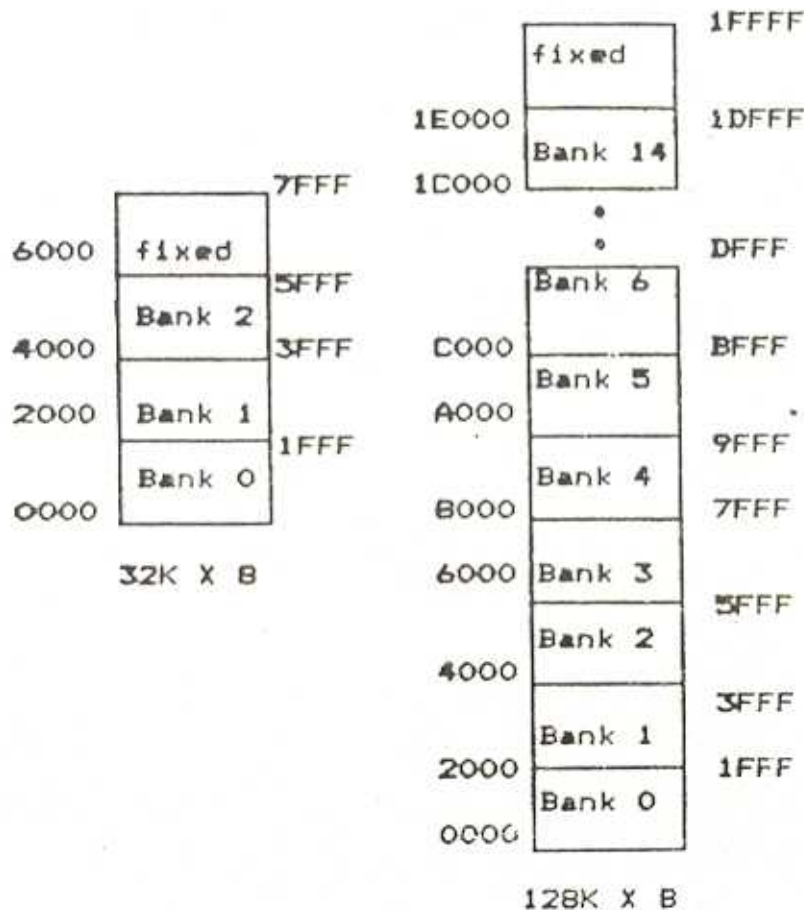The 8bit CPU line's cartridge area is mapped as two 8K blocks
from 8000 to 9FFF and from A000 to BFFF (hex). This cart will
enable larger ROM sizes via banking of the 8000-9FFF area.

To select a bank simply write the bank number to location D5xx.
Up to 255 banks can be switched limited only by the availability
of larger ROMs. Current plans are to have carts with 32K x 8
and 128K x 8 ROMs as follows:

```
                                                    1FFFF
                                        +---------+
                                        | fixed   |
                                 1E000  +---------+ 1DFFF
                                        | Bank 14 |
                                 1C000  +---------+
                  7FFF                       .
         +---------+                         .      DFFF
  6000   | fixed   |                     +---------+
         +---------+ 5FFF                | Bank 6  |
         | Bank 2  |                     |         |
  4000   +---------+ 3FFF          C000  +---------+ BFFF
         | Bank 1  |                     | Bank 5  |
  2000   +---------+                A000 +---------+
         |         | 1FFF               |          | 9FFF
         | Bank 0  |                     | Bank 4  |
  0000   +---------+                B000 +---------+ 7FFF
                                    6000 | Bank 3  |
            32K X 8                      |         | 5FFF
                                         | Bank 2  |
                                    4000 +---------+
                                         |          | 3FFF
                                         | Bank 1  |
                                    2000 +---------+ 1FFF
                                         | Bank 0  |
                                    0000 +---------+

                                            128K X 8
```

Numbers to the left and right of boxes are the actual ROM
addresses. After writing to D5xx with bank data, read bank at
8000-9FFF. Fixed ROM area is mapped into A000-BFFF permanently
so no banking is required to access top of ROM.

Example

You want to read from bank 2. You must first write a $02 (hex)
into $D500; this will enable data stored at ROM location $4000-
5FFF to be read at system locations $8000-9FFF.

1
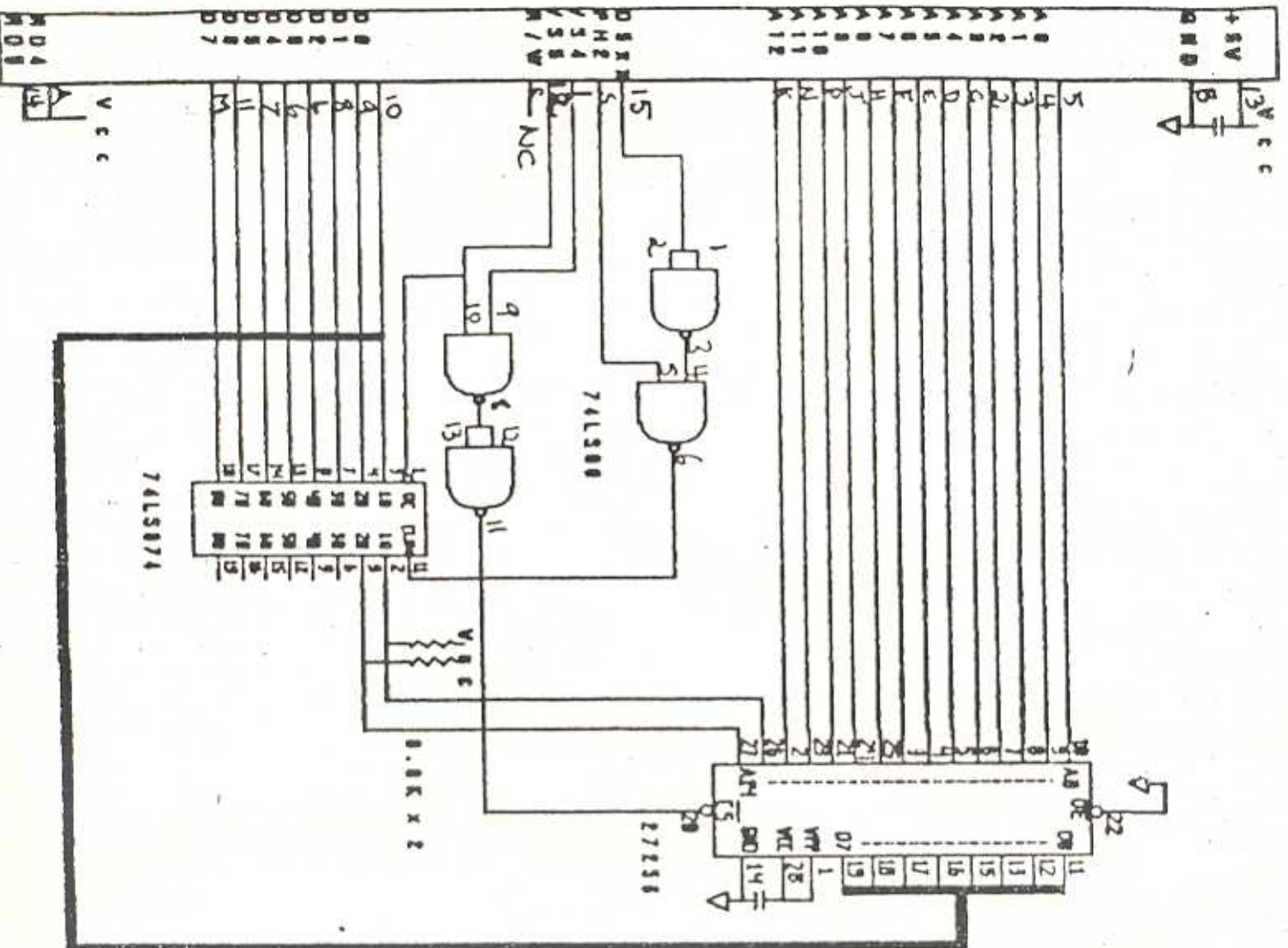
Memory Map

The 16K cart area is divided into an 8K fixed area at A000-BFFF (hex) and three 8K banks at 8000-9FFF (hex). To select a bank, write to D5xx with the appropriate bank number as listed below:

D7	D6	D5	D4	D3	D2	D1	D0	
0	0	0	0	0	0	0	0	BANK 0
0	0	0	0	0	0	0	1	BANK 1
0	0	0	0	0	0	1	0	BANK 2
0	0	0	0	0	0	0	0	FIXED
1	1	1	1	1	1	1	1	Shadow

74LS00

74LS374

27256

8.8K x 2

NC

VCC

Where used: 8 bit CPU's	
Engineer: J.Valdes	
Checker	
Mgr. Approval	

Title: XE Super Cart

REV 0

8/25/87

January 5, 1989

Doc & Steve Harding
2308 Henry Circle
Augusta, GA 30906

Dear Doc & Steve:

In my haste to send out those PCBs to you yesterday, I neglected to modify
them for 32K byte use (a 27256 EPROM)... Here's what you need to do:

1. Cut the trace between the bottom of R2 and pin 9 of U3.
2. Clip out R2.
3. Jumper from the bottom of where R2 **was** (the feedthru closest to the edge
connector) to pin 10 of U3 -- it's easiest to use the feedthru near the bottom of
R2.

If you don't have the tools to do this, I'd be happy to replace the boards I sent
you with modified ones. Sorry for the inconvenience!

Regards,

Juli Wade
Assistant Product Manager
Video Games