

# CFS-717S

## SERVICE MANUAL

*E Model*

Ver 1.1 1999.11



Model Name Using Similar Mechanism	CFS-W475
Tape Transport Mechanism Type	MF-W475

### SPECIFICATIONS

- **Frequency range**  
FM: Saudi Arabia: 87.6–107MHz/Other countries: 87.6–108MHz  
MW: 530–1,605kHz/SW1: 2.3–7MHz/SW2: 7–22MHz
- **IF** FM: 10.7MHz MW/SW: 455kHz
- **Aerials** FM/SW: Telescope MW: Built-in ferrite bar
- **Recording system** 4-track, 2-channel stereo
- **Frequency response** 80–12,500Hz
- **Speakers** Full range: 10cm (4 inches) dia. , cone type/Tweeter: 5 cm (2 inches) dia.
- **Input** MIX MIC jack (minijack), sensitivity 3.9 mV for low impedance microphone CD/LINE IN jacks(phono jacks), sensitivity 0.43 V, input impedance 50 kilohms
- **Output** Headphones jack (stereo minijack), for 16–68 ohms impedance headphones
- **Maximum Power output** 12W + 12W
- **Battery life**  
FM Recording: Sony R20P: Approx. 5 hours/Sony LR20 alkaline: Approx. 12 hours  
Playback: Sony R20P: Approx. 2 hours/Sony LR20 alkaline: Approx. 5.5 hours
- **Power requirements** 110–120V/220–240 V AC selectable, 50/60Hz  
12V DC, eight R20 (size D) batteries
- **Power consumption** AC 30W
- **Dimensions** Approx.760 x 225 x 220mm (w/h/d) (30 x 8 <sup>7</sup>/<sub>8</sub> x 8 <sup>3</sup>/<sub>4</sub> inches) incl. projecting parts and controls, not incl. handle
- **Mass** Approx. 6.8kg (15 lb) incl. batteries
- **Supplied accessory** AC power cord (1)

Design and specifications are subject to change without notice.

RADIO CASSETTE-CORDER

SONY®



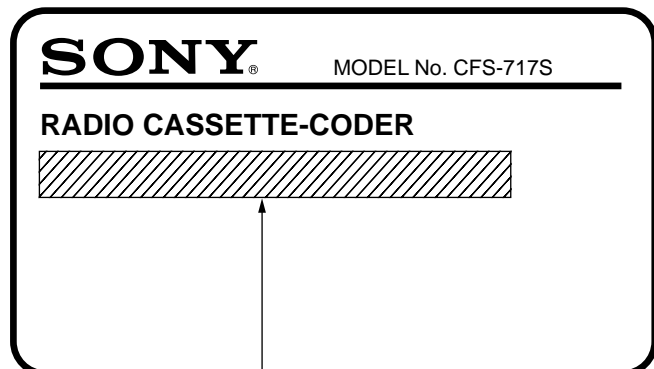
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**MODEL IDENTIFICATION**

— Model Number Label —

E15, E23, EA, UAE, SP Model : Carved on cabinet (rear)

**MODEL IDENTIFICATION**



E15, E23, EA, UAE, SP model :  
AC 110-120/220-240V ~ 50/60Hz 30W

- Abbreviations
  - E15 : AC 220-240V 110V-120V change over possible Area model
  - E23 : AC 110-120V Area model
  - EA : Saudi Arabia model
  - UAE : United Arab Emirates model
  - SP : Singapore model

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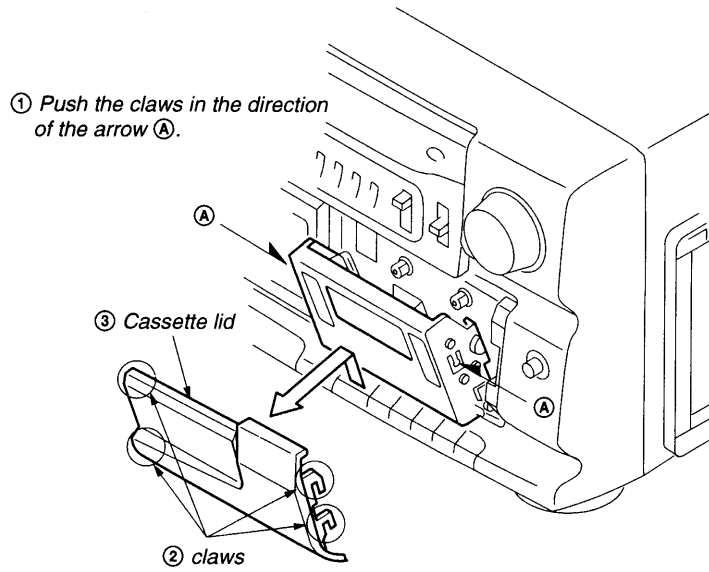
**SAFETY-RELATED COMPONENT WARNING!!**

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

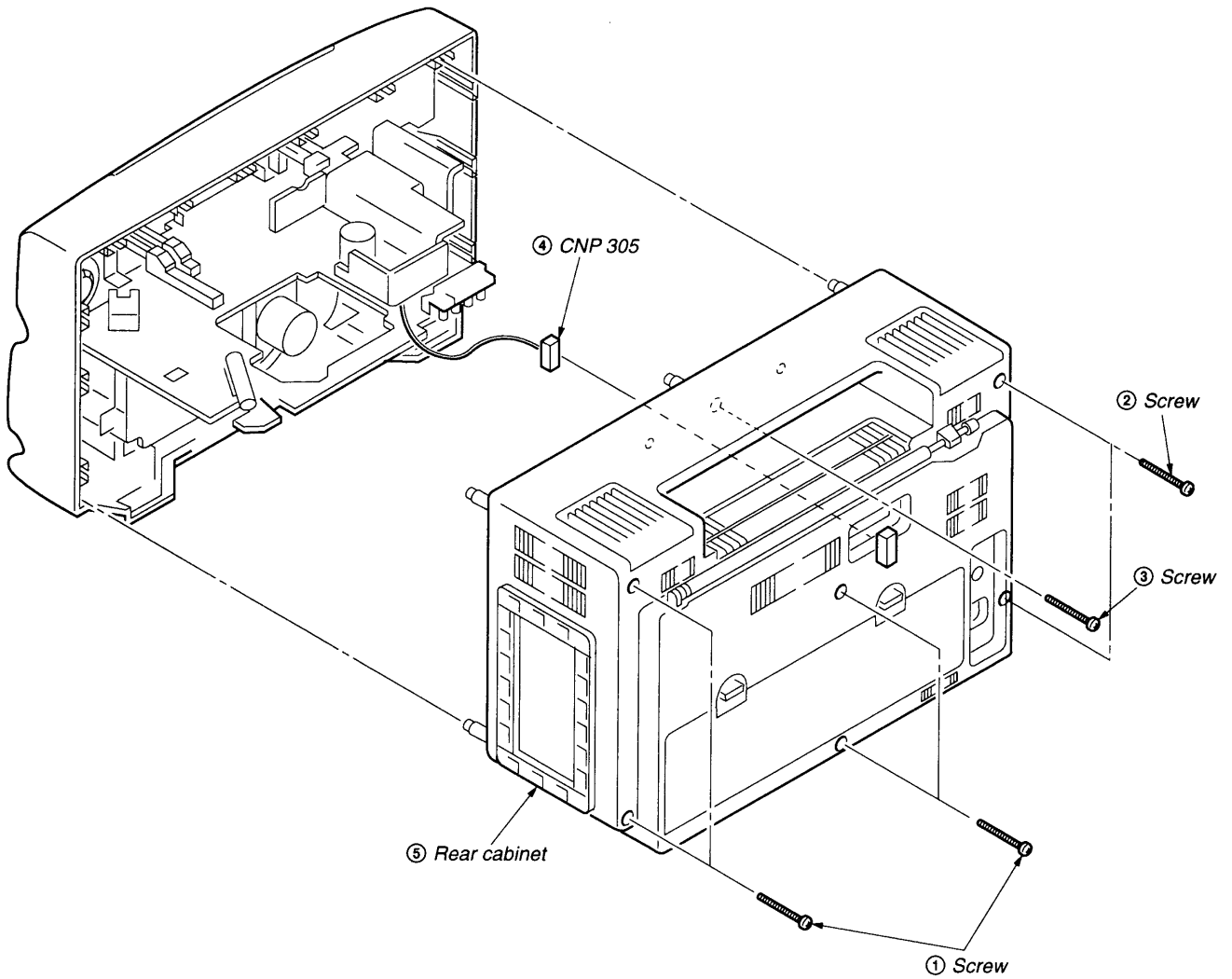
# SECTION 1 DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

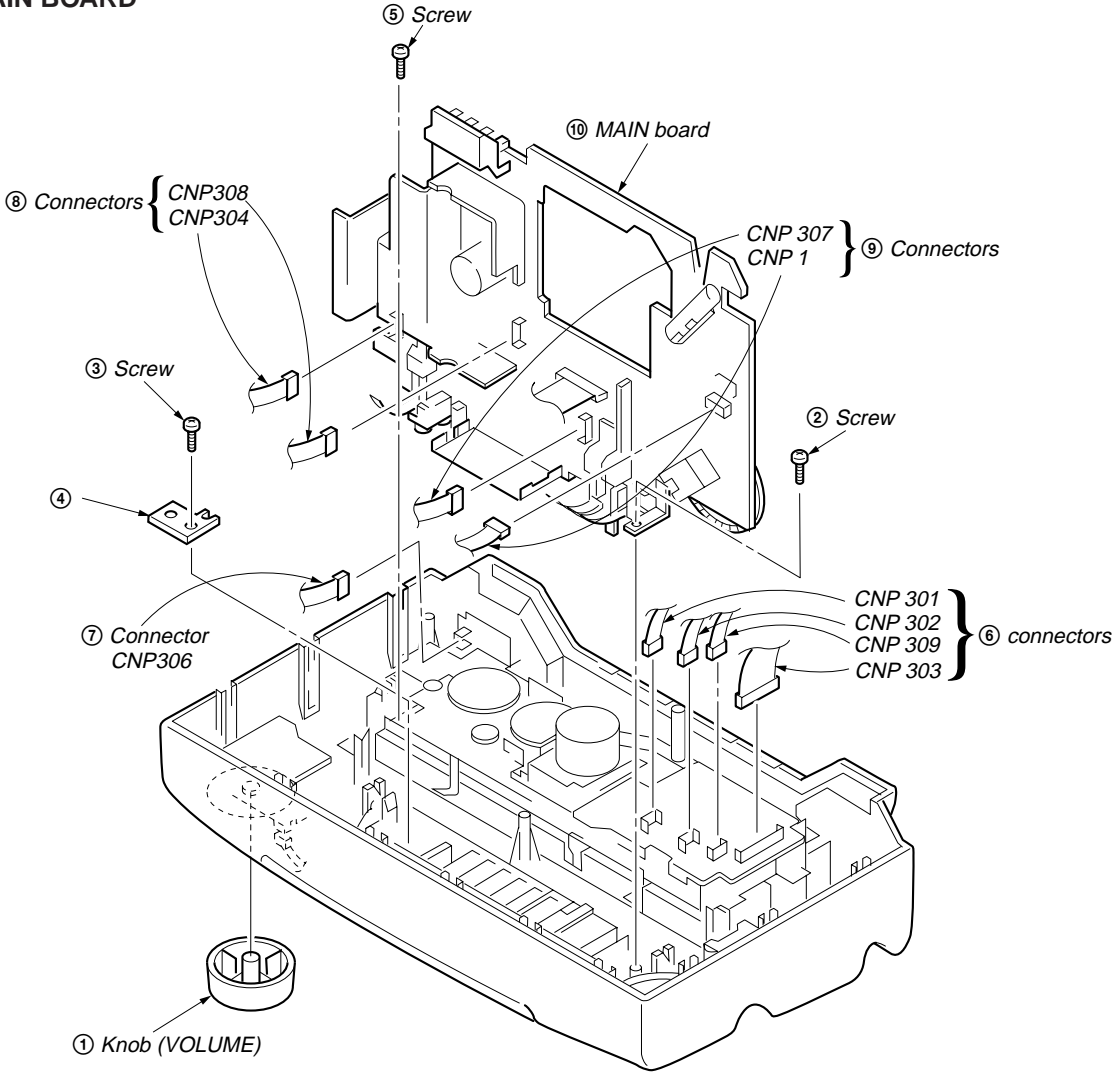
## 1-1. CASSETTE LID



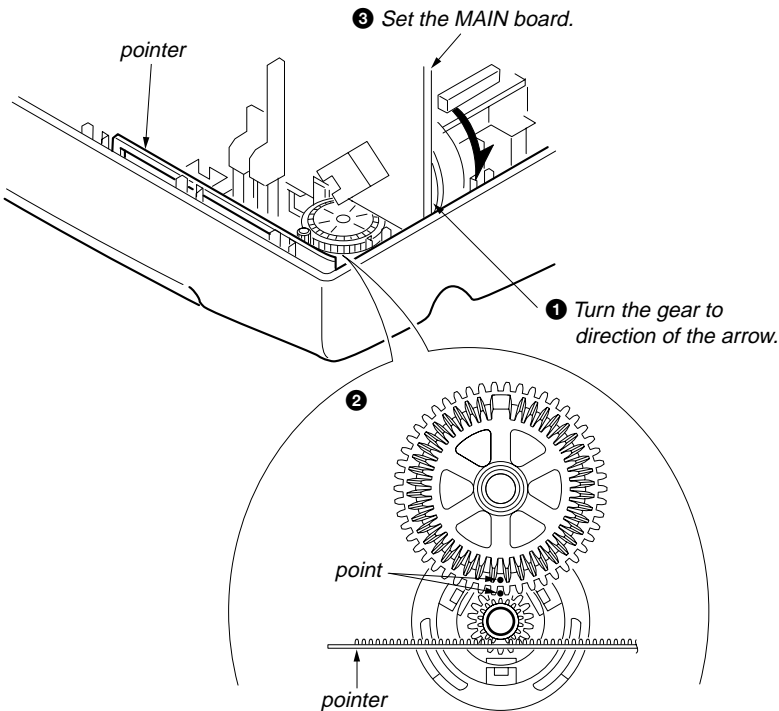
## 1-2. REAR CABINET



1-3. MAIN BOARD



1-4. POINTER SETTING



**SECTION 2  
MECHANICAL ADJUSTMENTS**

**PRECAUTION**

- Clean the following parts with a denatured-alcohol-moistened swab:
  - record/playback head    pinch roller
  - erase head                rubber belts
  - capstan                    idlers
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- Power supply voltage: 12V dc.

**Torque Measurement**    **DECK A**    **DECK B**

Mode	Torque Meter	Meter Reading
Playback	CQ-102C	30 – 75 g·cm (0.42 – 0.98 oz·inch)
Back tension	CQ-102C	1.5 – 6 g·cm (0.021 – 0.084 oz·inch)
Rewind	CQ-201B	50 – 130 g·cm (0.834 – 1.874 oz·inch)
Fast forward		

**Tape Tension Measurement**    **DECK A**    **DECK B**

Tension Meter	Meter Reading
CQ-403A	more than 100 g (3.53 oz)

**SECTION 3  
ELECTRICAL ADJUSTMENTS**

**3-1. TAPE RECORDER SECTION**    **OdB=0.775V**

**Standard Input Level**

Input terminal	CD/LINE IN	MIX MIC
source impedance	10kΩ	300Ω
input signal level	0.44V (-5dB)	3.09mV (-50dB)

**Standard Output Level**

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

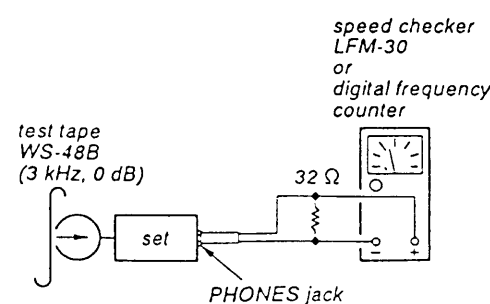
**Test Tape**

Type	Signal	Used for
WS-48B	3kHz, 0dB	tape speed adjustment

**Tape Speed Adjustment**    **DECK A**    **DECK B**

Setting:  
Mode: playback

**Procedure:**



**Adjustment Values:**

Adjustment part	Speed checker	Digital frequency counter
RV 302	± 3%	2,910 to 3,090 Hz

Frequency difference between the beginning and the end of the tape should be within 1% (30 Hz).

Note: (High speed: non adjustment)

Adjustment Location: Main board

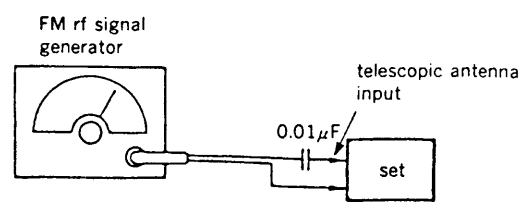
**3-2. RADIO SECTION**    **OdB=1μV**

**• FM Section**

Setting :

FUNCTION switch : RADIO

BAND switch : FM



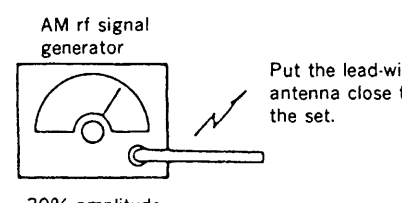
22.5kHz frequency deviation by 400Hz signal  
output level : as low as possible

**• MW Section**

Setting :

FUNCTION switch : RADIO

BAND switch : MW



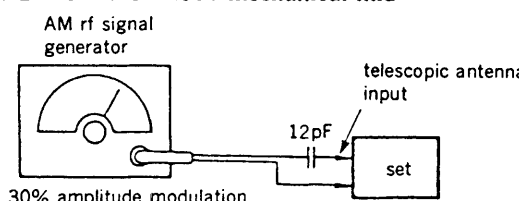
30% amplitude modulation by 400Hz signal

**• SW Section**

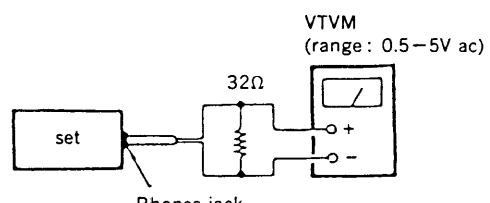
FUNCTION switch : RADIO

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 (516 ± 5kHz)	1,680kHz (1,630 ± 15kHz)

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	CT3
620kHz	1,400kHz

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

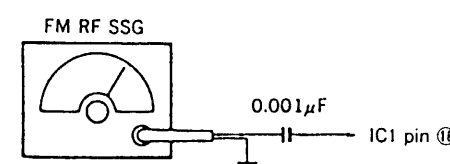
SW1 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L5	CT5
2.2MHz	7.3MHz

SW2 FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L8	CT8
6.8MHz	22.5MHz

SW2 TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L7	CT 7
6.8MHz	22.5MHz

**FM VCO Adjustment**

Setting :

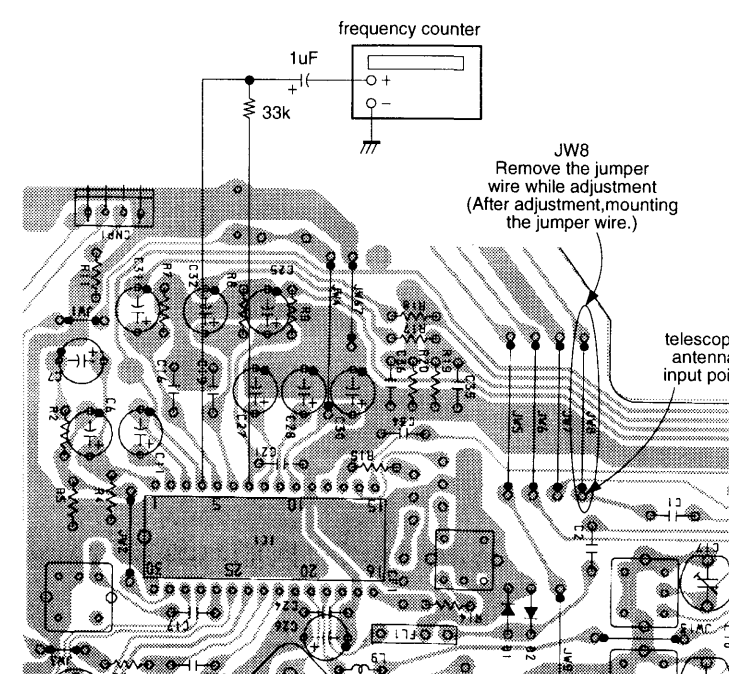
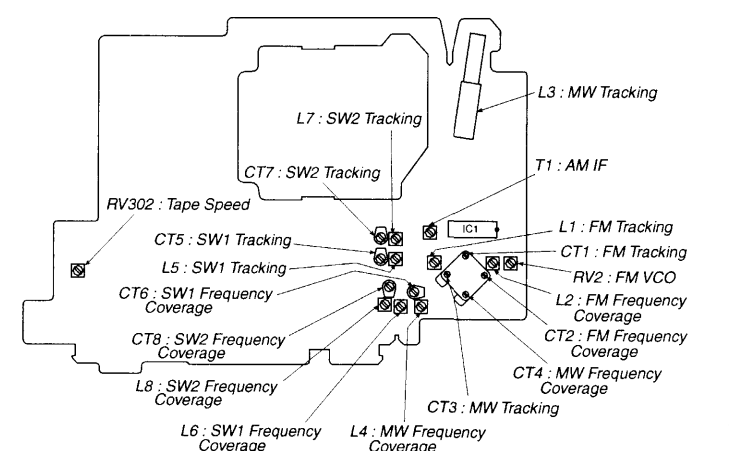


Carrier frequency : 98MHz  
400Hz, 30% FM modulation  
Output level : 0.1V (100dB)

**Procedure :**

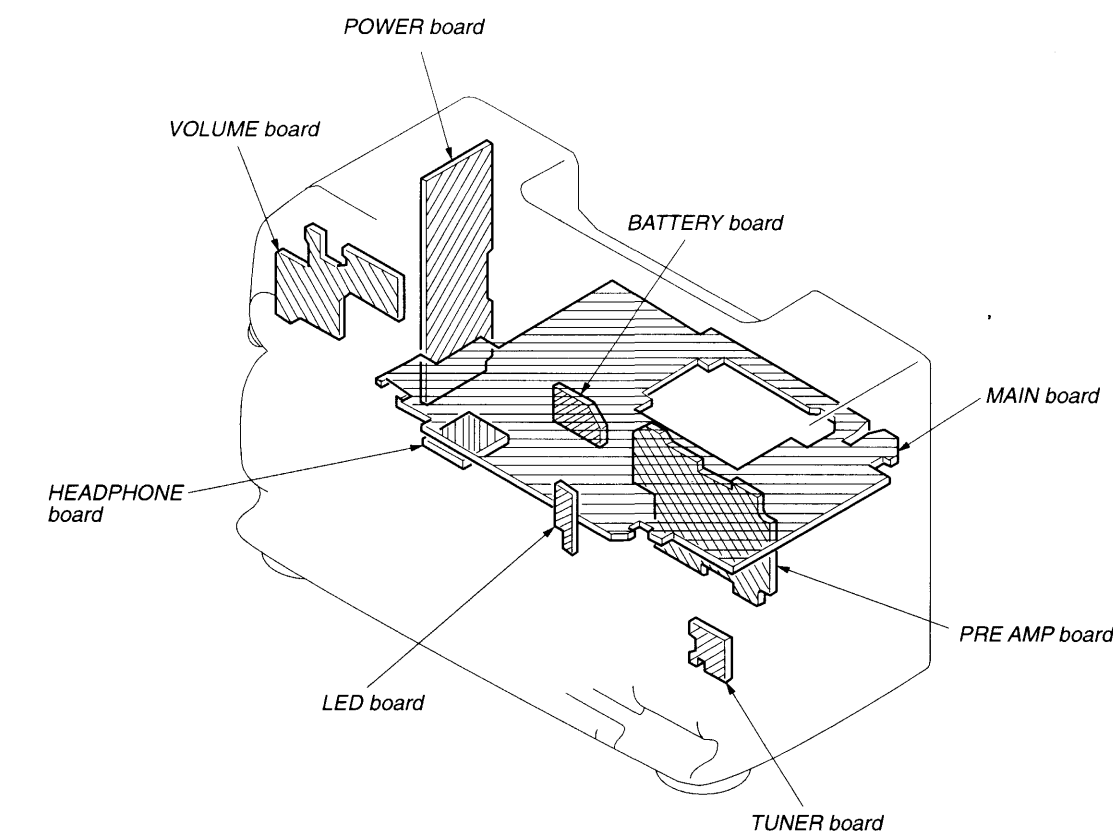
- Tune the set to 98MHz.
- Adjust RV2 so that the reading on the frequency counter becomes in 76.0kHz ± 0.5kHz.

**Adjustment Location :**



**SECTION 4  
DIAGRAMS**

**4-1. CIRCUIT BOARDS LOCATION**

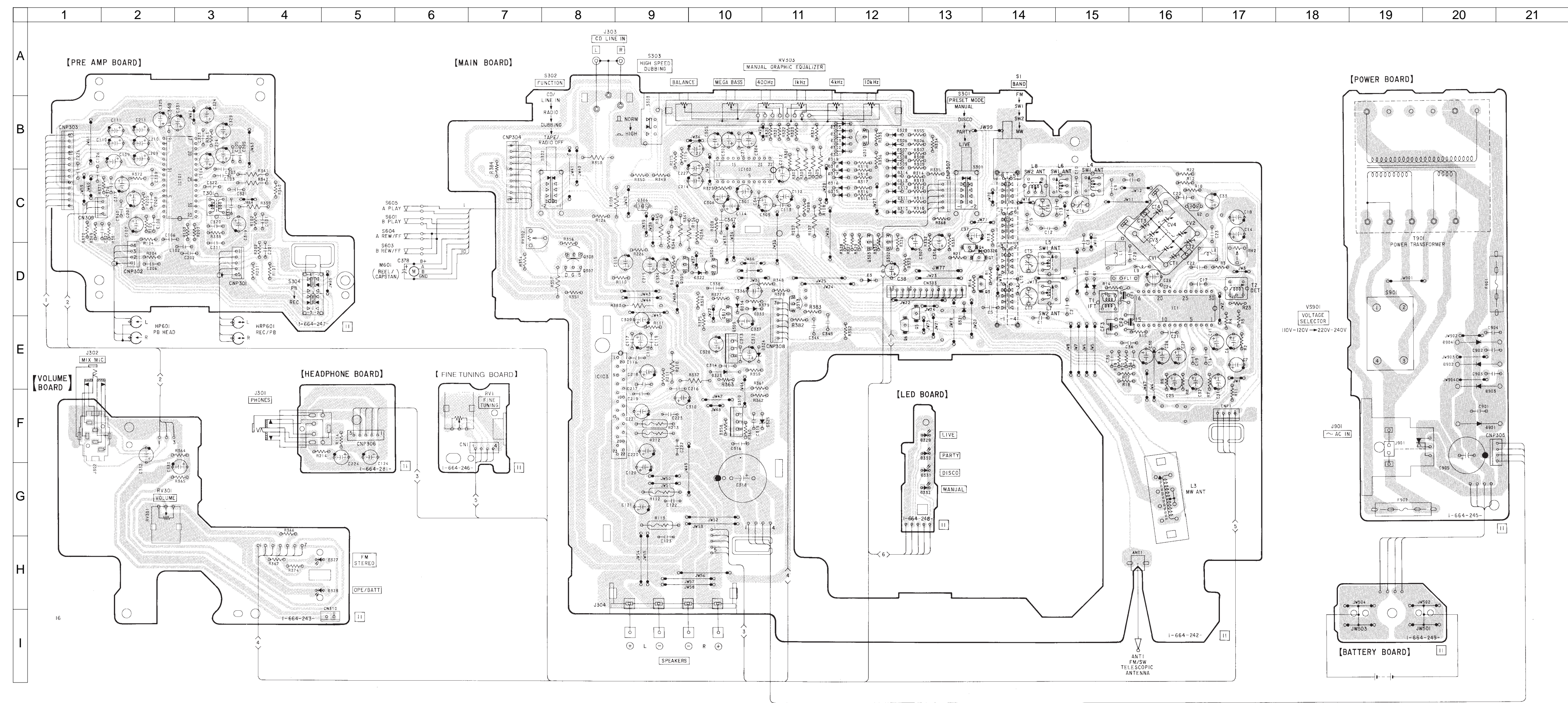


4-2. PRINTED WIRING BOARD

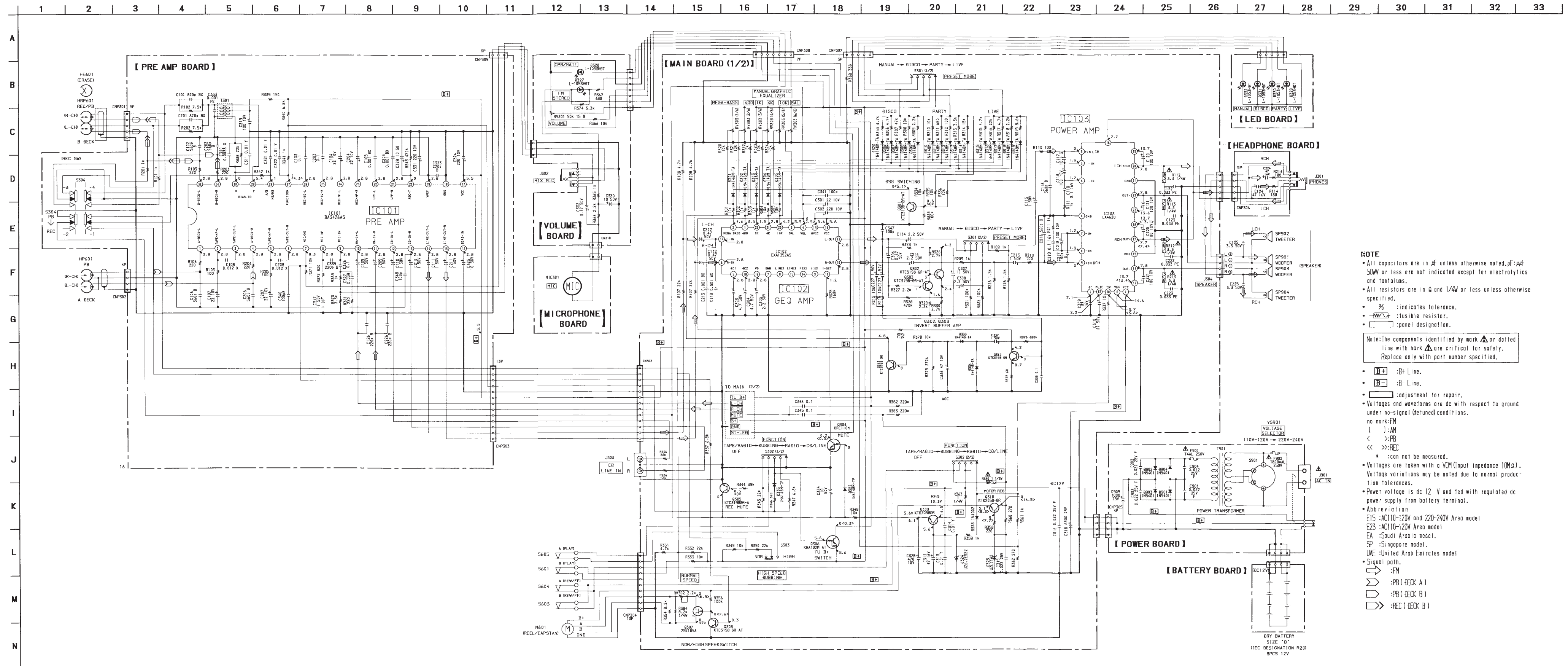
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	D-15	D330	F-13
D2	D-15	D331	G-13
D3	D-12	D332	G-13
D301	B-12	D901	F-20
D302	B-12	D902	E-20
D303	B-12	D903	F-20
D304	B-12	D904	E-20
D305	B-12		
D306	B-12	IC1	D-16
D307	B-12	IC101	C-3
		IC102	C-10
		IC103	E-9
D308	B-12		
D309	C-12		
D310	C-12	Q2	C-17
D311	C-12	Q3	D-14
D312	C-12	Q4	D-14
		Q5	E-13
		Q6	E-13
D313	C-12		
D314	C-12	Q301	D-14
D316	C-12	Q302	D-12
D317	C-12	Q303	D-12
		Q304	D-10
D318	C-12		
D319	C-12		
D320	C-12	Q305	D-9
D321	E-13	Q306	C-9
D322	D-10	Q307	D-8
		Q308	D-8
		Q309	E-10
D323	E-10		
D324	E-11		
D325	F-11	Q310	F-10
D326	D-14	Q312	E-10
D333	E-11	Q313	D-11
D334	E-11		
D335	C-9		
D327	H-5		
D328	H-5		
D329	F-13		

Note :  
 • ○ : parts extracted from the component side.  
 • □ : indicates side identified with part number.  
 • — : Pattern on the side which is seen.



4-3. SCHEMATIC DIAGRAM — MAIN —



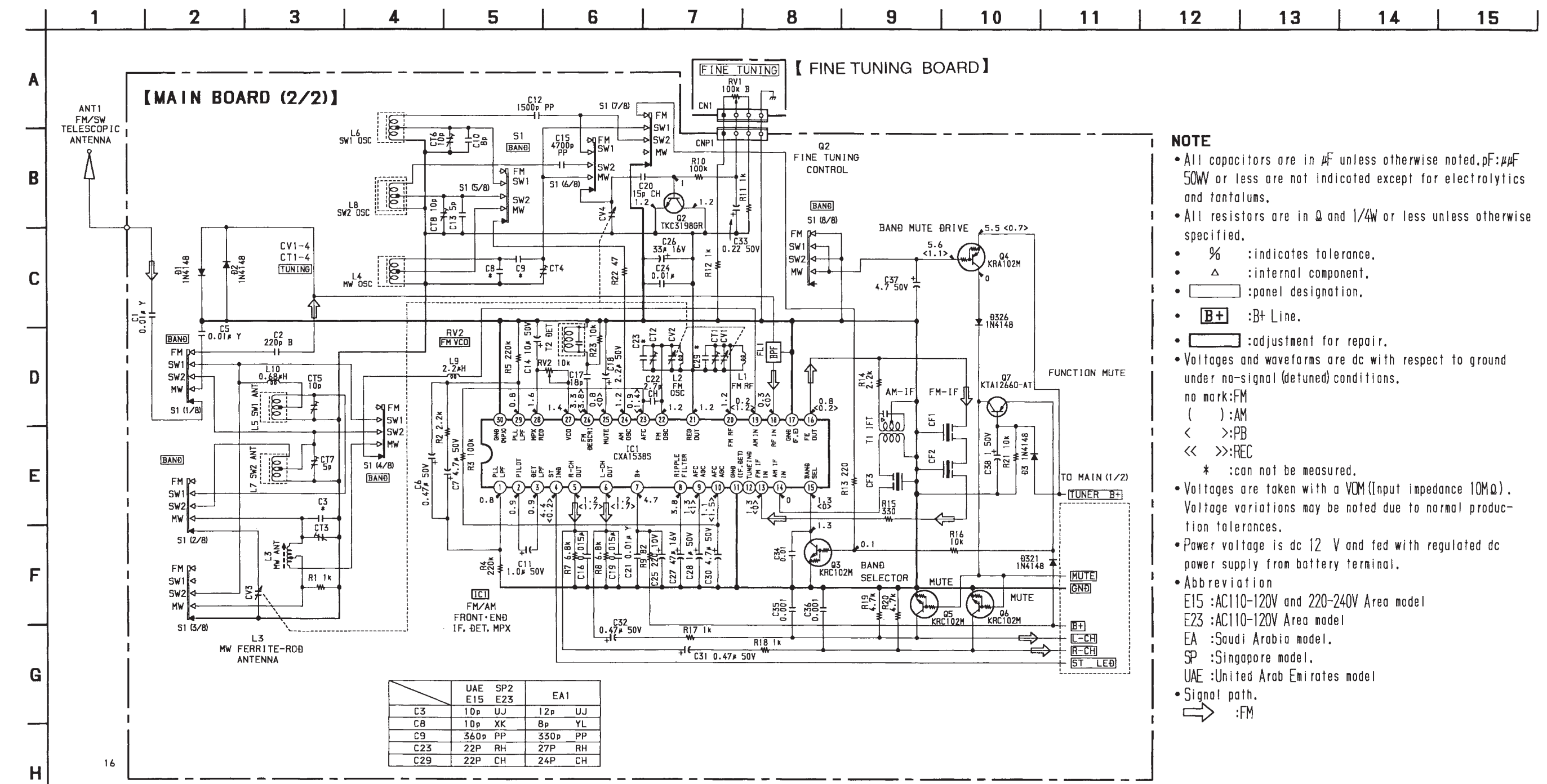
**NOTE**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted, pF: pF
- 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/\text{W}$  or less unless otherwise specified.
- % : indicates tolerance.
- $\text{FUS}$  : fusible resistor.
- $\square$  : panel designation.

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

- $\text{B}+$  : B+ Line.
- $\text{B}-$  : B- Line.
- $\square$  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- ( ) : AM
- < : PB
- << : REC
- \* : can not be measured.
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Power voltage is dc 12 V and fed with regulated dc power supply from battery terminal.
- Abbreviation
- E15 : AC110-120V and 220-240V Area model
- E23 : AC110-120V Area model
- EA : Saudi Arabia model.
- SP : Singapore model.
- UAE : United Arab Emirates model
- Signal path
- $\square$  : FM
- $\square$  : PB (BECK A)
- $\square$  : PB (BECK B)
- $\square$  : REC (BECK B)

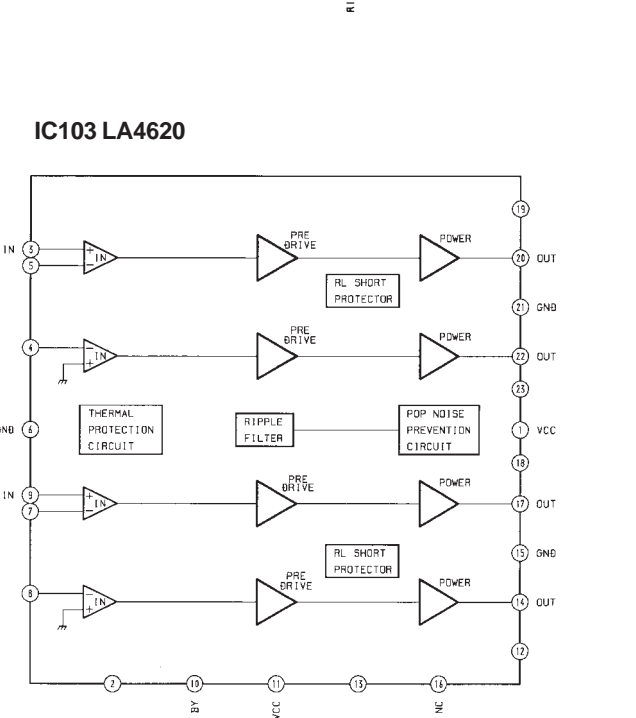
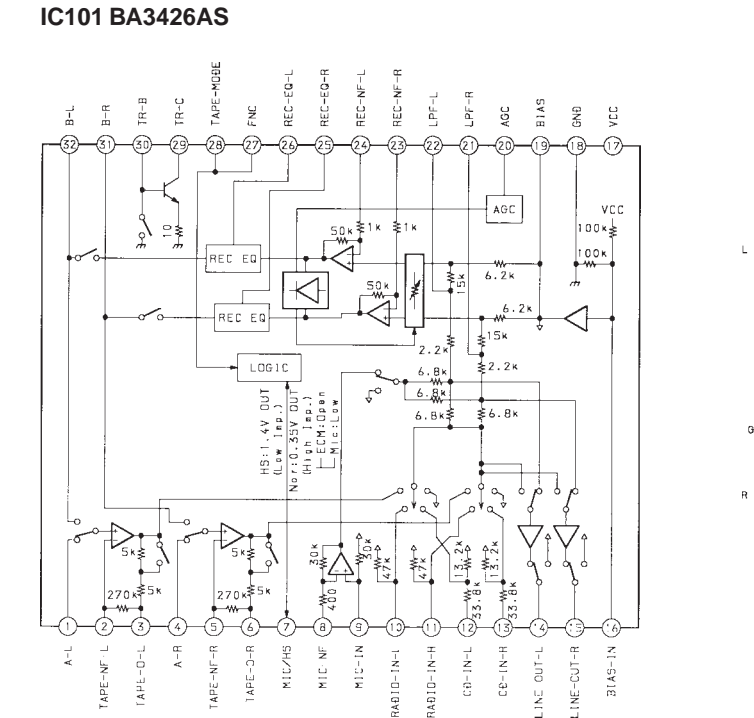
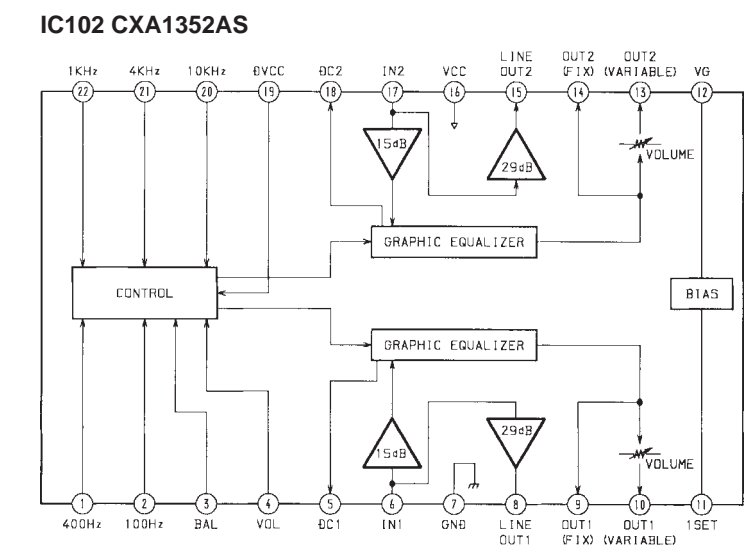
4-4. SCHEMATIC DIAGRAM — TUNER —



**NOTE**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted, pF:  $\mu\text{F}$  50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- % : tolerance.
- $\Delta$  : internal component.
- [ ] : panel designation.
- [B+] : B+ Line.
- [ ] : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- ( ) : AM
- < > : PB
- << >> : REC
- \* : can not be measured.
- Voltages are taken with a VOM (Input impedance  $10\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Power voltage is dc 12 V and fed with regulated dc power supply from battery terminal.
- Abbreviation  
E15 : AC110-120V and 220-240V Area model  
E23 : AC110-120V Area model  
EA : Saudi Arabia model.  
SP : Singapore model.  
UAE : United Arab Emirates model
- Signal path.  
→ : FM

• IC BLOCK DIAGRAM



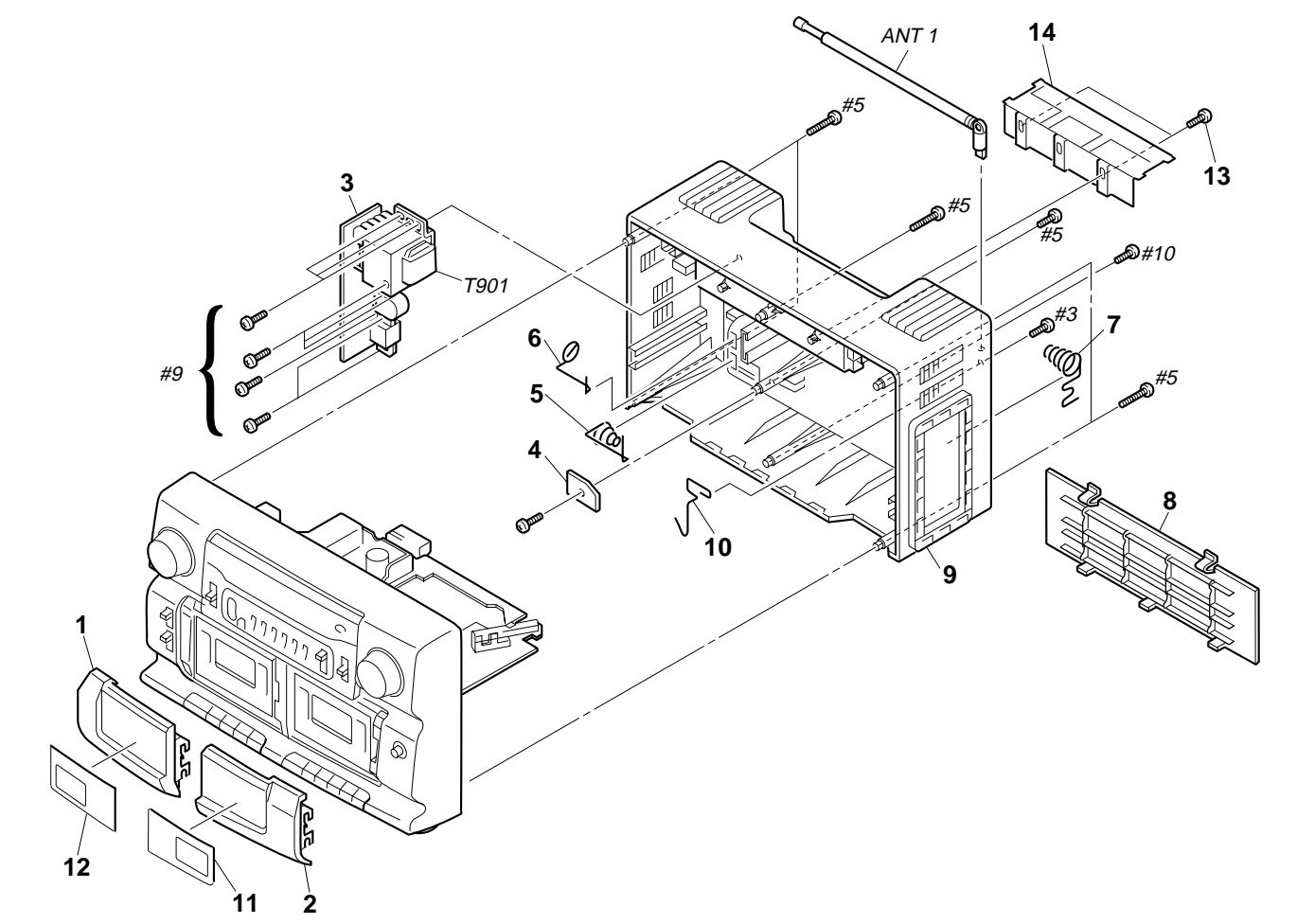
**NOTE:**

- XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation  
E15 : AC 220-240V 110V-120V change over possible Area model  
E23 : AC 110-120V Area model  
EA : Saudi Arabia model  
UAE : United Arab Emirates model  
SP : Singapore model

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

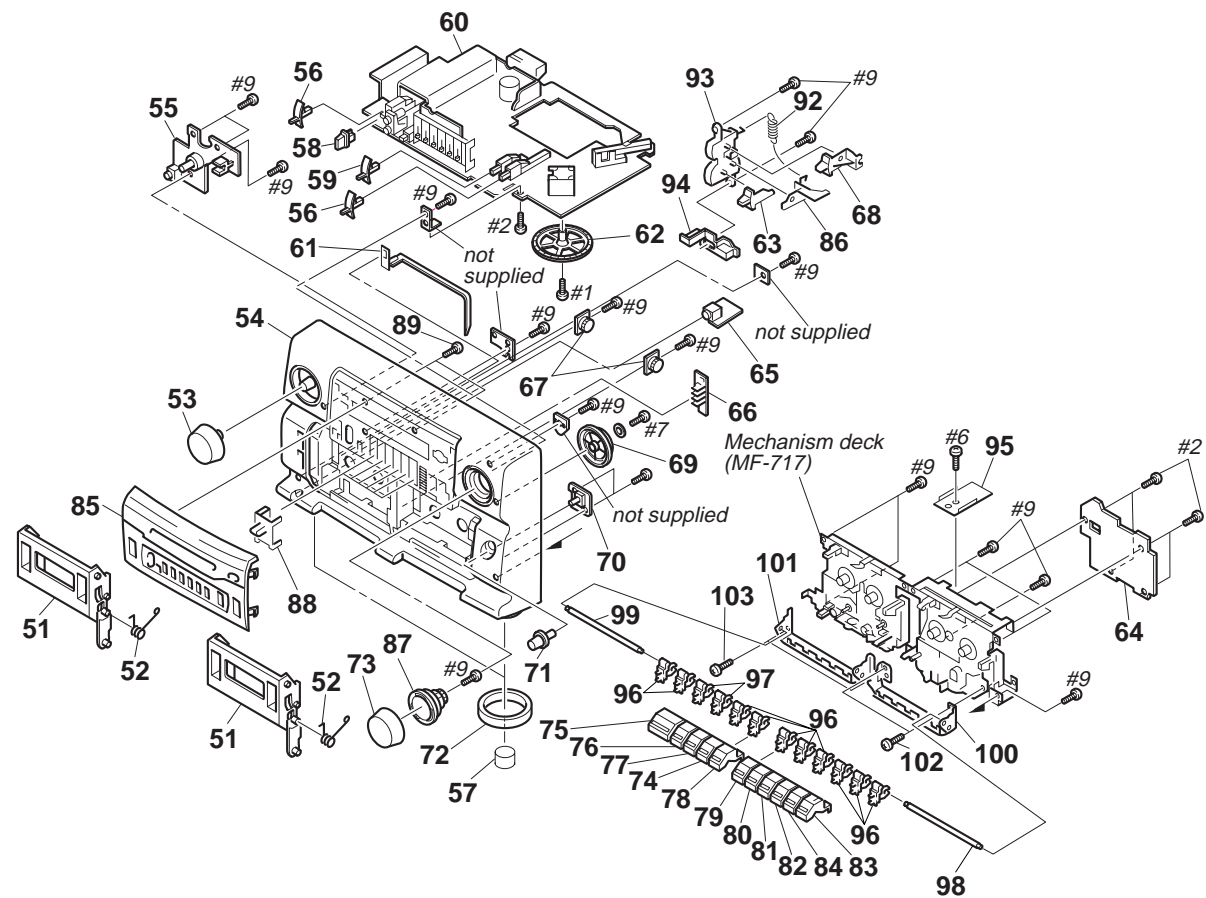
5-1. REAR CABINET SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	3-008-673-01	LID (L), CST		9	3-008-672-11	CABINET (REAR) (UAE)	
2	3-008-674-01	LID (R), CST		9	3-008-672-21	CABINET (REAR) (EA, E15, E23)	
* 3	1-664-245-11	POWER BOARD, COMPLETE		10	3-009-234-01	TERMINAL BOARD, ANTENNA	
* 4	1-664-249-11	BATTERY BOARD		11	3-008-704-01	ANTENNA, TELESCOPIC	
5	3-389-406-01	SPRING (-), BATTERY		12	3-008-703-01	WINDOW (CST/L)	
6	3-389-405-01	SPRING (+), BATTERY		13	7-685-647-11	SCREW (3X10), +BTP	
7	3-389-404-01	SPRING (+-), BATTERY		14	3-008-717-01	HANDLE (GRIP)	
8	3-389-436-11	LID, BATTERY CASE		ANT1	1-501-900-11	ANTENNA, TELESCOPIC	
9	3-008-672-01	CABINET (REAR) (SP)		$\Delta$ T901	1-431-082-11	TRANSFORMER, POWER	

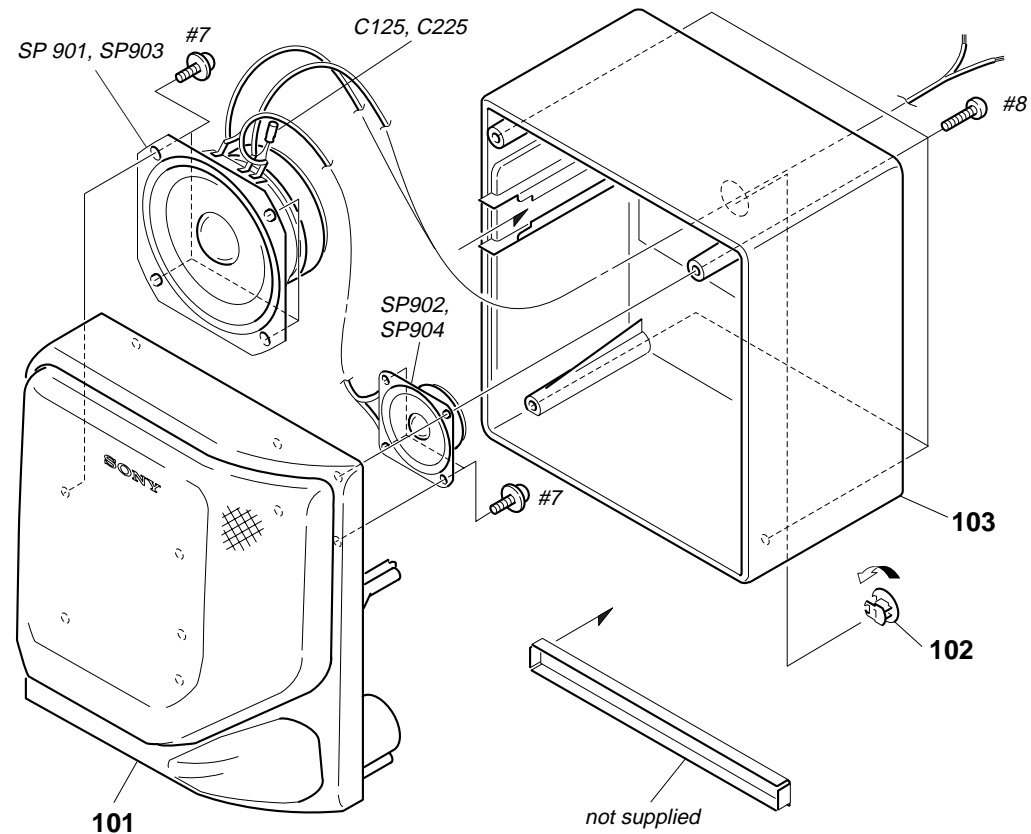


5-2. FRONT CABINET SECTION



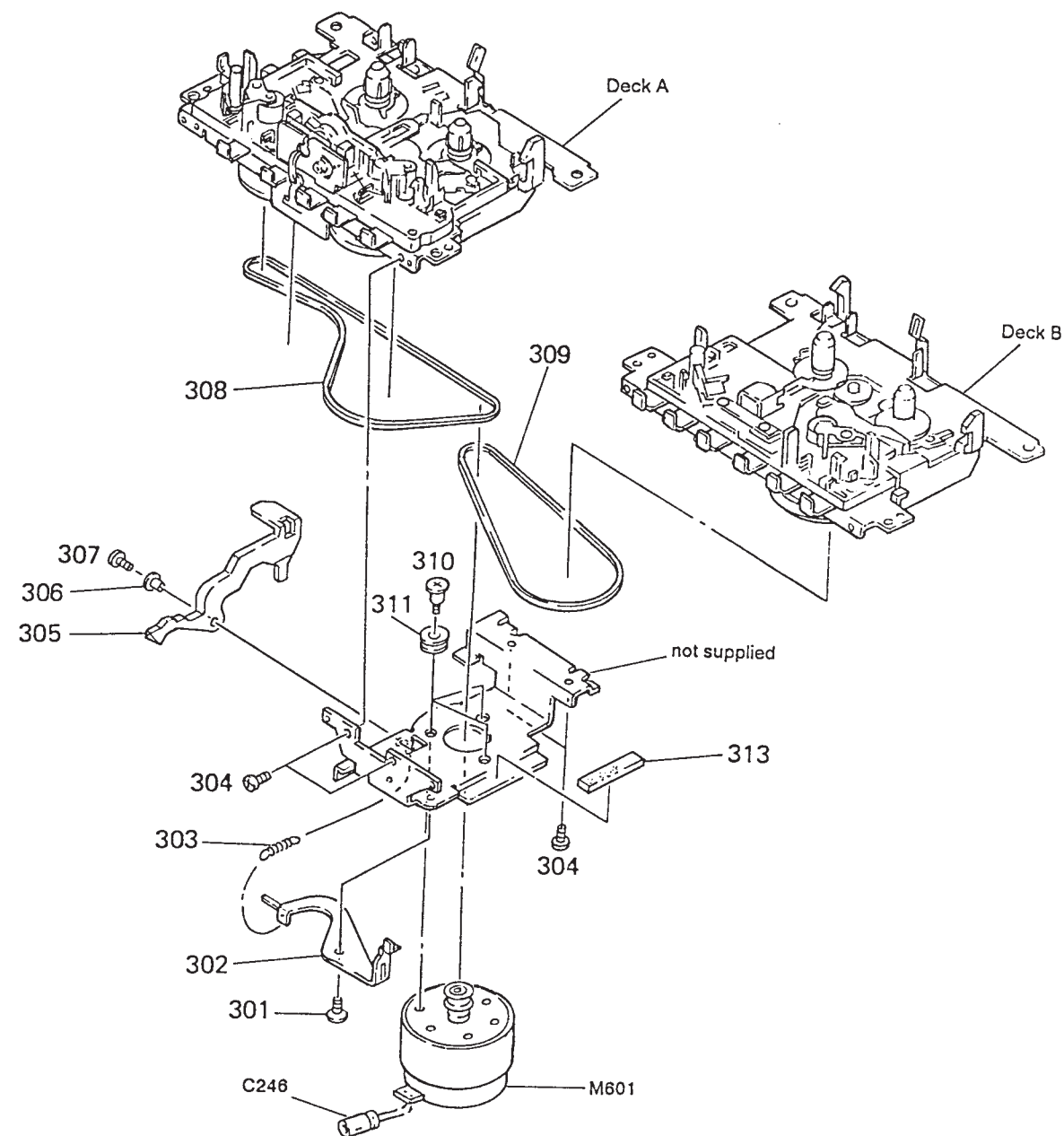
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	3-008-675-01	HOLDER, CST		76	3-008-678-01	BUTTON (REW 1)	
52	3-008-714-01	SPRING (CST/R)		77	3-008-679-01	BUTTON (FF 1)	
53	3-008-688-01	KNOB (VOL)		78	3-008-681-01	KNOB (PAUSE)	
54	3-008-671-01	CABINET (FRONT)		79	3-008-682-01	KNOB (REC)	
* 55	1-664-243-11	VOLUME BOARD		80	3-008-683-01	KNOB (PLAY 2)	
56	3-008-690-01	KNOB (FUNC)		81	3-008-684-01	BUTTON (REW 2)	
57	3-908-999-01	FOOT		82	3-008-685-01	BUTTON (FF 2)	
58	3-008-698-01	KNOB (DUB)		83	3-008-687-01	BUTTON (PAUSE 2)	
58	3-008-692-01	KNOB (MODE)		84	3-008-686-01	BUTTON (ST/EJ 2)	
59	3-008-718-01	KNOB (DSS)		85	3-008-699-01	DIAL, WINDOW (EXCEPT EA)	
* 60	A-3306-373-A	MAIN BOARD, COMPLETE (EXCEPT EA)		85	3-008-699-11	DIAL, WINDOW (EA)	
* 60	A-3306-408-A	MAIN BOARD, COMPLETE (EA)		86	3-008-713-01	LEVER (DIR)	
61	3-008-696-01	POINTER		87	3-008-693-01	GEAR (TUN)	
62	3-008-695-01	GEAR (VARICON)		88	3-008-697-01	KNOB (EQ)	
63	3-008-701-01	KNOB (DIR)		89	4-951-620-01	SCREW (2.6X8), +BVTP	
* 64	A-3306-367-A	PRE AMP BOARD, COMPLETE		92	3-008-715-01	SPRING (DIR)	
* 65	1-664-281-11	HEADPHONE BOARD		93	3-008-716-01	CHASSIS (DIR)	
* 66	1-664-248-11	LED BOARD		94	3-009-232-01	SLIDER (DIR)	
67	3-922-112-11	DAMPER		95	3-009-233-01	SPRING (REC)	
68	3-008-698-01	KNOB (DUB)		96	3-920-461-01	LEVER, OPERATION	
69	3-008-694-01	GEAR (IDL)		97	3-920-462-01	LEVER, OPERATION	
* 70	1-664-246-11	TUNER BOARD		98	3-915-822-01	SHAFT, BUTTON LEVER	
71	3-008-689-01	KNOB (FIN)		99	3-920-460-01	SHAFT, BUTTON LEVER	
* 72	3-389-396-11	ORNAMENT, FOOT		* 100	3-920-464-01	FRAME, B	
73	3-008-691-01	KNOB (TUN)		* 101	3-920-459-01	FRAME, B	
74	3-008-680-01	KNOB (ST/EJ)		102	3-920-349-01	SCREW, CAMERA (S) TAPPING	
75	3-008-677-01	KNOB (PLAY 1)		103	3-920-343-01	SCREW, CAMERA (S) TAPPING	

5-3. SPEAKER SECTION



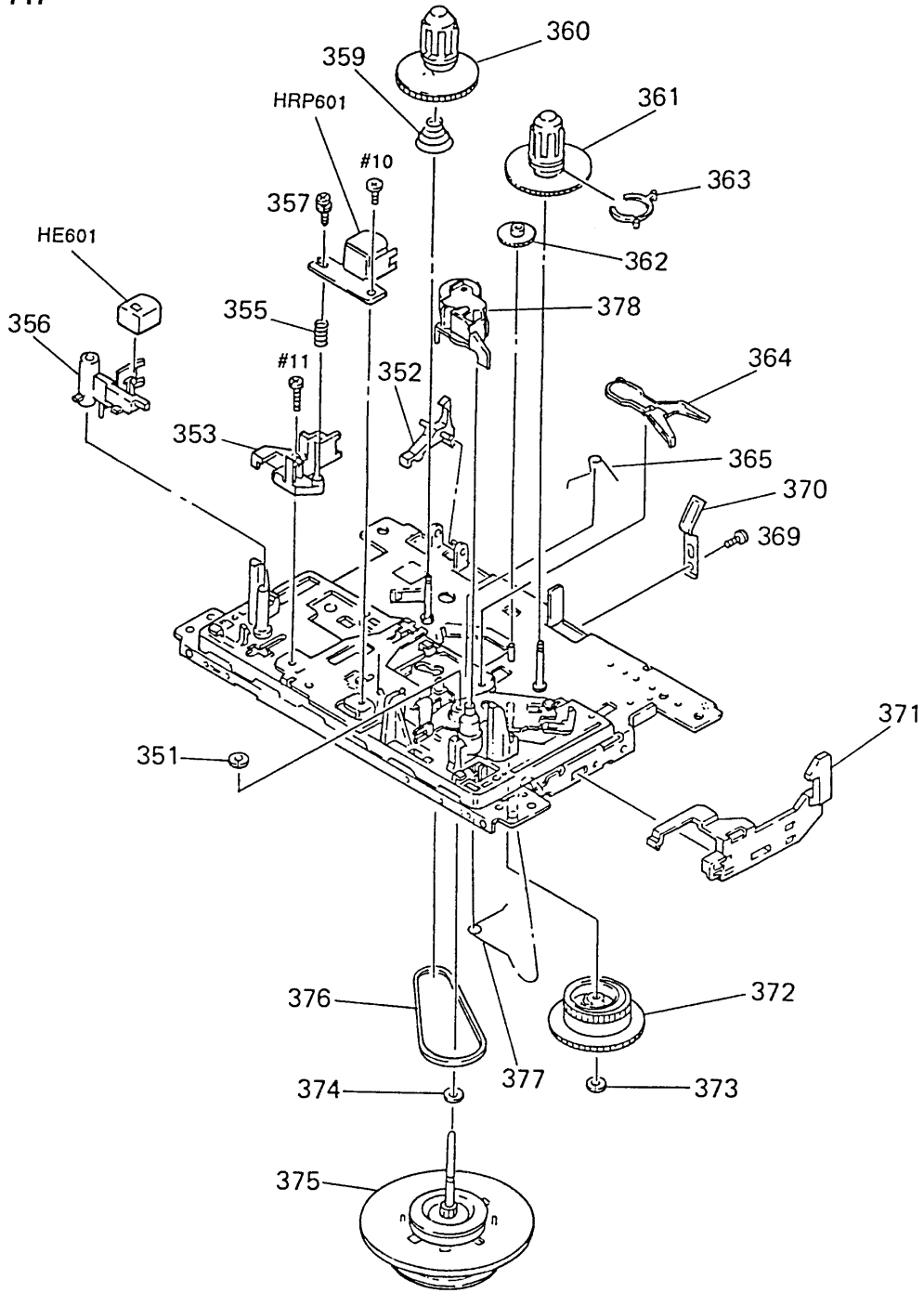
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	X-3373-527-1	SPEAKER BOX (FRONT)SUB ASSY(L)		C225	1-123-546-11	CAP, ELECT (NON POLAR) 3.3uF	
101	X-3373-528-1	SPEAKER BOX (FRONT)SUB ASSY(R)		SP901	1-505-515-11	SPEAKER (10CM) (L WOOFER)	
* 102	3-008-700-01	STOPPER, CORD		SP902	1-505-516-11	SPEAKER (5CM) (L TWEETER)	
103	3-008-707-01	CABINET (REAR) (L), SP		SP903	1-505-515-11	SPEAKER (10CM) (R WOOFER)	
103	3-008-708-01	CABINET (REAR) (R), SP		SP904	1-505-516-11	SPEAKER (5CM) (R TWEETER)	
104	3-908-999-01	FOOT					
C125	1-123-546-11	CAP, ELECT (NON POLAR) 3.3uF					

5-4. MECHANISM DECK SECTION-1  
MF-717



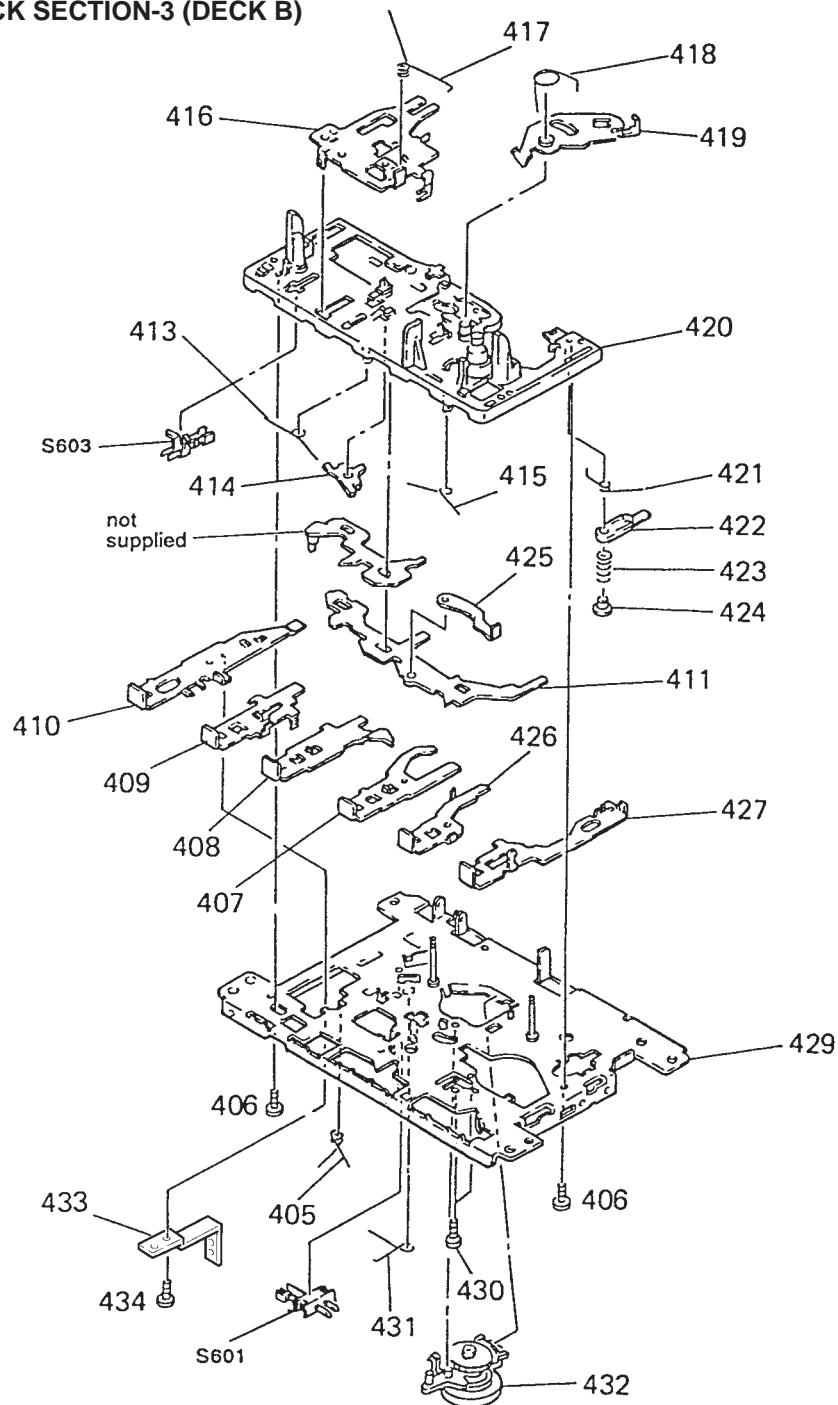
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	3-915-826-01	SCREW (A), PK COLLAR		308	3-920-455-01	BELT, M	
* 302	3-920-465-01	LEVER, P KICK		309	3-920-403-01	BELT, MAIN	
303	3-920-466-01	SPRING, P KICK LEVER		310	3-920-402-01	SCREW, MOTOR COLLAR	
304	3-915-809-01	SCREW (M2X4), C TIGHT		311	3-920-401-01	RUBBER, MOTOR	
305	3-920-467-01	LEVER (B), P KICK		313	3-920-469-01	MAT, VIBRATION PROOF	
306	3-915-827-01	COLLAR (B)		C246	1-126-101-11	ELECT 100uF 20% 16V	
307	3-920-341-01	SCREW (M2X6), C TIGHT		M601	X-3369-757-1	MOTOR ASSY (REEL/CAPSTAN)	

**5-5. MECHANISM DECK SECTION-2 (DECK B)  
MF-717**



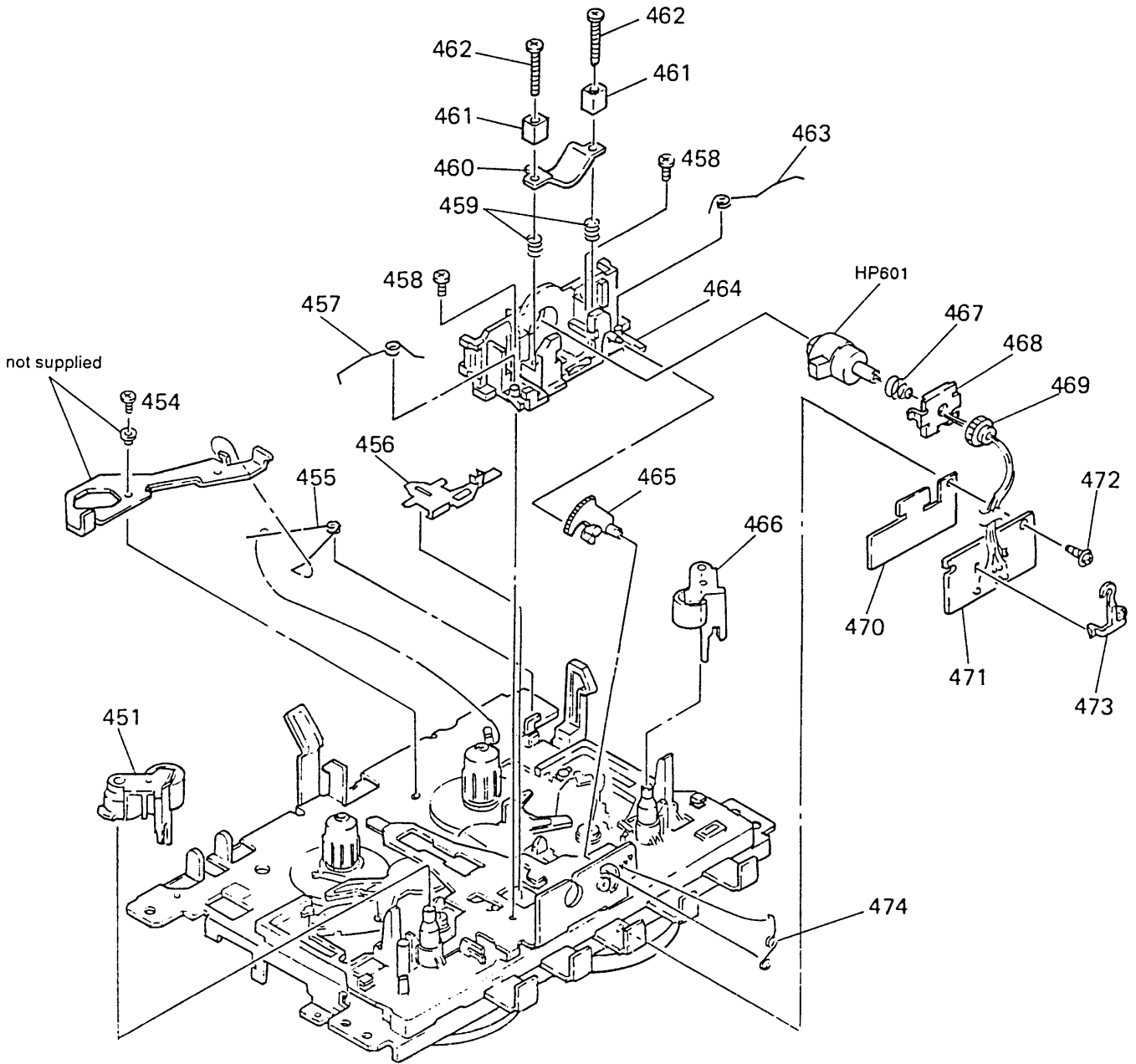
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	3-920-346-01	WASHER		369	3-915-808-01	SCREW (M2X3), C TIGHT	
* 352	3-920-405-01	LEVER, REC SAFETY		370	3-920-406-01	SPRING, PACK	
353	3-915-777-01	BASE, HEAD		* 371	3-920-404-01	LEVER, EJECT SLIDE	
355	3-920-424-01	SPRING, AZIMUTH		372	3-915-792-01	GEAR, CAM	
356	3-915-782-01	ARM, MG		373	3-920-348-01	WASHER	
357	3-920-351-01	SCREW (M2X7)		374	3-920-350-01	WASHER	
359	3-920-399-01	GEAR, BACK TENSION		375	3-915-788-01	FLYWHEEL ASSY	
360	3-915-795-01	REEL ASSY, SUPPLY		376	3-915-787-01	BELT, RF	
361	3-915-796-01	REEL ASSY, TAKE-UP		377	3-915-758-01	SPRING, E ACTUATOR	
362	3-915-793-01	GEAR, FF		378	3-915-784-01	ARM ASSY, PINCH ROLLER	
363	3-915-797-01	SENSOR		HE601	1-500-139-11	HEAD, E (ERASE) (DECK B)	
364	3-915-785-01	LEVER, SENSING		HRP601	1-500-138-11	HEAD, R/P (REC/PB) (DECK B)	
365	3-915-781-01	SPRING, M CONTROL					

5-6. MECHANISM DECK SECTION-3 (DECK B)  
MF-717



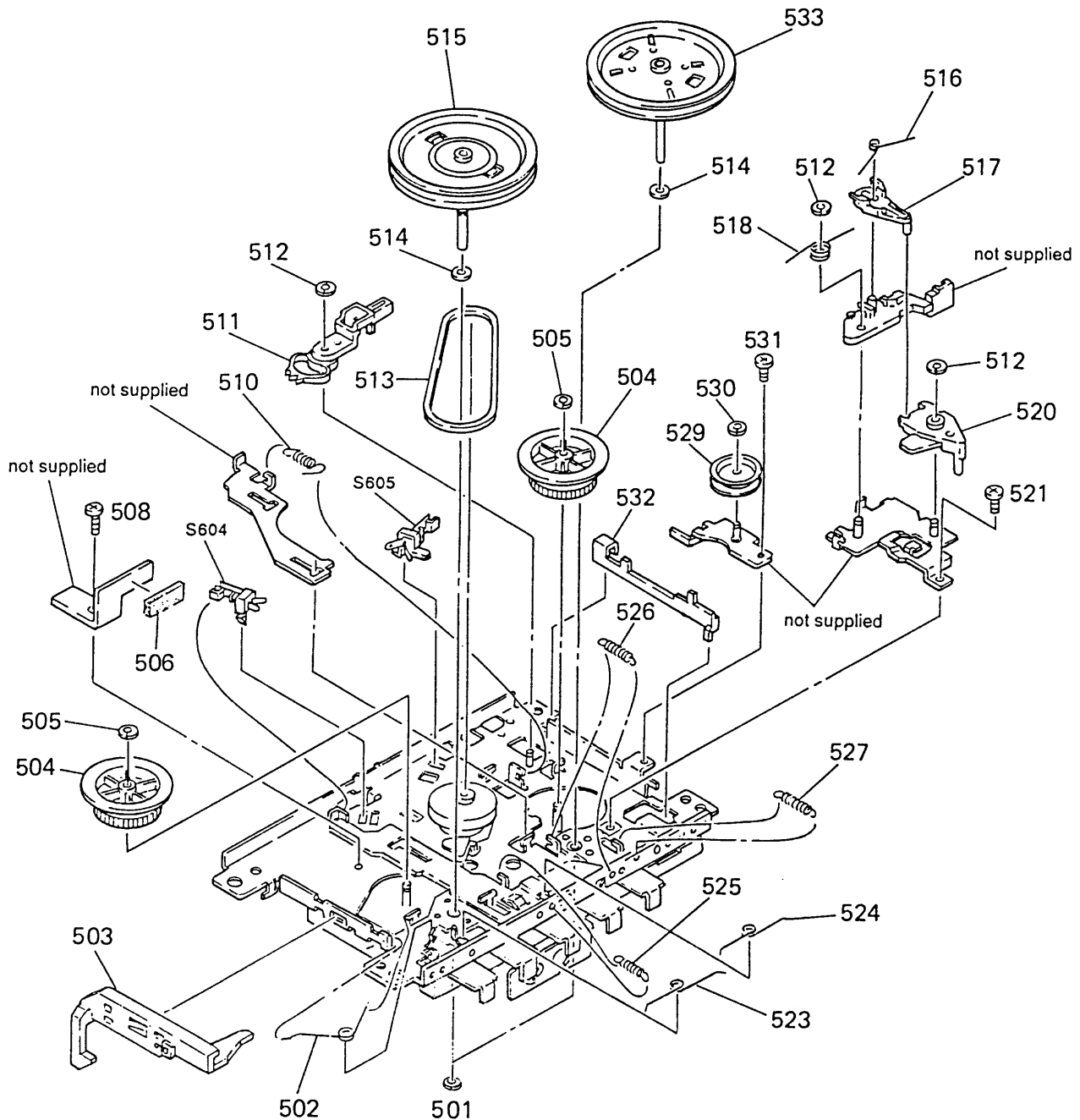
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
405	3-915-759-01	SPRING, PS LEVER		421	3-915-752-01	SPRING, P CONTROL	
406	3-915-810-01	SCREW (M2X5), P TIGHT BIND		* 422	3-920-393-01	LEVER, PAUSE	
* 407	3-915-749-01	LEVER, FF BUTTON		423	3-915-754-01	SPRING, PAUSE LEVER	
* 408	3-915-745-01	LEVER, REW BUTTON		424	3-915-755-01	STOPPER, PAUSE	
* 409	3-915-744-01	LEVER, PLAY BUTTON		* 425	3-915-760-01	LEVER, E KICK	
* 410	3-915-743-01	LEVER, REC BUTTON		* 426	3-915-750-01	LEVER, STOP BUTTON	
* 411	3-915-742-01	PLATE, FUNCTION, PUSH BUTTON		* 427	3-915-751-01	LEVER, PAUSE BUTTON	
413	3-915-756-01	SPRING (A), BUTTON LEVER		* 429	3-915-757-01	CHASSIS ASSY	
* 414	3-915-772-01	STOPPER, PR		430	3-915-811-01	SCREW (M2X4.5), CAMERA TAPPING	
415	3-915-774-01	SPRING (B), BUTTON LEVER		431	3-915-773-01	SPRING, REC BUTTON LEVER	
416	3-915-776-01	PANEL, HEAD		432	3-920-397-01	CLUTCH ASSY, RF	
417	3-920-396-01	SPRING, PANEL (P)		* 433	3-008-702-01	LEVER (REC)	
418	3-915-790-01	SPRING, GEAR PLATE		434	3-915-808-01	SCREW (M2X3), C TIGHT	
419	3-920-398-01	PLATE ASSY, GEAR		S601	1-762-023-11	SWITCH, LEAF (PB/REC) (DECK B)	
420	3-915-740-01	BASE ASSY (A)		S603	1-762-022-11	SWITCH, LEAF (POWER) (DECK B)	

**5-7. MECHANISM DECK SECTION-4 (DECK A)**  
**MF-717**



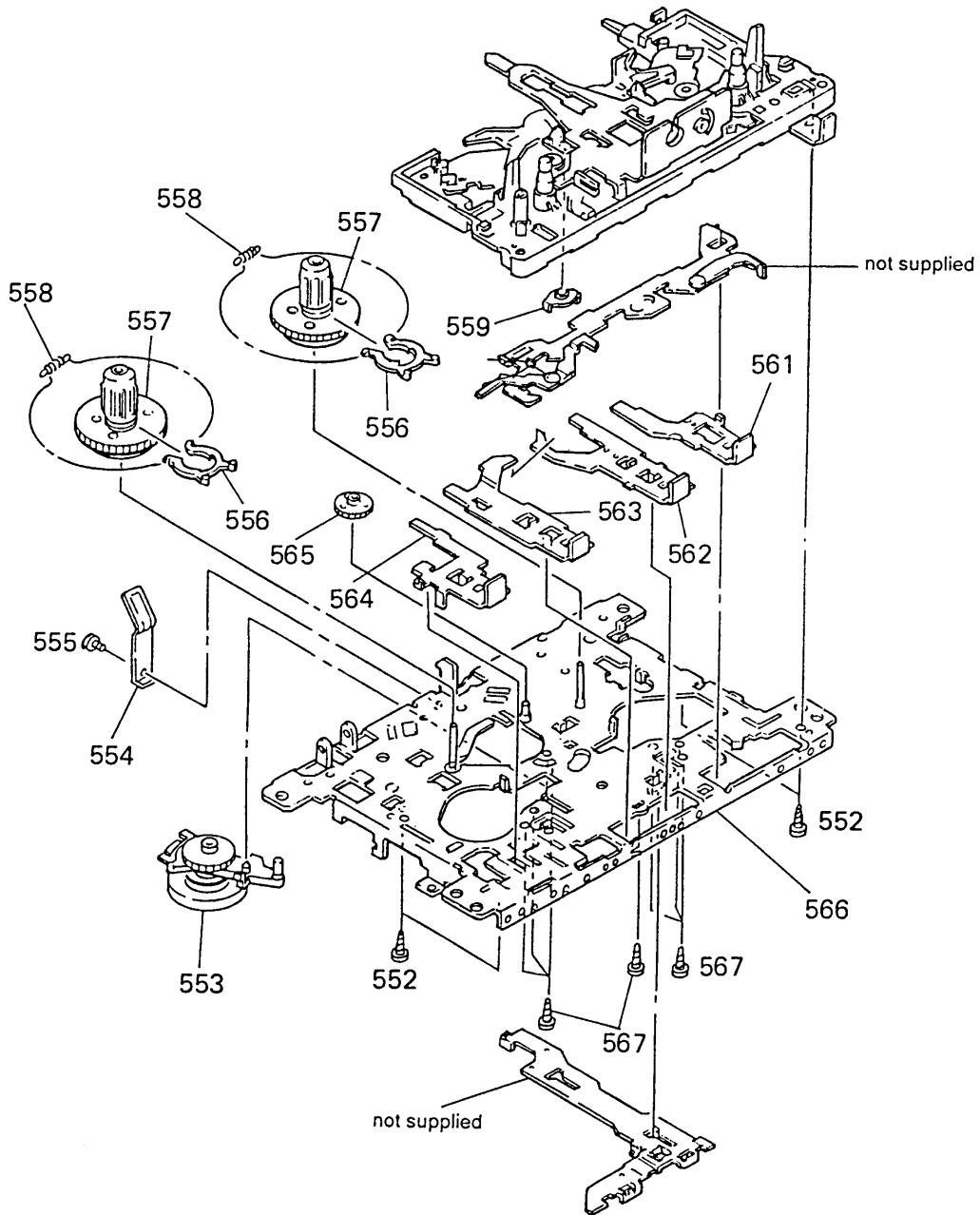
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
451	3-920-457-01	PINCH ROLLER (F) ASSY		465	3-920-427-01	GEAR, REPLACEMENT	
454	3-920-342-01	SCREW, CAMERA (S) TAPPING		466	3-920-456-01	PINCH ROLLER (F) ASSY	
455	3-920-450-01	SPRING, PAUSE ARM (B)		467	3-920-416-01	SPRING, HEAD HOLDER	
* 456	3-920-428-01	PLATE, REPLACEMENT		468	3-920-417-01	HOLDER	
457	3-920-423-01	SPRING (R), PINCH ROLLER ARM		469	3-920-418-01	GEAR, PINION	
458	3-920-340-01	SCREW, CAMERA (S) TAPPING		* 470	3-920-458-01	PLATE, SHIELD, H	
459	3-920-395-01	SPRING, AZIMUTH		* 471	3-920-419-01	PLATE, TERMINAL, H. W	
460	3-920-425-01	PLATE, SPRING, HEAD		472	3-920-344-01	SCREW (M2X4)	
461	3-920-426-01	HOLDER, SCREW		473	3-920-420-01	CLAMP, WIRE	
462	3-920-339-01	SCREW (M2X13.5), +-		474	3-920-474-01	SPRING, H REPLACEMENT	
463	3-920-422-01	SPRING (F), PINCH ROLLER ARM		HP601	1-500-187-11	HEAD (PB) (DECK A)	
* 464	3-920-421-01	HEAD MOUNT					

5-8. MECHANISM DECK SECTION-5 (DECK A)  
MF-717



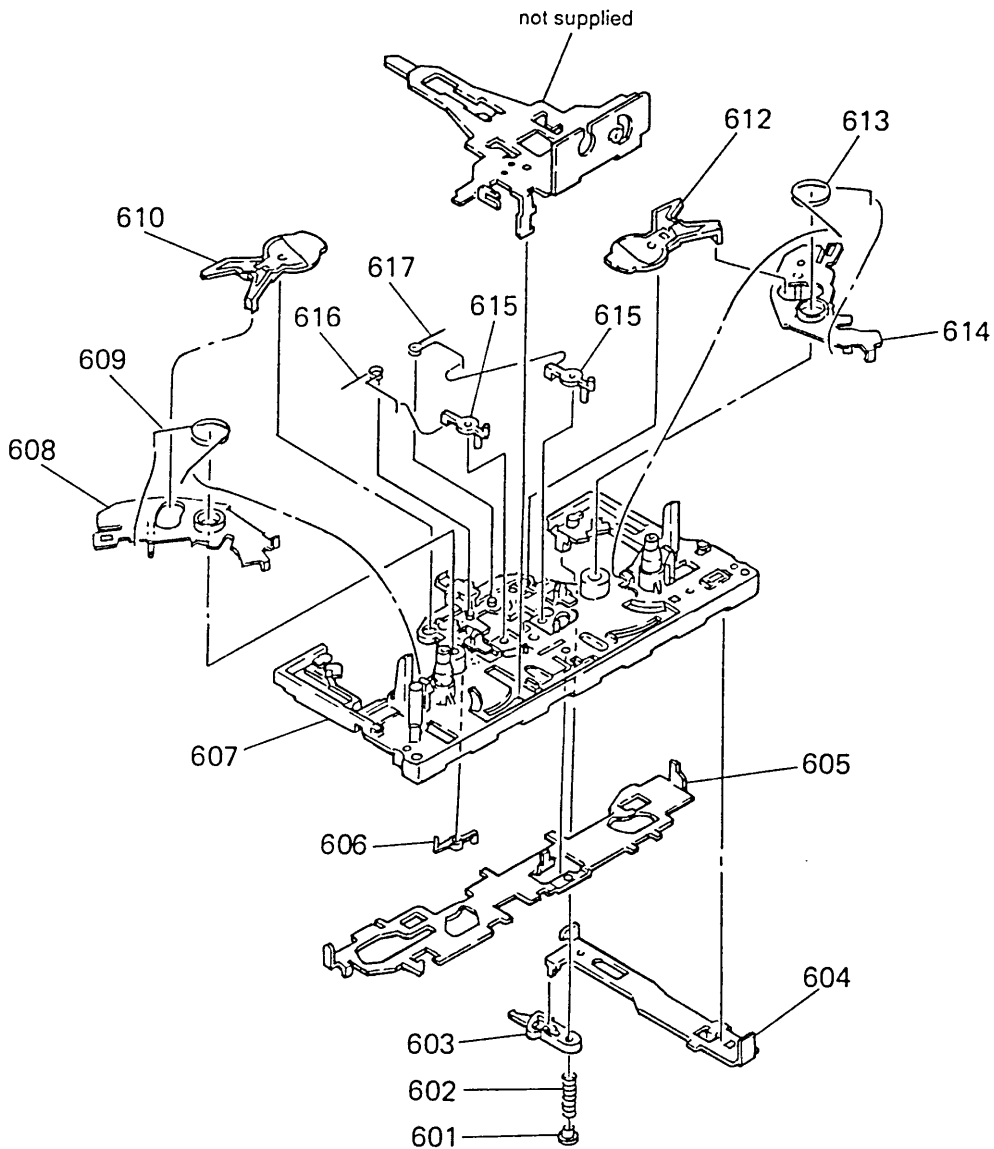
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
501	3-920-346-01	WASHER		518	3-920-444-01	SPRING, PRG	
502	3-920-436-01	SPRING, E ACTUATOR		* 520	3-920-443-01	LEVER, TURN	
* 503	3-920-437-01	LEVER (S), EJECT SLIDE		521	3-920-338-01	SCREW, CAMERA (S) TAPPING	
504	3-920-439-01	GEAR, CAM		523	3-915-774-01	SPRING (B), BUTTON LEVER	
505	3-920-348-01	WASHER		524	3-915-756-01	SPRING (A), BUTTON LEVER	
506	3-920-469-01	MAT, VIBRATION PROOF		525	3-920-454-01	SPRING, MAIN PLATE	
508	3-920-353-01	SCREW (M2X2.5), CAMELA TAPPING		526	3-920-453-01	SPRING, HEAD PANEL	
510	3-920-471-01	SPRING, MUTE PLATE		527	3-920-452-01	SPRING, PLAY BUTTON	
511	3-920-463-01	LEVER, MODE		529	3-920-431-01	PULLEY	
512	3-920-347-01	POLY-SLIDER		530	3-920-352-01	POLY-SLIDER	
513	3-915-787-01	BELT, RF		531	3-915-808-01	SCREW (M2X3), C TIGHT	
514	3-920-345-01	POLY-SLIDER		532	3-921-417-01	MODE SLIDE LEVER	
515	3-920-446-01	FLYWHEEL ASSY (F)		533	3-920-451-01	FLYWHEEL ASSY (F)	
516	3-920-445-01	SPRING, PUSH LEVER		S604	1-762-022-11	SWITCH, LEAF (POWER) (DECK A)	
* 517	3-920-442-01	LEVER, PUSH		S605	1-762-255-11	SWITCH, LEAF (PB) (DECK A)	

5-9. MECHANISM DECK SECTION-6 (DECK A)  
MF-717



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
552	3-915-810-01	SCREW (M2X5), P TIGHT BIND		* 561	3-920-413-01	LEVER ASSY (RS), STOP BUTTON	
553	3-920-397-01	CLUTCH ASSY, RF		* 562	3-920-412-01	LEVER ASSY (RS), FF BUTTON	
554	3-920-406-01	SPRING, PACK		* 563	3-920-411-01	LEVER ASSY (FS), FF BUTTON	
555	3-915-808-01	SCREW (M2X3), C TIGHT		* 564	3-920-410-01	LEVER ASSY (RS), PLAY BUTTON	
556	3-920-434-01	SENSOR		565	3-915-793-01	GEAR, FF	
557	3-920-433-01	REEL ASSY, T		* 566	3-920-432-01	CHASSIS ASSY	
558	3-920-435-01	SPRING, SENSOR		567	3-915-811-01	SCREW (M2X4.5), CAMERA TAPPING	
* 559	3-920-408-01	STOPPER, PR					

**5-10. MECHANISM DECK SECTION-7 (DECK A)  
MF-717**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
601	3-915-755-01	STOPPER, PAUSE		609	3-920-544-01	SPRING, GEAR PLATE (R)	
602	3-915-754-01	SPRING, PAUSE LEVER		610	3-920-548-01	LEVER (R), SENSING	
* 603	3-920-447-01	LEVER (F), PUSH		612	3-920-547-01	LEVER (F), SENSING	
* 604	3-920-414-01	LEVER ASSY (S), PAUSE BUTTON		613	3-920-542-01	SPRING, GEAR PLATE (F)	
* 605	3-920-549-01	PLATE, SLIDE		* 614	3-920-541-01	PLATE (F) ASSY, GERA	
* 606	3-920-409-01	LEVER, RF KICK		* 615	3-920-429-01	ARM, M CONTROL	
607	3-920-540-01	BASE (B) ASSY		616	3-920-546-01	SPRING, M CONTROL (R)	
* 608	3-920-543-01	PLATE (R) ASSY, GEAR		617	3-920-545-01	SPRING, M CONTROL (F)	



## SECTION 6 ELECTRICAL PARTS LIST

BATTERY

HEADPHONE

LED

MAIN

**NOTE:**

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

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

- Abbreviation  
 E15 : AC 220-240V 110V-120V change over possible Area model  
 E23 : AC 110-120V Area model  
 EA : Saudi Arabia model  
 UAE : United Arab Emirates model  
 SP : Singapore model

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:  
 uF:  $\mu$ F

- RESISTORS  
 All resistors are in ohms.  
 METAL: metal-film resistor  
 METAL OXIDE: Metal Oxide-film resistor  
 F: nonflammable
- COILS  
 uH:  $\mu$ H
- SEMICONDUCTORS  
 In each case, u:  $\mu$ , for example:  
 uA...:  $\mu$ A..., uPA...,  $\mu$ PA...,  
 uPB...,  $\mu$ PB..., uPC...,  $\mu$ PC...,  
 uPD...,  $\mu$ PD...

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	1-664-249-11	BATTERY BOARD *****				< CAPACITOR >	
*****							
*	1-664-281-11	HEADPHONE BOARD *****				< CAPACITOR >	
C124	1-104-664-11	ELECT	47uF 20% 16V	C1	1-162-306-11	CERAMIC	0.01uF 20% 16V
C224	1-104-664-11	ELECT	47uF 20% 16V	C2	1-162-286-31	CERAMIC	220PF 10% 50V
< CONNECTOR >							
CNP306	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P		C3	1-102-949-00	CERAMIC	12PF 5% 50V (EA)
< JACK >							
J301	1-566-891-11	JACK (PHONES)		C3	1-102-947-00	CERAMIC	10PF 5% 50V (EXCEPT EA)
< RESISTOR >							
R114	1-249-408-11	CARBON	180 5% 1/4W F	C5	1-162-306-11	CERAMIC	0.01uF 20% 16V
R214	1-249-408-11	CARBON	180 5% 1/4W F	C6	1-124-902-00	ELECT	0.47uF 20% 50V
*****							
*	1-664-245-11	LED BOARD *****		C7	1-126-963-11	ELECT	4.7uF 20% 50V
< DIODE >							
D329	8-719-061-65	DIODE L-1053HDT (LIVE)		C8	1-102-945-00	CERAMIC	8PF 0.5PF 50V (EA)
D330	8-719-061-65	DIODE L-1053HDT (PARTY)		C8	1-102-947-00	CERAMIC	10PF 5% 50V (EXCEPT EA)
D331	8-719-061-65	DIODE L-1053HDT (DISCO)		C9	1-107-734-11	FILM	360PF 5% 100V (EXCEPT EA)
D332	8-719-061-65	DIODE L-1053HDT (MANUAL)		C9	1-136-355-11	FILM	330PF 5% 100V (EA)
*****							
*	A-3306-408-A	MAIN BOARD, COMPLETE (EA) *****		C10	1-102-945-00	CERAMIC	8.0PF +-0.5PF 50V
*	A-3306-373-A	MAIN BOARD, COMPLETE (EXCEPT EA) *****		C11	1-124-903-11	ELECT	1uF 20% 50V
< DIODE >							
	1-533-233-21	HOLDER, FUSE		C12	1-136-480-11	FILM	0.0015uF 5% 100V
	3-008-690-01	KNOB (FUNC)		C13	1-102-942-00	CERAMIC	5.0PF +-0.5PF 50V
	3-008-695-01	GEAR (VARICON)		C14	1-124-907-11	ELECT	10uF 20% 50V
	3-008-698-01	KNOB (DUB)		C15	1-136-287-11	FILM	0.0047uF 5% 100V
	3-008-718-01	KNOB (DSS)		C16	1-161-053-00	CERAMIC	0.015uF 10% 50V
*****							
*	3-915-126-01	CAP, SHIELD COIL		C17	1-102-953-00	CERAMIC	18PF 5% 50V
	7-621-770-87	SCREW +B 2.6X5		C18	1-126-961-11	ELECT	2.2uF 20% 50V
	7-682-547-04	SCREW +B 3X6		C19	1-161-053-00	CERAMIC	0.015uF 10% 50V
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		C20	1-162-203-31	CERAMIC	15PF 5% 50V
*****							
				C21	1-162-306-11	CERAMIC	0.01uF 20% 16V
				C22	1-162-192-31	CERAMIC	2.7PF 10% 50V
				C23	1-102-892-00	CERAMIC	22PF 5% 50V (EXCEPT EA)
				C23	1-102-883-00	CERAMIC	27PF 5% 50V (EA)
				C24	1-162-306-11	CERAMIC	0.01uF 20% 16V
				C25	1-104-666-11	ELECT	220PF 20% 10V
				C26	1-104-663-11	ELECT	33uF 20% 16V
				C27	1-104-664-11	ELECT	47uF 20% 16V
				C28	1-124-903-11	ELECT	1uF 20% 50V
				C29	1-102-514-11	CERAMIC	22PF 5% 50V (EXCEPT EA)
				C29	1-102-515-11	CERAMIC	24pCH 5% 50V (EA)
				C30	1-126-963-11	ELECT	4.7uF 20% 50V
				C31	1-124-902-00	ELECT	0.47uF 20% 50V
				C32	1-124-902-00	ELECT	0.47uF 20% 50V
				C33	1-126-957-11	ELECT	0.22uF 20% 50V
				C34	1-162-306-11	CERAMIC	0.01uF 20% 16V
				C35	1-162-294-31	CERAMIC	0.001uF 10% 50V
				C36	1-162-294-31	CERAMIC	0.001uF 10% 50V

## MAIN

Ref. No.	Part No.	Description		Remarks	Ref. No.	Part No.	Description		Remarks
C37	1-126-963-11	ELECT	4.7uF	20%	50V	C344	1-162-851-11	CERAMIC	0.1uF 10% 16V
C38	1-124-903-11	ELECT	1uF	20%	50V	C345	1-162-851-11	CERAMIC	0.1uF 10% 16V
C112	1-124-902-00	ELECT	0.47uF	20%	50V	C347	1-162-282-31	CERAMIC	100PF 10% 50V
C113	1-162-294-31	CERAMIC	0.001uF	10%	50V	C348	1-162-282-31	CERAMIC	100PF 10% 50V
C114	1-126-961-11	ELECT	2.2uF	20%	50V				
									< FILTER >
C115	1-124-903-11	ELECT	1uF	20%	50V	CF1	1-760-738-11	FILTER, CERAMIC	
C116	1-162-291-31	CERAMIC	560PF	10%	50V	CF2	1-760-738-11	FILTER, CERAMIC	
C117	1-162-282-31	CERAMIC	100PF	10%	50V	CF3	1-767-615-11	FILTER, CERAMIC	
C118	1-124-443-00	ELECT	100uF	20%	10V				< CONNECTOR >
C119	1-162-851-11	CERAMIC	0.1uF	10%	16V				
C120	1-124-443-00	ELECT	100uF	20%	10V	CNP1	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P	
C121	1-124-443-00	ELECT	100uF	20%	10V	* CNP304	1-580-162-11	PIN, CONNECTOR(PC BOARD) 10P	
C122	1-130-489-00	MYLAR	0.033uF	5%	50V	CNP307	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P	
C123	1-130-489-00	MYLAR	0.033uF	5%	50V	* CNP308	1-580-159-11	PIN, CONNECTOR (PC BOARD) 7P	
C124	1-104-664-11	ELECT	47uF	20%	16V				< TRIMMER >
C125	1-123-546-00	ELECT	3.3uF	20%	50V	CT1	1-151-693-11	CAP, VAR (TUNING)	
C127	1-124-903-11	ELECT	1uF	20%	50V	CT2	1-151-693-11	CAP, VAR (TUNING)	
C212	1-124-902-00	ELECT	0.47uF	20%	50V	CT3	1-151-693-11	CAP, VAR (TUNING)	
C213	1-162-294-31	CERAMIC	0.001uF	10%	50V	CT4	1-151-693-11	CAP, VAR (TUNING)	
C214	1-126-961-11	ELECT	2.2uF	20%	50V	CT5	1-115-501-11	CAP, ADJ 10PF	
C215	1-124-903-11	ELECT	1uF	20%	50V	CT6	1-115-501-11	CAP, ADJ 10PF	
C216	1-162-291-31	CERAMIC	560PF	10%	50V	CT7	1-141-485-11	CAP, ADJ 5PF	
C217	1-162-282-31	CERAMIC	100PF	10%	50V	CT8	1-115-501-11	CAP, ADJ 10PF	
C218	1-124-443-00	ELECT	100uF	20%	10V				< VARIABLE CAPACITOR >
C219	1-162-851-11	CERAMIC	0.1uF	10%	16V				
C220	1-124-443-00	ELECT	100uF	20%	10V	CV1	1-151-693-11	CAP, VAR (TUNING)	
C221	1-124-443-00	ELECT	100uF	20%	10V	CV2	1-151-693-11	CAP, VAR (TUNING)	
C222	1-130-489-00	MYLAR	0.033uF	5%	50V	CV3	1-151-693-11	CAP, VAR (TUNING)	
C223	1-130-489-00	MYLAR	0.033uF	5%	50V	CV4	1-151-693-11	CAP, VAR (TUNING)	
C224	1-104-664-11	ELECT	47uF	20%	16V				
C225	1-123-546-00	ELECT	3.3uF	20%	50V				< DIODE >
C227	1-124-903-11	ELECT	1uF	20%	50V	D1	8-719-987-63	DIODE 1N4148M	
C301	1-126-783-11	ELECT	22uF	20%	10V	D2	8-719-987-63	DIODE 1N4148M	
C302	1-104-666-11	ELECT	220uF	20%	10V	D3	8-719-987-63	DIODE 1N4148M	
C303	1-126-963-11	ELECT	4.7uF	20%	50V	D301	8-719-987-63	DIODE 1N4148M	
						D302	8-719-987-63	DIODE 1N4148M	
C304	1-126-963-11	ELECT	4.7uF	20%	50V				
C305	1-126-961-11	ELECT	2.2uF	20%	50V	D303	8-719-987-63	DIODE 1N4148M	
C306	1-124-902-00	ELECT	0.47uF	20%	50V	D304	8-719-987-63	DIODE 1N4148M	
C307	1-124-907-11	ELECT	10uF	20%	50V	D305	8-719-987-63	DIODE 1N4148M	
C308	1-126-961-11	ELECT	2.2uF	20%	50V	D306	8-719-987-63	DIODE 1N4148M	
						D307	8-719-987-63	DIODE 1N4148M	
C309	1-104-663-11	ELECT	33uF	20%	16V				
C310	1-126-965-11	ELECT	22uF	20%	50V	D308	8-719-987-63	DIODE 1N4148M	
C312	1-104-664-11	ELECT	47uF	20%	16V	D309	8-719-987-63	DIODE 1N4148M	
C313	1-162-306-11	CERAMIC	0.01uF	20%	16V	D310	8-719-987-63	DIODE 1N4148M	
C314	1-162-306-11	CERAMIC	0.01uF	20%	16V	D311	8-719-987-63	DIODE 1N4148M	
						D312	8-719-987-63	DIODE 1N4148M	
C315	1-161-494-00	CERAMIC	0.022uF		25V				
C316	1-161-494-00	CERAMIC	0.022uF		25V				
C318	1-126-946-11	ELECT	6800uF	20%	25V	D313	8-719-987-63	DIODE 1N4148M	
C328	1-124-472-11	ELECT	470uF	20%	10V	D314	8-719-987-63	DIODE 1N4148M	
C334	1-124-907-11	ELECT	10uF	20%	50V	D315	8-719-987-63	DIODE 1N4148M	
						D316	8-719-987-63	DIODE 1N4148M	
C336	1-104-664-11	ELECT	47uF	20%	10V	D317	8-719-987-63	DIODE 1N4148M	
C337	1-124-903-11	ELECT	1uF	20%	50V				
C338	1-162-851-11	CERAMIC	0.1uF	10%	16V				
C341	1-162-282-31	CERAMIC	100PF	10%	50V	D318	8-719-987-63	DIODE 1N4148M	
C342	1-162-282-31	CERAMIC	100PF	10%	50V	D319	8-719-987-63	DIODE 1N4148M	
						D320	8-719-987-63	DIODE 1N4148M	
						D321	8-719-987-63	DIODE 1N4148M	
						D322	8-719-987-63	DIODE 1N4148M	

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
D323	8-719-904-02	DIODE 1N4002T		R7	1-249-427-11	CARBON 6.8K 5%	1/4W F
D324	8-719-010-46	DIODE UZ-6.2BSB		R8	1-249-427-11	CARBON 6.8K 5%	1/4W F
D325	8-719-001-54	DIODE UZL-11H2		R9	1-249-404-00	CARBON 82 5%	1/4W F
D326	8-719-987-63	DIODE 1N4148M		R10	1-249-441-11	CARBON 100K 5%	1/4W
D333	8-719-987-63	DIODE 1N4148M		R11	1-249-417-11	CARBON 1K 5%	1/4W F
D334	8-719-987-63	DIODE 1N4148M		R12	1-249-417-11	CARBON 1K 5%	1/4W F
D335	8-719-987-63	DIODE 1N4148M		R13	1-249-409-11	CARBON 220 5%	1/4W F
		< FILTER >		R14	1-249-421-11	CARBON 2.2K 5%	1/4W F
FL1	1-239-333-11	FILTER, BAND PASS		R15	1-249-411-11	CARBON 330 5%	1/4W
		< IC >		R16	1-249-429-11	CARBON 10K 5%	1/4W
IC1	8-752-056-23	IC CXA1538S		R17	1-249-417-11	CARBON 1K 5%	1/4W F
IC102	8-752-067-34	IC CXA1352AS		R18	1-249-417-11	CARBON 1K 5%	1/4W F
IC103	8-759-822-51	IC LA4620		R19	1-249-425-11	CARBON 4.7K 5%	1/4W F
		< JACK >		R20	1-249-425-11	CARBON 4.7K 5%	1/4W F
J303	1-778-953-11	JACK (CD LINE IN)		R21	1-249-429-11	CARBON 10K 5%	1/4W
J304	1-537-330-11	TERMINAL BOARD (SPEAKER)		R22	1-249-401-11	CARBON 47 5%	1/4W F
		< COIL >		R23	1-249-429-11	CARBON 10K 5%	1/4W F
L1	1-416-029-11	COIL, ANTENNA		R106	1-249-438-11	CARBON 56K 5%	1/4W
L2	1-416-030-11	COIL, AIR-CORE (EA)		R107	1-249-433-11	CARBON 22K 5%	1/4W
L2	1-416-333-11	COIL, AIR-CORE (EXCEPT EA)		R108	1-249-425-11	CARBON 4.7K 5%	1/4W F
L3	1-402-507-11	ANTENNA, FERRITE-ROD (MW)		R109	1-249-417-11	CARBON 1K 5%	1/4W F
L4	1-416-028-11	COIL, OSCILLATION		R110	1-247-807-31	CARBON 100 5%	1/4W
L5	1-415-999-11	COIL, ANTENNA		R111	1-249-417-11	CARBON 1K 5%	1/4W F
L6	1-416-025-11	COIL, OSCILLATION		△R112	1-219-162-11	FUSIBLE 3.3 5%	1/4W F
L7	1-416-026-11	COIL, ANTENNA		△R113	1-219-162-11	FUSIBLE 3.3 5%	1/4W F
L8	1-416-027-11	COIL, OSCILLATION		R115	1-249-429-11	CARBON 10K 5%	1/4W
L9	1-414-146-31	INDUCTOR 2.2uH		R126	1-249-419-11	CARBON 1.5K 5%	1/4W F
L10	1-414-140-11	INDUCTOR 0.68uH		R206	1-249-438-11	CARBON 56K 5%	1/4W
		< TRANSISTOR >		R207	1-249-433-11	CARBON 22K 5%	1/4W
Q2	8-729-036-89	TRANSISTOR KTC3198GR-AT		R208	1-249-425-11	CARBON 4.7K 5%	1/4W F
Q3	8-729-036-58	TRANSISTOR KRC102M-AT		R209	1-249-417-11	CARBON 1K 5%	1/4W F
Q4	8-729-037-29	TRANSISTOR KRA102M		R210	1-247-807-31	CARBON 100 5%	1/4W
Q5	8-729-036-58	TRANSISTOR KRC102M-AT		R211	1-249-417-11	CARBON 1K 5%	1/4W F
Q6	8-729-036-58	TRANSISTOR KRC102M-AT		△R212	1-219-162-11	FUSIBLE 3.3 5%	1/4W F
Q7	8-729-037-01	TRANSISTOR KTA12660-AT		△R213	1-219-162-11	FUSIBLE 3.3 5%	1/4W F
Q301	8-729-036-89	TRANSISTOR KTC3198GR-AT		R215	1-249-429-11	CARBON 10K 5%	1/4W
Q302	8-729-036-89	TRANSISTOR KTC3198GR-AT		R226	1-249-419-11	CARBON 1.5K 5%	1/4W F
Q303	8-729-036-89	TRANSISTOR KTC3198GR-AT		R301	1-249-429-11	CARBON 10K 5%	1/4W
Q304	8-729-036-80	TRANSISTOR KRC110M		R302	1-249-429-11	CARBON 10K 5%	1/4W
Q305	8-729-036-89	TRANSISTOR KTC3198GR-AT		R303	1-249-429-11	CARBON 10K 5%	1/4W
Q306	8-729-037-29	TRANSISTOR KRA102M		R304	1-249-429-11	CARBON 10K 5%	1/4W
Q307	8-729-115-30	TRANSISTOR 2SK105A-30		R305	1-249-429-11	CARBON 10K 5%	1/4W
Q308	8-729-036-89	TRANSISTOR KTC3198GR-AT		R306	1-249-425-11	CARBON 4.7K 5%	1/4W F
Q309	8-729-037-09	TRANSISTOR KTD2058GR		R307	1-249-437-11	CARBON 47K 5%	1/4W
Q310	8-729-037-09	TRANSISTOR KTD2058GR		R308	1-249-429-11	CARBON 10K 5%	1/4W
Q312	8-729-036-89	TRANSISTOR KTC3198GR-AT		R309	1-249-421-11	CARBON 2.2K 5%	1/4W F
Q313	8-729-036-89	TRANSISTOR KTC3198GR-AT		R310	1-249-429-11	CARBON 10K 5%	1/4W
		< RESISTOR >		R311	1-249-415-11	CARBON 680 5%	1/4W F
R1	1-249-417-11	CARBON 1K 5%	1/4W F	R312	1-247-807-31	CARBON 100 5%	1/4W
R2	1-249-421-11	CARBON 2.2K 5%	1/4W F	R313	1-247-843-11	CARBON 3.3K 5%	1/4W
R3	1-249-441-11	CARBON 100K 5%	1/4W	R314	1-249-431-11	CARBON 15K 5%	1/4W
R4	1-247-887-00	CARBON 220K 5%	1/4W	R315	1-249-425-11	CARBON 4.7K 5%	1/4W
R5	1-247-887-00	CARBON 220K 5%	1/4W	R316	1-249-433-11	CARBON 22K 5%	1/4W
				R317	1-249-425-11	CARBON 4.7K 5%	1/4W F
				R318	1-249-421-11	CARBON 2.2K 5%	1/4W F

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

## MAIN

## POWER

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description	Remarks
R319	1-249-426-11	CARBON	5.6K	5%	1/4W			< VARIABLE RESISTOR >	
R320	1-249-429-11	CARBON	10K	5%	1/4W				
R321	1-249-429-11	CARBON	10K	5%	1/4W	RV2	1-228-994-00	RES, ADJ, METAL 10K	
R322	1-249-429-11	CARBON	10K	5%	1/4W	RV302	1-228-991-00	RES, ADJ, METAL 2.2K	
R323	1-249-429-11	CARBON	10K	5%	1/4W	RV303	1-225-404-11	VOLUME, SLIDE (BLOCK TYPE) (MANUAL GRAPHIC EQUALIZER)	
R324	1-249-429-11	CARBON	10K	5%	1/4W			< SWITCH >	
R325	1-247-884-11	CARBON	160K	5%	1/4W				
R326	1-249-422-11	CARBON	2.7K	5%	1/4W F	S1	1-571-503-11	SWITCH, LEVER SLIDE (BAND)	
R327	1-249-421-11	CARBON	2.2K	5%	1/4W F	S301	1-571-345-11	SWITCH, LEVER SLIDE (PRESET MODE)	
R328	1-247-895-00	CARBON	470K	5%	1/4W	S302	1-571-345-11	SWITCH, LEVER (FUNCTION)	
R329	1-249-421-11	CARBON	2.2K	5%	1/4W F	S303	1-692-777-11	SWITCH, PUSH (1 KEY) (HIGH SPEED DUBBING)	
R330	1-249-422-11	CARBON	2.7K	5%	1/4W F			< TRANSFORMER >	
R331	1-249-441-11	CARBON	100K	5%	1/4W	T1	1-416-032-11	COIL, IFT	
R332	1-249-441-11	CARBON	100K	5%	1/4W	T2	1-409-944-11	COIL (DET)	
R333	1-249-441-11	CARBON	100K	5%	1/4W			*****	
R334	1-249-429-11	CARBON	10K	5%	1/4W			POWER BOARD, COMPLETE	
R335	1-249-429-11	CARBON	10K	5%	1/4W			*****	
R336	1-249-429-11	CARBON	10K	5%	1/4W				
R337	1-249-429-11	CARBON	10K	5%	1/4W				
R344	1-249-436-11	CARBON	39K	5%	1/4W				
R345	1-249-433-11	CARBON	22K	5%	1/4W			1-533-233-21	HOLDER, FUSE
R346	1-249-416-11	CARBON	820	5%	1/4W F			< CAPACITOR >	
R347	1-249-427-11	CARBON	6.8K	5%	1/4W F	C901	1-101-005-00	CERAMIC	0.022uF 50V
R348	1-249-429-11	CARBON	10K	5%	1/4W	C902	1-101-005-00	CERAMIC	0.022uF 50V
R349	1-249-429-11	CARBON	10K	5%	1/4W	C903	1-101-005-00	CERAMIC	0.022uF 50V
R350	1-249-433-11	CARBON	22K	5%	1/4W	C904	1-101-005-00	CERAMIC	0.022uF 50V
R351	1-249-425-11	CARBON	4.7K	5%	1/4W F	C905	1-124-557-11	ELECT	1000uF 20% 25V
R352	1-249-433-11	CARBON	22K	5%	1/4W			< CONNECTOR >	
R353	1-249-429-11	CARBON	10K	5%	1/4W				
R354	1-249-428-11	CARBON	8.2K	5%	1/4W	* CNP305		PIN, CONNECTOR (PC BOARD) 4P	
R355	1-249-425-11	CARBON	4.7K	5%	1/4W			< DIODE >	
R356	1-249-441-11	CARBON	100K	5%	1/4W				
R357	1-249-427-11	CARBON	6.8K	5%	1/4W F	D901	8-719-911-55	DIODE 1N5401	
R358	1-249-409-11	CARBON	220	5%	1/4W F	D902	8-719-911-55	DIODE 1N5401	
R359	1-249-417-11	CARBON	1K	5%	1/4W F	D903	8-719-911-55	DIODE 1N5401	
R360	1-249-410-11	CARBON	270	5%	1/4W F	D904	8-719-911-55	DIODE 1N5401	
R361	1-249-417-11	CARBON	1K	5%	1/4W F			< FUSE >	
R362	1-249-410-11	CARBON	270	5%	1/4W F	△ F901	1-532-350-00	FUSE (T4AL/250V)	
R363	1-249-381-51	CARBON	1	5%	1/4W F	△ F902	1-532-215-00	FUSE (T800mA/250V)	
R365	1-249-417-11	CARBON	1K	5%	1/4W F			< JACK >	
R366	1-249-429-11	CARBON	10K	5%	1/4W	△ J901	1-526-838-11	INLET, AC 2P (AC IN)	
R367	1-249-415-11	CARBON	680	5%	1/4W F			< SWITCH >	
R368	1-249-411-11	CARBON	330	5%	1/4W				
R369	1-249-417-11	CARBON	1K	5%	1/4W F	△ S901	1-692-514-11	SWITCH (VOLTAGE SELECTION)	
R373	1-249-417-11	CARBON	1K	5%	1/4W F			< TRANSFORMER >	
R374	1-247-843-11	CARBON	3.3K	5%	1/4W				
R375	1-249-418-11	CARBON	1.2K	5%	1/4W F	△ T901	1-431-082-11	TRANSFORMER, POWER	
R376	1-247-899-11	CARBON	680K	5%	1/4W			*****	
R377	1-249-403-11	CARBON	68	5%	1/4W F				
R378	1-249-429-11	CARBON	10K	5%	1/4W				
R379	1-247-889-00	CARBON	270K	5%	1/4W				
△ R380	1-212-934-00	FUSIBLE	1	5%	1/2W F				
R382	1-247-887-00	CARBON	220K	5%	1/4W				
R383	1-247-887-00	CARBON	220K	5%	1/4W				
R384	1-249-428-11	CARBON	8.2K	5%	1/4W				

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

<b>PRE AMP</b>	<b>TUNER</b>	<b>VOLUME</b>
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-3306-367-A	PRE AMP BOARD, COMPLETE *****				< RESISTOR >	
		< CAPACITOR >		R101	1-249-417-11	CARBON 1K 5%	1/4W F
C101	1-162-293-31	CERAMIC 820PF 10%	50V	R102	1-247-852-11	CARBON 7.5K 5%	1/4W
C102	1-162-291-31	CERAMIC 560PF 10%	50V	R103	1-249-409-11	CARBON 220 5%	1/4W F
C103	1-162-851-11	CERAMIC 0.1uF 10%	16V	R104	1-249-409-11	CARBON 220 5%	1/4W F
C104	1-126-783-11	ELECT 22uF 20%	10V	R105	1-247-807-31	CARBON 100 5%	1/4W
C105	1-162-294-31	CERAMIC 0.001uF 10%	50V	R201	1-249-417-11	CARBON 1K 5%	1/4W F
C106	1-162-291-31	CERAMIC 560PF 10%	50V	R202	1-247-852-11	CARBON 7.5K 5%	1/4W
C107	1-126-783-11	ELECT 22uF 20%	10V	R203	1-249-409-11	CARBON 220 5%	1/4W F
C108	1-162-840-11	CERAMIC 0.012uF 10%	16V	R204	1-249-409-11	CARBON 220 5%	1/4W F
C109	1-124-903-11	ELECT 1uF 20%	50V	R205	1-247-807-31	CARBON 100 5%	1/4W
C110	1-124-903-11	ELECT 1uF 20%	50V	R338	1-249-433-11	CARBON 22K 5%	1/4W
C111	1-124-903-11	ELECT 1uF 20%	50V	R339	1-249-811-11	CARBON 150 5%	1/4W F
C126	1-162-286-31	CERAMIC 220PF 10%	50V	R340	1-249-427-11	CARBON 6.8K 5%	1/4W F
C201	1-162-293-31	CERAMIC 820PF 10%	50V	R341	1-249-417-11	CARBON 1K 5%	1/4W F
C202	1-162-291-31	CERAMIC 560PF 10%	50V	R342	1-249-417-11	CARBON 1K 5%	1/4W F
C203	1-162-851-11	CERAMIC 0.1uF 10%	16V	R343	1-247-895-00	CARBON 470K 5%	1/4W
C204	1-126-783-11	ELECT 22uF 20%	10V	R369	1-249-417-11	CARBON 1K 5%	1/4W F
C205	1-162-294-31	CERAMIC 0.001uF 10%	50V	R370	1-247-843-11	CARBON 3.3K 5%	1/4W
C206	1-162-291-31	CERAMIC 560PF 10%	50V	R371	1-249-429-11	CARBON 10K 5%	1/4W
C207	1-126-783-11	ELECT 22uF 20%	10V	R372	1-249-416-11	CARBON 820 5%	1/4W F
C208	1-162-840-11	CERAMIC 0.012uF 10%	16V	R381	1-249-409-11	CARBON 220 5%	1/4W F
C209	1-124-903-11	ELECT 1uF 20%	50V			< SWITCH >	
C210	1-124-903-11	ELECT 1uF 20%	50V	S304	1-572-325-11	SWITCH, SLIDE (REC)	
C211	1-124-903-11	ELECT 1uF 20%	50V			< TRANSFORMER >	
C226	1-162-286-31	CERAMIC 220PF 10%	50V	T301	1-433-346-11	TRANSFORMER, BIAS OSCILLATOR	
C311	1-162-306-11	CERAMIC 0.01uF 20%	16V			*****	
C317	1-124-903-11	ELECT 1uF 20%	50V	*	1-664-246-11	FINE TUNING BOARD	
C319	1-124-443-00	ELECT 100uF 20%	10V			*****	
C320	1-161-045-00	CERAMIC 0.0033uF 20%	16V			< VARIABLE RESISTOR >	
C321	1-162-306-11	CERAMIC 0.01uF 20%	16V	RV1	1-225-432-11	VOLUME, FINE TUNING	
C322	1-162-306-11	CERAMIC 0.01uF 20%	16V			*****	
C323	1-162-286-31	CERAMIC 220PF 10%	50V	*	1-664-243-11	VOLUME BOARD	
C324	1-104-666-11	ELECT 220uF 20%	10V			*****	
C325	1-124-907-11	ELECT 10uF 20%	50V	*	3-009-230-01	HOLDER (LED)	
C326	1-162-851-11	CERAMIC 0.1uF 10%	16V			< CAPACITOR >	
C327	1-161-020-11	CERAMIC 0.039uF 10%	16V	C330	1-124-907-11	ELECT 10uF 20%	50V
C329	1-124-907-11	ELECT 10uF 20%	50V	C332	1-124-902-00	ELECT 0.47uF 20%	50V
C331	1-104-666-11	ELECT 220uF 20%	10V			< DIODE >	
C333	1-137-387-11	PETP FILM 0.001uF 5%	100V	D327	8-719-061-65	DIODE L-1053HDT (FM STEREO)	
C339	1-162-286-31	CERAMIC 220PF 10%	50V	D328	8-719-061-65	DIODE L-1053HDT (OPR/BATT)	
C340	1-162-282-31	CERAMIC 100PF 10%	50V			< JACK >	
C348	1-162-282-31	CERAMIC 100PF 10%	50V	J302	1-573-191-11	JACK (MIX MIC)	
		< CONNECTOR >					
CNP301	1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P					
CNP302	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P					
* CNP303	1-774-959-11	PIN, CONNECTOR (PC BOARD) 13P					
* CNP309	1-580-155-11	PIN, CONNECTOR (PC BOARD) 3P					
		< IC >					
IC101	8-759-457-58	IC BA3426AS					

**VOLUME**

Ref. No.	Part No.	Description	Remarks
< RESISTOR >			
R364	1-249-421-11	CARBON 2.2K 5%	1/4W F
R365	1-249-417-11	CARBON 1K 5%	1/4W F
R366	1-249-429-11	CARBON 10K 5%	1/4W
R367	1-249-415-11	CARBON 680 5%	1/4W F
R374	1-247-843-11	CARBON 3.3K 5%	1/4W
< VARIABLE RESISTOR >			
RV301	1-225-431-11	VOLUME, MAIN (VOLUME)	
*****			
MISCELLANEOUS			
*****			
ANT1	1-501-900-11	ANTENNA, TELESCOPIC	
C125	1-123-546-00	CAP, ELECT (NONPOLAR) 3.3uF	
C225	1-123-546-00	CAP, ELECT (NONPOLAR) 3.3uF	
HE601	1-500-139-11	HEAD, E (ERASE) (DECK B)	
HP601	1-500-187-11	HEAD, PB (DECK A)	
HRP601	1-500-138-11	HEAD, RP (REC/PB) (DECK B)	
M601	X-3369-757-1	MOTOR ASSY (REEL/CAPSTAN)	
S601	1-762-023-11	SWITCH, LEAF (ERASE) (DECK B)	
S603	1-762-022-11	SWITCH, LEAF (POWER) (DECK B)	
S604	1-762-022-11	SWITCH, LEAF (POWER) (DECK A)	
S605	1-762-255-11	SWITCH, LEAF (PB) (DECK A)	
SP901	1-505-515-11	SPEAKER (10CM)	
SP902	1-505-516-11	SPEAKER (5CM)	
SP903	1-505-515-11	SPEAKER (10CM)	
SP904	1-505-516-11	SPEAKER (5CM)	
△T901	1-431-082-11	TRANSFORMER, POWER	
*****			

Ref. No.	Part No.	Description	Remarks
ACCESSORIES & PACKING MATERIALS			
*****			
△	1-551-983-00	CORD, POWER (E23)	
△	1-569-007-11	ADAPTOR, CONVERSION 2P (E23)	
△	1-569-008-11	ADAPTOR, CONVERSION 2P (EA)	
△	1-769-412-11	CORD, POWER (EXCEPT E23)	
	3-859-353-11	MANUAL, INSTRUCTION (ENGLISH)	
	3-859-353-21	MANUAL, INSTRUCTION (SPANISH,FRENCH)	
*****			
*****			
HARDWARE LIST			
*****			
#1	7-621-770-87	SCREW +B 2.6X5	
#2	7-682-547-04	SCREW +B 3X6	
#3	7-682-548-04	SCREW +B 3X8	
#5	7-685-651-11	SCREW +BVTP 3X20 TYPE2 N-S	
#6	7-685-781-09	SCREW +PTT 2X4 (S)	
#7	7-685-903-31	SCREW +PTPWH 3X10 (TYPE2)	
#8	7-685-648-79	SCREW +BVTP 3X12 TYPE2 SLIT	
#9	7-685-647-11	SCREW +BVTP 3X10 TYPE2 N-S	
#10	7-685-152-11	SCREW +P 3X25	

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