The following exercize can be used to demonstrate some of the
features of the Club CPU and Front Panel boards.

The Front Panel board has two numeric displays. The four digit
display indicates the address bus. The two digit display
monitors the data bus. The LED in the upper left corner of the
annunciator area indicates when the Z-80 is in the M1 or first
memory cycle of an instruction. The straight row of 8 LED's are
intended for use by application programs as are the row of 8
switches directly below them. The rightmost toggle switch on the
front panel is a three position switch. In the middle position,
the Z-80 is in the Halt mode. Push this switch down to single
step the processor. It will spring return to the middle
position. For normal, full speed operation put the switch in the
top (run) position. The switch immediately to the left of the
Run-Halt-Single-Step switch is the Reset switch.

Now look at the CPU board. In the upper right corner is a
"block" of 7 small slide switches. The switches 4 to 7 are used
to set the jump on start address. We will try this out shortly.

Assuming that your mother board and power supply are in working
order, the CPU can be plugged into the Front Panel (face up) or
into any slot on the mother board (facing the rear of the
computer). If you use the socket on the front panel, it is
suggested that a small block of wood be used to support the board
in a flat, level position.

Set the computer to Halt, and turn on the power. The address bus
should read 0000, and the data bus should read C3. "C3" is the
hexadecimal representation for the Z-80 instruction code for
jump. Single step the processor (one push down and release).
The address bus should now read 0001, showing that the Z-80 has
advanced the address. The data bus should read 00.

Single step the computer a second time. The address bus should
be 0002. The right half of the data bus will be 0. The left
half will be be anything from 0,1,2,3,4,5,6,7,8,9,A,B,C,D,E, or
F. The exact setting will depend on the start address set by the
switches on the CPU board. Change the switches, and the display
will change.

Set the address switches so that the display reads F0. Now
single step the computer again. The address bus will now be
F000. Congratulations! Your computer has just executed its first
instruction. It jumped from the Zilog defined start address of
0000 to the address you selected. The data bus will be FF unless
you have some other board plugged into your computer which
responds to address F000.

If you wish to repeat this with some of the 15 other addresses,
put the computer into halt mode. Single step it until the M1 LED
is on. Then push up on the RESET switch.

- Contact Barry Lewis (90) for thermistors and other inquiries about power supply parts.

- The club kit did not include some mounting hardware, fuses, wire.

- Paul Zander (5M) has a couple extra fuse sets available.

- Phil Grey (5V) is working on power supply instructions.

- Besides the CPU, it will take three or four more plug-in boards to have a workable system. In the interests of saving time, the hardware committee is looking at commercial boards and expects to soon have a recommendation based on features, price, and compatibility with the other boards. Something to consider: would you prefer to spend roughly $400 per board for "factory-tested" or roughly $100 per board and help load and test it as a club project?