SUNRISE MICRO SOLUTIONS PTY. LTD.

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TECHNICAL BULLETIN

To all users of Sunrise credit boards.

Sunrise Credit Boards incorporate a Motorola microcontroller IC. Motorola have migrated the MC68705R3P microcontroller IC to the new MC68HC705SR3P, and production of the MC68705R3P has ceased. New credit boards now contain only the new SR3 controller.
The new boards are identified by reference to the Model/ Batch code label on the microcontroller IC. The label for boards using the new IC is marked "SR3".

Functional Differences.
All aspects of operation of the credit board are the same for the new version, except for the 12 volt load current. The standby load current with the R3 is 115 mA, with the SR3 the load current is 25mA.

Circuit Differences.
1. The oscillator resistor , previously 15K, has been changed to 100K for the SR3. If it is ever necessary to fit a board with a replacement microcontroller IC, also change the resistor if it is not the appropriate value. If the wrong resistor is used for the SR3 part, all timed functions, (coin meter, flashing, etc) will run noticeably faster.
2. The LVI (low voltage inhibit) feature was previously controlled by the 3 terminal IC fitted fitted between the 556 timer IC and the 47mf capacitor. As the SR3 IC incorporates an internal LVI circuit, the external LVI part may be omitted on SR3 boards.

To upgrade an old style board to take the new SR3 processor the only change required is to replace the 15K ohm resistor with a 100k resistor.

100k resistor (brown-black-yellow)

NOTCH

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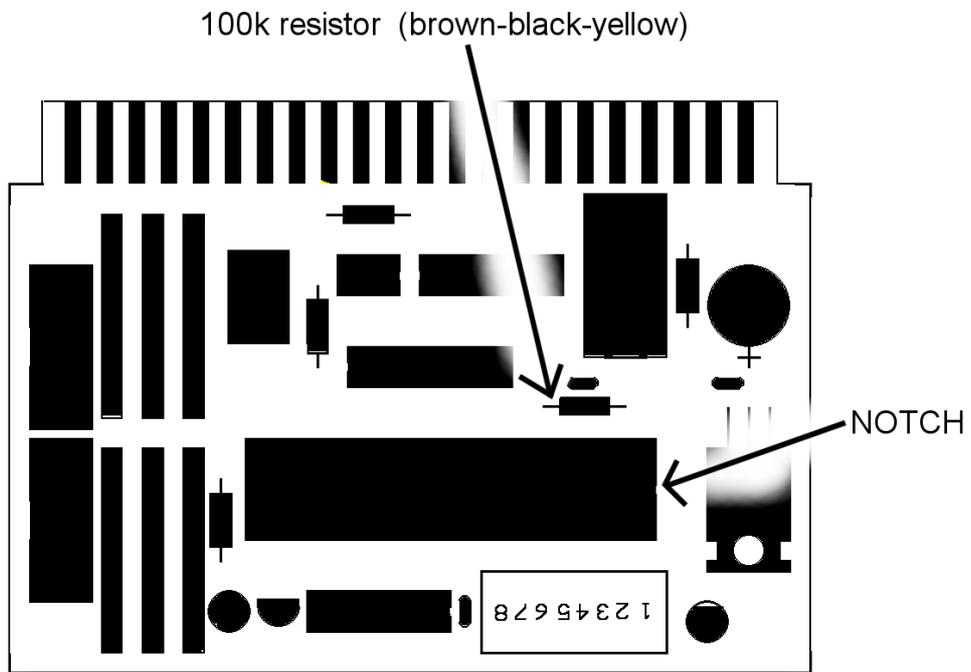
For any further information, please contact Nigel Giles at the above address.