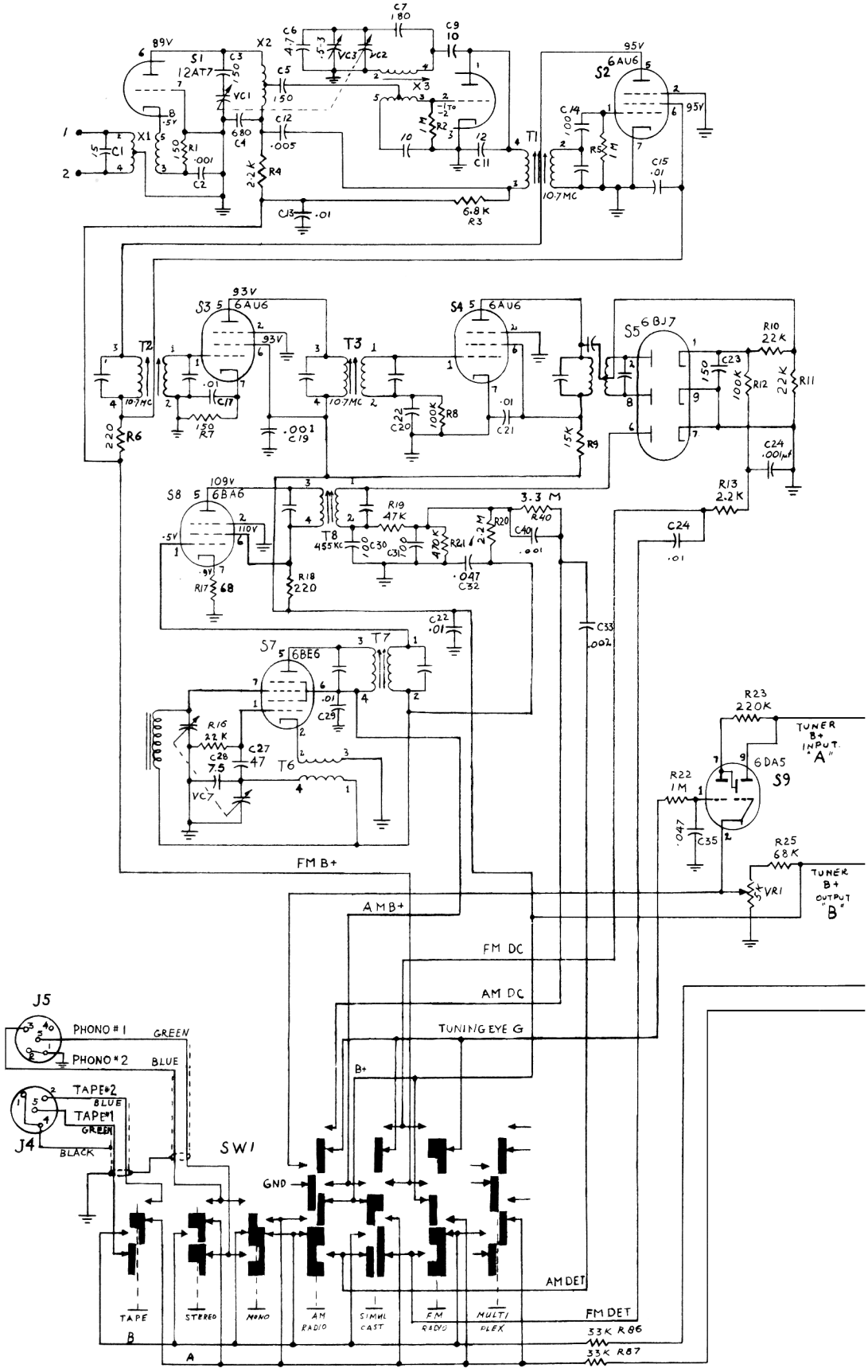
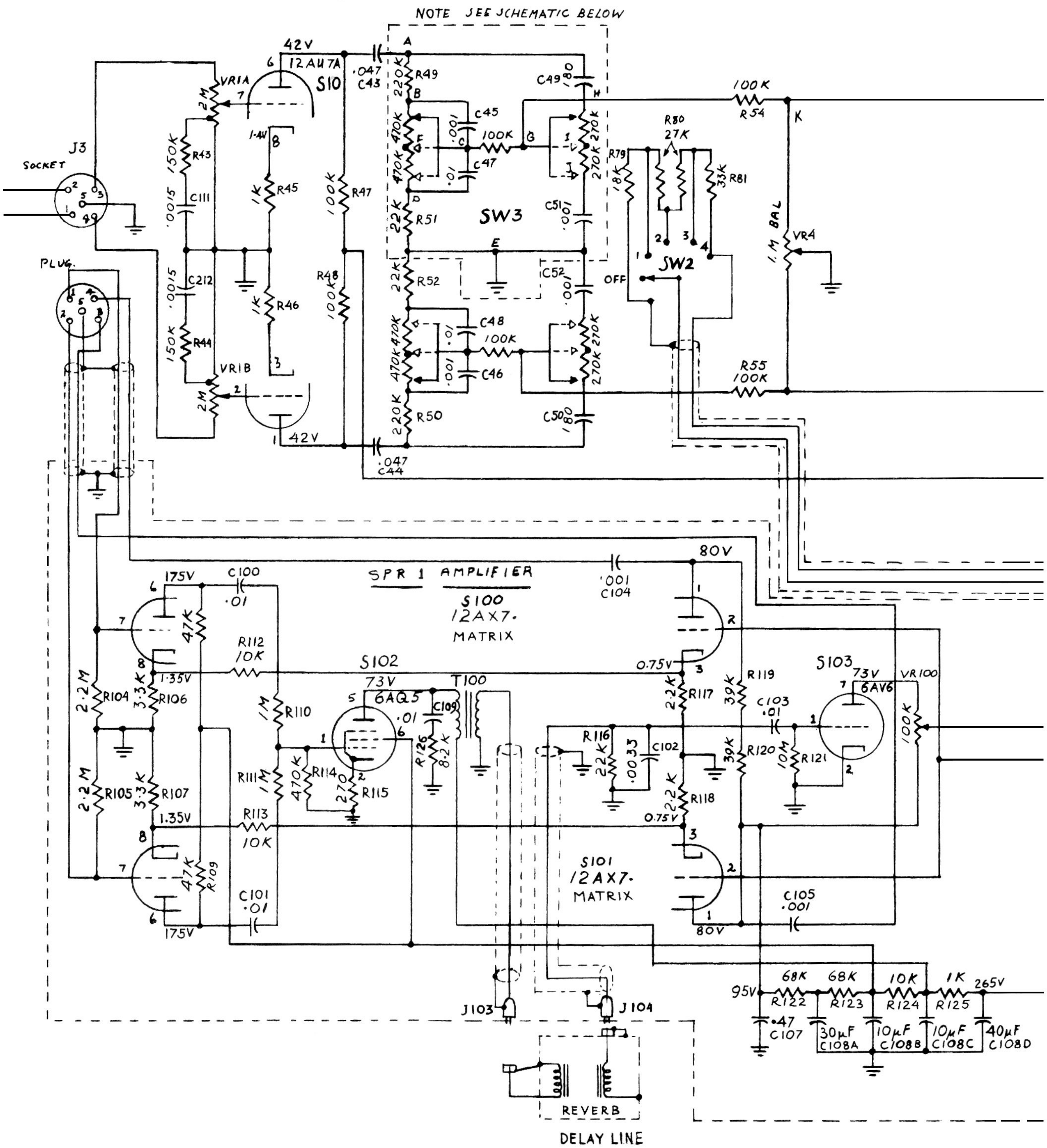
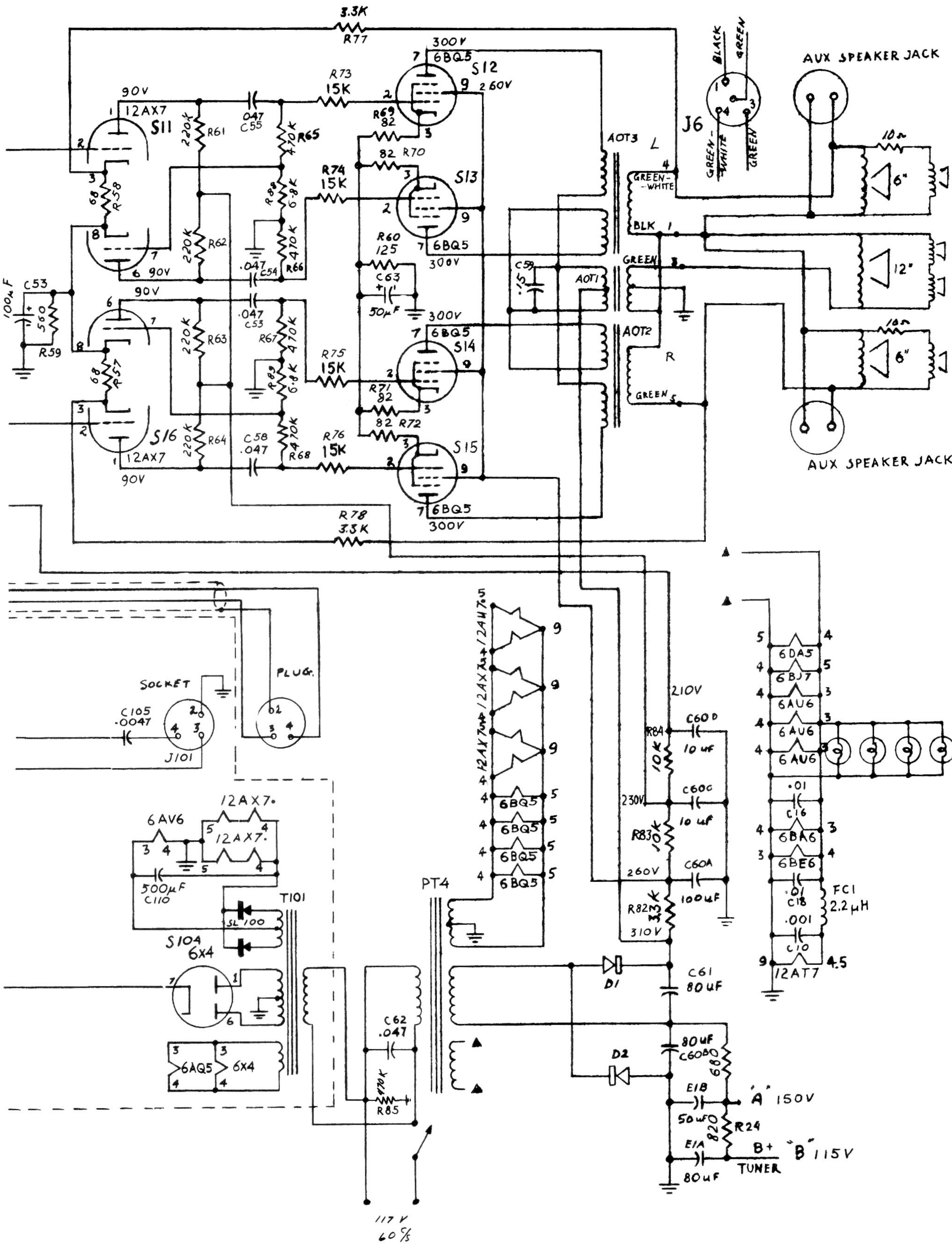
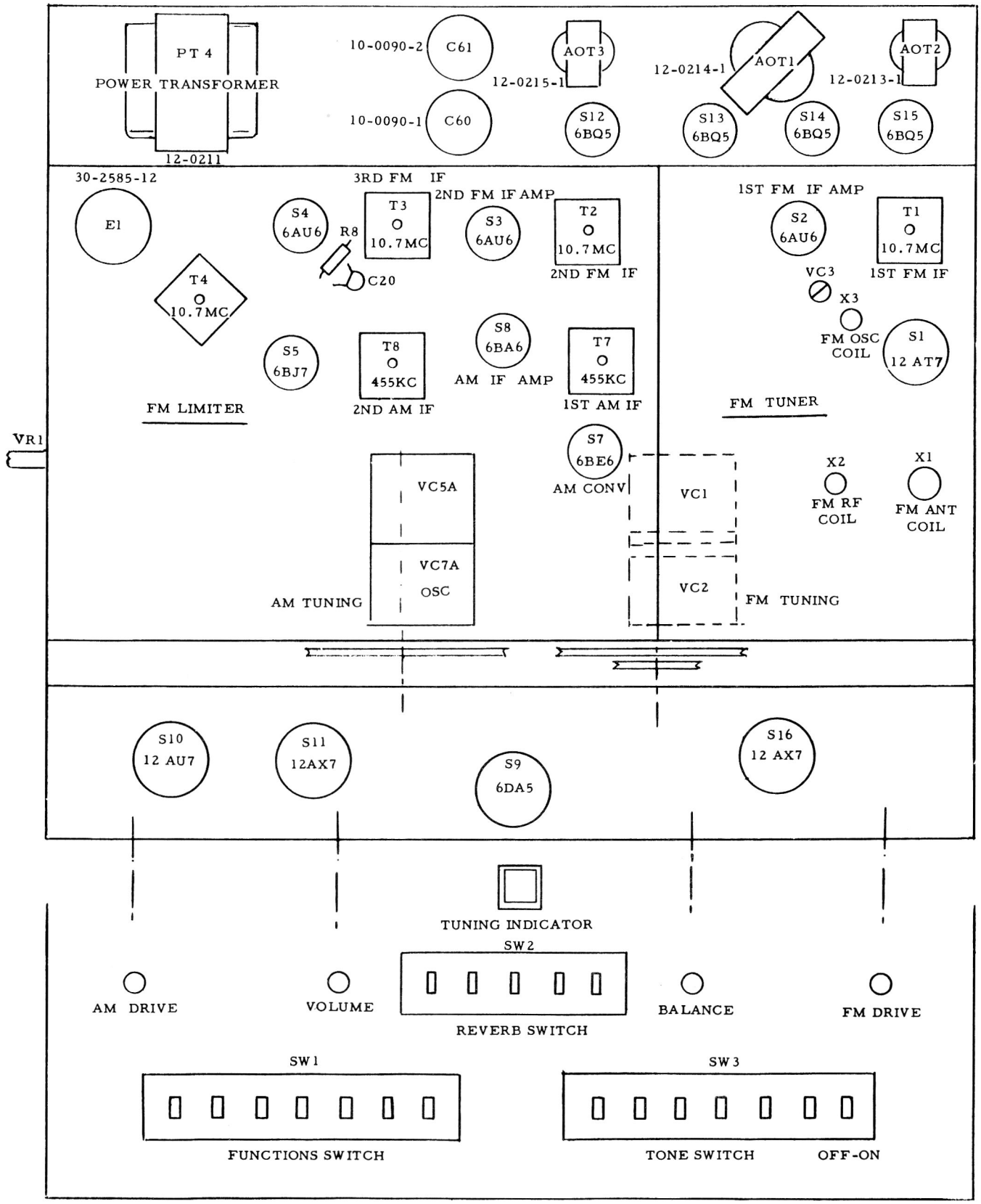

S1 12AT7
S2 6AU6
S3 6AU6
S4 6AU6
S5 6BJ7
S7 6BE6
S8 6BA6
S9 6DA5
T1
T2
T3
T6
T7
T8
455KC
10.7MC
X1
X2
X3
VC1
VC2
VC3
VC7
SW1
J4
J5
PHONO #1
PHONO #2
GREEN
BLUE
TAPE #2
TAPE #1
BLACK
TUNER B+ INPUT "A"
TUNER B+ OUTPUT "B"
VR1
FM B+
AM B+
FM DC
AM DC
TUNING EYE G
B+
GND
AM DET
FM DET
TAPE
STEREO
MONO
AM RADIO
SIMUL CAST
FM RADIO
MULTI PLEX
33K R86
33K R87


NOTE SEE SCHEMATIC BELOW
J3
SOCKET
PLUG
12AU7A
S10
VR1A
VR1B
R43
R44
R45
R46
R47
R48
C111
C212
C43
C44
R49
R50
R51
R52
C45
C46
C47
C48
C49
C50
C51
C52
SW3
SW2
OFF
R79
R80
R81
R54
R55
VR4
1.M BAL
SPR 1 AMPLIFIER
S100
12AX7
MATRIX
S101
12AX7
MATRIX
S102
6AQ5
S103
6AV6
T100
VR100
C100
C101
C102
C103
C104
C105
R104
R105
R106
R107
R109
R110
R111
R112
R113
R114
R115
R116
R117
R118
R119
R120
R121
R122
R123
R124
R125
R126
C107
C108A
C108B
C108C
C108D
J103
J104
REVERB
DELAY LINE
265V
95V

1738


3.3K
R77
300V
6BQ5
S12
260V
R73
15K
90V
12AX7
S11
R61
.047
C55
R65
R69
82
R70
R74
15K
S13
R58
R62
R66
R88
6.8K
470K
220K
R60
125
C63
50µF
300V
C53
100µF
560
R59
.047
C53
R67
R63
R57
6BQ5
S14
R75
15K
R89
R71
R72
S16
12AX7
R64
C58
R68
R76
S15
R78
3.3K
90V
300V
AOT3
L
GREEN-WHITE
BLK
GREEN
AOT1
C59
.15
AOT2
R
GREEN
J6
BLACK
GREEN
GREEN-WHITE
AUX SPEAKER JACK
10Ω
6"
5"
12"
8"
AUX SPEAKER JACK
SOCKET
PLUG
C105
.0047
J101
12AX7
12AU7
6BQ5
210V
R84
10K
C60D
10uF
230V
C60C
10uF
R83
10K
260V
C60A
100uF
R82
310V
6DA5
6BJ7
6AU6
6AU6
6AU6
.01
C16
6BA6
6BE6
.01
C18
FC1
2.2µH
.001
C10
12AT7
6AV6
12AX7
500µF
C110
T101
SL 100
S104
6X4
6AQ5
6X4
PT4
C62
.047
470K
R85
D1
C61
80uF
D2
80uF
C60B
680
E1B
50uF
820
R24
"A" 150V
E1A
80uF
B+
TUNER
"B" 115V
117V
60 C/S

1738 COMPONENT LAYOUT



FRONT OF CHASSIS

AM ALIGNMENT PROCEDURE

The AM alignment should be completed before the FM alignment is performed. Before beginning the alignment, allow the receiver and test equipment to warm up for fifteen minutes.

Dial Pointer - With the gang fully closed, adjust the pointer to coincide with the first small index mark to the left of the "54" (540kc) on the scale.

Output Indicator - Connect a scope to output, use speaker as load.

Signal Generator - Use an AM r-f signal generator with 30% modulation.

1. Connect generator, through a .05 ufd condenser, to the signal grid, pin 7 of the AM Converter, S7(6BE6). Connect the ground lead to chassis.

2. Set generator to 455 kc. Fully open tuning gang. Adjust, in order given top of T8, bottom of T7, bottom of T8, and top of T7 for maximum output. Repeat until no further gain is indicated.

3. Connect generator to radiating loop. Set generator to 1600 kc. Set receiver to 1600 kc as indicated by pointer. Adjust VC7A (osc. trimmer) for maximum output.

4. Set generator to 1400 kc. Tune receiver to signal and adjust VC5A (antenna trimmer) for maximum output.

ASJUSTMENT OF TUNING INDICATOR

Remove S5, the 6BJ7 discriminator tube, or ground the cathode, pin 1 of the 6BJ7.

Adjust indicator Balance pot, VR1, for parallel beams on the 6DA5.

Replace S5 (or remove ground).

FM ALIGNMENT PROCEDURE

The AM alignment should be completed before the FM alignment is performed.

1. With the gang fully closed, adjust the pointer to coincide with the first small index mark to the left of the "88" (88 mc) on the scale.

2. Set the function switch to the FM position and the FM tuning control as indicated.

3. Connect an oscilloscope, through a 100,000 ohm isolating resistor to junction of R8 and C C20. Connect the oscilloscope ground lead to chassis.

4. Connect the signal generator to the cathode of the FM, RF amplifier, pin 8 of S1. Connect the ground lead to the chassis.

5. Inject a 10.7 MC marker signal and a 10.7 MC sweep signal, approximately 150 KC total deviation (do not over sweep). Adjust cores in top and bottom of T3, T2 and T1 for maximum amplitude, symmetrical curve with the 10.7 MC marker at the top of the curve. Adjust input signal to maintain output, as indicated on scope, below 2 volts peak during alignment. Repeat this step until no further gain is obtained.

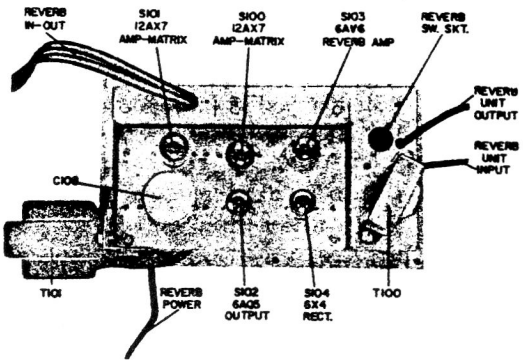
6. Change scope connections to the output (at junct. C24 and R13 on P.W.) Inject a 10.7 MC, 30% AM modulated signal to the grid of the 6AU6, pin 1. of S4. Adjust top of T4 for minimum indication between peaks. Inject 10.7 MC sweep signal, approximately 150KC total deviation, to pin 1 of S4 and adjust bottom of T4 for maximum-amplitude, symetrical output. Adjust input signal to maintain output, as indicated on scope, below 5 volts peak during alignment. (See NOTE below).

7. Open tuning capacitor. Insert a 6-mil, non-metallic shim between stator and rotor of the FM gang and then close the capacitor against the sim. Inject 108.5 MC sweep signal (approx. 150 KC total deviation), through an antenna matching network, to the receiver antenna terminals. Adjust VC3 for maximum output.

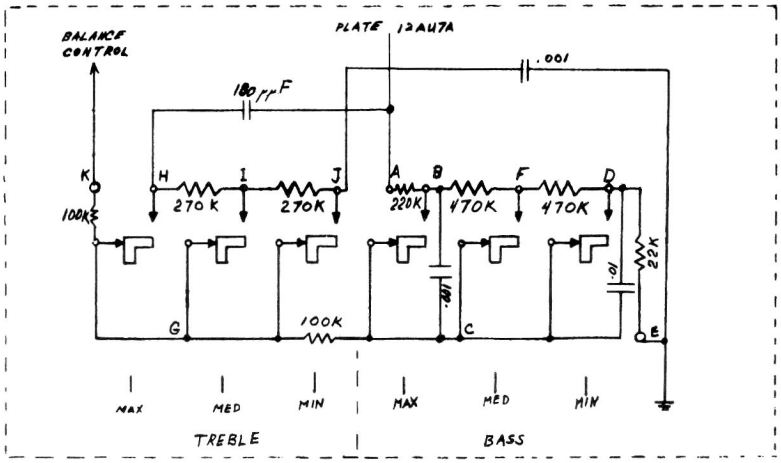
8. Close (mesh) the tuning capacitor. Inject 87.75 MC sweep signal (approx. 150 KC total deviation) through an antenna matching network, to the receiver antenna terminals, and adjust X3 for maximum output (see NOTE below).

9. Set pointer to 91 MC and inject a 91MC sweep signal. Adjust X2 for maximum output. (See NOTE below).

NOTE: The signal input must be as low as possible in order to obtain a sharp indication. In some cases it may be necessary to set the signal generator to the first sub-harmonic.

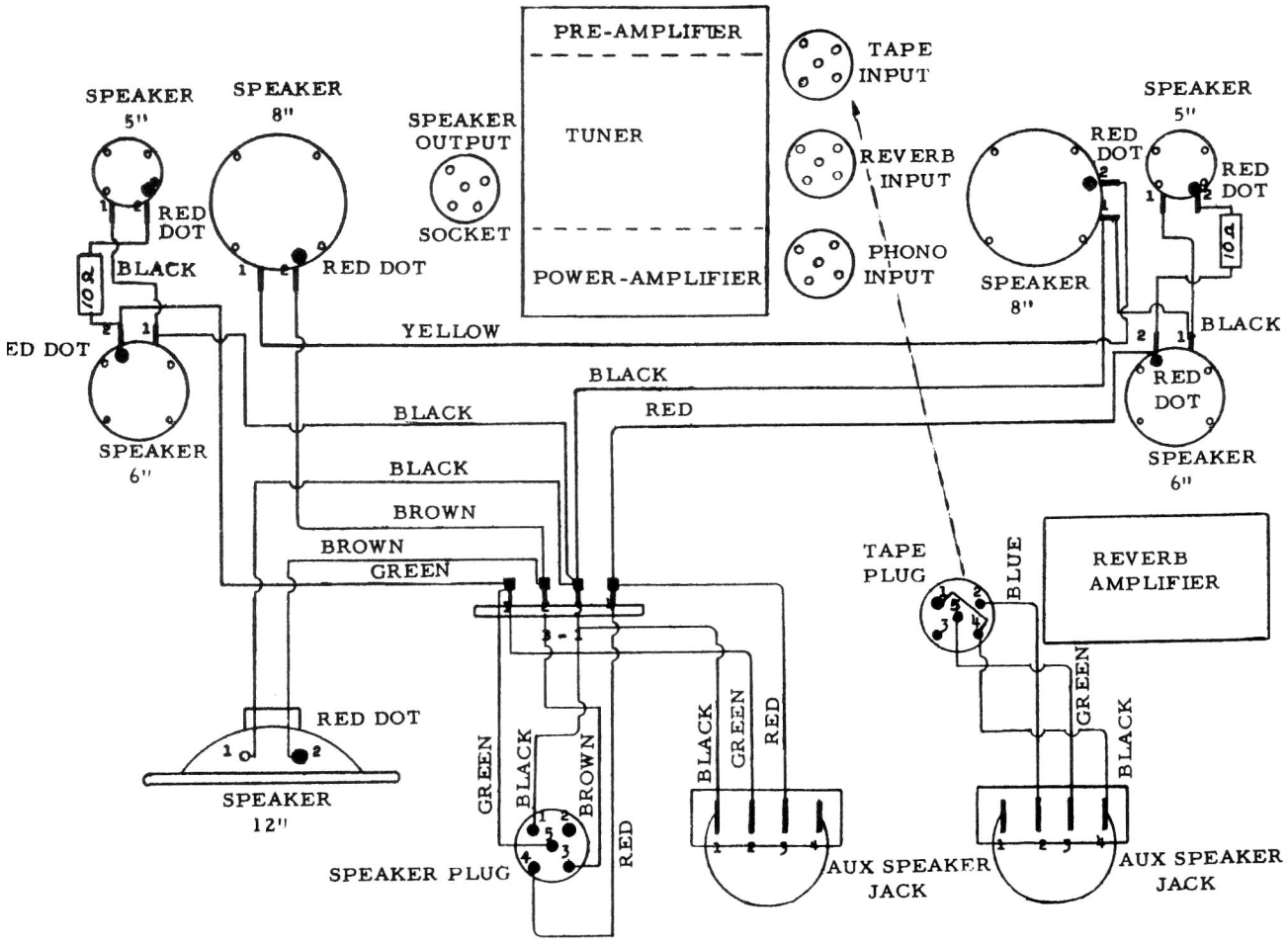


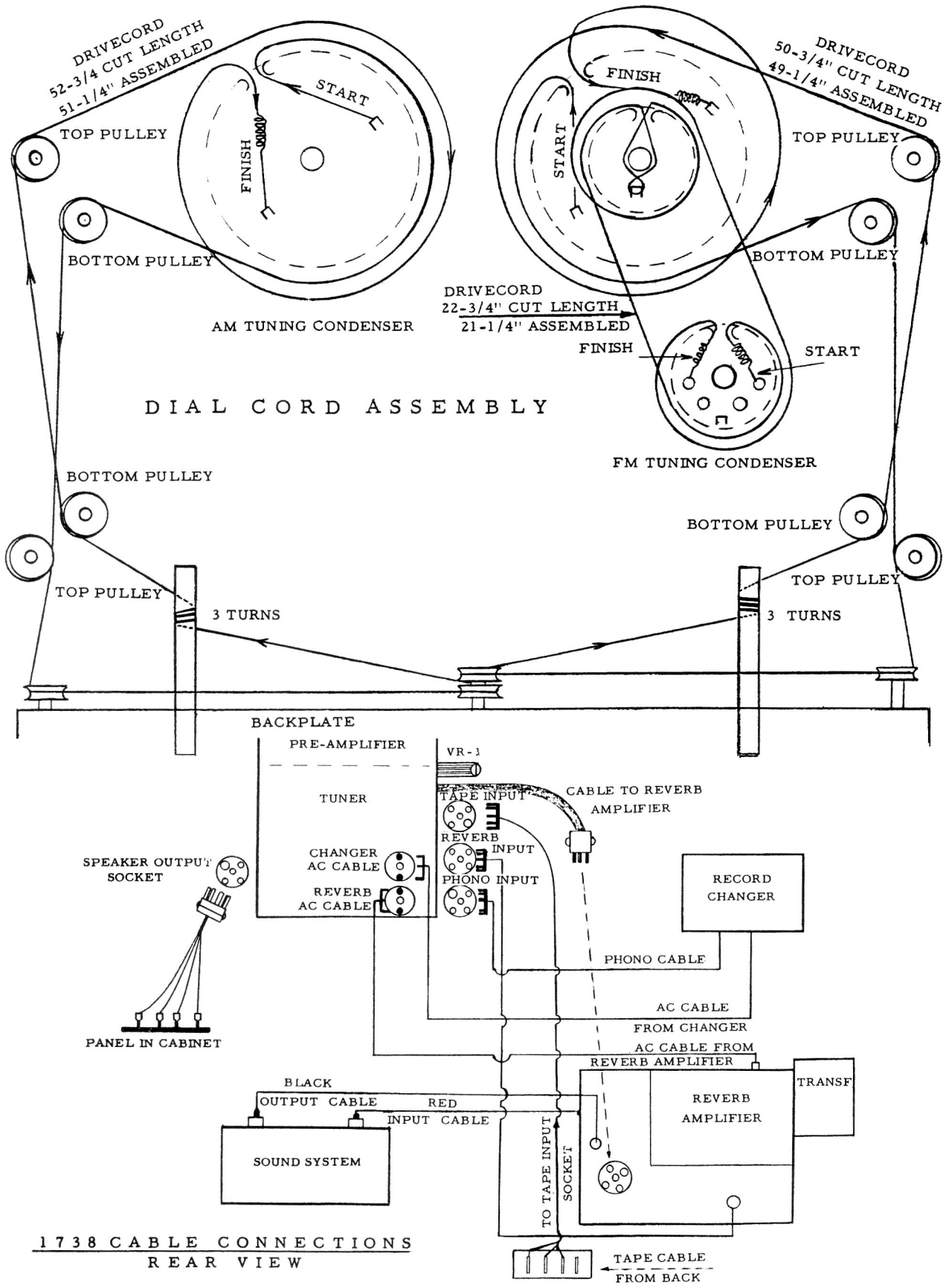
Top View of SPR-1



SW3 ASSY

1738 SPEAKER WIRING
REARVIEW





1738 CABLE CONNECTIONS
REAR VIEW