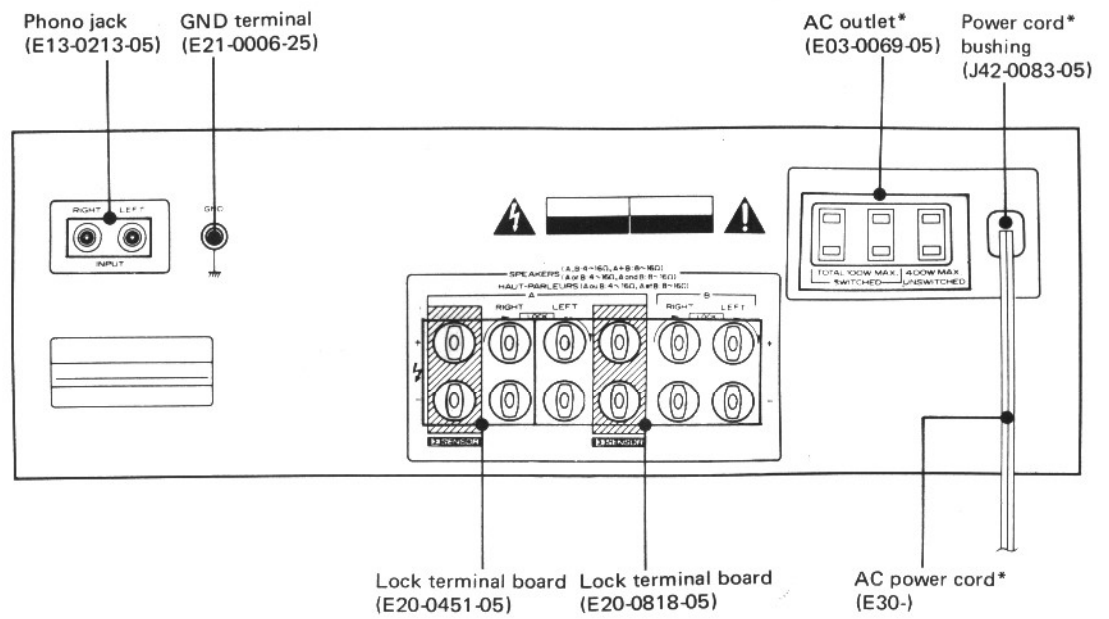
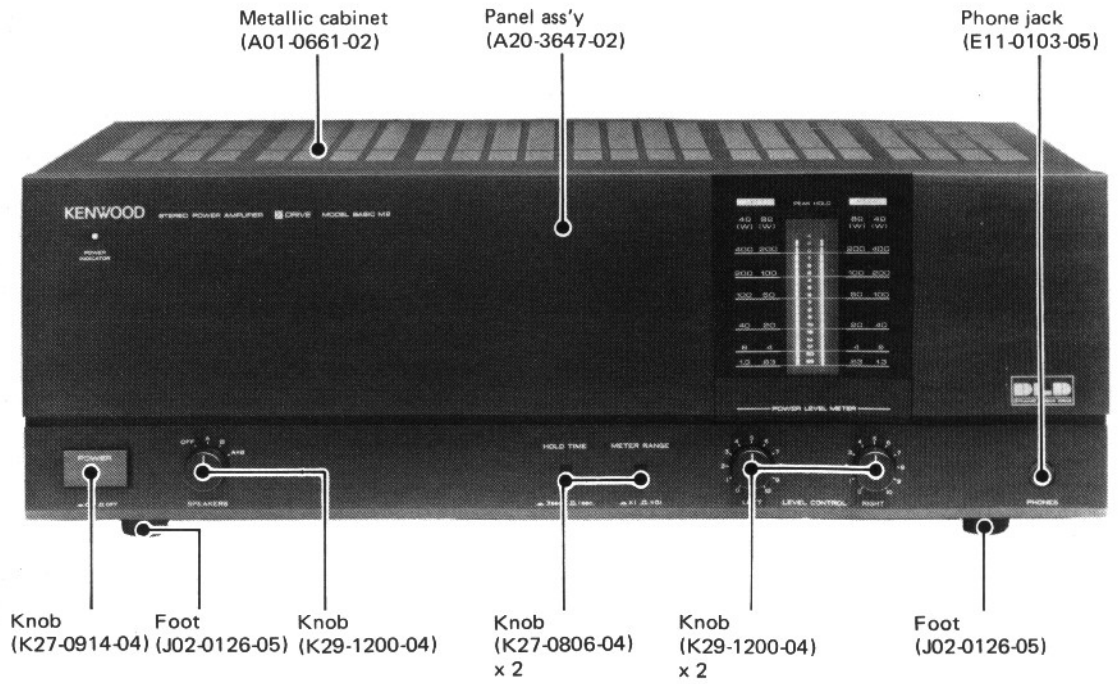


# KENWOOD BASIC M2

## STEREO POWER AMPLIFIER



\*Refer to parts list on page 9.

## ADJUSTMENT

### ADJUSTMENT

NO.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
Unless otherwise specified, the individual switches should be set as follows: SPEAKER : B							
1	OFFSET (X07-2030-11)	—	Connect a DC voltmeter to SPEAKER B terminal.	VOLUME: 0	VR1 (L) VR2 (R)	0V	(a)
2	IDLE CURRENT (X07-2030-11)	—	Connect a DC voltmeter across R85 (L) R86 (R)	VOLUME: 0	VR3 (L) VR4 (R)	$13 \pm 8$ mV	(b)
3	POWER METER (1)	(A) 1 kHz, 1 V	(B)	METER RANGE : x 1 Adjust LEVEL CONTROL so that AC voltmeter indicates 40 V	VR3	Adjust the variable resistor so that the 200 W ( $8\Omega$ ) FL indicator lights.	
4	POWER METER (2)	(A) 1 kHz, 0,1 V	(B)	METER RANGE: x 0.1 Adjust LEVEL CONTROL so that AC voltmeter indicates 4 V	VR1	Adjust the variable resistor so that the 2 W ( $8\Omega$ ) FL indicator lights.	

#### Power Amplifier Check

After completing power amplifier repairs, be sure to confirm that waveforms are present as indicated below. Power amplifier operation is not normal if these waveforms cannot be observed.

**It is not possible to observe both waveform C and D at the same time. Be sure to observe them individually, and be sure that no other test equipment is connected to the amplifier at the same time as the oscilloscope.**

#### Test Condition

1. Apply a 50Hz sine wave to the INPUT terminal.
2. Connect an 8 ohm dummy load to the speaker terminals.
3. Connect the oscilloscope across the resistor (R67~74) of high output circuit.

4. Set the volume control of the BASIC M2 to 0, then turn on the power.
5. When the LEVEL CONTROL of the BASIC M2 is turned up slowly, the waveform shown in Figure C should appear suddenly at a certain point. This is evidence that the high output circuit has begun operating. Stop turning the volume control at the point where this waveform appears.
6. Momentarily turn off the power to the BASIC M2.
7. Connect the oscilloscope across the resistor (R75~82) of low output circuit.
8. Turn the power to the BASIC M2 back on.
9. The waveform shown in Figure D should appear.

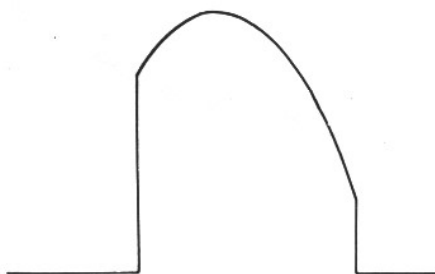


Fig. C

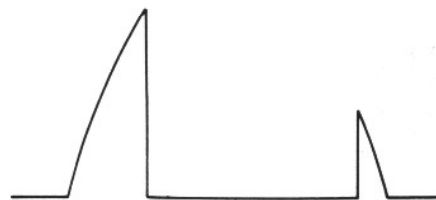
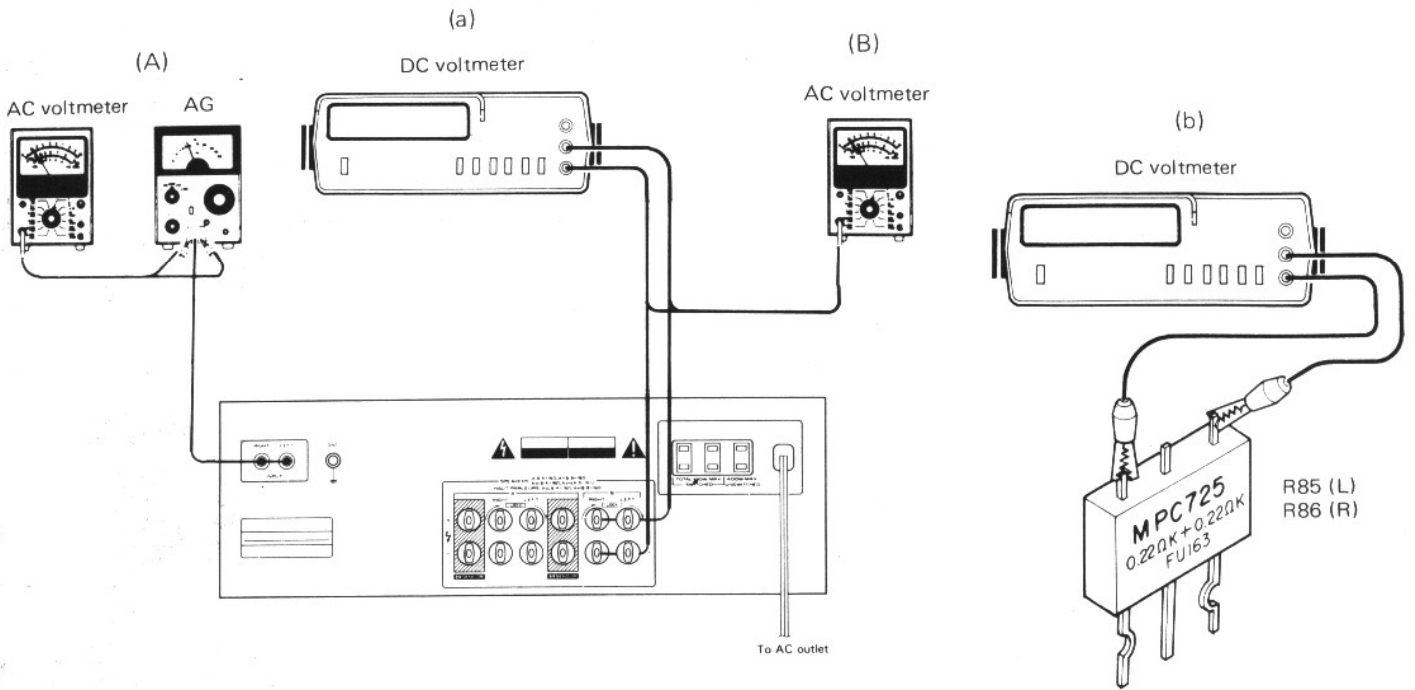


Fig. D

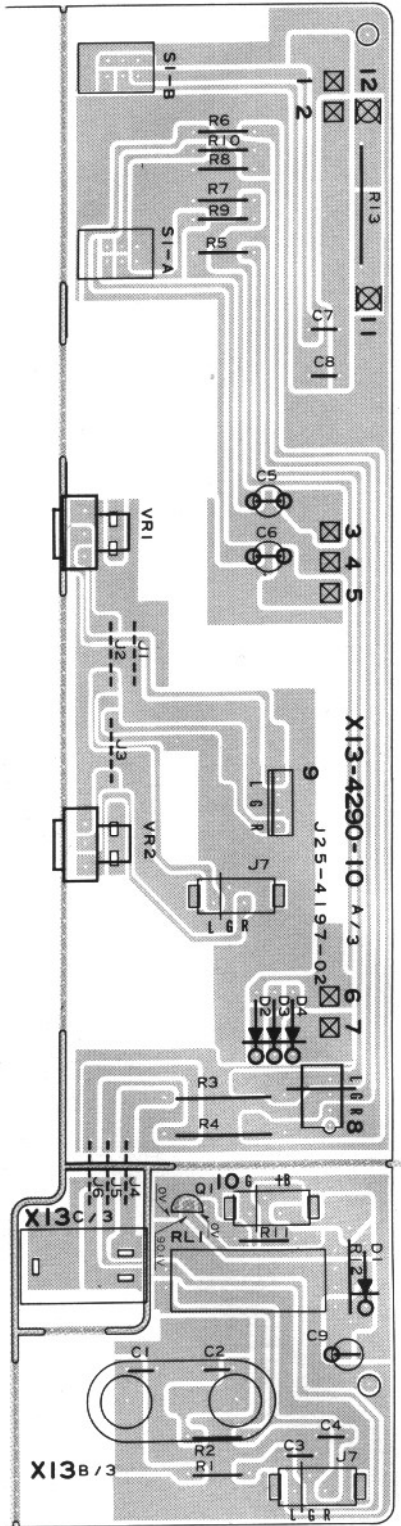
## TEST INSTRUMENT CONNECTION

### TEST INSTRUMENTS CONNECTION

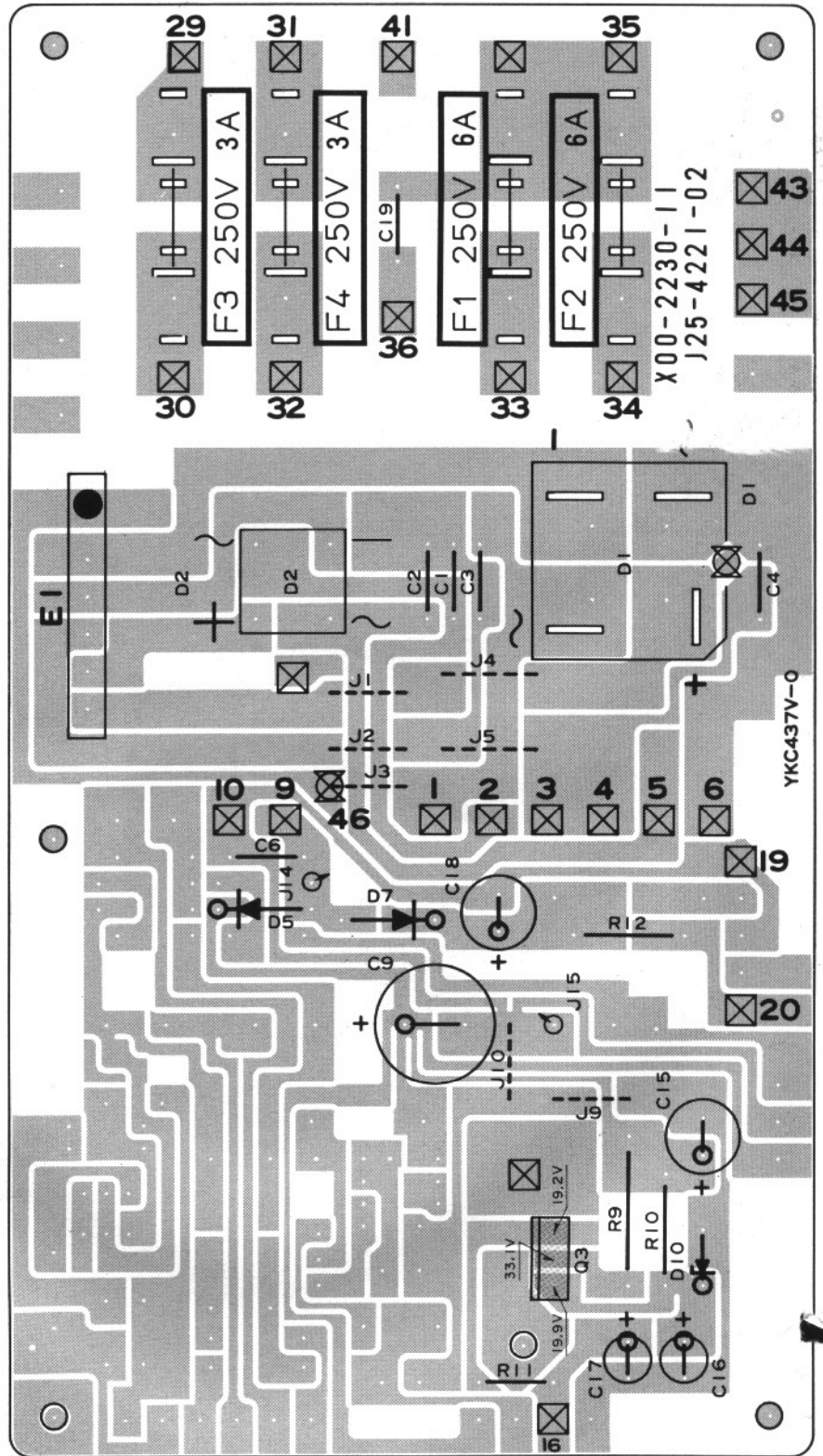


## PC BOARD

SUB (X13-4290-10)  
Component side view

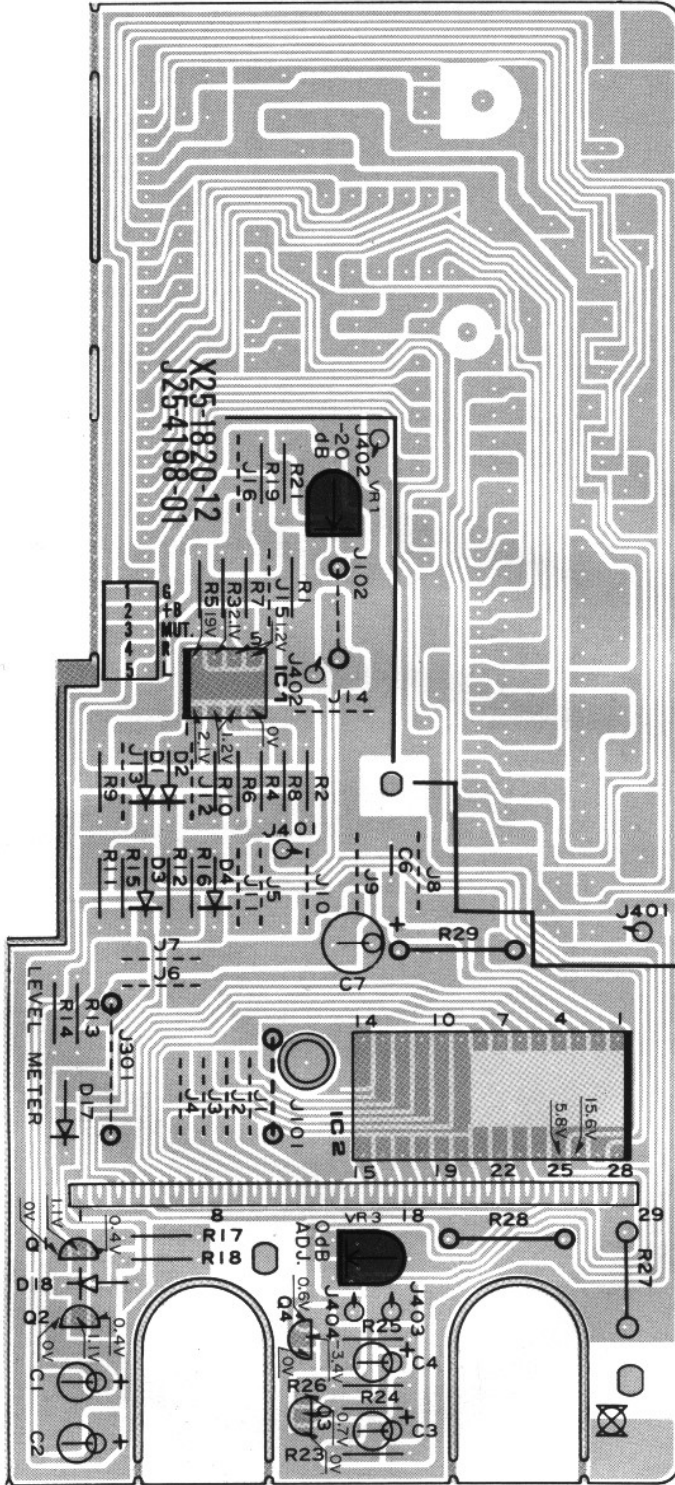


POWER SUPPLY(X00-2230-11) Component side view



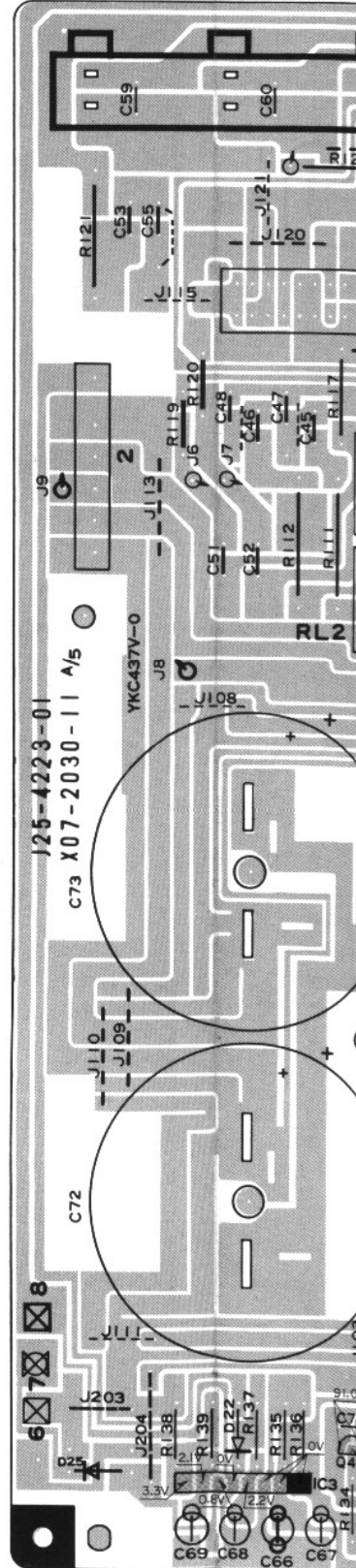
Refer to the schematic diagram for the values of resistors and capacitors.  
The PC board drawing is viewing from the side easy to check.

DISPLAY (X25-1820-12) Component side view



Refer to the schematic diagram for the values of resistors and capacitors. The PC board drawing is viewing from the side easy to check.

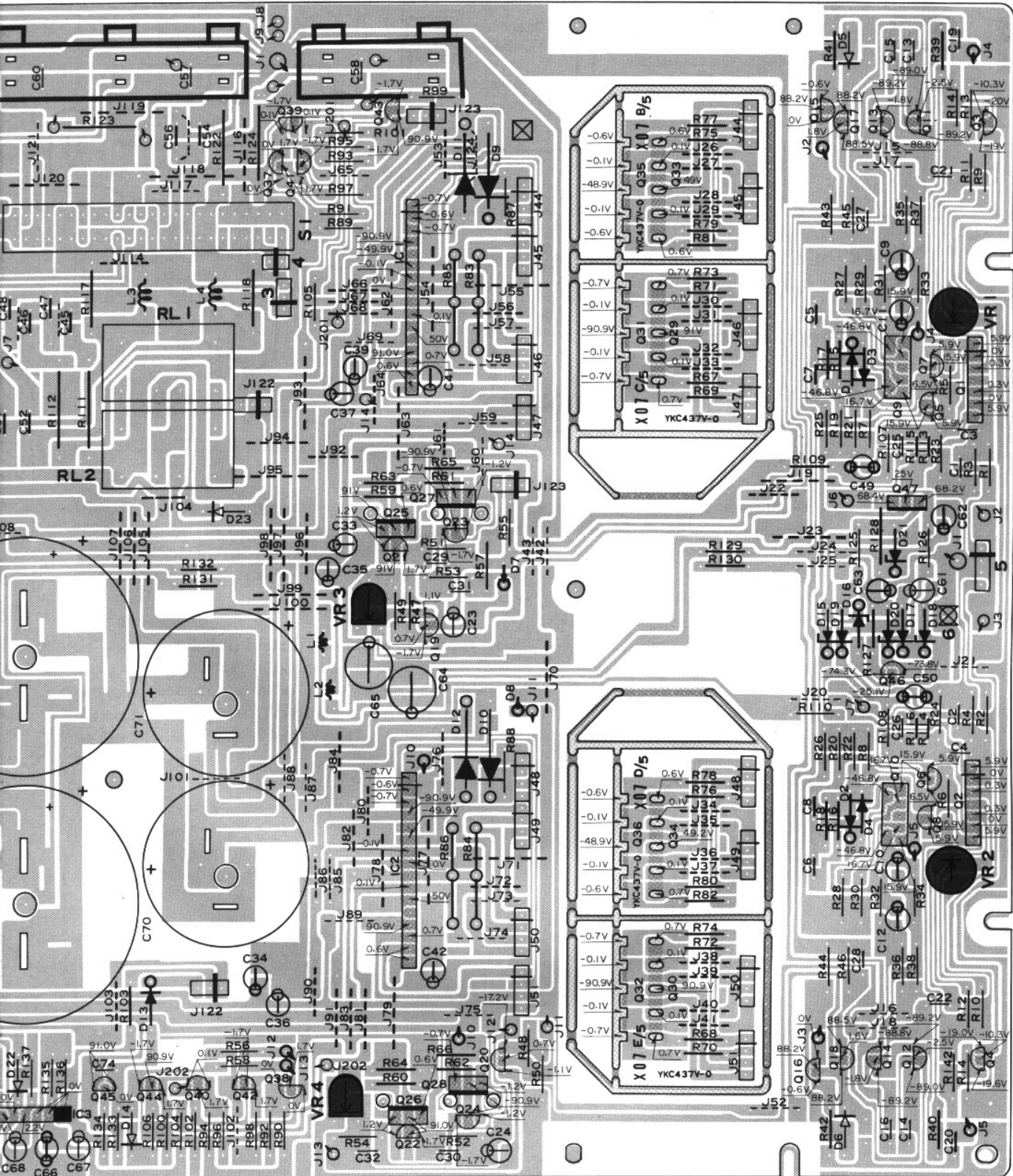
POWER AMP (X07-2030-11) Co

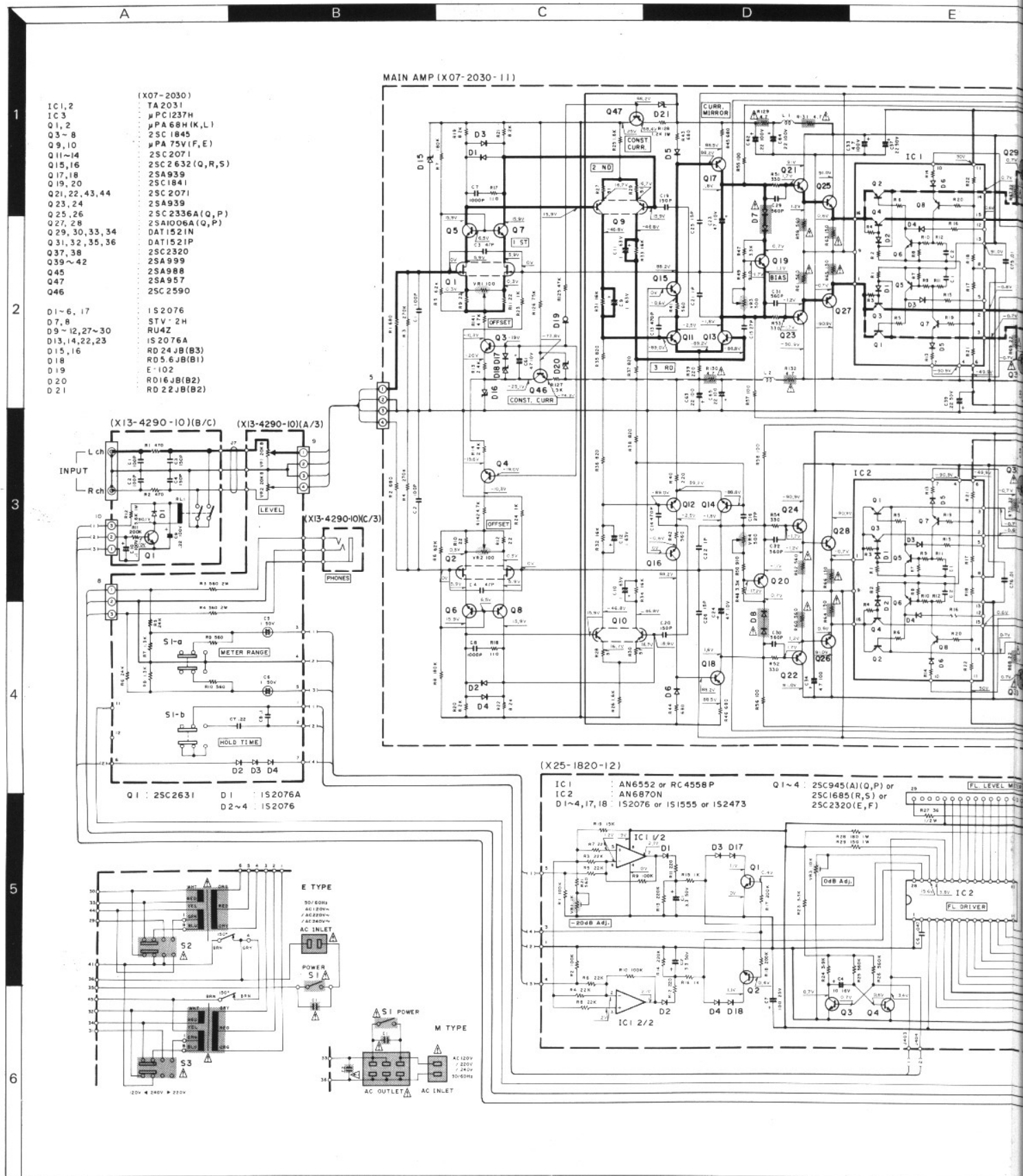


# BASIC M2

BOARD

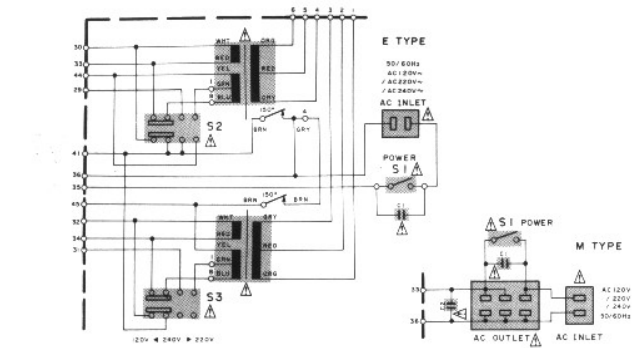
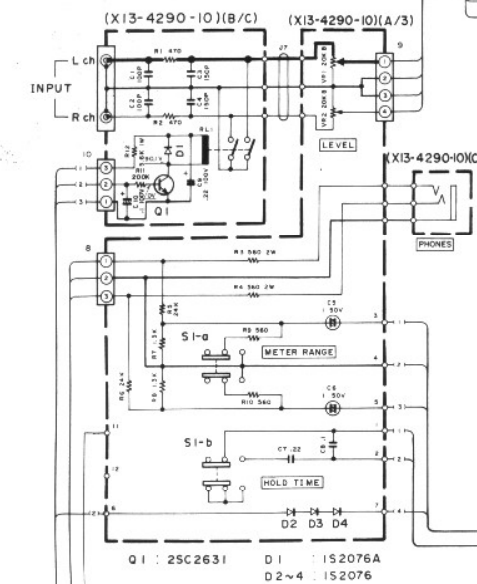
7-2030-11) Component side view





- (X07-2030)
- IC1,2 TA 2031
  - IC3  $\mu$ PC1237H
  - Q1,2  $\mu$ PA 68HK, L1
  - Q3~8 2SC 1845
  - Q9,10  $\mu$ PA 75V(F,E)
  - Q11~14 2SC 2071
  - Q15,16 2SC 2632(Q,R,S)
  - Q17,18 2SA 939
  - Q19,20 2SC 1841
  - Q21,22,43,44 2SC 2071
  - Q23,24 2SA 939
  - Q25,26 2SC 2336A(Q,P)
  - Q27,28 2SA1006A(Q,P)
  - Q29,30,33,34 DAT152IN
  - Q31,32,35,36 DAT152IP
  - Q37,38 2SC 2320
  - Q39~42 2SA 999
  - Q45 2SA 988
  - Q47 2SA 957
  - Q46 2SC 2590

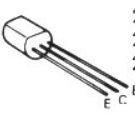
- D1~6,17 IS 2076
- D7,8 STV 2H
- D9~12,27~30 RU4Z
- D13,14,22,23 IS 2076A
- D15,16 RD 24 JB(B3)
- D18 RD 5.6 JB(B1)
- D19 E-102
- D20 RD16 JB(B2)
- D21 RD 22 JB(B2)



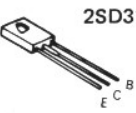
- (X25-1820-12)
- IC1 : AN6552 or RC 4558P
  - IC2 : AN6870N
  - D1~4,17,18 : IS2076 or IS1555 or IS2473
  - Q1~4 : 2SC945(A,Q,P) or 2SC1685(R,S) or 2SC2320(E,F)

- 2SA988
- 2SA999
- 2SA999
- 2SC1685
- 2SC1841

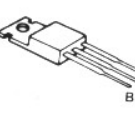
- 2SC1845
- 2SC2320
- 2SC2631
- 2SC2632
- 2SC945



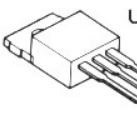
- 2SA939
- 2SC2071
- 2SC2590



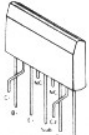
- 2SD313V-AL



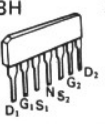
- 2SA957
- 2SA1006B
- 2SC2368B



- UPA75V



- UPA68H



- RC4558P



## SPECIFICATION

### Power output

220 watts\* per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.004% total harmonic distortion.

### Clipping Power

at 8 ohms ..... 242 W  
at 4 ohms ..... 324 W

### Clipping Headroom

at 8 ohms ..... 0.2 dB  
at 4 ohms ..... 1.1 dB

### Dynamic Power

at 8 ohms ..... 325 W  
at 4 ohms ..... 484 W

### Dynamic Headroom

at 8 ohms ..... 1.5 dB  
at 4 ohms ..... 2.9 dB

### Total Harmonic Distortion

120 Hz to 20,000 Hz  
Input to SPEAKER output ..... 0.004% at rated power into  
8 ohms  
0.004% at 1/2 rated power into  
8 ohms  
0.001% at rated power into  
8 ohms at 1 kHz

### Intermodulation Distortion

(60 Hz:7 kHz = 4:1) ..... 0.004% at rated power into  
8 ohms

### Damping Factor

..... More than 1,000 at 50 Hz,  
8 ohms

### Transient Response

Rise Time ..... 1.8 μs  
Slew Rate ..... ±100 V/μs

### Frequency Response

..... 1 Hz to 200 kHz, +0 dB,  
-3 dB

### Signal-to-Noise Ratio

(IHF A Curve) ..... 120 dB

### Speaker Impedance

..... Accept 4 ohms to 16 ohms

### Input Sensitivity/Impedance

INPUT ..... 1 V/47 kohms

### General

Power Consumption ..... 6.9 A (UL and CSA), 1,350 W

(Rated power at 8 ohms)

A.C. Outlets ..... Switched 2, Unswitched 1

Dimensions ..... W 440 mm (17.5/16")

H 158 mm (6.7/32")

D 373 mm (14.1/16")

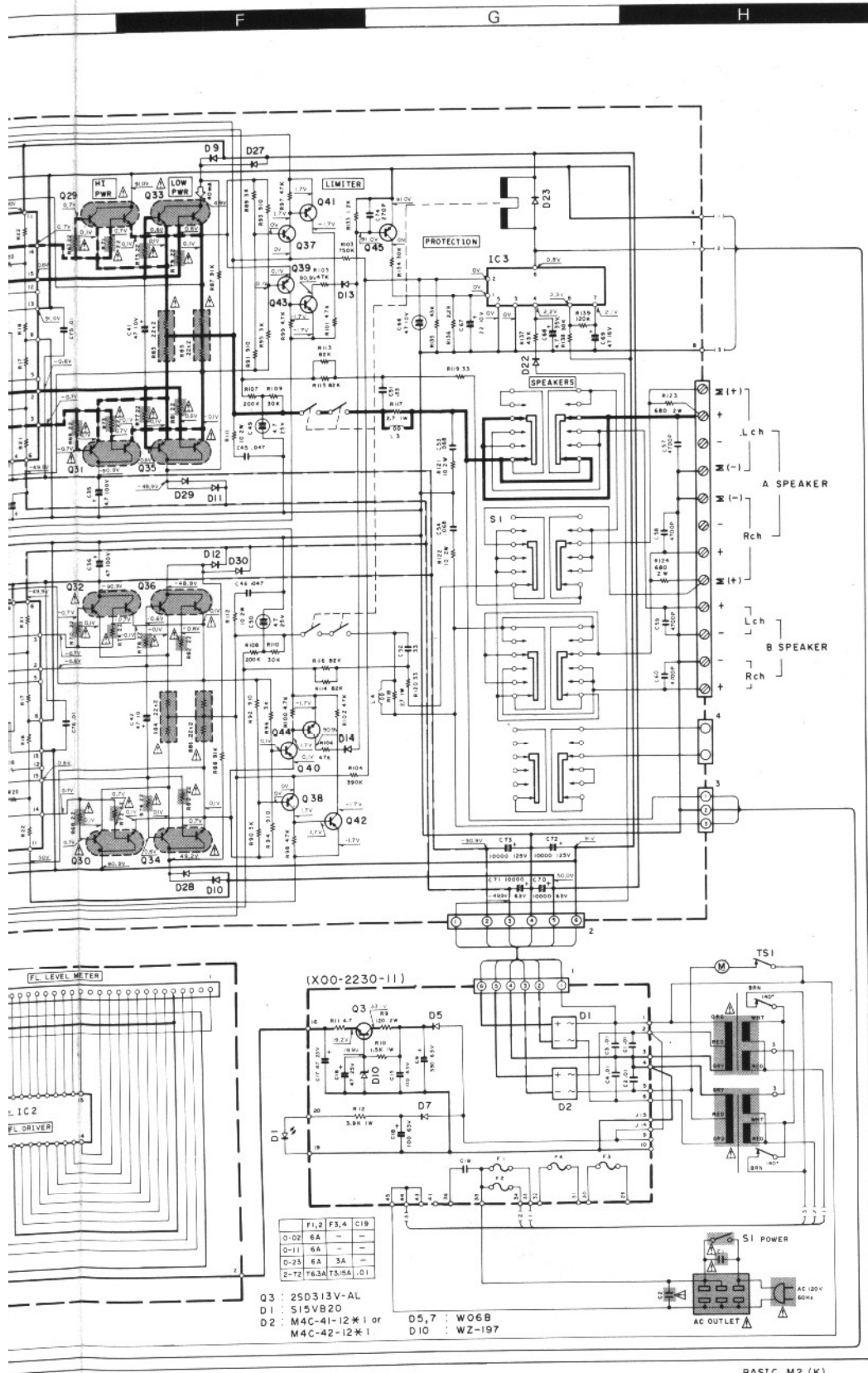
Net Weight ..... 15.5 kg (34.1 lb)

\* Measured pursuant to Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifier in U.S.A.

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis. Kenwood strebt ständige Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

• DC voltages are as measured with a high impedance voltmeter with no signal input. Values may vary slightly due to variations between individual instruments or/and units.



**CAUTION:** For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list).  $\Delta$  Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

