GE Intelligent Platforms

Production Support Device

# StationPortal\* IC760STA100

Hardware User's Guide, GFK-2522A

February 2010



# Warnings, Cautions, and Notes as Used in this Publication

# Warning

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.

In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

# Caution

Caution notices are used where equipment might be damaged if care is not taken.

**Note:** Notes merely call attention to information that is especially significant to understanding and operating the equipment.

This document is based on information available at the time of its publication. While efforts have been made to be accurate, the information contained herein does not purport to cover all details or variations in hardware or software, nor to provide for every possible contingency in connection with installation, operation, or maintenance. Features may be described herein which are not present in all hardware and software systems. GE Intelligent Platforms assumes no obligation of notice to holders of this document with respect to changes subsequently made.

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

U.S., Canadian, Australian, and European regulations are intended to prevent equipment from interfering with approved transmissions or with the operation of other equipment through the AC power source.

The StationPortal product has been tested and found to meet or exceed the requirements of U.S. (47 CFR 15), Canadian (ICES-003), Australian (AS/NZS 3548), and European (EN55022) regulations for Class A digital devices when installed in accordance with the guidelines noted in this manual. These various regulations share commonality in content and test levels with that of CISPR 22 and based on this commonality testing to the each individual standard was deemed inappropriate.

#### 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.

#### Industry Canada requires the following note to be published:

Note: This Class A digital apparatus complies with Canadian ICES-003.

Users must supply 100-240V, 50-60 Hz AC input power supply to power the StationPortal unit covered by this manual.



This symbol is present on the enclosure where there is a risk of electric shock due to Hazardous voltage present at that point.

For a complete list of agency approvals, please refer to "Agency Approvals" on page 21.

If you purchased this product through an Authorized Channel Partner, please contact the seller directly.

## **General Contact Information**

Online technical support and GlobalCare	http://www.ge-ip.com/support
Additional information	http://www.ge-ip.com/
Solution Provider	solutionprovider.ip@ge.com

#### **Technical Support**

If you have technical problems that cannot be resolved with the information in this guide, please contact us by telephone or email, or on the web at <u>www.ge-ip.com/support</u>

#### Americas

Online Technical Support	www.ge-ip.com/support
Phone	1-800-433-2682
International Americas Direct Dial	1-780-420-2010 (if toll free 800 option is unavailable)
Technical Support Email	support.ip@ge.com
Customer Care Email	customercare.ip@ge.com
Primary language of support	English

#### Europe, the Middle East, and Africa

Online Technical Support	www.ge-ip.com/support
Phone	+800-1-433-2682
EMEA Direct Dial	+352-26-722-780 (if toll free 800 option is unavailable or if dialing from a mobile telephone)
Technical Support Email	support.emea.ip@ge.com
Customer Care Email	customercare.emea.ip@ge.com
Primary languages of support	English, French, German, Italian, Czech, Spanish

#### Asia Pacific

Online Technical Support	www.ge-ip.com/support
Phone	+86-400-820-8208
	+86-21-3217-4826 (India, Indonesia, and Pakistan)
Technical Support Email	support.cn.ip@ge.com (China)
	support.jp.ip@ge.com (Japan)
	support.in.ip@ge.com (remaining Asia customers)
Customer Care Email	customercare.apo.ip@ge.com
	customercare.cn.ip@ge.com (China)

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## Welcome

Congratulations on your purchase of a StationPortal. The StationPortal is an I/O device that connects factory floor I/O to a server-based system, such as MES and SCADA, over standard Ethernet. This eliminates the need for a complex and expensive PLC-based architecture. Operators can use the built-in devices (horn and lamps) as well as plug I/O into one of the available ports for control by a remote client.

StationPortal is shipped ready for use after a few simple configuration steps. Connect a power cord that has a standard IEC 60320-C13. Also, connect a standard unshielded, twisted-pair CAT 5 Ethernet cable between the StationPortal and a Server PC or Ethernet switch to be able to communicate with your client application. Depending on your requirements, you may connect and configure input/output devices (see page 12).

## Features

- Universal power supply input (100V–240V, 50Hz–60Hz)
- Three indicator lights
- Status indicators for each digital I/O point
- Horn, 90 dB
- Serial RS-232 Port
- Ethernet port, 10/100 Mbps
- Three digital inputs on a 5-pin M12 female connector
- Three digital outputs on a 5-pin M12 male connector
- Momentary pushbutton
- Configuration over Ethernet

#### Functional Compatibility

Clients: StationPortal is capable of communicating with a variety of clients. If Proficy\* HMI/SCADA CIMPLICITY\* software is to be used with StationPortal, version 8.0 or later is required. The necessary software driver can be ordered on CD as IC647NSD000.

Ethernet cable: Unshielded, twisted pair, UTP CAT 5 minimum

## **Related Documents**

*PROFICY HMI/SCADA – CIMPLICITY Communications Manual, StationPortal* (This document is placed in the CIMPLICITY Documentation folder when the driver is installed. Also available in the StationPortal driver installation file.)

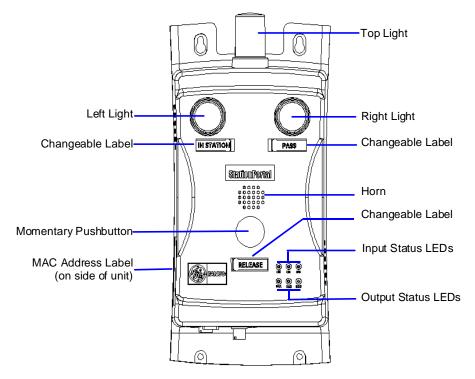
Proficy HMI/SCADA CIMPLICITY software documentation.

**Note:** The most recent software downloads and user documentation are available on the Support website.

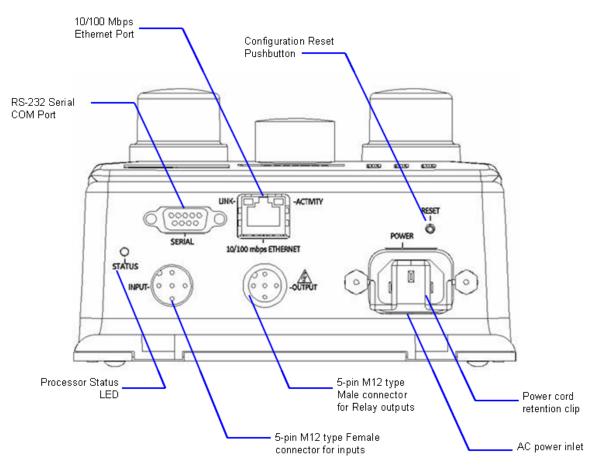
# Hardware Overview

The following diagrams show the locations of user-accessible controls, indicators and connectors.

#### Front View



#### **Bottom View**



# Installation Instructions

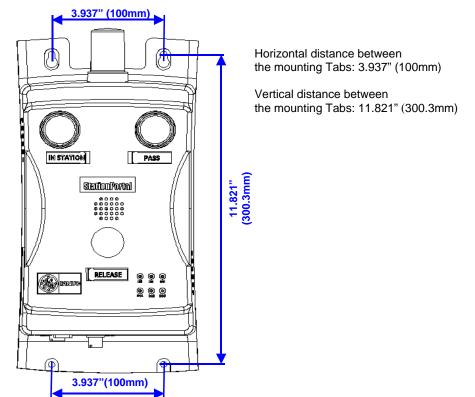
The StationPortal unit can be installed on a wall or column.

## **Choosing a Mounting Location**

- The unit must be mounted on the flat surface of wall or column.
- For adequate ventilation, allow at least 3 inches (76.2mm) of space between adjacent equipment and all sides of the StationPortal. Ensure that specified conditions of temperature and humidity are not exceeded.
- Direct sun exposure may impose increased thermal loads on the StationPortal leading to excessive temperatures. Cabinet design and orientation must be carefully considered to avoid exceeding the operational temperature limits.
- StationPortal does not have an enclosure suitable for outdoor use. For environmental requirements, refer to page 20.

## Mounting Instructions

- **Note:** Limit the number of times you remove and reinstall the unit. Too many installations may damage the plastic enclosure.
- 1. Install two M3 screws at a horizontal distance of 3.937" (100mm) apart at the required height.
- 2. Mount the StationPortal on the two screws using mounting tabs provided at the top of the unit. Tighten the screws if required.



3. For additional support, two M3 screws can be installed at the bottom of the unit at a vertical distance of 11.821" (300.3 mm) from top hole and 3.937" (100 mm) apart.

## **Connecting a Power Supply**

The StationPortal operates with 100–240V AC, 50–60 Hz input power with 0.3A RMS maximum input current.

The StationPortal requires a power cord that has a standard IEC 60320-C13 plug.

## **Overcurrent Protection**

StationPortal unit's power supply provides overcurrent protection (including short circuits). If an overcurrent condition occurs, the power supply continually tries to restart until the overcurrent condition is removed. An internal fuse (FU1), which is rated for 250VAC at 1A, is provided in the input line as a backup. The power supply usually trips and goes into retry mode before the fuse blows. There is no additional indication if the power supply fuse blows. The fuse is not user-replaceable.

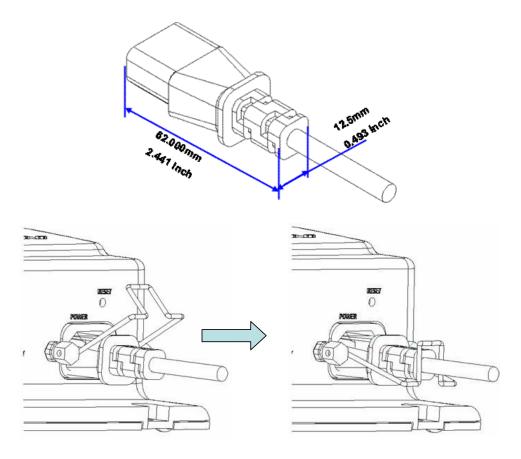
## **Power Cord Retainer**

A clip is provided on the StationPortal unit to provide retention for a few types of power cords.



*Electrical Shock Hazard*: To avoid personal injury or damage to equipment, ensure that the power cord is disconnected from AC input power during the installation of the power cord and power cord retainer clip.

**Note:** The clip provided with the StationPortal will work best with a power cord that has a plug or cord strain relief extending up to 2.441 inches (62mm).



# **Detailed Operation**

A StationPortal can communicate with only one client at a time. However, a single client can communicate with multiple StationPortal devices. Although the number and types of devices that each client can support will vary, Proficy HMI/SCADA CIMPLICITY supports a native interface to the StationPortal that acts as a client. Details on the number and types of devices that a CIMPLICITY instance can support are described in the CIMPLICITY documentation. The StationPortal I/O is natively addressable in the Proficy HMI/SCADA CIMPLICITY control and visualization product.

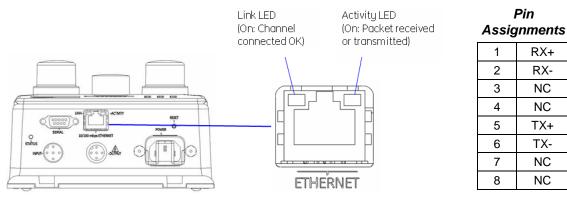
## **Communications Ports**

## Ethernet Port

The StationPortal unit provides a 10/100 Mbps Ethernet port (IEEE802.3) with an RJ45 connector on the bottom of the enclosure. An unshielded, twisted pair, UTP CAT 5 cable is the minimum required.

LED indicators on the port indicate channel status.

#### Port Location and Pin Assignments



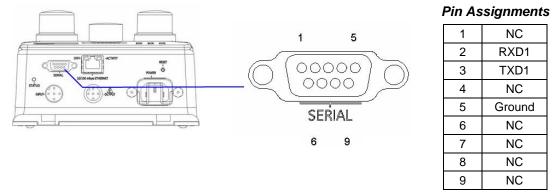
## Serial Port

The StationPortal unit provides one serial communication port with the following specifications:

#### **Port Specifications**

Connector Type	RS-232 male 9-pin D connector
Baud Rate	Configurable baud rates: 2400, 4800, 9600, 19,200 baud with 8 data bits
Parity	Configurable: Even / Odd / None
Stop Bits	1 (not configurable)
Flow Control	None (not configurable)

## Port Location and Pin Assignments



**Note:** When StationPortal unit is configured to check Even or Odd parity and equipment at the other end of serial communication is configured for opposite parity setting, few characters will be received by StationPortal unit which result in equal parity.

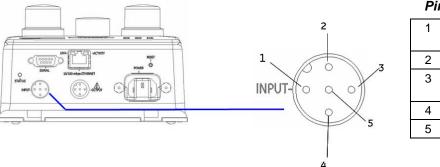
## 24V Discrete Input Port

A 5-pin M12 type female connector mounted at the bottom of the enclosure accepts three digital inputs from field. These inputs are optically isolated sink type inputs.

Pin 1 of this connector can be used as a +24V DC auxiliary power supply for input devices and to power the DC input circuits. The combination of input circuit current and external device current must not exceed 300 mA.

Input status LEDs (I1, I2, I3) on the front of the unit indicate the On/Off states of the inputs.

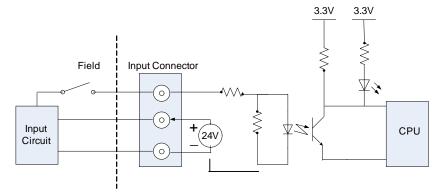
#### Port Location and Pin Assignments



PIN	Assignments

1	24 VDC for
	input devices
2	Input 2
3	0V for input devices
4	Input 1
5	Input 3

#### Typical 24 VDC Positive Logic Input Circuit



#### Input Specifications

Inputs per Module	3 (one group with a single common)
Rated voltage	24V DC
Input Voltage Range	0 to +30 VDC
Isolation: Field to Frame Ground	1500 VAC for 1 minute.
Input Current	7 mA typical at rated voltage

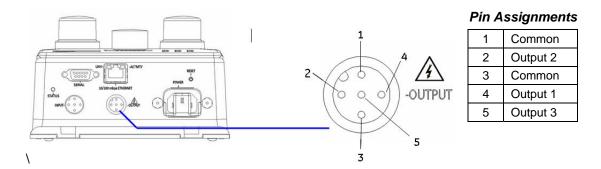
Input Characteristics	
On-state Voltage	8.2 to 30 volts DC
Off-state Voltage	0 to +5 volts DC
On-state Current	1.6 mA minimum
Off-state Current	0.9 mA maximum
On response Time	24 ms typical
Off response Time	24 ms typical

## **Discrete Output Port**

A 5-pin M12 type male connector provides three digital outputs to the field. These are dry contact type relay outputs. An external source of AC or DC power must be supplied to operate field devices.



Hazardous voltage may be present at the outputs.



The state of outputs (On/Off) is indicated on the output status LEDs (O1, O2, O3) on the front of the unit.

#### **Relay Specifications**

Outputs per Module	tputs per Module 3 isolated Form A relay outputs	
External Power Supply	0 – 30VDC (5/24 VDC nominal)	
	0 – 250VAC (47 to 63 Hz), 120-240VAC nominal	

Isolation, Field to Frame Ground 1500 VAC for 1 minute

Output Characteristics	
Output Voltage	5 – 30VDC (5/24 VDC nominal)
	5 – 250VAC (47 to 63 Hz), 120-240VAC nominal
Output Current	10mA per point minimum
	4A for 5-250VAC maximum (resistive or general purpose)
	4A for 5-30VDC maximum (resistive)
	2A pilot duty per output (5 to 30VDC, 5 to 250VAC)
	2A lamp load per output (5 to 30VDC, 5 to 250VAC)
Output Voltage Drop	0.3VDC maximum
Output Leakage Current	Not Applicable (open contact)
Response Times (On/Off)	10ms maximum (At nominal voltage excluding contact bounce)
Switching Frequency	20 cycles per minute maximum (50% duty cycle recommended)
Protection	None. External snubbers may be applied if necessary
Relay Contact Life	See "Load Current Limitations"
Diagnostic Information	None

Operating Maximum Cu		Current for Load Type	Typical Contact Life	
Voltage	Resistive	Lamp or Solenoid *	(Number of Operations)	
5 to 250 VAC	4 Amps	2 Amps	200,000	
5 to 250 VAC	0.1 Amp	0.05 Amp	1,000,000	
5 to 250 VAC	1 Amp	0.5 Amp	700,000	

#### Load Current Limitations

 5 to 30 VDC
 4 Amps
 2 Amps
 200,000

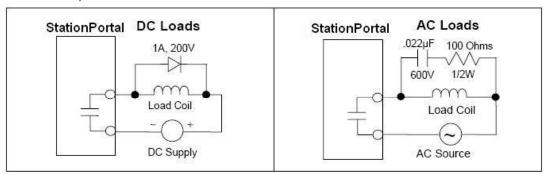
 5 to 30 VDC
 1 Amp
 0.5 Amp
 700,000

 5 to 30 VDC
 0.1 Amp
 0.05 Amp
 1,000,000

\* Assumes a 7ms L/R time constant (DC inductive load) or Cos  $\varphi$  > 0.4 (AC inductive load)

#### **Suppression Circuits**

Relay contact life, when switching inductive loads, will approach resistive load contact life if suppression circuits are used. Examples of typical suppression circuits for AC and DC loads are shown below. The 1A, 200V diode shown in the DC load typical suppression example is an industry standard 1N4935. The resistor and capacitor shown for AC load suppression are standard components, available from most electronics distributors.



## Horn

The StationPortal horn outputs 90dB<sup>1</sup>.

## **Configuration Reset Pushbutton**

The Reset push button is used to restore the factory configuration settings. For details, refer to the "Default Settings" section on page 22.

To access the Reset pushbutton, press the Reset pushbutton for 3 seconds.

#### Lamps and Lenses

The StationPortal includes three lamps. Each lamp is individually configurable for one of three states – off, on, or blinking.

All lens covers are interchangeable and can be removed by turning them counterclockwise.

#### **Pushbutton**

The StationPortal provides an integrated momentary push-button for use in your applications.

#### Changeable Labels

There are slots for labels below the Right light indicator, Left light indicator, and Pushbutton. You can change the labels for the Right and Left indicator lights and the pushbutton. The dimensions of the label are 33.78 mm x 11.99 mm x 0.40 mm (L x W x D). To insert the label in the given slot, align the label to the edges of the slot and slide it inside the slot.

#### Status Light

A status LED on the bottom of the unit indicates processor activity. This LED flashes during the normal operation of the unit.

<sup>&</sup>lt;sup>1</sup> Sound pressure level measured at the Station Portal unit.

# Hardware Configuration

The StationPortal's communications and operational parameters are configured using a Telnet connection.

## Accessing the Configuration Menu

To access the Configuration Menu, connect the StationPortal unit to the Ethernet LAN or to any personal computer (PC) using an Ethernet cable. Power up the StationPortal unit.

Open the "command prompt" window on PC by clicking on "*Start*  $\rightarrow$  *Run*. Type "*cmd*" in the dialog box.

Run	<u>?</u> ×	
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
Open:	Emd	
	OK Cancel Browse	
Start		

At the command prompt, type the following to access the configuration menu:

> telnet <IP address>

Example: > telnet 192.168.0.35

Where <*IP address*> is the IP address of the StationPortal unit. The Default IP address of StationPortal is 192.168.0.35.

	🗪 Command Prompt	
	Microsoft Windows XP [Version 5.1.2600] (C) Copuright 1985-2001 Microsoft Corp.	<u> </u>
	c:/>telnet 192.168.0.35_	
2		<b>_</b>

If you do not know the IP address, it can be reset to the default settings. For details, refer to the "Default Settings" section on page 22.

StationPortal Configuration Menu

🖏 Telnet 192.168.0.35		_ 🗆 ×
Statior Configura	Portal Ition Menu	-
1- IP Address	: 192.168. 0.35	
2- Subnet Mask	: 255.255.255. 0	
3- Default Gateway	: 192.168. Ø. 1	
4- Baud Rate	: 19200	
5- Parity	: None	
6- Set default stat	e for outputs	
7- Keep-alive time	: 3 Sec	
8- Gigabit Switch	: Yes	
L— Load last saved S— Save and Exit Q— Quit without sau		
Enter Your Choice	=	-

Option	Parameter	Description	Format
1	IP Address	Sets the IP address for Ethernet communications	xxx.xxx.xxx.xxx
2	Subnet Mask	Sets the subnet mask for Ethernet communications	xxx.xxx.xxx.xxx
3	Default Gateway	Sets the default gateway for Ethernet communications	XXX.XXX.XXX.XXX
4	Baud Rate	Selects the baud rate for serial communications	0=2400 1= 4800 2=9600 3=19,200
5	Parity	Selects the parity for serial communications	0=None 1=Odd 2=Even
6	Set default state for outputs	<ul> <li>Set the default states that the outputs will assume if the StationPortal is not in communication with a client.</li> <li>For example, a lack of communications could be caused by the Ethernet cable being removed from either end of an Ethernet connection or upon initial device power-up.</li> <li>Example: To select the following default states, enter 0123000. Right Light – OFF Left Light – OFF Left Light – OFF OUTPUT1 – OFF OUTPUT2 – OFF OUTPUT2 – OFF OUTPUT3 – OFF</li> <li>The factory default settings for StationPortal are to turn the Top Light ON and all other outputs (horn, outputs 1-3, etc) off. Illuminating a light when communication isn't present allows the end-user to distinguish between a loss of power and absence of communication.</li> <li>Note: Do not enter "2" as the default state of the Field outputs because they do not support Flash operation.</li> <li>Note: While in this state, it is expected that clients will periodically try to re-establish communication with StationPortal. If communication can be established, the user's application will once again be able to drive outputs. However, the default conditions will perisst until the application does so.</li> <li>Note: If the user has configured the default output state to "Hold last state" and unit is power cycled, the Outputs will be driven to "Off" state.</li> <li>Note: If the user changes the default state of the output, the new values applies when the unit is power cycled or loss of communication occurred.</li> </ul>	0=Off 1=On 2=Flash 3=Hold Last State

# **Configuration Parameters**

Option	Parameter	Description	Format
7	Keep-alive time (seconds)	<ul> <li>Specifies the interval (in seconds) that StationPortal waits before sending a keep-alive probe message across an idle TCP connection.</li> <li>Note: StationPortal will send keep-alive probe messages if there is no activity on the network for the time period specified by this parameter. If there is no response to its first keep-alive probe message, StationPortal will send subsequent keep-alive probe messages every 1 second. StationPortal will send a maximum of eight keep-alive probe messages on an idle network after which it will close its TCP ports.</li> <li>Note: A value of 0 indicates that keep-alive messages are disabled. In such cases, StationPortal will not be able to detect all communication losses. If communication loss isn't properly detected, the client may be unable to reconnect to StationPortal. Thus, we recommend that a non-zero value</li> </ul>	0 to 65535
8	Gigabit Switch	be specified.       0=No         Specifies whether StationPortal is connected to a Gigabit Switch / Controller or 10/100 Mbps switch / controller       0=No         Note:       When StationPortal is connected to a 10/100 Mbps switch / controller or to a Gigabit switch with Auto-negotiation mode disabled, this parameter should be set to "No". This parameter should be set to "Yes" only when StationPortal is connected to a Gigabit switch / controller with Auto- negotiation mode enabled.	
L	Load last saved configuration	Reverts to the previously saved (using the "Save and Exit command") configuration settings.       "L" or 'l' (lower-case L)         Note:       StationPortal maintains a copy of only the most recently saved configuration that is used for current operation. As a result, this option cannot be used to revert to an earlier configuration.       "L" or 'l' (lower-case L)	
S	Save and Exit	Save the changes made to the configuration settings as the current "S" or "s" operational settings and exits the Configuration Menu.	
Q	Quit without Save	Exits the configuration menu without saving changes made to the configuration settings.	"Q" or "q"

## StationPortal Device Driver

A native CIMPLICITY device communication interface is available for the StationPortal. This software can be ordered on CD as IC647NSD000.

# Error Handling

The following table identifies possible causes and resulting StationPortal behavior for various error conditions.

|--|

Communication Errors		
Communication not established	Unit Powered up; communication has not yet been established.	The user-defined default output state values are asserted. These
Logical Loss	Loss during normal communication.	values are defined via telnet as
	Loss during startup.	described in the "Configuration Parameters" section on page 14.
	Client has closed one or both of its TCP connections to StationPortal.	
Physical Loss	Loss of carrier signal on the RJ-45 connector.	

#### System Critical Errors

When the StationPortal encounters this type of error, it displays a two-digit blink code on the Top light and stops communicating with the client. Unless stated otherwise, the values of other outputs are determined by the user-defined default configuration.

**Note:** The displayed blink codes represent two digits as explained in the entries that follow. A blink is accomplished by first illuminating the light for 500ms and then turning the light off for another 500ms. If the horn is configured for "blink/beep" state, it will sound as the Top light is on and be silent while the Top light is off.

		1
EEPROM read error	Failure reading configuration settings from the EEPROM.	<ul> <li>Blink Code "11"</li> <li>Blink the Top LED once ("1").</li> <li>Wait for 2sec (Gap between "1" and "1").</li> <li>Blink the Top LED once ("1").</li> <li>Wait for 5sec (Gap between error codes).</li> <li>Repeat the above four steps.</li> <li>Drive outputs to "off" (except Top light "On").</li> </ul>
EEPROM Write Error	When processor tries to write onto EEPROM during configuration settings.	<ul> <li>Blink Code "12"</li> <li>Blink the Top LED once ("1").</li> <li>Wait for 2sec (Gap between "1" and "2").</li> <li>Blink the Top LED twice ("2").</li> <li>Wait for 5sec (Gap between error codes).</li> <li>Repeat the above four steps.</li> </ul>

Error	Possible Causes	Station Portal Behavior
Serial Transmit Buffer Overflow	When the serial data rate received from the client application is faster than device transmit rate.	<ul> <li>Blink code "21"</li> <li>Blink the Top LED twice ("2")</li> <li>Wait for 2sec (Gap between "2" and "1").</li> <li>Blink the Top LED once ("1").</li> <li>Wait for 5sec (Gap between error codes).</li> <li>Repeat the above four steps.</li> </ul>
Serial Receive Buffer Overflow	When the serial data rate received from serial input device is faster than device transmit rate to the client application.	<ul> <li>Blink code "22"</li> <li>Blink the Top LED twice ("2").</li> <li>Wait for 2sec (Gap between "2" and "2").</li> <li>Blink the Top LED twice ("2").</li> <li>Wait for 5sec (Gap between error codes)</li> <li>Repeat the above four steps.</li> </ul>
Invalid OP Code	When processor fetches invalid OP code.	<ul><li>No Blink code.</li><li>System will reset and go to default state.</li></ul>
Watchdog reset	When watchdog timer elapses.	<ul><li>No Blink code.</li><li>System will reset and go to default state.</li></ul>

Problem	Suggested Remedy
StationPortal unit does not respond to commands from the client	Check StationPortal unit is powered on and "Status" LED is blinking.
	Check Ethernet cable is connected properly.
	Check IP address, Subnet mask and Gateway address are set properly from the hardware configuration menu.
	Check IP address is set correctly in the device properties in C client's project.
	Check each StationPortal unit has unique IP address set in the hardware configuration menu.
Serial data is not received or transmitted in the client's application	Check StationPortal unit is powered on and "Status" LED is blinking.
	Serial communication cable is connected properly with Null modem configuration.
	Check baud rate and parity are set correctly in the hardware configuration menu.
	Check baud rate and parity are set correctly in the client's application.
Inputs are not received correctly in the client's application	Check StationPortal unit is powered on and "Status" LED is blinking.
	Input cable is connected properly with correct pin sequence.
Outputs are not received correctly in the client's application	Check StationPortal unit is powered on and "Status" LED is blinking.
	Output cable is connected properly with correct pin sequence.

# StationPortal Specifications

See page 21 for a list of agency approvals for environmental service and safety.

## Physical

Enclosure dimensions	Height: 332.5 mm, Width: 162 mm, Depth: 73 mm
Weight	1 Kg

## **AC Power Requirements**

Nominal Rated Voltage	120/240 VAC
AC Input Voltage Range	100 to 240 VAC, 50–60 Hz
Input Power (Maximum with Full Load)	32 Watts maximum
Inrush Current	20A at 115VAC, 40A at 230VAC for 2.5ms maximum*
Isolation (input (L,N) to Earth):	250 VAC continuous; 1500 VAC for 1 minute

\* The Inrush Current specification is given as a guide for sizing the external power source for the StationPortal. Peak inrush current may be higher for shorter durations.

## Functional

Serial Communication	RS-232	
Port	EIA232C, DB-9 (Male)	
Speed	2400 bps / 4800 bps / 9600 bps / 19200 bps	
Parity	Even / Odd / None	
Stop Bits	1 (not configurable)	
Flow Control	None (not configurable)	
Mounting hardware	#4-40 screw	
Ethernet communication	IEEE 802.3 protocol	
	10 BaseT/100 Base TX	
	Auto-negotiate	
	Full or half duplex	
	RJ45 connectors	
	Two status LEDs	
	Maximum cable length: 100m	
Digital Inputs	Three digital inputs with auxiliary power source of 300mA @ 24V	
Digital Outputs	Three dry contact relay type digital outputs. An external voltage source is required	
Pushbutton	Momentary pushbutton, over 2 million operations	
Indicator lights	Three indicator lights with changeable lens covers	
Horn	90dB sound level	

## Environmental

Vibration	1G @40-150Hz, 0.012in p-p @10-40Hz
Shock	15G, 11ms
Operating Temperature*	0°C to 60C° (32°F to 140°F)
Storage Temperature	-30°C to +80°C (-22°F to 176°F)
Humidity	5% to 95%, non-condensing
IP Rating	IP20

\* Rated temperature limits refer to the ambient air temperature immediately surrounding (within 3" - 7.6 cm) the StationPortal where it is mounted. Provisions for remaining within the stated limits must be considered where additional external thermal loads are imposed on the StationPortal. These could include large heat producing motor drives or power supplies in the same cabinet.

# Agency Approvals

Model number: IC760STA100

The StationPortal is intended to be used as Information Technology Equipment Including Electrical Business Equipment (NWGQ, NWGQ7) and when properly installed shall comply with the following agency approvals

Description	Agency Standard or Marking	Comments
North American Safety for Information Technology Equipment	cULus	Certification by Underwriter's Laboratories to UL60950-1: 1st Edition (2007-10-31) standard and equivalent CAN/CSA-C22.2 No. 60950-1-07 (March 2007) standard
EMC Directive and Low Voltage Directive	CE	Compliance to harmonized standards, EN55024: 1998 +A1: 2001 +A2:2003 and EN60950-1: 2006, in accordance with European Directives; Refer to Declaration of Conformity found on the Support website.

The agency approvals listed above and on the Declaration of Conformities are believed to be accurate; however, a product's agency approvals should be verified by the marking on the unit itself.

# **Default Settings**

## Factory Default Settings

To restore the StationPortal configuration to the factory default settings, press the Reset pushbutton for 3 seconds.

Option	Setting	Factory Default Value
1	Ethernet IP address	192.168.0.35
2	Ethernet subnet mask	255.255.255.0
3	Ethernet default gateway	192.168.0.1
4	Serial baud rate	19200
5	Parity for serial communications	None
6	Default States for Outputs (Right Light, Left Light, Top Light, Horn, and Outputs O1, O2 and O3)	0010000 (All outputs in "OFF" state except Top light "ON")
7	Keep-alive time	3 sec
8	Gigabit Switch	Yes

Power-On Values for above setting will be as per Last Saved values.

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