

TA-D905

SERVICE MANUAL

AEP Model
UK Model
E Model



This set is a integrated stereo Amplifier
Block of the following models.
LBT-D905CD

SPECIFICATIONS

Continuous RMS power output

95 W + 95 W
(6 ohms, at 1 kHz, 5% THD)
80 W + 80 W
(6 ohms, at 1 kHz, DIN)

Music power output

160 W + 160 W
(6 ohms, at 1 kHz)

Audio section

Input

| INPUT | Jack type | Sensitivity | Impedance |
|--------|-----------|-------------|-----------|
| PHONO | Phono | 2.8 mV | 47 kohms |
| TUNER | Phono | 220 mV | 47 kohms |
| TAPE | Phono | 220 mV | 47 kohms |
| VIDEO1 | Phono | 220 mV | 47 kohms |
| VIDEO2 | Phono | 220 mV | 47 kohms |
| VIDEO3 | Phono | 220 mV | 47 kohms |
| SDP | Phono | 200 mV | 47 kohms |
| MIC | Phono | 0.7 mV | 10 kohms |

* At 80 W + 80 W output
With SDP IN and SDP OUT short-circuited

Output

| OUTPUT | Jack type | Sensitivity | Impedance |
|------------------|--------------------------------------|-------------|-----------|
| TAPE | Phono | 200 mV | 2 kohms |
| DAT | Phono | 200 mV | 2 kohms |
| VIDEO1 | Phono | 200 mV | 2 kohms |
| VIDEO2 | Phono | 200 mV | 2 kohms |
| SDP | Phono | 200 mV | 2 kohms |
| SURROUND SPEAKER | Accepts speakers of 16 ohms | | |
| HEADPHONES | Accepts headphones of 8 ohms or more | | |

Video section

Inputs

VIDEO1, VIDEO2, VIDEO3,
DBS: 1 Vp-p, 75 ohms

Outputs

VIDEO1, VIDEO2,
MONITOR: 1 Vp-p, 75 ohms

Frequency response

PHONO RIAA curve ± 0.5 dB
VIDEO1
VIDEO2
VIDEO3 10 Hz to 50 kHz $+0$ dB
SDP -3 dB
TUNER
TAPE
MIC 100 Hz to 10 kHz $+0$ dB
 -6 dB

General

Power requirements 120/220/240, 50/60Hz (E, Saudi Arabia models)
240V AC, 50/60Hz (UK model)
220 - 230V AC, 50/60Hz (AEP, Germany, Italian models)
Power consumption 230W (E, Saudi Arabia models)
400W (UK model)
200W (AEP, Germany, Italian models)
AC outlet 1 unswitched, 100 W max.
Dimensions Approx. 355 × 132.5 × 325 mm (w/h/d)
incl. projecting parts and controls
Weight Approx. 6.9 kg

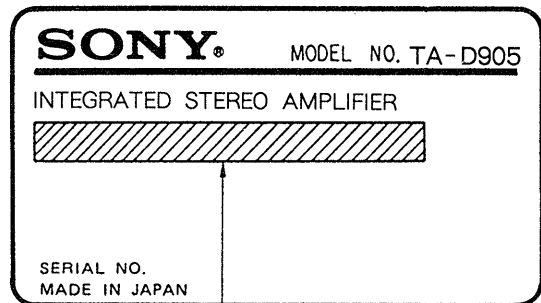
Design and specifications subject to change without notice.

INTEGRATED STEREO AMPLIFIER
SONY®

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MODEL IDENTIFICATION
 - Specification Label -





UK model : AC240V ~ 50/60Hz

AEP, Germany, Italian models : AC220 - 230V ~ 50/60Hz

E, Saudi Arabia models : AC120/220/240 ~ 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

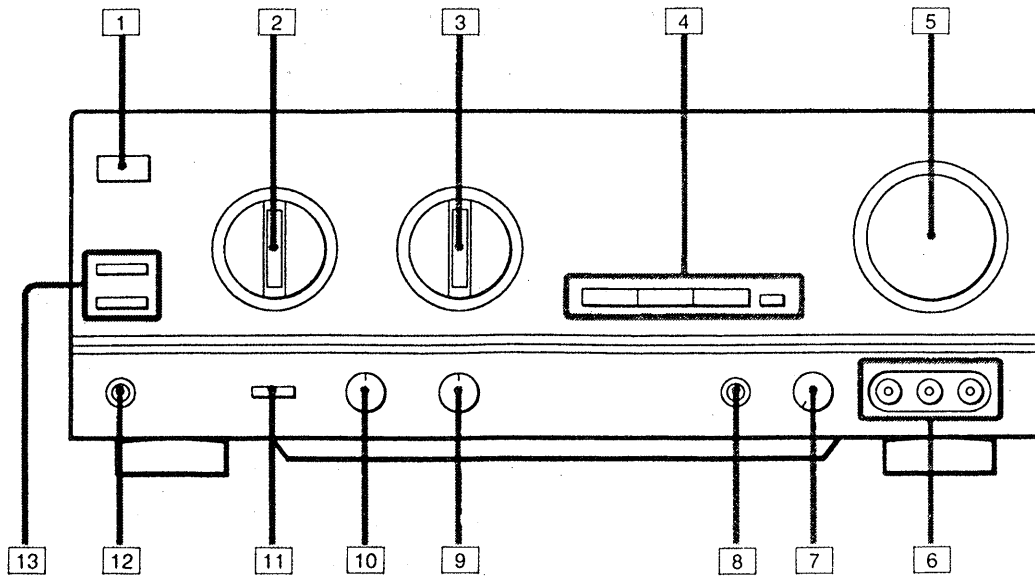
SECTION 1 GENERAL

This section is extracted from
instruction manual.

Location of Controls

Front Panel

Panneau frontal



Refer to the pages indicated in ● for details.

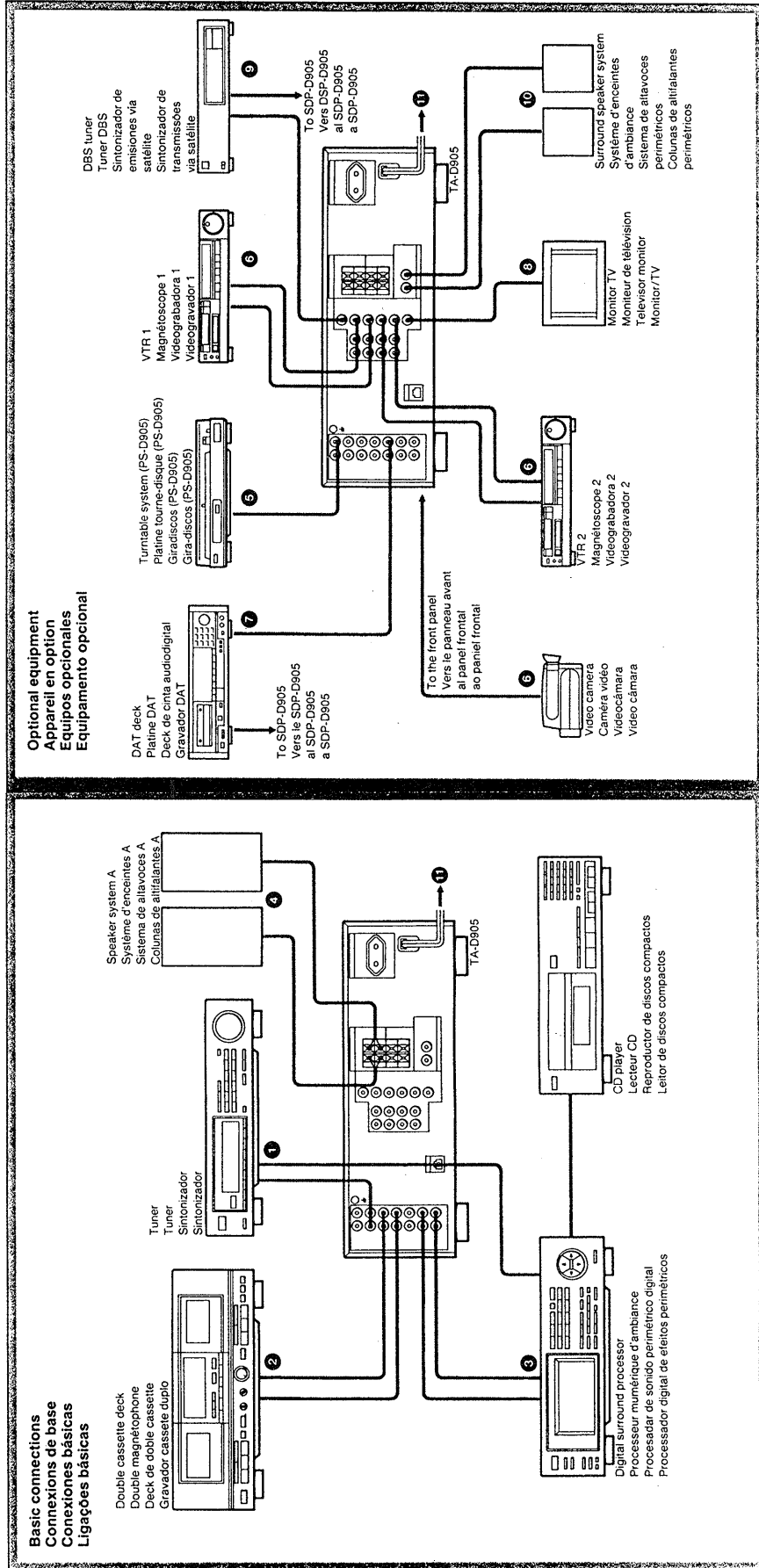
Amplifier

- 1 POWER switch
- 2 VIDEO FUNCTION selector ● 26
- 3 AUDIO FUNCTION selector ● 16
- 4 Buttons for storing sound quality settings
(PROGRAM FUNCTION) ● 23
- 5 VOLUME control ● 18
- 6 VIDEO3 input jacks
- 7 MIC LEVEL control ● 28, ● 29
- 8 MIC jack ● 28
- 9 BALANCE control ● 18
- 10 DBFB LEVEL control ● 20
- 11 DBFB button ● 20
- 12 HEADPHONES jack ● 20
- 13 SPEAKERS A/B selectors ● 20

Installation

Notes on Connection

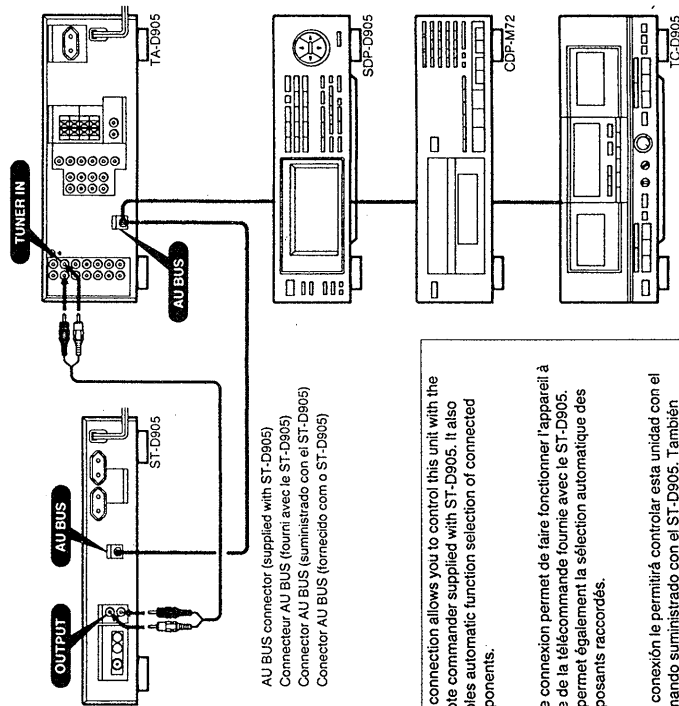
- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for left channel (L).
- Fully insert cable connectors into jacks. Loose connections may cause hum or noise.
- No audio or video connecting cords are supplied with this unit. They are supplied with other components.



Installation

1 Connecting a tuner

Connexion d'une tuner
 Conexión de un sintonizador
 Ligação de um sintonizador



AU BUS connector (supplied with ST-D905)
 Connecteur AU BUS (fourni avec le ST-D905)
 Conector AU BUS (suministrado con el ST-D905)
 Conector AU BUS (fornecido com o ST-D905)

This connection allows you to control this unit with the remote commander supplied with ST-D905. It also enables automatic function selection of connected components.

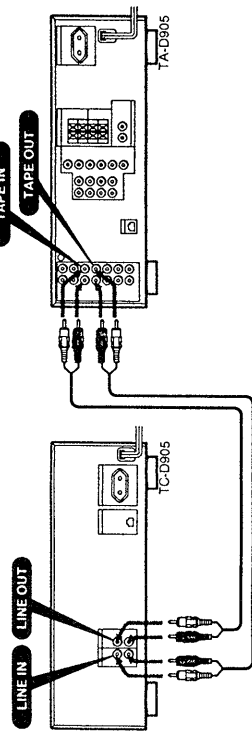
Cette connexion permet de faire fonctionner l'appareil à l'aide de la télécommande fournie avec le ST-D905. Elle permet également la sélection automatique des composants raccordés.

Esta conexión le permitirá controlar esta unidad con el telemando suministrado con el ST-D905. También permite la selección automática de función de los componentes conectados.

Esta ligação permite o controle do aparelho com o telemando fornecido com o ST-D905. Esta ligação permite também a seleção automática de funções nos componentes ligados.

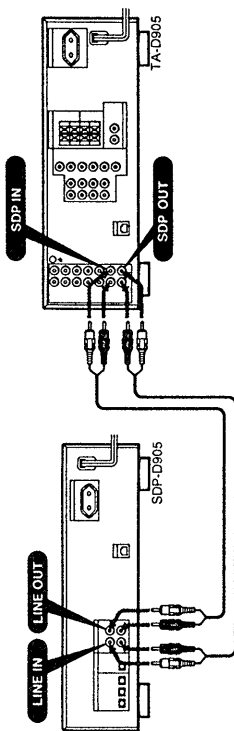
2 Connecting a double cassette deck

Connexion d'un double magnétophone
 Conexión de un deck de doble cassette
 Ligação de um gravador cassette duplo



3 Connecting a digital surround processor

Connexion d'un processeur numérique d'ambiance
 Conexión de un procesador de sonido perimétrico digital
 Ligação de um processador digital de efeitos perimétricos



Installation

7 Connecting a DAT deck

Connexion d'une platine DAT
 Conexión de un deck de cinta audiodigital
 Ligação de um gravador DAT

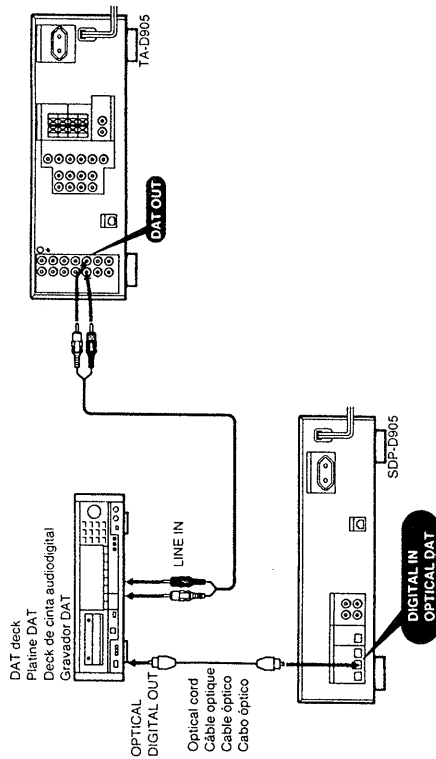
A DAT deck can be connected in 3 ways. When connecting a DAT, use only one of the following connections.

Une platine DAT peut être connectée de 3 manières différentes, mais les connexions doivent être effectuées selon un des systèmes suivant uniquement.

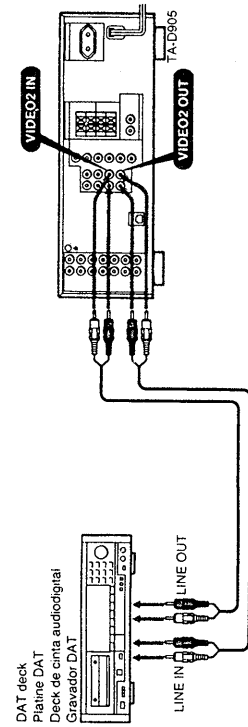
Usted podrá conectar un deck de cinta audiodigital de 3 formas. Cuando lo conecta, emplee solamente una de estas formas.

A ligação de um gravador DAT pode ser realizada de três maneiras. Utilize um dos seguintes modos para a ligação.

A

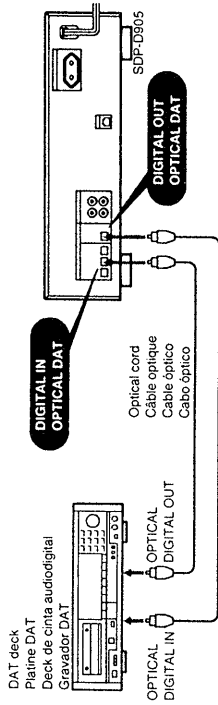


B



- *When playing back a DAT tape, select VEDEO2 with the AUDIO FUNCTION selector
- *Lors de la lecture d'une cassette DAT, sélectionner VEDEO2 avec le sélecteur AUDIO FUNCTION.
- *Para reproducir un cassette de cinta audio digital, elija VEDEO2 con el selector AUDIO FUNCTION.
- *Quando da reprodução de uma cassette no gravador DAT, posicione o selector AUDIO FUNCTION em VIDEO2.

C



Feature of these above connections

- Is the digital recording possible?
 Yes: No:
- connection enables you to record digital sound from a CD or DBS tuner connected with an optical cord without digital-analog conversion. Thus, this connection allows you to have your recording free of any deterioration in sound quality resulting from digital-analog conversion.
- Can the digital surround processor effects be recorded?
 Yes: No:

Particularidades de estas conexiones

- ¿Es posible la grabación digital?
 Si: No:
- La conexión le permitirá grabar sonido digital de un reproductor de discos compactos o de un receptor de emisiones vía satélite conectado con un cable óptico sin conversión digital-analógica. Por ello, esta conexión hará que pueda grabar sin que la calidad del sonido se vea deteriorada debido a la conversión digital-analógica.
- ¿Es posible grabar los efectos del procesador de sonido perimétrico digital?
 Si: No:

Caractéristique des connexions indiquées ci-dessus

- L'enregistrement numérique est-il possible?
 Oui: Non:
- L'enregistrement numérique est-il possible?
 Oui: Non:
- La connexion permet d'enregistrer le son numérique d'un lecteur de CD ou d'un tuner DBS raccordés par un câble optique sans avoir à faire la conversion numérique-analogique. Aussi, cette connexion vous permet-elle d'effectuer des enregistrements ne souffrant pas de déteriorations provenant de la conversion du signal numérique en signal analogique.
- Les effets créés par le processeur numérique d'ambiance peuvent-ils être enregistrés?
 Oui: Non:

Características das ligações acima

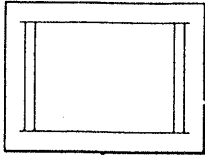
- É possível realizar gravações digitais?
 Sim: Não:
- A ligação C permite a gravação dos sinais digitais de um disco compacto ou sintonizador de transmissões via satélite ligado através de um cabo óptico, sem conversão digital-analógica. Esta ligação possibilita desta forma a obtenção de gravações livres de qualquer degradação na qualidade sonora resultante da conversão digital-analógica.
- Os efeitos do processador digital de efeitos perimétricos podem ser gravados?
 Sim: Não:

Installation

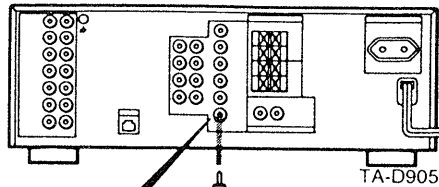
8 Connecting a monitor TV Connexion d'un moniteur de télévision

Conexión de un televisor monitor
Ligaçao de um monitor/TV

Monitor TV
Moniteur de télévision
Televisor monitor
Monitor/TV



VIDEO IN



MONITOR OUT

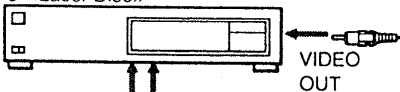
TA-D905

9 Connecting a DBS tuner or a Laser Disc player Connexion d'un tuner DBS ou d'un lecteur de LD

Conexión de un sintonizador de emisiones vía satélite o de un reproductor de discos láser
Ligaçao de um sintonizador de transmissões via satélite ou leitor de disco laser «Laser Disc»

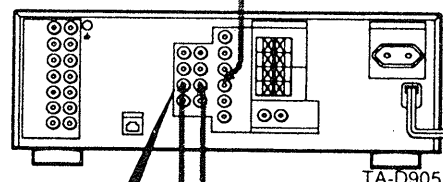
a For the equipment without an optical output/Pour appareil sans sortie optique/Para un equipo desprovisto de saída óptica/Equipamentos desprovidos de saída óptica

DBS tuner or Laser Disc player
Tuner DBS ou lecteur de LD
Sintonizador de emisiones vía satélite o reproductor de discos láser
Sintonizador de transmissões via satélite ou o «Laser Disc»



VIDEO OUT

AUDIO OUT

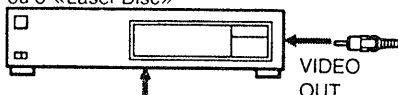


VIDEO2 IN

TA-D905

b For the equipment with an optical output/Pour appareil avec sortie optique/Para equipos provistos de saída óptica/Equipamentos providos de saída óptica

DBS tuner or Laser Disc player
Tuner DBS ou lecteur de LD
Sintonizador de emisiones vía satélite o reproductor de discos láser
Sintonizador de transmissões via satélite ou o «Laser Disc»

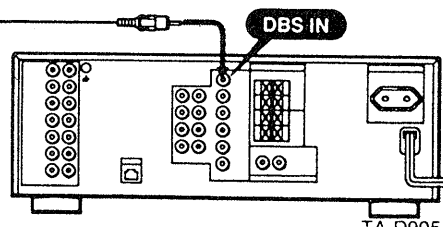


VIDEO OUT

OPTICAL DIGITAL OUT

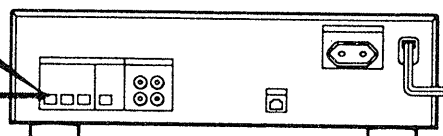
Optical cord
Câble optique
Cabo óptico
Cabo óptico

DIGITAL IN
OPTICAL DBS



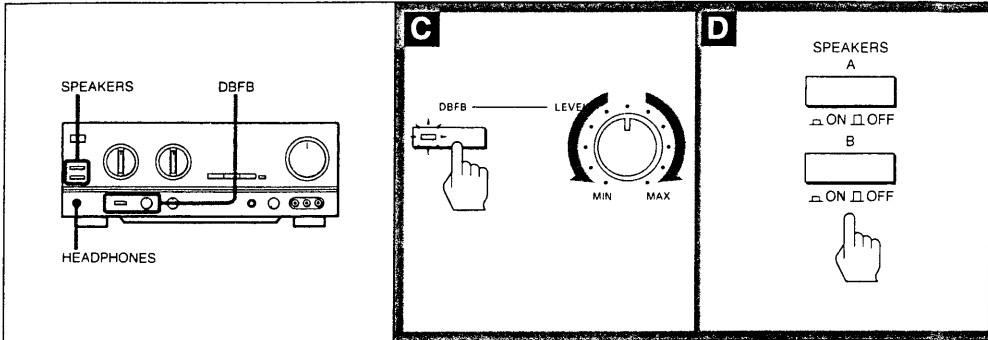
DBS IN

TA-D905



SDP-D905

Adjusting the Sound



Reinforcing the Bass

- 1 Press the DBFB button so that the indicator lights up.
- 2 Adjust the DBFB LEVEL control.

Selecting Speaker System

This amplifier provides for two speaker systems – system A and system B – which can be selected separately or simultaneously using the SPEAKERS selectors.

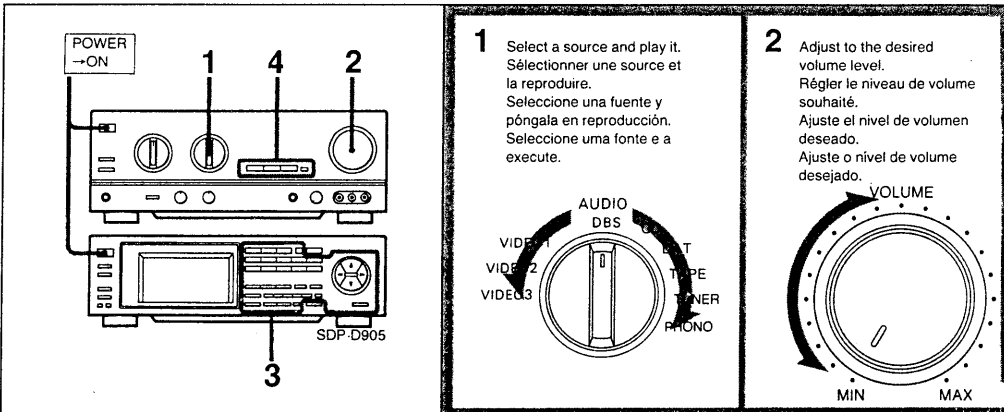
To drive speaker system A: Depress A.
 To drive speaker system B: Depress B.
 To drive both speaker systems A and B: Depress both A and B.

For private listening: Connect a pair of headphones to HEADPHONES and set both selectors to OFF (Δ).

• Speaker systems A and B are series connected. No sound can be heard if both SPEAKERS selectors are pressed when only one speaker system is connected.

Storing a Desired Sound Setting

You can store and recall 3 different combinations of program source, volume level, and sound quality.
 Store the settings in the PROGRAM FUNCTION buttons 1 to 3 on the amplifier.

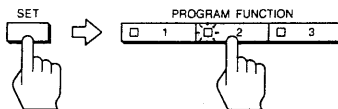
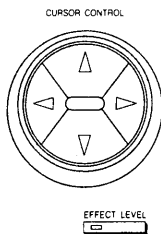
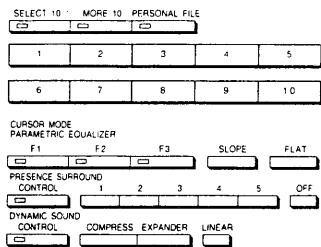


- 1 Select a source and play it.
Sélectionner une source et la reproduire.
Selecciona una fuente y póngala en reproducción.
Selecione una fonte e a execute.

- 2 Adjust to the desired volume level.
Régler le niveau de volume souhaité.
Ajuste el nivel de volumen deseado.
Ajuste o nível de volume desejado.

- 3 Set to the desired sound quality by using the digital surround processor.
Régler la qualité du son souhaité avec le processeur numérique d'ambiance.
Ajuste la cualidad de sonido deseada empleando el procesador de sonido perimétrico digital.
Ajuste a qualidade sonora desejada com o processador digital de efeitos perimétricos.

- 4 Store the setting.
Mémoriser le réglage.
Almacene el ajuste.
Armazene o ajuste.



Recalling a Sound Setting

Prepare the source and press the button for the desired setting.

Note on step 1

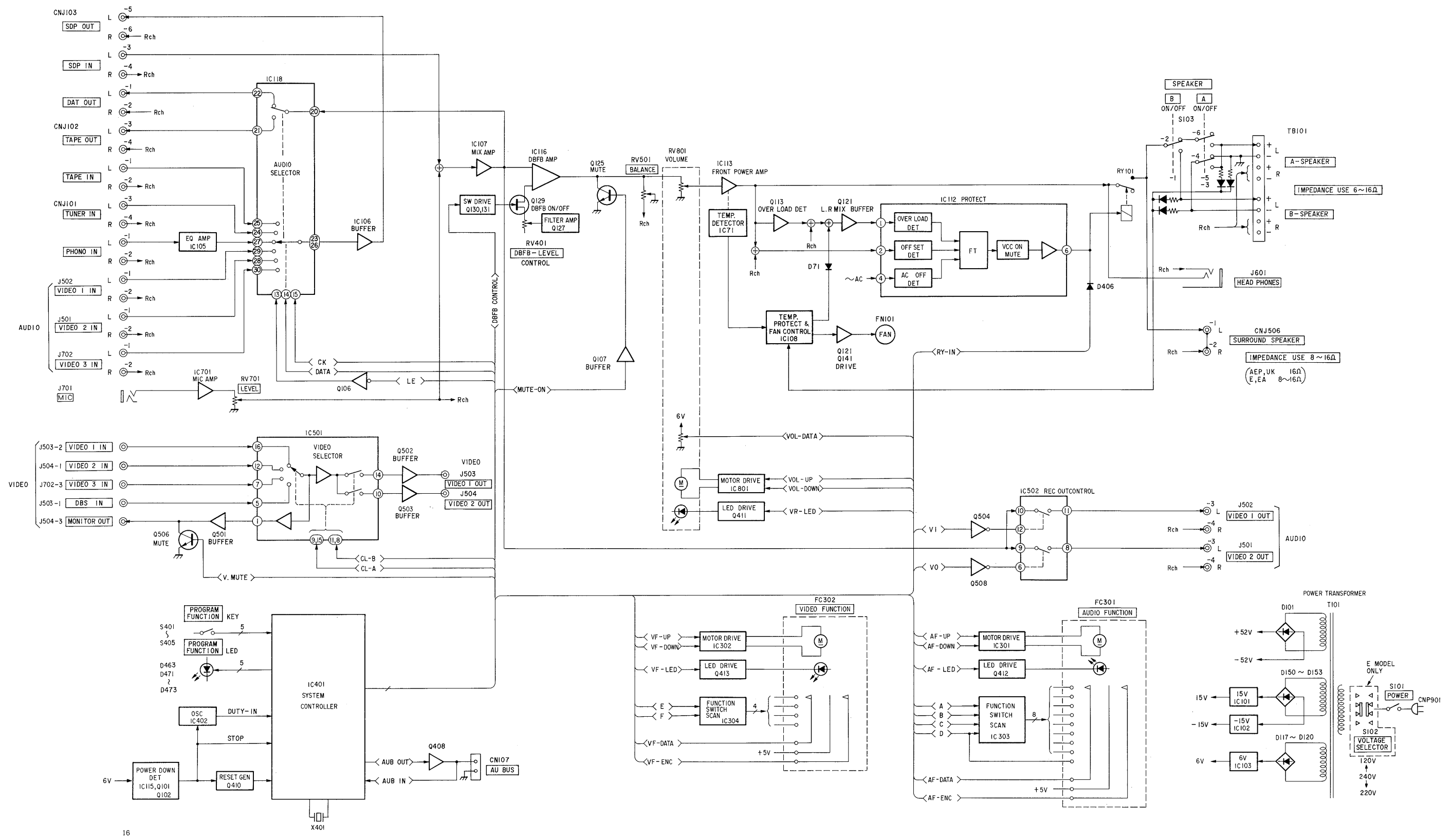
If you select the tuner ST-D905 as a source, the band and frequency of the station tuned in will be stored.

Notes on steps 2

- Adjust the VOLUME control within such a range that the volume level will not exceed half of the maximum volume.
- Be sure to set the VOLUME control to the position more than the second point from the minimum level. Otherwise, the stored setting will be recognized as the zero level.

SECTION 2 DIAGRAMS

2-1. BLOCK DIAGRAM



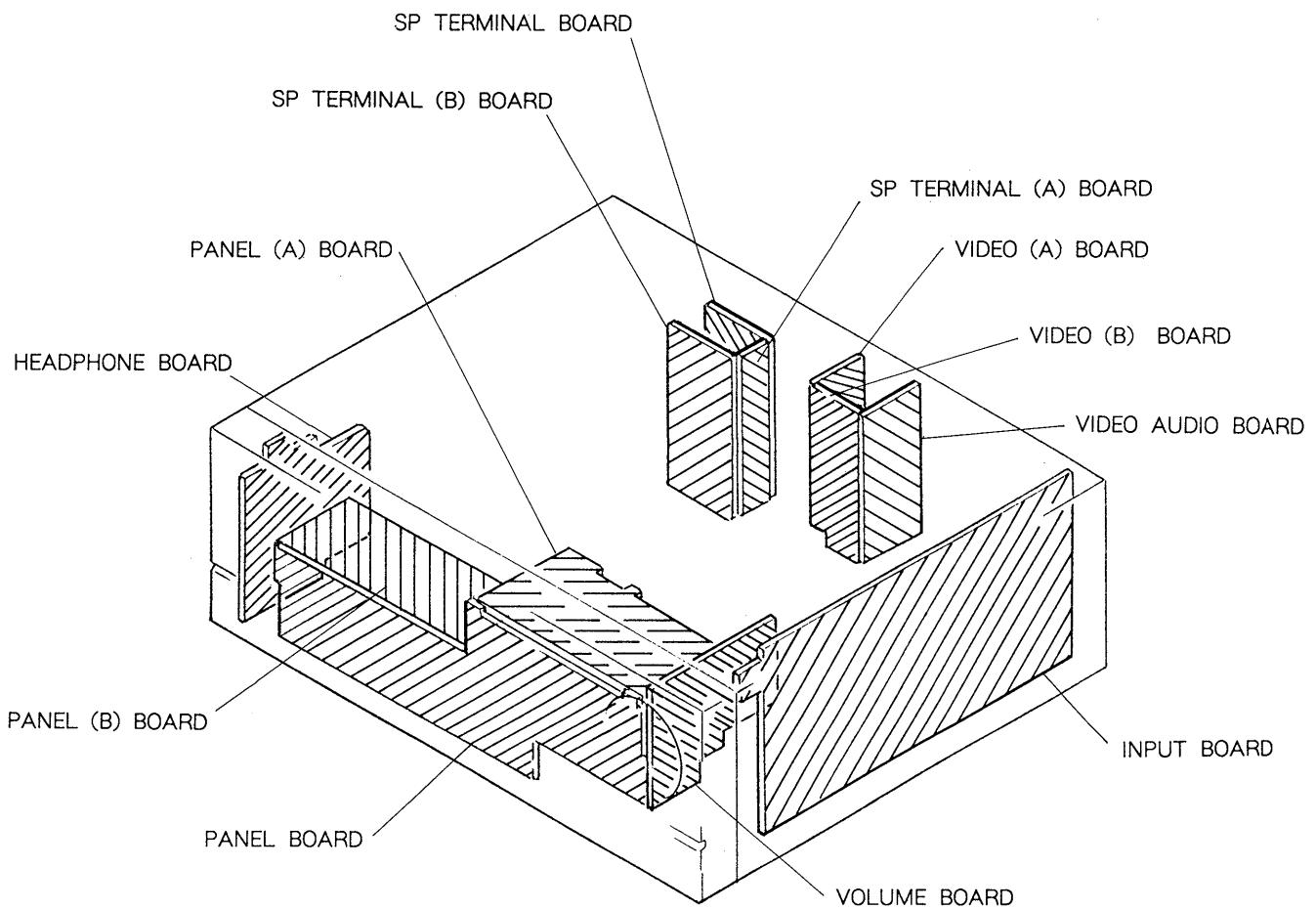
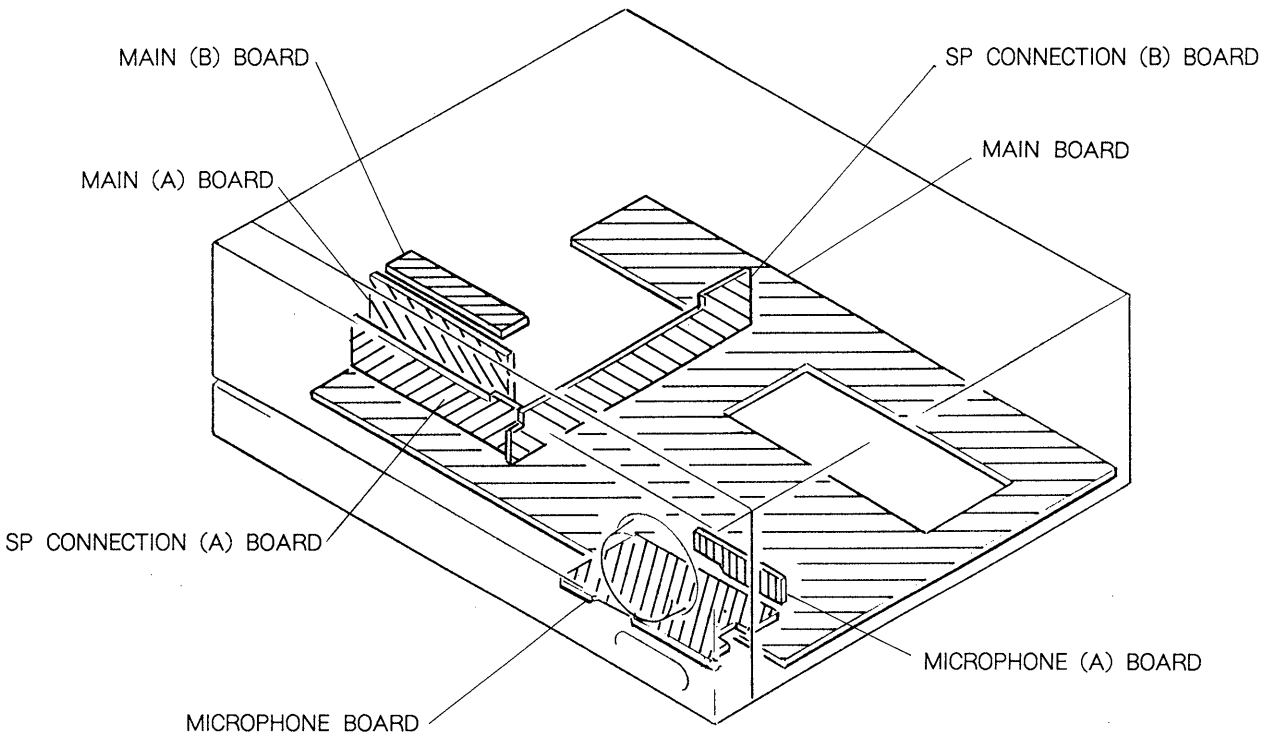
2- 2. IC DESCRIPTION

IC401 System Controller (μ PD75106CW-190)

| Pin No. | Pin Name | I/O | Description |
|---------|----------|-----|---|
| 1 | V-ENC | I | Select edge input of video function switch (FC302). |
| 2 | A-ENC | I | Select edge input of audio function switch (FC301). |
| 3 | DUTY-IN | I | Pulse input (sync T = approx. 20 mS) of function motor control. |
| 4 | AUB-IN | I | Audio BUS input. |
| 5 | NC | — | |
| 6 | NC | — | |
| 7 | RY-IN | I | Relay (RY101) ON/OFF detect. |
| 8 | VOL A/D | I | Position detect input (analog input) of volume (RV801). |
| 9 | TST | — | |
| 10 | TST | — | |
| 11 | AUB-OUT | O | Audio BUS output. |
| 12 | NC | — | |
| 13 | NC | — | |
| 14 | NC | — | |
| 15 | SI | — | |
| 16 | V-LOC | I | Position data scan input of video function switch (FC302). |
| 17 | A-LOC | I | Position data scan input of audio function switch (FC301). |
| 18 | AC-CUT | I | Power cut detect input. |
| 19 | A-MUTE | O | Mute signal output (audio). |
| 20 | V-MUTE | O | Mute signal output (video). |
| 21 | NC | — | |
| 22 | REAR-SP | O | Rear speaker relay (RY901) ON/OFF control output. |
| 23 | CL-B | O | Video image input/output select control output (IC501). |
| 24 | CL-A | O | |
| 25 | V1 | O | Video audio input/output select control output (IC502). |
| 26 | V0 | O | |
| 27 | SW-OFF | O | Super woofer ON/OFF control output. |
| 28 | CE | O | Audio input/output select (IC118) data latch output. |
| 29 | DI | O | Audio input/output select (IC118) serial data output. |
| 30 | CL | O | Audio input/output select (IC118) data clock output. |
| 31 | NC | — | |
| 32 | VDD | — | Power terminal (+5V). |

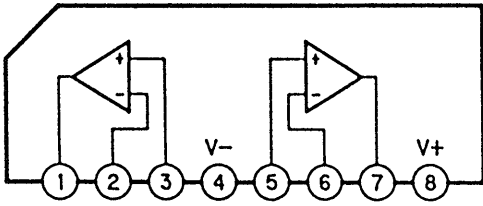
| Pin No. | Pin Name | I/O | Description |
|---------|---------------------------|-----|--|
| 33 | AF-LED | O | Audio function LED control output. |
| 34 | REAR-K | I | Rear speaker ON/OFF switch (S407) input. |
| 35 | SW-K | I | Super woofer ON/OFF switch (S406) input. |
| 36 | DBFB-K | I | DBFB-K ON/OFF switch (S405) input. |
| 37 | PST1-K | I | PRESET 1 switch (S402) input. |
| 38 | PST2-K | I | PRESET 2 switch (S403) input. |
| 39 | PST-3K | I | PRESET 3 switch (S404) input. |
| 40 | SET-K | I | SET switch (S401) input. |
| 41 | A-SCN-3 | O | Position data scan output of audio function switch. |
| 42 | A-SCN-2 | O | |
| 43 | A-SCN-1 | O | |
| 44 | A-SCN-0 | O | |
| 45 | $\overline{\text{RESET}}$ | I | System reset input. |
| 46 | X0 | O | Ceramic oscillator generator circuit (4.19 MHz). |
| 47 | X1 | I | |
| 48 | VOL-DWN | O | DOWN signal output of volume motor (RV801). |
| 49 | VOL-UP | O | UP signal output of volume motor (RV801). |
| 50 | V-SCAN-1 | O | Position data scan output of video function switch. |
| 51 | V-SCAN-0 | O | |
| 52 | VF-LED | O | Video function LED control output. |
| 53 | PST1-L | O | PRESET LED (D471) control output. |
| 54 | PST2-L | O | PRESET LED (D472) control output. |
| 55 | PST3-L | O | PRESET LED (D473) control output. |
| 56 | AF-DWN | O | Motor DOWN signal output of audio function switch (FC301). |
| 57 | AF-UP | O | Motor UP signal output of audio function switch (FC301). |
| 58 | VF-DWN | O | Motor DOWN signal output of video function switch (FC302). |
| 59 | VF-UP | O | Motor UP signal output of video function switch (FC302). |
| 60 | REAR-L | O | Rear speaker LED (D461) control output. |
| 61 | SW-L | O | Super woofer LED (D462) control output. |
| 62 | VOL-L | O | Volume LED control output. |
| 63 | DBFB-L | O | DBFB LED (D463) control output. |
| 64 | VSS | — | GN |

2-3. CIRCUIT BOARDS LOCATION

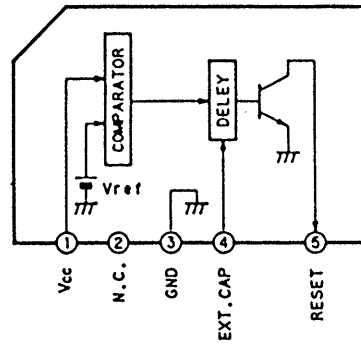


2-4. IC BLOCK DIAGRAM

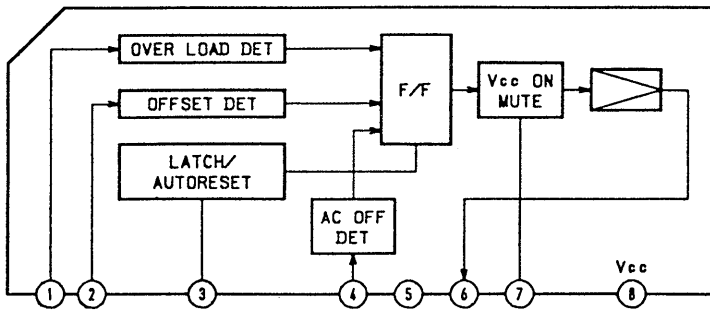
IC105-107, 116, 701 M5218AL



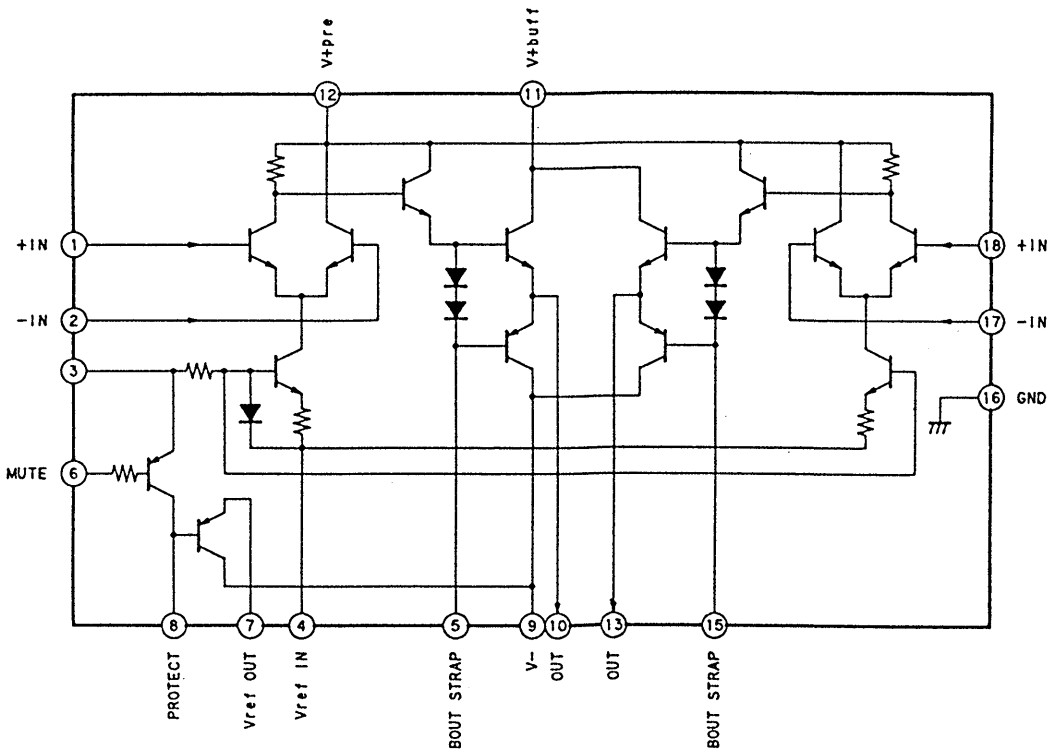
IC115 M51953BL



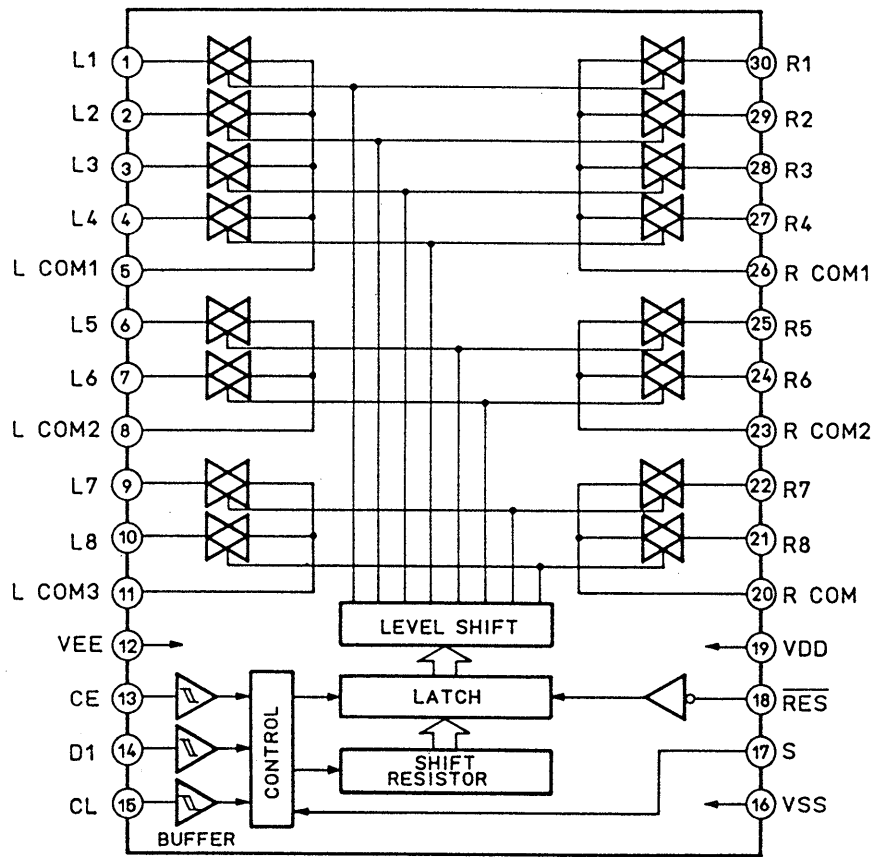
IC112 μ PC1237HA



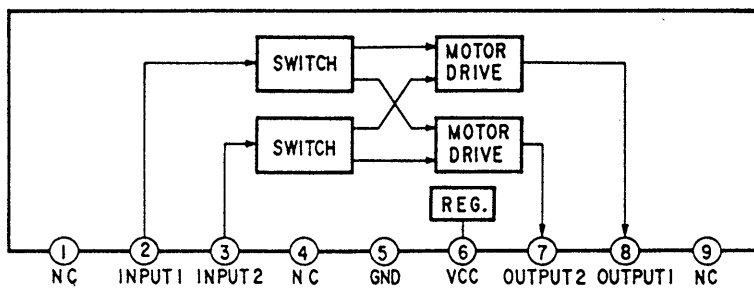
IC113 STK-4211MK2



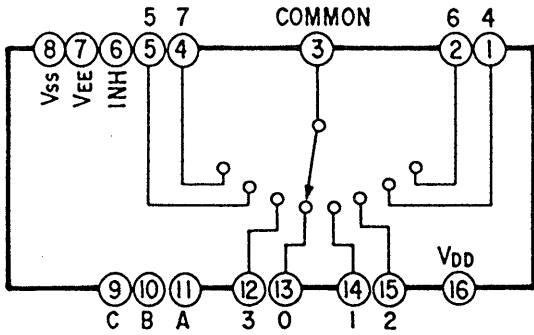
IC118 LC7821



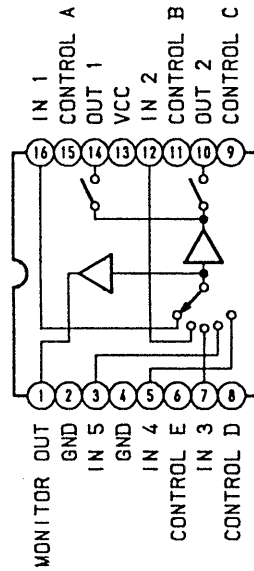
IC301, 302 BA6208



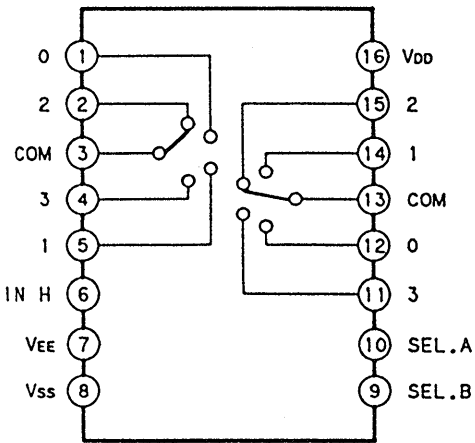
IC303 TC4051BPHB



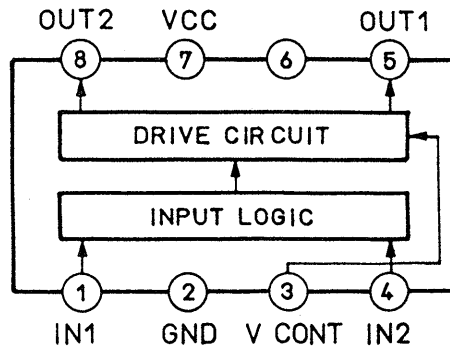
IC501 BA7625



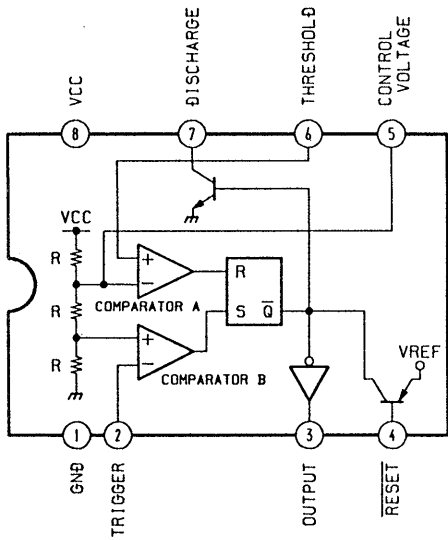
IC304 TC4052BPHB



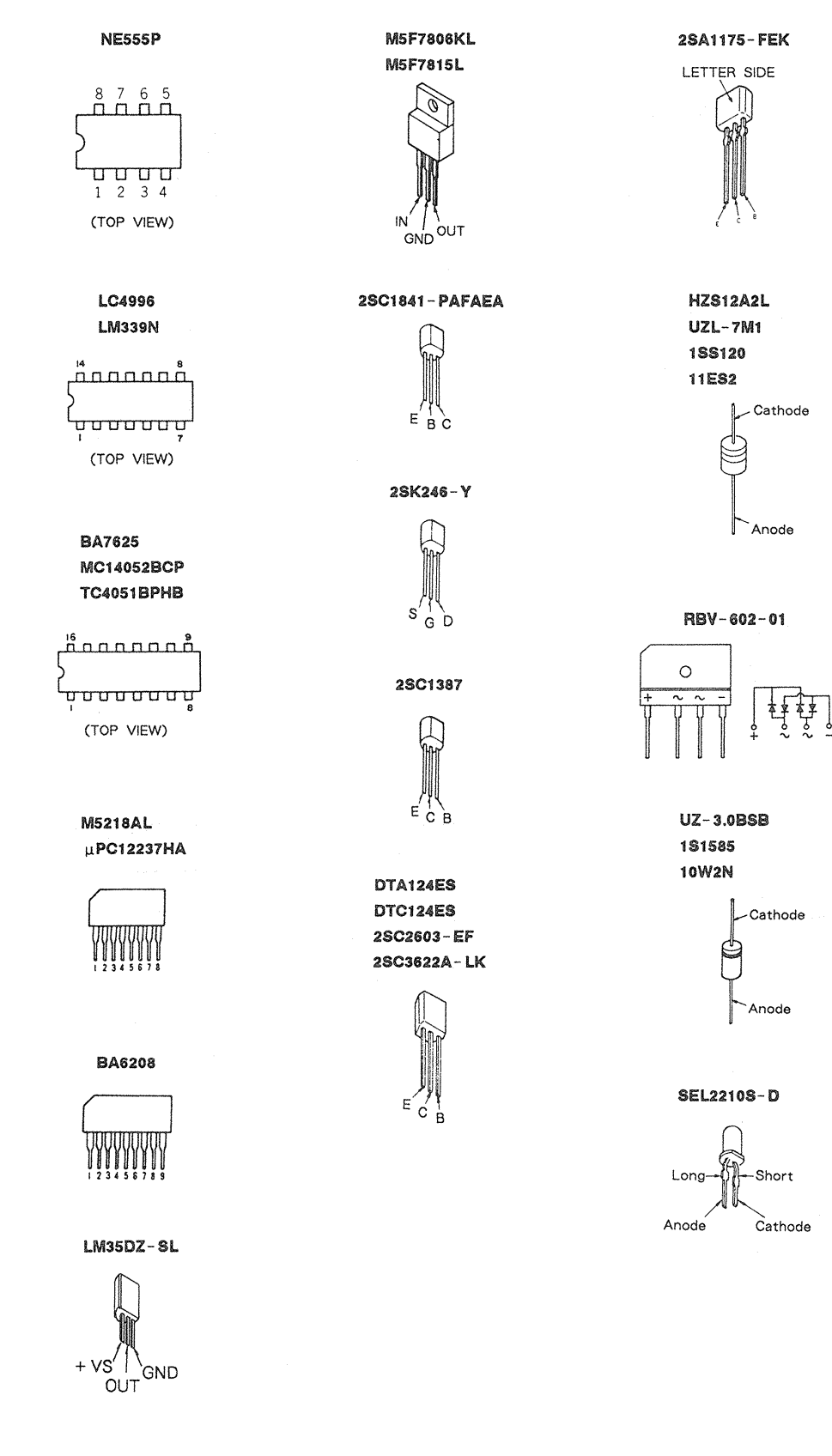
IC801 LB1639



IC402 NE555P



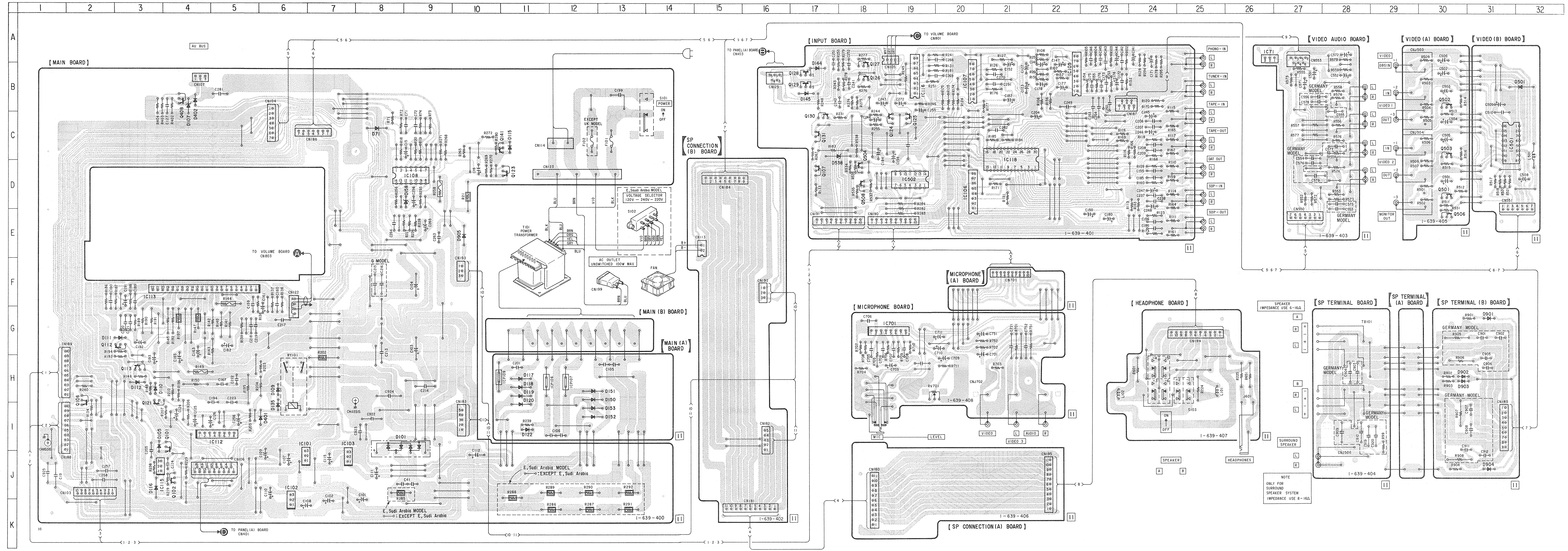
2-5. SEMICONDUCTOR LEAD LAYOUTS

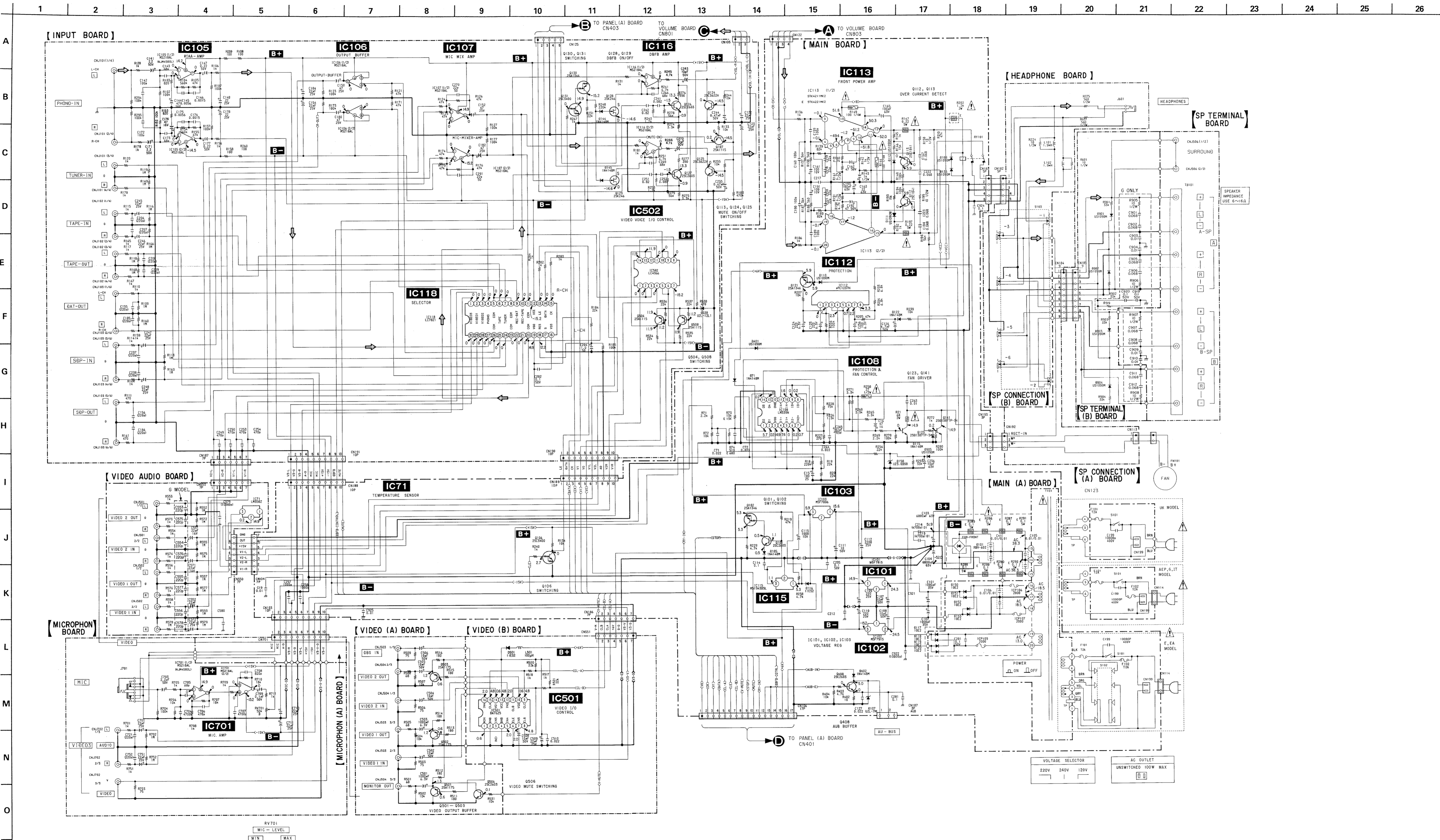


• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D71 | C-8 |
| D101 | I-8 |
| D105 | I-3 |
| D107 | B-4 |
| D109 | H-6 |
| D110 | H-3 |
| D111 | G-3 |
| D112 | H-3 |
| D115 | C-11 |
| D116 | J-3 |
| D117 | H-11 |
| D118 | H-11 |
| D120 | H-11 |
| D122 | I-11 |
| D135 | I-6 |
| D144 | B-17 |
| D145 | B-17 |
| D150 | H-13 |
| D151 | H-13 |
| D152 | I-13 |
| D153 | I-13 |
| D158 | D-9 |
| D401 | I-6 |
| D402 | B-4 |
| D501 | D-32 |
| D530 | H-18 |
| D901 | G-31 |
| D902 | H-30 |
| D903 | H-30 |
| D904 | J-31 |
| D905 | E-10 |
| IC71 | A-26 |
| IC101 | J-6 |
| IC102 | J-6 |
| IC103 | J-7 |
| IC105 | B-22 |
| IC106 | D-20 |
| IC107 | D-20 |
| IC108 | D-9 |
| IC112 | I-5 |
| IC113 | F-4 |
| IC115 | J-3 |
| IC116 | B-19 |
| IC118 | C-21 |
| IC501 | C-31 |
| IC502 | D-19 |
| IC701 | G-19 |
| Q101 | I-4 |
| Q102 | J-4 |
| Q106 | H-2 |
| Q107 | D-17 |
| Q112 | G-3 |
| Q113 | H-3 |
| Q121 | H-3 |
| Q123 | D-11 |
| Q124 | C-19 |
| Q125 | C-19 |
| Q126 | B-18 |
| Q127 | B-17 |
| Q128 | B-17 |
| Q129 | B-17 |
| Q130 | C-17 |
| Q131 | C-17 |
| Q132 | C-17 |
| Q133 | C-17 |
| Q134 | C-17 |
| Q135 | C-17 |
| Q136 | C-17 |
| Q137 | C-17 |
| Q138 | C-17 |
| Q139 | C-17 |
| Q140 | C-17 |
| Q141 | C-11 |
| Q408 | B-4 |
| Q501 | D-30 |
| Q502 | B-30 |
| Q503 | C-30 |
| Q504 | D-18 |
| Q506 | E-30 |
| Q508 | D-18 |

Note on Mounting Diagram:
 • : parts extracted from the component side.
 • : component side.





Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μF
- 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{2}\text{W}$ or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

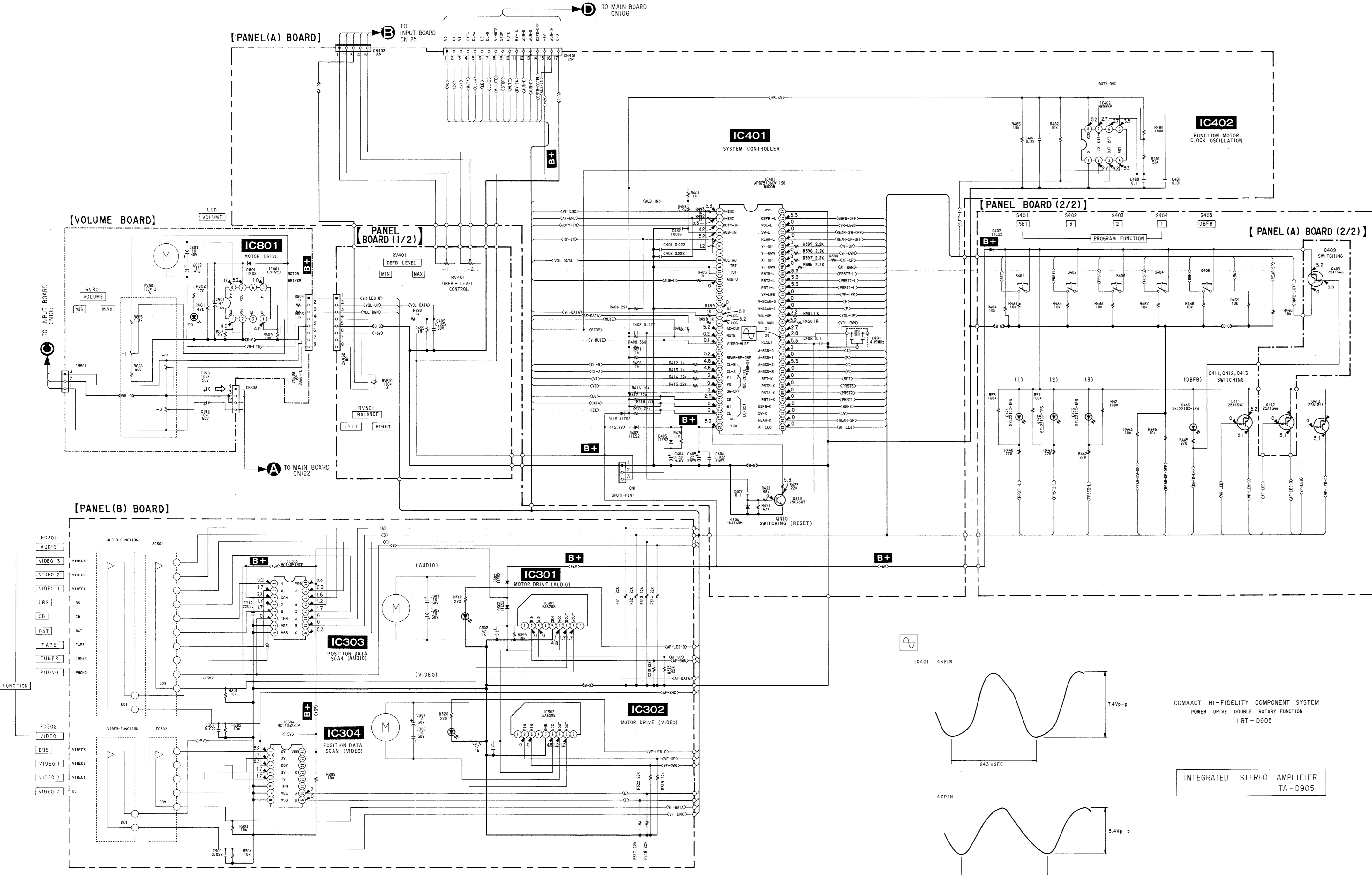
Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

- : B+ Line
- : B- Line
- no mark : No-signal, PHONO MODE
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltagess are taken with a VOM (input impedance 10M Ω)
- Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- : PHONO

EA : SAUDI ARABIA MODEL
G : GERMANY MODEL
IT : ITALIAN MODEL

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

A
B
C
D
E
F
G
H
I
J
K
L
M
N
O

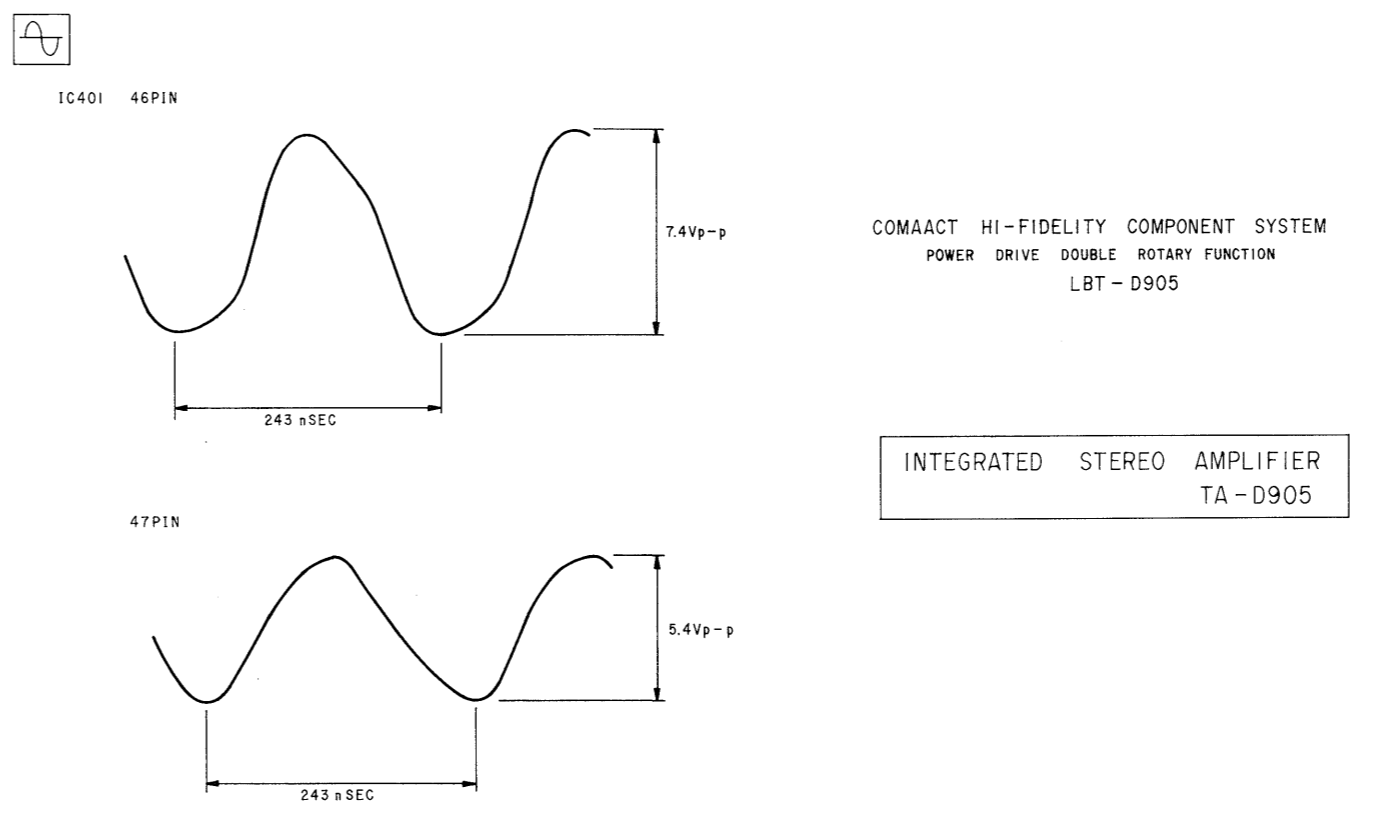


Note on Schematic Diagram:

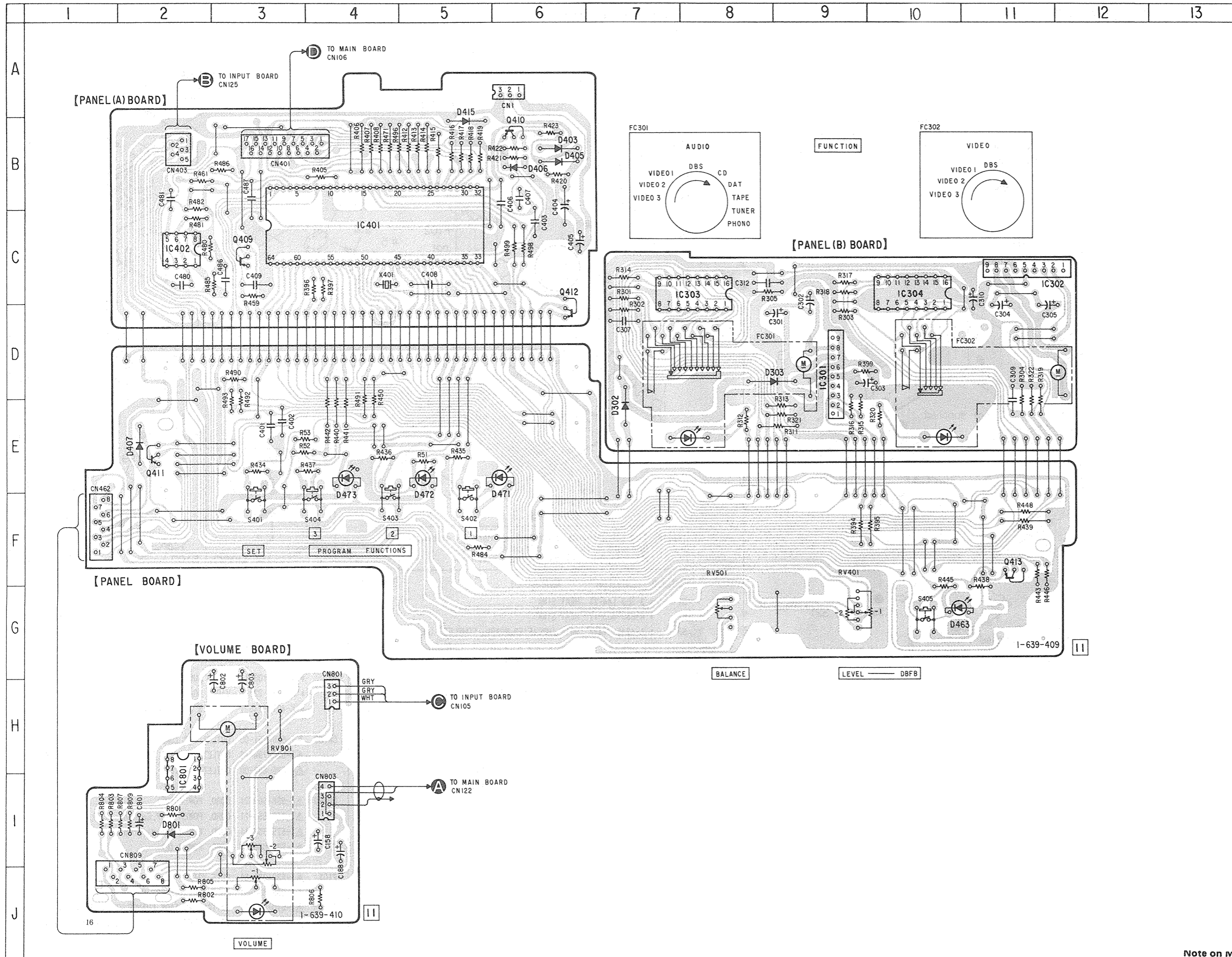
- All capacitors are in μF unless otherwise noted, pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{2}\text{W}$ or less unless otherwise specified.
- \square : nonflammable resistor.
- \square : fusible resistor.

Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

- \square : B+ Line
- \square : B- Line
- no mark: No-signal, PHONO MODE
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \rightarrow : PHONO



2-9. PRINTED WIRING BOARD - PANEL -



• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| D302 | E-7 |
| D303 | D-9 |
| D403 | B-6 |
| D405 | B-6 |
| D406 | B-6 |
| D407 | E-2 |
| D415 | B-5 |
| D463 | G-11 |
| D471 | E-6 |
| D472 | E-5 |
| D473 | E-4 |
| D801 | I-2 |
| IC301 | D-9 |
| IC302 | C-11 |
| IC303 | C-8 |
| IC304 | C-10 |
| IC401 | C-4 |
| IC402 | C-2 |
| IC801 | H-2 |
| Q409 | C-3 |
| Q410 | B-6 |
| Q411 | E-2 |
| Q412 | D-6 |
| Q413 | F-11 |

Note on mounting Diagram:
 • ○ — : parts extracted from the component side.
 • ⊙ : component side.

SECTION 3 EXPLODED VIEWS

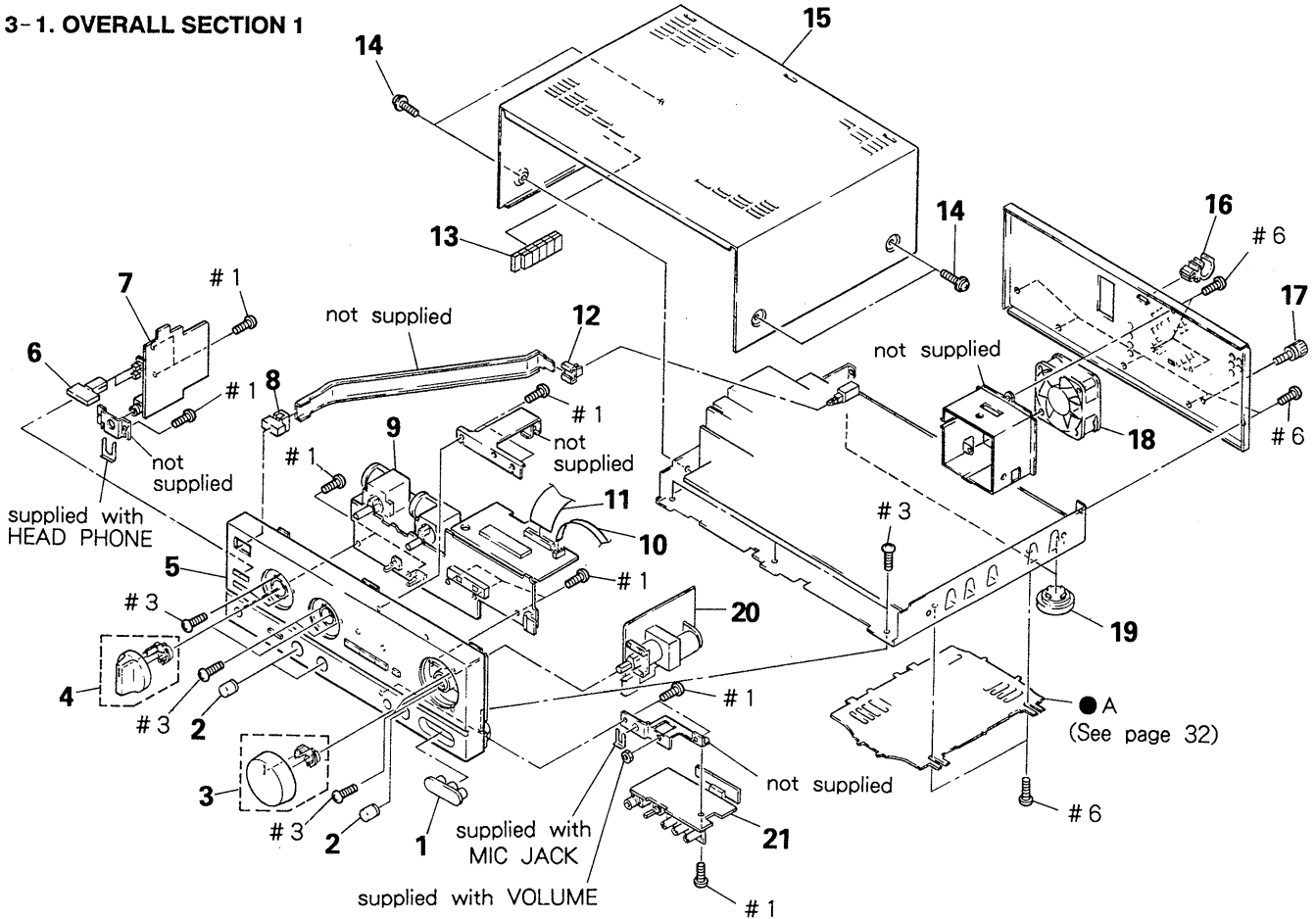
NOTE :

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE)...(RED)
 ↑ ↑
 Parts color Cabinet's color

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

3-1. OVERALL SECTION 1

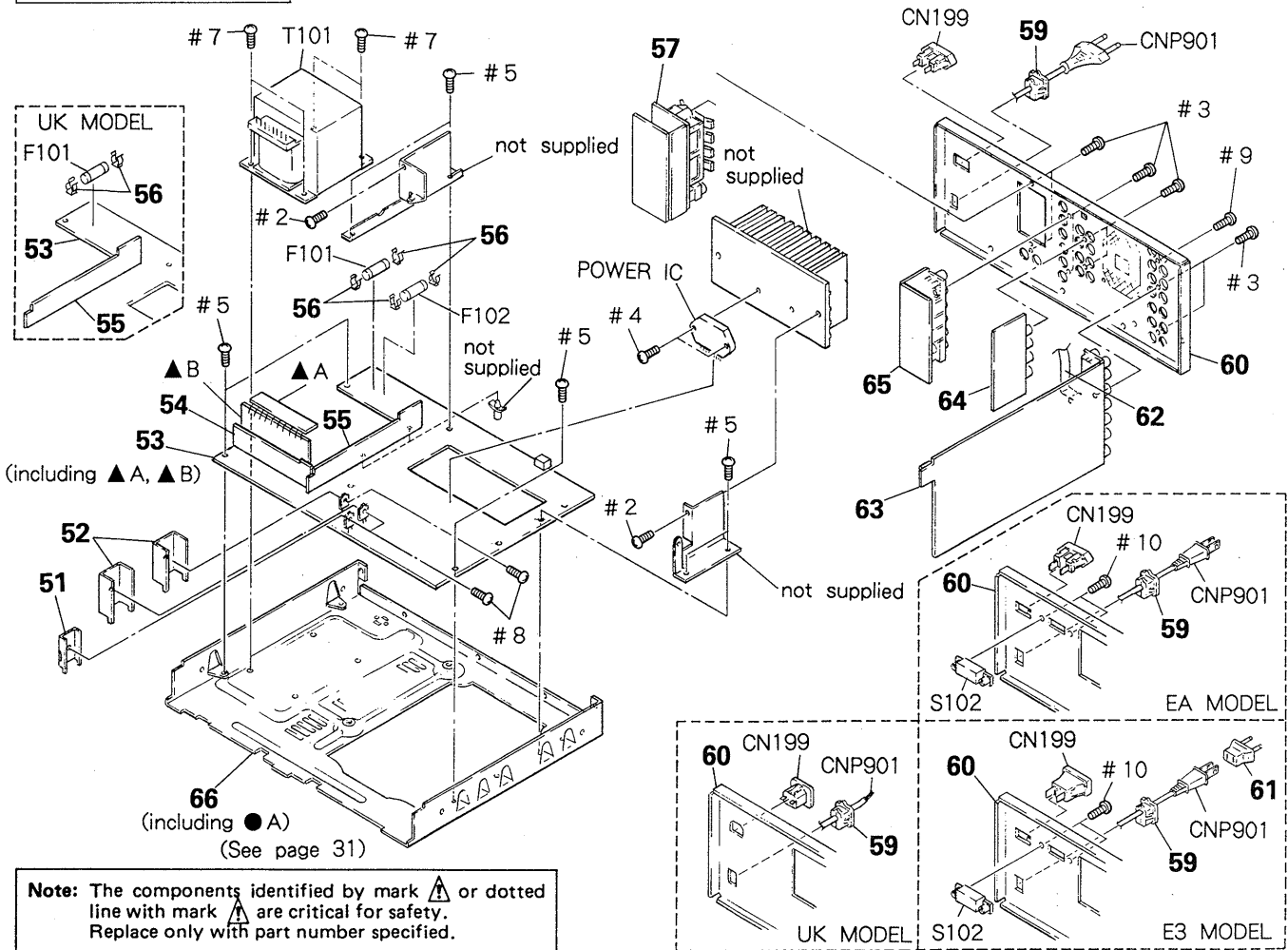


| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|----------------|--|---------|----------|----------------|---------------------------|---------|
| 1 | 4-937-367-01 | COVER (PIN JACK) (AEP, UK, Germany, Italian) | | 11 | 1-690-102-11 | WIRE, FLAT TYPE (17 CORE) | |
| 2 | 3-349-039-11 | KNOB (VOL) | | 12 | 4-866-342-00 | JOINT (B), KNOB | |
| 3 | X-4941-027-1 | KNOB (DIA. 47) ASSY, ROUND | | 13 | * 4-911-047-01 | VIBRATION CONTROL (D) | |
| 4 | X-4941-026-1 | KNOB (DIA. 36) ASSY, SQUARE | | 14 | 3-363-099-01 | SCREW (CASE +3X8 TP2) | |
| 5 | X-4941-493-1 | PANEL ASSY, FRONT | | 15 | * 4-944-980-01 | CASE | |
| 6 | 4-937-308-01 | BUTTON (SP) | | 16 | * 3-646-086-11 | HOLDER, ROD | |
| 7 | * 1-639-407-11 | HEADPHONE BOARD | | 17 | 3-706-165-00 | SCREW | |
| 8 | 4-921-919-01 | BUTTON (P) | | 18 | 1-541-889-11 | MOTOR, DC FAN | |
| 9 | * A-4345-228-A | PANEL BOARD, COMPLETE | | 19 | 4-934-884-01 | FOOT | |
| 10 | 1-690-100-11 | WIRE, FLAT TYPE (5 CORE) | | 20 | * 1-639-410-11 | VOLUME BOARD | |
| | | | | 21 | * 1-639-408-11 | MICROPHONE BOARD | |

3-2. OVERALL SECTION 2

▲ A : MAIN (B) BOARD
 ▲ B : MAIN (A) BOARD

EA : Saudi Arabia



Note: The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

| Ref. No. | Part No. | Description | Remarks |
|----------|----------------|--|--------------------|
| 51 | * 3-309-144-21 | HEAT SINK | |
| 52 | * 4-880-403-11 | HEAT SINK | |
| 53 | * A-4345-214-A | MAIN AMPLIFIER BOARD, COMPLETE (AEP, Italian) | (including ▲A, ▲B) |
| | * A-4345-215-A | MAIN AMPLIFIER BOARD, COMPLETE (Germany) | (including ▲A, ▲B) |
| | * A-4345-230-A | MAIN AMPLIFIER BOARD, COMPLETE (UK) | (including ▲A, ▲B) |
| | * A-4345-231-A | MAIN AMPLIFIER BOARD, COMPLETE (E, Saudi Arabia) | (including ▲A, ▲B) |
| 54 | * 1-639-406-11 | SP CONNECTION (A) BOARD | |
| 55 | * 1-639-402-11 | SP CONNECTION (B) BOARD | |
| 56 | * 1-533-213-31 | HOLDER FUSE | |
| 57 | * 1-639-404-11 | SP TERMINAL BOARD | |
| 59 | * 3-703-244-00 | BUSHING (2104), CORD (AEP, UK, Germany, Italian, Saudi Arabia) | |
| | * 3-703-571-11 | BUSHING (S) (4516), CORD (E) | |
| 60 | * 4-944-324-11 | PANEL, BACK (AEP) | |
| | * 4-944-324-21 | PANEL, BACK (UK) | |
| | * 4-944-324-31 | PANEL, BACK (Germany) | |
| | * 4-944-324-41 | PANEL, BACK (Italian) | |
| | * 4-944-324-51 | PANEL, BACK (E) | |
| | * 4-944-324-61 | PANEL, BACK (Saudi Arabia) | |

| Ref. No. | Part No. | Description | Remarks |
|----------|----------------|---|---------|
| 62 | 1-690-101-11 | WIRE, FLAT TYPE (7 CORE) | |
| 63 | * A-4345-216-A | INPUT BOARD, COMPLETE (AEP, UK, E, Italian, Saudi Arabia) | |
| | * A-4345-217-A | INPUT BOARD, COMPLETE (Germany) | |
| 64 | * 1-639-403-11 | VIDEO AUDIO BOARD | |
| 65 | * A-4345-223-A | VIDEO BOARD, COMPLETE | |
| 66 | * X-4917-246-1 | CHASSIS ASSY (including ●A) | |
| CN199 | ▲1-526-751-00 | OUTLET, AC (UK) | |
| | ▲1-526-794-11 | OUTLET, AC (AEP, Germany, Italian, Saudi Arabia) | |
| | ▲1-526-882-00 | OUTLET, AC (E) | |
| CNP901 | ▲1-556-560-21 | CORD, POWER (UK) | |
| | ▲1-575-651-11 | CORD, POWER (AEP, Germany, Italian) | |
| | ▲1-575-654-11 | CORD, POWER (Saudi Arabia) | |
| | ▲1-575-656-11 | CORD, POWER (E) | |
| F101 | ▲1-532-388-51 | FUSE (2A) | |
| F102 | ▲1-532-388-51 | FUSE (2A) (EXCEPT UK) | |
| S102 | ▲1-570-307-11 | SWITCH, VOLTAGE CHANGE (E, Saudi Arabia) | |
| T101 | ▲1-450-526-11 | TRANSFORMER, POWER (AEP, UK, Germany, Italian) | |
| | ▲1-450-527-11 | TRANSFORMER, POWER (E, Saudi Arabia) | |

INPUT SP CONNECTION(B) VIDEO AUDIO SP TERMINAL

**SECTION 4
ELECTRICAL PARTS LIST**

NOTE :

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL : metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA... : μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...
- CAPACITORS :
uF : μ F
- COILS
uH : μ H

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------------|--------------|---|---------|----------|--------------|------------------------------------|---------|
| * A-4345-216-A | | INPUT BOARD, COMPLETE (AEP, UK, E, IT, Saudi Arabia) | | C172 | 1-162-282-31 | CERAMIC 100PF 10% 50V | |
| * A-4345-217-A | | INPUT BOARD, COMPLETE (Germany) ***** | | C173 | 1-162-219-31 | CERAMIC 68PF 5% 50V | |
| * 1-639-402-11 | | SP CONNECTION (B) BOARD ***** | | C174 | 1-126-022-11 | ELECT 47uF 20% 16V | |
| * 1-639-403-11 | | VIDEO AUDIO BOARD ***** | | C175 | 1-130-480-00 | MYLAR 0.0056uF 5% 50V | |
| * 1-639-404-11 | | SP TERMINAL BOARD ***** | | C176 | 1-130-473-00 | MYLAR 0.0015uF 5% 50V | |
| < CAPACITOR > | | | | C177 | 1-124-464-11 | ELECT 0.22uF 20% 50V | |
| C122 | 1-126-049-11 | ELECT 22uF 20% 25V | | C178 | 1-126-049-11 | ELECT 22uF 20% 25V | |
| C123 | 1-126-049-11 | ELECT 22uF 20% 25V | | C180 | 1-124-910-11 | ELECT 47uF 20% 50V | |
| C141 | 1-126-161-11 | ELECT 2.2uF 20% 50V | | C182 | 1-124-910-11 | ELECT 47uF 20% 50V | |
| C142 | 1-162-282-31 | CERAMIC 100PF 10% 50V | | C184 | 1-126-049-11 | ELECT 22uF 20% 25V | |
| C143 | 1-162-219-31 | CERAMIC 68PF 5% 50V | | C185 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C144 | 1-126-022-11 | ELECT 47uF 20% 16V | | C186 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C145 | 1-130-480-00 | MYLAR 0.0056uF 5% 50V | | C187 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C146 | 1-130-473-00 | MYLAR 0.0015uF 5% 50V | | C204 | 1-126-301-11 | ELECT 1uF 20% 50V | |
| C147 | 1-124-464-11 | ELECT 0.22uF 20% 50V | | C206 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C148 | 1-126-049-11 | ELECT 22uF 20% 25V | | C207 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C150 | 1-124-910-11 | ELECT 47uF 20% 50V | | C208 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C152 | 1-124-910-11 | ELECT 47uF 20% 50V | | C209 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C154 | 1-126-049-11 | ELECT 22uF 20% 25V | | C237 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C155 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | | C238 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | |
| C156 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | | C241 | 1-136-164-00 | FILM 0.082uF 5% 50V | |
| C157 | 1-162-286-31 | CERAMIC 220PF 10% 50V (Germany) | | C242 | 1-136-176-00 | FILM 0.82uF 5% 50V | |
| C171 | 1-126-161-11 | ELECT 2.2uF 20% 50V | | C243 | 1-126-059-11 | ELECT 10uF 20% 50V | |

INPUT

SP CONNECTION(B)

VIDEO AUDIO

SP TERMINAL

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|-------------|-----------------------------|----------|----------------|-------------------------------------|-----------------------------|
| C244 | 1-126-300-11 | ELECT | 0.47uF 20% 50V | C903 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V (Germany) |
| C245 | 1-126-049-11 | ELECT | 22uF 20% 25V | C904 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V (Germany) |
| C246 | 1-126-049-11 | ELECT | 22uF 20% 25V | C905 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) |
| C247 | 1-126-049-11 | ELECT | 22uF 20% 25V | C906 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) |
| C248 | 1-126-049-11 | ELECT | 22uF 20% 25V | C907 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) |
| C249 | 1-162-290-31 | CERAMIC | 470PF 10% 50V | C908 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) |
| C250 | 1-162-290-31 | CERAMIC | 470PF 10% 50V | C909 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V (Germany) |
| C251 | 1-136-176-00 | FILM | 0.82uF 5% 50V | C910 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V (Germany) |
| C252 | 1-136-164-00 | FILM | 0.082uF 5% 50V | C911 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) |
| C253 | 1-162-290-31 | CERAMIC | 470PF 10% 50V | C912 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) |
| C254 | 1-162-290-31 | CERAMIC | 470PF 10% 50V | C919 | 1-164-159-11 | CERAMIC | 0.1uF 50V (Germany) |
| C255 | 1-126-300-11 | ELECT | 0.47uF 20% 50V | C920 | 1-164-159-11 | CERAMIC | 0.1uF 50V (Germany) |
| C266 | 1-162-219-31 | CERAMIC | 68PF 5% 50V | | | | |
| C269 | 1-162-219-31 | CERAMIC | 68PF 5% 50V | | | | |
| C270 | 1-162-207-31 | CERAMIC | 22PF 5% 50V | | | | |
| C272 | 1-126-059-11 | ELECT | 10uF 20% 50V | | | | |
| C282 | 1-164-159-11 | CERAMIC | 0.1uF 50V | | | | |
| C291 | 1-162-207-31 | CERAMIC | 22PF 5% 50V | | | | |
| C551 | 1-124-234-00 | ELECT | 22uF 20% 16V | | | | |
| C552 | 1-126-049-11 | ELECT | 22uF 20% 25V | | | | |
| C553 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C554 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C555 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C556 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C571 | 1-124-234-00 | ELECT | 22uF 20% 16V | | | | |
| C572 | 1-126-049-11 | ELECT | 22uF 20% 25V | | | | |
| C575 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C576 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C577 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C578 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | | | | |
| C579 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V (Germany) | | | | |
| C901 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) | | | | |
| C902 | 1-136-163-00 | FILM | 0.068uF 5% 50V (Germany) | | | | |
| | | | | | | < CONNECTOR > | |
| | | | | CN113 | * 1-564-517-11 | PLUG, CONNECTOR 2P | |
| | | | | CN125 | * 1-568-848-11 | SOCKET, CONNECTOR 5P | |
| | | | | CN181 | 1-569-497-11 | SOCKET, CONNECTOR 11P | |
| | | | | CN182 | * 1-569-500-11 | PIN, CONNECTOR 5P | |
| | | | | CN184 | * 1-569-504-11 | PIN, CONNECTOR 9P | |
| | | | | CN185 | * 1-569-495-11 | SOCKET, CONNECTOR 9P | |
| | | | | CN187 | * 1-568-826-11 | SOCKET, CONNECTOR 7P | |
| | | | | CN190 | * 1-569-505-11 | PIN, CONNECTOR 10P | |
| | | | | CN191 | * 1-569-505-11 | PIN, CONNECTOR 10P | |
| | | | | CN192 | * 1-569-499-11 | PIN, CONNECTOR 3P | |
| | | | | CN550 | * 1-569-502-11 | PIN, CONNECTOR 7P | |
| | | | | CN553 | * 1-568-850-11 | SOCKET, CONNECTOR 7P | |
| | | | | CNJ101 | 1-565-352-11 | JACK, PIN 2P (TUNER IN, PHONO IN) | |
| | | | | CNJ102 | 1-565-320-11 | JACK, PIN 6P (TAPE: IN/OUT) | |
| | | | | CNJ103 | 1-565-320-11 | JACK, PIN 6P (SDP: IN/OUT, DAT OUT) | |
| | | | | CNJ501 | 1-565-258-11 | JACK, PIN 4P (VIDEO 2 IN) | |
| | | | | CNJ502 | 1-565-258-11 | JACK, PIN 4P (VIDEO 1 IN) | |
| | | | | CNJ506 | 1-568-572-11 | JACK, PIN 2P (SURROUND SPEAKER) | |
| | | | | TB101 | 1-537-336-21 | TERMINAL BOARD (SP) (A/B) | |

INPUT

SP CONNECTION(B)

VIDEO AUDIO

SP TERMINAL

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|------------------------------|---------|----------|--------------|---------------------|---------|
| | | < DIODE > | | | | | |
| D144 | 8-719-912-20 | DIODE 1SS120 | | R113 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| D145 | 8-719-912-20 | DIODE 1SS120 | | R114 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| D538 | 8-719-933-74 | DIODE HZS12A2L | | R115 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| D901 | 8-719-815-85 | DIODE 1S1585 | | R116 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| D902 | 8-719-815-85 | DIODE 1S1585 | | R117 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| D903 | 8-719-815-85 | DIODE 1S1585 | | R118 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| D904 | 8-719-815-85 | DIODE 1S1585 | | R119 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| | | < IC > | | R120 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| IC71 | 8-759-512-73 | IC LM35DZ-SL | | R121 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| IC105 | 8-759-710-73 | IC NJM4580L | | R123 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| IC106 | 8-759-634-50 | IC M5218AL | | R124 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| IC107 | 8-759-634-50 | IC M5218AL | | R125 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| IC116 | 8-759-634-50 | IC M5218AL | | R126 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| IC118 | 8-759-805-13 | IC LC7821 | | R127 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| IC502 | 8-759-801-01 | IC LC4966 | | R128 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| | | < TRANSISTOR > | | R131 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q107 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R133 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| Q124 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK | | R152 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| Q125 | 8-729-141-26 | TRANSISTOR 2SC3622A-LK | | R153 | 1-249-416-11 | CARBON 820 5% 1/4W | |
| Q126 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | | R154 | 1-247-897-11 | CARBON 560K 5% 1/4W | |
| Q127 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | | R155 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| Q128 | 8-729-224-61 | TRANSISTOR 2SK246-Y | | R156 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q129 | 8-729-224-61 | TRANSISTOR 2SK246-Y | | R157 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| Q130 | 8-729-900-63 | TRANSISTOR DTA124ES | | R158 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| Q131 | 8-729-900-36 | TRANSISTOR DTC124ES | | R159 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| Q504 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R160 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| Q508 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R161 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| | | < RESISTOR > | | R163 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R102 | 1-249-441-11 | CARBON 100K 5% 1/4W(Germany) | | R164 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R103 | 1-249-416-11 | CARBON 820 5% 1/4W(Germany) | | R165 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R104 | 1-247-897-11 | CARBON 560K 5% 1/4W(Germany) | | R166 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R105 | 1-249-437-11 | CARBON 47K 5% 1/4W(Germany) | | R167 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R106 | 1-249-417-11 | CARBON 1K 5% 1/4W(Germany) | | R168 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R107 | 1-249-441-11 | CARBON 100K 5% 1/4W(Germany) | | R169 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R108 | 1-249-405-11 | CARBON 100 5% 1/4W | | R170 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R109 | 1-247-903-00 | CARBON 1M 5% 1/4W | | R171 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R110 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R173 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R111 | 1-249-413-11 | CARBON 470 5% 1/4W | | R174 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| | | | | R175 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| | | | | R176 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| | | | | R177 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| | | | | R178 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| | | | | R181 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| | | | | R183 | 1-247-895-00 | CARBON 470K 5% 1/4W | |
| | | | | R184 | 1-249-433-11 | CARBON 22K 5% 1/4W | |

INPUT

SP CONNECTION(B)

VIDEO AUDIO

SP TERMINAL

MAIN

| Ref. No. | Part No. | Description | Remarks |
|----------|--------------|---------------------|---------|
| R185 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R231 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R241 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R243 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R244 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R245 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R246 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R248 | 1-247-887-00 | CARBON 220K 5% 1/4W | |
| R251 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R253 | 1-249-418-11 | CARBON 1.2K 5% 1/4W | |
| R255 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R259 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R260 | 1-249-405-11 | CARBON 100 5% 1/4W | |
| R267 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R274 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R275 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R276 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R277 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R278 | 1-249-438-11 | CARBON 56K 5% 1/4W | |
| R279 | 1-249-438-11 | CARBON 56K 5% 1/4W | |
| R282 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R283 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R284 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R294 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R295 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R534 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R535 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R536 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R537 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R538 | 1-249-413-11 | CARBON 470 5% 1/4W | |
| R552 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R553 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R554 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R555 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R556 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R557 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R558 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R559 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R572 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R573 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R574 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R575 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R576 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R577 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R578 | 1-249-417-11 | CARBON 1K 5% 1/4W | |

| Ref. No. | Part No. | Description | Remarks |
|----------------|--|-------------------------|-------------------|
| R579 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R901 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R902 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R903 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R904 | 1-249-435-11 | CARBON 33K 5% 1/4W | |
| R905 | 1-247-727-11 | CARBON 10 5% 1/2W | (Germany) |
| R906 | 1-247-727-11 | CARBON 10 5% 1/2W | (Germany) |
| R907 | 1-247-727-11 | CARBON 10 5% 1/2W | (Germany) |
| R908 | 1-247-727-11 | CARBON 10 5% 1/2W | (Germany) |
| ***** | | | |
| * A-4345-214-A | MAIN AMPLIFIER BOARD, COMPLETE (AEP, Italian) | | ***** |
| * A-4345-230-A | MAIN AMPLIFIER BOARD, COMPLETE (UK) | | ***** |
| * A-4345-231-A | MAIN AMPLIFIER BOARD, COMPLETE (E, Saudi Arabia) | | ***** |
| * A-4345-215-A | MAIN AMPLIFIER BOARD, COMPLETE (Germany) | | ***** |
| * 1-533-213-31 | HOLDER, FUSE | | |
| * 3-309-144-21 | HEAT SINK | | |
| * 4-880-403-11 | HEAT SINK | | |
| 7-682-548-04 | SCREW +BVTT 3X8 (S) | | |
| < CAPACITOR > | | | |
| C15 | 1-124-478-11 | ELECT 100uF 20% 25V | (EXCEPT. Germany) |
| C15 | 1-126-023-11 | ELECT 100uF 20% 16V | (Germany) |
| C16 | 1-126-022-11 | ELECT 47uF 20% 16V | (EXCEPT. Germany) |
| C16 | 1-124-478-11 | ELECT 100uF 20% 25V | (Germany) |
| C19 | 1-161-379-00 | CERAMIC 0.01uF 20% 25V | |
| C20 | 1-161-061-11 | CERAMIC 0.068uF 10% 50V | |
| C41 | 1-102-394-11 | CERAMIC 0.01uF 250V | |
| C71 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C72 | 1-161-494-00 | CERAMIC 0.022uF 25V | |

MAIN

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|-------------|-------------------------------|----------|--------------|---|-----------------------------|
| C101 | 1-126-105-11 | ELECT | 1000uF 20% 35V | C218 | 1-162-207-31 | CERAMIC | 22PF 5% 50V |
| C102 | 1-126-105-11 | ELECT | 1000uF 20% 35V | C219 | 1-162-207-31 | CERAMIC | 22PF 5% 50V |
| C103 | 1-128-334-11 | ELECT | 6800uF 20% 63V | C220 | 1-162-207-31 | CERAMIC | 22PF 5% 50V |
| C104 | 1-128-334-11 | ELECT | 6800uF 20% 63V | C221 | 1-162-207-31 | CERAMIC | 22PF 5% 50V |
| C105 | 1-102-394-11 | CERAMIC | 0.01uF 250V | C222 | 1-136-163-00 | FILM | 0.068uF 5% 50V |
| C106 | 1-102-394-11 | CERAMIC | 0.01uF 250V | C223 | 1-136-163-00 | FILM | 0.068uF 5% 50V |
| C107 | 1-126-059-11 | ELECT | 10uF 20% 50V | C236 | 1-126-059-11 | ELECT | 10uF 20% 63V |
| C108 | 1-126-059-11 | ELECT | 10uF 20% 50V | C256 | 1-124-443-00 | ELECT | 100uF 20% 10V |
| C109 | 1-124-120-11 | ELECT | 220uF 20% 25V | C257 | 1-162-294-31 | CERAMIC | 0.001uF 10% 50V |
| C110 | 1-124-120-11 | ELECT | 220uF 20% 25V | C258 | 1-162-294-31 | CERAMIC | 0.001uF 10% 50V |
| C111 | 1-126-059-11 | ELECT | 10uF 20% 50V | C263 | 1-136-153-00 | FILM | 0.01uF 5% 50V |
| C112 | 1-124-962-11 | ELECT | 2200uF 20% 25V | C264 | 1-161-494-00 | CERAMIC | 0.022uF 25V |
| C114 | 1-164-159-11 | CERAMIC | 0.1uF 50V | C265 | 1-126-049-11 | ELECT | 22uF 20% 25V |
| C115 | 1-124-473-11 | ELECT | 1000uF 20% 10V | C281 | 1-164-159-11 | CERAMIC | 0.1uF 50V |
| C124 | 1-124-587-11 | ELECT | 220uF 20% 6.3V | C922 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V (Germany) |
| C125 | 1-124-587-11 | ELECT | 220uF 20% 6.3V | C924 | 1-164-159-11 | CERAMIC | 0.1uF 50V |
| C126 | 1-126-163-11 | ELECT | 4.7uF 20% 50V | C925 | 1-161-379-00 | CERAMIC | 0.01uF 20% 25V |
| C127 | 1-161-494-00 | CERAMIC | 0.022uF 25V | | | | |
| C159 | 1-162-282-31 | CERAMIC | 100PF 10% 50V | | | < CONNECTOR > | |
| C160 | 1-162-282-31 | CERAMIC | 100PF 10% 50V | CN103 * | 1-565-439-11 | PIN, CONNECTOR (PCB) 10P | |
| C161 | 1-124-994-11 | ELECT | 100uF 20% 10V | CN104 * | 1-569-493-11 | SOCKET, CONNECTOR 7P | |
| C162 | 1-124-910-11 | ELECT | 47uF 20% 50V | CN106 * | 1-568-836-11 | SOCKET, CONNECTOR 17P | |
| C163 | 1-124-916-11 | ELECT | 22uF 20% 63V | CN107 * | 1-565-561-11 | PIN, CONNECTOR 3P (AU BUS) | |
| C165 | 1-124-572-11 | ELECT | 100uF 20% 63V | CN114 * | 1-564-321-00 | PIN, CONNECTOR 2P (AEP, E, Germany, Italian, Saudi Arabia) | |
| C167 | 1-136-163-00 | FILM | 0.068uF 5% 50V | | | | |
| C189 | 1-162-282-31 | CERAMIC | 100PF 10% 50V | CN183 * | 1-569-491-11 | SOCKET, CONNECTOR 5P | |
| C190 | 1-162-282-31 | CERAMIC | 100PF 10% 50V | CN186 * | 1-569-493-11 | SOCKET, CONNECTOR 7P | |
| C191 | 1-124-994-11 | ELECT | 100uF 20% 10V | CN188 * | 1-569-496-11 | SOCKET, CONNECTOR 10P | |
| C192 | 1-124-910-11 | ELECT | 47uF 20% 50V | CN189 * | 1-569-496-11 | SOCKET, CONNECTOR 10P | |
| C193 | 1-124-572-11 | ELECT | 100uF 20% 63V | CN193 | 1-569-490-11 | SOCKET, CONNECTOR 3P | |
| C194 | 1-136-163-00 | FILM | 0.068uF 5% 50V | | | < DIODE > | |
| C199 | 1-161-744-00 | CERAMIC | 0.01uF 400V | D71 | 8-719-912-20 | DIODE | 1SS120 |
| C201 | 1-136-165-00 | FILM | 0.1uF 5% 50V | D101 | 8-719-302-38 | DIODE | RBV-602-01 |
| C205 | 1-164-159-11 | CERAMIC | 0.1uF 50V | D105 | 8-719-912-20 | DIODE | 1SS120 |
| C213 | 1-161-377-00 | CERAMIC | 0.0047uF 20% 50V (Germany) | D107 | 8-719-000-84 | DIODE | UZL-7M1 |
| C214 | 1-161-377-00 | CERAMIC | 0.0047uF 20% 50V (Germany) | D109 | 8-719-815-85 | DIODE | 1S1585 |
| C215 | 1-161-377-00 | CERAMIC | 0.0047uF 20% 50V (Germany) | D110 | 8-719-815-85 | DIODE | 1S1585 |
| C216 | 1-161-377-00 | CERAMIC | 0.0047uF 20% 50V (Germany) | D111 | 8-719-815-85 | DIODE | 1S1585 |
| | | | | D112 | 8-719-815-85 | DIODE | 1S1585 |
| | | | | D115 | 8-719-912-20 | DIODE | 1SS120 |
| | | | | D116 | 8-719-200-82 | DIODE | 11ES2 |

MAIN

| Ref. No. | Part No. | Description | Remarks |
|----------------|---------------|---|---------|
| D117 | 8-719-200-77 | DIODE 10E2N | |
| D118 | 8-719-200-77 | DIODE 10E2N | |
| D119 | 8-719-200-77 | DIODE 10E2N | |
| D120 | 8-719-200-77 | DIODE 10E2N | |
| D122 | 8-719-912-20 | DIODE 1SS120 | |
| | | | |
| D135 | 8-719-815-85 | DIODE 1S1585 | |
| D150 | 8-719-200-77 | DIODE 10E2N | |
| D151 | 8-719-200-77 | DIODE 10E2N | |
| D152 | 8-719-200-77 | DIODE 10E2N | |
| D153 | 8-719-200-77 | DIODE 10E2N | |
| | | | |
| D158 | 8-719-010-17 | DIODE UZ-3. OBSB | |
| D401 | 8-719-815-85 | DIODE 1S1585 | |
| D402 | 8-719-912-20 | DIODE 1SS120 | |
| D905 | 8-719-815-85 | DIODE 1S1585 | |
| | | | |
| < IC > | | | |
| IC101 | 8-759-604-34 | IC M5F7815L | |
| IC102 | 8-759-245-87 | IC TA7915S | |
| IC103 | 8-759-630-49 | IC M5F7806KL | |
| IC108 | 8-759-984-03 | IC LM339N | |
| IC112 | 8-759-111-68 | IC uPC1237HA | |
| | | | |
| IC113 | 8-749-921-04 | IC STK4211MK2 (AEP, UK, Germany, Italian) | |
| IC113 | 8-749-922-65 | IC STK4221MK2 (E, Saudi Arabia) | |
| IC115 | 8-759-635-63 | IC M51943BSL | |
| ICP106 | 1-532-842-11 | IC, LINK | |
| ICP107 | 1-532-842-11 | IC, LINK | |
| ICP109 | 1-532-842-11 | IC, LINK | |
| | | | |
| < TRANSISTOR > | | | |
| Q101 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| Q102 | 8-729-900-63 | TRANSISTOR DTA124ES | |
| Q106 | 8-729-900-36 | TRANSISTOR DTC124ES | |
| Q112 | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA | |
| Q113 | 8-729-140-84 | TRANSISTOR 2SC1841-PAFAEA | |
| | | | |
| Q121 | 8-729-900-63 | TRANSISTOR DTA124ES | |
| Q123 | 8-729-801-93 | TRANSISTOR 2SD1387 | |
| Q141 | 8-729-801-93 | TRANSISTOR 2SD1387 | |
| Q408 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| | | | |
| < RESISTOR > | | | |
| R18 | 1-247-887-00 | CARBON 220K 5% 1/4W | |
| R19 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R20 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R21 | △1-215-885-00 | METAL OXIDE 68 5% 2W F | |
| R71 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |

| Ref. No. | Part No. | Description | Remarks |
|----------|---------------|--|---------|
| R72 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R73 | 1-247-858-11 | CARBON 13K 5% 1/4W (AEP, UK, Germany, Italian) | |
| R73 | 1-249-431-11 | CARBON 15K 5% 1/4W (E, Saudi Arabia) | |
| R74 | 1-249-442-11 | CARBON 510 5% 1/4W (AEP, UK, Germany, Italian) | |
| R74 | 1-249-415-11 | CARBON 680 5% 1/4W (E, Saudi Arabia) | |
| | | | |
| R134 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R136 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R137 | 1-247-874-11 | CARBON 62K 5% 1/4W | |
| R138 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R139 | 1-247-874-11 | CARBON 62K 5% 1/4W | |
| | | | |
| R140 | 1-247-760-11 | CARBON 4.7K 5% 1/2W | |
| R141 | 1-247-760-11 | CARBON 4.7K 5% 1/2W | |
| R142 | 1-247-752-11 | CARBON 1K 5% 1/2W | |
| R143 | 1-247-752-11 | CARBON 1K 5% 1/2W | |
| R144 | △1-212-881-11 | FUSIBLE 100 5% 1/4W F | |
| | | | |
| R145 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R146 | 1-249-431-11 | CARBON 15K 5% 1/4W | |
| R147 | 1-217-156-00 | RES, METAL PLATE 0.22 | |
| R148 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R149 | △1-212-881-11 | FUSIBLE 100 5% 1/4W F | |
| | | | |
| R150 | 1-247-727-11 | CARBON 10 5% 1/2W | |
| R186 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R187 | 1-247-874-11 | CARBON 62K 5% 1/4W | |
| R188 | 1-249-412-11 | CARBON 390 5% 1/4W | |
| R189 | 1-247-874-11 | CARBON 62K 5% 1/4W | |
| | | | |
| R190 | 1-247-760-11 | CARBON 4.7K 5% 1/2W | |
| R191 | 1-247-760-11 | CARBON 4.7K 5% 1/2W | |
| R192 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R193 | 1-249-431-11 | CARBON 15K 5% 1/4W | |
| R194 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| | | | |
| R195 | 1-247-727-11 | CARBON 10 5% 1/2W | |
| R196 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R197 | 1-217-156-00 | RES, METAL PLATE 0.22 | |
| R202 | △1-216-457-00 | METAL OXIDE 1.2K 5% 2W F | |
| R203 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| | | | |
| R204 | 1-249-427-11 | CARBON 6.8K 5% 1/4W | |
| R205 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R206 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R207 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R210 | 1-249-438-11 | CARBON 56K 5% 1/4W | |

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN

PANEL

SP CONNECTION(A)

HEADPHONE

MICROPHONE

VOLUME

| Ref. No. | Part No. | Description | Remarks |
|----------|---------------|---|---------|
| R219 | 1-249-437-11 | CARBON 47K 5% 1/4W | |
| R226 | 1-247-834-11 | CARBON 1.3K 5% 1/4W | |
| R227 | 1-249-410-11 | CARBON 270 5% 1/4W | |
| R228 | 1-249-431-11 | CARBON 15K 5% 1/4W | |
| R229 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R238 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R239 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R240 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R256 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R258 | △1-212-968-00 | FUSIBLE 27 5% 1/2W F | |
| R265 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R268 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R269 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | |
| R270 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R271 | 1-249-423-11 | CARBON 3.3K 5% 1/4W | |
| R272 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R280 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R285 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R286 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R287 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R288 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R289 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R290 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R291 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R292 | △1-214-789-00 | RES, METAL PLATE 0.1 10% 5W (E, Saudi Arabia) | |
| R402 | 1-249-393-11 | CARBON 10 5% 1/4W | |
| R403 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R404 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| | | < RELAY > | |
| RY101 | 1-515-765-11 | RELAY | |
| | | < SWITCH > | |
| S101 | △1-554-920-51 | SWITCH, PUSH (AC POWER) (1 KEY) | |
| ***** | | | |
| * | A-4345-228-A | PANEL BOARD, COMPLETE | ***** |
| * | 1-639-406-11 | SP CONNECTION (A) BOARD | ***** |
| * | 1-639-407-11 | HEADPHONE BOARD | ***** |
| * | 1-639-408-11 | MICROPHONE BOARD | ***** |
| * | 1-639-410-11 | VOLUME BOARD | ***** |

| Ref. No. | Part No. | Description | Remarks |
|----------|----------------|--------------------------|---------|
| | * 4-942-010-01 | HOLDER (1 GANG) | |
| | * 4-942-012-01 | HOLDER (3 GANG), LED | |
| | | < CAPACITOR > | |
| C158 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C188 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C301 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C302 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C303 | 1-126-022-11 | ELECT 47uF 20% 16V | |
| C304 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C305 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C307 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C309 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C310 | 1-126-022-11 | ELECT 47uF 20% 16V | |
| C312 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C401 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C402 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C403 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C404 | 1-125-486-11 | DUBLE LAYERS 0.22F 5.5V | |
| C405 | 1-126-049-11 | ELECT 22uF 20% 25V | |
| C406 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C407 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| C408 | 1-164-159-11 | CERAMIC 0.1uF 50V | |
| C409 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C480 | 1-136-165-00 | FILM 0.1uF 5% 50V | |
| C481 | 1-136-153-00 | FILM 0.01uF 5% 50V | |
| C486 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C487 | 1-162-294-31 | CERAMIC 0.001uF 10% 50V | |
| C501 | 1-124-471-00 | ELECT 1000uF 20% 6.3V | |
| C502 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C503 | 1-124-471-00 | ELECT 1000uF 20% 6.3V | |
| C504 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C505 | 1-124-471-00 | ELECT 1000uF 20% 6.3V | |
| C506 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C508 | 1-126-059-11 | ELECT 10uF 20% 50V | |
| C509 | 1-126-049-11 | ELECT 22uF 20% 25V | |
| C510 | 1-161-494-00 | CERAMIC 0.022uF 25V | |
| C701 | 1-126-049-11 | ELECT 22uF 20% 25V | |
| C703 | 1-126-161-11 | ELECT 2.2uF 20% 50V | |
| C704 | 1-161-377-00 | CERAMIC 0.0047uF 30% 16V | |
| C705 | 1-162-219-31 | CERAMIC 68PF 5% 50V | |
| C706 | 1-162-290-31 | CERAMIC 470PF 10% 50V | |
| C707 | 1-161-377-00 | CERAMIC 0.0047uF 30% 16V | |
| C708 | 1-162-293-31 | CERAMIC 820PF 10% 50V | |

Note: The components identified by mark **△** or dotted line with mark **△** are critical for safety. Replace only with part number specified.

PANEL

SP CONNECTION(A)

HEADPHONE

MICROPHONE

VOLUME

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|----------------|--|----------------------------|----------|----------------|------------------------|---------|
| C709 | 1-124-463-00 | ELECT | 0.1uF 20% 50V | | | < IC > | |
| C710 | 1-126-049-11 | ELECT | 22uF 20% 25V | | | | |
| C711 | 1-126-049-11 | ELECT | 22uF 20% 25V | | | | |
| C721 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | IC301 | 8-759-962-08 | IC BA6208 | |
| C751 | 1-126-049-11 | ELECT | 22uF 20% 25V | IC302 | 8-759-962-08 | IC BA6208 | |
| C752 | 1-162-286-31 | CERAMIC | 220PF 10% 50V (Germany) | IC303 | 8-759-208-06 | IC TC4051BPHB | |
| C801 | 1-126-022-11 | ELECT | 47uF 20% 16V | IC304 | 8-759-000-48 | IC MC14052BCP | |
| C802 | 1-126-059-11 | ELECT | 10uF 20% 50V | IC401 | 8-759-154-28 | IC uPD75106CW-190 | |
| C803 | 1-126-059-11 | ELECT | 10uF 20% 50V | IC402 | 8-759-991-02 | IC NE555P | |
| | | < CONNECTOR > | | IC501 | 8-759-991-77 | IC BA7625 | |
| CN1 | * 1-564-506-11 | PLUG, CONNECTOR 3P | | IC701 | 8-759-710-73 | IC NJM4580L | |
| CN180 | * 1-569-506-11 | PIN, CONNECTOR 11P | | IC801 | 8-759-820-62 | IC LB1639 | |
| CN194 | * 1-569-506-11 | PIN, CONNECTOR 11P | | | | < JACK > | |
| CN195 | 1-569-497-11 | SOCKET, CONNECTOR 11P | | J601 | 1-507-796-71 | JACK (HEADPHONES) | |
| CN401 | * 1-568-836-11 | SOCKET, CONNECTOR 17P | | J701 | 1-580-439-11 | JACK, LARGE TYPE (MIC) | |
| CN403 | * 1-568-824-11 | SOCKET, CONNECTOR 5P | | | | < COIL > | |
| CN462 | * 1-568-320-11 | PLUG, CONNECTOR 8P | | L101 | * 1-420-872-00 | COIL, AIR CORE | |
| CN551 | * 1-569-502-11 | PIN, CONNECTOR 7P | | L102 | * 1-420-872-00 | COIL, AIR CORE | |
| CN701 | * 1-565-438-11 | SOCKET, CONNECTOR (PCB) 10P | | L501 | 1-410-521-11 | INDUCTOR 100uH | |
| CN801 | * 1-564-496-11 | PIN, CONNECTOR 3P | | | | < TRANSISTOR > | |
| CN803 | * 1-564-519-11 | PLUG, CONNECTOR 4P | | 0409 | 8-729-900-63 | TRANSISTOR DTA124ES | |
| CN809 | 1-568-319-11 | SOCKET, CONNECTOR 8P | | 0410 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| CNJ503 | 1-565-351-21 | JACK, PIN 3P (VIDEO 1 IN, DBS IN) | | 0411 | 8-729-900-63 | TRANSISTOR DTA124ES | |
| CNJ504 | 1-565-351-21 | JACK, PIN 3P (VIDEO 2 IN, MONITOR OUT) | | 0412 | 8-729-900-63 | TRANSISTOR DTA124ES | |
| CNJ702 | 1-580-174-21 | JACK, PIN (3P FRONT) (VIDEO 3 IN) | | 0413 | 8-729-900-63 | TRANSISTOR DTA124ES | |
| | | < DIODE > | | 0501 | 8-729-119-77 | TRANSISTOR 2SA1175-FEK | |
| D302 | 8-719-200-82 | DIODE 11ES2 | | 0502 | 8-729-119-77 | TRANSISTOR 2SA1175-FEK | |
| D303 | 8-719-200-82 | DIODE 11ES2 | | 0503 | 8-729-119-77 | TRANSISTOR 2SA1175-FEK | |
| D403 | 8-719-200-82 | DIODE 11ES2 | | 0506 | 8-729-620-05 | TRANSISTOR 2SC2603-EF | |
| D405 | 8-719-200-82 | DIODE 11ES2 | | | | < RESISTOR > | |
| D406 | 8-719-912-20 | DIODE 1SS120 | | R51 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| D407 | 8-719-200-82 | DIODE 11ES2 | | R52 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| D415 | 8-719-200-82 | DIODE 11ES2 | | R53 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| D463 | 8-719-301-39 | DIODE SEL2210S-D | | R224 | 1-247-727-11 | CARBON 10 5% 1/2W | |
| D471 | 8-719-301-39 | DIODE SEL2210S-D | | R225 | 1-247-749-11 | CARBON 560 5% 1/2W | |
| D472 | 8-719-301-39 | DIODE SEL2210S-D | | R301 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| D473 | 8-719-301-39 | DIODE SEL2210S-D | | R302 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| D501 | 8-719-200-82 | DIODE 11ES2 | | R303 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| D801 | 8-719-200-82 | DIODE 11ES2 | | R304 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| | | | | R305 | 1-249-429-11 | CARBON 10K 5% 1/4W | |

PANEL

SP CONNECTION(A)

HEADPHONE

MICROPHONE

VOLUME

| Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
|----------|--------------|---------------------|---------|----------|--------------|---------------------|---------|
| R311 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R448 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R312 | 1-249-410-11 | CARBON 270 5% 1/4W | | R450 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R313 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R459 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R314 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R461 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R315 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R471 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R316 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R480 | 1-247-885-00 | CARBON 180K 5% 1/4W | |
| R317 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R481 | 1-249-438-11 | CARBON 56K 5% 1/4W | |
| R318 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R482 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R319 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R484 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R320 | 1-249-410-11 | CARBON 270 5% 1/4W | | R485 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R321 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R486 | 1-249-424-11 | CARBON 3.9K 5% 1/4W | |
| R322 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R490 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R394 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | | R491 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R395 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | | R492 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R396 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | | R493 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R397 | 1-249-421-11 | CARBON 2.2K 5% 1/4W | | R496 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R399 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R498 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R405 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R499 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R406 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R501 | 1-249-403-11 | CARBON 68 5% 1/4W | |
| R407 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R502 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R408 | 1-249-414-11 | CARBON 560 5% 1/4W | | R503 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R412 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R504 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R413 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R505 | 1-249-403-11 | CARBON 68 5% 1/4W | |
| R414 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R506 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R415 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R507 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R416 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R508 | 1-249-403-11 | CARBON 68 5% 1/4W | |
| R417 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R509 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R418 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R511 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R419 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R512 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R420 | 1-249-417-11 | CARBON 1K 5% 1/4W | | R513 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R421 | 1-249-437-11 | CARBON 47K 5% 1/4W | | R514 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R422 | 1-249-435-11 | CARBON 33K 5% 1/4W | | R515 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R423 | 1-249-433-11 | CARBON 22K 5% 1/4W | | R516 | 1-249-408-11 | CARBON 180 5% 1/4W | |
| R434 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R517 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R435 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R518 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R436 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R520 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R437 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R521 | 1-249-433-11 | CARBON 22K 5% 1/4W | |
| R438 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R531 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R439 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R601 | 1-247-727-11 | CARBON 10 5% 1/2W | |
| R440 | 1-249-410-11 | CARBON 270 5% 1/4W | | R651 | 1-247-749-11 | CARBON 560 5% 1/2W | |
| R441 | 1-249-410-11 | CARBON 270 5% 1/4W | | R701 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R442 | 1-249-410-11 | CARBON 270 5% 1/4W | | R702 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R443 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R703 | 1-247-804-11 | CARBON 75 5% 1/4W | |
| R445 | 1-249-410-11 | CARBON 270 5% 1/4W | | R704 | 1-249-441-11 | CARBON 100K 5% 1/4W | |
| R446 | 1-249-429-11 | CARBON 10K 5% 1/4W | | R705 | 1-249-417-11 | CARBON 1K 5% 1/4W | |

PANEL

SP CONNECTION(A)

HEADPHONE

MICROPHONE

VOLUME

| Ref. No. | Part No. | Description | Remarks |
|-----------------------|---------------|---|---------|
| R706 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R707 | 1-249-432-11 | CARBON 18K 5% 1/4W | |
| R708 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R709 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R710 | 1-249-432-11 | CARBON 18K 5% 1/4W | |
| R711 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R751 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R752 | 1-247-903-00 | CARBON 1M 5% 1/4W | |
| R801 | 1-249-425-11 | CARBON 4.7K 5% 1/4W | |
| R802 | 1-249-410-11 | CARBON 270 5% 1/4W | |
| R803 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R804 | 1-249-417-11 | CARBON 1K 5% 1/4W | |
| R805 | 1-247-834-11 | CARBON 1.3K 5% 1/4W | |
| R806 | 1-249-415-11 | CARBON 680 5% 1/4W | |
| R807 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| R809 | 1-249-429-11 | CARBON 10K 5% 1/4W | |
| < VARIABLE RESISTOR > | | | |
| RV401 | 1-241-307-11 | RES. VAR. CARBON 10K/10K (DBFB-LEVEL) | |
| RV501 | 1-238-459-11 | RES. VAR. CARBON 100K (BALANCE) | |
| RV701 | 1-241-301-11 | RES. VAR. CARBON 50K (LEVEL) | |
| RV801 | 1-238-708-11 | RES. VAR. CARBON 10K/100K/100K (VOLUME) | |
| < SWITCH > | | | |
| FC301 | 1-572-460-11 | SWITCH, ROTARY (AUDIO FUNCTION) | |
| FC302 | 1-572-554-11 | SWITCH, ROTARY (VIDEO FUNCTION) | |
| S103 | 1-571-987-11 | SWITCH, PUSH (2 KEY) (SPEAKER A/B) | |
| S401 | 1-554-303-21 | SWITCH, TACTILE (SET) | |
| S402 | 1-554-303-21 | SWITCH, TACTILE (PROG 1) | |
| S403 | 1-554-303-21 | SWITCH, TACTILE (PROG 2) | |
| S404 | 1-554-303-21 | SWITCH, TACTILE (PROG 3) | |
| S405 | 1-554-303-21 | SWITCH, TACTILE (PROG 4) | |
| < VIBRATOR > | | | |
| X401 | 1-577-359-21 | VIBRATOR, CERAMIC | |
| ***** | | | |
| MISCELLANEOUS | | | |
| ***** | | | |
| 10 | 1-690-100-11 | WIRE, FLAT TYPE (5 CORE) | |
| 11 | 1-690-102-11 | WIRE, FLAT TYPE (17 CORE) | |
| 18 | 1-541-889-11 | MOTOR, DC FAN | |
| 62 | 1-690-101-11 | WIRE, FLAT TYPE (7 CORE) | |
| CN199 | △1-526-751-00 | OUTLET, AC(UK) | |

| Ref. No. | Part No. | Description | Remarks |
|------------------------------|--|---|---------|
| CN199 | △1-526-794-11 | OUTLET, AC(AEP, Germany, Italian, Saudi Arabia) | |
| CN199 | △1-526-882-00 | OUTLET, AC(E) | |
| CNP901 | △1-556-560-21 | CORD, POWER(UK) | |
| CNP901 | △1-575-651-11 | CORD, POWER(AEP, Germany, Italian) | |
| CNP901 | △1-575-654-11 | CORD, POWER(Saudi Arabia) | |
| CNP901 | △1-575-656-11 | CORD, POWER(E) | |
| F101 | △1-532-388-51 | FUSE (2A) | |
| F102 | △1-532-388-51 | FUSE (2A) (EXCEPT UK) | |
| S102 | △1-570-307-11 | SWITCH, VOLTAGE CHANGE (E, Saudi Arabia) | |
| T101 | △1-450-526-11 | TRANSFORMER, POWER (AEP, UK, Germany, Italian) | |
| T101 | △1-450-527-11 | TRANSFORMER, POWER (E, Saudi Arabia) | |
| ***** | | | |
| ACCESSORY & PACKING MATERIAL | | | |
| ***** | | | |
| 3-701-630-00 | BAG, POLYETHYLENE (Italian) | | |
| 3-753-427-11 | MANUAL, INSTRUCTION (English, French, Spanish, portuguese) AEP | | |
| 3-753-427-41 | MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian)AEP, Germany, Italian | | |
| 4-920-940-01 | SHEET (A), PROTECTION | | |
| * 4-946-088-01 | INDIVIDUAL CARTON (AEP, Germany, Italian) | | |
| * 4-946-092-01 | CUSHION | | |
| ***** | | | |
| HARDWARE LIST | | | |
| ***** | | | |
| # 1 | 7-621-773-93 | SCREW (PANEL 2.6 TP2) | |
| # 2 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 IT-3 | |
| # 3 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 N-S | |
| # 4 | 7-685-650-79 | SCREW +BVTP 3X16 TYPE2 IT-3 | |
| # 5 | 7-682-547-04 | SCREW +BVTT 3X6 (S) | |
| # 6 | 7-682-547-09 | SCREW +BVTT 3X6 (S) | |
| # 7 | 7-682-560-04 | SCREW +BVTT 4X6 (S) | |
| # 8 | 7-682-548-04 | SCREW +BVTT 3X8 (S) | |
| # 9 | 7-621-849-00 | SCREW, TAPPING | |
| #10 | 7-685-534-19 | SCREW +BTP 2.6X8 TYPE2 N-S (E, Saudi Arabia) | |

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.