

## JOY2PIC Flashing Information

### TKIINUC

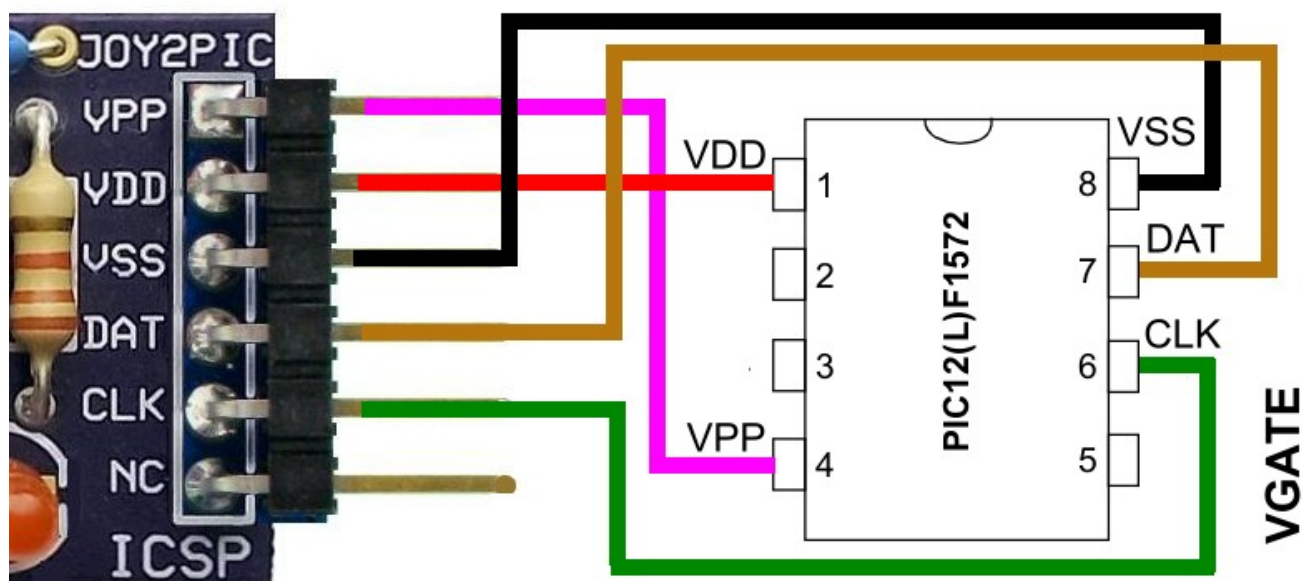
Use the 576NUC+'s ICSP Header J7 (labeled: TKPGM) for flashing the embedded PIC16F1847 processor in order to enable the TK-II PS/2 keyboard to function. It is a simple one-to-one connection from the JOY2PIC ICSP header over to the NUC J7 header with pin-1 being VPP.

Flashing with the JOY2PIC device requires that no power be applied to the 576NUC+ motherboard during this process, otherwise you'll get an error and the flashing process will abort.

In the autobooting ATR you'll find the JOY2PIC flashing TKPWR\_ON.COM file which is an earlier firmware version that has the normally active watchdog timer deactivated, thus making it very useful for troubleshooting a board that keeps shutting off due to some mistake or defect in the board assembly. It isn't meant to be used for the long term, and as soon as the problem is resolved, the firmware should be re-flashed to the latest version (TKNUCV20.COM).

### VGATE

The VGATE chip will require out of circuit flashing, which is easily done on the JOY2PIC-STIK by plugging the 8-pin PIC12F1572 chip into the ZIF socket, and then selecting the appropriate flashing file in the ATR. If you have the earlier JOY2PIC without the ZIF socket you will either need an adapter, or use individual jumpers to connect from the ICSP header over to the PIC (see image below).



*VGATE Direct ICSP Connection*