



Installation Instructions

K93735-XX and K94323-XX CRIND® Keypad Overlay/Frame Kit for MPD®-3 and The Advantage® Series June 2003

Purpose of This Document

This document provides instructions for installing Card Reader In Dispenser (CRIND®) keypads (membrane switches) and installing or replacing keypad overlays. All kits are order entry items.

- One version of kit K93735-XX includes a keypad frame, used as a blanking plate for sections of the keypad.
- Kit K94323-XX is for The Advantage® Series with CRIND American Disabilities Act (ADA) Options Door for one-line display.
- For The Advantage units with CRINDs with InfoScreen or with monochrome LCD, a universal keypad is used and an order-entry keypad overlay.

Read NFPA 30A and NFPA 70

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

- this manual
- NFPA 30A, The Automotive and Marine Service Station Code
- NFPA 70, The National Electric Code, and
- applicable federal, state and local codes and regulations.

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

Related Documents

See the following manuals for more information:

MDE-2531A	The Advantage Series Start-Up/Service Manual
PT-1728	The Advantage Series Parts Manual
MDE-2620	Graphics Application Manual
MDE-2637	The Advantage Series CRIND Retrofit Manual Ver. 1, C0004-101, -102
MDE-2727	The Advantage Series CRIND Retrofit Manual Ver. 2, C00004-001, -002
MDE-3334	ADA Option Door Upgrade Kit K94327-XX for CRIND with One-line Display

Recommended Tools

The following is a list of recommended tools.

- 5/32" Allen hex wrench
- hex wrench set
- electrostatic discharge (EDS) grounding strap
- Screwdriver, Phillips or standard

Parts Lists

K93735-XX, CRIND Option Keypad Kit

Note: Keypad, overlay, and frame are order entry items.

Replacement keypad overlay

Qty.	Part Number	Description
1	T18724-xx	Keypad Overlay

Kits without frame

Qty.	Part Number	Description
1	T19569-xx	CRIND Keypad
1	T18724-xx	Keypad Overlay

Kits with frame

Qty.	Part Number	Description	Comments
1	T19569-xx	CRIND Keypad	
1	Q11659	Gasket	
1	T18724-xx	Keypad Overlay	
1	T18710-xx	Keypad Frame	(Only used on The Advantage Series)
1	Q10218	Nut, Hex	
1	N16599	Washer, Flat	

K94323-XX, The Advantage ADA with CRIND Keypad Kit

Note: Keypad, overlay, and frame are order entry items.

Replacement keypad overlay

Qty.	Part Number	Description
1	T50064-xx	Keypad Overlay

Kits without frame

Qty.	Part Number	Description
1	T19760-xx	CRIND ADA Switch
1	T50064-xx	Keypad Overlay
1	R20319-01	Filler Plate

Kits with frame

Qty.	Part Number	Description	Comments
1	T19760-xx	CRIND ADA Switch	
1	T50064-xx	Keypad Overlay	
1	R20319-01	Filler Plate	
1	R60018-xx	Graphics Panel Frame Overlay for ADA CRIND	(customer-specific)

CRIND with InfoScreen or with Monochrome LCD Displays

Note: Keypad overlay is an order entry item.

Qty.	Part Number	Description
1	T19525-G1	InfoScreen Switch
1	T50038-xx	Keypad Overlay

Safety



Alert Symbol

This is a standard alert symbol. When you see this symbol, along with the following signal words, be alert to the potential for personal injury.

Signal Words

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

DANGER

This signal word is used to alert you to a hazard or unsafe practice which **will** result in **death or serious injury**.

WARNING

This alerts you to a hazard or unsafe practice that **could** result in **death or serious injury**.

CAUTION

This signal word designates a hazard or unsafe practice which **may** result in **minor injury**.

CAUTION

When used by itself, CAUTION designates a hazard or unsafe practice which may result in **property or equipment damage**.

Fuel and Vapors

WARNING



You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage.

Fire, explosion, or electrical shock and serious injury or death could result if safe service procedures are not followed.

Remove all power to pump/dispenser, including lights and power to associated STPs, before servicing. Avoid contacting large capacitors.

Emergency Total Electrical Shut-Off

Locate the switch or circuit breakers that shut-off all power to all fueling equipment,

dispensing devices, and submerged turbine pumps (STPs). These you must operate in the event of an emergency.

⚠ 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 only these cashier station "stops."



1 Read all instructions before beginning.

2 Follow all safety precautions.



- Barricade area.



- Do not allow vehicles or unauthorized people in work area.



- Do not smoke or have open flames in work area.



- Fuel vapors are flammable and explosive.



- Do not use power tools in work area.



- Use approved fuel container.



- Clean up spills immediately.



- Wear protective gear while performing this procedure.

3 Record all electronic and mechanical totals.



4 Turn off all power to unit, unit lights and STPs.

- Use system circuit breakers.
- Multiple disconnects may be required.

- 5** When system battery is present, turn off system battery by pressing CLEAR then ENTER on manager keypad.

Note: Perform the above keypad step or memory problems can result. Remove the battery fuse or battery wiring can scramble memory on power-up. Partially affected memory can create problems well after service. Units built after December 1994 do not have a battery system.



- 6** Follow ESD procedures listed.
- Place yourself at a neutral, static-free potential.
 - Touch a conductive metal surface.
 - Use a wrist strap connected to a grounded metal frame or chassis.

Removing Existing Keypad

Note: If only replacing the keypad overlay, go to “Replacing Keypad Overlay Only” on page 10. The Advantage Series units with CRIND ADA Options Door must replace the frame. The old frame is not reusable.

Perform the following steps according to the unit type.

MPD[®]-3 Unit, Printer Left

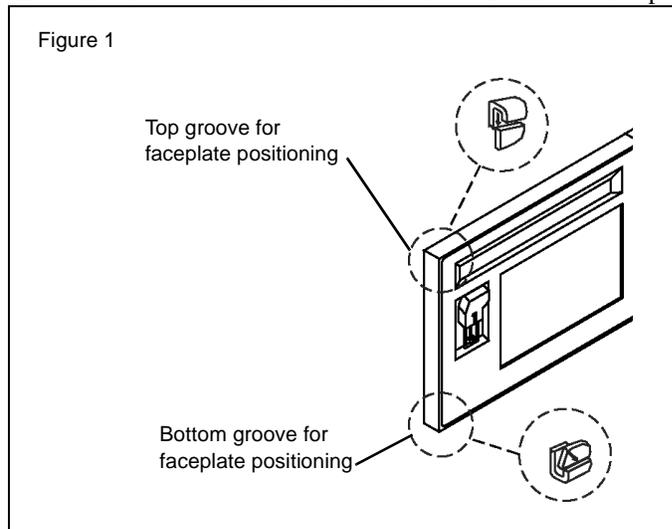
- 1 Unlock and open printer door.
- 2 Remove screw attaching faceplate over CRIND keypad to bezel. Continue to Step 3.

MPD-3 Unit, Printer Right

- 1 Unlock and open manager keypad door.
- 2 Remove screw attaching faceplate to bezel located behind manager keypad door. Continue to Step 3.

All MPD-3 Units

- 3 Slide faceplate up into top groove, then pull bottom of faceplate out of bottom groove to remove.
- 4 Loosen bolts at bottom of bezel and raise bezel into locked position. See Figure 1.



- 5 Disconnect J902 (cable assembly) T17687 from keypad connector P902.
- 6 Remove existing keypad, which is attached with adhesive backing.

Note: Push on keypad from behind options door or bezel.

The Advantage Unit

- 1 Open CRIND options door (see MDE-2531) and remove the frame.
- 2 Disconnect J902 (cable assembly) T17687 from keypad connector P902.

- 3 Remove existing keypad, which is attached with adhesive backing, by placing a screwdriver through the keypad tail slot in options door or bezel and pushing on keypad.

Note: For non-CRIND ADA The Advantage Series, the left options door graphics must be peeled off to remove existing keypad.

The Advantage Unit With CRIND ADA Options Door

*Note: For the Advantage Series with existing CRIND ADA options doors, **do not remove** the left options door graphics to remove the existing keypad.*

- 1 Open CRIND option door (see MDE-2531).
- 2 Disconnect J902 on cable assembly T17687 from keypad connector P902.
- 3 Remove existing keypad by placing a screwdriver through the keypad tail slot in options door or bezel and pushing on keypad. If keypad frame is attached, it will be removed along with the keypad. The replacement kit K94323-XX provides you with a new keypad frame, if required.

The Advantage Unit With InfoScreen Or Monochrome

- 1 Open CRIND option door (see MDE-2531).
- 2 Disconnect J902 on cable assembly T17687 from keypad connector P902.
- 3 Remove existing keypad by placing a screwdriver through the keypad tail slot in options door or bezel and pushing on keypad.

Installing New Keypad

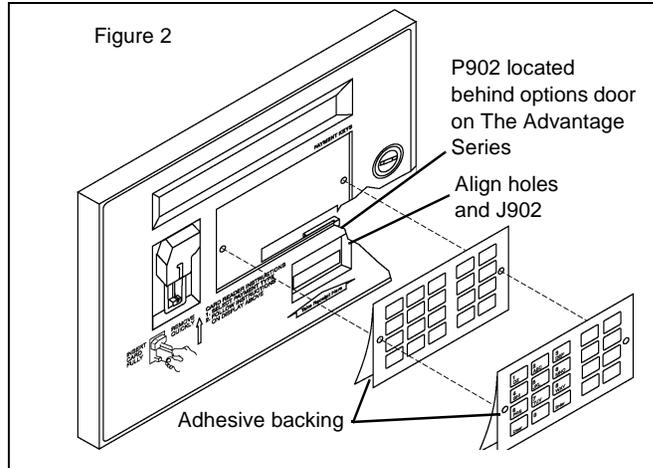
Note: To install the new keypad for The Advantage unit with CRIND ADA Options Door, InfoScreen, or Monochrome CRIND Options Door, go to “The Advantage units with CRIND ADA, InfoScreen, or Monochrome CRIND Options Door” on page 9. For all other units, follow the steps below.

- 1 Remove backing from new keypad.
 - Align holes in new keypad and options door.
 - Apply new keypad to recessed keypad area on options door or bezel. J902 should extend through opening in options door or bezel.
- 2 Remove backing from new keypad overlay. See Figure 2.
 - Align holes in new keypad overlay.
 - Apply new keypad overlay to keypad. Ensure overlay buttons align with keypad.

Note: Be careful not to trap air bubbles between the overlay and keypad. Air bubbles may expand in warm weather and cause false key activations.

- On The Advantage Series units, only install new left options door graphics. (Graphics

overlaps keypad graphics.)

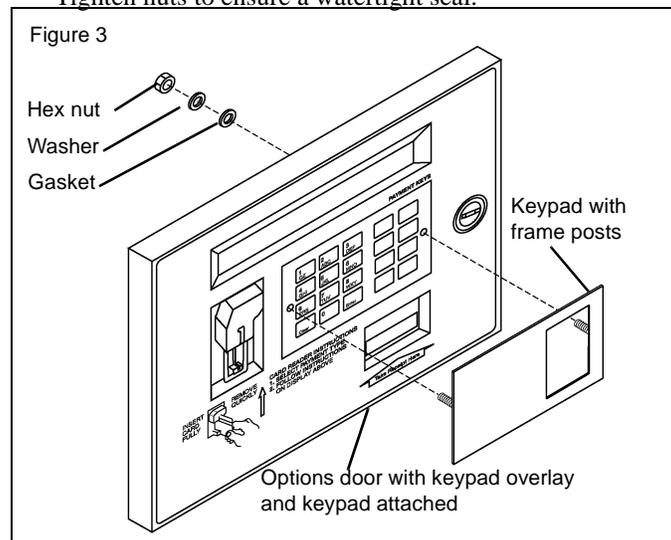


WARNING

Power tools could cause sparks.
Highly flammable and explosive fuels are present.
Use of power tools could result in severe injury or death.
Do not use power tools.

3 Insert keypad frame posts through keypad overlay, keypad and options door. See Figure 3.
Note: The options door or overlay may need drilling, see safety precautions in left-hand margin and follow all steps in this manual. When drilling the door, remove from unit and lay on a secure horizontal surface away from island. Use boss's on back of door as a guide for 3/16" drill bit.

- Apply gaskets, washers, and hex nuts to frame posts.
- Tighten nuts to ensure a watertight seal.



4 Reconnect P902 (cable assembly) T17687 to J902 on keypad.

WARNING



You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage.



Fire, explosion, or electrical shock and serious injury or death could result if safe service procedures are not followed.

Remove all power to pump/dispenser, including lights and power to associated STPs, before servicing. Avoid contacting large capacitors.

Check shear valves for proper operation before servicing hydraulic units.

- 5 Perform one of the following steps according to the unit type.
 - If kit is for MPD-3 unit, attach CRIND faceplate to bezel. Use same hardware removed in Removing Existing Keypad section. Close and lock printer door. Lower bezel and tighten bolts.
 - If kit is for The Advantage Series unit, close and lock options door.
- 6 Turn on all power and check for proper operation. Perform CRIND keypad test. See CRIND Service Manual (MDE-2562).

The Advantage units with CRIND ADA, InfoScreen, or Monochrome CRIND Options Door

WARNING



You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage.



Fire, explosion, or electrical shock and serious injury or death could result if safe service procedures are not followed.

Remove all power to pump/dispenser, including lights and power to associated STPs, before servicing. Avoid contacting large capacitors.

Check shear valves for proper operation before servicing hydraulic units.

- 1 Remove adhesive backing from new keypad.
- 2 Apply new keypad to recessed keypad area on options door or bezel. J902 should extend through opening in options door or bezel.
- 3 Remove adhesive backing from new keypad overlay.
- 4 Apply new keypad overlay to new keypad. Make sure overlay buttons align with keypad.
Note: Be careful not to trap air bubbles between the overlay and keypad. Air bubbles may expand in warm weather and cause false key activations.
- 5 If new keypad frame is required to be installed, remove adhesive backing from the new keypad frame.

Note: No frame is used with InfoScreen or Monochrome CRIND.

- 6 Align new frame with keypad and overlay, and apply.
- 7 Reconnect P902 (cable assembly) T17687 to J902 on keypad.
- 8 Close and lock options door.
- 9 Turn on all power and check for proper operation. Perform CRIND keypad test. See CRIND Service Manual (MDE-2562).

Replacing Keypad Overlay Only

All Units

If a second overlay has already been placed over the original, carefully peel off the second overlay leaving the original overlay in place. This will help prevent damage to the switch itself. All CRIND keypads are designed to operate properly with one or two overlays installed.

Perform the following steps according to unit type.

MPD-3 Series

- 1 Remove faceplate. See “Removing Existing Keypad” on page 6
- 2 Clean dirt and grease from old keypad overlay.
- 3 Remove backing from new keypad overlay. Apply new keypad overlay to old keypad overlay. Ensure overlay buttons align with old overlay buttons.
Note: Be careful not to trap air bubbles between the overlay and keypad. Air bubbles may expand in warm weather and cause false key activations.
- 4 Attach CRIND faceplate to bezel. Use same hardware removed in “Removing Existing Keypad” on page 6.
- 5 Close and lock printer door. Lower bezel and tighten bolts.

The Advantage Series

- 1 Open CRIND options door. See MDE-2531 for specific instructions on opening options doors.
- 2 Remove the frame.
Note: Do not remove left options door graphics or old keypad overlay on The Advantage Series. The replacement overlay is designed so removal of these items is unnecessary.
- 3 Clean dirt and grease from old keypad overlay.
- 4 Remove backing from new keypad overlay. Apply new keypad overlay to old keypad overlay. Ensure overlay buttons align with old overlay buttons.

The Advantage units with CRIND ADA Options Door

Old frames are not reusable and must be replaced with a new frame. See “Installing New Keypad” on page 7.

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