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## CHAPTER 15

### ADVANCED M68HC12 HARDWARE

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#### OBJECTIVES

In this chapter we finish our discussions of the M68HC12 by filling in some of the gaps left in previous chapters.

- 15.1 M68HC12 Clock Generators
  - Basic Clock Generators
  - MC68HC812A4 Sysclk Generator
  - MC68HC912B32 Sysclk Generator
  - Other System Clocks
  - Phase-locked Loop
  - External Clock Oscillator
- 15.2 Hardware Mode Select
  - Normal Operating Modes
  - Special Operating Modes
- 15.3 Expanded Mode Port E Emulation
- 15.4 Miscellaneous Registers
- 15.5 Power Saving Modes
  - Using a Slow Clock
  - Using the WAI and STOP Instructions
  - Disabling Unneeded Circuits
- 15.6 Bibliography and Further Reading