



CFN Series

Site Controller III Start-up Manual

For CFN III Versions 3.6 and Later

MDE-4873

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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
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

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 #
95-179	Dispenser	9100 Retail Series, 8700 Series, 9700 Series	91-019	Dispenser	9100 Commercial Series	05-002	Atlas	8700K, 8800K, 9100K, 9200K, 9800K
95-136	Dispenser	9800 Series	91-057	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.

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1 – Starting a Site Controller III System

Introduction

This manual is provided to assist in the start-up of a Gasboy® Cash Flow Network (CFN) Site Controller (SC) III system. The CFN Series system is a computerized data acquisition system. As the person who performs the start-up procedure, you must already be familiar with all the CFN SC III manuals. Proper installation according to MDE-4298 CFN Series SC III Installation Manual is critical to ensure correct and trouble-free operation. The CFN SC III system includes a one year parts and labor warranty against defective material and/or workmanship.

Note: Non-compliance with the specifications in the MDE-4298 CFN Series SC III Installation Manual and the checks in the accompanying Start-up Form could void the warranty.

When performing the start-up process, any deviations from the specifications listed in the SC III Installation Manual must be corrected. If any tests fail, correct the wiring or system problem and perform the test again. If you have any questions, cannot proceed to the next step, or you want authorization for exceptions, please contact Gasboy Technical Service at 1-800-444-5529.

Related Documents

Gasboy CFN Series

Document Number	Title	GOLD Library
MDE-4298	CFN Series SC III Installation Manual	Gasboy CFN Series Controllers and POS
MDE-4299	CFN Series Profit Point PLUS Installation Manual	Gasboy CFN Series Controllers and POS
MDE-4390	NBS (GL3) Credit and Debit Card Network - Version 1.3.0.0 and above, for CFN III Versions 3.5 and above	Gasboy CFN Series Controllers and POS
MDE-4762	CFN III Manager's Manual for Windows XP Embedded - Version 3.5	Gasboy CFN Series Controllers and POS
MDE-4773	CFN III Configuration Manual for Windows XP - Version 3.5	Gasboy CFN Series Controllers and POS
MDE-4870	CFN III Fuel Management System PA-DSS Implementation Guide	Gasboy CFN Series Controllers and POS
MDE-4871	CFN III Manager's Manual for Windows XP Embedded - Version 3.6	Gasboy CFN Series Controllers and POS
MDE-4872	CFN III Configuration Manual for Windows XP - Version 3.6	Gasboy CFN Series Controllers and POS
MDE-4874	CFN Series NBS (GL3) Credit and Debit Card Network - Version 1.4.0.0 and Later, for CFN III Versions 3.6 and Later	Gasboy CFN Series Controllers and POS

Based on Site Configuration

Document Number	Title	GOLD Library
C08951	Star® Receipt Printer Manual	Gasboy CFN Series Peripherals
MDE-4331	Atlas™ Installation Manual	Atlas Pumps/Dispensers
MDE-4355	Profit Point Clerk's Manual	Gasboy CFN Series Controllers and POS
MDE-4356	Profit Point Reference Manual	Gasboy CFN Series Controllers and POS
MDE-4602	CFN Card Encoding Manual	Card/Key Encoding
MDE-4739	CFN III PCI Secure Controller Software Installation/Upgrade Instructions	Gasboy CFN Series Controllers and POS

Credit and Debit Card Network

Document Number	Title	GOLD Library
MDE-4572	PaymenTech 005 Credit and Debit Card Networks	Gasboy Fuel Management Products
MDE-4606	Buypass SM Credit and Debit Card Networks	Gasboy Fuel Management Products
MDE-4874	CFN Series NBS (GL3) Credit and Debit Card Network - V1.4.0.0 and Later, for CFN III Versions 3.6 and Later	CFN Series Networks, Card Handlers and Pump Interface

Abbreviations and Acronyms

Term	Description
CFN	Cash Flow Network
CPU	Central Processing Unit
CRIND®	Card Reader IN Dispenser
DIP	Dual Inline Package
DPT	Dispenser Payment Terminal
FPR	Fuel Point Reader
ICR	Island Card Reader
LED	Light Emitting Diode
PCB	Printed Circuit Board
PCU	Pump Control Unit
POS	Point Of Sale
PPC	Profit Point Console
SC	Site Controller
SUB	Submersible Pump
SUC	Suction Pump
VM	Vehicle Module

Start-up Overview

Start-up for the CFN SC III system consists of the following:

- Gather the site information from the customer for loading into the system
- Verify the physical system layout
- Ensure that the system complies with the guidelines and restrictions outlined in the system Installation Manual and this manual
- Test the system
- Help the system user execute the commands required to start the system
- Help the system user backup release disks and explaining backup procedures
- Ensure that the system user understands how to use the system
- Fill out the Gasboy CFN System Start-up Form (55F-066)

Required Tools

To perform testing at start-up, the following tools are required:

- Digital Voltmeter
 - 1/4" Flat-blade Screwdriver
 - Phillips Head #1 Screwdriver
 - Phillips Head #2 Screwdriver
 - Plastic Flat-blade Screwdriver (1/8" or smaller)
 - 1/4" Drive Socket Handle
- Note: A socket bit (C04479) #2, for the Island Card Reader (ICR) is shipped with every CFN SC III system. This socket must be left with the end user.*
- Tape Measure
 - Diskettes (two to four blank double-sided, high-density diskettes for the SC III. Two blank high density diskettes for Profit Point).

Note: Gasboy recommends that all tools and spare parts are with you when performing a start-up procedure.

Filling Out the Start-up Form

A sample filled-out Start-up Form appears at the end of this manual. You must already have blank copies of the Start-up Form. However, if you do not, you can obtain more by calling Gasboy Customer Service. Use the Start-up Form when starting-up or commissioning the site. Also retain the Start-up Form for your company records. To commission the site for full factory warranty, call Gasboy contract check-in at 888-800-7498.

When encountering an empty box on the form, fill in all the information requested. If an option is not used or does not apply, fill in N/A (not applicable) in that space. It may be helpful to have the terminal operator review MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, if they have not already done so, when you are starting up the system.

The Start-up Form must be filled out completely for reference when commissioning the site.

IMPORTANT INFORMATION

If the site is not commissioned, no warranty or payment will be provided by Gasboy.

Ensure that you retain a copy of the completed form for your own records.

Using this Manual

This manual must be followed from start to finish. The procedures are listed in a logical order and correspond to the layout of the Start-up Form. Follow the step-by-step procedures in this manual.

Note: The SC III can be equipped with a Point Of Sale (POS) workstation option. This enables it to work as a Profit Point, as well as control system activity. Throughout the manual, this configuration is referred to as the SC III/POS workstation. If the site has a SC III/POS workstation, you must refer to both MDE-4298 CFN Series SC III Installation Manual and MDE-4299 CFN Series Profit Point PLUS Installation Manual.

Warranty

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

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/dispenser 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 the console's ALL STOP and PUMP STOP or similar keys.

Total Electrical Shut-Off Before Access

Any procedure that requires access to electrical components or the electronics of the dispenser requires total electrical shut off of that unit. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gasboy equipment.

Evacuating, Barricading and Shutting Off

Any procedure that requires access to the pump/dispenser or STPs requires the following actions:



- An evacuation of all unauthorized persons and vehicles from the work area
- Use of safety tape, cones or barricades at the affected unit(s)
- A total electrical shut-off of the affected unit(s)

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

Applicable information is available in National Fire Protection Association (NFPA) 30A; *Code for Motor Fuel Dispensing Facilities and Repair Garages*, NFPA 70; *National Electrical Code (NEC)*, Occupational Safety and Hazard Association (OSHA) regulations and federal, state, and local codes. All these regulations 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 below must be followed to prevent death, injury or damage to the equipment:



DANGER: Alerts you to a hazard or unsafe practice which will result in death or serious injury.



WARNING: Alerts you to a hazard or unsafe practice that could result in death or serious injury.



CAUTION with Alert symbol: Designates a hazard or unsafe practice which may result in minor injury.

CAUTION without Alert symbol: 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 explode or burn, if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause potentially dangerous vapors in the vicinity of the dispenser or island.

No Open Fire



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 fuel vapors. Every time you get 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. Familiarize yourself with Cardiopulmonary Resuscitation (CPR) methods, if you work 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 Lockout/Tagout procedures. If you are not familiar with this requirement, refer to this information in the service manual and OSHA documentation.

Working With Electricity Safely

Ensure that you use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Ensure that grounding connections are properly made. Take care that sealing devices and compounds are in place. Ensure that you do not pinch wires when replacing covers. Follow OSHA Lockout/Tagout 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. Ensure that you clean hands after handling equipment. Do not place any equipment in the mouth.

WARNING

The pump/dispenser contains a chemical known to the State of California to cause cancer.

WARNING

The pump/dispenser contains a chemical known to the State of California to cause birth defects or other reproductive harm.

In an Emergency

Inform 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.

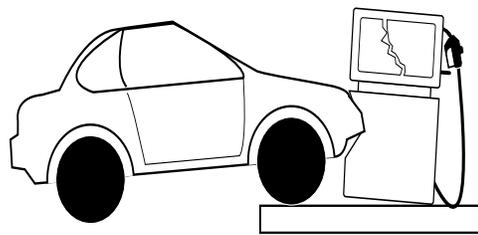
Lockout/Tagout

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. Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

Hazards and Actions

	WARNING
	Spilled fuels, accidents involving pumps/dispensers, or uncontrolled fuel flow create a serious hazard.
	Fire or explosion may result, causing serious injury or death. Follow established emergency procedures.

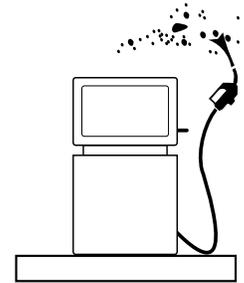
The following actions are recommended regarding these hazards:



Collision of a Vehicle with Unit



Fire at Island



Fuel Spill

- Do not go near a fuel spill or allow anyone else in the area.
- Use station EMERGENCY CUTOFF immediately. Turn off all system circuit breakers to the island(s).
- Do not use console E-STOP, ALL STOP, and PUMP STOP to shut off power. These keys do not remove AC power and do not always stop product flow.
- Take precautions to avoid igniting fuel. Do not allow starting of vehicles in the area. Do not allow open flames, smoking or power tools in the area.
- Do not expose yourself to hazardous conditions such as fire, spilled fuel or exposed wiring.
- Call emergency numbers.

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3 – Site Information

Site information must be loaded before the SC III system becomes operational. This section provides a template for you to fill in the information required to perform the start-up commands (refer to “[Start-up Commands](#)” on [page 77](#)). Do not perform the commands at this time. Confirm with the customer and fill in the information that will be using (for example, fuel authorizations, limitations, and so on). Successful start-up requires coordination between separate components of the system: installation, card encoding, and operation. Each item contains a manual reference where you can find additional information. For private-issue cards, the system identification, fuel authorization, fuel limitation codes, and price levels are encoded on the access cards and then entered into the system through commands. The commands you enter must match what is encoded on the cards. MDE-4602 CFN Series Card Encoding Manual explains the encoding of these items.

Note: The tables in this section are meant to be reused. Photocopy this section before filling in table data.

Communication Port Settings

Note: Refer to MDE-4872 CFN Series CFN III Configuration Manual for Windows XP - Version 3.6.

Indicate the device connected to each of the ports you will use and the baud rates, if known. The baud rate must match the baud rate of the device that is being connected to the port. Port configuration assignments and baud rates are done through the site configuration. Port wiring is no longer set by jumpers. You must use the correct cable for the devices connected. For cabling requirements, refer to MDE-4298 CFN Series Site Controller III Installation Manual.

Port	Device	Baud Rate
1		
4		
5		
6		
COM1		
COM2		
COM3		
COM4		
COM5		
COM6		
LPT1	Printer (Y/N)	N/A

CAUTION

If a two-wire device is connected to a loop that is set for four-wire communication, the SC will not operate correctly. Four-wire devices on a two-wire loop may not communicate with the SC.

Receipt Messages

Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, LO H command.

Receipt Heading and Footing Messages (24 characters maximum)	
Line #1 Heading Line	
Line #2 Heading Line	
Line #3 Heading Line	
Line #4 Heading Line	
Line #5 Heading Line	Heading Information
Line #6 Heading Line	
Line #7 Heading Line	
Line #8 Heading Line	
Line #9 Heading Line	
Line #10 Footing Line	
Line #11 Footing Line	
Line #12 Footing Line	
Line #13 Footing Line	
Line #14 Footing Line	
Line #15 Footing Line	Footing Information
Line #16 Footing Line	
Line #17 Footing Line	
Line #18 Footing Line	
Line #19 Footing Line	
Line #0 Form Feed Length (1)	

Always 1 with Star Printer

Note: System can be configured with footing lines 10 - 29. Lines 10 - 19 will print on every receipt; lines 20 - 29 (which accomodate such things as customer signature lines, and so on) will print only on POS console receipts.

Load Prices

Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, LO PR command; MDE-4602 CFN Card Encoding Manual, Price Level.

To lay out the site's price codes, use the following table. Each price code may have multiple price levels. The total number of prices allowed is configured in the SC. Refer to the explanation in the above referenced manuals for the maximum size of price level/price code tables. Levels 0 through 3 are usually Fallback, Cash, Credit, and Debit respectively. The fallback price is configurable. Additional price levels may be used for private-issue cards.

Price Code	Level 0 (fallback)	Level 1 (cash)	Level 2 (credit)	Level 3 (debit)	Level 4 (additional)	Level 5 (additional)

Load Fuel

Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, LO F command.

To specify products, prices, and tanks for up to five hoses per pump, use the following table. If additional space is required, photocopy this chart.

Pump Number	Hose Number	Product Code	Price Code	Tank Number

Load Tax

*Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, **LO TAX** command.*

To enter the names of the tax accumulators, use the following table. Tax accumulators keep a running total of taxes collected in up to eight categories. Tax formulas are specified in system configuration or by using the **TAX** command.

Tax #	Name (up to 7 characters)

Lockout Type

*Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, **LOC CA** or **UN CA** command.*

Indicate type of lockout: Positive Negative

Authorization and Limitation Codes

*Note: Refer to MDE-4602 CFN Card Encoding Manual, MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, **LO A**, **LO LI** commands.*

If the customer is using private-issue cards, you may also require to load authorization codes and limitation codes for the cards. Values for these codes must have been assigned when the cards were encoded. Special templates for defining these codes appear in the Card Encoding Manual.

CRON Commands

*Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, **LO CR** command.*

Use the following table to define any cron commands you wish to have executed. You may find some crons already loaded.

Command #	Command

Load Remote Host Phone Number

*Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 and MDE-4874 CFN Series NBS (GL3) Credit and Debit Card Network - V1.4.0.0 and Later, for CFN III Versions 3.6 and Later, **LO PH** command.*

To indicate the phone number(s) of the remote CFN host (1 and 2), bank host (3 and 4), or auxiliary numbers (5 and 6), use the following table.

Main	Backup
1	2
3	4
5	6

Profit Point Product Layout

*Note: Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, **LO PRO** command; MDE-4356 Profit Point Reference Manual, **Prompts for PLU Fields**.*

Before configuring the Profit Point, the SC must already be set up with the following: products/departments, prices (fuels only), tanks, pumps, and taxes. You can transfer this information directly to the Profit Point by using the POS.CMD command. This makes easier to enter the MASTER.PLU information on the Profit Point.

The MASTER.PLU file contains three types of data: department numbers, UPC codes, and stock numbers. The charts on the following three pages will help to organize the information for each product.

Notes on Form Entries

The following descriptions are abbreviated versions of the entries used in the three worksheets that follow. For detailed information on these input requirements, refer to MDE-4356 Profit Point Reference Manual.

Dpt = department number corresponding to the SC's department (**Prd**). Will always be present for departments if POS.CMD has been run.

Grp = optional group number assigned to each product.

Vnd = up to 255 vendor numbers can be defined.

Description = description (name) of department or product. Will already be present for departments if POS.CMD has been run.

Ceiling = corresponds to **\$MAX** price on SC. Will already be present for departments if POS.CMD has been run.

Floor = corresponds to **\$MIN** price on SC. Will already be present for departments if POS.CMD has been run.

Retail Price = selling price of this product (on departments, default price)

Per = unit upon which price is calculated.

Cost + Markup = formula to calculate price: Retail = Cost + (Cost x markup%).

Rounding = no rounding or rounding up to 5 or 9.

Food Stamps = food stamps, enter Y for yes or N for no.

Disct = is discount allowed, enter Y for yes or N for no.

Cust ID = does purchase require ID, enter 1 or 2. Refer to MDE-4356 Profit Point Reference Manual for assigned values.

Prc Ovr = is price override allowed, enter Y for yes or N for no.

Taxes = tax code for this product (taken from codes defined in the SC). Will already be present for departments if POS.CMD has been run.

UPC # = 6- to 12-digit UPC code which can be typed in or scanned in using the Profit Point or PC (PC must be set up for scanning).

Stock# = 1- to 5-digit stock number (usually entered when no UPC is available).

Whole Cost = wholesale cost of item to you.

Profit Point Default Keyboard

Figure 3-1 shows the default keyboard for the Profit Point. The keyboard can be re-configured to meet individual requirements. For more information, refer to MDE-4356 Profit Point Reference Manual.

Figure 3-1: Profit Point Default Keyboard

PUMP 1	PUMP 2	PUMP 3	PUMP 4	PUMP 5	PUMP 6	PUMP 7	PUMP 8	PREV	MDSE	ALL STOP	←	→	PREV ITEM	CLEAR MENU
PUMP 9	PUMP 10	PUMP 11	PUMP 12	PUMP 13	PUMP 14	PUMP 15	PUMP 16	WRKN SALE	NEW MDSE	STOP	↓	↑	NEXT ITEM	SPEC FUNC
PUMP 17	PUMP 18	PUMP 19	PUMP 20	PUMP 21	PUMP 22	PUMP 23	PUMP 24	MGR MENU	CLERK MENU	START	OFF ROAD	NO SALE	VOID	PRINT
								LIST DEPT	REVERSE	RETURN	PREPAY	PRESET	ADD ITEM	ADD FUEL
								PLU	CLUB	DEBIT	7	8	9	BACK SPACE
								SIZES	CHECK		4	5	6	CLEAR
								EDIT	CREDIT		1	2	3	ENTER
OFF HOOK	ACTIVE	PAYABLE	PUMPS					LOG	MULTI SALES	CASH	0	00	.	

DEBIT is the default.
 This key can be changed to another function, such as Food Stamps.
 For details on how to redefine a key, refer to MDE-4356 Profit Point Reference Manual.

Worksheet for Pump/CRIND Device - PC Interface (if used)

Pump Number (Note 1)	Pump Type (Note 2) (H111, MPD-3, and so on)	Two-wire Address (Notes 1 and 3)	Number of Hoses	CRIND Address/Reader Address
1		1		
2		2		
3		3		
4		4		
5		5		
6		6		
7		7		
8		8		
9		9		
10		10		
11		11		
12		12		
13		13		
14		14		
15		15		
16		16		
17		1		
18		2		
19		3		
20		4		
21		5		
22		6		
23		7		
24		8		
25		9		
26		10		
27		11		
28		12		
29		13		
30		14		
31		15		
32		16		

Notes:

1. Pumps 17 - 32 require a second *gilpump.exe* session on a separate Serial Port. In the parameter file for that session, set
`FIRST_CHANNEL_LAST_ADDRESS = 16`. Set up the *gilpump.exe* and *crind.exe* sessions using the release diskette for each. Refer to the appropriate installation manual for each for more information.
2. Pump Type is determined automatically. This column is optional.
3. The Pump Number and the 2-wire Address are the same unless the `FIRST_CHANNEL_LAST_ADDRESS` parameter is set. In this case, the 2-wire Address is the Pump Number minus the `FIRST_CHANNEL_LAST_ADDRESS` setting.

4 – Begin Start-up Form

Parts 1 through 6

This section covers Parts 1 through 6 of the Start-up Form. Parts 7 through 13 are covered in subsequent sections. For a blank copy of the Start-up Forms, refer to “[CFN System Start-up Form](#)” on [page 109](#).

1. Site Identification

Customer:	The name of the company that owns the system.
Contact:	The name of the person who will manage the site operation.
Customer Phone:	The phone number where the contact person can be reached.
Site Location:	The address of the site where the system is located.
Electrician:	The name of the person who did the wiring for the site.
Date/Time of Arrival:	Date and time of your arrival at the site.
Date/Time of Departure:	Date and time you left the site.
Distributor/Phone:	The distributor involved with the sale of the system. Include phone number.
Installer/Phone:	The firm that installed the system. Include phone number.
Start-up Person:	Your name.
Co. Name/Phone:	Your company name and phone number.

2. System Identification

Site #: Number of the site.

Checkmark the components that this site has.

Indicate the Serial Number, program version number for each of the following:

SC III: SC III unit. Also indicate the program name and debug version.

PCU (s): Serial Number of PCU; program version from PCU Central Processing Unit (CPU) Printed Circuit Board (PCB).
If pedestal PCU, program version from PCU CPU PCB.

ICR (s): ICRs, program version from Reader CPU PCB.
Also indicate Y or N if the ICR has a receipt printer, has pedestal PCU, or is set up as a car wash or gate controller.

Console:

Profit Point:

gilpump PC Driver: (current loop replacement)

CRIND PC Driver: (current loop replacement)

Standalone Receipt Printer:

PIN Pad:

Complete the following section only for Gasboy PC packages.

PC SOFTWARE: if applicable, indicate the version number of the PC software assigned to this site.

PC Make and Model: Indicate the make and model of the PC being used at this site.

DOS Version: Indicate the DOS version that is running on the customer's PC.

Note: The Serial Number for each system device can be found on the ID tag located on the outside cover of that device.

3. System Description

PUMP #: Indicates the pump number.

HOSE #: Indicates hose outlet number.

FUEL TYPE: The type of fuel dispensed by that pump or dispenser (for example, No-Lead, Regular, and so on).

FUEL CODE: The product code number (1 or 2 digits) assigned to that fuel type.

PUMP MAKE: The name of the manufacturer of the pump or dispenser.

MODEL #: The Model Number of the pump or dispenser.

SERIAL #: The Serial Number of the pump or dispenser.

RESET: The type of reset used in the pump (Veeder-Root, Tokheim #77, and so on)

TYPE SUC/SUB: The type of pump used to dispense the fuel. Submersible pump (SUB) located in the tank or is it a suction pump (SUC) located in the pump housing? Circle one.

PULSER RATE: The pulser rate of the pulser used by that pump or dispenser (for example, 10:1, 100:1)

STARTER RELAY: Is an external starter relay used to supply power to the pump? Circle Y for yes or N for no.

4. Communications	
Data Terminal/Logger:	Circle the device or devices, if present, and indicate the make and Model Number of the data terminal or logger and the port to which it is connected.
Port # Baud Rate	
1:	Baud rate for port 1
4:	Baud rate for port 4
5:	Baud rate for port 5
6:	Baud rate for port 6
COM1:	Baud rate for COM1
COM2:	Baud rate for COM2
Loop 1:	2/4 wire.
Loop 2:	2/4 wire.
Short Haul Modem:	The make and Model Number of the short haul modem that is connected to the system. If no short haul modems are used, indicate Not Applicable (N/A).
Phone Modem: Port	The make of the phone modem and the port to which it is connected. Remote dial-in, not network.
Modem Phone #:	The area code and phone number for the external phone modem connected to the system. If a modem is not used, indicate Not Applicable (N/A).
Network Name Port	The name of the network to which the site is connecting (if applicable) and the port through which it is communicating.

5. Breaker Numbers

Indicate the Breaker Number for each of the following. All breakers pertaining to the system must be in the OFF position.

Power conditioner:**AC Surge Protector:**

(Profit Point)

Islander:

(N/A for SC III)

PCUs:

(PCUs)

ICRs:**Hose/Brkr #:**

(hose outlets 1 to 32)

Answer the following questions:

What components are on power conditioner? Fill in all that apply.

What components are on AC Surge Protector? Fill in all that apply.

Are all Gasboy components on same breaker? Answer **Y** or **N**.

Notes:

- 1. The AC Surge Protector Strip must be on its own separate breaker. The SC, printer, and monitor must be plugged into the same AC Surge Protector Strip. The Profit Point must also be plugged into an AC Surge Protector Strip.*
- 2. The optional power conditioner must be on the same breaker as the AC Surge Protector; however, if this is not possible, it must be in the same phase of power as the AC Surge Protector breaker. The SC III, modem, standalone receipt printer, and console must be connected to the output of the power conditioner, if used.*

6. System Environment

Describe the location and environment of each system component (for example, office, outside, air conditioned, heated). Ensure that the SC III is well ventilated. **Nothing must rest on the top of the SC or around its vents.**

5 – Physical System Layout

When verifying physical system layout, ensure that power to the system has not been applied and all power is off. All wiring and conduit runs must also conform with the National Electrical Code (NFPA 70), the Automotive and Marine Service Stations Code (NFPA 30A), and State and Local Electrical Codes. For more information, refer to MDE-4298 CFN Series SC III Installation Manual.

SC

- 1 Open up the PC. Perform a visual inspection to verify if all boards are seated properly, all connections are tight, and there are no loose or unsecured components.
- 2 Verify if the SC is located in an office-type environment and correctly installed according to the MDE-4298 SC III Installation Manual.
- 3 Verify if all data communication cables located on the back of the SC III/PC are correctly installed according to the MDE-4298 CFN Series SC III Installation Manual. The SC III has four RS-232 Ports (1, 4, 5, or 6). All direct connect RS-232 Cables over 15-feet must be installed in metal conduit separate from any AC wires.

Port 3 is used for communication to Tokheim pumps only; one of the RS-232 Ports can be used for communication through a modem or to a computer. The others are additional and can be programmed according to the application. COM1 and COM2 can be programmed according to the application; LPT1 is a parallel port which is commonly connected to a printer.

RS-485 Communication Cables (C05670, 8-foot modular cable similar to a telephone cord) must be installed as follows:

LOOP 1 or **2** Modular Cable must be directly connected to either modular jack of the black RS-485 Junction Box. Do not connect Loop 1 or 2 to the same RS-485 Junction Box. Loop 2 is factory-set for two-wire for communication to Tokheim DPTs.

CAUTION

If a two-wire device, such as DPT, is connected to a loop that is set for four-wire communication, the SC will not operate correctly. Four-wire devices on a two-wire loop may not communicate with the SC.

Note: If using Tokheim DPTs, refer to MDE-4624 Gasboy CFN Series Tokheim Pump PC Interface for CFN III with Windows NT or XPE.

LOOP 3 Modular Cable must be directly connected to the converter if connecting to a Profit Point. For remote console wiring considerations, refer to MDE-4298 CFN Series SC III Installation Manual and MDE-4299 CFN Series Profit Point PLUS Installation Manual. If the SC III will be used as a SC III/POS workstation, Loop 3 is used to connect to other POS terminals (Profit Point) at the site.

ICR Assembly

- 1 Verify if the ICR is installed to allow adequate clearance for system maintenance. For systems with receipt printers or pedestal pump controls, a minimum of 18 inches is required between the post and any of the pumps or dispensers. This clearance meets the NFPA 30A and NFPA 70 requirements.
- 2 Remove the two tamper-proof screws from either side of the black bezel, located on the front of the ICR head assembly. Unlock and lower the black bezel door.
- 3 Remove the six screws from the lower back side pedestal cover and remove the cover.

Note: No AC power must be present at TB6 in the ICR head assembly.

- 4 Verify if the conduit and all system, pump, and dispenser wiring is installed according to the specifications detailed in MDE-4298 CFN Series SC III Installation Manual. Non-compliance with these specifications and the checks in the accompanying Start-up Form could void the warranty.

PCU(s)

- 1 Verify if the PCU(s) are installed in an area protected from direct contact with the weather according to MDE-4298 CFN Series SC III Installation Manual.
- 2 Verify if the conduit and all system, pump, and dispenser wiring is installed according to the specifications detailed in MDE-4298 CFN Series SC III Installation Manual. Non-compliance with these specifications and the checks in the accompanying Start-up Form could void the warranty.

7. Conduit	
All Metal Conduit:	Indicate if all conduit is metal and not PVC. Circle Y for yes (all metal) or N for no (not all metal conduit).
AC and DC is Separate Conduit:	Indicate if all wiring is separated in the appropriate conduits according to the conduit specifications and exceptions detailed in MDE-4298 CFN Series SC III Installation Manual. Circle Y for yes if all AC and DC wiring is in separate conduits. Circle N for no if AC and DC wiring is combined in conduits where it must not be.
Wiring Neatness:	Indicate the overall neatness of the installer's wiring. Is the appearance of the wiring neat and orderly or is it very disorderly? Circle Good , Fair , or Bad .
Is Shielded Cable used?	Indicate if Gasboy C09655 or equivalent cable was used for communications wiring. Circle Y for yes or N for no.

PPC or SC III/POS Workstation (Optional)

- 1 Verify if the Profit Point and any optional equipment is located in an office type environment and is correctly installed according to MDE-4298 CFN Series SC III Installation Manual.
- 2 Verify if the AC power cord for the Profit Point is directly connected to the output of the AC Surge Protector Strip (C01218).
- 3 The RS-485 Converter must be installed as described below. If you are locating the Profit Point more than eight feet from the SC, you must use two additional RS-485 Junction Boxes to connect the devices.

A Modular Cable must be directly connected to the modular jack port on the back of the SC labeled **LOOP 3**. The other end of the Modular Cable is connected to one of the modular jacks on the converter. The converter is connected to the Profit Point port **SERIAL1** through a 25-pin to 9-pin cable. The converter power supply must be plugged into the same AC Surge Protector Strip (C01218) as the Profit Point.

POS Distribution Box (POS D-Box) is connected through a 9-pin cable from the **Serial2** port on the Profit Point (**COM2** on the SCIII/POS workstation) to the **Serial2** port on the D-Box. If the site has a PIN Pad, the **Serial3** port of the Profit Point (**COM3** on the SCIII/POS workstation) will be connected to the **Serial3** port of the D-Box. The D-Box power supply must be plugged into the same AC Surge Protector Strip (C01218) as the Profit Point.

“Old” **CASH DRAWER** is connected through a 9-pin D-type connector from the cash drawer to the **CASH DRAWER** port on the back of the POS D-Box. “New” **CASH DRAWER** is connected to the receipt printer that connects to the minitower’s 4-port fan-out cable.

CUSTOMER DISPLAY must be installed according to MDE-4299 CFN Series Profit Point PLUS Installation Manual. Verify if the Customer Display is connected to the 9-pin **CUSTOMER DISPLAY** port on the POS D-Box.

- 4 Optional equipment connection:

RECEIPT PRINTER connection depends upon the type of receipt printer ordered. For a parallel printer, the printer cable is connected to the D-type 25-pin female connector **PRINTER** on the back of the Profit Point (**LPT1** on SC III/POS workstation). For an RS-485 Printer, the Modular Cable is connected directly into the RS-485 Jack on the converter. The receipt printer must be plugged into the same AC Surge Protector Strip as the Profit Point.

PIN PAD must be installed as per instructions in MDE-4299 CFN Series Profit Point PLUS Installation Manual. Verify if the PIN Pad is securely connected to the **PIN PAD** port located on the POS D-Box.

SCANNER must be installed as per instructions in MDE-4299 CFN Series Profit Point PLUS Installation Manual. Verify if the scanner is securely connected to the 9-pin **SCANNER** port located on the POS D-Box. If a scanner is used that requires external power, it must be plugged to the same AC Surge Protector Strip as the Profit Point.

Tank Monitoring System (Optional)

- 1 Verify if the Tank Monitoring system is correctly connected to the SC according to MDE-4298 CFN Series SC III Installation Manual.
- 2 Refer to the Tank Monitoring system manufacturer's installation instructions for specific connection information.

Gilbarco Pump Interface Using PC COM Port

Install according to instructions outlined in MDE-4634 CFN Series Gilbarco Pump PC Interface Manual.

CRIND Interface Using PC COM Port

Install as per instructions outlined in MDE-4337 Gilbarco CRIND PC Interface for SC III Windows.

Fuel Point Components

- 1 Verify if all the Fuel Point components are installed according to the applicable Fuel Point installation manuals (listed in [“Related Documents”](#) on [page 1](#)).
- 2 Ensure that the N-ring wiring between the Fuel Point Reader (FPR) and pre-amplifier is in conduit separate from non-intrinsic safe wiring.

Electronic Pumps

All electronic pumps must be installed according to the manufacturer's specifications. Ensure that all interface connections are made according to MDE-4298 CFN Series SC III Installation Manual or MDE-4634 CFN Series Gilbarco Pump PC Interface Manual.

6 – Jumpers and Switch Settings

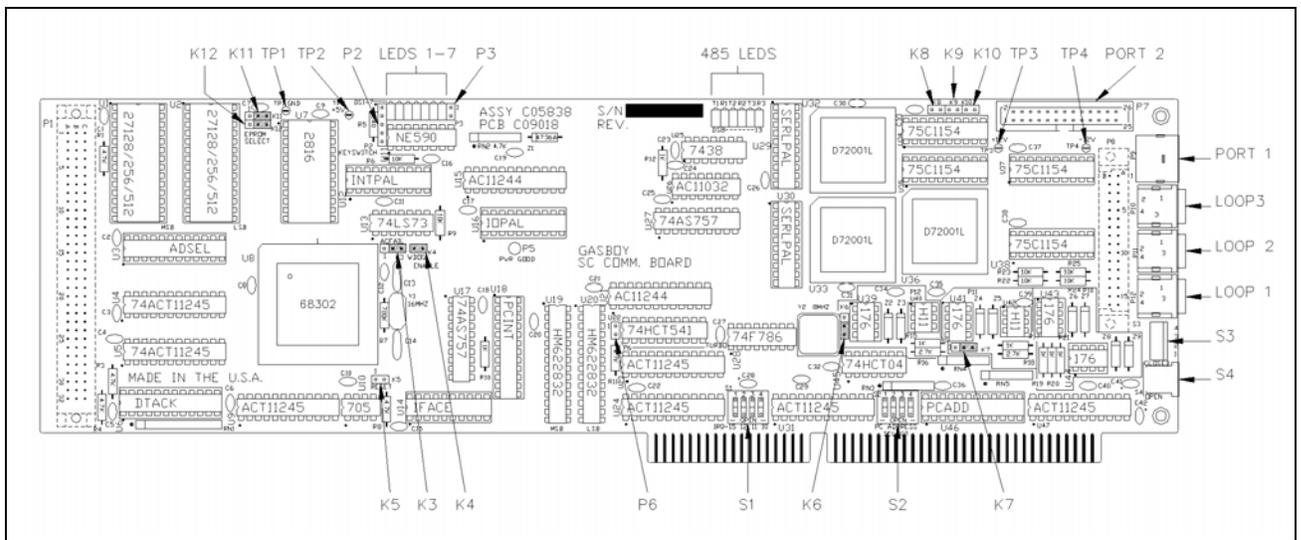
This section covers the jumper and switch settings for the various components of SC III system.

IMPORTANT INFORMATION

Jumpers and switch settings must be set properly to ensure correct operation.

SC COMM CPU PCB

Figure 6-1: SC III Comm CPU Board



Jumpers, K3 to K12

Jumper	Function	Setting
K3	AC power fail sense	2 - 3 to enable
		1 - 2 to disable
K4	AC watchdog timer	1 - 2 to enable
K5	SC - Comm CPU (testing only)	1 - 2 to reset
K6	RS-485 loop 1, 2 to 4 wire	2 - 3 for 4 wire
		1 - 2 for 2 wire

Jumper	Function	Setting
K7	RS-485 loop 2, 2 to 4 wire	2 - 3 for 4 wire 1 - 2 for 2 wire
K8	Rx clock from synchronous modem (DB25-15)	1 - 2 to connect
K9	ETC output to synchronous modem (DB25-24)	1 - 2 to connect
K10	Tx clock input from synchronous modem (DB25-17)	1 - 2 to connect
K11	EPROM type	2 - 3 for 27256/25128
K12	EPROM type	2 - 3 for 27256/25128

Switches, S1 and S2

Switch S1 - PC IRQ

Indicates the interrupt. Only one can be selected. SC3.EXE assumes interrupt 10. No other device can use this interrupt.

Switch	Function	Default
S1-1	IRQ-15	Open
S1-2	IRQ-12	Open
S1-3	IRQ-11	Open
S1-4	IRQ-10	Closed

Switch S2 - PC Address

Sets PC Dual RAM address. SC3.EXE currently assumes D0000.

Switch SW3 - Default Sign-On

Position 4 defaults to Open; Closed Normal setting.

Switch SW4 - Weights and Measures Switch

Set to Open for enable; Closed for disable.

Address	Switch				Address	Switch			
	1	2	3	4		1	2	3	4
C0000	C	C	C	C	D6000	O	C	C	C
C3000	C	C	C	O	D9000	O	C	C	O
C6000	C	C	O	C	DC000	O	C	O	C
C7000	C	C	O	O	DF000	O	C	O	O
CC000	C	O	C	C	E0000	O	O	C	C
CF000	C	O	C	O	E3000	O	O	C	O
D0000	C	O	O	C	E6000	O	O	O	C
D3000	C	O	O	O	E9000	O	O	O	O

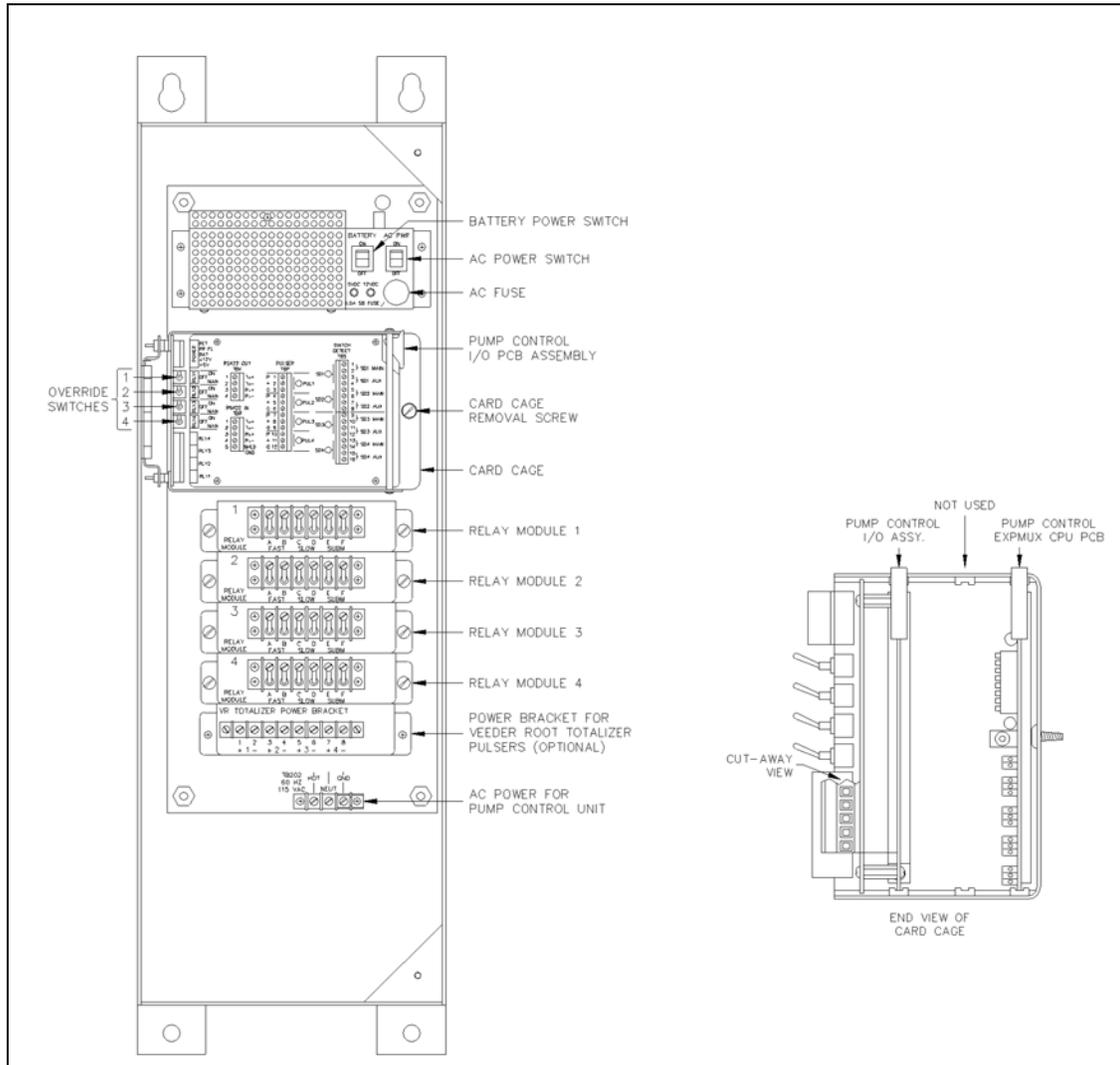
Switch S2

Switch	Function	Setting
S2-1	Battery 1	Open = Disabled
		Closed = Enabled; default
S2-2	Battery 2	Open = Disabled; default
		Closed = Enabled
S2-3	N/A	Unused
S2-4	N/A	Unused

PCU

Figure 6-3 shows the PCU layout. Refer to this layout when performing steps 1 through 5 under “Pump Control EXPMUX CPU Board”.

Figure 6-3: PCU Component Location

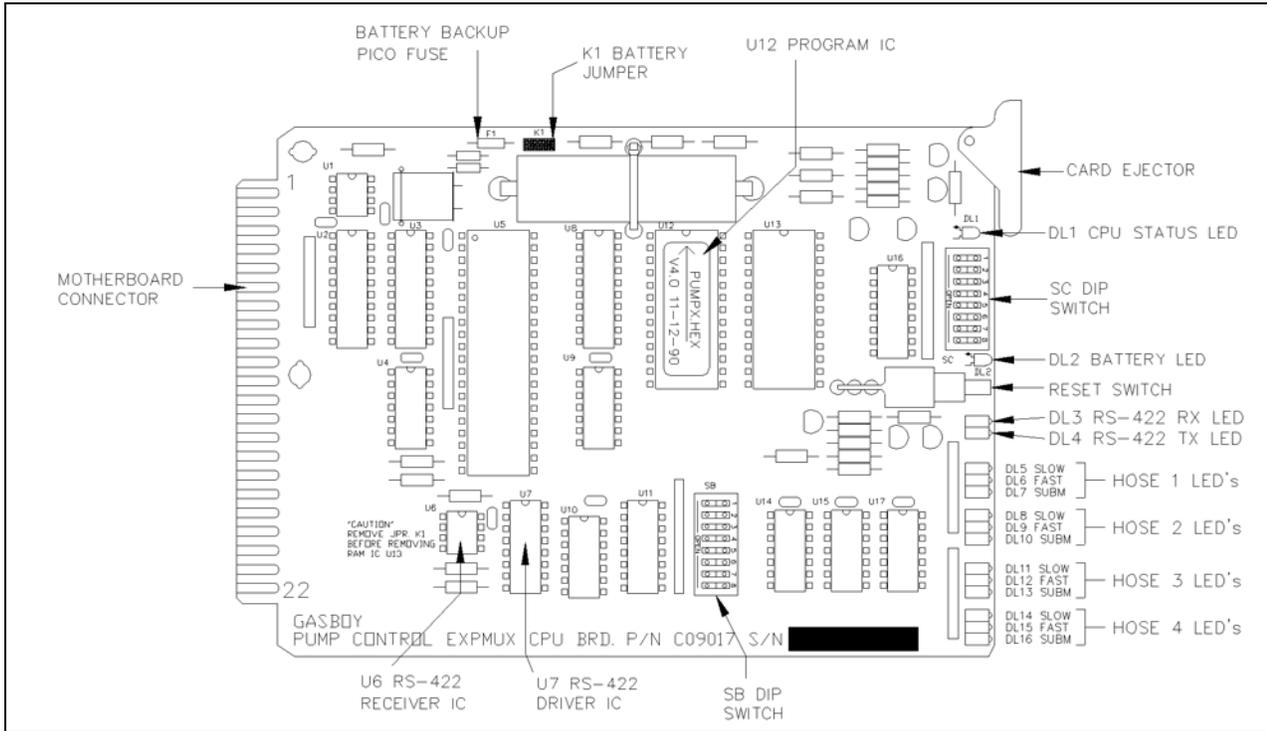


Pump Control EXPMUX CPU Board

- 1 Unlock and open the front door of the PCU.
- 2 Ensure that all override switches are in the AUTO position (see [Figure 6-3](#)).
- 3 Ensure that the AC power and battery switches, located in the upper right-hand corner of the power supply are turned OFF (down).

- 4 Loosen the screw for the card cage section, and swing out the card cage.
- 5 Remove the pump control EXPMUX CPU board (Figure 6-4), located in the rear portion of the card cage, by pulling on the top white tab.

Figure 6-4: EXPMUX CPU Board



- 6 Locate the K1 jumper patch and install the jumper. This jumper allows battery voltage to the RAM. It must be installed for normal operation and removed for storage to prevent battery discharge.
- 7 Address: Verify if the pump control CPU board switch bank, SB (1 through 4), is set for the proper address. An address must be set to identify the PCU when it is connected to the CFN System. This address is a unique identifier for multiple PCU's that are connected on the same RS-485 line. Addressing must start at 1 and continue sequentially through 16. The physical wiring order does not have to correspond with the address order, that is, the first unit on the RS-485 line does not have to be address 1.

Switches 1 through 4 denote the address. This is factory set and may not have to be corrected. The chart on the right gives the switch settings for the address selections.

	SB-1	SB-2	SB-3	SB-4
Address	ADDR1	ADDR2	ADDR3	ADDR4
1	Closed	Closed	Closed	Closed
2	Open	Closed	Closed	Closed
3	Closed	Open	Closed	Closed

	SB-1	SB-2	SB-3	SB-4
Address	ADDR1	ADDR2	ADDR3	ADDR4
4	Open	Open	Closed	Closed
5	Closed	Closed	Open	Closed
6	Open	Closed	Open	Closed
7	Closed	Open	Open	Closed
8	Open	Open	Open	Closed
9	Closed	Closed	Closed	Open
10	Open	Closed	Closed	Open
11	Closed	Open	Closed	Open
12	Open	Open	Closed	Open
13	Closed	Closed	Open	Open
14	Open	Closed	Open	Open
15	Closed	Open	Open	Open
16	Open	Open	Open	Open

- 8 Pulser Type: Verify if switch SB-5 is set for the proper pulser type, single or dual. Settings are shown as follows.

The pulser select switch is set for either single or dual pulsers. If dual pulsers are selected, all pumps on the PCU must have dual pulsers.

Note: The dual pulser type feature requires a Profit Point Console (PPC) Motherboard III and a PPC I/O PCB III. Both are not yet available; therefore, this switch must be closed.

	SB-5
Pulser Type	DUAL
Single	Closed
Dual	Open

- 9 Delay Time: The delay time is the period between activation of the SUB and the activation of the slow flow and fast flow valves. The delay time switches are set to accommodate a variety of leak detectors used in SUB applications. The time must be set according to the type of leak detector installed on the SUB to allow a normal leak test for each transaction. If different leak detectors are used on each pump, set the switches to the longest delay time required. Set the delay time to zero seconds for SUCs.

Note: The leak detect delay time feature requires a PPC Motherboard III. The PPC Motherboard III is not yet available; therefore, these switches must be closed.

Delay Time (seconds)	SB-6	SB-7	SB-8
	RLY1	RLY2	RLY3
0	Closed	Closed	Closed
1	Open	Closed	Closed
2	Closed	Open	Closed
3	Open	Open	Closed
4	Closed	Closed	Open
5	Open	Closed	Open
6	Closed	Open	Open
7	Open	Open	Open

- 10 The settings for switch bank, SC (1 through 4) determine when the PCU begins counting pulses for a particular pump. When a switch is open, the PCU begins counting pulses when the corresponding pump is activated. When a switch is closed, as it must be for most configurations using mechanical pumps, the PCU does not count pulses for the corresponding pump until the mechanical reset has completed. The switch must be closed when the pump is wired for postpay-prepay console operations.

Switch	Function	
SC-1	Mode pump 1	Open = Normal, Closed = Reset Complete
SC-2	Mode pump 2	Open = Normal, Closed = Reset Complete
SC-3	Mode pump 3	Open = Normal, Closed = Reset Complete
SC-4	Mode pump 4	Open = Normal, Closed = Reset Complete

- 11 In switch bank SC, 5 through 8, only switch 6 and 8 are active. Switch SC-6 is the Deadman Timer Switch. If enabled, the PCU must be polled at least every 15 seconds by the SC. If it fails to sense a poll at that time, it turns all relays off. If Reset Complete Mode is used on any pump on a particular PCU, the deadman timer must be disabled. Switch SC-8 enables the test mode allowing the basic PCU functions to be tested without the use of a SC.

Switch	Function	
SC-5		No function in on-line mode
SC-6	DEAD	Open - deadman timer enabled
SC-7		No function in on-line mode
SC-8	TEST	Open - Test mode; Closed - On-line mode

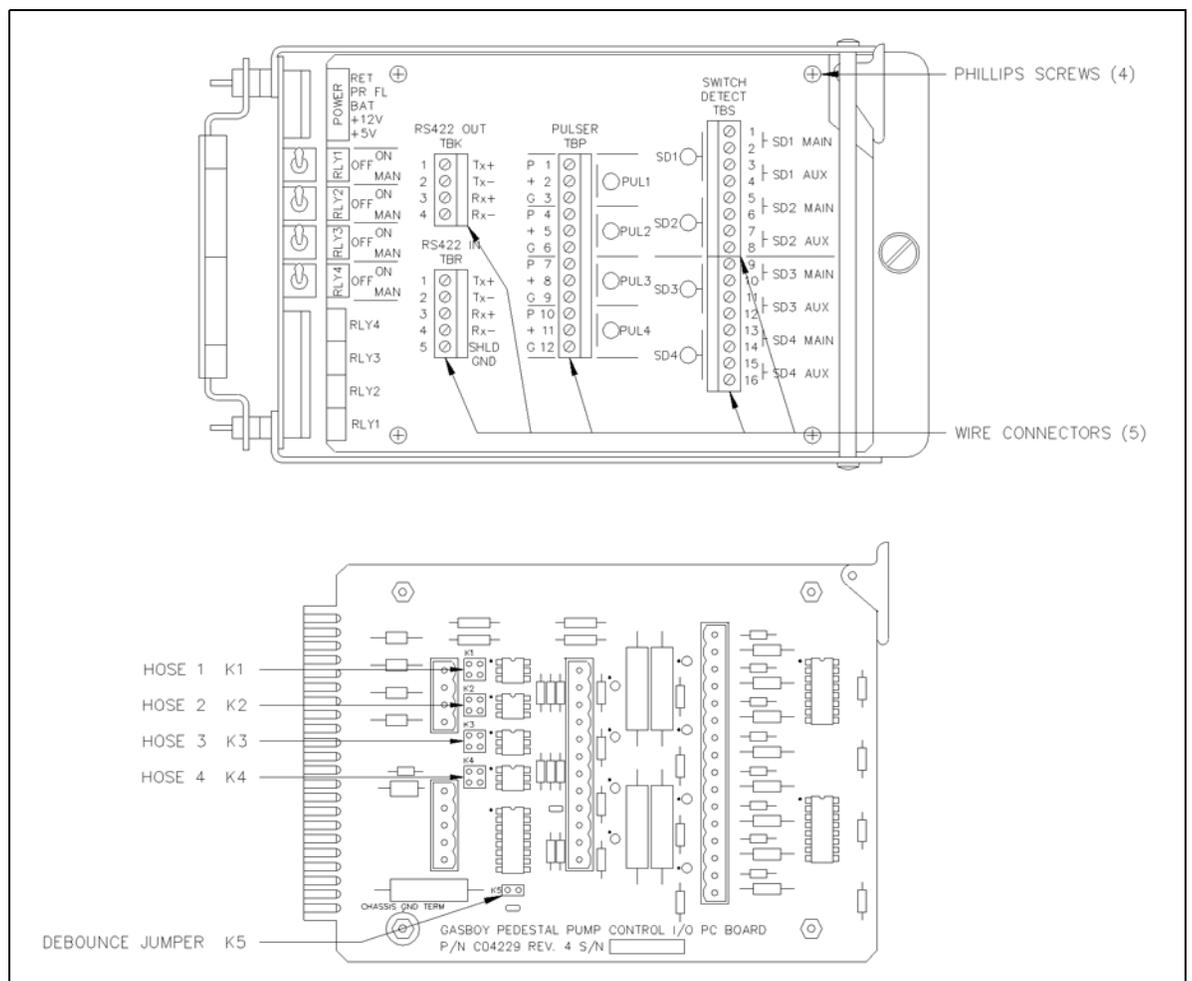
- 12 Reinstall the EXPMUX Pump Control CPU board.

Pump Control I/O PCB

The Pump Control I/O PCB, shown in [Figure 6-5](#), consists of two parts: the PCB itself and a cover plate. To set the jumpers and switches on the I/O PCB, you must remove all the connectors and the cover plate.

- 1 Remove the five green connectors from the front of the Pump Control I/O Board. Remove the board from the Card Cage in the same manner as the EXPMUX Pump Control CPU Board.
- 2 Remove the four Phillips screws securing the cover plate to the PCB and remove the Cover Plate.

Figure 6-5: Pump Control I/O Cover Plate and PCB



- 3 Pulse Connection: Ensure that the K1 through K4 jumpers (pulse type jumpers) match the type pulser used for each pump position. Use the following table to determine your settings.

CAUTION

K1 to K4 jumpers must be set in the configurations shown before turning on power to the PCU or damage to the system components may occur.

Jumper	Pin	Function	Voltage
VR Reed Switch Pulser, 1871 Series			
 K1	1	P Pulser signal input (sink)	12 VDC signal when pulsing 
	+	No connection	
	2	G DC ground for pulser	DC ground
VR Electronic Pulser, 7871 Series			
 K1	1	P Pulser signal input (sink)	12 VDC signal when pulsing 
	+	+12 VDC supply voltage for pulser	+12 VDC
	2	G DC ground for pulser	DC ground
VR Totalizer Pulser, 7874 Series			
 K1	1	P Pulser signal input (sink)	Signal when pulsing 
	+	Voltage for opto-isolator from pulser	Voltage level of pulser
	2	G DC ground for pulser	DC ground

- 4 Debounce Configuration: Ensure that the K5 jumper (debounce) is set properly. The K5 jumper must remain jumpered for all Reed switch quantity pulsers and unjumpered for all electronic and money pulsers.

Jumper	Speed	Function
K5 Jumpered	Slow	10:1 quantity pulsers
		
K5 Open	Fast	10:1 money pulsers All electronic pulsers
		

- 5 Replace the Cover Plate on the pump control I/O Board and re-install the board into the Card Cage.
- 6 Replace the five green connectors into the proper sockets on the front of the Pump Control I/O Board.
- 7 Repeat all steps for both the EXPMUX Pump Control CPU and Pump Control I/O PCBs for each PCU.

ICR

DIP Switches

The ICR has an **S2** bank of 10 Dual Inline Package (DIP) switches. Switches 1 through 6 provide functional settings; switches 7 through 10 are address settings. The settings and functions are shown in the following tables.

ICR Software

Switch	Function	
S2-1		No function
S2-2	DPT	Open = enables decimal point on the keypad. Closed = the decimal point acts as a CLEAR key.
S2-3	DIS	Open = two lines of display are displayed. Closed = only one line of display is displayed.
S2-4	INSRT	Open = insertion magnetic card reader. Closed = swipe magnetic card reader or optical reader.
S2-5	GATE	Open = ICR. Closed = gate controller.
S2-6	OPT	Open = optical reader. Closed = magnetic card reader.

An address must be set up to identify the ICR. This address is a unique identifier for when multiple ICRs are connected on the same RS-485 line. Up to 16 units can be used on the same line (there are 16 addresses). Addressing must start at 1 and continue sequentially through 16. The physical wiring order does not have to correspond with the address order (the first unit on the RS-485 line does not have to be address 1). The following chart gives the switch setting for the address selections.

Note: The standalone receipt printer (when used) is addressed as an ICR; ensure that you use an address different from any ICR.

	S2-7	S2-8	S2-9	S2-10		S2-7	S2-8	S2-9	S2-10
Address	ADDR4	ADDR3	ADDR2	ADDR1	Address	ADDR4	ADDR3	ADDR2	ADDR1
1	Closed	Closed	Closed	Closed	9	Open	Closed	Closed	Closed
2	Closed	Closed	Closed	Open	10	Open	Closed	Closed	Open
3	Closed	Closed	Open	Closed	11	Open	Closed	Open	Closed
4	Closed	Closed	Open	Open	12	Open	Closed	Open	Open
5	Closed	Open	Closed	Closed	13	Open	Open	Closed	Closed
6	Closed	Open	Closed	Open	14	Open	Open	Closed	Open
7	Closed	Open	Open	Closed	15	Open	Open	Open	Closed
8	Closed	Open	Open	Open	16	Open	Open	Open	Open

An **S3** switch enables the diagnostic mode of the ICR. Diagnostic mode is enabled when the switch is in the down position.

Switch	Function
S3	Up = normal; Down = test mode

Diagnostic tests can be started by keeping the face of the ICR open and press the START OVER key on the keypad.

Note: If you have the island receipt printer, refer to C08951 Star Receipt Printer Maintenance Manual for switch settings and other information.

CPU PCB Jumper Settings

Jumpers on the CPU PCB are used for very basic configurations on the PCB and do not require to set in the field.

Note: When used with an optical reader, these jumpers can be removed or left at the factory settings.

Reader Type

Magnetic Card Reader	K4, 1 & 2	K4, 2 & 3	K5, 1 & 2	K5, 2 & 3
American Magnetics	Jumpered	Open	Jumpered	Open
Omron/Magtek	Open	Jumpered	Open	Jumpered

Disable Pumps PC Board Jumper Settings

The Disable Pumps PC Board is located within the head of the ICR. It is on the left side directly below the board labeled RS-485 Protection Board. If the site's ICR is equipped with an Disable Pumps button, check the K1 jumper on the Disable Pumps PC Board. The Disable Pumps button attempts to shut off pumps regardless of the jumper setting, but the setting determines the following:

- If the jumper is on and the site is configured for emergency stop, when the Disable Pumps button is pressed, the pumps are shut down and the site logs an Emergency Stop condition. It also shuts off pumps not connected to the RS-485 loop (that is, Tokheim pumps).
- If the jumper is off and Disable Pumps is pressed, the pumps just shut off and no message is logged at the SC.

RS-232/RS-485 Converter

The following chart shows the default jumper settings for the RS-232/422 Converter Board.
Note: If using a Tank Monitor or Profit Point, ensure that all jumpers are set to their default settings.

Jumper	Pin	Function
K1 K2	1 & 2	Jumpered, slave side of 485 loop transmits; default
	1 2 3	2 & 3 Jumpered, master side of 485 loop transmits
K3 K4	1 & 2	Jumpered, Tank Monitor or PC; default
	1 2 3	2 & 3 Jumpered, other application if positions 1 and 2 do not work
K5		Always jumpered
		
K6		Jumpered, listens to slave responses or for PC monitor Unjumpered, tank gauge; default
	1 2	
K7		Jumpered, 232 device listens to master side of 485 loop; default
	1 2	

POS Distribution Box (D-Box)

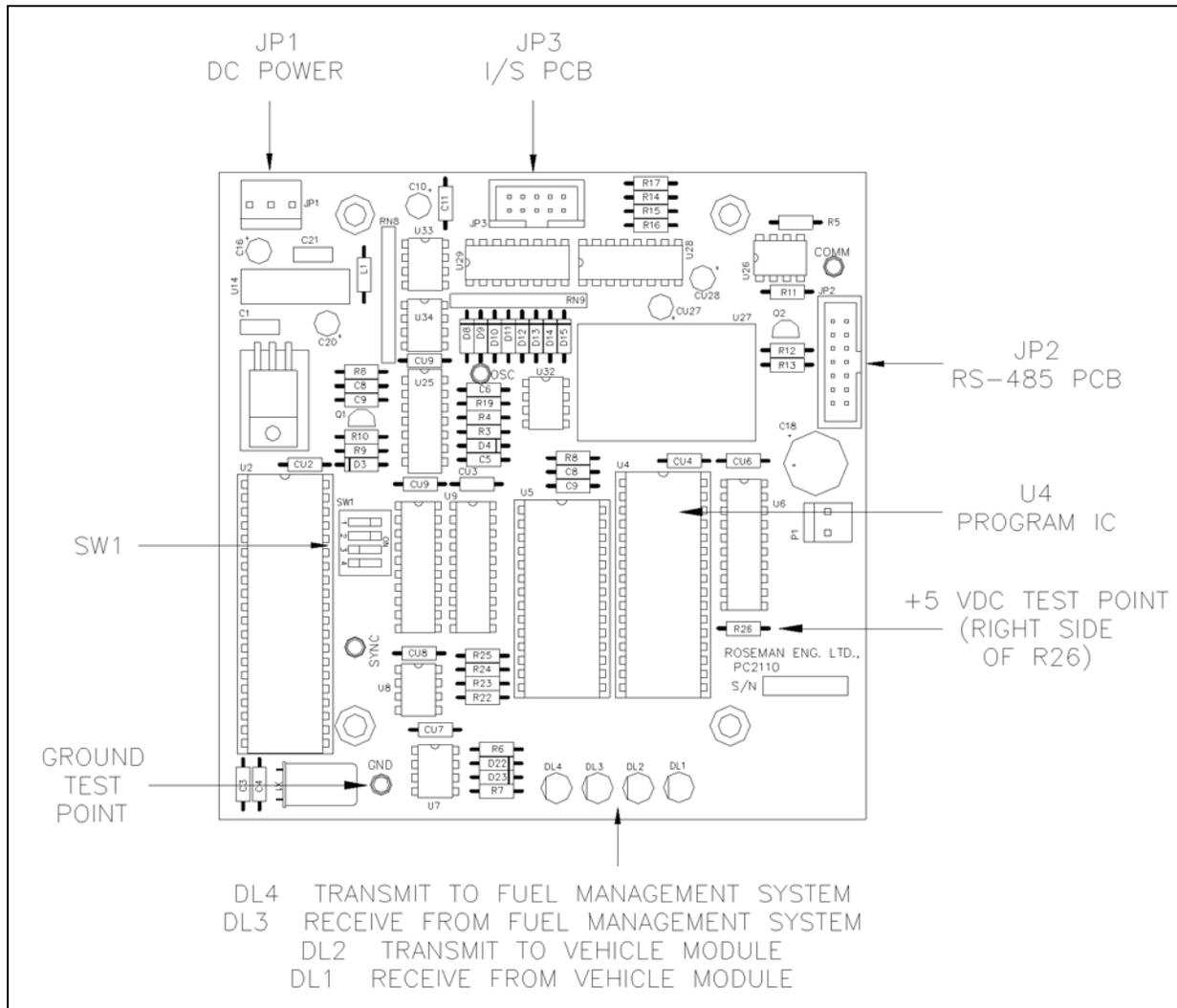
The following chart shows the default jumper settings for the POS D-Box.

Jumper	Function
K1	Jumpered, supplies +12 V to pin 4 at the scanner port
	1 2
K2	Jumpered, supplies +5 V to pin 9 of the scanner port
	1 2
K3	Jumpered, supplies +12 V to pin 4 of the customer display port
	1 2
K4	Jumpered, supplies +5 V to pin 9 of the customer display port
	1 2

FPR

The switches on the FPR CPU PCB (see [Figure 6-6](#)) must be set as shown (refer to “[Switch SW1](#)”) to work with the CFN system.

Figure 6-6: FPR CPU PCB



Switch SW1

Switch	Setting
1	ON
2	ON

FPR Address	Switch 3	Switch 4
1	OFF	OFF
2	OFF	ON
3	ON	OFF
4	ON	ON

Pumps and Dispensers

If you are using Gasboy Series 9800 pumps and dispensers, there are switches that must be set correctly to ensure proper operation of the CFN system. For details, refer to MDE-4341 Series 9800A Pumps and Dispensers Installation/Operation Manual.

If you are using a Gilbarco CRIND device or another pump interface (Tokheim DPTs, Wayne®, and so on) refer to C09146 Pumps Interface Manual.

Standalone Star Printer

The switches on the standalone Star printer are set at the factory and must be correct. If change is required, refer to C01759 CFN Diagnostic Manual for details.

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7 – System Power

To power up the system, proceed as follows:

- 1 Verify if the AC power for the CFN Series System is in accordance with MDE-4298 CFN Series SC III Installation Manual. AC Power for the CFN system components, monitor, printer, external modem, and remote terminal must come from a separate, dedicated circuit breaker. No other equipment, including the system's pumps or dispensers, must be powered from this breaker. Gasboy recommends all CFN components be on the same breaker; however, it is acceptable to supply the power to the different CFN system components and accessories from multiple breakers within the same breaker panel. If required, power for the data terminal or modem may be supplied from a separate, dedicated breaker located in a different breaker panel.

Power for the system must be 120 VAC + 10% 47-63 Hz. Power for the CFN system components must come from the AC Surge Protector Outlet Strip supplied with the system (except for the PCU, ICR, electronic pumps/dispensers, and the Profit Point). The Profit Point and its accessories (scanner, PIN pad, and so on) must be plugged into another AC surge protector strip.

8. System Power

Record the Grounding method as outlined in step 2. Then, record voltage readings for each component from step 4 for Hot to Neutral, Hot to Ground, and Neutral to Ground.

2

IMPORTANT INFORMATION

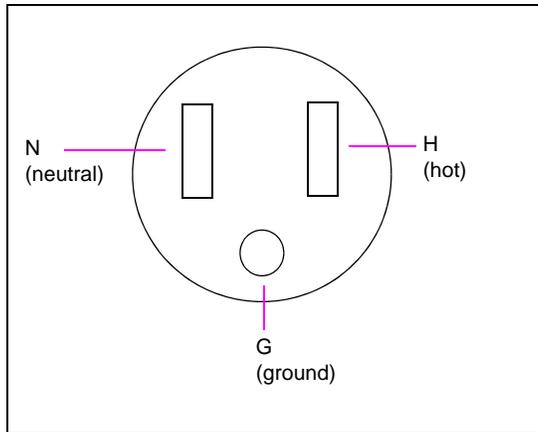
Proper system grounding is an extremely important part of the system installation.

Grounds for all system devices must be wired to the breaker panel ground bus bar which, in turn, must be grounded to a single ground rod. **A conduit ground does not provide a sufficient ground.** It is recommended that the neutral and ground bus bars be bonded together unless prohibited by local codes.

- 3 Ensure that all power switches for the system's devices are in the OFF position. Turn on the circuit breakers for the system's devices; optional power conditioner, PCUs, and ICRs and turn on the AC Surge Protector Switch.

- 4 On the specified locations of the following components, use a digital AC Voltmeter to test and record the voltages as follows:
- Optional power conditioner - on the output receptacle (see [Figure 7-1](#))
 - AC Surge Protector Strip - on the output receptacle (see [Figure 7-1](#))
 - PCU(s) - at TB202
 - ICR(s) - at TB6

Figure 7-1: AC Output Receptacle



Measure		
From	To	Range
Hot	Neutral	Measure AC voltage between the H and N screws. This voltage must be 120 VAC \pm 10% (108 VAC to 132 VAC).
Hot	Ground	Measure AC voltage between the H and G screws. This voltage must be 120 VAC \pm 10% (108 VAC to 132 VAC).
Neutral	Ground	Measure AC voltage between the N and G screws. This voltage must be 0 VAC \pm 1 V.

Note: If power is not within these specifications, correct it before you continue.

8 – Pump/Dispenser Manual Test

Verify General Guidelines

Verify if the general guidelines listed as follows are met when installing the system's pumps and dispensers. If the system contains any electronic pumps, follow the appropriate installation manual for applicable tests.

SUCs

The CFN System is capable of directly driving pump motors up to 3/4 HP at 120/240 VAC or 1-1/2 HP at 240 VAC. A starter relay must be used with pump motors exceeding these limitations. A separate circuit breaker must be supplied for each pump to meet the current requirements and to allow for isolated control with the circuit breaker panel in case of problems.

Dispensers

The CFN System is capable of directly driving SUBs up to 3/4 HP at 120/240 VAC or 1-1/2 HP at 240 VAC. A dispenser with a SUB exceeding these limitations will require the use of a submersible starter relay. A separate circuit breaker must be supplied for each dispenser in cases where it will directly drive the SUB. Dispensers may be grouped together on a single breaker when the SUB has its own breaker. It is recommended that no more than two dispensers be powered from one breaker to maintain isolated control with the circuit breaker panel in case of problems.

Manual Override Test

The pumps and/or dispensers must be tested to verify AC wiring. The following steps indicate the proper procedure for testing and the expected results. If any of these tests fail, correct the wiring and perform the test again. See [Figure 6-3](#) on [page 39](#) for the location of the override switches.

 **WARNING**

Power up only the PCU(s) during these tests!

- 1 Remove all wiring connectors (green) from the pump control I/O Board located in the front of the Card Cage. This will prevent any damage to the PCBs if wiring is incorrect. Ensure that connectors are not touching any metal surfaces.
- 2 Turn on the breakers for all pumps and/or dispensers.

 WARNING

Do not turn on the AC power for the SC, monitor, Profit Point, and so on.

- 3 Turn the AC power and battery power switches, in the PCU located in the upper righthand corner of the power supply, to the ON position (up).

 WARNING

AC power is present on the terminal blocks. Electrical shock may occur if the operator comes in contact with these connections.

- 4 Place the system override switch for Hose 1 in the MAN (manual) position.
- 5 Turn on Hose 1. After completing reset, the hose must be able to dispense product.
- 6 Turn on all other hoses. No other hoses besides 1 must activate.
- 7 Turn off all hoses.
- 8 Place the system override switch, for Hose 1 in the ON position.
- 9 Repeat steps 4 through 8 for all remaining hoses. Substitute the hose number being tested for hose 1 until all hoses have been tested.
- 10 Replace all connectors and reassemble.

9 – Component Power-up and Configuration

Turning On AC Power

Turn on the AC POWER for all system devices as follows.

Power Conditioner/AC Surge Protector Strip

Plug in device. Turn on power switch if applicable.

Monitor

Locate the AC power switch on the monitor and turn on. Refer to the operator's manual for monitor adjustments and Light Emitting Diode (LED) indicators.

Logger/Printer

Locate and turn on the AC power switch for the logger/printer. If using a Link terminal for remote log-in, refer to the setup parameters later in this section.

Profit Point

Profit Point: Locate the AC power switch on the front lower righthand side of the monitor and the AC power switch on the back righthand side of the PPC. Push the switch for the monitor into the ON position; then do the same for the console. Verify if it powers up.

SC

Locate the AC power switch on the front of the PC and turn it on. Some units may also have a power switch in the back.

Verify if the SC is operating properly. Verify if power up message prints on monitor and/or logger.

ICR

Locate the AC power switch inside the ICR assembly, upper righthand corner and turn it up to the ON position. Verify if the two power supply LEDs (red) are lit. Verify if the two RS-485 Communication LEDs (red), located on the upper lefthand corner of the reader CPU Board, are flashing.

PCU(s)

Locate AC power switch and battery switch and turn them on. Verify if the two power supply LEDs (red) are lit. Verify if the two RS-485 Communication LEDs (red) on the pump control CPU Board are flashing.

Electronic Pumps and Dispensers

Locate and turn on power switches. Refer to the Pump Interface Manual or call Gasboy Technical Service for information.

Standalone Receipt Printer (optional)

Locate the AC power switch on the front of the unit. Push the switch to the right (ON) position.

FPR (if used)

Locate and turn on the power switch in the top-left side of the FPR. Verify if the power supply LED, visible through the perforated screen, is lit. Verify if the two RS-485 LEDs, DL3 and DL4 on the FPR CPU PCB, are flashing.

Configuring the PPC

Access the Main Menu from PPC

To access the main menu from PPC, proceed as follows:

- 1 Turn the Manager's key to **MGR** position.
- 2 Sign on (if required).
- 3 Press **SPEC FUNC, 0** and **ENTER**. The Main Menu displays.

*Note: To return to POS mode, select 1 on the Main Menu and press **ENTER**.*

Access the Main Menu from SC III/POS Workstation

To access the main menu from SC III/POS Workstation, proceed as follows:

- 1 Minimize the SC III window and double-click on the PP icon.
- 2 Sign on (if required).
- 3 Press **SPEC FUNC, 0** and **ENTER**. The Main Menu displays.

*Note: To return to POS mode, select 1 on the Main Menu and press **ENTER**.*

- 4 On the Profit Point Main Menu, press **4** (or **C**) and **ENTER**. This displays the Configuration Menu
- 5 Select configuration options by selecting the number or first letter of the option and press **ENTER**.

Note: The options are 1: Software, 2: Hardware, 3: Keyboard, and 4: Setup config.pos file.

Software Configuration

Type **1** (or **S**) and press **ENTER** to display the Software Configuration menu.

When you select an entry, a submenu appears allowing you to select the required options for that entry. The entries are as follows:

1	Training mode off-hook rate	Enter a value from 1 (slowest) to 9 (fastest)
2	Show change as coins and bills	Shows yes to show change, or no
3	Minimum age to buy ask-ID items	Shows one or two ID ages, depending on selections
4	Product totals kept in PLU file	Shows yes to update product totals, or no
5	Keep file of missing items	Shows yes to keep a file, or no
6	Off-hook beep rate	Enter a value (15 seconds, standard) for length of time between 3 beep signals indicating pump is off-hook
7	Validate checks	Prints date, time, register number, clerk number, and amount tendered on checks accepted
8	Enter birthdate when ID required	Select 1 for require; select 2 for do not require
9	Head Clerk signon	Enter user ID and password for head clerk. Used for keyswitch position 2 when 5-position keyswitch is used.

Hardware Configuration

Type **2** (or **H**) and press **ENTER** to display the Hardware Configuration menu. When you select an entry, a submenu appears allowing you to select the required options for that entry. The entries are as follows:

1	Console Address	Enter address of console
2	Address of printer/PIN Pad	Enter address of PIN Pad
3	Type of PIN Pad used	Four choices: local (keyboard), Ingenico®, Verifone®, none
4	Customer display type	Two choices: Ultimate, IEE
5	Profit Point type	Two choices: modular, integral
6	Bar code scanner	Select enabled/disabled
7	Key switch type	Three choices: 2-position, 3-position, 5-position
8	Drawer type	Four choices: switch open = drawer open, switch open = drawer closed, drawer on printer (requires Epson® Serial Printer), no cash drawer
9	Host IP Address	Not used at this time

Keyboard Configuration

Keyboard may be different for every site. For keyboard configuration details, refer to MDE-4356 Profit Point Reference Manual.

Set Up CONFIG.POS File

When you set up the CONFIG.POS file, you specify the special network cards your site accepts, the user-defined menus you want, the sale discounts you offer, the permission level required to use each of the Profit Point's special functions, and idle messages for display. For details, refer to MDE-4356 Profit Point Reference Manual.

Printer Configuration Submenu

The printer configuration submenu allows you to select a forms or invoice printer and specify the port (LPT1 or LPT2) to which it is connected. The receipt printer, if present, is still connected to LPT1 and prints receipts regardless of this configuration. For details, refer to MDE-4356 Profit Point Reference Manual.

Scanner Configuration

When purchased from Gasboy, the scanner must be set up at the factory. If it is not, it is programmed by scanning bar codes supplied with the scanner. A configuration instruction sheet, including a list of required bar codes, is packed with the scanner. For scanner port parameters, refer to MDE-4356 Profit Point Reference Manual.

Okidata® Printer/Logger

The following printer switch settings are applicable for the Okidata 184 printer when connected to a Gasboy CFN Fuel Management System. This document is not intended to be a complete reference for the printer. Consult the documentation that came with the printer.

To prepare the Okidata 184 printer for operation with your Gasboy Fuel Management System, perform the following steps. Install and complete the setup of the printer as specified in the manufacturer's setup instructions. Then set up the switches as follows:

SW1-1	ON	Parity: Odd
SW1-2	ON	Parity: Without
SW1-3	ON	Data bits: 8
SW1-4	OFF	Protocol: XON/XOFF
SW1-5	ON	Test select: Circuit
SW1-6	ON	Mode select: Print
SW1-7	ON	Busy line selection: DTR - Pin 20
SW1-8	ON	Busy line selection: DTR - Pin 20

SW2

Baud Rate	SW2-1	SW2-2	SW3-3
9600	OFF	ON	ON
2400	OFF	OFF	ON
1200	ON	ON	OFF
300	ON	OFF	OFF

*Note: Any change to the baud rate must also be changed on the Link Terminal Communications Setup screen, **Aux Baud** parameter.*

SW2-4	ON	DSR output signal: Active
SW2-5	ON	Buffer threshold: 32 bytes
SW2-6	OFF	Busy signal timing: 1 second (minimum)
SW2-7	ON	DTR signal: Space after power on
SW2-8	OFF	Not used

- 1 Take the printer offline by pressing **SELECT**. The SELECT light must go off.
- 2 Position the print head at the top of the paper and press the **TOF SET** button.
- 3 Put the printer back online by pressing **SELECT**. The SELECT light must go on.
- 4 Press the **MODE** button until the light next to HSD is lit.
- 5 Press the **PITCH** button until the light next to 17 is lit.

Note: Pitch may be set to a lower number (resulting in larger print) if transactions are less than 132 characters.

Remote Terminal Setup

The CFN remote port can be directly connected to a terminal. The terminal supplied by Gasboy is a Link MC5 CRT terminal. If your site uses a remote terminal, install and complete the setup of the terminal as specified in the manufacturer's setup instructions. The baud rate and emulation mode must be set to match the SC configuration.

SC Configuration Changes

Although the system has already been configured and tested at the factory, you may have to perform some configuration changes to match the site's characteristics. Follow the instructions in the SC III Configuration Manual to make these changes.

The software for a CFN system with a 3-1/2" disk drive and a hard disk is supplied on the hard disk and also on two backup 3-1/2" diskettes. During normal system use, any configuration changes that you add to the CFN system are automatically place on the hard disk. To keep your backup current, these changes must be copied onto the 3-1/2" backup diskette labeled DISK #1.

The possible configuration programs are: SYS_PAR, READER, PUMP, CONSOLE, TABLE, TRFMT, PERM, GATE, and FUELPT. Detailed information on these programs can be found in the MDE-4872 CFN III Configuration Manual for Windows XP Version 3.6. The following list contains items which may require changing the SC configuration:

- Use SYS_PAR parameters to change the Site ID #, Switch timeouts, and Pulser timeouts.
- Serial port configuration. Ensure if all devices are plugged into the correct ports, and the printer (if present) is set up according to the instructions provided earlier in this section.
- Use PUMP to check configuration to ensure if correct pumps were set up at the factory. Reassign PCUs if changes were made to previous pump types. If pulse rates require to be changed, open S4 at the back of the SC III boards (slide away from loop connectors).
- If using a network, refer to the applicable Credit and Debit Card Networks Manual, for specific network configuration considerations.
- If using Tokheim DPTs, refer to DPT Instructions available in MDE-4624 Gasboy CFN Series Tokheim Pump PC Interface for CFN III with Windows NT or XPE.
- If using a Profit Point, refer to the appropriate manuals listed in Section 1 for any special configuration considerations.
- If using Gate Reader, it is possible to configure the Prompts and Timeouts parameters.
- If using a Tank Monitoring system, it is possible to configure the add to inventory and log delivery parameters.
- Use FUELPT to set the nozzle ring assignments and other Fuel Point parameters.
- If using Unitec Car Wash option, you can use the GATE program to set parameters, types, and discounts.

Series 9800 Electronic Pumps and Dispensers

If you are using Series 9800 pumps and dispensers, there are switches that must be set correctly to insure proper operation of your CFN system. For details, refer to MDE-4341 Series 9800A Pumps and Dispensers Installation/Operation Manual.

10 – DC Power Measurement and Adjustment

The following steps describe, for each of the components, how to measure the voltages required in “[Component Power-up and Configuration](#)” on [page 55](#). DC POWER of the Start-up Form. If any of the measured DC voltages are outside of the tolerances noted (except for +5 that can be adjusted), immediately shut off the AC POWER switch of the unit and diagnose the problem. Test points are shown for each of the system devices in this section. All voltage measurements must be taken with the negative lead of the digital voltmeter on the ground (GND) test point.

9. DC Power

As you are measuring the noted voltages, fill in the readings for each in this section of the Start-up Form.

SC III

The SC III has no DC power adjustments.

PCU(s)

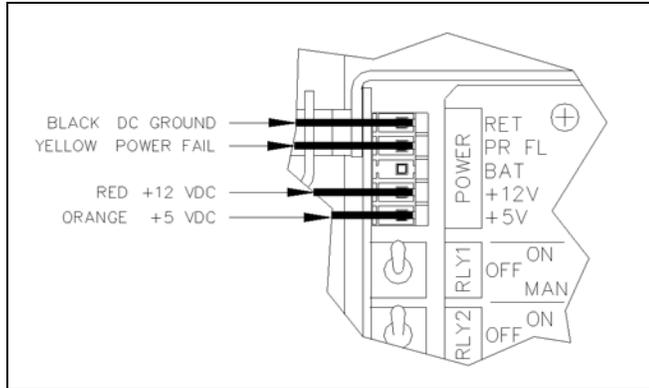
+5 VDC Measurement

For +5 VDC measurement in the PCU, proceed as follows:

- 1 Turn off the AC and DC power switches on the supply assembly.
- 2 Locate the connector labeled POWER in the upper left-hand corner of the Motherboard. Remove the black plastic cover.
- 3 Turn on the AC and DC power switches.

- 4 Measure the +5 VDC between the orange (+) and black (-) wires (see [Figure 10-1](#)). The voltage must be +4.95 to +5.05 VDC.

Figure 10-1: PCU +5 VDC Measurement Points



- 5 Measure the +12 VDC between the red (+) and black (-) wires (see [Figure 10-1](#)). The voltage must be +11.50 to +15.50 VDC depending on the type and number of pulsers and the number of relays energized.
- 6 Measure the POWER FAIL between the yellow (+) and black (-) wires (see [Figure 10-1](#)). The voltage must be +4.75 to +5.05 VDC.
Note: There are no adjustments for these voltages.
- 7 Turn off the AC and DC power switches.
- 8 Replace the black plastic cover on the connector and turn the AC and DC power switches back on.

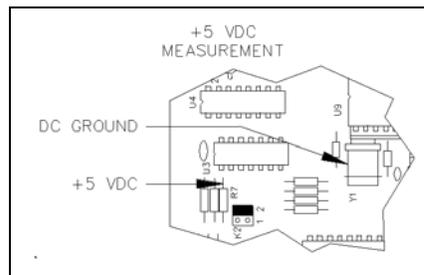
ICR

+5 VDC Measurement

For +5 VDC measurement in the ICR, proceed as follows:

- 1 Unlock, unscrew, and lower the face of the ICR.
- 2 Measure the +5 VDC between the top of the resistor R7 (+) and the case of crystal Y1 (-) (see [Figure 10-2](#)). The voltage must be +5.00 to +5.10 VDC.
 - If the voltage does not fall within this range, adjustment is required. Follow the steps in [“+5 VDC Adjustment”](#) to adjust the supply.
 - If the voltage is within tolerance, skip to [“+12 VDC Measurement”](#) on [page 64](#).

Figure 10-2: ICR +5 VDC Measurement Point



+5 VDC Adjustment

For +5 VDC adjustment in the ICR, proceed as follows:

- 1 Turn off the AC POWER switch in the ICR.
- 2 Remove the two white connectors on the power supply labeled DC OUT and AC IN.
- 3 Remove the four 5/32-inch nuts on each corner of the power supply, and remove the supply.
- 4 Exercise care that it does not touch any of the circuits on the front door, lay the power supply on a non-conductive surface (such as heavy plastic or cardboard).
- 5 Reconnect the two connectors on the power supply labeled DC OUT and AC IN.
- 6 Attach the meter probes to R7 and Y1 on the CPU PCB.
- 7 Turn the AC POWER switch back on.

WARNING

Exercise care not to touch anything but the adjustment screw. High voltage exists at various points on the supply and the circuit mounted on the rear of the supply.

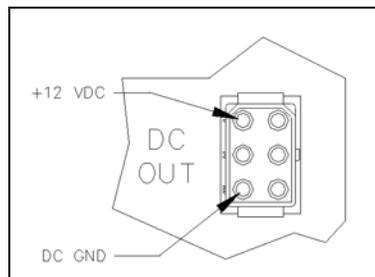
- 8 Using a 1/8" or smaller plastic, flat-blade screwdriver, adjust the power supply to +5 VDC by turning the screw clockwise to increase voltage, counterclockwise to decrease voltage. Turn the screw slightly to judge how sensitive the adjustment is.
- 9 Disconnect the meter probes.
- 10 Turn the AC POWER switch off and return the power supply to its normal location.
- 11 Fasten the nuts holding the supply.
- 12 Turn the AC POWER switch back on.

+12 VDC Measurement

For +12 VDC measurement in the ICR, proceed as follows:

- 1 Measure the +12 VDC between the red (+) and black (-) wires on the DC OUTPUT connector of the power supply (see [Figure 10-3](#)). The voltage must be +11.00 to +14.00 VDC.

Figure 10-3: ICR +12 VDC Measurement Point



- 2 Close and lock the unit, and replace the screws on the face.

FPR

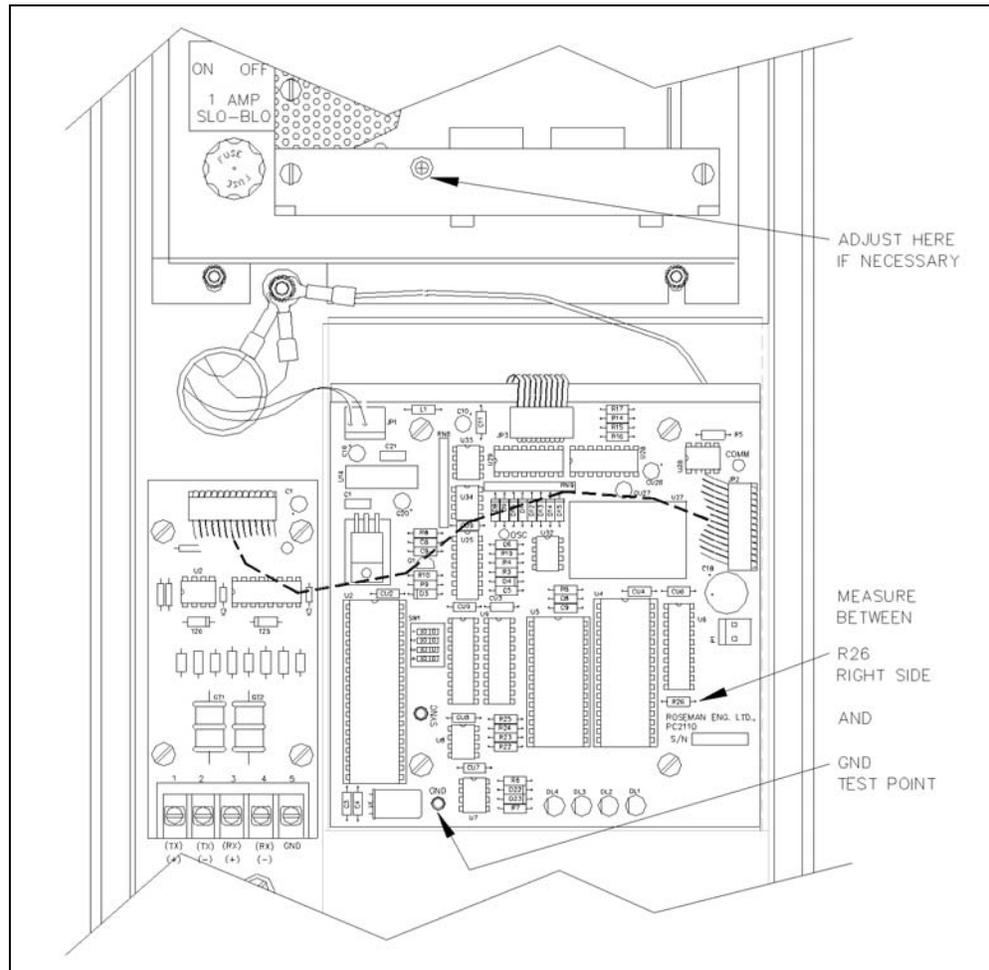
+5 VDC Measurement

For +5 VDC measurement in the FPR, proceed as follows:

- 1 Unlock, unscrew, and remove the FPR door.
- 2 Using a DC voltmeter, measure the +5 VDC between the GND test point and the right side of R26, both located on the FPR CPU PCB (see [Figure 10-4](#) on [page 65](#)).

- 3 The acceptable voltage range is +5.0 to +5.1 VDC, but try to adjust it as close as possible to +5.0 VDC.
Note: There is an access hole in the power supply bracket to facilitate adjustment without disassembly.

Figure 10-4: FPR +5 VDC Measurement Point



PPC

There are no DC power adjustments in the PPC.

Electronic Pumps

For power adjustments for the 9800 or other electronic pumps, refer to the manufacturer's instructions.

11 – Communication Tests

To perform the communications tests, proceed as follows:

- 1 Verify if the external communication devices are located in the proper environment as described in the following.

Remote Terminal

When a remote terminal is used with the system it must be located in a clean, office-type environment. It must not be installed over a hazardous location. CRTs/data terminals supplied by Gasboy have an operative temperature range of 32 °F to 104 °F. Locating the terminal in a dirty environment may cause premature failures.

Modem

When a modem is used with the system, the modem must be located in an office-type environment. If this is not possible, it must be housed in a protective enclosure with ventilation. It must not be installed over a hazardous location. External modems supplied by Gasboy have an operative temperature range of 32 °F to 104 °F.

- 2 Verify if the cables for the communication ports meet the installation requirements listed in the Installation Manual.

Ports (1, 4, 5, 6, COM1, COM2, COM3, COM4, COM5, COM6, and LPT1)

Ports 1, 4, 5, and 6 are general purpose RS-232 Ports that will work with various external devices such as a direct pump interface, Hayes-compatible modem (for bank interface), or logger. These ports are configured using site configuration program SYS_PAR. COM1 may be connected to a mouse. LPT1 may be used with a parallel log printer. On the SC III/POS Workstation, LPT1 is connected to the receipt printer; COM2 to the POS DBox.

Power

The AC power for all equipment must be supplied by the AC Surge Protector Outlet Strip (on a separate dedicated circuit breaker). The Profit Point and its accessories must be powered from another AC Surge Protector Outlet Strip.

Note: All conduit, system and pump/dispenser wiring must be installed according to the specifications detailed in MDE-4298 CFN Series SC III Installation Manual.

- 3 Test the communication ports by testing the following attached devices. The required tests will vary according to the type of devices connected to the ports and the ports used. When testing the ports, the actual equipment and communication lines that will be used at the site must be used in the test whenever possible. It is recommended that a log printer always be connected so that transactions can be logged as they occur.
- 4 Verify if the following are connected and working.
 - Mouse
 - Keyboard
 - Monitor

SC III or Remote Terminal

- 1 Verify if the SC III (and remote terminal, if applicable) is connected properly and that the monitor is displaying a SC III window or full screen. If it is not, put the arrow on the SC III icon (by moving the mouse) and double-click on the icon.
- 2 Press **RETURN** (you may have to set up switches and parameters on the terminal). The system must respond: sign on.
- 3 Type your User Name and Password and press **RETURN**.

The system must respond: Connected to site 1001 on along with the day, date, and time, followed by the command prompt (P*).

- 4 Type P DA and press **RETURN**. The system prints the date, time, transaction numbers, sequence number, and version number, followed by the command prompt (P*).
- 5 Type LOG MESS...Testing Okidata Printer. The printer must repeat the typed message plus the date and time.
- 6 Type EX and press **RETURN**. The system prints Sign off, along with the day, date, and time. When command terminal and logger are connected on the same port, the system goes into the monitor mode.

Modem

If modem is not supplied by Gasboy, it must be set up using the following parameters:

- Modem hangs up with on/off transmission of DTR
- Auto answer enabled
- Carrier detect present when connection is complete
- Jack select RJ41S RJ455
- Bell compatible with 103/212A modems
- Line error detect disabled
- Result code disabled

Note: This procedure verifies remote polling only. This is not a network test. Consult your network representative for network testing.

- 1 Turn on the site modem and the modem/data terminal device from which the call will originate.
- 2 Set communication program to proper baud rate (9600 default), N, 8, 1 (refer to the operator's manual that comes with the modem).
- 3 Dial up the CFN site and establish a communication link with the system.
- 4 Press **RETURN**. The system must respond Sign on.

- 5 Type GASBOY and press **RETURN**.

Note: For security reasons, GASBOY will not display as you type it.

The system must respond: Connected to site 1001 on along with the day, date, and time, followed by the command prompt (P*).

- 6 Type P DA and press **RETURN**. The system prints the date, time, transaction numbers, sequence number, and version number, followed by the command prompt (P*).
- 7 Type EX and press **RETURN**. The system prints Sign off when connected to the remote port, and terminates the communication line.
- 8 Hang up the phone.

Tank Monitor™ (Serial Port)

If you have a Tank Monitor connected through one of the Serial Ports and not the RS-485, use the following to verify communications. The Tank Monitor must be set up with the following parameters.

TLS-250 or Generic		TLS-350 only	
Baud rate	9600	Baud rate	Match SC
Data bits	7	Data bits	8
Parity	Odd	Parity	None
Stop bits	1	Stop bits	1
RS232 Security Code	Disabled	End of message character	Enabled

- 1 Ensure that the Tank Monitor is on and set up.
- 2 At the site data terminal, sign on to command mode.
- 3 Type REC TMTST.CMD and press **ENTER**. This starts recording a temporary command file named TMTST.CMD.
- 4 At the Data? prompt, type in the following and press **ENTER** at the end of each line. In the second and third lines below, substitute the port number for the X. Use only the PORT OPEN statement that applies to the Tank Monitor type (see [Figure 11-1](#) on [page 70](#)). Do not use both.
Note: Text below must be typed in uppercase. Do not type text in parentheses.

```

*TM PORT TEST
PORT OPEN X BAUD 9600 DATA7 PARITY ODD (this line for TLS-250 or generic)
PORT OPEN X BAUD xxxx (this line for TLS-350 only)
PORT SEND ~01
PORT SEND 200
LOOP
PORT RECEIVE QUIET 2 FILE TMTST.DTA
IF '%E = 1 (the special character appearing before the percent sign is a back quote)
RETURN
PORT CLOSE
TY TMTST.DTA
. (period must be on a line by itself)

```

Figure 11-1: Sample of Creating TMTST.CMD File for TLS-350

```

REC TMTST.CMD <ENTER>
Data?
*TM PORT TEST <ENTER>
PORT OPEN 2 BAUD 9600 <ENTER>
PORT SEND ~01 <ENTER>
PORT SEND 200 <ENTER>
LOOP <ENTER>
PORT RECEIVE QUIET 2 FILE TMTST.DTA <ENTER>
IF '%E = 1 <ENTER>
RETURN <ENTER>
PORT CLOSE <ENTER>
TY TMTST.DTA <ENTER>
. <ENTER>
P:

```

- At the command prompt (P* or [P:]*), type TMTST and press **ENTER**. After the command has completed, you must have a printout similar to the one shown in [Figure 11-2](#).

Figure 11-2: Sample Tank Monitor Printout

```

VEEDER-ROOT
TLS
TANK LEVEL SENSOR
-----
FEB 9, 2005
2:25 PM

```

TANK	PRODUCT	GALLONS	INCHES	WATER	DEG F	ULLAGE
1	UNLEADED	3858	34.60	0.0	72.9	1142
2	DIESEL	7331	66.01	1.0	60.2	2669

- After you have verified that the communications are working, type DEL TMTST.* and press **ENTER**. This deletes the TMTST files.

12 – Pump/Dispenser Automatic Test

The automatic test verifies pump operation and ensures that transactions are accurately recorded and that quantities and prices agree with those displayed on the pumps. As each transaction is completed, it must print on the data terminal attached to the logger port. For remote sites not using the monitor mode, either a data terminal can be temporarily connected to the logger port or the information will have to be manually polled. The steps outlined in this section indicate the proper procedure for testing and the expected results.

IMPORTANT INFORMATION

Before the pumps can be properly tested in automatic using the ICR and/or console, the CFN system must be configured for the pulser type on each pump (for example, gallon wheel, money wheel, electronic register) and the pulser rate (for example, 1:1, 10:1, 100:1, 500:1). To verify this, perform the print pump command, P PU, and verify the rate column on the printout with the physical pumps at the site.

Note: The system counts edges, not pulses. For example: 10:1 on gallons = 20 edges per gallon, 100:1 on gallons = 200 edges per gallon. If you have a penny pulsing pump (for example, one pulse per penny), a 10:1 pulse ratio would yield 200 edges per dollar. When you do a P PU command, the edges figure is shown in the RATE column.

When using pumps and/or dispensers at retail sites, the proper price must be set on the pump and loaded in the system to verify proper registration. The fallback price (Level 0) must be the same as the posted prices; if using dollar pulsers it must be the same.

If you are using the SC III interfaces to electronic pumps, pulse rates are not important. On Gilbarco pumps/dispensers, pulse units must be \$ (dollar).

If pulse rates require to be changed, open switch SW4 on the back of the CFN III. After the required changes are made, ensure that you return the switch to its original position.

ICR - Pump Activation Test (Optional)

To perform the ICR - Pump Activation Test, proceed as follows:

- 1 Place all the override switches, located in the PCU(s) (see [Figure 6-3](#) on [page 39](#)) into the ON position.
- 2 Use the test cards (provided with each system) to select Hose 1.
- 3 Turn on Hose 1 using the pump handle. Hose 1 must reset and be able to dispense product.
- 4 Dispense some product with Hose 1.

- 5 Turn on all other hose handles. Only Hose 1 must be activated or dispense product.
- 6 Turn off all other hose handles.
- 7 Turn off the handle for Hose 1.
- 8 Place the handle for Hose 1 back into the ON position. Hose 1 must not reset and must not dispense product.
- 9 Verify if the quantity displayed on the Hose 1 register matches the quantity (and price, if applicable) recorded on the system printout.
- 10 Repeat steps 2 through 9 for all hose outlets.
Note: Continue with steps 11 through 15 only if you are using dispensers or dual hose single motor SUCs.
- 11 Use the test card to select two hose outlets of the same product type (that use the same SUB).
- 12 Turn on both pump handles. Both hose outlets must reset and be able to dispense product.
- 13 When dispensing product from one hose (A), allow the other hose (B) to time out.
- 14 When Hose B has timed out, try to dispense product from it by squeezing the nozzle. You must not be able to dispense product from Hose B. If you can, verify if the dispensers use solenoid valves rather than hydraulic valves, and re-check that particular pump's or dispenser's wiring.
- 15 Repeat steps 11 through 14 for all combinations of hose outlets of the same product type.

Profit Point or SC III/POS Workstation - Postpay Pump Activation Test (Optional)

For more information, refer to MDE-4355 Profit Point Clerk's Manual.

To perform the Profit Point or SC III/POS Workstation - Postpay Pump Activation Test, proceed as follows:

- 1 Turn the pump handle of pump 1. Profit Point beeps three times at set intervals, indicating pump is offhook.
- 2 On the Profit Point, press **OFF HOOK** button, then **START**.
- 3 Dispense some product from pump 1; then turn pump off using pump handle.
- 4 Press **PAYABLE** until sale is selected in pull down menu.
- 5 Pay off sale (Press **CASH**, enter amount, **ENTER**). Drawer will open. Close drawer.

- 6 Verify if the quantity displayed on the pump 1 register matches the quantity recorded on the logger printout (cash price, price level 1 or level 0 if no level 1 is used).
- 7 Repeat steps 1 through 6 for all hose outlets.

Profit Point or SC III/POS Workstation - Prepay Pump Activation Test (Optional when using Dual-stage Solenoid Valves)

To perform the Profit Point or SC III/POS Workstation - Prepay Pump Activation Test, proceed as follows:

- 1 Select pump 1 by pushing the Pump 1 key on the Profit Point.
- 2 Prepay the sale (PREPAY, 1 0 0, ENTER, START). Drawer opens. Close drawer.
- 3 Use the pump handle to turn on pump 1 and squeeze the nozzle. Pump product until it stops. Pump 1 will dispense product in fast flow until the slow cutoff is reached, then the pump will dispense slowly until cutoff.
- 4 Verify if the total sale and gallon amount displayed on the pump 1 register matches the volume and amounts you pre-selected on the Profit Point. Verify if the printout on the log printer matches these totals.
- 5 Repeat steps 1 through 4 for all hose outlets.

Before Using Fuel Point

Before using Fuel Point, verify the following.

- Vehicle Modules (VM) are installed in accordance with C35699 Fuel Point VM Installation Manual.
- VMs are programmed as explained in MDE-4524 VM Programming Manual.
- The required SC configurations have been made to FUELPT.BIN and SYS_PAR.BIN, using MDE-4872 CFN III Configuration Manual for Windows XP Version 3.6. The configurations to FUELPT.BIN must match the factory-configuration of the VM programmer. If you do not know how your programmer is configured, call Gasboy Technical Services for assistance.

Fuel Point Setup for Ground Loop Fueling

This setup procedure must be performed before the system can accept any transactions originating from the ground loop antenna. This routine only requires to be performed once for each FPR, regardless of the number of pumps assigned to the FPR or the number of vehicles equipped with a VM.

To set up the Fuel Point for Ground Loop Fueling, proceed as follows:

- 1 At the SC, go to the Individual Parameters menu of the FUELPT.BIN program; reconfigure one of the ring channels on each FPR to be type “P” (pump).
- 2 Position a vehicle over the ground loop antenna at one FPR.
- 3 At the VM, disconnect the T-Ring wires from the GATE connector and move them to the T-RING connector.
- 4 Pump some quantity of fuel then hang up the hose.
- 5 Verify if a transaction was recorded showing the correct VM data.
- 6 Repeat steps 2 through 5 for each FPR.
- 7 At the VM, move the T-Ring wires from the GATE connector back to the T-RING connector.
- 8 At the SC, go to the Individual Parameters menu of the FUELPT.BIN program; reconfigure the ring channels for each FPR back to type “L” (ground loop).

Fuel Point - Pump Activation Test

To perform the Fuel Point - Pump Activation Test, proceed as follows:

- 1 Take a hose from the pump and turn on the pump handle. The pump must not reset. Turn the pump handle off again.
- 2 Verify if a vehicle has been properly equipped with a programmed Fuel Point VM and antenna. If equipped with the EID option, touch a valid EID to the EID Reader and verify if the green lamp on the Reader is lit.
- 3 If this fueling position is not equipped with a ground loop antenna, skip this step. Position the vehicle over the ground loop antenna. The pump must be authorized. Turn the pump handle on and begin fueling.
- 4 If this fueling position is equipped with a nozzle antenna ring, turn the pump on and insert the nozzle into the vehicle. Within a few seconds, the pump must be activated and fueling can begin.

- 5 After a few gallons, hang the nozzle back on the pump; verify if the correct EID and VM data have been recorded.
- 6 Repeat for all hose outlets.

Reader Entries and Fuel Point

If the system was ordered with the reader entry option, you must enter data at the card reader with every Fuel Point transaction. This entered data is combined with the data already programmed into the VM.

- 1 Insert the wired-hose into the vehicle's fill pipe, or, park the vehicle over the ground loop, whichever is applicable.
- 2 Navigate to the card reader that is assigned to the Fuel Point controlling this hose. The reader will be scrolling broadcast messages, or a SLIDE CARD message. (The card reader is assigned to a FPR in the FUELPT.BIN configuration program).
- 3 On the keypad, press the pump number that you are using, followed by **ENTER**. The display now prompts you to enter certain data. Follow the prompts until finished.
- 4 The pump must turn on when all entries have been successfully entered.

Obtaining a Receipt for Fuel Point Transactions

If Using an ICR

To obtain a receipt for Fuel Point transactions when using an ICR, proceed as follows:

- 1 After the transaction has been completed, go to the ICR. The reader will be scrolling broadcast messages, or a SLIDE CARD message.
- 2 Select the pump number you just used, followed by **ENTER**. There is no further prompting for the receipt. The receipt will print for the last transaction that occurred at that pump within the last 20 minutes. Since only the last transaction at that pump is available as a receipt, you must get your receipt before allowing another transaction to complete at that pump.

If Using an Electronic Dispenser with a Built-in Printer

After the transaction has completed, the receipt will be printed automatically, or the display may prompt for the receipt, depending on the configuration in SYS_PAR.BIN.

Master/Satellite Dispensers with Fuel Point

The design of the Fuel Point system allows a nozzle ring on the master dispenser only. This indicates that the master nozzle must always be inserted in the truck's fill pipe with the tank ring in order for the satellite dispenser to operate. If the truck must be able to pull into the fuel lane from either direction, then you may add a tank ring to both fill pipes.

Using the Chain Pump Feature with Fuel Point

The chain pump feature is used when activation of a fuel dispenser also turns on a bank of fluid reels. In this application, the dispenser is known as the master of the chain. Only the master of the chain has a nozzle ring, so its hose must remain in the fill pipe until all fueling and fluid hoses are finished pumping.

Fuel Point - Gate Activation Test

This test must not be run until at least one successful fueling transaction is performed, as in the tests above.

To perform the Fuel Point - Gate Activation Test, proceed as follows:

- 1 Position the vehicle over the ground loop antenna. Within a few seconds, the gate opener must operate.
- 2 Follow the gate opener manufacturer's operating instructions.
- 3 Verify if the system records the correct VM data.

13 – Start-up Commands

CAUTION

Some of the commands in this section use the ; I option. This command option must be used only at start-up. It initializes (erases) any data previously entered for these commands. Subsequent use of these commands must omit the ; I option.

Use the following commands to set up the system at the initial start-up. Depending on the particular configuration, some of these commands must not be performed. All commands are covered in more detail in MDE-4871 CFN III Manager's Manual for Windows® XP Embedded - Version 3.6.

If you filled in the checklist in “[Begin Start-up Form](#)” on [page 27](#), you already have the information you must start up the system. In all examples, bold represents the information that you enter, and <RETURN> represents the RETURN key.

To show that it is ready to accept input, the SC displays a letter asterisk combination (P*). The examples in this section all use the P* prompt.

Sign-on and Preliminary Steps

Sign-on

To sign on, proceed as follows:

- 1 Press **RETURN**. The system responds with the prompt “Sign on”.
- 2 Type **97, GASBOY** and then press **RETURN**. (The user 97 and the word GASBOY shown in [Figure 13-1](#) are for example, only. They are not displayed as you type).

Figure 13-1: Example of SIGN-ON Entry with Response

```
SIGN ON: 97,GASBOY <return>
CPU ID = 00104146 (usually 8 digits)
Pass Key = F7E1 3BDF 186C 14BD (16 DIGITS)
```

Note: The CPU ID will be different for each PC Site Controller and the Pass Key will be different every time you sign on as User 97.

- To obtain your initial password, contact the Gasboy Technical group at 1-800-444-5529. Provide the CPU ID number and the Pass Key alpha-numeric information displayed on the monitor to the TAC representative, clearly and accurately.

The TAC representative will provide you a Password consisting of 16 characters (see [Figure 13-2](#)).

Figure 13-2: Example of Initial Password from TAC

```
Example: 456E 98CD A123 B987
```

- At the SIGN-ON prompt, enter the User ID 98, a comma, and the new password with no spaces (see [Figure 13-3](#)).

Figure 13-3: Example of Initial Sign on as First Administrator

```
Sign on: 98,456E98CDA123B987 <RETURN>
P*
```

Note: User 98 is automatically set up by the system. Type "98" followed by the master password to gain all access to the Gasboy Secure Controller. The master password is case-sensitive and the letters provided will always be in upper case.

Setting Administrator User IDs and Passwords

To set Administrator User IDs and Passwords, proceed as follows:

- Type **ADMPASS** at the P* as User 98 will access the ADMPASS menu window and allow you to add additional administrators and all the other users with their security level for the entire system.

IMPORTANT INFORMATION

When you are signed on as User 98 for the first time, immediately add another user with a high administrative level (9 or 10).

Figure 13-4: Password Administration Menu

```
P* ADM* <RETURN>
      Gasboy International Site Controller III
      Version 1.0.0.5
      Password Administration Menu
1. Add new User to System:
2. Enable or Disable User:
3. Modify user Information:
4. Remove User from System:
Enter item Number, Q-Quit
At any time press ? For help:
```

- 2 Select **1** to add a new user. The new user menu will appear. Default values are shown in [Figure 13-5](#).

Figure 13-5: New User 2 Security Menu

```

New User 2 Security Menu
1. New Password for User      : Password required
2. DAYS Allowed for Password use : 90
3. User Permission level     : 1
4. User Access to System     : Enabled
Enter Item Number, ?-Help, S-Save, Q-Quit:

```

- 3 Enter a password using 7 to 16 characters and select **Enter**.
Note: Use only numbers from 0 to 9 and lower or upper case letters A to Z, to create the password.
- 4 Enter the required information in the 2, 3, and 4 fields on the menu and enter **S** to save. The system displays a confirmation message, as shown in [Figure 13-6](#).

Figure 13-6: Response Window for New User 2

```

User ID Number 2 saved
Ask for another Item Number, Q-Quit
At any time press ? For Help

```

Security Key Management

To set up the system's keys, proceed as follows:

- 1 Type **SECURITY** at the prompt. The System Key Management window appears. The System Key Management window is used to set up, save, and update the Master Key and Pass Key. The Master Key requires a 20 - 28 character password, and the Pass Key must be set to 16 characters only (alphanumeric). The two security keys, Master and Pass keys must be loaded by two separate users with a security level of 10 or higher.
Note: You may create your own alphanumeric scheme.

Figure 13-7: Example of System Key Management

```

                                System Key Management
                                1.0.1.0
Security Administration Menu
1. Enter New System Pass Key   : Not Entered
2. Save Pass Key to diskette   : N/A
3. Enter New System Master Key : N/A
4. Save Master Key to diskette : N/A
5. Get Pass Key from Diskette  : Pass Key Not Read from Diskette
6. Get Master Key From Diskette : Master Key Not Read from Diskette
7. Update System Keys         : System Previously Updated

Enter Item Number, RETURN-Next Page, Q-Quit
At any time press ? for help : _

```

Loading Date and Time into the System

To load the date and time into the system, proceed as follows:

- 1 Type LO DA and press **RETURN** in [Figure 13-3](#) on [page 78](#) to load the date and time into the system (see [Figure 13-8](#)). Use military time.

Figure 13-8: Example of LO DA Command with Prompts

```
P* LO DA <RETURN>
Month? 8 <RETURN>
Day of month? 23 <RETURN>
Year? 05 <RETURN>
Hour? 12 <RETURN>
Minute? 31 <RETURN>
Thu 8/23/05 12:31 PM, Trans = 57, Seq = 624 SCIII v3.0
P*
```

Receipt Header, Broadcast Messages

To create receipt headers and broadcast messages, proceed as follows:

- 1 Type LO H;IC to load into the system the receipt heading and footing messages for the receipt printer(s) (see [Figure 13-9](#)). (For systems with optional receipt printer only.) If using Tokheim DPTs, contact Gasboy Technical Service for information.

Figure 13-9: Example of LO H;IC Command with Prompts

```
P* LO H;IC <RETURN>
Line number (0, 0X, 1X) ? 1 <RETURN>
Heading line? CFN AUTOMATED SYSTEM <RETURN>
Line number (0, 0X, 1X) ? 2 <RETURN>
Heading line? 24 HR. FUELING <RETURN>
Line number (0, 0X, 1X) ? 11 <RETURN>
Footing line? THANK YOU <RETURN>
Line number (0, 0X, 1X) ? 12 <RETURN>
Footing line? PLEASE COME AGAIN <RETURN>
Line number (0, 0X, 1X) ? 0 <RETURN>
Form feed length? 5 <RETURN>
Line number (0, 0X, 1X) ? <RETURN>
P*
```

- 2 Type LO ME;IC to load into the system the broadcast messages for the reader terminal (see [Figure 13-10](#)). Starting with message 1, type the message number, the time in seconds to be displayed, and the text of the message (up to 20 characters). Continue for up to 10 lines (messages).

Note: If Tokheim DPTs are being used, contact Gasboy Technical Service for assistance.

Figure 13-10: Example of LO ME;IC Command with Prompts

```
P* LO ME;IC <RETURN>
Message number? 1 <RETURN>
Display time is seconds? 2 <RETURN>
Message to display? WELCOME PATRONS <RETURN>
Message number? <RETURN>
P*
```

Load Fuel Products, Pumps, Tanks, Prices, and Taxes

To load the fuel products, pumps, tanks, prices and taxes, proceed as follows:

- 1 Type REM PRO;A to initialize all the product codes and clear any existing product information for fuel and non-fuel products (see [Figure 13-11](#)).

Note: Use the ; A option at start-up only.

Figure 13-11: Example of REM PRO;A Command

```
P* REM PRO;A <RETURN>
P*
```

- 2 Type LO PRO;AC to load the system's fuel product codes, categories, names, and pricing data (see [Figure 13-12](#)).

Figure 13-12: Example of LO PRO;AC Command with Prompts

```
P* LO PRO;AC <RETURN>
Product code? 1 <RETURN>
Category? 1 <RETURN>
Product name? Regular <RETURN>
Minimum price? 0 <RETURN>
Maximum price? 0 <RETURN>
Taxes? 0 <RETURN>
Product code? <RETURN>
P*
```

- 3 Type LO IN;C to load inventory amounts and reorder levels for fuel products (see [Figure 13-13](#)).

Note: LO IN automatically enables inventory tracking. For more information on inventory tracking, refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6.

Figure 13-13: Example of LO IN;C Command with Prompts

```
P* LO IN;C <RETURN>
Product? 1 <RETURN>
Quantity? 400 <RETURN>
Reorder level? 100 <RETURN>
P*
```

- 4 Type RE PU to reset the pumps to zero (see [Figure 13-14](#)). If you wish to set the quantity and dollar totalizers maintained by the SC to the same settings as the mechanical totalizers on the pump, do a LO PU;C command (see [Figure 13-15](#)).

Note: You may load up to five hoses per pump. When you enter the last hose for a particular pump, press RETURN at the next hose number prompt to get the next Pump Number prompt.

Figure 13-14: Example of RE PU Command with Prompt

```
P* RE PU <RETURN>
Verify (Y/N)? Y <RETURN>
P*
```

Figure 13-15: Example of LO PU;C Command with Prompts

```
P* LO PU;C <RETURN>
Pump number? 1 <RETURN>
Hose number? 1 <RETURN>
Quantity? 5624.8 <RETURN>
$amount? 3217.95 <RETURN>
Hose number? <RETURN>
Pump number? 2 <RETURN>
Hose number? 2 <RETURN>
Quantity? 2345.9 <RETURN>
$amount? 6789.10 <RETURN>
Hose number? <RETURN>
Pump number? <RETURN>
P*
```

- 5 Type LO TA;C to load the system's initial quantity, product code and reorder level for each tank (tank inventory) (see [Figure 13-16](#)).

Figure 13-16: Example of LO TA;C Command with Prompts

```
P* LO TA;C <RETURN>
Tank number? 1 <RETURN>
Quantity? 9325 <RETURN>
Product code? 1 <RETURN>
Reorder level? 2000 <RETURN>
Tank number? <RETURN>
p*
```

- 6 Type LO F;C to load the pump number, hose number, product code, price code, and tank number (see [Figure 13-17](#)).

Note: If your site is using MPD's, you can set them up all at once by typing an asterisk when prompted for the Pump number. For more details refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6. The LOad Fuel command automatically sets attribute 8 for that product. If you do not want it to be attribute 8, you must disable it. Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, EN PRO command.

Figure 13-17: Example of LO F;C Command with Prompts

```
P* LO F;C <RETURN>
Pump number? 2 <RETURN>
Hose number? 1 <RETURN>
Product code? 2 <RETURN>
Price code? 2 <RETURN>
Tank number? 2 <RETURN>
Hose number? <RETURN>
Pump number? <RETURN>
p*
```

- 7 Type LO CU;C to load the system's fill limit and slow cutoff for each hose outlet (see [Figure 13-18](#)). Typing just the number is a quantity limit; preceding the number with a dollar sign is a dollar limit.

Figure 13-18: Example of LO CU;C Command with Prompts

```
P* LO CU;C <RETURN>
Pump number? 1 <RETURN>
Fill limit? 25 <RETURN>
Slow cutoff? .500 <RETURN>
Pump number? <RETURN>
p*
```

- 8 Type LO PR;IC to load the system's fuel price codes and price levels (see [Figure 13-19](#)).

Figure 13-19: Example of LO PR;IC Command with Prompts

```
P* LO PR;IC <RETURN>
Price code? 1 <RETURN>
Price level? 0 <RETURN>
Price? .899 <RETURN>
Price level? <RETURN>
Price code? <RETURN>
P*
```

- 9 Use the LO TAX command (if required) to specify the names of tax accumulators (see [Figure 13-20](#)). Tax accumulators keep a running total of taxes collected in up to eight categories. Tax formulas are specified in system configuration or with the TAX command. Taxes are assigned to products with the LO PRO command and credited to the correct tax accumulator when a sale is made.

Figure 13-20: Example of LO TAX Command with Prompts

```
P* LO TAX <RETURN>
Tax #? 1 <RETURN>
Name? Alc. Tx <RETURN>
P*
```

Card Lockout

To perform a card lockout, proceed as follows:

Depending on whether the customer chose a negative or positive lockout file, do one of the following:

- For a negative lockout file, type U CA;A to validate all cards in the system (see [Figure 13-21](#))
- For a positive lockout file, type LOC CA;A to invalidate all cards in the system (see [Figure 13-22](#))

Figure 13-21: Example of U CA;A Command

```
P* U CA;A <RETURN>
P*
```

Figure 13-22: Example of LOC CA;A Command

```
P* LOC CA;A <RETURN>
P*
```

Card Authorizations, Limitations

Load Authorization

Type LO A;IC to load the fuel codes allowed for each authorization number (see [Figure 13-23](#)). For initial start-up, assign fuel codes to all authorization codes, beginning with code 1 and continuing through code 99. When up to 99 codes are possible, most systems use much less; the default is 20.

Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 for an explanation of authorization for non-fuel products.

Figure 13-23: Example of LO A;IC Command with Prompts

```
P* LO A;IC <RETURN>
Auth # ? 1 <RETURN>
Product code? 1 <RETURN>
Product code? 2 <RETURN>
Product code? <RETURN>
Auth # ? 2 <RETURN>
Product code? 3 <RETURN>
Product code? <RETURN>
Auth # ? <RETURN>
P*
```

Load Limitation

Type LO LI;IC to assign the maximum fuel quantities to be used in limitation codes (see [Figure 13-24](#)).

For initial start-up, assign quantities to all codes, beginning with code 0 and continuing through code 99. When up to 99 codes are possible, most systems use much less. The default is 20.

Note: If the number in LIMIT? is preceded by a dollar sign, the value is in dollars (\$20 in the first example). If the LIMIT? is typed alone, the value is assumed to be gallons (25 gallons in the second example).

Figure 13-24: Example of LO LI;IC Command with Prompts

```
P* LO LI;IC <RETURN>
Limitation code? 1 <RETURN>
Limit? $20 <RETURN>
Limitation code? 2 <RETURN>
Limit? 25 <RETURN>
Limitation code? <RETURN>
P*
```

Load Cron

Use the LO CR;IC command to load any cron commands (see [Figure 13-25](#)).

Cron commands instruct the SC III to execute commands or recorded files at a specified time or when certain events (such as a system crash) occur. Some cron commands may already be loaded. If you wish to keep them, do not use the; I option. Cron commands are discussed in detail in MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6.

Note: CRASH.CMD and SWEEPER.CMD are automatically loaded by the AUTOEXEC. A backup of the system must be present as SYSBACK.DTA on the root directory. SYSBACK is discussed further later in this section.

Figure 13-25: Example of LO CR;IC Command with Prompts

```
P* LO CR;IC <RETURN>
Command number? 1 <RETURN>
Command? ! CRASH <RETURN>
Command number? <RETURN>
P*
```

Load Phone

If you are dialing out to a Network Controller, SC III or remote host, type LO PH to load the phone number (see [Figure 13-26](#)).

The system prompts MAIN or BACKUP; type M (or 1) or B (or 2). If you are typing more than two phone numbers (the SC III can store up to six), type a number from 3 to 6 (3 and 4 store bank host phone numbers, 5 and 6 store auxiliary phone numbers). You will then be prompted for the phone numbers. If you are typing more than the two CFN host phone numbers, refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 and the applicable Credit and Debit Card Networks Manual for more information.

Figure 13-26: Example of LO PH Command with Prompts

```
P* LO PH <RETURN>
Main (m) or Backup (b)? M <RETURN>
Phone number? 456-7890 <RETURN>
P*
```

Load Merchandise/Departments, Prices, Inventory

To load the merchandise/departments, prices and inventory, proceed as follows:

- 1 Type LO PRO;AC to load the system's merchandise product codes, categories, names, and pricing data (see [Figure 13-27](#)).

Figure 13-27: Example of LO PRO;AC Command with Prompts

```
P* LO PRO;AC <RETURN>
Product code? 3 <RETURN>
Category? 3 <RETURN>
Product name? Soda <RETURN>
Minimum price? .01 <RETURN>
Maximum price? 1.55 <RETURN>
Taxes? 0 <RETURN>
Product code? <RETURN>
P*
```

- 2 Type LO IN;C to load inventory amounts and reorder levels for merchandise products (see [Figure 13-28](#)).

Note: LO IN automatically enables inventory tracking. For more information on inventory tracking, refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6.

Figure 13-28: Example of LO IN;C Command with Prompts

```
P* LO IN;C <RETURN>
Product? 1 <RETURN>
Quantity? 400 <RETURN>
Reorder level? 100 <RETURN>
P*
```

- 3 Type LO PLU;C to assign prices or price codes to products (see [Figure 13-29](#)). Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 for details on the type of information defined here.

Figure 13-29: Example of LO PLU;C Command with Prompts

```
P* LO PLU;C <RETURN>
Product? 1 <RETURN>
Price? 1.05 <RETURN>
Product? 2 <RETURN>
Price? 1.50 <RETURN>
Product? <RETURN>
P*
```

- 4 Use the E PRO command to set product attributes (see [Figure 13-30](#)). Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 or the Pocket Reference for a list of product attributes.

Note: The LOad Fuel command automatically sets attribute 8 for that product. If you do not want it to be attribute 8, you must disable it. Refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6, EN PRO command.

Figure 13-30: Example of E PRO Command with Prompts

```
P* E PRO <RETURN>
Product code? 11 <RETURN>
Type? 4 <RETURN>
P*
```

Enable Devices

To enable the devices, proceed as follows:

- 1 Type E PC;I to enable the PCU (see [Figure 13-31](#)).

Figure 13-31: Example of E PC;I Command

```
P* E PC;I <RETURN>
P*
```

- 2 Type E PU;I to enable all the pumps (see [Figure 13-32](#)).

Figure 13-32: Example of E PU;I Command

```
P* E PU;I <RETURN>
P*
```

- 3 Type E RE;I to enable the readers (see [Figure 13-33](#)).

Figure 13-33: Example of E RE;I Command

```
P* E RE;I <RETURN>
P*
```

- 4 Type E CO;I to enable the console (see [Figure 13-34](#)).

Figure 13-34: Example of E CO;I Command

```
P* E CO;I <RETURN>
P*
```

Cash Drawer, Shifts

To load the cash drawer and shifts information, proceed as follows:

- 1 Type RE TO;A (see [Figure 13-35](#)). This resets the daily and cumulative totals to zero and automatically loads shift one. If using the Shift Change package, use NEXTDAY command.

Figure 13-35: Example of RE TO;A Command with Prompt

```
P* RE TO;A <RETURN>
Verify (Y/N)? Y
P*
```

- 2 If the site has a cash drawer, type LO DR to enter the initial amount of cash in the drawer (see [Figure 13-36](#)). If using the Shift Change package, use LDDRAWER command.

Figure 13-36: Example of LO DR Command with Prompts

```
P* LO DR <RETURN>
Drawer number? 1
$ Amount? 150.00 <RETURN>
P*
```

- 3 If you choose to load a shift other than shift one, type LO SH to load the current shift (see [Figure 13-37](#)). Type the shift number at the prompt. If using the Shift Change package, use NEXTDAY command to load the first shift.

Figure 13-37: Example of LO SH Command with Prompt

```
P* LO SH <RETURN>
Shift number? 1 <RETURN>
P*
```

Optional Features

To enable the optional features, proceed as follows:

- 1 If you use the allocation feature, type `REM AL;A` to initialize the totalizer file (see [Figure 13-38](#)). This erases the entire file and frees all cards from allocation.

Figure 13-38: Example of REM AL;A Command

```
P* REM AL;A <RETURN>
P*
```

- 2 Type `LO AL;C` to assign allocation amounts to allocation numbers (see [Figure 13-39](#)).
Note: If the number in AMOUNT? is preceded by a dollar sign, the value is in dollars (\$250 allocation in the first example). If the AMOUNT? is typed alone, the value is assumed to be gallons (120 gallons in the second example).

Figure 13-39: Example of LO AL;C Command with Prompts

```
P* LO AL;C <RETURN>
Allocation no.? 123 <RETURN>
Amount? $250.00
Allocation no.? 300-310 <RETURN>
Amount? 120.00
Allocation no.? <RETURN>
P*
```

- 3 If you use the MPG option, type `LO V;IC` to clear the vehicle file and load vehicles and odometer readings (see [Figure 13-40](#)).

Figure 13-40: Example of LO V;IC Command with Prompts

```
P* LO V;IC <RETURN>
Vehicle number? 100 <RETURN>
Odometer reading? 22954 <RETURN>
Vehicle number? <RETURN>
P*
```

Reset Transaction File

The following command sequence enables you to reset and initialize the transaction file (see [Figure 13-41](#)). The command sequence is explained in “[Explanation of Commands](#)”.

CAUTION

This command procedure must only be done at start-up.

Figure 13-41: Example of Reset Transaction File Command Sequence

```
P* FIX TR;I <RETURN>
Verify (y/n)? y <RETURN>
P* RE TR;A <RETURN>
Verify (y/n)? y <RETURN>
P* RE TR;I <RETURN>
Verify (y/n)? y <RETURN>
P* RE TR 0 <RETURN>
P* RE TR 1 <RETURN>
Verify (y/n)? y <RETURN>
P*
```

Explanation of Commands

FIX TR;I	Resets the transaction file and sets all transaction numbers to -1. Use this command only at start-up as it is irreversible; all stored transactions will be made unreadable. Answer yes, y, to the VERIFY prompt and press RETURN .
RE TR;A	Resets all transaction file pointers.
RE TR;I	Clears any temporary or transaction in progress files.
LO TR 0	Loads a new transaction number of 0 (zero).
RE TR 1	Resets the transaction pointer to begin at transaction 1.

Diagnostics and History

To obtain the diagnostics and history information, proceed as follows:

- 1 Type RE DI;I to set the diagnostic error totals to zero (see [Figure 13-42](#)).

Figure 13-42: Example of RE DI;I Command

```
P* RE DI;I <RETURN>
P*
```

- 2 Type E HI;I to enable history recording (see [Figure 13-43](#)). This is initialized when you receive the system, but it will contain every command you just performed. Enabling it here lets you start-up the history with a clean slate.

Figure 13-43: Example of E HI;I Command

```
P* E HI;I <RETURN>
P*
```

- 3 Type RUN;I to start the site (see [Figure 13-44](#)).

Figure 13-44: Example of RUN;I Command with Prompt

```
P* RUN;I <RETURN>
Verify (y/n)? y
P*
```

- 4 Type P DI (see [Figure 13-45](#)). This prints diagnostics so you can verify if the system is okay.

Figure 13-45: Example of P DI Command

```
P* P DI <RETURN>
P*
```

Verification and Backup

To perform the verification and backup, proceed as follows:

- 1 Verify if all data is loaded correctly by using the following commands. If any information displayed is not correct, return to the appropriate step and reload it.

P SIG	Verify that all users are loaded and their permission level; sign-on codes will not be printed.
P DA	Verify correct date and time.
P H	Verify that receipt heading and footing are correct.
P ME	Verify the broadcast messages are correct.
P PRO	Verify the product/department codes have the correct category, name, minimum and maximum price, and tax code. Verify the inventory (if loaded) is correct and the PLU price (if loaded) is correct.
P TA	Verify the tank quantity, product code, and reorder level are correct.
P PU	Verify the pump price code, product code, and tank are assigned to the correct pump. Verify the quantity and dollar totalizers are correct. Verify that the Limit and Slow are set correctly.

P PR	Verify all price levels and price are correct.
P SA;I 0	Verify all the tax code names are correct.
P LO	Verify the lockout is set up correctly (all cards valid or invalid).
P A	Verify the authorization codes have the correct product codes assigned.
P LI	Verify the limitation codes have the correct limits.
P CR	Verify the cron entries are correct.
P PH	Verify remote authorization phone numbers are correct.
P PRO; A	Verify the product attributes are correct.
P DR	Verify the current shift and balance for each drawer are correct. <i>Note: If site is using the Shift Change package, balance and shift number may not verify. Use VARIABLE command (see below) to verify shift parameters.</i>
P AL	Verify all allocation totalizers are loaded and are correct.
P V	Verify all vehicles are loaded and odometers are correct.
VARIABLE	Verify all parameters for the Shift Change Package are set up correctly.

- 2 Create backups.

Site Data

Type **SYSBACK** and press **ENTER**. The backup will take a few minutes. The data tables being backed up are shown on the terminal.

Release, Applications, and System Data

Note: Before trying this procedure, refer to MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 for the latest backup routines and commands.

- 1 Obtain several (minimum 4) blank formatted (high capacity) diskettes.
- 2 Type **HARDBACK** and press **ENTER**. (You must run **SYSBACK** before running **HARDBACK**).
- 3 Follow the prompts to insert and label diskettes.
- 4 Store backups in a safe place.

Standalone Profit Point Setup

Since a demo MASTER.PLU file exists on the Profit Point, you must delete or rename this file before loading department and item information.

- 1 To do this, access the Main Menu by turning the Manager's key to MGR position, sign on (if required), press **SPEC FUNC, 0** and **ENTER**. The Main Menu displays.
- 2 Press **0** and **ENTER**. The DOS prompt (C:\POS>) displays.
- 3 To delete the MASTER.PLU file, type DEL MASTER.PLU and **ENTER**.

~ OR ~

To rename the file, type REN MASTER.PLU and the new name of the file and press **ENTER**.

- 4 Type **menu 2** and press **ENTER**.
- 5 Press **0** and **ENTER**. The Main Menu displays. To return to POS mode, select 1 on the Main Menu and press **ENTER**.
- 6 Execute special function 37. It may be necessary to sign on as a user with a higher permission level.

This command copies the site configuration (pumps, products, prices, and so on) and department information (price, name, floor and ceiling prices, price override, and so on) to the Profit Point's MASTER.PLU file. After this is done, you will have to load additional information into the Profit Point. To help you define your data, use the forms from the "[Site Information](#)" on [page 9](#) and for detailed instructions, refer to MDE-4356 Profit Point Reference Manual.

SC III/POS Workstation Setup

Since a demo MASTER.PLU file exists on the SC III/POS Workstation, you must delete or rename this file before loading department and item information.

- 1 To do this, access the Main Menu by turning the Manager's key to MGR position, sign on (if required), press **SPEC FUNC, 0** and **ENTER**. The Main Menu appears.
- 2 Press **0** and **ENTER**. The desktop appears.
- 3 Click **Start** with the right mouse button. From the menu, click **Explore**. Find the POS directory on the left side of the window and click on it. Find MASTER.PLU on the right side of the window and click on it once.

- 4 To delete the MASTER.PLU file, press the **DEL** key. When prompted to confirm, click **Yes**.

~ OR ~

To rename the file, click on the file in the upper left-hand corner of the window. From the menu, select **Rename**. Type the new name of the file and press **ENTER**. Close the Explorer window
- 5 Double-click the Profit Point icon. A prompt saying that the master PLU file is missing will be displayed.
- 6 Type **Y** and press **CLEAR MENU** when prompted. Another prompt will display saying the program was unable to open the PLU file.
- 7 Press **ENTER**.
- 8 Select item 2 from the Main Menu and press **ENTER**. The prompt Create new PLU file MASTER.PLU (Y,N)? displays.
- 9 Press **Y** and **ENTER**. You will be prompted to enter the maximum file size.
- 10 Enter a number between 110 and 60,000 and press **ENTER**. After a new MASTER.PLU file is created, press any key to continue. The PLU Maintenance menu displays.
- 11 Press **0** and **ENTER**. The Main Menu displays. To return to POS mode, select 1 on the Main Menu and press **ENTER**.
- 12 Execute special function 37. It may be necessary to sign on as a user with a higher permission level.

This command copies the site configuration (pumps, products, prices, and so on) and department information (price, name, floor and ceiling prices, price override, and so on) to the Profit Point's MASTER.PLU file. After this is done, you will have to load additional information into the Profit Point. To help you define your data, use the forms from "[Site Information](#)" on [page 9](#). For detailed instructions, refer to MDE-4356 Profit Point Reference Manual.

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14 – Customer Training

- Identify for the terminal operator, the different icons and the task bar on the Windows XP Embedded desktop. Explain how to use the Start button or icons to start programs. Explain how to minimize a running program window, how to restore it from the task bar and how to close it. Explain how to use the Windows XP Embedded explorer to copy, rename, and delete files. Explain how to shut down the PC. Show the site manager how to log on to Windows XP Embedded as the system administrator.

- Explain to the terminal operator how to open the SC III terminal session and how to minimize it. Explain the importance of how to leave the SC III session running in background. Explain how the PC/remote terminal responds to all commands. Review MDE-4871 CFN III Manager's Manual for Windows XP Embedded - Version 3.6 and all relevant commands. Have the terminal operator perform the commands.

- Explain the importance and show how and when to use the backup commands.

- Refer the user to the PC, monitor, remote terminal, and printer manuals for any periodic maintenance. Also review the data terminal switches, buttons, and LED's for proper settings and indications.

- Show the site manager and terminal operator how to dispense product by initiating transactions with the customer's cards at the ICR unit on the fuel island. If the customer's cards are not available, use the test cards provided with the system.

- Review MDE-4759 CFN III Payment Application Best Practices Implementation Requirements with the Site Manager.

- For systems with a PPC, demonstrate the following both with and without a network:
 - For SC III/POS Workstation, open a Profit Point session and switching back and forth between Profit Point and SC III.
 - Fuel only, cash, credit
 - Merchandise only, cash, credit
 - Combined fuel/merchandise, cash, credit
 - Scanned item not on file
 - Add item, add fuel
 - Off hook, active payable pump menus, working sale, new merchandise
 - Size (modifier keys), PLU key
 - Change fuel prices from SC III
 - Change PLU, UPC prices from Profit Point
 - Shift break

- User password is updated every 90 days.

- ❑ For systems with a receipt printer, demonstrate procedures for changing the receipt paper, the ribbon and the self-test mode of operation as explained in the Star Receipt Printer Manual.

10. System Approvals

Note any remarks or comments from the customer in the space provided.

Have a responsible contact person sign the Start-up Form and sign it yourself. This indicates that the system has been accepted by the customer and the installation is approved by you.

- ❑ Demonstrate how to clean the reader at the ICR unit.

Magnetic Card Reader

1. Use the Gasboy cleaning card. Order Gasboy Part Number C08757 for a box of 50 cleaning cards.
 2. Slide the cleaning card through several times.
 3. Turn the card around and slide it through several times. By turning the card around, you will use the entire cleaning area.
 4. Clean the card reader at least once a week. The frequency of cleaning required depends on the environment the system is in and how heavily it is used. Failure to clean the card reader regularly could result in premature failure.
- ❑ Demonstrate how to clean the disk drive using the Gasboy disk cleaning kit (C01770) Gasboy recommends that you clean your disk drive at least once a week, although more frequent cleaning may be necessary in high dirt or dust areas.
 1. Remove the contents of the disk cleaning kit from the box.
The drive cleaning kit, if used as directed, will last one year.
 2. Since the disk drive on the SC III is a dual-sided drive, remove the pressure arm on the cleaning diskette by bending it back until it snaps off.

CAUTION

After the pressure arm has been removed, do not use this cleaning kit for a single-sided drive.

3. Open the bottle of cleaning fluid and fully saturate the area exposed in each of the two large cutouts.
4. Insert the cleaning diskette into the drive with the number of uses label facing up.
5. At the PC, type **DIR A:** and press **ENTER**.
6. Sign on to the SC III and type **SYS** and press **ENTER**. You will hear the drive activate. Wait 20 to 30 seconds. It may be necessary to run the **DIR A:** command again.

7. After 20 to 30 seconds, type **exit** and press **RETURN**. This deactivates the drive and completes the cleaning process.

8. After the disk drive access light goes off, remove the diskette and check off a box on the usage label.

After the recommended number of uses, or if the diskette becomes discolored, discard the diskette.

- For systems with Fuel Point, demonstrate the following:
 - Using the Programmer to program, read, and calibrate a VM
 - Using the Master Authorizer to authorize a sale
 - Using the VM to authorize a sale
 - How to suspend and resume Fuel Point transactions

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15 – Finish Start-up

To finish the start-up procedure, proceed as follows:

- 1 Ensure if the customer has current backup copies of all SC III release media (CD and disks) and stored in a safe place. As an ASR, you may wish to make copies for yourself. Also, ensure that all disks and CD's that were supplied with the SC III PC are stored in a safe place.
- 2 Answer questions and/or demonstrate the optional commands or devices such as: user and cron commands, disable and enable commands, the diagnostic commands, the system override switches, and modem polling procedure (including modem phone number, baud rate, and password).
- 3 Close and secure all doors for the PCU(s) and ICR(s).
- 4 Lock out the test cards.
- 5 Generate a printout showing a few transactions with quantity, pump fuel assignments, limitation codes, authorization codes, and pulse rates. Use the commands P DA, P TR, P PU, P A, P LI, P DI, P PR, P PRO, and STATUS. Also generate a printout showing any configuration changes that were made. Include these printouts with the Start-up Form.

11. Customer Knowledge

Briefly describe the customer's understanding of the CFN Series System. Write in the amount of time spent on training and who was trained.

Check to see that the test cards are locked out (Step 5) and indicate the name of the person with whom the test cards were left.

Indicate whether backups of the system and any configuration changes were made.

Fill in any remarks you may have regarding the start-up or the system. Use additional sheets if necessary and staple to form. Ensure that you include any configuration changes that you may have done at start-up.

12. Attach Printouts

Generate printouts using the commands noted (Step 5) and attach to the Start-up Form.

13. Parts Used

Any defective parts resulting from a start-up must be returned with a completed Gasboy Warranty Service Report (WSR). Follow directions on the form.

14. Site Layout

Sketch a layout of the site. Ensure that you include the location of the system, hose outlets, data terminals, external modems, circuit breakers and distances between units.

Check off the appropriate box for **Start-up Complete**, **Start-up Incomplete**, and fill in the number for **Number of Start-up Attempts**.

- 6 Turn over the keys and test cards for the system, and the socket bit for the ICR to the person in charge of the site.

IMPORTANT INFORMATION

If the Start-up Form is not filled out completely, it will be returned to you for completion.

Gasboy Motor Fuel Management System

CFN System Start-up Form

Sample Form

1. SITE IDENTIFICATION

Customer: DJP Trucking Date/Time of Arrival: 6-28-05 8:37 a.m.
 Contact: Dave Christopher Date/Time of Departure: 6-28-05 5:15 p.m.
 Customer Phone: 215-555-1111 Distributor: ABC Fuels /Phone: 215-222-5555
 Site Location: 10 Christine St. Installer: Dun Good /Phone: 215-222-5555
Lansdale, PA 19446 Start-up Person: Arthur Ized Repp
 Electrician: Watts Happnin Co. Name: Gasboy /Phone: 336-547-5000

2. SYSTEM IDENTIFICATION Site #: 1001

Mark applicable devices:

SC II/IsI Profit Point Fuel Point SC III SC III/POS Workstation

SC II/ _____
 Islander CPU UNIT SERIAL # CPU PROGRAM VERSION # CPU PROGRAM VERSION NAME DEBUG VERSION (SC II ONLY)
 SC III 123456 3.0 1.0 1.0A
SERIAL # SC III VERSION # SC III I/F VERSION DSC3 (DEBUG) VERSION

	Unit Serial #:	Program Version	
PCU 1	<u>67890</u>	<u>PumpX.Hex 4.0A</u>	
PCU 2	_____	_____	
PCU 3	_____	_____	
PCU 4	_____	_____	

NOTE:

	Unit Serial #:	Program Version	Rec. Prt	Ped. PCU	Car Wash	Gate
ICR 1	<u>12345</u>	<u>STAR.GATE 4.2K</u>	<input checked="" type="radio"/> Y/N			
ICR 2	_____	_____	Y/N	Y/N	Y/N	Y/N
ICR 3	_____	_____	Y/N	Y/N	Y/N	Y/N
ICR 4	_____	_____	Y/N	Y/N	Y/N	Y/N

Profit Point 1:	Unit Serial #:	Program Vers.	Profit Point 2:	Serial #:	Program Vers.
Current Loop Driver 1:	<u>65432</u>	<u>Profit Point 3.6</u>	Current Loop Driver 2:	_____	_____
Fuel Point 1:	_____	_____	Fuel Point 2:	_____	_____

Standalone Receipt Printer Serial #: _____
Circle One
 PIN Pad Serial #: _____
Program Vers.

PC Pump Interface: Gilbarco/Tokheim/Wayne _____
 PC Reader Interface: Gilbarco/Tokheim/Wayne _____

Sample Form

Sample Form

5. BREAKER NUMBERS

Power conditioner: N/A
 AC Surge Protector: 1
 Islander: N/A
 PCU(s): 1
 ICR(s): 1
 FPR(s):

What components are on power conditioner?
 N/A

What components are on AC surge protector?
 SCIII, logger, modem, monitor

Hose Brkr #	Hose Brkr #	Hose Brkr #	Hose Brkr #
1. <u> 2 </u>	9. <u> </u>	17. <u> </u>	25. <u> </u>
2. <u> 2 </u>	10. <u> </u>	18. <u> </u>	26. <u> </u>
3. <u> 3 </u>	11. <u> </u>	19. <u> </u>	27. <u> </u>
4. <u> 3 </u>	12. <u> </u>	20. <u> </u>	28. <u> </u>
5. <u> </u>	13. <u> </u>	21. <u> </u>	29. <u> </u>
6. <u> </u>	14. <u> </u>	22. <u> </u>	30. <u> </u>
7. <u> </u>	15. <u> </u>	23. <u> </u>	31. <u> </u>
8. <u> </u>	16. <u> </u>	24. <u> </u>	32. <u> </u>

Are all Gasboy components on same breaker? Y N

6. SYSTEM ENVIRONMENT

Site Controller/Islander: inside office, air-conditioned
 Console: inside office, air-conditioned
 PCU(s): back room off of office
 ICR(s): on island
 Profit Point(s): N/A
 FPRs: N/A

7. CONDUIT

All Metal Conduit? Y N AC and DC in Separate Conduit? Y N Wiring Neatness: Good Fair Bad

Is shielded cable (as specified in the Installation Manual) used? Y N

*If you answered **NO** to the above questions, contact Gasboy before proceeding.*

8. SYSTEM POWER

Power Conditioner: Hot to Neutral N/A VAC Hot to Ground N/A VAC Neutral to Ground N/A VAC
 AC Surge Protector: Hot to Neutral 120 VAC Hot to Ground 120 VAC Neutral to Ground 0 VAC
 Islander: Hot to Neutral N/A VAC Hot to Ground N/A VAC Neutral to Ground N/A VAC
 PCU(s): Hot to Neutral 120 VAC Hot to Ground 120 VAC Neutral to Ground 0 VAC
 ICR(s): Hot to Neutral 120 VAC Hot to Ground 120 VAC Neutral to Ground 0 VAC
 FPR(s): Hot to Neutral N/A VAC Hot to Ground - VAC Neutral to Ground - VAC
 Grounding method: neutral and ground bus bars bonded to single ground rod

Sample Form

9. DC POWER

Site Controller/Islander:	+5 VDC <u>N/A</u>	+12 VDC <u>N/A</u>	-12 VDC <u>N/A</u>	
PCU(s):	+5 VDC <u>5.00</u>	+12 VDC <u>11.98</u>		
ICR(s):	+5 VDC <u>5.01</u>	+12 VDC <u>11.99</u>		
Current Loop Interface:	+5 VDC _____	+12 VDC _____	-12 VDC _____	
Consoles:	+5 VDC <u>5.00</u>	+12 VDC <u>12.05</u>	-12 VDC <u>12.00</u>	+9 VDC <u>9.00</u>
FPR(s):	+5 VDC _____			

10. SYSTEM APPROVALS

Customer Comments: _____

I am satisfied with the installation of the Gasboy CFN System and have been trained in its use and operation.
 Site Manager: Dave Christopher Date: 2-9-05
 Start-up Tech: Arthur Ized Repp Date: 2-9-05

11. CUSTOMER KNOWLEDGE

Time Spent on Training: 4 hours Names of People Trained: Dave Christopher, Christine Tabby
 Were test cards locked out? Y N Who were test cards left with? Dave Christopher
 Was backup copy made of system and any configuration changes? Y N

Remarks: (Use additional sheets if necessary) _____

Sample Form

12. ATTACH PRINTOUTS

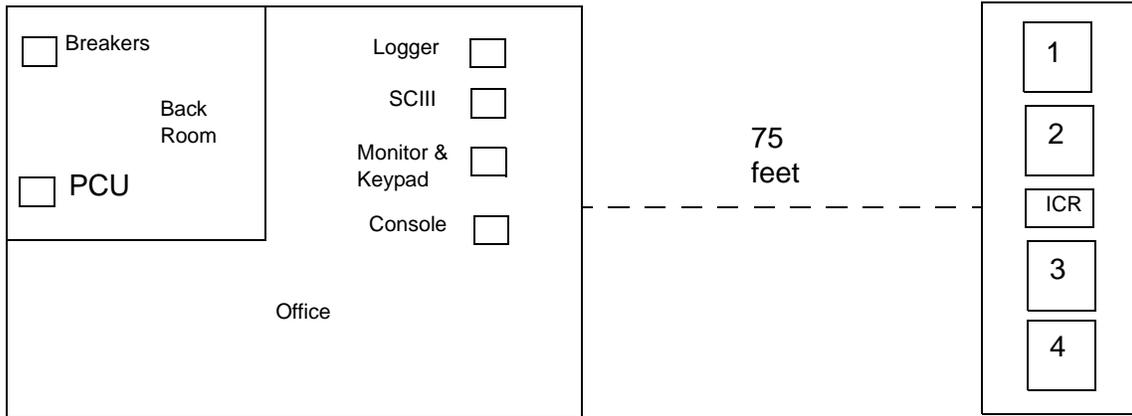
Generate and attach printout showing a few transactions with quantity, pump fuel assignments, limitation codes, authorization codes, and pulse rates. Use the commands **PR DA**, **PR TR**, **PR PU**, **PR AU**, **PR LIM**, **PR DI**, **PR PRI**, **PR PRO**, and **STATUS**.

13. PARTS USED

Return defective parts with completed Gasboy Service Report. Please return white, yellow, and pink copies of report in box with parts

Sample Form

14. SITE LAYOUT (include wiring distances)



Sample Form

Sample Form

Start-up Complete Start-up Incomplete Number of Start-up Attempts: 1

Sample Form

Sample Form

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Sample Form

Sample Form

Gasboy Motor Fuel Management System

CFN System Start-up Form

1. SITE IDENTIFICATION

Customer: _____	Date/Time of Arrival: _____
Contact: _____	Date/Time of Departure: _____
Customer Phone: _____	Distributor: _____ /Phone: _____
Site Location: _____	Installer: _____ /Phone: _____
_____	Start-up Person: _____
Electrician: _____	Co. Name: _____ /Phone: _____

2. SYSTEM IDENTIFICATION Site #: _____

Mark applicable devices:

- SC II/IsI Profit Point Fuel Point SC III SC III/POS Workstation

SC II/ _____
 Islander CPU UNIT SERIAL # CPU PROGRAM VERSION # CPU PROGRAM VERSION NAME DEBUG VERSION (SC II ONLY)

SC III _____
 SERIAL # SC III VERSION # SC III I/F VERSION DSC3 (DEBUG) VERSION

	Unit Serial #:	Program Version	NOTE:
PCU 1	_____	_____	
PCU 2	_____	_____	
PCU 3	_____	_____	
PCU 4	_____	_____	

	Unit Serial #:	Program Version	Rec. Prt	Ped. PCU	Car Wash	Gate
ICR 1	_____	_____	Y/N	Y/N	Y/N	Y/N
ICR 2	_____	_____	Y/N	Y/N	Y/N	Y/N
ICR 3	_____	_____	Y/N	Y/N	Y/N	Y/N
ICR 4	_____	_____	Y/N	Y/N	Y/N	Y/N

Profit Point 1: _____	Profit Point 2: _____
Current Loop Driver 1: _____	Current Loop Driver 2: _____
Fuel Point 1: _____	Fuel Point 2: _____

Standalone Receipt Printer Serial #: _____ PIN Pad Serial #: _____
Circle One Program Vers.

PC Pump Interface: Gilbarco/Tokheim/Wayne _____
 PC Reader Interface: Gilbarco/Tokheim/Wayne _____

5. BREAKER NUMBERS

Power conditioner: _____	Hose Brkr #	Hose Brkr #	Hose Brkr #	Hose Brkr #
AC Surge Protector: _____	1. _____	9. _____	17. _____	25. _____
Islander: _____	2. _____	10. _____	18. _____	26. _____
PCU(s): _____	3. _____	11. _____	19. _____	27. _____
ICR(s): _____	4. _____	12. _____	20. _____	28. _____
FPR(s): _____	5. _____	13. _____	21. _____	29. _____
	6. _____	14. _____	22. _____	30. _____
	7. _____	15. _____	23. _____	31. _____
	8. _____	16. _____	24. _____	32. _____

What components are on power conditioner?

What components are on AC surge protector?

Are all Gasboy components on same breaker? Y/N

6. SYSTEM ENVIRONMENT

Site Controller/Islander: _____
 Console: _____
 PCU(s): _____
 ICR(s): _____
 Profit Point(s): _____
 FPRs: _____

7. CONDUIT

All Metal Conduit? Y/N AC and DC in Separate Conduit? Y/N Wiring Neatness: Good/Fair/Bad

Is shielded cable (as specified in the Installation Manual) used? Y/N

*If you answered **NO** to the above questions, contact Gasboy before proceeding.*

8. SYSTEM POWER

Power Conditioner:	Hot to Neutral _____VAC	Hot to Ground _____VAC	Neutral to Ground _____VAC
AC Surge Protector:	Hot to Neutral _____VAC	Hot to Ground _____VAC	Neutral to Ground _____VAC
Islander:	Hot to Neutral _____VAC	Hot to Ground _____VAC	Neutral to Ground _____VAC
PCU(s):	Hot to Neutral _____VAC	Hot to Ground _____VAC	Neutral to Ground _____VAC
ICR(s):	Hot to Neutral _____VAC	Hot to Ground _____VAC	Neutral to Ground _____VAC
FPR(s):	Hot to Neutral _____VAC	Hot to Ground _____VAC	Neutral to Ground _____VAC
Grounding method:	_____		

9. DC POWER

Site Controller/Islander: +5 VDC _____ +12 VDC _____ -12 VDC _____
PCU(s): +5 VDC _____ +12 VDC _____
ICR(s): +5 VDC _____ +12 VDC _____
Current Loop Interface: +5 VDC _____ +12 VDC _____ -12 VDC _____
Consoles: +5 VDC _____ +12 VDC _____ -12 VDC _____ +9 VDC _____
FPR(s): +5 VDC _____

10. SYSTEM APPROVALS

Customer Comments: _____

I am satisfied with the installation of the Gasboy CFN System and have been trained in its use and operation. Site Manager: _____ Date: _____
Start-up Tech: _____ Date: _____

11. CUSTOMER KNOWLEDGE

Time Spent on Training: _____ Names of People Trained: _____
Were test cards locked out? Y/N Who were test cards left with? _____
Was backup copy made of system and any configuration changes? Y/N

Remarks: (Use additional sheets if necessary) _____

12. ATTACH PRINTOUTS

Generate and attach printout showing a few transactions with quantity, pump fuel assignments, limitation codes, authorization codes, and pulse rates. Use the commands **PR DA**, **PR TR**, **PR PU**, **PR AU**, **PR LIM**, **PR DI**, **PR PRI**, **PR PRO**, and **STATUS**.

13. PARTS USED

Return defective parts with completed Gasboy Service Report. Please return white, yellow, and pink copies of report in box with parts

14. SITE LAYOUT (include wiring distances)

Start-up Complete Start-up Incomplete Number of Start-up Attempts: _____

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