

PIC16F882/883/884/886/887

2.2.2.3 INTCON Register

The INTCON register, shown in Register 2-3, is a readable and writable register, which contains the various enable and flag bits for TMR0 register overflow, PORTB change and external INT pin interrupts.

Note: Interrupt flag bits are set when an interrupt condition occurs, regardless of the state of its corresponding enable bit or the Global Enable bit, GIE of the INTCON register. User software should ensure the appropriate interrupt flag bits are clear prior to enabling an interrupt.

REGISTER 2-3: INTCON: INTERRUPT CONTROL REGISTER

R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-0	R/W-x
GIE	PEIE	TOIE	INTE	RBIE ⁽¹⁾	T0IF ⁽²⁾	INTF	RBIF
bit 7							bit 0

Legend:

R = Readable bit	W = Writable bit	U = Unimplemented bit, read as '0'
-n = Value at POR	'1' = Bit is set	'0' = Bit is cleared
		x = Bit is unknown

- bit 7 **GIE:** Global Interrupt Enable bit
1 = Enables all unmasked interrupts
0 = Disables all interrupts
- bit 6 **PEIE:** Peripheral Interrupt Enable bit
1 = Enables all unmasked peripheral interrupts
0 = Disables all peripheral interrupts
- bit 5 **TOIE:** Timer0 Overflow Interrupt Enable bit
1 = Enables the Timer0 interrupt
0 = Disables the Timer0 interrupt
- bit 4 **INTE:** INT External Interrupt Enable bit
1 = Enables the INT external interrupt
0 = Disables the INT external interrupt
- bit 3 **RBIE:** PORTB Change Interrupt Enable bit⁽¹⁾
1 = Enables the PORTB change interrupt
0 = Disables the PORTB change interrupt
- bit 2 **T0IF:** Timer0 Overflow Interrupt Flag bit⁽²⁾
1 = TMR0 register has overflowed (must be cleared in software)
0 = TMR0 register did not overflow
- bit 1 **INTF:** INT External Interrupt Flag bit
1 = The INT external interrupt occurred (must be cleared in software)
0 = The INT external interrupt did not occur
- bit 0 **RBIF:** PORTB Change Interrupt Flag bit
1 = When at least one of the PORTB general purpose I/O pins changed state (must be cleared in software)
0 = None of the PORTB general purpose I/O pins have changed state

Note 1: IOCB register must also be enabled.

Note 2: T0IF bit is set when Timer0 rolls over. Timer0 is unchanged on Reset and should be initialized before clearing T0IF bit.