

## Installing Firmware EPROMS for SX-9120-81xx

### Kit Includes

- One EPROM program chip.
- Installation instructions.
- Keyboard label (to be applied if the module to be upgraded is code SX-9100).

### Equipment Needed

- Clean work surface (preferably anti-static surface).
- Anti-static wrist strap.
- Small flat blade screwdriver.
- Small Phillips screwdriver.
- Earth ground connection.
- Firmware EPROM (kit code is SX-9120-891x).
- Special pliers for IC chip removal.

### Installation

#### Before You Begin from



**CAUTION:** The upgrade Kit can only be used on instrument SX-91xx-81xx. You must be earth grounded via a wrist strap to protect the SX damage due to Electro Static Discharge (ESD). Do not touch the electrical components or circuit paths. After the board is removed, place it on an anti-static work surface, or cover your work surface with a grounded anti-static bag.

power

1. Turn off the power to the module and disconnect it in case it is connected to supply or Communication Bus.

loosen

2. Place the SX on a flat anti-static work surface. From the back of the module screws A (see Figure 1) and open the instrument separating the two halves (see Figure 2).

3. Remove the Display Board by pulling it up firmly (see Figure 2).

4. The EPROM is located on Mother Board indicated by "IC3", near connector indicated by "J3" (see Figure 3). Note the direction of the notch at one end of the EPROM. The notch faces toward the outside of the Mother Board.

- 5.a) If you have the special pliers for IC chip removal proceed as follows:  
Grip the EPROM chip using the special pliers and pull up.

- 5.b) If you do not have the special pliers for IC chip removal, using a small flat blade screwdriver proceed as follows:

Slide the tip of the flat blade screwdriver between the socket and the EPROM (not between the socket and Mother Board). Slowly push the screwdriver the EPROM. This pries the EPROM out of the socket. Do not lift up screwdriver as this bends the pins on the EPROM.

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6. Remove the new EPROM from its plastic case. Handle the chip by the ends only: **DO NOT TOUCH THE PINS**. Note the orientation of the notch on one end of the EPROM.

- Install the new EPROM into the socket with the notch pointing toward the outside of the Mother Board (see Figure 3). Prior to pushing the EPROM

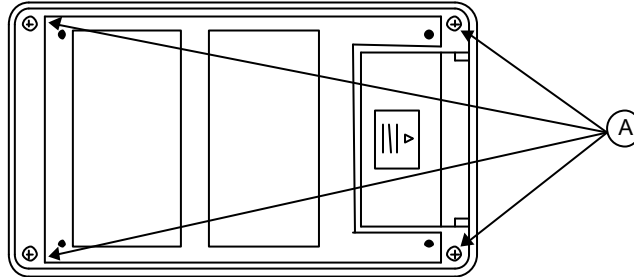
into the socket, be

sure that all of the pins are aligned with the cups in the socket. Once all pins are aligned, firmly and evenly press the EPROM into the socket.

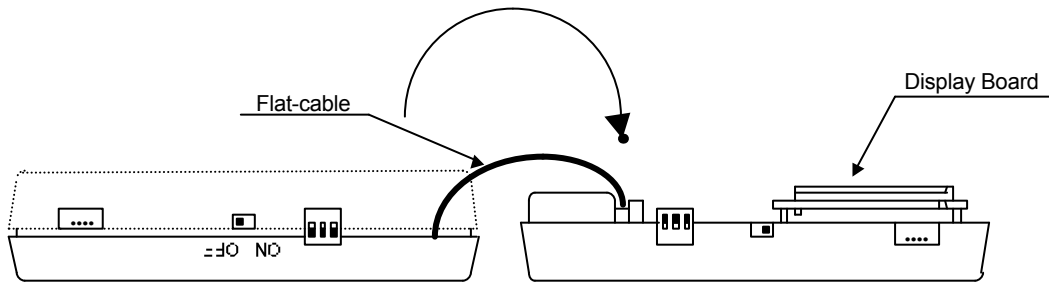
- Reposition the Display Board into the connector indicated by "J3" (see Figure 3). Prior to pushing the Display Board into the connector, be sure that all of the pins aligned with the cups in the connector. Once all pins are aligned, firmly and evenly press the Display Board into the connector (see Figure 3).

are

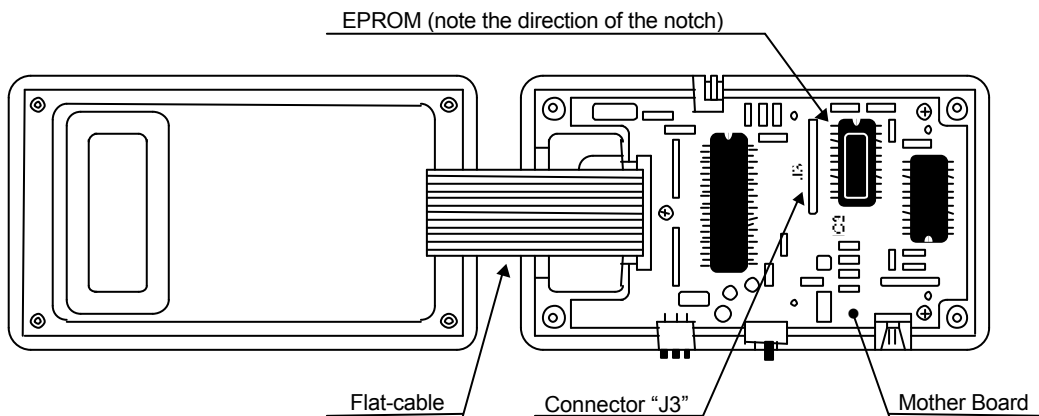
- Close the SX making sure that the Flat-cable is in correct position and tighten screws A (see Figure 4 and Figure 1).



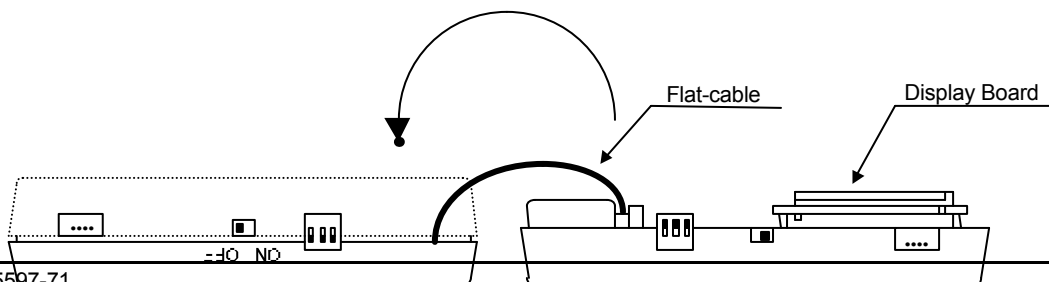
**Figure 1: Holding screws as viewed from back of module**



**Figure 2: Open the SX controller by separating the two halves**



**Figure 3: EPROM location**



**Figure 4: Close the SX module by joining the two**