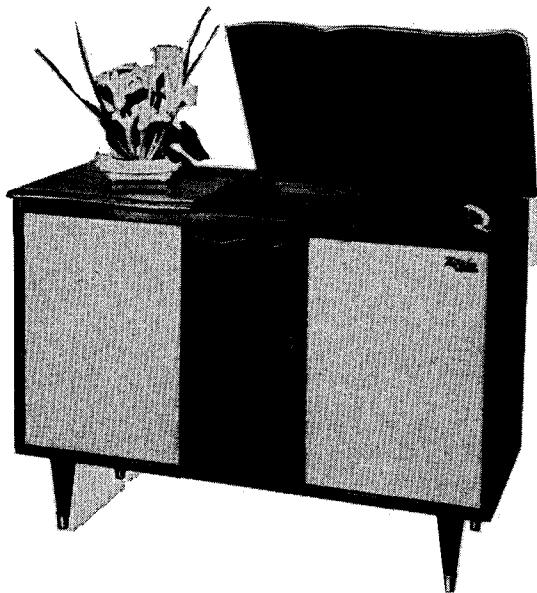


Stereophonic



THE FISHER
CUSTOM ELECTRA III
SERVICE
MANUAL



MODEL 420

CHASSIS SERIAL NUMBERS
FROM 30001 TO 39999 INCLUSIVE

PRICE: \$1.00

FISHER RADIO CORPORATION • NEW YORK

PARTS DESCRIPTION LIST

PREAMPLIFIER CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value.)

Symbol	Description	Part No.
C1, 2	Ceramic, 10uuf NPO, 1000V	C50070-11
C3, 4	Ceramic, 85uuf N150, 1000V	C50070-7
C6	Molded, .0047uf, 250V	C50074-24
C7, 8	Electrolytic, 25uf, 6V	C639-114
C9	Molded, .0047uf, 250V	C50074-24
C10	Ceramic, 1000uuf, 1000V	C50072-3
C11, 12	Molded, .022uf, 250V	C50074-26
C13	Ceramic, 1000uuf, 1000V	C50072-3
C14	Ceramic, 150uuf, 500V	CC21GP151K5
C15, 16	Ceramic, .0027uf, 1000V	C50072-17
C17	Ceramic, 150uuf, 500V	CC21GP151K5
C18	Molded, .0047uf, 250V	C50074-24
C19, 20	Molded, .022uf, 250V	C50074-26
C21	Molded, .0047uf, 250V	C50074-24
C22, 23	Ceramic, 68uuf N2200, 500V	C50070-12

RESISTORS AND POTENTIOMETERS

In ohms, 10% tolerance, 1/2 watt, unless otherwise noted. K = kilohm, M = megohm.

Symbol	Description	Part No.
R1, 2	Composition, 150K	RC20BF154K
R3, 4	Composition, 2.2M	RC20BF225K
R5, 6	Composition, 3.3M	RC20BF335K
R7, 9	Composition, 15M	RC20BF156K
R10	Composition, 100K	RC20BF104K
R11, 12	Composition, 1.2K	RC20BF122K
R13	Composition, 100K	RC20BF104K
R15	Potentiometer, dual, 1M Bass	R718-120
R16	Composition, 220K	RC20BF224K
R17, 18	Composition, 15K	RC20BF153K
R19	Composition, 220K	RC20BF224K
R21, 22	Composition, 47K	RC20BF473K
R23	Potentiometer, dual, 1M Treble	R618-120
R24	Composition, 100K	RC20BF104K
R25, 26	Composition, 1.2K	RC20BF122K
R27	Composition, 100K	RC20BF104K
R28, 29	Composition, 47K	RC20BF473K
R30	Potentiometer, dual, 500K Volume	R718-122
R31	Composition, 270K	RC20BF274K
R32	Composition, 68K	RC20BF683K
R33	Potentiometer, 500K Balance	R718-121
R34	Composition, 68K	RC20BF683K
R35	Composition, 270K	RC20BF274K

SWITCHES

S1	Switch, Selector	S718-119
S2	Switch, AC	Part of R30

AMPLIFIER SA-16 CAPACITORS

10% tolerance for all fixed capacitors, unless otherwise noted or marked GMV (guaranteed minimum value.)

Symbol	Description	Part No.
C1, 2	Ceramic, .02uf 20%, 500V	C50089-5
C3, 4	Ceramic, 47uuf N750, 1000V	C50070-4
C5, 6	Ceramic, 220uuf, 1000V	C50072-20
C7, 8, 9, 10	Ceramic, .02uf 20%, 500V	C50089-5
C11	Electrolytic, 100uf, 100V	C663-143
C12	Electrolytic, four sections: A: 40uf, 450V B: 40uf, 400V C: 40uf, 350V D: 40uf, 350V	C50180-11
C13	Electrolytic, 10uf, 350V	C644-146
C14	Molded, .01uf 20%, 600V	C2747

RESISTORS AND POTENTIOMETERS

In ohms, 10% tolerance, 1/2 watt, unless otherwise noted. K = kilohm, M = megohm.

Symbol	Description	Part No.
R1	Potentiometer, 500K	R50103-6
R2	Composition, 1M	RC20BF105K
R3	Potentiometer, 500K	R50103-6
R4	Composition, 1M	RC20BF105K
R5, 6	Composition, 91K, 5%	RC20BF913J
R7, 8	Composition, 39K	RC20BF393K
R9	Composition, 680K	RC20BF684K
R10	Composition, 1.5K	RC20BF152K
R11	Composition, 680K	RC20BF684K
R12	Composition, 1.5K	RC20BF152K
R13	Composition, 82K	RC20BF823K
R14	Composition, 56K	RC20BF563K
R15	Potentiometer, 50K	R50103-3
R16	Composition, 82K	RC20BF823K
R17	Composition, 56K	RC20BF563K
R18	Potentiometer, 50K	R50103-3
R19, 20	Composition, 820K	RC20BF824K
21, 22	Composition, 2.2K	RC20BF222K
R23	Composition, 33K	RC20BF333K
R24	Composition, 6.8K	RC20BF682K
R25	Composition, 2.2K	RC20BF222K
R26	Composition, 33K	RC20BF333K
R27	Composition, 10K	RC20BF103K
R28	Composition, 22K	RC20BF223K
R29, 30	Composition, 3.9K	RC20BF392K
R31	Wirewound, 3.5K, 7W	R754-122
R32	Wirewound, 125, 7W	R556-124
R33	Wirewound, 100, 10W	R754-121
R34	Composition, 220	RC20BF221K
R35, 36	Composition, 10K	RC20BF103K

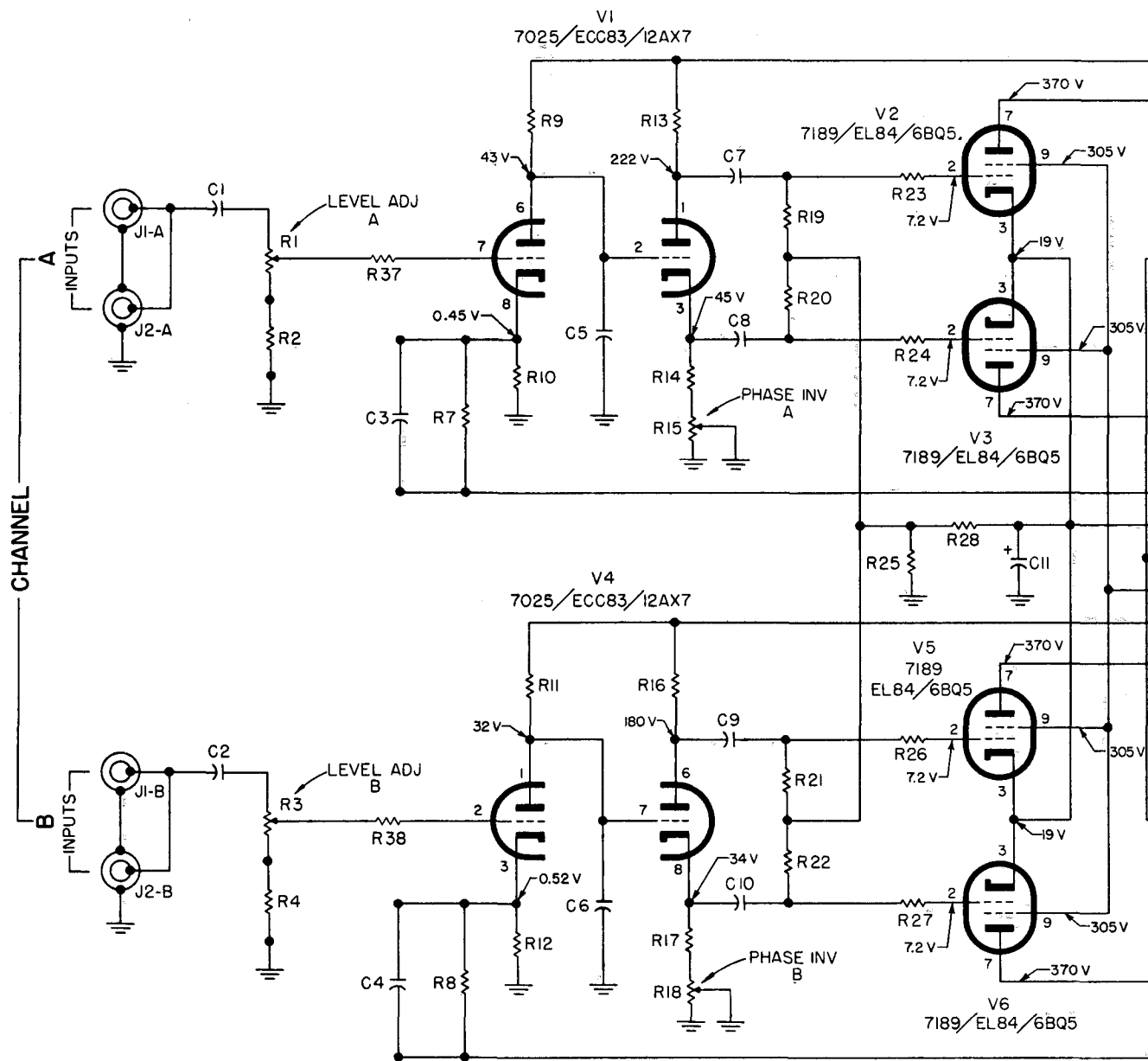
TRANSFORMERS

Symbol	Description	Part No.
T1, 2	Transformer, Output	T725-116-1
T3	Transformer, Power	T754-115

MISCELLANEOUS

Symbol	Description	Part No.
F1	Fuse, 2 Ampere, Slo-Blo	F643-154

SCHEMATIC DIAGRAM • AMPLIFIER SA-16



PHASE INVERTER BA

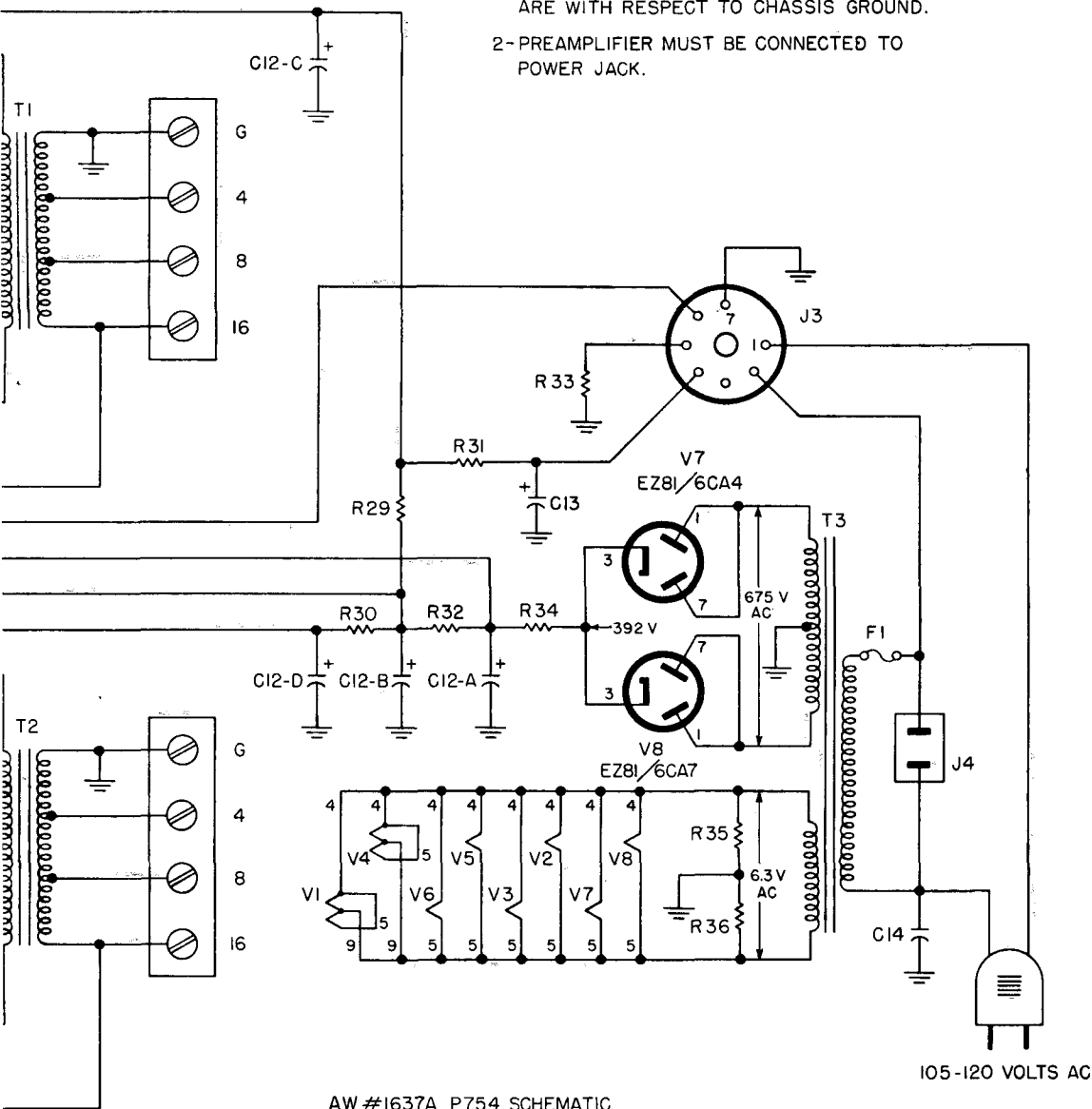
The phase inverter balance adjustments for Channel A and Channel B are located on the top surface of the SA-16 chassis. These adjustments should not be attempted unless you have a harmonic distortion analyzer and audio generator; or intermodulation analyzer. Make adjustments as follows:

1. Connect the audio generator to an input of the appropriate channel on the SA-16.
2. Load the output of the amplifier and connect the analyzer across the load.

NOTE:

1- VOLTAGE READINGS MADE WITH VTVM AND ARE WITH RESPECT TO CHASSIS GROUND.

2- PREAMPLIFIER MUST BE CONNECTED TO POWER JACK.



AW #1637A P754 SCHEMATIC

ANCE ADJUSTMENT

3. If you are using a harmonic distortion analyzer, set the audio generator to 1000 cps. If you are using an intermodulation analyzer, connect its output to the input of the SA-16. Adjust the input signal to the SA-16 so that its output is just below the clipping point (about 1 db below.)

4. Keeping this output constant, adjust the phase inverter balance control (R15 or R18) for minimum distortion on the analyzer.

ise
e.)
No.
9-5
0-4
20
9-5
43
11

46
47

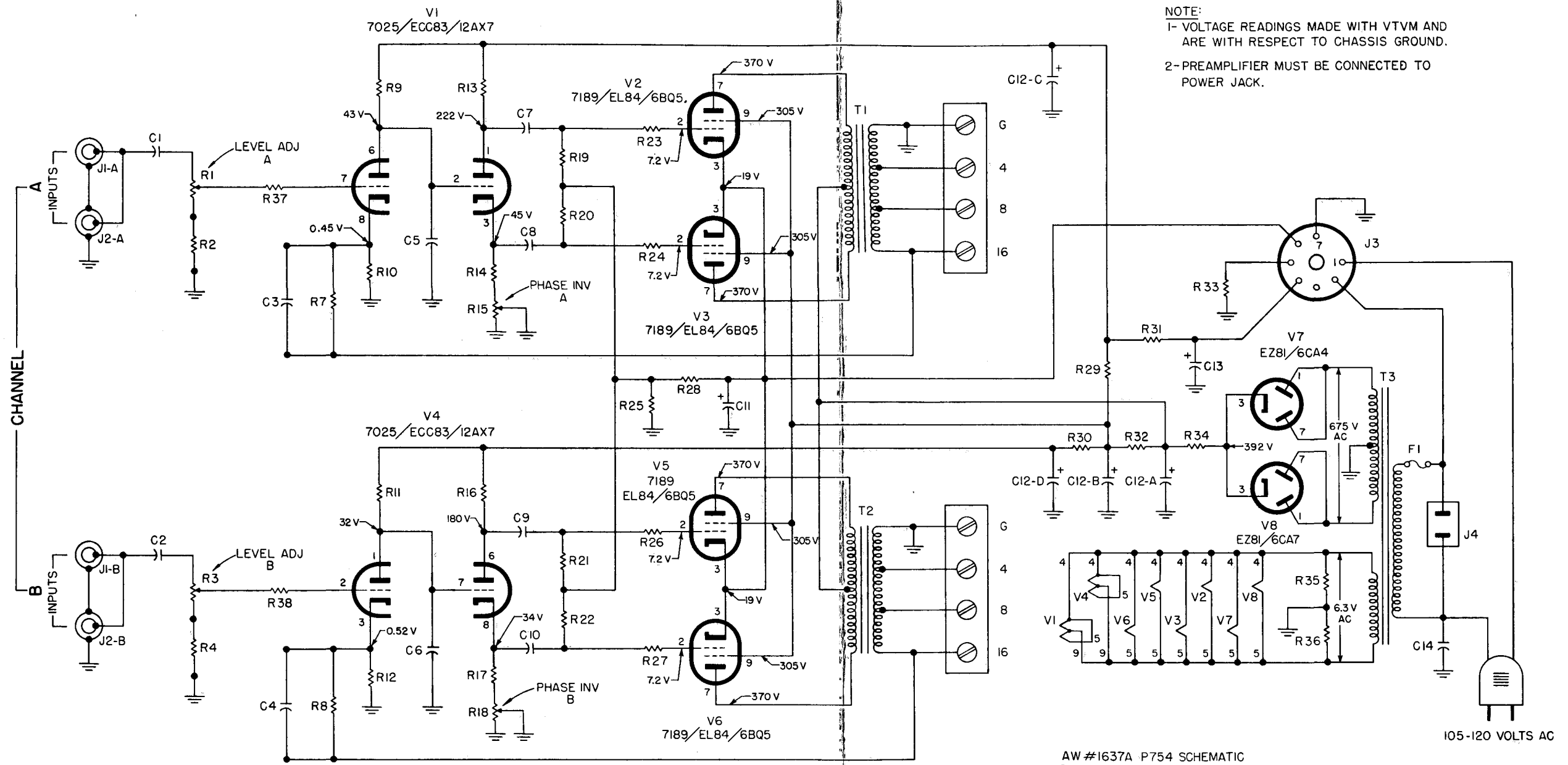
ise

No.
3-6
05K
3-6
05K
13J
93K
84K
52K
84K
52K
23K
63K
3-3
23K
63K
3-3
24K

22K
33K
82K
22K
33K
03K
23K
92K
122
124
121
21K
03K

No.
16-1
115

No.
154



PHASE INVERTER BALANCE ADJUSTMENT

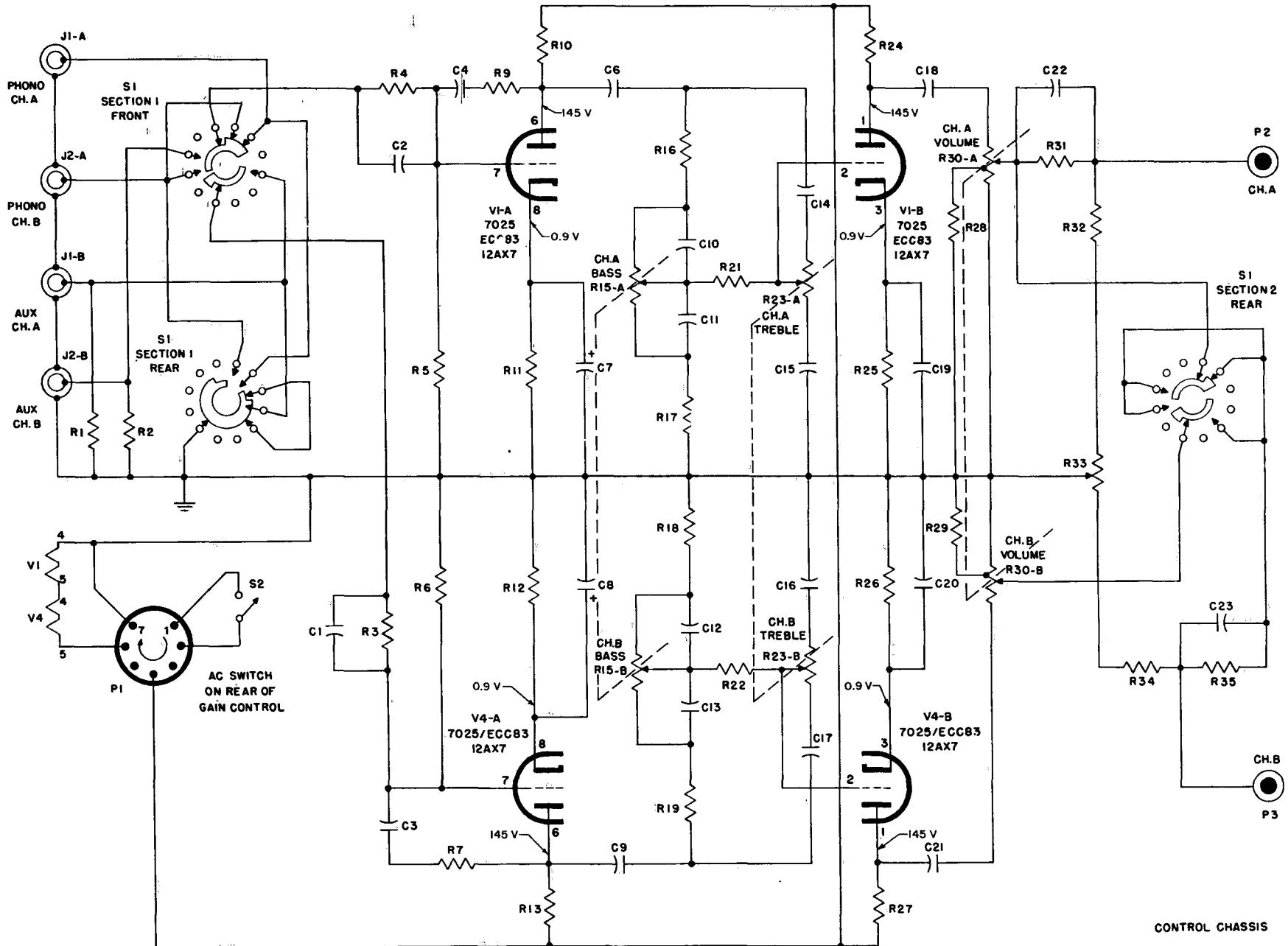
The phase inverter balance adjustments for Channel A and Channel B are located on the top surface of the SA-16 chassis. These adjustments should not be attempted unless you have a harmonic distortion analyzer and audio generator; or intermodulation analyzer. Make adjustments as follows:

1. Connect the audio generator to an input of the appropriate channel on the SA-16.
2. Load the output of the amplifier and connect the analyzer across the load.

3. If you are using a harmonic distortion analyzer, set the audio generator to 1000 cps. If you are using an intermodulation analyzer, connect its output to the input of the SA-16. Adjust the input signal to the SA-16 so that its output is just below the clipping point (about 1 db below.)

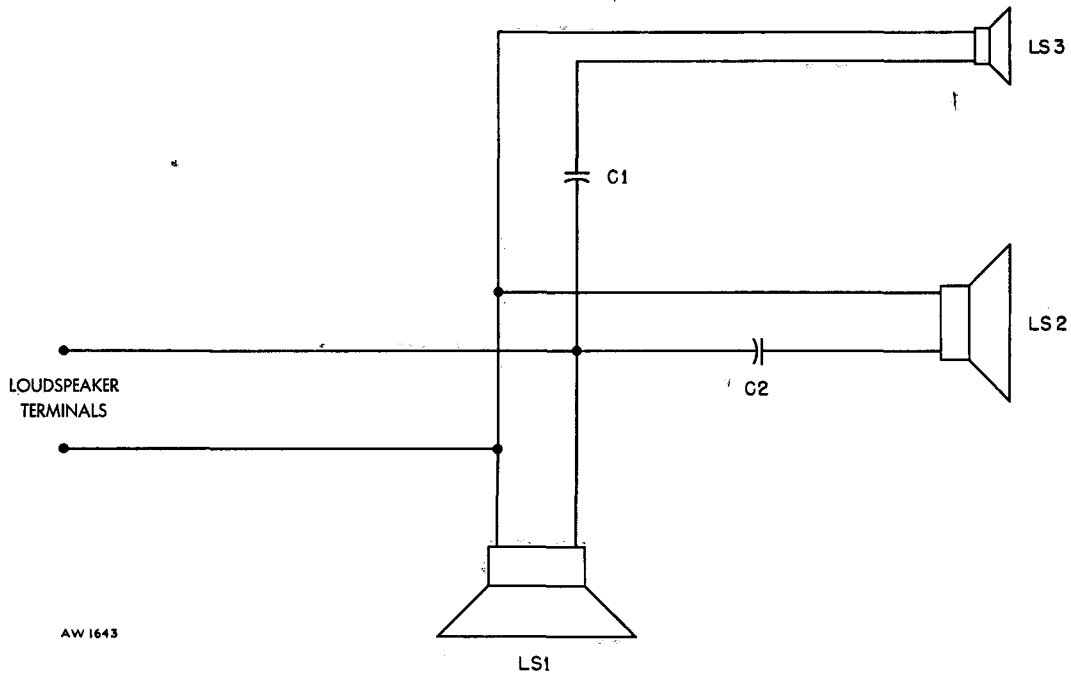
4. Keeping this output constant, adjust the phase inverter balance control (R15 or R18) for minimum distortion on the analyzer.

SCHEMATIC DIAGRAM • PREAMPLIFIER



CONTROL CHASSIS

SCHEMATIC DIAGRAM • SPEAKER SYSTEMS



PARTS DESCRIPTION LIST • SPEAKER SYSTEMS

Symbol	Description	Part No.
LS1	Loudspeaker, 10-inch	LS769-103
LS2	Loudspeaker, 8-inch	LS634-107
LS3	Loudspeaker, Tweeter	LS769-105
C1	Non-polarized Capacitor, Electrolytic, 5uf, 50V	C769-105
C2	Non-polarized Capacitor, Electrolytic, 20uf, 25V	C547-119

NOTE: Schematic diagram and parts list apply to both speaker systems, which contain the same components and are wired identically.



FISHER RADIO CORPORATION • NEW YORK