****
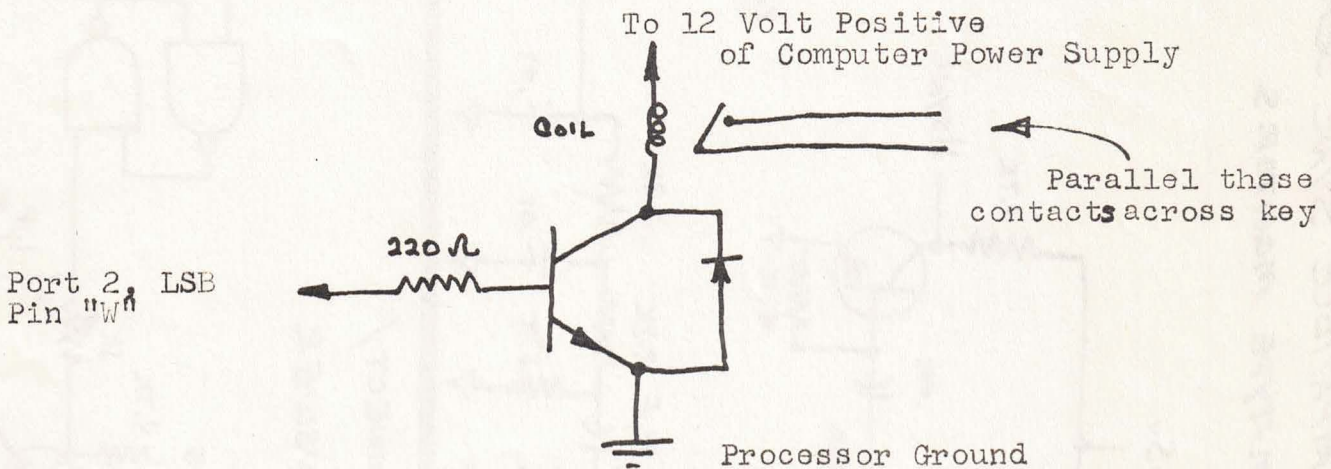
BUGBOOKS FOR SALE * BUGBOOKS I, II, IIA, and III

Contact Ralph Iden, R.R. #5, Box 278, Lake Geneva, Wisc. 53147

****

Club member Herb Gerend (W9OUT) sent me the following:

The Digital Group system has a very convenient and easy way to
send perfect Morse code from the Computer Keyboard. A cassette
tape called the "Ham-1" is available which has CW & RTTY programs
on it.

The "CW Send" routine has three pre-set speeds; 5, 13, and 20
words per minute. It is also possible to increment or decrement
the speed up or down from the pre-set speed. In addition, there are
8 - 100 character memories that can be called up in which info on
the station equipment, name & QTH or what-ever can be stored.

The interface hardware is very simple - resistor, NPN transistor,
protective diode, and a small 12 volt D.C. relay.

The interface schematic:
Port 2, LSB Pin "W" — 220 Ω resistor to NPN transistor base; Coil to 12 Volt Positive of Computer Power Supply; protective diode; Processor Ground. "Parallel these contacts across key"

****

The 1977 National Computer Conference will be held at the Dallas
Convention Center - June 13-16. More than 25,000 people are expected
to gather in Dallas for a conference program of more than 100 sessions
and the year's largest display of computer hardware, software, systems
and services.

****

The Second Annual COMPUTERFEST - MIDWEST Regional Computer Convention
will be held June 10, 11, 12 in Cleveland, Ohio. COMPUTERFEST is
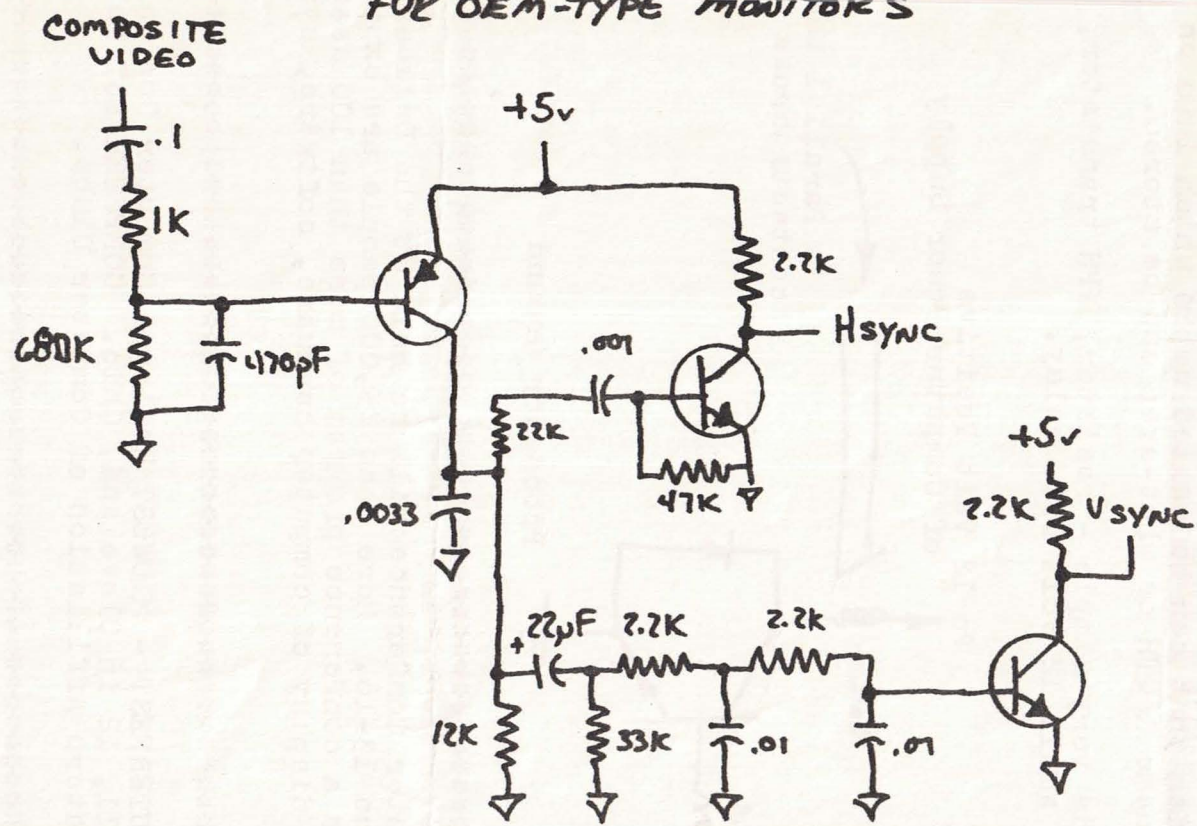sponsored by the Midwestern Affiliation of Computer Clubs.

****

WACC II - The second World Altair Computer Convention is scheduled for
May 4-7 in Albuquerque, N.M.

1977   the first was
3/26/1976 was

4/12/2020 I believe this is a stragler from an early issue of Vol. #2   R. Ziom
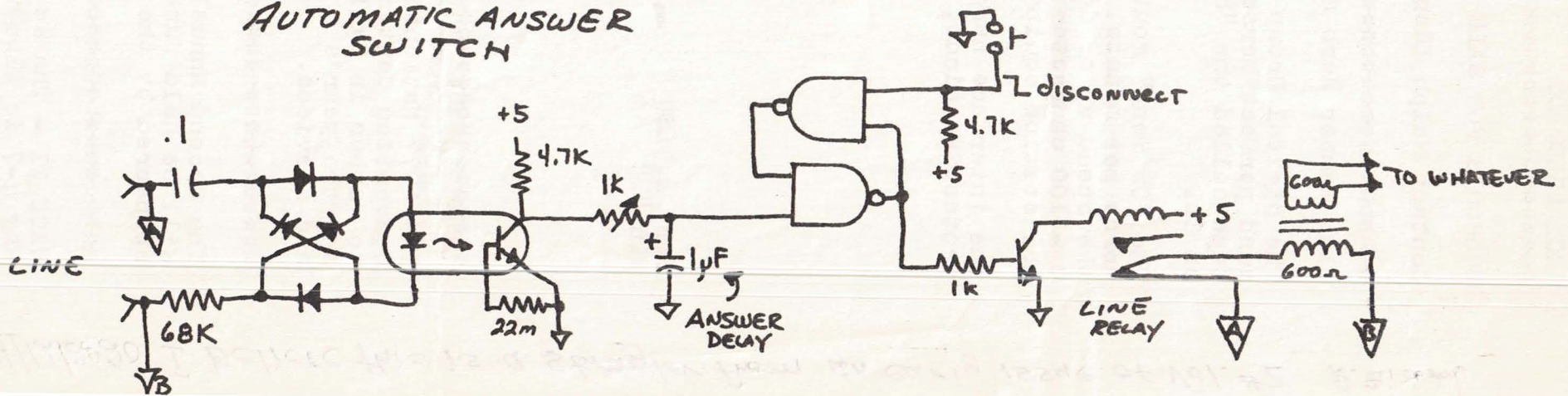
TTL COMPATIBLE SYNC SEPARATOR
FOR OEM-TYPE MONITORS

COMPOSITE VIDEO

.1

1K

680K

470pF

+5v

2.7K

Hsync

.001

22K

.0033

47K

+5v

2.2K Vsync

22µF 2.2K 2.2k

12K 33K .01 .01

MANUAL DISCONNECT /
AUTOMATIC ANSWER
SWITCH

disconnect

4.7K

+5

+5 4.7K

1K

+5

LINE

68K

22m

1µF

ANSWER DELAY

1k

LINE RELAY

+5

600Ω

TO WHATEVER

A B

8080 Machine Language Programs

Memory space can be saved and program execution can be sped
up by using the following trick when the program involves
a series of calls to subroutines. Many programs have sections
in them that will be of the following form-

```
        CALL XXXX
        CALL YYYY
        CALL ZZZZ
        RET
```

A program section having the following form can usually be
substituted.

```
        CALL XXXX
        CALL YYYY
        JMP  ZZZZ
```
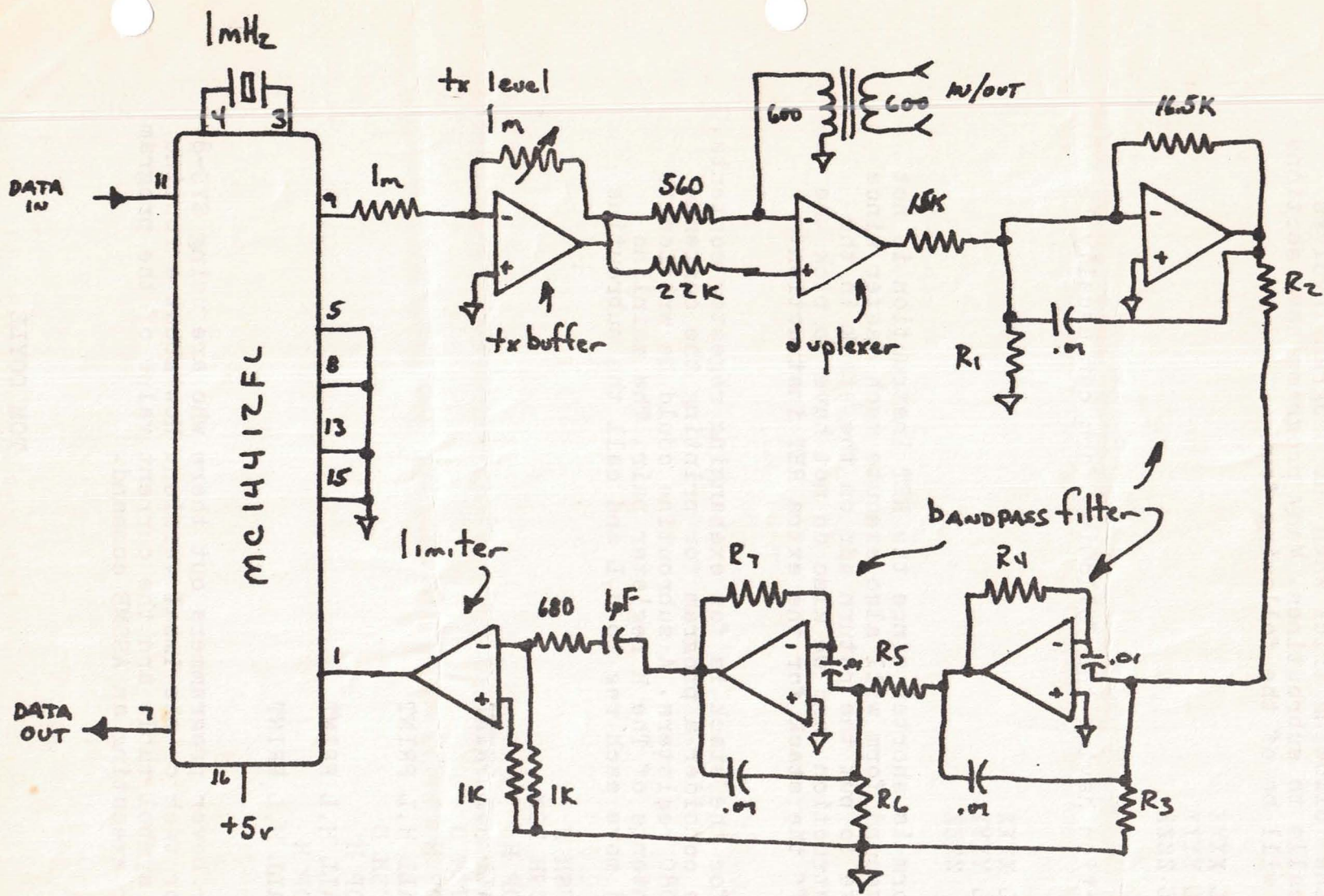
The second form is shorter since the RET instruction is not
needed. The second form will also execute much faster since
we do not have to put the return adr on the stack in the
CALL ZZZZ instruction and we also do not have tp pick the
return adr off the stack for the extra RET instruction.

Another use for the stack is for exehanging regester contents.
As an example consider a program for printing the contents
of all the 8080 registers. A subroutine could be written to
print the contents of The H register pair. The mainline
program could move each reg to H,L and call the subroutine
as follows.

```
        PUSH H
        PUSH PSW
        POP H
        CALL H,L PRINT
        PUSH B
        POP H
        CALL H,L PRINT
        PUSH D
        POP H
        CALL H,L PRINT
        POP H
        CALL H,L PRINT
```


For any eager bever programmers out there who are using SYS-8
from processor tech or the imsai version. How about a routine
to print the symbol table and the current value of the program
counter after executing an ASSME command.

TOM DOYLE

1mHz

tx level
1m

tx buffer

IN/OUT
600   600

16.5K

DATA IN   11   9   1m   1m   560   22K   NEK   R2   R1   .01

MC14412FL

5
8
13
15

limiter   bandpass filter

680 1µF   R7   R5   R4

DATA OUT   7   1   1K   1K   .01   R6   .01   R3

16

+5v

	ORIGINATE	ANSWER
R1	267	845
R2	18.7K	21.5K
R3	324	1240
R4	210K	287K
R5	8.66K	7.87K
R6	619	2550
R7	95.3K	97.6K

All .01µF caps should be mylar

103 TYPE MODEM