

Introduction

Purpose

This manual provides instructions to install the Secure PIN Pad for Outdoor Terminal (SPOT) Payment Card Industry (PCI) 2.X Keypad Installation Kit (M13118K002/M13118K005) on the Encore® 300/500 dispenser.

IMPORTANT INFORMATION

This equipment has been tested and found to comply with the limits pursuant to Part 15 of the Federal Communications Commission (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 radiates radio frequency energy. This equipment must be installed and used in accordance with the instruction manual to avoid harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference. In this case, the user must correct the interference at his own expense. Any change or modification must be approved by the manufacturer to allow the user to operate this equipment safely.

The long term characteristics or the possible physiological effects of radio frequency electromagnetic fields have not been investigated by Underwriters' Laboratories (UL®).

IMPORTANT INFORMATION

Industry Canada Regulation:

This device complies with Industry Canada licence-exempt Radio Standards Specification (RSS) standard(s). Operation is subject to the following two conditions:

- This device may not cause interference.
- This device must accept any interference including undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain must be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that is required for successful communication.

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Required Tools and Materials

Following tools and materials are required for installing the SPOT PCI 2.0 keypad on the Encore 300/500 dispenser:

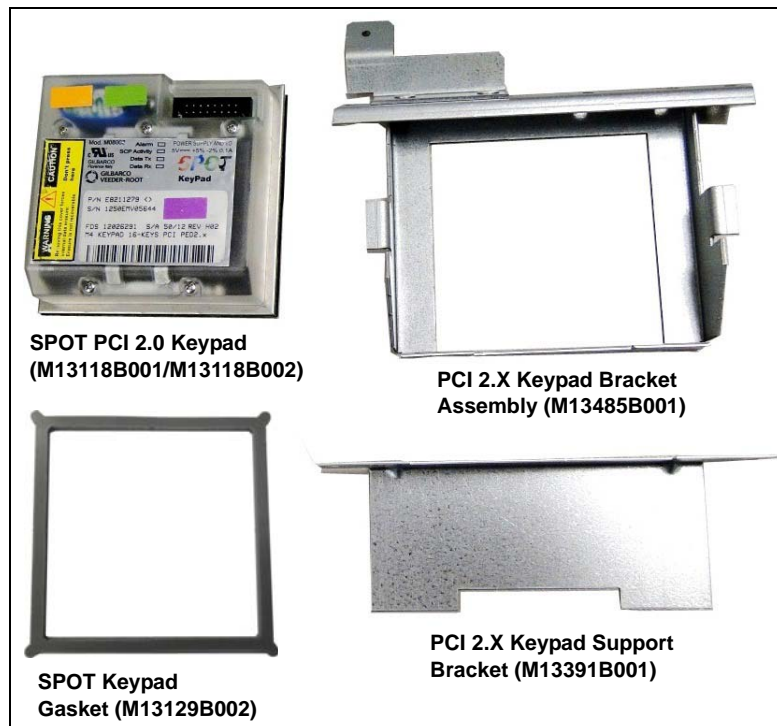
- 1/4-inch Nut Driver or Socket
- Putty Knife
- Isopropyl Alcohol

Parts List

Following table lists the parts required to install the SPOT PCI 2.X Keypad Installation Kit (M13118K002/M13118K005) on the Encore 300/500 dispenser:

Item	Description	Part Number	Quantity
M13118K002			
1	SPOT PCI 2.0 Keypad	M13118B001	1
2	PCI 2.X Keypad Bracket Assembly	M13485B001	1
3	PCI 2.X Keypad Support Bracket	M13391B001	1
4	SPOT Keypad Gasket	M13129B002	1
M13118K005			
1	SPOT PCI 2.0 Keypad ENG/FRENCH	M13118B002	1
2	PCI 2.X Keypad Bracket Assembly	M13485B001	1
3	PCI 2.X Keypad Support Bracket	M13391B001	1
4	SPOT Keypad Gasket	M13129B002	1

Figure 1: SPOT PCI 2.X Keypad Installation Kit (M13118K002/M13118K005) Components



Abbreviations and Acronyms

Term	Description
e.i.r.p.	equivalent isotropically radiated power
ESD	Electrostatic Discharge
FCC	Federal Communications Commission
GCM	Global Contactless Module
OSHA	Occupational Safety and Health Administration
PCI	Payment Card Industry
RSS	Radio Standards Specification
SPOT	Secure PIN Pad for Outdoor Terminal
TRIND®	Transmitter/Receiver in Dispenser
UL	Underwriters' Laboratories

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.

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.

Before You Begin

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 dispenser for the upgrade, proceed as follows:

- 1 Inform the manager.
- 2 Barricade the unit to be worked on.
- 3 Remove power to the unit at the breaker panel. Follow OSHA lockout/tagout procedures.
- 4 Match the parts received in kits with “Parts List” on [page 2](#).



WARNING

Failure to turn off the unit during the installation of the kit 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.



WARNING

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

Replacing SPOT PCI 1.3 Keypad with SPOT PCI 2.0 Keypad on Encore 300/500

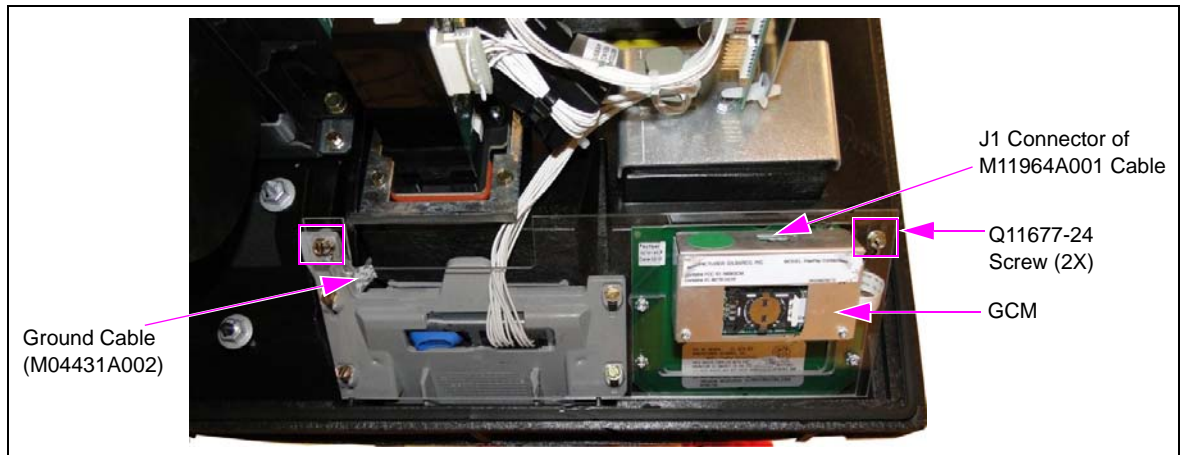
To replace the SPOT PCI 1.3 keypad with SPOT PCI 2.0 keypad on the Encore 300/500 dispenser, proceed as follows:

- 1 Disconnect the secure keypad connector of M0795A002 Cable that is connected to the J1 connector of SPOT PCI 1.3 keypad, as shown in [Figure 3](#) on [page 7](#).

Notes: 1) If the customer has a Global Contactless Module (GCM) installed, then disconnect the J1 connector of the M11964A001 Cable and remove the two screws as shown in [Figure 2](#) on [page 7](#). Retain the screws and GCM to reinstall the GCM after installing the SPOT PCI 2.0 keypad.

- 2) *If the customer has a TRIND, then disconnect the J182 connector of the R20773-G2 Cable, remove the two screws and retain them to reinstall the TRIND after installing the SPOT PCI 2.0 keypad.*

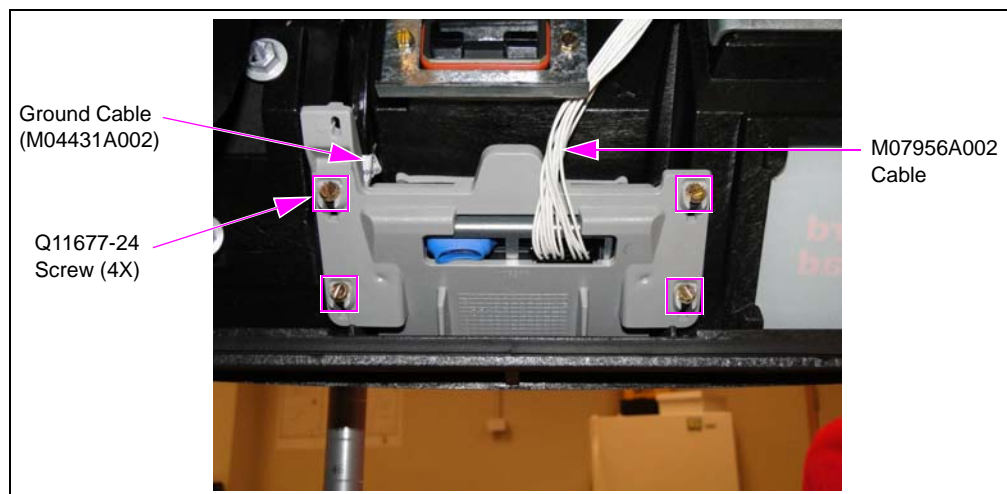
Figure 2: Disconnecting Cable from J1 Connector of GCM



- 2 Remove the SPOT PCI 1.3 keypad by removing the four screws as shown in [Figure 3](#), and retain the screws. Also remove the shim plates if applicable.

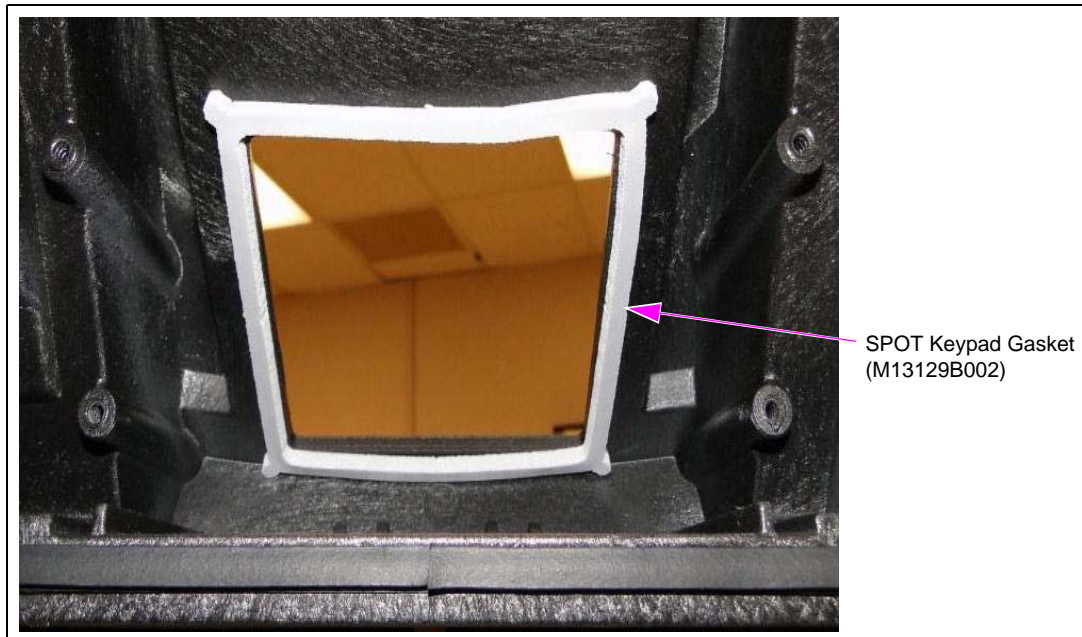
While removing the SPOT PCI 1.3 keypad (see [Figure 2](#)), one end of the Ground Cable (M04431A002) that was connected to the SPOT PCI 1.3 keypad also becomes unattached.

Figure 3: Removing SPOT PCI 1.3 Keypad



- 3 Remove the old gasket, clean the seating, and attach the new SPOT Keypad Gasket (M13129B002) as shown in [Figure 4](#) to prevent water intrusion.

Figure 4: Attaching New SPOT Keypad Gasket



- 4 Insert the SPOT PCI 2.0 Keypad (M13118B001-English/M13118B002-Bilingual) into the PCI 2.X Keypad Bracket Assembly (M13485B001), as shown in [Figure 5](#).

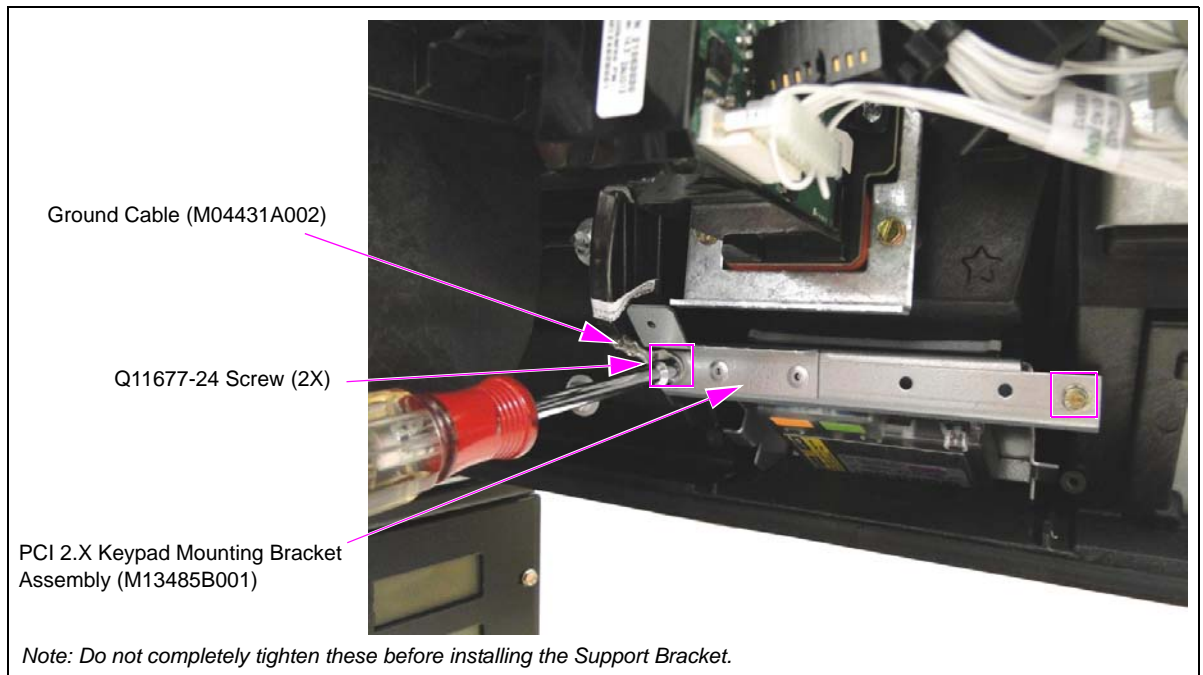
Figure 5: Mounting SPOT PCI 2.0 Keypad on PCI 2.X Keypad Bracket Assembly



- 5 Mount the SPOT PCI 2.0 keypad along with the PCI 2.X keypad mounting bracket assembly on the Encore 300/500 dispenser using the retained four Q11677-24 Screws from step 2 on page 7. Attach the ground cable to the SPOT PCI 2.0 keypad bracket assembly, as shown in Figure 6.

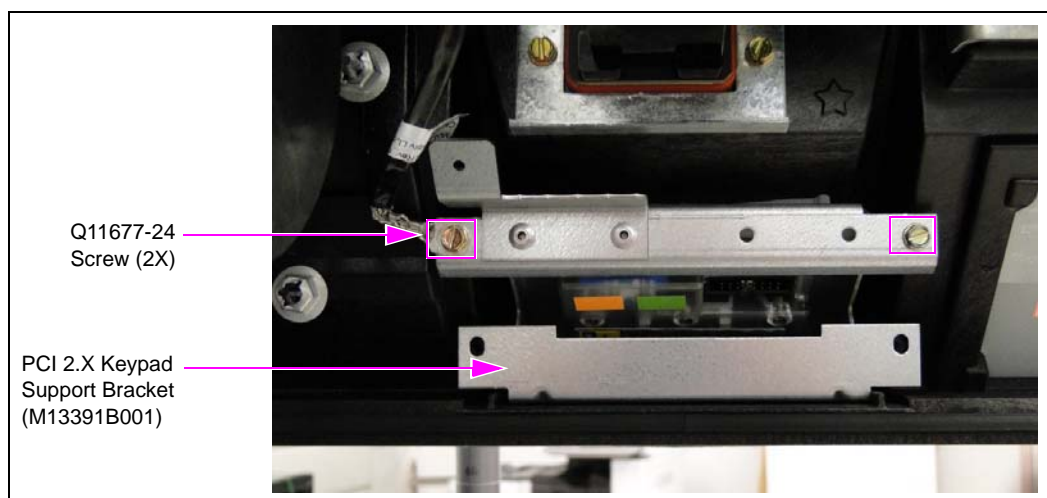
Notes: 1) Do not overtighten the screws to avoid the bezel being damaged.
 2) To proceed further, the ground cable **MUST** be attached.

Figure 6: Inserting PCI 2.X Keypad Mounting Bracket Assembly



- 6 Insert the PCI 2.X Keypad Support Bracket (M13391B001) as shown in Figure 7 and secure it using the two Q11677-24 Screws.

Figure 7: Tightening Top Two Screws



- 7 Once the PCI 2.X keypad support bracket is installed, tighten the top two screws (see Figure 8 on page 10).

- 8 Reconnect the M07956A002 Cable to the SPOT PCI 2.0 keypad as shown in [Figure 8](#).
Notes: 1) If the GCM is already installed, then reinstall the GCM using the previously retained screws and reconnect the J1 connector of the M11964A001 Cable to the GCM, as shown in [Figure 9](#).
2) If the TRIND is already installed, then reinstall the TRIND using the previously retained screws and reconnect the J182 connector of the R20773-G2 Cable to the P182 connector of the TRIND.

Figure 8: Reconnecting Disconnected Cable

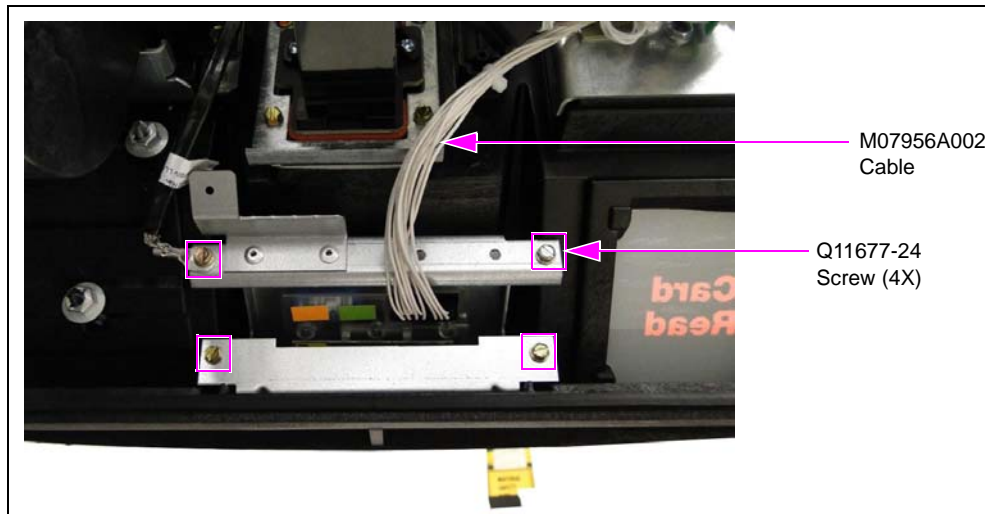
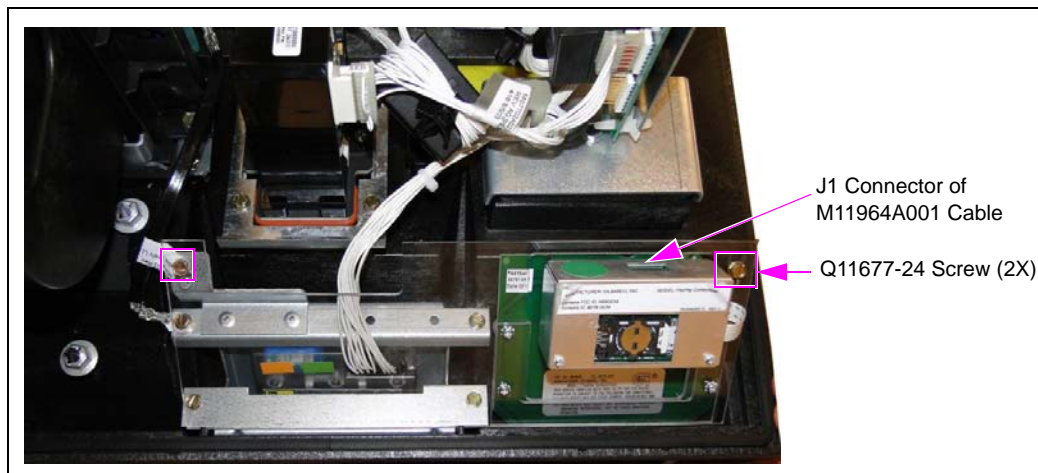


Figure 9: Reconnect Cable to J1 Connector



Installing the SPOT PCI 2.0 keypad on the Encore 300/500 dispenser is now complete.

After the installation is complete, safely power up the unit, activate, and test for proper operation.

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