

## MS-9200(C)/E Field Software Change Procedure (and Programming Existing MS-9200 Systems for use with the LCD-40)

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### Firmware Change

This procedure outlines the mechanical installation steps required to install EPROMs in the MS-9200, MS-9200C and MS-9200E.

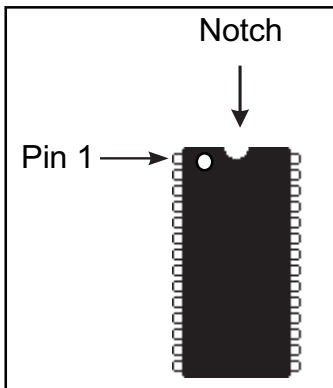
#### ***Handling precautions for integrated circuits***

Static electricity can destroy integrated circuits (ICs)! To prevent damage to the EPROM, a wrist strap and a static-free IC insertion/extraction tool is highly recommended. The manufacturer cannot be responsible for damage to the EPROM as a result of improper handling.

#### **System Power Sources**

*Always remove primary and secondary power before working on the system!*

1. Disconnect battery backup power before working on the system!
2. Proceed by disconnecting AC power to the panel at the main service circuit breaker (not the circuit breaker at the alarm control panel's power supply).
3. Wait 60 seconds to allow for capacitive discharge before touching any of the system's components.
4. Reverse the procedure for powering up the system - AC first - then batteries.



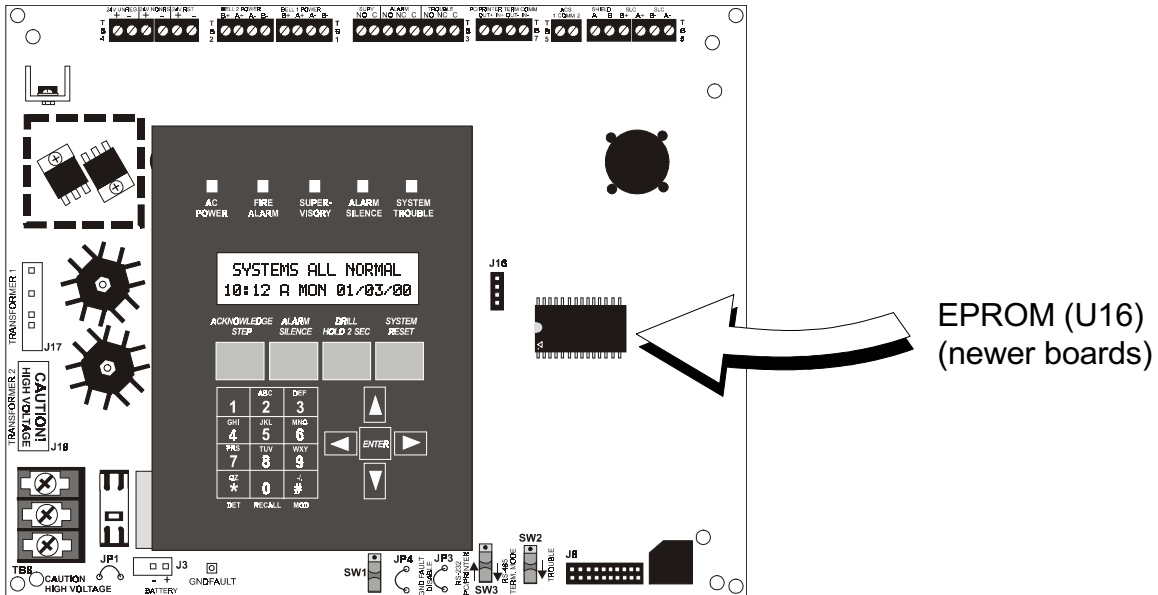
#### ***Integrated Circuit Pin Conversion***

Observe proper orientation of any IC removed or installed! Note location of Pin 1 with respect to the notch in the body of the IC. The replacement EPROM must be installed in the same manner as the EPROM removed. Failure to observe this orientation will result in destruction of the EPROM. *NOTE: Some ICs may have a small dot instead of a notch for orientation purposes.*

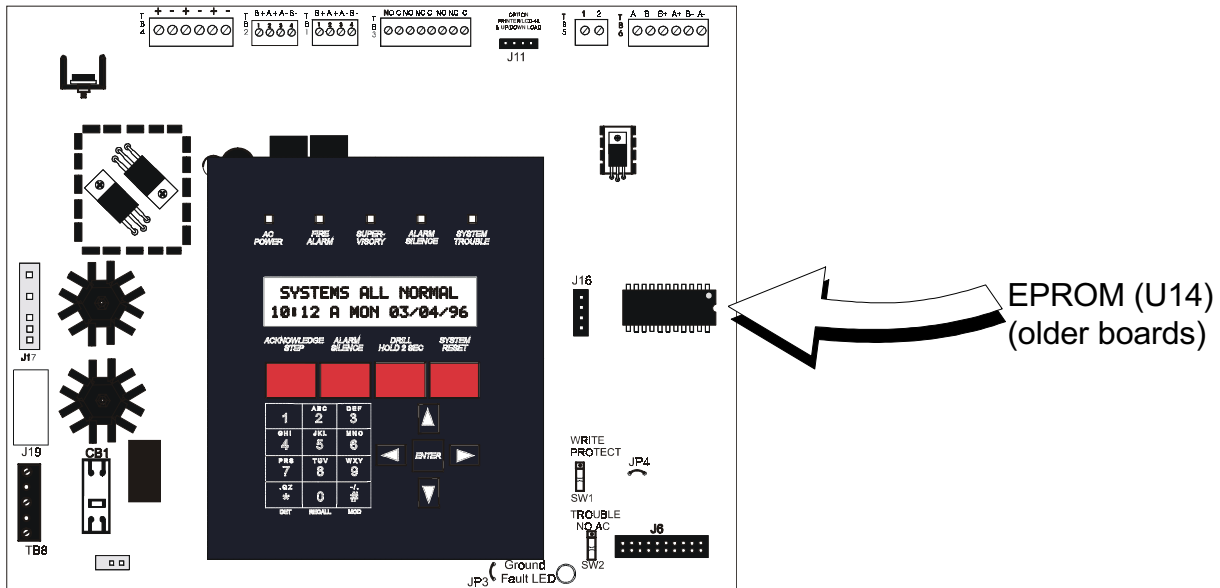
## EPROM Replacement

Observe proper orientation of any IC removed or installed! To replace the EPROM, complete the following steps:

1. Once all power has been removed, disconnect any optional modules (if installed).
2. Locate EPROM U16 on newer boards or U14 on older boards (center right of the board).
3. Gently loosen and remove EPROM from the board.
4. Install replacement EPROM. Observe proper orientation! The notch or dot on the IC should be positioned to the left for U16 in the newer boards or to the right for U14 in older boards as shown below. Use care to insure that the EPROM's pins are not bent or broken during insertion.
5. Reconnect power supplies.



EPROM (U16)  
(newer boards)



EPROM (U14)  
(older boards)

## Programming and Testing

Reprogram and test the MS-9200(C)/E after EPROM replacement.

### **LCD-40 installation in an existing MS-9200(C)/E**

In an existing MS-9200(C)/E installation, the following procedure must be followed to program the MS-9200(C)/E for use with the LCD-40 Series Annunciator:

1. Connect the LCD-40 to the MS-9200(C)/E Control Panel (refer to the appropriate MS-9200(C)/E Technical Manual and Product Installation Drawings).
2. Software Versions:
  - (1) If software with either the Part Number 73750 or 73829 is installed in the MS-9200(C), the LCD-40 Series Annunciator must have software with a Part Number of 73779 or 73879 to operate with the FACP (Fire Alarm Control Panel). If software with a Part Number of #M9200V20 or higher is installed in the MS-9200(C), the LCD-40 Series Annunciator must have software with a Part Number of #LCD40V20 or higher to operate with the FACP.
  - (2) If software with Part Number 73846 is installed in the MS-9200E, the LCD-40 Series Annunciator must have software with Part Number 73779 or 73879 to operate with the FACP. If software with Part Number #M9200EV20 or higher is installed in the MS-9200E, the LCD-40 Series Annunciator must have software with a Part Number of #LCD40V20 or higher to operate with the FACP.
3. Upon initial power-up of the MS-9200(C)/E with the new software installed, the following message may appear on the MS-9200(C)/E LCD display:

**"TROUBLE IN SYSTEM  
PROGRAM CORRUPTED"**

Whether the above message appears or not, the following steps must be followed to program the MS-9200 for use with the LCD-40.

4. Press the **ENTER** key.
5. Press the **1** key to select Programming.
6. Enter your **LEVEL 1** password.
7. Press the **ENTER** key.
8. Press the **1** key to select Autoprogram.
9. Upon successful completion of the Autoprogram function, press the **LEFT ARROW** key.
10. Press the **3** key to select System Edit.
11. At this point, use the **RIGHT ARROW** key to select **TRM = N** (or **L/P = N** as shown in the manual).
12. Press the **UP ARROW** key to change 'N' to 'L' in order to program the system for LCD-40 use.
13. Be sure to press the **ENTER** key to store the programming change in memory.
14. Press the **LEFT ARROW** key several times to get back to the **SYSTEMS ALL NORMAL** display.
15. At this point, the MS-9200(C)/E should be successfully programmed for use with the LCD-40. To ensure that all programming changes have been accepted, depress the **RESET** key. The system should return to the **SYSTEMS ALL NORMAL** display, after a successful software check.

## Software Changes

The following Table summarizes the MS-9200(C) software changes, specifying these changes by EPROM Number and Release Number.

| PROM #    | Release # | Summary of Changes  |
|-----------|-----------|---|
| 73492     | 1.0       | Initial Release   |
| 73524     | 1.1       | Add Password Clear Function which returns Level 1 and/or Level 2 passwords to the factory default settings. Change Fire Drill feature to turn on both notification appliance circuits during a drill. Add specific device trouble identification. |
| 73564     | 1.2       | Corrects the device Delete Function which allows the removal of a device or devices using Autoprogram mode, without alteration of the remaining device programming.   |
| 73580     | 1.3       | Add UDACT (Universal Digital Alarm Communicator/Transmitter) mode.  |
| 73601     | 1.4       | Change printer report to UDACT Trouble instead of Annunciator Trouble when in UDACT Mode. Send General Trouble to UDACT when battery trouble occurs. Will not send General Trouble to UDACT when AC fail occurs.                                  |
| 73750     | Rev. 0    | LCD-40 support added.<br>Programming of both bells added.<br>Beta Release Only.   |
| 73750     | Rev. 1    | Changes add checksum and parity on serial interface.<br>Beta Release Only.  |
| 73750     | 1.5       | Manufacturing release of LCD-40 support and programmable bells 1 & 2.   |
| 73829     | 1.6       | Activates EPROM checking and error reporting. Corrects debouncing of NAC (bell) circuits.   |
| #M9200V20 | 2.0       | Adds 'auto-resettable supervisory.' Adds leap year compensation. Improves LCD-40 data protection.   |
| #M9200V21 | 2.1       | Adds sensitivity (detector data) printout. Remove AC voltmeter reading.   |
| #M9200V22 | 2.2       | Change Alarm Verification Confirmation to 60 seconds. Disable Reset button during Silence Inhibit time. Silence Inhibit Timer is not restarted with subsequent alarms. Display message if Silence button is pressed during Silence Inhibit.       |
| #M9200V23 | 2.3       | Update for new microprocessor.  |

The following Table summarizes the MS-9200E software changes, specifying these changes by EPROM Number and Release Number.

| PROM #     | Release # | Summary of Changes  |
|------------|-----------|---|
| 73846      | 1.0       | Initial Release   |
| #M9200EV20 | 2.0       | Adds 'auto-resettable supervisory.' Adds leap year compensation. Improves LCD-40 data protection.   |
| #M9200V21  | 2.1       | Adds sensitivity (detector data) printout. Remove AC voltmeter reading.   |
| #M9200V22  | 2.2       | Change Alarm Verification Confirmation to 60 seconds. Disable Reset button during Silence Inhibit time. Silence Inhibit Timer is not restarted with subsequent alarms. Display message if Silence button is pressed during Silence Inhibit. |
| #M9200V23  | 2.3       | Update for new microprocessor.  |