This Errata Sheet is applicable to the following devices:

- AT89S51
- AT89S52

The following are known problems with Rev. D of the AT89S51/AT89S52 E.S. (Engineering Sample) devices:

1. **Serial (In-System) Programming**
   In the Serial Programming mode, there is a need for over-programming in the byte mode (up to 10 times per byte); page mode is not functional.

2. **In the Serial Programming mode**
   Activating the lock bits does not prevent MOVC from reading out internal code memory bytes.
   **Problem Fix/Workaround**
   The user should activate lock bits via the parallel programming method.

3. **V_{OH} Levels do not Meet the Current Datasheet Specifications**
   For an I_{OH} level of 60 µA, the V_{OH} level falls below the minimum spec of 2.4V.

These problems will be corrected in production versions of the devices.
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