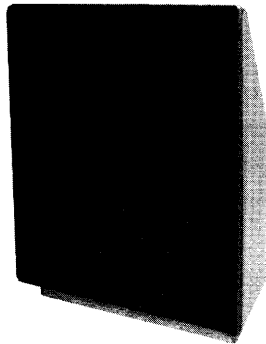


SA-ED1

SERVICE MANUAL

Ver 1.1 2001.06

*US Model
Canadian Model
AEP Model
UK Model
E Model*



This set is the speaker system in CMT-ED1.

SPECIFICATIONS

Speaker system	Full range, active MFB
Speaker units:	10 cm dia., cone type
Rated impedance	4 ohms
Dimensions (w/h/d)	Approx. 195 x 205 x 120 mm (7 ³ / ₄ x 8 ¹ / ₈ x 4 ³ / ₄ in)
Mass	Approx. 1.5 kg (3 lb 7 oz.) net per speaker

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle 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 MARQUE \triangle 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.

SPEAKER SYSTEM

Service Note

As the power supply is not on-board for this unit, it cannot be operated by itself.

Connect this unit to HCD-ED1 for servicing.

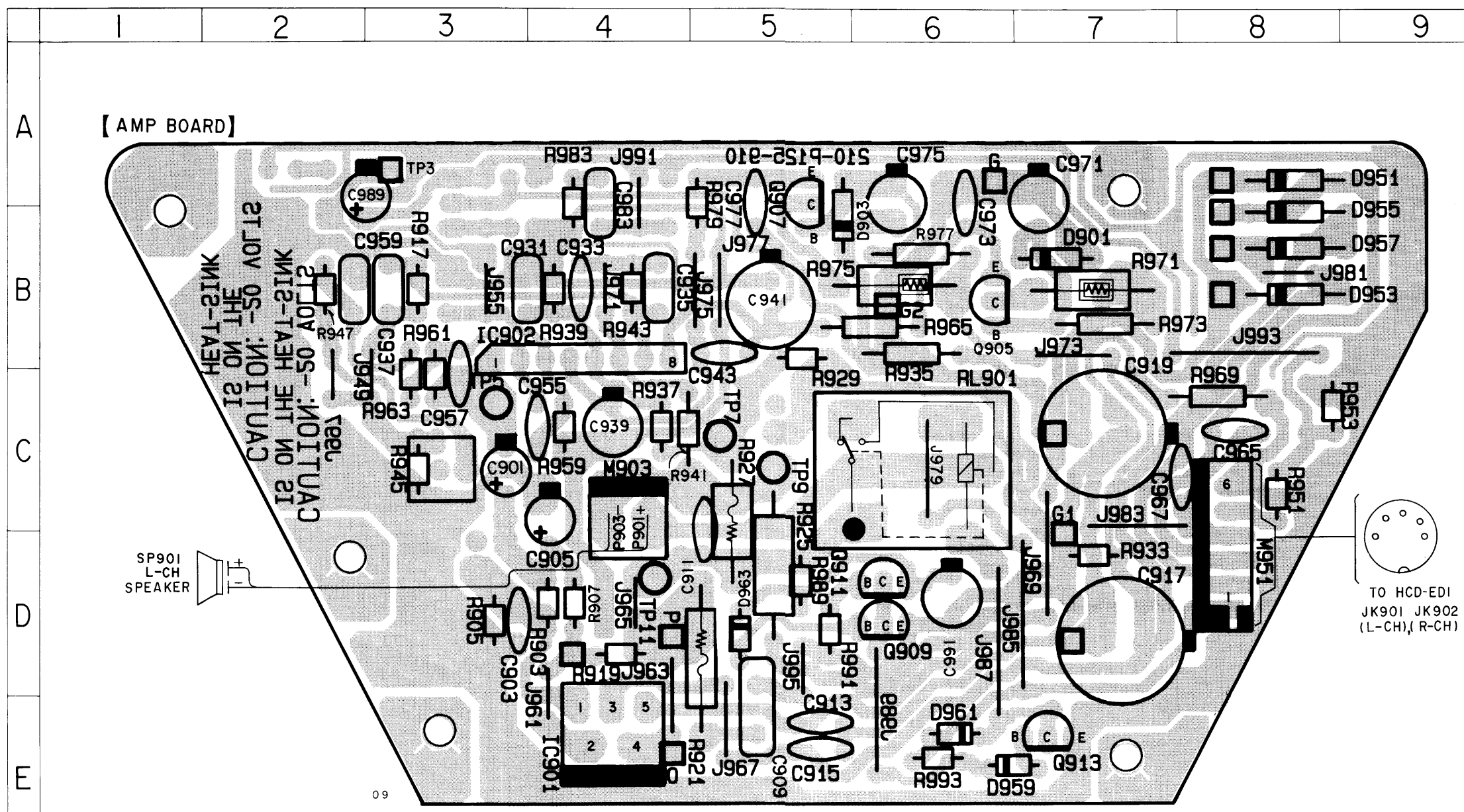
The measurement value of voltage mentioned in this manual is that when this unit is connected to HCD-ED1.

SECTION 1
DIAGRAMS

1-1. PRINTED WIRING BOARD

• Semiconductor Location

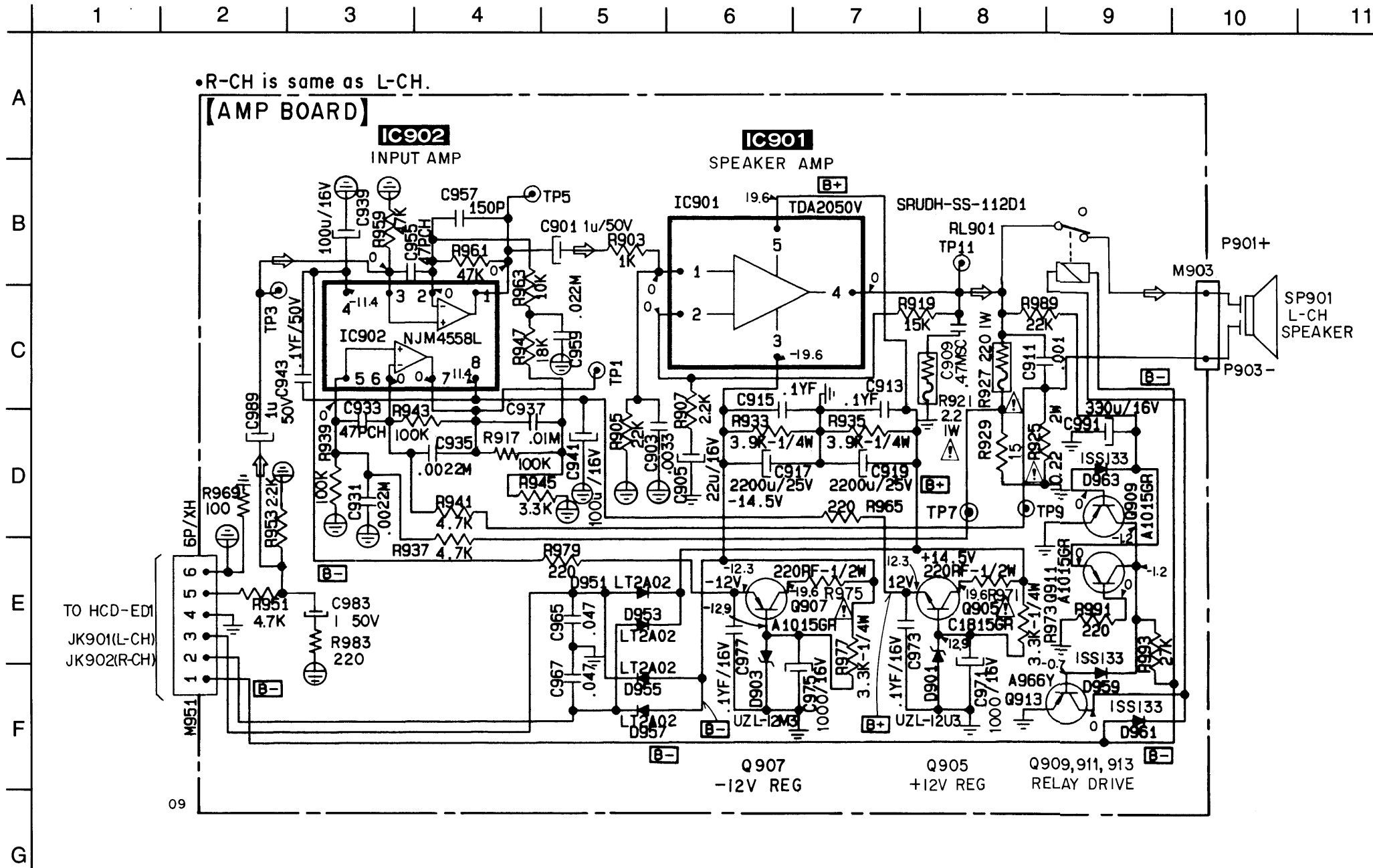
Ref. No.	Location
D901	B-7
D903	B-5
D951	A-8
D953	B-8
D955	B-8
D957	B-8
D959	E-6
D961	E-6
D963	D-5
IC901	E-4
IC902	B-4
Q905	B-6
Q907	A-5
Q909	D-6
Q911	D-6
Q913	E-7



Note:

- : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.

1-2. SCHEMATIC DIAGRAM



•R-CH is same as L-CH.

[AMP BOARD]

IC902
INPUT AMP

IC901
SPEAKER AMP

SP901
L-CH
SPEAKER

TO HCD-ED1
JK901(L-CH)
JK902(R-CH)

- Note:**
- All capacitors are in μF unless otherwise noted. pF: μF 50VV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and 1/4W or less unless otherwise specified.
 - .XX, .XYF and .XXXMSC mean 0.XXX μF in the constant display of capacitors.
 - --- : fusible resistor
 - The name if transistor type is simplified as below:
2SA1015GR \rightarrow A1015GR
2SA966Y \rightarrow A966Y
2SC1815GR \rightarrow C1815GR
 - B+ : B+ Line
 B- : B- Line
 - Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - Voltages are taken with a VOM (Input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
 - Ground (GND) mark
 \oplus : Signal GND
 \oplus : Power GND
 - Signal path.
 \Rightarrow : AUDIO

<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

SECTION 3 ELECTRICAL PARTS LIST

AMP

Note:

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

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- CAPACITORS
uF : μ F

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4407-237-A	AMP BOARD, COMPLETE *****				< IC >	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		IC901	8-759-988-94	IC TDA2050	
		< CAPACITOR >		IC902	8-759-505-55	IC NJM4558L	
C901	1-126-964-11	ELECT	10uF 20% 50V			< CONNECTOR >	
C903	1-102-123-00	CERAMIC	0.0033uF 10% 50V	* M951	1-506-947-11	PIN, CONNECTOR 6P	
C905	1-127-499-00	ELECT(SOLID)	22uF 20% 16V			< TRANSISTOR >	
C909	1-136-173-00	FILM	0.47uF 5% 50V	Q905	8-729-281-53	TRANSISTOR 2SC1815-GR	
C911	1-102-074-00	CERAMIC	0.001uF 10% 50V	Q907	8-729-201-53	TRANSISTOR 2SA1015-GR	
C913	1-161-772-11	CERAMIC	0.1uF 10% 25V	Q909	8-729-201-53	TRANSISTOR 2SA1015-GR	
C915	1-161-772-11	CERAMIC	0.1uF 10% 25V	Q911	8-729-201-53	TRANSISTOR 2SA1015-GR	
C917	1-126-943-11	ELECT	2200uF 20% 25V	Q913	8-729-200-36	TRANSISTOR 2SA966-Y	
C919	1-126-943-11	ELECT	2200uF 20% 25V			< RESISTOR >	
C931	1-130-475-00	MYLAR	0.0022uF 5% 50V	R903	1-249-417-11	CARBON 1K 5% 1/4W F	
C933	1-102-852-91	CERAMIC	47PF 5% 50V	R905	1-247-863-91	CARBON 22K 5% 1/4W	
C935	1-130-475-00	MYLAR	0.0022uF 5% 50V	R907	1-249-421-11	CARBON 2.2K 5% 1/4W F	
C937	1-137-364-11	FILM	0.001uF 5% 50V	R917	1-249-441-11	CARBON 100K 5% 1/4W F	
C939	1-126-933-11	ELECT	100uF 20% 16V	R919	1-249-431-11	CARBON 15K 5% 1/4W	
C941	1-126-933-11	ELECT	100uF 20% 16V	Δ R921	1-213-044-61	FUSIBLE 2.2 5% 1W F	
C943	1-161-063-00	CERAMIC	0.1uF 10% 50V	Δ R925	1-216-361-00	METAL OXIDE 0.22 5% 2W F	
C955	1-102-852-91	CERAMIC	47PF 5% 50V	Δ R927	1-212-990-61	FUSIBLE 220 5% 1/2W F	
C957	1-102-108-00	CERAMIC	150PF 10% 50V	R929	1-249-395-11	CARBON 15 5% 1/4W F	
C959	1-137-372-11	FILM	0.022uF 5% 50V	R933	1-249-424-11	CARBON 3.9K 5% 1/4W F	
C965	1-101-006-00	CERAMIC	0.047uF 50V	R933	1-249-434-11	CARBON 27K 5% 1/4W	
C967	1-101-006-00	CERAMIC	0.047uF 50V	R935	1-249-424-11	CARBON 3.9K 5% 1/4W F	
C971	1-126-926-11	ELECT	1000uF 20% 10V	R937	1-249-425-11	CARBON 4.7K 5% 1/4W F	
C973	1-162-851-11	CERAMIC	0.1uF 10% 16V	R939	1-249-441-11	CARBON 100K 5% 1/4W	
C975	1-126-926-11	ELECT	1000uF 20% 10V	R941	1-249-425-11	CARBON 4.7K 5% 1/4W F	
C977	1-162-851-11	CERAMIC	0.1uF 10% 16V	R943	1-249-441-11	CARBON 100K 5% 1/4W	
C983	1-126-960-11	ELECT	1uF 20% 50V	R945	1-247-843-11	CARBON 3.3K 5% 1/4W	
C989	1-126-960-11	ELECT	1uF 20% 50V	R947	1-249-432-11	CARBON 18K 5% 1/4W	
C991	1-104-661-91	ELECT	330uF 20% 16V	R951	1-247-815-91	CARBON 4.7K 5% 1/4W F	
		< DIODE >		R953	1-249-421-11	CARBON 2.2K 5% 1/4W F	
D901	8-719-001-76	DIODE UZL-12M3		R959	1-249-437-11	CARBON 47K 5% 1/4W	
D903	8-719-001-76	DIODE UZL-12M3		R961	1-249-437-11	CARBON 47K 5% 1/4W	
D951	8-719-031-53	DIODE LT2A02		R963	1-249-429-11	CARBON 10K 5% 1/4W	
D953	8-719-031-53	DIODE LT2A02		R965	1-247-815-91	CARBON 220 5% 1/4W	
D955	8-719-031-53	DIODE LT2A02		R969	1-247-807-31	CARBON 100 5% 1/4W	
D957	8-719-031-53	DIODE LT2A02		Δ R971	1-247-743-11	CARBON 220 5% 1/2W F	
D959	8-719-920-76	DIODE 1S2076		R973	1-247-843-11	CARBON 3.3K 5% 1/4W	
D961	8-719-920-76	DIODE 1S2076		Δ R975	1-247-743-11	CARBON 220 5% 1/2W F	
D963	8-719-920-76	DIODE 1S2076		R977	1-247-843-11	CARBON 3.3K 5% 1/4W	
				R979	1-247-815-91	CARBON 220 5% 1/4W	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
R983	1-247-815-91	CARBON	220	5%	1/4W
R989	1-247-863-91	CARBON	22K	5%	1/4W
R991	1-247-815-91	CARBON	220	5%	1/4W

< RELAY >

RL901	1-755-243-11	RELAY
-------	--------------	-------

MISCELLANEOUS

9	1-783-075-11	CORD, SPEAKER
SP901	1-505-839-11	SPEAKER (10cm)

HARDWARE LIST

#1	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S
#2	7-682-562-09	SCREW +B 4X10
#3	7-685-247-14	SCREW +KTP 3X10 TYPE2 NON-SLIT
#4	7-685-249-14	SCREW +KTP 3X14 TYPE2 NON-SLIT

