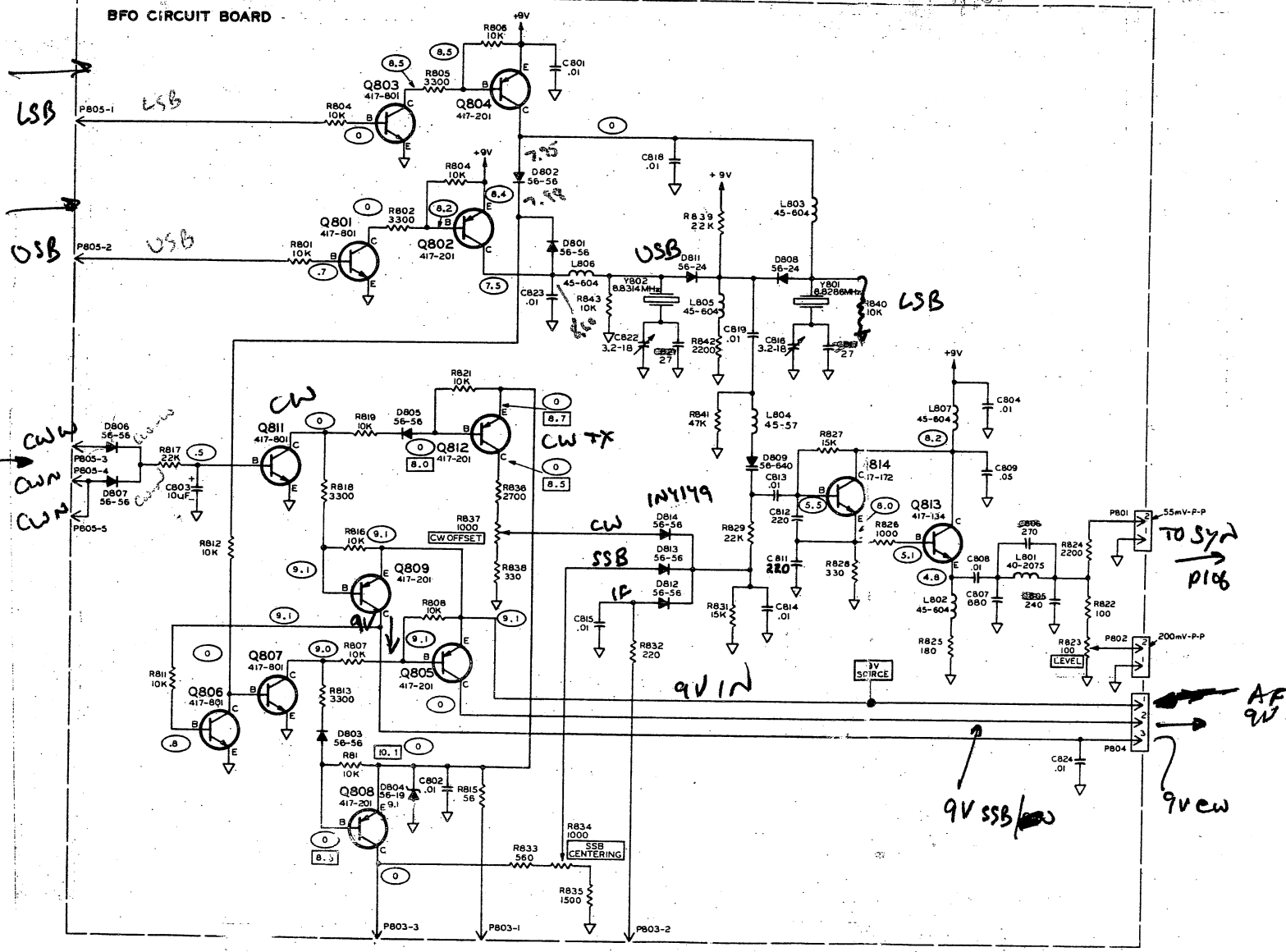


PART OF HWA-5400-3 ACCESSORY

BFO CIRCUIT BOARD



↓
 ↑
 12.6V TX
 OR RX
 IF
 JANEY

RF CIRCUIT BOARD

IF CIRCUIT BOARD

RF P410-3
AF P901
13.8V RX
OV TX
RF P410 (24)

TX IN
AF P906

TX OUT
RF P408(4-3)

RX OUT
AF P919

GAIN TO CPU BOARD

AGC IN TX
ALC IN TX

METER DRIVE

ANALOG SWITCH

COY016AE

13.8V TX

OV AX

F=0

RF P405-2

AGC
P/S

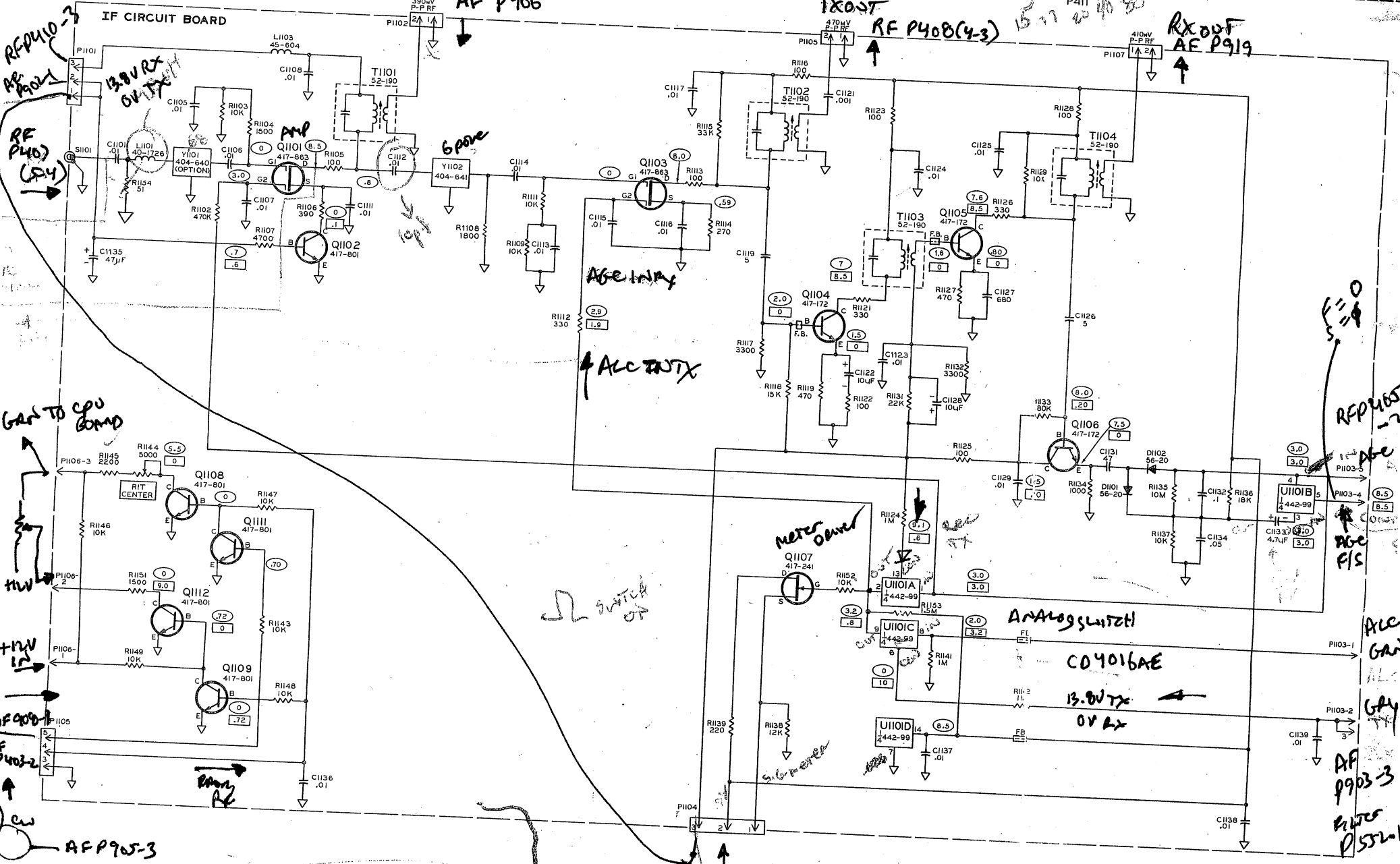
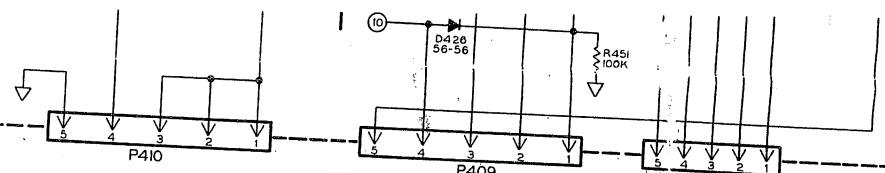
ALC
GAIN

ALC

GAIN

AF P903-3

5V
P/S



AF P905-3

9K
RF P410-3

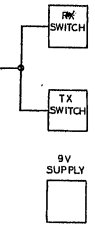
SHIELD
POWER AMPLIFIER (PA)
ASSEMBLY

PA CIRCUIT BOARD

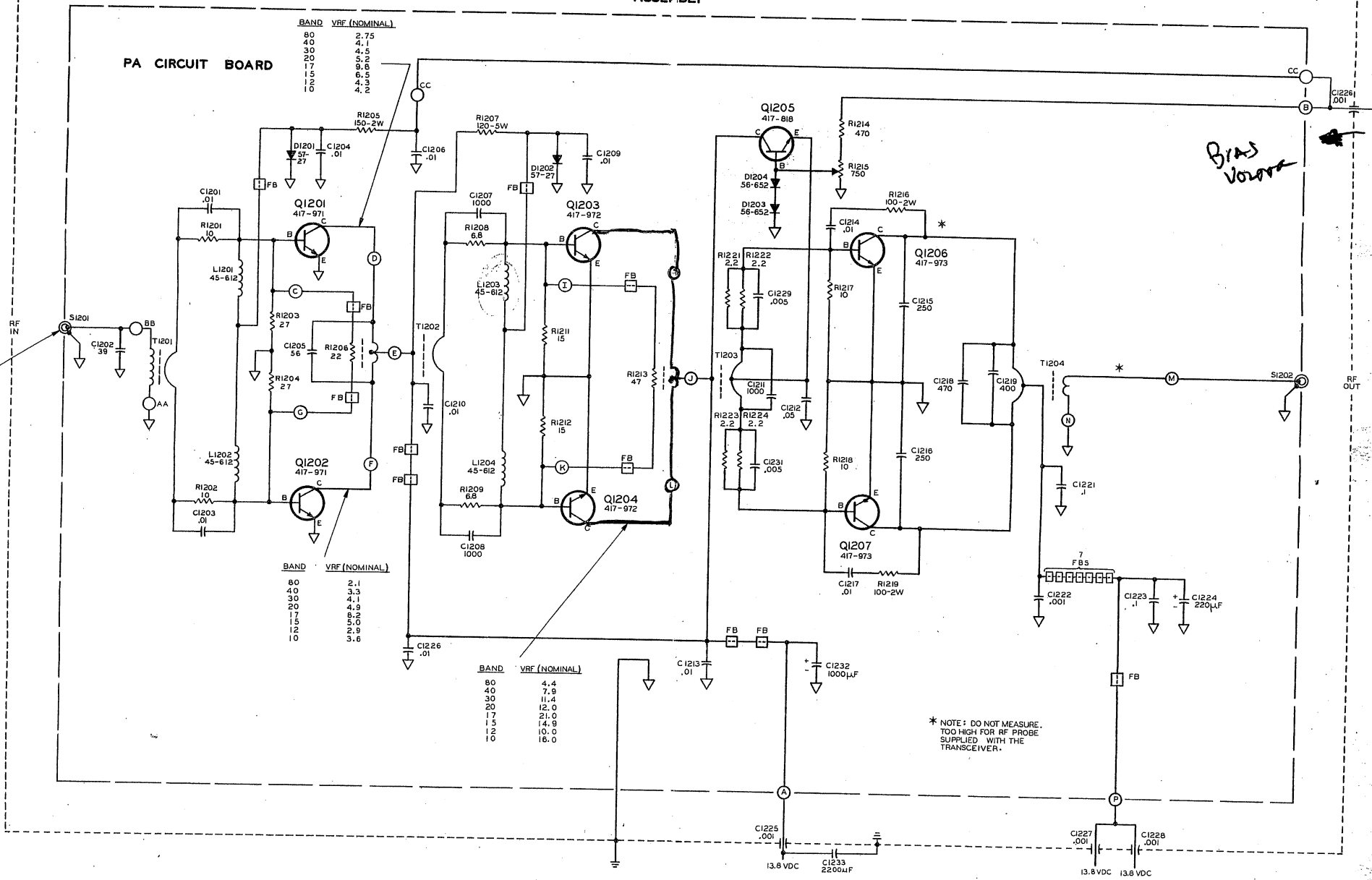
BAND	VRF (NOMINAL)
80	2.75
40	4.1
30	4.5
20	5.2
17	9.5
15	6.5
12	4.3
10	4.2

BAND	VRF (NOMINAL)
80	2.1
40	3.3
30	4.1
20	4.9
17	8.2
15	5.0
12	2.9
10	3.6

BAND	VRF (NOMINAL)
80	4.4
40	7.9
30	11.4
20	12.0
17	21.0
15	14.9
12	10.0
10	16.0



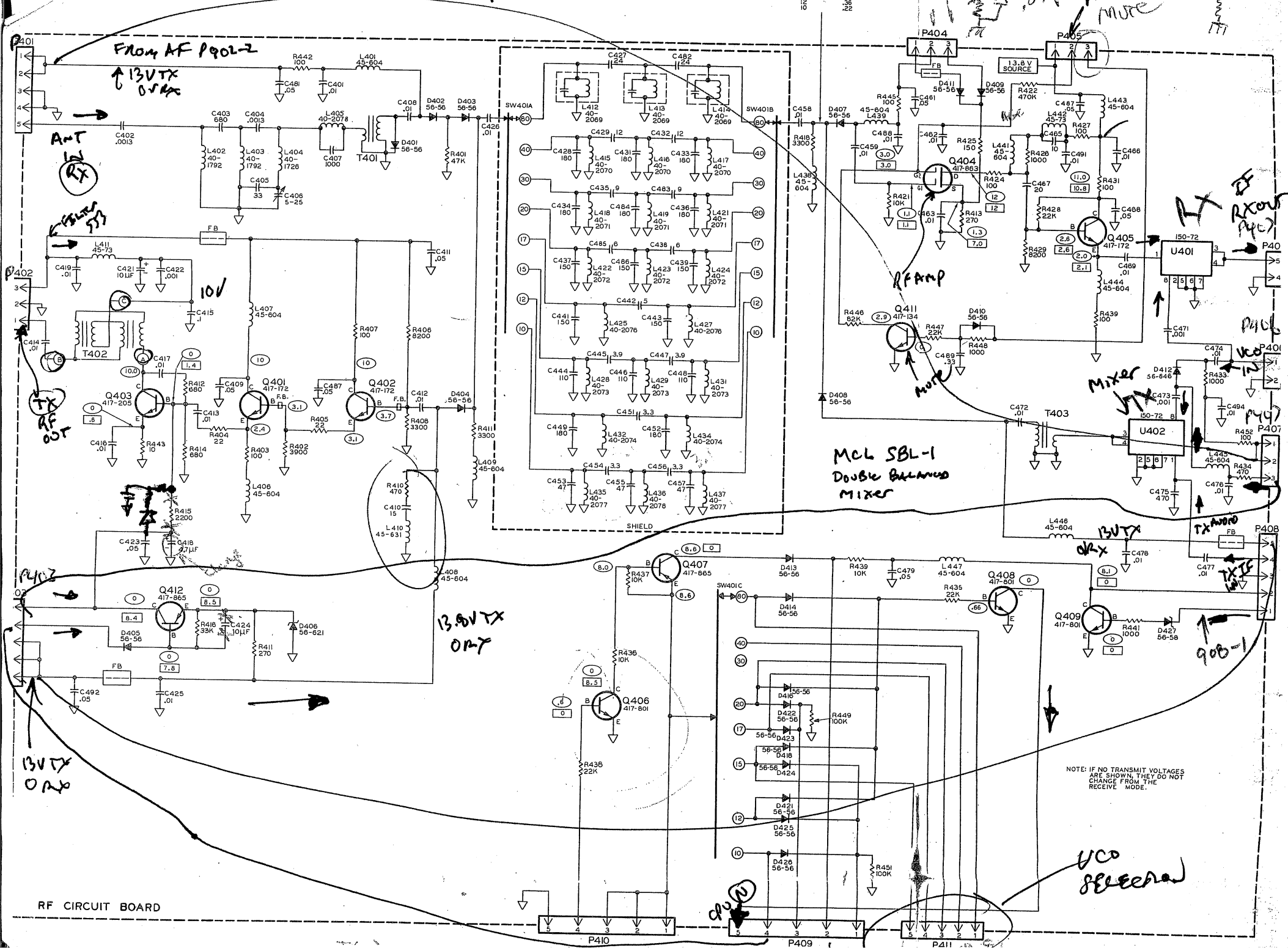
VRF (NOMINAL)
2.6
1.3
1.9
1.3
2.6
2.9
2.1



Bras Voltage

* NOTE: DO NOT MEASURE.
TOO HIGH FOR RF PROBE
SUPPLIED WITH THE
TRANSMITTER.

MCL SBL-1

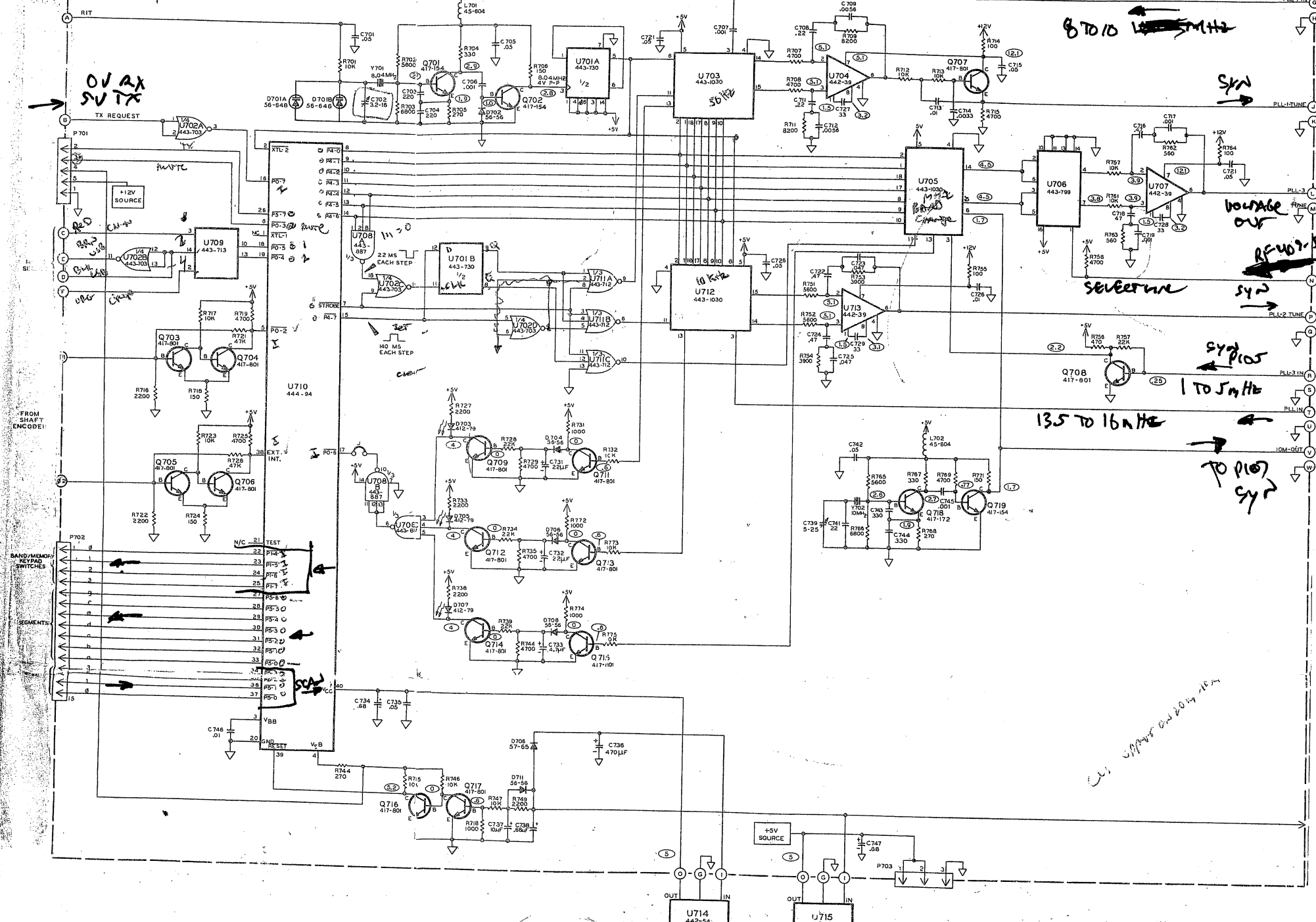


NOTE: IF NO TRANSMIT VOLTAGES ARE SHOWN, THEY DO NOT CHANGE FROM THE RECEIVE MODE.

RF CIRCUIT BOARD

VCO Selection

CONTROLLER CIRCUIT BOARD



8 TO 10 MHz

SYN

VOLUME OUT

SELECTIVE

SYN

1 TO 5 MHz

135 TO 16 MHz

TO P107 SYN

C1, U704, U705, U706, U707, U708, U709, U710, U711, U712, U713, U714, U715

QUAX SUTX

FROM SHAFT ENCODE!

BAND/MEMORY

SEGMENTS

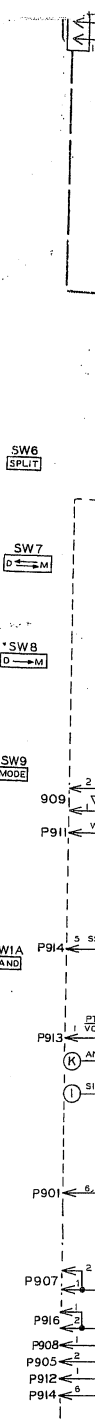
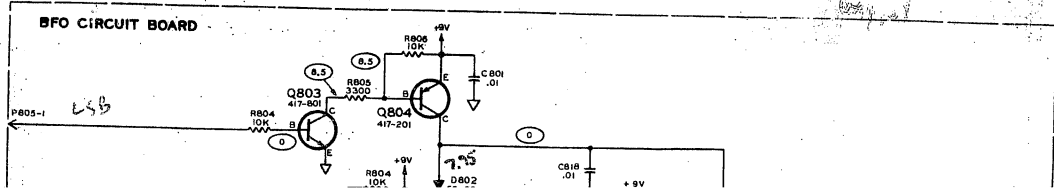
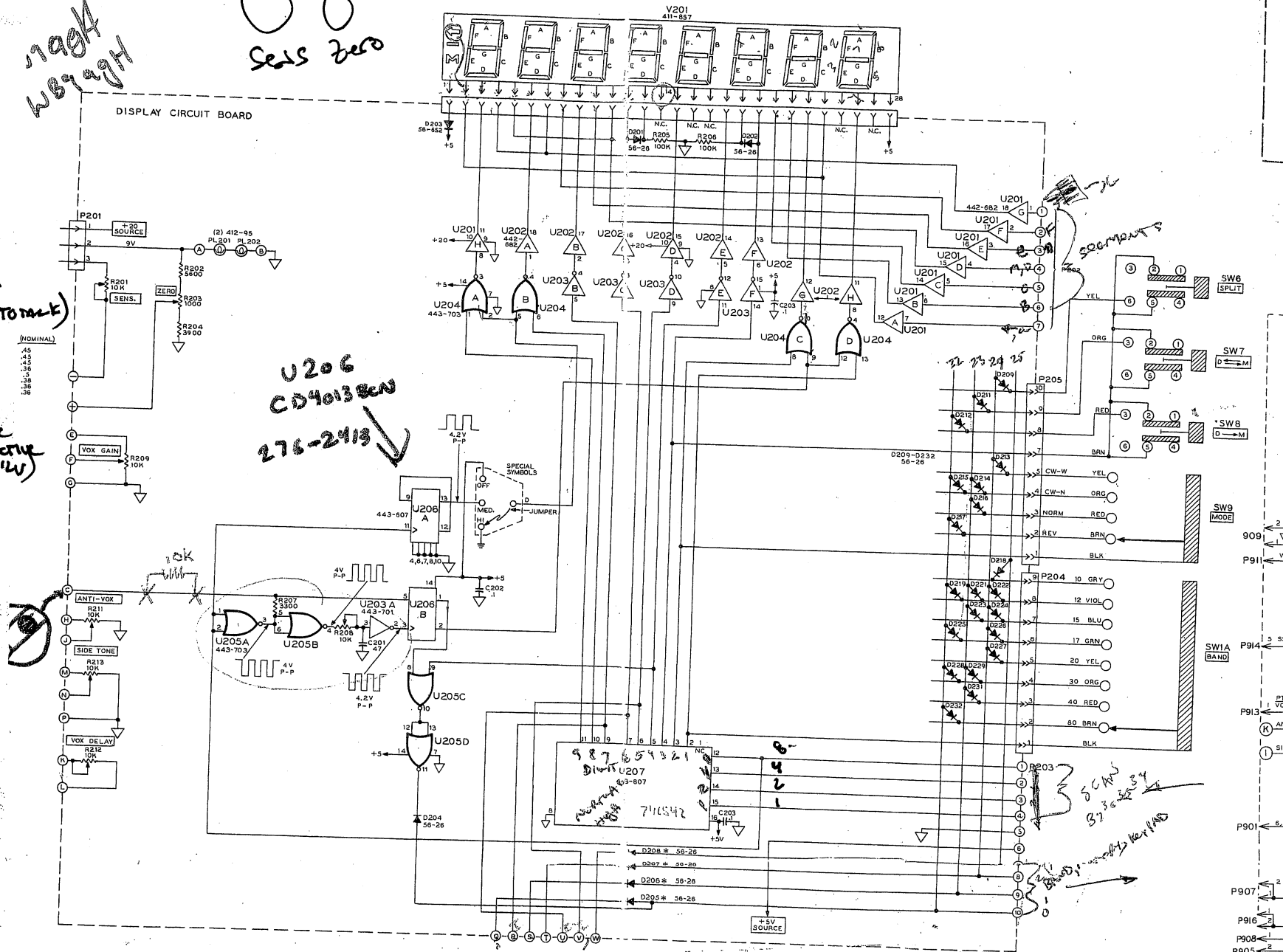
U714 442-54

U715 442-54

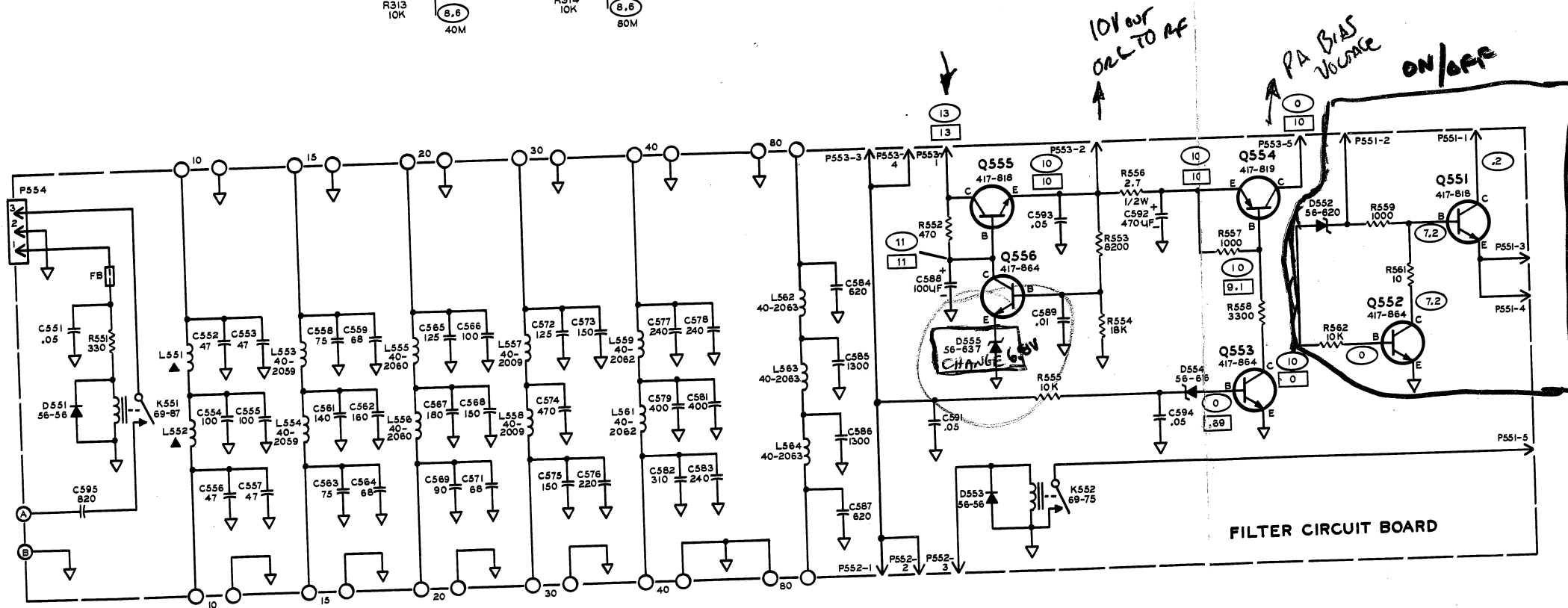
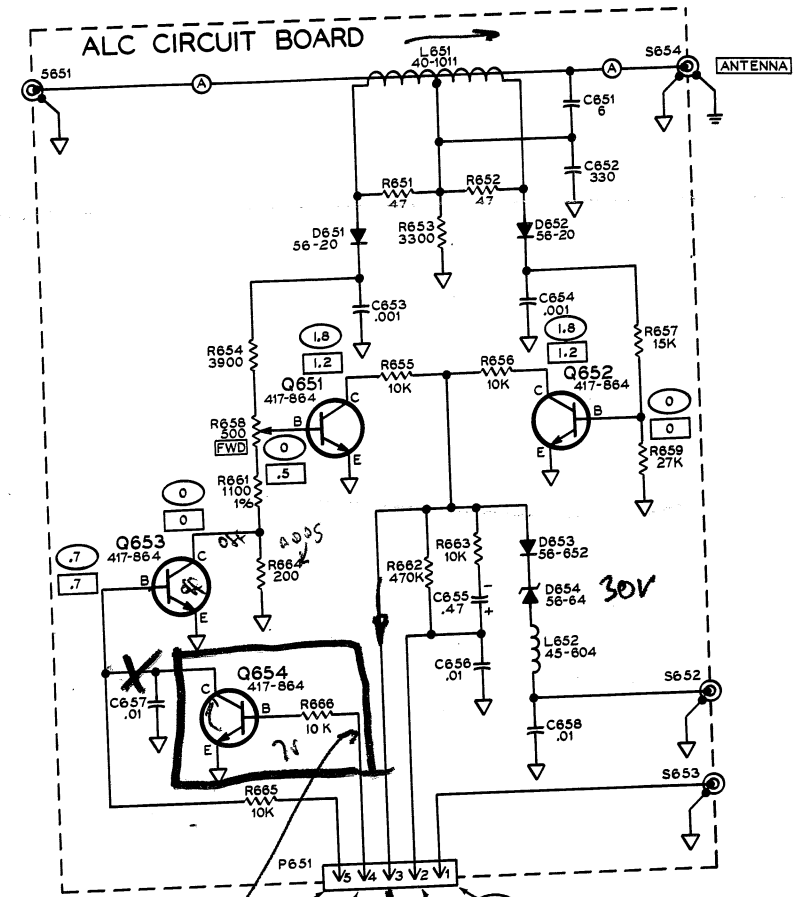
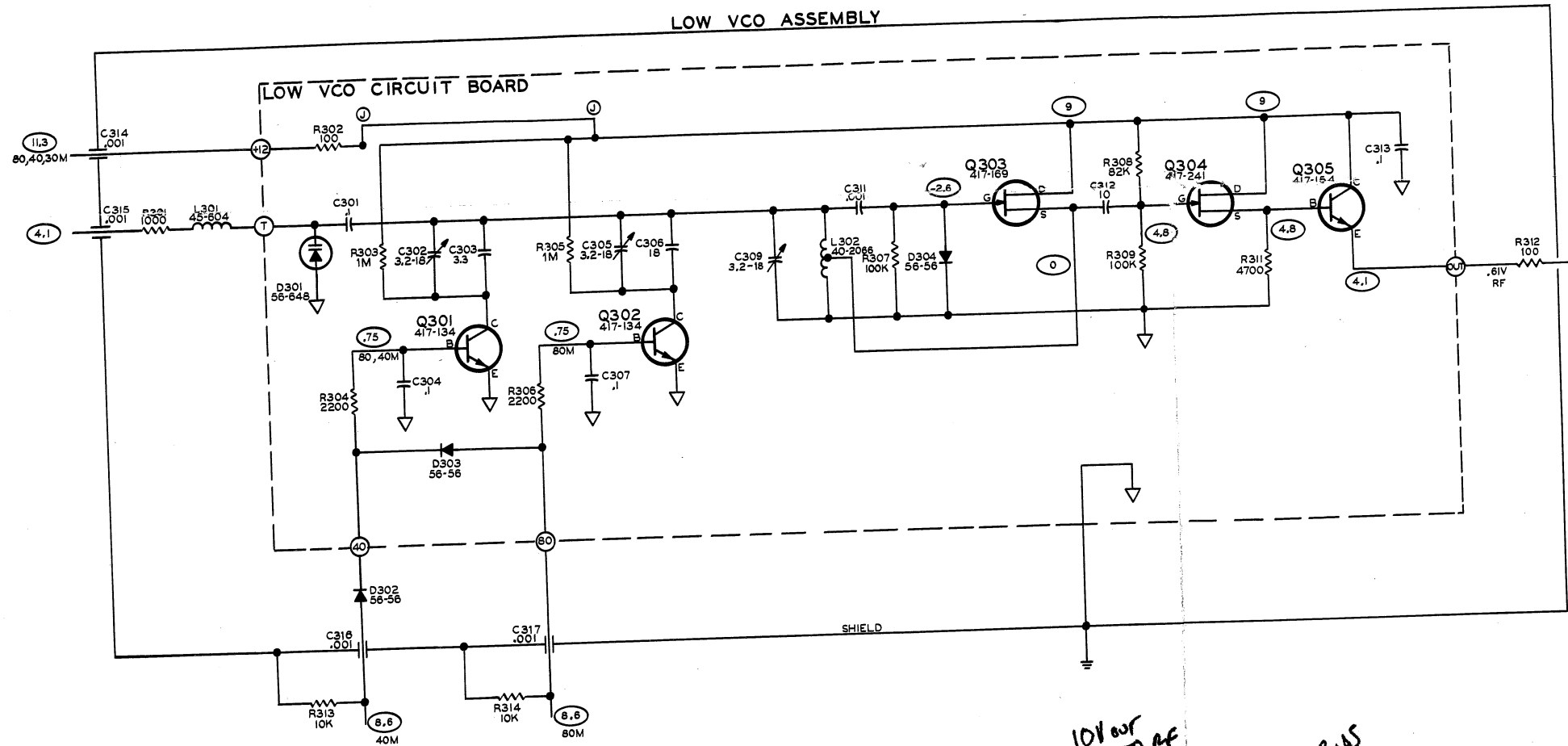
1994
W994H

♡ ○
Sels zero

- MIC
- 1 - MIN IN
 - 2 - SHIELD IN
 - 3 - PTT (6 to 10mk)
 - 4 - GND
 - 5 - NC
 - 6 - 13.8V TO MIC
 - 7 - FILTER ON (+1W)
 - 8 - NC



PART OF HWA-5400-3 ACCESSORY



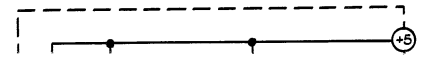
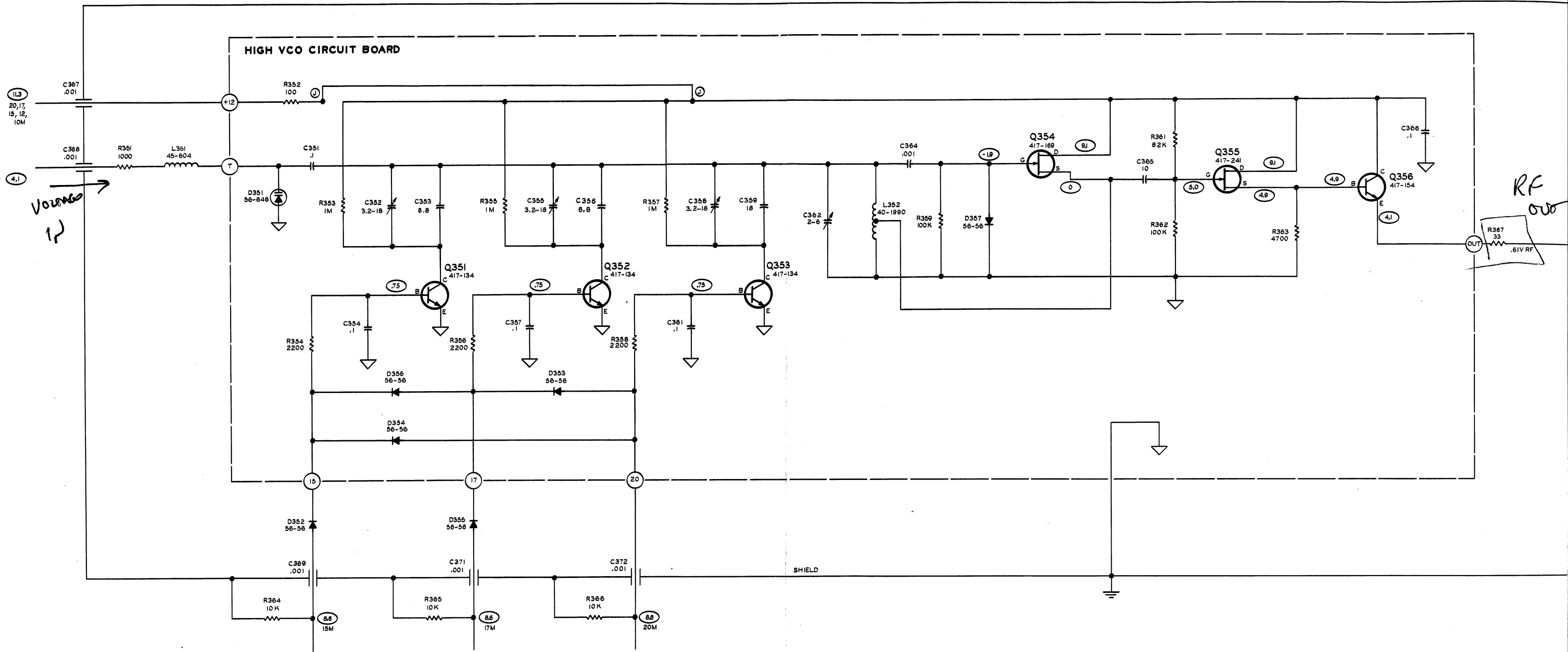
$10\Omega = 7V$
 $12\Omega - 8\Omega = 0V$
 CW 10m 7V in 10 meter band
 Gain

**SCHEMATIC OF THE
HEATHKIT®
HF SSB TRANSCEIVER
MODEL HW-5400**

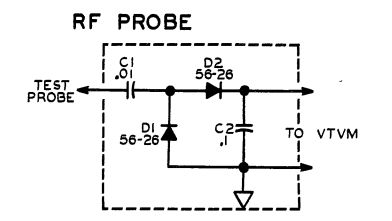
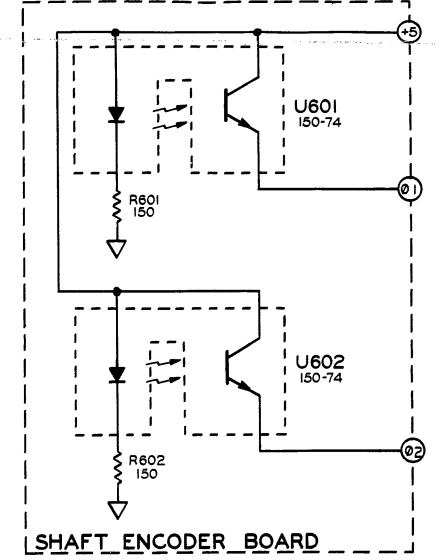
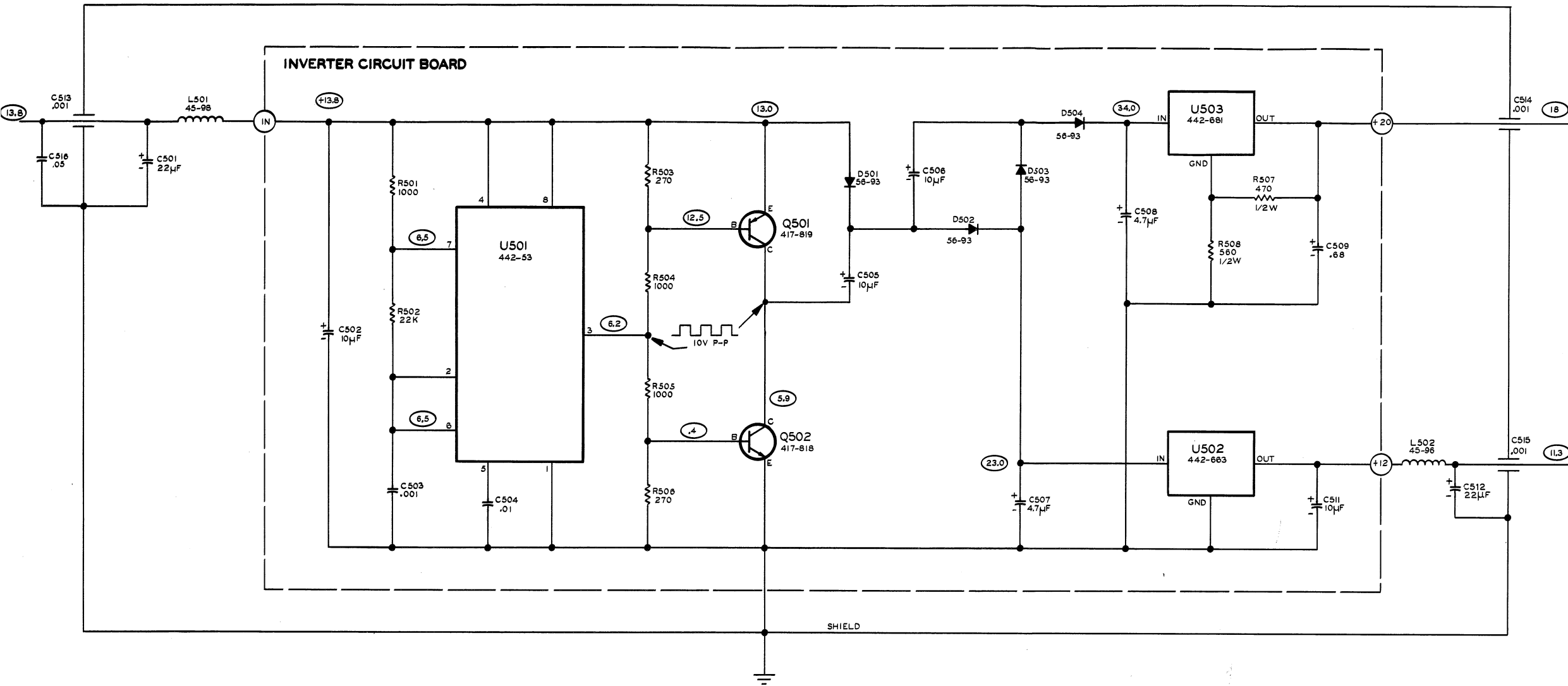
Part of 595-2952-02
3 of 4

HIGH VCO ASSEMBLY

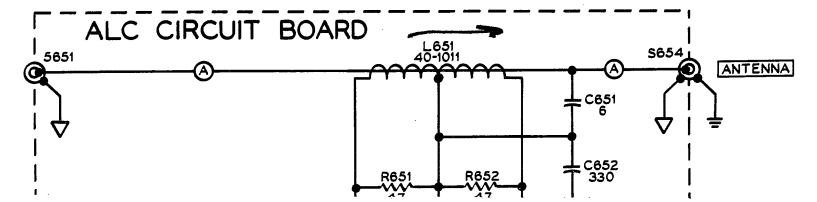
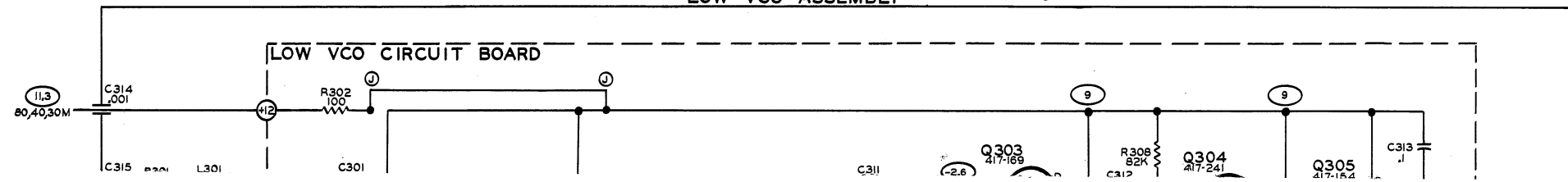
HIGH VCO CIRCUIT BOARD



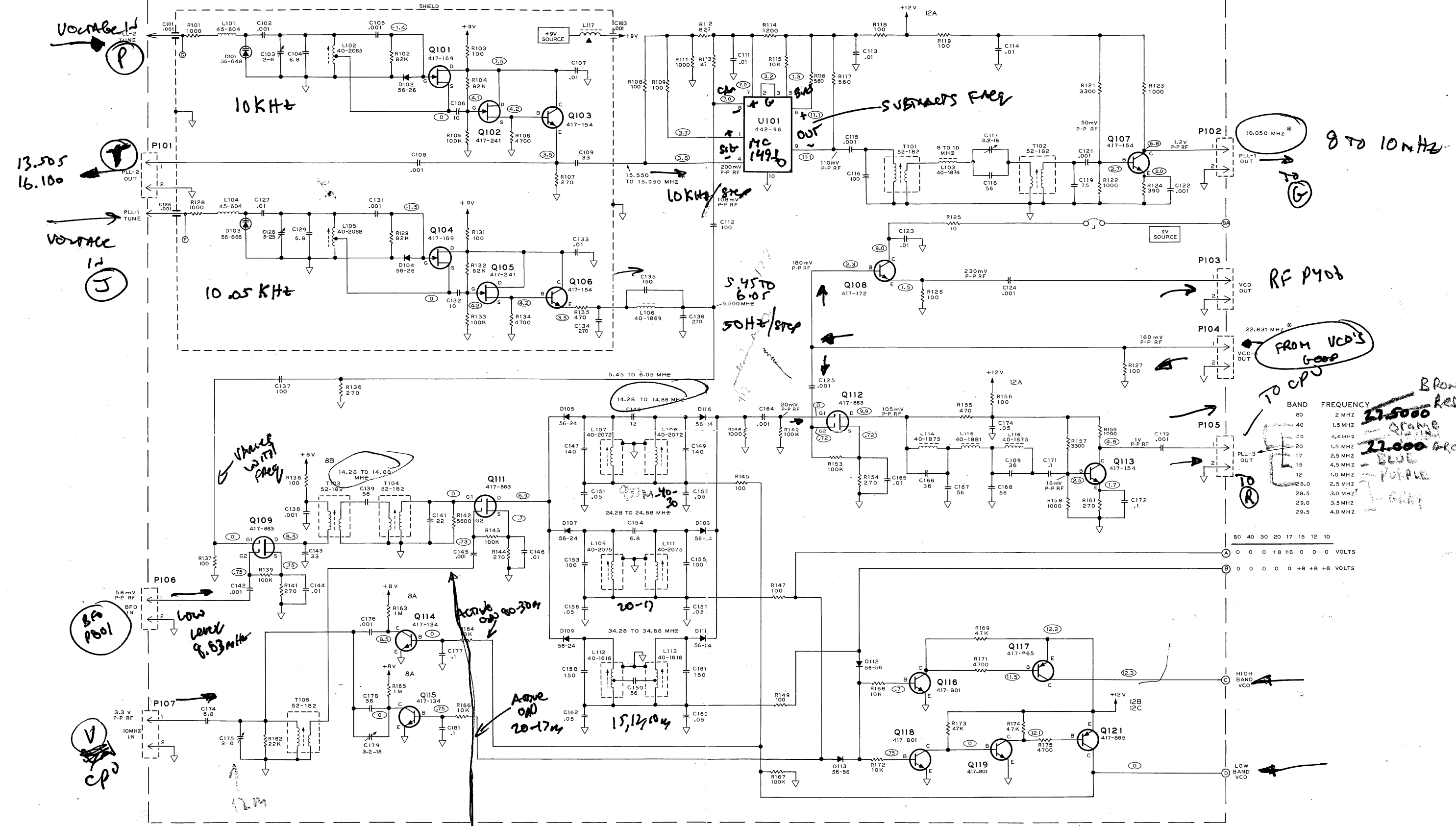
INVERTER ASSEMBLY



LOW VCO ASSEMBLY



SYNTHESIZER CIRCUIT BOARD



VOLUME
P

13.505
16.100
PLL-2 OUT

VOLUME
J

SUBTRACTS FREQ

10.050 MHz*
8 TO 10 MHz

RF P103

22.831 MHz*
FROM VCO'S
TO CPU

BROWN
RED
ORANGE
22.000 GREEN
BLUE
PURPLE
GRAY

VALUES
W/IT
PREG
14.28 TO 14.88 MHz

ACTIVE
ON
20-30M

ACTIVE
ON
20-17M

58 mV
P-P RF
BFO IN

3.3 V
P-P RF
10MHz IN
CPU

80 40 30 20 17 15 12 10
A 0 0 0 0 +8 +8 0 0 0 VOLTS
B 0 0 0 0 0 +8 +8 VOLTS

HIGH BAND VCO

LOW BAND VCO

* NOTE: FREQUENCY MEASUREMENTS WERE TAKEN WITH THE BAND SWITCH SET TO 20 METERS.

0 MHz = 80, 40, 30M
10 MHz = 20, 17M
20 MHz = 15, 12, 10M

SCHEMATIC OF THE
HEATHKIT®
HF SSB TRANSCEIVER
MODEL HW-5400