| Mnemonic | Operands | Description | Words | Cycles | Status bits affected |
| :---: | :---: | :---: | :---: | :---: | :---: |
| mov7w | k | Move literal value to WREG | 1 | 1 | - |
| movwf | f(, BANKED) | Move WREG to f | 1 | 1 | - |
| movff | $\mathrm{f}_{\mathrm{S}}, \mathrm{f}_{\mathrm{D}}$ | Move $\mathrm{f}_{\mathrm{S}}$ to $\mathrm{f}_{\mathrm{D}}$ (both with full 12-bit addresses) | 2 | 2 | - |
| movf | f, F/W(, BANKED) | Move $f$ to F or WREG | 1 | 1 | Z, N |
|  |  |  |  |  |  |
| 1 fsr | i, k | Load FSRi with full 12-bit address, where i $=0$ to 2 | 2 | 2 | - |
| c1rf | f(, BANKED) | Clear f | 1 | 1 | Z |
| setf | f(, BANKED) | 0xff $\rightarrow$ f | 1 | 1 | - |
| mov1b | k | Move literal value to BSR<3:0> , where $\mathrm{k}=0$ to 15 , to set the bank for direct addressing | 1 | 1 | - |
| swapf | f, F/W (, BANKED) | Swap nibbles of f, putting result in F or WREG | 1 | 1 | - |
|  |  |  |  |  |  |
| bcf | f, b(, BANKED) | Clear bit b of register f , where $\mathrm{b}=0$ to 7 | 1 | 1 | - |
| bsf | f, b(, BANKED) | Set bit b of register f, where b $=0$ to 7 | 1 | 1 | - |
| btg | f, b(, BANKED) | Toggle bit b of register f , where $\mathrm{b}=0$ to 7 | 1 | 1 | - |
|  |  |  |  |  |  |
| r1cf | f, F/W (, BANKED) | Copy f into F or WREG; rotate F or WREG left through carry bit (9-bit rotate left) | 1 | 1 | C, N, Z |
| rlncf | f, F/W (, BANKED) | Copy f into F or WREG; rotate F or WREG left without carry bit (8-bit rotate left) | 1 | 1 | N, Z |
| rrcf | $\mathrm{f}, \mathrm{F} / \mathrm{W}(, \mathrm{BANKED})$ | Copy f into F or WREG; rotate F or WREG right through carry bit (9-bit rotate right) | 1 | 1 | C, N, Z |
| rrncf | f, F/W (, BANKED) | Copy f into F or WREG; rotate F or WREG right without carry bit (8-bit rotate right) | 1 | 1 | N, Z |
|  |  |  |  |  |  |
| incf | f, F/W (, BANKED) | Increment $f$, putting result in F or WREG | 1 | 1 | C, DC, Z, OV, N |
| decf | f, F/W (, BANKED) | Decrement f , putting result in F or WREG | 1 | 1 | C, DC, Z, OV, N |
| comf | f, F/W (, BANKED) | Complement f , putting result in F or WREG | 1 | 1 | Z, N |
| negf | f(, BANKED) | Change sign of a twos-complement-coded number | 1 | 1 | C, DC, Z, OV, N |
|  |  |  |  |  |  |
| and 1w | k | AND literal value into WREG | 1 | 1 | Z, N |
| andwf | f, F/W(, BANKED) | AND WREG with f, putting result in F or WREG | 1 | 1 | Z, N |
| iorlw | k | Inclusive-OR literal value into WREG | 1 | 1 | Z, N |
| iorwf | f, F/W (, BANKED) | Inclusive-OR WREG with f , putting result in F or WREG | 1 | 1 | Z, N |
| xorlw | k | Exclusive-OR literal value into WREG | 1 | 1 | Z, N |
| xorwf | f, F/W (, BANKED) | Exclusive-OR WREG with f, putting result in F or WREG | 1 | 1 | Z, N |
|  |  |  |  |  |  |
| add7w | k | Add literal value into WREG | 1 | 1 | C, DC, Z, OV, N |
| addwf | f, F/W (, BANKED) | Add WREG and f , putting result in F or WREG | 1 | 1 | C, DC, Z, OV, N |
| addwfc | f, F/W (, BANKED) | Add WREG and $f$ and carry bit, putting result in F or WREG | 1 | 1 | C, DC, Z, OV, N |
| daw |  | Decimal adjust sum of two packed BCD digits to correct packed BCD result in WREG | 1 | 1 | C |
| sub7w | k | Subtract WREG from literal value, putting result in WREG | 1 | 1 | C, DC, Z, OV, N |
| subwf | f, F/W (, BANKED) | Subtract WREG from f , putting result in f or WREG | 1 | 1 | C, DC, Z, OV, N |
| subwfb | f, F/W (, BANKED) | Subtract WREG and borrow bit from f, putting result in F or WREG | 1 | 1 | C, DC, Z, OV, N |
| subfwb | f, F/W (, BANKED) | Subtract f and borrow bit from WREG, putting result in F or WREG | 1 | 1 | C, DC, Z, OV, N |
| mu17w | k | Multiply WREG with literal value, putting result in PRODH : PRODL (WREG remains unchanged) | 1 | 1 | - |
| mu7wf | f(, BANKED) | Multiply WREG with f, putting result in PRODH : PRODL (WREG and f remain unchanged) | 1 | 1 | - |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| btfsc | f, b(, BANKED) | Test bit b of register f , where $\mathrm{b}=0$ to 7 ; skip if clear | 1 | 1/2 | - |
| btfss | $\mathrm{f}, \mathrm{b}(, \mathrm{BANKED})$ | Test bit b of register f , where $\mathrm{b}=0$ to 7; skip if set | 1 | 1/2 | - |
|  |  |  |  |  |  |


| Mnemonic | Operands | Description | Words | Cycles | Status bits affected |
| :---: | :---: | :---: | :---: | :---: | :---: |
| bra | 1abe1 | Branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 2 | - |
| goto | 1abe1 | Go to labeled instruction (anywhere) | 2 | 2 | - |
| bc | 7abe1 | If carry ( $\mathrm{C}=1$ ), then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bnc | 1abe 1 | If no carry ( $\mathrm{C}=0$ ), then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bz | 7abe1 | If zero ( $Z=1$ ), then branch to labeled intruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bnz | 1 abe1 | If not zero ( $\mathrm{Z}=0$, then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bn | 1abe1 | If negative ( $\mathrm{N}=1$ ), then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bnn | 7abe1 | If not negative ( $\mathrm{N}=0$ ), then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bov | 1abe1 | If overflow ( $\mathrm{OV}=1$ ), then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
| bnov | 7abe1 | If no overflow ( $\mathrm{OV}=0$ ), then branch to labeled instruction (within $\pm 64$ one-word instructions) | 1 | 1/2 | - |
|  |  |  |  |  |  |
| cpfseq | f(, BANKED) | Skip if $f$ is equal to WREG | 1 | 1/2 | - |
| cpfsgt | f(, BANKED) | Skip if f is greater than WREG (unsigned compare) | 1 | 1/2 | - |
| cpfs7t | f(, BANKED) | Skip if f is less than WREG (unsigned compare) | 1 | 1/2 | - |
|  |  |  |  |  |  |
| tstfsz | f(, BANKED) | Test f; skip if zero | 1 | 1/2 | - |
| decfsz | f, F/W (, BANKED) | Decrement f, putting result in F or WREG; skip if zero | 1 | 1/2 | - |
| dcfsnz | f, F/W (, BANKED) | Decrement f, putting result in F or WREG; skip if not zero | 1 | 1/2 | - |
| incfsz | f, F/W (, BANKED) | Increment f , putting result in F or WREG; skip if zero | 1 | 1/2 | - |
| infsnz | f, F/W (, BANKED) | Increment f , putting result in F or WREG; skip if not zero | 1 | 1/2 | - |
|  |  |  |  |  |  |
| rcal1 | 7abe1 | Call labeled subroutine (within $\pm 512$ one-word instructions) | 1 | 2 | - |
| cal1 | 1abe1 | Call labeled subroutine (anywhere) | 2 | 2 | - |
| ca11 | 1abe1, FAST | Call labeled subroutine (anywhere); copy state to shadow registers: (WREG) $\rightarrow$ WS, (STATUS) $\rightarrow$ STATUSS, (BSR) $\rightarrow$ BSRS | 2 | 2 | - |
| return |  | Return from subroutine | 1 | 2 | - |
| return | FAST | Return from subroutine; restore state from shadow registers: (WS) $\rightarrow$ WREG, (STATUSS) $\rightarrow$ STATUS, (BSRS) $\rightarrow$ BSR | 1 | 2 | C, DC, Z, OV, N |
| retlw | k | Return from subroutine, putting literal value in WREG | 1 | 2 | - |
|  |  |  |  |  |  |
| retfie |  | Return from interrupt; reenable interrupts | 1 | 2 | - |
| retfie | FAST | Return from interrupt; restore state from shadow registers: (WS) $\rightarrow$ WREG, (STATUSS) $\rightarrow$ STATUS, (BSRS) $\rightarrow$ BSR; reenable interrupts | 1 | 2 | C, DC, Z, OV, N |
|  |  |  |  |  |  |
| push |  | Push address of next instruction onto stack | 1 | 1 | - |
| pop |  | Discard address on top of stack | 1 | 1 | - |
| cl rwdt |  | Clear watchdog timer | 1 | 1 | - |
| sleep |  | Go into standby mode | 1 | 1 | - |
| reset |  | Software reset to same state as is achieved with the MCLR input | 1 | 1 | C, DC, Z, OV, N |
| nop |  | No operation | 1 | 1 | - |
|  |  |  |  |  |  |
| tb1rd* |  | Read from program memory location pointed to by TBLPTR into TABLAT | 1 | 2 | - |
| tb1rd*+ |  | Read from program memory location pointed to by TBLPTR into TABLAT, then increment TBLPTR | 1 | 2 | - |
| tb1rd*- |  | Read from program memory location pointed to by TBLPTR into TABLAT, then decrement TBLPTR | 1 | 2 | - |
| tb1rd+* |  | Increment TBLPTR, then read from program memory location pointed to by TBLPTR into TABLAT | 1 | 2 | - |
|  |  |  |  |  |  |

