CFN Series

Profit Point PLUS Installation Manual

MDE-4299B

Computer Programs and Documentation

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Federal Communications Commission (FCC) Warning

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 not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Approvals

Gasboy, Greensboro, is an ISO 9001:2000 registered facility.

Underwriters Laboratories (UL):

UL File#	Products listed with UL
MH4314	All dispensers and self-contained pumping units
MH6418	Power operated Transfer Pump Models 25, 25C, 26, 27, 28, 72, 72S, 72SP, 72X, 73 and 1820
MH7404	Hand operated Transfer Pump Models 1230 Series, 1243 Series, 1520 and 1720 Series
MH10581	Key control unit, Model GKE-B Series
	Card reader terminals, Models 1000, 1000P
	Site controller, Model 2000S CFN Series
	Data entry terminals, Model TPK-900 Series
	Fuel Point Reader System

New York City Fire Department (NYFD):

NYFD C of A #	Product
4823	9100A, 9140A, 9152A, 9153A, 9800A, 9840A, 9850A, 9852A, 9853A, 9140
4997	9822A, 9823A
5046	9100Q, 9140Q, 9152Q, 9153Q, 9800Q, 9840Q, 9852Q, 9853Q
5087	8753K, 8853K, 9153K, 9853K (restricted to diesel and non-retail gasoline sales)

California Air Resources Board (CARB):

Executive Order #	Product
G-70-52-AM	Balance Vapor Recovery
G-70-150-AE	VaporVac

National Conference of Weights and Measures (NCWM) - Certificate of Compliance (CoC):

Gasboy pumps and dispensers are evaluated by NCWM under the National Type Evaluation Program (NTEP). NCWM has issued the following CoC:

CoC#	Product	Model #	CoC#	Product	Model #	CoC#	Product	Model #
95-179A2	Dispenser	9100 Retail Series, 8700 Series, 9700 Series	91-019A2	Dispenser	9100 Commercial Series			
95-136A5	Dispenser	9800 Series	91-057A3	Controller	1000 Series FMS, 2000S-CFN Series			

Patents

Gasboy products are manufactured or sold under one or more of the following US patents:

Dispensers

5,257,720

Point of Sale/Back Office Equipment

D335,673

Additional US and foreign patents pending.

Trademarks

Non-registered trademarks

Atlas™
Consola™
Infinity™

Registered trademarks

ASTRA®
Fuel Point®
Gasboy®
Keytrol®
Slimline®

Additional US and foreign trademarks pending.

Other brand or product names shown may be trademarks or registered trademarks of their respective holders.

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1 – Introduction

Purpose

The Gasboy® Profit Point PLUS Installation Manual is provided to assist you in the installation of the Profit Point PLUS Point of Sale (POS) system with your Cash Flow Network (CFN) system. This manual should be supplied to the electrician prior to the installation of the conduit and wiring to ensure that your CFN system is installed properly. Faulty installations are the major cause of system malfunctions. The Profit Point PLUS system must be installed as described in this manual. Your CFN system must be installed in accordance with the appropriate CFN Installation Manual to ensure reliability and proper operation of your Gasboy CFN system. Read this entire manual before beginning the installation.

Gasboy provides a toll-free number (1-800-444-5529) for customers and installers who have queries pertaining to the installation.

Abbreviations and Acronyms

Term	Description
AC	Alternate Current
CAT	Customer Activated Terminals
CFN	Cash Flow Network
CPU	Central Processing Unit
DPT	Dispenser Payment Terminal
EIA	Electronics Industry Association
EMI	Electromagnetic Interference
ICR	Island Card Reader
PIN	Personal Identification Number
POS	Point of Sale
RFI	Radio Frequency Interference
SC	Site Controller

Warranty

For information on warranty, refer to MDE-4255 Gasboy's Warranty Policy Statement. If you have any warranty-related questions, contact Gasboy's Warranty Department at its Greensboro location.

System Overview

The Profit Point PLUS POS system is a PC-based POS terminal. It is connected to the Site Controller (SC) unit and functions as a part of your CFN microprocessor-based automated fueling system.

The system application determines the components required for the installation. Therefore, your CFN system may consist of several or all of the following components:

- Site Controller
- RS-485 Junction Box(es)
- Pump Control Unit(s)
- Island Card Reader(s) (ICRs)
- Island Receipt Printer(s)
- POS Console(s)
- Standalone Receipt Printer(s)
- Cash Drawer(s)
- Personal Identification Number (PIN) Pad(s)
- POS Distribution Box (D-Box)
- Speakers (built into the monitor)
- Scanner
- RS-485 to RS-232 Converter
- Data Terminal/Printer
- Modem
- Power Conditioner
- AC Surge Protector Outlet Strip

See "System Layout" on page 5 for a brief description of each component.

2 – Important Safety Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury if these safe service procedures are not followed.

Preliminary Precautions
You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage or pressures. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

Emergency Total Electrical Shut-Off
The first and most important information you must know is how to stop all fuel flow to the pump and island. Locate the switch or circuit breakers that shut-off all power to all fueling equipment, dispensing devices, and submerged turbine pumps (STPs).

WARNING

The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser.

This means that even if you activate these stops, fuel may continue to flow uncontrolled.

You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not only these cashier station "stops."

Total Electrical Shut-Off Before Access
Any procedure requiring access to electrical components or the electronics of the dispenser requires total electrical shut-off of that unit. Know the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gasboy equipment.

Evacuation, Barricading and Shut-Off
Any procedures requiring accessing the pump/dispenser or STPs requires the following three actions:

- An evacuation of all unauthorized persons and vehicles using safety tape, cones or barricades to the effected units.
- A total electrical shut-off of that unit.

Read the Manual
Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call a Gasboy Authorized Service Contractor or call the Gasboy Service Center at 1-800-444-5529. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

Follow the Regulations
There is applicable information in NFPA 30A; *Automotive and Marine Service Code*, NFPA 70; *National Electrical Code (NEC)*, OSHA regulations and federal, state, and local codes which must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties or affect the safe use and operation of the equipment.

Replacement Parts
Use only genuine Gasboy replacement parts and retrofit kits on your pump/dispenser. Using parts other than genuine Gasboy replacement parts could create a safety hazard and violate local regulations.

Safety Symbols and Warning Words

This section provides important information about warning symbols and boxes.

Alert Symbol

This safety alert symbol is used in this manual and on warning labels to alert you to a precaution which must be followed to prevent potential personal safety hazards. Obey safety directives that follow this symbol to avoid possible injury or death.

Signal Words
These signal words used in this manual and on warning labels tell you the seriousness of particular safety hazards. The precautions that follow must be followed to prevent death, injury or damage to the equipment

DANGER - This signal word is used to alert you to a hazard to unsafe practice which will result in death or serious injury

WARNING - This alerts you to a hazard or unsafe practice that could result in death or serious injury.

CAUTION with Alert symbol - This signal word designates a hazard or unsafe practice which may result in minor injury.

CAUTION without Alert symbol - When used by itself, CAUTION designates a hazard or unsafe practice which may result in property or equipment damage.

Working With Fuels and Electrical Energy

Prevent Explosions and Fires
Fuels and their vapors will become explosive if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause explosive vapors in the vicinity of dispenser or island.

No Open Flames

Open flames from matches, lighters, welding torches or other sources can ignite fuels and their vapors.

No Sparks - No Smoking

Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapors. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuels and their vapors. After getting out of a vehicle, touch the metal of your vehicle to discharge any electrostatic charge before you approach the dispenser island.

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working with or around high voltages. This information is available from the American Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA tag out and lock out procedures. If you are not familiar with this requirement, refer to information in the service manual and OSHA documentation.

Working With Electricity Safely

Be sure to use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Be sure grounding connections are properly made. Make sure that sealing devices and compounds are in place. Be sure not to pinch wires when replacing covers. Follow OSHA Lock-Out and Tag-Out requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down.

Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Be sure to clean hands after handling equipment. Do not place any equipment in mouth.

⚠ WARNING

This area contains a chemical known to the State of California to cause cancer.

⚠ WARNING

This area contains a chemical known to the State of California to cause birth defects or other reproductive harm.

IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

Emergency First Aid

Informing Emergency Personnel

Compile the following information and inform emergency personnel:

- Location of accident (for example, address, front/back of building, and so on).
- Nature of accident (for example, possible heart attack, run over by car, burns, and so on).
- Age of victim (for example, baby, teenager, middle-age, elderly).
- Whether or not victim has received first aid (for example, stopped bleeding by pressure, and so on).
- Whether or not a victim has vomited (for example, if swallowed or inhaled something, and so on).

⚠ WARNING

Gasoline ingested may cause unconsciousness and burns to internal organs.
Do not induce vomiting.
Keep airway open.
Oxygen may be needed at scene.
Seek medical advice immediately.

⚠ WARNING

Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.
Keep airway open.
Seek medical advice immediately.

⚠ WARNING

Gasoline spilled in eyes may cause burns to eye tissue.
Irrigate eyes with water for approximately 15 minutes.
Seek medical advice immediately

⚠ WARNING

Gasoline spilled on skin may cause burns.
Wash area thoroughly with clear/water.
Seek medical advice immediately.

IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

Lockout/Tagout

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical or other energy, but does not cover electrical hazards. Reference Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

3 – System Layout

Purpose

The purpose of this section is as follows:

- It provides information to help plan the installation of Profit Point PLUS components within the CFN system.
- It covers the basic description, location, and environmental requirements of the Profit Point PLUS system. A dimensional drawing is included for components manufactured by Gasboy.
- It covers conduit requirements and gives conduit layout examples for the basic system configuration. Careful planning for the layout of the site helps eliminate possible problems with the startup of your system and ensures that there is continued, reliable system operation.

Profit Point PLUS Console

Description

⚠ CAUTION

Batteries are provided with the CFN III system. There is a risk of explosion if batteries are replaced by the incorrect type.

Dispose of used batteries according to the manufacturer's instructions.

The Profit Point PLUS console is used to initiate and monitor fuel and non-fuel retail (convenience) sales at the fuel island. The unit is controlled by a microprocessor and communicates to the SC through an RS-485 to RS-232 converter. The Profit Point PLUS console is connected to the POS high-speed port labeled Loop 3 on the SC III/SC III PLUS or the Console Loop on SC II.

Each Profit Point PLUS console can control up to 32 pumps or remote dispensers, although 16 pumps is the factory default.

- A 15 inch flat screen that is used to provide the operator with the current transaction information and pump status regarding the site.
  Note: The Profit Point PLUS console uses the Windows NT® screen saver. Set up the Windows NT screen saver to help prevent damage to the screen, which could result if the display is on the same screen for a long time.
- The keyboard that consists of 128 full-travel programmable keys, with 87 keys being the factory default.

- A magnetic stripe reader that allows you to accept credit, debit, and proprietary card purchases at the keyboard.
- Speakers that are in the monitor are used to provide audio feedback to the operator. For example, when a sale becomes payable or a pump is taken off-hook.
- A cash drawer that is used for the storage of cash at the site and a customer display that allows you to display console sales so that they are visible to the customer. The customer display is connected to the Profit Point PLUS system through the POS D-Box. The cash drawer is connected to the Profit Point PLUS system through the receipt printer.

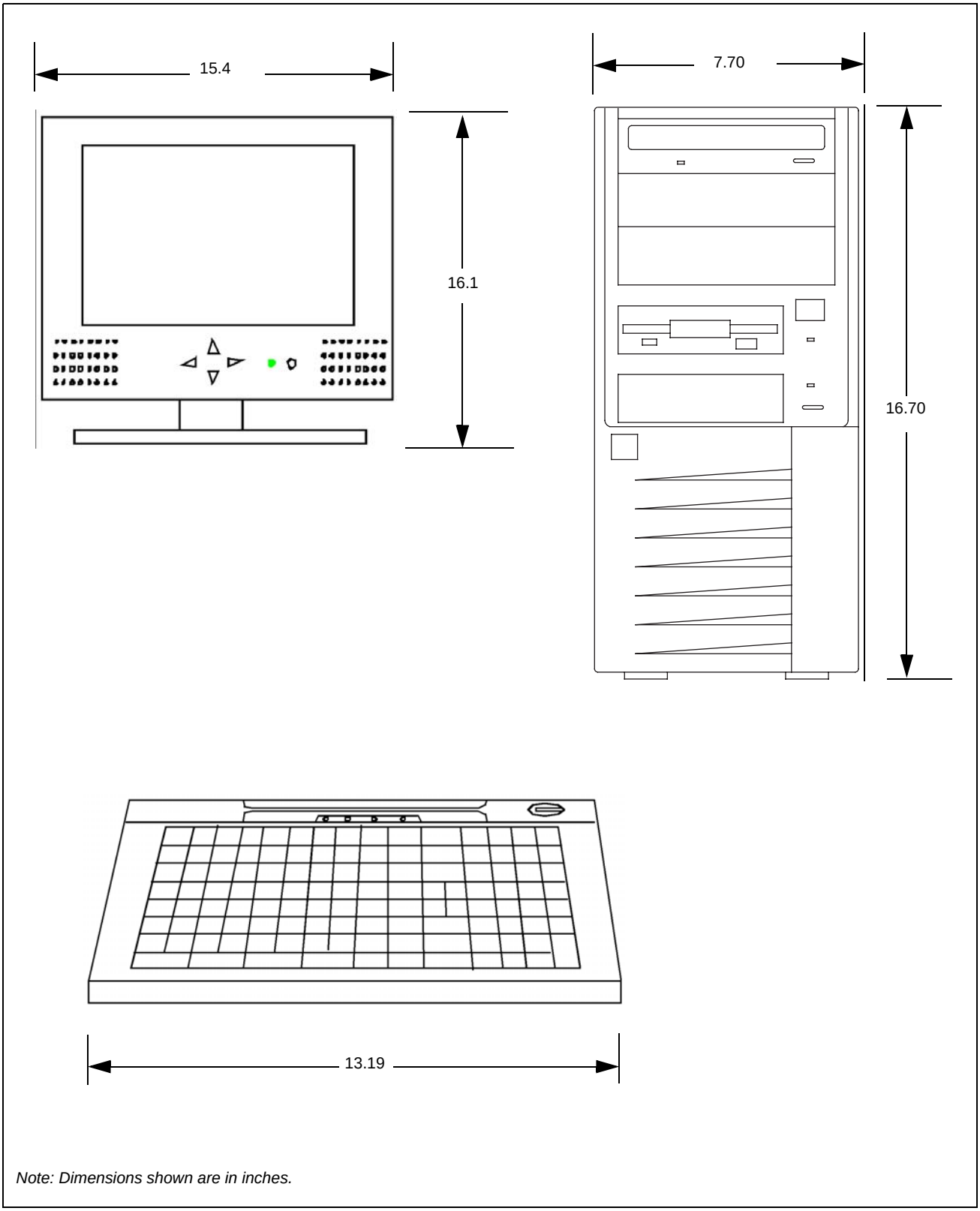
The options available for the Profit Point PLUS console include the following:

- A standalone receipt printer for generating receipts at the console.
- A PIN Pad for private, individual, and PIN entry.
- A scanner that provides quick and accurate entry of merchandise sales and also allows entry of new UPC codes by scanning, thus eliminating time-consuming key entry.
- A cash drawer.

Location

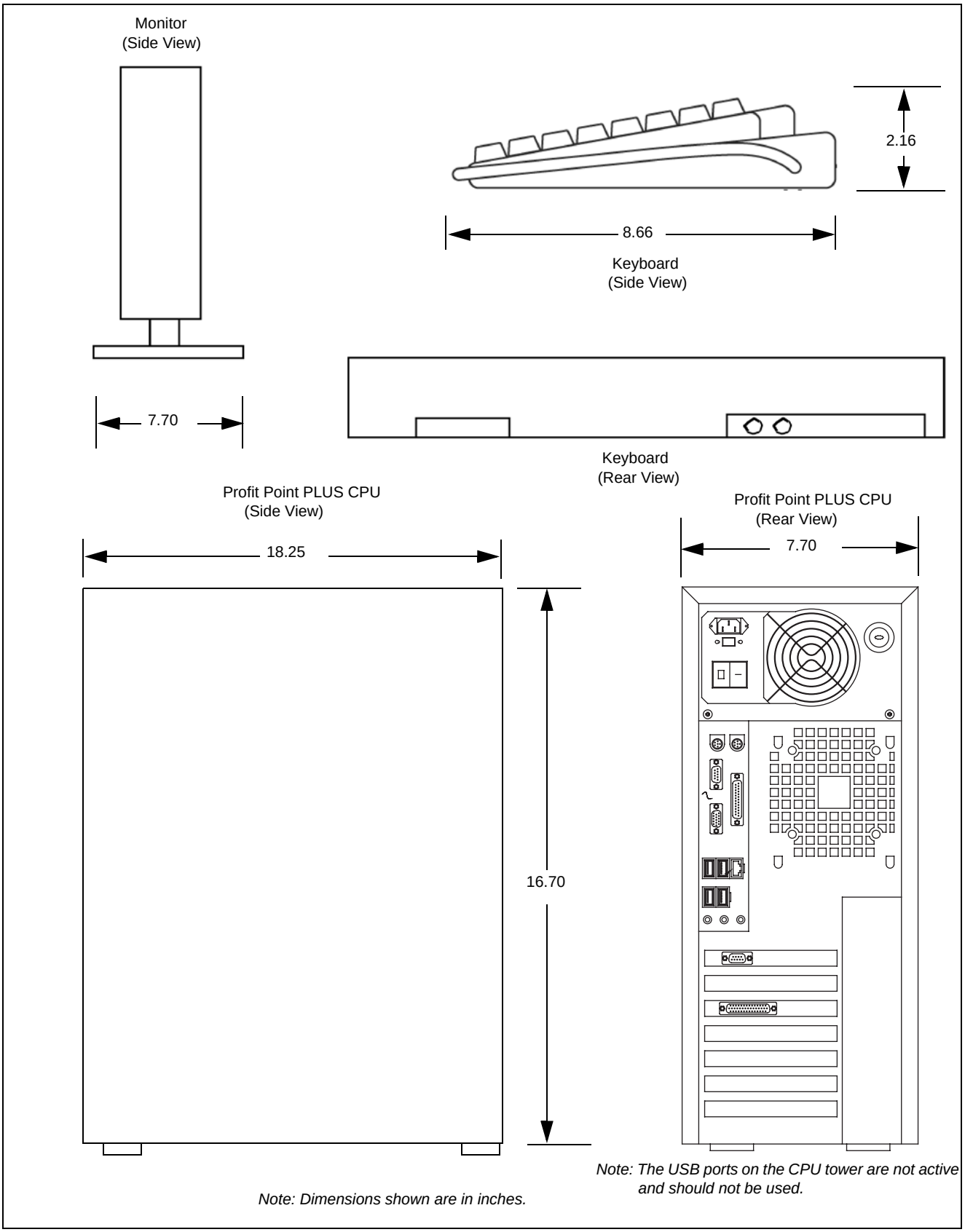
The Profit Point PLUS console and options should be located in an office-like environment. The unit must be located in an area protected from direct contact with the weather. Do not install it over a hazardous location. The unit is designed for an operating temperature of 40° F to 100° F with a relative humidity of 5% to 95% (non-condensing). The operating temperature range for the optional standalone receipt printer is 40° F to 104° F. While it is customary for the Profit Point PLUS console to be positioned close to the SC, you can locate it in a location up to 1000 feet away by using supplemental equipment. Refer to “Remote Console Wiring” on page 29 for details.

Figure 3-1: Profit Point PLUS Console - Front View



Note: Dimensions shown are in inches.

Figure 3-2: Profit Point PLUS Console - Other Views



Note: Dimensions shown are in inches.

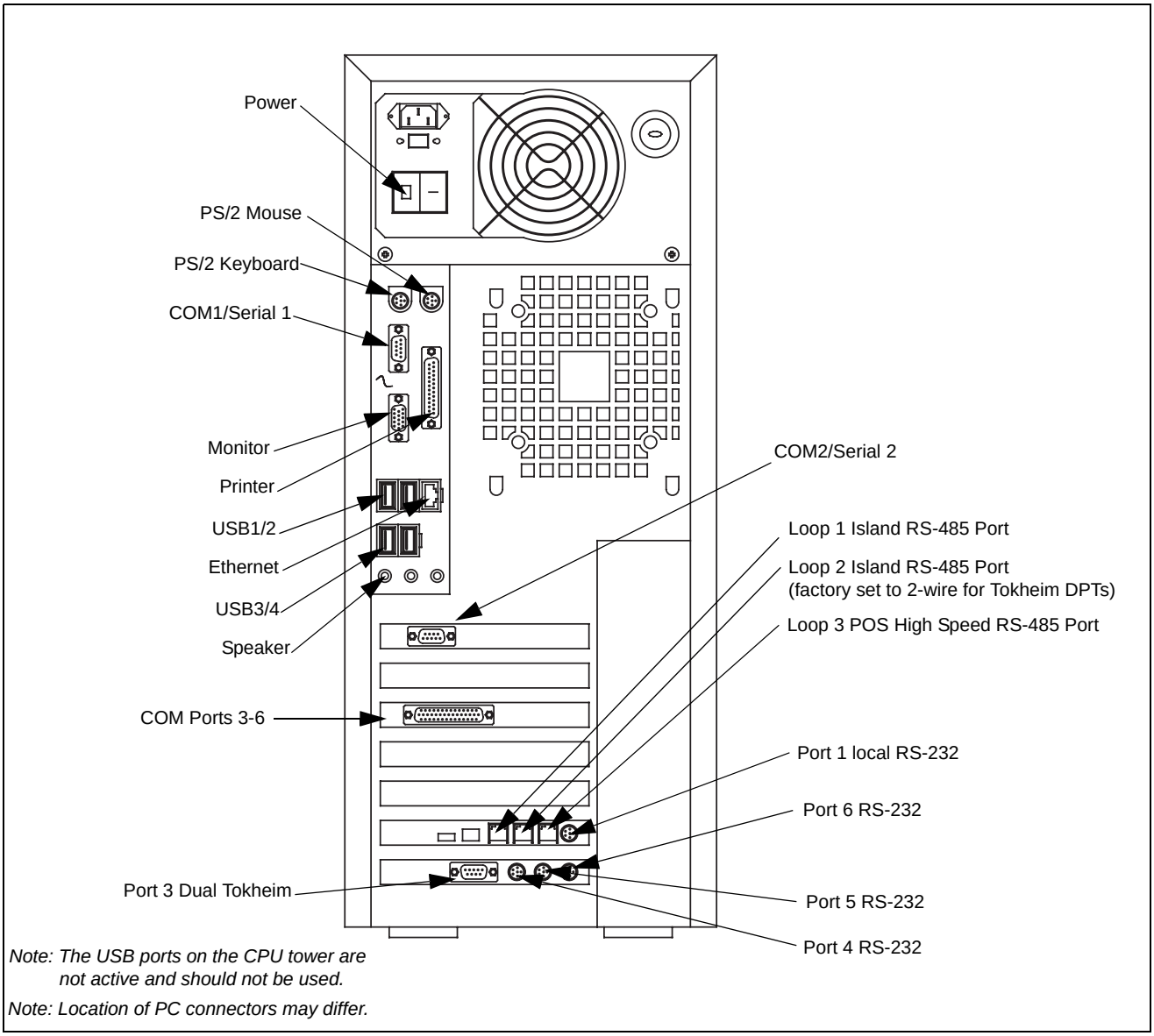
Note: The USB ports on the CPU tower are not active and should not be used.

SC III/POS Workstation

The SC is the heart of the CFN system at the fueling site. It controls and allows interaction between all the automated fueling equipment, including electronic pumps, pump control devices, card readers, registers, tank monitors, and terminals that are activated by a customer. It can also be used as a Profit Point PLUS POS workstation. For a more detailed description and installation instructions for the SC III, refer to MDE-4298 CFN Series Site Controller III Installation Manual.

The SC III/POS workstation is supplied with a standard 15 inch monitor and a Mid Tower PC. The dimensions for the 15 inch monitor are: 15.4” W x 16.1” H x 7.7” D. The dimensions for the Mid Tower PC are: 7” W x 16.75” H x 18.25” D.

Figure 3-3: Site Controller III PLUS/POS Workstation



Note: The USB ports on the CPU tower are not active and should not be used.

Note: Location of PC connectors may differ.

Profit Point PLUS Options

Each Profit Point PLUS system is supplied with a POS D-Box. Options for the Profit Point PLUS system are:

- Bar Code Scanner
- Standalone Receipt Printer
- PIN Pad

Figure 3-4: POS D-Box

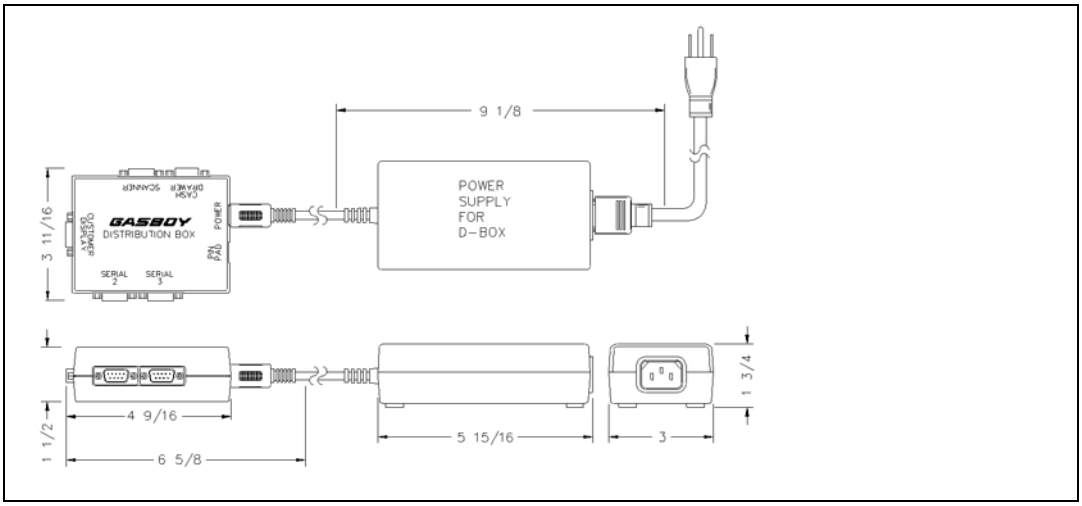


Figure 3-5: Bar Code Scanner

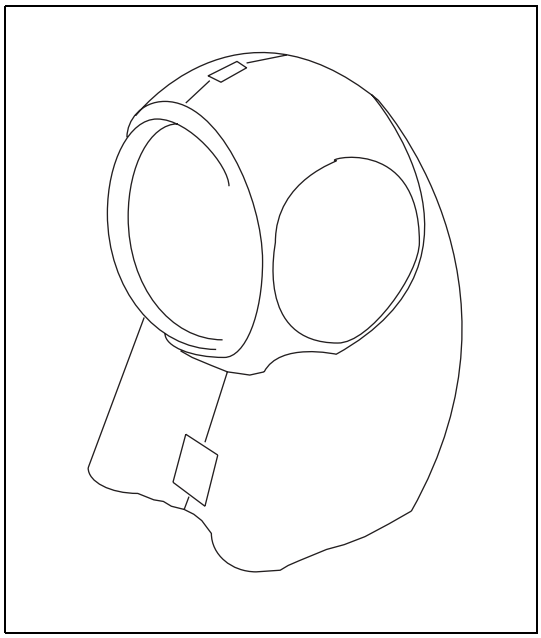


Figure 3-6: Standalone Receipt Printer

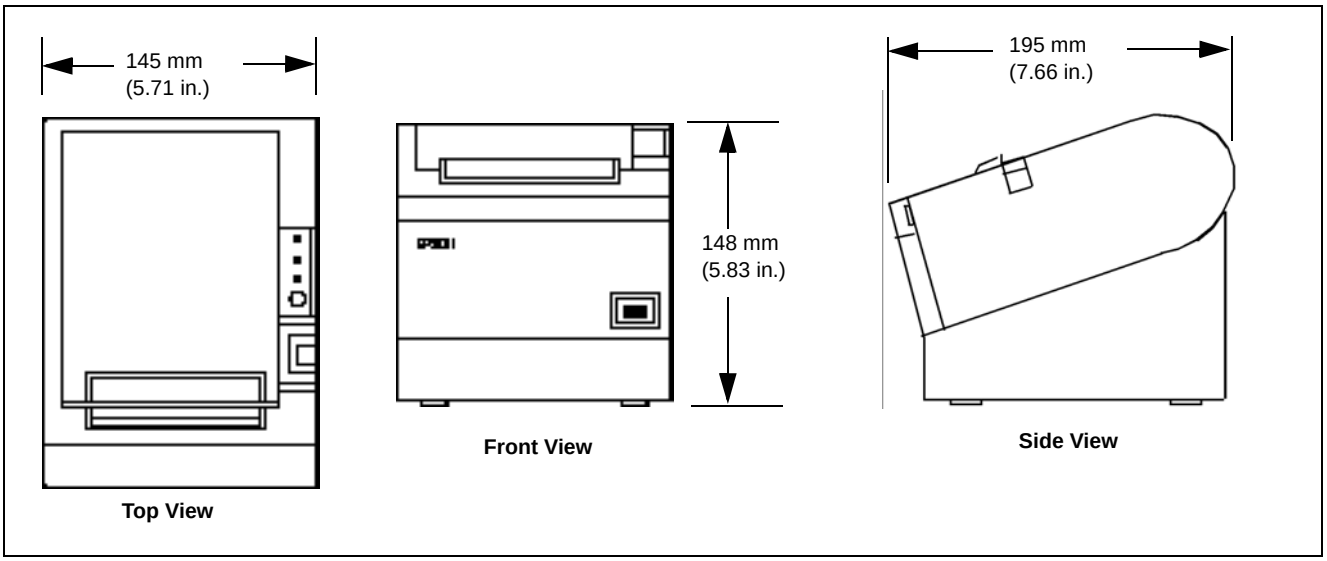


Figure 3-7: PIN Pad

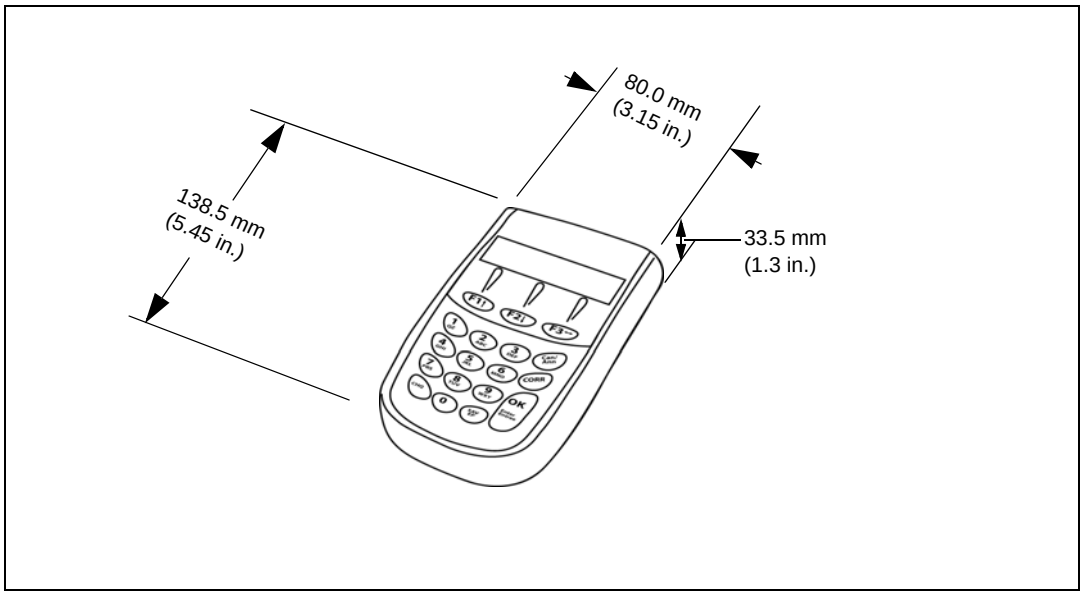
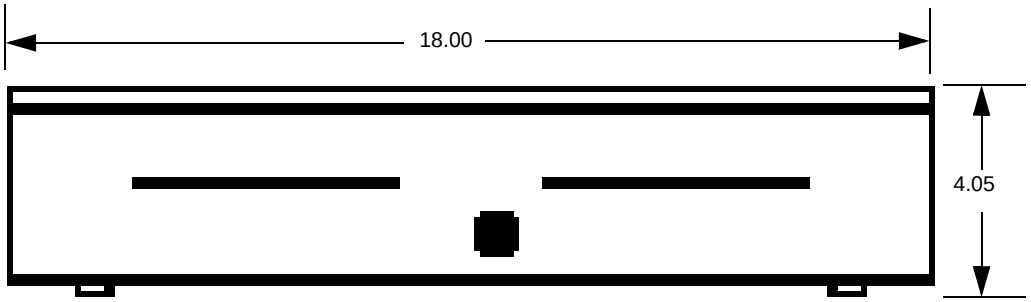
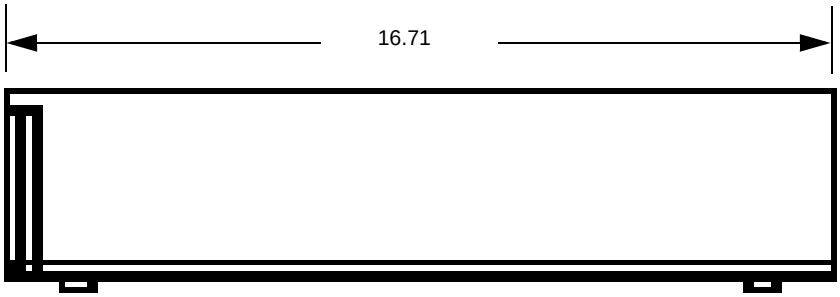


Figure 3-8: Cash Drawer



Front View

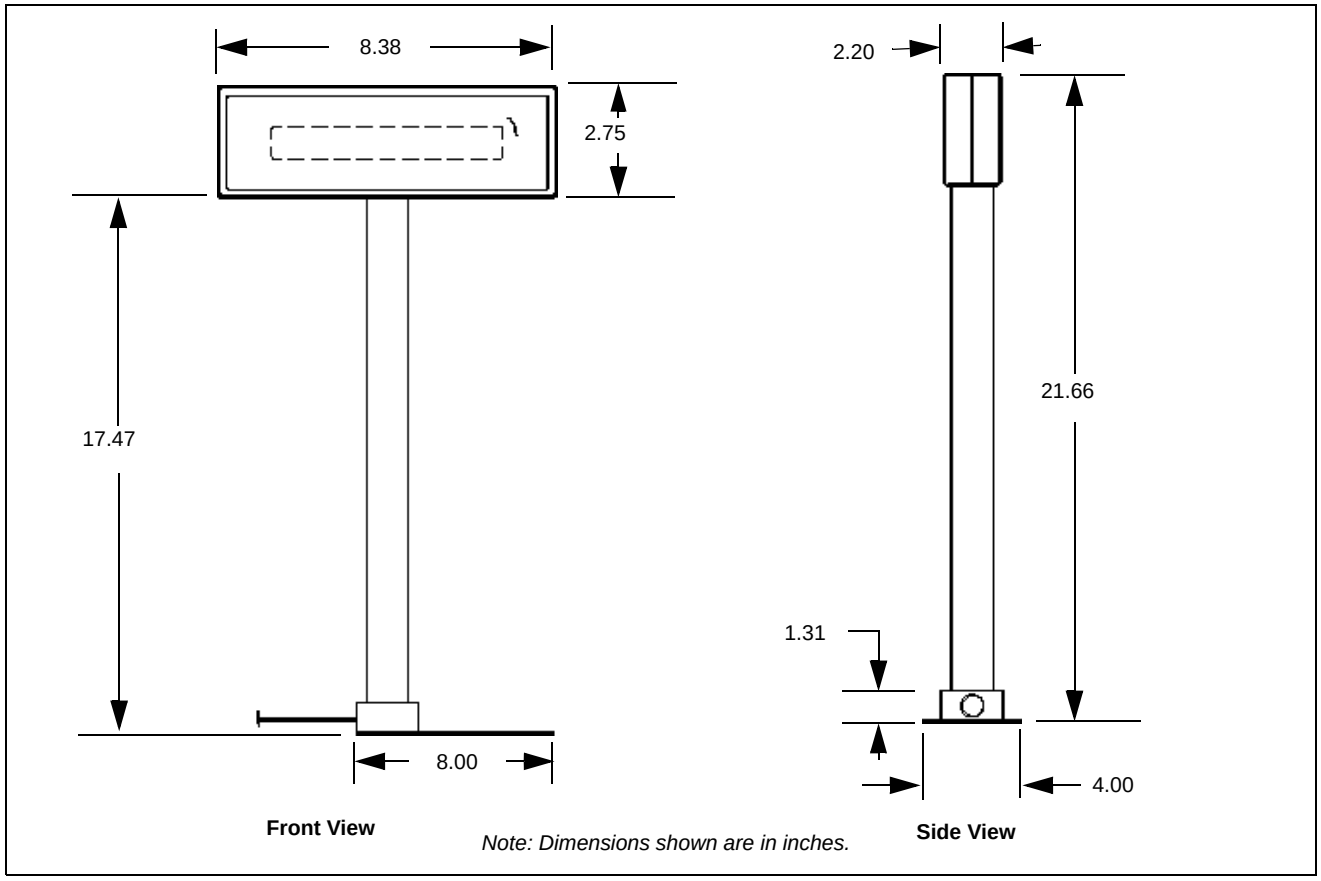


Side View

Note: Dimensions shown are in inches.

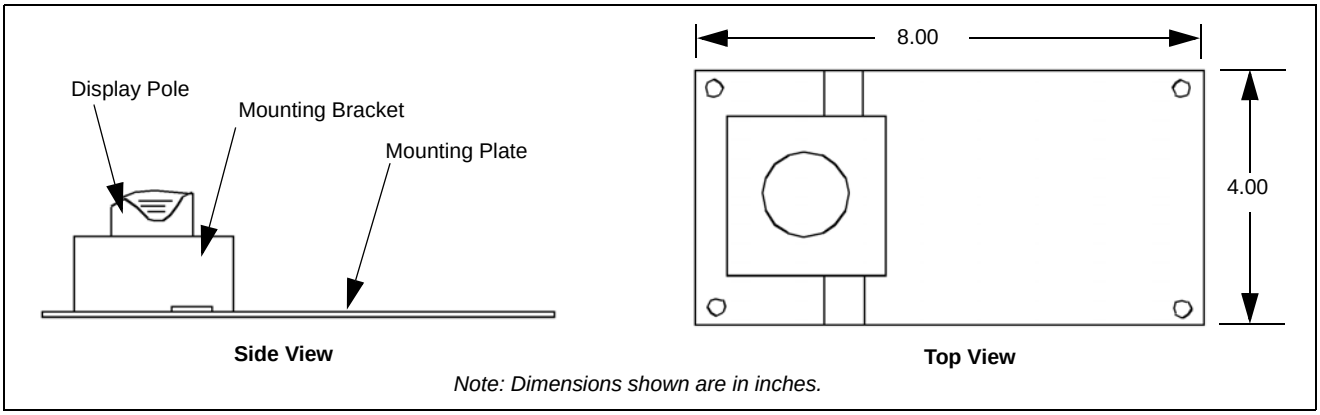
Installing the Customer Display

Figure 3-9: Customer Display



The Profit Point PLUS customer display comes with a mounting device consisting of a mounting bracket and mounting plate (Figure 3-10). The mounting plate can be placed under the cash drawer or the Profit Point PLUS Central Processing Unit (CPU).

Figure 3-10: Mounting Bracket and Mounting Plate



Epson Printer (PA03530003 and PA03750023) for Gasboy Profit Point PLUS System

PA03530003 Epson Printer

- Q13869-04 Serial Cable
- Q13869-03 Power Supply

Note: The parts listed above are included with the PA03750023 epson printer. They must be ordered separately for PA03530003.

Dipswitch Bank 1

SW	Function	ON	OFF
1	Data Error Response	Ignored	Prints?*
2	Receive Buffer Capacity	45 Bytes	4K bytes*
3	Handshaking	XON/OFF	DTR/DSR*
4	Dataword Length	7 Bits	8 Bits*
5	Parity Check	Enabled	Disabled*
6	Parity Selection	Even	ODD*
7 + 8	Baud Rate	See “Baud Rate Table” on page 15	See “Baud Rate Table” on page 15

** Required settings for Profit Point*

Dipswitch Bank 2

SW	Function	ON	OFF
1	Handshaking (busy condition)	Receiver Buffer	Offline or Receiver Buffer Full*
2	Reserved (do not change)	Never	Always*
3 + 4	Select Print Density	See Print Density Selection Table	See Print Density Selection Table
5	Reserved (do not change)	Never	Always*
6	Reserved (do not change)	Never	Always*
7	I/F Pin 6 Reset Signoff	Enabled	Disabled*
8	I/F PIN 25 Reset Signoff	Enabled	Disabled*

** Required settings for Profit Point*

Baud Rate Table

BPS	7	8
2400	ON	ON
4800	OFF	ON
9600	ON*	OFF*
19200	OFF	OFF

Print Density Selection Table

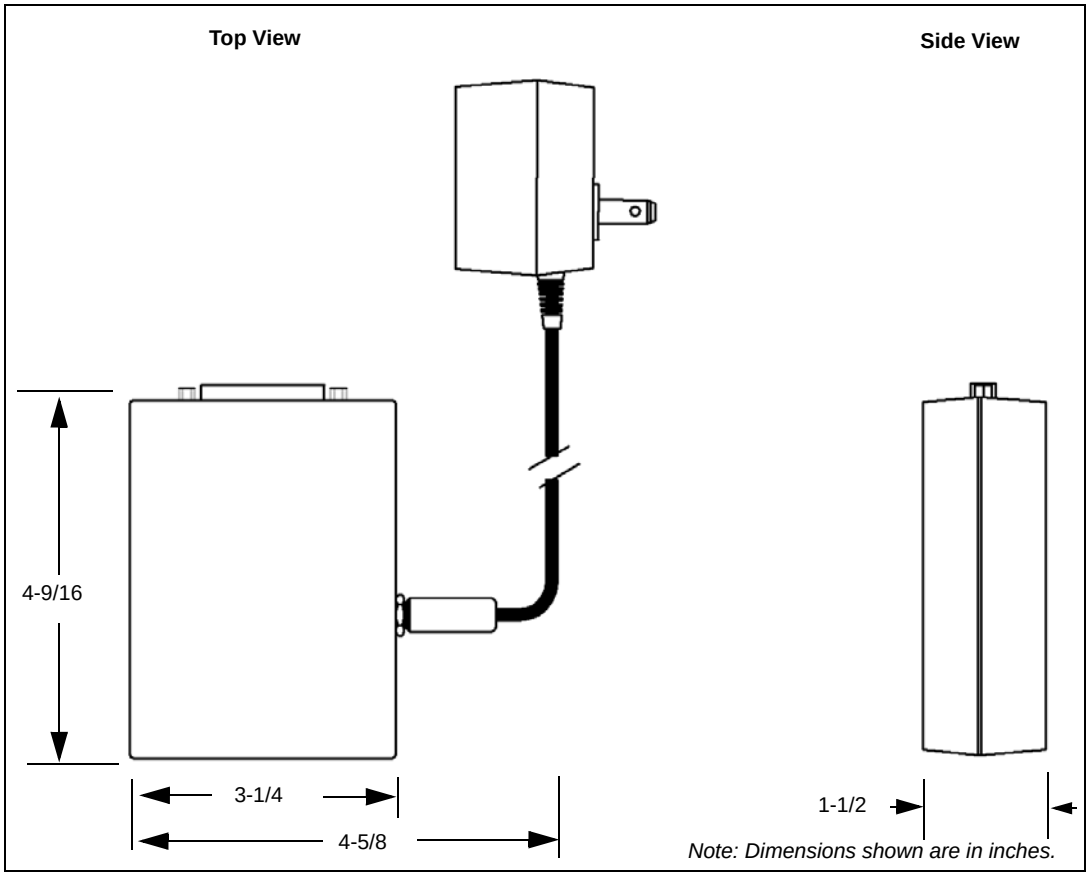
Print Density	SW3	SW4
1 - Low Power Consumption	ON	ON
2 - Normal	OFF*	OFF*
3 - Medium	ON	OFF
4 - Dark	OFF	ON

** Cable and Power Supply is automatically attached to all orders. The part numbers listed above are needed for replacement parts only.*

RS-485 to RS-232 Converter

The RS-485 to RS-232 converter (Figure 3-11) is required for communication between the SC and Profit Point PLUS console or the SC and tank monitor. It converts data from the RS-232 format to the RS-485 format and vice versa.

Figure 3-11: RS-485 to RS-232 Converter



AC Surge Protector Outlet Strip (Profit Point PLUS and Accessories Only)

Description

The AC Surge Protector Outlet Strip helps protect the Profit Point PLUS console and any equipment directly connected to the Profit Point PLUS system (receipt printer, RS-485 to RS-232 converter, POS D-Box, and possibly a scanner) from line surges while filtering away Electromagnetic Interference (EMI)/Radio Frequency Interference (RFI) noise. Depending on your configuration (number of workstations), you may need more than one outlet strip.

Location

The AC Surge Protector Outlet Strip should be located within 6 feet of the Profit Point PLUS system and plugged into an unconditioned outlet. It must be located in an area protected from direct contact with the weather. Do not install over a hazardous location.

Conduit Requirements

The conduit requirements for the Profit Point PLUS system are the same as those for the CFN system as a whole. Refer to the appropriate Site Controller Installation Manual for conduit requirements and layout guidelines and restrictions. Pay special attention to the conduit layout when installing remote Profit Point PLUS consoles.

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4 – System Components Wiring

General Wiring Precautions

The quality of electrical installation is a major factor in maintaining proper safety levels and providing trouble-free operation of your Gasboy CFN System. To ensure a quality installation, follow these rules:

- All wiring should be installed and used in accordance with all building/fire codes, all Federal, State, and Local codes, National Electrical Code NFPA 70, NFPA 30, and Automotive and Marine Service Station Code (NFPA 30A) codes and regulations. Canadian users must comply with the Canadian Electrical Code also. Wiring must conform to the wiring diagram supplied with the pump/remote dispenser.
- Use approved conduit and insulated gasoline and oil-resistant wiring of the appropriate size.
- Wire connections must be tightly spliced and secured with a wire nut. Seal the open end of the wire nut with an electrical tape.
- Install an emergency power cutoff switch. In addition to circuit breaker requirements of NFPA 70, NFPA 30, and NFPA 30A, a single control that simultaneously removes AC power from all site dispensing equipment is recommended. This control must be readily accessible, clearly labeled, and in accordance with all local codes.

  In a Fuel Management System (FMS) application, the **DISABLE PUMP** and **STOP** keys on the console and/or the optional **DISABLE PUMP** button on the ICR do not remove AC power from the equipment, and under certain conditions will not stop product flow.

  To provide the highest level of safety to you, your employees, and customers, we recommend that all employees be aware of the location and are trained on the procedure for turning off power to the entire system.

⚠ WARNING

To reduce the risk of electrical shock when servicing, turn off all power to the pump/remote dispenser. In submersible pump applications, turn off all power to the submersible pump and any other remote dispensers that use that submersible pump. AC power can feed back into a shutoff remote dispenser when dispensers share a common submersible pump or starter relay.

⚠ AVERTISSEMENT

Pour réduire le risque de choc électrique lors de l'entretien/révision, coupez totalement le courant à la pompe/distributeur. Dans les applications de pompe immersible, coupez totalement le courant à la pompe immersible et tous autres distributeurs qui utilisent la pompe immersible. Le courant alternatif peut alimenter de nouveau un distributeur à l'arrêt quand les distributeurs partagent une pompe immersible commune ou un relais de démarrage.

Note: Refer to the appropriate Site Controller Installation Manual for additional wiring considerations.

Power Requirements

System/Peripheral Equipment

AC power for CFN system components, data terminal, and external modem must be supplied from a separate, dedicated circuit breaker. No other equipment, including the system's pumps or remote dispensers may be powered from this breaker. Whenever possible, one breaker should be used to supply power to the CFN system components, data terminal, and modem. However, it is acceptable to supply power to different CFN system components and accessories from multiple breakers within the same breaker panel and same phase of power. When necessary, power for the data terminal or modem may be supplied from a separate, dedicated breaker located in a different breaker panel.

The system requires 120 VAC + 10% 47-63 Hz for power. A Profit Point PLUS console and its attached components (receipt printer, RS-485 to RS-232 converter, POS D-Box, and possibly a scanner) must draw power from an AC Surge Protector Outlet Strip that cannot be plugged into an optional power conditioner. Whenever possible, the AC Surge Protector Outlet Strip and optional power conditioner must draw their power from the same source.

Proper system grounding is an important aspect of system installation. As with the AC power, the grounds for all CFN system components should return to the same breaker panel. This helps in assuring a common ground throughout the system, that is necessary for protection of the RS-485 data loop circuitry. Grounds for all system devices should be wired to the breaker panel ground bus bar, which in turn should be grounded to a ground rod. A conduit ground does not provide a sufficient ground. It is recommended that neutral and ground bus bars be bonded together when it is not prohibited by local codes.

Wire Size

The AC wire size required for powering CFN system components must be 14 AWG or larger. This gauge of wire is sufficient for runs of up to 300 feet from the breaker panel to the system. Components with distances over 300 feet must use 12 AWG wire or larger. All wires should be stranded.

Specifications for the RS-485 data loop and RS-232 communication wire/cable size are available in Communication Requirements.

Communication Requirements

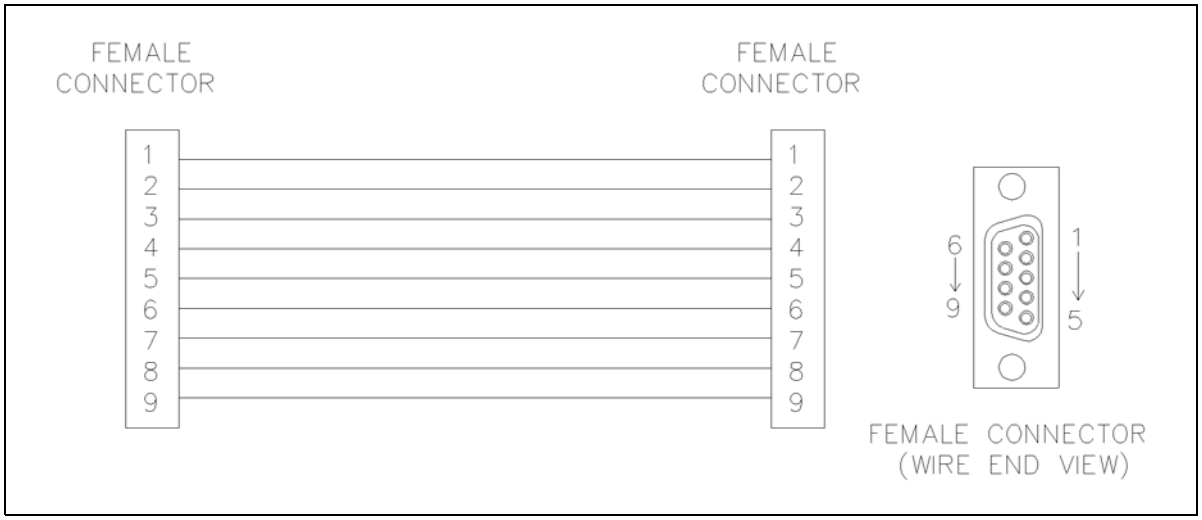
The CFN System utilizes RS-485 and RS-232 modes of communication for communicating to other CFN system components and peripheral equipment. Specific requirements for each of these modes of communication can be found in the appropriate Site Controller Installation Manual.

RS-485 wiring is used for communication between CFN system components. This communication takes place over the RS-485 modular cables provided with system components and the RS-485 data loop field wiring. These cables are not compatible with standard phone cables that are obtained from other sources.

Gasboy-supplied cables are 8 feet long. If you need to connect a CFN component with a modular connector (that is, console) more than 8 feet away from the system, you must use an RS-485 junction box to connect the device to the RS-485 communication wiring.

RS-232 Cable

Figure 4-1: RS-232 1:1 Cable (P/N C05991: 6 feet F/F) for Profit Point PLUS Console



System Components Wiring Diagrams

Figure 4-2 on page 23 and Figure 4-3 on page 24 illustrate the system components wiring for a Profit Point PLUS console.

Figure 4-4 on page 25 and Figure 4-5 on page 26 illustrate the system components wiring for an SC III/POS Workstation.

Figure 4-2: System Components Wiring Diagram - Profit Point PLUS Console (Part 1 of 2)

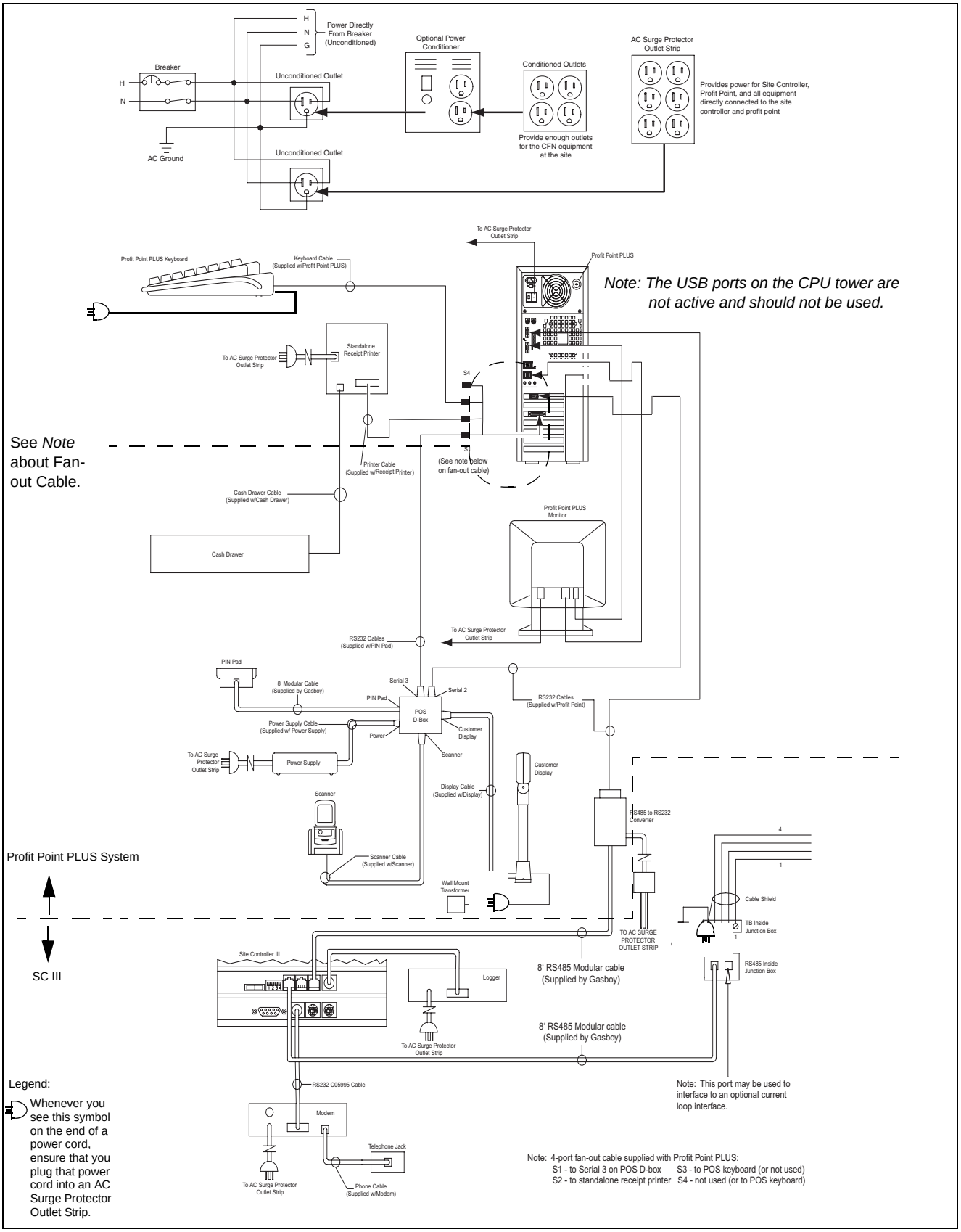
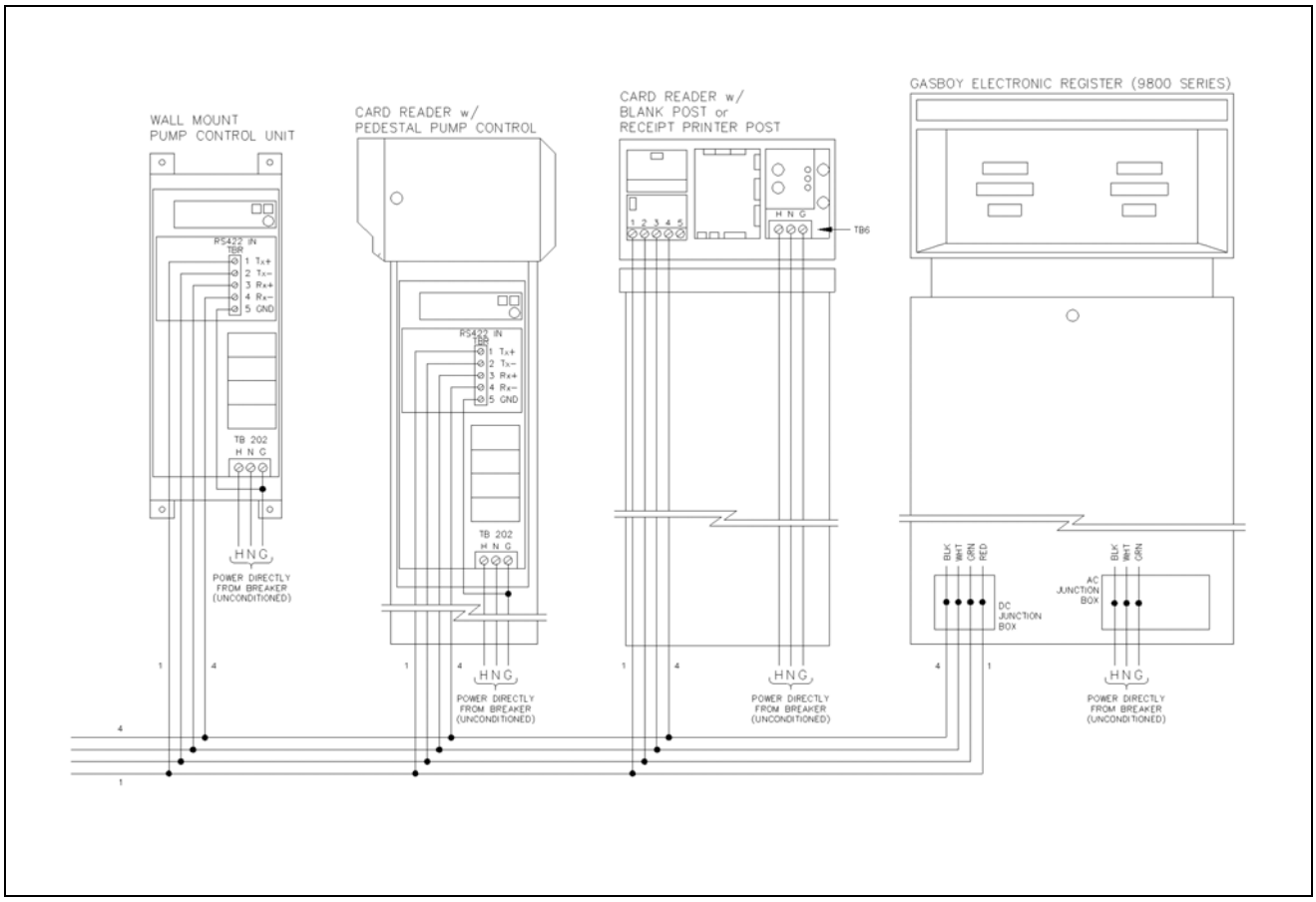


Figure 4-3: System Components Wiring Diagram (Part 2 of 2)



Notes:1) All wiring is to be installed and used in accordance with all building/fire codes, Federal, State, and Local codes, National Electrical Code NFPA 70, NFPA 30, and Automotive and Marine Service Station (NFPA 30A) codes and regulations. Canadian users must comply with the Canadian Electrical Code also. Wiring must conform to the wiring diagram supplied with the pump/remote dispenser.

2) All peripheral equipment connected to the RS-232 ports must be listed, have an Electronics Industry Association (EIA) standard RS-232 communications protocol and not be installed over a hazardous location.

3) This wiring diagram illustrates a CFN system and its components (except monitor, keyboard, and mouse) to indicate how they are interconnected. Components that are not a part of your system should be ignored.

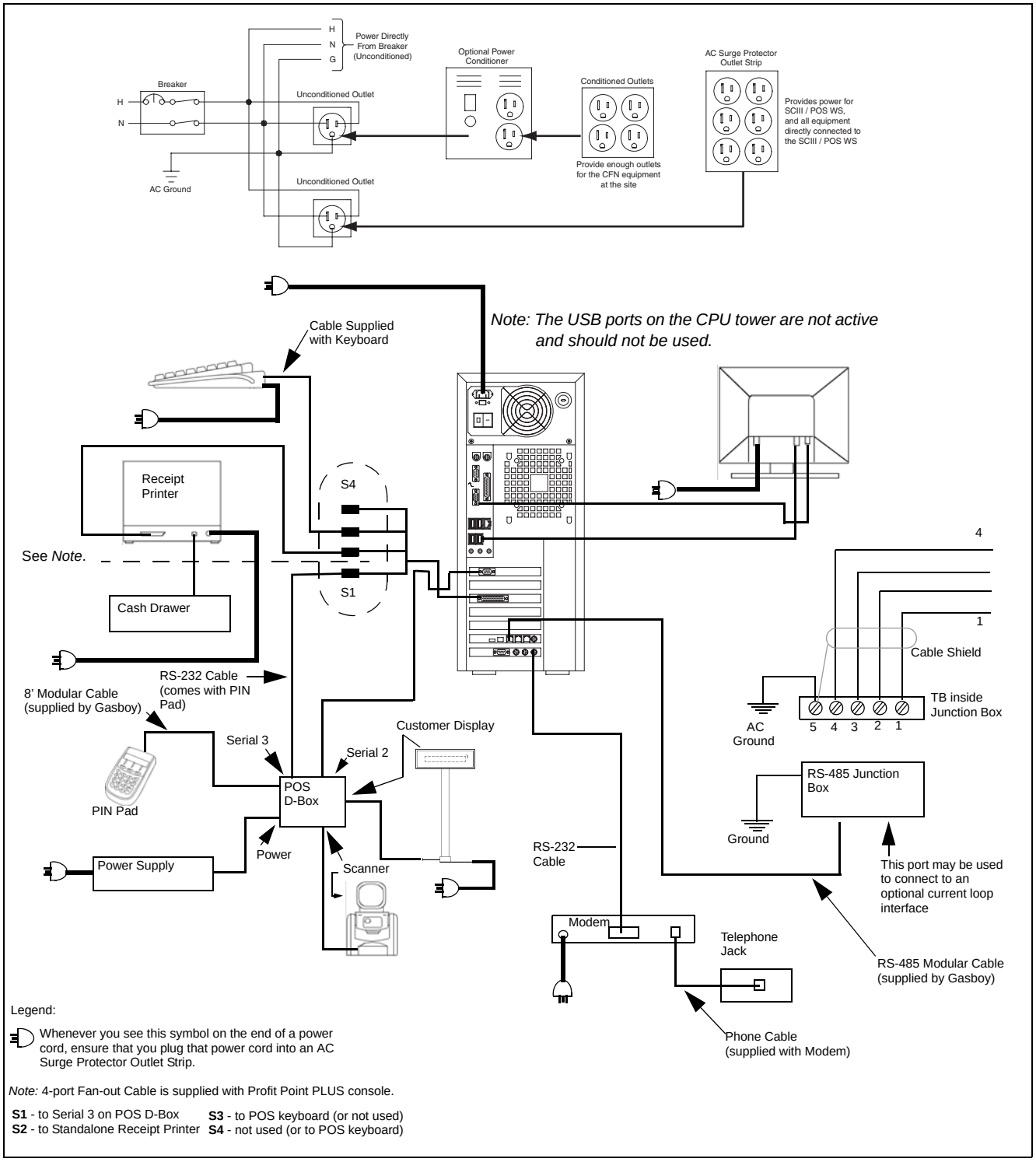
4) When using a shielded cable for the RS-485 communication wiring, ground the shield to the AC ground used for system components (on one end only).

5) Satellite Islanders are interchangeable with CFN ICRs in your configuration.

6) Consult the appropriate section of this manual for specific system installation requirements if connecting to:

- *Tokheim® Dispenser Payment Terminals (DPTs), refer to C09146 Pump Interface Manual*
- *Card Reader in Dispenser (CRIND®) devices, refer to MDE-4337 Gilbarco® CRIND PC Interface Manual*
- *Wayne® Customer Activated Terminals (CATs), refer to C35433 Wayne CAT PC Interface Manual*

Figure 4-4: System Components Wiring Diagram - SCIII/SCIII PLUS/POS WS (Part 1 of 2)



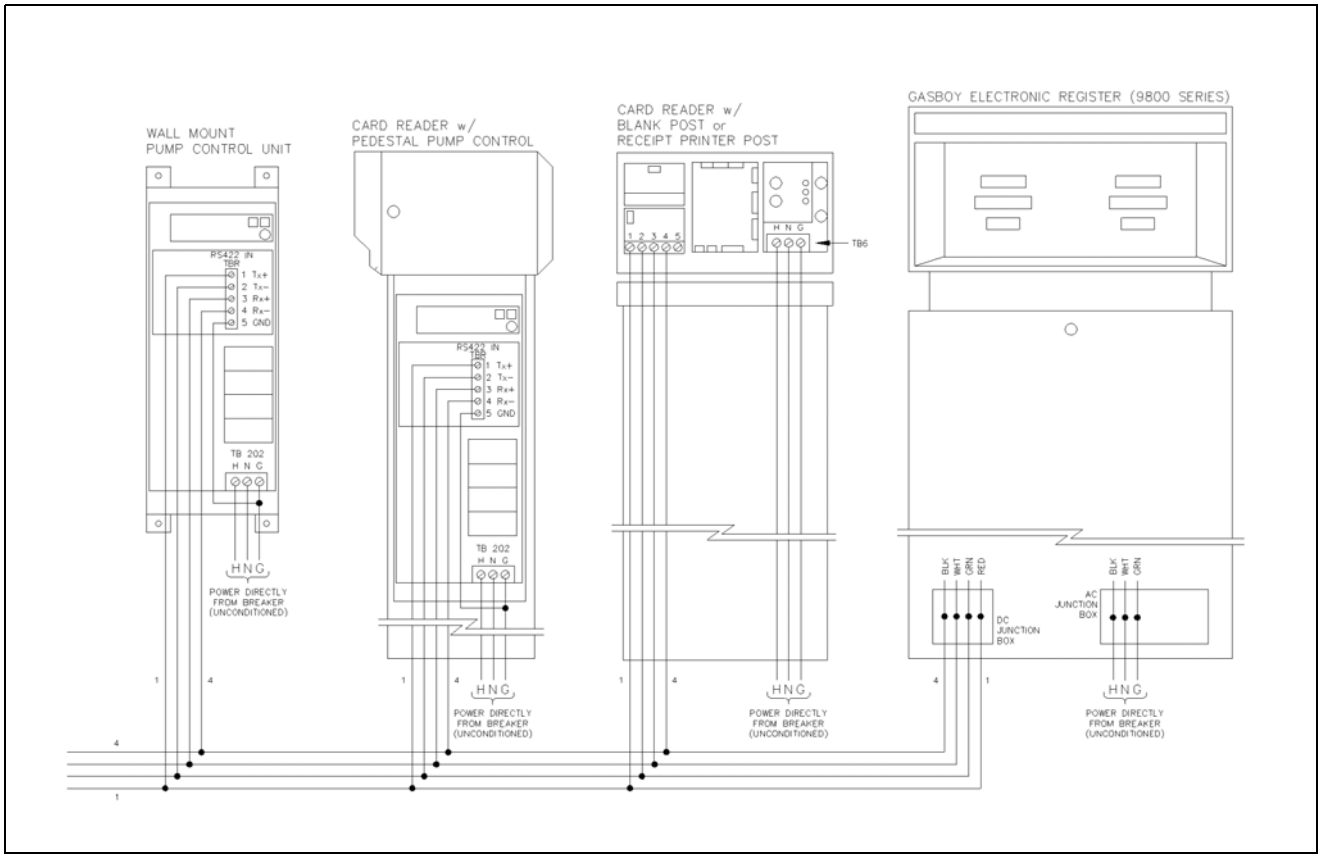
Legend:

Whenever you see this symbol on the end of a power cord, ensure that you plug that power cord into an AC Surge Protector Outlet Strip.

Note: 4-port Fan-out Cable is supplied with Profit Point PLUS console.

S1 - to Serial 3 on POS D-Box
S2 - to Standalone Receipt Printer
S3 - to POS keyboard (or not used)
S4 - not used (or to POS keyboard)

Figure 4-5: System Components Wiring Diagram - SCIII/SCIII PLUS/POS WS (Part 2 of 2)



Notes:1) All wiring is to be installed and used in accordance with all building/fire codes, Federal, State, and Local codes, National Electrical Code NFPA 70, NFPA 30, and Automotive and Marine Service Station (NFPA 30A) codes and regulations. Canadian users must comply with the Canadian Electrical Code also. Wiring must conform to the wiring diagram supplied with the pump/remote dispenser.

2) All peripheral equipment connected to the RS-232 ports must be listed, have an EIA standard RS-232 communications protocol and not be installed over a hazardous location.

3) This wiring diagram illustrates a CFN System and its components (except monitor, keyboard, and mouse) to indicate how they are interconnected. Components that are not a part of your system should be ignored.

4) When using a shielded cable for the RS-485 communication wiring, ground the shield to the AC ground used for system components (on one end only).

5) Satellite Islanders are interchangeable with CFN ICRs in your configuration.

6) Consult the appropriate section of this manual for specific system installation requirements if connecting to:

- *Tokheim DPTs, refer to C09146 Pump Interface Manual*
- *CRIND devices, refer to MDE-4337 Gilbarco CRIND PC Interface Manual*
- *Wayne CATs, refer to C35433 Wayne CAT PC Interface Manual*

Profit Point PLUS POS Keyboard Wiring

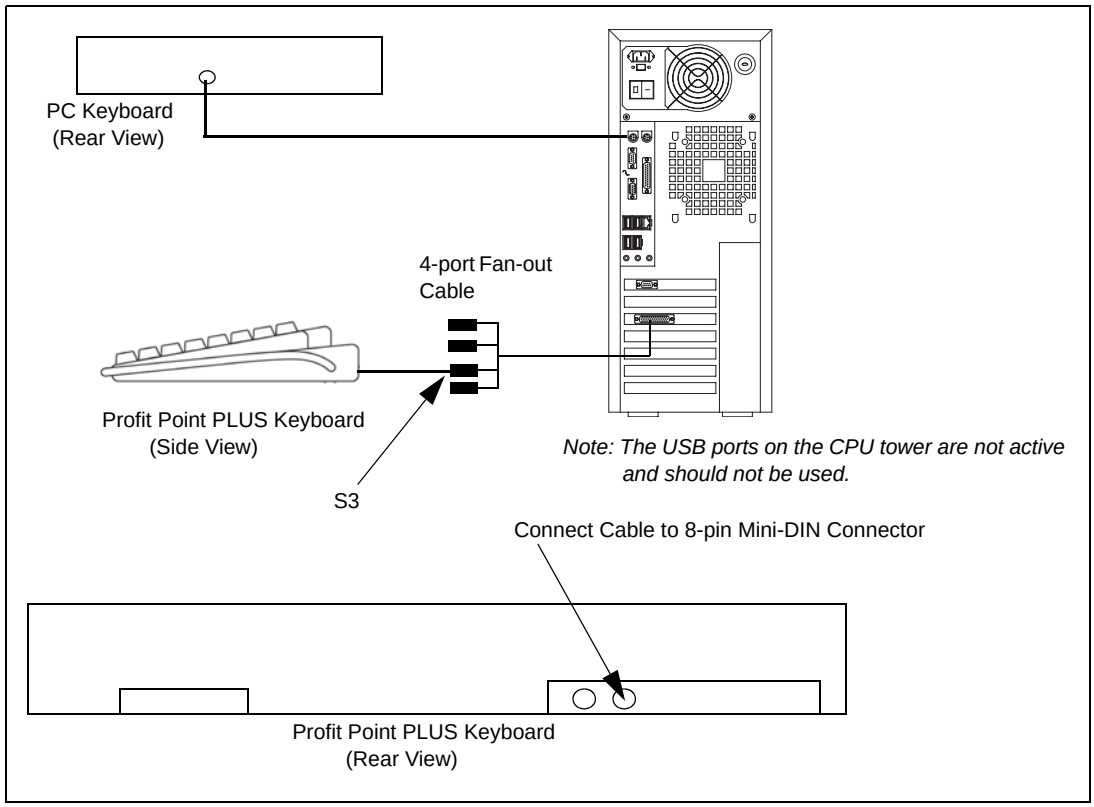
There are two methods for wiring the POS keyboard to the systems. The preferred way is described first, followed by the alternate way.

POS Keyboard Connected to Serial Port

The POS keyboard is connected to an unused serial port, such as COM 5 on SC III or COM 5 (S3 on fan-out cable) on the modular POS. The standard PC-style keyboard is connected to the PC keyboard port. In this mode, the POS keyboard works only with the Profit Point PLUS application software and the standard PC-style keyboard works with Windows NT and other non-Profit Point PLUS applications. This connection method is only available on systems running the Windows NT operating system.

For the POS keyboard to work as a serial keyboard, it must be configured to use its serial port. Refer to MDE-4356 Profit Point PLUS Reference Manual for configuration instructions.

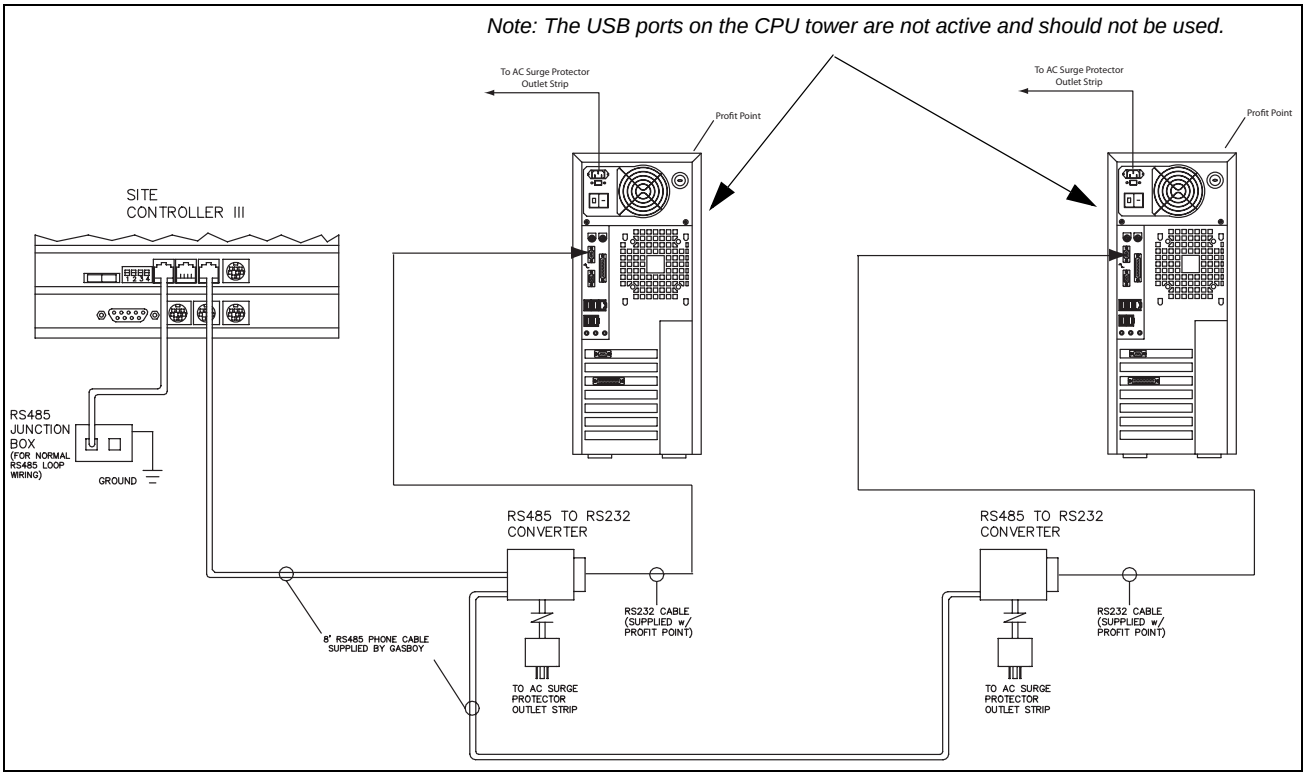
Figure 4-6: Diagram of POS Keyboard Connected to Serial Port



Multiple Console Wiring

Figure 4-7 below illustrates how to connect multiple Profit Point PLUS consoles. All wiring must be installed according to the RS-232 and RS-485 wiring specifications.

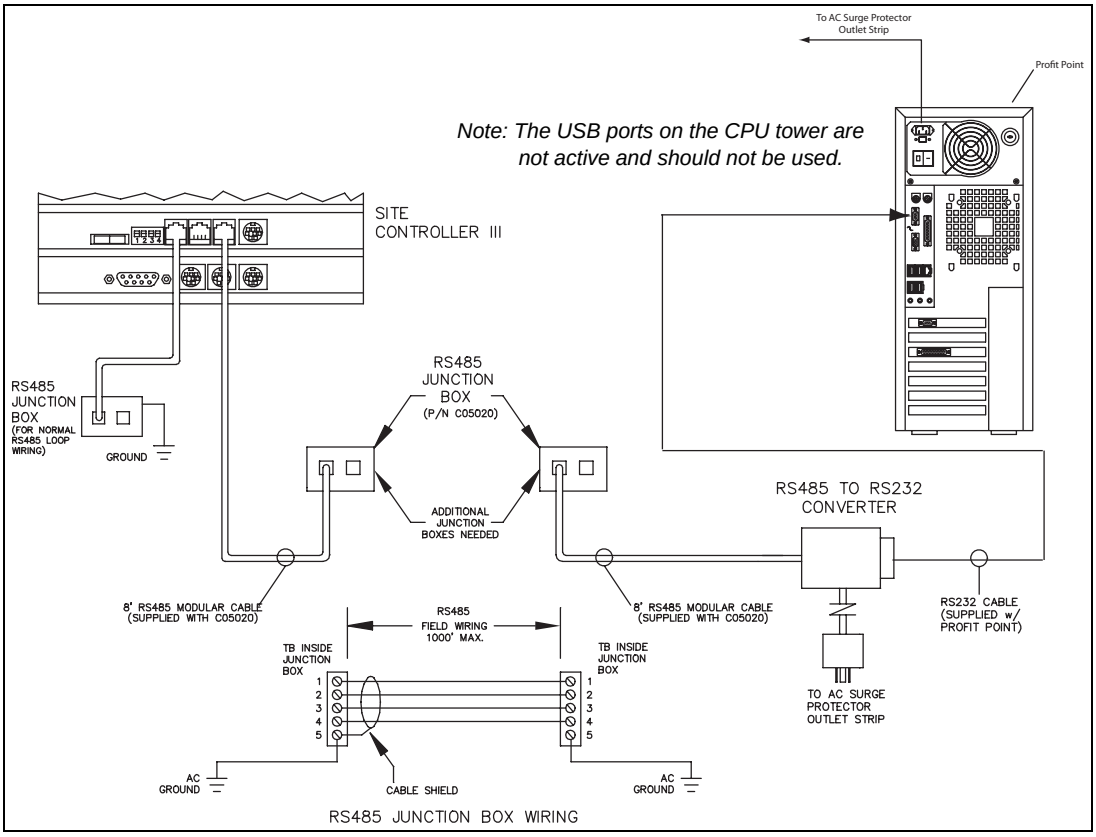
Figure 4-7: Diagram of Multiple Console Wiring



Remote Console Wiring

Most consoles are located within 8 feet of the SC and are wired using the cables supplied. However, you can locate your console up to 1000 feet away from the SC. To do this, you must use two additional junction boxes and wire the site as shown in Figure 4-8. All wiring must be installed according to the RS-232 and RS-485 wiring specifications as outlined in the appropriate Site Controller Installation Manual.

Figure 4-8: Diagram of Remote Console Wiring



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