

Encore® 700 S

# Start-up and Service Manual

**MDE-4902E** 

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#### Approvals

E105106

E165027

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Underwriters Laboratories (UL):

Dell DHM Minitower

G-SITE and Passport Systems

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

UL File#	Products listed with UL	Executive Order #	Product
MH1941	All Gilbarco pumps and dispensers that bear	G-70-52-AM	Balance Vapor Recovery
10111741	the UL listing mark.	G-70-150-AE	VaporVac
MH8467	Transac System 1000 and PAM 1000		*

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CoC#	Product	Model #	CoC#	Product	Model #
02-019	Encore	Nxx	02-036	Legacy	Jxxx
02-020	Eclipse	Exx		G-SITE Printer (Epson)	PA0307
02.025	Meter - C Series	PA024NC10		G-SITE Distribution Box	PA0306
02-025	Meter - C Series	PA024TC10	02.027	G-SITE Keyboard	PA0304
02-029	CRIND	_	02-037	G-SITE Mini Tower	PA0301
	TS-1000 Console	_		G-SITE Monitor	PA0303
	TS-1000 Controller	PA0241		G-SITE Printer (Citizen)	PA0308
02-030	Distribution Box	PA0242	02-038	C+ Meter	T19976
	Meter - EC Series	PA024EC10	02-039	Passport	PA0324
	VaporVac Kits	CV	02-040	Ecometer	T20453
			05-001	Titan	KXXY Series

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CIM <sup>TM</sup>	G-SITE® Lite™	SMART Connect™	Ultra-Hi™
C-PAM <sup>™</sup>	Highline™	SMART CRIND™	ValueLine™
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FlexPay™	Optimum <sup>™</sup> Series	Surge Management System <sup>**</sup>	м
G-CAT™	PAM™	Tank Monitor™	
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CRIND®	Making Things Better®	VaporVac®
Dimension® Series	MPD®	
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Eclipse <sup>®</sup>	Performer®	
Encore®	The Advantage® Series	
G-SITE®	Transac®	
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InfoScreen®	Trimline®	
Legacy®	TRIND®	

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# **1 – Introduction**

# Purpose

This manual provides start-up and service information for the Encore® 700 S CRIND® system.

This manual also applies to The Advantage<sup>®</sup> Series, Encore 300/500/500 S with E-CIM<sup>™</sup> systems that may have been upgraded with FlexPay<sup>™</sup> II CRIND retrofit kits and Insite360<sup>™</sup> Encore (Remote Management) kits using the DCM2.1/DCM2.2. For more information, refer to *MDE-5314 Insite360<sup>™</sup> Encore Remote Management Installation, Start-up, and Service Manual.* 



Figure 1-1: Encore 700 S CRIND System

# **Encore 700 S CRIND System**

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The Encore 700 S CRIND system is certified as Payment Card Industry-Unattended Payment Terminal (PCI-UPT) 1.X compliant and is designed to provide enhanced security to the fueling environment. The CRIND device uses a 5.7-inch color or 10.4-inch color display, FlexPay Encrypting PIN Pad (EPP) 2.1, and Secure Card Reader 2 (SCR 2).

The following options are available in the CRIND system:

- TRIND®
- Barcode Scanner
- Cash Acceptor
- The Applause<sup>™</sup> Media System with Audio/Video
- Insite360 Encore (Remote Management)

# **Related Documents**

Document Number	Title	GOLD℠ Library
MDE-3802	Encore and Eclipse <sup>®</sup> Site Preparation Manual	<ul> <li>Encore and Eclipse</li> <li>Encore and Eclipse Installers</li> <li>Footprints and Elevations</li> <li>Site Prep</li> </ul>
MDE-3902	Call Button Kit K96636-01 for Encore Dispensers	Encore and Eclipse
MDE-3985	Encore Installation Manual	<ul> <li>Encore and Eclipse</li> <li>Encore and Eclipse Installers</li> <li>Footprints and Elevations</li> </ul>
MDE-4185	CRIND Encore 700 S Electronics CRIND BIOS Configuration Interface Manual	CRIND and TRIND     Encore and Eclipse
MDE-5062	FlexPay Maintenance Tool for FlexPay/SPOT CRIND System	• CRIND and TRIND • FlexPay IV EMV®
MDE-5314	Insite360 Encore Remote Management Installation, Start-up, and Service Manual	<ul><li>FlexPay EPP and SCR</li><li>FlexPay IV</li></ul>

# **IMPORTANT INFORMATION**

Installation and site preparation for the Encore 700 S is identical to that of the Encore 500 S. For installation and site preparation details, refer to *MDE-3985 Encore Installation Manual, MDE- 3902 Call Button Kit K96636-01 for Encore Dispensers,* and *MDE-3802 Encore and Eclipse Site Preparation Manual.* 

# **Recommended Spare Parts**

For Encore 700 S recommended spare parts list, refer to "Appendix D: Encore 700 S Recommended Spare Parts" on page D-1.

# **Abbreviations and Acronyms**

Term	Description
ACI	Application Centric Infrastructure
ADA	Americans with Disabilities Act
BIOS	Basic Input/Output System
CPE	Customer Premise Equipment
CRIND	Card Reader in Dispenser
DES	Data Encryption Standard
DSS	Data Security Standard
E-CIM	Enhanced Customer Interface Module
ECR™	Encrypted Card Reader
EDH	Enhanced Dispenser Hub
EMV	Europay®, MasterCard®, and Visa®
EPP	Encrypting PIN Pad

Term	Description
FCB	FlexPay Control Board
GOLD	Gilbarco® Online Documentation
HIP	Hub Interface PCB
IP	Internet Protocol
LED	Light Emitting Diode
LON	Local Operating Network
LRE	Long Reach Ethernet®
MOC	Major Oil Company
MSDS	Material Safety Data Sheet
OMAP	Open Multimedia Applications Platform
PCA	Printed Circuit Assembly
PCB	Printed Circuit Board
PCI	Payment Card Industry
PCN	Pump Control Node
PIP	Peripheral Interface PCB
POS	Point of Sale
PIN	Personal Identification Number
PPN	Product Part Number
PPU	Price per Unit
RKL	Remote Key Loading
SCR	Secure Card Reader
SPOT	Secure Payment Outdoor Terminal
SRED	Secure Reading and Exchange of Data
SSoM	Secure System on Module
TAC	Technical Assistance Center
TDES	Triple Data Encryption Standard
TLS	Transport Layer Security
TRIND	Transmitter/Receiver in Dispenser
UPT	Unattended Payment Terminal

# **Common Terms**

Term	Description
CRIND	CRIND may also be used to refer to the entire in-dispenser payment platform.
EPP	A secure, tamper-responsive keypad device responsible for encrypting Personal Identification Number (PIN) data for a debit account as entered by the customer. It is also capable of allowing other non-PIN data to be entered.
HIP	Designed for EMV Canada, reused in Encore 700 S product.
PCI	An independent council originally formed by American Express®, Discover Financial Services, JCB, MasterCard Worldwide, and Visa International, with the goal of managing the ongoing evolution of the Payment Card Industry Data Security Standard (PCI-DSS).
POS	Device in the typical retail-fueling environment that owns the interface to the card acquirer.
RS-232	Standard for serial binary data signals connecting between data terminal equipment and data circuit terminating equipment.
TDES	A more secure variant of the Data Encryption Standard (DES) encryption algorithm, uses a 112-bit key, and uses a basic DES algorithm three times per 8-bit block.

# **2 – Important Safety Information**

Notes: 1) Save this Important Safety Information section in a readily accessible location.

2) Although DEF is non-flammable, Diesel is flammable. Therefore, for DEF cabinets that are attached to Diesel dispensers, follow all the notes in this section that pertain to flammable fuels.

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury, if these safe service procedures are not followed.

# **Preliminary Precautions**

You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage or pressures. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

# **Emergency Total Electrical Shut-Off**

The first and most important information you must know is how to stop all fuel flow to the pump/dispenser and island. Locate the switch or circuit breakers that shut off all power to all fueling equipment, dispensing devices, and Submerged Turbine Pumps (STPs).

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The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser. This means that even if you activate these stops, fuel may continue to flow uncontrolled.

You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not the console's ALL STOP and PUMP STOP or similar keys.

# **Total Electrical Shut-Off Before Access**

Any procedure that requires access to electrical components or the electronics of the dispenser requires total electrical shut off of that unit. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gilbarco equipment.

# Evacuating, Barricading and Shutting Off

Any procedure that requires access to the pump/dispenser or STPs requires the following actions:



- An evacuation of all unauthorized persons and vehicles from the work area
- Use of safety tape, cones or barricades at the affected unit(s)
- A total electrical shut-off of the affected unit(s)

#### **Read the Manual**

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call a Gilbarco Authorized Service Contractor or call the Technical Assistance Center (TAC) at 1-800-743-7501. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

# Follow the Regulations

Applicable information is available in National Fire Protection Association (NFPA) 30A; *Code for Motor Fuel Dispensing Facilities and Repair Garages*, NFPA 70; *National Electrical Code (NEC)*, Occupational Safety and Health Administration (OSHA) regulations and federal, state, and local codes. All these regulations must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties or affect the safe use and operation of the equipment.

# **Replacement Parts**

Use only genuine Gilbarco replacement parts and retrofit kits on your pump/dispenser. Using parts other than genuine Gilbarco replacement parts could create a safety hazard and violate local regulations.

# Safety Symbols and Warning Words

This section provides important information about warning symbols and boxes.



This safety alert symbol is used in this manual and on warning labels to alert you to a precaution which must be followed to prevent potential personal safety hazards. Obey safety directives that follow this symbol to avoid possible injury or death.

#### Signal Words

These signal words used in this manual and on warning labels tell you the seriousness of particular safety hazards. The precautions below must be followed to prevent death, injury or damage to the equipment:



DANGER: Alerts you to a hazard or unsafe practice which will result in death or serious injury.WARNING: Alerts you to a hazard or unsafe practice that could result in death or serious injury.

**CAUTION** with Alert symbol: Designates a hazard or unsafe practice which may result in minor injury. **CAUTION** without Alert symbol: Designates a hazard or unsafe practice which may result in property or

# Working With Fuels and Electrical Energy

#### **Prevent Explosions and Fires**

equipment damage.

Fuels and their vapors will explode or burn, if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause potentially dangerous vapors in the vicinity of the dispenser or island.

DEF is non-flammable. Therefore, explosion and fire safety warnings do not apply to DEF fluid lines.

No Open Fire



Open flames from matches, lighters, welding torches or other sources can ignite fuels and their vapors.

No Sparks - No Smoking



Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapors. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuel vapors. Every time you get out of a vehicle, touch the metal of your vehicle, to discharge any electrostatic charge before you approach the dispenser island.

#### **Working Alone**

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Familiarize yourself with Cardiopulmonary Resuscitation (CPR) methods, if you work with or around high voltages. This information is available from the American Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA Lockout/Tagout procedures. If you are not familiar with this requirement, refer to this information in the service manual and OSHA documentation.

#### Working With Electricity Safely

Ensure that you use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Ensure that grounding connections are properly made. Take care that sealing devices and compounds are in place. Ensure that you do not pinch wires when replacing covers. Follow OSHA Lockout/Tagout requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down.

#### **Hazardous Materials**

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Ensure that you clean hands after handling equipment. Do not place any equipment in the mouth.

# 

The pump/dispenser contains a chemical known to the State of California to cause cancer.

# WARNING

The pump/dispenser contains a chemical known to the State of California to cause birth defects or other reproductive harm.

# In an Emergency

# Inform Emergency Personnel

Compile the following information and inform emergency personnel:

- · Location of accident (for example, address, front/back of building, and so on)
- Nature of accident (for example, possible heart attack, run over by car. burns. and so on)
- Age of victim (for example, baby, teenager, middle-age, elderly)
- Whether or not victim has received first aid (for example, stopped bleeding by pressure, and so on)
- · Whether or not a victim has vomited (for example, if swallowed or inhaled something, and so on)

# WARNING



Gasoline/DEF ingested may cause unconsciousness and burns to internal organs.

Do not induce vomiting. Keep airway open. Oxygen may be needed at scene. Seek medical advice immediately.

# WARNING

DEF generates ammonia gas at higher temperatures. When opening enclosed panels, allow the unit to air out to avoid breathing vapors.

If respiratory difficulties develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention.

# WARNING



Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.



Keep airway open.

Seek medical advice immediately.

# WARNING



Gasoline/DEF spilled in eyes may cause burns to eve tissue.

Irrigate eyes with water for approximately 15 minutes.

Seek medical advice immediately.

# WARNING



Gasoline/DEF spilled on skin may cause burns. Wash area thoroughly with clear water. Seek medical advice immediately.

# 

DEF is mildly corrosive. Avoid contact with eyes, skin, and clothing. Ensure that eyewash stations and safety showers are close to the work location. Seek medical advice/recommended treatment if DEF spills into eyes.

IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately. Lockout/Tagout

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or startup of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical, or other energy, but does not cover electrical hazards. Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

# Hazards and Actions



# WARNING

Spilled fuels, accidents involving pumps/dispensers, or uncontrolled fuel flow create a serious hazard.

Fire or explosion may result, causing serious injury or death.

Follow established emergency procedures.

DEF is non-flammable. However it can create a slip hazard. Clean up spills promptly.

The following actions are recommended regarding these hazards:



Collision of a Vehicle with Unit

- Do not go near a fuel spill or allow anyone else in the area.
- Use station EMERGENCY CUTOFF immediately. Turn off all system circuit breakers to the island(s).
- Do not use console E-STOP, ALL STOP, and PUMP STOP to shut off power. These keys do not remove AC power and do not always stop product flow.
- Take precautions to avoid igniting fuel. Do not allow starting of vehicles in the area. Do not allow open flames, smoking or power tools in the area.
- Do not expose yourself to hazardous conditions such as fire, spilled fuel or exposed wiring.
- Call emergency numbers.

# **IMPORTANT INFORMATION**

- Before visiting a site for a field trial, the technicians servicing or installing the Encore 700 S must complete Gilbarco safety training.
- Safety vests must be worn at all times when at the site.
- · Ensure compliance with safety rules and regulations set by the customer for performing service procedures at their sites. Some customers may mandate the use of the following when performing service:
  - Hard Hats
  - Safety Glasses
  - Steel-toed ESD Shoes
  - Gloves (when possible)
- When at the site, the technician must block out both sides of any dispenser that is being serviced. The dispenser must be blocked off with either a car or set of safety cones.
- The technician must use the following equipment depending on the work being performed: - Hearing Protection - if noise is over 85 db
  - Job Safety Analysis (JSA) for the work being performed
  - Material Safety Data Sheet (MSDS), if required
  - Injury reporting information
- First Aid kits and road side kits

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# **Configuring CRIND**

Note: For more information on Encore 700 S Electronics CRIND Basic Input/Output System (BIOS), refer to MDE-4185 CRIND Encore 700 S Electronics CRIND BIOS Configuration Interface Manual.

# **IMPORTANT INFORMATION**

The CRIND device on each side is programmed individually by inserting the CRIND Diagnostic Card (Q12534-170) on each side (cannot be done from the same side). In CRIND diagnostics, you must press **Enter** after each numeric key entry on the FlexPay EPP. "Side 1" appears irrespective of the side being programmed.

Due to enhanced security of the FlexPay UPT, you must press **Enter** after each key entry when using CRIND diagnostics.

To access CRIND diagnostic programming, proceed as follows:

- 1 Insert and remove the CRIND diagnostic card.
  - Note: Card reader is sensitive to light and may not be able to read the card if the door is open. Close the main doors to eliminate any outside light intrusion.

Figure 3-1: Swiping CRIND Diagnostic Card



2 From the Main Menu, press 1 > Enter. The CRIND Config menu is displayed.

# Figure 3-2: CRIND Config Menu

	CRIND Config
1. CRIN 2. CRIN 3. Gene 4. Force 5. Force 6. Set [	ND IDs ND Mode eric BAUD Rate e BIOS Coldstart e App Coldstart Date / Time
Cancel	= Exit

Note: In most of the screens, pressing **Cancel** returns to the previous menu.

# **CRIND IDs**

The CRIND IDs function allows you to program the CRIND ID for the side that is in front of you.

1 From the CRIND Config menu, press 1 >Enter. The CRIND IDs menu is displayed.

Figure 3-3: CRIND IDs Menu



Note: Each CRIND device is programmed separately by inserting the CRIND diagnostic card on each side (cannot be done from the same side). The CRIND ID screen is called "Side 1", irrespective of the side being programmed. 2 Press 1 > Enter. The CRIND ID Side 1 screen is displayed. (see Figure 3-4).

Note: Each CRIND device is programmed separately by inserting the CRIND diagnostic card on each side (cannot be done from the same side). The CRIND ID screen is called "Side 1" irrespective of the side being programmed.

Figure 3-4: CRIND ID Side 1



- 3 Press numeric keys to enter one-digit or two-digit CRIND ID. To enter a two-digit CRIND ID, for example, 32, press 3 > Enter and 2 > Enter. Legal values for this field are 1-32 and 99. Setting the value as 99 configures the side not to answer polls on the CRIND communication loop. This is useful for field troubleshooting and diagnostic purposes.
- 4 Press Enter to save the edited CRIND ID and exit. The CRIND IDs menu is displayed.

~ OR ~

Press Cancel to discard changes and exit. The program returns to the CRIND IDs menu.

# **CRIND Mode**

To configure the CRIND Mode, proceed as follows:

1 From the CRIND Config menu, press 2 > Enter. The CRIND Mode menu is displayed.

Figure 3-5: CRIND Mode



- **2** Press the following numeric keys followed by **Enter** to change the current CRIND Mode setting:
  - 1 causes the unit to operate in Major Oil Company (MOC) CRIND Mode.
  - 2 causes the unit to operate in Generic CRIND Mode.
- 3 Press Enter to save changes and exit. The CRIND Config menu is displayed.

~ OR ~

Press Cancel to discard changes and exit. The program returns to the CRIND Config menu.

# Configuring Network for Sites with DCM2 or Earlier (without SSoM)

# 

CRIND side Internet Protocol (IP) addresses must not be changed from factory default unless one of the following three conditions apply:
1) The site requires a non-standard IP scheme.
2) The site is configured for non-standard CRIND IDs.
3) Some third-party Point of Sale (POS) systems start with "0" instead of "1" as their first CRIND ID.
For example, dispenser 1 is configured for CRIND IDs 1/4 instead of 1/2.

*Note: The CRIND device on each side is independent of the CRIND device on the other side. Each side must be programmed individually.* 

From the Main Menu, press **3** > **Enter**. The Network Config menu is displayed.

# Figure 3-6: Network Config Menu

# Network Config

- 1. Reset to Default IPs
- 2. Set IP Addresses
- 3. Apply Network Settings
- 4. View Network Settings
- 5. Hide Network Settings

Cancel = Exit

The IP addressing scheme for the units without Secure System on Module (SSoM) is 10.5.55.XXX.

FlexPay II DCM1.0 and DCM2.0		
Unit	Default IP Address	
Side A	10.5.55.71	
Side B	10.5.55.72	
Netmask	255.255.255.0	
Default Gateway	10.5.55.1	
SM Server	10.5.55.66	
*IP Addressing	10.5.55.70 + CRIND ID	

FlexPay IV DCM1.0 and DCM2.0		
Unit	Default IP Address	
UPM A	10.5.55.71	
UX 300 A	10.5.55.72	
UPM B	10.5.55.73	
UX 300 B	10.5.55.74	
GSoM A	10.5.55.75	
GSoM B	10.5.55.76	
Default Gateway	10.5.55.1	
Netmask	255.255.255.0	
SM Server	10.5.55.66	
*IP Addressing	10.5.55.70 + CRIND ID	

# Configuring Network with DCM2.1 (with SSoM) and Later Hardware

# 

CRIND side IP addresses must not be changed from factory default unless one of the following three conditions apply:

1) The site requires a non-standard IP scheme.

- 2) The site is configured for non-standard CRIND IDs.
- 3) Some third-party POS systems start with "0" instead of "1" as their first CRIND ID.

For example, dispenser 1 is configured for CRIND IDs 1/4 instead of 1/2.

From the Main Menu, press **3** > **Enter**. The Network Config menu is displayed.

# Figure 3-7: Network Config Menu

Network (	Config
-----------	--------

- 1. Reset to Default IPs
- 2. Set IP Addresses
- 3. Apply Network Settings
- 4. View Network Settings
- 5. Hide Network Settings

Cancel = Exit

*Note: The CRIND device on each side is independent of the CRIND device on the other side. Each side must be programmed individually.* 

FlexPay II DCM2.1	
Unit	Default IP Address
Side A	172.16.100.1
Side B	172.16.100.3
Netmask	255.255.255.0
Default Gateway	172.16.100.254
SM Server	10.5.55.66

The IP addressing scheme for the units with SSoM is 172.16.100.XXX.

FlexPay IV DCM2.1	
Unit	Default IP Address
UPM A	172.16.100.1
UX 300 A	172.16.100.2
UPM B	172.16.100.3
UX 300 B	172.16.100.4
GSoM A	172.16.100.5
GSoM B	172.16.100.6
Default Gateway	172.16.100.254
Netmask	255.255.255.0
SM Server	10.5.55.66

Note: Each dispenser with an SSoM can be set to the same IP scheme across the entire forecourt. The SSoM will need to be configured. For more information, refer to MDE-5314 Insite360 Encore Remote Management Installation, Start-up, and Service Manual.

# **Resetting Default IPs**

From the Network Config menu, press 1 > Enter. This option resets all the IP addresses to the default value. The warning message as shown in Figure 3-8 is displayed before resetting the values to factory defaults.

# Figure 3-8: Reset to Default IPs



- Notes: 1) If the unit has a non-standard CRIND ID, then the IP addresses in default mode may be assigned to an incorrect IP address. If the CRIND ID is based on a non-standard setting, ensure that the IP is set properly. The normal patterns for CRIND IDs are 1/2, 3/4, 5/6, and so on. Due to different types of POS systems and forecourt configurations, some sites may elect to set non-standard CRIND IDs.
  - 2) The IP addresses must agree from side to side. If the IP addresses do not agree, you will experience problems where side A does not communicate to side B through Hub Interface [Printed Circuit Board (PCB)] (HIP). The problem symptoms include, no big numeral printed on paper at power up when paper is fed into the printer, and no card reader function or printer function on side B.
  - 3) After the IP addresses are modified from the defaults, they are no longer adjusted automatically when the CRIND IDs are modified.

# **Setting IP Addresses**

From the Network Config menu, press 2 >Enter. The Set IP Addresses menu is displayed.

# **IMPORTANT INFORMATION**

Both Side A IP address and Side B IP address must be programmed on each side of the dispenser. Side A is the side that you are in front of each time.

# Figure 3-9: Set IP Addresses

Set IP Addresses
1. Set CRIND Side A IP
2. Set CRIND Side B IP
4. Set SMART Merchandising Server IP
5. Set Netmask Address
6. Set Gateway Address
Cancel = Exit

# Setting CRIND Side A IP

From the Set IP Addresses menu, press 1 > Enter. The CRIND Side A IP screen is displayed.

# Figure 3-10: CRIND Side A IP (example without SSoM)

CRIND Side A IP
000 . 000 . 000 . 000
Enter number blocks using three digits each with
leading zeros if necessary.
IP block range: 000 – 255
Example: 010 . 005 . 055 . 071
Clear = Erase Entry
Enter = Save Value and Exit
Cancel = Discard Changes and Exit

Notes: 1) When setting the IP Addresses, press Enter after each digit. For example, for IP address 10.5.55.77, press 1 > Enter, 0 > Enter, . > Enter, and so on.

2) Default IP addresses will always be 10.5.55.70 + the set CRIND ID.

To set Side A IP address, number block must be in the 000-255 range and has to be completed with leading zeros as follows:

- Press **Clear** to erase all entered digits and start again.
- Press **Enter** to validate if it is a correct IP address and to store the result. If the IP address is not valid the input is cleared.
- Press **Cancel** to discard the input and return to Set IP Addresses menu.

# Setting CRIND Side B IP

Note: Set CRIND Side B IP option is not visible on single side units.

From the Set IP Addresses menu, press 2 > Enter. The CRIND Side B IP screen is displayed.

*Note: Side B will correspond with the side opposite of where you are standing.* 

Figure 3-11: CRIND Side B IP (example without SSoM)

CRIND Side B IP
000.000.000.000
Enter number blocks using three digits each with
leading zeros if necessary.
IP block range: 000 – 255
Example: 010 . 005 . 055 . 072
Clear = Erase Entry
Enter = Save Value and Exit
Cancel = Discard Changes and Exit

To set Side B IP address, number block must be in the 000-255 range and has to be completed with leading zeros as follows:

- Press Clear to erase all entered digits and start again.
- Press **Enter** to validate if it is a correct IP address and to store the result. If the IP address is not valid, the input is cleared.
- Press Cancel to discard the input and return to Set IP Addresses menu.

# Setting SMART Merchandising Server IP

From the Set IP Addresses menu, press **4** > **Enter**. The SMART Merchandising IP screen is displayed.

*Note: The default value for SMART Merchandising Server, Netmask, and Gateway will work for most sites.* 

# Figure 3-12: SMART Merchandising IP

SMART Merchandising IP 000.000.000.000 Enter number blocks using three digits each with leading zeros if necessary. IP block range: 000 – 255 Example: 010.005.055.066

Clear = Erase Entry Enter = Save Value and Exit Cancel = Discard Changes and Exit To set SMART Merchandising Server IP address, number block must be in the 000-255 range and has to be completed with leading zeros as follows:

- Press Clear to erase all entered digits and start again.
- Press **Enter** to validate if it is a correct IP address and to store the result. If the IP address is not valid, the input is cleared.
- Press Cancel to discard the input and return to Set IP Addresses menu.

# **Setting Netmask Address**

From the Set IP Addresses menu, press **5** > **Enter**. The Netmask address screen is displayed.

# Figure 3-13: Netmask Address

Netmask address
000 . 000 . 000 . 000
Enter number blocks using three digits
each with leading zeros if necessary.
Netmask block range: 000 – 255
Example: 255 . 255 . 255 . 000
Clear = Erase Entry
Enter = Save Value and Exit
Cancel = Discard Changes and Exit

To set Netmask address, number block must be in the 000-255 range and has to be completed with leading zeros, as follows:

- Press **Clear** to erase all entered digits and start again.
- Press **Enter** to validate if it is a correct IP address and to store the result. If the IP address is not valid, the input is cleared.
- Press Cancel to discard the input and return to Set IP Addresses menu.

# **Setting Gateway Address**

From the Set IP Addresses menu, press 6 > Enter. The Gateway Address screen is displayed.

# Figure 3-14: Gateway Address

Gateway Address
000 . 000 . 000 . 000
Enter number blocks using three digits
each with leading zeros if necessary.
Netmask block range: 000 – 255
Example: 010 . 005 . 055 . 001
Clear = Erase Entry
Enter = Save Value and Exit
Cancel = Discard Changes and Exit

To set Gateway address, number block must be in the 000-255 range and completed with leading zeros as follows:

- Press **Clear** to erase all entered digits and start again.
- Press **Enter** to validate if it is a correct IP address and to store the result. If the IP address is not valid the input is cleared.
- Press Cancel to discard the input and return to Set IP Addresses menu.

# **Applying Network Settings**

# **IMPORTANT INFORMATION**

To activate Network settings, the required network settings MUST be applied.

From the Network Config menu, press 3 >Enter. The Apply Network Settings screen is displayed.

# Figure 3-15: Apply Network Settings

# Apply Network Settings

Network settings applied

Cancel = Exit

# **IMPORTANT INFORMATION**

- After performing IP programming on one side, repeat it on the other side. Both side A and side B must be programmed on each side. Side A is the side that you are in front of each time.
- Select **Apply Network Settings** after making required network changes. If network settings are not applied, the changes you make will not be activated.

#### Start-up

# **Viewing Network Settings**

From the Network Config menu, press **4** > **Enter**. The View Network Settings screen is displayed. This option enables to view the currently applied network settings.

# Figure 3-16: View Network Settings

View	Network Settings
CRIND Side A	010.005.055.071
CRIND Other Sid	le 010.005.055.072
SM Server 0 Netmask 2 Gateway 0	010.005.055.066 255.255.255.000 010.005.055.001
Cancel = Exit	

The following network settings are displayed (see Figure 3-16):

- Side A IP Address
- Other Side IP Address
- SMART Merchandising Server IP Address
- Network Mask
- Gateway Address

Notes: 1) For single side units, CRIND Other Side IP address displays what is expected to be the IP address, not the real IP address.

2) If the SMART Connect<sup>™</sup> option is disabled, then the SMART Connect Server IP address is not displayed.

# **Hiding Network Settings**

From the Network Config menu, press 5 >Enter. The Hide Network Settings screen is displayed before the network settings are hidden.

# Figure 3-17: Hide Network Settings

#### Hide Network Settings

WARNING: Network settings cannot be changed or viewed once hidden. The network settings will be reset to factory defaults if it is decided to unhide them later.

Enter = Hide and Exit Cancel = Abort

# **Network Settings (Hidden)**

Press **Enter**. The Network Config screen is displayed. This option enables you to unhide the applied network settings.

# Figure 3-18: Network Settings (Hidden)

Network Config
Network settings hidden
1. Unhide Network Settings
Cancel = Exit

Press 1 > Enter. The warning message shown in Figure 3-19 is displayed. Unhiding Network Settings will reset IP addresses to factory values.

# Figure 3-19: Unhide Network Settings

# Unhide Network Settings

WARNING: Network settings are currently hidden. If you unhide them the settings will be erased and reset to factory defaults.

Enter = Unhide and Exit Cancel = Abort

# Adjusting Audio Volume Level

# **IMPORTANT INFORMATION**

Adjust the audio volume level on both sides of the unit individually.

The audio must be set for all Encore 700 S CRIND units. Audio is used for Applause Media System functionality and for log collection for engineering troubleshooting purposes. Log collect utilizes audio prompting instructions. Gilbarco recommends a starting value of "90" to test the audio level. The value can be adjusted depending on the ambient noise level of the forecourt.

To adjust the audio volume level, proceed as follows:

- 1 Press 1 > Enter for the Main Menu.
- 2 Press 2 > Enter for device configuration.
- **3** Press **2** > **Enter** for audio settings.
- **4** Press 1 > Enter for side 1.

Figure 3-20: Volume-Side 1

Volume—Side 1	
20 Volume (Range: 1 - 99) Number Keys = Direct Entry Clear = Erase Entry Enter = Apply Entry Cancel = Exit	Test> Up> Down>
Number Keys = Direct Entry Clear = Erase Entry Enter = Apply Entry Cancel = Exit	Up> Down>

**5** Set the audio volume level by either entering the required number or using the up or down softkey functions.

Note: It is recommended that you set the audio volume based on the ambient noise at the site.

- 6 Press Enter to save the settings.
- 7 Press Cancel to end the session.

# **Setting Default Personality**

The personality screen is the background on the screen, that customers see during CRIND device prompting. The technician must verify with the customer the preferred personality screen before programming.

To program the required personality screen as the default personality, proceed as follows:

- 1 From the Main Menu on the CRIND device, press 6 > Enter. The Parameters Menu is displayed.
- 2 From the Parameters Menu, press 1 > Enter. The Display Manager Menu is displayed.

Figure 3-21: Display Manager Menu



**3** From the Display Manager Menu, press 1 > Enter. The Set Personality Menu is displayed.

# Figure 3-22: Set Personality Menu

Set Pe	ersonality Menu
1. Blue	
2. Green	
3. *Tiger	
4. Red	
5. Sunset	
6. Eagle	
Enter = Next screen	Page 1/2
Cancel = Exit	-

This menu shows a list of available personalities. Current default personality appears with an '\*' in front of its name. This list is dynamic and may have more than one screen. Press **Enter** to move to the next screen. Press the required number to select the personality indicated by the customer.

# **Setting Date and Time**

Date and time must be set on the Encore 700 S CRIND devices. To set the date and time, proceed as follows:

1 From the CRIND Config menu, press 6 > Enter. The Set Date/Time menu is displayed as shown in Figure 3-23.

Figure 3-23: Set Date/Time Menu

Set Date / Time
MM-DD-YYYY hh:mm
Current setting 02-16-2011 15:32
Use leading zeroes in each field if
necessary. Time is a 24 hour clock.
Cancel = Exit

- **2** Type all digits from right to left and press **Enter** after each digit. All fields must use leading zeros to pad the fields as required. The field definitions are as follows:
  - MM = Month (for example, 02 = February)
  - DD = Day of month (for example, use 04 for 4th day of month)
  - YYYY = 4 digit year
  - hh = hour, based on 24-hour clock (for example, 16 = 4 PM)
  - mm = minutes

Note: If an error occurs, press Clear to clear the field.

**3** After all the fields are updated, the option to save the new date/time is displayed as shown in Figure 3-24.

# Figure 3-24: New Set Date/Time



4 Press **Enter** to validate the new date/time and set the new time, if valid (that is, the day is not greater than the number of days in the given month, the month is less than 13, and so on).

~ OR ~

Press **Cancel** to return to the CRIND menu.

- 5 If you press **Enter**, one of the following menus is displayed:
  - **a** If the date/time entered is valid, then the confirmation screen is displayed for about three seconds as shown in Figure 3-25, and the screen automatically returns to the CRIND menu.

# Figure 3-25: Set Date/Time Successful Confirmation



**b** If the date/time entered is invalid, then the error screen is displayed for about three seconds as shown in Figure 3-26 and the screen automatically returns to the Set Date/Time screen.

Figure 3-26: Set Date/Time Error Notification

Error setting time. Please try again.

# 4 – Service

# Encore 700 S Block Diagrams

Figure 4-1: Encore 700 S Block Diagram 1





Figure 4-2: Encore 700 S Block Diagram 2



Figure 4-3: Encore 700 S Block Diagram 3

Encore 700 S Block Diagrams











# **Diagnostics and Visual Checks (After Installation)**

# **Diagnostics Mode**

- □ Run System Health Report (press **Clear** and swipe the CRIND diagnostic card, verify the settings and ensure that the pump and door node versions are displayed).
- □ Ensure that printer works, all CRIND options required are enabled, IP address, pump IDs are set correctly, CRIND time set, card reader battery voltage is correct, card reader type, PIN pad type, for any tampers present, and so on.
- □ Verify if all the CRIND keys function correctly (including softkeys and auxiliary keypad).
- □ Go into the cash acceptor diagnostic and verify if the cash acceptor alarm switches and activate door alarms.
- □ Test the Applause Media System functionality (if customer has Applause Media System).
- □ Verify if the Applause Media System advertising is showing up on all the dispensers during a fueling transaction.

# **Visual Checks and Transactions**

- □ Ensure that no wires are trapped in hinges, gaskets, or visible from the exterior of the pump.
- Perform a CRIND transaction [both credit and debit, fleet and loyalty cards (if applicable)].
- □ Ensure that the CRIND Light Emitting Diodes (LEDs) are functioning correctly.
- □ Ensure that the Customer Premise Equipment (CPE)/Long Reach Ethernet [LRE (turtle)] is powered up and operational (if applicable for Applause Media System).
- □ Verify if the Americans with Disabilities Act (ADA) functions correctly (if present).
- □ Ensure that the communication with the POS is correct.
- □ Ensure that the Price per Unit (PPU) does not blank out when dispensing.
- □ Ensure that the CRIND prompting on the display, graphic quality, Applause Media System content are present (if applicable).
- □ TRIND: Verify the response obtained with the hand-held transponder tester. Note: Verify that the units with the E500 square door have "Enable Wireless Sync Option" turned on. Without this feature, TRIND units in E500 can interfere with each other. For more information, refer to "Appendix E: FlexPay II CRIND Retrofit TRIND Settings" on page E-1.
- □ Perform TRIND test in diagnostics. Ensure that the STAT and SYNC LEDs blink on TRIND light board.
- $\Box$  Power cycle the unit and verify if the unit is functioning correctly.
- □ Test the cash acceptor in diagnostics and verify cash acceptor errors are not showing up on the POS.
## Encore 700 S PCBs

Figure 4-6 shows the PCB details for Encore 700 S.





## LEDs

This section provides the LEDs and the connector details in the PCBs.

### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector #
5-pin connector	M07751A001	M09112A001	P306
3-pin connector	M004894007	M05835A001	P2109
		M01922A003	P1103

### Service LED

The following table lists the service LED status details:

Status Description	
Flashing	No communication
Off	Normal operation

### Status/Error LED

The following table lists the status/error LED status details:

Status	Description	
Green blinking	Normal communication	
Red	Error	

Figure 4-7 shows the Encore 700 S Peripheral Interface PCB (PIP).





### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector #
P203	M07970A002	M01922A003	P111 (Side A only)
P311	M07974A002	M09115A001	P411
P214	M09266A001	M09115A001	P414
P312	M03695B004	M09115A001	P412
P201	M08010A002	M10402A001	J1521
P204	R20773-G4	M06143A001	P182
		M06143A002	P182
P202	M09281A001	M07895A001	P302
P306	M07751A001	M07713A001	5-pin connector

### **LEDs on PIP PCA**

The following table lists LED display and the connection details:

Color	Designation	Description	FlexPay	Generic Color
Amber	D1	FLASH drive over-current		
/	D11	USB port P306A over-current		
	D7	USB port P306B over-current	_	
	D2	USB port P308A over-current	_	
	D12	USB port P308B over-current	_	
Green	D8	FLASH drive connected	_	
Creen	D4	USB port P306A Connected	_	
	D14	USB port P306B Connected		
	D9	USB port P308A Connected	_	
	D5	USB port P308B Connected	_	
	D16	Hub heartbeat	Used on	Both
Yellow	D3	RX on Port 1	P201	P101
1 CHOW	D6	TX on Port 1	<ul> <li>Barcode Reader</li> </ul>	EPP/SCR Side A
	D13	RX on Port 2	P202	P102
	D10	TX on Port 2	<ul> <li>Cash Acceptor</li> </ul>	EPP/SCR Side B
	D15	RX on Port 3	P203	
	D18	TX on Port 3	<ul> <li>Connection to pump</li> </ul>	
	D19	RX on Port 4	P204	P104
	D20	TX on Port 4	TRIND via RS-232	TRIND via TTL

Figure 4-8 shows the beeper interface PCA.





### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector#
P203	M07970A002	M01922A003	P111 (Side A only)
P312	M03695B004	M09115A001	P412
P214	M09266A001	M09115A001	P414

### LEDs on Beeper Interface PCA

The following table lists the LED display details:

Color	Designation	Description	
Yellow	CR1	TX to pump	
	CR2	RX from pump	

Figure 4-9 shows the HIP interface PCA.



#### Figure 4-9: HIP Interface PCA (M07895A001)

Figure 4-10 shows the HIP 2 interface PCA.



#### Figure 4-10: HIP 2 Interface PCA

### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector#
P302A	M07702A016	M09115A001	P402 (Side A only)
P302B	M07702A016	M09115A001	P402 (Side B only)
P403	-	M01922A003	J1109
J312A	Q13850-06	M09115A001	P503 (Side A only)
J312B	Q13850-06	M09115A001	P503 (Side B only)
J412C	Field Wiring	M01251A001	P503
P404A	M03184A004	M01251A201	P503 (Side A only)
P404B	M03184A004	M01251A201	P503 (Side B only)
P401	M07648A006	M09115A001	J301A J301B

### **LEDs on HIP Interface PCA**

The following table lists the LED display details:

Color	Designation	Description
Green	D1	+5 V power
Yellow	D2	RX from pump (MOC mode only, will be on solid for Generic)
	D3	TX to pump (MOC mode only)
	D4	TX to POS
	D5	RX from POS

### LEDs on HIP 2 Interface PCA

The following table lists the LED display details for HIP 2:

Color	Designation	Description		
Red	D6	CRIND two-wire polarity reverse LED		
D22 Pump two-wire po		Pump two-wire polarity reverse LED		
Yellow	D23	Pump loop TX to POS (Generic Mode Only)		
	D24	Pump loop RX from POS		
	D4	CRIND loop TX to POS		
	D5	CRIND loop RX from POS		

The following table lists the LED and the connector details:

Connector #	Yellow - Active	Orange- Full Duplex	Green - 100 Mbps
P412 or J412C	D7	D8	D9
J312D	D10	D11	D12
J312B	D13	D14	D15
J312A	D16	D17	D18
Unused	D19	D20	D21

Figure 4-11 shows the intercom interface PCA.



### Figure 4-11: Intercom Interface PCA (M09751A002)

### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector#
P508	M09259A001	Speaker Assembly	-
P504A	M10590A001	M09115A001	J504

Service

Figure 4-12 shows the barcode scanner interface PCA.



Gilbarcode scanner	BD	
ARCODE SCANNER ARCODE SCANNER C 2 C 4 C 4	6 a a a a a   P1521 LON-SERIAL NODE	
0	$\bigcirc$	
Note: This board is part of the Scanner Assembly (M07662A002/A003) and is not sold separately.		

### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector#
P1520	M01304B002	M01304A001	J1
P1521	M08010A002	M09112A001	P201

# FlexPay Control Board [FCB (M11930K001)]

The FCB provides the functions of CRIND device. The FCB houses the secure device that protects credit and debit card PIN information. The FCB is located on the main door directly behind the CRIND display (see Figure 4-13). Do not separate the FCB from its black plastic housing. It will tamper the security and destroy the board. The display jumper (on rear side of FCB) must be set before the installation of the FCB. Set according to the CRIND display size in the unit (see Figure 4-13).



Figure 4-13: FCB (M09115A001)

#### **Board Connections and Cables**

The following table lists the connection details:

Connector#	Via Cable	To Board	At Connector#
P411	M10453A001	M07895A001	J301A, J301B
P603	M10453A001	M10371A001	J1
P504	M09259A001	-	-
P502	M06745A003	M04219A001	-
P503	Q13850-06	M07895A001	J312A, J312B
P506	M07957A004	M10206B001, M10206B002, M08430B002	-
P402	M07702A016	M08228B001, M10728B001, M07895A001	J302A, J302B
P414	M09267A001	M09112A001, M09232A001	J214

If FCB corrupts, the software recover jumper JP1 allows the FCB to boot from another duplicate base image. Install JP1 to recover the corrupt FCB (see Figure 4-14).

### Figure 4-14: FCB LEDs and Jumper Assignment



LED/Jumper	Function
ECR	The Encrypted Card Reader (ECR) LEDs are active and indicate communication to SCR/ECR.
Pump/PRN	The Pump/PRN LEDs indicate communication to the pump node. In Generic Mode, the Pump/PRN LEDs stay in a steady-state (either OFF or ON) and do not blink. The Pump/PRN LEDs continuously blink in MOC mode, after the CRIND device comes up completely.
EPP	The EPP LEDs are active and indicate communication to FlexPay EPP.
POS/OTI	The POS/OTI LEDs are active and indicate communication to POS through HIP.
Lost Key	The Lost Key LEDs are "ON", if the secure key is lost (requires FlexPay CRIND Control Board replacement). Else, the Lost Key LEDs are "OFF".
Secure ACT	The Secure ACT LEDs are blinking (normal), blinks at a constant rate.
OMAP ACT	The OMAP ACT LEDs are blinking (normal). However, these LEDs may not blink at a constant rate.
Recovery Jumper	These jumpers may be used for recovery in some cases when a unit fails catastrophically. Note: This is a Gilbarco led event. Do not use unless instructed by Gilbarco.

The following table lists the LED/jumper and their functions:

# DCM2.2

## DCM2.2 (M15737A001) Highlights



Figure 4-15: DCM2.2 Board

## **DCM2.2 LED Functions**

The following table lists the LED functions of DCM2.2:

I ED Eunctions	
D1 Power Good	VDC 24V is "ON" = Good
D23 HP UP	HomePlug jumper is installed "ON" = Good, CPU is running, but does not indicate that there is a connection to the BRCM2.X in back room. Internal CCP status only.
D20 SSoM REG	Registered to the cloud
D19 SSoM USB	USB port activity LED
D13 ETH LINK ACT	Same as DCM2.1 - HomePlug jumper is OFF, P304 direct ethernet connection active
D18 HomePlug	HomePlug is active and connected to BRCM2 (2.1 or 2.2)
D21 LED "Router Enable"	If "ON Green", SSoM is installed and running, does not mean it is configured properly. If LED is "OFF", the assembly must be replaced.
D5 and D6	New labeling - NON-OLC, monitors P300 pins 1 and 3
D4 and D7	OLC (new labeling), monitors either P300 pins 4 and 5 or P333 pins 3 and 4 depending on the two-wire configuration
D2	Reversed two-wire
D14	Reversed two-wire

## **DCM2.2 LED Indicators**

Check the following LED indicators after DCM2.2 is powered ON:

Function	Color	Control
CCP Power_Good LED	Green	Driven when 2.5 V, 3.3 V and 5 V are present
HomePlug Power LED	Green	ON: Power ready Flashing: Loading firmware OFF: Power not ready
HomePlug Status LED	Green	ON: HomePlug link detected Flashing: TX or RX activity OFF: HomePlug link not detected
Two-wire	Orange	Flashing: TX and RX (two-wire) detected ON: RX is solid and TX is OFF if there is an Open connection. Wire is not connected. OFF: No communication. Both TX and RX are OFF
SSoM Activity	Green	ON: SSoM is detected Flashing: After SSoM registered
Router Enable	Green	ON: When the SSoM is installed and has Cloud connectivity
P304 ETH Link/Act	Orange	ON: When we use CAT-5 configuration OFF: When we use HomePlug

## **DCM2.2 Connectors**

The following table lists the port numbers and functions of DCM2.2 connectors:

DCM2.2 Connector	Port Number	Function
3-pin MTA .156"	P301	24 VDC power input
2-pin MTA .156"	P306A	24 VDC power output (fused). This is primarily used to power the DCM in Applause Media System.
5-pin MTA .100"	P300	Two-wire from D-Box [CRIND and Pump (Generic only)].
2-pin MTA .100"	P303	Two-wire connection to Pump Control Node (PCN)
8-pin MTA .100"	P302A	RS-232 pump and CRIND to PIP3 A
4-pin	P333	Dedicated Home Plug
8-pin MTA .100"	P302B	RS-232 pump and CRIND to PIP3 B
	P304A/B	Ethernet connection to the back room. P304B is the optional discreet wire connection.
	J305C	Ethernet connection to UPM A
	J310A	Ethernet connection to UX300 A
RJ-45	J310B	Ethernet connection to UPM B
	J303B	Ethernet connection to UX300 B
	J303A	Laptop Service port 1
	J310A	Laptop Service port 2

## **DCM2.2 Jumpers**

The following table lists the status and functions of jumpers:

Connector	ON	OFF	Function
J3	Х		High-speed connection active. P304 A/B disabled.
		х	High-speed connection inactive. P304A and P304B connects to Category 5 (CAT-5) running through the conduit for high speed connection (if used).
J4	Х		Unit is connected to a Passport POS MOC
		Х	Unit is connected to a third party POS (Generic)
J5	Х		VLAN is enabled (FlexPay II only)
		Х	VLAN is disabled
J6	В		Pump communications. Install the jumper on the B position for the 45 mA Current loop.

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# 5 – Activating Encore 700 S CRIND

## **Overview**

FlexPay units that are activated power up with a blue screen before connecting to the system controller. Units that are not activated automatically power up with a green screen.

A menu option is also available briefly at power up which allows the system to be "Activated".

The activation function is protected by a factory-calculated password that is different for each FlexPay component, as well as for each time the function is accessed on each FlexPay component.

The equipment that calculates the password is kept in a secure environment in a Gilbarco maintenance facility. The process to generate a password is accessible to authorized maintenance technicians only.

The Encore 700 S CRIND to be activated must be securely mounted before commencing the process.

Unbolting an Encore 700 S CRIND keypad/Encore 700 S card reader/Encore 700 S CRIND display from a system that was activated will automatically deactivate the system.

When replacing a FlexPay EPP on an Encore 700 S unit, the FlexPay EPP extracts the mapping and key information from the FCB. However, an activation with Gilbarco is required. For activation, contact Gilbarco Call Center at 1-800-800-7498.

## **Configuring/Activating Encore 700 S CRIND**

To activate an Encore 700 S CRIND, you must enter the service menu. To enter the Service menu and perform the activation, proceed as follows:

1 Power up the Encore 700 S CRIND device. The Product Part Number (PPN) is displayed on the screen (see Figure 5-1). Note the 8-digit serial number when the unit first powers up. The right-most six digits of the serial number is the password for the Service Menu.

Note: The message, "Out of Service" normally appears when the unit first powers up.

### Figure 5-1: Powering up Encore 700 S CRIND



The PPN is also printed on the rear of the unit (see Figure 5-2).



### Figure 5-2: PPN on Rear of Encore 700 S CRIND Unit

2 The Service Menu is shown when the Encore 700 S CRIND requires activation (see Figure 5-4). Otherwise, a white screen with the Gilbarco logo and software package versions is displayed momentarily (see Figure 5-3).

#### Figure 5-3: Software Packages Screen



**3** Press **1** > **Enter**. The Service Menu screen appears.

Figure 5-4: Service Menu - Screen 1



4 Enter the right-most six digits of the serial number and press ENTER/OK. The Service Menu - Main Menu is displayed. *Note: If you do not enter the password within 60 seconds, the unit automatically restarts.* 

#### Figure 5-5: Service Menu - Main Menu



The options in the Service Menu are shown in Figure 5-6.







If IP address changes are required, they must be changed using CRIND diagnostics. Using the Service Menu to change IP Addresses may result in communication issues with the dispenser.

5 Press 2 > Enter to enter the Security Setup Menu.

This menu is used to activate security mounting sensors.

The Encore 700 S CRIND software modules are not activated and system communications are not possible until the unit's mounting sensors are activated.

The menu displays the following:

- UNIT SERIAL NUMBER: PPN shown at start-up.
- UNIT CHALLENGE NUMBER: Variable code generated when the Encore 700 S CRIND device starts.
- ENTER MATCHING PASSWORD: Matching password is the answer to the challenge number.
  - Note: Gilbarco Technical Support Center/Service Center creates the MATCHING PASSWORD by a secure process that uses the serial number and challenge number, and produces a unique matching password. It must be entered within a time limit (three minutes) of the challenge number being displayed, else, the screen times out and reverts to the main Service Menu.



#### Figure 5-7: Security Setup Menu - Screen 1

- 6 Provide the unit serial number and challenge number to receive a matching password. Note: To obtain a password, call the Gilbarco Call Center at 1-800-800-7498 and inform the associate that you have an Encore 700 S CRIND device that requires activation.
- 7 Enter the matching password into the Security Setup Menu and press **OK**. After you enter the password correctly, the system will show the sensors' status and three options.

Option	Description
1	UNIT ACTIVATION (to activate the unit)
OK	SAVE CHANGES AND EXIT
CANCEL	UNDO ALL CHANGES AND EXIT

#### Figure 5-8: Security Setup Menu - Options Screen



8 Press 1 > Enter to activate the unit. The message, "ALL DISMOUNTING SENSORS ENABLED UNIT ACTIVATED" is displayed.

Figure 5-9: Activation Screen



- **9** Perform one of the following:
  - Press **OK** to exit the menu.
  - Press CANCEL to restart the Encore 700 S CRIND device.

Activation will enable all the connected secure modules.

*Note: It is not possible to enable only one component and retain the other components in an inactive state.* 

Contrary to activation, the de-activation procedure does not require keypad entries. Therefore, no options are available in the menu. When the system sensors detect that a module with mounting sensors is dismounted, it automatically self-deactivates. The activation procedure must be repeated.

At each power up, if the Encore 700 S CRIND main processor detects a module that is not activated, it will automatically enter the Service Menu (green screen). For a description of the various diagnostics screens, refer to "Appendix A: Diagnostic Screens" on page A-1.

# **Appendix A: Diagnostic Screens**

At power up, if you cannot access the Service Menu, one of the following diagnostic messages is displayed on the Encore 700 S CRIND screen.

## **Yellow Screen**

This indicates that the system has found an active package in its memory and has started to install it. A progress % bar is displayed.

Figure A-1: Yellow Screen



## **Red Screen**

This indicates that alarm(s) is/are running in the module(s). The module that is damaged (or is in alarm status) is not indicated.



Figure A-2: Red Screen

## **Blue Screen**

This indicates that the system is activated, is running correctly, and is waiting for a master device connection.

Figure A-3: Blue Screen



## **Green Screen**

This indicates that the system is running but has not been activated through the commissioning process. In this situation, the Encore 700 S CRIND will automatically enter the Service Menu.





# Appendix B: Troubleshooting Encore 700 S CRIND Communication Issues

# **CRIND Communication Problems**

Symptom	Potential Causes	Check/Remedy
"Lost Key" LED glows on FCB AKA SPOT.	Security compromised or corrupt FCB.	Replace FCB assembly.
Does not print and intermittent card reader function on side B.	No communication from side A to side B through CAT-5 cable or wrong CRIND IP settings.	Set proper IP settings and verify CAT-5 Ethernet connection from both FCBs to HIP.
CRIND device will not respond to numeric entry on FlexPay EPP while in CRIND diagnostics.	Not pressing <b>Enter</b> on FlexPay EPP after numeric entry while in CRIND diagnostics.	Press <b>Enter</b> after each numeric entry while in CRIND diagnostics.
Cannot hear audio for Applause Media System or intercom.	Speaker not connected or volume set too low.	Verify audio setting in CRIND diagnostics. Start with a setting of "90". Check speaker connections and connections on the intercom board (if applicable).
CRIND opposite side does not respond to the POS system.	Opposite side CRIND is not programmed.	Each side has its own CRIND side. They must be programmed individually.
No Applause Media System showing up on CRIND device while fueling.	No communication from PCN and CRIND device through the Universal Serial Bus (USB) to Local Operating Network (LON) board.	Check connections at the USB to LON board and then check the wires in the Connectors. The wires not seated in those connectors can cause this problem. The LON to USB board connection does not fail frequently.
Green screen at power up.	Requires activation from FlexPay EPP tamper or removal.	Call Gilbarco Technical Assistance Center (TAC) to activate the unit.
CRIND device comes up with picture of the FlexPay EPP and X through the FlexPay EPP on the CRIND screen.	Communication error to FlexPay EPP.	Reboot the unit. If the problem persists, check cabling to FlexPay EPP, then replace FlexPay EPP, and reactivate by calling Gilbarco TAC.
CRIND logs do not match with proper date and time on CRIND device.	CRIND date and time not set properly.	Set CRIND date and time in CRIND diagnostics.
No debit function at the dispenser after a CRIND software upgrade ("GKA" error appears on CRIND display) used with a Passport® POS system.	Lost initialization between the POS and the dispensers.	Reboot the Enhanced Dispenser Hub (EDH) on a Passport system.
After getting green screen at power up and attempting to activate, activation fails and screen returns to the first activation entry screen.	Activation Timed-out.	Start process all over again. Time limit to activate the unit is 60 seconds.
The CRIND screen does not appear correctly.	Jumper setting is wrong on FCB that selects 10.5 or 5.7-inch display or the jumper is not set properly after the FCB assembly was replaced.	Remove the FCB assembly (including plastic housing) and set the jumper properly.
"Keyboard Error" appears at power up and picture of FlexPay EPP with an X through it.	Wrong keypad or defective.	Ensure that the 2.1 keypad is installed. Replace keypad with the correct keypad and reactivate.
TRIND is not working.	Software configuration.	Ensure that the TRIND option is enabled in diagnostics and at the POS system.

Symptom	Potential Causes	Check/Remedy
SCR not responding.	Card reader, cabling, and POS system.	Check "ECR" LEDs are on SPP (both TX and RX must be flashing). If ECR LEDs flashing, then try swiping a credit or debit card to ensure that the condition still exists. If there is no response from credit or debit card, then try entering CRIND diagnostics (ensure that the dispenser door is closed to avoid optical sensor issues); this determines whether ECR is not working or Ruby is not processing card events. Restart the unit and collect the logs if instructed by engineering.
CRIND display Blank.	CRIND corrupt.	Restart the unit and report to Gilbarco on call closing.
Not printing receipts.	-	Run a transaction to determine if receipts are not printing. If there is no transaction receipt, then remove and re-feed paper, and see if the large "1" prints on re-feed. If the large "1" does not print, then the CRIND BIOS is unable to use the printer. Check for network connectivity issues between the FCBs (Ethernet cable, IP addresses). Collect the logs if instructed by engineering. Restart the unit and report to Gilbarco on call closing.
Not responding to the CRIND diagnostic card.	No communication for CRIND to pump in the MOC Mode.	Repair the two-wire link from CRIND to pump, verify the proper pump IDs set (7, 11) and so on. Try to enter the CRIND Diagnostics when the CRIND is booting up from a power cycle during the "system online" or "Gilbarco Veeder-Root®" screen.
For the third-party POS systems, the CRIND screen does not indicate any occurrence of a POS application download.	The CRIND software displays the existing screen for the first few minutes (for example, the software displays "please pay inside.") on the CRIND display during a POS application download.	Allow sufficient time for the POS application download to occur. Observe the POS communication LEDs on the FlexPay CRIND Control Board on both sides of the unit. TX and RX must glow to indicate a POS application download. For LED descriptions, refer to this manual.
The third-party POS application download fails.	Wrong configuration in the third-party POS application.	Verify that the third-party POS system is programmed 5.7-inch monochrome even though the units are 10.4-inch color screen. Verify if the POS system is set to the primary CRIND on both sides of the dispenser as the CRIND devices on each side are independent.
No debit (cursor not displayed when prompted to enter PIN).	No customer key loaded in unit.	Remote Key Loading (RKL) unit through FlexPay Maintenance Tool and TAC. For more information, refer to MDE-5062 FlexPay Maintenance Tool for FlexPay/SPOT CRIND System.
CRIND Screen stuck in "starting application"		Check connections P303 on DCM2.2 and P1109 on the PCN. Verify that the jumper at J6 is set to position B, 45 mA.
Screen Stuck at "Dispenser Unavailable" on SmartCRIND unit		Verify that Jumper (J12) is installed on the SmartCRIND.
Intermittent POS communication to dispensers		<ul> <li>When using a dedicated two-wire connection for Applause</li> <li>Media System/Insite360, ensure thatMOC POS - the two- wire connects to P333 pins 3/4</li> <li>Generic POS - CRIND to P300 pins 1/3 and Pump to pins</li> <li>P333 pins 3/4.</li> <li>Note: Applause/Insite360 Encore connects to P333 pins 1/2 (see two-wire configuration in "Block diagram for DCM2.2 Two-Wire Configuration (Dedicated)" on page 4-4 and Launch Bulletin).</li> </ul>
Contactless Card Reader (UX410) not functioning		Ensure that the VLAN Jumper (J5) is installed in FlexPay II unit only and card readers are connected to the proper RJ45 port.
No HomePlug communication		J3 not installed; check the HomePlug Activity LED (D18) should go solid ON when internal HomePlug is established. This does not indicate a connection to the back room.
Screen Stuck on message "Pump Closed" and/or "Out of Service"		Check connections P303 on DCM2.2 and P1109 on PCN. Verify that Jumper J6 is set to position B 45 mA.

Symptom	Potential Causes	Check/Remedy
Insite360 Encore not receiving any incremental logs from PCN, and PCN will not respond to remote commands such as PCN reset during a feature test.		Verify that the Z-Modem cable is connected at P315 and on P1111 at the PCN (excludes E300 and Advantage).
Device is offline in Insite360 Encore		Check Router Enabled D21 LED. If "ON Green", SSoM is installed and running; does not mean it is configured properly. If LED is OFF, replace the assembly. Check SSoM WebApp configuration. Ping the SSOMs internal IP address using Laptop Service port. Check SSoM software version if connected to FlexPay IV. If at 1.3.13, SSoM will need to be upgraded to latest version. Call the Gilbarco Help Desk.
CRIND showing down in the Insite360 Encore		Check the CAT5 cable connections from DCM2.2 and ping the CRIND IP Addresses using laptop service port. SSoM WebApp might be misconfigured.
Error found during SSoM Registration		Perform "Check Internet" test in SSoM webapp. Verify the SSoM configuration. Check physical connections to internal devices and back room hardware.
Router Enabled LED ON and SSoM Registration LED blinking but still device showing offline in Insite360		Reboot the dispenser manually.
Insite360 Encore is not able to perform remote warmstart feature		Verify that the Z-Modem cable is connected at P315 and on P1111 at the PCN. Ensure that the PCN is at minimum version. Ensure that the correct power supply cable (M07973A006) is installed. Ensure that the power supply meets minimum requirements.
Z-Modem showing Down status in the Insite360 Encore		Verify that the Z-Modem cable is connected at P315 and on P1111 at the PCN.
Two-wire showing Down status in the Insite360 Encore		Check connections P303 on DCM2.2 and P1109 on PCN. Verify that Jumper J6 is set to 45 mA.
Screen Stuck at the Card Reader Error Symbol on FlexPay IV		Check CAT5 connections on DCM2.2 and at the card reader. Check for dismouted card reader and tamper event. Ping card reader from laptop service port.

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# **Appendix C: Encore 700 S Start-up Checklist**

## **IMPORTANT INFORMATION**

- Press Enter after each character (for example, for CRIND ID 10, press 1 > Enter, 0 > Enter, and Enter).
- If the card reader is not responding, close the main doors to eliminate any outside light intrusion.

### **Diagnostics Mode**

- □ Program CRIND Mode and CRIND IDs.
- □ Ensure that all CRIND keys function correctly (including softkeys and auxiliary keypad).
- $\Box$  Set the audio level.
- $\Box$  Set the personality screen.
- $\Box$  Set the unit IP addresses, if non-default values.
- $\Box$  Enable any options present on the CRIND.
- □ Run System Health Report (press **Clear** and swipe the CRIND diagnostic card, verify the settings, and ensure that the pump and door node versions are displayed).
- □ Verify the cash acceptor alarm switches and activate door alarms.
- □ Test video/audio (if customers have an Applause Media System).

### **Visual Checks and Transactions**

- □ Ensure that no wires are trapped in hinges, gaskets, or visible from the exterior of the pump.
- □ Perform a CRIND transaction (both credit and debit).
- □ Ensure that the Applause Media is present during a transaction.
- □ Ensure that the CRIND LEDs are functioning correctly.
- □ Ensure that the CPE/LRE (turtle) is powered up and operational (if applicable for Applause Media System).
- □ Verify that the ADA functions correctly (if present).
- □ Verify that the auxiliary keypad functions properly.
- $\Box$  Verify proper communication with the POS.
- □ Ensure that the CRIND prompting on the display, graphic quality, Applause Media System content are present (if applicable).

- □ TRIND: Verify the response obtained with handheld transponder tester. *Note:* Verify that in Encore 300/500 (square bezel) NGP retrofit applications, "Enable Wireless Sync Option" is set to "Enabled". Without this option enabled, TRIND units can interfere with each other. For more information, refer to "Appendix E: FlexPay II CRIND Retrofit TRIND Settings" on page E-1.
- D Power cycle the unit and verify that the unit is functioning correctly after warmstart.

# **Appendix D: Encore 700 S Recommended Spare Parts**

		ASC	Distri	ibutor
Part Description	Part Number	100	100	500
FCB in Plastic Housing	M11930K001	1	1	2
Beeper Interface Board	M09232A001	1	2	3
Display, Color 5.7" (display only)	M10369B001	1	1	2
Display, Color 10.4" (display only)	M10370B001	1	1	2
Inverter Board for 10.4" Display Backlight	M10371A001	2	4	6
Scanner Interface Board	M10402A001	1	2	4
Intercom Interface Board	M09751A002	1	2	4
Right Softkey (10.4")	M10206B001	2	4	8
Left Softkey (10.4")	M10206B002	2	4	8
Replacement Backlight Bulbs for Color Display (four bulb set - this covers one display)	M10370B002	2	2	8
5.7" Color Complete Assembly	M09193A002	-	-	-
10.4" Color Display Complete Assembly	M10076A001	-	-	-
Replacement Pin for 10.4 Bracket	M12234B001	1	1	2
USB to LON Interface Board (used for Applause Media Systems)	M07713A001	1	1	2
PIP Board	M12806A001	1	2	2
HIP 2 Board	M12760A001	1	2	4
FlexPay EPP 2.0	M10661B001	2	2	4
Heater Kit Option for FlexPay EPP	M08631K001	1	2	2
SCR 2.0	M10728B001	2	4	4
Same Standard USB Printer	M04219A001	2	4	4
Same Standard USB Printer	M04219A001	2	4	4

The following table lists the recommended spare parts for Encore 700 S:

Note: 5.7-inch color softkeys are the same as the latest 5.7-inch monochrome screen softkeys.

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# Appendix E: FlexPay II CRIND Retrofit TRIND Settings

The TRIND utilizes a Gateway PCA (T20678-G3) to route the traffic of microreader communication with overlapping read fields prior to installation of the FlexPay II Retrofit Kit.

Following the installation of FlexPay II Retrofit Kits:

- The Encore 700/FlexPay II CRIND does not utilize the T20678-GX gateway PCA, but requires an additional programming of Encore 700 CRIND to ensure proper operation at instances when the read fields overlap.
- The TRIND may read tags erratically if the CRIND BIOS configuration is not correct.

*Note:* The Encore S E-CIM/700 S utilize the Light and Inductor Assembly (M06143A00X) and do not require this setting changed as the read fields do not overlap except in lab simulators.

For proper operation of TRIND, the "Enable Wireless Sync Option" must be enabled. To enable the option, proceed as follows:

- 1 Enter CRIND Diagnostics by swiping the CRIND diagnostics card.
- 2 Press 1 and Enter to access the Main Menu.
- 3 Press 2 and Enter to access the Device Config Menu.
- 4 Press 4 and Enter to access the TRIND Menu.
- 5 Verify that option 3 shows "Enable Wireless Sync Option". (If "Disable Wireless Sync Option" is shown, then the option is already enabled and no further action is necessary.).
- 6 Press 3 and Enter to enable the Enable Wireless Sync Option.
- 7 Press Enter to continue.

Note: Ignore the message stating that this option should only be enabled for lab simulators.

- 8 Verify that option 3 now shows "Disable Wireless Sync Option".
- 9 Press Cancel four times then press 2 and Enter to exit diagnostics.
- 10 Perform the same operation on the opposite side of the unit.
- 11 Test the TRINDs on both sides to confirm proper operation.

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