...150 Hz Fixed acceleration: 9.8 m/s ² X, Y, Z directions for 10 cycles (approximately 100 minutes)
Shock resistance	IEC/EN 61131-2 compliant 147 m/s ² , X, Y, Z directions for 3 times
Electrical environment	
Electrical fast transient/burst immunity	IEC 61000-4-4 2 kV: Power port (display unit) 1 kV: Signal ports
Electrostatic discharge immunity	Contact discharge method: 6 kV Air discharge method: 8 kV (IEC/EN 61000-4-2 Level 3)

Air quality requirements

Do not operate or store the panel where chemicals evaporate, or where chemicals are present in the air:

- Corrosive chemicals: Acids, alkalines, liquids containing salt.
- Flammable chemicals: Organic solvents.

CAUTION

INOPERATIVE EQUIPMENT

Do not allow water, liquids, metal, and wiring fragments to enter the panel case.

Failure to follow these instructions can result in injury or equipment damage.

Structural Specifications

	STW-6200WA	STW-6400WA	STW-6500WA
Grounding	Functional grounding: Grounding resistance of 100 Ω or less, 2 mm ² (AWG 14) or thicker wire, or your country's applicable standard.		
Cooling method	Natural air circulation		
Structure *1	IP65F, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)		
External dimensions (W x H x D)	134.5 x 108.5 x 43 mm (5.3 x 4.27 x 1.69 in)	208 x 153 x 45 mm (8.19 x 6.02 x 1.77 in)	273 x 203 x 47 mm (10.75 x 7.99 x 1.85 in)
Panel cut dimensions (W x H)	118.5 x 92.5 mm (4.67 x 3.64 in) ^{*2} Panel thickness area ^{*3} : 1.6...5 mm (0.06...0.2 in) When using spring clips: Position 1: 1.5...4 mm (0.06...0.16 in) Position 2: 4...6 mm (0.16...0.24 in)	190 x 135 mm (7.48 x 5.31 in) ^{*2} Panel thickness area: 1.6...5 mm (0.06...0.2 in) ^{*3}	255 x 185 mm (10.04 x 7.28 in) ^{*2} Panel thickness area: 1.6...5 mm (0.06...0.2 in) ^{*3}
Weight	0.4 kg (0.88 lb) or less	0.8 kg (1.76 lb) or less	1.3 kg (2.87 lb) or less

	STW-6600WA	STW-6700WA
Grounding	Functional grounding: Grounding resistance of 100 Ω or less, 2 mm ² (AWG 14) or thicker wire, or your country's applicable standard.	
Cooling method	Natural air circulation	
Structure *1	IP65F, Type 1, Type 4X (indoor use only), Type 13 (on the front panel when properly installed in an enclosure)	
External dimensions (W x H x D)	313 x 235 x 50 mm (12.32 x 9.25 x 1.97 in)	412 x 268 x 50 mm (16.22 x 10.55 x 1.97 in)
Panel cut dimensions (W x H)	295 x 217 mm (11.61 x 8.54 in) ^{*2} Panel thickness area: 1.6...5 mm (0.06...0.2 in) ^{*3}	394 x 250 mm (15.51 x 9.84 in) ^{*2} Panel thickness area: 1.6...5 mm (0.06...0.2 in) ^{*3}
Weight	1.8 kg (3.97 lb) or less	2.7 kg (5.95 lb) or less

*1 The front face of this product, installed in a solid panel, has been tested using conditions equivalent to the standards shown in the specification. Even though this product's level of resistance is equivalent to these standards, oils that should have no effect on this product can possibly harm this product. This can occur in areas where either vaporized oils are present, or where low viscosity cutting oils are allowed to adhere to this product for long periods of time. If this product's front face protection sheet peels off, these conditions can lead to the ingress of oil into this product and separate protection measures are suggested.

Also, if non-approved oils are present, they may cause deformation or corrosion of the front panel's cover. Therefore, prior to installing this product, be sure to confirm the type of conditions that will be present in this product's operating environment. If the installation gasket is used for a long period of time, or if this product and its gasket are removed from the panel, the original level of protection cannot be kept. To maintain the original protection level, be sure to replace the installation gasket regularly.

*2 For dimensional tolerance, everything +1/-0 mm (+0.04/-0 in) and R in angle are below R3 (R0.12 in).

*3 Even if the installation wall thickness is within the recommended range for the “Panel Cut Dimensions”, depending on wall’s material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

NOTICE

EQUIPMENT DAMAGE

- Ensure this product is not in permanent and direct contact with oils.
- Do not press on the display of this product with excessive force or with a hard object.
- Do not press on the touch panel with a pointed object, such as the tip of a mechanical pencil or a screwdriver.

Failure to follow these instructions can result in equipment damage.

NOTICE

EQUIPMENT DAMAGE

Do not expose the device to direct sunlight.

Failure to follow these instructions can result in equipment damage.

NOTICE

STORAGE AND OPERATION OUTSIDE OF SPECIFICATIONS

- Store the panel in areas where temperatures are within the product’s specifications.
- Do not restrict or block this panel’s ventilation slots.

Failure to follow these instructions can result in equipment damage.

NOTICE

GASKET AGING

- Inspect the gasket periodically as required by your operating environment.
- Change the gasket at least once a year, or as soon as scratches or dirt become visible.

Failure to follow these instructions can result in equipment damage.

Section 4.2

Functional Specifications

What Is in This Section?

This section contains the following topics:

Topic	Page
Display Specifications	38
Memory, Clock, Touch Panel	39

Display Specifications

	STW-6200WA	STW-6400WA	STW-6500WA	STW-6600WA	STW-6700WA
Display type	TFT Color LCD				
Display size	4.3"	7"	10.1"	12.1"	15.6"
Resolution	480 x 272 pixels	800 x 480 pixels (WVGA)	1,024 x 600 pixels (WSVGA)	1,280 x 800 pixels (WXGA)	1,366 x 768 pixels (FWXGA)
Effective display area (W x H)	95.04 x 53.86 mm (3.74 x 2.12 in)	154.08 x 85.92 mm (6.07 x 3.38 in)	222.72 x 125.28 mm (8.77 x 4.93 in)	261.12 x 163.2 mm (10.28 x 6.43 in)	344.23 x 193.54 mm (13.55 x 7.62 in)
Display colors	16 million colors				
Backlight	White LED (Not user replaceable. When replacement is required, contact customer support.)				
Backlight service life	50,000 hours or more (continuous operation at 25 °C [77 °F] before backlight brightness decreases to 25%)				
Brightness control	16 levels				

Memory, Clock, Touch Panel

Memory

System memory	Flash EPROM 512 MB (operating system, web browser, and other data)
Backup memory	NVRAM 128 KB (configuration data)

Clock

This product does not have a real-time clock or battery for backing up memory and clock data.

Touch Panel

Touch panel type	Resistive film (analog, single touch)
Touch panel resolution	1,024 x 1,024
Touch panel service life	1 million times or more

The touch panel does not support two point touch (multiple point touch). If you touch multiple points on the touch panel, it will operate as if you touched the center-point of the multiple touches.

For example, if you touch two or more points on the touch panel and at the center of the touches is a switch for a drive system, even though you did not directly touch that switch, it may function as if you did.

WARNING

UNINTENDED EQUIPMENT OPERATION

Do not touch two or more points on the touch panel.

Failure to follow these instructions can result in death, serious injury, or equipment damage.

Section 4.3

Interface Specifications

Interface Specifications

	STW-6200WA	STW-64/65/66/6700WA
USB (Type A) interface		
Connector	USB 2.0 (Type A) x 1	
Power supply voltage	5 Vdc \pm 5%	
Maximum current supplied	500 mA	
Maximum transmission distance	5 m (16.4 ft)	
Ethernet interface		
Standard	IEEE802.3i/IEEE802.3u, 10BASE-T/100BASE-TX	
Connector	Modular jack (RJ-45) x 1	Modular jack (RJ-45) x 2

NOTE: Use only the SELV (Safety Extra-Low Voltage) circuit to connect the USB and Ethernet interfaces.

Chapter 5

Dimensions

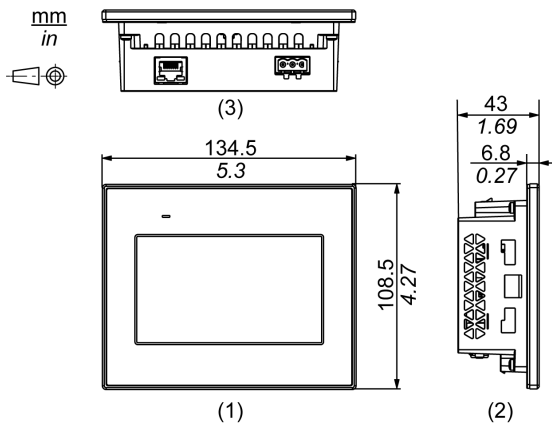
What Is in This Chapter?

This chapter contains the following topics:

Topic	Page
STW-6200WA	42
STW-6400WA	44
STW-6500WA	46
STW-6600WA	49
STW-6700WA	52

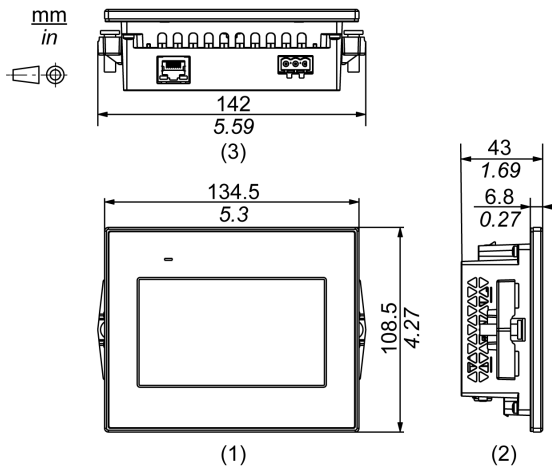
STW-6200WA

External Dimensions



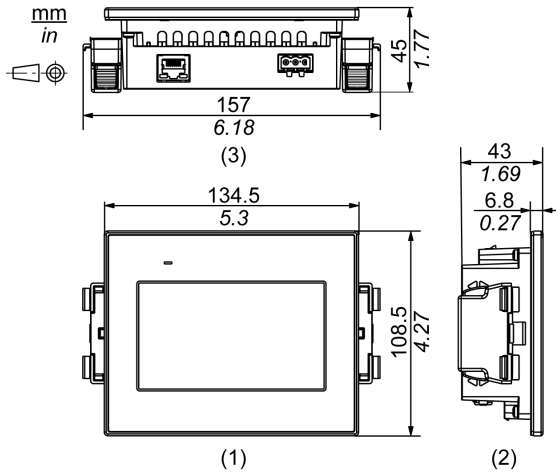
- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Installation Fasteners



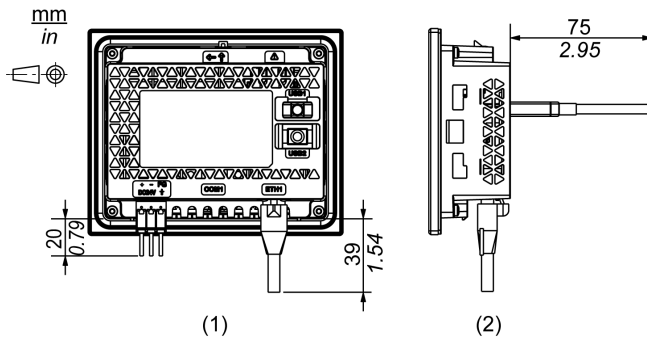
- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Spring Clips



- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Cables

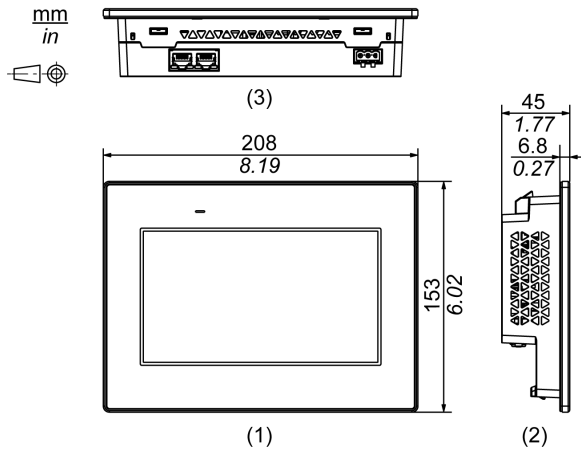


- 1 Rear
- 2 Right

NOTE: All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

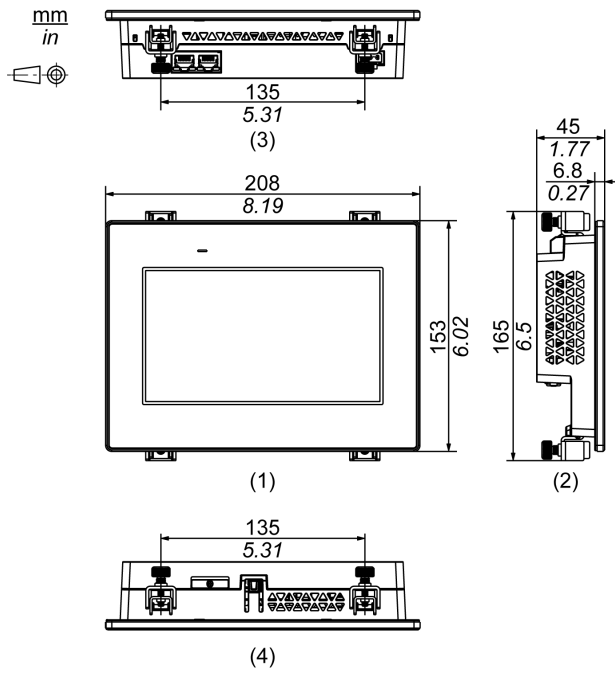
STW-6400WA

External Dimensions



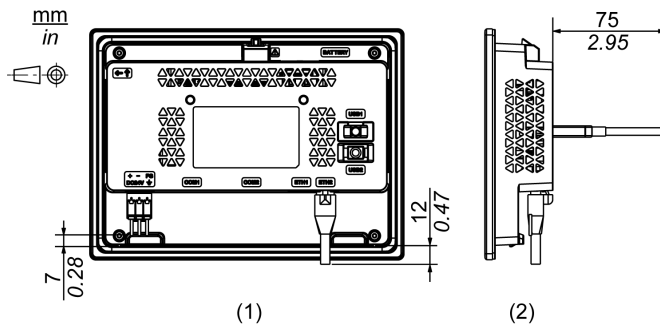
- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Installation Fasteners



- 1 Front
- 2 Left
- 3 Bottom
- 4 Top

Dimensions with Cables



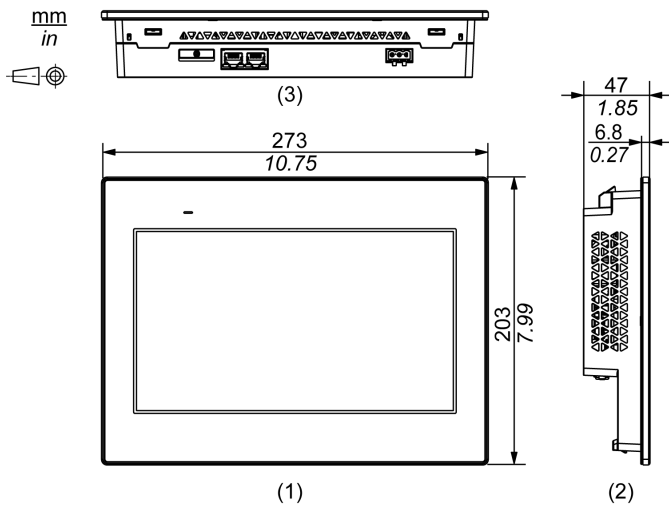
1 Rear

2 Right

NOTE: All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

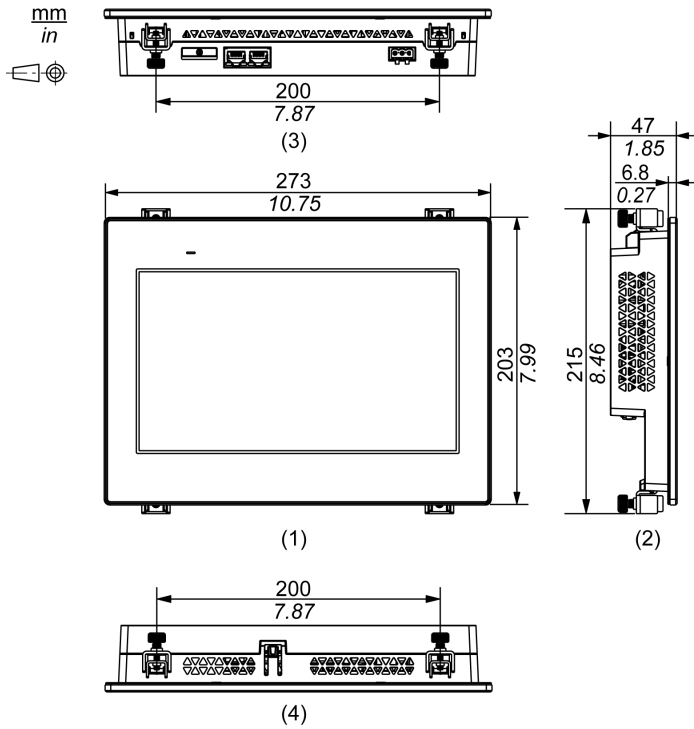
STW-6500WA

External Dimensions



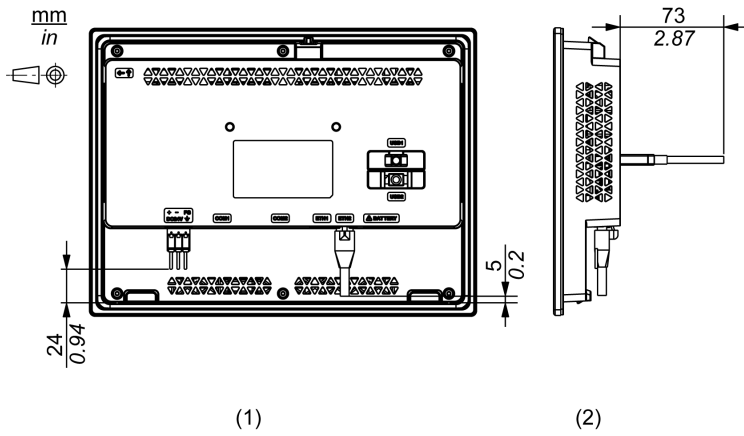
- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Installation Fasteners



- 1 Front
- 2 Left
- 3 Bottom
- 4 Top

Dimensions with Cables



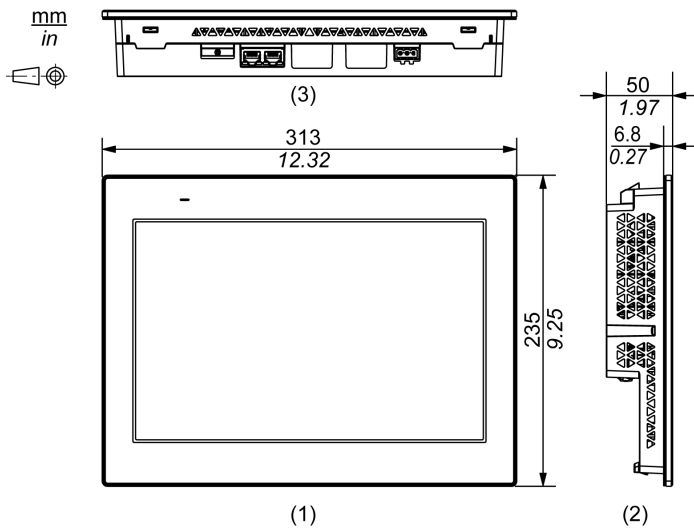
1 Rear

2 Right

NOTE: All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

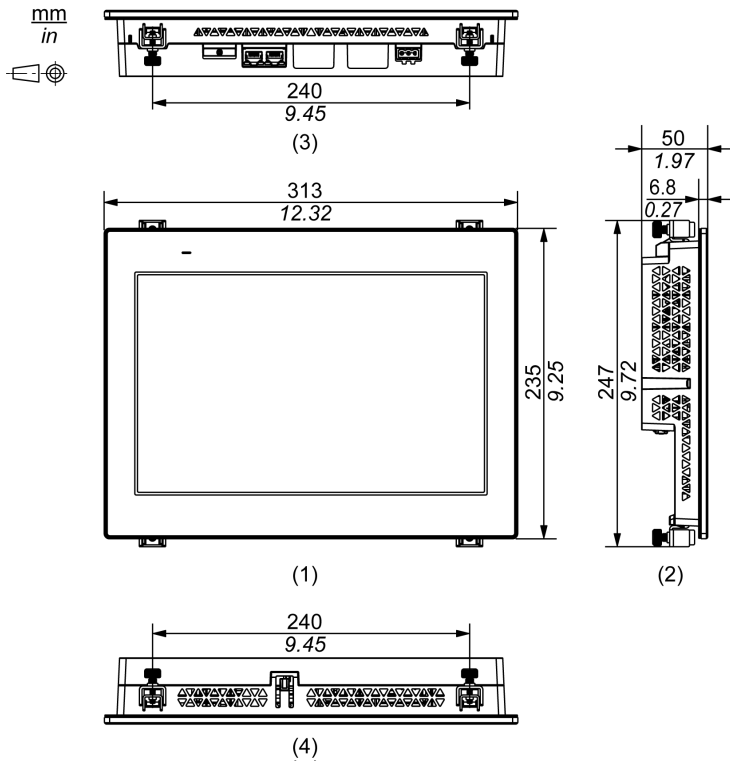
STW-6600WA

External Dimensions



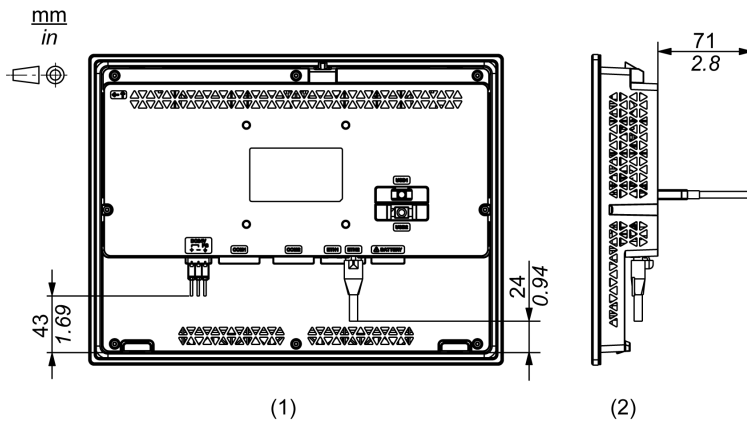
- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Installation Fasteners



- 1 Front
- 2 Left
- 3 Bottom
- 4 Top

Dimensions with Cables



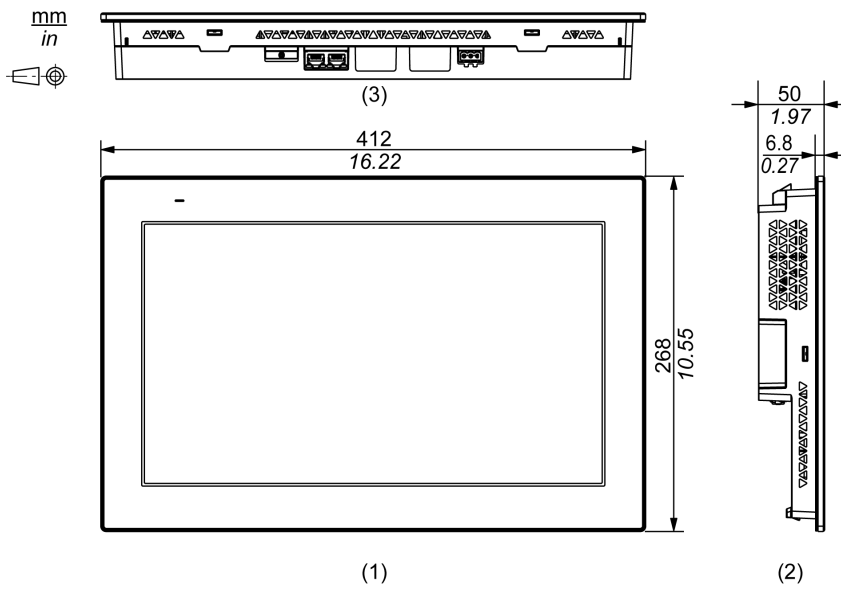
1 Rear

2 Right

NOTE: All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

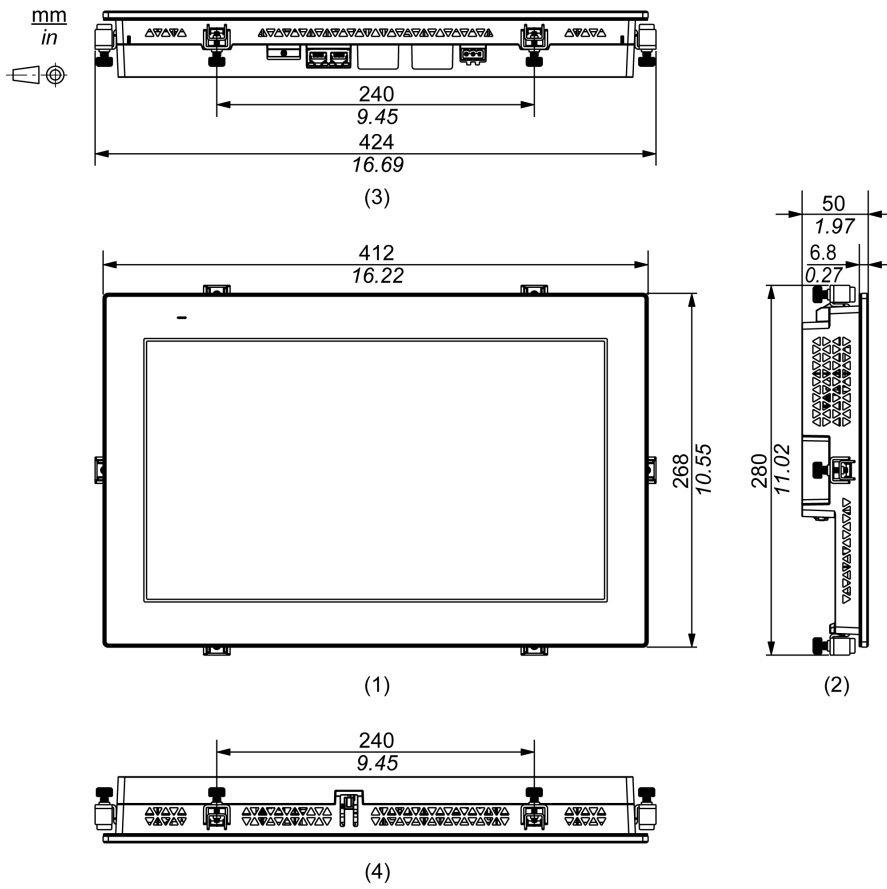
STW-6700WA

External Dimensions



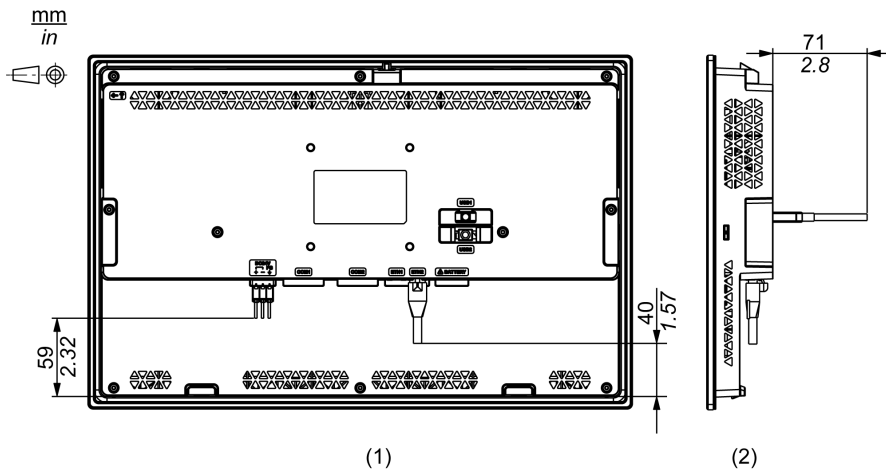
- 1 Front
- 2 Left
- 3 Bottom

Dimensions with Installation Fasteners



- 1 Front
- 2 Left
- 3 Bottom
- 4 Top

Dimensions with Cables



- 1 Rear
- 2 Right

NOTE: All the above values are designed with cable bending in mind. The dimensions given here are representative values depending on the type of connection cable in use. Therefore, these values are intended for reference only.

Chapter 6

Installation and Wiring

What Is in This Chapter?

This chapter contains the following sections:

Section	Topic	Page
6.1	Installation	56
6.2	Wiring Principles	69
6.3	USB Cable Clamp	75

Section 6.1

Installation

What Is in This Section?

This section contains the following topics:

Topic	Page
Introduction	57
Installation Requirements	58
Panel Cut Dimensions	60
Installation Procedure (STW-6200WA)	61
Installation Procedure (STW-64/65/66/6700WA)	65
Removal Procedure	67

Introduction

This product is designed for use on flat surfaces of IP65F, Type 1, Type 4X (indoor use only) and Type 13 enclosures.

Be aware of the following when building this product into an end-use product:

- The rear face of this product is not approved as an enclosure. When building this product into an end-use product, be sure to use an enclosure that satisfies standards as the end-use product's overall enclosure.
- Install this product in an enclosure with mechanical rigidity.
- This product is not designed for outdoor use. UL certification obtained is for indoor use only.
- Install and operate this product with its front panel facing outward.

NOTE:

- The necessary torque is 0.5 N•m (4.4 lb-in).
- IP65F is not part of the UL certification.

Installation Requirements

CAUTION

RISK OF BURNING INJURY

Do not touch the bezel or rear chassis during operation.

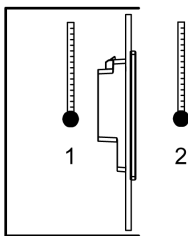
Failure to follow these instructions can result in injury or equipment damage.

Check that the installation wall or cabinet surface is flat, in good condition and has no jagged edges. Metal reinforcing strips may be attached to the inside of the wall, near the panel-cut, to increase its rigidity.

Decide on the thickness of the enclosure wall, based on the level of strength required.

Even if the installation wall thickness is within the recommended range for the Panel Cut Dimensions (see page 60), depending on wall's material, size, and installation location of this product and other devices, the installation wall could warp. To prevent warping, the installation surface may need to be strengthened.

Check that the ambient air temperature and the ambient humidity are within their specified ranges in Environmental Specifications (see page 34). When installing this product in a cabinet or enclosure, the ambient air temperature is the cabinet's or enclosure's internal temperature.

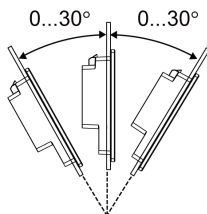


1 Internal temperature

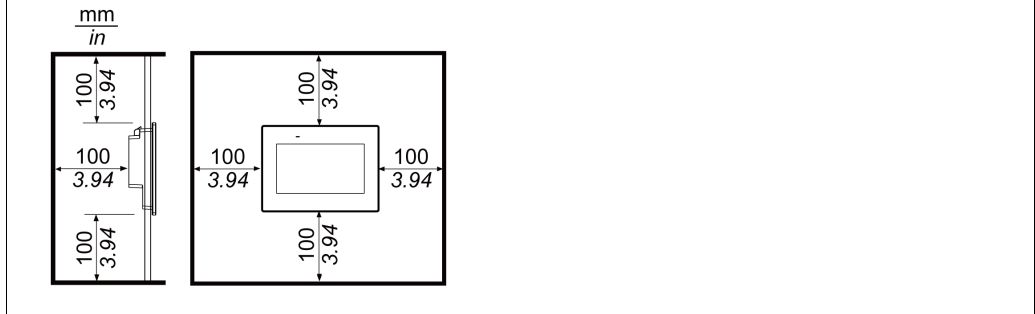
2 External temperature

Be sure that heat from surrounding equipment does not cause this product to exceed its standard operating temperature.

When installing this product in a slanted position, the product face should not incline more than 30°.



For easier maintenance, operation and improved ventilation, install this product at least 100 mm (3.94 in) away from adjacent structures and other equipment as shown in the following illustration:



NOTE: This product does not support portrait installation.

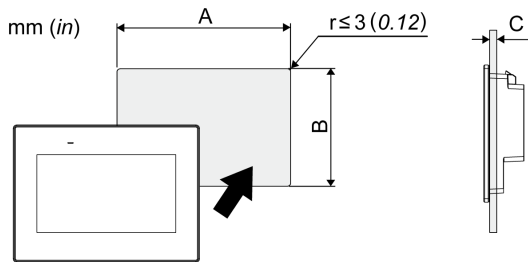
Pressure Differences

When applying and installing this product, it is important that steps are taken to eliminate any pressure difference between the inside and the outside of the enclosure in which this product is mounted. Higher pressure inside the enclosure can cause delamination of the front membrane of the display. Even a small pressure difference inside the enclosure will act on the large area of the membrane and can result in sufficient force to delaminate the membrane and thus cause failure of the touch capability. Pressure differences can often occur in applications where there are multiple fans and ventilators moving air at different rates in different rooms. Please follow these techniques to ensure that this product's function is not impacted by this mis-application:

1. Seal all conduit connections inside of the enclosure, especially those that lead to other rooms that may be at a different pressure.
2. Where applicable, install a small weep hole at the bottom of the enclosure to allow equalization of the internal and external pressure.

Panel Cut Dimensions

Based on the panel cut dimensions, open a mount hole on the panel.



Model name		
A	B	C*1
STW-6200WA		
118.5 mm (+1/-0 mm) (4.67 in [+0.04/-0 in])	92.5 mm (+1/-0 mm) (3.64 in [+0.04/-0 in])	1.6...5 mm (0.06...0.2 in)
STW-6400WA		
190 mm (+1/-0 mm) (7.48 in [+0.04/-0 in])	135 mm (+1/-0 mm) (5.31 in [+0.04/-0 in])	1.6...5 mm (0.06...0.2 in)
STW-6500WA		
255 mm (+1/-0 mm) (10.04 in [+0.04/-0 in])	185 mm (+1/-0 mm) (7.28 in [+0.04/-0 in])	1.6...5 mm (0.06...0.2 in)
STW-6600WA		
295 mm (+1/-0 mm) (11.61 in [+0.04/-0 in])	217 mm (+1/-0 mm) (8.54 in [+0.04/-0 in])	1.6...5 mm (0.06...0.2 in)
STW-6700WA		
394 mm (+1/-0 mm) (15.51 in [+0.04/-0 in])	250 mm (+1/-0 mm) (9.84 in [+0.04/-0 in])	1.6...5 mm (0.06...0.2 in)

*1 When installing STW-6200WA with spring clips:

- Position 1: 1.5...4 mm (0.06...0.16 in)
- Position 2: 4...6 mm (0.16...0.24 in)

NOTE: For the positions, refer to the Installation Procedure (STW-6200WA) (*see page 61*).

Installation Procedure (STW-6200WA)

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to this product.

Failure to follow these instructions will result in death or serious injury.

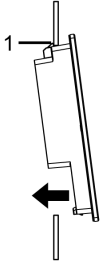
NOTICE

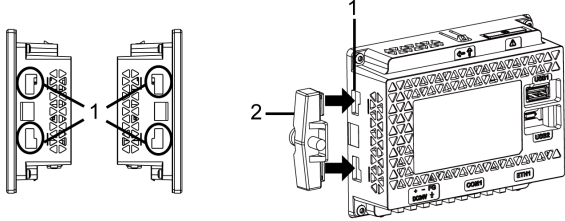
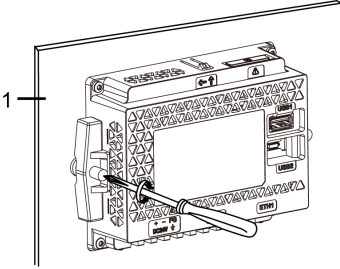
EQUIPMENT DAMAGE

- Always use the installation gasket.
- Keep this product stabilized in the panel-cut while you are installing or removing the screw fasteners.

Failure to follow these instructions can result in equipment damage.

Installing Using Installation Fasteners

Step	Action
1	Place this product on a clean and level surface with the screen facing down.
2	<p>Check that this product's gasket is seated securely into the bezel's groove, which runs around the perimeter of the display panel frame.</p> <p>NOTE: Always use the installation gasket, since it absorbs vibration in addition to repelling water. For the procedure on replacing the installation gasket, refer to Replacing the Installation Gasket (<i>see page 94</i>).</p>
3	<p>Based on this product's Panel Cut Dimensions (<i>see page 60</i>), open a mount-hole on the panel and attach this product to the panel from the front side.</p> <p>NOTE: This product has a hook on the top to prevent falling during installation. Insert this product into the panel at an angle to avoid hitting the hook.</p>  <p>1 Hook</p>

Step	Action
4	<p>Insert the installation fastener hooks into the insertion slots of this product.</p>  <p>1 Insertion slots 2 Installation fastener</p>
5	<p>In a clockwise direction, tighten the installation fastener's screws with a screwdriver. The necessary torque is 0.5 N•m (4.4 lb-in).</p>  <p>1 Installation panel</p>

NOTICE

BROKEN ENCLOSURE

Do not exert more than 0.5 N•m (4.4 lb-in) of torque when tightening the fastener's screws.

Failure to follow these instructions can result in equipment damage.

Installing Using Spring Clips


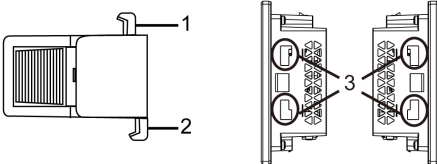
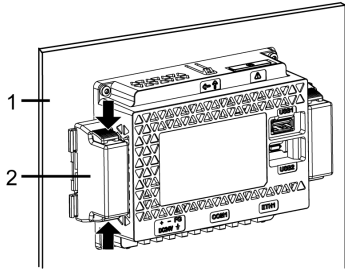
⚠ CAUTION

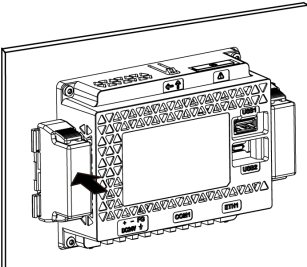
SPRING LOADED MECHANISM

Do not release the spring clip mechanism near your face.

Failure to follow these instructions can result in injury or equipment damage.

Step	Action
1	Place this product on a clean and level surface with the screen facing down.
2	<p>Check that this product's gasket is seated securely into the bezel's groove, which runs around the perimeter of the display frame.</p> <p>NOTE: Always use the installation gasket, since it absorbs vibration in addition to repelling water. For the procedure on replacing the installation gasket, refer to Replacing the Installation Gasket (<i>see page 94</i>).</p>

Step	Action
3	<p>Based on this product's Panel Cut Dimensions (<i>see page 60</i>), open a mount hole on the panel and attach this product to the panel from the front side.</p> <p>NOTE: This product has a hook on the top to prevent falling during installation. Insert this product into the panel at an angle to avoid hitting the hook.</p> 
4	<p>Press the spring clip hooks into the insertion slots on this product. Adjust the spring clips for the panel thickness by turning it over:</p> <ul style="list-style-type: none"> ● Position 1 1.5 mm (0.059 in) ≤ panel thickness ≤ 4 mm (0.157 in). ● Position 2 4 mm (0.157 in) ≤ panel thickness ≤ 6 mm (0.236 in).  <p>Side of the spring clip 1 Hook for position 1 2 Hook for position 2 3 Insertion slots</p>
5	<p>Lock the spring clips by simultaneously pressing the top and bottom of the clip.</p>  <p>1 Installation panel 2 Spring clip</p>

Step	Action
6	<p>To remove the spring clips, unlock the clips by pressing on the back of the clip until you hear a click.</p> 

⚠ CAUTION

RISK OF INJURY

Do not drop this product when you remove it from the panel.

- Hold this product in place after removing the spring clips.
- Use both hands.
- While pushing on the hook, be careful not to hurt your fingers.

Failure to follow these instructions can result in injury or equipment damage.

Installation Procedure (STW-64/65/66/6700WA)

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to this product.

Failure to follow these instructions will result in death or serious injury.

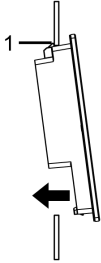
NOTICE

EQUIPMENT DAMAGE

- Always use the installation gasket.
- Keep this product stabilized in the panel-cut while you are installing or removing the screw fasteners.

Failure to follow these instructions can result in equipment damage.

Installing Using Installation Fasteners

Step	Action
1	Place this product on a clean and level surface with the screen facing down.
2	<p>Check that this product's gasket is seated securely into the bezel's groove, which runs around the perimeter of the display panel frame.</p> <p>NOTE: Always use the installation gasket, since it absorbs vibration in addition to repelling water. For the procedure on replacing the installation gasket, refer to Replacing the Installation Gasket (<i>see page 94</i>).</p>
3	<p>Based on this product's Panel Cut Dimensions (<i>see page 60</i>), open a mount-hole on the panel and attach this product to the panel from the front side.</p> <p>NOTE: This product has a hook on the top to prevent falling during installation. Insert this product into the panel at an angle to avoid hitting the hook.</p>  <p>1 Hook</p>

Step	Action
4	<p data-bbox="321 202 1020 229">Insert the installation fastener hooks into the insertion slots of this product.</p> <div data-bbox="353 258 1057 490"> </div> <p data-bbox="321 517 673 620"> 1 Insertion slots 2 Insertion slots (STW-6700WA only) 3 Installation fastener 4 Installation panel </p>
5	<p data-bbox="321 631 1112 683">In a clockwise direction, tighten the installation fastener's screws with a screwdriver. The necessary torque is 0.5 N•m (4.4 lb-in).</p> <div data-bbox="353 710 982 1000"> </div> <p data-bbox="321 1033 916 1060">NOTE: The installation fasteners can be screwed by hand too.</p>

Removal Procedure

DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Unplug the power cable from both this product and the power supply.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to this product.


Failure to follow these instructions will result in death or serious injury.

NOTICE

EQUIPMENT DAMAGE

Keep this product stabilized in the panel-cut while you are installing or removing the screw fasteners.

Failure to follow these instructions can result in equipment damage.

Step	Action
1	<p>Loosen the screws of the installation fasteners, remove the product slowly from the panel while pressing the hook.</p>  <p>1 Hook</p>

CAUTION

RISK OF INJURY

Do not drop this product when you remove it from the panel.

- Hold this product in place after removing the fasteners.
- Use both hands.
- While pushing on the hook, be careful not to hurt your fingers.

Failure to follow these instructions can result in injury or equipment damage.

NOTICE

EQUIPMENT DAMAGE

To avoid damage, remove this product while pushing the hook or by making sure the lock does not touch the panel.

Failure to follow these instructions can result in equipment damage.

Section 6.2

Wiring Principles

What Is in This Section?

This section contains the following topics:

Topic	Page
Connecting the DC Power Cord	70
Connecting the Power Supply	72
Grounding	74

Connecting the DC Power Cord

⚡ ⚠ DANGER

HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

- Remove all power from the device before removing any covers or elements of the system, and prior to installing or removing any accessories, hardware, or cables.
- Remove power before wiring this product's power terminals.
- Always use a properly rated voltage sensing device to confirm power is off.
- Replace and secure all covers or elements of the system before applying power to this product.
- Use only the specified voltage when operating this product. This product is designed to use 24 Vdc. Always check whether your device is DC powered before applying power.
- Since this product is not equipped with a power switch, be sure to connect a power switch to the power supply.
- Be sure to ground this product's FG terminal.

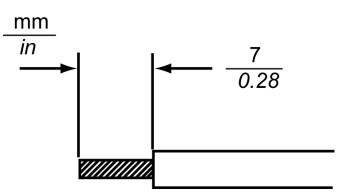
Failure to follow these instructions will result in death or serious injury.

NOTE:

- The SG (signal ground) and FG (functional ground) terminals are separated inside this product.
- When the FG terminal is connected, be sure the wire is grounded. Not grounding this product can result in excessive electromagnetic interference (EMI).

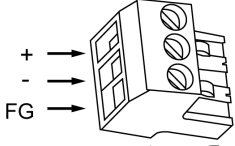
DC Power Cord Preparation

- Make sure the ground wire is either the same or heavier gauge than the power wires.
- Do not use aluminum wires in the power supply's power cord.
- If the ends of the individual wires are not twisted correctly, the wires may create a short circuit.
- The conductor type is solid or stranded wire.
- Use copper wire rated for 75 °C (167 °F) or higher.
- Use the SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy) circuit for DC input.

Power cord diameter	0.75...2.5 mm ² (18...13 AWG)* ¹
Conductor type	Solid or stranded wire
Conductor length	 <p>The diagram illustrates the preparation of a power cord. It shows a cross-section of a wire with a shaded ground section. Dimension lines indicate a length of $\frac{mm}{in}$ and a specific length of $\frac{7}{0.28}$.</p>
Recommended driver	Flat-head screwdriver (size 0.6 x 3.5)

*1 For UL compatibility, use AWG 14 or AWG 13.

DC Power Supply Connector Specifications

	Connection	Wire
	+	24 Vdc
	-	0 Vdc
	FG	Grounded terminal. Connect the FG terminal properly to ground.


NOTE: Model number: CA5-DCCNM-01 (or MSTB2,5/3-ST-5,08 by Phoenix Contact)

How to connect the DC Power Cord

Step	Action
1	Confirm the power cord is not connected to the power supply.
2	Check the rated voltage.
3	Remove the DC power supply connector from this product.
4	Strip the membrane of the power cord, and twist the wire ends.
5	Insert each power cord wire into its corresponding hole. Fasten the screws of the DC power supply connector to clamp the wire in place. NOTE: <ul style="list-style-type: none"> ● The necessary torque is 0.56 N•m (5 lb-in). ● Do not solder the cable connection.
6	After inserting all three power cord wires, insert the DC power supply connector into the power connector on this product.

Connecting the Power Supply

Precautions


DANGER

SHORT CIRCUIT, FIRE, OR UNINTENDED EQUIPMENT OPERATION

Avoid excessive force on the power cable to prevent accidental disconnection

- Securely attach power cables to an installation panel or cabinet.
- Install and fasten this product on installation panel or cabinet prior to connecting power supply and communication lines.

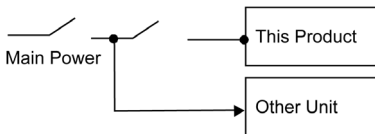
Failure to follow these instructions will result in death or serious injury.

Improving Noise/Surge Resistance

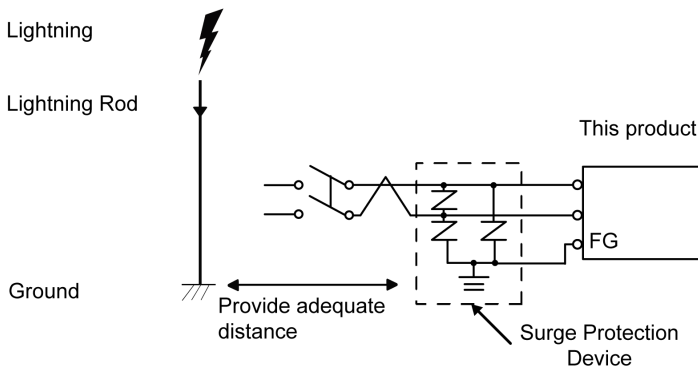
- This product's power supply cord should not be bundled with or kept close to main circuit lines (high voltage, high current), power lines, or input/output lines, and their various systems should be kept separate. When power lines cannot be wired via a separate system, use shielded cables for input/output lines.
- Make the power cord as short as possible, and be sure to twist the ends of the wires together (i.e. twisted pair cabling) from close to the power supply unit.
- If there is an excess amount of noise on the power supply line, reduce the noise with a noise filter before turning on the power.
- Connect a surge protection device to handle power surges.
- To increase noise resistance, attach a ferrite core to the power cable.

Power Supply Connections

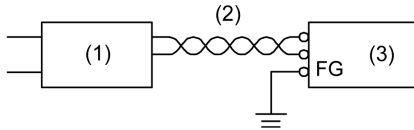
- When supplying power to this product, connect the power as shown below.



- Use the SELV (Safety Extra-Low Voltage) circuit and LIM (Limited Energy) circuit for DC input.
- The following shows a surge protection device connection:



- Attach a surge protection device to prevent damage to this product as a result of a lightning-induced power surge from a large electromagnetic field generated from a direct lightning strike. We also strongly recommend to connect the crossover grounding wire of this product to a position close to the ground terminal of the surge protection device. It is expected that there will be an effect on this product due to fluctuations in grounding potential when there is a large surge flow of electrical energy to the lightning rod ground at the time of a lightning strike. Provide adequate distance between the lightning rod grounding point and the surge protection device grounding point.
- If the voltage variation is outside the prescribed range, connect a regulated power supply.

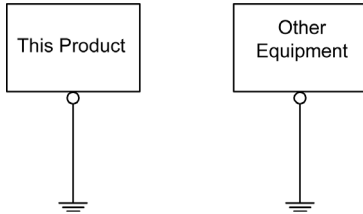


- 1 Regulated power supply
- 2 Twisted-pair cord
- 3 This product

Grounding

Exclusive Grounding

Always ground the FG (functional ground) terminal. Be sure to separate this product from the FG of other devices as shown below.



Precautions

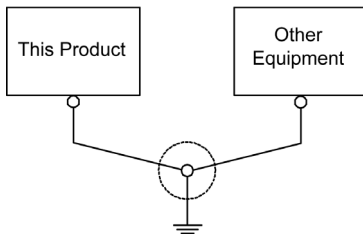
- Check that the grounding resistance is 100 Ω or less.*1
- The FG wire should have a cross sectional area greater than 2 mm² (AWG14)*1. Create the connection point as close to this product as possible, and make the wire as short as possible. When using a long grounding wire, replace the thin wire with a thicker wire, and place it in a duct.
- When connecting the FG (functional ground) and the SG (signal ground), be sure that no ground loop is formed.

*1 Observe local codes and standards.

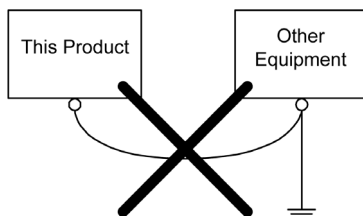
Common Grounding

Electromagnetic Interference (EMI) can be created if devices are improperly grounded. EMI can cause loss of communication. If exclusive grounding is not possible, use a common grounding point as shown in the configuration below. Do not use any other configuration for common grounding.

Correct grounding



Incorrect grounding



Section 6.3

USB Cable Clamp

USB Clamp Type A (1 port)

Introduction

When using a USB device, attach a USB cable clamp to the USB interface to prevent the USB cable from being disconnected.

⚠ DANGER


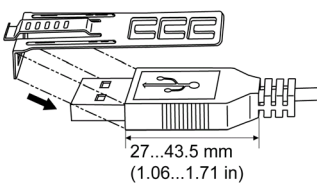
POTENTIAL FOR EXPLOSION

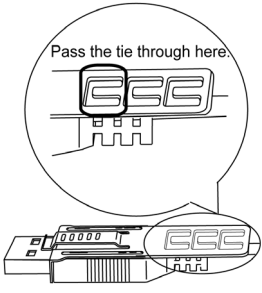
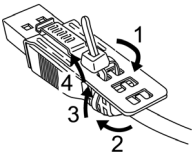
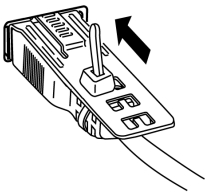
- Do not disconnect equipment while the circuit is live or unless the area is known to be free of ignitable concentrations.
- Remove power before attaching or detaching any connectors to or from this product.
- Ensure that power, communication, and accessory connections do not place excessive stress on the ports. Consider the vibration in the environment when making this determination.
- Securely attach power, communication, and external accessory cables to the panel or cabinet.
- Use only commercially available USB cables.
- Use only non-incendive USB configurations.
- Do not use this product in hazardous environments.
- Confirm that the USB cable has been attached with the USB cable clamp before using the USB interface.

Failure to follow these instructions will result in death or serious injury.

Attaching USB Clamp Type A (1 port)

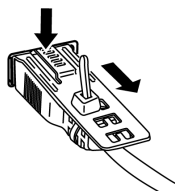
NOTE: Watch your fingers. The edge of the clip is sharp.

Step	Action
1	<p>Mount the clip to the USB mark  connector shell so that it overlaps. The clip matches the 27 to 43.5 mm (1.06 to 1.71 in) length of the USB connector.</p> 

Step	Action
2	<p>Align the clip and the USB cable connector shell. Adjust the position of the holes where the clip is attached. To ensure stability, select the clip-hole position that is closest to the base of the connector shell.</p> 
3	<p>As shown, pass the tie through the clip hole. Next, turn the tie and pass it through the head so that the USB cable can pass through the center of the tie loop. The clip is now attached to the USB cable.</p>  <p>NOTE:</p> <ul style="list-style-type: none"> • Check the direction of the head beforehand. Make sure the USB cable is through the center of the tie loop and that the tie can pass through the head. • You can substitute the tie provided with PFXZCBCLUSA1 (by Pro-face), or other commercially available ties with a width of 4.8 mm (0.19 in) and thickness of 1.3 mm (0.05 in).
4	<p>While pressing the grip on the clip, insert the cable from step 3 all the way into the USB host interface. Make sure that the clip tab is secured to the USB cable attached to this product.</p> 

Removing USB Cable Clamp Type A (1 port)

Remove the USB cable while pushing the grip section of the clip.



Chapter 7

Display/Browser Settings

What Is in This Chapter?

This chapter contains the following sections:

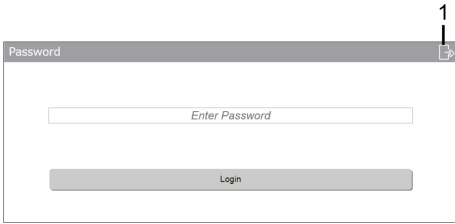
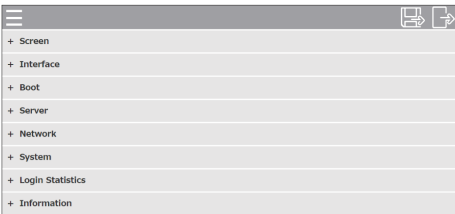
Section	Topic	Page
7.1	Startup Settings	78
7.2	Configuration Menu	80
7.3	Web Browser	90

Section 7.1

Startup Settings

Setting Workflow

After turning on this product for the first time, set up the display and Web browser following the steps below. Before this set up, also refer to System Design (*see page 18*).

Step	Action
1	Connect this product to the Intranet.
2	Turn on this product.
3	<p>The password input screen will appear. Enter the default password Admins.</p>  <p>NOTE:</p> <ul style="list-style-type: none"> For security reasons, change the default password "Admins" to a new password right after the first login. Right after logging in with Admins, if the password change screen is not displayed, you need to install the latest system. The latest system can be downloaded from the following URL. For information on the update process to the latest system, refer to System (<i>see page 87</i>). For information on the password policy and the password change process, refer to the following URL. https://www.pro-face.com/trans/en/manual/1089.html Touching the button (1) will restart this product. On the 5th failed attempt of entering the password, instead of displaying the Configuration Menu, a Web server screen displays as set up in Server → Start Page (<i>see page 85</i>).
4	<p>The Configuration Menu will appear.</p> 
5	<p>Change the password from System → Password (<i>see page 87</i>).</p> <p>NOTE:</p> <ul style="list-style-type: none"> Make sure you change the password. Do not lose the password. If you lose the password, contact customer support for assistance.
6	In Network (<i>see page 86</i>), set up the product's IP address and other network settings.
7	In Server (<i>see page 85</i>), you can register the Web server URL of external devices on the same Intranet, and select the Web server that automatically appears when the product starts up.

Step	Action
8	Additionally, define the following settings as required: <ul style="list-style-type: none"> ● Screen (see page 82) ● Interfaces (see page 83) ● Boot (see page 84)
9	Touch Save & Reboot (see page 81) to save all the settings and restart this product.

Screen transition after reboot

Step	Action
1	Turn on this product.
2	After the display starts up, the following screen appears for the amount of time as defined in Boot → Delay Time (see page 84). If you touch the screen while in this state, the screen changes as shown in step 3. <div data-bbox="367 633 716 842" data-label="Image"> </div>
3	The Web server screen defined in Server → Start Page (see page 85) displays in the browser as shown below. <div data-bbox="367 942 716 1151" data-label="Image"> </div>

Section 7.2

Configuration Menu

What Is in This Section?

This section contains the following topics:

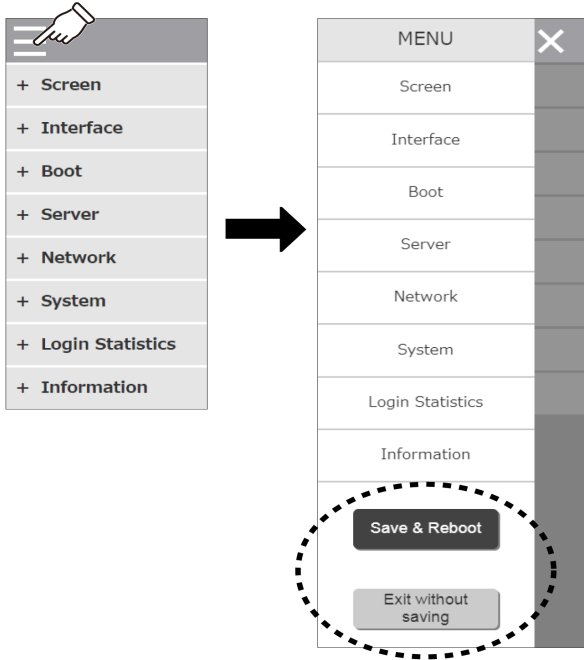
Topic	Page
Save Settings	81
Screen	82
Interface	83
Boot	84
Server	85
Network	86
System	87
Login Statistics	88
Information	89

Save Settings

To save changes in settings, use the **Save & Reboot** button shown below.

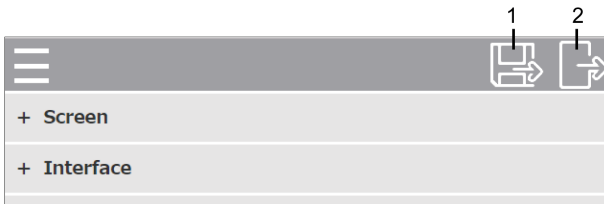
Once you complete making all changes to settings, touch this button to save the settings and restart this product.

To exit without saving any changes to settings, touch **Exit without Saving**.

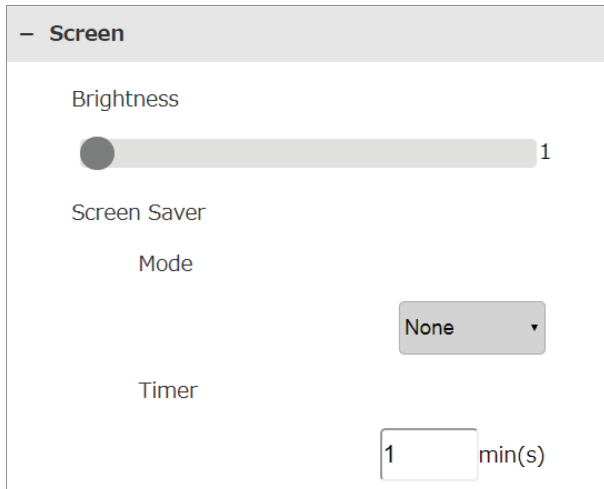


You can also use the following buttons for the same operation.

1. **Save & Reboot**
2. **Exit without Saving**

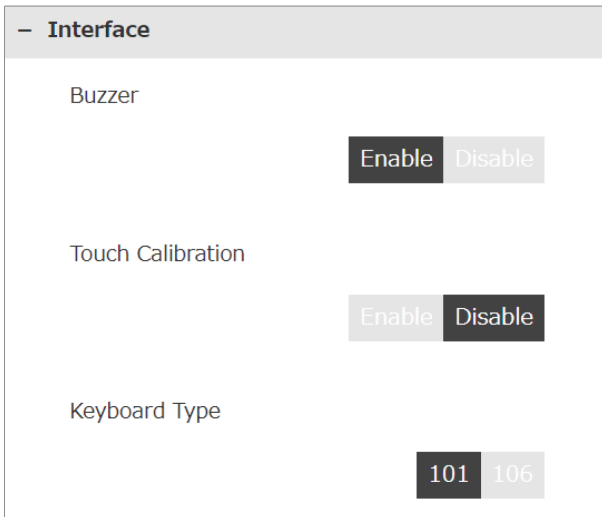



Screen



Brightness	Adjusts the brightness, from 1 (bright) to 16 (dark). The default setting is [1].
Screen Saver	Set up the screen saver status for when the time defined in Timer elapses. The default setting is [None]. None: No screen saver. Backlight Off: Turn off the backlight.
Timer	Enter the amount of time from the last screen input until the screen saver starts up. You can enter from 1 to 30 minutes.

Interface



Buzzer	Enable or disable the buzzer that sounds when you perform touch-panel operations. The default setting is [Enable] .
Touch Calibration	<p>If [Enable] is selected, when this product restarts the calibration setting screen appears. Follow the instructions on the screen to run calibration. After calibration is complete, this product restarts. The default setting is [Disable].</p> <div data-bbox="514 1025 967 1300" style="border: 1px solid black; padding: 10px; text-align: center;">  <p>Touch the center of the cross-hairs, in order, when displayed on the screen.</p> </div>
Keyboard Type	<p>Select the USB keyboard type. The default setting is [101].</p> <p>101: Alphanumeric keyboard 106: Japanese input keyboard</p> <p>NOTE: When using a USB Japanese keyboard, Caps Lock is unavailable.</p>

Boot


– Boot

Mode Image ▾

Data Load

Delay Time
 sec(s)

Show Progress Bar
Enable
Disable

Mode	Set up the screen status at startup. To define an image, select [Image] , for no image display select [None] . The default setting is [Image] .
Data	<p>When Mode is set to [Image], touch Load to select the image to display from USB storage. The image must meet the following criteria.</p> <p>File size: Maximum 12 MB File format: png Image resolution: Maximum 2048 x 2048. Create the image with a resolution that matches the display resolution.</p> <p>NOTE: Requires saving the image with the file name "BootImg.png" to the root folder in USB storage.</p>
Delay Time	Enter the time until the page defined in Server → Start Page (<i>see page 85</i>) is displayed after this product restarts. You can enter from 0 to 60 seconds. By setting the Delay Time , you can show the startup status until the Web server is running.
Show Progress Bar	<p>Enable or disable the progress bar displayed during screen startup. The default setting is [Enable].</p> <div style="text-align: center;">  </div>

Server

- Server

Start Page Configuration ▾

- Server1

Name

URL

Software Keyboard

+ Server2

Start Page	Select the Web server screen that appears at startup. The default setting is [Configuration] .
Server list	<p>Register Web servers of devices connected to the same Intranet. You can register up to 10 Web servers.</p> <p>Name: Maximum 32 characters URL: Maximum 256 characters Software keyboard: Enable or disable the software keyboard.</p> <p>NOTE: HTTPS communication is not supported.</p>

Network

– Network

DHCP
 Enable
 Disable

IP Address

Subnet Mask

Default Gateway

DNS Settings
 Auto
 Manual

DNS Server

MAC Address

DHCP	Select [Enable] to automatically get the IP address for this product from a DHCP server on the same Intranet. To specify a static IP address, select [Disable] . The default setting is [Disable] .
IP Address Subnet Mask	Set the static IP address and subnet mask. With these settings, the product's network address and the Intranet network address must be the same. Example (bold text indicates numbers that are the same) Intranet Network Address: 192.168.0.0 Subnet Mask: 255.255.255.0 STW6000 Series IP Address: 192.168.0.100 Subnet Mask: 255.255.255.0 External Device IP Address: 192.168.0.101 Subnet Mask: 255.255.255.0
Default Gateway	Enter the IP address of the default gateway.
DNS Settings DNS Server	Sets up how to get the IP address from the DNS server. When [Auto] is selected, the IP address is automatically defined. When [Manual] is selected, enter the DNS server IP address in the DNS Server field. The default setting is [Manual] . NOTE: When you want to select [Auto] , first set DHCP to [Enable] .
MAC Address	Displays the MAC address on the product.

System

– System

Password

Change

Load Default

Reset

Back Up Configuration

Backup

Restore Configuration

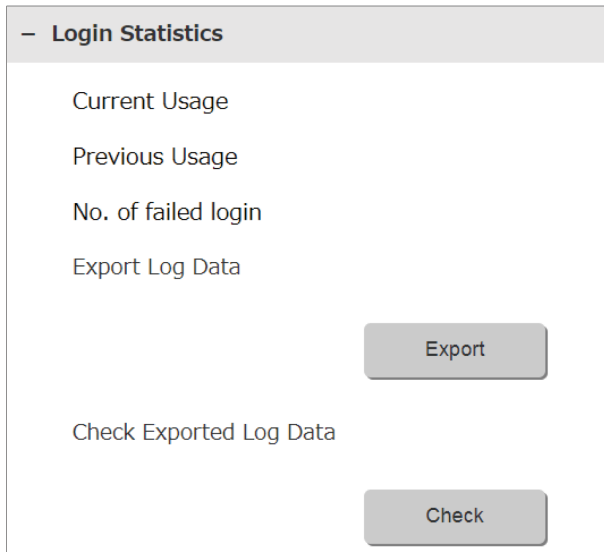
Restore

Update System

Update

Password	<p>For changing the password. The types of characters you can use are as shown below. Spaces are not allowed.</p> <p>Number of characters: 6 or more, up to 32 Available characters Lowercase letters: a to z Uppercase letters: A to Z Numbers: 0 to 9 Characters: - _</p> <p>NOTE: Do not lose the password. If you lose the password, contact customer support for assistance.</p>
Load Default	<p>Returns to the factory default settings.</p> <p>NOTE: The password and startup image set up in the Boot screen are not affected.</p>
Backup Configuration	<p>Save the settings to USB storage. Insert storage to the USB (Type A) port, and touch this button. The settings are saved with the file name "WTCONF0D.DAT" to the root folder in USB storage.</p>
Restore Configuration	<p>Restores the settings saved on USB storage. Insert storage to the USB (Type A) port, and touch this button. Requires settings be saved with the file name "WTCONF0D.DAT" to the root folder in USB storage.</p>
Update System	<p>Updates the system with the system file saved on USB storage. You can download the latest system files from our website. https://www.pro-face.com/trans/en/manual/1085.html The following are the system update files. WEBOS0D.SYS, BOOTLD0D.SYS These files should be stored at the root folder in USB storage.</p>

Login Statistics



Current Usage	Displays the accumulated time from when you first turned on the product to your current log in to the Configuration Menu.
Previous Usage	Displays the accumulated time from when you first turned on the product to the time you previously logged in to the Configuration Menu.
No. of failed login	Displays the number of unsuccessful login attempts from the last successful login to this login.
Export Log Data	Saves log data. Attach the storage device to the USB (Type A) port and touch the button. Exported log data is saved to the root folder in USB storage as "WTLOG0D.CSV".
Check Export Log Data	Log data saved to USB storage includes code to prevent falsifying data. Touch this button to check if the exported log data has been tampered with. [Good] displays when there has been no data tampering. [Invalid] displays when there may have been some data tampering. You may have to check on how data is managed at your company.

Information

– Information
Version
MAC Address
DHCP
IP Address
Subnet Mask
Default Gateway
License

Version/Network/License information	Displays the system version of this product, network information such as the IP address, and license information of the software used in the product.
-------------------------------------	---

Section 7.3

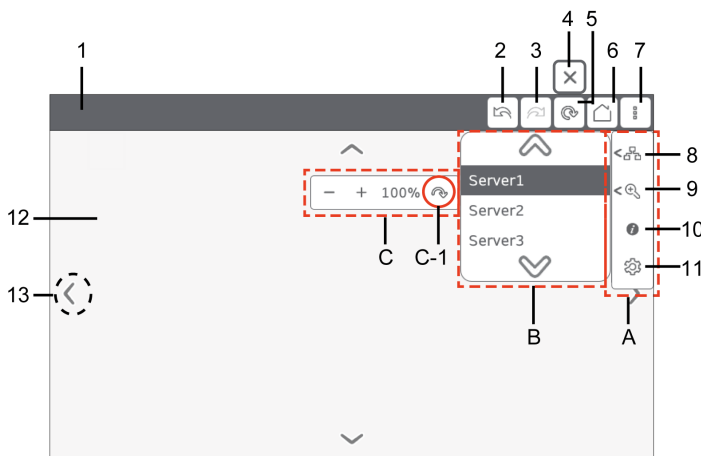
Web Browser

Introduction

This product uses the Web browser to display screens of Web servers running on devices on the Intranet.

While you are not working with the browser's icons, the title bar at the top of the screen is hidden. Swipe the top part of the screen to display the title bar.

Web Browser



No.	Description
1	Displays the title of the Web server page or the URL when the page does not have a title.
2	Moves to the previous page.
3	Moves to the next page.
4	Icon that displays while loading the Web server screen. Touch this icon to interrupt the load operation.
5	Reloads the Web server screen. Touch this icon and when the load operation starts, the icon changes to the No.4 icon.
6	Displays the Web server screen set in Server → Start Page .
7	Touch this icon to display the A sub menu.
8	Touch this icon to display the B sub menu, where you can select the Web server to display.
9	Touch this icon to display the C sub menu, where you can adjust the zoom level from 25 to 500%. The default setting is [100%]. C-1 is the reset button.
10	Displays the system version, network, current usage and license information.
11	Displays the Configuration Menu (see page 80).
12	Displays the selected Web server screen.
13	Touch the screen to display these scroll buttons.

Chapter 8

Maintenance

What Is in This Chapter?

This chapter contains the following topics:

Topic	Page
Regular Cleaning	92
Periodic Check Points	93
Replacing the Installation Gasket	94
Replacing the Backlight	95
After-sales Service	96

Regular Cleaning

Cleaning this product

NOTICE

EQUIPMENT DAMAGE

- Power off this product before cleaning it.
- Do not use hard or pointed objects to operate the touch panel.
- Do not use paint thinner, organic solvents, or a strong acid compound to clean the unit.

Failure to follow these instructions can result in equipment damage.

When this product gets dirty, soak a soft cloth in water with a neutral detergent, wring the cloth tightly and wipe this product.

Periodic Check Points

Operation Environment

- Is the ambient air temperature within the allowable range? Refer to Environmental Specifications (*see page 34*)
- Is the ambient air humidity within the specified range? Refer to Environmental Specifications (*see page 34*)
- Is the operating atmosphere free of corrosive gasses?

When this product is inside a panel, the ambient environment refers to the interior of the panel.

Electrical Specifications

- Is the input voltage appropriate? Refer to Electrical Specifications (*see page 33*)
- Are all power cords and cables connected properly? Are there any loose cables?
- Are all mounting brackets holding the unit securely?
- Are there scratches or traces of dirt on the installation gasket?

Unit Disposal

When disposing this product, dispose it in a manner appropriate to, and in accordance with, your country's industrial machinery disposal/recycling standards.

Replacing the Installation Gasket

Introduction

The installation gasket provides protection against dust and moisture.

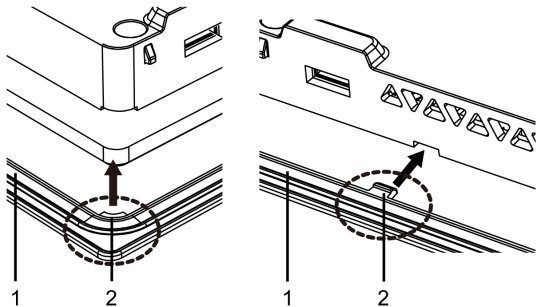
NOTICE

GASKET AGING

- Inspect the gasket periodically as required by your operating environment.
- Change the gasket at least once a year, or as soon as scratches or dirt become visible.

Failure to follow these instructions can result in equipment damage.

Installing the Installation Gasket

Step	Description
1	Place this product on a flat, level surface, with the display face pointing down.
2	Remove the gasket from this product.
3	<p>Attach the new gasket to this product. Insert the protrusions from the four corners of the gasket into the corresponding holes in the corners of this product. Depending on your model, there may be additional protrusions. In the following, refer to the figure on the right and insert the protrusions accordingly.</p> <p>NOTE: When using a tool to insert the gasket, make sure the tool does not catch the rubber gasket and cause a tear.</p> <div style="text-align: center;">  </div> <p>1 Installation gasket 2 Protruding point</p>

The gasket must be inserted correctly into the groove for moisture resistance for this product.

NOTICE

EQUIPMENT DAMAGE

Be careful not to stretch the gasket unnecessarily.

Failure to follow these instructions can result in equipment damage.

Replacing the Backlight

Not user replaceable. When replacement is required, contact customer support.

After-sales Service

Information

For details on after-sales service, refer to our website at

<http://www.pro-face.com/trans/en/manual/1001.html>