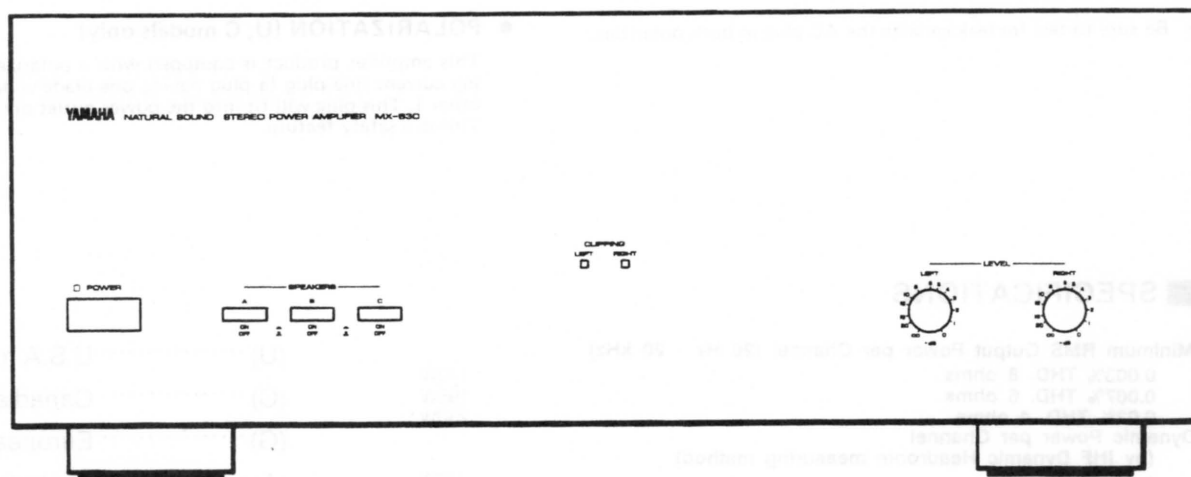


# STEREO POWER AMPLIFIER MX-830

## 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 all 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).

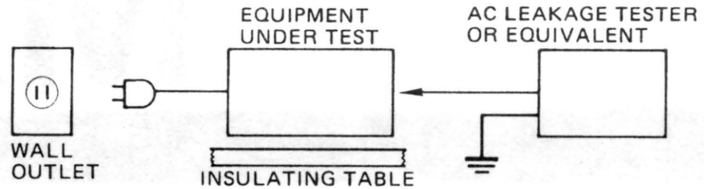
**IMPORTANT:** Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

### CONTENTS

|                              |   |                             |       |
|------------------------------|---|-----------------------------|-------|
| TO SERVICE PERSONNEL .....   | 1 | ADJUSTMENTS .....           | 4     |
| SPECIFICATIONS .....         | 1 | WIRING .....                | 5     |
| REAR PANELS .....            | 2 | PRINTED CIRCUIT BOARD ..... | 6~11  |
| BLOCK DIAGRAM .....          | 3 | SCHEMATIC DIAGRAM .....     | 12    |
| INTERNAL VIEW .....          | 3 | PARTS LIST .....            | 13~20 |
| DISASSEMBLY PROCEDURES ..... | 4 |                             |       |

## TO SERVICE PERSONNEL

- Critical Components Information.**  
Components having special characteristics are marked  $\triangle$  and must be replaced with parts having specifications equal to those originally installed.
- Leakage Current Measurement (For 120V Model Only).**  
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
  - Meter impedance should be equivalent to 1500 ohm shunted by 0.15 $\mu$ F.
  - Leakage current must not exceed 0.5mA.
  - Be sure to test for leakage with the AC plug in both polarities.



### • POLARIZATION (U, C models only)

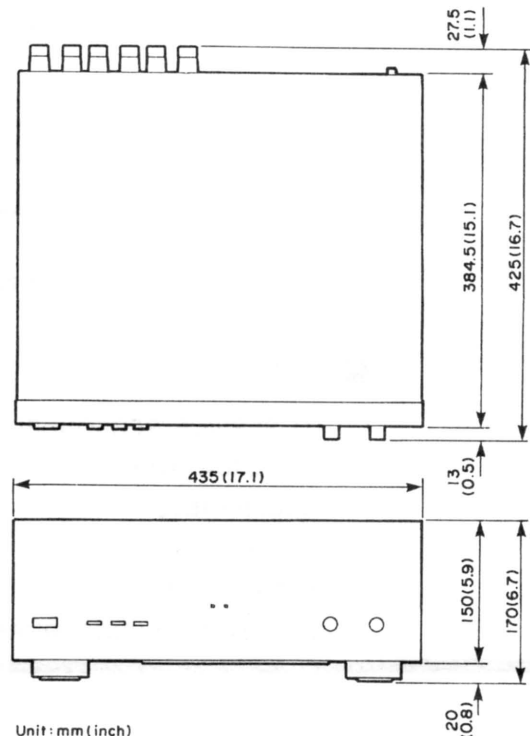
This amplifier product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature.

## SPECIFICATIONS

|                                                                             |                                                 |
|-----------------------------------------------------------------------------|-------------------------------------------------|
| <b>Minimum RMS Output Power per Channel (20 Hz - 20 kHz)</b>                |                                                 |
| 0.003% THD, 8 ohms                                                          | 170W                                            |
| 0.007% THD, 6 ohms                                                          | 195W                                            |
| 0.02% THD, 4 ohms                                                           | 230W                                            |
| <b>Dynamic Power per Channel (by IHF Dynamic Headroom measuring method)</b> |                                                 |
| 8 ohms                                                                      | 270W                                            |
| 6 ohms                                                                      | 330W                                            |
| 4 ohms                                                                      | 440W                                            |
| 2 ohms                                                                      | 570W                                            |
| <b>DIN Standard Output Power per Channel (Europe model only)</b>            |                                                 |
| 1 kHz, 1% THD, 4 ohms                                                       | 250 W                                           |
| <b>Dynamic Headroom (U.S.A. and Canada models only)</b>                     |                                                 |
| 8 ohms                                                                      | 2.01 dB                                         |
| 6 ohms                                                                      | 2.28 dB                                         |
| 4 ohms                                                                      | 2.82 dB                                         |
| <b>IEC Power (Europe model only)</b>                                        |                                                 |
| 1 kHz, 1% THD                                                               |                                                 |
| 8 ohms                                                                      | 200 W                                           |
| 6 ohms                                                                      | 240 W                                           |
| 4 ohms                                                                      | 280 W                                           |
| <b>Power Band Width</b> 0.03% THD, 85W/8 ohms                               | 10 Hz - 60 kHz                                  |
| <b>Damping Factor</b> (1 kHz, 8 ohms)                                       | 90                                              |
| <b>Input Sensitivity/Input Impedance</b>                                    |                                                 |
| MAIN IN                                                                     | 1.32V/60 k-ohms                                 |
| <b>Frequency Response (20 Hz - 20 kHz)</b>                                  |                                                 |
| MAIN IN                                                                     | +0/-0.2 dB                                      |
| <b>Total Harmonic Distortion (20 Hz - 20 kHz)</b>                           |                                                 |
| MAIN IN to Sp Out, 85W/8 ohms                                               | 0.003%                                          |
| <b>Intermodulation Distortion</b>                                           |                                                 |
| Rated Output/8 ohms                                                         | 0.003%                                          |
| <b>Signal-to-Noise Ratio (IHF-A-Network)</b>                                |                                                 |
| MAIN IN (shorted)                                                           | 124 dB                                          |
| MAIN IN (5.1 k-ohms terminated)                                             | 120 dB                                          |
| <b>Residual Noise (IHF-A-Network)</b>                                       |                                                 |
|                                                                             | 21 $\mu$ V                                      |
| <b>Channel Separation (Input shorted, terminated, 1 kHz/10 kHz)</b>         |                                                 |
|                                                                             | 89/72 dB                                        |
| <b>Power Supply</b>                                                         |                                                 |
| Europe model                                                                | AC 220V, 50 Hz                                  |
| General model                                                               | AC 110/120/220/240V, 50/60 Hz                   |
| U.K. and Australia models                                                   | AC 240V, 50 Hz                                  |
| U.S.A. and Canada models                                                    | AC 120V, 60 Hz                                  |
| <b>Power Consumption</b>                                                    |                                                 |
| General model                                                               | 520W                                            |
| U.S.A. and Canada models                                                    | 650W 800 VA                                     |
| Europe, U.K. and Australia models                                           | 1,150W                                          |
| <b>AC Outlet (U.S.A., Canada and General models only)</b>                   |                                                 |
| UNSWITCHED x 1                                                              | 200W max.                                       |
| <b>Dimensions (W x H x D)</b>                                               | 435 x 170 x 425 mm (17-1/8" x 6-2/3" x 16-3/4") |
| <b>Weight</b>                                                               | 14.5 kg (31 lbs. 14 oz.)                        |

- (U) ..... U.S.A model
- (C) ..... Canadian model
- (G) ..... European model
- (A) ..... Australian model
- (B) ..... British model
- (R) ..... General model

## Dimensions

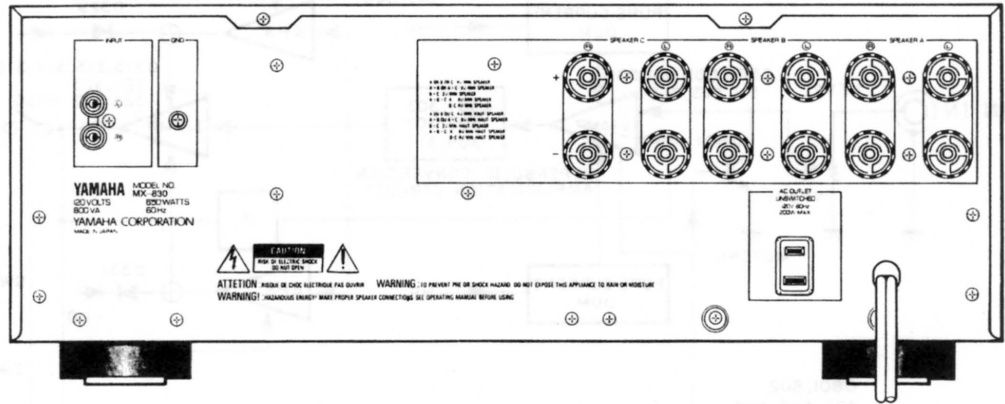


Unit: mm (inch)

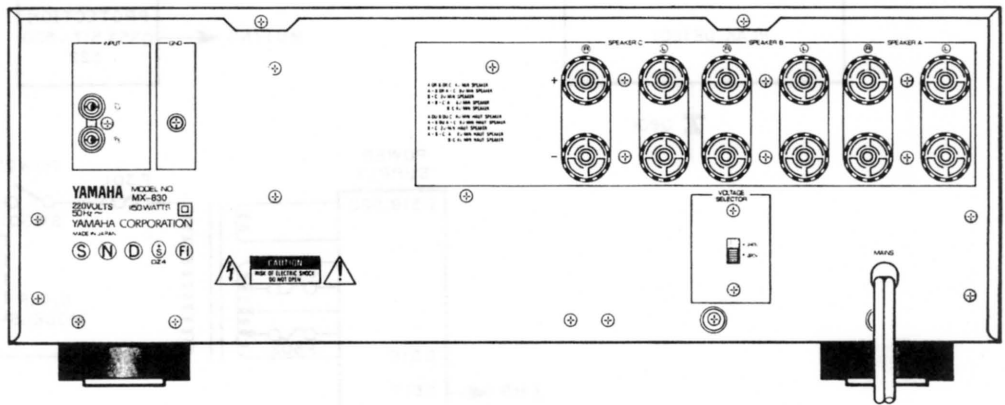
\* Please note that the design and all specifications are subject to change without notice.

REAR PANELS

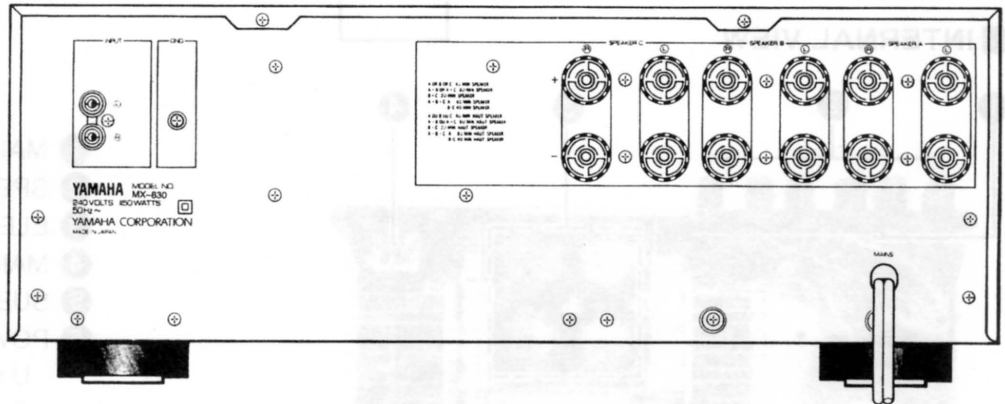
U.S.A. & Canadian models



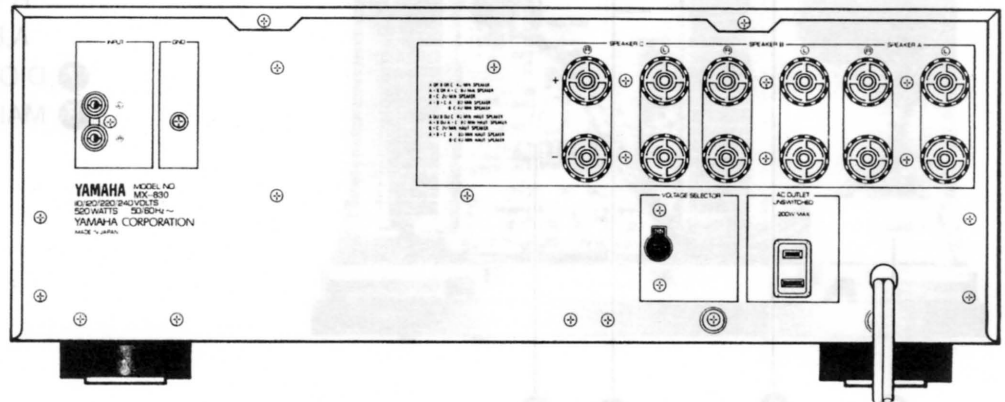
British & European models



Australian model

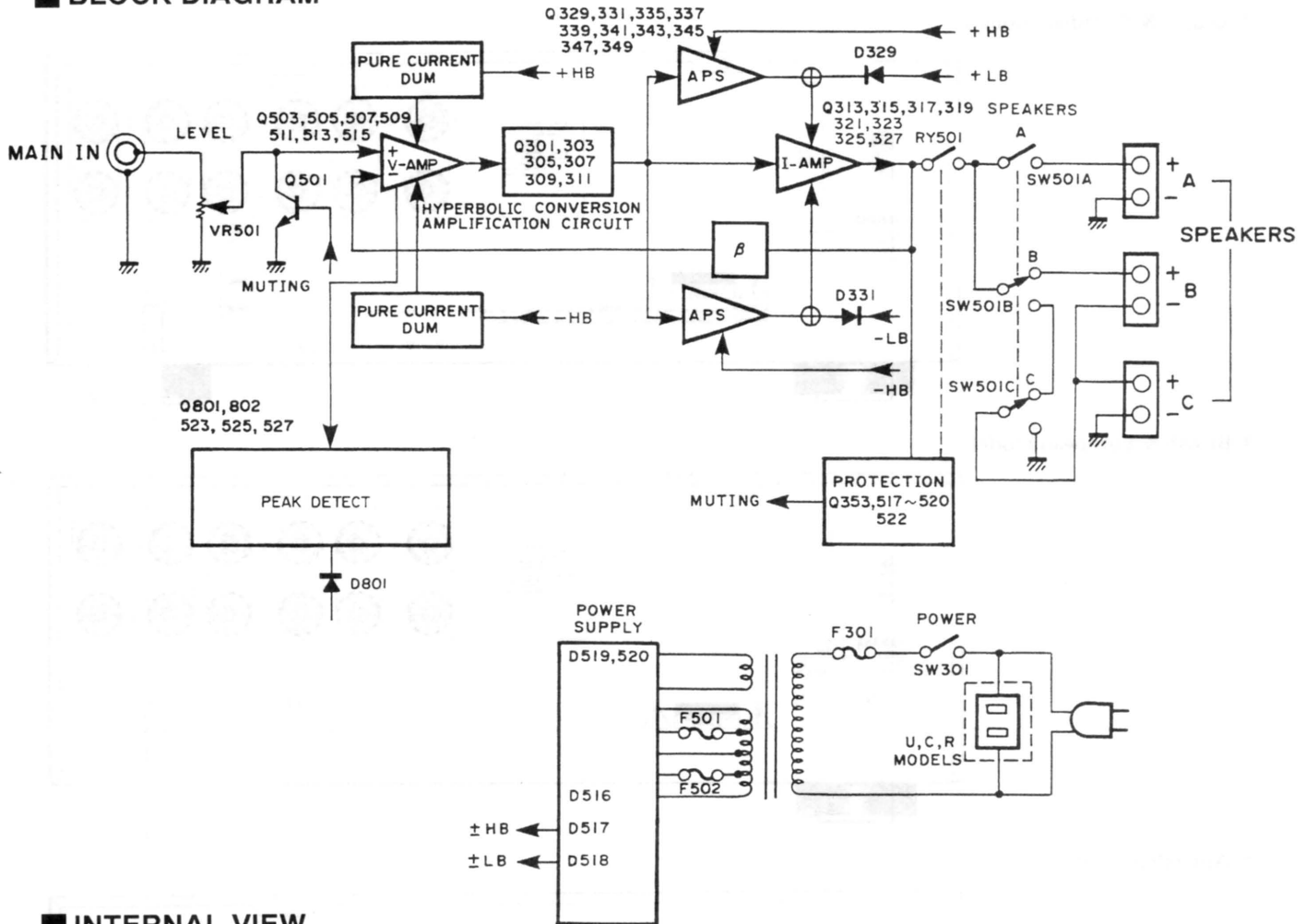


General model

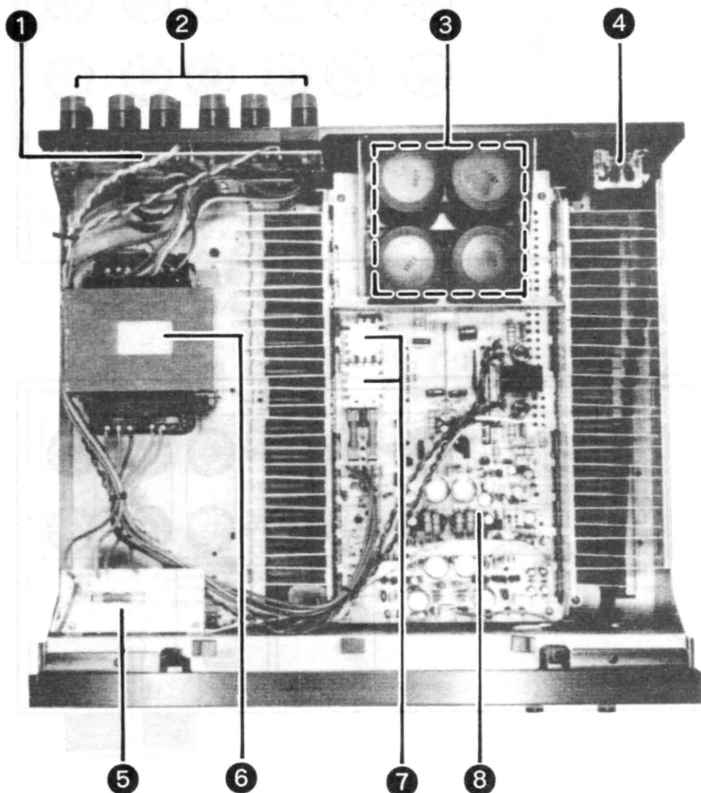


MX-830

**BLOCK DIAGRAM**



**INTERNAL VIEW**



- ① MAIN CIRCUIT BOARD(4)
- ② SPEAKER TERMINAL
- ③ ELECTROLYTIC CAP. SET
- ④ MAIN CIRCUIT BOARD(5)
- ⑤ SUB CIRCUIT BOARD(3)
- ⑥ POWER TRANSFORMER
  - U model : XE204A00
  - C model : XE205A00
  - R model : XE206A00
  - A,B,G models : XE207A00
- ⑦ DIODE BRIDGE : D5BF02
- ⑧ MAIN CIRCUIT BOARD(1)

## DISASSEMBLY PROCEDURES

### 1. Removal of Top Cover.

Remove 6 screws ( ① ) in Fig. 1. and slide the Top Cover back.

### 2. Removal of Bottom Cover.

Remove 6 screws ( ② ) in Fig. 1.

### 3. Removal of Front Panel.

Remove 5 screws ( ③ ) in Fig. 1.

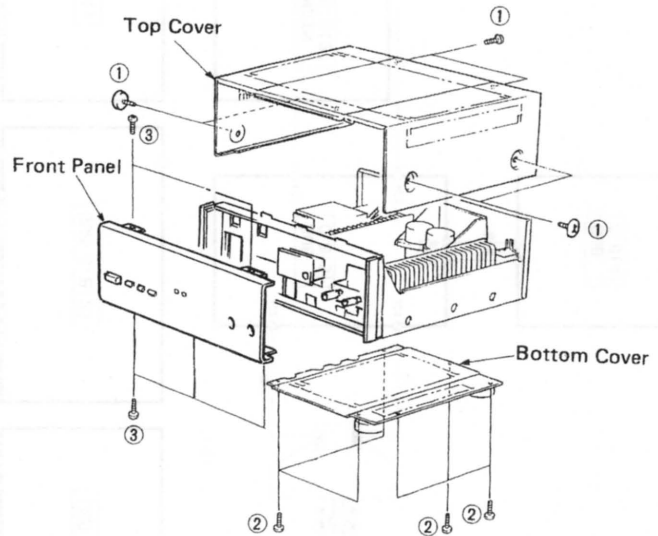


Fig. 1

## ADJUSTMENTS

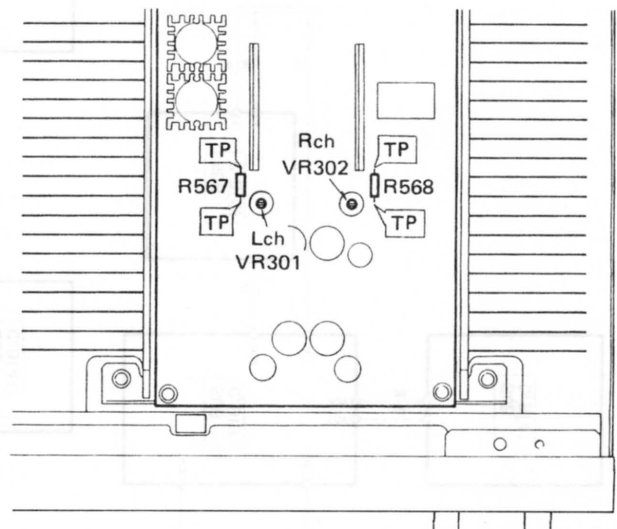
### ● IDLING CURRENT ADJUSTMENT

Wait 2 minutes after power ON to stabilize amplifier operation without signal.

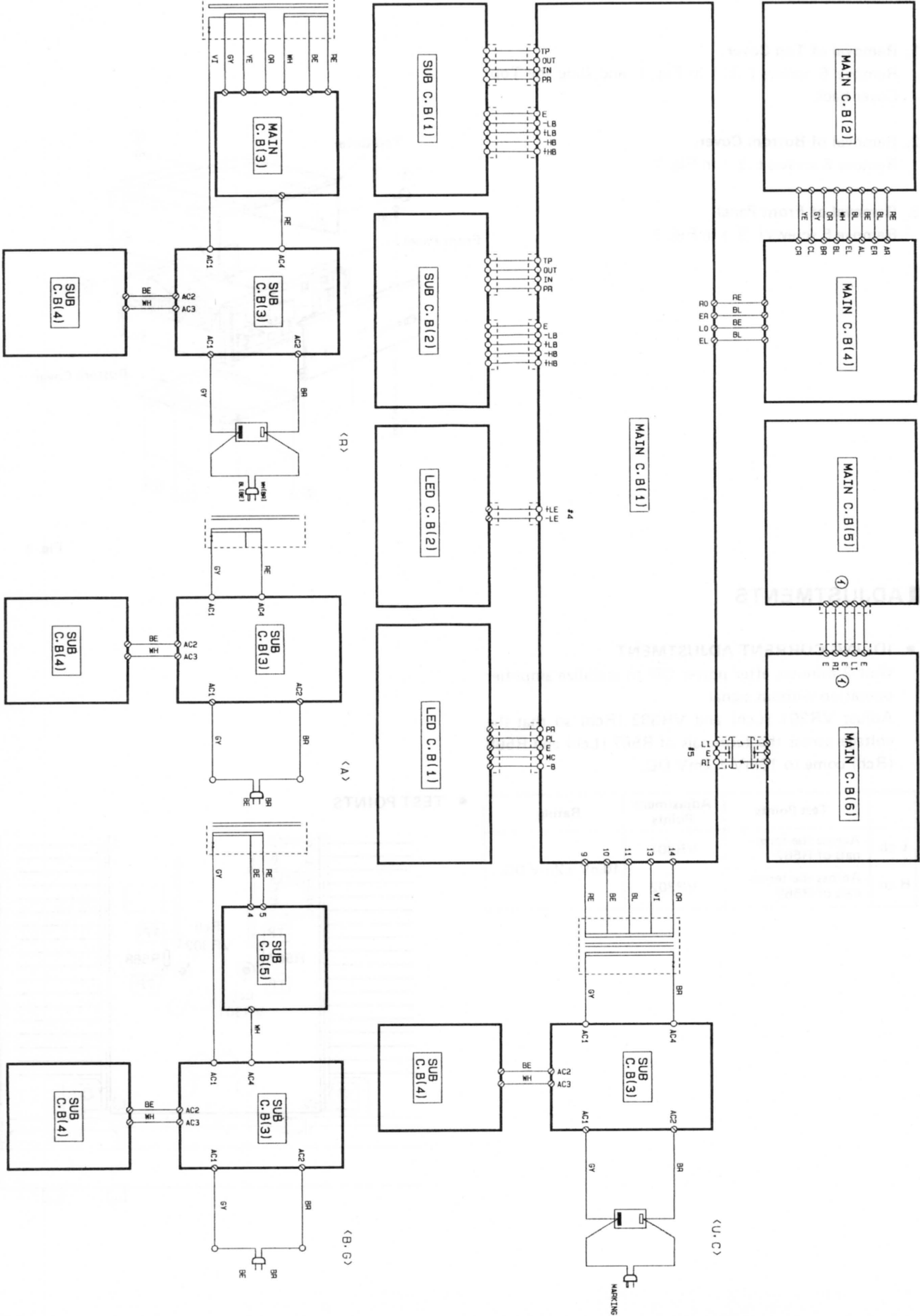
Adjust VR301 (Lch) and VR302 (Rch) so that the voltage across the terminals of R567 (Lch) and R568 (Rch) come to  $10\text{mV} \pm 2\text{mV DC}$ .

|      | Test Points                  | Adjustment Points | Rating                            |
|------|------------------------------|-------------------|-----------------------------------|
| L ch | Across the terminals of R567 | VR301             | $10\text{mV} \pm 2\text{mV DC}$ . |
| R ch | Across the terminals of R568 | VR302             |                                   |

### ● TEST POINTS

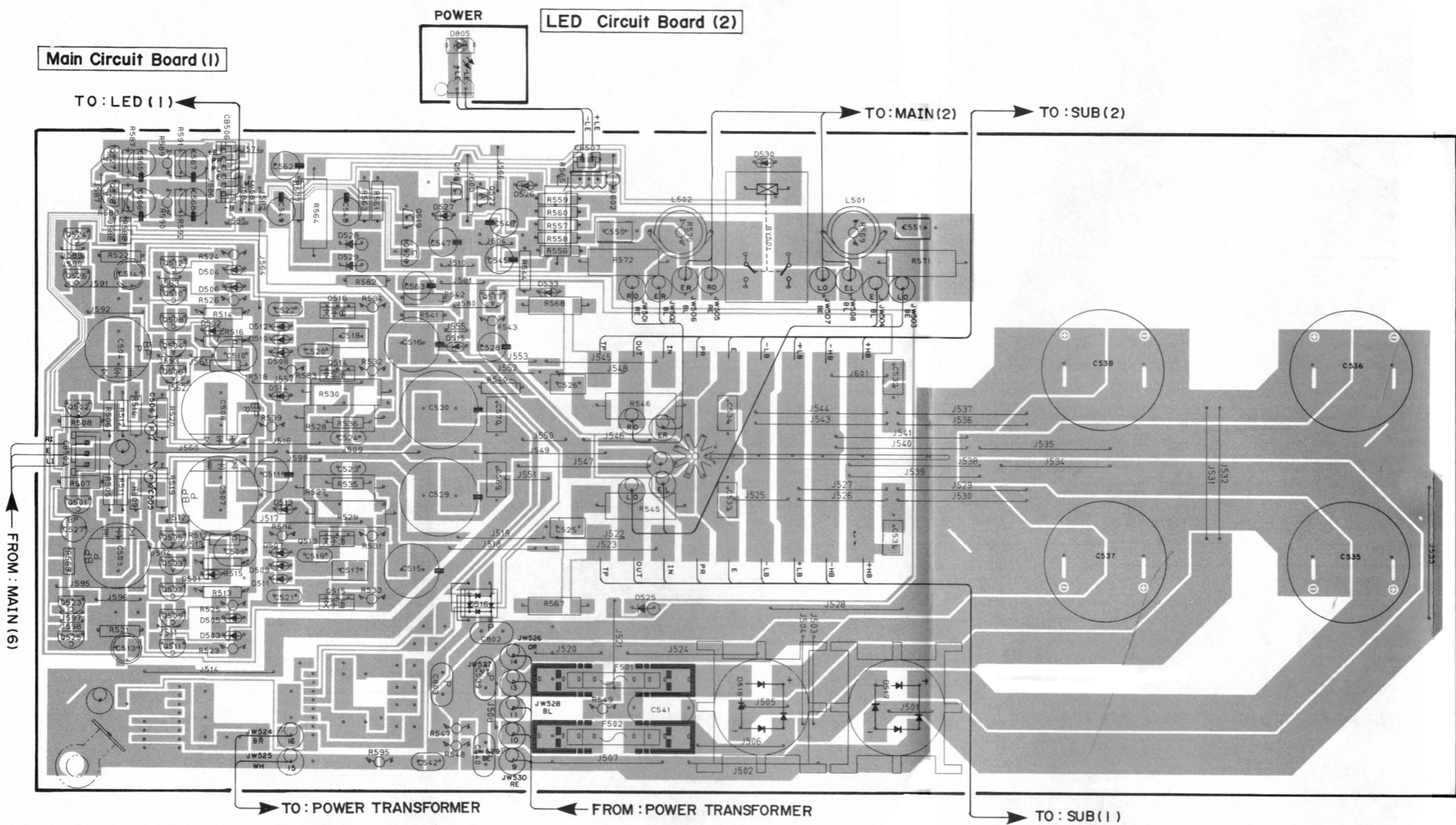


WIRING

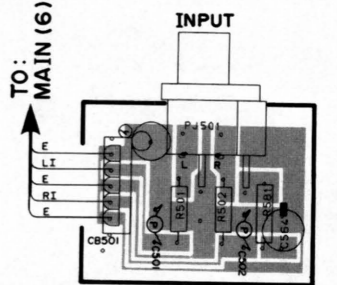


PRINTED CIRCUIT BOARD(Pattern side)

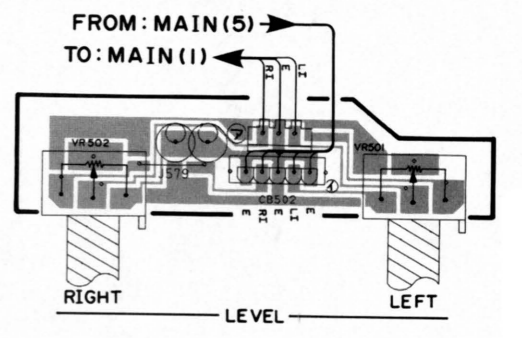
Notes) 文字面 :Component side



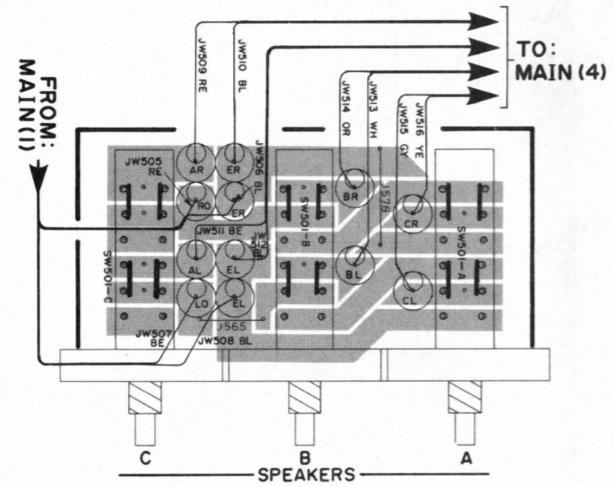
Main Circuit Board (5)



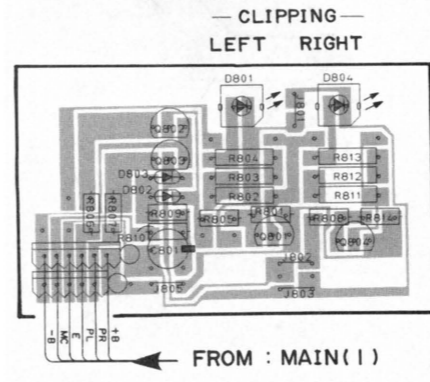
Main Circuit Board (6)



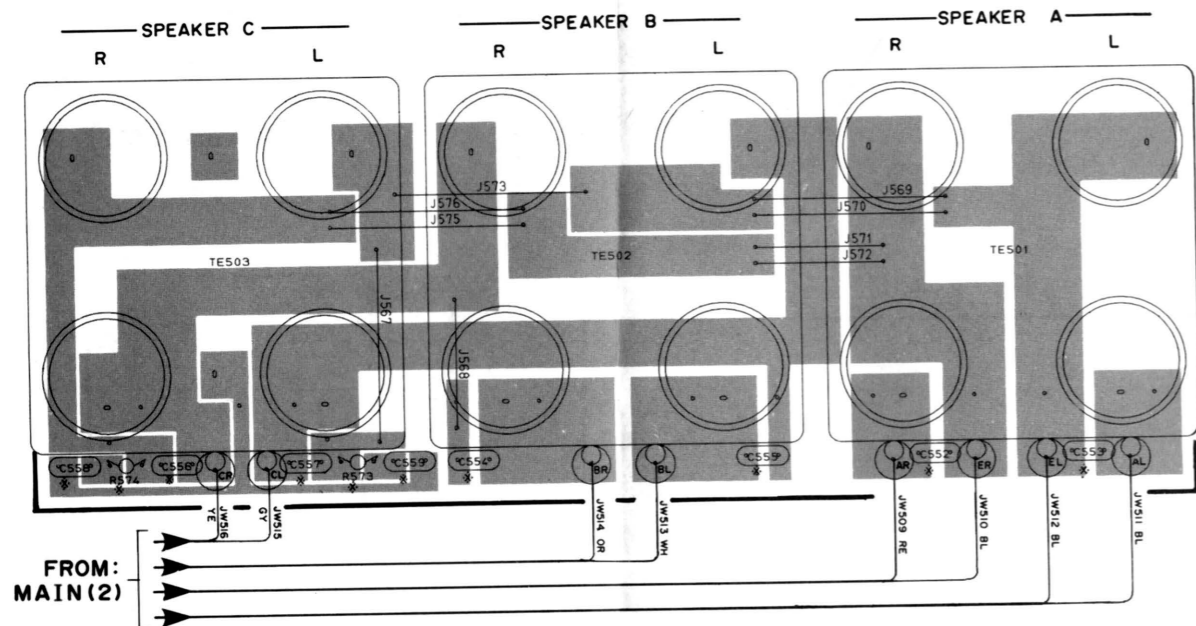
Main Circuit Board (2)



LED Circuit Board (1)

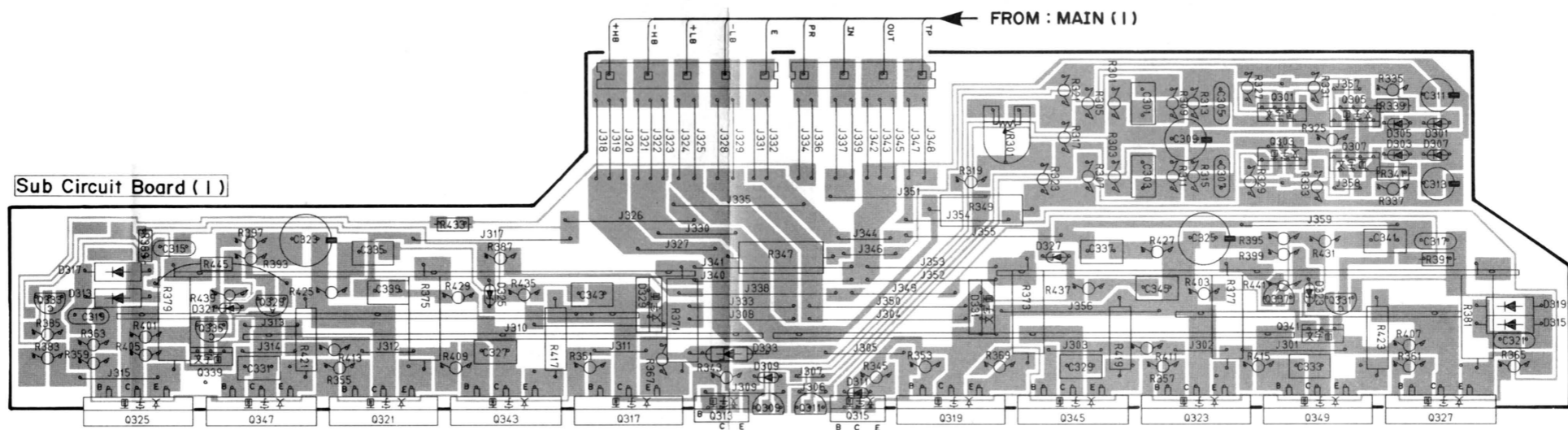
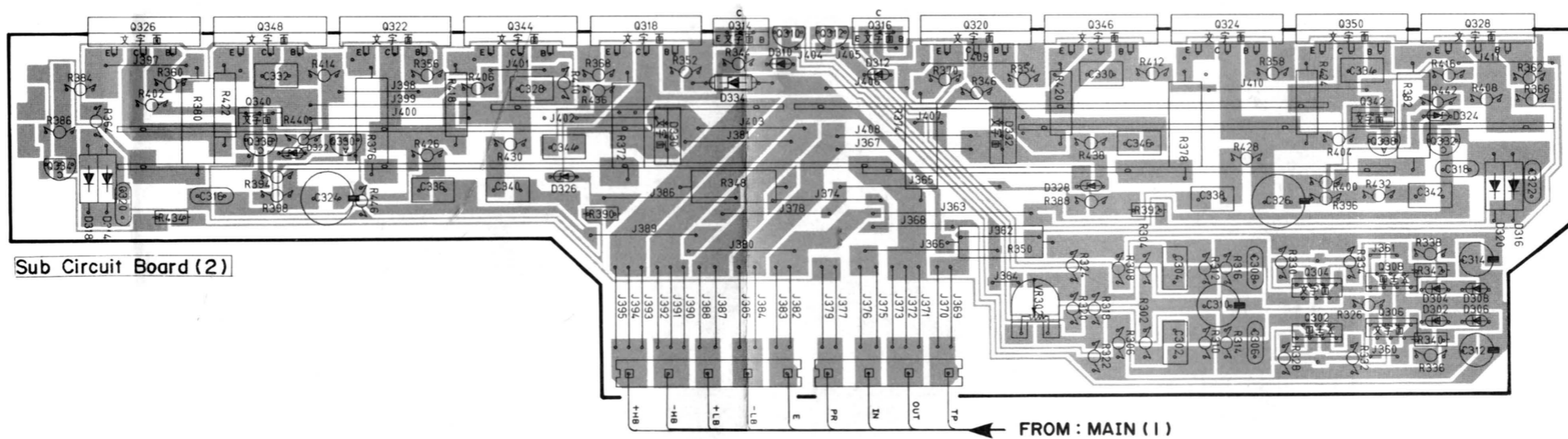


Main Circuit Board (4)



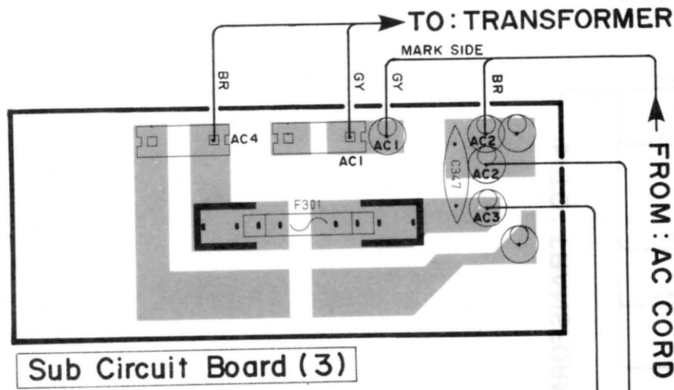
Note) \* marked

|            | U, C, R, A | B, G          |
|------------|------------|---------------|
| C558, 559  | OPEN       | (P) 0.01/100  |
| R573, 574  | OPEN       | 2.2           |
| C552 ~ 557 | OPEN       | (P) 4700P/100 |

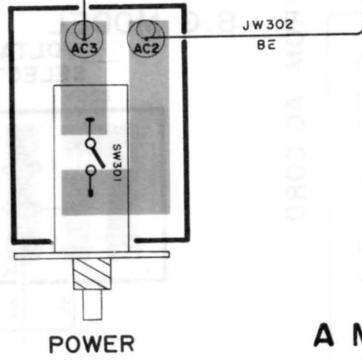




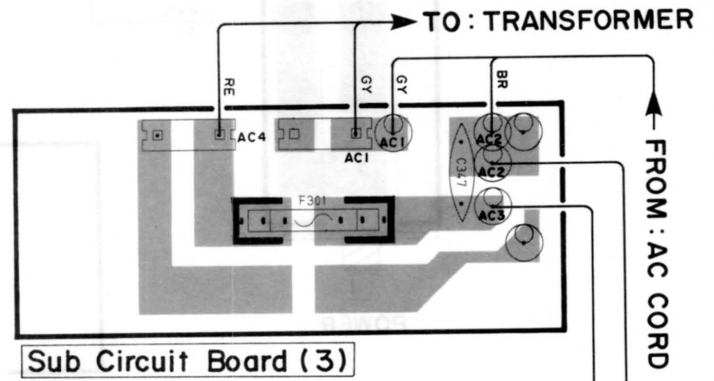
U.C MODEL



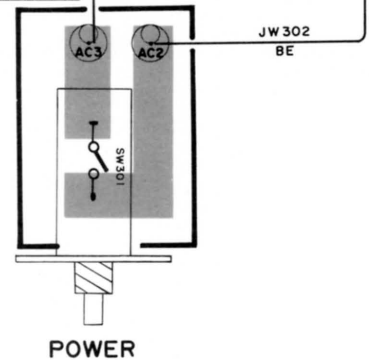
Sub Circuit Board (4)



A MODEL



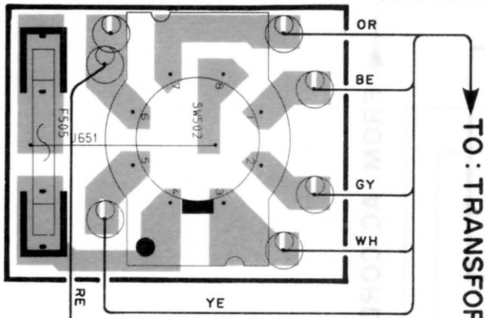
Sub Circuit Board (4)



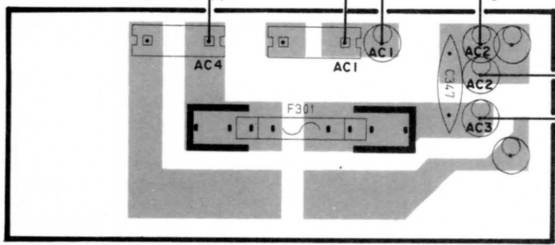
R MODEL

Main Circuit Board (3)

VOLTAGE SELECTOR



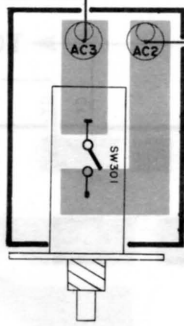
TO: TRANSFORMER



FROM: AC CORD

Sub Circuit Board (3)

Sub Circuit Board (4)



POWER

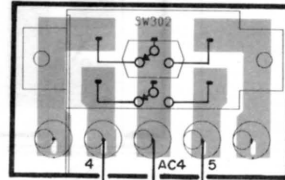
JW303  
WH

JW302  
BE

B.G MODEL

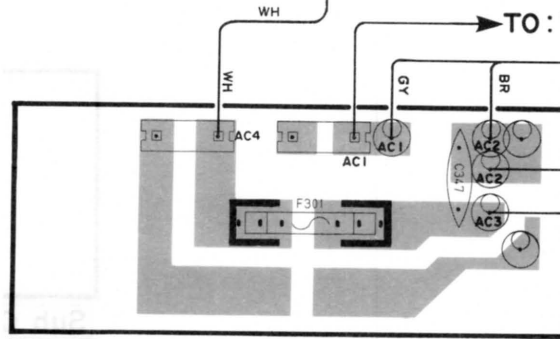
VOLTAGE SELECTOR

220 V 240 V



Sub Circuit Board (5)

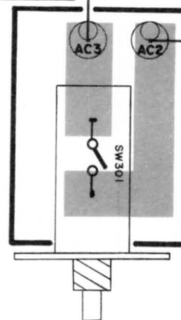
TO: TRANSFORMER



FROM: AC CORD

Sub Circuit Board (3)

Sub Circuit Board (4)



POWER


JW303  
WH

JW302  
BE



# PARTS LIST

## ■WARNING

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

• Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS list. For the parts No. of the carbon resistor, refer to P.20 .

MX-830

## ■ ELECTRICAL PARTS

| Ref. NO. | PART NO. | Description                 | 部 品 名         | Remarks    | Markets          | ランク |
|----------|----------|-----------------------------|---------------|------------|------------------|-----|
|          | Vi585100 | LED CIRCUIT BOARD           | LEDシート        |            |                  |     |
|          | UH057220 | ELECTROLYTIC CAP            | 22uF 35V      | ケミコン       | C801             |     |
|          | ia097000 | TRANSISTOR                  | 2SA970 GR,BL  | トランジスタ     | Q801,804         |     |
|          | ic224000 | TRANSISTOR                  | 2SC2240 GR,BL | トランジスタ     | Q802,803         |     |
|          | if004600 | DIODE                       | 1SS133 T-77   | ダイオード      | D802,803         |     |
|          | Vi013700 | LED                         | SLR-55VC3H    | LED        | D801,804         |     |
|          | Vi013600 | LED                         | SLR-34VC3H3   | LED        | D805             |     |
|          | Vi558900 | MAIN CIRCUIT BOARD          | メインシート        |            |                  | U,C |
|          | Vi559000 | MAIN CIRCUIT BOARD          | メインシート        |            |                  | R   |
|          | Vi559100 | MAIN CIRCUIT BOARD          | メインシート        |            |                  | A   |
|          | Vi559200 | MAIN CIRCUIT BOARD          | メインシート        |            |                  | B,G |
|          | FA155100 | MYLAR FILM CAP              | 0.1uF 50V     | マイラーコン     | C542             |     |
|          | FC294470 | POLYPROPYLENE CAP           | 0.047uF 250V  | ポリプロコン     | C541             |     |
|          | FF062220 | POLYSTYLENE CAP             | 220pF 125V    | スチコン       | C501,502         |     |
|          | FF062100 | POLYSTYLENE CAP             | 100pF 125V    | スチコン       | C505,506         |     |
|          | FF062470 | POLYSTYLENE CAP             | 470pF 125V    | スチコン       | C513,514         |     |
|          | UT453470 | POLYPROPYLENE FILM CAP      | 4700pF 100V   | PPコン       | C552-557         | G,B |
|          | UT454100 | POLYPROPYLENE FILM CAP      | 0.01uF 100V   | PPコン       | C558,559         | G,B |
|          | UT454470 | POLYPROPYLENE FILM CAP      | 0.047uF 100V  | PPコン       | C539,540,802,803 |     |
|          | VE808400 | POLYPROPYLENE FILM CAP      | 3300pF 100V   | PPコン       | C509,510         |     |
|          | UT454220 | POLYPROPYLENE FILM CAP      | 0.022uF 100V  | ポリエステルコン   | C550,551         |     |
|          | Vi862200 | POLYPROPYLENE FILM CAP      | 0.1uF 100V    | メタライズドポリコン | C517,518,569,570 |     |
|          | Vi862100 | POLYPROPYLENE FILM CAP      | 0.047uF 100V  | メタライズドポリコン | C525,526,531-534 |     |
|          | UH247100 | ELECTROLYTIC CAP            | 10uF 25V      | ケミコン       | C528             |     |
|          | UJ167100 | ELECTROLYTIC CAP            | 10uF 50V      | ケミコン       | C549,562,565,566 |     |
|          | UJ168100 | ELECTROLYTIC CAP            | 100uF 50V     | ケミコン       | C548             |     |
|          | Vi531300 | ELECTROLYTIC CAP            | 100uF 6.3V    | ケミコン       | C545             |     |
|          | Vi531400 | ELECTROLYTIC CAP            | 220uF 6.3V    | ケミコン       | C547             |     |
|          | Vi535900 | ELECTROLYTIC CAP            | 1uF 50V       | ケミコン       | C564             |     |
|          | Vi536600 | ELECTROLYTIC CAP            | 47uF 50V      | ケミコン       | C546             |     |
|          | Vi537100 | ELECTROLYTIC CAP            | 47uF 63V      | ケミコン       | C515,516         |     |
|          | VE021700 | ELECTROLYTIC CAP            | 2.2uF 100V    | ケミコン       | C563,567,568     |     |
|          | VF645500 | ELECTROLYTIC CAP            | 10uF 100V     | ケミコン       | C511             |     |
|          | Vi531200 | ELECTROLYTIC CAP            | 1000uF 100V   | ケミコン       | C529,530         |     |
|          | FM176220 | ELECTROLYTIC CAP            | 2.2uF 50V     | B Pケミコン    | C527             |     |
|          | FM177330 | ELECTROLYTIC CAP            | 33uF 50V      | B Pケミコン    | C503,504         |     |
|          | FM177470 | ELECTROLYTIC CAP            | 47uF 50V      | B Pケミコン    | C507,508         |     |
|          | FU350500 | MICA CAP                    | 5pF 500V      | マイカコン      | C523,524         |     |
|          | FU451680 | MICA CAP                    | 68pF 500V     | マイカコン      | C519-522         |     |
|          | VC793700 | COIL                        | RZ-001 1.5uH  | 空芯コイル      | C501,502         |     |
|          | HV455220 | FLAME PROOF CARBON RESISTOR | 220Ω 1/4W     | 不燃化カーボン抵抗  | R513-516         |     |
|          | HV453100 | FLAME PROOF CARBON RESISTOR | 1Ω 1/4W       | 不燃化カーボン抵抗  | R547-549         |     |
|          | HV453220 | FLAME PROOF CARBON RESISTOR | 2.2Ω 1/4W     | 不燃化カーボン抵抗  | R573,574         | G,B |
|          | HV453220 | FLAME PROOF CARBON RESISTOR | 2.2Ω 1/4W     | 不燃化カーボン抵抗  | R595             |     |
|          | HV454100 | FLAME PROOF CARBON RESISTOR | 10Ω 1/4W      | 不燃化カーボン抵抗  | R569,570         |     |
|          | HV454470 | FLAME PROOF CARBON RESISTOR | 47Ω 1/4W      | 不燃化カーボン抵抗  | R525,526         |     |
|          | HV455100 | FLAME PROOF CARBON RESISTOR | 100Ω 1/4W     | 不燃化カーボン抵抗  | R531-534         |     |

\* : New Parts (新機部品)

ランク : Japan only

MX-830



| Ref. NO. | PART NO. | Description                 | 部 品 名          |      | Remarks   | Markets              | ランク     |
|----------|----------|-----------------------------|----------------|------|-----------|----------------------|---------|
|          | HV455220 | FLAME PROOF CARBON RESISTOR | 220Ω           | 1/4W | 不燃化カーボン抵抗 | R589,590             |         |
|          | HV455470 | FLAME PROOF CARBON RESISTOR | 470Ω           | 1/4W | 不燃化カーボン抵抗 | R583,584             |         |
|          | HV455820 | FLAME PROOF CARBON RESISTOR | 820Ω           | 1/4W | 不燃化カーボン抵抗 | R523,524             | △       |
|          | HV456680 | FLAME PROOF CARBON RESISTOR | 6.8KΩ          | 1/4W | 不燃化カーボン抵抗 | R543                 |         |
|          | HV457100 | FLAME PROOF CARBON RESISTOR | 10KΩ           | 1/4W | 不燃化カーボン抵抗 | R539                 |         |
|          | HU574680 | METAL FILM RESISTOR         | 68Ω            | 1/4W | 金属被膜抵抗    | R517,518             |         |
|          | HU575470 | METAL FILM RESISTOR         | 470Ω           | 1/4W | 金属被膜抵抗    | R501,502,505,506     |         |
|          | HU596100 | METAL FILM RESISTOR         | 1KΩ            | 1/4W | 金属被膜抵抗    | R511,512             |         |
|          | HU577270 | METAL FILM RESISTOR         | 27KΩ           | 1/4W | 金属被膜抵抗    | R509,510,535,536     |         |
|          | HL316100 | METAL OXIDE RESISTOR        | 1KΩ            | 1W   | 酸化金属被膜抵抗  | R567,568             |         |
|          | HL323220 | METAL OXIDE RESISTOR        | 2.2Ω           | 2W   | 酸化金属被膜抵抗  | R571,572             |         |
|          | HL323470 | METAL OXIDE RESISTOR        | 4.7Ω           | 2W   | 酸化金属被膜抵抗  | R545,546             |         |
|          | HL325330 | METAL OXIDE RESISTOR        | 330Ω           | 2W   | 酸化金属被膜抵抗  | R564                 |         |
|          | HL326390 | METAL OXIDE RESISTOR        | 3.9KΩ          | 2W   | 酸化金属被膜抵抗  | R565                 |         |
|          | HL326680 | METAL OXIDE RESISTOR        | 6.8KΩ          | 2W   | 酸化金属被膜抵抗  | R527-530             |         |
|          | KA804620 | PUSH SWITCH                 |                |      | プッシュスイッチ  | SW501                |         |
|          | VA961800 | VOLTAGE SELECTOR            | ESE-37247-F    |      | 電圧切替器     | SW502                | R       |
|          | VD370900 | FUSE                        | 10A            |      | ヒューズ      | F501,502             | U,C,R   |
|          | KB001760 | FUSE                        | 6.3A           | 250V | ヒューズ      | F501,502             | A,B,G   |
|          | KB001300 | FUSE                        | 7A             | 250V | ヒューズ      | F503                 | R       |
|          | KC001610 | RELAY                       | JC2AD-DC24V    | 24V  | リレー       | RY501                |         |
|          | VE642400 | PIN JACK                    | T5855-AAAE     |      | ピンジャック    | PJ501                |         |
|          | VE796100 | SPEAKER TERMINAL            | T6319-A        |      | スピーカ端子    | TE501,502            | U,C,R,A |
|          | VE795600 | SPEAKER TERMINAL            | T6319          |      | スピーカ端子    | TE501,502            | B,G     |
|          | VE796100 | SPEAKER TERMINAL            | T6319-A        |      | スピーカ端子    | TE503                | U,C,R,A |
|          | VE795700 | SPEAKER TERMINAL            | T6324          |      | スピーカ端子    | TE503                | B,G     |
|          | VA725500 | HOLDER                      | 5P             |      | パラレルホルダ   | CB501,502            |         |
|          | VD004500 | BASE PIN                    | 2P             |      | ベースピン     | CB507                |         |
|          | VD004900 | BASE PIN                    | 6P             |      | ベースピン     | CB506                |         |
|          | LB918030 | BASE PIN                    | 3P             |      | ベースツキポスト  | CB503                |         |
| *        | Vi862800 | POTENTIOMETER               | B60KΩ          |      | ロータリーVR   | VR501,502            |         |
|          | iA097000 | TRANSISTOR                  | 2SA970 GR,BL   |      | トランジスタ    | Q503-506,517,527,528 |         |
|          | VC218700 | TRANSISTOR                  | 2SA1317 R,S,T  |      | トランジスタ    | Q522                 |         |
|          | iA135200 | TRANSISTOR                  | 2SA1352 D,E,F  |      | トランジスタ    | Q515,516             | △       |
|          | iC053540 | TRANSISTOR                  | 2SC535 A,B,C   |      | トランジスタ    | Q501,502             |         |
|          | iC1815C0 | TRANSISTOR                  | 2SC1815 Y      |      | トランジスタ    | Q509,510             |         |
|          | iC224000 | TRANSISTOR                  | 2SC2240 GR,BL  |      | トランジスタ    | Q507,508,523-526     |         |
|          | VC218900 | TRANSISTOR                  | 2SC3330 R,S,T  |      | トランジスタ    | Q518,519             |         |
|          | VE198800 | TRANSISTOR                  | 2SC2705 O,Y    |      | トランジスタ    | Q511,512             | △       |
|          | iC341600 | TRANSISTOR                  | 2SC3416 D,E,F  |      | トランジスタ    | Q513,514             | △       |
|          | iD040000 | TRANSISTOR                  | 2SD400-MP E,F  |      | トランジスタ    | Q520                 |         |
|          | iF004600 | DIODE                       | 1SS133         |      | ダイオード     | D501-512,526,527,533 |         |
|          | iF008480 | DIODE                       | 1SR35-100A     |      | ダイオード     | D525,528,529         |         |
|          | VC398400 | DIODE                       | MA185          |      | ダイオード     | D513,514             |         |
|          | iH001130 | DIODE BRIDGE                | D5FB20 5A 200V |      | ダイオードブリッジ | D517,518             | △       |
|          | VE367900 | DIODE BRIDGE                | DF02M 1A 200V  |      | ダイオードブリッジ | D516                 | △       |
|          | VG438100 | ZENER DIODE                 | MTZJ6.2C 6.2V  |      | ツェナーダイオード | D515                 |         |
|          | VG442600 | ZENER DIODE                 | MTZJ24C 24V    |      | ツェナーダイオード | D530                 |         |
|          | LB201970 | FUSE HOLDER PIN             |                |      | ヒューズホルダピン |                      | U,C,R   |
|          | LB201060 | FUSE HOLDER PIN             |                |      | ヒューズホルダピン |                      | A,B,G   |

| Ref. NO. | PART NO. | Description                 |         |        | 部 品 名      | Remarks                             | Markets | ランク |
|----------|----------|-----------------------------|---------|--------|------------|-------------------------------------|---------|-----|
|          | BB070410 | BUS BAR                     |         |        | バスバー       |                                     |         |     |
|          | BB070700 | MATAL, GROUND               |         |        | アース金具      |                                     |         |     |
|          | BB066290 | WASHER, GROUND              |         |        | アースワッシャー   |                                     |         |     |
|          | NA097740 | SUB CIRCUIT BOARD           |         |        | サブシート      |                                     | U, C, R |     |
|          | NA097760 | SUB CIRCUIT BOARD           |         |        | サブシート      |                                     | B, G    |     |
|          | NA099440 | SUB CIRCUIT BOARD           |         |        | サブシート      |                                     | A       |     |
|          | Fi514100 | CERAMIC CAP                 | 0.01uF  | VA-1   | スパークキラーコン  | C347                                |         | △   |
|          | UT452220 | MICA CAP                    | 220pF   | 500V   | マイカコン      | C305-308                            |         |     |
|          | FZ005410 | ELECTROLYTIC CAP            | 100uF   | 6.3V   | ケミコン       | C309, 310                           |         |     |
|          | VH620800 | ELECTROLYTIC CAP            | 47uF    | 25V    | ケミコン       | C311-314                            |         |     |
|          | VE941800 | ELECTROLYTIC CAP            | 100uF   | 50V    | オーディオケミコン  | C323-326                            |         |     |
|          | Vi861500 | POLYETHYLENE FILM CAP       | 3900pF  | 100V   | メタライズドポリコン | C301-304                            |         |     |
|          | Vi862000 | POLYETHYLENE FILM CAP       | 0.022uF | 100V   | メタライズドポリコン | C327-334, 343-346                   |         |     |
|          | Vi862100 | POLYETHYLENE FILM CAP       | 0.047uF | 100V   | メタライズドポリコン | C335-342                            |         |     |
|          | UT452100 | POLYPROPYLENE FILM CAP      | 100pF   | 100V   | PPコン       | C319-322                            |         |     |
|          | UT452150 | POLYPROPYLENE FILM CAP      | 150pF   | 100V   | PPコン       | C315-318                            |         |     |
|          | HL326560 | METAL OXIDE RESISTOR        | 5.6KΩ   | 2W     | 酸化金属被膜抵抗   | R347-350                            |         |     |
|          | VE869300 | METAL OXIDE RESISTOR        | 0.1Ω    | 2W     | 酸化金属被膜抵抗   | R417-424                            |         | △   |
|          | VD952400 | METAL OXIDE RESISTOR        | 0.22Ω   | 3W     | 酸化金属被膜抵抗   | R371-382                            |         | △   |
|          | HV453100 | FLAME PROOF CARBON RESISTOR | 1Ω      | 1/4W   | 不燃化カーボン抵抗  | R425-428                            |         | △   |
|          | HV453220 | FLAME PROOF CARBON RESISTOR | 2.2Ω    | 1/4W   | 不燃化カーボン抵抗  | R351-362, 409-416                   |         | △   |
|          | HV453470 | FLAME PROOF CARBON RESISTOR | 4.7Ω    | 1/4W   | 不燃化カーボン抵抗  | R429-432, 435-438                   |         | △   |
|          | HV454220 | FLAME PROOF CARBON RESISTOR | 22Ω     | 1/4W   | 不燃化カーボン抵抗  | R343-346                            |         | △   |
|          | HV454470 | FLAME PROOF CARBON RESISTOR | 47Ω     | 1/4W   | 不燃化カーボン抵抗  | R405-408                            |         | △   |
|          | HV454680 | FLAME PROOF CARBON RESISTOR | 68Ω     | 1/4W   | 不燃化カーボン抵抗  | R367-370                            |         | △   |
|          | HV455100 | FLAME PROOF CARBON RESISTOR | 100Ω    | 1/4W   | 不燃化カーボン抵抗  | R301-304, 445, 446                  |         | △   |
|          | HV455220 | FLAME PROOF CARBON RESISTOR | 220Ω    | 1/4W   | 不燃化カーボン抵抗  | R363-366                            |         | △   |
|          | HV456100 | FLAME PROOF CARBON RESISTOR | 1KΩ     | 1/4W   | 不燃化カーボン抵抗  | R309-316, 325-334, 401-404, 439-442 |         | △   |
|          | HV456150 | FLAME PROOF CARBON RESISTOR | 1.5KΩ   | 1/4W   | 不燃化カーボン抵抗  | R305-308                            |         | △   |
|          | HV456270 | FLAME PROOF CARBON RESISTOR | 2.7KΩ   | 1/4W   | 不燃化カーボン抵抗  | R385, 386                           |         | △   |
|          | HV456330 | FLAME PROOF CARBON RESISTOR | 3.3KΩ   | 1/4W   | 不燃化カーボン抵抗  | R393-400                            |         | △   |
|          | HV456470 | FLAME PROOF CARBON RESISTOR | 4.7KΩ   | 1/4W   | 不燃化カーボン抵抗  | R383, 384                           |         | △   |
|          | HV457100 | FLAME PROOF CARBON RESISTOR | 10KΩ    | 1/4W   | 不燃化カーボン抵抗  | R321-324, 335-338                   |         | △   |
|          | HV457150 | FLAME PROOF CARBON RESISTOR | 15KΩ    | 1/4W   | 不燃化カーボン抵抗  | R317-320                            |         |     |
|          | HV457220 | FLAME PROOF CARBON RESISTOR | 22KΩ    | 1/4W   | 不燃化カーボン抵抗  | R387, 388                           |         |     |
|          | HT770250 | PRE-SET POTENTIOMETER       | B20KΩ   |        | 半固定VR      | VR301, 302                          |         |     |
|          | iA097000 | TRANSISTOR                  | 2SA970  | GR, BL | トランジスタ     | Q309, 310                           |         |     |
|          | VE198700 | TRANSISTOR                  | 2SA1145 | O, Y   | トランジスタ     | Q329, 330, 337, 338                 |         | △   |
|          | iC224000 | TRANSISTOR                  | 2SC2240 | GR, BL | トランジスタ     | Q311, 312, 333, 334                 |         | △   |
|          | VE198800 | TRANSISTOR                  | 2SC2705 | O, Y   | トランジスタ     | Q331, 332, 335, 336                 |         | △   |
|          | iA134900 | TRANSISTOR                  | 2SA1349 |        | トランジスタアレイ  | Q301, 302, 307, 308                 |         | △   |
|          | iC338100 | TRANSISTOR                  | 2SC3381 | GR, BL | トランジスタ     | Q303-306                            |         | △   |
|          | iA130610 | TRANSISTOR                  | 2SA1306 | O, Y   | トランジスタ     | Q315, 316                           |         | △   |
|          | iC329810 | TRANSISTOR                  | 2SC3298 | O, Y   | トランジスタ     | Q313, 314                           |         | △   |
|          | iX608510 | TRANSISTOR                  | 2SA1358 |        | トランジスタ     | Q341, 342                           |         | △   |
|          | iX608520 | TRANSISTOR                  | 2SC3421 |        | トランジスタ     | Q339, 340                           |         | △   |

MX-830

| Ref. NO. | PART NO. | Description      | 部 品 名      | Remarks   | Markets                                           | ランク     |   |
|----------|----------|------------------|------------|-----------|---------------------------------------------------|---------|---|
|          | iX609730 | TRANSISTOR       | 2SA1491    | トランジスタ    | Q319, 320, 323, 324, 327, 328, 345, 346, 349, 350 | A, B, G | ⚠ |
|          | iX609740 | TRANSISTOR       | 2SC3855    | トランジスタ    | Q317, 318, 321, 322, 325, 326, 343, 344, 347, 348 | A, B, G | ⚠ |
|          | iX611040 | TRANSISTOR       | 2SB1362    | トランジスタ    | Q319, 320, 323, 324, 327, 328, 345, 346, 349, 350 | U, C, R | ⚠ |
|          | iX611050 | TRANSISTOR       | 2SD2053    | トランジスタ    | Q317, 318, 321, 322, 325, 326, 343, 344, 347, 348 | U, C, R | ⚠ |
|          | VC398400 | DIODE            | MA185      | ダイオード     | D309-312                                          |         |   |
|          | iF004600 | DIODE            | 1SS133     | ダイオード     | D301-308                                          |         |   |
|          | VF514000 | DIODE            | 1S1885     | ダイオード     | D313-320                                          |         |   |
|          | VE869500 | DIODE            | 5KF10B     | ダイオード     | D329-332                                          |         | ⚠ |
|          | iF008860 | ZENER DIODE      | WTZ12B 12W | ツェナーダイオード | D321-324                                          |         | ⚠ |
|          | iF009090 | ZENER DIODE      | WTZ24C 24W | ツェナーダイオード | D325-328                                          |         |   |
|          | VF541400 | ZENER DIODE      | RD3.0FB 3V | ツェナーダイオード | D333, 334                                         |         | ⚠ |
|          | KA804300 | PUSH SWITCH      | ESB-99753V | プッシュSW    | SW301                                             |         | ⚠ |
|          | VE962600 | SLIDE SWITCH     | SDKGA4     | スライドSW    | SW302                                             | B, G    | ⚠ |
|          | VF600500 | FUSE             | 15A        | ヒューズ      | F301                                              | U, C, R | ⚠ |
|          | KB000770 | FUSE             | 6.3A 250V  | ヒューズ      | F301                                              | A, B, G | ⚠ |
|          | LB201970 | FUSE HOLDER PIN  |            | ヒューズホルダピン |                                                   | U, C, R | ⚠ |
|          | LB201060 | FUSE HOLDER PIN  |            | ヒューズホルダピン |                                                   | A, B, G |   |
|          | LA002580 | LAPPING TERMINAL | 2P         | ラッピング端子   |                                                   |         |   |
|          | LA002330 | LAPPING TERMINAL | 4P         | ラッピング端子   |                                                   |         |   |
|          | LA002340 | LAPPING TERMINAL | 5P         | ラッピング端子   |                                                   |         |   |
|          | BB070410 | BUS BAR          | L=55       | バスバー      |                                                   |         |   |
|          | BB070420 | BUS BAR          | L=100      | バスバー      |                                                   |         |   |
|          | BB070430 | BUS BAR          | L=145      | バスバー      |                                                   |         |   |
|          |          |                  |            |           |                                                   |         |   |
|          |          |                  |            |           |                                                   |         |   |
|          |          |                  |            |           |                                                   |         |   |
|          |          |                  |            |           |                                                   |         |   |
|          |          |                  |            |           |                                                   |         |   |

MX-830

## MECHANISM PARTS

| Ref. NO. | PART NO. | Description           | 部 品 名   |         | Remarks      | Markets  | ランク |
|----------|----------|-----------------------|---------|---------|--------------|----------|-----|
| 01       | Vi557900 | PANEL UNIT            |         |         | パネルユニット      |          |     |
| 01       | Vi558000 | PANEL UNIT            |         |         | パネルユニット      |          |     |
| 02       | Vi585100 | LED CIRCUIT BOARD     |         |         | LEDシート       |          |     |
| 03       | NA097740 | SUB CIRCUIT BOARD     |         |         | サブシート        | U,C,R    |     |
| 03       | NA097760 | SUB CIRCUIT BOARD     |         |         | サブシート        | B,G      |     |
| 03       | NA099440 | SUB CIRCUIT BOARD     |         |         | サブシート        | A        |     |
| 04       | VE772300 | RADIATOR              |         |         | ラジエータ        |          |     |
| 05       | VE776300 | FRAME L,RADIATOR      |         |         | フレーム L       |          |     |
| 06       | VE776400 | FRAME R,RADIATOR      |         |         | フレーム R       |          |     |
| 07       | VE776500 | FRAME,TR              |         |         | フレーム TR      |          |     |
| 08       | CB068880 | PLASTIC RIVET         | #1027   |         | ブラリベット       |          |     |
| 09       | VE776600 | SHEET                 |         |         | シート          |          |     |
| 10       | EZ000580 | CUP B-TYTE SCREW      | 3x14    | FCM3-BL | カップBタイトネジ    |          |     |
| 11       | EX600240 | BW HEAD TAPPING SCREW | 3x8     | FCM3-BL | BWヘッドタッピングネジ |          |     |
| 12       | Vi558900 | MAIN CIRCUIT BOARD    |         |         | メインシート       | U,C      |     |
| 12       | Vi559000 | MAIN CIRCUIT BOARD    |         |         | メインシート       | R        |     |
| 12       | Vi559100 | MAIN CIRCUIT BOARD    |         |         | メインシート       | A        |     |
| 12       | Vi559200 | MAIN CIRCUIT BOARD    |         |         | メインシート       | B,G      |     |
| 13       | CB072750 | CORD STOPPER          | SR-4N-4 |         | コードストッパー     | U,C,B,G  |     |
| 13       | CB620190 | CORD STOPPER          | CM-22B  |         | コードストッパー     | R,A      |     |
| 14       | MG002380 | POWER CORD            | 13A     |         | 電源コード        | U,C      |     |
| 14       | VE371000 | POWER CORD            | 6A      | 2M      | 電源コード        | R        |     |
| 14       | MG002310 | POWER CORD            | 7.5A    |         | 電源コード        | A        |     |
| 14       | Vi616000 | POWER CORD            | 6A      | 2M      | 電源コード        | B        |     |
| 14       | MG000910 | POWER CORD            | 6A      |         | 電源コード        | G        |     |
| 15       | XE204001 | POWER TRANSFORMER     |         |         | 電源トランス       | U        |     |
| 15       | XE205001 | POWER TRANSFORMER     |         |         | 電源トランス       | C        |     |
| 15       | XE206001 | POWER TRANSFORMER     |         |         | 電源トランス       | R        |     |
| 15       | XE207001 | POWER TRANSFORMER     |         |         | 電源トランス       | A,B,G    |     |
| 16       | CB069251 | BINDING TIE           | BK-1    |         | 束線止め         |          |     |
| 17       | VD614100 | TERMINAL              | ST8VP-B |         | 中継端子台        | A,B,G    |     |
| 18       | Vi615800 | ELECTROLYTIC CAP SET  | 25000uF | 50V     | ケミコンセット      | C537,538 |     |
| 18       | Vi615900 | ELECTROLYTIC CAP SET  | 27000uF | 42V     | ケミコンセット      | C535,536 |     |
| 19       | LB203060 | AC OUTLET             |         |         | ACアウトレット     | U,C,R    |     |
| 20       | Vi721800 | TOP COVER             |         |         | トップカバー       | BL       |     |
| 20       | Vi200600 | TOP COVER             |         |         | トップカバー       | T        |     |
| 21       | AA622030 | BOTTOM COVER          |         |         | ボトムカバー       |          |     |
| 22       | Vi201200 | REAR PANEL            |         |         | リヤパネル        | U,C      |     |
| 22       | Vi201100 | REAR PANEL            |         |         | リヤパネル        | R        |     |
| 22       | Vi201300 | REAR PANEL            |         |         | リヤパネル        | A        |     |
| 22       | Vi201400 | REAR PANEL            |         |         | リヤパネル        | B,G      |     |
| 23       | AA623350 | HOLDER CAPACITOR      |         |         | ケミコンホルダー     |          |     |
| 24       | VF476600 | FRAME SHEET           |         |         | フレームシート      |          |     |
| 25       | VH889200 | KNOB                  | D14     |         | ノブ           | BL       |     |
| 25       | VH889300 | KNOB                  | D14     |         | ノブ           | T        |     |
| 26       | VH816000 | BUTTON                | 3/14    |         | ボタン          | BL       |     |
| 26       | VH816100 | BUTTON                | 3/14    |         | ボタン          | T        |     |
| 27       | VH841900 | BUTTON                | 10/25   |         | ボタン          | BL       |     |
| 27       | VH842000 | BUTTON                | 10/25   |         | ボタン          | T        |     |
| 28       | CB660950 | LEG                   |         |         | レッグ          | BL       |     |

MX-830





| Ref. NO. | PART NO. | Description                  | 部 品 名      |          | Remarks      | Markets | ランク |
|----------|----------|------------------------------|------------|----------|--------------|---------|-----|
| 28       | Vi175700 | LEG                          |            |          | レグ           | T       |     |
| 29       | VE793500 | SHEET                        |            |          | シート SP       |         |     |
| 30       | Vi201500 | SIDE COVER R                 |            |          | サイドカバー R     | BL      |     |
| 30       | Vi201600 | SIDE COVER R                 |            |          | サイドカバー R     | T       |     |
| 31       | Vi320000 | SIDE COVER L                 |            |          | サイドカバー L     | BL      |     |
| 31       | Vi320100 | SIDE COVER L                 |            |          | サイドカバー L     | T       |     |
| 32       | CB601340 | SPACER                       |            |          | スペーサー        |         |     |
| 33       | AA603850 | SCREW                        |            |          | 段付ネジ         |         |     |
| 34       | CB099910 | RUBBER,CUSHION               |            |          | 防振ゴム         |         |     |
| 35       | VD608300 | DUMPER                       |            |          | ダンパートップ C    |         |     |
| 36       | Ei330086 | BINDING HEAD TAPPING SCREW   | 3x8        | FCM3-BL  | バインドタッピングネジ  |         |     |
| 37       | ED330066 | BINDING HEAD SCREW           | 3x6        | FCRM3-BL | バインド小ネジ      |         |     |
| 38       | EX600240 | BW HEAD TAPPING SCREW        | 3x8        | FCM3-BL  | BWヘッドタッピングネジ |         |     |
| 39       | EK330050 | BW HEAD TAPPING SCREW        | 3x18-8     | FCM3-BL  | BWヘッドタッピングネジ |         |     |
| 40       | EK336010 | BW HEAD TAPPING SCREW        | 3x8-8      | FCM3-BL  | BWヘッドタッピングネジ |         |     |
| 41       | EN301010 | BIND HEAD BONDING TAP. SCREW | 3x8        | FCM3-BL  | ボンディングタッピング  |         |     |
| 42       | EV220600 | PLAIN WASHER                 | 6x13x1     | FCM3-BL  | 平座金みがき丸      |         |     |
| 43       | AA627310 | GROUND TERMINAL              |            |          | GNDターミナル     |         |     |
| 44       | EV265560 | PLAIN WASHER                 | 3.6x10x0.8 | FNM3-3G  | 平座金みがき丸      |         |     |
| 45       | EN320010 | PAN HEAD SCREW               | 2.6x8      | FCM3-BL  | ナベタッピングネジ    |         | B,G |
| 46       | EK966070 | BW HEAD TAPPING SCREW        | 4x8        | ZMC2-BL  | BWヘッドタッピングネジ | BL      |     |
| 46       | EK365190 | BW HEAD B-TYTE SCREW         | 4x8-10     | FNM3-BL  | BWヘッドBタイトネジ  | T       |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |
|          |          |                              |            |          |              |         |     |

\* : New Parts (新規部品)

ランク : Japan only

# 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  | HJ353100           | HF853100           | 12K Ω  | HJ357120           | HF857120           |
| 1.8 "  | HJ353180           | *                  | 15 "   | HJ357150           | HF857150           |
| 2.2 "  | HJ353220           | HF853220           | 18 "   | HJ357180           | HF857180           |
| 3.3 "  | HJ353330           | HF853330           | 22 "   | HJ357220           | HF857220           |
| 4.7 "  | HJ353470           | HF853470           | 27 "   | HJ357270           | HF857270           |
| 5.6 "  | HJ353560           | HF853560           | 33 "   | HJ357330           | HF857330           |
| 10 "   | HJ354100           | HF854100           | 39 "   | HJ357390           | HF857390           |
| 15 "   | HJ354150           | HF854150           | 47 "   | HJ357470           | HF857470           |
| 22 "   | HJ354220           | HF854220           | 56 "   | HJ357560           | HF857560           |
| 27 "   | HJ354270           | HF854270           | 68 "   | HJ357680           | HF857680           |
| 33 "   | HJ354330           | HF854330           | 82 "   | HJ357820           | HF857820           |
| 39 "   | HJ354390           | HF854390           | 91 "   | HJ357910           | HF857910           |
| 47 "   | HJ354470           | HF854470           | 100 "  | HJ358100           | HF858100           |
| 56 "   | HJ354560           | HF854560           | 120 "  | HJ358120           | HF858120           |
| 68 "   | HJ354680           | HF854680           | 150 "  | HJ358150           | HF858150           |
| 82 "   | HJ354820           | HF854820           | 180 "  | HJ358180           | HF858180           |
| 100 "  | HJ355100           | HF855100           | 220 "  | HJ358220           | HF858220           |
| 110 "  | HJ355110           | HF855110           | 270 "  | HJ358270           | HF858270           |
| 120 "  | HJ355120           | HF855120           | 330 "  | HJ358330           | HF858330           |
| 150 "  | HJ355150           | HF855150           | 390 "  | HJ358390           | HF858390           |
| 160 "  | HJ355160           | *                  | 470 "  | HJ358470           | HF858470           |
| 180 "  | HJ355180           | HF855180           | 560 "  | HJ358560           | HF858560           |
| 220 "  | HJ355220           | HF855220           | 680 "  | HJ358680           | HF858680           |
| 270 "  | HJ355270           | HF855270           | 820 "  | HJ358820           | HF858820           |
| 330 "  | HJ355330           | HF855330           | 1.0M Ω | HJ359100           | HF859100           |
| 390 "  | HJ355390           | HF855390           | 1.2 "  | HJ359120           | *                  |
| 470 "  | HJ355470           | HF855470           | 1.5 "  | HJ359150           | HF859150           |
| 510 "  | *                  | HF855510           | 1.8 "  | HJ359180           | HF859180           |
| 560 "  | HJ355560           | HF855560           | 2.2 "  | HJ359220           | HF859220           |
| 680 "  | HJ355680           | HF855680           | 3.3 "  | HJ359330           | HF859330           |
| 820 "  | HJ355820           | HF855820           | 3.9 "  | HJ359390           | *                  |
| 910 "  | HJ355910           | HF855910           | 4.7 "  | HJ359470           | HF859470           |
| 1.0K Ω | HJ356100           | HF856100           |        |                    |                    |
| 1.2 "  | HJ356120           | HF856120           |        |                    |                    |
| 1.5 "  | HJ356150           | HF856150           |        |                    |                    |
| 1.8 "  | HJ356180           | HF856180           |        |                    |                    |
| 2.0 "  | HJ356200           | HF856200           |        |                    |                    |
| 2.2 "  | HJ356220           | HF856220           |        |                    |                    |
| 2.4 "  | HJ356240           | HF856240           |        |                    |                    |
| 2.7 "  | HJ356270           | HF856270           |        |                    |                    |
| 3.0 "  | HJ356300           | HF856300           |        |                    |                    |
| 3.3 "  | HJ356330           | HF856330           |        |                    |                    |
| 3.6 "  | HJ356360           | HF856360           |        |                    |                    |
| 3.9 "  | HJ356390           | HF856390           |        |                    |                    |
| 4.7 "  | HJ356470           | HF856470           |        |                    |                    |
| 5.1 "  | HJ356510           | HF856510           |        |                    |                    |
| 5.6 "  | HJ356560           | HF856560           |        |                    |                    |
| 6.8 "  | HJ356680           | HF856680           |        |                    |                    |
| 8.2 "  | HJ356820           | HF856820           |        |                    |                    |
| 9.1 "  | HJ356910           | HF856910           |        |                    |                    |
| 10 "   | HJ357100           | HF857100           |        |                    |                    |

