QuickPanel⁺ Operator Interface
User Manual

Dec 2016

IC755CxS06RDx (6" Display)
IC755CxW07CDx (7" Display)
IC755CxS10CDx (10" Display)
IC755CxS12CDx (12" Display)
IC755CxS15CDx (15" Display)

For public disclosure

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Document Updates

Location	Description
Appendix A Product Certifications and Installation Guidelines, *Agency Approval*	Updated ATEX Directive to 14/34/EU
	Removed ATEX protection string - refer to the QP+ Operator Interface Installation and Maintenance Requirements (IMR) (GFK-2981)
Conditions of Safe Use for Installation in Hazardous Locations	Added the procedure for USB retaining clamps used in hazardous location installations for 7" Display units

Acronyms and Abbreviations

ARM	Advanced RISC Machine
BBSRAM	Battery-backed SRAM
DRAM	Dynamic Random Access Memory
FG	Frame Ground
FTP	File Transfer Protocol
GND	Ground
GUI	Graphical user interface HTTP
	HyperText Transfer Protocol
LCD	Liquid Crystal Display
LED	Light-emitting Diode
MIB	Management Information Base (or Database)
OS	Operating System
PME	Proficy Machine Edition
RoHS	Restrictions on Hazardous Substances
SELV	Safety Extra Low Voltage
SNMP	Simple Network Management Protocol
USB	Universal Serial Bus
VESA	Video Electronics Standards Association

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Safety Symbol Legend

⚠ *Warning*	Indicates a procedure or condition that, if not strictly observed, could result in personal injury or death.
⚠ *Caution*	Indicates a procedure or condition that, if not strictly observed, could result in damage to or destruction of equipment.
⚠ *Attention*	Indicates a procedure or condition that should be strictly followed to improve these applications.

Notes

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1 Overview

Note This manual specifically describes the QuickPanel+ IC755CxS06RDx, IC755CxWxxCDx and IC755CxSxxCDx display units.

The QuickPanel+ Operator Interface is an all-in-one micro-computer designed for maximum flexibility. The design is based on an Advanced RISC Machine (ARM) core micro-processor to combine a high-resolution touchscreen operator interface with a variety of communications options. Users can connect to most industrial equipment using the QuickPanel+ communications ports.

The QuickPanel+ is equipped with several memory types to satisfy the most demanding applications. A section of Dynamic Random Access Memory (DRAM) is split between the operating system, an object store, and application memory. Additionally, a section of Non-volatile Random Access Flash Memory (NOVRAM), functioning as a virtual hard drive, is divided between the operating system and persistent storage for application programs. Retentive memory is a battery-backed Static Random Access Memory (SRAM) to store and protect data during a power failure.

QuickPanel+ Operator Interface Display

1.1   Specifications

1.1.1   Physical Specifications and Mounting Options

1.1.1.1   IC755CxS06RDx Specifications

Item		Specification
Processor		Freescale i.MX535 (1 GHz ARM Cortex A8)
Memory	RAM	DDR3 SDRAM 512 MB
	ROM	NAND FLASH 256 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows Embedded Compact 7
Display	Type	5.7" TFT LCD
	Resolution	320(W) x 240(H) pixels QVGA
	Color	65,536
	Brightness	375 cd/m^2
	Backlight	LED
Touchscreen	Touch Panel Type	Analog Resistive
	Multi-touch	Single-touch
Communications	Ethernet Port	1x10Base-T / 100Base-TX
	Serial Port	1x RS-232C (COM1) (5-pin connector)
	USB, Host	2x USB 2.0 (Type-A) maximum power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (mini Type-B)
Storage		1x SD/SDHC card slot
Audio		1x Mic In (Mono) (3.5 mm jack), 1x Line Out (Stereo) (3.5 mm jack)
Noise Immunity	Noise Voltage	1500 V p-p
	Pulse Duration	1μs
	Rise Time	1ns
Input power	Rated Voltage	24 V dc ±20% (3-pin connector)
	Power Consumption	15 W maximum
	Frame Ground (FG)	Frame Ground (GND) is connected internally to Signal GND
Dimensions (L×W×D)		192 × 137 × 36 mm (7.56 × 5.39 × 1.42 in)
Weight		0.7 Kg (1.54 lb)
Mounting Options	Panel Cutout Dimensions	183.50 × 128.50 mm (7.22 × 5.06 in)
	VESA Mount	75 x 75 mm (2.95 x 2.95 in)

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1.1.1.2   IC755CxW07CDx Specifications

Item		Specification
Processor		Freescale i.MX535 (1 GHz ARM Cortex A8)
Memory	RAM	DDR2 SDRAM 512 MB
	ROM	SLC NAND 256 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows Embedded Compact 7
Display	Type	7" Widescreen TFT LCD
	Resolution	800(W) x 480(H) pixels WVGA
	Color	65,536
	Brightness	310 cd/m^2
	Backlight	LED
Touchscreen	Touch Panel Type	Projected capacitive
	Multi-touch	Two-point
Communications	Ethernet Port	1x 10/100Base-T (RJ-45)
	Serial Port	1x RS-232 UART port (5-pin connector)
	USB, Host	2x USB 2.0 (Type-A) maximum power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (mini Type-B)
Storage		1x SD/SDHC card slot
Audio		1x Mic In (Mono) (3.5 mm jack)
		1x Line Out (Stereo) (3.5 mm jack)
Noise Immunity	Noise voltage	1500 V p-p
	Pulse duration	1µs
	Rise time	1ns
Input power	Rated Voltage	24 V dc ±20% (3-pin connector)
	Power Consumption	15 W maximum, 0.625 A
	Frame Ground (FG)	Frame GND is connected internally to Signal GND
Dimensions (L×W×D)		192 × 137 × 36 mm (7.56 × 5.39 × 1.42 in)
Weight		0.80 kg (1.76 lbs)
Mounting Options	Panel Cutout Dimensions	183.50 × 128.50 mm (7.22 × 5.06 in)
	VESA Mount	75 x 75 mm (2.95 x 2.95 in)

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1.1.1.3 IC755CxS10CDx Specifications

Item		Specification
Processor		Freescale i.MX535 (1 GHz ARM Cortex A8)
Memory	RAM	DDR3 SDRAM 1 GB
	ROM	SLC NAND 512 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows Embedded Compact 7
Display	Type	10.5" Standard TFT LCD
	Resolution	800(W) x 600(H) pixels SVGA
	Color	65,536
	Brightness	400 cd/m^2
	Backlight	LED
Touchscreen	Touch Panel Type	Projected capacitive
	Multi-touch	Two-point
Communications	Ethernet Port	2x 10/100Base-T (RJ-45)
	Serial Port	1x RS-232 UART port 1x RS-232/485 port (2x 5-pin connector)
	USB, Host	2x USB 2.0 (Type-A) maximum power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (mini Type-B)
Storage		1x SD/SDHC card slot
Audio		1x Line Out (Stereo) (3.5 mm jack)
Noise Immunity	Noise voltage	1500 V p-p
	Pulse duration	1µs
	Rise time	1ns
Input power	Rated Voltage	12/24 V dc ±20% (3-pin connector)
	Power Consumption	18 W maximum 1.5 / 0.75 A
	Frame Ground (FG)	Frame GND is connected internally to Signal GND
Dimensions (L×W×D)		278 × 222 × 65 mm (10.95 × 8.74 × 2.56 in)
Weight		2.40 kg (5.29 lbs)
Mounting Options	Panel Cutout Dimensions	266 × 210 mm (10.47 × 8.27 in)
	VESA Mount	100 × 100 mm (3.94 × 3.94 in)

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1.1.1.4 IC755CxS12CDx Specifications

Item		Specification
Processor		Freescale i.MX535 (1 GHz ARM Cortex A8)
Memory	RAM	DDR3 SDRAM 1 GB
	ROM	SLC NAND 512 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows Embedded Compact 7
Display	Type	12.1" Standard TFT LCD
	Resolution	800(W) x 600(H) pixels SVGA
	Color	65,536
	Brightness	450 cd/m^2
	Backlight	LED
Touchscreen	Touch Panel Type	Projected capacitive
	Multi-touch	Two-point
Communications	Ethernet Port	2x 10/100Base-T (RJ-45) 1x 10/100Base-T (RJ-45) for IC755CxS12CDA
	Serial Port	1x RS-232 UART port 1x RS-232/485 port (2x 5-pin connector) (1x 10-pin connector for IC755CxS12CDA)
	USB, Host	2x USB 2.0 (Type-A) max power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (mini Type-B)
Storage		1x SD/SDHC card slot
Audio		1x Line Out (Stereo) (3.5 mm jack)
Noise Immunity	Noise voltage	1500 V p-p
	Pulse duration	1µs
	Rise time	1ns
Input power	Rated Voltage	12/24 V dc ±20% (3-pin connector)
	Power Consumption	30 W maximum, 2.5 / 1.25 A
	Frame Ground (FG)	Frame GND is connected internally to Signal GND
Dimensions (L×W×D)		314 × 248 × 65 mm (12.36 × 9.76 × 2.56 in)
Weight		3 kg (6.61 lbs)
Mounting Options	Panel Cutout Dimensions	302 × 228 mm (11.89 × 8.98 in)
	VESA Mount	100 × 100 mm (3.94 × 3.94 in)

1.1.1.5 IC755CxS15CDx Specifications

Item		Specification
Processor		Freescale i.MX535 (1 GHz ARM Cortex A8)
Memory	RAM	DDR3 SDRAM 1 GB
	ROM	SLC NAND 512 MB
	SRAM	512 KB (with battery backup)
Operating System		Microsoft Windows Embedded Compact 7
Display	Type	15" Standard TFT LCD
	Resolution	1024(W) x 768(H) pixels XGA
	Color	65,536
	Brightness	310 cd/m^2
	Backlight	LED
Touchscreen	Touch Panel Type	Projected capacitive
	Multi-touch	Two-point
Communications	Ethernet Port	2x 10/100Base-T (RJ-45)
	Serial Port	1x RS-232 UART port 1x RS-232/485 port (2x 5-pin connector)
	USB, Host	2x USB 2.0 (Type-A) maximum power (5 V at 0.5 A)
	USB, Device	1x USB 2.0 (mini Type-B)
Storage		1x SD/SDHC card slot
Audio		1x Line Out (Stereo) (3.5 mm jack)
Noise Immunity	Noise voltage	1500 V p-p
	Pulse duration	1µs
	Rise time	1ns
Input power	Rated Voltage	12/24 V dc ±20% (3-pin connector)
	Power Consumption	30 W maximum, 2.5 / 1.25 A
	Frame Ground (FG)	Frame GND is connected internally to Signal GND
Dimensions (L×W×D)		399 × 323 × 70 mm (15.71 × 12.72 × 2.76 in)
Weight		4.46 kg (9.83 lbs)
Mounting Options	Panel Cutout Dimensions	379 × 305 mm (14.92 × 12.01 in)
	VESA Mount	100 × 100 mm (3.94 × 3.94 in)

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1.1.2   Environmental Specifications

Note Install the QuickPanel+ in a well-ventilated location that is not exposed to dust, corrosive gases or liquids, rain, strong ultra-violet light or direct sunlight, and meets the following specifications.

Item	IC755CxS06RDx	IC755CxW07CDx	IC755CxS10CDx	IC755CxS12CDx	IC755CxS15CDx
Cooling	Natural convection				
Ambient Operating Temperature	0 to 55°C (32 to 131 °F)				
Ambient Storage Temperature	-10 to 60°C (14 to 140 °F)				
Ambient Humidity (Operating and Storage)	85% RH Non-condensing, wet-bulb temperature: 30°C (86 °F) or less				
Environment	Pollution Degree 2, Indoor use only				
Vibration Resistance	5 to 9 Hz single-amplitude 3.5 mm; 9 to 150 Hz constant-accelerated velocity 9.8 m/s^2; X, Y, Z directions 10 time (100 minutes) (Compliance 3502, IEC61131-2 JIS B)				
Altitude	800~1114 hPa, altitude up to 2000 m (6561.68 ft)				
RoHS	Compliant with EU RoHS Directive 2011/65/EU				
Enclosure Rating	UL Type 4X rating; IP65 in panel mount only				

Note For additional product standards and agency approvals, refer to *Appendix A*.

Notes

2   Hardware

This chapter describes the QuickPanel+ hardware features, including physical characteristics and LED indicators.

2.1   Physical Characteristics

In addition to the primary touchscreen interface, the QuickPanel+ Operator Interface supports a variety of communication ports. The following diagrams illustrate the physical layout of the QuickPanel+ Operator Interface, including locations of status LEDs, communications ports, and connectors.

192 (7.56 in) × 2

36 (1.42 in) × 2

115.2 (4.5 in)

SD Card

USB Device

LINE OUT

MIC IN

(5.39 in) × 2

137

LCD Active Area
115.2 × 86.4
(4.5 × 3.4 in)

Serial Interface

Input Power

LAN

USB Host Ports

183.50 (7.22 in)

75 (2.95 in)

(5.70 in)

(5.06 in)

(2.95 in)

144.7

128.50

75

Battery Cover

Effective Screw Depth 6 mm (0.24 in)

License Label
Product Nameplate
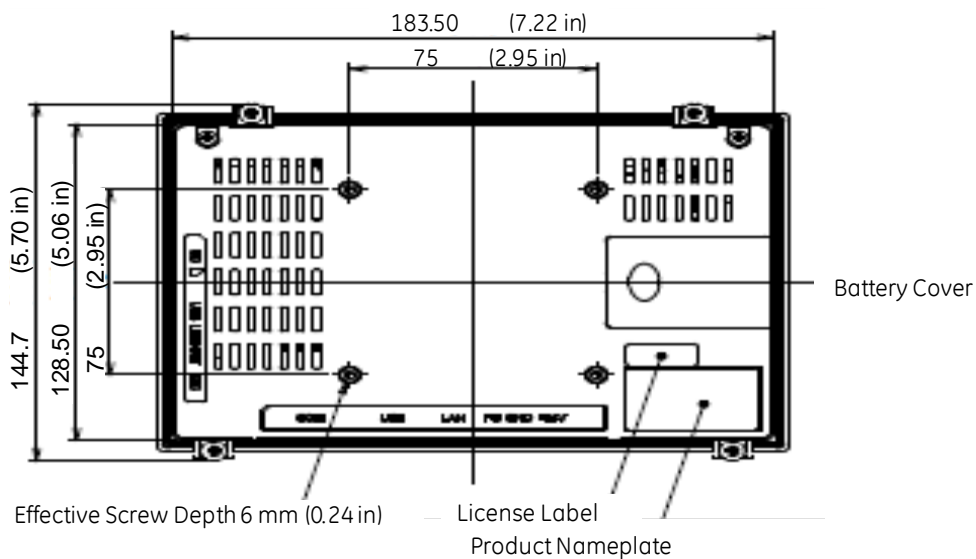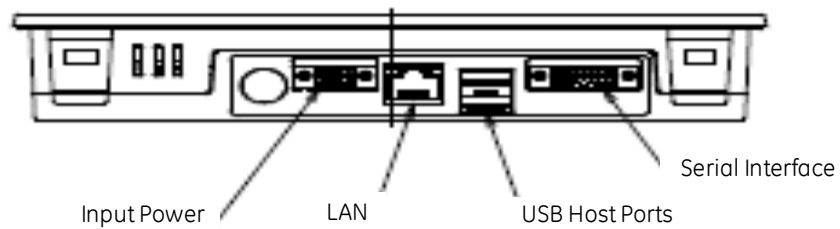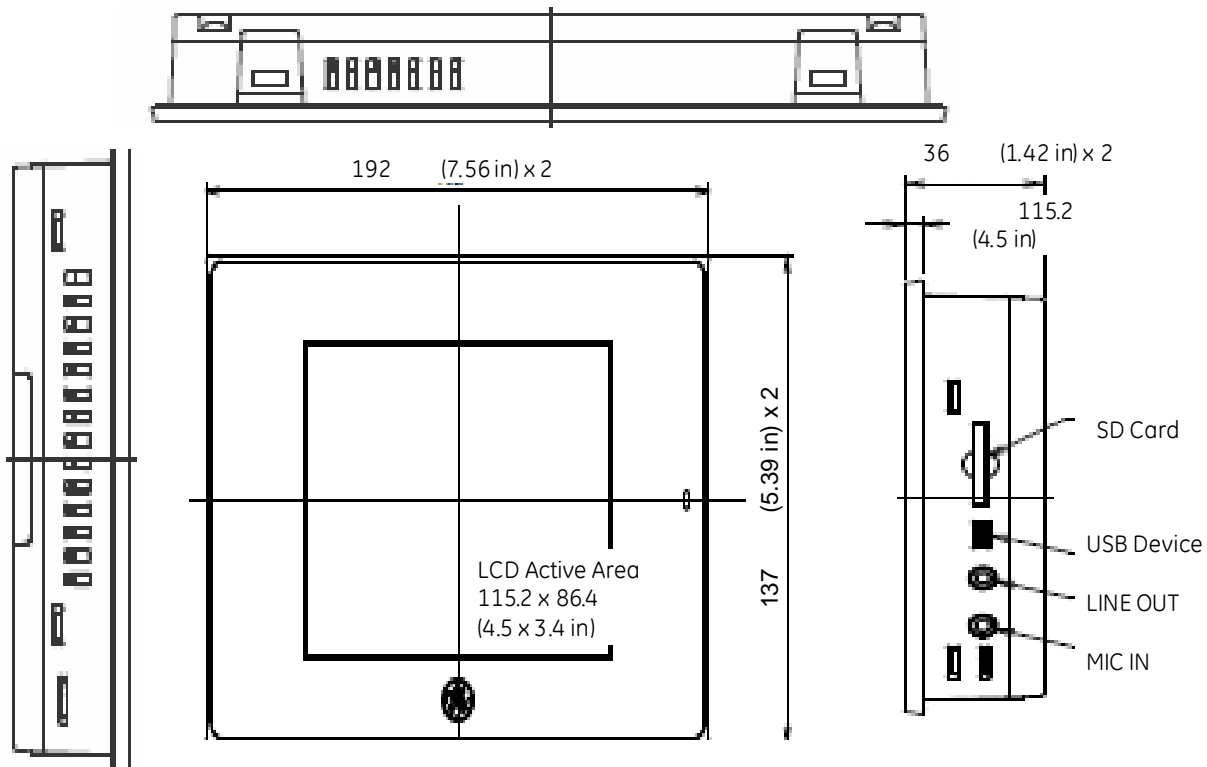
IC755CxS06RDx Hardware Features

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Status
Indicator LED

Touchscreen
LCD

SD Card

MICRO USB

LINE OUT

MIC IN

Input
Power

LAN

USB Host
Ports

COM

Battery
Cover

SD

USB LINE OUT MIC

COM   USB   LAN   FG GND +24V
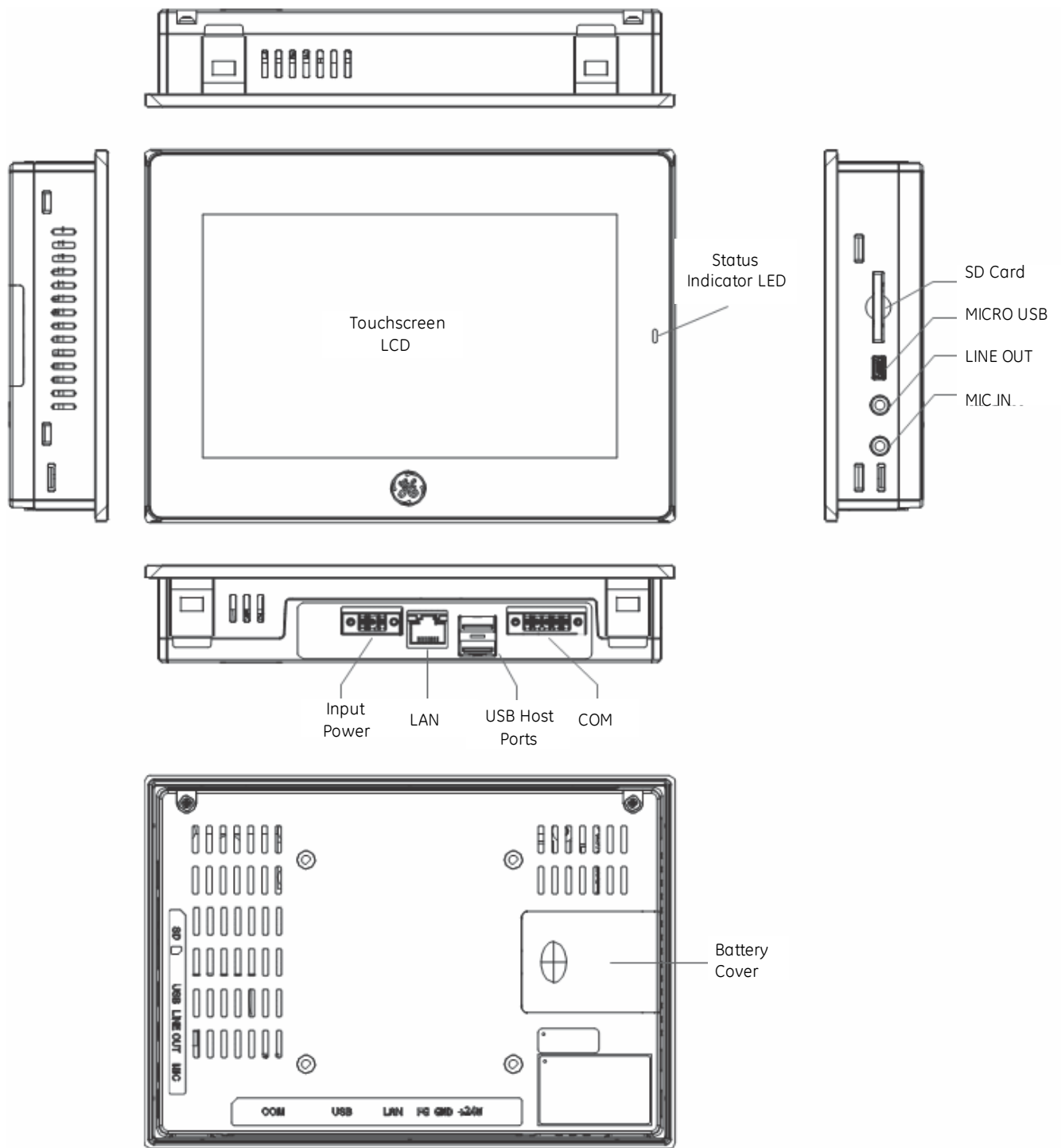
IC755CxW07CDx Hardware Features

Note Refer to the section *IC755CxW07CDx Specifications* for drawing dimensions.

SD Card

Touchscreen
LCD

Status
Indicator LED

LAN2 LAN1 USB   MICRO COM2   COM1 LINE   Input
             Host   USB   OUT   Power
             Ports
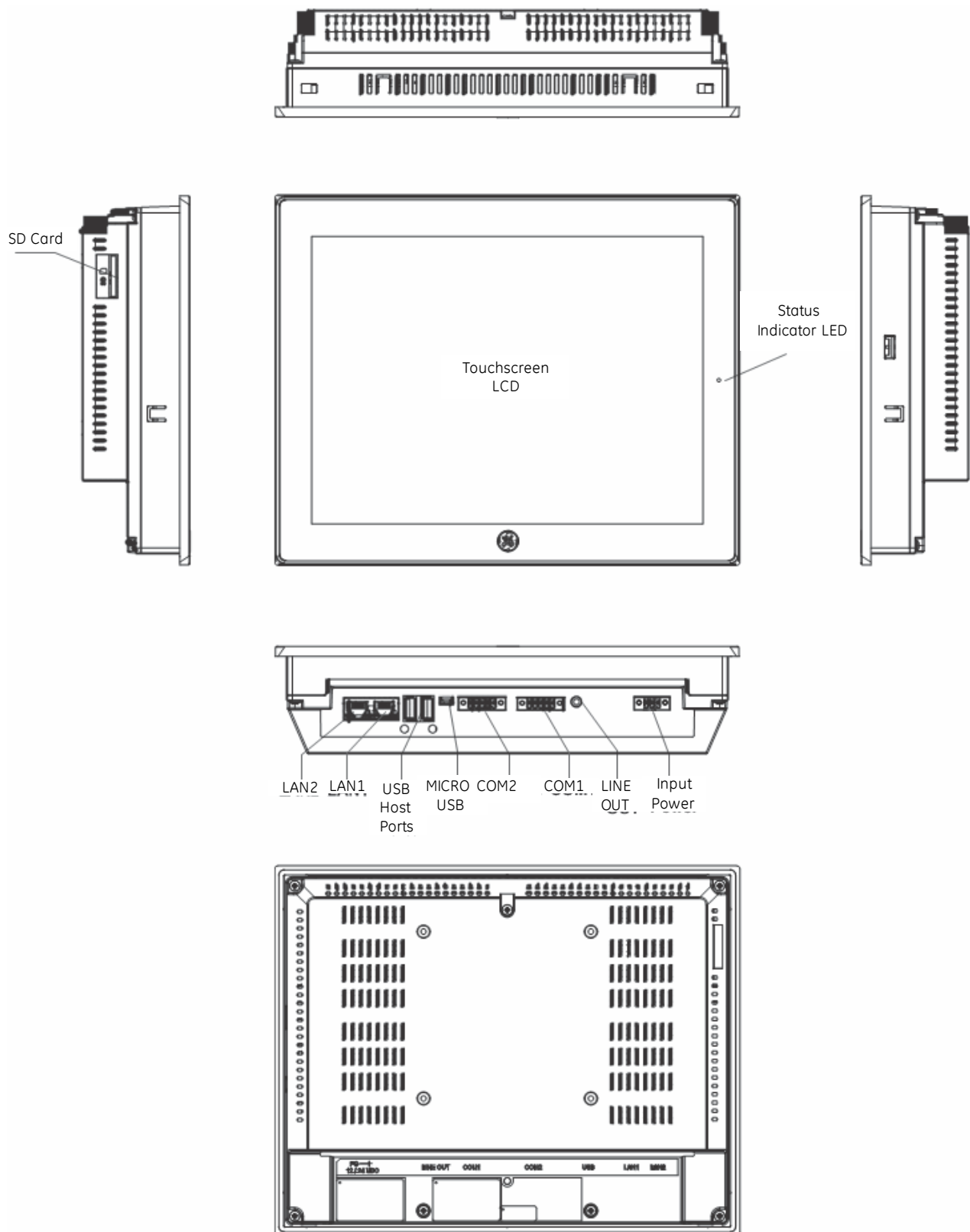
IC755CxS10CDx Hardware Features

Note Refer to the section *IC755CxS10CDx Specifications* for drawing dimensions.

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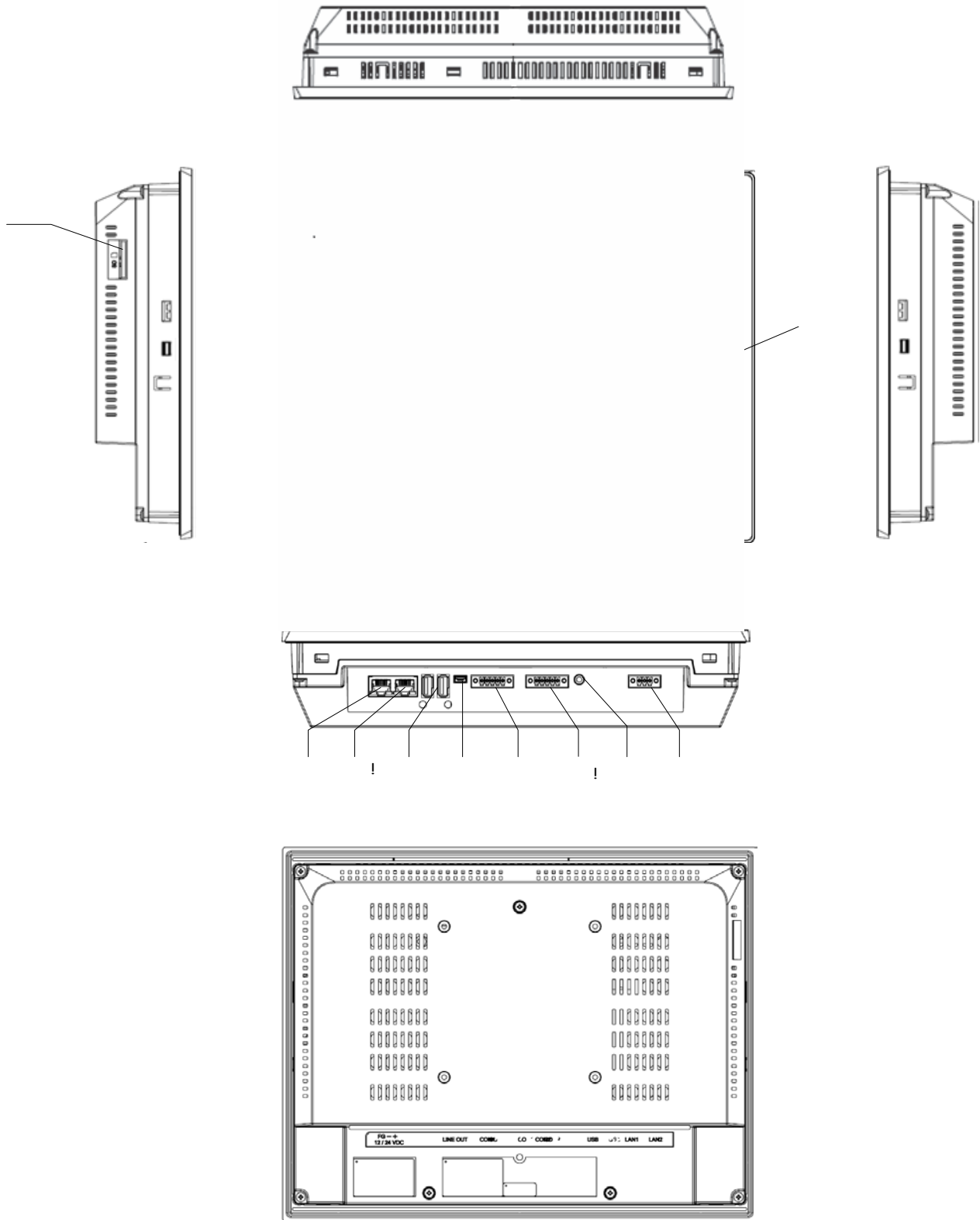
IC755CxS12CDx Hardware Features

Note Refer to the section *IC755CxS12CDx Specifications* for drawing dimensions.

SD Card

Touchscreen
LCD

Status
Indicator
LED

| LAN2 | LAN1 | USB Host Ports | MICRO USB | COM2 | COM1 | LINE OUT | Input Power |
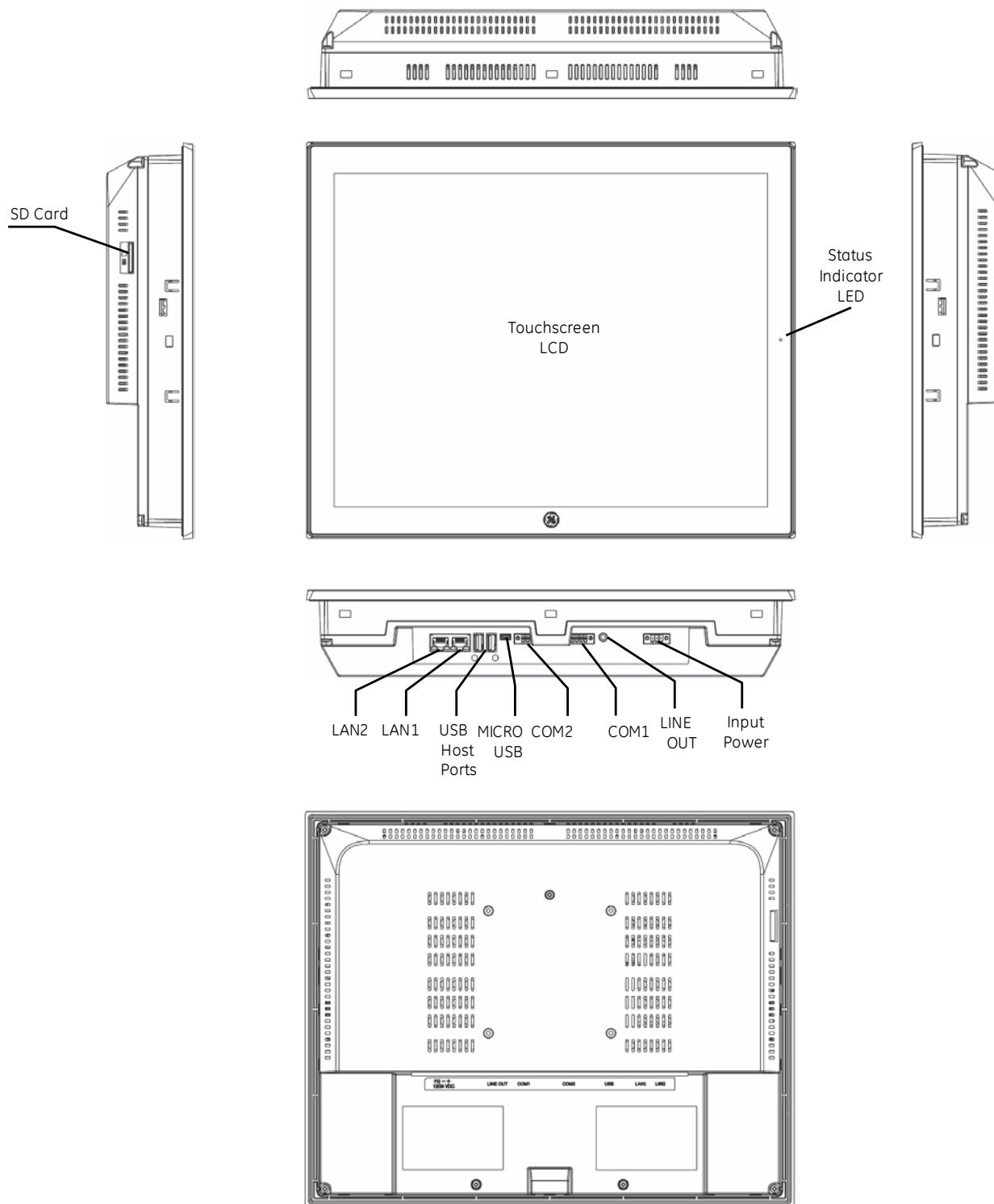
IC755CxS15CDx Hardware Features

Note Refer to the section *IC755CxS15CDx Specifications* for drawing dimensions.

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2.2   LED Indicators

The QuickPanel+ Operator Interface provides LED indication for the following:

- Operation status
- Ethernet Port operation
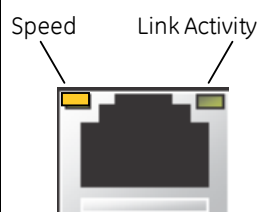
2.2.1   Operation Status LEDs

The QuickPanel+ has one tri-color LED that provides visual operation status indication for IC755CxS06RDx, IC755CxW07CDx, the and IC755CxSxxCDx units.

LED State	QuickPanel+ State
Amber, solid	Operating system starting
Green, solid	Normal operating state
Green, blinking	Backlight off
Red, blinking	Backlight failure
Off	Power not applied to unit

2.2.2   Ethernet Port Operation LEDs

The Ethernet port has two LED indicators: Speed and Link Activity.

LED	LED State	Operating State
Speed	Yellow, on	10/100
Link Activity	Green, on	Link status

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3 Software

This chapter provides QuickPanel+ software information and procedures to perform the most common tasks.

3.1 Operating System

Note Refer to http://windows.microsoft.com.

The QuickPanel+ operating system (OS), Microsoft Windows Embedded Compact 7, is a full 32-bit OS with graphical user interface (GUI). It is stored in flash memory and copied to a block of DRAM for execution. The OS automatically starts following QuickPanel+ unit powerup or reset.

3.2 Backup Utility

Run the Backup Utility after configuration changes to the operating system or installing applications, and before shutdown.

Attention

The QuickPanel+ is not battery powered; therefore, a Backup Utility feature saves the changes made to the Windows Registry or Desktop to Flash Memory. The Backup Utility achieves the following:

- Stores the Windows Embedded Compact 7 registry (including any control panel settings) in Flash memory
- Stores changes (or additions) made to the \Windows sub-tree of the file system in the user block of flash memory

3.3 Storage Manager

Note Storage Manager is accessed from the Control Panel folder. Online help is available.

Use Microsoft Storage Manager to repair or format lost or corrupted data volumes existing in the SD Card, battery-backed SRAM (BBSRAM), or USB Flash Keys (thumb drives).

Note Data volumes existing in the main flash file system of the QuickPanel+ may not be repaired by Storage Manager.

3.4   Copy Project to SD Card

The custom utility *Copy Project to SD Card* transfers Proficy Machine Edition View and Control projects between compatible QuickPanel+ units using SD cards.

⚠️ **Caution**   **Before disconnecting power, verify that the copy or update operation is complete (no busy message or wait cursor).**

➢ **To copy a Proficy Machine Edition project to an SD card**

1.   Verify that there is a blank SD card in the SD card port.

2.   Double tap the **Copy Project to SD Card** icon on the desktop.

3.   If the project is secured with an enhanced security password, then the password authentication window will be displayed. The user shall be able to proceed only when the password is successfully authenticated.

4.   From the *Copy Project Query* confirmation window, tap **Yes**.

⚠️ **Caution**   **Copying a project while Proficy Machine Edition runtimes are active may cause an incomplete copy to be created if the runtimes are also writing to files in the project folders. If the utility detects this situation, it will notify you to stop the runtimes before making the backup. You will not be able to create a backup while the runtimes are writing files.**

3.5   Proficy Machine Edition Project Update

Update a Proficy Machine Edition (PME) application that is currently stored on the QuickPanel+ unit with a revision stored on a flash device, such as an SD card.

➢ **To update a Machine Edition project**

1.   Insert the flash device containing an upgraded version of the Proficy Machine Edition project into the appropriate port.

2.   Restart the unit.

Note   Depending on set options, the update may or may not be enabled, or may update automatically. If there is more than one flash device with a valid project copy present, a *Select Media* confirmation window displays, prompting you to choose with which flash device to update Select the device from the list and click **OK** to continue. When a valid project
is found on the flash device, you will be prompted to install the project or skip it. Tap **OK** to install or **Cancel** to skip the installation, and continue to restart. If an invalid project is found, an error message displays. This window must be closed
before the unit will restart.

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3.   Remove the flash device from the port.

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3.6   FTP Server

The File Transfer Protocol (FTP) server included with the QuickPanel+ unit supports standard (RFC 959). It does not support Secure File Transfer Protocol (SFTP) or implicit FTPS, which uses different ports and is based on Secure Shell (SSH) rather than Secure Sockets Layer (SSL).

The FTP server is configured with the Quick Panel+ Setup Tool. By default, the server is not enabled. Once enabled, a background program will run, waiting for clients to connect. Up to ten connections are supported. Sessions that are idle for five minutes are terminated by the server.

The server supports non-secure operation. All information including username, password, and data is transmitted with no encryption and is susceptible to packet sniffing and various FTP attacks.

Note If the server status is changed, the QuickPanel+ must be restarted before changes take effect.

3.6.1   Remote User Authentication

Note The FTP root directory is available from the QuickPanel+ as \, and is the root of the flash device.

The server only supports anonymous login with password requested (but not validated). This may prevent some types of attacks and is required by some clients. Once connected, the remote user is logged into the FTP root directory.

3.6.2   FTP with Removable Flash Devices

All removable flash devices remote-FTP users as directories off the FTP root directory. Computer Flash card partitions display as directories such as *SDMemory* and USB Flash Keys display as directories such as *Hard Disk*. Full access privileges are granted for the client in these folders/devices.

Removable flash device directories are captured when a session is opened and are not changed while the session exists. If you start without an installed SD Card, close your session and log on again to view the SD Card directory. If the SD Card existed when you logged on, and is removed and inserted, it will still work, provided the SD Card's device name did not change during reinsertion.

3.7   HTTP Server

The HyperText Transfer Protocol (HTTP) server included with the QuickPanel+ supports standard (RFC 2616). The HTTP server is configured with the Quick Panel+ Setup Tool. By default, the server is not enabled. Once enabled, a background program will run, waiting for clients to connect. From the QuickPanel+ Operator Interface, the default web page is located in
\Windows\www\wwwpub.

The server supports non-secure port 80 operation.

Note   If the server status is changed, the QuickPanel+ must be restarted before changes take effect.

3.8   SNTP Server

The SNTP server included with the QuickPanel+ supports SNTP Version 4 for IPv4, IPv6 and OSI. The SNTP server is configured with the Quick Panel+ Setup Tool. By default, the server is not enabled. Once enabled, the server will refresh the time specified in the setup tool configuration. Pressing the *Update Now* button immediately obtains the time from the configured time server.

The SNTP server supports non-secure UDP port 123 operation.

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3.9   QuickPanel+ OS Utilities Settings Tool

Note DIP switches are set in the OFF position (default) in the factory.

The QuickPanel+ Operator Interface is equipped with DIP switches to perform control functionality, as follows:

- **DIP Switch 1 (SW2 Switch)** enables firmware upgrade. Firmware upgrade is allowed only *after* turning this switch in the ON position. It is highly recommended to turn the switch position to OFF after firmware upgrade is completed as a security measurement.
- **DIP Switch 2 (SW2 Switch)** controls Force Startup. Turning this switch to the ON position forces the startup applications to run when the operating system is started.

Note The DIP Switch feature is designed as a security measurement. However, security requirements can also be met using the gesture-based feature.Prior to the listed firmware builds, these operations were only supported using the DIP Switch
settings.

Some operators find it difficult to use the DIP Switch settings to perform these functions (such as removing the back plate of the device and adjusting the positions of DIP Switch for each operation). As an alternative to using the DIP Switch settings, the QuickPanel+ OS Utilities Settings tool contains finger gesture-based utilities to perform the same operations. This functionality is available with the firmware builds listed in the following table.

QuickPanel+ OS Utilities Settings Tool Support

QuickPanel+ Product	Firmware Build
IC755CxS06RDx (6" Display)	01 (initial release)
IC755CxW07CDx (7" Display)	21
IC755CxS10CDx (10" Display)	12
IC755CxS12CDx (12" Display)	
IC755CxS15CDx (15" Display)	

The tool operation buttons for each utility only respond to a *double-tap* finger gesture. It will not accept any keyboard or mouse clicks, finger simulator-based inputs, or click inputs from any remote touch-based device. The user can access the tool from the **Start** menu by selecting **Programs**, **System**, and **QuickPanel+ OS Utilities Settings** on the device. The tool can be used to perform the following operations using the *double-tap* feature, without adjusting the DIP Switch positions:

- *Firmware Upgrade*
- *Bypass Startup Programs*
- *Reset Enhanced Security*
- *Enable/Disable SNMP Agent*

For security, only permit these operations when the operator is physically located near the QuickPanel+ and require that users perform a physical action on the device.

Attention

3.9.1 Firmware Upgrade

Note This utility operates similar to the QuickPanel+ Update Tool, which comes with the OS image upgrade binaries. The operator can continue to use the QuickPanel+ Update Tool to use the DIP Switch feature.

The Firmware Upgrade utility setting enables operators to upgrade the firmware. Firmware updates are not supported over
Ethernet or Serial interfaces. Insert the media (SD Card) containing the required files for firmware upgrade and perform the following procedure.

Note Make sure the copy of required binaries to the SD card is not within a folder.

Note The firmware package contains encrypted *.nbo* files. Use the *PreUpdate.exe* tool to decrypt the *.nbo* files before using them for upgrade.

After a firmware upgrade, which refreshes the device fresh, the user must download the project again and install their own tools (including third party tools) on the device.

Note It is recommended that the user back up any important data prior to firmware upgrade so that they can replace the data after firmware upgrade if necessary.

Attention

If the current firmware build version on the QuickPanel+ is any of the following, refer to the section *Firmware Upgrade for Specific Build Version*:

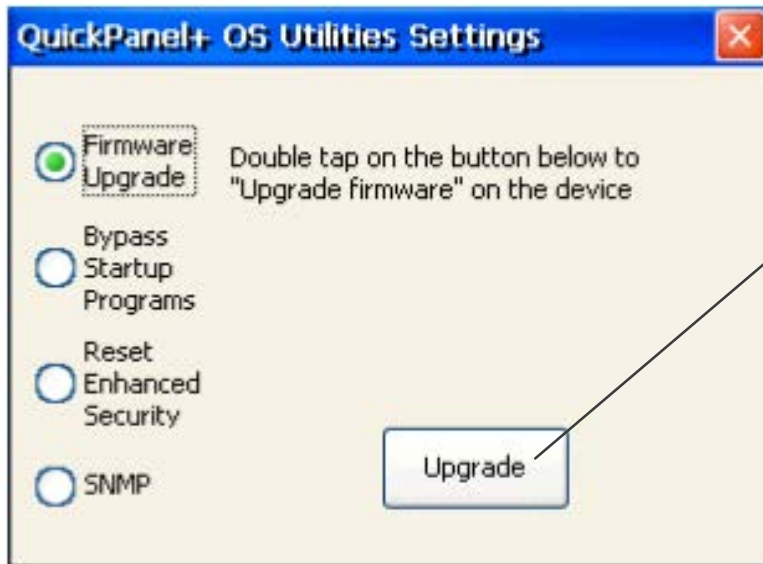- **Build 3 or below for IC755CxS06RDx**

  (6" Display)

- **Build 23 or below for IC755CxW07CDx**

  (7" Display)

- **Build 14 or below for IC755CxS10CDx**

  (10" Display), IC755CxS12CDx

  (12" Display), and IC755CxS15CDx

  (15" Display)

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➢ **To perform a firmware upgrade**

1. From the **Start** menu, select **Programs**, **System**, and **QuickPanel+ OS Utilities Settings Tool** to display the QuickPanel+ OS Utilities Settings window.

2. Upgrade the firmware.

From the QuickPanel+ OS Utilities Settings window, select **Firmware Upgrade**, then double-tap **Upgrade**.

3. The operator interface guides the operator through the firmware upgrade process. After successful upgrade, restart the device.

4. Download the project and install any site-specific tools, including third party tools, on the device.

3.9.2   Firmware Upgrade for Specific Build Version

The following procedure is applicable to the following QuickPanel+ display units:

- QuickPanel+ IC755CxS06RDx (6" Display) with build 3 or below
- QuickPanel+ IC755CxW07CDx (7" Display) with build 23 or below
- QuickPanel+ IC755CxS10CDx (10" Display), IC755CxS12CDx (12" Display), and IC755CxS15CDx (15" Display) with build 14 or below

➢ **To perform a firmware upgrade for a specific firmware build version**

1. Put the files in the firmware package on the SD Card.

2. Double-click *QPPlusUpdate.exe* and run the program.

3. Perform the firmware upgrade.

From the QuickPanel+ Update Tool dialog box, click **Upgrade**.

Attention

For a QuickPanel+ 7" inch Display unit, the following message displays during the process of firmware upgrade. You <u>must</u> re-run the *QPPlusUpdate.exe* program after reboot, which means you will run the *QPPlusUpdate.exe* program a total of two times to complete the upgrade process.
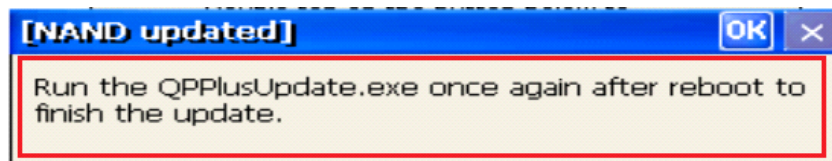
QuickPanel+ 7" inch Display Reboot and Run Program Message

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3.9.3 Bypass Startup Programs

Note This utility functions the same as disabling or enabling the **Don't startup Program** functionality using DIP Switch Position 2.

The Bypass Startup Programs utility enables the operator to choose the gesture-based feature or DIP Switch (*Use DIP Switch*)
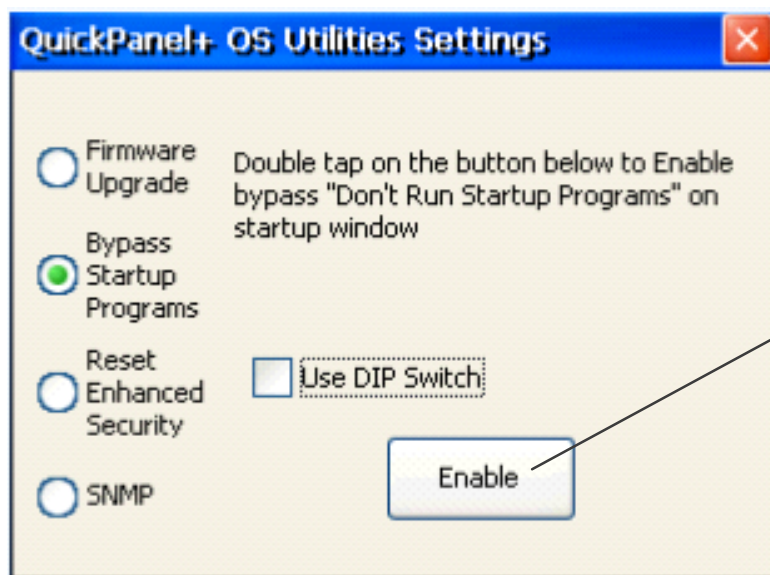feature to perform the Force Startup operation.

➢ **To bypass startup programs and force startup**

1. From the **Start** menu, select **Programs**, **System**, and **QuickPanel+ OS Utilities Settings Tool** to display the QuickPanel+ OS Utilities Settings window.

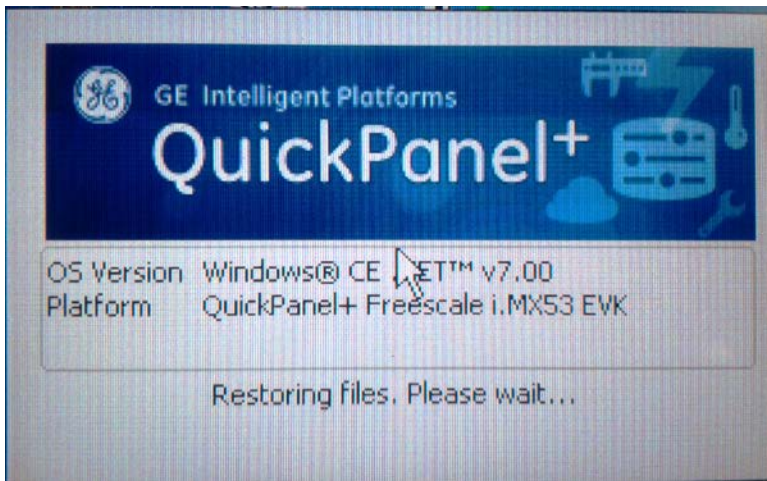2. Enable or disable the bypass startup programs feature.
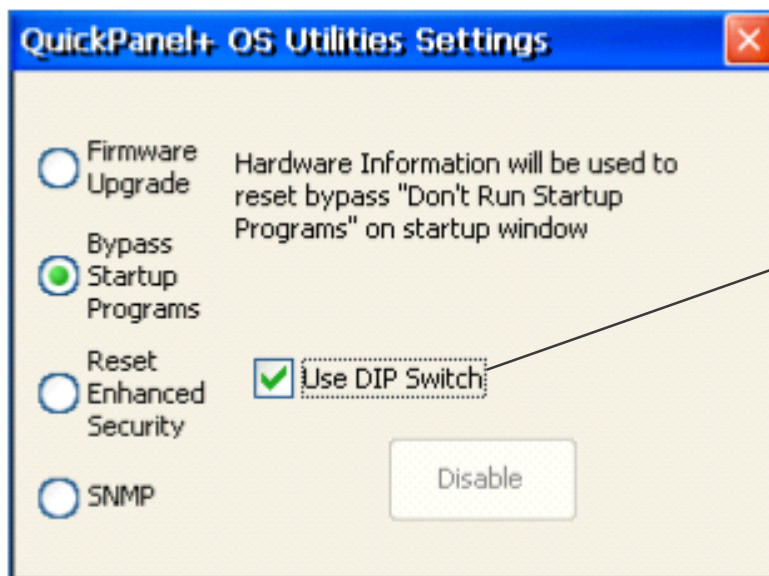
From the QuickPanel + OS Utilities Settings window, select **Bypass Startup Programs**.

To use the DIP Switch feature to perform this operation, select **Use DIP Switch**.

To use the double-tap feature to perform this operation, double-tap **Enable**.

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If **Enable** is double-tapped, the startup window displays and all startup programs are enabled to run .

If **Disable** is double-tapped, the startup window displays . Click **Don't run Startup programs** to stop all startup programs from running .

If *Use DIP Switch* is selected, **Don't run StartUp Programs** displays on the startup window based on the position of DIP Switch 2.
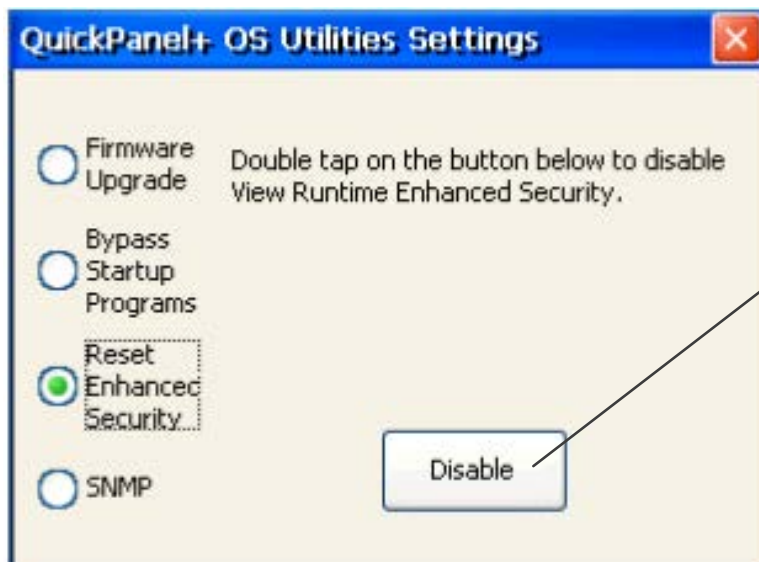
3.9.4   Reset Enhanced Security

The QuickPanel+ Operator Interface is configured using the Proficy Machine Edition (PME) application. Using the PME Enhanced Security feature, users can specify password protection for any network-connected QuickPanel+ device to perform certain operations, such as the download operation. Every operation to connect to the device requires a password.

If you forget or do not know your password, the Reset Enhanced Security feature enables a QuickPanel+ configuration download on the device by permitting the user to disable the Enhanced Security feature using the double-tap feature.

Note Prior to support of the QuickPanel+ OS Utilities Settings Tool, if the user forgot or did not know their password, the only resolution was to contact Technical Support to reset the password or upgrade the firmware on the device.

➢ **To disable Enhanced Security**

1. From the **Start** menu, select **Programs**, **System**, and **QuickPanel+ OS Utilities Settings Tool** to display the QuickPanel+ OS Utilities Settings window.

2. Disable the Enhanced Security setting.

From the QuickPanel⁺ OS Utilities Settings window, select **Reset Enhanced Security**, then double-tap **Disable**.

3.9.5   Enable or Disable SNMP Agent

The QuickPanel+ Operator Interface can be enabled as a Simple Network Management Protocol (SNMP) Agent with the capability to communicate with SNMP Managers for notification of *Traps* and responding to *Query* HMI Tag values.

Since it is designed to run over a public network, SNMP communication is disabled by default on the QuickPanel+ device for security reasons. As a security measure, the SNMP feature requires a tactile input gesture to enable and disable SNMP communication.

Note Refer to the section *Simple Network Management Protocol (SNMP)* for further details.

Note Enabling or disabling SNMP communication is a one-time user configuration.
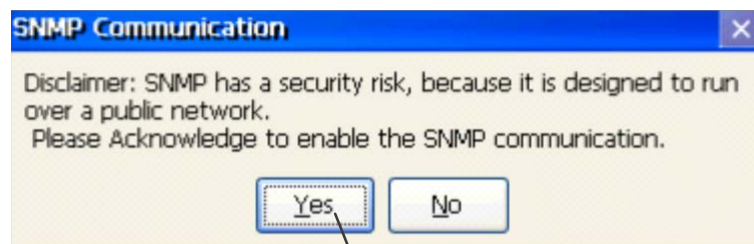

➢   **To enable the SNMP Agent**

1. From the **Start** menu, select **Programs**, **System**, and **QuickPanel+ OS Utilities Settings Tool** to display the QuickPanel+ OS Utilities Settings window.

2. Enable SNMP communication.
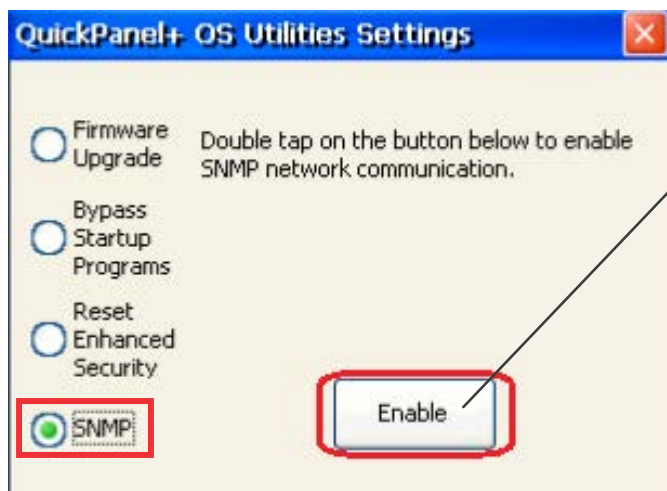
From the QuickPanel+ OS Utilities Settings window, select **SNMP**.

Double-tap **Enable** to enable SNMP communication.

Click **Yes** to acknowledge the security risk and enable SNMP communication .

SNMP communication is enabled on the device only when the user acknowledges this security dialog box and clicks Yes.

Attention

Note Any failure or errors while enabling or disabling the SNMP service would be communicated to the user through a dialog box.

➢ **To disable the SNMP Agent**

1. From the **Start** menu, select **Programs**, **System**, and **QuickPanel⁺ OS Utilities Settings Tool** to display the QuickPanel⁺ OS Utilities Settings window.

2. Disable SNMP communication.
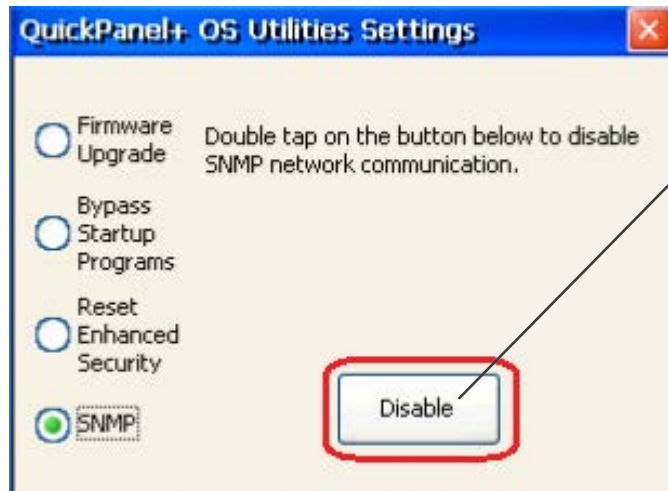
From the QuickPanel⁺ OS Utilities Settings window, select **SNMP**.

Double-tap **Disable** to disable SNMP communication.

3.10   Display Screen Sensitivity Tool

The QuickPanel+ 7", 10", 12", and 15" display units use capacitive screen technology that is far more responsive than the previously used resistive touchscreen technology. Resistive screens required the operator to firmly press down on the resistive overlay for a response. Capacitive screens rely on the capacitive properties of the operators finger pressing lightly on the screen.

If the operator is wearing gloves, this can affect the operation of the capacitive screens. The thickness of the glove keeps the operator's finger slightly further from the screen. To accommodate gloved operation, the Sensitivity Tool allows the screen sensitivity to be set to a higher level. Setting the screen sensitivity to **High** enables the QuickPanel+ display screen to operate with the user wearing most types of work gloves. For thicker gloves, the user may need to press down more firmly to place
the finger closer to the screen, which causes the finger pad to spread out slightly to make a larger capacitive area.

Note   Gloved operation works best when the operator is wearing gloves that fit. If the fingers do not extend to the end of the glove, the empty space at the fingertip may make it difficult to operate the display screen while wearing gloves.

Setting the screen sensitivity to **Low** enables the QuickPanel+ operator actions to be slow and deliberate as they were using resistive screens. With low sensitivity, the operator must press firmly down on the display screen for a response.

➢   **To modify the Sensitivity Tool**

1.   From the **Start** menu, select **Programs**, **System**, and **Sensitivity Tool** to display the Sensitivity Setting window.

2.   Set the sensitivity level.

Select the sensitivity level and press **OK**.

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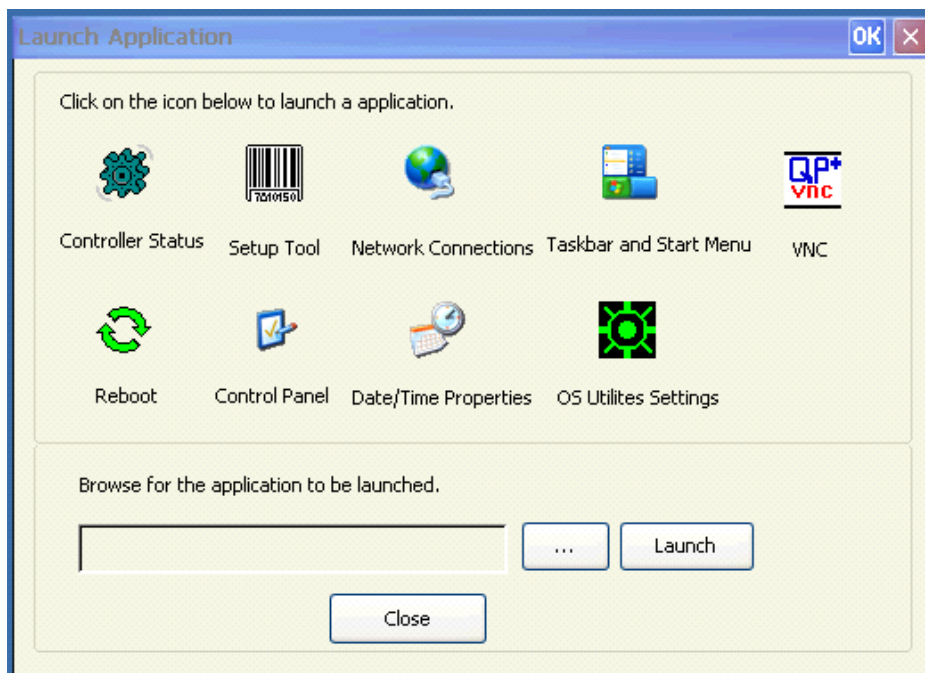HMI Parts Center

QuickPanel+   Operator Interface User
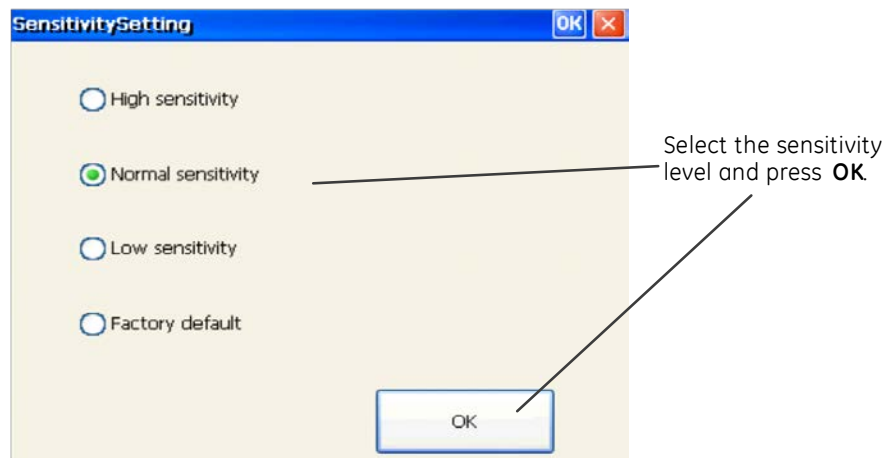
3.11   Launch Application

The Launch application window contains the shortcuts to launch some of the major QuickPanel+ Operator Interface applications.

➢   **To launch an application**
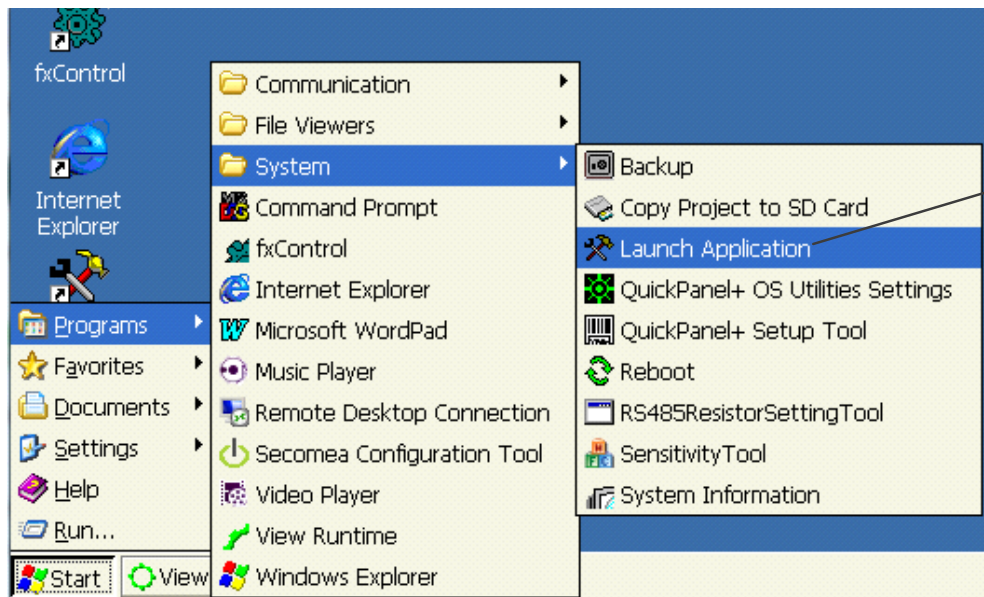
From the **Start** menu, select **Programs**, **System**, and **Launch Application**.

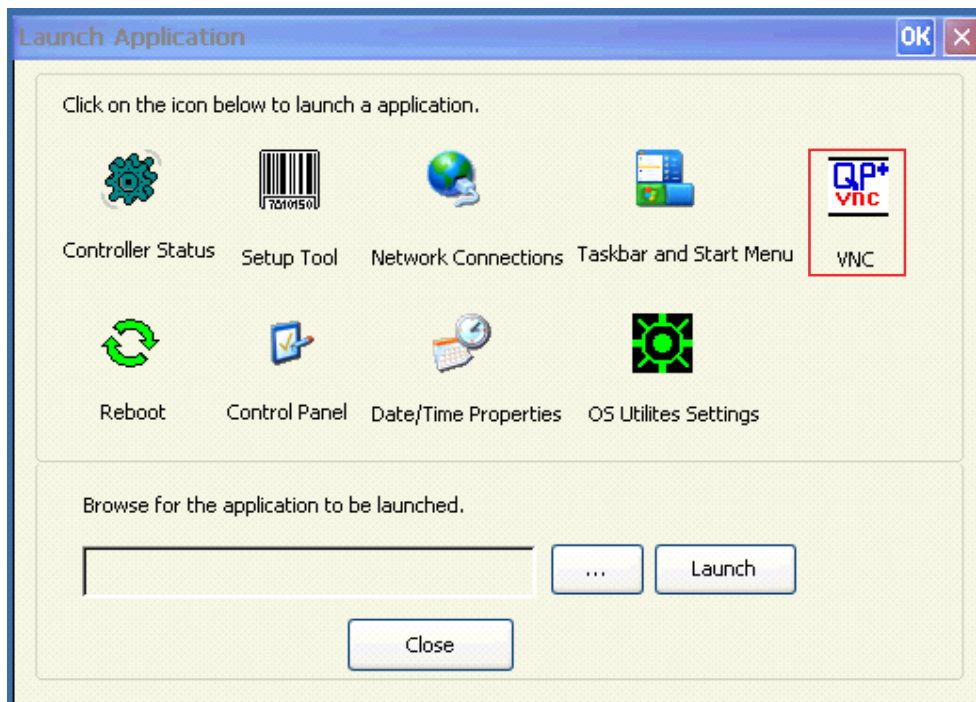From the Launch Application window, tap an **application icon** to start the application.

If the application is not listed, select **...** to browse for and select an application, then click   to open (start) the application.

3.12 VNC Server

The VNC Server enables remote, visual connectivity to the QuickPanel+ Operator Interface from a laptop computer or a mobile device through the remote VNC Viewers. User authentication of the VNC Server in the QuickPanel+ is determined by the configuration of the Enhanced Security feature on the device. If the Enhanced Security feature is enabled for the device, a VNC Viewer can connect to the QuickPanel + on the VNC Server. Connection is dependent upon user authentication with the correct password. User password entry is validated with the Enhanced Security password. If the Enhanced Security feature is disabled for the device, the VNC Server does not enforce authentication of VNC Viewers.

The VNC Server is automatically launched during QuickPanel+ startup. It can also be launched manually from the Launch Application.

➢ **To manually launch the VNC Server:** from the **Start** menu, select **Programs**, **System**, **Launch Application** and start the **VNC Server** application.

From the Launch Application window, tap the **QP⁺ VNC Server application icon**.

Note The VNC server starts approximately 40 sec after the QuickPanel+ startup process has completed.

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3.13   Battery Life Prediction

The QuickPanel+ Operator Interface provides an estimated lifespan of the battery in the device. To display the battery life prediction, the *current time* on the QuickPanel+ device must be set. If a battery is not present, the QuickPanel+ BatteryStatus tab cannot provide battery life prediction.

➢   **To display the battery life prediction:** from the **Start** menu, select **System**, open the **QuickPanel+ Setup tool**, and select the **BatteryStatus** tab.
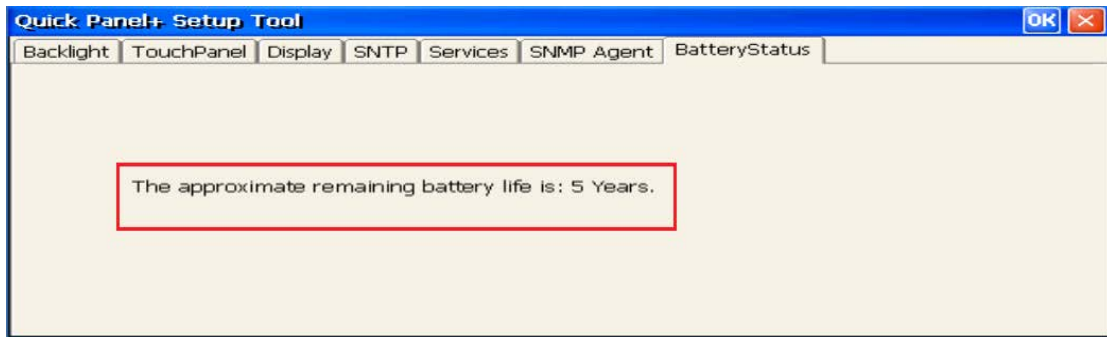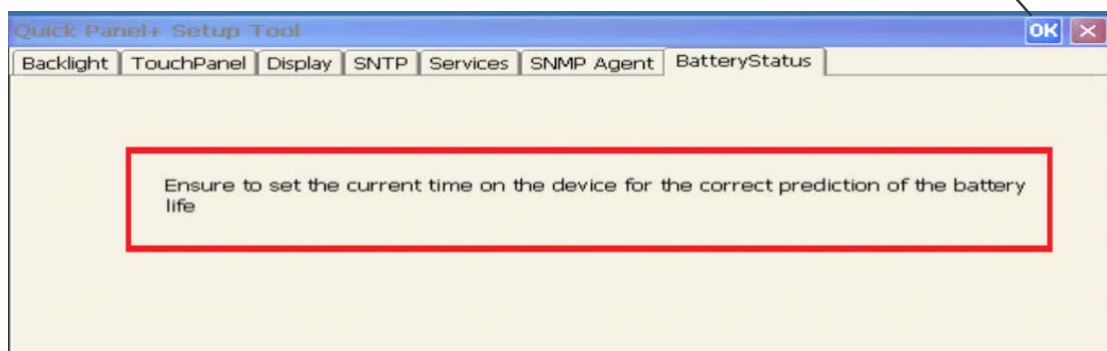

Battery Life Prediction Example

Note If the current time is <u>not</u> set on the device, the *QuickPanel+ Setup Tool* dialog box will not be capable of provide an accurate battery life prediction.

➢   **To set the current time to display battery life prediction**

1.   If the current time is <u>not</u> set on the device, the *QuickPanel+ Setup Tool* displays the following message stating that the current date and time must be set on the device to display the correct battery life prediction.

Click **OK** and set the current date and time on the device

Current Time Not Set Message

2. After setting the current time, open the *QuickPanel+ Setup Tool*, and select the **BatteryStatus** tab to display the correct battery life prediction information.
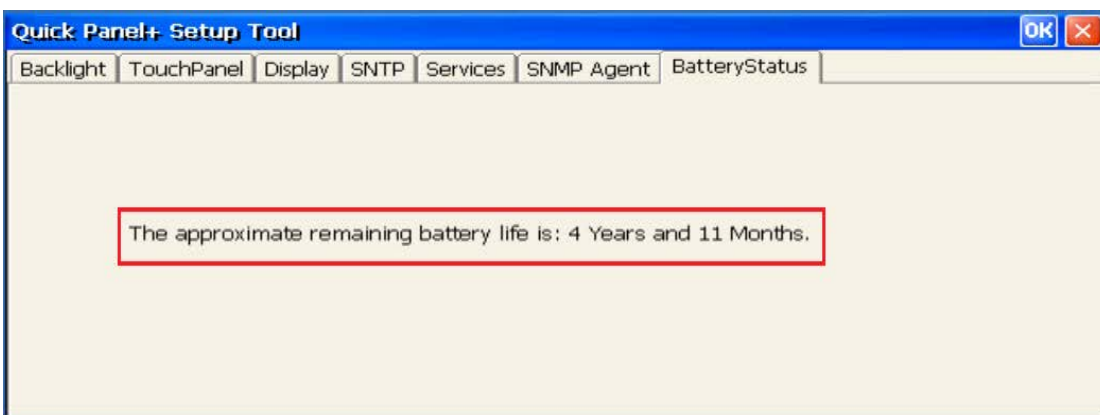
Example of Battery Life Prediction Displayed After Current Time Set

3. If the battery was replaced or removed on the QuickPanel+, *QuickPanel+ Setup Tool* **BatteryStatus** displays two possible scenarios related to the battery.
(The battery life prediction is estimated based on this selection.)

Battery Status Options

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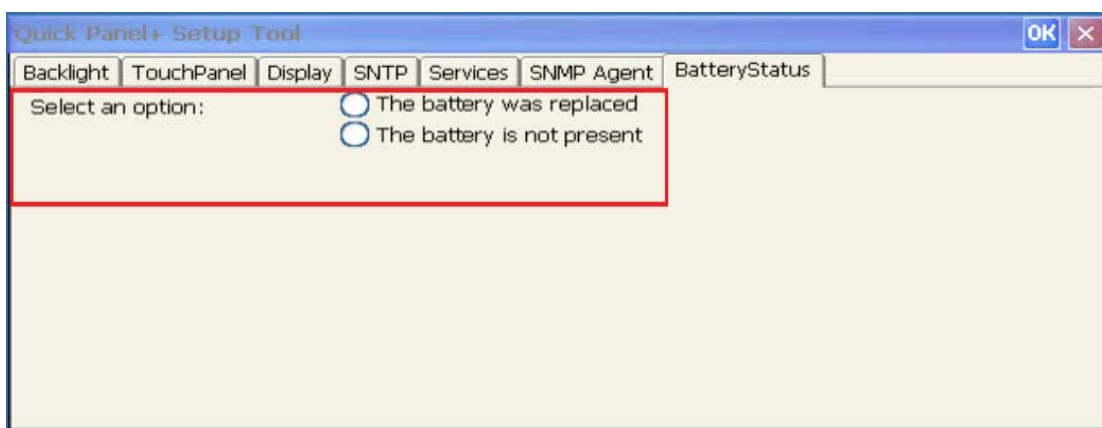
4. If the option **The battery is not present** is selected, a message displays stating that battery life cannot be predicted without a battery installed on the device.



Battery is Not Present Message

5. If the option **The battery was replaced** is selected, enter the date of when the battery was first used in a QuickPanel+

device. (This date should reflect the date of first use in <u>any</u> QuickPanel+ device, not just the current device.)
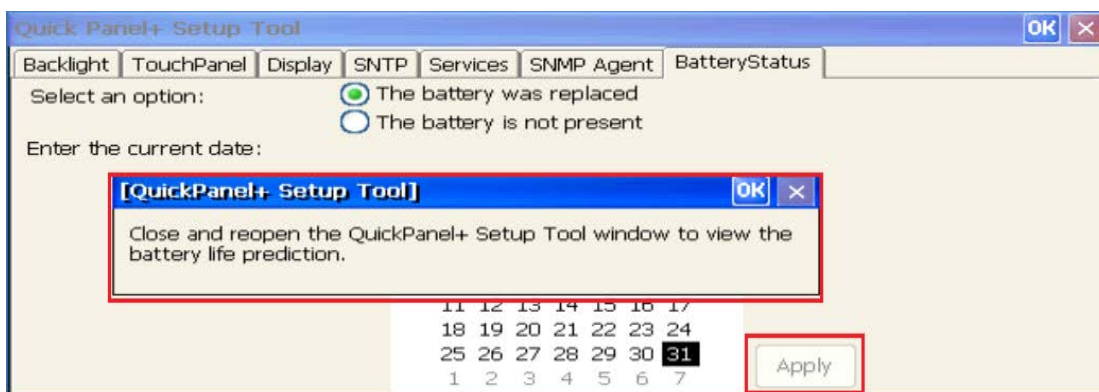
Select the date from the calendar and click **Next**.
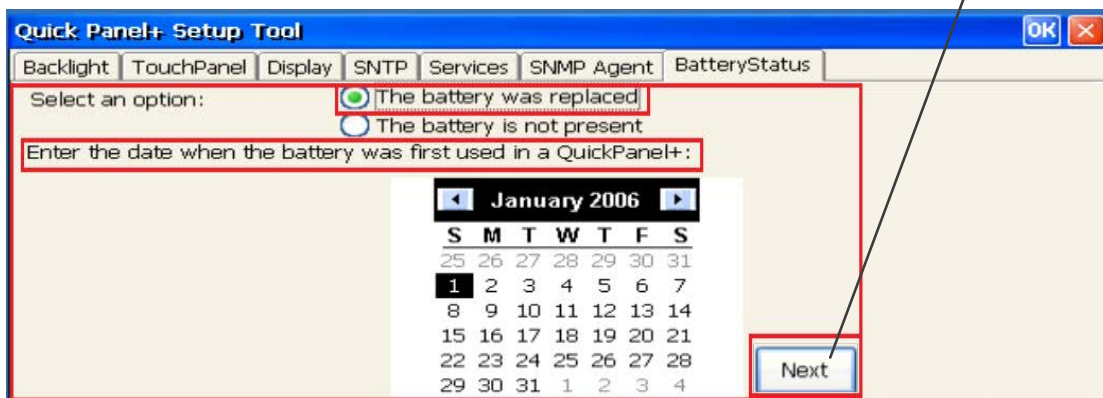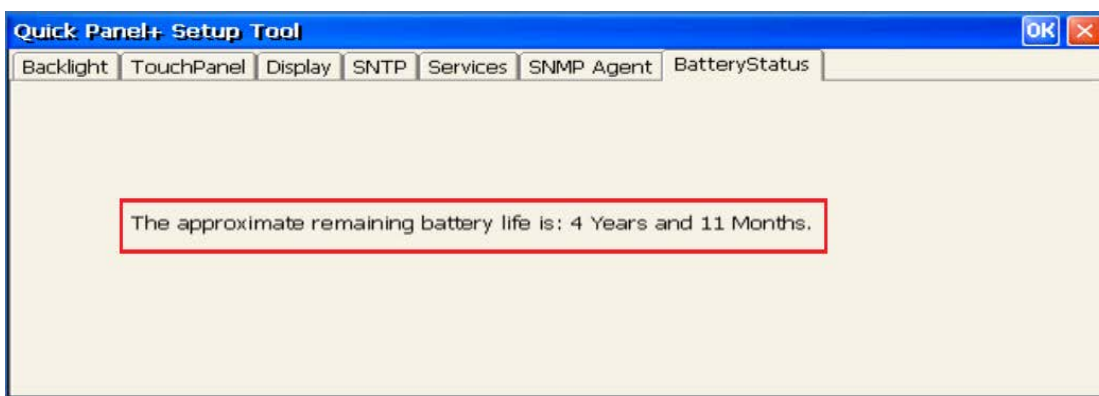

6. Enter the current date.

Select the **current date** and from the calendar and click **Apply**.
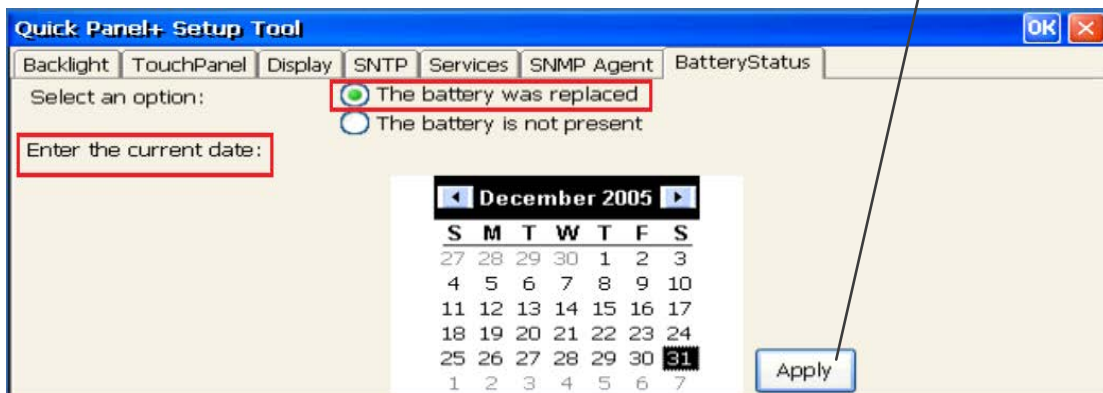
7. Close and re-open the *QuickPanel+ Setup Tool* dialog box to display the battery life prediction information.

Close and Reopen Message

Battery Life Prediction Example after Battery Replacement

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3.14 Simple Network Management Protocol (SNMP)

The SNMP is an application–layer protocol defined by the Internet Architecture Board (IAB) in RFC1157 that is used for exchanging management information between network devices. It is a part of the Transmission Control Protocol/Internet Protocol (TCP/IP) suite.

The QuickPanel+ Operator Interface is enabled as an SNMP Agent with the capability to communicate with SNMP Managers
(software tools run independently and are not part of QuickPanel+ Operator Interface) for the following purposes:

- Send notification of HMI Alarms as *Traps*
- Provide live values for SNMP Manager's GET/GETNEXT *Query* calls for HMI Tags

The following diagram illustrates the QuickPanel+ operating as the SNMP Agent to communicate with a SNMP Manager for *Traps* notification and responding to *Query* HMI Tag values.
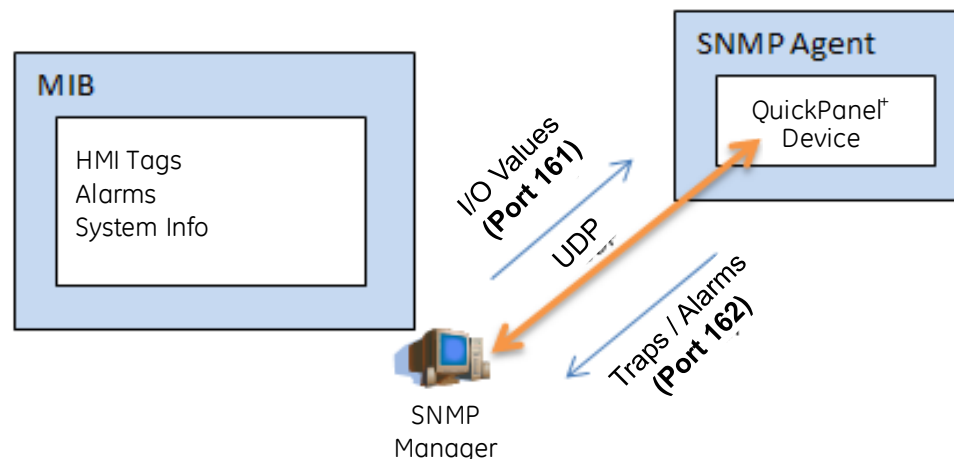
QuickPanel+ Management Information Base (MIB) Overview

The QuickPanel+ SNMP Agent maintains a MIB that describes the managed device parameters like HMI Tags, alarms, and such. The SNMP Manager uses the MIB to request specific information for the SNMP Agent and translates the information as needed for the SNMP Managers or Network Management System (NMS).

The MIB is a collection of information for managing network elements. It is a plain text file, self-explanatory, and prepared based on the Structure of Management Information (SMI), an adapted subset of Abstract Syntax Notation One (ASN.1)
standard and notation.

⚠️ **Attention**

The QuickPanel+ MIB is follows the SNMP V2c and is also be compatible with SNMP V1 based on the strictness of MIB compilers supported by SNMP Managers.

The MIB is comprised of managed objects identified as Object Identifier (Object ID or OID). Each Identifier is unique and denotes specific characteristics of a managed device. When queried, the return value of each identifier may be different.

The following figure displays the MIB tree structure and the private enterprise number allocated by the Internet Assigned Numbers Authority (IANA) for the GE SNMP products and OID for the QuickPanel+ MIB:

OID for GEIP node: *.1.3.6.1.4.1.24893*

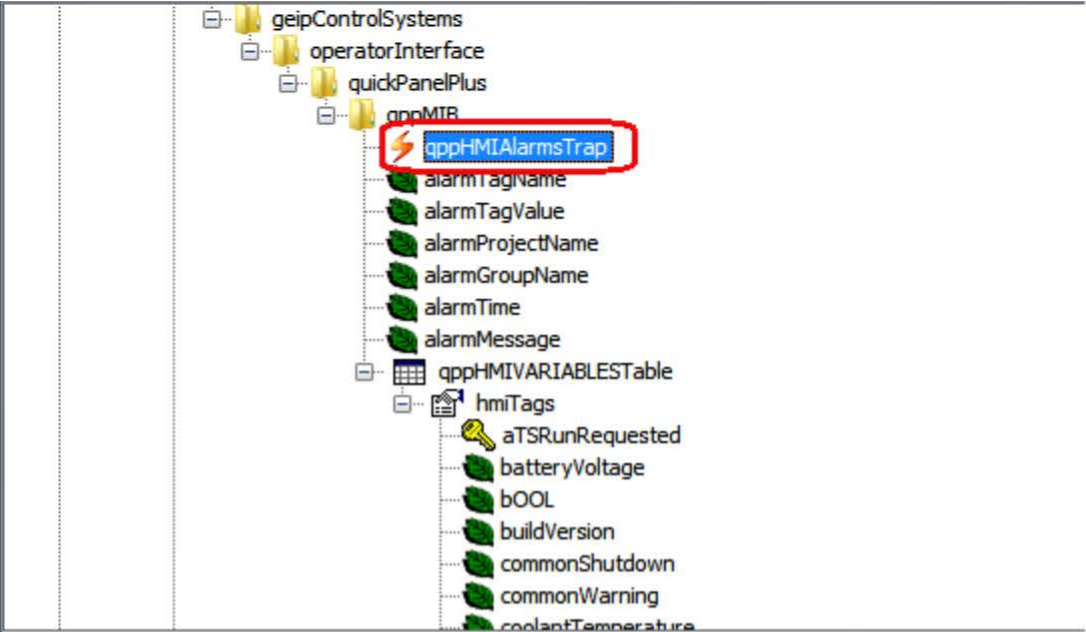OID for qppMIB node: *.1.3.6.1.4.1.24893.1.5.2.1.1*
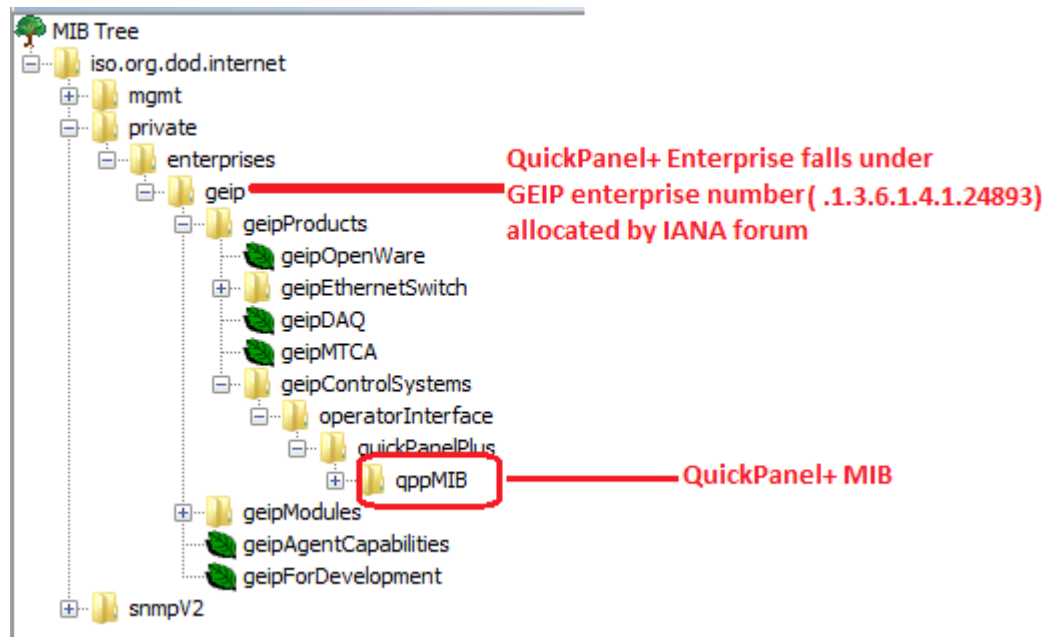
![Attention]	It is highly recommended that you pre-load GE MIBs (*GEIP-SMI.txt* and *GEIP-PRODUCTS-MIB.txt* in sequence) prior to loading the *QuickPanelMIB.mib* file into SNMP Managers to avoid any MIB compiler errors.
Attention	Contact technical support or download the MIBs GEIP-SMI.txt and GEIP-PRODUCTS-MIB.txt from the *Support Site* and *QuickPanelMIB.mib* can be copied from the QuickPanel+ device by performing the procedure *Export MIB to SD Card*.

The following figure displays the HMI Alarms notification (TRAP information) with alarm objects as part of the Alarm Record. The SNMP Manager is notified with the TRAP information when alarms are generated on the HMI running on a QuickPanel+ device.

OID for Alarm Trap: *.1.3.6.1.4.1.24893.1.5.2.1.1.10*

The following figure displays the list of HMI Tags that the SNMP Manager can query to retrieve live values from the HMI running on a QuickPanel+ device.

Note The list of all HMI tags are populated within the *hmiTags* node of MIB tree and the HMI Tag access level is currently restricted to *Read-only* for the SNMP Manager.

OID for starting HMI Tag element (also called Index element): *.1.3.6.1.4.1.24893.1.5.2.1.1.50.1.1*

If there are 40 HMI tags in total, the last OID would be *.1.3.6.1.4.1.24893.1.5.2.1.1.50.1.40*

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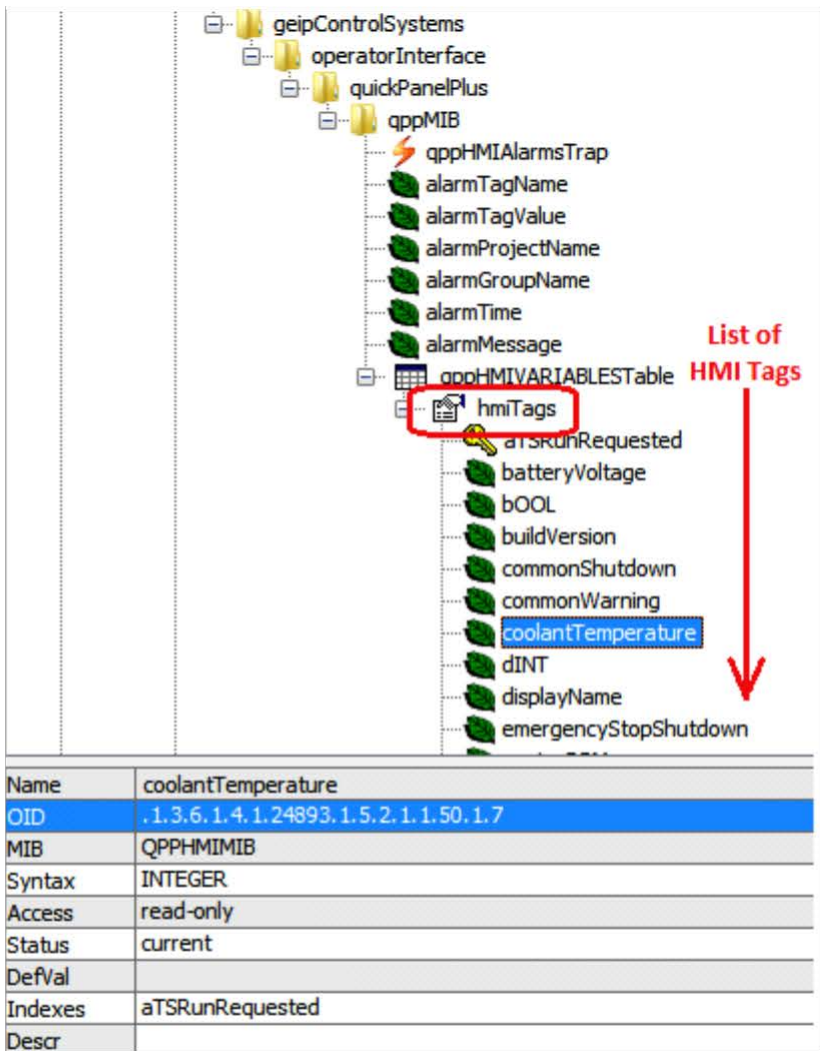
The following sections provide the procedures to enable and configure the QuickPanel+ device to operate as a SNMP Agent and establish communication with a SNMP Manager.

- *Configure Trap Destinations*
- *Enable or Disable SNMP Agent*
- *Export MIB to SD Card*
- *Load MIB into SNMP Manager*
- *Data Types Mapping between PME Project and SNMP*
- *Establish SNMP Communication*

3.14.1   Configure Trap Destinations

TRAP Destinations are configured through the QuickPanel+ Setup Tool by providing the IP Address of the SNMP Manager to which Traps should be sent. The user can configure two different Trap Destinations (IP Addresses).

***Note*** If you do not want to be notified of Traps, you do not need to configure Trap Destinations.

➢   **To configure Trap Destinations**

Attention | **If Trap Destination(s) is/are configured after enabling the SNMP Agent on the device, it is highly recommended that you disable and then re-enable the SNMP Agent service on the device.**

---

1.   From the **Start** menu, select **System**, open the **QuickPanel+ Setup Tool**, and select the **SNMP Agent** tab.

2.   Configure the Trap destination(s) of the SNMP Manager.

Enter the **IP Address(es)** of the SNMP Manager to which Traps should be sent.
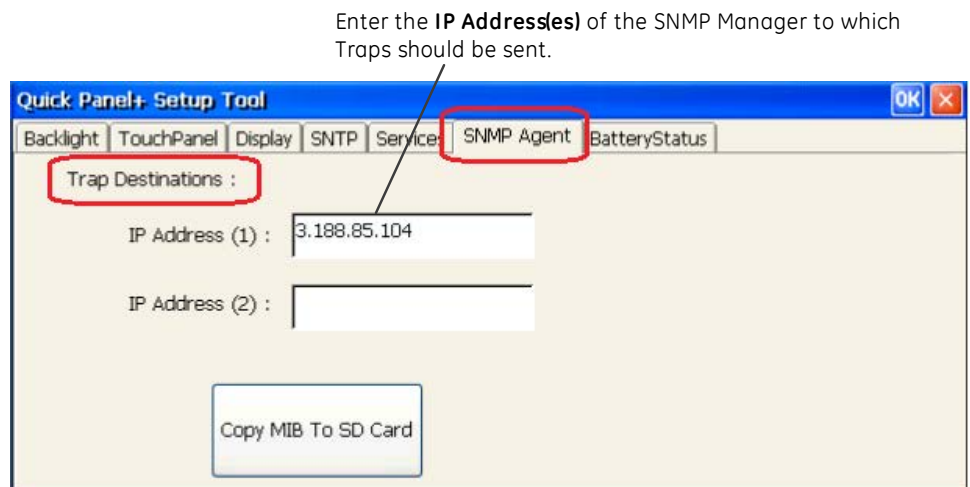
3.   Click **OK** to save the changes.

Close the QuickPanel+ Setup Tool, then re-open the tool to view the configured Trap Destination details from the SNMP Agent tab.

3.14.2 Enable or Disable SNMP Agent

SNMP communication disabled by default on the QuickPanel+ device for security purposes. To enable or disable SNMP communication using the QuickPanel+ OS Utilities Settings tool refer to the procedure *Enable or Disable SNMP Agent*.

Note Enabling or disabling SNMP communication is a one-time user configuration.

3.14.3 Export MIB to SD Card

With the SNMP Agent is enabled on the QuickPanel+ device, export the QuickPanel+ Management Information Base (MIB) *QuickPanelMIB.mib* file to a SD Card.
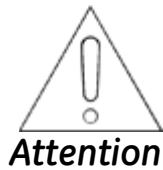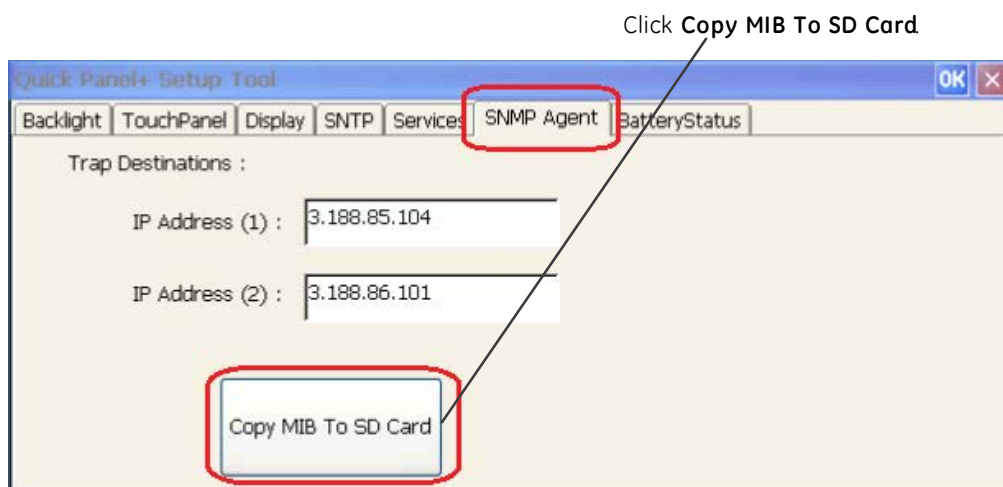

⚠️

Attention

It is highly recommended that you pre-load GE MIBs (*GEIP-SMI.txt* and *GEIP-PRODUCTS-MIB.txt* in sequence) prior to loading the *QuickPanelMIB.mib* file into SNMP Managers to avoid any MIB compiler errors.

Contact technical support or download the MIBs GEIP-SMI.txt and GEIP-PRODUCTS-MIB.txt from the *Support Site* and *QuickPanelMIB.mib* can be copied from the QuickPanel+ device by performing the following procedure.

➢ **To export the MIB to a SD Card**

1. Insert a working SD Card into the external card slot on the QuickPanel+ device.

2. From the **Start** menu, select **System**, open the **QuickPanel+ Setup Tool**, and select the **SNMP Agent** tab.

3. Copy the MIB file to the SD Card.

Click **Copy MIB To SD Card**.

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A dialog box displays when the copy is successful or if a failure occurs.
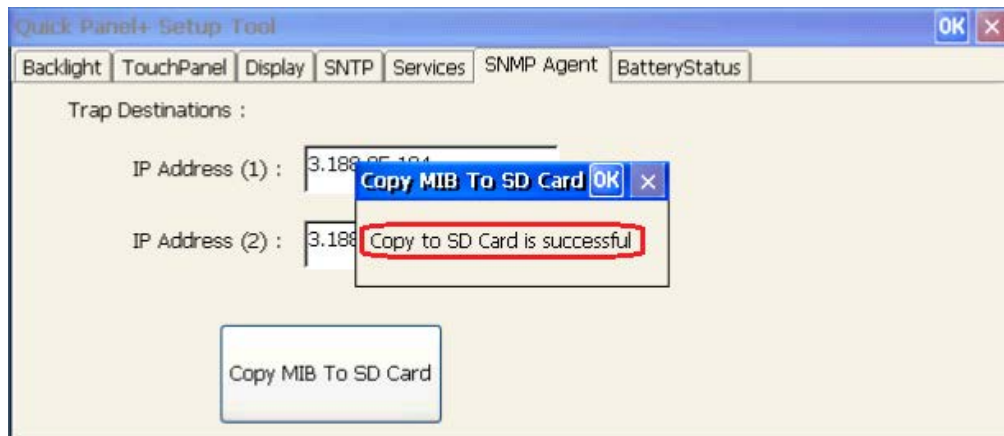
3.14.4 Load MIB into SNMP Manager

After successfully exporting the MIB to a SD Card, archive the QuickPanel+ MIB file to a folder on a machine running with SNMP Manager.

➢ **To load the MIB into the SNMP Manager**: from the SNMP Manager tool **File** menu, select **Load the MIBs.**
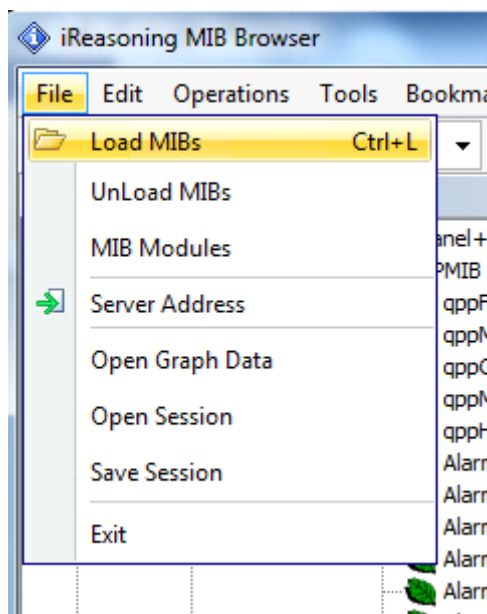
Loading MIBs in 3rd Party SNMP Manager Tool

If there are no errors, the MIB will be loaded successfully and the SNMP Manager will be ready for communication with QuickPanel+ device operating as a SNMP Agent.

3.14.5 Data Types Mapping between PME Project and SNMP

When you configure HMI tags in a PME project and you would like to use them in SNMP communication, all of the HMI tags are mapped to the corresponding data type in SNMP as listed in the following table. To verify this, review the *Sequence of HMI Tags* object in the MIB file.

PME VIEW Data Types	SNMP Data Types
BOOL	INTEGER
DINT	INTEGER
LREAL	DISPLAYSTRING
STRING	DISPLAYSTRING

Note The PME VIEW LREAL data type is mapped to DISPLAYSTRING to retain the data intact.

You can continue to use the data type *override/suffix* mechanism in PME for the LREAL data type to represent a INT/DINT if you have configured the data type for driver variables. This enables you to map to the DISPLAYSTRING data type in the SNMP communication as well.

For example, for the GE SRTP driver, you can override the *IO Address* of LREAL variable *LREALVar* data type as %R100 [INT]. This maps LREALVar to DISPLAYSTRING in the MIB file.

3.14.6 Establish SNMP Communication

SNMP communication requires that both the QuickPanel+ device and the SNMP Manager running on a machine are connected on a valid Ethernet network.

Attention

➢ **To establish SNMP communication with the QuickPanel+ device**

1. Download the Project to the network connected QuickPanel+ device and start Runtime.

2. *Configure the Trap Destinations* with the IP Address of the SNMP Manager.

***Note*** If you do not want to be notified of Traps, you do not need to configure Trap Destinations.

---

3. *Enable a SNMP Agent*.

4. *Export the MIB* to a SD Card.

5. Auto-discover or connect the QuickPanel+ SNMP Agent from the SNMP Manager. Once connected, *load the MIB* to the SNMP Manager tool.

The SNMP Manager communicating with QuickPanel+ device can query values for HMI Tags and receive Alarms/Trap notification from the QuickPanel+ device operating as a SNMP Agent.

Tip ◆ *If you get out of sequence in the steps for configuring Traps and starting the SNMP service to establish the SNMP communication, enable or disable the SNMP Agent again using the QuickPanel+ OS Utilities Setting tool.*

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3.15 ScreenSaver

QuickPanel+ shall have the ability to run a video as a screensaver. The configuration for this can be done at the 'ScreenSaver' Tab in the 'QuickPanel+ Setup Tool' window.
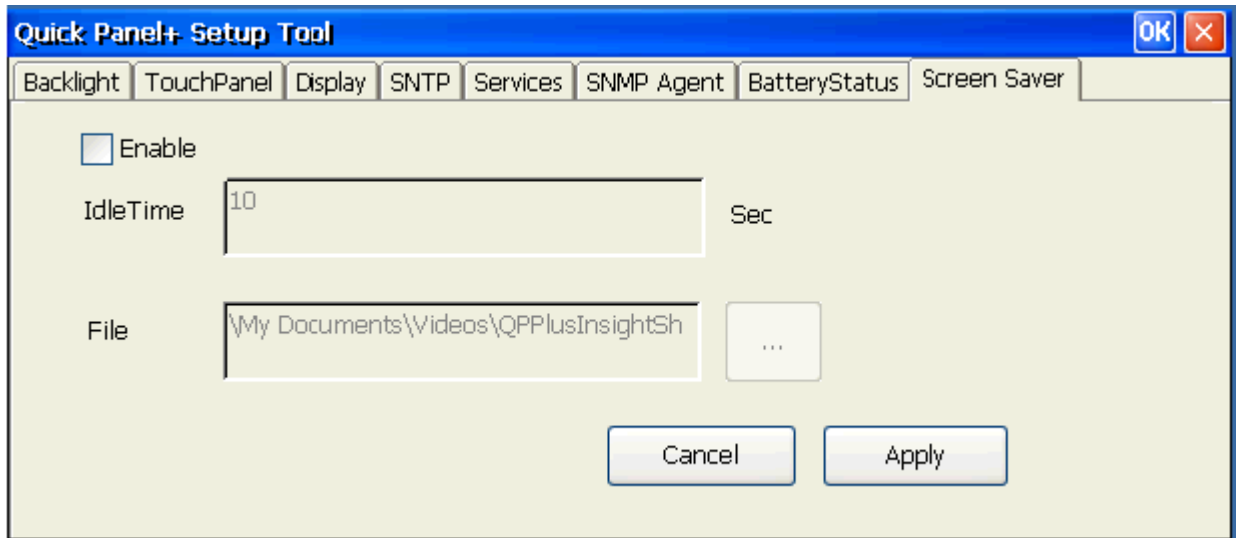
The dialog provides the following options

1) Enabiling\Disabling the ScreenSaver
2) Browsing the video file to be run as the ScreenSaver
3) The elapse idle time setting to trigger the ScreenSaver

Notes

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4 Pre-installation Checks

This chapter provides information and procedures to perform pre-installation checks of the QuickPanel+ Operator Interface. Before installing and using the QuickPanel+, complete the following procedures:

- *Unpacking and Inspection*
- *Basic Setup*
- *Initial Startup*
- *Runtime Setup*
- *Firmware Updates*
- *Shutdown*

4.1 Unpacking and Inspection

Upon receipt of the QuickPanel+ Operator Interface, carefully inspect all shipping containers for damage. If any part of the system is damaged, notify the carrier immediately. Save the damaged shipping container for inspection by the carrier. It is the
consignee's responsibility to register a claim with the carrier for damage incurred during shipment.

Note For phone numbers and email addresses, refer to the section, *Contact Information*.

After unpacking the unit, **record all serial numbers**. These are needed to contact Customer Care during the warranty period. Save all shipping containers and packing material for future transport or shipping. Verify that all system components have been received and agree with the order. If the system received does not agree with your order, contact Customer Care.

Before initial powerup, inspect the unit for loose or damaged components. If damage is found (such as bent component leads or loose components), contact GE Intelligent Platforms for additional instructions.
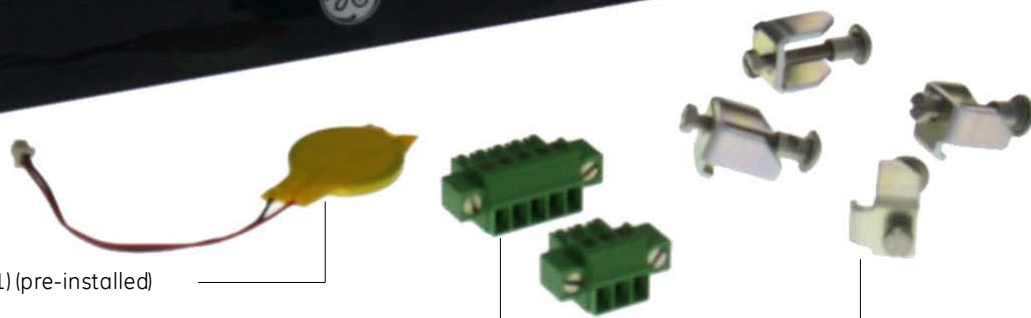

Caution

Do not **apply power to the unit if it has visible damage. Applying power to a unit with damaged components may cause additional damage.**

QuickPanel⁺
Operator Interface

Battery (Qty 1) (pre-installed)

Serial Port Connector(Qty 1)

Power Connector(Qty 1)

Mounting Brackets (Qty 4)

Protective Sheet (Qty 1) (not shown) Gasket

(Qty 1) (not shown, pre-installed)

IC755CxWxxCDx Example Package Contents

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HMI Parts Center

QuickPanel⁺   Operator Interface User

4.2 Basic Setup

The QuickPanel+ Operator Interface is shipped ready for use after _initial configuration_.

To power up the unit, _connect a dc power supply_ using the supplied quick-connect plug. Depending on the application, you may also want to connect and configure optional input devices, communications ports, and expansion adapters.

⚠ **Warning**	To avoid personal injury or damage to equipment, ensure that the dc supply is disconnected from power and the leads are not energized before attaching them to the unit's power supply plug.
⚠ **Warning**	If this equipment is used in a manner not specified by the manufacturer, equipment protection may be impaired.
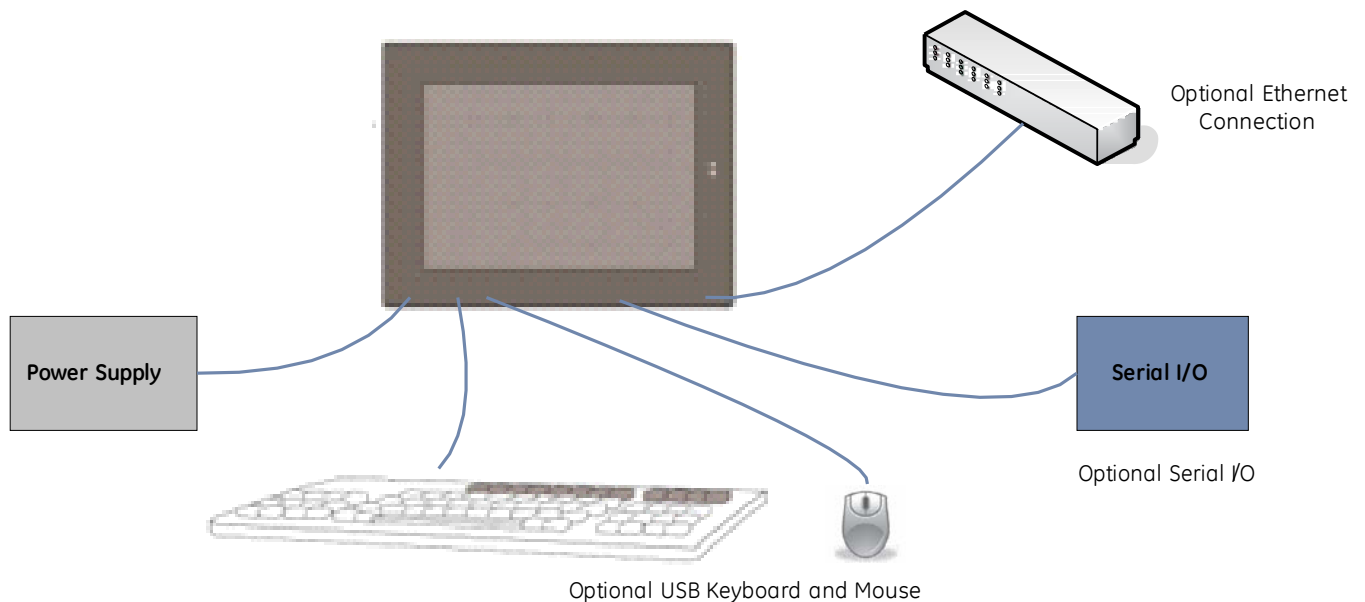
Basic Setup Diagram

4.3 Initial Startup

You will need the following:

- Safety Extra Low Voltage (SELV) and Limited Energy Circuit or SELV and Class 2 dc power supply.
- The power terminal block is supplied with the product. For voltage and requirements, refer to the *Input Power* specifications in the table, *General Specifications*.
- The mating power terminal block supports stranded 30 to 14 AWG (0.05 to 2.00 mm²) wires. The user calculates proper gauge wiring for current carrying capacity and loss according to local regulations.
- At a minimum, the cable must be rated for 75°C (167 °F) or more.
- USB-compatible keyboard (optional)
- USB-compatible mouse (optional)

4.3.1 Connecting Input Power

➢ **To connect input power**

1. Verify that the power cable is not energized.
2. Loosen the screw clamps on the mating power connector.
3. Strip the insulation from the power cables.
4. Secure the power cable to the mating connector, noting polarity, and tighten the screw clamps. The torque for the attaching screws is 0.3 Nm (2.66 in-lb).
5. Apply dc power to the unit. During normal startup and operation, the QuickPanel⁺ status LED indicator displays as follows:

    - *Solid amber* while the QuickPanel⁺ is starting up
    - *Solid green* during normal operation
6. Once power is applied, the QuickPanel⁺ begins initializing. The splash screen is the initial display.

M2.5 Mounting clamps
M2 Screw clamps
FG
GND +24 V dc
Power Connector

➢ **To skip running any programs included in the StartUp folder:** tap **Don't run Startup programs**. The Microsoft Windows Embedded Compact 7 operating system starts automatically.
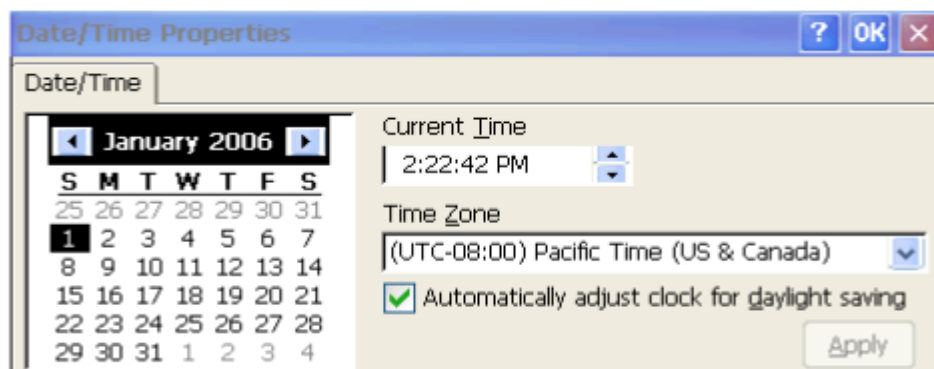
VICPAS
HMI Parts Center
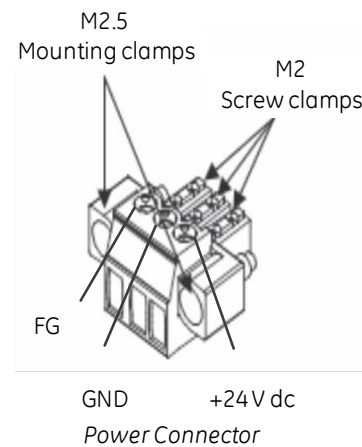
4.3.2 Initial Configuration

Perform the following procedure during initial startup.

➢ **To configure the QuickPanel⁺ display**

1. Tap **Start** 🏁 , point to **Settings**, then tap **Control Panel**.

2. Configure the system clock.

From the **Date and Time**

3. From the Control Panel, double-tap **System** to configure a Network Device Name. Many applications, including Proficy Historian, require a unique Device Name.

⚠ **Attention**

It is recommended to set a unique Device Name for the QuickPanel⁺ to avoid future conflicts.

---

4. From the Control Panel, double-tap **Network and Dial-up Connections** to configure network settings.

5. Run the *Backup Utility* to save the settings.

4.4 Runtime Setup

To download an application to a QuickPanel⁺ Operator Interface, set up a data link between the unit and the development workstation. Refer to the section, *Ethernet for IC755CxS06RDx, IC755CxWxxCDx and IC755CxSxxCDx*, and the PME online help, *Downloading a Machine Edition Project*.

4.5 Firmware Updates

Update the unit to the most recent released version of the firmware, with the latest feature upgrades and issues addressed. Firmware updates for the QuickPanel+ are available on the *Support website*.

Note The firmware update will remove the application and change the IP Address of the QuickPanel+ Operator Interface.

Note The firmware package contains encrypted *.nbo* files. Use the *PreUpdate.exe* tool to decrypt the *.nbo* files before using them for upgrade.

4.6 Shutdown

There are no specific dangers associated with a power failure or other unplanned shutdown of the QuickPanel+ unit. In general, programs are retained in flash memory and user data can be retained in BBSRAM. Some operating system settings are retained only with user intervention. Perform the following procedure to properly shut down the QuickPanel+ unit.

➢ **To shut down the QuickPanel+ unit**

1. Quit any programs that are running and wait for all file operations to complete.

2. If you have not changed operating system settings (for example, brightness or touchscreen sensitivity), or do not want to save the changes, remove ac power from the dc supply.

3. Run the *Backup Utility* to save changes to operating system settings. When the Backup window displays *Completed Successfully,* remove power from the dc power supply connected to the QuickPanel+ unit.

5   Mounting and Installation

This chapter provides the following procedures to mount and install the QuickPanel+ Operator Interface:

- *Protective Sheet Installation*
- *Mounting Location*
- *Panel Mounting*
- *VESA Arm Mounting*
- *Battery Installation and Replacement*
- *Connectors*

5.1   Protective Sheet Installation

➢ **To install the protective sheet**

1. Remove the protective film from the QuickPanel+ display screen.

2. Wipe the display unit of any dust or fingerprints.

3. Peel back a corner of the clear side of the protective sheet.

4. Begin applying the corner to the display screen.

5. Slowly apply the rest of the protective sheet, smoothing out as you go.

6. Peel the green curing film from the protective sheet.

5.2   Mounting Location

Note Refer to the section, *Environmental Specifications*.

When mounting the QuickPanel+ Operator Interface, make sure the mounting area allows room to insert and remove the SD card, cables, and mounting brackets. Select a *location* that allows natural convection air flow from bottom to top of the QuickPanel+ enclosure. Do not mount the QuickPanel+ at an angle more than 30° from the vertical, as illustrated in the following figure.
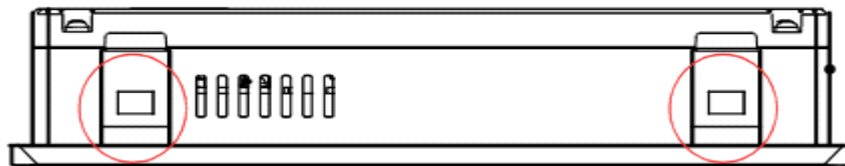
Mounting Angle
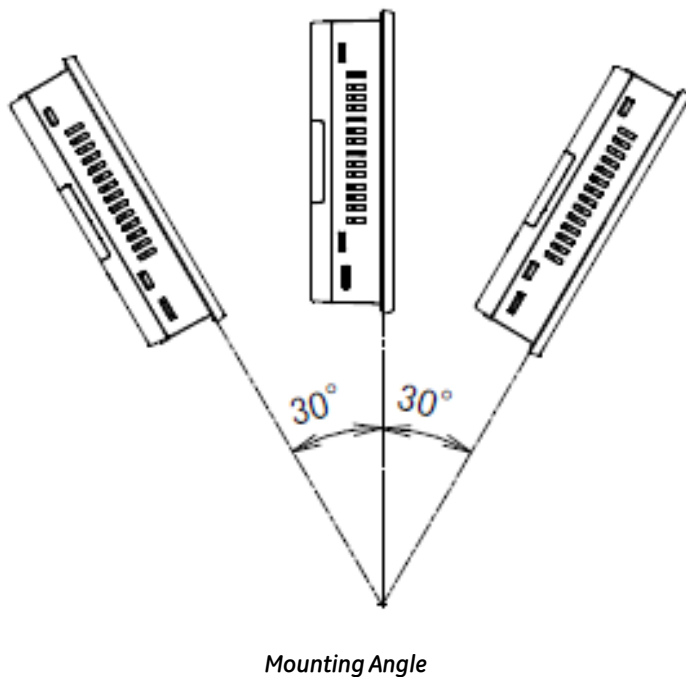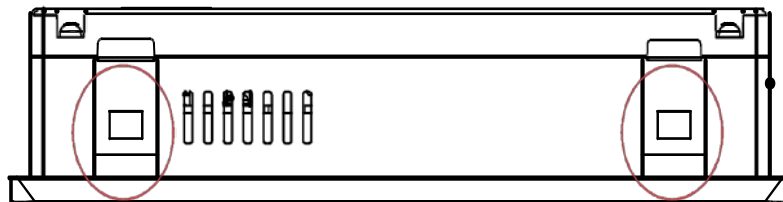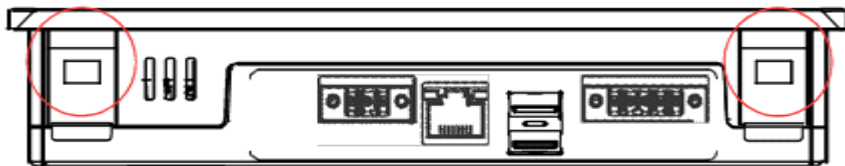
5.3   Panel Mounting

To mount the QuickPanel+ in an enclosure, you will need the following equipment:

- One #2 Phillips head screwdriver
- Mounting brackets (supplied)

The mounting holes for IC755CxS06RDx, IC755CxW07CDx, and IC755CxS10CDx are located on the top and bottom sides of the unit.

IC755CxS06RDx Mounting Holes
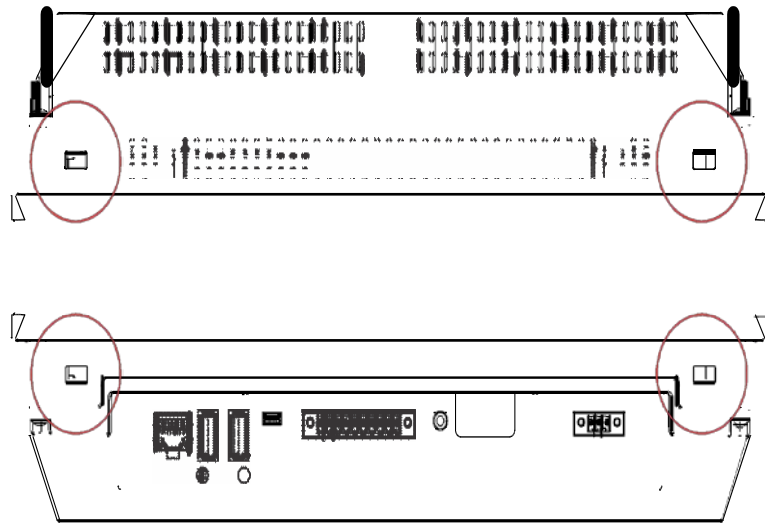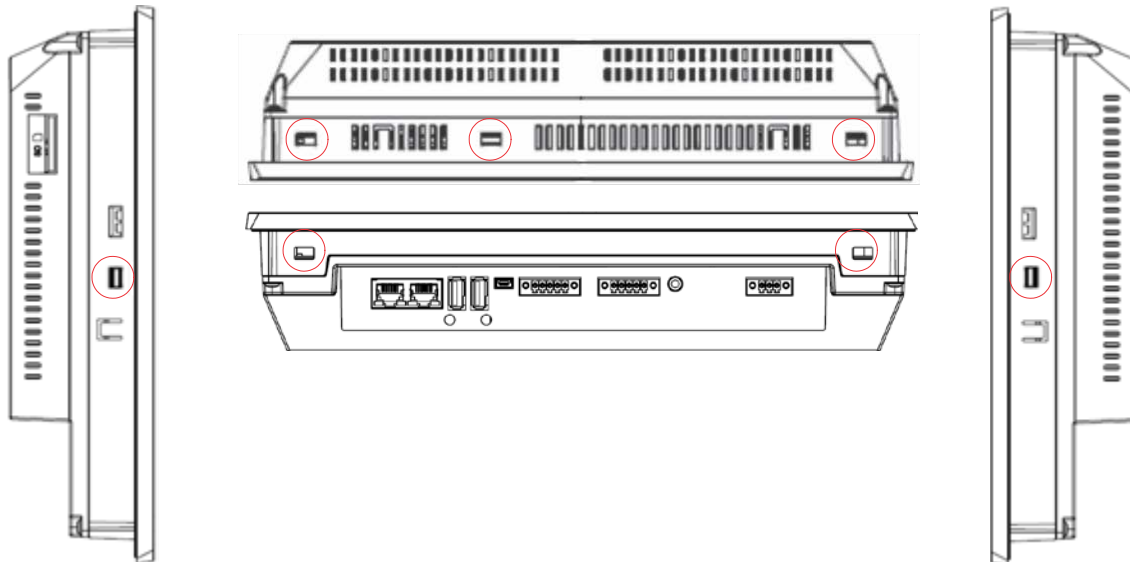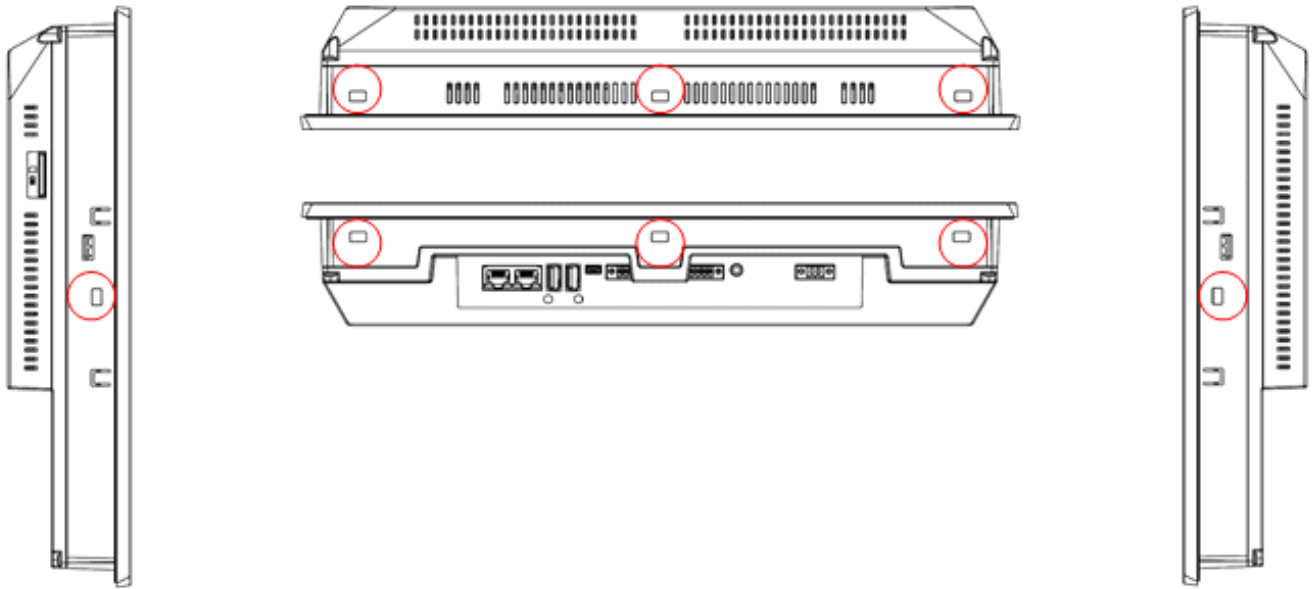

IC755CxW07CDx Mounting Holes
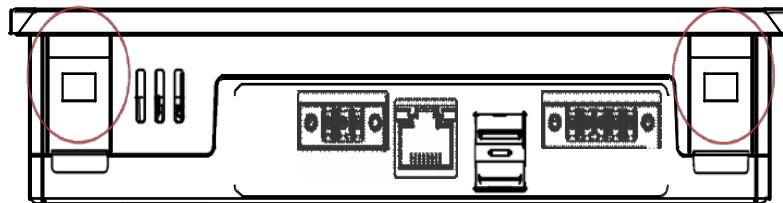
IC755CxS10CDx Mounting Holes

The IC755CxS12CDx and IC755CxS15CDx mounting holes are located on the top, bottom, and sides of the unit.

IC755CxS12CDx Mounting Holes

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QuickPanel+   Operator Interface User

IC755CxS15CDx Mounting Holes

5.4   Mounting and Installation Procedure

Observe the following guidelines to properly mount and install the QuickPanel+ Operator Interface:

Note To order replacement gaskets, refer to the part number listed in *Appendix B*.

- The enclosure should be of metal material.
- The metal enclosure panel should ensure proper thickness and rigidity suitable to minimize impact to the QuickPanel+ unit.
- The recommended torque for the plastic back cover and interior metal cover for the 10, 12, and 15" QuickPanel+ display units that is accessed for panel updates and serial port DIP Switches is 0.5 Nm (4.4 in-lb).
- To avoid gasket degradation, limit repeated insertions or removals of the unit and retightening of the mounting clips. For full protection, always use a fresh gasket.
- The unit will not fit through the cutout with any cables connected, or with the power supply plug inserted in the socket.
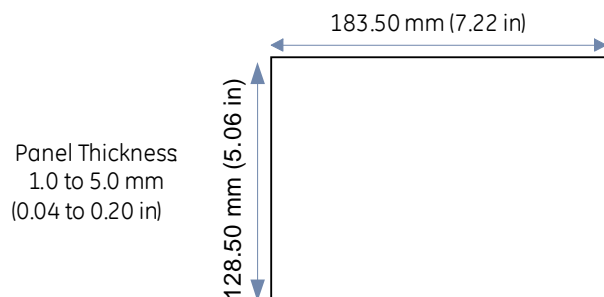

⚠

When installing the QuickPanel+ into the panel, pay careful attention while handling the unit so it does not drop and damage the unit.

Caution

➤ **To install the QuickPanel+**

1.   Cut an opening in the panel according to the specifications in the following figures.

Note Panel cutout tolerances are +0.50, −0.00 mm (+0.02, −0.00 in).

183.50 mm (7.22 in)

Panel Thickness
1.0 to 5.0 mm
(0.04 to 0.20 in)

128.50 mm (5.06 in)

IC755CxSO6RDx or IC755CxW07CDx
Panel Cutout Dimensions

266 mm (10.47 in)

Panel Thickness
1.6 to 5.0 mm
(0.06 to 0.20 in)

210 mm (8.27 in)
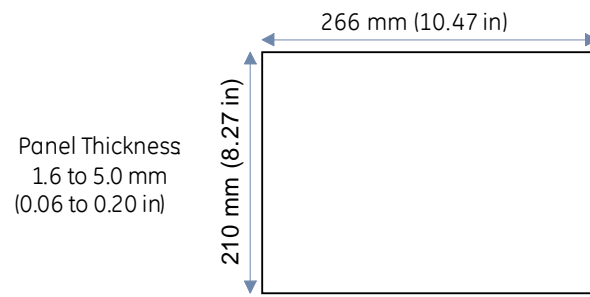
IC755CxS10CDx Panel Cutout Dimensions

302 mm (11.89 in)

Panel Thickness
1.6 to 5.0 mm
(0.06 to 0.20 in)

228 mm (8.98 in)
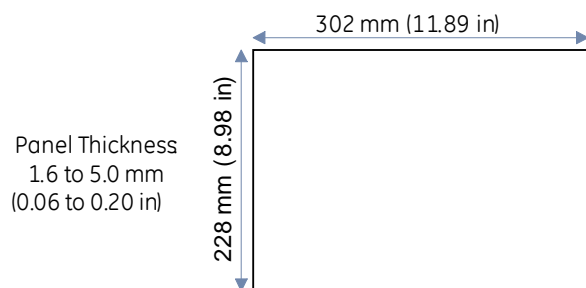
IC755CxS12CDx Panel Cutout Dimensions

379 mm (14.92 in)

Panel Thickness
1.6 to 5.0 mm
(0.06 to 0.20 in)

305 mm (12.01 in)
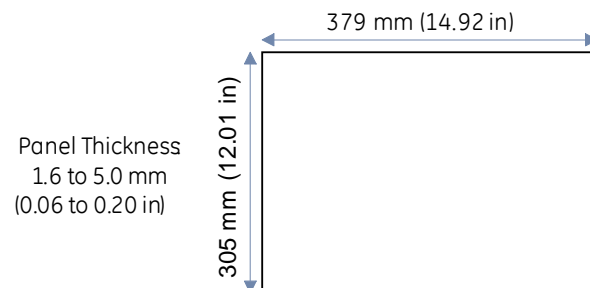
IC755CxS15CDx Panel Cutout Dimensions

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2. Verify that the gasket is present and properly seated in the bezel channel located on the sides of the unit.

3. Insert the QuickPanel+ into the mounting panel cutout.
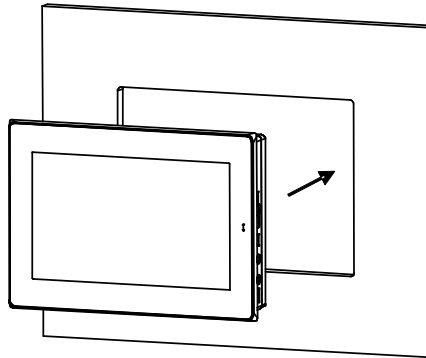
4. Insert the hook of the mounting bracket into the mounting hole as displayed in the following figure.
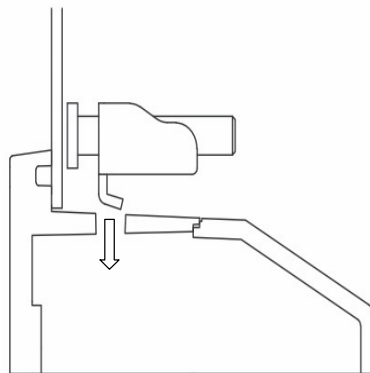
5. Tighten the screws on the mounting bracket in a clock-wise direction.
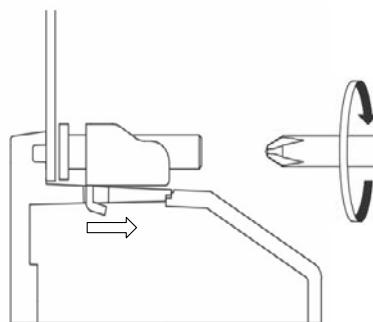
Torque Range for Mounting Clamp Screws

Display Unit	Torque Range
IC755CxS06RDx	0.3 Nm (2.66 in-lb)
IC755CxW07CDx	0.3 Nm (2.66 in-lb)
IC755CxS10CDx	0.7 Nm (6 in-lb)
IC755CxS12CDx	1.0 to 1.2 Nm (8.9 to 10.6 in-lb)
IC755CxS15CDx	1.0 to 1.2 Nm (8.9 to 10.6 in-lb)

5.5 VESA Arm Mounting

The QuickPanel+ unit can be installed on a commercially available Video Electronics Standards Association (VESA) MIS-D arm, stand, or apparatus that complies with the UL1678 standard.

Note Refer to the mounting arm manual for instructions.

➢ **To VESA mount the QuickPanel+ unit:** use the mounting holes located on the back of the unit (displayed in the following figures).

The mounting holes for IC755CxS06RDx and IC755CxW07CDx attach with M4 screws that are 6 mm (0.24 in) or less in length.

The mounting holes for IC755CxSxxCDx attach with M4 screws that are 8 mm (0.32 in) or less in length.

Torque Range for Mounting M4 Screws

Display Unit	Torque Range
IC755CxS06RDx	0.7 to 0.8 Nm (6.2 to 7.1 in-lb)
IC755CxW07CDx	0.7 to 0.8 Nm (6.2 to 7.1 in-lb)
IC755CxSxxCDx	1.0 to 1.2 Nm (8.9 to 10.6 in-lb)
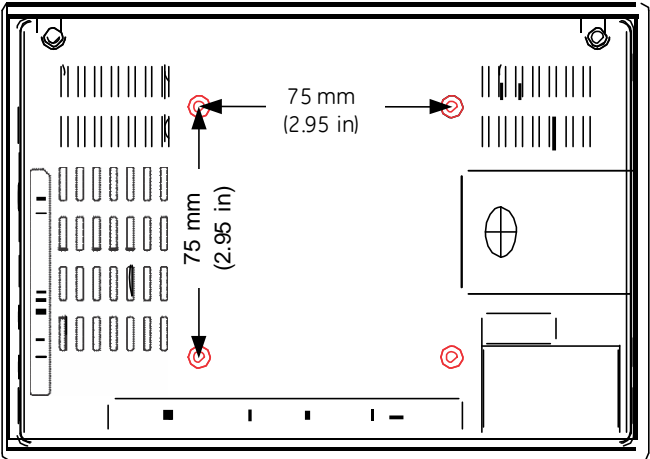
IC755CxW07CDx or IC755CxS06RDx VESA Mounting Holes
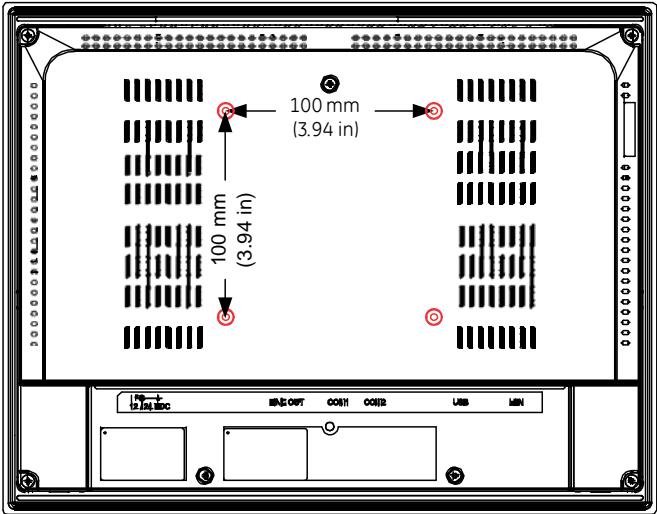
IC755CxSxxCDx VESA Mounting Holes

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5.6   Battery Installation and Replacement

Warning	Batteries may present a risk of fire, explosion, or chemical burn if mistreated. Do not crush, disassemble, short-circuit, or dispose of in fire. Use of batteries not specified for use with the QuickPanel+ product may present a risk of fire or explosion.
Warning	Do not recharge, disassemble, heat or incinerate lithium batteries. Dispose of lithium batteries in accordance with federal, state, and local regulations. Be sure to consult with the appropriate regulatory agencies before disposing of batteries.
Caution	1) Replacing the battery should only be performed by trained personnel and in a non-hazardous location. 2) If the QuickPanel+ Operator Interface is VESA mounted, detach from the VESA arm when replacing the battery. 3) The battery should only be replaced when the unit is powered off. 4) Care should be taken to protect and insert the battery with correct polarity. 5) Do not use any metallic item to remove the battery (such as screwdrivers, knives, pliers, and so forth). 6) Be careful to not drop the battery or any associated screws into the unit. 7) Be careful of edges on internal sides of the enclosure and frame.
Attention	The PC controller does not start automatically when the battery is replaced in QuickPanel+ Operator Interface. After battery replacement, start the controller using the #Command in the Proficy Machine Edition (PME) runtime.

5.6.1 IC755CxS06RDx

➢ **To install or replace the battery for IC755CxS06RDx**

![Caution triangle icon] **Caution**

Replace the battery for the IC755CxS06RDx only with GE battery part number IC755ACCBATT.

---

1. Remove the battery cover by pressing down while sliding outward.

IC755CxS06RDx Battery Cover Removal

2. Connect the battery harness connector to the header, noting keyed orientation.
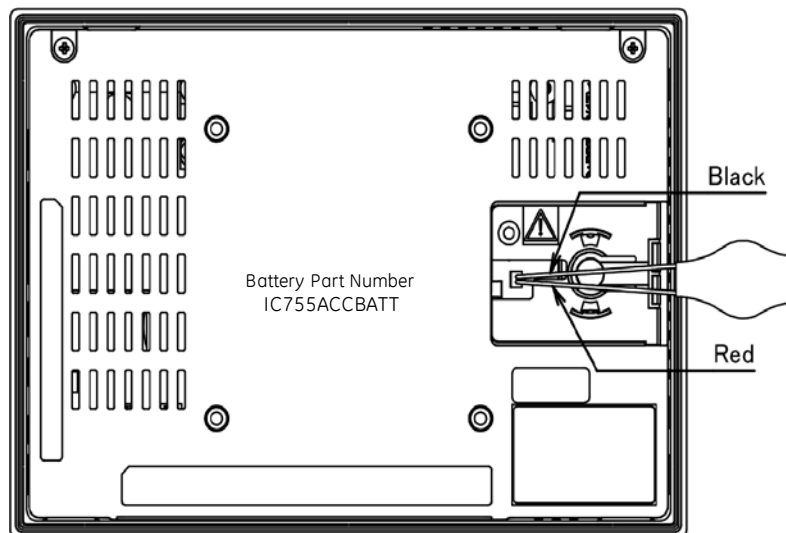
IC755CxS06RDx Battery Harness Connection

3. Verify that the positive (red) is down and negative (black) is up.

4. Wrap the harness connector around to match the following figure. Do not let the harness connector go above the tab.
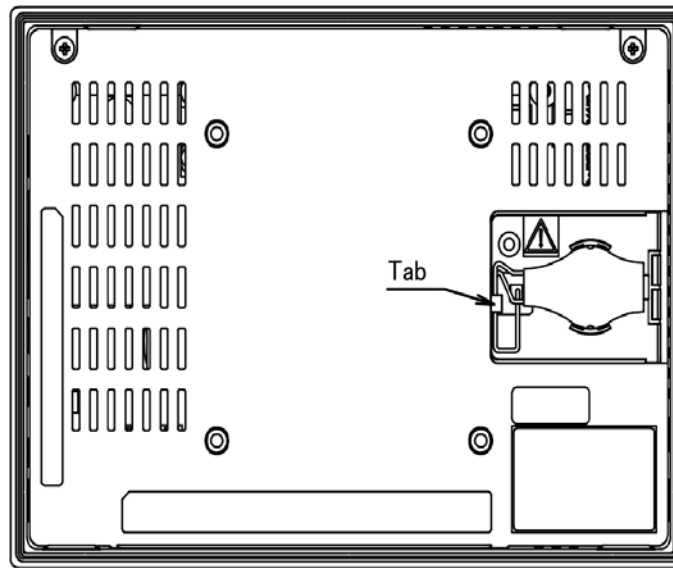
Harness Connector Orientation

5. Slide the battery cover into place, taking care not to pinch the harness connector.
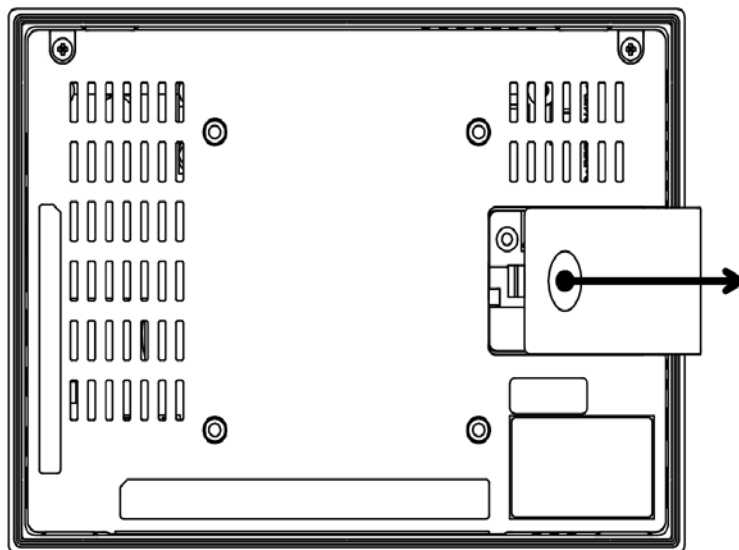
5.6.2   IC755CxW07CDx

➢   **To install or replace the battery for the IC755CxW07CDx**

Caution

Replace the battery for the IC755CxW07CDx only with GE battery part number **IC755ACCBATT.**

---

1.   Remove the battery cover by pressing down while sliding outward.
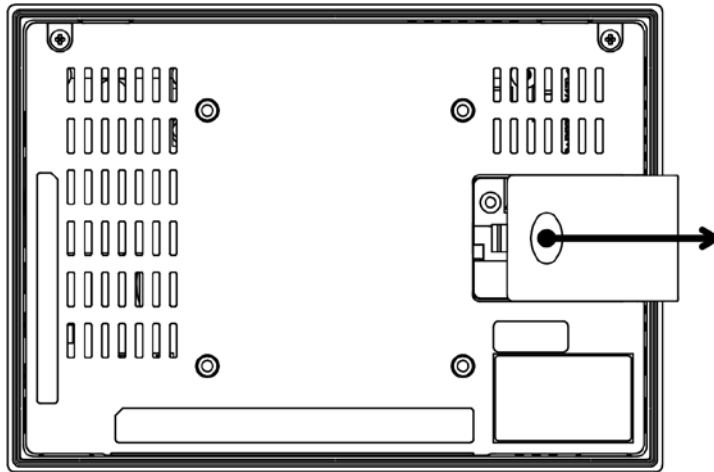
IC755CxW07CDx Battery Cover Removal

2.   Connect the battery harness connector to the header, noting keyed orientation.

Battery Part Number
IC755ACCBATT

Black

Red
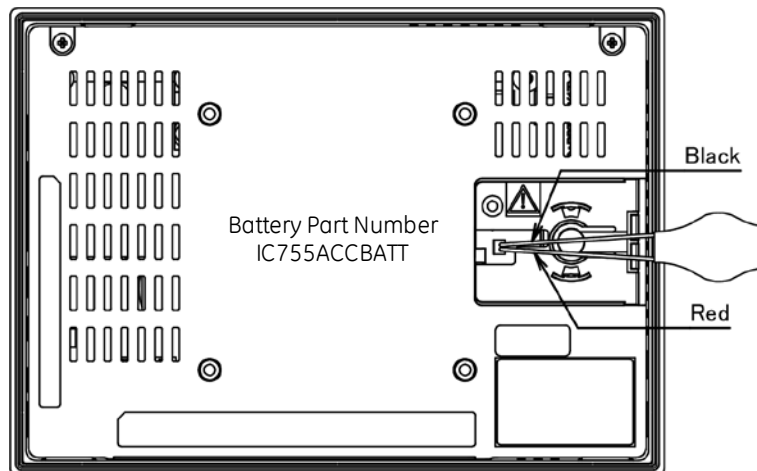
Battery Harness Connection

3.   Verify that the positive (red) connection is down and the negative (black) connection is up.

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4. Wrap the harness connector around to match the following figure. Do not let the harness connector go above the tab.
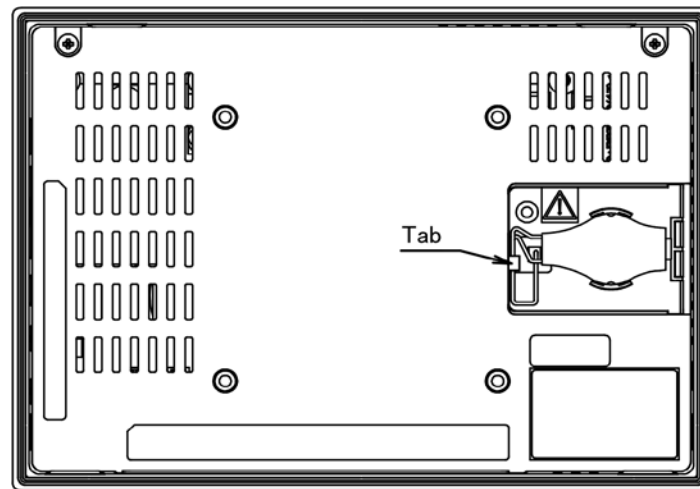
Harness Connector Orientation

5. Slide the battery cover into place, taking care not to pinch the harness connector.

5.6.3   IC755CxSxxCDx

➢ **To install or replace the battery for the IC755CxSxxCDx**

⚠️
Caution

Replace the battery for the IC755CxSxxCDx only with GE battery part number IC755ACCBATTNL.

---

1. Remove the screws (quantity 7) from the back cover.
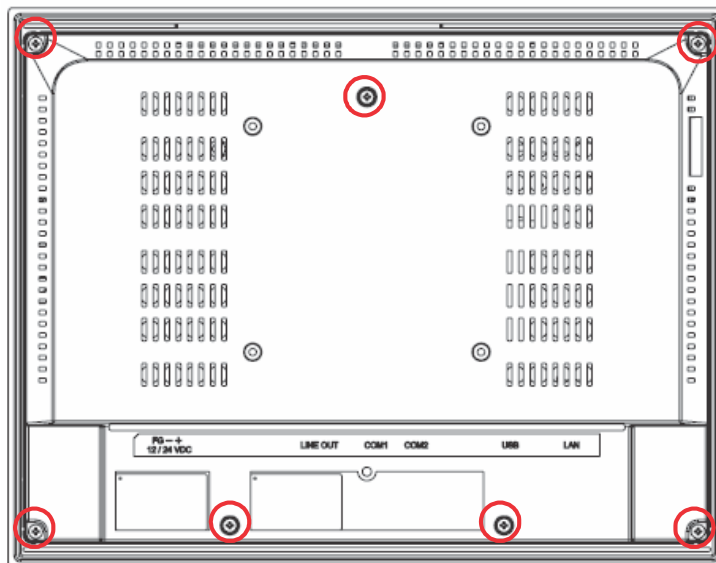
IC755CxSxxCDx Screw Locations (Back Cover)

2. Gently press on either side tab to release the back cover.
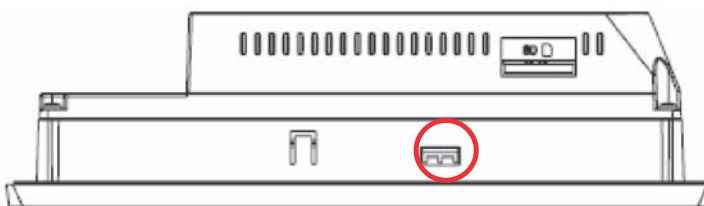
Side Tab for Cover Release

3. Lift up and remove the back cover.

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The battery will be exposed on the back of the unit.

Battery Part Number IC755ACCBATTNL

IC755CxSxxCDx Battery

4. Gently remove the coin battery and replace with a new one, noting the polarity of the battery.

5. Replace the battery cover and tighten all screws to 0.5 Nm (4.4 in-lb).

5.7 Connectors

5.7.1 Power Connector Pin-out for IC755CxS06RDx, IC755CxW07CDx, and IC755CxSxxCDx

Note Refer to the section *Connecting Input Power*.

Connector: Terminal Euro (Tyco Electronics 284539-3)
Mating Connector: (Tyco Electronics 284510-3)

Pin #	Signal Name	Pin-out
1	+24 V dc†	
2	GND	
3	FG	
† IC755CxSxxCDx supports both +12 V dc or +24 V dc IN		
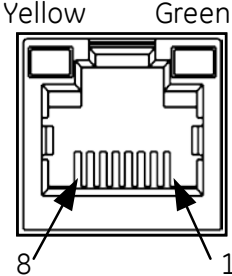
5.7.2 Ethernet for IC755CxS06RDx, IC755CxW07CDx, and IC755CxSxxCDx

Note Refer to the section *Ethernet Port LED Operation*.

The QuickPanel+ display is equipped with 10Base-T/100-Base-TX Ethernet port(s). Connect an Ethernet network cable (unshielded-twisted pair, CAT 5) to the unit through the RJ-45 connector(s) on the bottom of the enclosure. LED indicators on the port indicate channel status. The port can be accessed by Windows Embedded Compact 7 network communications or by your application.

5.7.2.1 Ethernet Port Details

Interface: Ethernet 10BASE-T/100BASE-TX

Pin #	Signal Name	Pin-out
1	TX+	
2	TX-	
3	RX+	
4	NC	
5	NC	
6	RX-	
7	NC	
8	NC	

Note Dual Ethernet ports are separate ports (only applicable to QuickPanel+ IC755CxSxxCDx 10, 12, and 15" display units)

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QuickPanel+ Operator Interface User

5.7.2.2 IP Address Setting

The QuickPanel+ Operator Interface provides two methods to set an IP address:

- **DHCP (Dynamic Host Configuration Protocol)**
  The network server assigns an IP address during QuickPanel+ initialization. There must be a DHCP server on the connected network for a valid IP address to be assigned. Contact your network administrator to ensure correct DHCP
  server configuration.

- **Manual Method**
  Specify the numeric addresses obtained from your network administrator for the QuickPanel+ IP Address, Subnet Mask and Default Gateway (if applicable).

Note Run the *Backup utility* to save the settings.

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5.7.3   Serial Port Details

5.7.3.1   IC755CxS06RDx

Adhere to the following guidelines:

- A terminal block is supplied with the unit.
- The mating terminal block supports stranded 30 to 14 AWG (0.05 to 2.00 mm²) wires.
- At a minimum, the cable must be rated for 75°C (167 °F) or more.
- Secure the serial cable to the mating connector while noting signal orientation and tighten the screw clamps.
- The torque for the attaching screws is 0.3 Nm (2.66 in-lb).

Connectors: Euro Terminal (Tyco Electronics 284539-5)
Mating Connectors: Tyco Electronics 284510-5

Serial Port COM1 Details

Interface: RS-232

COM1 Pin Details

Pin #	Signal Name
1	TXD
2	RXD
3	RTS
4	CTS
5	SGND

IC755CxS06RDx Serial Port COM1 Pin-out

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5.7.3.2 IC755CxW07CDx

Adhere to the following guidelines:

- A terminal block is supplied with the unit.
- The mating terminal block supports stranded 30 to 14 AWG (0.05 to 2.00 mm^2) wires.
- At a minimum, the cable must be rated for 75°C (167 °F) or more.
- Secure the serial cable to the mating connector while noting signal orientation and tighten the screw clamps.
- The torque for the attaching screws is 0.3 Nm (2.66 in-lb).

Serial Port COM1 Details

Interface: x1 RS-232
Connectors: Euro Terminal (Tyco Electronics 284539-5)
Mating Connector: (Tyco Electronics 284510-5)

COM1 Pin Details

Pin #	Signal Name
1	TXD
2	RXD
3	RTS
4	CTS
5	SGND

Pin 1   Pin 5
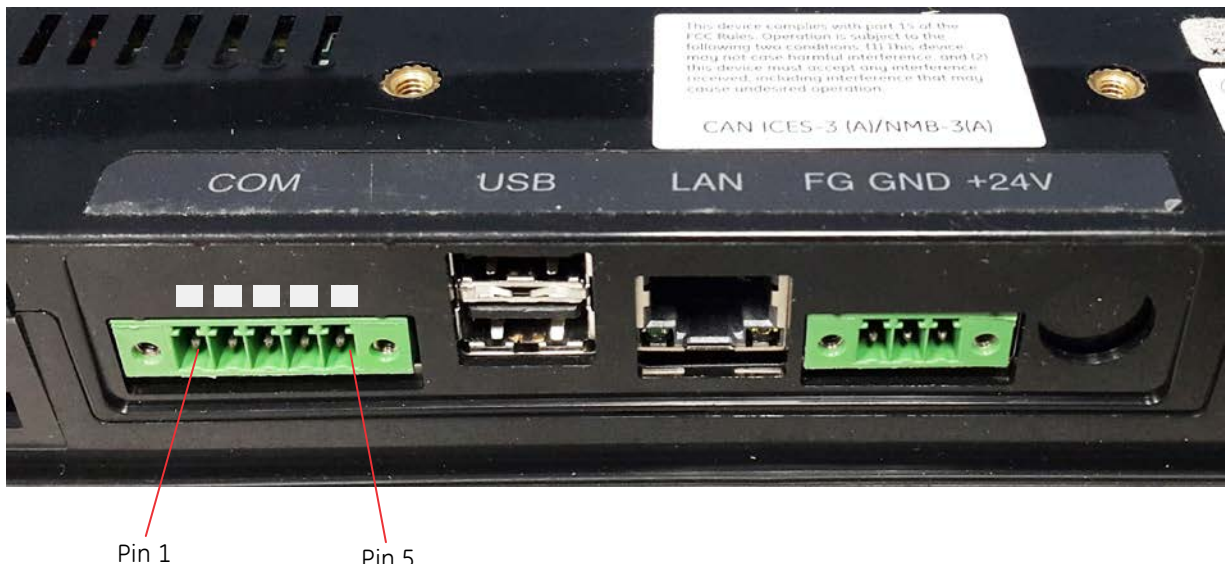
IC755CxW07CDx Serial Port COM1 Pin-out

5.7.3.3   IC755CxSxxCDx

Note For an IC755CxS12CDA serial port, refer to *Appendix C IC755CxS12CDA Serial Port Details*.

Adhere to the following guidelines:

- Terminal blocks are supplied.
- The mating terminal blocks support stranded 30 to 14 AWG (0.05 to 2.00 mm²) wires.
- At a minimum, the cable must be rated for 75°C (167 °F) or more.
- Secure the serial cable to the mating connector while noting signal orientation and tighten the screw clamps.
- The torque for the attaching screws is 0.3 Nm (2.66 in-lb).

Connectors: Euro Terminal (Tyco Electronics 284539-5)
Mating Connectors: Tyco Electronics 284510-5

Serial Port COM1 Details

Interface: RS-232C

COM1 Pin Details

1	TXD
2	RXD
3	RTS
4	CTS
5	SGND

IC755CxSxxCDx Serial Port COM1 Pin-out

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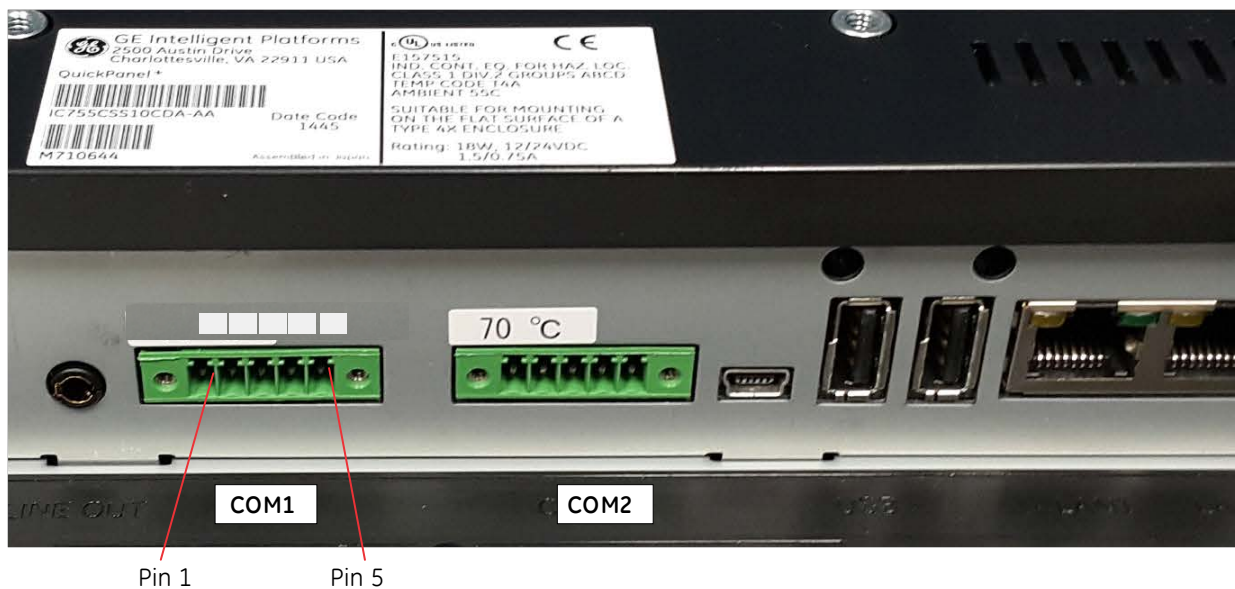
COM2 DIP Switch Setting for RS-232C

DIPSW	Bit	ON/OFF	DIPSW	Bit	ON/OFF
SW2	1	OFF	SW4	1	OFF
	2	OFF		2	OFF
	3	OFF		3	OFF
	4	OFF		4	OFF
	5	ON		5	OFF
	6	ON		6	OFF
	7	OFF		7	OFF
	8	ON		8	OFF
SW3	1	ON	SW5	1	ON
	2	OFF		2	ON
	3	OFF		3	ON
	4	OFF		4	ON

Serial Port COM2 Details

Interface: RS-232C/485 (default is RS-485 Half-duplex)

COM2 Pin Details

Pin #	RS–232C	RS–485	
	Signal Name	Signal Name (Full-duplex†)	Signal Name (Half-duplex†)
1	TXD	TXD+	DATA+‡
2	RXD	TXD-	DATA-‡
3	RTS	RXD+	DATA+‡
4	CTS	RXD-	DATA-‡
5	SGND	SG	SG
† Full-duplex RS–485 is backwards compatible to RS–422 mode.			
‡ Pins 1-3 and 2-4 are connected internally.			
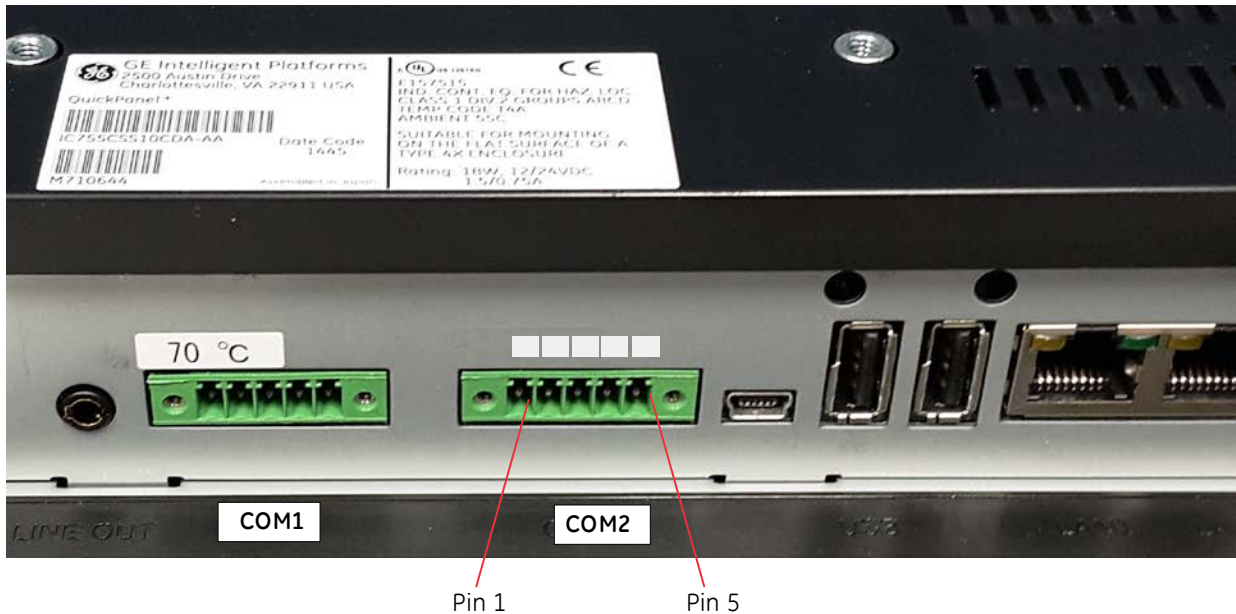
IC755CxSxxCDx Serial Port COM2 Pin-out
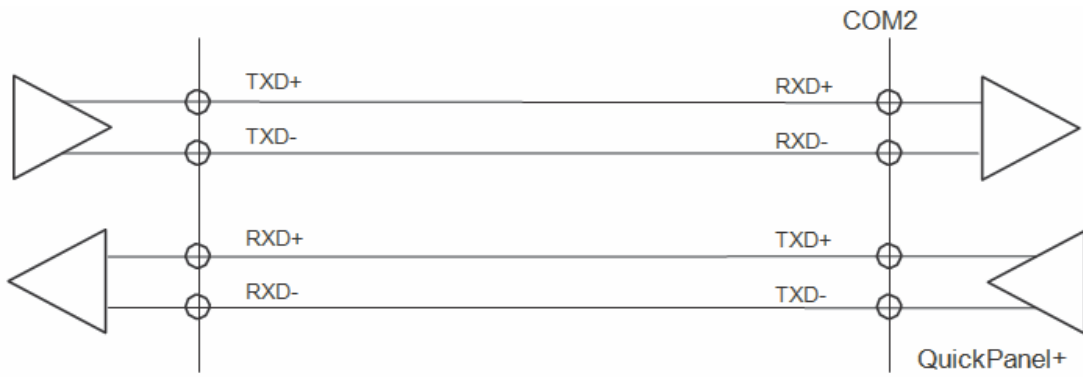
Example of Full-duplex (RS–422 Mode) Connection

COM2 DIP Switch Setting for RS–422

DIP SW	Bit	ON/OFF	DIP SW	Bit	ON/OFF
SW2	1	OFF	SW4	1	ON
	2	OFF		2	ON
	3	OFF		3	OFF
	4	OFF		4	OFF
	5	ON		5	ON
	6	ON		6	ON
	7	OFF		7	OFF
	8	ON		8	OFF
SW3	1	OFF	SW5	1	OFF
	2	ON		2	OFF
	3	OFF		3	OFF
	4	OFF		4	OFF
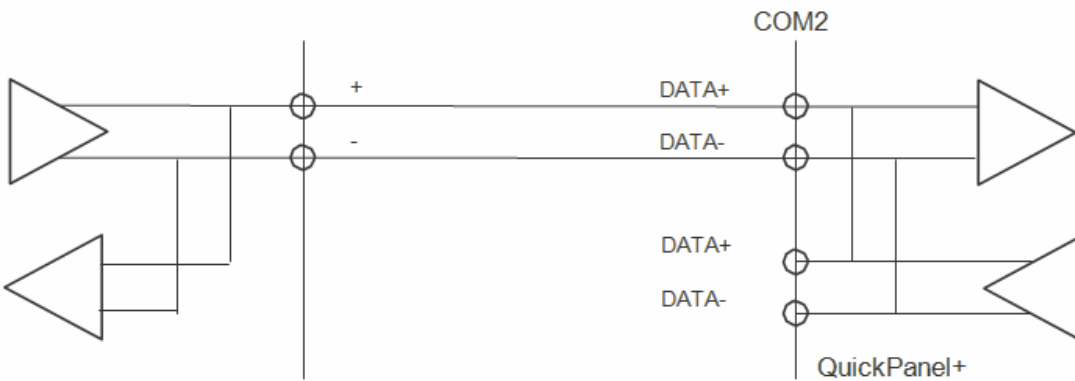
Example of Half-duplex (RS–485 Mode) Connection

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COM2 DIP Switch Setting for RS–485
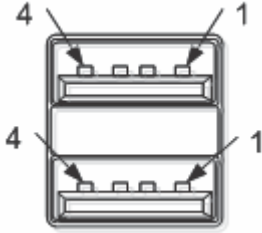
DIPSW	Bit	ON/OFF	DIPSW	Bit	ON/OFF
SW2	1	OFF	SW4	1	ON
	2	OFF		2	ON
	3	ON		3	ON
	4	OFF		4	ON
	5	ON		5	ON
	6	ON		6	ON
	7	OFF		7	OFF
	8	ON		8	OFF
SW3	1	OFF	SW5	1	OFF
	2	ON		2	OFF
	3	OFF		3	OFF
	4	ON		4	OFF

5.7.4 Universal Serial Bus (USB) Ports

5.7.4.1 USB Host Port Details for IC755CxS06RDx, IC755CxW07CDx, and IC755CxSxxCDx
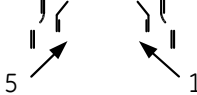
The QuickPanel+ has two full-speed USB 2.0 host ports. A variety of third party USB peripheral devices are also available. Each connected USB device requires a specific driver. The driver supplied with the QuickPanel+ is for optional keyboard or mouse support; other devices require installation of the custom driver software.

Interface: USB 2.0
Number of Ports: Two
Connectors: Type-A connector
Maximum Supply Current: 0.5 A (per port)

Pin #	Signal Name	Pin-out
1	USB_VCC	
2	USB_D-	
3	USB_D+	
4	USB_GND	

5.7.4.2 USB Device Port Details for IC755CxS06RDx, IC755CxW07CDx, and IC755CxSxxCDx

The USB device port allows the QuickPanel+ Operator Interface to be used as Slave

device. Interface: USB 2.0
Number of Ports: One
Connectors: Type-B Mini connector

Pin #	Signal Name	Pin-out
1	VCC	
2	D-	
3	D+	
4	NC	
5	GND	

5.7.4.3 Serial USB and Ethernet USB Adapters for All Models Using Adapters

Recommended adapters are as follows:

- Serial USB adapters based on FTDI chipset
- Ethernet USB adapters based on ASIX AX88179 or AX88772B

Note For serial USB adapters (USB to RS-485 and such), configure the correct COM port depicted in the *System Info* tool and configure the same port in the Driver configuration. In the System Info tool, the USB ports shown (COM3, COM4) are
based on the USB connection sequence on the device, and need to be configured accordingly.

5.7.4.4 Wi-Fi Support for All Models Using Adapters

Recommended USB wifi adapters based on the Ralink chipset are as follows:

- RT–2070
- RT–2870
- RT–3070
- RT–3071
- RT– 3072
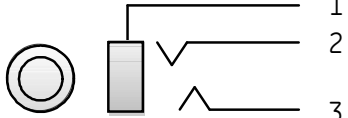
5.7.5 Audio (LINE OUT) Details for IC755CxS06RDx, IC755CxW07CDx, and IC755CxSxxCDx

Interface: LINE OUT (stereo)
Number of Ports: One
Connectors: φ3.5 mm jack
Maximum output level: 1 Vrms

Pin #	Signal Name	Pin-out
1	GND	
2	Lineout R	
3	Lineout L	

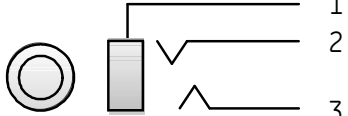### 5.7.6 Audio (MIC IN) Details (Only Applicable to IC755CxS06RDx and IC755CxW07CDx)

Interface: MIC IN (monaural)
Number of Ports: One
Connectors: φ3.5 mm jack
Maximum output level: 250 mVrms

Pin #	Signal Name	Pin-out
1	GND	
2	Lineout R	
3	Lineout L	

5.7.7 SD Card Slot and Storage

The QuickPanel⁺ is equipped with one standard SD Card port. SD/SDHC memory cards are supported. The SD card slot is spring-loaded for easy insertion and removal.

Note Micro SD slot is not supported on the 6" display unit (IC755CxS06RDx).

Connectors: SD card slot (push in-push out
method) Card support: SD/SDHC memory card
Maximum capacity: 32 GB

Note During insertion, observe the orientation of the SD card as displayed in the following figures.
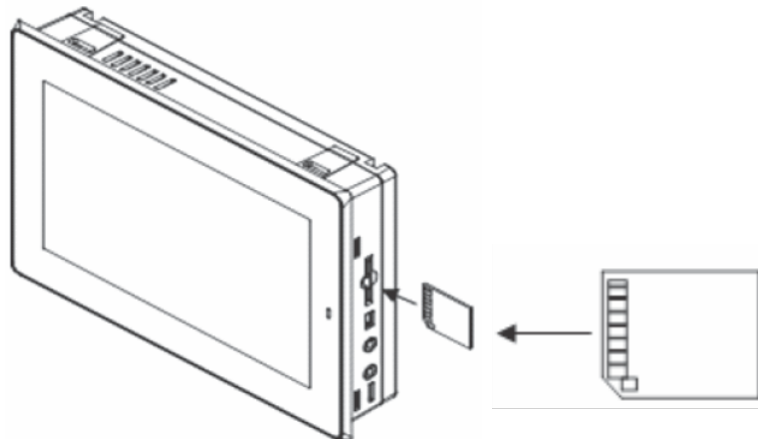
IC755CxS06RDx SD Card Location
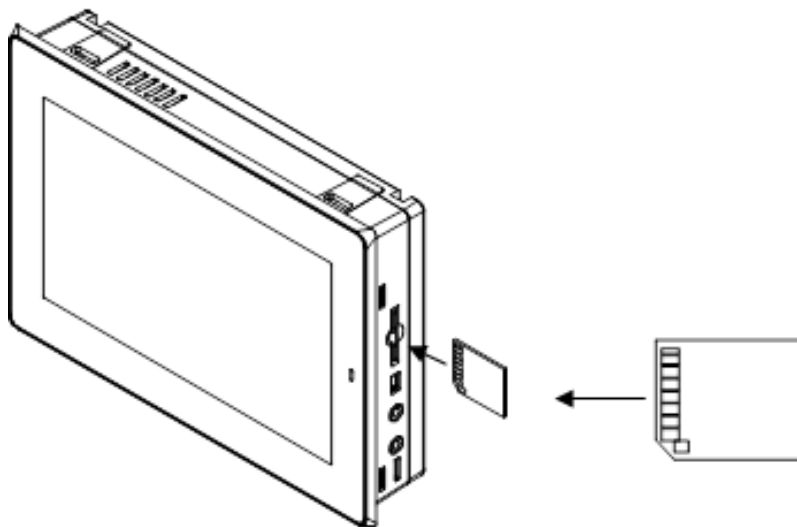
IC755CxW07CDx SD Card Location

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IC755CxSxxCDx SD Card Location

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6   Operation

6.1   Touchscreen Display

The QuickPanel+ Operator Interface features a LED Backlight LCD touchscreen display with two-point touch technology. The touch technology is based on projected capacitance that allows finger tracking without pressured contact. It is conducive to smooth scrolling and multi-touch gesturing capability. Display brightness and backlight operation can be configured using
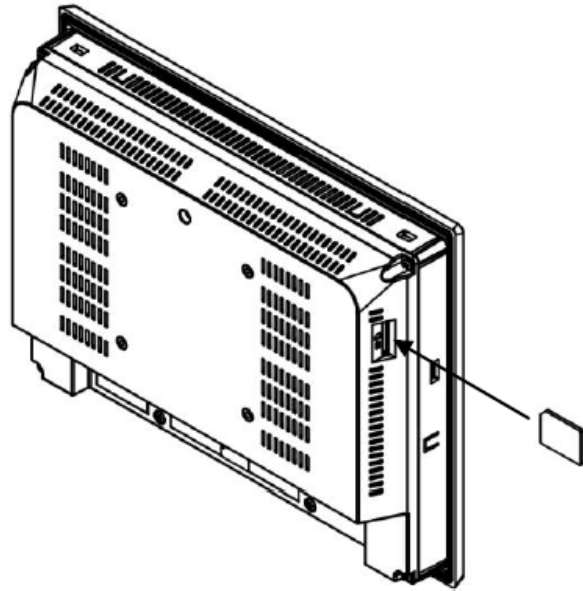the QuickPanel+ Setup tool available in the program system menu.

⚠️ **Caution**

Although we recommend the use of the protective sheet, do not operate the touchscreen with any hard materials, such as a screwdriver. This could damage the touchscreen display.

Note IC755CxS06RDx (6" display) is an Analog Resistive touch display that does not support two-point touch capability. Single point gestures such as swipe, pan, and double-tap are supported.

6.1.1   Display Brightness Adjustment

➢ **To adjust the brightness of the display**

1.   Open the **QuickPanel+ Setup Tool** and select the **Backlight** tab to display the Backlight Display Properties window.

2.   Set the backlight brightness value.

From the **Setting backlight brightness drop-down menu**, select a value between 1 (lowest setting) and 16 (highest setting).
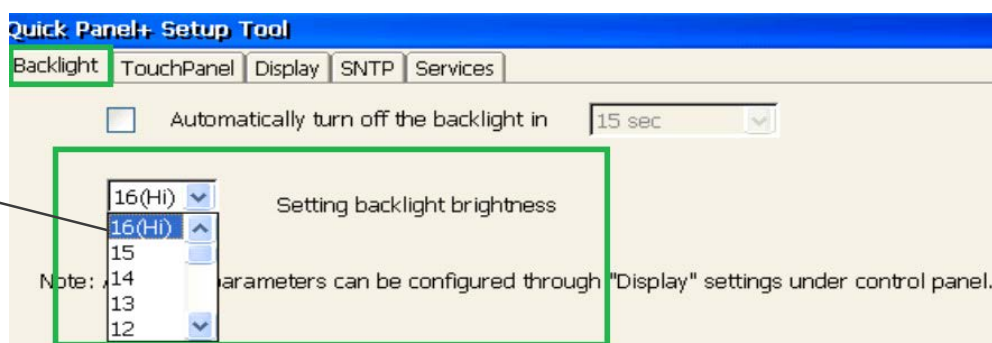
3.   Tap **OK** to exit the QuickPanel+ Setup Tool.

4.   Run the *Backup Utility* to save the settings.

6.1.2   Display Backlight Configuration

➤   **To configure the display backlight**

1.   Open the **QuickPanel+ Setup Tool** and select the **Backlight** tab to display the Backlight Display Properties window.

2.   Set the backlight to automatically turn off in a specific amount of time.

Select **Automatically turn off the backlight**. From the drop-down menu, select a time between 15 sec to 2 hr.
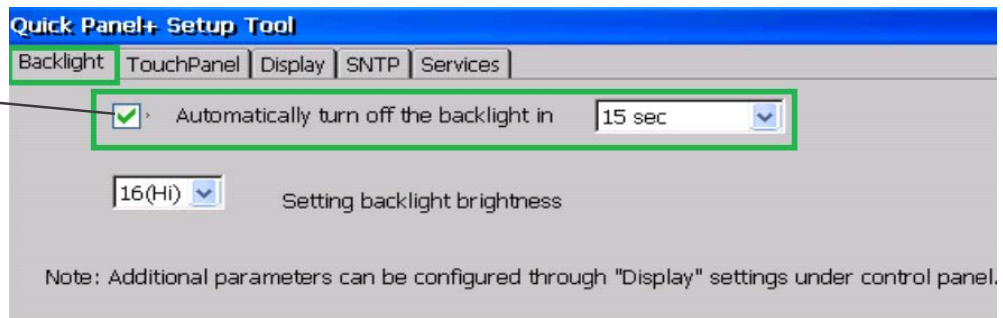
3.   Tap **OK** to exit the QuickPanel+ Setup Tool.

4.   Run the *Backup Utility* to save the settings.

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6.1.3 *Touchscreen Re-calibration*

The QuickPanel+ touchscreen is shipped pre-calibrated. However, if there are any issues with touchscreen responsiveness, it may need to be re-calibrated.

➢ **To re-calibrate the touchscreen**

1. Open the **QuickPanel+ Setup** tool.

2. Select the **TouchPanel** tab.

3. Select **Recalibrate Touch Screen**.

4. Select **Recalibrate Touch Sensor**.

Note During IC755CxS06RDx or IC755CxW07CDx touchscreen sensor re-calibration, the user is prompted to activate a switch located in the battery compartment. This is not applicable to any other display units.

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5. Remove the battery cover and press the switch.
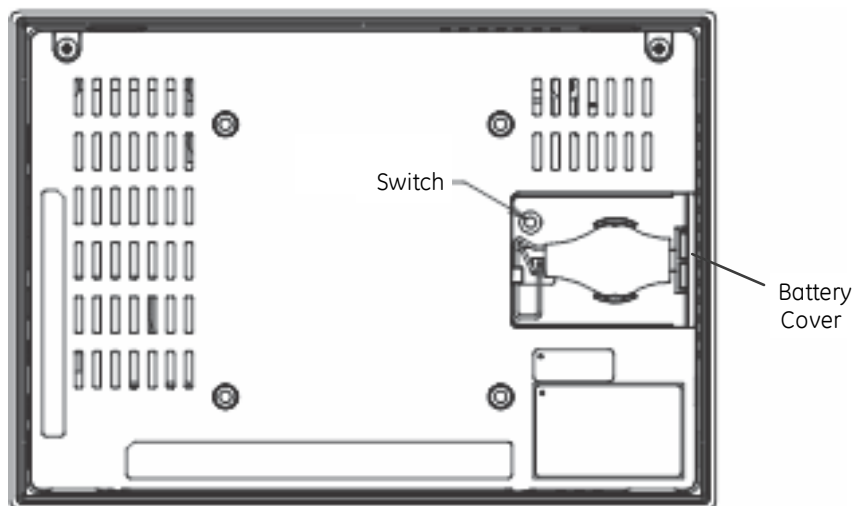
Touchscreen Sensor Calibration Switch

6. Replace the battery cover.

6.2 Keyboard Configuration

The QuickPanel+ Operator Interface can be configured to use either or both a hardware keyboard and a software emulation keyboard as operator data input devices. Typically, an optional external hardware keyboard is used when in development mode, while the included Soft Input Panel (SIP) is more applicable in an operational environment.

6.2.1 External Keyboard (Optional)

Any USB-compatible keyboard may be used as an input device for the unit. The USB driver for the keyboard is included with the operating system and no configuration is required. To use an external keyboard, connect the keyboard to the unit using the USB cable.

6.2.2 Soft Input Panel

The Soft Input Panel (SIP) is a touchscreen keyboard that may be used in place of a standard hardware keyboard. An icon in the system tray enables the user to view or hide the SIP.

➢ **To show or hide the SIP:** from the system tray located on the task bar, tap the icon and select **Hide Input Panel**.

Note When visible, the SIP can be moved around the screen by dragging the title bar to reveal parts of the screen that would be obstructed from view by the SIP.

6.3 Mouse

Any USB-compatible mouse may be used as an input device for the unit. The USB driver for the mouse is included with the operating system and no configuration is required. To use an external mouse, plug it into the appropriate port.

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6.4   Printing

> ⚠️ **Warning**
>
> USB-connected printers will violate the electrical compliance ratings. They can only be used for maintenance and are not supported as a standard service.

The QuickPanel+ Operator Interface supports printing with PCL v5 compatible laser and inkjet printers. The printer can be connected by either USB (on models with USB ports) or by a network shared printer over Ethernet. The control panel applet Printers is used to configure the port connection and other general printing options.

For the fastest printing performance, select draft mode and portrait orientation, and disable color for print settings. These settings also minimize the amount of memory needed to print a document.

The built-in driver has a document spooling function to improve GUI performance. This spooler supports only one document at a time. However, on an Ethernet connected printer, the print server usually supports multiple documents in its queue. Windows Embedded Compact 7 does not support the ability to observe which documents are queued up at the printer.

For a list of printers that are compatible with that QuickPanel+ Operator Interface, refer to the document *Third Party Device Compatibility* (*KB8259*).

6.5 Memory

6.5.1 DRAM Memory

The QuickPanel+ Operator Interface is equipped with Dynamic RAM (DRAM). Part of the DRAM is reserved for the Windows operating system and is not accessible by user applications. The remaining memory is split between two functions: an object store for temporary file storage and the main memory for running programs.

Typically, compressed programs stored in flash memory are expanded and moved to DRAM for execution. Temporary storage of program variables or data files is also provided by DRAM. Any data stored in DRAM is not retained through a power cycle or restart.

The split between program memory and storage memory can be adjusted as necessary to make more room for one or the other, depending on specific application needs. For example, if an application is short of memory, alter the DRAM memory
allocation from the System Properties window.

Caution

Setting the Program Memory too low may prevent additional applications from starting, or may cause currently running applications to fail due to lack of memory.

Setting the Storage Memory too low may prevent the saving of files into the object store portion of the file system, which may also cause application failures.

For the QuickPanel+ 6" display unit, setting the Storage Memory too high or to extreme limit may make the device become unresponsive to launch any applications or windows and it may also require a power cycle. It is recommended that the Storage Memory is set to a valid limit.

6.5.2 Memory Allocation Modification

➢ **To change the memory allocation**

1. From the Control Panel, double-tap **System** to display the System Properties window.

2. From the **Memory** tab, drag the slider bar to divide into Storage and Program memory. The amount of memory allocated to and used by each area is displayed in the window. The blue slider bar indicates the current amount of unallocated SDRAM and determines the boundaries within which the slider can move.

System Memory Slider Bar

Note Storage memory is limited to a maximum of 128 MB. Using the slider bar to increase storage memory will provide more RAM-based storage in the folder *Object Store*.

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3. Tap **OK** to apply the new setting.

4. Run the *Backup Utility* to save the settings.

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7 Secomea Security (Optional)

7.1 Secomea Configuration Tool

Note The SiteManager™ and its related GateManager™, LinkManager™ and LinkManager™ Mobile *products* are licensed, sold, and supported by Secomea and Secomea's licensed distributors. Additional information, is available at *www.secomea.com*.

Secomea SiteManager software (also known as the Secomea Configuration tool) is installed on QuickPanel+ products. The Secomea Configuration tool enables the user to configure and enable the QuickPanel+ device on the Secomea network.

Note It is recommended to have a Network Architect on-site and working with Secomea team to enable this functionality.

➢ **To access the Secomea Configuration tool and enable the QuickPanel+ on the Secomea network**

1. From the QuickPanel+ **Start** menu, select **Programs** to display the Secomea Configuration tool window.

2. Enable the QuickPanel+ device on the Secomea network.

Select **Enable Remote Management** and enter the values provided to you by the Secomea team.

Note The Appliance Name can be any name but should be unique so that Secomea network can identify the

device. Proxy Address allows the user to connect from their local network with firewall enabled and blocking ports

80, 443, and
11444. The SiteManager will attempt to establish a connection with and without proxy.

7.2   Secomea Products

Note Activation and deployment of the Secomea product features is optional. SiteManager, GateManager, and LinkManager products are licensed, sold, and supported by Secomea and Secomea's licensed distributors. QuickPanel+ customers wanting
to activate licenses for Secomea products can do so at *www.secomea.com*.

The available Secomea SiteManager (embedded on QuickPanel+), GateManager, and LinkManager products are described as follows:

SiteManager is a device-monitoring front-end feature for multiple industrial devices on a location. Working with GateManager and LinkManager, it ensures uninterrupted and secure access to remote devices over the Internet or a private Wide-area Network (WAN) for all users.

LinkManager is an off-the-shelf software component in Remote Device Management Solutions from Secomea that provides security for external programming and monitoring applications. **LinkManager Mobile** provides similar functionality for mobile devices.

GateManager is the central component of Secomea's Industry solution. The GateManager M2M Server operates as a termination point for all LinkManagers and SiteManagers. All connections and the encrypted traffic between LinkManagers
and devices controlled by SiteManagers are handled by the GateManager, where all events are also logged.

Note The GateManager is typically offered as a service hosted by Secomea. Users will receive an isolated domain on the GateManager and benefit from central hosting and back-up by Secomea. Or, the user can host their own GateManager.

Additionally, other devices such as PLCs and PCs (in addition to the QuickPanel+) can be added as new agents on the Secomea network to be part of Secured Communication using the *Add Agents* feature in the SiteManager GUI. This can be achieved using extended license feature from Secomea.

Note Secomea products installed throughout the application as suggested by the following figure do not intrinsically provide the level of security associated with firewalls. The network architect needs to satisfy himself or herself that the security level required by the application is present in the overall implementation.

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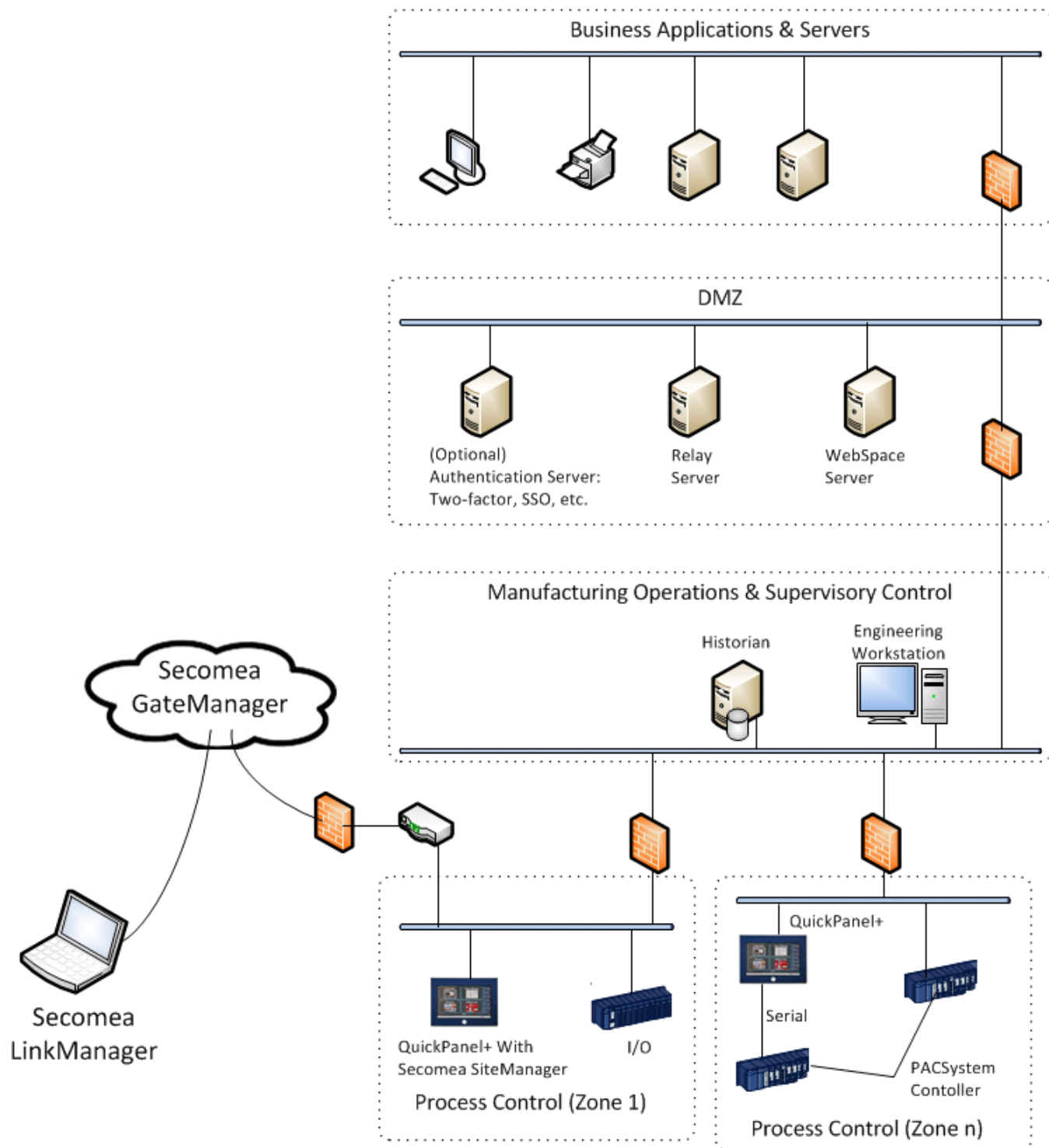
Secomea Products used with QuickPanel+ in Application

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Appendix A Product Certifications and Installation Guidelines

The QuickPanel+ Operator Interface is intended for use in industrial environments and, when properly installed, shall comply with the agency approvals listed in this document.

Agency Approvals

Note The agency approvals listed in the following table and on the Declaration of Conformities are believed to be accurate; However, the product's agency approvals should be verified by the marking on the unit itself.

Description	Agency Marking	Comments
N.A. Safety for Programmable Controller for use in Hazardous locations Class I Division 2 Groups A, B, C, D (applicable to 7", 10", 12", and 15" Display units) Class I Division 2 Groups A, B, C, D; Class 2 Division 2 Groups F, G; Class 3 Division 1 and Division 2 (applicable only to 6" Display unit)	c(UL)us LISTED	Certification by Underwriter's Laboratories to UL 61010-1; UL61010-2-201; CSA C22.2 No 142 – M1987; CSA 61010-1; CSA 61010-2-201 ISA 12.12.01 standard and CSA C22.2 No 213-M1987
Explosive Atmospheres Directive European Safety for Hazardous Areas Equipment Group II, Category 3, Gas Groups IIC, Dust Group IIIC	⟨Ex⟩	Certification in accordance with the ATEX Directive 14/34/EU with an Independent 3rd Party Assessment Certificate only applies to the 12" and 15" Display units: EN 60079-0/A11, EN 60079-15, and EN 60079-31; Part numbers: IC755CSW07CDACA, IC755CSS10CDACA, IC755CSS12CDBCA, IC755CSS15CDACA
Electromagnetic Compatibility Directive European Electromagnetic Compatibility (EMC) for Industrial Control Equipment	CE	Self-declaration in accordance with European Directives EN61000-6-2, EN61000-6-4
Maritime Society Certification	No Marking, verified by certificate	American Bureau of Shipping (ABS), Det Nortske Veritas/Germanischer Lloyds (DNV-GL), and Bureau Veritas (BV) certification on conformal coated 6, 7, 10, 12, 15" units only

Conditions of Safe Use for Installation in Hazardous Locations

The following information applies to products bearing the UL marking for Hazardous areas and the ATEX marking for Zone 2 explosive atmospheres:

- Suitable for use in Class I Division 2 Groups A, B, C, D; Class 2 Division 2 Groups F, G; Class 3 Division 1 and Division 2.
- Suitable for Group II, Category 3, Gas Groups IIC, Dust Group IIIC (applicable only to the IC755CSW07CDACA, IC755CSS10CDACA, IC755CSS12CDBCA, and IC755CSS15CDACA Display units):

1. The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

Note Pollution degree 2 can be achieved when the installation is in a controlled environment with suitably controlled condensation or airborne pollution

2. The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with
IEC 60079-0.

3. Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value at the supply terminals to the equipment.

- USB retaining clamp for IC755CxS12CDBCA and IC755CxS15CDACA must be used in hazardous location installations as follows:
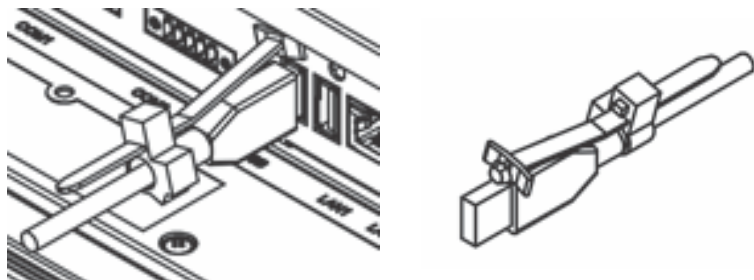
1. Connect the USB cable.
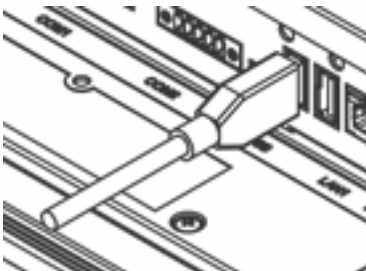
2. Insert the retaining clamp in the port above the USB connector.
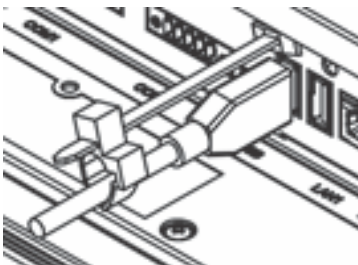
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3. Adjust the position of the retaining clamp by pushing the lever of the retaining clamp. Then close the retaining clamp to fit the cable size.

- USB retaining clamp for IC755CSW07CDACA must be used in hazardous location installations as follows:

1. Connect the USB retaining clamp plate.

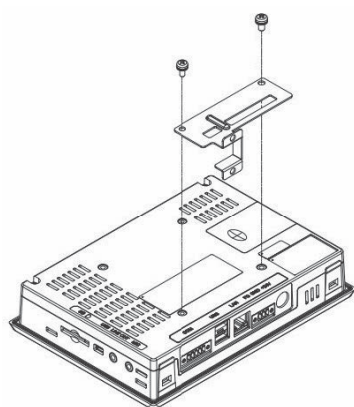**2.** Connect the USB cable and insert the retaining clamp into the retaining clamp plate.

3. Adjust the position of the retaining clamp by pushing the lever of the retaining clamp. Then close the retaining clamp to fit the cable size.
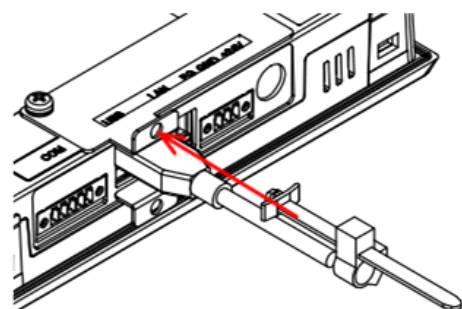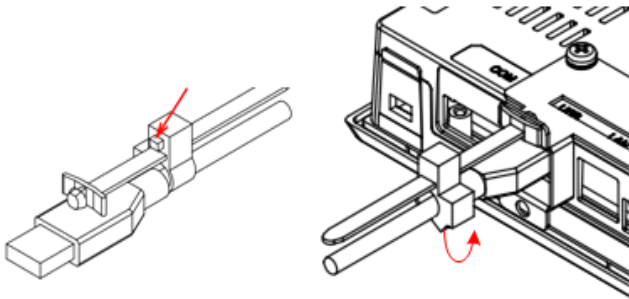

⚠️ **Warning**	**EXPLOSION HAZARD** — Do not connect or disconnect equipment power, communication, audio, or battery unless power has been removed or the area is known to be non-hazardous. **EXPLOSION HAZARD** — Substitution of components may impair suitability. **EXPLOSION HAZARD** — DO NOT VESA MOUNT. Panel mount only with enclosures that shall only be opened with the use of a tool in an area where the risk of impact is low DO NOT MAKE ANY CONNECTIONS TO THE MINI-USB/MIC TERMINAL AS IT WILL INVALIDATE THE ATEX APPROVAL.

Government Regulations

The FCC requires the following note to be published according to FCC guidelines:

Note This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications to this unit that are not expressly approved by GE Intelligent Platforms could void the user's authority to operate the equipment.

Industry Canada requires the following note to be published:

Note This Class A digital apparatus complies with Canadian CAN ICES 3 (A)/NMB 3(A).

EMC Installation and Operation Considerations

This equipment is intended for industrial use only and complies with a minimum level of EMC performance as defined by EN
61000-6-2 and EN 61000-6-4 standards. To meet these requirements, the following installation and operation considerations were taken into account:

- Shielding USB cables
- Limiting RS-232 cables to 15 m (49.2 ft) in length
- Using Audio ports only during operational maintenance

Although these considerations were deliberated during testing, actual EMC environments vary greatly. Therefore, these considerations may not be necessary. Likewise, additional measures, such as filtering, wire separation, and cable routing, may need to be considered to ensure intended operation of the overall system.

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Appendix B Orderable Part Numbers

QuickPanel+ Operator Interface Part Numbers

Part Number	Description
IC755CSS06RDA	QuickPanel+ 6" Color TFT with Resistive Touch Screen, GE Monogram Bezel , 24 V dc Powered
IC755CBS06RDA	QuickPanel+ 6" Color TFT with Resistive Touch Screen, Blank Bezel , 24 V dc Powered
IC755ACC07GAS	QuickPanel+ 6" Replacement Gasket
IC755ACCBATT	QuickPanel+ 6" Replacement Battery Pack
IC755CSW07CDx	QuickPanel+ 7" Color TFT Widescreen with Multi-touch Projected Capacitive Screen, 24 V dc Powered
IC755ACC07GAS	QuickPanel+ 7" Replacement Gasket
IC755ACC07MNT	QuickPanel+ 7" Accessory Kit - Replacement Mounting Clips, Power and Serial Port Connectors
IC755ACC07PRO	QuickPanel+ 7" Replacement Screen Protectors (Qty 3)
IC755CSW07CDACA	QuickPanel+ 7" with Conformal Coating
IC755ACC07ADP	QuickPanel+ Panel Adapter Kit - 8" QuickPanel View/Control to QuickPanel+ 7"
IC755ACCBATT	QuickPanel+ 7" Replacement Battery Pack
IC755CSS10CDx	QuickPanel+ 10" Color TFT with Multi-touch Projected Capacitive Screen, 12/24 V dc Powered
IC755ACC10GAS	QuickPanel+ 10" Replacement Gasket
IC755ACC10MNT	QuickPanel+ 10" Accessory Kit - Replacement Mounting Clips, Power and Serial Port Connectors
IC755ACC10PRO	QuickPanel+ 10" Replacement Screen Protectors (Qty 3)
IC755CSS10CDACA	QuickPanel+ 10" with Conformal Coating
IC755CSS12CDx	QuickPanel+ 12" Color TFT with Multi-touch Projected Capacitive Screen, 12/24 V dc Powered
IC755ACC12GAS	QuickPanel+ 12" Replacement Gasket
IC755ACC12MNT	QuickPanel+ 12" Accessory Kit - Replacement Mounting Clips, Power and Serial Port Connectors
IC755ACC12PRO	QuickPanel+ 12" Replacement Screen Protectors (Qty 3)
IC755CSS12CDBCA	QuickPanel+ 12" with Conformal Coating
IC755CSS15CDx	QuickPanel+ 15" Color TFT with Multi-touch Projected Capacitive Screen, 12/24 V dc Powered
IC755ACC15GAS	QuickPanel+ 15" Replacement Gasket
IC755ACC15MNT	QuickPanel+ 15" Accessory Kit - Replacement Mounting Clips, Power and Serial Port Connectors
IC755ACC15PRO	QuickPanel+ 15" Replacement Screen Protectors (Qty 3)
IC755CSS15CDACA	QuickPanel+ 15" with Conformal Coating
IC755ACCBATTNL	QuickPanel+ 10", 12", 15" Replacement Battery Pack

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Appendix C IC755CxS10CDx, IC755CxS12CDA, and IC755CxS15CDx Serial Port Details
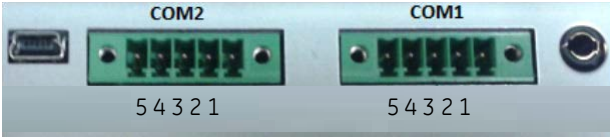
Adhere to the following guidelines:

* A terminal block is supplied.
* The mating terminal block supports stranded 30 to 14 AWG (0.05 to 2.00 mm^2) wires.
* At a minimum, the cable must be rated for 75°C (167 °F) or more.
* Secure the serial cable to the mating connector while noting signal orientation and tighten the screw clamps.
* The torque for the attaching screws is 0.3 Nm (2.66 in-lb).

Interface: x1 RS–232, x1 RS-232/485 (default is RS-485)
Connectors: Euro Terminal (Tyco Electronics 1-284539-0)
Mating Connector: (Tyco Electronics 1-284510-0)

Pin #	Signal Name	Pin-out
	COM1	
1	TXD	
2	RXD	
3	RTS	
4	CTS	
5	SGND	
	COM2 (RS-232/485†)	
1	TXD/TXD+/DATA+	
2	RXD/TXD-/DATA-	
3	RTS/RXD+/DATA+	
4	CTS/RXD-/DATA-	
5	SG	
† RS-485 mode shorts pins 1-3 and 2-4		

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Notes

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