

# TA-E77ES/E77ESD

## SERVICE MANUAL

*E Model*  
TA-E77ES

*US Model*  
*Canadian Model*  
*AEP Model*  
*UK Model*  
TA-E77ESD



Photo: TA-E77ESD

### SPECIFICATIONS

#### AUDIO SPECIFICATIONS

| Item                                             | Condition                                              |            |         | Data                                                             |
|--------------------------------------------------|--------------------------------------------------------|------------|---------|------------------------------------------------------------------|
| Total harmonic distortion                        | At rated 20Hz – 20kHz output                           |            |         | 0.001%                                                           |
| Intermodulation (M)distortion<br>60Hz:7kHz = 4:1 | at rated output                                        |            |         | 0.001%                                                           |
| Residual noise                                   | Network A                                              |            |         | Less than 10μV                                                   |
| Frequency response                               | PHONO MM                                               |            |         | RIAA equalization curve ±0.2dB                                   |
|                                                  | TUNER, CD, VIDEO 1, 2, 3<br>TAPE 1, 2, AUX, ADAPTOR IN |            |         | 3Hz – 300kHz $\begin{smallmatrix} +0 \\ -3 \end{smallmatrix}$ dB |
| Input sensitivity                                | PHONO                                                  | MC         | 3 ohms  | 0.17mV, 100 ohms                                                 |
|                                                  |                                                        |            | 40 ohms | 0.17mV, 1k ohm                                                   |
|                                                  |                                                        | MM         |         | 2.5mV, 50k ohms                                                  |
|                                                  | TUNER, CD, AUX, TAPE 1, 2, VIDEO 1, 2, 3<br>ADAPTOR IN |            |         | 150mV, 50k ohms                                                  |
| Maximum input capability (1kHz)                  | PHONO (1 kHz, THD 0.003%)                              | MC         | 9mV     |                                                                  |
|                                                  |                                                        | MM         | 150mV   |                                                                  |
| S/N (network)                                    | PHONO                                                  | MC (0.5mV) | 83dB(A) |                                                                  |
|                                                  |                                                        | MM (5mV)   | 95dB(A) |                                                                  |
|                                                  | TUNER, CD, AUX, TAPE 1, 2, VIDEO 1, 2, 3<br>ADAPTOR IN |            |         | 105dB (A)                                                        |

| Item                     | Condition                                                 | Data                                                                    |
|--------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|
| Output voltage impedance | REC OUT 1, 2, VIDEO OUT, ADAPTOR OUT, DAT OUT (TA-E77ESD) | 150mV, 1k ohm                                                           |
|                          | HEADPHONES                                                | 45 milliwatts (at 8 ohms)<br>Accepts low and high impedance headphones. |
|                          | PRE OUT                                                   | 1.5V, 47 ohms<br>G-AEP model : 1.5V 200 ohms                            |
| Tone controls            | BASS, at 100Hz                                            | +3.5 – 4 dB (turnover freq. 200Hz)<br>+7 – 6 dB (turnover freq. 400Hz)  |
|                          | TREBLE, at 10kHz                                          | +7 – 7.5 dB (turnover freq. 3kHz)<br>$\pm 3.5$ dB (turnover freq. 5kHz) |
| SUBSONIC filter          | —                                                         | 6 dB/octave attenuation below 15Hz                                      |

— Continued on Page 2 —



STEREO CONTROL AMPLIFIER  
**SONY**®



## VIDEO SPECIFICATIONS

|                                                     |                          |                                        |
|-----------------------------------------------------|--------------------------|----------------------------------------|
| INPUT                                               | VIDEO 1, 2, 3            | Voltage 1Vp-p<br>Impedance 75 ohms     |
| OUTPUT                                              | VIDEO 1, 2<br>MONITOR TV | Voltage 1Vp-p<br>Impedance 75 ohms     |
| S VIDEO IN<br>(TA-E77ESD only)<br>Luminance signal  | VIDEO 1, 2               | Voltage 1Vp-p<br>Impedance 75 ohms     |
| Chroma signal                                       | VIDEO 1, 2               | Voltage 0.286Vp-p<br>Impedance 75 ohms |
| S VIDEO OUT<br>(TA-E77ESD only)<br>Luminance signal | VIDEO 1<br>MONITOR       | Voltage 1Vp-p<br>Impedance 75 ohms     |
| Chroma signal                                       | VIDEO 1<br>MONITOR       | Voltage 0.286Vp-p<br>Impedance 75 ohms |

## DIGITAL SPECIFICATIONS (TA-E77ESD only)

### Converter section

|                                |                                                     |                                                                                                                                                            |
|--------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Digital input<br>(phono jacks) | Input level<br>(sensitivity)<br>0.5 Vp-p $\pm 20\%$ | Impedance<br>75 ohms                                                                                                                                       |
| Digital output                 | Output level<br>(voltage)<br>0.5Vp-p $\pm 20\%$     | Impedance<br>75 ohms<br>The input signal comes<br>unprocessed to the digital<br>output terminals via a buffer,<br>only when the TA-E77ESD is<br>operating. |

Number of channels

2 (stereo)

Demodulation (D/A conversion)

16-bit linear

Frequency response

5Hz – 20kHz  $\pm 0.5$ dB  
(Input digital signal sampling freq. 44.1kHz)

Harmonic distortion

Less than 0.004% at 1kHz  
(Input digital signal sampling freq. 44.1kHz  
16-bit operation)

Dynamic range

More than 95dB  
(Input digital signal sampling freq. 44.1kHz  
16-bit operation)

Channel separation

More than 90dB

### SAFETY-RELATED COMPONENT WARNING!!

**COMPONENTS IDENTIFIED BY SHADING AND 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.**

### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

**LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

## GENERAL

### System

Low-noise FET high gain, NFB  
type equalizer amplifier, low noise FET,  
Double-stage differential, push-pull output,  
flat amplifier passive type direct tone control

### Power requirements

US, Canadian model: 120V AC, 60Hz  
AEP, UK, E model: 110–120V or 220–240V AC  
adjustable, 50/60Hz  
G-AEP model: 220–240V AC, 50/60Hz  
Power consumption: 30W

### AC outlets

US, Canadian, E model: 1 switched, 400W max.  
1 unswitched, 400W max.  
AEP, UK, G-AEP model: 1 switched, 400W max.

### Dimensions

Approx. 470 x 130 x 370mm (w/h/d)  
(18 $\frac{1}{2}$  x 5 $\frac{1}{4}$  x 14 $\frac{1}{2}$  inches)  
incl. projecting parts and controls

### Weight

Approx. 12.1kg (26lb 11oz): TA-E77ES  
Approx. 13kg (28lb 11oz): TA-E77ESD

### Supplied accessory

US, Canadian model: Programmable commander RM-E7 (1),  
Digital signal cord (1), Connecting cord (1),  
Sony New Super batteries (4), Index sheet  
AEP, UK, G-AEP model: Remote commander RM-177D (1),  
Digital signal cord (1), Connecting cord (1),  
Sony New Super batteries (2)  
E model: Remote commander RM-177 (1), Connecting  
cord (1), Sony New Super batteries (2)

## FEATURES

### Higher sound quality

Sony performed numerous experiments and trials to determine the best chassis structure for an amplifier capable of top quality sound reproduction with superb dynamics, response and presence. The results provided the basis for the TA-E77ES/E77ESD's chassis design. The chassis, named "Gibraltar", is solid as a rock to avoid internal vibrations caused by power transformers, power transistors, and other amplifier components and stress from the outside caused by floor vibration from speakers, home appliances, and other sources. Additionally, the chassis is made of non-magnetic and non-conducting materials and this eliminates magnetic hysteresis distortion caused by transformers, capacitors, transistors, etc.

### Abundant functions

- Audio input selectors control 7 audio and 3 video signals.
  - Input source selection can be remotely controlled by the supplied remote commander.
  - TA-E77ESD provides digital input and output jacks. These deliver excellent sound reproduction with digital audio equipment.
- For the model in USA and Canada only, a programmable commander is supplied. This can remotely control almost any Sony audio and video equipment. Further, it can "read" and "store" the functions of another remote commander using an infrared ray transmitter, not only those made by Sony but those of other manufacturers as well. With this single commander, you can control your audio and video equipment regardless of their manufacturers.

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

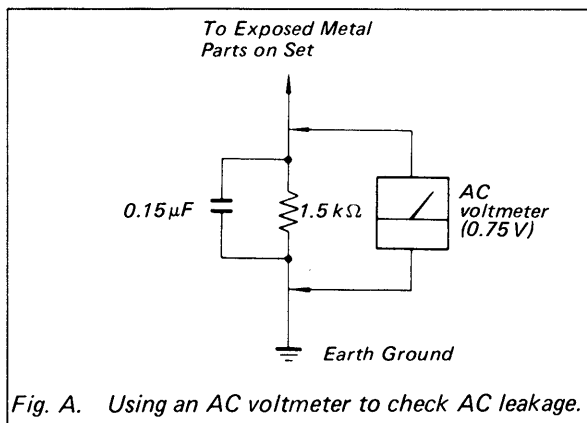


Fig. A. Using an AC voltmeter to check AC leakage.

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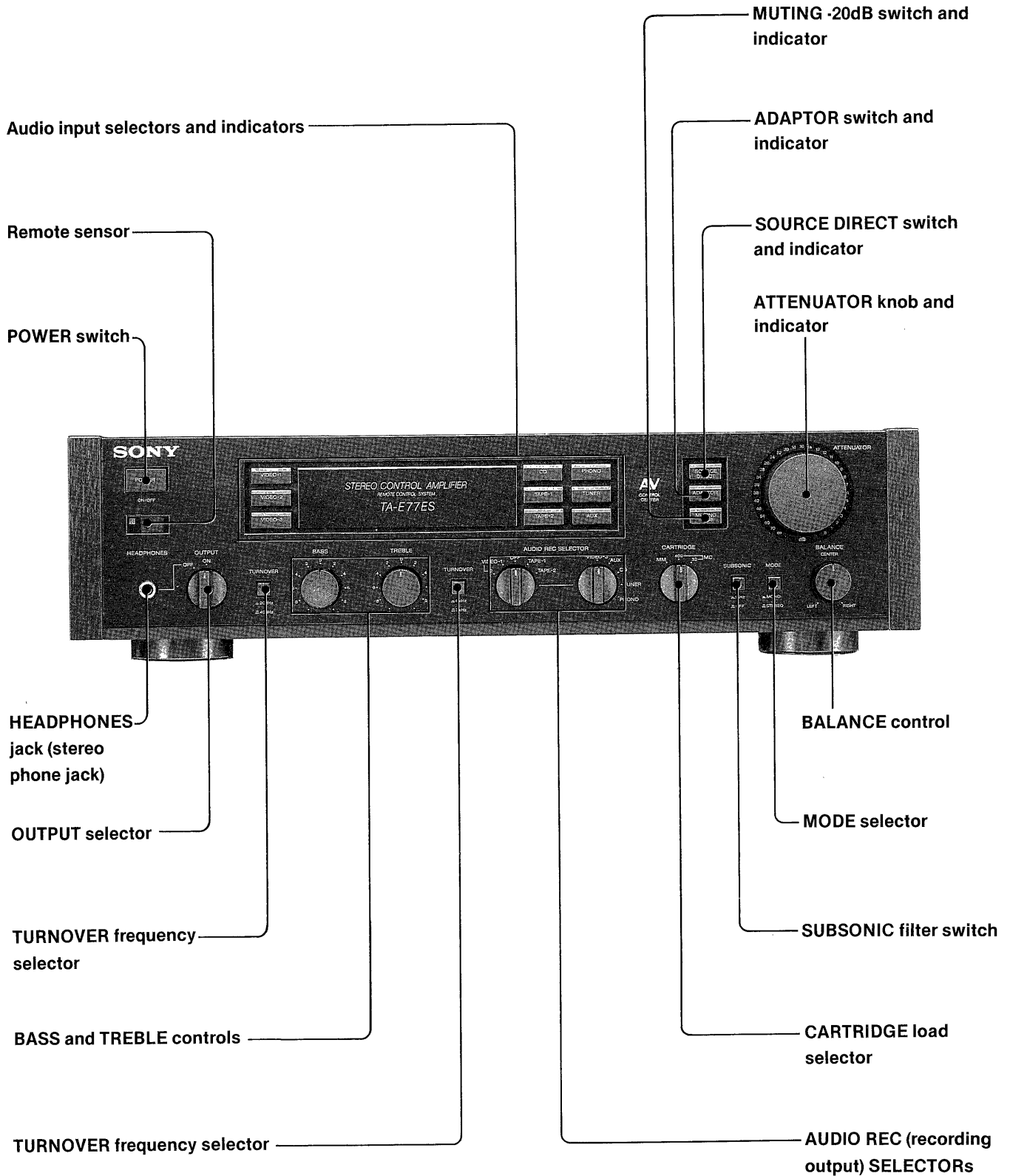
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## Troubleshooting guide

| Trouble                                                                   | Cause/Remedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>No audio</b>                                                           | Faulty setting of OUTPUT selector.<br>Faulty connection <ul style="list-style-type: none"> <li>• Connect the power amplifier and other equipments correctly.</li> </ul> The audio input selector is not correctly set.<br>The ADAPTOR switch is set to on when the ADAPTOR jacks are not used.<br>The equipment connected to the ADAPTOR jacks is not turned on. <ul style="list-style-type: none"> <li>• Set the ADAPTOR switch to off or turn on the equipment.</li> </ul> |
| <b>No audio from one channel or unbalanced left and right sound level</b> | Incorrect setting of the BALANCE control                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>No recording</b>                                                       | The AUDIO REC SELECTORs are not correctly set. <ul style="list-style-type: none"> <li>• Set the selectors correctly.</li> </ul> For selection on right AUDIO REC SELECTOR, set the left selector to the right most position.                                                                                                                                                                                                                                                 |
| <b>Low volume</b>                                                         | The MUTIG switch is depressed. <ul style="list-style-type: none"> <li>• Release the switch.</li> </ul> Incorrect setting of the CARTRIDGE load selector.                                                                                                                                                                                                                                                                                                                     |
| <b>Lack of bass sound or obscure instrument position</b>                  | Mal-setting of sound quality controls <ul style="list-style-type: none"> <li>• Adjust the controls for sound quality.</li> </ul> Faulty setting of the CARTRIDGE load selector.                                                                                                                                                                                                                                                                                              |
| <b>Severe hum or noise</b>                                                | Noise from TV, etc. <ul style="list-style-type: none"> <li>• Keep the connecting cords away from transformers or motors, TV and fluorescent lights.</li> </ul> Faulty connection of turntable system. <ul style="list-style-type: none"> <li>• Ground the turntable system</li> </ul>                                                                                                                                                                                        |
| <b>Remote control operation cannot be performed.</b>                      | The batteries in the commander are exhausted. <ul style="list-style-type: none"> <li>• Replace them with new ones.</li> </ul>                                                                                                                                                                                                                                                                                                                                                |

FUNCTION OF CONTROLS

TA-E77ES



TA-E77ESD

**SAMPLING FREQ. (DIGITAL) indicators**  
Lights up according to the input digital signal.

**Audio input selectors and indicators**

**Remote sensor**

**POWER switch**

**HEADPHONES jack (stereo phone jack)**

**OUTPUT selector**

**TURNOVER frequency selector**

**BASS and TREBLE controls**

**TURNOVER frequency selector**

**MUTING -20dB switch and indicator**

**ADAPTOR switch and indicator**

**SOURCE DIRECT switch and indicator**

**ATTENUATOR knob and indicator**

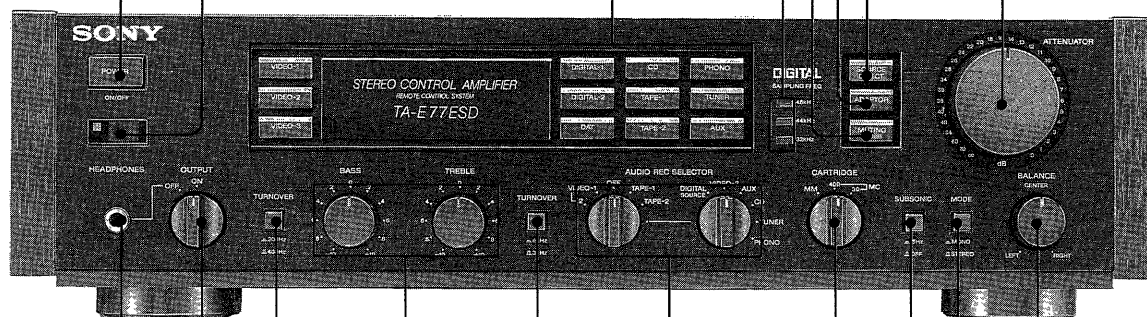
**BALANCE control**

**MODE selector**

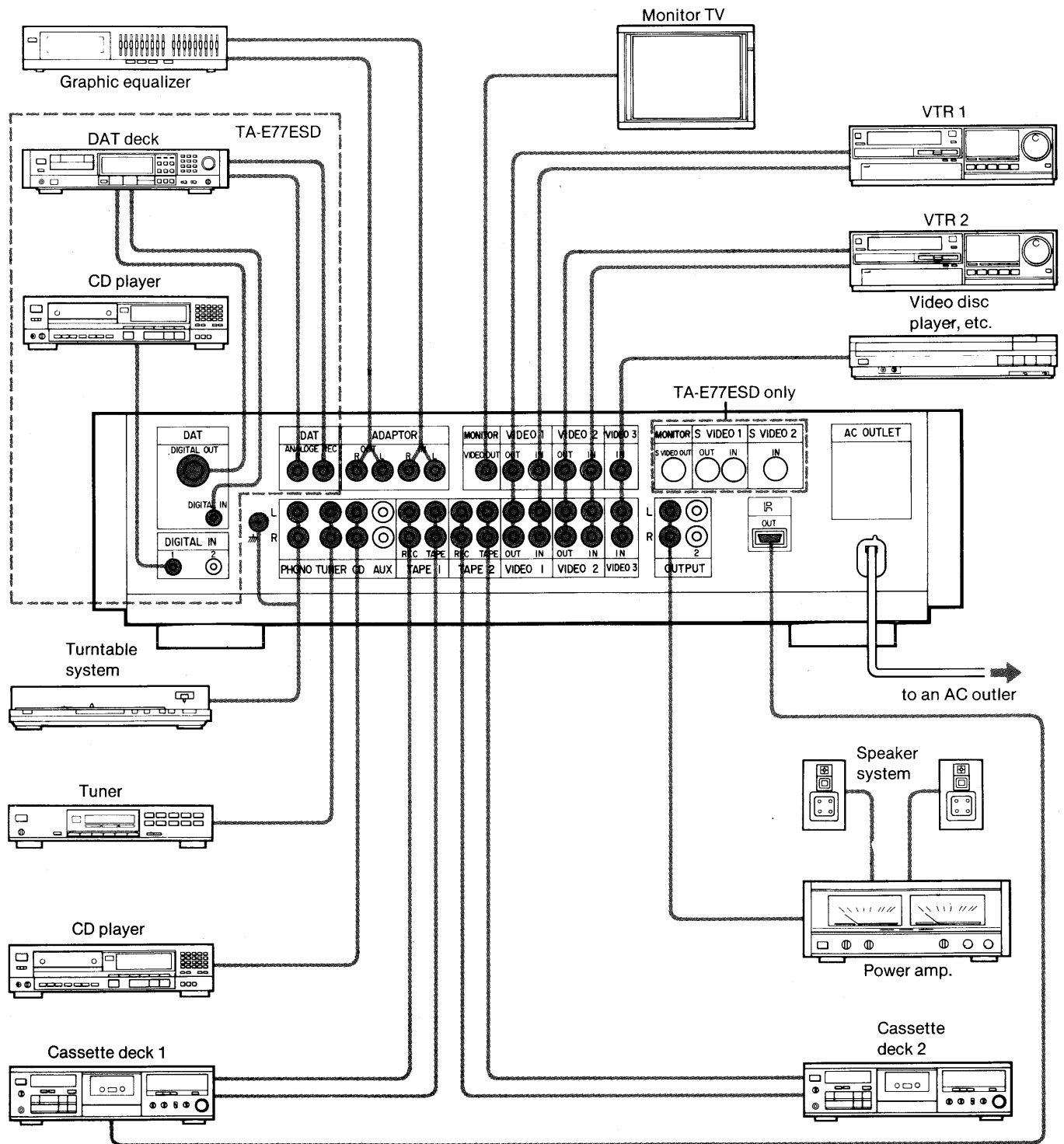
**SUBSONIC filter switch**

**CARTRIDGE load selector**

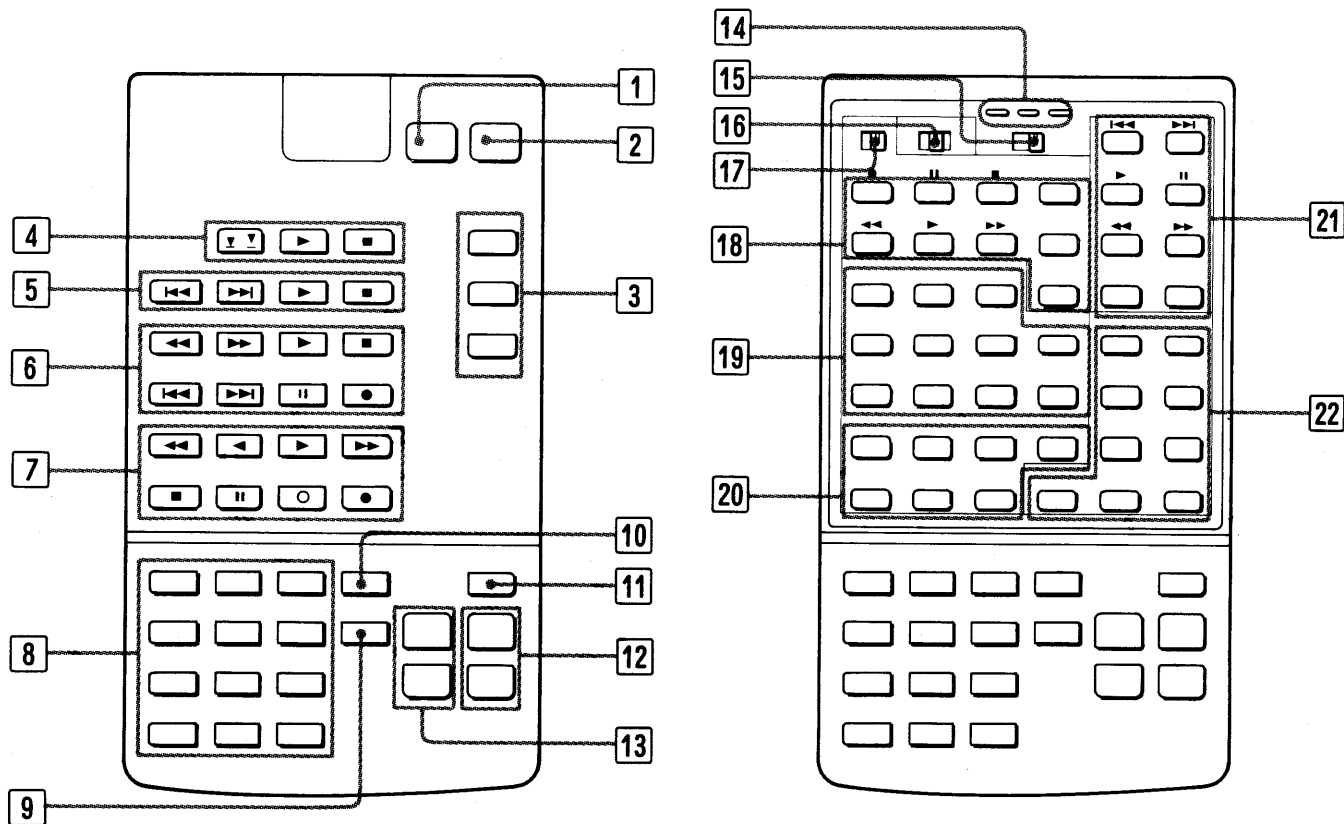
**AUDIO REC (recording output) SELECTORS**



Overall connection diagram



Programmable commander RM-E7



**1 AUDIO POWER ON/OFF switch**

Turns the power of the amplifier on or off.

**2 SYSTEM POWER OFF switch**

Turns off the power of the amplifier, TV, VTR1 or VTR2.

**3 VIDEO POWER ON/OFF switch**

TV: Turns the power of the TV on or off.

VTR1: Turns the power of the VTR 1 on or off.

VTR2: Turns the power of the VTR 2 on or off.

**4 PHONO buttons**

▼ ▼: Lifts or lowers the tonearm.

▶: Starts record playing

■: Stops record playing

**5 CD buttons**

◀◀/▶▶: AMS\*

▶: Starts playing

■: Stops playing

\*AMS = Automatic Music Sensor

**6 DAT buttons**

◀◀/▶▶: Leftward and rightward fast winding

▶: Forward play

■: Stop

◀◀/▶▶: AMS

||: Pause

○: Record

**7 TAPE button**

◀◀: Leftward fast winding

◀: Reverse play

▶: Forward play

▶▶: Rightward fast winding

■: Stop

||: Pause

○: Record muting

●: Recording

**8 Program source selectors**

**9 ADAPTOR switch**

**10 SOURCE DIRECT switch**

**11 MUTING switch****12 ATTENUATOR buttons****13 TUNER PRESET buttons**

- + : Selects higher preset number.
- : Selects lower preset number.

**14 Indicators**

LEARNED  
Transmit indicator  
READY

**15 LEARN/USER/SONY selector**

Selects the function of the FREE buttons or the other buttons.

SONY: To operates this commander normally.

LEARN: To memorize the function of another remote commander on one of the FREE buttons.

USER: To recall the memorized function on FREE buttons.

**16 FM-AM/TV/VTR selector**

Selects the unit to be controlled; tuner, TV or VTR.

**17 VTR selector**

Selects the command mode.

If your VTR has a command mode selector, set this selector to the same position as that set on the VTR.

If your VTR does not have one, set to 1.

If a Sony 8mm VTR is connected, set to 2.

**18 VTR operation buttons**

●: Recording

II: Pause

■: Stop

◀◀: Rewind

▶: Play

▶▶: Fast forward

CH + : For higher numbered channels

CH - : For lower numbered channels

TV/VIDEO: Selects the input signal of the VTR: TV or video.

**19 TUNER FM-AM/TV/VTR channel buttons**

10-key preset channel buttons: Memorize or recall the preset channels for the unit determined by the setting of the FM-AM/TV/VTR selector.

ENTER : Completes the operation for memory presetting of radio, TV or VTR channels.

**20 TV buttons**

MTS(Multichannel TV Sound): Receives a multichannel TV sound program when the FM-AM/TV/VTR selector is set to TV.

TV/VTR :Selects the TV signal input.

CH + : Selects a higher TV channel.

CH - : Selects lower TV channel.

VOL + : Increases the sound level.

VOL - : Decreases the sound level.

DISPLAY: Displays the selected signal source on the TV screen.

**21 VDP (Video disc player) buttons**

◀◀/▶▶: Chapter search

▶: Play

II: Pause

◀◀: Reverse play

▶▶: Fast play

STEREO: Outputs left and right channel sound simultaneously.

Use for bilingual programs.

TV/VDP: Selects TV signal input or disc program.

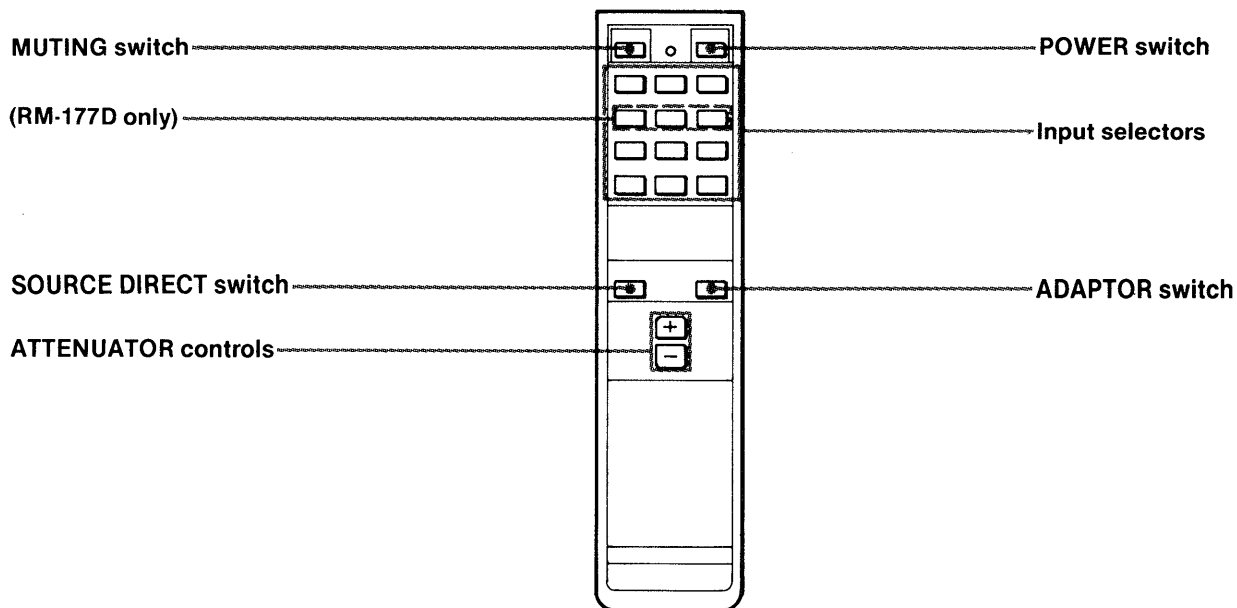
**22 FREE buttons**

A - G : Accept learning function when the

LEARN/USER/SONY selector is set to LEARN.

Recall the memorized function.

## Remote commander RM-177/177D



## Installing batteries

Open the battery lid located on the rear.  
Insert two (four for RM-E7) size AA (R6) batteries with correct polarity.

### Battery life

About a half year of normal operation can be expected when using the Sony SUM-3(NS) batteries.  
When the batteries are exhausted, the remote commander cannot operate the unit. If this happens, replace both batteries with new ones.

### To avoid battery leakage

When the commander is not to be used for a long time, remove the batteries to avoid damage caused by battery leakage and corrosion.

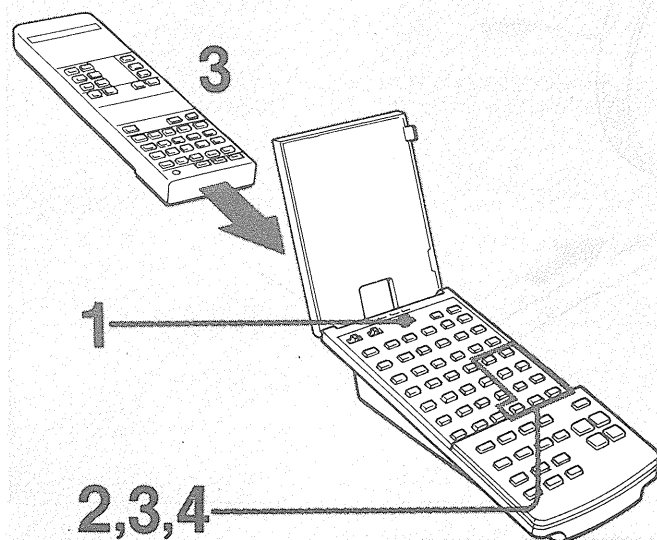
### To avoid malfunction of the commander

Keep the commander away from extremely hot or humid place.

### Coverage of the remote commander

The commander can remotely control the equipments placed within the distance of 7m.

## How to use learning function (RM-E7 only)



### 1 Set LEARN/USER/SONY to LEARN.

The READY indicator lights up.

### 2 Turn this commander towards another commander and press one of the FREE buttons.

If the selected button is inoperative, the READY indicator flickers.

### 3 While keeping the FREE button pressed, press the desired function button on the other commander.

The function is memorized by this unit. When the memorization is completed, the READY indicator goes out and the LEARNED indicator lights up.

### 4 Release the FREE button.

The LEARNED indicator goes out and the READY indicator lights up to indicate that the next learning is ready to start.

### When learning is finished

Set the LEARN/USER/SONY selector to a position other than LEARN. The READY indicator goes out.

### To use the learned function

Set the LEARN/USER/SONY selector to USER.

### To use for other functions than learning

Set the LEARN/USER/SONY selector to SONY.

### Note

The memorization will be remained for two or three days without installing the batteries.

### Index sheet

Use the supplied index sheet by placing it on the FREE buttons for further reference.

### CAUTION

Be sure to confirm if the functions have been stored as a few of the functions of other manufacturer commanders are not storable on this commander.

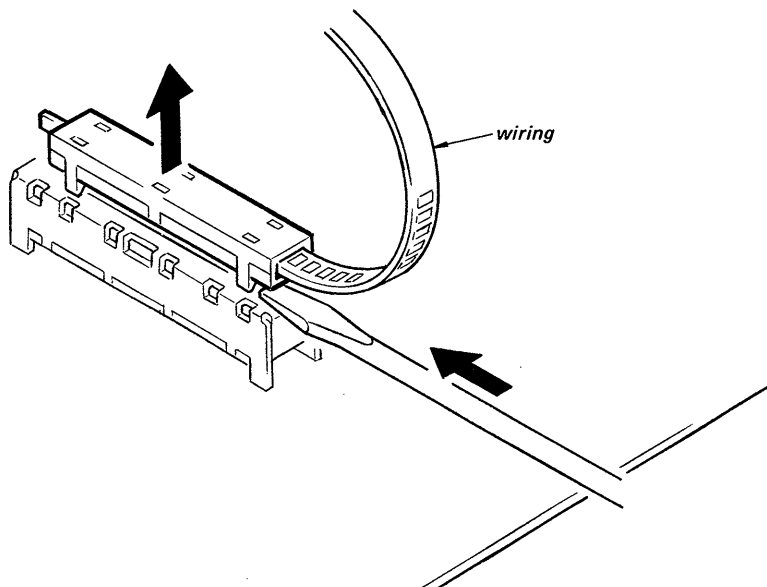
## NOTE ON REPAIRING DISASSEMBLY AND ASSEMBLY FOR SWITCH SECTION

**Note:** Follow the assembly procedure in the numerical order given.

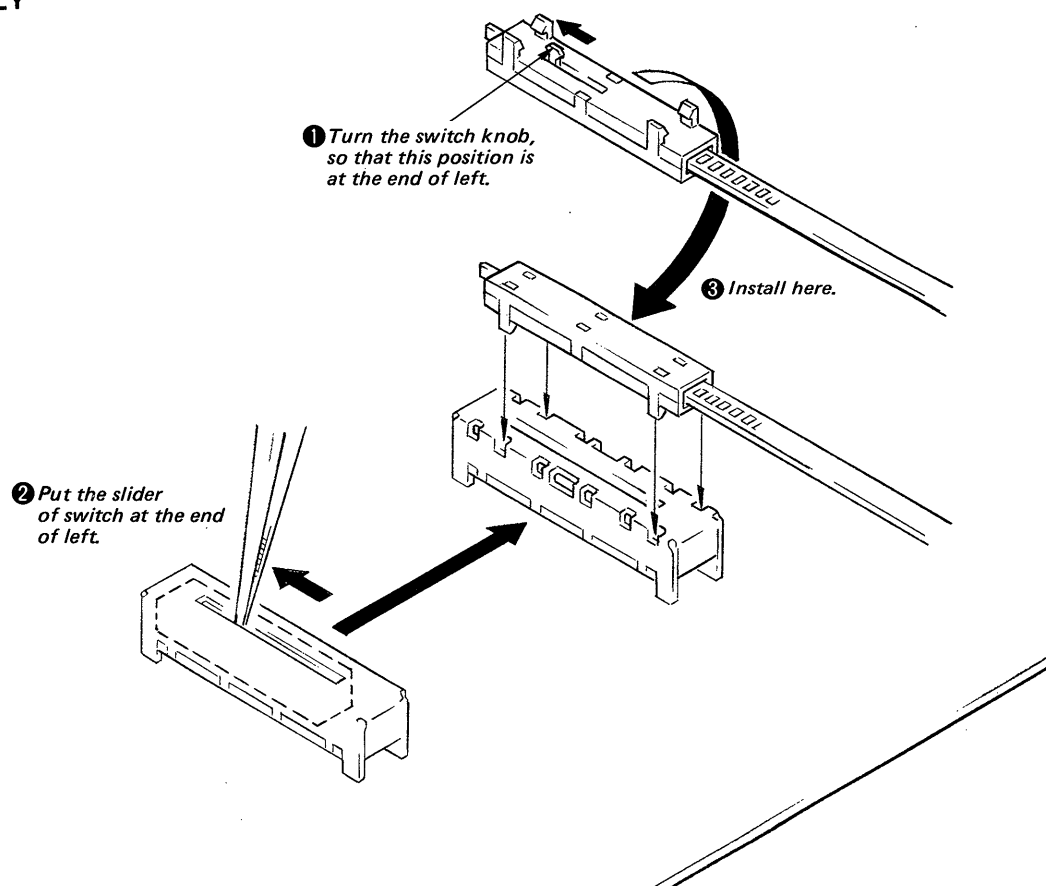
### DISASSEMBLY

Insert in the screwdriver and remove the wiring as illustrated below

**CAUTION:** Don't pull the wiring. It causes the wiring damage.



### ASSEMBLY



## SECTION 1 ADJUSTMENTS

### TA-E77ESD Only

- The adjustments are required CD player having digital output followed to the DAI format (ex. CDP-552ESD or CDP-650ESD)

### FS (Sampling frequency) Lamp Adjustment

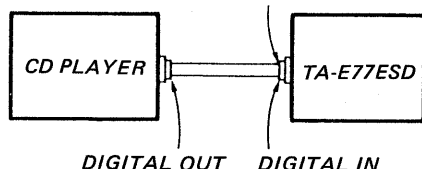
This set automatically perceives the sampling frequency of digital signal applied. The sampling frequency, 44kHz or 48kHz, is checked by comparator (IC711) that compares the voltage applied to VCO of D FIL PLL with the reference voltage.

The FS lamp adjustment is made to adjust this reference voltage.

**Note:** Wait for about 10 minutes when TH701 and C735 that are employed for thermal compensation are warmed by soldering iron.

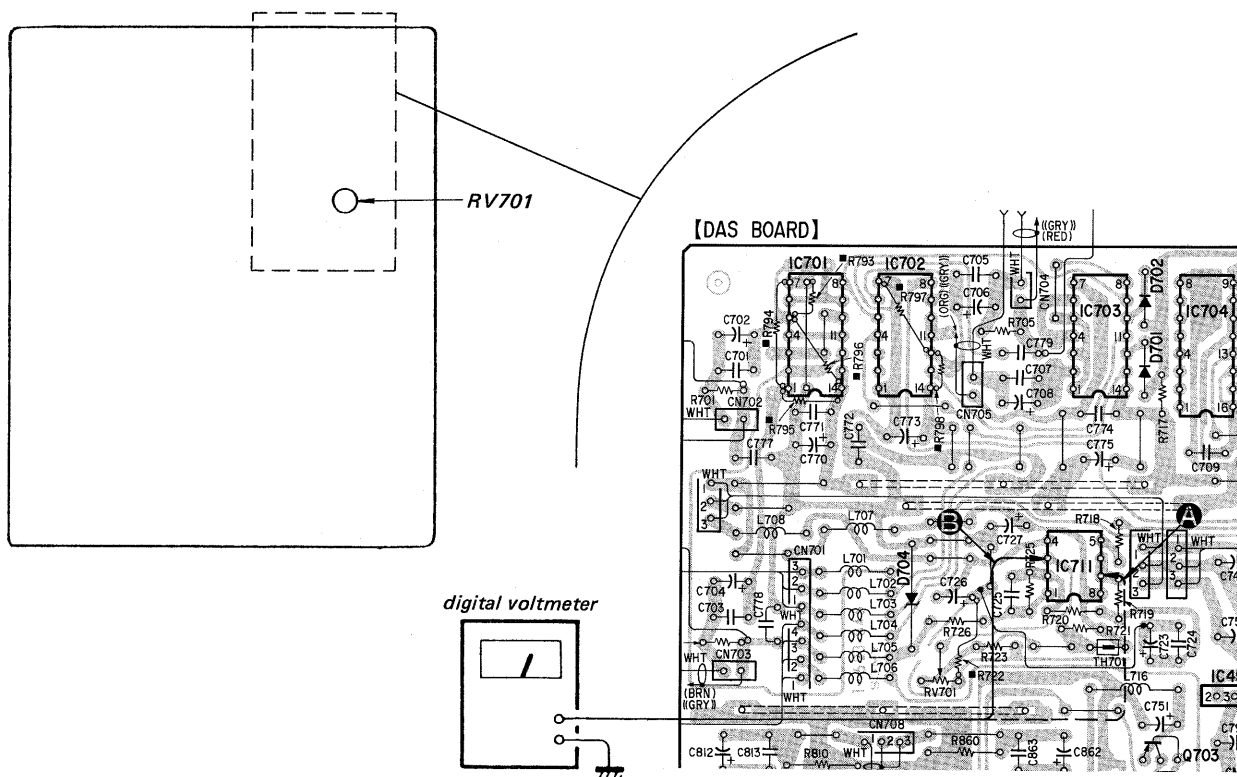
#### Procedure:

Sampling frequency: 44kHz.

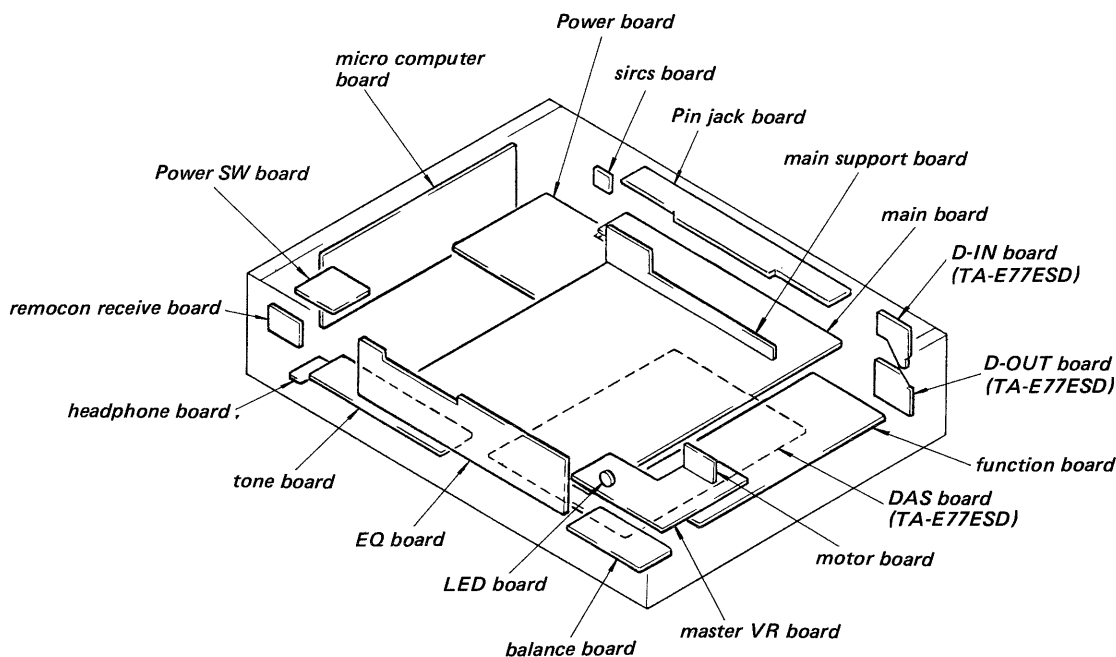


1. Play back any compact disc, receive the digital signal of sampling frequency 44kHz.
2. Turn on power switch in this set.
3. Make sure that 44kHz sampling frequency indicator lamp goes ON.
4. Adjust RV701 so that the difference in voltage between **A**, **B** is  $135\text{mV} \pm 5\text{mV}$  measuring 30 seconds later after the power switch is turned ON.

#### Adjustment Location: DAS board



## ● CIRCUIT BOARDS LOCATION



## ● SEMICONDUCTOR LEAD LAYOUTS

|                                                                                                                                     |                                                                                                                                                                               |                                                                        |                                                                                            |                                                                                                    |                   |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------|
|                                                                                                                                     | <b>M5F7805</b><br><b>M5F78M12</b><br><b>NJM78M05FA</b><br><b>NJM7812FA</b>                                                                                                    | <b>M54562P</b> <p>(Top view)</p>                                       | <b>2SA1048-GR</b><br><b>2SA1345</b><br><b>2SA1348</b><br><b>2SC634SP</b><br><b>2SC3402</b> | <b>2SK147</b>                                                                                      | <b>30DF2</b>      |
| <b>CX23065</b>                                                                                                                      | <b>M4066BP</b><br><b>MC74HC74N</b><br><b>SN74LS624N</b><br><b>TC4093BP</b><br><b>TC74HC00P</b><br><b>TC74HC04P</b><br><b>TC74HC86P</b><br><b>TC74HC393P</b> <p>(Top view)</p> | <b>NJM79M05FA</b><br><b>NJM79M12FA</b>                                 | <b>2SA1138</b><br><b>2SC2676</b>                                                           | <b>2SK244</b>                                                                                      | <b>S2VB40</b>     |
| <b>CXD1076P</b> <p>(Top view)</p>                                                                                                   |                                                                                                                                                                               | <b>μPD75104WC-078</b> <p>(Top view)</p>                                | <b>2SB548-R</b><br><b>2SC2682</b>                                                          | <b>2SK246-GR2</b><br><b>2SK246-GR3</b>                                                             | <b>SEL2210S-D</b> |
| <b>CXD1088Q</b>                                                                                                                     | <b>M5209P</b><br><b>M5220P</b><br><b>NJM5532D-D</b><br><b>TL072ACP</b> <p>(Top view)</p>                                                                                      | <b>2SA985-P</b><br><b>2SA1383</b><br><b>2SC2275A</b><br><b>2SC3514</b> | <b>2SC945-P</b>                                                                            | <b>1SS132</b><br><b>10E2N</b><br><b>HZ6A2L</b><br><b>HZ6C2L</b><br><b>HZ18-3</b><br><b>HZ22-2L</b> | <b>SEL2213C</b>   |
| <b>LA7220</b><br><b>M54566P</b><br><b>MC14028BF</b><br><b>MC74HC112N</b><br><b>PCM56P-JS</b><br><b>TC74HC123P</b> <p>(Top view)</p> | <b>M54543L</b>                                                                                                                                                                |                                                                        |                                                                                            |                                                                                                    | <b>SEL2510C</b>   |

## SECTION 2

### DIAGRAMS

# TA-E77ES/E77ESD

**TA-E77ES/E77ESD**

REVISÉ

— D/A CONVERTER SECTION —  
(TA-E77ESD ONLY)

## 2-1. MOUNTING DIAGRAM (1)

— Conductor side —

● See page 14 for circuit boards location.

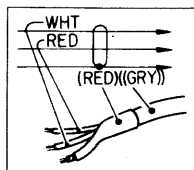
- See page 14 for semiconductor lead layouts.

### ● SEMICONDUCTOR LOCATION

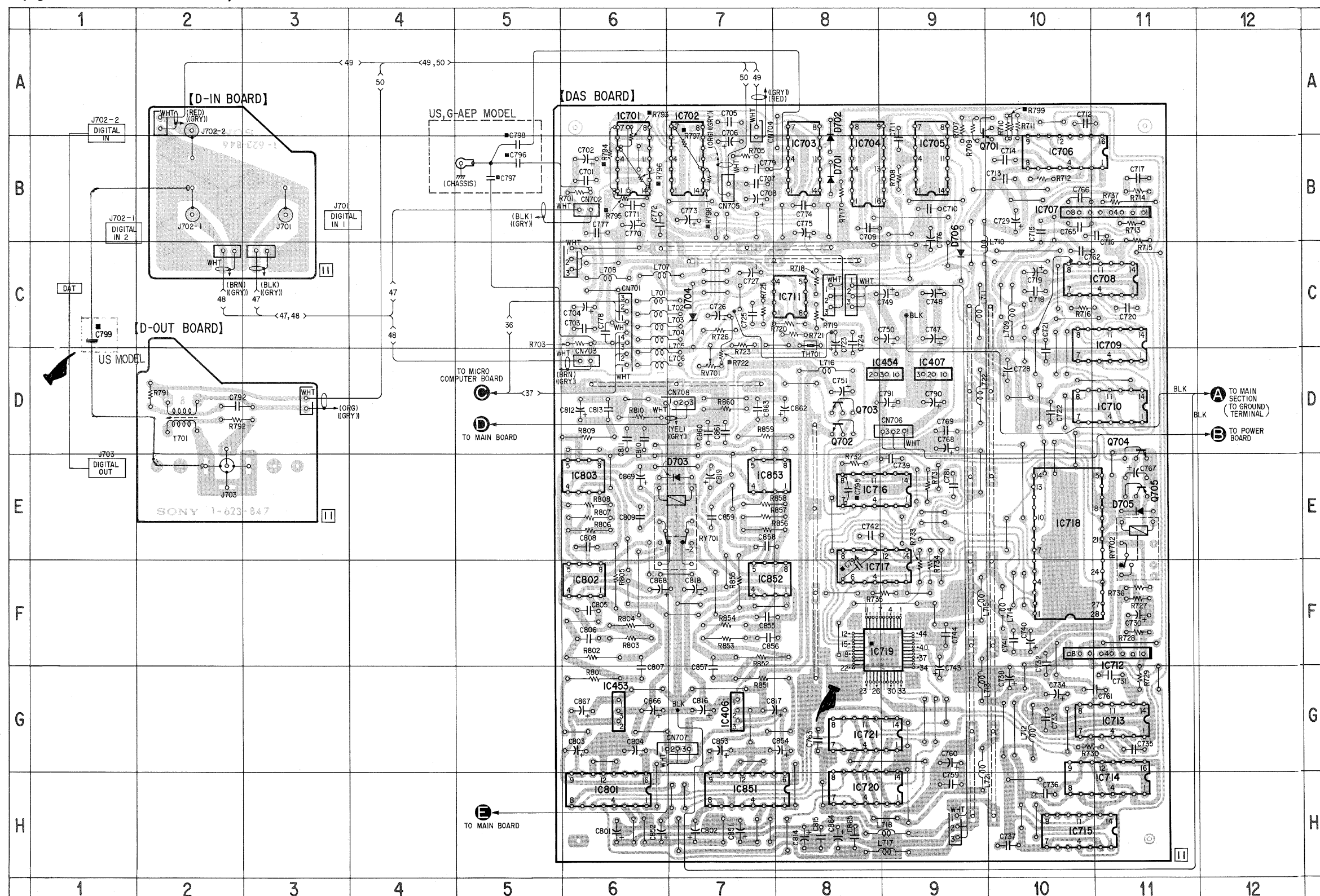
| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| IC406    | G-7      | IC801    | H-6      |
| IC407    | D-9      | IC802    | F-6      |
| IC453    | G-6      | IC803    | E-6      |
| IC454    | D-9      | IC851    | H-7      |
| IC701    | A-6      | IC852    | F-7      |
|          |          | IC853    | E-7      |
| IC702    | A-7      |          |          |
| IC703    | B-8      |          |          |
| IC704    | B-8      | Q701     | B-10     |
| IC705    | B-9      | Q702     | D-8      |
| IC706    | B-10     | Q703     | D-8      |
|          |          | Q704     | D-11     |
| IC707    | B-10     | Q705     | E-11     |
| IC708    | C-11     |          |          |
| IC709    | C-11     |          |          |
| IC710    | D-11     | D701     | B-8      |
| IC711    | C-8      | D702     | A-8      |
|          |          | D703     | E-7      |
| IC712    | F-11     | D704     | C-7      |
| IC713    | G-11     | D705     | E-11     |
| IC714    | H-11     | D706     | B-9      |
| IC715    | H-10     |          |          |
| IC716    | E-8      |          |          |
| IC717    | F-8      |          |          |
| IC718    | E-10     |          |          |
| IC719    | F-9      |          |          |
| IC720    | H-8      |          |          |
| IC721    | G-8      |          |          |

**Note on Mounting Diagram (1):**

- Color code of sleeving over the end of the jacket.



- ○ — : parts extracted from the component side.
- ● — : parts extracted from the conductor side.
- ■ : part mounted on the conductor side.





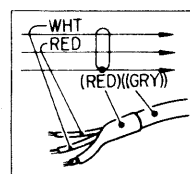


● SEMICONDUCTOR LOCATION

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|----------|----------|
| IC101    | I-7      | D609     | E-27     |          |          |
| IC201    | G-2      | D610     | E-21     |          |          |
| IC401    | I-9      | D611     | G-30     |          |          |
| IC402    | H-10     | D612     | J-17     |          |          |
| IC404    | K-31     | D613     | J-17     |          |          |
| IC405    | K-30     | D614     | I-17     |          |          |
| IC451    | H-10     | D615     | I-17     |          |          |
| IC501    | B-19     | D616     | J-19     |          |          |
| IC502    | B-20     | D617     | J-19     |          |          |
| IC601    | C-28     | D618     | I-19     |          |          |
| IC602    | C-26     | D619     | I-19     |          |          |
| IC603    | F-26     | D620     | J-18     |          |          |
| IC604    | H-27     | D621     | J-18     |          |          |
| IC605    | I-27     | D622     | I-19     |          |          |
| IC606    | H-26     | D623     | I-19     |          |          |
| IC607    | D-12     | D624     | I-18     |          |          |
| IC608    | D-12     | D625     | I-18     |          |          |
| IC609    | F-13     | D626     | I-18     |          |          |
| IC610    | F-22     | D627     | I-18     |          |          |
| IC611    | I-24     | D628     | I-12     |          |          |
| IC951    | B-16     | D629     | I-12     |          |          |
| IC952    | B-16     | D630     | J-12     |          |          |
| IC953    | B-17     | D631     | J-12     |          |          |
|          |          | D632     | I-12     |          |          |
|          |          | D633     | I-12     |          |          |
| Q101     | F-8      | D634     | I-22     |          |          |
| Q103     | F-8      | D635     | I-22     |          |          |
| Q104     | F-9      | D636     | J-22     |          |          |
| Q105     | G-9      | D637     | I-22     |          |          |
| Q106     | G-9      | D638     | I-22     |          |          |
| Q107     | F-7      | D639     | I-22     |          |          |
| Q108     | G-7      | D640     | I-17     |          |          |
| Q109     | G-9      | D641     | I-17     |          |          |
| Q110     | F-10     | D642     | I-20     |          |          |
| Q151     | F-10     | D643     | I-20     |          |          |
| Q153     | F-10     | D644     | I-20     |          |          |
| Q154     | F-10     | D645     | D-20     |          |          |
| Q155     | F-10     | D650     | C-27     |          |          |
| Q156     | F-11     | D651     | C-27     |          |          |
| Q157     | F-11     | D652     | C-27     |          |          |
| Q158     | G-11     | D653     | C-26     |          |          |
| Q159     | G-9      | D654     | A-18     |          |          |
| Q160     | G-10     | D655     | A-18     |          |          |
| Q201     | F-1      | D656     | B-27     |          |          |
| Q202     | F-1      | D657     | B-27     |          |          |
| Q203     | H-1      | D658     | E-27     |          |          |
| Q204     | H-1      | D659     | C-26     |          |          |
| Q205     | H-1      | D660     | C-26     |          |          |
| Q251     | F-3      | D661     | C-26     |          |          |
| Q252     | F-3      | D662     | E-27     |          |          |

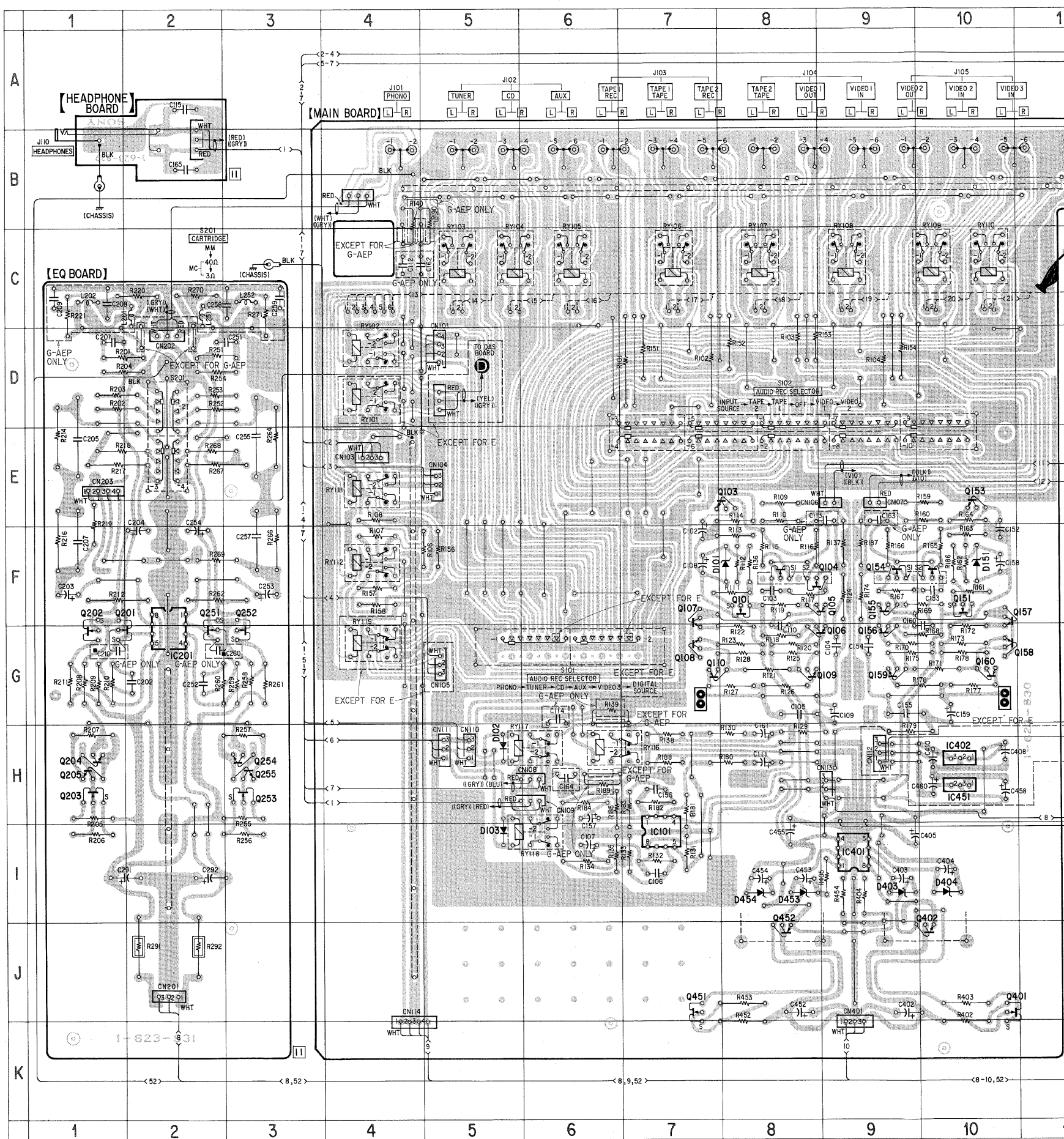
Note on Mounting Diagram (2):

- Color code of sleeve over the end of the jacket.

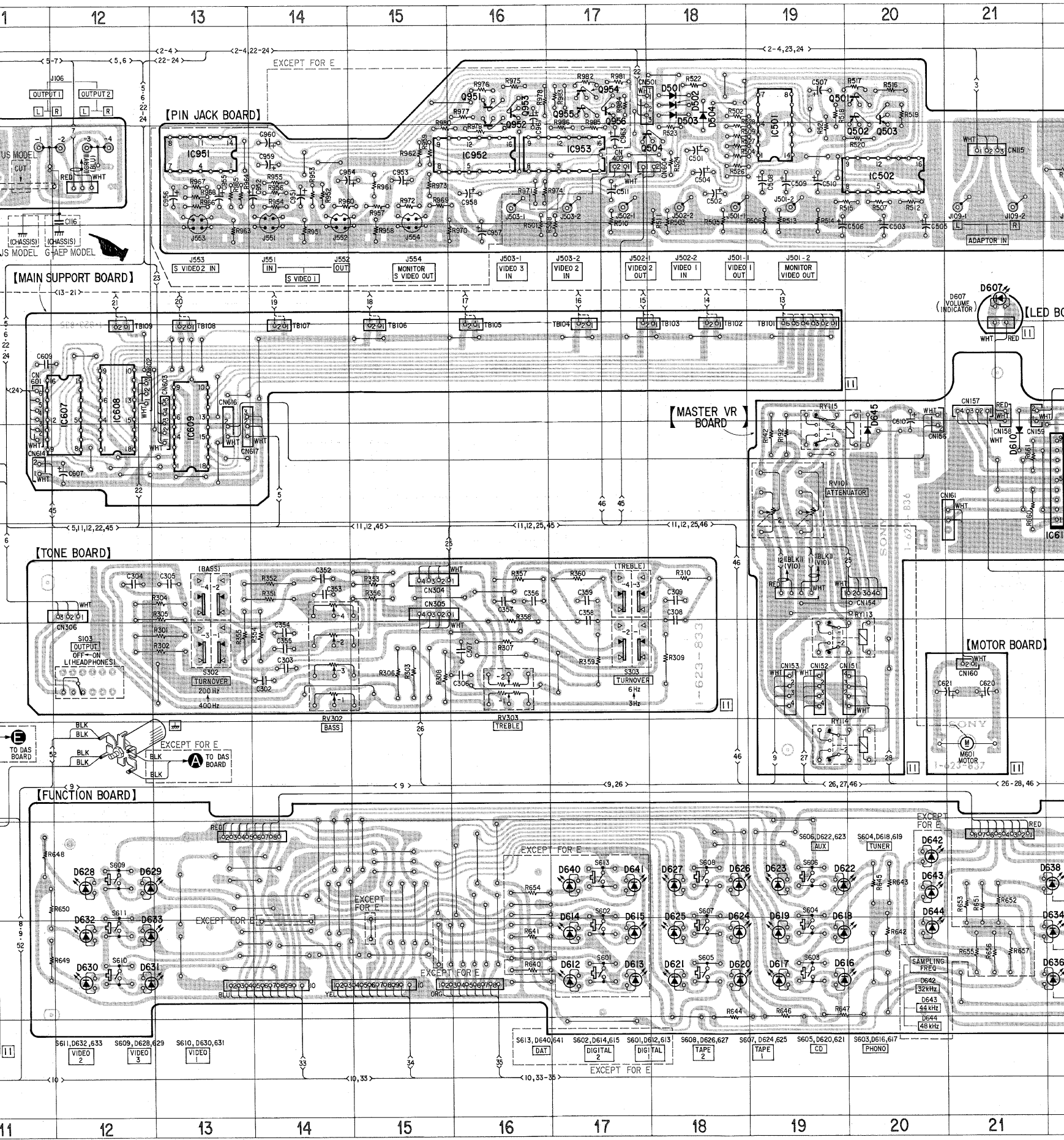


- — parts extracted from the component side.
- — parts extracted from the conductor side.
- — part mounted on the conductor side.

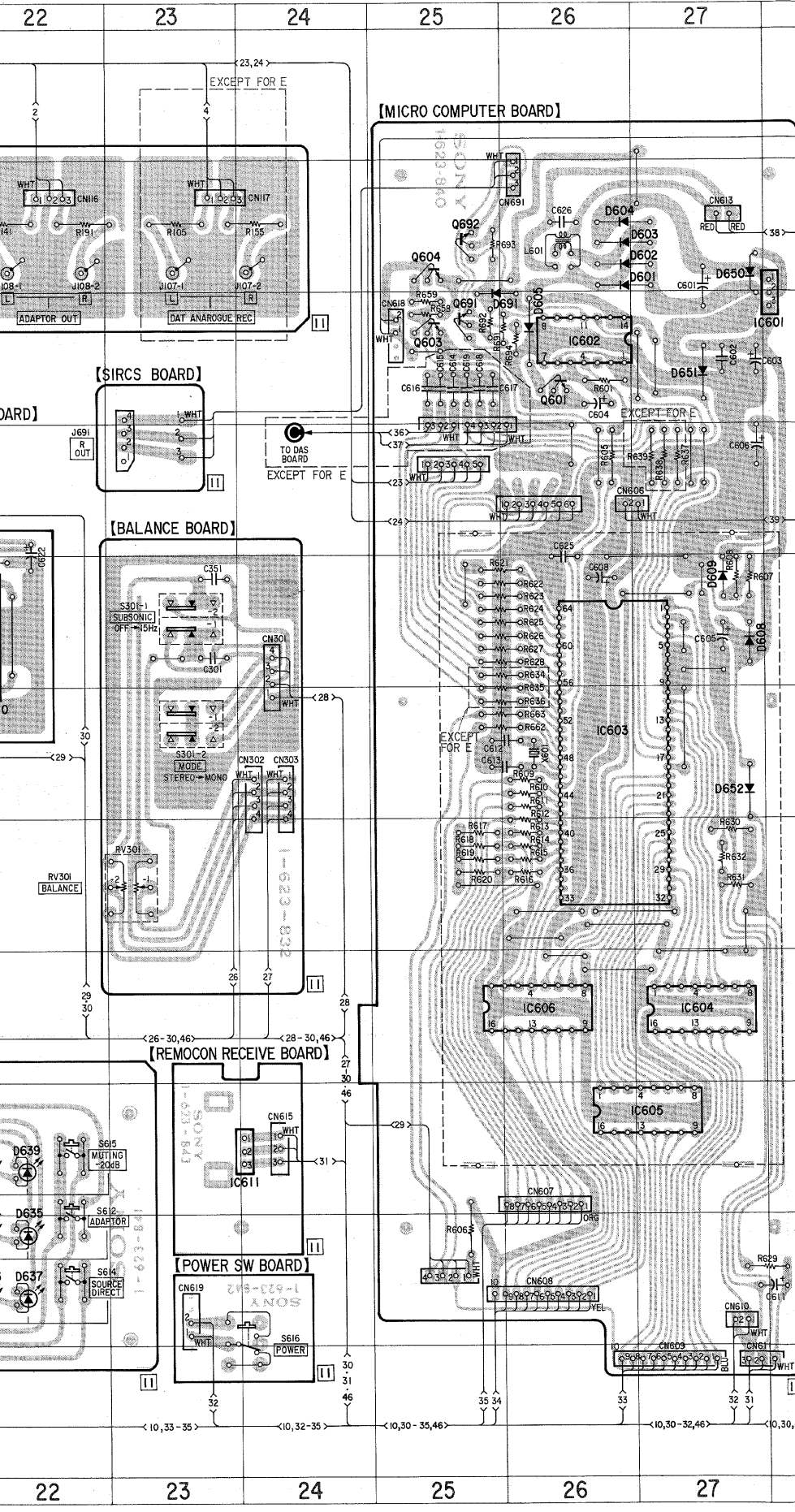
— CONTROL AMP SECTION —



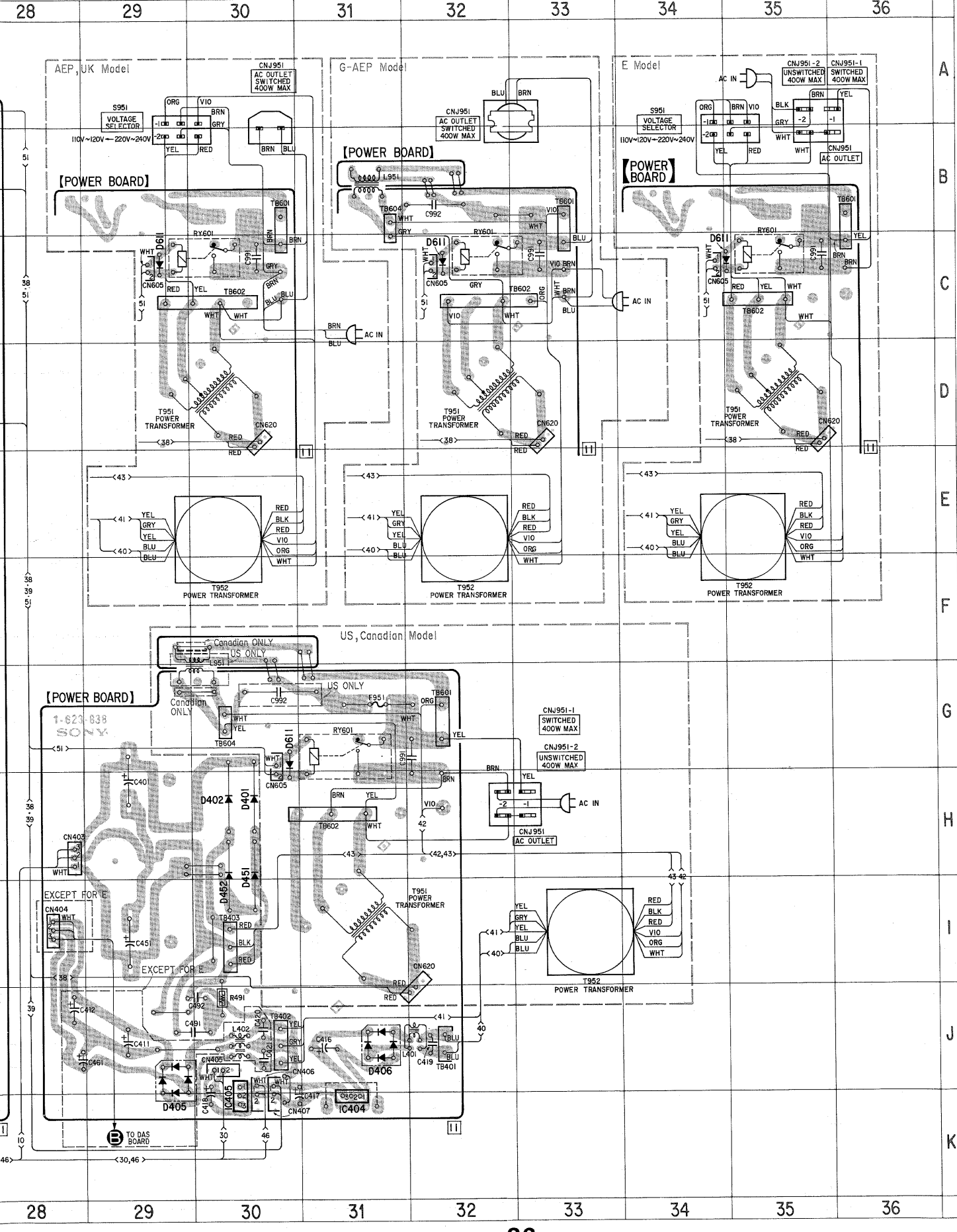
— CONTROL AMP SECTION —



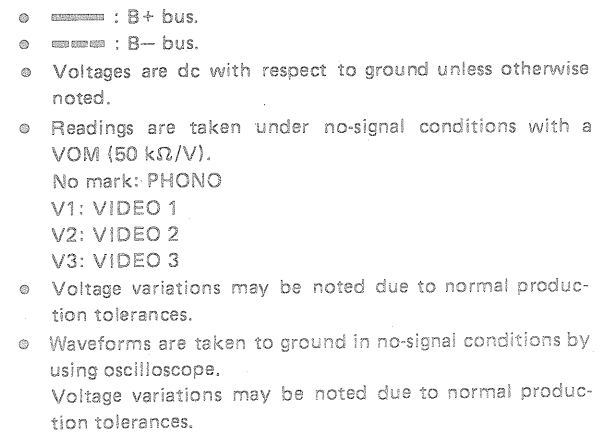
— CONTROL AMP SECTION —



— CONTROL AMP SECTION —



— CONTROL AMP SECTION —



# SECTION 3

## EXPLODED VIEWS AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

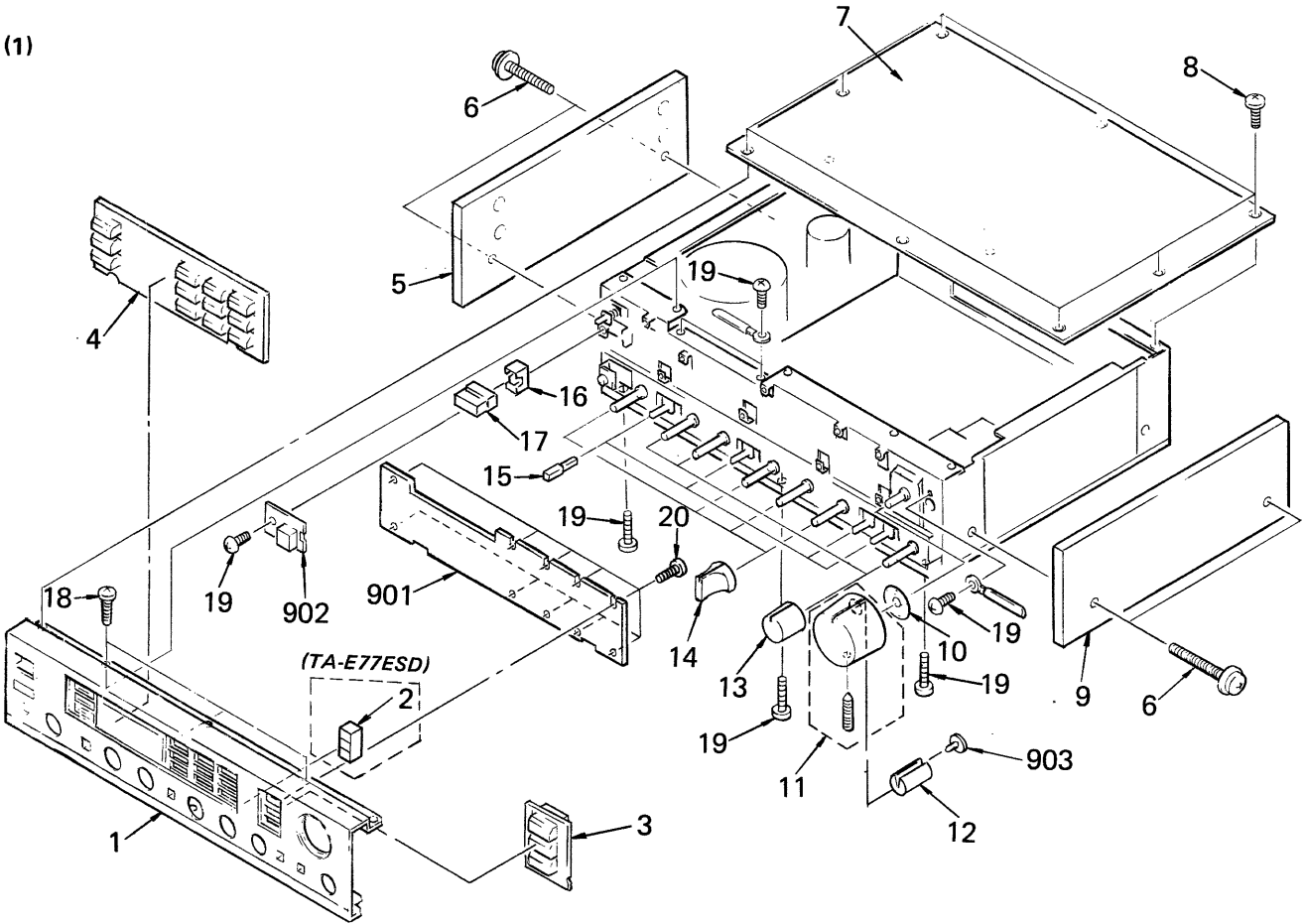
- The construction parts of an assembled part are indicated with a collation number in the remark column.

Color Indication of Appearance Parts  
Example: (RED) ..... KNOB, BALANCE (WHITE)

Cabinet's Color      Parts' Color

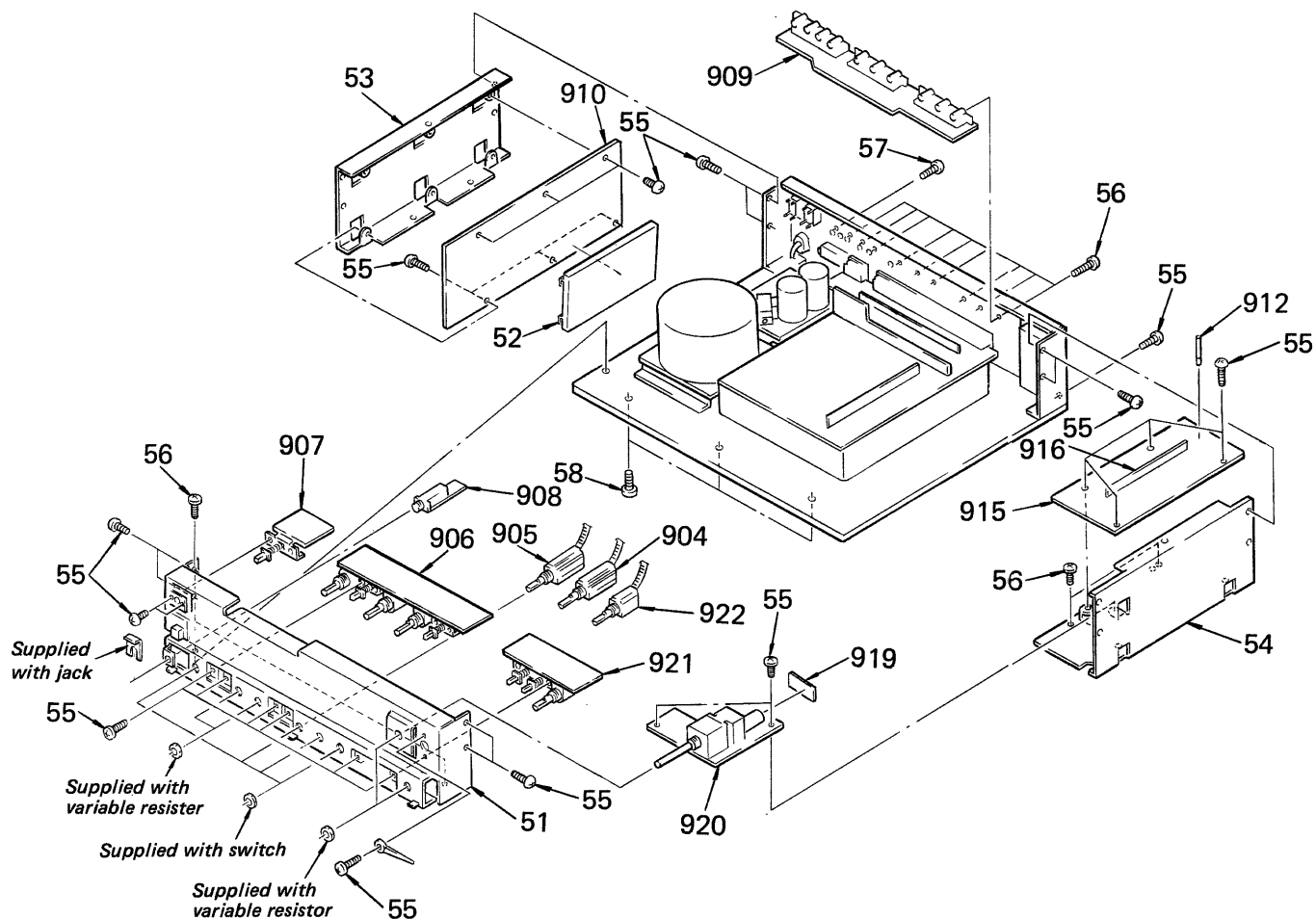
The components identified by shading and mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



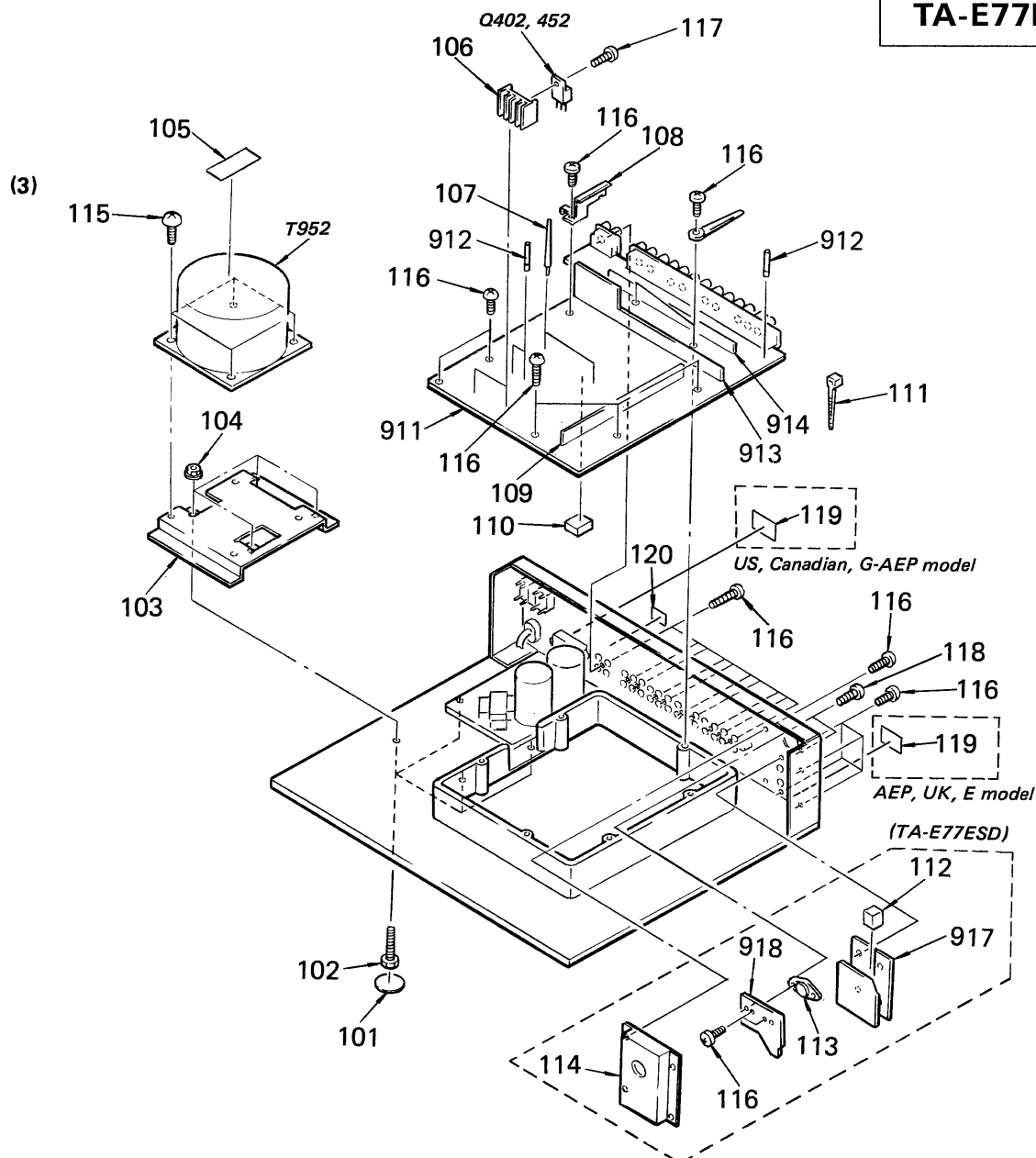
| No. | Part No.                     | Description                                                        | Remarks | No. | Part No.      | Description                 | Remarks |
|-----|------------------------------|--------------------------------------------------------------------|---------|-----|---------------|-----------------------------|---------|
| 1   | X-4922-208-1<br>X-4922-209-1 | (E77ESD)...PANEL ASSY, FRONT<br>(E77ES)...PANEL ASSY, FRONT        |         | 11  | X-4922-201-1  | KNOB ASSY                   |         |
| 2   | *X-4922-203-1                | (E77ESD)...HOLDER ASSY, LENS                                       |         | 12  | *4-901-919-00 | HOUSE, LED LAMP             |         |
| 3   | X-4922-202-1                 | HOUSING (A) ASSY                                                   |         | 13  | 4-916-746-01  | KNOB (DIA.21)               |         |
| 4   | X-4922-204-0                 | (E77ES)...HOUSING (C) ASSY                                         |         | 14  | 4-916-745-01  | KNOB (DIA.21)               |         |
| 5   | X-4922-205-1<br>X-4922-206-2 | (E77ESD)...HOUSING (B) ASSY<br>PLATE (LEFT) ASSY, SIDE, ORNAMENTAL |         | 15  | 4-855-804-11  | KNOB, SQUARE                |         |
| 6   | 4-885-979-11                 | SCREW (4X25)                                                       |         | 16  | *4-864-307-00 | RING                        |         |
| 7   | 4-922-238-01                 | PLATE, TOP                                                         |         | 17  | 4-908-046-01  | KNOB, SQUARE                |         |
| 8   | 4-921-439-01                 | SCREW (M3X8), FLAT HEAD                                            |         | 18  | 7-682-548-09  | SCREW +B 3X8                |         |
| 9   | X-4922-207-2                 | PLATE (RIGHT) ASSY; SIDE, ORNAMENTAL                               |         | 19  | 7-682-547-09  | SCREW +BVIT 3X6 (S)         |         |
| 10  | 3-533-938-00                 | CLOTH                                                              |         | 20  | 7-685-133-19  | SCREW +BTP 2.6X6 TYPE 2 N-S |         |
|     |                              |                                                                    |         | 901 | *1-623-841-11 | PC BOARD, FUNCTION          |         |
|     |                              |                                                                    |         | 902 | *1-623-843-11 | PC BOARD, REMOCON RECEIVE   |         |
|     |                              |                                                                    |         | 903 | *1-623-844-11 | PC BOARD, LED               |         |

(2)



| No. | Part No.      | Description                        | Remarks |
|-----|---------------|------------------------------------|---------|
| 51  | *4-922-237-01 | CHASSIS, FRONT                     |         |
| 52  | *4-922-210-02 | CASE (C), SHIELD                   |         |
| 53  | *4-922-231-01 | BRACKET, MICRO COMPUTER PCBOARD    |         |
| 54  | *4-922-230-01 | BRACKET, EQ PC BOARD               |         |
| 55  | 7-682-547-09  | SCREW +BVTT 3X6 (S)                |         |
| 56  | 7-685-647-79  | SCREW +BVTP 3X10 TYPE2             |         |
| 57  | 7-685-647-79  | (E77ESD)...SCREW +BVTT 3X10 TYPE2  |         |
|     | 7-685-871-09  | (E77ES)...SCREW +BVTT 3X6 (S)      |         |
| 58  | 7-685-873-09  | SCREW +BVTT 3X10 (S)               |         |
| 904 | 1-571-246-11  | SWITCH, ROTARY                     |         |
| 905 | 1-571-245-11  | (E77ESD)...SWITCH, ROTARY (REMOTE) |         |
|     | 1-571-247-11  | (E77ES)...SWITCH, ROTARY (REMOTE)  |         |

| No. | Part No.      | Description                            | Remarks |
|-----|---------------|----------------------------------------|---------|
| 906 | *1-623-833-11 | PC BOARD, TONE                         |         |
| 907 | *1-623-842-11 | PC BOARD, POWER SW                     |         |
| 908 | *1-623-839-11 | PC BOARD, HEADPHONE                    |         |
| 909 | *1-623-834-11 | PC BOARD, PIN JACK                     |         |
| 910 | *A-4375-333-A | (E77ESD)...MOUNTED PCB, MICRO COMPUTER |         |
|     | *A-4375-334-A | (E77ES)...MOUNTED PCB, MICRO COMPUTER  |         |
| 912 | *1-535-492-00 | PIN, GT                                |         |
| 915 | *1-623-831-11 | PC BOARD, EQ                           |         |
| 916 | *1-560-242-21 | BUS BAR 4P                             |         |
| 919 | *1-623-837-11 | PC BOARD, MOTOR                        |         |
| 920 | *1-623-836-11 | PC BOARD, MASTER VR                    |         |
| 921 | *1-623-832-11 | PC BOARD, BALANCE                      |         |
| 922 | 1-571-244-11  | SWITCH, ROTARY (REMOTE)                |         |



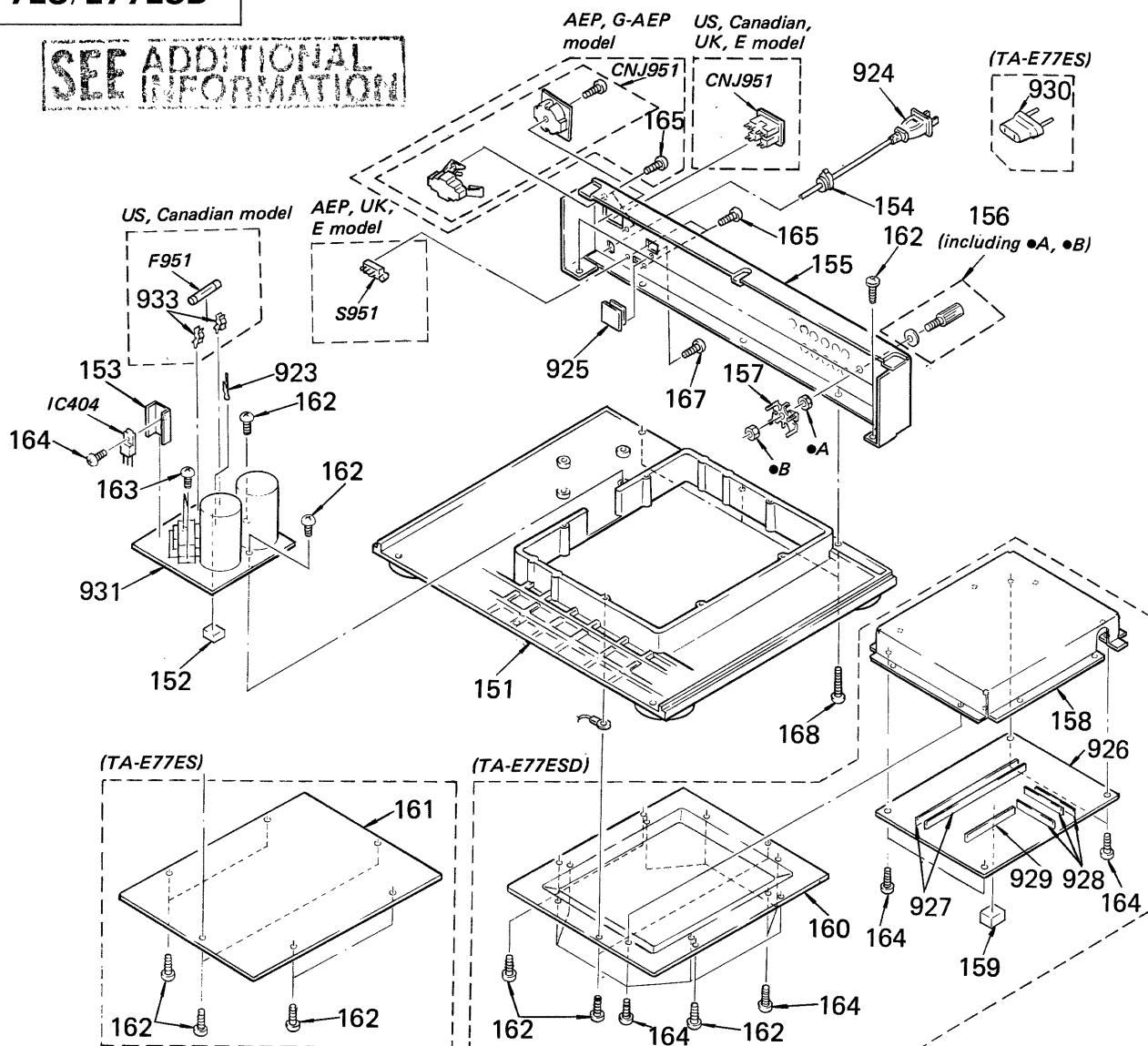
The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| No. | Part No.      | Description                 | Remarks | No.  | Part No.       | Description                                | Remarks |
|-----|---------------|-----------------------------|---------|------|----------------|--------------------------------------------|---------|
| 101 | *4-908-892-01 | SPACER                      |         | 119  | *4-922-203-01  | (UK).....LABEL, MODEL NUMBER               |         |
| 102 | 7-683-325-07  | BOLT, HEXAGON 4X20          |         |      | *4-922-204-01  | (E77ES).....LABEL, MODEL NUMBER(E2/3)      |         |
| 103 | 4-922-236-01  | BRACKET, TRANSFORMER        |         |      | *4-922-205-01  | (US,Canadian)....LABEL, MODEL NUMBER(U/CA) |         |
| 104 | 4-908-881-01  | NUT (M4), FLANGE            |         |      | *4-922-206-01  | (AEP).....LABEL, MODEL NUMBER(AE1)         |         |
| 105 | *4-908-885-01 | LABEL, TRANSFORMER          |         |      | *4-922-206-11  | (AEP).....LABEL, MODEL NUMBER(AE2)         |         |
|     |               |                             |         |      | *4-922-208-02  | (G-AEP).....LABEL, MODEL NUMBER            |         |
| 106 | *4-921-402-01 | HEAT SINK                   |         | 120  | 3-550-458-01   | (E77ES)...LABEL, CAUTION, POWER SELECTOR   |         |
| 107 | *3-683-631-01 | CLAMP                       |         |      |                |                                            |         |
| 108 | *4-922-246-01 | REINFORCEMENT               |         | 911  | *A-4358-192-A  | (US,Canadian,AEP,UK)...MOUNTED PCB, MAIN   |         |
| 109 | *4-908-950-01 | REINFORCEMENT (A), PWB      |         |      | *A-4358-193-A  | (E).....MOUNTED PCB, MAIN                  |         |
| 110 | *4-921-410-11 | (E77ESD)...CUSHION          |         |      | *A-4358-196-A  | (G-AEP)...MOUNTED PCB, MAIN                |         |
|     | *4-921-410-41 | (E77ES)...CUSHION           |         | 912  | *1-535-492-00  | PIN, GT                                    |         |
| 111 | 3-655-653-21  | BAND (TAITON), BINDING      |         | 913  | *1-623-835-11  | PC BOARD, MAIN SUPPORT                     |         |
| 112 | *4-922-211-01 | (E77ESD)...SPACER, PC BOARD |         | 914  | *1-560-242-41  | BUS BAR 11P                                |         |
| 113 | *4-913-152-01 | ESCUTCHEON, D/O             |         | 917  | *1-623-846-11  | (E77ESD)...PC BOARD, D-IN                  |         |
| 114 | *4-922-213-01 | CASE (B), SHIELD            |         | 918  | *1-623-847-11  | (E77ESD)...PC BOARD, D-OUT                 |         |
| 115 | 7-685-760-09  | SCREW +BVT 4X6 (S)          |         | Q402 | 8-729-107-53   | TRANSISTOR 2SC2275A                        |         |
| 116 | 7-685-647-79  | SCREW +BVT 3X10 TYPE2       |         | Q452 | 8-729-118-53   | TRANSISTOR 2SA985-P                        |         |
| 117 | 7-682-548-09  | SCREW +B 3X8                |         | T952 | A-1-449-014-11 | TRANSFORMER, POWER                         |         |
| 118 | 7-682-547-09  | SCREW +BVT 3X6 (S)          |         |      |                |                                            |         |

SEE ADDITIONAL  
INFORMATION

(4)



The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| No. | Part No.      | Description                             | Remarks |
|-----|---------------|-----------------------------------------|---------|
| 151 | X-4922-210-1  | CHASSIS ASSY, MAIN                      |         |
| 152 | *4-921-410-31 | CUSHION                                 |         |
| 153 | *3-309-144-01 | HEAT SINK                               |         |
| 154 | 4-916-783-01  | BUSHING, CORD                           |         |
| 155 | *4-922-240-01 | (AEP,G-AEP)....PANEL, BACK              |         |
|     | *4-922-241-01 | (UK).....PANEL, BACK                    |         |
|     | *4-922-242-01 | (E).....PANEL, BACK                     |         |
|     | *4-922-239-01 | (US,Canadian)...PANEL, BACK             |         |
| 156 | X-4854-207-0  | TERMINAL ASSY, GROUND                   |         |
| 157 | *4-916-769-01 | PLATE, GROUND, 4P                       |         |
| 158 | *4-922-233-01 | CASE (A), SHIELD                        |         |
| 159 | *4-921-410-11 | (E77ESD)...CUSHION                      |         |
| 160 | *4-922-232-01 | (E77ESD)...LID, BOTTOM                  |         |
| 161 | *4-922-227-01 | (E77ES)...LID, BOTTOM                   |         |
| 162 | 7-685-647-79  | SCREW +BVTP 3X10 TYPE2 SLIT             |         |
| 163 | 7-685-649-79  | SCREW +BVTP 3X14 TYPE2 SLIT             |         |
| 164 | 7-682-547-09  | SCREW +BVTT 3X6 (S)                     |         |
| 165 | 7-682-547-09  | (AEP,G-AEP)...SCREW +B 3X6              |         |
| 166 | 7-685-134-19  | (AEP,UK,E)...SCREW +BTP 2.6X8 TYPE2 N-S |         |
| 167 | 7-685-133-19  | SCREW +P 2.6X6 TYPE2 NON-SLIT           |         |
| 168 | 7-685-876-09  | SCREW +BVTT 3X16 (S)                    |         |

| No.                 | Part No.                         | Description                                            | Remarks |
|---------------------|----------------------------------|--------------------------------------------------------|---------|
| 923                 | 1-535-416-00                     | TERMINAL                                               |         |
| 924                 | A.1-559-271-11                   | (AEP,G-AEP)...CORD, POWER                              |         |
|                     | A.1-559-272-11                   | (UK).....CORD, POWER                                   |         |
|                     | A.1-559-297-11                   | (E).....CORD, POWER                                    |         |
|                     | A.1-559-479-11                   | (US,Canadian)...CORD, POWER                            |         |
| 925                 | *                                | PC BOARD, SIRCS                                        |         |
| 926                 | *A-4375-336-A                    | (E77ESD)...MOUNTED PCB, DAS                            |         |
| 927                 | *1-560-242-51                    | (E77ESD)...BUS BAR 7P                                  |         |
| 928                 | *1-560-242-11                    | (E77ESD)...BUS BAR 3P                                  |         |
| 929                 | *1-560-242-21                    | BUS BAR 4P                                             |         |
| 930                 | A.1-526-565-12                   | (E77ES)...AC PLUG ADAPTOR                              |         |
| 931                 | *1-623-838-11                    | PC BOARD, POWER                                        |         |
| 933                 | 1-533-183-11                     | (US,Canadian)...HOLDER, FUSE                           |         |
| CNJ951A1-526-751-00 | (UK).....OUTLET, AC              |                                                        |         |
| CNJ951A1-526-883-00 | (US,Canadian,E)...OUTLET, AC     |                                                        |         |
| CNJ951A1-526-988-11 | (AEP,G-AEP).....OUTLET, AC (CEE) |                                                        |         |
| F951                | A.1-532-740-11                   | (US,Canadian)...FUSE, GLASS TUBE (1A)                  |         |
| IC404A              | 8-759-701-79                     | IC NJM7812FA                                           |         |
| S951                | A.1-570-046-21                   | (AEP,UK,E)...SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR) |         |

## SECTION 4

### ELECTRICAL PARTS LIST

## NOTE:

• Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:  
MF:  $\mu$ F, PF:  $\mu$ F.

RESISTORS  
• All resistors are in ohms.  
• F : nonflammable

COILS  
• MMH : mH, UH :  $\mu$ H

SEMICONDUCTORS  
In each case, U :  $\mu$ , for example:  
UA....:  $\mu$ A..., UPA....:  $\mu$ PA..., UPC....:  $\mu$ PC,  
UPD....:  $\mu$ PD...

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.              | Description                             |
|---------|-----------------------|-----------------------------------------|
| 901     | *1-623-841-11         | PC BOARD, FUNCTION                      |
| 902     | *1-623-843-11         | PC BOARD, REMOCON RECEIVE               |
| 903     | *1-623-844-11         | PC BOARD, LED                           |
| 904     | 1-571-246-11          | SWITCH, ROTARY                          |
| 905     | 1-571-245-11          | (E77ESD)...SWITCH, ROTARY (REMOTE)      |
|         | 1-571-247-11          | (E77ES)...SWITCH, ROTARY (REMOTE)       |
| 906     | *1-623-833-11         | PC BOARD, TONE                          |
| 907     | *1-623-842-11         | PC BOARD, POWER SW                      |
| 908     | *1-623-839-11         | PC BOARD, HEADPHONE                     |
| 909     | *1-623-834-11         | PC BOARD, PIN JACK                      |
| 910     | *A-4375-333-A         | (E77ESD)...MOUNTED PCB, MICRO COMPUTER  |
|         | *A-4375-334-A         | (E77ES)...MOUNTED PCB, MICRO COMPUTER   |
| 911     | *A-4358-192-A         | (US,Canadian,AEP,UK)..MOUNTED PCB, MAIN |
|         | *A-4358-193-A         | (E).....MOUNTED PCB, MAIN               |
|         | *A-4358-196-A         | (G-AEP).....MOUNTED PCB, MAIN           |
| 912     | *1-535-492-00         | PIN, GT                                 |
| 913     | *1-623-835-11         | PC BOARD, MAIN SUPPORT                  |
| 914     | *1-560-242-41         | BUS BAR 11P                             |
| 915     | *1-623-831-11         | PC BOARD, EQ                            |
| 916     | *1-560-242-21         | BUS BAR 4P                              |
| 917     | *1-623-846-11         | (E77ESD)...PC BOARD, D-IN               |
| 918     | *1-623-847-11         | (E77ESD)...PC BOARD, D-OUT              |
| 919     | *1-623-837-11         | PC BOARD, MOTOR                         |
| 920     | *1-623-836-11         | PC BOARD, MASTER VR                     |
| 921     | *1-623-832-11         | PC BOARD, BALANCE                       |
| 922     | 1-571-244-11          | SWITCH, ROTARY (REMOTE)                 |
| 923     | 1-535-416-00          | TERMINAL                                |
| 924     | $\Delta$ 1-559-271-11 | (AEP,G-AEP)....CORD, POWER              |
|         | $\Delta$ 1-559-272-11 | (UK).....CORD, POWER                    |
|         | $\Delta$ 1-559-297-11 | (E).....CORD, POWER                     |
|         | $\Delta$ 1-559-479-11 | (US,Canadian)...CORD, POWER             |
| 925     | *                     | PC BOARD, SIRCS                         |
| 926     | *A-4375-336-A         | (E77ESD)...MOUNTED PCB, DAS             |
| 927     | *1-560-242-51         | (E77ESD)...BUS BAR 7P                   |
| 928     | *1-560-242-11         | (E77ESD)...BUS BAR 3P                   |
| 929     | *1-560-242-21         | BUS BAR 4P                              |
| 930     | $\Delta$ 1-526-565-12 | (E77ES)....AC PLUG ADAPTOR              |
| 931     | *1-623-838-11         | PC BOARD, POWER                         |
| 933     | 1-533-183-11          | (US,Canadian)...HOLDER, FUSE            |
| C102    | 1-124-124-00          | ELECT 220MF 20% 10V                     |
| C103    | 1-104-254-11          | POLYSTYRENE 560PF 5% 125V               |
| C104    | 1-107-210-00          | MICA 22PF 5% 100V                       |
| C105    | 1-130-673-00          | FILM 3.3MF 10% 125V                     |
| C106    | 1-109-621-00          | MICA 220PF 5% 100V                      |
| C107    | 1-124-684-71          | ELECT 47MF 20% 16V                      |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                          |
|---------|--------------|--------------------------------------|
| C108    | 1-123-334-00 | ELECT 220MF 20% 25V                  |
| C109    | 1-123-357-00 | ELECT 22MF 20% 50V                   |
| C110    | 1-107-026-00 | MICA 5PF 0.5PF 100V                  |
| C111    | 1-124-684-71 | ELECT 47MF 20% 16V                   |
| C112    | 1-102-973-00 | (G-AEP)...CERAMIC 100PF 5% 50V       |
| C113    | 1-102-959-00 | (G-AEP)...CERAMIC 22PF 5% 50V        |
| C114    | 1-102-977-00 | (G-AEP)...CERAMIC 200PF 5% 50V       |
| C115    | 1-162-283-31 | CERAMIC 120PF 10% 50V                |
| C152    | 1-124-124-00 | ELECT 220MF 20% 10V                  |
| C153    | 1-104-254-11 | POLYSTYRENE 560PF 5% 125V            |
| C154    | 1-107-210-00 | MICA 22PF 5% 100V                    |
| C155    | 1-130-673-00 | FILM 3.3MF 10% 125V                  |
| C156    | 1-109-621-00 | MICA 220PF 5% 100V                   |
| C157    | 1-124-684-71 | ELECT 47MF 20% 16V                   |
| C158    | 1-123-334-00 | ELECT 220MF 20% 25V                  |
| C159    | 1-123-357-00 | ELECT 22MF 20% 50V                   |
| C160    | 1-107-026-00 | MICA 5PF 0.5PF 100V                  |
| C161    | 1-124-684-71 | ELECT 47MF 20% 16V                   |
| C162    | 1-102-973-00 | (G-AEP)...CERAMIC 100PF 5% 50V       |
| C163    | 1-102-959-00 | (G-AEP)...CERAMIC 22PF 5% 50V        |
| C164    | 1-102-977-00 | (G-AEP)...CERAMIC 200PF 5% 50V       |
| C165    | 1-162-283-31 | CERAMIC 120PF 10% 50V                |
| C201    | 1-104-243-00 | (G-AEP)...POLYSTYRENE 56PF 10% 125V  |
| C201    | 1-104-249-11 | (E).....POLYSTYRENE 330PF 5% 125V    |
| C202    | 1-104-150-00 | (E).....POLYSTYRENE 680PF 5% 125V    |
| C202    | 1-104-151-00 | (G-AEP)...POLYSTYRENE 2200PF 5% 125V |
| C203    | 1-123-381-00 | ELECT 2.2MF 20% 50V                  |
| C204    | 1-123-332-00 | ELECT 47MF 20% 25V                   |
| C205    | 1-129-723-00 | FILM 0.056MF 2% 630V                 |
| C207    | 1-130-206-00 | FILM 0.016MF 2% 630V                 |
| C208    | 1-101-361-00 | (G-AEP)...CERAMIC 150PF 5% 50V       |
| C209    | 1-102-973-00 | (G-AEP)...CERAMIC 100PF 5% 50V       |
| C210    | 1-101-880-00 | (G-AEP)...CERAMIC 47PF 5% 50V        |
| C251    | 1-104-243-00 | (G-AEP)...POLYSTYRENE 56PF 10% 125V  |
| C251    | 1-104-249-11 | (E).....POLYSTYRENE 330PF 5% 125V    |
| C252    | 1-104-150-00 | (E).....POLYSTYRENE 680PF 5% 125V    |
| C252    | 1-104-151-00 | (G-AEP)...POLYSTYRENE 2200PF 5% 125V |
| C253    | 1-123-381-00 | ELECT 2.2MF 20% 50V                  |
| C254    | 1-123-332-00 | ELECT 47MF 20% 25V                   |
| C255    | 1-129-723-00 | FILM 0.056MF 2% 630V                 |
| C257    | 1-130-206-00 | FILM 0.016MF 2% 630V                 |
| C258    | 1-101-361-00 | (G-AEP)...CERAMIC 150PF 5% 50V       |
| C259    | 1-102-973-00 | (G-AEP)...CERAMIC 100PF 5% 50V       |
| C260    | 1-101-880-00 | (G-AEP)...CERAMIC 47PF 5% 50V        |
| C291    | 1-124-622-11 | ELECT 1000MF 20% 50V                 |
| C292    | 1-124-622-11 | ELECT 1000MF 20% 50V                 |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description      |          |     |      |  |
|---------|--------------|------------------|----------|-----|------|--|
| C301    | 1-136-171-00 | FILM             | 0.33MF   | 5%  | 50V  |  |
| C302    | 1-136-164-00 | FILM             | 0.082MF  | 5%  | 50V  |  |
| C303    | 1-136-161-00 | FILM             | 0.047MF  | 5%  | 50V  |  |
| C304    | 1-130-482-00 | MYLAR            | 0.0082MF | 5%  | 50V  |  |
| C305    | 1-130-481-00 | MYLAR            | 0.0068MF | 5%  | 50V  |  |
| C306    | 1-130-469-00 | MYLAR            | 680PF    | 5%  | 50V  |  |
| C307    | 1-130-468-00 | MYLAR            | 560PF    | 5%  | 50V  |  |
| C308    | 1-130-475-00 | MYLAR            | 0.0022MF | 5%  | 50V  |  |
| C309    | 1-130-476-00 | MYLAR            | 0.0027MF | 5%  | 50V  |  |
| C351    | 1-136-171-00 | FILM             | 0.33MF   | 5%  | 50V  |  |
| C352    | 1-136-164-00 | FILM             | 0.082MF  | 5%  | 50V  |  |
| C353    | 1-136-161-00 | FILM             | 0.047MF  | 5%  | 50V  |  |
| C354    | 1-130-482-00 | MYLAR            | 0.0082MF | 5%  | 50V  |  |
| C355    | 1-130-481-00 | MYLAR            | 0.0068MF | 5%  | 50V  |  |
| C356    | 1-130-469-00 | MYLAR            | 680PF    | 5%  | 50V  |  |
| C357    | 1-130-468-00 | MYLAR            | 560PF    | 5%  | 50V  |  |
| C358    | 1-130-475-00 | MYLAR            | 0.0022MF | 5%  | 50V  |  |
| C359    | 1-130-476-00 | MYLAR            | 0.0027MF | 5%  | 50V  |  |
| C401    | 1-125-431-11 | ELECT (BLOCK)    | 4700MF   | 20% | 63V  |  |
| C402    | 1-124-622-11 | ELECT            | 1000MF   | 20% | 50V  |  |
| C403    | 1-123-356-00 | ELECT            | 10MF     | 20% | 50V  |  |
| C404    | 1-124-725-00 | ELECT            | 100MF    | 20% | 50V  |  |
| C405    | 1-123-378-00 | ELECT            | 1000MF   | 20% | 63V  |  |
| C408    | 1-123-334-00 | (E77ESD)...ELECT | 220MF    | 20% | 25V  |  |
| C410    | 1-123-332-00 | (E77ESD)...ELECT | 47MF     | 20% | 25V  |  |
| C411    | 1-124-887-00 | (E77ESD)...ELECT | 3300MF   | 20% | 16V  |  |
| C412    | 1-124-887-00 | (E77ESD)...ELECT | 3300MF   | 20% | 16V  |  |
| C416    | 1-124-563-11 | ELECT            | 2200MF   | 20% | 25V  |  |
| C417    | 1-123-321-00 | ELECT            | 220MF    | 20% | 16V  |  |
| C418    | 1-123-333-00 | ELECT            | 100MF    | 20% | 16V  |  |
| C419    | 1-136-169-00 | FILM             | 0.22MF   | 5%  | 50V  |  |
| C420    | 1-136-169-00 | (E77ESD)...FILM  | 0.22MF   | 5%  | 50V  |  |
| C421    | 1-136-169-00 | (E77ESD)...FILM  | 0.22MF   | 5%  | 50V  |  |
| C451    | 1-125-431-11 | ELECT (BLOCK)    | 4700MF   | 20% | 63V  |  |
| C452    | 1-124-622-11 | ELECT            | 1000MF   | 20% | 50V  |  |
| C453    | 1-123-356-00 | ELECT            | 10MF     | 20% | 50V  |  |
| C454    | 1-124-725-00 | ELECT            | 100MF    | 20% | 50V  |  |
| C455    | 1-123-378-00 | ELECT            | 1000MF   | 20% | 63V  |  |
| C458    | 1-123-334-00 | (E77ESD)...ELECT | 220MF    | 20% | 25V  |  |
| C460    | 1-123-332-00 | (E77ESD)...ELECT | 47MF     | 20% | 25V  |  |
| C461    | 1-123-324-00 | (E77ESD)...ELECT | 1000MF   | 20% | 16V  |  |
| C491    | 1-130-673-00 | FILM             | 3.3MF    | 10% | 125V |  |
| C492    | 1-136-165-00 | FILM             | 0.1MF    | 5%  | 50V  |  |
| C501    | 1-123-332-00 | (E77ES)...ELECT  | 47MF     | 20% | 16V  |  |
| C501    | 1-124-477-11 | (E77ESD)...ELECT | 47MF     | 20% | 16V  |  |
| C502    | 1-123-332-00 | (E77ES)...ELECT  | 47MF     | 20% | 16V  |  |
| C502    | 1-124-477-11 | (E77ESD)...ELECT | 47MF     | 20% | 16V  |  |
| C503    | 1-124-473-11 | (E77ESD)...ELECT | 1000MF   | 20% | 10V  |  |
| C503    | 1-124-559-51 | (E77ES)...ELECT  | 1000MF   | 20% | 10V  |  |
| C504    | 1-123-332-00 | (E77ES)...ELECT  | 47MF     | 20% | 16V  |  |
| C504    | 1-124-477-11 | (E77ESD)...ELECT | 47MF     | 20% | 16V  |  |
| C505    | 1-124-473-11 | (E77ESD)...ELECT | 1000MF   | 20% | 10V  |  |
| C505    | 1-124-559-51 | (E77ES)...ELECT  | 1000MF   | 20% | 10V  |  |
| C506    | 1-124-473-11 | (E77ESD)...ELECT | 1000MF   | 20% | 10V  |  |
| C506    | 1-124-559-51 | (E77ES)...ELECT  | 1000MF   | 20% | 10V  |  |
| C507    | 1-123-875-11 | ELECT            | 10MF     | 20% | 50V  |  |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description            |         |     |      |  |
|---------|--------------|------------------------|---------|-----|------|--|
| C508    | 1-123-332-00 | (E77ES)...ELECT        | 47MF    | 20% | 16V  |  |
| C508    | 1-124-477-11 | (E77ESD)...ELECT       | 47MF    | 20% | 16V  |  |
| C509    | 1-123-332-00 | (E77ES)...ELECT        | 47MF    | 20% | 16V  |  |
| C509    | 1-124-477-11 | (E77ESD)...ELECT       | 47MF    | 20% | 16V  |  |
| C510    | 1-123-332-00 | (E77ES)...ELECT        | 47MF    | 20% | 16V  |  |
| C510    | 1-124-477-11 | (E77ESD)...ELECT       | 47MF    | 20% | 16V  |  |
| C511    | 1-123-332-00 | (E77ES)...ELECT        | 47MF    | 20% | 16V  |  |
| C511    | 1-124-477-11 | (E77ESD)...ELECT       | 47MF    | 20% | 16V  |  |
| C601    | 1-123-338-00 | ELECT                  | 2200MF  | 20% | 25V  |  |
| C602    | 1-136-153-00 | FILM                   | 0.01MF  | 5%  | 50V  |  |
| C603    | 1-123-321-00 | ELECT                  | 220MF   | 20% | 16V  |  |
| C604    | 1-123-369-00 | ELECT                  | 4.7MF   | 20% | 25V  |  |
| C605    | 1-124-124-00 | ELECT                  | 220MF   | 20% | 6.3V |  |
| C606    | 1-124-958-11 | ELECT                  | 39000MF |     | 5.5V |  |
| C607    | 1-123-333-00 | ELECT                  | 100MF   | 20% | 16V  |  |
| C608    | 1-123-333-00 | ELECT                  | 100MF   | 20% | 16V  |  |
| C609    | 1-136-153-00 | FILM                   | 0.01MF  | 5%  | 50V  |  |
| C610    | 1-123-323-00 | ELECT                  | 470MF   | 20% | 16V  |  |
| C611    | 1-123-332-00 | ELECT                  | 47MF    | 20% | 16V  |  |
| C612    | 1-162-207-31 | CERAMIC                | 22PF    | 5%  | 50V  |  |
| C613    | 1-162-207-31 | CERAMIC                | 22PF    | 5%  | 50V  |  |
| C614    | 1-161-379-00 | (E77ESD)...CERAMIC     | 0.01MF  | 30% | 16V  |  |
| C615    | 1-161-379-00 | (E77ESD)...CERAMIC     | 0.01MF  | 30% | 16V  |  |
| C616    | 1-161-379-00 | (E77ESD)...CERAMIC     | 0.01MF  | 30% | 16V  |  |
| C617    | 1-161-379-00 | (E77ESD)...CERAMIC     | 0.01MF  | 30% | 16V  |  |
| C618    | 1-161-379-00 | (E77ESD)...CERAMIC     | 0.01MF  | 30% | 16V  |  |
| C619    | 1-161-379-00 | (E77ESD)...CERAMIC     | 0.01MF  | 30% | 16V  |  |
| C620    | 1-124-123-00 | ELECT                  | 100MF   | 20% | 6.3V |  |
| C621    | 1-124-123-00 | ELECT                  | 100MF   | 20% | 6.3V |  |
| C622    | 1-123-369-00 | ELECT                  | 4.7MF   | 20% | 50V  |  |
| C623    | 1-136-165-00 | FILM                   | 0.1MF   | 5%  | 50V  |  |
| C624    | 1-136-165-00 | FILM                   | 0.1MF   | 5%  | 50V  |  |
| C625    | 1-136-165-00 | FILM                   | 0.1MF   | 5%  | 50V  |  |
| C626    | 1-136-169-00 | FILM                   | 0.22MF  | 5%  | 50V  |  |
| C701    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C702    | 1-123-382-00 | (E77ESD)...ELECT       | 33MF    | 20% | 50V  |  |
| C703    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C704    | 1-123-382-00 | (E77ESD)...ELECT       | 33MF    | 20% | 50V  |  |
| C705    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C706    | 1-123-382-00 | (E77ESD)...ELECT       | 33MF    | 20% | 50V  |  |
| C707    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C708    | 1-124-963-11 | (E77ESD)...ELECT       | 33MF    | 20% | 16V  |  |
| C709    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C710    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C711    | 1-162-213-31 | (E77ESD)...CERAMIC     | 39PF    | 5%  | 50V  |  |
| C712    | 1-107-294-00 | (E77ESD)...MICA        | 56PF    | 5%  | 100V |  |
| C713    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C714    | 1-104-150-00 | (E77ESD)...POLYSTYRENE | 680PF   | 5%  | 125V |  |
| C715    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C716    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C717    | 1-136-173-00 | (E77ESD)...FILM        | 0.47MF  | 5%  | 50V  |  |
| C718    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C719    | 1-124-123-00 | (E77ESD)...ELECT       | 100MF   | 20% | 10V  |  |
| C720    | 1-107-165-00 | (E77ESD)...MICA        | 56PF    | 5%  | 100V |  |
| C721    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |
| C722    | 1-136-153-00 | (E77ESD)...FILM        | 0.01MF  | 5%  | 50V  |  |

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description          |          |     |      |
|---------|--------------|----------------------|----------|-----|------|
| C723    | 1-123-380-00 | (E77ESD)...ELECT     | 1MF      | 20% | 50V  |
| C724    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C725    | 1-130-471-00 | (E77ESD)...MYLAR     | 0.001MF  | 5%  | 50V  |
| C726    | 1-123-330-00 | (E77ESD)...ELECT     | 22MF     | 20% | 25V  |
| C727    | 1-123-330-00 | (E77ESD)...ELECT     | 22MF     | 20% | 25V  |
| C728    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C729    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C730    | 1-123-330-00 | (E77ESD)...ELECT     | 22MF     | 20% | 25V  |
| C731    | 1-162-199-31 | (E77ESD)...CERAMIC   | 10PF     | 5%  | 50V  |
| C732    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C733    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C734    | 1-124-123-00 | (E77ESD)...ELECT     | 100MF    | 20% | 10V  |
| C735    | 1-107-157-00 | (E77ESD)...MICA      | 27PF     | 5%  | 100V |
| C736    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C737    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C738    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C739    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C740    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C741    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C742    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C743    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C744    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C747    | 1-123-335-00 | (E77ESD)...ELECT     | 330MF    | 20% | 25V  |
| C748    | 1-123-335-00 | (E77ESD)...ELECT     | 330MF    | 20% | 25V  |
| C749    | 1-123-335-00 | (E77ESD)...ELECT     | 330MF    | 20% | 25V  |
| C750    | 1-123-335-00 | (E77ESD)...ELECT     | 330MF    | 20% | 25V  |
| C751    | 1-123-369-00 | (E77ESD)...ELECT     | 4.7MF    | 20% | 50V  |
| C759    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C760    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C761    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C762    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C766    | 1-162-283-31 | (E77ESD)...CERAMIC   | 120PF    | 10% | 50V  |
| C767    | 1-124-124-00 | (E77ESD)...ELECT     | 220MF    | 20% | 10V  |
| C768    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C769    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C770    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C771    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C772    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C773    | 1-124-124-00 | (E77ESD)...ELECT     | 220MF    | 20% | 10V  |
| C774    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C775    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C776    | 1-123-356-00 | (E77ESD)...ELECT     | 10MF     | 20% | 50V  |
| C777    | 1-136-169-00 | (E77ESD)...FILM      | 0.22MF   | 5%  | 50V  |
| C778    | 1-136-169-00 | (E77ESD)...FILM      | 0.22MF   | 5%  | 50V  |
| C779    | 1-136-169-00 | (E77ESD)...FILM      | 0.22MF   | 5%  | 50V  |
| C781    | 1-162-282-31 | (E77ESD)...CERAMIC   | 100PF    | 10% | 50V  |
| C790    | 1-126-103-11 | (E77ESD)...ELECT     | 470MF    | 20% | 16V  |
| C791    | 1-126-103-11 | (E77ESD)...ELECT     | 470MF    | 20% | 16V  |
| C792    | 1-162-218-31 | (E77ESD)...CERAMIC   | 62PF     | 5%  | 50V  |
| C793    | 1-136-153-00 | (E77ESD)...FILM      | 0.01MF   | 5%  | 50V  |
| C794    | 1-162-219-31 | (E77ESD)...CERAMIC   | 68PF     | 5%  | 50V  |
| C795    | 1-161-377-00 | (E77ESD)...CERAMIC   | 0.0047MF | 20% | 50V  |
| C796    | 1-161-379-00 | (US,G-AEP)...CERAMIC | 0.01MF   | 30% | 16V  |
| C797    | 1-161-379-00 | (US,G-AEP)...CERAMIC | 0.01MF   | 30% | 16V  |
| C798    | 1-161-379-00 | (US,G-AEP)...CERAMIC | 0.01MF   | 30% | 16V  |
| C801    | 1-123-332-00 | (E77ESD)...ELECT     | 47MF     | 20% | 16V  |
| C802    | 1-123-332-00 | (E77ESD)...ELECT     | 47MF     | 20% | 16V  |
| C803    | 1-123-334-00 | (E77ESD)...ELECT     | 220MF    | 20% | 25V  |
| C804    | 1-123-334-00 | (E77ESD)...ELECT     | 220MF    | 20% | 25V  |
| C805    | 1-136-233-11 | (E77ESD)...FILM      | 0.0047MF | 5%  | 100V |

## ELECTRICAL PARTS

| Ref.No. | Part No.      | Description                      |          |     |      |
|---------|---------------|----------------------------------|----------|-----|------|
| C806    | 1-130-848-00  | (E77ESD)...FILM                  | 0.0082MF | 5%  | 100V |
| C807    | 1-130-279-00  | (E77ESD)...FILM                  | 0.0018MF | 5%  | 100V |
| C808    | 1-130-729-00  | (E77ESD)...FILM                  | 0.0027MF | 5%  | 100V |
| C809    | 1-130-729-00  | (E77ESD)...FILM                  | 0.0027MF | 5%  | 100V |
| C810    | 1-107-169-00  | (E77ESD)...MICA                  | 100PF    | 5%  | 100V |
| C811    | 1-130-475-00  | (E77ESD)...MYLAR                 | 0.0022MF | 5%  | 50V  |
| C812    | 1-123-373-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 63V  |
| C813    | 1-109-621-00  | (E77ESD)...MICA                  | 220PF    | 5%  | 100V |
| C814    | 1-123-356-00  | (E77ESD)...ELECT                 | 10MF     | 20% | 50V  |
| C815    | 1-136-153-00  | (E77ESD)...FILM                  | 0.01MF   | 5%  | 50V  |
| C816    | 1-123-333-00  | (E77ESD)...ELECT                 | 100MF    | 20% | 16V  |
| C817    | 1-124-124-00  | (E77ESD)...ELECT                 | 220MF    | 20% | 10V  |
| C818    | 1-123-332-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C819    | 1-123-332-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C851    | 1-123-332-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C852    | 1-123-332-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C853    | 1-123-334-00  | (E77ESD)...ELECT                 | 220MF    | 20% | 25V  |
| C854    | 1-123-334-00  | (E77ESD)...ELECT                 | 220MF    | 20% | 25V  |
| C855    | 1-136-233-11  | (E77ESD)...FILM                  | 0.0047MF | 5%  | 100V |
| C856    | 1-130-848-00  | (E77ESD)...FILM                  | 0.0082MF | 5%  | 100V |
| C857    | 1-130-279-00  | (E77ESD)...FILM                  | 0.0018MF | 5%  | 100V |
| C858    | 1-130-729-00  | (E77ESD)...FILM                  | 0.0027MF | 5%  | 100V |
| C859    | 1-130-729-00  | (E77ESD)...FILM                  | 0.0027MF | 5%  | 100V |
| C860    | 1-107-169-00  | (E77ESD)...MICA                  | 100PF    | 5%  | 100V |
| C861    | 1-130-475-00  | (E77ESD)...MYLAR                 | 0.0022MF | 5%  | 50V  |
| C862    | 1-123-373-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 63V  |
| C863    | 1-109-621-00  | (E77ESD)...MICA                  | 220PF    | 5%  | 100V |
| C864    | 1-123-356-00  | (E77ESD)...ELECT                 | 10MF     | 20% | 50V  |
| C865    | 1-136-153-00  | (E77ESD)...FILM                  | 0.01MF   | 5%  | 50V  |
| C866    | 1-123-333-00  | (E77ESD)...ELECT                 | 100MF    | 20% | 16V  |
| C867    | 1-124-124-00  | (E77ESD)...ELECT                 | 220MF    | 20% | 10V  |
| C868    | 1-123-332-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C869    | 1-123-332-00  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C951    | 1-124-477-11  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C952    | 1-124-477-11  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C953    | 1-124-473-11  | (E77ESD)...ELECT                 | 1000MF   | 20% | 10V  |
| C954    | 1-124-473-11  | (E77ESD)...ELECT                 | 1000MF   | 20% | 10V  |
| C955    | 1-124-477-11  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C956    | 1-124-477-11  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C957    | 1-124-473-11  | (E77ESD)...ELECT                 | 1000MF   | 20% | 10V  |
| C958    | 1-124-473-11  | (E77ESD)...ELECT                 | 1000MF   | 20% | 10V  |
| C959    | 1-123-356-00  | (E77ESD)...ELECT                 | 10MF     | 20% | 16V  |
| C960    | 1-123-356-00  | (E77ESD)...ELECT                 | 10MF     | 20% | 16V  |
| C961    | 1-124-477-11  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C963    | 1-124-477-11  | (E77ESD)...ELECT                 | 47MF     | 20% | 16V  |
| C991    | 1-161-744-00  | CERAMIC                          | 0.01MF   |     | 400V |
| C992    | 1-130-710-00  | (G-AEP)...FILM                   | 0.1MF    | 20% | 250V |
| C992    | 1-136-345-21  | (US)...FILM                      | 0.1MF    | 20% | 125V |
| CNJ951  | 1-526-751-00  | (UK).....OUTLET, AC              |          |     |      |
| CNJ951  | 1-526-883-00  | (US,Canadian,E)....OUTLET, AC    |          |     |      |
| CNJ951  | 1-526-988-11  | (AEP,G-AEP).....OUTLET, AC (CEE) |          |     |      |
| CN112   | *1-562-327-00 | (E77ESD)...SOCKET, CONNECTOR 3P  |          |     |      |
| CN113   | *1-562-327-00 | SOCKET, CONNECTOR 3P             |          |     |      |
| CN114   | *1-562-249-00 | SOCKET, CONNECTOR 4P             |          |     |      |
| CN115   | *1-562-327-00 | SOCKET, CONNECTOR 3P             |          |     |      |
| CN116   | *1-562-327-00 | SOCKET, CONNECTOR 3P             |          |     |      |
| CN117   | *1-562-327-00 | (E77ESD)...SOCKET, CONNECTOR 3P  |          |     |      |

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.      | Description                     |
|---------|---------------|---------------------------------|
| CN161   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN203   | *1-562-249-00 | SOCKET, CONNECTOR 4P            |
| CN301   | *1-562-249-00 | SOCKET, CONNECTOR 4P            |
| CN302   | *1-562-249-00 | SOCKET, CONNECTOR 4P            |
| CN303   | *1-562-249-00 | SOCKET, CONNECTOR 4P            |
| CN304   | *1-562-249-00 | SOCKET, CONNECTOR 4P            |
| CN305   | *1-562-249-00 | SOCKET, CONNECTOR 4P            |
| CN306   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN403   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN404   | *1-562-327-00 | (E77ESD)...SOCKET, CONNECTOR 3P |
| CN405   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN406   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN407   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN501   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN615   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN616   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN617   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN618   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN619   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CN620   | *1-562-327-00 | SOCKET, CONNECTOR 3P            |
| CNP101  | *1-564-507-11 | PLUG, CONNECTOR 4P              |
| CNP103  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP104  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP105  | *1-564-506-11 | (E77ESD)...PLUG, CONNECTOR 3P   |
| CNP106  | *1-564-505-11 | PLUG, CONNECTOR 2P              |
| CNP107  | *1-564-505-31 | PLUG, CONNECTOR 2P              |
| CNP108  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP109  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP110  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP111  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP151  | *1-564-507-41 | PLUG, CONNECTOR 4P              |
| CNP152  | *1-564-507-21 | PLUG, CONNECTOR 4P              |
| CNP153  | *1-564-507-11 | PLUG, CONNECTOR 4P              |
| CNP154  | *1-564-507-31 | PLUG, CONNECTOR 4P              |
| CNP156  | *1-564-505-11 | PLUG, CONNECTOR 2P              |
| CNP157  | *1-564-507-21 | PLUG, CONNECTOR 4P              |
| CNP158  | *1-564-505-21 | PLUG, CONNECTOR 2P              |
| CNP159  | *1-564-505-31 | PLUG, CONNECTOR 2P              |
| CNP160  | *1-564-505-21 | PLUG, CONNECTOR 2P              |
| CNP201  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP202  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP401  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP402  | *1-564-505-41 | PLUG, CONNECTOR 2P              |
| CNP601  | *1-564-509-11 | PLUG, CONNECTOR 6P              |
| CNP602  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP603  | *1-564-508-11 | PLUG, CONNECTOR 5P              |
| CNP604  | *1-564-505-11 | PLUG, CONNECTOR 2P              |
| CNP605  | *1-564-505-41 | PLUG, CONNECTOR 2P              |
| CNP606  | *1-564-505-11 | PLUG, CONNECTOR 2P              |
| CNP607  | *1-564-342-11 | PIN, CONNECTOR 8P               |
| CNP608  | *1-564-666-11 | PIN, CONNECTOR 10P              |
| CNP609  | *1-564-666-11 | PIN, CONNECTOR 10P              |
| CNP610  | *1-564-505-31 | PLUG, CONNECTOR 2P              |
| CNP611  | *1-564-506-11 | PLUG, CONNECTOR 3P              |
| CNP613  | *1-564-505-31 | PLUG, CONNECTOR 2P              |
| CNP614  | *1-564-505-11 | PLUG, CONNECTOR 2P              |

## ELECTRICAL PARTS

| Ref.No. | Part No.      | Description                   |
|---------|---------------|-------------------------------|
| CNP691  | *1-564-506-11 | PLUG, CONNECTOR 3P            |
| CNP701  | *1-564-510-11 | (E77ESD)...PLUG, CONNECTOR 7P |
| CNP702  | *1-564-505-11 | (E77ESD)...PLUG, CONNECTOR 2P |
| CNP703  | *1-564-505-31 | (E77ESD)...PLUG, CONNECTOR 2P |
| CNP704  | *1-564-505-21 | (E77ESD)...PLUG, CONNECTOR 2P |
| CNP705  | *1-564-505-41 | (E77ESD)...PLUG, CONNECTOR 2P |
| CNP706  | *1-564-506-11 | (E77ESD)...PLUG, CONNECTOR 3P |
| CNP707  | *1-564-506-11 | (E77ESD)...PLUG, CONNECTOR 3P |
| CNP708  | *1-564-506-11 | (E77ESD)...PLUG, CONNECTOR 3P |
| D101    | 8-719-910-62  | DIODE HZ6A2L                  |
| D102    | 8-719-940-76  | DIODE 1SS132                  |
| D103    | 8-719-940-76  | DIODE 1SS132                  |
| D151    | 8-719-910-62  | DIODE HZ6A2L                  |
| D401    | 8-719-230-02  | DIODE 30DF2                   |
| D402    | 8-719-230-02  | DIODE 30DF2                   |
| D403    | 8-719-902-22  | DIODE HZ22-2L                 |
| D404    | 8-719-902-83  | DIODE HZ18-3                  |
| D405    | 8-982-270-01  | (E77ESD)...DIODE S2YB40       |
| D406    | 8-982-270-01  | DIODE S2YB40                  |
| D451    | 8-719-230-02  | DIODE 30DF2                   |
| D452    | 8-719-230-02  | DIODE 30DF2                   |
| D453    | 8-719-902-22  | DIODE HZ22-2L                 |
| D454    | 8-719-902-83  | DIODE HZ18-3                  |
| D501    | 8-719-940-76  | DIODE 1SS132                  |
| D502    | 8-719-940-76  | DIODE 1SS132                  |
| D503    | 8-719-940-76  | DIODE 1SS132                  |
| D504    | 8-719-940-76  | DIODE 1SS132                  |
| D601    | 8-719-200-77  | DIODE 10E2N                   |
| D602    | 8-719-200-77  | DIODE 10E2N                   |
| D603    | 8-719-200-77  | DIODE 10E2N                   |
| D604    | 8-719-200-77  | DIODE 10E2N                   |
| D605    | 8-719-940-76  | DIODE 1SS132                  |
| D607    | 8-719-300-82  | DIODE SEL2213C                |
| D608    | 8-719-940-76  | DIODE 1SS132                  |
| D609    | 8-719-940-76  | DIODE 1SS132                  |
| D610    | 8-719-200-77  | DIODE 10E2N                   |
| D611    | 8-719-940-76  | DIODE 1SS132                  |
| D612    | 8-719-301-39  | (E77ESD)...DIODE SEL2210S-D   |
| D613    | 8-719-301-39  | (E77ESD)...DIODE SEL2210S-D   |
| D614    | 8-719-301-39  | (E77ESD)...DIODE SEL2210S-D   |
| D615    | 8-719-301-39  | (E77ESD)...DIODE SEL2210S-D   |
| D616    | 8-719-301-39  | DIODE SEL2210S-D              |
| D617    | 8-719-301-39  | DIODE SEL2210S-D              |
| D618    | 8-719-301-39  | DIODE SEL2210S-D              |
| D619    | 8-719-301-39  | DIODE SEL2210S-D              |
| D620    | 8-719-301-39  | DIODE SEL2210S-D              |
| D621    | 8-719-301-39  | DIODE SEL2210S-D              |
| D622    | 8-719-301-39  | DIODE SEL2210S-D              |
| D623    | 8-719-301-39  | DIODE SEL2210S-D              |
| D624    | 8-719-301-39  | DIODE SEL2210S-D              |
| D625    | 8-719-301-39  | DIODE SEL2210S-D              |
| D626    | 8-719-301-39  | DIODE SEL2210S-D              |
| D627    | 8-719-301-39  | DIODE SEL2210S-D              |
| D628    | 8-719-301-39  | DIODE SEL2210S-D              |
| D629    | 8-719-301-39  | DIODE SEL2210S-D              |
| D630    | 8-719-301-39  | DIODE SEL2210S-D              |
| D631    | 8-719-301-39  | DIODE SEL2210S-D              |

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## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                            |
|---------|----------------|----------------------------------------|
| D632    | 8-719-301-39   | DIODE SEL2210S-D                       |
| D633    | 8-719-301-39   | DIODE SEL2210S-D                       |
| D634    | 8-719-301-39   | DIODE SEL2210S-D                       |
| D635    | 8-719-301-39   | DIODE SEL2210S-D                       |
| D636    | 8-719-303-00   | DIODE SEL2510C                         |
| D637    | 8-719-303-00   | DIODE SEL2510C                         |
| D638    | 8-719-301-39   | DIODE SEL2210S-D                       |
| D639    | 8-719-301-39   | DIODE SEL2210S-D                       |
| D640    | 8-719-301-39   | (E77ESD)...DIODE SEL2210S-D            |
| D641    | 8-719-301-39   | (E77ESD)...DIODE SEL2210S-D            |
| D642    | 8-719-303-00   | (E77ESD)...DIODE SEL2510C              |
| D643    | 8-719-303-00   | (E77ESD)...DIODE SEL2510C              |
| D644    | 8-719-303-00   | (E77ESD)...DIODE SEL2510C              |
| D645    | 8-719-940-76   | DIODE 1SS132                           |
| D650    | 8-719-940-76   | DIODE 1SS132                           |
| D651    | 8-719-940-76   | DIODE 1SS132                           |
| D652    | 8-719-940-76   | DIODE 1SS132                           |
| D691    | 8-719-940-76   | DIODE 1SS132                           |
| D701    | 8-719-940-76   | (E77ESD)...DIODE 1SS132                |
| D702    | 8-719-940-76   | (E77ESD)...DIODE 1SS132                |
| D703    | 8-719-940-76   | (E77ESD)...DIODE 1SS132                |
| D704    | 8-719-910-68   | (E77ESD)...DIODE HZ6C2L                |
| D705    | 8-719-940-76   | (E77ESD)...DIODE 1SS132                |
| D706    | 8-719-940-76   | (E77ESD)...DIODE 1SS132                |
| F951    | A.1-532-740-11 | (US,Canadian)...FUSE, GLASS TUBE (1A)  |
| IC101   | 8-759-701-21   | IC NJM5532D-D                          |
| IC201   | 8-759-602-01   | (G-AEP)...IC M5220P                    |
| IC201   | 8-759-701-21   | (US,Canadian,AEP,UK,E)...IC NJM5532D-D |
| IC401   | 8-759-602-31   | IC M5209P                              |
| IC402   | A.8-759-604-39 | (E77ESD)...IC M5F78M12                 |
| IC404   | A.8-759-701-79 | IC NJM7812FA                           |
| IC405   | A.8-759-604-29 | IC M5F7805                             |
| IC406   | A.8-759-701-56 | (E77ESD)...IC NJM78M05FA               |
| IC407   | A.8-759-701-56 | (E77ESD)...IC NJM78M05FA               |
| IC451   | A.8-759-701-69 | (E77ESD)...IC NJM79M12FA               |
| IC453   | A.8-759-701-65 | (E77ESD)...IC NJM79M05FA               |
| IC454   | A.8-759-701-65 | (E77ESD)...IC NJM79M05FA               |
| IC501   | 8-759-601-43   | IC M4066BP                             |
| IC502   | 8-759-801-61   | IC LA7220                              |
| IC601   | A.8-759-701-56 | IC NJM78M05FA                          |
| IC602   | 8-759-240-93   | IC TC4093BP                            |
| IC603   | 8-759-113-52   | IC UPD75104CW-078                      |
| IC604   | 8-759-601-03   | IC M54566P                             |
| IC605   | 8-759-601-03   | IC M54566P                             |
| IC606   | 8-759-601-03   | IC M54566P                             |
| IC607   | 8-759-008-95   | IC MC14028BF                           |
| IC608   | 8-759-600-68   | IC M54562P                             |
| IC609   | 8-759-600-68   | IC M54562P                             |
| IC610   | A.8-759-600-24 | IC M54543L                             |
| IC611   | 8-741-131-70   | IC BX-1317                             |
| IC701   | 8-759-202-11   | (E77ESD)...IC TC74HC00P                |
| IC702   | 8-759-202-11   | (E77ESD)...IC TC74HC00P                |
| IC703   | 8-759-202-74   | (E77ESD)...IC TC74HC04P                |
| IC704   | 8-759-001-26   | (E77ESD)...IC MC74HC112N               |
| IC705   | 8-759-202-24   | (E77ESD)...IC TC74HC86P                |

## ELECTRICAL PARTS

| Ref.No. | Part No.      | Description                                                    |
|---------|---------------|----------------------------------------------------------------|
| IC706   | 8-759-202-86  | (E77ESD)...IC TC74HC123P                                       |
| IC707   | 8-759-918-71  | (E77ESD)...IC CX23065                                          |
| IC708   | 8-759-906-24  | (E77ESD)...IC SN74LS624N                                       |
| IC709   | 8-759-203-40  | (E77ESD)...IC TC74HC393P                                       |
| IC710   | 8-759-000-99  | (E77ESD)...IC MC74HC74N                                        |
| IC711   | 8-759-910-83  | (E77ESD)...IC TL072ACP                                         |
| IC712   | 8-759-918-71  | (E77ESD)...IC CX23065                                          |
| IC713   | 8-759-906-24  | (E77ESD)...IC SN74LS624N                                       |
| IC714   | 8-759-001-26  | (E77ESD)...IC MC74HC112N                                       |
| IC715   | 8-759-203-40  | (E77ESD)...IC TC74HC393P                                       |
| IC716   | 8-759-202-11  | (E77ESD)...IC TC74HC00P                                        |
| IC717   | 8-759-202-74  | (E77ESD)...IC TC74HC04P                                        |
| IC718   | 8-752-322-31  | (E77ESD)...IC CXD1076P                                         |
| IC719   | 8-759-939-35  | (E77ESD)...IC CXD1088Q                                         |
| IC720   | 8-759-000-99  | (E77ESD)...IC MC74HC74N                                        |
| IC721   | 8-759-000-99  | (E77ESD)...IC MC74HC74N                                        |
| IC801   | 8-759-938-46  | (E77ESD)...IC PCM56P-JS                                        |
| IC802   | 8-759-701-21  | (E77ESD)...IC NJM5532D-D                                       |
| IC803   | 8-759-701-21  | (E77ESD)...IC NJM5532D-D                                       |
| IC851   | 8-759-938-46  | (E77ESD)...IC PCM56P-JS                                        |
| IC852   | 8-759-701-21  | (E77ESD)...IC NJM5532D-D                                       |
| IC853   | 8-759-701-21  | (E77ESD)...IC NJM5532D-D                                       |
| IC951   | 8-759-601-43  | (E77ESD)...IC M4066BP                                          |
| IC952   | 8-759-801-61  | (E77ESD)...IC LA7220                                           |
| IC953   | 8-759-801-61  | (E77ESD)...IC LA7220                                           |
| J101    | 1-566-881-11  | JACK, PIN 2P (PHONO)                                           |
| J102    | 1-566-883-11  | JACK, PIN 6P (TUNER/CD/AUX)                                    |
| J103    | 1-566-883-11  | JACK, PIN 6P<br>(TAPE 1/TAPE 1 REC/TAPE 2 REC)                 |
| J104    | 1-566-883-11  | JACK, PIN 6P<br>(TAPE 2/VIDEO 1 OUT/VIDEO 2 IN)                |
| J105    | 1-566-883-11  | JACK, PIN 6P<br>(VIDEO 2 IN/VIDEO 3 IN/VIDEO 2 OUT)            |
| J106    | 1-566-882-11  | JACK, PIN 4P (OUTPUT 1/2)                                      |
| J107    | 1-566-892-11  | (E77ESD)...JACK, PIN 2P<br>(DAT ANALOGUE REC)                  |
| J108    | 1-566-892-11  | JACK, PIN 2P (ADAPTOR OUT)                                     |
| J109    | 1-566-892-11  | JACK, PIN 2P (ADAPTOR IN)                                      |
| J110    | 1-507-863-41  | JACK, LARGE TYPE (HEADPHONES)                                  |
| J501    | 1-566-893-11  | JACK, PIN 2P<br>(VIDEO 1 OUT/MONITOR VIDEO OUT)                |
| J502    | 1-566-893-11  | JACK, PIN 2P (VIDEO 1 IN/VIDEO 2 OUT)                          |
| J503    | 1-566-893-11  | JACK, PIN 2P (VIDEO 3 IN/VIDEO 2 IN)                           |
| J551    | 1-566-846-11  | (E77ESD)...CONNECTOR, (S) TERMINAL 4P<br>(S VIDEO 1 IN)        |
| J552    | 1-566-846-11  | (E77ESD)...CONNECTOR, (S) TERMINAL 4P<br>(S VIDEO 1 OUT)       |
| J553    | 1-566-846-11  | (E77ESD)...CONNECTOR, (S) TERMINAL 4P<br>(S VIDEO 2 IN)        |
| J554    | 1-566-846-11  | (E77ESD)...CONNECTOR, (S) TERMINAL 4P<br>(MONITOR S VIDEO OUT) |
| J701    | *1-563-079-11 | (E77ESD)...JACK, PIN 1P (DIGITAL IN 1)                         |
| J702    | 1-507-898-31  | (E77ESD)...JACK, PIN 2P<br>(DIGITAL IN 2/DAT DIGITAL IN)       |
| J703    | 1-507-567-71  | (E77ESD)...JACK, PIN 1P (DAT DIGITAL OUT)                      |
| L201    | 1-413-101-00  | (G-AEP)...COIL, INPUT                                          |
| L202    | 1-413-101-00  | (G-AEP)...COIL, INPUT                                          |
| L251    | 1-413-101-00  | (G-AEP)...COIL, INPUT                                          |

The components identified by shading and mark A are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                           |
|---------|--------------|---------------------------------------|
| L252    | 1-413-101-00 | (G-AEP)...COIL, INPUT                 |
| L401    | 1-424-026-11 | COIL, LINE FILTER                     |
| L402    | 1-424-026-21 | (E77ESD)...COIL, LINE FILTER          |
| L601    | 1-424-026-11 | COIL, LINE FILTER                     |
| L701    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L702    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L703    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L704    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L705    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L706    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L707    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L708    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L709    | 1-408-104-00 | (E77ESD)...MICRO INDUCTOR 1MMH        |
| L710    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L711    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L712    | 1-408-104-00 | (E77ESD)...MICRO INDUCTOR 1MMH        |
| L713    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L714    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L715    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L716    | 1-408-104-00 | (E77ESD)...MICRO INDUCTOR 1MMH        |
| L717    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L718    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L719    | 1-408-080-00 | (E77ESD)...MICRO INDUCTOR 100UH       |
| L721    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L722    | 1-408-559-00 | (E77ESD)...MICRO INDUCTOR 4.7UH       |
| L951    | 1-421-580-00 | (US)...TRANSFORMER, LINE FILTER (LFT) |
| L951    | 1-421-960-11 | (G-AEP)...TRANSFORMER, LINE FILTER    |
| Q101    | 8-729-202-67 | TRANSISTOR 2SK246-GR3                 |
| Q103    | 8-729-104-18 | TRANSISTOR 2SC3514                    |
| Q104    | 8-765-640-10 | TRANSISTOR 2SK244                     |
| Q105    | 8-729-113-82 | TRANSISTOR 2SA1138                    |
| Q106    | 8-729-113-82 | TRANSISTOR 2SA1138                    |
| Q107    | 8-729-167-62 | TRANSISTOR 2SC2676                    |
| Q108    | 8-729-167-62 | TRANSISTOR 2SC2676                    |
| Q109    | 8-729-104-18 | TRANSISTOR 2SC3514                    |
| Q110    | 8-729-104-91 | TRANSISTOR 2SA1383                    |
| Q151    | 8-729-202-67 | TRANSISTOR 2SK246-GR3                 |
| Q153    | 8-729-104-18 | TRANSISTOR 2SC3514                    |
| Q154    | 8-765-640-10 | TRANSISTOR 2SK244                     |
| Q155    | 8-729-113-82 | TRANSISTOR 2SA1138                    |
| Q156    | 8-729-113-82 | TRANSISTOR 2SA1138                    |
| Q157    | 8-729-167-62 | TRANSISTOR 2SC2676                    |
| Q158    | 8-729-167-62 | TRANSISTOR 2SC2676                    |
| Q159    | 8-729-104-18 | TRANSISTOR 2SC3514                    |
| Q160    | 8-729-104-91 | TRANSISTOR 2SA1383                    |
| Q201    | 8-729-214-71 | TRANSISTOR 2SK147                     |
| Q202    | 8-729-214-71 | TRANSISTOR 2SK147                     |
| Q203    | 8-729-201-56 | TRANSISTOR 2SK246-GR2                 |
| Q204    | 8-729-168-22 | TRANSISTOR 2SC2682                    |
| Q205    | 8-729-194-57 | TRANSISTOR 2SC945-P                   |
| Q251    | 8-729-214-71 | TRANSISTOR 2SK147                     |
| Q252    | 8-729-214-71 | TRANSISTOR 2SK147                     |
| Q253    | 8-729-201-56 | TRANSISTOR 2SK246-GR2                 |
| Q254    | 8-729-168-22 | TRANSISTOR 2SC2682                    |
| Q255    | 8-729-194-57 | TRANSISTOR 2SC945-P                   |
| Q401    | 8-729-201-56 | TRANSISTOR 2SK246-GR2                 |
| Q402    | 8-729-107-53 | TRANSISTOR 2SC2275A                   |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                      |
|---------|--------------|----------------------------------|
| Q451    | 8-729-201-56 | TRANSISTOR 2SK246-GR2            |
| Q452    | 8-729-118-53 | TRANSISTOR 2SA985-P              |
| Q501    | 8-729-194-57 | TRANSISTOR 2SC945-P              |
| Q502    | 8-729-194-57 | TRANSISTOR 2SC945-P              |
| Q503    | 8-729-194-57 | TRANSISTOR 2SC945-P              |
| Q504    | 8-729-806-28 | TRANSISTOR 2SC3402               |
| Q601    | 8-729-806-28 | TRANSISTOR 2SC3402               |
| Q603    | 8-729-806-28 | TRANSISTOR 2SC3402               |
| Q604    | 8-729-154-82 | TRANSISTOR 2SB548-R              |
| Q691    | 8-729-600-27 | TRANSISTOR 2SC634SP              |
| Q692    | 8-729-806-28 | TRANSISTOR 2SC3402               |
| Q701    | 8-729-204-83 | (E77ESD)...TRANSISTOR 2SA1048-GR |
| Q702    | 8-729-806-28 | (E77ESD)...TRANSISTOR 2SC3402    |
| Q703    | 8-729-159-01 | (E77ESD)...TRANSISTOR 2SA1348    |
| Q704    | 8-729-806-20 | (E77ESD)...TRANSISTOR 2SA1345    |
| Q705    | 8-729-159-01 | (E77ESD)...TRANSISTOR 2SA1348    |
| Q951    | 8-729-194-57 | (E77ESD)...TRANSISTOR 2SC945-P   |
| Q952    | 8-729-194-57 | (E77ESD)...TRANSISTOR 2SC945-P   |
| Q953    | 8-729-194-57 | (E77ESD)...TRANSISTOR 2SC945-P   |
| Q954    | 8-729-194-57 | (E77ESD)...TRANSISTOR 2SC945-P   |
| Q955    | 8-729-194-57 | (E77ESD)...TRANSISTOR 2SC945-P   |
| Q956    | 8-729-194-57 | (E77ESD)...TRANSISTOR 2SC945-P   |
| R101    | 1-247-713-11 | CARBON 1K 5% 1/4W                |
| R102    | 1-247-713-11 | CARBON 1K 5% 1/4W                |
| R103    | 1-247-713-11 | CARBON 1K 5% 1/4W                |
| R104    | 1-247-713-11 | CARBON 1K 5% 1/4W                |
| R105    | 1-247-713-11 | (E77ESD)...CARBON 1K 5% 1/4W     |
| R106    | 1-247-700-11 | CARBON 100 5% 1/4W               |
| R107    | 1-249-465-11 | CARBON 47K 5% 1/4W               |
| R108    | 1-247-721-11 | CARBON 4.7K 5% 1/4W              |
| R109    | 1-247-713-11 | CARBON 1K 5% 1/4W                |
| R110    | 1-246-545-00 | CARBON 1M 5% 1/4W                |
| R111    | 1-247-711-11 | CARBON 680 5% 1/4W               |
| R112    | 1-247-723-11 | CARBON 6.8K 5% 1/4W              |
| R113    | 1-247-725-11 | CARBON 10K 5% 1/4W               |
| R114    | 1-249-556-11 | CARBON 1.5K 5% 1/4W              |
| R115    | 1-249-895-11 | CARBON 68 1% 1/4W                |
| R116    | 1-249-895-11 | CARBON 68 1% 1/4W                |
| R117    | 1-247-706-11 | CARBON 330 5% 1/4W               |
| R118    | 1-249-556-11 | CARBON 1.5K 5% 1/4W              |
| R119    | 1-249-556-11 | CARBON 1.5K 5% 1/4W              |
| R120    | 1-247-711-11 | CARBON 680 5% 1/4W               |
| R121    | 1-247-146-00 | CARBON 4.3K 5% 1/4W              |
| R122    | 1-249-556-11 | CARBON 1.5K 5% 1/4W              |
| R123    | 1-249-556-11 | CARBON 1.5K 5% 1/4W              |
| R124    | 1-259-014-11 | CARBON 4.7K 1% 1/2W              |
| R125    | 1-249-641-11 | CARBON 47 5% 1/2W                |
| R126    | 1-249-641-11 | CARBON 47 5% 1/2W                |
| R127    | 1-249-641-11 | CARBON 47 5% 1/2W                |
| R128    | 1-249-641-11 | CARBON 47 5% 1/2W                |
| R129    | 1-249-641-11 | CARBON 47 5% 1/2W                |
| R130    | 1-249-604-11 | CARBON 150K 5% 1/4W              |
| R131    | 1-249-590-11 | CARBON 39K 5% 1/4W               |
| R132    | 1-249-590-11 | CARBON 39K 5% 1/4W               |
| R133    | 1-249-556-11 | CARBON 1.5K 5% 1/4W              |
| R134    | 1-247-700-11 | CARBON 100 5% 1/4W               |
| R135    | 1-249-469-11 | CARBON 100K 5% 1/4W              |
| R136    | 1-247-152-00 | CARBON 8.2K 5% 1/4W              |

The components identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description       |      |    |      |
|---------|--------------|-------------------|------|----|------|
| R137    | 1-259-025-11 | CARBON            | 470  | 1% | 1/2W |
| R138    | 1-246-529-00 | CARBON            | 220K | 5% | 1/4W |
| R139    | 1-247-702-11 | (G-AEP)...CARBON  | 150  | 5% | 1/4W |
| R140    | 1-247-713-11 | (G-AEP)...CARBON  | 1K   | 5% | 1/4W |
| R141    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R142    | 1-249-595-11 | CARBON            | 62K  | 5% | 1/4W |
| R151    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R152    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R153    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R154    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R155    | 1-247-713-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |
| R156    | 1-247-700-11 | CARBON            | 100  | 5% | 1/4W |
| R157    | 1-249-465-11 | CARBON            | 47K  | 5% | 1/4W |
| R158    | 1-247-721-11 | CARBON            | 4.7K | 5% | 1/4W |
| R159    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R160    | 1-246-545-00 | CARBON            | 1M   | 5% | 1/4W |
| R161    | 1-247-711-11 | CARBON            | 680  | 5% | 1/4W |
| R162    | 1-247-723-11 | CARBON            | 6.8K | 5% | 1/4W |
| R163    | 1-247-725-11 | CARBON            | 10K  | 5% | 1/4W |
| R164    | 1-249-556-11 | CARBON            | 1.5K | 5% | 1/4W |
| R165    | 1-249-895-11 | CARBON            | 68   | 1% | 1/4W |
| R166    | 1-249-895-11 | CARBON            | 68   | 1% | 1/4W |
| R167    | 1-247-706-11 | CARBON            | 330  | 5% | 1/4W |
| R168    | 1-249-556-11 | CARBON            | 1.5K | 5% | 1/4W |
| R169    | 1-249-556-11 | CARBON            | 1.5K | 5% | 1/4W |
| R170    | 1-247-711-11 | CARBON            | 680  | 5% | 1/4W |
| R171    | 1-247-146-00 | CARBON            | 4.3K | 5% | 1/4W |
| R172    | 1-249-556-11 | CARBON            | 1.5K | 5% | 1/4W |
| R173    | 1-249-556-11 | CARBON            | 1.5K | 5% | 1/4W |
| R174    | 1-259-014-11 | CARBON            | 4.7K | 1% | 1/2W |
| R175    | 1-249-641-11 | CARBON            | 47   | 5% | 1/2W |
| R176    | 1-249-641-11 | CARBON            | 47   | 5% | 1/2W |
| R177    | 1-249-641-11 | CARBON            | 47   | 5% | 1/2W |
| R178    | 1-249-641-11 | CARBON            | 47   | 5% | 1/2W |
| R179    | 1-249-641-11 | CARBON            | 47   | 5% | 1/2W |
| R180    | 1-249-604-11 | CARBON            | 150K | 5% | 1/4W |
| R181    | 1-249-590-11 | CARBON            | 39K  | 5% | 1/4W |
| R182    | 1-249-590-11 | CARBON            | 39K  | 5% | 1/4W |
| R183    | 1-249-556-11 | CARBON            | 1.5K | 5% | 1/4W |
| R184    | 1-247-700-11 | CARBON            | 100  | 5% | 1/4W |
| R185    | 1-249-469-11 | CARBON            | 100K | 5% | 1/4W |
| R186    | 1-247-152-00 | CARBON            | 8.2K | 5% | 1/4W |
| R187    | 1-259-025-11 | CARBON            | 470  | 1% | 1/2W |
| R188    | 1-246-529-00 | CARBON            | 220K | 5% | 1/4W |
| R189    | 1-247-713-11 | (G-AEP)...CARBON  | 1K   | 5% | 1/4W |
| R190    | 1-247-713-11 | (G-AEP)...CARBON  | 1K   | 5% | 1/4W |
| R191    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R192    | 1-249-595-11 | CARBON            | 62K  | 5% | 1/4W |
| R201    | 1-247-706-11 | CARBON            | 330  | 5% | 1/4W |
| R202    | 1-247-700-11 | CARBON            | 100  | 5% | 1/4W |
| R203    | 1-247-713-11 | CARBON            | 1K   | 5% | 1/4W |
| R204    | 1-249-465-11 | CARBON            | 47K  | 5% | 1/4W |
| R205    | 1-247-721-11 | CARBON            | 4.7K | 5% | 1/4W |
| R206    | 1-247-704-11 | CARBON            | 220  | 5% | 1/4W |
| R207    | 1-249-518-11 | CARBON            | 39   | 5% | 1/4W |
| R208    | 1-247-708-11 | CARBON            | 470  | 5% | 1/4W |
| R209    | 1-247-128-00 | CARBON            | 750  | 5% | 1/4W |
| R210    | 1-247-700-11 | CARBON            | 100  | 5% | 1/4W |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description      |      |    |        |
|---------|--------------|------------------|------|----|--------|
| R211    | 1-247-128-00 | CARBON           | 750  | 5% | 1/4W   |
| R212    | 1-249-874-11 | CARBON           | 1M   | 1% | 1/2W   |
| R214    | 1-249-844-11 | CARBON           | 56K  | 1% | 1/2W   |
| R216    | 1-249-818-11 | CARBON           | 4.7K | 1% | 1/2W   |
| R217    | 1-249-777-11 | CARBON           | 91   | 1% | 1/2W   |
| R218    | 1-206-458-00 | CARBON           | 6.2  | 5% | 1/3W   |
| R219    | 1-247-704-11 | CARBON           | 220  | 5% | 1/4W   |
| R220    | 1-247-706-11 | (G-AEP)...CARBON | 330  | 5% | 1/4W   |
| R221    | 1-247-706-11 | (G-AEP)...CARBON | 330  | 5% | 1/4W   |
| R251    | 1-247-706-11 | CARBON           | 330  | 5% | 1/4W   |
| R252    | 1-247-700-11 | CARBON           | 100  | 5% | 1/4W   |
| R253    | 1-247-713-11 | CARBON           | 1K   | 5% | 1/4W   |
| R254    | 1-249-465-11 | CARBON           | 47K  | 5% | 1/4W   |
| R255    | 1-247-721-11 | CARBON           | 4.7K | 5% | 1/4W   |
| R256    | 1-247-704-11 | CARBON           | 220  | 5% | 1/4W   |
| R257    | 1-249-518-11 | CARBON           | 39   | 5% | 1/4W   |
| R258    | 1-247-708-11 | CARBON           | 470  | 5% | 1/4W   |
| R259    | 1-247-128-00 | CARBON           | 750  | 5% | 1/4W   |
| R260    | 1-247-700-11 | CARBON           | 100  | 5% | 1/4W   |
| R261    | 1-247-128-00 | CARBON           | 750  | 5% | 1/4W   |
| R262    | 1-249-874-11 | CARBON           | 1M   | 1% | 1/2W   |
| R264    | 1-249-844-11 | CARBON           | 56K  | 1% | 1/2W   |
| R266    | 1-249-818-11 | CARBON           | 4.7K | 1% | 1/2W   |
| R267    | 1-249-777-11 | CARBON           | 91   | 1% | 1/2W   |
| R268    | 1-206-458-00 | CARBON           | 6.2  | 5% | 1/3W   |
| R269    | 1-247-704-11 | CARBON           | 220  | 5% | 1/4W   |
| R291    | 1-247-735-11 | CARBON           | 47   | 5% | 1/2W F |
| R292    | 1-247-735-11 | CARBON           | 47   | 5% | 1/2W F |
| R270    | 1-247-706-11 | (G-AEP)...CARBON | 330  | 5% | 1/4W   |
| R271    | 1-247-706-11 | (G-AEP)...CARBON | 330  | 5% | 1/4W   |
| R301    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R302    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R303    | 1-247-725-11 | CARBON           | 10K  | 5% | 1/4W   |
| R304    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R305    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R306    | 1-249-466-11 | CARBON           | 56K  | 5% | 1/4W   |
| R307    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R308    | 1-247-722-11 | CARBON           | 5.6K | 5% | 1/4W   |
| R309    | 1-247-717-11 | CARBON           | 2.2K | 5% | 1/4W   |
| R310    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R351    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R352    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R353    | 1-247-725-11 | CARBON           | 10K  | 5% | 1/4W   |
| R354    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R355    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R356    | 1-249-466-11 | CARBON           | 56K  | 5% | 1/4W   |
| R357    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R358    | 1-247-722-11 | CARBON           | 5.6K | 5% | 1/4W   |
| R359    | 1-247-717-11 | CARBON           | 2.2K | 5% | 1/4W   |
| R360    | 1-202-727-00 | CARBON           | 4.7M | 5% | 1/3W   |
| R402    | 1-247-719-11 | CARBON           | 3.3K | 5% | 1/4W   |
| R403    | 1-247-704-11 | CARBON           | 220  | 5% | 1/4W   |
| R404    | 1-249-460-11 | CARBON           | 15K  | 5% | 1/4W   |
| R405    | 1-247-719-11 | CARBON           | 3.3K | 5% | 1/4W   |
| R452    | 1-247-719-11 | CARBON           | 3.3K | 5% | 1/4W   |
| R453    | 1-247-704-11 | CARBON           | 220  | 5% | 1/4W   |
| R454    | 1-249-460-11 | CARBON           | 15K  | 5% | 1/4W   |

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque **A** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description |      |    |      |   |
|---------|----------------|-------------|------|----|------|---|
| R491    | A 1-247-694-11 | CARBON      | 33   | 5% | 1/4W | F |
| R501    | 1-215-394-00   | CARBON      | 75   | 5% | 1/4W |   |
| R502    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R503    | 1-215-394-00   | CARBON      | 75   | 5% | 1/4W |   |
| R504    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R505    | 1-249-401-11   | CARBON      | 47   | 5% | 1/4W |   |
| R506    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R507    | 1-249-414-11   | CARBON      | 560  | 5% | 1/4W |   |
| R508    | 1-215-394-00   | CARBON      | 75   | 5% | 1/4W |   |
| R509    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R510    | 1-249-401-11   | CARBON      | 47   | 5% | 1/4W |   |
| R511    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R512    | 1-249-414-11   | CARBON      | 560  | 5% | 1/4W |   |
| R513    | 1-249-401-11   | CARBON      | 47   | 5% | 1/4W |   |
| R514    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R515    | 1-249-414-11   | CARBON      | 560  | 5% | 1/4W |   |
| R516    | 1-249-440-11   | CARBON      | 82K  | 5% | 1/4W |   |
| R517    | 1-249-435-11   | CARBON      | 33K  | 5% | 1/4W |   |
| R518    | 1-249-416-11   | CARBON      | 820  | 5% | 1/4W |   |
| R519    | 1-249-423-11   | CARBON      | 3.3K | 5% | 1/4W |   |
| R520    | 1-247-849-00   | CARBON      | 5.6K | 5% | 1/4W |   |
| R521    | 1-249-423-11   | CARBON      | 3.3K | 5% | 1/4W |   |
| R522    | 1-247-887-00   | CARBON      | 220K | 5% | 1/4W |   |
| R523    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R524    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R526    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R527    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R528    | 1-249-429-11   | CARBON      | 10K  | 5% | 1/4W |   |
| R601    | 1-249-430-11   | CARBON      | 12K  | 5% | 1/4W |   |
| R605    | 1-249-437-11   | CARBON      | 47K  | 5% | 1/4W |   |
| R606    | 1-247-710-11   | CARBON      | 560  | 5% | 1/4W |   |
| R607    | 1-249-405-11   | CARBON      | 100  | 5% | 1/4W |   |
| R608    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R609    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R610    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R611    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R612    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R613    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R614    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R615    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R616    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R617    | 1-249-433-11   | CARBON      | 22K  | 5% | 1/4W |   |
| R618    | 1-249-433-11   | CARBON      | 22K  | 5% | 1/4W |   |
| R619    | 1-249-433-11   | CARBON      | 22K  | 5% | 1/4W |   |
| R620    | 1-249-433-11   | CARBON      | 22K  | 5% | 1/4W |   |
| R621    | 1-249-441-11   | CARBON      | 100K | 5% | 1/4W |   |
| R622    | 1-249-441-11   | CARBON      | 100K | 5% | 1/4W |   |
| R623    | 1-249-441-11   | CARBON      | 100K | 5% | 1/4W |   |
| R624    | 1-249-441-11   | CARBON      | 100K | 5% | 1/4W |   |
| R625    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R626    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R627    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R628    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R629    | 1-249-407-11   | CARBON      | 150  | 5% | 1/4W |   |
| R630    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |
| R631    | 1-249-433-11   | CARBON      | 22K  | 5% | 1/4W |   |
| R632    | 1-249-417-11   | CARBON      | 1K   | 5% | 1/4W |   |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description       |      |    |      |  |
|---------|--------------|-------------------|------|----|------|--|
| R634    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R635    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R636    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R637    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R638    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R639    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R640    | 1-247-118-00 | (E77ESD)...CARBON | 300  | 5% | 1/4W |  |
| R641    | 1-247-118-00 | (E77ESD)...CARBON | 300  | 5% | 1/4W |  |
| R642    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R643    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R644    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R645    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R646    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R647    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R648    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R649    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R650    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R651    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R652    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R653    | 1-247-118-00 | CARBON            | 300  | 5% | 1/4W |  |
| R654    | 1-247-118-00 | (E77ESD)...CARBON | 300  | 5% | 1/4W |  |
| R655    | 1-247-707-11 | (E77ESD)...CARBON | 390  | 5% | 1/4W |  |
| R656    | 1-247-707-11 | (E77ESD)...CARBON | 390  | 5% | 1/4W |  |
| R657    | 1-247-707-11 | (E77ESD)...CARBON | 390  | 5% | 1/4W |  |
| R658    | 1-249-429-11 | CARBON            | 10K  | 5% | 1/4W |  |
| R659    | 1-249-429-11 | CARBON            | 10K  | 5% | 1/4W |  |
| R660    | 1-249-433-11 | CARBON            | 22K  | 5% | 1/4W |  |
| R661    | 1-249-433-11 | CARBON            | 22K  | 5% | 1/4W |  |
| R662    | 1-249-417-11 | CARBON            | 1K   | 5% | 1/4W |  |
| R663    | 1-249-417-11 | CARBON            | 1K   | 5% | 1/4W |  |
| R691    | 1-249-429-11 | CARBON            | 10K  | 5% | 1/4W |  |
| R692    | 1-249-429-11 | CARBON            | 10K  | 5% | 1/4W |  |
| R693    | 1-249-425-11 | CARBON            | 4.7K | 5% | 1/4W |  |
| R694    | 1-249-393-11 | CARBON            | 10   | 5% | 1/4W |  |
| R701    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R703    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R705    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R707    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R708    | 1-249-419-11 | (E77ESD)...CARBON | 1.5K | 5% | 1/4W |  |
| R709    | 1-215-432-00 | (E77ESD)...CARBON | 3K   | 5% | 1/4W |  |
| R710    | 1-215-452-00 | (E77ESD)...CARBON | 20K  | 5% | 1/4W |  |
| R711    | 1-215-442-00 | (E77ESD)...CARBON | 7.5K | 5% | 1/4W |  |
| R712    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R713    | 1-249-425-11 | (E77ESD)...CARBON | 4.7K | 5% | 1/4W |  |
| R714    | 1-247-723-11 | (E77ESD)...CARBON | 6.8K | 5% | 1/4W |  |
| R715    | 1-249-417-11 | (E77ESD)...CARBON | 1K   | 5% | 1/4W |  |
| R716    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R717    | 1-249-433-11 | (E77ESD)...CARBON | 22K  | 5% | 1/4W |  |
| R718    | 1-249-433-11 | (E77ESD)...CARBON | 22K  | 5% | 1/4W |  |
| R719    | 1-249-433-11 | (E77ESD)...CARBON | 22K  | 5% | 1/4W |  |
| R720    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R721    | 1-249-425-11 | (E77ESD)...CARBON | 4.7K | 5% | 1/4W |  |
| R722    | 1-249-423-11 | (E77ESD)...CARBON | 3.3K | 5% | 1/4W |  |
| R723    | 1-249-432-11 | (E77ESD)...CARBON | 18K  | 5% | 1/4W |  |
| R725    | 1-215-491-00 | (E77ESD)...CARBON | 820K | 5% | 1/4W |  |
| R726    | 1-249-423-11 | (E77ESD)...CARBON | 3.3K | 5% | 1/4W |  |
| R727    | 1-249-437-11 | (E77ESD)...CARBON | 47K  | 5% | 1/4W |  |

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Les composants identifiés par une trame et une marque A sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description       |      |    |      |  |
|---------|--------------|-------------------|------|----|------|--|
| R728    | 1-215-440-00 | (E77ESD)...CARBON | 6.2K | 5% | 1/4W |  |
| R729    | 1-215-448-00 | (E77ESD)...CARBON | 13K  | 5% | 1/4W |  |
| R730    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R731    | 1-215-476-00 | (E77ESD)...CARBON | 200K | 5% | 1/4W |  |
| R732    | 1-215-476-00 | (E77ESD)...CARBON | 200K | 5% | 1/4W |  |
| R733    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R734    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R735    | 1-249-435-11 | (E77ESD)...CARBON | 33K  | 5% | 1/4W |  |
| R736    | 1-249-413-11 | (E77ESD)...CARBON | 470  | 5% | 1/4W |  |
| R737    | 1-249-407-11 | (E77ESD)...CARBON | 150  | 5% | 1/4W |  |
| R791    | 1-215-398-00 | (E77ESD)...CARBON | 110  | 5% | 1/4W |  |
| R792    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R793    | 1-215-452-00 | (E77ESD)...CARBON | 20K  | 5% | 1/4W |  |
| R794    | 1-215-452-00 | (E77ESD)...CARBON | 20K  | 5% | 1/4W |  |
| R795    | 1-249-433-11 | (E77ESD)...CARBON | 22K  | 5% | 1/4W |  |
| R796    | 1-249-433-11 | (E77ESD)...CARBON | 22K  | 5% | 1/4W |  |
| R797    | 1-215-452-00 | (E77ESD)...CARBON | 20K  | 5% | 1/4W |  |
| R798    | 1-249-433-11 | (E77ESD)...CARBON | 22K  | 5% | 1/4W |  |
| R799    | 1-249-437-11 | (E77ESD)...CARBON | 47K  | 5% | 1/4W |  |
| R801    | 1-247-757-11 | (E77ESD)...CARBON | 2.7K | 5% | 1/2W |  |
| R802    | 1-247-757-11 | (E77ESD)...CARBON | 2.7K | 5% | 1/2W |  |
| R803    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R804    | 1-246-545-00 | (E77ESD)...CARBON | 1M   | 5% | 1/4W |  |
| R805    | 1-249-679-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/2W |  |
| R806    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R807    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R808    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R809    | 1-247-739-11 | (E77ESD)...CARBON | 100  | 5% | 1/2W |  |
| R810    | 1-249-616-11 | (E77ESD)...CARBON | 470K | 5% | 1/4W |  |
| R851    | 1-247-757-11 | (E77ESD)...CARBON | 2.7K | 5% | 1/2W |  |
| R852    | 1-247-757-11 | (E77ESD)...CARBON | 2.7K | 5% | 1/2W |  |
| R853    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R854    | 1-246-545-00 | (E77ESD)...CARBON | 1M   | 5% | 1/4W |  |
| R855    | 1-249-679-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/2W |  |
| R856    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R857    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R858    | 1-247-716-11 | (E77ESD)...CARBON | 1.8K | 5% | 1/4W |  |
| R859    | 1-247-739-11 | (E77ESD)...CARBON | 100  | 5% | 1/2W |  |
| R860    | 1-249-616-11 | (E77ESD)...CARBON | 470K | 5% | 1/4W |  |
| R951    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R952    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R953    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R954    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R955    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R956    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R957    | 1-249-401-11 | (E77ESD)...CARBON | 47   | 5% | 1/4W |  |
| R958    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R959    | 1-249-414-11 | (E77ESD)...CARBON | 560  | 5% | 1/4W |  |
| R960    | 1-249-401-11 | (E77ESD)...CARBON | 47   | 5% | 1/4W |  |
| R961    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R962    | 1-249-414-11 | (E77ESD)...CARBON | 560  | 5% | 1/4W |  |
| R963    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R964    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R965    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R966    | 1-215-394-00 | (E77ESD)...CARBON | 75   | 5% | 1/4W |  |
| R967    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |
| R968    | 1-249-429-11 | (E77ESD)...CARBON | 10K  | 5% | 1/4W |  |

## ELECTRICAL PARTS

| Ref.No. | Part No.     | Description                             |      |    |      |  |
|---------|--------------|-----------------------------------------|------|----|------|--|
| R969    | 1-249-401-11 | (E77ESD)...CARBON                       | 47   | 5% | 1/4W |  |
| R970    | 1-249-429-11 | (E77ESD)...CARBON                       | 10K  | 5% | 1/4W |  |
| R971    | 1-249-414-11 | (E77ESD)...CARBON                       | 560  | 5% | 1/4W |  |
| R972    | 1-249-401-11 | (E77ESD)...CARBON                       | 47   | 5% | 1/4W |  |
| R973    | 1-249-429-11 | (E77ESD)...CARBON                       | 10K  | 5% | 1/4W |  |
| R974    | 1-249-414-11 | (E77ESD)...CARBON                       | 560  | 5% | 1/4W |  |
| R975    | 1-249-440-11 | (E77ESD)...CARBON                       | 82K  | 5% | 1/4W |  |
| R976    | 1-249-435-11 | (E77ESD)...CARBON                       | 33K  | 5% | 1/4W |  |
| R977    | 1-249-416-11 | (E77ESD)...CARBON                       | 820  | 5% | 1/4W |  |
| R978    | 1-249-423-11 | (E77ESD)...CARBON                       | 3.3K | 5% | 1/4W |  |
| R979    | 1-247-849-00 | (E77ESD)...CARBON                       | 5.6K | 5% | 1/4W |  |
| R980    | 1-249-423-11 | (E77ESD)...CARBON                       | 3.3K | 5% | 1/4W |  |
| R981    | 1-249-440-11 | (E77ESD)...CARBON                       | 82K  | 5% | 1/4W |  |
| R982    | 1-249-435-11 | (E77ESD)...CARBON                       | 33K  | 5% | 1/4W |  |
| R983    | 1-249-416-11 | (E77ESD)...CARBON                       | 820  | 5% | 1/4W |  |
| R984    | 1-249-423-11 | (E77ESD)...CARBON                       | 3.3K | 5% | 1/4W |  |
| R985    | 1-247-849-00 | (E77ESD)...CARBON                       | 5.6K | 5% | 1/4W |  |
| R986    | 1-249-423-11 | (E77ESD)...CARBON                       | 3.3K | 5% | 1/4W |  |
| RV101   | 1-237-851-11 | RES, VAR, CARBON 120K/120K (ATTENUATOR) |      |    |      |  |
| RV301   | 1-237-853-11 | RES, VAR, CARBON 150K/150K (BALANCE)    |      |    |      |  |
| RV302   | 1-237-854-11 | RES, VAR, CARBON 1MX2/500KX2 (BASS)     |      |    |      |  |
| RV303   | 1-237-852-11 | RES, VAR, CARBON 250K/250K (TREBLE)     |      |    |      |  |
| RV701   | 1-224-252-XX | (E77ESD)...RES, ADJ, METAL GLAZE 10K    |      |    |      |  |
| RY101   | 1-515-614-11 | (E77ESD)...RELAY                        |      |    |      |  |
| RY102   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY103   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY104   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY105   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY106   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY107   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY108   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY109   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY110   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY111   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY112   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY113   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY114   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY115   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY116   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY117   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY118   | 1-515-614-11 | RELAY                                   |      |    |      |  |
| RY119   | 1-515-614-11 | (E77ESD)...RELAY                        |      |    |      |  |
| RY601   | 1-515-493-00 | RELAY                                   |      |    |      |  |
| RY701   | 1-515-495-00 | (E77ESD)...RELAY                        |      |    |      |  |
| RY702   | 1-515-622-11 | (E77ESD)...RELAY                        |      |    |      |  |
| S101    | 1-554-879-11 | SWITCH, SLIDE (AUDIO REC SELECTOR)      |      |    |      |  |
| S102    | 1-571-243-11 | SWITCH, SLIDE (AUDIO REC SELECTOR)      |      |    |      |  |
| S103    | 1-571-240-11 | SWITCH, ROTARY (OUTPUT)                 |      |    |      |  |
| S201    | 1-554-019-00 | SWITCH, SLIDE (REMOTE TYPE)(CARTRIDGE)  |      |    |      |  |
| S301    | 1-571-242-11 | SWITCH, PUSH (2 KEY)(SUBSONIC, MODE)    |      |    |      |  |
| S302    | 1-570-029-11 | SWITCH, PUSH (1 KEY)(TURNOVER)          |      |    |      |  |
| S303    | 1-570-029-11 | SWITCH, PUSH (1 KEY)(TURNOVER)          |      |    |      |  |
| S601    | 1-554-303-21 | (E77ESD)...SWITCH, KEY BOARD(DIGITAL 1) |      |    |      |  |
| S602    | 1-554-303-21 | SWITCH, KEY BOARD (DIGITAL 2)           |      |    |      |  |
| S603    | 1-554-303-21 | SWITCH, KEY BOARD (PHONO)               |      |    |      |  |
| S604    | 1-554-303-21 | SWITCH, KEY BOARD (TUNER)               |      |    |      |  |
| S605    | 1-554-303-21 | SWITCH, KEY BOARD (CD)                  |      |    |      |  |

## ELECTRICAL PARTS

| Ref.No. | Part No.       | Description                                                |
|---------|----------------|------------------------------------------------------------|
| S606    | 1-554-303-21   | SWITCH, KEY BOARD (AUX)                                    |
| S607    | 1-554-303-21   | SWITCH, KEY BOARD (TAPE 1)                                 |
| S608    | 1-554-303-21   | SWITCH, KEY BOARD (TAPE 2)                                 |
| S609    | 1-554-303-21   | SWITCH, KEY BOARD (VIDEO 3)                                |
| S610    | 1-554-303-21   | SWITCH, KEY BOARD (VIDEO 2)                                |
| S611    | 1-554-303-21   | SWITCH, KEY BOARD (VIDEO 1)                                |
| S612    | 1-554-303-21   | SWITCH, KEY BOARD (ADAPTOR)                                |
| S613    | 1-554-303-21   | (E77ESD)...SWITCH, KEY BOARD (DAT)                         |
| S614    | 1-554-303-21   | SWITCH, KEY BOARD (SOURCE DIRECT)                          |
| S615    | 1-554-303-21   | SWITCH, KEY BOARD (MUTING -20dB)                           |
| S616    | 1-571-241-11   | SWITCH, PUSH (1 KEY)(POWER)                                |
| S951    | △ 1-570-046-21 | (AEP,UK,E)...SWITCH, VOLTAGE CHANGE<br>(VOLTAGE SELECTOR)  |
| T701    | 1-459-587-11   | (E77ESD)...COIL (WITH CORE)                                |
| T951    | △ 1-449-019-11 | (US,Canadian).....TRANSFORMER, POWER                       |
| T951    | △ 1-449-020-11 | (AEP,G-AEP,UK,E)...TRANSFORMER, POWER                      |
| T952    | △ 1-449-014-11 | TRANSFORMER, POWER                                         |
| TB101   | *1-508-880-00  | BASE POST, MCD CONNECTOR 6P                                |
| TB102   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB103   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB104   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB105   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB106   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB107   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB108   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB109   | *1-560-200-00  | BASE POST, MCD CONNECTOR 2P                                |
| TB401   | *1-535-115-00  | TERMINAL 2P                                                |
| TB402   | *1-535-116-00  | TERMINAL 3P                                                |
| TB403   | *1-535-116-00  | TERMINAL 3P                                                |
| TB601   | *1-535-139-00  | BASE POST 19MM (10MM PITCH) 2P                             |
| TB602   | *1-535-140-00  | (US,Canadian,AEP,UK,E)<br>...BASE POST 19MM(10MM PITCH) 3P |
| TB602   | *1-535-141-00  | (G-AEP)...BASE POST 19MM(10MM PITCH) 4P                    |
| TB604   | *1-535-115-00  | (US,Canadian,G-AEP)...TERMINAL 2P                          |
| TH701   | 1-800-200-00   | (E77ESD)...THERMISTOR S-3K                                 |
| X601    | 1-567-160-00   | OSCILLATOR, CERAMIC (4.19MHz)                              |

## ACCESSORY &amp; PACKING MATERIAL

| Part No.      | Description                                  |
|---------------|----------------------------------------------|
| 1-463-901-11  | (E77ES).....COMMANDER, REMOTE (RM-177)       |
| 1-463-902-11  | (AEP,G-AEP,UK)...COMMANDER, REMOTE (RM-177D) |
| 1-463-953-11  | (US,Canadian)....COMMANDER, REMOTE (RM-E7)   |
| 1-551-315-00  | CORD, CONNECTION (RK-112)                    |
| 1-557-817-11  | (E77ESD)...CORD, CONNECTION                  |
| *3-697-712-01 | SHEET, PROTECTION                            |
| 3-703-450-01  | INSTRUCTION                                  |
| 3-769-377-11  | MANUAL, INSTRUCTION                          |
| 4-922-201-01  | (E77ES)....INDIVIDUAL CARTON                 |
| 4-922-201-11  | (E77ESD)...INDIVIDUAL CARTON                 |
| 4-922-202-01  | CUSHION                                      |

The components identified  
by shading and mark △ are  
critical for safety.  
Replace only with part  
number specified.

Les composants identifiés par  
une trame et une marque △ sont  
critiques pour la sécurité.  
Ne les remplacer que par  
une pièce portant le numéro  
spécifié.

# TA-E77ES/E77ESD

## SONY<sup>®</sup> SERVICE MANUAL

*E Model*  
TA-E77ES

*US Model*  
*Canadian Model*  
*AEP Model*  
*UK Model*  
TA-E77ESD

## SUPPLEMENT-1

File this Supplement with the Service Manual.

Subject : BLOCK DIAGRAMS ADDITION

STEREO CONTROL AMPLIFIER  
**SONY<sup>®</sup>**

**AUD**



The diagram illustrates the R-CH (Right Channel) section of a digital receiver. Key components and their functions include:

- Digital Inputs:** J701 (DIGITAL IN 1), J702-1 (DIGITAL IN 2), J703 (DAT DIGITAL OUT), J702-2 (DAT DIGITAL IN).
- Input Selection:** IC701 and IC702 handle the initial signal routing.
- Edge Detection:** IC705 is used for edge detection.
- Latching:** IC710 (1/2), IC720 (1/2), IC721 (1/2), and IC722 (1/2) are used for data latching.
- Data Demodulation:** IC718 is the data demodulator.
- Digital Filtering:** IC719 is the digital filter.
- D/A Conversion:** IC801 is the D/A converter.
- Line Amplification:** IC802 (1/2) is the line amp.
- Frequency Division:** IC508 (FREQUENCY DIVIDER), IC714 (1/3 FREQUENCY DIVIDER), and IC715 (FREQUENCY DIVIDER) are used for frequency division.
- Control and Timing:** IC706 (2FS PROCEDURE), IC711 (FS DET), and IC717 (1/3) INVERTER are used for control and timing.
- Relay Drive:** Q701, Q702, Q704, and Q705 are used for relay drive.
- Lowpass Filtering:** IC802, 803 (LOWPASS FILTER) is used for lowpass filtering.

The circuit is powered by B+ and includes various passive components like resistors and capacitors. The output is connected to a control amp section.

The schematic diagram illustrates a Hi-Fi system with the following main sections:

- Audio Section:** Includes an EQ input amp (IC201), a constant current source (Q203-205), and an EQ output amp (IC201). It features a phono input (J101-1) and a tuner input (J102-1). The audio path includes a differential stage amp (Q104), a differential amp (Q105, 106), a driver (Q109, 110), and a headphone amp (IC101). It also includes a bass control (RV302, S302) and a treble control (RV303, S303).
- Video Section:** Includes a video selector (IC501), a video amp (Q501-503), a video switch (Q504), and a video amp (IC952). It features a video 1/2/3 select switch (IC501) and a video 1/2 select switch (IC951).
- System Control Section:** Includes a system control IC (IC603), a remote command detector (IC611), a motor drive (IC610), and a relay driver (IC609). It features a main power on/off switch (S616) and a key in/key out switch (S601-615).
- Power Supply Section:** Includes a power transformer (T951, T952), a power relay drive (Q603, 604), and a power off detector (IC602/1/2, Q601). It features a 5V regulator (IC454), a -5.2V regulator (IC407), a 18.5V regulator (IC401/1/2, Q401, 402), a 12.5V regulator (IC406), a -19V regulator (IC401/1/2, Q451, 452), a -13V regulator (IC451), a -5.4V regulator (IC453), a 13V regulator (IC404), and a 5.3V regulator (IC405).

The diagram also shows various connectors (J101-1, J102-1, J103-1, J104-1, J105-1, J106-1, J106-3, J110, J501-1, J502-1, J503-1, J551, J552, J553, J554) and relays (RY101-110, RY111, RY112, RY113, RY114, RY115, RY116, RY117, RY118, RY601).





# TA-E77ES/E77ESD

## SONY SERVICE MANUAL

### SUPPLEMENT-2

File this supplement with the service manual.

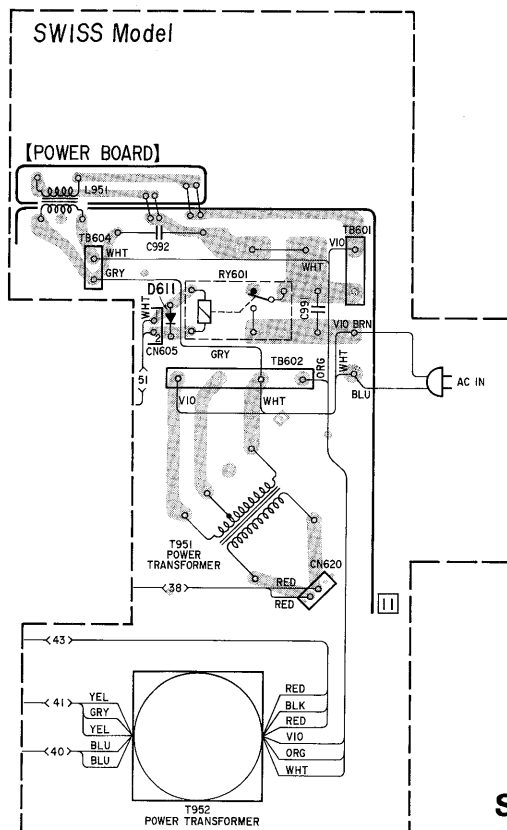
Subject : Swiss model addition

*E Model*  
TA-E77ES  
*US Model*  
*Canadian Model*  
*AEP Model*  
*UK Model*  
TA-E77ESD

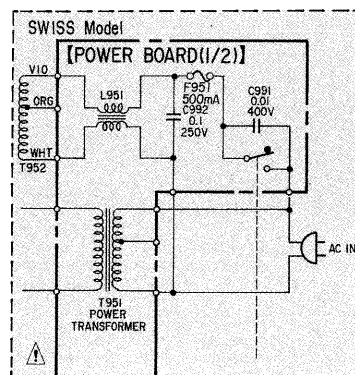
- As only the following parts are different from AEP model, refer to TA-E77ES/E77ESD service manual (Part No. 9-952-909-11) and correction-1 (9-952-909-91) for the other information.

| No. or Ref.No | Description              | Part No.      |               |
|---------------|--------------------------|---------------|---------------|
|               |                          | Swiss model   | AEP model     |
| 119           | LABEL, MODEL NUMBER      | *4-922-206-11 | *4-922-206-01 |
| 153           | HEAT SINK                | *4-886-555-01 | *3-309-144-01 |
| 155           | PANEL, BACK              | *4-922-240-11 | *4-922-240-01 |
| 169           | LABEL, FUSE              | *3-701-947-08 | none          |
| 933           | HOLDER, FUSE             | 1-533-183-11  | none          |
| F951          | FUSE, TIME-LAG (500mA)   | △1-532-279-00 | none          |
| C992          | FILM 0.1MF 20% 25V       | △1-136-472-11 | none          |
| L951          | TRANSFORMER, LINE FILTER | △1-421-960-11 | none          |
|               | INSTRUCTIONS             | 3-776-003-11  | none          |

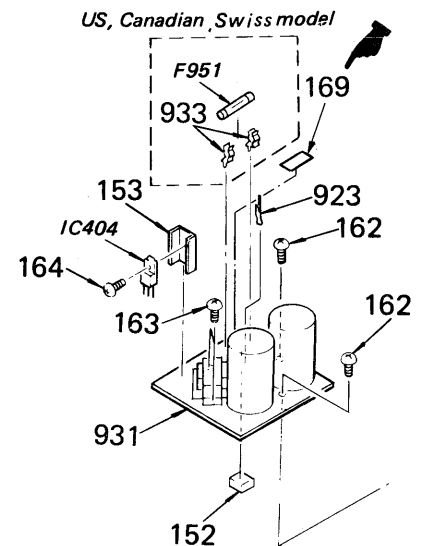
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Sony Corporation  
Audio Group

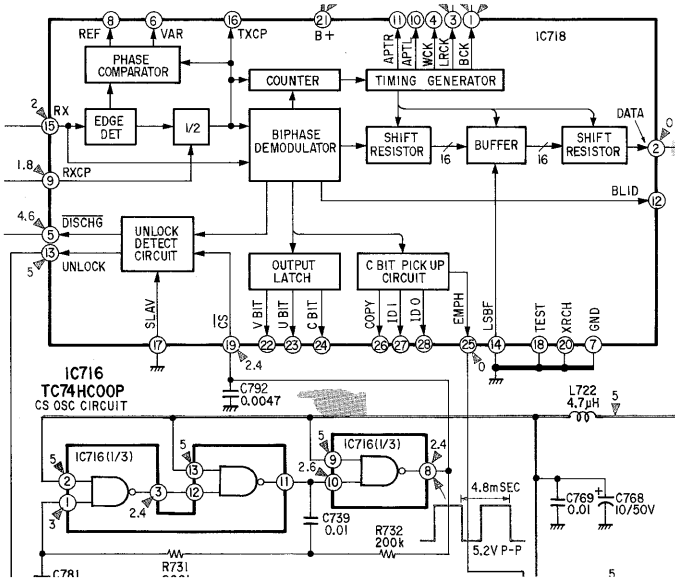
9-952-909-82

English  
88A0213-1  
Printed in Japan  
© 1988. 1

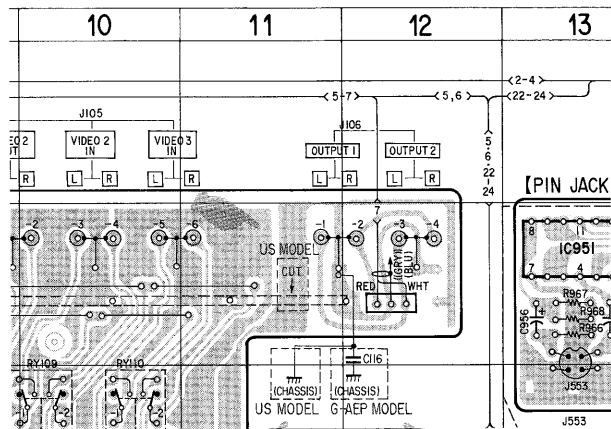
AUD



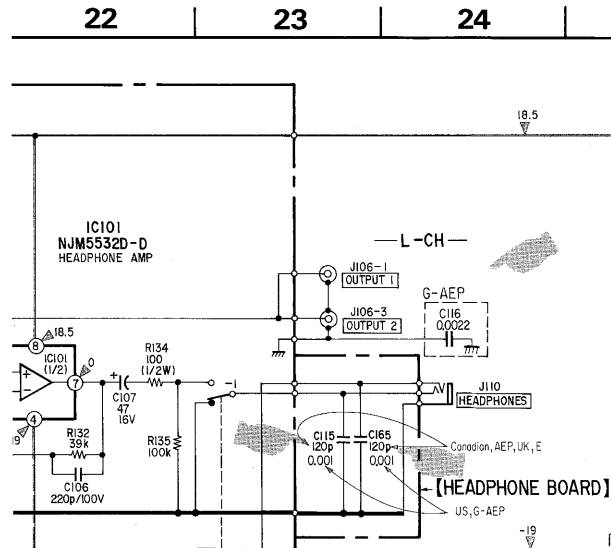
Page 18



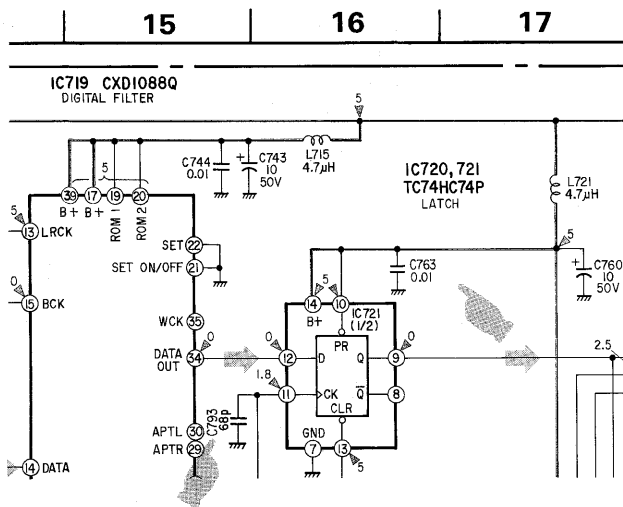
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## CORRECTED OR ADDED PARTS

under line : corrected or added portion

| Page | Ref.No          | Part No                   | Description              |         |                 |     |      |
|------|-----------------|---------------------------|--------------------------|---------|-----------------|-----|------|
| 36   | 925             | *1-623-848-11             | PC BOARD,SIRCS           |         |                 |     |      |
| 37   | 925             | *1-623-848-11             | PC BOARD,SIRCS           |         |                 |     |      |
| 37   | C115            | 1-162-283-31              | (Canadian,AEP,UK,E)..... | CERAMIC | 120pF           | 10% | 50   |
| 37   | C115            | 1-162-294-31              | (US,G-AEP).....          | CERAMIC | 0.001 $\mu$ F   | 10% | 50v  |
| 37   | C116            | 1-161-275-00              | (G-AEP).....             | CERAMIC | 0.0022 $\mu$ F  | 30% | 16V  |
| 37   | C165            | 1-162-283-31              | (Canadian,AEP,UK,E)..... | CERAMIC | 120pF           | 10% | 50V  |
| 37   | C165            | 1-162-294-31              | (US,G-AEP).....          | CERAMIC | 0.001 $\mu$ F   | 10% | 50V  |
| 37   | C221            | 1-123-333-00              | ELECT                    |         | 100 $\mu$ F     | 20% | 25V  |
| 37   | C271            | 1-123-333-00              | ELECT                    |         | 100 $\mu$ F     | 20% | 25V  |
| 39   | <del>C793</del> | 1-136-153-00              | (E77ESD).....            | FILM    | 0.01 $\mu$ F    | 5%  | 50V  |
|      |                 | <u>C763</u>               |                          |         |                 |     |      |
| 39   | <del>C794</del> | 1-162-219-31              | (E77ESD).....            | CERAMIC | 68pF            | 5%  | 50v  |
|      |                 | <u>C793</u>               |                          |         |                 |     |      |
| 39   | C799            | 1-161-375-00              | (E77ESD).....            | ELECT   | 0.0022 $\mu$ F  | 30% | 16V  |
| 40   | D201            | 8-719-940-76              | DIODE                    |         | 1SS132          |     |      |
| 40   | D251            | 8-719-940-76              | DIODE                    |         | 1SS132          |     |      |
| 41   | IC602           | 8-759- <del>113-52</del>  | IC UPD75104CW-078        |         |                 |     |      |
|      |                 | <u>8-759-140-65</u>       |                          |         |                 |     |      |
| 43   | R220            | 1-247- <del>786</del> -11 | (G-AEP).....             | CARBON  | <del>380</del>  | 5%  | 1/4W |
|      |                 | <u>1-247-712-11</u>       |                          |         | <u>820</u>      |     |      |
| 43   | R221            | 1-247- <del>786</del> -11 | (G-AEP).....             | CARBON  | <del>380</del>  | 5%  | 1/4W |
|      |                 | <u>1-247-712-11</u>       |                          |         | <u>820</u>      |     |      |
| 43   | R270            | 1-247- <del>786</del> -11 | (G-AEP).....             | CARBON  | <del>380</del>  | 5%  | 1/4W |
|      |                 | <u>1-247-712-11</u>       |                          |         | <u>820</u>      |     |      |
| 43   | R271            | 1-247- <del>786</del> -11 | (G-AEP).....             | CARBON  | <del>380</del>  | 5%  | 1/4W |
|      |                 | <u>1-247-712-11</u>       |                          |         | <u>820</u>      |     |      |
| 44   | R721            | <del>1-249-425-00</del>   | (E77ESD).....            | CARBON  | <del>4.7K</del> | 5%  | 1/4W |
|      |                 | <u>1-215-432-00</u>       |                          |         | <u>3K</u>       |     |      |
| 45   | R737            | 1-249- <del>487</del> -11 | (E77ESD).....            | CARBON  | <del>180</del>  | 5%  | 1/4W |
|      |                 | <u>1-249-409-11</u>       |                          |         | <u>220</u>      |     |      |

## ACCESSORY &amp; PACKING MATERIAL

|        |              |                       |                            |
|--------|--------------|-----------------------|----------------------------|
| Page46 | 3-704-112-01 | (AEP,G-AEP,UK,E)..... | LID,REMOTE COMMANDER       |
|        |              |                       | (for RM-177/177D)          |
|        | 4-922-048-01 | (US,Canadian).....    | COVER, BATTERY (for RM-E7) |
|        | 4-922-254-01 | (US,Canadian).....    | LID ASSY,UPPER (for RM-E7) |
|        | 4-922-255-01 | (US,Canadian).....    | PLATE (for RM-E7)          |



# TA-E77ES/E77ESD

## SONY<sup>®</sup> SERVICE MANUAL

*E Model*

TA-E77ES

*US Model*

*Canadian Model*

*AEP Model*

*UK Model*

TA-E77ESD

### CORRECTION-2

Correct your service manual as shown below.

| Page | INCORRECT       |                 |                    | CORRECT         |                    |
|------|-----------------|-----------------|--------------------|-----------------|--------------------|
|      | <u>Ref. No.</u> | <u>Part No.</u> | <u>Description</u> | <u>Part No.</u> | <u>Description</u> |
| 41   | IC607           | 8-759-008-95    | IC MC14028BF       | 8-759-000-36    | IC MC14028BCP      |