



Site Controller II

CPU/Memory Board/Program Upgrade Instructions

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Approvals

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

Underwriters Laboratories (UL):

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

New York City Fire Department (NYFD):

NYFD C of A #	Product
4823	9100A, 9140A, 9152A, 9153A, 9800A, 9840A, 9850A, 9852A, 9853A, 9140
4997	9822A, 9823A
5046	9100Q, 9140Q, 9152Q, 9153Q, 9800Q, 9840Q, 9852Q, 9853Q

California Air Resources Board (CARB):

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

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

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

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Dispensers

5,257,720

Point of Sale/Back Office Equipment

D335,673

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1 – Introduction

Purpose

This manual provides instructions to upgrade a Site Controller (SC) II site to the latest version of the Central Processing Unit (CPU) and the Memory Board. It also provides instructions to update the software to the latest version. While performing these upgrades, the following restrictions need to be considered:

- This upgrade will not work with sites that have 5-1/4" floppy drives.
- Sites with Gasboy Check Point consoles, which use Data Encryption Standard (DES) encryption or odometer entry through their PIN Pad, have to upgrade their Check Point firmware to V5.4 or higher (C08721KCON54).
- Upgrading an SC II from a spare parts kit (C04898/C04897) will require new SC II software (C35570). Contact Gasboy Technical Service at 1-800-444-5529 to place an order.

Parts List

The kit supplied along with this manual contains the following items:

Part #	Qty.	Description
C05852	1	SC II CPU board
C07041	1	Memory board
C35570	1	SC II 2.0 and above upgrade diskettes (latest version)
C08721KS240X	1	D-site chip (latest version)
C08919	1	Profit Point software (latest version)
C09622	1	F/F #8-32 standoff, 11/16" long (nylon)
C04126	1	M/F #8-32 standoff, 1/4" long
C35837	1	Instruction sheet

Intended Users

- Authorized Service Contractors (ASCs)
- Customer Specified Contractors (CSCs)

Related Reading

The following document contains related information and may be helpful when using this manual:

Document Number	Title	GOLD® Library
PT-1941	CFN Series Replacement Parts Manual	Gasboy Fuel Management Products
MDE-4356	Profit Point Reference Manual	Gasboy Fuel Management Products
MDE-4311	CFN Series Site Controller II Manager's Manual	Gasboy Fuel Management Products

Abbreviations and Acronyms

The following table contains a list of acronyms used in this guide:

Acronym	Definition
CARB	California Air Resources Board
CoC	Certificate of Compliance
CPU	Central Processing Unit
DES	Data Encryption Standard
FCC	Federal Communications Commission
NCWM	National Conference of Weights and Measures
NYFD	New York City Fire Department
PC	Personal Computer
PCB	Printed Circuit Board
PIN	Personal Identification Number
POS	Point of Sale
SC	Site Controller
UL	Underwriters Laboratories

2 – Preparing to Upgrade

This section provides information on:

- Cleaning disk drives
- Taking backup
- Updating Framos.cfg

Cleaning Disk Drives

If the Site Controller's floppy disk drives have not been cleaned in the past one month, clean the disk drives before upgrading. Refer to Section 21: "How to Clean the Diskette Drive" in the Site Controller II Manager's Manual (MDE-4311).

Taking Backup

To take backups, proceed as follows:

- 1 Stop the site.
- 2 Use the **SYSBACK** command to back up system data.
- 3 Use the **TRANBACK** command to back up transactions.
- 4 Poll the site.
- 5 Do a **P SIG** and note the users and their permission levels.
- 6 Perform your end of day procedure (s).
- 7 Type **P DA**, press **ENTER**, and note the trans #.
- 8 If the site interfaces with a bank network, perform a settlement. If the bank router software has a menu, choose the **write to file** option.

Systems with Dual Floppy Disk Drives

Make a spare copy of your current Release and Applications disks, then make a spare copy of the new Release and Applications disks. Refer to Section 1: "Disk Commands", in the Site Controller II Manager's Manual (MDE-4311).

Systems with a Hard Drive and a Floppy Drive

Back up the files on the hard drive by performing a **HARDBACK**. Refer to Section 13: “How to Back Up and Restore Hard Disk Files”, in the Site Controller II Manager's Manual (MDE-4311).

Updating Framos.Cfg

V1.0 to V2.0X or above on an SC II with a Hard Drive

- 1 Insert the new Release disk in the A: drive, type **CP SYSBACK.DTA A:** and press **ENTER**. If there is not enough disk space remaining on the new Release disk, copy **SYSBACK.DTA** to the Applications disk.
- 2 Insert the new Applications disk in the A: drive, type **A:BIN/CONVERT2 C:FRAMOS.CFG A:FRAMOS.CFG**, and press **ENTER**.
- 3 When prompted, **Do you want to save this configuration (Y/N):**, insert the new Release disk in the A: drive, type **Y** and press **ENTER**.

V1.0 to V2.0X or above on an SC II with Two Floppy Drives

- 1 Insert the V1.0 Release disk in the A: drive, and the new Release disk in the B: drive.
- 2 Type **CP SYSBACK.DTA B:**, and press **ENTER**.
- 3 Insert the new Applications disk in the A: drive, and the V1.0 Release disk in the B: drive.
- 4 Type **A:BIN/CONVERT2 B:FRAMOS.CFG A:FRAMOS.CFG**, and press **ENTER**. The prompt **Insert SCII V1.0 Release disk with current configuration then RETURN:** appears.
- 5 Press **ENTER**. The prompt **Do you want to save this configuration (Y/N):** appears.
- 6 Insert the new Release disk in the A: drive, remove the disk from the B: drive, type **Y**, and press **ENTER**.

V2.0 to V2.0C or above

Note: If the site has Profit Point(s), before you install the Site Controller upgrade, verify if the Profit Point version is 2.0 or above. Profit Point versions prior to 2.0 are not supported in Site Controller versions 2.0C and above. If you need to upgrade the existing Profit Point(s), see [“POS Software Upgrade” on page 16](#).

Note: If you are using the Standard Reports Package and are upgrading to 2.1x or above, you must be running or upgrading to version 002 or above Standard Reports Package. See [“Reports Package Upgrade” on page 17.](#)

For an SC II with two floppy disk drives

- 1 Move the old Release disk from the A: drive to the B: drive.
- 2 Install the new Release disk in the A: drive.
- 3 Type **CP B:FRAMOS.CFG A:FRAMOS.CFG**, and press **ENTER**.
- 4 Copy any user files from the old disk in the same manner.
- 5 Remove the old Release disk from the B: drive.
- 6 Place the new Applications disk in the B: drive.

For an SC II with a hard drive and a floppy disk drive

Note: The information given below is applicable only if you have been using the Reports Package software.

- 1 Verify if a **HARDBACK** has been done as instructed in [“Taking Backup” on page 3.](#)
- 2 Insert the new Applications disk in the A: drive.
- 3 Type **A:BIN/INSTALL**, and press **ENTER**.
- 4 Type **N** if prompted to copy **SYSBACK.DTA** or **OFFROAD.DTA**.
- 5 At the prompt: **Do you want to install from an additional floppy disk (Y/N):**, insert the new Release disk, type **Y**, and press **ENTER**.
- 6 If prompted, do not copy the new **FRAMOS.CFG** to the hard drive.
- 7 Use the **CP** command to copy user-created files and reports-related files from the **C:/PRESERVE** directory to the proper directories on the hard drive and also to the new Release disk in the A: drive.
- 8 Remove the disk from the A: drive.

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3 – Upgrading

This section provides information on:

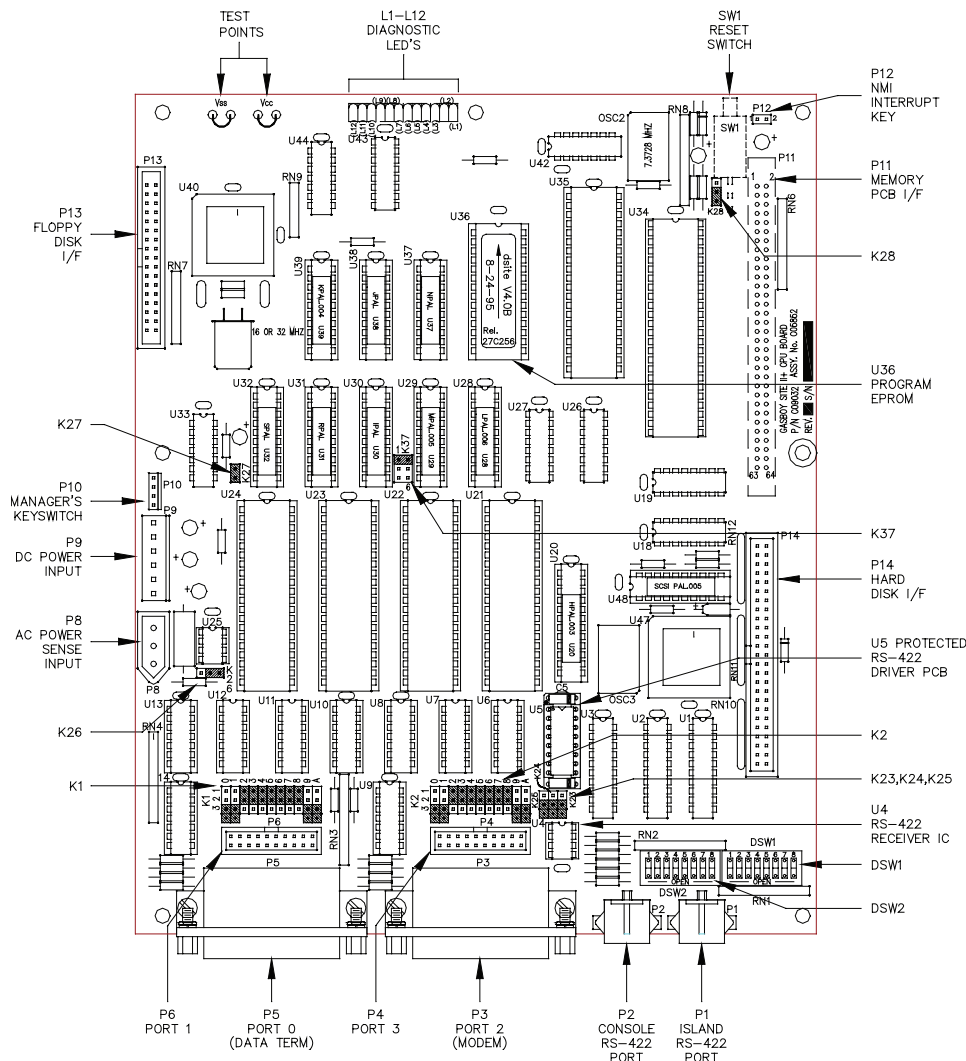
- Installing a new CPU and memory board
- Installing new software

Installing a New CPU Board

To install a new CPU board, proceed as follows:

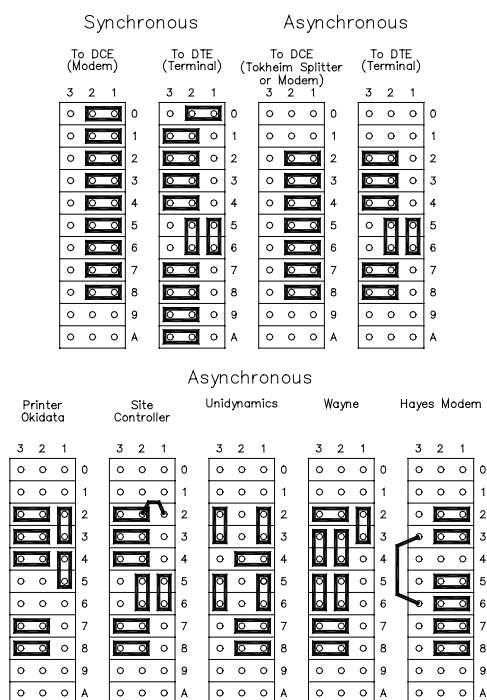
- 1 Turn off the power, and unplug the Site Controller.
- 2 Remove the four Phillips screws from the sides of the Site Controller, and remove the cover.
- 3 Disconnect all cables going to the CPU board (top board), and make a note of each cable and its corresponding connector.
- 4 Remove the Phillips screws that secure the Site Controller CPU board, and carefully remove the board.
- 5 Set the jumpers on the new CPU board to match the site's configuration. Refer to Figure 3-1, to set up the CPU board.

Figure 3-1 Site Controller II CPU PCB - C05852



K23-K37 CPU Board Jumpers

Jumper	Function	Status
K23	Synchronous comm signals disabled at modem port	Open
K24	Synchronous comm signals disabled at modem port	Open
K25	Synchronous comm signals disabled at modem port	Open
K26	AC power fail signal enabled	1-2 Open 2-3 Jumpers
K27	Deadman timer enabled	Jumpers
K28	Soft reset enabled	1-2 Jumpers 2-3 Open
K37	Number of wait states for PCMCIA RAM accesses	1-2 Jumpers 3-4 Open 5-6 Open

Figure 3-2 K1 & K2, Port 1 & Port 3 Configuration Jumpers

CPU PCB Switches

DSW1 - Backup Sign-on, Hard Disk Access, Boot Modes

Switch	Function	Setting
DSW1-1	Backup sign-on disabled	Open
DSW1-2	Hard disk	Open-Disabled
		Closed-Enabled
DSW3-3	Not used	Don't care
DSW1-4	Not used	Don't care
DSW1-5	Diagnostic program disabled	Open
DSW1-6	Not used	Don't care
DSW1-7	See below	
DSW1-8	See below	

DSW1-7 & DSW1-8 Mode Set Switches

Switches		Modes		
DSW1-7	DSW1-8	Reset	LED's	Crash
OPEN	OPEN	BOOT	NORMAL	BOOT
OPEN	CLOSED	BOOT	NORMAL	MONITOR
CLOSED	OPEN	BOOT	SCAN	BOOT
CLOSED	CLOSED	MONITOR	SCAN	MONITOR

DSW2 - Baud Rates

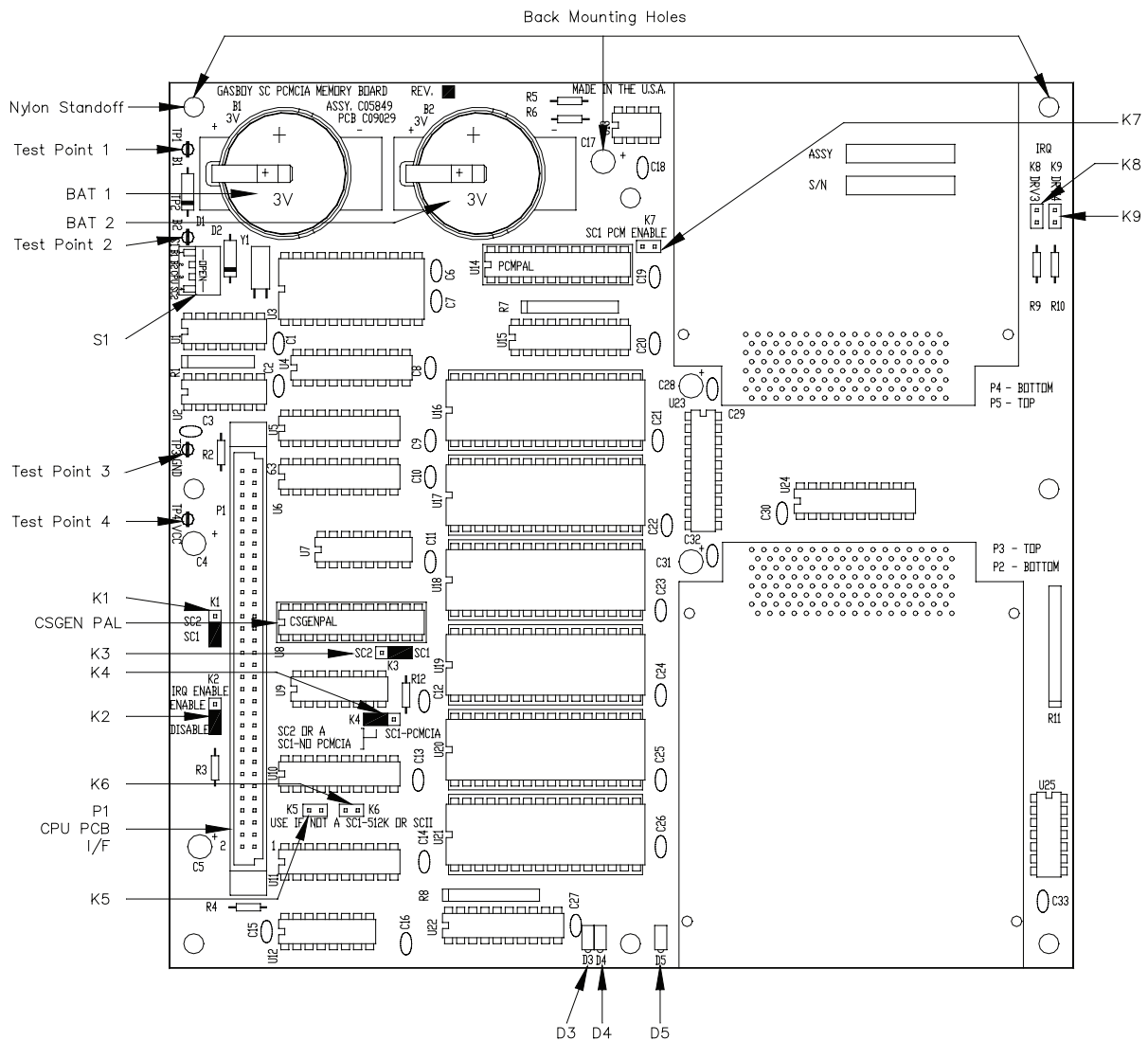
PORT	SWITCH	BAUD RATES			
		300	1200	2400	9600
LOCAL	DSW2-1	OPEN	CLOSED	OPEN	CLOSED
	DSW2-2	OPEN	OPEN	CLOSED	CLOSED
REMOTE	DSW2-3	OPEN	CLOSED	OPEN	CLOSED
	DSW2-4	OPEN	OPEN	CLOSED	CLOSED
SUBSITES	DSW2-5	OPEN	CLOSED	OPEN	CLOSED
	DSW2-6	OPEN	OPEN	CLOSED	CLOSED
LOG PRINTER	DSW2-7	OPEN	CLOSED	OPEN	CLOSED
	DSW2-8	OPEN	OPEN	CLOSED	CLOSED

Installing a New Memory Board

To install a new memory board, proceed as follows:

- 1 From the base of the Site Controller, remove the two Phillips screws securing the old memory board and remove the board.
- 2 Remove the standoffs from the old memory board, and install them in the same locations on the new memory board.
- 3 Ensure that there are no standoffs in the last two mounting holes, on the back of the memory board.
- 4 Install C09622 nylon standoff, and C04126 standoff in the rear left mounting hole. Refer to Figure 3-3.

Figure 3-3 Site Controller Memory PCB - C07041



- 5 Set the switches and jumper settings on the memory board as shown in the following tables associated with Figure 3-3.

Jumpers

Jumper	Function	Settings for SC 2
K1	SC1 / SC2 Selection	SC2
K2	PCMCIA IRQ Enable	Disable
K3	SC1 / SC2 Selection	SC2
K4	SC2 or SC1 – NO PCMCIA / SC1 – PCMCIA	SC2 or SC1 – NO PCMCIA
K5	Memory Address line 14 Disable	Open
K6	Memory Address line 13 Disable	Open
K7	SC1 PCMCIA ENable	Open
K8	PCMCIA Drive 3 IRQ Enable	Open
K9	PCMCIA Drive 4 IRQ Enable	Open

Switches

Switch	Function	Settings for SC 2
SW1–1	Enable battery 1	Closed
SW1–2	Enable battery 2	Open
SW1–3	Enable battery backup to CPU PCB	Open
SW1–4	SC1 / SC2 Selection	Open for SC2

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

- 6 Install the new memory board into the base of the Site Controller using the Phillips screws removed from the base.
- 7 Install the new CPU board in the Site Controller, and secure the board with the Phillips screws previously removed and reconnect cables.
- 8 Install the new D-site chip in the U36 socket on the CPU Board. Be careful to place the D-site chip in the proper position, and do not bend any pins.

Installing New Software

Select the appropriate procedure (from the list below) to install new software:

- If your system has dual floppy drives, and you are upgrading from V1.0x to V2.0x or above, follow [“Procedure A” on page 13](#).
- If your system has a hard drive and a floppy drive, and you are upgrading from V1.0x to V2.0x or above, follow [“Procedure B” on page 14](#).
- For all system types, if you are upgrading from a 2.0x version to a higher 2.0x or above, follow [“Procedure C” on page 15](#).

Procedure A

- 1 With the new Release disk in the A: drive, hold the CPU reset button for 10 seconds while powering-up the SC II.
- 2 Sign on after the files are reconstructed.
- 3 Insert the new Applications disk in the B: drive.
- 4 Type **FIX TR;I** and press **ENTER**.
- 5 Type **RESTORE EV** and press **ENTER**.
- 6 Type **RESTORE TRANS FR TRANBACK.DTA** and press **ENTER**.
- 7 Type **LO TR xxxx** and press **ENTER**.(xxxx = trans # is noted in step 7 of [“Taking Backup” on page 3](#).)
- 8 Type **AD SIG** and load the users, permission levels, and sign on codes. Refer to step 5 of [“Taking Backup” on page 3](#).
- 9 Type **RUN;I** and press **ENTER**.
- 10 Type **SYSBACK** and press **ENTER**.
- 11 Use the **CP** command to copy any user-created files from the V1.0 Release disk to the new Release or Applications disk.
- 12 Once the site is up and running, secure the cover to the Site Controller.
- 13 Update the spare Release disk made while executing step 5 of [“Taking Backup” on page 3](#), or use **SWAPCOPY+** to copy the entire Release disk again.

Procedure B

- 1 With the new Release disk still in the A: drive, hold the CPU reset button for 10 seconds while powering-up the SCII.
- 2 Sign on after the files are reconstructed.
- 3 Insert the new Applications disk in the A: drive, type **A:BIN/INSTALL**, and press **ENTER**.
- 4 Answer **Y** to all the prompts except **Install new OFFROAD.DTA file?**.
- 5 When this prompt appears: **Do you want to install from another floppy disk at this time (Y/N):**, insert the new Release disk, type **Y** and press **ENTER**.
- 6 Answer **Y** to all the prompts.
- 7 When the prompt to install from another disk appears again, type **N** and press **ENTER**.
- 8 Type **FIX TR;I** and press **ENTER**.
- 9 Type **RESTORE EV** and press **ENTER**.
- 10 Type **RESTORE TRANS FR TRANBACK.DTA** and press **ENTER**.
- 11 Type **LO TR xxxx** and press **ENTER**.(xxxx = trans # is noted in step 7 of [“Taking Backup” on page 3.](#))
- 12 Type **AD SIG** and load the users, permission levels, and sign on codes. Refer to step 5 of [“Taking Backup” on page 3.](#)
- 13 Type **RUN;I** and press **ENTER**.
- 14 Type **SYSBACK** and press **ENTER**.
- 15 Use the **CP** command to copy any user-created files from the PRESERVE directory on the hard drive to the correct directory on the hard drive and to the new Release disk. (Report files that need to be edited to work with V2.0x or above.)
- 16 Type **CP C:SYSBACK.DTA A:** and press **ENTER**.
- 17 Update the spare new Release disk made during step 5 of [“Taking Backup” on page 3](#), or use **DISKCOPY** to copy the entire Release disk currently in the A: drive.
- 18 Once the site is up and running, secure the cover to the Site Controller.
- 19 Remove the disk from the A: drive. Under normal operation there should be no disk in the A: drive.

Procedure C

- 1 Type **FIX CONF** and press **ENTER**.
- 2 Type **REBOOT;A** and press **ENTER**.
- 3 Type **RESTORE EV** and press **ENTER**.
- 4 Type **RESTORE TRANS FR TRANBACK.DTA** and press **ENTER**.
- 5 Type **LO TR XXXX** where XXXX is the trans # noted in step 7 of [“Taking Backup” on page 3](#).
- 6 Type **RUN;I** and press **ENTER**.
- 7 If you have been using the Reports Package software, insert the Reports disk made during **HARDBACK** into the A: drive, type **A:BIN/HARDLOAD**, and press **ENTER**. Once the reports package has been restored, remove the disk from the A: drive.

POS Software Upgrade

Note: For more details on this procedure, refer to MDE-4356 - Profit Point Reference Manual.

- 1 Before performing an upgrade, back up the data in the POS. You will need 3 formatted diskettes. If you need to format the diskettes, begin at Step 2. If you already have formatted diskettes begin at Step 2, but skip Steps 4–8.
- 2 Press **CLEAR MENU** and **SPECIAL FUNCTION**. The Special Function Menu appears.
- 3 Press **0 Exit to main menu** and press **ENTER**.
- 4 Press **3 Utility** and press **ENTER**.
- 5 Press **4 Format a diskette** and press **ENTER**. The Format Diskette Submenu appears.
- 6 Choose the type of diskette you would like to format. Press **1** for 720K bytes or press **2** for 1.44Mbytes, and press **ENTER**. The screen prompts you to place the disk in drive A:.
- 7 After placing the disk in drive A, press **ENTER**. When the screen prompts you for a volume label, press **ENTER**. The display prompts you **if you wish to format another diskette**.
- 8 Press **Y** until all diskettes are formatted, then press **N**. This returns you to the format diskette submenu.
- 9 Press **0 Return to utility menu** and press **ENTER**.
- 10 Press **0 Return to main menu** and press **ENTER**.
- 11 Press **6 Backup files to diskette** and press **ENTER**.
- 12 Press **2 Data and configuration files** and press **ENTER**. The screen prompts you to put a back-up or blank diskette into drive A: and press any key.
- 13 Put one of the formatted diskettes in drive A: and press **ENTER**. The screen prompts you that **this is not a back-up disk and would you like to start a new one?**
- 14 Press **Y**. When the back-up process is complete, press any key to return to the Back-up menu. Ensure that you label the back-up diskettes Data and configuration files with the current date.
- 15 Press **0 Return to main menu** and press **ENTER**.
- 16 Press **3 Utility** and press **ENTER**.
- 17 Press **9 Installation menu** and press **ENTER**. The screen prompts you to place the Installation disk in drive A:.
- 18 Place the Installation disk in drive A:, and press **ENTER**. The screen prompts you to confirm the date and time.

- 19 If the date and time are correct, type **Y** and proceed to the next step. If the date and time are incorrect, type **N**. The program prompts you to enter the correct date.
- 20 Enter the correct date, and press **ENTER**. The program prompts you to enter the time.
- 21 Enter the correct time, and press **ENTER**. The program re-prompts you to confirm the date and time.
- 22 Press **CLEAR MENU** when prompted. The Profit Point installation menu will appear on the screen. Press **2 Update all program and menu files from diskette**, and press **ENTER**. When the installation is complete, press **ENTER**. You will return to the Profit Point installation menu.
- 23 Press **0 Return to Profit Point main menu** and press **ENTER**. Press any key when prompted.
- 24 Remove the Installation disk from drive A: and store it in a safe place.
- 25 Reboot the Personal Computer (PC) by switching the power off and on, or by pressing **CTRL+ALT+DEL**.
- 26 The POS terminal initializes and comes up online.

Reports Package Upgrade

To upgrade the Reports Package, proceed as follows:

- 1 Insert the reports package diskette into drive A:.
- 2 Sign on to the Site Controller and type **INSTALL**. The new reports files are transferred to the hard drive.
- 3 After all the files are copied, remove the diskette from the drive.

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