

**RETFIE****Return from Interrupt**

**Syntax:** `[label] RETFIE [s]`

**Operands:**  $s \in [0,1]$

**Operation:** (TOS)  $\rightarrow$  PC,  
 $1 \rightarrow$  GIE/GIEH or PEIE/GIEL,  
 if  $s = 1$   
 (WS)  $\rightarrow$  W,  
 (STATUS)  $\rightarrow$  STATUS,  
 (BSRS)  $\rightarrow$  BSR,  
 PCLATU, PCLATH are unchanged.

**Status Affected:** GIE/GIEH, PEIE/GIEL.

**Encoding:**

0000	0000	0001	000s
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**Description:** Return from Interrupt. Stack is popped and Top-of-Stack (TOS) is loaded into the PC. Interrupts are enabled by setting either the high or low priority global interrupt enable bit. If 's' = 1, the contents of the shadow registers WS, STATUS and BSRS are loaded into their corresponding registers, W, STATUS and BSR. If 's' = 0, no update of these registers occurs (default).

**Words:** 1

**Cycles:** 2

**Q Cycle Activity:**

Q1	Q2	Q3	Q4
Decode	No operation	No operation	pop PC from stack Set GIEH or GIEL
No operation	No operation	No operation	No operation

Example: RETFIE 1

After Interrupt

PC	=	TOS
W	=	WS
BSR	=	BSRS
STATUS	=	STATUSS
GIE/GIEH, PEIE/GIEL	=	1

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