

## REPLACING AN MPU (MICROPROCESSOR) PCB

1. Verify the jumper configuration of the new MPU PCB to ensure that it is ready for use. It should be set up as follows:

- JP1** - The center pin jumpered to A or B
- JP2** - Jumpered
- JP3** - Jumpered according to the starting address that is written on the ROM  
A000 - Jumper across top pins  
9000 - Jumper across bottom pins  
8000 - Jumper across top and bottom pins  
7000 - All jumpers removed
- JP4** - Jumpered according to the starting address that is written on the ROM  
A000, 9000, or 8000 - Across top and center pins  
7000 - Across center and bottom pins
- JP5** - No jumper
- JP6** - Jumpered
- JP7** - Jumpered
- JP8** - Jumper top pins together (IR0 and PF)
- JP9** - No Jumper
- JP10** - Select desired baud rate for port 1.\*
- JP11** - Select desired baud rate for port 2.\*
- JP13\*\*** - No jumper

\* Selected baud rates must match the baud rate of the attached terminal, computer, or modem.

\*\* Not available on all MPU PCB's.

Depending on your PCB revision, you will have either a K1 or JP14 jumper patch. Set these jumpers as shown below according to the version of software you have:

| Rev. K                                       | Rev. L or M         |
|--|---------------------|
| Jumpers found on piggy-back mag register PCB |                     |
| Versions 1-2                                 | Versions 1-2        |
| Versions 3-6                                 | Versions 3-6        |
| Version 7 or higher                          | Version 7 or higher |

**CAUTION:** Use extreme care in setting the jumpers. Incorrect configuration of JP3 and JP4 jumpers can corrupt memory causing fueling transactions to be lost.

2. Remove the ROM chip from the socket labeled U21 of the inoperable MPU and install it in the U21 socket of the new MPU PCB. Be sure to install the ROM so that the end of the chip which is notched is positioned upward (towards the buzzer).
3. Remove the RAM chip from the socket labeled U23 of the inoperable MPU and install it in the U23 socket of the new MPU PCB. Be sure to install the RAM so the end of the RAM which has a small recessed circle in the top corner is positioned facing upward (towards the buzzer).
4. Some versions of software require an additional RAM chip in the U22 socket. Check if this MPU PCB has a RAM chip in the U22 socket which is the same size and shape as the RAM extracted from the U23 socket. If it does, remove the RAM chip from the U22 socket of the inoperable MPU and install it in the U22 socket of the new MPU PCB. Be sure to install the RAM so the end of the RAM which has a small recessed circle in the top corner is positioned facing upward (towards the buzzer).

**IMPORTANT:** If the MPU PCB contains the additional RAM chip in the U22 socket, it is important to remember that although it appears to be identical to the RAM chip in the U23 socket, they are different. The RAM chip marked DS1235Y, DS1230Y or bq4011 YMA-150 goes in the U23 socket and the RAM chip marked DS1225Y or bq4010 YMA-150 goes in the U22 socket.

5. Disconnect all cables from the MPU PCB. There will be 8-10 cables depending on system options. If the system is equipped with an Auxiliary Communications Port PCB (only with receipt printer option or tank monitor interface option) remove it from the MPU PCB at this time.
6. Remove all screws and optional standoffs, which secure the MPU PCB. Remove the MPU PCB from the Series 1000.
7. Install the new MPU PCB and secure it in place with the previously removed screws and optional standoffs.
8. If the system is equipped with an optional Auxiliary Communications Port PCB, reinstall it at this time. Reconnect all cables (8-10) to the MPU PCB. See figure on back of this page for the proper location of each cable.

