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## Appendix A

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### The 65C02 Microprocessor

This appendix contains a description of the differences between the 6502 and the 65C02 microprocessors. It also contains the data sheet for the 65C02 microprocessor.

The 6502 microprocessor was used in the original Apple IIe, Apple II Plus, and Apple II. The 65C02 is a 6502 that uses less power and has ten new instructions and two new addressing modes. The 65C02 is used in the enhanced and extended keyboard Apple IIe's, as well as in the Apple IIc.

In the data sheet tables, execution times are specified in number of cycles. One cycle time for the Apple IIe equals 0.978 microseconds, giving a system clock rate of about 1.02 MHz.

❖ *Note:* If you want to write programs that execute on all computers in the Apple II series, use only those 65C02 instructions that are also present on the 6502.

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### Differences between 6502 and 65C02

The data sheet lists the instructions and addressing modes of the 65C02. This section supplements that information by listing those instructions whose execution times or results differ in the 6502 and the 65C02.