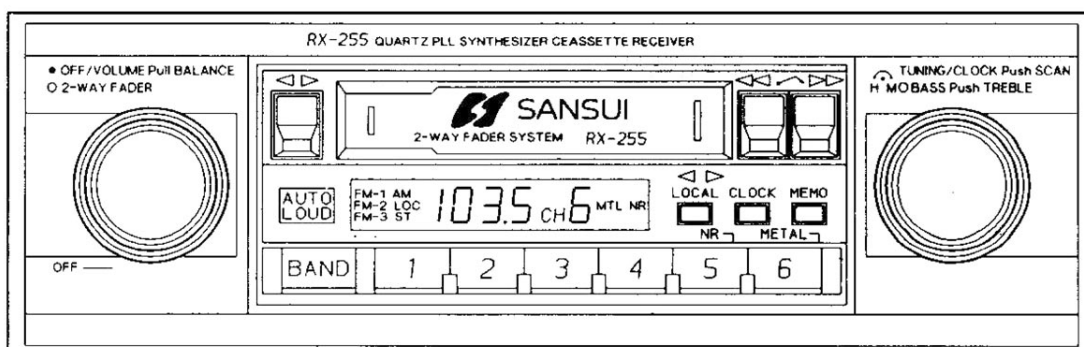




SERVICE MANUAL

RX-255

QUARTZ PLL SYNTHESIZER
CASSETTE RECEIVER



•SPECIFICATIONS

Audio section

Maximum output power.. 8 watts per channel into
4 ohms (1 kHz, 10% total
harmonic distortion)

Rated output power 4 watts per channel into
4 ohms (1 kHz, 1% total
harmonic distortion)

Load impedance..... 4 ohms

Output voltage

PRE-OUT 500 mV/10 kohms

Signal to noise ratio (A network)

..... 80 dB

Controls

BASS/TREBLE ± 10 dB at 100 Hz/10 kHz

AUTO LOUDNESS..... +6 dB at 100 Hz

+2 dB at 8 kHz

(VOLUME: -30dB)

Tape section

Track format 4-track/2-channel system

Tape speed 4.8 cm/sec.

Play back head Hard permalloy, 4-track

Wow/flutter 0.12% max. (WRMS)

Frequency response

Normal (LH) tape 30 to 14,000 Hz ± 3 dB

Metal tape 30 to 15,000 Hz ± 3 dB

Signal-to-noise ratio (with metal tape, A network)

..... Better than 55 dB

Tuner section

(FM)

Tuning range 88 to 107.9 MHz

Usable sensitivity

Mono IHF 14.8 dBf (1.5 μ V/75 ohms)

50 dB quieting sensitivity

Stereo 18.4 dBf

Signal to noise ratio (at 65 dBf)

Stereo/mono 65 dB/70 dB

Frequency response (PRE-OUT)

..... 30 to 15,000 Hz ± 3 dB

(AM)

Tuning range 530 to 1,600 kHz

Usable sensitivity 30 dB/ μ V

(75 ohms at 1,000 kHz)

General

Power requirements DC 12.0V/Rated: 14.4V

(Usable: 10.8 ~ 15.6V)

negative ground

Current consumption 2A Maximum

Dimensions (W x H x D)

Chassis size 178 x 50 x 184 mm

(7-1/16" x 2" x 7-1/4")

Nosepiece 104 x 42 x 34 mm

(4-1/8" x 1-11/16" x 1-3/8")

Front trim panel 190 x 60 mm

(7-1/2" x 2-3/8")

Weight 1.35 kg (2.97 lbs) net

* Design and specifications subject to changes without notice for improvements.

CAUTION

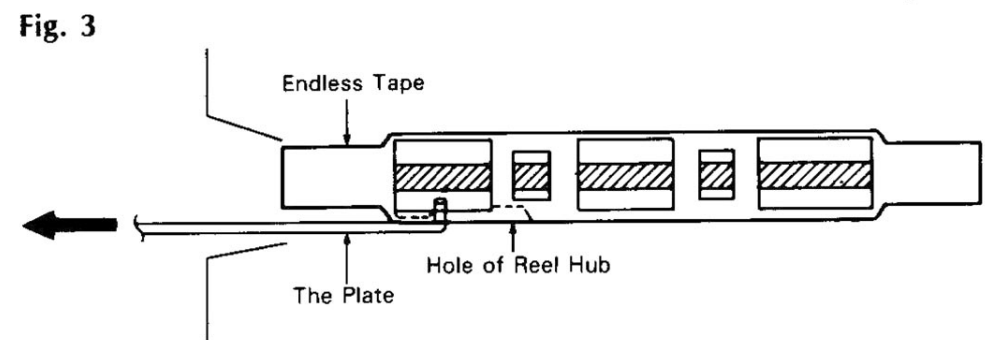
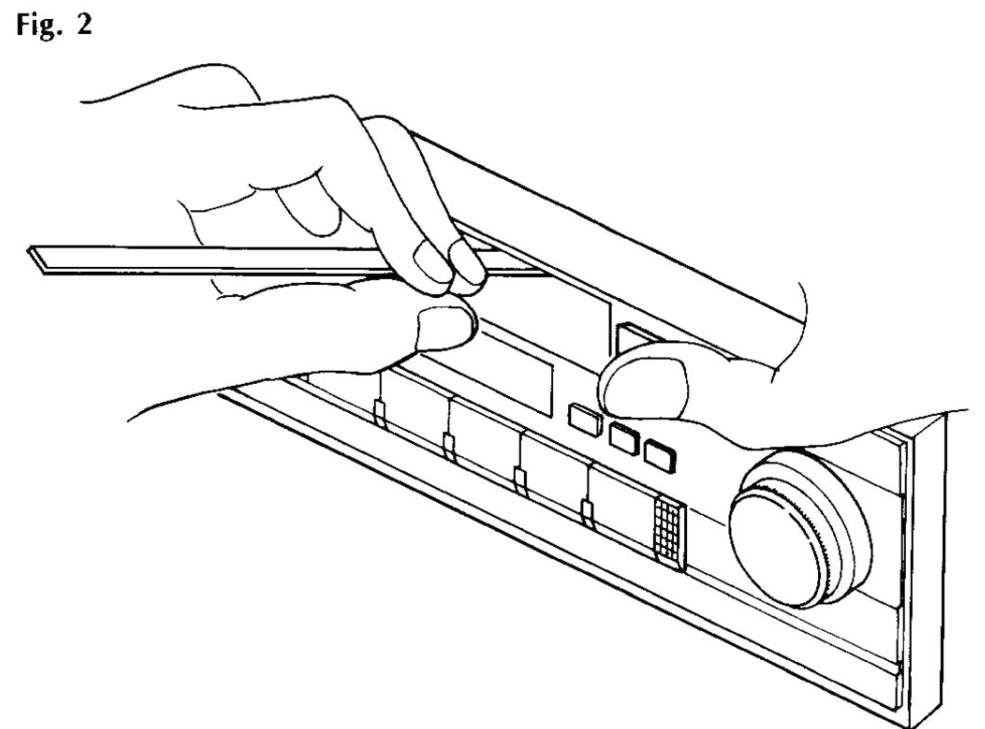
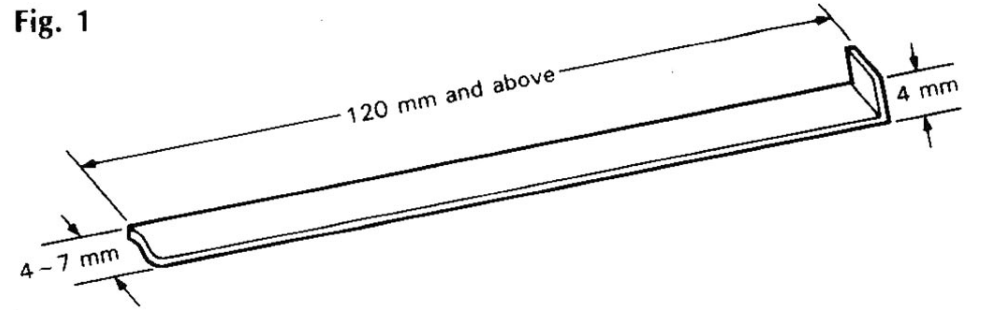
1. Do Not Use Endless Tapes
 If an endless tape is used with this unit, the tape will not be wound up properly inside the cassette shell and, as a result, it will not be possible to use it again. Also, this unit cannot eject a tape which has been inserted with its reverse side facing up. (At this case, refer to How to hook out the endless tapes.)
2. Some printed circuit boards are not supplied assembled. To separate these in this service manual, the stock numbers are not indicated for these boards. However, stock numbers for individual parts are indicated.
3. Since some capacitors and resistors are omitted from parts lists in this service manual, refer to the Common Parts List for capacitors & resistors, which was issued on June 1987.
4. Abbreviations in this service manual are as follows.

•Abbreviations List

C.R.	: Carbon Resistor
S.R.	: Solid Resistor
Ce.R.	: Cement Resistor
M.R.	: Metal Film Resistor
F.R.	: Fusing Resistor
N.I.R.	: Non-Inflammable Resistor
A.R.	: Array Resistor
C.C.	: Ceramic Capacitor
C.T.	: Ceramic Capacitor, Temperature Compensation
E.C.	: Electrolytic Capacitor
E.L.	: Low Leak Electrolytic Capacitor
E.B.	: Bi-Polar Electrolytic Capacitor
E.B.L.	: Low Leak Bi-Polar Electrolytic Capacitor
Ta.C.	: Tantalum Capacitor
F.C.	: Film Capacitor
M.P.	: Metalized Paper Capacitor
P.C.	: Polystyrene Capacitor
G.C.	: Gimmic Capacitor
A.C.	: Array Capacitor
V.R.	: Variable Resistor
S.V.R.	: Semi Variable Resistor
SW.	: Switch
Chip R.	: Chip Resistor
Chip C.	: Chip Capacitor

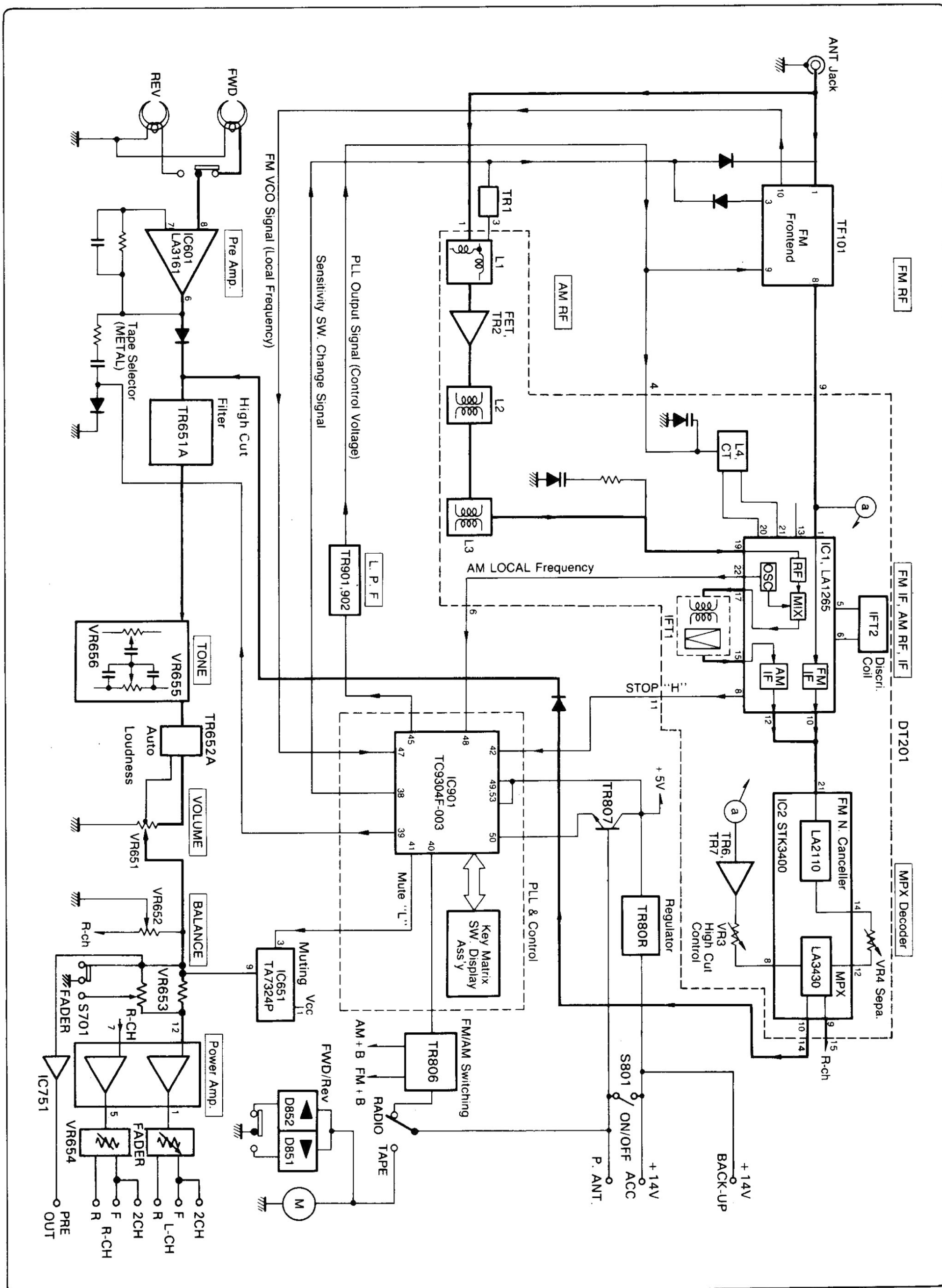
HOW TO HOOK OUT THE ENDLESS TAPES

- 1) Require the plate as Fig. 1.
- 2) Hook the hole of endless tape out of cassette pocket as Fig. 2 and 3 while pushing the FF and REW knobs.



5. For an operation of cassette mechanism, refer to the RX-350 Service Manual.

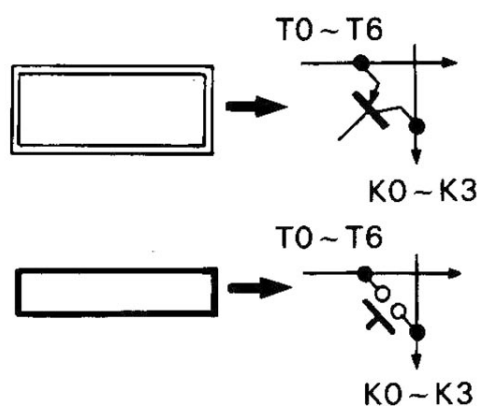
1. BLOCK DIAGRAM



2. FUNCTION OF IC TC9304F-003

•Key Matrix Table

Pin No.		27	26	25	24
Symbol		K3	K2	K1	K0
34	T6	B1	B0	E1	E0
33	T5		LOUD	FWD/REV	TAPE
32	T4	CLOCKen	Ext. data		
31	T3	MS	MONO/ST	CLOCK	LOC
30	T2	SEEK	SCAN	DOWN	UP
29	T1	BAND/MPS	M6/METAL	M5/DOLBY-B	M4/DOLBY-C
28	T0	M3	M2	M1	STO



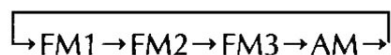
•Reception Band Table

		Reception Band			
B1	B0	1	2	3	4
0	0	FM1	FM2	FM3	MW
0	1	FM1	FM2	FM3	MW/LW
1	0	FM1	FM2	MW	—
1	1	FM1	MW1	MW2	—

* Each FM1, FM2 and FM3 is the same band.
* Each MW1 and MW2 is the same band.

1. Band Selection

When [BAND] key is depressed, the reception band changes in sequence as shown below for each depression or for each request:



2. Scan Tuning

- Tuning operation stops in case where a stop signal is detected in Auto-Search Tuning operated by depressing [SCAN] key.
- Stations are tuned in automatically and held for 5 seconds, after which scanning resumes until the next station is located.
- Depressing this key again will stop scan tuning.

3. Manual Tuning

- When [UP] or [DOWN] key is depressed, tuning advances one step for each depression (one step/one push).
- If the key is kept depressed for 0.5 seconds or more, one step/one push tuning changes to continuous tuning. However, when the key is released, the tuning operation stops.
- When tuning reaches one band edge, the tuning operation jumps to another band edge. After a stop interval of 0.5 seconds, tuning returns to one step/one push tuning or continuous tuning.

4. Preset Memory

- Recall to Preset Memory
Preset memory can be recalled by depressing any one of [M1] to [M6] keys or [STO] key simultaneously.
- Store
When [MEMO] key is kept depressed, the [CH] indications blink for 5-seconds.
When [Mn] key is depressed simultaneously with [MEMORY] key kept depressed, the present frequency is written in the memory, the [CH] indication coming on.
By setting the BAND switch, a total of 18 FM stations (6 stations each for FM-1, FM-2 and FM-3) and as many as 6 AM stations can be preset.

•Function of key matrix section

Labels	Function
STO	When frequency is displayed, the present frequency is written in the memory. When clock is displayed, will permit adjustment of clock display.
M1, M2, M3 M4/DOLBY-C M5/DOLBY-B M6/METAL	Access to preset memory and writing. When unit is tape mode, M4, M5 and M6 are operate for tape function.
BAND/MPS	Band selection and switch for music program search.
UP DOWN	Manual mode tuning: Tuning advances one step for each depression (one step/one push). Auto-search tuning: Tuning operate seek-UP or seek-DOWN.
SEEK	Tuning operate seek-scan UP.
SCAN	Tuning operate hold-scan UP.
LOC	LOC/DX selecting
CLOCK	Clock displaying
MON/ST	FM mode selecting (FM band only)
MS	Broadcast is received in order while reading date stored in each preset memory 7.5 seconds by seconds.
EXT. date	Writing for external tracking date.
CLOCKen	Diode jumper which select existence of clock. "ON" clock.
TAPE	Transistor switch which select tape mode or radio mode.
FWD/REV	Transistor switch which display direction for tape running. "OFF" FWD "ON" REV
LOUD	Transistor switch for loudness display.
E1, E0	Diode jumper for selecting area.
B1, B0	Diode jumper for setting band.

•Reception Range Table

Band	Key-Matrix		Destination	Reception [Hz]	STEP		IF [Hz]
	E1	E0			MANUAL [Hz]	AUTO [Hz]	
FM	0	0	Europe	87.50 ~ 108.00M	50k	50k	+ 10.7M
	0	1	USA	87.9 ~ 107.9M	200k	200k	
	1	0	Japan	76.1 ~ 89.9M	100k	100k	- 10.7M
	1	1	Oceania	87.5 ~ 108.0M	100k	100k	+ 10.7M
MW	0	0	Europe	531 ~ 1602k	9k	9k	+ 450k
	0	1	USA	530 ~ 1620k	10k	10k	
	1	0	Japan	522 ~ 1629k	9k	9k	
	1	1	Oceania	531 ~ 1602k	9k	9k	
LW	0	0	Europe	153/155 ~ 281k	1k	9k	+ 450k

* MW band and LW band operate for one band.
 UP..... LW 281kHz→MW 531kHz→MW 1602kHz→LW 155kHz.....
 DOWN.... MW 1602kHz←LW 153kHz←LW 281kHz←MW 531kHz.....

•Terminal Function of IC TC9304F-003

Pin No.	Pin Name	Input/Output	Description
1 ~ 21 57 ~ 60	S5 ~ S25 S1 ~ S4	Output	Terminal for outputting 7 segment signal for LCD.
22 56	COM1 COM2	Output Output	Terminals for outputting displayed common signals.
23 53	V _{DD1}	—	Terminal for applying a device supply voltage. In the normal operation, a voltage of 5V ± 10% is applied; but in back-up condition, the voltage can be reduced to 2V.
24 ~ 27	K0 ~ K3	Input	Terminal for inputting a key matrix signal. On the other hand, key return timing signals are outputted from output parts T0 ~ T6.
28 ~ 34	T0 ~ T6	Output	Terminal for outputting digit signals to a key return signal source.
35	MONO/ ST	Output	Terminal for outputting a mode signal. "L" level in stereo.
36	ST Ind.	Input	Terminal for inputting a stereo indicator signal.
37	MPS/L	Output	Terminal for outputting a select signal. "H" level in radio mode. "L" level in MPS mode.
38	Dolby-C/ LOC	Output	Terminal for outputting a select signal. "H" level in Local. "L" level in Dolby-C NR.
39	METAL/ LW	Output	Terminal for outputting a select signal. "H" level in METAL mode. "L" level in in LW band.
40	Dolby-B/ FM	Output	Terminal for outputting a select signal. "H" level in FM mode. "L" level in Dolby-B NR.
41	MUTE	Output	Terminal for outputting muting. Active at Low-level. (1) When received signal band changes;

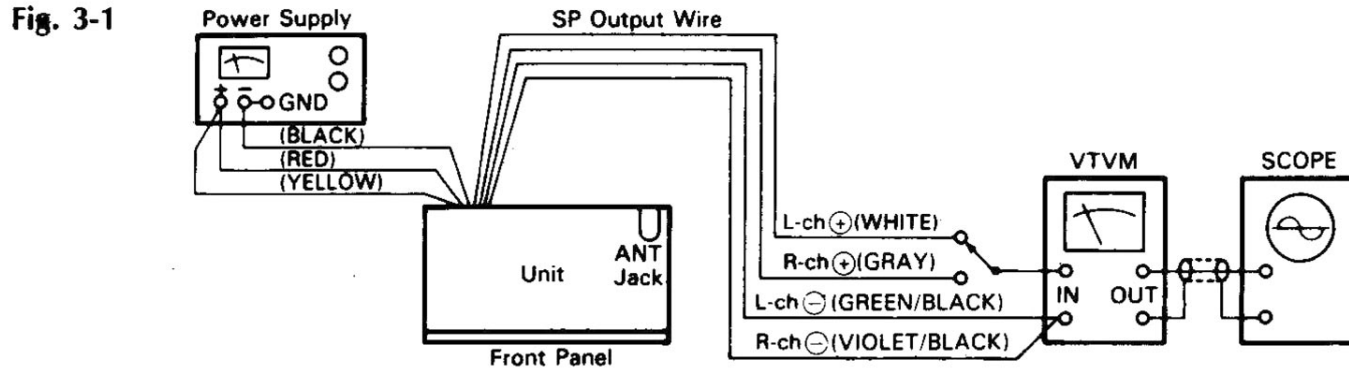
Pin No.	Pin Name	Input/Output	Description
41	MUTE	Output	(2) When TAPE changes; (3) When preset memory is called; (4) When MANUAL UP/DOWN operates; (5) When AUTO UP/DOWN operates; (6) When AUTO SCAN operates; (7) When preset memory SCAN operates; (8) When MPS operates.
42	A-Stop	Input	Terminal for inputting a signal for performing the automatic search stop. When a "H" level signal is applied during automatic search operation, the scanning operation stop.
44 45	DO1 DO2	Output	Terminal for outputting a signal form a phase comparator.
47	FM IN	Input	Terminal for inputting a signal from the FM local OSC.
48	AM IN	Input	Terminal for inputting a signal from the AM local OSC.
49	INT	Input	Terminal for inputting a system resetting signal to device. When INT is at "L" level, the device is reset; when at "H" level, program starts beginning from address No.0. This terminal is usually fixed at "H" level, because the device is reset when a voltage of 4.5V is applied to V _{DD} . (power-on reset)
50	V _{DD2}	Input	Terminal for applying a prescaler supply voltage. In normal operation, a voltage of V _{DD2} ≤ V _{DD1} is applied. This terminal hold INH port in common, and so inputting a radio mode selection signal. Radio-on mode is set at "H" level; radio-off mode is set at "L" level. When this terminal at "L" level, the REF output is fixed at "L" level automatically.
54 55	X _T X _T	— —	Terminals for connecting a quartz oscillator of 7.2 MHz.

3. ADJUSTMENT

3-1. Tape Deck Adjustment

- Note:** 1. Clean the playback head before adjustment.
 2. Prepare the test tape SCT-F10K.
 3. VOLUME, BALANCE & TONE Mechanically center position

4. METAL..... OFF
 5. Connections are shown in Fig. 3-1.



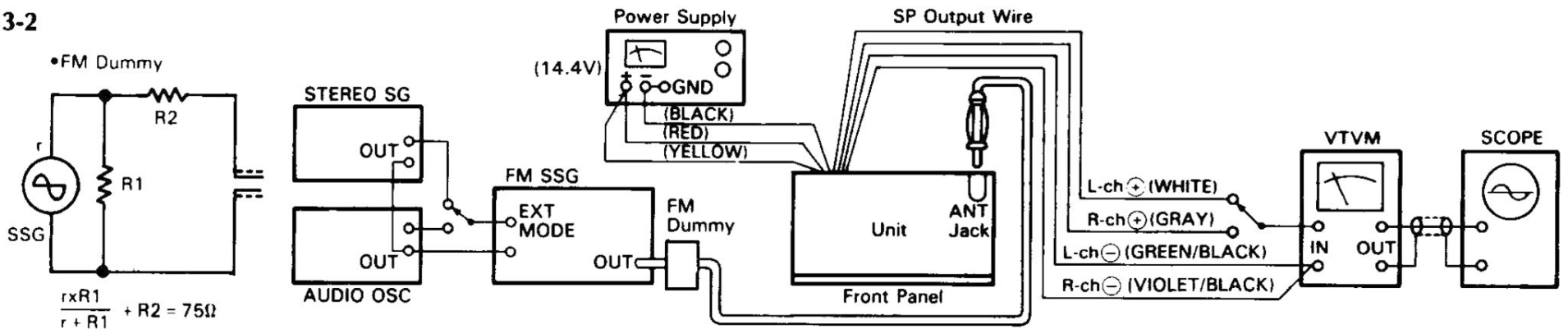
STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT
1.	Head azimuth adjustment	SCT-F10K	L or R-ch SP Output Wire VTVM & Scope	Playback SCT-F10K.	Turn the azimuth screw to obtain maximum output on both FWD and REV PLAY. (See Fig. 3-3)

3-2. FM Adjustment (See Fig. 3-5, 3-6) < Before this adjustment, remove the cassette mechanism chassis. >

< Short the between Point (E) and (F) (Fig. 3-5) and be sure to remove the wire after this adjustment. >

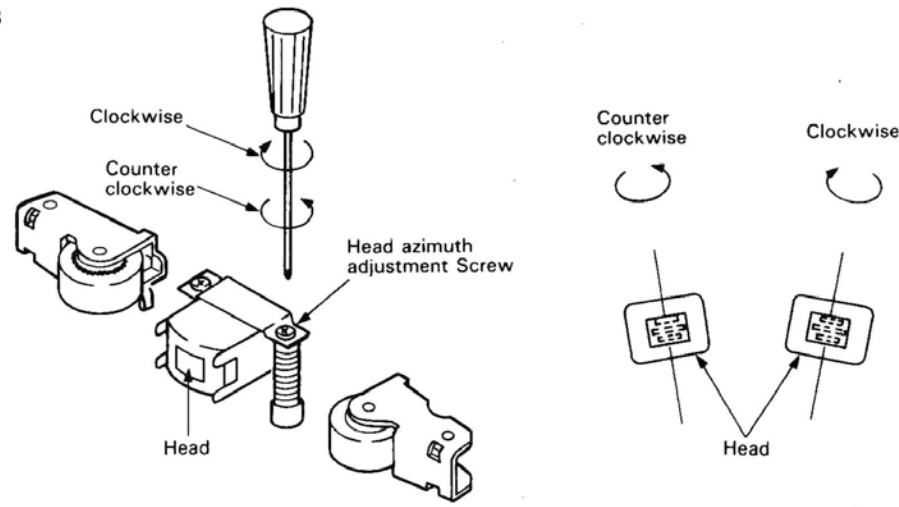
- Note:** 1. BAND FM
 2. VOLUME BALANCE & TONE Mechanically center position
 3. LOCAL OFF
 4. Connections are shown in Fig. 3-2.

Fig. 3-2



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS	
		FROM	TO					
1.	IF Coil Adj.	98MHz ANT Input 18dBf (12.8dB), 1kHz (100% MOD.), FM SSG	ANT Jack & Ground	Between Point (A) (Pin 13 of IC1) & GND DC Volt Meter	IFT Coil (Front-end)	Max. DC Volt		
2.	Discriminator Coil Adj. In case of using Dist meter	1)	98MHz ANT Input 65dBf (59.8dB), No. MOD., FM SSG.	Same as above	Between Point (B) and (C) (Across the R16) (FM IF, AM RF Board) DC Volt Meter	IFT2 (FM IF, AM RF Board)	DC 0V ± 30mV	•Repeat procedures as stated in subject 1) and 2).
		2)	98MHz ANT Input 65dBf (59.8dB), 1kHz (100% MOD.), FM SSG	Same as above	L-ch or R-ch SP Output Wire Dist. Meter & Scope		Min THD	
3.	Separation Adj.	98MHz ANT Input 65dBf (59.8dB), FM SSG. Pilot 19kHz (10% MOD.), L MODE 1kHz + Pilot (100% MOD.) STEREO SG.	Same as above	L-ch SP Output Wire VTVM & Scope	---	Read this indication on VTVM	Confirm L-CH → R-CH	
				R-ch SP Output Wire VTVM & Scope	SVR4 (FM IF, AM RF Board)	-25dB from the indication above.		
4.	Auto Stop Level Adj.	98MHz ANT Input 31.2dBf (26dB) ± 5dBf 1kHz (100% MOD.) FM SG	Same as above	Digital Display	SVR1 (FM IF, AM RF Board)	Tune the tuner to 98MHz by using the automatic search tuning operation.	Confirm the LOCAL position auto stop level. The level is 51.2dBf (46dB) ± 5dB	
5.	High Cut Control Level Adj.	93MHz 49.2dBf (45dB) ± 5dB, FM SSG, Pilot 19kHz (9% MOD.), L MODE 1kHz + Pilot (100% MOD.), STEREO SG.	Same as above	L-ch SP Output Wire VTVM & Scope	---	Read this indica- tion on VTVM	Confirm L-CH → R-CH	
				R-ch SP Output Wire VTVM & Scope	SVR3	-10dB from the indication above.		

Fig. 3-3



◆ Technical Hint for FM Adjustment

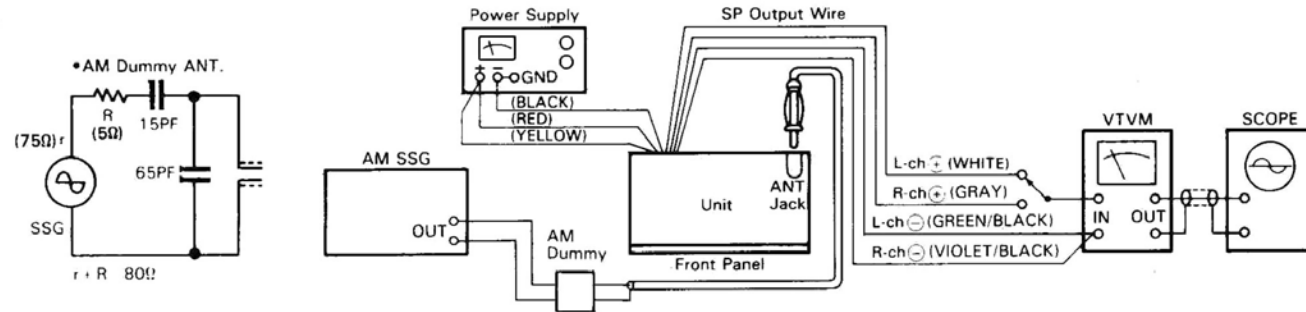
- The impedance of FM antenna terminal is 75Ω. Therefore, connect coaxial cable (3C-2V etc.) between FM SG and antenna terminal when wiring.
- There are two kind in indication of FM SG output attenuator
 - Attenuator with marking of 75Ω open ... open indication type.
 - Attenuator with marking of 75Ω load or close ... load or close indication type.
- FM SG output level in this FM adjustment are described as open indication type. The right table shows relations among FM SG attenuator indication (dB), available power ratio (dBf) and antenna terminal voltage (dB/μV) in each indication type.

	FM SG Attenuator Indication	Available Power Ratio	Antenna Terminal Voltage
Open indication type	0 dB	5.2 dBf	6 dB/μV
	60 dB	65.2 dBf	66 dB/μV
Load or close indication type	0 dB	11.2 dBf	12 dB/μV
	54 dB	65.2 dBf	66 dB/μV

3-3. AM Check and Adjustment (See Fig. 3-5 & 3-6) <Before this adjustment, remove the cassette mechanism chassis.>
<Short the between Point E and F (Fig. 3-5) and be sure to remove the wire after this adjustment.>

- Note: 1. BAND..... AM
 2. VOLUME, BALANCE & TONE..... Mechanically center position
 3. LOCAL..... OFF
 4. Connections are shown in Fig. 3-4.

Fig. 3-4



STEP	SUBJECT	FEED SIGNAL		MEASURE OUTPUT	ADJUST	ADJUST FOR	REMARKS
		FROM	TO				
1.	999kHz (9kHz Step) or 1000kHz (10kHz Step) IF Adj.	999kHz (or 1000kHz) ANT Input, 30dB 400Hz (30% MOD.), AM SSG	ANT Jack & Ground	L or R-ch SP Output Wire VTVM & Scope	IFT1 (FM IF, AM RF Board)	Max. Output	
2.	531kHz (9kHz Step) or 530kHz (10kHz Step) Tuning Adj.	No Input	---	Between Point D & Ground	L4 (FM FM, AM RF Board)	1.2V ± 0.1V	•Repeat procedures as stated in subject in step 2 & 3.
3.	1602kHz (9kHz Step) or 1610kHz (10kHz Step) Tuning Adj.	No Input	---	Same as above	CT (FM IF, AM RF Board)	7.0V ± 0.1V	
4.	auto Stop Level Adj.	999kHz (9kHz step) 1000kHz (10kHz step) 35.2dBf (30dB) ± 5dB (400Hz 30% MOD., AM SSG)	ANT Jack & Ground	Digital Display	SVR2	Tune the tuner to 999kHz (1000kHz) by using the automatic search tuning operation.	Confirm the LOCAL position auto stop level. The level is 55.2dB (50dBf).

Fig. 3-5 Main Board <Component Side>

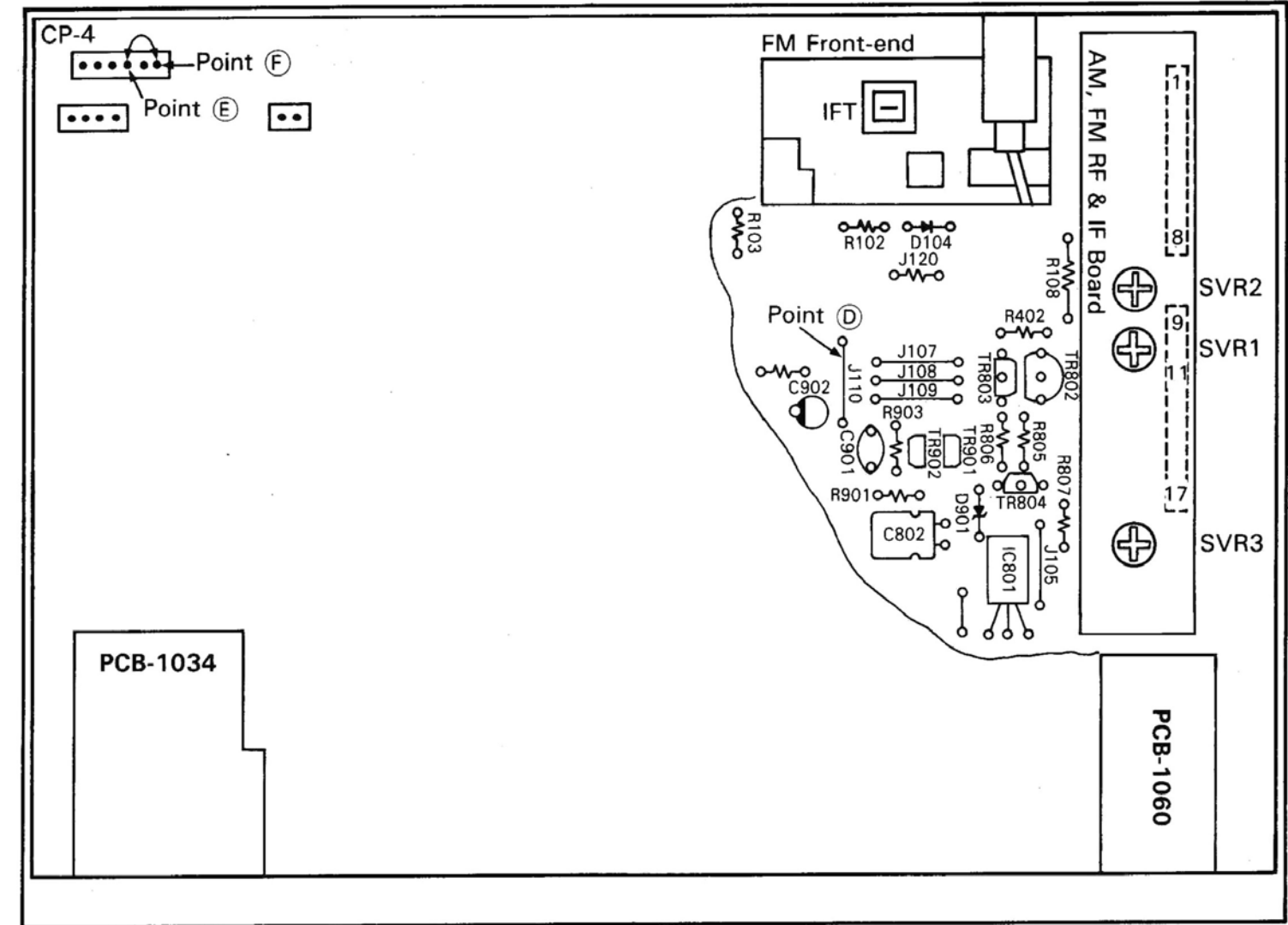
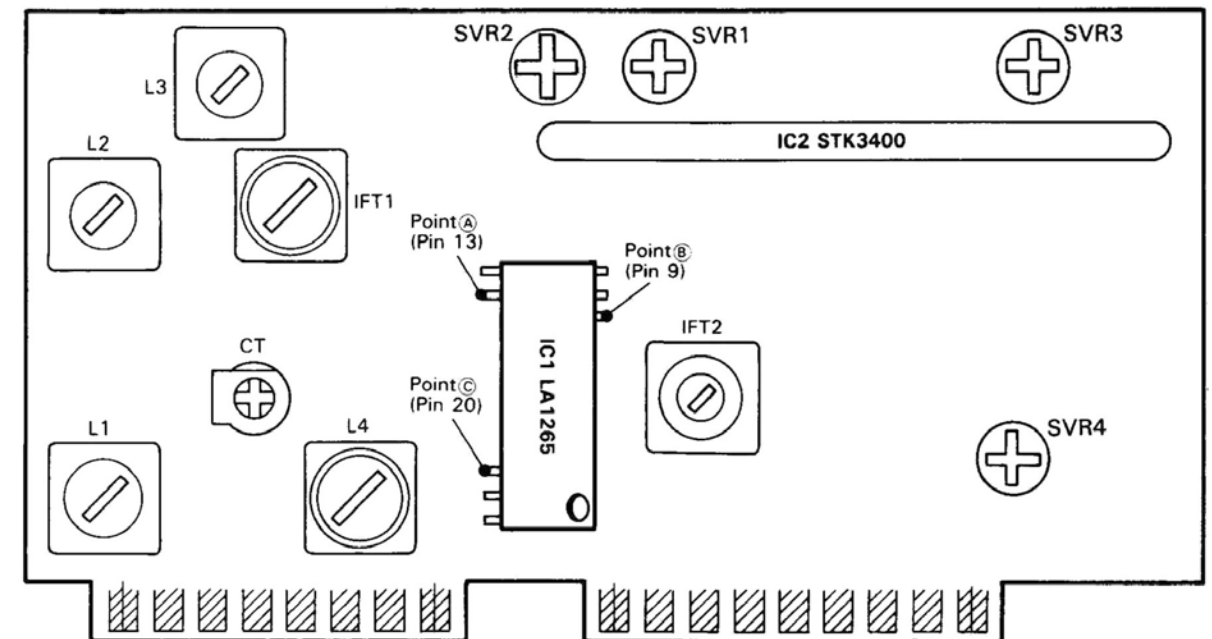


Fig. 3-6 FM, AM, RF & IF Board



4. MAIN PARTS REPLACEMENT

(Refer to exploded view of cassette deck mechanism chassis on page 10.)

A. Cassette Deck Mechanism Chassis (See Fig. 4-2)

- 1) Loosen four screws (a) to remove the bonnet.
- 2) Loosen two screws (1) (1) to remove the control panel ass'y.
- 3) Push both side of control panel to unhook and take off it.
- 4) Loosen three screws (b) (d) to remove deck holder with mechanism chassis.
- 5) Remove wire by soldering iron. They are three points in all, that is wire (A) at slide switch board.
- 6) Take off the mechanism chassis from unit after disconnecting the CP-4. (Refer to overall wiring diagram on page 14.)

B. Sub Frame Ass'y (8), Guide Arm Ass'y (4) and Pack Guide (20)

- 1) Remove the mechanism chassis from unit.
- 2) Remove the click spring (39).
- 3) Remove the E-type washer (48).
- 4) Remove the eject arm (6).
- Note:** Don't lose the swing plate (28).
- 5) Unsolder two points (A) & (B) to remove the slide switch board (18). (See Fig. 4-3 & 4-4)
- 6) Loosen one screw (4) to remove the board (18).
- 7) Loosen two screws (41) to remove the sub frame ass'y (8).
- 8) Take off the guide arm ass'y (4).
- Note:** Don't lose the cassette guide roller (21) and eject roller (3).
- 9) Take off the pack guide (20).

•Mount of Sub Frame Ass'y

- 1) Set the sub frame ass'y to eject state.
- 2) Assemble the pack guide (20) and the guide arm ass'y (4).
- Note:** Confirm that they are spring A (5) and swing arm (8) where they were.
- 3) Set the cassette guide roller (21) at the pin of guide arm ass'y (4).
- 4) Insert pin of guide arm ass'y into the position of sub frame ass'y (8) where it was, and bar ring dowel of sub frame ass'y (8) into the right side hole of guide arm ass'y (4) while taking care not to drop the roller (21). (See Fig. 4-4)
- Note:** Confirm that it is a nail (N) of sub frame ass'y (8) on the pack guide (20). (See Fig. 4-3)
- 5) Engage the left side hole of guide arm ass'y (4) with bar ring dowel of mechanism chassis while holding step 4) state. (See Fig. 4-4)
- 6) Slide the head P ass'y (9) to the arrow direction and put the sub frame ass'y where it was. (See Fig. 4-3)
- Note:** Confirm that it is actuator portion of CH plate (10) in hole of slide switch (18). (See Fig. 4-3)

- 7) Install the sub frame ass'y by two screws (4).
- 8) Resolde five head wires at the change switch board (18) and two points. (Refer to overall wiring diagram on page 14.)
- 9) Set the eject arm (6), E-type washer (48) and click spring (39).

C. P.B. Head (13)

- 1) Remove the sub frame ass'y (8), guide arm ass'y (4) and pack guide (20) from mechanism chassis.
- 2) Loosen two screws (39) (46) to remove the P.B. head (13).
- Note:** Don't lose the spring (60).
- 3) Remove five head wires at P.B. head terminal by soldering iron.

D. Pinch Roller Ass'y F (6) and Pinch Roller Ass'y R (7)

- 1) Remove the sub frame ass'y (8), guide arm ass'y (4) and pack guide (20) from mechanism chassis.
- 2) Remove E-type washer (47) to take off pinch roller ass'y F (6) or R (7).

E. Bottom Sub Ass'y (5), Capstan Belt (19), Flywheel (24), Gear-A (26), Motor Ass'y (11), Tension Pulley (32) and FF Idler Gear (25)

- 1) Remove the mechanism chassis from unit.
- 2) Loosen three screws (45) to remove it (5).
- 3) Take off capstan belt (19) and flywheel (24).
- Note:** Take care not to twist the belt when setting it. Don't lose the thrust washer (34) when inserting the flywheel (24).
- 4) In case of gear-A (26), tension pulley (32) and FF Idler gear (25), remove the washer with cut (30).
- 5) In case of motor ass'y (11), remove two wires at motor terminal by soldering iron and loosen two screws (44).

•Mount of Bottom Sub Ass'y (See Fig. 4-1)

- 1) Set the mechanism to eject state.
- 2) Sure to insert shaft (C) to hole (G).
- 3) Slide gear ass'y (D) (E) to inside while holding step 2) state, because of inserting pins (D) (E) to holes (D) (E).
- 4) Slide the CH plate ass'y to fit the pin (F) and hole (F).
- 5) Confirm that it is fitting the (D) (E) (F) positions and fit the (A) (B) (C) holes.
- 6) Install the bottom sub ass'y by three screws (45).

Fig. 4-2

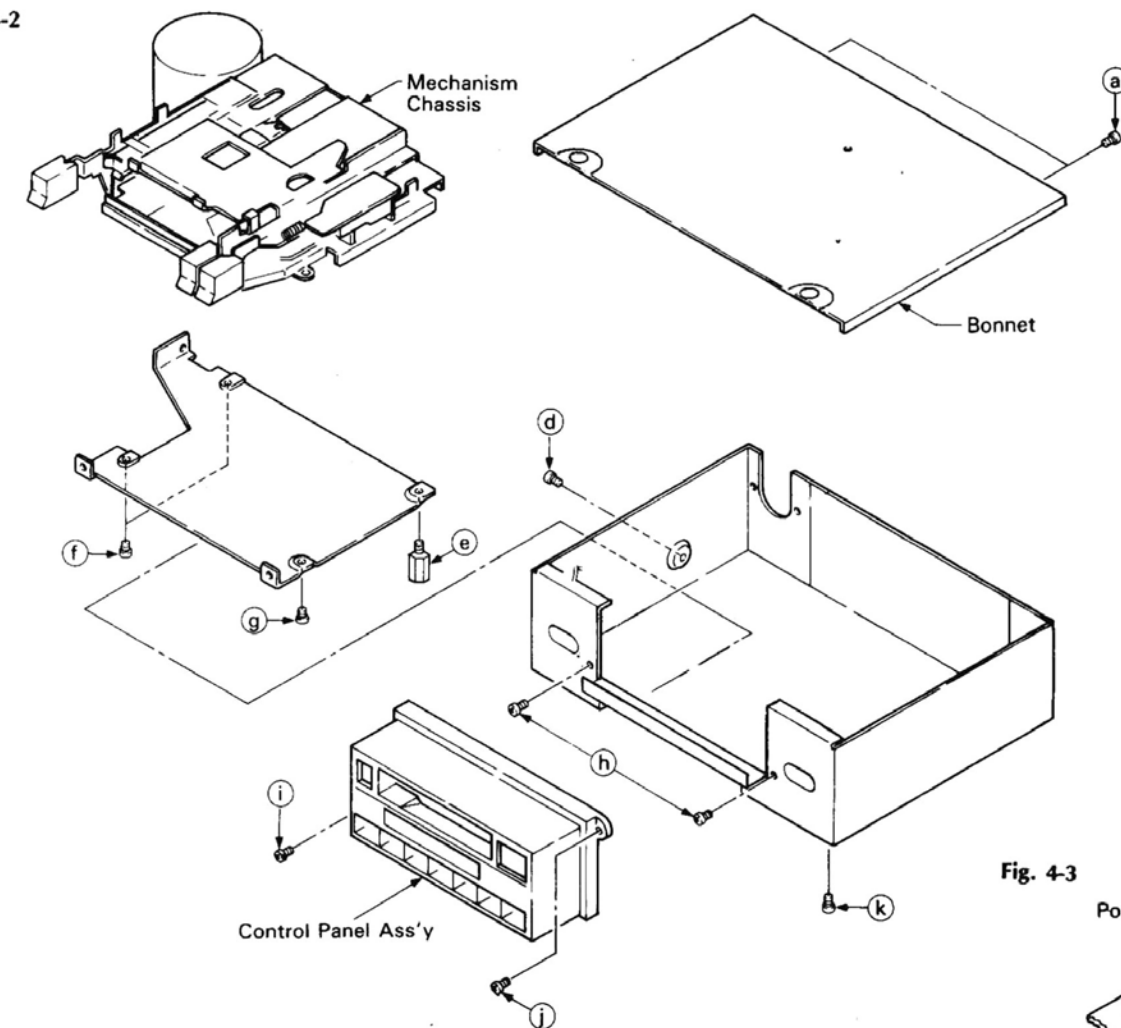


Fig. 4-3

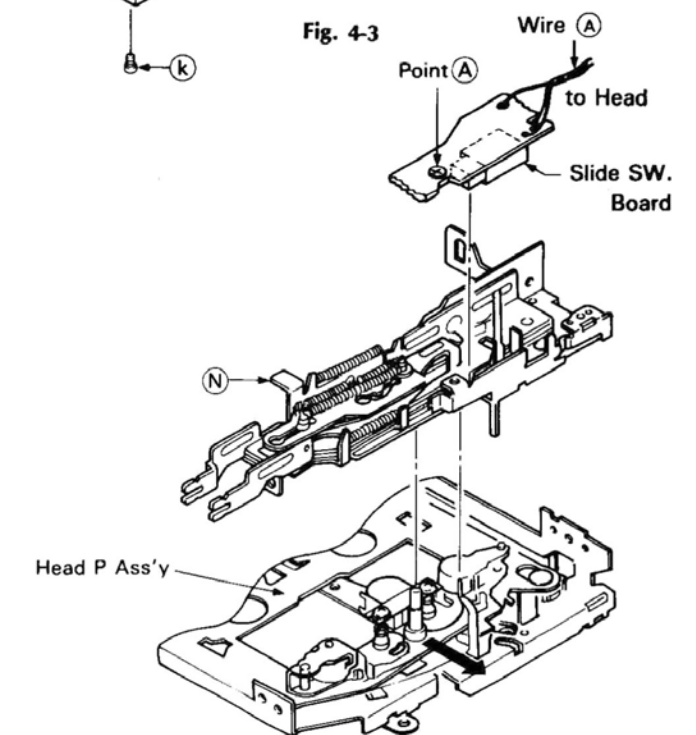


Fig. 4-4

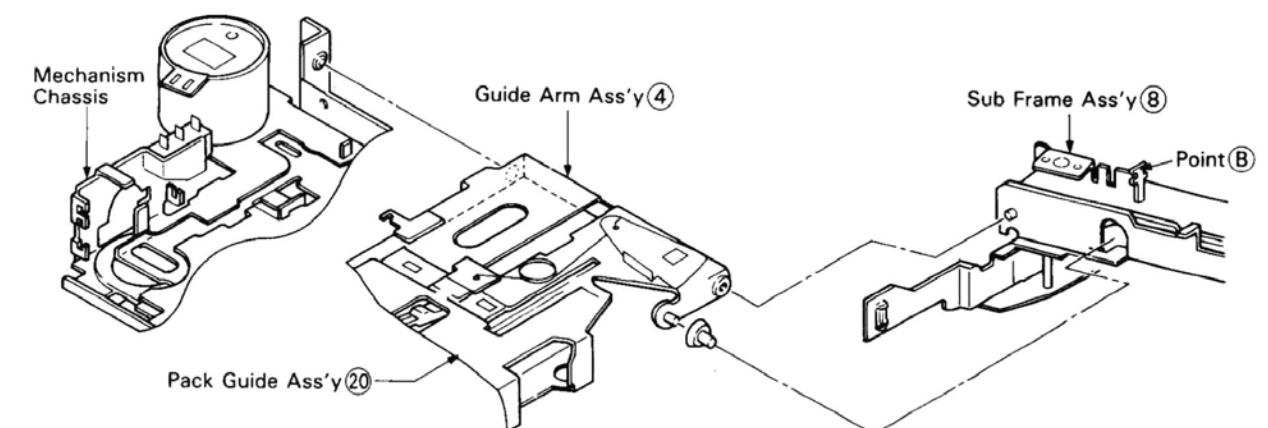
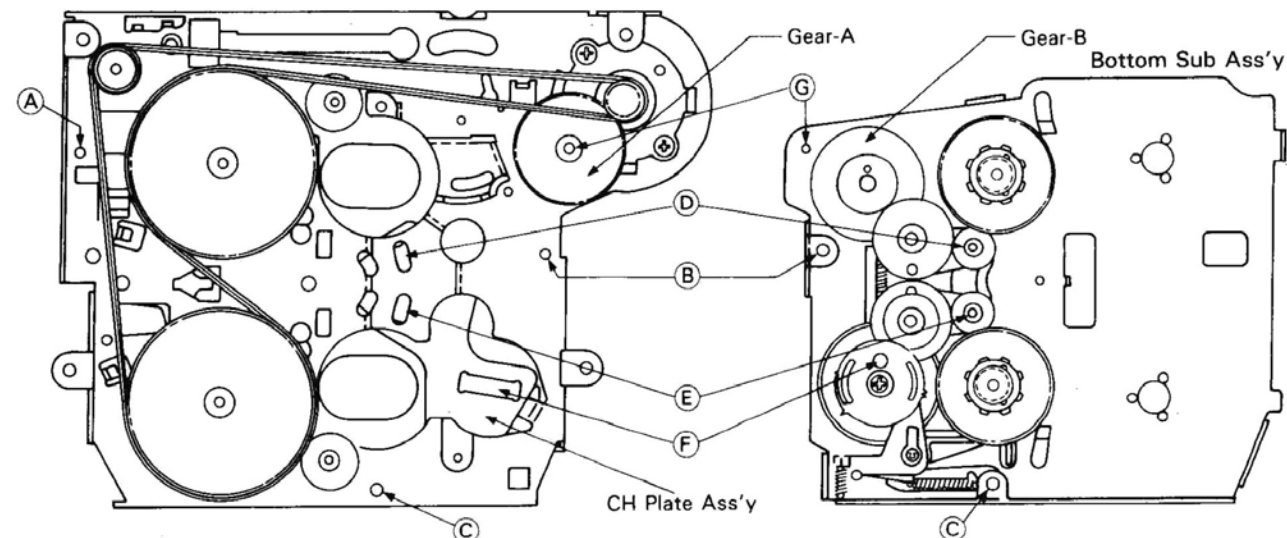


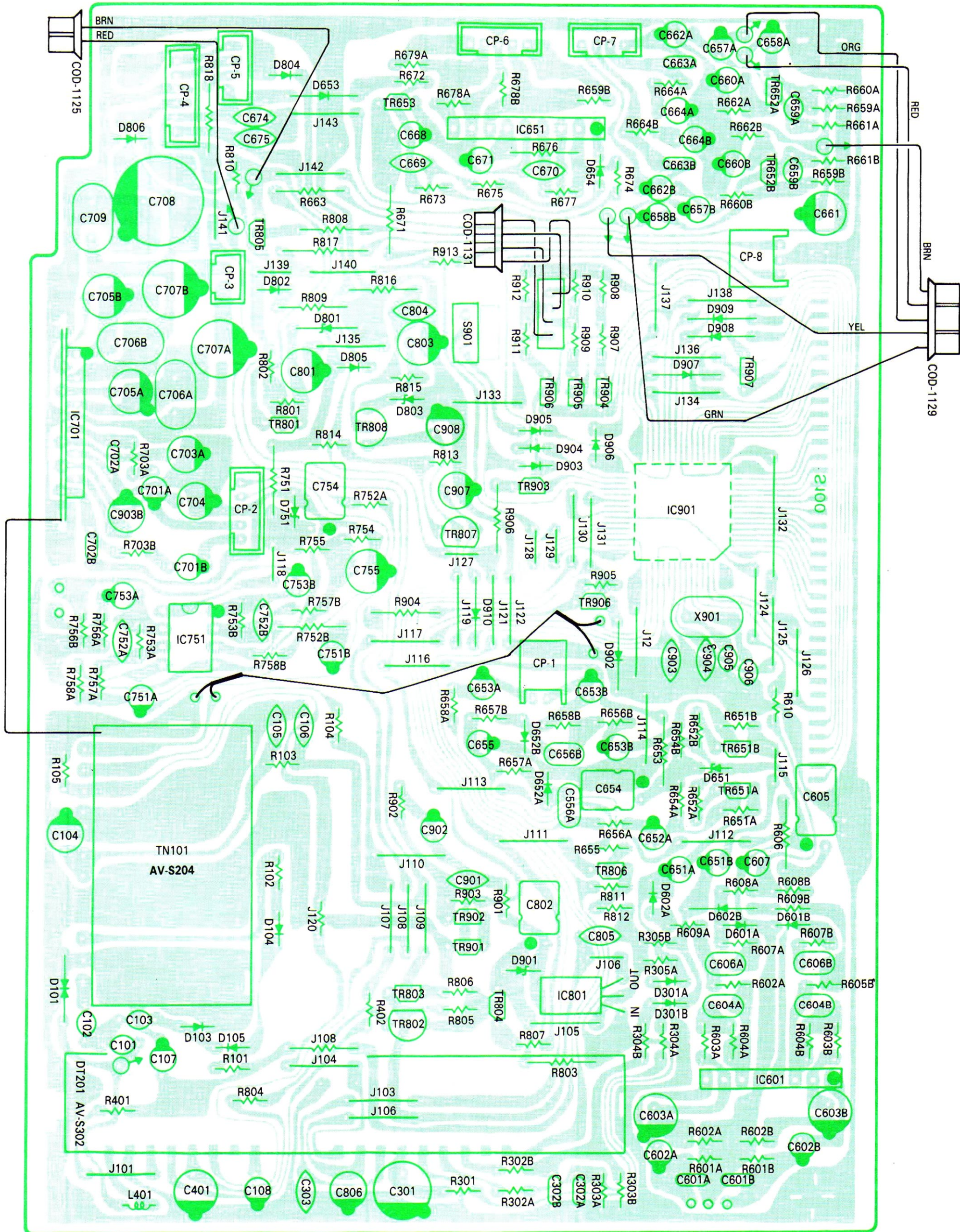
Fig. 4-1



5. PARTS LOCATION ON BOARD

5-1. PCB-1029 Main Board

Pattern Side



6. PARTS LIST OF BOARD

6-1. PCB-1029 Main Board <Stock No. 58619300>

Parts No.	Stock No.	Description
•Transistor		
TR651A, B	48058701	2SC1740S
TR652A, B	48058701	2SC1740S
TR653	48058701	2SC1740S
TR801	48313101	2SC1741S
TR802	58619100	2SC3377
TR803	07254800	2SA854S
TR804	48058701	2SC1740S
TR805	07254800	2SA854(Q)
TR806	48058500	2SA933A
TR807, 808	58619100	2SC3377
TR901, 902	48058701	2SC1740S
TR903 ~ 906	48058500	2SA933S
TR907, 908	48058701	2SC1740S
•IC		
IC601	98000200	LA3161
IC651	46273200	TA7324P
IC701	58411900	TA7271P
IC751	58414400	BA4558
IC801	58618900	TA78L009AP
IC901	58406900	TC9304F-003
S901	58071800	Slide SW., AM 9k/10k SW.
L401	58618800	Antenna Coil
X901	58619000	Xtal
AJ-003	58072900	Antenna Jack
	58412300	RCA Cord
	58619400	ACC Cord
	58619500	Back-up Cord
	58618500	Front-end Pack
•Diode		
D101	58618700	DSP-301N
D102, 103	58405400	1SS135
D104	46078000	1SS133
D301A, 301B	46078000	1SS133
D601A, B, 602A	46078000	1SS133
D602B	03111600	1S2473
D651	48534100	MTZ-9.1B
D652A, B	46078000	1SS133
D653	03111600	1S2473
D654	46078000	1SS133
D751	48534100	MTZ-9.1B
D801	48534400	MTZ-10B
D802	46078000	1SS133
D803	48532600	MTZ-5.6B
D804 ~ 806	58619200	1SR-139-2000
D901	48534400	MTZ-10B
D902	03111600	1S2473
D903 ~ 906	46078000	1SS133
D907 ~ 909	03111600	1S2473

6-2. PCB-1060 Tone Control Volume Board

Parts No.	Stock No.	Description
VR655A, B VR656A, B S902	58401800	Tone Control VR. 50k Ω x4 with SCAN/UP/DOWN Switch

6-3. PCB-1034 Main Volume Board

Parts No.	Stock No.	Description
VR651A, B VR652 VR653A, B VR654A, B S801 S-701	58619700 51689800	50k Ω x5 + 80 Ω x2, Volume, Balance VR., Fader VR., AC SW. Slide Sw., POWER/PRE.

6-4. PCB-1037 Switch Board

Parts No.	Stock No.	Description
•Transistor		
TR851	46086601	2SA937
•Diode		
D851, 852	58089700	BG5533T
D853	46078000	1SS133
DS851	58410100	LU-1300, LCD Display
S851	58071900	Tact Sw., BAND
S852	58071900	Tact Sw., M1
S853	58071900	Tact Sw., M2
S854	58071900	Tact Sw., M3
S855	58071900	Tact Sw., M4
S856	58071900	Tact Sw., NR
S857	58071900	Tact Sw., M6
S858	58406600	Tact Sw., LOCAL
S859	58406600	Tact Sw., CLOCK
S860	58406600	Tact Sw., ME
PL851 ~ 855	58070300	Pilot Lamp 12 V, 40 mA
	58619900	Lamp Cover, Green
	58406700	Lamp Cover, Yellow
	58406800	Lamp Spacer
	58620000	F-1038, Flexible Wire

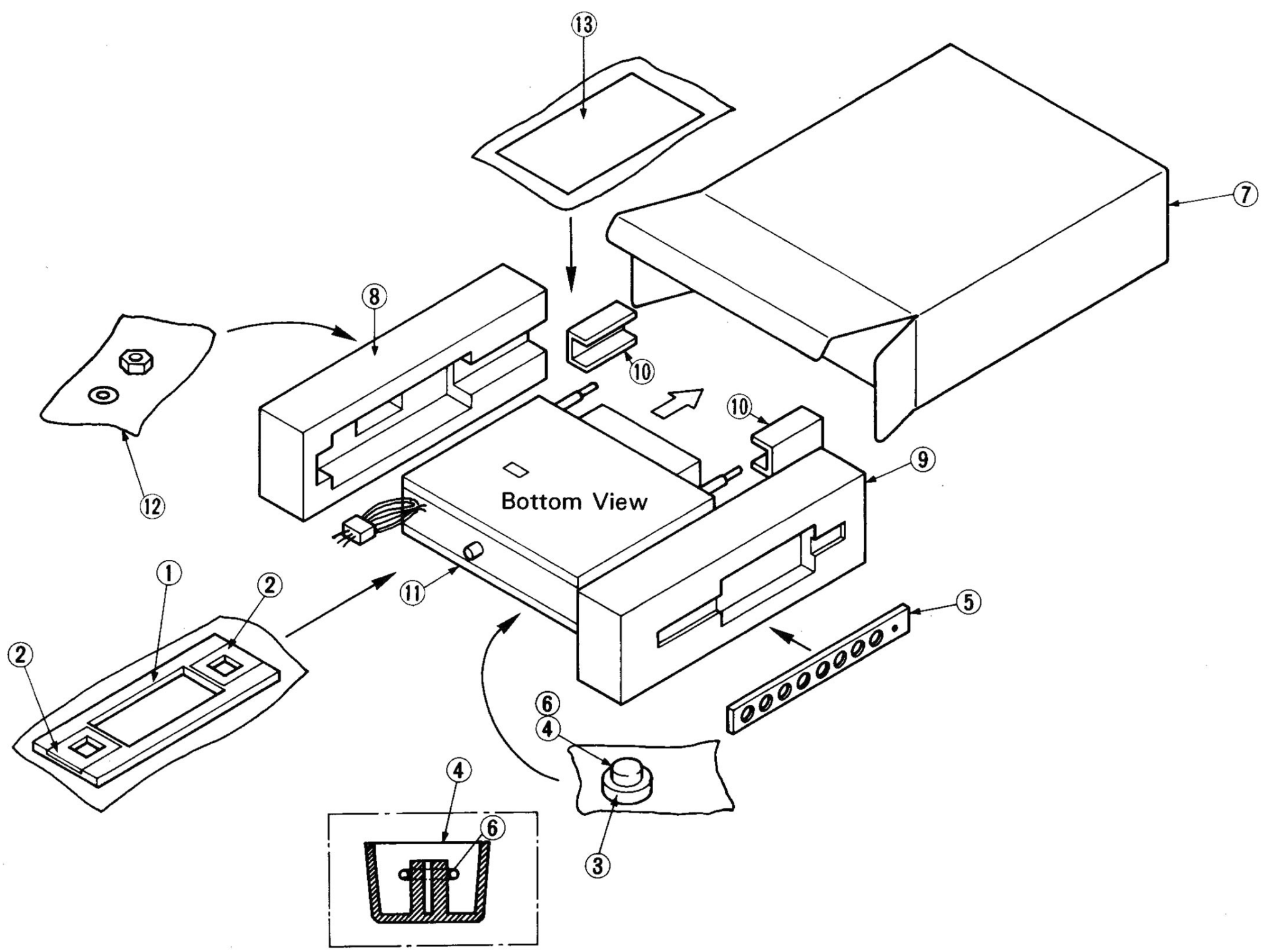
6-5. AM, FM IF & RF Board <Stock No. 58618600>

Parts No.	Stock No.	Description
•IC		
IC1	48568900	LA-1265
IC2	58408000	STK3400B
•Transistor		
TR1	58408100	2SC2814
TR2	58408200	2SC2812
TR3	58408100	2SC2814
TR4	58408300	2SC3052
TR6, 7	58408100	2SC2814
•FET		
FET	58408400	2SK427
•Diode		
CD1 ~ 3	46708400	SVC321
D1	58408500	MA151WK
D2, 3	03117800	1N60
D4	58408500	MA151WK
CT	58408600	Trimmer Capacitor 30pF
CF1	58408700	CFM2-450CL
CF2	07265100	BFU450C4N
CF3	58408800	CSB456F11
CF4	58408900	FFE1070NA10FAL
IFT1	58409000	I.F.T. AM IF
IFT2	58409100	I.F.T. FM
L1	58409200	Inductor
L2	58409300	Inductor
L3	58409400	Inductor
L4	58409500	Inductor
SVR1	58409600	50k Ω S.V.R., FM STOP Level
SVR2	58409800	2k Ω S.V.R., AM STOP Level
SVR3	58409700	100k Ω S.V.R., High Cut Level
SVR4	58409800	2k Ω S.V.R., Separation

7. PACKING LIST

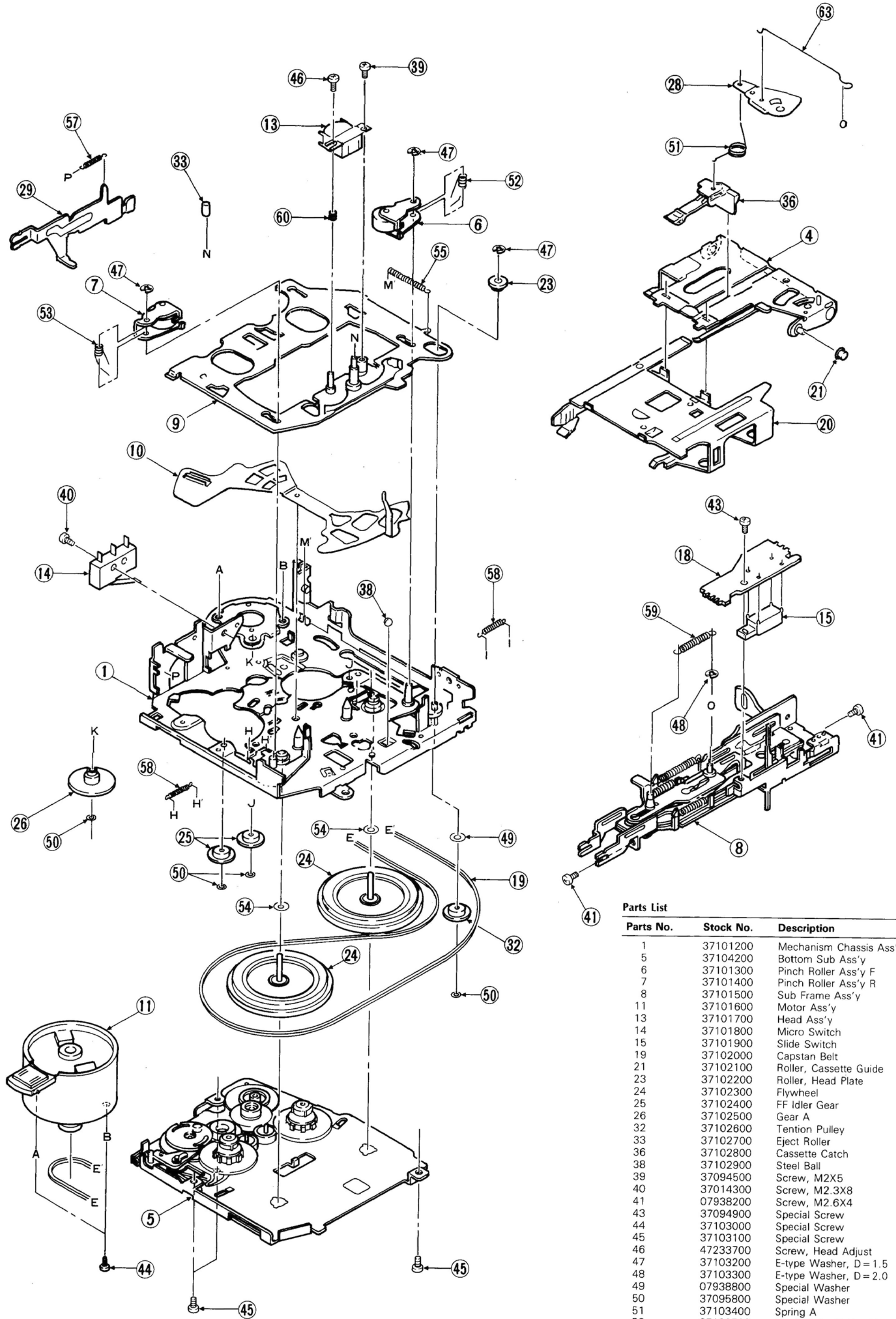
Parts No.	Stock No.	Description
1	58618700	Front Trim Pannel
2	58617900	Hall Plug
3	58618000	Volume (Big)
4	58618100	Volume (Small)
5	58073800	Metal Mounting Strap
6	58618200	Spring for Small Volume Knob
7	58618400	Carton Case
8	58405000	Styrofoam Packing, Left
9	58405100	Styrofoam Packing, Right
10	————	Paking

Parts No.	Stock No.	Description
11	47364500	Vinyl Bag
12	58404500	Mounting Screw Ass'y
	————	Nut, $\phi 9.0$ (4ea)
	————	Washer, $\phi 9.0$ (4ea)
	————	Hex, Nut $\phi 5.0$ (1ea)
	————	Spring Washer, $\phi 5.0$ (2ea)
	————	Binding Screw, M5x10 (1ea)
	————	Wing Nut, M5 (1ea)
13	58618300	Operating Instruction



RX-255 RX-255

8. EXPLODED VIEW & PARTS LIST 8-1. Exploded View of Cassette Deck Mechanism Chassis

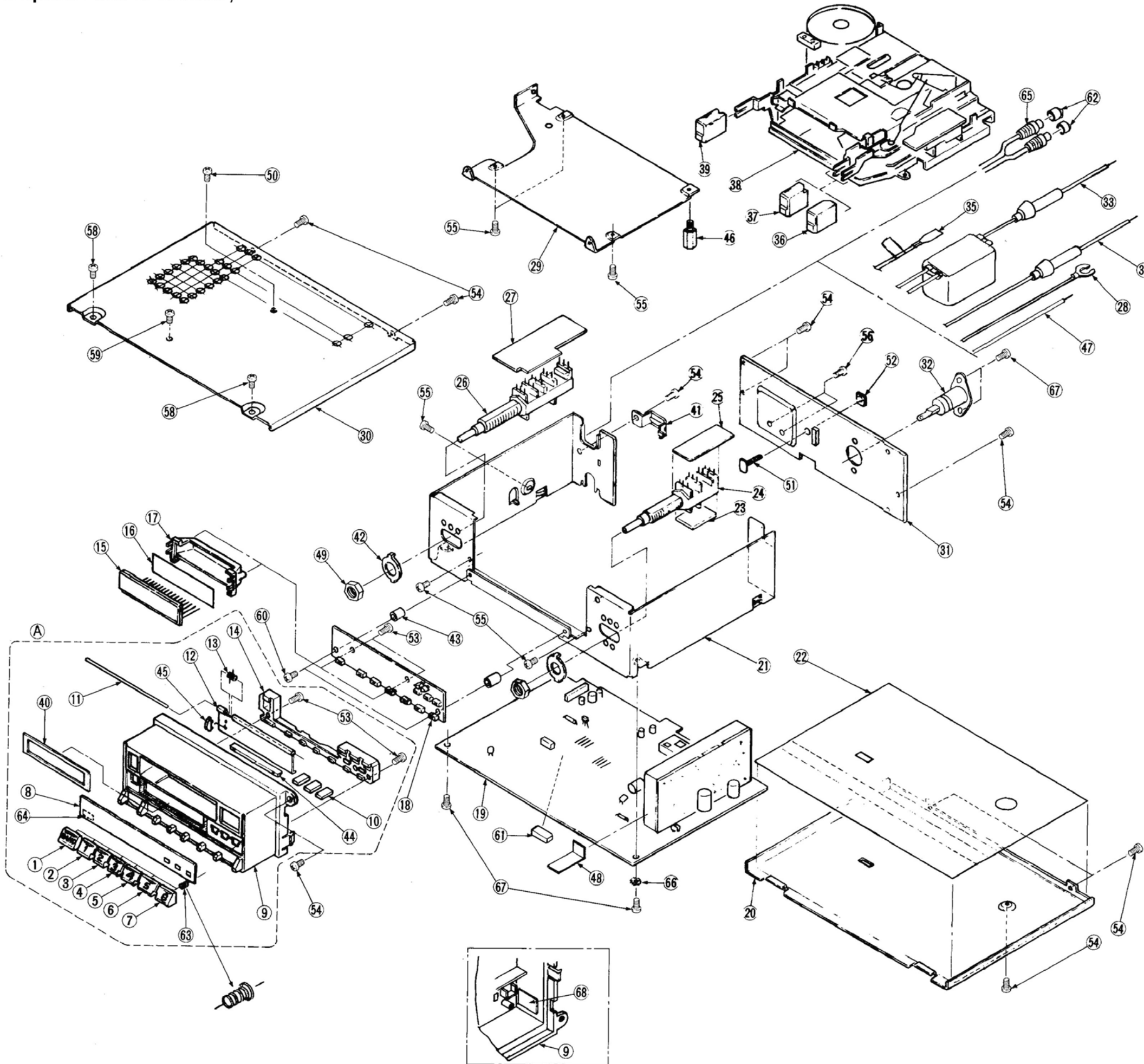


Note: Though every part included in Cassette Deck Mechanism Chassis is numbered in exploded view, parts unlisted in parts list are not supplied.

Parts List

Parts No.	Stock No.	Description
1	37101200	Mechanism Chassis Ass'y
5	37104200	Bottom Sub Ass'y
6	37101300	Pinch Roller Ass'y F
7	37101400	Pinch Roller Ass'y R
8	37101500	Sub Frame Ass'y
11	37101600	Motor Ass'y
13	37101700	Head Ass'y
14	37101800	Micro Switch
15	37101900	Slide Switch
19	37102000	Capstan Belt
21	37102100	Roller, Cassette Guide
23	37102200	Roller, Head Plate
24	37102300	Flywheel
25	37102400	FF Idler Gear
26	37102500	Gear A
32	37102600	Tention Pulley
33	37102700	Eject Roller
36	37102800	Cassette Catch
38	37102900	Steel Ball
39	37094500	Screw, M2X5
40	37014300	Screw, M2.3X8
41	07938200	Screw, M2.6X4
43	37094900	Special Screw
44	37103000	Special Screw
45	37103100	Special Screw
46	47233700	Screw, Head Adjust
47	37103200	E-type Washer, D = 1.5
48	37103300	E-type Washer, D = 2.0
49	07938800	Special Washer
50	37095800	Special Washer
51	37103400	Spring A
52	37103500	Pinch Roller Spring F
53	37103600	Pinch Roller Spring R
54	37014600	Thrust Washer
55	37103700	Head Plate Spring
57	37103800	Program Lever Spring
58	37103900	FF Gear Spring
59	37104000	Click Spring
60	07939300	Spring
65	37104100	Eject Arm

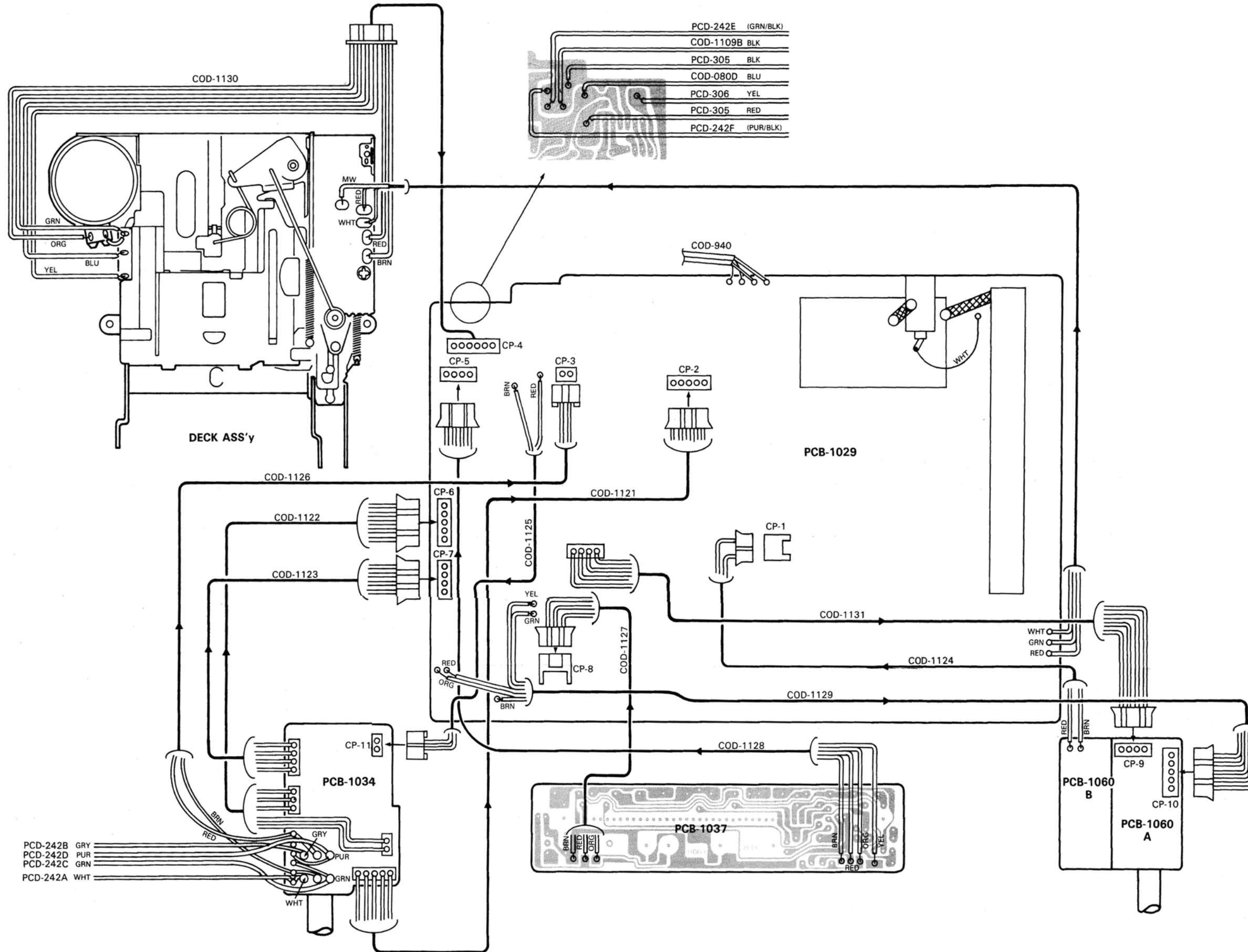
8-2. Exploded View of Unit Ass'y



Parts No.	Stock No.	Description
A	58617700	Control Panel Ass'y (Included Parts No. 1 ~ 14, 40, 44, 45, 53, 63, 64 & 68)
1	58400000	Knob, BAND
2	58400100	Knob, Preset 1
3	58400200	Knob, Preset 2
4	58400300	Knob, Preset 3
5	58400400	Knob, Preset 4
6	58400500	Knob, Preset 5
7	58400600	Knob, Preset 6
9	---	Control Panel Ass'y
10	58400800	Button, Display
11	58400900	Door Shaft
12 (45)	58620200	Door Ass'y
13	58401100	Door Spring
14	58620100	Illuminator
44	58403000	Door Illuminator
53	58403500	Tapping Screw M2x5
63	58403910	Button Spring
68	---	Reflexion Sheet
15	58410100	LCD Ass'y, DS-851
16	58617500	Scattered Light Film
17	58617600	LCD Holder
18	---	Switch Board
19	---	Main Board
20	58401600	Bottom cover
22	58401700	Insulation Film
23	---	Tone Volume Board
24	58401800	Tone Volume
25	---	Tone Volume Board
26	58619700	Main Volume
27	---	Main Volume Board
28	58619600	Ground Cord
30	58617400	Top Cover
32	58072900	ANT Jack
33	58619400	Power supply Cord
34	58619500	Memory Cord
35	58073300	Power Antenne Cord
36	67069100	Knob, FF
37	67069000	Knob, REW
38	---	Tape Deck
39	67068900	Knob, Program
41	58402700	Cord Clamper
42	58402800	Special Washer
43	58402900	Spacer
46	58403200	Deck Supporter
48	58403800	Insulation Film
49	58083800	Mut, M9
50	58403610	Special Screw, M2.6
51	58083600	Bolt, M5.0
52	58403400	Nut, M5.0
53	58403500	Tapping Screw, M2x5
54	13122300	Screw, M3x6
55	08322000	Screw, M3x5
56	00422000	Binding Screw, M3x8
58	00421800	Screw, M3x4
59	00424800	Binding Screw, M2.6x6
60	58403700	Screw, M2x10
62	58410800	RCA Cap
63	58403910	Button Spring
65	58412300	RCA Cord, Pre Out
66	58415500	Washer, 3φ
67	00440800	Tapping Screw, M3x6

Note:
 1. Though every part included in Unit Ass'y is numbered in exploded view, parts unlisted in parts list are not supplied.
 2. Parts without Stock Nos. are not supplied even parts names are listed in the parts list.

9. OVERALL WIRING DIAGRAM



PCD-242E	(GRN/BLK)
COD-1109B	BLK
PCD-305	BLK
COD-080D	BLU
PCD-306	YEL
PCD-305	RED
PCD-242F	(PUR/BLK)

PCD-242B	GRY
PCD-242D	PUR
PCD-242C	GRN
PCD-242A	WHT

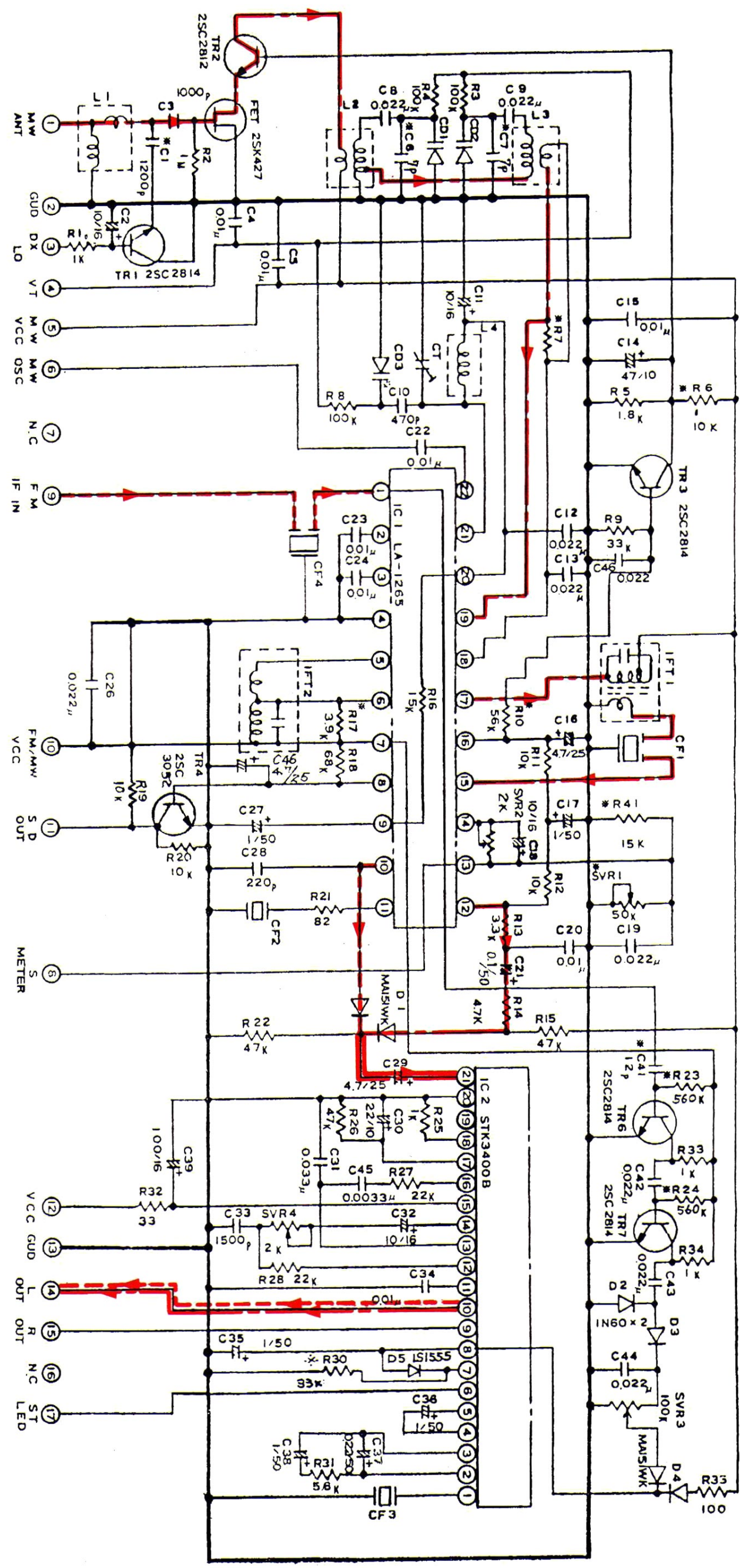
Abbreviations
 RED: RED
 ORG: ORANGE
 YEL: YELLOW
 GRY: GRAY
 MW: MECHED WIRE
 BRN: BROWN
 GRN: GREEN
 WHT: WHITE
 BLU: BLUE

A B C D

10-2. AM, FM IF & RF Section

* Design and specifications subject to change without notice for improvement.
 * La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.

- CD1 ~ CD3 : SVC321
- CF1 : CFM2-450CL
- CF2 : BF1A50CA4N
- CF3 : CSB456.F11 or CSB456.F15
- CF4 : FFE1070NA0R.FAL



- 2SA854
- 2SC1740
- 2SC1741S
- 2SC3377
- 2SA933
- TA78L009AP
- 2SA937
- TA7324P
- LA3161
- BA4558
- LA1265
- TC9304F-003
- TA7291P
- STK3400
- 1SR-139-2000
- 1SS135
- MTZ5.6B
- MTZ9.1B
- MTZ10B
- 1SS133

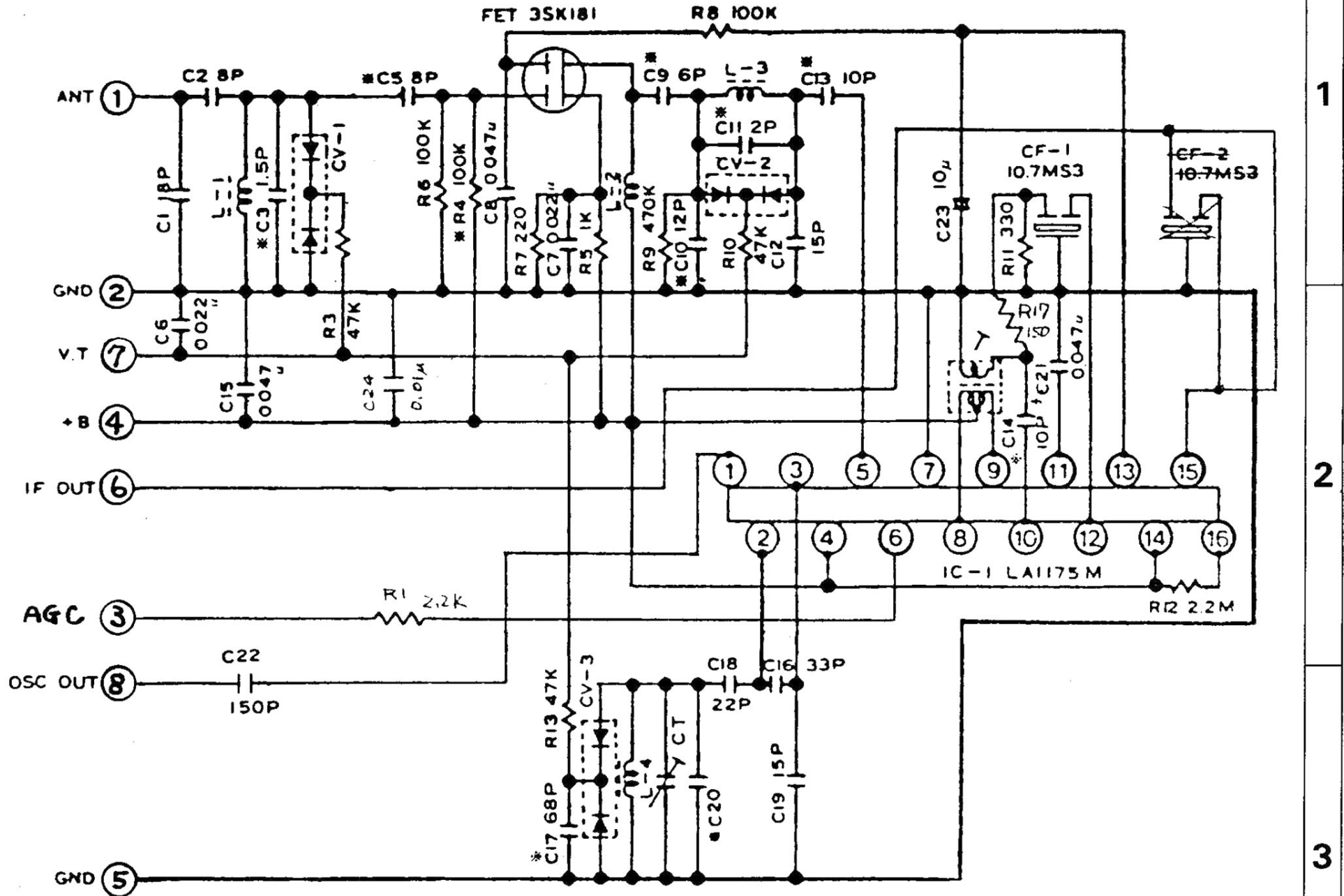
1
2
3
4
5

— Tape & Audio Signal Line
 - - - FM Signal Line
 - · - · AM Signal Line

A B C D

10-3. FM Front-end Pack

* Design and specifications subject to change without notice for improvement.
 * La présentation et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
 * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.



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