MODEL AM-2200

AKAI

I. TECHNICAL DATA

1. Power Amplifier Section

Continuous Power Output	20 watts per channel, minimum RMS, at 8 ohms from 20 to 20,000 Hz with no more than 0.5% total harmonic distortion
POWER BANDWIDTH (1HF)	10 to 45,000 Hz/8 ohms (Total Harmonic Distortion 0.5%)
SIGNAL TO NOISE RATIO (1HF)	Phono: Better than 85 dB Aux: Better than 95 dB
RESIDUAL NOISE	Less than 0.8 mV at 8 ohms
CHANNEL SEPARATION (1HF)	Phono: Better than 55 dB at 1,000 Hz
DAMPING FACTOR	More than 60 (1 kHz, 8 ohms)
OUTPUT	Speakers: A,B (4 to 16 ohms)/A+B(8 to 16 ohms) Headphone: 4 to 16 ohms

2. Pre Amplifier Section

INPUT SENSITIVITY AND IMPEDANCE	Phono: 3 mV/47 k ohms AUX: 150 mV/100 k ohms Tuner: 150 mV/100 k ohms Tape Monitor: PIN; 150 mV/100 k ohms DIN; 150 mV/100 k ohms
OUTPUT LEVEL AND IMPEDANCE	Tape REC: PIN; 150 mV/100 k ohms DIN; 150 mV/100 k ohms
FREQUENCY RESPONSE	Phono (RIAA equalization) 30 to 15,000 Hz ±1 dB
TONE CONTROL	BASS: ±9 dB at 100 Hz, TREBLE: ±7 dB at 10 kHz
LOUDNESS CONTROL	+10 dB at 100 Hz, +5 dB at 10 kHz (Volume Control set at −30 dB position)
FILTER	HIGH: −6 dB at 10 kHz, LOW: −6 dB at 50 Hz

3. Others

SEMICONDUCTORS	Transistors: 18, Diodes: 5, IC: 1
POWER REQUIREMENTS	U.S.A. and Canada model: 120V, 60 Hz CEE models: 220V, 50 Hz Other models: 110/220/240V, 50/60 Hz switchable
DIMENSIONS	380(W) x 125(H) x 263(D) mm (15 x 4.9 x 10.3) inches
WEIGHT	5.5 kg (12.1 lbs.)

NOTE: For improvement purposes, specifications and design are subject to change without notice.

V. LEVEL DIAGRAM

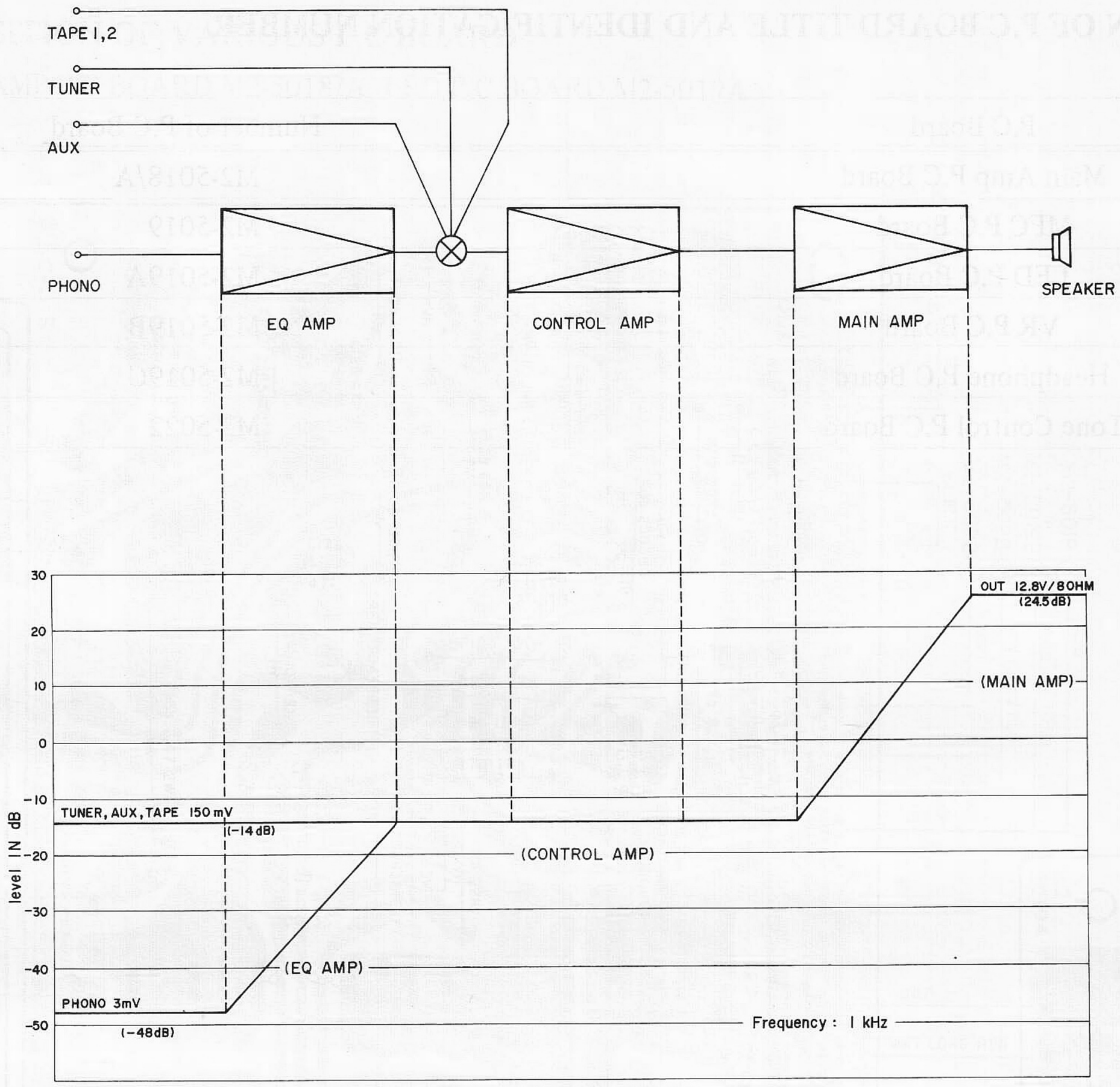


Fig. 3 Level Diagram of Model AM-2200

VI. MAIN AMP ADJUSTMENT

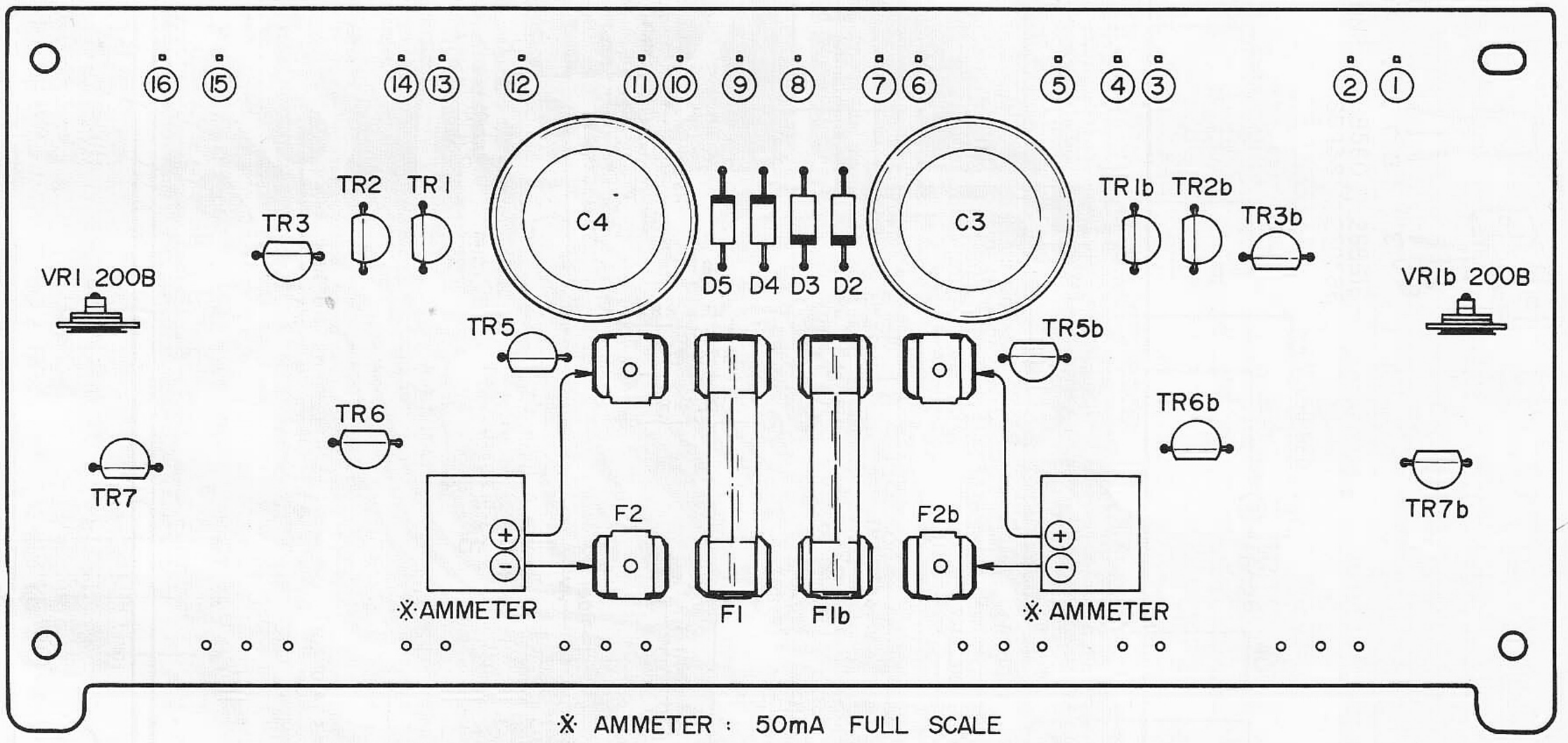
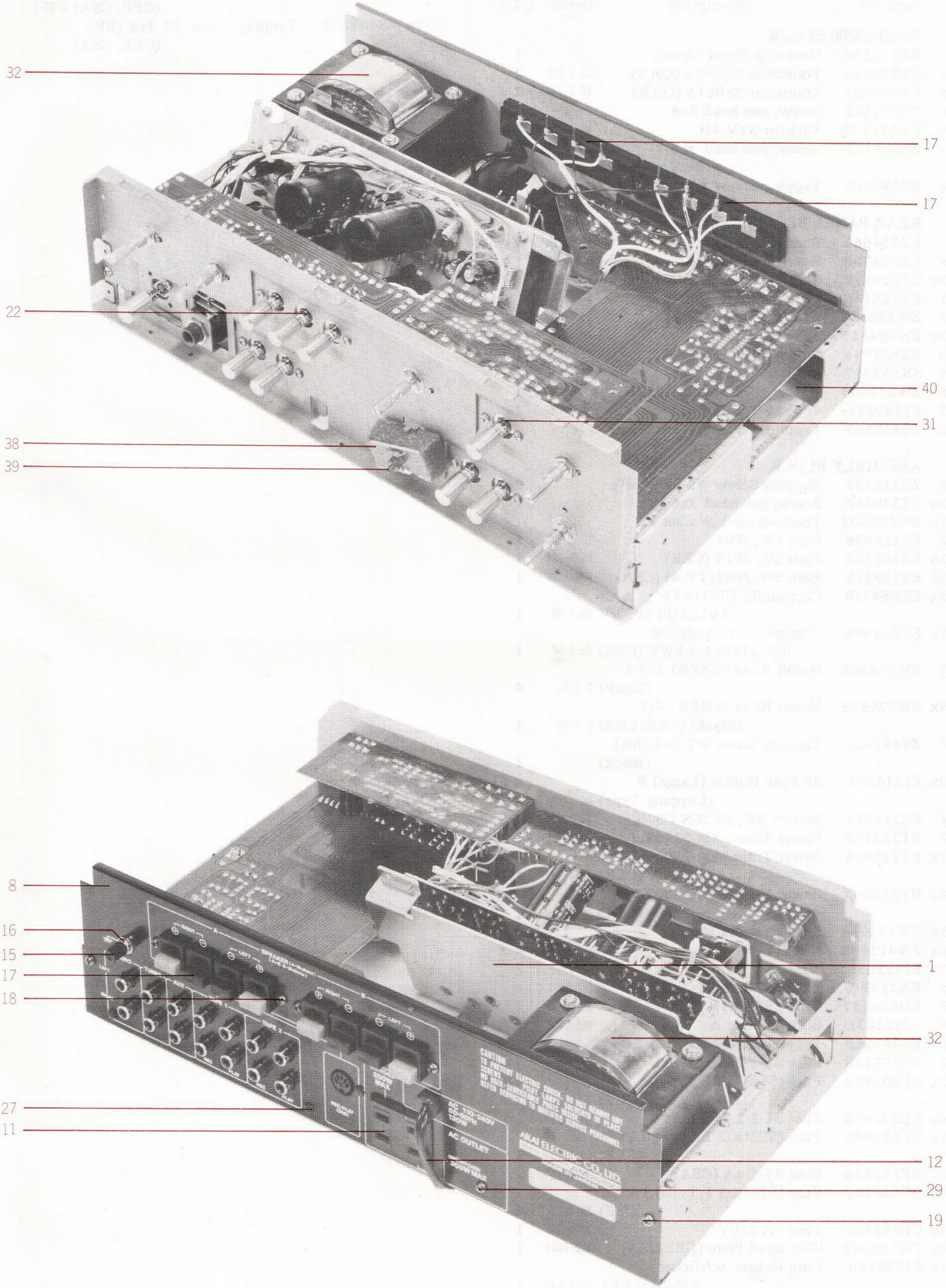
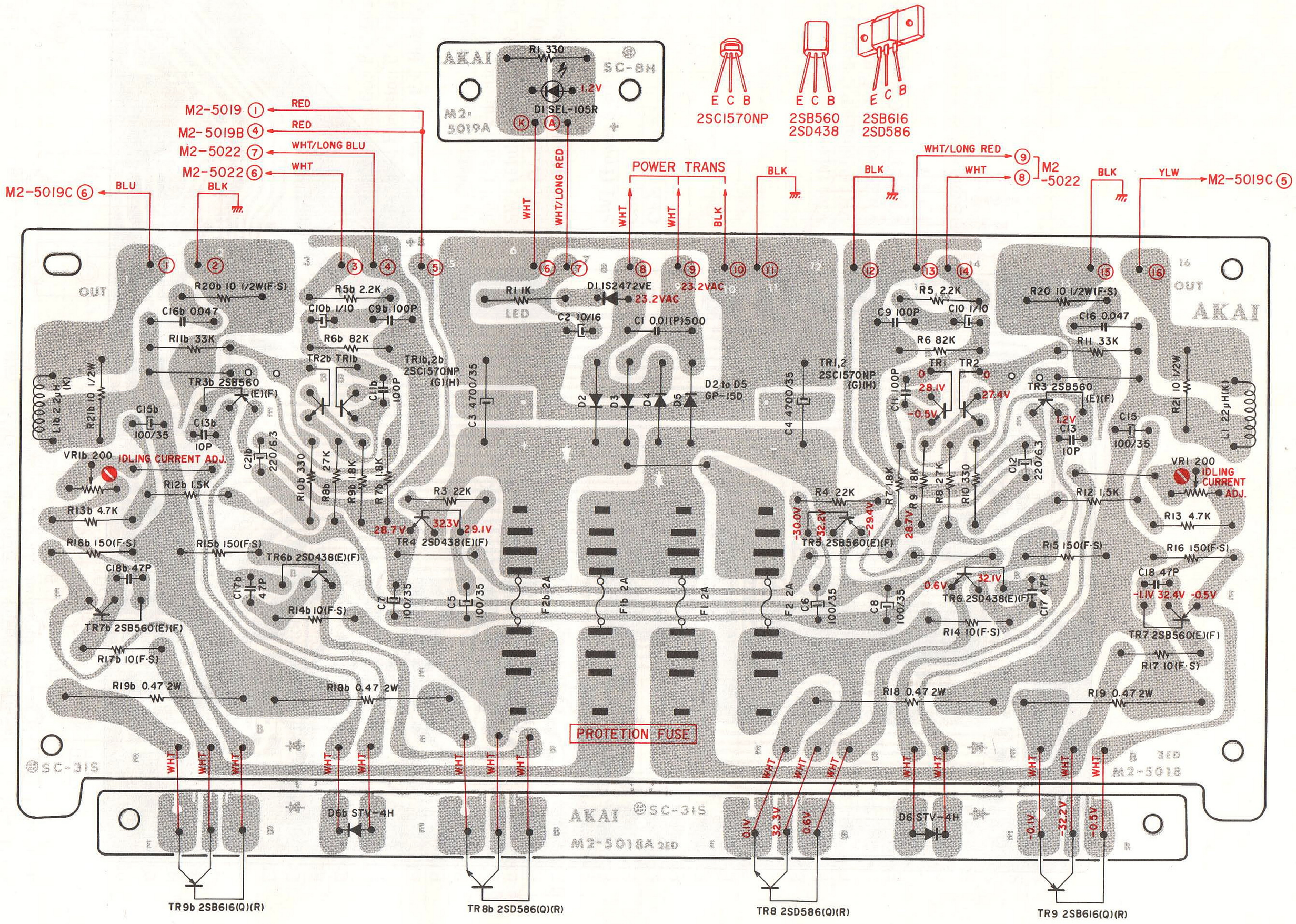


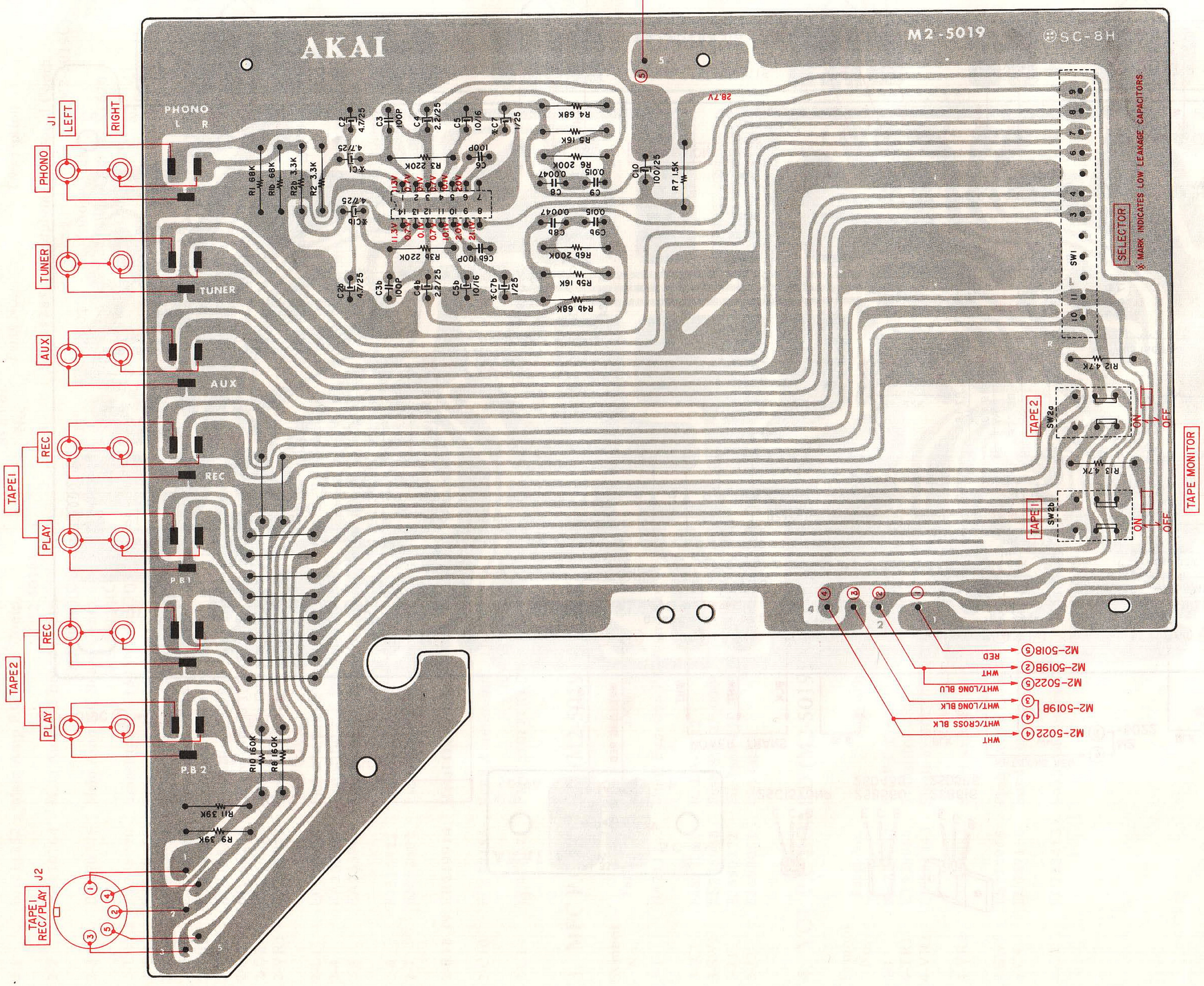
Fig. 4 Main Amp P.C Board M2-2018

Idling Current Adjustment (Refer to Fig. 4)

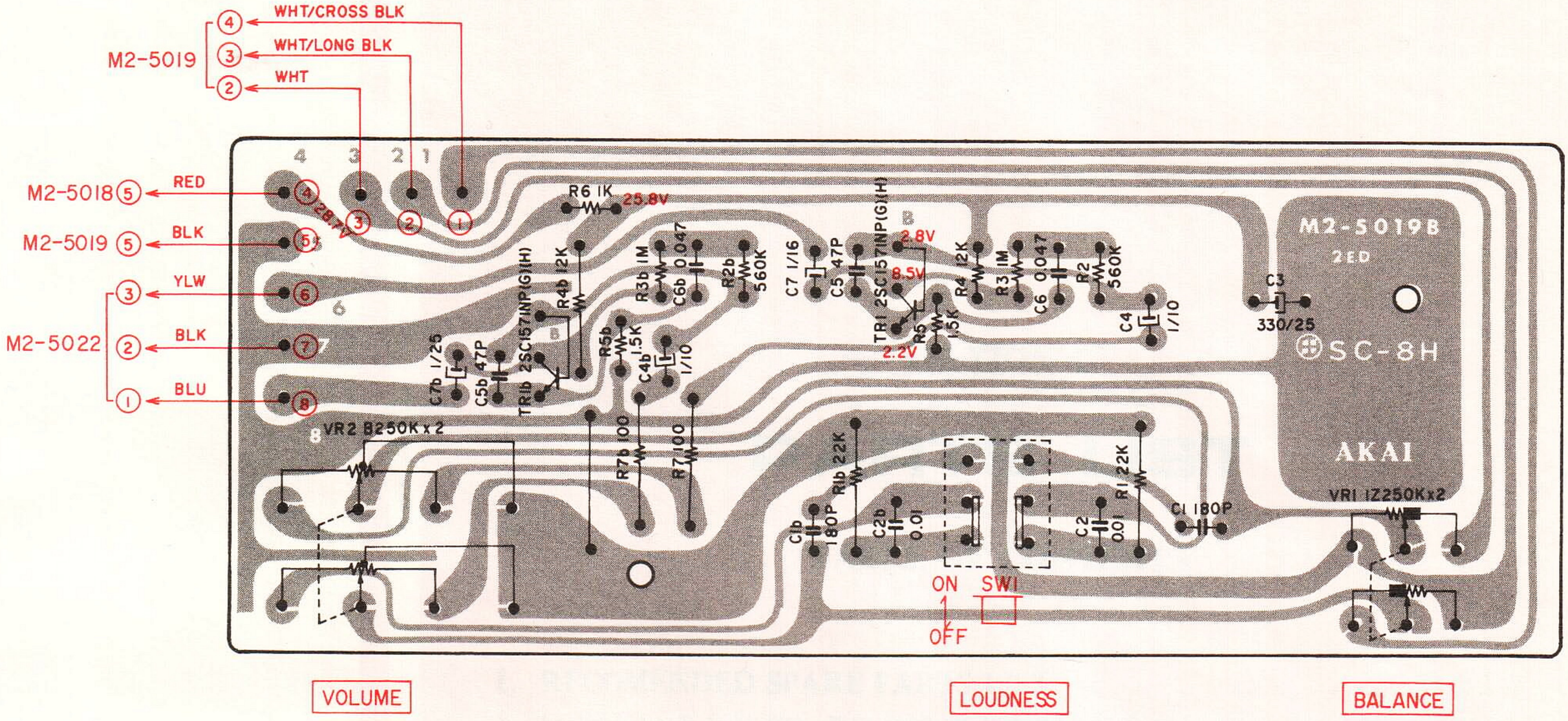
1. Disconnect ⊕ current Fuse F2 2A and connect Ammeter.
2. At non-signal input, adjust semi-fixed resistor VR1 200B to obtain a 20 mA idling current.


32
17
17
22
40
31
38
39
8
16
15
17
18
1
32
27
11
12
29
19

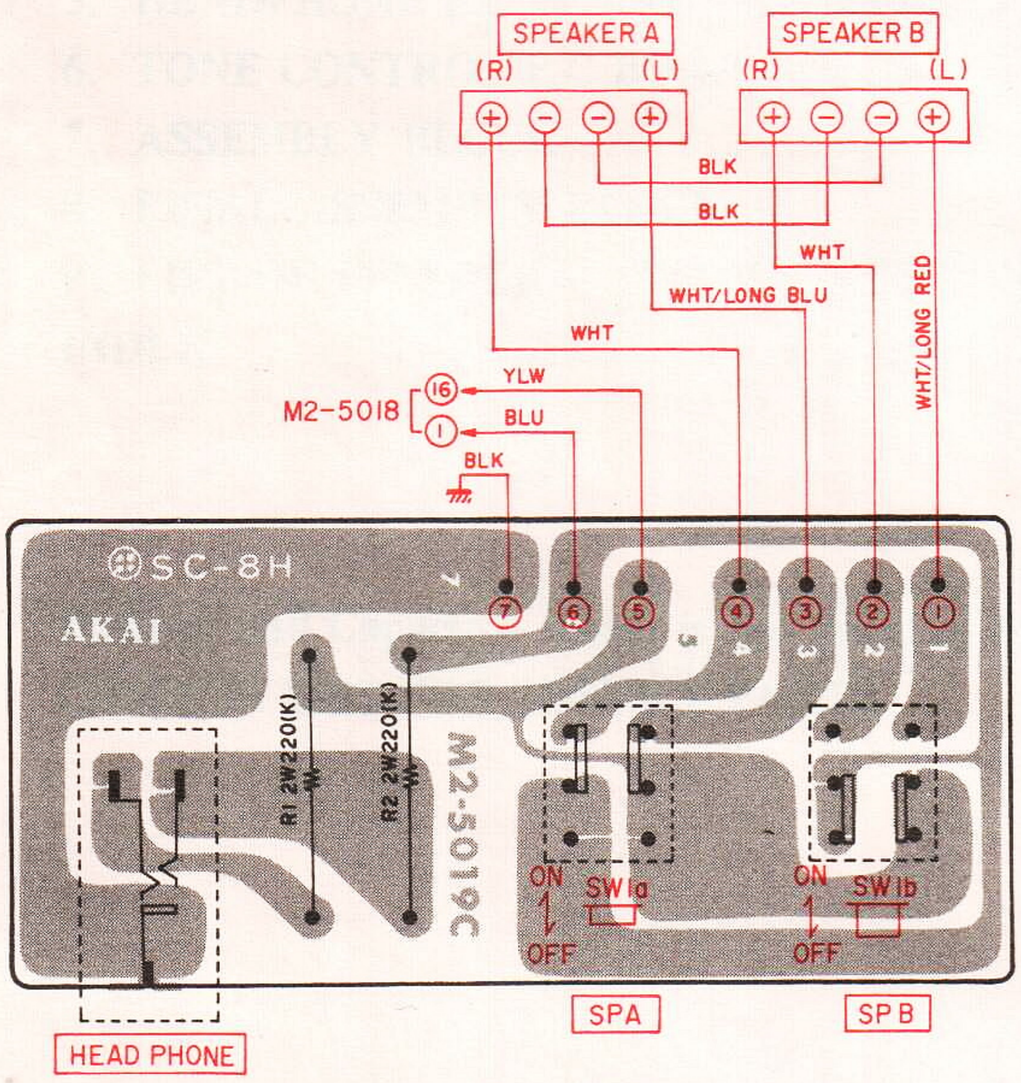

AKAI
SC-8H
R1 330
1.2V
DI SEL-105R
M2-5019A
E C B
2SC1570NP
2SB560
2SD438
2SB616
2SD586
M2-5019 ① RED
M2-5019B ④ RED
M2-5022 ⑦ WHT/LONG BLU
M2-5022 ⑥ WHT
M2-5019C ⑥ BLU
BLK
WHT
WHT/LONG RED
POWER TRANS
WHT
WHT
BLK
BLK
BLK
WHT/LONG RED
⑨
WHT
⑧
M2 -5022
BLK
YLW
M2-5019C ⑤
OUT
AKAI
R20b 10 1/2W(F·S)
C16b 0.047
R11b 33K
TR3b 2SB560 (E)(F)
R21b 10 1/2W
L1b 2.2μH (K)
C15b 100/35
C13b 10P
VR1b 200
IDLING CURRENT ADJ.
R12b 1.5K
R13b 4.7K
R16b 150(F·S)
C18b 47P
TR7b 2SB560(E)(F)
R17b 10(F·S)
R5b 2.2K
C10b 1/10
C9b 100P
R6b 82K
TR2b TR1b
TR1b,2b 2SC1570NP (G)(H)
C11b 100P
C2 10/16
R1 1K
LED
DI IS2472VE
23.2VAC
23.2VAC
C1 0.01(P)500
D2 D3 D4 D5
D2 to D5 GP-15D
C3 4700/35
C4 4700/35
TR1,2 2SC1570NP (G)(H)
C2b 220/6.3
R10b 330
R8b 27K
R9b 1.8K
R7b 1.8K
R3 22K
28.7V
32.3V
29.1V
TR4 2SD438(E)(F)
R15b 150(F·S)
TR6b 2SD438(E)(F)
C17b 47P
R14b 10(F·S)
C7 100/35
C5 100/35
F2b 2A
F1b 2A
F1 2A
F2 2A
C6 100/35
C8 100/35
R4 22K
-30.0V
32.2V
-29.4V
TR5 2SB560(E)(F)
R7 1.8K
R9 1.8K
R8 27K
R10 330
28.7V
C12 220/6.3
R5 2.2K
C9 100P
C10 1/10
R6 82K
TR1
TR2
0
28.1V
-0.5V
0
27.4V
C11 100P
0.6V
32.1V
TR6 2SD438(E)(F)
C17 47P
R14 10(F·S)
R15 150(F·S)
R20 10 1/2W(F·S)
C16 0.047
R11 33K
TR3 2SB560 (E)(F)
1.2V
C13 10P
C15 100/35
R21 10 1/2W
L1 2.2μH(K)
VR1 200
IDLING CURRENT ADJ.
R12 1.5K
R13 4.7K
R16 150(F·S)
C18 47P
-1.1V 32.4V -0.5V
TR7 2SB560(E)(F)
R17 10(F·S)
R19b 0.47 2W
R18b 0.47 2W
R18 0.47 2W
R19 0.47 2W
PROTETION FUSE
SC-31S
M2-5018
D6b STV-4H
D6 STV-4H
AKAI SC-31S
M2-5018A 2ED
TR9b 2SB616(Q)(R)
TR8b 2SD586(Q)(R)
TR8 2SD586(Q)(R)
TR9 2SB616(Q)(R)
0.1V
32.3V
0.6V
-0.1V
-32.2V
-0.5V


AKAI
M2-5019
SC-8H
PHONO
L R
J1
LEFT
RIGHT
PHONO
TUNER
AUX
REC
PLAY
TAPE 1
TAPE 2
R1 68K
R2b 68K
R2b 3.3K
R2 3.3K
C2 4.7/25
C3 100P
C4 2.2/25
C5 10/16
C7 1/25
R4 68K
R5 16K
R6 200K
C8 0.0047
C9 0.015
C10 100/25
R7 1.5K
R3 220K
C6 100P
28.7V
SELECTOR
X MARK INDICATES LOW LEAKAGE CAPACITORS.
SW1
R12 4.7K
R13 4.7K
SW2a
SW2b
ON
OFF
TAPE 2
TAPE 1
TAPE MONITOR
M2-5019B (5)
BLK
M2-5018 (5)
RED
M2-5019B (2)
WHT
M2-5022 (5)
WHT/LONG BLU
M2-5019B (3)
WHT/LONG BLK
M2-5019B (4)
WHT/CROSS BLK
M2-5022 (4)
WHT
P.B 1
P.B 2
R10 160K
R8 160K
R11 39K
R9 39K
J2
TAPE 1
REC/PLAY

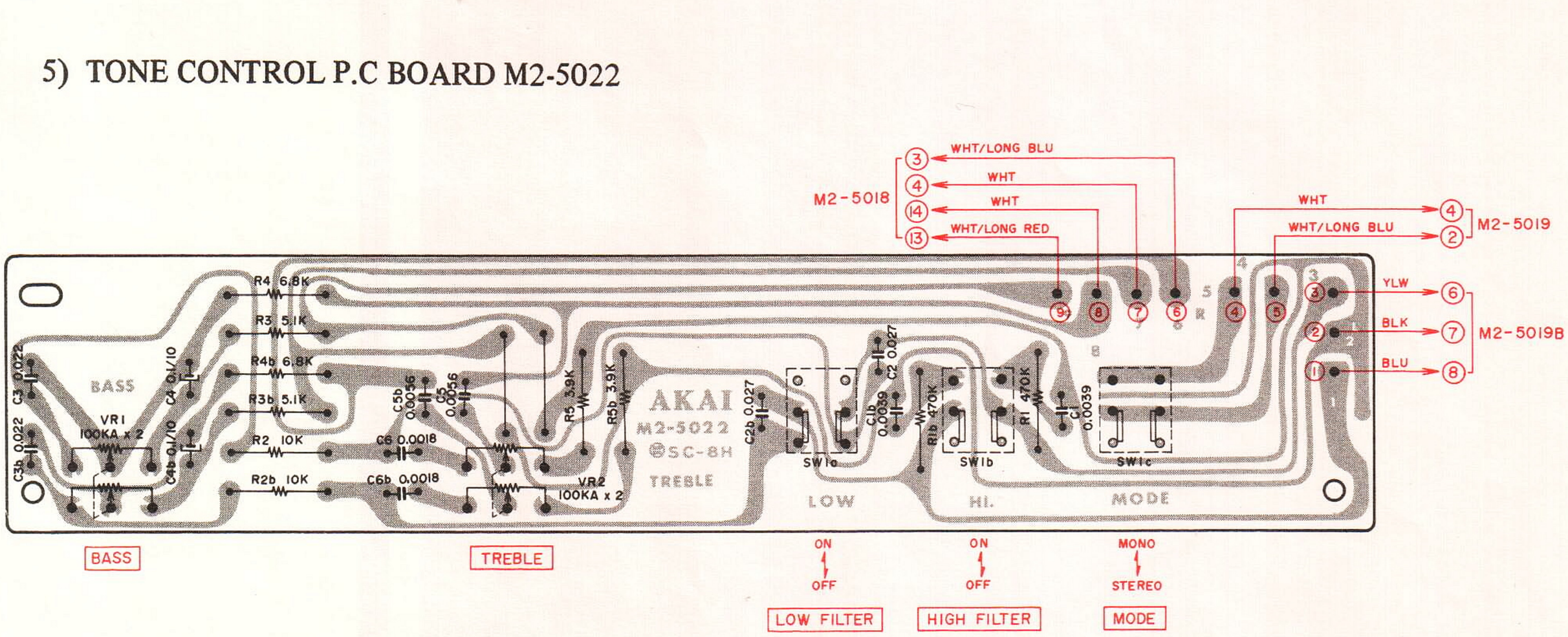
3) VR P.C BOARD M2-5019B



4) HEADPHONE P.C BOARD M2-5019C



5) TONE CONTROL P.C BOARD M2-5022



AM-2200

E C B
2SC1570NP
2SC1571NP

E C B
2SB560
2SD438

J1
PHONO (L) (R)
TUNER (L) (R)
AUX (L) (R)
TAPE 1 PB (L) (R)
REC (L) (R)
TAPE 2 PB (L) (R)
REC (L) (R)
J2

R1 68K
R2 3.3K
C1 4.7/25
R3 220K
C5 10/16
R4 68K
C9 0.015(J)
C8 0.0047(J)
C4 2.2/25
R6 200K
R5 16K
C3 100P
C2 4.7/25
*C7 1/25
C6 100P
R7 1.5K
C10 100/25
IC1 LA-3122
11.3V 0.7V 0.1V 0.7V 10.1V 2.0V 2.1V
SW1 1-R
1-F
28.7V
R8 160K
R10 160K
R11 39K
R9 39K
SW2a TAPE 2
TAPE 1 SW2b
ON OFF
R12 4.7K
R13 4.7K

SW1 SELECTOR
PHONO NOW MODE
TUNER
AUX

SW2 TAPE MONITOR

MFC P.C BOARD M2-5019

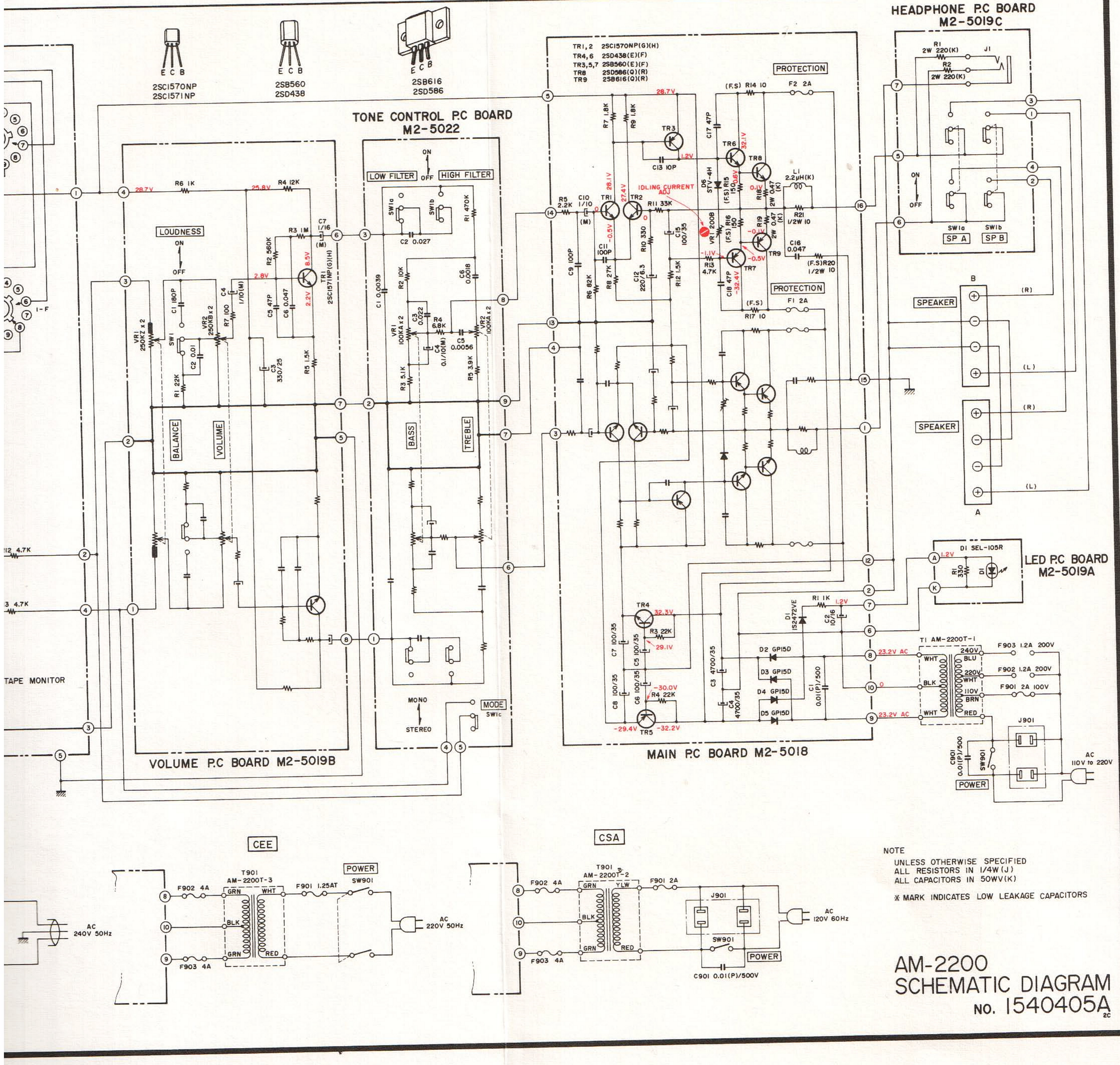
TONE
LOW
LOUDNESS ON OFF
VR1 250KΩ x 2
SW1
C1 180P
C2 0.01
R1 22K
VR2 250KB x 2
R7 100
C4 1/10(M)
R6 1K
28.7V
25.8V
R4 12K
R3 1M
C7 1/16 (M)
R2 560K
2.8V
8.5V
2.2V
TR1 2SC1571NP(G)(H)
C5 47P
C6 0.047
C3 330/25
R5 1.5K
C1 0.0039
BALANCE
VOLUME

VOLUME P.C BOARD M2-5019B

BEAB
T901 AM-2200T-4
F902 4A
F903 4A
GRN WHT BLK GRN RED
F901 1.25AT
POWER SW901
AC 240V 50Hz

CEE
T901 AM-2200T-3
F902 4A
F903 4A
GRN WHT BLK GRN RED
F901 1.25AT
POWER SW901

000896C



NOTE

UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN 1/4W(J)
ALL CAPACITORS IN 50WV(K)

※ MARK INDICATES LOW LEAKAGE CAPACITORS

AM-2200
SCHEMATIC DIAGRAM
NO. 1540405A
2C