

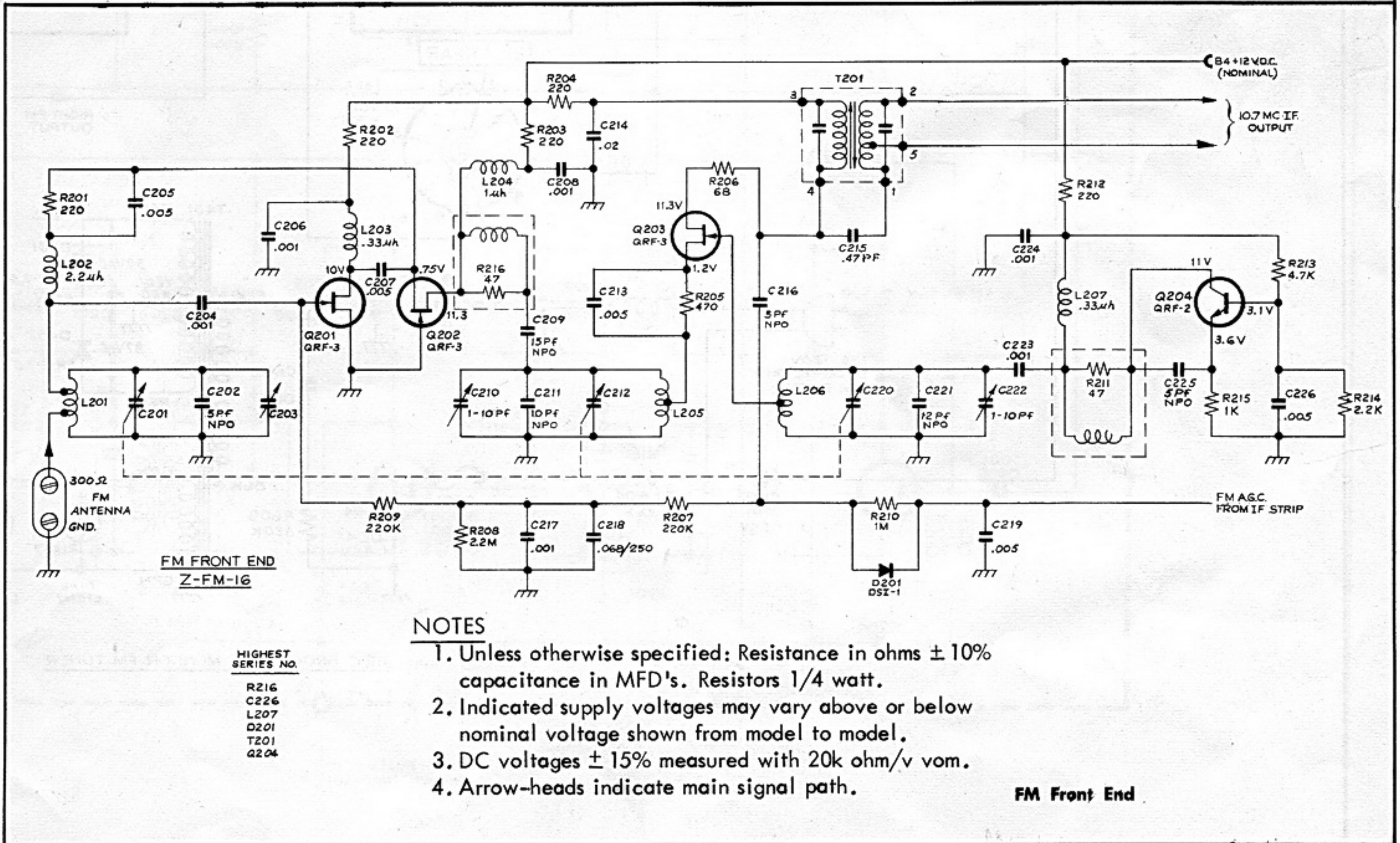
312C

Service Bulletin
 for
Model 312C Solid Sate FM Stereo Tuner

SPECIFICATIONS

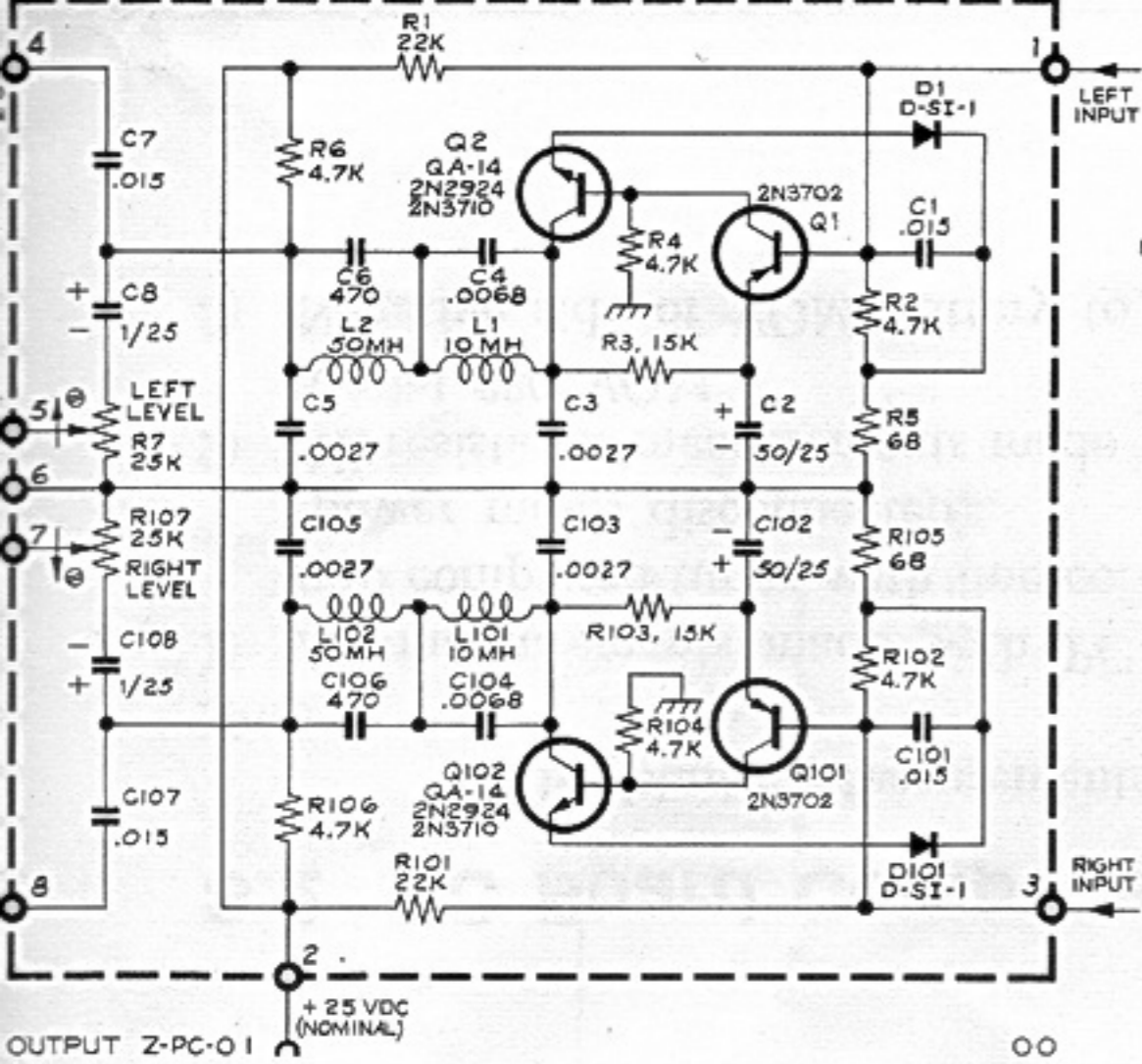
Usable Sensitivity (UV)	1.7 uv
Cross Modulation Rejection	90 db
Signal to Noise Ratio	65 db
Total Harmonic Distortion	0.8%
Frequency Deviation	less than .02%
Frequency Response	* 50-15,000 hz : ± 1 db
Selectivity	45 db
Hum	-70 db
Separation	40 db
Audio Output (100% modulation)	1.2 vrms
Tuning Range	87-109 mc
Accuracy of Calibration	0.5%
FM Front End	3 Field Effect

* This is limit of F.C.C. specifications. All SCOTT tuners have far wider frequency response.



NOTES

1. Unless otherwise specified: Resistance in ohms $\pm 10\%$ capacitance in MFD's. Resistors 1/4 watt.
2. Indicated supply voltages may vary above or below nominal voltage shown from model to model.
3. DC voltages $\pm 15\%$ measured with 20k ohm/v vom.
4. Arrow-heads indicate main signal path.



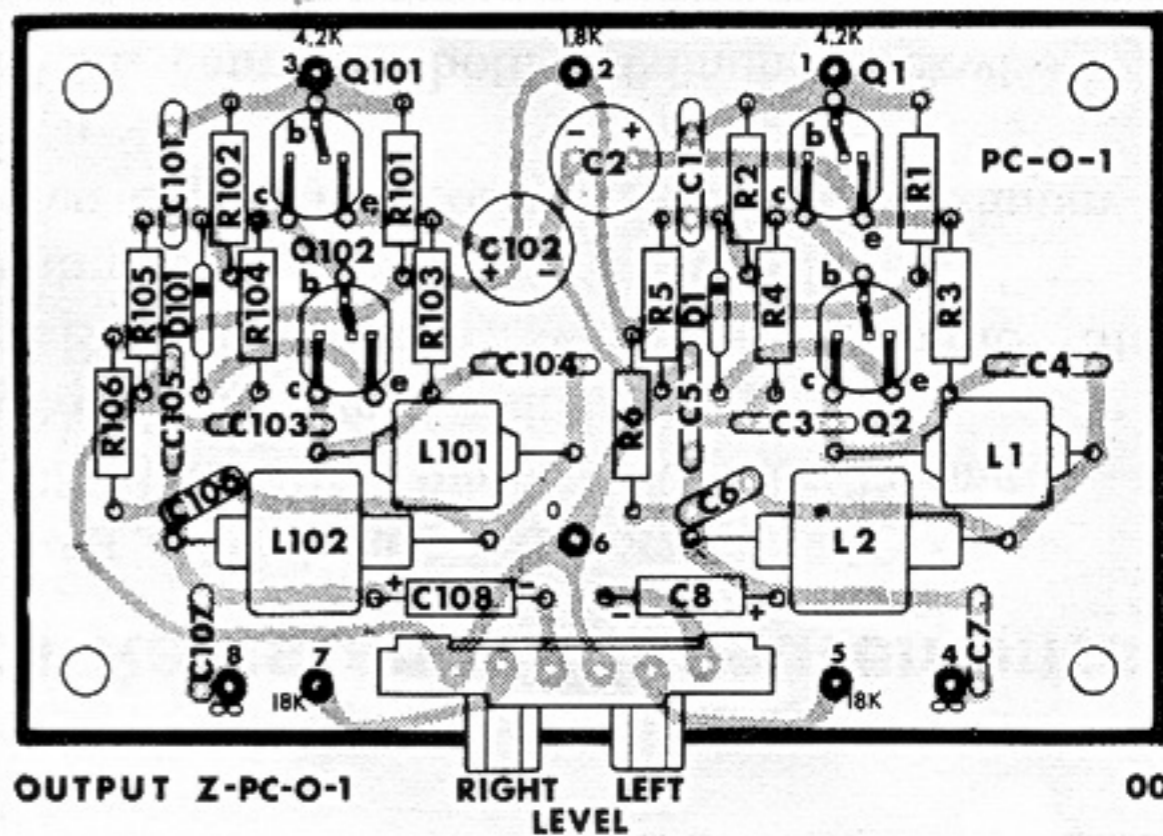
Output Audio Amplifier

Q1, Q101 - 2N3702
Q2, Q102 - QA-14, 2N3710 & 2N2924

- NOTES:
1. UNLESS OTHERWISE SPECIFIED:
RESISTANCE IN OHMS $\pm 10\%$
CAPACITANCE IN MFDS
RESISTORS 1/2 WATT
2. ARROWS ON POTENTIOMETERS
INDICATE CW ROTATION
3. INDICATED SUPPLY VOLTAGES
MAY VARY ABOVE OR BELOW
NOMINAL VOLTAGE SHOWN
FROM MODEL TO MODEL.
4. ARROW-HEADS INDICATE
MAIN SIGNAL PATH.

HIGHEST SERIES NUMBERS

C8	C108
D1	D101
L2	L102
R7	R107



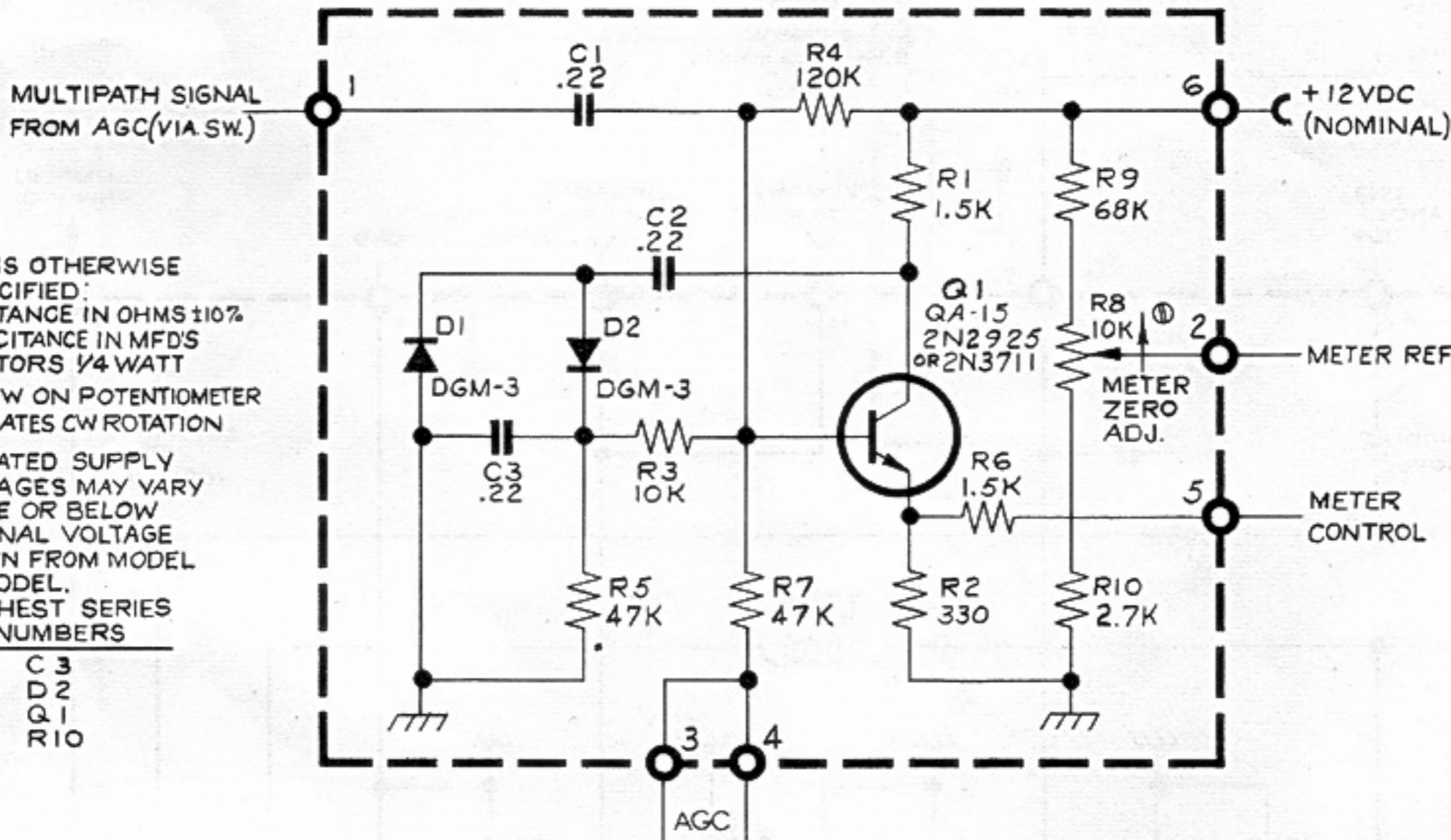
Output Z-PC-0-1

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
RESISTANCE IN OHMS $\pm 10\%$
CAPACITANCE IN MFDS
RESISTORS 1/4 WATT
2. ARROW ON POTENTIOMETER
INDICATES CW ROTATION
3. INDICATED SUPPLY
VOLTAGES MAY VARY ABOVE OR BELOW
NOMINAL VOLTAGE SHOWN
FROM MODEL TO MODEL.

HIGHEST SERIES NUMBERS

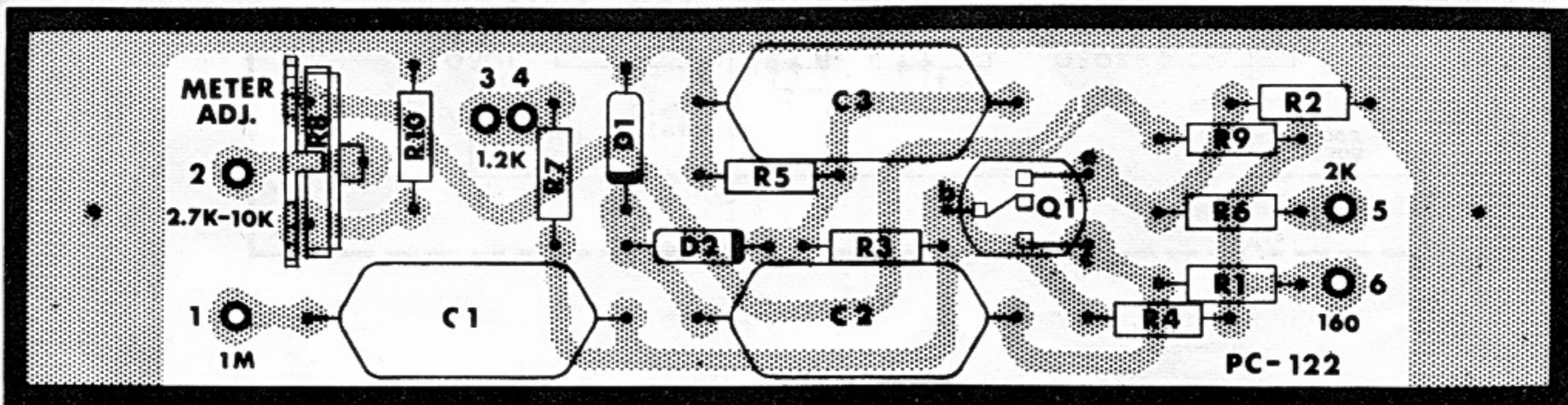
C3
D2
Q1
R10



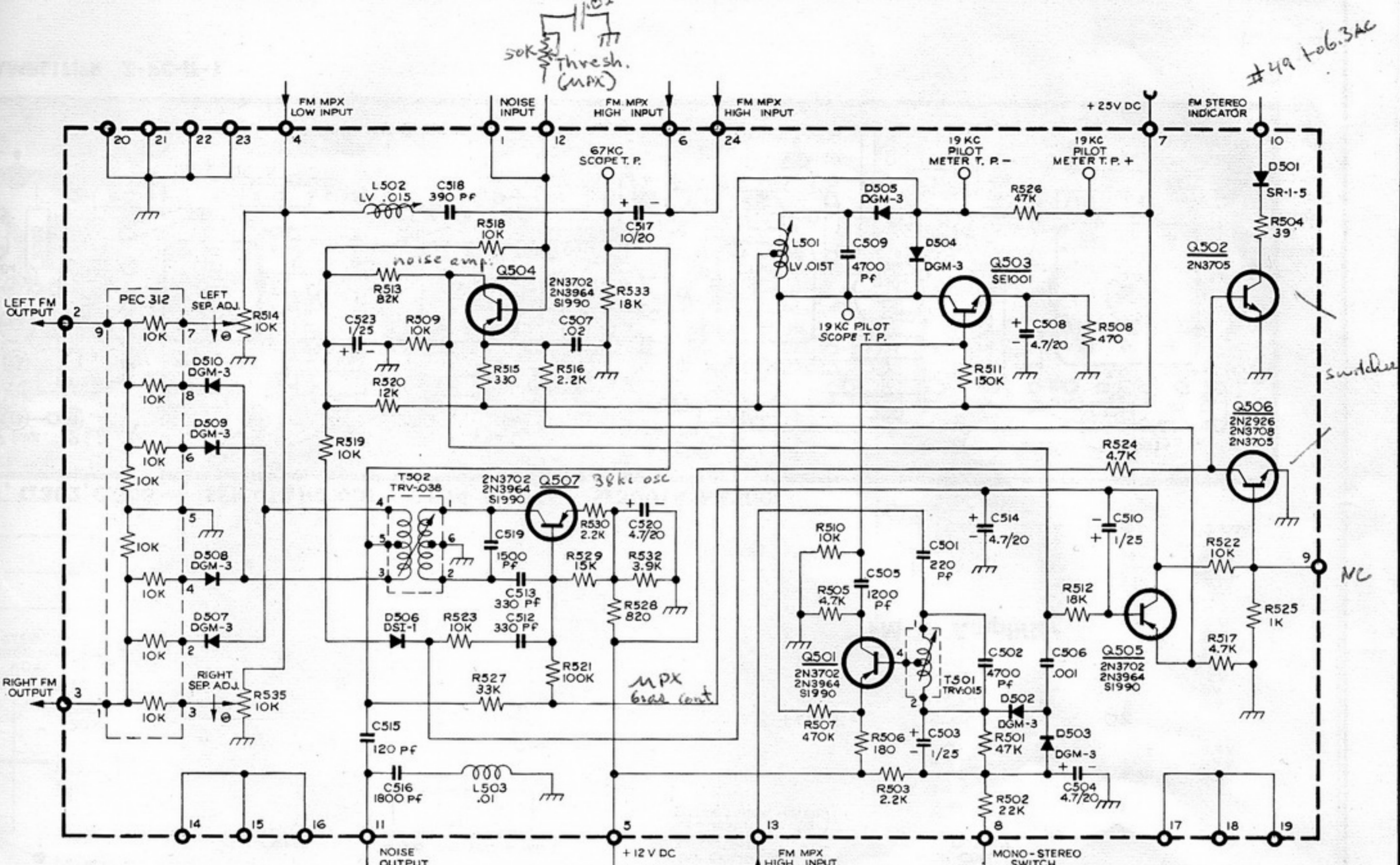
Multipath Indicator

Z-PC-MI-1

Q1 - 2N2925 or 2N3711 (QA-15)



Multipath Indicator Z-PC-MI-1



AUTOMATIC MULTIPLEX DEMODULATOR

NOTES:

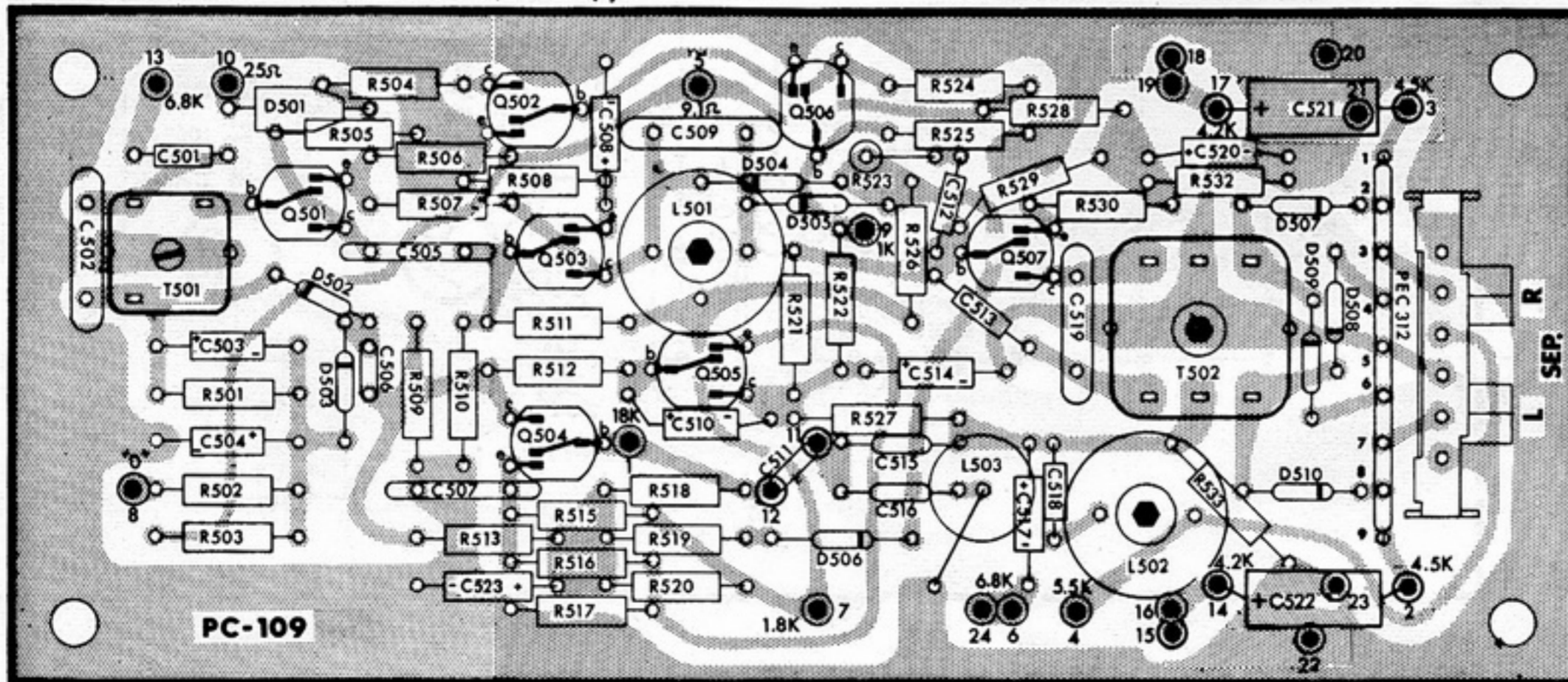
1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS $\pm 10\%$ CAPACITANCE IN MFD'S, RESISTORS $\frac{1}{2}$ WATT.
2. ARROWS ON POTENTIOMETERS INDICATE CW ROTATION.
3. PILOT ADJ. - USING 2000 OHM/V METER, MEASURE 4V MIN. DC. SEE INSTRUCTIONS.
4. INDICATED SUPPLY VOLTAGES MAY VARY ABOVE OR BELOW NOMINAL VOLTAGE SHOWN. FROM MODEL TO MODEL.
5. ARROW-HEADS INDICATE MAIN SIGNAL PATH.

HIGHEST SERIES NUMBERS

- C523
- D510
- L503
- Q507
- R535
- T502

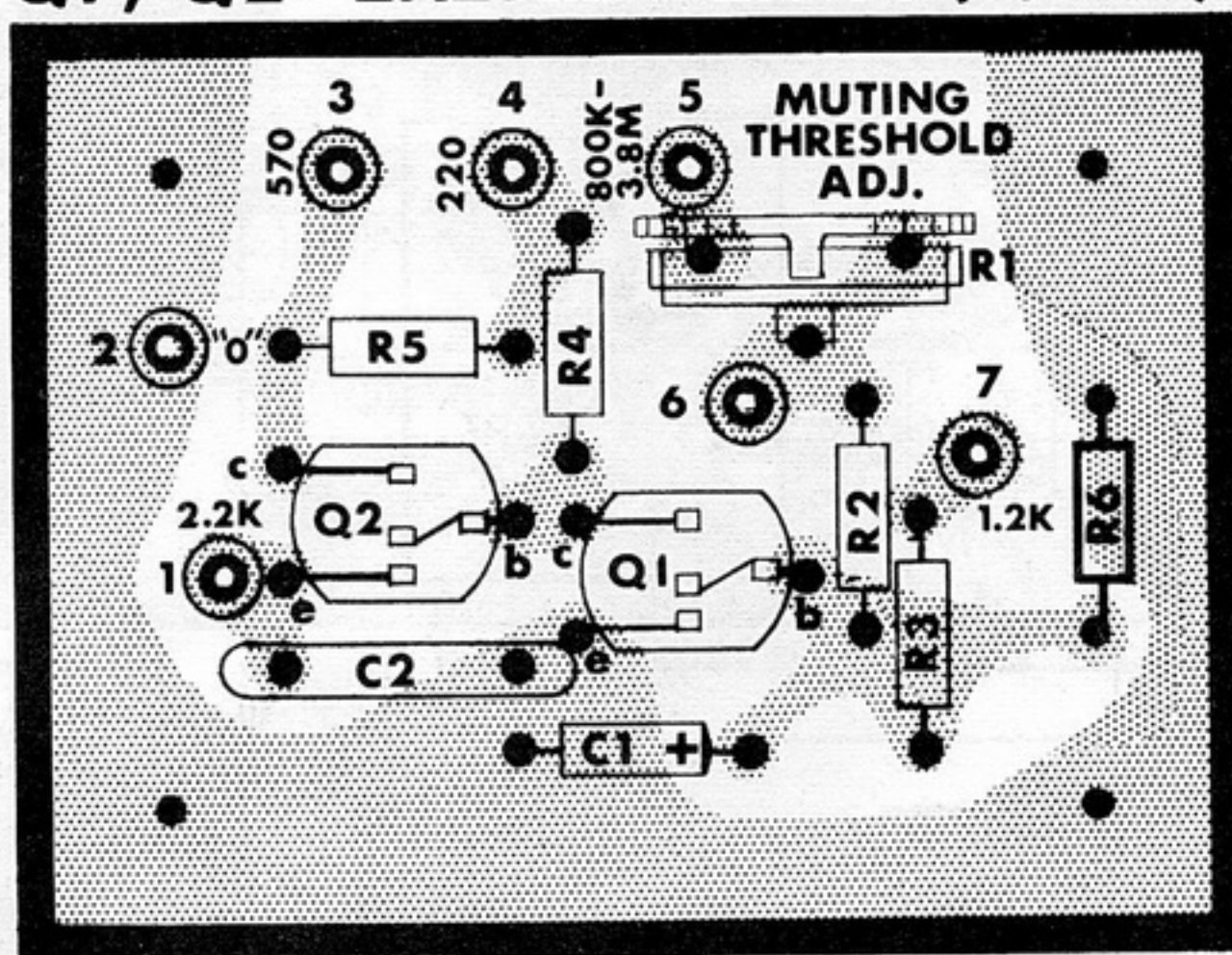
Multiplex

- Q501, Q504, Q505, Q507 - 51990, 2N3964, 2N3702
- Q502 - Q-2N3705
- Q503 - SE 1001
- Q506 - Q-2N2926 or Q-2N3708(QA-13), or 2N3705



MULTIPLEX Z-PC-MX-11

Q1, Q2 - 2N2925 or 2N3711(QA-15)



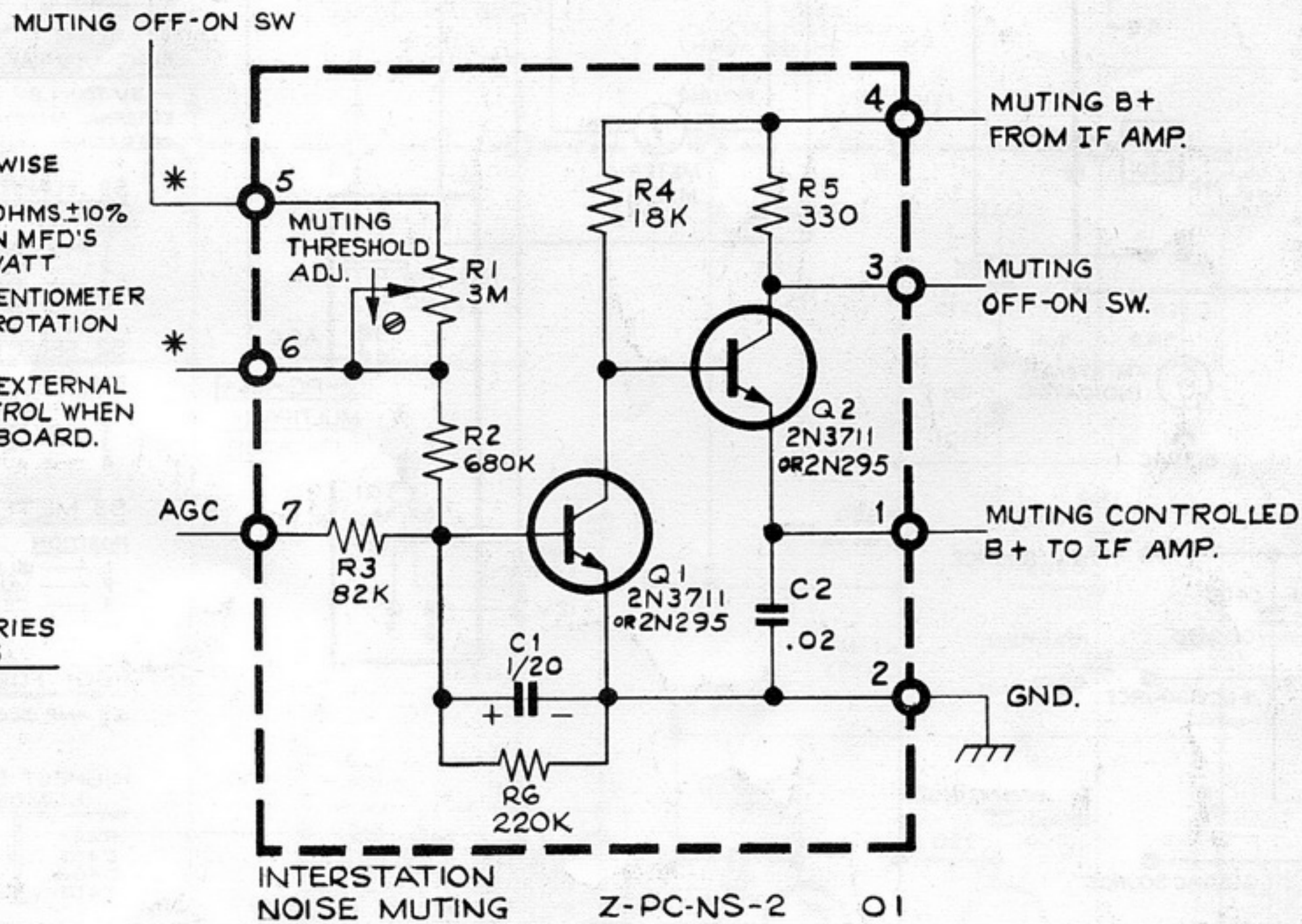
INTERSTATION Z-PC-NS-2 NOISE MUTING 00

NOTES:

1. UNLESS OTHERWISE SPECIFIED:
RESISTANCE IN OHMS $\pm 10\%$
CAPACITANCE IN MFD'S
RESISTORS $\frac{1}{4}$ WATT
2. ARROW ON POTENTIOMETER INDICATES CW ROTATION
- 3 * FOR USE WITH EXTERNAL MUTING CONTROL WHEN R1 IS NOT ON BOARD.

HIGHEST SERIES NUMBERS

- C2
R6
Q2



INTERSTATION NOISE MUTING Z-PC-NS-2 01

Z-PC-NS-2 Parts List

PC BOARD

PC-124

C1

CTT-1/25

C2

CC-.02

Q1, Q2

QA-15, 2N3711, 2N2925

R1

R2

R3

R4

R5

R6

RCV-3M-PCM

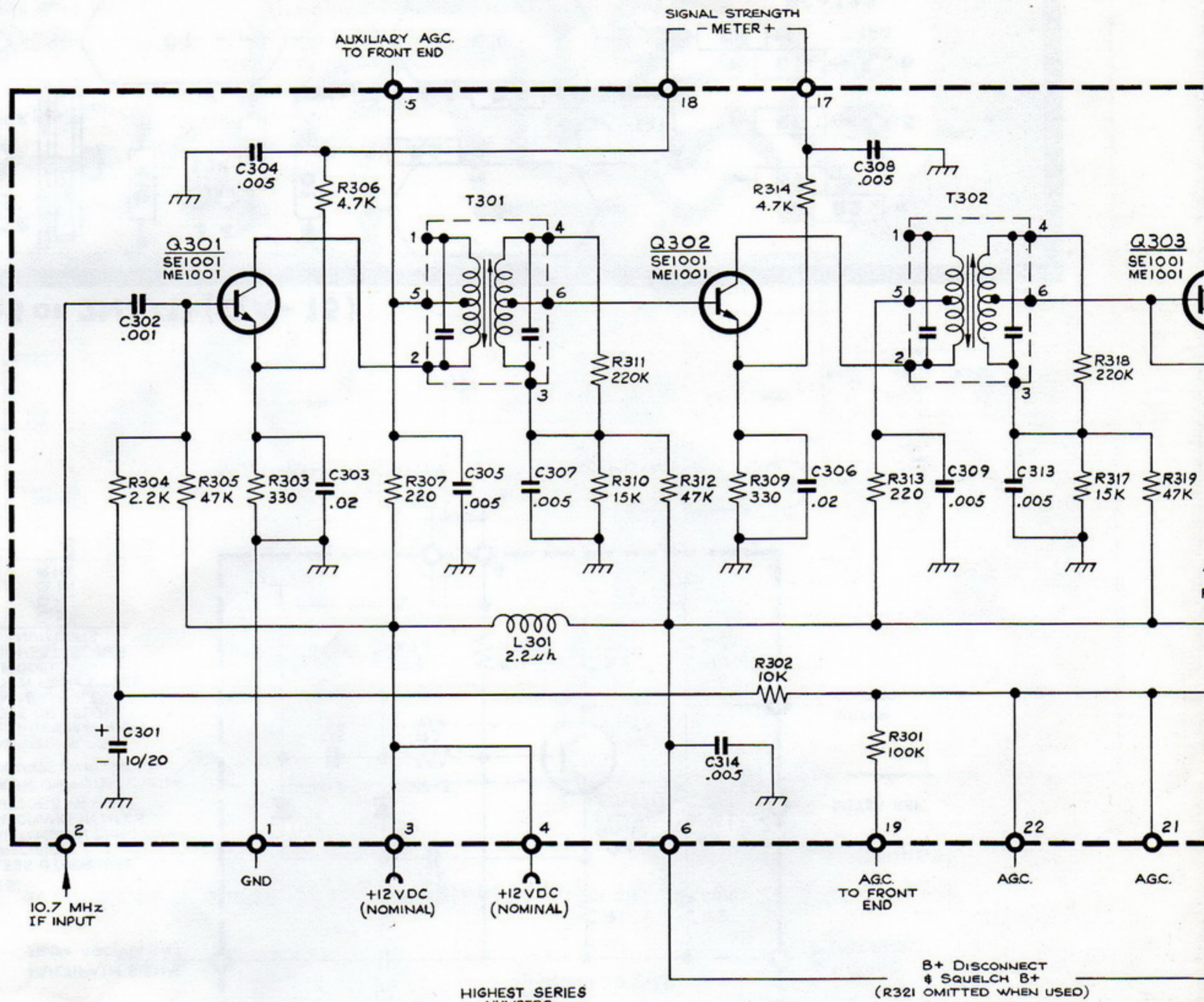
RC11-680k

RC11-82k

RC11-18k

RC11-330

RC11-220k



FM IF AMPLIFIER

HIGHEST SERIES NUMBERS
 R330
 C328
 D304
 L301
 T304
 Q305

NOTES

1. UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS $\pm 10\%$ RESISTORS $\frac{1}{2}$ WATT, CAPACITANCE IN MFD'S.
2. D.C. VOLTAGES $\pm 15\%$ MEASURED WITH 20 K Ω /V V.O.M.
3. INDICATED SUPPLY VOLTAGES MAY VARY ABOVE OR BELOW NOMINAL VOLTAGE SHOWH FROM MODEL TO MODEL.
4. ARROW-HEADS INDICATE MAIN SIGNAL PATH.

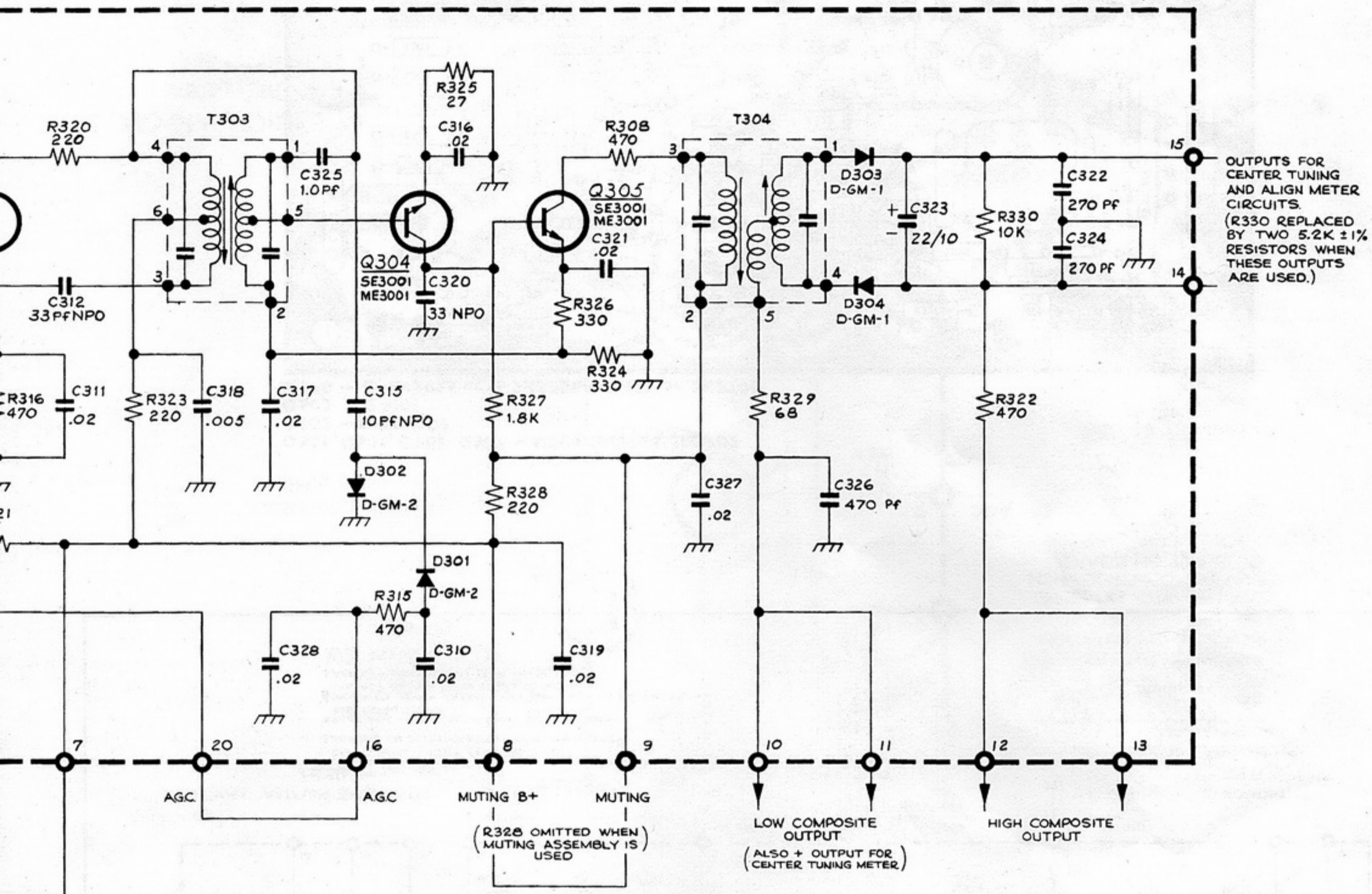
8.2 PC Board Component Layout with Resistance Measurements

Resistance Measurements

Note

- 1) All measurements made with PC boards wired into completed tuner, with line cord disconnected (power mains disconnected).
- 2) All resistance measurements made with a Triplet Model 630 VOM.
- 3) Negative side of VOM battery to ground.

- 4) All controls set as below.
 METER function switch – “Center Tuning”
 FUNCTION rotary switch – “Off”
 SELECTOR rotary switch – “Automatic Stereo,”
 “Muting-Off”
 Stereo Separation controls – set for maximum separation
 LEVEL controls – both maximum clockwise

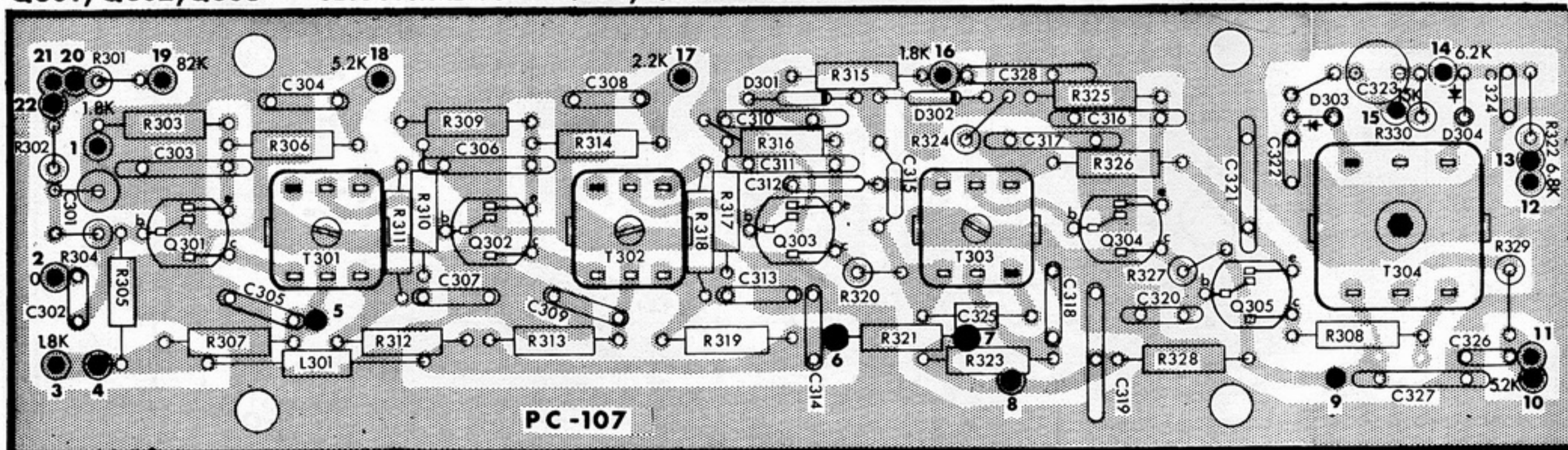


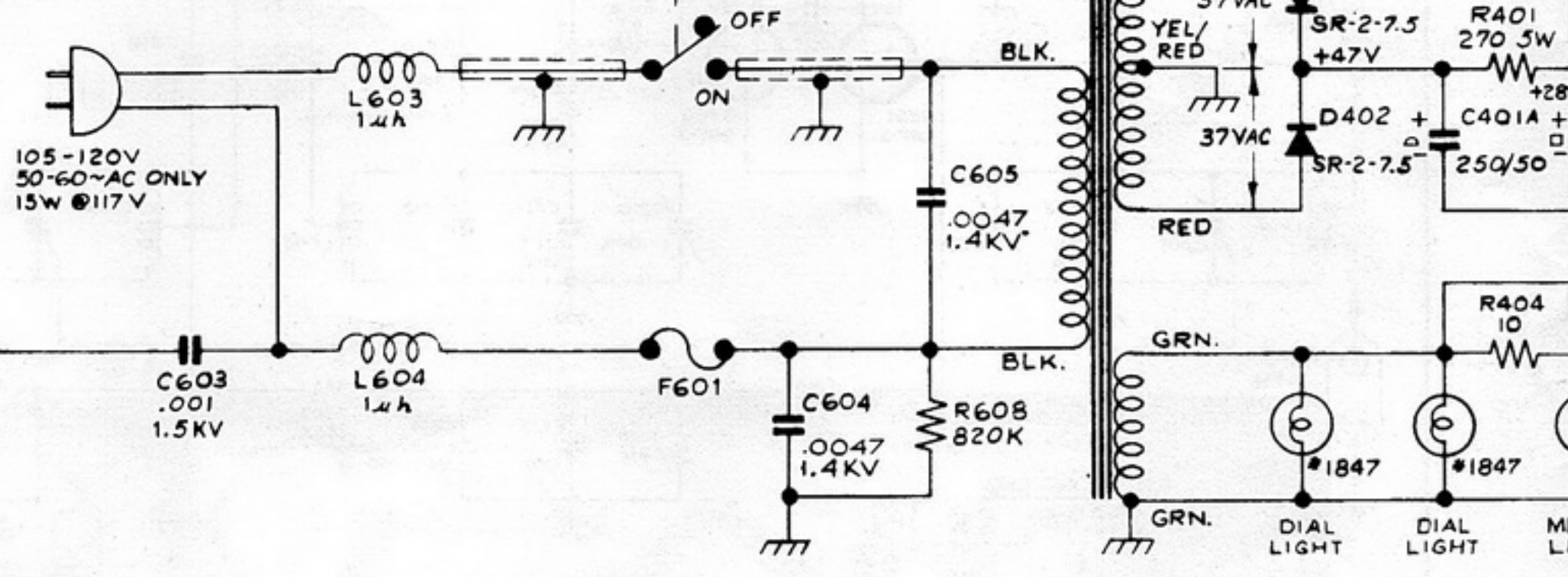
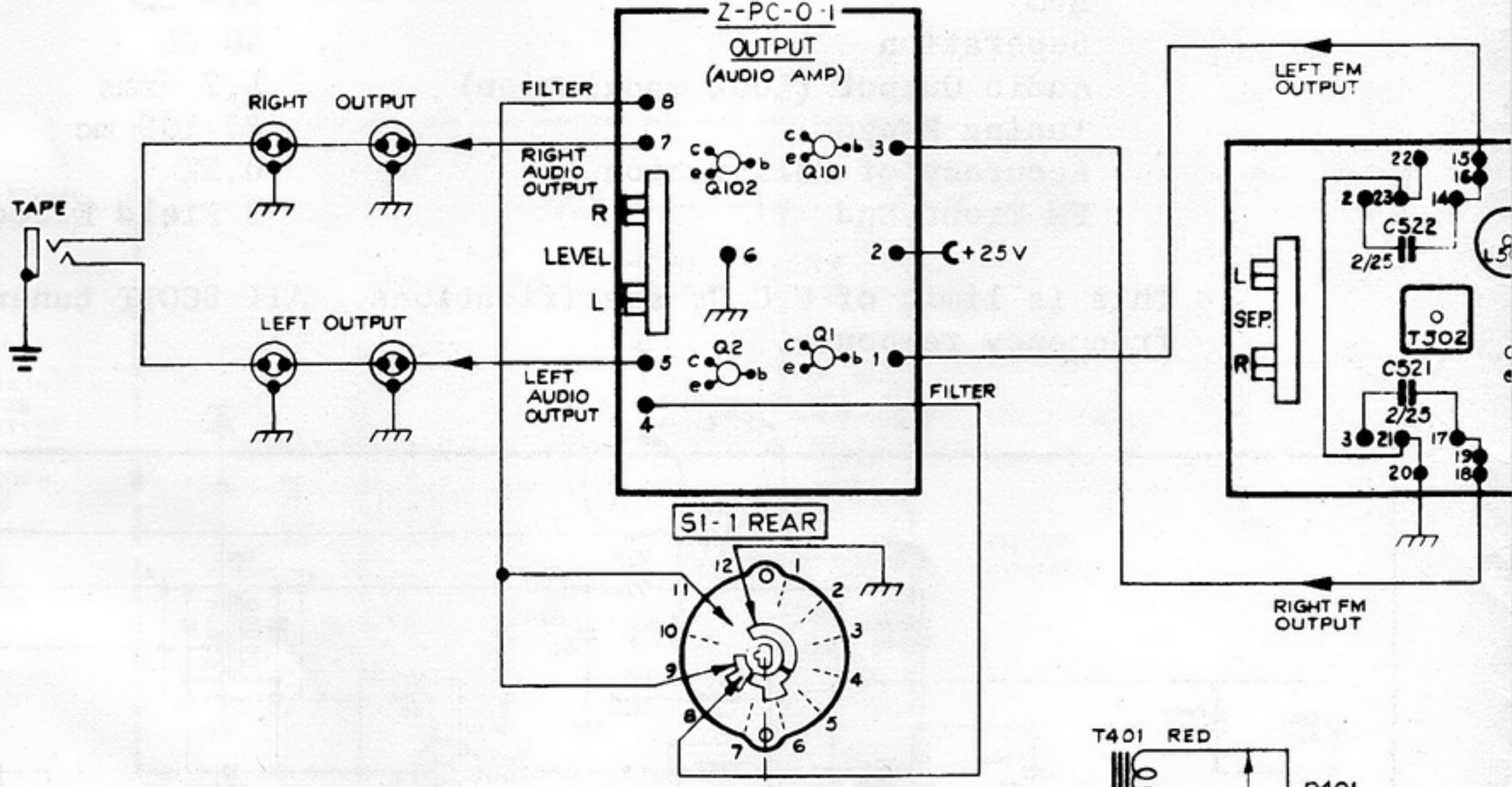
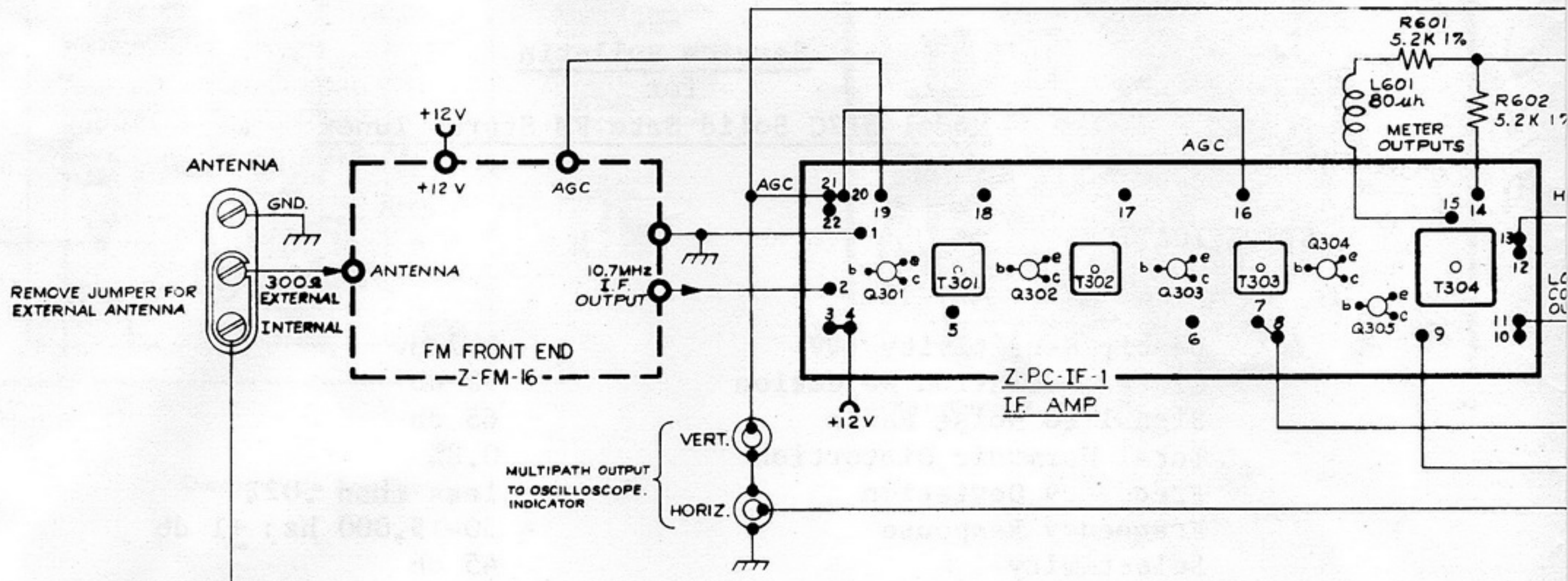
Z-PC-IF-1

02

FM IF Amplifier

Q301, Q302, Q303 - SE1001 & ME1001 Q304, Q305 - SE3001 & ME3001





312 C BROADCAST MONITOR FM TUNER

REVISIONS			
SYM	DESCRIPTION	DATE	APP.

VOLTAGES

UNLESS OTHERWISE SPECIFIED:
 ALL VOLTAGES POSITIVE DC ± 15% MEASURED WITH 20KΩ/V VOM AND 117 VAC LINE. 300 OHM LOAD ON EXTERNAL ANTENNA TERMINALS, TUNER OFF STATION AND FUNCTION SWITCH IN NORMAL POSITION, SELECTOR SWITCH IN MONO-MUTING OFF, METER SWITCH IN SIGNAL STRENGTH POSITION.
 * VOLTAGES MEASURED UNDER SAME CONDITIONS AS ABOVE, ONLY SELECTOR SWITCH IN MONO-MUTING ON POSITION.
 ** VOLTAGES MEASURED UNDER SAME CONDITIONS AS ABOVE ONLY SELECTOR SWITCH IN AUTO STEREO-MUTING OFF WITH STEREO SIGNAL FED INTO TUNER.

Z-PC-IF-1			
	e	b	c
Q301	1.75V	2V	11V
Q302	1.75V	2V	11V
Q303	1.5V	2V	10V
Q304	.1V	.9V	2.5V
* Q304	0V	0V	0V
Q305	1.8V	2.5V	7.4V
* Q305	0V	0V	0V

Z-PC-O-1			
	e	b	c
Q1	4.4V	4.2V	1.2V
Q2	1V	1.2V	9.2V
Q101	4.4V	4.2V	1.2V
Q102	1V	1.2V	9.2V

Z-PC-MX-11			
	e	b	c
Q501	11V	10V	1.5V
Q502	0V	.7V	1.1V
Q503	.7V	1.3V	23V
Q504	23V	22V	21V
Q505	15.5V	22V	.65V
Q506	0V	.1V	.7V
Q507	7.6V	8.3V	0V
Q501	11V	11V	0V
Q502	0V	0V	2.7V
Q503	.9V	1.4V	23.5V
Q504	23V	23V	10V
Q505	12V	12V	12V
Q506	0V	.5V	0V
Q507	9V	9V	0V

Z-PC-NS-2			
	e	b	c
Q1	0V	.47V	9.4V
* Q1	0V	.66V	.19V
Q2	8.7V	9.4V	9.4V
* Q2	0V	.19V	11.8V

Z-PC-MI-1			
	e	b	c
Q1	1.4V	2V	5.4V

AGC VOLTAGE

-1.5V TO -1.8V WITH 1000μV SIGNAL FED TO EXTERNAL ANTENNA TERMINALS WITH THE UNIT OPERATING.

S1 FUNCTION SWITCH (SRW-44-11)

POSITION	FUNCTION
1	OFF
2	NORMAL
3	SUB CH FILTER
4	NOISE FILTER

S2 SELECTOR SWITCH (SRW-24-B)

POSITION	FUNCTION
1	MONO - MUTING OFF
2	MONO - MUTING ON
3	AUTO STEREO - MUTING ON
4	AUTO STEREO - MUTING OFF

S3 METER SWITCH (SRW-33-7)

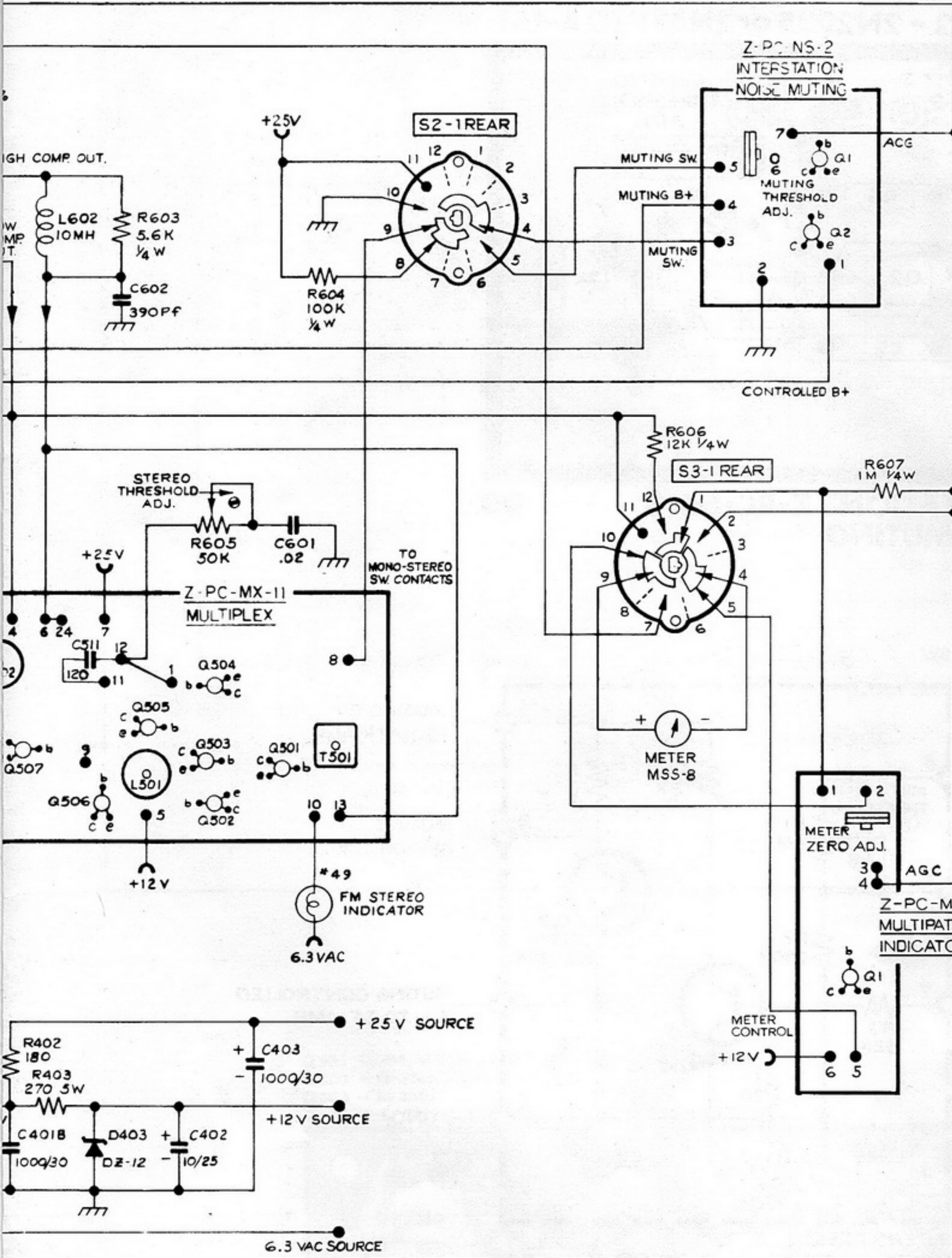
POSITION	FUNCTION
1	SIGNAL STRENGTH
2	MULTIPATH
3	CENTER TUNING

F601 FUSE

0.5 AMP SLO-BLO

HIGHEST SERIES NUMBERS

R404	R608
C404	C605
D403	L603
T401	F601



NOTES

- UNLESS OTHERWISE SPECIFIED: RESISTANCE IN OHMS ± 10% CAPACITANCE IN MFC'S, RESISTORS 1/2 WATT.
- CAPACITORS C521, C522, C511 ADDED TO Z-PC-MX-11 ASSEMBLY
- ROTARY SWITCHES SHOWN IN FULL CCW POSITION AS VIEWED FROM THE FRONT.
- ON Z-PC-IF-1 ASSEMBLY RESISTORS R328 AND R330 ARE REMOVED.
- ARROW-HEADS INDICATE MAIN SIGNAL PATH.
- ARROW ON POTENTIOMETER INDICATES CW ROTATION.

DATE 10-14-66	H.H. SCOTT, INC. NAYHARD, MASS.
DRAW. B	
CH.	CIRCUIT DIAGRAM
ENG. D.B. LANGMIR	SCALE: —
PROD.	SHEET 1 OF 1
	DWG. SIZE D
	312C-C1

312C-C1 0