

Introduction

Purpose

This manual provides instructions to install the Hybrid Card Reader S (HCRS) Kits (M13940K901, M12492K004, M12765K004) in Gilbarco® dispensers. This card reader will read magnetic strip, as well as chip and PIN payment cards. It is Payment Card Industry (PCI) 2.X compliant.

Note: To enable chip and PIN payment, you need appropriate versions of Point of Sale (POS) and CRIND® software installed.

The HCRS Kit is used for the following models with FlexPay™ II CRIND upgrade:

- Encore® 300
- Encore 500/500 S
- Encore S E-CIM™
- Encore 700 (FlexPay II CRIND)
- The Advantage® Series

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Required Tools and Materials

The following tools and materials are required to install the HCRS Kit:

- Nut Drivers, 5/16-inch
Note: Use magnetic nut drivers for convenience.
- Phillips® and Flat-blade Screwdrivers
- 1/4-inch Ratchet/Socket Set
- Static Guard Wrist Strap
- Diagonal Cutters
- Putty Knife (to remove the old gasket)
- 5/32 or 3/8-inch Allen® Wrench Set
- Dismount Sensor Clamp (M14601B001)
- Clean Cloth or Rag
- Torque Wrench Driver (1/4-inch, T15 Torx)

Parts List

The following table lists the different HCRS Kits:

Part Number	Description
M13940K901	Spare kit that includes card reader and gasket.
M12765K004	Upgrade kit with Encore brackets only.
M12942K004	Upgrade kit with Encore and The Advantage brackets.

The following table lists key parts included in the HCRS Kits:

Item#	Description	Part Number	Quantity
1	Secure HCRS, Without Heater	M13940B001	1
2	Bracket, Card Reader (for Encore/E-CIM)	M13674B001	1
3	Bracket, Card Reader (for The Advantage Series)	M13378B001	1
4	Screw Sel Tp Hex Hd 6-20X.38 Stil Zn Pl	Q11677-24	4
5	Screw, Torx Head M 3.5-10 Long	M14757B001	4
6	Nut, Metric Hexagonal Serrated Flange	M00414B005	4
7	Card, Card Reader Cleaning	M16086A001	1
8	Gasket, Card Reader (Non-adhesive)	M13127B006	1
9	Cable, HCRS Interface	M12471A001	1

Notes: 1) This kit is for one side. Order two kits for two sides.

2) This kit contains two card reader mounting brackets for different unit types. Ensure that you use the correct mounting bracket.

Important Software Information

When installing an HCRS, the CRIND software for both sides must be upgraded to the latest manufacturing release (minimum version for HCRS functionality is 03.4.06). However, it is important to adhere to any Technical Resource Page (TRP) bulletins or any Gilbarco directive to use the more recent approved software versions.

The software can be obtained by connecting to the Gilbarco extranet and downloading it using the Gilbarco Laptop Tool. Software is loaded onto the CRIND with the FlexPay Maintenance Tool (Basic or Advanced).

Notes: 1) You must be a Gilbarco-certified technician to have access to the Gilbarco extranet and Gilbarco Laptop Tool/FlexPay Maintenance Tool.

2) Units may have an HCRS on one side and a Secure Card Reader (SCR) on the other side.

Related Documents

Document Number	Title	GOLD SM Library
MDE-2531	Gilbarco Pump and Dispenser Start-up and Service Manual	<ul style="list-style-type: none"> Pump and Dispenser Start-up and Service Manual Service Manual
MDE-3804	Encore and Eclipse® Start-up/Service Manual	<ul style="list-style-type: none"> Encore and Eclipse Service Manual
MDE-4902	Encore 700 S Start-up and Service Manual	<ul style="list-style-type: none"> Encore and Eclipse CRIND and TRIND®
MDE-5062	FlexPay Maintenance Tool for FlexPay/SPOT CRIND System	<ul style="list-style-type: none"> CRIND and TRIND FlexPay EMV®
MDE-5165	Card Reader Door Boss Repair Kit (M07450K999) Installation Instructions	Encore and Eclipse

Abbreviations and Acronyms

Term	Description
ASC	Authorized Service Contractor
CAT5	Category 5
CPR	Cardiopulmonary Resuscitation
CRIND	Card Reader in Dispenser
D-Box	Distribution Box
DEF	Diesel Exhaust Fluid
E-CIM	Enhanced Customer Interface Module
EMV	Europay®, MasterCard®, and Visa®
ESD	Electrostatic Discharge
FCB	FlexPay Control Board
FCC	Federal Communications Commission
GCM	Global Contactless Module
GOLD	Gilbarco Online Documentation
HCRS	Hybrid Card Reader S
HIP	Hub Interface PCB
IP	Internet Protocol
LED	Light Emitting Diode
NEC®	National Electrical Code
NFPA®	National Fire Protection Association
OSHA	Occupational Safety and Health Administration
PCB	Printed Circuit Board
PCI	Payment Card Industry
POS	Point of Sale
PPN	Product Part Number
SCR	Secure Card Reader
STP	Submersible Turbine Pump
TAC	Technical Assistance Center
TRIND	Transmitter/Receiver in Dispenser
TRP	Technical Resource Page

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 the Gilbarco 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.

Federal Communications Commission (FCC) Warning

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

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.

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 birth defects or other reproductive harm.

WARNING

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



Gilbarco Veeder-Root encourages the recycling of our products. Some products contain electronics, batteries, or other materials that may require special management practices depending on your location. Please refer to your local, state, or country regulations for these requirements.

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.

Before You Begin

Before you begin, read and understand all safety information found in *MDE-3804 Encore and Eclipse Start-up/Service Manual* and in [“Important Safety Information”](#) on [page 4](#).

CAUTION



A properly grounded Electrostatic Discharge (ESD) wrist strap must be worn while servicing any electronic devices or components. Failure to use electrostatic precautions may damage electronic components and void warranty.

To prepare the site and unit for the upgrade, proceed as follows:

- 1 Inform the manager that the power will be disconnected.
- 2 Barricade the unit to be worked on.
- 3 Update the CRIND Software bundle before removing power to the unit.
- 4 Remove power to the unit at the breaker panel. Follow OSHA lockout/tagout procedures.

⚠ WARNING

Failure to turn off the unit during kit installation may cause injury or bodily harm from electrical shock. Ensure that all power to the unit is switched off before opening the door to the unit and during kit installation.

- 5 Match the parts received in kits with [“Parts List”](#) on [page 2](#).

High-Level Installation Procedure

To upgrade the CRIND software to the latest available version, proceed as follows:

If the site uses a POS system, isolate the CRIND two-wire from the CRIND device. For specific software instructions, refer to *MDE-4902 Encore 700 S Start-up and Service Manual*.

Note: Some third-party POS systems may require the two-wire to be isolated at the Distribution Box (D-Box).

- 1 Connect the Category 5 (CAT5) cable from the laptop to the Hub Interface PCB (HIP)/HIP 2/AFP/DCM2.X board.

Note: You can connect your CAT5 cable directly to the FlexPay Control Board.

- 2 Download the appropriate CRIND Software bundle to the CRIND device.

Notes: 1) You can load sides A and B at the same time by opening two sessions of the FlexPay Maintenance Tool (Basic or Advanced).

2) For more information, refer to “[Important Software Information](#)” on [page 2](#).

- 3 In some instances, the CRIND will automatically coldstart after downloading the new software.

Note: If the latest CRIND software is already installed, then proceed to step c.

a Reprogram the CRIND ID and CRIND Mode.

b Enable the required options (for example, TRIND, contactless, and so on).

c Warmstart the dispenser. Allow the POS to download the CRIND software application if applicable. After the download is complete, ensure that all graphics on the display are correct.

- 4 Proceed to “[Installing the HCRS Kit](#)” on [page 8](#) and complete the steps to install, activate, and configure the HCRS.

- 5 Re-establish two-wire communication to the POS.

- 6 Perform test transactions to validate the installation.

Note: CRIND software V03.4.06 and later is designed to warm start after installation. If any unexpected behavior occurs when performing test transactions, purge the CRIND to force a cold start. Retest the unit to verify proper operation of the card reader.

Installing the HCRS Kit

CAUTION



A properly grounded ESD wrist strap must be worn while servicing any electronic devices or components. Failure to use electrostatic precautions may damage electronic components and void warranty.

Removing the Existing Card Reader

To remove the existing card reader, proceed as follows:

Note: Read all instructions before beginning and observe all safety precautions.

- 1 Open the door.

Encore 500/500 S/700 S:

- a Remove the lower hydraulics panel to access the security latch underneath the lower left main door corner; open the latch.
- b Locate the upper main door lock. Insert the main door key and open the door.

Other Encore models:

Insert the main door key and open the door.

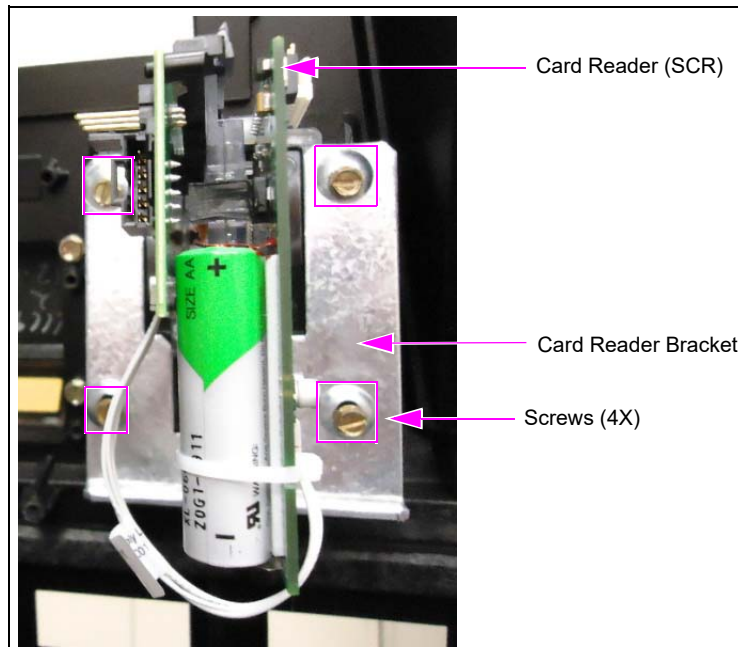
The Advantage Series:

- a Open the left and right option doors using the key.
 - b On side A, unlatch the door latches located behind the right and left option doors. Loosen the four screws at the bottom of the main access door using a 5/32 or 3/8-inch Allen wrench.
 - c On side A, open the main access door by lifting it slightly. Place the main access door hinge bracket pin into the end slot/lock position. This locks into a maximum 90-degree angle.
- 2 **Unplug the connector from the card reader only.** Do not remove the cable harness from the dispenser.

- 3 Remove the four hexagonal-head screws that secure the card reader bracket and card reader to the option door using a 1/4-inch nut driver or ratchet and socket. Remove and discard the existing card reader and card reader bracket.

Note: A bracket is provided in the kit.

Figure 1: Top View of SCR



- 4 Carefully remove the old card reader gasket from the option door. Use a putty knife if required.
- 5 Ensure that the door surface where card reader is installed is smooth and free of debris.

Removing the existing card reader is now complete.

- 6 Go back to step [1a](#) (for Encore or The Advantage Series depending on the type of the model) on [page 8](#) to begin the procedure for Side B of the unit.

Installing the HCRS (M13940B001)

To install the HCRS, proceed as follows:

CAUTION



A properly grounded ESD wrist strap must be worn while servicing any electronic devices or components. Failure to use electrostatic precautions may damage electronic components and void warranty.

- 1 Obtain the HCRS card reader, Card Reader Bracket (M13674B001/M13378B001), and Card Reader Gasket (M13127B006) from the kit.

Notes: 1) Card Reader Bracket M13674B001 is for Encore/E-CIM, and M13378B001 is for The Advantage Series.

2) Do not remove the foam block from the connector on the card reader until after installation is complete. This is to protect the connector pins from damage during installation.

- 2 Inspect the bosses on the door before installing the card reader. If the door has threaded inserts (see [Figure 2](#)), use the M14757B001 screws for installation. If the door does not have threaded inserts (standard bosses), use the Q11677-24 screws. If the door has stripped bosses or is damaged, use the Boss Repair Kit (M07450K999). For more information, refer to *MDE-5165 Card Reader Door Boss Repair Kit (M07450K999) Installation Instructions*.

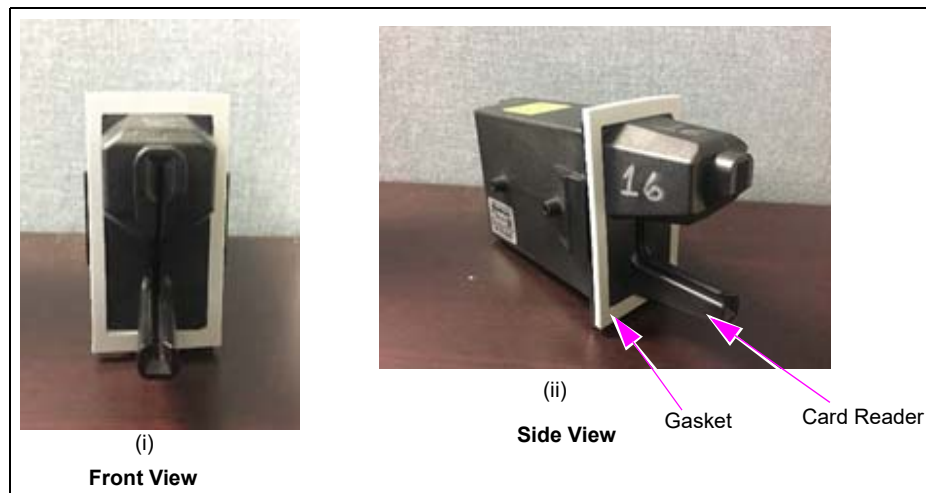
Figure 2: Examples of Threaded Insert, Standard, and Stripped Bosses



- 3 Place the non-adhesive gasket over the front of the card reader making sure the gasket is seated on the flange and covers the dismount buttons as shown in [Figure 3](#).

Note: Installing this non-adhesive gasket is different from previous gasket installation. It is laid over the card reader snout first, then the card reader is inserted into the card reader opening on the door. In this application, the card reader becomes your insertion tool.

Figure 3: HCRS Card Reader



- 4 From the rear of the main door, position the HCRS card reader and then the card reader bracket on the door so that the opening on the bracket is positioned at the top. Loosely secure the card reader bracket and HCRS card reader to the main door using the four screws as determined in [step 2](#) on [page 10](#).

Note: When installing the card reader bracket onto the HCRS card reader, the lip on the bottom of the card reader bracket must face toward you [toward the data/power connector (see [Figure 4](#) on [page 12](#))].

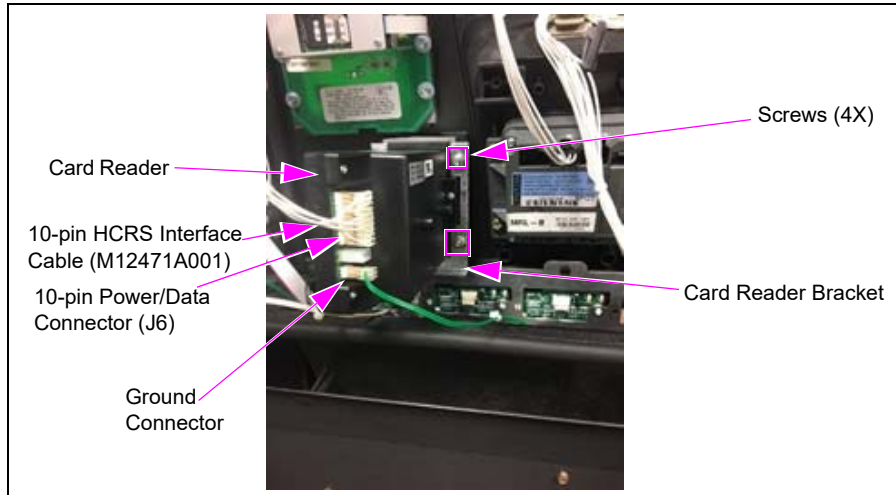
- 5 Align the HCRS card reader and card reader bracket. Securely tighten the four mounting screws in stages in a diagonal pattern using a torque wrench driver to ensure correct seating of the card reader (see [Figure 4](#) on [page 12](#)). **Do not overtighten the screws.** Overtightening of the screws can strip or break the card reader bosses.

The following are the torque settings for the different door types:

- Self-threading (plastic boss) doors: 18-20 inch-lbs
- Threaded (metal insert) doors: 12 inch-lbs

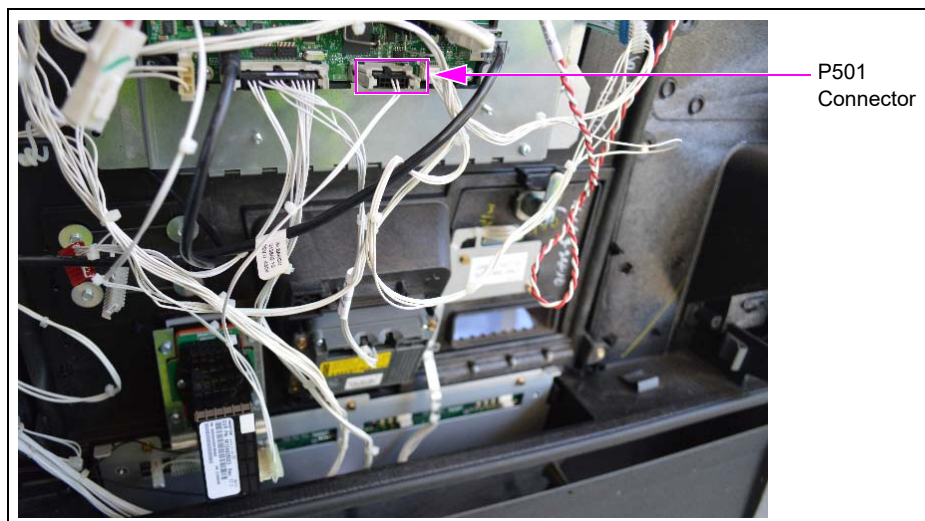
- 6 Check the gasket from outside of the door to ensure no gasket material is visible around the card reader bezel.

Figure 4: HCRS Card Reader Mounted



- 7 Remove the protective foam block from the card reader connector.
- 8 Connect the cables (see [Figure 7](#) on [page 13](#)). To connect the cables, proceed as follows:
 - a Plug in connector JHCRS of the HCRS cable on the 10-pin connector J6 on the HCRS (see [Figure 4](#)). Connect the 10-pin HCRS Interface Cable (M12471A001) to the 10-pin power/data connector on the HCRS card reader.
Note: Orient the connector as shown in [Figure 4](#).
 - b Plug in connector P501 of the HCRS cable to connector P501 on the FlexPay Control Board (FCB) as shown in [Figure 5](#).

Figure 5: Connecting P501 on FCB



- c Remove connector J411 of the FCB power cable from the P411 connector of the FCB and connect to the P411A connector on the HCRS cable (as shown in [Figure 6](#) and [Figure 7](#) on [page 13](#)).

- d Plug in connector J411 of the HCRS cable on to the connector P411 on the FCB as shown in Figure 6 and Figure 7.

Figure 6: Connecting J411

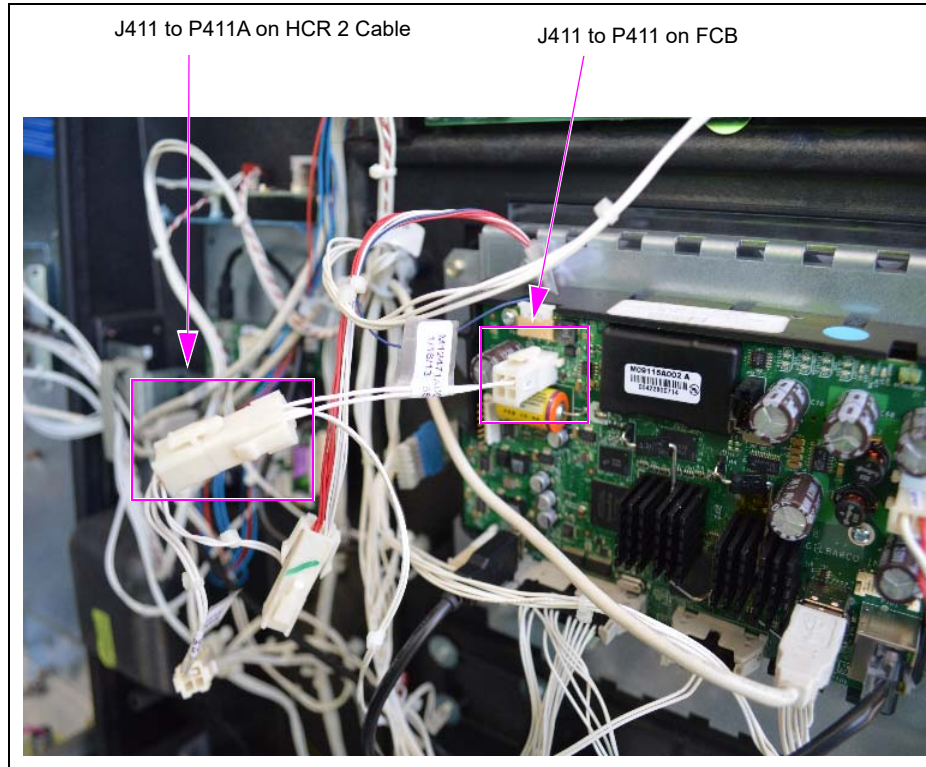
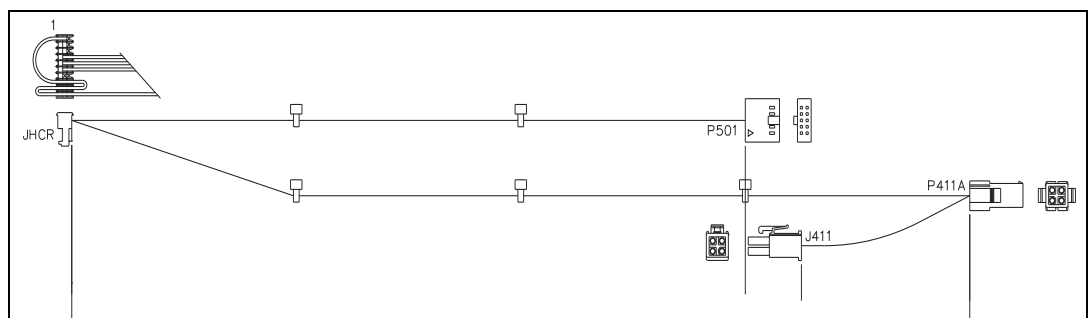
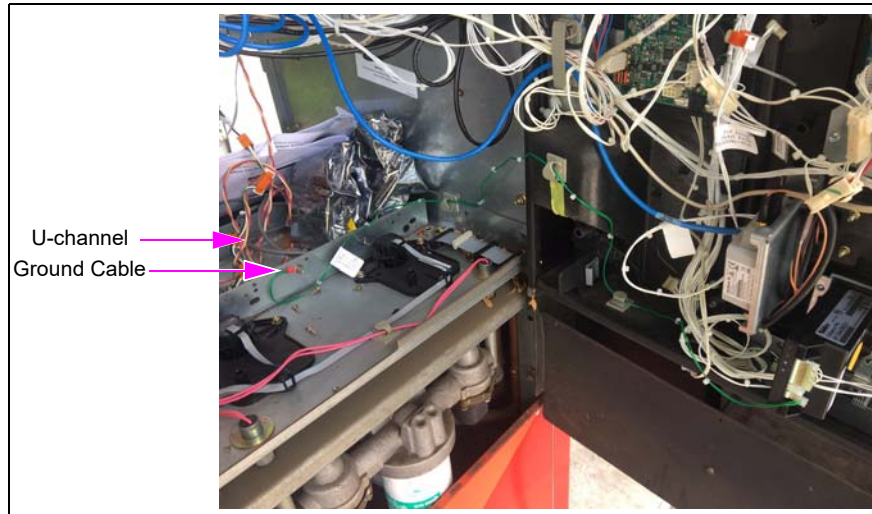


Figure 7: Connecting J411 on FCB



- e Connect the ground cable to the U-channel inside the dispenser using the supplied Screw (M00417B101). The other end is already connected to the two-pin ground connector. Place the three Cable Mounts (Q13558-04) as shown in [Figure 8](#). Route the ground cable through the cable mounts, keeping it separate from the data cables.

Figure 8: Connecting J411



IMPORTANT INFORMATION

Cable routing is critical. It is very important to route and dress the cables properly. Exercise care in routing the cables, keeping in mind that the door(s) opens and closes for service. The cables must be dressed neatly. Ensure that there is no interference after the cables are connected and routed. ESD ground straps can be bundled together, but need to be separated from data and power cables.

Ensure that the power/data cables are secured to the unit with sufficient slack to prevent cable pull and pinching when opening or closing the door.

Note: Do not route cables near the Global Contactless Module (GCM). Route ground cable away from the data cable.

Installing the HCRS card reader is now complete.

Completing Installation

To complete the installation, proceed as follows:

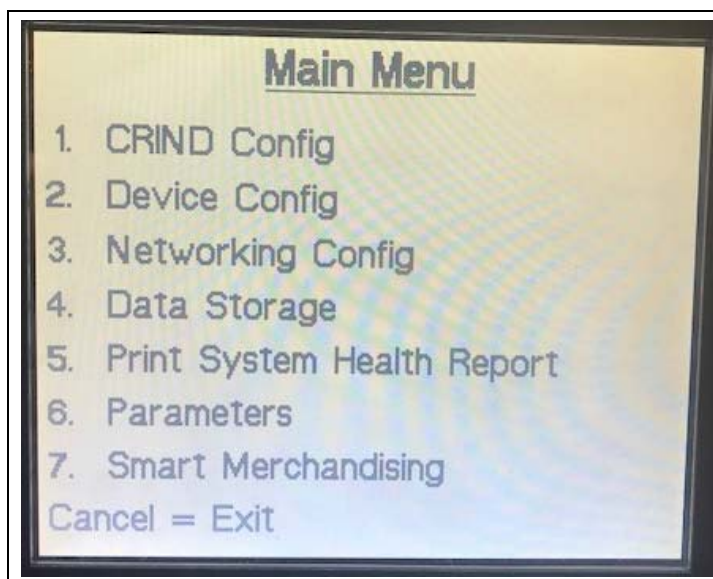
- 1 Dress the cables neatly. Inspect the work performed (for example, ensure that there are no pinched wires and the cables are routed securely).
- 2 Ensure that the cables are not stretched when the door is opened.

IMPORTANT INFORMATION

Cable routing is critical. It is very important to route and dress the cables properly. Exercise care in routing the cables, keeping in mind that the door(s) opens and closes for service. The cables must be dressed neatly. Ensure that there is no interference after the cables are connected and routed.

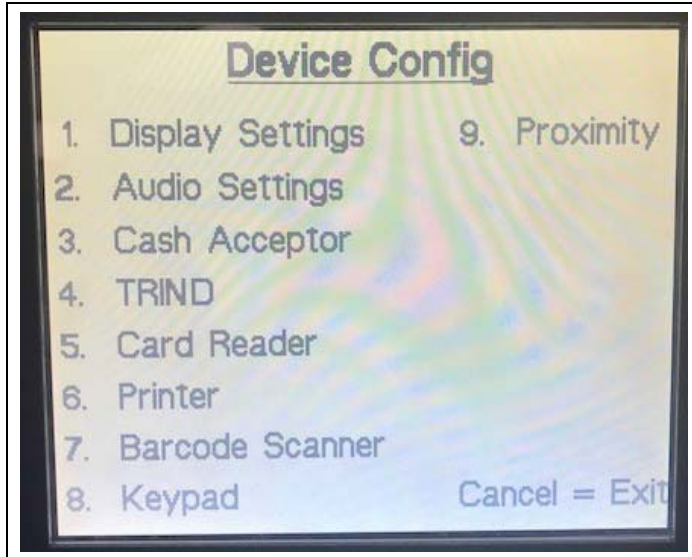
- 3 Remove Lockout/Tagout and turn power back on to the unit.
- 4 Ensure that the HCRS card reader is activated. For more information, refer to [“Appendix A: Configuring/Activating FlexPay II CRIND”](#) on [page 18](#).
- 5 Close and secure the main doors using the main door lock. Reinstall and lock the lower panel door.
- 6 To change the card reader settings, proceed as follows:

Figure 9: Main Menu



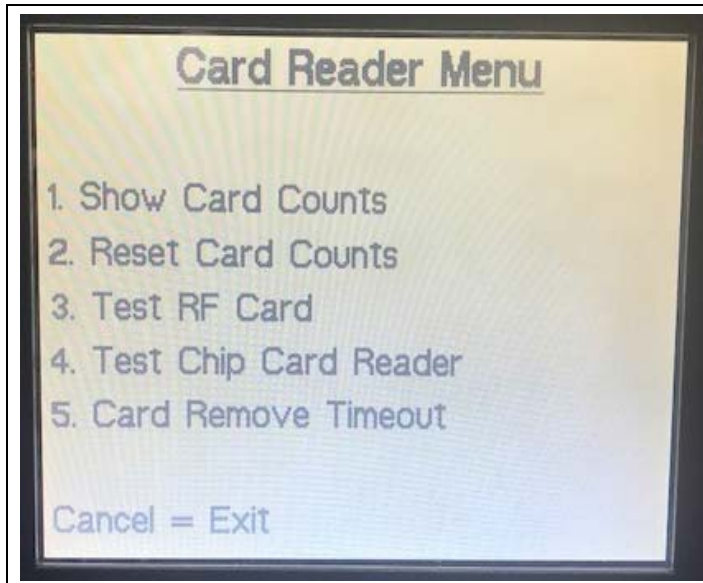
a From the Main Menu, press **2 Device Config**. The Device Config screen is displayed .

Figure 10: Device Configuration Screen



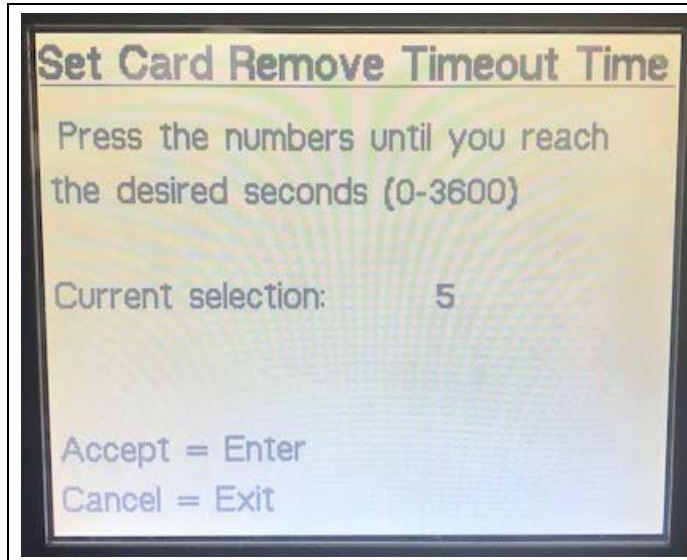
b Press **5 Card Reader**. The Card Reader Menu is displayed.

Figure 11: Card Reader Menu



- c** Press **5 Card Remove Timeout**. The Set card Remove Timeout Time screen is displayed.
Note: Change Timeout Time from 60 seconds to 5 seconds.

Figure 12: Set Card Remove Timeout Time Screen



- 7** Run a debit, credit, fleet, and loyalty cards to verify proper operation of the card reader.

Installing the HCRS Kit is now complete.

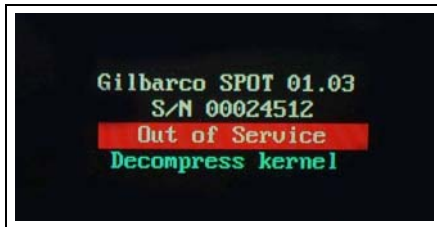
Note: CRIND software V03.4.06 and later is designed to warm start after installation. If any unexpected behavior occurs when performing test transactions, purge the CRIND to force a cold start. Retest the unit to verify proper operation of the card reader.

Appendix A: Configuring/Activating FlexPay II CRIND

To activate a FlexPay II CRIND device, you must enter the Service Menu. To enter the Service Menu and perform the activation, proceed as follows:

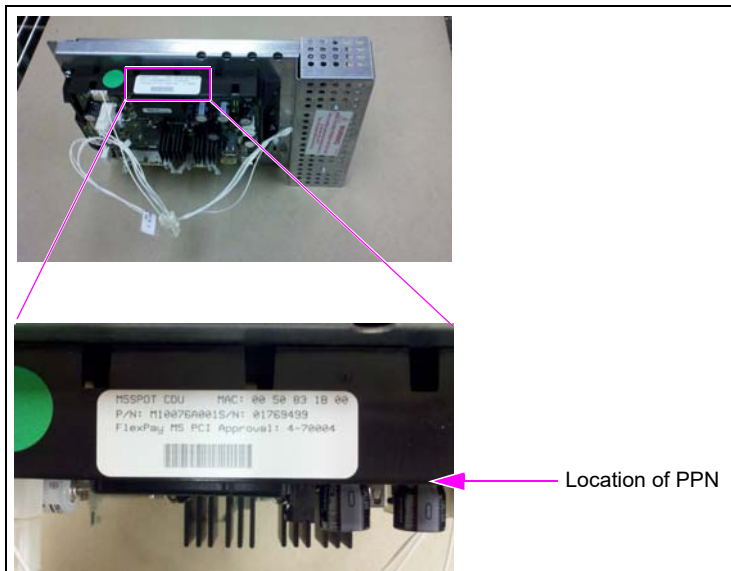
- 1 Power up the FlexPay II CRIND device. The Product Part Number (PPN) is displayed on the screen (see [Figure 13](#)). Note the 8-digit serial number when the unit first powers up. The right-most six digits of the serial number is the password for the Service Menu.
Note: The message, "Out of Service", is normally displayed when the unit first powers up.

Figure 13: Powering up FlexPay II CRIND Device



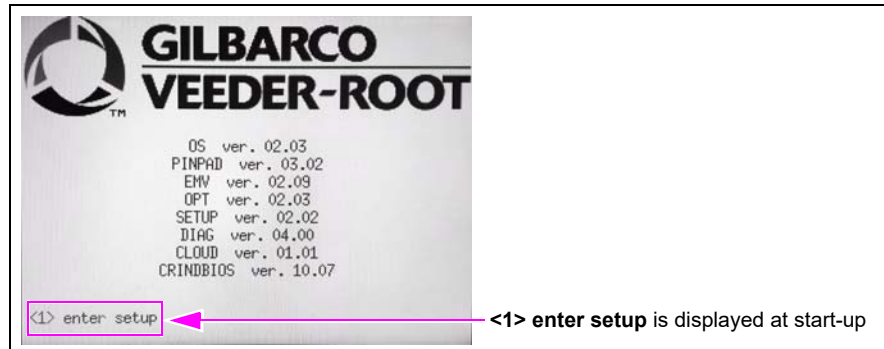
The PPN is also printed on the rear of the unit (see [Figure 14](#)).

Figure 14: PPN on Rear of FlexPay II CRIND Device



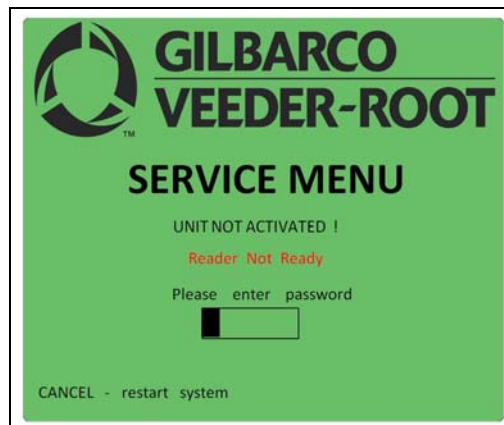
The Service Menu is displayed when the FlexPay II CRIND requires activation (see Figure 16). Otherwise, a white screen with the Gilbarco logo and software package versions appears momentarily (see Figure 15).

Figure 15: Software Packages Screen



- 2 Press **1** > **Enter**. The Service Menu is displayed.

Figure 16: Service Menu - Screen 1



- 3 Enter the right most six digits of the PPN and press **ENTER/OK**. The Service Menu - Main Menu is displayed.
Note: If you do not enter the password within 5 minutes, the unit automatically restarts.

Figure 17: Service Menu - Main Menu



- 4 Press **3** > **Enter** to enter the System Configuration Menu. This menu is used to set the reader type to HCR.

Figure 18: Service Menu - Main Menu



- 5 Press **1** > **Enter** to set Contact Card-Reader Select.
- 6 Press **Enter** to select HCR2 and press **Enter** again to go back to the main Service Menu.

CAUTION

If Internet Protocol (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.

- 7 Press **2** > **Enter** to enter the Security Setup Menu. This menu is used to activate security mounting sensors.

The FlexPay II 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 FlexPay II CRIND device starts.
- ENTER MATCHING PASSWORD: Matching password is the answer to the challenge number.

Note: The Gilbarco Call Center provides 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 (one minute) of the challenge number being displayed or the screen times out and reverts to the main Service Menu.

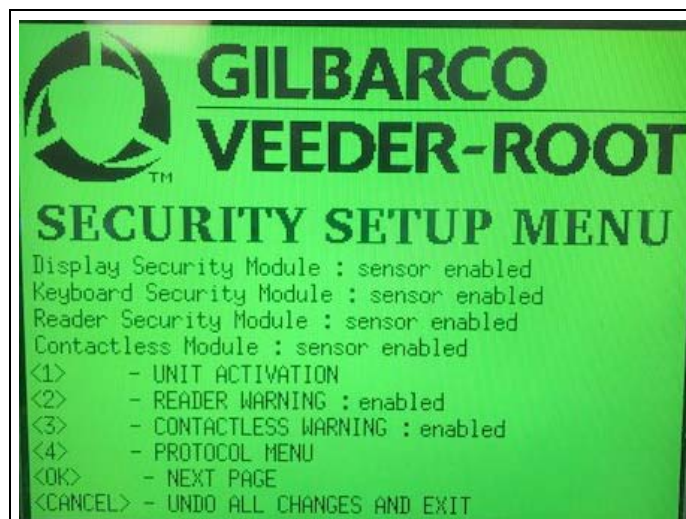
Figure 19: Security Setup Menu - Screen 1



- 8 Provide the unit serial number and challenge number to receive a matching password.
Note: To obtain a password, contact the Gilbarco Support Center at 1-866-606-8966 and inform the agent that you have an HCRS that requires activation; alternatively you can use the ASC Online Activation Tool.
- 9 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 the following options:

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

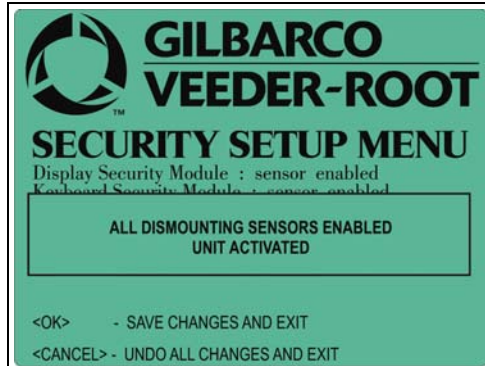
Figure 20: Security Setup Menu



- 10 Press **1** to activate the unit. The message, “ALL DISMOUNTING SENSORS ENABLED UNIT ACTIVATED” is displayed.

*Note: If the unit fails to activate, pressing **Enter** will exit this screen.*

Figure 21: Activation Screen



- 11 When you receive the message “all sensors enabled”, the unit automatically goes back to the main screen. From there, press **CANCEL** to restart the system. Perform one of the following:
- Press **OK** to exit the menu.
 - Press **CANCEL** to restart the FlexPay II CRIND device.

Activation enables 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 deactivation 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 dismantled, it automatically self-deactivates. The activation procedure must be repeated.

At each power up, if the FlexPay II CRIND main processor detects a module that is not activated, it will automatically enter the Service Menu (green screen).

Appendix B: HCRS Card Reader LED Matrix

The following table lists the Light Emitting Diode (LED) matrix for the HCRS card reader:

State	LED			Indicating	Service action
	Green	Amber	Red		
1	OFF	OFF	OFF	No external power	Check the power cable and power supply.
2	OFF	Solid	Solid	Power is ON, but firmware doesn't run	Reboot and/or re-seat cable. If no change, replace.
3	Solid	Solid	OFF	Power is ON, but not communicating	Check the communication cable and if its host is running.
4	Flashing	Solid	OFF	Communicating with its host and activating, not ready to read cards yet	State will go to state 8 in a few minutes or state 3 in 30 seconds.
5	Flashing	Flashing	OFF	Firmware downloading and programming	State will go to state 5 after programming in a few minutes or state 3 in 30 seconds.
6	Solid	OFF	OFF	In ready state but no communication with its host	State will go to state 8 or state 3 in 30 seconds.
7	Flashing	OFF	OFF	In ready state and being polled by its host	Normal state.
8	OFF	Solid	OFF	Dismount flag on without communication with its host	Check communication cable and dismount switch. If they are fully engaged, reactivate using the online activation tool or by calling 866-606-8966.
9	OFF	Flashing	OFF	Dismount flag on and communicating with its host	Check dismount switch. If it is fully engaged, reactivate using the online activation tool or by calling 866-606-8966.
10	OFF	OFF	Solid	Reader has no communication with its host, and the crypto Reboot. If issue persists, then driver is not functioning: Crypto MCU is lost or certificates replace. are invalid (may be tampered)	
11	OFF	OFF	Steady flash	Reader is communicating with its host, and the crypto driver is not functioning: Crypto MCU is lost or certificates replace. are invalid (may be tampered)	Reboot. If issue persists, then
12	OFF	OFF	Flashing/ pause	1 flash and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Other Tamper Error".
13	OFF	OFF	Flashing/ pause	2 flashes and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Firmware Auth Error".
14	OFF	OFF	Flashing/ pause	3 flashes and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Removal Sensor Error".
15	OFF	OFF	Flashing/ pause	4 flashes and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Temperature Error".
16	OFF	OFF	Flashing/ pause	5 flashes and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Battery Backup Error".
17	OFF	OFF	Flashing/ pause	6 flashes and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Tamper Switch Error".
18	OFF	OFF	Flashing/ pause	7 flashes and 3 sec pause (ON)	Reboot. If issue persists, then report tamper type "Mesh Error".

Appendix C: Troubleshooting HCRS

To install the dismount sensor clamp, apply pressure with both the thumb and the fingers to bend the clamp enough to fit the HCRS into the clamp as shown in [Figure 22](#). To remove the HCRS from the clamp, again apply pressure with both the thumb and fingers to bend the clamp enough to remove the HCRS.

Figure 22: Sensor Clamp



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