ISM Errata

The following errors have been found in I. Scott MacKenzie, *The 8051 Microcontroller*, 3rd edition. Use at your own risk. No claim is made for the accuracy of this list which is solely the result of local sources and not the product of the book's author.

Chapter 1

none found

Chapter 2

p 18 - Figure 2-1, P1 and P2 are reversed. P2 is part of the address bus, not P1.
p 25 - The bit numbering for P2 in the SFR diagram is wrong. It should be A7 A6 A5 A4 A3 A2 A1 A0.
p 27 - R5 is at 1DH, not 1CH
p 43 - Problem 11: what 1-byte -> what 2-byte and following 2-byte -> following 3-byte.
p 45 - Problem 36: 08FSH should be a hex number like 08F8H.

Chapter 3

p 50 - Encoding for MOV P1,A is F5 90, not 89 as the author states. See App C p 270.
p 72 - The discussion for Example 3-24 uses ACALL instead of AJMP. Change the five instances of ACALL to AJMP. ACALL wouldn't even work in this case. (why?)
p 73 - The result for Example 3-25 should be (3BH) = 07H and (3CH) = 02H since PCL is pushed first then PCH. The example shows these reversed.
p 76 - Problem 2e, XLR should be XRL
p 77 - Problem 20, the value of symbol NOTZED is 0200H.

Chapter 4

p86 - Line 13. TFI should be TF1.
p88 - Example 4-1, TMOD is located at 89H, not 88H.

Chapter 5

p 99 - para -2, 'programmed to cause an interupt' is not consistent with Table 5.1 and probably not good practice. While setting (say) TI will cause an interupt, it's probably not a good idea to program this way. TI is a status bit that is set by hardware (and causes an interrupt) and must be cleared by software when the UART is serviced.
p 100 - #01010010B should be #50H for reasons stated above. No need to set TI. Write the first character to SBUF and TI will take care of itself.

Chapter 6

p 121 - example 6-1, last line, the PCH and PCL are reversed. An interrupt pushes the low byte of PC first and the high byte last, so PCL would be stored in 08H and PCH
in 09H.
p 122 - line 10, 256 ms should be 256 us (microseconds).
p 124 - line 0033, comment should read 1200 baud reload value, not 12000.
p 126 - line 0037, comment should read 'turn furnace ON' not 'OFF'.
p 128 - line 003A, comment should read 20x50000 not 20'5000.

Chapter 7

Chapter 8

Chapter 9

Chapter 10

p 210 - R2 is 8k ohm, not 8k2.
p 212 - The 0.1uF cap is more properly called a *decoupling capacitor* rather than a filter cap.

Appendix A

Appendix B

p 246 - Instruction 92H is MOV bit,C and not MOV C,bit.

Appendix C

p 268 - JMP addr16 should be LJMP addr16. The generic JMP is allowed by the assembler but the actual long jump mnemonic is ljmp, not jmp.
p 270 - The encoding for "MOV Rn, direct" should read "10101rrr aaaaaaaa" rather than "10101rrr"
p 275 - The operation description of MUL is wrong. It should be A<= low(A*B); B<= high(A*B). See the 8051 programmer's reference manual or try it on dscope.
p 277 - The operation of ORL direct,A should be (direct)<=(direct) OR A. The extra two 0's are meaningless.
p 280 - The RET operation should be (pc15-pc8) <= ((SP)) not pc1.
p 281 - The RLC A example's result should be 8AH, not 8BH since the carry is initially zero.
p 285 - Opcode for XCH A,Rn should be 11001rrr.

Appendix D

Appendix E

p298 - Appendix D should be replaced with Appendix E. This error occurs through page 310.
p299 - Special Function Registers should be replaced with 8051 Data Sheet. Error occurs through page 311.