

Introduction

Purpose

This manual provides block diagrams and wiring information for the Desktop Payment Simulator (DPS). The DPS is designed for system integrators. It is capable of simulating fuel sales without piping and hydraulic components attached.

The DPS serves as a standalone CRIND®-only simulator.

Following options are offered:

- EMV® platform:
 - Barcode Scanner
 - Global Contactless Module (GCM)
 - TRIND®
- NGPM platform:
 - 5.7 or 10.4-inch Color Screen
 - Barcode Scanner
 - GCM
 - TRIND
 - Cash Acceptor

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Related Documents

Document Number	Title	GOLD SM Library
MDE-4771	Encore® S Enhanced FlexPay™ EMV CRIND Start-up/Service Manual	Encore & Eclipse®
MDE-4902	Encore 700 S Start-up, Service, and Remote Key Loading (RKL) Manual	<ul style="list-style-type: none"> • Encore & Eclipse • CRIND & TRIND
M07950	Diagram, Block Encore 700 and EMV	N/A
R20775	Diagram, Block TRIND (Key Tag Only)	N/A

Abbreviations and Acronyms

Term	Description
ADA	Americans with Disabilities Act
CIB	Contactless Interface Board
CRIND	Card Reader in Dispenser
DPS	Desktop Payment Simulator
ECR	Encrypted Card Reader
EMV	Europay®, MasterCard®, and Visa®
EPP	Encrypting PIN Pad
FCB	FlexPay Control Board
GCM	Global Contactless Module
GOLD	Gilbarco® Online Documentation
HCR	Hybrid Card Reader
HIP	Hub Interface PCB
I/O	Input/Output
LED	Light Emitting Diode
LON	Local Operating Network
NGPM	Next Generation Payment Mid
PCB	Printed Circuit Board
PCI-PED	Payment Card Industry PIN Entry Device
PCI-UPT	Payment Card Industry Unattended Payment Terminal
PIP	Peripheral Interface PCB
POS	Point of Sale
RF	Radio Frequency
RFID	Radio Frequency Identifier Device
RKL	Remote Key Loading
SCR	Secure Card Reader
SIP	Serial Interface PCB
SPOT	Secure Payment Outdoor Terminal
TRIND	Transmitter/Receiver in Dispenser
USB	Universal Serial Bus

Glossary

Term	Description
Gateway Board	Originally added to the The Advantage® Series CRIND to support handheld and car-mount keytags. With simple handheld key-tags, it simply functions as a protocol translator between the CRIND and the uReader.
SPOT	Secure Payment Outdoor Terminal. The full name for SPOT is SPOT M3. All electrical connections to SPOT M3 are through the SPOT M3 Input/Output (I/O) connector.
uReader	A Texas Instrument Radio Frequency (RF) controller, which reads handheld Speedpass™ keytags, and communicates serially to a host device.

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).

⚠ WARNING

 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 Gilbarco Support Center at 1-800-800-7498. 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.

Alert Symbol



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 equipment damage.

Working With Fuels and Electrical Energy

Prevent Explosions and Fires

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 lines.

Important Safety Information

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.

WARNING

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 eye 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.

WARNING

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 start-up 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.

Configuring Payment Platforms

Following are the payment platforms that can be configured:

- EMV SPOT M3
- NGPM M5

Setting up Simulators

This section describes how to set up EMV SPOT M3 simulator unit and NGPM M5 simulator for an Encore 700 S unit.

EMV SPOT M3 Simulator

For more information on CRIND start-up and service, refer to *MDE-4771 Encore S Enhanced FlexPay EMV CRIND Start-up/Service Manual*.

[Figure 1](#) shows the EMV payment platform with a 5.7-inch color display. This platform is Payment Card Industry PIN Entry Device (PCI-PED) 1.X certified and EMV level 1 and 2 certified. This platform is featured in the Encore 700 S dispenser and as a retrofit. Options include a TRIND or a GCM, and a barcode scanner.

Figure 1: EMV Payment Platform with 5.7-inch Color Display

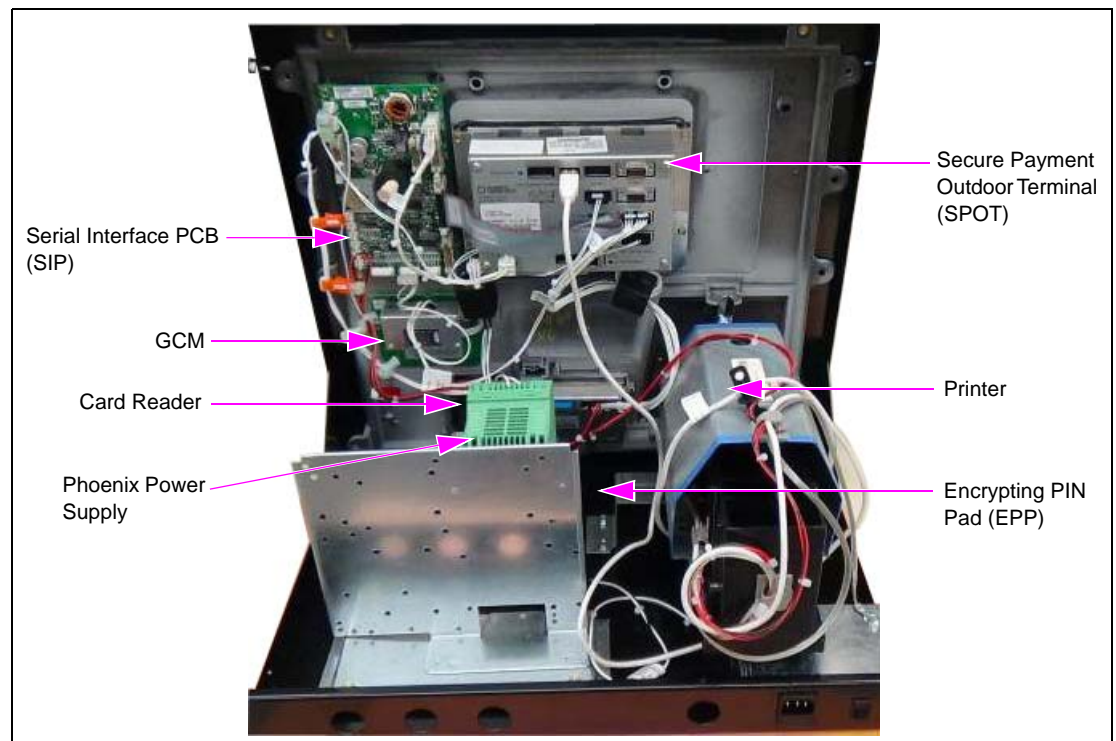
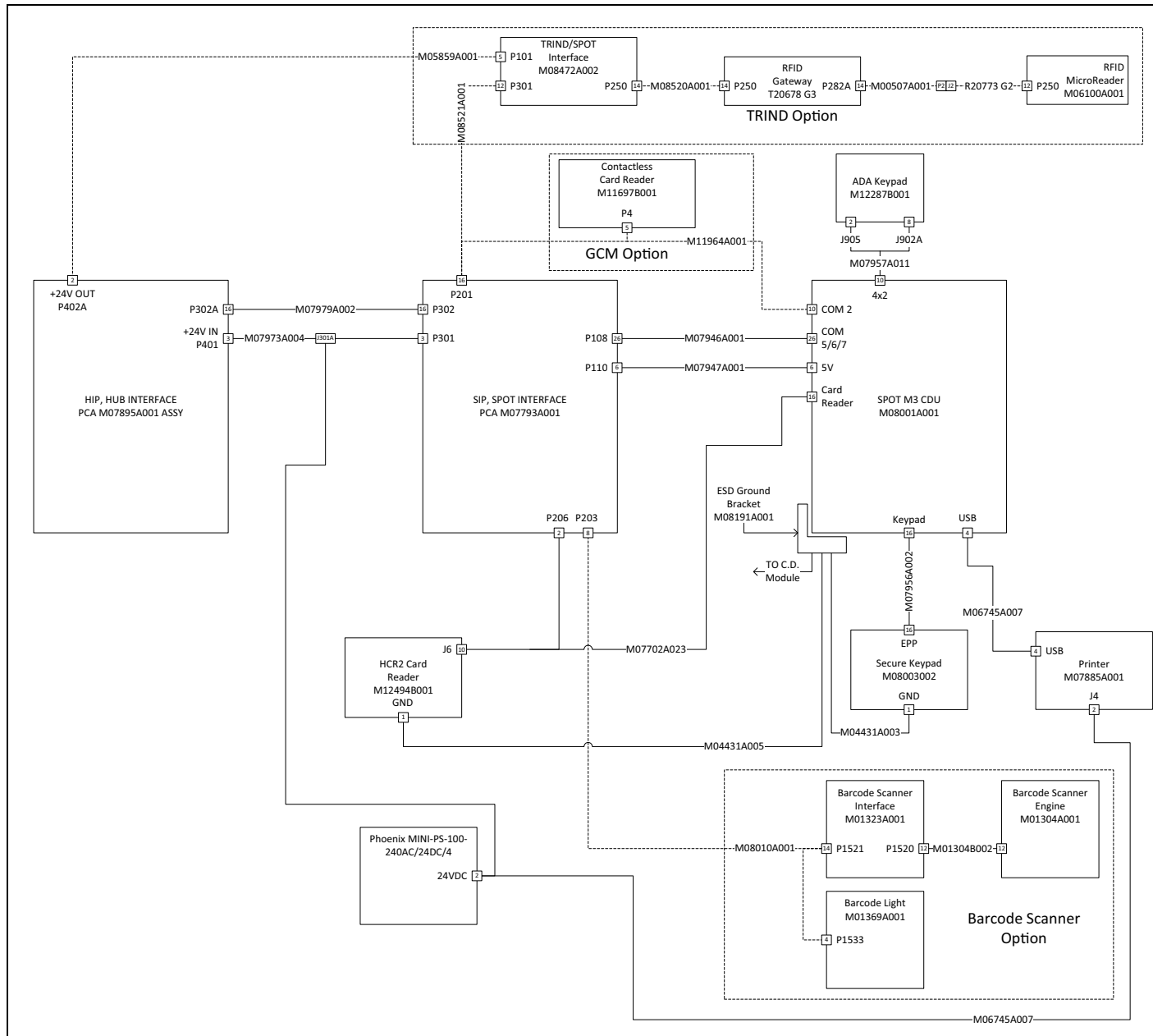


Figure 2: DPS EMV SPOT M3 5.7-inch Block Diagram



NGPM M5 Simulator

For more information on CRIND start-up and service, refer to *MDE-4902 Encore 700 S Start-up, Service, and Remote Key Loading (RKL) Manual*.

Figure 3 shows the NGPM payment platform with a 5.7- or 10.4-inch color display. This platform is PCI-PED 2.X and Payment Card Industry Unattended Payment Terminal (PCI-UPT) 1.X certified and has been featured in the Encore 700 S dispenser and as a retrofit. Options include a TRIND or GCM, a barcode scanner, and a bank note acceptor.

Figure 3: NGPM Payment Platform with 5.7- or 10.4-inch Color Display

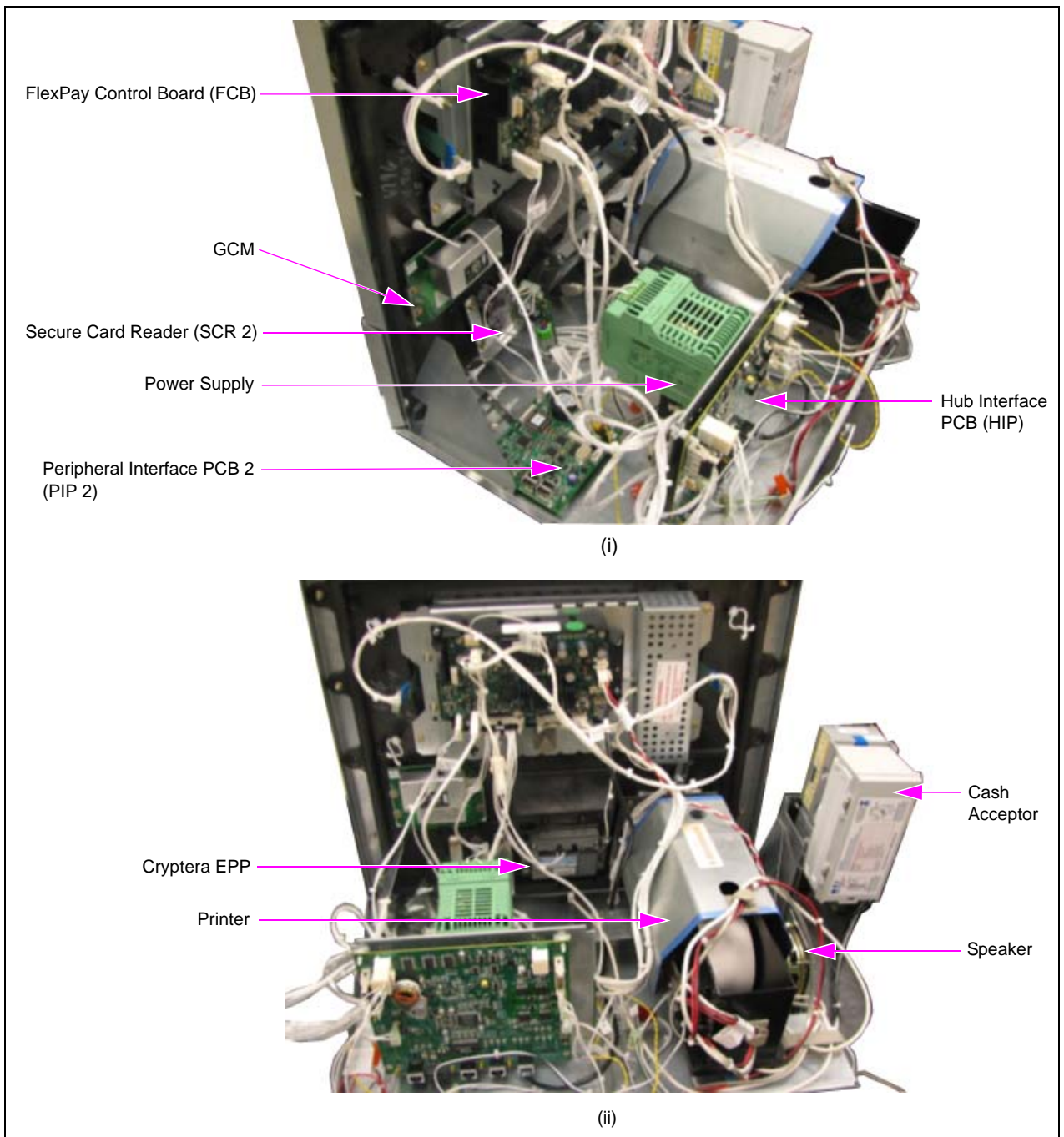


Figure 4: DPS NGPM SPOT 5.7-inch Block Diagram

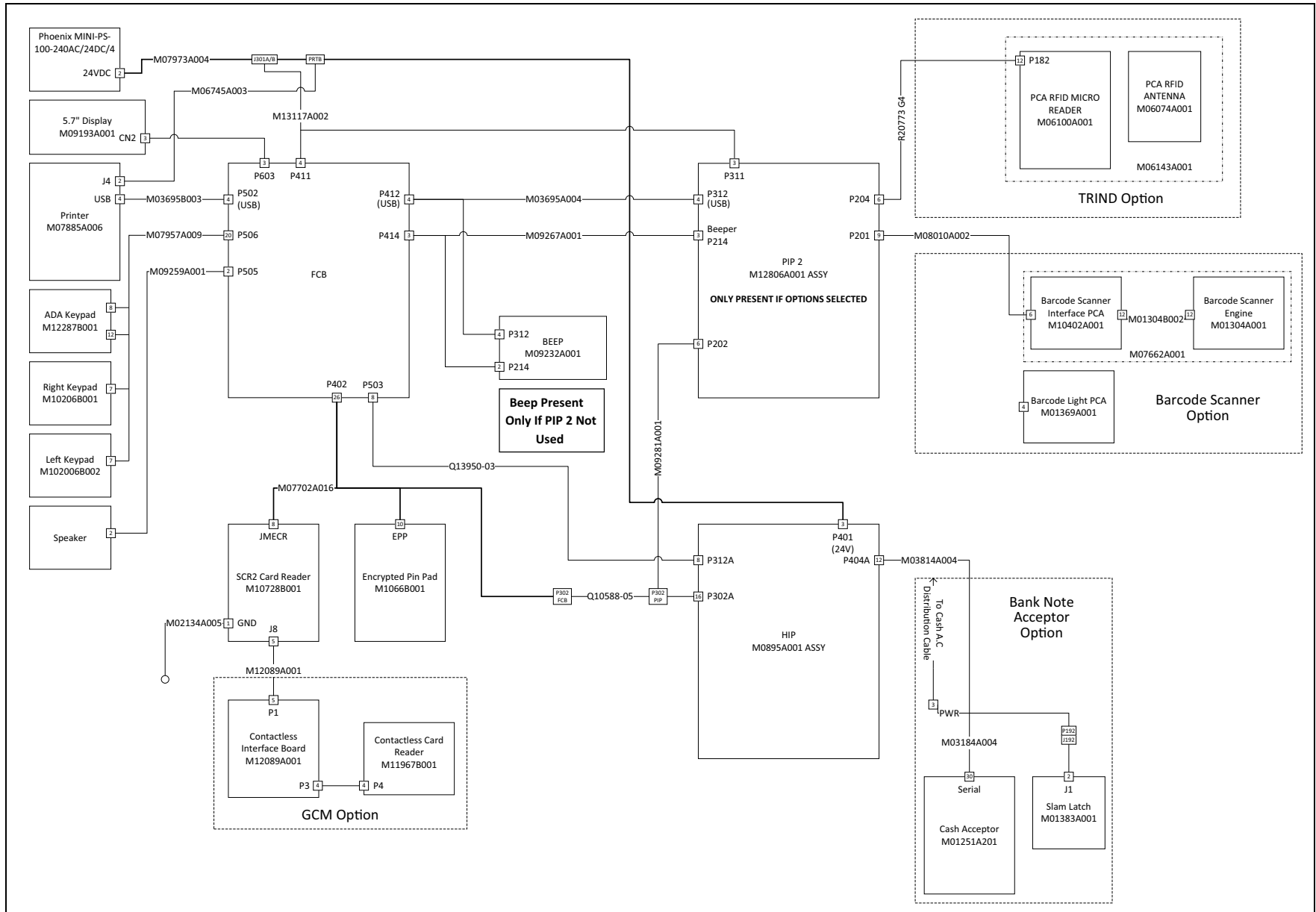
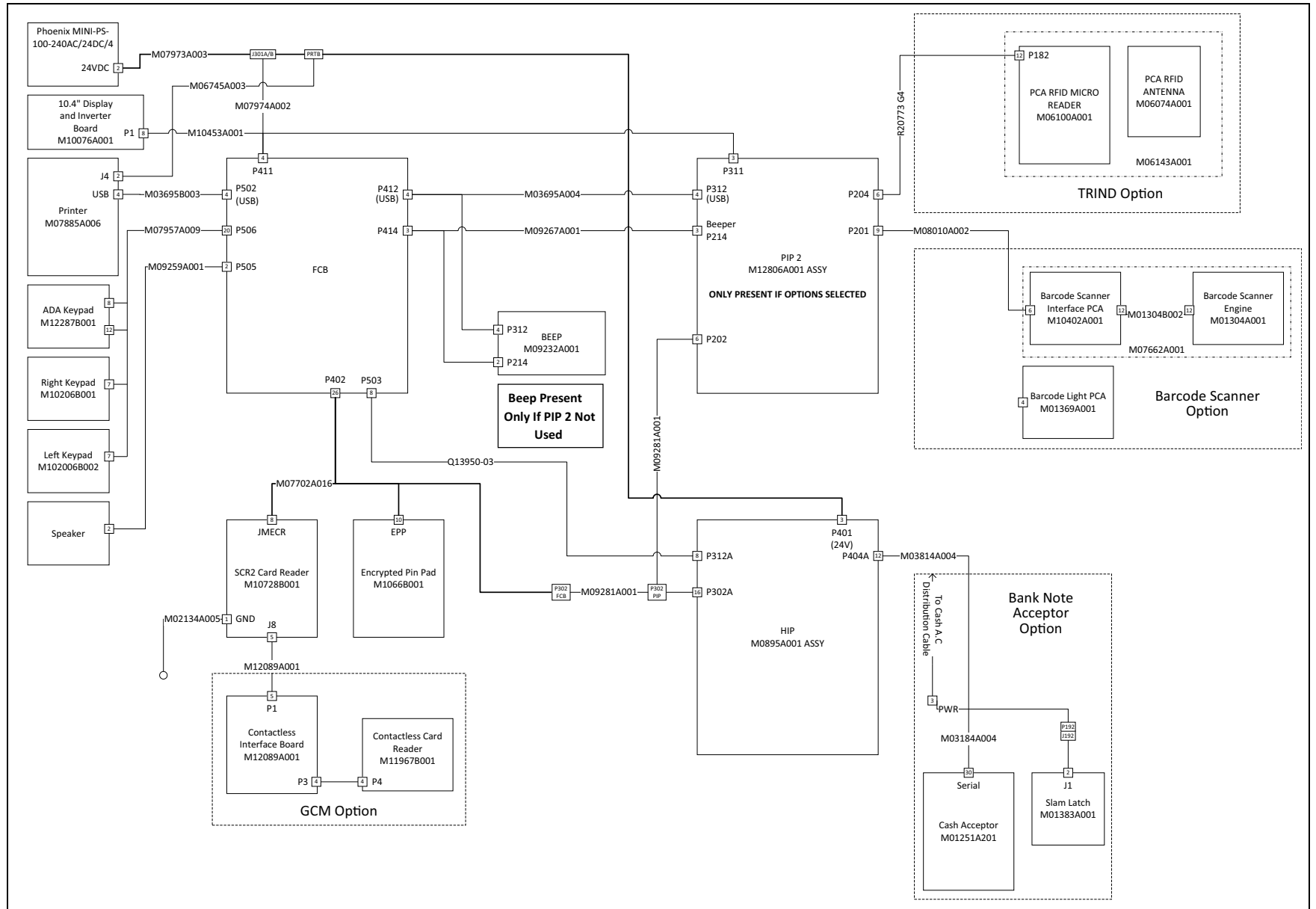


Figure 5: DPS NGPM SPOT 10.4-inch Block Diagram



DPS Components

DPS consists of the following components:

- Common Components
- NGPM Components
- EMV Components

Common Components

Common components consist of base and optional components.

Base Components

Common components have the following base components:

AC Input and Fuse

AC input accepts an ICE-320-C-13 cord, which can be selected to suit the country of use standard. A 2.5 Amp fuse is integral to the connector housing with provisions for a spare fuse.

Figure 6: AC Input and Fuse

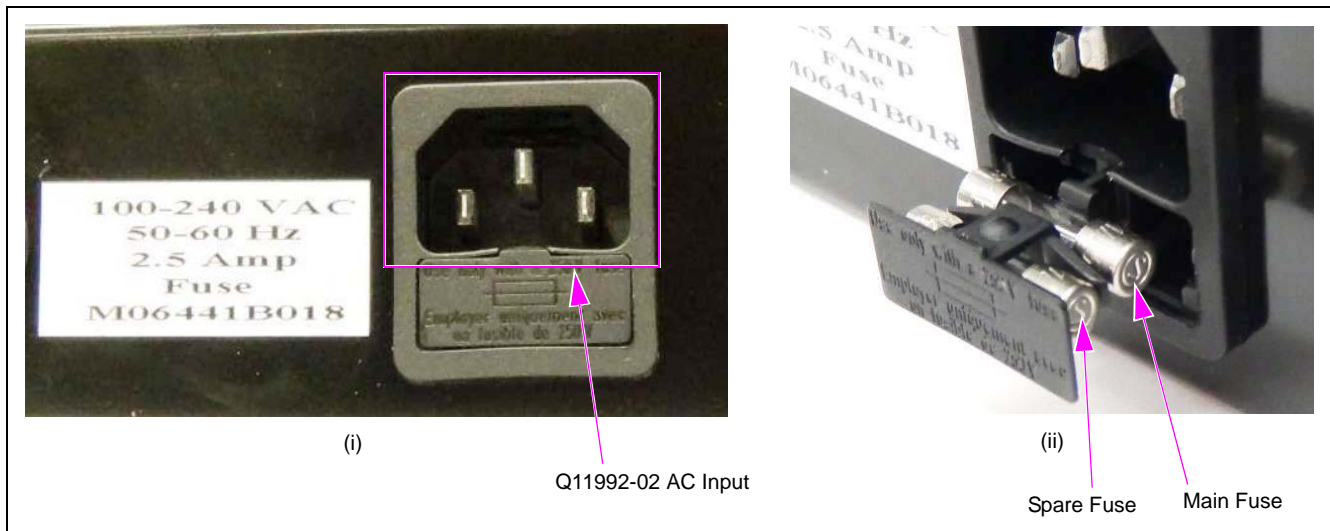


Figure 7: AC Input Connection Details

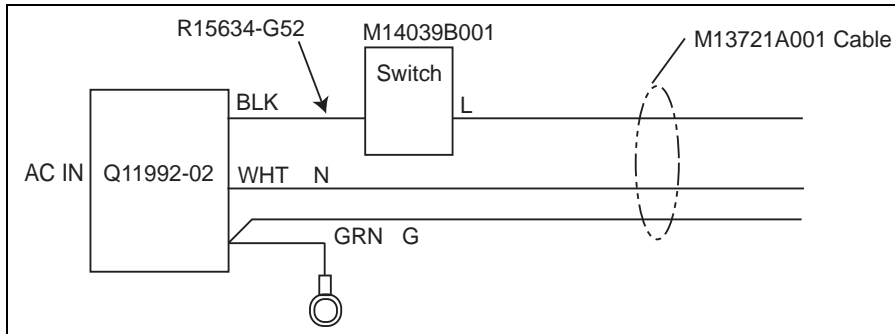


Figure 8: M13721A001 Cable

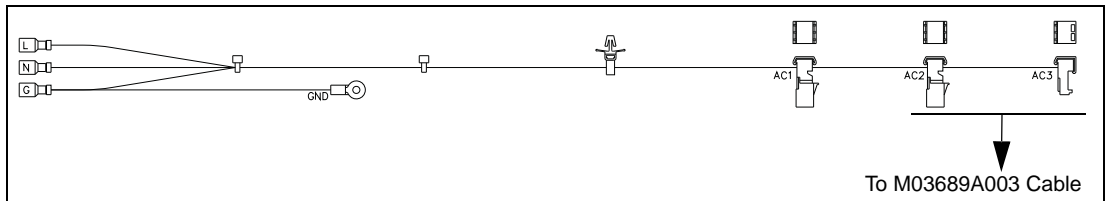
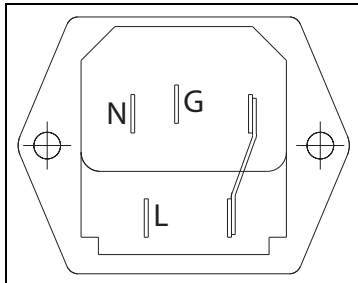


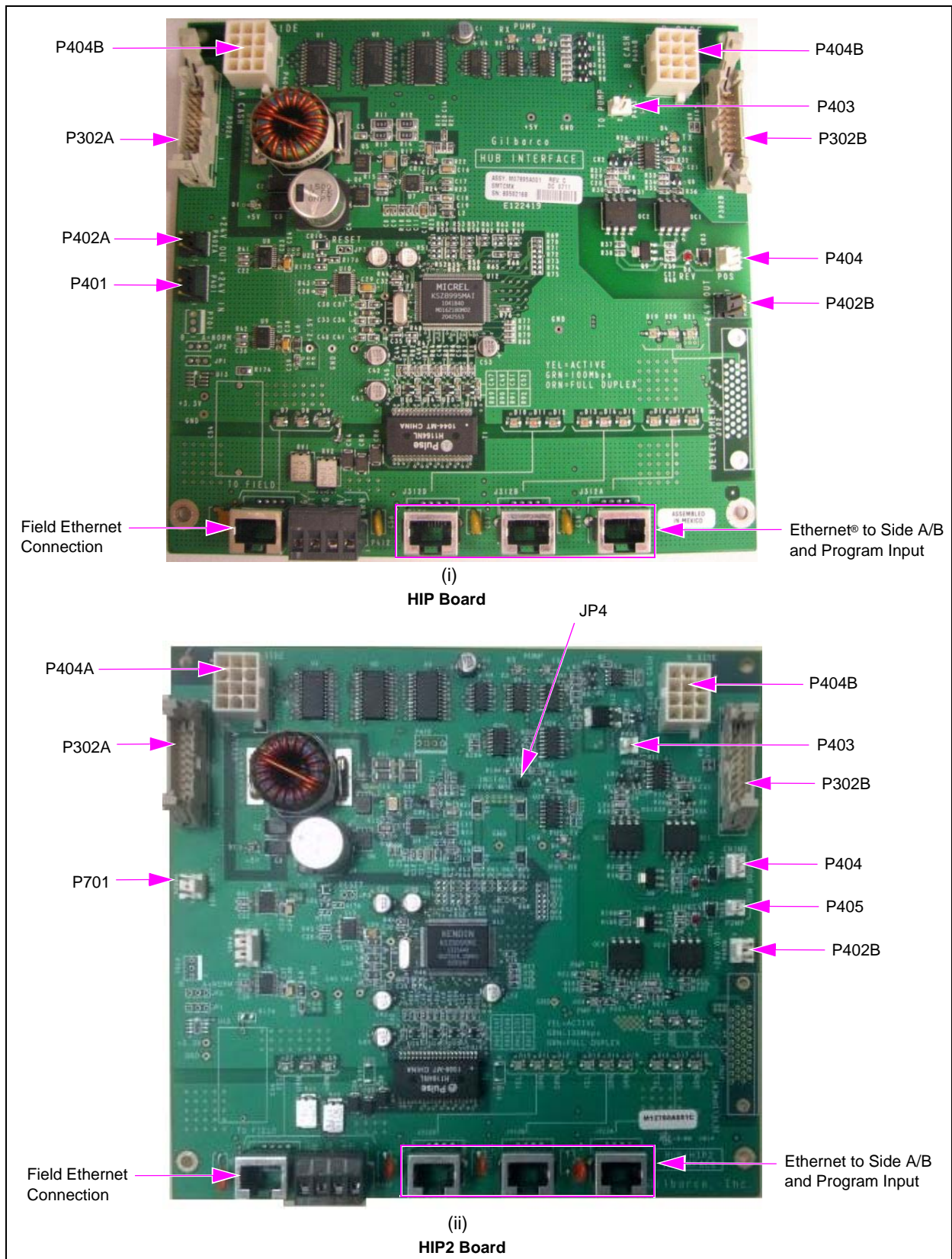
Figure 9: AC Input



HIP/HIP2 Board

Figure 10 shows the HIP/HIP2 board and its connections.

Figure 10: HIP/HIP2 Board



Board Connections			
Connector #	Via Cable	To	At Connector #
P404A/B	M03184A004	Cash Acceptor	P503
P302A/B	M07702A016	FCB	P402
P401	M07648A006	Phoenix Power Supply	J301A
J312A/B	Q13850-06	FCB/EMV Ethernet	Ethernet/P503
P403	M00491A001	Pump Node	P1109
P402A/B	M05859A001	TRIND/SPOT Interface (EMV)	P101

Light Emitting Diodes (LEDs)		
Color	Designation	Description
Green	D1	+5 V Power
	D8, D11, D14, D17	100 Mbps
Amber	D9, D12, D15, D18	Full Duplex
Red	D6	Two-wire reversed
Yellow	D2	RX from pump
	D3	TX to pump
	D4	TX to Point of Sale (POS)
	D5	RX from POS
	D7, D10, D13, D16	Active Ethernet

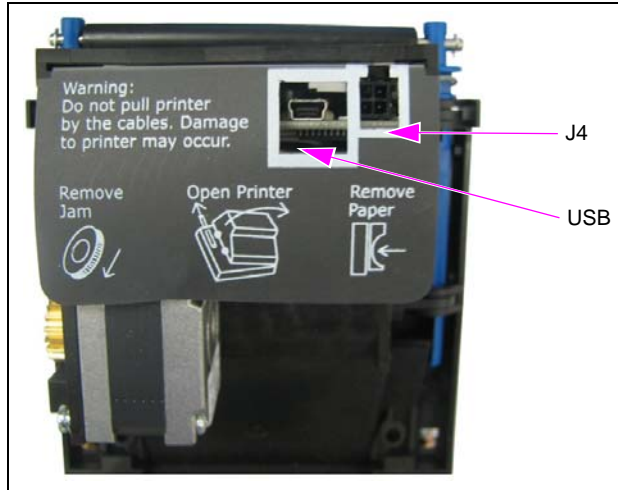
Following table lists the differences between HIP and HIP2 boards.

Description	HIP Board	HIP2 Board
Connectors	-	Similar to HIP board and includes P405 and JP4.
Pump wiring for Generic CRIND	<ul style="list-style-type: none"> Red/yellow wires go to pump. Output from P402 is unused. 	<ul style="list-style-type: none"> Red/yellow wires go to P405. Output from P402 goes to pump. JP4 = OFF
Pump wiring for MOC	<ul style="list-style-type: none"> Red/yellow wires are unused. Output from P402 goes to pump. 	<ul style="list-style-type: none"> Red/yellow wires go to P405. Output from P402 goes to pump. JP4 = ON
Applause™ Media System	Must have Universal Serial Bus (USB)/Local Operating Network (LON) board.	USB/LON board not used.

Printer

Figure 11 shows the printer.

Figure 11: Printer



Connections			
Connector #	Via Cable	To	At Connector #
J4	M06745A007	M07973A003	P4
USB	M06745A007	FCB (NGPM)	P502
	M06745A007	SPOT M3 (EMV)	USB
Paper			
3" roll	M04809B015	-	-
4" roll	M04809B012	-	-
6" roll	M04809B017	-	-

Power Supply Unit

Figure 12 shows the power supply unit.

Figure 12: Power Supply Unit

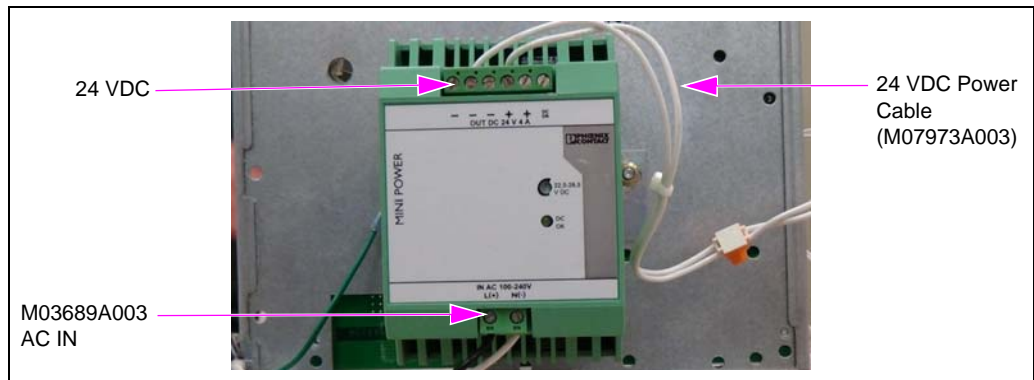
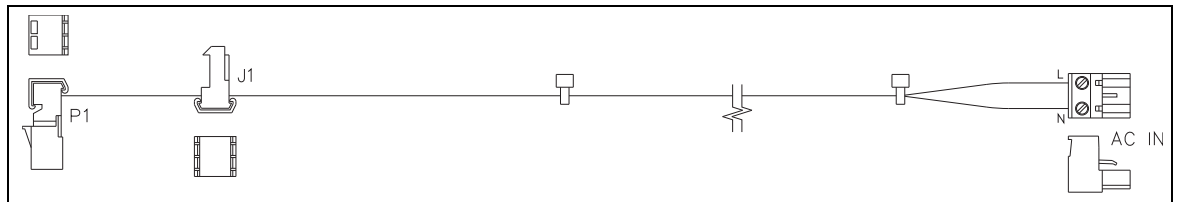


Figure 13: M03689A003 Cable



Connections			
Connector #	Via Cable	To	At Connector #
24 VDC	M07973A004	SIP (EMV)	P301
		HIP	P401
	M07973A003	FCB (NGPM)	P411
		HIP	P401

Optional Components

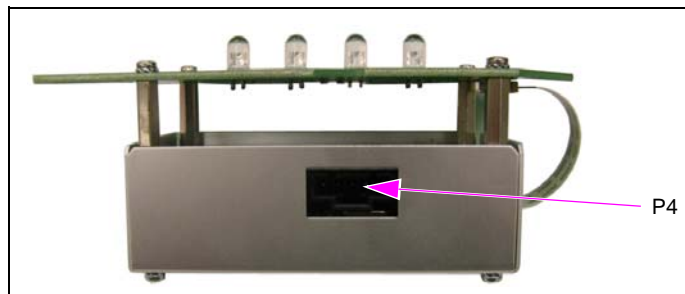
Common components have the following optional components:

GCM

GCM supports contactless smartcards compliant to the IOS14443 part A, B, and C standards, defining the air-to-air communication interfaces with card data encoded in the conventional magstripe applications. Applications for Visa, MasterCard, American Express®, and Discover® cards are supported.

Figure 14 shows the GCM.

Figure 14: GCM

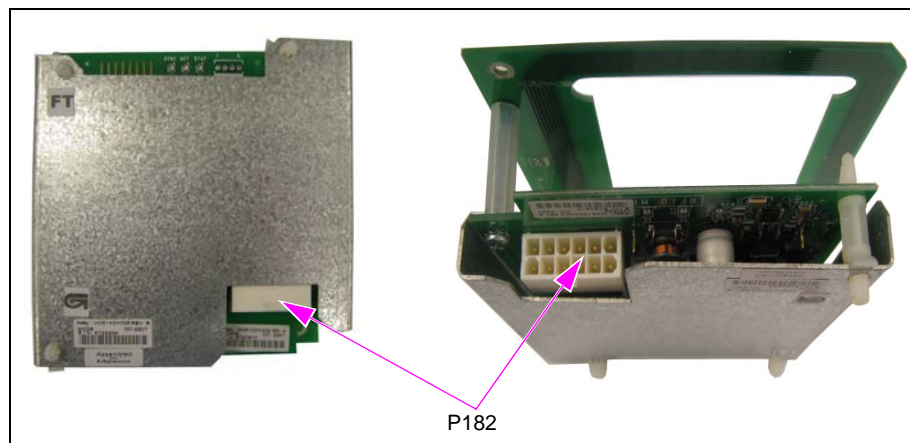


Connections			
Connector #	Via Cable	To	At Connector #
P4	M11964A001	SPOT Display (EMV)	COM 2
	M12090A001	SCR 2 (NGPM)	P3
	M12090A001	PIP 2 (NGPM)	P207

TRIND

Figure 15 shows the TRIND.

Figure 15: TRIND

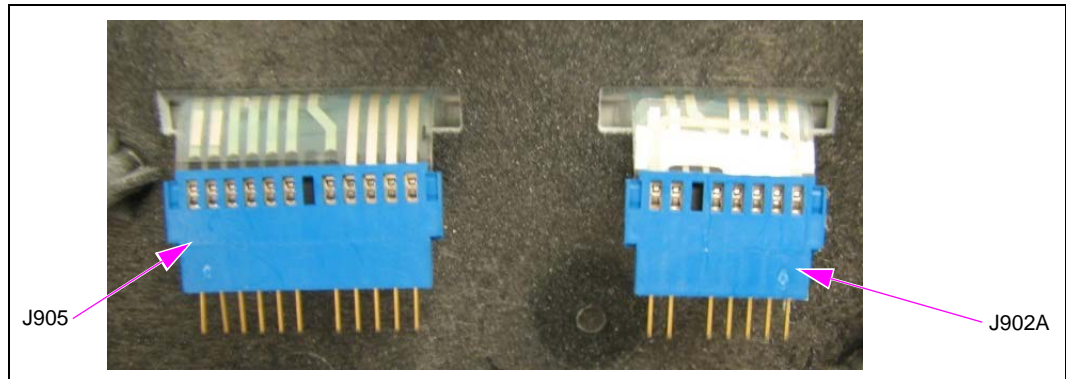


Board Connections			
Connector #	Via Cable	To	At Connector #
P182	R20773-G4	PIP 2 (NGPM)	P204
	R20773-G2/M00507A001	Radio Frequency Identifier Device (RFID) Gateway	P282A

ADA Keypad

The Americans with Disabilities Act (ADA) keypad is installed in the door above the printer. [Figure 16](#) shows the connectors inside the door.

Figure 16: ADA Keypad Connectors



Connections			
Connector #	Via Cable	To	At Connector #
J905 +J902A	M07957A001	SPOT Display (EMV)	4 X 2
	M07957A009	FCB (NGPM)	P506

NGPM Components

NGPM components consist of base and optional components.

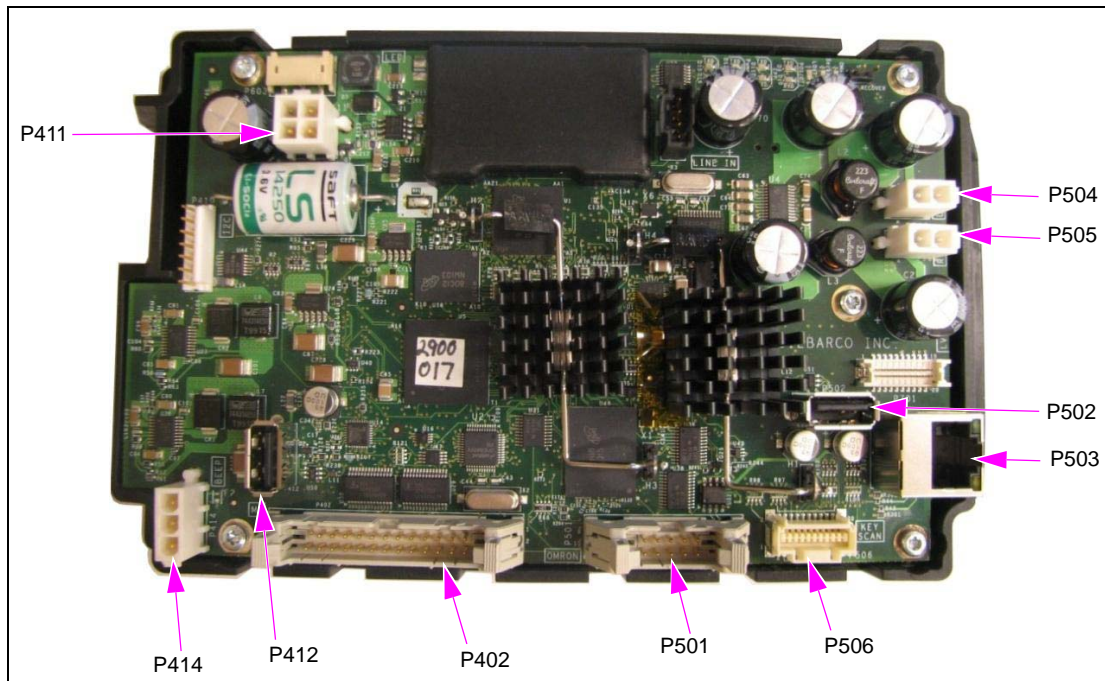
Base Components

NGPM components have the following base components:

FCB Board

Figure 17 shows the FCB board.

Figure 17: FCB Board



Board Connections				
Connector #	Via Cable	To	At Connector #	Function
P402	M07702A016	Keypad, SCR, HIP	J302A	-
P411	M10453A001	HIP	J301A, J301B	24 V IN
P412	M03695B004	PIP 2 or BEEP	USB	-
P414	M09267A001	PIP 2 BEEP	P214	Beep signal
P501	M12471A001	Hybrid Card Reader (HCR) 2	-	-
P502	M06745A003	Printer	USB	-
P503	Q13850-06	HIP	J312A	Ethernet
P504	M09259A001	Speaker	-	Left
P505	M09259A001	Speaker	-	Right
P506	M07957A004	Right + Left Keypad (10.4"), ADA Keypad	-	Softkeys

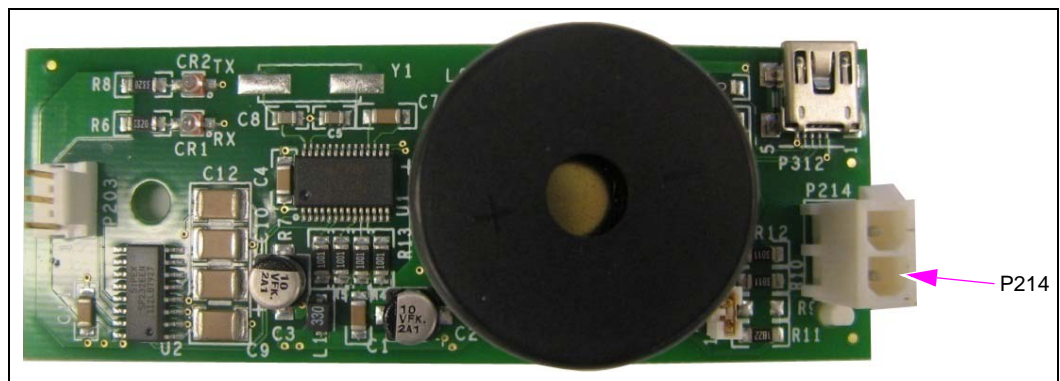
LEDs and Jump Jacks	
LEDs/Jump Jack	Function
ECR	The Encrypted Card Reader (ECR) LEDs are active and indicate communication to SCR/ECR.
EPP	The EPP LEDs are active and indicate communication to FlexPay EPP.
POS/OTI	The POS/OTI LEDs are active and indicate communication to POS through HIP.
Lost Key	The Lost Key LEDs are On if the secure key is lost (requires FlexPay CRIND Control Board replacement). Otherwise, 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.

BEEP Board

Only the BEEP function is operational on this board at this time.

Figure 18 shows the BEEP board.

Figure 18: BEEP Board



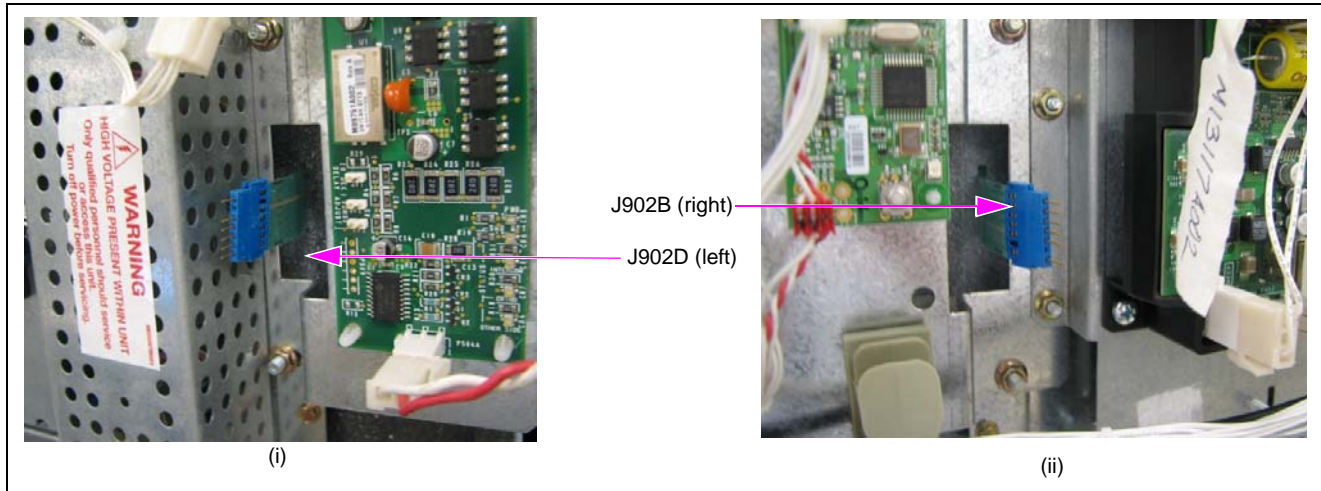
Board Connections			
Connector #	Via Cable	To	At Connector #
P214	M09266A001	FCB	P414

NGPM Softkeys

These are the keypads mounted to the left and right of the display. These will only be present in the 10.4-inch model.

Figure 19 shows the NGPM softkeys.

Figure 19: NGPM Softkeys

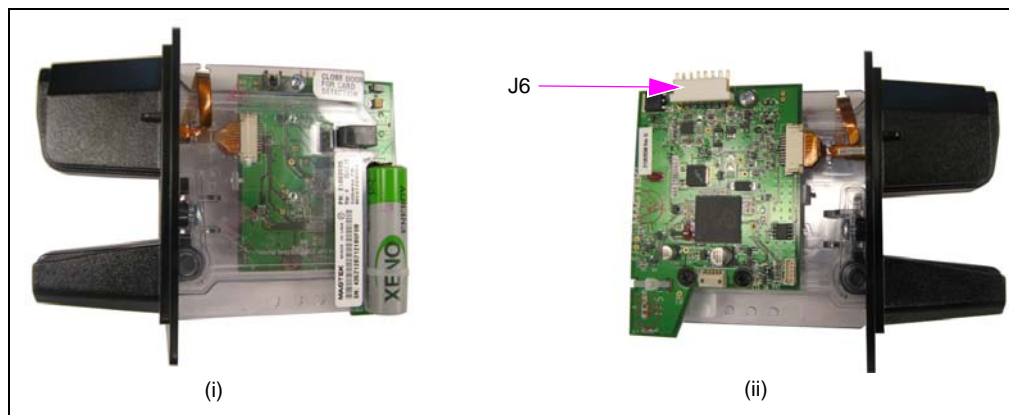


Connections			
Connector #	Via Cable	To	At Connector #
J902D+J902B	M07957A009	FCB	P506

SCR 2

Figure 20 shows the SCR 2.

Figure 20: SCR 2



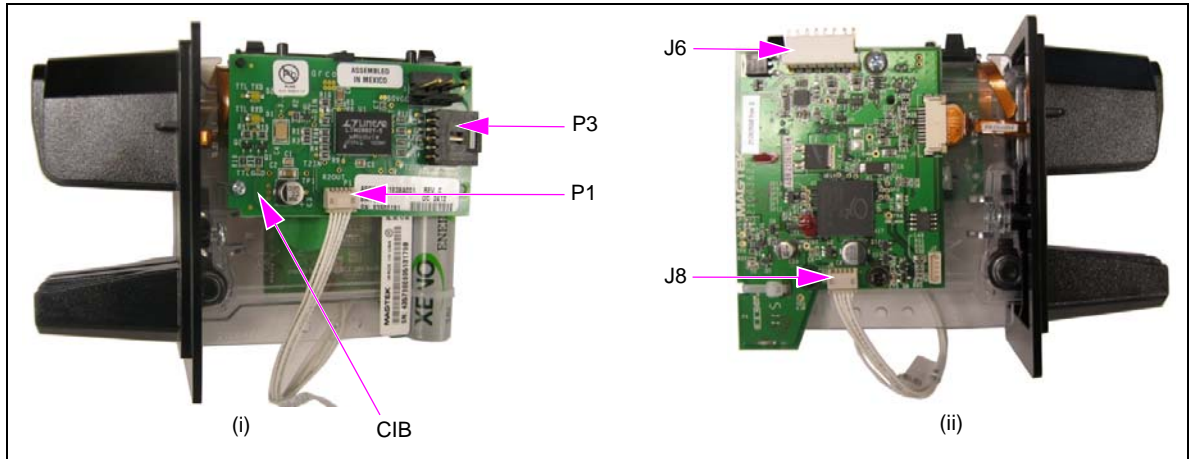
Board Connections			
Connector #	Via Cable	To	At Connector #
J6	M07702A016	FCB	J302A

SCR 2 with CIB Attached

Figure 21 shows the SCR 2 with Contactless Interface Board (CIB).

Note: The CIB will be attached if the GCM option is selected.

Figure 21: SCR 2 with CIB

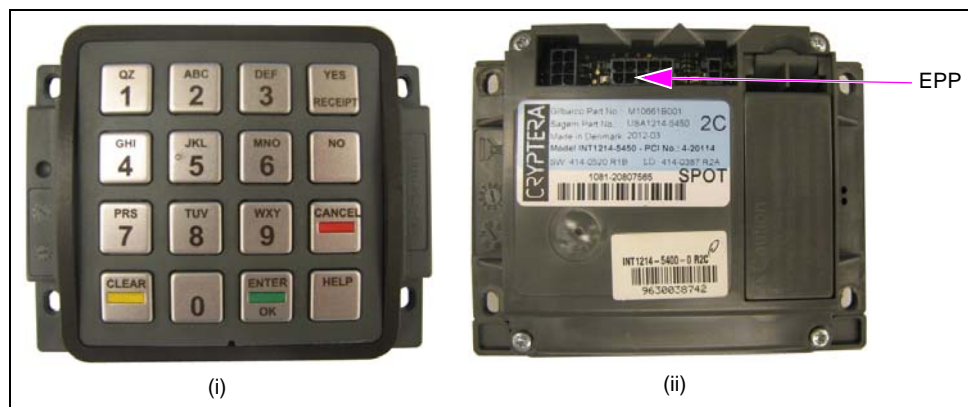


Board Connections			
Connector #	Via Cable	To	At Connector #
P3	M12090A001	GCM	P1
J6	M07702A016	FCB	J302A
P2	M12093	-	-
J8	M12089A001	CIB to reader	P1

Cryptera EPP

Figure 22 shows the Cryptera EPP.

Figure 22: Cryptera EPP



Connections			
Connector #	Via Cable	To	At Connector #
EPP	M07702A016	FCB	P402

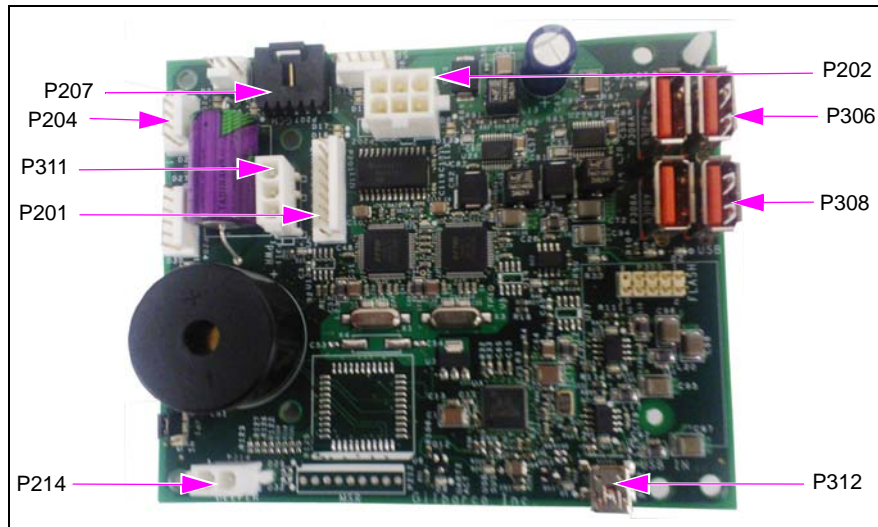
Optional Components

NGPM components have the following optional components:

PIP 2 Board (M12806A001)

The PIP 2 board replaces the BEEP board if optional peripherals are added. [Figure 23](#) shows the PIP 2 board.

Figure 23: PIP 2 Board



Board Connections			
Connector #	Via Cable	To	At Connector #
P201	M08010A002	Barcode Scanner	J1521
P202	M09281A001	HIP	P302
P204	R20773-G4	TRIND	P182
P207	M12806A001	GCM	-
P214	M09266A001	FCB	P414
P311	M07974A002	FCB (+24 V)	P411
P312	M03695B004	FCB	P412
P306	Various	USB	-
P308	Various	USB	-

LEDs			
Color	Designation	Description	Connector(s)
	D1	FLASH driver over-current	-
	D2	USB port 308A over-current	P308A
Amber	D7	USB port 306B over-current	P306B
	D11	USB port 306A over-current	P306A
	D12	USB port 308B over-current	P308B

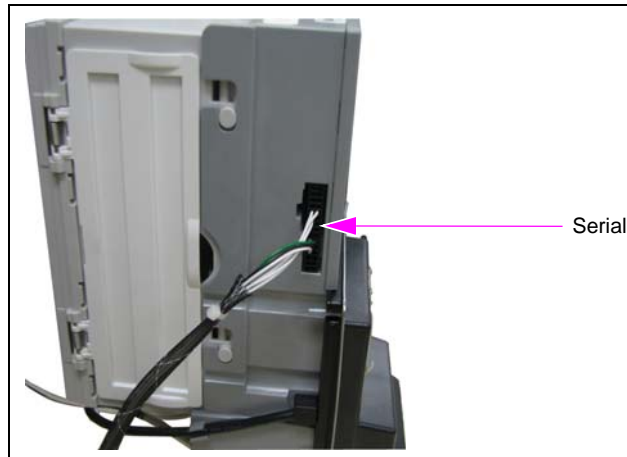
LEDs			
Color	Designation	Description	Connector(s)
Green	D4	USB port 306A connected	P306A
	D5	USB port 308B connected	P308B
	D8	FLASH drive connected	-
	D9	USB port 308A connected	P308A
	D14	USB port 306B connected	P306B
	D16	Hub heartbeat	-
Yellow	D3	RX on port 1	P201 - Barcode Reader
	D6	TX on port 1	
	D13	RX on port 2	P202 - Cash Acceptor
	D10	TX on port 2	
	D19	RX on port 4	P204 - TRIND via RS-232
	D20	TX on port 4	

Cash Acceptor

If the cash acceptor option is selected, a Ribbon Cable (Q10588-05) is installed. This ribbon cable allows P302A on the HIP to connect to the FCB and PIP 2. Cash Acceptor Interface Cable (M09281A004) can also be installed to connect to the PIP 2 to the ribbon cable. For cable block diagram, see [Figure 25](#) on [page 24](#).

[Figure 24](#) shows the cash acceptor.

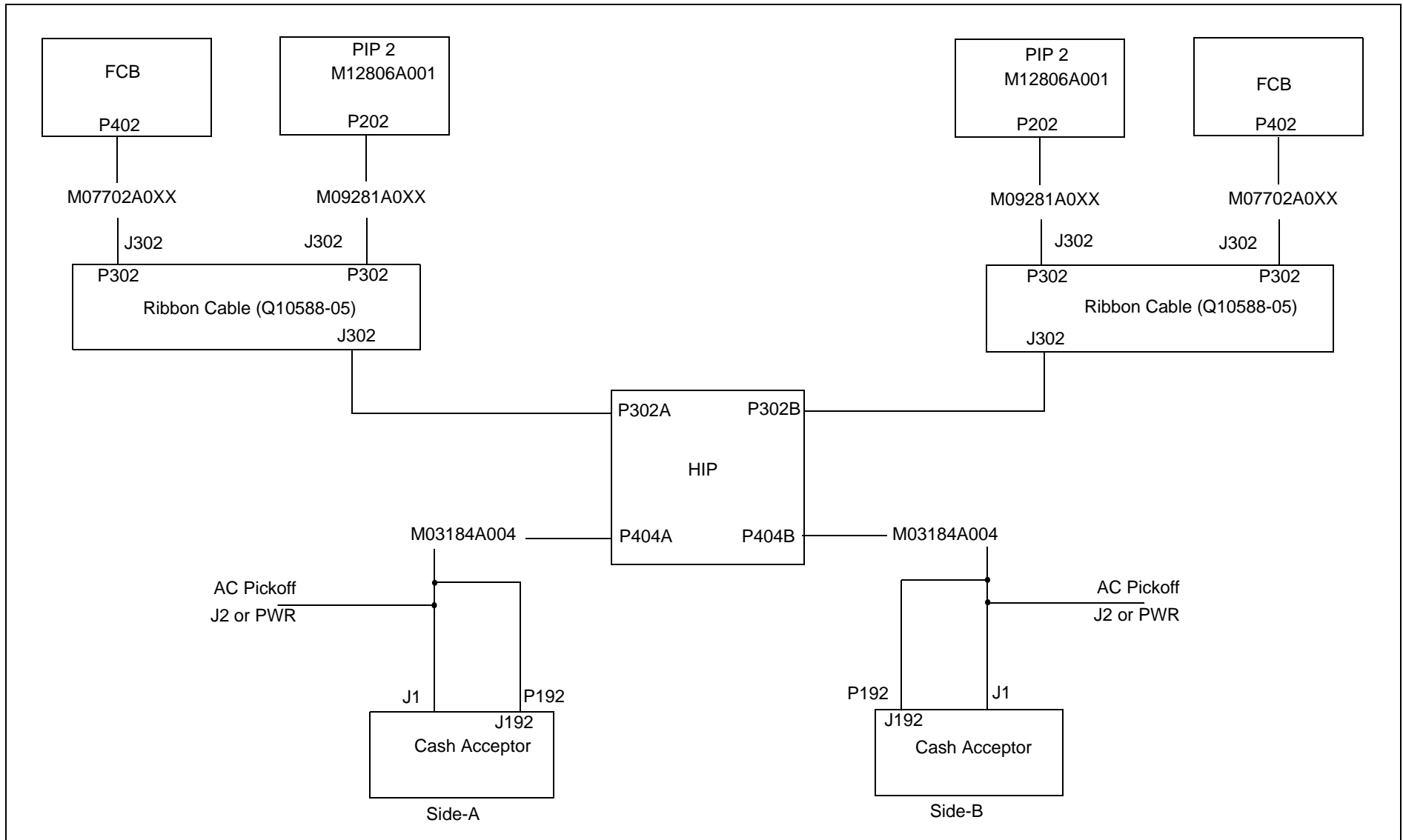
Figure 24: Cash Acceptor



Connections			
Connector #	Via Cable	To	At Connector #
Serial	M03184A004	HIP	P404A

Note: Only the side A connection is used.

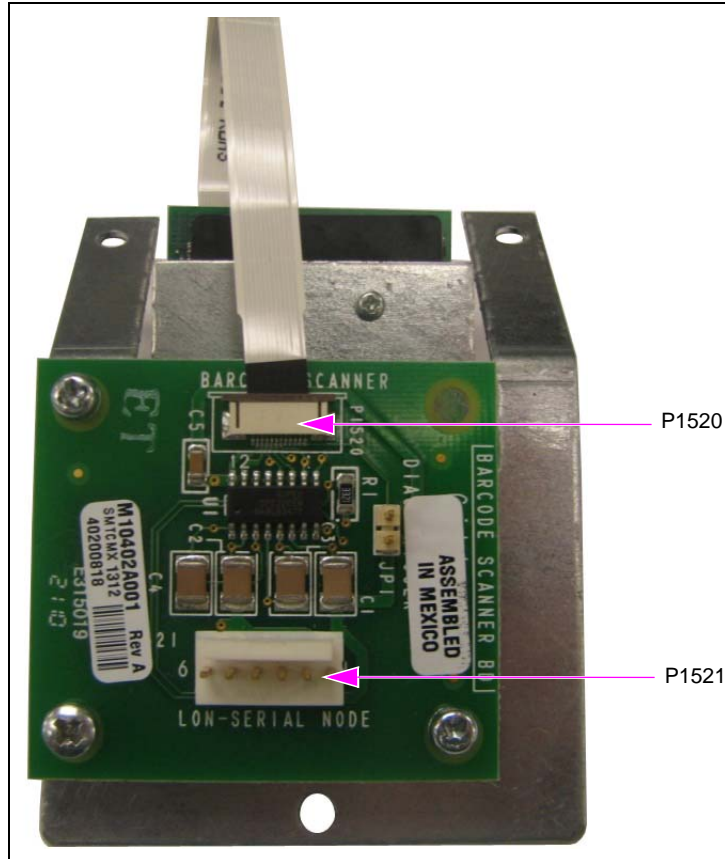
Figure 25: Cash Acceptor Connections Block Diagram



Barcode Scanner

Figure 26 shows the barcode scanner.

Figure 26: Barcode Scanner



Board Connections			
Connector #	Via Cable	To	At Connector #
P1520	M01304B002	Scanner	J1
P1521	M08010A002	PIP 2	P201

EMV Components

EMV components consists of the base and optional components.

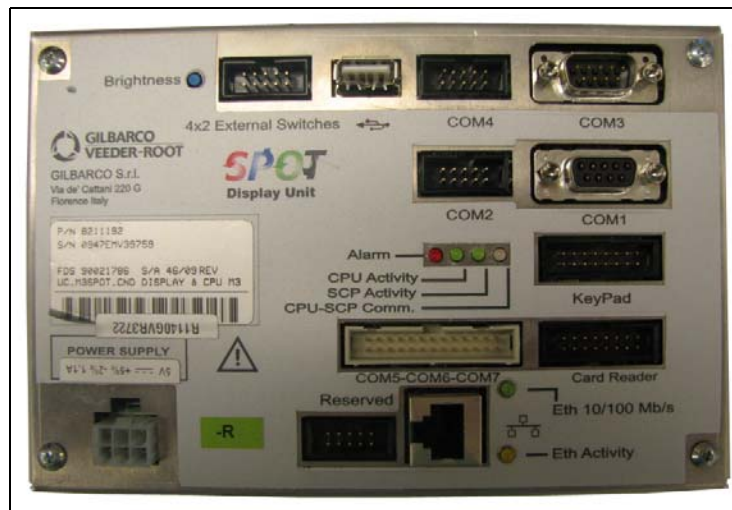
Base Components

EMV components have the following base components:

SPOT M3 Display

Figure 27 shows the SPOT M3 display.

Figure 27: SPOT M3 Display

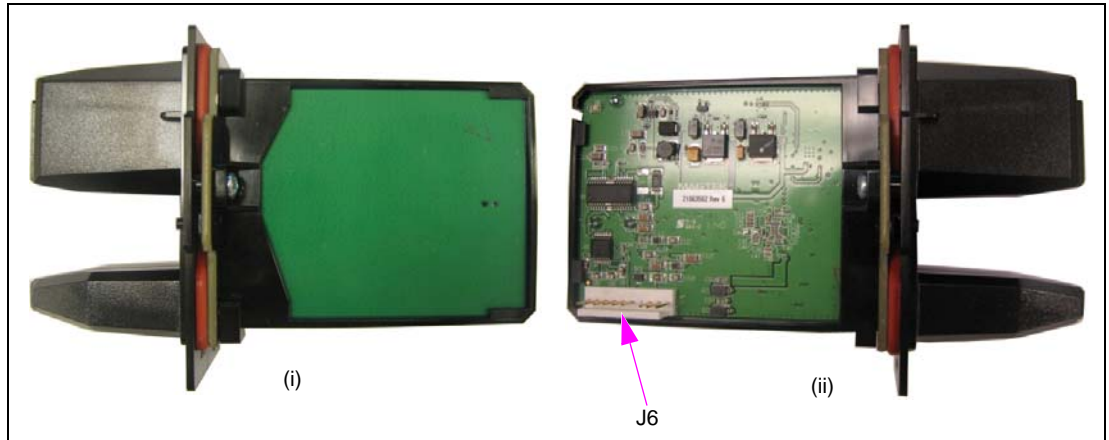


Connections			
Connector #	Via Cable	To	At Connector #
USB	M06745A007	Printer	USB
COM 2	M11964A001	GCM	P4
COM 5/6/7	M07946A001	SIP	P108
Power	M07947A001	SIP	P110
Card Reader	M07947A001	HCR 2	JHCR
Keypad	M07956A002	SPOT Keypad	EPP

HCR 2

Figure 28 shows the HCR 2.

Figure 28: HCR 2



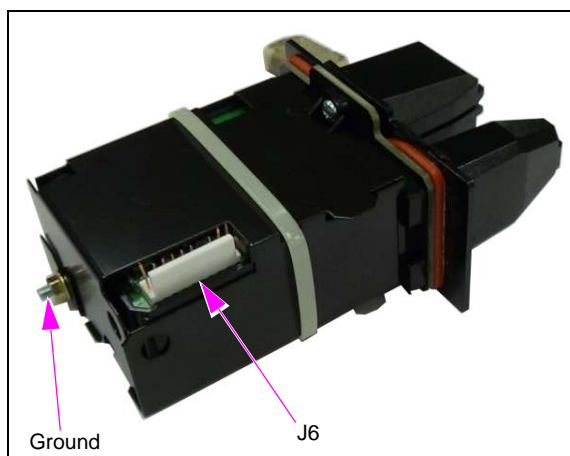
Board Connections			
Connector #	Via Cable	To	At Connector #
J6	M07702A023	SPOT Display	Card Reader

HCR 2 with Metal Case

The metal case will be included if the GCM option is selected. A grounding wire will be attached to the bolt on the back referred to as **Ground**.

Figure 29 shows the HCR 2 with metal case.

Figure 29: HCR 2 with Metal Case

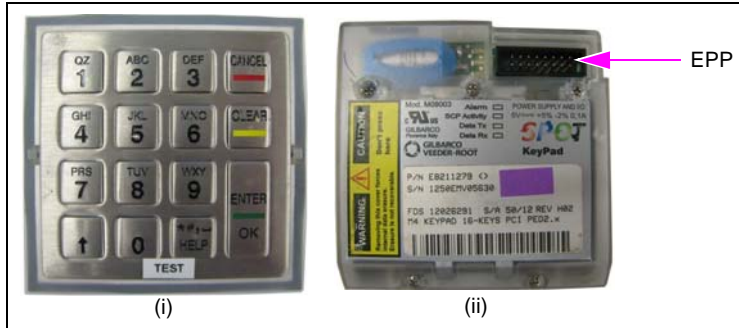


Board Connections			
Connector #	Via Cable	To	At Connector #
J6	M07702A023	SPOT Display	Card Reader
Ground	M04431A005	Ground Bracket	-

SPOT EPP

Figure 30 shows the SPOT EPP.

Figure 30: SPOT EPP

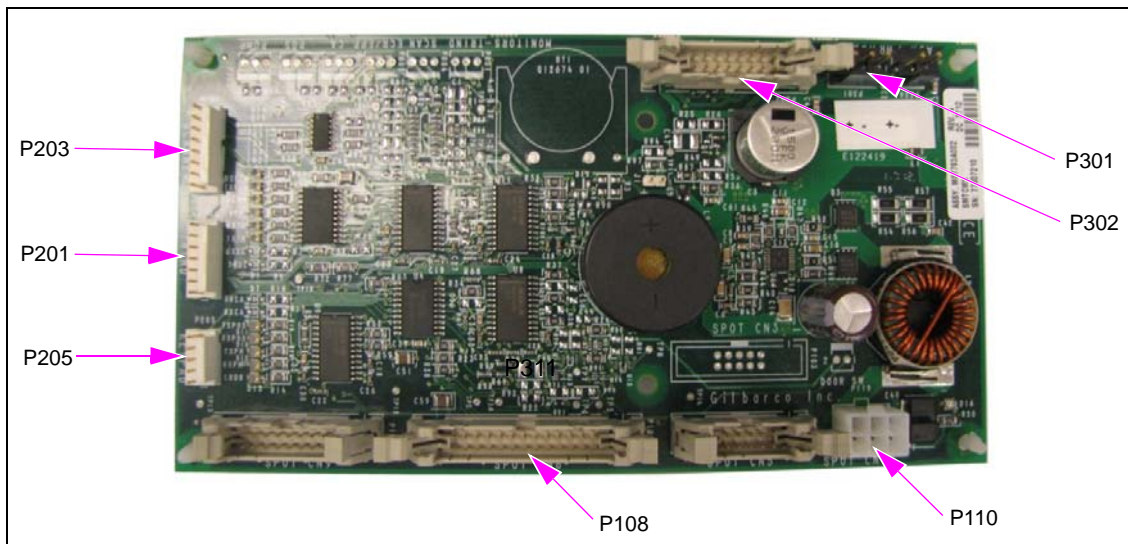


Connections			
Connector #	Via Cable	To	At Connector #
EPP	M07956A002	SPOT Display	Keypad

SIP Board

Figure 31 shows the SIP board.

Figure 31: SIP Board



Board Connections			
Connector #	Via Cable	To	At Connector #
P108	M07946A001	SPOT	COM 5/6/7
P110	M07947A001	SPOT	Power
P201	R20773-G3	TRIND/SPOT Interface	P301
	M11964A001	GCM	P4
P203	M08010A001	Barcode Scanner	P1521
P205	M07702A011	SCR 2	J6
P301	M07974A001	HIP	J301A
P302	M07979A002	HIP	J302
P206	Various	+24 V	-

LEDs			
Color	Designation	To	Description
Green	D16	Power	Indicates 5 V Power
Yellow	D1	TXSC	Transmit Data (Scanner)
	D2	RXSC	Receive Data (Scanner)
	D3	TXTR	Transmit Data (TRIND)
	D4	RXTR	Receive Data (TRIND)
	D7	TXCA	Transmit Data (Cash Acceptor)
	D8	RXCA	Receive Data (Cash Acceptor)
	D9	TXPOS	Transmit Data (POS)
	D11	RXPOS	Receive Data (POS)
	D13	CRDR	"Card Read" Indicator (Scanner)

Optional Components

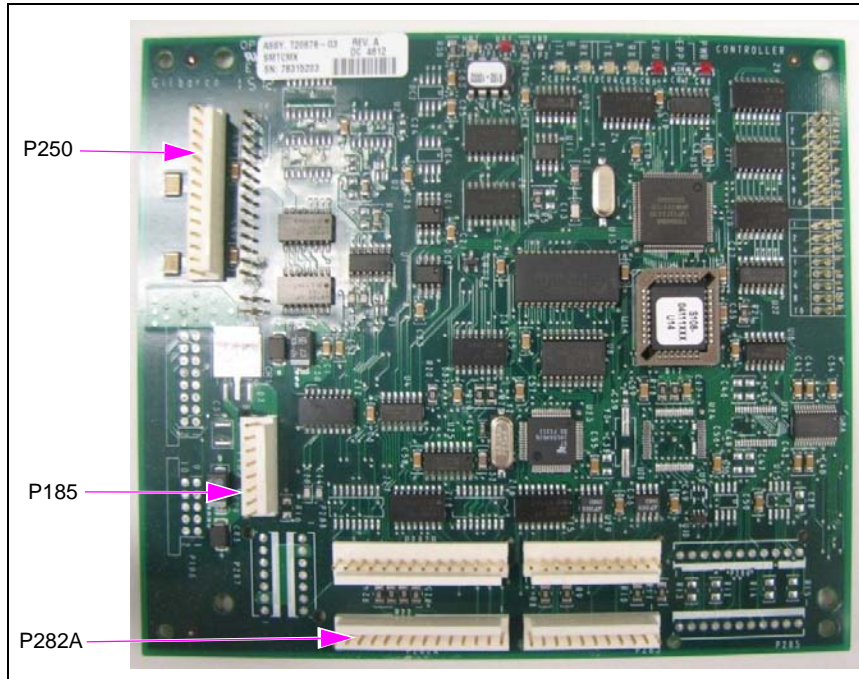
EMV components have the following optional components:

RFID Gateway

This board is paired with the TRIND/SPOT interface if the TRIND option is selected.

Figure 32 shows the RFID gateway.

Figure 32: RFID Gateway



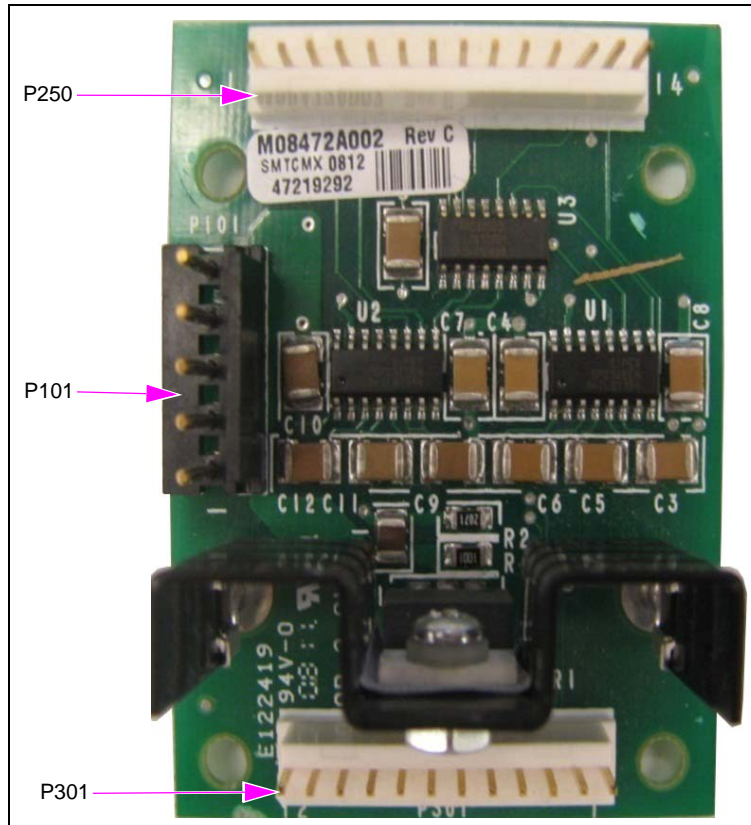
Board Connections			
Connector #	Via Cable	To	At Connector #
P185	M06763A001	PSU	P1300
P250	M08520A001	TRIND/SPOT Interface	P250
P282A	M00507A001/R20773-G2	TRIND	P182

TRIND/SPOT Interface

This board is paired with the RFID gateway if the TRIND option is selected with SPOT.

Figure 33 shows the TRIND/SPOT interface.

Figure 33: TRIND/SPOT Interface

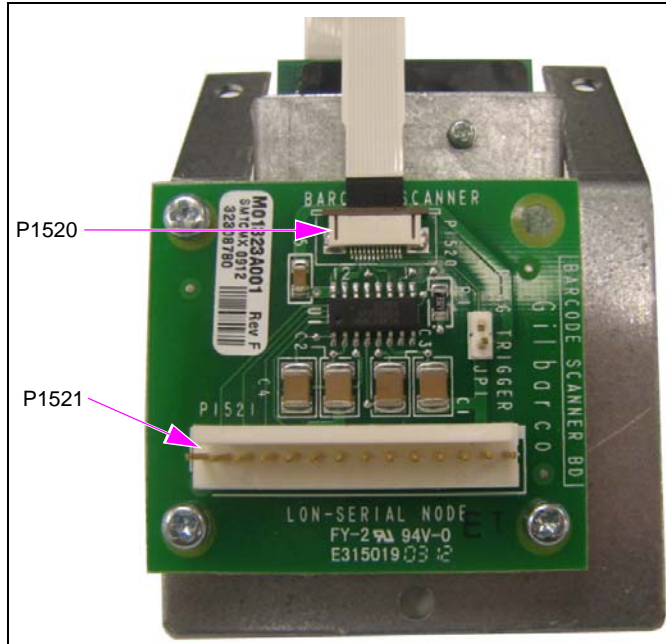


Board Connections			
Connector #	Via Cable	To	At Connector #
P101	M05859A001	HIP	P402A
P250	M08520A001	RFID Gateway	P250
P301	M08521A001	SIP	P201

Barcode Scanner

Figure 34 shows the barcode scanner.

Figure 34: Barcode Scanner



Board Connections			
Connector #	Via Cable	To	At Connector #
P1520	M01304B002	Scanner	J1
P1521	M08010A001	SIP	P203

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