

Installation

Introduction

Purpose

This manual provides instructions for installing modular electronic software (EPROMs). Instructions provided are generic in nature. Manuals for specific equipment in which you are installing software may provide additional instructions. Read all manuals prior to beginning work.

Related Documents

- MDE-2531 Pump and Dispenser Startup and Service Manual
- MDE-2562 CRIND® Service Manual

Recommended Tools

- hex wrench
- integrated circuit (IC) removal tool
- nutdriver, 1/4 inch
- screwdriver, flat tip
- screwdriver, Phillips

Read NFPA 30A and NFPA 70



Before servicing equipment, read, understand and be prepared to follow applicable information in the following codes:

- The National Electric Code (NFPA 70)
- The Automotive and Marine Service Code (NFPA 30A)
- Any national, state and local codes that may apply

Failure to service equipment in accordance with NFPA 30A and NFPA 70 may adversely affect the safe use and operation of the system.

Safety Information



Alert Symbol

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

Signal Words

These signal words alert you to important safety hazards.

WARNING	CAUTION	DANGER
<p>The hazard or unsafe practice may result in severe injury or death.</p>	<p>The hazard or unsafe practice could result in minor injury or damage to equipment.</p>	<p>The hazard or unsafe practice will result in severe injury or death.</p>

Safety Precautions



Know Location of Emergency Power Cutoff

NFPA-30A, Section 4-1.2, requires the installation of an easily accessible switch to shut off the power to all dispensing devices in the event of an emergency. Know the location of this switch before you begin work.



No Vehicles In The Area

Moving vehicles in the area during service can create a potential for personal injury to you or others. Sparks from starting vehicles can ignite fuels and their vapors.



No People In The Area

Unauthorized people in the area during service can create a potential for personal injury to you and them.



Turn Power Off

Live power to a dispensing device creates a potential shock hazard. Always turn power off to the dispensing device and associated STPs when servicing the unit.



Use Safety Barricades

Unauthorized people or vehicles in the work area are dangerous. Always use safety cones or barricades, safety tape and your vehicle to block the work area.



Wear Eye Protection

Spraying fuel from residual pressure in the lines can cause serious eye injuries. Always wear eye protection.

Electrostatic Discharge Precautions



Printed Circuit Boards (PCBs) and Integrated Circuits (ICs) are sensitive to electrostatic discharge caused by static electricity. Electrostatic discharge damages electronic components.



- 1 Place yourself at a neutral, static-free potential. Touch a conductive metal frame or chassis.
- 2 Use a wrist strap connected to a grounded metal frame or chassis.
- 3 Place removed PCBs and/or ICs on a grounded anti-static mat.

Installation

Preparing to Install Software



- 1 Read all instructions before beginning.
- 2 Follow all safety precautions, including:
 - Barricade work area.
 - Do not allow vehicles or unauthorized people in work area.
 - Do not use power tools in work area.
 - Do not permit smoking or open flames in work area.
 - Wear protective gear while performing this installation.
- 3 If installing modular electronic software in a dispensing unit, turn off all power to unit, unit lights and CRIND device.
 - Use system circuit breakers.
 - Multiple disconnects may be required.
 - Isolate each pump at distribution box.
 - Refer to MDE-2531 Pump and Dispenser Start-up and Service for OSHA lock-out/tag-out procedures.

 WARNING	
	<p>Working on dispenser or controller electronics with power applied may result in electrocution or damage to electronic components.</p> <p>Power down equipment before beginning work.</p>

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

Removing Modular Electronic Software



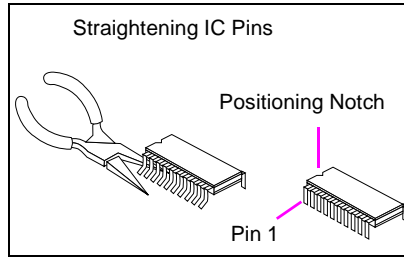
- 1 Use [Electrostatic Discharge Precautions](#).

Note: Failure to use electrostatic discharge precautions may damage electronic components.

- 2 Remove printed circuit board from equipment, if necessary to gain access to EPROM.
- 3 Using IC removal tool, remove EPROM from board.
- 4 Place EPROM on a grounded, antistatic mat.

Installing Modular Electronic Software

- 1 Examine new EPROM. If necessary, straighten the legs of EPROM as shown.



- 2 Align positioning notch on EPROM with notch on PCB. Align legs of EPROM with holes on PCB. Install EPROM in proper location, using an approved IC tool.
- 3 Refer to MDE-2531 Pump and Dispenser Startup and Service Manual or MDE-2562 CRIND Service Manual for required jump switch settings.

Completing the Installation

- 1 Re-install PCB in equipment and return system to operation. Refer to Refer to MDE-2531 or MDE-2562 for specific instructions.
- 2 Restore power to equipment.
- 3 Perform appropriate diagnostic tests to ensure proper operation. Refer to MDE-2531 or MDE-2562.

