

SRS-68

SERVICE MANUAL

US Model
Canadian Model
AEP Model
E Model
Tourist Model



SPECIFICATIONS

Amplifier section

Power output 5 W + 5 W with the internal batteries
Input Speaker cord equipped with stereo miniplug (1.5 m)
Input impedance 150 ohms (at 1 kHz, with the POWER switch set to OFF/DIRECT)
Output Minijack

Speaker section

System Full-range, bass-reflex enclosure type
Speaker unit Full range (magnetically shielded): $\phi 65$ mm ($\phi 2\frac{5}{8}$ in.)
Impedance 4 ohms
Rated input power 5 W (with the POWER switch set to OFF/DIRECT)

General

Power requirements

External power requirements DC IN 9 V jack accepts the supplied Sony AC power adaptor.

Internal power requirements

Battery life (at 10 mW + 10 mW output) DC 9 V, six R6 (size AA) batteries per speaker

Approx. 20 hours with Sony batteries SUM-3 (NS)
Approx. 40 hours with Sony alkaline batteries AM3 (N)
Dimensions Approx. 138 x 222 x 84 mm (w/h/d)
($5\frac{1}{2}$ x $8\frac{3}{4}$ x $3\frac{3}{8}$ in.)

Weight incl. projecting parts and controls
Approx. 800 g (28.2 oz.) per speaker, not incl. batteries or other accessories

Supplied accessories

AC power adaptor (1)
AC plug adaptor (E, Tourist models)
Plug adaptor (1)
Rubber cushions (4)
Screws (2)

Optional accessories

Connecting cord RK-G138
Plug adaptor PC-236MS

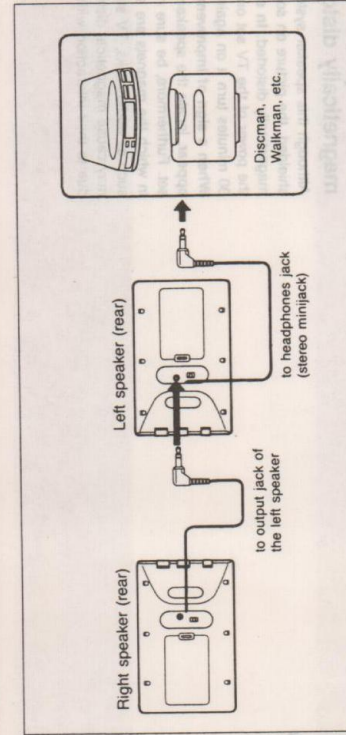
Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

STEREO ACTIVE SPEAKER SYSTEM
SONY

Connections

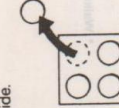


Connection to a stereo phone-type headphones jack
Use the supplied plug adaptor or RK-G138 connecting cord.

The sound of a left channel is heard from the speaker connected to the sound source. Be sure to place it on the left.
No signal is output from the output jack of the right speaker.

For Stability of the Speaker Unit

Attach the supplied rubber cushions on the bottom or the side.



The SONY logo plates on the speakers can be rotated in order to match the way the speakers are placed.

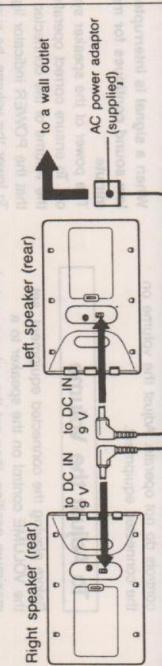
When Carrying the Speakers

Be sure to insert the speaker cord plug into the jack. Otherwise, the plug may contact metallic objects, and the power may turn on automatically, causing the internal batteries being exhausted.

Power Requirements

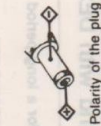
The power source is required when the unit is used with the POWER switch set to ON (the built-in power amplifier is in operation).

Using on House Current



When the AC power adaptor is connected to the unit, internal batteries are automatically disconnected.
Set the POWER switches of both speakers to ON when using on house current. If you turn on only one speaker, you may hear some noise.

Note on the AC power adaptor
Use only the supplied AC power adaptor. Do not use any other AC power adaptor.



Using on Batteries (not supplied)



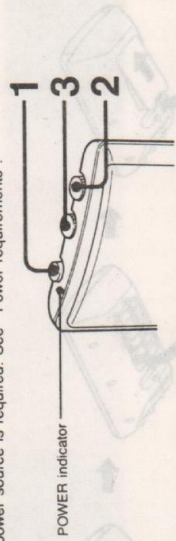
Battery replacement
When the batteries are weak, the POWER indicator will glow faintly and the sound will become distorted or unstable. In this case, replace all the batteries with new ones. For battery life, see "Specifications".

This section is extracted from instruction manual.

Operation

Using the Built-in Amplifier

The power source is required. See "power requirements".



- 1 Depress the POWER switch on each speaker to ON.**
- 2 Adjust the volume with the VOLUME control on each speaker.**

When a signal is supplied, the power will be turned on automatically and the POWER indicator will light up.

- 3 Adjust the sound with DES control on each speaker.**

When the unit is not used for a long period of time
Set the POWER switches to OFF/DIRECT.

Using without the Built-in Amplifier

Power sources are not required.
Set the POWER switches to OFF/DIRECT. In this case, the VOLUME controls and the DES controls do not operate. Adjust the volume on the connected equipment.

To Adjust the Volume

Before playing the connected equipment, set the VOLUME control on the speaker to a maximum position, then set the volume control on the connected equipment to a medium position. Start playing the connected equipment and adjust the volume to your preference: use the VOLUME control on the speaker to turn down the volume, or use the volume control on the connected equipment to turn up the volume.

Power On/Off System of the Built-in Amplifier

When a signal is input, the built-in amplifier automatically turns on and the POWER indicator lights up.

When no signal is supplied, the POWER indicator goes out and the built-in power amplifier turns off automatically about one minute later.

When a signal is interrupted or extremely low sound continues for more than a minute

The power of the speaker system may turn off. To ensure correct operation, increase the volume of the connected equipment so that the POWER indicator lights up.
To lower the volume, be sure to use the VOLUME control of the speaker system.

For powerful bass and clear treble

Turn the DES control clockwise to obtain powerful bass and clear treble. When turning up the VOLUME control while keeping the DES control in a maximum position, low sound distortion may occur. In this case, turn the DES control counterclockwise.

Features

- The Sony SRS-68 is a compact-sized speaker system with a built-in power amplifier. It can be connected to a Discman, Walkman*, etc.
- DES (Dynamic Equalizing Sound) circuit enables you to obtain powerful bass and clear treble, regardless of the volume setting.
- The "dynamic sound duct" assures a rich and powerful bass.
- The magnetically shielded unit has little effect on a TV screen or recorded tapes, etc. placed near the unit.
- Each speaker can be set both vertically and horizontally, and on the wall as well.
- The built-in automatic power on/off system avoids unnecessary power consumption.
- Walkman is a trademark of Sony Corporation.

Precautions

- Operate the unit only on 9V DC. For AC operation, use the supplied AC power adaptor. Do not use any other AC power adaptor.
- If the unit is not to be used for a long period of time or is to be operated extensively on AC power, remove the batteries to avoid damage from battery leakage and corrosion.
- Do not open the cabinet. Refer servicing to qualified personnel only.
- Do not leave the unit in a location near heat sources, or in a place subject to direct sunlight, excessive dust, moisture, rain or mechanical shock.
- Should any solid object or liquid fall into the unit, remove the batteries and have the unit checked by qualified personnel before operating it any further.
- Do not use alcohol, benzine or thinner to clean the cabinet.
- Although this speaker system is magnetically shielded, do not leave recorded tapes, watches, personal credit cards or floppy disks using magnetic coding in front of the unit for an extended period of time for precaution.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult the nearest Sony dealer.

If the TV picture is magnetically distorted

Although this speaker system is magnetically shielded, the picture on some TV sets may be magnetically distorted. In such a case, turn off the power of the TV set once, and after 15 to 30 minutes turn it on again.

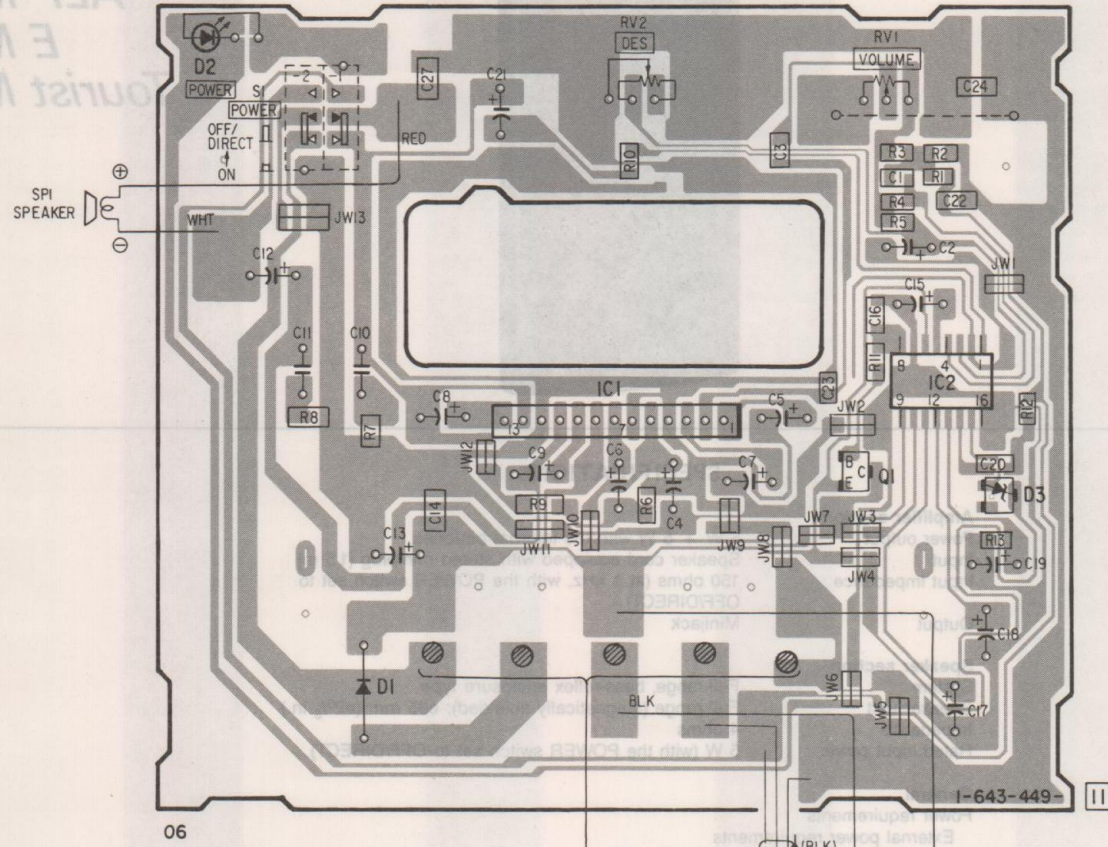
When a sign of improvement does not appear

locate the speakers away from the TV set. Furthermore, be sure not to place things in which the magnets are attached or used, such as audio racks, TV stands, toys. These may cause magnetical distortion in the picture due to their interaction with the speaker.

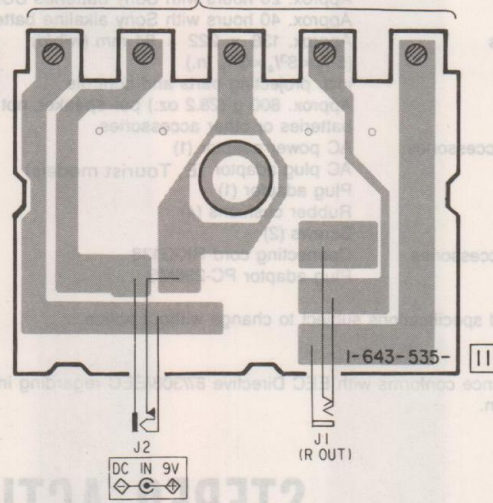
SECTION 2 DIAGRAMS

2-1. PRINTED WIRING BOARDS

[AMPLIFIER BOARD]



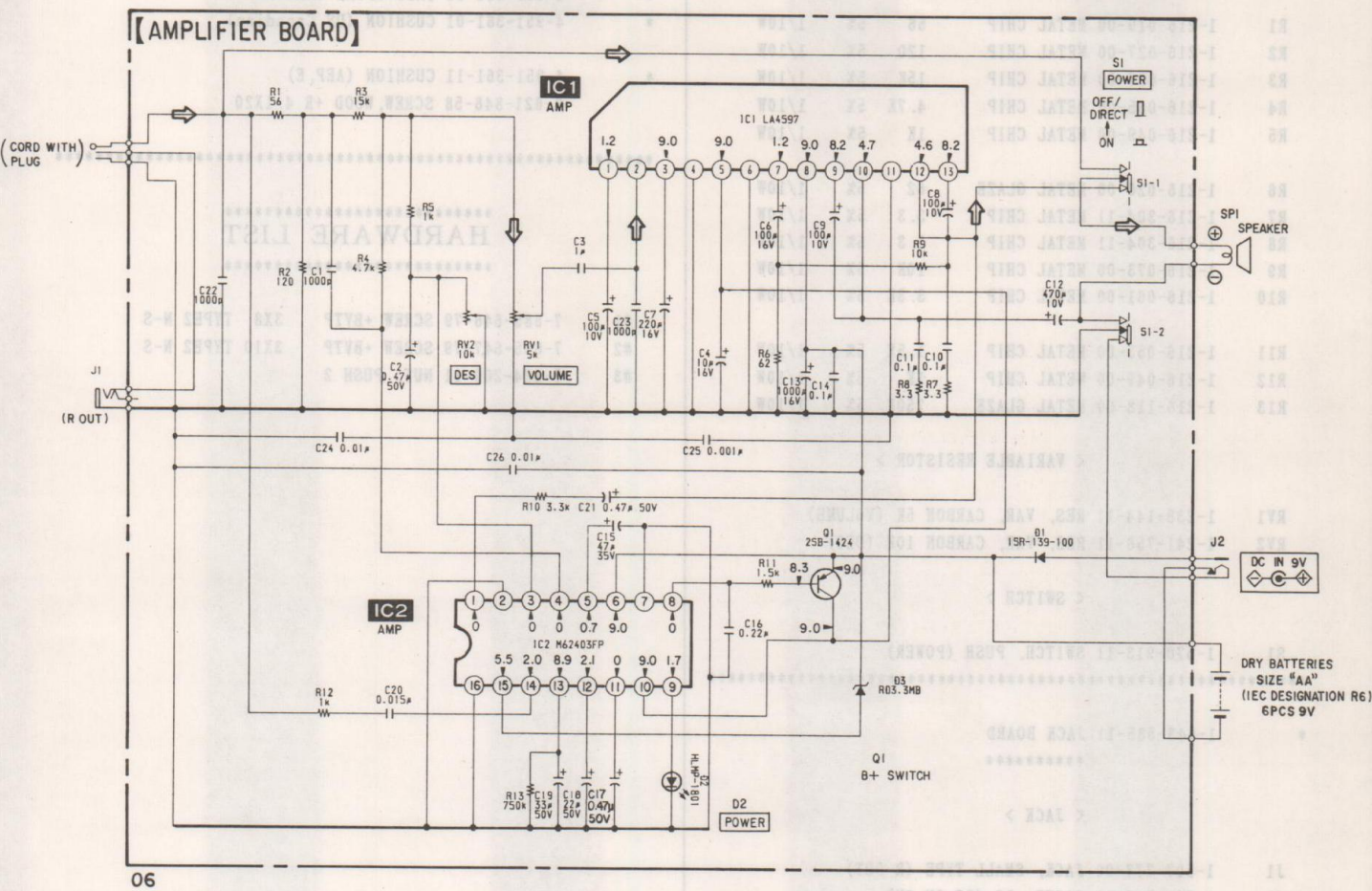
[JACK BOARD]



Note:

- ○ : parts extracted from the component side.

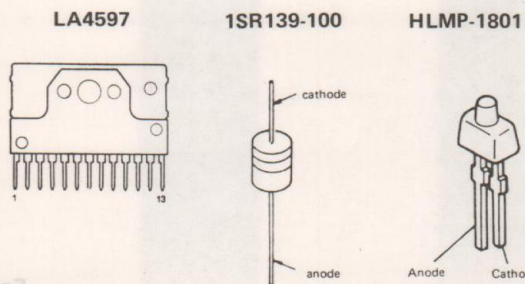
2-2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- **B+** : B+ line.
- Power voltage is dc 9V and fed with regulated dc power supply from battery terminal.
no mark: Power on.
- Voltages are taken with a VOM. (Input impedance $10\text{M}\Omega$)
Voltage variations may be noted due to normal production tolerances.
- Signal path.
⇒ : Signal line

2-3. SEMICONDUCTOR LEAD LAYOUTS



SECTION 3 EXPLODED VIEW

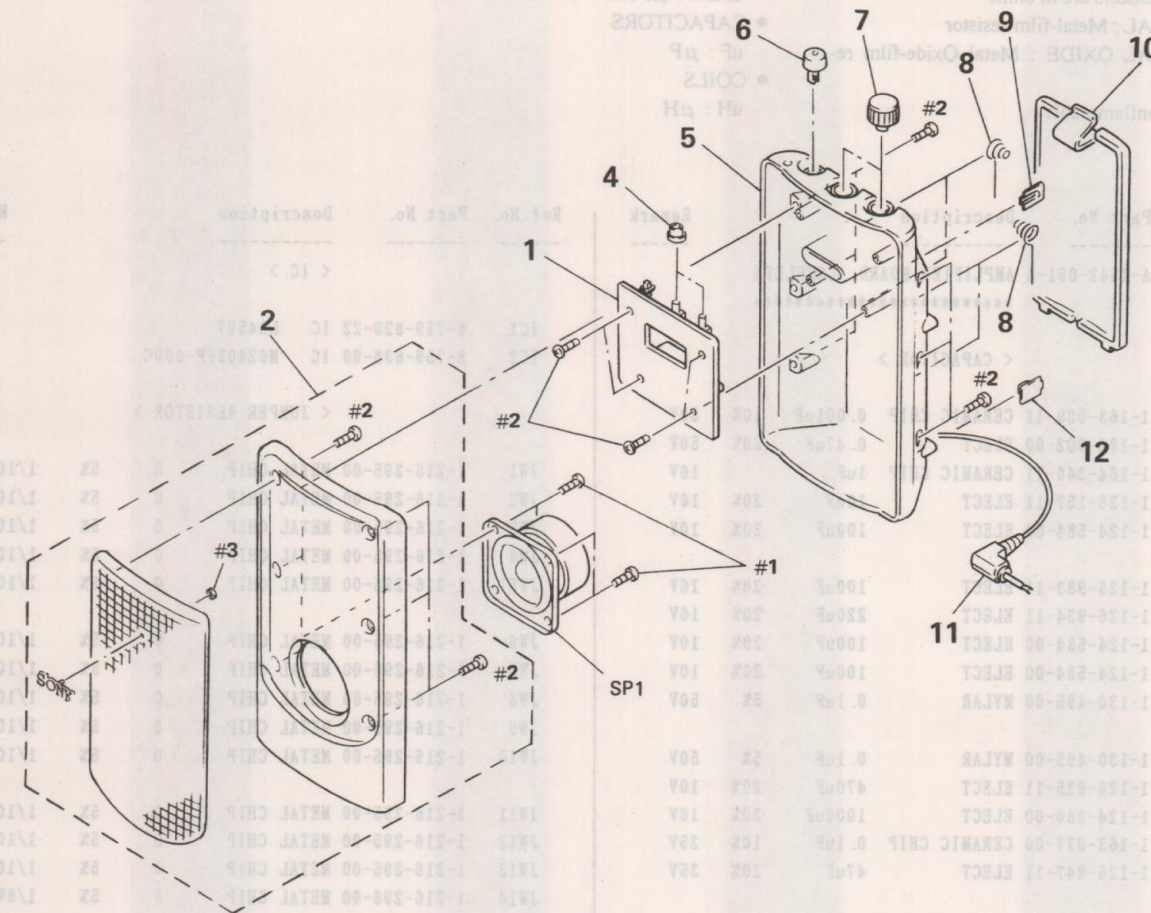
NOTE:

- -XX,-X mean standardized parts, so they may have some difference from original one.
- Color indication of Appearance Parts.
Example:
KNOB, BALANCE (WHITE) ... (RED)

Parts Color
Cabinet's Color

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

3-1. GENERAL SECTION



Ref. No.	Part No.	Description	Remark
* 1	A-4542-091-A	AMPLIFIER BOARD, COMPLETE	
2	X-4942-694-1	CABINET ASSY, FRONT	
4	2-141-216-01	SPACER (VOL)	
5	4-950-726-01	CABINET, REAR	
6	4-950-728-01	BUTTON (PUSH)	
7	4-950-729-01	KNOB (VOL)	

Ref. No.	Part No.	Description	Remark
8	3-895-784-01	SPRING	
9	4-941-496-01	TERMINAL, BATTERY	
10	4-950-727-01	COVER, BATTERY	
11	1-559-892-11	CORD (WITH PLUG)	
12	4-941-495-01	SPRING (1), BATTERY	
SP1	1-544-636-11	SPEAKER	

AMPLIFIER

AMPLIFIER JACK

**SECTION 4
ELECTRICAL PARTS LIST**

NOTE:

- Due to standardization, replacements in the parts list may be different from the part specified in the diagrams or the components used on the set.
- -XX,-X mean standardized parts, so they may have some difference from original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA... : μ A..., uPA... : μ PA...,
uPB... : μ PB..., uPC... : μ PC...,
uPD... : μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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

Ref. No.	Part No.	Description	Remark
*	A-4542-091-A	AMPLIFIER BOARD, COMPLETE	

< CAPACITOR >			
C1	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C2	1-124-902-00	ELECT 0.47uF 20% 50V	
C3	1-164-346-11	CERAMIC CHIP 1uF 16V	
C4	1-126-157-11	ELECT 10uF 20% 16V	
C5	1-124-584-00	ELECT 100uF 20% 10V	
C6	1-126-933-11	ELECT 100uF 20% 16V	
C7	1-126-934-11	ELECT 220uF 20% 16V	
C8	1-124-584-00	ELECT 100uF 20% 10V	
C9	1-124-584-00	ELECT 100uF 20% 10V	
C10	1-130-495-00	MYLAR 0.1uF 5% 50V	
C11	1-130-495-00	MYLAR 0.1uF 5% 50V	
C12	1-126-925-11	ELECT 470uF 20% 10V	
C13	1-124-360-00	ELECT 1000uF 20% 16V	
C14	1-163-077-00	CERAMIC CHIP 0.1uF 10% 25V	
C15	1-126-947-11	ELECT 47uF 20% 35V	
C16	1-163-081-00	CERAMIC CHIP 0.22uF 25V	
C17	1-124-902-00	ELECT 0.47uF 20% 50V	
C18	1-126-233-11	ELECT 22uF 20% 50V	
C19	1-126-966-11	ELECT 33uF 20% 50V	
C20	1-163-023-00	CERAMIC CHIP 0.015uF 5% 50V	
C21	1-124-902-00	ELECT 0.47uF 20% 50V	
C22	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C23	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C24	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
< DIODE >			
D1	8-719-974-59	DIODE 1SR139-100	
D2	8-719-023-84	LED HLMP-1801 (POWER)	
D3	8-719-157-11	DIODE RD3.3MBT2	

Ref. No.	Part No.	Description	Remark
< IC >			
IC1	8-759-820-22	IC LA4597	
IC2	8-759-636-90	IC M62403FP-600C	
< JUMPER RESISTOR >			
JW1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW3	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW5	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW6	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW7	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW8	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW9	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW10	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW11	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW12	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW13	1-216-295-00	METAL CHIP 0 5% 1/10W	
JW14	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW15	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW16	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW17	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW18	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW19	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW20	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW21	1-216-296-00	METAL CHIP 0 5% 1/8W	
JW22	1-216-296-00	METAL CHIP 0 5% 1/8W	
< TRANSISTOR >			
Q1	8-729-926-86	TRANSISTOR 2SB1424-R	

Ref. No.	Part No.	Description	Remark
< RESISTOR >			
R1	1-216-019-00	METAL CHIP 56 5% 1/10W	
R2	1-216-027-00	METAL CHIP 120 5% 1/10W	
R3	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R4	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R5	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R6	1-216-020-00	METAL GLAZE 62 5% 1/10W	
R7	1-216-304-11	METAL CHIP 3.3 5% 1/10W	
R8	1-216-304-11	METAL CHIP 3.3 5% 1/10W	
R9	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R10	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R11	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R12	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R13	1-216-118-00	METAL GLAZE 750K 5% 1/10W	
< VARIABLE RESISTOR >			
RV1	1-238-144-11	RES, VAR, CARBON 5K (VOLUME)	
RV2	1-241-756-11	RES, VAR, CARBON 10K (DES)	
< SWITCH >			
S1	1-570-913-11	SWITCH, PUSH (POWER)	

*	1-643-535-11	JACK BOARD	

< JACK >			
J1	1-507-777-00	JACK, SMALL TYPE (R OUT)	
J2	1-569-966-11	JACK, DC (DC IN 9V)	

MISCELLANEOUS			

11	1-559-892-11	CORD (WITH PLUG)	
SP1	1-544-636-11	SPEAKER	

ACCESSORIES & PACKING MATERIALS			

	1-465-994-11	ADAPTOR, AC (AC-S196) (US, Canadian)	
	1-465-995-11	ADAPTOR, AC (AC-S196) (AEP)	
	1-465-996-11	ADAPTOR, AC (AC-S196) (E)	
	1-566-410-21	ADAPTOR, PLUG	
	1-569-008-11	ADAPTER, CONVERSION 2P (E)	
	2-129-637-01	STOPPER	
	3-754-809-11	MANUAL, INSTRUCTION (Canadian, AEP, E) (ENGLISH, FRENCH, GERMAN, SPANISH, ITALIAN, PORTUGUESE, DANISH, FINNISH)	

Ref. No.	Part No.	Description	Remark
	3-754-809-21	MANUAL, INSTRUCTION (US) (ENGLISH)	
*	4-951-360-01	INDIVIDUAL CARTON	
*	4-951-361-01	CUSHION (US, Canadian)	
*	4-951-361-11	CUSHION (AEP, E)	
	7-621-846-58	SCREW, WOOD +R 4.1X20	

***** HARDWARE LIST *****			
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-624-200-11	NUT, PUSH 2	