

PARTS LIST

R1 - R2	130 Ohm
R3 - R49	180 Ohm
R50 - R51	75 Ohm
R52 - R100	180 Ohm
C1	39 mfd
C2	By-pass*
C3	47 pfd
C4	39mfd
C5	By-pass*
C6	39 mfd
C7	By-pass*
C8	39 mfd
C9	By-pass*
C10	39 mfd
C11	By-pass*
C12 - 14	39 mfd
CR1	1N5221 Zener
Q1	2N3904
Q2	2N3906
Q3	TIP29
Q4	TIP30
IC1	UA201TC
IC2	7805C
IC3	79M12C
IC4	78M12C
C15 - 18	2.2 mfd

1 Socket for IC1

10 1/4" "FAST ON" PC mount connectors

NOTES

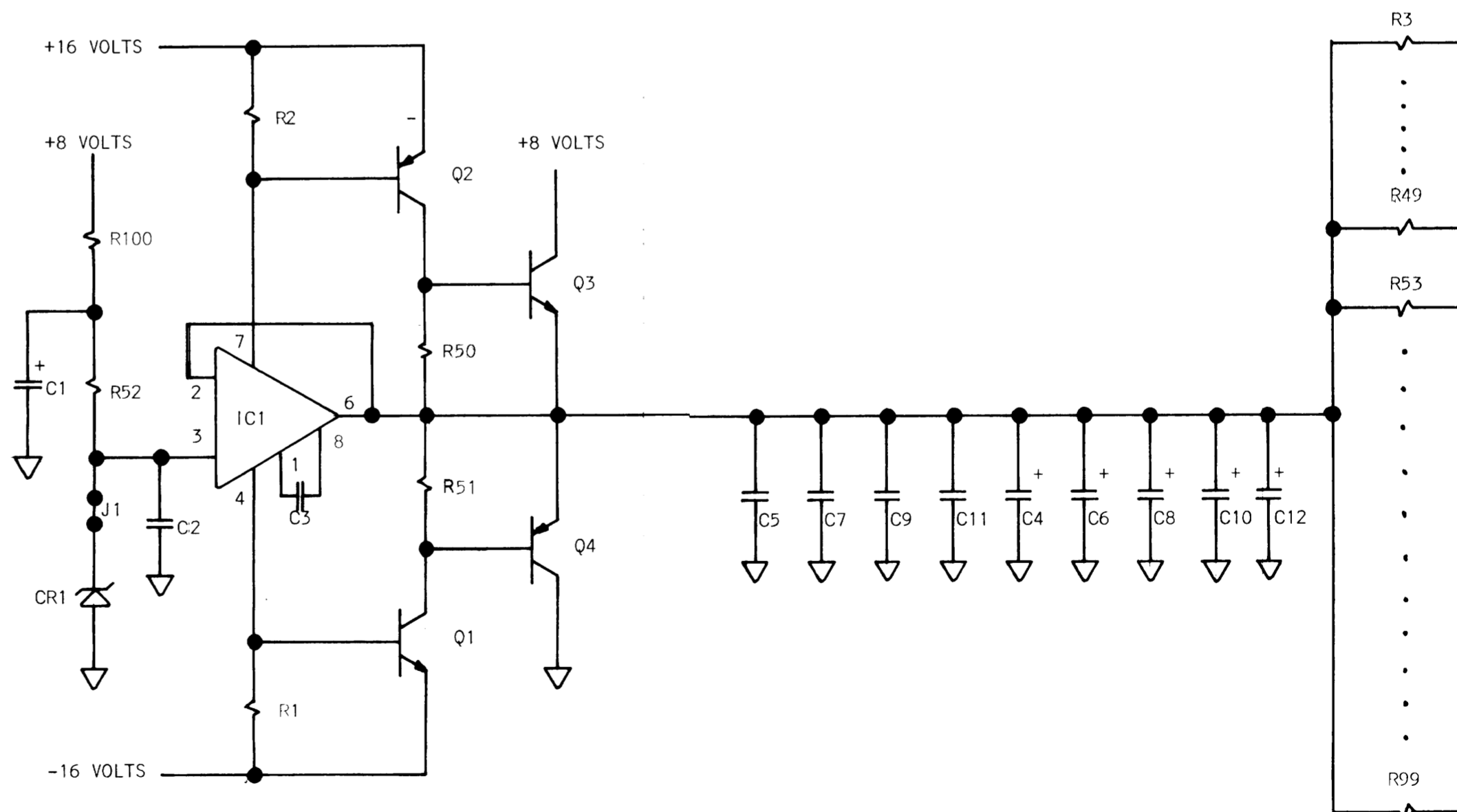
75 Ohm is purple-green-black  
 130 Ohm is brown-orange-brown  
 180 Ohm is brown-grey-brown

All resistors are to be bent 1/2 inch wide and all the tantalum capacitors are to be bent .6 inches wide. Follow the layout above when installing parts.

Be sure to observe the polarity of the tantalum capacitors and the zener diode. Don't forget to install the jumper shown in the drawing next to the zener diode. Observe also the location of pin #1 of IC1 when installation is made.

10 1/4 inch "FAST ON" PC mount connectors are also furnished with the kit. Install these at the power supply connections at the side of the Buss Board and at the rear where the three regulators supply power to external devices.

\*By-pass capacitors may be any value from .01 mfd to .1 mfd. The value is not critical and may vary from kit to kit.



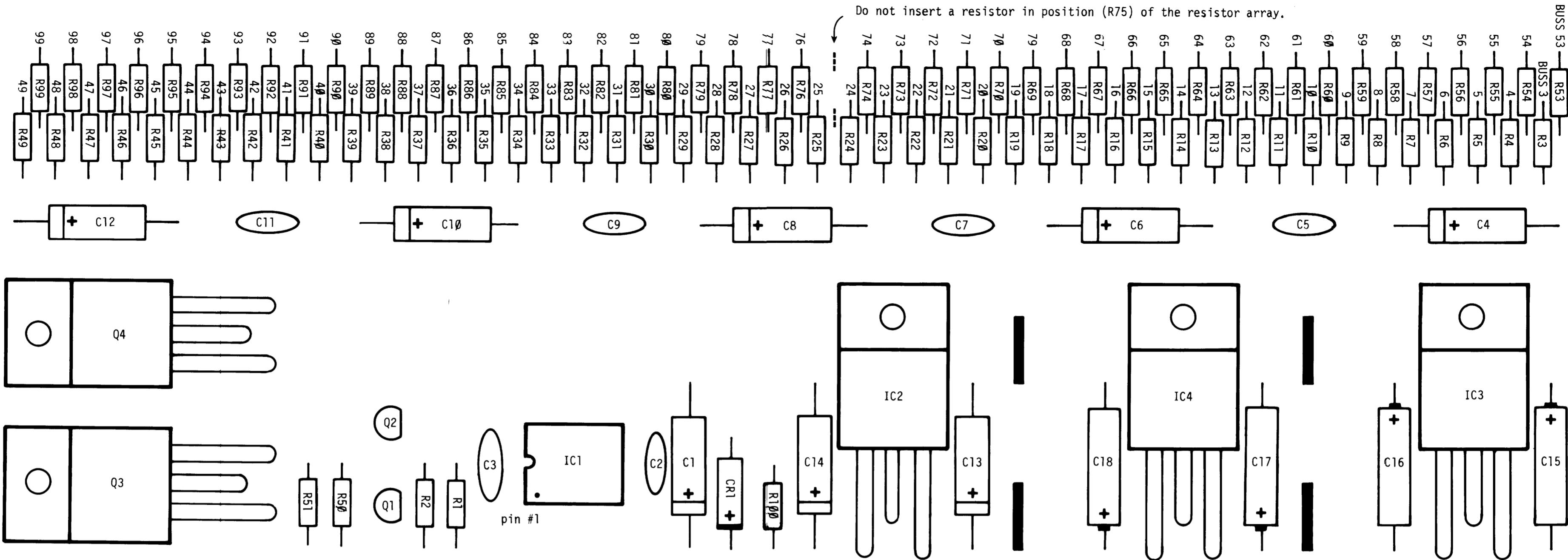
+8 VOLTS
+16 VOLTS
XRDY
VI 0
VI 1
VI 2
VI 3
VI 4
VI 5
VI 6
VI 7
STATUS DSBL
C/C DSBL
UNPROTECT
SS
ADDR DSBL
DO DSBL
$\phi_2$
$\phi_1$
PHLDA
PWAIT
PINTE
A5
A4
A3
A15
A12
A9
D01
D00
A10
D04
D05
D06
D12
D13
D17
SMI
SOUT
SINP
SMER
SHLTA
CLOCK
GROUND

BUSS 1  
 BUSS 2  
 BUSS 3  
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 BUSS 100

+8 VOLTS
-16 VOLTS
SSW DSBL
EXT CLR
MWRITE
PS
PROTECT
RUN
PRDY
PINT
PHOLD
PRESET
PSYNC
PWR
PDBIN
A0
A1
A2
A6
A7
A8
A13
A14
A11
D02
D03
D07
D14
D15
D16
D11
D10
SINTA
SW0
SSTACK
POC
GROUND

Do not insert a resistor in position (R75) of the resistor array.



### WUNDERBUSS™ MOTHER BOARD

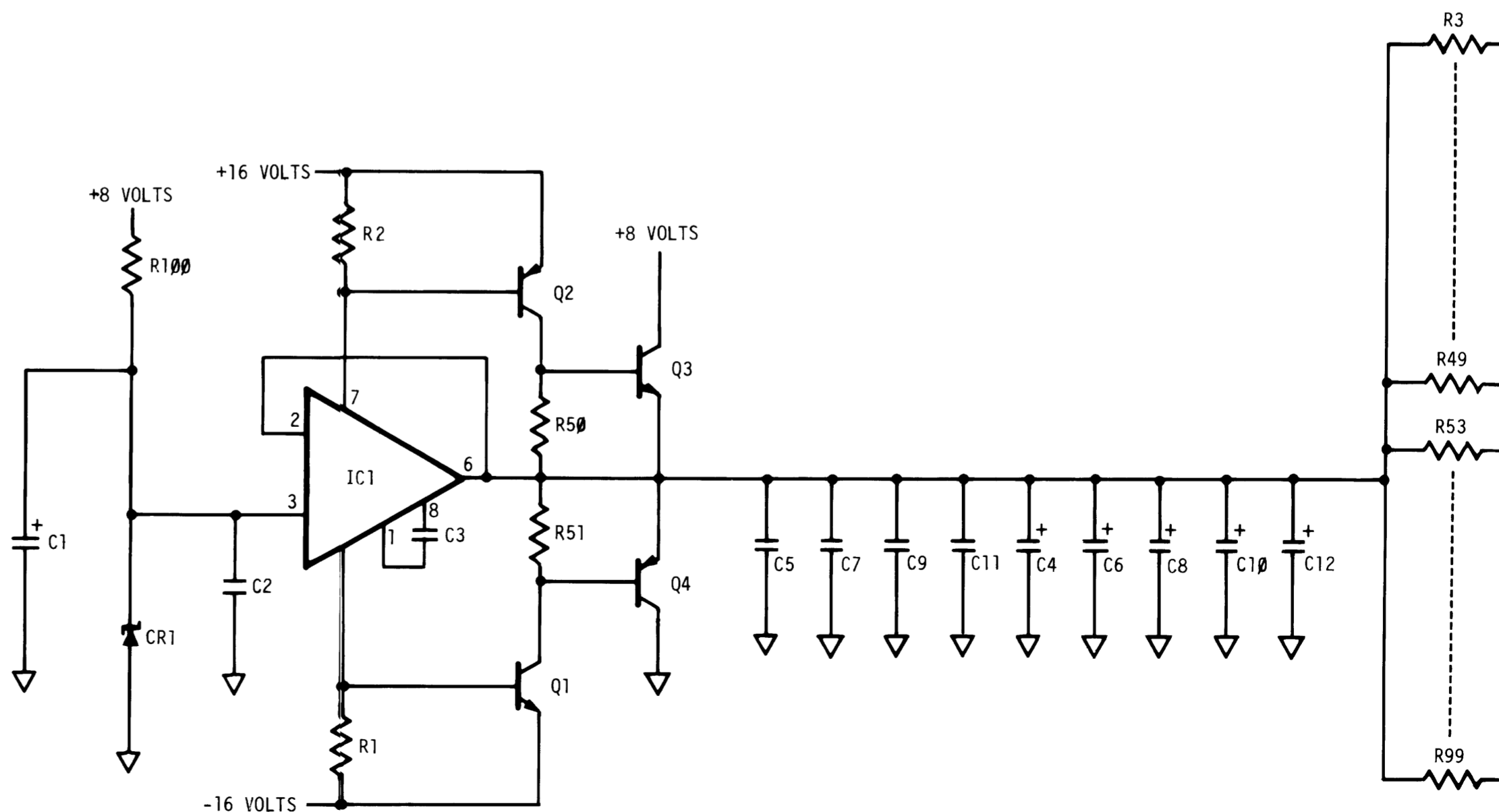
A THINKER TOY FROM MORROW'S MICRO-STUFF ©G. MORROW 1979

#### PARTS LIST AND CONSTRUCTION NOTES:

R1 - R2	130 Ohm	brown-orange-brown
R3 - R49	180 Ohm	brown-grey-brown
R50 - R51	75 Ohm	purple-green-black
R53 - R99	180 Ohm	brown-grey-brown
R100	360 Ohm	orange-blue-brown
C1	39 mfd	Bend all resistor leads to .4" wide, all tantalum capacitors to .6" wide and the zener diode to .5" wide.
*C2	by-pass	Follow the layout above when installing parts. Do not insert a resistor at R75.
C3	47 pfd	
C4	39 mfd	
*C5	by-pass	WEAR EYE PROTECTION WHEN SOLDERING OR CUTTING LEADS.
C6	39 mfd	
*C7	by-pass	Carefully observe polarity of the tantalum capacitors and zener diode.
C8	39 mfd	
*C9	by-pass	Install one "FAST ON" connector, at the power supply connections marked +8V, GND, -16V & +16V. Install two connectors beside each of the three regulators
C10	39 mfd	
*C11	by-pass	
C12 - C14	39 mfd	
C15 - C18	1.8 mfd	
CR1	1N5221 Zener	Identify pin #1 of IC1 and insert carefully into the socket.
Q1	2N3904	
Q2	2N3906	
Q3	TIP29 or **D44C4	
Q4	TIP30 or **D45C4	
IC1	UA201TC	
IC2	7805C	
IC3	79M12C	
IC4	78M12C	

- (1) Socket for IC1
- (10) 1/4 inch 'FAST ON' PC mount connectors

\* By-pass capacitors may be any value from .01 mfd to .1 mfd. The value is not critical and may vary from kit to kit.  
 \*\* Parts D44C4 and D45C4 are manufactured by National Semiconductor Corp. and may be substituted for TIP29 and TIP30 as indicated.



Resistor position (R52) does not exist on this layout or schematic.