```
; The EPROM code will reside at 0H in RAM on the board with the diagnostic
; code above the basic hardware. RAM is at 800H-0FFFH
;
FALSE EQU   0
TRUE  EQU   NOT FALSE
;
LF    EQU   0AH
CR    EQU   0DH
BELL  EQU   07H
SPACE EQU   20H
TAB   EQU   09H         ;TAB ACROSS (8 SPACES FOR SD-BOARD)
;
;
OLD_BOARD   EQU   FALSE

STACK       EQU   0FFFH ;Stack at top or RAM
;
IF    OLD_BOARD
CONT$A            EQU   0F9H  ;CTRL port for output to Video board keyboard
input port
CONT$B            EQU   0FBH  ;CTRL port for IBM Keyboard input
CONT$C            EQU   0F5H  ;CTRL port for data port KEYCLEAR
CONT$D            EQU   0F7H  ;CTRL port for port KEYSTAT

KEYOUT            EQU   0F8H  ;Data port for output to Video board keyboard
input port
KEYIN       EQU   0FAH  ;Data port for IMB keyboard input
KEYCLEAR    EQU   0F4H  ;Pulsing bit 0 high clears 74LS161 Shift Regs
KEYSTAT           EQU   0F6H  ;Input bit 0 is zero if IBMPC Key char ready
                      ;to be read and translated
ELSE

CONT$A            EQU   0F5H  ;CTRL port for output to Video board keyboard
input port
CONT$B            EQU   0F7H  ;CTRL port for IBM Keyboard input
CONT$C            EQU   0F9H  ;CTRL port for data port KEYCLEAR
CONT$D            EQU   0FBH  ;CTRL port for port KEYSTAT

KEYOUT            EQU   0F4H  ;Data port for output to Video board keyboard
input port
KEYIN       EQU   0F6H  ;Data port for IMB keyboard input
KEYCLEAR    EQU   0F8H  ;Pulsing bit 0 high clears 74LS161 Shift Regs
KEYSTAT           EQU   0FAH  ;Input bit 0 is zero if IBMPC Key char ready
ENDIF
;
; Bit flags for PIO#2: Port Stat:-
;                 Bit 0  not used (used to clear 74LS161 shift regs)
;                 Bit 1  Strobe for data into Video board keyboard port
;                 Bit 2 = 1 if Upper Case Lock is ON
;                 Bit 3 = 1 if Shift key is currently HELD down
;                 Bit 4 - 1 if Ctrl key is currently HELD down
;                 Bit 5 = 1 if NUM LOCK is ON
;

      ORG   0H          ;The EPROM code will start here
;
```

```
      DI                ;Just in case
      LD    A,0FH       ;First setup the two Zilog PIO's
      OUT   (CONT$A),A  ;Mode 0 Output
      LD    A,03H
      OUT   (CONT$A),A

      LD    A,4FH       ;Mode 1 Input
      OUT   (CONT$B),A
      LD    A,03H
      OUT   (CONT$B),A

      LD    A,0FH       ;Mode 0 Output
      OUT   (CONT$C),A
      LD    A,03H
      OUT   (CONT$C),A

      LD    A,4FH       ;Mode 1 Input
      OUT   (CONT$D),A
      LD    A,03H
      OUT   (CONT$D),A

      IN    A,(KEYIN)         ;PIO Check
      LD    C,A
LOOP: LD    B,80H
LOOP2:      LD    A,0FFH
LOOP1:      DEC   A
      JP    NZ,LOOP1
      DJNZ  LOOP2
      LD    A,C
      OUT   (KEYOUT),A
      INC   C
      JP    LOOP

;
;END
```