

## GTEK 7344 PAL Programming Notes

1. To burn a pal using the GTEK programmer, edit one of the existing **.JED** files (example shown below). The header contains some control characters needed by the programmer.
2. The header contains information on the chip model and manufacturer. The file below is for a TI 16L8 PAL, signified by **PAL16L8 M5** on the second line, and **\*MJ\*M5\*** on the sixth line.
3. Each line following the header corresponds to a line on the PAL design sheet. **L000** is line 0, **L0032** is line 1, and so on. Each output enable must be explicitly turned on by a line of ones. For the function lines, a zero is a connection and a one a blown fuse. Unused function lines do not need to be specified.
4. Once the file is complete, a PAL may be burned using the **PALX2** program on a computer set up with a programmer. Plug in the PAL programmer and set the T-switch boxes so that the RS-232 line is connected to the programmer. Enter **PALX2 FILENAME.JED** from the **PAL** directory. A lot of information will spill across the screen as your file is loaded into the programmer. The computer will then prompt **TIB20-16L8>** (for the TI 16L8 chip). Insert the PAL into the correct socket (20 pin PALs must go in the 20 pin socket). Type **P** and then type **Y** to burn the pal. The operation takes several seconds, and is complete when the busy light on the programmer goes out.

5. -----Sample file begins on the next line-----

*(hidden control characters)*

PAL16L8 M5            PAL DESIGN SPECIFICATION

MAE-412            Jane Doe            02/30/88

\*MJ\*M5\*G0\*F0\*

L0000 11111111111111111111111111111111\*

L0032 01111011111111111111111111111111\*

L0256 11111111111111111111111111111111\*

L0288 10111111011110111111111111111111\*

L0512 11111111111111111111111111111111\*

L0544 10011111111111111111111111111111\*

L0768 11111111111111111111111111111111\*

L0800 01111111111101111111011111111111\*

L1024 11111111111111111111111111111111\*

L1056 11111011111111111111111111111111\*

L1280 11111111111111111111111111111111\*

L1312 11111111111111101111111111111111\*

L1536 11111111111111111111111111111111\*

L1568 11111111011111111111111111111111\*