

How to reprogram a Toothpick using a PIC programmer

1. You will need a PIC programmer such as MPLAB ICD2 to program the Toothpick, and also the hex file we use to program the Toothpick in the factory. You can request this hex file by email if you have not already been sent it.
2. Connect the programmer to the Toothpick as follows:

<i>Pin name on Toothpick</i>	<i>Name in MicroChip's Terminology</i>
Vss	Vss
Vdd	Vdd
NMCLR	NMCLR
INT0/PGC	PGC
INT1/PGD	PGD

Ideally, Toothpick should be powered during programming rather than using power for the programmer.

3. Set the configuration bits as follows if you have Toothpick 1.0 or 2.0 (18LF6720 PIC):
 - Device PIC18F6720
 - HS oscillator configuration
 - Watchdog timer off
 - Watchdog timer postscaler 1:128
 - Power-up timer on
 - Oscillator switch enabled
 - CCP2 Mux RE7
 - Table Write Protect 00200-03FFF enabled
 - Table Write Protect 04000-07FFF enabled
 - Table Write Protect 08000-0BFFF enabled
 - Table Write Protect 00000-001FF (boot block) enabled
 - All other settings disabled

4. Set the configuration bits as follows if you have Toothpick 2.1 or higher (18LF6722 PIC):

- Device PIC18F6722
- HS oscillator configuration
- Watchdog timer off
- Power-up timer off
- Brownout voltage 2.0V
- Brownout detect on
- CCP2 Mux RE7
- Table Write Protect 00200-03FFF enabled
- Table Write Protect 04000-07FFF enabled
- Table Write Protect 08000-0BFFF enabled
- Table Write Protect 00000-001FF (boot block) enabled
- All other settings disabled

5. You should now be able to reprogram the toothpick.