**GASBOY**

CFN Series

# Site Controller II Configuration Manual

Version 2.3

## Computer Programs and Documentation

## Federal Communications Commission (FCC) Warning

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

## Approvals

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

**Underwriters Laboratories (UL):**

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

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

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

**California Air Resources Board (CARB):**

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

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

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

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

## Patents

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

**Dispensers**

5,257,720

**Point of Sale/Back Office Equipment**

D335,673

Additional US and foreign patents pending.

## Trademarks

**Non-registered trademarks**

Atlas™
Consola™
Infinity™

**Registered trademarks**

ASTRA®
Fuel Point®
Gasboy®
Keytrol®
Slimline®

Additional US and foreign trademarks pending.

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# Table of Contents

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# 1 – Introduction

This manual explains how to configure a Site Controller II using the disk-based configuration programs located in the BIN subdirectory on your hard disk's SRAM card or on the floppy Site Controller diskette. The configuration programs, in the order they are explained in this manual, are:

- SYS_PAR (system parameters)
- PUMP
- TABLE
- TRFMT (transaction format)
- PERM (permissions)
- READER
- GATE
- CONSOLE
- OFFROAD*
- FUELPT
- FleetKey**

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 the manual are the configuration settings for the new FleetKey option available from Gasboy.

## Using this Document

The configuration programs for the Site Controller II are designed to be self-explanatory. This manual does not duplicate all the information given by the programs. Instead it provides additional information and explanations.

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 using the individual configuration programs. Use these chapters as a reference when you need more information than is given by each program's HELP command.

# Related Documents

## Site Controller II - Version 2.3 and Later

| Document Number | Title | GOLD Library |
|---|---|---|
| C01918 | CFN Series Site Controller II Installation Manual | CFN Series Controllers and POS |
| C09159 | CFN II Quick Reference | CFN Series Controllers and POS |
| C09204 | Check Point Reference Manual | Archive |
| C35923 | Point of Sale and Shift Change | CFN Series Controllers and POS |
| MDE-4311 | Site Controller II Manager's Manual v2.2+ | CFN Series Controllers and POS |
| MDE-4312 | Site Controller II Configuration Manual v2.3 (this document) | CFN Series Controllers and POS |
| MDE-4355 | Profit Point Clerk's Manual | CFN Series Controllers and POS |
| MDE-4356 | Profit Point Reference Manual | CFN Series Controllers and POS |

## Credit and Debit Card Networks

| Document Number | Title | GOLD Library |
|---|---|---|
| C35903 | Comdata℠ 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℠ 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 |
| 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 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 |

| Document Number | Title | GOLD Library |
|---|---|---|
| MDE-4310 | CFN® Network 4.2 Special Card Handler | CFN Series Networks, Card Handlers, and Pump Interfaces |
| MDE-4560 | CFN Series VisaNet® Credit and Debit Card Networks | CFN Series Networks, Card Handlers, and Pump Interfaces |
| MDE-4572 | CFN Series PaymenTech™ 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℠ Credit and Debit Card Networks | CFN Series Networks, Card Handlers, and Pump Interfaces |
| MDE-4623 | UFDA Credit and Debit Card Networks for site controller ll v2.3 and above | CFN Series Networks, Card Handlers, and Pump Interfaces |

## Forms, Quick Reference, Tutorials

| Document Number | Title | GOLD Library |
|---|---|---|
| C09134 | Site Controller II Configuration Order Form | N/A |
| Call | Site Controller II Sample Reports | N/A |

## Pump Interface

| Document Number | Title | GOLD Library |
|---|---|---|
| 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 | CFN Series Networks, Card Handlers, and Pump Interfaces |

## Card Encoding and Miscellaneous

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

## Remote Communications

| Document Number | Title | GOLD Library |
|---|---|---|
| C09137 | Site Controller Host Communications | Gasboy Fuel Management Products |
| C09138 | Site Controller Raw Mode Communications | Gasboy 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 |

# Using the Configuration Programs

To use the configuration programs, first make sure you are logged onto the root directory of your Site Controller's hard drive (C*), if it has one; if you do not have a hard drive, put the Site Controller boot diskette in drive A (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 (C* or A:), enter the name of one of the configuration programs to see the main menu for that program (except for OFFROAD.BIN).

## 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 doesn't exist, the site won't boot. To create a FRAMOS.CFG, if one does not exist:
- When you 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 MIXCONF or 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

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:

| | |
|---|---|
| Sys_par: | Next parameter is opened. |
| Pump: | Next PCU is either added or modified depending on the last entered command. |
| Table: | Next table is opened. |
| Perm: | Next command is opened. |
| Reader: | If last command was MODIFY, the next step is opened for modification. If last command was ADD, a new step will be inserted after previous insertion. In Reader Parameters, the next reader is opened for modification. |
| Gate: | Next Gate/Controller is opened. |
| Console: | Next entity (depending on the menu you are in) is opened for modification. |
| Fuelpt: | Next parameter is opened. |

## Exiting 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.

## Exiting the Correct Display Problems

If you are running a configuration program from a terminal that does not emulate VT52 and numerous peculiar characters appear, you should exit and run that program again using the -V option (for example: CONSOLE -V).

If you are running a configuration program from a CRT and the full-screen menus do not appear, also use the -V option.

## Printing 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).

If you make a typing mistake and notice it after you press **ENTER**, you must select the parameter again and modify it correctly.

# 2 – System Parameters

The system parameter configuration program, SYS_PAR, allows 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 on the following pages in this chapter in the order in which they appear on the pages.

*Note: The numbers assigned to the individual items may have changed since this manual was written; be sure to search for the correct title to find a definition.*

# 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 1001, 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 or Vehicle Module 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 a Gasboy CFN network. The site will answer to this address when polled (this is equivalent to the address set with the address switch in the Site Controller I). 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:** Determines what permission level the user will be promoted to while the key on the Site Controller is turned to the manager position (if the user already has a higher permission level, the manager key will have no effect). The higher permission level lasts only as long as the key is turned. The permission levels assigned to the console key positions are not affected by this parameter. The default permission level is 10.

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 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 and introduces mechanical wear on floppy diskettes) 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-4311 Site Controller II 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:** The file name under which you want to store the disk journal. A blank space disables the journal. If using the shift reporting package, it must be journal.log.

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.

# Page 2: Club Card Format - Field Widths

**12** **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 (or VM) will be compared with the system ID entered in item 3 on page 8. For the card (or VM) to work, the two numbers must match (leading 0s are allowed). Up to six digits are allowed. The default is 6 digits.

**13** **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.

**14** **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 5 are usable.

**15** **Digits in vehicle #:** The number of digits in the vehicle number part of the club card information (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.

**16** **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.

**17** **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.

**18** **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.

**19** **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.

**20** **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.

21  **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.

22  **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 "ICR Configuration" on page 65 for more information.

23  **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.

24  **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. For Gascard, set the number of digits to 3.

# Page 3: Club Card Format - Offsets

**25**   **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.

**26**   **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.

**27**   **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.

**28**   **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.

**29**   **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.

**30**   **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.

**31**   **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.

**32**   **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.

**33**   **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

**34**   **Use remote verification (reader):** This item specifies which types of cards are verified remotely for transactions started from the ICR. 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.

**35**   **Use local verification (reader):** This item specifies which types of cards are verified locally for transactions started from the Island Card Reader (ICR). 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.

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

**37**   **Check PIN (reader):** This item specifies which types of cards require the Site Controller to check the PIN for transactions started at the ICR. The Site Controller can check only privately issued card PINs, not PINs assigned by banks (which are checked remotely by the bank network). 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.

**38**   **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 ICR.

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.

**39  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 ICR. 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 Alternate Expiration Date, Page 11, 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.

**40  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 ICR.

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.

**41  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 ICR.

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.

**42  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 ICR program.

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

**43  Show product price on reader display:** For which types of transactions should prices of products purchased be shown to the customer on the ICR 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.

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

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

**46  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.

47 **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.

48 **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.

49 **Tokheim® DPT/Gilbarco CRIND®/Wayne CAT keyboard layout:** Allows you to change the default values of the keys if you have a Tokheim DPT, Gilbarco CRIND or Wayne CAT.

The keys on the DPT and CRIND keypads can be configured for different functions. The characters that select different functions are shown below. There are two Tokheim DPT models: TCS and Premier.

*Note: These characters are case-sensitive.*

**Tokheim Keypads**

The numbers of the keypad keys on the TCS are:

| 1 | 7 | 13 | 19 |
|---|---|----|----|
| 2 | 8 | 14 | 20 |
| 3 | 9 | 15 | 21 |
| 4 | 10 | 16 | 22 |
| 5 | 11 | 17 | 23 |
| 6 | 12 | 18 | 24 |

The default function arrangement of the TCS keypad is:

| B | B | b | b |
|---|---|---|---|
| N | N | Y | Y |
| 1 | 2 | 3 | C |
| 4 | 5 | 6 | C |
| 7 | 8 | 9 | E |
| h | 0 | X | E |

The numbers of the keypad keys on the Premier are:

| 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|
| 12 | 11 | 10 | 9 | 8 | 7 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 24 | 23 | 22 | 21 | 20 | 19 |

The default function arrangement of the Premier keypad is:

| h | 7 | 4 | 1 | N | B |
|---|---|---|---|---|---|
| 0 | 8 | 5 | 2 | N | B |
| X | 9 | 6 | 3 | Y | b |
| E | E | C | C | Y | b |

The string that would be entered into this SYS_PAR item to give the Premier keypad function arrangement shown above is: **BN147hBN2580bY369XbYCCEE**.

Some TCS and Premier keys are "double" keys, made up of a pair of single keys. On a double key, the same function must be selected for each member of the pair. On the TCS, 1 and 7, 13 and 19, 2 and 8, 14 and 20, 21 and 22, and 23 and 24 are pairs in a double key. On the Premier, keys 1 and 7 must be the same, and keys 13 and 19 must be the same.

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**CRIND Keypads**

The numbers of the keypad keys on the CRIND device are:

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 |

*Note that keys on the left half of the keyboard - that is, 1, 2, 3, 6, 7, 8, 11, 12, 13, 16, 17, and 18 - cannot be programmed.*

The default function arrangement of the CRIND keypad is:

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | u | b |
| 4 | 5 | 6 | $ | B |
| 7 | 8 | 9 | N | Y |
| C | 0 | E | H | X |

The string that would be entered into this SYS_PAR item to give the CRIND keypad function arrangement shown above is: **123ub456$B789NYC0EHX**.

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**SDI/Wayne CAT**

The keys of the CAT keypad can be configured for different functions. The characters that select different functions follow. *Note that these characters are case sensitive.*

| Character | Function of Key |
|---|---|
| 0 - 9 | Numeric digits 0 - 9 |
| . | Decimal point |
| E | ENTER |
| C | CLEAR |
| Y | Yes |
| N | No |
| $ | Cash inside |
| c | Cash outside |
| D | Debit inside |
| d | Debit outside |
| B | Credit (bank card inside) |
| b | Credit outside |
| X | CANCEL |
| x | CLEAR/CANCEL (CLEAR if data entry started; else CANCEL) |
| H | Help |
| h | Help/Decimal (Decimal is data entry started; else Help) |
| n | No/CANCEL (No if in yes/no state; else CANCEL) |

**SDI/Wayne CAT**

| | |
|---|---|
| S | Start |
| u | unused key |

The numbers of the keypad keys on the CAT are:

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 |
| 16 | 17 | 18 | 19 | 20 |

*Note that keys on the left half of the keyboard - that is: 1, 2, 3, 6, 7, 8, 11, 12, 13, 16, 17, and 18 - cannot be programmed.*

The default function arrangement of the CAT keypad is:

| | | | | |
|---|---|---|---|---|
| 1 | 2 | 3 | u | b |
| 4 | 5 | 6 | $ | B |
| 7 | 8 | 9 | N | Y |
| C | 0 | e | H | X |

The string that would be typed into the Wayne CAT keyboard layout item in SYS_PAR to give the CAT keypad function arrangement shown above is: **123ub456$B789NYC0EHX**.

**50 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.

# Page 5: Console Verification

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

**51  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.

**52  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.

**53  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.

**54  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.

**55  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.

**56  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.

**57  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.

**58**  **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.

**59**  **Send all Profit Point broadcast messages:** Sending all Profit Point messages is useful in video monitoring. The default is no.

# Page 6: Gate Verification and Miscellany

**60  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.

**61  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.

**62  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.

**63  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 the Site Controller II 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.

**64  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.

**65  Check expiration date (gate):** For which types of cards does the Site Controller check the expiration date for transactions started from the gate controller. 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.

**66  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.

**67  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.

**68  Log gate openings:** Should the Site Controller print a message on the log printer each time the gate opens.

**69  All gate openings make transaction:** Should the Site Controller treat each gate opening as a transaction.

**70  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

**71** **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.

**72** **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.

**73** **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.

**74** **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.

**75** **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.

**76** **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.

**77** **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.

**78  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.

**79  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

**80  Remote CFN channel:** The channel used for remote CFN verification or as a remote log-in port (2 is default; enter 4 for no CFN verification or remote log in).

**81  Host handler channel:** The channel used for verification with a remote host (enter 4 for no remote-host verification).

**82  Direct printout channel:** The number of the serial port for direct printout to a log printer; the default is 0. If a separate port for the log printer is available, use port 1 or port 3. If you select port 0, you will be asked "Through a Gasboy splitter?"; if you select this option, the port will be split between the logger and a modem or terminal (requires Gasboy splitter hardware). If you don't select the splitter option, you will be asked Through the auxiliary port?; this option logs everything to the auxiliary port of a CRT. If you don't select either option, everything will be logged to port 0. If you select port 4, which equals none, the messages that would normally be logged are visible in the PRINT MONITOR (except transactions) provided that monitor table is not set to 0.

**83  Tokheim channel 1:** The number of the serial port used for Tokheim pump poll addresses 0 through 15 (default is 3, enter 4 for no Tokheim pump polls). If a splitter is used, both 83 and 84 must be set to the same port number; the splitter is then connected to that port, and all addresses are polled on that port.

**84  Tokheim channel 2:** The number of the serial port used for Tokheim pump poll addresses 16 through 31 (default is none, which you get by entering 4 for no Tokheim pump polls on this channel). If a splitter is used, both 83 and 84 must be set to the same port number; the splitter is then connected to that port, and all addresses are polled on that port.

**85  Pumps on first Tokheim channel:** If you have Tokheim pumps and use parameters 83 and 84, 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.

**86  Poll split Tokheim loops fast:** If this option is selected, it will slow CPU throughput, so the default is no.

**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.

**88  Remote CFN port type:** Type of modem connected to the remote CFN port: 0 = direct connect or dumb modem, half duplex; 1 = Hayes; 2 = Hayes handshake; 3 = direct connect or dumb modem, full duplex.

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

**90  Local port is a CRT:** Is the local port connected to a VT-52 compatible CRT terminal? If no is selected, certain commands, such as configuration programs, will assume a teletype-style machine is connected and will send only ASCII data with Carriage Returns (CRs) and Line Feeds (LFs).

**91  Remote port is a CRT:** Is the remote port connected to a VT-52 compatible CRT terminal? If no is selected, certain commands such as configuration programs will assume a teletype-style machine is connected and will send only ASCII data with Carriage Returns (CRs) and Line Feeds (LFs).

**92  Host router data:** Data the router uses to identify the site. The data to be entered depends on the router used. Check the router documentation in the Credit and Debit Card Networks manual.

**93  More router data:** More data used by the router. The data to be entered depends on the router used. Check the network documentation for your specific network.

**94  Host handler baud rate:** The baud rate used by the host handler. The baud rate is ignored for synchronous protocols.

**95  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.

**96  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, check your specific network manual.

# Page 9: Miscellany

**97 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.

**98 Switch timeout:** The number of seconds the pump control unit waits after a pump has been activated for the hose switch to be activated. If the timeout is reached, the transaction is halted. The default value (80 seconds) is usually adequate.

**99 Pulser timeout:** The number of seconds the pump control unit waits for the next pulse after fueling has started. If the timeout is reached, the transaction is halted. The default value (80 seconds) is usually adequate.

**100 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).

**101 STOP pumps on RS-422 break:** This item specifies whether any pumping transactions should stop when a break occurs on an RS-422 loop.

**102 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).

For Gilbarco, recommended setting is 30 sec.

**103 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.

**104 Command search path:** Specifies which directories and drives-and in what order-the Site Controller will search for programs. The suggested default is "d:,.,@:bin" which translates to "ram drive, start up directory, @:bin". @ means "A" on a floppy only system and "C" on a system with a hard drive.

**105 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.

**106 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.

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 ICR) overwrote the current transaction before the print-receipt button was pressed. Default is yes.

**107 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.

**108 Unique shift #'s for every console:** Allows the disk journal to track console shifts separately. Default is no.

**109 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.

**110 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.

**111 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.

**112 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.

**113 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.

**114 Logger initialization:** This is how you send an initialization string to your log printer, if required by the printer you are using.

**115 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

**116 Log gauge delivery:** Should deliveries detected by the tank gauge be recorded on the log printer? The default is yes.

**117 Transaction for gauge delivery:** Should deliveries detected by the tank gauge generate transactions? The default is no.

**118 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.

**119 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.

**120 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.

**121 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.

**122 Log dipstick reading:** Should dipstick readings be added to the log, where they cannot be polled by a remote site? The default is no.

**123 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

**124 Bank PIN D.E.S.:** Should bank card transactions be Data Encryption Standard (D.E.S) encrypted?

**125 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.

**126 Verification timeout:** The time (in seconds) that the Site Controller waits for verification from the host. The default verification timeout of 40 seconds is usually reasonable.

**127 Verification timeout (CFN host) 60:** The time (in seconds) that the Site Controller waits for a verification from the CFN host. The default verification timeout of 60 seconds is usually reasonable.

**128 Cumulative limit time:** The time period that the Site Controller should 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 can not 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 to be no limit. The default is 0.

**129 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.

**130 Save cash transactions:** Should the Site Controller save records for cash transactions in the main transaction file?

**131 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?

**132 Allow supervisor cards:** Accept supervisor cards? The default is no.

**133 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.

**134 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.

**135 Number to add to club price level:** Allows club cards to use a different price level than the level encoded on the cards.

**136 Transaction file full warning percentage:** Determines how full the main transaction file may become before a warning message is logged. Enter as percentage full.

**137 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. The default is none.

**138 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?

**139 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.

**140 Send transactions to CFN host:** The transaction types that 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.

# 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.

**141 System volume units:** Units the system uses for fuel volume.
    G = gallons; L = liters. Default is gallons.

**142 Minutes until receipt expires (20 - 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.

**143 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. Skipped if the customer is not enrolled in the MPG package or the vehicle record is NEW or BAD.

**144 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?

**145 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.

**146 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 ICR's receipt printer (discussed in the "ICR Configuration" on page 65 chapter).

**147 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.

**148 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).

**149 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.

**150 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.

**151 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.

**152 TRFMT field letter used to print data on receipt:** If there is a specific area of the Club card that is desired to be unmasked on the receipt, the alpha letter representing the TRFMT field used for that part of the card data is to be placed in this location. For more information on using TRFMT for unmasking card account information, refer to page 55. The default is a space with no letter. To print the last four digits of the account number (default) enter a space and press **Enter**.

# Page 13: Miles-Per-Gallon Package

**153** **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 ICR or console. Must be set to YES for vehicle number to print on the receipt.

**154** **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 ICR or console.

**155** **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.

**156** **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.

**157** **Maximum miles between fuelings:** Specify the maximum miles between fuelings the Site Controller will consider acceptable.

**158** **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.

**159** **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.

**160** **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.

**161** **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.

**162** **Use aux info field for vehicle number:** The card types that should use the auxiliary information entered at the ICR 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.

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# 3 – Pump Configuration

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):

- **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 to be 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 Modular Highline

    **5**   Gilbarco Modular 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 1-hose Blender

    **15**  Tokheim 1-hose Blender with cash/credit select button

    **16**  Tokheim Premier

    **17**  Tokheim Premier with cash/credit select button

    **18**  Tokheim Premier 1-hose Blender

    **19**  Tokheim Premier 1-hose Blender with cash/credit select button

    **20**  Tokheim Premier Blender

    **21**  Tokheim Premier Blender with cash/credit select button

    **22**  Tokheim Premier 1-hose

**23** Tokheim Premier 1-hose 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

- **Cluster a Pump is Assigned To:** Determines the pump that ICRs can access. ICRs 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 installed in the Site Controller. Please 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   $10     0      1000/$
```

# Assigning 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.

  **5** 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.

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. Electronic PCU              1:5     2:6
 3. Mechanical PCU              1:7     2:8     3:9     4:10
 4. Tokheim PCU                 1:11
 5. Tokheim PCU                 1:12
 6. Tokheim PCU                 1:13
 7. Tokheim PCU                 1:14
 8. Tokheim PCU                 1:15
 9. Tokheim PCU                 1:16
10. Special PCU                 1:17
11. Special PCU                 1:18
```

# Adding 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 cannot do switch detect or pulser timeouts (timeouts 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 model.

  **17** Requires START button (not required for Tokheim).

**18** Beeps when offhook without payment type selected.

**19** Grade-select buttons exist.

**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. Previously these pumps required using 5 hoses, setting the price code for hoses 2 & 4 to 99. With this option, only define 3 hoses and the Wayne driver maps them to the appropriate pump positions automatically.

The pre-defined pump types are shown in Figure 3-3.

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

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

If you add any of the six pumps in Figure 3-4 on page 43, 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      (2) 6, 9
```

# Chain Pumps - Fleet Package Only

Chain activation is supported for locally approved cards, ACTIVATE PUMP commands, and FULL SERVE transactions that do not complete at the console.

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. The completed transaction for a slave pump will have most fields the same as the master transaction. The initiating device will be listed as CHAIN (type 9 which is the same as what used to be remote site) with the drop being the pump number of the master pump.

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

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# 4 – Table Sizes

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

Tables are areas of RAM memory reserved for storing particular types of data. The Table program allocates the available memory among the 27 tables, each of which is used by particular devices and functions, such as sign on, taxes, mpg, pumps, and so on.

When this manual was written, 161,159 bytes, a figure that does not include the bytes taken up by those tables that require a minimum number of entries, of the total Site Controller memory were available for tables. However, this figure may have changed in the meantime; check with your Gasboy representative.

How much memory you can allocate to a particular table depends on how much memory the other tables are taking up and, in some cases, on the maximum number of a particular type of device (such as an ICR 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

Six tables - ICR, gate controller, tank monitor system (gauge), console, Fuel Point reader, and tank-have an extra entry in the menu. The number on the left is the 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 ICR, gate controller, gauge, console, 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 Tables

Following are 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 step 2) 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 offloaded for processing. There should be enough transaction entries to save the transaction information until it can be offloaded, 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 ICRs 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 ICRs, 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 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.

**12 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.

**13 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.

**14 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.

**15 Broadcast Message Table**: The broadcast message table holds the broadcast messages that appear on the ICR 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.

**16 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 don't 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.

**17  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 30.

**18  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 vehicle entry takes 22 bytes.

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

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

**20  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.

**21  Cron Table**: Stores cron entries entered by LOAD CRON.
*Note: A cron is a command for scheduling jobs to be executed sometime in the future. A cron is normally used to schedule a job that is executed periodically - for example, to send out a notice every morning. It is also a daemon process, meaning that it runs continuously, waiting for specific events to occur.*

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

**22  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, ICRs, 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.

**23  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.

**24  Buffer Table**: This table allocates space for the system buffers. These buffers are used for inter-process communication and other purposes. The number of buffers required depends on how the system is used. Each pump requires two buffers, so if there are more than 16 pumps in the system, you may need more than the default number of buffers.

If the system gives the error message malloc: out of buffers you need to add more buffers (malloc stands for memory allocation).

Each buffer entry takes 256 bytes. The minimum number of entries is 128, and the maximum number of entries is 300.

**25  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.

**26  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.

**27  Router Table**: Used only by card-authorization networks. Entry size and maximum number of entries varies by router. Check the specific network documentation for the setting it requires.

# Table Summary

### Table Name-to-Entries Reference

The table below gives the number of bytes required for each type of table entry and the minimum and maximum number of entries for each table.

| Table Name | Bytes per Entry | Minimum Number of Entries | Maximum Number of Entries | Recommended Number of Entries |
|---|---|---|---|---|
| Transaction | 82 | 10 | * | N/A |
| Cash | 82 | 0 | 100 | 20 |
| Lockout | 12 | 1 or 2 | * | N/A |
| Product | 266 | 1 | 99 | 40 or more |
| Pump (# of hoses) | 78 | 33 | 160 | # of hoses |
| Reader | 56 | 0 | 32 | N/A |
| Gate | 34 | 0 | 8 | N/A |
| Gauge | 20 | 0 | 16 | N/A |
| Console | 536 | 0 | 4 | N/A |
| Fuel Point | 108 | 0 | 4 | N/A |
| Tank | 86 | 0 | 16 | N/A |
| Price | 10 | 0 | * | 20 |
| Limitation | 10 | 0 | * | N/A |
| Authorization | 6 | 0 | * | N/A |
| Broadcast | 38 | 0 | 30 | N/A |
| Receipt | 34 | 10 | 500 | 50 |
| Receipt-head | 46 | 0 | 30 | 10 |
| Vehicle | 22 | 0 | * | N/A |
| Allocation | 10 | 0 | * | N/A |
| Sign on | 190 | 0 | 100 | 5 |
| Cron | 54 | 0 | 100 | 10 |
| Diagnostic | 38 | 20 | 200 | 40 |
| Monitor | 84 | 0 | * | 100 |
| Buffer | 256 | 128† | 300 | 128 or more |
| Journal | 54 | 0‡ | 1,000 | 110 |
| Tax | 6 | 9 | 200 | 20 |
| Router | 1 | 0 | * | ** |

* An asterisk (*) in the table indicates you can designate as many entries as the available memory will hold. Remember that you cannot max out all the tables. When this document was written, there were only 161,159 bytes available to be divided among all the tables after the minimum number of entries were taken into consideration.
† Buffers should be set to 128, plus: 3 for every pump over 16; 4 for every console over one; and 1 for every reader (DPT or CRIND) over two.
‡ If used, the minimum number of entries is 108.
** If you have a bank router, see the recommendation in your specific Network manual.

## Bytes-of-Memory-Estimation Worksheet

Use the table below (continues on next page) as a worksheet to estimate how much memory you may use for the tables. The six table names listed in the following table are those from "Table Name-to-Entries Reference" on page 52 that offer the greatest range of possible memory use. Once you know how much memory should be allotted to these six, you can divide whatever remains of the 161,159 bytes among the other tables.

| Allocation | | MPG (Vehicle) | | Product | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Entries** | **Bytes** | **Entries** | **Bytes** | **Entries** | **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 | | | | | | | | |
| | _____ | + | _____ | + | _____ | | = | | _____ |
| **Transaction** | | **Limited Lockout** | | **Bit-mapped Lockout** | | | | | |
| **Entries** | **Bytes** | **Entries** | **Bytes** | **Entries** | **Bytes** | | | | |
| 100 | 8200 | 500 | 6012 | 1000 | 137 | | | | |
| 200 | 16,400 | 1000 | 12,012 | 5000 | 637 | | | | |
| 300 | 24,600 | 1500 | 18,012 | 10,000 | 1262 | | | | |
| 400 | 32,800 | 2000 | 24,012 | 15,000 | 1887 | | | | |
| 500 | 41,000 | 2500 | 30,012 | 20,000 | 2512 | | | | |
| 600 | 49,200 | 3000 | 36,012 | 30,000 | 3762 | | | | |
| 700 | 57,400 | 3500 | 42,012 | 40,000 | 5012 | | | | |
| 800 | 65,600 | 4000 | 48,012 | 50,000 | 6262 | | | | |
| 900 | 73,800 | 4500 | 54,012 | 60,000 | 7512 | | | | |
| 1000 | 82,000 | 5000 | 60,012 | 70,000 | 8762 | | | | |
| 1100 | 90,200 | 5500 | 66,012 | 80,000 | 10,012 | | | | |
| 1200 | 98,400 | 6000 | 72,012 | 90,000 | 11,262 | | | | |
| 1300 | 106,600 | 6500 | 78,012 | 100,000 | 12,512 | | | | |
| 1400 | 114,800 | 7000 | 84,012 | 110,000 | 13,762 | | | | |
| 1500 | 123,000 | 7500 | 90,012 | 120,000 | 15,012 | | | | |
| 1600 | 131,200 | 8000 | 96,012 | 130,000 | 16,262 | | | | |
| 1700 | 139,400 | 8500 | 102,012 | 140,000 | 17,512 | | | | |

| Transaction | | Limited Lockout | | Bit-mapped Lockout | | | | |
|---|---|---|---|---|---|---|---|---|
| **Entries** | **Bytes** | **Entries** | **Bytes** | **Entries** | **Bytes** | | | |
| 1800 | 147,600 | 9000 | 108,012 | 150,000 | 18,762 | | | |
| 1900 | 155,800 | 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, to see a list of all 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 the number of digits (for example, 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.

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 being set up.

> *Note: The alpha letters represent each field in TRFMT, which is at the top of the TRFMT page.The letter specifying the card subfield to print on the receipt is to be entered in sys_par page 13, field 152 - "TRFMT field letter used to print data on receipt". If you want to replace the letter from sys_par field 152, enter a new letter, or enter a 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. Possible error messages are listed and explained in the error message section of the Site Controller II Pocket Reference.

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, preauthorized | 5 - fuel, preauthorized, from console |
| 2 - merchandise | 6 - merchandise, from console or merchandise and fuel |
| 3 - merchandise, preauthorized | 7 - merchandise, preauthorized, 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 ICR or console keypad. Tenths of a mile are not shown.

18  **Odometer with tenths:** A seven-digit field from the odometer entry on the ICR or console keypad. Tenths of a mile are shown.

19  **Reader auxiliary info:** A number, such as the vehicle number, entered from the ICR 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 in the specific router manual. 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 in the specific router manual. 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 in the specific router manual. 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, ICR 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 in the specific router manual. 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.

# 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 |

*This page is intentionally left blank.*

# 6 – Command Permission Levels

Permission levels are from 0 to 10. Site Controller II 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 following commands are always level 0.
- CALL
- CLOSE
- DISABLE DUMP
- DISABLE RAW
- ECHO
- ENABLE DUMP
- ENABLE RAW
- EXIT
- HELP
- LOG MESSAGE
- PAUSE
- PORT
- PRINT RECEIPT
- SET_VAR

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

The permission for the site manager key is set in the SYS_PAR menu.

Note that the permission level you set for the TYPE command, also sets the permission level for all .CMD commands.

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

| PERM Command Option Number | Default Permission Level | | Site Controller II Command |
|:---:|:---:|:---:|---|
| | **Base Command** | **I or A Option** | |
| 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 |

| PERM Command Option Number | Default Permission Level | | Site Controller II Command |
|---|---|---|---|
| | **Base Command** | **I or A Option** | |
| 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 |
| 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 |
| 46. | 9 | 9 | load tank |
| 47. | 9 | 9 | load tax |
| 48. | 10 | | load transaction |
| 49. | 9 | 10 | load vehicle |
| 50. | 9 | 10 | lock card |
| 51. | 4 | 4 | log file |
| 52. | 4 | | print allocation |

| PERM Command Option Number | Default Permission Level | | Site Controller II Command |
|---|---|---|---|
| | **Base Command** | **I or A Option** | |
| 53. | 2 | | print authorization |
| 54. | 4 | | print cron |
| 55. | 2 | | print date |
| 56. | 2 | 2 | print diagnostics |
| 57. | 8 | | print drawer |
| 58. | 2 | | print heading |
| 59. | 8 | 8 | print history |
| 60. | 2 | | print limitation |
| 61. | 4 | | print lockout |
| 62. | 2 | | print message |
| 63. | 2 | 2 | print monitor |
| 64. | 8 | | print phone |
| 65. | 2 | | print price |
| 66. | 2 | 4 | print product |
| 67. | 2 | | print pump |
| 68. | 4 | 4 | print sales |
| 69. | 8 | | print signon |
| 71. | 4 | 4 | print summary |
| 72. | 2 | 4 | print tank |
| 73. | 4 | 4 | print quantity |
| 74. | 2 | 2 | print tip |
| 75. | 4 | 4 | get transaction |
| 76. | 2 | | print vehicle |
| 77. | 8 | 9 | reboot |
| 78. | 9 | 10 | remove allocation |
| 79. | 9 | | remove authorization |
| 80. | 9 | 9 | remove cron |
| 81. | 8 | | remove heading |
| 82. | 8 | | remove message |
| 83. | 9 | | remove limitation |
| 84. | 9 | | remove price |
| 85. | 9 | 9 | remove product |
| 86. | 10 | | remove signon |
| 88. | 9 | | remove vehicle |
| 89. | 8 | 8 | reset diagnostics |
| 90. | 10 | | reset pump |
| 91. | 4 | 9 | reset totals |
| 92. | 9 | 9 | purge site |
| 93. | 4 | 8 | run |
| 94. | 4 | 8 | stop |
| 95. | 9 | | subtract allocation |
| 96. | 4 | | subtract drawer |

| PERM Command Option Number | Default Permission Level | | Site Controller II Command |
| --- | --- | --- | --- |
| | **Base Command** | **I or A Option** | |
| 97. | 8 | | subtract inventory |
| 98. | 8 | | subtract tank |
| 99. | 4 | | test PCU |
| 100. | 9 | 10 | unlock card |
| 101. | 9 | | load card |
| 102. | 4 | | print card |
| 103. | 8 | | activate gate |
| 104. | 4 | 4 | enable TMS |
| 105. | 4 | | disable TMS |
| 106. | 4 | 8 | next shift |
| 107. | 4 | 8 | next day |
| 108. | 4 | | print console |
| 109. | 8 | 8 | send command |
| 110. | 8 | 8 | send file |
| 111. | 4 | | next clerk |
| 112. | 4 | 4 | enable FPR |
| 113. | 4 | | disable FPR |

# 7 – ICR Configuration

The 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.

## 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 20 possible step types in the ICR program; you do not need to include all 20, and most do not need to be entered in order. The exception is #2, Select Pump. Select pump must come before #9, Activate Pump.

| | |
|---|---|
| 1 = Insert card | 11 = Remove card |
| 2 = Select pump | 12 = Display text |
| 3 = Enter PIN | 13 = Display pump selected |
| 4 = Enter amount | 14 = Display amount authorized |
| 5 = Enter account | 15 = Display product name |
| 6 = Enter auxiliary number | 16 = Display product price |
| 7 = Enter odometer | 17 = Display allocation balance |
| 8 = Verify card | 18 = Display pump ready |
| 9 = Activate pump | 19 = Display product and price |
| 10 = Print receipt | 20 = Display customer name (card holder) if known or read off track 1 |

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 20 steps listed above, the numbers 1-20 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.
- 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 (13-19) 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 15) 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 12 through 20 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 13) 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.

If the sequence @C is included on a line, the text for the line is centered on the display for any line that currently is not centered.

# ICR Steps

**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 default message is SELECT PUMP NUMBER.

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 ICRs 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.

**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.

The default message is ENTER YOUR PIN.

**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   **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.

9   **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.

10  **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.

11  **Remove card:** The remove card step should be used with systems that have insert or optical ICRs. The default message is REMOVE CARD.

12  **Display text:** Use a display text step to display a message that does not go with any other type of step.

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

13  **Display pump selected:** The pump selected message inserts the number of the pump that has 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.

14  **Display amount authorized:** The amount authorized message inserts the dollar amount that has 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.

15  **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.

**16 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.

**17 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.

**18 Display pump ready:** The pump ready message should come after the step that activates a pump. It inserts the number of the pump that has 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.

**19 Display product and price:** This step is optional because, as explained in the "System Parameters (SYS_PAR)" on page 101, "Page 4: Reader Verification and Miscellany" on page 13 - 43 "Show product price on reader display" parameter on page 14, 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 (SYS_PAR)" on page 101, "Page 4: Reader Verification and Miscellany" on page 13; 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.

**20 Display customer name:** This will display the customer name if known or if read off track 1. On the screen you will see the characters "[ * @N *]". The name will replace the characters on the actual display. You may have more than one of this step and it is not required to have @N in the text.

# 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, 10 and 12, 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 12.

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  **Cluster Number:** Pumps and ICRs are assigned to clusters. An 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 more than one set of chain pumps must be set to cluster 0.

2  **Representative Pump Number:** This is normally used to designate the pump number of the dispenser reader, if a Tokheim DPT or a Gilbarco CRIND 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 request.

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

**3** **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.

**4** **Device type:** Designate the type of ICR you are configuring from these choices:

| 1 | Gasboy ICR |
|---|---|
| 2 | Epson stand-alone |
| 3 | Star RS-422 stand-alone |
| 4 | Star RS-232/Parallel stand-alone |
| 5 | Gasboy PAC reader |
| 6 | Tokheim DPT |
| 7 | Gilbarco CRIND device |
| 8 | Wayne CAT |

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

**5** **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 – Gate Configuration

Use the disk-based configuration program GATE to see the configuration submenus for gates and gate controllers. 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.

## Configuring 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, even if there are fewer than eight gates in the system. You can ignore any gates that are not configured in your system.

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

**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 timeout. The gate stays open until the timeout (specified in the next item) is reached.
   - Open gate until low-to-high voltage input or timeout. The gate stays open until a low-to-high input is received or until the timeout is reached. Enter the gate type. To use the current gate type, just press **ENTER**.
   - Open gate until high-to-low voltage input or timeout. The gate stays open until a high-to-low input is received or until the timeout is reached.

**4** The program will then prompt for the timeout and show the current timeout 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 timeout is reached, whichever is shorter. To use the current timeout, press **ENTER**.

# Configuring 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, even if there are fewer than eight in the system. You can ignore any gate controllers that are not configured in your system.

 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, just 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, just 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.

# 9 – Console Configuration

This chapter deals with the configuration of a Check Point console. If your site has a Profit Point console, please see the Profit Point manuals. Some of the Check Point parameters affect the Profit Point, refer to parameters 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.

## Assigning 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.

### 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.*

Figure 9-1 shows the numbers of the Check Point keys on a 71-key keyboard.

**Figure 9-1: Check Point Keys - 71-key Keyboard**
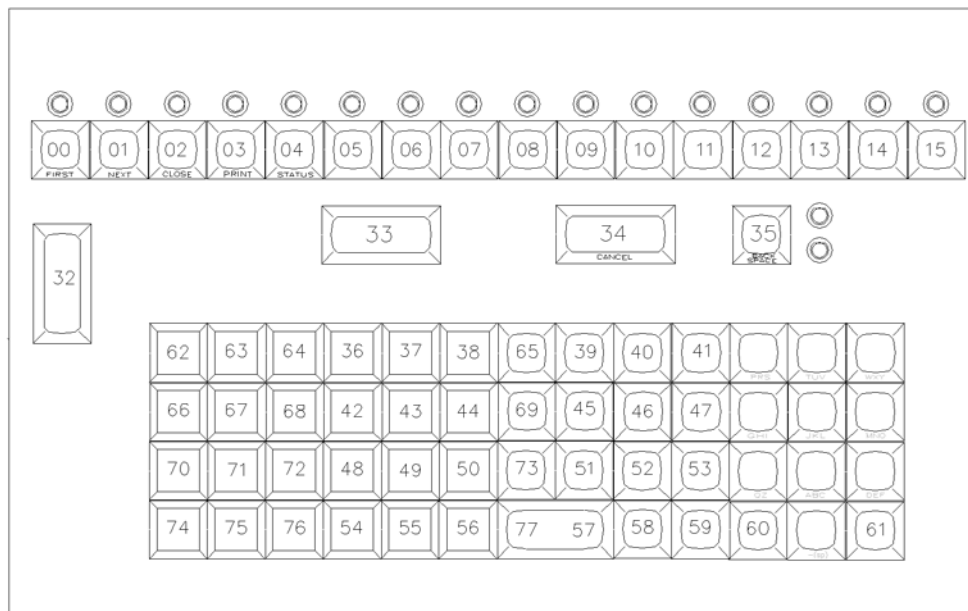


Figure 9-2 on page 77 shows the default action assignments of the 71 keys when the keyswitch is set to ON. The only difference in the default assignment for other keyswitch settings is that, when the keyswitch is set to MANAGER, key 61 starts the Check Point self test and keys 00 through 15 execute the Site Controller command files CON01.CMD through CON16.CMD.

**Figure 9-2: Default Action Assignments for Check Point Keys - 71-key Keyboard**
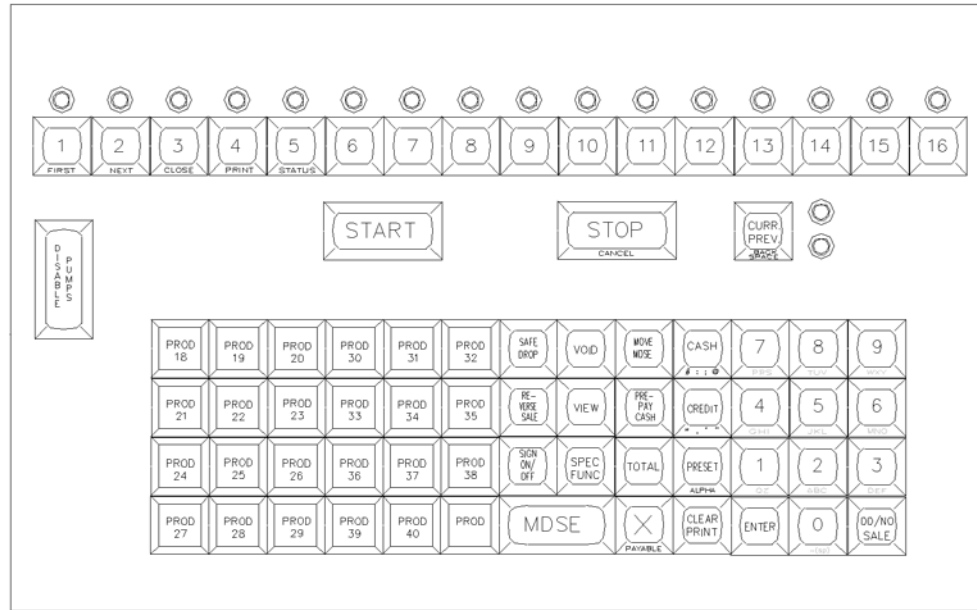


Figure 9-3 shows the numbers of the Check Point keys on a 36- and 56-key keyboard.

**Figure 9-3: Check Point Keys - 36- and 56-key Keyboard**
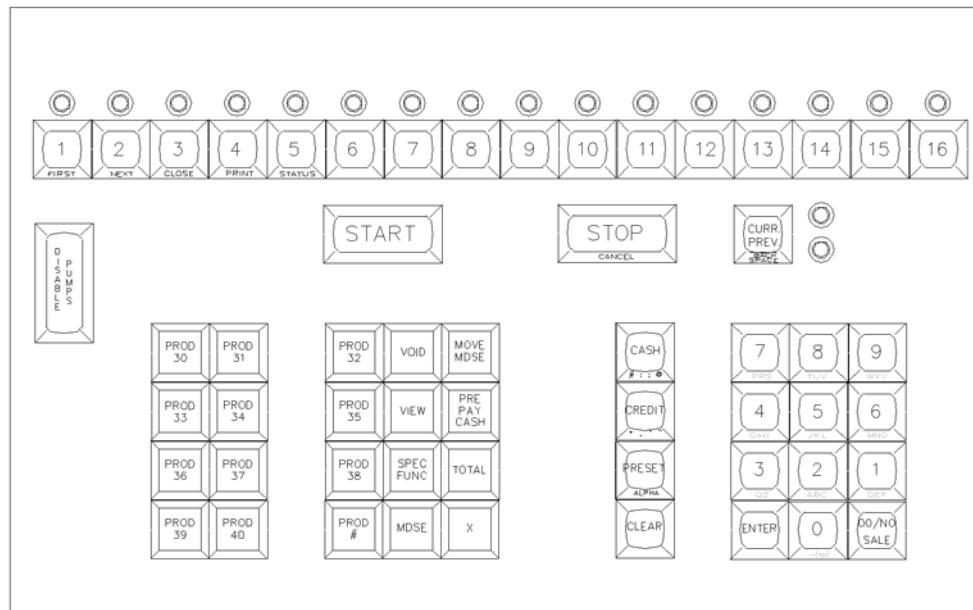
The keyboard layout below shows the default action assignments of the 36 or 56 keys when the keyswitch is set to ON. The only difference in the default assignment for other keyswitch settings is that, when the keyswitch is set to MANAGER, key 61 starts the Check Point self test and keys 00 through 15 execute the Site Controller command files CON01.CMD through CON16.CMD.

**Figure 9-4: Default Action Assignments for Check Point Keys - 36- and 56-key Keyboard**
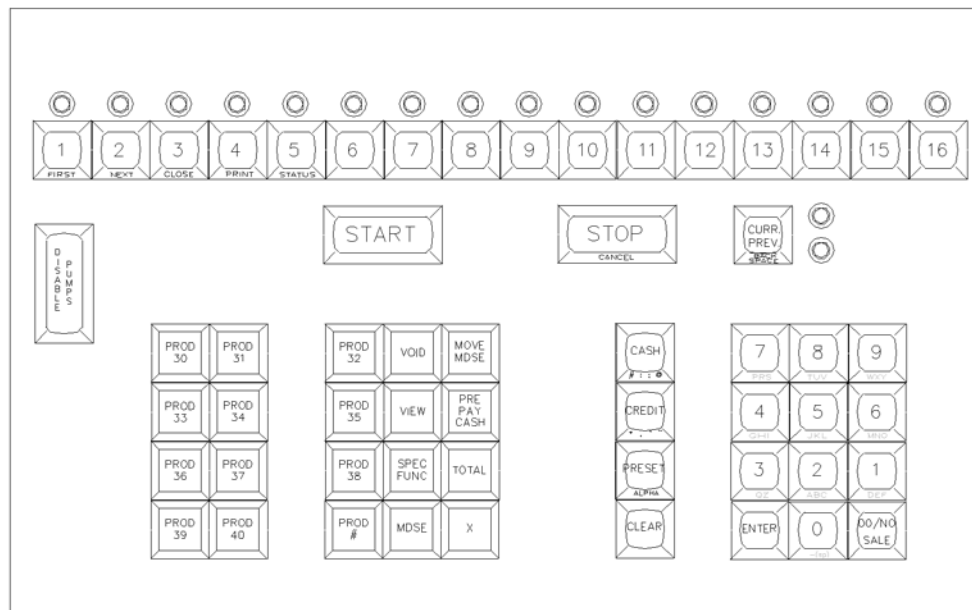


# Assigning Products

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, make sure 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.

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

| | |
|---|---|
| 00 pump | Select a sale on a pump. Specify the pump number. |
| 01 merch | Select the merchandise sale. |
| 02 Emrg stop | Stop all 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 ring up products in a sale. In the description below of these eight actions:
- <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.

| | |
|---|---|
| 30 #px gn pr | Product number prefix, generic product.<br>product number <key> (price ENTER) (quantity)<br>or<br><key> product number ENTER (price ENTER) (quantity) |
| 31 qpx prd | Quantity prefix, product.<br>(quantity) <key> (price ENTER)<br>or<br><key> (price ENTER) (quantity) |
| 32 qpx prds | Quantity prefix, scrolling products. Repeat <key> until desired product is shown on display.<br>(quantity) <key> (<key> ... <key>) (price ENTER)<br>or<br><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.<br>(quantity) <key> (price ENTER)<br>or<br><key> (price ENTER) (quantity) |
| 34 ppx gn pr | Price prefix, generic product.<br>price <key> product #  ENTER (quantity)<br>or<br><key> product #  ENTER (price ENTER) (quantity) |
| 35 ppx prd | Price prefix, product.<br>price <key> (quantity)<br>or<br><key> (price ENTER) (quantity) |
| 36 ppx prds | Price prefix, scrolling products.<br>price <key>  (<key> ... <key>)  (quantity)<br>or<br><key>  (<key> ... <key>)  (price ENTER) (quantity) |
| 37 ppx mprds | Price prefix, multiple products.<br>Another different-consoles-ring-different products action.<br>price <key> (quantity)<br>or<br><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) |
| 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) |
| 74con10 | 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 | (Not used). |

# Changing 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.

| Action | Perm | Description | Action | Perm | Description |
|--------|------|-------------|--------|------|-------------|
| 00 | 0 | pump | 48 | 8 | 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 |

| Action | Perm | Description | Action | Perm | Description |
|--------|------|-------------|--------|------|-------------|
| 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) |
| 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.

# Changing POS Parameters

Use submenu 3 of the console configuration program to change parameters for the Check Points or Profit Points at a site. The following is a list of parameters that can be changed. An 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  **Console printers:** Which receipt printers are used by which Check Points or Profit Points at the site. You can specify a receipt printer for POSs 1 through 4. Usually POS 1 has receipt printer 1, POS 2 has receipt printer 2, and so on. If a POS doesn't 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 (see Figure 9-5 for example of usage). The number entered in the parameter for a given console is the lowest pump number displayed on that console.

**Figure 9-5: Example of "POS starting pumps" Parameter Usage**

```
                              Console Number    Pump Number(s) Displayed at Console
                                    1           All pumps
                                    2           4 and higher
                                    3           8 and higher
                                    4           All pumps

POS starting pumps: 1 4 8 1
```

**7**   \***Number of pumps on POSs:** How many pumps are assigned to Check Points 1 through 4, left to right (see Figure 9-6 for example of usage). Up to 16 pumps can be assigned to a Check Point.

**Figure 9-6: Example of "Number of pumps on POSs" Parameter Usage**
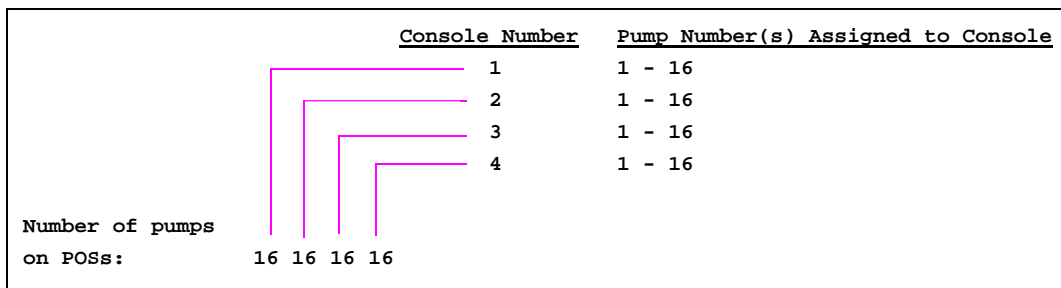


**8**   **Allow POSs to exceed safe-drop limit:** Should POSs at the site be allowed to exceed the safe-drop limit? That is, should they be allowed to start new transactions if there is more cash in the cash drawer than specified in parameter 3.

**9**   **Allow hand authorization of cards:** Should the site allow transactions to be authorized by hand, without a card being read by the POS's card reader or manually entered (see 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 POS 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 POSs are entered with the Site Controller command ADD SIGNON.

If the POSs are to come up with no user signed on, specify -1. This means that a user must sign on to use the POS 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 POS user be allowed to enter the customer's card number on the POS.

**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, all transactions must be paid at the POS. If you select No, all transactions can be either completed at the pump or the POS. If you select Maybe, the cash transactions are completed at the pump and the credit must be completed at the POS.

18  **POS ignores club card PIN restriction:** If your console does not have a PIN pad, setting this parameter to YES allows the console 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 console.

**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?

**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 or 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 console keyboard, or will the customer enter it on a PIN pad?

**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:** 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 miskeys creating a sale.

A message will be displayed on all consoles if a fuel sale has remained payable too long. For merchandise only sales, the console that belongs to the sale will be notified. The message identifies which sale needs to be paid off. If more than one sale has timed out, the sales will be displayed with 15 seconds between each notification. If more than four sales have 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.

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.

# Submenus 4 and 5

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

# 10 – 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 configuration file OFFROAD.DTA. You will need to edit the file OFFROAD.DTA to set up the tax parameters.

Use the screen editor FRED to set up the parameters. For more information on how to use FRED, refer to MDE-4311 Site Controller II Manager's Manual, version 2.3.

# Setting Up the Parameters

Figure 10-1 is a sample OFFROAD.DTA file.

**Figure 10-1: Sample OFFROAD.DTA File**

```
16      Offroad discount product or #,# for separate state & federal
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
```

Enter the command **FRED OFFROAD.DTA**. This will invoke the screen editor. To enter the insert or edit mode, type ^N, (Control key + N). Use the arrow keys to move up or down. Use ^D to delete the character at the cursor.

1  **Offroad discount product or #,# for separate state & federal:** Enter the product number(s) offroad discounts are assigned to.

2  **Cents/gallon State road tax:** Enter the current amount, in cents, of the state road tax per gallon.

3  **Cents/gallon Federal road tax:** Enter the current amount, in cents, of the federal road tax per gallon.

4  **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.

5  **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.

6  **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.

**7** **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.

**8** Enter the name, address and other information at the bottom of the receipt using the screen editor. This remaining data will be printed at the beginning of the offroad fuel receipt that is printed when the program is run. The maximum number of lines depends on the size of the receipt text table (configured with the TABLE.BIN program). The total number of lines plus the main body of the receipt (about 16 lines) cannot exceed the size of the receipt text table.

# Example Receipt

An offroad fuel receipt will be printed on the console receipt printer (the printer assigned to the console running the offroad program) each time OFFROAD.BIN is executed. It can be retained by the station for tax reconciliation purposes.

**Figure 10-2: Example of Offroad Fuel Receipt**

```
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
------------------------
Date 5/8/98 Time 11:38
Diesel         5.455 gal
------------------------
Diesel          $  5.83
Less:
   State Rd@.220   1.20
   Federal @.201   1.09
                ------
Subotal           3.54
Plus:
   Sales Tax @8.2  0.29
   Federal @.201   1.09
                ------
Total           $  4.92
Rec'd
By_____
```

# Using OFFROAD.BIN

To use the OFFROAD.BIN program, a key on the console is configured to execute the program. When the sale becomes payable, the console operator presses the pump select key. The operator may ring up any nonfuel merchandise anytime before or after running the program. The operator may select CASH or CREDIT before executing OFFROAD. With the sale displayed on the console, the operator presses the OFFROAD key. The console displays a verification prompt: Offroad? (1- Y, 0=N):, if state sales tax applies and the parameter to allow the operator to choose is selected. The operator enters 1 or 0 and presses **ENTER**. If CASH or CREDIT was not selected before OFFROAD was executed, the console prompts 1-Cash, 2=Credit:. The console operator enters 1 or 2 and presses **ENTER**. The program then calculates the discount and adds a refund item to the sale for that amount and prints the offroad fuel receipt. The console then prompts Copy? (1=Y,)=N):. The operator enters 1 or 0 and presses **ENTER**. The dollar total on the offroad fuel receipt is for fuel only and will not include any nonfuel merchandise.

It is possible to pay off the sale using a different tender type than what was selected in the OFFROAD program. If the tender type is different or the price level on the card is different than the one selected, the dollar total for fuel will not match the dollar total on the offroad receipt. In this case, the offroad discount may be incorrect since OFFROAD uses the dollar total to calculate the state sales tax. Completed sale shows the offroad refund item printed in the same format and other nonfuel on the log and transaction receipt. The state sales tax, if applicable, will not be listed separately since it was used to calculate the refund item amount.

# 11 – 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 "no transaction" log message will be generated.

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 11-1: 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 ICR 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:** Which of the two meters-the one that tracks miles-per-gallon or the one that tracks hours-per-gallon-should be used for per- gallon calculations. 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 section, Fields, 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 section, Fields, 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 section, Fields, 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 alpha numeric 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. **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 | |
| 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 |

| Field Number | Field Name | Length (v = variable) | Notes |
|---|---|---|---|
| 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 |
| 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 |
| 95 | Tender Type | v | length set by customer |
| 99 | Agency | v | length set by customer |
| 101 | District | v | length set by customer |
| 102 | Reefer | v | length set by customer |
| 103 | Truck | v | length set by customer |
| 104 | Trailer | v | length set by customer |
| 222 | Track-II | v | length set by customer |

# Individual Parameters

Use the individual parameters submenu to change, which ICR 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 11-2: 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 ICR 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.*

# 12 – 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 12-1 lists the available selections.

**Figure 12-1: 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 **Enter**. 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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# 13 – FleetKey Configuration

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

## Configuring the Site Controller

### System Parameters (SYS_PAR)

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

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 FleetKey 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 C08380 Gasboy KE200 Key Encoder/Maintenance Terminal Operation Manual 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 C08380 Gasboy KE200 Key Encoder/Maintenance Terminal Operation Manual 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 FleetKey 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 System Parameters, Page 13: Miles Per Gallon), 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

# ICR (READER)

The 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 FleetKey option. The message can be changed to read: Remove Key or Remove Card/Key.

An example is shown in Figure 13-1.

**Figure 13-1: 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 FleetKey option requires a 4 digit PIN key to be loaded at the Site Controller. Use the command LOad KEY to enter this PIN. The LOad KEY command requires 18 digits to be entered at the prompt. FleetKey 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 13-2 as a guide.

**Figure 13-2: Example of LOad Key Display**

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

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# Index

# GASBOY

## GASBOY WARRANTY POLICY STATEMENT

## (Limited Warranty)
## New Product WARRANTY for USA and CANADA

### GASBOY GUARANTEES NEW SERVICE STATION EQUIPMENT MANUFACTURED BY GASBOY IN ACCORDANCE WITH THE PROVISIONS STATED BELOW:

Gasboy will repair or replace parts and equipment found to be defective in materials or workmanship during the warranty period, subject to the following:

- Labor and travel costs incurred by the Authorized Service Contractor (ASC) while servicing Gasboy equipment are included, <u>unless excepted</u>, and will be paid at previously contracted rates to the qualified ASC.
- Warranty services must be performed by the nearest Authorized Service Contractor qualified to perform service on the defective equipment.
- Gasboy will supply new or rebuilt parts to replace parts which are found to be defective within the warranty period. Parts returned to Gasboy must be shipped with transportation charges paid and will be replaced with parts with transportation charges prepaid by Gasboy.
- New Equipment installations must be registered with the Gasboy Call Center within 24 hours of installation to receive full warranty benefits; otherwise, the warranty period commences at the date of invoice.
- Warranty service response time is 24 hours from time service is requested, Monday through Friday (8:00 am until 5:00 pm), excluding weekends. Emergency warranty response time is on-site within 4 hours. Hazardous warranty response time is on-site within one hour. Priority situations, emergency and hazardous, include imminent release of hazardous of dangerous materials, situations with imminent danger to life or property, and a complete site-down situation or 50 percent or more of the fuel dispensing capacity for any one product is inoperative. Overtime will be paid for priority situations only occurring outside routine warranty service hours.
- Warranty repair requiring rented equipment, overtime premium, lodging or charter travel must be approved in advance of service expenditure by the Gasboy Warranty Administration Department.

### Commercial Pumps and Dispensers, Full -Cabinet Consumer Pumps

Commercial Pumps and Dispensers, Full-Cabinet Consumer Pumps are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. Warranty coverage includes parts and labor.

**Exclusions**: This warranty excludes hose breakaways, nozzles, hoses and fittings, nozzle-end swivels, retriever cables, graphics materials specified by the customer, fuel filters, belt adjustments, meter calibration, fluorescent lamps, vapor recovery testing and balance system piping, customer-specified items manufactured by others, and customer requested reprogramming of equipment. Some of these excluded items may be warranted by their manufacturer, and warranty claims in connection with these items should be presented directly to the manufacturer.

### Small Transfer Pumps, Meters, Pressure Regulators

Small Transfer Pumps, Meters and Pressure Regulators are warranted against defects in material and workmanship for 24 months from date of installation or 30 months from date of original invoice, whichever occurs first. Non-registered equipment warranty will default to invoice date. The warranty covers parts only. Excepting the Model 2020 Hand Pump, which has a 90-day part warranty from date of original invoice.

### New Spare Parts

All new spare parts or warranted replacement parts are warranted against defects in material and workmanship for one year from date of original invoice. The warranty covers parts only.

### Keytrol

The Keytrol is warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. Warranty coverage includes parts and labor

### Fuel Management Systems

CFN/Profit Point, Series 1000/FleetKey, TopKat, and factory installed Fuel Point Reader are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. Warranty coverage includes parts and labor.

Standalone and Retrofit Fuel Point Readers, and Fuel Point-vehicle and dispenser components are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first. The warranty covers parts only.

The warranty for field installed/retrofitted Fuel Point Readers is non-transferable. The removal and installation of such components into another pump/dispenser will void the warranty.

### Fuel Management System Peripherals

Peripherals (Modems, CRT's, Flat Screen, Scanner, PIN Pad, Customer Display) are warranted against defects in material and workmanship for one year from date of installation or 24 months from date of original invoice, whichever occurs first The warranty covers parts and labor.

Printers (Logger, Receipt, and so on.) are warranted against defects in material and workmanship for 90 days from date of installation or 180 days from date of original invoice. The warranty coverage is parts and labor.

Peripherals (Encoders and Embossers) are warranted against defects in material and workmanship for six months from date of original invoice. The warranty covers parts only.

### General Exclusions

1. Problems caused by faulty installation are not covered by this warranty. This warranty applies only if equipment has been installed and used in accordance with Gasboy Installation, Operating and Service Instructions. Problems caused by improper maintenance of equipment are not covered by this warranty.
2. Use of service personnel other than qualified Gasboy service providers without prior approval of the Warranty Administration Department will void payment of the warranty claim in question.
3. Damage suffered by Gasboy's equipment resulting from shipping, accident, power surges, neglect, misuse, act of Nature, or abuse is not covered by this warranty.
4. Use of non-Gasboy replacement parts, defects caused by the unauthorized addition of non-Gasboy items to Gasboy equipment or by the unauthorized alteration of Gasboy equipment voids this warranty.
5. THIS WARRANTY DOES NOT COVER ANY INDIRECT DAMAGES OR LOSS OF PRODUCT OR REVENUE. Repair or replacement of the defective part or component under the terms of this warranty is the EXCLUSIVE REMEDY. Gasboy is not liable for incidental, consequential or indirect damages or loss, including without limitation personal injury, death, property damage, environmental damages, product damages, loss of product, or loss of revenue or profits. Gasboy is not liable for any claims or lawsuits against the customer.
6. This warranty does not cover any pump or dispenser components in contact with fuels containing more than 5% methanol or 10% ethanol or 15% MTBE by Volume. This warranty does not cover any component(s) exposed to M85/E85 fuel or other alcohol rich fuel.

### THE WARRANTY CONTAINED HEREIN IS EXCLUSIVE AND THERE ARE NO OTHER EXPRESSED, IMPLIED OR STATUTORY WARRANTIES. WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.