



CFN Series

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# CFN III Configuration Manual for Windows NT®

Version 3.4

**MDE-4316C**

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## Computer Programs and Documentation

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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
MH6418	Power operated Transfer Pump Models 25, 25C, 26, 27, 28, 72, 72S, 72SP, 72X, 73 and 1820
MH7404	Hand operated Transfer Pump Models 1230 Series, 1243 Series, 1520 and 1720 Series
MH10581	Key control unit, Model GKE-B Series Card reader terminals, Models 1000, 1000P Site controller, Model 2000S CFN Series Data entry terminals, Model TPK-900 Series Fuel Point Reader System

### New York City Fire Department (NYFD):

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

### California Air Resources Board (CARB):

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

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

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

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

## Patents

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

### Dispensers

5,257,720

### Point of Sale/Back Office Equipment

D335,673

Additional US and foreign patents pending.

## Trademarks

### Non-registered trademarks

Atlas™  
Console™  
Infinity™

### Registered trademarks

ASTRA®  
Fuel Point®  
Gasboy®  
Keytrol®  
Slimline®

Additional US and foreign trademarks pending.

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

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# 1 – Introduction

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This manual explains how to configure a Gasboy® CFN III using the configuration programs located in the BIN subdirectory on your hard disk.

The configuration programs, in the order they are explained in this manual, are:

- SYS\_PAR (system parameters)
- PUMP
- TABLE
- TRFMT (local transaction printout format)
- PERM (permissions)
- READER
- GATE
- CONSOLE
- OFFROAD\*
- FUELPT
- Key Option\*\*

The name of each of these files ends in the extension. BIN—for example, PUMP.BIN, TABLE.BIN, and so on.

\*OFFROAD.BIN is not used to change the configuration. It is used to calculate an offroad tax discount for fuel only. You can “configure” the offroad discount by editing the parameter file (default file name is OFFROAD.DTA). For more information, see the OFFROAD chapter of this manual.

\*\*Also contained in this manual are the configuration settings for the new Key Option available from Gasboy.

## New Features in CFN III

An on-line configuration manual is available for the CFN III. This can be used as a quick reference. The on-line documentation is a duplication of this manual. The on-line system allows you to take advantage of the PC’s ability to display several windows and shifting between them. The window that is displayed in front (on top of other windows) will be the “active” window.

“Active” means that it can receive and execute commands. Click in the box at the bottom of your desktop to display the window you want to view. Or you can use a key sequence of ALT TAB to shift between windows to review information.

To open the on-line documentation, double click on the SC3 HELP icon. The on-line library page will open. Click on the Configuration Manual. The table of contents opens listing the BIN programs available. Click on the BIN program you would like to review.

## How to Use this Document

The configuration programs for the CFN III are designed to be self-explanatory. This manual does not duplicate all the information given by the programs.

This chapter contains general information about using the configuration programs. You should read it to learn how to use the programs most efficiently. The remaining chapters each contain information about the individual configuration programs and the information needed. Use these chapters as a reference when you need more information than is given by each program's HELP command.

## Related Documentation

### CFN III - Version 3.4 and Above

Document Number	Title	GOLD Library
C09204	Check Point Reference Manual	Archive
C35923	Point of Sale and Shift Change	CFN Series Controllers and POS
MDE-4479	CFN III Quick Reference Version 3.4	CFN Series Controllers and POS
MDE-4315	CFN III Manager's Manual for Windows NT®	CFN Series Controllers and POS
MDE-4355	CFN Series Profit Point Clerk's Manual	CFN Series Controllers and POS
MDE-4356	CFN Series Profit Point Reference Manual	CFN Series Controllers and POS

### Forms, Quick Reference, Tutorials

Document Number	Title	GOLD Library
C09134	Site Controller II Configuration Order Form	N/A
call	Site Controller III Sample Reports	N/A

### Credit and Debit Card Networks

Document Number	Title	GOLD Library
C35903	Comdata <sup>SM</sup> Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35904	EDS-CCIS Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35905	FDR <sup>SM</sup> Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35906	FINA 009 Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35907	Gascard Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces



<b>Document Number</b>	<b>Title</b>	<b>GOLD Library</b>
C35909	Generic Dial Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35910	Nabanco 004 Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35911	NDC Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35913	Sinclair® 015 Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35914	SPS/Phillips Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35915	T-Chek Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35917	VDOT Credit and Debit Card Networks	N/A
C35930	Gasboy Dial 001 Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
C35931	Amoco/DataCard Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
MDE-4560	CFN Series VisaNet <sup>SM</sup> Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
MDE-4572	CFN Series PaymenTech <sup>TM</sup> Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
MDE-4605	ADS-Citgo Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
MDE-4606	Buypass <sup>SM</sup> Credit and Debit Card Networks	CFN Series Networks, Card Handlers, and Pump Interfaces
MDE-4623	UFDA Credit and Debit Networks for site controller II v2.3 and above	CFN Series Networks, Card Handlers, and Pump Interfaces

## Pump Interface

<b>Document Number</b>	<b>Title</b>	<b>GOLD Library</b>
C01745	Gilbarco® Interface Unit Installation Manual	CFN Series Networks, Card Handlers, and Pump Interfaces
C09146	Site Controller Pump Interface Manual	CFN Series Networks, Card Handlers, and Pump Interfaces
C35849	SD Interface Wayne® CAT	CFN Series Networks, Card Handlers, and Pump Interfaces
C35924	SDI/Unitec® Interface	CFN Series Networks, Card Handlers, and Pump Interfaces
MDE-4559	Insight Interface Installation Guide	CFN Series Networks, Card Handlers, and Pump Interfaces

## Card Encoding and Miscellaneous

Document Number	Title	GOLD Library
C01687	CFN Series Card Encoding Manual	Fuel Management Products
C09136	CFN Series Clubcard Format	N/A

## Remote Communications

Document Number	Title	GOLD Library
C09137	Site Controller Host Communications	Fuel Management Products
C09138	Site Controller Raw Mode Communications	Fuel Management Products
C09140	Applications Guide for Host-SC Communications	N/A
C09141	PC/Site Control User's Manual	N/A

## Technical Publications

Document Number	Title	GOLD Library
C01759	CFN Diagnostic Manual	CFN Series Controllers and POS
internal	Site Controller II Technical Manual	N/A

# How to Use the Configuration Programs

To use the configuration programs, first ensure that you are logged onto the root directory of your Site Controller. Although the programs are located in the BIN subdirectory, do not log on to that subdirectory; remain in the root directory.

At the system prompt (P\*), enter the name of one of the configuration programs to see the main menu for that program.

## FRAMOS.CFG and FIX\_CONF

FRAMOS.CFG contains configuration information for the site and is edited by all the configuration programs (except for OFFROAD.BIN). Site controllers are configured at the factory. A FRAMOS.CFG file will currently exist on the Site Controller. Make a copy of FRAMOS.CFG before changes are made. Use FIX\_CONF when updating or in default.

If FRAMOS.CFG does not exist, the site will not boot.

To create FRAMOS.CFG, if one does not exist, enter the command FIX\_CONF.

The screen prompt will say that the FRAMOS.CFG file was not found. Disregard this message.

Press **Enter** to continue. The default configuration will be used.

A new FRAMOS.CFG file will be created.

## FIX\_CONF-D

You can also use the FIX\_CONF command with the -D option to reset configuration parameters to their default settings. The command looks like this:

FIX\_CONF -Dconf\_name [-Dconf\_name [...]] filename

where conf\_name is replaced either with:

- the name of the configuration parameter that is to be reset to defaults-such as READER, PUMP, SYS\_PAR\* - or
  - ALL for all configuration parameters at once.
- ALL does not default to OFFROAD.

You may specify more than one parameter by repeating the -D option in front of the name of each configuration parameter you want to reset to its default.

Replace filename with the name of your configuration file. If no file name is given, the changes will be made to FRAMOS.CFG. When the site boots, it reads the FRAMOS.CFG file. If you make changes under another file name, they will not take affect unless you copy your file to FRAMOS.CFG.

## ESC Key with NT

At this time, ESC only works with a few of the configuration programs. It is recommended that you review the list below to check the functionality. While in configuration programs, the ESC key usually opens the next line/parameter for modification/insertion. Since pressing ESC is similar in effect to pressing CTRL-C, any text entered at the prompt before ESC is pressed is ignored.

These configuration programs have these reactions to pressing ESC:

Pump:	Does not work with this program.
Table:	Next table is opened.
Perm:	Next command is opened.
Reader:	ESC signs you off if pressed at the first prompt. Once a menu selection is made, ESC takes you to next parameter.
Gate:	ESC signs you off if pressed at the first prompt. Once a menu selection is made, the next Gate/Controller is opened for Gasboy only. ESC does not work with Unitec.
Console:	Next entity (depending on the menu you are in) is opened for modification.
Fuelpt:	ESC signs you off if pressed at the first prompt.

## How to Exit the Configuration Programs

Whenever you are at a place in a configuration program where you are allowed to exit, the prompt will say you can enter q to quit. If you are in a submenu, typing q will get you back to the main menu. From there you can type another q to quit or select a new submenu.

If you type a q from the main menu, the prompt will ask you to type n to exit without saving or y to exit and save any changes.

Any time you are allowed to enter a q to leave a submenu or a main menu, you can enter a capital N to exit the program without saving any changes you may have made, or you can enter a capital Y to exit and save. By entering a capital N or Y, you will skip the prompt asking if you want to save your changes, and if you are in a submenu, you will bypass the main menu and be returned straight to the system prompt.

## How to Print Values

Use the -P option to print the present configuration values without changing them. For example:

CONSOLE -P prints the console configuration on the screen.

CONSOLE;> filename -P prints the console configuration to the designated file.

## Help

The configuration programs have a context-sensitive help facility built in. Anywhere there is a prompt, you can enter a question mark (?) to have the screen display information about what your choices are. If there is no help available for that prompt, you will just see the original display.

## Checking Typing Mistakes

If you make a typing mistake and notice it before you press **Enter**, you can erase the incorrect characters or the whole line.

Press BACKSPACE to erase the character to the left of the cursor. You can erase characters back to the prompt.

To erase the current line, type a CTRL-U or a CTRL-X. (The hyphen means you are supposed to keep the CTRL key pressed down while you press the second key.)

## 2 – System Parameters

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The system parameter configuration program, SYS\_PAR, has 13 pages that allow you to configure the operation of your Site Controller. The 13 pages are titled:

- 1 System parameters
- 2 Club card format - field widths
- 3 Club card format - offsets
- 4 Reader verification and miscellany
- 5 Console verification
- 6 Gate verification and miscellany
- 7 Fuel Point verification and miscellany
- 8 Serial port configuration
- 9 Miscellany
- 10 Tank gauge
- 11 Transaction miscellany
- 12 Receipt configuration
- 13 Miles per gallon package

The items on the 13 pages of the menu are discussed below in the order in which they appear on the pages.

### Page 1: System Parameters

- 1 **Power up:** The Site Controller prints a specified power-up message whenever the AC power is turned on or the system is rebooted. It can be up to 60 characters long. Enter a message that identifies your company and site.
- 2 **Site ID:** A unique number you assign to each of your sites. This number identifies the site when it is polled by a remote computer. Default is 0, but you should change this if you already have a site using this number.

- 3 **System ID:** A unique number assigned to your system by Gasboy. The System ID should be the same for all of your company's sites. System ID is encoded on each privately issued card to limit the use of the card to the issuer's system and to protect the issuer's system from unauthorized cards. It is not a good idea to change the number assigned by Gasboy.
- 4 **Second system ID:** Allows your system to accept cards issued by another system.
- 5 **Network poll address:** The drop address of the Site Controller on an on-line CFN network. The site will answer to this address when polled. The default address is 1, which should be used in all single Site Controller systems. The Gasboy PC communications package, PC Site Control, will work only with sites having a poll address of 1.
- 6 **Manager key permission:** Currently not functioning; site is set up with the highest permission level. Determines what permission level the user will be promoted to while the key on the Site Controller is turned to the manager position.
- 7 **PIN key:** Used in the club card PIN calculation. It is always four digits, so leading zeros should be used if necessary. It is assigned by Gasboy, and should be the same for all your sites that accept a particular club card. Keep this key confidential. When the four digits are entered, the screen will display \*\*\*\*. There is no default for the PIN key.
- 8 **Backup password:** Used if no password has been loaded for user 0, or if the backup password switch is set.

The default backup password is GASBOY. It is recommended that you not change this password. If you do change the backup password, write it down in a safe place where it will never be lost.

- 9 **Lockout:** You can choose either bit-mapped lockout or limited lockout.

If you choose bit-mapped lockout, you may specify whether the table is maintained in memory (the usual arrangement) or in a disk file.

For bit-mapped lockout, you must specify the number of digits to use for lockout. Up to eight digits can be used for bit-mapped lockout. The numbers used for lockout are interpreted as numbers with leading zeros assumed.

With memory-based bit-mapped lockout the Site Controller stores 96 card numbers per record. (The first record is used for other information.)

The number of digits in the card number is also a limiting factor. If the card number is four digits, the highest card number that can be used is 9999, if it is five, the highest is 99,999, and if it is six, the highest is 999,999.

If a larger number of cards or longer card numbers are needed than can be provided with bit-mapped lockout in memory, you have two choices: bit-mapped lockout on disk (which slows down card verification) or limited lockout.

For limited lockout, the number used for lockout can be up to 19 digits. The numbers used for lockout are stored as strings of digits and leading zeros are not assumed. When club card numbers are entered for lockout, a C must come before the number.

With limited lockout, the Site Controller stores one account number per record. It is possible to use wildcards in digit positions to lockout more than one card with a single record. For example, if your card format includes subfields for customer number and employee number in the portion of the account number that is subject to lockout, then you can lock out all cards for a particular customer with a single lockout record containing wildcards. (See MDE-4315 CFN III Manager's Manual for more details.)

When deciding if the space available for limited lockout is adequate to your needs, remember that it is not necessary to be able to lockout every single card you might issue, only the fraction of your outstanding cards that might realistically be locked out at any one time. Good lockout and card recovery policies can greatly reduce the number of accumulated lockouts.

The default is bit mapped, 4 digits, but your choice will depend on your card format, the maximum number of cards you intend to issue, and the maximum number of cards you intend to lock out.

- 10 **Disk journal:** Enter a Y or N to store transaction data in P: journal.log. If you are using the shift reporting package, enter Y.
- 11 **Send generic log messages to disk journal:** Enter a Y or N to save all log messages (non-transaction included) to the disk journal. Messages are of type "Event generic" as described in the disk journal document. Note that this makes the journal larger.
- 12 **Locale code for site:** Select the number corresponding to the site locale.

Number	Locale	Number	Locale	Number	Locale
0	USA	5	Latin 1	10	Phillipines
1	China	6	Latin 2	11	South Africa
2	Ethiopia 1	7	Latin 3	12	Taiwan
3	Ethiopia 2	8	Latin 4	13	Turkey
4	Iceland	9	Latin 5		

Hit RETURN when through reading.

## Page 2: Club Card Format - Field Widths

- 13 **Digits in system ID:** The number of digits in the system ID number. The system ID number is encoded on every privately issued card or Vehicle Module (VM). The system ID number encoded on the card will be compared with the system ID entered in [item 3 on page 8](#). For the card to work, the two numbers must match (leading 0s are allowed). Up to six digits are allowed. The default is 6 digits.
- 14 **Digits in account #:** The total number of digits in the card information (account) field on privately issued cards used with the system.

If the card information field is divided into two or three fields (for example, customer number and card number), this is the total of all the card information fields. The default, as well as the maximum, is 19 digits.

**15 Digits in allocation:** The number of digits in the allocation number part of the club card account number. The allocation number can have up to four digits, or up to five digits if the first digit is 3 or less (this is because the highest permissible allocation number is 32,766). The default is 2 digits. The number of digits on the card can be greater but only up to 5 are usable.

**16 Digits in vehicle #:** The number of digits in the vehicle number part of the club card account number. The number can have up to eight digits. Must have a number greater than 0 for the vehicle number to print on the receipt.

If manual-entry vehicle numbers are used, rather than having the vehicle numbers on the card, the number of digits for this parameter should be 0. The default is 4 digits.

**17 Digits in expiration date:** The number of digits in the expiration date on privately issued cards used with the system. The expiration date is two digits if just the year is used, and four digits if the year and month are used. The default is 4 digits.

**18 Digits in limitation code:** The number of digits in the limitation code on privately issued cards used with the system. The limitation code can have zero, one, or two digits. The default is 1 digit.

**19 Digits in authorization code:** The number of digits in the authorization code on privately issued cards used with the system. The authorization code can have zero, one, or two digits. The default is 2 digits.

**20 Digits in price level:** The number of digits in the price level code on privately issued cards used with the system. The price level can have zero, one, or two digits. The default is 1 digit.

**21 Digits in restriction code:** The number of digits in the restriction code on privately issued cards used with the system. The restriction code can have zero, one, or two digits.

Depending on the value of the restriction code on the card, the mileage, auxiliary entry number, PIN, dollar amount, or some combination of these must be entered by the card user.

If PIN, auxiliary entry number, or odometer entry are required in the card reader program, they are always required, regardless of the value of the restriction code. Also, if the PIN entry is required for club card transactions in the system parameters, it is always required, regardless of the value of the restriction code. The default is 1 digit.

**22 Digits used in PIN calculation:** The number of digits in a club card account field, that is used for the PIN calculation.

For systems that use two cards, these digits should be encoded only on the employee card, so that one employee may drive several vehicles without having to remember several PINs. The default, which is also the maximum, is 19 digits.

**23 Digits in checking PIN:** The number of digits to be entered by the customer for a checking transaction PIN. This applies to debit cards only, not privately issued cards. The default is 4 digits; the maximum is 12 digits. Reader programs must be set to allow 12 digits if used. Refer to [“Island Card Reader Configuration” on page 55](#) for more information.



- 24 **Digits in savings PIN:** The number of digits to be entered by the customer for a savings transaction PIN. This applies to debit cards only, not privately issued cards. The default is 4 digits; the maximum is 12 digits.
- 25 **Digits in credit PIN:** The number of digits to be entered by the customer for a credit transaction PIN. This applies to credit cards only, not privately issued cards. The default is 4 digits; the maximum is 12 digits.

## Page 3: Club Card Format - Offsets

- 26 **Allocation account offset:** The offset into the club card account number of the allocation number. For example, an offset of 0 points to the first digit of the account number. The default offset is 4.
- 27 **Vehicle account offset:** The offset into the club card account number of the vehicle number. For example, an offset of 0 points to the first digit of the account number. The default offset is 6.
- 28 **Limitation code offset:** The offset following the expiration date that points to the first digit of the limitation code. For example, an offset of 0 points to the first digit after the expiration date. The default offset is 0. If there is no expiration date, first digit after field separator.
- 29 **Authorization code offset:** The offset following the expiration date that points to the first digit of the authorization code. For example, an offset of 0 points to the first digit after the expiration date. The default offset is 1.
- 30 **Price level offset:** The offset following the expiration date that points to the first digit of the price level code. For example, an offset of 0 points to the first digit after the expiration date. The default offset is 3.
- 31 **Restriction code offset:** The offset following the expiration date that points to the first digit of the restriction code. For example, an offset of 0 points to the first digit after the expiration date. The default offset is 4.
- 32 **PIN calculation offset:** The offset of the data used for PIN calculation in the account information field. For example, an offset of 0 points to the first digit of the account information field. You may wish to assign special meanings to subranges of this field, such as customer number and employee number. The default offset is 0.
- 33 **Extra card digit offset:** Offset after expiration date for extra digit of card number. This option was added to meet a specific need of a customer who had run out of card numbers to issue. The extra digit could be added to new cards without affecting old cards. The default is 0, which disables this feature.
- 34 **CLUB bit-mapped account offset:** In bit-mapped lockout, how far from the beginning of the account number is the first digit in the club lockout number. The default is 0.

## Page 4: Reader Verification and Miscellany

- 35 Use remote verification (reader):** This item specifies which types of cards are verified remotely for transactions started from the island card reader. If local verification is also specified for a type of card, local verification will be done if remote verification cannot be completed.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 24 specifies checking and credit.

- 36 Use local verification (reader):** This item specifies which types of cards are verified locally for transactions started from the island card reader. If remote verification is also specified for a type of card, it will be tried first, and local verification will be done if remote cannot be completed.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies private issue (club) cards.

- 37 Require PIN (reader):** This item specifies which types of cards require the customer to enter a PIN for transactions started at the island card reader. This specification is in addition to restrictions encoded on the card. PINs should always be required for debit cards (savings and checking) if these cards are accepted at the site.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 123 specifies private- issue (club), checking, and savings cards.

- 38 Check PIN (reader):** This item specifies which types of cards require the Site Controller to check the PIN for transactions started at the island card reader. The Site Controller can check only privately issued card PINs, not PINs assigned by banks (which are checked remotely by the bank network). There are special occasions where bank PINs can be used. These numbers must be entered into a record that is checked by the Site Controller. However, you may assign privately issued PINs to credit cards for your own customers if you wish to limit credit card use to approved customers only. If using Record Lookup, the PIN is compared to the PIN loaded in the record.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 39 Check mod 10 (reader):** This item specifies which types of cards require the Site Controller to check the mod 10 check digit for transactions started at the island card reader.

The mod 10 check digit is a special digit that is encoded on some types of cards and that contains partial information about certain other digits on the card, usually the account number. Comparing the encoded check digit with the result of repeating the calculation at the site will detect most alterations or errors on the card.

If the Site Controller checks mod 10 for a card that doesn't have a mod 10 check digit, the card will be denied authorization. For cards that do have mod 10 check digits, you can decide not to check mod 10 if, for example, you wish to accept cards that were encoded with incorrect check digits.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit cards.

- 40 Check expiration date (reader):** This item specifies which types of cards require the Site Controller to check the expiration date when transactions are started from the island card reader. The expiration date on the card is compared to the current date (or to an alternate expiration date if one has been set by system parameter [item 137 on page 24](#), Transaction Miscellany,) and the card is rejected if it has expired.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1234 specifies privately issued (club), checking, savings, and credit cards.

- 41 Lockout on local verification (reader):** This item specifies which types of cards require the Site Controller to check lockout on local verification for transactions started from the island card reader.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) and credit cards.

- 42 Lockout on remote verification (reader):** This item specifies which types of cards require the Site Controller to check lockout on remote verification for transactions started from the island card reader.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 43 Reader default payment:** This item specifies which type of account should be used as the default payment type if the “Which account step” is not in the island card reader program.

Account types are: 1 = checking, 2 = savings, 3 = credit.

- 44 Show product price on reader display:** For which types of transactions should prices of products purchased be shown to the customer on the island card reader display. Some sites may not wish to display prices for privately issued card transactions.

Types of transactions are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 45 Pump must be on hook for reader transaction:** A hose can be required to be on-hook to be activated from an island card reader.

- 46 Auto receipt: When re-entering card, ICR prints without asking:** Are receipts printed automatically on the island card reader when the customer swipes the card again after pumping? The default is no.

- 47 Auto receipt: duplicate receipts printed:** Will another receipt be printed if the card is swiped a second time after pumping. The default is no, which lessens the chance of the printer jamming on unclaimed receipts.
- 48 Reader types that print receipt without asking after sale:** Specifies what reader types will always automatically print a receipt when sale is completed.  
(0=None,1=CRIND,2=ICR,3=ALL). For all transactions on pumps with no internal reader, the receipt will automatically be printed on the lowest numbered ICR assigned to the same cluster as the pump.
- 49 Reader ignores PIN restriction on card:** Specifies that a PIN is not needed even if the restriction code requires a PIN provided that Check PIN is not set.
- 50 Keypads:** Holds 2 separate keypad layouts. The user may pick any 2 from the following
- CRIND
  - WCAT
  - CRIND/WCAT (like old setting when keypad length was 20)
  - DPT (like old setting when keypad length was 24)

The keypads are loaded 1 at a time. The customer is first asked to select which keypad to load, and then is asked to load the keypad string for that reader type. He can then select the keypad again and enter the keypad layout for another type. The last 2 different types entered are saved.

The program only sends the keypad to the type of device specified.

- 51 Require clerk approval for reader transactions:** Some fire marshals require that a clerk approve all reader transactions before fuel can be pumped; this is a safety measure to prevent customers from dealing with materials like propane themselves. The default is no.
- 52 Reader requires attendant card for transactions (Y/N/cluster #):** Y = all clusters, N = none, 0 - 9 applies only to the specified cluster. The Attendant number from card becomes the clerk number for tracking.

If set to yes, a transaction from the reader will require an Attendant card to be swiped following any payment card. If swiped without a payment card, the access card will be treated as a Club and will not require an additional card swipe. This allows attendants to charge customer's cash sales to their attendant account.

- 53 Reader requires Patron/Loyalty card for transactions:** Enter 0 = No, 1 = Before, 2 = After, 3 = Maybe. Patron is not required, but if swiped before payment, it is assigned to the transaction and payment is prompted for. The default is no.

## Page 5: Console Verification

Console in this section refers to Profit Point and/or Check Point.

- 54 Use remote verification (console):** Which cards are verified remotely for transactions started from the console. If local verification is also specified for a type of card, local verification will be done if remote verification fails.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 55 Use local verification (console):** Which types of cards are verified locally for transactions started from the console. If remote verification is also specified for a type of card, it will be tried first, and local verification will be done if remote cannot be completed.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) and credit.

- 56 Require PIN (console):** This item specifies which types of cards require the customer to enter a PIN for transactions started at the console.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 23 specifies checking and savings.

- 57 Check PIN (console):** For which types of cards does the Site Controller check the PIN for transactions started at the console. The Site Controller can check only PINs assigned for the system, not bank PINs. (There are special occasions where bank PINs can be used. These numbers must be entered into a lookup record that is checked by the Site Controller.)

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 58 Check mod 10 (console):** For which types of cards does the Site Controller check for the mod 10 check digit on the card for transactions started at the console. If the Site Controller checks mod 10 for a card that doesn't have a mod 10 check digit, the card will be denied authorization.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 59 Check expiration date (console):** For which types of cards does the Site Controller check the expiration date when transactions are started from the console. The expiration date on the card is compared to the current date (or an alternate expiration date if one is set in system parameter Alternate Expiration Date, below), and the card is rejected if it has expired.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) and credit.

- 60 Lockout on local verification (console):** For which types of cards does the Site Controller check lockout when doing local verification for transactions started from the console.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) and credit.

- 61 Lockout on remote verification (console):** For which types of cards does the Site Controller check lockout when doing remote verification for transactions started from the console.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 62 Where to send all Profit Point broadcast messages:** Sending all Profit Point messages is useful in video monitoring. The default is no.

- 63 Console requires attendant card for transactions:** If set to yes, a transaction from the console will require an Attendant card to be swiped following any payment card. If swiped without a payment card, the access card will be treated as a Club and will not require an additional card swipe. This allows attendants to charge customer's cash sales to their attendant account.

- 64 Console requires Patron/Loyalty card for transactions:** Enter 0 = No, 1 = Before, 2 = After, 3 = Maybe. Patron is not required, but if swiped before payment, it is assigned to the transaction and payment is prompted for. Default is 0.

## Page 6: Gate Verification and Miscellany

- 65 Use remote verification (gate):** Which types of cards are verified remotely for transactions started from the gate controller. If local verification is also specified for a type of card, local verification will be done if remote verification fails.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 66 Use local verification (gate):** Which types of cards are verified locally for transactions started from the gate controller. If remote verification is also specified for a type of card, it will be tried first, and local verification will be done if remote fails.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 67 Require PIN (gate):** For which types of cards must the customer enter a PIN for transactions started at the gate controller.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 68 Check PIN (gate):** For which types of cards does the Site Controller check the PIN for transactions started at the gate controller. The Site Controller can only check PINs assigned for the system, not bank PINs. Bank PINs can be used only if entered into the lookup table. Refer to MDE-4315 CFN III Manager's Manual for more information.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 69 Check mod 10 (gate):** For which types of cards does the Site Controller check the mod 10 check digit for transactions started at the gate controller. If the Site Controller checks mod 10 for a card that doesn't have a mod 10 check digit, the card will be denied authorization.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 70 Check expiration date (gate):** For which types of cards does the Site Controller check the expiration date for transactions started from the gate reader. Expiration date is compared to current date (or alternate date if one is set in system parameter Alternate Expiration Date, below).

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 71 Lockout on local verification (gate):** For which types of cards does the Site Controller check lockout when doing local verification for transactions started from the gate controller.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 72 Lockout on remote verification (gate):** For which types of cards does the Site Controller check lockout when doing remote verification for transactions started from the gate controller.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 1 specifies privately issued (club) cards.

- 73 Log gate openings:** Should the Site Controller print a message on the log printer each time the gate opens?

- 74 All gate openings make transaction:** Should the Site Controller treat each gate opening as a transaction?

- 75 Select gate message:** Enter message to be displayed when a customer is selecting a gate at the reader.

## Page 7: Fuel Point Verification and Miscellany

- 76 Use remote verification (Fuel Point):** Identifies which types of cards are verified remotely for transactions started from a Fuel Point. Cards are not actually read at/by the Fuel Point. Data that is read is put into card formats. If local verification is also specified for a type of card, local verification will be done if remote verification fails.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 77 Use local verification (Fuel Point):** Identifies which types of cards are verified locally for transactions started from a Fuel Point. If remote verification is also specified for a type of card, it will be tried first, and local verification will be done if remote fails.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) and credit.

- 78 Require PIN (Fuel Point):** Identifies which cards should require PIN (Fuel Point) entry.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 12 specifies privately issued (club) and checking.

- 79 Check PIN (Fuel Point):** Identifies which cards should check the PIN (Fuel Point) entry.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 12 specifies privately issued (club) and checking.

- 80 Check mod 10 (Fuel Point):** Identifies types of cards for which the Site Controller checks the mod 10 check digit for transactions started at a Fuel Point. If the Site Controller checks mod 10 for a card that does not have a mod 10 check digit, the card will be denied authorization.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 81 Check expiration date (Fuel Point):** For which types of cards does the Site Controller check the expiration date for transactions started from a Fuel Point. The expiration date is compared to current date (or alternative date if one is set in SYS\_PAR Alternate Expiration Date, below).

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) cards and credit.



- 82 Lockout on local verification (Fuel Point):** For which types of cards does the Site Controller check lockout when doing local verification for transactions started from a Fuel Point.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 14 specifies privately issued (club) and credit cards.

- 83 Lockout on remote verification (Fuel Point):** For which types of cards does the Site Controller check lockout on remote verification for transactions started from a Fuel Point.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 234 specifies checking, savings, and credit.

- 84 Require sys-ID match for track-II vehicle module:** Require sys-ID match for track-II vehicle module. If yes, the Vehicle module must have correct system-ID for track-II card.

## Page 8: Serial Port Configuration

- 85 Remote Port channel:** The channel used for remote modem. If the Remote Port is not set to zero for "None", ensure that the Remote Port Channel number does not conflict with the Log Printer Channel or Host Handler Channel; else, a system lockup may occur.

- 86 Log printer channel:** The channel used with the log printer. Ensure that the Log Printer Channel number does not conflict with the Remote Port Channel or Host Handler Channel. If you assign the same (non-zero) number to multiple channels, a system lockup may occur.

- 87 Special pump handler channel:** The number of the serial port used for a non-Gasboy, non-Tokheim®, non-Gilbarco pump interface-for example, a Unidynamics or Wayne interface. Enter 4 if no special pump handler is used. If the Host Handler Channel is not set to zero for "None", ensure that the Host Handler Channel number does not conflict with the Log Printer Channel or Remote Port Channel; else, a system lockup may occur.

- 88 Remote port baud rate:** The default baud rate is 9600.

- 89 Remote port terminal type:** The default terminal type is VT52.

- 90 Remote port modem type:** This is the type of modem that is used by the remote port:

- 0 = dumb modem (half-duplex)
- 1 = Hayes
- 2 = Hayes handshake
- 3 = direct or dumb modem (full-duplex)

- 91 Additional Hayes remote port command(s):** Use to add commands to the default modem instructions.

- 92 Pumps on first Tokheim channel:** If you have Tokheim pumps, this parameter lets you designate how many pumps are on channel 1. This designation lets you split the number of pumps evenly between channels 1 and 2, thereby increasing processing speed.

- 93 Poll split Tokheim loops fast:** The default is NO which uses less CPU time. Default polling is 30 polls per second. Fast is 50 polls per second.
- 94 Host handler channel:** This is the host verification channel. Default is 0 (none).
- 95 Host handler baud rate:** The baud rate used by the host handler. The baud rate is ignored for synchronous protocols.
- 96 Verification time-out (routers):** The time (in seconds) that the Site Controller waits for verification from the host. The default verification time-out of 75 seconds is usually reasonable. Default is 75 seconds.
- 97 Verification time-out (CFN Host):** The time (in seconds) that the Site Controller waits for verification from the CFN host. Default is 0 seconds.
- 98 Host router data:** Data the router uses to identify the site. The data to be entered depends on the router used. Check the specific router manual for more information.
- 99 More router data:** More data used by the router. The data to be entered depends on the router used. Check the specific router manual for more information.
- 100 Send requests to host handler:** For which types of cards should authorization requests be sent to the host handler.

Types of cards are:

- 1 = club
- 2 = checking
- 3 = savings
- 4 = credit
- 0 = none.

Enter selected types as a string with no spaces; for example: 24 specifies checking and credit.

- 101 Host handler data:** Enter the data for handler configuration. The data to use depends on which handler is being used. The program will ask for handler data #1, handler data #2, and so on through all 16 entries. Enter each separately. For more details on handler data, see your specific Credit and Debit manual.

## Page 9: Miscellany

- 102 Null pad CR/LF:** The number of null characters to pad after a carriage return/ linefeed. This is used for log printers and data terminals that do not have buffers in order to briefly hold input during the time it takes the carriage to return to the beginning of the line.
- 103 Switch time-out:** The number of seconds the pump control unit waits after a pump has been activated for the hose switch to be activated. If the time-out is reached, the transaction is halted. The default value (80 seconds) is usually adequate.
- 104 Pulser time-out:** The number of seconds the pump control unit waits for the next pulse after fueling has started. If the time-out is reached, the transaction is halted. The default value (80 seconds) is usually adequate.
- 105 Fall-back price level:** The price level that will display on dispensers when they are idle. Price from previous sale will be replaced by fall-back price for that product a certain number of seconds after the sale is completed. This is also the level that the Site Controller will use when it cannot determine the method-of- payment of a transaction.
- (For Gilbarco MPD dispensers, it is recommended that level 0 be your fall- back price level and that it be equal to your credit price, which should be price level 2.)
- 106 STOP pumps on RS-422 break:** This item specifies whether any pumping transactions should stop when a break occurs on an RS-422 loop.
- 107 Blank pump display after:** The number of seconds the Site Controller waits after a sale is paid before replacing the quantity sold and sale amount displays on a dispenser with zeros and displaying the fall-back price (the fall-back price level is set by system parameter Fall-back Price Level, above). The default is 600 seconds (10 minutes).
- 108 Blank pump price display:** For Tokheim pumps only, should the price display be blanked out during pumping for club cards only. The default is no.
- 109 Command search path:** Specifies which directories and drives-and in what order-the Site Controller will search for programs.
- 110 Zero quantity disable after:** The number of consecutive zero-quantity transactions that can occur on a pump before the Site Controller disables it. This feature is intended to disable a pump in the event of total failure of the flow- sensing pulser. The default value (5 no-quantity transactions) is usually adequate.
- 111 Reuse current sale on POS if previous unpaid:** Should a new transaction on a POS be allowed to overwrite the current paid transaction if the previous transaction is still unpaid? Default is yes.

If you select no, you will not be able to start a new transaction until the previous transaction is paid off. If you select yes, you will be able to start the pump whenever either the current or previous transaction is paid off: however, occasionally a manual receipt may be unavailable because another transaction (say, started from a island card reader) overwrote the current transaction before the print-receipt button was pressed.

- 112 Log remote port commands executed:** Should commands sent to the Site Controller from the remote port (for example, by a remote computer or terminal dialing in) be recorded on the log printer? Default is no.
- 113 Unique shift #'s for every console:** Allows the disk journal to track console shifts separately. Default is no.
- 114 Hours required between NEXT SHIFT/DAY:** How many hours from a NEXT SHIFT/DAY command must pass before a subsequent NEXT SHIFT/DAY command will be carried out. Default is 0.
- 115 Initial drawer value after NEXT SHIFT/DAY:** The amount of cash in the drawer that each shift or day will start with. The default is \$300.
- 116 Buffered cumulative totalizers on RESET TOTALS:** Preserves the cumulative totals at the point where the RESET TOTALS command is run. This allows you to figure out the totals (based on cumulative totalizers) for last shift/day without having to shut down the site. The default is no.
- 117 Blank lines for page break:** Number of blank lines to leave between pages on the log printer. This allows you to skip perforations when using tractor-feed perforated paper in a dedicated log printer. Default is 0. The range is 0-10.
- 118 Lines of text per page on direct printout:** Lines of text per page on the log printer. Default is 66 lines (11 inches times 6 lines per inch); the range is 11-127 lines.
- 119 Logger initialization:** This is how you send an initialization string to your log printer, if required by the printer you are using.
- 120 Pre 4.1 SCI compatibility for odometer and manual #:** Maintain compatibility with the pre-version 4.1 Site Controller I for odometer and manually-entered vehicle number. Earlier systems inserted zeros when no number was entered by the customer; the current system uses spaces (blanks). Default is no (uses spaces).

## Page 10: Tank Gauge

- 121 Log gauge delivery:** Should deliveries detected by the tank gauge be recorded on the log printer? The default is yes.
- 122 Transaction for gauge delivery:** Should deliveries detected by the tank gauge generate transactions? The default is no.
- 123 Add to tank inventory after gauge delivery:** Should the amounts of deliveries detected by the tank gauge be added to the tank inventory totals? The default is no.
- 124 Log fuel drop card:** When the driver of a tanker uses his card to record a fuel drop at your site, should this drop be added to the log, where it cannot be polled by a remote site? The default is no.

- 125 Transaction for fuel drop card:** When the driver of a tanker uses his card to record a fuel drop at your site, should this drop be entered as a transaction, which can be polled from a remote site? The default is no.
- 126 Add to tank inventory after fuel drop card:** When the driver of a tanker uses his card to record a fuel drop at your site, should this drop automatically be added to tank inventory? The default is no.
- 127 Log dipstick reading:** Should dipstick readings be added to the log, where they cannot be polled by a remote site? The default is no.
- 128 Transaction for dipstick reading:** Should dipstick readings be entered as transactions, where they can be polled by a remote site? The default is no.

## Page 11: Transaction Miscellany

- 129 Bank PIN D.E.S.:** Should bank card transactions be Data Encryption Standard (D.E.S.) encrypted?
- 130 CFN PIN unencrypted:** Specifies that a PIN not be encrypted when it is sent to the CFN host. This is for CFN hosts that cannot decrypt PINs.
- 131 Cumulative limit time:** Over how long a period should the Site Controller keep track of the cumulative fuel amount.
- For example, if the time limit is 24 hours, the Site Controller keeps track of the amount of fuel accessed by a card within any 24-hour period. A customer cannot access more than the amount of fuel defined by the cumulative fuel limit in the 24-hour period.
- Specify a time limit of 0 if there is no limit. The default is 0.
- 132 Cumulative fuel limit:** What is the maximum amount of fuel a customer can have access to in the cumulative limit time period? The amount can be in dollars or gallons.
- 133 Save cash transactions:** Should the Site Controller save records for cash transactions in the main transaction file?
- 134 Save HAND transactions:** If you have configured the console to allow manually authorized card transactions, should the Site Controller save the records of these transactions?
- 135 Allow supervisor cards:** Should this site accept supervisor cards? The default is no.
- 136 Allow cardless use of code file:** Should this site have code file codes that are entered manually, not with a card? The default is no.

- 137 Alternate expiration date:** Allows a grace period for expired cards if a non-zero value is entered. First value is the month; second value is the year. If either value is not zero, all cards will be compared with this month and year, rather than the month and year on the system clock, to determine whether each card has expired.
- 138 Number to add to club price level:** Allows club cards to use a different price level than the level encoded on the cards.
- 139 Transaction file full warning percentage:** Determines how full the main transaction file may become before a warning message is logged. Enter as percentage full.
- 140 Fuel authorization code for bank cards:** Which types of fuel can be purchased by bank cards? Only one code can be entered; select one of the authorization numbers set up with the LOAD AUTHORIZATION command. Default is none.
- 141 Check fuel authorization codes on postpay:** Should a postpay transaction be disallowed because the customer pumped a product that was not one of the products permitted by the authorization code encoded on his card?
- 142 Always request dollars from CFN host:** Always request transaction authorization in dollars from the remote host for the specified type of transactions.
- Types are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 24 specifies checking and credit.
- 143 Send transactions to CFN host:** Which types of transactions should be sent to the CFN host?
- Types are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 5 = cash, 6 = unpaid, 0 = none. Enter selected types as a string with no spaces; for example: 124 specifies club, checking, and credit.
- 144 Generate card swipe event:** Should the system generate an event on every card swipe (Y/N)?

## Page 12: Receipt Configuration

The receipt format determines the information that will appear in the core of a printed receipt. The receipt header and footer are entered with the Site Controller command LOAD HEADING. The date and time of the transaction and the site number, transaction number, authorization number, customer account number, pump number, and type of fuel pumped appear on receipts unless a format from the bank overrides the standard format.

- 145 System volume units:** Units the system uses for fuel volume.  
G = gallons; L = liters. Default is gallons.
- 146 Minutes until ICR expires (1440):** This is the maximum amount of time, in minutes, that a receipt may be printed for a transaction. The range is from 20 minutes to 24 hours. The other constraint of receipts not being available after 100 transactions are stored in the transaction file still pertains.

- 147 Print MPG on receipt:** Print the miles per gallon calculated by the MPG package. MPG is preceded by the word 'CUM' (for cumulative) on both the MPG and Cost/mile. For Fuel Point, the word 'Last' precedes MPG on both. This is skipped if the customer is not enrolled in the MPG package or the vehicle record is NEW or BAD.
- 148 Print manual # on receipt:** Should the number that is manually entered by the customer (either the vehicle number or other number you configure the reader to ask the customer for) be printed on the receipt?
- 149 Print cost per mile on receipt:** Print the cost per mile calculated by the MPG package. This is skipped if the customer is not enrolled in the MPG package or if the vehicle record is NEW or BAD.
- 150 Print odometer tenths on receipt:** If odometer entry was requested, should tenths of a mile be printed? This setting should match the way you configure the island card reader's receipt printer (discussed in [“Island Card Reader Configuration”](#) on page 55 chapter).
- 151 Print remaining allocation on receipt:** Should the unused amount of a customer's allocation be printed on the receipt? Applies only to systems using allocation.
- 152 Print transactions time on receipts:** If the site does not want to have the transaction time printed on the receipts, set this to No. Default is yes.
- 153 Print dollar amount for fuel on CLUB receipts:** Should the dollar amount of fuel sales be printed on privately issued card receipts? (Some sites want only volume on the receipts.)
- 154 Text used on receipt for odometer:** What caption should be printed on receipts to label the field most commonly used for odometer entry? (Some sites use this field for other purposes.) Default is Odometer.
- 155 Text used on receipt for manual number:** What caption should be printed on receipts to label the multi-purpose manually entered field? Default is Manual #. If you use this field, the caption should be changed to something descriptive of its function.
- 156 Text used on receipt for vehicle number:** What caption should be printed on receipts for the vehicle number field? (Some sites use this field for other purposes.) Default is Vehicle.
- 157 TRFMT field letter used to print data on receipt:** If you want to unmask a specified area of a club card, the TRFMT field letter is placed in this location. Only fields that are configured as type-2 in TRFMT can be unmasked. The default is a space with no letters. To print the last four digits of the account number (default), enter a space and press **Enter**.

## Page 13: Miles-Per-Gallon Package

- 158 MPG package used for club cards:** Specify whether to calculate miles per gallon for club card transactions. To calculate MPG, the vehicle number must be entered into the system with the Site Controller LOAD VEHICLE command, and the vehicle number must be part of the club card account number, or it must be entered by the customer at the island card reader or console. Must be set to YES for vehicle number to print on the receipt.
- 159 MPG package used for bank cards:** Specify whether to calculate miles per gallon for bank card transactions. To calculate MPG, the vehicle number must be entered into the system with the Site Controller LOAD VEHICLE command, and the vehicle number must be entered by the customer at the island card reader or console.
- 160 Low MPG:** Specify the minimum miles per gallon the Site Controller will consider normal. If the MPG is lower than this, it is marked LOW in the vehicle report.
- 161 High MPG:** Specify the maximum miles per gallon the Site Controller will consider normal. If the MPG is higher than this, it is marked HIGH in the vehicle report.
- 162 Maximum miles between fuelings:** Specify the maximum miles between fuelings the Site Controller will consider acceptable.
- 163 Club odometer tries allowed:** Specify the number of retries a club card customer will be allowed if the Site Controller does not accept the odometer entry.
- 164 Bank odometer tries allowed:** Specify the number of retries a bank card customer will be allowed if the Site Controller does not accept the odometer entry.
- 165 Accept Club odometer:** Specify whether to accept, for storage in the Site Controller's records, a club card customer's odometer entry even if it is out of range after the maximum number of retries. If a customer enters 0 and it is accepted, the record will be reset.
- 166 Accept Bank odometer:** Specify whether to accept, for storage in the Site Controller's records, a bank card customer's odometer entry even if it is out of range after the maximum number of retries.
- 167 Use aux info field for vehicle number:** Which types of cards should use the auxiliary information entered at the island card reader or console as the vehicle number.

Types of cards are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces; for example: 24 specifies checking and credit.



## 3 – Pump Configuration

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Use the disk-based configuration command **PUMP** to configure the Site Controller for the number and type of pump control units and dispensers at your site. Type **PUMP** to see the pump configuration main menu.

From the main menu you have the following choices; press:

- 1** to go to submenu 1 to define a pump
- 2** to go to submenu 2 to assign a pump to a pump control unit
- 3** to go to submenu 3 to define a new pump type
- Q** to quit and save or discard changes.

If you are adding a new pump, first define it in submenu 1, then assign it to a pump control unit in submenu 2.

For each pump you add, you must specify a pump type and several parameters, such as fill amount and slow-to-cutoff point.

If you add a new pump that is the same type as a previously entered pump, it will be added with the same parameters as the first pump of that type in the list. Use the modify option (select it by pressing **m**) to change the parameters (but not the type) of an existing pump.

### Pump Definition

Here are the pump options that can be changed in the pump definition submenu (submenu 1) or the new graphical interface program:

- **Pump Type:** The following are the standard pump types available for the CFN System (you can add other types with submenu 3). If this is a chain pump master, assign it the listed master number.
  - 1** Mechanical (using Gasboy PCU)
  - 2** Gasboy single-product dispenser (SPD)
  - 3** Gilbarco Highline (old)
  - 4** Gilbarco Highline
  - 5** Gilbarco Highline with cash/credit select button
  - 6** Gilbarco MPD

- 7 Gilbarco MPD with cash/credit select button
  - 8 Tokheim 162/262
  - 9 Tokheim 262-A
  - 10 Tokheim SA MMD
  - 11 Tokheim SA MMD with cash/credit select button
  - 12 Tokheim TCS
  - 13 Tokheim TCS with cash/credit select button
  - 14 Tokheim TCS 1-hose blender
  - 15 Tokheim TCS 1-hose blender with cash/credit select button
  - 16 Tokheim Premier
  - 17 Tokheim Premier with cash/credit select button
  - 18 Tokheim Premier 1-hose
  - 19 Tokheim Premier 1-hose cash/credit select button
  - 20 Tokheim Premier blender
  - 21 Tokheim Premier blender with cash/credit select button
  - 22 Tokheim Premier 1-hose blender
  - 23 Tokheim Premier 1-hose blender with cash/credit select button
  - 24 Wayne MPD
  - 25 Wayne MPD with cash/credit select button
  - 26 Wayne Blender
  - 27 Wayne Blender with cash/credit select button
  - 28 LTS
- **Cluster a Pump is Assigned To:** Determines which island card readers a pump can be accessed by. Island card readers are assigned to clusters in the reader configuration program. If this is a chain activated pump, it must be in the same cluster as the others in the chain.

- **Slow-to-Cutoff:** Sets the volume (in thousandths) where the slow-to-cutoff cuts in. This is to prevent pre-pay and limit transactions from coasting past the shut-off point. The default is 500 thousandths.
  - **Fill Units:** Sets which unit (dollars, gallons, or liters) is used in the fill limit. The default is dollars.
  - **Fill Amount:** Sets how many dollars, gallons, or liters are authorized when a fill is requested. The default is 50. This is overwritten by the LOAD CUTOFF command. It is used only if the Pump table is reconstructed.
  - **Maximum Units:** Sets which unit (dollars, gallons, or liters) is used in the maximum amount. The default is gallons.
  - **Maximum Amount:** Sets the maximum number of dollars, gallons, or liters allowed and cannot be overwritten. Zero, which is the default, indicates an unlimited amount.
  - **Pulse Unit:** Sets which unit-dollars, gallons, or liters-the pulser uses. The default is dollars.
  - **Pulses per Unit:** If the pump is mechanical, sets the number of pulses per dollar, gallon, or liter used by the pump's pulser. The system counts transitions rather than pulses, and since there are two transitions per pulse, you should enter twice the number of pulses per unit. If a pulser for a pump sends 500 pulses per gallon, the figure to enter for that pump is 1000. If a pulser for a pump sends 1000 pulses per gallon, the figure to enter for that pump is 2000. The default is 1000.
- Note: Because of a National Weights and Measures requirement, the pulser rate can be changed only when a special chip is set in the Site Controller. Contact your service representative.*
- **Hoses:** If the pump is a multi-product dispenser, specifies how many hoses the pump has. The default is 4.

**Figure 3-1: Example of Pump Configuration Using Submenu 1**

# Pump Type	C1	Slow	Fill	Max	Pulse	Hoses
1. Mechanical	1	0.500	10	0	500/G	
2. Mechanical	1	0.500	10	0	500/G	
3. Mechanical	1	0.500	10	0	500/G	
4. Mechanical	1	0.500	10	0	500/G	
5. Gasboy SPD Cash/Credit	1	0.500	\$10	0	1000/\$	
6. Mechanical	1	0.500	\$10	0	1000/\$	
7. Mechanical	1	0.500	10	0	500/G	
8. Mechanical	1	0.500	10	0	500/G	
9. Mechanical	1	0.500	10	0	500/G	
10. Mechanical	1	0.500	10	0	500/G	
11. Tokheim 162/262	1	0.500	\$10	0	1000/\$	
12. Tokheim 162/262	1	0.500	\$10	0	1000/\$	
13. Tokheim SA MMD Cash/Credit	1	0.500	\$10	0	1000/\$	3
14. Tokheim SA MMD Cash/Credit	1	0.500	\$10	0	1000/\$	3
15. Tokheim TCS Cash/Credit	1	0.500	\$10	0	1000/\$	3
16. Tokheim TCS Cash/Credit	1	0.500	\$10	0	1000/\$	3
17. Wayne Cash/Credit	1	0.500	\$10	0	1000/\$	
18. Wayne Cash/Credit	1	0.500	\$10	0	1000/\$	

## Assign Pump to a PCU

Each pump you defined in submenu 1 must be assigned to a pump control unit (PCU). Pumps are assigned to *slots* on the PCU. Each PCU has one or more slots. The number of slots available depends on the type of PCU. There can be up to 32 PCUs in the system, the same as the number of pumps.

Use submenu 2 of the pump configuration program to assign pumps to a PCU. The submenu shows the PCU number and type and the slots in use. You can add a new PCU, modify the pump numbers assigned to an existing one, or delete a PCU. It is not necessary to delete a PCU that is not in use.

## Auto-configure PCU

The auto-configure option (which you can activate by pressing C at submenu 2) assigns pumps to PCUs automatically. Any existing PCUs will be deleted. Each pump will be assigned to a PCU, but all slots in PCUs may not be filled if pump types are mixed.

Auto-configure starts with the first pump from the list of existing pumps (set up in submenu 1) and adds a PCU of the correct type. If the second pump is of the same type and the PCU has another slot available, the pump will be assigned to that slot. If the second pump is of the same type, but no slot is available on the first PCU, a second PCU will be added. If the second pump is of a different type, a second PCU of the corresponding type will be added. This is repeated for each succeeding pump in turn, so that at least one PCU is created for each sequence of similar pumps.

Auto-configure adds a new PCU at each point in the list where the pump type changes. It does not check to see if there is an existing PCU of that type with an empty slot. If auto-configure leaves too many empty slots of the same type, you may wish to use the delete and modify options on submenu 2 after running auto-configure.

## Tokheim Pumps

For Tokheim pumps only, the poll address set at the pump will probably not be the same as the PCU number assigned to it in submenu 2.

Each Tokheim model 98 pump controller can handle up to eight 162 pumps. The poll address of the first 162 on a Tokheim 98 pump controller is always 1 or 9. The poll address of the second 162 pump is always 2 or 10, and so on, regardless of the PCU numbers. If you need to skip a Tokheim 162 poll address, you should add a Tokheim PCU with no pumps assigned to it as a placeholder in that position.

## Items to Configure

The items you can configure in the PCU submenu are as follows:

- **Location Number:** The number of this PCU. PCUs are numbered 1 through 32. (The example below shows location numbers 1-11.)
- **PCU Driver Type:** The driver type of the PCU you are adding, by type number. Note that these four drivers are selected by number, but are displayed on submenu 2 by their names. The types available are:
  - 1 Mechanical PCU. Use this if you have mechanical pumps assigned to a Gasboy PCU. It has four slots available.
  - 2 Electronic PCU. Use this if you have Gasboy electronic pumps or other makes, such as Gilbarco, with a CFN interface. It has two slots available.
  - 3 Tokheim PCU. Use this if you have Tokheim electronic pumps. There is one slot available.
  - 4 Special PCU. If you have the standard release of the Site Controller II software, then use this PCU for Dresser-Wayne pumps. If you have a custom release software that supports Unidynamics instead of Wayne, then use this PCU for Unidynamics pumps. There is one slot available.
- **Slot Assignment:** The program will ask which pump number to assign to each available slot for the PCU. If you specify a pump that is already assigned to a different PCU, it will be reassigned.

Figure 3-2 is an example of a PCU configuration; in the two numbers separated by a colon, the left number is the slot number, and the right number is the pump number.

**Figure 3-2: Example of PCU Configuration**

1. Mechanical PCU	1:1	2:2	3:3	4:4
2. Special PCU	1:5			
3. Mechanical PCU	2:8	3:9		
4. Tokheim PCU	1:11			
5. Tokheim PCU	1:12			
6. Tokheim PCU				
7. Tokheim PCU				
8. Tokheim PCU				
9. Mechanical PCU	1:17			
10. Tokheim PCU	1:13			
11. Electronic PCU	1:14			
12. Mechanical PCU				

## Add Pump Types

Submenu 3 allows you to add a new pump type, or to modify an existing pump type.

You will not need to add a new pump type unless you wish to use a pump that is not compatible with any of the existing pump types. The pump type you add must be able to interface with an existing driver (see below). When you add a new pump type, the program will automatically assign it to the first free type number.

You should not change an existing pump type unless instructed to do so by your service representative.

The submenu shows the pump name, the driver type (by number, in parentheses), and the options (by number) for that pump type. You can add the following items in the pump type submenu:

- **Pump Name:** The name of this type of pump. This is usually the manufacturer or model name. Some pump types, such as car wash, are not really pumps.
- **Driver Type:** The type of driver this pump type uses. The following drivers are available:
  - 1 Gasboy PCU. Use this with mechanical pumps.
  - 2 Gasboy Electronic. Use this with Gasboy electronic pumps and MPDs and with Gilbarco electronic pumps and MPDs.
  - 3 Tokheim. Use this with Tokheim pumps and MMDs.
  - 4 Special PCU. Use this with Wayne electronic or Unidynamics Series 90 electronic counters and Model 20 OMC controller. (The special driver cannot be used with both Wayne and Unidynamics pumps on the same Site Controller at the same time.)
- **Options:** The options for this pump type. You can add options, and if the pump type is already shown, you can subtract options. To add options precede the option number with a plus (+); to subtract options precede the option number with a minus (-). You can add and subtract more than one option at a time. For example, +2-10 adds option 2 and subtracts option 10. The following options are available:
  - 1 Pump is a multi-product dispenser.
  - 2 Pump always needs switch detect (off-hook) to activate.
  - 3 Pump has a cash-credit select button. (Customer can choose cash or credit payment at the pump.)
  - 4 Site Controller can activate the pump without knowing the price or hose (for some MPDs).
  - 5 Site Controller cannot choose the hose number or price (for some MPDs).
  - 6 Site Controller cannot get the dollar amount or volume during pumping.
  - 7 Pump can't do switch detect or pulser time-outs (time-outs must be done by the driver).

- 8** Pump is a Tokheim stand-alone dispenser or Gasboy SPD version 4.3+ or PAC version 4.2+.
- 9** Pump can only be activated from downloaded prices (the displayed prices are downloaded).
- 10** Pump never needs switch detect to activate (can be activated while it is still on-hook).
- 11** The PCU is slow to respond to requests (improves performance on pumps that are inherently slow to respond or at sites that have a large number of pumps and are very busy).
- 12** The pump is a blender. (The Site Controller may not be able to keep component product tank inventories for types of blender pumps that are not specifically supported by Gasboy. Do not use this option for Gilbarco and Tokheim Blenders except for 5 product. The 5 product blender requires the 12 option.
- 13** The pump is a TCS configured to always download prices. (This allows TCS pumps to display the correct price level for a sale, provided that the pump's Tokheim firmware supports the Mode 25 feature.)
- 14** Pump is a Gasboy PAC.
- 15** Single-sided pump (used for PCU auto-configuration).
- 16** Tokheim Premier or Wayne blender with side hose.
- 17** Requires START button (not required for Tokheim).
- 18** Beeps when offhook without payment type selected.
- 19** Multiple button product selected.
- 20** Beeps when offhook without START button being pressed.
- 21** Pump has lift lever for offhook.
- 22** Pump is the master of the pump chain. Turning on this pump activates all other “pumps” (such as grease guns or car wash) in its cluster except other master pumps in that cluster.
- 23** Wayne 3 product blender, hoses 1,3 and 5. For Wayne products V580 and V590U only. Previously these pumps required using 5 hoses, setting the price code for hoses 2 & 4 to 99. With this option, only define 3 hoses; the Wayne driver maps them to the appropriate pump positions automatically.

The pre-defined pump types are shown in [Figure 3-3 on page 34](#).

**Figure 3-3: Pre-defined Pump Types**

1. Mechanical	(1)
2. Gasboy SPD	(2)
3. Gilbarco Hiline (old)	(2) 6,9
4. Gilbarco Hiline	(2) 9
5. Gilbarco Hiline Cash/Cred	(2) 3,9
6. Gilbarco MPD	(2) 1,5,9
7. Gilbarco MPD Cash/Cred	(2) 1,3,5,9
8. Tokheim 162/262	(3) 2,7
9. Tokheim 262-A	(3) 2,7,8,9,13
10. Tokheim SA MMD	(3) 1,2,7,8,9
11. Tokheim SA MMD Cash/Cred	(3) 1,2,3,7,8,9
12. Tokheim TCS	(3) 1,2,7,8,9,13
13. Tokheim TCS Cash/Cred	(3) 1,2,3,7,8,9,13
14. Tokheim TCS 1-H Blender	(3) 1,2,7,8,9,12,13,19
15. Tokheim TCS 1-H Blender Cash/Credit	(3) 1,2,3,7,8,9,12,13,19
16. Tokheim Premier	(3) 1,2,7,8,9,13,16
17. Tokheim Premier Cash/Credit	(3) 1,2,3,7,8,9,13,16
18. Tokheim Premier 1-H	(3) 2,7,8,9,13,16,19
19. Tokheim Premier 1-H Cash/Credit	(3) 1,2,3,7,8,9,13,16,19
20. Tokheim Premier Blender	(3) 1,2,7,8,9,12,13,16
21. Tokheim Premier Blender Cash/Credit	(3) 1,2,3,7,8,9,12,13,16
22. Tokheim Premier 1-H Blender	(3) 1,2,7,8,9,12,13,16,19
23. Tokheim Premier 1-H Blender Cash/Credit	(3) 1,2,3,7,8,9,12,13,16,19
24. Wayne MPD	(4) 1,2,5,7,9
25. Wayne MPD Cash/Cred	(4) 1,2,3,5,7,9
26. Wayne Blender	(4) 1,2,5,7,9,12
27. Wayne Blender Cash/Credit	(4) 1,2,3,5,7,9,12

If you add any of the six pumps in [Figure 3-4](#), use these PCU Driver Types and option numbers shown with them.

**Figure 3-4: Additional Pumps with PCU Driver Types and Option Numbers**

Gasboy SPD \$/Cr	(2) 3
Gasboy PAC	(2) 1,14
Gasboy PAC \$/Cr	(2) 1,3,14
Tok MMD	(3) 1,2,7,9
Unidynamics	(4) 5,7
Tokheim 5 product 1 hose blenders	(3) 1,2,7,8,9,12,13,16,19



## Chain Pumps - Fleet Package Only

To enable chain activation, put all pumps to be on a chain in the same cluster. Set any readers you are using to activate chains to cluster zero.

A chain has one or more master pumps. To make a pump a chain master, it must be a pump type with option #22 set. A chain is started when a master pump is authorized. A master pump will not be authorized if any pumps in the cluster are currently pumping. All pumps in the cluster except other master pumps will be activated.

If a slave pump does not pulse during its transaction, its NQN counter will not be incremented. If a master pump is authorized with a transaction type that does not support chaining, just the master pump will pump.

Allocation and MPG checks are only performed for the master pump.

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## 4 – Table Sizes

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Use the disk-based configuration program TABLE to change the sizes of the 28 Site Controller data or memory tables.

Tables are areas of RAM memory reserved for storing particular types of data. The Table program allocates the available memory among the 28 tables, each of which is used by particular devices and functions, such as sign on, taxes, mpg, pumps, and so on.

How much memory you can allocate to a particular table depends on how much memory the other 27 tables are taking up and, in some cases, on the maximum number of a particular type of device (such as island card reader or gate controller) you can have, based on memory available at that point. Allocating sizes to tables is a trade-off: if you make some tables very large, you must make others very small.

The Table menu displays the number of entries you have designated for each table. Each entry in a table is called a record. Records for different types of tables take up different numbers of bytes of memory. The formulas for calculating the number of bytes are given below, under the description of each type of table.

The menu also displays, in bytes, the space remaining in memory for all Site Controller tables. If the memory limit is exceeded, the menu displays a negative number. If you try to quit the TABLE program when the memory limit is exceeded, you will see the message *Cannot leave with space remaining*. You must change the table sizes until space remaining is greater than or equal to 0 before the program will let you exit.

### Double Entries

Seven tables - island card reader, gate controller, SDI, tank monitor system (gauge), console, Fuel Point reader, and tank-have an extra entry in the menu. The number on the left is the total possible number of that type of device that may be installed at the site, now or in the future. The number on the right is the number of that type of device that is actually installed now.

The total number of entries (the number on the left) reserves table space for future expansion. If it is likely that more devices will be added, the number of entries should be equal to the total number of items that might be installed in the future.

For each of island card reader, gate controller, gauge, console, SDI, Fuel Point reader, or tank set the number in use (the number on the right) equal to the number of devices of the given type currently installed. If you enter a number larger than the number on the left, the prompt will remain on the screen and the change will not be entered.

Only *possible* entries decrease the number of bytes available. *Used* entries do not take up any additional bytes.

## Changing Table Sizes

If you decide at some future time to change the size of any table, that table and all tables above it in memory will be reconstructed when you reboot the system and the *data they contain will be lost*.

Therefore, care should be used in deciding table sizes when setting up a new site, so they will **not** need to be changed later.

If you must make changes, backup the data before making the change and rebooting, then restore the data afterwards.

## The Memory Tables

The following are the Site Controller tables that can be configured in the Table menu:

- 1 **Transaction Table:** Stores completed transaction entries until the transaction- begin pointer is reset with RESET TRANSACTION or PURGE SITE.

You may configure the system (see [2 Cash Transaction Table](#)) to store cash transactions in addition to credit and club, or to store credit and club transactions only (which saves space).

The number of transaction entries in the transaction table should be determined by the site's requirements-in particular, how busy the site is and how often the accumulated transactions will be polled or otherwise off-loaded for processing. There should be enough transaction entries to save the transaction information until it can be off-loaded, with a margin of safety. Recall that when the transaction file is full, the Site Controller will not allow you to start any new transactions.

For example, if you plan to have your host computer dial up the site each night for polling, you would probably want to be able to hold at least two average day's worth of transactions, in order to have a one-day margin of safety.

Each transaction entry takes 82 bytes. The minimum number of entries is 10.

- 2 **Cash Transaction Table:** Temporarily stores cash transactions when they are not stored along with other transactions in the regular transaction table. Transactions are stored until they can be logged.

Each entry in the cash transaction table takes 82 bytes. The maximum number of entries is 100.

There is an item in the system parameters menu (SYS\_PAR) that determines whether cash transactions are saved in the transaction table. Older cash transactions are overwritten as new transactions are added to the table, so there should be enough room in the table to save transactions long enough to log them.

- 3 Lockout Table:** The lockout table stores the numbers of cards that are locked out (for negative lockout) or unlocked (for positive lockout). The number of card numbers that can be stored depends on whether bit-mapped lockout or limited lockout is used-bit-mapping is appropriate only for private-issue cards, limited lockout can handle both private-issue and bank cards.

With memory-based bit-mapped lockout, 96 card numbers can be stored per entry. (The first record is used for other information). To calculate the bytes needed, divide the number of bit-mapped lockouts by 96, then add 1 to get the total number of records. Always round up, never down. Each entry takes 12 bytes, so the number of records multiplied by 12 is the number of bytes required. For example, 15,000 divided by 96, plus 1, is 157.25. The number of records is 158. And 158 times 12 is 1896, the total number of bytes to be allocated to bit-mapped lockout, used or not.

With limited lockout one card number can be stored per entry.

Each lockout entry takes 12 bytes. The minimum number of entries is 2 for memory-based bit-mapped lockout, 1 for disk-based bit-mapped lockout.

- 4 Product Table:** The product table contains the product codes and product information for each product or department. This includes the prices or price codes, inventory information, totals, and tax information.

Each product or department-fuel or merchandise-takes one entry. Each product entry takes 266 bytes. The minimum number of entries is 1, and the maximum number of entries is 99.

- 5 Pump Table:** The pump table holds the information for each pump and hose. This information includes the product code, price code, and tank number assigned to each hose with the Site Controller command LOAD FUEL; the pump fill limit and slow-to-cutoff point assigned to each pump with the Site Controller command LOAD CUTOFF; and the quantity and dollar totalizer amounts initially assigned to each hose with the Site Controller command LOAD PUMP and updated after each transaction.

The number of entries in the pump table is determined by the number of hoses configured by the PUMP configuration program. Each hose takes one entry.

Each entry takes 78 bytes. The minimum number of entries is 33, and the maximum number of entries is 160.

- 6 Reader Table:** The reader table contains the information for each card reader device, including both island card readers and stand-alone receipt printers.

The number on the left-reflecting the possible number of entries-should be equal to the maximum number of readers and stand-alone receipt printers that might be installed at the site. The number on the right-the number of entries actually used-is equal to the number of readers and stand-alone receipt printers currently installed at the site. For example, if the site has one receipt printer connected to the console and two island card readers, then the number of readers in use is three.

Each possible reader entry takes 56 bytes. The maximum number of possible and used entries is 32 each.

- 7 Gate Table:** Holds information for gate controllers. The possible number of entries should be equal to the maximum number of gate controllers that might be installed at the site. The number of entries used is equal to the number of gate controllers currently installed at the site.

Each gate controller takes one entry. Each possible gate controller entry takes 34 bytes. The maximum number of possible and used entries is 8 each.

- 8 Tank Gauge Table:** Holds information for tank monitor systems (tank gauges). The possible number of entries should be equal to the maximum number of tank monitor systems (not tanks) that might be installed at the site. The number of entries used should be equal to the number of tank monitor systems currently installed at the site.

Each tank monitor system takes one entry. Each possible entry takes 20 bytes. The maximum number of possible and used entries is 16 each.

- 9 Console Table:** Contains information for each console (Check Point or Profit Point). The possible number of entries should be equal to the maximum number of consoles that might be installed at a site. The number of entries used is equal to the number of consoles currently at the site. This is also the number of cash drawers at the site.

Each console takes one entry. Each possible console entry takes 536 bytes. The maximum number of possible and used entries is 4 each.

- 10 Fuel Point reader:** Contains information for each Fuel Point reader. (Each reader can control 8 hoses). The possible number of entries should be equal to the maximum number of Fuel Point readers that might be installed at a site. The number of entries used is equal to the number of Fuel Point readers now at the site.

Each Fuel Point reader takes one entry. Each possible Fuel Point reader entry takes 108 bytes. The maximum number of possible and used entries is 4 each.

- 11 SDI:** Holds information for SDIs. The possible number of entries should be equal to the maximum number of SDIs that might be installed at the site. The number of entries used is equal to the number of SDIs currently installed at the site.

Each SDI takes one entry. Each possible entry takes 34 bytes. The maximum number of possible and used entries is 32.

- 12 Tank Table:** Contains the information for each tank. This includes information that is loaded with the Site Controller commands LOAD TANK, ADD TANK, and SUBTRACT TANK. Each time fuel is pumped from a pump assigned to that tank, the inventory quantity is automatically decreased by the quantity of fuel pumped.

The possible number of entries should be equal to the maximum number of tanks that might be used at the site. The number of entries used is equal to the number of tanks currently installed at the site.

Each tank takes one entry. Each entry takes 86 bytes. The maximum number of possible and used entries is 16 each.

- 13 Price Table:** The price table contains the prices for each price level under each price code. This information is entered with the Site Controller command LOAD PRICE.

Each price takes one entry. Each price entry takes 10 bytes.

- 14 Limitation Table:** The limitation table contains the limits under each limitation code. This information is entered with the Site Controller command LOAD LIMITATION.

Each limit takes one entry. Each limit entry takes 10 bytes.

- 15 Authorization Table:** The authorization table contains the product codes authorized under each authorization code. This information is entered with the Site Controller command LOAD AUTHORIZATION.

Each product code takes one entry. Each product code entry takes 6 bytes.

- 16 Broadcast Message Table:** The broadcast message table holds the broadcast messages that appear on the island card reader or gate controller when it is inactive. Broadcast messages are programmed with the Site Controller command LOAD MESSAGE.

Each message takes one entry. Each message entry takes 38 bytes. The maximum number of entries is 30.

- 17 Receipt Text Table:** Used for receipt text sent from the network.

Each receipt entry takes 34 bytes. The minimum number of entries is 10, and the maximum number of entries is 500.

Use the following guidelines to calculate the number of entries required:

- Each line of receipt text (up to 24 characters) sent by the network takes one entry.
- If the network uses the standard receipt (no custom receipt text), receipts do not require any entries in this table.
- If the network inserts five lines of custom receipt text, it will use from five to seven entries per receipt. (The exact number depends on how the network interface is set up).
- The Site Controller will keep a receipt for one day or 100 transactions after the transaction is completed.

- 18 Receipt Heading Table:** Holds the heading and footing lines that are printed on receipts. Receipt heading and footing lines are programmed with the Site Controller command LOAD HEADING.

Each heading line takes one entry. Each heading entry takes 46 bytes. The maximum number of entries is 50.

- 19 Vehicle Table:** Stores the vehicle numbers, odometer readings, and fuel information for the MPG package.

Each vehicle in the MPG package takes one entry. Each entry takes 22 bytes.

**20 Allocation Table:** Stores allocation totalizers.

Each allocation totalizer takes one entry. Each allocation entry takes 10 bytes.

**21 Sign-on Table:** Stores user numbers and sign-on codes and permission levels.

Each user takes one entry. Each user entry takes 190 bytes. The maximum number of entries is 100.

**22 Cron Table:** Stores cron entries entered by LOAD CRON.

Each cron entry takes one entry. Each cron entry takes 54 bytes. The maximum number of entries is 100.

**23 TIP:** Number of entries to allocate for table. Minimum number of entries is 40; maximum number of entries is 150.

**24 Diagnostics Table:** Keeps a record of all the errors that occur for every device at the site since the last time the diagnostics were reset. The current diagnostics can be printed with the Site Controller command PRINT DIAGNOSTICS. They can be reset with the Site Controller command RESET DIAGNOSTICS.

The number of entries in the diagnostics table should be equal to or greater than the total number of gate controllers, PCUs, gauges, pumps, consoles, island card readers, and receipt printers, plus one for the Site Controller.

Each device takes one entry. Each diagnostics entry takes 38 bytes. The minimum number of entries is 20, and the maximum number of entries is 200.

**25 Monitor Table:** This table stores system monitor messages so that they may be viewed with the PRINT MONITOR command. The number of entries determines the number of messages that are stored. Storage is first in, first out.

Each entry takes 84 bytes.

**26 Journal Table:** This table stores information about merchandise items from transactions until that information is logged or printed on a receipt.

Each entry takes 54 bytes. If used, the minimum number of entries is 0. The maximum number of entries is 1,000.

**27 Tax Table:** This is the tax table set up by the TAX disk-based command. Some sites do not need the TAX program, so they do not need this table.

The Site Controller offers two methods of computing taxes: percentage with rounding or table look-up. The table look-up method should be used only when you are required by law to use a paper table for computing taxes and that table is not equivalent to any percentage and rounding boundary.

Each entry in the paper table uses one entry in the tax table. Each tax table entry uses 6 bytes. The minimum number of entries is 9, and the maximum number of entries is 200.



- 28 Router Table:** Used only by Comdata, Gascard, NaBANCO, JCPenny, and Phillips card-authorization networks. Entry size and maximum number of entries varies by router. Check your specific Credit and Debit manual.

Use the following table as a worksheet to estimate how much memory you may use for the memory tables. The six tables listed are those that offer the greatest range of possible memory use. Once you know how much memory should be allotted to these six, you can apportion whatever remains of the 161,159 bytes among the other tables.

Allocation		MPG (vehicle)		Products	
No.	Bytes	No.	Bytes	No.	Bytes
100	1000	100	2200	5	1330
200	2000	200	4400	10	2660
300	3000	300	6600	20	5320
400	4000	400	8800	30	7980
500	5000	500	11,000	40	10,640
600	6000	600	13,200	50	13,300
700	7000	700	15,400	60	15,960
800	8000	800	17,600	70	18,620
900	9000	900	19,800	80	21,280
1000	10,000	1000	22,000	90	23,940
2000	20,000	1500	33,000	99	26,334
3000	30,000	2000	44,000		
4000	40,000	2500	55,000		
5000	50,000	3000	66,000		
6000	60,000	3500	77,000		
7000	70,000	4000	88,000		
8000	80,000				
		+		+	
				=	
Transactions		Limited Lockout		Bit-mapped Lockout	
No.	Bytes	No.	Bytes	No.	Bytes
100	13,400	500	6012	1000	137
200	26,800	1000	12,012	5000	637
300	40,200	1500	18,012	10,000	1262
400	53,600	2000	24,012	15,000	1887
500	67,000	2500	30,012	20,000	2512
600	80,400	3000	36,012	30,000	3762
700	93,800	3500	42,012	40,000	5012
800	107,200	4000	48,012	50,000	6262
900	120,600	4500	54,012	60,000	7512
1000	134,000	5000	60,012	70,000	8762
1100	147,400	5500	66,012	80,000	10,012
1200	160,800	6000	72,012	90,000	11,262
1300	174,200	6500	78,012	100,000	12,512
1400	187,600	7000	84,012	110,000	13,762

## Table Sizes

Transactions		Limited Lockout		Bit-mapped Lockout	
No.	Bytes	No.	Bytes	No.	Bytes
1500	201,000	7500	90,012	120,000	15,012
1600	214,400	8000	96,012	130,000	16,262
1700	227,800	8500	102,012	140,000	17,512
1800	241,200	9000	108,012	150,000	18,762
1900	254,600	9500	114,012	160,000	20,012
		9999	120,000	170,000	21,262
				180,000	22,512
				190,000	23,762
				200,000	25,012
				300,000	37,512
				400,000	50,012
				500,000	62,512
				600,000	75,012
				700,000	87,512
				800,000	100,012
				900,000	112,512
				959,904	120,000
		+		+	=
Grand Total:					

## 5 – Local Transaction Printout Format

A record of every transaction is printed on the Site Controller log printer. Use the disk-based Site Controller command TRFMT to specify the format of the local transaction printout. Transactions printed by PRINT TRANSACTION also have the same format.

The TRFMT menu has four lines:

- The first line has single letters that identify a field. One of these letters is what you enter when you are prompted for a field position (Before which field: or Modify which field).
- The second line is the field type (by number) of the field beneath it. A second number for a field indicates the offset into that field. (A complete list of all fields and their corresponding numbers is below).
- The third line contains the field titles as they will be shown in the transaction printout.
- The fourth line shows how the transaction data will look beneath its corresponding field title.

When working in the menu, for a list of field types, press? and Enter at the Type of field prompt.

The local transaction format can include some or most of the following fields (some fields are mutually exclusive-like Total Dollar Amount and Dollar Amount without Sum-so you would never use all the fields):

- 1 **Transaction number:** A unique number assigned to each transaction by the Site Controller at the completion of the transaction. This number is usually the first field in the transaction printout.
- 2 **Card account number:** Prints all or part of the account number from the card. You specify a number of digits (say, 4) and the offset into the account number. (If you enter 2 when asked for the offset, the first two leftmost digits will not be printed, and the 4-digit field will be the third, fourth, fifth, and sixth digits). You can include this field more than once to divide up the account number into subfields. This is often used to display the subfields of club card account numbers as different fields.

The total number of digits in all the account number fields should not be more than 19.

The format of the account fields usually corresponds to the user's club card format. For example, if the account number is divided into three fields, a four-digit card number, a four-digit employee number, and a four-digit vehicle number, each of these could be one of the account fields. The fields in the transaction printout can be in a different order than they are on the card.

When configuring account fields, additional prompting includes:

- **Auto entry** - If set to yes, when using supervisor cards, the "ENTER" key need not be used once the maximum number of digits in the field are entered at the reader.
- **Mask entry** - If set to Yes, when using supervisor cards, asterisks are displayed at the reader instead of digits when data is entered.

- **Mask length** - For security reasons, remotely authorized club card account data should be masked as much as possible at the logger and in the PRINT TRANSACTION. This parameter sets the number of digits that will be masked. If the field length is greater than the mask length, the beginning digits will be masked. For example, if the field length is 6 and the mask length is 4, the first 4 digits of the field will be masked.

Locally authorized club card account data will never be masked at the logger or in the PRINT TRANSACTION. Credit card data will always be masked except for the first 2 and the last 4 digits of the account number.

Sales receipts normally print out the last four digits of the card account. Many times, this does not provide the tracking required for Club card sales. A Club card can be set up to print out any contiguous four digits within the account number. Ensure that the card area to be printed on the receipt resides within the last four digits of one of the card's subfields that is being set up.

*Note: The alpha letters represent each field in TRFMT at the top of the TRMFT page.*

The letter specifying the card subfield that is to be printed on the receipt must be entered in sys\_par page 13, field 157 "TRFMT field letter used to print data on receipt". To remove the letter from sys\_par field 157, enter a new letter, or space if no letter is to be used.

- 3 Authorization number:** First, note that the authorization number is not necessarily a number; it can also be text. The authorization number is assigned by the host if the transaction is authorized at the network level or by the Site Controller if it is authorized at the site. The authorization number is FULLSV for full-service-mode transactions, CASH for cash transactions, and HAND for hand-authorized card transactions. This field may not be needed in the transaction printout for sites that are not connected to a host.
- 4 Date of completion without year:** The month and day of the month the transaction was completed.
- 5 Date of completion:** The month, day of the month, and year the transaction was completed.
- 6 Time of completion:** The hour (in 24-hour time) and minute the transaction was completed which can vary depending on the type of transaction. If the transaction is a postpay cash sale, the time on the transaction printout is the time that the nozzle was placed back on-hook. If the sale is a merchandise transaction, the time on the printout is the time that the sale was paid off on the console. If the sale is a credit card transaction, the time recorded will be when the card was approved by the bank network using the bank network's time, not the site controller's.
- 7 Pump number:** The number of the pump used for the transaction.
- 8 Product code:** The product code of the product pumped, as assigned to the pump by the Site Controller command LOAD FUEL.

- 9 Fuel quantity pumped:** The total quantity of fuel pumped in the transaction.

A sum of the quantity for all transactions will be printed after the transactions when PRINT TRANSACTION is executed. If the P1 or P2 options are used with the PRINT TRANSACTION command, subtotals will be printed between sections specified by P2, subtotals will be printed for each group specified by P1, and a grand total will be printed.

- 10 Fuel quantity without sum:** The total quantity of fuel pumped in the transaction. No totals will be printed for PRINT TRANSACTION.
- 11 Total dollar amount:** The total dollar amount of the sale, including merchandise items, if any.
- A sum of the dollar amount for all transactions will be printed after the transactions when PRINT TRANSACTION is executed. If the P1 or P2 options are used, subtotals will be printed between sections specified by P2, subtotals will be printed for each group specified by P1, and a grand total will be printed.
- 12 Dollar amount without sum:** The total dollar amount of the sale, including merchandise items, if any. No totals will be printed for PRINT TRANSACTION.
- 13 Error (if applicable):** Any error messages are printed in the error field. This is the last field of the transaction printout; in other words, if you select this field, you must designate it to print last.

- 14 Account type:** A one-digit code specifying the type of account the transaction is charged to. The account types are:

0 - club	3 - credit
1 - checking	4 - cash
2 - savings	5 - unpaid

- 15 Transaction type:** A one-digit code specifying the type of transaction:

0 - fuel	4 - fuel, from console
1 - fuel, pre authorized	5 - fuel, pre authorized, from console
2 - merchandise	6 - merchandise, from console or merchandise and fuel
3 - merchandise, pre authorized	7 - merchandise, pre authorized, from console

- 16 Fuel price:** The price is the price per gallon (or liter) of the fuel pumped.
- 17 Odometer without tenths:** A six-digit field from the odometer entry on the island card reader or console keypad. Tenths of a mile are not shown.
- 18 Odometer with tenths:** A seven-digit field from the odometer entry on the island card reader or console keypad. Tenths of a mile are shown.
- 19 Reader auxiliary info:** A number, such as the vehicle number, entered from the island card reader or console keypad. Can be any information, up to eight digits, that you want to have entered. Leading zeros are not printed.

- 20 Sequence number:** A four-digit number assigned to transactions by the Site Controller at the start of each transaction. It is used to identify transactions in Site Controller-host communications. This field is usually not needed in the transaction printout for sites that are not connected to a host.
- 21 Router variable 1:** A seven-digit reference number for a bank network, if all digits. Use only if your card-verification network requires this information on the printout. Check the router documentation. May be used if using a Fuel Point Reader.
- 22 Router variable 2:** A nine-digit reference number for a bank network, if all digits. Fields 21 and 22 are used together to provide up to 16 digits for a bank number, in the cases where a bank number is too long to fit only into field 21 or 22. Use only if your card-verification network requires this information on the printout. Check the router documentation. May be used if using a Fuel Point Reader.
- 23 Router variable as a string:** A nine-character reference number for bank network, if it includes alphabetic characters. Check the router documentation. May be used if using a Fuel Point Reader.
- 24 Device type and drop:** The type of device and number of the device that originated the transaction. The first digit is the device type and the second digit is the device number. For example, island card reader 1 is 31.

1- site controller	6 - gate controller
3 - island card reader	7- tank gauge
4 - console	9 - chain
5 - Fuel Point	A - full serve

- 25 Kind of transaction:** The kind of transaction: a regular sale, a refund, and so on.

0 - regular sale	2 - return
1 - transaction with more refunded than sold	3 - payout

- 26 Router variable 3:** A four-digit reference number for a bank network, if all digits. Use only if your card-verification network requires this information on the printout. Check the router documentation. Also, miles between fuelings if using MPG and Fuel Point.
- 27 Router variable 1 as \$:** Prints router variable 1 as a monetary sum by inserting a decimal point in front of the two rightmost digits. (Patronage)
- 28 Expiration date:** Card expiration date.
- 29 CFN Network 'CARD' field:** This is a seven character field if the account is club or blank for a non-club. Sorting the card field will be based on the first six digits of the PAN.

Account data cannot be masked on the logger printout, when this field type is used. Only type-2 fields can be masked. A type-29 field will always be masked on the receipt. In order for these digits to be unmasked on the receipt, an additional type-2 field that includes these account digits will need to be configured at the end of TRFMT.

## Transaction Field Lengths

The local transaction printout can be up to 132 characters long. If it is longer than 80 characters, the log printer must be set to use a condensed font.

On the printout, the length of the field is the number of characters in the field or in the field heading, whichever is longer. Fields are separated by one space. The table below gives the field lengths for all the field types.

Field Type	Length
Transaction number	4
Card account number	variable
Authorization number	6
Date (no year)	5
Date	7
Time of completion	5
Pump number	2
Product number	2
Fuel quantity with total	9
Fuel quantity without total	9
Dollar amount with total	8
Dollar amount without total	8
Error	variable
Account type	1
Transaction type	1
Fuel price	5
Odometer without tenths	6
Odometer with tenths	8
Reader auxiliary information	8
Sequence number	4
Router variable 1	7
Router variable 2	9
Router variable as a string	9
Device type and drop	2
Kind of transaction	1
Router variable 3	4
Router variable 1 as \$	7
Expiration date	4

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## 6 – Command Permission Levels

Permission levels are from 0 to 10. CFN III commands are assigned permission levels that restrict access to only those users who have an equal or greater permission level. Use the configuration command PERM to assign permission levels to commands with the permission configuration menu. The permission level of users is assigned with the Site Controller command ADD SIGNON.

A few commands have fixed permission levels. The commands CALL, CLOSE, DISABLE DUMP, DISABLE RAW, ECHO, ENABLE DUMP, ENABLE RAW, EXIT, HELP, LOG MESSAGE, PAUSE, PORT, PRINT RECEIPT, and SET\_VAR are always level 0.

A plain command can be assigned a different permission level than that same command with the I or A option.

The table below shows the default permission levels for the Base commands and for the same commands with an I or A option.

No.	Base	I/A Option	Command
1.	8	8	activate pump
2.	9		add allocation
3.	4		add inventory
4.	4		add drawer
5.	10		add signon
6.	4		add tank
7.	4		chdir
8.	2		check card
9.	2	2	deactivate pump
10.	4		disable gate
11.	9		disable history
12.	4		disable console
13.	4		disable PCU
14.	9		disable product
15.	4	8	disable pump
16.	4		disable reader
17.	4	4	enable gate
18.	4	10	enable history
19.	4	4	enable console
20.	4	4	enable PCU
21.	9		enable product
22.	4	8	enable pump
23.	4	4	enable reader
24.	10	10	fix transaction
25.	9		format

<b>No.</b>	<b>Base</b>	<b>I/A Option</b>	<b>Command</b>
26.	9		load allocation
27.	9	9	load authorization
28.	9	4	load cron
29.	9		load cutoff
30.	9		load date
31.	8		load drawer
32.	8	8	record
33.	9		load fuel
34.	8	8	load heading
35.	8		load inventory
36.	9	9	load limitation
37.	8	8	load message
38.	9	9	load phone
39.	8		load PLU
40.	4	4	load price
41.	8	8	load product
42.	10		load pump
43.	4		load shift
44.	4		load signon
45.	9	9	load tank
46.	9	9	load tax
47.	10		load transaction
48.	9	10	load vehicle
49.	9	10	lock card
50.	4	4	log file
51.	4		print allocation
52.	2		print authorization
53.	4		print cron
54.	2		print date
55.	2	2	print diagnostics
56.	8		print drawer
57.	2		print heading
58.	8	8	print history
59.	2		print limitation
60.	4		print lockout
61.	2		print message
62.	2	2	print monitor
63.	8		print phone
64.	2		print price
65.	2	4	print product
66.	2		print pump
67.	4	4	print sales
68.	8		print signon

No.	Base	I/A Option	Command
69.	4	4	print summary
70.	2	4	print tank
71.	4	4	print quantity
72.	2	2	print tip
73.	4	4	get transaction
74.	2		print vehicle
75.	8	9	reboot
76.	9	10	remove allocation
77.	9		remove authorization
78.	9	9	remove cron
79.	8		remove heading
80.	8		remove message
81.	9		remove limitation
82.	9		remove price
83.	9	9	remove product
84.	10		remove signon
85.	9		remove vehicle
86.	8	8	reset diagnostics
87.	10		reset pump
88.	4	9	reset totals
89.	9	9	purge site
90.	4	8	run
91.	4	8	stop
92.	9		subtract allocation
93.	4		subtract drawer
94.	8		subtract inventory
95.	8		subtract tank
96.	4		test PCU
97.	9	10	unlock card
98.	9		load card
99.	4		print card
100.	8		activate gate
101.	4	4	enable TMS
102.	4		disable TMS
103.	4	8	next shift
104.	4	8	next day
105.	4		print console
106.	8	8	send command
107.	8	8	send file
108.	4		next clerk
109.	4	4	enable FPR
110.	4		disable FPR
111.	4		ss

No.	Base	I/A Option	Command
112.	4		download SDI
113.	4		log event
114.	4	4	enable SDI
115.	4		disable SDI

## 7 – Island Card Reader Configuration

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The Island Card Reader (ICR) obtains the required information from the card and from keypad input, sends it to the Site Controller to be processed, and displays information for the customer.

Use the disk-based configuration program READER to configure the ICR and receipt printer programs and the ICR parameters. From the READER main menu choose submenu 1 to configure the ICR program, submenu 2 to configure the printer program, or submenu 3 to configure the ICR parameters.

*Note: Manual entry of codes cannot be more than 16 digits.*

### Entering Alpha Characters

The alpha-shift key is used to enter a letter on the ICR keypad. This feature must be enabled by a financial network to function. See your specific Credit and Debit manual for instructions if you are required to enter a letter on the keypad.

### ICR Program

Use submenu 1 of the READER program to configure the ICR program. The Site Controller programs the ICR according to the program configured by this submenu. The ICR program determines, in part, how the ICR handles a transaction.

There are 21 possible step types in the ICR program; you do not need to include all 21, and you do not need to enter them in order. For any line that currently is not centered, if the sequence @C is included on a line, the text for the line is centered on the display.

The program steps types are:

1 = Insert card*	12 = Remove card
2 = Select pump*	13 = Display text
3 = Enter PIN	14 = Display pump selected
4 = Enter amount	15 = Display amount authorized
5 = Enter account	16 = Display product name
6 = Enter auxiliary number	17 = Display product price
7 = Enter odometer	18 = Display allocation balance
8 = Want car wash or merchandise	19 = Display pump ready
9 = Verify card	20 = Display product and price
10 = Activate pump	21 = Display card holder's name
11 = Print receipt	

*\* Either of these 2 steps must be first in the ICR program.*

Submenu 1 lists the steps in the ICR program. For each step it shows the following:

- The step number (#).
- The step type (Ty). In the 21 steps listed above, the numbers 1-21 are the step-type numbers that you use to enter a step into the Reader program.
- The number of seconds the message is displayed or the number of digits to be entered (S/D).
- The message to be displayed (DISPLAY).
- The subsequent message displayed after the first digit of a field is entered (WHILE ENTERING). The display lasts until the customer presses **Enter** or auto entry takes over or trans time-out.
- The options, if any, in effect for that step (OPTIONS).

## Options for ICR Program Steps

Several of the ICR program steps have options available. The options are auto entry, mask data display, and optional entry.

Auto entry is useful for steps that require the customer to enter a fixed number of digits, such as the enter PIN step.

With auto entry, when a customer enters the number of digits indicated for that step, the program continues automatically. Without auto entry, the customer must manually press **Enter** to get the program to continue.

The mask data display option is normally used for the enter PIN step. If the mask data display option is selected, when the user enters numbers from the keypad, asterisks are displayed instead of the numbers for each digit entered.

A few steps allow optional entry. The enter odometer (type 7), enter PIN (type 3), enter amount (type 4), enter account (type 5), and enter auxiliary number (type 6) steps can be optional. If these steps are optional, they will be requested only if required by the restriction code on the club card or by the system parameters.

## Displayed Messages

Some steps (13-21) display product or price information. Normally this is displayed at the end of the message. To have this displayed somewhere else in the message, put an @ where you want it to appear in your message.

For example, the default product name message (type 16) is just the name of the product selected.

- If you type **PRODUCT IS** in response to the message prompt, the new message will be what you typed followed by the product name.
- If you type @ **SELECTED**, the new message will be the product name followed by Selected.

Any two messages for steps 3 through 21 can be displayed at the same time. To do this, specify that the first message be displayed for 0 seconds. Put a caret (^) before the second message and specify that it be displayed for as long as you want the entire message to be displayed.

For example, to display the pump selected and amount approved messages together:

- Specify that the pump selected message (step type 14) be displayed for 0 seconds.
- For the step immediately following, specify that the amount approved message (step type 14) be displayed for the time you want the entire message to be displayed.
- Put a caret before the amount approved message.
- The ICR will display pump selected and amount approved together.

## ICR Steps

*Note: The first step in the ICR program must be either Insert Card or Select Pump.*

### 1 **Insert card:** Insert card is the first step in the ICR program.

Most sites place this step first simply because that is the usual position for it at most other sites, and so customers are used to inserting their cards first. However, if you place Insert Card after Select Pump you will reduce the slight chance that confusion between ICR control or console control of a pump might assign the wrong pump to the wrong card.

The default message is INSERT CARD.

### 2 **Select pump:** The Select Pump step should be placed before the Verify Card step. This lets the Site Controller know exactly how much the maximum dollar amount will be for the transaction, based on that pump's price and fill limit. See your Gasboy Representative if you require a different setup.

This step must be included even on island card readers in pumps. Every reader configuration must have a “select pump” program step prior to the “activate pump” step. Failure to include the select pump step will cause warnings about unassigned transactions, with pumps becoming disabled after the transaction.

The default message is SELECT PUMP NUMBER.

- 3 **Enter PIN:** PIN entry can be made optional. If it is optional, it will be requested only if the PIN entry requirement is encoded on the customer's card or if it is required by the system parameters. The display should be masked for PIN entry.

In order to meet Visa® PED and PCI requirements, the PIN prompt must conform to a specific message type. Some common options are:

- ENTER PERSONAL ID
- ENTER DRIVER NO
- ENTER CLUB ID
- ENTER FLEET PIN
- ENTER ID NUMBER

*Note: For a comprehensive list of Visa PED/PCI PIN prompts, Contact technical services.*

The default message is ENTER FLEET PIN.

Starting with site version V034E, a second Enter PIN prompt is needed for secure debit transactions. A secure transaction requesting a PIN can be prompted with any free field text that fits within the reader prompting limitations. If debit transactions are going to be processed, two “Enter PIN” steps must be used. The two steps must be contiguous: the first represents the non-secure (club) PIN prompt, even if a non-secure prompt is not required; the second represents the secure debit prompt.

- 4 **Enter amount:** The amount entry can be optional. If it is optional, the Site Controller will ask for it only if it is a bank card or if it is required by the club card restriction code.

The default message is \$ AMOUNT or FILL.

- 5 **Enter account:** This step can be optional.

The default message is FROM WHICH ACCOUNT?.

- 6 **Enter auxiliary number:** This step can be optional. Use it if you want some number-vehicle, employee, purchase order, and so on.-to be stored with the transaction.

- 7 **Enter odometer:** The enter odometer step can be optional. If odometer entry is optional, it will be requested only if the odometer entry requirement is encoded on the customer's card.

The default message is ENTER ODOMETER.

- 8 **Want car wash:** An optional step to prompt the customer if they want a car wash. The default message is WANT CAR WASH?

This step is also used for selling merchandise from an ICR with an Insight. A 'want merch?' step in the reader program is a 'want car wash' type step with “~M” somewhere in the text. This works only on CFN III v3.3 with Insight. This step must come after the “Select Pump” step.

- 9 **Verify card:** This step seeks validation from the Site Controller, CFN host, or bank network for the card being used in a purchase. This step must be included and should follow Select Pump. See your Gasboy Representative if you require a different setup.



- 10 Activate pump:** This step activates the selected pump to start pumping fuel. This step must be included, and it must be placed after Select Pump and Verify Card steps.
- 11 Print receipt:** This step instructs the receipt printer to print a receipt of the just- completed transaction. This step is used in the receipt printer program, which is discussed next in this chapter.
- 12 Remove card:** The remove card step should be used with systems that have insert optical ICRs.

The default message is REMOVE CARD.

- 13 Display text:** Use a display text step to display a message that doesn't go with any other type of step.

The default message is a blank display. The default display time is 2 seconds.

- 14 Display pump selected:** The pump selected message inserts the number of the pump that's been selected into user defined or default text.

The default message is PUMP #XX SELECTED. In a custom message the pump number will be at the end or where you put an @ in the message. The default display time is 2 seconds.

- 15 Display amount authorized:** The amount authorized message inserts the dollar amount that's been authorized, or FILL if a fill has been authorized, into user defined or default text. A fill can be authorized if the customer selected fill during the enter dollar amount step or if the enter dollar amount step was not included in the program.

The default message is OK FOR \$XXXX.XX or OK FOR FILL. In a custom message the amount will be at the end of the message or where you put an @ in the message. The default display time is 2 seconds.

- 16 Display product name:** The product name message inserts, into user defined or default text, the name of the product assigned to the pump that was selected.

The default message is the name of the product selected. In a custom message the name will be at the end of the message or where you put an @ in the message. The default display time is 2 seconds.

- 17 Display product price:** The product price message inserts, into user defined or default text, the price per gallon (or liter) of the product selected, according to the appropriate price level. It is usually appended to the product name message.

The default message is the price of the selected product. In a custom message the price will be at the end of the message or where you put an @ in the message. The default display time is 2 seconds.

- 18 Display allocation balance:** Inserts the balance left in the customer's allocation account into user-defined or default text.

The default message is Alloc = XXXX.XX. In a custom message the allocation balance will be at the end of the message or where you put an @ in the message. The default display time is 2 seconds.

- 19 Display pump ready:** The pump ready message should come after the step that activates a pump. It inserts the number of the pump that's been activated into user defined or default text.

The default message is PUMP #XX READY. In a custom message the pump number will be at the end of the message or where you put an @ in the message. The default display time is 2 seconds.

- 20 Display product and price:** This step is optional because, as explained in the system parameters Page 4, some sites may not wish to display prices for privately issued card transactions. The price will not be displayed for those card types specified in the system parameters, Page 4; only the product name will be displayed.

If you include this step, the message, which cannot be edited, will show the name of the selected product and its price.

- 21 Display card holder's name:** This step is optional to display the card holder's name on the Island Card Reader display. On the screen you will see the characters "[\* @N \*]". The name will replace the characters in the actual display. You may repeat this step and it is not required to have @N in the text.

Setting up the ICR program to work with a car wash or Insights requires specific information to be entered. Refer to your specific SDI/Unitec or Insight manual for more information.

## Receipt Printer Program

Use submenu 2 of the READER program to configure the receipt printer program.

The various columns in the receipt printer program-Ty, S/D, Display, While Entering, and Options-are identical to the columns described above in the ICR program.

There are only two steps, 11 and 13, to the receipt printer program, and both steps are described above under the ICR program. If you want, you can have more than one step 13.

If the sequence @C is included on a line, the text for the line is centered appropriately for the width of the receipt printer.

If any header or footer line contains the sequence @N, the sequence will be replaced with the cardholder's name. If track-I is not available for a transaction, the line containing @N is not printed.

A line that contains the sequence @O will only print if track-I is available.

## ICR Parameters

The ICR parameters determine what cluster each ICR is assigned to, and which pump is used as a reference pump for transaction approval requests. From the READER main menu choose submenu 3 to configure the ICR parameters.

You will be shown the following options, one by one:

- 1 **Number of reader:** Readers are assigned a number.
- 2 **Cluster Number:** Pumps and ICRs are assigned to clusters. A ICR can access only the pumps that are assigned to the same cluster it is assigned to-unless it is assigned to cluster 0, in which case it can access all clusters. Readers accessing chain pumps must be set to cluster 0.
- 3 **Representative Pump Number:** This is normally used to designate the pump number of the dispenser reader, if a Tokheim DPT device or a Gilbarco CRIND device is used.

Another use: several pumps can be included in an ICR's cluster, and there can be a wide difference between the maximum dollar or fill amounts authorized for each of those pumps; therefore, when the verify-card step precedes the pump- select step, you can specify a representative pump whose maximum dollar or fill amount will be the one used in requesting verification for a card purchase. The price and limit for the reference pump are used to calculate the dollar amount of the transaction authorization.

When there is just one pump in a cluster, that pump should be the representative pump.

- 4 **Auto pump select:** This is used for built-in dispenser readers, such as a Tokheim DPT or a Gilbarco CRIND. This option is set to yes for a dispenser reader, or where the reader controls only one pump. It causes the reader to not display the select pump step.
- 5 **Device type:** Designate the type of ICR you are configuring from these choices:

1	Gasboy island card reader
2	Epson stand-alone
3	Star RS-422 stand-alone
4	Star RS-232/Parallel stand-alone
5	Gasboy PAC reader
6	Tokheim DPT (2-line display)
7	Gilbarco CRIND device
8	Wayne CAT
9	Tokheim Insight or 4-line display DPT

The type of ICR selected sets the protocols used in communicating between that reader and the Site Controller.

- 6 **Printer number:** If an ICR does not have a printer in its post, you may specify another ICR or stand-alone printer to print that ICR's receipts. Similarly, if the reader assigned to a Profit Point does not have a printer, you can use this parameter to assign a printer to that reader.

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## 8 – Selling Merchandise at the Island - Insight Setup

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Selling merchandise works for island card initiated transactions only, not post-pay or full serve transactions (only CREDIT HERE and DEBIT HERE) and when the authorized amount is in dollars (i.e., the amount of merchandise is subtracted from the authorized amount and it cannot subtract dollars from gallons).

### Turning on Merchandise at the Pump

To turn on merchandise at the pump, you must add a 'want merch?' step after the “select pump” step in the reader program (see [step 2 on page 57](#)). A 'want merch?' step in the reader program is a 'want car wash' type step with “~M” somewhere in the text (see [step 8 on page 58](#)). The loaded prompt is displayed and the attendant answers YES or NO to a 'Want merchandise?' question. If the answer is YES, then it allows a merchandise total to be entered. What follows the YES answer depends on what ITEMS are defined in a file titled “p:xbin/insight.a01”. This must be defined before the merchandise step will function properly. See the Insight Interface manual for information about setting up the insight.a01 file.

### Defining ITEMS and Department Numbers

When ITEMS are defined in 'insight.a01', they also include a department number. In order to accept merchandise, at least one ITEM (and department) must be defined. All items should have the same department. See the Insight Interface manual for more detailed instructions.

### Load Product

The site charges the merchandise amount to the sale as one item using a department specified in the 'insight.a01' file. The name of the department (as loaded in LOAD PRODUCT) is shown on the receipt. A suggested name for this department is “Island Mdse”.

### Reversing a Sale

Once the final amount is entered and accepted by the site, the merchandise will be charged to the card whether any fuel is pumped or not. The only way to remove it is to finish the sale, then go to the Profit Point (or Check Point), reverse the sale, void the item, then pay the sale. In order to guarantee that the sale appears on the Profit Point so it can be reversed, the “want merch” step must be after the “select pump” step in the Reader configuration, see [step 2 on page 57](#). If it is placed before the select pump step it will be ignored.

## Exceeding the Preset Amount

The total of the pump preset amount and the merchandise amount cannot exceed the authorized amount. If a merchandise total is entered that would cause this to be exceeded, the pump preset amount is reduced by the difference. If the merchandise amount alone is greater than the authorized amount, the entire amount is rejected, and a message appears on the Insight screen indicating that it "Exceeds auth amount". It then goes back to the 'want merch?' state so the attendant can enter a smaller amount if desired.

*Note: The merchandise feature only works if the authorized amount is in dollars which generally means the fill limit or limitation code on club cards must be in dollars (not gallons).*

## 9 – Gate Configuration

Use the disk-based configuration program GATE to see the configuration submenus for gates, gate controllers, and car wash information. The system can have up to eight gates and eight gate controllers. Each gate controller can have up to four gates connected to it.

Gate controllers can be used to control various types of gates and car washes. The gate controller may have an alphanumeric display, or it may have no display.

### Gate Submenus

The following is a list of the submenus currently available for the gate and gate controllers.

- “Gasboy Gates” on page 65
- “Gasboy Gate Controllers” on page 66
- “Unitec Wash Parameters” on page 69
- “Unitec Wash Types” on page 69
- “Unitec Wash Discounts” on page 71

### Gasboy Gates

Enter the command GATE to see the gate configuration submenu, then select submenu 1 to configure gates.

The gate submenu always shows eight gates ([Figure 9-1](#)), even if there are fewer than eight gates in the system. You can ignore any gates that are not configured in your system.

**Figure 9-1: Gasboy Gate Submenu**

#	Prod	Type	Timeout
1	0	1	5
2	0	1	5
3	0	1	5
4	0	1	5
5	0	1	5
6	0	1	5
7	0	1	5
8	0	1	5
-----			
Enter number of gate to modify or q to quit:			

To modify the configuration of a gate once you are in the gate configuration submenu, proceed as follows:

- 1 Enter the **number** of the gate you want to modify.
- 2 The program will prompt for the **product** to charge and show the current product in brackets. Enter the product number of the product to charge a gate opening against. This is the product number entered into the Site Controller with the LOAD PRODUCT command. For example, if the gate is a car wash, the product entered here should be the car wash product; another example is an oil vending machine.

If a gate opening should not be charged against a product (which will probably be the case), enter a 0. To use the current product, just press **Enter**.

- 3 The program will then prompt for the **type** of gate and show the current gate type in brackets. Gate types are:
  - Open gate until time-out. The gate stays open until the time-out (specified in the next item) is reached.
  - Open gate until high-to-low voltage input or time-out. The gate stays open until a high-to-low input is received or until the time-out is reached.
  - Open gate until low-to-high voltage input or time-out. The gate stays open until a low-to-high input is received or until the time-out is reached.

Enter the gate type. To use the current gate type, just press **Enter**.

- 4 The program will then prompt for the **time-out** and show the current time-out in brackets. Enter the time in seconds that the gate is to stay open. If you specified gate type 2 or 3 above, the gate will stay open until it receives the specified input or until the time-out is reached, whichever is shorter.

To use the current time-out, just press **Enter**.

## Gasboy Gate Controllers

Enter the command GATE to see the gate configuration submenu, then select submenu 2 to configure gate controllers. The submenu always shows eight gate controllers ([Figure 9-2 on page 67](#)), even if there are fewer than eight in the system. You can ignore any gate controllers that are not configured in your system.



**Figure 9-2: Gasboy Gate Controller Configuration Submenu**

#	Display	Broadcast	Gates			
1	No	No	1=1	2=2	3=3	4=4
2	No	No				
3	No	No				
4	No	No				
5	No	No				
6	No	No				
7	No	No				
8	No	No				
-----						
Enter number of gate controller to modify or q to quit:						

To modify the configuration of a gate once you are in the gate configuration submenu:

- 1 Enter the number of the gate reader you want to modify.
- 2 The submenu will display the prompt *Display*. Enter a **y** if the gate controller has a display, or an **n** if the gate controller does not have a display. If you are not changing this item, press **Enter**.
- 3 Then the submenu will display the prompt *Broadcast message*. Enter a **y** if broadcast messages should be displayed on the gate controller display, or an **n** if they should not be displayed.

The gate controller must have an alphanumeric display if it is to display the broadcast messages.

- 4 The submenu will then display the prompt *Gate* for output 1. (An output is the control signal put out by the gate controller, usually through a relay. It is, in effect, the address of a gate.) Each gate controller has four outputs, and each output can control one gate. Output 1 usually controls gate 1, but you do not have to match the numbers that way; output 1 can just as easily control gate 2, 3, or 4.

Enter the number of the gate connected to the first output of the gate controller. The submenu will prompt for the numbers of the gates connected to the other outputs. If there is no gate connected to an output, press **Enter** for that prompt.

The submenu display shows the output and the number of the gate separated by an equals sign (=). For example, if gate 1 is connected to output 1, it shows 1=1.

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## 10 – Unitec Wash Parameters

To change the parameters of the car wash, select submenu 3, Unitec Wash Parameters from the Gate Menu. The information in [Figure 10-1](#) is displayed.

**Figure 10-1: Car Wash Parameters Screen**

```
#      Description
1      Reader car wash prompt line 1: what type of wash
2          line 2:
3          line 3:
4          line 4:
5      Car wash price code: 0
6      Days carwash code valid: 0
-----

Enter number of parameter to modify or q to quit:
```

The items you can configure in the Unitec wash parameters are:

- Reader car wash prompt line 1 [What type of car wash]: Enter the first line of the display. The default will be displayed between the brackets. Enter additional information for lines 2-4 if needed. This information will be displayed at the card reader.

Ensure to add a “WANT CAR WASH” type step in reader program. See [step 8 on page 58](#) for more information.

- Car wash price code [0]: The car wash driver uses this one price CODE for all car washes. Each car type used the price LEVEL corresponding to its type. For example, car wash type 42 will use price level 42 of the price code configured here.
- Days car wash code valid [0]: The Unitec car wash controller does not remove wash codes from memory automatically. It must be done by user command at the Unitec console. The number of days listed here is to tell customers how often you plan to clear the Unitec memory.

## Unitec Wash Types

To change the types of the car wash, select submenu 4, Unitec Wash Types from the Gate Menu. The information in [Figure 10-2 on page 70](#) is displayed.

**Figure 10-2: Unitec Wash Types Screen**

#	Stock	Dept.	Disc	Name	Functions
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

-----  
Enter a to add, d to delete, m to modify, q to quit, or RETURN for next page

The following can be added or modified:

- **Stock Number (from 100-65530)[0]:** Enter a unique stock number for this wash type.
- **Associated department [10]:** Enter the department (product code) this wash will be included in.
- **Discount level [0]:** Discounts are used to allow island reader transactions to get a reduced price for a wash depending on how much fuel they buy. At the reader, only wash types of discount level zero may be chosen. When the sale completes, the type table is scanned for wash types with the same functions included but a different discount level. If the sale qualifies for the discount and the price is actually lower, the wash type for the sale will be changed to the discounted one. For POS transactions, any type of wash can be chosen and it is up to the clerk to assign the correct wash type to the sale.
- **Name:** Enter the name of the wash type.
- **Enter wash functions:** A car wash consists of from 1 to 12 functions that can be enabled for a given wash. Consult the way your wash controller is configured to determine which combinations you desire to sell as different washes.

Enter a plus (+) to add or a minus (-) to subtract a function followed by the function number. You may do more than one. For example: +1+2+3-4-5 will add functions 1, 2, and 3, and subtract 4 and 5.

## Unitec Wash Discounts

To change the wash discounts, select submenu 5, Unitec wash discounts from the Gate Menu. The information in xxx is displayed.

**Figure 10-3: Unitec Wash Discounts Screen**

#	Description
1	None
2	None
3	None
4	None
5	None
-----	
Enter number of discount to modify or q to quit:	

**Type of discount [0]:** The currently supported discount types are:

0: Discount type disabled.

1: Pumping of at least a given amount of fuel.

Check your SDI/Unitec manual for more information regarding setup.

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# 11 – Console Configuration

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This chapter deals with the configuration of a Check Point console. If your site has a Profit Point console, refer to the Profit Point manuals. Some of the Check Point parameters affect the Profit Point; refer to [“How to Change POS Parameters” on page 81](#) later in this chapter.

The submenus in the Console program allow you to:

- Assign product numbers and actions to Check Point keys (submenu 1).
- Assign permission levels to Check Point actions (submenu 2).
- Set Check Point parameters (submenu 3).

Most sites will never use submenus 2, 4, or 5. Some sites will use submenu 1, and service technicians might use submenu 3. **Never** make any changes to submenus 4 and 5 without first consulting Gasboy.

## How to Assign Products and Actions to Keys

Submenu 1 of the console configuration program allows you to assign any of the available Check Point actions to any Check Point key, except the numeric keys on the numeric keypad. Keys can have different actions depending on whether the keyswitch is turned to OFF, ON, SUPERVISOR, or MANAGER.

For example, you could assign the keys that are usually the pump select keys to Site Controller commands when the keyswitch is turned to MANAGER. If there are fewer than 16 pumps on the Check Point, you can assign the extra pump keys to perform other actions-such as selecting the merchandise sale or ringing up a merchandise product-when the keyswitch is turned to ON.

[Figure 11-1 on page 74](#) shows the numbers of the Check Point keys on a 71-key keyboard.

Figure 11-1: Check Point Keys - 71-key Keyboard

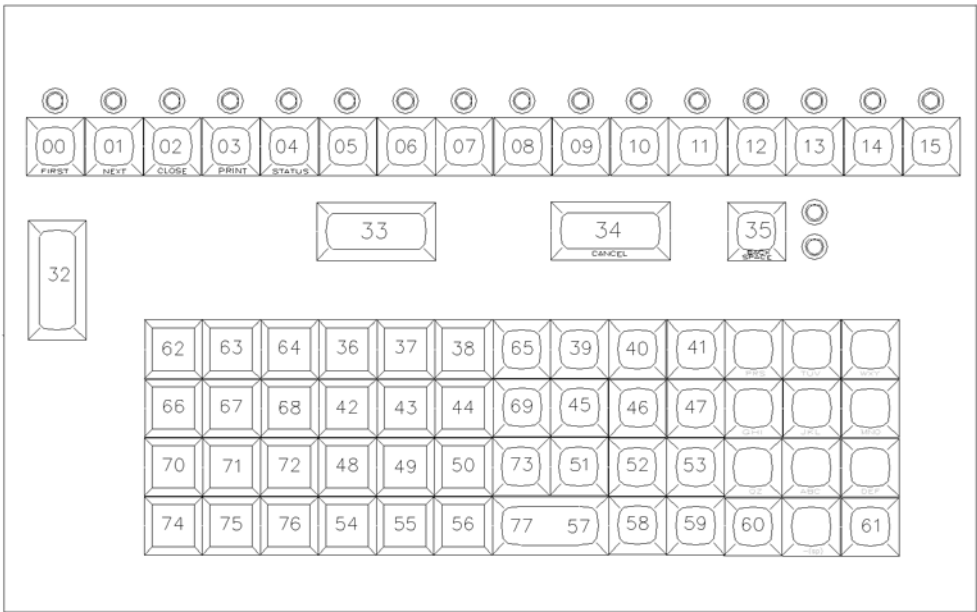


Figure 11-2 shows the default action assignments of the 71 keys when the keyswitch is set to ON. The only difference in the default assignment for other keyswitch settings is that, when the keyswitch is set to MANAGER, key 61 starts the Check Point self test and keys 00 through 15 execute the Site Controller command files CON01.CMD through CON16.CMD.

Figure 11-2: Default Action Assignments for Check Point Keys - 71-key Keyboard

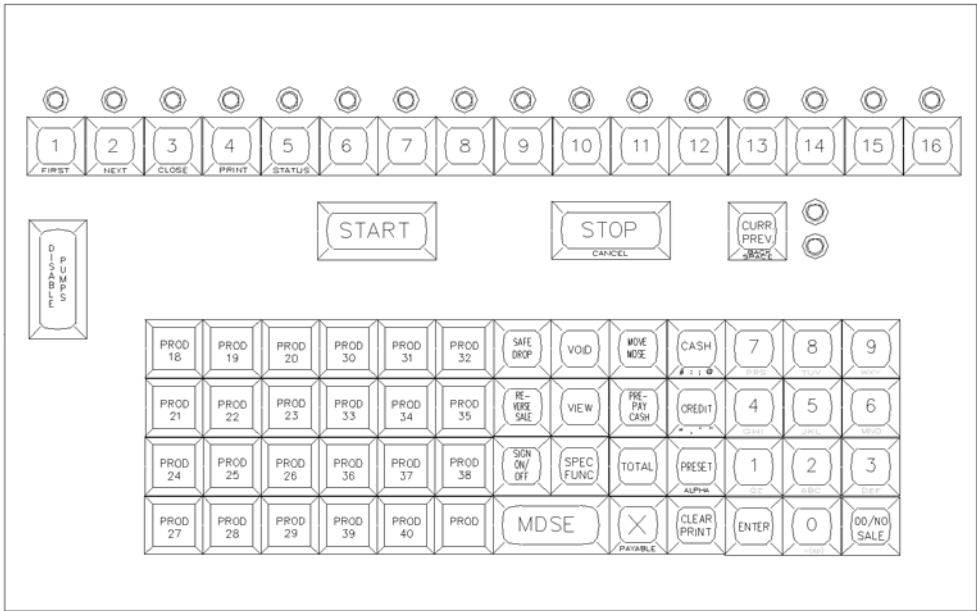




Figure 11-3 shows the numbers of the Check Point keys on a 36- and 56-key keyboard.

**Figure 11-3: Check Point Keys - 36- and 56-key Keyboard**

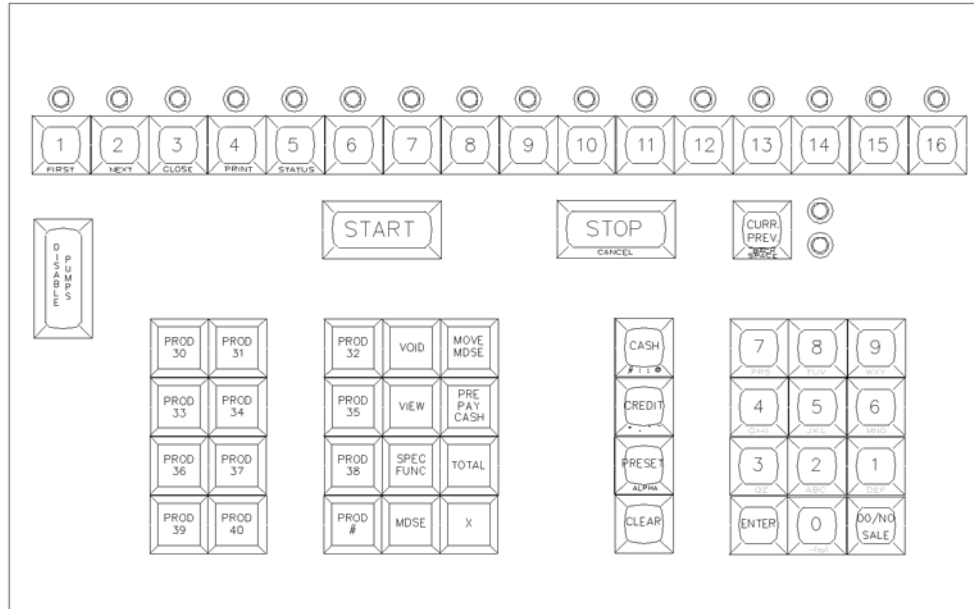
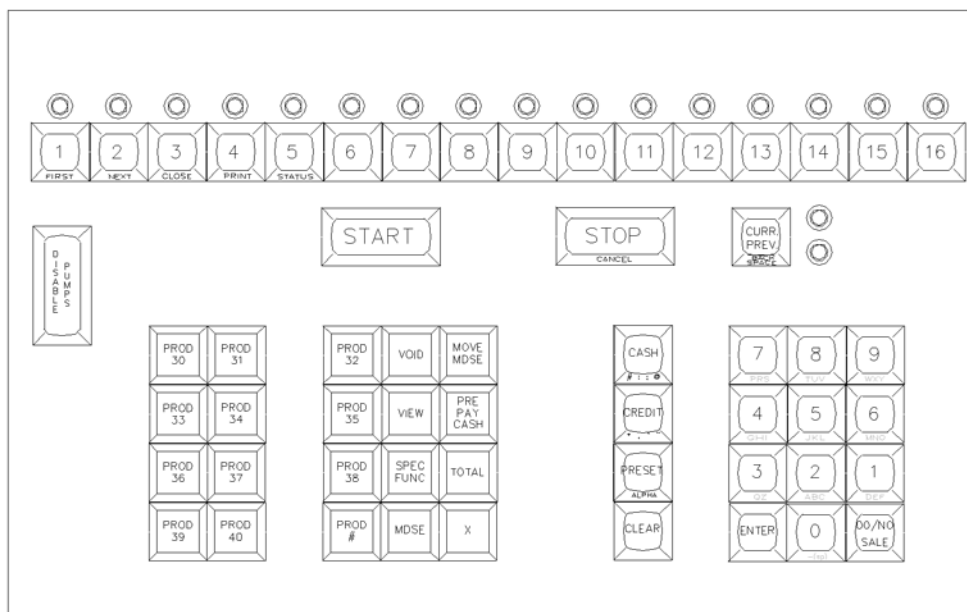


Figure 11-4 on page 76 shows the default action assignments of the 36 or 56 keys when the keyswitch is set to ON. The only difference in the default assignment for other keyswitch settings is that, when the keyswitch is set to MANAGER, key 61 starts the Check Point self test and keys 00 through 15 execute the Site Controller command files CON01.CMD through CON16.CMD.

**Figure 11-4: Default Action Assignments for Check Point Keys - 36- and 56-key Keyboard**



## Default Key Actions

The following table (see next page) gives the default key actions. The default key actions are listed in submenu 2. They are the actions that can be assigned to the Check Point keys by submenu 1. Also shown are default permission levels, which can be modified in submenu 2, and an abbreviated description (the table following this one gives a more complete description).

*Note: Action numbers may change. Verify the action numbers by checking submenu 2 on your Site Controller.*

### Assigning Products

As shown on the following table, actions 30-37 assign a single product to a console key or several products to a multi-product key.

- Action 30 specifies that the clerk can first enter the product number before pressing the key that action 30 has been assigned to.
- Actions 31-33 specify that the clerk can first enter the quantity of the product before pressing the assigned key to ring up the sale.
- Actions 34-37 specify that the price can be entered first.

Before assigning a product to a key, ensure that you know the product's number or code, which you assigned to that product when you entered it into the Site Controller with the LOAD PRODUCT command. You will be asked for this number or code when you assign that product to the key.

Action	Perm	Name	Action	Perm	Name
00	0	pump	48	0	lo sh
01	1	merch	49	1	fn 9
02	0	emrg stop	50	1	move merch
03	1	start	51	1	auth numbr
04	1	stop	52	1	offroad
05	1	preset	53	1	fn 13
06	1	prepay	54	1	fn 14
07	1	cash	55	1	fn 15
08	1	credit	56	1	fn 16
09	1	debit	57	1	fn 17
10	1	checking	58	1	fn 18
11	1	savings	59	1	fn 19
12	1	cash acct	60	1	fn 20
13	1	club level 1	61	1	fn 21
14	1	club level 2	62	1	fn 22
15	1	club level 3	63	1	fn 23
16	1	club level 4	64	1	command
17	1	club level 5	65	1	con01
18	1	print	66	1	con02
19	0	enter	67	1	con03
20	0	insert key	68	1	con04
21	0	signon	69	1	con05
22	0	on/off	70	1	con06
23	1	scan	71	1	con07
24	1	repeat	72	1	con08
25	1	total	73	1	con09
26	1	no sale	74	1	con10
27	1	review	75	1	con11
28	1	void	76	1	con12
29	1	discount	77	1	con13
30	1	#px gn prd	78	1	con14
31	1	qpx prd	79	1	con15
32	1	qpx prds	80	1	con16
33	1	qpx mprd	81	1	FINA
34	1	ppx gn prd	82	1	Shamrock
35	1	ppx prd	83	1	WEX
36	1	ppx prds	84	1	CITGO
37	1	ppx mprds	85	1	Tex/Phil
38	1	self test	86	1	Cenex
39	0	spec func	87	1	Coastal
40	0	sign off	88		(not used)
41	0	sign on	89		(not used)

Action	Perm	Name	Action	Perm	Name
42	1	safe drop	90		(not used)
43	8	lo dr	91		(not used)
44	4	drive off	92		(not used)
45	1	payout	93		(not used)
46	1*	reverse	94		(not used)
47	1	return			

\* Also affected by console parameter 34. See Check Point parameters later in this chapter.

The action numbers, names, and meanings are as follows:

Action	Name	Meaning
00	pump	Select a sale on a pump. Specify the pump number.
01	merch	Select the merchandise sale.
02	disable pumps	Do a disable pumps.
03	start	Authorize selected pump sale for pumping.
04	stop	Stop pumping on selected sale, or terminate sale if already stopped.
05	preset	Start a new sale. Pressing once allows presetting for a dollar amount. Pressing twice allows presetting for a volume.
06	prepay	Start a prepay cash sale.
07	cash	Set cash price level. Accept cash payment.
08	credit	Set credit price level. Accept credit card.
09	debit	Set debit price level. Accept debit card.
10	checking	Set debit price level. Accept debit card and debit from checking account.
11	savings	Set debit price level. Accept debit card and debit from savings account.
12	cash acct	Accept patron number for cash sale.
13	club level 1	Set price level 1. Accept club card.
14	club level 2	Set price level 2. Accept club card.
15	club level 3	Set price level 3. Accept club card.
16	club level 4	Set price level 4. Accept club card.
17	club level 5	Set price level 5. Accept club card.
18	print	Print receipt for selected sale.
19	enter	Accept data.
20	insert key	Display Insert key message on Check Point.
21	signon	Start operator sign on sequence.
22	on/off	Start sign on sequence if no one is signed on; sign off clerk who is signed on.
23	scan	Scan for and display prepaid and payable sales.
24	repeat	If a merchandise item is displayed, add another of that item to the sale. If a number has been keyed in, add that many of the item. If no merchandise item is displayed, scan for and display prepaid and payable sales.
25	total	Display sale total.
26	no sale	Do a no-sale and open cash drawer.
27	review	Display previously entered merchandise items.
28	void	If a merchandise item is displayed, void it. Otherwise, void all merchandise items on the sale.
29	discount	Not implemented.

Actions 30 - 37 in the table below ring up products in a sale. In the description below of actions 30 - 37:

- <key> means the key configured with the subject action.
- (price ENTER) is always optional-except for price-required products-and applies or not according to the price override rules.
- (quantity) is also optional.

Action	Name	Meaning
30	#px gn pr	Product number prefix, generic product. product number <key> (price ENTER) (quantity) OR <key> product number ENTER (price ENTER) (quantity)
31	qpx prd	Quantity prefix, product. (quantity) <key> (price ENTER) OR <key> (price ENTER) (quantity)
32	qpx prds	Quantity prefix, scrolling products. Repeat <key> until desired product is shown on display. (quantity) <key> (<key> ... <key>) (price ENTER) OR <key> (<key> ... <key>) (price ENTER) (quantity)
33	qpx mprds	Quantity prefix, multiple products. Different consoles ring different products, such that if console 1 rings product n; console 2 rings product n+1; console 3, product n+2; console 4, product n+3. (quantity) <key> (price ENTER) OR <key> (price ENTER) (quantity)
34	ppx gn pr	Price prefix, generic product. price <key> product # ENTER (quantity) OR <key> product # ENTER (price ENTER) (quantity)
35	ppx prd	Price prefix, product. price <key> (quantity) OR <key> (price ENTER) (quantity)
36	ppx prds	Price prefix, scrolling products. price <key> (<key> ... <key>) (quantity) OR <key> (<key> ... <key>) (price ENTER (quantity)
37	ppx mprds	Price prefix, multiple products. Another different-consoles-ring-different products action. price <key> (quantity) OR <key> (price ENTER ) (quantity)
38	self test	Put Check Point in self-test mode.
39	spec func	Accept entry of a special function code and execute the special function.
40	sign off	Sign operator off Check Point. (Special function 0.)
41	sign on	Start operator sign on sequence. (Special function 1.)
42	safe drop	Accept entry of safe-drop amount and record safe drop. (Special function 2.)
43	lo dr	Execute Site Controller command LOAD DRAWER. (Special function 3.)
44	drive off	Complete an unpaid sale. (Special function 4.)
45	payout	Start a payout transaction. (Special function 5.)
46	reverse	Make a completed sale payable again. (Special function 6.)
47	return	Start a returned-goods transaction. (Special function 7.)
48	lo sh	Execute Site Controller command LOAD SHIFT. (Special func. 8.)

Action	Name	Meaning
49	fn 9	Undefined special function 9.
50	move merc	Move merchandise. (Special function 10.)
51	auth numbr	For Buypass pre-authorized/voice-authorized transactions. (Special function 11.)
52	offroad	Ring up off-road fuel sales (if they have different tax rates).
53 - 63	fn 13 - fn 23	Undefined special functions 13-23; can be configured to serve the needs of the user.
64	command	Put Check Point in Site Controller command mode. (Special function 30.)
65	con01	Execute user-defined Site Controller command file /BIN/CON01.CMD. (Special function 31.)
66	con02	Execute user-defined Site Controller command file /BIN/CON02.CMD. (Special function 32.)
67	con03	Execute user-defined Site Controller command file /BIN/CON03.CMD. (Special function 33.)
68	con04	Execute user-defined Site Controller command file /BIN/CON04.CMD. (Special function 34.)
69	con05	Execute user-defined Site Controller command file /BIN/CON05.CMD. (Special function 35.)
70	con06	Execute user-defined Site Controller command file /BIN/CON06.CMD. (Special function 36.)
71	con07	Execute user-defined Site Controller command file /BIN/CON07.CMD. (Special function 37.)
72	con08	Execute user-defined Site Controller command file /BIN/CON08.CMD. (Special function 38.)
73	con09	Execute user-defined Site Controller command file /BIN/CON09.CMD. (Special function 39.)
74	con10	Execute user-defined Site Controller command file /BIN/CON10.CMD. (Special function 40.)
75	con11	Execute user-defined Site Controller command file /BIN/CON11.CMD. (Special function 41.)
76	con12	Execute user-defined Site Controller command file /BIN/CON12.CMD. (Special function 42.)
77	con13	Execute user-defined Site Controller command file /BIN/CON13.CMD. (Special function 43.)
78	con14	Execute user-defined Site Controller command file /BIN/CON14.CMD. (Special function 44.)
79	con15	Execute user-defined Site Controller command file /BIN/CON15.CMD. (Special function 45.)
80	con16	Execute user-defined Site Controller command file /BIN/CON16.CMD. (Special function 46.)
81	FINA	Allow manual entry of a FINA card.
82	Shamrock	Allow manual entry of a Shamrock card.
83	WEX	Allow manual entry of a Wex card.
84	CITGO	Allow manual entry of a Citgo card.
85	Tex/Phil	Allow manual entry of a Texaco or Phillips card.
86	Cenex	Allow manual entry of a Cenex card.
87	Coastal	Allow manual entry of a Coastal card.
88 - 94		(None Loaded.)

## How to Change Action Permission Levels

Use submenu 2 of the console configuration program to change the permission levels of Check Point actions. (The table earlier in this chapter shows the default permission levels.) The permissions defined here determine what permission level must be in effect to execute the action.

The permission level in effect is the permission level of the operator who is signed on or the permission level associated with the current setting of the manager keyswitch, whichever is greater. The manager keyswitch permission levels are MANAGER=8, SUPERVISOR=4, ON=1, and OFF=0. The operator permission levels are assigned with the Site Controller command ADD SIGNON. There are 10 permission levels available, 0 through 9.

## How to Change POS Parameters

For any changes after setup, use submenu 3 of the console configuration program to change parameters for the Check Points/ Profit Points at a site. The following is a list of parameters that can be changed.

*Note: A leading asterisk (\*) indicates Check Point only.*

- 1 **Allow postpay on POSs:** Should postpay and prepay sales be allowed at the site, or should only prepay sales be allowed? If only prepay sales are allowed, the Check Points/Profit Points at the site will display \* Must prepay \* if a postpay sale is attempted.
- 2 **POS printers:** Which receipt printers are used by which Check Points or Profit Points at the site? You can specify a receipt printer for consoles 1 through 4. Usually console 1 has receipt printer 1, console 2 has receipt printer 2, and so on. If a console does not have a receipt printer, enter the number of the printer where the receipt will be printed.
- 3 **Safe-drop limit:** What is the maximum amount of cash allowed in the cash drawer before the safe-drop message is displayed? If there is no safe-drop limit, specify 0.
- 4 **Tax rates, percent:** Specify tax rates for taxes 1 through 8. Tax rates are specified in hundredths of a percent. For example, a 7.8 percent tax is specified as 780, though it displays as 7.80.

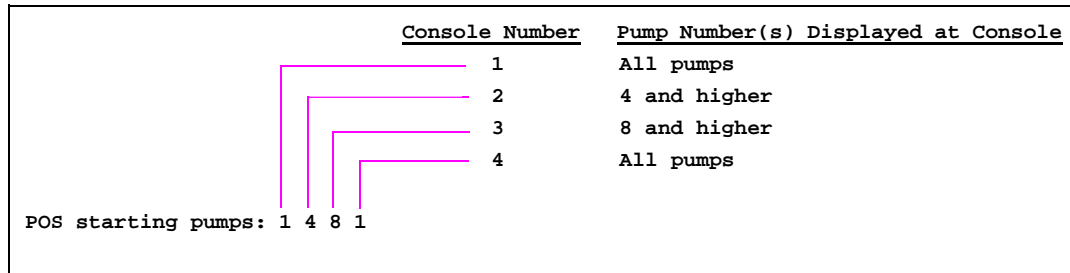
These taxes are assigned by number to products with the Site Controller command LOAD PRODUCT.

*Note: Tax rates and tax rounding boundaries (see the next item) are ignored if the tax tables are loaded using the TAX program.*

- 5 **Tax rounding boundaries:** How should the taxes specified in the parameter above be rounded? Specify the upward rounding breakpoint in tenths of a cent (hundredths of a dollar). For example, if taxes are to be rounded up at \$.005 and down below \$.005, enter a 5. (Also, see the note under item 4, immediately above).

- 6 POS starting pumps:** This parameter specifies the starting pump number for consoles 1 through 4 (left to right). The number entered in the parameter for a given console is the lowest pump number displayed on that console.

**Figure 11-5: Example of “POS starting pumps” Parameter Usage**



- 7 \*Number of pumps on POSs:** How many pumps are assigned to Check Points 1 through 4? Up to 16 pumps can be assigned to a Check Point.
- 8 Allow POSs to exceed safe-drop limit:** Should consoles at the site be allowed to exceed the safe-drop limit? That is, should they be allowed to start new transactions if there is more cash in the cash drawer than specified in parameter 3 above.
- 9 Allow hand authorization of cards:** Should the site allow transactions to be authorized by hand, without a card being read by the console's card reader or manually entered (see parameter 12 below)? Usually this means the transaction will be recorded on a credit slip. (The site is informed of the authorization by, for instance, CREDIT CREDIT).
- 10 Initial user:** Which user will automatically be signed on to a console or Profit Point at the site when the system is powered up. The initial user is also the user who will be signed on after the sign-off special function (special function 0) has been executed.
- The user numbers and password used to sign on to the consoles are entered with the Site Controller command ADD SIGNON.
- If the consoles are to come up with no user signed on, specify -1. This means that a user must sign on to use the console and that no user will be signed on after the sign-off special function has been executed.
- 11 \*Number of pump status lamps:** All Check Points currently in use have 16 pump status lamps. This number should reflect the number of pumps on the Check Point.
- 12 Allow hand entry of card data:** Should the console user be allowed to enter the customer's card number on the console?
- 13 Mod 10 check on hand-entered non-club cards:** If parameter #12 above is set to YES, setting Mod 10 check to YES provides a way to see whether the card number was entered on the console accurately-provided, of course, that the card has a mod-10 check digit.



- 14 Automatic receipt print:** Should a receipt be automatically printed at the end of each transaction at the console in addition to the receipt that maybe printed at the device? Enter the number of the account types that you want to trigger an automatic printing of a receipt at the console. The numbers are: 0=none, 1=club, 2=checking, 3=savings, 4=credit, 5=cash, 6=unpaid, 7=reverse, 8=prepay\*. Enter the numbers as a string-for example, 2456-with no blank spaces enables receipts for checking, credit, cash, and unpaid.

Note that you can now print a receipt when a reversal occurs (7) and you can print a receipt on the console if the sale was prepaid with the customer getting his receipt (a duplicate) at the island (8). If the prepay feature is enabled, the customer gets his receipt at the island after it has been printed at the console. The customer's receipt will say "Duplicate" in the header.

If an island receipt must be gotten by swiping the card again after pumping, duplicate receipts at the island must be enabled.

\* Prepay is not an account type, prepay enables the listed account type receipts to be printed at the console and at a device.

- 15 Odometer prompt:** This parameter allows you to change the default Enter odometer prompt.
- 16 Auxiliary number prompt:** This parameter allows you to change the default Enter aux number (normally vehicle #) prompt.
- 17 POS completes full-serve transactions:** If you select YES, the transaction will be halted at the POS until payment is entered. If you select NO, transaction completion does not depend on payment being entered.
- 18 POS ignores club card PIN restriction:** If your POS does not have a PIN pad, setting this parameter to YES allows the POS to ignore the requirement on a club card that a PIN be entered; otherwise, the transaction would be halted waiting for a PIN to be entered, if required.
- 19 POS asks for odometer on fuel sale:** This parameter applies to fuel-only and fuel-and-merchandise sales. You can specify if the POS will ask for odometer entries Never, Always, or only when an odometer requirement is Card encoded.
- 20 POS asks for auxiliary # on fuel sale:** This parameter applies to fuel-only and fuel-and-merchandise sales. You can specify if the POS will ask for an auxiliary number Never, Always, or only when an auxiliary number is Card encoded.
- 21 POS asks for odometer on merchandise sale:** This parameter applies only to merchandise-only sales. You can specify if the POS will ask for odometer entries Never, Always, or only when an odometer requirement is Card encoded.
- 22 POS asks for auxiliary # on merchandise sale:** This parameter applies only to merchandise-only sales. You can specify if the POS will ask for an auxiliary number Never, Always, or only when an auxiliary number is Card encoded.
- 23 Open cash drawer on approval:** For which types of cards does the POS cash drawer open on approval to let the user put the card slips in the drawer. The choices are: 1 = club, 2 = checking, 3 = savings, 4 = credit, 0 = none. Enter selected types as a string with no spaces.

- 24 **Allow pump down fuel entry:** Should the entry of fuel-sale amounts be allowed when a pump is down?
- 25 **Require customer to confirm prepay price at pump:** Are prepay customers required to press CASH or CREDIT at the pump?
- 26 **Preset zero quantity complete transactions:** Should a restart of prepaid no- quantity fuel transactions be allowed on the POS?
- 27 **Disallow CASH ENTER tender sequence:** Should the entry of a cash amount for cash tender be required?
- 28 **Tax food-stamp purchases:** Are taxes charged on food-stamp purchases? (Profit Point only)
- 29 **\*Prevent item/dept auto-preset of fuel sale:** If enabled, helps prevent merchandise from being added to the wrong fuel sale because the PRESET key is required before you can add merchandise to a pump with a completed current sale.
- 30 **\*Merchandise rings to merchandise sale:** If enabled, merchandise will automatically be rung up on a merchandise sale, then the clerk can move it to a fuel sale.
- 31 **Drawer compulsion:** If enabled, no further action can be taken at a Check Point/ Profit Point until its open cash drawer has been closed.
- 32 **Verification data (except PIN) at console keyboard or PIN pad:** Will a clerk enter a customer's verification data (such as odometer) at the POS keyboard, or will the customer enter it on a PIN pad? (0 = PIN on PIN Pad; 1 = Everything except lookup on PIN Pad; 2 =Everything on POS keyboard). When setting 2 is used, and the PIN is entered from the keyboard, the PIN cannot be encrypted. The message *DES not ready* will appear if you try to get an encrypted PIN from the keyboard.
- 33 **Check Point commands wait for log printer:** When Site Controller commands are entered from the Check Point/Profit Point, will the Check Point/Profit Point delay displaying the next prompt until the log printer has finished printing the previous operation.
- 34 **\*Operator permission to reverse paid sales:** The permission level a clerk needs in order to reverse paid sales. If the perm level on reversals (spec func 6) is greater or equal to this, that perm level will be required to reverse paid and unpaid sales. If this level is higher, this is the level required for paid sales. The perm level for spec func 6 is required to reverse unpaid sales.
- 35 **Pause POS sale if card is run:** A pump that is already activated may be paused and the clerk alerted when a card is inserted at a DPT. Default is No, enable by setting to Yes.
- 36 **Warn operator if payable sale is too old (minutes, 0=no warning):** A timer can be set that warns a clerk if a sale remains payable without being modified for more than a configured number of minutes (up to 30, +/-15 secs). This can be used to detect drive-aways and accidental mistakes while keying-in that create a sale.

A message will be displayed on all POSs if a fuel sale has remained payable too long. For merchandise only sales, the POS that belongs to the sale will be notified. The message identifies which sale needs to be paid off. If more than one sale is time out, the sales will be displayed with 15 seconds between each notification. If more than four sales are timed out, only four will be shown. As they are paid off, the others will appear. Once a sale has timed out the message will appear once every minute.

- 37 Offhook beep at prepay-only sites:** At a prepay-only site, the POS may now beep when the pump handle is raised. The default is no, enable by setting to Yes. Applies to sites with DPTs only.
- 38 POS invoice printer's console:** Which invoice printers are used by which Check Points or Profit Points at the site? You can specify an invoice printer for consoles 1 through 4. Usually console 1 has invoice printer 1, console 2 has invoice printer 2, and so on. If a console doesn't have an invoice printer, enter the number of the console where the invoice will be printed.
- 39 Beep at POS for PAY INSIDE:** If set to Yes, the POS (Profit Point) beeps (offhook beep) as soon as a customer at the pump selects an 'inside' payment type instead of waiting until the pump nozzle is removed.

## Submenus 4 and 5

Never make any changes to submenus 4 and 5 without consulting Gasboy.

*This page is intentionally left blank.*

## 12 – Offroad

OFFROAD.BIN is a disk-based configuration program that calculates an offroad tax discount for a payable fuel sale (sale must be postpay and payable) and adds a refund item to the sale in the amount of the discount. Information for OFFROAD.BIN comes from the data or config file OFFROAD.DTA. You will need to edit the file OFFROAD.DTA to set up the tax parameters.

### How to Set Up the Parameters

Figure 12-1 is a sample OFFROAD.DTA file.

**Figure 12-1: Sample OFFROAD.DTA File**

```

16      Offroad discount product or #,# for separate state & federal
17.     Offroad sales tax product
22.0    Cents/gallon State road tax
20.1    Cents/gallon Federal road tax
8.2     State sales tax rate
Y       Y = Allow operator to choose if sales tax applied
N       Y = Always, Q = Ask: Add federal road tax to final total
N       Y = Always, Q = Ask: Add state tax (if no sales tax) to total
      Joe's Filler Up
      Mail: P. O. Box 43345
      Seattle, WA 98124-1991
>23404 54th St, Fife WA<
      (206) 555-1212
      Off Road Fuel Receipt

```

- 1 Open OFFROAD.DTA in the directory C:\SC3\** (or enter the command FRED OFFROAD.DTA in the SC3 command window).
- 2 Offroad discount product or #,# for separate state & federal:** Enter the product number(s) offroad discounts are assigned to.
- 3 Offroad sales tax product:** Enter the product number the offroad sales tax is assigned to.
- 4 Cents/gallon State road tax:** Enter the current amount, in cents, of the state road tax per gallon.
- 5 Cents/gallon Federal road tax:** Enter the current amount, in cents, of the federal road tax per gallon.
- 6 State sales tax rate:** Enter the percentage rate for the state sales tax. This can only be a percentage and not a table look up tax.

This tax is independent of any tax loaded in the configuration or the TAX.BIN program and will not add to any tax totals.

- 7 **Y = Allow operator to choose if sales tax applied:** State sales tax applies only if the state road tax is being discounted. Set this parameter to Y for the operator to choose if the state sales tax (percentage set in the above parameter) applies. If this parameter is set to anything other than a Y, the program applies sales tax automatically, depending on the state road tax.
- 8 **Y = Always, Q = Ask: Add federal road tax to final total:** This parameter determines if the federal road tax is discounted in the offroad discount. Set this parameter to Y and the federal road tax will not be discounted from the sale. Set this parameter to Q and the operator will be prompted whether to add these taxes.
- 9 **Y = Always, Q = Ask: Add state tax (if no sales tax) to total:** This parameter determines if the state road tax is discounted in the offroad discount. If this parameter is set to Y, the state road tax is not discounted from the sale and the state sales tax does not apply. Set this parameter to Q and the operator will be prompted whether to add this tax. If set to anything else, the state road tax is discounted from the sale.
- 10 Enter the name, address and other information at the bottom of the receipt.

## Text Editor for Windows NT

Use the text editor, NotePad or WordPad that is located under the Accessories directory of your CFN III for NT. For help, click the word Help on the Menu bar of your selected editor.

- 1 Click once, with left mouse button, on the word Start at the bottom of the screen.
- 2 Click once on the word Programs.
- 3 Click once on the word Accessories.
- 4 Click once on the program that you want to open, NotePad is suggested.

## 13 – Fuel Point

Use the disk-based configuration program FUELPT to configure your Fuel Point system.

The FUELPT program has two sets of parameters: global and individual. From the main FUELPT menu, press 1 for the global parameter submenu or press 2 for the individual parameter submenu.

You must specify what type of device is being controlled by each ring. Possibilities are normal pumps, gates and PCU pumps acting as if they are a gate. If opening a gate controlled by a gate controller, the site will check the card created from the VM against lockout (if configured for lockout with fuel point) and open the gate if the card is not locked out. A log message will be generated, no transaction.

For pumps behaving like gates, when activated by the FPR, the pulse rate will be set to 1/G and the pump will be activated for one gallon. The transaction error code will be set to “Gate”. If the price/gallon is set to \$.001, the site will convert the dollar total to zero at completion. It should be noted that pumps acting like gates should be prevented from being activated by ICRs/ Consoles if possible. Therefore you should configure such pumps to be on a different cluster than real pumps.

### Global Parameters

The default global parameters, in the order they are shown on the submenu, are displayed in [Figure 13-1](#).

**Figure 13-1: Default Global Parameters**

```
***FPR Global Parameter ***
1. ICR error message display time: 10
2. Show miles-hour per gallon on receipt: yes
3. Use meter #2 for calculations: No
4. VM field stored in auxiliary entry: Odom/Hours 1
5. VM field stored in router variable 1: None
6. VM field stored in router variable 2: None
7. VM field stored in router variable as string: None
8. Default prompt for ICR entry #1:
9. Default prompt for ICR entry #2:
10. Default prompt for ICR entry #3:
```

Card Data Field Layout	Offset	Width
11. Card	0	6
12. Account	6	9
13. Vehicle	15	4
14. None		
15. None		

```
Enter parameter number to modify or q to quit:
```

- 1 **ICR error message display time:** The length of time, in seconds, that an island card reader will display messages from the Fuel Point reader. The default is 10.
- 2 **Show miles-hours per gallon calculations:** Should the miles-per-gallon (or hours-per-gallon) be calculated and printed on the customer's receipt? The default is Yes. Cannot be use with parameter 7.
- 3 **Use meter #2 for calculations:** Should meter 2 be used for per-gallon calculations? Meter 1 tracks miles-per-gallon; meter 2 tracks hours-per-gallon. The default is No (use meter 1).
- 4 **VM field stored in auxiliary entry:** Which vehicle module field should be stored in auxiliary entry (see the following table for a list of available fields). The default is None.
- 5 **VM field stored in router variable 1:** Which vehicle module field should be stored in router variable 1 (see the following table for a list of available fields). The default is None. Cannot be use with parameter 7.
- 6 **VM field stored in router variable 2:** Which vehicle module field should be stored in router variable 2 (see the following table for a list of available fields)? The default is None. Cannot be use with parameter 7.
- 7 **VM field stored in router variable as string:** Which vehicle module field should be stored in router variable as string? This router variable is the only one that can take alpha characters along with numeric. Also, this parameter takes the complete 10 byte router allotment and therefore, cannot be used with parameters 2, 5, or 6. The default is None.  
*Note: For alphanumeric fields, add 128 to the field number.*
- 8 **Default prompt for ICR entry #1 []:** If the VM has not been encoded with any of the 3 optional entry requests, enter the request in this parameter. The ICR will provide the data that would have been gathered by the VM. Possible prompts would be employee number or job number of merchandise being transported. This field can hold up to 20 characters.
- 9 **Default prompt for ICR entry #2 []:** If the VM has not been encoded with any of the 3 optional entry requests, enter the request in this parameter. The ICR will provide the data that would have been gathered by the VM. Possible prompts would be employee number or job number of merchandise being transported. This field can hold up to 20 characters.
- 10 **Default prompt for ICR entry #3 []:** If the VM has not been encoded with any of the 3 optional entry requests, enter the request in this parameter. The ICR will provide the data that would have been gathered by the VM. Possible prompts would be employee number or job number of merchandise being transported. This field can hold up to 20 characters.
- 11 - 15. **Card Data Field Layout, Offset, Width:** The card data can contain up to 19 digits in up to five (11 through 15) fields.

*Note: Network interfaces may write over the VM field data stored as router variable 1 and/or router variable 2 (parameters 5-7).*

Select fields for inclusion from the following list by entering the field's number. Once you enter the number, you will be prompted for the offset of that field into the card's data.



Field Number	Field Name	Length (v = variable)	Notes
1	Version	2	
2	VM/Authorizer	1	0 = VM, 1 = Authorizer
3	System ID	v	6 digits maximum
4	VM Number	v	8 digits maximum
5	Odom/Hours 1	1	0 = Odom, 1 = Hours
6	Begin meter 1	7	numeric, 7 whole digits
241	Current meter 1	7	whole-number meter 1 data
7	Previous meter 1	7	numeric, 7 whole digits
8	Odom/Hours 2	1	0 = Odom, 1 = Hours
9	Begin meter 2	7	numeric, 7 whole digits
242	Current meter 2	7	whole-number meter 2 data
10	Previous meter 2	7	numeric, 7 whole digits
11	Expiration date	v	
12	Limitation code	v	
13	Authorization code	v	
14	Price level	v	
15	Check digit	v	
16	Vehicle class	v	
17	Maint A odom	v	
18	Maint A date	v	
19	Maint B odom	v	
20	Maint B date	v	
21	Maint C odom	v	
22	Maint C date	v	
65	Account	v	length set by customer
66	Asset	v	length set by customer
67	Badge	v	length set by customer
68	Card	v	length set by customer
69	Clock	v	length set by customer
70	Department	v	length set by customer
71	Driver	v	length set by customer
72	Employee	v	length set by customer
73	Equipment	v	length set by customer
74	Fleet	v	length set by customer
75	License	v	length set by customer
76	Manifest	v	length set by customer
77	Manual	v	length set by customer
78	Patron	v	length set by customer
79	Purchase Order	v	length set by customer
80	Route	v	length set by customer
81	Security	v	length set by customer

Field Number	Field Name	Length (v = variable)	Notes
82	Shift	v	length set by customer
83	SKU #	v	length set by customer
84	Social Security	v	length set by customer
85	Stock	v	length set by customer
86	Vehicle	v	length set by customer
87	Work Order	v	length set by customer
88	DIVLOC	v	length set by customer
89	Division	v	length set by customer
90	Asset #	v	length set by customer
91	Bus	v	length set by customer
92	PIN	v	length set by customer
93	Participant ID	v	length set by customer
222	Track-II	v	length set by customer
95	Tender Type	v	length set by customer
112	Types map	v	
113	Length map	v	
114	Meter 1 calibration	v	
115	Divisor ratio 1	v	
116	Meter 2 calibration	v	
117	Divisor ratio 2	v	
240	Cache field	v	
243	Fractional meter 1	v	
244	Fractional meter 2	v	

## Individual Parameters

Use the individual parameters submenu to change which island card reader will receive messages from the Fuel Point reader. The submenu also lets you specify which device (pump or gate) goes with which antenna coil.

**Figure 13-2: Individual Parameters Submenu**

```

***FPR Individual Parameters ***

# ICR  Ring:  1      2      3      4      5      6      7      8
-----
1 12          PO1  PO2  PO3  PO4  PO5  PO6  PO7  PO8

Enter reader number to modify or q to quit:

```

- 1 Enter the reader number to modify or q to quit:** Enter the Fuel Point reader number that you need to modify.
- 2 Associated ICR []:** To which island card reader do the error messages go. The default is zero.
- 3 Ring #1 goes with device [PO1]:** Enter the type of device to be activated by this ring. You must specify what type of device is being controlled by each ring. Enter P# or just # for the ring to activate the pump #; R# for the ring to activate the pump # as a gate; or G# for the ring to open the gate.

## Available Hour/Odometer Settings

The following table lists the allowable miles per gallon/hours per gallon combinations. The first section lists the different vehicle module combinations. The second section (XPG) shows the allowable calculation options for receipt printing. XPG represents unit per gallon.

Vehicle Module		XPG (Unit/Gallon)	
Meter 1	Meter 2	Meter 1	Meter 2
Odometer	Hour	MPG	HPG
Odometer	Odometer	MPG	-----
Hour	Odometer	HPG	MPG
Hour	Hour	HPG	-----
Odometer	-----	MPG	-----
Hour	-----	HPG	-----

For example, with a dual input vehicle module where meter 1 is odometer and meter 2 is hours per gallon, the default XPG calculation will display Miles per Gallon on the receipt. The use meter 2 option will display Hours per Gallon on the receipt.

*Note: The hour meter reading is stored in the aux entry field of the transaction. If using the aux entry for different data, set Global parameters to record hours in Router 1 or Router 2 field. In this case, you cannot do hours per gallon calculations.*

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## 14 – MIXCONF

MIXCONF is a menu program used to combine configuration programs without having to re-enter existing information into the individual fields. This creates a new FRAMOS.CFG on your system. It is advisable to make a copy of the existing file before you use this command.

Enter the command MIXCONF at the prompt and the following line appears:

Enter file to extract configuration data from:

Type in your file name that you want to copy from, this could be FRAMOS.CFG or another file. [Figure 14-1](#) lists the available selections.

**Figure 14-1: Configuration Extraction Utility Menu**

```
*** Configuration Extraction Utility ***
1 - Pumps
2 - Gates
3 - Tables
4 - System parameters
5 - Console key layout
6 - Console parameters
7 - Trans print format
8 - Command permissions
9 - Reader/printer program
10 - Reader/printer device setup
11 - Fuel Point global setup
12 - Fuel Point Individual setup
0 - Finished.
Choose section of configuration to import:
```

Enter the number for each one of the parameters that you'd like to copy. You must enter them one at a time. After each selection press the enter key. The system will display the words:

\*\*\*\*IMPORTING\*\*\*\*

When you have finished, enter the number 0 to quit. You will be asked if you want to save this new configuration.

*Note: Saving this configuration writes over the existing FRAMOS.CFG.*

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# 15 – Key Option Configuration

A Key Option is available for Islander II sites. The following configuration adjustments must be made to the Site Controller configuration for this option.

## Configuring the Site Controller

### System Parameters (SYS\_PAR)

The following setting must be used to configure the Site Controller to accept smart keys.

Page 2: Club card format - field widths

Digits in limitation code = 1  
 Digits in authorization code = 1  
 Digits in price level = 1  
 Digits in restriction code = 1  
 Digits in expiration date = 4

Page 3: Club card format - offsets

Limitation code offset = 0  
 Authorization code offset = 1  
 Price level offset = 2  
 Restriction code offset = 3

Reader verification - page 4

The Key Option on the CFN allows the PIN number to be stored on the key. If you are using this option, when the user enters the PIN at the reader, it is verified against the PIN stored on the key. These PIN numbers do not use the standard CFN algorithm and are verified at the reader. In order to use this option, you must set the following reader verification parameters:

Require PIN (reader) = none  
 Check PIN (reader) = none

*Note: The check digit on the key must be set to require PIN in order to verify the key PIN number. Refer to the Gasboy Key Encoder/Maintenance Terminal Operation Manual, C08380 for more information.*

If you are using key and card combinations (verifying the PIN for the card), code keys (using the Lookup tables), or verifying the PIN based on the account number and not the number stored on the key, you must set the following reader verification parameters:

Check PIN (reader) = club

*Note: The check digit on the key must be set to NOT require PIN. Refer to the Gasboy Key Encoder/Maintenance Terminal Operation Manual, C08380 for more information. If you are verifying the PIN based on the account number from the key, set the following parameter:*

Require PIN (reader) = club

Miles-per-gallon package - page 13

The Key Option on the CFN allows the odometer to be stored on the key for reasonableness check. If you are using this option, when the user enters the odometer, it is verified at the reader against the odometer stored on the key. If you are using this option, you must set the following system parameters:

MPG package used for club cards = no

If you are using the MPG package feature of the CFN system (refer to Miles Per Gallon package), set the following system parameters:

MPG package used for club cards = yes

Maximum miles between fuelings = (4 digit #, Max. 9999)

Club odometer tries allowed = 0

## Island Card Reader (READER)

The Island Card Reader (ICR) reader program (MENU 1) must be set-up as follows:

Step 3 - PIN

Enter PIN message must be preceded by a space, must be in all capital letters, and must say ENTER YOUR PIN.

Number of digits = Must be at least 4

Optional = yes

Step 7 - Odometer

Use default Enter Odometer message

Number of digits = 6

Optional = yes

Step 11 - Remove Card

This step must be used with systems that have the Key Option. The message can be changed to read: "Remove Key" or "Remove Card/Key."

An example is shown in [Figure 15-1 on page 99](#).



**Figure 15-1: Example of Island Card Reader Display**

#	Ty	S/D	DISPLAY	WHILE ENTERING	OPTIONS
1	1	!	INSERT CARD	!	!
2	3	6 !	ENTER YOUR PIN	!YOUR PIN	! Optional
3	7	7 !	ENTER ODOMETER	!ODOMETER	! Optional
4	11	2 !	REMOVE CARD/KEY	!	!
5	8	!	PLEASE WAIT	!	!
6	2	2 !	SELECT PUMP NUMBER	!PUMP	!
7	9	!		!	!
8	12	2 !	BEGIN FUELING	!	!
9			!-----END-----!		!

## PIN Key

The Key Option requires a 4 digit PIN key to be loaded at the Site Controller. Use the command L<sup>O</sup>ad KEY to enter this PIN. The L<sup>O</sup>ad KEY command requires 18 digits to be entered at the prompt. The Key Option will use only the last 4 digits. Place 0s (zeros) in the first 14 digits with the final 4 digits the required PIN key. Use [Figure 15-2](#) as a guide.

**Figure 15-2: Example of L<sup>O</sup>ad Key Display**

```

A* LOad KEY ¿
Key? 00000000000000XXXX ¿
(substitute your PIN key for the Xs)
A*

```

*Note: Key/Card cannot be used if accepting debit cards that require DES.*

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# Appendix A - Configuring Reader Messages

The CFN system supports customized reader messages. These messages are defined in the `dpt_str.ini` file in `p:/`.

There are predefined custom messages that can be substituted for the default messages by copying the custom file and overwriting `dpt_str.ini` with it. These are:

- **dpt\_amc.ini** for Amoco
- **dpt\_cat.ini** for Merit
- **dpt\_cit.ini** for Citgo
- **dpt\_norm.ini** for Default

The messages can also be manually customized by editing **p:dpt\_str.ini**. Below is a list of the names of messages that can be redefined. If a message name is not listed in the **dpt\_str.ini** file, then the default string will be displayed for that message. For any message to be redefined, simply put a line in the file in the following format:

*NAME=new text replacing the default text*

NAME	Default text
DPT_BLANK	
DPT_PAY_FIRST	Please pay first
DPT_PRESS_PAY_BEEP	Press payment key or insert card (with beep)
DPT_PRESS_PAY_CASH_CREDIT	Press payment key, cash or credit
DPT_ONE_MOMENT	One moment please
DPT_NO_HELP	Help unavailable
DPT_HELP	Attendant notified
DPT_REMOVE_NOZZLE_FLIP_LEVER	Remove nozzle and flip lever
DPT_INVALID_FUEL_GRADE	Invalid fuel, pick another grade
DPT_INVALID_FUEL_NOZZLE	Invalid fuel, pick another nozzle
DPT_CHANGED	Payment type changed
DPT_PRESS_CASH	Please press CASH
DPT_PRESS_CREDIT	Please press CREDIT
DPT_PRESS_START	Please press START
DPT_PRESS_GRADE	Please press GRADE
DPT_CHANGED_CASH	Payment type changed, please press CASH
DPT_CHANGED_CREDIT	Payment type changed, please press CREDIT
DPT_CHANGED_START	Payment type changed, please press START
DPT_CHANGED_GRADE	Payment type changed, please press GRADE
DPT_REMOVE_NOZZLE	Remove nozzle
DPT_REMOVE_NOZZLE_LEVER	Remove nozzle and lift lever
DPT_CANT_CARD_NOW	Can't use card now
DPT_REMOVE_NOZZLE_LEVER_START	Remove nozzle, then lift lever and press START
DPT_REMOVE_NOZZLE_LEVER_GRADE	Remove nozzle, then lift lever and press GRADE
DPT_REMOVE_NOZZLE_CASH_CREDIT	Remove nozzle and pick CASH or CREDIT

<b>NAME</b>	<b>Default text</b>
DPT_REMOVE_NOZZLE_CASH_BEEP	Remove nozzle and press CASH (with beep)
DPT_REMOVE_NOZZLE_CREDIT_BEEP	Remove nozzle and press CREDIT (with beep)
DPT_REMOVE_NOZZLE_START_BEEP	Remove nozzle and press START (with beep)
DPT_REMOVE_NOZZLE_GRADE_BEEP	Remove nozzle and press GRADE (with beep)
DPT_REMOVE_NOZZLE_CASH	Remove nozzle and press CASH
DPT_REMOVE_NOZZLE_CREDIT	Remove nozzle and press CREDIT
DPT_REMOVE_NOZZLE_START	Remove nozzle and press START
DPT_REMOVE_NOZZLE_GRADE	Remove nozzle and press GRADE
DPT_BEGIN_FUELING	Begin fueling
DPT_PUMP_PUMPING	Pump is pumping
DPT_PUMP_PAUSED	Pump is paused
DPT_REPLACE_NOZZLE	Replace nozzle
DPT_CHANGE_REPLACE_NOZZLE	Payment type changed, replace nozzle
DPT_GET_SAME_NOZZLE	Can't change nozzles, replace nozzle
DPT_PRESS_CASH_CREDIT	Pick cash or credit
DPT_PAPER_OUT	Out of paper
DPT_PRINTER_JAMMED	Printer jammed
DPT_RECEIPT_INSIDE	Receipt inside
DPT_SHOW_CASH	Cash: \$amount
DPT_WANT_RECEIPT	Receipt yes or no
DPT_PRESS_PAY_KEY	Press payment key or insert card
DPT_PAY_INSIDE	Please pay inside
DPT_CHANGE_INSIDE	Go inside for change
DPT_SITE_STOPPED	Site is stopped
DPT_NO_MORE_HELP	Help unavailable
DPT_MORE_HELP	Attendant notified
DPT_INVALID_UNITS	Invalid units
DPT_BAD_CARD	Bad card
DPT_CANT_CHANGE	Can't change payment
DPT_INSERT_CASH	Insert cash \$amount
DPT_MUST_CASH	Must use cash
DPT_INVALID_CARD	Invalid card(s)
DPT_PRINTER_DOWN	Printer down
DPT_INVALID_PUMP	Invalid pump
DPT_PUMP_DISABLED	Pump disabled
DPT_BAD_ODOMETER	Invalid odometer
DPT_NOT_AVAILABLE	Not available
DPT_REMOVE_NOZZLE_GRADE_START	Remove nozzle, then press GRADE and press START
DPT_TRY_LATER	Try later
DPT_DES_NOT_READY	DES not ready
DPT_PUMP_DOWN	Pump out of service
DPT_ESTOP	EMERGENCY STOP
DPT_MEM_FULL	Memory full

NAME	Default text
DPT_PUMP_IN_USE	Pump in Use
DPT_WAIT	Please wait
DPT_NEXT_CARD	Enter next card
DPT_READ_ERROR	Read error
DPT_CARD_EXPIRED	Card has expired
DPT_RETRY_PIN	Invalid PIN, retry
DPT_ABORT_PIN	Invalid PIN, abort
DPT_INVALID_DRIVER	Invalid driver
DPT_INVALID_VEHICLE	Invalid vehicle
DPT_CANNOT_PROCESS	Cannot process card
DPT_INVALID_OUTSIDE	Card invalid outside
DPT_TURN_ON_PUMP	Remove nozzle
DPT_PREPAY_OR_CARD_BEEP	Pay inside first, or insert card (with beep)
DPT_TURN_ON_PUMP_CARD	Insert card or remove nozzle
DPT_REMOVE_NOZZLE_CARD	Insert card or remove nozzle
DPT_REMOVE_NOZZLE_LEVER_CARD	Use card or remove nozzle and lift lever
DPT_REMOVE_NOZZLE_FLIP_LEVER_CARD	Use card or remove nozzle and flip lever
DPT_REMOVE_NOZZLE_CASH_CREDIT_CARD	Use card or remove nozzle and pick CA/CR
DPT_REMOVE_NOZZLE_LEVER_START_CARD	Use card or remove nozzle and lift lever then press START
DPT_REMOVE_NOZZLE_GRADE_START_CARD	Use card or remove nozzle and lift lever then select GRADE
DPT_REMOVE_NOZZLE_LEVER_GRADE_CARD	Use card or remove nozzle and press GRADE then press START
DPT_PREPAY_OR_CARD	Pay first inside or insert card
DPT_REMOVE_NOZZLE_START_CARD	Use card or remove nozzle and press START
DPT_REMOVE_NOZZLE_GRADE_CARD	Use card or remove nozzle and press GRADE
DPT_PUMP_DIED	Pump error, stopped
DPT_INSERT_CARD_BEEP	Please insert card (with beep)
DPT_INSERT_CARD	Please insert card
DPT_SEE_CASHIER	See cashier
DPT_OUT_OF_SERVICE	Cannot process card, pay clerk inside
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