

PIC16F87X

REGISTER 12-1: CONFIGURATION WORD (ADDRESS 2007h)⁽¹⁾

CP1	CP0	DEBUG	—	WRT	CPD	LVP	BODEN	CP1	CP0	$\overline{\text{PWRT}}\text{E}$	WDTE	F0SC1	F0SC0
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bit13

bit0

- bit 13-12, bit 5-4 **CP1:CP0:** FLASH Program Memory Code Protection bits⁽²⁾
 11 = Code protection off
 10 = 1F00h to 1FFFh code protected (PIC16F877, 876)
 10 = 0F00h to 0FFFh code protected (PIC16F874, 873)
 01 = 1000h to 1FFFh code protected (PIC16F877, 876)
 01 = 0800h to 0FFFh code protected (PIC16F874, 873)
 00 = 0000h to 1FFFh code protected (PIC16F877, 876)
 00 = 0000h to 0FFFh code protected (PIC16F874, 873)
- bit 11 **DEBUG:** In-Circuit Debugger Mode
 1 = In-Circuit Debugger disabled, RB6 and RB7 are general purpose I/O pins
 0 = In-Circuit Debugger enabled, RB6 and RB7 are dedicated to the debugger.
- bit 10 **Unimplemented:** Read as '1'
- bit 9 **WRT:** FLASH Program Memory Write Enable
 1 = Unprotected program memory may be written to by EECON control
 0 = Unprotected program memory may not be written to by EECON control
- bit 8 **CPD:** Data EE Memory Code Protection
 1 = Code protection off
 0 = Data EEPROM memory code protected
- bit 7 **LVP:** Low Voltage In-Circuit Serial Programming Enable bit
 1 = RB3/PGM pin has PGM function, low voltage programming enabled
 0 = RB3 is digital I/O, HV on $\overline{\text{MCLR}}$ must be used for programming
- bit 6 **BODEN:** Brown-out Reset Enable bit⁽³⁾
 1 = BOR enabled
 0 = BOR disabled
- bit 3 **$\overline{\text{PWRT}}\text{E}$:** Power-up Timer Enable bit⁽³⁾
 1 = PWRT disabled
 0 = PWRT enabled
- bit 2 **WDTE:** Watchdog Timer Enable bit
 1 = WDT enabled
 0 = WDT disabled
- bit 1-0 **F0SC1:F0SC0:** Oscillator Selection bits
 11 = RC oscillator
 10 = HS oscillator
 01 = XT oscillator
 00 = LP oscillator

- Note 1:** The erased (unprogrammed) value of the configuration word is 3FFFh.
2: All of the CP1:CP0 pairs have to be given the same value to enable the code protection scheme listed.
3: Enabling Brown-out Reset automatically enables Power-up Timer (PWRT), regardless of the value of bit $\overline{\text{PWRT}}\text{E}$. Ensure the Power-up Timer is enabled any time Brown-out Reset is enabled.