



Pages 63-72 Courtesy of

LLOYD'S ELECTRONICS OF CALIFORNIA, INC.

EQUIPMENT NEEDED

- | | |
|-------------------------------|------------------------|
| 1. AM SIGNAL GENERATOR | 5. MARKER GENERATOR |
| 2. FM SIGNAL GENERATOR | 6. OSCILLOSCOPE |
| 3. IF SWEEP GENERATOR | 7. OUTPUT METER (VTVM) |
| 4. FM STEREO SIGNAL GENERATOR | |

GENERAL

- For AM alignment, apply 1000Hz modulation on the signal generator and radiate signal via a loop.
- Connect a VTVM and oscilloscope across the speaker output terminals. Adjust as in the tables below. When necessary, reduce the oscillator output so that meter reading does not exceed 0.5V.
- Use only non-metallic alignment tools to insure proper alignment.

AM SECTION

Control Setting

Function Switch.....AM

Volume Control.....Max.

Circuit Alignment	Equipment Connection	Step	Gen. Freq.	Dial Setting	Adjustments
IF	<u>AM SIGNAL GENERATOR</u> Radiated Signal via a loop.	1	455KHz (Mod.)	Tuning gang fully open	T5 (Black) & T4 Adjust for maximum output.
	<u>OUTPUT METER (VTVM)</u> Connect across speaker output terminal.	2	"	"	Repeat until no further improvement can be made.
OSCILLATOR	"	3	525KHz (Mod.)	Tuning gang fully closed	L6 (AM Osc. coil-Red) Adjust for maximum output.
		4	1650KHz (Mod.)	Tuning gang fully open	TC4 (AM Osc. Trimmer) Adjust for maximum output.
		5	—	—	Repeat steps 3 & 4.
RF TRACKING	"	6	600KHz (Mod.)	Tune to Signal	L5 (AM Ant. coil) Adjust coil on ferrite for maximum output.
		7	1400KHz (Mod.)	Tune to Signal	TC3 (AM Ant. Trimmer) Adjust for maximum output.
		8	—	—	Repeat steps 6 & 7

Control Setting

Volume Control.....Adjust as necessary

Function Switch.....FM

to keep output below 3V

Circuit Alignment	Equipment Connection	Step	Gen. Freq.	Dial Setting	Adjustments
IF	<u>IF SWEEP GENERATOR</u> High side through 10PF to Base of Q1, low side to ground	1	10.7MHz 100-200KHz Sweep	Tuning gang fully closed	TC2 (Blue) & T1 (Yellow) Adjust for maximum gain and symmetrical pattern on scope centered at 10.7 10.7MHz marker.
	<u>MARKER GENERATOR</u> The same as Sweep Generator <u>OSCILLOSCOPE</u> Across input of L7 & GND.	2	—	—	Repeat step 1
RATIO DET.		3	10.7MHz (Mod.)	Tuning gang fully closed	T3 (Pink) Adjust for Linear 'S' curve centered at 10.7MHz on scope.
		4	—	—	Repeat step 3

OSCILLATOR	<u>FM SIG GENERATOR</u> to FM ANT terminal and GROUND. Disconnect JUMPER for LINE ANT connection	5	87MHz (Mod.)	Tuning gang fully closed	L4 (FM Osc. coil) Adjust for maximum output.
		6	110MHz (Mod.)	Tuning gang fully open	TC2 (FM Osc. Trimmer) Adjust for maximum output.
		7	—	—	Repeat steps 5 & 6
RF TRACKING	<u>OUTPUT METER (VTVM)</u> across speaker JACK shunted with 8-ohm resistor	8	90MHz (Mod.)	Tune to Signal	L2 (FM RF Coil) Adjust for maximum output.
		9	106MHz (Mod.)	Tune to Signal	TC1 (FM, RF, Trimmer) Adjust for maximum output.
		10	—	—	Repeat steps 8 & 9 to obtain max. sensitivity at 90MHz and 106MHz.

*Lloyd's D658, G605, G606, G641, G662, 1D09, 2D17, 2G09,
2G17, 3G16, 3G45 (Ch. 1B09-37A, 1B17-37A)*

CONTROL SETTING

Function Switch.....FM MPX

FM STEREO SIGNAL GENERATOR to FM ANT terminal (Disconnect JUMPER for FM LINE antenna)

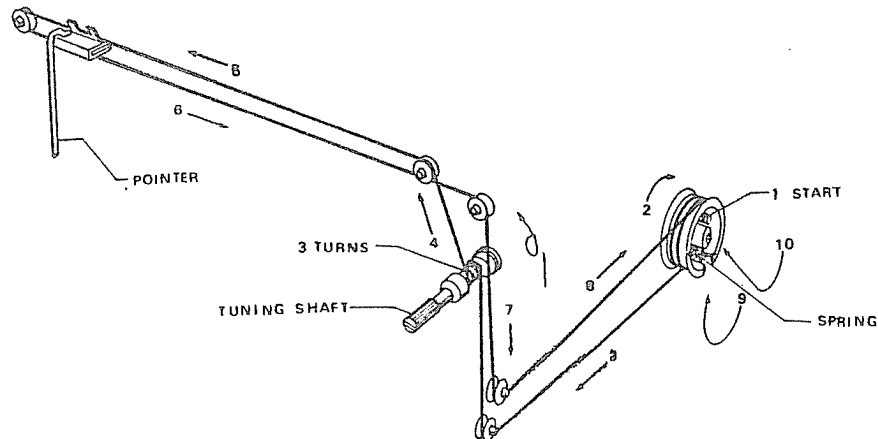
BALANCE control setting.....at center point

VOLUME control setting.....at maximum output

TREBLE & BASS control settings.....at mid-point

Tune the radio to 98MHz of STEREO SIGNAL GENERATOR

Step	FM STEREO SIGNAL GENERATOR			Connect Scope to	Adjust for
	Modulation	Function	Signal Level		
1	19KHz	Stereo LEFT	Start from high level, finally -20 to -30 dB.	R36, 220 ohm	Adjust L8 for max. on scope; finally, PL9 must shine for signal level of 20 to 30 dB.
2	"	"	-60 dB	R37, 220K ohm	L9 for max. on scope.
3	400Hz	FM Stereo RIGHT	-60 dB	Across 'L' channel speaker output shunted with 8 ohm resistor	VR6, 1K ohm, for min. on scope.
4	"	Stereo LEFT	-60 dB	Across 'R' channel speaker output shunted with 8 ohm resistor	VR6 for min. on scope.
5	Repeat step 3 & 4 for minimum and equal on scope; If required re-adjust L9 very slightly				



SEMI CONDUCTORS

ITEM	PART NO.	TYPE
D1	HE-10003	1S188(AM)
D2	HF-20007	1S-553
D3	HE-10003	1S188(AM)
D4	HE-10003	1S188(FM)
D5	HE-10003	1S188(FM)
D6	HE-10003	1S188(MPX)
D7	HE-10003	1S188(MPX)
D8	HE-10003	1S188(MPX)
D9	HE-10003	1S188(MPX)
D10	JC-00014	DS16NE(RECT)
D11	JC-00014	DS16NE(RECT)
IC1	PC-20003	LA-1201B
Q1	HC-00930	2SC930
Q2	HC-00930	2SC930
Q3	HC-00930	2SC930
Q4	HC-00929	2SC929
Q5	HC-00537	2SC537
Q6	HC-00536	2SC536
Q7	HS-40031	CS6228
Q8	HC-00693	2SC693
Q9	HC-00693	2SC693
Q10	HC-00537	2SC537
Q11	HC-00537	2SC537
Q12	HC-00536	2SC536
Q13	HC-00536	2SC536
Q14	HD-00072	2SD72
Q15	HB-00405	2SB405
Q16	HD-00072	2SD72
Q17	HB-00405	2SB405

ELECTROLYTIC/VARIABLE CAPS

ITEM	PART NO.	VALUE
C29	BJ-23337	33mfd 10V
C32	BJ-23107	10mfd 10V
C34	BJ-23107	10mfd 10V
C42	BJ-23476	4.7mfd 10V
C44	BJ-23476	4.7mfd 10V
C45	BJ-23476	4.7mfd 10V
C46	BJ-24106	1mfd 25V
C47	BJ-24107	1mfd 25V
C48	BG-24603	10mfd 25V
C50	BJ-23476	4.7mfd 10V
C57	BJ-23478	470mfd 10V
C61	BJ-23105	.1mfd 10V
C62	BJ-23105	.1mfd 10V
C63	BJ-23106	1mfd 10V
C64	BJ-23106	1mfd 10V
C65	BJ-23108	100mfd 10V
C66	BJ-23108	100mfd 10V
C67	BJ-23105	.1mfd 10V
C68	BJ-23105	.1mfd 10V
C79	BJ-23476	4.7mfd 10V
C80	BJ-23476	4.7mfd 10V
C83	BJ-23447	47mfd 10V
C84	BJ-23447	47mfd 10V
C85	BJ-23476	4.7mfd 10V
C86	BJ-23476	4.7mfd 10V
C87	BJ-42108	10mfd 16V
C88	BJ-42108	10mfd 16V
C91	BJ-42108	10mfd 16V
C92	BJ-42108	10mfd 16V
C93	BJ-42478	470mfd 16V
C94	BJ-42478	470mfd 16V
C100	BJ-23107	10mfd 10V
C103	BJ-42228	220mfd 16V
C104	BI-24229	2200mfd 25V
TC2	BM-00099	8pf Trimmer
VC1	BT-20001	Tuning Gang

CONTROLS/SPECIAL RESISTORS

ITEM	PART NO.	DESCRIPTION
VR1	AX-32001	50K Dual Loudness
VR2	AX-32002	50K Dual Treble
VR3	AX-32002	50K Dual Bass
VR4	AW-31001	15K Balance
VR5	AR-32001	50K Level
VR6	AR-31003	1000 ohms Separation

COILS/TRANSFORMERS

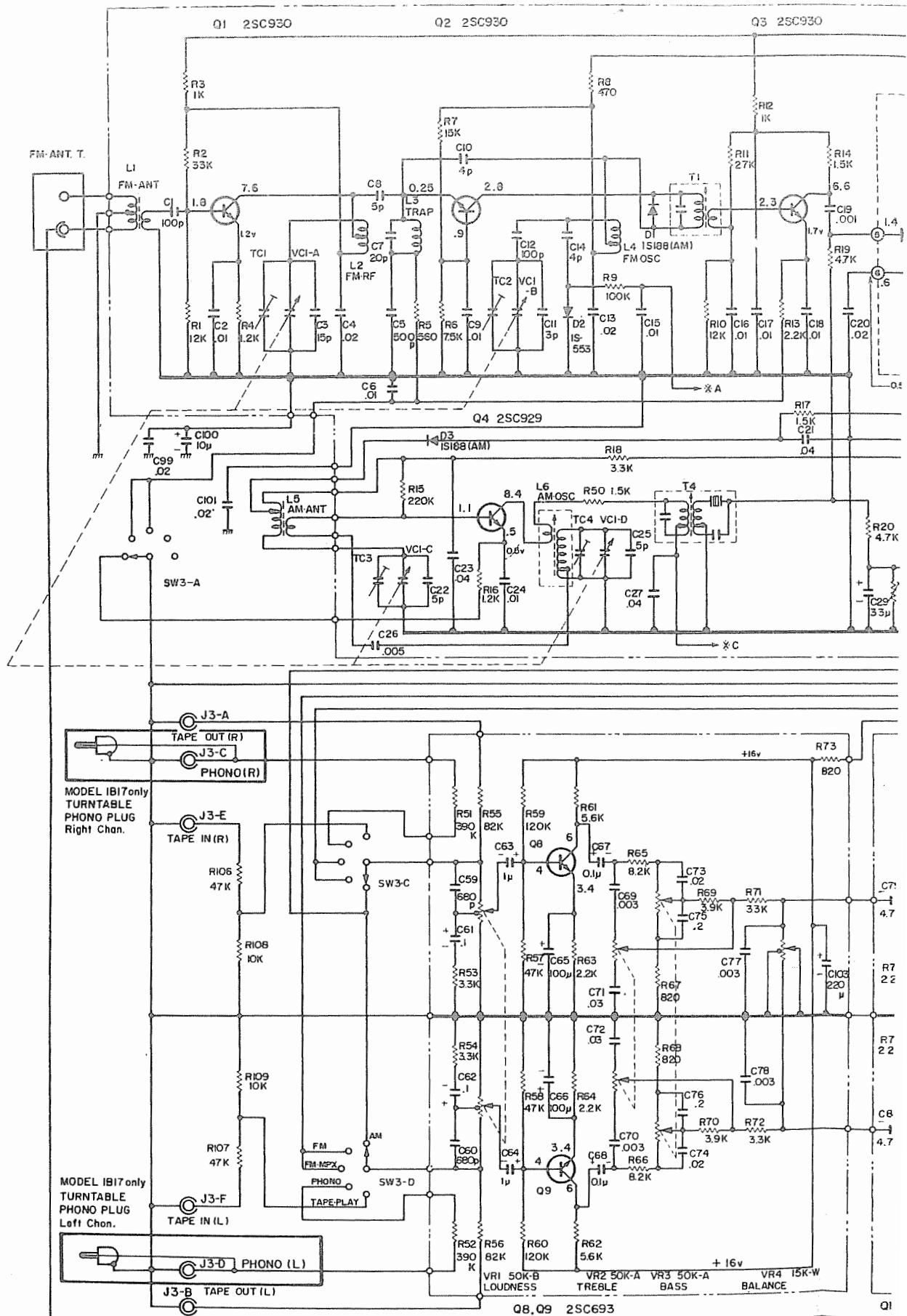
ITEM	PART NO.
L1	DK-00631
L2	DK-00632
L3	DX-00633
L4	DK-00632
L5	DI-00634
L6	DM-00635
L7	DW-00637
L8	DW-00638
L9	DW-00639
L10	DR-00640
L11	DR-00640
T1	EN-00547
T2	EN-00603
T3	EN-00604
T4	DV-00636
T5	EM-00602
T6	EJ-00525

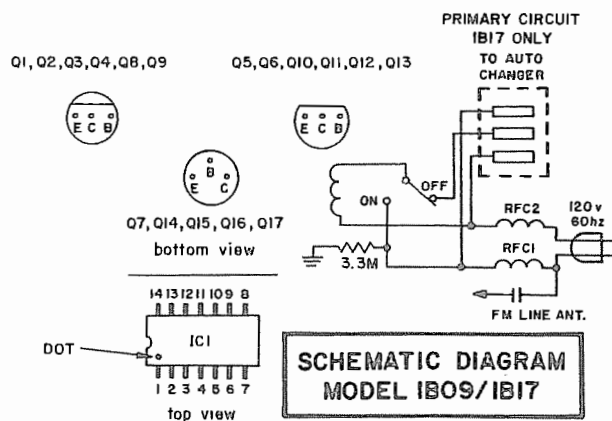
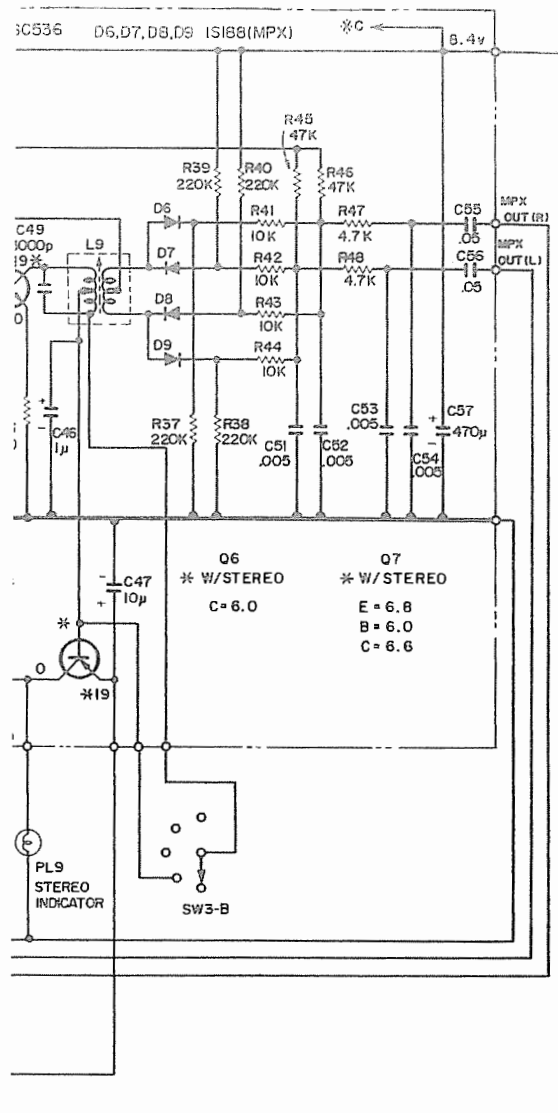
MISCELLANEOUS

ITEM	NAME	PART NO.
CF-1	Filter, Ceramic, 10.7MHz	BZ-00001
NT-1	Component Combination	PA-00007
SW1	Switch, Power	FB-72015
SW2	Switch, AFC	FB-72103
SW3	Switch, Selector	FA-71312

CABINET PARTS

NAME	PART NO.
Cabinet	LA-02022
Panel, Front	LB-01945
Plate, Control	LJ-01946
Plate, Top Trim	LK-01996
Plate, Left Trim	LK-01997
Plate, Right Trim	LK-01998
Knob, Power	LH-01950
Knob, AFC	LH-01951
Knob, Control	LH-01952
Knob, Selector	LH-01953
Knob, Tuning	LH-01954

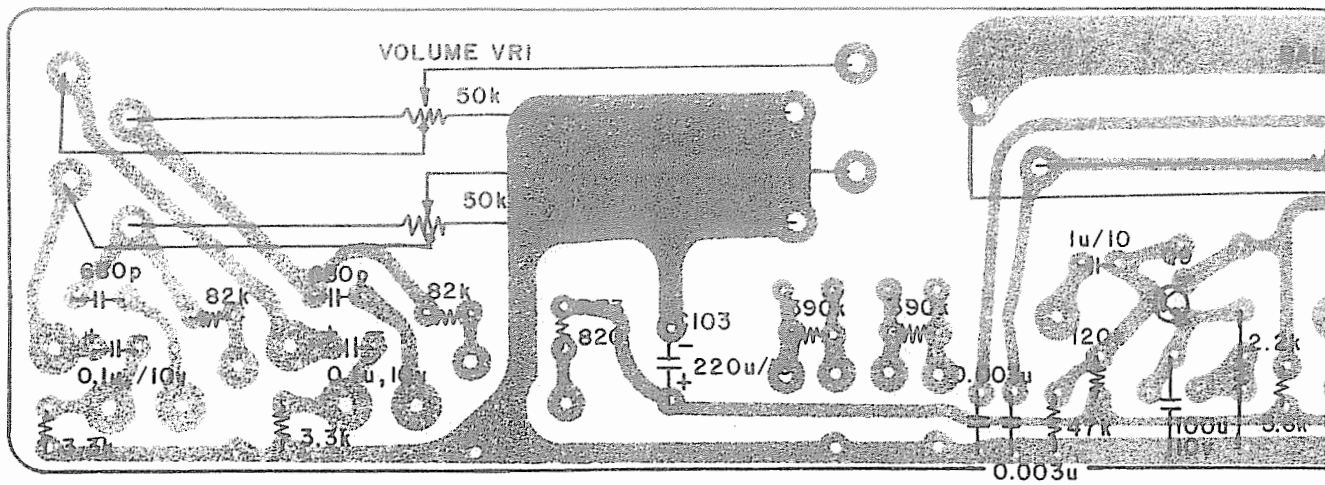




NOTES:

1. ALL RESISTANCE VALUES ARE IN OHMS, 1/4 watt $\pm 10\%$ UNLESS OTHERWISE SPECIFIED.
2. ALL CAPACITORS ARE IN μ f. UNLESS OTHERWISE SPECIFIED.
3. ALL VOLTAGES TAKEN WITH RESPECT TO GROUND WITH A D.C. V.T.V.M.
4. ALL VOLTAGES GIVEN WITH NO SIGNAL INPUT, LINE VOLTAGE 120v, 60hz.
5. VOLTAGES MAY VARY DUE TO NORMAL PRODUCTION TOLERANCES.

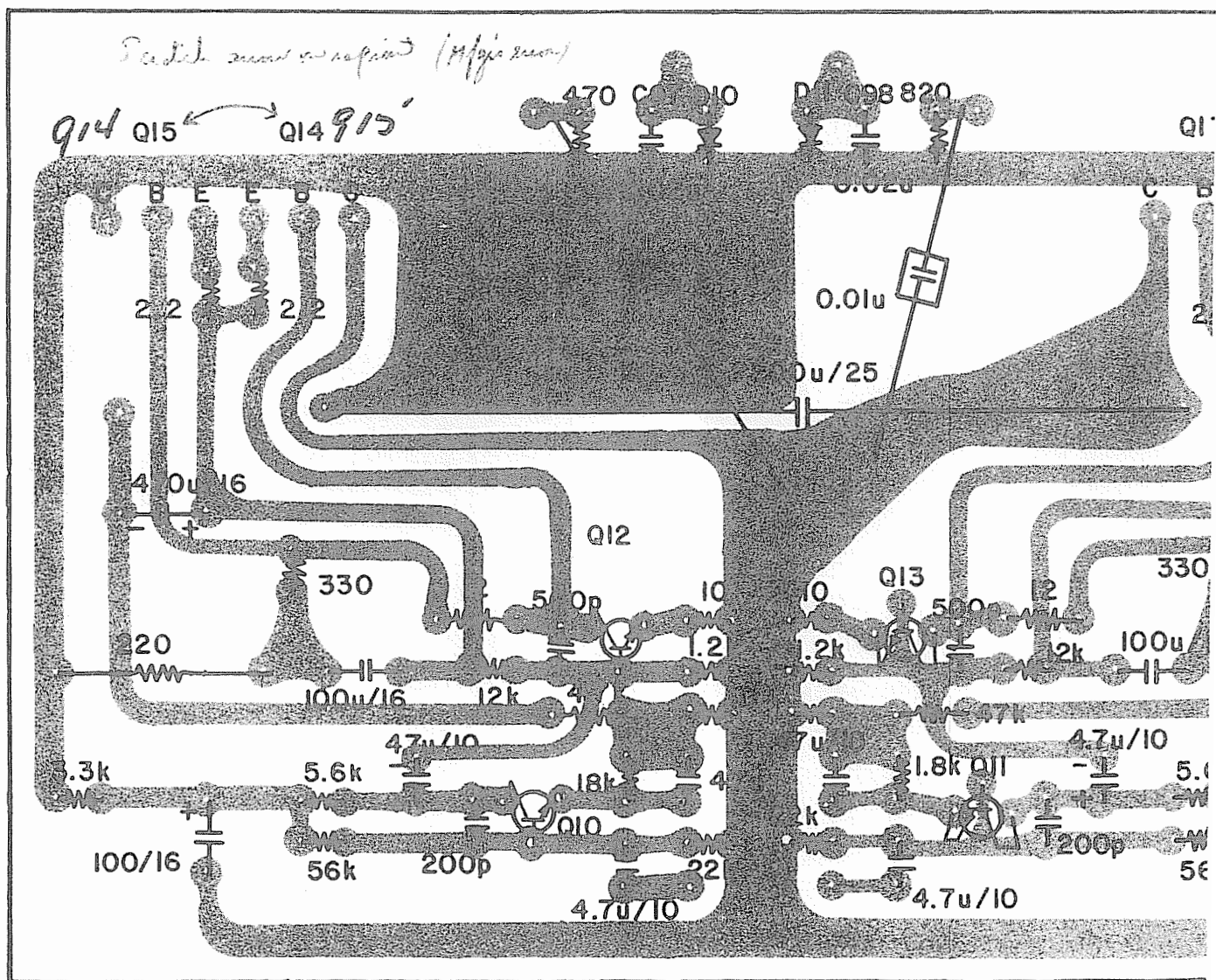
AUDIO PREAMP P/C BOARD



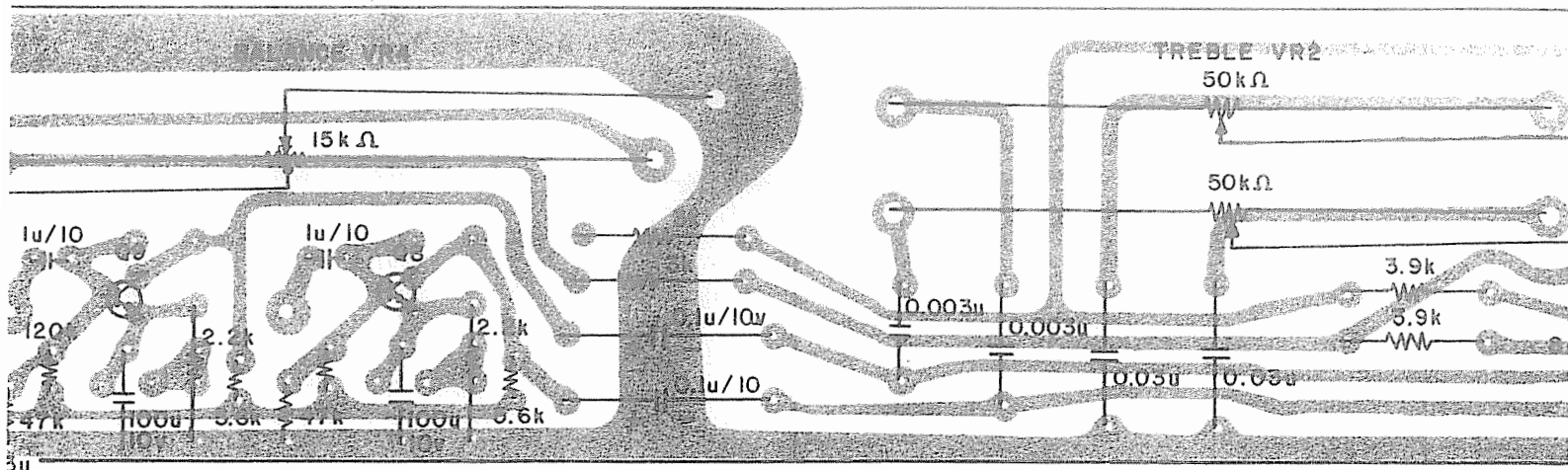
Right Chan.

POWER AMP P/C BOARD

Left



*Lloyd's D658, G605, G606, G641, G662, 1D09, 2D17, 2G09,
2G17, 3G16, 3G45 (Ch. 1B09-37A, 1B17-37A)*



CARD Left Chan.

