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## **Certification Exhibit**

**FCC ID: N6SLFTRIND  
IC: 827B-LFTRIND**

**FCC Rule Part: 15.209  
IC Radio Standards Specification: RSS-210**

**ACS Report Number: 10-0134.W06.11.A**

**Manufacturer: Gilbarco Inc.  
Model: LFTRIND**

## **Manual**

## Introduction

### Purpose

This manual provides instructions for installing the Transmitter/Receiver IN Dispenser (TRIND®) Retrofit Kits in Encore® S Series units that contain the FlexPay™ Unattended Payment Terminal (UPT).

The TRIND option allows the customer to automatically authorize the units equipped with Card Reader IN Dispenser (CRIND®) device, using a low frequency hand-held Transponder Tag provided by a Major Oil Company (MOC) or retailer.

### IMPORTANT INFORMATION

This equipment has been tested and found to comply with the limits for a Class A digital device 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 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 may cause harmful interference in that case the user must 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.

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

#### Industry Canada-specific Statements:

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Cet appareillage numérique de la classe A répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

## Table of Contents

Topic	Page
<a href="#">Introduction</a>	1
<a href="#">Parts Lists</a>	3
<a href="#">Important Safety Information</a>	4
<a href="#">Installation</a>	6

## Required Reading

Before installing the equipment, the installer must read, understand, and follow:

- This Manual
- National Fire Protection Agency (NFPA) 30A, The Automotive and Marine Service Station Code
- NFPA 70, The National Electric Code
- Applicable Federal, State, and Local Codes and Regulations

Failure to do so may adversely affect the safe use and operation of the equipment.

*Note: This kit must be installed by a Gilbarco® Authorized Service Contractor (ASC).*

## Related Documents

Document Number	Title	GOLD Library
MDE-3664	TRIND Start-Up, Service, and Parts Manual	<ul style="list-style-type: none"> <li>• CRIND and TRIND</li> <li>• Service Manual</li> </ul>
MDE-3804	Encore and Eclipse® Series Start-Up/Service Manual	<ul style="list-style-type: none"> <li>• Encore and Eclipse</li> <li>• Service Manual</li> </ul>
MDE-4516	Encore 500 S Series Owner's Manual	Encore and Eclipse
MDE-4903	FlexPay Startup and Service Manual	FlexPay EPP and SCR
PT-1736	CRIND Card Reader Illustrated Parts Manual	Parts Manual
PT-1936	Encore Series Pump and Dispenser Illustrated Parts Manual	<ul style="list-style-type: none"> <li>• Parts Manual</li> <li>• Encore/Eclipse</li> <li>• Encore and Eclipse Installers</li> </ul>

## Recommended Tools

To install TRIND Retrofit Kit M06879S00X, the following equipments are required:

- Metric Nut Drivers
- Standard Nut Drivers
- Needle Nose Pliers
- Pliers
- Pocket Knife
- Putty Knife or Scraper
- Diagnostic Card (Q12534-170)
- Metric Ratchet Set
- Standard Ratchet Set
- Flat-head Screwdriver
- Static Guard Wrist Strap
- TRIND Hand-held Test Tag (Transponder Tag)

## Abbreviations and Acronyms

Term	Description
ASC	Authorized Service Contractor
CRIND	Card Reader IN Dispenser
FCC	Federal Communications Commission
MOC	Major Oil Company
NFPA	National Fire Protection Agency
PCA	Printed Circuit Assembly
TRIND	Transmitter/Receiver IN Dispenser
UL	Underwriters' Laboratories
UPT	Unattended Payment Terminal

## Parts Lists

### TRIND Retrofit Kit Parts List

The following table provides the parts list for the TRIND Retrofit Kit.

Description	Part Number	Quantity
Nut, Metric, Flange	M00414B005	3
Cable, TRIND Power	M06763A001	1
Decal, Patent and FCC	M02962B013	1
Diagram, Block	R20775	0
Diagram, Interconnection	T20663	0
Assembly, Light and Inductor	M06143A00X (see Note 1)	2
Lens, TRIND	M05987B001	2
TRIND Graphic	ENS0701G00X (see Note 2)	2
Card Reader Instructions Graphic	ENS0702G010	2
Screw, Metric M4X8	M00419B117	8
Screw, Self-Tapping Hex	Q11677-24	6
Cable, Light/Multi Protocol	R20773-G2	2
Gasket, TRIND	M06010B002	2
FlexPay UPT TRIND Retrofit Kit Installation Manual	MDE-4909	1

*Notes: 1) M06879S001 (for Mobil) contains Light and Inductor Assembly (Red)- M06143A001. M06879S002 (for Exxon) contains Light and Inductor Assembly (Amber)- M06143A002.*

*2) M06879S001 (for Mobil) contains TRIND Graphic (ENS0701G002). M06879S002 (for Exxon) contains TRIND Graphic (ENS0701G001).*

<<Please clarify, if these notes must be removed.>>

# Important Safety Information

**Note: Save this Important Safety Information section in a readily accessible location.**

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 Hazard Association (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 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**  
Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.  
Keep airway open.  
Seek medical advice immediately.

**WARNING**  
Gasoline spilled in eyes may cause burns to eye tissue.  
Irrigate eyes with water for approximately 15 minutes.  
Seek medical advice immediately.

**WARNING**  
Gasoline 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.

# Installation

To install TRIND Retrofit Kit, proceed as follows:

The installation procedures for this manual consists of the following sections:

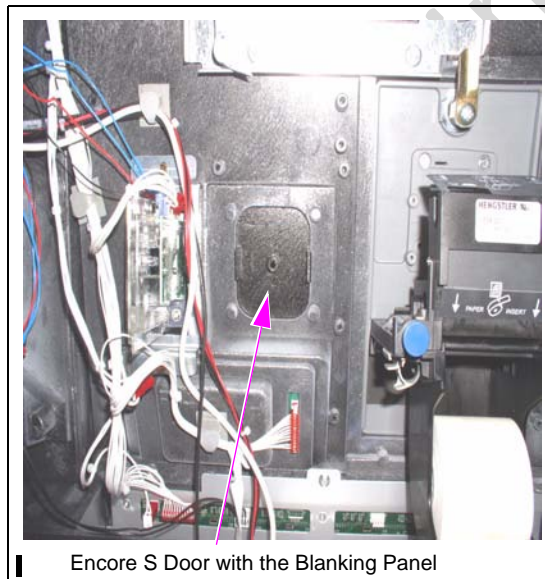
- “Installing the Light and Inductor Assembly (M06143A00X)”
- “Installing the PIP Board” on page 8
- “Routing Cables” on page 9
- “TRIND Cable Block Diagram” on page 10
- “Enabling and Testing the TRIND Device” on page 11
- “Completing the Installation” on page 12

## Installing the Light and Inductor Assembly (M06143A00X)

To install the Light and Inductor Assembly M06143A00X, proceed as follows:

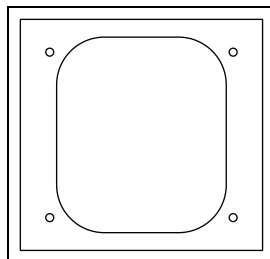
- 1 Remove the small bracket securing the TRIND Blanking Panel, and knock out the TRIND Blanking Panel (see [Figure 1](#)) using a hammer.

**Figure 1: Encore S Door with TRIND Blanking Panel**



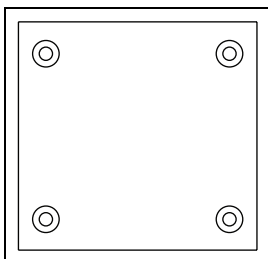
- 2 Remove the narrow sealing gasket from the space that is now exposed outside the door and place the TRIND lens gasket (M06010B002).

**Figure 2: TRIND Lens Gasket**



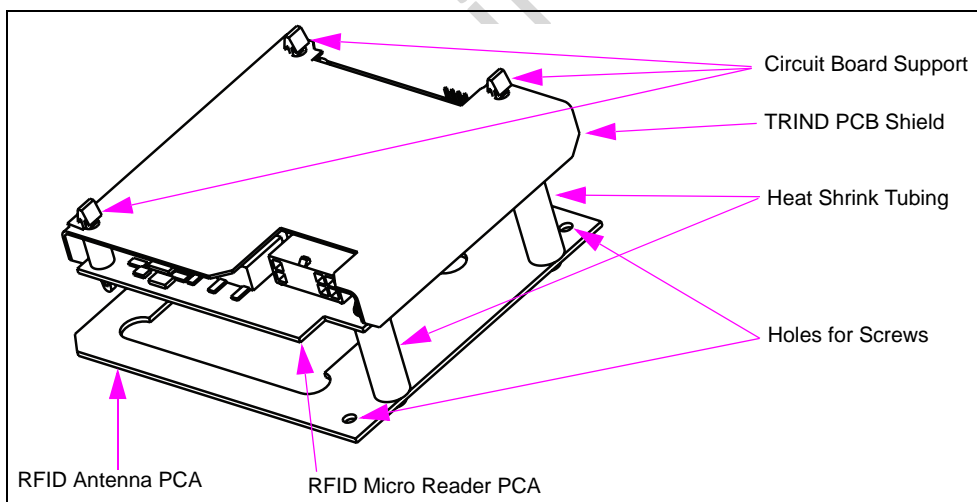
- Place the TRIND lens (M05987B001) on the TRIND gasket. Install and tighten the four screws (M00419B117).

**Figure 3: TRIND Lens**



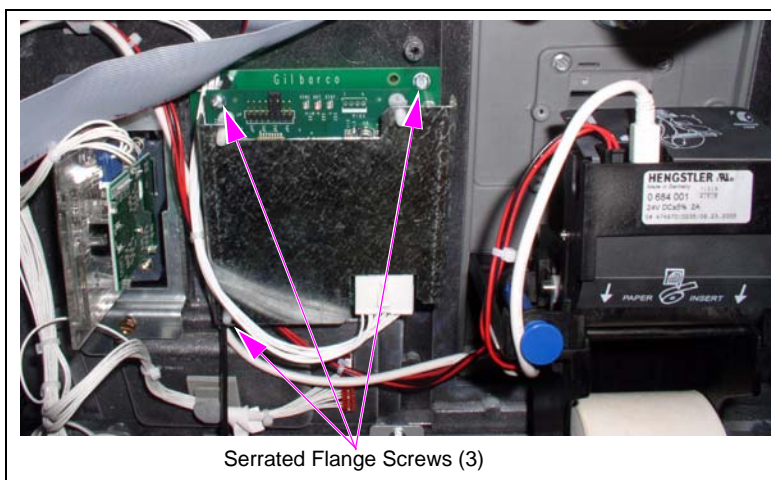
- Install the Light and Inductor Assembly (M06143A00X) inside the Encore S bezel using the three screws (Q11677-24) provided with the kit, see [Figure 5](#).

**Figure 4: Light and Inductor Assembly (M06143A00X)**



- Repeat steps 1 to 5 for the bezel on the other side.

**Figure 5: Light and Inductor Assembly Secured to Door**





## Installing the PIP Board

To install the PIP Board, proceed as follows:

Depending on the system configuration, the unit may already have a PIP Board on one or both sides. For TRIND function both sides must have a PIP Board.

- 1 To remove BEEP Board (M09232A001) Printed Circuit Assembly (PCA), proceed as follows:
  - a Disconnect the M03695B004 USB Cable and M09267A001 Beep Cable.
  - b Remove the BEEP Board from the Peripheral Bracket.

**Figure 6:**

<<Please provide.>>

- 2 Attach the PIP Board as shown in [Figure 7](#).

**Figure 7:**

<<Please provide.>>

- 3 Connect the M03695B004 USB Cable to P312 and M09267A001 Beep Cable to P214.
- 4 Connect J311 from M07974A002 Cable to the system.

**Figure 8:**

<<Please provide.>>

## Routing Cables

To install the Retrofit Kit Cables, proceed as follows:

*Note: For more details on the connections, refer to “TRIND Cable Block Diagram” on page 10.*

<<Please provide the required updates.>>

- 1 Obtain the Light/Multi-Protocol Cable R20773-G4 from the kit and connect the J182 end of the cable to P182 on the Light Board Assembly M06143A001.

**Figure 9: Light/Multi-Protocol Cable (R20773-G4)**

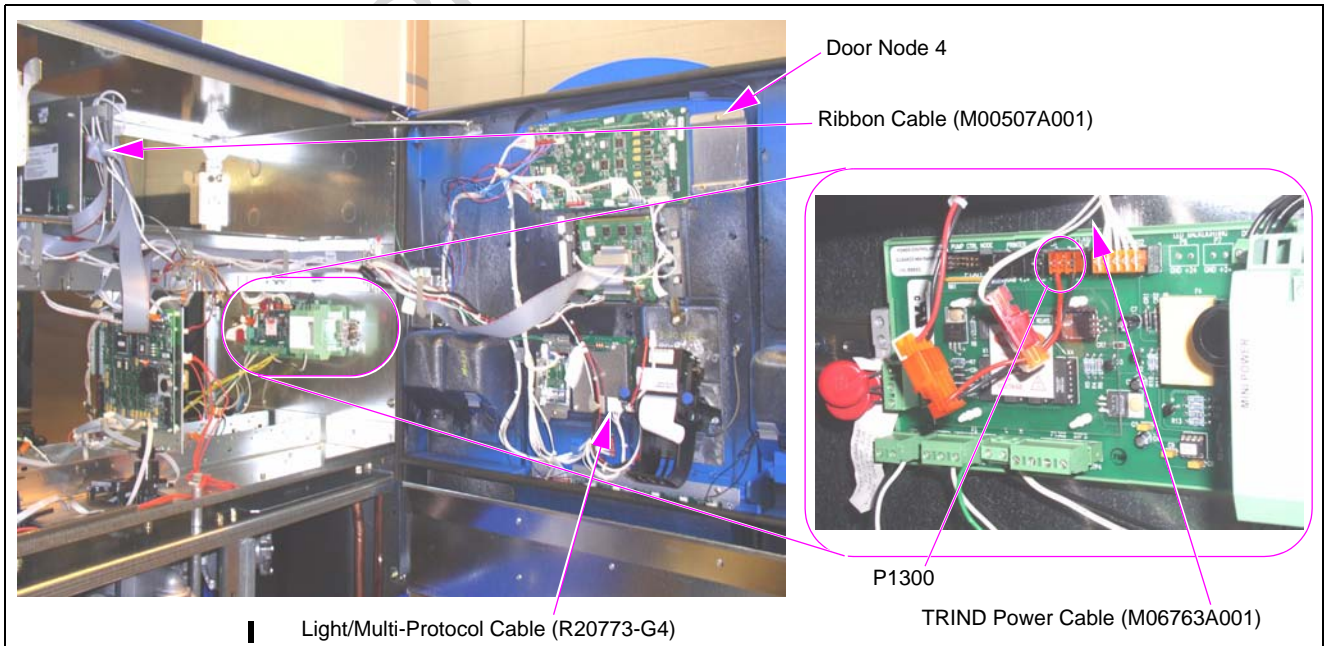
<<Please validate.>>



- 2 Secure the R20773-G4 Cable to the door, and route and feed the other cables.
- 3 For both main doors, use cable clamps to route cables to and along the door.

**Figure 10: Door-To-Cabinet Cable Routing View**

<<Please validate.>>

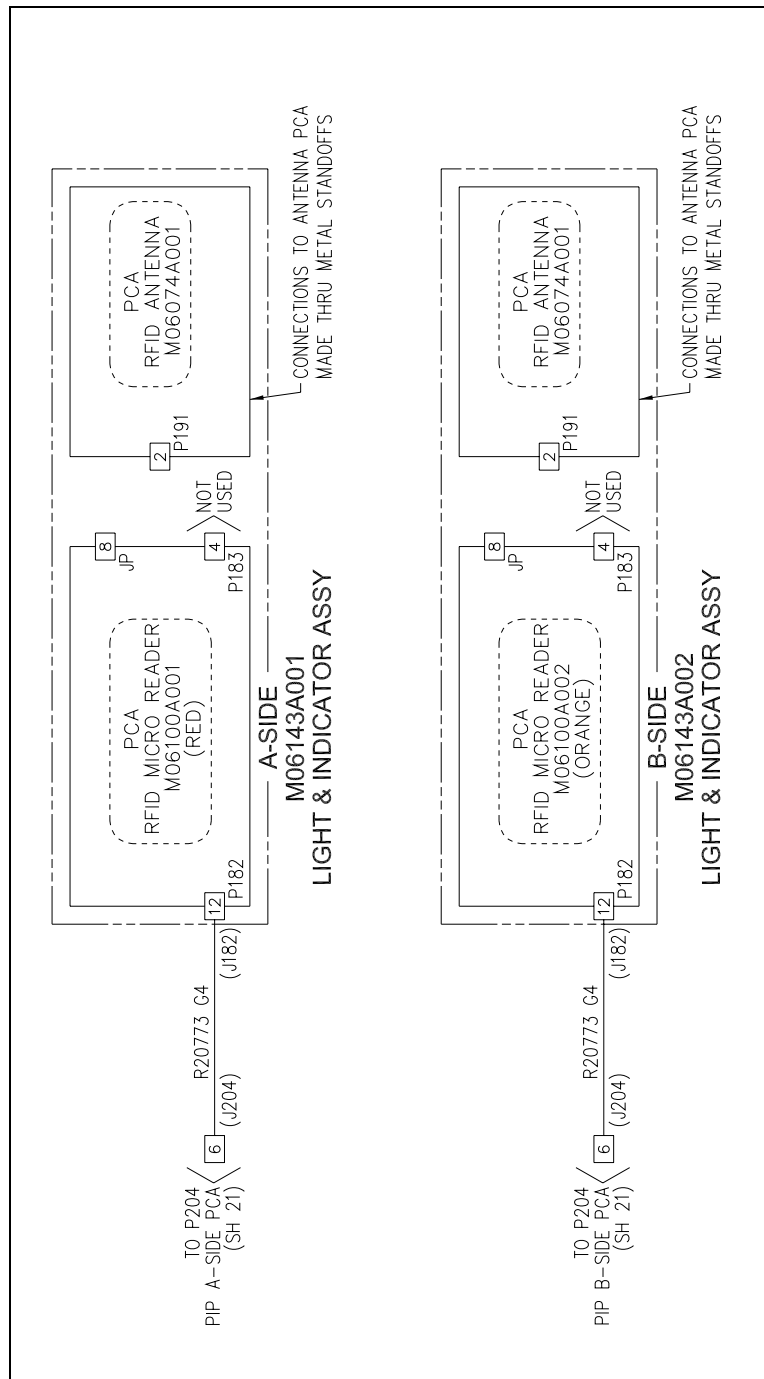


- 4 Connect the J204 end of the R20773-G4 Cable to P204 on the M09112A001 PIP Assembly.

# TRIND Cable Block Diagram

Figure 11: TRIND Cable Block Diagram

<<Please validate.>>

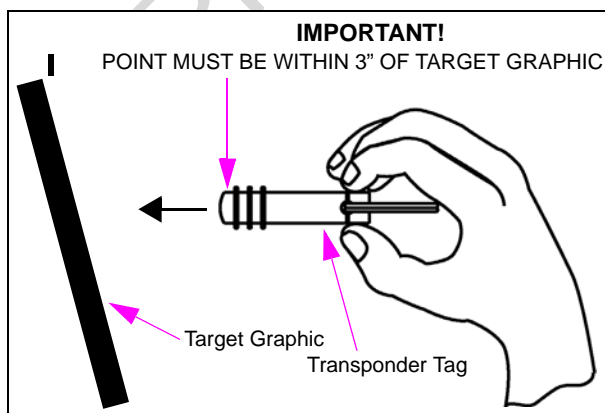


## Enabling and Testing the TRIND Device

To enable the TRIND device proceed as follows:

- 1 Restore power to the fueling units. Refer to MDE-3804 Encore and Eclipse Series Start-Up/Service Manual.
- 2 Initiate CRIND BIOS Diagnostics using the Diagnostic Card (Q12534-170).
- 3 From the Diagnostic Startup Menu, select **1. Main Menu**.
- 4 From the Main Menu, select **2. Device Config**.
- 5 From Device Config, select **4. TRIND**. The TRIND menu appears.
- 6 To enable TRIND, select **1. Yes** and select **Enter** on the CRIND Keypad.
- 7 Select **Cancel** several times until the Diagnostic Startup Menu appears.
- 8 Select **4. Test TRIND**.
- 9 Verify if the TRIND state is “Alive”.
- 10 Hold a Transponder Tag in front of the reader.

**Figure 12: TRIND Hand-held Test Tag**



- 11 If the read is successful, the message “Good Read X” appears, where X is the number of good reads.  
*Note: X must not start with 1. It is the number of good reads since the unit was first put into service, or the last reset of the counter.*
- 12 Select **Cancel** to exit the Test TRIND menu.
- 13 Select **2. Show Device Details**.

**14 Select 2. Reset Tags Read.**

**15 Select Cancel to exit the Show Device Details menu.**

*Note: The Show Device Details menu does not update the counts in real time. If the Transponder Tag is read when the Show Device Details menu is displayed, then the counter will not update until the screen is refreshed. To update the counter, exit the Show Device Details menu and re-enter the menu.*

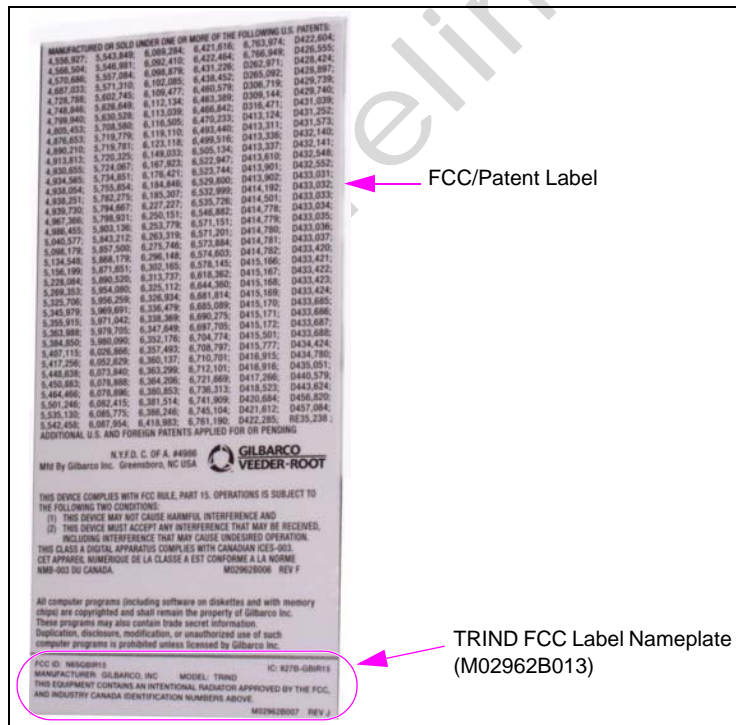
## Completing the Installation

After all the testing is completed, perform the following steps:

- 1 Ensure that all newly installed cables and wires are properly dressed and do not obstruct main door closure.
- 2 Obtain the TRIND FCC label nameplate M02962B013 from the kit, and install the label under the FCC/Patent label located on the inner column sheathing (see Figure 13).

**Figure 13: Location of TRIND FCC Label Nameplate**

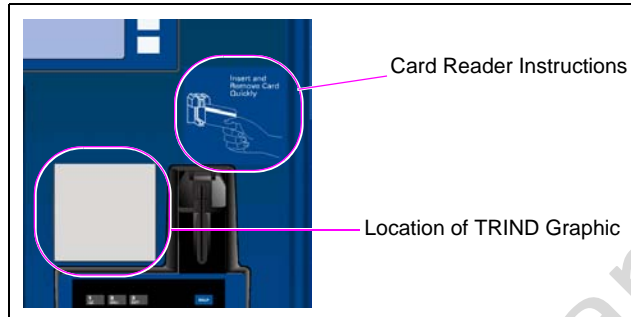
<<Please provide the updated picture of M02962B013 FCC label.>>



**3 Close and secure all the doors.**

- 4 Install the TRIND graphics on the TRIND lens and card reader instructions as shown in [Figure 14](#).

**Figure 14: Location of TRIND Graphics and Card Reader Instructions**



- 5 Clean up the work site, removing all materials to be discarded and all tools.

Preliminary

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