

| Memory Read & Write | | | |
|---|-------------|---|------------------------------|
| MOVWF | PORTA | memory write | w -> PORTA |
| MOVFF | PORTA PORTB | copy | PORTA -> PORTB |
| MOVF | PORTA,W | memory read | PORTA -> W |
| MOVLW | 123 | Move Literal to WREG | 123 -> W |
| Memory Clear, Negation | | | |
| CLRF | PORTA | clear memory | PORTA = 0 |
| COMF | PORTA, W | toggle bits | !PORTA -> W (bit toggle) |
| NEGF | PORTA, W | negate | -PORTA -> W (2's compliment) |
| Addition & Subtraction | | | |
| INCF | PORTA,F | increment | PORTA + 1 -> PORTA |
| ADDWF | PORTA, F | add | PORTA + W -> PORTA |
| ADDWFC | PORTA, W | add with carry | PORTA + W + carry -> W |
| ADDLW | | Add Literal and WREG | |
| DECF | PORTA,F | decrement | PORTA -1 -> PORTA |
| SUBFWB | PORTA,F | subtract with borrow | PORTA - W - c -> PORTA |
| SUBWF | PORTA,F | subtract no borrow | PORTA - W -> PORTA |
| SUBWFB | PORTA,F | subtract with borrow | PORTA - W - c -> PORTA |
| SUBLW | 223 | Subtract WREG from # | 223 - W -> W |
| Shift left (*2), shift right (/2) | | | |
| RLCF | PORTA,F | rotate left through carry (9-bit rotate) | |
| RLNCF | PORTA,F | rotate left no carry | |
| RRCF | PORTA,F | rotate right through carry | |
| RRNCF | PORTA,F | rotate right no carry | |
| Bit Operations | | | |
| BCF | PORTA, 3 | Bit Clear f | clear bit 3 of PORTA |
| BSF | PORTA, 4 | Bit Set f | set bit 4 of PORTA |
| BTG | PORTA, 2 | Bit Toggle f | toggle bit 2 of PORTA |
| Logical Operations | | | |
| ANDWF | PORTA, F | logical and | PORTA = PORTA and W |
| ANDLW | 0x23 | AND Literal with WREG | W = W and 0x23 |
| IORWF | PORTA,F | logical or | PORTA = PORTA or W |
| IORLW | 0x23 | Inclusive OR Literal | W = W or 0x23 |
| XORWF | PORTA,F | logical exclusive or | PORTA = PORTA xor W |
| XORLW | 0x23 | Exclusive OR Literal | W = W xor 0x23 |
| Tests (skip the next instruction if...) | | | |
| CPFSEQ | PORTA | Compare PORTA to W, skip if PORTA = W | |
| CPFSGT | PORTA | Compare PORTA to W, Skip if PORTA > W | |
| CPFSLT | PORTA | Compare PORTA to W, Skip if PORTA < W | |
| DECFSZ | PORTA,F | decrement, skip if zero | |
| DCFSNZ | PORTA,F | decrement, skip if not zero | |
| INCFSZ | PORTA,F | increment, skip if zero | |
| INFSNZ | PORTA,F | increment, skip if not zero | |
| BTFSC | PORTA, 5 | Bit Test f, Skip if Clear | |
| BTFSS | PORTA, 1 | Bit Test f, Skip if Set | |
| Flow Control | | | |
| GOTO | Label | Go to Address 1st word | |
| CALL | Label | Call Subroutine 1st word | |
| RETURN | | Return from Subroutine | |
| RETLW | 0x23 | Return with 0x23 in WREG | |
| RETFIE | | Return from Interrupt | |
| Other Stuff.... | | | |
| NOP | | No Operation | |
| MULLW | 5 | PRODH:PRODL = W * 5 (result is 16 bits stored in PRODH:PRODL) | |
| MULWF | PORTA | PRODH:PRODL = W * PORTA (result is 16 bits) | |
| TSTFSZ | PORTA | test, skip if zero | |