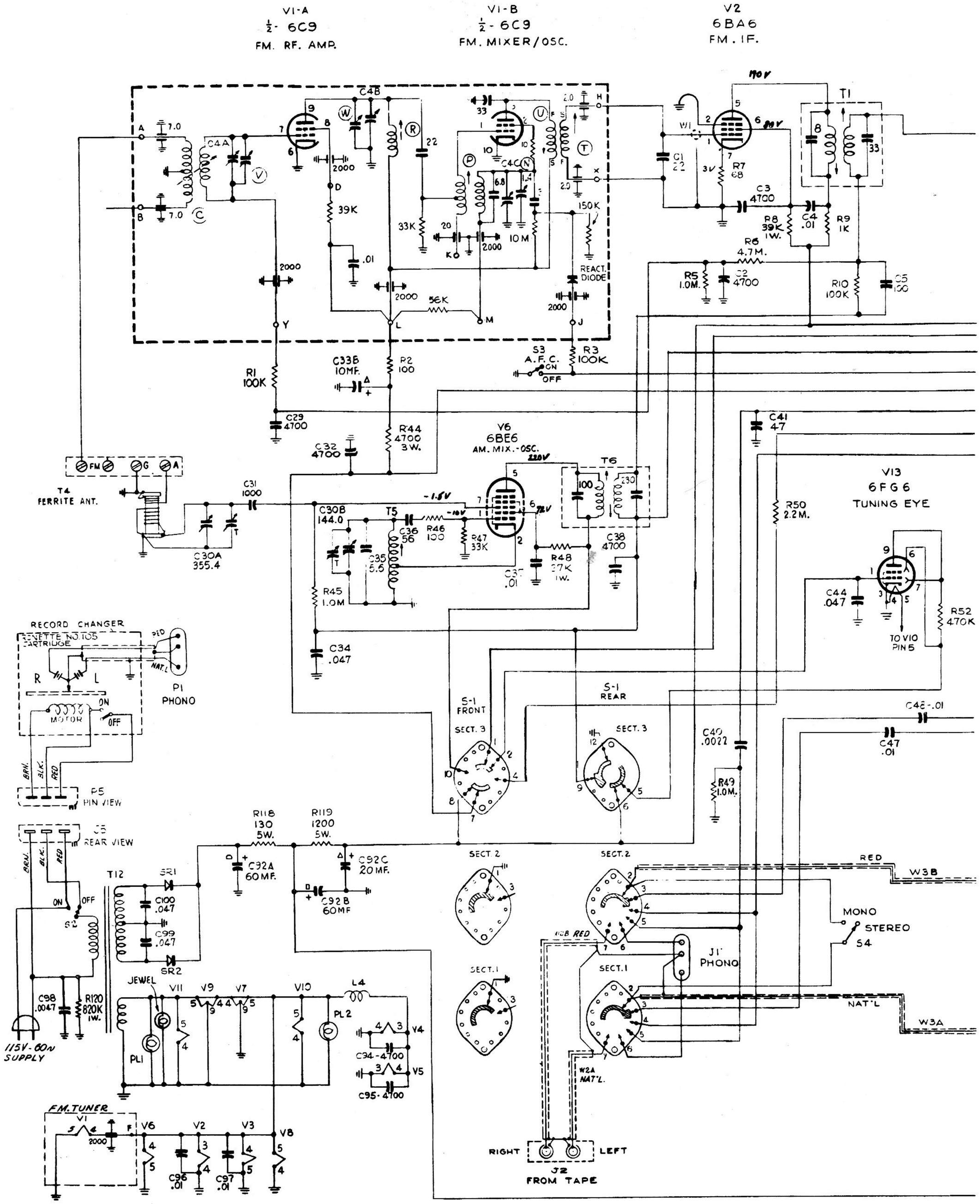
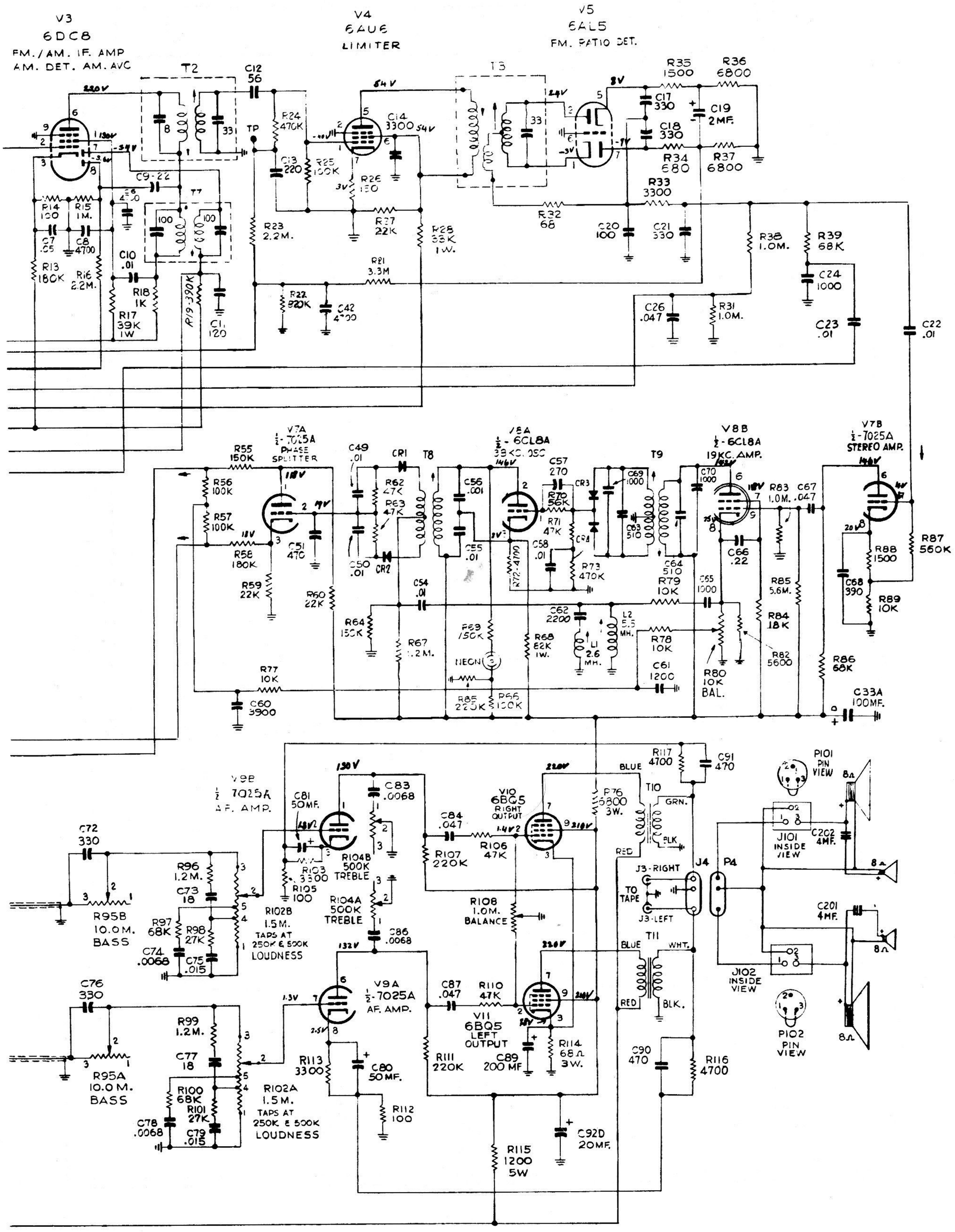

V1-A
½ - 6C9
FM. RF. AMP.
V1-B
½ - 6C9
FM. MIXER/OSC.
V2
6BA6
FM. IF.
V6
6BE6
AM. MIX.-OSC.
V13
6FG6
TUNING EYE
T1
T4
FERRITE ANT.
T5
T6
C30A 355.4
C30B 144.0
C31 1000
C32 4700
C33B 10MF.
C34 .047
C35 5.6
C36 56
C38 4700
C39 .01
C40 .0022
C41 47
C44 .047
C47 .01
C48 -.01
R1 100K
R2 100
R3 100K
R44 4700 3W.
R45 1.0M
R46 100
R47 33K
R48 27K 1W.
R49 1.0M.
R50 2.2M.
R52 470K
C1 22
R7 68
C3 4700
R8 39K 1W.
C4 .01
R9 1K
R6 4.7M.
R5 1.0M.
C2 4700
R10 100K
C5 100
150K
REACT. DIODE
10M
5EK
S3 A.F.C. ON OFF
S-1 FRONT SECT. 3
S-1 REAR SECT. 3
SECT. 2
SECT. 1
TO V10 PIN 5
RECORD CHANGER
RENETTE NO. 105 CARTRIDGE
P1 PHONO
MOTOR ON OFF
P5 PIN VIEW
J5 REAR VIEW
BRN. BLK. RED
S2 ON OFF
115V-60N SUPPLY
T12
SR1
SR2
C100 .047
C99 .047
C98 .0047
R120 820K 1W.
C92A 60MF.
C92B 60MF
C92C 20MF.
R118 130 5W.
R119 1200 5W.
JEWEL
PL1
PL2
V4
V5
C94 - 4700
C95 - 4700
FM. TUNER
C96 .01
C97 .01
W1
W2A NAT'L.
W3A
W3B
RED
MONO
STEREO
S4
J1 PHONO
J2 FROM TAPE
RIGHT
LEFT

SHC868 etc.


V3
6DC8
FM./AM. IF. AMP
AM. DET. AM. AVC
V4
6AU6
LIMITER
V5
6AL5
FM. RATIO DET.
T2
T3
T7
T8
T9
T10
T11
C12 56
TP
R24 470K
C13 220
R25 100K
C14 3300
R26 150
R27 22K
R28 33K 1W.
R23 2.2M.
R21 3.3M
R22 820K
C42 4700
C9-22
R14 100
R15 1M.
C7 .05
C8 4700
R13 180K
R16 2.2M.
C10 .01
R18 1K
R17 39K 1W
R19-390K
C11 120
R32 68
C20 100
C21 330
R33 3300
R35 1500
R36 6800
C17 330
C19 2MF.
C18 330
R34 680
R37 6800
R38 1.0M.
R39 68K
C24 1000
C26 .047
R31 1.0M.
C23 .01
C22 .01
V7A
½-7025A
PHASE SPLITTER
R55 150K
R56 100K
R57 100K
R58 180K
C51 470
R59 22K
R60 22K
C49 .01
C50 .01
CR1
CR2
R62 47K
R63 47K
T8
C56 .001
C55 .01
C54 .01
R64 150K
R67 1.2M.
R77 10K
C60 3900
V8A
½-6CL8A
19KC. OSC
C57 270
R70 56K
R71 47K
CR3
CR4
C58 .01
R73 470K
R72-4700
R69 150K
NEON
R65 220K
R66 100K
R68 62K 1W.
C62 2200
L1 2.6 MH.
L2 5.5 MH.
R78 10K
C61 1200
T9
C69 1000
C63 510
C64 510
R79 10K
V8B
½-6CL8A
19KC. AMP.
C70 1000
C65 1000
R80 10K BAL.
C66 .22
R83 1.0M.
C67 .047
R85 5.6M.
R84 18K
R82 5600
V7B
½-7025A
STEREO AMP.
R87 560K
R88 1500
C68 390
R89 10K
R86 68K
C33A 100MF.
V9B
½ 7025A
A.F. AMP.
C72 330
R96 1.2M.
C73 18
R97 68K
R98 27K
C74 .0068
C75 .015
R95B 10.0M. BASS
R102B 1.5M. TAPS AT 250K & 500K LOUDNESS
C81 50MF.
R103 3300
R105 100
R104B 500K TREBLE
R104A 500K TREBLE
C83 .0068
C86 .0068
V9A
½-7025A
A.F. AMP.
C76 330
R99 1.2M.
C77 18
R100 68K
R101 27K
C78 .0068
C79 .015
R95A 10.0M. BASS
R102A 1.5M. TAPS AT 250K & 500K LOUDNESS
R113 3300
C80 50MF.
R112 100
C84 .047
R106 47K
R107 220K
V10
6BQ5
RIGHT OUTPUT
R108 1.0M. BALANCE
C87 .047
R110 47K
V11
6BQ5
LEFT OUTPUT
R111 220K
C89 200 MF
R114 68Ω 3W.
R115 1200 5W
C92D 20MF.
R76 5800 3W.
R117 4700
C91 470
C90 470
R116 4700
BLUE
GRN.
BLK
RED
WHT.
J3-RIGHT
TO TAPE
J3-LEFT
J4
P4
J101 INSIDE VIEW
J102 INSIDE VIEW
P101 PIN VIEW
P102 PIN VIEW
C202 4MF.
C201 4MF.
8Ω

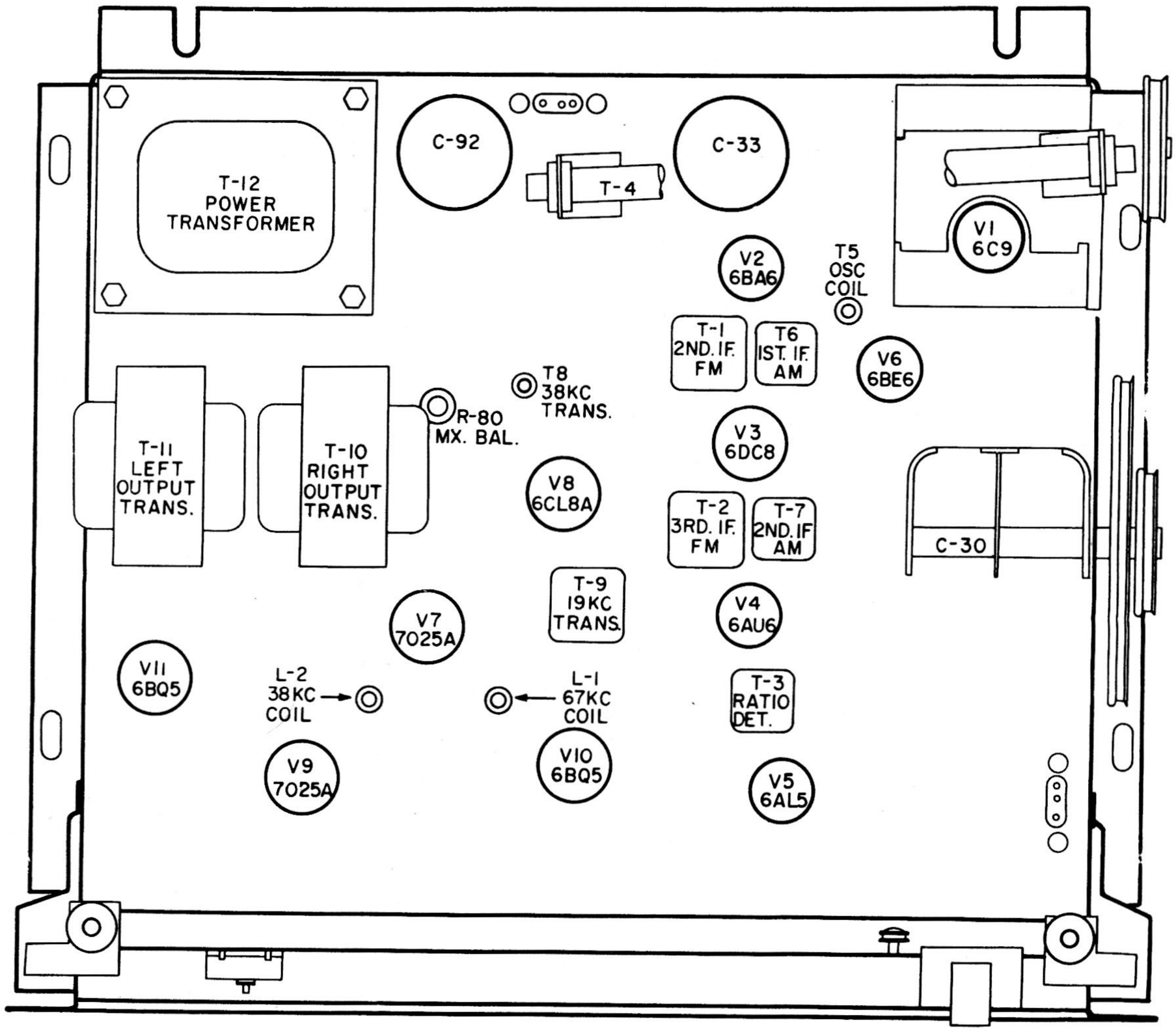


Figure 7 *Chassis Layout (Top View)*

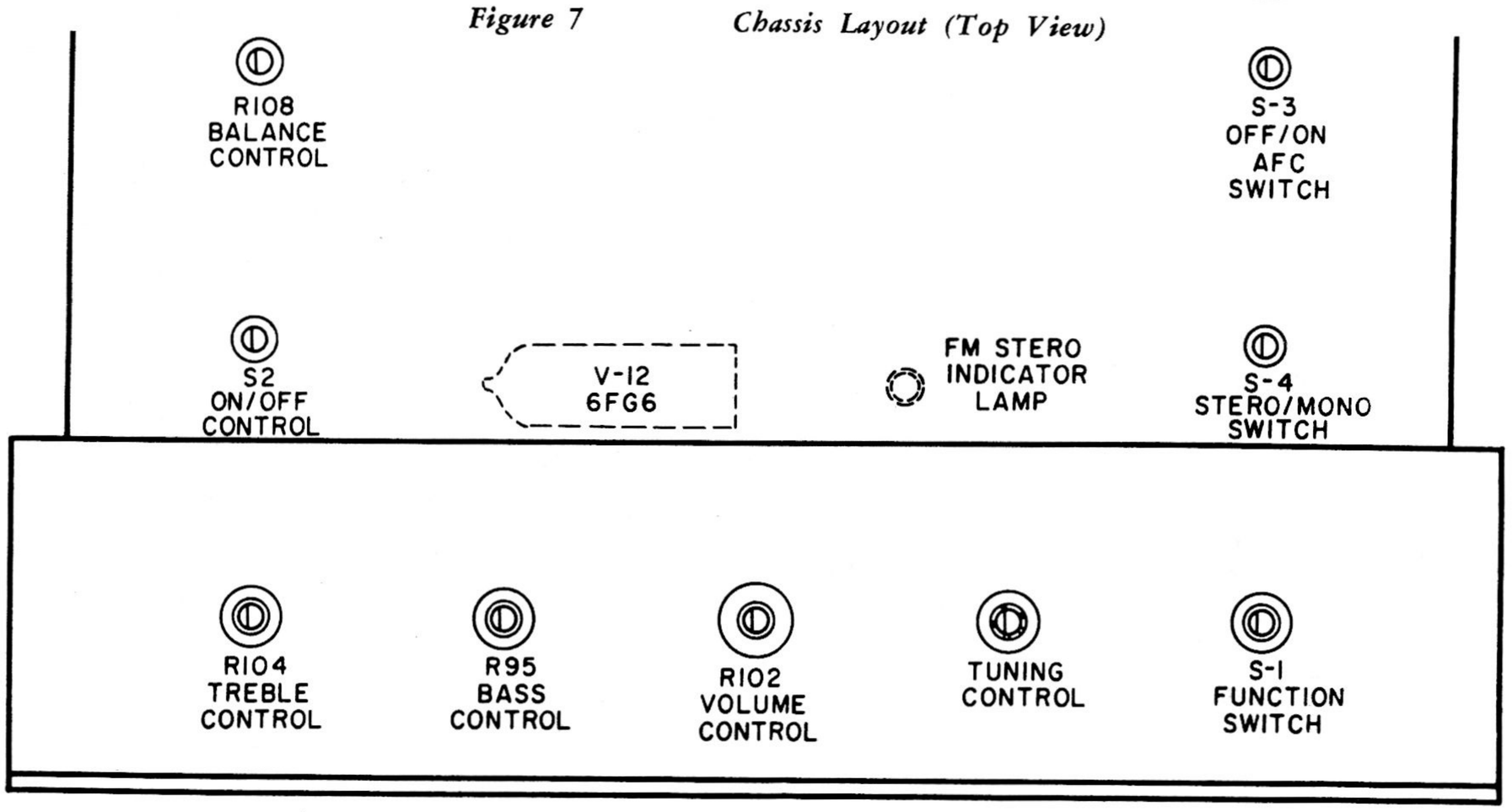


Figure 10

Face of Chassis
Showing Controls

ALIGNMENT PROCEDURE

ALIGNMENT INDICATORS

An RCA "VoltOhmyst®" or equivalent VTVM is necessary for measuring developed d-c voltage during FM alignment. Connections are specified in the alignment tabulation. An output meter is also necessary to indicate maximum audio output during AM alignment. Connect the output meter across the speaker voice coil. The RCA "VoltOhmyst®" can also be used as an AM alignment indicator, either to measure audio output or to measure AVC voltage. When audio output is being measured, the volume control should be turned to maximum. Adjust tone control to mid-position.

SIGNAL GENERATOR

For all alignment operations, connect the low side of the signal generator to the receiver chassis, close to the point of signal injection. If output measurement is used for AM alignment the signal generator output should be kept as low as possible to avoid AVC action.

AM ALIGNMENT

Set Function Switch to AM Radio

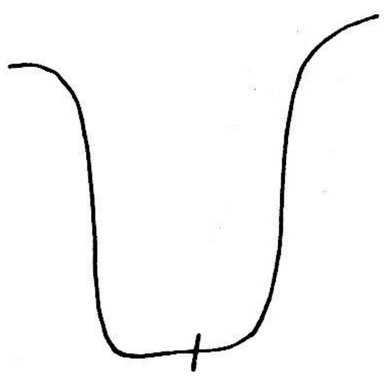
Step	Connect high side of signal generator to—	Set signal gener. to—	Set Radio to—	Adjust for maximum—
1		Connect Oscilloscope to Junction of R-13 and R-19		
2	Pin #2 V-3 6DC8	455KC	Quiet spot near 1620KC	Align T-4 top and bottom for symmetrical over-coupled curve of max. gain, with marker in center of curve
3	Pin #1 V-6 6BE6	455KC	Quiet spot near 1620KC	Align T-6 for symmetrical over-coupled curve of max. gain, with marker in center of curve
4		Connect Output Meter across Speakers		
5	Pin #1 V-6 6BE6	1500KC	1500KC	Adjust oscillator and RF trimmers for max. output
6	Pin #1 V-6 6BE6	600KC	600KC	Adjust oscillator coil T-5 while rocking gang for max. output
7		Repeat steps No. 5 and No. 6		

FM ALIGNMENT

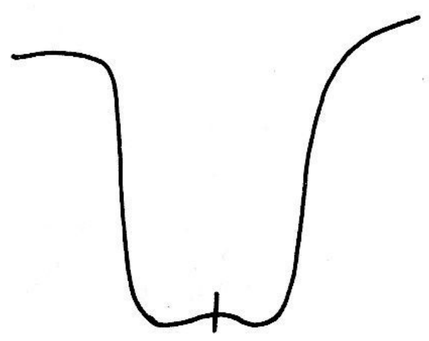
Set the Function Swith to the FM mono position, AFC Switch to be in the OFF position. Set Volume Control to minimum.

Step	Connect high side of signal generator to—	Set signal gen. to—	Set Radio to—	Adjust for—
1		Connect Voltohmyst to the junction of R34 and R-37		
2	Pin #1 V-4 (6AU6)	10.7 mc cw at 200,000 microvolts	10.7 mc	Align T-3 bottom for maximum output
3		Connect Voltohmyst to the junction of R-32 and R-33		
4		10.7 mc cw at 200,000 microvolts	10.7 mc	Adjust T-3 top for absolute zero on meter
5		Connect Voltohmyst to the junction of R-34 and R-37. Connect Oscilloscope to test point TP or junction of R-24 and C-13.		
6	Pin #2 V-3 (6DC8)	10.7 mc	10.7 mc	Adjust T-2 top and bottom for symmetrical over-coupled curve. Low side of signal generator must be connected with a short braid to circuit ground under test. Oscilloscope must be set for maximum gain. See figure #1
7	Pin #1 V-2	10.7 mc	10.7 mc	Adjust T-1 top for a maximum symmetrical over-coupled curve. See figure #2
8	Connect signal generator to antenna input through a balanced 300 ohm network	91 mc	91 mc	Peak Tuner IF'S for a maximum symmetrical slightly over-coupled curve. See figure #3.
9		Disconnect Signal Generator and Oscilloscope Cables		
10				Turn RF Tuner to 106 mc. Adjust Oscillator RF and Antenna Trimmer for maximum output
11				Turn RF Tuner to 89 mc. Adjust Oscillator RF and Antenna Coils for maximum output
12		Repeat steps No. 10 and No. 11		

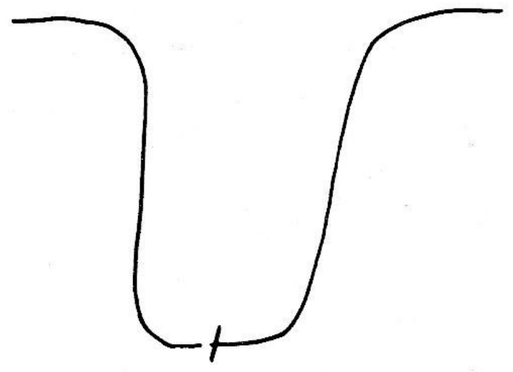
* Adjust output level of signal generator to provide approximately 1 volt indication on "VoltOhmyst®."



10.7 MC
Figure 1



10.7 MC
Figure 2



10.7 MC
Figure 3

ALIGNMENT PROCEDURE

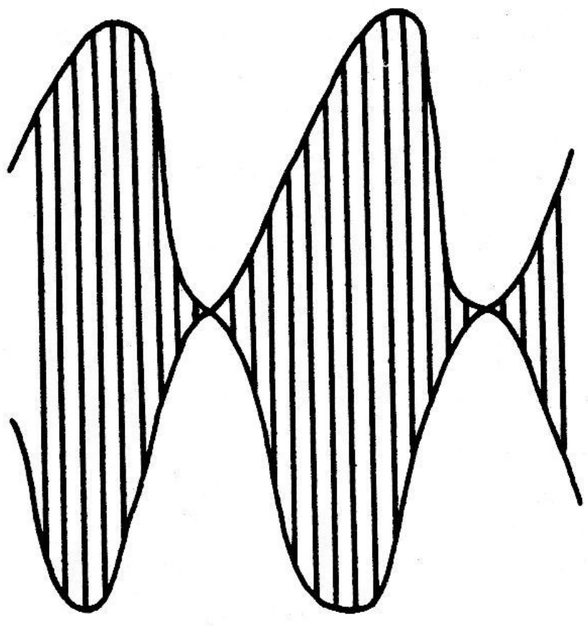


Figure 4

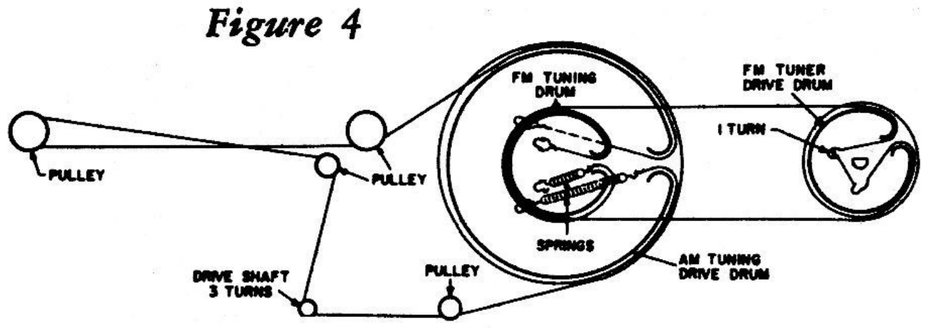


Figure 8 AM-FM Dial Cord Arrangement

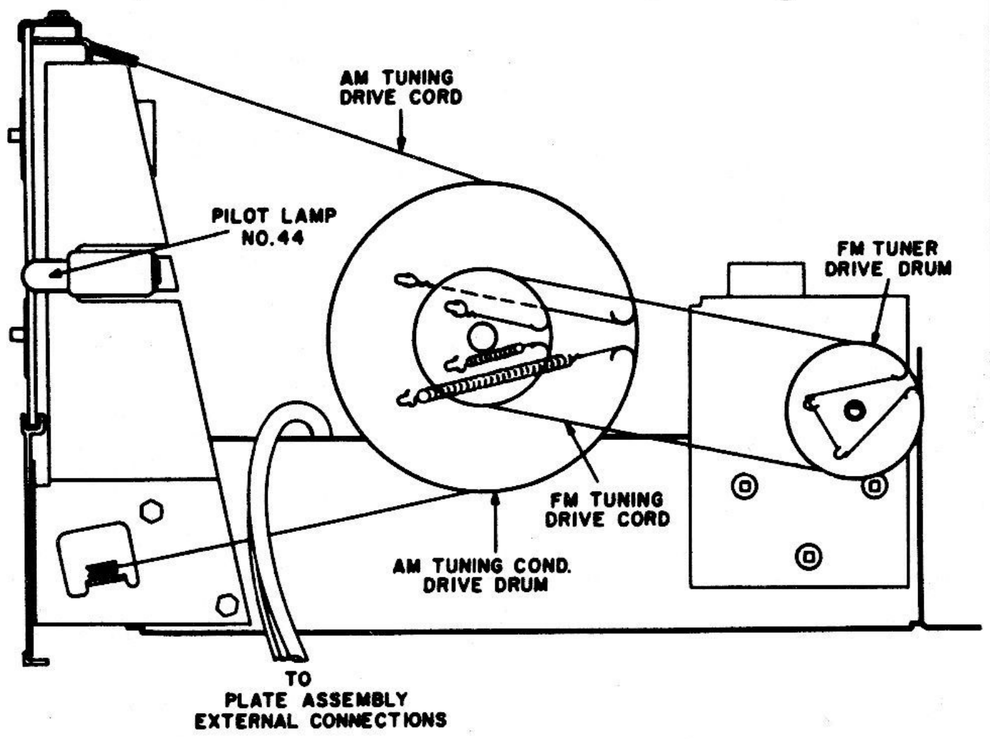


Figure 9 AM-FM Dial Cord Arrangement

FM STEREO ALIGNMENT

Set the Selector Switch to FM Stereo

Step	Connect high side of gener. ator to—	Set signal generator to—	Adjust for —
1		Short out primary of T-8. Connect Oscilloscope through low capacity probe to junction of R-79 and C-62.	
2	Audio generator to the junction of R-39 and C-22	67KC	Adjust L-1 for minimum deflection
3	Remove audio generator connect signal generator to the junction of R-39 and C-22	1000 cycle stereo signal, left channel modulated at 1000 cycles	Adjust L-2 until tips of waveforms just appear to cross. See figure 4.
4		Connect a Voltohmyst to junction of R-73 and R-41	
5		1000 cycle stereo signal, with left channel modulated at 1000 cycles	Peak top and bottom T-9 using outside peaks for maximum reading on Volto-hmyst. See figure 4.
6		Remove short across T-8. Connect Oscilloscope through low capacity probe at Pin #2 V-7.	
7		1000 cycle stereo signal, with left channel modulated at 1000 cycles	Retouch T-9 top and bottom for maximum audio and least 38KC on the waveform. Make sure that the cores are backed out for this final touch up
8			Recheck T-8 for the core being in the electrical as well as mechanical center between the breakouts
9		Remove Oscilloscope	Place meter across speaker.
10	Signal generator connected to the junction of R-39 and C-22	1000 cycles modulated at 1000 cycles	Adjust R-80 balance control for minimum voltage across right channel
11		Check, using 1000 and 10,000 cycles at 1000 and 10,000 modulation	Separation between channels should be better than 20 db
12			The 38KC Oscillator must remain locked in with a stereo signal of 9 microvolts
13			The stereo indicator light must go out with monaural signal of 5 microvolts

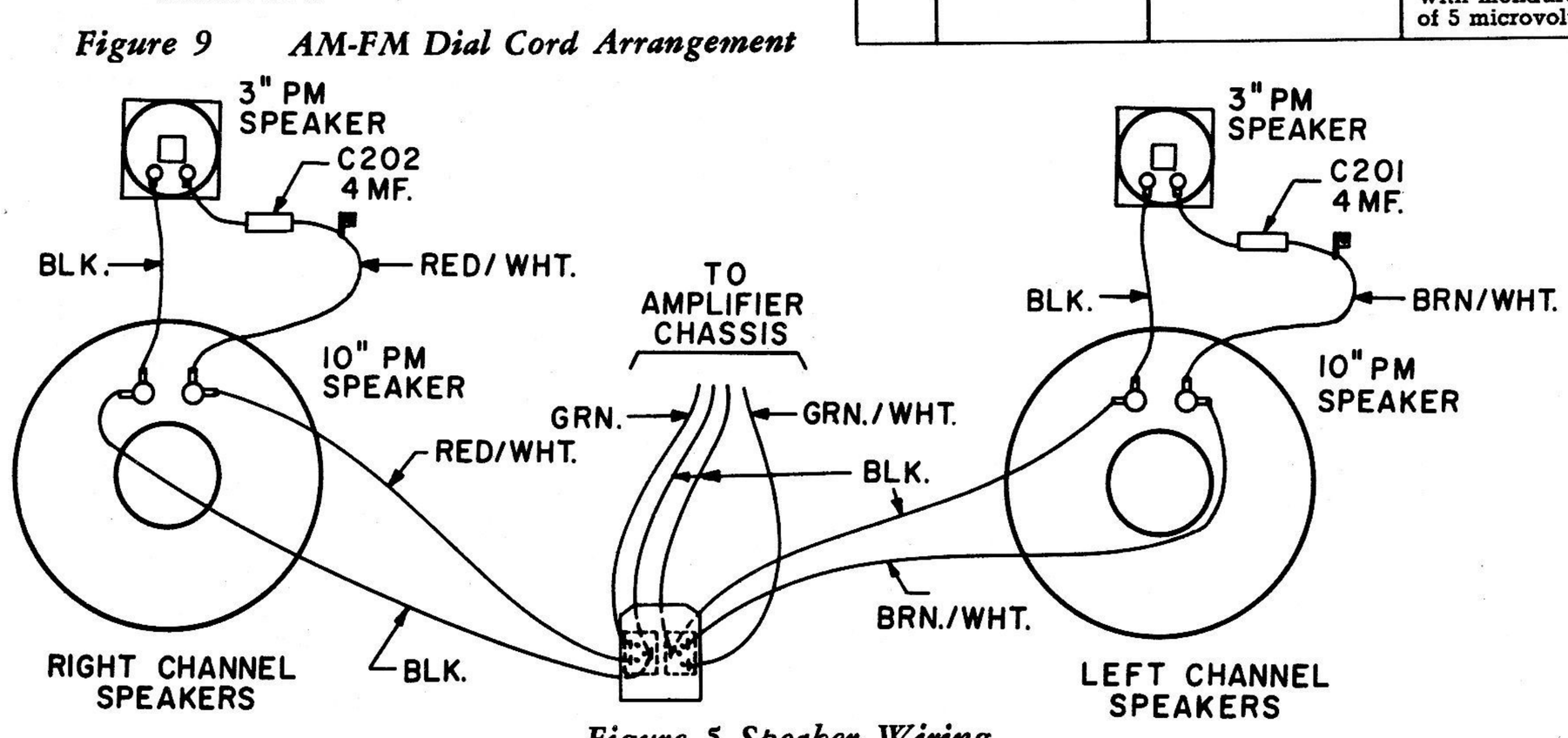


Figure 5 Speaker Wiring