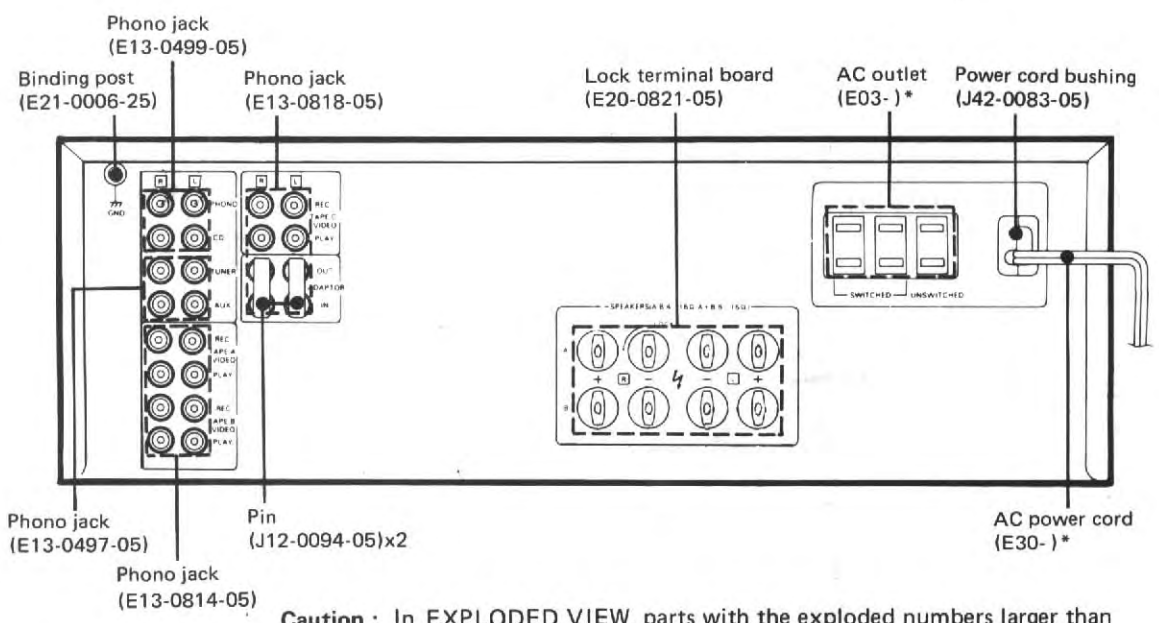
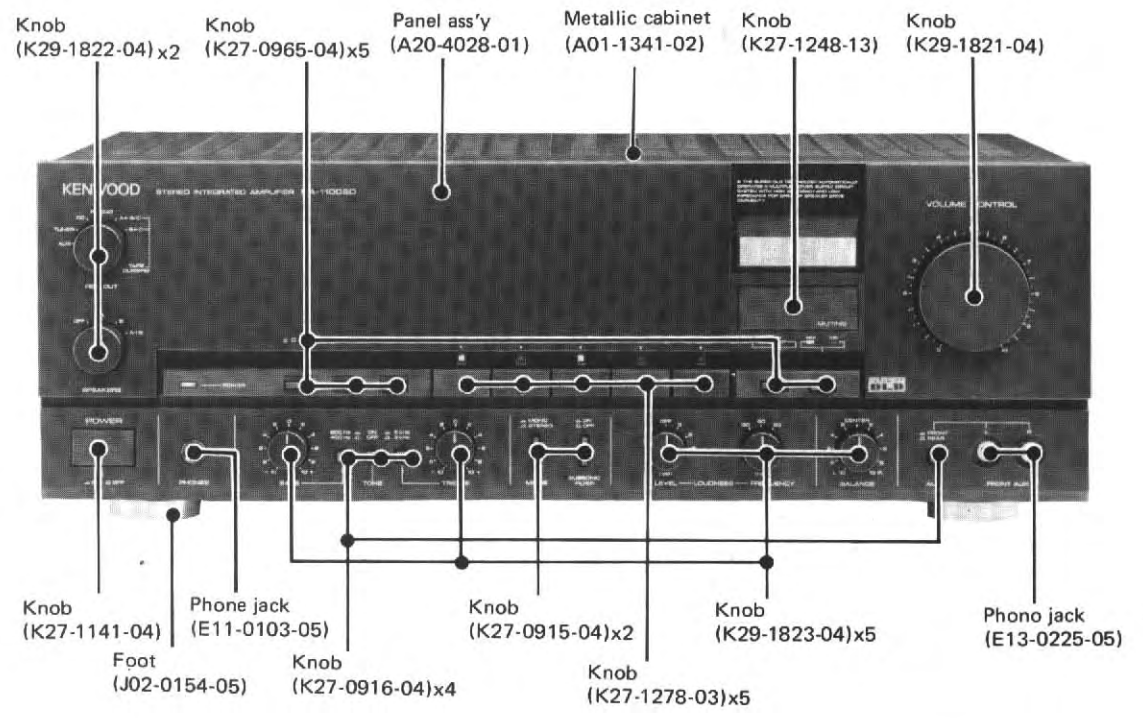


KENWOOD KA-1100SD

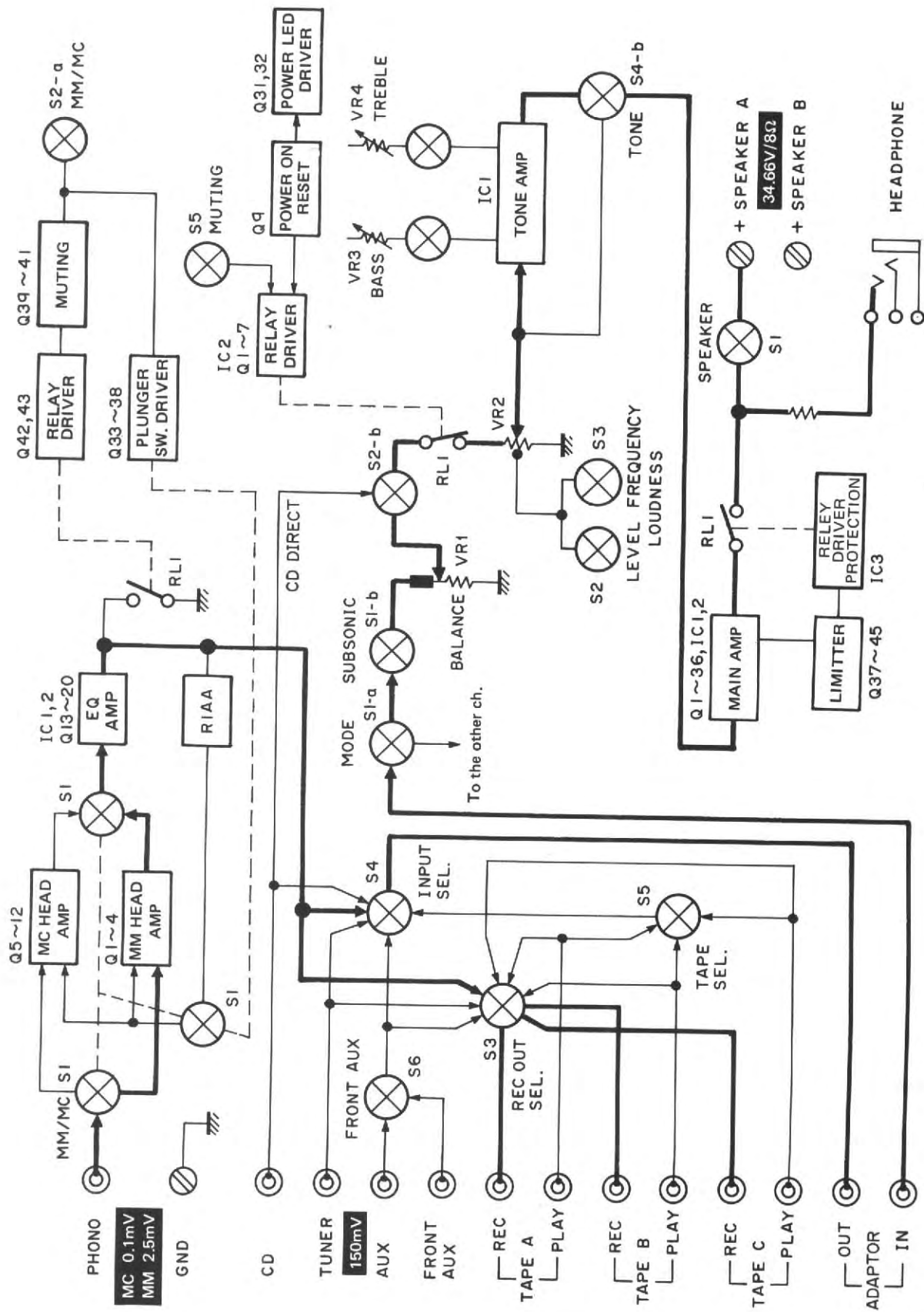
STEREO INTEGRATED AMPLIFIER



Caution : In EXPLODED VIEW, parts with the exploded numbers larger than 700 are not supplied.

*Refer to Parts list on page 12.

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

(X08-2160-81)

| Element | Use and function | Operation, rating and interchangeability |
|----------|-----------------------------------|---|
| Q1~Q4 | Differential amp | Input differential amp for MM cartridge. |
| Q5~Q12 | Differential amp | Input differential amp for MC cartridge. |
| Q13~Q16 | Cascade | |
| Q17, Q18 | For constant current supply | Determines the current supplied to the input differential amp, together with D11~D13 and R31~R34. ↻ |
| Q19~Q22 | For constant current supply | Constant current supply circuit for output complementary circuit Q23~Q26. |
| Q23~Q26 | Output complementary circuit | |
| Q27, Q28 | Power supply control transistor | Control transistor for EQ constant voltage circuit. |
| Q29, Q30 | Constant current for power supply | Constant current supply transistor for Q27 and Q28. |
| Q31, Q32 | Flip-flop | Drives power indicator. |
| Q33~Q38 | Plunger relay drive | Drives the plunger of the relay which switches MM and MC mode. |
| Q39~Q43 | Muting | Mutes the output when switching between MM and MC mode. |
| IC1 | Equalizer amp | |

(X07-2200-11)

| Element | Use and function | Operation, rating and interchangeability |
|----------|-------------------------------|--|
| Q1, Q2 | First stage differential amp | |
| Q3, Q4 | Constant current | Constant current transistors for first stage differential amp Q1 and Q2. |
| Q5~Q8 | Cascade | |
| Q9, Q10 | Second stage differential amp | |
| Q11~Q14 | Third stage differential amp | Class A amplifier. |
| Q15, Q16 | Voltage shift | |
| Q17, Q18 | Constant current | |
| Q19, Q20 | Bias | |
| Q21~Q24 | Pre-driver | |
| Q29~Q32 | High power | High output final transistor. |
| Q33~Q38 | Low power | Low output final transistor. |
| Q37~Q44 | Current protection | Q43 and Q44 are high tension transistors. |
| Q45 | Protection driver | Drive transistor for protection IC. |
| IC1, IC2 | High/Low power selector IC | Switching IC for high and low output signal transistor. |
| IC3 | Protection relay driver | Driven by Q45 to drive protection relays RL1 and RL2. |

(X11-1890-01)

| Element | Use and function | Operation, rating and interchangeability |
|---------|---------------------------|---|
| Q1, Q2 | Muting | Controlled by muting switch S5. |
| Q3 | Muting indicator inverter | Controlled by IC2 to turn off at muting on. |
| Q4, Q7 | Muting relay driver | Controlled by IC2 to turn on when muting relay RL1 is activated. |
| Q5, Q6 | Muting indicator driver | Turns on when Q3 is on (muting switch S5 is on) to light the indicator. |
| Q9 | Power on reset | |
| IC2 | Relay driver | Controls the muting relay RL1 and the muting indicator circuit. |

CIRCUIT DESCRIPTION

DESCRIPTION OF SUPER DLD CIRCUIT

With the former DLD amp which has high efficiency, the heatsink can be small, compared with class B amplifier which has the same output power, resulting in high cost performance.

However, the normal listening output power is several mW to several hundred mW and the high voltage circuit seldom operates. For example, with the circuit shown in Fig. 1, the high and low setting is 30W/8Ω to obtain maximum output power of 100W/8Ω. Therefore, at low

power of 0~30W, low voltage circuit consisting of Q33, Q35, D2, D9, D11, C70 and C71 functions and high voltage circuit consisting of D1, C72 and C73 operates rarely.

When the high voltage circuit operates, the low voltage circuit does not operate.

With the super DLD circuit, the circuit which is not operated is effectively used to improve performance and tone quality. The operation of the super DLD is described below.

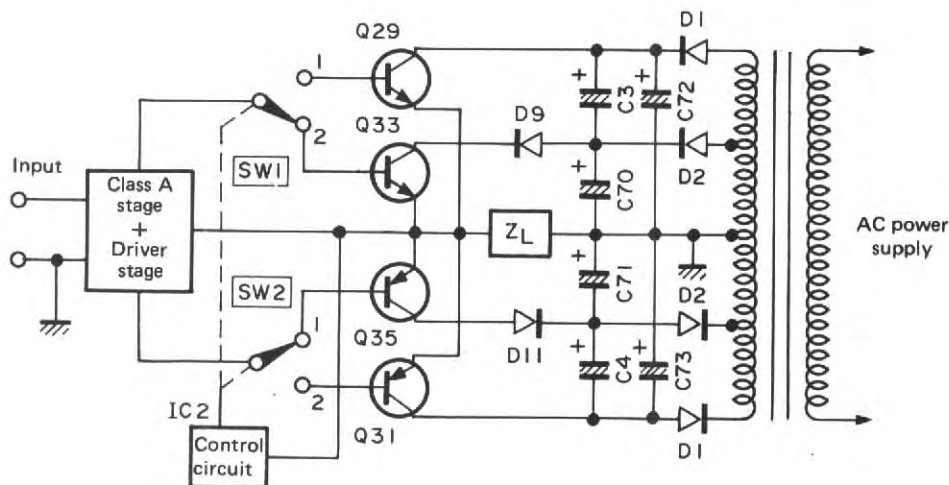


Fig. 1

OPERATIONAL DESCRIPTION

As shown in Fig. 1, C3 and C4 are added to the former DLD circuit to form super DLD circuit. Hereafter, the operation of the amplifier is class B and the description applies to positive side half cycle.

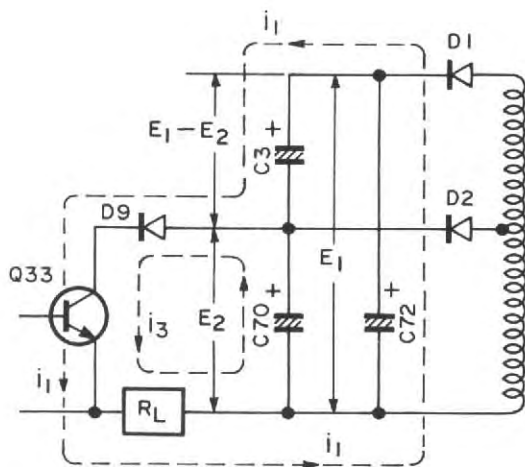


Fig. 2-1

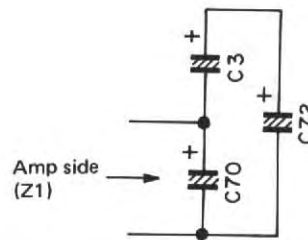


Fig. 2-2

CIRCUIT DESCRIPTION

1. Low power operation

When Q29 opens, the circuit in Fig. 1 can be seen as an equivalent circuit shown in Fig. 2-1.

- At non-signal condition, C3, C70 and C72 are fully charged and voltages E1, E2 and E1-E2 are supplied to C72, C70 and C3 respectively.
- When the signal is applied and Q33 turns on, C70 supplies current i_3 to RL via D9 and Q33 and C72 supplies current i_1 to RL via C3, D9 and C33. Namely, C3 functions as an i_1 bias circuit.
- When this operation is viewed from the amp, the circuit can be described as shown in Fig. 2-2. Namely, the power impedance Z1 viewed from the amp is as follows.

$$Z_1(j\omega) = \frac{1}{j\omega} \cdot \frac{C3 + C72}{C3 \cdot C72 + C70(C3 + C72)}$$

Assuming that C3 = C70 = C72,

$$Z_1(j\omega) = \frac{1}{j\omega} \cdot \frac{1}{\frac{3}{2}C70}$$

Therefore, the circuit is the same as the former circuit in which C3 and C4 are not employed and C70 is increased by 3/2. The power impedance is decreased by 2/3, to 33%.

Therefore, the AC component at collector voltage of Q33 is decreased, resulting in improved performance and sound quality.

2. High power operation

When Q33 opens, the circuit in Fig. 1 can be seen as an equivalent circuit shown in Fig. 3-1.

- When the signal is supplied and Q29 turns on, the series circuit consisting of C3 and C70 supplies i_3 to RL via Q29 and C72 supplies i_1 to RL via Q29.
- When this operation is viewed from amp, the circuit can be described as shown in Fig. 3-2. Namely, the power impedance Z2 viewed from the amp is as follows.

$$Z_2(j\omega) = \frac{1}{j\omega} \cdot \frac{C3 + C70}{C3 \cdot C70 + C72(C3 + C70)}$$

Assuming that C3 = C70 = C72,

$$Z_2(j\omega) = \frac{1}{j\omega} \cdot \frac{1}{\frac{3}{2}C72}$$

Therefore, the circuit is the same as the former circuit in which C3 and C4 are not employed and C70 is increased by 3/2. The power impedance is decreased by 2/3, to 33%. Therefore, the AC component at collector voltage of Q29 is decreased, resulting in improved performance and sound quality.

This operation can be applied to the negative side half cycle.

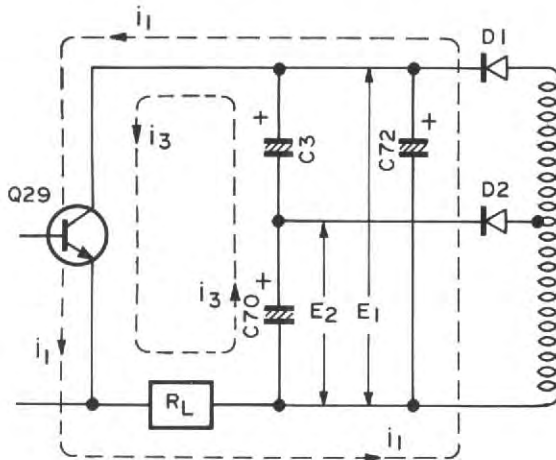


Fig. 3-1

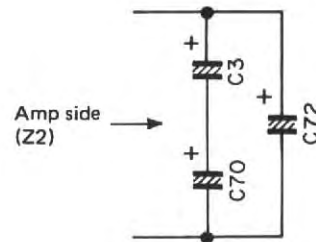
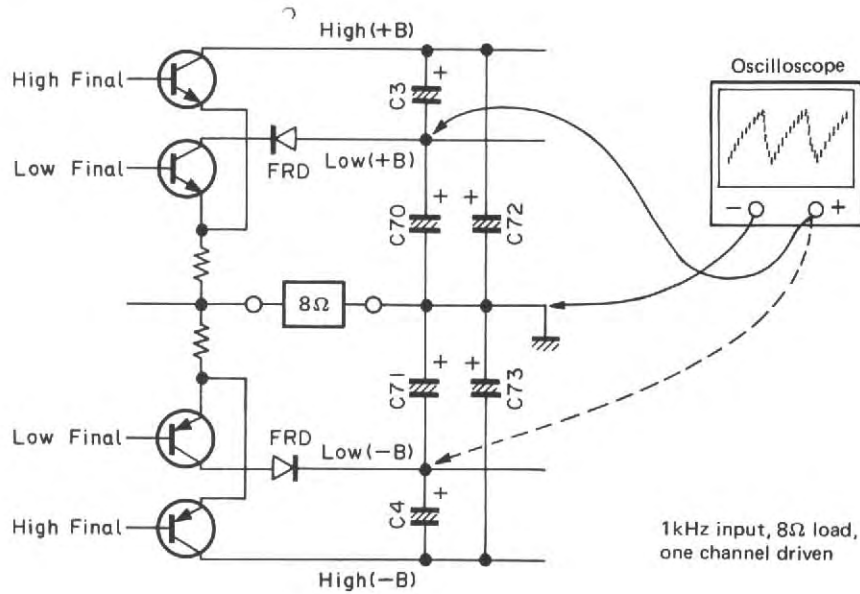


Fig. 3-2

CIRCUIT DESCRIPTION

CHECKING METHOD OF SUPER DLD CIRCUIT OPERATION

1. Connect an oscilloscope to LOW (+B) and GND.
Set the oscilloscope input coupling mode to AC.



2. Continuously change the output voltage and monitor the ripple waveform at high and low switching.

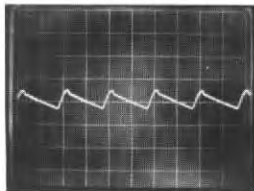


Photo 1
Volume : 0

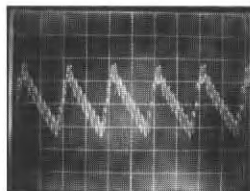


Photo 2
Just before switching

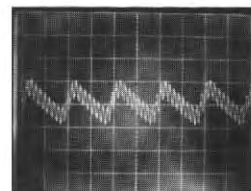


Photo 3
Just after switching

3. Connect the oscilloscope to HIGH (-B) and GND.
Set the oscilloscope input coupling mode to AC.

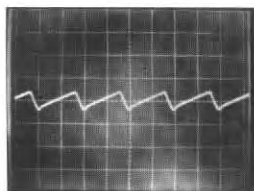


Photo 4
Volume : 0

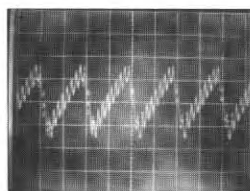


Photo 5
Just before switching

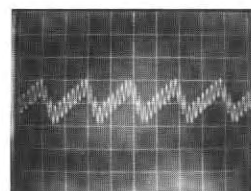


Photo 6
Just after switching

4. Check on the opposite channel's LOW (+B) and HIGH (-B) line in the same way.

CIRCUIT DESCRIPTION

CONSTANT-VOLTAGE POWER SUPPLY CIRCUIT

D9 : RD20J (B2)

A Zener diode (constant-voltage). This generates the reference voltage for this circuit. Even if the current flowing into D9 fluctuates, the voltage at point A is kept constant (Approximately 20.6V.)

C51 : 100 μ , 25V

Used as the ripple filter and to prevent the noise generated by D9.

Q27 : 2SD313V-AL

A current amplifier. This is necessary when the load current is large or the capacity (I_z) of the Zener diode is small.

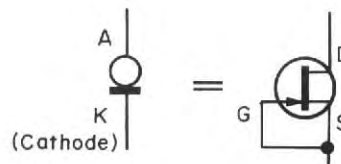
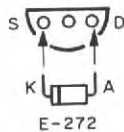
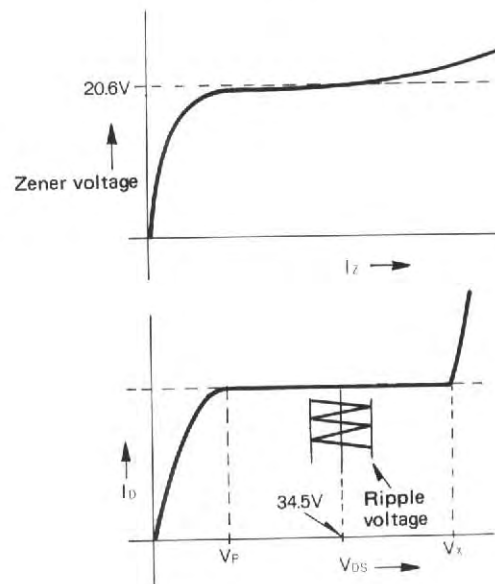
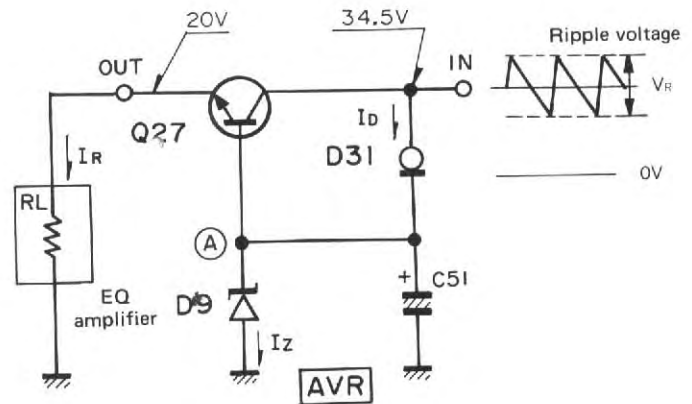
D31 : E-272

A constant-current element. This supply a constant current to the Zener diode to obtain a more constant voltage.

Constant-current characteristics: When the voltage between the gate and source of the FET is 0 (zero) and V_{DS} is between $V_P \sim V_X$, the drain current changes little.

The gate and source of the FET are connected with a constant-current diode (E-272). The anode corresponds to the drain, and the cathode corresponds to the gate and source.

- Constant current diodes E-272 (D27~32) in some pre-amplifier unit are indicated by the symbols of FET on the silk of the printed circuit board. Insert each of them so that the drain will be connected to the anode and the source to the cathode (See the following figure.)



ADJUSTMENT/REGLAGE/ABGLEICH

ADJUSTMENT

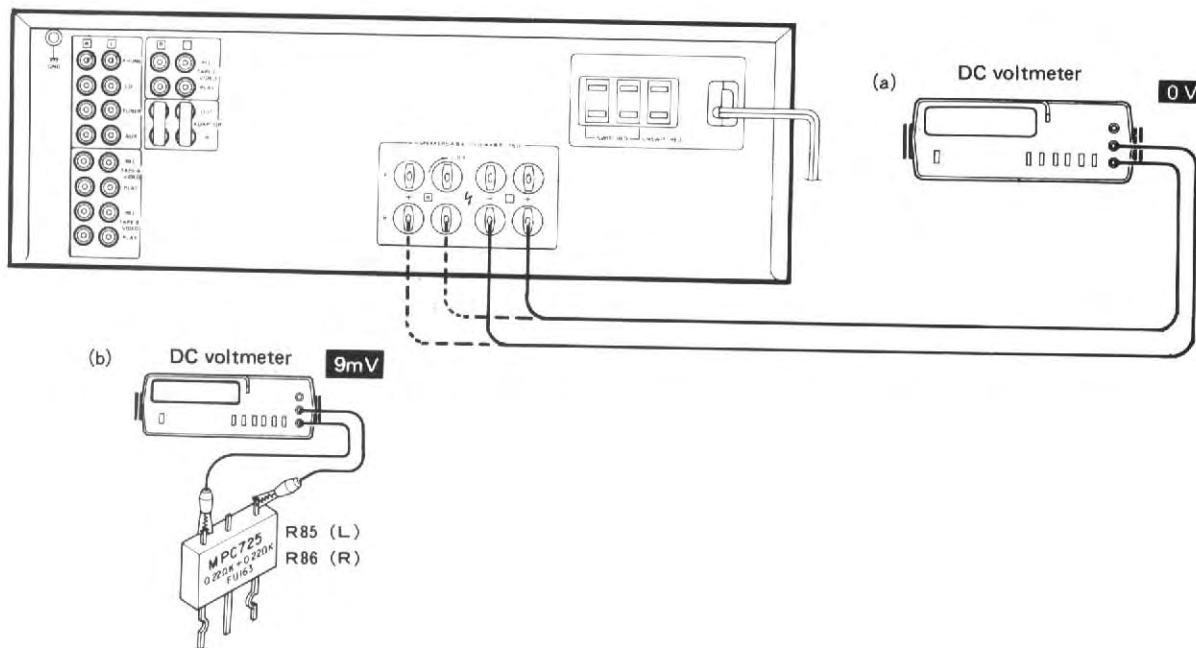
| No. | ITEM | INPUT SETTINGS | OUTPUT SETTINGS | AMPLIFIER SETTINGS | ALIGNMENT POINTS | ALIGN FOR | FIG. |
|--|--------------|----------------|--|--------------------|--------------------|-----------|------|
| Unless otherwise specified, the individual switches should be set as follows: SPEAKER: B | | | | | | | |
| 1 | OFFSET | — | Connect a DC voltmeter to SPEAKER B terminal. | VOLUME: 0 | VR1 (L) VR2 (R) | 0V | (a) |
| 2 | IDLE CURRENT | — | Connect a DC voltmeter across R85 (L) R86 (R) | VOLUME: 0 | VR3 (L) VR4 (R) | 9mV | (b) |

REGLAGE

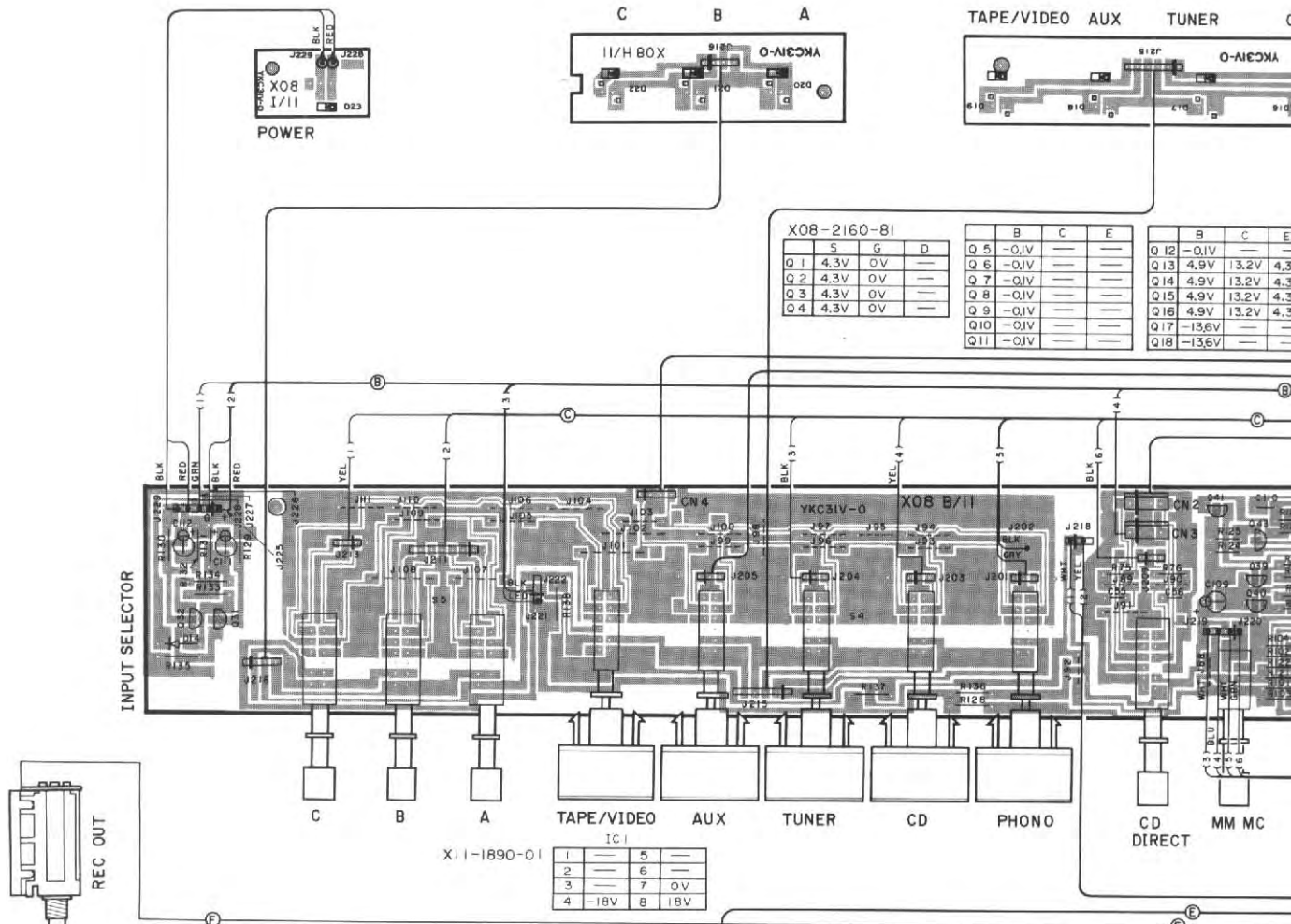
| N° | ITEM | REGLAGE DE L'ENTREE | REGLAGE DE LA SORTIE | REGLAGE DE L'AMPLIFICATEUR | POINTS DE L'ALIGNMENT | ALIGNER POUR | FIG. |
|---|-------------------------|---------------------|--|----------------------------|-----------------------|--------------|------|
| Sauf en cas d'indications spéciales, régler chaque commutateur comme suit: SPEAKER: B | | | | | | | |
| 1 | OFFSET | — | Connecter un voltmètre de CC aux bornes de sortie + et - (SPEAKER B) | VOLUME: 0 | VR1 (G) VR2 (D) | 0V | (a) |
| 2 | COURANT DE POLARISATION | — | Connecter un voltmètre de CC SUR R85 (G) R86 (D) | VOLUME: 0 | VR3 (G) VR4 (D) | 9mV | (b) |

ABGLEICH

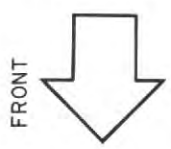
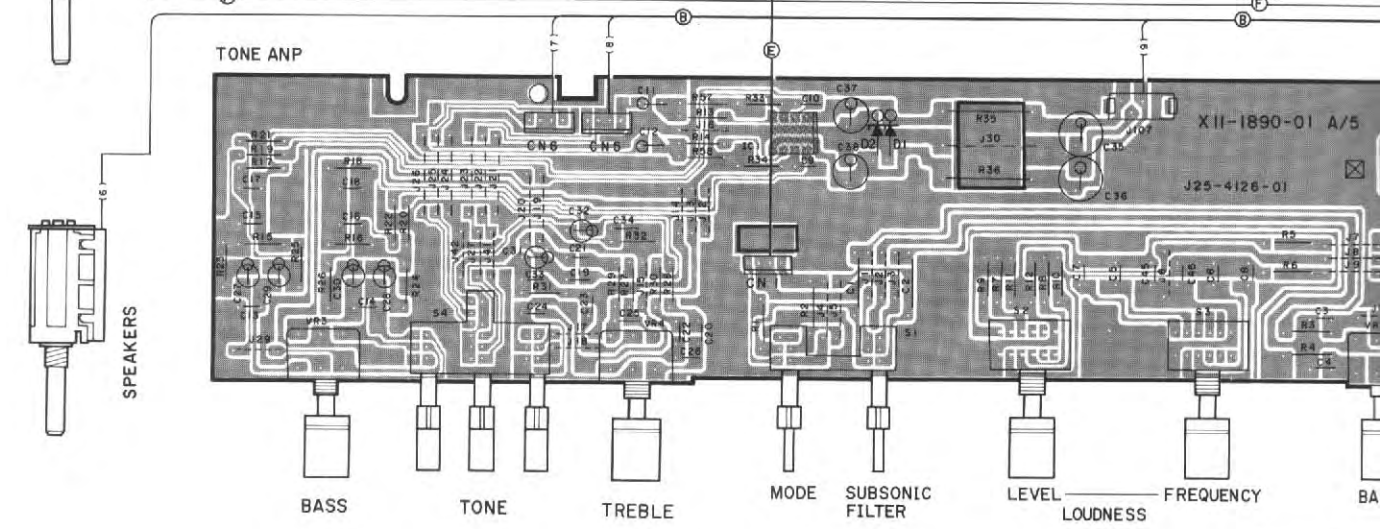
| NR. | GEGENSTAND | EINGANGS-EINSTELLUNG | AUSGANG-EINSTELLUNG | VORSTARKER-EINSTELLUNG | ABGLEICHE-PUNKTE | ABGLEICHEEN FÜR | ABB. |
|--|----------------|----------------------|--|------------------------|--------------------|-----------------|------|
| Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen: SPEAKER: B | | | | | | | |
| 1 | OFFSET | — | Einen Gleichspannungsmesser zu SPEAKER B anschließen. | VOLUME: 0 | VR1 (L) VR2 (R) | 0V | (a) |
| 2 | LEERLAUF-STROM | — | Einen Gleichspannungsmesser über R85 (L) R86 (R) anschließen. | VOLUME: 0 | VR3 (L) VR4 (R) | 9mV | (b) |



PRE AMPLIFIER (X08-2160-81)



TONE AMPLIFIER (X11-1890-01)



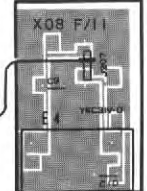
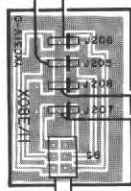
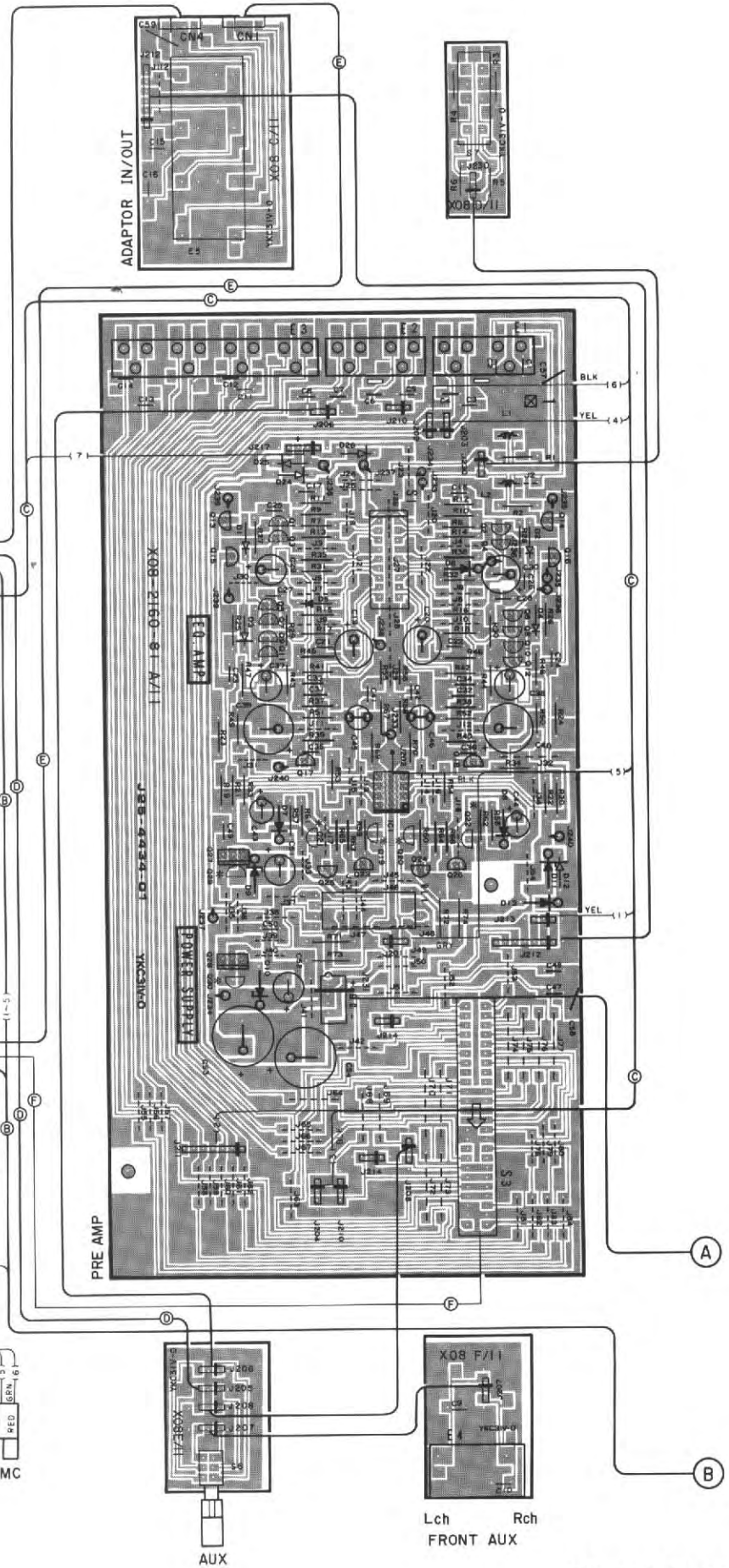
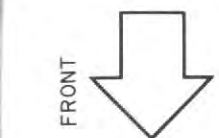
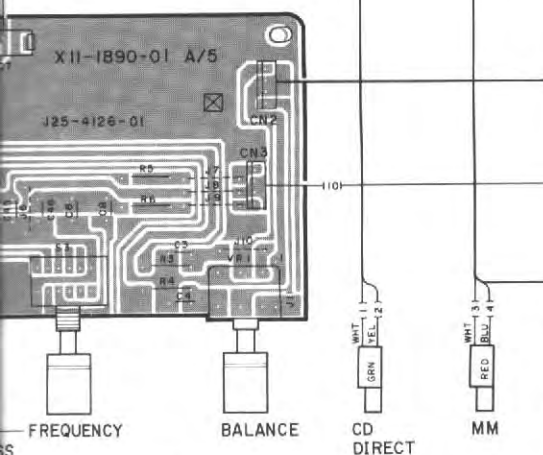
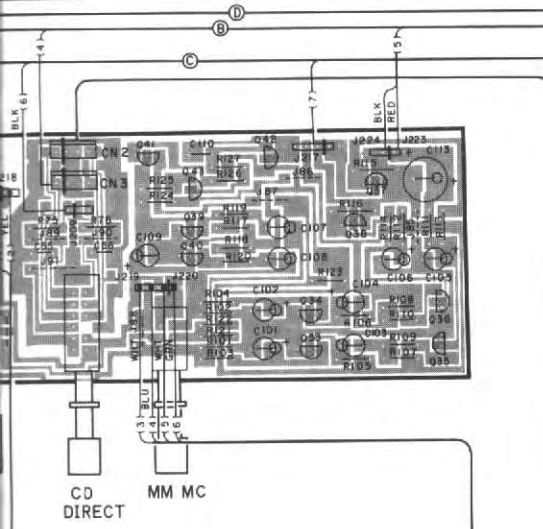
C BOARD

AUX TUNER CD PHONO



| E | | | | B | | | | C | | | | E | | | | | | | |
|-----|--------|-------|------|-----|------|--|--|-----|------|--|--|-----|------|-------|--|-----|--------|--------|--|
| Q12 | -0.1V | | | Q23 | 0.6V | | | Q24 | 0.6V | | | Q27 | 3.1V | 20.5V | | Q28 | -32.1V | -19.5V | |
| Q13 | 4.9V | 13.2V | 4.3V | Q25 | | | | Q28 | | | | Q29 | | | | Q30 | | | |
| Q14 | 4.9V | 13.2V | 4.3V | Q26 | | | | Q31 | | | | Q32 | | | | Q33 | | | |
| Q15 | 4.9V | 13.2V | 4.3V | Q27 | | | | Q34 | | | | Q35 | | | | Q36 | | | |
| Q16 | 4.9V | 13.2V | 4.3V | Q28 | | | | Q37 | | | | Q38 | | | | Q39 | | | |
| Q17 | -13.6V | | | Q29 | | | | Q40 | | | | Q41 | | | | Q42 | | | |
| Q18 | -13.6V | | | Q30 | | | | Q43 | | | | Q44 | | | | Q45 | | | |

| IC1 | |
|-----|--------|
| 1 | 13.2V |
| 2 | 13.2V |
| 3 | 13.2V |
| 4 | -19.5V |
| 5 | 13.2V |
| 6 | 13.2V |
| 7 | |
| 8 | 20.5V |

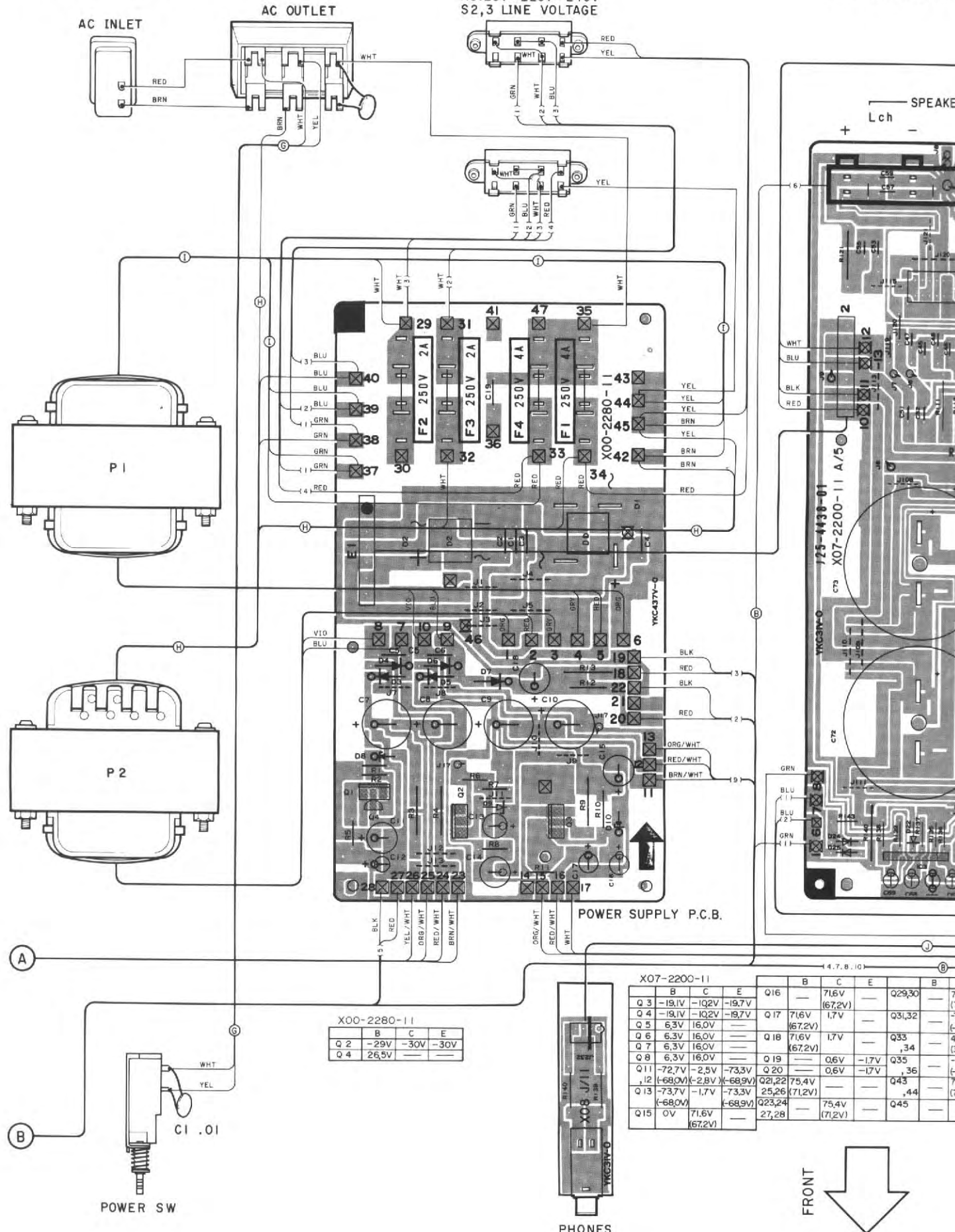


* About Q19 ~ 22, 29, 30 of PERAMP P.C.B. ass'y, refer to Circuit description on page 7.

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 SUPPLY (X00-2280-11)

AC120V ~ 220V ~ 240V
S2,3 LINE VOLTAGE

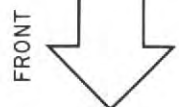


X00-2280-11

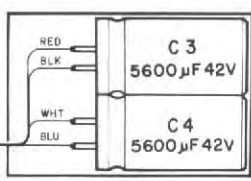
| | B | C | E |
|-----|-------|------|------|
| Q 2 | -29V | -30V | -30V |
| Q 4 | 26.5V | | |

X07-2200-11

| | B | C | E | Q16 | B | C | E | Q29,30 | B | E |
|-----|----------|---------|----------|--------|-------|-------|-------|--------|----|----|
| Q 3 | -19.1V | -10.2V | -19.7V | Q16 | 71.6V | 71.6V | | Q29,30 | 75 | 75 |
| Q 4 | -19.1V | -10.2V | -19.7V | Q17 | 71.6V | 1.7V | | Q31,32 | 75 | 75 |
| Q 5 | 6.3V | 16.0V | | | 67.2V | | | | 75 | 75 |
| Q 6 | 6.3V | 16.0V | | Q18 | 71.6V | 1.7V | | Q33 | 41 | 41 |
| Q 7 | 6.3V | 16.0V | | | 67.2V | | | 34 | 34 | 34 |
| Q 8 | 6.3V | 16.0V | | Q19 | | 0.6V | -1.7V | Q35 | 4 | 4 |
| Q11 | -72.7V | -2.5V | -73.3V | Q20 | | 0.6V | -1.7V | 36 | 36 | 36 |
| Q12 | (-68.0V) | (-2.8V) | (-68.9V) | Q21,22 | 75.4V | | | Q43 | 74 | 74 |
| Q13 | -73.7V | -1.7V | -73.3V | | 71.2V | | | 44 | 44 | 44 |
| Q15 | 0V | 71.6V | 67.2V | Q23,24 | | 75.4V | | Q45 | 70 | 70 |
| | | | | 27,28 | | 71.2V | | | | |



BOARD



X07-2200-11
IC 1,2

| | | |
|---|----|--------------------|
| 1 | 9 | --- |
| 2 | 10 | --- |
| 3 | 11 | 75.4V (71.2V) |
| 4 | 12 | --- |
| 5 | 13 | 75.4V (71.2V) |
| 6 | 14 | -42.1V (-35.5V) |
| 7 | 15 | --- |
| 8 | 16 | --- |

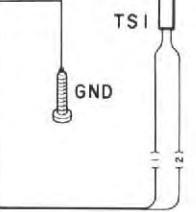
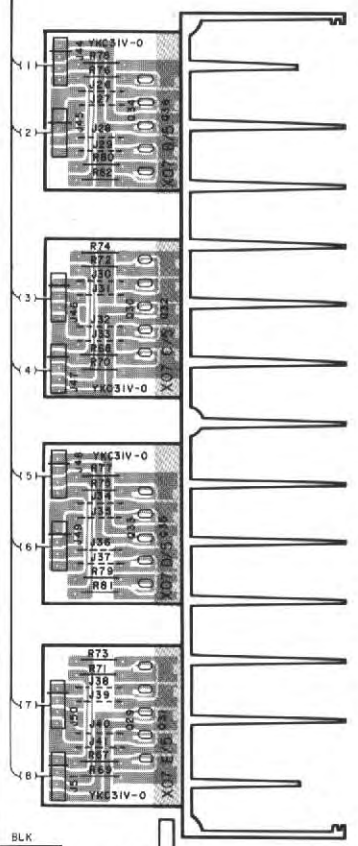
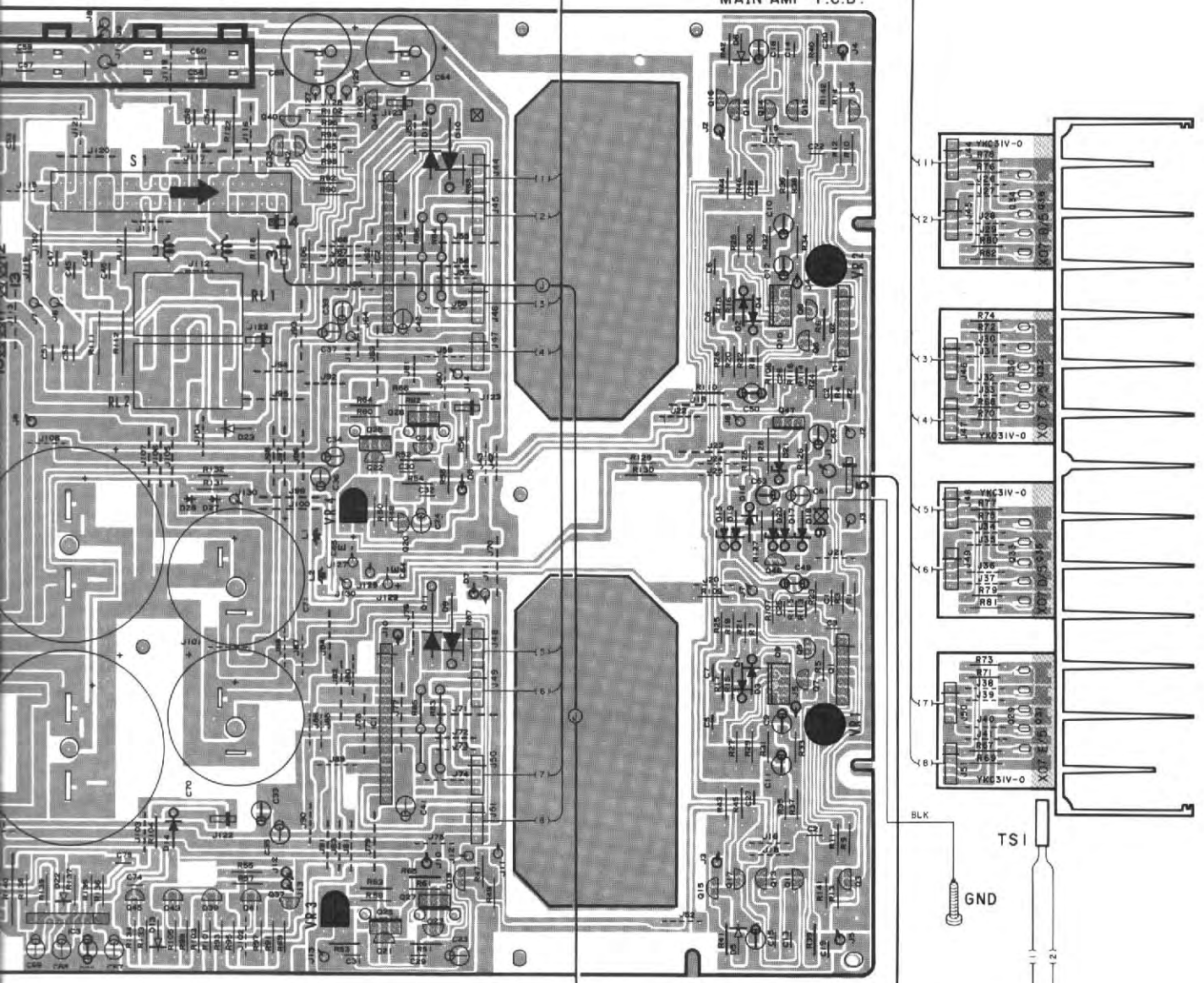
IC3

| | | | |
|---|-----|---|------|
| 1 | OV | 5 | --- |
| 2 | OV | 6 | 0.7V |
| 3 | --- | 7 | 22V |
| 4 | --- | 8 | --- |

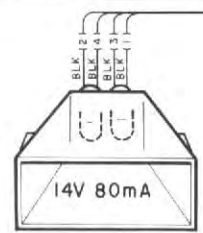
POWER AMPLIFIER (X07-2200-11)

| | | | | | |
|---------|-------|--------------------|-------|-------------------|-----|
| B1 | C1 | E1 | B2 | C2 | E2 |
| Q 9, 10 | 16.0V | -32.7V (-21.8V) | 16.0V | 32.7V (-21.8V) | --- |

SPEAKERS
Lch - Rch +

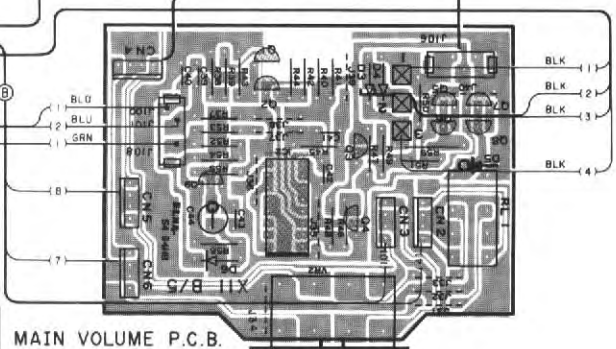


| | | | | | | | |
|-----|--------|-----|-----|-----|--------------------|-----|-----|
| E | Q29,30 | B | --- | C | 75.4V (71.2V) | E | --- |
| --- | Q31,32 | --- | --- | --- | -75.4V (-71.2V) | --- | --- |
| --- | Q33 | --- | --- | --- | 41.6V (34.8V) | --- | --- |
| --- | Q35 | --- | --- | --- | -41.6V (-34.8V) | --- | --- |
| --- | Q43 | --- | --- | --- | 74.2V | --- | --- |
| --- | Q45 | --- | --- | --- | 70.0V | --- | --- |
| --- | --- | --- | --- | --- | 75.4V (71.2V) | --- | --- |



X11-1890-01
IC2

| | | | |
|---|----|-----|-----|
| 1 | 9 | OV | |
| 2 | 10 | 12V | |
| 3 | 11 | 12V | |
| 4 | 12 | OV | |
| 5 | 13 | OV | |
| 6 | 14 | --- | |
| 7 | OV | 15 | --- |
| 8 | OV | 16 | 12V |

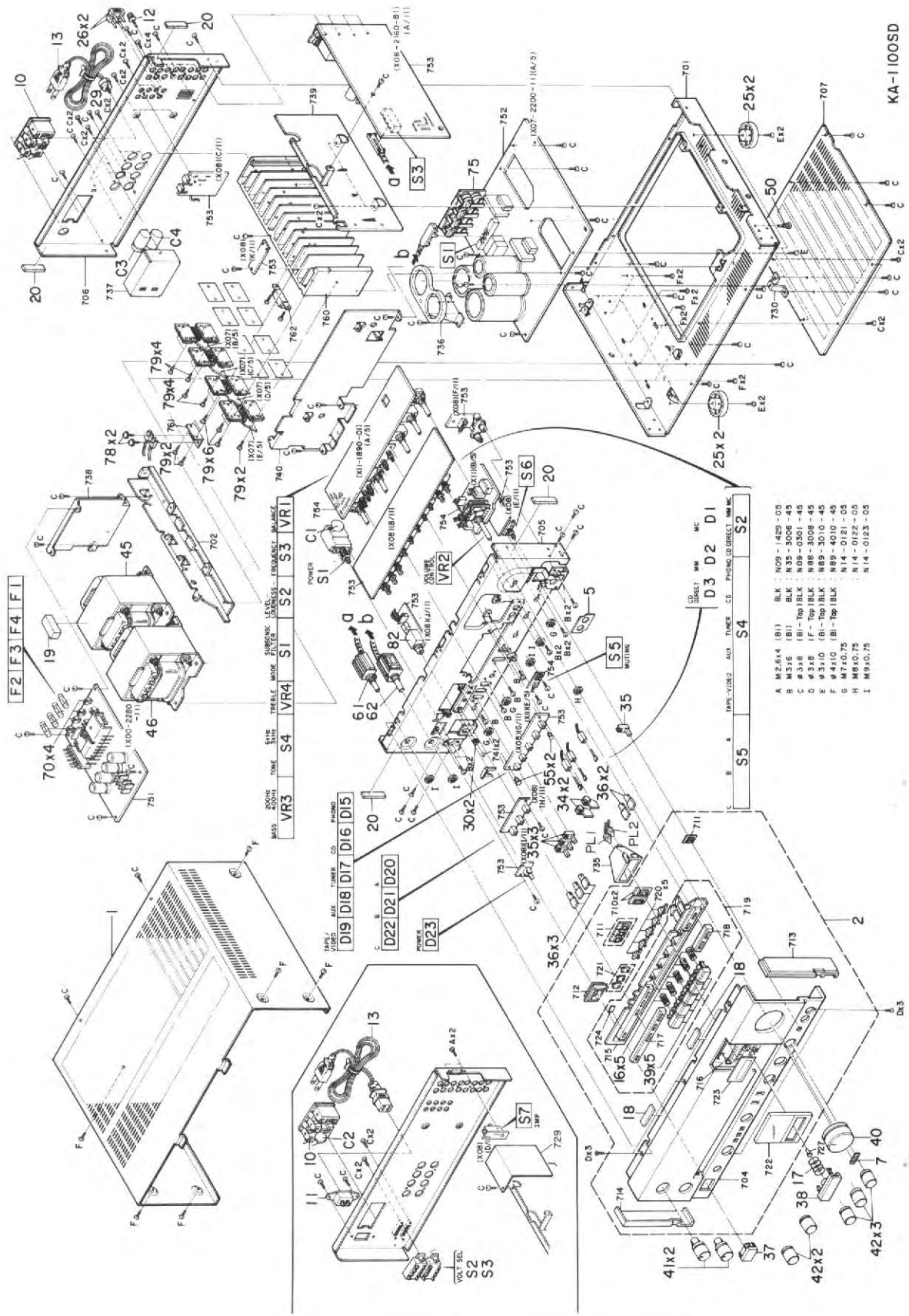


KA-1100SD
(B/2)

VOLUME CONTROL

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

EXPLODED VIEW



KA-1100SD

| | | | | |
|----|-----|----|----|----|
| CD | DIR | MM | MC | S2 |
| D3 | D2 | D1 | | |
| S5 | S4 | S3 | S1 | |

| | | | |
|---|-------------|---------|-----------------|
| A | M2.614 (B1) | BLK | N09 - 1420 - 05 |
| B | M3.516 (B1) | BLK | N35 - 3006 - 45 |
| C | W3.9 (B1) | 700/BLK | N09 - 0301 - 45 |
| D | W3.9 (F) | 700/BLK | N88 - 3008 - 45 |
| E | W3.10 (B1) | 700/BLK | N89 - 3010 - 45 |
| F | W4.10 (B1) | 700/BLK | N89 - 4010 - 45 |
| G | M7x0.75 | | N14 - 0121 - 05 |
| H | M8x0.75 | | N14 - 0122 - 05 |
| I | M9x0.75 | | N14 - 0123 - 05 |

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|------------------|---------------|-------------------|-------------------|----------------------------------|------------------------|--------------------|
| KA-1100SD | | | | | | |
| 1 | 1A | * | A01-1341-S2 | METALLIC CABINET | | |
| 2 | 2A | * | A20-4028-01 | PANEL ASSY | | |
| 5 | 2B | | B03-0229-04 | DRESSING PLATE (FRONT AUX JACK) | | |
| 7 | 2A | | B43-0270-04 | BADGE (GOLD) SUPER DLD | | |
| - | | | B46-0092-03 | WARRANTY CARD | K | |
| - | | | B46-0093-03 | WARRANTY CARD | P | |
| - | | | B46-0094-03 | WARRANTY CARD | UUE | |
| - | | | B46-0095-03 | WARRANTY CARD | UUE | |
| - | | | B46-0096-03 | WARRANTY CARD | X | |
| - | | | B46-0098-03 | WARRANTY CARD | E | |
| - | | * | B50-5335-00 | INSTRUCTION MANUAL (ENGLISH) | | |
| - | | * | B50-5336-00 | INSTRUCTION MANUAL (FRENCH) | PMXE | |
| - | | * | B50-5337-00 | INSTRUCTION MANUAL (SPANISH) | M | |
| - | | * | B50-5338-00 | INSTRUCTION MANUAL (G,D,I) | E | |
| - | | * | B50-5353-00 | INSTRUCTION MANUAL (ARABIC) | M | |
| - | | | B58-0222-14 | CAUTION CARD (PRESET 220V) | U | |
| - | | | B58-0223-04 | CAUTION CARD (PRESET 120V) | U | |
| - | | | B58-0245-23 | CAUTION CARD (FTZ) | E | |
| - | | | B58-0269-04 | CAUTION CARD | K | |
| - | | | B59-0092-00 | SERVICE DIRECTORY | UUE | |
| D1 ,2 | 2B | | B30-0469-05 | LED (SLP-162B) RED (MM, MC) | | |
| D3 | 2B | | B30-0470-05 | LED (SLP-262B) GREEN (CD) | | |
| PL1 ,2 | 2B | | B30-0445-15 | LAMP (14V 0.08A) MUTING IND | | |
| △ C1 | 1B | | C91-0023-05 | CERAMIC 0.01UF AC250V | UMUE | |
| △ C2 | 1A | | C91-0647-05 | CERAMIC 0.01UF P | KPXE | |
| C3 ,4 | 1C | * | C90-1299-05 | ELECTRON 5600UF 42WV | | |
| △ 10 | 1C | | E03-0069-05 | AC OUTLET | KPUM | |
| △ 10 | 1C | | E03-0069-05 | AC OUTLET | U | |
| △ 11 | 1A | | E03-0058-05 | AC INLET | UMUEX | |
| △ 11 | 1A | | E03-0058-05 | AC INLET | E | |
| 12 | 1C | | E21-0006-25 | BINDING POST (GND) | | |
| △ 13 | 1C | | E30-0290-05 | AC POWER CORD | KP | |
| △ 13 | 1C | | E30-0726-05 | AC POWER CORD (INLET) | E | |
| △ 13 | 1C | | E30-0729-05 | AC POWER CORD (INLET) | X | |
| △ 13 | 1C | | E30-0852-05 | AC POWER CORD (INLET) | UMUE | |
| 16 | 2A | | G01-0488-04 | COMPRESSION SPRING (PANEL ASSY) | | |
| 17 | 2A | | G01-0489-04 | COMPRESSION SPRING (MUTING KNOB) | | |
| 18 | 2A | | G10-0057-04 | NON-WOVEN FABRIC (A20-4028-01AS) | | |
| 19 | 1B | | G11-0145-04 | SOFT TAPE (40X16X12) POWER TRANS | | |
| 20 | 1B, 1C | | G11-0192-04 | CUSHION (40X8X2) SIDE | | |
| - | | * | H01-5229-04 | ITEM CARTON CASE | | |
| - | | | H10-1726-12 | POLYSTYRENE FOAMED FIBRE | | |
| - | | | H25-0078-04 | PROTECTION BAG (235X315) | | |
| - | | | H25-0204-04 | PROTECTION BAG (100X315X0.05) | | |
| - | | | H25-0225-04 | PROTECTION BAG | | |
| 25 | 2B, 2C | * | J02-0154-05 | FOOT (SILVER RING) | | |
| 26 | 1C | | J12-0094-05 | PIN (SHORTING PIN) | | |
| 29 | 1C | | J42-0083-05 | POWER CORD BUSHING | KP | |
| 30 | 2B | * | J42-0118-05 | BUSHING (TAPE A,B,C SW) | | |
| - | | | J61-0307-05 | WIRE BAND | | |
| 34 | 2B | | K27-0915-04 | KNOB (BUTTON) MODE, SUBSONIC FIL | | |

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| 35 | 2B | | K27-0916-04 | KNØB (BUTTON) BASS, TØNE, TREB, AUX | | |
| 36 | 2A, 2B | | K27-0965-04 | KNØB (BUTTON) A, B, C, CD, MM/MC | | |
| 37 | 2A | | K27-1141-04 | KNØB (BUTTON) PØWER | | |
| 38 | 2A | | K27-1248-13 | KNØB (BUTTON) MUTING | | |
| 39 | 2A | | K27-1278-03 | KNØB (BUTTON) SELECTØR (PNL ASSY) | | |
| 40 | 2A | * | K29-1821-04 | KNØB VØLUME CØNTRN | | |
| 41 | 2A | * | K29-1822-04 | KNØB REC ØUT, SPEAKERS | | |
| 42 | 2A | | K29-1823-04 | KNØB BASS, TRE, LEV, FREQ, BAL | | |
| △ 45 | 1B | * | L01-2911-05 | PØWER TRANSFØRMER | KP | |
| △ 45 | 1B | | L01-2916-15 | PØWER TRANSFØRMER | UMUEX | |
| △ 45 | 1B | | L01-2916-15 | PØWER TRANSFØRMER | E | |
| △ 46 | 1B | * | L01-2921-05 | PØWER TRANSFØRMER | KP | |
| △ 46 | 1B | | L01-2926-15 | PØWER TRANSFØRMER | UMUEX | |
| △ 46 | 1B | | L01-2926-15 | PØWER TRANSFØRMER | E | |
| 50 | 2C | | N09-0292-05 | STEPPED SCREW (3X19) GND | | |
| 55 | 2B | | N29-0035-05 | PUSH RIVET (3.5X5.5) | | |
| 61 | 1B | | S90-0063-05 | REMØTE SWITCH SHAFT (REC ØUT) | | |
| 62 | 1B | | S90-0067-05 | REMØTE SWITCH SHAFT (SPEAKER) | | |
| △ S1 | 1B | | S40-1014-05 | PUSH SWITCH (PØWER TYPE) | UMUEX | |
| △ S1 | 1B | | S40-1015-05 | PUSH SWITCH (PØWER TYPE) | KP | |
| △ S1 | 1B | | S40-1047-05 | PUSH SWITCH (PØWER TYPE) | E | |
| △ S2 ,3 | 1C | | S31-2082-05 | SLIDE SWITCH (AC VØLT. SEL) | UMUEX | |
| △ S2 ,3 | 1C | | S31-2082-05 | SLIDE SWITCH (AC VØLT. SEL) | E | |
| POWER SUPPLY (X00-2280-11) | | | | | | |
| C1 -6 | | | CK45E2H103P | CERAMIC 0.01UF P | | |
| C7 -10 | | | CE04FW1H102MEL | ELECTRØ 1000UF 50WV | | |
| C11 | | | CE04FW1V101MEL | ELECTRØ 100UF 35WV | | |
| C12 | | | CE04FW1H100MEL | ELECTRØ 10UF 50WV | | |
| C14 | | | CE04FW1V101MEL | ELECTRØ 100UF 35WV | | |
| C15 | | | CE04FW1H101MEL | ELECTRØ 100UF 50WV | | |
| C16 ,17 | | | CE04FW1C470MEL | ELECTRØ 47UF 16WV | | |
| C18 | | | CE04FW1H101MEL | ELECTRØ 100UF 50WV | | |
| △ C19 | | | C91-0079-05 | CERAMIC 0.01UF AC125V | XE | |
| △ F1 | 1B | | F05-4022-05 | FUSE 250V 4A | UMUE | |
| △ F1 | 1B | | F05-4024-05 | FUSE (SEMKN) 250V F4A | XE | |
| △ F1 | 1B | | F06-5022-05 | FUSE (UL) 250V 5A | KP | |
| △ F2 ,3 | 1B | | F05-2023-05 | FUSE 250V 2A | UMUE | |
| △ F2 ,3 | 1B | | F05-2029-05 | FUSE (SEMKN) 250V F2A | XE | |
| △ F4 | 1B | | F05-4022-05 | FUSE 250V 4A | UMUE | |
| △ F4 | 1B | | F05-4024-05 | FUSE (SEMKN) 250V F4A | XE | |
| △ F4 | 1B | | F06-5022-05 | FUSE (UL) 250V 5A | KP | |
| 70 | 1B | | J13-0041-05 | FUSE CLIP | KPUM | |
| 70 | 1B | | J13-0041-05 | FUSE CLIP | UE | |
| 70 | 1B | | J13-0054-05 | FUSE CLIP | XE | |
| R1 | | * | RD14GB2E391JTS | FL-PRØØF RD 390 J 1/4W | | |
| R2 | | * | RD14AB2E391JTS | FL-PRØØF RD 390 J 1/4W | | |
| R3 ,4 | | * | RS14DB3D220JTE | FL-PRØØF RS 22 J 2W | | |
| R5 | | * | RD14AB2E2R2JTS | FL-PRØØF RD 2.2 J 1/4W | | |
| R6 | | * | RD14GB2E5R6JTS | FL-PRØØF RD 5.6 J 1/4W | | |
| R7 | | * | RD14AB2E153JTS | FL-PRØØF RD 15K J 1/4W | | |
| R9 | | * | RS14DB3D820JTE | FL-PRØØF RS 82 J 2W | | |
| R10 | | * | RS14DB3A152JTE | FL-PRØØF RS 1.5K J 1W | | |

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|---|---------------|-------------------|---|---|--------------------------------|--------------------|
| R11 R13 | | * | RD14AB2E4R7JTS RS14DB3D122JTE | FL-PROOF RD 4.7 J 1/4W FL-PROOF RS 1.2K J 2W | | |
| D1 D2 D3 -7 D8 D10 | | | S15VB20 D5FB20 DSM1A1 RD27E(B1) RD13E(B1) | DIODE DIODE DIODE ZENER DIODE ZENER DIODE | | |
| D11 ,12 D11 ,12 Q1 Q2 Q3 | | | 1S1555 1S2076 2SD313V-AL 2SC2003(L,K) 2SD313V-AL | DIODE DIODE TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q4 Q4 | | | 2SC232D 2SC945(A) | TRANSISTOR TRANSISTOR | | |
| POWER AMPLIFIER (X07-2200-11) | | | | | | |
| C1 ,2 C1 ,2 C1 ,2 C3 ,4 C5 ,6 | | | CC45FSL1H101J C009FS1H101JZS C009FS1H101JZS CC45FSL1H470J CC45FSL1H101J | CERAMIC 100PF J POLYSTY 100PF J POLYSTY 100PF J CERAMIC 47PF J CERAMIC 100PF J | XE KPUM UE XE XE | |
| C5 ,6 C5 ,6 C7 ,8 C9 -12 C13 ,14 | | | CK45FB1H471K CK45FB1H471K CK45FB1H102K CE04FW1J010MEL CK45B2H331K | CERAMIC 470PF K CERAMIC 470PF K CERAMIC 0.001UF K ELECTRO 1.0UF 63WV CERAMIC 330PF K | KPUM UE | |
| C15 ,16 C15 ,16 C15 ,16 C19 C19 ,20 | | | CC45FSL1H180J C91-0169-05 C91-0169-05 CC45FSL1H470J CC45FSL1H330J | CERAMIC 18PF J POLYSTY 18PF K POLYSTY 18PF K CERAMIC 47PF J CERAMIC 33PF J | XE KPUM UE XE KPUM | |
| C19 ,20 C20 C21 ,22 C21 ,22 C21 ,22 | | | CC45FSL1H330J CC45FSL1H470J CC45FSL1H010C CC45FSL1H010C CC45FSL1H020C | CERAMIC 33PF J CERAMIC 47PF J CERAMIC 1.0PF C CERAMIC 1.0PF C CERAMIC 2.0PF C | UE XE KPUM UE XE | |
| C23 C24 C25 ,26 C25 ,26 C25 ,26 | | | CE04FW1A470MEL CE04FW1A470MEL CC45FSL1H150J C91-0169-05 C91-0169-05 | ELECTRO 47UF 10WV ELECTRO 47UF 10WV CERAMIC 15PF J POLYSTY 18PF K POLYSTY 18PF K | XE KPUM UE | |
| C27 ,28 C29 -32 C33 -36 C37 C39 | | | CC45FSL1H101J CK45FB1H561K CE04FW2A4R7MEL CE04FW1HR22MEL CE04FW1HR22MEL | CERAMIC 100PF J CERAMIC 560PF K ELECTRO 4.7UF 100WV ELECTRO 0.22UF 50WV ELECTRO 0.22UF 50WV | | |
| C41 ,42 C45 ,46 C45 ,46 C45 ,46 C47 ,48 | | | CF92FV1H473J C093FM1H104J C093FM1H473J C093FM1H473J C093FM1H104J | MF 0.047UF J MYLAR 0.10UF J MYLAR 0.047UF J MYLAR 0.047UF J MYLAR 0.10UF J | XE KPUM UE XE | |
| C49 ,50 C51 ,52 C53 ,54 C53 ,54 | | | CE04HW1E4R7MEL C093FM1H334J C093FM1H333J C093FM1H333J | NP-ELEC 4.7UF 25WV MYLAR 0.33UF J MYLAR 0.033UF J MYLAR 0.033UF J | KPUM UE | |

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|------------------|---------------|-------------------|-------------------|--------------------------------|-------------------------|--------------------|
| C53 ,54 | | | CQ93FM1H683J | MYLAR 0.068UF J | XE | |
| C55 ,56 | | | CQ93FM1H683J | MYLAR 0.068UF J | XE | |
| C57 -60 | | | CK45FB1H472K | CERAMIC 4700PF K | XE | |
| C61 | | | CE04FW1A470MEL | ELECTRO 47UF 10WV | | |
| C62 ,63 | | | CE04FW2AR22MEL | ELECTRO 0.22UF 100WV | | |
| C64 ,65 | | * | CE04FW2A330MEL | ELECTRO 33UF 100WV | | |
| C66 | | | CE04HW1A470MEL | NP-ELEC 47UF 10WV | | |
| C67 | | | CE04FW1A220MEL | ELECTRO 22UF 10WV | | |
| C68 | | | CE04FW1V4R7MEL | ELECTRO 4.7UF 35WV | | |
| C69 | | | CE04GW1C470MEL | LL-ELEC 47UF 16WV | | |
| C70 ,71 | | * | C90-1305-05 | ELECTRO 6800UF 63WV | | |
| C72 ,73 | | * | C90-1301-05 | ELECTRO 12000UF 90WV | | |
| C74 | | | CC45FSL1H271J | CERAMIC 270PF J | | |
| C75 | | | CQ93FM1H223J | MYLAR 0.022UF J | | |
| 75 | 2C | | E20-0821-05 | LOCK TERMINAL BOARD(8P)SPEAKER | | |
| - | | | J61-0307-05 | WIRE BAND | | |
| L1 ,2 | | | L33-0275-05 | CHOKER COIL | | |
| L3 ,4 | | | L39-0085-05 | PHASE-COMPENSATION COIL | | |
| 78 | 1B | | ND9-0287-05 | SEMS(TAPTITE SCREW)3X8(VARIST) | | |
| 79 | 1B,1C | | ND9-1202-05 | TAPPING SCREW 3X14(TR) | | |
| R23 ,24 | | * | RN14BK2C2000FTS | RN 200.0 F 1/6W | | |
| R39 ,40 | | | RD14GB2E221JTS | FL-PROOF RD 220 J 1/4W | | |
| R41 ,42 | | | RD14GB2E561JTS | FL-PROOF RD 560 J 1/4W | | |
| R43 ,44 | | * | RD14AB2E681JTS | FL-PROOF RD 680 J 1/4W | | |
| R45 ,46 | | | RD14GB2E681JTS | FL-PROOF RD 680 J 1/4W | | |
| R51 -54 | | | RD14GB2E331JTS | FL-PROOF RD 330 J 1/4W | | |
| R59 -62 | | | RD14AB2E561JTS | FL-PROOF RD 560 J 1/4W | | |
| R63 -66 | | | RD14GB2E151JTS | FL-PROOF RD 150 J 1/4W | | |
| R67 ,68 | | | RD14GB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R69 -72 | | | RD14AB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R73 ,74 | | | RD14GB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R75 ,76 | | | RD14AB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R77 -80 | | | RD14GB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R81 ,82 | | | RD14AB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R83 -86 | | | R90-0187-05 | MULTI-COMP 0.22X2 K 5W | | |
| R111 | | * | RS14KB3D220JTE | FL-PROOF RS 22 J 2W | | |
| R112 | | | RS14DB3D220JTE | FL-PROOF RS 22 J 2W | | |
| R113-116 | | * | RN14BK2C9102FTS | RN 91.0K F 1/6W | | |
| R117 | | * | RS14KB3A2R7JTE | FL-PROOF RS 2.7 J 1W | | |
| R118 | | * | RS14DB3A2R7JTE | FL-PROOF RS 2.7 J 1W | | |
| R119,120 | | * | RD14AB2E330JTS | FL-PROOF RD 33 J 1/4W | | |
| R121,122 | | * | RS14KB3D180JTE | FL-PROOF RS 18 J 2W | | |
| R127 | | * | RD14AB2E152JTS | FL-PROOF RD 1.5K J 1/4W | | |
| R128 | | * | RS14DB3A122JTE | FL-PROOF RS 1.2K J 1W | | |
| R129 | | | RD14AB2E4R7JTS | FL-PROOF RD 4.7 J 1/4W | | |
| R130 | | | RD14GB2E4R7JTS | FL-PROOF RD 4.7 J 1/4W | | |
| R131 | | | RD14AB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R132 | | | RD14GB2E220JTS | FL-PROOF RD 22 J 1/4W | | |
| R140 | | * | RS14KB3D122JTE | FL-PROOF RS 1.2K J 2W | | |
| VR1 ,2 | | | R12-0502-05 | TRIMMING PNT(100)OFFSET | | |
| VR3 ,4 | | | R12-0302-05 | TRIMMING PNT(500)IDLE | | |

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| RL1 ,2 S1 TS1 | 1C | * | S51-2045-05 S90-0068-05 S59-1071-05 | MAGNETIC RELAY SLIDE SWITCH(SPEAKERS) THERMAL SWITCH | | |
| D1 ,2 D3 -6 D7 ,8 D9 -12 D13 ,14 | | | 1S2076 1S2076 STV-2H RU4Z 1S2076A | DIODE DIODE VARISTOR DIODE DIODE | | |
| D15 ,16 D17 D18 D19 D20 | | | RD24J(B2,B3) 1S2076 RD5.6J(B1) E-102 RD16J(B2) | ZENER DIODE DIODE ZENER DIODE CONSTANT CURRENT DIODE ZENER DIODE | | |
| D21 D22 -25 IC1 ,2 IC3 Q1 ,2 | | | RD22J(B2) 1S2076A TA2030 UPC1237H UPA68H(K,L) | ZENER DIODE DIODE IC BUFFER IC PROTECTION DUAL FET | | |
| Q3 -8 Q9 ,10 Q11 ,12 Q13 ,14 Q15 ,16 | | * | 2SC1845 2SA1349 2SC2632(Q,R,S) 2SC2632A 2SC2632(Q,R) | TRANSISTOR DUAL TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q17 ,18 Q19 ,20 Q21 ,22 Q23 ,24 Q25 ,26 | | * | 2SA1124A 2SC1841 2SC2631A 2SA1123A 2SC2592*1 | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q27 ,28 Q29 ,30 Q31 ,32 Q33 ,34 Q35 ,36 | | | 2SA1112*1 DAT1018N DAT1018P DAT0612N DAT0612P | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q37 ,38 Q39 Q40 -42 Q43 ,44 Q45 | | | 2SC2320(E,F) 2SA999 2SA999(E,F) 2SC2631A 2SA988 | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q46 Q47 | | | 2SC2632(Q,R,S) 2SA957 | TRANSISTOR TRANSISTOR | | |
| PRE AMPLIFIER (X08-2160-81) | | | | | | |
| D15 -19 D20 -22 D23 | 1A,1B 1A,1B 1A | | B30-1012-05 B30-1010-05 B30-0483-05 | LED(SLP-981C-50) SELECTOR LED(SLP-281F-50U) TAPE A,B,C LED(SLP-170B) POWER | | |
| C1 -3 C4 C5 C6 ,7 C8 ,9 | | | CC45FSL1H121J CC45FSL1H121J CC45FSL1H121J CC45FSL1H121J CC45FSL1H121J | CERAMIC 120PF J CERAMIC 120PF J CERAMIC 120PF J CERAMIC 120PF J CERAMIC 120PF J | XE XE XE XE XE | |
| C10 C11 -16 C17 ,18 C19 ,20 C21 ,22 | | | CC45FSL1H121J CC45FSL1H121J CC45FSL1H101J CE04FW0J331M CK45FB1H6B1K | CERAMIC 120PF J CERAMIC 120PF J CERAMIC 100PF J ELECTRO 330UF 6.3WV CERAMIC 680PF K | XE XE | |

E: Scandinavia & Europe H: Audio Club K: USA

P: Canada

S: South Africa T: England U: PX(Far East, Hawaii)

UE: AAFES(Europe) X: Australia M: Other Areas

▲ indicates safety critical components.

PARTS LIST

* New Parts

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Teile ohne Parts No. werden nicht geliefert.

| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|---|----------------|-------------------|--|--|------------------------|--------------------|
| C23 -28 C23 ,24 C23 ,24 C29 ,30 C31 ,32 | | | CK45FB1H222K CK45FB1H222K CK45FB1H222K CE04FW0J102MEL CQ93HP2A683G | CERAMIC 2200PF K CERAMIC 2200PF K CERAMIC 2200PF K ELECTRØ 1000UF 6.3WV MYLAR 0.068UF G | XE KPUM UE | |
| C33 ,34 C35 ,36 C37 ,38 C39 ,40 C41 ,42 | | * | CQ93HP2A102G CQ93HP2A203G CE04FW1A101MEL CE04FW0J222MEL CK45FB1H102K | MYLAR 1000PF G MYLAR 0.020UF G ELECTRØ 100UF 10WV ELECTRØ 2200UF 6.3WV CERAMIC 0.001UF K | | |
| C43 ,44 C45 ,46 C47 ,48 C49 ,50 C51 ,52 | | | CE04FW1A101MEL CE04HW1H4R7MEL CQ09FS1H331JZS CF92FV1H103J CE04FW1E101MEL | ELECTRØ 100UF 10WV NP-ELEC 4.7UF 50WV POLYSTY 330PF J MF 0.010UF J ELECTRØ 100UF 25WV | | |
| C53 ,54 C55 ,56 C57 C58 ,59 C101,102 | | * | CE04FW1H471MEL CC45FSL1H101J CK45B1H472K CK45B1H471K CE04FW1C100MEL | ELECTRØ 470UF 50WV CERAMIC 100PF J CERAMIC 0.0047UF K CERAMIC 470PF K ELECTRØ 10UF 16WV | | |
| C103-106 C107,108 C109 C110 C111,112 | | | CE04FW1H3R3MEL CE04FW1H4R7MEL CE04FW1E220MEL CK45FB1H102K CE04FW1H4R7MEL | ELECTRØ 3.3UF 50WV ELECTRØ 4.7UF 50WV ELECTRØ 22UF 25WV CERAMIC 0.001UF K ELECTRØ 4.7UF 50WV | | |
| C113 | | * | C90-1297-05 | ELECTRØ 470UF 35WV | | |
| B2 E1 E2 E3 E4 | 1B | * | E11-0103-05 E13-0499-05 E13-0497-05 E13-0814-05 E13-0225-05 | PHONE JACK (HEADPHONE) PHONE JACK (4P) PHONE, CD PHONE JACK (4P) TUNER, AUX PHONE JACK (8P) TAPE A, TAPE B PHONE JACK (2P) FRONT AUX | | |
| E5 | | | E13-0818-05 | PHONE JACK (8P) TAPE C, PRE I/O | | |
| L1 ,2 | | | L40-1011-43 | SMALL FIXED INDUCTOR (100UH, K) | XE | |
| R35 ,36 R37 ,38 R39 ,40 R45 ,46 R63 -66 | | * | RN14BK2E82R0FTS RN14BK2E4752FTS RN14BK2E3831FTS RN14BK2E3R30GTS RD14GB2E100JTS | RN 82.0 F 1/4W RN 47.5K F 1/4W RN 3.83K F 1/4W RN 3.30 G 1/4W FL-PROOF RD 10 J 1/4W | | |
| R71 -74 R139,140 | | | RS14DB3A101J RS14DB3D561J | FL-PROOF RS 100 J 1W FL-PROOF RS 560 J 2W | | |
| RL1 S1 S2 S3 S4 | 2B 1C 2B | * | S51-2061-05 S90-0065-05 S42-2117-05 S90-0078-05 S42-5033-05 | REED RELAY ELECTROMAGNETIC SW MM/MC MULTIPLE PUSH SW (2KEY) CD, MM/MC SLIDE SWITCH REC OUT MULTIPLE PUSH SW (5KEY) SELECTOR | | |
| S5 S6 S7 | 2B 2B 1C | * | S42-3086-05 S40-2122-05 S31-2059-05 | MULTIPLE PUSH SW (3KEY) A, B, C PUSH SWITCH AUX SLIDE SWITCH PHONE IMP | | |
| D1 -4 D1 -4 D5 ,6 D7 ,8 | | | 1S1555 1S2076 RDS. 6J (B2) MA27W (A) | DIODE DIODE ZENER DIODE VARISTOR | | |

E: Scandinavia & Europe H: Audio Club K: USA

P: Canada

S: South Africa

T: England U: PX (Far East, Hawaii)

UE: AAFES (Europe)

X: Australia M: Other Areas


⚠ indicates safety critical components

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| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕向 | Re- marks 備考 |
|---|---------------|----------------|--|--|---|--------------------|
| D9 ,10 D11 D12 D12 D13 | | * | RD20J(B2) RD5.6J(B2) 1S1555 1S2076 E-152 | ZENER DIODE ZENER DIODE DIODE DIODE CONSTANT CURRENT DIODE | | |
| D14 D24 D24 D25 ,26 D27 -32 | | | 1S2076A 1S1555 1S2076 W06B E-272 | DIODE DIODE DIODE DIODE CONSTANT CURRENT DIODE | | |
| D33 -38 IC1 IC1 Q1 -4 Q5 -12 | | | 1S5176 NE5532P NJM5532D 2SK170(BL,V) 2SC2557(S,T) | DIODE IC OP AMP IC OP AMP FET TRANSISTOR | | |
| Q13 -18 Q23 ,24 Q25 ,26 Q27 Q28 | | | 2SC945(A)(Q,P) 2SC2003(L,K) 2SA954(L,K) 2SD313V-AL 2SB514(E,F) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| Q31 -36 Q37 ,38 Q39 -42 Q43 | | | 2SC945(A)(Q,P) 2SD571(L,K) 2SC945(A)(Q,P) 2SA992(F,E) | TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR | | |
| tone amplifier (X11-1890-01) | | | | | | |
| C1 ,2 C3 ,4 C5 ,6 C7 ,8 C9 ,10 | | * | CQ93AP2A184J CQ09FS1H101JZS CQ93FM1H183K CQ93FM1H473K CC45FSL1H150J | POLYPRQ POLYSTY MYLAR MYLAR CERAMIC | 0.18UF J 100PF J 0.018UF K 0.047UF K 15PF J | |
| C11 ,12 C13 -18 C19 -21 C22 ,23 C24 | | * | CE04FW1H010MEL CQ93FM1H334K CQ93FM1H183K CQ93FM1H183K CQ93FM1H183K | ELECTRO MYLAR MYLAR MYLAR MYLAR | 1.0UF 50WV 0.33UF K 0.018UF K 0.018UF K 0.018UF K | |
| C25 C26 C27 -30 C31 ,32 C33 ,34 | | | CC45FSL1H101J CC45FSL1H101J CE04FW1E100MEL CE04FW1H010MEL CK45FB1H561K | CERAMIC CERAMIC ELECTRO ELECTRO CERAMIC | 100PF J 100PF J 10UF 25WV 1.0UF 50WV 560PF K | |
| C35 ,36 C37 ,38 C39 C40 C41 | | | CE04FW1H101MEL CE04FW1H010MEL CK45FF1H103Z CK45FB1H152K CK45FB1H222K | ELECTRO ELECTRO CERAMIC CERAMIC CERAMIC | 100UF 50WV 1.0UF 50WV 0.01UF Z 1500PF K 2200PF K | |
| C42 C43 C44 C45 ,46 | | | CK45FF1H103Z CK45FB1H222K CE04FW1A220MEL CQ93FM1H273J | CERAMIC CERAMIC ELECTRO MYLAR | 0.01UF Z 2200PF K 22UF 10WV 0.027UF J | |
| - | | | J61-0307-05 | WIRE BAND | | |
| R1 ,2 R3 ,4 R5 ,6 R35 ,36 | | * | RN14BK2E4701FTS RN14BK2E3300FTS RN14BK2E1002FTS RS14GB3D122JMA | RN RN RN FL-PROOF RS | 4.70K F 1/4W 330.0 F 1/4W 10.0K F 1/4W 1.2K J 2W | |

E: Scandinavia & Europe H: Audio Club K: USA P: Canada
 S: South Africa T: England U: PX(Far East, Hawaii)
 UE: AAFES(Europe) X: Australia M: Other Areas

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| Ref. No. 参照番号 | Address 位置 | New Parts 新 | Parts No. 部品番号 | Description 部品名 / 規格 | Desti- nation 仕 向 | Re- marks 備考 |
|------------------|---------------|-------------------|-------------------|----------------------------------|-------------------------|--------------------|
| VR1 | 1B | | R06-5098-05 | POTENTIOMETER (200KX2) BALANCE | | |
| VR2 | 1B | * | R08-5053-05 | POTENTIOMETER (100KX2) VOLUME | | |
| VR3 ,4 | 1B | | R06-3032-05 | POTENTIOMETER (10KX2) BASS, TREB | | |
| RL1 | | * | S51-2072-05 | MAGNETIC RELAY | | |
| S1 | 1B | | S42-2082-05 | MULTI PUSH SW (MODE, SUBSONIC) | | |
| S2 | 1B | | S29-2026-05 | ROTARY SWITCH (LOUDNESS LEVEL) | | |
| S3 | 1B | | S29-2025-05 | ROTARY SWITCH (LOUDNESS FREQ) | | |
| S4 | 1B | | S42-3064-05 | MULTI PUSH SW (TONE, TURN FREQ) | | |
| S5 | 2B | | S40-1065-05 | PUSH SWITCH (MUTING) | | |
| D1 ,2 | | * | RD18J (B2, B3) | ZENER DIODE | | |
| D3 ,4 | | * | RD13E (B3) | ZENER DIODE | | |
| D5 ,6 | | | 1S2076A | DIODE | | |
| IC1 | | | NJM2041D-D | IC OP AMP | | |
| IC2 | | | UPD4027BC | IC J-K FLIP-FL0P | | |
| Q1 ,2 | | | 2SC945(A) (Q,P) | TRANSISTOR | | |
| Q3 | | | 2SA733(A) (Q,P) | TRANSISTOR | | |
| Q4 | | | 2SC945(A) (Q,P) | TRANSISTOR | | |
| Q5 | | | 2SA954(M,L) | TRANSISTOR | | |
| Q6 | | | 2SA733(A) (Q,P) | TRANSISTOR | | |
| Q7 | | | 2SA954(M,L) | TRANSISTOR | | |
| Q9 | | | 2SC945(A) (Q,P) | TRANSISTOR | | |

E: Scandinavia & Europe H: Audio Club K: USA

P: Canada

S: South Africa

T: England

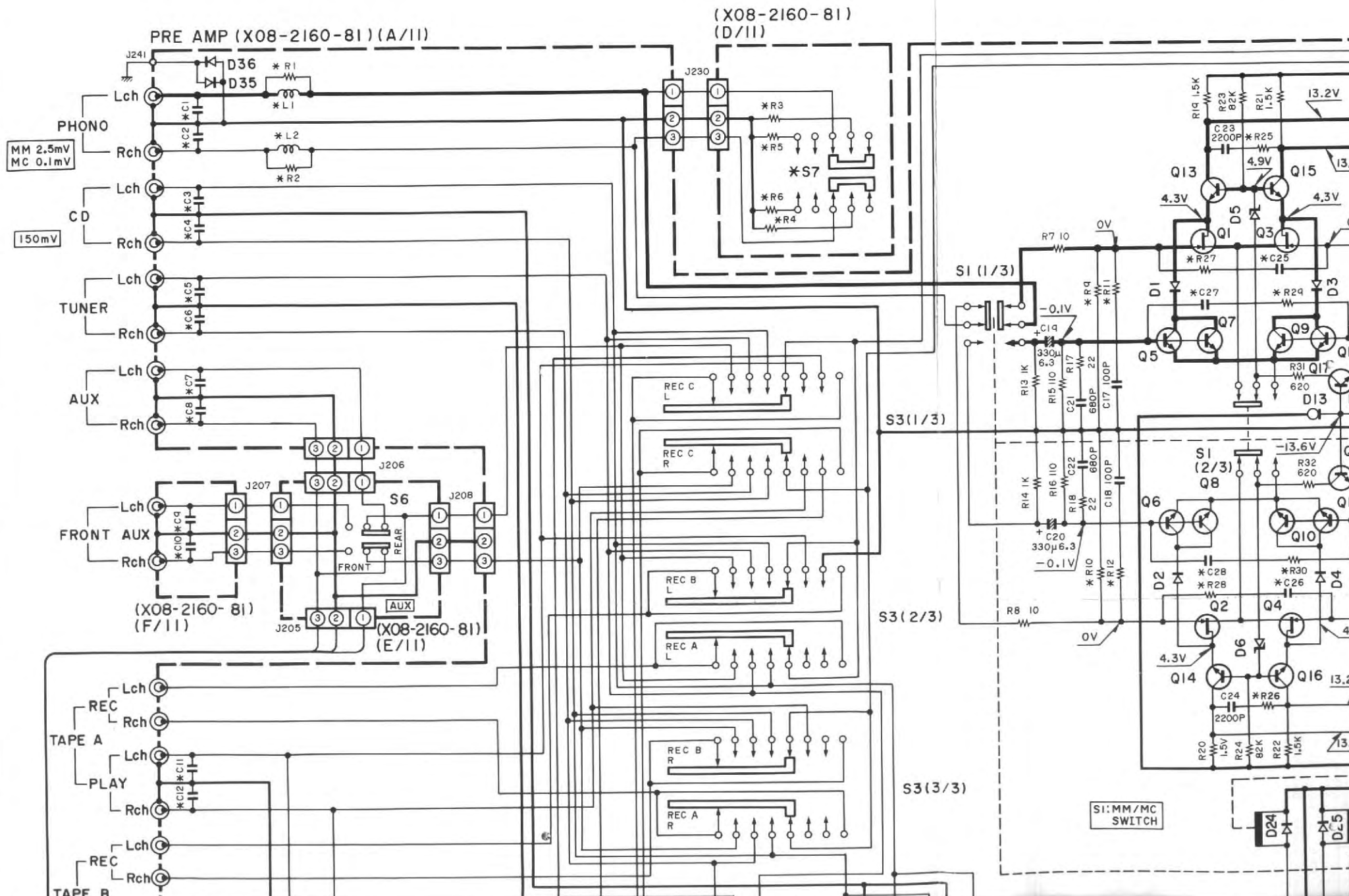
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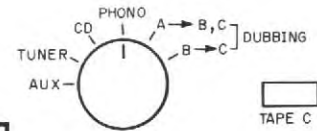
UE: AAFES (Europe)

X: Australia

M: Other Areas

▲ indicates safety critical components.





REC OUT SEL.
S3

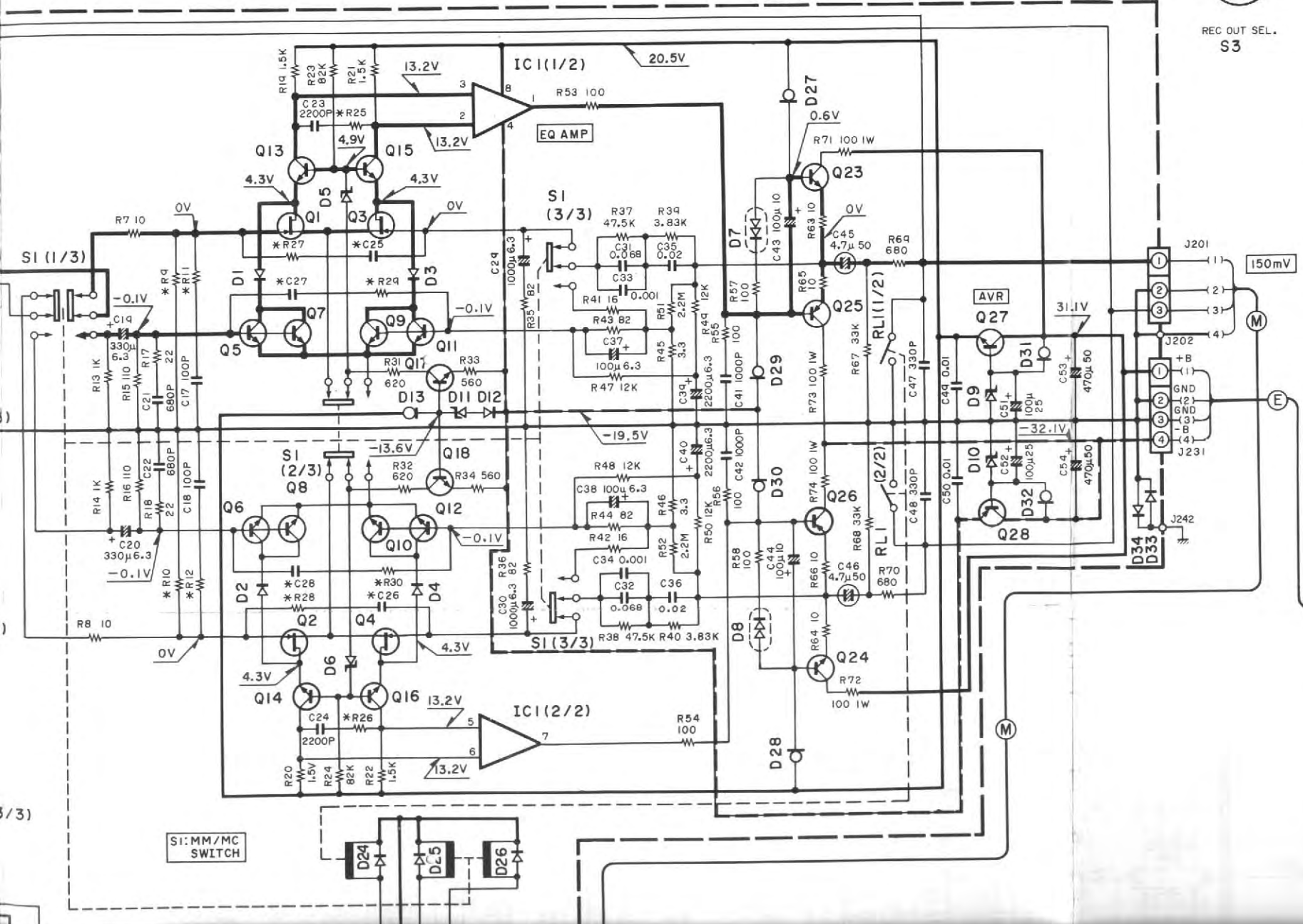
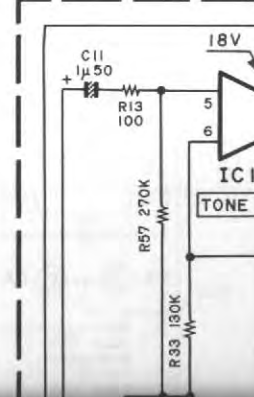
TAPE SEL.
S5

(X08-2160-81)
IC1 : NJM

- Q1~4 : 2SK
- Q5~12 : 2SC
- Q13~18, 31~36, 39~42 : 2SC
- Q23, 24 : 2SC
- Q25, 26 : 2SA
- Q27 : 2SD
- Q28 : 2SB
- Q37, 38 : 2SD
- Q43 : 2SA

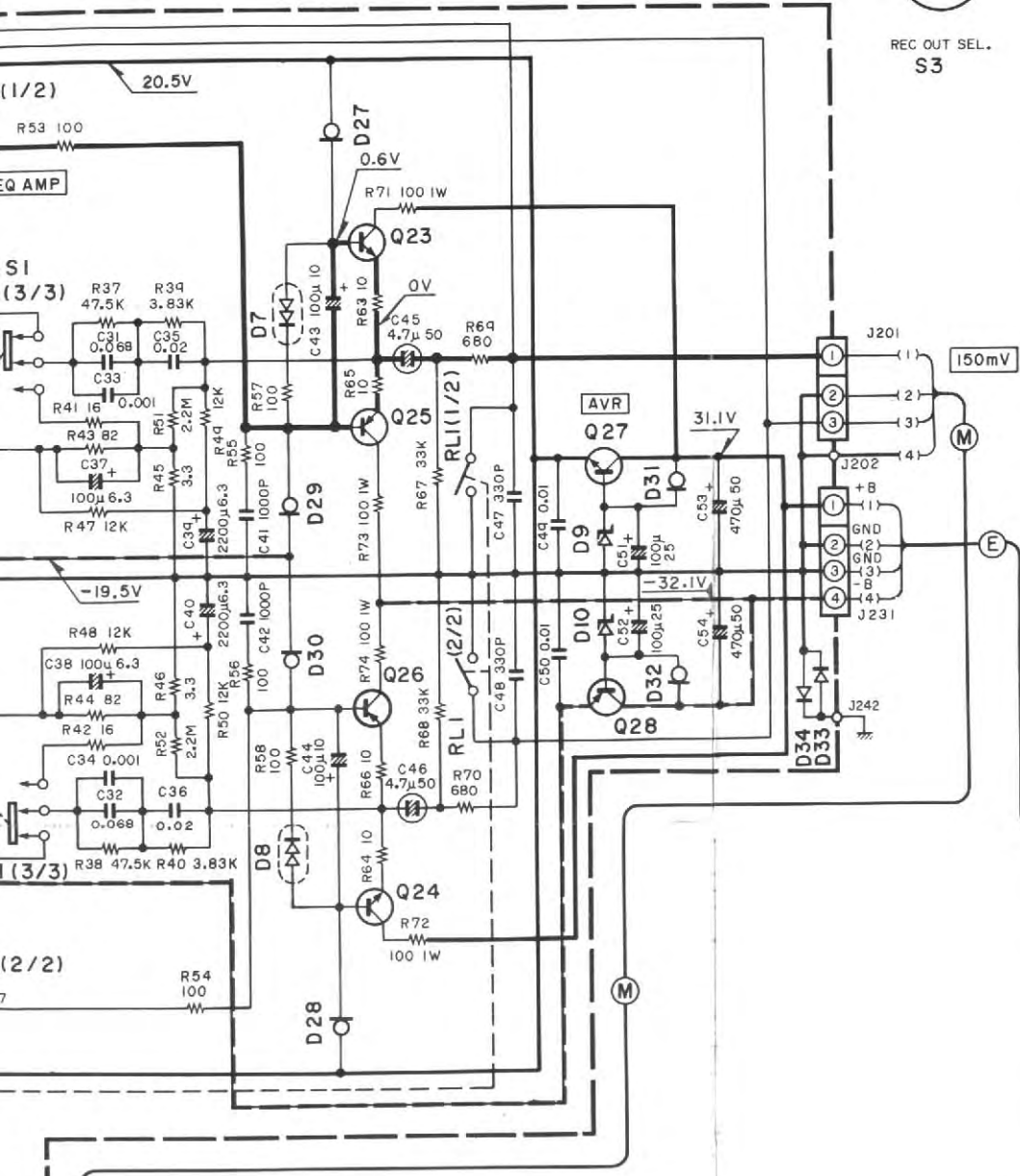
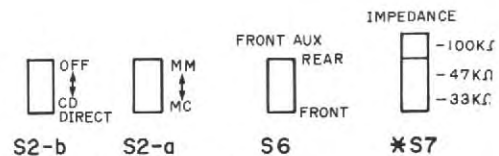
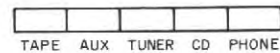
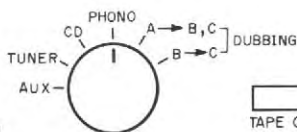
- D1~4, 12, 24 : 1S2
- D5, 6, 11 : RD5
- D7, 8 : MA2
- D9, 10 : RD2
- D13 : E-1
- D14 : 1S2
- D15~19 : B3C
- D20~22 : B3C
- D23 : B3C
- D25, 26 : DSM
- D27~32 : E-1
- D33~38 : 1SS

TONE UNIT (X11-18)



SI: MM/MC SWITCH

3/3)



(X08-2160-81)

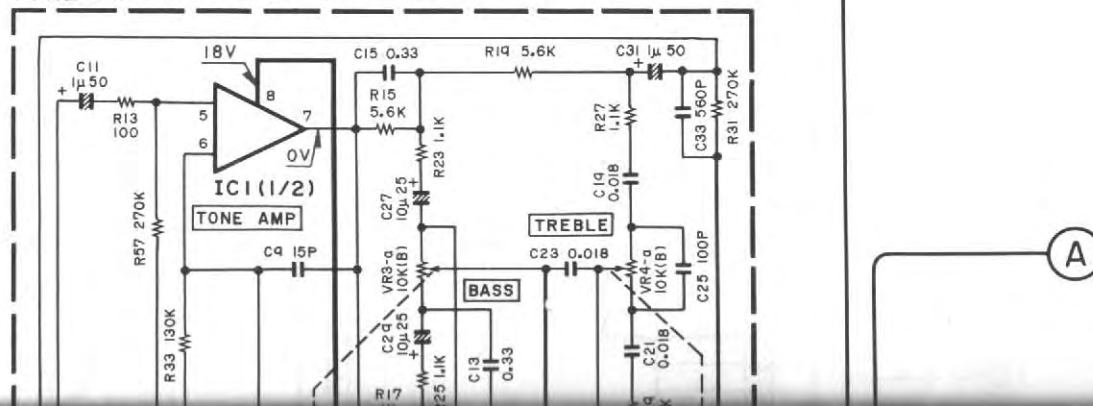
IC1 : NJM5532D or NE5532P

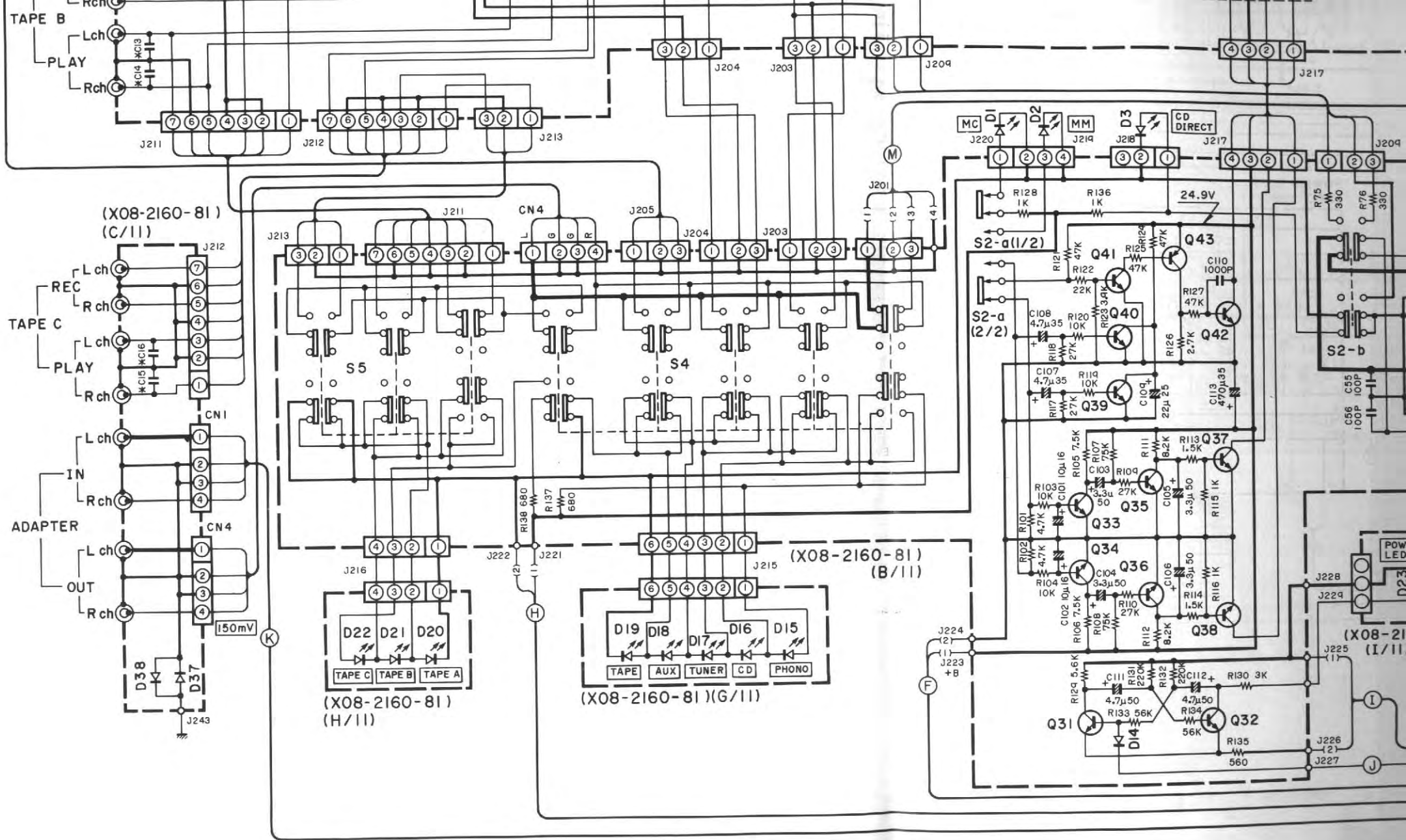
- Q1~4 : 2SK170 (BL,V)
- Q5~12 : 2SC2557 (S,T)
- Q13~18, 31~36, 39~42 : 2SC945 (A)(Q,P)
- Q23, 24 : 2SC2003 (L,K)
- Q25, 26 : 2SA954 (L,K)
- Q27 : 2SD313V-AL
- Q28 : 2SB514 (E,F)
- Q37, 38 : 2SD571 (L,K)
- Q43 : 2SA992 (F,E)

- D1~4, 12, 24 : IS2076 or IS1555
- D5, 6, 11 : RD5.6J (B2)
- D7, 8 : MA27W (A)
- D9, 10 : RD20 (B2)
- D13 : E-152
- D14 : IS2076A
- D15~19 : B30-1012-05
- D20~22 : B30-1010-05
- D23 : B30-0483-05
- D25, 26 : DSM1A1
- D27~32 : E-272
- D33~38 : ISS176

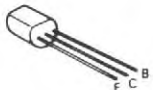
| DESTINATION | K,P,U,M UE | X, E |
|-------------|------------|-------|
| | 0-81 | 2-71 |
| L 1,2 | NO | 100μ |
| S7 | YES | YES |
| R1 | JUMPER | 1.2K |
| R2, 27, 28 | NO | 1.2K |
| R3, 4 | 100K | 100K |
| R5, 6 | 47K | 47K |
| R9, 10 | 100K | 100K |
| R11, 12 | 390 | 100 |
| R25, 26 | 68 | 120 |
| R29, 30 | NO | 68 |
| C1~16 | NO | 120P |
| C25~28 | NO | 2200P |

TONE UNIT (X11-1890-01) (A/5)

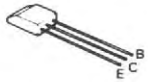




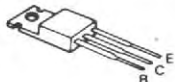
- 2SA1123A
- 2SA1124A
- 2SA733
- 2SA954
- 2SA988
- 2SA992
- 2SA999
- 2SC1845
- 2SC2003
- 2SC2320
- 2SC2557
- 2SC2631A
- 2SC2632
- 2SC2632A
- 2SC945



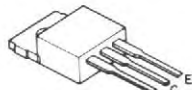
2SD571



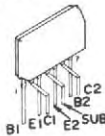
- 2SA1112*1
- 2SB514
- 2SC2592*1
- 2SD313V-AL



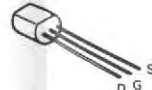
2SA957



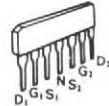
2SA1349



2SK170



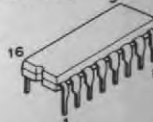
UPA68H

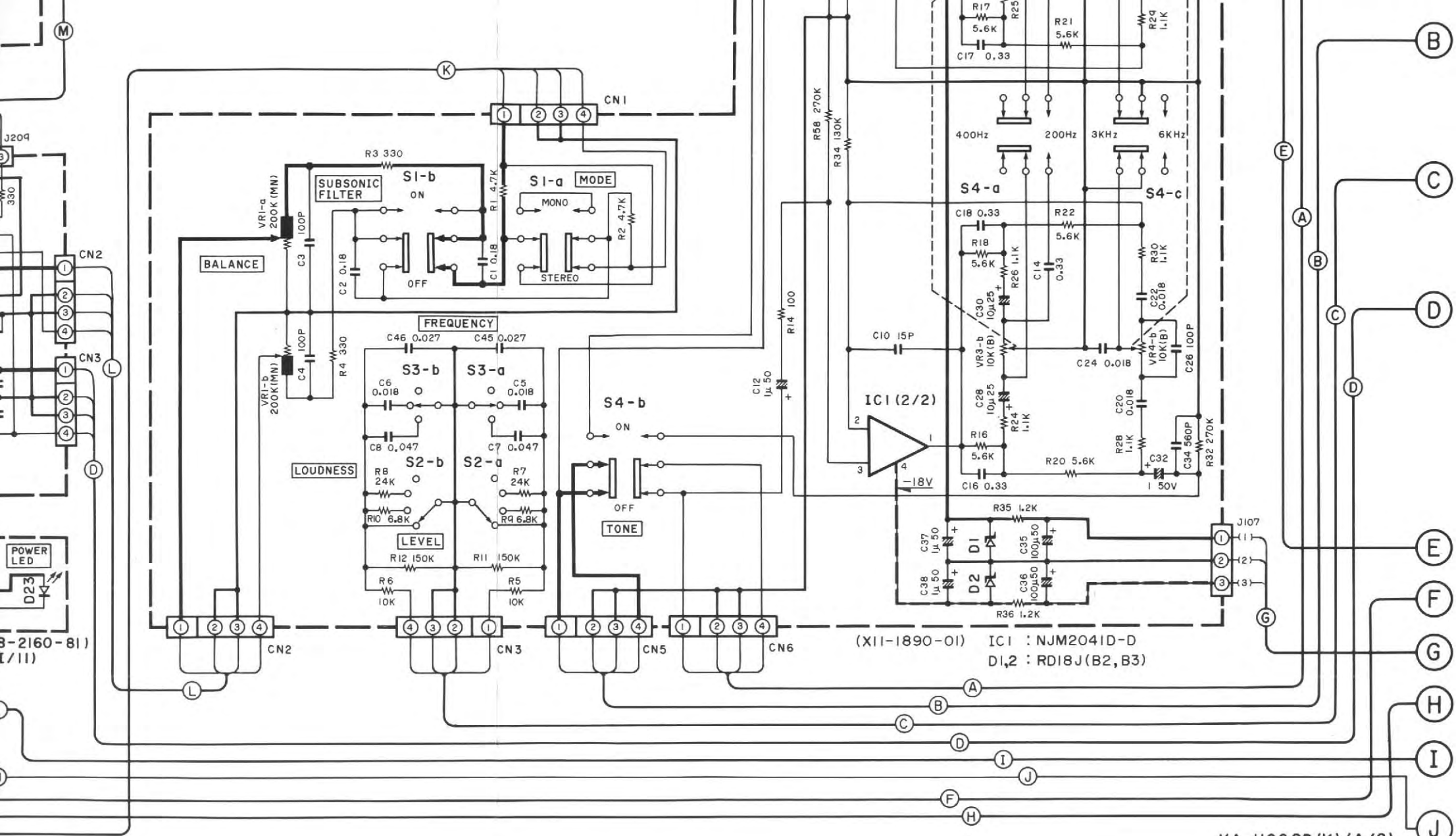


NE5532P
NJM2041D-D
NJM5532D



UPD4027BC



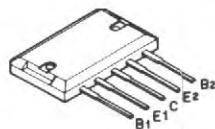


KA-1100SD(K) (A/2)

UPC1237H

TA2030

DAT0612N
DAT0612P
DAT1018N
DAT1018P



- 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). Δ 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.

KA-1100SD
KENWOOD

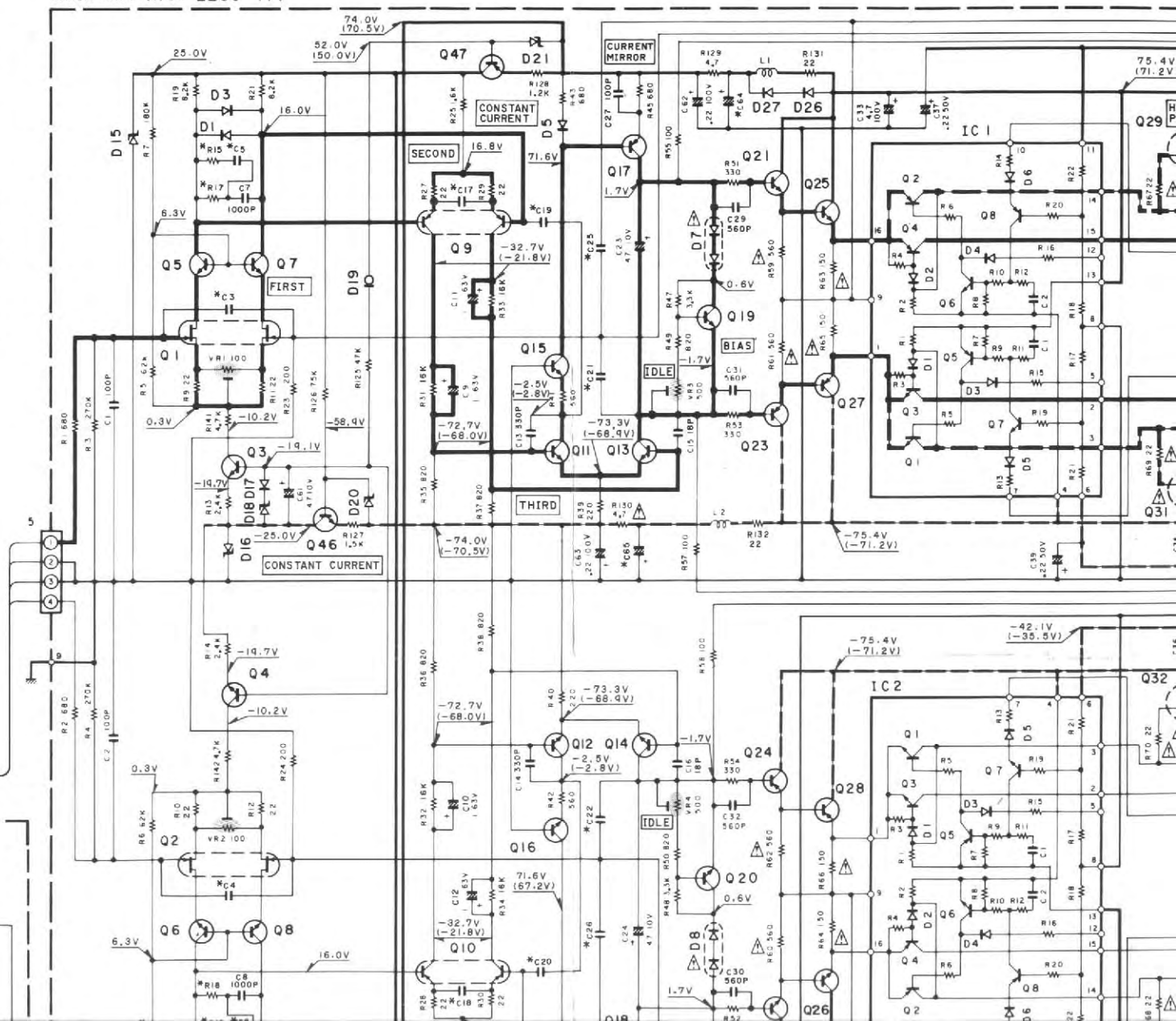
(X07-2200-11)

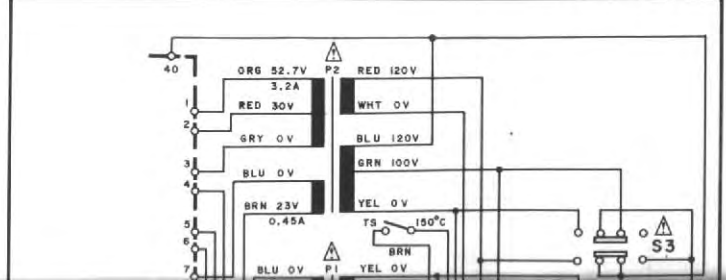
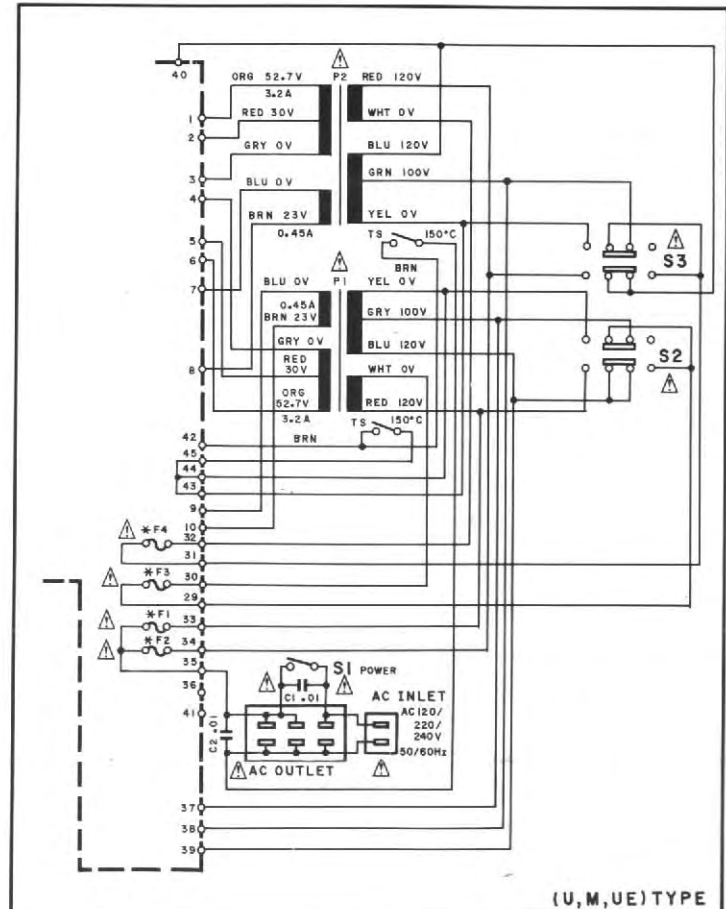
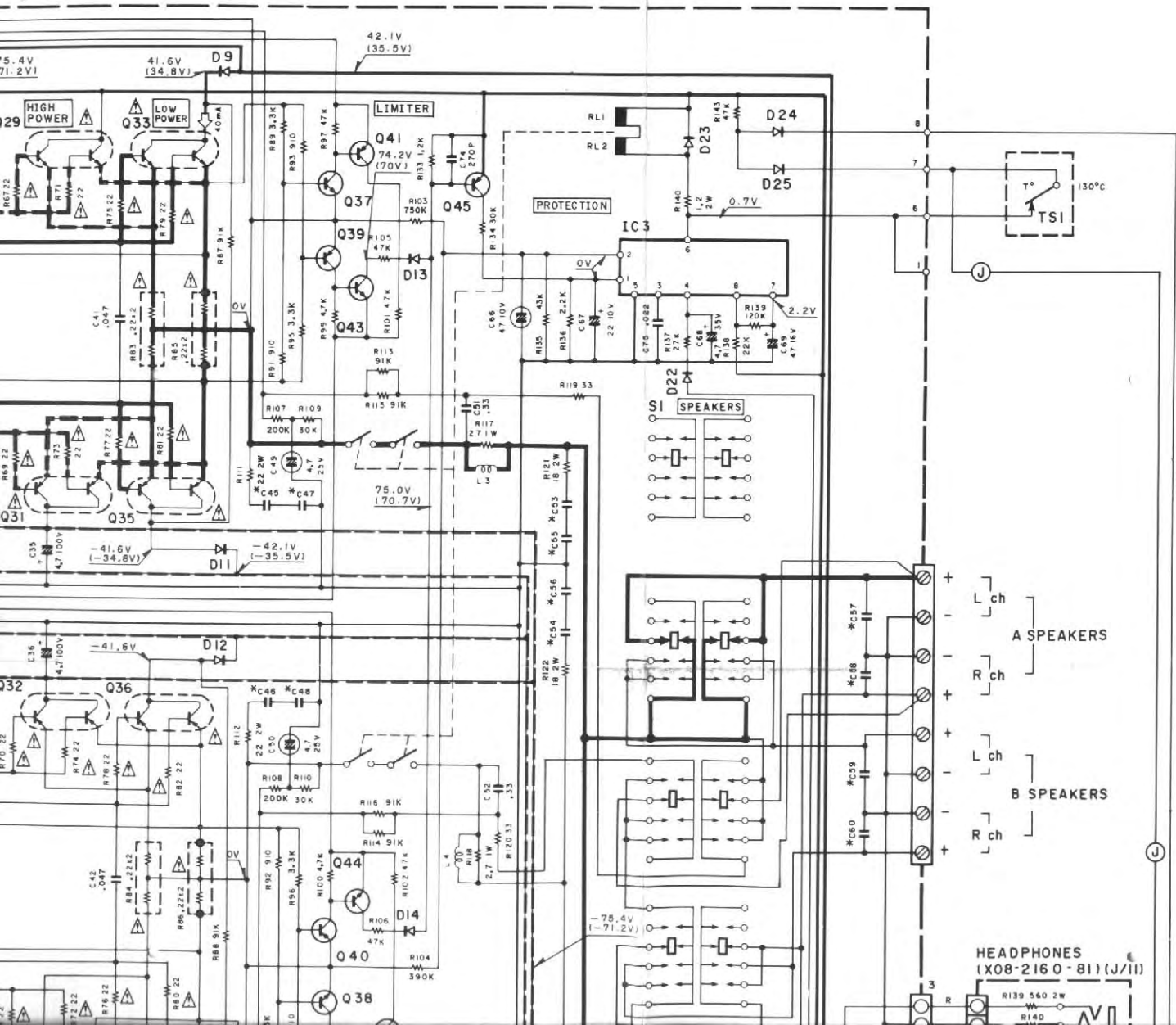
- IC1,2 : TA2030
- IC3 : μPC1237H
- Q1,2 : μPA68H
- Q3~8 : 2SC1845
- Q9,10 : 2SA1349
- Q11,12,46 : 2SC2632 (Q,R,S)
- Q13,14 : 2SC2632A
- Q15,16 : 2SC2632 (Q,R)
- Q17,18 : 2SA1124A
- Q19,20 : 2SC1841
- Q21,22,43,44 : 2SC2631A
- Q23,24 : 2SA1123A
- Q25,26 : 2SC2592
- Q27,28 : 2SA1112*1
- Q29,30 : DAT1018N
- Q31,32 : DAT1018P
- Q33,34 : DAT0612N
- Q35,36 : DAT0612P
- Q37,38 : 2SC2320 (F,E)
- Q39~42 : 2SA999
- Q45 : 2SA988
- Q47 : 2SA957
- D1~6,17 : IS2076
- D7,8 : STV-2H
- D9~12 : RU4Z
- D13,14,22~25 : IS2076A
- D15,16 : RD24JB (B3)
- D18 : RD5.6JB (B1)
- D19 : E-102
- D20 : RD16JB (B2)
- D21 : RD22JB (B2)
- D26,27 : DSM1A1

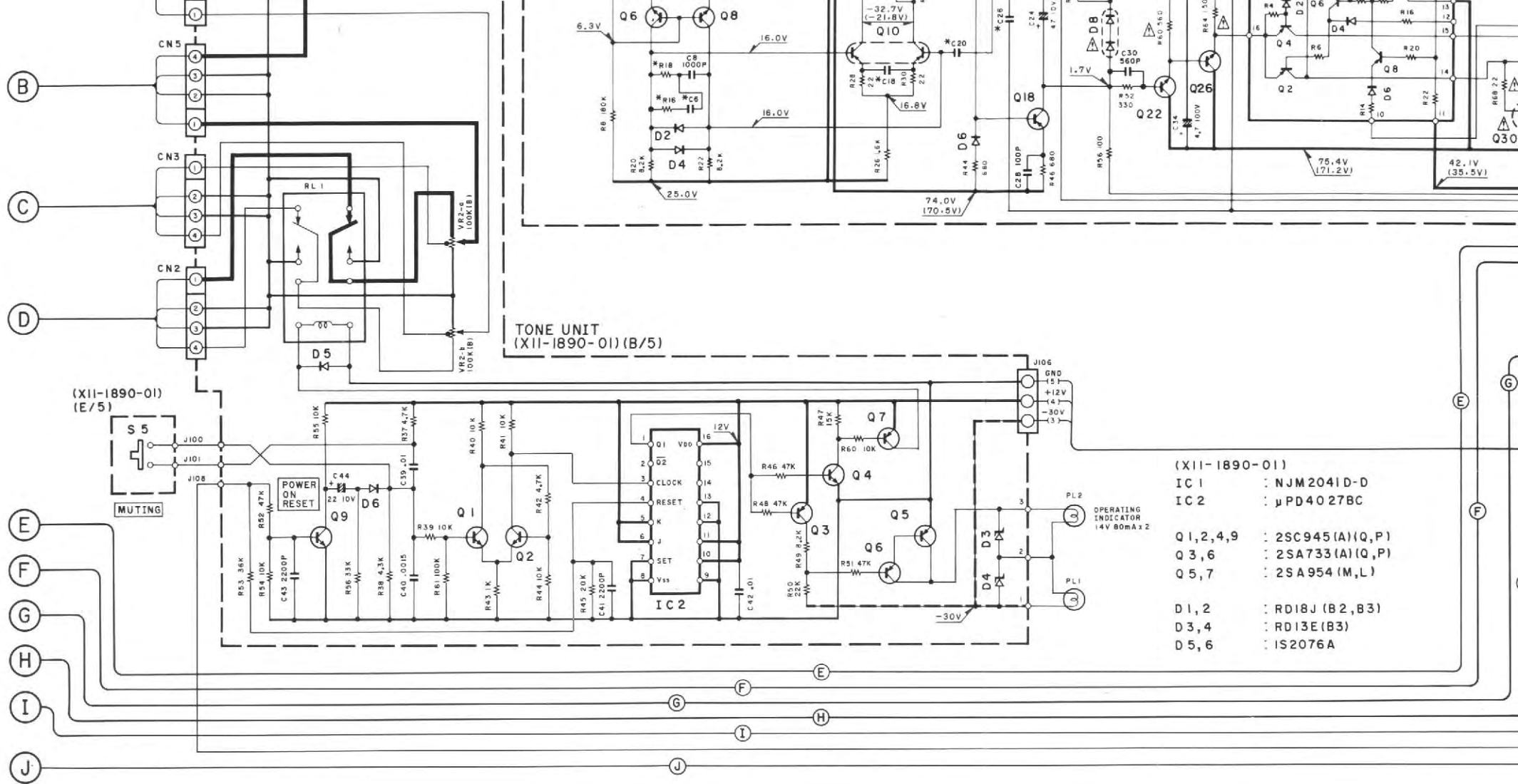
(X07-220 1)

| DESIGNATION | K,P,U,M,UE | X,E |
|-------------|------------|-----------|
| | 0-11 | 2-71 |
| C3,4 | NO | 47P |
| C5,6 | 470P | 100P |
| C45,46 | .047 | .1 |
| C47,48 | JUMPER | .1 |
| C53,54 | .033 | .068 |
| C55,56 | JUMPER | .068 |
| C57~60 | NO | 4700P |
| C19,20 | 33P | 47 |
| C17,18 | NO | 150P |
| C21,22 | 1P | 2P |
| C25,26 | 18P | 15P |
| R15,16 | 24 | 33 |
| R17,18 | 750 | 1K |
| C64,65 | 470 | 33 |
| C70,71 | 6800 50V | 6800 56V |
| C72,73 | 10000 80V | 12000 90V |

MAIN AMP (X07-2200-11)

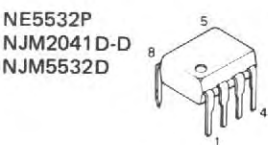
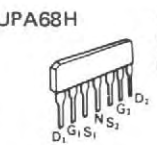
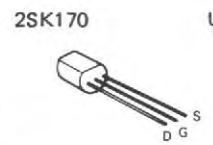
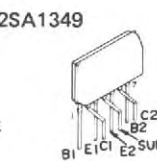
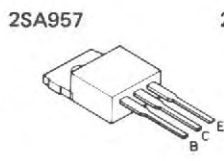
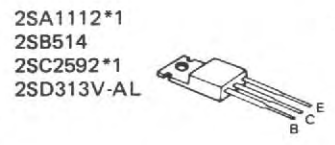
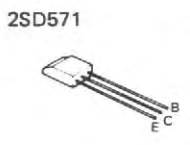
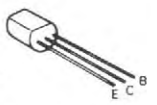






- (X11-1890-01)
- IC 1 : NJM2041D-D
 IC 2 : μPD4027BC
- Q 1, 2, 4, 9 : 2SC945 (A) (Q, P)
 Q 3, 6 : 2SA733 (A) (Q, P)
 Q 5, 7 : 2SA954 (M, L)
- D 1, 2 : RD18J (B 2, B3)
 D 3, 4 : RD13E (B3)
 D 5, 6 : IS2076A

- 2SA1123A 2SC1845
 2SA1124A 2SC2003
 2SA733 2SC2320
 2SA954 2SC2557
 2SA988 2SC2631A
 2SA992 2SC2632
 2SA999 2SC2632A
 2SC1841 2SC945

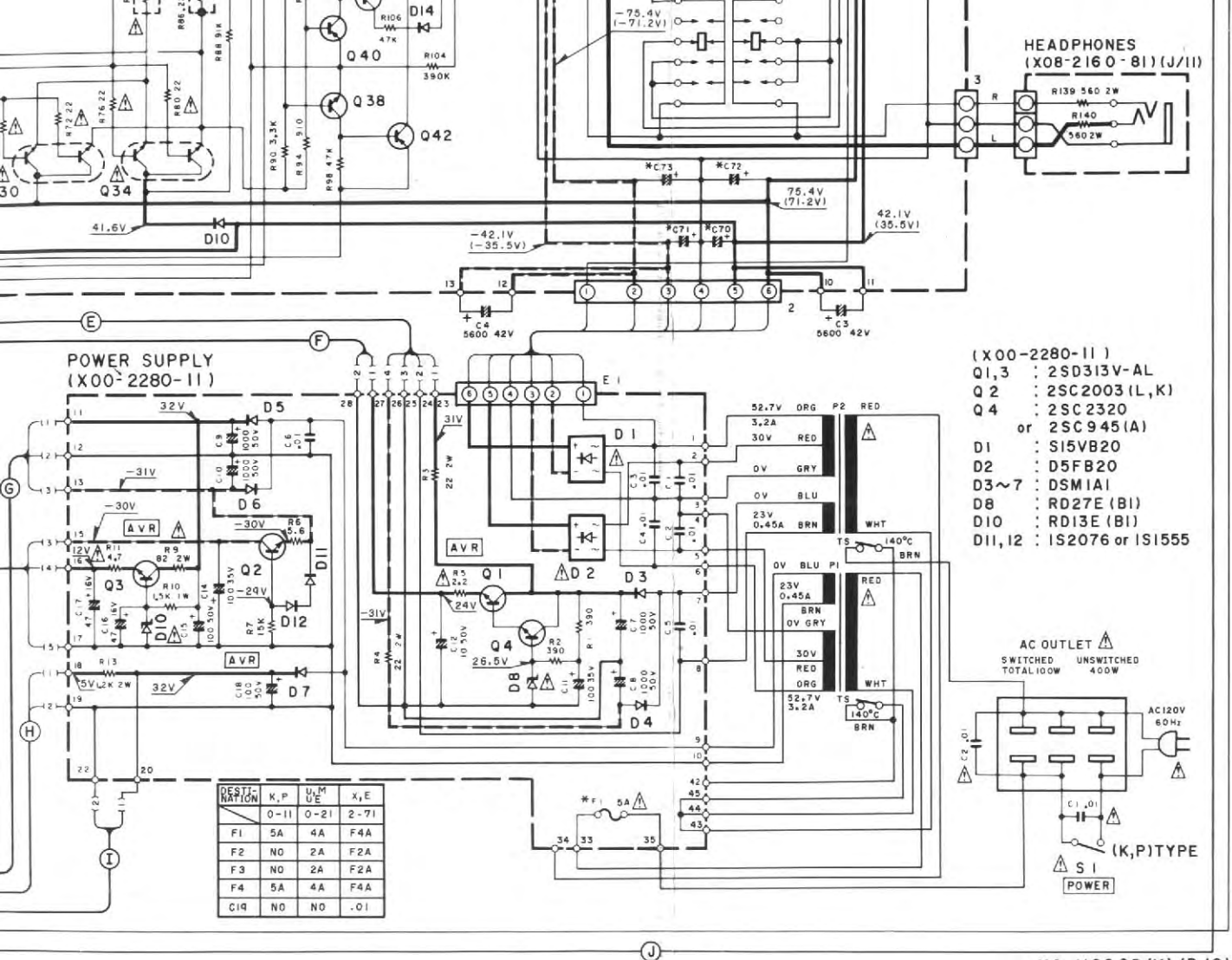


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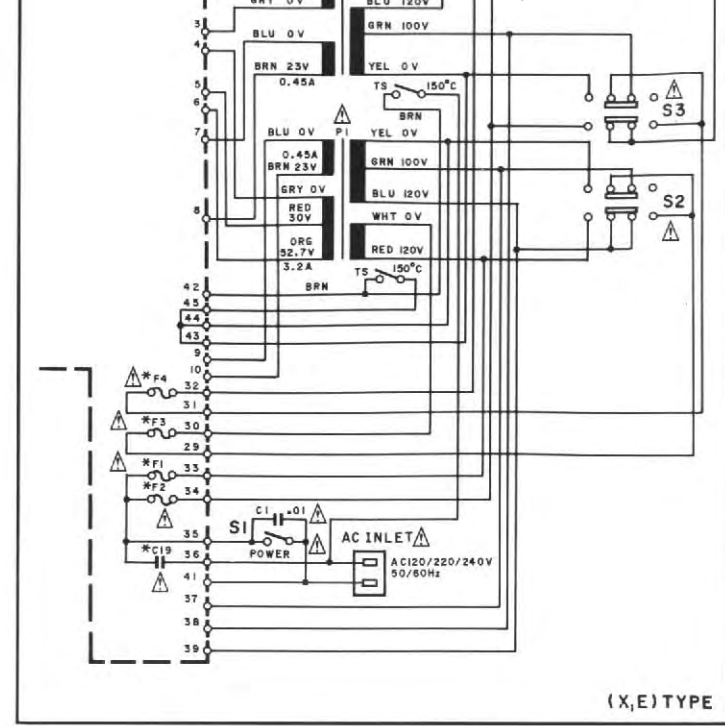
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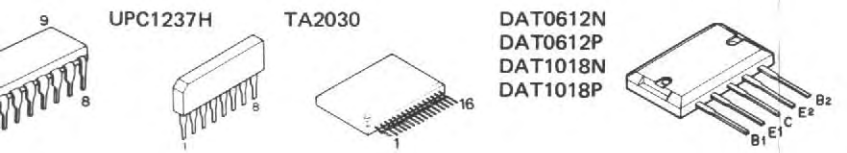


- (X00-2280-11)
- Q1,3 : 2SD313V-AL
 - Q2 : 2SC2003 (L,K)
 - Q4 : 2SC2320 or 2SC945(A)
 - D1 : S15VB20
 - D2 : D5FB20
 - D3~7 : DSM1A1
 - D8 : RD27E (B1)
 - D10 : RD13E (B1)
 - D11,12 : IS2076 or IS1555

KA-1100SD(K) (B/2)



(X,E) TYPE



- 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). Δ 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.

SPECIFICATIONS

Power Amplifier Section

Power Output

150 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.

Both Channels Driven into

8 ohms at 1 kHz 160 W + 160W

Dynamic Power Output into

4 ohms 368 W

Total Harmonic Distortion

(20 Hz to 20,000 Hz) AUX input to

SPEAKER output 0.004% at rated power into 8 ohms
0.003% at 1/2 rated power into 8 ohms

Intermodulation Distortion

(60 Hz : 7 kHz = 4 : 1) 0.003% at rated power into 8 ohms

Damping Factor

1,000 at 50 Hz

Transient Response

Rise Time 1.7 μ s

Slew Rate ± 100 V/ μ s

Frequency Response

DC to 200 kHz + 0 dB, -3dB

Speaker impedance

Accept 4 ohms to 16 ohms

Input Sensitivity/Impedance

Phono MM 2.5 mV/47k ohms and 100 k ohms

Phono MC 0.1mV/100 ohms

Tuner, AUX, Tape Adaptor in 150 mV/47 k ohms

Signal-to-Noise Ratio (IEC-A)

Phono MM 88 dB or 2.5mV input

Phono MC 70 dB for 100 μ V input

Tuner, AUX, Tape 108 dB

Note:

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

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

Maximum Input Level for Phono

MM 200 mV (RMS), T.H.D. 0.003% at 1,000 Hz

MC 8 mV (RMS), T.H.D. 0.003% at 1,000 Hz

Output Level/Impedance

Tape REC (Pin),

Adaptor out 150 mV/680 ohms

Frequency Response for Phono

RIAA standard curve ± 0.2 dB (20 Hz to 20,000 Hz)

Tone Control

Bass ± 10 dB at 50 Hz, 100 Hz

Treble ± 10 dB at 10 kHz, 20 kHz

Loudness Control

(at -30 dB VOLUME Level) +3/6/9 dB at 30/60/90 Hz

Subsonic Filter

18 Hz, 6 dB/oct.

General

Power Consumption 4 A (U.S.A. and Canada) 550 W (European countries) 1500 W (Others)

AC Outlets Switched 2, Unswitched 1 (Except U.K., European, Australian Countries)

Dimensions W : 440 mm (17-5/16") H : 158 mm (6-7/32") D : 383 mm (15-3/32")

Weight (Net) 14.7 kg (32.3 lb)

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

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