

SHIFT REGISTER SELECTIONS ON THE SERIES 1000 MPU PCB

The Series 1000 MPU PCB contains a size selectable shift register which inputs the mag data received from a mag card. The variable selections of the shift register hardware change the maximum number of characters that may be accepted into the shift register per card read. There are several versions of Series 1000 software currently being used in the field. Each software version requires a specific shift register setting on the MPU PCB for optimum performance.

Determine which software version is used at the site by doing a **PR** command or read it off of the ROM label located in the IC socket marked U21. The software version on the ROM label appears in the format **Vx.x**. The number immediately following the V is the version number, for example, if the label shows V8.1, you have version 8 software, revision level 1. Use the chart on the right to determine the shift register size for your specific version of software.

Software	Shift Register
Versions 1-2	32
Versions 3-6	48
Versions 7 or higher	64

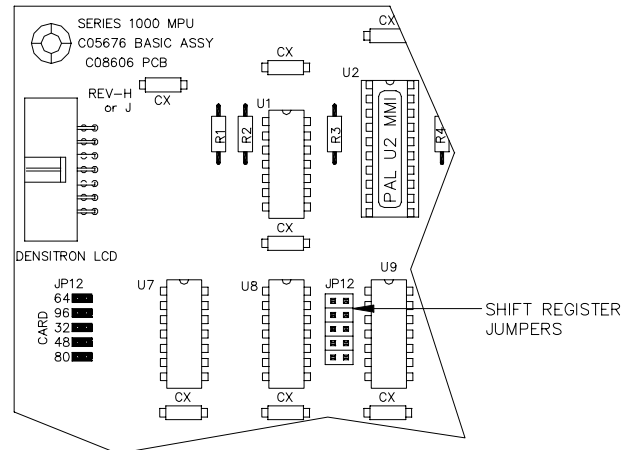
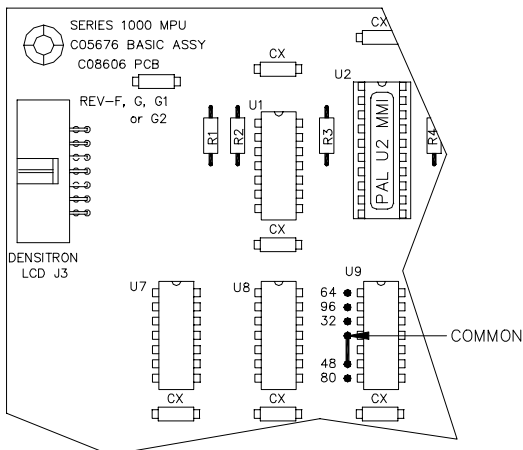
Next you need to determine the revision level for the MPU PCB. There is a revision level located in the upper left corner of the Series 1000 MPU PCB. The revision level is represented by a letter which is silkscreened or handwritten with black indelible marker. An MPU with a handwritten revision level indicates the board was modified to include new hardware updates. **Important: If you have a Series 1000 MPU PCB with revision level of E or lower, send it back for exchange with a Rev. G2 or higher MPU PCB.**

If the Series 1000 MPU PCB is Rev. F, G, G1, or G2, the shift register is set to 48 through a trace of the artwork or a jumper wire. This MPU PCB is instantly compatible with software versions 3-6.

If the Series 1000 MPU PCB is Rev. H or J, a shift register jumper patch allows the shift register size to be easily selectable. This MPU PCB is quickly compatible with all software versions.

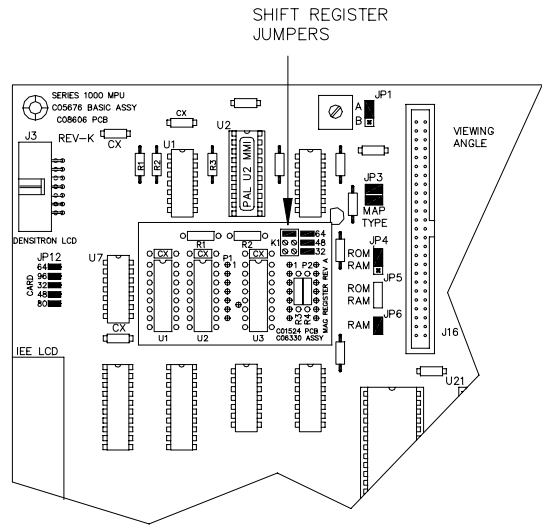
The figure below shows a MPU PCB configured for a 48 shift register. When a shift register of 32 or 64 is required, the connection between Common and 48 must be cut. If the connection is through an artwork trace, use an X-acto knife to cut open the trace. Use an ohmmeter to verify the trace has been opened. If the connection is through a wire jumper, simply desolder the side attached to 48. Make the new shift register connection by soldering a jumper wire between Common and 32 or Common and 64.

The figure below shows the location of the shift register jumpers (JP12). To the left of the jumpers is a silkscreen indicating which jumper position corresponds to each shift register size. For example, a jumper across the top two pins of the shift register jumpers will give a shift register size of 64. Simply place the 2 position jumper on the pins which correspond to the desired shift register size.



If the Series 1000 MPU PCB is Rev. K, a shift register jumper patch allows the shift register size to be easily selectable. This MPU PCB is quickly compatible with all software versions.

The figure at the right shows the location of the shift register jumpers (K1). To the right of the jumpers is a silkscreen indicating which jumper position corresponds to each shift register size. For example, a jumper across the top two pins of the shift register jumpers will give a shift register size of 64. Simply place the 2 position jumper on the pins which correspond to the desired shift register size.



If the Series 1000 MPU PCB is Rev. L or M, a shift register jumper patch allows the shift register size to be easily selectable. This MPU PCB is quickly compatible with all software versions.

The figure at the right shows the location of the shift register jumpers (JP14). Alongside the jumpers is a silkscreen indicating which jumper position corresponds to each shift register size. For example, a jumper across the top two pins of the shift register jumpers will give a shift register size of 64. Simply place the 2 position jumper on the pins which correspond to the desired shift register size.

