

Engineering Technical Note

MPLAB® PM3 ICSP MCLR/VPP Slew Rate Modification

Symptom: MPLAB PM3, Assy# 10-00359-R9 or below without ECO 2937, may cause excessive voltage overshoot in applications with a capacitive load that has not been isolated from the MCLR/VPP pin of the PICmicro being used in ICSP mode. Depending upon the size of the capacitive load, this overshoot could cause excessive part stress as well as damage in some cases.

Problem: The rise time of the MPLAB PM3 high voltage VPP driver into a capacitive load, causes the voltage at the target microcontroller's MCLR/VPP pin to exceed the maximum specified voltage.

Solution: A 100 Ohm series resistor may be placed between the MPLAB PM3 Device Programmer's ICSP port MCLR/VPP line and the target's MCLR/VPP line. See Figure 1 for details. If further problems exist, verify all programming signals meet the target microcontroller's programming specification.

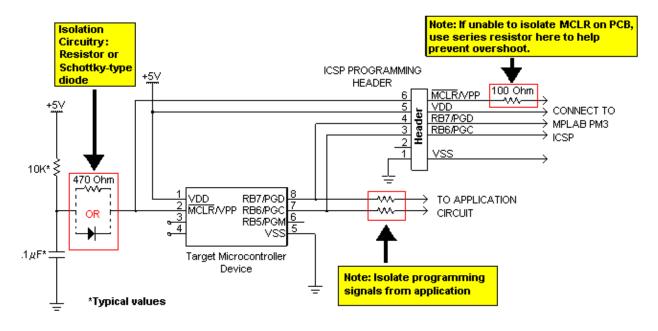


Figure 1