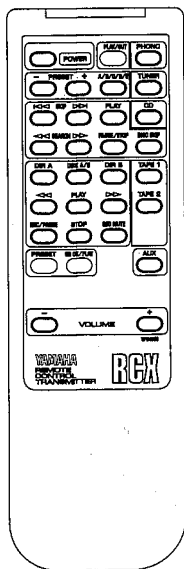
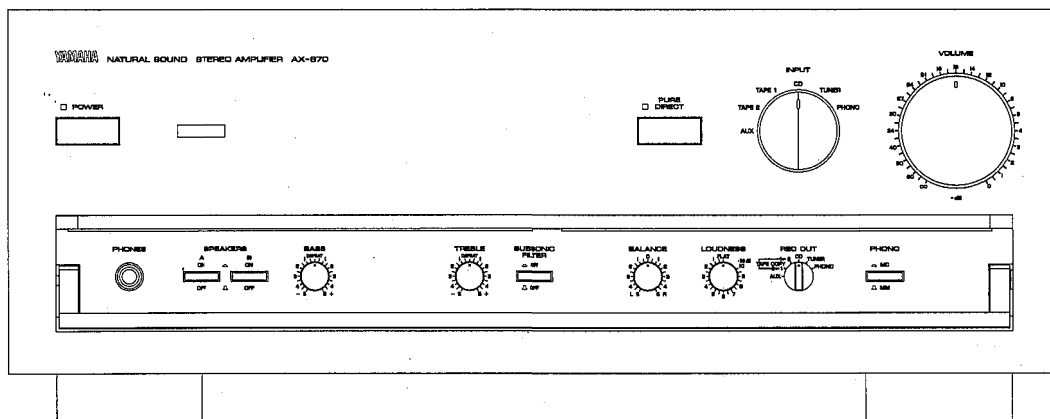


STEREO INTEGRATED AMPLIFIER AX-870

SERVICE MANUAL



IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

WARNING: Failure to follow appropriate service and safety procedures when servicing this product may result in personal injury, destruction of expensive components, and failure of the product to perform as specified. For these reasons, we advise all YAMAHA product owners that any service required should be performed by an authorized YAMAHA Retailer or the appointed service representative.

IMPORTANT: The presentation or sale of this manual to any individual or firm does not constitute authorization, certification or recognition of any applicable technical capabilities, or establish a principle-agent relationship of any form.

The data provided is believed to be accurate and applicable to the unit(s) indicated on the cover. The research, engineering, and service departments of YAMAHA are continually striving to improve YAMAHA products. Modifications are, therefore, inevitable and specifications are subject to change without notice or obligation to retrofit. Should any discrepancy appear to exist, please contact the distributor's Service Division.

WARNING: Static discharges can destroy expensive components. Discharge any static electricity your body may have accumulated by grounding yourself to the ground buss in the unit (heavy gauge black wires connect to this buss).

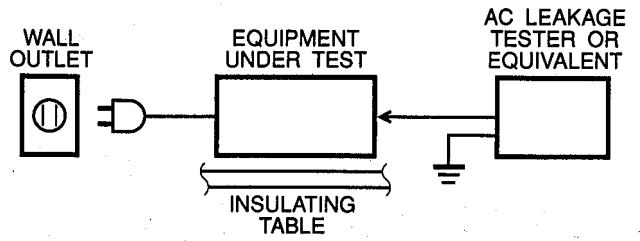
IMPORTANT: Turn the unit OFF during disassembly and part replacement. Recheck all work before you apply power to the unit.

CONTENTS

| | | | |
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| TO SERVICE PERSONNEL | 1 | ADJUSTMENTS | 5 |
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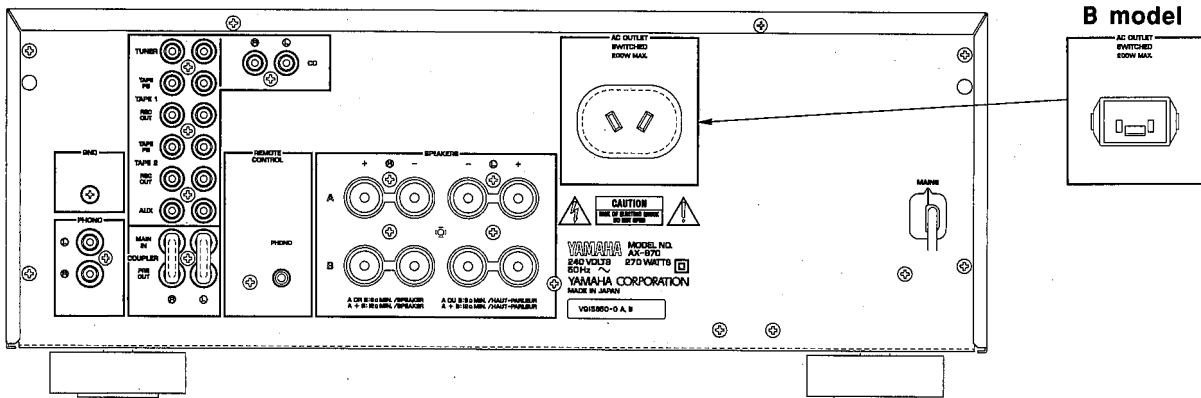
TO SERVICE PERSONNEL

1. Critical Components Information.
 Components having special characteristics are marked and must be replaced with parts having specifications equal to those originally installed.

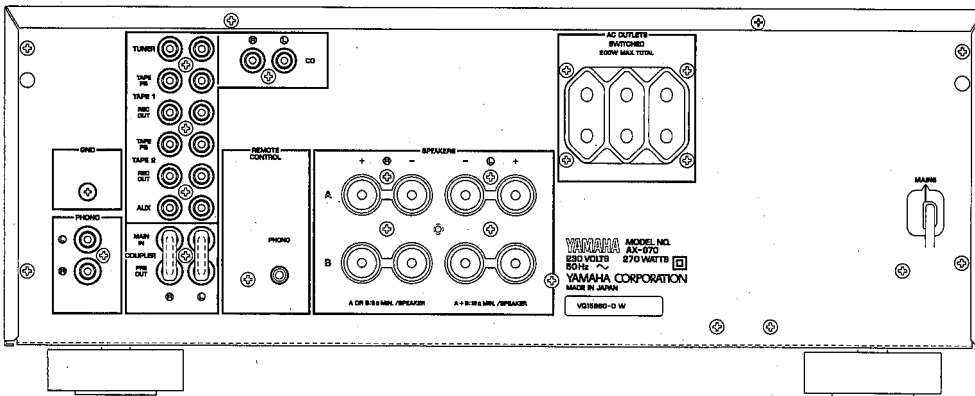


REAR PANELS

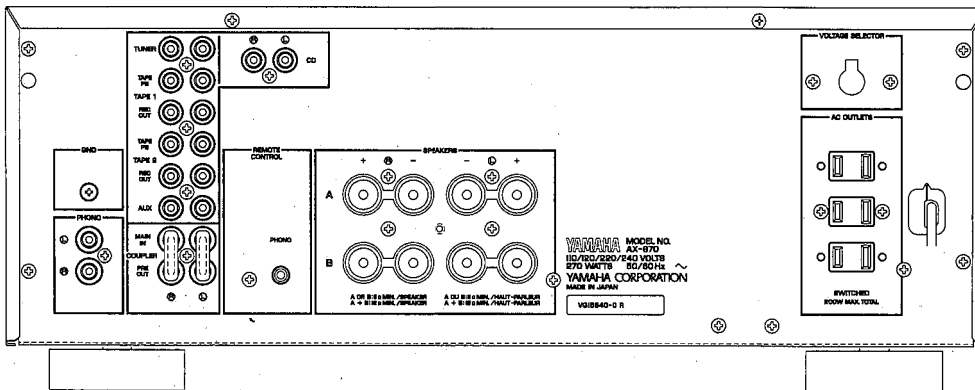
A, B models



H, W models



R model



■ SPECIFICATIONS

■ AUDIO SECTION

| | |
|---|------------------|
| Minimum RMS Output Power per Channel | |
| 8Ω, 20Hz to 20kHz, 0.015% THD | 110W |
| 6Ω, 20Hz to 20kHz, 0.03% THD | 130W |
| Dynamic Power per Channel (IHF) | |
| 8/6/4/2Ω | 150/200/230/260W |
| DIN Standard Output Power Channel | |
| 1kHz, 0.7% THD, 4Ω (H, W models) | 185W |
| Dynamic Headroom | |
| 8/4Ω (R model) | 1.35/0.97dB |
| IEC Power | |
| 1kHz, 0.01% THD, 8Ω (H, W models) | 125W |
| Power Band Width | |
| 8Ω, 55W, 0.03% THD | 10Hz to 50kHz |
| Damping Factor | |
| 8Ω, 20Hz to 20kHz | 320 or more |
| Input Sensitivity/Impedance | |
| PHONO MC | 160μV/220Ω |
| PHONO MM | 2.5mV/47kΩ |
| CD etc | 150mV/47kΩ |
| MAIN IN | 0.9V/47kΩ |
| Maximum Input Signal Level (1kHz, 0.01% THD) | |
| PHONO MC | 12.5mV |
| PHONO MM | 160mV |
| Output Level/Impedance | |
| REC OUT | 150mV/2.2kΩ |
| PRE OUT | 1V/1.6kΩ |
| Maximum Voltage Output | |
| 20Hz to 20kHz, 0.01% THD | 1.4V |
| Headphone Jack Rated Output/Impedance | |
| 0.015% THD, RL= 8Ω | 0.5V/470Ω |
| Frequency Response (20Hz to 20kHz) | |
| CD etc | 0±0.5dB |
| MAIN IN | 0±0.5dB |
| RIAA Equalization Deviation (20Hz to 20kHz) | |
| PHONO MC | 0±0.5dB |
| PHONO MM | 0±0.3dB |
| Total Harmonic Distortion (20Hz to 20kHz) | |
| PHONO MC to REC OUT (3V) | 0.007% |
| PHONO MM to REC OUT (3V) | 0.003% |
| CD etc to PRE OUT (1V) | 0.005% |
| CD etc to SP OUT (55W/8Ω) | 0.008% |
| MAIN IN to SP OUT (55W/8Ω) | 0.006% |
| Signal-to-Noise Ratio (IHF-A Network) | |
| (Pure Direct SW ON) | |
| PHONO MC (500μV Input Shorted) | 75dB |
| PHONO MM (5mV Input Shorted) | 92dB |
| CD etc (Shorted) | 110dB |
| Residual Noise (IHF-A Network) | |
| (Pure Direct SW ON) | |
| 80μV | |
| Channel Separation (Vol. -30dB) | |
| PHONO MM•MC (Input Shorted) 1kHz/10kHz | 70dB/55dB |
| CD etc 1kHz/10kHz (Input 5.1kΩ Terminated) ... | 65dB/50dB |
| Tone Control Characteristics | |
| BASS : Boost/cut | ±10dB (20Hz) |
| Turnover Frequency | 350Hz |
| TREBLE : Boost/cut | ±10dB (20kHz) |
| Turnover Frequency | 3.5kHz |

Filter Characteristics

| | |
|---|-----------------|
| Subsonic | 15Hz, -18dB/oct |
| Continuous Loudness Control | -30dB (1kHz) |
| (Level related equalization) | |
| Gain tracking error (0dB to -60dB) | ±2dB |

■ GENERAL

Power Supply

| | |
|-------------------|------------------------------|
| H, W models | AC 230V, 50Hz |
| A, B models | AC 240V, 50Hz |
| R model | AC 110/120/220/240V, 60/50Hz |

Power Consumption 270W

AC Outlets

| | |
|----------------------|-------------------|
| Switched x 3 | |
| H, W, R models | 200W max. (Total) |
| Switched x 1 | |
| A, B models | 200W max. |

Dimensions (W x H x D) 435 x 171 x 448mm
(17-1/8" x 6-3/4" x 17-5/8")

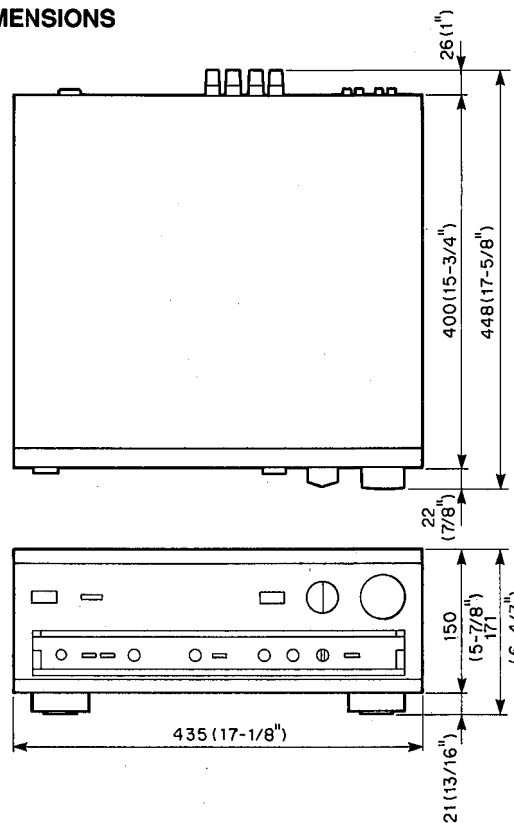
Weight 14kg (30 lbs 13 oz)

Accessories Remote Control Transmitter x 1
Battery (size "AA", R06) x 2

* Specifications subject to change without notice.

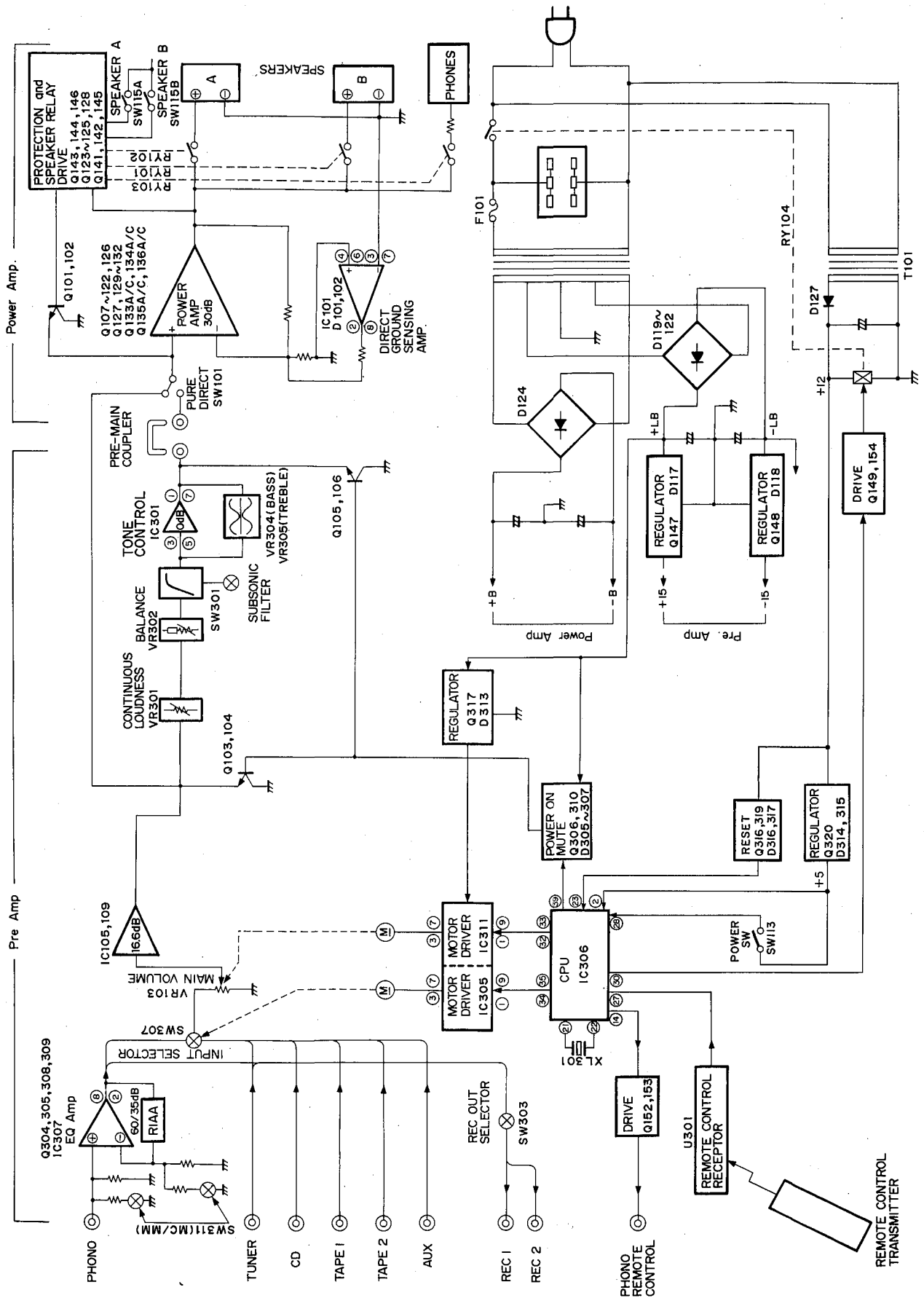
H European model B British model
W German model R General model
A Australian model

● DIMENSIONS

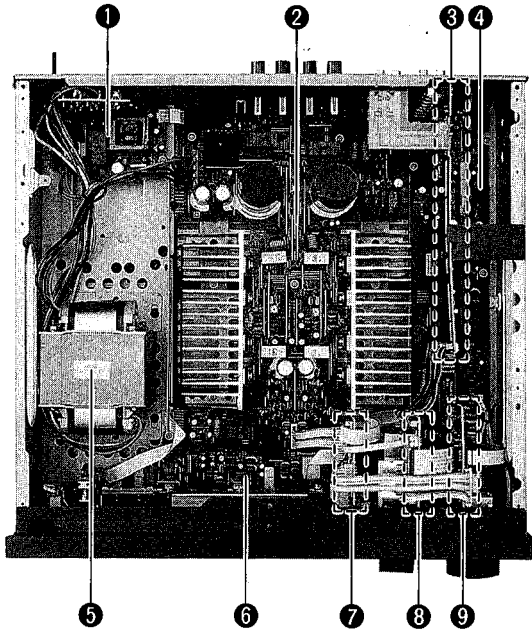


Units : mm (Inch)

■ BLOCK DIAGRAM



INTERNAL VIEW



- ① MAIN P.C.B. ASS'Y (2)
- ② MAIN P.C.B. ASS'Y (1)
- ③ FUNCTION P.C.B. ASS'Y (1)
- ④ FUNCTION P.C.B. ASS'Y (4)
- ⑤ POWER TRANSFORMER
- ⑥ FUNCTION P.C.B. ASS'Y (6)
- ⑦ MAIN P.C.B. ASS'Y (4)
- ⑧ FUNCTION P.C.B. ASS'Y (3)
- ⑨ MAIN P.C.B. ASS'Y (3)

DISASSEMBLY PROCEDURES

(Remove parts in the order as numbered.)

1. Removal of Top Cover

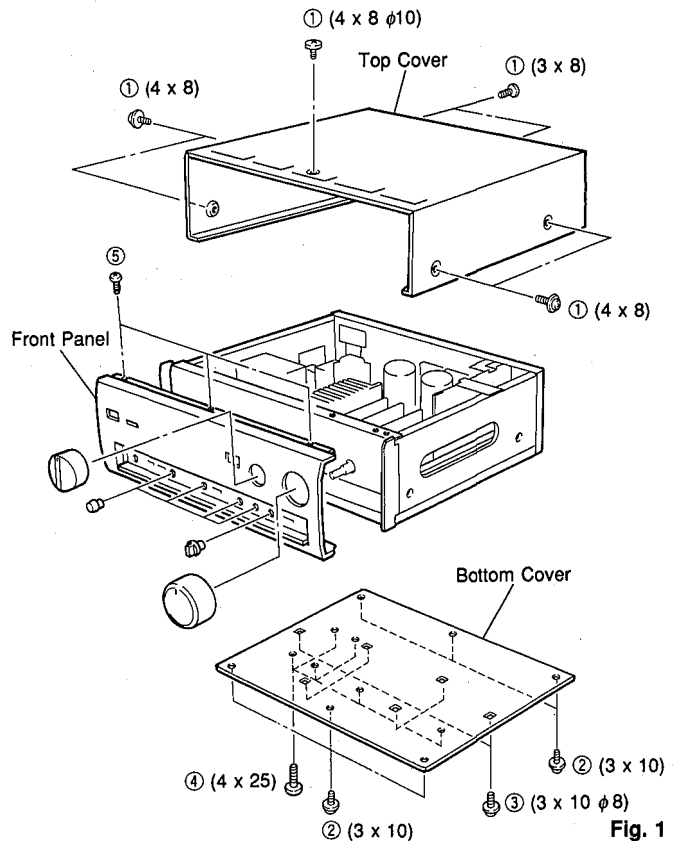
Remove 7 screws (①) in Fig. 1.

2. Removal of Bottom Cover

- a. Remove 6 screws (②) in Fig. 1.
- b. Remove 6 screws (③) in Fig. 1.
- c. Remove 6 screws (④) in Fig. 1.

3. Removal of Front Panel

- a. Remove 7 knobs in Fig. 1.
- b. Remove 3 screws (⑤) in Fig. 1.



CAUTION-USE ONLY COPPER COLORED SCREWS (3X10 φ8) FOR SQUARE HOLES ON BOTTOM COVER.

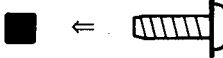

COPPER COLORED SCREW

Fig. 1

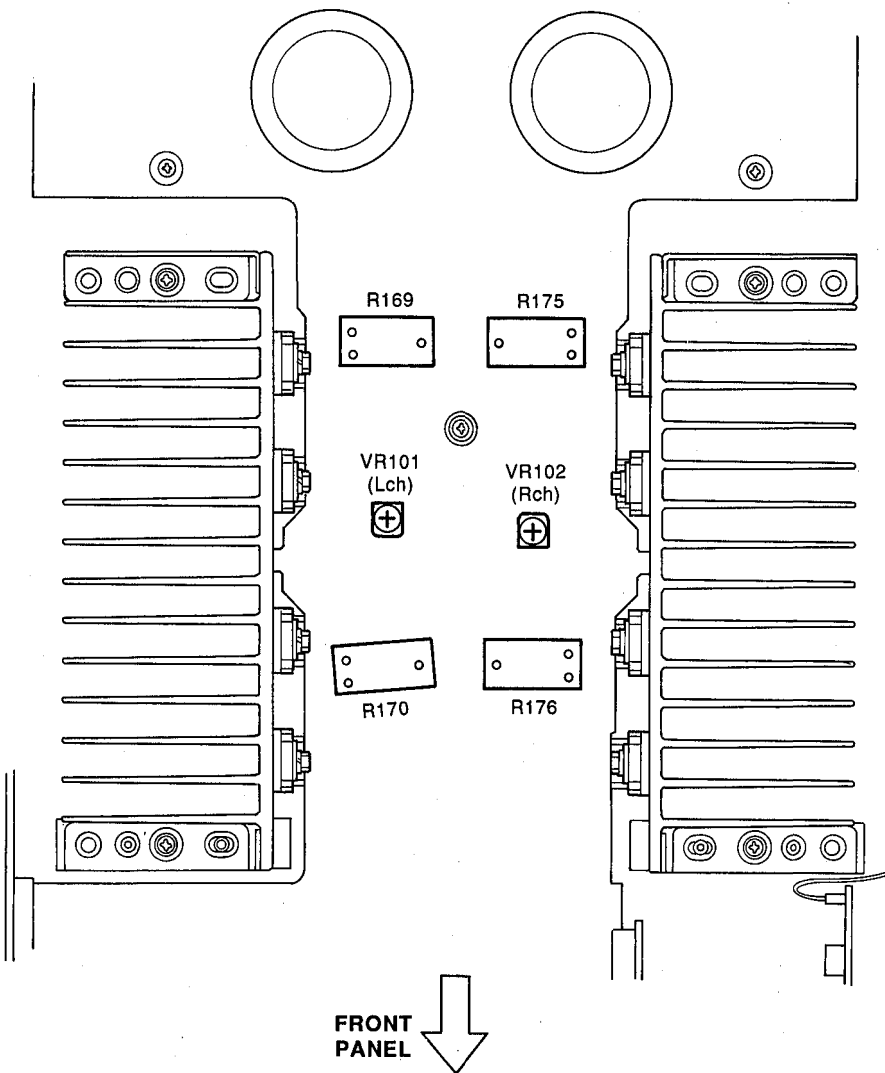
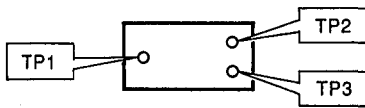
ADJUSTMENTS

● IDLING CURRENT ADJUSTMENT

- When replacing the power and drive transistors, adjust idling current.
- After the power has been turned on, age about 10 minutes in non loaded condition.
- Adjust VR101 (Lch) and VR102 (Rch) so that the voltage across the terminals of R169 and R175 comes to 5mV~7.5mV DC.

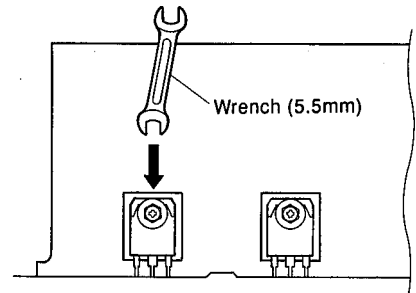
| | Test Points | Adjustment Points | Rating |
|-----|--|-------------------|--------------|
| Lch | Across the terminals of R169 or R170 (TP1 ↔ TP2 or TP1 ↔ TP3) | VR101 | 5mV~7.5mV DC |
| Rch | Across the terminals of R175 or R176 (TP1 ↔ TP2 or TP1 ↔ TP3) | VR102 | 5mV~7.5mV DC |

(R169, R170, R175, R176)



● Removal of Power Transistor

- Use a 5.5mm wrench or a small size adjustable wrench.
- Using the above tool, remove the screw fixing the Power Transistor.

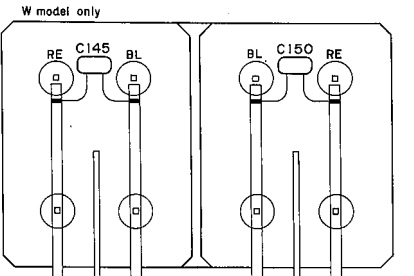
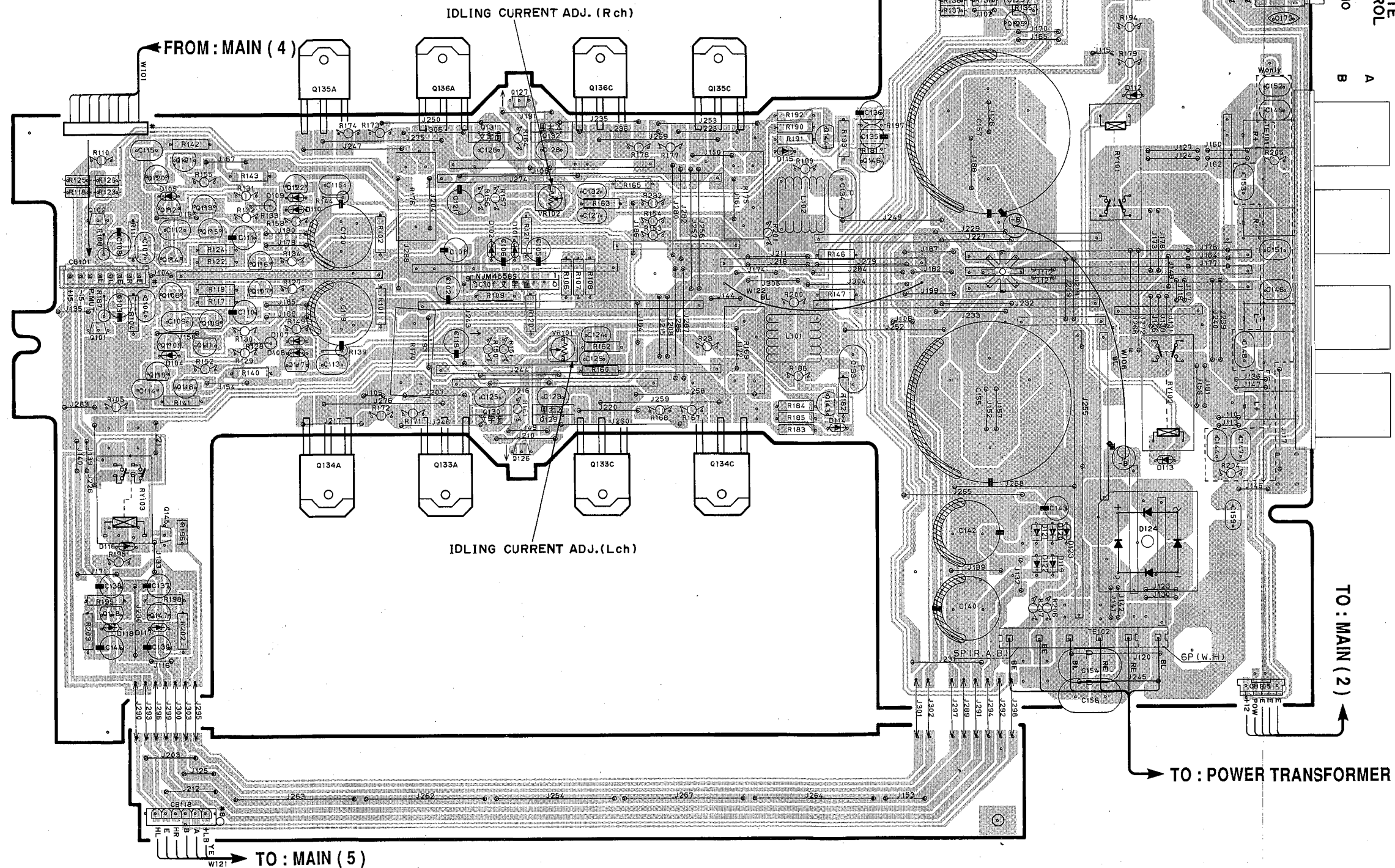


PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|----------|----------|----------|----------|
| D 101 | C3 | D 109 | B3 | D 115 | D3 | D 121 | E4 |
| D 102 | C3 | D 110 | B3 | D 116 | A5 | D 122 | E5 |
| D 104 | A4 | D 111 | E2 | D 117 | A5 | D 123 | E4 |
| D 105 | A3 | D 112 | F3 | D 118 | A5 | D 124 | F5 |
| D 107 | B4 | D 113 | F4 | D 119 | E5 | IC101 | C3 |
| D 108 | B4 | D 114 | D4 | D 120 | E4 | | |

MAIN P. C. B. (1)

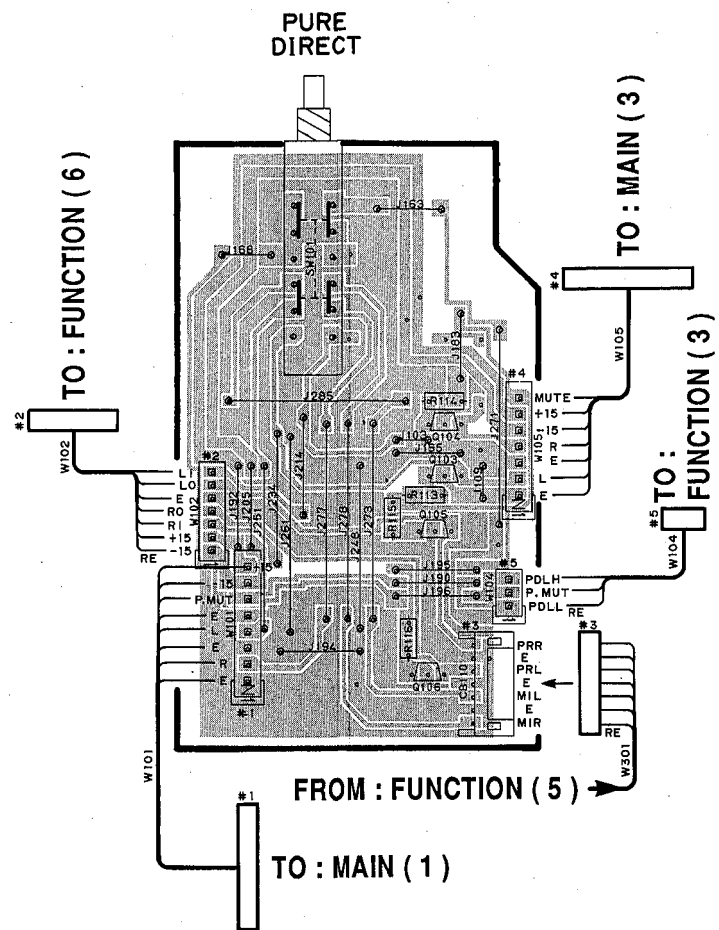


Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| Q 101 | A4 |
| Q 102 | A3 |
| Q 107 | B3 |
| Q 108 | A3 |
| Q 109 | B4 |
| Q 110 | A4 |
| Q 111 | B4 |
| Q 112 | A3 |
| Q 113 | B3 |
| Q 114 | A3 |
| Q 115 | B3 |
| Q 116 | B3 |
| Q 117 | B4 |
| Q 118 | B4 |
| Q 119 | A4 |
| Q 120 | A3 |
| Q 121 | B3 |
| Q 122 | B3 |
| Q 123 | E2 |
| Q 124 | E2 |
| Q 125 | E2 |
| Q 126 | C4 |
| Q 127 | C3 |
| Q 128 | E2 |
| Q 129 | C4 |
| Q 130 | C4 |
| Q 131 | C3 |
| Q 132 | C3 |
| Q133A | C4 |
| Q133C | C4 |
| Q134A | B4 |
| Q134C | D4 |
| Q135A | B3 |
| Q135C | D3 |
| Q136A | C3 |
| Q136C | C3 |
| Q 141 | F2 |
| Q 142 | F2 |
| Q 143 | D4 |
| Q 144 | D3 |
| Q 145 | A4 |
| Q 146 | E3 |
| Q 147 | A5 |
| Q 148 | A5 |
| Q 152 | F2 |
| Q 153 | F2 |

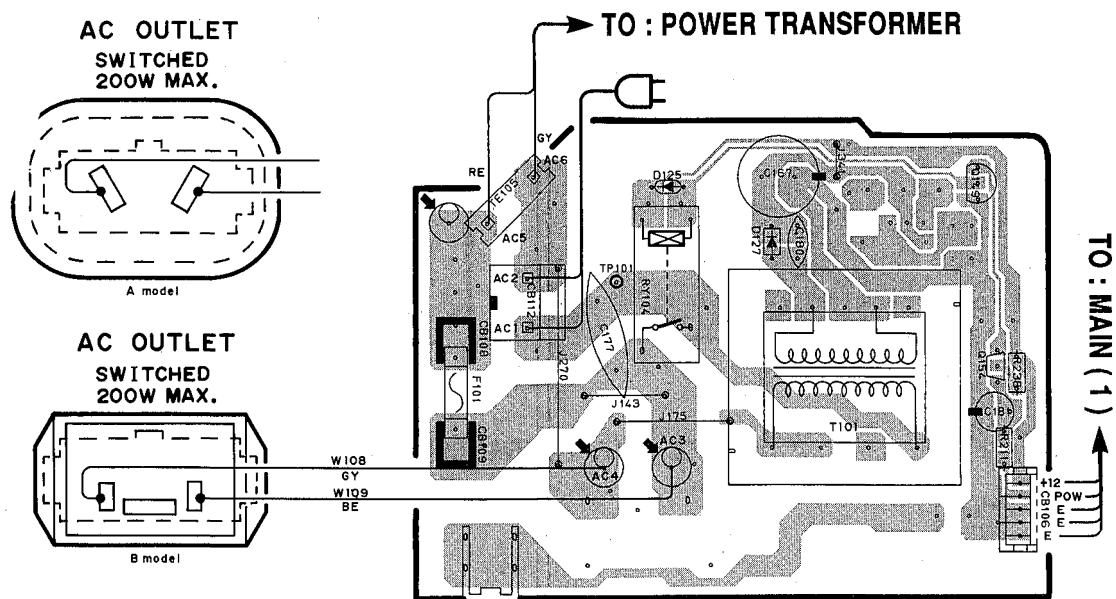
■ PRINTED CIRCUIT BOARD (Foil side)

MAIN P. C. B. (4)

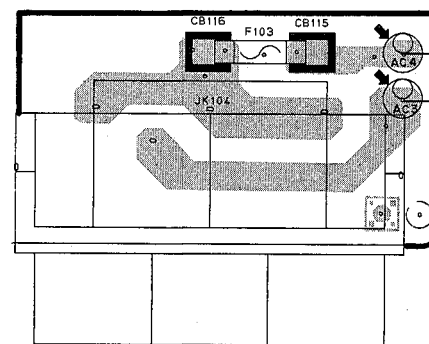


● A, B models

MAIN P. C. B. (2)

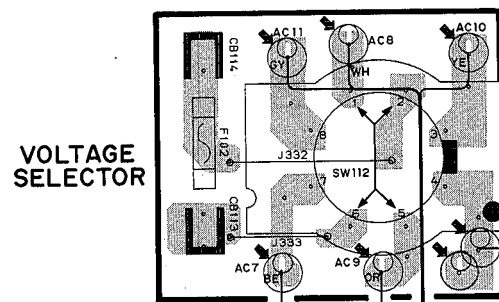


MAIN P. C. B. (8)



AC OUTLETS
SWITCHED
200W MAX. TOTAL

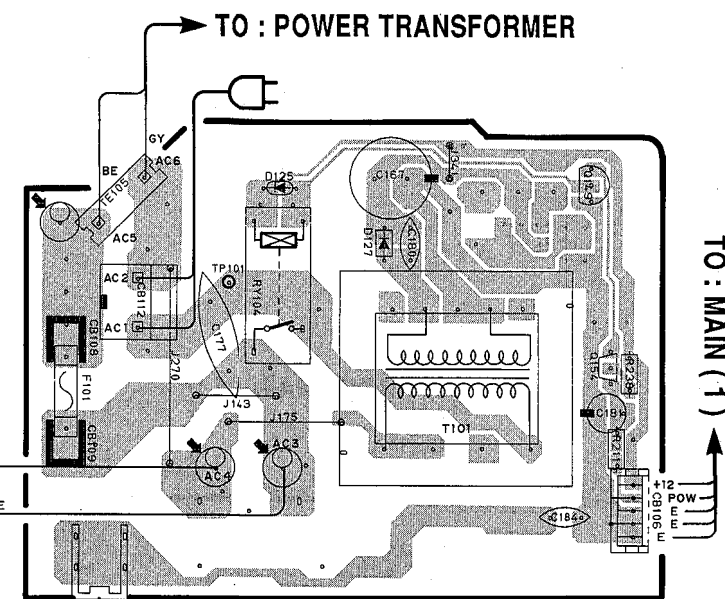
MAIN P. C. B. (6)



TO : POWER TRANSFORMER

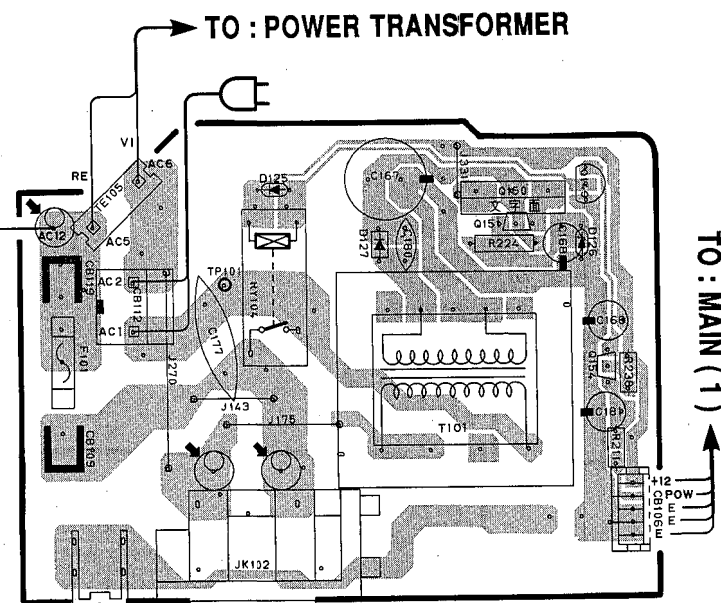
● H, W models

MAIN P. C. B. (2)



● R model

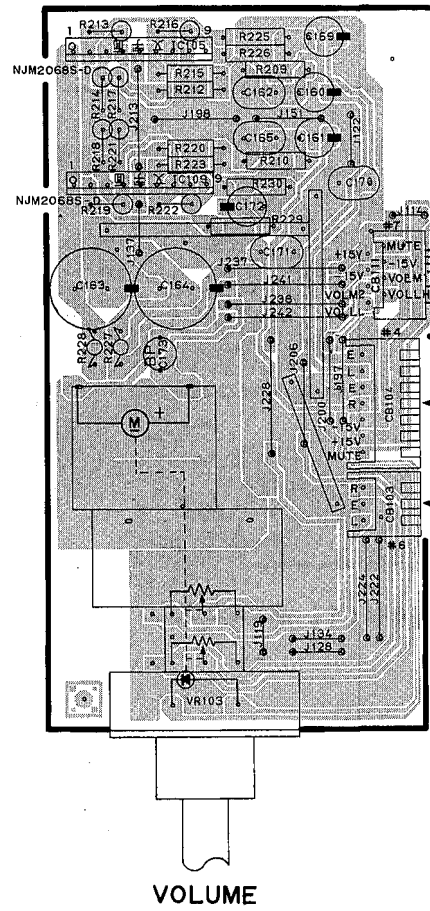
MAIN P. C. B. (2)



AC OUTLETS
SWITCHED
200W MAX. TOTAL

PRINTED CIRCUIT BOARD (Foil side)

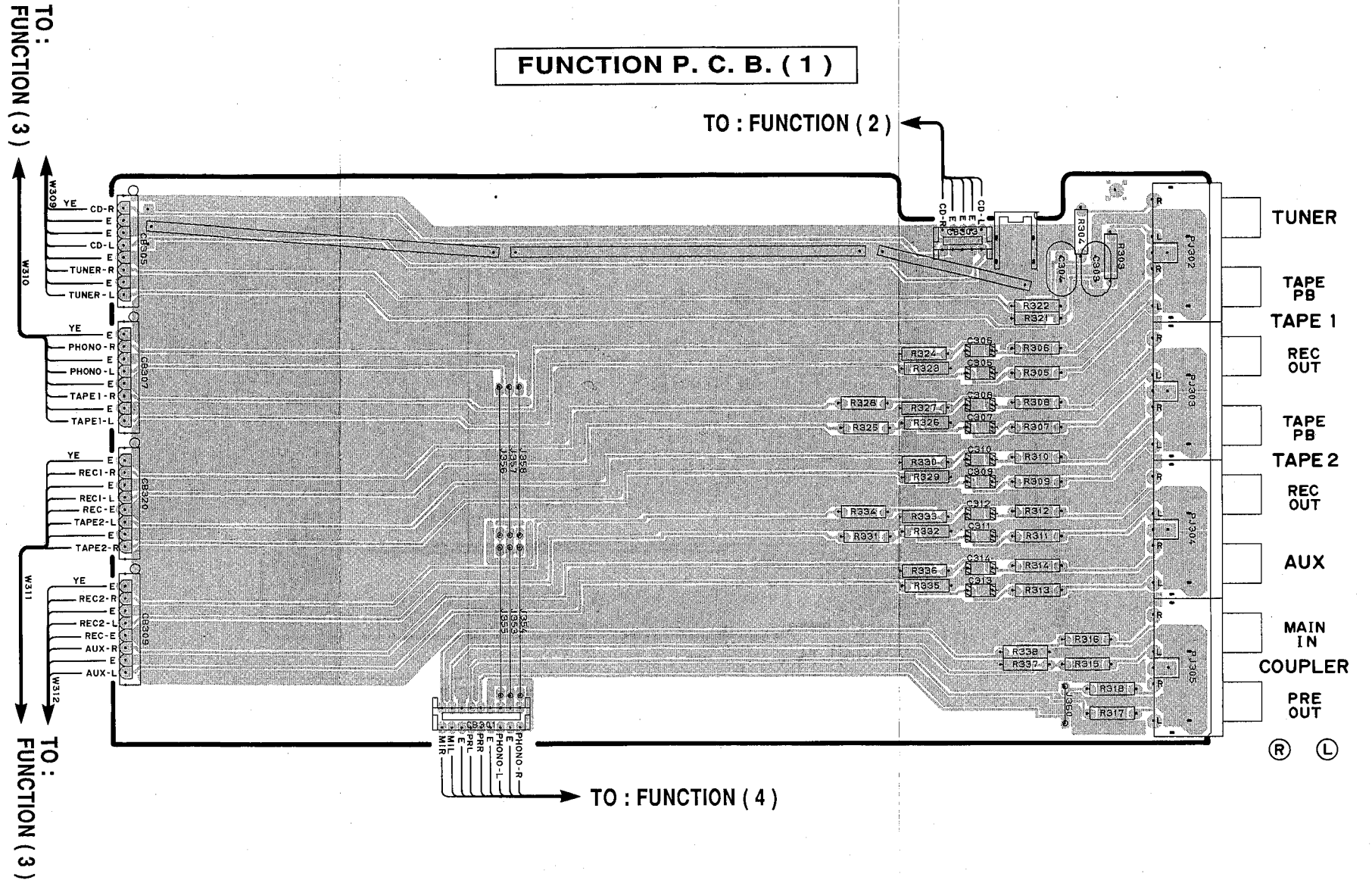
MAIN P. C. B. (3)



TO : FUNCTION (4)
FROM : FUNCTION (3)
FROM : MAIN (4)

VOLUME

FUNCTION P. C. B. (1)

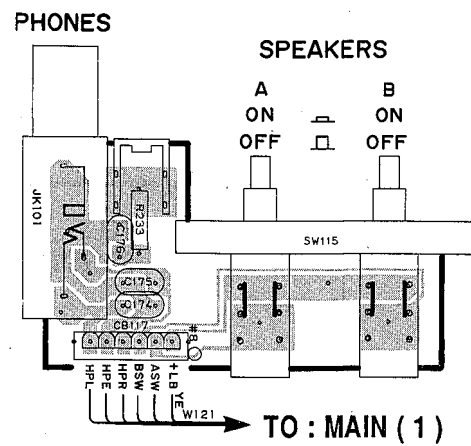


TO : FUNCTION (2)

TUNER
TAPE PB
TAPE 1
REC OUT
TAPE PB
TAPE 2
REC OUT
AUX
MAIN IN
COUPLER
PRE OUT

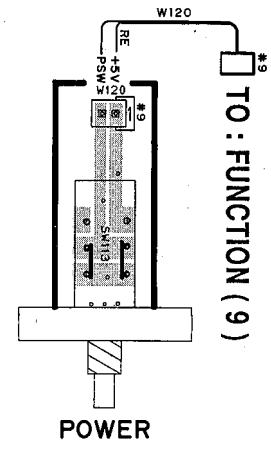
TO : FUNCTION (4)

MAIN P. C. B. (5)



TO : MAIN (1)

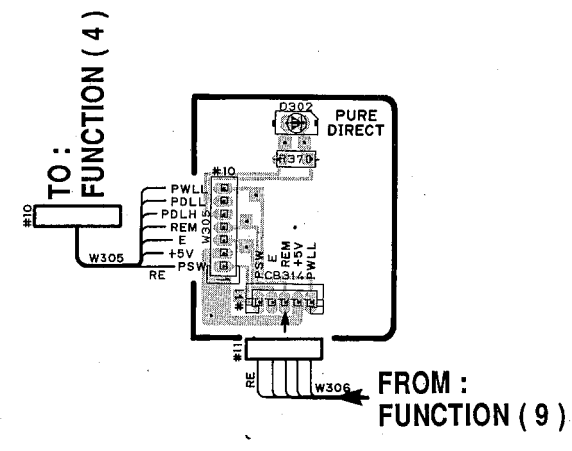
MAIN P. C. B. (7)



TO : FUNCTION (9)

POWER

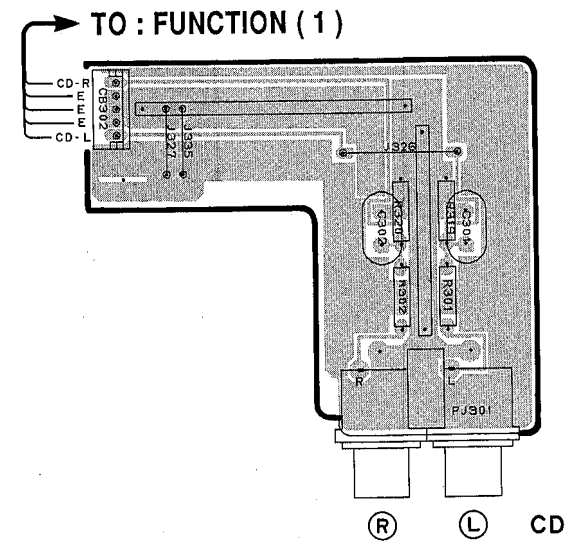
FUNCTION P. C. B. (8)



TO : FUNCTION (4)

FROM : FUNCTION (9)

FUNCTION P. C. B. (2)



TO : FUNCTION (1)

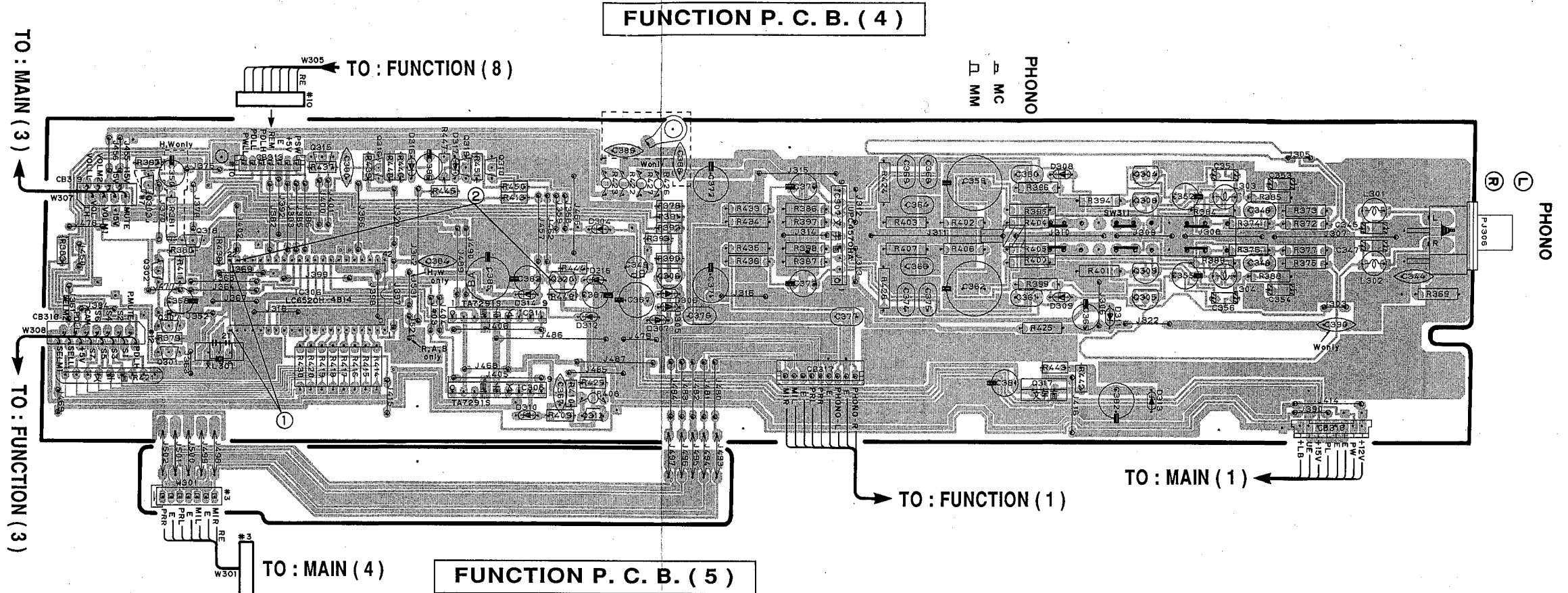
CD

PRINTED CIRCUIT BOARD (Foil side)

① and ② : TEST POINT WAVEFORMS (See page 16)

● Semiconductor Location

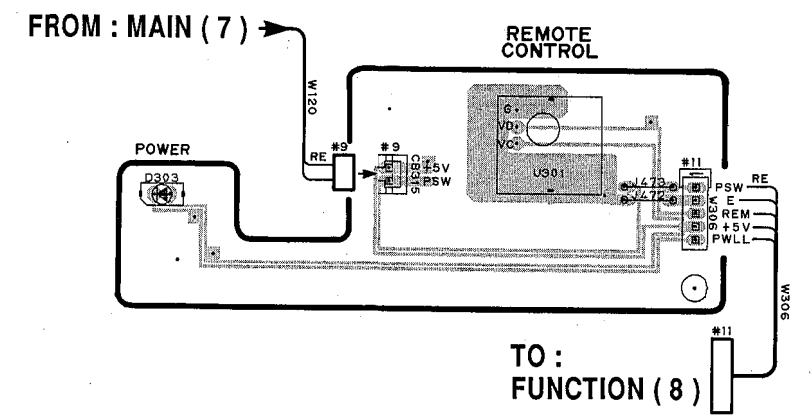
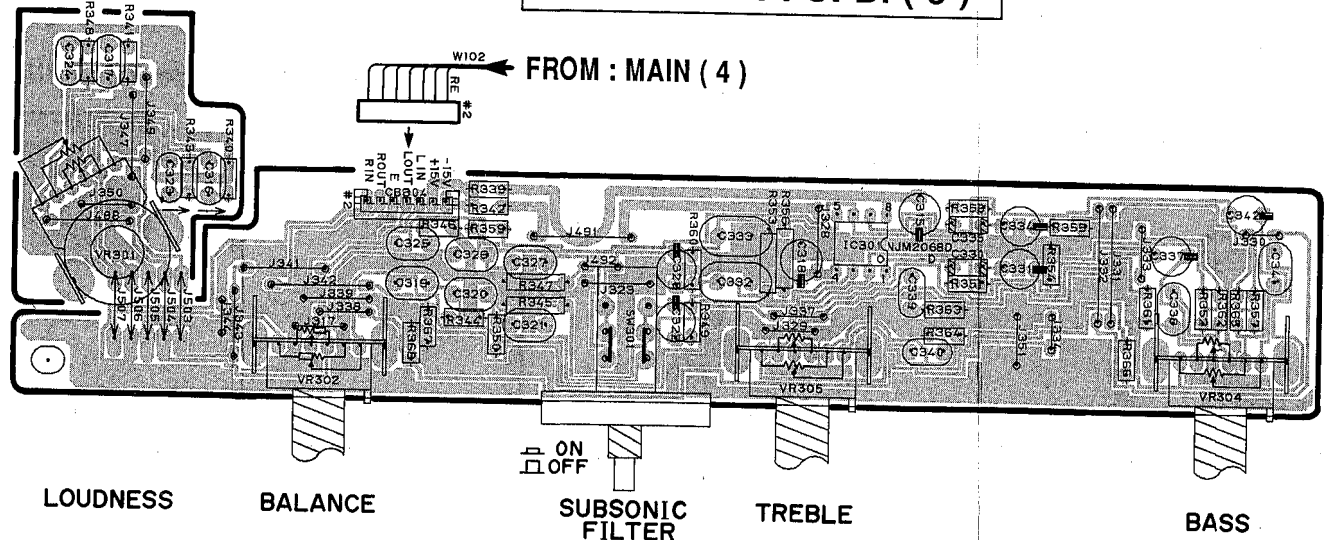
| Ref. No. | Location |
|----------|----------|
| D 304 | D2 |
| D 305 | D2 |
| D 306 | D2 |
| D 307 | D2 |
| D 308 | F2 |
| D 309 | F2 |
| D 310 | D3 |
| D 311 | F2 |
| D 312 | D2 |
| D 313 | F3 |
| D 314 | D2 |
| D 315 | D2 |
| D 316 | C2 |
| D 317 | D2 |
| IC301 | D5 |
| IC305 | D3 |
| IC306 | C2 |
| IC307 | E2 |
| IC311 | D2 |
| Q 301 | B2 |
| Q 302 | B2 |
| Q 303 | B2 |
| Q 304 | F2 |
| Q 305 | F2 |
| Q 306 | D2 |
| Q 307 | B2 |
| Q 308 | F2 |
| Q 309 | F2 |
| Q 310 | D2 |
| Q 312 | D3 |
| Q 315 | C2 |
| Q 316 | C2 |
| Q 317 | F3 |
| Q 318 | C2 |
| Q 319 | D2 |
| Q 320 | D2 |



FUNCTION P. C. B. (7)

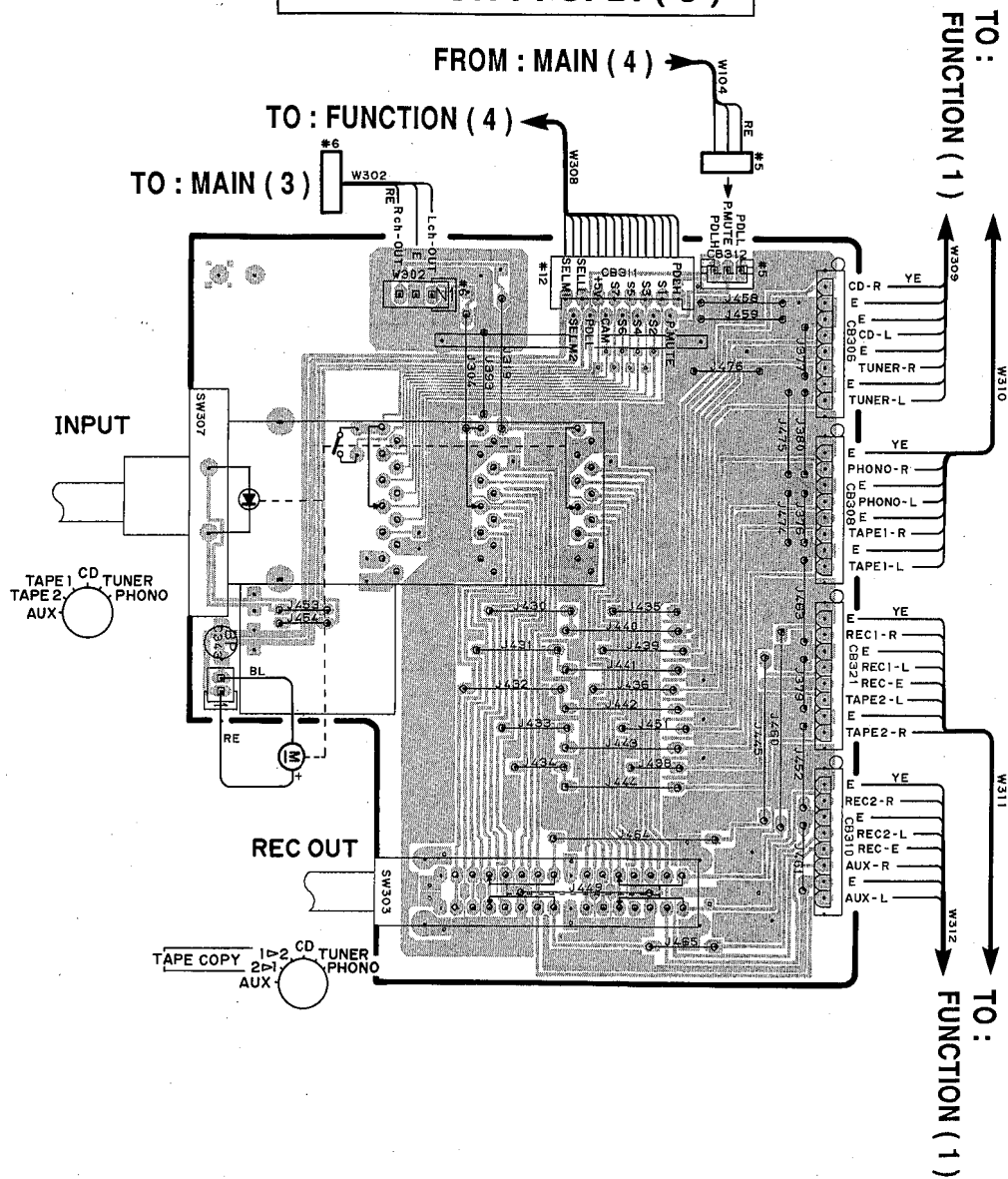
FUNCTION P. C. B. (6)

FUNCTION P. C. B. (9)



PRINTED CIRCUIT BOARD (Foil side)

FUNCTION P. C. B. (3)



Precautions for Replacement of input Selector Switch

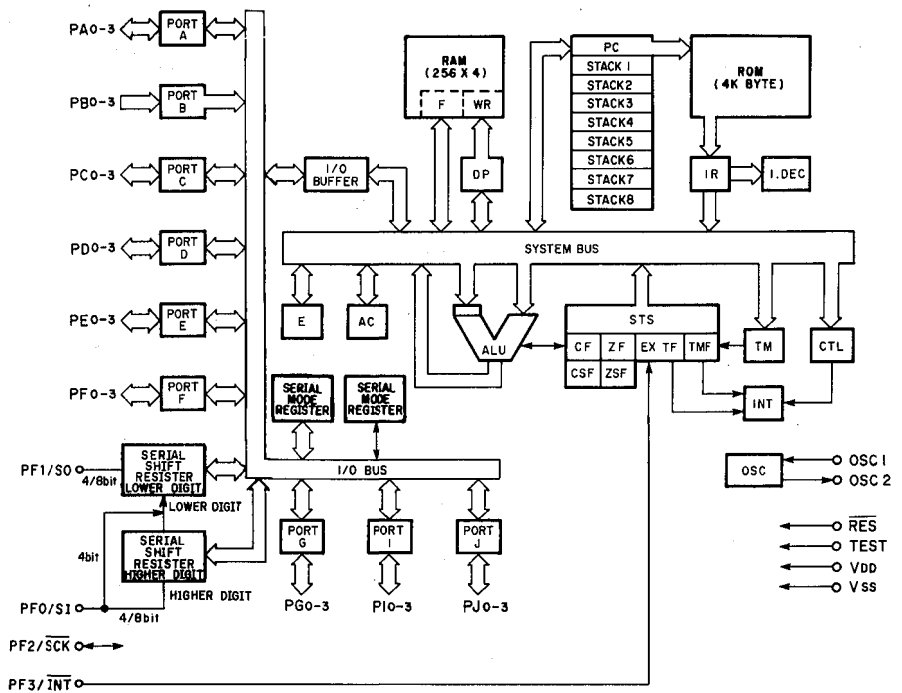
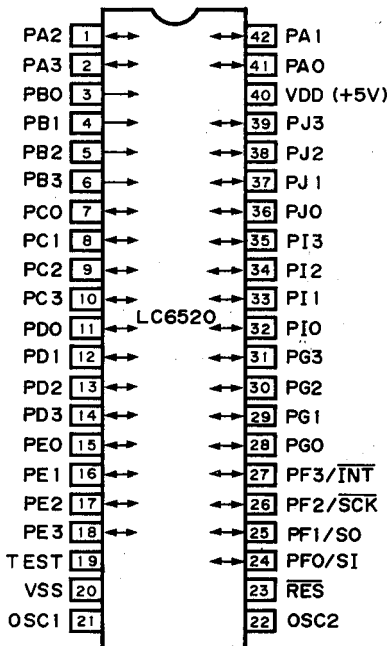
Make sure to perform initial setting of the input selector switch after its replacement.

● How to perform initial setting

Position the selector switch at the mid-point between the CD position and TUNER position and turn ON the POWER switch. Then the SELECTOR switch turns automatically until it finally stops at the "CD" position.

μ-COM DATA

IC306 : LC6520H
4bit μ-COM



Selector Position Data (S1 to S8)

| PIN NO. | | | | | | | | | | FUNCTION |
|---------|---|---|---|---|---|---|----|---|---|----------|
| 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | | |
| 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | PHONO |
| 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | TUNER |
| 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | CD |
| 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | TAPE 1 |
| 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | TAPE 2 |
| 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | AUX |

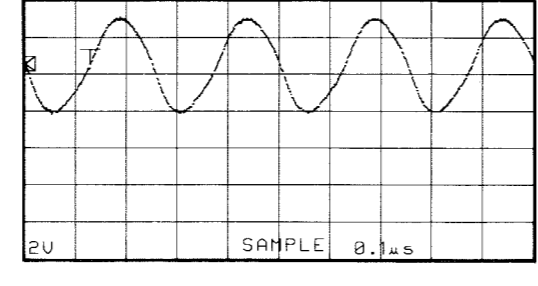
Table A

| Pin No. | Pin. Name | I/O | Function | Pin No. | Pin. Name | I/O | Function | |
|---------|-----------|-----|---|---------|-----------|-----|--|---------------------------------|
| 1 | PA2 | I/O | Not used | 22 | OSC2 | I | 4MHz | |
| 2 | PA3 | I/O | Not used (H) | 23 | RESET | I | Reset input | |
| 3 | PB0 | I | Selector position data (Table A) | 24 | PF0 | — | Not used | |
| 4 | PB1 | I | | S2 | 25 | PF1 | — | Not used |
| 5 | PB2 | I | | S3 | 26 | PF2 | I | Power Remote (H : ON, L : OFF) |
| 6 | PB3 | I | | S4 | 27 | PF3 | I | Remote control Data input |
| 7 | PC0 | I | | S5 | 28 | PG0 | I | Power SW ON/OFF |
| 8 | PC1 | I | | S6 | 29 | PG1 | I | Power control (H : ON, L : OFF) |
| 9 | PC2 | I | | S7 | 30 | PG2 | O | Power out |
| 10 | PC3 | I | | S8 | 31 | PG3 | O | STBY out |
| 11 | PD0 | I | CAM : Cam position data | 32 | PI0 | O | Volume control signal 2 (UP : H) | |
| 12 | PD1 | I | Input (channel) set (L : 6ch set) | 33 | PI1 | O | Volume control signal 1 (DOWN : L) | |
| 13 | PD2 | I | Not used (GND) | 34 | PI2 | O | Selector control signal 2 | |
| 14 | PD3 | O | PLAY/CUT (Player control) | 35 | PI3 | O | Selector control signal 1 | |
| 15 | PE0 | I | Market (H : H, W models) | 36 | PJ0 | I | Power on → A. Mute (H : ON, L : OFF) | |
| 16 | PE1 | I | Power down (Back up mode) | 37 | PJ1 | O | Audio muting LED control (Not used) | |
| 17 | PE2 | — | Not used | 38 | PJ2 | O | Audio muting control signal (Not used) | |
| 18 | PE3 | I | Input selector operation mode (L:STOP, H:NONSTOP) | 39 | PJ3 | O | Muting control signal | |
| 19 | TEST | — | GND | 40 | VDD | — | +5V | |
| 20 | VSS | — | GND | 41 | PA0 | — | Not used | |
| 21 | OSC1 | I | 4MHz | 42 | PA1 | — | Not used | |

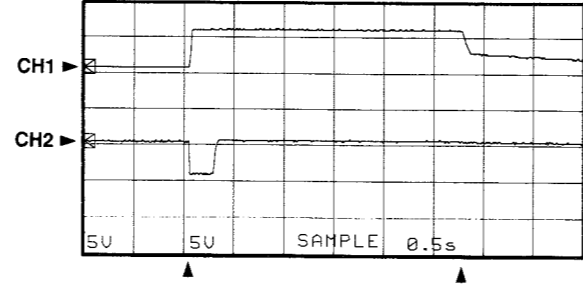
* When in the BACK-UP mode. (i.e., when the AC plug has been unplugged), the state before unplugging the AC plug (POWER ON/OFF) is kept in memory.

SCHEMATIC DIAGRAM

Point ① (Pin21 or Pin22 of IC306)
 V : 2V/div H : 0.1μsec/div
 DC range 1 : 1 probe



Point ② (CH1 : Emitter of Q320)
 (CH2 : Pin23 of IC306)
 V : 5V/div H : 0.5sec/div
 DC range 1 : 1 probe



With the POWER switch turned ON, connect the power cord to the AC outlet.
 Disconnect the power cord from the AC outlet.
 (This waveform is not available by pushing the power switch ON and OFF.)

Interchangeable Parts at Manufacture Stage

| Part No. | Reference Parts Number | Parts Name |
|----------|------------------------|------------|
| 81 | | |
| 82 | 2006-338 | 25C1146(S) |
| 83 | 1331 | 25C1146(S) |
| 84 | 0312-315-318-319 | 25C1146(S) |
| 85 | 0304-305-306-309 | 25C1146(S) |
| 86 | 8320 | 25C1146(S) |
| 87 | 0304-305-314-316 | 25C1146(S) |
| 88 | 0201-202 | 25C1146(S) |

PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.

2SA870 (R, BL)
 2SA1207 (S, T)
 2SA1015 (Y)
 2SC2060 (P, Q, R)
 2SD400 (E, F)

2SA1115 (E, F)
 2SA9335 (Q, R)
 2SA1029A (Q, R, S)
 2SC1740S (R, S)
 2SC2603 (E, F)
 2SC3311A (Q, R, S)
 DTC144ES
 DTC114ES
 UN4211

2SD1913 (R, S)

1SS133
 HSS104TD
 MTZJ4.3B
 MTZJ4.7A
 MTZJ5.1C
 MTZJ5.2B
 MTZJ12.0C

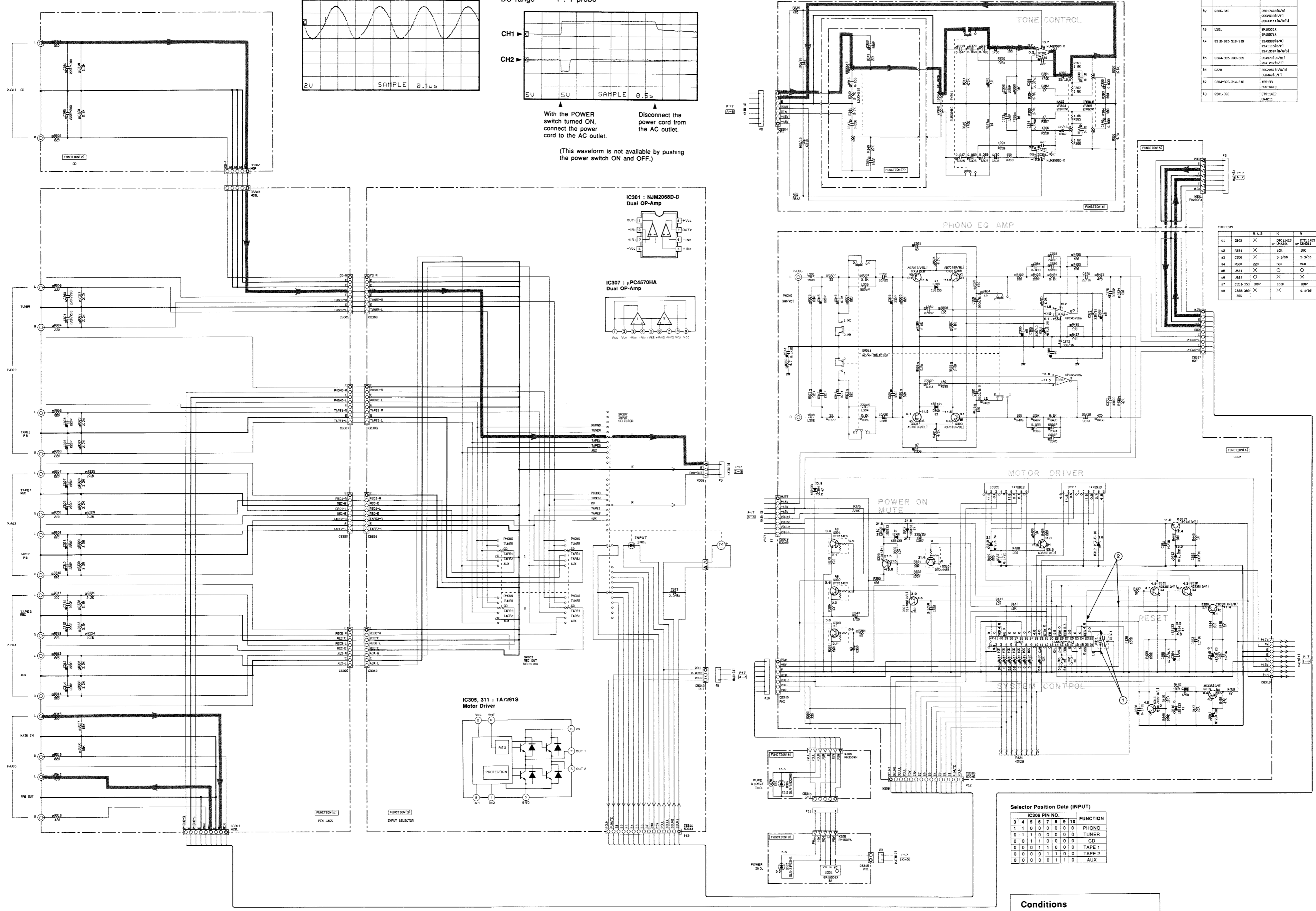
NJM2068D-D

μPC4570HA
 TA7291S

LC6520H

FUNCTION

| FUNCTION | S.A.B. | H | W |
|----------|----------|---|-----------|
| 81 | 0003 | X | DT1146(S) |
| 82 | 1001 | X | DT1146(S) |
| 83 | 0300 | X | DT1146(S) |
| 84 | 0300 | X | DT1146(S) |
| 85 | 0301 | X | DT1146(S) |
| 86 | 0301 | X | DT1146(S) |
| 87 | 0301-030 | X | DT1146(S) |
| 88 | 0301-030 | X | DT1146(S) |
| 89 | 0301-030 | X | DT1146(S) |



Selector Position Data (INPUT)

| IC306 PIN NO. | FUNCTION |
|---------------|----------|
| 3 | 1 |
| 4 | 1 |
| 5 | 1 |
| 6 | 1 |
| 7 | 1 |
| 8 | 1 |
| 9 | 1 |
| 10 | 1 |
| 11 | 0 |
| 12 | 0 |
| 13 | 0 |
| 14 | 0 |
| 15 | 0 |
| 16 | 0 |
| 17 | 0 |
| 18 | 0 |
| 19 | 0 |
| 20 | 0 |
| 21 | 0 |
| 22 | 0 |
| 23 | 0 |
| 24 | 0 |
| 25 | 0 |
| 26 | 0 |
| 27 | 0 |
| 28 | 0 |
| 29 | 0 |
| 30 | 0 |
| 31 | 0 |
| 32 | 0 |
| 33 | 0 |
| 34 | 0 |
| 35 | 0 |
| 36 | 0 |
| 37 | 0 |
| 38 | 0 |
| 39 | 0 |
| 40 | 0 |
| 41 | 0 |
| 42 | 0 |
| 43 | 0 |
| 44 | 0 |
| 45 | 0 |
| 46 | 0 |
| 47 | 0 |
| 48 | 0 |
| 49 | 0 |
| 50 | 0 |
| 51 | 0 |
| 52 | 0 |
| 53 | 0 |
| 54 | 0 |
| 55 | 0 |
| 56 | 0 |
| 57 | 0 |
| 58 | 0 |
| 59 | 0 |
| 60 | 0 |
| 61 | 0 |
| 62 | 0 |
| 63 | 0 |
| 64 | 0 |
| 65 | 0 |
| 66 | 0 |
| 67 | 0 |
| 68 | 0 |
| 69 | 0 |
| 70 | 0 |
| 71 | 0 |
| 72 | 0 |
| 73 | 0 |
| 74 | 0 |
| 75 | 0 |
| 76 | 0 |
| 77 | 0 |
| 78 | 0 |
| 79 | 0 |
| 80 | 0 |
| 81 | 0 |
| 82 | 0 |
| 83 | 0 |
| 84 | 0 |
| 85 | 0 |
| 86 | 0 |
| 87 | 0 |
| 88 | 0 |
| 89 | 0 |
| 90 | 0 |
| 91 | 0 |
| 92 | 0 |
| 93 | 0 |
| 94 | 0 |
| 95 | 0 |
| 96 | 0 |
| 97 | 0 |
| 98 | 0 |
| 99 | 0 |
| 100 | 0 |

- Conditions**
- FUNCTION → CD
 - REC OUT → CD
 - PURE DIRECT → ON
 - SPEAKERS → A : ON
B : OFF
 - VOLUME → minimum (∞)

* All voltage are measured with a 10MΩ V DC electric volt meter.
 * Schematic diagram is subject to change without notice.

| REMARKS | PARTS NAME | REMARKS | PARTS NAME |
|---------|----------------------------------|---------|---------------------------------|
| NO MARK | ELECTROLYTIC CAPACITOR | NO MARK | CARBON FILM RESISTOR 1/4W |
| ⊗ | TANTALUM CAPACITOR | ⊗ | CARBON FILM RESISTOR 1/2W |
| NR MARK | CERAMIC CAPACITOR | Δ | METAL OXIDE FILM RESISTOR |
| ⊙ | AXIAL LEAD CERAMIC CAPACITOR | □ | METAL FILM RESISTOR |
| ○ | POLYESTER FILM CAPACITOR | ▣ | FINE PITCH CARBON FILM RESISTOR |
| ● | POLYSTYRENE FILM CAPACITOR | ⊚ | CEMENT MOLDED RESISTOR |
| ⊖ | MICA CAPACITOR | ⊚ | SEMIVARIABLE RESISTOR |
| ⊕ | POLYPROPYLENE FILM CAPACITOR | ⊚ | ICP RESISTOR |
| ⊙ | SEMICONDUCTIVE CERAMIC CAPACITOR | | |

NOTICE

(J)..... Japanese model
 (U)..... U.S.A. model
 (C)..... Canadian model
 (A)..... Australian model
 (G)..... European model
 (B)..... British model
 (P)..... German model
 (S)..... PP model

SCHEMATIC DIAGRAM

REMARKS: CAPACITOR PARTS NAME

| | |
|---------|----------------------------------|
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊖ | TANTALUM CAPACITOR |
| ⊖ | METAL CERAMIC CAPACITOR |
| ⊖ | AXIAL LEAD CERAMIC CAPACITOR |
| ⊖ | POLYESTER FILM CAPACITOR |
| ⊖ | POLYSTYRENE FILM CAPACITOR |
| ⊖ | MICA CAPACITOR |
| ⊖ | POLYPROPYLENE FILM CAPACITOR |
| ⊖ | SEMICONDUCTIVE CERAMIC CAPACITOR |

REMARKS: RESISTOR PARTS NAME

| | |
|---------|----------------------------------|
| NO MARK | CARBON FILM RESISTOR (1/4W) |
| ⊖ | CARBON FILM RESISTOR (1/2W) |
| ⊖ | METAL OXIDE FILM RESISTOR |
| ⊖ | METAL FILM RESISTOR |
| ⊖ | METAL PLATE RESISTOR |
| ⊖ | THICK FROOF CARBON FILM RESISTOR |
| ⊖ | CEMENT MOUNTED RESISTOR |
| ⊖ | SEMI VARIABLE RESISTOR |
| ⊖ | CHIP RESISTOR |

NOTICE
 (J)..... Japanese model
 (U)..... U.S.A model
 (C)..... Canadian model
 (A)..... Australian model
 (G)..... European model
 (B)..... British model
 (R)..... General model
 (P)..... P.P. model

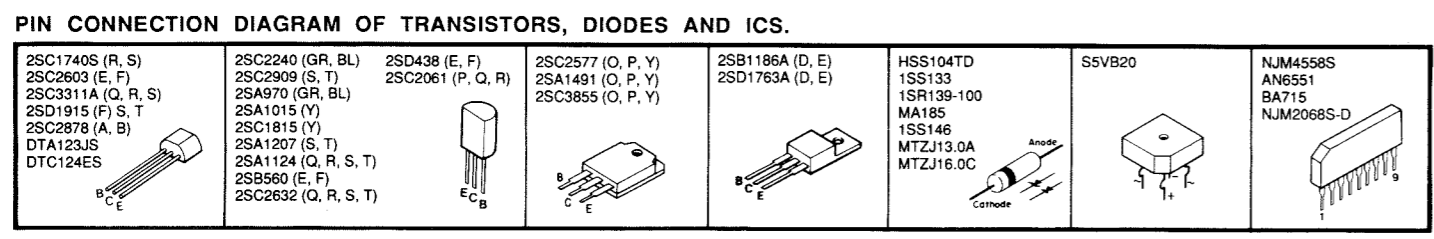
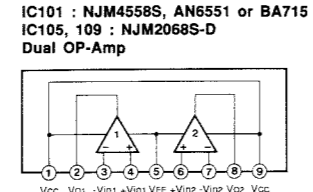
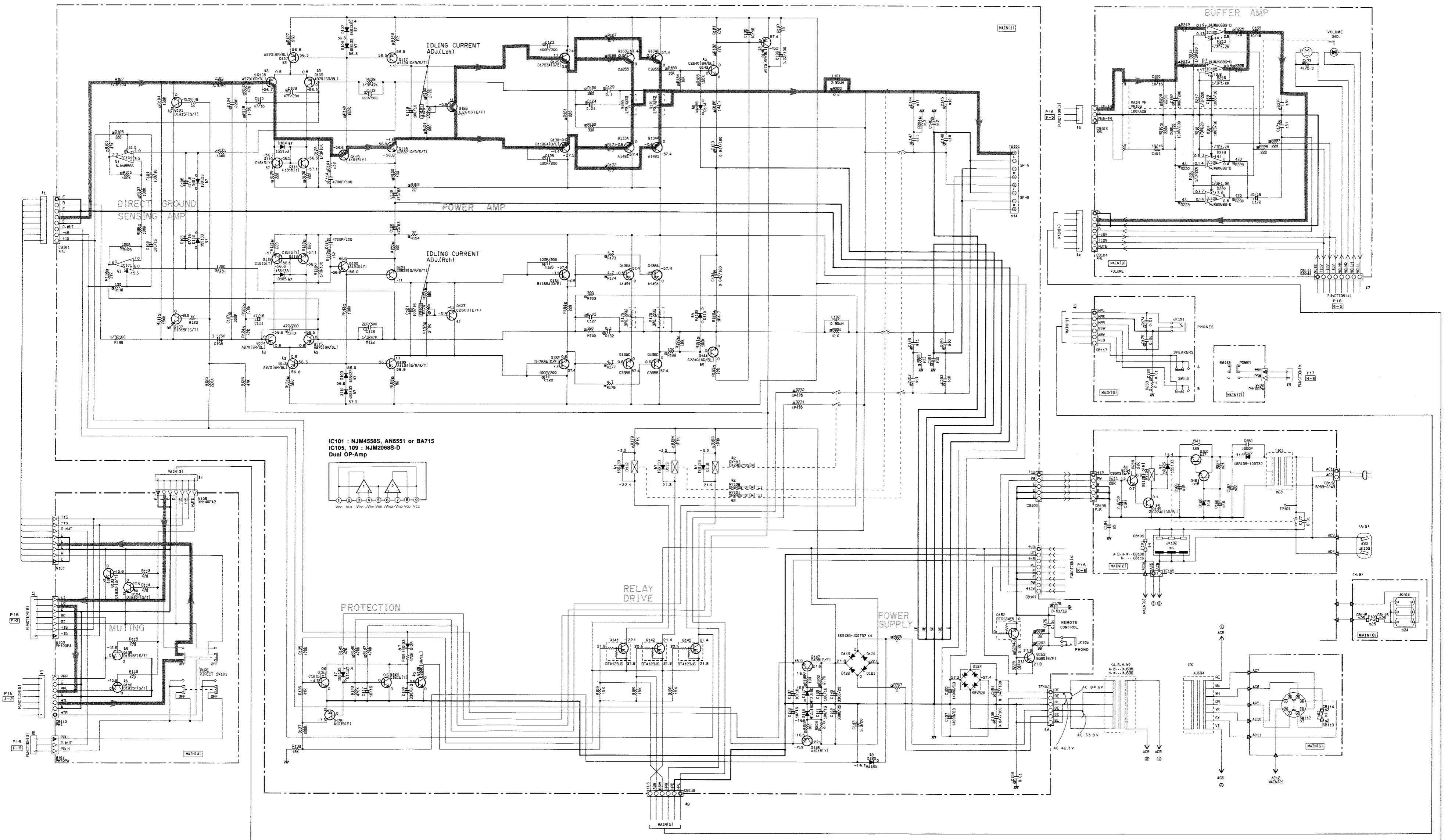
| R | A-B | H | W |
|-----|------------------|----------|-------------------------------------|
| R1 | F10P | 4.5A250V | X |
| R2 | CB113-114 | VP20850 | X |
| R3 | BM112 | VAB180 | X |
| R4 | F101 | 10A250V | S T4.0A250V S T4.0A250V S T4.0A250V |
| R5 | C184 | X | X |
| R6 | JK102 | V13780 | X |
| R7 | | | |
| R8 | TE102 | LA00234 | LA00234 |
| R10 | C145-146-150-153 | X | X |

| R | A-B | H | W |
|-----|------------------|-------------|---------|
| R11 | C144-147-149-152 | X | X |
| R12 | C145-151 | X | X |
| R13 | R204-205 | X | X |
| R14 | TE101 | VL82010 | VL82010 |
| R15 | | | |
| R16 | C185-188 | 10/16 | X |
| R17 | R150 | 287710/P/Y1 | X |
| R18 | R151 | 287710/P/Y1 | X |
| R19 | R126 | VT133M | X |
| R20 | | | |

| R | A-B | H | W |
|-----|-----------|----------|----------|
| R21 | R204 | 18K | X |
| R22 | C187 | 470/53 | 470/25 |
| R23 | T101 | KC082 | KC084 |
| R24 | JK104 | X | X |
| R25 | F103 | X | X |
| R26 | CB115-118 | X | X |
| R27 | | | |
| R28 | | | |
| R29 | J341 | X | X |
| R30 | JK113 | X | X |
| R31 | C170-171 | 220P/200 | 220P/200 |
| R32 | R41-142 | 330 | 330 |

Interchangeable Parts at Manufacture-Stage

| Mark | Reference Data Number | Part's Name |
|------|-----------------------|---|
| 41 | IC101 | NUM4558S AN6551 BA715 |
| 42 | RY101-103 | RY400-07M1-11 65P-322AP |
| 43 | G107-108-114-115-145 | 25A4870 (R/W/L) 25A1207 (S/T) |
| 44 | Q15-4 | 2SC1745 (R/S) 2SC2061 (R/S) 2SC3114 (R/S/S) 2SC3341 (R/W/L) 2SC2209 (S/T) |
| 45 | G101-106 | 2SD115 (S/T) 2SC470 (A/R) |
| 47 | D101-104-105-107-111 | 1SR153 1SR140 |
| 48 | D114-115-123 | MA185 1SS146 |



* All voltage are measured with a 10MΩ/V DC electric volt meter.
 * Schematic diagram is subject to change without notice.

PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the parts No. of the carbon resistors, refer to last page.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

| | | | |
|-------------|--------------------------------|------------|--------------------------------|
| C.A.EL.CHP | : CHIP ALUMI. ELECTROLYTIC CAP | L.EMIT | : LIGHT EMITTING MODULE |
| C.CE | : CERAMIC CAP | LED.DSPLY | : LED DISPLAY |
| C.CE.ARRAY | : CERAMIC CAP ARRAY | LED.INFRD | : LED, INFRARED |
| C.CE.CHP | : CHIP CERAMIC CAP | MODUL.RF | : MODULATOR, RF |
| C.CE.ML | : MULTILAYER CERAMIC CAP | PHOT.CPL | : PHOTO COUPLER |
| C.CE.M.CHP | : CHIP MULTILAYER CERAMIC CAP | PHOT.INTR | : PHOTO INTERRUPTER |
| C.CE.SAFETY | : RECOGNIZED CERAMIC CAP | PHOT.RFLCT | : PHOTO REFLECTOR |
| C.CE.TUBLR | : CERAMIC TUBULAR CAP | PIN.TEST | : PIN, TEST POINT |
| C.CE.SMI | : SEMI CONDUCTIVE CERAMIC CAP | PLST.RIVET | : PLASTIC RIVET |
| C.EL | : ELECTROLYTIC CAP | R.ARRAY | : RESISTOR ARRAY |
| C.MICA | : MICA CAP | R.CAR | : CARBON RESISTOR |
| C.ML.FLM | : MULTILAYER FILM CAP | R.CAR.CHP | : CHIP RESISTOR |
| C.MP | : METALLIZED PAPER CAP | R.CAR.FP | : FLAME PROOF CARBON RESISTOR |
| C.MYLAR | : MYLAR FILM CAP | R.FUS | : FUSABLE RESISTOR |
| C.MYLAR.ML | : MULTILAYER MYLAR FILM CAP | R.MTL.CHP | : CHIP METAL FILM RESISTOR |
| C.PAPER | : PAPER CAPACITOR | R.MTL.FLM | : METAL FILM RESISTOR |
| C.PLS | : POLYSTYRENE FILM CAP | R.MTL.OXD | : METAL OXIDE FILM RESISTOR |
| C.POL | : POLYESTER FILM CAP | R.MTL.PLAT | : METAL PLATE RESISTOR |
| C.POLY | : POLYETHYLENE FILM CAP | RSNR.CE | : CERAMIC RESONATOR |
| C.PP | : POLYPROPYLENE FILM CAP | RSNR.CRYS | : CRYSTAL RESONATOR |
| C.TNTL | : TANTALUM CAP | R.TW.CEM | : TWIN CEMENT FIXED RESISTOR |
| C.TNTL.CHP | : CHIP TANTALUM CAP | R.WW | : WIRE WOUND RESISTOR |
| C.TRIM | : TRIMMER CAP | SCR.BND.HD | : BIND HEAD B-TITE SCREW |
| CN | : CONNECTOR | SCR.BW.HD | : BW HEAD TAPPING SCREW |
| CN.BS.PIN | : CONNECTOR, BASE PIN | SCR.CUP | : CUP TITE SCREW |
| CN.CANNON | : CONNECTOR, CANNON | SCR.TERM | : SCREW TERMINAL |
| CN.DIN | : CONNECTOR, DIN | SCR.TR | : SCREW, TRANSISTOR |
| CN.FLAT | : CONNECTOR, FLAT CABLE | SUPRT.PCB | : SUPPORT, P.C.B. |
| CN.POST | : CONNECTOR, BASE POST | SURG.PRTCT | : SURGE PROTECTOR |
| COIL.MX.AM | : COIL, AM MIX | SW.TACT | : TACT SWITCH |
| COIL.AT.FM | : COIL, FM ANTENNA | SW.LEAF | : LEAF SWITCH |
| COIL.DT.FM | : COIL, FM DETECT | SW.LEVER | : LEVER SWITCH |
| COIL.MX.FM | : COIL, FM MIX | SW.MICRO | : MICRO SWITCH |
| COIL.OUTPT | : OUTPUT COIL | SW.PUSH | : PUSH SWITCH |
| DIOD.ARRAY | : DIODE ARRAY | SW.RT.ENC | : ROTARY ENCODER |
| DIODE.BRG | : DIODE BRIDGE | SW.RT.MTR | : ROTARY SWITCH WITH MOTOR |
| DIODE.CHP | : CHIP DIODE | SW.RT | : ROTARY SWITCH |
| DIODE.VAR | : VARACTOR DIODE | SW.SLIDE | : SLIDE SWITCH |
| DIOD.Z.CHP | : CHIP ZENER DIODE | TERM.SP | : SPEAKER TERMINAL |
| DIODE.ZENR | : ZENER DIODE | TERM.WRAP | : WRAPPING TERMINAL |
| DSCR.CE | : CERAMIC DISCRIMINATOR | THRMST.CHP | : CHIP THERMISTOR |
| FER.BEAD | : FERRITE BEADS | TR.CHP | : CHIP TRANSISTOR |
| FER.CORE | : FERRITE CORE | TR.DGT | : DIGITAL TRANSISTOR |
| FET.CHP | : CHIP FET | TR.DGT.CHP | : CHIP DIGITAL TRANSISTOR |
| FL.DSPLY | : FLUORESCENT DISPLAY | TRANS | : TRANSFORMER |
| FLTR.CE | : CERAMIC FILTER | TRANS.PULS | : PULSE TRANSFORMER |
| FLTR.COMB | : COMB FILTER MODULE | TRANS.PWR | : POWER TRANSFORMER ASS'y |
| FLTR.LC.RF | : LC FILTER ,EMI | TUNER.AM | : TUNER PACK, AM |
| GND.MTL | : GROUND PLATE | TUNER.FM | : TUNER PACK, FM |
| GND.TERM | : GROUND TERMINAL | TUNER.PK | : FRONT-END TUNER PACK |
| HOLDER.FUS | : FUSE HOLDER | VR | : ROTARY POTENTIOMETER |
| IC.PRTCT | : IC PROTECTOR | VR.MTR | : POTENTIOMETER WITH MOTOR |
| JUMPER.CN | : JUMPER CONNECTOR | VR.SW | : POTENTIOMETER WITH ROTARY SW |
| JUMPER.TST | : JUMPER, TEST POINT | VR.SLIDE | : SLIDE POTENTIOMETER |
| L.DTCT | : LIGHT DETECTING MODULE | VR.TRIM | : TRIMMER POTENTIOMETER |

Note) Those parts marked with "#" are not included in the P.C.B. ass'y.

MAIN P. C. B.

| Schm Ref. | PART NO. | Description | | |
|-----------|----------|-------------|-----------------|-------|
| * | VQ335400 | P.C.B. | MAIN (R) | |
| * | VQ335500 | P.C.B. | MAIN (AB) | |
| * | VQ335600 | P.C.B. | MAIN (H) | |
| * | VQ335700 | P.C.B. | MAIN (W) | |
| CB101 | VL845200 | CN | XH | 8P TE |
| CB103 | LB919030 | CN.BS.PIN | XH L-TYPE | 3P SE |
| CB104 | LB919070 | CN.BS.PIN | XH | 7P SE |
| CB105 | VP768100 | CN.BS.PIN | FJ | 5P TE |
| CB108 | VP206500 | HOLDER.FUS | EYF-52BC (ABHW) | |
| CB109 | VP206500 | HOLDER.FUS | EYF-52BC | |
| CB110 | VD005000 | CN.BS.PIN | PH i-TYPE | 7P TE |
| CB111 | VP682300 | CN | 52045 | 8P SE |
| CB112 | VE225700 | CN.BS.PIN | 2P | P=7.5 |
| CB113 | VP206500 | HOLDER.FUS | EYF-52BC (R) | |
| CB114 | VP206500 | HOLDER.FUS | EYF-52BC (R) | |
| CB115 | VP206500 | HOLDER.FUS | EYF-52BC (HW) | |
| CB116 | VP206500 | HOLDER.FUS | EYF-52BC (HW) | |
| CB117 | VA725600 | HOLDER | 6P | |
| CB118 | VA725600 | HOLDER | 6P | |
| CB119 | VP206500 | HOLDER.FUS | EYF-52BC (R) | |
| C101 | VG288900 | C.EL | 100uF | 25V |
| C102 | VG288900 | C.EL | 100uF | 25V |
| C103 | VG290700 | C.EL | 3.3uF | 50V |
| C104 | VK984200 | C.MYLAR | 220pF | 50V |
| C105 | VE742600 | C.EL | 47uF | 25V |
| C106 | VE742600 | C.EL | 47uF | 25V |
| C107 | VK984200 | C.MYLAR | 220pF | 50V |
| C108 | VG290700 | C.EL | 3.3uF | 50V |
| C109 | VK533800 | C.PP | 47pF | 200V |
| C110 | Vi532800 | C.EL | 47uF | 16V |
| C111 | Vi532800 | C.EL | 47uF | 16V |
| C112 | VK533800 | C.PP | 47pF | 200V |
| C113 | FU351220 | C.MICA | 22pF | 500V |
| C114 | UT453470 | C.PP | 4700pF | 100V |
| C115 | UT453470 | C.PP | 4700pF | 100V |
| C116 | FU351220 | C.MICA | 22pF | 500V |
| C117 | VG290900 | C.EL | 10uF | 50V |
| C118 | VG288900 | C.EL | 100uF | 25V |
| C119 | VF807200 | C.EL | 470uF | 63V |
| C120 | VF807200 | C.EL | 470uF | 63V |
| C121 | VG288900 | C.EL | 100uF | 25V |
| C122 | VE016700 | C.EL | 330uF | 6.3V |
| C123 | VK533900 | C.PP | 100pF | 200V |
| C124 | VE324800 | C.MYLAR.ML | 0.01uF | 50V |
| C125 | VK533900 | C.PP | 100pF | 200V |
| C126 | VK533900 | C.PP | 100pF | 200V |
| C127 | VE324800 | C.MYLAR.ML | 0.01uF | 50V |
| C128 | VK533900 | C.PP | 100pF | 200V |
| C129 | VE326000 | C.MYLAR.ML | 0.1uF | 50V |
| C132 | VE326000 | C.MYLAR.ML | 0.1uF | 50V |
| C133 | VK534400 | C.PP | 0.047uF | 100V |
| C134 | VK534400 | C.PP | 0.047uF | 100V |
| C135 | VG290900 | C.EL | 10uF | 50V |

* New Parts

| Schm Ref. | PART NO. | Description | | |
|-----------|----------|-------------|---------|-------------|
| C136 | UJ895220 | C.EL | 0.22uF | 100V |
| C137 | VG290900 | C.EL | 10uF | 50V |
| C138 | VG290900 | C.EL | 10uF | 50V |
| C139 | VG288900 | C.EL | 100uF | 25V |
| C140 | VG289400 | C.EL | 3300uF | 25V |
| C141 | VG288900 | C.EL | 100uF | 25V |
| C142 | VG289400 | C.EL | 3300uF | 25V |
| C143 | VG290700 | C.EL | 3.3uF | 50V |
| C144 | UT453390 | C.PP | 3900pF | 100V (W) |
| C145 | VM707200 | C.PP | 0.012uF | 100V (W) |
| C146 | VK534200 | C.PP | 0.022uF | 100V (W) |
| C147 | UT453390 | C.PP | 3900pF | 100V (W) |
| C148 | VM707200 | C.PP | 0.012uF | 100V (W) |
| C149 | UT453390 | C.PP | 3900pF | 100V (W) |
| C150 | VM707200 | C.PP | 0.012uF | 100V (W) |
| C151 | VK534200 | C.PP | 0.022uF | 100V (W) |
| C152 | UT453390 | C.PP | 3900pF | 100V (W) |
| C153 | VM707200 | C.PP | 0.012uF | 100V (W) |
| C154 | VK534400 | C.PP | 0.047uF | 100V |
| C155 | VL715300 | C.EL | 14000uF | 63V |
| C156 | VK534400 | C.PP | 0.047uF | 100V |
| C157 | VL715300 | C.EL | 14000uF | 63V |
| * C159 | Vi716700 | C.MYLAR | 0.01uF | 50V |
| C160 | VQ082700 | C.EL | 10uF | 16V |
| C161 | VQ082700 | C.EL | 10uF | 16V |
| C162 | VK533900 | C.PP | 100pF | 200V |
| C163 | VG779100 | C.EL | 1000uF | 16V |
| C164 | VG779100 | C.EL | 1000uF | 16V |
| C165 | VK533900 | C.PP | 100pF | 200V |
| C166 | VG290900 | C.EL | 10uF | 50V (R) |
| C167 | VG289200 | C.EL | 470uF | 25V (ABHW) |
| C167 | VK347900 | C.EL | 470uF | 63V (R) |
| C168 | VG290900 | C.EL | 10uF | 50V (R) |
| C169 | VG290900 | C.EL | 10uF | 50V |
| C170 | VK534000 | C.PP | 220pF | 200V (RABH) |
| C170 | VL883800 | C.PP | 2200pF | 100V (W) |
| C171 | VK534000 | C.PP | 220pF | 200V (RABH) |
| C171 | VL883800 | C.PP | 2200pF | 100V (W) |
| C172 | VG290900 | C.EL | 10uF | 50V |
| C173 | VN508100 | C.EL | 47uF | 6.3V |
| C174 | UA654100 | C.MYLAR | 0.01uF | 50V |
| C175 | UA654100 | C.MYLAR | 0.01uF | 50V |
| C176 | UA654100 | C.MYLAR | 0.01uF | 50V |
| C177 | Fi384100 | C.CE.SAFTY | 0.01uF | 400V |
| C178 | VF467300 | C.CE.TUBLR | 0.01uF | 16V |
| C179 | UG444100 | C.CE | 0.01uF | 50V |
| C180 | FG213100 | C.CE | 1000pF | 50V |
| C181 | VJ839200 | C.EL | 2.2uF | 50V |
| C184 | FZ005880 | C.CE.ML | 0.1uF | 25V (HW) |
| D101 | iF004600 | DIODE | 1SS133 | |
| D102 | iF004600 | DIODE | 1SS133 | |
| D104 | iF004600 | DIODE | 1SS133 | |
| D105 | iF004600 | DIODE | 1SS133 | |

* New Parts

MAIN P. C. B.

| Schm Ref. | PART NO. | Description | |
|-----------|----------|-------------|------------------|
| D107 | iF004600 | DIODE | 1SS133 |
| D108 | iF004600 | DIODE | 1SS133 |
| D109 | iF004600 | DIODE | 1SS133 |
| D110 | iF004600 | DIODE | 1SS133 |
| D111 | iF004600 | DIODE | 1SS133 |
| D112 | iF004600 | DIODE | 1SS133 |
| D113 | iF004600 | DIODE | 1SS133 |
| D114 | VC398400 | DIODE | MA185 |
| D115 | VC398400 | DIODE | MA185 |
| D116 | iF004600 | DIODE | 1SS133 |
| D117 | VG441200 | DIODE.ZENR | MTZJ16C 16V |
| D118 | VG441200 | DIODE.ZENR | MTZJ16C 16V |
| D119 | VH770800 | DIODE | 1SR139-100 T-32 |
| D120 | VH770800 | DIODE | 1SR139-100 T-32 |
| D121 | VH770800 | DIODE | 1SR139-100 T-32 |
| D122 | VH770800 | DIODE | 1SR139-100 T-32 |
| D123 | VC398400 | DIODE | MA185 |
| D124 | VM702000 | DIODE.BRG | S5VB20 3.5A 200V |
| D125 | iF004600 | DIODE | 1SS133 |
| D126 | VG440400 | DIODE.ZENR | MTZJ13A 13V(R) |
| D127 | VH770800 | DIODE | 1SR139-100 T-32 |
| D128 | iF004600 | DIODE | 1SS133 |
| F101 | KB001490 | FUSE | 10A 250V(R) |
| F101 | KB003100 | FUSE | T4.0A 250V(ABHW) |
| F102 | KB000390 | FUSE | T4.5A 250V(R) |
| F103 | KB000690 | FUSE | T2.5A 250V(HW) |
| IC101 | iG076800 | IC | NJM4558S |
| IC105 | XE322001 | IC | NJM2068S-D |
| IC109 | XE322001 | IC | NJM2068S-D |
| JK101 | LB301720 | JACK.PHONE | M1669-A |
| JK102 | Vi327500 | OUTLET.AC | 3P(R) |
| JK104 | VP728600 | OUTLET.AC | 3P(HW) |
| JK105 | VJ726800 | JACK.MNI | |
| L101 | VC664100 | COIL | 0.95uH |
| L102 | VC664100 | COIL | 0.95uH |
| Q101 | VK432900 | TR | 2SD1915F S,T |
| Q102 | VK432900 | TR | 2SD1915F S,T |
| Q103 | VK432900 | TR | 2SD1915F S,T |
| Q104 | VK432900 | TR | 2SD1915F S,T |
| Q105 | VK432900 | TR | 2SD1915F S,T |
| Q106 | VK432900 | TR | 2SD1915F S,T |
| Q107 | iA097000 | TR | 2SA970 GR,BL |
| Q108 | iA097000 | TR | 2SA970 GR,BL |
| Q109 | iA097000 | TR | 2SA970 GR,BL |
| Q110 | iC1815C0 | TR | 2SC1815 Y |
| Q111 | iC1815C0 | TR | 2SC1815 Y |
| Q112 | iC1815C0 | TR | 2SC1815 Y |
| Q113 | iC1815C0 | TR | 2SC1815 Y |
| Q114 | iA097000 | TR | 2SA970 GR,BL |
| Q115 | iA097000 | TR | 2SA970 GR,BL |
| Q116 | iA097000 | TR | 2SA970 GR,BL |
| Q117 | VL808200 | TR | 2SA1124 Q,R,S,T |
| Q118 | VL808300 | TR | 2SC2632 Q,R,S,T |

* New Parts

| Schm Ref. | PART NO. | Description | |
|-----------|----------|-------------|------------------|
| Q119 | iA101521 | TR | 2SA1015 Y |
| Q120 | iA101521 | TR | 2SA1015 Y |
| Q121 | VL808300 | TR | 2SC2632 Q,R,S,T |
| Q122 | VL808200 | TR | 2SA1124 Q,R,S,T |
| Q123 | iC1815C0 | TR | 2SC1815 Y |
| Q124 | iC1815C0 | TR | 2SC1815 Y |
| Q125 | iA101521 | TR | 2SA1015 Y |
| Q126 | iC260320 | TR | 2SC2603 E,F |
| Q127 | iC260320 | TR | 2SC2603 E,F |
| Q128 | iC224030 | TR | 2SC2240 GR,BL |
| Q129 | VL582600 | TR | 2SD1763A D,E |
| Q130 | VL582500 | TR | 2SB1186A D,E |
| Q131 | VL582500 | TR | 2SB1186A D,E |
| Q132 | VL582600 | TR | 2SD1763A D,E |
| # Q133 | iX620970 | TR | 2SA1491 O,P,Y |
| # Q133 | iX620980 | TR | 2SC3855 O,P,Y |
| # Q134 | iX620970 | TR | 2SA1491 O,P,Y |
| # Q134 | iX620980 | TR | 2SC3855 O,P,Y |
| Q141 | VL542700 | TR.DGT | DTA123JS |
| Q142 | VL542700 | TR.DGT | DTA123JS |
| Q143 | iC224030 | TR | 2SC2240 GR,BL |
| Q144 | iC224030 | TR | 2SC2240 GR,BL |
| Q145 | VL542700 | TR.DGT | DTA123JS |
| Q146 | iA097000 | TR | 2SA970 GR,BL |
| Q147 | iD043820 | TR | 2SD438 E,F |
| Q148 | iA101521 | TR | 2SA1015 Y |
| Q149 | iC224030 | TR | 2SC2240 GR,BL |
| Q150 | iC257700 | TR | 2SC2577 O,P,Y(R) |
| Q151 | iC260320 | TR | 2SC2603 E,F(R) |
| Q152 | VF331200 | TR.DGT | DTC124ES |
| Q153 | iB056020 | TR | 2SB560 E,F |
| Q154 | iC260320 | TR | 2SC2603 E,F |
| R105 | HV455100 | R.CAR.FP | 100Ω 1/4W |
| R110 | HV455100 | R.CAR.FP | 100Ω 1/4W |
| R127 | HV455560 | R.CAR.FP | 560Ω 1/4W |
| R129 | HV455220 | R.CAR.FP | 220Ω 1/4W |
| R130 | HV455220 | R.CAR.FP | 220Ω 1/4W |
| R131 | HV455220 | R.CAR.FP | 220Ω 1/4W |
| R132 | HV455220 | R.CAR.FP | 220Ω 1/4W |
| R134 | HV455560 | R.CAR.FP | 560Ω 1/4W |
| R149 | HV454820 | R.CAR.FP | 82Ω 1/4W |
| R150 | HV456220 | R.CAR.FP | 2.2KΩ 1/4W |
| R151 | HV455680 | R.CAR.FP | 680Ω 1/4W |
| R152 | HV455100 | R.CAR.FP | 100Ω 1/4W |
| R153 | HV454220 | R.CAR.FP | 22Ω 1/4W |
| R154 | HV454220 | R.CAR.FP | 22Ω 1/4W |
| R155 | HV455100 | R.CAR.FP | 100Ω 1/4W |
| R156 | HV455680 | R.CAR.FP | 680Ω 1/4W |
| R157 | HV456220 | R.CAR.FP | 2.2KΩ 1/4W |
| R158 | HV454820 | R.CAR.FP | 82Ω 1/4W |
| R161 | HV455220 | R.CAR.FP | 220Ω 1/4W |
| R164 | HV455220 | R.CAR.FP | 220Ω 1/4W |
| R167 | HV453470 | R.CAR.FP | 4.7Ω 1/4W |

* New Parts

MAIN & FUNCTION P. C. B.

| Schm Ref. | PART NO. | Description |
|-----------|----------|---------------------------|
| R168 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R169 | VJ695400 | R.WW 0.22Ωx2 3W |
| R170 | VJ695400 | R.WW 0.22Ωx2 3W |
| R171 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R172 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R173 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R174 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R175 | VJ695400 | R.WW 0.22Ωx2 3W |
| R176 | VJ695400 | R.WW 0.22Ωx2 3W |
| R177 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R178 | HV453470 | R.CAR.FP 4.7Ω 1/4W |
| R179 | HL316100 | R.MTL.OXD 1KΩ 1W |
| R186 | VP939700 | R.MTL.OXD 4.7Ω 1W |
| R189 | VP939700 | R.MTL.OXD 4.7Ω 1W |
| R194 | HL316100 | R.MTL.OXD 1KΩ 1W |
| R195 | HL316100 | R.MTL.OXD 1KΩ 1W |
| R200 | HV453220 | R.CAR.FP 2.2Ω 1/4W |
| R201 | HV453220 | R.CAR.FP 2.2Ω 1/4W |
| R204 | HV453220 | R.CAR.FP 2.2Ω 1/4W(W) |
| R205 | HV453220 | R.CAR.FP 2.2Ω 1/4W(W) |
| R206 | HV453100 | R.CAR.FP 1Ω 1/4W |
| R207 | HV453100 | R.CAR.FP 1Ω 1/4W |
| R212 | HU574470 | R.MTL.FLM 47Ω 1/4W |
| R215 | HU574470 | R.MTL.FLM 47Ω 1/4W |
| R220 | HU574470 | R.MTL.FLM 47Ω 1/4W |
| R223 | HU574470 | R.MTL.FLM 47Ω 1/4W |
| R227 | HV455220 | R.CAR.FP 220Ω 1/4W |
| R228 | HV455220 | R.CAR.FP 220Ω 1/4W |
| R231 | HL315470 | R.MTL.OXD 470Ω 1W |
| R232 | HL315470 | R.MTL.OXD 470Ω 1W |
| R236 | HV454390 | R.CAR.FP 39Ω 1/4W |
| R237 | HV454390 | R.CAR.FP 39Ω 1/4W |
| RY101 | VK438300 | RELAY DH24D2-OTM-II |
| RY102 | VK438300 | RELAY DH24D2-OTM-II |
| RY103 | VP378900 | RELAY DC DT24D2-OSM |
| RY104 | VD506000 | RELAY AC DG12D1-OM |
| SW101 | VL544900 | SW.PUSH SPUL 4-2 |
| SW112 | VA961800 | VOLT.SELCT ESE-37247-F(R) |
| * SW113 | VQ388600 | SW.PUSH SPUN12 |
| SW115 | VL545200 | SW.PUSH SPUN 2-2 |
| T101 | XC082A00 | TRANS.PWR (R) |
| T101 | XC084A00 | TRANS.PWR (ABHW) |
| TE101 | VL920100 | TERM.SP 8P (RABW) |
| TE101 | VL920200 | TERM.SP 8P (H) |
| TE102 | LA002340 | TERM.WRAP 5P i-TYPE (RAB) |
| TE102 | VQ656600 | TERM.WRAP 6P i-755NA (HW) |
| TE105 | LA002140 | TERM.WRAP 2P i-TYPE P=10 |
| TP101 | VB856800 | PIN.TEST IPS-1169 |
| VR101 | VJ692800 | VR.TRIM B470Ω |
| VR102 | VJ692800 | VR.TRIM B470Ω |
| * VR103 | VQ457200 | VR A100KΩ |
| | VJ828000 | PIN IMSA-6024-03E |
| | BB071360 | SCR_TERM 8.3x13 |

* New Parts

| Schm Ref. | PART NO. | Description |
|-----------|----------|---------------------------|
| | BB070700 | GND.MTL |
| * | VQ335800 | P.C.E. FUNCTION (RAB) |
| * | VQ335900 | P.C.E. FUNCTION (H) |
| * | VQ336000 | P.C.E. FUNCTION (W) |
| CB302 | VA252300 | CN MQ 5P |
| CB304 | VD005000 | CN.BS.PIN PH i-TYPE 7P TE |
| CB305 | VA725800 | HOLDER 8P |
| CB306 | VA725800 | HOLDER 8P |
| CB307 | VA725800 | HOLDER 8P |
| CB308 | VA725800 | HOLDER 8P |
| CB309 | VA725800 | HOLDER 8P |
| CB310 | VA725800 | HOLDER 8P |
| CB311 | VM929900 | CN.BS.PIN 52044 15P TE |
| CB312 | VD004600 | CN.BS.PIN PH i-TYPE 3P TE |
| CB313 | VD005000 | CN.BS.PIN PH i-TYPE 7P TE |
| CB314 | VD004800 | CN.BS.PIN PH i-TYPE 5P TE |
| CB315 | VD004500 | CN.BS.PIN PH i-TYPE 2P TE |
| CB316 | VM859600 | CN.BS.PIN 52045 15P TE |
| CB317 | VB994900 | CN MQ 9P |
| CB319 | VP682200 | CN 52045 8P TE |
| CB320 | VA725800 | HOLDER 8P |
| CB321 | VA725800 | HOLDER 8P |
| C301 | VK534000 | C.PP 220pF 200V |
| C302 | VK534000 | C.PP 220pF 200V |
| C303 | VK534000 | C.PP 220pF 200V |
| C304 | VK534000 | C.PP 220pF 200V |
| C305 | VG278400 | C.CE.TUBLR 220pF 50V |
| C306 | VG278400 | C.CE.TUBLR 220pF 50V |
| C307 | VG278400 | C.CE.TUBLR 220pF 50V |
| C308 | VG278400 | C.CE.TUBLR 220pF 50V |
| C309 | VG278400 | C.CE.TUBLR 220pF 50V |
| C310 | VG278400 | C.CE.TUBLR 220pF 50V |
| C311 | VG278400 | C.CE.TUBLR 220pF 50V |
| C312 | VG278400 | C.CE.TUBLR 220pF 50V |
| C313 | VG278400 | C.CE.TUBLR 220pF 50V |
| C314 | VG278400 | C.CE.TUBLR 220pF 50V |
| C315 | VG288900 | C.EL 100uF 25V |
| C316 | UA654560 | C.MYLAR 0.056uF 50V |
| C317 | UA654560 | C.MYLAR 0.056uF 50V |
| C318 | VG288900 | C.EL 100uF 25V |
| C319 | UA654470 | C.MYLAR 0.047uF 50V |
| C320 | UA654680 | C.MYLAR 0.068uF 50V |
| C321 | UA654680 | C.MYLAR 0.068uF 50V |
| C322 | VG290500 | C.EL 1uF 50V |
| C323 | UA652680 | C.MYLAR 680pF 50V |
| C324 | UA652680 | C.MYLAR 680pF 50V |
| C325 | UA654470 | C.MYLAR 0.047uF 50V |
| C326 | UA654680 | C.MYLAR 0.068uF 50V |
| C327 | UA654680 | C.MYLAR 0.068uF 50V |
| C328 | VG290500 | C.EL 1uF 50V |

* New Parts

FUNCTION P. C. B.

| Schm Ref. | PART NO. | Description |
|-----------|----------|----------------------------|
| C330 | VF466700 | C.CE.TUBLR 47pF 50V |
| C331 | VG290600 | C.EL 2.2uF 50V |
| C332 | UA652220 | C.MYLAR 220pF 50V |
| C333 | UA652220 | C.MYLAR 220pF 50V |
| C334 | VG290600 | C.EL 2.2uF 50V |
| C335 | VF466700 | C.CE.TUBLR 47pF 50V |
| C337 | VG291000 | C.EL 22uF 50V |
| C338 | UA655120 | C.MYLAR 0.12uF 50V |
| C339 | UA654330 | C.MYLAR 0.033uF 50V |
| C340 | UA654330 | C.MYLAR 0.033uF 50V |
| C341 | UA655120 | C.MYLAR 0.12uF 50V |
| C342 | VG291000 | C.EL 22uF 50V |
| C343 | VD916400 | C.EL 2.2uF 50V |
| C344 | VD930900 | C.CE.SMI 0.1uF 25V |
| C345 | VG278400 | C.CE.TUBLR 220pF 50V |
| C346 | UA654100 | C.MYLAR 0.01uF 50V |
| C347 | VG278400 | C.CE.TUBLR 220pF 50V |
| C348 | UA654100 | C.MYLAR 0.01uF 50V |
| C349 | VG722100 | C.EL 1uF 50V |
| C350 | VG290700 | C.EL 3.3uF 50V(HW) |
| C351 | VF466800 | C.CE.TUBLR 100pF 50V(RABH) |
| C351 | VG278100 | C.CE.TUBLR 120pF 50V(W) |
| C352 | VG290900 | C.EL 10uF 50V |
| C353 | VG278600 | C.CE.TUBLR 330pF 50V |
| C354 | VG278600 | C.CE.TUBLR 330pF 50V |
| C355 | VG290900 | C.EL 10uF 50V |
| C356 | VF466800 | C.CE.TUBLR 100pF 50V(RABH) |
| C356 | VG278100 | C.CE.TUBLR 120pF 50V(W) |
| C357 | VM758800 | C.EL 330uF 25V |
| C358 | UM216330 | C.EL 3.3uF 50V |
| C359 | Vi460900 | C.EL 2200uF 6.3V |
| C360 | UA653270 | C.MYLAR 2700pF 50V |
| C361 | UA653270 | C.MYLAR 2700pF 50V |
| C362 | Vi460900 | C.EL 2200uF 6.3V |
| C364 | UA654330 | C.MYLAR 0.033uF 50V |
| C365 | VG288900 | C.EL 100uF 25V |
| C366 | UA654330 | C.MYLAR 0.033uF 50V |
| C367 | VD930900 | C.CE.SMI 0.1uF 25V |
| C368 | UA653240 | C.MYLAR 2400pF 50V |
| C369 | UA653680 | C.MYLAR 6800pF 50V |
| C370 | VG291000 | C.EL 22uF 50V |
| C371 | VG287800 | C.EL 330uF 16V |
| C372 | VG287800 | C.EL 330uF 16V |
| C373 | VG291000 | C.EL 22uF 50V |
| C374 | UA653680 | C.MYLAR 6800pF 50V |
| C375 | UA653240 | C.MYLAR 2400pF 50V |
| C376 | UA653330 | C.MYLAR 3300pF 50V |
| C377 | UA653330 | C.MYLAR 3300pF 50V |
| C380 | VD930900 | C.CE.SMI 0.1uF 25V |
| C381 | VG290900 | C.EL 10uF 50V |
| C382 | VG287800 | C.EL 330uF 16V |
| C383 | VG290900 | C.EL 10uF 50V |
| C384 | VD930900 | C.CE.SMI 0.1uF 25V |

* New Parts

| Schm Ref. | PART NO. | Description |
|-----------|----------|--------------------------|
| C385 | VF992600 | C.EL 4700uF 5.5V |
| C386 | VG290500 | C.EL 1uF 50V |
| C387 | VG290900 | C.EL 10uF 50V |
| C388 | VD930900 | C.CE.SMI 0.1uF 25V(W) |
| C389 | VD930900 | C.CE.SMI 0.1uF 25V(W) |
| C390 | VD930900 | C.CE.SMI 0.1uF 25V(W) |
| D302 | VF402500 | LED(or) SLR-34DC3H3 |
| D303 | Vi013600 | LED(re) SLR-34VC3H3 |
| D304 | iF004600 | DIODE 1SS133 |
| D305 | iF004600 | DIODE 1SS133 |
| D306 | iF004600 | DIODE 1SS133 |
| D307 | iF004600 | DIODE 1SS133 |
| D308 | iF004600 | DIODE 1SS133 |
| D309 | iF004600 | DIODE 1SS133 |
| D310 | VG437000 | DIODE.ZENR MTZJ4.7A 4.7V |
| D311 | VG438000 | DIODE.ZENR MTZJ6.2B 6.2V |
| D312 | VG437500 | DIODE.ZENR MTZJ5.1C 5.1V |
| D313 | VG440300 | DIODE.ZENR MTZJ12C 12V |
| D314 | iF004600 | DIODE 1SS133 |
| D315 | VG438000 | DIODE.ZENR MTZJ6.2B 6.2V |
| D316 | iF004600 | DIODE 1SS133 |
| D317 | VG436800 | DIODE.ZENR MTZJ4.3B 4.3V |
| IC301 | XA987001 | IC NUM2068D-D |
| IC305 | XF557A00 | IC TA7291S |
| IC306 | XM088B00 | IC LC6520H-4B14 |
| IC307 | XB247301 | IC uPC4570HA |
| IC311 | XF557A00 | IC TA7291S |
| L301 | VF541100 | COIL 15uH |
| L302 | VF541100 | COIL 15uH |
| L303 | VB056900 | COIL 220uH |
| L304 | VB056900 | COIL 220uH |
| PJ301 | VG731500 | JACK.PIN 2P |
| PJ302 | VL552800 | JACK.PIN 4P |
| PJ303 | VL552800 | JACK.PIN 4P |
| PJ304 | VL552800 | JACK.PIN 4P |
| PJ305 | VL552800 | JACK.PIN 4P |
| PJ306 | LB202260 | JACK.PIN 2P |
| Q301 | VD678700 | TR.DGT DTC114ES |
| Q302 | VD678700 | TR.DGT DTC114ES |
| Q303 | VD678700 | TR.DGT DTC114ES(HW) |
| Q304 | iA097000 | TR 2SA970 GR,BL |
| Q305 | iA097000 | TR 2SA970 GR,BL |
| Q306 | iA101521 | TR 2SA1015 Y |
| Q307 | iC174020 | TR 2SC1740S R,S |
| Q308 | iA097000 | TR 2SA970 GR,BL |
| Q309 | iA097000 | TR 2SA970 GR,BL |
| Q310 | VG722000 | TR.DGT DTC144ES |
| Q312 | iA093320 | TR 2SA933S Q,R |
| Q315 | iA093320 | TR 2SA933S Q,R |
| Q316 | iC174020 | TR 2SC1740S R,S |
| Q317 | VC407900 | TR 2SD1913 R,S |
| Q318 | iA093320 | TR 2SA933S Q,R |
| Q319 | iA093320 | TR 2SA933S Q,R |

* New Parts

FUNCTION P. C. B.

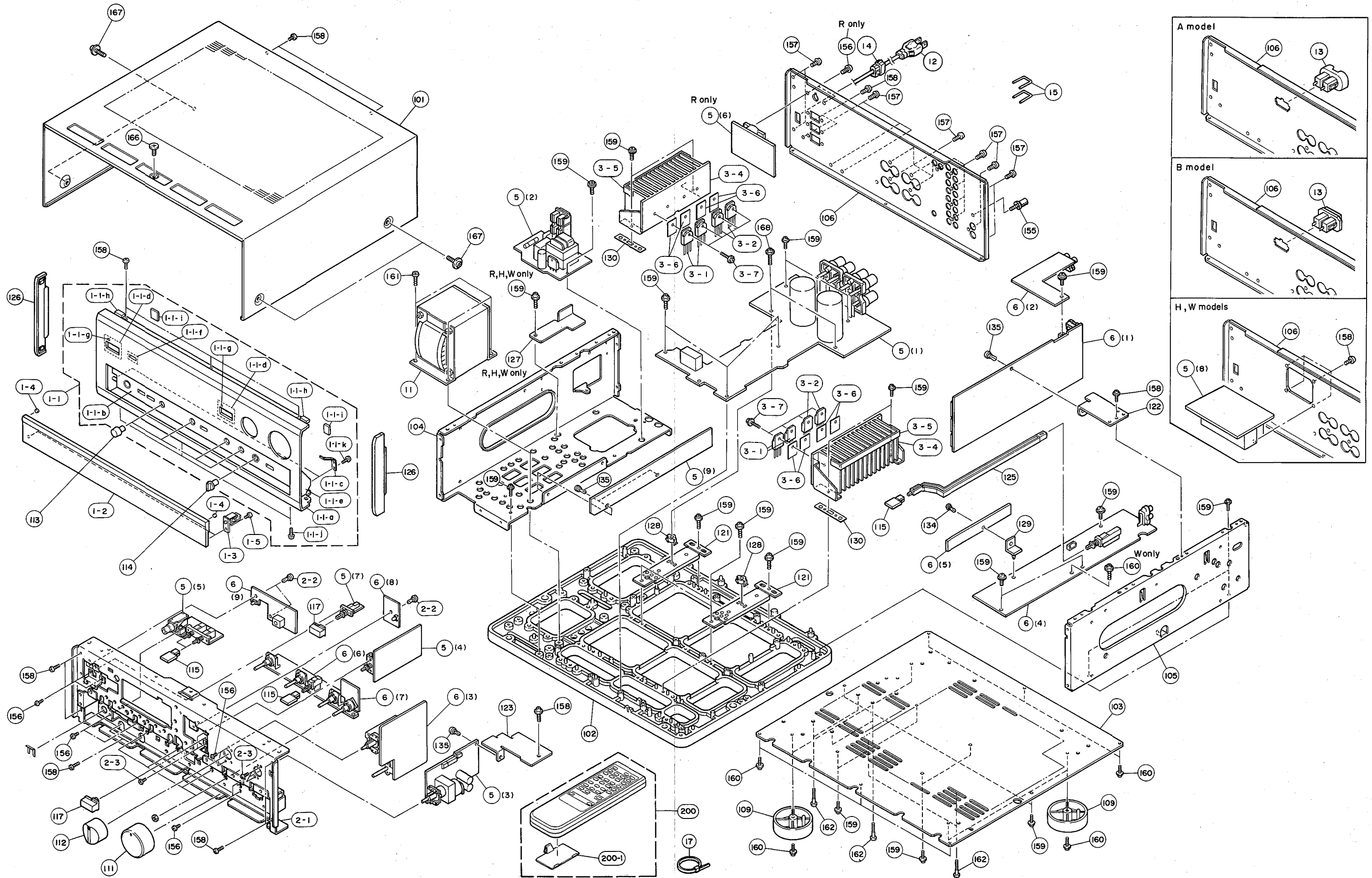
| Schm Ref. | PART NO. | Description |
|-----------|----------|----------------------------|
| Q320 | iC206010 | TR 2SC2060 P,Q,R |
| R408 | HV454100 | R.CAR.FP 10Ω 1/4W |
| R421 | VF066600 | R.ARRAY EXB-F9E-473J |
| R422 | HV455100 | R.CAR.FP 100Ω 1/4W |
| R423 | HV455100 | R.CAR.FP 100Ω 1/4W |
| R426 | HV455100 | R.CAR.FP 100Ω 1/4W |
| R427 | HV455100 | R.CAR.FP 100Ω 1/4W |
| SW301 | KA805120 | SW.PUSH SUN192H |
| * SW303 | VQ291800 | SW.RT SRRZS4 4/6 |
| SW307 | VJ779400 | SW.RT |
| SW311 | VK333500 | SW.PUSH SPUN19 6-2 |
| U301 | VF926500 | L.DTCT GP1U501X |
| * VR301 | VP898400 | VR A100KΩ |
| * VR302 | VQ400100 | VR MN00KΩ |
| * VR304 | VQ291900 | VR B20KΩ |
| * VR305 | VQ292000 | VR W20KΩ |
| * W307 | VQ292100 | CN.FLAT 8P 140mm |
| * W308 | VQ212000 | CN.FLAT 15P 140mm |
| XL301 | VB759100 | RSNR.CE 4MHz |
| | VB966900 | CN IMSA-6024 |
| | BB071360 | SCR.TERM 8.3x13 |
| | VN985700 | LUG.GND MEP10359 #12E07(W) |

* New Parts

EXPLODED VIEW

1
2
3
4
5
6

A B C D E F G H



MECHANICAL PARTS Note) Ø : Diameter

| Ref. No. | PART NO. | Description | Remarks | Markets |
|----------|----------|------------------------|----------------|-------------|
| * 1-1 | VQ336200 | FRONT PANEL ASS'y | BL | |
| * 1-1 | VQ336300 | FRONT PANEL ASS'y | TI | |
| * 1-1-a | VQ157700 | FRONT PANEL | BL | |
| * 1-1-a | VQ157800 | FRONT PANEL | TI | |
| * 1-1-b | VQ157900 | PLATE, SEALING | BL | |
| * 1-1-b | VQ158000 | PLATE, SEALING | TI | |
| 1-1-c | VJ888200 | SPRING | | |
| 1-1-d | VH816700 | BUTTON GUIDE | 10x25 | BL |
| 1-1-d | VH816800 | BUTTON GUIDE | 10x25 | TI |
| 1-1-e | VL216900 | CASE, SUB PANEL | | BL |
| 1-1-e | VL217000 | CASE, SUB PANEL | | TI |
| 1-1-f | VH897500 | LENS | | |
| 1-1-g | VH897700 | LENS | 2.2Lx2.2 | |
| 1-1-h | VE222600 | CUSHION | | |
| 1-1-i | VE798200 | CUSHION | | |
| 1-1-j | EX600310 | BIND HEAD P-TITE SCREW | 3x8 FCRM3-BL | |
| 1-1-k | EX601280 | BW HEAD P-TITE SCREW | 3x8-8 FCRM3-BL | |
| * 1-2 | VQ158100 | SUB PANEL, LID | | BL |
| * 1-2 | VQ158200 | SUB PANEL, LID | | TI |
| 1-3 | VJ888000 | STOPPER | | TI |
| 1-3 | VJ888100 | STOPPER | | BL |
| 1-4 | CB621930 | DAMPER | | BL |
| 1-4 | VE798100 | DAMPER | | TI |
| 1-5 | ED330066 | BIND HEAD SCREW | 3x6 FCRM3-BL | |
| * 2-1 | VQ158300 | SUB CHASSIS | | |
| 2-2 | CB605620 | PLASTIC RIVET | No.1781 | |
| 2-3 | ED330066 | BIND HEAD SCREW | 3x6 FCRM3-BL | |
| 3-1 | ix620970 | TRANSISTOR | 2SA1491 O,P,Y | Q133A,Q134A |
| 3-2 | ix620980 | TRANSISTOR | 2SC3855 O,P,Y | Q133C,Q134C |
| * 3-4 | VQ321100 | HEAT SINK ASS'y | | |
| 3-5 | VK689900 | DAMPER | | |
| 3-6 | VK195900 | SHEET | 19x24 | |
| 3-7 | VK173200 | SCREW, TRANSISTOR | 3x15 SP FCM3 | |
| * 5 | VQ335400 | P.C.B. ASS'y MAIN | | (R) |
| * 5 | VQ335500 | P.C.B. ASS'y MAIN | | (AB) |
| * 5 | VQ335600 | P.C.B. ASS'y MAIN | | (H) |
| * 5 | VQ335700 | P.C.B. ASS'y MAIN | | (W) |
| * 6 | VQ335800 | P.C.B. ASS'y FUNCTION | | (RAB) |
| * 6 | VQ335900 | P.C.B. ASS'y FUNCTION | | (H) |
| * 6 | VQ336000 | P.C.B. ASS'y FUNCTION | | (W) |
| * 11 | XJ694B00 | POWER TRANSFORMER | | (R) |
| * 11 | XJ695B00 | POWER TRANSFORMER | | (AB) |
| * 11 | XJ696B00 | POWER TRANSFORMER | | (HW) |
| 12 | VE043100 | POWER CORD ASS'y | | (B) |
| 12 | VE222900 | POWER CORD ASS'y | | (R) |
| 12 | VE223200 | POWER CORD ASS'y | | (HW) |
| 12 | VP418100 | POWER CORD ASS'y | | (A) |
| 13 | VJ775000 | AC OUTLET | 2P | (B) |
| 13 | VP418700 | AC OUTLET | 2P | (A) |
| 14 | VD375900 | CORD STOPPER | No. 2271 | |
| * 15 | VQ194100 | SHORT PLUG | CNT31-0 | |
| 17 | CB069250 | BINDING TIE | BK-1 | |
| 101 | VL212800 | TOP COVER | | BL |

* New Parts

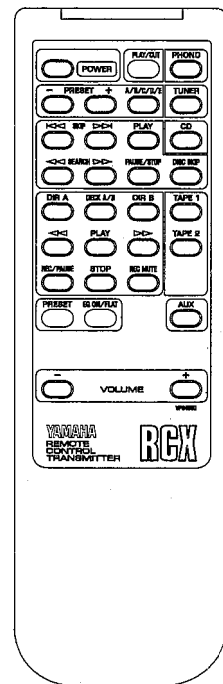
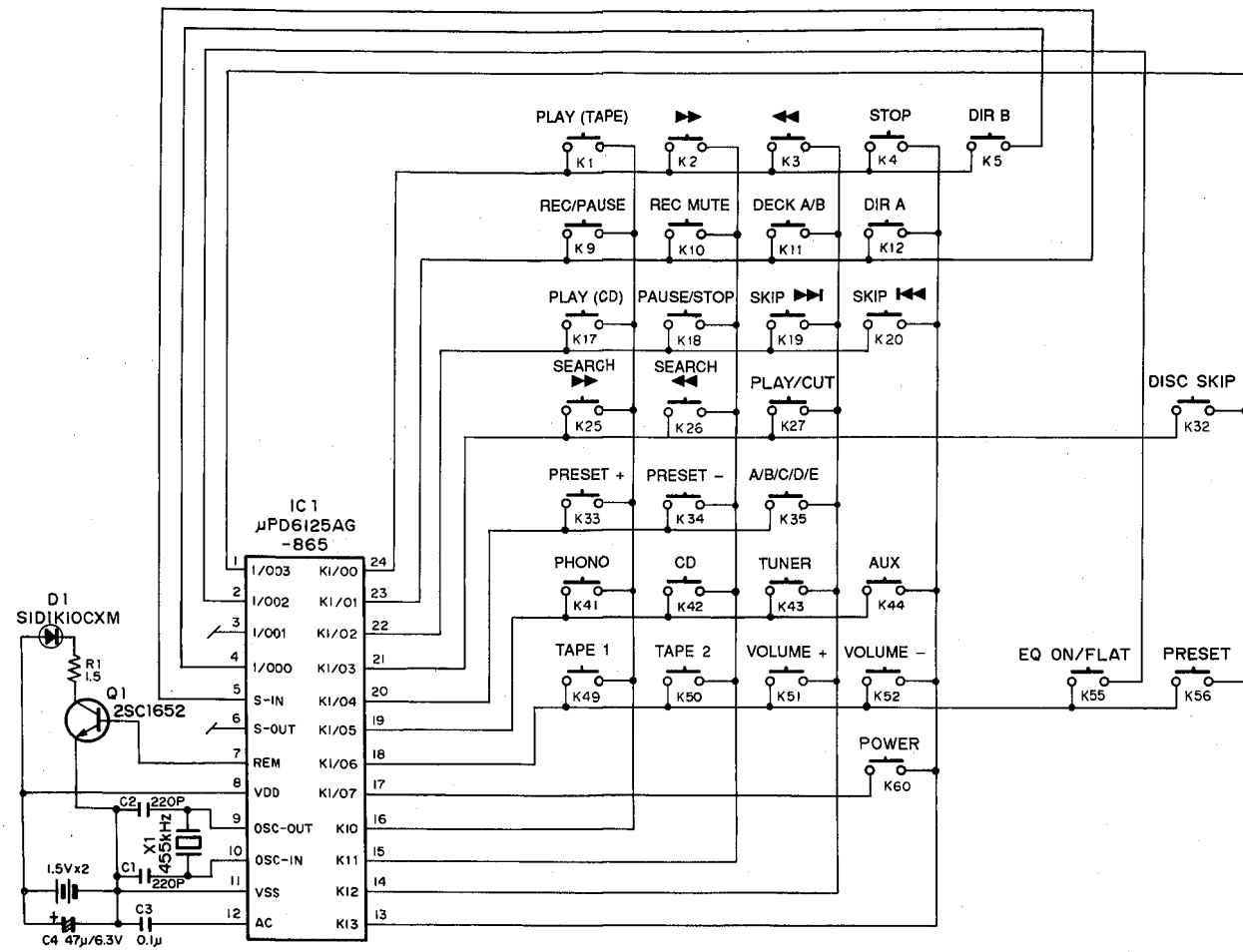
| Ref. No. | PART NO. | Description | Remarks | Markets |
|----------|----------|------------------------------|-----------------|-----------------|
| 101 | VL213000 | TOP COVER | | TI |
| 102 | VL213100 | CHASSIS, ART BASE | | |
| 103 | VL213600 | BOTTOM COVER | | |
| 104 | VL213700 | FRAME | SIDE L | |
| 105 | VL213800 | FRAME | SIDE R | |
| * 106 | VQ158400 | REAR PANEL | | (R) |
| * 106 | VQ158500 | REAR PANEL | | (AB) |
| * 106 | VQ158600 | REAR PANEL | | (W) |
| * 106 | VQ158700 | REAR PANEL | | (H) |
| 109 | VK016500 | LEG | Ø60xH21 | |
| 111 | VK015100 | KNOB, LED | Ø45 | BL VOLUME |
| 111 | VK015200 | KNOB, LED | Ø45 | TI VOLUME |
| 112 | VK219900 | KNOB, LED | Ø32 | BL INPUT |
| 112 | VK220000 | KNOB, LED | Ø32 | TI INPUT |
| 113 | VG078900 | KNOB | Ø12 | BL BASS, TREBLE |
| 113 | VP559700 | KNOB | Ø12 | TI BASS, TREBLE |
| 114 | VG079100 | KNOB | Ø12 | BL REC_OUT |
| 114 | VP564400 | KNOB | Ø12 | TI REC_OUT |
| 115 | VM736600 | BUTTON | 3x14 | BL S.FILTER |
| 115 | VP564500 | BUTTON | 3x14 | TI S.FILTER |
| 117 | VH841900 | BUTTON | 10x25 | BL POWER |
| 117 | VP663400 | BUTTON | 10x25 | TI POWER |
| * 121 | VQ326500 | SUPPORT, H.SINK | | |
| * 122 | VQ364300 | SUPPORT, PCB | | |
| 123 | VL215000 | FRAME | PCB2 | |
| 125 | VL250600 | EXTENSION BAR | | |
| 126 | VJ833000 | SIDE COVER | | TI |
| 126 | VJ833100 | SIDE COVER | | BL |
| * 127 | VQ895600 | SHEILD PLATE | | (RHW) |
| 128 | VN130700 | SPACER | | |
| 129 | CB091290 | SUPPORT, P.C.B. | No.1645 | |
| * 130 | VQ550500 | SPACER, HEAT SINK | | |
| 134 | CB068880 | PLASTIC RIVET | No.1027 | |
| 135 | CB605620 | PLASTIC RIVET | No.1781 | |
| 155 | AA627310 | GROUND TERMINAL | | |
| 156 | ED330066 | BIND HEAD SCREW | 3x6 FCRM3-BL | |
| 157 | EN301010 | BIND HEAD BONDING TAP. SCREW | 3x8 FCRM3-BL | |
| 158 | Ei330086 | BIND HEAD B-TITE SCREW | 3x8 FCRM3-BL | |
| 159 | VB770200 | BW HEAD P-TITE SCREW | 3x10-8 FCM3 | |
| 160 | EX602240 | BW HEAD TAPPING SCREW | 3x10 | |
| 161 | EN330060 | BIND HEAD B-TITE SCREW | 4x16 FCRM3-BL | |
| 162 | Ei340256 | BIND HEAD TAPPING SCREW | 4x25 ZMC2-BL | |
| 166 | EX601850 | SPECIAL SCREW S-TITE | 4x8-10 FCRM3-BL | BL |
| 166 | EX601860 | SPECIAL SCREW S-TITE | 4x8-10 FNM3-BL | TI |
| 167 | EL300470 | BW HEAD S-TITE SCREW | 4x8-10 FCRM3-BL | BL |
| 167 | EX601150 | BW HEAD S-TITE SCREW | 4x8-10 FNM3-BL | TI |
| 168 | EL300480 | BW HEAD B-TITE SCREW | 3x15-8 FCRM3-BL | |
| | | ACCESSORIES | | |
| * 200 | VP849500 | REMOTE CONTROL TRANSMITTER | | |
| 200-1 | CX673000 | LID | 56x33KURON | K-PM2-385-1 |
| | | BATTERY, MANGANESE | SUM-3, AA, R06 | |

* New Parts

AX-870

REMOTE CONTROL TRANSMITTER

SCHEMATIC DIAGRAM



| Key No. | CUSTOM (HEX) | DATA (HEX) | FUNCTION | Key No. | CUSTOM (HEX) | DATA (HEX) | FUNCTION |
|---------|--------------|------------|------------------|---------|--------------|------------|-------------------|
| 1 | 7A | 00 | PLAY (TAPE) | 32 | 7A | 4F | DISC SKIP (CD) |
| 2 | 7A | 01 | ◀ (TAPE) | 33 | 7A | 10 | PRESET + (TUNER) |
| 3 | 7A | 02 | ▶ (TAPE) | 34 | 7A | 11 | PRESET - (TUNER) |
| 4 | 7A | 03 | STOP (TAPE) | 35 | 7A | 12 | A/B/C/D/E (TUNER) |
| 5 | 7A | 04 | DIR B (TAPE) | 41 | 7A | 14 | PHONO (INPUT) |
| 9 | 7A | 04 | REC/PAUSE (TAPE) | 42 | 7A | 15 | CD (INPUT) |
| 10 | 7A | 05 | REC MUTE (TAPE) | 43 | 7A | 16 | TUNER (INPUT) |
| 11 | 7A | 06 | DECK A/B (TAPE) | 44 | 7A | 17 | AUX (INPUT) |
| 12 | 7A | 07 | DIR A (TAPE) | 49 | 7A | 18 | TAPE 1 (INPUT) |
| 17 | 7A | 08 | PLAY (CD) | 50 | 7A | 19 | TAPE 2 (INPUT) |
| 18 | 7A | 09 | PAUSE/STOP (CD) | 51 | 7A | 1A | VOLUME + |
| 19 | 7A | 0A | SKIP ▶▶ (CD) | 52 | 7A | 1B | VOLUME - |
| 20 | 7A | 0B | SKIP ◀◀ (CD) | 55 | 7A | 5A | EQ ON/FLAT (EQ) |
| 25 | 7A | 0C | SEARCH ▶▶ (CD) | 56 | 7A | 5B | PRESET (EQ) |
| 26 | 7A | 0D | SEARCH ◀◀ (CD) | 60 | 7A | 1F | POWER |
| 27 | 7A | 0E | PLAY/CUT (PHONO) | | | | |

Parts List for Carbon Resistors

| Value | 1/4W Type Part No. | 1/6W Type Part No. | Value | 1/4W Type Part No. | 1/6W Type Part No. |
|--------|--------------------|--------------------|--------|--------------------|--------------------|
| 1.0 Ω | HJ35 3100 | HF85 3100 | 10 kΩ | HF45 7100 | HF45 7100 |
| 1.8 Ω | HJ35 3180 | * | 11 kΩ | HF45 7110 | HF45 7110 |
| 2.2 Ω | HJ35 3220 | HF85 3220 | 12 kΩ | HJ35 7120 | HF85 7120 |
| 3.3 Ω | HJ35 3330 | HF85 3330 | 13 kΩ | HF45 7130 | HF45 7130 |
| 4.7 Ω | HJ35 3470 | HF85 3470 | 15 kΩ | HF45 7150 | HF45 7150 |
| 5.6 Ω | HJ35 3560 | HF85 3560 | 18 kΩ | HF45 7180 | HF45 7180 |
| 10 Ω | HF45 4100 | HF45 4100 | 22 kΩ | HF45 7220 | HF45 7220 |
| 15 Ω | HJ35 4150 | HF85 4150 | 24 kΩ | HF45 7240 | HF45 7240 |
| 22 Ω | HF45 4220 | HF45 4220 | 27 kΩ | HJ35 7270 | HF85 7270 |
| 27 Ω | HJ35 4270 | HF85 4270 | 30 kΩ | HF45 7300 | HF45 7300 |
| 33 Ω | HF45 4330 | HF45 4330 | 33 kΩ | HF45 7330 | HF45 7330 |
| 39 Ω | HJ35 4470 | HF85 4390 | 36 kΩ | HF45 7360 | HF45 7360 |
| 47 Ω | HF45 4470 | HF45 4470 | 39 kΩ | HF45 7390 | HF45 7390 |
| 56 Ω | HF45 4560 | HF45 4560 | 47 kΩ | HF45 7470 | HF45 7470 |
| 68 Ω | HF45 4680 | HF45 4680 | 51 kΩ | HF45 7510 | HF45 7510 |
| 75 Ω | HF45 4750 | HF45 4750 | 56 kΩ | HF45 7560 | HF45 7560 |
| 82 Ω | HF45 4820 | HF45 4820 | 62 kΩ | HF45 7620 | HF45 7620 |
| 91 Ω | HF45 4910 | HF45 4910 | 68 kΩ | HF45 7680 | HF45 7680 |
| 100 Ω | HF45 5100 | HF45 5100 | 82 kΩ | HF45 7820 | HF45 7820 |
| 110 Ω | HJ35 5110 | HF85 5110 | 91 kΩ | HF45 7910 | HF45 7910 |
| 120 Ω | HF45 5120 | HF45 5120 | 100 kΩ | HF45 8100 | HF45 8100 |
| 150 Ω | HF45 5150 | HF45 5150 | 110 kΩ | HF45 8110 | HF45 8110 |
| 160 Ω | HJ35 5160 | * | 120 kΩ | HF45 8120 | HF45 8120 |
| 180 Ω | HF45 5180 | HF45 5180 | 150 kΩ | HF45 8150 | HF45 8150 |
| 200 Ω | HF45 5200 | HF45 5200 | 180 kΩ | HF45 8180 | HF45 8180 |
| 220 Ω | HF45 5220 | HF45 5220 | 220 kΩ | HJ35 8220 | HF85 8220 |
| 270 Ω | HF45 5270 | HF45 5270 | 270 kΩ | HF45 8270 | HF45 8270 |
| 330 Ω | HF45 5330 | HF45 5330 | 300 kΩ | HF45 8300 | HF45 8300 |
| 390 Ω | HF45 5390 | HF45 5390 | 330 kΩ | HF45 8330 | HF45 8330 |
| 430 Ω | HF45 5430 | HF45 5430 | 390 kΩ | HJ35 8390 | HF85 8390 |
| 470 Ω | HF45 5470 | HF45 5470 | 470 kΩ | HF45 8470 | HF45 8470 |
| 510 Ω | HF45 5510 | HF45 5510 | 560 kΩ | HJ35 8560 | HF85 8560 |
| 560 Ω | HF45 5560 | HF45 5560 | 680 kΩ | HJ35 8680 | HF85 8680 |
| 680 Ω | HF45 5680 | HF45 5680 | 820 kΩ | HJ35 8820 | HF85 8820 |
| 820 Ω | HF45 5820 | HF45 5820 | 1.0 MΩ | HF45 9100 | HF45 9100 |
| 910 Ω | HF45 5910 | HF45 5910 | 1.2 MΩ | HJ35 9120 | * |
| 1.0 kΩ | HF45 6100 | HF45 6100 | 1.5 MΩ | HJ35 9150 | HF85 9150 |
| 1.2 kΩ | HF45 6120 | HF45 6120 | 1.8 MΩ | HJ35 9180 | HF85 9180 |
| 1.5 kΩ | HF45 6150 | HF45 6150 | 2.2 MΩ | HJ35 9220 | HF85 9220 |
| 1.8 kΩ | HF45 6180 | HF45 6180 | 3.3 MΩ | HJ35 9330 | HF85 9330 |
| 2.0 kΩ | HJ35 6200 | HF85 6200 | 3.9 MΩ | HJ35 9390 | * |
| 2.2 kΩ | HF45 6220 | HF45 6220 | 4.7 MΩ | HJ35 9470 | HF85 9470 |
| 2.4 kΩ | HJ35 6240 | HF85 6240 | | | |
| 2.7 kΩ | HF45 6270 | HF45 6270 | | | |
| 3.0 kΩ | HF45 6300 | HF45 6300 | | | |
| 3.3 kΩ | HF45 6330 | HF45 6330 | | | |
| 3.6 kΩ | HJ35 6360 | HF85 6360 | | | |
| 3.9 kΩ | HF45 6390 | HF45 6390 | | | |
| 4.7 kΩ | HF45 6470 | HF45 6470 | | | |
| 5.1 kΩ | HF45 6510 | HF45 6510 | | | |
| 5.6 kΩ | HF45 6560 | HF45 6560 | | | |
| 6.8 kΩ | HF45 6680 | HF45 6680 | | | |
| 8.2 kΩ | HF45 6820 | HF45 6820 | | | |
| 9.1 kΩ | HF45 6910 | HF45 6910 | | | |

