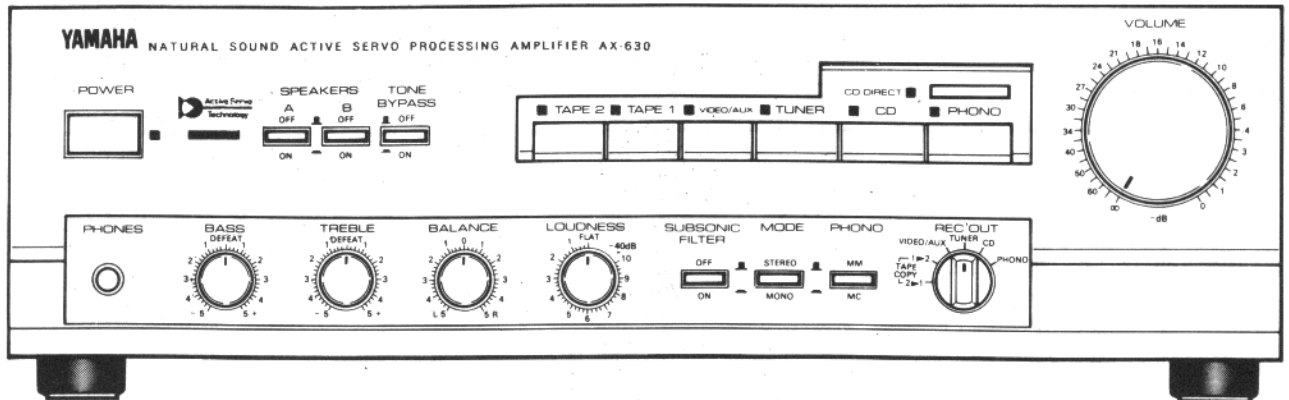


STEREO INTEGRATED AMPLIFIER AX-630

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.

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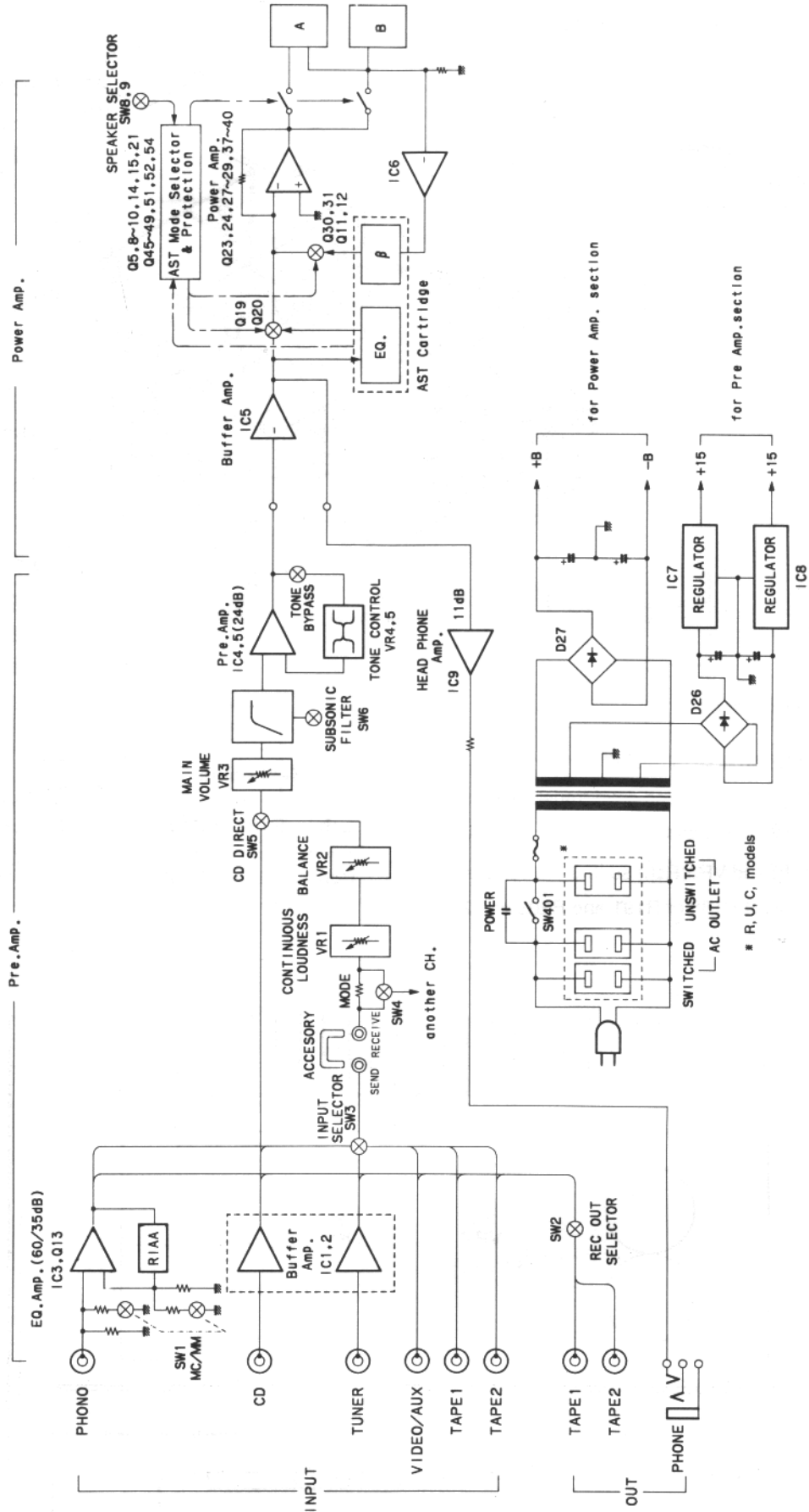
| | | | |
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100258

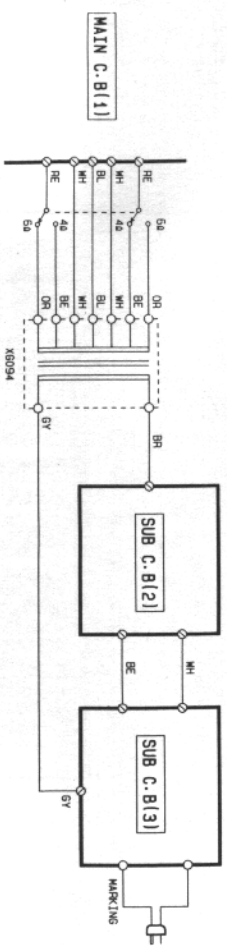
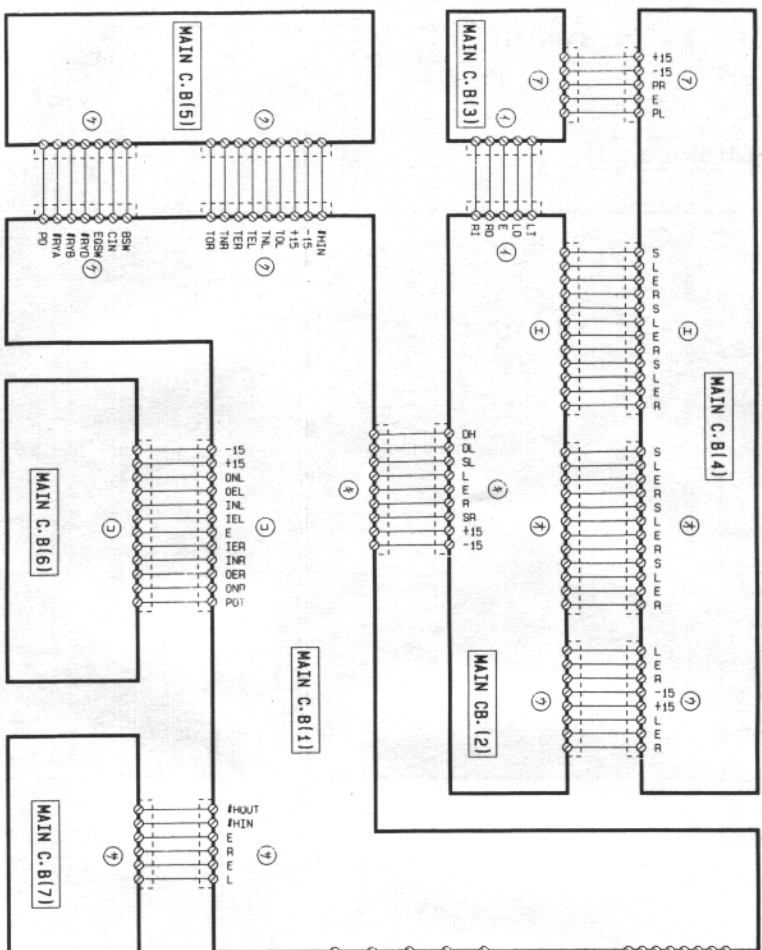
YAMAHA
YAMAHA CORPORATION
P.O. Box 1, Hamamatsu, Japan

3.7K-822 © Printed in Japan '89.5

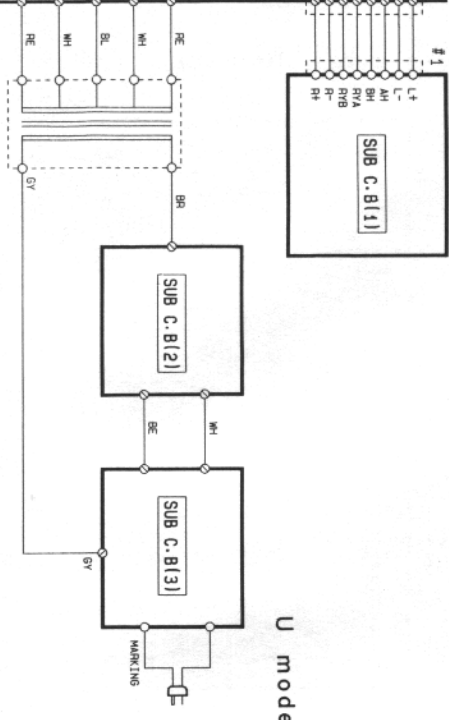
■ BLOCK DIAGRAM



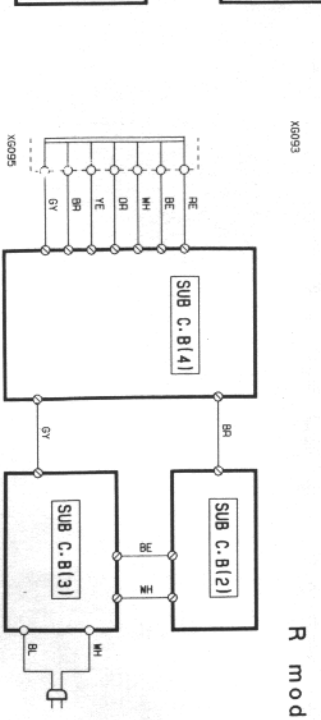
WIRING



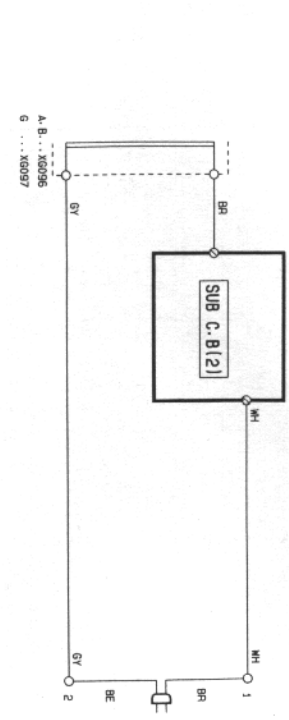
C model



U model



R model



A, B, G models

A. B. ... X8096
G ... X8097

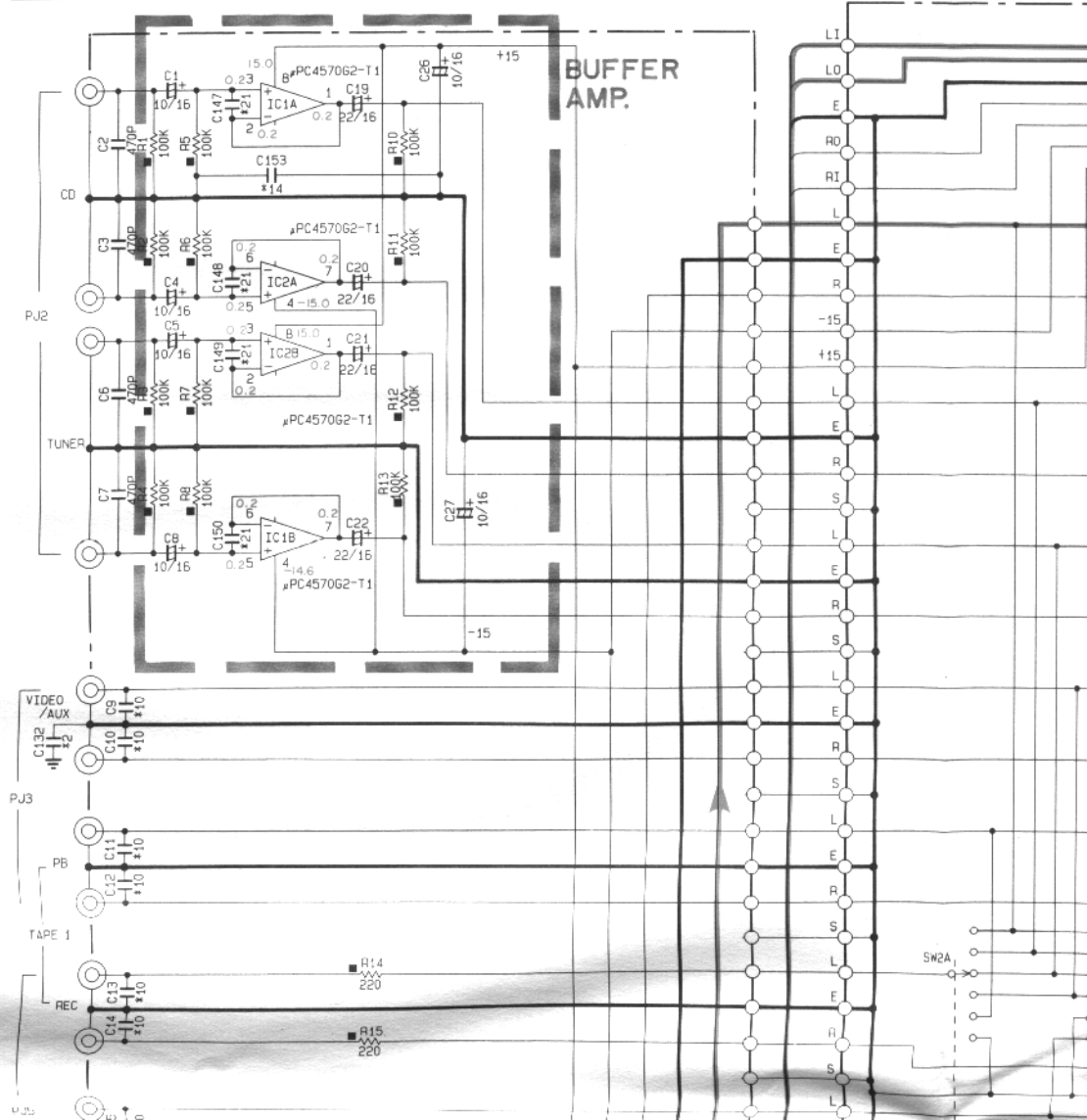
FA
)
COMMON
PUT
PUT

SCHEMATIC DIAGRAM

| | | J | U.C | R | A.B | G |
|-----|----------------------|-------|-----|---|-----|--------------|
| *1 | C51 | OPEN | | | | 5600P |
| *2 | C132 | OPEN | | | | 0.01 |
| *3 | C23.25 | OPEN | | | | 220P |
| *4 | R18.24 | 10 | | | | 33 |
| *5 | R27.31 | 100 | | | | 180 |
| *6 | L1.2 | SHORT | | | | 15 μ H |
| *7 | C32.33 | 220P | | | | 270P |
| *8 | L3.4 | OPEN | | | | 220 μ H |
| *9 | R19.25 | 33 | | | | 2.2K |
| *10 | C9-18 | OPEN | | | | 470P |
| *11 | C130 | OPEN | | | | (P) 0.01/100 |
| *12 | C402.405 | OPEN | | | | 0.022 |
| *13 | C401.406 C403.404 | OPEN | | | | (C) 0.01 |

| | | J | U.C | R | A.B | G |
|-----|----------------------|----------|--------|----------|-----------|-------|
| *14 | C151.152 C153 | OPEN | | | | 0.1 |
| *15 | C407 | 0.01/250 | 0.01 | | | |
| *16 | F401 | 7.0A250V | 7A125V | 7.0A250V | T2.5A250V | |
| *17 | F402 | OPEN | | 3.5A250V | OPEN | |
| *18 | C145.146 C408.409 | OPEN | | | | 0.047 |
| *19 | C36.39 | 1500P | | | | 2700P |
| *20 | C30.35 | OPEN | | | | 100P |
| *21 | C147.148 C149.150 | OPEN | | | | 47P |
| *22 | R405.406 | OPEN | | | | 2.2 |

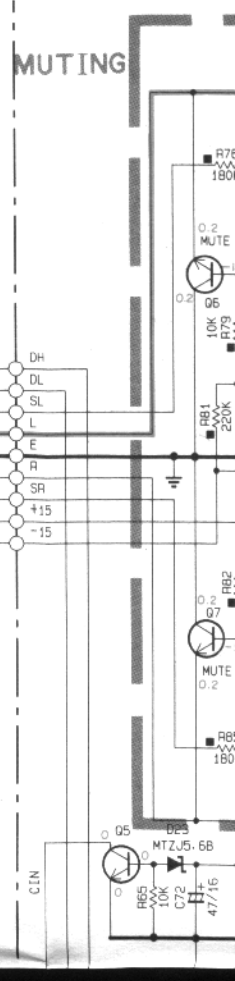
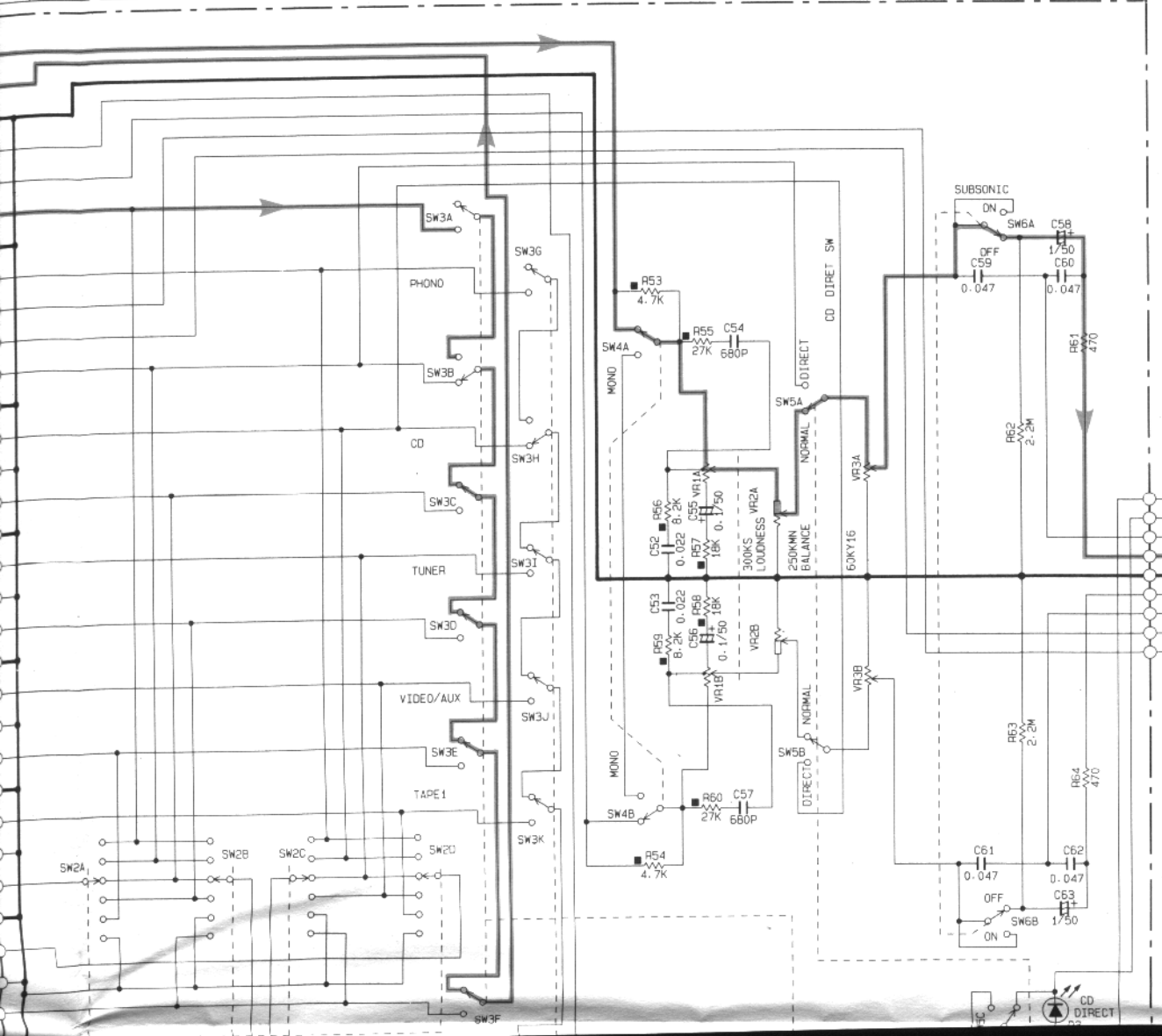
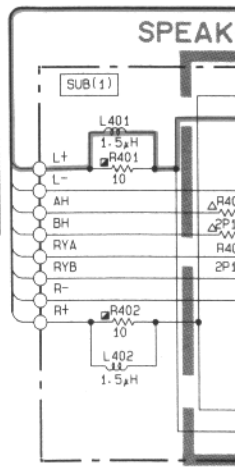
| LAST NO. | |
|----------|------------|
| C | 155 409 |
| R | 263 406 |
| Q | 54 |
| D | 30 402 |
| IC | 9 |



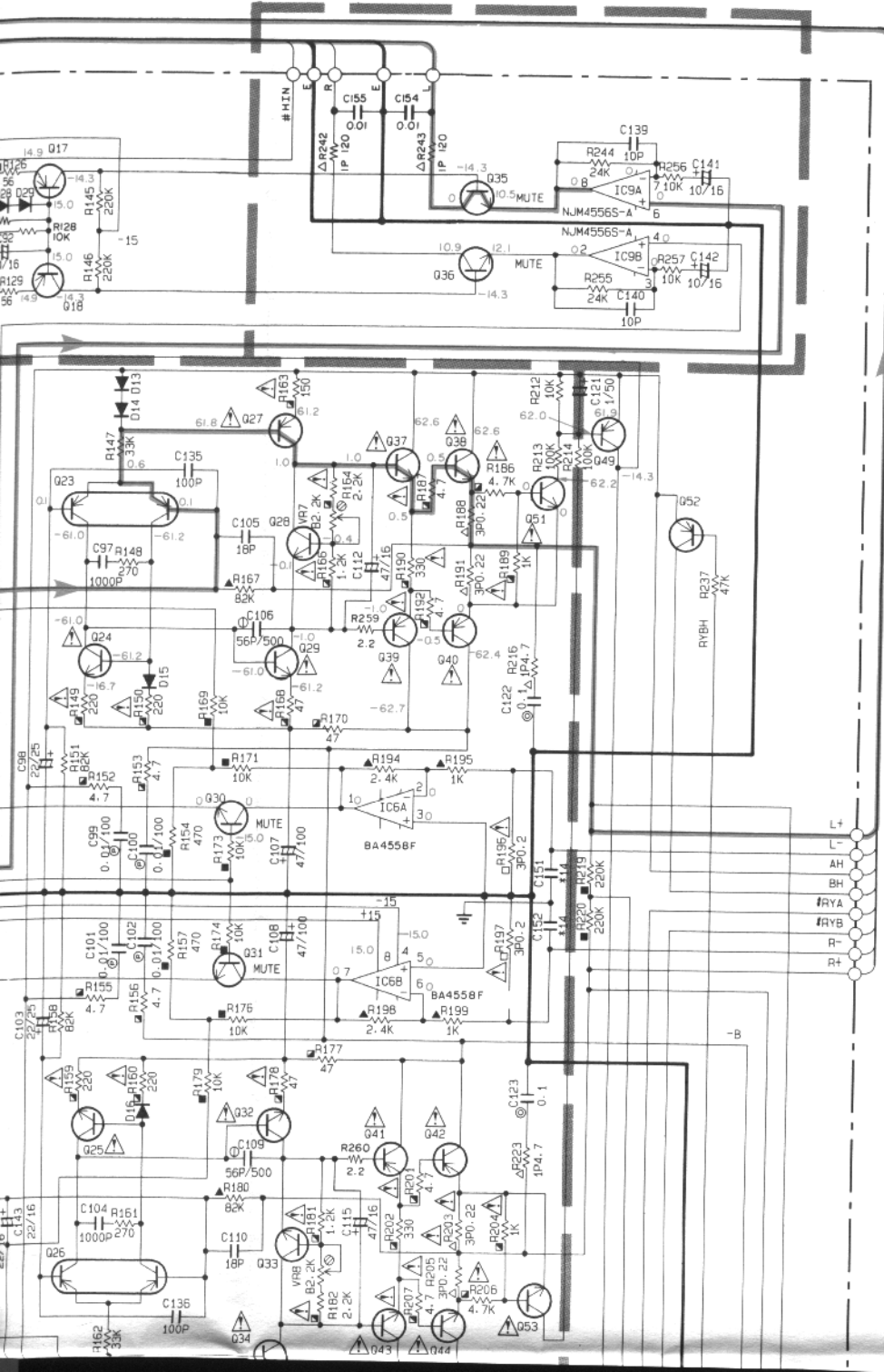
| | | |
|-------|--------------|---------------|
| 6 | LAST NO. | UN LISTED NO. |
| 0.1 | C 155 409 | |
| 0.047 | R 263 406 | |
| 2700P | Q 54 | |
| 100P | D 30 402 | |
| 47P | IC 9 | |
| 2.2 | | |

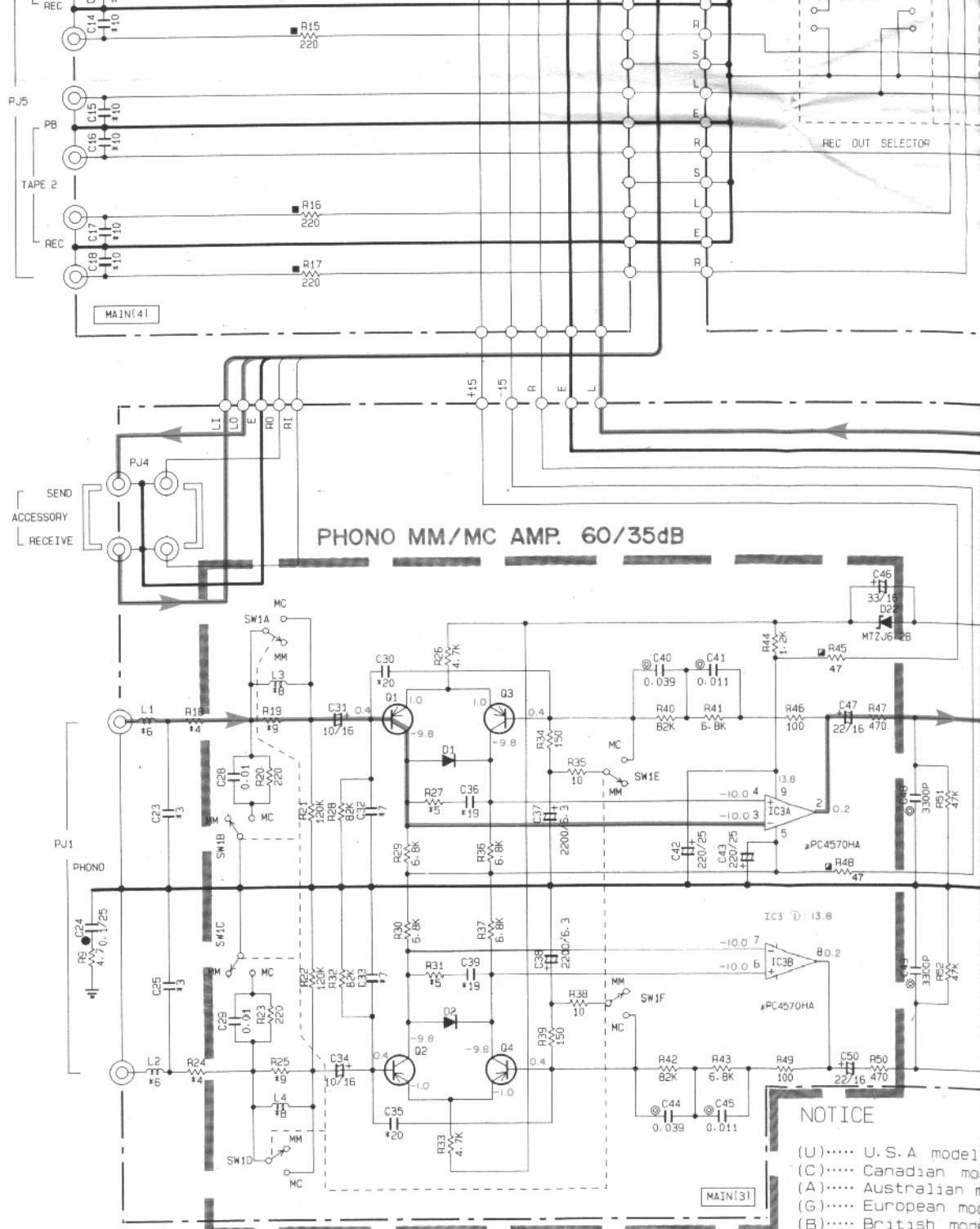
| CAPACITOR | |
|-----------|----------------------------------|
| REMARKS | PARTS NAME |
| NO MARK | ELECTROLYTIC CAPACITOR |
| ⊗ | TANTALUM CAPACITOR |
| NO MARK | CERAMIC CAPACITOR |
| ⊙ | POLYESTER FILM CAPACITOR |
| ○ | POLYSTYRENE FILM CAPACITOR |
| ⊖ | MICA CAPACITOR |
| ⊕ | POLYPROPYLENE FILM CAPACITOR |
| ⊗ | SEMICONDUCTIVE CERAMIC CAPACITOR |

| RESISTOR | |
|----------|---------------------------------|
| REMARKS | PARTS NAME |
| □ | CARBON FILM RESISTOR (1/6W) |
| △ | CARBON FILM RESISTOR (1/4W) |
| ⊖ | METAL OXIDE FILM RESISTOR |
| ⊕ | METAL FILM RESISTOR |
| ⊗ | METAL PLATE RESISTOR |
| ⊖ | FIRE PROOF CARBON FILM RESISTOR |
| □ | SEMENT MOLDED RESISTOR |
| ⊕ | SEMI VARIABLE RESISTOR |
| ■ | CHIP RESISTOR |



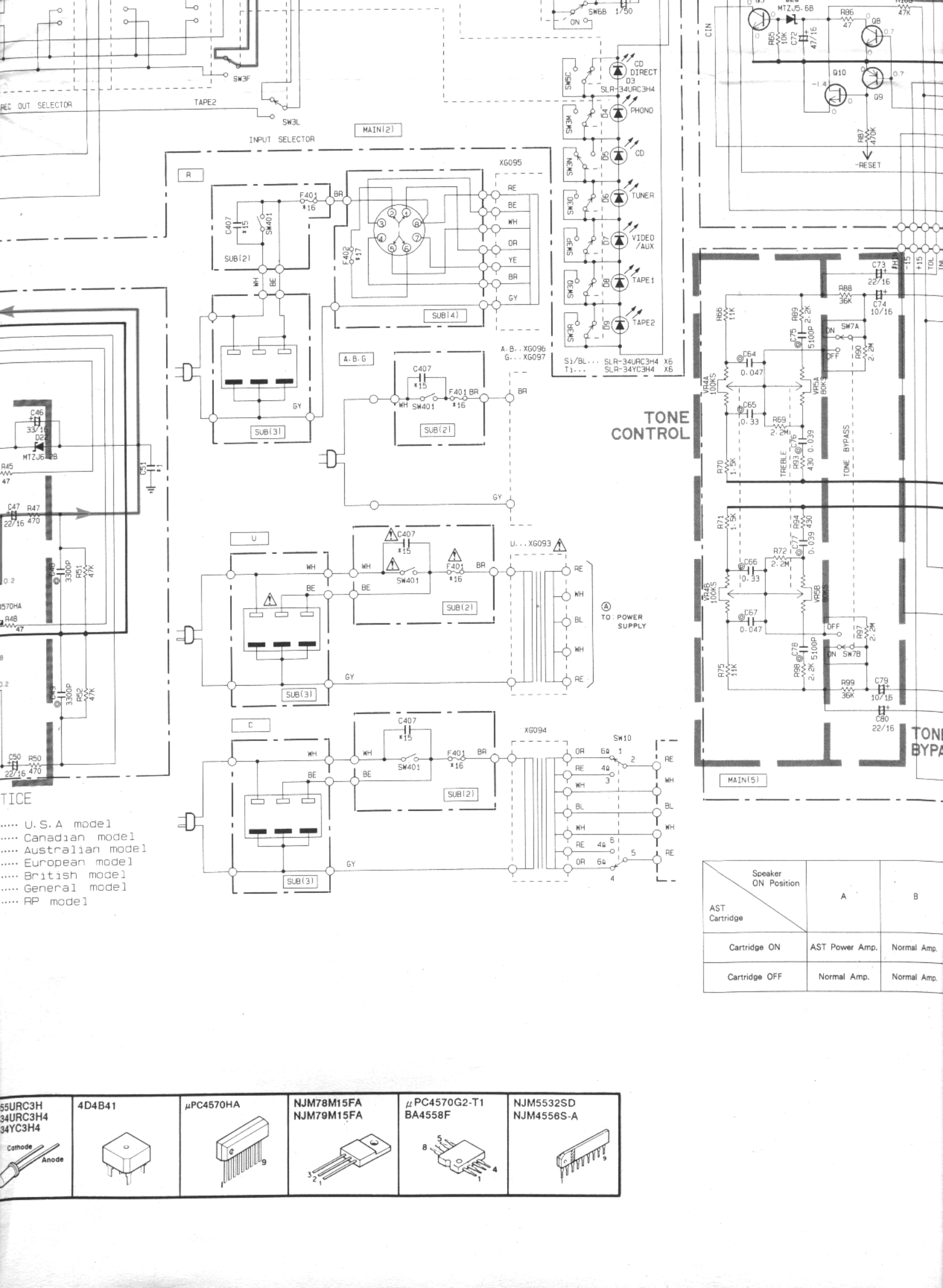
HEAD PHONE AMP.






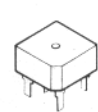
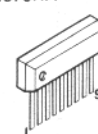
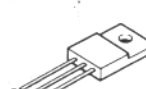
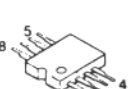

PIN CONNECTION DIAGRAM OF TRANSISTORS, DIODES AND ICs.

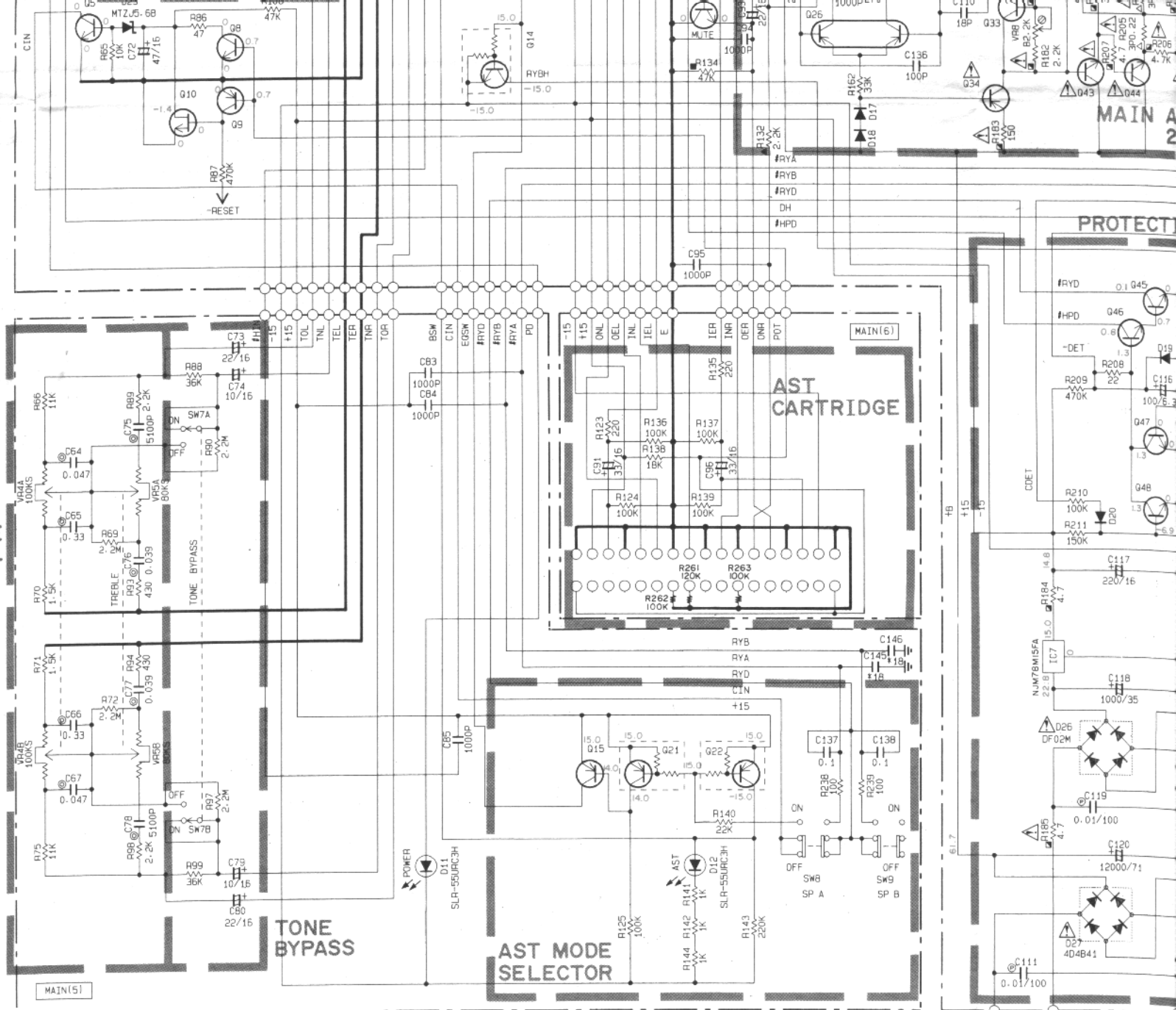
| | | | | | | | |
|--|---|---------------------------------|----------------------------|----------------|--|---|---------------|
| <p>2SA970(GR,BL) 2SC2240(GR,BL) 2SC2878(A,B) 2SK105(F,H)</p> | <p>2SA1115 2SA2803 DTA144ES DTC144ES DTA124ES</p> | <p>2SC2705(O,Y) 2SA1145</p> | <p>2SA1358 2SC3421</p> | <p>2SA1349</p> | <p>MTZJ6.2B 1SS133 MTZJ3.6A MTZJ5.6B</p> | <p>SLR-55URC3H SLR-34URC3H4 SLR-34YC3H4</p> | <p>4D4B41</p> |
|--|---|---------------------------------|----------------------------|----------------|--|---|---------------|



- TICE
- U.S.A model
 - Canadian model
 - Australian model
 - European model
 - British model
 - General model
 - RP model

| Speaker ON Position | AST Cartridge | |
|---------------------|----------------|-------------|
| | A | B |
| Cartridge ON | AST Power Amp. | Normal Amp. |
| Cartridge OFF | Normal Amp. | Normal Amp. |

| | | | | | |
|---|--|---|---|--|---|
| 55URC3H 34URC3H4 34YC3H4  | 4D4B41  | μPC4570HA  | NJM78M15FA NJM79M15FA  | μPC4570G2-T1 BA4558F  | NJM5532SD NJM4558S-A  |
|---|--|---|---|--|---|



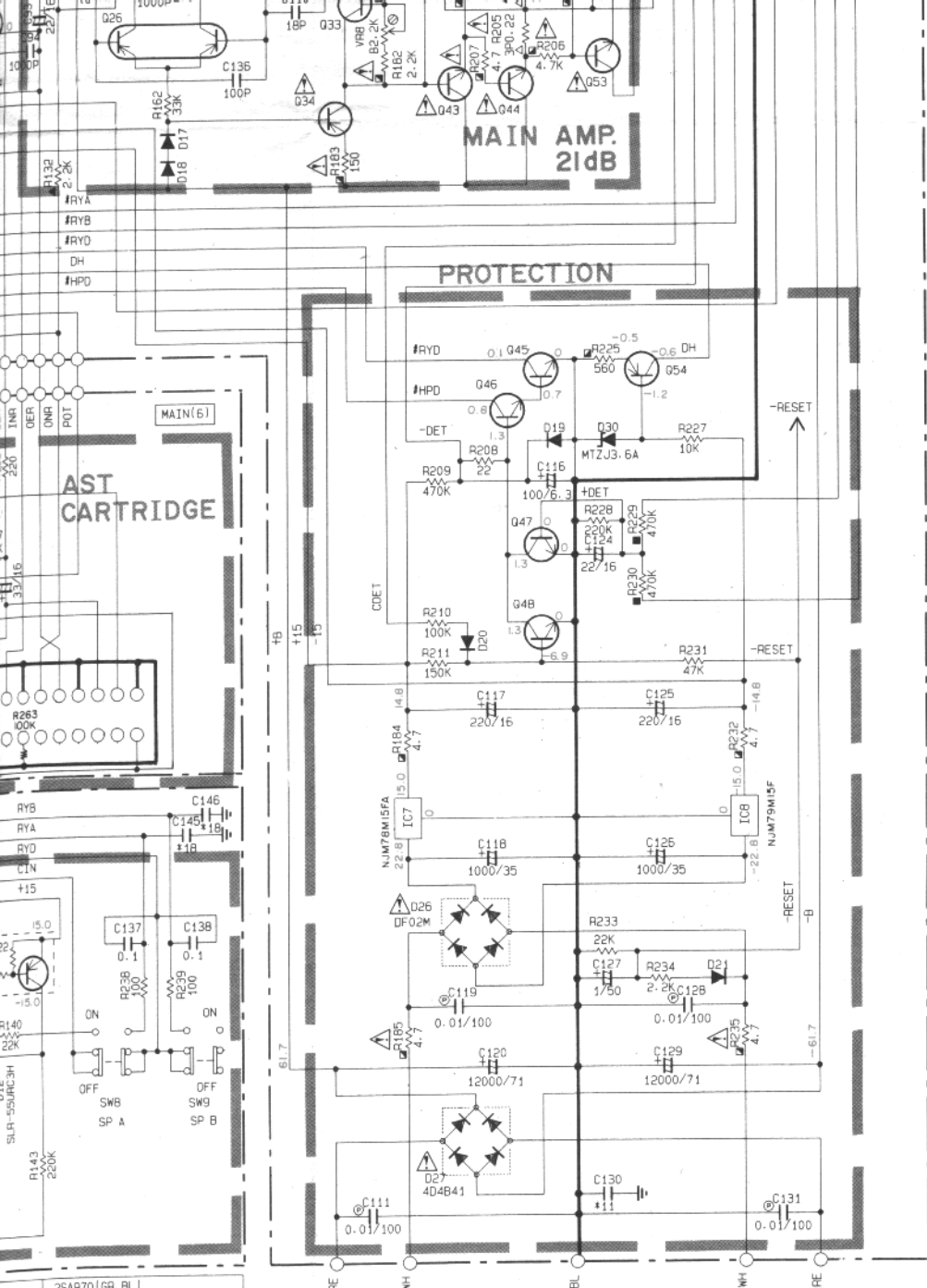
| Speaker ON Position | A | B | A + B | |
|---------------------|----------------|-------------|----------------------|----------------------|
| | | | A : Speaker Terminal | B : Speaker Terminal |
| Cartridge ON | AST Power Amp. | Normal Amp. | AST Power Amp. | - |
| Cartridge OFF | Normal Amp. | Normal Amp. | Normal Amp. | Normal Amp. |

| | |
|---------------------------------------|--------------------------------|
| Q1-4, 49, 52 | 2SA970(GR. BL.) |
| Q27, 34 | 2SA1145(O. Y.) |
| Q24, 25, 28, 33, 45, 51, 53 | 2SC2240(GR. BL.) |
| Q6, 7, 11, 12, 19, 20, 30, 31, 35, 36 | 2SC2678(A. B.) |
| Q29, 32 | 2SC2705(O. Y.) |
| Q39, 41 | 2SA1358 |
| Q37, 43 | 2SC3421 |
| Q23, 26 | 2SA1349(GR. BL.) |
| Q8, 15, 17, 18, 54 | 2SA1115(E. F.) |
| Q5, 8, 46-48 | 2SC2603(E. F.) |
| Q21 | DTA144ES |
| Q14 | DTC144ES |
| Q22 | DTA124ES |
| Q10 | 2SK105(E. F.) or 2SK105(F. H.) |

| | |
|---------|---------|
| Q40, 42 | 2SA1301 |
| Q38, 44 | 2SC3280 |

Unless otherwise specified
DIODE 1SS133

• All vol
• Comp
replac
• Schem



| |
|------------------------------|
| 25A970(GR. BL) |
| 25A1145(O. Y) |
| 25C2240(GR. BL) |
| 25C2878(A. B) |
| 25C2705(O. Y) |
| 25A1358 |
| 25C3421 |
| 25A1349(GR. BL) |
| 25A1115(E. F) |
| 25C2603(E. F) |
| DTA144ES |
| DTC144ES |
| DTA124ES |
| 25K105(E. F) or 2SK105(F. H) |

| | |
|---------|---------------|
| Q40. 42 | 25A1301(R. O) |
| Q38. 44 | 25C3280(R. O) |

Unless otherwise specified
 DIODE 1SS133

- All voltages are measured with a 10MΩ/V DC electric volt meter.
- Components having special characteristics are marked \triangle and must be replaced with parts having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.