

NDC

Credit and Debit Card Networks

Version 002

for Site Controller II versions 2.3 and above

for Site Controller III version 3.3 and above

part number: C35911

Gasboy CFN Series

NDC 002

Credit and Debit Card Networks

Version 002

03/12/03

C35911

Gasboy International LLC
Lansdale, Pennsylvania

Gasboy International LLC
P. O. Box 309
Lansdale, PA 19446

Copyright 2003 by Gasboy International, Inc.
All rights reserved.
Printed in the United States of America.

The information in this document is confidential and proprietary. No further disclosure thereof shall be made without permission from Gasboy International LLC.

Gasboy International LLC believes that the information in this document is accurate and reliable. However, we assume no responsibility for its use, nor for any infringements of patents or other rights of third parties resulting from its use. We reserve the right to make changes at any time without notice.

REVISION RECORD OF THIS DOCUMENT		
Part No.	Date Published	SC Release Levels
C35911	May 6, 1999	SC II version 2.2 and above CFN III version 3.0 and above
C35911	October 19, 2000	SC II version 2.3 and above CFN3 version 3.3 and above
C35911	May 8, 2002	SC II version 2.3 and above CFN3 version 3.4 and above
C35911 M	March 12, 2003	SC II version 2.3 and above CFN3 version 3.4 and above

Site Controller Related Publications

Site Controller - versions 2.3 and 3.3 and above

<i>Part No.</i>	<i>Title</i>
C09212	SC II Manager's Manual, version 2.3
C01918	SC II Installation Manual, version 2.3
C09213	SC II Configuration Manual, version 2.3
C09159	SC II Pocket Reference, version 2.3
C35920	CFN3 Manager's Manual for Windows NT, version 3.3
C09326	CFN3 Configuration Manual for Windows NT, version 3.3
C35921	CFN3 Pocket Reference
C09204	Check Point Reference Manual
C35745	Profit Point Clerk's Manual
C35746	Profit Point Reference Manual
C35923	Point of Sale and Shift Change, version 003

Credit and Debit Card Networks

C35931	Amoco/DataCard	C35907	Gascard
C35901	Buypass	C35909	Generic Dial
C35914	ADS-Chicago (formerly SPS/Phillips)	C35908	PaymenTech (formerly Gensar)
C35902	ADS-CITGO	C35910	NaBANCO
C35906	ADS-FINA	C35911	NDC
C35919	ADS-ZION	C35913	Sinclair
C35904	EDS-CCIS	C35915	T-Chek
C35903	Comdata	C35916	UFDA
C35905	FDR	C35917	VDOT
C35930	Gasboy Dial	C35918	VisaNet

Pump Interface

C09146	Pump Interface Manual
C01745	Gilbarco Interface Unit
C35849	SDI/Wayne CAT Interface
C35924	SDI/Unitec Interface
C35933	Insight Interface

Card Encoding and Miscellaneous

C09136	CFN Series Clubcard Format
C01687	CFN Series Card Encoding Manual

Remote Communications

C09141	PC/SiteControl User's Manual
--------	------------------------------

Technical Publications

C01759	CFN Diagnostic Manual
--------	-----------------------

Table of Contents

- Cards Accepted 1
- Preparing for configuration 1
- Setting up your Site 1
- Configuration 2
 - Menu 2
 - Command Line 2
 - Saving Parameter Changes 3
 - Read/Write a Network File (-R, -W) 3
 - Editing Network Parameters (-E) 3
 - Edit Credit Card Parameters (-C) 4
 - Edit Instant-On for Pumps (-P) - not available 5
 - Initialize Current NDC Configuration (-I) 5
 - Print Current NDC System Configuration (-S) 6
 - Miscellaneous Setup Note 6
 - Console (CONSOLE) 7
- Special system setup 7
 - Tables (TABLE) 7
 - Transaction format (TRFMT) 7
 - System Date 7
 - Disabling Cards during off-hours (unattended) operation 7
 - System Parameters (SYS_PAR) 7
 - Debug 8
- The transaction pointer 8
- Settlement for NDC 9
 - How settlement works 9
 - The settlement report 9
- Error message 9

002 NDC

If you are connecting your site to NDC for card verification, use this chapter for reference.

Cards Accepted

The credit cards accepted with this network are:

- Carte Blanche
- Master Card
- VISA
- Discover
- American Express
- Diner's Club

The proprietary cards accepted with this network are:

- JCB
- Southern States
- Country Mark

The NDC software now complies with the new VISA restriction on the credit card account printed on Island receipts. Only 4 digits will be printed instead of the complete number.

Preparing for configuration

Before you configure, get the following information from your NDC representative:

- Your Bank ID number.
- Your merchant ID number. More information about your merchant ID can be found on page 9.
- The phone number the modem dials to receive authorizations.
- The baud rate for the modem communications.

You will need a modem for connection to the NDC network. This is in addition to a dial-in modem.

Determine the Site Controller port to be assigned to connect to the NDC host, and connect that port to a 2400 baud modem or one that is 100% Hayes compatible. (See the Hayes dial-out settings in the *Site Controller Manager's Manual, Modem* appendix)

Setting up your Site

WARNING!!! Before initializing NDC, all previous transactions for any existing network interface must be settled. Failure to do so may cause loss of transaction data.

Run NDC -I to reset all router values to defaults by erasing whatever changes you have entered. The network data tables affected are the network parameters, the card parameters and the instant-on pump tables. They will need to be reentered.

Next, make sure your router table has enough space. The router table must have a minimum of 2818 entries available. If you are setting up cards for off-hours use, the cron table must have space for a minimum of 17 entries. (You can check these settings and make changes, if necessary, at the command prompt by running TABLE.) If you change the size of the router table, reboot the Site Controller after you exit from the table program.

The operating system will warn you if not enough space is available for the router table. If that happens, make the transaction table smaller to allow space for the router table.

To initialize:

1. Run FIX TRANS;I.
2. Run NDC -I to initialize the network parameters.
3. Initialize NDC Config [Y/N].
4. Reboot.
5. Run NDC -E (or from the menu system, select Edit Network Parameters).
6. Select the main menu option, W. This will step you through all of the basic data needed for the network.
7. Run NDC -C to set the card parameters.

Configuration

The NDC command will prompt you for each item of needed information. The program also checks data and warns you when errors occur and tells how they might be fixed.

The program can be run in two ways: menu and command line.

Menu

To run NDC in menu mode, type NDC and the following main menu will appear.

Enter the number to the left of an item to execute that item. The F, S, and ? options allow you to:

- F - redirect the screen output to a specific file.
- S - have output go to the screen.
- ? - print the options for the command line execution of the program.

The default is to print output to the screen. When you have finished, select 1. Exit to exit the program.

```
NDC Main Menu
1. Exit
2. Edit Network Parameters
3. Edit Card Parameters
4. Print Configuration
5. Edit Instant On for Pumps
6. Read Network Parameters from File
7. Write Network Parameters to File
8. Initialize Network Parameters

Options:   F = File, S = Screen, ? = Help

Output to: SCREEN
Your choice(#,f or s):
```

Command Line

The command line format of the program is:

NDC [option]

Valid options:

- E Allows user edit of network configuration.
- C Edit Credit Card Acceptance Table.
- S Prints current NDC configuration.
- P Edit Instant On Pump Table.
- R <file> Loads NDC configuration from given file.
- W <file> Writes current NDC configuration to given file.
- I Option resets current NDC configuration.
- ? Prints this helpful list

The options can be combined, though care must be used in combining some operations with the read, write, and initialize file options. The program operates upon the FRAMOS.CFG file in your current directory.

Each of the options is discussed below in this chapter.

Saving Parameter Changes

To save any changes you make with the NDC options, select *Exit* and answer *Yes* to the save changes prompt. The program stores the information in FRAMOS.CFG and/or in the router tables. *If you do not answer Yes, none of the information you have entered will be saved!* Reboot the program to load the new configuration.

The program then runs a check on all the NDC related parameters. Some parameters cannot be edited within this program, but the appropriate program is mentioned if a problem occurs. A message will be displayed that tells you which of the parameters is in error.

```

Diagnostics
Checking SYS_PAR...
Checking READER...
No errors detected
Press RETURN.

```

Read/Write a Network File (-R, -W)

Network information and card parameters can be saved to a file. You can then use the file to reload this configuration if data is ever lost.

To save the data to a file, enter the command NDC -W *filename*. Then copy the new file and your FRAMOS.CFG file to a diskette for safe-keeping.

To load or restore the data, enter NDC -R *filename*.

Editing Network Parameters (-E)

The NDC program allows you to edit parameters by entering their number, which is shown on the menu. When you run NDC -E, a menu of parameters appears on the screen. A sample of the first page of parameters is shown here (your page will certainly differ):

```

                                NETWORK PARAMETERS
1. Main Bank Phone Number : 9,18005543363
2. Backup Bank Phone Number : 9,18007522281
3. Modem type : Hayes Smartmodem/Accura
4. User Modem Initialization : L3
5. Host handler baud rate : 2400
6. Carrier wait timeout : 20
7. Verification timeout : 60
8. Host modem channel : 2
9. Bank Identification Number : 095000
10. Merchant Identification Number : 336645817
11. Terminal Type : GB2
12. Market Identifier : R
13. Sub-market Identifier : CS
14. System Type : 6

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

```

To edit a parameter, enter its menu number. As shown at the bottom of the screen, the W option steps you through each parameter in the program. Press to see the next page. To get help, enter a '?'. Please note that the Bank ID Number is 6 characters long and that items 11 through 14 should be entered exactly as shown in the example above.

Phone Numbers and Modem

Refer to your modem's manual for information on the phone number string. You can usually find it under the ATDT command. The backup bank phone number can be the same as the main number or it can be the phone number that NDC provides for settlement.

If your modem is compatible with the Hayes 2400 Smartmodem/Accura or Hayes OPTIMA modem then you only need to set the Modem type.

If your modem is not compatible with one of the three Hayes modems, consult your modem's user manual. You may need to change the initialization parameters to get your modem to work properly. First set parameter 3 to Hayes 1200. The new parameters can be then entered in parameter 4. These parameters are added onto the Hayes 1200 string listed below. Any changes made to modem parameters using the User Modem string will override the base string's value. (Note: Hayes modems accept a maximum of 40 characters in their command strings).

Initialization strings used in basic setup

Hayes 1200	ATV0X0Q0E0M1S0=0S7=255S9=3
Hayes Smartmodem/Accura	ATV0X0Q0E0M1S0=0S7=255S9=3&M0X4&D2&C1&S
Hayes OPTIMA	ATV0X0Q0E0M1S0=0S7=255S9=3&Q0X4&D2&C1&S

If your modem is a Zoom 56K modem, set up the modem initialization as follows:

Set parameter 3, Modem Type to **Hayes 1200**

Set parameter 4, User Modem Initialization to: **\N1% C0&K0X4S37=n**

The S37 register **n** depends upon the baud rate being used for modem communication.

For 1200 baud, set this value to **5**; for 2400 baud, set this value to **6**. Also remember to use the number zero, not the letter O, in the initialization string.

Edit Credit Card Parameters (-C)

This table sets the operating parameters of the various cards.

If a card type is accepted, set the OK field to Y.

If off-hours use is allowed for a card type, set the OK Off-Hrs. field to Y.

If the account number will be printed on the customer receipt when the purchase is done at

an island card reader (check with your bank to see if they allow this), then set Show Acct field to Y. For VISA and Master Card only the last four digits of the account number will be printed with a two letter designator for the type of card. All other cards will have the entire account number printed.

If instant-on is allowed for a card type, set the Instant On field to YES. (*This option is not available in this version of the software*).

If manual entry of card numbers is allowed for a card type, set Manual Entry field to YES.

For Island Card Reader (ICR) sales, the Limit field is used to set the limit for the amount purchased for a card type. Note that Visa is set to \$50 and cannot be changed.

Also for ICR sales, the Preauth field is used to set the amount requested from the host. If set to zero, the amount is determined by NDC. Note that Visa is set to \$1 and cannot be changed.

Card Parameters							
CARD	OK	OK Off-Hrs	Show Acct	Instant On - OK	Manual Entry - OK	ICR Limit	ICR Preauth
1 Visa	Y	N	Y	YES	YES	\$ 50	\$ 1
2 Master Card	Y	N	Y	YES	YES	\$100	\$ 1
3 Discover	Y	N	Y	YES	YES	\$100	\$ 1
4 Amex	N	N	Y	YES	YES	None	None
5 Diners Club	N	N	Y	YES	YES	None	None
6 Carte Blanche	N	N	Y	YES	YES	None	None
7 JCB	N	N	Y	YES	YES	None	None
8 Country Mark	Y	Y	Y	YES	YES	\$100	\$ 1
9 Southern States	N	N	Y	YES	YES	None	None

Enter Card Number, RETURN for next page, q to quit:

Edit Instant-On for Pumps (-P) - not available

If you do not want instant-on for some fuels, you can disable instant-on for the pumps that dispense those fuels. Select the appropriate pump and answer NO to the prompt.

Initialize Current NDC Configuration (-I)

This option resets all router values to defaults by erasing whatever changes you have entered. The network data tables affected are the card parameters and the instant-on pump tables. They will need to be re-entered (see earlier section *Initializing the Router*).

Print Current NDC System Configuration (-S)

This option prints the system parameters.

```

NDC System Configuration Report
NDC Network Parameters
1. Main Bank Phone Number : 9,18005543363
2. Backup Bank Phone Number : 9,18007522281
3. Modem type : Hayes Smartmodem/Accura
4. User Modem Initialization : L3
5. Host handler baud rate : 2400
6. Carrier wait timeout : 20
7. Verification timeout : 60
8. Host modem channel : 2
9. Bank Identification Number : 095000
10. Merchant ID Number : 336645817
11. Terminal Type : GB2
12. Market Identifier : R
13. Sub-market Identifier : CS
14. System Type : 6
15. Instant On : Disabled
16. Do Release : Enabled
17. Override Duplicate Approval Indication : Enabled
18. Batch Settlement Release Time : 0700
19. Instant On timeout : 40
20. Touch tone pulse length : 55

NDC Account Parameters
CARD          OK      OK      Show  Instant  Manual  ICR  ICR
              Off-Hrs Acct  On - OK Entry - OK Limit Preauth
-----
1 Visa        Y      N      Y      YES      YES      $ 50 $ 1
2 Master Card Y      N      Y      YES      YES      $100 $ 1
3 Discover    Y      N      Y      YES      YES      $100 $ 1
4 Amex       N      N      Y      YES      YES      None  None
5 Diners Club N      N      Y      YES      YES      None  None
6 Carte Blanche N      N      Y      YES      YES      None  None
7 JCB        N      N      Y      YES      YES      None  None
8 Country Mark Y      Y      Y      YES      YES      $100 $ 1
9 Southern States N      N      Y      YES      YES      None  None

INSTANT ON - Pump Table
Pump Instant On      Pump Instant On      Pump Instant On
1      Enabled
2      Enabled
3      Enabled
4      Enabled
5      Enabled
6      Enabled
7      Enabled
8      Enabled

```

Miscellaneous Setup Note

If your site is not dialing after credit card authorizations are attempted, check that:

1. The correct phone number is entered.
2. Lockout on Remote Verification parameter (SYS_PAR) for the reader and/or console is not set to CREDIT.
3. The card is enabled for use with this site (NDC -C command).
4. You are not getting warnings related to the router table size.

Console (CONSOLE)

After running initialization, these parameters are set to these values:

Console Parameter	Required Settings
Allow hand entry of card data	Yes
POS asks for odometer on fuel sale	1 (Card-encoded)
POS asks for auxiliary # on fuel sale	1 (Card-encoded)

Special system setup

Tables (TABLE)

- Router table must have a minimum of 2818 entries.
- Cron table must have a minimum of 17 entries for set up of off-hours card operations (25 to 30 is recommended).

Transaction format (TRFMT)

Make certain that the transaction printout format includes the authorization number (field type 3) and dollar amount (field type 11).

System Date

Make sure the system date and time is correct. PPrint DAte will display the date and time. LOad DAte will allow you to change it.

Disabling Cards during off-hours (unattended) operation

To disable a card during off-hours operation, set the OK Off-Hrs field in the Card Parameters menu to 'N'. Off-hours operation can be enabled and disabled manually or automatically (using crons).

To enable off-hours operation manually, type NDCOFFHR at the command prompt.

To enable off-hours operation automatically, edit the CMD file NDCSETHR.CMD using FRED or any text editor to set the crons for appropriate times for your site.

Once NDCSETHR.CMD is setup appropriately, type NDCSETHR at the command prompt. If times need to be adjusted, type NDCRSTHR at the command prompt, adjust the times in NDCSETHR.CMD, and type NDCSETHR at the command prompt.

To disable the automatic feature, type NDCRSTHR at the command prompt.

To enable on-hours operation manually, type NDCONHRS at the command prompt.

System Parameters (SYS_PAR)

This information is provided for reference. The menu programs initialize and/or store the appropriate values for you in the system parameters.

Reader verification - page 4

Use remote verification (reader): credit
Use local verification (reader): club
Check mod 10 (reader): none
Check expiration date (reader): credit
Lockout on remote verification: none
Reader default payment is: credit

Console verification - page 5

Use remote verification (console): credit
Use local verification (console): club
Check mod 10 (console): none
Check expiration date (console): credit
Lockout on remote verification: none

Serial port configuration - page 8

Host handler channel: (your host modem channel)
Host handler baud rate: (NDC will assign this)
Host handler data: 00 20 28 00 00 00 00 00 00 00 00 00 00 00 00
The first hex number is the modem type.
The second number is the carrier wait timeout.
The third number is the Instant-on timeout.

Transaction miscellany - page 11 (CFN2), page 8 (CFN3)

Verification timeout: 60.
This should be a minimum of 45, but can also be set to 0 for no timeout.

Debug

A command line debug feature is available for CFN. Instead of changing the host handler data as with this older versions at the SC command line prompt type:

(prompt): debug 2 2

This will start the debug program that will write the important occurrences to the log file. Let this run until the problem occurs. Once the problem has been logged, type:

(prompt): debug 0

to turn the debugger off.

NOTE: Turn debug off when completed or a large router.log file will be created. This will slow your system down, making it difficult to function properly.

The transaction pointer

If you are not regularly polling and resetting the transaction pointer, then you should run the PURGE SITE command once a day so you do not fill up the Site Controller's memory.

Settlement for NDC

How settlement works

NDC can either automatically reconcile or require site reconciliation (settling). If you set (via the NDC menu) the site to do reconciliation, you must specify a time. A cron will automatically be created to run the command "NDCSTL.CMD" at that time.

When settlement occurs, a message is printed on the log indicating whether an out-of-balance condition occurred. The message will be either *Settlement complete* or *Settlement complete OUT OF BALANCE*. If an out-of-balance situation occurs, consult your NDC representative to try to resolve the error. Once the error is resolved, run the command "SETTLE F" to force the host to close the out of balance batch. Also, use SETTLE F top start with a clean batch number.

When settlement occurs, a report will be generated on the local log printer and stored in a disk file. There will be a log for these reports saved for every day of the week, stored in the directory NDCREP, in files named STL.MON, STL.TUE, STL.WED, etc.

If the settlement fails to occur automatically, you can sign on to the system and type the command NDCSTL to do a settlement manually.

The command "SETTLE" closes the current batch. You can have as many batches during the day as desired.

The command "SETTLE -" sends any uncompleted trans to host.

the command "SETTLE C" clears the current batch counters. Note: Contact NDC before you run SETTLE C. NDC needs to know you are clearing the batch and batch counter.

The command "SETTLE I" performs a balance inquiry which does not close the batch (the result is sent to the local log printer and the file NDC.STL).

The settlement report

The report for settlement which is printed on the log and stored on disk looks like this:

```
Settlement: Balanced - Site $37.85(4), Host $37.85(4) Mon 1/03/00 5:09 PM
Settlement: Balanced - Site $26.00(3), Host $26.00(3) Mon 1/03/00 5:10 PM
Settlement: Balanced - Site $35.85(4), Host $35.85(4) Mon 1/03/00 5:12 PM
```

Error message

Infrequently, NDC may initially authorize the use of a card, but when the transaction is completed, reject the completion of that transaction. In this unlikely event, you will see this message:

```
NDC rejected #####: 'error message'
```

where ##### stands for the number of the affected transaction, and *error message* stands for a specific error message from NDC.

If this situation occurs, make a record of the error message, and contact your NDC representative to find out what to do next.

