

## Errata

- Clearing Lockbits at High  $V_{CC}$  or Temperature
- Wrong Clearing of XTRF in MCUSR
- Reset During EEPROM Write
- Verifying EEPROM in System
- Serial Programming at Voltages below 3.0 Volts
- Missing External Clock Option

### 6. Clearing Lockbits at High $V_{CC}$ or Temperature

If the temperature is too high, and/or the programming voltage is too high, the clearing of lockbits might fail.

#### Problem Fix/Workaround

Keep  $V_{CC}$  below 5.0 volts at room temperature when performing a chip erase.

### 5. Wrong Clearing of XTRF in MCUSR

The XTRF flag in MCUSR will be cleared when clearing the PORF flag. The flag does not get cleared by writing a "0" to it.

#### Problem Fix/Workaround

Finish the test of both flags before clearing any of them. Clear both flags simultaneously by writing 0 to both PORF and XTRF in MCUSR.

### 4. Reset During EEPROM Write

If reset is activated during EEPROM write the result is not what should be expected. The EEPROM write cycle completes as normal, but the address registers are reset to 0. The result is that both the address written and address 0 in the EEPROM can be corrupted.

#### Problem Fix/Workaround

Avoid using address 0 for storage, unless you can guarantee that you will not get a reset during EEPROM write.

### 3. Verifying EEPROM in System

EEPROM verify in In-System Programming mode cannot operate with maximum clock frequency. This is independent of the SPI clock frequency.

#### Problem Fix/Workaround

Reduce the clock speed, or avoid using the EEPROM verify feature.

### 2. Serial Programming at Voltages below 3.0 Volts

At voltages below 3.0 volts, serial programming might fail.

#### Problem Fix/Workaround

Keep  $V_{CC}$  at 3.0 volts or higher during in-system programming.

### 1. Missing external clock option

Early revisions of the ATtiny22L datasheet showed an external clock option and two different speed grades. This information was incorrect as ATtiny22L has internal oscillator only.

#### Problem Fix/Workaround

If external oscillator is required, use the 100% pin- and code-compatible AT90S/LS2343 which has external clock option only.



**8-bit AVR<sup>®</sup>**  
**Microcontroller**  
**with 2K bytes of**  
**In-System**  
**Programmable**  
**Flash**

**ATtiny22L**  
**Rev. G**  
**Errata Sheet**

Rev. 1601A-02/00





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1601A-02/00/xM