

INSTALLING SOFTWARE AND PROGRAMMING CABLE

This document summarizes the procedure for re-programming the microcontroller (U21), which is explained in more detail in project B1 of your manual. The microcontroller can be re-programmed in ANY circuit that uses it, by attaching the programming cable to it. When you initiate a new program download, any program currently running in the microcontroller is interrupted. When a new program download is complete, the new program will begin running.

The programming cable is needed to download new programs to the microcontroller, and to allow some programs to transfer information to/from the computer's display. The programming cable may be removed from a circuit when not being used.

1. Insert the Snap Circuits® XP CD into your computer and run Setup to install the AXEpad for Snap Circuits® XP software. Note: the programming cable should NOT be connected during this installation. Contact Elenco® if you have problems with the installation.
2. Insert the Programming Cable into a USB port on your computer. The Programming Cable will automatically configure itself. If you have problems with configuration then contact Elenco®.
3. Build a circuit, and attach the programming cable to the microcontroller (U21); connect the orange snap of the cable to the S-In snap on U21, connect the black snap to GND, and connect the yellow snap to S-Out. Turn on the circuit.
4. Double-click the AXEpad for Snap Circuits® XP icon on your computer's desktop (unless you directed that it be installed somewhere else) to start the AXEpad for Snap Circuits® XP software.
5. Select **Open** in the software window and pick the program you want to download to the microcontroller. The program you chose will appear in the editor space.
6. Click **Program** in the software window to download your program to the microcontroller. This will interrupt and erase the program currently in the microcontroller. A window will open for the download process. A message tell you when the new program download is complete, and the new program will begin running.

Project B1 of your manual explains this procedure in greater detail, has instructions for Mac users, and has troubleshooting notes for common problems. Contact Elenco® if you need additional assistance.