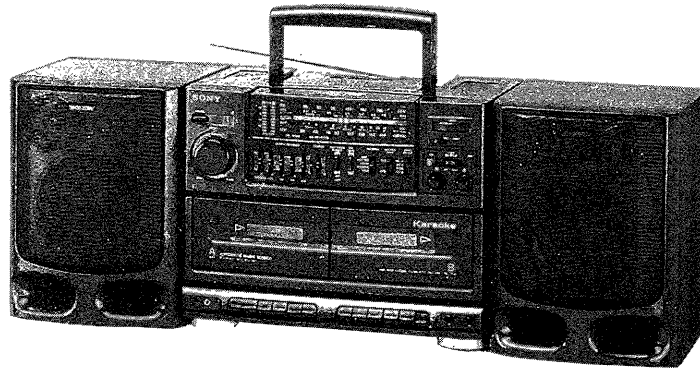


CFS-KW300S

SERVICE MANUAL

E Model



Model Name Using Similar Mechanism	CFS-KW200S	
Tape Transport Mechanism Type	DECK A	MF-KW300S
	DECK B	MF-KW300S

SPECIFICATIONS

Frequency range	FM: Saudi Arabia 87.6 – 107 MHz E 87.6 – 108 MHz SW1: 2.3 – 7 MHz SW2: 7 – 22 MHz MW: 530 – 1605 kHz
Recording system	4-track 2-channel stereo
Frequency response	80 – 10000 Hz
Antennas	FM/SW: Telescopic MW: Built-in ferrite bar
Speakers	Two way Approx. 10 cm dia. woofer × 2 Approx. 5 cm dia. tweeter × 2
Maximum power output	AC operation: 25 W (12.5 W + 12.5 W) DC operation: 13 W (6.5 W + 6.5 W)
Input	CD/LINE IN jacks (stereo) (phone jacks) (2) Input Impedance 47 kilohms Sensitivity 0.44 V MIX MIC jacks (phone jacks) (2) Sensitivity 4.4 mV, for low impedance microphone
Output	Headphones jack (stereo minijack) (1) for 16 – 68-ohm impedance head-phones Speaker terminals for 4-ohm impedance speaker
Power requirements	For radio cassette-corder: 110 – 120 V/220 – 240 V AC adjustable, 50/60 Hz 12 V DC, eight R20 (size D) batteries For remote commander: 3 V DC, two R6 (size AA) batteries

Battery life

For radio cassette-corder:

Battery	FM recording
Sony SUM-1 (NS)	Approx. 2.5 hours
Sony AM1 (N) alkaline	Approx. 8.5 hours

Power consumption Dimensions

For remote commander:

Approx. 6 months

25 W in AC operation

Approx. 750 × 274 × 207 mm (w/h/d) incl.
speakers, projecting parts and controls,
not incl. handle

Mass

Approx. 9.5 kg incl. batteries and speakers

Accessories supplied

AC power cord (1)

Microphone (1)

Remote commander (1)

Design and specifications subject to change without notice.

Optional accessories

Sony MDR headphones series

Sony DYNAMIC MICROPHONE series

Sony cassette eraser BE-A200



RADIO CASSETTE-CORDER
SONY®



TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL	3
2. DISASSEMBLY	4
3. ADJUSTMENT	5
4. DIAGRAMS		
4-1.	IC501(MB88202) Pin Function Description	6
4-2.	Semiconductor Lead Layouts	7
4-3.	Printed Wiring Boards	8
4-4.	Schematic diagram	13
4-5.	IC Block Diagrams	18
5. EXPLODED VIEWS		
5-1.	Cabinet Section	20
5-2.	Mechanism Deck Section-1	21
5-3.	Mechanism Deck Section-2	22
5-4.	Mechanism Deck Section-3	23
5-5.	Speaker Section	24
6. ELECTRICAL PARTS LIST	25

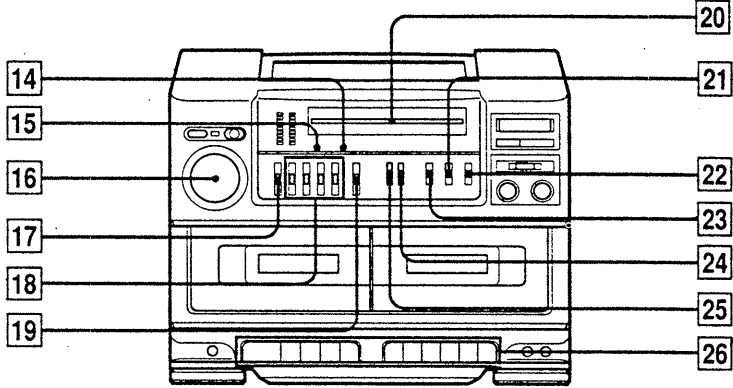
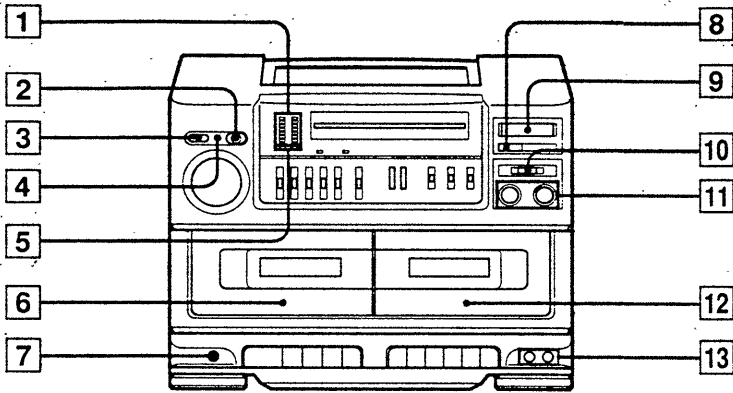
SAFETY-RELATED COMPONENT WARNING!!

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

SECTION 1 GENERAL

This section is extracted from instruction manual.

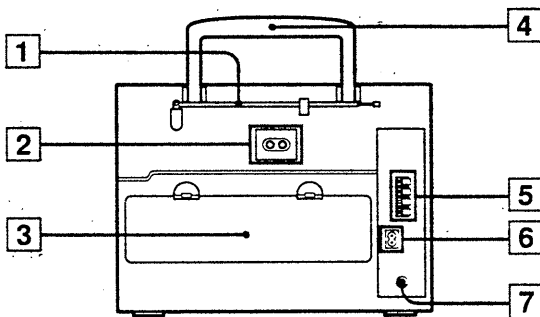
Front panel



Front Panel

- 1 LEVEL meters
 - 2 Remote sensor
 - 3 POWER switch
 - 4 STANDBY indicator
- While you are using the unit with AC power cord connected to a wall outlet, the indicator lights whether the unit is on or off.
- 5 OPR/BATT (operation/battery) indicators
 - 6 Cassette holder A
 - 7 HEADPHONES jack
 - 8 FINE TUNING knob
 - 9 TUNING knob
 - 10 ECHO control
 - 11 MIC FADER controls
 - 12 Cassette holder B
 - 13 MIX MIC (mixing microphone) jacks
 - 14 FM STEREO indicator
 - 15 TUNING indicator
 - 16 VOLUME control
 - 17 MEGA BASS control
 - 18 GRAPHIC EQUALIZER controls
 - 19 BALANCE control
 - 20 Dial scale and pointer
 - 21 KARAOKE MODE switch
 - 22 BAND SELECT selector
 - 23 FUNCTION selector
 - CD/LINE IN
 - RADIO
 - DUBBING
 - TAPE
 - 24 REC MUTE button
 - 25 HIGH SPEED DUBBING button
 - 26 Tape operating buttons
 - REC (record) button: Deck B only
 - ▶ PLAY (playback) button
 - ◀◀ REW (rewind) button
 - ▶▶ FF (fast-forward) button
 - ▲ STOP/EJECT button
 - || PAUSE button

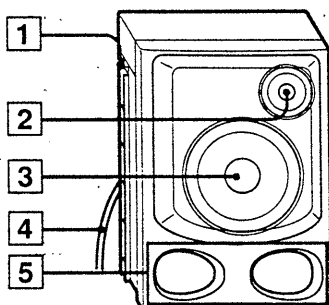
Rear panel



Rear Panel

- 1 Telescopic antenna
- 2 CD/LINE IN jacks
- 3 Battery compartment
- 4 Handle
- 5 SPEAKER terminals
- 6 AC IN (AC input) socket
- 7 VOLTAGE SELECTOR

Speaker



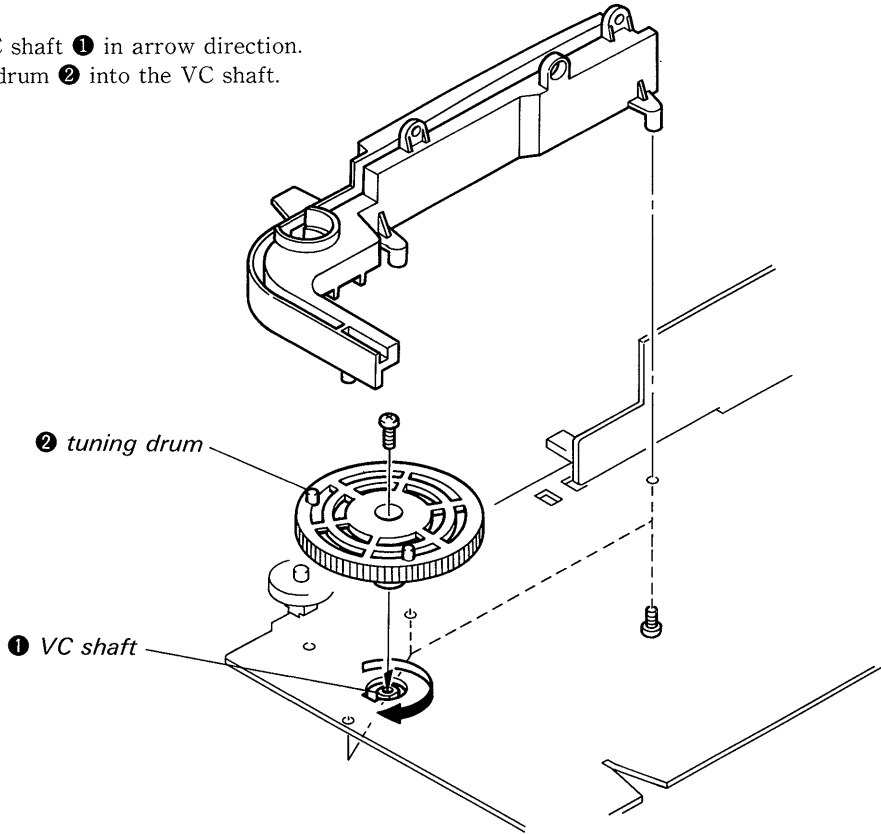
Speaker

- 1 Lock tab
- 2 Tweeter
- 3 Woofers
- 4 Speaker cord
- 5 Ducts

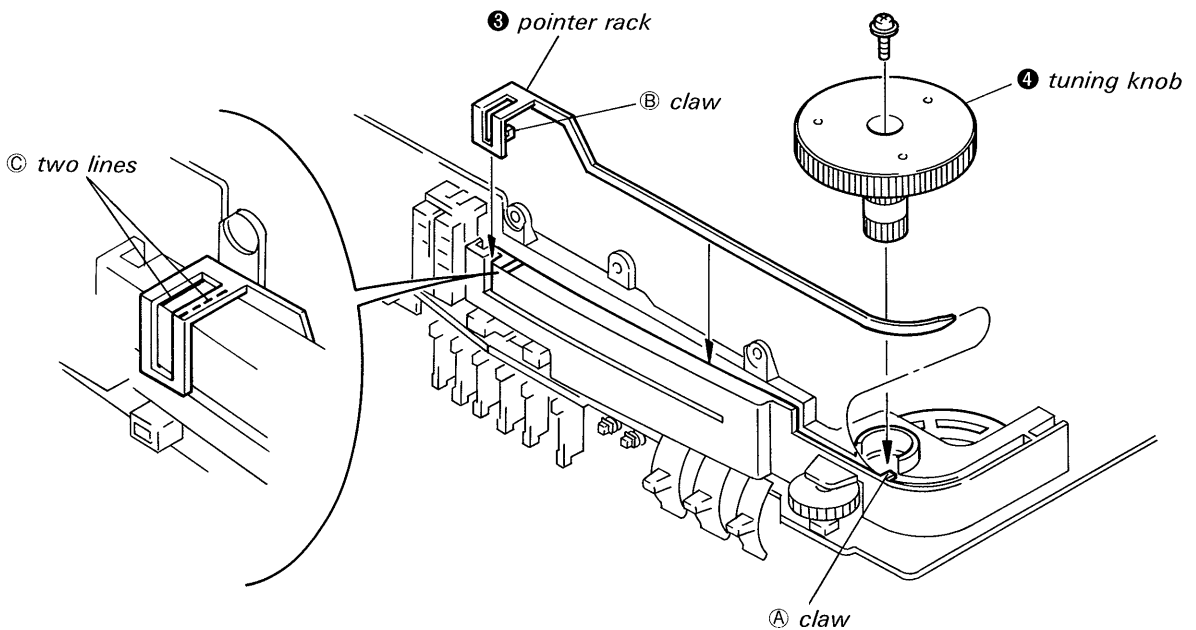
SECTION 2 DISASSEMBLY

DIAL POINTER INSTALLATION

1. Turn fully the VC shaft ❶ in arrow direction.
2. Insert the tuning drum ❷ into the VC shaft.



3. Pass the lead edge of pointer rack ❸ under the chassis claw ❸, then insert the claw ❹ into a notch.
4. Mount the tuning knob ❺ with a hole in pointer aligned with two lines ❻ on chassis.



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS PRECAUTION

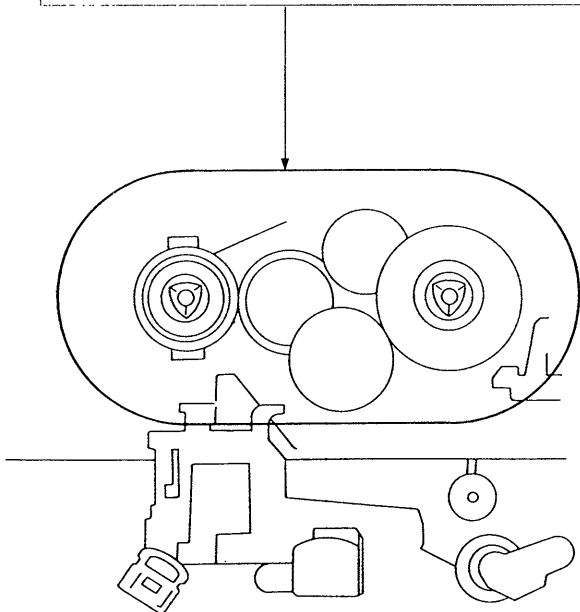
1. Clean the following parts with a denatured alcohol-moistened swab :

record/playback head	pinch rollers
playback head	rubber belts
erase head	idlers
capstan	
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

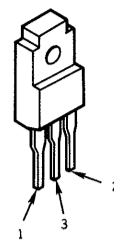
Torque Measurement		
Torque	Torque Meter	Meter Reading
Play back	CQ-102C	30 - 70 g · cm (0.41 - 0.97 oz · inch)
Rewind	CQ-201B	DECK A: more than 80 g · cm (more than 1.11 oz · inch)
Fast Forward		DECK A: more than 55 g · cm (more than 0.76 oz · inch)
Back Tension	CQ-102C	1.5 - 5.5 g · cm (0.03 - 0.07 oz · inch)

Tape Tension Measurement	
Torque Meter	Meter Reading
CQ-403A	more than 100g (3.25 oz)

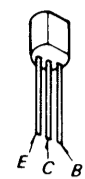


4-2. SEMICONDUCTOR LEAD LAYOUTS

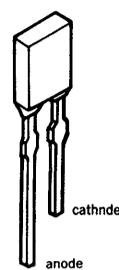
BA178M05



2SC2236-Y



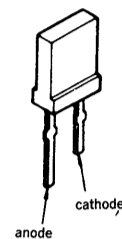
BG5531K



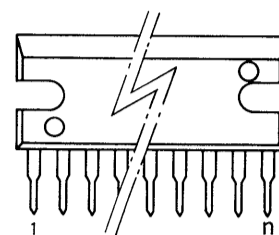
2SK105A-3D



SLP162B

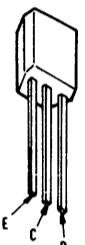
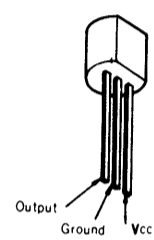


LA4620

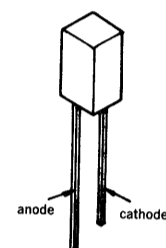


DTA114ES
DTA144ES
DTC114ES
DTC143TS

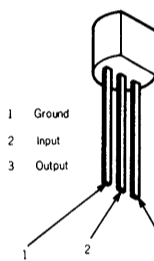
PST529J



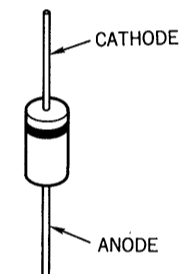
SLP-183B-81



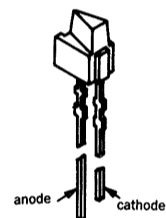
S-81250HG



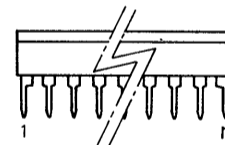
10E-2
1N4148M
HZS2.7NB1



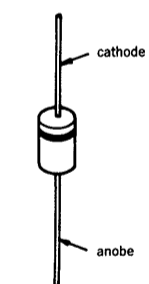
SLV-25VR



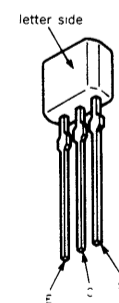
TA2011S



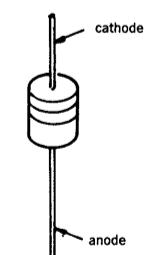
1N4002L
1N5401



2SA1175-HFE
BA1A4P
DTA143XS
DTC143XS



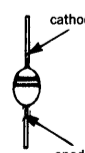
RD24ES-B4
RD6.2ESB2
RD8.2ESB2



2SB1068-K
2SC1815-GR
2SC2001-LK



U05G

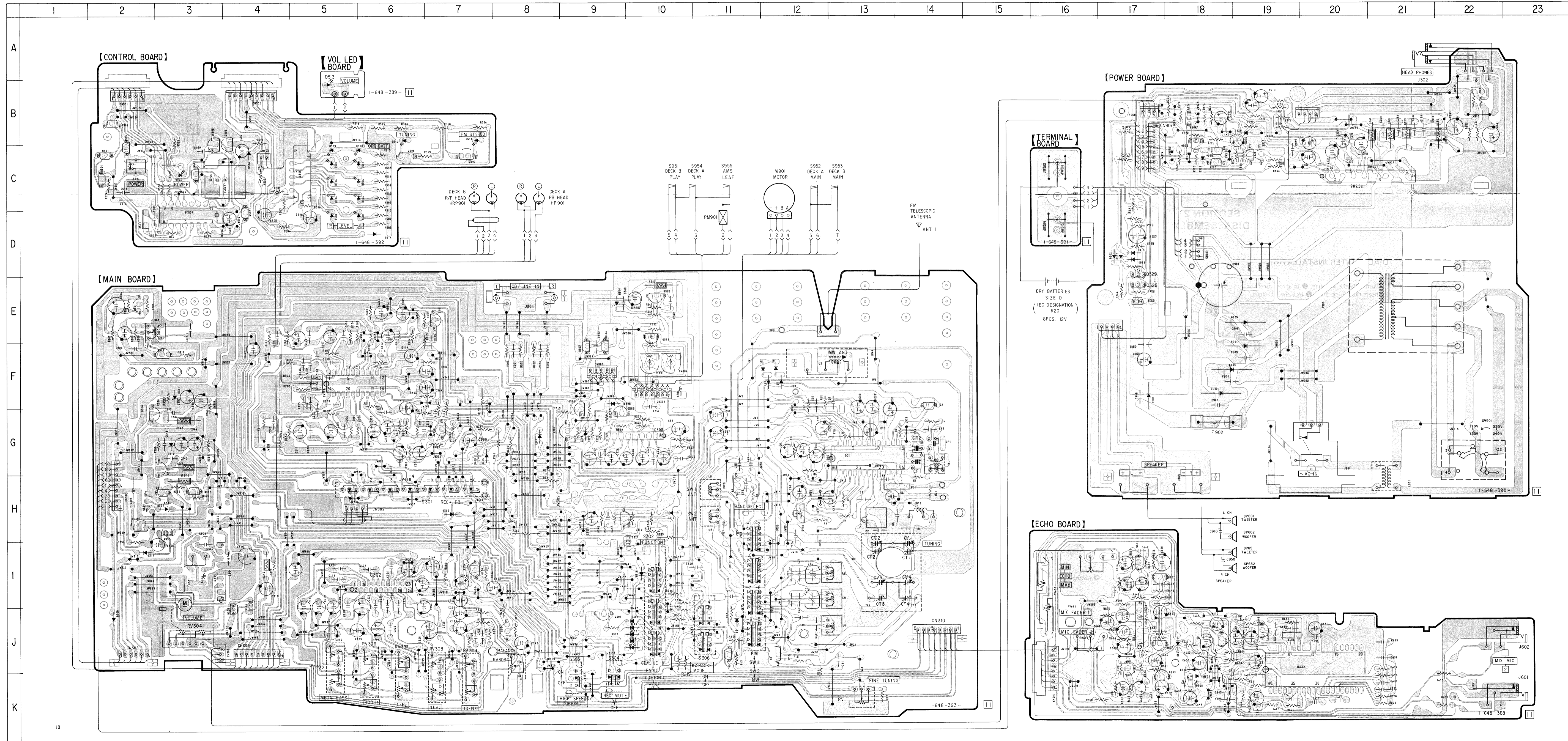


SECTION 4 DIAGRAMS

4-1. IC501 (MB88202) PIN FUNCTION DESCRIPTION

PIN No.	Name	I/O	Description
1	R ₆	I	REMOTE CONTROL SIGNAL INPUT
2	R ₇	O	VOLUME LED INDICATOR
3	R ₈	—	NOT USED
4	R ₉	I	POWER KEY INPUT
5	START	I	STAND-BY CANCEL INPUT
6	X	O	INTERNAL OSCILLATOR (500kHz)
7	EX	I	
8	V _{SS}	—	GND
9	R ₀	O	VOLUME UP
10	R ₁	O	VOLUME DOWN
11	R ₂	O	REMOTE CONTROL ENABLE/DISABLE
12	R ₃	O	POWER ON/OFF CONTROL
13	R ₄	O	MUTE ON/OFF CONTROL
14	R ₅	I	POWER CHECK (L : AC, H : DC)
15	RESET	I/O	SYSTEM RESET
16	V _{CC}	—	B+ (+5V)

4-3. PRINTED WIRING BOARDS See page 7 for Semiconductor Lead Layouts.

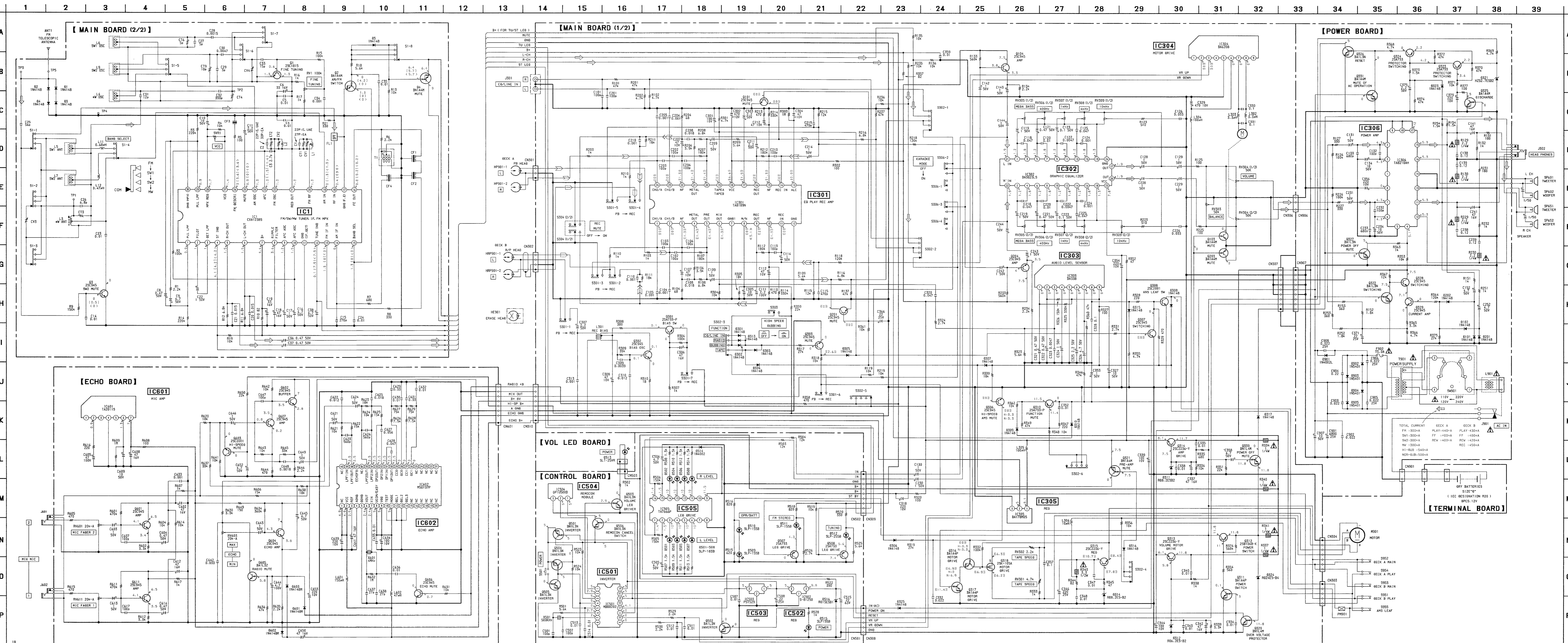


● Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	F-12	D512	C-6	Q303	J-9
D2	F-12	D513	B-5	Q306	F-9
D3	F-12	D514	D-6	Q307	G-9
D4	F-12	D515	C-3	Q308	F-9
D5	J-11	D516	C-4	Q310	H-9
D101	D-17	D601	J-18	Q311	H-3
D102	D-17	D602	K-18	Q312	H-3
D201	D-17	D603	J-18	Q313	G-2
D202	D-17	D604	F-17	Q314	G-2
D301	J-10	D902	F-18	Q315	E-10
D302	J-10	D903	F-18	Q316	E-9
D303	J-10	D904	F-19	Q317	E-9
D304	J-10	D905	F-19	Q318	E-10
D305	G-7			Q320	H-2
D306	G-8	IC1	G-13	Q321	H-9
D307	G-8	IC301	F-6	Q322	E-17
D308	F-9	IC302	I-6	Q323	B-17
D309	H-7	IC303	G-10	Q324	B-17
D310	H-10	IC304	I-4	Q325	C-19
D311	F-3	IC305	H-2	Q326	C-18
D312	G-3	IC306	C-20	Q327	C-19
D313	J-10	IC501	D-3	Q328	D-17
D314	E-9	IC502	B-4	Q329	D-17
D315	G-9	IC503	B-3	Q330	H-3
D316	I-10	IC504	C-3	Q331	C-18
D317	I-2	IC505	C-5	Q501	C-2
D321	C-18	IC601	J-17	Q502	B-2
D323	B-19	IC602	J-19	Q503	D-4
D324	H-3			Q504	C-2
D325	J-2	Q1	J-12	Q505	C-2
D501	D-6	Q2	F-14	Q506	C-3
D502	D-5	Q3	H-11	Q507	C-7
D503	C-6	Q4	J-11	Q508	C-6
D504	C-5	Q101	E-7	Q601	J-17
D505	C-6	Q103	J-4	Q602	I-17
D506	C-5	Q104	I-7	Q603	J-18
D507	C-6	Q201	G-7	Q604	J-18
D508	C-5	Q203	J-4	Q605	K-18
D509	C-5	Q204	J-8	Q606	J-19
D510	C-6	Q301	E-2	Q607	J-18
D511	C-7	Q302	F-3	Q611	I-17

Note:
 ● : parts extracted from the component side.
 ○ : Pattern on the side which is seen.

4-4. SCHEMATIC DIAGRAM See page 18, 19 for IC Block Diagrams.



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 $\frac{1}{2}W$ or less unless otherwise specified.
- Internal component.
- Nonflammable resistor.
- Fusible resistor.

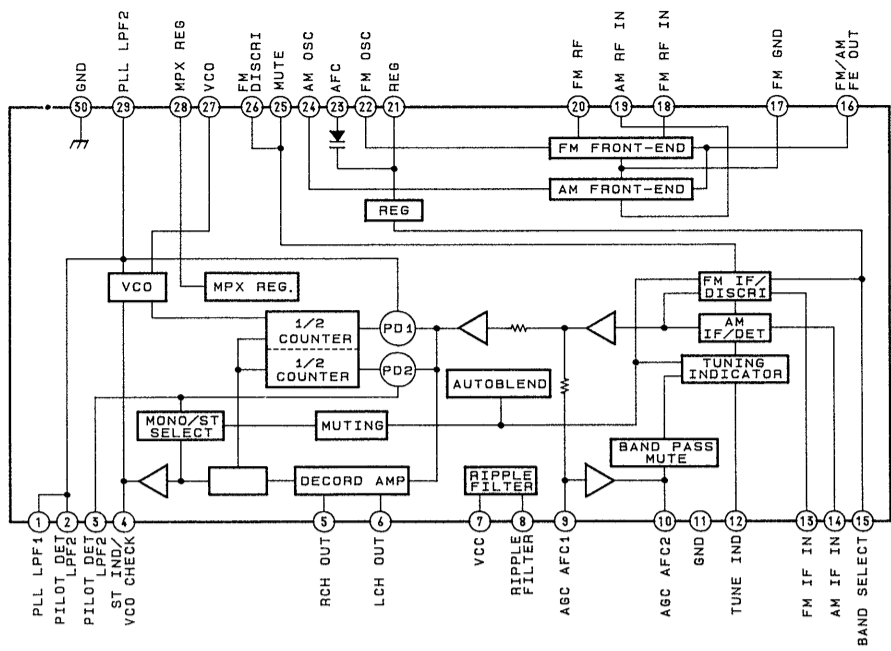
Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

\ominus : B+ Line
 ⊕ : adjustment for repair.
 Power voltage is dc 12 V and fed with regulated dc power supply from external power voltage jack.
 Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 no mark: FM
 (): SW 1, 2 << >>: REC
 < >: MW H: DUBBING HIGH
 H: PLAY N: DUBBING NORMAL
 Voltages are taken with a VOM (input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
 Signal path:
 \Rightarrow : FM \Rightarrow : PB (DECK A)
 \Rightarrow : PB (DECK B)
 \Rightarrow : REC (DECK B)

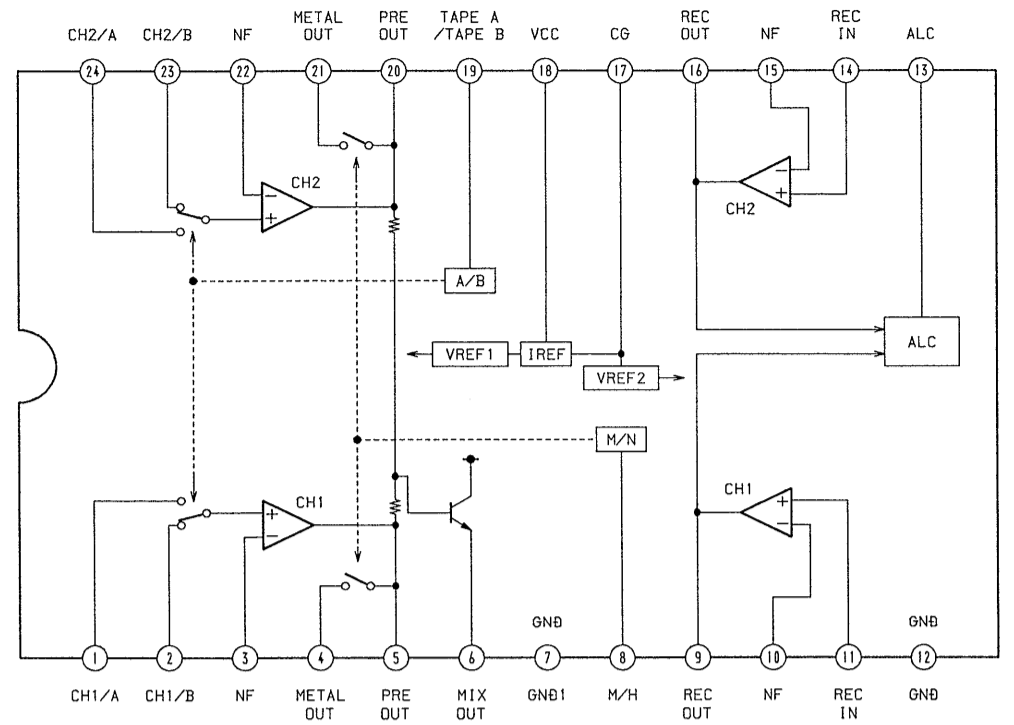
EA: Saudi Arabia
UAE: United Arab Emirates

4-5. IC BLOCK DIAGRAMS

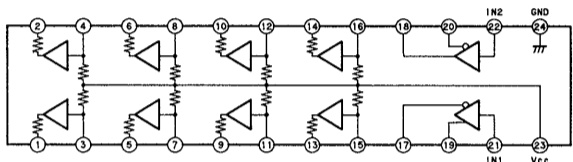
IC1 CXA1238S



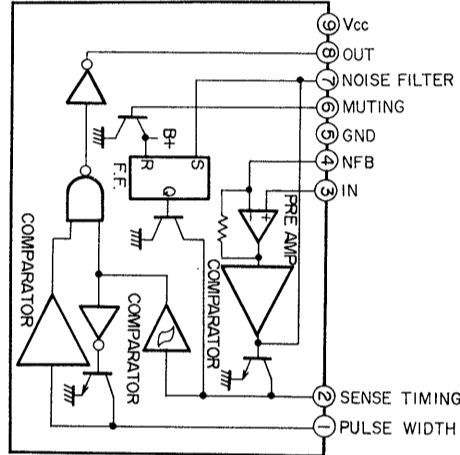
IC301 TA8189N



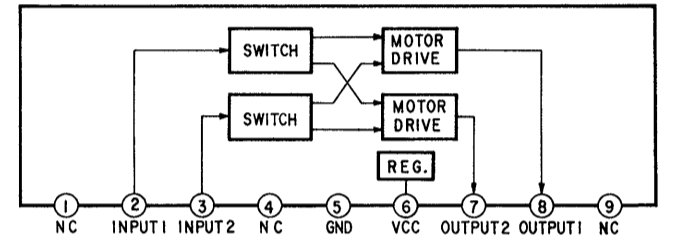
IC302 BA3823LS



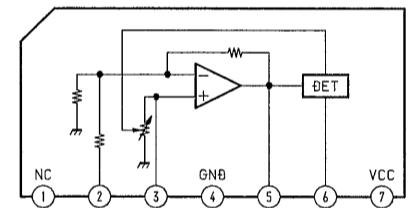
IC303 BA338



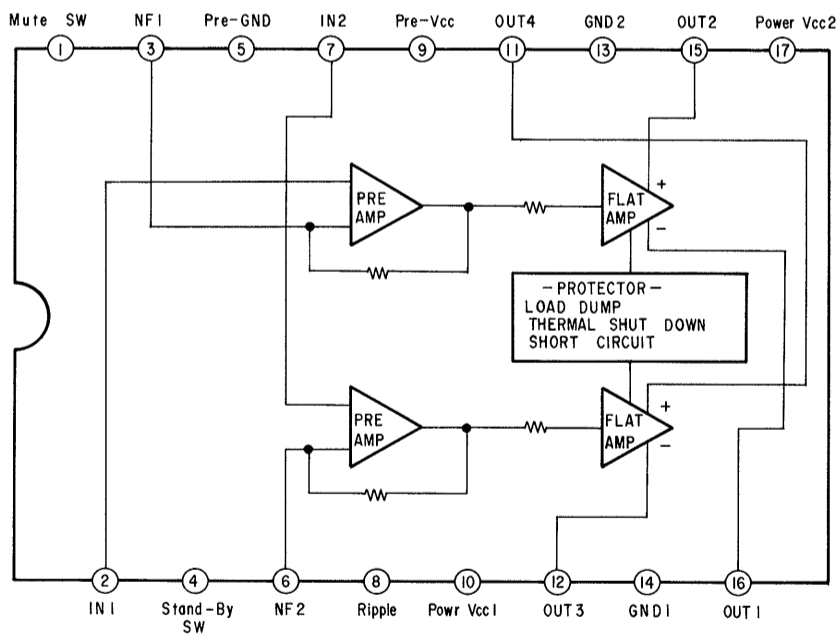
IC304 BA6208



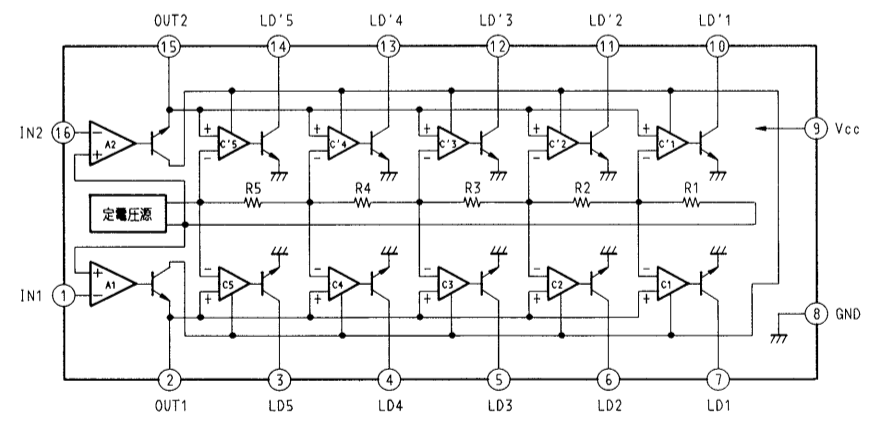
IC601 TA2011S



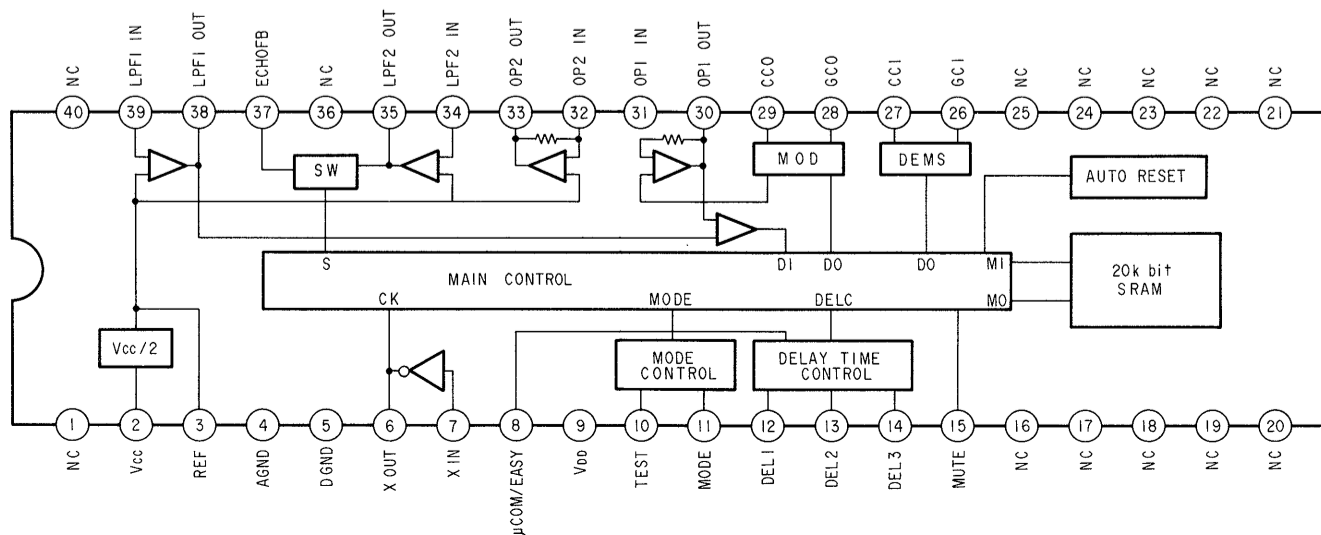
IC306 TA8210AH



IC505 TA7666P



IC602 M50197P



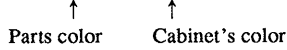
SECTION 5 EXPLODED VIEWS

NOTE:

● -xx,-x mean standardized parts, so they may have some differences from the original one.

● Color Indication of Appearance Parts
Example:

KNOB, BALANCE (WHITE)...(RED)



● Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

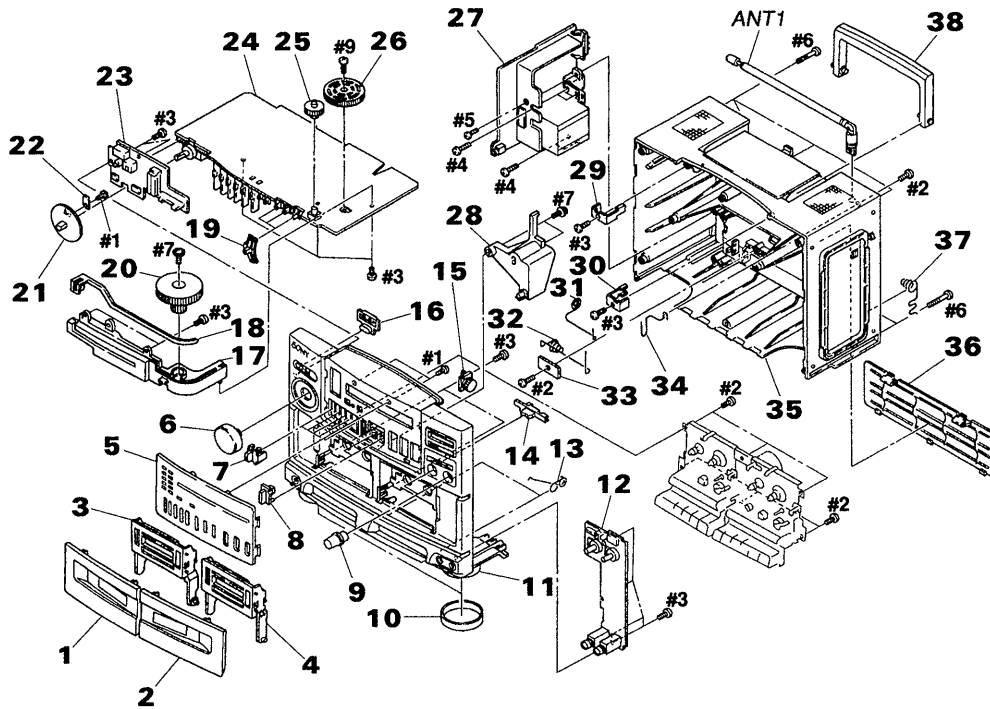
● The mechanical parts with no reference number in the exploded views are not supplied.

● Hardware (#mark) list is given in the last of this parts list.

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

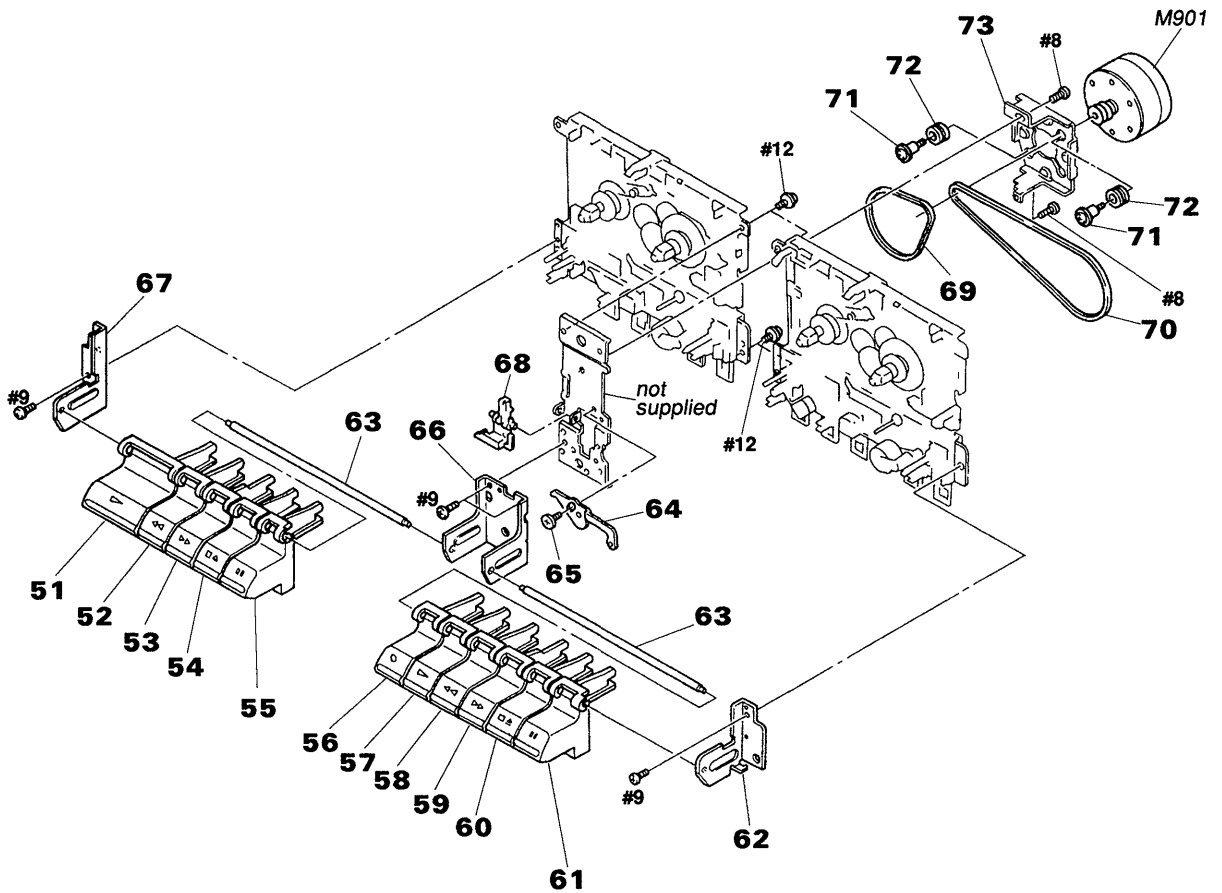
● Abbreviations
EA: Saudi Arabia
UAE: United Arab Emirates

5-1. CABINET SECTION



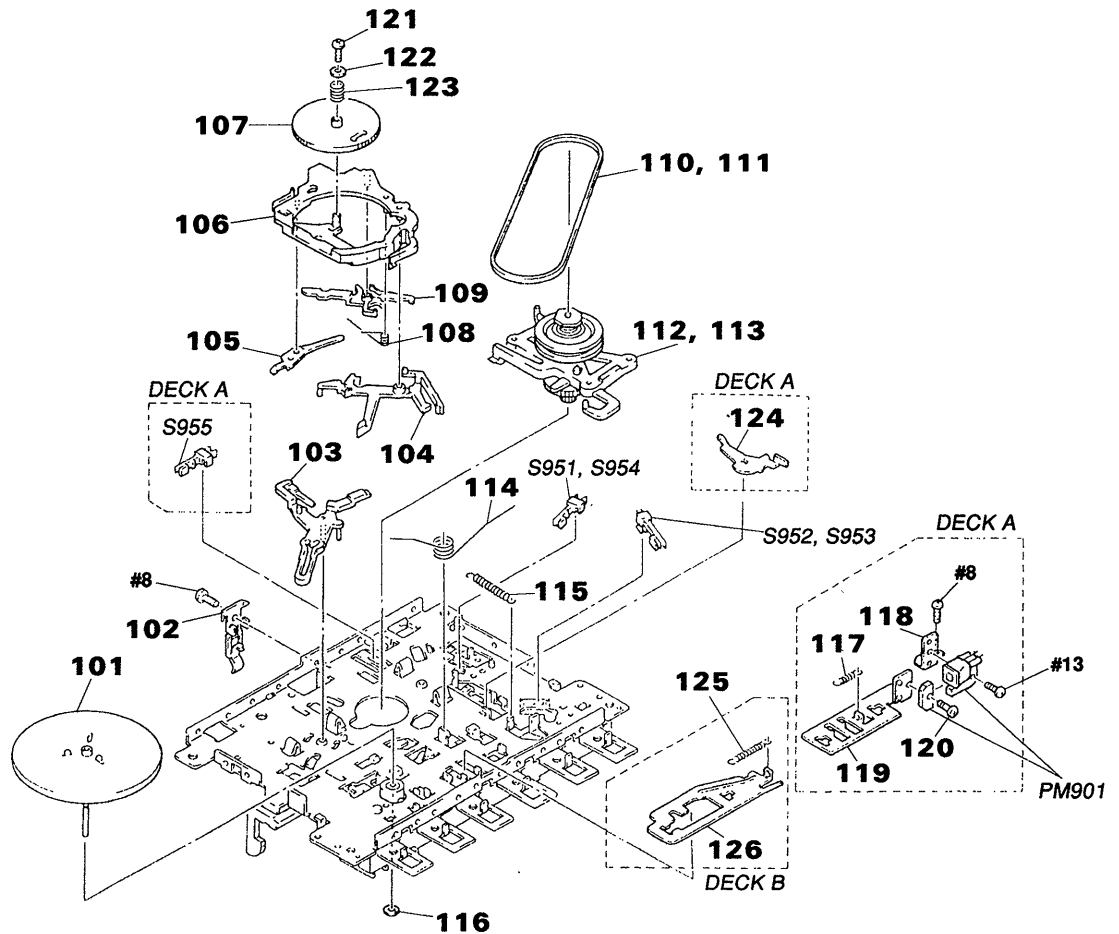
Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
1	X-3366-799-1	LID ASSY (L), CASSETTE		21	3-389-428-01	HOLDER (VOL)	
2	X-3366-800-1	LID ASSY (R), CASSETTE		*22	1-648-389-11	VOL LED BOARD	
3	3-389-430-01	HOLDER (L), CASSETTE		*23	A-3264-465-A	CONTROL BOARD, COMPLETE	
4	3-389-431-01	HOLDER (R), CASSETTE		*24	A-3264-464-A	MAIN BOARD, COMPLETE (EA)	
5	3-389-432-01	WINDOW, DIAL (E, E23, UAE)		*24	A-3264-639-A	MAIN BOARD, COMPLETE (E, E23, UAE)	
5	3-389-432-11	WINDOW, DIAL (EA)		25	3-389-395-01	KNOB (FINE-TUN)	
6	3-389-393-01	KNOB (VOLUME)		26	3-389-397-01	DRUM, TUNING CAPACITOR	
7	3-389-410-01	KNOB (G/E)		*27	A-3264-468-A	POWER BOARD, COMPLETE	
8	3-389-389-01	KNOB (H-SPEED)		*28	3-389-433-01	LEVER, RECODE	
9	3-389-394-01	KNOB (M-VOLUME)		*29	3-389-408-01	RETAINER, HANDLE (L)	
*10	3-389-396-01	ORNAMENT, FOOT		*30	3-389-409-01	RETAINER, HANDLE (R)	
11	X-3366-984-1	CABINET (FRONT) ASSY		31	3-389-405-01	SPRING (+), BATTERY	
*12	A-3264-466-A	ECHO BOARD, COMPLETE		32	3-389-406-01	SPRING (-), BATTERY	
13	3-389-403-01	SPRING (MODE)		*33	1-648-391-11	TERMINAL BOARD	
14	3-389-392-01	KNOB (ECHO)		*34	3-389-407-01	TERMINAL, ANTENNA	
15	3-351-377-01	DAMPER		35	3-389-440-01	CABINET (REAR) (E, E23)	
16	3-389-391-01	KNOB (POWER)		35	3-389-440-11	CABINET (REAR) (UAE, EA)	
17	3-389-434-01	CHASSIS (TUNING)		36	3-389-436-01	LID, BATTERY CASE	
18	3-389-423-01	RACK, POINTER		37	3-389-404-01	SPRING (+-), BATTERY	
19	3-389-390-01	KNOB (FUNCTION)		38	X-3366-798-1	HANDLE ASSY	
20	3-389-422-01	KNOB (TUN)		ANT1	1-501-542-11	ANTENNA, TELESCOPIC	

5-2. MECHANISM DECK SECTION-1



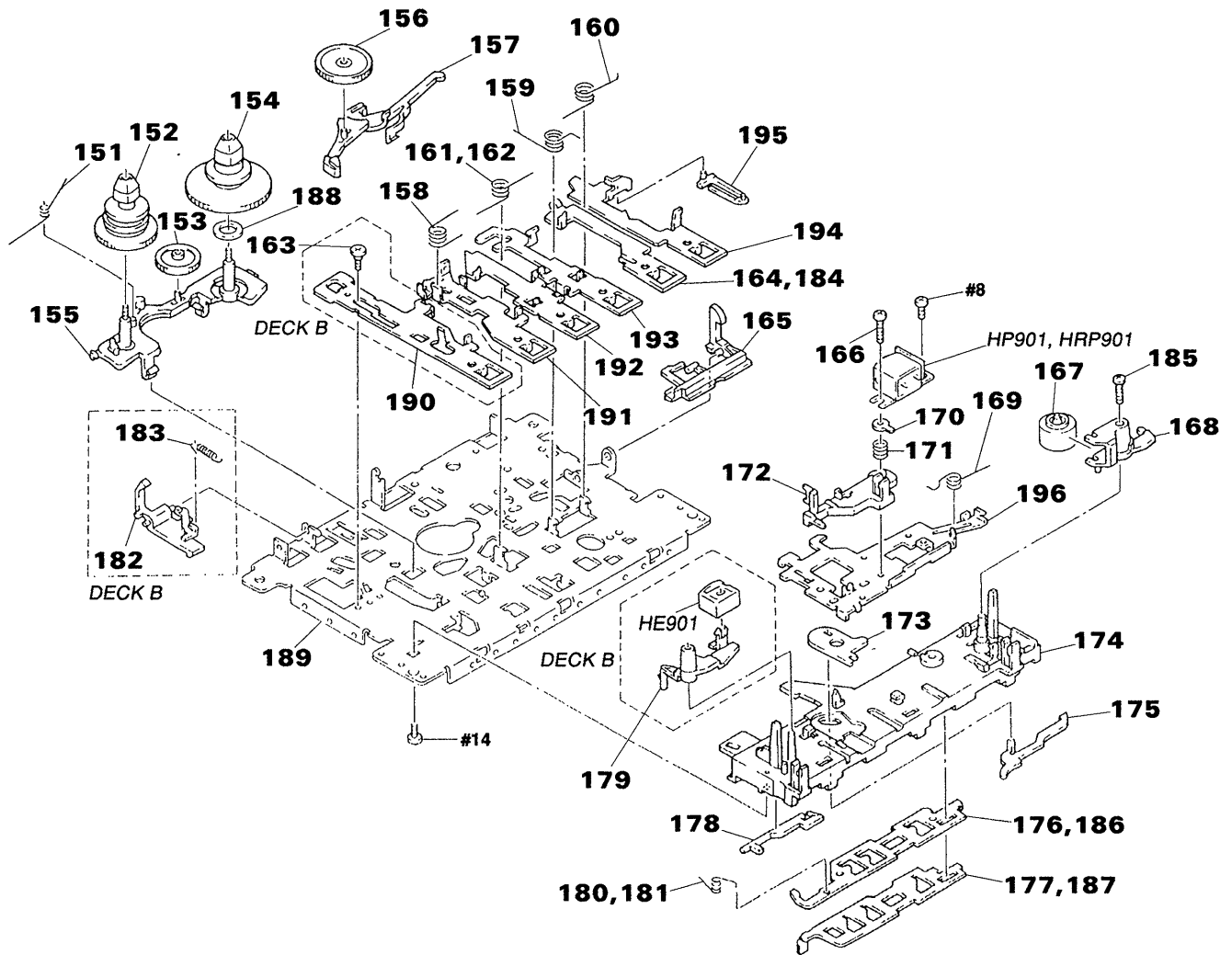
Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
51	3-389-411-01	BUTTON (PLAY 1)		*63	3-904-889-01	SHAFT MD	
52	3-389-413-01	BUTTON (REW 1)		*64	3-369-927-01	ARM, CONNECT	
53	3-389-412-01	BUTTON (FF 1)		65	3-362-958-01	SCREW	
54	3-389-414-01	BUTTON (ST/EJ 1)		*66	3-904-317-01	BUTTON (S), HOLDER	
55	3-389-415-01	BUTTON (PAUSE 1)		*67	3-904-318-01	BUTTON (L), HOLDER	
56	3-389-421-01	BUTTON (REC)		68	3-369-928-01	ARM, RELEASE	
57	3-389-416-01	BUTTON (PLAY 2)		69	3-362-989-01	BELT	
58	3-389-418-01	BUTTON (REW 2)		70	3-369-931-01	BELT	
59	3-389-417-01	BUTTON (FF 2)		71	3-343-896-01	SCREW, MOTOR	
60	3-389-419-01	BUTTON (ST/EJ 2)		72	3-343-897-01	WASHER, RUBBER	
61	3-389-420-01	BUTTON (PAUSE 2)		*73	3-369-929-01	HOLDER, MOTOR	
*62	3-904-319-01	BUTTON (R), HOLDER		M901	3-378-834-01	MOTOR ASSY	

5-3. MECHANISM DECK SECTION-2 (MF-KW300S)



Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
101	3-369-921-01	FW ASSY		117	3-363-228-01	SPRING (DECK A)	
102	3-362-967-01	SPRING, CASSETTE		*118	3-369-922-01	HOLDER, SOLENOID (DECK A)	
103	3-387-697-01	SENSOR		*119	3-369-923-01	LEVER, LOCK (DECK A)	
104	3-362-975-01	LEVER, SENSOR		120	3-393-223-01	SCREW (DECK A)	
105	3-362-978-01	SPRING, PLATE		121	3-366-352-01	SCREW	
106	3-362-973-01	AS (BASE)		122	3-369-961-01	WASHER	
107	3-362-974-01	GEAR, CAM		123	3-369-962-01	SPRING, COMPRESSION	
108	3-362-977-01	SPRING		*124	3-369-916-01	LEVER, SWITCH (DECK A)	
109	3-362-976-01	LEVER, CONTROL		125	3-371-920-01	SPRING (DECK B)	
110	3-362-989-01	BELT (DECK B)		*126	3-371-919-01	PLATE FR STOP (DECK B)	
111	3-369-918-01	BELT (DECK A)		PM901	1-454-466-11	SOLENOID (DECK A)	
112	3-362-969-01	IDLER ASSY, PF (DECK B)		S951	1-571-745-11	SWITCH, LEAF (B-PLAY)	
113	3-369-920-01	IDLER ASSY, PF (DECK A)		S952	1-572-538-11	SWITCH, LEAF (B-MAIN)	
114	3-362-970-01	SPRING		S953	1-572-538-11	SWITCH, LEAF (A-MAIN)	
115	3-362-971-01	SPRING		S954	1-571-745-11	SWITCH, LEAF (A-PLAY)	
116	3-362-980-01	WASHER		S955	1-571-745-11	SWITCH, LEAF (AMPS) (DECK A)	

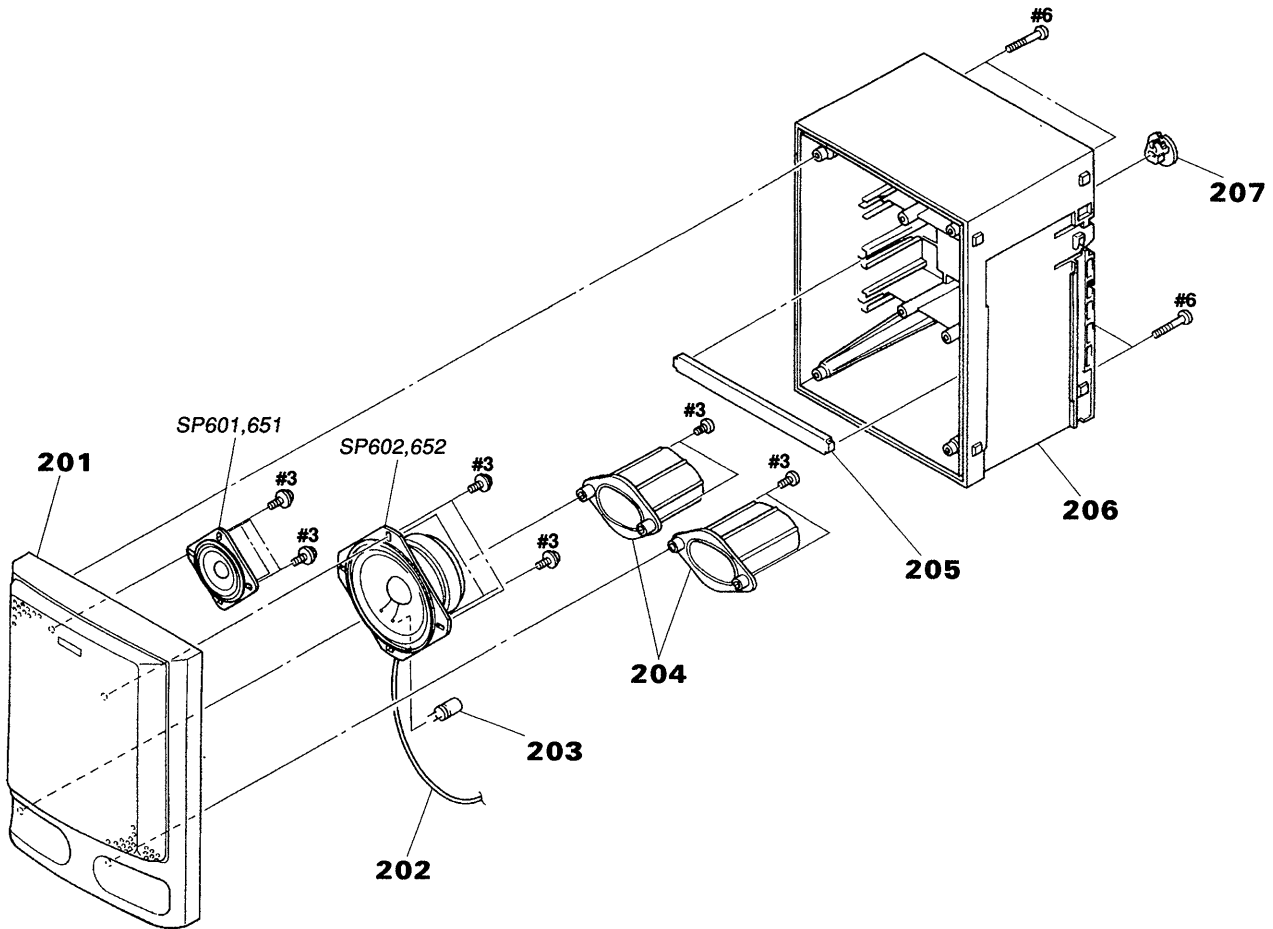
**5-4. MECHANISM DECK SECTION-3
(MF-KW300S)**



Ref.No.	Part No.	Description	Remark
151	3-372-120-01	SPRING	
152	3-362-963-01	REEL, S	
153	3-362-965-01	IDLER, FF	
154	3-362-962-01	REEL ASSY, T	
155	3-362-961-01	SPINDLE (BASE)	
156	3-362-960-01	PULLEY, IDLER	
157	3-362-959-01	ARM, IDLER	
158	3-362-954-01	SPRING	
159	3-362-956-01	SPRING	
160	3-370-698-01	SPRING	
161	3-362-955-01	SPRING (DECK B)	
162	3-369-917-01	SPRING (DECK A)	
163	3-362-958-01	SCREW (DECK B)	
*164	3-369-915-01	LEVER, SE (DECK A)	
165	3-362-968-01	LEVER, EJECT	
166	3-363-229-01	SCREW	
167	3-362-982-01	PINCH ROLLER	
168	3-362-981-01	PINCH ARM	
169	3-362-983-01	SPRING	
170	3-390-817-01	LUG	
171	3-362-985-01	SPRING	
172	3-362-986-01	HOLDER, HEAD	
173	3-366-108-01	LINK, CR	
174	3-362-942-01	FRAME ASSY	
175	3-366-107-01	ARM, CR	

Ref.No.	Part No.	Description	Remark
*176	3-369-912-01	PLATE, FUNCTION (DECK A)	
*177	3-369-914-01	LEVER, SW (DECK A)	
178	3-362-944-01	STOPPER, REC	
179	3-362-987-01	ARM, EH (DECK B)	
180	3-369-913-01	SPRING (DECK A)	
181	3-362-945-01	SPRING (DECK B)	
182	3-362-966-01	INTER LOCK (DECK B)	
183	3-363-228-01	SPLING (DECK B)	
*184	3-362-951-01	LEVER, SE (DECK B)	
185	3-366-352-01	SCREW	
*186	3-362-943-01	PLATE, FUNCTION (DECK B)	
*187	3-362-946-01	LEVER, SW (DECK B)	
188	3-372-173-01	PLATE SPRING BT	
*189	3-362-941-01	CHASSIS	
*190	3-362-947-01	LEVER, REC (DECK B)	
*191	3-362-948-01	LEVER, PLAY	
*192	3-362-949-01	LEVER, REW	
*193	3-362-950-01	LEVER, FF	
*194	3-362-952-01	LEVER, PAUSE	
195	3-362-953-01	ARM, PAUSE	
*196	3-362-984-01	HEAD (BASE)	
HE901	1-543-558-11	HEAD, E (DECK B)	
HP901	1-543-424-21	HEAD (PLAYBACK) (DECK A)	
HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK) (DECK B)	

5-5. SPEAKER SECTION



Ref.No.	Part No.	Description	Remark
201	X-3367-350-1	BOX (FRONT) (L) SUB ASSY SP	
201	X-3367-349-1	BOX (REAR) (R) SUB ASSY SP	
202	1-751-483-11	CORD, SPEAKER CONNECTION	
203	1-124-499-11	ELECT, NONPOLAR 1uF 20% 50V	
204	3-904-316-01	DUCT (SP)	
205	3-389-425-01	BRACKET, SP	

Ref.No.	Part No.	Description	Remark
206	3-389-443-01	BOX (REAR) (L), SP	
206	3-389-444-01	BOX (REAR) (R), SP	
207	3-904-982-01	CORD STOPPER	
SP601	1-504-291-11	SPEAKER (5CM)	
SP602	1-504-292-11	SPEAKER (10CM)	
SP651	1-504-291-11	SPEAKER (5CM)	
SP652	1-504-292-11	SPEAKER (10CM)	

SECTION 6 ELECTRICAL PARTS LIST

CONTROL

NOTE:

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

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

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

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

Ref.No.	Part No.	Description	Remark
*	A-3264-465-A	CONTROL BOARD, COMPLETE *****	
		< CAPACITOR >	
C501	1-162-282-31	CERAMIC 100PF	10% 50V
C502	1-162-282-31	CERAMIC 100PF	10% 50V
C505	1-124-927-11	ELECT 4.7uF	20% 100V
C506	1-124-927-11	ELECT 4.7uF	20% 100V
C507	1-162-839-11	CERAMIC 0.01uF	10% 16V
C508	1-124-916-11	ELECT 22uF	20% 63V
C511	1-162-839-11	CERAMIC 0.01uF	10% 16V
C512	1-162-839-11	CERAMIC 0.01uF	10% 16V
C513	1-162-839-11	CERAMIC 0.01uF	10% 16V
C514	1-162-839-11	CERAMIC 0.01uF	10% 16V
C515	1-124-916-11	ELECT 22uF	20% 63V
		< CONNECTOR >	
*CN501	1-569-767-11	SOCKET, CONNECTOR 6P	
CN502	1-569-770-11	SOCKET, CONNECTOR 9P	
*CN503	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P	
		< DIODE >	
D501	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D502	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D503	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D504	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D505	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D506	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D507	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D508	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D509	8-719-915-45	LED SLP162B (R LEVEL)	
D510	8-719-915-45	LED SLP162B (L LEVEL)	
D511	8-719-915-45	LED SLP162B (FM STEREO)	
D512	8-719-918-87	LED BG5531K (TUNING)	
D514	8-719-200-02	DIODE 10E2	
D515	8-719-915-45	LED SLP162B (POWER)	
D516	8-719-110-39	DIODE RD15ESB1	

Ref.No.	Part No.	Description	Remark
		< IC >	
IC501	8-759-175-98	IC MB88202	
IC502	8-759-912-55	IC S-81250HG	
IC503	8-759-970-47	IC PST529J	
IC504	8-749-923-11	IC GP1U58XB	
IC505	8-759-202-40	IC TA7666P	
		< TRANSISTOR >	
Q501	8-729-901-57	TRANSISTOR DTC143XS	
Q502	8-729-901-57	TRANSISTOR DTC143XS	
Q503	8-729-901-57	TRANSISTOR DTC143XS	
Q504	8-729-901-57	TRANSISTOR DTC143XS	
Q505	8-729-901-57	TRANSISTOR DTC143XS	
Q506	8-729-901-57	TRANSISTOR DTC143XS	
Q507	8-729-471-91	TRANSISTOR 2SA719-P	
Q508	8-729-471-91	TRANSISTOR 2SA719-P	
		< RESISTOR >	
R501	1-249-426-11	CARBON 5.6K 5%	1/4W
R502	1-249-417-11	CARBON 1K 5%	1/4W
R503	1-249-430-11	CARBON 12K 5%	1/4W
R504	1-249-430-11	CARBON 12K 5%	1/4W
R505	1-247-889-00	CARBON 270K 5%	1/4W
R506	1-247-889-00	CARBON 270K 5%	1/4W
R507	1-249-417-11	CARBON 1K 5%	1/4W
R508	1-249-417-11	CARBON 1K 5%	1/4W
R509	1-249-417-11	CARBON 1K 5%	1/4W
R510	1-249-417-11	CARBON 1K 5%	1/4W
R511	1-249-417-11	CARBON 1K 5%	1/4W
R512	1-249-417-11	CARBON 1K 5%	1/4W
R513	1-249-417-11	CARBON 1K 5%	1/4W
R514	1-249-417-11	CARBON 1K 5%	1/4W
R515	1-247-826-00	CARBON 620 5%	1/4W
R516	1-249-416-11	CARBON 820 5%	1/4W
R518	1-249-416-11	CARBON 820 5%	1/4W
R519	1-249-429-11	CARBON 10K 5%	1/4W
R520	1-249-411-11	CARBON 330 5%	1/4W
R522	1-249-412-11	CARBON 390 5%	1/4W

CONTROL

MAIN

Ref.No.	Part No.	Description	Remark		
R523	1-249-429-11	CARBON	10K	5%	1/4W
R524	1-249-429-11	CARBON	10K	5%	1/4W
R525	1-249-426-11	CARBON	5.6K	5%	1/4W
R526	1-249-422-11	CARBON	2.7K	5%	1/4W
R528	1-249-417-11	CARBON	1K	5%	1/4W
R529	1-249-421-11	CARBON	2.2K	5%	1/4W
R530	1-249-421-11	CARBON	2.2K	5%	1/4W
< SWITCH >					
S501	1-572-198-11	SWITCH, KEYBOARD (POWER)			

*	A-3264-639-A	MAIN BOARD, COMPLETE (E, UAE)			
*	A-3264-464-A	MAIN BOARD, COMPLETE (EA)			

< CAPACITOR >					
C1	1-162-207-31	CERAMIC	22PF	5%	50V (E, UAE)
C1	1-162-209-31	CERAMIC	27PF	5%	50V (EA)
C2	1-102-959-00	CERAMIC	22PF	5%	50V (E, UAE)
C2	1-102-962-00	CERAMIC	30PF	5%	50V (EA)
C3	1-162-192-31	CERAMIC	2.7PF	10%	50V
C4	1-162-839-11	CERAMIC	0.01uF	10%	16V
C5	1-162-839-11	CERAMIC	0.01uF	10%	16V
C6	1-124-034-51	ELECT	33uF	20%	16V
C8	1-124-902-00	ELECT	0.47uF	20%	50V
C9	1-124-927-11	ELECT	4.7uF	20%	100V
C10	1-124-907-11	ELECT	10uF	20%	50V
C11	1-124-925-11	ELECT	2.2uF	20%	100V
C14	1-162-839-11	CERAMIC	0.01uF	10%	16V
C15	1-162-287-31	CERAMIC	270PF	10%	50V
C16	1-124-927-11	ELECT	4.7uF	20%	100V
C17	1-124-903-11	ELECT	1uF	20%	50V
C18	1-124-477-11	ELECT	47uF	20%	25V
C19	1-124-034-51	ELECT	33uF	20%	16V
C20	1-162-841-11	CERAMIC	0.015uF	10%	16V
C21	1-162-841-11	CERAMIC	0.015uF	10%	16V
C22	1-124-903-11	ELECT	1uF	20%	50V
C23	1-162-839-11	CERAMIC	0.01uF	10%	16V
C24	1-162-839-11	CERAMIC	0.01uF	10%	16V
C25	1-101-884-00	CERAMIC	56PF	5%	50V
C26	1-162-197-31	CERAMIC	6.8PF	10%	50V
C27	1-102-942-00	CERAMIC	5.0PF	+-.5PF	50V
C28	1-136-480-11	FILM	0.0015uF	5%	63V
C29	1-164-039-11	CERAMIC	3PF	5%	50V
C30	1-137-015-11	FILM	0.0047uF	5%	63V
C31	1-102-949-00	CERAMIC	12PF	5%	50V
C32	1-110-342-11	FILM	390PF	5%	63V
C33	1-162-203-31	CERAMIC	15PF	5%	50V

Ref.No.	Part No.	Description	Remark		
C34	1-162-294-31	CERAMIC	0.001uF	10%	50V
C35	1-162-839-11	CERAMIC	0.01uF	10%	16V
C36	1-124-902-00	ELECT	0.47uF	20%	50V
C37	1-124-902-00	ELECT	0.47uF	20%	50V
C38	1-124-927-11	ELECT	4.7uF	20%	100V
C101	1-162-282-31	CERAMIC	100PF	10%	50V
C102	1-162-282-31	CERAMIC	100PF	10%	50V
C103	1-162-282-31	CERAMIC	100PF	10%	50V
C104	1-162-294-31	CERAMIC	0.001uF	10%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V
C106	1-162-282-31	CERAMIC	100PF	10%	50V
C107	1-124-126-00	ELECT	47uF	20%	10V
C108	1-130-486-00	MYLAR	0.018uF	10%	50V
C109	1-124-903-00	ELECT	1uF	20%	50V
C110	1-130-471-00	MYLAR	0.001uF	5%	50V
C111	1-124-925-11	ELECT	2.2uF	20%	100V
C112	1-124-126-00	ELECT	47uF	20%	10V
C113	1-162-282-31	CERAMIC	100PF	10%	50V
C114	1-124-903-11	ELECT	1uF	20%	50V
C115	1-162-290-31	CERAMIC	470PF	10%	50V
C118	1-130-491-00	MYLAR	0.047uF	5%	50V
C119	1-124-903-11	ELECT	1uF	20%	50V
C120	1-161-379-00	CERAMIC	0.01uF	20%	25V
C121	1-124-902-00	ELECT	0.47uF	20%	50V
C122	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C123	1-124-463-00	ELECT	0.1uF	20%	50V
C124	1-162-294-31	CERAMIC	0.001uF	10%	50V
C125	1-130-491-00	MYLAR	0.047uF	5%	50V
C126	1-161-057-00	CERAMIC	0.033uF	10%	50V
C128	1-124-903-11	ELECT	1uF	20%	50V
C129	1-124-903-11	ELECT	1uF	20%	50V
C130	1-124-903-11	ELECT	1uF	20%	50V
C142	1-124-903-11	ELECT	1uF	20%	50V
C143	1-124-903-11	ELECT	1uF	20%	50V
C144	1-124-903-11	ELECT	1uF	20%	50V
C201	1-162-282-31	CERAMIC	100PF	10%	50V
C202	1-162-282-31	CERAMIC	100PF	10%	50V
C203	1-162-282-31	CERAMIC	100PF	10%	50V
C204	1-162-294-31	CERAMIC	0.001uF	10%	50V
C205	1-162-294-31	CERAMIC	0.001uF	10%	50V
C206	1-162-282-31	CERAMIC	100PF	10%	50V
C207	1-124-126-00	ELECT	47uF	20%	10V
C208	1-130-486-00	MYLAR	0.018uF	10%	50V
C209	1-124-903-00	ELECT	1uF	20%	50V
C210	1-130-471-00	MYLAR	0.001uF	5%	50V
C211	1-124-925-11	ELECT	2.2uF	20%	100V
C212	1-124-126-00	ELECT	47uF	20%	10V
C213	1-162-282-31	CERAMIC	100PF	10%	50V

Ref.No.	Part No.	Description	Remark
C214	1-124-903-11	ELECT	1uF 20% 50V
C215	1-162-290-31	CERAMIC	470PF 10% 50V
C218	1-130-491-00	MYLAR	0.047uF 5% 50V
C219	1-124-903-11	ELECT	1uF 20% 50V
C220	1-161-379-00	CERAMIC	0.01uF 20% 25V
C221	1-124-902-00	ELECT	0.47uF 20% 50V
C222	1-161-377-00	CERAMIC	0.0047uF 30% 16V
C223	1-124-463-00	ELECT	0.1uF 20% 50V
C224	1-162-294-31	CERAMIC	0.001uF 10% 50V
C225	1-130-491-00	MYLAR	0.047uF 5% 50V
C226	1-161-057-00	CERAMIC	0.033uF 10% 50V
C228	1-124-903-11	ELECT	1uF 20% 50V
C229	1-124-903-11	ELECT	1uF 20% 50V
C230	1-124-903-11	ELECT	1uF 20% 50V
C242	1-124-903-11	ELECT	1uF 20% 50V
C243	1-124-903-11	ELECT	1uF 20% 50V
C244	1-124-903-11	ELECT	1uF 20% 50V
C301	1-124-443-00	ELECT	100uF 20% 10V
C302	1-124-472-11	ELECT	470uF 20% 10V
C303	1-124-925-11	ELECT	2.2uF 20% 100V
C304	1-124-126-00	ELECT	47uF 20% 10V
C305	1-124-907-11	ELECT	10uF 20% 50V
C306	1-124-477-11	ELECT	47uF 20% 25V
C307	1-124-925-11	ELECT	2.2uF 20% 100V
C308	1-124-126-00	ELECT	47uF 20% 10V
C309	1-130-478-00	MYLAR	0.0039uF 5% 50V
C310	1-130-484-00	MYLAR	0.012uF 5% 50V
C313	1-130-471-00	MYLAR	0.001uF 5% 50V
C318	1-126-176-11	ELECT	220uF 20% 10V
C320	1-162-847-11	CERAMIC	0.047uF 10% 16V
C321	1-124-902-00	ELECT	0.47uF 20% 50V
C322	1-124-902-00	ELECT	0.47uF 20% 50V
C323	1-161-377-00	CERAMIC	0.0047uF 30% 16V
C324	1-124-903-11	ELECT	1uF 20% 50V
C325	1-124-925-11	ELECT	2.2uF 20% 100V
C326	1-124-927-11	ELECT	4.7uF 20% 100V
C327	1-124-907-11	ELECT	10uF 20% 50V
C328	1-136-165-00	FILM	0.1uF 5% 50V
C329	1-124-472-11	ELECT	470uF 20% 10V
C330	1-136-165-00	FILM	0.1uF 5% 50V
C331	1-136-165-00	FILM	0.1uF 5% 50V
C332	1-161-494-00	CERAMIC	0.022uF 25V
C334	1-161-379-00	CERAMIC	0.01uF 20% 25V
C335	1-161-379-00	CERAMIC	0.01uF 20% 25V
C337	1-124-477-11	ELECT	47uF 20% 25V
C338	1-161-379-00	CERAMIC	0.01uF 20% 25V
C339	1-124-443-00	ELECT	100uF 20% 10V
C340	1-161-379-00	CERAMIC	0.01uF 20% 25V
C342	1-124-477-11	ELECT	47uF 20% 25V
C343	1-161-379-00	CERAMIC	0.01uF 20% 25V
C344	1-124-443-00	ELECT	100uF 20% 10V

Ref.No.	Part No.	Description	Remark
C346	1-124-120-11	ELECT	220uF 20% 25V
C347	1-161-379-00	CERAMIC	0.01uF 20% 25V
C348	1-161-379-00	CERAMIC	0.01uF 20% 25V
C352	1-161-379-00	CERAMIC	0.01uF 20% 25V
C353	1-124-903-11	ELECT	1uF 20% 50V
C354	1-126-176-11	ELECT	220uF 20% 10V
C357	1-136-165-00	FILM	0.1uF 5% 50V
C358	1-124-927-11	ELECT	4.7uF 20% 100V
C359	1-161-379-00	CERAMIC	0.01uF 20% 25V
C366	1-124-916-11	ELECT	22uF 20% 63V
< FILTER >			
CF1	1-577-327-81	FILTER, CERAMIC	
CF2	1-577-327-81	FILTER, CERAMIC	
CF3	1-577-327-81	FILTER, CERAMIC	
CF4	1-567-670-11	FILTER, CERAMIC	
< CONNECTOR >			
*CN301	1-691-574-11	PIN, CONNECTOR (PC BOARD)	3P
CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD)	4P
CN303	1-506-987-11	PIN, CONNECTOR (PC BOARD)	5P
*CN304	1-691-578-11	PIN, CONNECTOR (PC BOARD)	7P
*CN306	1-691-574-11	PIN, CONNECTOR (PC BOARD)	3P
CN308	1-569-778-11	PLUG, CONNECTOR	6P
CN309	1-569-780-11	PLUG, CONNECTOR	8P
CN310	1-569-781-11	PLUG, CONNECTOR	9P
< TRIMMER >			
CT1	1-151-637-11	CAP, VARIABLE	
CT2	1-151-637-11	CAP, VARIABLE	
CT3	1-151-637-11	CAP, VARIABLE	
CT4	1-151-637-11	CAP, VARIABLE	
CT6	1-141-360-41	CAP, VAR FILM TRIMMER	
CT9	1-141-290-41	CAP, VAR FILM TRIMMER	
< VARIABLE CAPACITOR >			
CV1	1-151-637-11	CAP, VARIABLE	
CV2	1-151-637-11	CAP, VARIABLE	
CV3	1-151-637-11	CAP, VARIABLE	
CV4	1-151-637-11	CAP, VARIABLE	
< DIODE >			
D1	8-719-987-63	DIODE 1N4148M	
D2	8-719-987-63	DIODE 1N4148M	
D3	8-719-987-63	DIODE 1N4148M	
D4	8-719-987-63	DIODE 1N4148M	
D5	8-719-987-63	DIODE 1N4148M	
D301	8-719-987-63	DIODE 1N4148M	
D302	8-719-987-63	DIODE 1N4148M	

MAIN

Ref.No.	Part No.	Description	Remark
D303	8-719-987-63	DIODE 1N4148M	
D304	8-719-987-63	DIODE 1N4148M	
D305	8-719-987-63	DIODE 1N4148M	
D306	8-719-987-63	DIODE 1N4148M	
D307	8-719-987-63	DIODE 1N4148M	
D308	8-719-987-63	DIODE 1N4148M	
D309	8-719-987-63	DIODE 1N4148M	
D310	8-719-987-63	DIODE 1N4148M	
D311	8-719-110-08	DIODE RD8. 2ESB2	
D312	8-719-109-97	DIODE RD6. 8ESB2	
D313	8-719-987-63	DIODE 1N4148M	
D314	8-719-110-13	DIODE RD9. 1ESB2	
D315	8-719-987-63	DIODE 1N4148M	
D316	8-719-987-63	DIODE 1N4148M	
D317	8-719-987-63	DIODE 1N4148M	
D324	8-719-110-64	DIODE RD24ESB4	
D325	8-719-987-63	DIODE 1N4148M	
< FILTER >			
FL1	1-236-022-11	FILTER, BAND PASS	
< IC >			
IC1	8-752-050-20	IC CXA1238S	
IC301	8-759-242-58	IC TA8189N	
IC302	8-759-972-97	IC BA3823LS	
IC303	8-759-905-47	IC BA338	
IC304	8-759-962-08	IC BA6208	
IC305	8-759-938-15	IC BA178M05	
< JACK >			
J301	1-563-716-21	JACK, PIN 2P (CD/LINE IN)	
< COIL >			
L1	1-428-777-11	COIL, AIR-CORE (E, UAE)	
L1	1-428-776-11	COIL, AIR-CORE (EA)	
L2	1-422-230-11	COIL, AIR-CORE (E, UAE)	
L2	1-460-205-11	COIL, WITH-CORE (EA)	
L3	1-402-507-11	ANTENNA, FERRITE-ROD (MW)	
L4	1-406-253-11	COIL (OSC)	
L5	1-402-390-11	COIL (ANT)	
L6	1-406-247-11	COIL (OSC)	
L7	1-402-539-11	COIL (ANT)	
L9	1-406-221-11	COIL, SW 2 OSC	
L11	1-410-315-21	INDUCTOR 0.68uH	
L12	1-410-314-11	INDUCTOR 0.47uH	
L301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR	
L302	1-410-322-11	INDUCTOR 3.3uH	
L303	1-410-322-11	INDUCTOR 3.3uH	

Ref.No.	Part No.	Description	Remark
L304	1-410-521-11	INDUCTOR 100uH	
L305	1-410-521-11	INDUCTOR 100uH	
L306	1-408-117-00	INDUCTOR 10uH	
< MOTOR >			
M901	3-378-834-01	MOTOR ASSY	
< TRANSISTOR >			
Q1	8-729-281-53	TRANSISTOR 2SC1815-GR	
Q2	8-729-900-80	TRANSISTOR DTC114ES	
Q3	8-729-194-57	TRANSISTOR 2SC945-P	
Q4	8-729-900-61	TRANSISTOR DTA114ES	
Q101	8-729-900-74	TRANSISTOR DTA143TS	
Q103	8-729-900-80	TRANSISTOR DTC114ES	
Q104	8-729-194-57	TRANSISTOR 2SC945-P	
Q201	8-729-900-74	TRANSISTOR DTA143TS	
Q203	8-729-900-80	TRANSISTOR DTC114ES	
Q204	8-729-194-57	TRANSISTOR 2SC945-P	
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q302	8-729-194-57	TRANSISTOR 2SC945-P	
Q303	8-729-194-57	TRANSISTOR 2SC945-P	
Q306	8-729-194-57	TRANSISTOR 2SC945-P	
Q307	8-729-194-57	TRANSISTOR 2SC945-P	
Q308	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q310	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q311	8-729-115-80	TRANSISTOR BA1A4P	
Q312	8-729-116-57	TRANSISTOR 2SB1068-K	
Q313	8-729-200-39	TRANSISTOR 2SC2236-Y	
Q314	8-729-200-39	TRANSISTOR 2SC2236-Y	
Q315	8-729-200-39	TRANSISTOR 2SC2236-Y	
Q316	8-729-115-80	TRANSISTOR BA1A4P	
Q317	8-729-115-80	TRANSISTOR BA1A4P	
Q318	8-729-115-30	TRANSISTOR 2SK105A-3D	
Q320	8-729-900-65	TRANSISTOR DTA144ES	
Q321	8-729-900-61	TRANSISTOR DTA114ES	
Q330	8-729-900-65	TRANSISTOR DTA144ES	
< RESISTOR >			
R1	1-249-421-11	CARBON 2.2K 5% 1/4W	
R2	1-249-441-11	CARBON 100K 5% 1/4W	
R3	1-247-887-00	CARBON 220K 5% 1/4W	
R4	1-249-429-11	CARBON 10K 5% 1/4W	
R5	1-247-807-11	CARBON 100 5% 1/4W	
R6	1-249-421-11	CARBON 2.2K 5% 1/4W	
R7	1-249-415-11	CARBON 680 5% 1/4W	
R8	1-249-411-11	CARBON 330 5% 1/4W	
R9	1-247-883-00	CARBON 150K 5% 1/4W	
R10	1-249-404-00	CARBON 82 5% 1/4W	

Ref.No.	Part No.	Description	Remark
R11	1-249-427-11	CARBON	6.8K 5% 1/4W
R12	1-249-427-11	CARBON	6.8K 5% 1/4W
R13	1-249-429-11	CARBON	10K 5% 1/4W
R14	1-247-887-00	CARBON	220K 5% 1/4W
R15	1-249-441-11	CARBON	100K 5% 1/4W
R16	1-249-417-11	CARBON	1K 5% 1/4W
R17	1-249-417-11	CARBON	1K 5% 1/4W
R18	1-249-426-11	CARBON	5.6K 5% 1/4W
R19	1-249-429-11	CARBON	10K 5% 1/4W
R21	1-249-411-11	CARBON	330 5% 1/4W
R101	1-249-437-11	CARBON	47K 5% 1/4W
R102	1-249-425-11	CARBON	4.7K 5% 1/4W
R103	1-249-417-11	CARBON	1K 5% 1/4W
R104	1-249-403-11	CARBON	68 5% 1/4W
R106	1-249-424-11	CARBON	3.9K 5% 1/4W
R107	1-247-885-00	CARBON	180K 5% 1/4W
R108	1-249-427-11	CARBON	6.8K 5% 1/4W
R109	1-249-426-11	CARBON	5.6K 5% 1/4W
R110	1-249-417-11	CARBON	1K 5% 1/4W
R111	1-249-432-11	CARBON	18K 5% 1/4W
R112	1-247-885-00	CARBON	180K 5% 1/4W
R113	1-249-413-11	CARBON	470 5% 1/4W
R114	1-247-891-00	CARBON	330K 5% 1/4W
R115	1-249-430-11	CARBON	12K 5% 1/4W
R116	1-249-427-11	CARBON	6.8K 5% 1/4W
R118	1-247-881-00	CARBON	120K 5% 1/4W
R119	1-249-429-11	CARBON	10K 5% 1/4W
R123	1-249-442-11	CARBON	510 5% 1/4W
R125	1-247-807-11	CARBON	100 5% 1/4W
R133	1-247-897-11	CARBON	560K 5% 1/4W
R134	1-249-421-11	CARBON	2.2K 5% 1/4W
R135	1-249-429-11	CARBON	10K 5% 1/4W
R136	1-249-429-11	CARBON	10K 5% 1/4W
R137	1-249-437-11	CARBON	47K 5% 1/4W
R201	1-249-437-11	CARBON	47K 5% 1/4W
R202	1-249-425-11	CARBON	4.7K 5% 1/4W
R203	1-249-417-11	CARBON	1K 5% 1/4W
R204	1-249-403-11	CARBON	68 5% 1/4W
R206	1-249-424-11	CARBON	3.9K 5% 1/4W
R207	1-247-885-00	CARBON	180K 5% 1/4W
R208	1-249-427-11	CARBON	6.8K 5% 1/4W
R209	1-249-426-11	CARBON	5.6K 5% 1/4W
R210	1-249-417-11	CARBON	1K 5% 1/4W
R211	1-249-432-11	CARBON	18K 5% 1/4W
R212	1-247-885-00	CARBON	180K 5% 1/4W
R213	1-249-413-11	CARBON	470 5% 1/4W
R214	1-247-891-00	CARBON	330K 5% 1/4W
R215	1-249-430-11	CARBON	12K 5% 1/4W
R216	1-249-427-11	CARBON	6.8K 5% 1/4W

Ref.No.	Part No.	Description	Remark
R218	1-247-881-00	CARBON	120K 5% 1/4W
R219	1-249-429-11	CARBON	10K 5% 1/4W
R223	1-249-442-11	CARBON	510 5% 1/4W
R225	1-247-807-11	CARBON	100 5% 1/4W
R233	1-247-897-11	CARBON	560K 5% 1/4W
R234	1-249-421-11	CARBON	2.2K 5% 1/4W
R235	1-249-429-11	CARBON	10K 5% 1/4W
R236	1-249-429-11	CARBON	10K 5% 1/4W
R237	1-249-437-11	CARBON	47K 5% 1/4W
R301	1-249-425-11	CARBON	4.7K 5% 1/4W
R302	1-247-807-11	CARBON	100 5% 1/4W
R303	1-247-903-00	CARBON	1M 5% 1/4W
R304	1-249-429-11	CARBON	10K 5% 1/4W
R305	1-249-432-11	CARBON	18K 5% 1/4W
R306	1-249-441-11	CARBON	100K 5% 1/4W
R307	1-249-417-11	CARBON	1K 5% 1/4W
R308	1-247-818-11	CARBON	300 5% 1/4W
R309	1-249-436-11	CARBON	39K 5% 1/4W
R310	1-249-396-11	CARBON	18 5% 1/6W
R317	1-249-434-11	CARBON	27K 5% 1/4W
R318	1-249-429-11	CARBON	10K 5% 1/4W
R319	1-249-434-11	CARBON	27K 5% 1/4W
R320	1-247-807-11	CARBON	100 5% 1/4W
R323	1-249-426-11	CARBON	5.6K 5% 1/4W
R324	1-249-422-11	CARBON	2.7K 5% 1/4W
R325	1-247-891-00	CARBON	330K 5% 1/4W
R326	1-247-883-00	CARBON	150K 5% 1/4W
R327	1-247-807-11	CARBON	100 5% 1/4W
R328	1-249-409-11	CARBON	220 5% 1/4W
R329	1-249-413-11	CARBON	470 5% 1/4W
R330	1-249-432-11	CARBON	18K 5% 1/4W
R331	1-249-422-11	CARBON	2.7K 5% 1/4W
R332	1-249-441-11	CARBON	100K 5% 1/4W
R333	1-249-417-11	CARBON	1K 5% 1/4W
△R334	1-249-447-11	CARBON	1 5% 1/4W F
R335	1-249-415-11	CARBON	680 5% 1/4W
R336	1-249-429-11	CARBON	10K 5% 1/4W
△R337	1-249-447-11	CARBON	1 5% 1/4W F
R338	1-249-417-11	CARBON	1K 5% 1/4W
R339	1-249-423-11	CARBON	3.3K 5% 1/4W
△R340	1-249-447-11	CARBON	1 5% 1/4W F
△R341	1-249-447-11	CARBON	1 5% 1/4W F
△R343	1-249-480-11	CARBON	3.3 5% 1/2W F
R344	1-249-404-00	CARBON	82 5% 1/4W
R345	1-249-401-11	CARBON	47 5% 1/4W
R346	1-249-437-11	CARBON	47K 5% 1/4W
R347	1-249-409-11	CARBON	220 5% 1/4W
R348	1-249-429-11	CARBON	10K 5% 1/4W

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

MAIN

ECHO

Ref.No.	Part No.	Description	Remark
R351	1-249-433-11	CARBON	22K 5% 1/4W
R352	1-249-401-11	CARBON	47 5% 1/4W
R354	1-249-414-11	CARBON	560 5% 1/4W
R355	1-249-425-11	CARBON	4.7K 5% 1/4W
R356	1-249-429-11	CARBON	10K 5% 1/4W
R357	1-249-404-00	CARBON	82 5% 1/4W
R358	1-249-413-11	CARBON	470 5% 1/4W
R359	1-249-433-11	CARBON	22K 5% 1/4W
R360	1-249-437-11	CARBON	47K 5% 1/4W
R361	1-249-429-11	CARBON	10K 5% 1/4W
R362	1-249-429-11	CARBON	10K 5% 1/4W
R376	1-247-897-11	CARBON	560K 5% 1/4W
< VARIABLE RESISTOR >			
RV1	1-223-425-11	RES, VAR, CARBON 100K (FINE TUNING)	
RV301	1-238-599-11	RES, ADJ, CARBON 4.7K	
RV302	1-238-598-11	RES, ADJ, CARBON 2.2K	
RV303	1-241-245-11	RES, VAR, SLIDE 50K (BALANCE)	
RV304	1-223-424-11	RES, VAR, CARBON (VOLUME)	
RV305	1-233-500-11	RES, VAR, SLIDE 50K/50K (MEGA BASS)	
RV306	1-241-244-11	RES, VAR, SLIDE 50K/50K (400Hz)	
RV307	1-241-244-11	RES, VAR, SLIDE 50K/50K (1KHz)	
RV308	1-241-244-11	RES, VAR, SLIDE 50K/50K (4KHz)	
RV309	1-241-244-11	RES, VAR, SLIDE 50K/50K (10KHz)	
< SWITCH >			
S1	1-692-616-11	SWITCH, LEVER SLIDE (BAND SELECT)	
S301	1-692-672-11	SWITCH, SLIDE (REC-PB)	
S302	1-692-618-11	SWITCH, LEVER SLIDE (FUNCTION)	
S303	1-571-042-11	SWITCH, PUSH (HIGH SPEED DUBBING)	
S304	1-571-043-11	SWITCH, PUSH (REC MUTE)	
S306	1-692-617-11	SWITCH, LEVER SLIDE (KARAOKE MODE)	
< VARIABLE RESISTOR >			
SVR1	1-238-601-11	RES, ADJ, CARBON 22K	
< TRANSFORMER >			
T1	1-404-355-00	TRANSFORMER, IF	
< TEST PIN >			
TP5	1-533-217-31	HOLDER, FUSE	
< VIBRATOR >			
X501	1-578-787-21	VIBRATOR, CERAMIC (500KHz)	

Ref.No.	Part No.	Description	Remark
*	A-3264-466-A	ECHO BOARD, COMPLETE	

< CAPACITOR >			
C602	1-124-477-11	ELECT	47uF 20% 25V
C603	1-124-903-11	ELECT	1uF 20% 50V
C604	1-124-902-00	ELECT	0.47uF 20% 50V
C605	1-124-927-11	ELECT	4.7uF 20% 100V
C607	1-162-282-31	CERAMIC	100PF 10% 50V
C608	1-124-477-11	ELECT	47uF 20% 25V
C609	1-124-907-11	ELECT	10uF 20% 50V
C612	1-124-477-11	ELECT	47uF 20% 25V
C613	1-124-903-11	ELECT	1uF 20% 50V
C614	1-124-902-00	ELECT	0.47uF 20% 50V
C617	1-162-282-31	CERAMIC	100PF 10% 50V
C621	1-124-903-11	ELECT	1uF 20% 50V
C622	1-162-840-11	CERAMIC	0.012uF 10% 16V
C623	1-162-291-31	CERAMIC	560PF 10% 50V
C624	1-124-903-11	ELECT	1uF 20% 50V
C625	1-162-842-11	CERAMIC	0.018uF 10% 16V
C626	1-162-291-31	CERAMIC	560PF 10% 50V
C627	1-130-492-11	MYLAR	0.056uF 5% 50V
C628	1-130-491-00	MYLAR	0.047uF 5% 50V
C629	1-136-171-00	FILM	0.33uF 5% 50V
C630	1-130-483-00	MYLAR	0.01uF 5% 50V
C631	1-136-171-00	FILM	0.33uF 5% 50V
C632	1-130-483-00	MYLAR	0.01uF 5% 50V
C633	1-162-294-31	CERAMIC	0.001uF 10% 50V
C634	1-124-443-00	ELECT	100uF 20% 10V
C635	1-161-379-00	CERAMIC	0.01uF 20% 25V
C636	1-161-379-00	CERAMIC	0.01uF 20% 25V
C637	1-162-209-31	CERAMIC	27PF 5% 50V
C638	1-162-209-31	CERAMIC	27PF 5% 50V
C639	1-126-176-11	ELECT	220uF 20% 10V
C641	1-124-477-11	ELECT	47uF 20% 25V
C642	1-161-057-00	CERAMIC	0.033uF 10% 50V
C643	1-124-903-11	ELECT	1uF 20% 50V
C644	1-124-927-11	ELECT	4.7uF 20% 100V
C645	1-124-927-11	ELECT	4.7uF 20% 100V
C646	1-124-903-11	ELECT	1uF 20% 50V
C647	1-162-282-31	CERAMIC	100PF 10% 50V
C648	1-162-830-11	CERAMIC	0.0018uF 10% 16V
C649	1-124-903-11	ELECT	1uF 20% 50V
C650	1-124-477-11	ELECT	47uF 20% 25V
C652	1-124-927-11	ELECT	4.7uF 20% 100V
C653	1-126-176-11	ELECT	220uF 20% 10V

Ref.No.	Part No.	Description	Remark
< CONNECTOR >			
CN309	1-569-781-11	PLUG, CONNECTOR 9P	
CN310	1-569-780-11	PLUG, CONNECTOR 8P	
*CN601	1-569-769-11	SOCKET, CONNECTOR 8P	
< DIODE >			
D601	8-719-987-63	DIODE 1N4148M	
D602	8-719-987-63	DIODE 1N4148M	
D603	8-719-987-63	DIODE 1N4148M	
< IC >			
IC601	8-759-246-69	IC TA2011S	
IC602	8-759-635-81	IC M50197P	
< JACK >			
J601	1-750-694-11	JACK (MIX MIC 2)	
J602	1-750-694-11	JACK (MIX MIC 1)	
< COIL >			
L601	1-410-335-11	INDUCTOR 150uH	
L602	1-410-517-11	INDUCTOR 47uH	
< TRANSISTOR >			
Q601	8-729-194-57	TRANSISTOR 2SC945-P	
Q602	8-729-194-57	TRANSISTOR 2SC945-P	
Q603	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q604	8-729-194-57	TRANSISTOR 2SC945-P	
Q605	8-729-900-74	TRANSISTOR DTC143TS	
Q606	8-729-194-57	TRANSISTOR 2SC945-P	
Q607	8-729-194-57	TRANSISTOR 2SC945-P	
Q611	8-729-194-57	TRANSISTOR 2SC945-P	
< RESISTOR >			
R601	1-247-895-00	CARBON 470K 5% 1/4W	
R602	1-249-423-11	CARBON 3.3K 5% 1/4W	
R603	1-249-423-11	CARBON 3.3K 5% 1/4W	
R604	1-249-429-11	CARBON 10K 5% 1/4W	
R605	1-249-413-11	CARBON 470 5% 1/4W	
R606	1-249-431-11	CARBON 15K 5% 1/4W	
R607	1-249-417-11	CARBON 1K 5% 1/4W	
R608	1-247-807-11	CARBON 100 5% 1/4W	
R609	1-247-903-00	CARBON 1M 5% 1/4W	
R611	1-247-895-00	CARBON 470K 5% 1/4W	
R612	1-249-423-11	CARBON 3.3K 5% 1/4W	
R613	1-249-423-11	CARBON 3.3K 5% 1/4W	
R614	1-249-429-11	CARBON 10K 5% 1/4W	
R615	1-249-413-11	CARBON 470 5% 1/4W	
R616	1-249-409-11	CARBON 220 5% 1/4W	

Ref.No.	Part No.	Description	Remark
R617	1-249-417-11	CARBON 1K 5% 1/4W	
R620	1-249-432-11	CARBON 18K 5% 1/4W	
R621	1-249-429-11	CARBON 10K 5% 1/4W	
R622	1-249-431-11	CARBON 15K 5% 1/4W	
R623	1-249-432-11	CARBON 18K 5% 1/4W	
R624	1-249-429-11	CARBON 10K 5% 1/4W	
R625	1-249-431-11	CARBON 15K 5% 1/4W	
R626	1-247-852-11	CARBON 7.5K 5% 1/4W	
R627	1-247-876-11	CARBON 75K 5% 1/4W	
R628	1-247-852-11	CARBON 7.5K 5% 1/4W	
R629	1-247-876-11	CARBON 75K 5% 1/4W	
R630	1-249-423-11	CARBON 3.3K 5% 1/4W	
R631	1-249-429-11	CARBON 10K 5% 1/4W	
R632	1-247-903-00	CARBON 1M 5% 1/4W	
R634	1-247-892-11	CARBON 360K 5% 1/4W	
R635	1-249-421-11	CARBON 2.2K 5% 1/4W	
R636	1-249-437-11	CARBON 47K 5% 1/4W	
R637	1-249-436-11	CARBON 39K 5% 1/4W	
R638	1-249-432-11	CARBON 18K 5% 1/4W	
R641	1-249-429-11	CARBON 10K 5% 1/4W	
R642	1-249-429-11	CARBON 10K 5% 1/4W	
R643	1-249-429-11	CARBON 10K 5% 1/4W	
R644	1-249-413-11	CARBON 470 5% 1/4W	
R645	1-247-867-11	CARBON 33K 5% 1/4W	
R646	1-249-421-11	CARBON 2.2K 5% 1/4W	
R649	1-249-407-11	CARBON 150 5% 1/4W	
R650	1-249-433-11	CARBON 22K 5% 1/4W	
< VARIABLE RESISTOR >			
RV601	1-223-423-11	RES, VAR, CARBON (MIC FADER 2)	
RV603	1-223-422-11	RES, VAR, SLIDE (ECHO)	
RV611	1-223-423-11	RES, VAR, CARBON (MIC FADER 1)	
< VIBRATOR >			
X601	1-567-192-11	OSCILLATOR, CERAMIC (4.00MHz)	

*	A-3264-468-A	POWER BOARD, COMPLETE	

	1-533-233-11	HOLDER, FUSE	
< CAPACITOR >			
C131	1-124-903-11	ELECT 1uF 20% 50V	
C132	1-162-282-31	CERAMIC 100PF 10% 50V	
C133	1-162-292-31	CERAMIC 680PF 10% 50V	
C134	1-124-907-11	ELECT 10uF 20% 50V	
C138	1-130-496-00	MYLAR 0.12uF 5% 50V	
C139	1-130-496-00	MYLAR 0.12uF 5% 50V	

POWER

Ref.No.	Part No.	Description	Remark
C141	1-124-477-11	ELECT	47uF 20% 25V
C152	1-124-927-11	ELECT	4.7uF 20% 100V
C231	1-124-903-11	ELECT	1uF 20% 50V
C232	1-162-282-31	CERAMIC	100PF 10% 50V
C233	1-162-292-31	CERAMIC	680PF 10% 50V
C234	1-124-907-11	ELECT	10uF 20% 50V
C238	1-130-496-00	MYLAR	0.12uF 5% 50V
C239	1-130-496-00	MYLAR	0.12uF 5% 50V
C241	1-124-477-11	ELECT	47uF 20% 25V
C252	1-124-927-11	ELECT	4.7uF 20% 100V
C356	1-126-176-11	ELECT	220uF 20% 10V
C371	1-124-916-11	ELECT	22uF 20% 63V
C373	1-126-176-11	ELECT	220uF 20% 10V
C375	1-124-925-11	ELECT	2.2uF 20% 100V
C901	1-124-771-00	ELECT	6800uF 20% 25V
C902	1-101-005-00	CERAMIC	22000PF 50V
C903	1-101-005-00	CERAMIC	22000PF 50V
C904	1-101-005-00	CERAMIC	22000PF 50V
C905	1-101-005-00	CERAMIC	22000PF 50V
C906	1-101-005-00	CERAMIC	22000PF 50V
C907	1-124-907-11	ELECT	10uF 20% 50V
C908	1-101-005-00	CERAMIC	22000PF 50V
< DIODE >			
D101	8-719-987-63	DIODE	1N4148M
D102	8-719-987-63	DIODE	1N4148M
D201	8-719-987-63	DIODE	1N4148M
D202	8-719-987-63	DIODE	1N4148M
D321	8-719-109-60	DIODE	HZS2.7NB1
D323	8-719-987-63	DIODE	1N4148M
D901	8-719-200-02	DIODE	10E-2
D901	8-719-031-85	DIODE	1N4002L
D902	8-719-911-55	DIODE	U05G
D902	8-719-031-52	DIODE	1N5401
D903	8-719-911-55	DIODE	U05G
D903	8-719-031-52	DIODE	1N5401
D904	8-719-911-55	DIODE	U05G
D904	8-719-031-52	DIODE	1N5401
D905	8-719-911-55	DIODE	U05G
D905	8-719-031-52	DIODE	1N5401
< FUSE >			
△F902	1-532-299-00	FUSE	5.0A
< IC >			
IC306	8-759-822-51	IC	LA4620

Ref.No.	Part No.	Description	Remark
< JACK >			
J302	1-568-267-11	JACK (HEAD PHONES)	
△J901	1-526-838-11	INLET, AC 2P (~ AC IN)	
< TRANSFORMER >			
△L901	1-423-747-11	TRANSFORMER, LINE FILTER	
< TRANSISTOR >			
Q322	8-729-901-57	TRANSISTOR	DTC143XS
Q323	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q324	8-729-119-76	TRANSISTOR	2SA1175-HFE
Q325	8-729-900-80	TRANSISTOR	DTC114ES
Q326	8-729-901-57	TRANSISTOR	DTC143XS
Q327	8-729-901-57	TRANSISTOR	DTC143XS
Q328	8-729-194-57	TRANSISTOR	2SC945-P
Q329	8-729-194-57	TRANSISTOR	2SC945-P
Q331	8-729-900-80	TRANSISTOR	DTC114ES
< RESISTOR >			
R126	1-249-441-11	CARBON	100K 5% 1/4W
R127	1-249-411-11	CARBON	330 5% 1/4W
△R129	1-249-451-11	CARBON	2.2 5% 1/4W F
△R130	1-249-451-11	CARBON	2.2 5% 1/4W F
R131	1-249-408-11	CARBON	180 5% 1/4W
R132	1-249-417-11	CARBON	1K 5% 1/4W
R151	1-249-417-11	CARBON	1K 5% 1/4W
R152	1-249-425-11	CARBON	4.7K 5% 1/4W
R153	1-247-820-11	CARBON	360 5% 1/4W
R154	1-249-419-11	CARBON	1.5K 5% 1/4W
R226	1-249-441-11	CARBON	100K 5% 1/4W
R227	1-249-411-11	CARBON	330 5% 1/4W
△R229	1-249-451-11	CARBON	2.2 5% 1/4W F
△R230	1-249-451-11	CARBON	2.2 5% 1/4W F
R231	1-249-408-11	CARBON	180 5% 1/4W
R232	1-249-417-11	CARBON	1K 5% 1/4W
R251	1-249-417-11	CARBON	1K 5% 1/4W
R252	1-249-425-11	CARBON	4.7K 5% 1/4W
R253	1-247-820-11	CARBON	360 5% 1/4W
R254	1-249-419-11	CARBON	1.5K 5% 1/4W
R353	1-249-429-11	CARBON	10K 5% 1/4W
R363	1-249-417-11	CARBON	1K 5% 1/4W
R364	1-247-881-00	CARBON	120K 5% 1/4W
R365	1-249-423-11	CARBON	3.3K 5% 1/4W
R366	1-249-425-11	CARBON	4.7K 5% 1/4W
R367	1-249-430-11	CARBON	12K 5% 1/4W
R368	1-249-425-11	CARBON	4.7K 5% 1/4W
R369	1-249-425-11	CARBON	4.7K 5% 1/4W
R370	1-249-437-11	CARBON	47K 5% 1/4W

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

POWER**TERMINAL****VOL LED**

Ref.No.	Part No.	Description	Remark
R371	1-249-429-11	CARBON	10K 5% 1/4W
R372	1-249-437-11	CARBON	47K 5% 1/4W
R373	1-249-419-11	CARBON	1.5K 5% 1/4W
R374	1-249-429-11	CARBON	10K 5% 1/4W
R375	1-249-434-11	CARBON	27K 5% 1/4W
R377	1-247-807-11	CARBON	100 5% 1/4W
< SPEAKER >			
SP901	1-537-330-11	TERMINAL BOARD	
< SWITCH >			
△SW901	1-692-514-11	SWITCH (VOLTAGE SELECTOR)	
< TRANSFORMER >			
△T901	1-423-785-11	TRANSFORMER, POWER	

*	1-648-391-11	TERMINAL BOARD	*****

*	1-648-389-11	VOL LED BOARD	*****
< DIODE >			
D513	8-719-041-94	LED SLT-25VR (VOLUME)	

M901	3-378-834-01	MOTOR ASSY	

MISCELLANEOUS			

202	1-751-483-11	CORD, SPEAKER CONNECTION	
ANT1	1-501-542-11	ANTENNA, TELESCOPIC	
HE901	1-543-558-11	HEAD, E (DECK B)	
HP901	1-543-424-21	HEAD (PLAYBACK) (DECK A)	
HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK) (DECK B)	
M901	3-378-834-01	MOTOR ASSY	
PM901	1-454-466-11	SOLENOID (DECK A)	
S951	1-571-745-11	SWITCH, LEAF (B-PLAY)	
S952	1-572-538-11	SWITCH, LEAF (B-MAIN)	
S953	1-572-538-11	SWITCH, LEAF (A-MAIN)	
S954	1-571-745-11	SWITCH, LEAF (A-PLAY)	
S955	1-571-745-11	SWITCH, LEAF (AMPS) (DECK A)	
SP601	1-504-291-11	SPEAKER (5CM)	
SP602	1-504-292-11	SPEAKER (10CM)	
SP651	1-504-291-11	SPEAKER (5CM)	
SP652	1-504-292-11	SPEAKER (10CM)	

Ref.No.	Part No.	Description	Remark
ACCESSORIES & PACKING MATERIALS			

	1-467-184-11	COMMANDER, STANDARD (RMT-C301)	
	1-542-211-11	MICROPHONE, DYNAMIC	
△	1-551-983-00	CORD, POWER (E23)	
△	1-569-007-11	ADAPTER, CONVERSION 2P (E23)	
△	1-569-008-11	ADAPTER, CONVERSION 2P (EA)	
△	1-590-413-11	CORD, POWER (E, EA, UAE)	
*	3-389-611-01	CUSHION (TOP)	
*	3-389-612-01	CUSHION (CENTER)	
*	3-389-613-01	CUSHION (BOTTOM)	
*	3-389-614-01	INDIVIDUAL CARTON	
	3-756-936-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH)	

HARDWARE LIST

- #1 7-621-770-67 SCREW +BVTT 2.6X6 (S)
- #2 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
- #3 7-685-647-79 SCREW +BVTP 3X10 TYPE2 N-S
- #4 7-685-661-79 SCREW +BVTP 4X12 TYPE2 N-S
- #5 7-682-548-04 SCREW +B 3X8
- #6 7-685-651-79 SCREW +BVTP 3X20 TYPE2 N-S
- #7 7-685-903-21 SCREW +PTPWH 3X8 (TYPE2)
- #8 7-621-255-25 SCREW +PTT 2X4 (S)
- #9 7-621-770-87 SCREW +B 2.6X5
- #12 7-621-773-86 SCRTEWTOTSU PTTWH 2.6X4
- #13 7-621-255-45 SCREW +PTT 2X6 (S)
- #14 7-685-104-19 SCREW +P 2X6 TYPE2 NON-SLIT

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

CFS-KW300S

SONY[®] SERVICE MANUAL

E Model

SUPPLEMENT-1

File this Supplement with the Service Manual.

1. ELECTRICAL ADJUSTMENT
2. BLOCK DIAGRAM

1. ELECTRICAL ADJUSTMENTS

1-1. TAPE RECORDER SECTION

PRECAUTION

- Adjustments should be performed in the order given.
Generally playback circuit adjustments should be completed before performing recording circuit adjustments.
- Adjustments should be performed for both L-ch and R-ch.
Switches and controls should be set as follows unless otherwise specified.

• Positions of switches and control knobs

FUNCTIONTAPE
VOLUMEstandard output level position

Standard Input Level

	MIC IN
Source impedance	300 Ω
input level	2.451mV (-50dB)

Standard Output Level

Output terminal	SP OUT	HEADPHONES OUT
load impedance	4 Ω	32 Ω
output signal level	0.775V (0dB)	0.25V (-10dB)

0dB = 0.775V

Test Tape

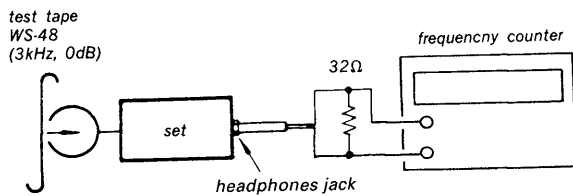
Type	Signal	Used for
WS-48	3kHz, 0dB	tape speed adjustment
P-3-A063	6.3kHz, -10dB	azimuth adjustment

Tape Speed Adjustment **DECK A**

Procedure :

- Perform high speed adjustment before normal speed adjustment.

Mode : playback



Speed	S303 (HIGH SPEED DUBBING)	Adjustment point	Frequency counter
Normal	OFF	RV301	2,955 — 3,115Hz
High	ON	RV302	5,400 — 6,300Hz

Frequency difference between the beginning and the end of the tape should be within ±1.5%.

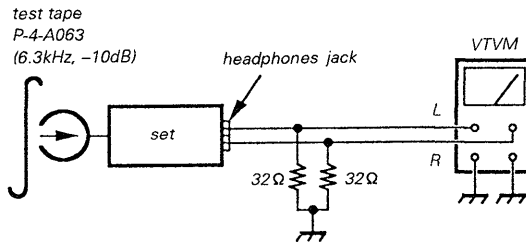
Adjustment Location : See page 4.

Record/Playback Head Azimuth Adjustment

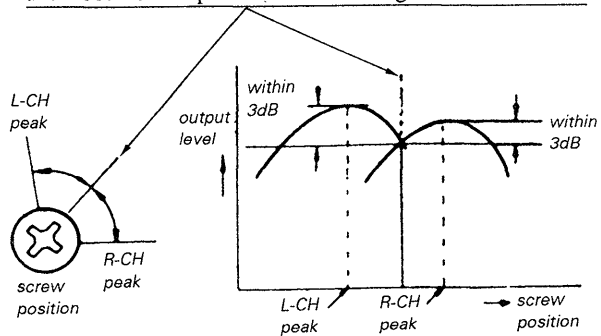
Note : Perform this adjustments for both decks.

Procedure :

- Mode : FWD playback

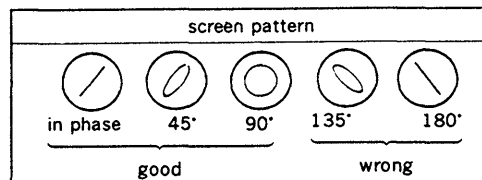
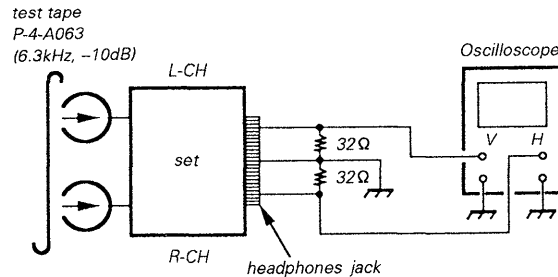


- Turn the adjustment screw for the maximum output levels.
If these levels do not match, turn the adjustment screw until both of output levels match together within 3dB.



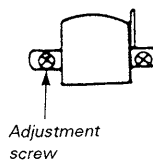
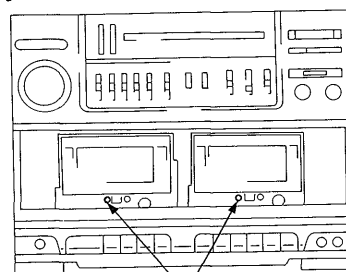
Phase Check

Mode : playback



- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location :



Adjustment screws
REC/PB head (deck B) or
PB head (deck A)

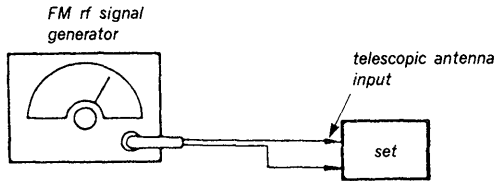
1-2. RADIO SECTION

• FM Section

Setting :

FUNCTION switch : RADIO

BAND switch : FM



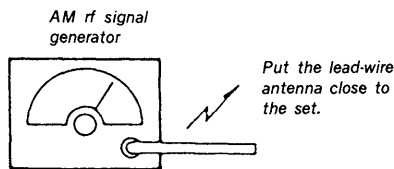
22.5kHz frequency
deviation by 400Hz signal
output level : as low as possible

• MW Section

Setting :

FUNCTION switch : RADIO

BAND switch : MW



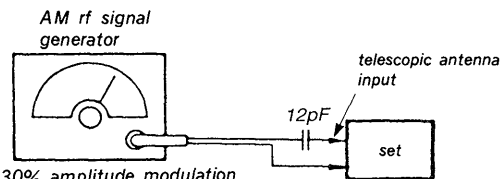
30% amplitude
modulation by
400Hz signal

• SW Section

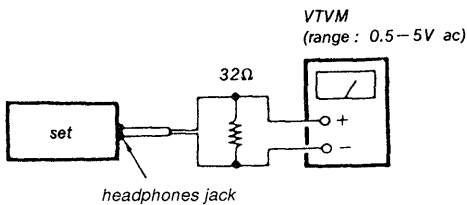
FUNCTION switch : RADIO

BAND switch : SW1/SW2

FINE TUNING knob : mechanical mid



30% amplitude modulation
by 400Hz signal
output level : as low as possible



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

() : Saudi Arabia model

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	CT2
86.5MHz(87.35MHz)	109.5MHz(107.8MHz)

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	CT1
86.5MHz(87.35MHz)	109.5MHz(107.8MHz)

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	
455kHz	

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	CT4
520kHz	1,680kHz

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT3
600kHz	1,400kHz

SW1 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L6	CT6
2.2MHz	7.3MHz

SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L5	
3MHz	

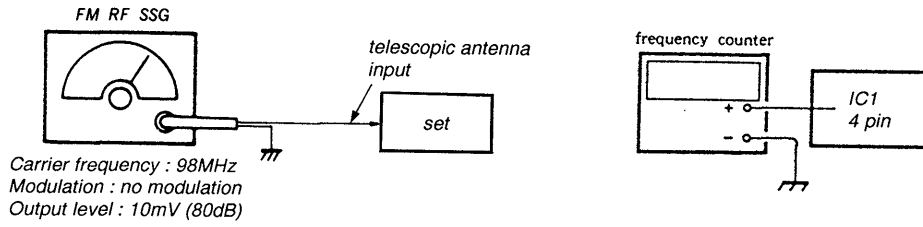
SW2 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L9	CT9
6.8MHz	22.5MHz

SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L7	
8MHz	

• See page 4 for Adjustment Location.

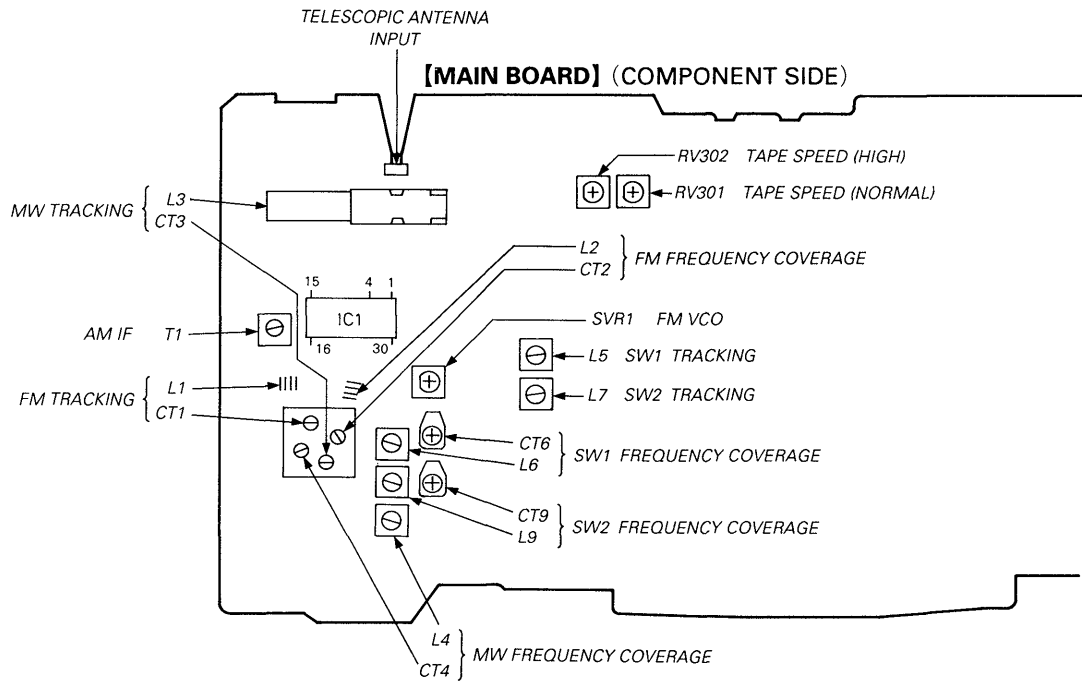
FM VCO ADJUSTMENT

Setting :

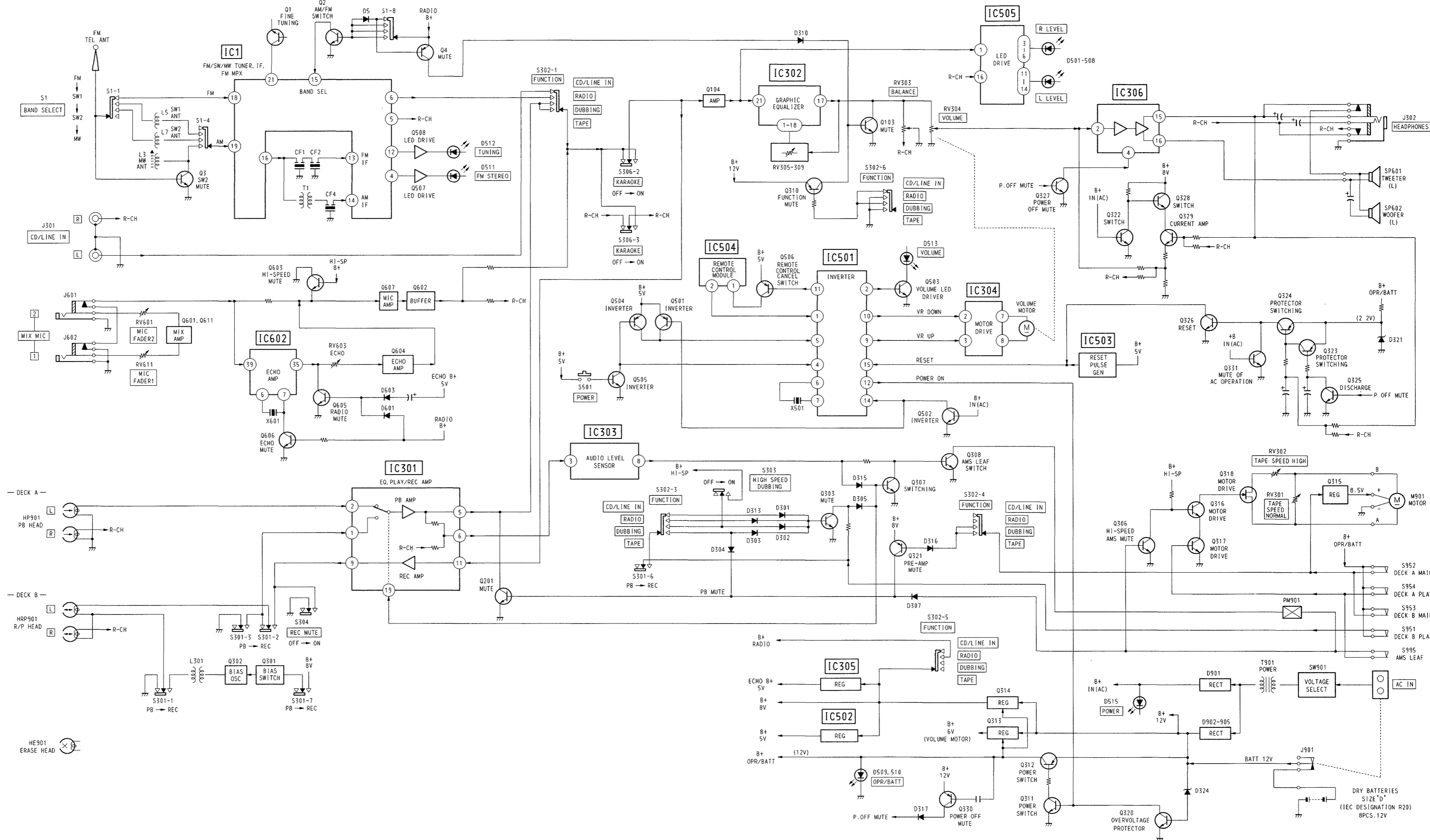


1. Connect frequency counter to IC1 ④ pin.
2. Tune the set to 98MHz.
3. Adjust SVR1 for 76kHz \pm 0.5kHz reading on the frequency counter.

Adjustment Location :



2. BLOCK DIAGRAM



CFS-KW300S

SONY SERVICE MANUAL

E Model


SUPPLEMENT-2

File this supplement with the service manual.

CIRCUIT CHANGE

Because of change made to circuits, the circuit diagrams, printed circuit board drawings and parts list are released.

• **CORRECTION**

 : Indicates corrected portion

Page	INCORRECT			CORRECT		
	Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
20	35	3-389-440-01	CABINET (REAR) (E, E23)	35	3-389-440-01	CABINET (REAR) <u>(E, E23, EA)</u>
	35	3-389-440-11	CABINET (REAR) (UAE, EA)	35	3-389-440-11	CABINET (REAR) <u>(UAE)</u>
32	IC306	8-759-822-51 IC	LA4620	IC306	<u>8-759-039-68 IC</u>	TA8210AH

● ELECTRICAL PARTS

CONTROL

NOTE:

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

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

- Abbreviations
EA : Saudi Arabia
UAE : United Arab Emirates

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

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

Ref. No.	Part No.	Description	Remark
	A-3264-465-A	CONTROL BOARD, COMPLETE *****	
		< CAPACITOR >	
C501	1-162-282-31	CERAMIC 100PF	10% 50V
C502	1-162-282-31	CERAMIC 100PF	10% 50V
C505	1-126-962-11	ELECT 3.3uF	20% 50V
C506	1-126-962-11	ELECT 3.3uF	20% 50V
C507	1-162-839-11	CERAMIC 0.01uF	10% 16V
C508	1-126-233-11	ELECT 22uF	20% 50V
C509	1-124-472-11	ELECT 470uF	20% 10V
C511	1-162-839-11	CERAMIC 0.01uF	10% 16V
C512	1-162-839-11	CERAMIC 0.01uF	10% 16V
C513	1-162-839-11	CERAMIC 0.01uF	10% 16V
C514	1-162-839-11	CERAMIC 0.01uF	10% 16V
C515	1-126-233-11	ELECT 22uF	20% 50V
		< CONNECTOR >	
* CN501	1-569-767-11	SOCKET, CONNECTOR 6P	
CN502	1-569-770-11	SOCKET, CONNECTOR 9P	
* CN503	1-691-573-11	PIN, CONNECTOR (PC BOARD) 2P	
		< DIODE >	
D501	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D502	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D503	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D504	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D505	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D506	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D507	8-719-041-93	LED SLP-183B-81 (L LEVEL)	
D508	8-719-041-93	LED SLP-183B-81 (R LEVEL)	
D509	8-719-915-45	LED SLP162B (R LEVEL)	
D510	8-719-915-45	LED SLP162B (L LEVEL)	
D511	8-719-915-45	LED SLP162B (FM STEREO)	
D512	8-719-918-87	LED BG5531K (TUNING)	
D515	8-719-915-45	LED SLP162B (POWER)	
D516	8-719-110-39	DIODE RD15ES-B1	

Ref. No.	Part No.	Description	Remark
		< IC >	
IC501	8-759-188-12	IC MB88202P-1113M	
IC502	8-759-912-55	IC S-81250HG	
IC503	8-759-970-47	IC PST529J	
IC504	8-749-923-11	IC GP1U58XB	
IC505	8-759-202-40	IC TA7666P	
		< TRANSISTOR >	
Q501	8-729-903-02	TRANSISTOR DTA143XS	
Q502	8-729-901-57	TRANSISTOR DTC143XS	
Q503	8-729-901-57	TRANSISTOR DTC143XS	
Q504	8-729-903-02	TRANSISTOR DTA143XS	
Q505	8-729-901-57	TRANSISTOR DTC143XS	
Q506	8-729-903-02	TRANSISTOR DTA143XS	
Q507	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		< RESISTOR >	
R501	1-249-426-11	CARBON 5.6K 5%	1/4W
R502	1-247-839-11	CARBON 2.2K 5%	1/4W
R503	1-249-430-11	CARBON 12K 5%	1/4W
R504	1-249-430-11	CARBON 12K 5%	1/4W
R505	1-247-893-11	CARBON 390K 5%	1/4W
R506	1-247-893-11	CARBON 390K 5%	1/4W
R507	1-249-412-11	CARBON 390 5%	1/4W
R508	1-249-412-11	CARBON 390 5%	1/4W
R509	1-249-412-11	CARBON 390 5%	1/4W
R510	1-249-412-11	CARBON 390 5%	1/4W
R511	1-249-412-11	CARBON 390 5%	1/4W
R512	1-249-412-11	CARBON 390 5%	1/4W
R513	1-249-412-11	CARBON 390 5%	1/4W
R514	1-249-412-11	CARBON 390 5%	1/4W
R515	1-247-826-00	CARBON 620 5%	1/4W
R516	1-249-416-11	CARBON 820 5%	1/4W
R518	1-249-416-11	CARBON 820 5%	1/4W
R519	1-247-855-11	CARBON 10K 5%	1/4W
R520	1-249-411-11	CARBON 330 5%	1/4W
R522	1-249-412-11	CARBON 390 5%	1/4W

Ref. No.	Part No.	Description	Remark		
R523	1-247-855-11	CARBON	10K	5%	1/4W
R524	1-247-855-11	CARBON	10K	5%	1/4W
R525	1-249-426-11	CARBON	5.6K	5%	1/4W
R526	1-247-841-11	CARBON	2.7K	5%	1/4W
R528	1-247-835-11	CARBON	1.5K	5%	1/4W
R529	1-247-839-11	CARBON	2.2K	5%	1/4W
R530	1-247-839-11	CARBON	2.2K	5%	1/4W
R531	1-247-807-11	CARBON	100	5%	1/4W
< SWITCH >					
S501	1-572-198-11	SWITCH, KEYBOARD (POWER)			

* A-3264-466-A	ECHO BOARD, COMPLETE				

< CAPACITOR >					
C602	1-124-477-11	ELECT	47uF	20%	25V
C603	1-124-903-11	ELECT	1uF	20%	50V
C604	1-124-902-00	ELECT	0.47uF	20%	50V
C605	1-124-927-11	ELECT	4.7uF	20%	100V
C606	1-126-962-11	ELECT	3.3uF	20%	50V
C607	1-162-282-31	CERAMIC	100PF	10%	50V
C608	1-124-477-11	ELECT	47uF	20%	25V
C609	1-124-907-11	ELECT	10uF	20%	50V
C612	1-124-477-11	ELECT	47uF	20%	25V
C613	1-124-903-11	ELECT	1uF	20%	50V
C614	1-124-902-00	ELECT	0.47uF	20%	50V
C617	1-162-282-31	CERAMIC	100PF	10%	50V
C621	1-124-903-11	ELECT	1uF	20%	50V
C622	1-162-840-11	CERAMIC	0.012uF	10%	16V
C623	1-162-291-31	CERAMIC	560PF	10%	50V
C624	1-124-903-11	ELECT	1uF	20%	50V
C625	1-162-842-11	CERAMIC	0.018uF	10%	16V
C626	1-162-291-31	CERAMIC	560PF	10%	50V
C627	1-130-492-11	MYLAR	0.056uF	5%	50V
C628	1-130-491-00	MYLAR	0.047uF	5%	50V
C629	1-136-171-00	FILM	0.33uF	5%	50V
C630	1-130-483-00	MYLAR	0.01uF	5%	50V
C631	1-136-171-00	FILM	0.33uF	5%	50V
C632	1-130-483-00	MYLAR	0.01uF	5%	50V
C633	1-162-294-31	CERAMIC	0.001uF	10%	50V
C634	1-124-443-00	ELECT	100uF	20%	10V
C635	1-161-379-00	CERAMIC	0.01uF	20%	25V
C636	1-161-379-00	CERAMIC	0.01uF	20%	25V
C637	1-162-209-31	CERAMIC	27PF	5%	50V
C638	1-162-209-31	CERAMIC	27PF	5%	50V
C639	1-126-176-11	ELECT	220uF	20%	10V
C641	1-124-477-11	ELECT	47uF	20%	25V

Ref. No.	Part No.	Description	Remark		
C642	1-161-057-00	CERAMIC	0.033uF	10%	50V
C643	1-124-903-11	ELECT	1uF	20%	50V
C644	1-124-927-11	ELECT	4.7uF	20%	100V
C645	1-124-927-11	ELECT	4.7uF	20%	100V
C646	1-124-903-11	ELECT	1uF	20%	50V
C647	1-162-282-31	CERAMIC	100PF	10%	50V
C648	1-162-830-11	CERAMIC	0.0018uF	10%	16V
C649	1-124-903-11	ELECT	1uF	20%	50V
C650	1-124-477-11	ELECT	47uF	20%	25V
C652	1-124-927-11	ELECT	4.7uF	20%	100V
C653	1-126-176-11	ELECT	220uF	20%	10V
C654	1-124-443-00	ELECT	100uF	20%	10V
< CONNECTOR >					
* CN601	1-569-769-11	SOCKET, CONNECTOR 8P			
< DIODE >					
D601	8-719-987-63	DIODE	1N4148M		
D602	8-719-987-63	DIODE	1N4148M		
D603	8-719-987-63	DIODE	1N4148M		
< IC >					
IC601	8-759-246-69	IC	TA2011S		
IC602	8-759-635-81	IC	M50197P		
< JACK >					
J601	1-750-694-11	JACK (MIX MIC 2)			
J602	1-750-694-11	JACK (MIX MIC 1)			
< COIL >					
L602	1-410-335-11	INDUCTOR	150uH		
< TRANSISTOR >					
Q601	8-729-194-57	TRANSISTOR	2SC945-P		
Q602	8-729-194-57	TRANSISTOR	2SC945-P		
Q603	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q604	8-729-194-57	TRANSISTOR	2SC945-P		
Q605	8-729-900-74	TRANSISTOR	DTC143TS		
Q606	8-729-194-57	TRANSISTOR	2SC945-P		
Q607	8-729-194-57	TRANSISTOR	2SC945-P		
Q611	8-729-194-57	TRANSISTOR	2SC945-P		
< RESISTOR >					
R601	1-247-895-00	CARBON	470K	5%	1/4W
R602	1-249-423-11	CARBON	3.3K	5%	1/4W
R603	1-249-423-11	CARBON	3.3K	5%	1/4W
R604	1-247-855-11	CARBON	10K	5%	1/4W
R605	1-249-413-11	CARBON	470	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R606	1-249-431-11	CARBON	15K	5%	1/4W
R607	1-249-417-11	CARBON	1K	5%	1/4W
R608	1-247-807-11	CARBON	100	5%	1/4W
R609	1-247-903-00	CARBON	1M	5%	1/4W
R610	1-247-839-11	CARBON	2. 2K	5%	1/4W
R611	1-247-895-00	CARBON	470K	5%	1/4W
R612	1-249-423-11	CARBON	3. 3K	5%	1/4W
R613	1-249-423-11	CARBON	3. 3K	5%	1/4W
R614	1-247-855-11	CARBON	10K	5%	1/4W
R615	1-249-413-11	CARBON	470	5%	1/4W
R616	1-249-409-11	CARBON	220	5%	1/4W
R617	1-249-417-11	CARBON	1K	5%	1/4W
R620	1-249-432-11	CARBON	18K	5%	1/4W
R621	1-247-855-11	CARBON	10K	5%	1/4W
R622	1-249-431-11	CARBON	15K	5%	1/4W
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-247-855-11	CARBON	10K	5%	1/4W
R625	1-249-431-11	CARBON	15K	5%	1/4W
R626	1-247-852-11	CARBON	7. 5K	5%	1/4W
R627	1-247-876-11	CARBON	75K	5%	1/4W
R628	1-247-852-11	CARBON	7. 5K	5%	1/4W
R629	1-247-876-11	CARBON	75K	5%	1/4W
R630	1-249-423-11	CARBON	3. 3K	5%	1/4W
R631	1-247-855-11	CARBON	10K	5%	1/4W
R632	1-247-903-00	CARBON	1M	5%	1/4W
R634	1-247-892-11	CARBON	360K	5%	1/4W
R635	1-247-839-11	CARBON	2. 2K	5%	1/4W
R636	1-247-871-11	CARBON	47K	5%	1/4W
R637	1-249-436-11	CARBON	39K	5%	1/4W
R638	1-249-432-11	CARBON	18K	5%	1/4W
R641	1-247-855-11	CARBON	10K	5%	1/4W
R642	1-247-855-11	CARBON	10K	5%	1/4W
R643	1-247-855-11	CARBON	10K	5%	1/4W
R644	1-249-413-11	CARBON	470	5%	1/4W
R645	1-247-867-11	CARBON	33K	5%	1/4W
R646	1-247-839-11	CARBON	2. 2K	5%	1/4W
R649	1-247-811-31	CARBON	150	5%	1/4W
R650	1-247-863-11	CARBON	22K	5%	1/4W
< VARIABLE RESISTOR >					
RV601	1-223-423-11	RES, VAR, CARBON 20K (MIC FADER 2)			
RV603	1-223-422-11	RES, VAR, SLIDE (ECHO)			
RV611	1-223-423-11	RES, VAR, CARBON 20K (MIC FADER 1)			
< VIBRATOR >					
XG01	1-567-192-11	OSCILLATOR, CERAMIC (4. 00MHz)			

Ref. No.	Part No.	Description	Remark		
A-3264-639-A MAIN BOARD, COMPLETE (E, UAE)					
A-3264-464-A MAIN BOARD, COMPLETE (EA)					

1-533-217-31 HOLDER, FUSE					
< CAPACITOR >					
C1	1-162-207-31	CERAMIC	22PF	5%	50V (E, UAE)
C1	1-162-209-31	CERAMIC	27PF	5%	50V (EA)
C2	1-102-959-00	CERAMIC	22PF	5%	50V (E, UAE)
C2	1-102-962-00	CERAMIC	30PF	5%	50V (EA)
C3	1-162-192-31	CERAMIC	2. 7PF	10%	50V
C4	1-162-839-11	CERAMIC	0. 01uF	10%	16V
C5	1-162-839-11	CERAMIC	0. 01uF	10%	16V
C6	1-124-034-51	ELECT	33uF	20%	16V
C8	1-124-902-00	ELECT	0. 47uF	20%	50V
C9	1-124-927-11	ELECT	4. 7uF	20%	100V
C10	1-124-907-11	ELECT	10uF	20%	50V
C11	1-124-925-11	ELECT	2. 2uF	20%	100V
C14	1-162-839-11	CERAMIC	0. 01uF	10%	16V
C16	1-124-927-11	ELECT	4. 7uF	20%	100V
C17	1-124-903-11	ELECT	1uF	20%	50V
C18	1-124-477-11	ELECT	47uF	20%	25V
C19	1-124-034-51	ELECT	33uF	20%	16V
C20	1-162-841-11	CERAMIC	0. 015uF	10%	16V
C21	1-162-841-11	CERAMIC	0. 015uF	10%	16V
C22	1-124-903-11	ELECT	1uF	20%	50V
C23	1-162-839-11	CERAMIC	0. 01uF	10%	16V
C24	1-162-839-11	CERAMIC	0. 01uF	10%	16V
C25	1-101-884-00	CERAMIC	56PF	5%	50V
C26	1-162-197-31	CERAMIC	6. 8PF	10%	50V
C27	1-102-942-00	CERAMIC	5. 0PF	+0. 5PF	50V
C28	1-136-480-11	FILM	0. 0015uF	5%	63V
C29	1-164-039-11	CERAMIC	3PF	5%	50V
C30	1-137-015-11	FILM	0. 0047uF	5%	63V
C31	1-102-949-00	CERAMIC	12PF	5%	50V
C32	1-110-342-11	FILM	390PF	5%	63V
C33	1-162-203-31	CERAMIC	15PF	5%	50V
C34	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C35	1-162-839-11	CERAMIC	0. 01uF	10%	16V
C36	1-124-902-00	ELECT	0. 47uF	20%	50V
C37	1-124-902-00	ELECT	0. 47uF	20%	50V
C38	1-124-927-11	ELECT	4. 7uF	20%	100V
C39	1-162-286-31	CERAMIC	220PF	10%	50V
C101	1-162-282-31	CERAMIC	100PF	10%	50V
C102	1-162-282-31	CERAMIC	100PF	10%	50V

Ref. No.	Part No.	Description	Remark		
C103	1-162-282-31	CERAMIC	100PF	10%	50V
C104	1-162-294-31	CERAMIC	0.001uF	10%	50V
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V
C106	1-162-282-31	CERAMIC	100PF	10%	50V
C107	1-124-126-00	ELECT	47uF	20%	10V
C108	1-130-486-00	MYLAR	0.018uF	10%	50V
C109	1-124-903-11	ELECT	1uF	20%	50V
C110	1-130-471-00	MYLAR	0.001uF	5%	50V
C111	1-124-925-11	ELECT	2.2uF	20%	100V
C112	1-124-126-00	ELECT	47uF	20%	10V
C113	1-162-282-31	CERAMIC	100PF	10%	50V
C114	1-124-903-11	ELECT	1uF	20%	50V
C115	1-162-290-31	CERAMIC	470PF	10%	50V
C118	1-130-491-00	MYLAR	0.047uF	5%	50V
C119	1-124-903-11	ELECT	1uF	20%	50V
C120	1-161-379-00	CERAMIC	0.01uF	20%	25V
C121	1-124-902-00	ELECT	0.47uF	20%	50V
C122	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C123	1-124-463-00	ELECT	0.1uF	20%	50V
C124	1-162-294-31	CERAMIC	0.001uF	10%	50V
C125	1-130-491-00	MYLAR	0.047uF	5%	50V
C126	1-161-057-00	CERAMIC	0.033uF	10%	50V
C128	1-124-903-11	ELECT	1uF	20%	50V
C129	1-124-903-11	ELECT	1uF	20%	50V
C130	1-124-463-00	ELECT	0.1uF	20%	50V
C137	1-162-282-31	CERAMIC	100PF	10%	50V
C142	1-124-903-11	ELECT	1uF	20%	50V
C143	1-124-903-11	ELECT	1uF	20%	50V
C144	1-124-903-11	ELECT	1uF	20%	50V
C151	1-162-282-31	CERAMIC	100PF	10%	50V
C201	1-162-282-31	CERAMIC	100PF	10%	50V
C202	1-162-282-31	CERAMIC	100PF	10%	50V
C203	1-162-282-31	CERAMIC	100PF	10%	50V
C204	1-162-294-31	CERAMIC	0.001uF	10%	50V
C205	1-162-294-31	CERAMIC	0.001uF	10%	50V
C206	1-162-282-31	CERAMIC	100PF	10%	50V
C207	1-124-126-00	ELECT	47uF	20%	10V
C208	1-130-486-00	MYLAR	0.018uF	10%	50V
C209	1-124-903-11	ELECT	1uF	20%	50V
C210	1-130-471-00	MYLAR	0.001uF	5%	50V
C211	1-124-925-11	ELECT	2.2uF	20%	100V
C212	1-124-126-00	ELECT	47uF	20%	10V
C213	1-162-282-31	CERAMIC	100PF	10%	50V
C214	1-124-903-11	ELECT	1uF	20%	50V
C215	1-162-290-31	CERAMIC	470PF	10%	50V
C218	1-130-491-00	MYLAR	0.047uF	5%	50V
C219	1-124-903-11	ELECT	1uF	20%	50V
C220	1-161-379-00	CERAMIC	0.01uF	20%	25V

Ref. No.	Part No.	Description	Remark		
C221	1-124-902-00	ELECT	0.47uF	20%	50V
C222	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C223	1-124-463-00	ELECT	0.1uF	20%	50V
C224	1-162-294-31	CERAMIC	0.001uF	10%	50V
C225	1-130-491-00	MYLAR	0.047uF	5%	50V
C226	1-161-057-00	CERAMIC	0.033uF	10%	50V
C228	1-124-903-11	ELECT	1uF	20%	50V
C229	1-124-903-11	ELECT	1uF	20%	50V
C230	1-124-463-00	ELECT	0.1uF	20%	50V
C237	1-162-282-31	CERAMIC	100PF	10%	50V
C242	1-124-903-11	ELECT	1uF	20%	50V
C243	1-124-903-11	ELECT	1uF	20%	50V
C244	1-124-903-11	ELECT	1uF	20%	50V
C251	1-162-282-31	CERAMIC	100PF	10%	50V
C301	1-126-176-11	ELECT	220uF	20%	10V
C302	1-124-472-11	ELECT	470uF	20%	10V
C303	1-124-925-11	ELECT	2.2uF	20%	100V
C304	1-124-126-00	ELECT	47uF	20%	10V
C305	1-124-034-51	ELECT	33uF	20%	16V
C306	1-124-477-11	ELECT	47uF	20%	25V
C307	1-124-925-11	ELECT	2.2uF	20%	100V
C308	1-124-126-00	ELECT	47uF	20%	10V
C309	1-130-478-00	MYLAR	0.0039uF	5%	50V
C310	1-130-484-00	MYLAR	0.012uF	5%	50V
C313	1-130-471-00	MYLAR	0.001uF	5%	50V
C320	1-162-847-11	CERAMIC	0.047uF	10%	16V
C321	1-124-902-00	ELECT	0.47uF	20%	50V
C322	1-124-902-00	ELECT	0.47uF	20%	50V
C323	1-161-377-00	CERAMIC	0.0047uF	30%	16V
C324	1-124-903-11	ELECT	1uF	20%	50V
C325	1-124-925-11	ELECT	2.2uF	20%	100V
C326	1-124-927-11	ELECT	4.7uF	20%	100V
C328	1-136-165-00	FILM	0.1uF	5%	50V
C329	1-124-472-11	ELECT	470uF	20%	10V
C330	1-136-165-00	FILM	0.1uF	5%	50V
C331	1-136-165-00	FILM	0.1uF	5%	50V
C332	1-161-494-00	CERAMIC	0.022uF		25V
C334	1-161-379-00	CERAMIC	0.01uF	20%	25V
C335	1-161-379-00	CERAMIC	0.01uF	20%	25V
C337	1-126-176-11	ELECT	220uF	20%	10V
C338	1-161-379-00	CERAMIC	0.01uF	20%	25V
C339	1-124-443-00	ELECT	100uF	20%	10V
C340	1-161-379-00	CERAMIC	0.01uF	20%	25V
C342	1-124-477-11	ELECT	47uF	20%	25V
C343	1-161-379-00	CERAMIC	0.01uF	20%	25V
C344	1-124-443-00	ELECT	100uF	20%	10V
C346	1-124-120-11	ELECT	220uF	20%	25V
C347	1-161-379-00	CERAMIC	0.01uF	20%	25V

MAIN

Ref. No.	Part No.	Description	Remark
C348	1-161-379-00	CERAMIC	0. 01uF 20% 25V
C352	1-161-379-00	CERAMIC	0. 01uF 20% 25V
C353	1-124-903-11	ELECT	1uF 20% 50V
C354	1-126-176-11	ELECT	220uF 20% 10V
C357	1-136-165-00	FILM	0. 1uF 5% 50V
C358	1-124-927-11	ELECT	4. 7uF 20% 100V
C359	1-161-379-00	CERAMIC	0. 01uF 20% 25V
C366	1-126-233-11	ELECT	22uF 20% 50V
< FILTER >			
CF1	1-577-327-81	FILTER, CERAMIC	
CF2	1-577-327-81	FILTER, CERAMIC	
CF3	1-577-327-81	FILTER, CERAMIC	
CF4	1-567-670-11	FILTER, CERAMIC	
< CONNECTOR >			
* CN301	1-691-574-11	PIN, CONNECTOR (PC BOARD)	3P
CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD)	4P
CN303	1-506-987-11	PIN, CONNECTOR (PC BOARD)	5P
* CN304	1-691-578-11	PIN, CONNECTOR (PC BOARD)	7P
* CN307	1-691-580-11	PIN, CONNECTOR (PC BOARD)	9P
CN308	1-569-778-11	PLUG, CONNECTOR	6P
CN309	1-569-781-11	PLUG, CONNECTOR	9P
CN310	1-569-780-11	PLUG, CONNECTOR	8P
< TRIMMER >			
CT1	1-151-637-11	CAP, VARIABLE	
CT2	1-151-637-11	CAP, VARIABLE	
CT3	1-151-637-11	CAP, VARIABLE	
CT4	1-151-637-11	CAP, VARIABLE	
CT6	1-141-360-41	CAP, VAR FILM TRIMMER	
CT9	1-141-290-41	CAP, VAR FILM TRIMMER	
< VARIABLE CAPACITOR >			
CV1	1-151-637-11	CAP, VARIABLE	
CV2	1-151-637-11	CAP, VARIABLE	
CV3	1-151-637-11	CAP, VARIABLE	
CV4	1-151-637-11	CAP, VARIABLE	
< DIODE >			
D1	8-719-987-63	DIODE	1N4148M
D2	8-719-987-63	DIODE	1N4148M
D3	8-719-987-63	DIODE	1N4148M
D4	8-719-987-63	DIODE	1N4148M
D5	8-719-987-63	DIODE	1N4148M
D301	8-719-987-63	DIODE	1N4148M
D302	8-719-987-63	DIODE	1N4148M
D303	8-719-987-63	DIODE	1N4148M
D304	8-719-987-63	DIODE	1N4148M

Ref. No.	Part No.	Description	Remark
D305	8-719-987-63	DIODE	1N4148M
D306	8-719-987-63	DIODE	1N4148M
D307	8-719-987-63	DIODE	1N4148M
D308	8-719-987-63	DIODE	1N4148M
D309	8-719-987-63	DIODE	1N4148M
D310	8-719-987-63	DIODE	1N4148M
D311	8-719-110-08	DIODE	RD8. 2ES-B2
D312	8-719-109-97	DIODE	RD6. 8ES-B2
D313	8-719-987-63	DIODE	1N4148M
D314	8-719-110-22	DIODE	RD11ES-B2
D315	8-719-987-63	DIODE	1N4148M
D316	8-719-987-63	DIODE	1N4148M
D317	8-719-987-63	DIODE	1N4148M
D324	8-719-110-64	DIODE	RD24ESB4
D325	8-719-987-63	DIODE	1N4148M
D326	8-719-987-63	DIODE	1N4148M
D327	8-719-987-63	DIODE	1N4148M
< FILTER >			
FL1	1-236-022-11	FILTER, BAND PASS	
< IC >			
IC1	8-752-050-20	IC	CXA1238S
IC301	8-759-242-58	IC	TA8189N
IC302	8-759-972-97	IC	BA3823LS
IC303	8-759-905-47	IC	BA338
IC304	8-759-962-08	IC	BA6208
IC305	8-759-938-15	IC	BA178M05
< JACK >			
J301	1-563-716-21	JACK, PIN 2P (CD/LINE IN)	
< COIL >			
L1	1-428-776-11	COIL, AIR-CORE (EA)	
L1	1-428-777-11	COIL, AIR-CORE (E, UAE)	
L2	1-460-205-31	COIL (WITH CORE) (EA)	
L2	1-422-230-11	COIL, AIR-CORE (E, UAE)	
L3	1-402-507-11	ANTENNA, FERRITE-ROD (MW)	
L4	1-406-253-11	COIL (OSC)	
L5	1-402-390-11	COIL (ANT)	
L6	1-406-247-11	COIL (OSC)	
L7	1-402-539-11	COIL (ANT)	
L9	1-406-221-11	COIL, SW	2 OSC
L11	1-414-140-11	INDUCTOR	0. 68uH
L12	1-410-750-11	INDUCTOR	0. 47uH
L13	1-414-146-31	INDUCTOR	2. 2uH
L301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR	

Ref. No.	Part No.	Description	Remark
L302	1-410-322-11	INDUCTOR 3. 3uH	
L303	1-410-322-11	INDUCTOR 3. 3uH	
L304	1-410-521-11	INDUCTOR 100uH	
L305	1-410-521-11	INDUCTOR 100uH	
L306	1-408-117-00	INDUCTOR 10uH	
< MOTOR >			
M901	3-378-834-01	MOTOR ASSY	
< TRANSISTOR >			
Q1	8-729-281-53	TRANSISTOR 2SC1815-GR	
Q2	8-729-900-80	TRANSISTOR DTC114ES	
Q3	8-729-194-57	TRANSISTOR 2SC945-P	
Q4	8-729-900-61	TRANSISTOR DTA114ES	
Q101	8-729-194-57	TRANSISTOR 2SC945-P	
Q103	8-729-900-80	TRANSISTOR DTC114ES	
Q104	8-729-194-57	TRANSISTOR 2SC945-P	
Q201	8-729-194-57	TRANSISTOR 2SC945-P	
Q203	8-729-900-80	TRANSISTOR DTC114ES	
Q204	8-729-194-57	TRANSISTOR 2SC945-P	
Q301	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q302	8-729-194-57	TRANSISTOR 2SC945-P	
Q303	8-729-194-57	TRANSISTOR 2SC945-P	
Q306	8-729-194-57	TRANSISTOR 2SC945-P	
Q307	8-729-194-57	TRANSISTOR 2SC945-P	
Q308	8-729-142-46	TRANSISTOR 2SC2001-LK	
Q310	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q311	8-729-115-80	TRANSISTOR BA1A4P	
Q312	8-729-116-57	TRANSISTOR 2SB1068-K	
Q313	8-729-200-39	TRANSISTOR 2SC2236-Y	
Q314	8-729-019-01	TRANSISTOR 2SD2394-EF	
Q315	8-729-200-39	TRANSISTOR 2SC2236-Y	
Q316	8-729-115-80	TRANSISTOR BA1A4P	
Q317	8-729-115-80	TRANSISTOR BA1A4P	
Q318	8-729-115-30	TRANSISTOR 2SK105A-30	
Q320	8-729-901-57	TRANSISTOR DTC143XS	
Q321	8-729-900-61	TRANSISTOR DTA114ES	
Q330	8-729-900-65	TRANSISTOR DTA144ES	
Q332	8-729-900-74	TRANSISTOR DTC143TS	
Q333	8-729-901-57	TRANSISTOR DTC143XS	
< RESISTOR >			
R1	1-247-839-11	CARBON 2. 2K 5%	1/4W
R2	1-247-879-11	CARBON 100K 5%	1/4W
R3	1-247-887-00	CARBON 220K 5%	1/4W
R4	1-247-855-11	CARBON 10K 5%	1/4W
R5	1-247-807-11	CARBON 100 5%	1/4W
R6	1-247-839-11	CARBON 2. 2K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R9	1-247-883-00	CARBON 150K 5%	1/4W
R10	1-249-404-00	CARBON 82 5%	1/4W
R11	1-249-427-11	CARBON 6. 8K 5%	1/4W
R12	1-249-427-11	CARBON 6. 8K 5%	1/4W
R13	1-247-855-11	CARBON 10K 5%	1/4W
R14	1-247-887-00	CARBON 220K 5%	1/4W
R15	1-247-879-11	CARBON 100K 5%	1/4W
R16	1-249-417-11	CARBON 1K 5%	1/4W
R17	1-249-417-11	CARBON 1K 5%	1/4W
R18	1-249-426-11	CARBON 5. 6K 5%	1/4W
R19	1-247-855-11	CARBON 10K 5%	1/4W
R101	1-247-871-11	CARBON 47K 5%	1/4W
R102	1-247-847-11	CARBON 4. 7K 5%	1/4W
R103	1-249-417-11	CARBON 1K 5%	1/4W
R104	1-249-403-11	CARBON 68 5%	1/4W
R106	1-249-424-11	CARBON 3. 9K 5%	1/4W
R107	1-247-885-00	CARBON 180K 5%	1/4W
R108	1-249-427-11	CARBON 6. 8K 5%	1/4W
R109	1-249-426-11	CARBON 5. 6K 5%	1/4W
R110	1-249-417-11	CARBON 1K 5%	1/4W
R111	1-249-432-11	CARBON 18K 5%	1/4W
R112	1-247-885-00	CARBON 180K 5%	1/4W
R113	1-249-413-11	CARBON 470 5%	1/4W
R114	1-247-891-00	CARBON 330K 5%	1/4W
R115	1-249-430-11	CARBON 12K 5%	1/4W
R116	1-249-427-11	CARBON 6. 8K 5%	1/4W
R118	1-247-881-00	CARBON 120K 5%	1/4W
R119	1-247-855-11	CARBON 10K 5%	1/4W
R123	1-249-442-11	CARBON 510 5%	1/4W
R125	1-247-807-11	CARBON 100 5%	1/4W
R133	1-247-897-11	CARBON 560K 5%	1/4W
R134	1-247-839-11	CARBON 2. 2K 5%	1/4W
R135	1-247-855-11	CARBON 10K 5%	1/4W
R136	1-247-855-11	CARBON 10K 5%	1/4W
R137	1-247-871-11	CARBON 47K 5%	1/4W
R155	1-247-807-11	CARBON 100 5%	1/4W
R201	1-247-871-11	CARBON 47K 5%	1/4W
R202	1-247-847-11	CARBON 4. 7K 5%	1/4W
R203	1-249-417-11	CARBON 1K 5%	1/4W
R204	1-249-403-11	CARBON 68 5%	1/4W
R206	1-249-424-11	CARBON 3. 9K 5%	1/4W
R207	1-247-885-00	CARBON 180K 5%	1/4W
R208	1-249-427-11	CARBON 6. 8K 5%	1/4W
R209	1-249-426-11	CARBON 5. 6K 5%	1/4W
R210	1-249-417-11	CARBON 1K 5%	1/4W
R211	1-249-432-11	CARBON 18K 5%	1/4W
R212	1-247-885-00	CARBON 180K 5%	1/4W
R213	1-249-413-11	CARBON 470 5%	1/4W
R214	1-247-891-00	CARBON 330K 5%	1/4W

MAIN

Ref. No.	Part No.	Description	Remark
R215	1-249-430-11	CARBON	12K 5% 1/4W
R216	1-249-427-11	CARBON	6.8K 5% 1/4W
R218	1-247-881-00	CARBON	120K 5% 1/4W
R219	1-247-855-11	CARBON	10K 5% 1/4W
R223	1-249-442-11	CARBON	510 5% 1/4W
R225	1-247-807-11	CARBON	100 5% 1/4W
R233	1-247-897-11	CARBON	560K 5% 1/4W
R234	1-247-839-11	CARBON	2.2K 5% 1/4W
R235	1-247-855-11	CARBON	10K 5% 1/4W
R236	1-247-855-11	CARBON	10K 5% 1/4W
R237	1-247-871-11	CARBON	47K 5% 1/4W
R255	1-247-807-11	CARBON	100 5% 1/4W
R301	1-247-847-11	CARBON	4.7K 5% 1/4W
R302	1-247-807-11	CARBON	100 5% 1/4W
R303	1-247-903-00	CARBON	1M 5% 1/4W
R304	1-247-855-11	CARBON	10K 5% 1/4W
R305	1-249-432-11	CARBON	18K 5% 1/4W
R306	1-247-879-11	CARBON	100K 5% 1/4W
R307	1-249-417-11	CARBON	1K 5% 1/4W
R308	1-247-818-11	CARBON	300 5% 1/4W
R309	1-249-436-11	CARBON	39K 5% 1/4W
R310	1-249-393-11	CARBON	10 5% 1/4W
R317	1-249-434-11	CARBON	27K 5% 1/4W
R318	1-247-855-11	CARBON	10K 5% 1/4W
R319	1-249-434-11	CARBON	27K 5% 1/4W
R323	1-249-426-11	CARBON	5.6K 5% 1/4W
R324	1-247-841-11	CARBON	2.7K 5% 1/4W
R325	1-247-891-00	CARBON	330K 5% 1/4W
R326	1-247-883-00	CARBON	150K 5% 1/4W
R327	1-249-417-11	CARBON	1K 5% 1/4W
R329	1-249-423-11	CARBON	3.3K 5% 1/4W
R330	1-249-432-11	CARBON	18K 5% 1/4W
R331	1-247-841-11	CARBON	2.7K 5% 1/4W
R332	1-247-879-11	CARBON	100K 5% 1/4W
R333	1-249-417-11	CARBON	1K 5% 1/4W
△R334	1-249-447-11	CARBON	1 5% 1/4W F
R335	1-249-415-11	CARBON	680 5% 1/4W
△R337	1-249-447-11	CARBON	1 5% 1/4W F
R338	1-249-417-11	CARBON	1K 5% 1/4W
R339	1-249-423-11	CARBON	3.3K 5% 1/4W
△R340	1-249-447-11	CARBON	1 5% 1/4W F
△R341	1-249-447-11	CARBON	1 5% 1/4W F
△R343	1-249-480-11	CARBON	3.3 5% 1/2W F
R344	1-249-406-11	CARBON	120 5% 1/4W
R345	1-249-401-11	CARBON	47 5% 1/4W
R346	1-247-871-11	CARBON	47K 5% 1/4W
R347	1-249-409-11	CARBON	220 5% 1/4W
R348	1-247-855-11	CARBON	10K 5% 1/4W
R349	1-247-871-11	CARBON	47K 5% 1/4W

Ref. No.	Part No.	Description	Remark
R351	1-247-863-11	CARBON	22K 5% 1/4W
R352	1-249-401-11	CARBON	47 5% 1/4W
R354	1-247-825-11	CARBON	560 5% 1/4W
R355	1-247-847-11	CARBON	4.7K 5% 1/4W
R356	1-247-855-11	CARBON	10K 5% 1/4W
R357	1-249-404-00	CARBON	82 5% 1/4W
R358	1-249-413-11	CARBON	470 5% 1/4W
R359	1-247-863-11	CARBON	22K 5% 1/4W
R360	1-247-871-11	CARBON	47K 5% 1/4W
R361	1-249-420-11	CARBON	1.8K 5% 1/4W
R362	1-247-855-11	CARBON	10K 5% 1/4W
R376	1-247-897-11	CARBON	560K 5% 1/4W
< VARIABLE RESISTOR >			
RV1	1-223-425-11	RES, VAR, CARBON 100K (FINE TUNING)	
RV301	1-238-599-11	RES, ADJ, CARBON 4.7K	
RV302	1-238-598-11	RES, ADJ, CARBON 2.2K	
RV303	1-241-245-11	RES, VAR, SLIDE 50K (BALANCE)	
RV304	1-223-424-11	RES, VAR, CARBON 20K/20K (VOLUME)	
RV305	1-223-500-11	RES, VAR, SLIDE (MEGA BASS)	
RV306	1-241-244-11	RES, VAR, SLIDE 50K/50K (400Hz)	
RV307	1-241-244-11	RES, VAR, SLIDE 50K/50K (1kHz)	
RV308	1-241-244-11	RES, VAR, SLIDE 50K/50K (4kHz)	
RV309	1-241-244-11	RES, VAR, SLIDE 50K/50K (10kHz)	
< SWITCH >			
S1	1-692-616-11	SWITCH, LEVER SLIDE (BAND SELECT)	
S301	1-692-672-11	SWITCH, SLIDE (REC-PB)	
S302	1-692-618-11	SWITCH, LEVER SLIDE (FUNCTION)	
S303	1-692-777-11	SWITCH, PUSH (1 KEY) (HIGH SPEED DUBBING)	
S304	1-692-778-11	SWITCH, PUSH (1 KEY) (REC MUTE)	
S306	1-692-617-11	SWITCH, LEVER SLIDE (KARAOKE MODE)	
< VARIABLE RESISTOR >			
SVR1	1-238-601-11	RES, ADJ, CARBON 22K	
< TRANSFORMER >			
T1	1-404-355-00	TRANSFORMER, IF	
< VIBRATOR >			
X501	1-578-787-21	VIBRATOR, CERAMIC (500kHz)	

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

POWER

Ref. No.	Part No.	Description	Remark
*	A-3264-468-A	POWER BOARD, COMPLETE *****	
	1-533-233-11	HOLDER, FUSE	
		< CAPACITOR >	
C131	1-124-903-11	ELECT 1uF	20% 50V
C132	1-162-282-31	CERAMIC 100PF	10% 50V
C133	1-162-832-11	CERAMIC 0.0027uF	10% 0
C134	1-124-907-11	ELECT 10uF	20% 50V
C138	1-130-496-00	MYLAR 0.12uF	5% 50V
C139	1-130-496-00	MYLAR 0.12uF	5% 50V
C141	1-124-477-11	ELECT 47uF	20% 25V
C152	1-124-927-11	ELECT 4.7uF	20% 100V
C231	1-124-903-11	ELECT 1uF	20% 50V
C232	1-162-282-31	CERAMIC 100PF	10% 50V
C233	1-162-832-11	CERAMIC 0.0027uF	10% 0
C234	1-124-907-11	ELECT 10uF	20% 50V
C238	1-130-496-00	MYLAR 0.12uF	5% 50V
C239	1-130-496-00	MYLAR 0.12uF	5% 50V
C241	1-124-477-11	ELECT 47uF	20% 25V
C252	1-124-927-11	ELECT 4.7uF	20% 100V
C356	1-126-176-11	ELECT 220uF	20% 10V
C371	1-126-233-11	ELECT 22uF	20% 50V
C901	1-124-771-00	ELECT 6800uF	20% 25V
C902	1-101-005-00	CERAMIC 22000PF	50V
C903	1-101-005-00	CERAMIC 22000PF	50V
C904	1-101-005-00	CERAMIC 22000PF	50V
C905	1-101-005-00	CERAMIC 22000PF	50V
C906	1-101-005-00	CERAMIC 22000PF	50V
C907	1-124-907-11	ELECT 10uF	20% 50V
C908	1-101-005-00	CERAMIC 22000PF	50V
		< CONNECTOR >	
* CN306	1-691-574-11	PIN, CONNECTOR (PC BOARD) 3P	
		< DIODE >	
D101	8-719-987-63	DIODE 1N4148M	
D102	8-719-987-63	DIODE 1N4148M	
D201	8-719-987-63	DIODE 1N4148M	
D202	8-719-987-63	DIODE 1N4148M	
D901	8-719-031-85	DIODE 1N4002L	
D902	8-719-902-17	DIODE U15G	
D903	8-719-902-17	DIODE U15G	
D904	8-719-902-17	DIODE U15G	
D905	8-719-902-17	DIODE U15G	

Ref. No.	Part No.	Description	Remark
		< FUSE >	
△F902	1-532-299-00	FUSE 5.0A	
		< IC >	
IC306	8-759-039-68	IC TA8210AH	
		< JACK >	
J302	1-568-267-11	JACK (HEAD PHONES)	
△J901	1-526-838-11	INLET, AC 2P (AC~IN)	
		< COIL >	
△L901	1-423-747-11	TRANSFORMER, LINE FILTER	
		< TRANSISTOR >	
Q105	8-729-194-57	TRANSISTOR 2SC945-P	
Q106	8-729-901-57	TRANSISTOR DTC143XS	
Q205	8-729-194-57	TRANSISTOR 2SC945-P	
Q206	8-729-901-57	TRANSISTOR DTC143XS	
Q322	8-729-901-57	TRANSISTOR DTC143XS	
Q327	8-729-901-57	TRANSISTOR DTC143XS	
Q329	8-729-194-57	TRANSISTOR 2SC945-P	
		< RESISTOR >	
R126	1-247-879-11	CARBON 100K 5%	1/4W
R127	1-249-411-11	CARBON 330 5%	1/4W
△R129	1-249-451-11	CARBON 2.2 5%	1/4W F
△R130	1-249-451-11	CARBON 2.2 5%	1/4W F
R131	1-249-408-11	CARBON 180 5%	1/4W
R132	1-247-807-11	CARBON 100 5%	1/4W
R151	1-249-417-11	CARBON 1K 5%	1/4W
R152	1-247-847-11	CARBON 4.7K 5%	1/4W
R153	1-247-820-11	CARBON 360 5%	1/4W
R226	1-247-879-11	CARBON 100K 5%	1/4W
R227	1-249-411-11	CARBON 330 5%	1/4W
△R229	1-249-451-11	CARBON 2.2 5%	1/4W F
△R230	1-249-451-11	CARBON 2.2 5%	1/4W F
R231	1-249-408-11	CARBON 180 5%	1/4W
R232	1-247-807-11	CARBON 100 5%	1/4W
R251	1-249-417-11	CARBON 1K 5%	1/4W
R252	1-247-847-11	CARBON 4.7K 5%	1/4W
R253	1-247-820-11	CARBON 360 5%	1/4W
R353	1-247-855-11	CARBON 10K 5%	1/4W
R363	1-249-417-11	CARBON 1K 5%	1/4W
R364	1-247-881-00	CARBON 120K 5%	1/4W
R365	1-249-423-11	CARBON 3.3K 5%	1/4W
R366	1-247-847-11	CARBON 4.7K 5%	1/4W
R367	1-249-413-11	CARBON 470 5%	1/4W

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

POWER

TERMINAL

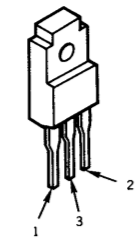
VOL LED

Ref. No.	Part No.	Description	Remark
R375	1-249-434-11	CARBON 27K 5% < SPEAKER >	1/4W
SP901	1-537-330-11	TERMINAL BOARD < SWITCH >	
△SW901	1-692-514-11	SWITCH (VOLTAGE SELECTOR) < TRANSFORMER >	
△T901	1-423-785-11	TRANSFORMER, POWER *****	
*	1-648-391-11	TERMINAL BOARD *****	
*	1-648-389-11	VOL LED BOARD ***** < DIODE >	
D513	8-719-041-94	LED SLT-25VR (VOLUME) *****	

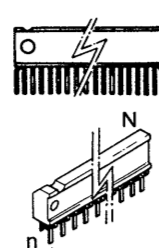
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

• SEMICONDUCTOR LEAD LAYOUTS

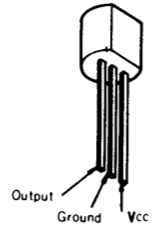
BA178M05



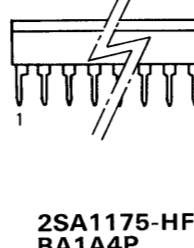
BA3823LS
TA8210AH



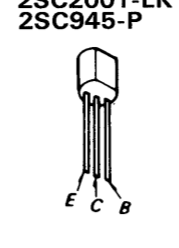
PST529J



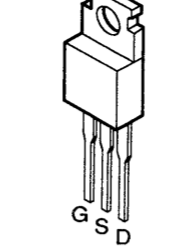
TA2011S



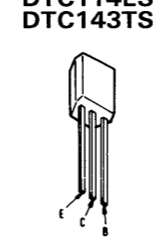
2SB1068-K
2SC1815-GR
2SC2001-LK



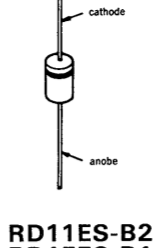
2SD2394-EF



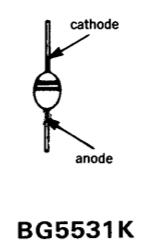
DTA114ES
DTA144ES
DTC114ES
DTC143TS



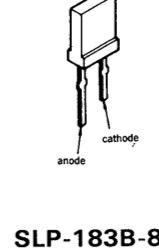
1N4002L



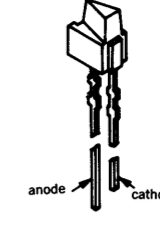
U05G
U15G



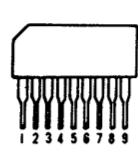
SLP162B



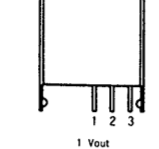
SLT-25VR



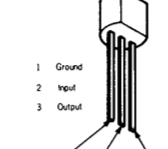
BA338
BA6208



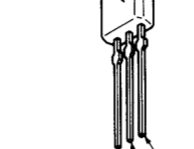
GP1U58XB



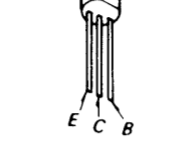
S-81250HG



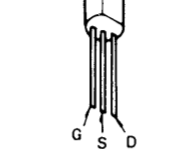
2SA1175-HFE
BA1A4P
DTA143XS
DTC143XS



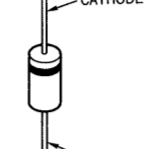
2SC2236-Y



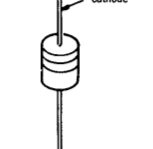
2SK105A-30



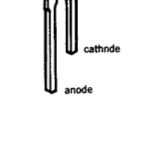
10E2
1N4148M



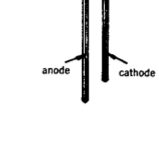
RD11ES-B2
RD16ES-B1
RD24ES-B4
RD6.8ES-B2
RD8.2ES-B2



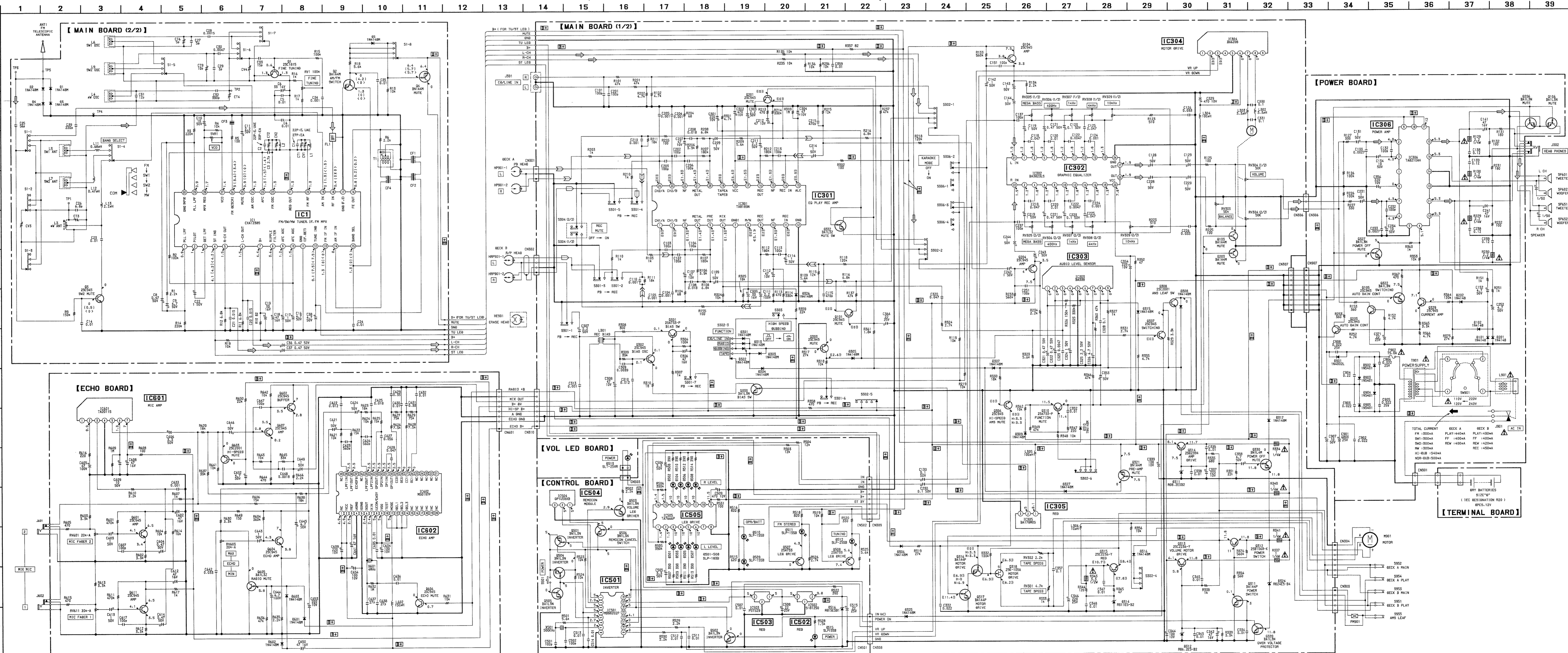
BG5531K



SLP-183B-81

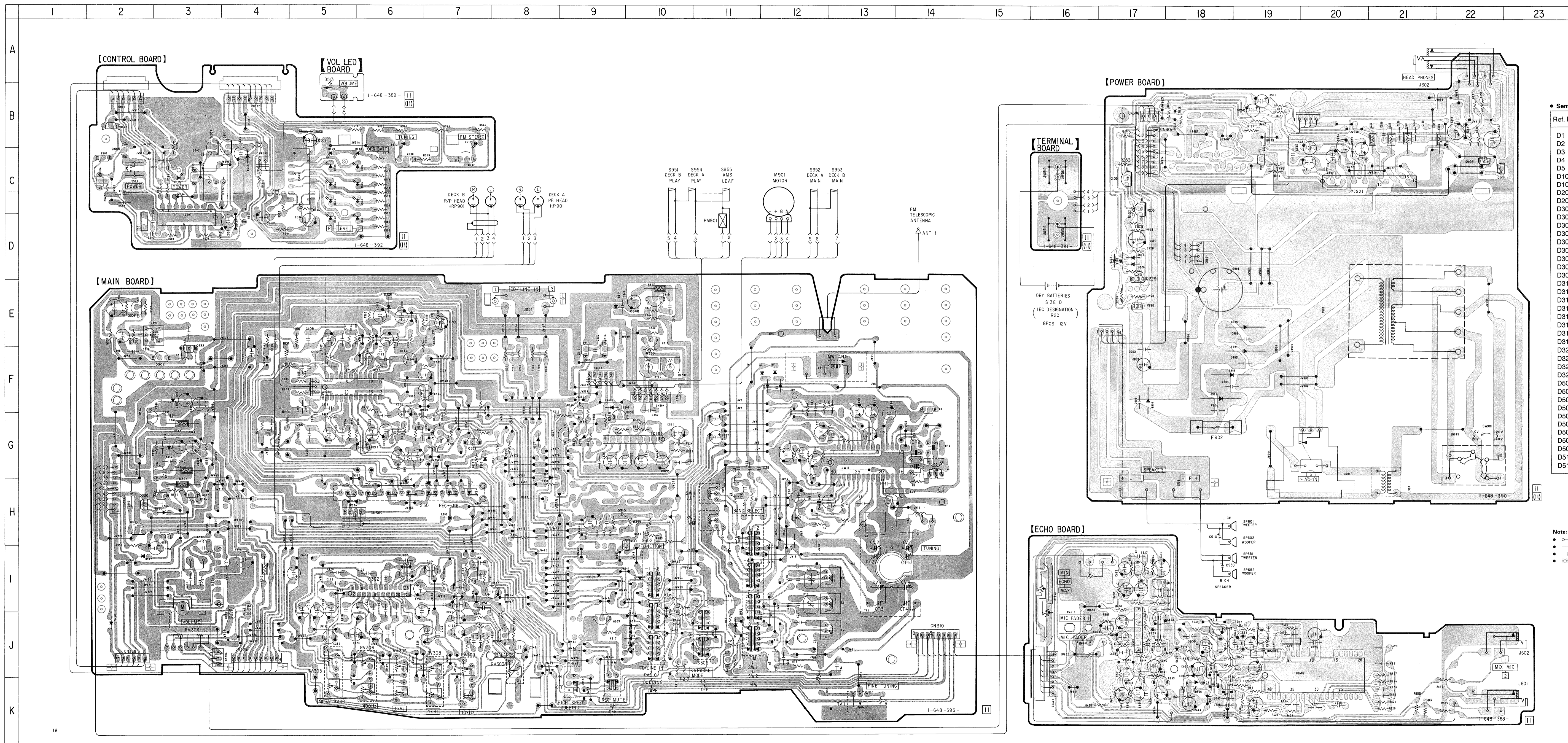


• SCHEMATIC DIAGRAM



- 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.
 - Δ : internal component.
 - \square : nonflammable resistor.
- Note:** The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.
- \square : B+ Line
 - \square : adjustment for repair.
 - Power voltage is dc 12 V and fed with regulated dc power supply from external power voltage jack.
 - Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM (()): PLAY <>: REC
 < >: SW 1, 2 H: DUBBING HIGH
 < >: MW N: DUBBING NORMAL
- Voltagers are taken with a VOM (Input Impedance $10\text{M}\Omega$).
 - Voltage variations may be noted due to normal production tolerances.
 - Signal path: \rightarrow : FM \rightarrow : PB (DECK A) \rightarrow : PB (DECK B) \rightarrow : REC (DECK B)
- Abbreviations
 EA: Saudi Arabia
 UAE: United Arab Emirates

●PRINTED WIRING BOARDS ●See page 13 for Semiconductor Lead Layouts.



● Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D1	F-12	D512	B-6	Q206	C-23
D2	F-12	D513	B-5	Q301	E-2
D3	F-12	D515	C-3	Q302	F-3
D4	F-12	D516	C-4	Q303	J-9
D5	J-11	D601	J-18	Q306	F-9
D101	D-17	D602	K-18	Q307	G-9
D102	D-17	D603	J-18	Q308	F-9
D201	D-17	D901	F-17	Q310	H-9
D202	D-17	D902	F-18	Q311	H-3
D301	J-10	D903	F-18	Q312	H-3
D302	J-10	D904	F-19	Q313	G-3
D303	J-10	D905	E-19	Q314	G-2
D304	J-10			Q315	E-10
D305	G-7	IC1	G-13	Q316	E-9
D306	G-8	IC301	F-5	Q317	E-9
D307	G-8	IC302	I-6	Q318	E-10
D308	F-9	IC303	G-10	Q320	H-2
D309	H-7	IC304	I-3	Q321	H-10
D310	H-10	IC305	H-2	Q322	E-17
D311	F-3	IC306	C-20	Q327	C-19
D312	G-3	IC501	D-3	Q329	D-17
D313	J-10	IC502	B-4	Q330	H-3
D314	E-9	IC503	B-3	Q332	G-7
D315	G-9	IC504	C-4	Q333	E-3
D316	I-10	IC505	C-5	Q501	C-2
D317	I-2	IC601	J-20	Q502	B-2
D324	H-3	IC602	J-17	Q503	D-4
D325	J-2			Q504	C-2
D326	E-6	Q1	J-12	Q505	B-2
D327	I-9	Q2	F-14	Q506	C-3
D501	D-6	Q3	H-11	Q507	C-7
D502	D-5	Q4	J-11	Q508	C-6
D503	C-6	Q101	E-7	Q601	J-17
D504	C-5	Q103	I-4	Q602	I-17
D505	C-6	Q104	I-7	Q603	J-17
D506	C-6	Q105	C-17	Q604	J-18
D507	C-6	Q106	C-22	Q605	K-18
D508	C-5	Q201	G-7	Q606	J-19
D509	C-5	Q203	J-4	Q607	J-17
D510	C-6	Q204	J-8	Q611	I-17
D511	B-7	Q205	C-17		

Note:
 ○ : parts extracted from the component side.
 ● : parts extracted from the conductor side.
 ■ : parts mounted on the conductor side.
 ▨ : Pattern on the side which is seen.

CFS-KW300S

• DISCRIMINATION

SONY

E Model

SERVICE MANUAL

Ver 1.0 1999.12

SUPPLEMENT-3

File this supplement with the service manual.

Subject:
 1. Circuit Change
 2. Correction and change

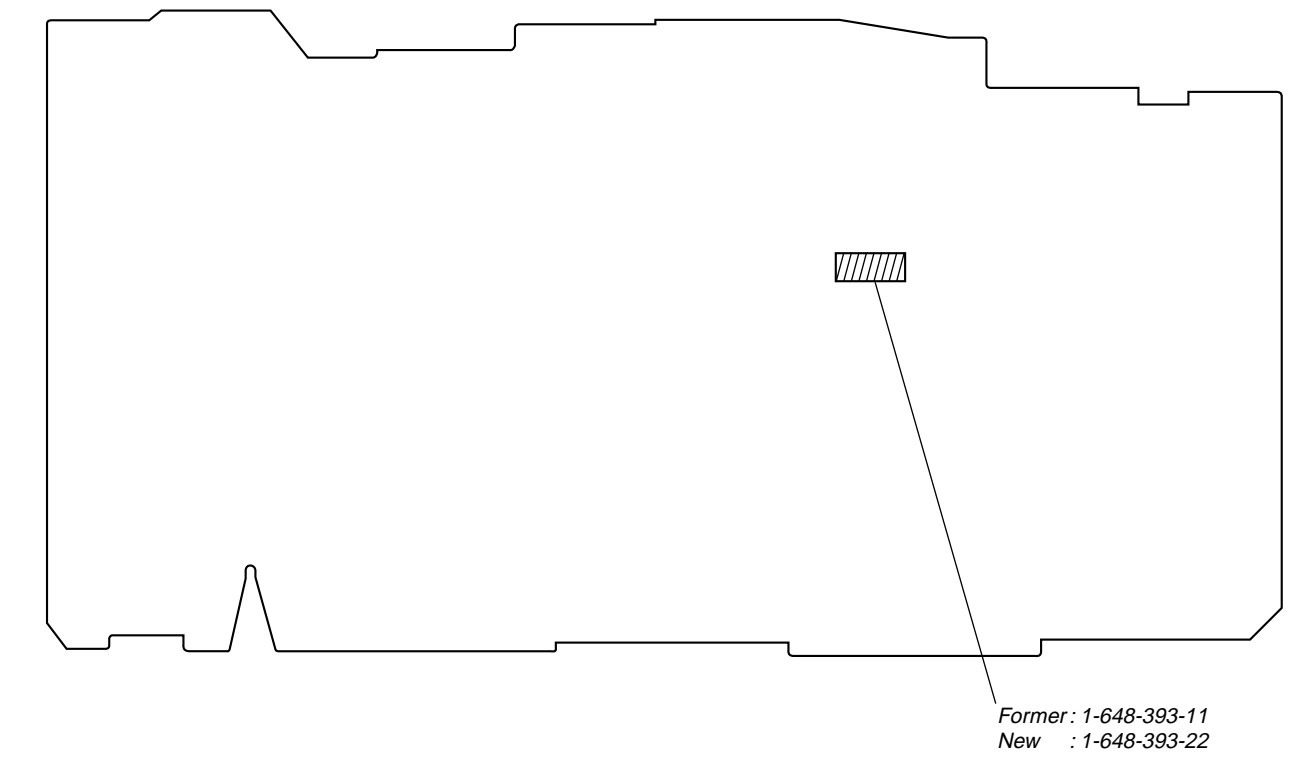
(SPM-99047)

Because of change made to circuit, schematic diagram, printed wiring board, exploded view (5-5. SPEAKER Section) and electrical parts list are released.

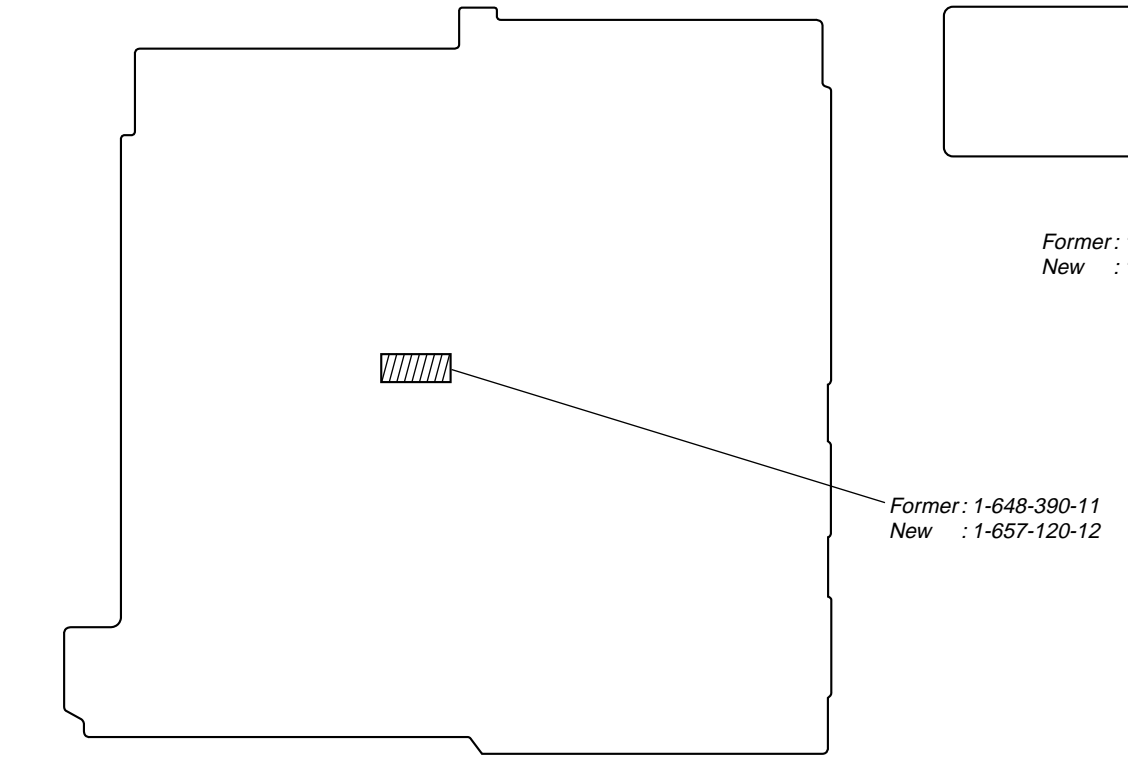
TABLE OF CONTENTS

1. CIRCUIT CHANGE	
• Printed Wiring Board	6
• Schematic Diagram	9
2. CORRECTION AND CHANGE	
• Exploded Views	16
• Electrical Parts List	20

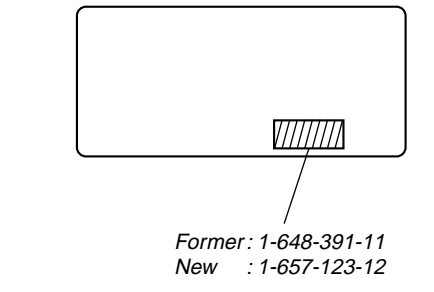
– MAIN BOARD (Conductor Side) –



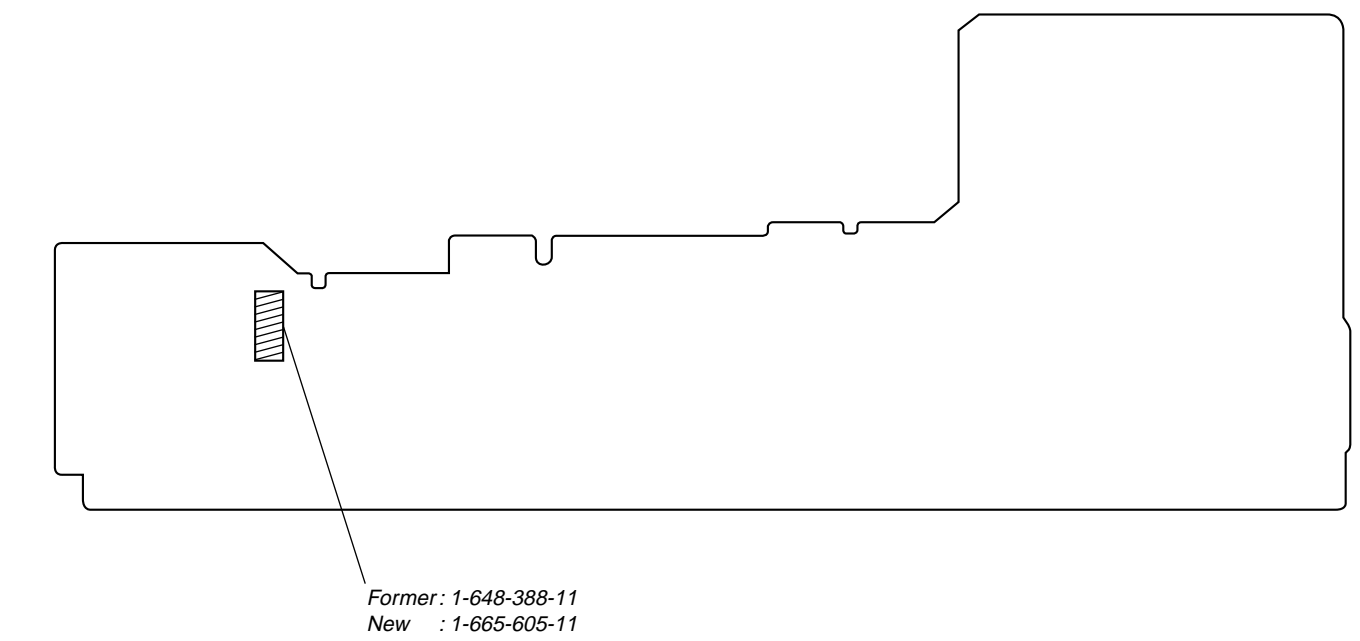
– POWER BOARD (Component Side) –



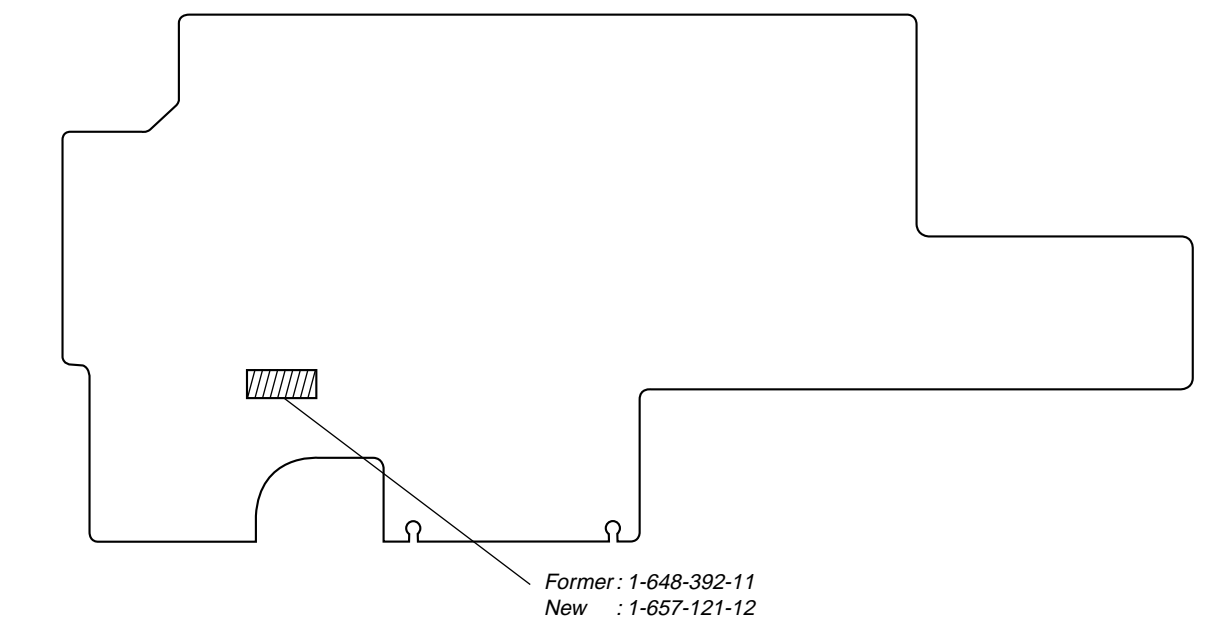
– TERMINAL BOARD (Component Side) –



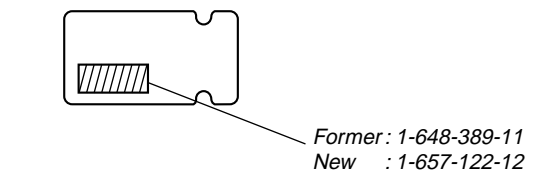
– ECHO BOARD (Component Side) –



– CONTROL BOARD (Component Side) –



– VOL LED BOARD (Component Side) –



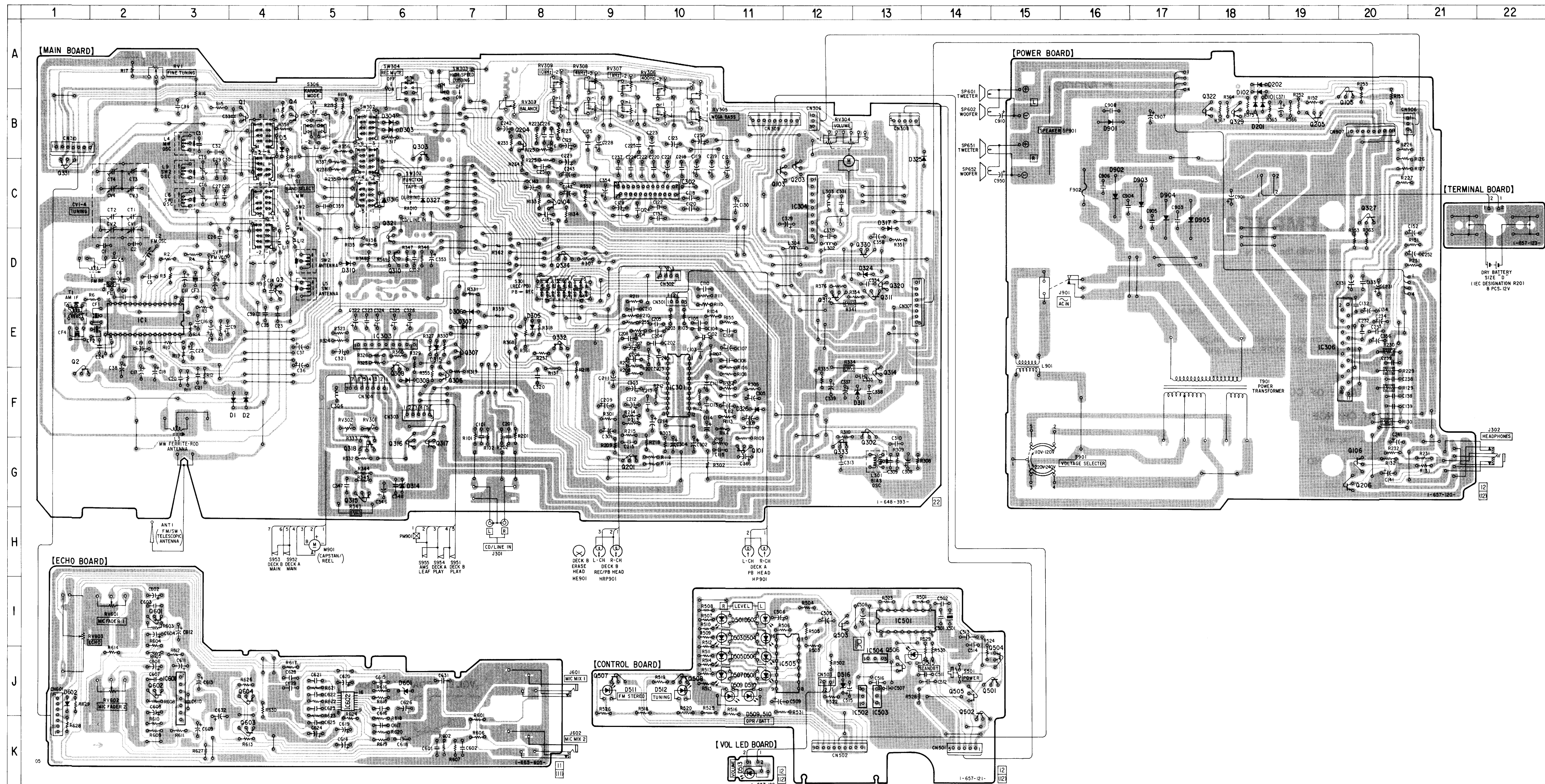
1. Circuit Change

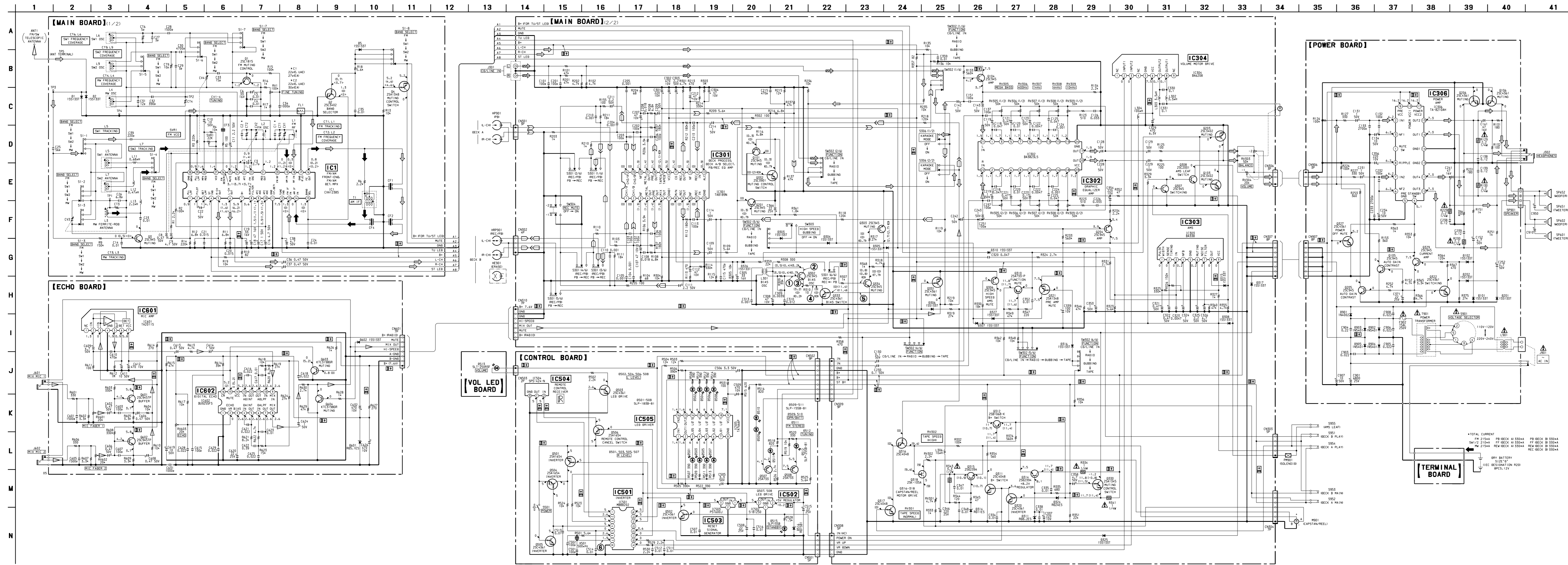
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	F-4	IC504	J-13
D2	F-4	IC505	J-12
D5	B-4	IC601	J-3
D101	B-18	IC602	J-5
D102	A-18		
D201	B-18	Q1	B-4
D202	A-18	Q2	F-1
D303	B-6	Q3	B-4
D304	B-6	Q4	B-4
D305	E-8	Q101	G-11
D306	E-7	Q103	F-11
D307	E-7	Q104	C-8
D308	F-8	Q105	B-20
D310	D-5	Q106	G-20
D311	F-13	Q201	G-9
D314	G-6	Q203	C-12
D315	E-6	Q204	B-8
D316	C-6	Q205	B-19
D317	C-13	Q206	G-20
D324	D-13	Q302	F-13
D325	B-14	Q303	B-6
D326	F-11	Q306	F-7
D327	C-6	Q307	E-7
D501	I-11	Q308	E-6
D502	I-11	Q310	D-6
D503	I-11	Q311	D-13
D504	I-11	Q312	D-12
D505	J-11	Q314	F-13
D506	J-11	Q315	G-5
D507	J-11	Q316	G-6
D508	J-11	Q317	G-6
D509	J-11	Q318	G-5
D510	J-11	Q320	D-13
D511	J-9	Q321	D-6
D512	J-10	Q322	B-18
D513	K-11	Q327	C-20
D515	J-13	Q329	B-18
D516	J-12	Q330	D-13
D601	J-6	Q331	C-1
D602	J-1	Q332	E-8
D901	B-16	Q333	G-12
D902	C-16	Q334	D-8
D903	C-17	Q501	J-15
D904	C-17	Q502	J-14
D905	C-17	Q503	I-12
		Q504	J-15
		Q505	J-14
IC1	E-2	Q506	J-13
IC301	F-10	Q507	J-9
IC302	C-10	Q508	J-10
IC303	E-6	Q601	I-2
IC304	C-12	Q602	J-2
IC306	E-20	Q603	K-4
IC501	I-13	Q604	J-4
IC502	J-13		
IC503	J-13		

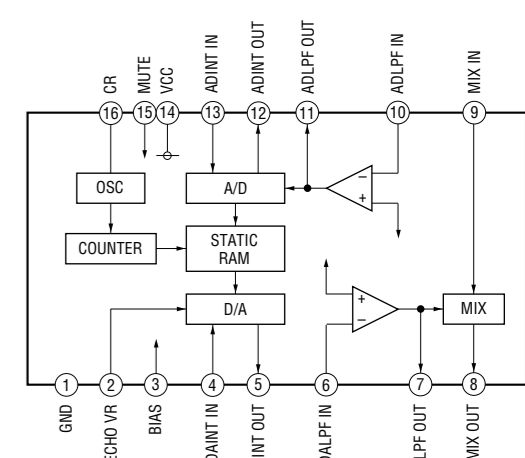
Note on Printed Wiring Boards:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : indicates side identified with part number.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)





• IC Block Diagram
- ECHO Board -
IC602 BU9255FS-E2



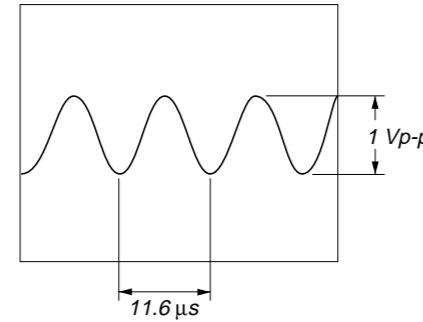
- Note on Schematic Diagram:**
- All capacitors are in μF unless otherwise noted. pF : μF F
 - 50 W or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4$ W or less unless otherwise specified.
 - Δ : internal component.
 - \square : nonflammable resistor.
 - \square : fusible resistor.

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

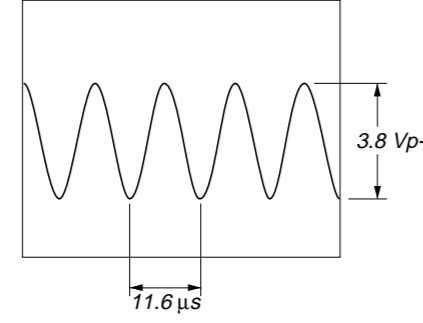
- \square : B+ Line.
- \square : adjustment for repair.
- Total current is measured with no cassette installed.
- Power voltage is dc 12 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- () : FM
- () : SW1/2
- [] : TAPE PLAYBACK (DECK A)
- { } : TAPE PLAYBACK (DECK B)
- () : TAPE RECORD (DECK B)
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path:
 - FM
 - MW
 - TAPE PLAYBACK (DECK A)
 - TAPE PLAYBACK (DECK B)
 - TAPE RECORD (DECK B)
 - MIC INPUT
- Abbreviation
 - SA : Saudi Arabia model
 - EA : United Arab Emirates model

• Waveforms
– MAIN Board –

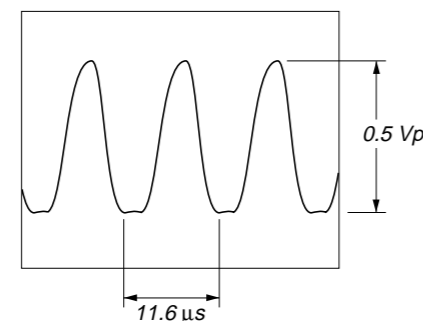
1 Q302 (Base) (Record Mode)
500mV/DIV, 5µs/DIV



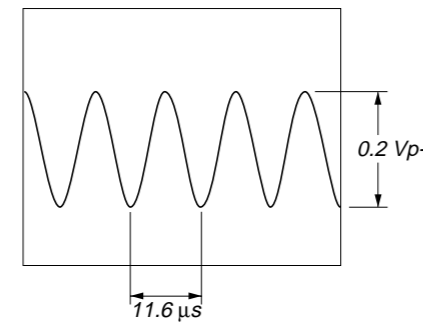
2 Q302 (Collector) (Record Mode)
1V/DIV, 5µs/DIV



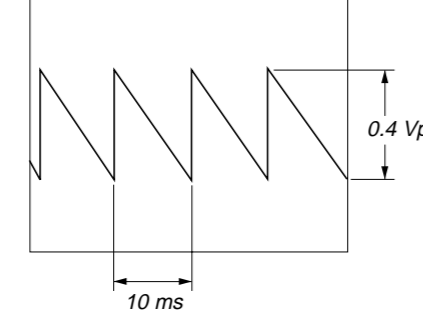
3 Q302 (Emitter) (Record Mode)
200mV/DIV, 5µs/DIV



4 Q334 (Collector) (Record Mode)
50mV/DIV, 5µs/DIV

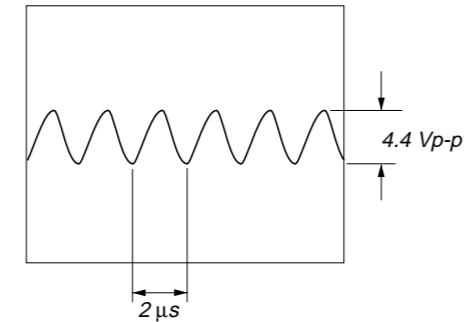


5 Q334 (Base) (Record Mode)
100mV/DIV, 5ms/DIV



– CONTROL Board –

6 IC501



2. Correction And Change
• EXPLODED VIEWS

NOTE:

- XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)
↑ ↑
Parts Color Cabinet's Color
- Abbreviation
EA : Saudi Arabia model
UAE : United Arab Emirates model

- 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 and accessories and packing materials are given in the last of the electrical parts list.

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

5-1. CABINET SECTION

☐ : Indicates cancelled portion.
☑ : Indicates corrected portion.

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
20	3	3-389-430-01	HOLDER (L), CASSETTE		3	3-389-430-01	HOLDER (A), CASSETTE	
	4	3-389-431-01	HOLDER (R), CASSETTE		4	3-389-431-01	HOLDER (B), CASSETTE	
	5	3-389-432-01	WINDOW, DIAL (E, E23, UAE)		5	3-389-432-01	WINDOW, DIAL	
	5	3-389-432-11	WINDOW, DIAL (EA)					
	*	12	A-3264-466-A	ECHO BOARD, COMPLETE		*	12	A-3306-555-A

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
20					* 41	3-389-401-01	PLATE (COM 2) SHIELD	
					* 42	3-389-402-01	PLATE (COM) SHIELD	
					* 43	3-906-470-01	HOLDER (LED)	
					44	3-389-424-01	HOLDER (LEVEL)	

– To Next Page –

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
20								

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

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
20								

5-2. MECHANISM DECK SECTION-1

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
21	M901	3-378-834-01	MOTOR ASSY		M901	3-378-834-01	MOTOR ASSY (CAPSTAN/REEL)	

5-3. MECHANISM DECK SECTION-2 (MF-KW300S)

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
22	107	3-362-974-01	GEAR, CAM		107	X-3363-315-1	GEAR ASSY, CAM	
	117	3-363-228-01	SPRING (DECK A)		117	3-917-805-01	SPRING (DECK A)	
	S952	1-572-538-11	SWITCH, LEAF (B-MAIN)		S952	1-571-556-11	SWITCH, LEAF (A-MAIN)	
	S953	1-572-538-11	SWITCH, LEAF (A-MAIN)		S953	1-571-556-11	SWITCH, LEAF (B-MAIN)	
	S955	1-571-745-11	SWITCH, LEAF (AMPS) (DECK A)		S955	1-571-745-11	SWITCH, LEAF (AMS) (DECK A)	

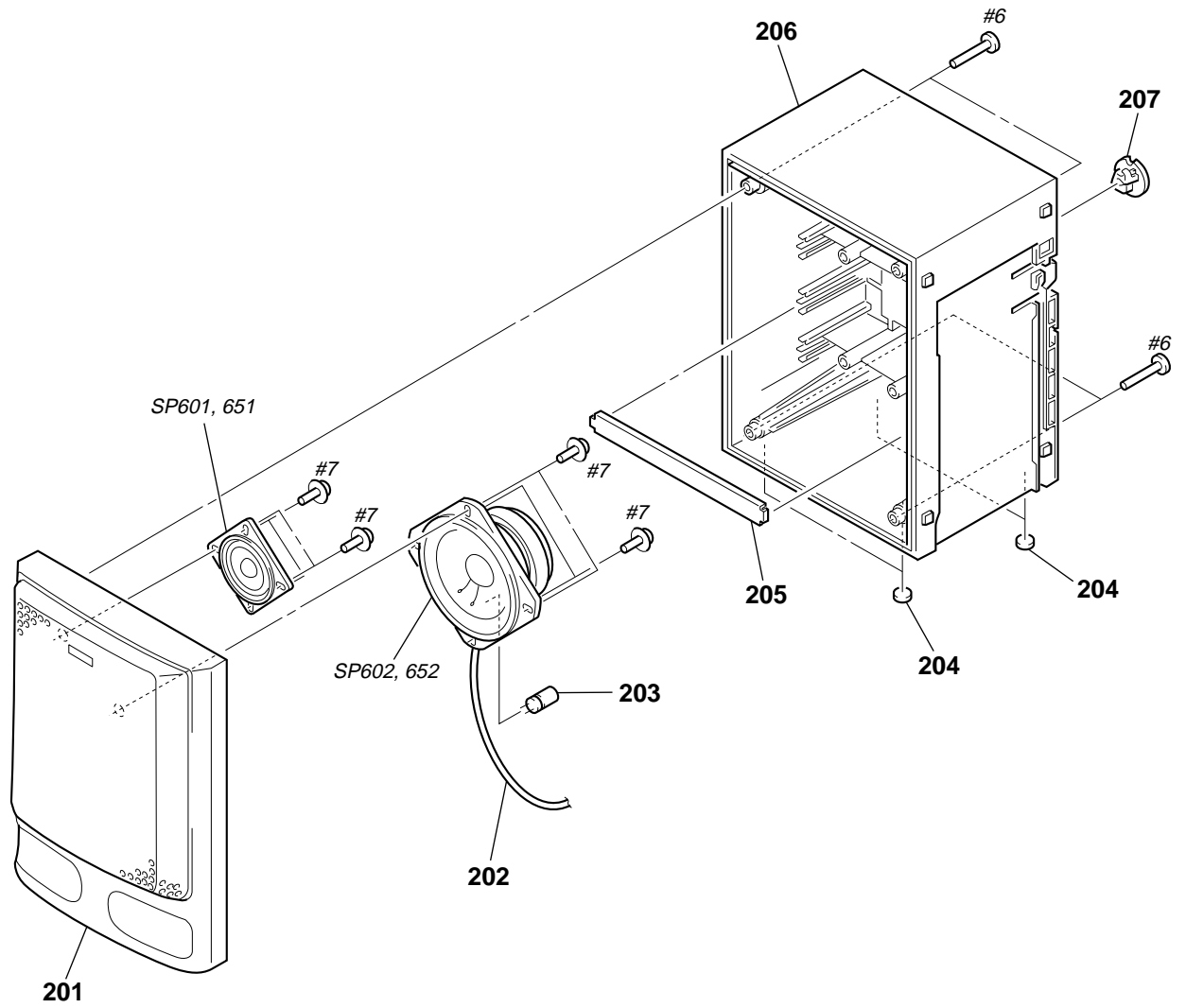
5-4. MECHANISM DECK SECTION-3 (MF-KW300S)

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
23	152	3-362-963-01	REEL, S		152	X-3363-611-1	REEL, ASSY	
	183	3-363-228-01	SPLING (DECK B)		183	3-917-805-01	SPRING (DECK B)	
	HE901	1-543-558-11	HEAD, E (DECK B)		HE901	1-543-558-11	HEAD, E (ERASE) (DECK B)	

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
23								

Page	INCORRECT				CORRECT			
	Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
23								

5-5. SPEAKER SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-3367-350-1	CABINET (FRONT) ASSY (L), SP		206	3-389-443-01	BOX (REAR) (L), SP	
201	X-3367-349-1	CABINET (FRONT) ASSY (R), SP		206	3-389-444-01	BOX (REAR) (R), SP	
202	1-751-483-11	CORD, SPEAKER CONNECTION		207	3-904-982-01	STOPPER, CORD	
203	1-124-499-11	ELECT, NONPOLAR 1uF 20% 50V	50V	SP601	1-505-567-11	SPEAKER (5 cm)	
204	3-905-378-01	FOOT (SP) (R ch)		SP602	1-505-566-11	SPEAKER (10 cm)	
204	3-905-378-11	FOOT (SP) (L ch)		SP651	1-505-567-11	SPEAKER (5 cm)	
205	3-389-425-01	BRACKET, SP		SP652	1-505-566-11	SPEAKER (10 cm)	

CONTROL

• ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
EA : Saudi Arabia model
UAE : United Arab Emirates model

- 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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-3264-465-A	CONTROL BOARD, COMPLETE *****				< IC >	
*	3-389-401-01	PLATE (COM2), SHIELD		IC501	8-759-188-12	IC MB88202P-1113M	
*	3-389-402-01	PLATE (COM), SHIELD		IC502	8-759-479-70	IC S-81250SGY-B	
	3-389-424-01	HOLDER (LEVEL)		IC503	8-759-344-62	IC PST600J	
*	3-906-470-01	HOLDER (LED)		IC504	8-759-284-50	IC SPS-424-N (REMOTE CONTROL RECEIVER)	
	4-353-963-01	CUSHION 78X10X0.3T		IC505	8-759-202-40	IC TA7666P	
		< CAPACITOR >				< TRANSISTOR >	
	C501	1-162-282-31 CERAMIC	100PF 10% 50V	Q501	8-729-809-01	TRANSISTOR 2SA1654-TP	
	C502	1-162-282-31 CERAMIC	100PF 10% 50V	Q502	8-729-029-96	TRANSISTOR DTC143XSA	
	C505	1-126-962-11 ELECT	3.3uF 20% 50V	Q503	8-729-029-96	TRANSISTOR DTC143XSA	
	C506	1-126-962-11 ELECT	3.3uF 20% 50V	Q504	8-729-809-01	TRANSISTOR 2SA1654-TP	
	C507	1-162-839-11 CERAMIC	0.01uF 10% 16V	Q505	8-729-029-96	TRANSISTOR DTC143XSA	
	C508	1-126-233-11 ELECT	22uF 20% 50V	Q506	8-729-809-01	TRANSISTOR 2SA1654-TP	
	C509	1-124-472-11 ELECT	470uF 20% 10V	Q507	8-729-119-76	TRANSISTOR 2SA1175-HFE	
	C511	1-162-839-11 CERAMIC	0.01uF 10% 16V	Q508	8-729-119-76	TRANSISTOR 2SA1175-HFE	
	C512	1-162-839-11 CERAMIC	0.01uF 10% 16V			< RESISTOR >	
	C513	1-162-839-11 CERAMIC	0.01uF 10% 16V				
	C514	1-162-839-11 CERAMIC	0.01uF 10% 16V	R501	1-249-426-11	CARBON 5.6K 5% 1/4W	
	C515	1-126-233-11 ELECT	22uF 20% 50V	R502	1-249-421-11	CARBON 2.2K 5% 1/4W	
	C516	1-162-839-11 CERAMIC	0.01uF 10% 16V	R503	1-249-430-11	CARBON 12K 5% 1/4W	
		< CONNECTOR >		R504	1-249-430-11	CARBON 12K 5% 1/4W	
*	CN503	1-580-154-11 PIN, CONNECTOR (PC BOARD) 2P		R505	1-247-893-11	CARBON 390K 5% 1/4W	
		< DIODE >		R506	1-247-893-11	CARBON 390K 5% 1/4W	
	D501	8-719-041-93 LED SLP-183B-81 (R LEVEL)		R507	1-249-412-11	CARBON 390 5% 1/4W	
	D502	8-719-041-93 LED SLP-183B-81 (L LEVEL)		R508	1-249-412-11	CARBON 390 5% 1/4W	
	D503	8-719-041-93 LED SLP-183B-81 (R LEVEL)		R509	1-249-412-11	CARBON 390 5% 1/4W	
	D504	8-719-041-93 LED SLP-183B-81 (L LEVEL)		R510	1-249-412-11	CARBON 390 5% 1/4W	
	D505	8-719-041-93 LED SLP-183B-81 (R LEVEL)					
	D506	8-719-041-93 LED SLP-183B-81 (L LEVEL)		R511	1-249-412-11	CARBON 390 5% 1/4W	
	D507	8-719-041-93 LED SLP-183B-81 (R LEVEL)		R512	1-249-412-11	CARBON 390 5% 1/4W	
	D508	8-719-041-93 LED SLP-183B-81 (L LEVEL)		R513	1-249-412-11	CARBON 390 5% 1/4W	
	D509	8-719-915-45 LED SLP162B (OPR/BATT)		R514	1-249-412-11	CARBON 390 5% 1/4W	
	D510	8-719-915-45 LED SLP162B (OPR/BATT)		R515	1-247-826-00	CARBON 620 5% 1/4W	
	D511	8-719-915-45 LED SLP162B (FM STEREO)		R516	1-249-416-11	CARBON 820 5% 1/4W	
	D512	8-719-918-87 LED BG5531K (TUNING)		R518	1-249-416-11	CARBON 820 5% 1/4W	
	D515	8-719-915-45 LED SLP162B (STANDBY)		R519	1-249-429-11	CARBON 10K 5% 1/4W	
	D516	8-719-110-36 DIODE RD13ESB2		R520	1-249-411-11	CARBON 330 5% 1/4W	
				R522	1-249-412-11	CARBON 390 5% 1/4W	
				R523	1-249-429-11	CARBON 10K 5% 1/4W	
				R524	1-249-429-11	CARBON 10K 5% 1/4W	
				R525	1-249-426-11	CARBON 5.6K 5% 1/4W	
				R526	1-249-422-11	CARBON 2.7K 5% 1/4W	
				R528	1-249-419-11	CARBON 1.5K 5% 1/4W	

CONTROL

ECHO

MAIN

Ref. No.	Part No.	Description	Remark
R529	1-249-421-11	CARBON 2.2K 5%	1/4W
R530	1-249-421-11	CARBON 2.2K 5%	1/4W
R531	1-247-807-31	CARBON 100 5%	1/4W
< SWITCH >			
S501	1-554-303-21	SWITCH, TACTILE (POWER)	
< VIBRATOR >			
X501	1-578-787-21	VIBRATOR, CERAMIC (500kHz)	

*	A-3306-555-A	ECHO BOARD, COMPLETE	

< CAPACITOR >			
C601	1-162-301-11	CERAMIC 1500PF 30%	16V
C602	1-124-902-00	ELECT 0.47uF 20%	50V
C603	1-162-282-31	CERAMIC 100PF 10%	50V
C604	1-124-902-00	ELECT 0.47uF 20%	50V
C605	1-162-301-11	CERAMIC 1500PF 30%	16V
C606	1-124-902-00	ELECT 0.47uF 20%	50V
C607	1-162-282-31	CERAMIC 100PF 10%	50V
C608	1-124-902-00	ELECT 0.47uF 20%	50V
C609	1-126-963-11	ELECT 4.7uF 20%	50V
C610	1-162-290-31	CERAMIC 470PF 10%	50V
C611	1-124-907-11	ELECT 10uF 20%	50V
C612	1-124-472-11	ELECT 470uF 20%	10V
C613	1-124-902-00	ELECT 0.47uF 20%	50V
C614	1-124-903-11	ELECT 1uF 20%	50V
C615	1-162-282-31	CERAMIC 100PF 10%	50V
C616	1-161-494-00	CERAMIC 0.022uF	25V
C617	1-130-483-11	CERAMIC 0.01uF 5%	50V
C618	1-161-494-00	CERAMIC 0.022uF	25V
C619	1-124-907-11	ELECT 10uF 20%	50V
C620	1-126-233-11	ELECT 22uF 20%	50V
C621	1-161-494-00	CERAMIC 0.022uF	25V
C622	1-137-193-11	FILM 0.39uF 5%	50V
C623	1-130-483-11	CERAMIC 0.01uF 5%	50V
C624	1-124-903-11	ELECT 1uF 20%	50V
C625	1-161-494-00	CERAMIC 0.022uF	25V
C626	1-124-472-11	ELECT 470uF 20%	10V
C628	1-161-494-00	CERAMIC 0.022uF	25V
C629	1-161-494-00	CERAMIC 0.022uF	25V
C631	1-162-294-31	CERAMIC 0.001uF 10%	50V
C632	1-124-472-11	ELECT 470uF 20%	10V
< DIODE >			
D601	8-719-109-86	DIODE RD5.1ES-B3	
D602	8-719-991-33	DIODE 1SS133T-77	
< IC >			
IC601	8-759-246-69	IC TA2011S	
IC602	8-759-464-97	IC BU9255FS-E2	
< JACK >			
J601	1-750-694-11	JACK (MIX MIC 1)	
J602	1-750-694-11	JACK (MIX MIC 2)	

Ref. No.	Part No.	Description	Remark
< TRANSISTOR >			
Q601	8-729-194-57	TRANSISTOR 2SC945-P	
Q602	8-729-194-57	TRANSISTOR 2SC945-P	
Q603	8-729-036-89	TRANSISTOR KTC3198GR-AT	
Q604	8-729-036-89	TRANSISTOR KTC3198GR-AT	
< RESISTOR >			
R601	1-249-411-11	CARBON 330 5%	1/4W
R602	1-247-843-11	CARBON 3.3K 5%	1/4W
R603	1-247-891-00	CARBON 330K 5%	1/4W
R604	1-249-429-11	CARBON 10K 5%	1/4W
R605	1-247-843-11	CARBON 3.3K 5%	1/4W
R606	1-249-411-11	CARBON 330 5%	1/4W
R607	1-247-843-11	CARBON 3.3K 5%	1/4W
R608	1-247-891-00	CARBON 330K 5%	1/4W
R609	1-247-843-11	CARBON 3.3K 5%	1/4W
R610	1-249-429-11	CARBON 10K 5%	1/4W
R611	1-247-807-31	CARBON 100 5%	1/4W
R612	1-247-903-00	CARBON 1M 5%	1/4W
R613	1-249-425-11	CARBON 4.7K 5%	1/4W
R614	1-249-410-11	CARBON 270 5%	1/4W
R615	1-249-437-11	CARBON 47K 5%	1/4W
R616	1-249-436-11	CARBON 39K 5%	1/4W
R617	1-249-429-11	CARBON 10K 5%	1/4W
R618	1-249-429-11	CARBON 10K 5%	1/4W
R619	1-249-434-11	CARBON 27K 5%	1/4W
R620	1-249-428-11	CARBON 8.2K 5%	1/4W
R621	1-249-428-11	CARBON 8.2K 5%	1/4W
R622	1-249-425-11	CARBON 4.7K 5%	1/4W
R623	1-249-431-11	CARBON 15K 5%	1/4W
R624	1-249-434-11	CARBON 27K 5%	1/4W
R626	1-249-417-11	CARBON 1K 5%	1/4W
R627	1-247-817-91	CARBON 270 5%	1/4W
R628	1-249-417-11	CARBON 1K 5%	1/4W
R629	1-249-437-11	CARBON 47K 5%	1/4W
R630	1-249-422-11	CARBON 2.7K 5%	1/4W
< VARIABLE RESISTOR >			
RV601	1-227-160-11	RES, VAR, CARBON 20K (MIC FADER 1)	
RV602	1-227-160-11	RES, VAR, CARBON 20K (MIC FADER 2)	
RV603	1-227-160-11	RES, VAR, SLIDE 20K (ECHO)	

	A-3264-464-A	MAIN BOARD, COMPLETE (EA)	
	A-3264-639-A	MAIN BOARD, COMPLETE (E, UAE)	

	1-533-233-11	HOLDER, FUSE	
	3-389-395-01	KNOB (FINE-TUN)	
	3-389-397-01	DRUM, TUNING CAPACITOR	
	3-389-422-01	KNOB (TUN)	
	3-389-423-01	RACK, POINTER	
	3-389-428-01	HOLDER (VOL)	
*	3-389-434-01	CHASSIS (TUNING)	
	7-621-770-87	SCREW +B 2.6X5	
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 SLIT	
	7-685-903-21	SCREW +PTPW 3X8 (TYPE2)	

MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
< CAPACITOR >							C119	1-124-903-11	ELECT	1uF	20%	50V	
C1	1-162-207-31	CERAMIC	22PF	5%	50V		C120	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C1	1-162-209-31	CERAMIC	27PF	5%	50V	(E, UAE)	C121	1-124-902-00	ELECT	0.47uF	20%	50V	
C2	1-102-959-00	CERAMIC	22PF	5%	50V	(EA)	C122	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C2	1-102-962-00	CERAMIC	30PF	5%	50V	(E, UAE)	C123	1-126-956-11	ELECT	0.1uF	20%	50V	
C3	1-162-192-31	CERAMIC	2.7PF	10%	50V	(EA)	C124	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C4	1-162-839-11	CERAMIC	0.01uF	10%	16V		C125	1-162-847-11	CERAMIC	0.047uF	10%	16V	
C5	1-162-839-11	CERAMIC	0.01uF	10%	16V		C126	1-161-057-00	CERAMIC	0.033uF	10%	50V	
C6	1-104-663-11	ELECT	33uF	20%	16V		C128	1-124-903-11	ELECT	1uF	20%	50V	
C8	1-126-959-11	ELECT	0.47uF	20%	50V		C129	1-124-903-11	ELECT	1uF	20%	50V	
C9	1-124-902-00	ELECT	4.7uF	20%	50V		C130	1-126-956-11	ELECT	0.1uF	20%	50V	
C10	1-124-907-11	ELECT	10uF	20%	50V		C137	1-162-282-31	CERAMIC	100PF	10%	50V	
C11	1-126-961-11	ELECT	2.2uF	20%	50V		C142	1-124-903-11	ELECT	1uF	20%	50V	
C14	1-162-839-11	CERAMIC	0.01uF	10%	16V		C143	1-124-903-11	ELECT	1uF	20%	50V	
C16	1-126-963-11	ELECT	4.7uF	20%	50V		C151	1-162-282-31	CERAMIC	100PF	10%	50V	
C17	1-124-903-11	ELECT	1uF	20%	50V		C201	1-162-282-31	CERAMIC	100PF	10%	50V	
C18	1-104-664-11	ELECT	47uF	20%	25V		C202	1-162-282-31	CERAMIC	100PF	10%	50V	
C19	1-104-663-11	ELECT	33uF	20%	16V		C203	1-162-282-31	CERAMIC	100PF	10%	50V	
C20	1-161-053-00	CERAMIC	0.015uF	10%	16V		C204	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C21	1-161-053-00	CERAMIC	0.015uF	10%	16V		C205	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C22	1-124-903-11	ELECT	1uF	20%	50V		C206	1-162-282-31	CERAMIC	100PF	10%	50V	
C23	1-162-839-11	CERAMIC	0.01uF	10%	16V		C207	1-104-664-11	ELECT	47uF	20%	10V	
C24	1-162-839-11	CERAMIC	0.01uF	10%	16V		C208	1-162-842-11	CERAMIC	0.018uF	10%	16V	
C25	1-101-884-00	CERAMIC	56PF	5%	50V		C209	1-124-903-11	ELECT	1uF	20%	50V	
C26	1-162-197-31	CERAMIC	6.8PF	10%	50V		C210	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C27	1-164-039-11	CERAMIC	3PF	5%	50V		C211	1-126-961-11	ELECT	2.2uF	20%	50V	
C28	1-136-480-11	FILM	0.0015uF	5%	100V		C212	1-104-664-11	ELECT	47uF	20%	10V	
C29	1-164-039-11	CERAMIC	3PF	5%	50V		C213	1-162-282-31	CERAMIC	100PF	10%	50V	
C30	1-136-287-11	FILM	0.0047uF	5%	100V		C214	1-124-903-11	ELECT	1uF	20%	50V	
C31	1-102-949-00	CERAMIC	12PF	5%	50V		C215	1-162-290-31	CERAMIC	470PF	10%	50V	
C32	1-104-732-11	FILM	390PF	5%	100V		C218	1-162-847-11	CERAMIC	0.047uF	10%	16V	
C33	1-162-203-31	CERAMIC	15PF	5%	50V		C219	1-124-903-11	ELECT	1uF	20%	50V	
C34	1-162-294-31	CERAMIC	0.001uF	10%	50V		C220	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C35	1-162-839-11	CERAMIC	0.01uF	10%	16V		C221	1-124-902-00	ELECT	0.47uF	20%	50V	
C36	1-124-902-00	ELECT	0.47uF	20%	50V		C222	1-162-600-11	CERAMIC	0.0047uF	30%	16V	
C37	1-124-902-00	ELECT	0.47uF	20%	50V		C223	1-126-956-11	ELECT	0.1uF	20%	50V	
C38	1-124-903-11	ELECT	1uF	20%	50V		C224	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C39	1-162-286-21	CERAMIC	220PF	10%	50V		C225	1-162-847-11	CERAMIC	0.047uF	10%	16V	
C101	1-162-282-31	CERAMIC	100PF	10%	50V		C226	1-161-057-00	CERAMIC	0.033uF	10%	50V	
C102	1-162-282-31	CERAMIC	100PF	10%	50V		C228	1-124-903-11	ELECT	1uF	20%	50V	
C103	1-162-282-31	CERAMIC	100PF	10%	50V		C229	1-124-903-11	ELECT	1uF	20%	50V	
C104	1-162-294-31	CERAMIC	0.001uF	10%	50V		C230	1-126-956-11	ELECT	0.1uF	20%	50V	
C105	1-162-294-31	CERAMIC	0.001uF	10%	50V		C237	1-162-282-31	CERAMIC	100PF	10%	50V	
C106	1-162-282-31	CERAMIC	100PF	10%	50V		C242	1-124-903-11	ELECT	1uF	20%	50V	
C107	1-104-664-11	ELECT	47uF	20%	10V		C243	1-124-903-11	ELECT	1uF	20%	50V	
C108	1-162-842-11	CERAMIC	0.018uF	10%	16V		C251	1-162-282-31	CERAMIC	100PF	10%	50V	
C109	1-124-903-11	ELECT	1uF	20%	50V		C301	1-104-666-11	ELECT	220uF	20%	10V	
C110	1-162-294-31	CERAMIC	0.001uF	10%	50V		C302	1-124-472-11	ELECT	470uF	20%	10V	
C111	1-126-961-11	ELECT	2.2uF	20%	50V		C303	1-126-961-11	ELECT	2.2uF	20%	50V	
C112	1-104-664-11	ELECT	47uF	20%	10V		C304	1-104-664-11	ELECT	47uF	20%	10V	
C113	1-162-282-31	CERAMIC	100PF	10%	50V		C305	1-104-663-11	ELECT	33uF	20%	16V	
C114	1-124-903-11	ELECT	1uF	20%	50V		C308	1-104-664-11	ELECT	47uF	20%	10V	
C115	1-162-290-31	CERAMIC	470PF	10%	50V		C309	1-130-478-00	MYLAR	0.0039uF	5%	50V	
C118	1-162-847-11	CERAMIC	0.047uF	10%	16V		C310	1-136-967-11	MYLAR	0.012uF	5%	50V	
							C313	1-130-471-00	MYLAR	0.001uF	5%	50V	
							C320	1-162-847-11	CERAMIC	0.047uF	10%	16V	
							C321	1-124-902-00	ELECT	0.47uF	20%	50V	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C322	1-124-902-00	ELECT	0.47uF 20% 50V	D304	8-719-991-33	DIODE 1SS133T-77	
C323	1-162-600-11	CERAMIC	0.0047uF 30% 16V	D305	8-719-991-33	DIODE 1SS133T-77	
C324	1-124-903-11	ELECT	1uF 20% 50V	D306	8-719-991-33	DIODE 1SS133T-77	
C325	1-126-961-11	ELECT	2.2uF 20% 50V	D307	8-719-991-33	DIODE 1SS133T-77	
C326	1-126-963-11	ELECT	4.7uF 20% 50V	D308	8-719-991-33	DIODE 1SS133T-77	
C329	1-126-941-11	ELECT	470uF 20% 6.3V	D310	8-719-991-33	DIODE 1SS133T-77	
C330	1-136-165-00	FILM	0.1uF 5% 50V	D311	8-719-110-08	DIODE RD8.2ESB2	
C331	1-136-165-00	FILM	0.1uF 5% 50V	D314	8-719-110-22	DIODE RD11ESB2	
C334	1-162-306-11	CERAMIC	0.01uF 30% 16V	D315	8-719-991-33	DIODE 1SS133T-77	
C335	1-162-306-11	CERAMIC	0.01uF 30% 16V	D316	8-719-991-33	DIODE 1SS133T-77	
C337	1-104-666-11	ELECT	220uF 20% 10V	D317	8-719-991-33	DIODE 1SS133T-77	
C338	1-162-306-11	CERAMIC	0.01uF 30% 16V	D324	8-719-110-64	DIODE RD24ESB4	
C339	1-104-665-11	ELECT	100uF 20% 25V	D325	8-719-991-33	DIODE 1SS133T-77	
C346	1-104-666-11	ELECT	220uF 20% 25V	D326	8-719-991-33	DIODE 1SS133T-77	
C347	1-162-306-11	CERAMIC	0.01uF 30% 16V	D327	8-719-991-33	DIODE 1SS133T-77	
C348	1-162-306-11	CERAMIC	0.01uF 30% 16V			< BAND PASS FILTER >	
C352	1-162-306-11	CERAMIC	0.01uF 30% 16V	FL1	1-236-022-11	FILTER, BAND PASS	
C353	1-124-903-11	ELECT	1uF 20% 50V			< IC >	
C354	1-104-666-11	ELECT	220uF 20% 10V	IC1	8-752-050-20	IC CXA1238S	
C358	1-126-963-11	ELECT	4.7uF 20% 50V	IC301	8-759-242-58	IC TA8189N	
C359	1-162-306-11	CERAMIC	0.01uF 30% 16V	IC302	8-759-972-97	IC BA3823LS	
C366	1-126-233-11	ELECT	22uF 20% 50V	IC303	8-759-905-47	IC BA338	
		< FILTER >		IC304	8-759-962-08	IC BA6208	
CF1	1-577-327-81	FILTER, CERAMIC				< JACK >	
CF2	1-577-327-81	FILTER, CERAMIC		J301	1-563-716-21	JACK, PIN 2P (CD/LINE IN)	
CF3	1-577-327-81	FILTER, CERAMIC				< COIL/TRANSFORMER >	
CF4	1-567-670-11	FILTER, CERAMIC		L1	1-428-776-11	COIL, AIR-CORE (EA)	
		< CONNECTOR >		L1	1-428-777-11	COIL, AIR-CORE (E, UAE)	
* CN301	1-580-155-11	PIN, CONNECTOR (PC BOARD) 3P		L2	1-422-230-11	COIL, AIR-CORE (E, UAE)	
CN302	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P		L2	1-460-205-31	COIL (WITH CORE) (EA)	
CN303	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P		L3	1-402-507-11	ANTENNA, FERRITE-ROD (MW)	
* CN304	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P		L4	1-406-253-11	COIL (MW OSC)	
* CN307	1-580-160-11	PIN, CONNECTOR (PC BOARD) 8P		L5	1-402-390-11	COIL (SW1 ANTENNA)	
CN308	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P		L6	1-406-247-11	COIL (SW1 OSC)	
* CN309	1-580-161-11	PIN, CONNECTOR (PC BOARD) 9P		L7	1-402-539-11	COIL (SW2 ANTENNA)	
* CN310	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P		L9	1-406-221-11	COIL (SW2 OSC)	
		< TRIMMER >		L11	1-414-140-11	INDUCTOR 0.68uH	
CT1	1-151-637-11	CAP, VARIABLE		L12	1-410-750-41	INDUCTOR 0.47uH	
CT2	1-151-637-11	CAP, VARIABLE		L13	1-410-501-11	INDUCTOR 2.2uH	
CT3	1-151-637-11	CAP, VARIABLE		L301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR	
CT4	1-151-637-11	CAP, VARIABLE		L302	1-410-503-11	INDUCTOR 3.3uH	
CT6	1-141-360-41	CAP, FILM TRIMMER 5PF		L303	1-410-503-11	INDUCTOR 3.3uH	
CT9	1-141-290-41	CAP, FILM TRIMMER 10PF		L304	1-410-521-11	INDUCTOR 100uH	
		< VARIABLE CAPACITOR >		L306	1-408-117-00	INDUCTOR 10uH	
CV1	1-151-637-11	CAP, VARIABLE (TUNING)				< TRANSISTOR >	
CV2	1-151-637-11	CAP, VARIABLE (TUNING)		Q1	8-729-281-53	TRANSISTOR 2SC1815-GR	
CV3	1-151-637-11	CAP, VARIABLE (TUNING)		Q2	8-729-900-80	TRANSISTOR DTC114ES	
CV4	1-151-637-11	CAP, VARIABLE (TUNING)		Q3	8-729-194-57	TRANSISTOR 2SC945-P	
		< DIODE >		Q4	8-729-422-57	TRANSISTOR UN4111	
D1	8-719-991-33	DIODE 1SS133T-77		Q101	8-729-194-57	TRANSISTOR 2SC945-P	
D2	8-719-991-33	DIODE 1SS133T-77		Q103	8-729-900-80	TRANSISTOR DTC114ES	
D5	8-719-991-33	DIODE 1SS133T-77		Q104	8-729-194-57	TRANSISTOR 2SC945-P	
D303	8-719-991-33	DIODE 1SS133T-77					

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q201	8-729-194-57	TRANSISTOR 2SC945-P		R119	1-249-429-11	CARBON 10K 5%	1/4W
Q203	8-729-900-80	TRANSISTOR DTC114ES		R123	1-249-442-11	CARBON 510 5%	1/4W
Q204	8-729-194-57	TRANSISTOR 2SC945-P					
Q302	8-729-194-57	TRANSISTOR 2SC945-P		R125	1-247-807-31	CARBON 100 5%	1/4W
Q303	8-729-194-57	TRANSISTOR 2SC945-P		R133	1-247-897-11	CARBON 560K 5%	1/4W
Q306	8-729-194-57	TRANSISTOR 2SC945-P		R134	1-249-421-11	CARBON 2.2K 5%	1/4W
Q307	8-729-194-57	TRANSISTOR 2SC945-P		R135	1-247-855-11	CARBON 10K 5%	1/4W
Q308	8-729-142-46	TRANSISTOR 2SC2001-LK		R136	1-249-429-11	CARBON 10K 5%	1/4W
Q310	8-729-119-76	TRANSISTOR 2SA1175-HFE		R137	1-249-437-11	CARBON 47K 5%	1/4W
Q311	8-729-806-30	TRANSISTOR 2SC4048		R155	1-247-807-31	CARBON 100 5%	1/4W
Q312	8-729-116-57	TRANSISTOR 2SB1068-K		R201	1-249-437-11	CARBON 47K 5%	1/4W
Q314	8-729-019-01	TRANSISTOR 2SD2394-EF		R202	1-249-425-11	CARBON 4.7K 5%	1/4W
Q315	8-729-019-01	TRANSISTOR 2SD2394-EF		R203	1-249-417-11	CARBON 1K 5%	1/4W
Q316	8-729-806-30	TRANSISTOR 2SC4048		R204	1-249-403-11	CARBON 68 5%	1/4W
Q317	8-729-806-30	TRANSISTOR 2SC4048		R206	1-249-424-11	CARBON 3.9K 5%	1/4W
Q318	8-729-115-30	FET 2SK105A-30		R207	1-247-885-00	CARBON 180K 5%	1/4W
Q320	8-729-029-96	TRANSISTOR DTC143XSA		R208	1-249-427-11	CARBON 6.8K 5%	1/4W
Q321	8-729-422-57	TRANSISTOR UN4111		R209	1-249-426-11	CARBON 5.6K 5%	1/4W
Q330	8-729-029-56	TRANSISTOR DTA144ESA		R210	1-249-417-11	CARBON 1K 5%	1/4W
Q331	8-729-029-96	TRANSISTOR DTC143XSA		R211	1-249-432-11	CARBON 18K 5%	1/4W
Q332	8-729-029-94	TRANSISTOR DTC143TSA		R212	1-247-885-00	CARBON 180K 5%	1/4W
Q333	8-729-029-96	TRANSISTOR DTC143XSA		R213	1-249-413-11	CARBON 470 5%	1/4W
Q334	8-729-194-57	TRANSISTOR 2SC945-P		R214	1-247-891-00	CARBON 330K 5%	1/4W
< RESISTOR >							
R1	1-249-421-11	CARBON 2.2K 5%	1/4W	R215	1-249-430-11	CARBON 12K 5%	1/4W
R2	1-249-441-11	CARBON 100K 5%	1/4W	R216	1-249-427-11	CARBON 6.8K 5%	1/4W
R3	1-247-887-00	CARBON 220K 5%	1/4W	R218	1-247-881-00	CARBON 120K 5%	1/4W
R4	1-249-429-11	CARBON 10K 5%	1/4W	R219	1-249-429-11	CARBON 10K 5%	1/4W
R5	1-247-807-31	CARBON 100 5%	1/4W	R223	1-249-442-11	CARBON 510 5%	1/4W
R6	1-249-421-11	CARBON 2.2K 5%	1/4W	R225	1-247-807-31	CARBON 100 5%	1/4W
R9	1-247-883-00	CARBON 150K 5%	1/4W	R233	1-247-897-11	CARBON 560K 5%	1/4W
R10	1-249-404-00	CARBON 82 5%	1/4W	R234	1-249-421-11	CARBON 2.2K 5%	1/4W
R11	1-249-427-11	CARBON 6.8K 5%	1/4W	R235	1-249-429-11	CARBON 10K 5%	1/4W
R12	1-249-427-11	CARBON 6.8K 5%	1/4W	R236	1-249-429-11	CARBON 10K 5%	1/4W
R13	1-249-429-11	CARBON 10K 5%	1/4W	R237	1-249-437-11	CARBON 47K 5%	1/4W
R14	1-247-887-00	CARBON 220K 5%	1/4W	R255	1-247-807-31	CARBON 100 5%	1/4W
R15	1-249-441-11	CARBON 100K 5%	1/4W	R301	1-249-425-11	CARBON 4.7K 5%	1/4W
R16	1-249-417-11	CARBON 1K 5%	1/4W	R302	1-247-807-11	CARBON 100 5%	1/4W
R17	1-249-417-11	CARBON 1K 5%	1/4W	R303	1-247-903-00	CARBON 1M 5%	1/4W
R18	1-249-426-11	CARBON 5.6K 5%	1/4W	R304	1-249-429-11	CARBON 10K 5%	1/4W
R19	1-249-429-11	CARBON 10K 5%	1/4W	R305	1-249-432-11	CARBON 18K 5%	1/4W
R101	1-249-437-11	CARBON 47K 5%	1/4W	R307	1-249-417-11	CARBON 1K 5%	1/4W
R102	1-249-425-11	CARBON 4.7K 5%	1/4W	R308	1-247-818-11	CARBON 300 5%	1/4W
R103	1-249-417-11	CARBON 1K 5%	1/4W	R309	1-249-436-11	CARBON 39K 5%	1/4W
R104	1-249-403-11	CARBON 68 5%	1/4W	R310	1-249-393-11	CARBON 10 5%	1/4W
R106	1-249-424-11	CARBON 3.9K 5%	1/4W	R317	1-249-434-11	CARBON 27K 5%	1/4W
R107	1-247-885-00	CARBON 180K 5%	1/4W	R318	1-247-847-11	CARBON 4.7K 5%	1/4W
R108	1-249-427-11	CARBON 6.8K 5%	1/4W	R319	1-249-434-11	CARBON 27K 5%	1/4W
R109	1-249-426-11	CARBON 5.6K 5%	1/4W	R323	1-249-426-11	CARBON 5.6K 5%	1/4W
R110	1-249-417-11	CARBON 1K 5%	1/4W	R324	1-249-422-11	CARBON 2.7K 5%	1/4W
R111	1-249-432-11	CARBON 18K 5%	1/4W	R325	1-247-891-00	CARBON 330K 5%	1/4W
R112	1-247-885-00	CARBON 180K 5%	1/4W	R326	1-247-883-00	CARBON 150K 5%	1/4W
R113	1-249-413-11	CARBON 470 5%	1/4W	R327	1-249-417-11	CARBON 1K 5%	1/4W
R114	1-247-891-00	CARBON 330K 5%	1/4W	R329	1-247-843-11	CARBON 3.3K 5%	1/4W
R115	1-249-430-11	CARBON 12K 5%	1/4W	R330	1-249-432-11	CARBON 18K 5%	1/4W
R116	1-249-427-11	CARBON 6.8K 5%	1/4W	R331	1-249-422-11	CARBON 2.7K 5%	1/4W
R118	1-247-881-00	CARBON 120K 5%	1/4W	R332	1-249-441-11	CARBON 100K 5%	1/4W
				R333	1-249-417-11	CARBON 1K 5%	1/4W
				△R334	1-249-447-11	CARBON 1 5%	1/4W F

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R335	1-249-415-11	CARBON	680 5%	1/4W		< CAPACITOR >	
△ R341	1-249-447-11	CARBON	1 5%	1/4W F	C131	1-124-903-11 ELECT	1uF 20% 50V
△ R343	1-249-480-11	CARBON	3.3 5%	1/2W F	C132	1-162-282-31 CERAMIC	100PF 10% 50V
R344	1-249-406-11	CARBON	120 5%	1/4W	C133	1-162-832-11 CERAMIC	0.0027uF 10% 0
R345	1-249-401-11	CARBON	47 5%	1/4W	C134	1-124-907-11 ELECT	10uF 20% 50V
R346	1-249-437-11	CARBON	47K 5%	1/4W	C138	1-130-496-00 MYLAR	0.12uF 5% 50V
R347	1-249-409-11	CARBON	220 5%	1/4W	C139	1-130-496-00 MYLAR	0.12uF 5% 50V
R348	1-249-429-11	CARBON	10K 5%	1/4W	C141	1-104-664-11 ELECT	47uF 20% 16V
R349	1-249-437-11	CARBON	47K 5%	1/4W	C152	1-126-963-11 ELECT	4.7uF 20% 50V
R351	1-249-433-11	CARBON	22K 5%	1/4W	C231	1-124-903-11 ELECT	1uF 20% 50V
R352	1-249-401-11	CARBON	47 5%	1/4W	C232	1-162-282-31 CERAMIC	100PF 10% 50V
R354	1-249-414-11	CARBON	560 5%	1/4W	C233	1-162-832-11 CERAMIC	0.0027uF 10% 0
R355	1-249-425-11	CARBON	4.7K 5%	1/4W	C234	1-124-907-11 ELECT	10uF 20% 50V
R356	1-249-429-11	CARBON	10K 5%	1/4W	C238	1-130-496-00 MYLAR	0.12uF 5% 50V
R357	1-249-404-00	CARBON	82 5%	1/4W	C239	1-130-496-00 MYLAR	0.12uF 5% 50V
R358	1-249-413-11	CARBON	470 5%	1/4W	C241	1-104-664-11 ELECT	47uF 20% 16V
R359	1-249-433-11	CARBON	22K 5%	1/4W	C252	1-126-963-11 ELECT	4.7uF 20% 50V
R360	1-249-437-11	CARBON	47K 5%	1/4W	C356	1-104-666-11 ELECT	220uF 20% 10V
R361	1-249-420-11	CARBON	1.8K 5%	1/4W	C371	1-126-233-11 ELECT	22uF 20% 50V
R362	1-249-429-11	CARBON	10K 5%	1/4W	C901	1-124-771-00 ELECT	6800uF 20% 25V
R368	1-249-417-11	CARBON	1K 5%	1/4W	C903	1-101-005-00 CERAMIC	22000PF 50V
R376	1-247-897-11	CARBON	560K 5%	1/4W	C904	1-101-005-00 CERAMIC	22000PF 50V
		< VARIABLE RESISTOR >			C905	1-101-005-00 CERAMIC	22000PF 50V
RV1	1-223-425-11	RES, VAR, CARBON 100K (FINE TUNING)			C906	1-101-005-00 CERAMIC	22000PF 50V
RV301	1-223-640-11	RES, ADJ, CARBON 4.7K			C907	1-124-907-11 ELECT	10uF 20% 50V
RV302	1-223-639-11	RES, ADJ, CARBON 2.2K			C908	1-101-005-00 CERAMIC	22000PF 50V
RV303	1-241-245-11	RES, VAR, SLIDE 50K (BALANCE)				< CONNECTOR >	
RV304	1-227-159-11	RES, VAR, CARBON 20K/20K (VOLUME)			* CN906	1-580-155-11 PIN, CONNECTOR (PC BOARD) 3P	
RV305	1-223-500-11	RES, VAR, SLIDE 50K/50K (MEGA BASS)				< DIODE >	
RV306	1-241-244-11	RES, VAR, SLIDE 50K/50K (400Hz)			D101	8-719-991-33 DIODE 1SS133T-77	
RV307	1-241-244-11	RES, VAR, SLIDE 50K/50K (1kHz)			D102	8-719-991-33 DIODE 1SS133T-77	
RV308	1-241-244-11	RES, VAR, SLIDE 50K/50K (4kHz)			D201	8-719-991-33 DIODE 1SS133T-77	
RV309	1-241-244-11	RES, VAR, SLIDE 50K/50K (10kHz)			D202	8-719-991-33 DIODE 1SS133T-77	
		< SWITCH >			D901	8-719-200-02 DIODE 10E2	
S1	1-692-616-11	SWITCH, LEVER SLIDE (BAND SELECT)			D902	8-719-046-47 DIODE 1N5401-TM	
S301	1-692-909-11	SWITCH, SLIDE (REC/PB)			D903	8-719-046-47 DIODE 1N5401-TM	
S306	1-570-729-11	SWITCH, LEVER SLIDE (KARAOKE MODE)			D904	8-719-046-47 DIODE 1N5401-TM	
SW302	1-692-618-11	SWITCH, LEVER SLIDE (FUNCTION)			D905	8-719-046-47 DIODE 1N5401-TM	
SW303	1-692-777-11	SWITCH, PUSH (1KEY) (HIGH SPEED DUBBING)				< FUSE >	
SW304	1-692-778-11	SWITCH, PUSH (1KEY) (REC MUTE)			△ F902	1-532-505-31 FUSE T5AL/250V	
		< VARIABLE RESISTOR >				< IC >	
SVR1	1-228-995-00	RES, ADJ, METAL 22K			IC306	8-759-039-68 IC TA8210AH	
		< TRANSFORMER >				< JACK >	
T1	1-404-355-00	TRANSFORMER, IF			J302	1-568-267-11 JACK (HEADPHONES)	
		*****			△ J901	1-526-838-11 INLET, AC 2P (~ AC IN)	
A-3264-468-A		POWER BOARD, COMPLETE				< LINE FILTER >	
		*****			△ L901	1-423-747-11 TRANSFORMER, LINE FILTER	
1-533-233-11		HOLDER, FUSE				< TRANSISTOR >	
7-685-646-79		SCREW +BVTP 3X8 TYPE2 N-S			Q105	8-729-194-57 TRANSISTOR 2SC945-P	

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

POWER	TERMINAL	VOL LED
--------------	-----------------	----------------

Ref. No.	Part No.	Description	Remark
Q106	8-729-029-06	TRANSISTOR 2SC4361	
Q205	8-729-194-57	TRANSISTOR 2SC945-P	
Q206	8-729-029-06	TRANSISTOR 2SC4361	
Q322	8-729-029-06	TRANSISTOR 2SC4361	
Q327	8-729-029-06	TRANSISTOR 2SC4361	
Q329	8-729-194-57	TRANSISTOR 2SC945-P	
< RESISTOR >			
R126	1-249-441-11	CARBON 100K 5%	1/4W
R127	1-249-411-11	CARBON 330 5%	1/4W
△R129	1-249-451-11	CARBON 2.2 5%	1/4W F
△R130	1-249-451-11	CARBON 2.2 5%	1/4W F
R131	1-249-408-11	CARBON 180 5%	1/4W
R132	1-247-807-31	CARBON 100 5%	1/4W
R151	1-249-417-11	CARBON 1K 5%	1/4W
R152	1-249-425-11	CARBON 4.7K 5%	1/4W
R153	1-247-820-11	CARBON 360 5%	1/4W
R226	1-249-441-11	CARBON 100K 5%	1/4W
R227	1-249-411-11	CARBON 330 5%	1/4W
△R229	1-249-451-11	CARBON 2.2 5%	1/4W F
△R230	1-249-451-11	CARBON 2.2 5%	1/4W F
R231	1-249-408-11	CARBON 180 5%	1/4W
R232	1-247-807-31	CARBON 100 5%	1/4W
R251	1-249-417-11	CARBON 1K 5%	1/4W
R252	1-249-425-11	CARBON 4.7K 5%	1/4W
R253	1-247-820-11	CARBON 360 5%	1/4W
R353	1-249-429-11	CARBON 10K 5%	1/4W
R363	1-249-417-11	CARBON 1K 5%	1/4W
R364	1-247-881-00	CARBON 120K 5%	1/4W
R365	1-247-843-11	CARBON 3.3K 5%	1/4W
R366	1-249-425-11	CARBON 4.7K 5%	1/4W
R367	1-249-413-11	CARBON 470 5%	1/4W
R375	1-249-434-11	CARBON 27K 5%	1/4W
< SWITCH >			
△S901	1-692-514-11	SWITCH (VOLTAGE SELECTION) (VOLTAGE SELECTOR)	
< TERMINAL BOARD >			
SP901	1-537-330-11	TERMINAL BOARD (SPEAKER)	
< TRANSFORMER >			
△T901	1-423-785-11	POWER TRANSFORMER	

	1-657-123-11	TERMINAL BOARD	*****

*	1-648-389-11	VOL LED BOARD	*****
< LED >			
D513	8-719-041-94	LED SLT-25VR (VOLUME)	

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS			

202	1-751-483-11	CORD, SPEAKER CONNECTION	
203	1-124-499-11	ELECT, NONPOLAR 1uF 20%	50V
ANT1	1-501-480-11	ANTENNA, TELESCOPIC	
HE901	1-543-558-11	HEAD, E (ERASE) (DECK B)	
HP901	1-543-424-21	HEAD (PLAYBACK) (DECK A)	
HRP901	1-543-424-21	HEAD (RECORD/PLAYBACK) (DECK B)	
M901	3-378-834-01	MOTOR ASSY (CAPSTAN/REEL)	
PM901	1-454-466-11	SOLENOID (DECK A)	
S951	1-571-745-11	SWITCH, LEAF (B-PLAY)	
S952	1-571-556-11	SWITCH, LEAF (A-MAIN)	
S953	1-571-556-11	SWITCH, LEAF (B-MAIN)	
S954	1-571-745-11	SWITCH, LEAF (A-PLAY)	
S955	1-571-745-11	SWITCH, LEAF (AMS) (DECK A)	
SP601	1-505-567-11	SPEAKER (5cm)	
SP602	1-505-566-11	SPEAKER (10cm)	
SP651	1-505-567-11	SPEAKER (5cm)	
SP652	1-505-566-11	SPEAKER (10cm)	

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

• **HARDWARE LIST AND ACCESSORIES & PACKING MATERIALS**

Page	Before Change			After Change			Remark
	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	
33			***** HARDWARE LIST *****			***** HARDWARE LIST *****	
	#1	7-621-770-67	SCREW + BVTT 2.6X6 (S)	#1	7-685-102-14	SCREW + P 2X4 TYPE 2 SLIT	Changed
	#8	7-621-255-25	SCREW + PTT 2X4 (S)	#8	7-685-781-09	SCREW + PTT 2X4 (S)	Changed
				#9	7-685-862-09	SCREW + BVTT 2.6X6 (S)	Added
	#9	7-621-770-87	SCREW + B 2.6X5	#10	7-621-770-87	SCREW + B 2.6X5	Changed
	#13	7-621-255-45	SCREW + PTT 2X6 (S)	#13	7-685-783-04	SCREW + PTT 2X6 (S)	Changed
				#15	7-682-148-09	SCREW + P 3X8	Added
			ACCESSORIES & PACKING MATERIALS *****			ACCESSORIES & PACKING MATERIALS *****	
		1-542-211-11	MICROPHONE, DYNAMIC		1-542-236-11	MICROPHONE, DYNAMIC	Changed
	△	1-569-008-11	ADAPTER, CONVERSION 2P (EA)	△	1-569-008-21	ADAPTER, CONVERSION 2P (EA)	Changed
	△	1-590-413-11	CORD, POWER (E, EA, UAE)	△	1-590-961-11	CORD, POWER (E, EA, UAE)	Changed
					3-756-936-21	MANUAL, INSTRUCTION (ARABIC) (EA)	Added
	*	3-389-611-01	CUSHION (TOP)				Deleted
	*	3-389-612-01	CUSHION (CENTER)				Deleted
	*	3-389-613-01	CUSHION (BOTTOM)				Deleted
*	3-389-614-01	INDIVIDUAL CARTON				Deleted	
				3-906-717-02	STAND	Added	

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

