Section 9.4 DAC Output

-------- I2C subroutines:----------------- begin ------------------------

; The I2Cout subroutine transfers out three bytes: DEVADD, INTADD, and DATAOUT.
I2Cout
    call      Start                   ;generate START condition
    movf    DEVADD,W                  ;send peripheral address with R/W=0 (write)
    call    TX                        ;send peripheral's internal address
    movf    INTADD,W                  ;send peripheral's internal address
    call    TX                        ;send data to write to peripheral
    movf    DATAOUT,W                 ;send data to write to peripheral
    call    TX                        ;send data to write to peripheral
    call    Stop                      ;generate STOP condition
    return

; The I2Cin subroutine transfers out DEVADD (with R/W=0) and INTADD, restarts,
; transfers out DEVADD (with R/W=1) and reads one byte back into DATAIN.
I2Cin
    call      Start                   ;generate START condition
    movf    DEVADD,W                  ;send peripheral address with R/W=0 (write)
    call    TX                        ;send peripheral's internal address
    movf    INTADD,W                  ;send peripheral's internal address
    call    ReStart                   ;ReSTART
    movf    DEVADD,W                  ;send peripheral address
    incw    B'00000001'               ;with R/W=1 (read)
    call    TX                        ;read byte
    movwf    RX                        ;into DATAIN
    call    Stop                      ;generate STOP condition
    return

; The Start subroutine initializes the I2C bus and then generates the START
; condition on the I2C bus.
; The Restart entry point bypasses the initialization of the I2C bus.
Start
    movlw    B'00111011'              ;Enable I2C master mode
    movwf    SPPCON
    bcf    PORTC, SDA                  ;Drive SDA low when it is an output
    bcf    PORTC, SCL                  ;Drive SCL low when it is an output
    movlw    TRISC                     ;Set indirect pointer to TRISC

ReStart
    bcf    INDF, SDA                  ;Make sure SDA is high
    bcf    INDF, SCL                  ;Make sure SCL is high
    delay    0, 1, 2                   ;:T:START
    bcf    INDF, SDA                  ;:T:START
    bcf    INDF, SCL                  ;:T:START
    return

; The Stop subroutine generates the STOP condition on the I2C bus.
Stop
    bcf    INDF, SDA                  ;Return SDA low
    bcf    INDF, SCL                  ;Drive SCL high
    delay    0, 1, 2                   ;:T:STOP
    bcf    INDF, SDA                  ;and then drive SDA high
    return

Figure 9-9 I2C subroutines.

AX518 eight-pin DIP or an output voltage that
mV output increments, are sent to the chip:

puts to 0 V initially.
set, the MAX518 may
the MAX518 may
output's I2C address. With
AX518 chips to a PIC. 5 V and GND. The four
1.'