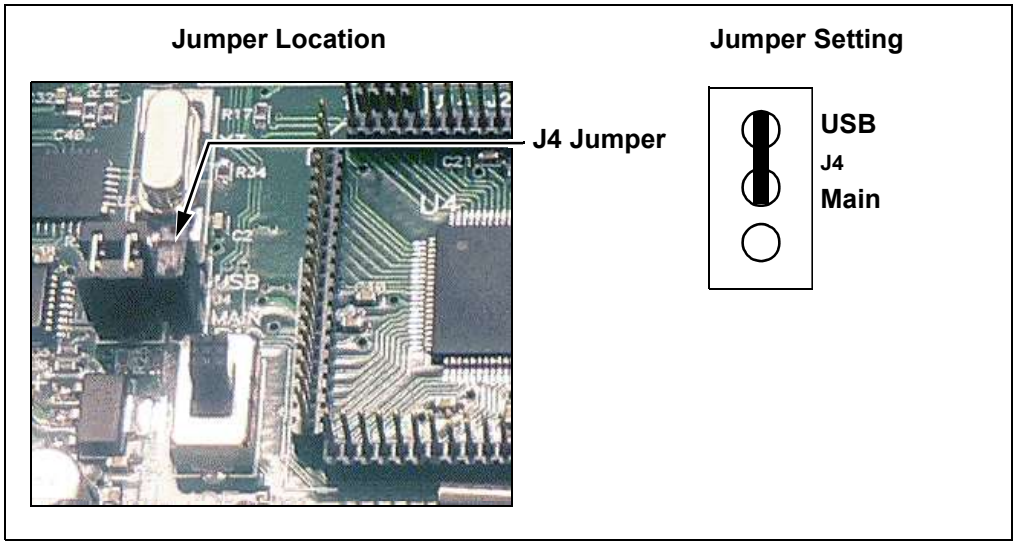
To program the PIC18LF2450 for RS-232 UART communication:

1. Launch the MPLAB IDE application and select *Configure>Select Device>18F2450*.
2. To start the programmer, select *Programmer>Select Programmer>ICD2*.
3. To open the Hex code file, select *File>Import>Open* and select `CD/Hex/RS232_USB_18F2450/Demo2450.hex`.
4. Connect the J4 jumper to **USB**, as shown in Figure 2-8.

FIGURE 2-8: J4 JUMPER AND 'USB' SETTING

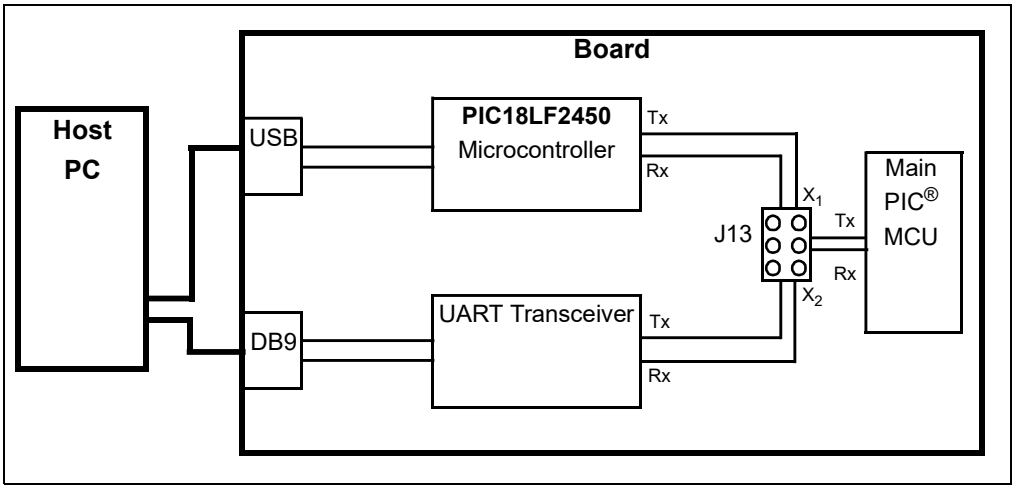


2.5 CONNECTING TO HOST PC FOR RS-232 COMMUNICATION

As shown in Figure 2-9, there are two ways to connect a PC to the PICDEM PIC18 Explorer Demonstration Board.

- Via the USB Port
- Via the DB9 Pin (RS-232 Port)

FIGURE 2-9: BOARD TO PC CONNECTION

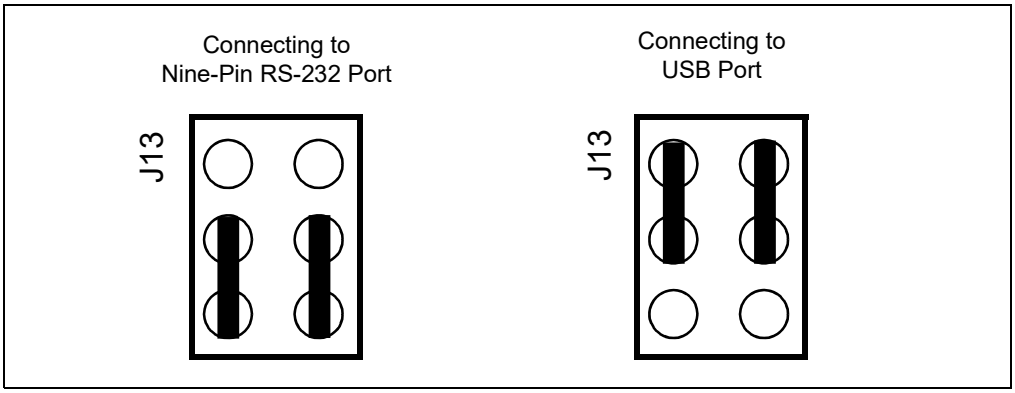


2.5.1 PC Connection Via DB9 Pin

To connect the PICDEM PIC18 Explorer Demonstration Board to a host PC via the nine-pin DB9 connector, set jumper J13, as shown in the first illustration in Figure 2-10.

This routes the main microcontroller's communications through a transceiver.

FIGURE 2-10: JUMPER J13 – SETTINGS FOR RS-232 OR USB



2.5.2 PC Connection Via USB Port

If the board PC communication is via the USB port, the data will be routed through the PIC18LF2450 mounted on the board, to convert the RS-232 communication to the USB protocol.

To connect the PICDEM PIC18 Explorer Demonstration Board to a host PC via the USB port:

1. Set jumper J13, as shown in the second illustration in Figure 2-10.
2. Install the required file on the host PC. (See the following procedure.)

If the USB port is used, an `*.inf` file must be installed on the host PC. To do this:

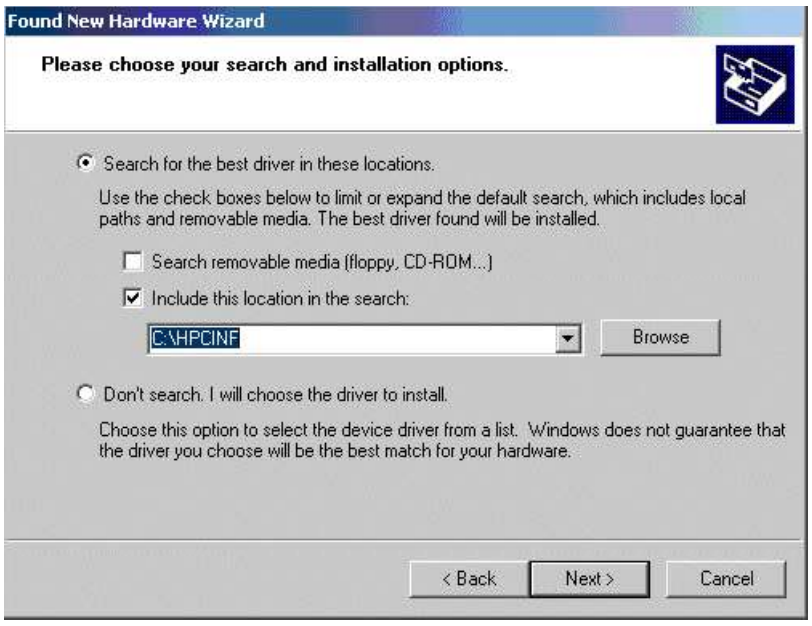
1. Create a folder named, `HPCINF`, anywhere on the host PC's hard drive.
2. Using the development kit's CD, copy the file, `mchpcdc.inf`, into that folder.
3. Connect the board to the PC and power up the board. The pop-up window, shown in Figure 2-11, appears.

Note: This procedure displays the dialog boxes that appear for the Windows® XP operating system.

FIGURE 2-11: INSTALLING USB `*.inf` FILE ON PC – SCREEN 1

4. Select the **Install from a list or specific location** option and click **Next**. The screen shown in Figure 2-12 appears.

FIGURE 2-12: INSTALLING USB `*.inf` FILE ON PC – SCREEN 2



5. Select the check box, **Include this location in the search**, enter the name of the path (created in Step 1) in the text box below and click **Next**. The screen shown in Figure 2-13 appears.

FIGURE 2-13: INSTALLING USB `*.inf` FILE ON PC – SCREEN 4

6. Press **Finish**. The RS-232 to USB functionality is ready to be used.