

# XR-5500

## SERVICE MANUAL

US Model  
Canadian Model



Model Name Using Similar Mechanism	XR-4147/4157
Tape Transport Mechanism Type	MG-36VJ-32

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION 11 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 30–20,000Hz with no more than 1% total harmonic distortion.

#### OTHER SPECIFICATION

##### Power amplifier section

Outputs Speaker outputs (sure seal connectors)  
Preamp outputs (phono jacks)

Speaker impedance 3.2–8 ohms

Maximum power output  
25W × 2 (at 4 ohms)\*  
6W × 4 (at 4 ohms)\*  
\* Measured at 14.4V

##### Cassette player section

Tape track 4-track 2-channel stereo

Frequency response 40–16,000Hz

Signal-to-noise ratio  
With type II, IV cassette 58dB (Dolby NR off)  
With type I cassette 55dB (Dolby NR off)

Dolby B NR effect

8dB

Wow and flutter 0.15% (WRMS)

##### Tuner section

System Superheterodyne tuner  
Computerized quartz-locked synthesizer system

Antenna terminal FM/AM external antenna connector  
FM/AM power antenna relay control lead

##### FM tuner section

Tuning range 87.9–107.9MHz  
Intermediate frequency 10.7MHz

Usable sensitivity 12.5dBf (75 ohms)  
Selectivity 70dB at 400kHz  
Signal-to-noise ratio 65dB (stereo), 68dB (mono)  
Harmonic distortion at 1kHz 0.9% (stereo)  
0.5% (mono)  
Separation 35dB at 1kHz  
Frequency response 30–15,000Hz  
Capture ratio 2.0dB

##### AM tuner section

Tuning range 530–1,710kHz  
Intermediate frequency 450kHz  
Sensitivity 34μV

##### General

Tone controls Bass ±8dB at 100Hz  
Treble ±8dB at 10kHz  
Loudness +6dB at 100Hz  
+6dB at 10kHz  
Output lead Power antenna relay control lead

— Continued on page 2 —

FM/AM CASSETTE CAR STEREO  
**SONY**®

**Power requirements**

12V DC car battery (negative ground)

**Dimensions**

Approx. 178 × 50 × 160 mm (w/h/d)  
(7<sup>1</sup>/<sub>8</sub> × 2 × 6<sup>3</sup>/<sub>8</sub> inches)  
not incl. projecting parts and controls

**Mounting dimensions**

Approx. 182 × 53 × 145 mm (w/h/d)  
(7<sup>1</sup>/<sub>4</sub> × 2<sup>1</sup>/<sub>8</sub> × 5<sup>3</sup>/<sub>4</sub> inches)  
not incl. projecting parts and controls

**Weight**

Approx. 1.3 kg (2 lb 14 oz)

**Accessories supplied**

Mounting hardware (1 set)

Design and specifications subject to change without notice.

**TABLE OF CONTENTS**

<u>Section</u>	<u>Title</u>	<u>Page</u>
Specifications .....		1
<b>1. GENERAL</b>		
1-1.	Location and Function of Controls.....	3
1-2.	Installation .....	4
1-3.	Connections.....	5
<b>2. ADJUSTMENTS</b> .....		6
<b>3. DIAGRAMS</b>		
3-1.	Semiconductors Lead Layout.....	11
3-2.	Printed Wiring Boards.....	11
3-3.	Schematic Diagram.....	15
<b>4. EXPLODED VIEWS</b> .....		21
<b>5. ELECTRICAL PATRS LIST</b> .....		27



**Flexible Circuit Board Repairing**

- Keep the temperature of the soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

**Notes on chip component replacement**

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

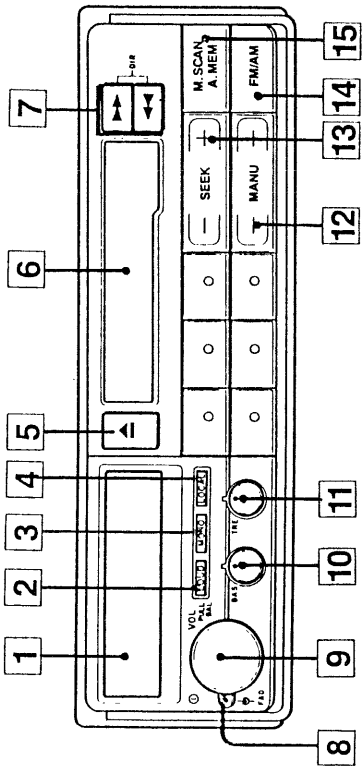
**MODEL IDENTIFICATION**

<b>SONY</b>	MODEL NO. <b>XR-5500</b>
<b>FM/AM CASSETTE CAR STEREO</b>	
<b>FREQUENCY RANGE :</b>	
FM 87.9~107.9MHz	
AM 530~1710KHz	
DC : 12V  <b>NEGATIVE GROUND</b>	
SERIAL NO.	
MADE IN. 	

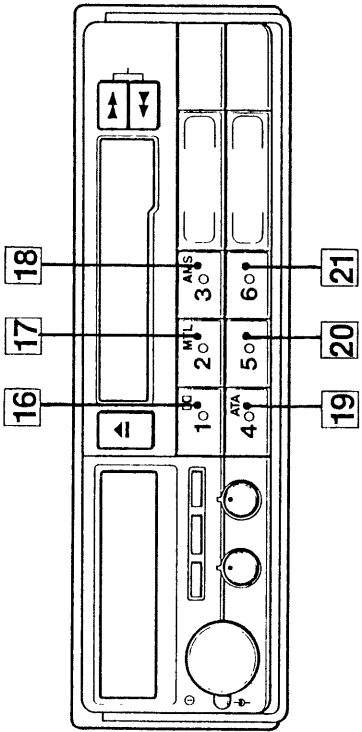
MALAYSIA  
Singapore

SECTION 1  
GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



- 1 Display window
- 2 LOUD (loudness) button
- 3 MONO (monaural) button
- 4 LOCAL button
- 5  $\Delta$  (eject) button
- 6 Cassette insertion door
- 7 DIR (tape transport direction)/ $\blacktriangleright\blacktriangleleft$  (fast winding) buttons
- 8 FAD (fader) control
- 9 VOL (volume) control /PUSH POWER switch /PULL BAL (balance) control
- 10 BAS (bass) control
- 11 TRE (treble) control
- 12 MANU (manual) +/- buttons
- 13 SEEK +/- buttons
- 14 FM/AM button
- 15 M.SCAN (memory scan)/A.MEM (automatic memory) button



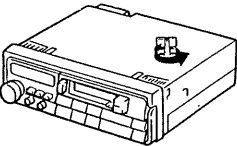
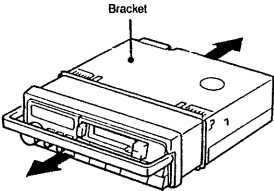
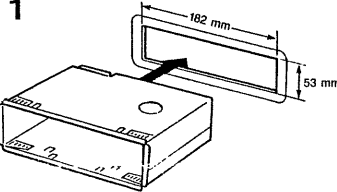
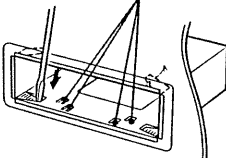
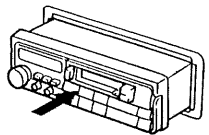
During tape playback		During radio reception	
16	$\square\square$ (Dolby noise reduction) button	Preset number button	
17	MTL (metal) button		
18	AMS (Automatic Music Sensor) button		
19	ATA (Automatic Tuner Activation) button		
20	—		
21	—		

## INSTALLATION

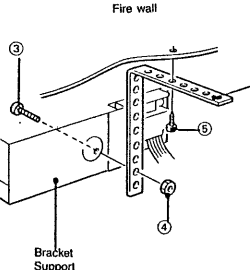
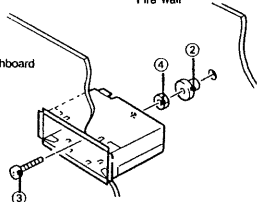
### PRECAUTIONS

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it should be subject to high temperatures, such as from direct sunlight or from hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

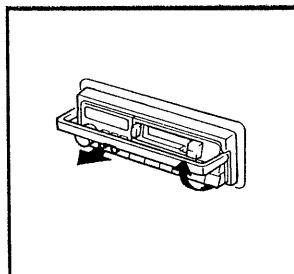
### TO INSTALL THE UNIT IN THE DASHBOARD

<p><b>1</b> Remove the transit lock.</p> 	<p><b>2</b> Remove the bracket.</p> 	<p><b>3</b> Install the bracket in the dashboard.</p> <p><b>1</b></p>  <p><b>2</b> Bend these claws, if necessary.</p> 	<p><b>4</b> Secure the unit.</p>  <p>Push in the unit until it is locked firmly.</p>
--	---	--	---

### TO SUPPORT THE UNIT

<p><b>Example 1</b></p>  <p>Fire wall</p> <p>Bracket Support</p>	<p><b>Example 2</b></p>  <p>Fire wall</p> <p>Dashboard</p>
---	---

### TO REMOVE THE UNIT



This prevents your car stereo set from being stolen.

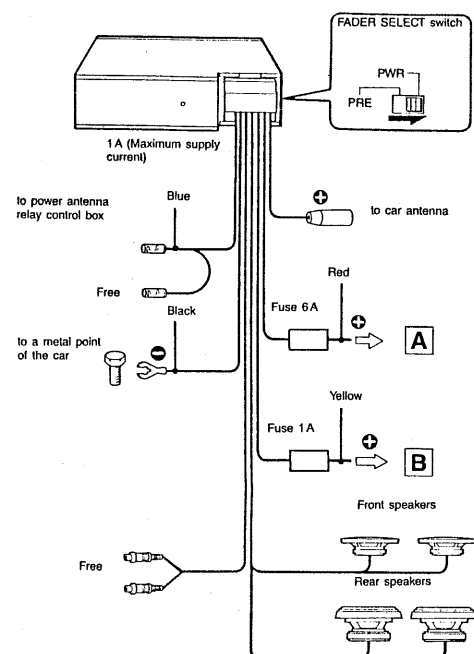
## CONNECTIONS

### CAUTION

- This unit is designed for negative ground 12V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the red power input lead only after all other leads are connected. And be sure to connect it to the positive 12V power terminal. It will be energized when the ignition key is set to the accessory position.
- Run all ground wires (colored in black) to a common ground point.

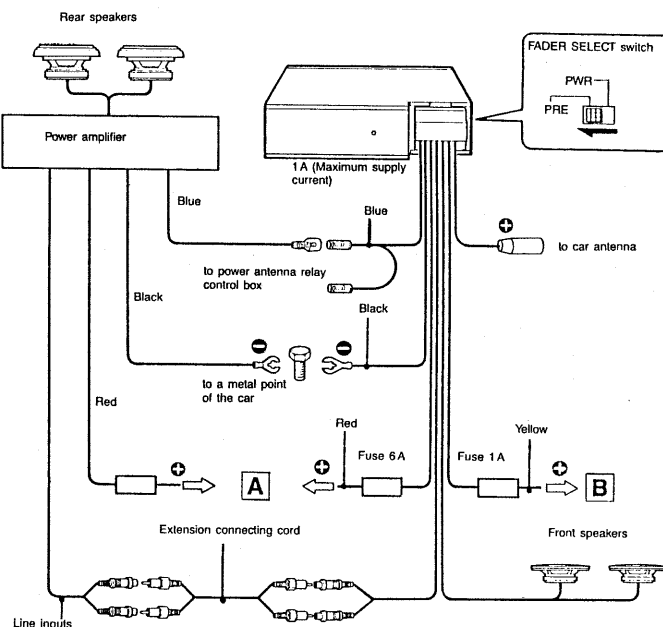
## SYSTEM CONNECTION

### 2- or 4-speaker system connection with the built-in amplifier



### 4-speaker system connection with an additional power amplifier

Connect the front speakers to this unit and the rear speakers to the additional power amplifier. You can enjoy powerful 4-speaker system. The FAD (fader) control activates in this connection, too.



- [A]: to the +12V power terminal which is energized in the accessory position of the ignition key

- [B]: to the +12V power terminal which is energized at all times

#### Note:

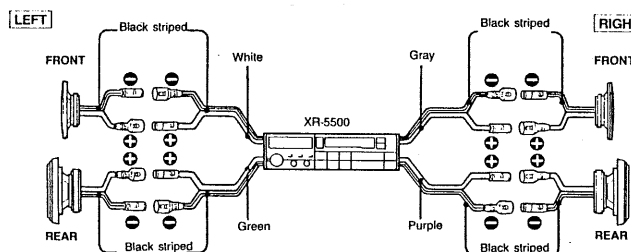
A power antenna without relay box cannot be used with this unit. For details about the power antenna, refer to the power antenna instruction manual.

#### Note on the power select switch

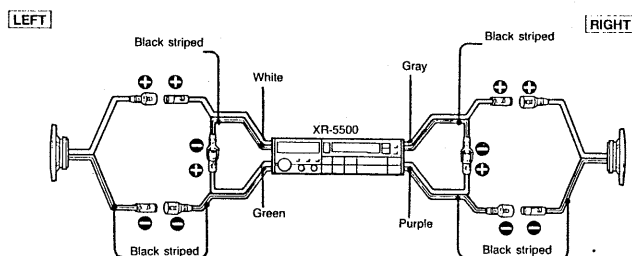
You can change illumination mode with the power select switch located on the bottom of the unit. The switch is factory-set to the ON position. If your car has no accessory position, set the switch to the OFF position with a pencil or similar objects.

## SPEAKER CONNECTION

### For 4-speaker system



### For 2-speaker system



#### Notes on speaker connection

- Use speakers with an impedance of 3.2 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.

## SECTION 2

### ELECTRICAL ADJUSTMENTS

#### 2-1. MECHANICAL ADJUSTMENT

No mechanical adjustments applied to this unit.

##### ● Torque Measurement

Mode	Torque Meter	Torque
FWD	CQ-102C	40 to 75 g · cm (0.56 to 1.04 oz · inch)
REV	CQ-102RB	
Back tension	CQ-102B	1.5 to 5 g · cm (0.02 to 0.07 oz · inch)
FF	CQ-102B	45 to 150 g · cm (0.62 to 2.08 oz · inch)
REW		

#### 2-2. ELECTRICAL ADJUSTMENTS

**Note :** The adjustment should be performed in the order given in this service manual.

The adjustments should be performed for both L-CH and R-CH.

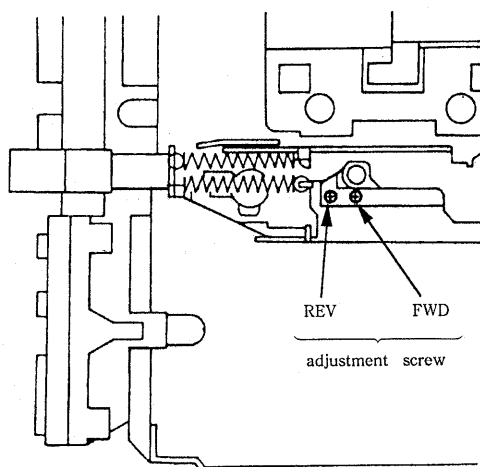
- Power-supply voltage is +14.4V DC as per Ad Hoc recommendation.
- Switches and controls should be set as follows unless otherwise specified.

PUSH RADIO switch : RADIO

PULL BALANCE control : center click

#### TAPE SECTION

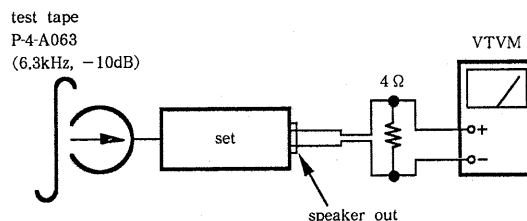
Adjustment Location :



#### Playback Head Azimuth Adjustment

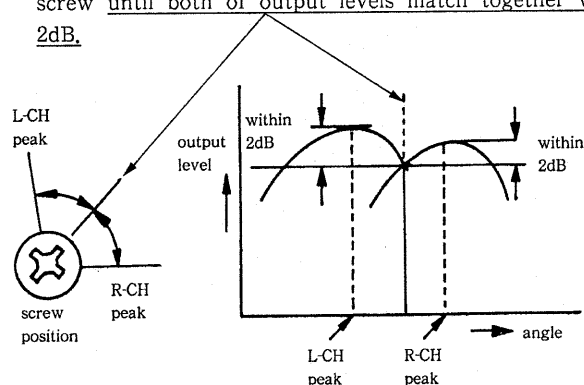
##### Procedure :

1. Mode : playback



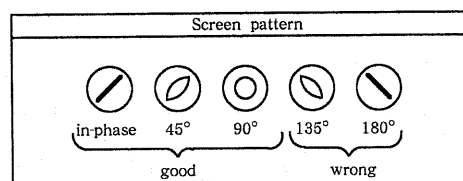
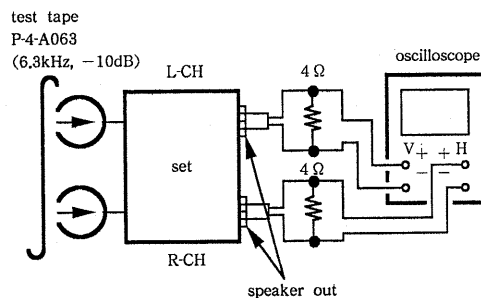
Adjust for forward (▶) direction and reverse (◀) direction.

2. 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 2dB.



3. Phase Check

Confirm that phase difference between L-channel and R-channel is within 90°.

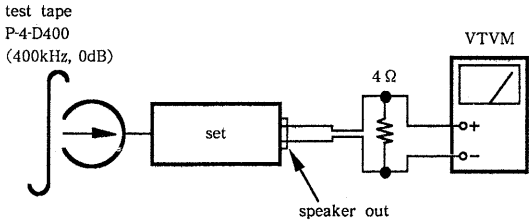


4. Repeat the above adjustment for reverse playback mode.
5. After the adjustment, lock the screw with locking compound.

2.3. Dolby Level Adjustment

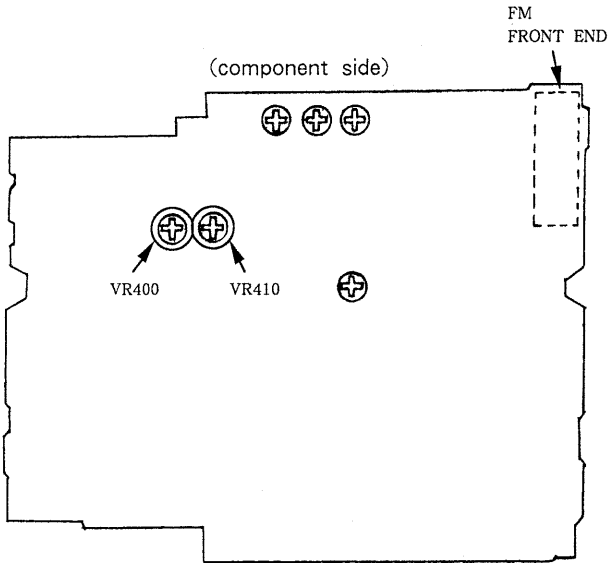
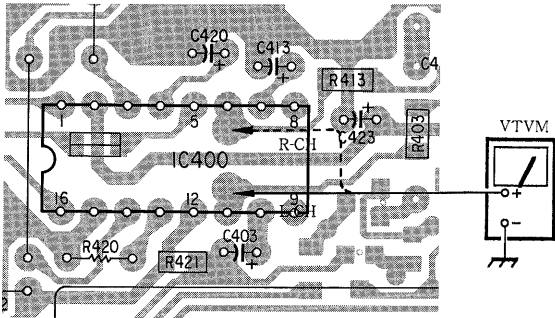
Procedure :

- 1. Mode : forward playback



- 2. Adjust VR400 (L-CH) and VR410 (R-CH) so that the VTVM reads 548mV (−3dB).
- 3. Put the set into the REV mode and check the VTVM reading in 461mV (−4.5dB) to 651mV (−1.5dB).

main board (conductor side)

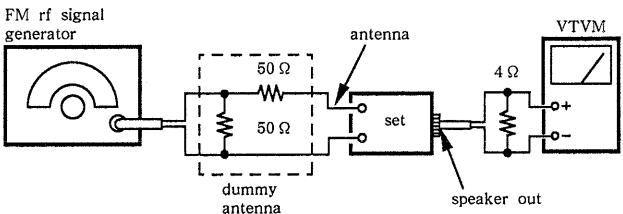


FM SECTION

FM Stereo Separation Adjustment

Setting :

BAND : FM Stereo  
Frequency : 98.1MHz



Carrier frequency : 98.1MHz  
Output level : 66dB (2mV)  
Modulation : 1kHz  
main : 33.75kHz dev.  
sub : 33.75kHz dev.  
19kHz pilot : 7.5kHz dev.

Procedure :

- 1. Fully turn VR203 counterclockwise.

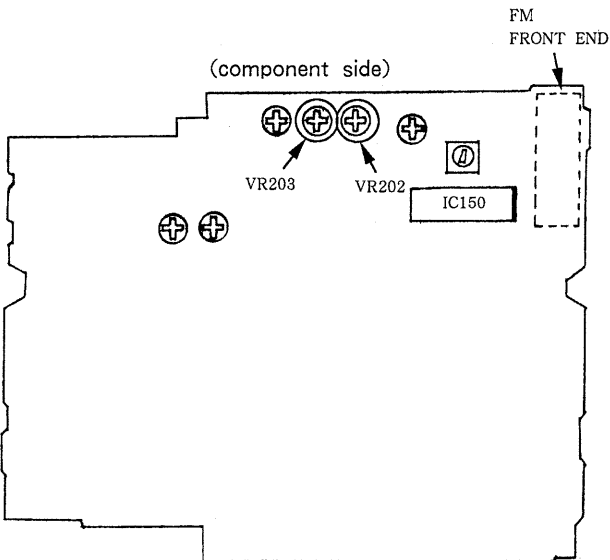
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust VR202 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust VR202 for minimum reading.

L-CH stereo separation : Ⓐ - Ⓑ  
R-CH stereo separation : Ⓒ - Ⓓ

The separations of both channels should be equal.

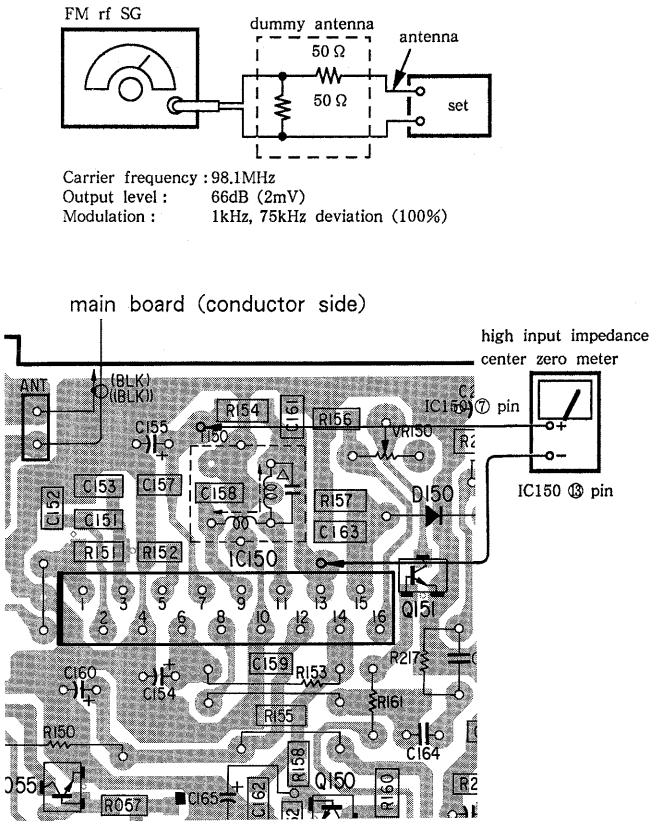
- 2. Adjust so that separation is maximized.
- 3. Set the output level of a signal generator to 199.5μV/m (46dB) and adjust VR203 so that separation is 10dB.

Adjustment Location : main board



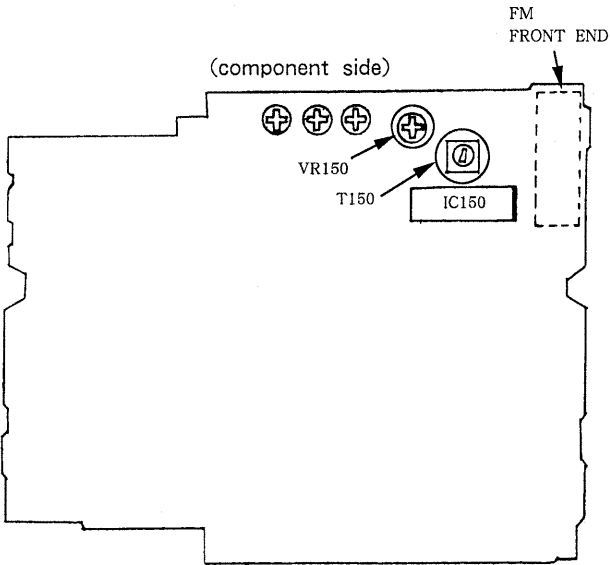
FM Discriminator Adjustment

Setting :  
BAND : FM MONO



Procedure :  
1. Slowly adjust the core of T150 to obtain a zero (0) V reading on high impedance center zero meter.

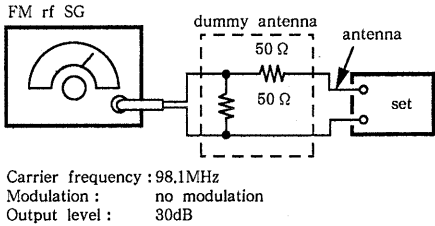
Adjustment Location : Main board



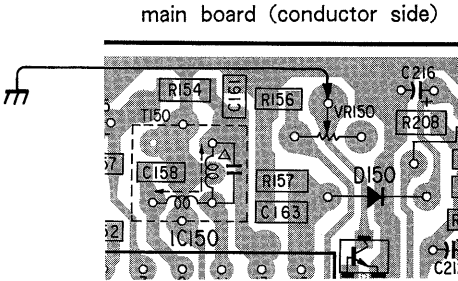
FM Auto-scan Stop Level Adjustment

Note : Be sure to perform this adjustment before "AM Auto-scan Stop Level Adjustment".

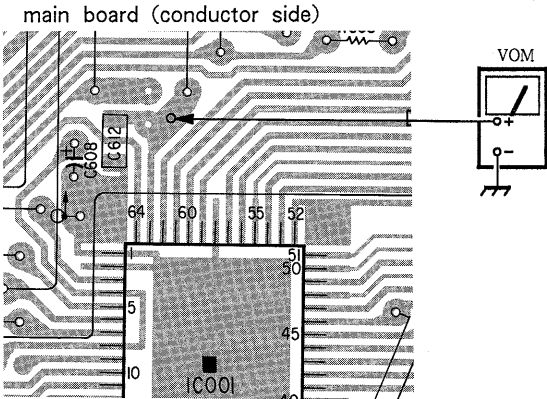
Setting :  
BAND : FM MONO  
Frequency : 98.1MHz



Procedure :  
1. Using a lead wire, connect Q151 collector and GND.



2. Adjust VR150 at the point where the VOM reading changes from low to high.

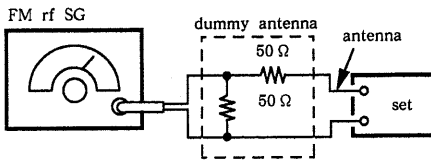


3. After adjustment is completed remove the lead wire.



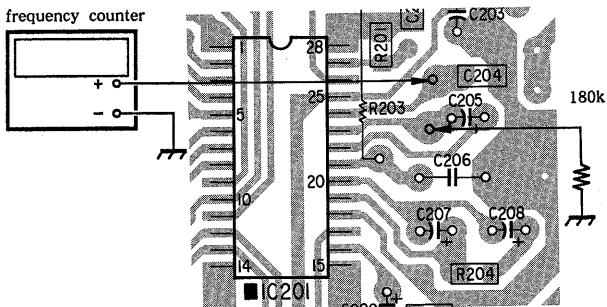
### VCO Adjustment

**Setting :**



Carrier frequency : 98.1MHz  
Modulation : no modulation  
Output level : 2mV/m (66dB)

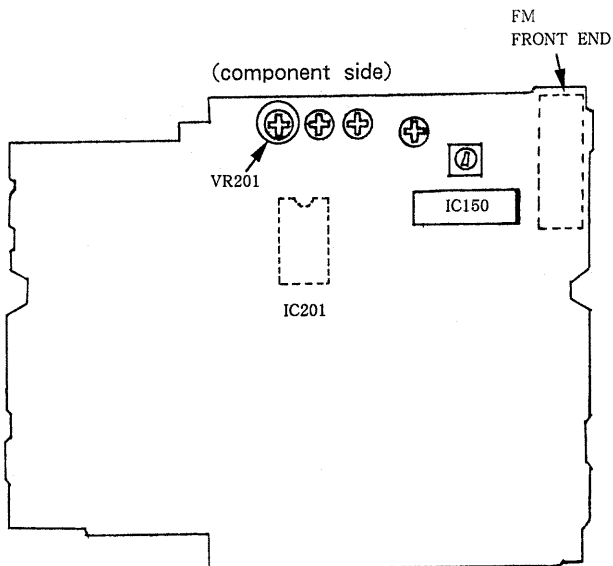
main board (conductor side)



### Procedure :

1. Using a resistor (180k  $\Omega$ ), connect IC201 23 pin and GND.
2. Push the TUNING (+, -) button for 98.1MHz.
3. Adjust VR201 for 19kHz $\pm$ 30Hz reading on the frequency counter.
4. After adjustment is completed remove the resistor (180k).

**Adjustment Location :** main board



**AM SECTION**

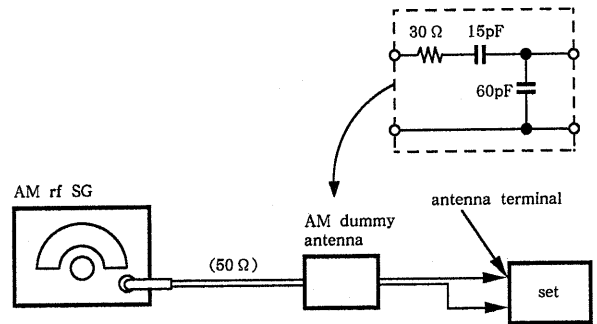
### AM Auto-scan Stop Level Adjustment

**Note:** Be sure to perform this adjustment after "FM Auto-scan Stop Adjustment".

**Setting :**

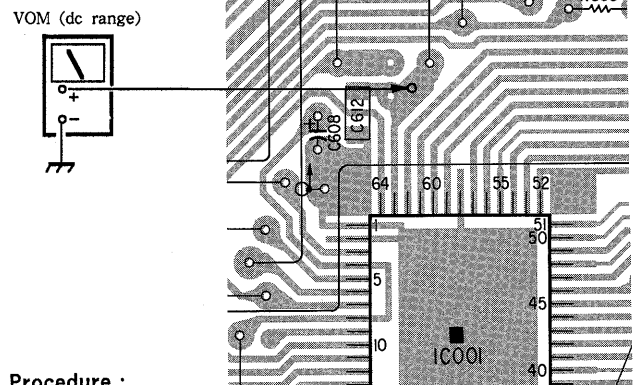
Band : AM

Frequency : 1000kHz



Carrier frequency : 1000kHz  
Output level : 30dB  
Modulation : no modulation

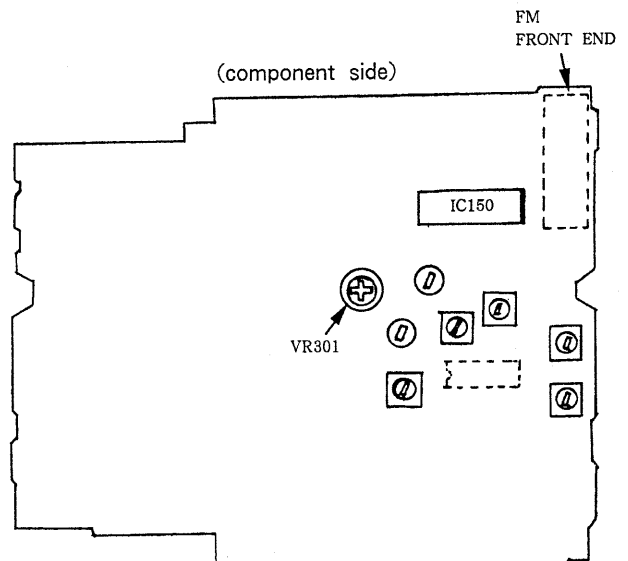
main board (conductor side)



### Procedure :

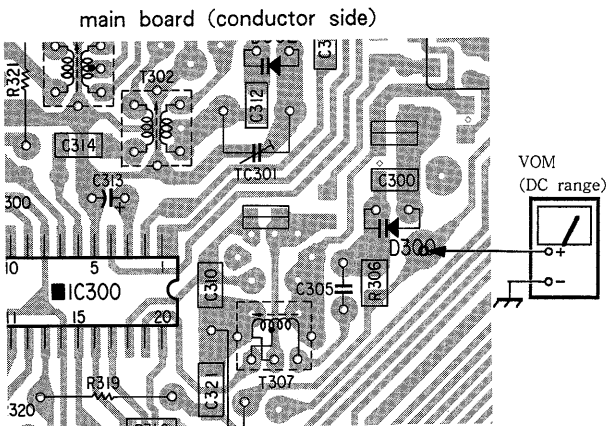
1. Adjust VR301 at the point where the VOM reading changes from low to high.

**Adjustment Location :** main board



AM OSC Voltage Adjustment

Setting :



Procedure :

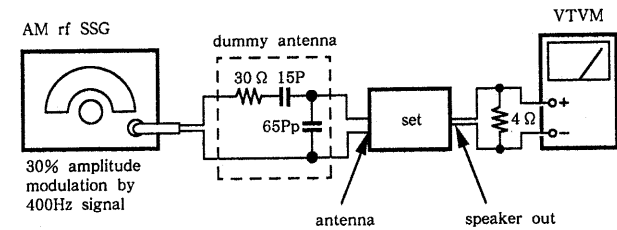
- 1. Set BAND selector switch to MW.
- 2. Adjust T307 so that the VOM reading satisfies the specification.

Specification

530kHz :  $1.1 \pm 0.05V$   
1,710kHz : 7.0—7.8V

AM IF, Tracking Adjustment

Setting :

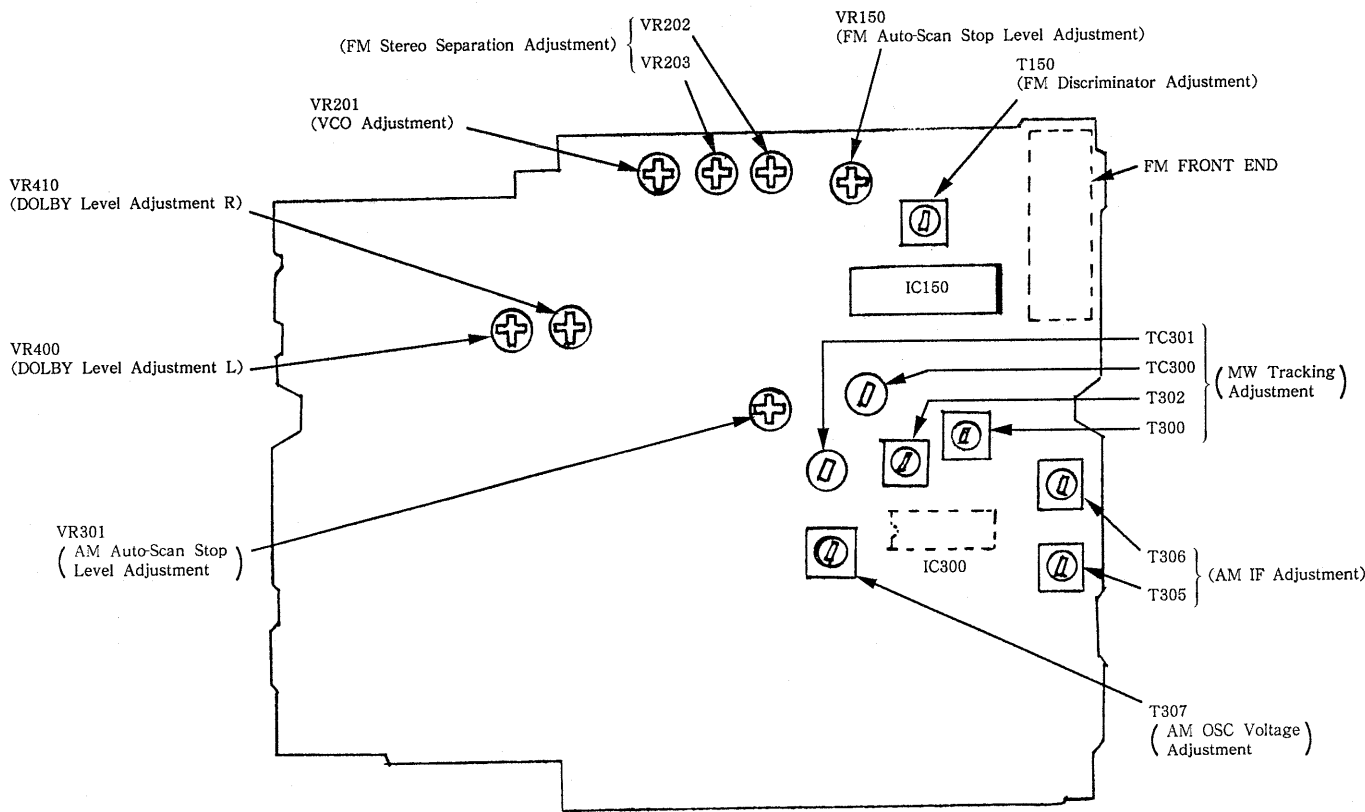


AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T305, 306	450kHz

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T300, 302	600kHz
TC300, 301	1,400kHz

ADJUSTMENT LOCATION

[MAIN BOARD] (COMPONENT SIDE)



SECTION 3  
DIAGRAMS

## • SEMICONDUCTOR LOCATION

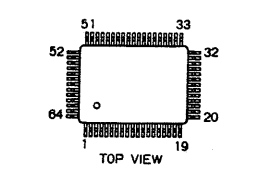
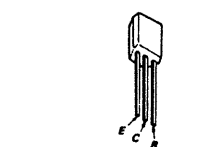
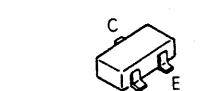
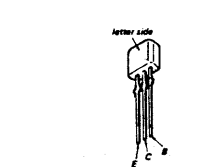
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
IC001	G-5	Q605	H-2	D040	J-23
IC150	B-3	Q608	H-1	D041	J-22
IC201	C-5	Q607	F-9	D042	I-22
IC300	F-2	Q608	I-4	D043	I-23
IC350	B-14	Q609	H-3	D044	I-22
IC400	E-6	Q610	H-2	D045	I-22
IC500	A-16	Q612	D-4	D046	I-18
IC550	D-20	Q613	D-4	D047	I-18
		Q621	E-9	D048	I-17
Q001	H-8	Q622	H-10	D049	J-19
Q002	H-8				
Q003	G-8	Q623	D-9	D050	I-20
Q004	H-9	Q624	D-9	D051	I-19
Q005	H-9	Q625	C-8	D052	J-21
		Q626	F-8	D053	J-20
				D054	J-19
Q006	G-9				
Q055	C-2				
Q150	B-4	D001	H-2	D150	B-4
Q151	C-3	D002	I-3	D202	C-5
Q201	D-5	D006	F-6	D300	E-3
		D007	F-7	D301	D-3
		D008	F-7	D302	E-3
Q202	D-5				
Q301	D-2	D009	F-7	D303	D-2
Q302	E-2	D010	F-6	D304	D-2
Q303	D-2	D021	H-8	D370	A-13
Q370	B-13	D022	H-8	D520	C-16
		D023	G-8	D601	F-10
Q371	B-13				
Q400	D-8	D024	H-6	D602	I-2
Q401	C-8	D025	H-6	D603	I-4
Q410	D-8	D026	H-6	D604	H-4
Q411	C-8	D027	H-6	D605	H-4
		D028	H-6	D606	C-9
Q420	E-8				
Q450	F-16				
Q451	F-16	D029	H-6	D607	D-10
Q460	F-15	D030	I-5	D610	E-9
Q461	F-15	D031	I-5	D611	B-8
		D032	I-5	D612	H-10
Q470	F-16	D034	I-16	D614	G-10
Q550	F-21				
Q560	F-21	D035	I-15	D615	G-9
Q570	G-21	D036	J-18	D617	F-10
Q601	H-2	D037	K-23	D618	G-1
		D038	J-23		
Q602	G-2	D039	I-18		
Q603	H-1				

Note on Mounting Diagram :

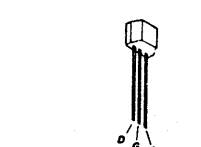
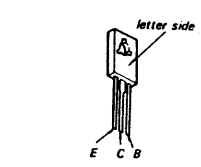
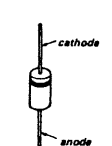
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : parts mounted on the conductor side.
- : Through hole.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.
- : Chip components extracted from the rear side.

## 3-1. SEMICONDUCTORS LEAD LAYOUT

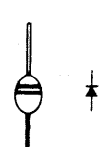
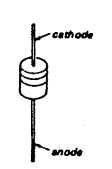
μ PD1723GF-522-3BE

BA1A4Z  
DTA114TS2SA1162  
2SC16232SA1150  
2SC2785-HFE  
2SD1020-F

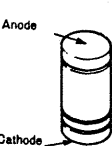
2SK427

2SB772-Q  
2SD882-PHZ6A1L  
EM-1Z  
10E-2

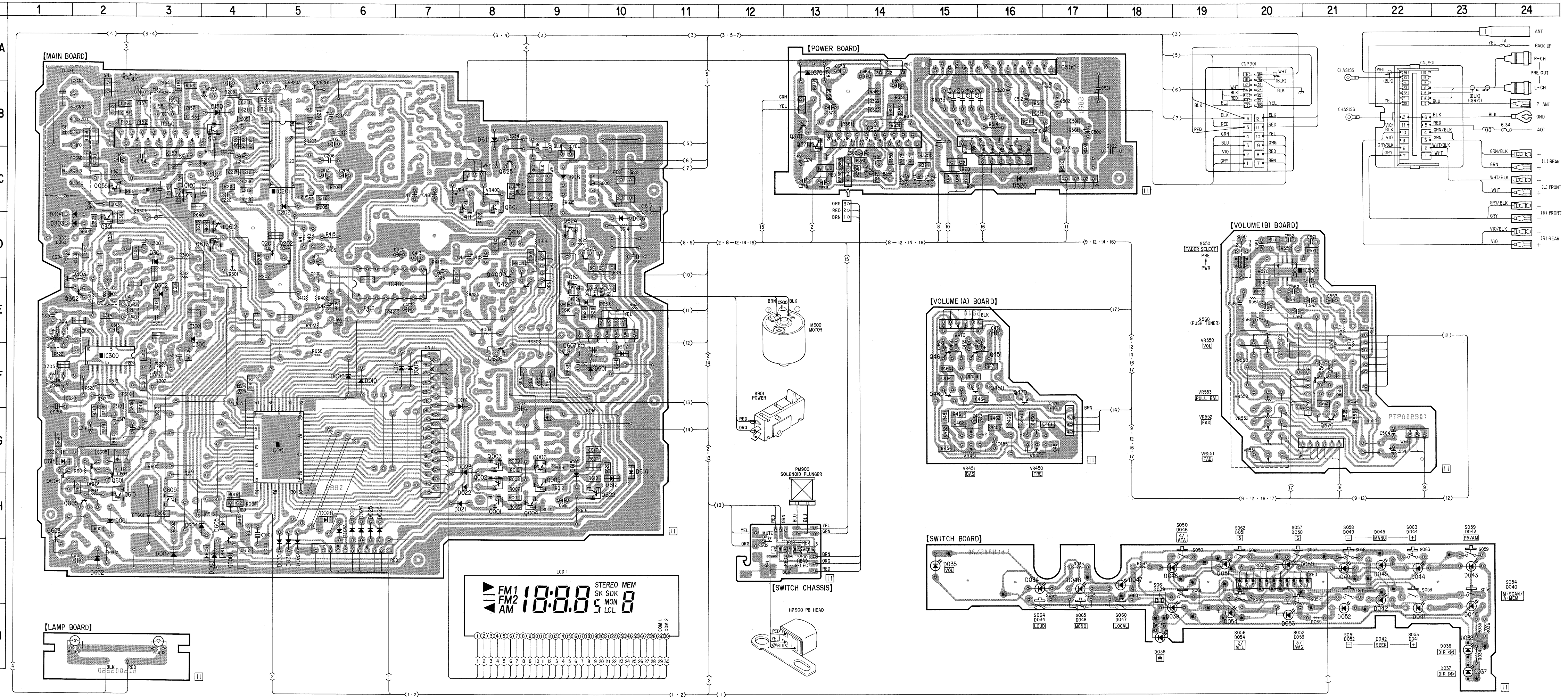
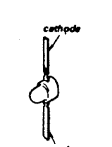
DSA3A4

RD16ESB  
HZ7B2L  
RD10ESB2  
1SS119

RLS-73

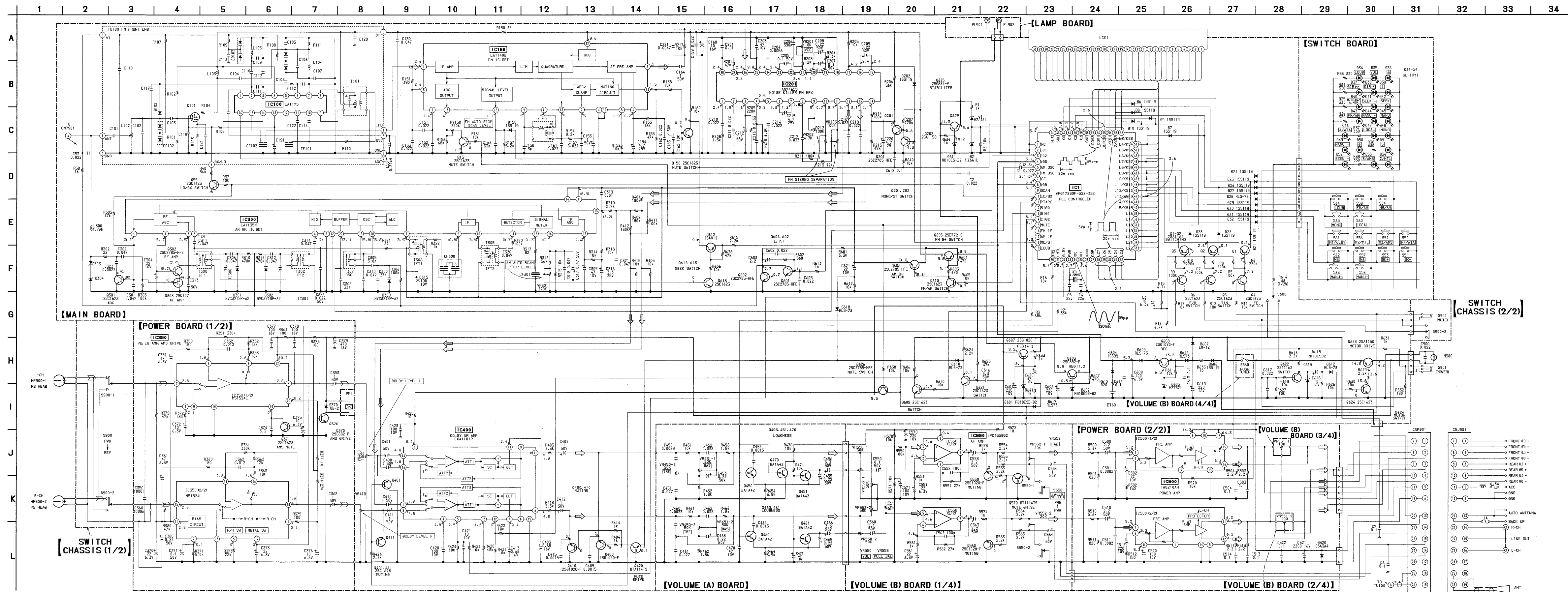


GL-1HY1



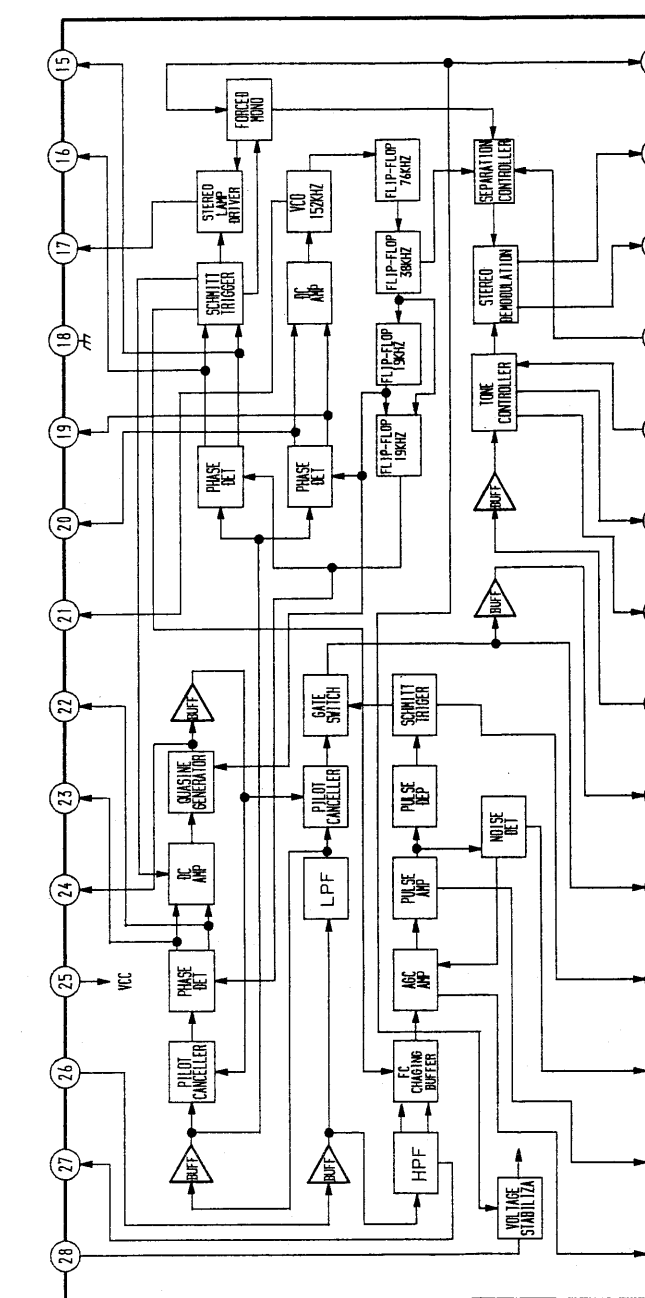


## 3.3. SCHEMATIC DIAGRAM



## • IC BLOCK DIAGRAM

IC201 AN7465S



Note on Schematic Diagram:

- All capacitors are in  $\mu F$  unless otherwise noted.  $pF$  :  $\mu F$
- 50VW or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{2}W$  or less unless otherwise specified.
- : B+ Line
- : adjustment for repair.
- Total current is measured with no cassette installed.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- ( ) : AM
- Voltages are taken with a VOM (input impedance 10M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- ⇒ : FM    ⇨ : PB

## SECTION 4

### EXPLODED VIEWS

**NOTE:**

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.

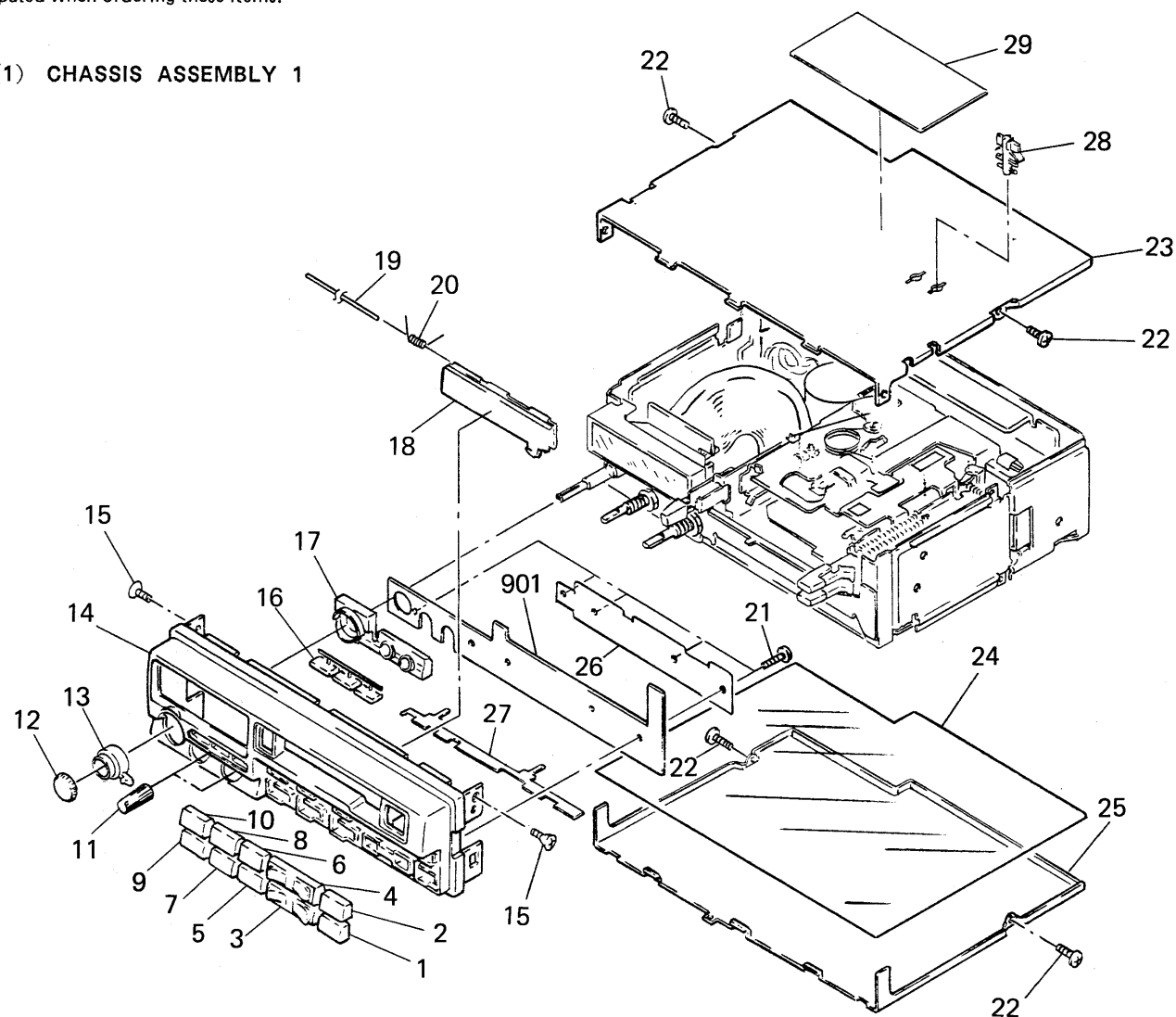
• **Color Indication of Appearance Parts**  
Example:

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

↑                                  ↑

Cabinet's Color                      Parts' Color

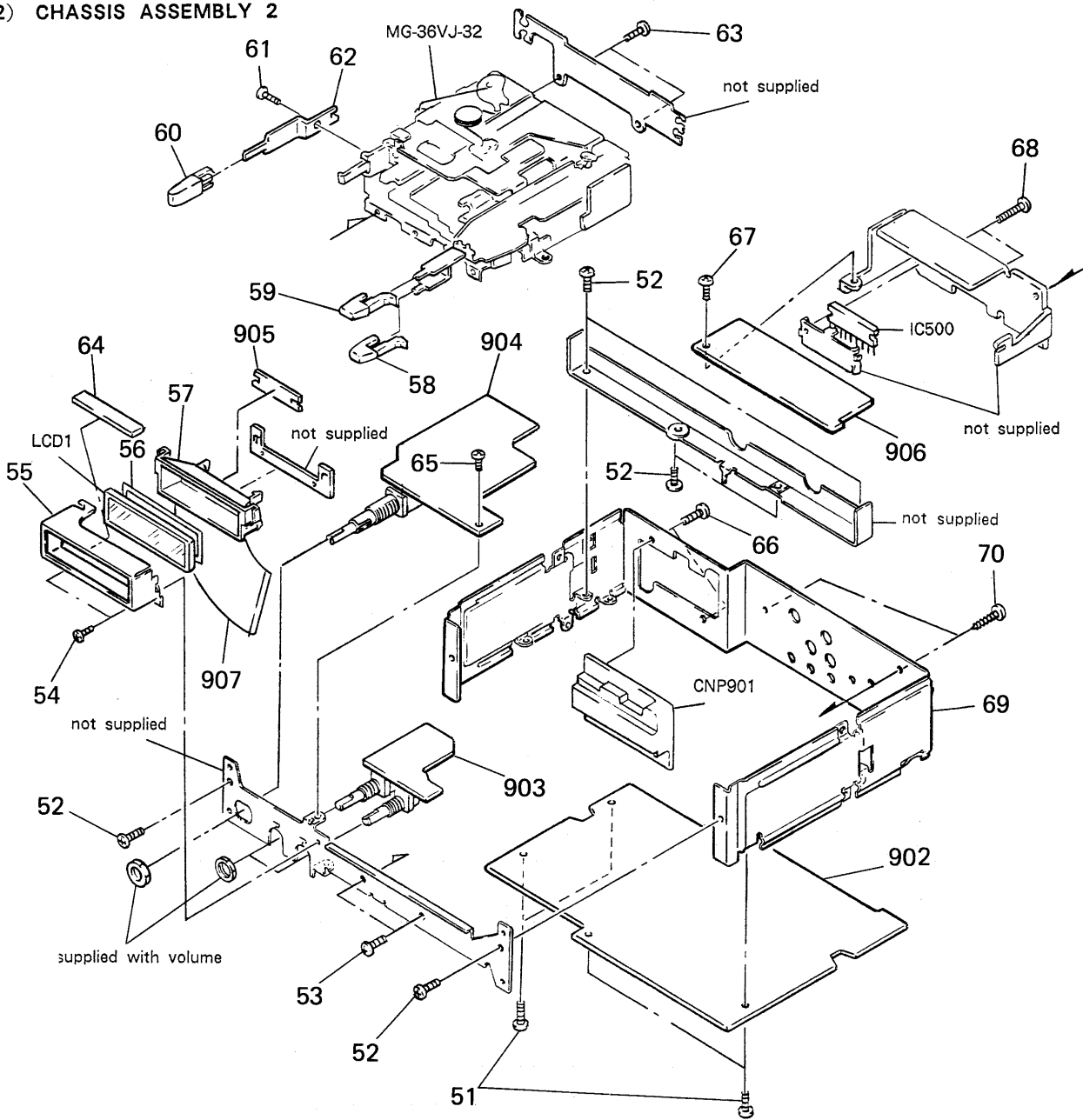
(1) CHASSIS ASSEMBLY 1



No.	Part No.	Description
1	3-396-428-01	BUTTON (FM/AM)
2	3-396-430-01	BUTTON (A.MEM)
3	3-396-426-01	BUTTON (MANU)
4	3-396-427-01	BUTTON (SEEK)
5	3-396-217-01	BUTTON (M6)
6	3-396-220-11	BUTTON (M3)
7	3-396-218-01	BUTTON (M5)
8	3-396-221-11	BUTTON (M2)
9	3-396-219-11	BUTTON (M4)
10	3-396-222-11	BUTTON (M1)
11	X-3393-006-1	KNOB ASSY, TONE
12	X-3393-021-1	KNOB ASSY, VOL
13	3-396-417-01	KNOB, FADER
14	3-396-434-01	PANEL
15	7-621-770-87	SCREW +BVTT 2.6X5 (S)
16	3-396-425-01	BUTTON, FUNCTION
17	3-396-423-01	ILLUMINATOR (VR)

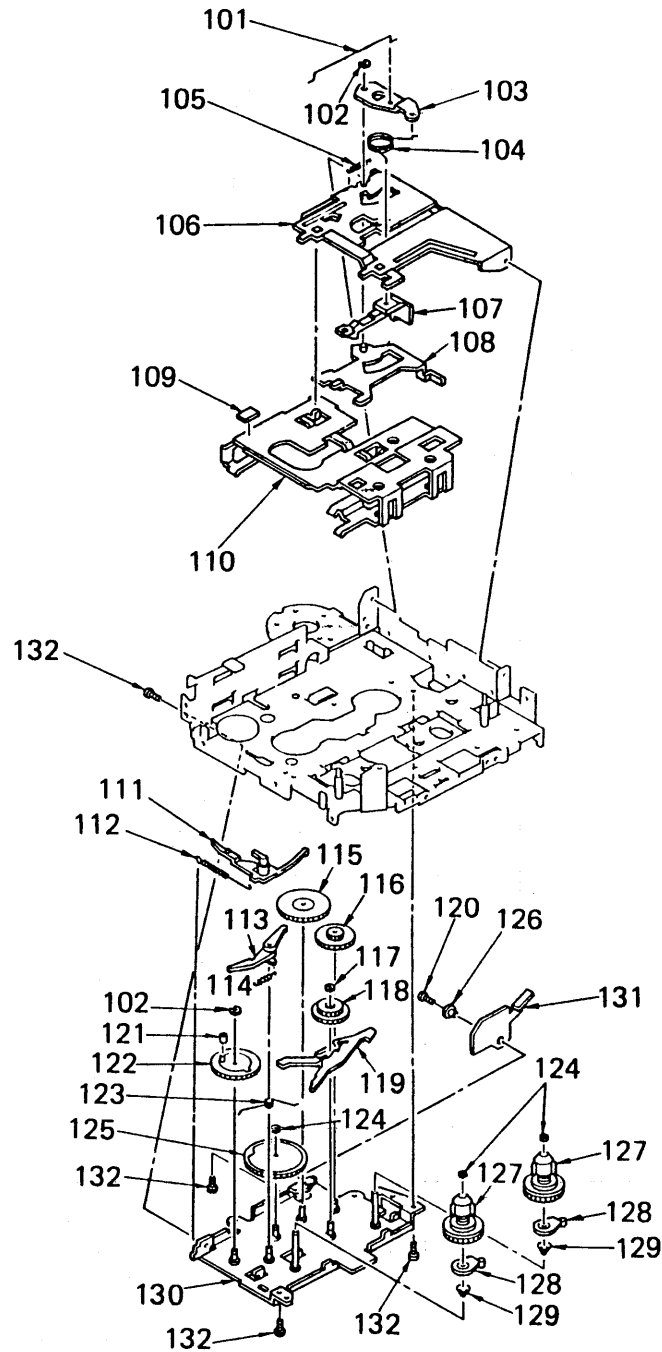
<u>Remarks</u>	<u>No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
	18	X-3393-020-1	DOOR ASSY	
	19	3-350-709-01	SHAFT, CASSETTE DOOR	
	20	3-396-211-01	SPRING	
	21	7-684-025-04	N 5, TYPE 2	
	22	7-682-647-09	SCREW +PS 3X6	
	23	*3-396-441-01	CASE (T)	
	24	*3-396-437-01	INSULATOR (B)	
	25	*3-396-440-01	CASE (B)	
	26	3-396-436-01	INSULATOR (A)	
	27	*3-396-410-01	PLATE, DISCHARGE	
	28	*3-396-212-01	HOLDER (TRANSIT)	
	29	*3-396-446-01	(Canadian)...LABEL, MODEL NUMBER	
		*3-396-439-01	(US).....LABEL, MODEL NUMBER	
	901	*1-634-756-11	PC BOARD, SWITCH	

(2) CHASSIS ASSEMBLY 2



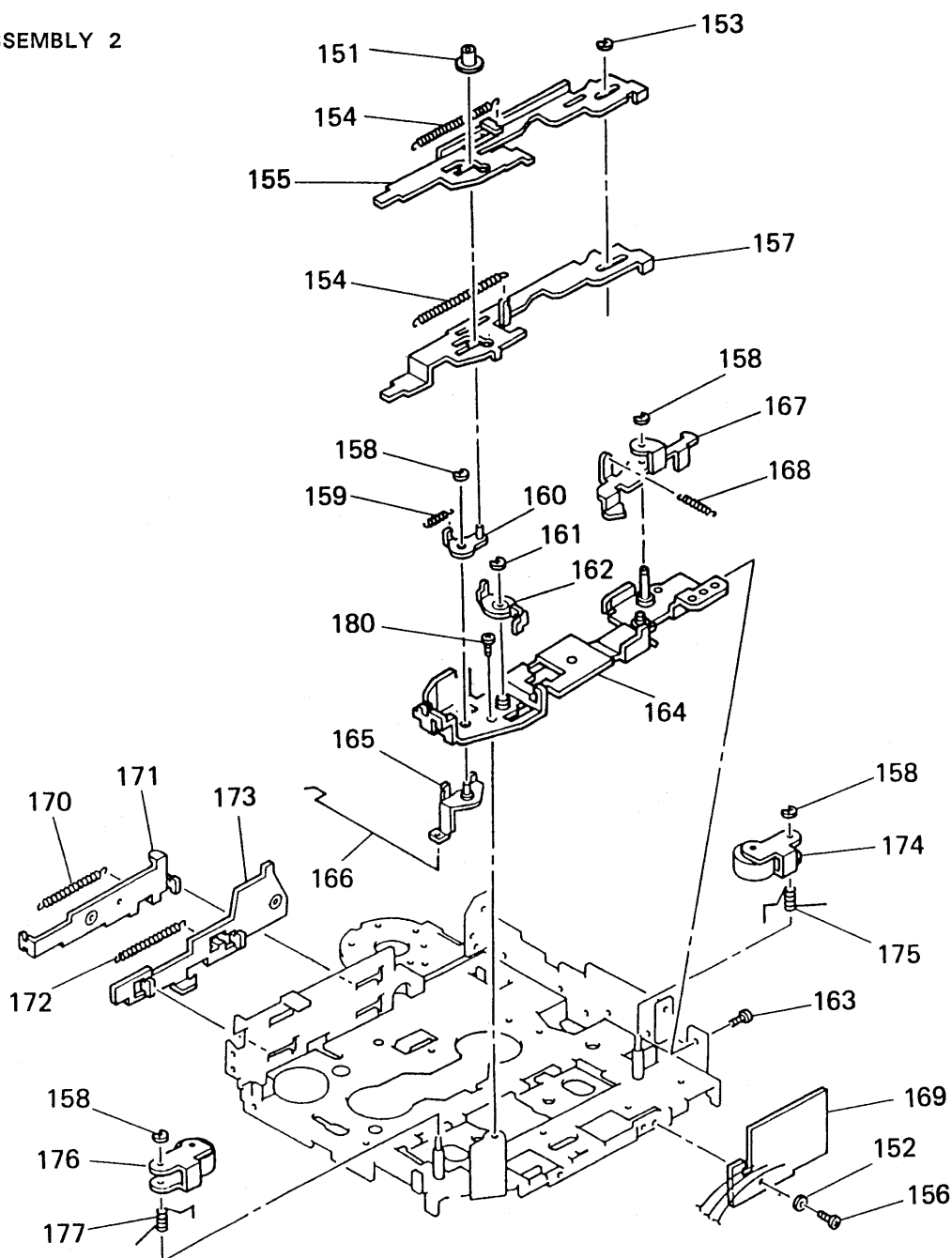
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	7-682-647-09	SCREW +PS 3X6		65	7-621-255-20	SCREW +P 2X4	
52	7-621-773-86	SCREW +BVTT 2.6X4 (S)		66	7-682-548-04	SCREW +B 3X8	
53	7-621-255-35	SCREW +BVTT 2X5 (S)		67	7-621-770-XX	SCREW +BVTT 2.6X8 (S)	
54	7-627-452-28	SCREW, PRECISION +K 2X4		68	7-621-775-50	SCREW +B 2.6X10	
55	*3-396-422-01	CASE, LCD		69	*X-3393-016-1	CHASSIS ASSY, MAIN	
56	*3-396-411-01	PLATE, LIGHT		70	7-682-548-09	SCREW +B 3X8	
57	*3-396-424-01	HOUSE, LAMP		902	*A-3261-140-A	MOUNTED PCB, MAIN	
58	X-3393-018-1	BUTTON ASSY, REW		903	*1-634-464-11	PC BOARD, VOLUME (A)	
59	X-3393-017-1	BUTTON ASSY, FF		904	*1-634-465-11	PC BOARD, VOLUME (B)	
60	X-3393-019-1	BUTTON ASSY, EJ		905	*1-634-466-11	PC BOARD, LAMP	
61	7-627-556-08	SCREW +P 2.6X2.8		906	*A-3217-413-A	PC BOARD ASSY, POWER	
62	*3-396-206-01	LEVER, EJ		907	1-634-757-11	PC BOARD, LCD FPC	
63	7-621-775-08	SCREW +P 2.6X3		CNP901	1-575-996-11	CORD (WITH CONNECTOR)	
64	3-396-412-01	CONTACT, LCD		LCD1	1-809-008-11	DISPLAY PANEL, LIQUID CRYSTAL	

(3) MD ASSEMBLY 1



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
101	3-392-969-01	LINK, RETURN		117	3-570-615-00	POLY-WASHER (DIA.1.2)	
102	7-624-104-04	STOP RING 2.0, TYPE -E		118	3-392-915-01	GEAR, IDLE	
103	*3-392-932-01	PLATE, CENTER		119	3-392-986-01	ARM, SENSOR	
104	3-392-961-01	SPRING (B)		120	4-908-792-31	SCREW (B2) (M2X4), TAPPING	
105	3-392-953-01	SPRING		121	3-392-944-01	COLLAR (CELECTER GEAR)	
106	*3-392-973-01	HANGER, CASSETTE		122	3-392-987-01	GEAR, SELECTOR	
107	3-392-972-01	HOOKEE, TAPE		123	3-392-960-01	SPRING	
108	*3-392-921-01	LOCK ASSY, EJECT CAM		124	3-676-387-00	POLY-SLIDER (DIA.1.6)	
109	*3-392-968-01	CUSHION, C.H		125	3-392-990-01	GEAR, DETECTION	
110	*3-392-977-01	HOLDER, CASSETTE		126	3-392-946-01	COLLAR, SWITCH ARM	
111	3-392-985-02	RATCHET		127	3-392-910-01	SPINDLE ASSY, REEL	
112	3-392-959-01	SPRING		128	3-392-940-01	CAM, DETECTION	
113	3-392-989-02	ARM, GEAR LOCK		129	3-392-964-01	SPRING, TENSION	
114	3-392-949-02	SPRING		130	*3-392-976-01	BASE ASSY, REEL	
115	3-392-937-01	GEAR (B)		131	*3-392-982-01	ARM, SWITCH	
116	3-392-936-01	GEAR (A)		132	*4-908-792-11	SCREW (B2X3), TAPPING, P1	

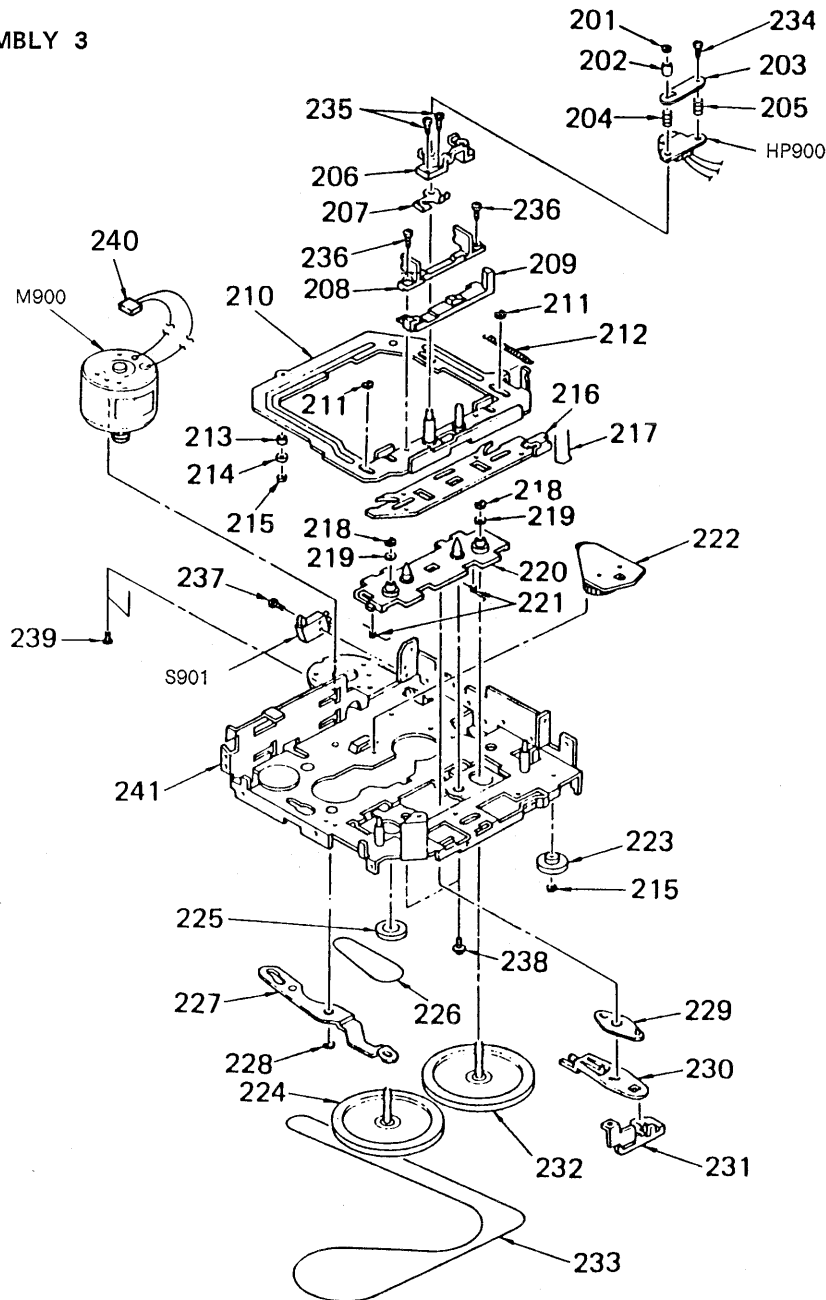
(4) MD ASSEMBLY 2



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151	3-392-994-01	ROLLER, PROGRAM		165	*3-392-920-01	LEVER (A) ASSY, CHANGE	
152	7-623-205-22	SW 2, TYPE 2		166	3-392-966-01	LINK, SELECTOR	
153	7-624-104-04	STOP RING 2.0, TYPE -E		167	*3-392-935-01	ARM, LOCK	
154	3-392-948-01	SPRING		168	3-392-917-01	SPRING	
155	*3-392-991-01	LEVER (Z), FF		169	3-392-970-01	CHASSIS, SWITCH	
156	7-621-255-25	SCREW +PTT 2X4 (S)		170	3-392-950-01	SPRING	
157	*3-392-992-01	LEVER (Z), REW		171	*3-392-978-01	LEVER, EJECT	
158	7-624-102-04	STOP RING 1.5, TYPE -E		172	3-392-951-01	SPRING	
159	3-392-954-01	SPRING		173	*3-392-929-01	CAM ASSY, EJECT	
160	*3-392-924-01	ARM ASSY, PROGRAM		174	*3-392-928-01	ARM (F) ASSY, PINCH	
161	7-624-105-04	STOP RING 2.3, TYPE -E		175	3-392-957-01	SPRING (F)	
162	*3-392-933-01	LEVER (B), CHANGE		176	*3-392-927-01	ARM (R) ASSY, PINCH	
163	7-621-555-10	SCREW +K 2X3		177	3-392-958-01	SPRING (R)	
164	*3-392-993-01	BRACKET ASSY, LEVER					

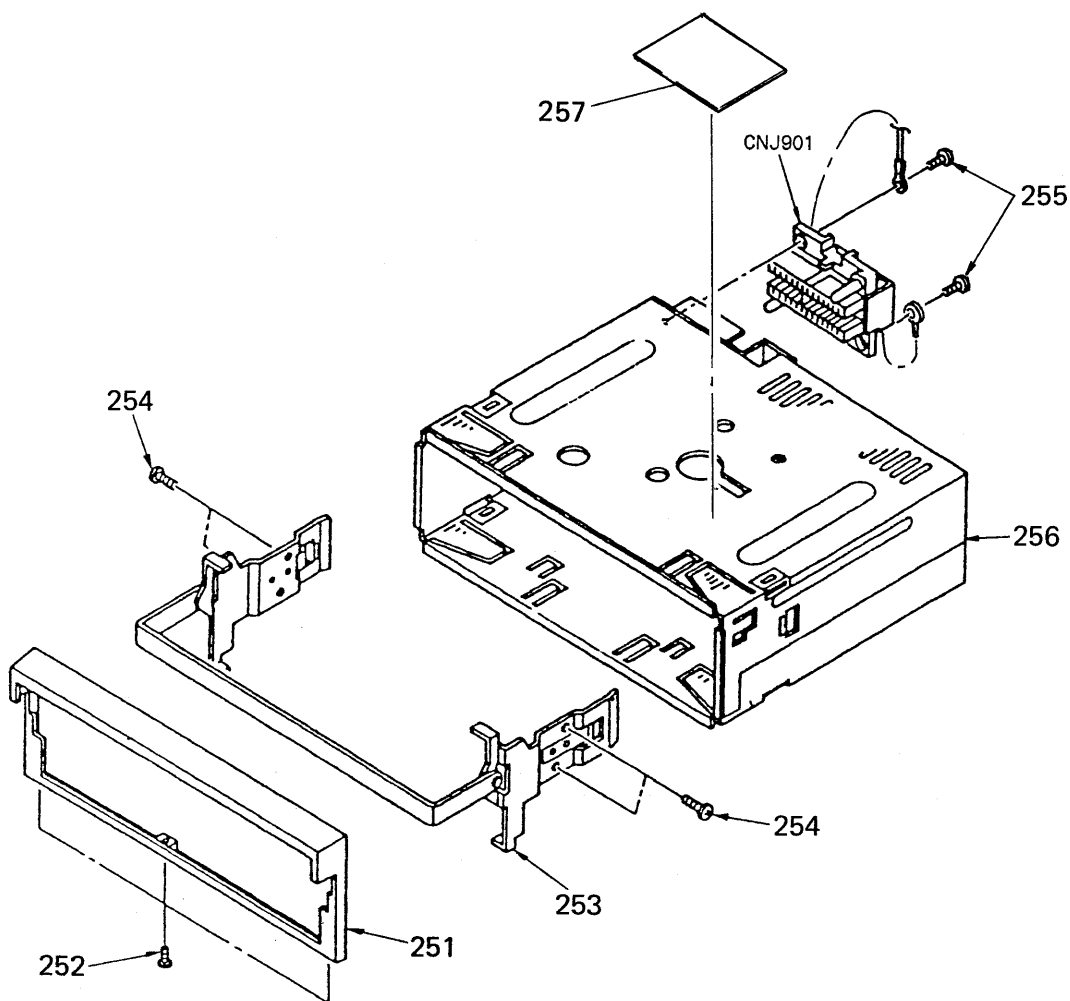


## (5) MD ASSEMBLY 3



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
201	3-676-387-00	POLY-SLIDER (DIA.1.6)		223	3-392-941-01	PULLEY (A), IDLE	
202	3-392-943-01	ROLLER, FF		224	3-392-995-02	FLYWHEEL ASSY (R)	
203	*3-392-930-01	RETAINER, SPRING		225	3-392-938-01	GEAR, PULLY	
204	3-392-956-01	SPRING (A)		226	3-392-965-01	BELT (B), SUB	
205	3-392-955-01	SPRING (A)		227	*3-392-979-01	LEVER, REVERSE	
206	3-392-988-01	ARM, ADJUSTOR		228	7-624-104-04	STOP RING 2.0, TYPE -E	
207	3-392-931-01	SEAM, ADJUSTOR		229	*3-392-925-01	ARM (A) ASSY, F.R	
208	3-392-984-01	GUIDE, TAPE		230	*3-392-939-01	ARM, FF	
209	3-392-971-01	LINK, ADJUSTOR		231	*3-392-934-01	ARM (B), F.R	
210	*3-392-975-02	PLATE ASSY, HEAD		232	3-392-926-02	FLYWHEEL ASSY	
211	7-624-105-04	STOP RING 2.3, TYPE -E		233	3-392-967-01	BELT, MAIN	
212	3-392-952-01	SPRING		234	7-627-553-48	SCREW, PRECISION +P 2X4	
213	3-392-942-01	ROLLER (B), H.P		235	3-392-909-01	SCREW, AZIMUTH ADJUSTMENT	
214	3-392-945-01	ROLLER (A), H.P		236	7-627-553-88	SCREW, PRECISION +P 2X7	
215	3-570-615-00	POLY-WASHER (DIA.1.2)		237	3-318-203-11	SCREW (B1.7X6), TAPPING	
216	*3-392-919-01	ARM ASSY, F,R SELECTION		238	3-392-918-01	SCREW, EJECT HOOK	
217	3-392-962-01	SPRING		239	7-627-853-17	PRECISION SCREW +P 2X2.2 TYPE3	
218	3-590-768-00	RING (A), E		240	*3-392-901-01	CONNECTOR ASSY (2P)	
219	3-701-437-11	POLY-SLIDER (A)		241	*3-392-974-01	CHASSIS ASSY, MAIN	
220	3-392-914-01	BRACKET ASSY, CM		HP900	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
221	3-392-963-01	SPRING (R)		M900	3-392-908-02	MOTOR ASSY	
222	3-392-916-01	ARM ASSY, TU GEAR		S901	1-554-790-11	SWITCH, POWER (TAPE/RADIO)	

## (6) BRACKET ASSEMBLY



No.	Part No.	Description	Remarks
251	3-340-640-11	FRAME, ORNAMENTAL	
252	7-627-553-38	SCREW, PRECISION +P 2X3	
253	*X-3393-001-1	HANDLE ASSY	
254	3-329-814-01	SCREW (M4X6), SPECIAL PAN (+)	
255	7-682-548-04	SCREW +B 3X8	
256	*X-3340-603-3	BRACKET ASSY, SECURITY	
257	*3-396-244-01	LABEL, CAUTION	
CNJ901	1-575-794-11	CORD (WITH CONNECTOR) (SOCKET)	

## SECTION 5 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.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

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

- All resistors are in ohms.
- F: nonflammable

**COILS**

- MMH: mH, UH:  $\mu$ H

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

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description			
901	*1-634-756-11	PC BOARD, SWITCH				C215	1-126-094-11	ELECT 4.7MF	20%	25V	
902	*A-3261-140-A	MOUNTED PCB, MAIN				C216	1-124-252-00	ELECT 0.33MF	20%	50V	
903	*1-634-464-11	PC BOARD, VOLUME (A)				C217	1-163-034-00	CERAMIC CHIP 0.033MF		50V	
904	*1-634-465-11	PC BOARD, VOLUME (B)				C218	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
905	*1-634-466-11	PC BOARD, LAMP				C219	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
906	*A-3217-413-A	PC BOARD ASSY, POWER				C220	1-126-094-11	ELECT 4.7MF	20%	25V	
907	1-634-757-11	PC BOARD, LCD FPC									
BT601	1-528-225-11	BATTERY, LITHIUM				C221	1-163-017-00	CERAMIC CHIP 0.0047MF		50V	
C001	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C300	1-163-167-00	CERAMIC CHIP 27PF	5%	50V	
C002	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C301	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C003	1-126-554-11	ELECT 10MF	20%		6.3V	C302	1-163-075-00	CERAMIC CHIP 0.047MF		50V	
C004	1-163-101-00	CERAMIC CHIP 22PF	5%		50V	C303	1-124-234-00	ELECT 22MF	20%	10V	
C005	1-163-101-00	CERAMIC CHIP 22PF	5%		50V	C304	1-124-234-00	ELECT 22MF	20%	10V	
C006	1-163-077-00	CERAMIC CHIP 0.1MF			50V	C305	1-136-015-00	FILM 510PF	5%	50V	
C007	1-163-077-00	CERAMIC CHIP 0.1MF			50V	C306	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C053	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C308	1-163-105-00	CERAMIC CHIP 33PF	5%	50V	
C150	1-163-035-00	CERAMIC CHIP 0.047MF			50V	C309	1-124-589-11	ELECT 47MF	20%	10V	
C151	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C310	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C152	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C311	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C153	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C312	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C154	1-126-094-11	ELECT 4.7MF	20%		25V	C313	1-124-438-00	ELECT 1MF	20%	50V	
C155	1-124-438-00	ELECT 1MF	20%		50V	C314	1-163-075-00	CERAMIC CHIP 0.047MF		50V	
C157	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C315	1-124-443-00	ELECT 100MF	20%	10V	
C158	1-163-086-00	CERAMIC CHIP 3PF	0.25PF		50V	C316	1-126-566-11	ELECT 3.3MF	20%	25V	
C159	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C317	1-126-159-11	ELECT 0.47MF	20%	50V	
C160	1-126-157-11	ELECT 10MF	20%		16V	C318	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C161	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C319	1-164-232-11	CERAMIC CHIP 0.01MF		50V	
C162	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C320	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C163	1-163-105-00	CERAMIC CHIP 33PF	5%		50V	C321	1-163-075-00	CERAMIC CHIP 0.047MF		50V	
C164	1-124-002-11	ELECT 1MF	20%		50V	C323	1-163-213-00	CERAMIC CHIP 0.0022MF	10%	50V	
C165	1-124-438-00	ELECT 1MF	20%		50V	C324	1-163-033-00	CERAMIC CHIP 0.022MF		50V	
C201	1-164-232-11	CERAMIC CHIP 0.01MF			50V	C350	1-163-205-00	CERAMIC CHIP 0.001MF	10%	50V	
C203	1-124-589-11	ELECT 47MF	20%		10V	C351	1-126-557-11	ELECT 47MF	20%	6.3V	
C204	1-163-018-00	CERAMIC CHIP 0.0056MF	10%		50V	C352	1-163-022-00	CERAMIC CHIP 0.012MF		50V	
C205	1-124-463-00	ELECT 0.1MF	20%		50V	C353	1-124-438-00	ELECT 1MF	20%	50V	
C206	1-130-013-11	MYLAR 390PF	5%		50V	C360	1-163-205-00	CERAMIC CHIP 0.001MF	10%	50V	
C207	1-124-463-00	ELECT 0.1MF	20%		50V	C361	1-126-557-11	ELECT 47MF	20%	6.3V	
C208	1-124-464-11	ELECT 0.22MF	20%		50V	C362	1-163-022-00	CERAMIC CHIP 0.012MF		50V	
C209	1-124-464-11	ELECT 0.22MF	20%		50V	C363	1-124-438-00	ELECT 1MF	20%	50V	
C210	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C370	1-126-555-11	ELECT 22MF	20%	6.3V	
C211	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C371	1-124-438-00	ELECT 1MF	20%	50V	
C212	1-124-463-00	ELECT 0.1MF	20%		50V	C372	1-126-554-11	ELECT 10MF	20%	6.3V	
C213	1-163-015-11	CERAMIC CHIP 0.0033MF	10%		50V	C373	1-126-555-11	ELECT 22MF	20%	6.3V	
C214	1-163-033-00	CERAMIC CHIP 0.022MF			50V	C374	1-126-162-11	ELECT 3.3MF	20%	50V	
						C375	1-126-554-11	ELECT 10MF	20%	6.3V	
						C376	1-126-554-11	ELECT 10MF	20%	6.3V	

Ref.No.	Part No.	Description			
C377	1-126-101-11	ELECT	100MF	20%	16V
C378	1-126-101-11	ELECT	100MF	20%	16V
C379	1-126-103-11	ELECT	470MF	20%	16V
C380	1-124-464-11	ELECT	0.22MF	20%	50V
C400	1-124-438-00	ELECT	1MF	20%	50V
C401	1-124-438-00	ELECT	1MF	20%	50V
C402	1-124-438-00	ELECT	1MF	20%	50V
C403	1-131-410-00	TANTALUM	0.68MF	20%	16V
C405	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C410	1-124-438-00	ELECT	1MF	20%	50V
C411	1-124-438-00	ELECT	1MF	20%	50V
C412	1-124-438-00	ELECT	1MF	20%	50V
C413	1-131-410-00	TANTALUM	0.68MF	20%	16V
C415	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C420	1-124-443-00	ELECT	100MF	20%	10V
C421	1-126-559-11	ELECT	10MF	20%	10V
C423	1-124-443-00	ELECT	100MF	20%	10V
C450	1-163-054-00	CERAMIC CHIP	0.0039MF	10%	50V
C451	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C452	1-163-034-00	CERAMIC CHIP	0.033MF		50V
C453	1-124-464-11	ELECT	0.22MF	20%	50V
C454	1-163-209-00	CERAMIC CHIP	0.0015MF	10%	50V
C455	1-124-464-11	ELECT	0.22MF	20%	50V
C456	1-126-162-11	ELECT	3.3MF	20%	50V
C460	1-163-054-00	CERAMIC CHIP	0.0039MF	10%	50V
C461	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C462	1-163-034-00	CERAMIC CHIP	0.033MF		50V
C463	1-124-464-11	ELECT	0.22MF	20%	50V
C464	1-163-209-00	CERAMIC CHIP	0.0015MF	10%	50V
C465	1-124-464-11	ELECT	0.22MF	20%	50V
C466	1-126-162-11	ELECT	3.3MF	20%	50V
C470	1-124-589-11	ELECT	47MF	20%	10V
C471	1-124-589-11	ELECT	47MF	20%	10V
C500	1-124-257-00	ELECT	2.2MF	20%	50V
C501	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C502	1-124-234-00	ELECT	22MF	20%	10V
C503	1-136-165-00	FILM	0.1MF	5%	50V
C504	1-136-165-00	FILM	0.1MF	5%	50V
C510	1-124-257-00	ELECT	2.2MF	20%	50V
C511	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V
C512	1-124-234-00	ELECT	22MF	20%	10V
C513	1-136-165-00	FILM	0.1MF	5%	50V
C514	1-136-165-00	FILM	0.1MF	5%	50V
C520	1-124-443-00	ELECT	100MF	20%	10V
C521	1-123-566-00	ELECT	2200MF	20%	16V
C522	1-130-495-00	MYLAR	0.1MF	5%	50V
C550	1-124-463-00	ELECT	0.1MF	20%	50V
C551	1-126-555-11	ELECT	22MF	20%	6.3V
C552	1-102-973-00	CERAMIC	100PF	5%	50V
C553	1-124-257-00	ELECT	2.2MF	20%	50V
C554	1-124-438-00	ELECT	1MF	20%	50V
C560	1-124-463-00	ELECT	0.1MF	20%	50V
C561	1-126-555-11	ELECT	22MF	20%	6.3V
C562	1-102-973-00	CERAMIC	100PF	5%	50V
C563	1-124-257-00	ELECT	2.2MF	20%	50V
C564	1-124-438-00	ELECT	1MF	20%	50V
C570	1-126-176-11	ELECT	220MF	20%	10V

Ref.No.	Part No.	Description			
C571	1-124-443-00	ELECT	100MF	20%	10V
C601	1-126-176-11	ELECT	220MF	20%	10V
C602	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C603	1-124-257-00	ELECT	2.2MF	20%	50V
C605	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C606	1-126-176-11	ELECT	220MF	20%	10V
C608	1-124-225-00	ELECT	100MF	20%	6.3V
C612	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C613	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C614	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C616	1-124-004-11	ELECT	3.3MF	20%	50V
C617	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C618	1-126-157-11	ELECT	10MF	20%	16V
C619	1-124-120-11	ELECT	220MF	20%	16V
C620	1-124-589-11	ELECT	47MF	20%	10V
C621	1-124-234-00	ELECT	22MF	20%	10V
C900	1-161-055-00	CAP, CERAMIC	0.022MF X		
CF300	1-577-105-11	FILTER, CERAMIC			
CF301	1-577-104-11	VIBRATOR, CERAMIC			
CNJ1	1-569-652-11	SOCKET, CONNECTOR 31P			
CNJ901	1-575-794-11	CORD (WITH CONNECTOR) (SOCKET)			
CNP901	1-575-996-11	CORD (WITH CONNECTOR)			
D001	8-719-910-61	DIODE HZ6A1L			
D002	8-719-910-61	DIODE HZ6A1L			
D006	8-719-911-19	DIODE 1SS119			
D007	8-719-911-19	DIODE 1SS119			
D008	8-719-911-19	DIODE 1SS119			
D009	8-719-911-19	DIODE 1SS119			
D010	8-719-911-19	DIODE 1SS119			
D021	8-719-911-19	DIODE 1SS119			
D022	8-719-911-19	DIODE 1SS119			
D023	8-719-911-19	DIODE 1SS119			
D024	8-719-911-19	DIODE 1SS119			
D025	8-719-911-19	DIODE 1SS119			
D026	8-719-911-19	DIODE 1SS119			
D027	8-719-911-19	DIODE 1SS119			
D028	8-719-937-56	DIODE RLS-73			
D029	8-719-911-19	DIODE 1SS119			
D030	8-719-911-19	DIODE 1SS119			
D031	8-719-911-19	DIODE 1SS119			
D032	8-719-911-19	DIODE 1SS119			
D034	8-719-920-80	DIODE GL-1HY1 (LOUD)			
D035	8-719-920-80	DIODE GL-1HY1 (VOL)			
D036	8-719-920-80	DIODE GL-1HY1 (≡)			
D037	8-719-920-80	DIODE GL-1HY1 (DIR>>)			
D038	8-719-920-80	DIODE GL-1HY1 (DIR<<)			
D039	8-719-920-80	DIODE GL-1HY1 (1/□□)			
D040	8-719-920-80	DIODE GL-1HY1 (M-SCAN/A-MEN)			
D041	8-719-920-80	DIODE GL-1HY1 (SEEK +)			
D042	8-719-920-80	DIODE GL-1HY1 (SEEK)			
D043	8-719-920-80	DIODE GL-1HY1 (FM/AM)			
D044	8-719-920-80	DIODE GL-1HY1 (MANU +)			
D045	8-719-920-80	DIODE GL-1HY1 (MANU)			
D046	8-719-920-80	DIODE GL-1HY1 (4/ATA)			
D047	8-719-920-80	DIODE GL-1HY1 (LOCAL)			

Ref.No.	Part No.	Description
D048	8-719-920-80	DIODE GL-1HY1
D049	8-719-920-80	DIODE GL-1HY1 (MANU -)
D050	8-719-920-80	DIODE GL-1HY1 (6)
D051	8-719-920-80	DIODE GL-1HY1 (5)
D052	8-719-920-80	DIODE GL-1HY1 (SEEK -)
D053	8-719-920-80	DIODE GL-1HY1 (3/AMS)
D054	8-719-920-80	DIODE GL-1HY1 (2/MTL)
D150	8-719-911-19	DIODE 1SS119
D202	8-719-911-19	DIODE 1SS119
D300	8-719-903-24	DIODE SVC321SP-A2
D301	8-719-903-24	DIODE SVC321SP-A2
D302	8-719-903-24	DIODE SVC321SP-A2
D303	8-719-110-43	DIODE RD16ESB
D304	8-719-110-43	DIODE RD16ESB
D370	8-719-200-02	DIODE 10E-2
D520	8-719-945-59	DIODE DSA3A4
D601	8-719-110-17	DIODE RD10ESB2
D602	8-719-110-17	DIODE RD10ESB2
D603	8-719-910-75	DIODE HZ7B2L
D604	8-719-104-10	DIODE 1SS99
D605	8-719-937-56	DIODE RLS-73
D606	8-719-911-19	DIODE 1SS119
D607	8-719-300-45	DIODE EM-1Z
D610	8-719-937-56	DIODE RLS-73
D611	8-719-110-17	DIODE RD10ESB2
D612	8-719-937-56	DIODE RLS-73
D614	8-719-937-56	DIODE RLS-73
D615	8-719-110-17	DIODE RD10ESB2
D617	8-719-937-56	DIODE RLS-73
D618	8-719-937-56	DIODE RLS-73
HP900	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)
IC001	8-759-149-63	IC UPD1723GF-522-3BE
IC150	8-759-804-73	IC LA1140B
IC201	8-759-420-82	IC AN7465S
IC300	8-759-822-70	IC LA1135M
IC350	1-808-383-11	IC M51524L
IC400	8-752-034-26	IC CXA1101P
IC500	8-759-230-25	IC TA8210H
IC550	8-759-100-96	IC UPC4558G2
L050	1-410-312-11	INDUCTOR 0.22UH
L300	1-410-324-11	INDUCTOR 4.7UH
LCD1	1-809-008-11	DISPLAY PANEL, LIQUID CRYSTAL
M900	3-392-908-02	MOTOR ASSY
PL901	1-518-635-11	LAMP, PILOT
PL902	1-518-635-11	LAMP, PILOT
Q001	8-729-216-22	TRANSISTOR 2SA1162
Q002	8-729-216-22	TRANSISTOR 2SA1162
Q003	8-729-216-22	TRANSISTOR 2SA1162
Q004	8-729-100-66	TRANSISTOR 2SC1623
Q005	8-729-100-66	TRANSISTOR 2SC1623
Q006	8-729-100-66	TRANSISTOR 2SC1623
Q055	8-729-100-66	TRANSISTOR 2SC1623
Q150	8-729-100-66	TRANSISTOR 2SC1623
Q151	8-729-100-66	TRANSISTOR 2SC1623

Ref.No.	Part No.	Description
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q202	8-729-205-02	TRANSISTOR 2SA1150
Q301	8-729-100-66	TRANSISTOR 2SC1623
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q303	1-808-375-11	TRANSISTOR 2SK427
Q370	8-729-188-23	TRANSISTOR 2SD882-P
Q371	8-729-100-66	TRANSISTOR 2SC1623
Q400	8-729-102-04	TRANSISTOR 2SD1020-F
Q401	8-729-100-66	TRANSISTOR 2SC1623
Q410	8-729-102-04	TRANSISTOR 2SD1020-F
Q411	8-729-100-66	TRANSISTOR 2SC1623
Q420	8-729-904-34	TRANSISTOR DTA114TS
Q450	8-729-142-30	TRANSISTOR BA1A4Z
Q451	8-729-142-30	TRANSISTOR BA1A4Z
Q460	8-729-142-30	TRANSISTOR BA1A4Z
Q461	8-729-142-30	TRANSISTOR BA1A4Z
Q470	8-729-142-30	TRANSISTOR BA1A4Z
Q550	8-729-102-04	TRANSISTOR 2SD1020-F
Q560	8-729-102-04	TRANSISTOR 2SD1020-F
Q570	8-729-904-34	TRANSISTOR DTA114TS
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q602	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q603	8-729-188-23	TRANSISTOR 2SD882-P
Q605	8-729-177-22	TRANSISTOR 2SB772-Q
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q607	8-729-102-04	TRANSISTOR 2SD1020-F
Q608	8-729-102-04	TRANSISTOR 2SD1020-F
Q609	8-729-100-66	TRANSISTOR 2SC1623
Q610	8-729-100-66	TRANSISTOR 2SC1623
Q612	8-729-216-22	TRANSISTOR 2SA1162
Q613	8-729-100-66	TRANSISTOR 2SC1623
Q621	8-729-100-66	TRANSISTOR 2SC1623
Q622	8-729-216-22	TRANSISTOR 2SA1162
Q623	8-729-205-02	TRANSISTOR 2SA1150
Q624	8-729-100-66	TRANSISTOR 2SC1623
Q625	8-729-188-23	TRANSISTOR 2SD882-P
Q626	8-729-119-78	TRANSISTOR 2SC2785-HFE
R001	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R002	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R003	1-249-439-11	CARBON 68K 5% 1/4W
R004	1-216-085-00	METAL GLAZE 33K 5% 1/10W
R006	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R007	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R008	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R009	1-216-097-00	METAL GLAZE 100K 5% 1/10W
R010	1-216-105-00	METAL GLAZE 220K 5% 1/10W
R011	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R012	1-249-429-11	CARBON 10K 5% 1/4W
R013	1-249-429-11	CARBON 10K 5% 1/4W
R015	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W
R016	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R033	1-249-411-11	CARBON 330 5% 1/4W
R034	1-249-411-11	CARBON 330 5% 1/4W
R035	1-249-411-11	CARBON 330 5% 1/4W
R036	1-249-411-11	CARBON 330 5% 1/4W
R037	1-249-411-11	CARBON 330 5% 1/4W
R038	1-249-411-11	CARBON 330 5% 1/4W
R039	1-249-411-11	CARBON 330 5% 1/4W

Ref.No.	Part No.	Description			
R040	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R057	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R058	1-216-198-00	METAL GLAZE	1K	5%	1/8W
R150	1-249-397-11	CARBON	22	5%	1/4W
R151	1-216-188-00	METAL GLAZE	390	5%	1/8W
R152	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R153	1-249-432-11	CARBON	18K	5%	1/4W
R154	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W
R155	1-216-238-00	METAL GLAZE	47K	5%	1/8W
R156	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R157	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R158	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R160	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R161	1-249-429-11	CARBON	10K	5%	1/4W
R162	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R201	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R203	1-249-430-11	CARBON	12K	5%	1/4W
R204	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R206	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R207	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R208	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W
R209	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R210	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W
R211	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R212	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R213	1-216-224-00	METAL GLAZE	12K	5%	1/8W
R214	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R215	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R216	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R217	1-249-429-11	CARBON	10K	5%	1/4W
R302	1-216-158-00	METAL GLAZE	22	5%	1/8W
R303	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R305	1-249-437-11	CARBON	47K	5%	1/4W
R306	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R310	1-247-895-00	CARBON	470K	5%	1/4W
R312	1-247-895-00	CARBON	470K	5%	1/4W
R314	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R315	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R316	1-216-240-00	METAL GLAZE	56K	5%	1/8W
R317	1-249-404-00	CARBON	82	5%	1/4W
R318	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R319	1-249-422-11	CARBON	2.7K	5%	1/4W
R320	1-249-405-11	CARBON	100	5%	1/4W
R321	1-249-404-00	CARBON	82	5%	1/4W
R322	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R350	1-216-031-00	METAL GLAZE	180	5%	1/10W
R351	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R352	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R353	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R360	1-216-031-00	METAL GLAZE	180	5%	1/10W
R361	1-216-258-00	METAL GLAZE	330K	5%	1/8W
R362	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R363	1-216-079-00	METAL GLAZE	18K	5%	1/10W
R364	1-216-025-00	METAL GLAZE	100	5%	1/10W
R371	1-216-114-00	METAL GLAZE	510K	5%	1/10W
R372	1-216-031-00	METAL GLAZE	180	5%	1/10W

Ref.No.	Part No.	Description			
R373	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R374	1-249-434-11	CARBON	27K	5%	1/4W
R375	1-216-174-00	METAL GLAZE	100	5%	1/8W
R377	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R378	1-249-405-11	CARBON	100	5%	1/4W
R379	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R380	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R401	1-249-441-11	CARBON	100K	5%	1/4W
R402	1-247-885-00	CARBON	180K	5%	1/4W
R403	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R404	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R405	1-249-429-11	CARBON	10K	5%	1/4W
R411	1-249-441-11	CARBON	100K	5%	1/4W
R412	1-247-885-00	CARBON	180K	5%	1/4W
R413	1-216-210-00	METAL GLAZE	3.3K	5%	1/8W
R414	1-249-417-11	CARBON	1K	5%	1/4W
R415	1-249-429-11	CARBON	10K	5%	1/4W
R420	1-247-870-11	CARBON	43K	5%	1/4W
R421	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R422	1-249-429-11	CARBON	10K	5%	1/4W
R423	1-249-429-11	CARBON	10K	5%	1/4W
R424	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R425	1-249-393-11	CARBON	10	5%	1/4W
R426	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R451	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R452	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R454	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R456	1-216-204-00	METAL GLAZE	1.8K	5%	1/8W
R461	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R462	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R464	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R466	1-216-204-00	METAL GLAZE	1.8K	5%	1/8W
R470	1-249-429-11	CARBON	10K	5%	1/4W
R471	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R500	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R501	1-216-047-00	METAL GLAZE	820	5%	1/10W
R502	1-249-407-11	CARBON	150	5%	1/4W
R503	1-249-451-11	CARBON	2.2	1%	1/4W
R504	1-249-451-11	CARBON	2.2	1%	1/4W
R510	1-249-426-11	CARBON	5.6K	5%	1/4W
R511	1-216-047-00	METAL GLAZE	820	5%	1/10W
R512	1-216-029-00	METAL GLAZE	150	5%	1/10W
R513	1-249-451-11	CARBON	2.2	1%	1/4W
R514	1-249-451-11	CARBON	2.2	1%	1/4W
R520	1-216-222-00	METAL GLAZE	10K	5%	1/8W
R550	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R551	1-216-049-00	METAL GLAZE	1K	5%	1/10W
R552	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R553	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R554	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R555	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R560	1-216-246-00	METAL GLAZE	100K	5%	1/8W
R561	1-249-417-11	CARBON	1K	5%	1/4W
R562	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R563	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R564	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R565	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W

Ref.No.	Part No.	Description
R570	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R571	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R572	1-249-393-11	CARBON 10K 5% 1/4W
R573	1-249-417-11	CARBON 1K 5% 1/4W
R601	1-249-423-11	CARBON 3.3K 5% 1/4W
R602	1-216-043-00	METAL GLAZE 560 5% 1/10W
R603	1-216-041-00	METAL GLAZE 470 5% 1/10W
R604	1-216-041-00	METAL GLAZE 470 5% 1/10W
R605	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R606	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R607	1-249-413-11	CARBON 470 5% 1/4W
R610	1-249-429-11	CARBON 10K 5% 1/4W
R611	1-216-075-00	METAL GLAZE 12K 5% 1/10W
R612	1-216-196-00	METAL GLAZE 820 5% 1/8W
R613	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R614	1-244-837-00	CARBON 33 1/2W
R615	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R616	1-249-421-11	CARBON 2.2K 5% 1/4W
R619	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R624	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W
R625	1-216-089-00	METAL GLAZE 47K 5% 1/10W
R626	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R627	1-216-073-00	METAL GLAZE 10K 5% 1/10W
R628	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R629	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W
R630	1-249-429-11	CARBON 10K 5% 1/4W
R631	1-249-417-11	CARBON 1K 5% 1/4W
R632	1-249-408-11	CARBON 180 5% 1/4W
R633	1-216-049-00	METAL GLAZE 1K 5% 1/10W
R634	1-249-417-11	CARBON 1K 5% 1/4W
R635	1-249-393-11	CARBON 10 5% 1/4W
R636	1-249-429-11	CARBON 10K 5% 1/4W
R638	1-249-429-11	CARBON 10K 5% 1/4W
R640	1-216-222-00	METAL GLAZE 10K 5% 1/8W
R641	1-216-198-00	METAL GLAZE 1K 5% 1/8W
R642	1-216-222-00	METAL GLAZE 10K 5% 1/8W
S050	1-554-813-21	SWITCH, KEY BOARD (4/ATA)
S051	1-554-813-21	SWITCH, KEY BOARD (SEEK -)
S052	1-554-813-21	SWITCH, KEY BOARD (3/AM3)
S053	1-554-813-21	SWITCH, KEY BOARD (SEEK +)
S054	1-554-813-21	SWITCH, KEY BOARD (M.SCAN/A.MEM)
S056	1-554-813-21	SWITCH, KEY BOARD (2/MTL)
S057	1-554-813-21	SWITCH, KEY BOARD (6)
S058	1-554-813-21	SWITCH, KEY BOARD (MENU -)
S059	1-554-813-21	SWITCH, KEY BOARD (FM/AM)
S060	1-554-813-21	SWITCH, KEY BOARD (LOCAL)
S061	1-554-813-21	SWITCH, KEY BOARD (1/DOLBY)
S062	1-554-813-21	SWITCH, KEY BOARD (5)
S063	1-554-813-21	SWITCH, KEY BOARD (MANU +)
S064	1-554-813-21	SWITCH, KEY BOARD (LOUD)
S065	1-554-813-21	SWITCH, KEY BOARD (MONO)
S550	1-554-222-00	SWITCH, SLIDE (FADER SELECT)
S560	1-241-194-11	RES, VAR (PUSH TUNER)
S600	1-553-906-11	SLIDE SWITCH (ILLUMINATION)
S900	1-554-814-11	SWITCH, SLIDE (FWD/REV)
S901	1-554-790-11	SWITCH, POWER (TAPE/RADIO)
S902	1-571-522-11	SWITCH, LEAF (MUTE)

Ref.No.	Part No.	Description
T150	1-404-724-11	TRANSFORMER, IF (FM)
T300	1-426-498-11	COIL (RF)(MW)
T302	1-426-499-11	COIL (RF)(MW)
T305	1-404-915-11	TRANSFORMER, IF (MW)
T306	1-404-914-11	TRANSFORMER, IF (MW)
T307	1-406-383-11	COIL (OSC)(MW)
TC300	1-141-276-00	CAP, TRIMMER
TC301	1-141-276-00	CAP, TRIMMER
TU100	1-465-460-11	FRONT END (FM)
VR150	1-230-725-11	RES, ADJ, CARBON 220K (FM AUTO SCAN STOP LEVEL)
VR201	1-230-721-11	RES, ADJ, CARBON 10K (VCO)
VR202	1-230-720-11	RES, ADJ, CARBON 4.7K (FM STEREO SEPARATION)
VR203	1-230-634-11	RES, ADJ, CARBON 100K (FM STEREO SEPARATION)
VR301	1-230-635-11	RES, ADJ, CARBON 220K (AM AUTO SCAN STOP LEVEL)
VR400	1-230-634-11	RES, ADJ, CARBON 100K (DOLBY LEVEL L)
VR410	1-230-634-11	RES, ADJ, CARBON 100K (DOLBY LEVEL R)
VR450	1-241-195-11	RES, VAR (TRE)
VR451	1-241-195-11	RES, VAR (BAS)
VR550	1-241-194-11	RES, VAR (VOL)
VR551	1-241-194-11	RES, VAR (FAD)
VR552	1-241-194-11	RES, VAR (FAD)
VR553	1-241-194-11	RES, VAR (PULL BAL)
XT001	1-567-713-11	VIBRATOR, CRYSTAL (4.5MHz)

## ACCESSORY &amp; PACKING MATERIAL

1-532-414-11	FLISE (1 A)
1-532-422-00	FLISE (6.3A)
*3-396-442-01	INDIVIDUAL CARTON
*3-396-448-01	CUSHION (UPPER)
*3-396-449-01	CUSHION (LOWER)
3-336-617-01	BAG, PROTECTION
3-340-687-01	KNOB (HANDLE FITTING)
3-751-562-21	MANUAL, INSTRUCTION
3-751-563-21	MANUAL, INSTRUCTION
7-621-255-20	SCREW +P 2X4

## MOUNTING HARDWARE

501	3-310-655-01	SUPPORT (ND), FITTING
502	3-349-410-01	BUSHING
503	7-682-583-04	SCREW +P 5X40
504	7-684-025-04	N 5, TYPE 2
505	3-302-126-01	SCREW, TAPPING (DIA. 5X20)

