

The XLCD libraries also require that the following functions be defined by the user to provide the appropriate delays:

**TABLE 3-4: XLCD DELAY FUNCTIONS**

Function	Behavior
DelayFor18TCY	Delay for 18 cycles.
DelayPORXLCD	Delay for 15 ms.
DelayXLCD	Delay for 5 ms.

## 3.2.1 Function Descriptions

### BusyXLCD

<b>Function:</b>	Is the LCD controller busy?
<b>Include:</b>	xlcd.h
<b>Prototype:</b>	unsigned char BusyXLCD( void );
<b>Remarks:</b>	This function returns the status of the busy flag of the Hitachi HD44780 LCD controller.
<b>Return Value:</b>	1 if the controller is busy 0 otherwise.
<b>File Name:</b>	busyxlcd.c
<b>Code Example:</b>	while( BusyXLCD() );

### OpenXLCD

<b>Function:</b>	Configure the PIC <sup>®</sup> I/O pins and initialize the LCD controller.
<b>Include:</b>	xlcd.h
<b>Prototype:</b>	void OpenXLCD( unsigned char <i>lcdtype</i> );
<b>Arguments:</b>	<b><i>lcdtype</i></b> A bitmask that is created by performing a bitwise AND operation ('&') with a value from each of the categories listed below. These values are defined in the file xlcd.h. <b>Data Interface:</b> FOUR_BIT           4-bit Data Interface mode EIGHT_BIT          8-bit Data Interface mode <b>LCD Configuration:</b> LINE_5X7           5x7 characters, single line display LINE_5X10          5x10 characters display LINES_5X7          5x7 characters, multiple line display
<b>Remarks:</b>	This function configures the PIC18 I/O pins used to control the Hitachi HD44780 LCD controller. It also initializes this controller.
<b>File Name:</b>	openxlcd.c
<b>Code Example:</b>	OpenXLCD( EIGHT_BIT & LINES_5X7 );

### putcXLCD

See WriteDataXLCD.