CFN II

Quick Reference

Version 2.3

Part number: C09159

Rev. 2238

CONTENTS

Site Controller II

Command Summaries, Version 2.3

General Command Summary

[...] Square brackets mean that the contents enclosed within the pair of brackets are optional.

| Vertical bar means *or*; it separates alternatives.

{...} Curly brackets are used to group optional alternatives where only one choice can be entered.

Text in **bold** must be typed just as it is shown; *italics* indicate a generic category where you are to substitute a specific entry.

Shift-change Commands. Shift-change commands—which are included in the shift-change package—are shown in lowercase.

Disk-based Commands. Disk-based commands do not have short forms, and you should use semi-colons only where they are specifically shown.

System Commands. The short form of the command is in uppercase. The command number, which is used to enter the command from a console, is given in parentheses after the command name.

All system-command options must be preceded by a semi-colon, and there can be no blank spaces on either side of the semi-colon.

System commands and their options may also be entered using the command number followed by a:

　　.5 to insert a ;I
　　.4 to insert a ;A
　　.3 to insert a ;C

Using Print SAles as an example:

　　126.4 is the same as typing P SA;a

ACtivate GAte (94) activates a gate from the terminal.

　　Option: C

ACtivate PUmp (10) activates a pump from the terminal.

　　Options: CA P1
　　A option puts pump in full serve mode
　　P1 assigns account number

ADd ALlocation (77) adds to an allocation totalizer.

　　Option: C

ADd DRawer (11) adds to cash in cash drawer.

　　Option: C

addrawer a shift-change command to add money to the cash drawer of a POS console.

　　Options: [*POS#*] [*$amount*]

ADd INventory (100) adds to inventory counters for a product.

　　Option: C

ADd SIGnon (101) adds a user, assigns permission level to user, and loads user's signon code.

ADd TAnk (12) adds to tank inventory counter.

　　Option: C

alter clerk a shift-change command to create a new format file for clerk reports.

alter day a shift-change command to create a new format file for end-of-day reports.

alter shift a shift-change command to create a new format file for shift reports.

BACKTRAN disk-based command to back up transactions to disk file *filename*.

　　Option: ;>*filename*

BUFFERS disk-based command to display buffer usage.

CALL (102) initiates the dial-out process.

CASE command to switch by case in command files.

　　Options: [-**D**] {-**P** *n1 n2* | -**E** *n1 text*}
　　-**D**　add line for default command
　　-**P** *n1 n2* number of case is passed from command line; *n1* is the total number of cases (except default, if used); *n2* is the case to execute
　　-or-

-**E** *n1 text* Number of case to execute is entered by user; *n1* is total number of cases (except default, if used)

cashier a shift-change command to output the shift report to standard out and a flat file.

Options: [journal log filename] [format filename] [flat filename] [%I | shift sequence number] [%S | shift number] [POS#] [day of week] [%D | date] [%T | time] [%Y | yymmddhhmm] [siteID]

CHDir (103) changes directories.

Check CArd (13) determines if a card is valid or invalid.

Option: C

CHKDSK disk-based command to check disk integrity.

Options: [**-A**] [**-B** *###*] [**-F**] [**-R**]
-**A** read and check entire disk
-**B** if the disk error message shows bad sectors, use this option with the sector numbers to mark those sectors
-**F** attempt to fix disk if lost or cross-linked clusters or length errors are found
-**R** read all files to check for bad sectors

CLOSE (154) makes a retroactive safe drop to the previous shift; used only in command files, never by itself on a command line.

compare a shift-change command to compare two character strings without case sensitivity.

Options: [*string1*] [*string2*]

CONSOLE disk-based configuration program for console.

Options: [**-P**][**-V**] [*filename*]
-**P** print current configuration
-**V** display in TTY form if port is configured as a CRT in the system parameters, or vice versa

CP disk-based command to copy disk files quickly.

Options: file1 file2 | file 1 [file2] dir

COPy (105) copies a disk file.

Options: file1 file2

DEactivate PUmp (14) shuts off a pump from the terminal.

Options: CA
A option takes a pump out of full serve mode

DELete (6) removes a disk file or files.

Option: A
A option deletes any specified file, even read-only and hidden files

DIRectory (4) prints a listing of disk file names.

Options: IA
I option gives listing in short format
A option lists hidden files

DIsable COnsole (19) shuts down a console.

Option: C

DIsable DUmp (106) turns off file dumping.

DIsable FPR (162) shuts down a fuel point reader.

Option: C

DIsable GAte (88) shuts down a gate controller.

Option: C

DIsable HIstory (107) turns off system history recording.

DIsable PCu (20) shuts down a pump control unit.

Option: C

DIsable PROduct (108) disables product attributes.

Option: C
0 prompt displays ?*Price*?, not ?*Amount*?
1 product is not a refund
2 product is not a payout
3 product is not a withdrawal
4 disables dollar amount inventory for product
5 disables inventory tracking for product
7 low inventory not indicated by asterisk in PRINT PRODUCT
8 product is not a fuel product
9 journal does not use category number as department number
15 disable patronage (Buypass only)

DIsable PUmp (21) shuts down a pump.

Options: CA
A option disables all pumps

DIsable RAW (109) turns off raw mode.

DIsable REader (22) shuts down a card reader terminal.

Option: C

DIsable SDI (88) shuts down SDI.

Option: C

DIsable TMS (86) shuts down a tank monitor system (gauge).

Option: C

DISKCOPY disk-based command to copy files from a floppy diskette in drive A to another floppy diskette, using the hard disk as a buffer.

DOwnload SDI (100) forces a download of an SDI. Include the SDI number(s) on the same line as the command, no C option is needed.

DUMP disk-based command to print raw tables.

> Options: (see below)
>
> [**D**]**TIP** *pump_number* [**P**] dump transaction in progress on specified pump; **D** decodes the transaction; **P** dumps previous transaction
>
> -or-
>
> [**D**]**TIP NF** *console_number* [**P**] dump merchandise transaction in progress on specified console; **D** decodes the transaction; **P** dumps previous transaction
>
> -or-
>
> [**D**]**TRAN** [**R**]*transaction_number*(*s*) dump the indicated transaction (or range of transactions) in decoded format; **D** decodes the transaction; **R** indicates a raw index number (to be used only by technicians)
>
> -or-
>
> **CORE** [*address_range* [*page_size*]] dump specified range of addresses from memory
>
> -or-
>
> **PROCESS** [process number(s)] dumps all processes (default) or specified range
>
> -or-
>
> *table_name* [*major_range* [*minor_range*]] dump from specified table record numbers included in major range (by subrecords in minor range); default is all records

ECho (144) outputs the string given as argument.

> Option: AT P1
> A   option suppresses line feed
> T   option displays string on console
> P1 is used with fixed decimal numbers. Place a number between the @ and M to specify the number of characters including decimal point.

ELSE command used with IF in command files.

> Option: *block*
> *block* is command or begin...end block

Enable COnsole (23) returns a console to operation.

> Options: CI
> I   option initializes and enables all consoles

Enable DUmp (112) starts file dumping.

> Option: A
> A   option appends file

Enable FPR (161) enables a fuel point reader.

> Option: CI
> I   option initializes and enables fuel point reader

Enable GAte (87) returns a gate controller to operation.

> Options: CI
> I   option initializes and enables all gate controllers

Enable HIstory (113) restarts system history recording.

> Option: I
> I   option clears history table

Enable PCu (24) returns a pump control unit to operation.

> Options: CI
> I   option initializes and enables all PCUs

Enable PROduct (114) enables product attributes.

> Option: C
> 0   prompt displays ?*Amount*?, not ?*Price*?
> 1   product is a refund
> 2   product is a payout
> 3   product is a withdrawal
> 4   enables dollar amount (not units) inventory for product
> 5   enables inventory tracking for product
> 7   low inventory indicated by asterisk in PRINT PRODUCT
> 8   product is a fuel product
> 9   journal uses category number as department number
> 15 enables patronage (Buypass only)

Enable PUmp (25) returns a pump to operation.

> Options: CAI
> I   option enables all pumps
> A   option clears ownership and frees the pump

Enable RAW (8) enables raw output mode.

> Option: A
> A   option sends only 1 line of response at a time

Enable REader (26) returns a reader terminal to operation.

> Options: CI
> I   option initializes and enables all readers

Enable SDI (87) returns an SDI to operation.

> Options: CIA
> I   option initializes and enables all SDIs

Enable TMS (85) returns a tank monitor system to

operation.

    Options: CI
I   option enables and re-initializes all TMSs

EXit (27) exits command mode, enters system monitor mode; if the exit command is in a command file, the system prompt returns.

FIND disk-based command to search for *pattern* in files.

    Options: [;[**A**][**I**]] *pattern file1* [*file2*] ...
;**A** prints line numbers along with lines
;**I** returns the number of lines on which *pattern* is found (%E)

FIX_CONF disk-based command to update an old configuration file to work with a new release of FRAMOS (but not a new version number).

    Options: [-**D***conf_name*]...[*filename*]
-**D***conf_name* *conf_name* is replaced with name of configuration program to be reset to defaults (e.g., **READER**, **PUMP**, **SYS_PAR**) or **ALL** for all configuration programs at once; you may specify more than one program by repeating modifier in front of the name of each configuration program you want to reset to its default
filename name of configuration file; if no file name is given, assumes FRAMOS.CFG

Fix TRansactions (28) changes transaction-begin and -end pointers.

    Options: AI *rec1 rec2*
A recalculate CRC; allows damaged transaction records to be used; use only if necessary to allow corrupted records to be polled
I clear all transaction numbers from the transaction file and reset the transaction pointers; irreversible; fill transaction number field with -1s for all transactions
rec1 rec2 set pointers; *rec1* is the physical record number of the oldest transaction you want to include in the active portion of the table; *rec2* is the physical record number of the most recent transaction you wish to include in the active portion of the table

fmtlint a shift-change command to output memory utilization to the screen.

    Options: [*filename*]

FORMAT (116) formats a floppy or RAM disk.

    Options: [**A** | **B** | **D**] [**4** | **5**]
A, B, D drive of disk to be formatted

4, 5 use 4 for a 720K floppy; 5 for 1.4M

FRED disk-based full-screen text editor (FRED commands are summarized later in this chapter).

    Option: [*filename*]

FUELER disk-based program to set the fueler ID for a cluster.

    Options: [<cluster> <fueler-ID>]
If the arguments are not provided, the current state of all fuelers is shown. Only clusters 1-9 can have a fueler. Entry of a Fuel ID card generates a disk journal event type 197 with the first two characters of the text field containing the cluster number.

Fuelpt disk-based configuration program for fuel point readers.

    Options: [-**P**][-**V**] [*filename*]
-**P** print current configuration
-**V** display in TTY form if port is configured as a CRT in the system parameters, or vice versa

GATE disk-based gate-reader configuration program.

    Options: [-**P**][-**V**] [*filename*]
-**P** print current configuration
-**V** display in TTY form if port is configured as a CRT in system parameters, or vice versa

Get TRansactions (117) polls transactions from connected site.

    Option: A
A option prints full Print Transaction format

GOTO used in command files; execution jumps to line labeled with *label*.

    Option: *label*

HARD disk-based command to format hard disk.

    Options: **I** | **F** [*skew*]
I initialize file system
F [*skew*] format hard disk, then initialize; *skew* is the interleave factor; default is 0

HARDBACK disk-based command to back up program, command, configuration, and hard-disk system files to floppy diskettes.

HARDLOAD disk-based command to restore data backed up with the HARDBACK command.

Help (29) lists Site Controller commands.

    Option: A
A option prints commands with command numbers

IF command for conditional branching in command files.

> Options: **-[!]** {**Y** [*text*] | **E** *filename* |
> {= | < | <= | > | >=} *arg1 arg2*}
> **-!** negation operator; comes between dash (-) and conditional expression; reverses the truth conditions of the conditional expression it proceeds
> **-Y** *text* the *text* is echoed, and if the user enters a 1, **Y**, or y, then the command following the **IF** statement is executed
> **-E** *filename* if the named file exists, the command following the **IF** statement is executed
> -or-
> **-{= |< | <= | > | >=}** *arg1 arg2*} the command or block of commands following the **IF** statement is executed if =, <, <=, >, or >= holds between *arg1* and *arg2*; that is, if *arg1* {*comparison*} *arg2* is true. You can separate expressions by |, which means "or," or by &, which means "and"

INSTALL disk-based command for hard drive installation.

KERMIT disk-based program for file transfer to external computer. Note: press CTRL-SHIFT-6 to exit from connect mode.

> Options: [*baud*][**D**][**L#**]
> {**R** | **S** *file1* [*file2*] ...}
> *baud* data transmission rate to use, in bits-per-second
> **D** debug mode (used in development only)
> **L#** Site Controller RS-232 port number to use; where *#* is the port number
> (without R or S) connect mode; default is port number 1
> -or-
> **R** receive-file(s) mode
> -or-
> **S** *file1* [*file2*] ... send the specified file(s) to the connected computer

lddrawer a shift-change command to enter the initial amount in the cash drawer at the beginning of a shift on a console.

> Options: [*POS#*] [*$amount*]

listday a shift-change command; with the 0 argument, it moves the PREVIOUS.LOG file to the reports directory; with the 1 argument, it completes the processing of the PREVIOUS.LOG file.

> Options: 0 | 1 [*POS#*] [*shift# POS#*] . . .

listnext a shift-change command to generate a shift report.

> Options: [filename] [filename-extension only]
> [%I | shift sequence#] [shift#] [POS#]
> [printer# on POS]

listone a shift-change command that runs the cashier, pritem, and prhour commands to generate the end-of-day reports.

> Options: [filename-extension only] [POS#]
> [*POS#*] the number of the console associated with the receipt printer where the end-of-day report is to be printed

LOad ALlocation (78) enters amounts in allocation totalizers.

> Option: C

LOad Authorization (30) enters authorization code for allowed fuels or disallowed merchandise.

> Options: CI
> I option erases all authorization codes

LOad CArd (146) is run by a remote host to download a bit-mapped lockout file.

> Option: C

LOad CRon (76) creates cron entries.

> Options: CI
> I option removes all entries from the cron file
> Action types: @ ! ^ % ? #
> @ DWMMDDYYHHMM command is a timed entry
> *! command* executes at a system restart
> *^ command* executes at boot
> *% command* executes when transaction file is near full
> *# command* executes immediately after loading then command is removed from cron table
> Note: an optional hyphen (-) after the action type and before the command name suppresses output to the printer.

LOad CUtoff (40) enters pump-fill limit and slow-to-cutoff point.

> Option: C

LOad DAte (31) enters date and time.

LOad DRawer (32) enters initial amount of money in cash drawer.

> Option: C

LOad Fuel (33) assigns product codes, price codes, and tank numbers to pumps.

> Option: C

LOad Heading (34) enters receipt heading and footing messages.

> Options: CI
> I   option erases all heading and footing lines

LOad INventory (118) sets up inventory for a product and enables inventory tracking.

> Option: C

LOad KEY loads the 18-character DES (data encryption standard) key or keys — *ttxxxxxxxxxxxxxxxx*, where tt is:

> 00 = master key
> 10 = working key
> 20 = working based on previous working
> 30 = exclusive or with previous master
> *xxxxxxxxxxxxxxxx* is the 16 characters of the key

LOad LImitation (35) enters limitation code and fuel limit.

> Options: CI
> I   option erases all limitation codes and fuel
>   limits

LOad MEssage (36) enters card reader terminal and gate broadcast messages.

> Options: CI
> I   option erases all messages

LOad PHone (46) enters dial-out phone numbers.

> Options: CI #
> I   option removes all phone numbers
> # is
>   1 = main CFN host phone number
>   2 = backup CFN host phone number
>   3 = main bank phone number
>   4 = backup bank phone number
>   5 = main auxiliary phone number
>   6 = backup auxiliary phone number

LOad PLU (119) loads price lookup information for merchandise products.

> Option: C

LOad PRice (37) enters price code, price level, and price.

> Options: CI
> I   option erases all price codes, price levels,
>   and prices

LOad PROduct (38) changes product number, name, or other product information.

> Options: CA
> A   option creates a new product

LOad PUmp (39) enters pump totalizer amount.

> Option: C

LOad SHift (41) changes the site's shift.

LOad SIGnon (42) changes your sign-on code.

LOad SITe (43) enters information for local site.

> Option: I
> I   option clears information for the site

LOad TAnk (45) enters tank inventory counter quantity.

> Options: CI
> I   option clears all tank inventory counters

LOad TAX (142) enters tax numbers and names.

> Options: CI
> I   option clears all tax accumulator names

LOad TRansaction (47) enters initial transaction number.

LOad Vehicle (82) enrolls a vehicle in the MPG package.

> Options: CIA
> I   option removes all vehicles from the MPG
>   package
> A   option resets MPG period for all vehicles

LOCk CArd (48) invalidates a card.

> Options: CA
> A   option erases card file and sets positive
>   lockout

LOG EVent (158) puts an event in the disk journal

LOG FIle (121) prints a file on the log printer.

> Option: A
> A   option deletes file after logging

LOG MEssage (93) prints a message on the log printer.

> Option: C

MKdir (122) creates a new directory.

NExt CLerk (159) allows the disk journal to keep separate shifts for each console.

nextday a shift-change command to end the day and begin a new day.

> Options: [*POS#*]
> [*POS#*]   the number of the console associated
>   with the receipt printer where the end-of-day
>   report is to be printed

NExt DAY (151) stops the site, closes the current day, restarts the site, opens the cash drawer for a safe drop, and loads shift 1.

>Options: IA
>
>I option does not restart the site; useful for sites that are not open 24 hours a day
>
>A option ignores the system parameter that sets the time interval required between changing shifts with this command

nextshft a shift-change command to change shift, either system-wide or on a particular console.

>Options: [*POS#*]

NExt SHift (152) closes the current site shift, loads the next shift number, and opens the cash drawer for a safe drop.

>Option: A
>
>A option ignores the system parameter that sets the time interval required between changing shifts with this command

PAUse (149) prompts for user input.

>Options: IA P1
>
>I option saves line of input for next command that needs terminal input
>
>A option suppresses line feed
>
>P1 option is used with fixed decimal numbers

PERM disk-based command to change permission levels of system-resident commands.

>Options: [**-P**][**-V**] [*filename*]
>
>**-P** print current configuration
>
>**-V** display in TTY form if port is configured as a CRT in the system parameters, or vice versa

PJ a disk-based command to print journal information.

>Options: [**-C***n*[-*m*]] [**-R***n*[-*m*]] [**-A***n*[-*m*]] [**-U***n*[-*m*]] [**-S***n*[-*m*]] [**-D***n*[-*m*]] [**-H***n*[-*m*]] [**-B***n*[-*m*]] [**-N***x*[-*y*]] [**-T***x*[*ss*]] [**-O***y*[:*z*]] [**-X**] [**-W**] [**-V**] [**-E**] [**-I**] [**-F**] [**-G**] [**-L**] [**-M**] [**-P**] [**-?**] [*filename*]
>
>**-C***n*[-*m*] list journal entries for console *n* (to *m*)
>
>**-R***n*[-*m*] list journal entries for island card reader *n* (to *m*)
>
>**-A***n*[-*m*] list journal entries for pump *n* (to *m*)
>
>**-U***n*[-*m*] list journal entries for user/clerk *n* (to *m*)
>
>**-S***n*[-*m*] list journal entries for shift *n* (to *m*)
>
>**-D***n*[-*m*] list journal entries for date *n* (to *m*)
>
>**-H***n*[-*m*] list journal entries for hour *n* (to *m*)
>
>**-B***n*[-*m*] list journal entries for department *n* (to *m*)

>**-N***x*[-*y*] list journal entries for transaction number *x* (to *y*)
>
>**-T***x*[*ss*] list tender type *x* (sub-tender type *ss*)
>
>**-O***y*[:*z*] length of the first and second fields of club cards
>
>**-X** compressed listing
>
>**-W** raw data listing
>
>**-V** list events only
>
>**-E** include events
>
>**-I** do not include merchandise-item entries
>
>**-F** do not include fuel-item entries
>
>-G List general events only
>
>**-L** Print total without transaction records
>
>**-M** do not include tender records
>
>**-P** list journal entries for previous day's journal; if no filename specified, PREVIOUS.LOG is default
>
>**-?** print help
>
>[*filename*] if no filename is specified, JOURNAL.LOG is default

PORT (155) allows the site to manipulate a serial port to communicate with devices connected to that port.

>Options: Open, Send, Wait, Receive, Flush, Close
>
>Open option initializes the port:
>
>PORT OPEN [<port #>] [BAUD (300|1200|2400|4800|9600)] [DATA7] [STOPS2] [PARITY (EVEN|ODD)] [NOFLOW] [LF]
>
>
> <port #> SC port number, defaults to 2
>
> BAUD baud rate, defaults to 2400
>
> DATA7 7 data bits, defaults to 8
>
> STOPS2 2 stop bits, defaults to 1
>
> PARITY parity, defaults to none
>
> NOFLOW turns off flow-control (normally XON/XOFF)
>
> LF adds CR LF to lines (default is CR)
>
>
>Send option transmits characters from string or file, or causes a break:
>
>PORT (SEND[LINE] <*string*> |SENDBREAK|SENDFILE <*fname*>)
>
>SEND <*string*> <*string*> is sent to port
>
>SENDLINE <*string*> <*string*> is sent followed by a CR (and LF if LF option was used in OPEN)
>
>SENDBREAK causes a break on the line
>
>SENDFILE <*fname*> sends file as lines followed by CR (and LF if LF option was used in OPEN)
>
>SENDPACKET <*string*> sends <STX><*string*><ETX><LRC> where LRC is the XOR of <*string*> and ETX

SENDSLOW <*string*> string is sent one char. at a time paced about 1/4 second apart. Note: This command may be used to cause a modem to dial, etc., by sending the appropriate modem command. Often a break may be used to cause the modem to hang up the phone.

Wait option pauses until a string matching the specified string (or any of a list of strings) is received or until timeout is reached:
PORT WAIT <*option-list*> FOR <*string*> [<*string*> ...]
The <*option-list*> is replaced by one or more of:
TIME <seconds> is time to wait, defaults to 30 seconds
CASE *string* is case sensitive
SPACE length of white space in target is significant
MAX <integer> give up after that many characters are received
QUIET <integer> give up if host silent that many seconds
VAR <variable> target matched is returned in <variable>
ECHO display characters as received
The keyword *FOR* signals the end of the option list and the beginning of the string list. Each string may contain control codes (for example, ~0D or ^M) or wildcard characters (@s).

If any string contains internal spaces, it must be enclosed in quotes (''this string'').

The return code is the number of the string that was matched (for example, 1 if the first (or only) string was matched).

Receive option captures incoming characters in variable and/or file:
PORT RECEIVE [<until-list>] (VAR <variable> | FILE[APPEND] <fname>)
The <*until-list*> is replaced by one or more of:
MAX <integer> get the given number of characters (defaults to 39 if VAR, 80 if FILE)
END <*string*> until any character in the *string* is encountered (this option may appear multiple times), defaults to LF and FF
TIME <seconds> timeout in seconds, defaults to 30
QUIET <seconds> give up if line quiet for given number of seconds
PACKET terminated on receipt of packet,

returns 0 (may combine with END)
VAR <variable> is the user variable to hold the data
FILE <*filename*> name of a file to hold the data, if file exists, it is overwritten
FILEAPPEND <*fname*> if file exists, received data is added at the end.
Note: the terminator character is not included in the string. If a terminator character is found, the return code of *n* means the nth character in the END string was found.
Flush option discards pending input:
PORT FLUSH
Close option relinquishes control of port:
PORT CLOSE

The following error codes are used by all variants of the PORT command:

0	Success
100	Syntax error
101	Bad port
102	Bad baud
103	No channel open
104	Timeout
105	Quiet timeout
106	Max. chars termination
107	Terminated with ^C
108	Can't create file
109	LRC didn't check in packet
110	Port busy

Non-printing Characters: In any data string in one of the commands, non-printing characters may be represented in hex or control-letter form. For example, CR may be represented by ~0D or ^M.

prattend a shift-change command to print attendant sales.

Options: [-*?*] [-*an*] [-*sn*] [-*gn*] [-*on*] [-tn(mm)] [-*p*] [-*e*] [-f flatfile] [-*yYYMMDDHHMM*] [-*nx(-m)*] [-*x*] [*infile*]
-**?** displays this message
-**a** displays totals for attendant 'n'. if none, or -a All, gives a totaled report of all
-**sn** gives report for shift n
-**gn** use 'n' digits for attendant number
-**on** offset of 'n' digits into card data
-**tn(mm)** designates tender type **n** and subtype **mm** to report
-**p** processes the previous journal file
-**e** gives separate report for each attendant found
-**f** outputs raw data into 'flatfile'
-**y** begin time for shift (YYMMDDHHMM)

Show transactions after this time
-**nx**(-**m**) transaction number x or range. Will wrap after 9999
-**x** Display taxes separate
infile - Journal file to process. Defaults to c:journal.log

prboth *journallog* a shift-change command to print data from the specified *journallog*.

Options: journallog **-I** [**-F** flatfilename] | **-H** [**-F** flatfilename] | **-I -H** [**-F** flatfilename]
-**I**   prints sales, if any, by stock numbers
-**H**   prints a summary of sales activity by hour
-**F**   *flatfilename* creates a flat file named *flatfilename* from the specified *journallog* file

Print ALlocation (79) prints allocation totalizers.

Print Authorization (49) prints authorization codes and fuels allowed.

Print CArd (95) prints lockout file in bitmapped format.

Print COnsole (150) puts a line of text on console display.

Print CRon (15) prints entries in cron file.

Print DAte (50) prints date, time, and current transaction number.

Print DIagnostics (51) prints system errors.

Option: A
A   option prints all error codes
Arguments:
    0 when diagnostics were last reset
    1 Site Information
    2 PCUs
    3 readers
    4 consoles
    5 fuel point readers
    6 gate controllers
    7 tank gauges
    8 pumps
    12 SDI

Print DRawer (52) prints shift and daily cash drawer totals.

Print Heading (53) prints receipt heading and footing.

Print HIstory (123) prints event history.

Option: A
A   option displays new events as they occur

Print LImitation (54) prints limitation codes and fuel limits.

Print LOckout (55) prints invalid or valid card numbers.

Print MEssage (56) prints broadcast messages.

Print MOnitor (89) prints stored log.

Option: A
A   option prints with physical record numbers

Print PHone (16) prints the dial-out phone numbers.

Print PRice (57) prints price codes, levels, and prices.

Print PROduct (58) prints product information.

Options: IA
I   option allows ranges of categories
A   option prints attributes enabled with ENABLE PRODUCT

Print PUmp (59) prints pump numbers, tank numbers, products, price codes, prices, pump totals, and pulse rates.

Option: A
A   option prints buffered totals

Print QUantity (145) prints quantity sold information.

Options: IA
I option allows ranges of categories
A option allows choice of periods:
    1 = previous shift 1
    2 = previous shift 2
    3 = previous shift 3
    C = current shift
    Y = yesterday's total
    D = today's total
    T = cumulative total
    P = cumulative totals at last day change

Print RECeipt (124) prints text on receipt printer.

Option: C [*#* | **C***#* | **P1**=*#* | **P1**=**C***#*] [*message*]
is a receipt printer's number; C# is the number of the console to which the receipt printer is attached.
P1 option is usually used when redirecting a file that does not have a stored printer number
C   option allows multiple lines of text. End using a '.' followed by ENTER on its own line.

Print SAles (126) prints sales information.

Options: IA
I   option allows ranges of categories
    0 = print tax accumulators (P SA;I 0)
A   option allows choice of periods:
    1 = previous shift 1
    2 = previous shift 2
    3 = previous shift 3
    C = current shift
    Y = yesterday's total
    D = today's total
    T = cumulative total
    P = cumulative totals at last day-change

Print SIGnon (125) prints user numbers and permission levels.

Print SITe (127) prints information for local and remote sites.

Print SUmmary (18) prints summary of sales totals report.

Options: IA
I   option allows ranges of categories
A   option allows choice of periods:
    1 = previous shift 1
    2 = previous shift 2
    3 = previous shift 3
    C = current shift
    Y = yesterday's total
    D = today's total
    T = cumulative total
    P = cumulative totals at last day change

Print TAnk (60) prints tank numbers and inventory totals.

print tax   use Print SAles;I 0

prntrpt a shift-change command to print reports.

Options [Report type] [Report number] [Day of week extension] [Date and time][Printer POS] [Report flag]

prtender creates a report similar to the site PRINT TRANSACTION command. The report is a file in the reports directory named ptend###.rpt where ### is the tender type and/or subtype of the report.

Options [-?] [-tn(mm)] [-en] [-a(n)] [-dn(-m)] [-hn(-m)] [-p] [infile]
 -? Displays this message
 -tn(mm)   Designates tender type n and subtype mm for report creation
 -en Displays extra account digit from offset n into discretionary data
 -a(n)   Displays Aux Tran sequential

numbers for all tenders
-dn(-m)   Date n to m
-hn(-m)   Hour n to m
-p   Processes previous journal file
infile   Journal file to process. Defaults to journal.log

Print TIp (129) prints transactions in progress.

Option: A
A   option continuously updates (for use with CRTs only)

Print TOtals (61) prints sales totals.

Options: IA
I   option allows you to specify categories
A   option allows choice of periods:
    1 = previous shift 1
    2 = previous shift 2
    3 = previous shift 3
    C = current shift
    Y = yesterday's total
    D = today's total
    T = cumulative total
    P = cumulative totals at last day-change

Print TRansaction (62) prints completed transactions.

Options: IA P1 P2
I   option shows format header of remote site when used with Site control command
A   option prints with physical record numbers
P1 and P2 options sort transactions

Print Vehicle (83) prints MPG information for vehicles in the MPG package.

prvoid displays all voids found in the journal.

Options [-?] [-cn] [-sn] [-f flatfile] [infile]
 -? displays this message
 -c displays voids for console n
 -s displays voids for shift n
 -p processes the previous journal file
 -f outputs raw data into flatfile

PUMP disk-based configuration program for pumps.

 Options: [-P][-V] [*filename*]
-P prints current configuration
-V displays in TTY form if port is configured as a CRT in the system parameters, or vice versa

PUrge SIte (130) resets transaction-begin pointer.

RCP disk-based command to copy *dir1* and all subdirectories thereof to *dir2* directory and new subdirectories.

Option: dir1 dir2

RDEL disk-based command to delete dir 1 and all its contents.

READER disk-based configuration program for island card reader.

Options: [**-P**][**-V**] [*filename*]
-P print current configuration
-V display in TTY form even though port is configured as a CRT in the system parameters, or vice versa

REBOOT (131) with no options, reloads configuration and reboots.

Options: IA P1
I option does a warm boot
A option reloads OS and reboots (cold boot)
P1 option reconstructs all tables

RECord (7) writes data to a disk file.

Option: I
I option overwrites existing file

REMove ALlocation (80) removes a totalizer from the allocation package.

Options: CA
A option initializes the allocation file and frees all accounts from allocation

REMove Authorization (63) removes a fuel or merchandise code.

Option: C

REMove CRon (132) removes a cron entry.

Options: CIA
I option deletes any pending executable
A option attempts to kill the executable or cron command currently running

REMove Heading (133) removes a receipt heading line.

Option: C

REMove LImitation (64) removes a limitation code.

Option: C

REMove MEssage (134) removes a broadcast message.

Option: C

REMove PRice (17) removes a price level.

Option: C

REMove PROduct (135) removes a product.

Options: CA
A option removes all products

REMove SIGnon (136) removes a user sign on.

REMove SITe (137) removes local site information.

REMove Vehicle (84) removes a vehicle from the MPG system.

Option: C

REName (138) renames a disk file.

Option: A
A option moves file(s) across directories

report a shift-change command to regenerate shift and end-of-day reports using an existing journal file.

Options: [*# of printer's POS*] {**yday** | **pday** [extension] | **shft** [*shift#*] [*POS#*] | **pshft** [*extension*] [*shift#*] [*POS#*] | **clrk** [*clerk#*] | **pclrk** [*extension*] [*clerk#*] | **atnd** [*attendant#*] | **patnd** [*ext*] [*attendant#*]}
yday regenerate yesterday's end-of-day report
pday regenerate an end-of-day report using the *extension* of the journal log file
shft regenerate a shift report for the current day
pshft regenerate a shift report for a previous day using the file extension of journal log file
clrk regenerate a clerk report for the current day
pclrk regenerate a clerk report for a previous day using the file extension of journal log file
atnd regenerate an attendant report for the current day
patnd regenerate an attendant report for a previous day using the file extension of the journal log file

reprint a shift-change command to reprint whatever was last printed at a receipt printer.

Options: [*# of printer's POS*] {**day** | **last** | **pday** [*day*] | **shft** [*day*] [*shift#*] [*POS#*] | **clrk** [*day*] [*clerk#*] | **atnd** [*day*] [*attendant#*] }
day print the last end-of-day report
last print the last report or receipt printed on specified receipt printer
pday reprint a previous end-of-day report
shft reprint a shift report
clrk reprint a clerk report
atnd reprint an attendant report

REset DIagnostics (65) clears diagnostic error counter.

> Option: I
> I   option resets after a reconfiguration

REset PUmp (66) resets pump totalizers.

REset TOtals (67) resets the daily sales totals.

> Option: AI
> A   option resets daily and cumulative sales totals to zero, and loads shift 1
> I   option resets cumulative only

REset TRansaction (68) resets first (oldest) transaction to save and to print pointer.

> Options: AI
> A   option resets all transaction table pointers, including next transaction to send to CFN host and next transaction to log; if a number is provided with the A option, the CFN host poll pointer is set to that transaction number;
> I   option deletes transactions in progress (resulting in unassigned transactions and loss of card data needed for billing any pumping transactions that were in progress)

RESTORE disk-based command to restore contents of selected data tables from disk file SYSBACK.DTA (by filename if specified).

> Options: [**old**] {*table1* [*table2*] ... | {**everything** | **reconstructed**} [**except** *table* [*table*] ...]} [**from** *filename*] [**corrupt**]
> [**old**] restores from backup files created under FRAMOS version 0.2, which used a different format for the cron table; it converts the cron entries to FRAMOS version 1.0 format while restoring them
> *table1* [*table2*] ... restores specified tables (if backed up)
> -or-
> **everything** [**except** *table1* [*table2*] ...] restores all tables (if backed up); optional: except specified tables *table1*, *table2*, etc.
> -or-
> **reconstructed** [**except** *table1* [*table2*] ...] restores all reconstructed tables (if backed up); optional: except specified tables *table1*, *table2*, etc.
> [**from** *filename*] this option restores from data in file *filename*
> [**corrupt**] restores records with bad checksums

RMdir (140) removes an empty directory.

RUN (69) restarts site.

> Options: IA
> I   option starts site initially, or after a crash
> A   option restarts a site after a console emergency stop

safedrop a shift-change command to reconcile a cash-drawer amount when money is taken out to adjust the till.

> Options: [*POS#*] [*$amount*]

SEND COMmand (156) sends a command from the Site Controller to one or more Profit Points.

> SEND COMMAND *device command*
> For *device*, substitute one of the following:
> > C*   all Profit Points
> > C1   Profit Point #1 (*or* C2 for Profit Point #2, etc.)
> > C1C2 Profit Points 1 *and* 2; etc.
> For *command*, substitute any of the commands you can enter at a DOS prompt.
> Option: A
> A   option does not wait for operator response at the Profit Point before clearing the display, if any, from the executed command

SEND FIle (157) sends a file from the Site Controller to one or more Profit Points, or from a Profit Point to the Site Controller. Requires at least 50 free buffers.

> In the following, *S* stands for source, and *D* stands for destination:
> SEND FILE[;A] [*mode*] S-device S-filename D-device[D-device . . .] [D-filename]
> *A*   option causes the command to run in the background
> *Mode* stands for transfer mode. It is a single-digit number or the letter *e* (9 is the default). Only one mode is allowed at a time. Modes are:
> > 1   overwrite only (send the file only if the file already exists)
> > 3   resume prior send, abort if file does not exist
> > 4   do not overwrite, do not make directory
> > 5   overwrite ok, do not make directory
> > 8   do not overwrite, ok to make directory
> > 9   overwrite ok, ok to make directory
> > e   execute transferred file on destination device.
> For *S-device*, substitute one of the following:
> > S   Site Controller
> > C1   Profit Point #1
> > C2   Profit Point #2; etc.
> In place of *S-filename*, insert the name (including the path) of the file to be sent.

For *D-device*, substitute one of the following:
S   Site Controller
C*   all Profit Points
C1   Profit Point #1
C2   Profit Point #2; etc.

In place of *D-filename*, insert a new name (and, optionally, the path) if you want the transferred file to have a name different from the source file's name (and path).

SET_PERM disk-based command to change file attributes and permissions of disk-based commands.

Options: [**-R**] [**-H**] [**-N**] [**-U***user_no*]
[**-P***perm_level*] *file1* [*file2*]

-R *file1* [*file2*] sets read-only status on *file1* [*file2*]

-H *file1* [*file2*] sets hidden status on *file1* [*file2*]

-N *file1* [*file2*] allows any user to execute the disk-based command(s) *file1*, *file2*, etc.

-U*user_no file1* [*file2*] ... only user number *user_no* may execute the disk-based command(s) *file1*, *file2*, etc.

-**P***perm_level file1* [*file2*] ... only users having a permission level greater than or equal to *perm_level* may execute the disk-based command(s) *file1*, *file2*, etc.

settle varies for each card network; see the specific *Credit and Debit Card Network* manual.

setup a shift-change command to allow configuring reports.

setup clerk a shift-change command to customize the clerk reports; makes a copy of the existing format file, which can be used to undo the changes, and then runs the ALTER CLERK command to create a new format file for clerk reports.

Options: [**-D**]
[**-D**]copies the CLERK.FMT file, wipes out the existing report configuration, and runs ALTER CLERK -D to generate a default report configuration for demonstration purposes

setup day a shift-change command to customize the end-of-day reports; makes a copy of the existing format file, which can be used to undo the changes, and then runs the ALTER DAY command to create a new format file for end-of-day reports.

Options: [**-D**]
[**-D**]copies the DAY.FMT file, wipes out the existing report configuration, and runs ALTER DAY -D to generate a default report configuration for demonstration purposes

setup shift a shift-change command to customize the shift reports; makes a copy of the existing format file, which can be used to undo the changes, and then runs the ALTER SHIFT command to create a new format file for shift reports.

Options: [**-D**]
[**-D**]copies the SHIFT.FMT file, wipes out the existing report configuration, and runs ALTER SHIFT -D to generate a default report configuration for demonstration purposes

SET_VAR *or* **SET (153)** command to create variables on RAM disk to store text or integers.

Options: [;**I**] |
{
variable {= | @ } [string] |
variable {+ | - | * | / | % | ^} *number_value* |
variable $ filename [line [column [length]]] |
variable ~ string [column [length]] |
variable ? filename |
variable # string |
variable := *num* [{+ | - | * | / | % | ^} *num*] ...
set variable < format data
}

(no arguments) lists contents of all variables
-or-
;**I**   deletes all variables
-or-
variable = *string* sets *variable* equal to value (literal text, % parameter number, or % variable name)
-or-
variable @ *string* echoes *string* text as prompt on terminal, set *variable* equal to line typed by user
-or-
variable {+ | - | * | / | % | ^} *number_value* sets *variable* to the result of performing the given mathematical operation on the current value of *variable* and *number_value*; % = mod, ^ = exclusive or
-or-
variable $ *filename* [*line* [*column* [*length*]]] sets *variable* to the substring at location line column in *filename*, for *length* characters
-or-
variable ~ *string* [*column* [*length*]] sets *variable* to *string*; if *string* is followed by a blank space and a number, *column*, that number is the offset into the *string*, from the left, before the remainder of *string* will be set to *variable*; (any blank spaces in the *string* itself must be enclosed in quotation marks.);

the second number, *length*, if present, specifies how many characters after the offset will be included in *variable*

-or-

variable ? filename sets *variable* to exact length in bytes of disk file named by *filename*

-or-

variable # string sets variable to length in characters of *string*

-or-

variable := number_value [{+ | - | * | / | % | ^} *number_value*] . . . sets variable to result of numeric expression

-or-

set variable < format data allows a number to be formatted into a user variable using the same format options available for the P1 option in ECHO. Useful for converting the internal format of numbers in command files to a form that can be used a input for commands that require decimal points in a correct place.

Four of the operators (=, @, $, and ~) can be followed by one of these three modifiers:

B   stands for *Boolean*. If a 1, y, or Y is entered, a y is stored. If any other character is entered, an *n* is stored.

M   stands for configured *monetary* units. In the United States, the default configuration is for two decimal places (xx.xx) for cents as hundredths of a dollar

Q   stands for configured *quantity* units. The default configuration is for three decimal places (xx.xxx) for thousandths of a unit.

STATUS disk-based command to print selected site status information.

Options: [**B**][**C**][**D**][**H**][**N**][**S**][**T**][**U**][**V**][**!**]
With no arguments, defaults to **VTS**

B   backup; backs up user data in a file of your choosing (enter the command as STATUS;>>*filename* **B**).

C   CPU; calculates percentage of CPU being used at site

D   prints daily settlement control information

H   host; reports last transaction number sent to CFN host

N   no-sale; reports all non-zero no-sale counters

O   oldest; returns oldest transaction number as its error code %E

R   reports; prints reports on users (sign-ons), including no-sales, item voids, and length user was signed on. Default report is for previous shift. A character following the *R* indicates the period requested:

C = current shift
D = current day
Y = yesterday
T - cumulative totals
1 = previous shift
2 = one before previous shift
3 = two before previous shift
P = cumulative totals at last day-change

S   switches; reports current DIP switch settings

T   transaction table; reports how many more transactions will fit in the transaction table

U   unpaid; reports all non-zero unpaid counters

V   version; reports operating system version number and release level

!   repeat; causes specified report to repeat every 1 second; for use with CRT

STOP (70) shuts down a site.

Options: AI
A   option halts pumping transactions
I   option does not wait for site to stop

SUbtract ALlocation (81) subtracts from an allocation totalizer.

Option: C

SUbtract DRawer (71) subtracts from cash in drawer.

Option: C

SUbtract INventory (141) subtracts from inventory for a product.

Option: C

SUbtract TAnk (72) subtracts from tank inventory counter.

Option: C

SWAPCOPY disk-based command to copy *file1* from one floppy disk to another.

Options: [*file1* [*file2*]] | + | -
 -or-
+   copy the entire contents on one floppy disk to another if you have a two-floppy-drive system
-or-
-    copy the entire contents on one floppy disk to another if you have a one-floppy-drive system (this shuts down the site)

SYSBACK disk-based command to back up all system tables in RAM, except transactions, to the SYSBACK.DTA file.

SYS_PAR disk-based configuration program for system parameters; main configuration program for Site Controller.

  Options: [**-P**][**-V**] [*filename*]
  -P print current configuration
  -V display in TTY form if port is configured as a CRT in the system parameters, or vice versa

TABLE disk-based configuration program for data table sizes.

  Options: [**-P**][**-V**] [*filename*]
  -P print current configuration
  -V display in TTY form if port is configured as a CRT in the system parameters, or vice versa

TAX disk-based tax table entry program.

  Options: [**;**[**C**][**I**]] [**-P** | **-R** | **-?**]
  ;C chain entries: keep looping back to the initial prompt
  ;I reconstruct the tax rate table
  -P print tax table summary
  -R print tax table in raw form used by RESTORE
  -? run in tutorial mode

TEst PCu (73) tests a pump control unit's memory.

TRANBACK disk-based command to back up transaction data to the TRANBACK.DTA file.

TREE disk-based command to print directory structure.

TRFMT disk-based configuration program for local transaction format.

  Options: [**-P**][**-V**] [filename]
  -P print current configuration
  -V display in TTY form if port is configured as a CRT in the system parameters, or vice versa

TYpe (5) prints the contents of a file.

  Option: A
  A option prints past the MS-DOS end-of-file marker

Unlock CArd (74) validates a card.

  Options: CA
  A option clears card file and sets negative lockout

variable a shift-change command to list the state of the shift sequence and shift number for the system and for each console.

WHERE disk-based command to print the current directory.

WOW disk-based command to display recent history and transactions-in-progress data simultaneously; for CRT only.

  Option: [**-H**]
  -H do not display history

FRED Command Summary

Modes

Command	Mode	Function
^E	i e c	enter edit mode
^C	i e c	enter command mode
^N	i e c	enter insert mode

Insert or Edit Mode

Command	Argu	Mode	Function
^O		i e	open line above
ENTER key		i e	open line below
↑ or ^K		i e	cursor up one line
↓ or ^J		i e	cursor down one line
← or ^H		i e	cursor left one character
→ or ^L		i e	cursor right one character
SPACEBAR		E	cursor right one character
b		E	move cursor to beginning of line
e		E	move cursor to end of line
c		E	enter command mode
i		E	enter insert mode
DEL key		i e	delete one character left of cursor
^D		i e	delete one character at cursor
^X		i e	delete current line
k	*char*	e	kill line from cursor up to character *char*
^U		i e	undo changes to current line
^S		i e	split line at cursor
^R		i e	join current line to line above
^Y		i e	save current line
^P		i e	put saved line below current line
u		e	scan backward (up) through file
d		e	scan forward (down) through file
g	*n*	e c	go to line number *n*
x	*char*	e	exchange character at cursor with character *char*
s	*char*	e	search for character *char*

Command Mode

Command	Argu.	Mode	Function
g	*n*	e c	go to line number *n*
change	*begin #* *end#*	c	make changes to designated lines
find		c	search for a pattern, enter insert mode
search	*Begin#* *end#*	c	print all lines in *search range* that match a pattern
clear		c	erase entire file
del	*Begin#* *end#*	c	deletes designated lines
append	*filename*	c	insert file at cursor
load	*filename*	c	replace buffer with file
name	*filename*	c	set name of current file
save		c	save file
resave		c	resave existing file
q		c	quit editor, exit to operating system
tabs	*n*	c	set tab stops every *n* columns

System Variables

The following variables can be used in command files. Note that these are case-sensitive—they must be uppercase or lowercase, as shown below:

<u>Name</u>   <u>Definition</u>

%0   Number of arguments on command line (note that this character is a *zero*).

%1-%9   Command line arguments one through nine.

%A   Number of input lines from command terminal waiting to be read. (To test if user pressed ENTER).

%B#   Current drawer balance for drawer #.

%C   Where command is being executed from:

   1 = local command port (command terminal)

   2 = remote command port

   3 = cron

   4 = console #1

   5 = console #2

   6 = console #3

   7 = console #4

   8 = Profit Point #1

   9 = Profit Point #2

   10 = Profit Point #3

   11 = Profit Point #4

%D   Date (MM/DD/YY).

%E   Last error code from last command.

   A 0 means the command was completed successfully; greater than 0 usually means the command failed. Note that FIND and STATUS O and CLOSE use the error code in a special way.

%F*d*   Where *d* is the drive letter. Gives space remaining, in bytes.

%I   Current site ID.

%K   Position of console keyswitch:

   0 = off

   1 = on

   4 = supervisor

   8 = manager

%M#   Miscellaneous options where # stands for:

   1 = returns the initial drawer balance in SYS_PAR

   2 = transaction number of first transaction in file

   3 = transaction number of last transaction in file

   4 = status of bank modem (0=down, 1=available, 3=connected)

   5 = status of CFN modem (0=down, 1=available, 2=dialing, 3=connected but not logged in, 4=logged in)

   6 = if the parameter is enabled for unique shift numbers for each console, returns a 1; if disabled, returns a zero

   7C# = if the parameter is enabled for unique shift numbers for each console, returns the shift number of console #; if disabled, returns the system's shift number. (The # can be replaced by a %a-%z user variable to allow variable selection of the console number.

   8C# = if the parameter is enabled for unique shift numbers for each console, returns the shift sequence number of console #; if disabled, returns the system's shift sequence number. (The # can be replaced by a %a-%z user variable to allow variable selection of the console number.

   9 = returns one if configured for a CRT; otherwise, returns zero

%P   Permission level of user currently signed on.

%Q   Site shift sequence number; each site shift change increments this number.

%R   Site run level:

   0 = running
   1 = blocking new transactions
   2 = stopped
   3 = emergency stopped
   4 = memory full
   5 = crashed

%S   Current site shift number (1, 2, or 3).

%T   Time (HH:MM AM/PM).

%U   User number of user currently signed on.

%V   Site version number.

%W   Day of week-Sun, Mon, Tue, Wed, Thu, Fri, Sat.

%Y   Date-time (YYMMDDHHMM).

%a-%z   User string variables set by SET_VAR; up to 38 characters long.

SCII CPU Board

Part number: C05328.

Switches

DIP Switch Bank 1

Position & Definition		Setting(*=customary)
1	back-up sign-on	*open=disabled closed=enabled
2	hard disk access	open=disabled *closed=enabled
3-6	____	
7-8	boot mode & LEDs	*open (see below)

Note: If switch 1-2 is closed and there is no hard disk controller, *the Site Controller will crash.*

1-7	1-8	Reset	LEDs	Crash
open	open	boot	normal	boot
closed	open	boot	normal	debugger
open	closed	boot	scan	boot
closed	closed	debugger	scan	debugger

DIP Switch Bank 2

Baud Rate	Port and Switch number:			
	Local 1 2	Remote 3 4	Not Used 5 6	Log Printer 7 8
300	op op	op op	op op	op op
1200	cl op	cl op	cl op	cl op
2400	op cl	op cl	op cl	op cl
9600	cl cl	cl cl	cl cl	cl cl

If the log output is configured to go to port 0 on the back of the Site Controller II, the log printer port baud-rate switches are ignored and the baud rate is the same as the local port's rate.

Jumpers

Jumper	Setting	Setting	Default
K1,K2	(see below)		
K23	Tx clock output		out
K24	receive clock input		out
K25	Tx clock input		out
K26	1-2=disable AC fail	2-3=enable AC fail	2-3
K27	dead man timer	disabled=out enabled=in	in
K28	2-3=hard reset	2-1=soft reset	2-1
K35	in=boot state cleared after power up	out=boot state not cleared after power up	in

RS-232 Port Jumpers—K1, K2
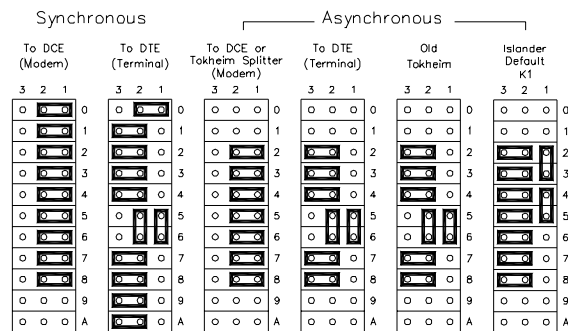
The following two charts show the jumper configuration for various tasks for ports 1 and 3 of the Site Controller II. Ports 1 and 3 are multi-purpose for communication applications or pump interfacing. K1 is for port 1; K2 is for port 3.

'Old' Tokheim settings are used if the Tokheim pump driver is before version 2. 'New' indicates version 2.0 and above (asynchronous modems).

Note: The special jumper configuration shown below for Hayes modems may be used to eliminate spurious "DSR Regained" messages; if this is not a problem, then the standard modem jumper configuration may be used.

Asynchronous

Printer Okidata | Site Controller | Unidynamics | Wayne | Hayes Modem | Islander Default K2

EPROM Size—K29, K30

EPROM	K29	K30
2764	2-3	2-3
27128	2-3	2-3
27256*	1-2	2-3
27512	1-2	1-2

*required by Dsite version 3.1a and above

Floppy Disk Jumpers

Jumper	Installed	Removed	Default
K31	test adjustment	normal operation	out
K32	MFM recording	FM recording	in
K33	enable precomp	disable precomp	in
K34	3.5" or 5.25" drive	8" drive	in

SCII+ CPU Board

Part number: C05852

Use only 27256 EPROMs.

The DIP switch settings are the same as on the SCII CPU board.

Jumpers

- K1, K2, K23-K28, and K35 are the same as on the SCII CPU board.
- Jumper 2-3 on K30.
- Jumper 1-2 on K37.

Old Memory Board

Part number: C08331.

Jumpers

E1, E2, and E3 must always be jumpered from 1-2.

Install E4 to connect battery power; remove E4 to change memory chips.

Install with all batteries enabled:

E5 connects battery 1.

E6 connects battery 2.

E7 connects battery 3.

Remove appropriate jumper to change battery.

Switches

DIP Switch Bank 1

Position & Definition		Setting(*=customary)
1	battery 1 failure alert	*closed=enabled
2	battery 2 failure alert	*closed=enabled
3	battery 3 failure alert	*closed=enabled
4	battery 1 charge circuit	*closed=enabled
5	battery 2 charge circuit	*closed=enabled
6	battery 3 charge circuit	*closed=enabled

DIP Switch 2

The SW2 switch, which controls battery backup to the CPU PCB, should be open (disabled). Open is to the left.

PCMCIA Memory Board

Jumpers

Part number: C06731 for the board alone, C06759 (does not contain sram slots) for the kit assembly, which includes the board, standoffs, and instructions.

Part number C05849 is the memory board for the Islander II which contains sram slots.

Jumper	Setting	Setting	Default
K1	1-2=SC II	2-3=SC I	1-2
K2	1-2=enable IRQ	2-3=disable IRQ	2-3
K3	1-2=SC II	2-3=SC I	1-2
K4	1-2=SC II or SC I with no PCMCIA slots	2-3=SC I with PCMCIA	1-2
K5, K6	off=SC II and SC I with 512K		off
K7	on=enable SC I PCMCIA		off
K8	on=drive 3 IRQ		off
K9	on=drive 4 IRQ		off

K8 and K9 cannot both be jumpered. Jumper one or the other, or neither.

DIP Switch Bank 1

Position & Definition		Setting(*=customary)
1	enable battery 1	*on=enabled
		off=disabled
2	enable battery 2	on=enabled
		*off=disabled
3	battery backup for SC I	*off=disabled
	CPU RAM	on=enabled
4	on=SC I; off=SC II	*off

Test Points

Test Point	Function	Voltage
TP1	battery 1	3.0 - 3.5 VDC
TP2	battery 2	3.0 - 3.5 VDC
TP3	ground	0 VDC
TP4	vcc	4.90 - 5.10 VDC

SC II Front Panel LEDs

Top Row: Boot & Device

```
○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○
L1                    L12
```

LED	During Initialization	After Initialization
L1	_____	Transmit data on 422 loop #2
L2	_____	Receive data on 422 loop #2
L3	_____	Transmit data on 422 loop #1
L4	_____	Receive data on 422 loop #1
L5	Reached monitor mainline	AC power fail, also host poll
L6	Monitor variables initialized	CFN host poll
L7	Host port initialized	FPR poll
L8	Console port initialized	Reader poll
L9	Monitor RAM cleared	Pump control unit poll
L10	Vectors copied to RAM	Console poll
L11	CIO initialized	Blinks once per second
L12	Reached EPROM	Check sum complete

Bottom Row: Old Memory Board

```
   ○ ○ ○ ○
LED 1 2 3 4
```

LED	Color	Function
LED 1	red	on when battery #1 fails
LED 2	red	on when battery #2 fails
LED 3	red	on when battery #3 fails
LED 4	green	on when battery backup voltage is okay

Bottom Row: PCMCIA Board

```
  ○ ○
LED 1 2
```

LED	Color	Function
LED 1	green	both batteries okay
LED 2	red	one or both batteries bad

Back of Site Controller II

Port and Loop numbers.
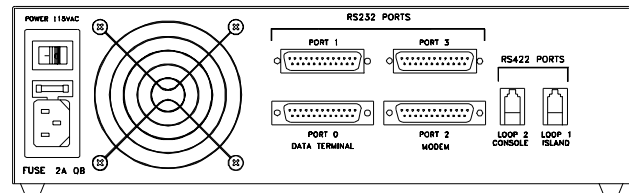
Diagnostic Error Codes

The following error codes may appear in response to PRINT DIAGNOSTICS;A.

Disk Drive

These error codes are shown in the Site Controller section of the diagnostics printout.

NB0—Drive A: not ready
NB1—Drive A: sector not found
NB2—Drive A: CRC error (cyclical redundancy check)
NB3—Drive A: write protected
NB4—Drive B: not ready
NB5—Drive B: sector not found
NB6—Drive B: CRC error (cyclical redundancy check)
NB7—Drive B: write protected
NB8—Drive C: not ready
NB9—Drive C: controller error
NBA—Drive C: CRC error (cyclical redundancy check)
NBD—Drives E & F: not ready
NBE—Drive E: write protected
NBF—Drive F: write protected

Console

Errors in console-to-Site Controller messages:

CRC—bad cyclical redundancy check (CRC)
DIE—device went down
NOR—no response
PIN—PIN errors
RDE—card read error

Errors in Site Controller-to-console messages:

NB3—buffer busy
NB5—invalid command
NB7—receiver overrun
NBA—bad cyclical redundancy check (CRC)

Card & Gate Reader

Errors in reader-to-Site Controller messages:

CRC—bad cyclical redundancy check (CRC)
DIE—device went down
NOR—no response
PIN—PIN errors
RDE—read error

Errors in Site Controller-to-reader messages:

NB3—buffer in use
NB4—not hexadecimal
NB5—invalid command
NB6—undefined EE command number
NB7—overflow/framing error
NB8—input buffer overrun
NB9—alphanumeric display busy
NBA—bad cyclical redundancy check (CRC)

Pump Control Unit

Errors in PCU-to-Site Controller messages:

CRC—bad cyclical redundancy check (CRC)
DIE—device went down
NOR—no response

Errors in Site Controller-to-PCU messages:

NB0—invalid hose number or price level
NB1—pump in use
NB2—transaction data unavailable
NB4—not hexadecimal
NB5—invalid command
NB6—invalid pump number
NB7—overrun
NB8—buffer overflow
NB9—test
NBA—bad cyclical redundancy check (CRC)
NBD—power failure
NBE—RAM contains transaction data

Tank Monitor

CRC—bad cyclical redundancy check (CRC)
DIE—number of communication losses
NOR—no response
Fuel Point Reader

Errors in FPR-to-Site Controller messages:

CRC—bad cyclical redundancy check (CRC)
DIE—device went down
NOR—no response
PIN—PIN errors

Errors in Site Controller-to-FPR messages:

NB4—not hexadecimal
NB5—invalid command
NB7—receiver overrun
NB8—input buffer overrun

Raw Mode Error Codes

The following error codes may appear in conjunction with the %E error variable.

Code	Meaning	Code	Meaning
00	Completed, Ok, Passed	15	Valid card, bit mapped
01	Transaction(s) in progress	16	Valid card, limited
02	Not found or does not exist	17	Invalid card, bit mapped
03	Invalid data	18	Invalid card, limited
04	Card is valid	19	Expecting NC, NW, or NY
05	Card is not valid	20	String too long
06	Device out of service	21	Print heading before record
07	Pump is in use	22	Some valid, some not
08	Pump is not on	23	Already exists
09	Illegal command	24	Invalid price
10	Command failed	25	Can't open file
11	No more file space	26	Site not stopped
12	Manager key required	27	Can't activate
13	Site is stopped	28	Gate in use
14	Invalid option		

Profit Point

Back panel

The back panel of the non-modular Profit Point looks like this:
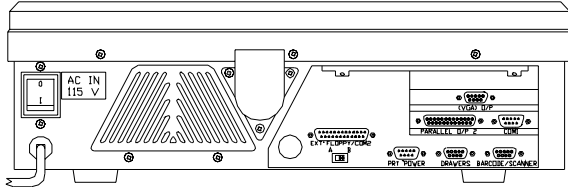
The back panel of the modular Profit Point looks like this:
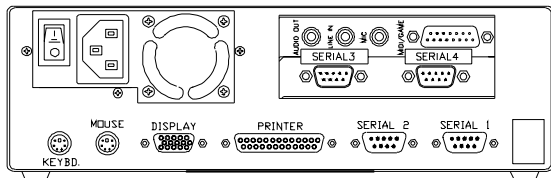
Scanner

The scanner should be set to the following parameters when the scanner is attached to the scanner port:

2400 baud (non-modular)   1200 (modular)

7 bits (non-modular)   8 bits (modular)

parity even (non-modular)   no parity (modular)

2 stop bits (non-modular)   1 stop bit (modular)

RS-232 prefixes disabled

CTS/RTS disabled

RS-232 output carriage return only

Menu Tree

Main menu

  0. Exit to DOS

  1. Operate Point-Of-Sale Terminal

  2. PLU maintenance

    0. Return to main menu

    1. Add entries

      0. Return to PLU maintenance menu

      1. UPC entries

      2. Stock number entries

      3. Department number entries

      4. All PLU types

    2. Edit entries

      0. Return to PLU maintenance menu

      1. UPC entries

      2. Stock number entries

      3. Department number entries

      4. All PLU types

      5. PLU size #s

      6. Change prices

      7. Global edit

      8. Global search and replace

    3. List entries

    4. Other lists and printing

      0. Return to PLU maintenance menu

      1. List entries

      2. Output to file for printout

      3. Display product totals

      4. Print product totals to file

5. Delete entries

6. PLU special operations

    0. Return to PLU maintenance menu

    1. Set default entries

    2. Output everything to ASCII file

    3. Append changes to ASCII file

    4. Input from ASCII file

    5. Merge input from ASCII file

    6. Clear PLU product totals

7. Configure scanner port

3. Utility

0. Return to main menu

1. Test PLU file

2. Show directory tree and space used

3. Directory of drive A:

4. Format a diskette

5. View a text file

6. Edit a text file

7. Copy PLU data file to diskette

8. Get new PLU data file from diskette

9. Installation menu

    0. Return to Profit Point main menu

    1. New installation

    2. Update all program and menu files

       from diskette

    3. Only update .EXE files

    4. Batch files and menus

    5. Fonts and utilities

    7. Copy PLU data files

    8. Directory of drive A:

9. Exit to DOS

4. Configuration

0. Return to main menu

1. Software configuration menu

    0. Return to configuration menu

    1. Training mode off-hook rate

    2. Show change as coins and bills

    3. Minimum age to buy ask-ID items

    4. Product totals kept in PLU file

    5. Keep file of missing items

    6. Off-hook beep rate

    7. Validate checks

    8. Enter birthdate when ID required

2. Hardware configuration menu

    0. Return to configuration menu

    1. Console address

    2. Address of printer/PIN pad

    3. Type of PIN pad used

    4. Printer type

    5. Margins for printer (L T B)

    6. Bar code scanner

    7. Key switch type

    8. Drawer type

    9. Beeper type

3. Keyboard configuration menu

    0. Return to configuration menu

    1. Configure keys

    2. Move keys

    3. List keyboard

    4. Define new user keys

4. Set up config.pos file

    0. Return to configuration menu

    1. Network cards configuration

    2. Discount configuration

    3. Permission levels

    4. User menu configuration

    5. Idle message and time

5. Printer configuration submenu

    0. Return to configuration menu

    1. Forms (invoice) printer

5. Self-test

0. Return to main menu

1. Keyboard test

2. Read a card

3. Disk drive(s)

4. Show CMOS configuration

5. Customer display test

6. Open and close cash drawer

7. Test manager key switch

8. Memory test submenu

    0. Return to self-test menu

    1. Video RAM test

    2. Test free portions of base RAM

    3. Quick test of entire base RAM

    4. Show map of base memory

    5. DOS shell

6. Back up files to diskettes

0. return to main menu

1. Everything

2. Data and configuration files

3. Program directories

4. System directories

5. Copy log files and missing UPC file

6. Delete log files and missing UPC file

7. Restore files from diskettes

0. Return to main menu

1. Everything

2. All missing or modified files

3. Data and configuration files

4. Changed data and configuration files

5. Program directories

6. System directories

Special functions

0 Exit to main menu

1 Cashier sign on/off

2 Record safe drop

3 Load drawer total

4 Record unpaid completion (drive away)

5 Make payout sale

6 Reverse selected sale

7 Make return sale

9 Pay multiple sales

11 Load authorization number for selected sale

12 Apply offroad discount to selected sale

13 Reverse sale is unpaid

30 Enter site command mode

31 User defined function (con01)

32 User defined function (con02)

33 User defined function (con03)

34 User defined function (con04)

35 User defined function (con05)

36 Execute remote command

37 Download site configuration

50 Enter training mode

51 Enter stand-alone mode

52 Show communications

53 Communications monitor OFF [ON]

54 End the day and print report

55 End the shift and print report

56 User defined menu

57 User defined menu

58 Manager menu

59 File transfer menu

60 Execute local command

61 Execute PP01

62 Execute PP02

63 Execute PP03

64 Execute PP04

65 Execute PP05

66 Enter fuel amount for selected sale

67 Assign patron number for cash sale

68 Special network card types

69 Discounts

70 Clerk menu

71 User defined menu

72 Count cash in drawer

Check Point

Special Functions

This section contains a list of special functions that are in the default configuration for the Check Point.

00 — Sign Off: operator sign off at Check Point

01 — Sign On: operator sign on at Check Point

02 — Safe Drop

03 — Load Drawer

04 — Unpaid Completion

05 — Payout

06 — Reversal

07 — Return

08 — Load Shift

09 — reserved for multiple sales; not yet implemented

10 — Transfer Merchandise

11 — Set Authorization Number

12 — Off-road fuel sales

13-23 — These functions are undefined and can be configured to serve the needs of the user

24-29 — not available

30 — Enters Site Controller command mode

31 — Executes CON01.CMD; default is NEXTDAY.CMD, end the day and print report

32 — Executes CON02.CMD; default is NEXTSHFT.CMD, end the shift and print report

33 — Executes CON03.CMD; default is COUNT.CMD, record cash in drawer and final safe drop

34 — Executes CON04.CMD; default is REPORT.CMD yday, regenerate last end-of-day report

35 — Executes CON05.CMD; default is console

status report

36 — Executes CON06.CMD; default is REPRINT.CMD last, reprint last report

37 — Executes CON07.CMD; default is SAFEDROP.CMD, record safe drop

38 — Executes CON08.CMD; default is ADDRAWER.CMD, add change to drawer

39 — Executes CON09.CMD; default is LDDRAWER.CMD, load starting drawer balance

40 — Executes CON10.CMD; default is REPRINT.CMD day, reprint last end-of-day report

41 — Executes CON11.CMD; default is REPORT.CMD shft, regenerate shift report for current day

42 — Executes CON12.CMD; default is REPORT.CMD pday, regenerate a previous end-of-day report

43 — Executes CON13.CMD; default is REPORT.CMD pshft, regenerate shift report for a previous day

44 — Executes CON14.CMD; default is REPRINT.CMD pday, reprint any end-of-day report

45 — Executes CON15.CMD; default is REPRINT.CMD shft, reprint shift report

46 — Executes CON16.CMD; (no default function)

47 — FINA

48 — Shamrock

49 — Wright Express (Wex)

50 — CITGO

51 — Texaco or Phillips

52 — Country Energy

53 — Coastal

Product Attributes

15 — Enable patronage (Buypass only)

9 — Use category number as department number in journal

8 — Fuel product

7 — Low inventory is indicated by an asterisk in PRINT PRODUCT

5 — Inventory tracking is enabled with ADD INVENTORY, LOAD INVENTORY, or ENABLE PRODUCT

4 — Inventory is in dollars

3 — Product is a special cash-withdrawal product

2 — Product is a special payout product

1 — Product is a special refund product

0 — Check Point prompts *Amount*? rather than *Price*?

Check Point Key Map

The following diagrams show the Check Point key numbers, which are used to configure the Check Point.

This keyboard layout shows the numbers of the
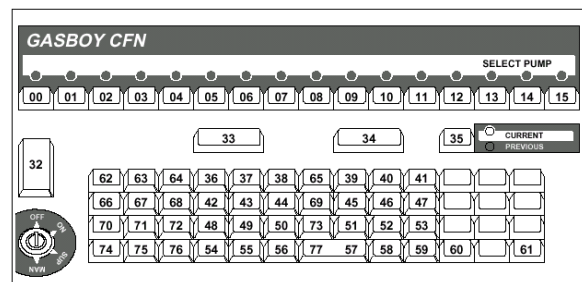
Check Point keys on a 71-key keyboard:

This keyboard layout shows the numbers of the Check Point keys on a 36- and 56-key keyboard.
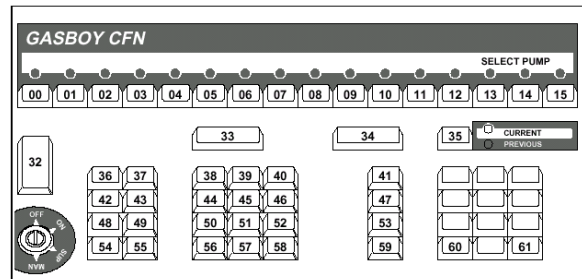
Check Point Key Actions

The following table shows the default numbers used in assigning actions to Check Point keys (submenu 2 in the Console configuration program):

00 pump	40 sign off
01 merch	41 sign on
02 emrg stop	42 safe drop
03 start	43 lo dr
04 stop	44 drive off
05 preset	45 payout
06 prepay	46 reverse
07 cash	47 return
08 credit	48 lo sh
09 debit	49 fn 9
10 checking	50 move merc
11 savings	51 auth numbr
12 cash acct	52 offroad
13 club level 1	53-63 fn 13 - 23
14 club level 2	64 command
15 club level 3	65 con01
16 club level 4	66 con02
17 club level 5	67 con03
18 print	68 con04
19 enter	69 con05
20 insert key	70 con06
21 signon	71 con07
22 on/off	72 con08
23 scan	73 con09
24 repeat	74 con10
25 total	75 con11
26 no sale	76 con12
27 review	77 con13
28 void	78 con14
29 discount	79 con15
30 #px gn pr	80 con16
31 qpx prd	81 FINA
32 qpx prds	82 Shamrock
33 qpx mprds	83 Wex
34 ppx gn pr	84 Citgo
35 ppx prd	85 Tex/Phil
36 ppx prds	86 Country Energy
37 ppx mprds	87 Coastal
38 self test	88-94 not used
39 spec func	

Switch Settings

CPU Board, Firmware 5.0-5.2

CPU board assembly number: C04832.

DIP switch banks 2 and 3 on the Check Point CPU board set options.

DIP Switch Bank 2

Position & Definition		Setting(*=customary)
1	____	
2-3	key click	see below
4	beeper	*closed=enabled
		open=disabled
5	cash drawer present	*closed=yes
		open=no
6	cash drawer type	*open=Gasboy
7-8	address	see below

Keyclick	2-2	2-3
none	open	open
short	open	closed
medium	closed	open
long	closed	closed

Check Point Poll Address Select

Address	2-7	2-8
1	open	open
2	open	closed
3	closed	open
4	closed	closed

DIP Switch Bank 3

Position & Definition		Setting(*=customary)
1	____	
2	dead man timer	*open=enabled
		closed=disabled
3	____	
4	self test mode	*open=disabled
		closed=enabled
5	keyswitch type	*open=4 position
		closed=2 position
6	off-hook beeps	closed=soft
		*open=loud
7	off-hook color	*open=red
		closed=green
8	off-hook beeper	closed=no
		*open=yes

CPU Board, Firmware 5.3 & 5.4

CPU board assembly number: C05836.

There are no DIP switch banks on the Check Point CPU board with this firmware version.

Pins 2 and 3 on K1 (next to U15) are normally jumpered.

Any RS-232 (serial) printer connected directly to the Check Point CPU board goes to P11; a parallel printer goes to P12.

Check Point Test Mode

To begin a self test:

- turn keyswitch to MANAGER and press 00/NO SALE, or
- disconnect the RS-422 connector, wait for the Out of Service display, and press 00/NO SALE.

0	self-test
1	memory test
2	beeper check
3	console card reader test
4	display test
5	keyboard test
6	test opening of cash drawer
7	check setting of switches (firmware 5.2) or configuration (firmware 5.3)
8	serial port/loopback test
CLEAR PRINT	printer test (ver. 5.4 and higher)
9	ends self test
00	manager key test (firmware 5.3 or later)

Configuration

In the self test with firmware 5.3, pressing 7 accesses configuration mode. (If the Check Point has never been configured or if its configuration has been erased, it will go into configuration mode at power up.)

The default selection is the first selection shown in each of the following option groups:

Option Menus	Selections
console address	1 2 3 4
keyswitch type	4 position
	2 position
cash drawer	yes no
drawer switch type	dr clo=sw closed
	dr clo=sw open
beeper	enabled disabled
alert beep type	short long no no
alert beep repetition*	15 sec 8 sec
	4 sec 2 sec
key click type	short medium
	long none
LED color	normal reversed
dead man timer	on off
console printer/pad**	No CONS PRNT/Pad
	Console PRNT/Pad
printer address	01 01-64
DES	disabled enabled
receipt line feed, top	0 1-10
receipt line feed, end	10 00-18
receipt left margin	04 00-10
printer	Star undefined
printer port	serial parallel
decimal position	.00 none .0 .000
decimal point	period comma
ignore scan	57 36-59, 62-77, 99
ignore scan	99 36-59, 62-77, 99
ignore scan	99 36-59, 62-77, 99
ignore scan	99 36-59, 62-77, 99
ignore scan	99 36-59, 62-77, 99

* in version 5.3e

** for Star RS-422 printer, set to No CONS PRINT/Pad

While an option in each group is displayed, pressing:

- ENTER selects the currently displayed option and causes an option in the next group to display.
- 1 selects the next option in that group.
- 2 defaults to the first option in that group.
- 0 exits configuration mode and saves your changes.
- PREV selects the currently displayed option and displays the previous group.
- 7 returns you to the initial configuration display.

RS-422 Loopback Connector

Pin connections: 1 to 3 (black to green) and 2 to 4 (red to yellow).

Vacuum Fluorescent Display

DIP switch bank 1 on the Check Point fluorescent display board sets options:

		VF Display on:	
Switch 1	**Definition**	**Console**	**Cust. Display**
1	____	open	open
2	____	open	open
3	____	open	open
4	MASTER	closed	open
5	SLAVE	open	closed
6	TEST**	open	open
7	____	open	open
8	____	open	open

**in version 3.0a; position 3 activates the self test. All other version use switch 6.

Notes

1-6, TEST—If closed, the display performs a rotating barber-pole-pattern self test. The last four characters in the pattern have all dots lit.

1-4, MASTER—If closed, display transmits characters via its serial interface as it displays them. This switch should be closed on the display in the Check Point if a remote display is used also.

1-5, SLAVE—If closed, display listens on its serial interface and displays all characters received there. This switch should be closed if a display is being used as a remote display connected to the display in the Check Point.

Standalone Receipt Printer

Epson

Switches

DIP Switch Bank 2

DIP switch bank 2 on the printer CPU board sets options, including the printer address on the RS-422 data loop.

Position & Definition		Setting(*=customary)
1	dead man timer	*open=enabled
		closed=disabled
2	decimal point	*always closed
3	DES PIN encryption	*closed=disabled
		open=enabled
4	____	
5	CRC required	*always open=required
6	____	*always closed
7-10	address	see below

Address	2-7	2-8	2-9	2-10
1	cl	cl	cl	cl
2	cl	cl	cl	op
3	cl	cl	op	cl
4	cl	cl	op	op
5	cl	op	cl	cl
6	cl	op	cl	op
7	cl	op	op	cl
8	cl	op	op	op
9	op	cl	cl	cl
10	op	cl	cl	op
11	op	cl	op	cl
12	op	cl	op	op
13	op	op	cl	cl
14	op	op	cl	op
15	op	op	op	cl
16	op	op	op	op

Star

Self Test

To start any Star printer's self test and display its switch settings, turn its power on while pressing down on FEED.

Star (RS-422)

The part number is C06244; the adapter is C06243; and the cable is C06242. This printer works with both console CPU boards, C04832 and C05836.

This printer does not allow the use of a PIN pad. On CPU board C05836, set the *console printer/pad* configuration to No CONS Printer/Pad.

Configure as type 3 in the Reader configuration program, menu 3 (parameters).

The Star printer has four DIP switch banks:

DIP Switch Bank 1. Positions 1-4 and 6 are always closed; positions 7 and 8 are always open. Position 5 governs the height of the line feed: open=1/8 of an inch; closed (default)=1/6 of an inch.

DIP Switch Bank 2. All 8 positions on DIP switch bank 2 should always be closed, with the possible exception of position 4, which sets the paper width: closed (default)=3-inch or 3.25-inch paper; open=2.5-inch paper.

DIP Switch Bank 3. Positions 1-4 and 6-8 should always be closed; position 5 should always be open.

DIP Switch Bank 4. Switch 4, which has 4 positions, sets the address of the printer, as shown in the following chart. Note that the Star printer can never be address 4.

Address	4-1	4-2	4-3	4-4
1	op	cl	cl	cl
2	cl	op	cl	cl
3	op	op	cl	cl
5	op	cl	op	cl
6	cl	op	op	cl
7	op	op	op	cl
8	cl	cl	cl	op
9	op	cl	cl	op
10	cl	op	cl	op
11	op	op	cl	op
12	cl	cl	op	op
13	op	cl	op	op
14	cl	op	op	op

Jumper B and C on SW5 and SW6.

Star (RS-232) for Check Point

The part number is C06297, and the cable is C04532.

This printer works with console CPU board C05836. Inside the Check Point, the ribbon from the printer port must be connected to P11, the *serial* printer connector on the CPU board.

Set the *console printer/pad* configuration to Console Printer/Pad, set printer for STAR, set printer port to serial, and set the printer address even if no PIN pad is used.

With 1.0 software, configure the printer as type 2 in the Reader configuration program, menu 3 (parameters). With 2.0 software, configure it as type 4.

All switches on DIP switch banks 1-4 are normally closed, with the exception of switch 5 on DIP switch bank 3, which is open.

SW5 and SW6 have A and C jumpered.

Star (Parallel)

The part number is C06451, and the cable is C01303.

This printer works with console CPU board C05836. Inside the Check Point, the ribbon from the printer port must be connected to P12, the *parallel* printer connector on the CPU board.

Set the *console printer/pad* configuration to Console Printer/Pad, set printer for STAR, set printer port to parallel, and set the printer address even if no PIN pad is used.

With 1.0 software, configure the printer as type 2 in the Reader configuration program, menu 3 (parameters). With 2.0 software, configure it as type 4. Set all switches to on.

Okidata 184 Printer Setup

SW1-1	on	Parity: odd
SW1-2	on	Parity: no
SW1-3	on	Data bits: 8
SW1-4	off	Protocol: XON/XOFF (CFN)
	on	Ready/Busy (Gasboy RS-232 splitter)
SW1-5	on	Test select: circuit
SW1-6	on	Mode select: print
SW1-7	on	Busy line selection: DTR - pin 20
SW1-8	on	Busy line selection: DTR - pin 20
SW2-1	off	Baud rate: 9600
SW2-2	on	Baud rate: 9600
SW2-3	on	Baud rate: 9600
SW2-4	on	DSR input signal: active (set to off for splitter)
SW2-5	on	Buffer threshold: 32 bytes
SW2-6	off	Busy signal timing: 1 sec (min.)
SW2-7	on	DTS signal: space after power on
SW2-8	off	not used

POS Reports

Sample Commands

REPORT 1 PDAY LOG Regenerates the end-of-day report from the PREVIOUS.LOG file, and prints it on console 1's receipt printer.

REPORT 2 PSHFT 5 2 4 Regenerates the shift report for shift 2 at console 4 from the PREVIOUS.5 file, and prints it on console 2's receipt printer.

REPRINT 1 PDAY THU Reprints Thursday's end-of-day report on console 1's receipt printer.

REPRINT 2 SHFT TUE 3 1 Reprints Tuesday's shift report for shift 3, console 1, at console 2's receipt printer.

Printer Controls

(Star RS232 C06297, or Star Parallel C06451 only)

String	Effect
&&C;	use condensed print (15 chars. per inch)
&&N;	use normal print (12 chars. per inch)
&&E;	use expanded print (7.5 or 6 chars per

inch, depending if condensed or normal in effect)

&&U;	use expanded print (return to condensed/normal)
&&L*nn*;	set margin to *nn* (*nn* is one or two digits)
&&V;*text*	wait for insert, print *text* on inserted slip (check validation)

The C and N options may be followed by any combination of B or E. B causes the text to be struck twice, giving a bold effect. E puts the print into expanded mode.

Tender Codes

In the following table, a first digit of:

0 = club card	4 = cash
1 = debit checking	5 = unpaid
2 = debit savings	3 = credit card

Code	Tender	Code	Tender
000	Gasboy club card	330	EFS
001	Country Energy regional club card	331	Trendar
002	Country Energy local club card	332	Tesoro
003	CITGO Fleet	333	Sinclair Fleet
004	IAES	334	Gascard
100	Debit checking	335	Amarada-Hess
200	Debit savings	336	Voyager
300	Bank credit card	337	JCB
302	Wright Express card	338	Gulf
303	American Express card	339	Fuelman
304	VISA card	340	IAES Fleet
305	MasterCard	341	Country Mark
306	Discover card	342	Southern States
307	FINA card	343	Amoco Multi card
308	AMOCO card	344	Amoco Torch
309	CITGO Plus card	345	Amoco Transi card
310	Diamond Shamrock card	346	MasterCard Fleet
311	Texaco card	347	VISA Fleet
312	Sinclair card	348	Amoco Co Brand
313	Carte Blanche card	349	API
314	Diners Club card	350	Citgo FAMS
315	customer charge	351	Gasboy Fleet One
316	employee charge	352	Gasboy Debit
317	Phillips card	353	Gasboy Program 1
318	Comdata card	354	Gasboy Program 2
319	CCIS card	355	Gasboy Program 3
320	Coastal card	356	SPS Fleet
321	Buypass Fleet card	357	T Chek
322	Generic fleet card	365	Citgo PrePaid
323	PHH Fleet Amer card	366	Citgo Black (Plus)
324	CITCO Red card	400	cash
325	CITCO Silver card	401	food stamps
326	Quick Fuel	402	checks
327	Transcash	403	full-serve
328	NTS Fuel	500	unpaid
329	TIC	501	Instant-on denial

Event Codes

Code	Event	Code	Event
000	Clerk sign-on	012	Enter stand alone mode
001	Clerk sign-off	013	Training mode
002	New shift	014	Load drawer
003	Safe drop	015	Add drawer
004	No sale	016	AC power fail
005	System reboot	017	Outstanding pre-pay
006	Configuration change	018	Next clerk
007	Device up	019	Settlement complete
008	Device down	020	Settlement failed
009	Void all items	021	Final safe drop
010	New day	022	Exit stand alone mode
011	End of day	023	Instant-on refusal

Record Identifiers

The following table summarizes the various record identifiers and their associated data:

Description	Id	Data
Cashier Report Record	CSH	*clerk,datetime*
Shift Report Record	SHF	*serial,shift,POS, datetime*
End of Day Report Record	DAY	*site,serial,datetime*
Events Logged	EVT	*type,POS,shift,amount, datetime*
Fuel Sales	FUL	*dept,count,quantity, amount*
Inside Fuel Sales	IFS	*count,quantity,amount*
Outside Fuel Sales	OFS	*count,quantity,amount*
Total Fuel Sales	TFS	*count,quantity,amount*
Merchandise Departments	DEP	*dept,count,amount*
Merchandise Items	ITM	*stock,size,count,amount*
Misc. taxable merchandise	MTX	*count,amount*
Misc. nontaxable merchandise	MNT	*count,amount*
Total Merchandise Sales	TMS	*count,amount*
Department Sale Adjustments	ADJ	*count,amount*
Drive-aways (UnPaid)	UNP	*count,amount*
Returns	RTN	*count,amount*
Total Sale Adjustments	TSA	*amount*
Offroad Tax	ORT	*count,amount*
Net Sales Tax	TAX	*count,amount*
Total Net Sales	TNS	*amount*
Tenders	SYT	*type,count,amount*
Tenders Inside	STI	*type,count,amount*
Tenders Outside	STO	*type,count,amount*
Other Credit	OCR	*count,amount*
Other Inside Credit	OCI	*count,amount*
Other Outside Credit	OCO	*count,amount*
Total Inside Credit	TIC	*count,amount*
Total Outside Credit	TOC	*count,amount*
Total Credit Tenders	TCR	*count,amount*

Total Noncredit	TNC	*count,amount*
Total Tenders	TST	*count,amount*
Fuel by Tenders	FST	*type,count,quantity, amount*
Fuel by Other Credit	FOC	*count,quantity,amount*
Prior shift Pre-pays	PSP	*count,amount*
Change for other POS	CFP	*count,amount*
Change by other POS	CBP	*count,amount*
Outstanding Pre-pays	OST	*count,amount*
Sign-on	SON	*count*
Sign-off	SOF	*count*
No Sales	NOS	*count*
Item Voids	ITV	*count,amount*
Sale Voids	SVD	*count,amount*
Reversals	RVS	*count,amount*
Unprocessed records	UPR	*count,amount*
Cash Withdrawals	CAW	*count,amount*
Instant-on Refusals	IOR	*count,amount*
Total Fuel Only	TFO	*count,amount*
Total Merchandise Only	TMO	*count,amount*
UPC Items Scanned	UIS	*count*
UPC Items Hand	UIH	*count*
Total Mdse/Fuel	TMX	*count,amount*
Total Patronage Sales	TPS	*count,amount*
Total All Sales	TAS	*count,amount*
Average Fuel Only	PFO	*percent,average*
Average Merchandise Only	PMO	*percent,average*
Average Mixed	PMX	*percent,average*
Average All Sales	ALL	*average*
Average Inside Credit	PIC	*percent,average*
Average Outside Credit	POC	*percent,average*
Average Credit	PCR	*percent,average*
Average Noncredit	PNC	*percent,average*
Average Seconds	SEC	*count,average*
Card Auto (Swiped)	CDS	*count*
Card Hand Entered	CDH	*count*
Settlement Compete	SCP	*count,amount*
Settlement Failed	SFL	*count*
Starting Drawer Balance	SDB	*amount*
Drawer Tender Adjustments	DAJ	*type,amount*
Add Drawer	ADD	*count,amount*
Pay outs	PYO	*count,amount*
Safe Drops	SFD	*count,amount*
Final Safe Drop	FSD	*count,amount*
Final Book Balance	FBB	*amount*
Ending Drawer Balance	EDB	*amount*
Drawer Over/(Short)	DOS	*amount*

This table summarizes the record identifiers that do not appear in the standard reports:

Description	Identifier	Data
Total to account for	TAF	*amount*
Total Lottery	TLT	*amount*
Total Coupons	TCP	*amount*
Sign On User ID	SOU	*userID,count*
Total Dept Sales	TDS	*amount*

Link Terminal Setup

General Setup			
Emulation	VT52	Auto Page	Off
Enhancements	Off	Warning Bell	On
Virtual Terminal	Off	Margin Bell	Off
Scroll Style	Jump	Bell Sound	1
Auto Scroll	On	Block Terminator	US/CR
Auto Wrap	On	Send ACK	Off
Received CR	CR	Monitor Mode	Off

The warning bell, margin bell, and bell sound parameters can be set as you wish. All other parameters should be set as shown.

Communications Setup			
Main Baud	9600	Aux Baud	9600
Main Data/parity	8/None	Aux Data/Parity	8/None
Main Stop Bits	1	Aux Stop Bits	1
Main Rcv Hndsk	XON/XOFF	Aux Rev Hndsk	NONE
Main Xmt Hndsk	NONE	Aux Xmt Hndsk	XON/XOFF
Ignore 8th bit	Off	Aux Rev Level	50%
Comm Mode	Full Duplex	Aux Port	RS232
Disconnect	2 sec	Aux Interface	RS232
		Printer	Serial

All parameters should be set as shown.

Display Setup			
Columns	132	Background	Dark
80/132 Clear	On	Attributes	Char
Lines	24	Wprt Intensity	Dim
Pages	1X Lines	Wprt Reverse	Off
Status Line	Ext	Wprt Underline	Off
Cursor Style	Blink Block	Refresh Rate	60 Hz
Cursor	On	Pound Char	US
Screen Saver	15 min	Auto Font Load	On

You can change the Columns setting from 132 to 80 if you wish. However, this may cause transactions displayed on the screen (and printed on the Okidata printer) to wrap, hindering readability. Set the Cursor Style and Screen Saver parameters as you wish. All other parameters should be set as shown.

Keyboard Setup			
Key Click	Off	Break	250 ms
Key Repeat	On	Xmt Limit	None
Key Lock	Caps	FKey Xmt Limit	None
Return Key	CR	Key Code	ASCII
Enter Key	CR	WP Keyboard Mode	Off
Back Space Key	BS/DEL	Lock Keyboard	Disable
Left Alt Key	Funct	Language	US
Delete Key	Normal		

Set Key Click and Key Repeat as you wish. All other parameters should be set as shown above.

ANSI Setup			
FKey Lock	Off	Print	National
Feature Lock	Off	Send	All
Keypad	Numeric	Send Area	Screen
Cursor Keys	Normal	Print Area	Screen
Xfer Term	EOS	Send Term	None
Char Mode	Multinational	Print Term	None
Keys	Typewriter	Print Mode	Auto/Normal
VT 100 ID	VT 100	Auto Answerback	Off

If you have a Site Controller II and an Okidata printer is directly connected to the Site Controller II, set Print Mode to Normal. Consult the *Site Controller II Installation Manual* for the proper RS-232 connection.

If an Okidata printer is not directly connected and if you have a Site Controller II version 1.0F or above, you may set Print Mode to Normal and set SYS_PAR's Direct Printout Channel to Aux-o. This combination sends printout to the Okidata logger; the printout is not seen on the screen.

Any commands run at the Site Controller will not be logged unless you:

- direct output to the logger (use >log with the command), or

- press CONTROL-SHIFT-PRINT SCREEN simultaneously. Pressing these keys toggles the Main port output to the logger. (The message line at the top of the screen toggles between FDX MAIN and FDX AUX.)

All other parameters should be set as shown above.

Island Card Reader I

CPU Board

Part number: C05375.

Switches

DIP Switch Bank 2

DIP switch 2 on the reader terminal CPU board sets options, including the reader terminal address:

Position & Definition		Setting(*=customary)
1	see below	*open
2	decimal point	*open=enable
		closed=disabled
3	DES PIN encryption	*closed=disabled
		open=enabled
4	reader type	see below
5	gate reader	*open=disabled
		closed=enabled
6	reader type	see below
7-10	address	see below

Reader Type	2-4	2-6
mag swipe without optical	closed	closed
mag swipe with optical	closed	open
mag insert	open	closed
optical	closed	open

Notes

Position 2-1 is not used in SC II software versions 1.0 and later. (In software versions 0.2 and before, 2-1 is the deadman timer switch: open (default=enabled, closed=disabled.)

*Position 2-5—*In SC II software versions 0.2 and before, 2-5 is the CRC switch; open=CRC enabled, closed= disabled.

Address	2-7	2-8	2-9	2-10
1	cl	cl	cl	cl
2	cl	cl	cl	op
3	cl	cl	op	cl
4	cl	cl	op	op
5	cl	op	cl	cl
6	cl	op	cl	op
7	cl	op	op	cl
8	cl	op	op	op
9	op	cl	cl	cl
10	op	cl	cl	op
11	op	cl	op	cl
12	op	cl	op	op
13	op	op	cl	cl
14	op	op	cl	op
15	op	op	op	cl
16	op	op	op	Op

Jumpers

Jumper	Function and/or Normal Setting
K1	Position 1=LCD display
	Position 1 and 2=Beckman alphanumeric display
K2, K3	K2 in position 2 and K3 in position 1=Omron reader
	K2 in position 1 and K3 in position 2=Magstripe reader
K4	____
K5	Position 2=2K RAM; position 1=8K RAM
K6	Jumpered when using motorized reader

Test Mode

To activate test mode, open the island card reader door, flip the S3 switch on the CPU board to *TEST*, and press START OVER on the keypad. (The unit must remain open during tests.) The keypad is now enabled for selecting one of the 9 test routines:

1   test front panel lights for *paper low* and *paper out* on receipt printer
2   test the table messages
3   test printer
4   test DES
5   test alphanumeric display
6   test keypad
7   test card reader (mag or optical)
8   display baud rate and address
9   test paper cutter

Printers

Novatronics

There is only one jumpered connection on the Novatronics board. With the board oriented so that the DB-25 connector is at the top left, the jumper block is below the connector; jumper the two rightmost pins to set the baud rate at 9600.

Star

There are two DIP switch banks on the Star printer. Each position must be set as follows:

DIP Switch Bank 1

Position & Definition		Required Setting
1-3	9600 baud	on
4	stop bit 1	on
5	X-on/X-off mode	off
6	8 data bits	on
7	no parity	on
8	even parity	off

DIP Switch Bank 2

Position & Definition		Required Setting
1	USA character set	on
2	USA character set	on
3	printer type	on
4	CR valid	off

Island Card Reader II

CPU Board

Part number: C05857.

Works with program software 5.0 and above.

Notes

Beckman display not supported
Motorized reader not supported
Novatronics printer not supported

Switches

DIP Switch Bank

DIP switch on the reader terminal CPU board sets options, including the reader terminal address:

Position & Definition		Setting(*=customary)
1	not used	not used
2	decimal point	*open=enable
		closed=disabled
3	1 or 2 line display	*closed=1 line
		open=2 line
4	reader type	see below
5	gate reader	*open=disabled
		closed=enabled
6	reader type	see below
7-10	address	see below

Reader Type	4	6
mag swipe without optical	closed	closed
mag swipe with optical	closed	open
mag insert	open	closed
optical	closed	open

Address	7	8	9	10
1	cl	cl	cl	cl
2	cl	cl	cl	op
3	cl	cl	op	cl
4	cl	cl	op	op
5	cl	op	cl	cl
6	cl	op	cl	op
7	cl	op	op	cl
8	cl	op	op	op
9	op	cl	cl	cl
10	op	cl	cl	op
11	op	cl	op	cl
12	op	cl	op	op
13	op	op	cl	cl
14	op	op	cl	op
15	op	op	op	cl
16	op	op	op	op

Jumpers

Jumper	Function and/or Normal Setting	Setting(*=customary)
K1	Jumpered=debug	*always open
K2	Watchdog timer	*1-2=on (always)
		2-3=off
K3	____	*open, future use
K4, K5		Position 1-2=AM MAG
		Position 2-3=Omron reader

Test Mode

To activate test mode, open the island card reader door, flip the S3 switch on the CPU board to *TEST*, and press START OVER on the keypad. (The unit must remain open during tests.) The keypad is now enabled for selecting one of the 9 test routines:

1. test front panel lights for *paper low* and *paper out* on receipt printer
2. test the table messages
3. test printer
4. test DES
5. test alphanumeric display
6. test keypad
7. test card reader (mag or optical)
8. display baud rate and address
9. test paper cutter

Printers

Star

There are two DIP switch banks on the Star printer. Each position must be set as follows:

DIP Switch Bank 1

Position & Definition		Required Setting
1-3	9600 baud	on
4	stop bit 1	on
5	X-on/X-off mode	off
6	8 data bits	on
7	no parity	on
8	even parity	off

DIP Switch Bank 2

Position & Definition		Required Setting
1	USA character set	on
2	USA character set	on
3	printer type	on
4	CR valid	off

DPT

The Tokheim DPT comes in two models: TCS and Premier. Both models work with Site Controller II version 2.0 or later.

Keypad

The keys on the TCS and Premier DPT keypads can be configured for different functions with the *Tokheim DPT/Gilbarco CRIND keyboard layout* item on page 4 of the SC II's SYS_PAR program. The characters that select different functions are shown below. Note that these characters are case-sensitive:

Character	Function
0-9	Numeric digits 0 through 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 if data entry started; else Help)
n	No/CANCEL (No if in yes/no state; else CANCEL)
S	Start
u	unused key

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 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 typed into the *Tokheim DPT/ Gilbarco CRIND keyboard layout* item in SYS_PAR 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.

Switches

DIP Switch Bank 1

Position & Definition		Setting(*=customary)
1	on = printer has tear bar off=printer has cutter bar	* on (requires DPT ver 1.0D)
2	pump side on = side A, off = side B	on
3-7	reader address	(see below)
8	on = 4-line display off = 2-line display	*on

Address	1-7	1-6	1-5	1-4	1-3
1	on	on	on	on	on
2	on	on	on	on	off
3	on	on	on	off	on
4	on	on	on	off	off
5	on	on	off	on	on
6	on	on	off	on	off
7	on	on	off	off	on
8	on	on	off	off	off
9	on	off	on	on	on
10	on	off	on	on	off
11	on	off	on	off	on
12	on	off	on	off	off
13	on	off	off	on	on
14	on	off	off	on	off
15	on	off	off	off	on
16	on	off	off	off	off
17	off	on	on	on	on
18	off	on	on	on	off
19	off	on	on	off	on
20	off	on	on	off	off
21	off	on	off	on	on
22	off	on	off	on	off
23	off	on	off	off	on
24	off	on	off	off	off
25	off	off	on	on	on
26	off	off	on	on	off
27	off	off	on	off	on
28	off	off	on	off	off
29	off	off	off	on	on
30	off	off	off	on	off
31	off	off	off	off	on
32	off	off	off	off	off

Jumpers

2-wire operation (default): jumpers 9, 10, and 11 in position 1.

Connector J4:

3 - Tx+/Rx+ (CFN 422 - 1 & 3)

4 - Tx-/Rx- (CFN 422 - 2 & 4)

4-wire operation: jumper 9 - position 1; jumpers 10 and 11 - position 2.

Connector J11:

3 - Rx- (CFN422-4)

4 - Rx+ (CFN422-3)

5 - Tx+ (CFN422-1)

6 - Tx- (CFN 422-2)

CRIND

Version 2.0b or later of the Site Controller software is required to run a Gilbarco CRIND (Card Reader IN Dispenser). The CRIND should be on the RS-422 port of the current loop driver.

Keypad

The keys on the CRIND keypad can be configured for different functions with the *Tokheim DPT/Gilbarco CRIND keyboard layout item* on page 4 of the SC II's SYS_PAR program. The characters that select different functions are shown below. Note that these characters are case-sensitive:

Character	Function
0-9	Numeric digits 0 through 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 if data entry started; else Help)
n	No/CANCEL (No if in yes/no state; else CANCEL)
S	Start
u	unused key

The numbers of the keypad keys on the CRIND 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 typed into the *Tokheim DPT/ Gilbarco CRIND keyboard layout item* in SYS_PAR to give the CRIND keypad function arrangement shown above is:

123ub456$B789NYC0EHX

Cabling

D-Box to Gilbarco Interface

Pump Loop

Part number: C06691.

There are two wires, which have spade lugs on one end and a DB-9S connector on the other. The wires connect the terminal block on the back of the interface box to the male 9-pin connector current loop at the distribution box.

Terminal Block	DB-9S	Wire Color
1 -	6	red
1 +	7	black

At the terminal block, connect the red wire to the black wire and the black wire to the red wire.

CRIND Loop

Part number: adaptor is C06692; cable is C06242; both together are C06326.

There are four wires, which have a modular handset

plug on one end and a DB-9P connector on the other. The wires connect the spare RS-422 jack on the interface box to the DB-9S RS-422 loop at the D-box.

Modular Plug	DB-9P	Signal Name
1	2	RX+
2	6	RX-
3	3	TX-
4	7	TX+

The wire colors are not significant.

The modular pins are numbered from right to left when looking at the modular plug from the retainer-clip side, with the cable inserted into the plug on the side closest to you.

SDI/Wayne CAT

The keys of the CAT keypad can be configured for different functions with the TokheimDPT/Wayne CAT keyboard layout item on page 4 of the SC II's SYS_PAR program.

Keypad

The characters that select different functions are shown below. Note that these characters are case-sensitive:

Character	Function
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 if data entry started; else Help)
n	No/CANCEL (No if in yes/no state; else CANCEL)
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 Tokheim/DPT/Wayne CAT keyboard layout item in SYS_PAR to give the CAT keypad function arrangement shown above is:

123ub456$B789NYC0EHX

SDI Box Switches

MODA/MODB are on switch 7, RESET on switch 8.

For Wayne CAT, SDI #1, make all switches to OFF (open).

For Wayne CAT, SDI #2, make position 5 ON (closed), all others OFF (open).

To clear application memory:

1. Close switch position 6
2. Close switch position 8
3. Open switch position 8
4. Wait a few seconds
5. Open switch position 6

Pump Control Unit

EXPMUX CPU Board

Part number: C05837

LEDs

LED	Color	Function
DL1	green	reset high
DL2	green	battery okay
DL3	red	422 receive
DL4	red	422 transmit
DL5, 8, 11, 14	red	slow flow, pump 1, 2, 3, 4
DL6, 9, 12, 15	red	fast flow, pump 1, 2, 3, 4
DL7, 10, 13, 16	red	submersible, pump 1, 2, 3, 4

Switches

DIP switch banks B and C on the EXPMUX CPU board set options latched in at power-up time:

DIP Switch Bank B

Position & Definition		Setting(*=customary)
1-4	address	see below
5	pulser type	closed
6-8	relay	closed

Address	B-1	B-2	B-3	B-4
1	cl	cl	cl	cl
2	op	cl	cl	cl
3	cl	op	cl	cl
4	op	op	cl	cl
5	cl	cl	op	cl
6	op	cl	op	cl
7	cl	op	op	cl
8	op	op	op	cl
9	cl	cl	cl	op
10	op	cl	cl	op
11	cl	op	cl	op
12	op	op	cl	op
13	cl	cl	op	op
14	op	cl	op	op
15	cl	op	op	op
16	op	op	op	op

DIP Switch Bank C

Position & Definition		Setting(*=customary)
1-4	pulser enabled (pumps 1-4) (see note below)	closed=after reset is complete open=upon activation
5	——	
6	dead man timer	*always open=enabled
7	——	
8	test mode	*closed=no open=yes

Note: In connection with pulser enabled, there are two error codes, each with three characters, that can show up in the error column on a transaction printout. The reset-failed-to-start transaction code is $D2 through $DF, and the reset-failed-to-complete transaction code is $E5 through $EF ($ indicates hexadecimal). The last character in each code (2 through F or 5 through F) is the number of seconds the PCU waited for reset to start or complete. This numeric character is incremented by one each time the PCU reset-to-start/complete times out, until the maximum timeout of 15 (15 is F in hexadecimal counting) seconds is reached.

Test Mode. When test mode is activated with switch C-8, switch C-5 determines the relay limits:

C-5	Function
open	pump slows at 500 pulses and turns off at 510 pulses
closed	pump slows at 50 pulses and turns off at 60 pulses

In test mode, switches C-6 and C-7 select the pump to be tested:

Pump to Test	C-6	C-7
1	closed	closed
2	open	closed
3	closed	open
4	open	open

Jumpers

Jumper	Setting	Setting	Default
K1	installed=battery connected	removed=battery disconnected	installed

CMOS CPU Board

Part number: C05321

LEDs

LED	Color	Function
L1	red	422 transmit
L2	red	422 receive
L3, 4, 5, 6	red	submersible & slow flow, pump 1, 2, 3, 4
L7, 8, 9, 10	red	fast flow, pump 1, 2, 3, 4

Switches

DIP switch banks B and C on the CMOS CPU board set options latched in at power-up time.

DIP Switch Bank B

Position & Definition		Setting(*=customary)
1-4	address	see below
5	address	*always closed
6	address	*always closed
7	baud rate	*open=9600
		closed-see below
8	baud rate	*closed=9600
		open-see below

Baud Rate	B-7	B-8
not used	closed	closed
9600	open	closed
1200	closed	open
300	open	open

Address	B-1	B-2	B-3	B-4	B-5	B-6
1	cl	cl	cl	cl	cl	cl
2	op	cl	cl	cl	cl	cl
3	cl	op	cl	cl	cl	cl
4	op	op	cl	cl	cl	cl
5	cl	cl	op	cl	cl	cl
6	op	cl	op	cl	cl	cl
7	cl	op	op	cl	cl	cl
8	op	op	op	cl	cl	cl
9	cl	cl	cl	op	cl	cl
10	op	cl	cl	op	cl	cl
11	cl	op	cl	op	cl	cl
12	op	op	cl	op	cl	cl
13	cl	cl	op	op	cl	cl
14	op	cl	op	op	cl	cl
15	cl	op	op	op	cl	cl
16	op	op	op	op	cl	cl

DIP Switch Bank C

Position & Definition		Setting(*=customary)
1-4	pulser enabled	*closed=after reset is
	pumps 1-4	complete
		open=upon activation
5	CRC required	*open=required
		closed =not required
6	dead man timer	*always open=enabled
7	____	
8	test mode	*closed=no
		open=yes

Jumpers

Jumper	Setting-IN	Setting-OUT	Default
K1	normal	battery test	installed
K2	battery	no battery	installed

I/O Board

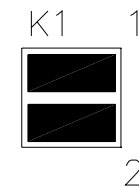The part number of the original PPC I/O board is C05668.

Jumpers

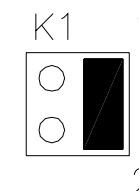| Jumper	Position	Position	Default
K1-K4	(see below)		
K-5	in=low speed	out=high speed	out
	main pulsers	main pulsers	

K1-K4 power pulsers 1-4.

For pulsers with mechanical switch closures (such as VR 1871 series):
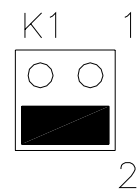
For electronic pulsers requiring +12 Volt power (such as VR 7671 series):

For pulsers with an external power supply (such as VR 7874 series):

9800 Pump Dispenser

CPU Board

Jumpers

Jumper K1 is set according to the size of the RAM IC in socket U19. At this time, only the 2K size is being used:

RAM	Jumper Pins
2K	across 2 and 3
8K	across 1 and 2

LED Indicators

LED	Function
L1	AUTH1 - side 1 AC authorization present
L2	SLOW1 - side 1 slow flow solenoid
L3	FAST1 - side 1 fast flow solenoid
L4	SUBM1 - side 1 submersible starter relay
L5	AUTH2 - side 2 AC authorization present
L6	SLOW2 - side 2 slow flow solenoid
L7	FAST2 - side 2 fast flow solenoid
L8	SUBM2 - side 2 submersible starter relay
L9	PUL1A - side 1 pulser, channel A
L10	PUL1B - side 1 pulser, channel B
L11	HAND1 - side 1 handle switch
L12	PUL2A - side 2 pulser, channel A
L13	PUL2B - side 2 pulser, channel B
L14	HAND2 - side 2 handle switch

Test Points

Test points are provided for voltage measurements.

Test Point	Function
TP1	+5VDC
TP2	DC ground

Switches

Switch settings should be changed with the power switch OFF. The new settings are read by the CPU board when the power is turned ON again.

Switch Bank 1

Position & Definition		Setting(*=customary)
1	baud rate	*open=9600 closed=1200
2	communication mode	*open=on-line closed =standalone
3-4	lead detect delay	see below
5	----	
6	authorization activates	*open=no closed=yes
7	totalizers	*open=no closed=reset
8	----	

Delay Time	1-3	1-4
0	closed	closed
4	closed	open
5	open	closed
6	open	open

Switch Bank 2

This bank serves two purposes:

- address setting when communicating on the Gasboy RS-485/RS-422 loop, or
- pulser output rate selector when pulser data is sent to a fuel management system other than Gasboy.

Address	2-1	2-2	2-3	2-4
1	cl	cl	cl	cl
2	op	cl	cl	cl
3	cl	op	cl	cl
4	op	op	cl	cl
5	cl	cl	op	cl
6	op	cl	op	cl
7	cl	op	op	cl
8	op	op	op	cl
9	cl	cl	cl	op
10	op	cl	cl	op
11	cl	op	cl	op
12	op	op	cl	op
13	cl	cl	op	op
14	op	cl	op	op
15	cl	op	op	op
16	op	op	op	op

Pulse Rate	2-1	2-2	2-3
1	cl	cl	cl
10	op	cl	cl
100	cl	op	cl
250	op	op	cl
500	cl	cl	op
1000	op	cl	op
none	cl	op	op
none	op	op	op

LCD Board

Jumpers

Display Address:

Hose	Jumper Pins
1	across 1 and 2
2	across 2 and 3

Display of Units:

Units	K2	K4	K6
whole units	1-2	1-2	1-2
tenths - .0	2-3	1-2	1-2
hundredths - .00	1-2	2-3	1-2
thousandths - .000	1-2	1-2	2-3

Electronic Pump Interfaces

Tokheim

The part number for the cable below and splitter is C05578 (see also the cable diagram below under *Tokheim Splitter*).

Site Controller Male DB-25P Connector	Tokheim 16-pin Amp circular connector
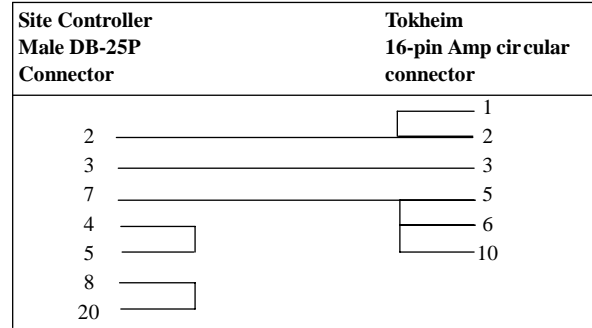
Connecting 67 Box to 98 Box (when not using Tokheim splitter)

The 67 box should be connected to these terminals: TTD (talk to dispenser), TTC (talk to console), DCC (DC common), and All Stop.

### 98 Box (when not using Tokheim splitter)

TALK DISP should be connected to +9V with a 1K Ohm resistor. DC COM should be connected to GND.

Tokheim Splitter

The Tokheim Splitter, which requires Site Controller II version 2.0b or later, is part number is C05851.

The C05578 and C05876 Cables

C05578 includes the Tokheim Splitter and a straight-through cable. C05876 includes the Tokheim Splitter and a Y-cable.
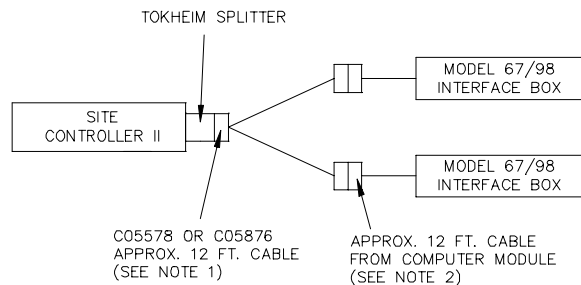
Part number C06694 includes the Tokheim Splitter, the C05878 cable, and two C05577 cables; it connects the Site Controller II to three or more 98 boxes.

Installation

If R8 and R14 on the SC II CPU board have not been replaced with fuses (a polyswitch), replace the CPU board with an updated version.

New installation:

* Connect a Tokheim Splitter to port 1 or port 3 on the SC II.
* Connect a C05578 cable (for one 67 box) or a C05876 cable (for two 67 boxes) to the Splitter. Connect the other end(s) of the cable to the Tokheim box or boxes.
* Check jumper and configuration settings.

Upgrading an existing installation:

* If you are not installing version 2.0 of the pump driver, connect the Splitter between the SC II and the Tokheim cables.
* Otherwise, connect the Splitter to the SC II and put a C05878 adapter cable between the Splitter and the Tokheim cables. Back-up the data, and load the software.
* Check jumper and configuration settings.

SC II Pump Configuration

In the PUMP configuration program, in submenu 1, set Maximum Units to Gallons and Maximum Amount to 999 Gallons.

In the PUMP configuration program, in submenu 3, set the following options:

Tokheim type	Options to set
162/262	2,7
262-A	2,7,8,9,13
SA MMD	1,2,7,8,9
SA MMD $/Cr	1,2,3,7,8,9
TCS	1,2,7,8,9,13
TCS $/Cr	1,2,3,7,8,9,13
TCS 1 hose blend	1,2,7,8,9,12,13,19
TCS 1 hose blend $/Cr	1,2,3,7,8,9,12,13,19
TCS 1 hose, multigrade, non-blend	1,2,7,8,9,13,19
TCS 1 hose, multigrade non blend $/Cr	1,2,3,7,8,9,13,19
Premier	1,2,7,8,9,13,16
Premier $/Cr	1,2,3,7,8,9,13,16
Premier 1 hose blend	1,2,7,8,9,12,13,16,19
Premier 1 hose blend $/Cr	1,2,3,7,8,9,12,13,16,19
Premier blender	1,2,7,8,9,12,13,16
Premier blender $/Cr	1,2,3,7,8,9,12,13,16
Premier 1 hose, 1 prod	2,7,8,9,13,16
Premier 1 hose, 1 prod $/Cr	1,2,3,7,8,9,13,16
Premier 1 hose, multigrade	1,2,7,8,9,13,16,19
Premier 1 hose, multigrade $/Cr	1,2,3,7,8,9,13,16,19

The options in the above table are:

1 — Pump is a multi-product dispenser.

2 — Pump always needs switch detect (off-hook) to activate.

3 — Pump has a cash-credit select button. (Customer can choose cash or credit payment at the pump.)

4 — Site Controller can activate the pump without knowing the price or hose (for some MPDs).

5 — Site Controller cannot choose the hose number or price (for some MPDs).

6 — Site Controller cannot get the dollar amount or volume during pumping.

7 — Pump can't do switch detect or pulser timeouts (timeouts must be done by the driver).

8 — Pump is a Tokheim stand-alone dispenser.

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 Blenders.*

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 without pressing payment on DPT or CRIND.

19 — Grade-select buttons exist.

20 — Beeps when offhook without START key being pressed.

21 — Pump has a lift-lever for offhook.

22 — Pump is the master of the pump chain. Turning on this pump activates all other "pumps" 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 to the appropriate pump positions automatically.

Tokheim Pump Programming

Mode 19 - set dispenser function code to 0.

Mode 23 - set address (1-16), number of products, number of sides, and number of prices.

Mode 25 - set price-change mode equal to 1.

Mode 26 - on the Premier should be set as 1.

Site Controller II K2 Jumper Settings

In the *Site Controller II* section (earlier in this manual) see the jumper drawings under *CPU Board.*

Gilbarco Interface Unit

Part number: C05688. Use a C04500 cable from the RS422/RS485 junction box to the RS422 port of the interface unit.

Use Gilbarco firmware version 70.2 or later. Product authorization does not work with Gilbarco pumps before version 2.0c of Gasboy's interface firmware and version 2.0cp2 of the Site Controller II software.

Interface Terminal	Short Wire Color	Terminal Block Connection	Field Wire Color	Gilbarco dist. Box	Terminal Legend
P1-1	red	1+ (top terminal)	black	box 1	-BLK
P1-2	black	1- (next down)	red	box 1	+RED
P2-1	red	2+ (third down)	black	box 2	- BLK
P2-2	black	2- (bottom)	red	box 2	+ RED

CPU Board

Jumper	Function and/or Normal Setting
K1	All K1 jumpers are absent.
K2	All K2 jumpers are absent.
K3	Position 1: enables the dead man timer. K3-1 jumper must be installed. K3-1 is the pair of K3 terminals closest to P9, the long double-row offboard connector at the edge of the board. Position 2: K3-2 jumper is absent. K3-2 is the pair of K3 terminals farthest from P9.
K4	----
K5	Battery to U31; must install.
K6	Battery to U32; must install.
K7	Enables the AC power fail circuit; must install.
K8	K8 jumper is absent.

DIP Switch Bank 2. This switch sets the poll address and allows memory to be cleared.

Position & Definition		Setting(*=customary)
1	debug mode	*closed=normal mode open=debug mode
2	erase memory on reset	*closed=no open=yes
3-8	interface address	see next table

Address	2-3	2-4	2-5	2-6	2-7	2-8
1	cl	cl	cl	cl	cl	cl
2	cl	cl	cl	cl	cl	op
3	cl	cl	cl	cl	op	cl
4	cl	cl	cl	cl	op	op
5	cl	cl	cl	op	cl	cl
.						
.						
.						
64	op	op	op	op	op	op

DIP Switch Bank 3

Position & Definition		Setting(*=customary)
1-2	local terminal baud rate	*open=9600 (also see below)
3	CRIND	open=RS-422 to CRIND closed=current loop
4	reports (see below)	open=onhook activate closed=no report
5	product authorization	open= no restrictions closed=restrict grades

Switch 3-4: with Site Controller versions before 2.0b, pumps are deactivated if offhook, and activated if onhook. This is the sequence reported with push-to-start and cash-credit.

Baud Rate	3-1	3-2
9600	open	open
2400	open	closed
1200	closed	open
300	closed	closed

DIP Switch Bank 4. This switch selects certain price level options and allows either twelve or sixteen pumps (six or eight double-sided units) on a loop.

Position & Definition		Setting(*=customary)
1	(see below)	
2	# of pumps per loop	*open=6 dual pumps
		closed=8 dual pumps
3	dead man timer	*open=enabled
		closed=disabled
4	(see below)	
5-8	____	

Dip Switch Bank 4 for a single-display price bar:

Pricing policy	Bar shows level:	SW4-1	SW4-4
all levels have same	1	op	cl
price	2	op	op
level 1 same as level 2	1	op	cl
	2	op	op
level 0 same as level 1	1	op	cl
	2	op	op
levels 0, 1, and 2 all dif-	1	cl	cl
ferent	2	cl	op

Dip Switch Bank 4 for a cash/credit select button, dual-display price bar, or a single alternating-display price bar (only three prices levels—0, 1, 2—can be loaded, and level 0 must be the same as level 1 or level 2):

Pricing policy	SW4-1	SW4-4
level 0 same as level 1	op	cl
level 0 same as level 2	op	op

Front Panel LEDs

```
L1                          L12
 o o o o o o o o o o o o
      o        o        o
     DC       BOK      BAD
```
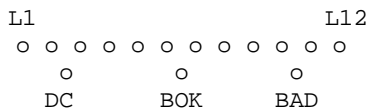
Lamp	Indication
L1	TxD on CRIND 422 port
L2	RxD on CRIND 422 port
L3	transmit data on 422 loop #1
L4	receive data on 422 loop #1
L5	dead man timer refresh
L6	current loop power enabled
L7	current loop #1 active if flashing
L8	current loop #2 active if flashing
L9	program crash code bit 1
L10	program crash code bit 2
L11	program crash code bit 3
L12	program crash code bit 4
DC	DC 5V power OK (green)
BOK	battery OK (green)
BAD	battery bad (red)

Interface Board

Jumper	Function and/or Normal Setting
K1	Baud rate clock source; must be installed in position 1.
K2	Battery backup enable. Boards should be stored with this jumper out; it should be installed at assembly time. Lamp BAD will light if K2 is omitted.

SC II Pump Configuration

Notes: Pump limits and card limits must be in dollars, not volume; for a cash/credit pump ($/Cr), the limit must be $999. Grade assignments must be entered as hose numbers.

In the PUMP configuration program, in submenu 3, set the following options:

Gilbarco type	Options to set
Highline (old)	6,9
Highline	9
Highline$/Cr	3,9
MPD	1,5,9
MPD $/Cr	1,3,5,9

Wayne

The cable that connects the Wayne controller with port 1 or 3 of the Site Controller II is part number C04654. The pins in the cable are wired like this:

Male DB-25P Connector		Female DB-25S Connector
2	———————	2
3	———————	3
4	———————	4
5	———————	5
6	———————	6
7	———————	7
8	———————	8
20	———————	20

With the Wayne controller, use the Wayne jumper settings on the Site Controller II that are shown under *CPU Board* in the Site Controller II section of this pocket reference.

The Wayne controller must be set at 1200 baud.

For Wayne pumps:

- the cash price must be lower than or equal to the credit price.
- the pump limit must be $999 for the cash/credit

selection to work.

- all Wayne dispensers must be configured in sequential, consecutive order. All Wayne dispensers must be addressed as starting with number 1, regardless of the actual pump numbers that they are configured with in the Site Controller.
- in the Wayne Data Distribution Box, any switches that are not wired to a dispenser must be in the Bypass position.

For non-blenders:

- each hose must be assigned a price code in ranges 1-5, 11-15, 21-25, 31-35; all hoses on a pump must be in the same decade.

For all blenders:

- use price codes 6-9, 16-19, 26-29, 36-39 for blended hoses. Use price codes 4, 14, 24, 34 for low feedstock (non-blended hoses). Use price codes 5, 15, 25, 35 for high feedstock (non-blended hoses).
- product names for products in blended hoses should contain blend rate (for example, *blended 40%*, using a percent sign); do not use a percent sign in non-blended hoses.

For fixed blenders:

- hose 1 is always a non-blended, low-feedstock hose and must have price code 4 (or 14 or 24 or 34). Hose 3 is always a non-blended, high-feed-stock hose and must have price code 5 (or 15 or 25 or 35). Hose 2 is the blended hose and must have a price code in ranges 6-9, 16-19, 26-29, 36-39.

For variable 5-product blenders:

- hoses 1-5 must use price codes 4-9, 14-19, 24-29, 34-39, with no repeats.

For variable 3-product blenders:

- assign 5 hoses, but assign price code 99 to hoses 2 and 4 since the system uses only hoses 1, 3, and 5.

SC II Pump Configuration

In the PUMP configuration program, in submenu 3, set the following options:

Wayne type	Options to set
MPD	1,2,5,7,9
MPD $/Cr	1,2,3,5,7,9
Blender	1,2,5,7,9,12
Blender $/Cr	1,2,3,5,7,9,12

Tank Gauge

Veeder-Root CPU Board

TLS 250 and TLS 250i

DIP Switch Bank 1

Position & Definition		Setting(*=customary)
1-3	interboard communications	*always closed
4	parity:	
	before ver. 1.0H	*always open-even
	ver 1.0H & later	*always closed=odd
5	security code	*always closed=enable

The charts below apply to version 23 and above, option PCB, for TLS 250; and version 12 and above, option PCB for TLS 250i.

CFN II versions below 1.0 H

9600, even

Enable Security Code:	Yes
Tank Monitor Address:	000001 (assumes only one monitor on system)
EoT Character:	Enable

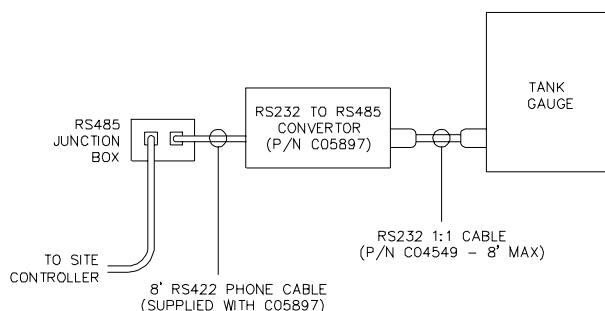#### CFN II version 1.0 H and above

9600, odd

Enable Security Code:	Yes
Tank Monitor Address:	000001 (assumes only one monitor on system)
EoT Character:	Enable

TLS 350

9600, odd, 1 stop bit, 7 data bits

Enable Security Code:	Yes
Auto Transmit Message:	Disabled
Tank Monitor Address:	000001 (assumes only one monitor on system)
EoT Character:	Enable

Cabling - 8 feet or less

Cabling - over 8 feet
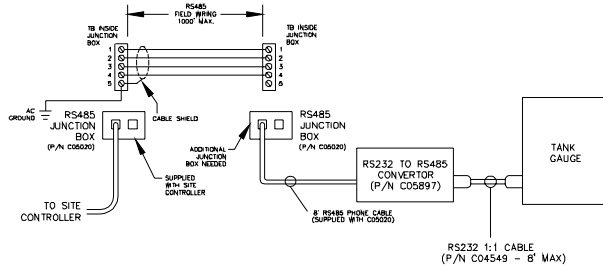
Cabling the TLS-350 for Tank/Level Data

The TLS may be connected on either the Console or Island loop. If a connection has not already been provided for the TLS, use the Island Loop.

TLS 350R

1. RS-232 Security Code: 000001
2. RS-232 End of Message: Enabled

System Requirements

Console must have "Send All Messages Feature"

Non-blended dispensers are supported

All Profit Point Broadcast Messaging enabled

Gasboy Junction Box P/N C05020

Interface Module Hardware Configuration.

Baud Rate	DATA Bits	CFN Parity	SW1	SW2
9600	8	none *	all open	all open
9600	7	even	1-3=closed 4=open	all open
9600	7	odd	1,2,4=closed 3=open	all open

* default

Cabling the TLS-350R for with BIR

The TLS must be connected on the Console Loop to receive BIR data.

ECPU Board Battery Switch ON (SW1)

HRM Features (Europe Only) - Enabled

(DIP Switch 3 in the Closed position)

Other areas - disabled

(DIP Switch 3 in the OPEN position)

RS-232 Security Code-Disabled

(DIP Switch 2 in the OPEN position)

Front Panel Security Code - Disabled

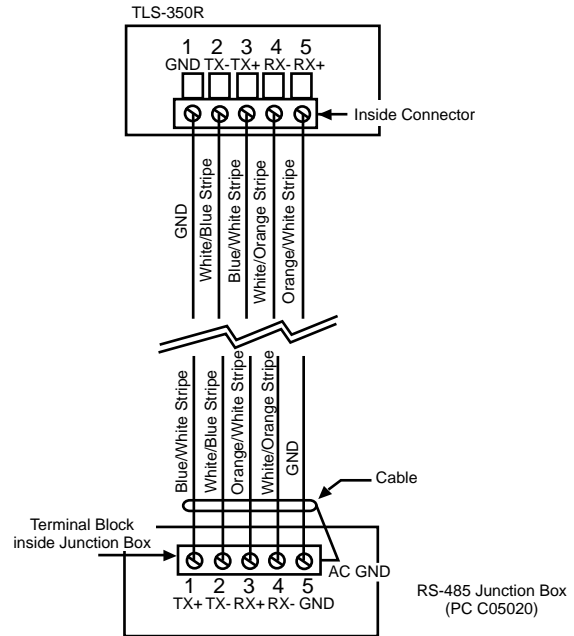(DIP Switch 1 in the OPEN position)

DIP rocker switches

OPEN=open end down, num. up
CLOSED=open end up, num. down

DIP rocker switch 4 - Unused

Battery Backup Switch - OFF (down)

Wiring to the Junction Box

Note: if cable must be shortened, remove excess at the TLS end.

For further installation instructions, refer to the VeederRoot manual titled "*Gasboy CFN TLS-350/TLS-350R Systems Setup*."

EECO tank monitor

Interface with CFN II or CFN III using either the a RS232 connection utilizing the CFN System's PORT command or a Gasboy RS232-RS485 converter. In the EECO monitor setup menus, there are two selections for connecting to a site controller. These are: Gasboy-PC or Gasboy-Site Control.

Gasboy-PC

Use this setting when connecting to one of the site's RS232 ports and interfacing using the PORT command. This sets the communication parameters to 9600, odd, 1 stop bit, 7 data bits, and no security code.

Gasboy-Site Control

Use this setting when connecting to one of the site's

RS485 loops. This sets the communication parameters to 9600, odd, 1 stop bit, 7 data bits, and security code to 000001. These parameters can also be changed individually. You need a C07476 cable to connect from the monitor to the 485/232 converter (C05897).

Gasboy Interface Software

EECO SYSTEM™ 2000

Software	Minimum Revision
028	E
029	E
030	D
041	D
042	A
074	F

EECO SYSTEM™ 1500

Software	Minimum Revision
023	M
087	B
083	E

EECO SYSTEM™ Galaxy

Software	Minimum Revision
063	H
075	L

RS-422 Communications

422 Line Monitor

PC Monitor

There are no switches on the PC-based monitor. (DIP Switch Banks 2 and 3, discussed below, apply only to Site Controller I-based monitors.) PC monitors require a 422-232 converter, discussed below after DIP switch banks.

Help. Press *H* for help on the PC.

DIP Switch Banks 2 and 3

These switches apply only to Site Controller I-based monitors. Set these switches according to the speed of the terminal to be hooked to the line monitor.

Local Terminal Baud Rate

Baud Rate	3-1	3-2	2-8
300	closed	closed	____
1200	closed	open	____
2400	open	closed	closed
4800	open	closed	open
9600	open	open	____

RS-422 Port Baud Rate

DIP switch 3, positions 5-8, all open=9600 baud.

DIP switch 2, position 7, open=7 bits; closed=8 bits.

422-232 Converter

For PC monitors, Veeder-Root tank gauges, and Profit Points. Part number: C05897.

Jumpers

Position 1 is top and position 2 is bottom when the board is oriented so that GASBOY RS422-RS232 CONVERTER is readable.

Position 1, both jumpers on upper two rows:

Position 2, both jumpers on lower two rows:

Jumper	Setting	Setting	Default
K1K2	position 1=slave side of 422 loop transmits	position 2=master side of 422 loop transmits	position 1
K3K4	position 1=tank monitor or PC or Profit Point	position 2=other application if position 1 doesn't work	position 1
K5	always on		on
K6	on=232 device listens to slave responses, or for PC monitor	off=tank gauge off=Profit Point	off
K7	on=232 device listens to master side of 422 loop		on

R1 - Adjusting

R1 should be adjusted only if you are using a PC monitor and the data being displayed is scrambled.

1. Turn R1 20 full turns counterclockwise.

2. Slowly turn R1 clockwise until the data display clears up.

3. Start counting turns.

4. Continue turning R1 clockwise until the data starts to scramble again.

5. Turn R1 counterclockwise half the number of turns you counted in order to position it in the middle of the acceptable range.

RS-232 Communications

Modems and Cables

Network Compatible Modem - C05899

Configured Modem - C01533

Answer only modem setup:

DTR signal recognized

Result codes not sent

Commands are not echoed

Auto Answer enabled

CD present when connection complete

Set for single line

DTR hangs up modem

Dial out modem setup:

DTR signal recognized

Result codes are digits

Result codes are sent

Characters are not echoed

Auto answer enabled

CD present when connection complete

Set for single line

AT command set enabled

DTR hangs up modem

Hayes Relevant Commands

1200 Setup

The following string is sent automatically by the Site Controller to initialize the 1200 modem in smart mode:

ATZ

ATX0V0Q0E0F1M1S0=2S7=200

2400, 9600, and 14.4 Setup

The following string is sent automatically by the Site Controller to initialize 2400, 9600, and 14.4 modems in smart mode:
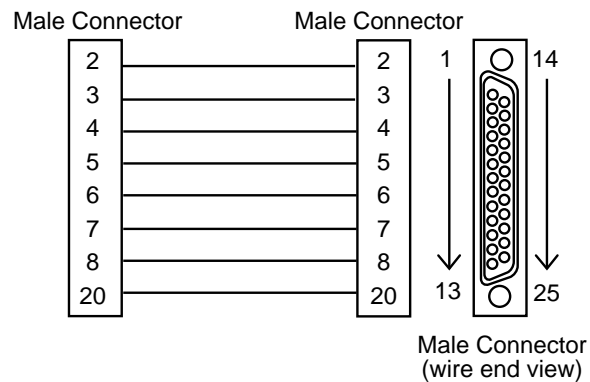
AT&F

ATX4VQEM1S0=1S7=200

AT&D2&C1&S

Hayes Optima Modems

AT&Q0&W

RS-232 Straight Cable

A straight cable with male DB-25 to male DB-25 is part number C04549. A straight cable with male DB-25 to female DB-9 is part number C04654.

These cables are used for Hayes modems and systems with a local terminal and/or printer.

Null Modem Cross Cable

A null modem cross cable with male DB-25 to male DB-25 is part number C05039. A null modem cross cable with male to female is part number C05928.
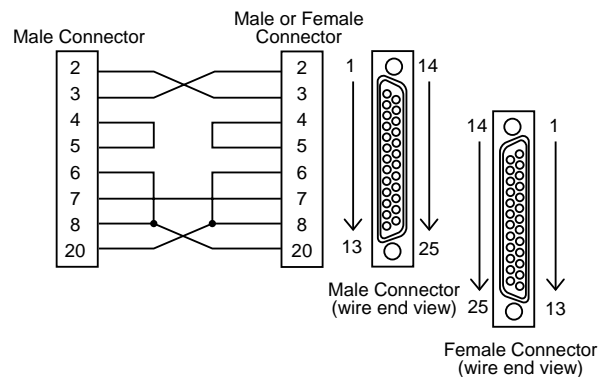
RS-232 Character Framing

ASCII, 8 data bits, no parity, 1 stop bit.

Print Transaction

Host-Site Mode

Code = PT; options = A

<ENQ>aaPTb<ETB><crc><EOT>

The Site Controller response is:
<STX>aaPTbrrssss0ddddddxyffggggqqqqqqqqoooooo oppttttyymmddhhnneennnnnnvvvvvvvvaa...aa,[00..00] tdwkii...iikeeeepppp<ETB><crc><EOT>

Raw Mode

The table on the following page explains the PRINT TRANSACTION fields.

These fields are the same for GET TRANSACTION except:

* the first GET TRANSACTION field is the 6-digit system ID.
* because of the 6-digit system ID, all subsequent GET TRANSACTION fields are offset by 6 more than the offset number shown below for each PRINT TRANSACTION field.
* if you enter the GET TRANSACTION command without the A option, the resulting display will stop with the 1-digit account field terminator.

In the table, fields [00...00] through pppp apply to Site Controller IIs only.

Field	Offset	Lgth.	Description
ssss	0	4	sequence number assigned by Site Controller
0	4	1	status code; always 0 for completed transaction
ddddddd	5	6	total dollar amount, in hundredths; if negative, most significant ASCII character has its sixth bit set; the equivalent meanings are: p = -0 u = -5 q = -1 w = -6 r = -2 w = -7 s = -3 x = -8 t = -4 y = -9
x	11	1	account to charge: 0 = club card 3 = bank card 1 = checking 4 = cash 2 = savings 5 = unpaid
y	12	1	transaction type: 0 = fuel 4 = like 0, from console 1 = fuel, preauthorized 5 = like 1, from console 2 = non=fuel 6 = like 2, from console 3 = non-fuel, preauthorized 7 = like 3, from console
ff	13	2	product code
gggg	15	4	price in thousandths of dollars
qqqqqqqq	19	8	quantity, in thousandths; if negative, most significant ASCII character has its sixth bit set, see description of dollar amount field above
ooooooo	27	7	odometer reading, in tenths; if no odometer was entered, the first digit is p or zero, depending on configuration
pp	34	2	pump number (register number for non-fuel sale)
tttt	36	4	transaction number assigned by Site Controller
Yymmdd	40	6	date completed, from Site Controller (year, day, month)
hhmm	46	4	time completed, from Site Controller (hour, minute)
ee	50	2	error code (see table below)
nnnnnn	52	6	authorization number (if site authorized, this is Sceeee, where eeee is the card expiration date; if expiration date is two digits, format is SCeeFF)
Vvvvvvvv	58	8	vehicle number; if no vehicle number was entered, the first digit is p or zero, depending on configuration
aa...aa	66	1-19	account number from transaction table
,	V	1	account field terminator
[00...00]	V	0-18	zeros if account field is less than 19 digits; *optional, needed only if account number is less than 19 digits;* field length = 19 - no. of digits in account field.
t	86	1	device type (0-9, A-F valid): 1 = Site Controller 7 = tank gauge 3 = card reader terminal 9 = remote site 4 = console chain activation 5 = FPR A = full serve 6 = gate reader
d	87	1	device drop (0-9, A-F valid)
w	88	1	number of digits after the decimal point in the quantity (for weights and measures, allows transaction printout to match resolution of the pulsers)
k	89	1	kind of transaction: 0 = ordinary 2 = return 1 = refund 3 = payout
ii...ii	90	20	issuer field (0-9, A-F valid digits)
eeee	90	4	expiration date (read from card)
pppp	114	4	physical record number; *with A option only*

Completed Transaction Codes

Code	Message*	Meaning
7	Refund	transaction is a refund**
8	Return	transaction is a return**
9	Payout	transaction is a payout**
10	Mem Lost	pump control unit's memory was lost due to battery failure
40	Pwr Fail	transaction terminated due to a power failure at the pump control unit
41		normal transaction
42	Timed Out	transaction timed out at the pump
43	Limit	pump cut off at limit
45	Reversal	transaction is a reversal
50	Unassigned	a device completed a transaction but the Site Controller does not have a record of it
52	Gate	transaction was started at a gate controller
54	Aborted	transaction was aborted (pump was deactivated) before pumping was completed
55	Delivery	transaction is a fuel delivery, either manually entered at the card reader terminal or registered by a tank monitor
71	Manual	transaction was manually entered at the card reader terminal***
77	Pulse err	caused by dual pulser failure
78	Prod out	pump reports it is out of this type of product
79	Pump down	a pump is not working**
81	Withdrawal	transaction was a cash withdrawal**

*The message printed in the Error field of the transaction printout.
**Site Controller II only.
***Site Controller I only.

Site-Host Mode

Standard log in—an example of the sign-on command and response with calculated CRC-16 check sums:

<ENQ>01CK0GASBOY<ETB>E7B6<EOT>

<STX>01CK000851125140800060006000600060001 00202V0 10,<ETB>D389<EOT>

PC/Site Control

Required Settings for SC II

Network Poll Address = 1.

Site ID = site ID in PC password file.

Password for user 1 is identical in PC password file.

Baud rate correct for modem and its switches.

Command Line Options

SC [/**A***argument*] [/**B***baud*] [/**C***com#*] [/**D***phone*] [/**L**] [/**T***timeout*] [*siteid*]

/**A***argument*   Specify an argument to be passed to a file of Site Controller commands that is used as input to PC/SiteControl. Multiple arguments can be sent using multiple /A options. /A options must come before any other parameters.

/**B***baud*   300, 1200, 2400, or 9600; default is 1200

/**C***com#*   1 or 2; default is 1

/**D***phone*   Specify the phone number to dial to connect to a Site Controller. Use this option only if you connect to the Site Controller through a dial-out modem and you want to override the number in the password file. P requests pulse (rotary) dialing, T requests touch dialing, and a comma requests the modem to pause 2 seconds in the dialing sequence to wait for a second dial tone.
Another phone number option is the modem timeout length. That is the time the modem will wait for an answer. The modem timeout length is the number of seconds surrounded with square brackets [], typed after the /D.

/**L**   Output usually appears on the screen. This option will make the output also print on the PC printer.

/**T***timeout*   Specify how long to wait for a response from the Site Controller. The time is specified in eighteenths of a second (18 = 1 second); default and shortest timeout allowed is 3 (0.167 seconds).

siteid   Specify the site ID number. Use this option only for sites you are dialing up with a modem, not for direct-connect sites. Use an asterisk (*) as the site ID to call all the sites in the password file.

Input and Output Redirection

If you use site-control mode, the input and output files will be on the PC's disk, instead of the Site Controller's disk. Similarly, printed output will be printed on the PC's printer, instead of the Site Controller's printer.

<*filename* uses the commands from the named file as input.

>*filename* puts the output of the commands in the named file, deleting whatever was in the named file.

>>*filename* adds the output of the commands to the end of the named file.

>*PRN* prints the output of the commands on the PC printer (site-control mode).

>*LOG* prints the output of the commands on the site printer (terminal mode).

Fuel Point Reader

CPU Board

Part number: C08886.

4-wire operation:

RS 485 PCB to RS-485 JBOX

1 - Tx+ (CFN422-1)
2 - Tx- (CFN422-2)
4 - Rx- (CFN422-4)
3 - Rx+ (CFN422-3)

Switches

SW 1

DIP switch 1 on the reader terminal CPU board sets options, including the Fuel Point reader address:

Position & Definition	Setting(*=customary)
1	*On
2	*On
3 address	
4 address	

FPR Address	S3	S4
1	OFF	OFF
2	OFF	ON
3	ON	OFF
4	ON	ON

Site Notes