Universal Programming Module
AC162049 Instruction Sheet

The Universal Programming Module (UPM) is a handy, low-cost tool to support programming of FLASH-based microcontroller DIP packaged products from Microchip Technology using the MPLAB® ICD 2 In-Circuit Debugger. It can also be connected to the PICSTART® Plus, allowing programming of parts previously unsupported due to pin configuration issues.

Configuration of the Jumpers: There are seven jumpers (flying leads located at J3) that must be connected to the two 20-pin headers marked 1 through 40. These connect the power supply and needed programming lines. The configuration will vary based on the microcontroller device being programmed. For the proper jumper configuration for the microcontroller being used, please see the Readme files for MPLAB ICD 2 and PICSTART Plus, found in the MPLAB IDE installation directory.

*****WARNING *****
AN EXTERNAL 9V DC POWER SUPPLY (AC162039) MUST BE CONNECTED
TO THE MPLAB ICD 2 WHEN PROGRAMMING WITH THE UPM.

Loading/Programming Device: The ZIF socket will support 18-, 28- and 40-pin DIP packaged devices. Be sure power is removed prior to inserting the device into the ZIF socket. Also, the handle for the ZIF socket should be in the down position. The device should drop in with zero force. Insert the device so that the top is aligned with the top of the ZIF socket (i.e., pin 1 to pin 1). Once inserted, raise the handle on the socket 90 degrees to the full locked position.

*****WARNING *****
ZIF SOCKET HANDLE MUST BE IN THE UP (LOCKED) POSITION PRIOR TO
PROGRAMMING THE MICROCONTROLLER OR IT WILL NOT PROGRAM PROPERLY.

LED 1 - Led 1 will illuminate whenever programming activity occurs on the board.

Removing a Programmed Part: After MPLAB IDE acknowledges that programming is complete, remove power from the board and lower the arm (unlock) on the ZIF socket. The device should lift out without any resistance.

PICSTART Plus Use: In order to use the UPM on this programmer, you must purchase Samtec #TSW-120 series or equivalent and install (solder into place) two headers on the bottom of the UPM in the holes provided. Once installed, the UPM can be inserted into the 40-pin DIP socket on the programmer. The jumpers must then be configured per the instruction found in the Readme file for PICSTART Plus.