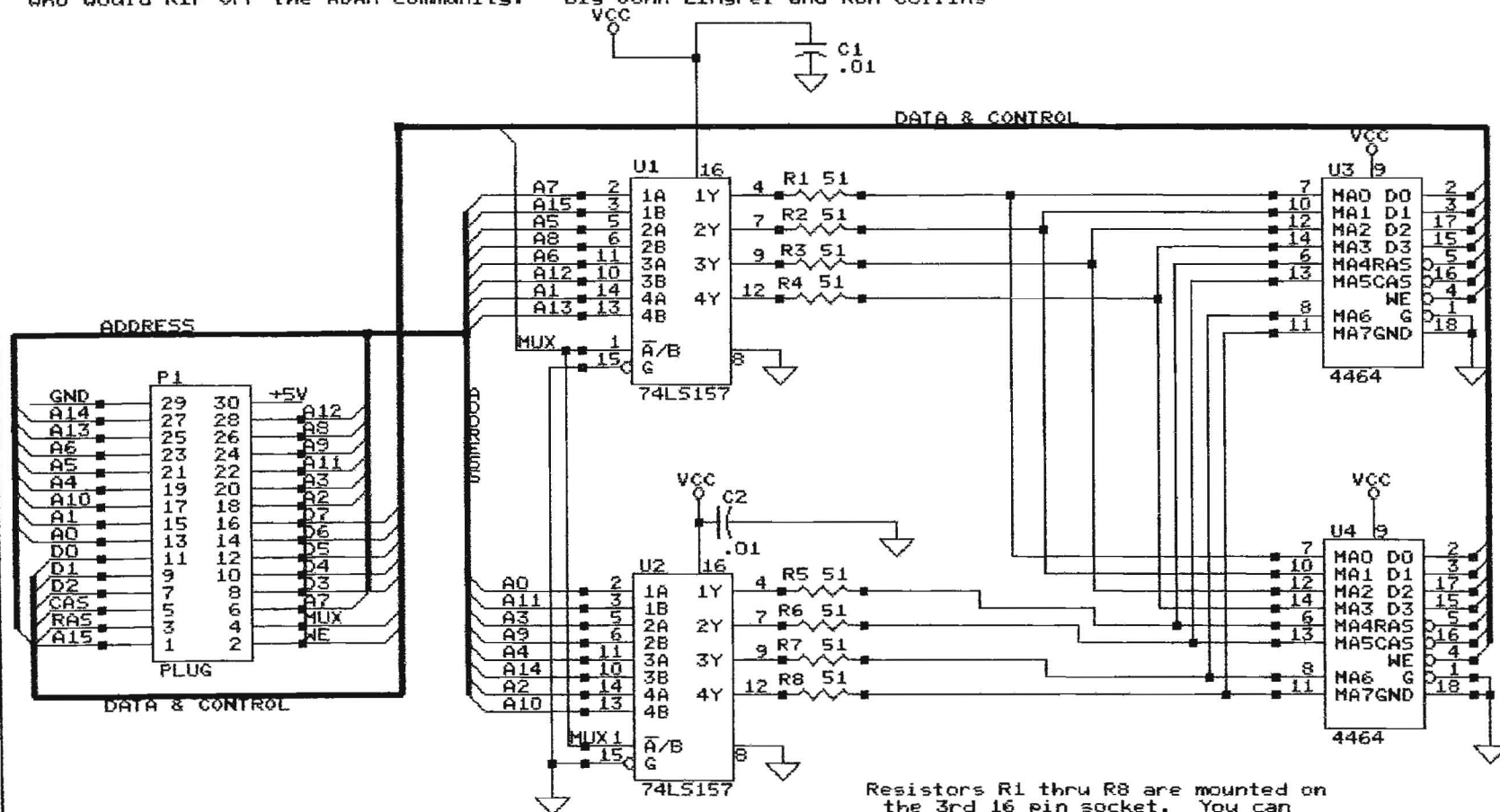


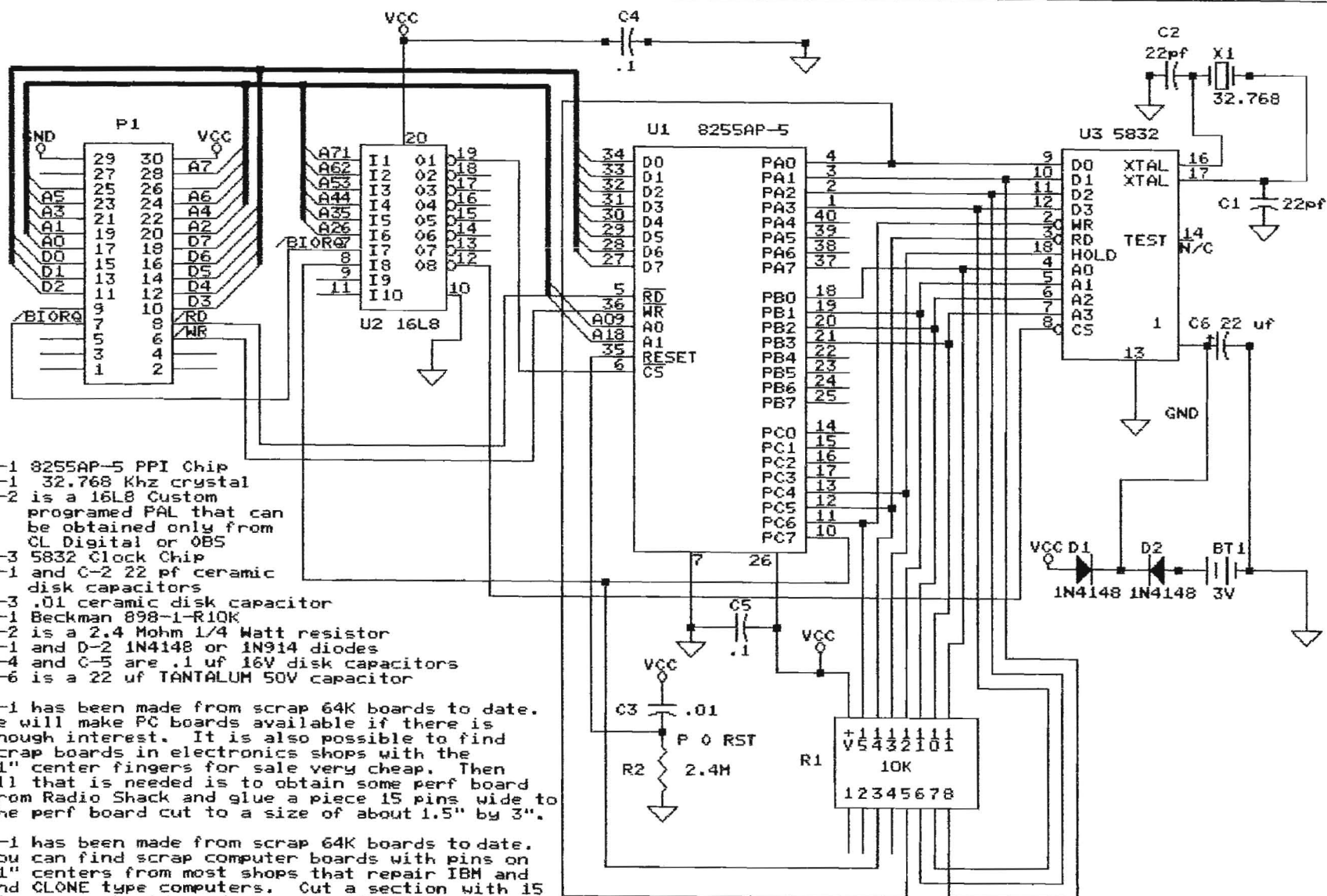
This schematic is released to the PUBLIC DOMAIN for the use of private individuals only. It may not be assembled for commercial use or sale. Violators will be prosecuted. This file may be distributed by users groups as long as the cost does not exceed the cost of the media used to distribute it on. It may be uploaded to any BBS that you may be on. It must be unchanged and contain the following files. #1 MX64.PRN, #2 RAMTEST.COM and RAM.DOC. If you receive this information with out all files intact, contact CL DIGITAL as we would like to prosecute those who would RIP OFF the ADAM community. Big John Lingrel and Ron Collins



Resistors R1 thru R8 are mounted on the 3rd 16 pin socket. You can a component carrier or press them into the socket itself. Capacitors C1 and C2 are optional.

CL DIGITAL MX-64 Coleco (tm) ADAM Memory Expander
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This board can be built using 4464-15 or 4464-12 memory chips
The 30 pin plug can be obtained in the form of scrap IBM or compatible boards from almost any computer repair shop. Cut off a piece that has 15 pins to a side and epoxy it a piece of per board about 3.5" by 2"
Obtain 3 16 pin wire wrap sockets and 2 18 pin wire wrap sockets and arrange them so that you will be comfortable working with them.
Use 30 gauge wire to make all connections. when finished, have a friend check your work. Now, refer to the original Orphanware documentation to install the board in the computer. Use RAMTEST.COM to check your board for proper function. ENJOY

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U-1 8255AP-5 PPI Chip
 X-1 32.768 Khz crystal
 U-2 is a 16L8 Custom programmed PAL that can be obtained only from CL Digital or OBS
 U-3 5832 Clock Chip
 C-1 and C-2 22 pf ceramic disk capacitors
 C-3 .01 ceramic disk capacitor
 R-1 Beckman 898-1-R10K
 R-2 is a 2.4 Mohm 1/4 Watt resistor
 D-1 and D-2 1N4148 or 1N914 diodes
 C-4 and C-5 are .1 uf 16V disk capacitors
 C-6 is a 22 uf TANTALUM 50V capacitor

P-1 has been made from scrap 64K boards to date. We will make PC boards available if there is enough interest. It is also possible to find scrap boards in electronics shops with the .1" center fingers for sale very cheap. Then all that is needed is to obtain some perf board from Radio Shack and glue a piece 15 pins wide to the perf board cut to a size of about 1.5" by 3".

P-1 has been made from scrap 64K boards to date. You can find scrap computer boards with pins on .1" centers from most shops that repair IBM and and CLONE type computers. Cut a section with 15 pins on each side and glue it with EPOXY to a piece of per-board cut 1.5" by about 3". You can mount all your components to this.

See separate parts list for all parts and sources.

CL DIGITAL 5665 Myers Road Akron, OH 44319		
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CL DIGITAL RTC (CLOCK)		
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A	010689-07	D
Date:	January 8, 1989	Sheet 1 of 1