68HC12 Microcontroller: Theory and Applications

Errata Sheet, Last revised: Oct 11, 2007 Contact steveb@uwyo.edu

Note: To determine printing number, find the ISBN number opposite page iii. Above the ISBN are the numbers 10 9 8... The last number in the series indicates the printing number.

1st Edition, 1st Printing (2nd - 4th printing on following page)

_	1" Edition, 1" Printing (2nd - 4th printing on followin			
Location	Error	Submitted by		
Pg 2	Change "1823" to "1642"	J. Hamman, Univ of Wyoming		
Pg 9, line 11	Remove the word "is"	K. Habib, University of Western Ontario, London,		
		Ontario, Canada		
Pg 10, sect 1.4.2, line 2	Change "consists" to "consisting"	S. Barrett, Univ of Wyoming		
Pg 18, H flag discussion, line 2	Add "(a)" after Figure 2.2	S. Robinson, Colorado State University		
C flag discussion	Change "17" to "23"	J. Hamman, Univ of Wyoming		
Pg 22, Figure 2.3	Change opcode in location \$4000 from (\$86) to (\$B6)	J. Hamman, Univ of Wyoming		
On pg 24, the first instruction under	MOVB should be "moves a byte of memory from location a to location b"	D. Pack, U.S. Air Force Academy, CO		
the example heading.	instead of moves the contents of accumulator B.	D. Fack, U.S. All Poice Academy, CO		
		T II		
Pg 27, Rotate and Shift	Change "\$5F" to "\$6F"	J. Hamman, Univ of Wyoming		
Pg 33, Practice Questions	Change "\$43" to "\$41"	T. Kubler, U.S. Air Force Academy, CO		
Pg 34, EMACS instruction description	Remove "a" before "four"	T. Kubler, U.S. Air Force Academy, CO		
Pg 53, para 2.5.6	Change "BNE" to "BEQ" in example	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 69, Advanced #2	Change: "BHE" to "BGE", "BHT" to "BHS", "BNZ" to "BNE"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		
Pg 73, line 16	Change "LDAA" to "STAA" and "A" to "10"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 74, code example	Change "\$1,X" to "\$0,X" and "\$2,X" to "\$1,X"	K. Habib, University of Western Ontario, London,		
	Change corresponding opcodes "A601" to "A600" and "E602" to "E601"	Ontario, Canada		
Pg 75, code example, lines 10, 11	Change "NUM-ONE" and "NUM-TWO" to "NUM_ONE" and "NUM_TWO"	J. Davies, University of Glasgow, Glasgow, UK		
Pg 77, 2nd code example	Change "ADAB" to "ADDB"	S. Barrett, Univ of Wyoming		
Pg 78, last line	Change "\$7FFF" to "\$8000"	B. Mullins, U.S. Air Force Academy, CO		
Pg 92, main()	Change "porgram" to "program"	S. Barrett, Univ of Wyoming		
Pg 93, LDX command	Change "\$FF16" to "\$FE16" (3 places),	H. Valenta, Biomedical Research Associates, Aurora		
1 g 93, LDA command	Change "\$FF17" to "\$FE17"	CO		
Pg 97, second paragraph	Delete "a" before "formatted"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 98, code example, line 3	Insert "item" between ":" and "<%u>"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		
Pg 98, code example	Insert "LEAS 4, SP" right after "JSR 0,X" (cleans up stack – note two PSHD commands)	B. Mullins, U.S. Air Force Academy, CO		
Pg 103, 2nd paragraph	Change "\$C200" to "\$4200" and "\$C100" to "4100"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 137, line 2	Change "\$20" to "\$08"	T. Pornthanomwong, Oakland Univ, MI		
Pg 140, Fig 4.13 and para 1, line 4	Change "56" to "51"	X. Kovah, University of Minnesota		
Pg 147, second to last paragraph, last sentence	Change "fuzzification" to "defuzzification"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 153, Line 26	\$0A \$00 should be \$0A	D. Pack, USAF Academy, CO		
Page 154 Line 97:	O_R_VW,O_L_WE,MARKER,O_ZR,ENDR	D. Pack, USAF Academy, CO D. Pack, USAF Academy, CO		
	should be O_R_VW,O_L_VW,MARKER,O_ZR,ENDR			
Pg 161, Figure 4.20	Change "\$7B" to "\$80"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 163, Section 4.7, Line 19	Insert "truth" between "membership" and "values"	K. Habib, University of Western Ontario, London,		
15 100, Beetlon 1.7, Eme 17	most dad octroca memoriship and values	Ontario, Canada		
Pg 168, line 3	Insert "or head" after "tail"	S. Koskie, Indiana University – Purdue University		
		Indianapolis (IUPUI), IN		
Pg 169, last sentence before Practice Questions	Change "Section" to "Figure"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 179, example code	Exchange address of DDRC and PORTC, DDRC: "\$0006", PORTC: "\$0004"	T. Pornthanomwong, Oakland Univ, MI		
Pg 185, Fig 5.9	CCR Mask Column, change "1 bit" to "I bit",	S. Barrett, Univ of Wyoming		
Pg 215, Fig. 6.7	Change "ADIE" to "ASCIE", Change "TCn" references to "CnI", Change	D. Mares, Univ of Wyoming		
1 g 215, 11g. 0.7	"PAII" to "PAI"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		
D 200 (*)		I DIGUADADOUS CIUPUD. UN		
	Character #70F2 (a.t. 11) V #2740			
Pg 222, first question	Change answer to: \$78E3 (return address), X: \$3610	J. Peng, Western Kentucky University		
Pg 227, 2 nd code example	Change "#INTCR_IN" to "#INTCR_INI"	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming		
Pg 227, 2 nd code example Pg 229, Fig 6.14	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming		
Pg 227, 2 nd code example Pg 229, Fig 6.14 Pg 232, LDS command	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming		
Pg 227, 2 nd code example Pg 229, Fig 6.14	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming		
Pg 227, 2 nd code example Pg 229, Fig 6.14 Pg 232, LDS command Pg 233, code listing	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after "BNE NOT_YET"	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming D. Pack, U.S. Air Force Academy, CO L. Bertrand, Durham College, Oshawa, Ontario, Canada		
Pg 227, 2 nd code example Pg 229, Fig 6.14 Pg 232, LDS command Pg 233, code listing Pg 244, Section 7.4, line 3	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after "BNE NOT_YET" Change "Source" to "System"	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming D. Pack, U.S. Air Force Academy, CO L. Bertrand, Durham College, Oshawa, Ontario,		
Pg 227, 2 nd code example Pg 229, Fig 6.14 Pg 232, LDS command Pg 233, code listing Pg 244, Section 7.4, line 3 Line 11,	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after "BNE NOT_YET" Change "Source" to "System" Change "he" to "the"	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming D. Pack, U.S. Air Force Academy, CO L. Bertrand, Durham College, Oshawa, Ontario, Canada C. Straley, Univ of Wyoming		
Pg 227, 2 nd code example Pg 229, Fig 6.14 Pg 232, LDS command Pg 233, code listing Pg 244, Section 7.4, line 3 Line 11, Para 7.4	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after "BNE NOT_YET" Change "Source" to "System" Change "he" to "the" Change references from "CLK2" to "CLK0"	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming D. Pack, U.S. Air Force Academy, CO L. Bertrand, Durham College, Oshawa, Ontario, Canada C. Straley, Univ of Wyoming L. Mecham, Univ of Wyoming		
Pg 227, 2 nd code example Pg 229, Fig 6.14 Pg 232, LDS command Pg 233, code listing Pg 244, Section 7.4, line 3 Line 11,	Change "#INTCR_IN" to "#INTCR_INI" Add (RTIFLG) after register name Insert "#" before \$7FFF Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after "BNE NOT_YET" Change "Source" to "System" Change "he" to "the"	J. Peng, Western Kentucky University C. Straley, Univ of Wyoming S. Barrett, Univ of Wyoming D. Pack, U.S. Air Force Academy, CO L. Bertrand, Durham College, Oshawa, Ontario, Canada C. Straley, Univ of Wyoming		

IOCHMASK line			
Pg 265, Fig. 7.27	The TCTL3 diagram was inserted instead of TCTL4.	Derek Thurmes, Univ Of Minnesota	
	- Change "3" to "4" and "TCTL3" to "TCTL4"	·	
	- Change "\$008A" to "\$008B"		
	- Change register bit values to EDG3B EDG3AEDG0B EDG0A		
Pg 273, second to last line	Change "TSCR_IN" to "TSCR"	S. Koskie, Indiana University – Purdue University	
		Indianapolis (IUPUI), IN	
Pg 274, Subroutine example	Change second WTFLG to WTFLG1	S. Barrett, Univ of Wyoming	
Pg 275	Move the DONE label up to the second BSR command	S. Barrett, Univ of Wyoming	
Pg 314, Fig 8.12	In the expression for the write enable signal a "!" is missing before "R"	F. Bowen, Indiana University – Purdue University	
		Indianapolis (IUPUI), IN	
Pg 331, definition for I _{IL}	Change "output" to "input"	B. Mullins, U.S. Air Force Academy, CO	
Pg 371, line 3	Move ",' from before "modes" to after "modes"	C. Straley, Univ of Wyoming	
Pg 376, Second "Answer:"	The CD bit should be set to "0" resulting in an ATDCTL5 value of 0111_0000	Fan Yang	
	or \$70	University of Mississippi	
Pg 391, problem 4, 11	Change second V _{RH} to V _{RL}	C. Straley, Univ of Wyoming	
Pg 396, Figure 10.4	Intersection of row 1 and column 2 should be "!"	S. Barrett, Univ of Wyoming	
	Answer 1: Change "\$21" to "\$31"	B. Mullins, U.S. Air Force Academy, CO	
	Answer 2: Change "\$A1" to "\$31"	B. Mullins, U.S. Air Force Academy, CO	
Pg 397, Answer 2.	Clarification. Add (75 ms including frame bits)	K. Meah, Univ of Wyoming	
Pg 400, line 2	Change "two stop bits" to "a stop bit"	K. Meah, Univ of Wyoming	
Pg 412, TPA command	Remove #\$80 after TPA command	C. Straley, Univ of Wyoming	
Pg 424, Figure 10.27	Incorrect diagram for SPI Status Register – see diagram below	B. Mullins, U.S. Air Force Academy, CO	
Pg 436, Advanced 2	Line 2, remove word "with", put quotes around 68HC12	R. Heil, Univ of Wyoming	
Pg. 473	Change binary representation of –114 to "1000_1110"	T. Anderson, Univ of Wyoming	

1st Edition, 2nd – 4th Printing

	1 Euluon, 2nd – 4th Frinting			
Location	Error	Submitted by		
Pg 9, line 11	Remove the word "is"	K. Habib, University of Western Ontario, London,		
		Ontario, Canada		
Pg 18, H flag discussion, line 2	Add "(a)" after Figure 2.2	S. Robinson, Colorado State University		
Pg 22, line 3	No Figure number provided, change "??" to "2.3"	E. Nix, University of Alabama, Tuscaloosa, Al		
Pg 23, line 1	Remove duplicate line of text	E. Nix, University of Alabama, Tuscaloosa, Al		
Pg 27, line 6 from bottom of page	No Figure number provided, change "??" to "2.4"	E. Nix, University of Alabama, Tuscaloosa, Al		
Pg 33, Practice Questions	Change "\$43" to "\$41"	T. Kubler, U.S. Air Force Academy, CO		
Pg 53, para 2.5.6	Change "BNE" to "BEQ" in example	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 69, Advanced #2	Change: "BHE" to "BGE", "BHT" to "BHS", "BNZ" to "BNE"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		
Pg 73, line 16	Change "LDAA" to "STAA" and "A" to "10"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 74, code example	Change "\$1,X" to "\$0,X" and "\$2,X" to "\$1,X" Change corresponding opcodes "A601" to "A600" and "E602" to "E601"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 75, code example, lines 10, 11	Change "NUM-ONE" and "NUM-TWO" to "NUM_ONE" and "NUM_TWO"	J. Davies, University of Glasgow, Glasgow, UK		
Pg 97, second paragraph	Delete "a" before "formatted"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 98, code example, line 3	Insert "item" between ":" and "<%u>"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		
Pg 103, 2nd paragraph	Change "\$C200" to "\$4200" and "\$C100" to "4100"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 140, Fig 4.13 and para 1, line 4	Change "56" to "51"	X. Kovah, University of Minnesota		
Pg 153, Line 26	\$0A \$00 should be \$0A	D. Pack, USAF Academy, CO		
Page 154 Line 97:	O_R_VW,O_L_WE,MARKER,O_ZR,ENDR should be O_R_VW,O_L_VW,MARKER,O_ZR,ENDR	D. Pack, USAF Academy, CO		
Pg 161, Figure 4.20	Change "\$7B" to "\$80"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 163, Section 4.7, Line 19	Insert "truth" between "membership" and "values"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 168, line 3	Insert "or head" after "tail"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		
Pg 169, last sentence before Practice Questions	Change "Section" to "Figure"	K. Habib, University of Western Ontario, London, Ontario, Canada		
Pg 185, Fig 5.9 Pg 215, Fig. 6.7	CCR Mask Column, change "1 bit" to "I bit", Change "ADIE" to "ASCIE", Change "TCn" references to "CnI", Change "PAII" to "PAI"	S. Barrett, Univ of Wyoming D. Mares, Univ of Wyoming S. Koskie, Indiana University – Purdue University		
		Indianapolis (IUPUI), IN		
Pg 222, first question	Change answer to: \$78E3 (return address), X: \$3610	J. Peng, Western Kentucky University		
Pg 232, LDS command	Insert "#" before \$7FFF	D. Pack, U.S. Air Force Academy, CO		
Pg 233, code listing	Delete: "CPD #FIFTEEN" Add: "LDX #FIFTEEN ;if zeroed, initialize counter" after "BNE NOT_YET"	L. Bertrand, Durham College, Oshawa, Ontario, Canada		
Pg 244, Section 7.4, line 3 Line 11.	Change "Source" to "System" Change "he" to "the"	C. Straley, Univ of Wyoming		
Para 7.4	Change references from "CLK2" to "CLK0"	L. Mecham, Univ of Wyoming		
Pg. 251, Section 7.6.1, line 2	Insert "milli" before seconds	S. Mawhorter, Univ of Wyoming		
Pg 273, second to last line	Change "TSCR_IN" to "TSCR"	S. Koskie, Indiana University – Purdue University Indianapolis (IUPUI), IN		

		Indianapolis (IUPUI), IN
Pg 331, definition for I _{IL}	Change "output" to "input"	B. Mullins, U.S. Air Force Academy, CO
Pg 376, Second "Answer:"	The CD bit should be set to "0" resulting in an ATDCTL5 value of	Fan Yang
	0111_0000 or \$70	University of Mississippi
Pg 396, Figure 10.4	Intersection of row 0 and column 2 should be "SP"	P. Patil, Univ of Wyoming
Pg 397, Answer 2.	Clarification. Add (75 ms including frame bits)	K. Meah, Univ of Wyoming
Pg 400, line 2	Change "two stop bits" to "a stop bit"	K. Meah, Univ of Wyoming
Pg 424, Figure 10.27	Incorrect diagram for SPI Status Register – see diagram below	B. Mullins, U.S. Air Force Academy, CO
Pg. 473	Change binary representation of –114 to "1000_1110"	T. Anderson, Univ of Wyoming

Register SPI Status Register (SPOSR) Address SOODS							
7			+	3	2	1	0
SPIF	WCOL	٥	MODF	٥	٥	٥	٥
F.edet 0	0	٥	0	٥	٥	٥	٥