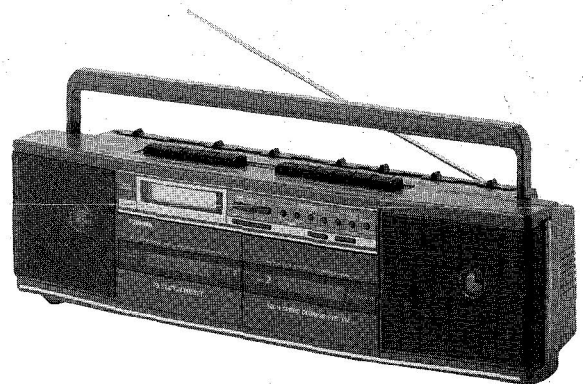


TOSHIBA

STEREO RADIO CASSETTE RECORDER

RT-8538



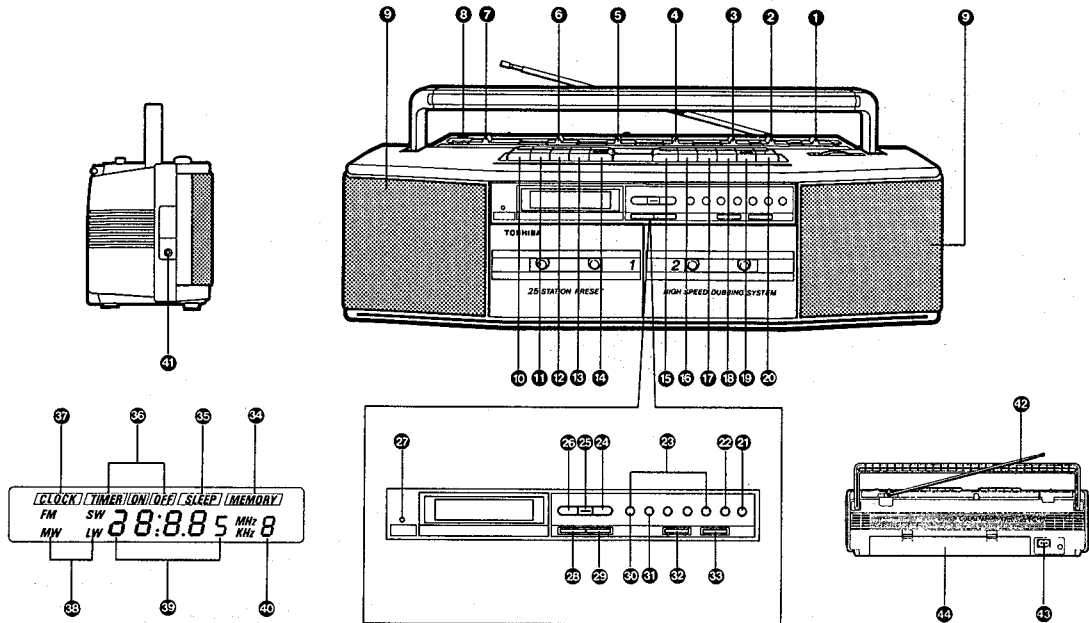
SPECIFICATIONS

Cassette Tape Used:	Normal: C-30 ~ C-90	Intermediate Frequency:	FM: 10.7 MHz LW/MW/SW: 450 kHz
Tape Speed:	4.8 cm/sec.	Antenna:	FM/SW: telescopic antenna LW/MW: ferrite-core antenna
Track System:	Four-track two-channel stereophonic	Speakers:	100 mm (dia.) dynamic x 2
Recording System:	AC bias	Jacks:	[PHONES] jack x 1 Impedance 8 ohm to 32 ohm
Erasing System:	Magnet erasing	Power Supply:	AC 220V, 50 Hz (Europe) AC 240V, 50 Hz (U.K.) DC 9V IEC R20 ("D" cell) x 6
Frequency Response:	70 Hz to 14 kHz	For Memory Back-up:	DC 4.5V IEC R6 ("AA" cell) x 3
Receiving Frequency:	FM: 87.5 MHz to 108 MHz (0.05 MHz steps) SW: 5.95 MHz to 15.6 MHz (0.005 MHz steps) MW: 531 kHz to 1602 kHz (9 kHz steps) LW: 146 kHz to 281 kHz (1 kHz steps)	Power Consumption:	10 W
		Dimensions:	(W) 500 mm x (H) 138 mm x (D) 133 mm
		Weight:	2.7 kg (without batteries)

Specifications are subject to change without notice.

K/W-TE
K-TU, K-TG

OPERATING CONTROLS



1 Power Selector

Note: "SLEEP/ OFF" position:

This unit remains connect to mains supply in the "SLEEP/ OFF" position. Disconnect the power cord when the unit is not going to be used for a long time.

2 [AM BAND] Selector

3 [FUNCTION] Selector

4 [DUBBING/FM MODE/BEAT] Selector

5 [TONE] Control

6 [BALANCE] Control

7 [VOLUME] Control

8 [MIC] (Built-in Microphone)

9 Speakers

10 15 [PAUSE] Button

11 16 [STOP/EJECT] Button

12 17 [FF] Button

13 18 [REW] Button

19 20 [PLAY] Button

21 [RECORD] Button

22 [MEMORY/CLOCK ADJ.] Button

23 [PRESET SCAN] Button

24 [PRESET STATION] Button

25 [UP/MIN.] Button

26 [FAST/SCAN STOP] Button

27 [DOWN/HOUR] Button

28 [TIMER STAND BY] Indicator

29 [RADIO/CLOCK] Button

30 [AUTO] Button

31 [ON TIMER] Button

32 [OFF TIMER] Button

33 [SLEEP] Button

34 [FM (+5) PRESET] Button

35 [MEMORY] Indicator

36 [SLEEP] Indicator

37 [TIMER ON/OFF] Indicator

38 [CLOCK] Indicator

39 Band Indicator

40 Frequency/Time Indicator

41 Preset Channel Indicator

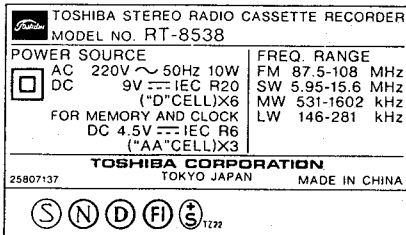
42 [PHONES] Jack

43 Telescopic Antenna

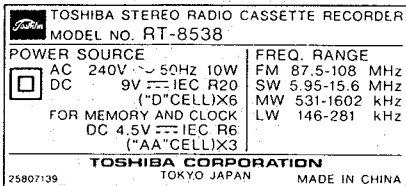
44 [AC POWER] Socket

45 Battery Cover

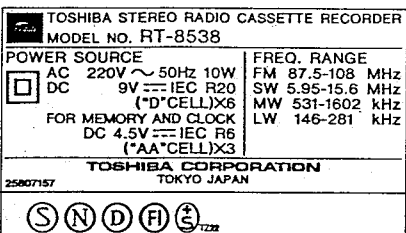
Nameplate



Europe

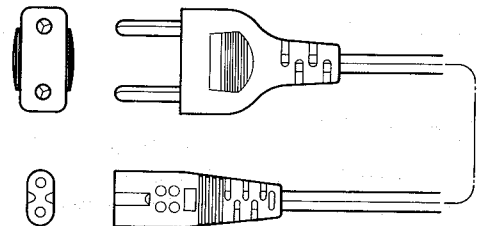


U.K.

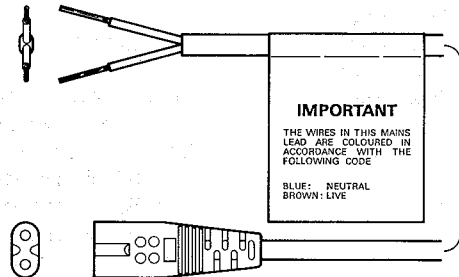


Czecho

Power Cord



Europe/Czecho



U.K.

DISASSEMBLY INSTRUCTIONS

FRONT CABINET REMOVAL

1. Remove the battery cover.
2. Remove six screws (A).
3. Open the cassette cover by pressing the STOP/EJECT buttons left and right.
4. Disconnect the speaker connector.
5. Front cabinet will be removed. (Figure 1)

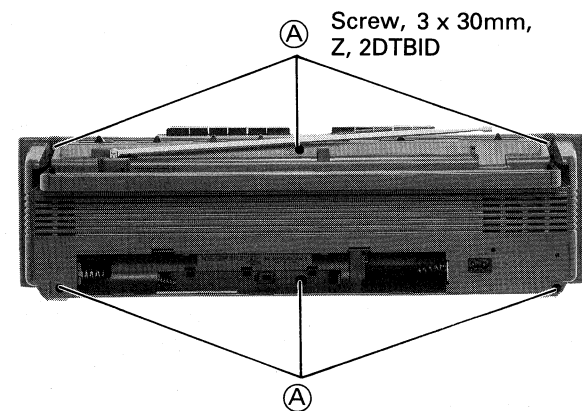


Figure 1

MECHANISM ASSEMBLY REMOVAL

1. Remove four screws (B).
2. Disconnect the connectors.
3. Mechanism assembly will be removed. (Figure 2)

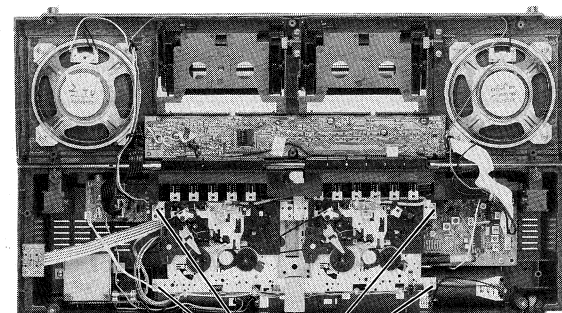


Figure 2

MAIN P.C. BOARD REMOVAL

1. Remove five knobs.
2. Remove five screws (C) and one screw (D).
3. Main P.C. Board will be removed. (Figure 3)

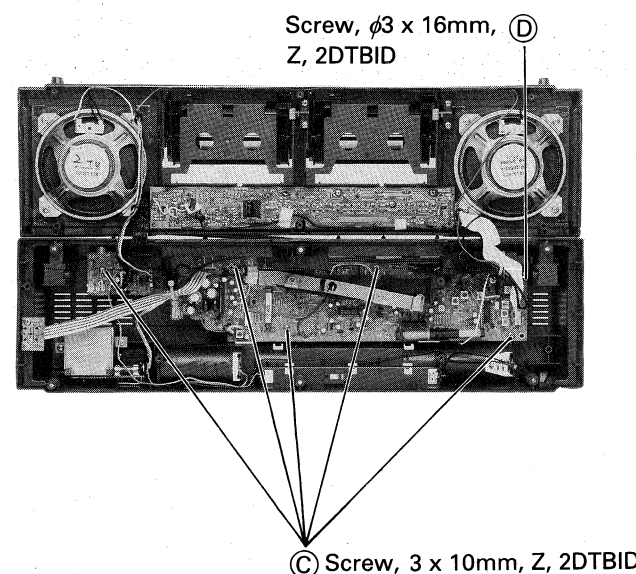


Figure 3

ADJUSTMENTS

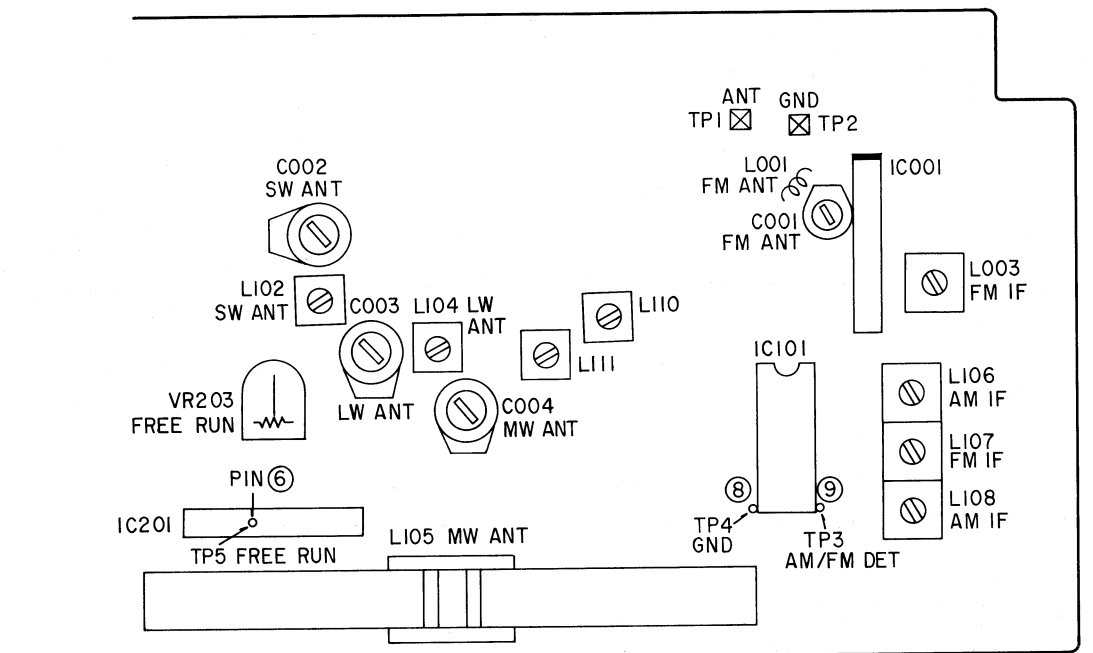


Figure 4

TEST EQUIPMENT

1. Signal generator with a frequency range of at least from 140 kHz to 18 MHz AM.
2. Oscilloscope with a side range amplifier of approximately 100 kHz.
3. Test loop — a coil of any size of wire, one or more. (LW & MW)
4. A 30 ohm dummy antenna. (SW)
5. VTVM

AM ALIGNMENT

1. Turn on the AM signal generator and the VTVM allowing a fifteen-minute warm-up period.
2. Using the test loop across the output of the signal generator, inductively connect the signal generator to the radio.
3. Connect the VTVM across the phones jack.
4. Set signal generator frequency as listed in ALIGNMENT CHART and maintain a sufficient output level to provide an indication on VTVM.
5. Set volume control at mid-position.
6. Proceed as outlined in the IF-MW, LW and SW ALIGNMENT CHART.

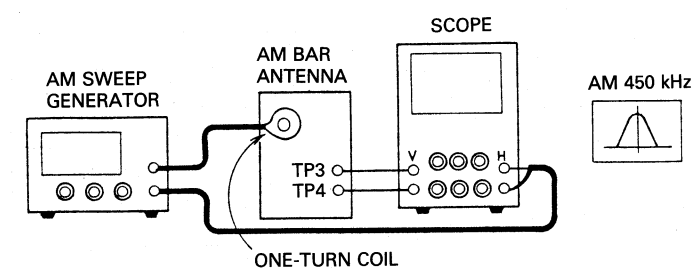


Figure 5

- Note:**
1. Use a screwdriver with plastic grip for all adjustments.
 2. Standard test frequency 400 Hz and modulation 30% for AM.
 3. Standard test frequency 400 Hz and deviation 22.5 kHz for FM.

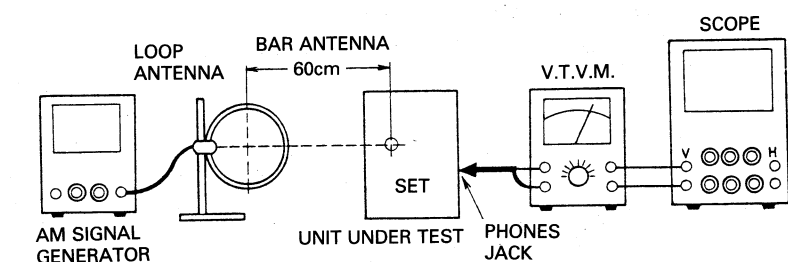


Figure 6

MW ALIGNMENT CHART (Figures 5 and 6)

Band	Step	Signal Generator Frequency	Digital Tuner Setting	Adjustment	Remarks
IF	1	450 kHz	Continue pressing manual UP or Down Button to reach Lowest Frequency.	L106 L108	Adjust for maximum indication.
MW	2	603 kHz	Tune to Signal.	Ant. Coil L105	Adjust for maximum indication.
	3	1404 kHz	Tune to Signal.	Ant. Trim. C004	Adjust for maximum indication.
	4	Repeat steps 2 and 3 as required.			

LW ALIGNMENT CHART (Figure 6)

Band	Step	Signal Generator Frequency	Digital Tuner Setting	Adjustment	Remarks
LW	1	164 kHz	Tune to Signal.	Ant. Coil L104	Adjust for maximum indication.
	2	263 kHz	Tune to Signal.	Ant. Trim. C003	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			

SW ALIGNMENT CHART (Figure 7)

Band	Step	Signal Generator Frequency	Digital Tuner Setting	Adjustment	Remarks
SW	1	6.5 MHz	Tune to Signal.	Ant. Coil L102	Adjust for maximum indication.
	2	14 MHz	Tune to Signal.	Ant. Trim. C002	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			

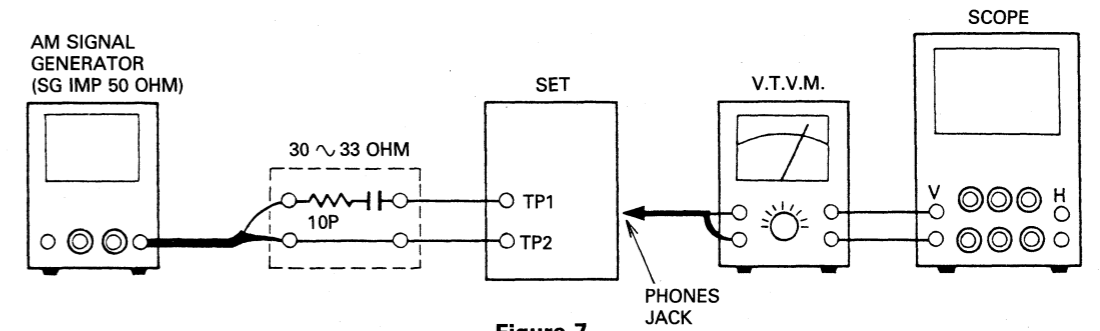


Figure 7

FM-IF ALIGNMENT

1. Set the select switch to FM position.
2. Turn on both sweep generator and oscilloscope, and allow a fifteen-minute warm-up period.
3. Connect the RF SWEEP SIGNAL OUTPUT from the signal generator through the loop antenna to the receiver.
4. Connect the oscilloscope vertical input directly to the test point TP3 and connect the shielded lead to the test point TP4 or chassis ground.
5. Connect the SWEEP VOLTAGE OUTPUT of the sweep generator to the oscilloscope.
6. Proceed as outlined in the FM-IF ALIGNMENT CHART.

FM-IF ALIGNMENT CHART (Figure 8)

Step	Signal coupling	Equip.	Tuning	Connection	Adjust. point	Pattern
1	Connect sweep generator output to a three-turn loop antenna of 3 cm diameter.	Sweep generator of 10.7 MHz or center freq. with 10.7 MHz marker.	Continue pressing manual UP or Down Button to reach Lowest Frequency.	Set scope for connecting output signal from TUN OUT to vertical axis of scope "V" and sweep generator output to horizontal axis "H".	L003 L107	Turn the IF Transformer L107 fully counterclockwise to obtain a single peak. Adjust coil L003 in order until the best single peak is obtained. Figure 9. Finally turn the coil L107 to obtain S curve. See Figure 10.

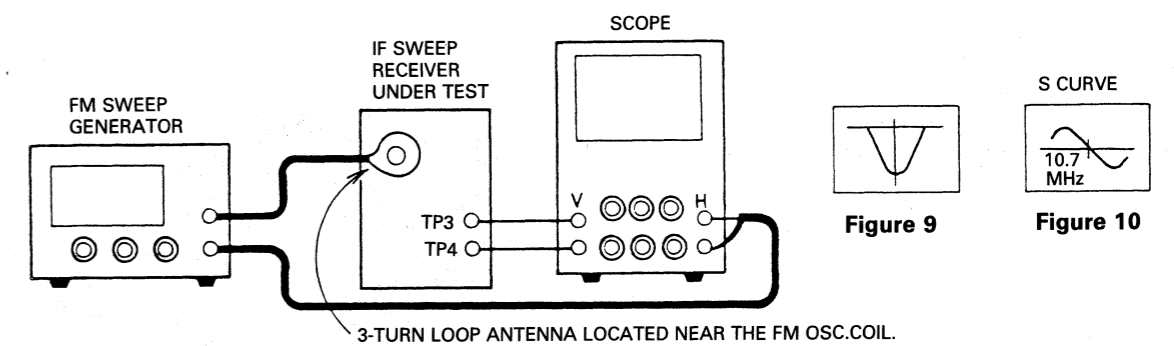


Figure 8

CAUTION:

When realigning the FM Receiving Frequency, the highest end of the frequency range should not be more than 108 MHz and the lowest end of the frequency range should not be less than 87.5 MHz, in order to comply with FTZ regulations in West Germany.

FM-RF ALIGNMENT

1. Turn on the signal generator and the VTVM, and allow a fifteen-minute warm-up period.
2. Connect the signal generator output through a 75 ohm dummy antenna across FM ANT.
3. Connect the VTVM across the voice coil or the phoned jack.
4. Set the volume control to mid-position.
5. Adjust the signal generator frequency as indicated in FM-RF ALIGNMENT CHART, and maintain a sufficient signal output level to provide a measurable indication.
6. Proceed as outlined in the FM-RF ALIGNMENT CHART.

FM-RF ALIGNMENT CHART (Figure 11)

Step	Signal Generator	Digital Tuner Setting	Adjustment	Remarks
1	89.9 MHz	Tune to Signal.	Ant. Coil L001	Adjust for maximum output indication.
2	106.1 MHz	Tune to Signal.	Ant. Trim. C001	Adjust for maximum output indication.
3	Repeat steps 1 and 2 as required.			

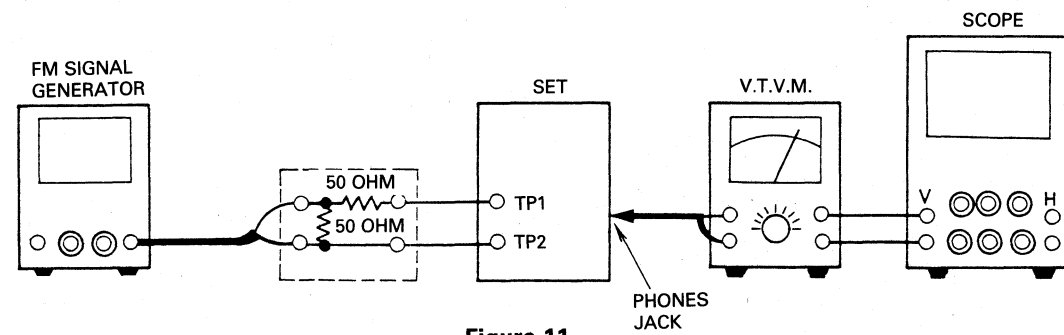


Figure 11

FREE RUN FREQUENCY ALIGNMENT

Adjust R203 under no signal condition so as to obtain 38 kHz \pm 75 Hz. (Figure 12.)

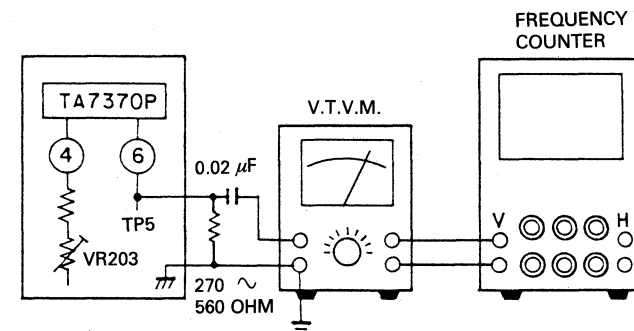


Figure 12

RECORD/PLAYBACK HEAD ADJUSTMENT

A 6.3 kHz test tape must be used for this adjustment. Connect a VTVM or an oscilloscope to the headphones jack or speaker terminal and adjust the azimuth by using a phillips screwdriver to maintain the maximum output voltage. (Figure 13.)

TAKE-UP/SUPPLY REEL TENSION

1. Insert cassette torque meter (HARTAK X-87 Torquette).
2. Press PLAY button and read torque meter. Torque should be 30 to 60 gcm.
3. Release PLAY button and press REWIND button. Torque should be 75 to 150 gcm. If necessary, clean take-up reel or driver belt with alcohol, or replace belt.

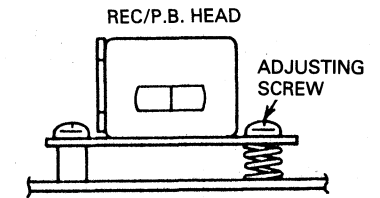


Figure 13

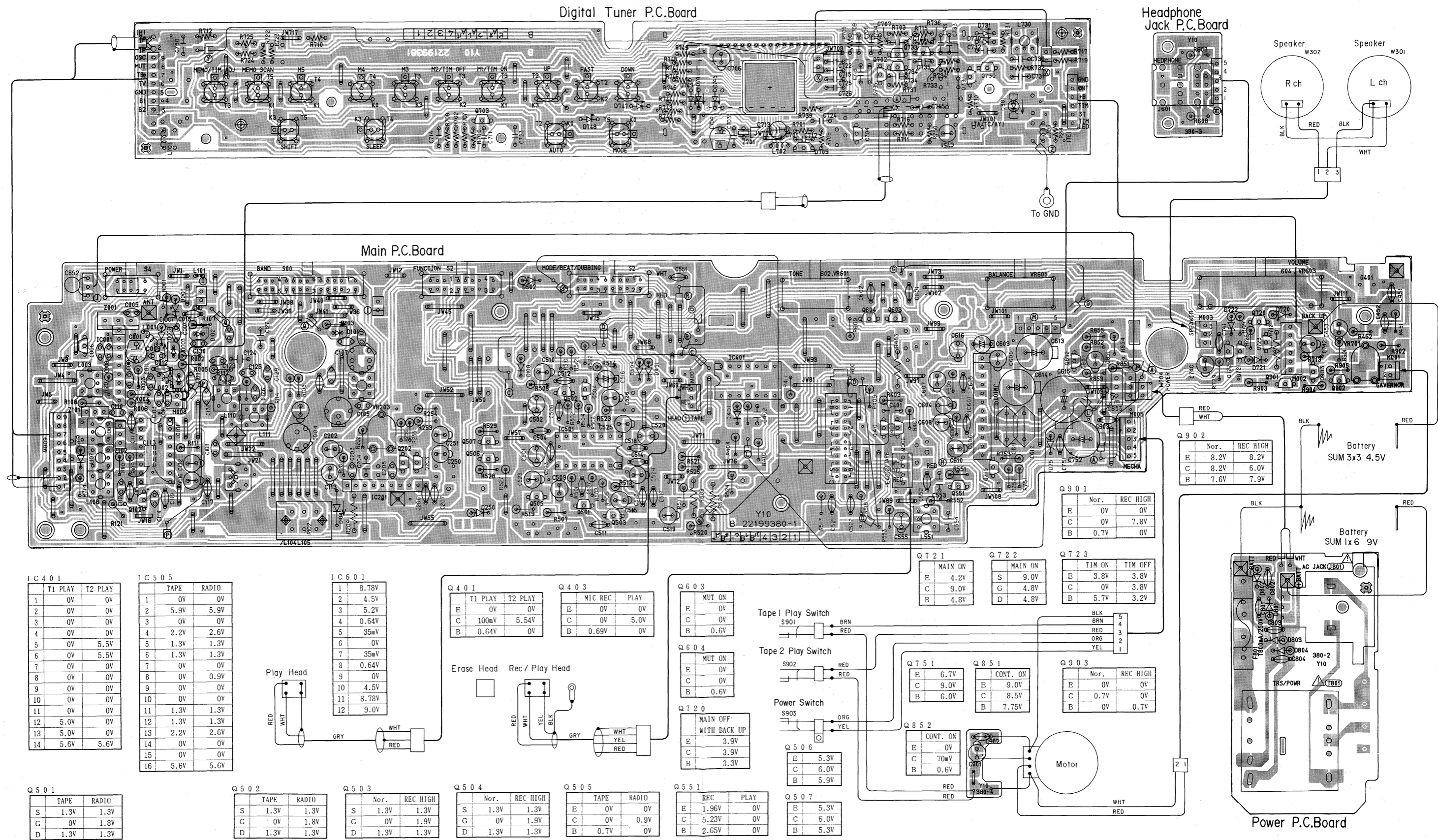
RATED CURRENT

Input No signal
 Volume Minimum Condition
 AM 66mA
 FM 77mA
 Tape Play 140mA
 Tape Rec. 150mA

TAPE SPEED ADJUSTMENT

Load 3 kHz test tape to Tape 1 and connect frequency counter to headphones jack. Adjust VR901 for 3,000 Hz \pm 50 Hz.

ELECTRICAL PARTS LOCATIONS



IC 401

	T1 PLAY	T2 PLAY
1	0V	0V
2	0V	0V
3	0V	0V
4	0V	0V
5	0V	5.5V
6	0V	5.5V
7	0V	0V
8	0V	0V
9	0V	0V
10	0V	0V
11	0V	0V
12	5.0V	0V
13	5.0V	0V
14	5.6V	5.6V

IC 505

	TAPE	RADIO
1	0V	0V
2	5.9V	5.9V
3	0V	0V
4	2.2V	2.6V
5	1.3V	1.3V
6	1.3V	1.3V
7	0V	0V
8	0V	0.9V
9	0V	0V
10	0V	0V
11	1.3V	1.3V
12	1.3V	1.3V
13	2.2V	2.6V
14	0V	0V
15	0V	0V
16	5.6V	5.6V

IC 601

1	8.78V
2	4.5V
3	5.2V
4	0.64V
5	35mV
6	0V
7	35mV
8	0.64V
9	0V
10	4.5V
11	8.78V
12	9.0V

Q 401

	T1 PLAY	T2 PLAY
E	0V	0V
C	100mV	5.54V
B	0.64V	0V

Q 403

	MIC REC	PLAY
E	0V	0V
C	0V	5.0V
B	0.69V	0V

Q 603

	MUT ON
E	0V
C	0V
B	0.6V

Q 604

	MUT ON
E	0V
C	0V
B	0.6V

Q 720

	MAIN OFF- WITH BACK UP
E	3.9V
C	3.9V
B	3.3V

Q 721

	MAIN ON
E	4.2V
C	9.0V
B	4.8V

Q 722

	MAIN ON
S	9.0V
G	4.8V
D	4.8V

Q 723

	TIM ON	TIM OFF
E	3.8V	3.8V
C	0V	3.8V
B	5.7V	3.2V

Q 903

	Nor.	REC HIGH
E	0V	0V
C	0.7V	0V
B	0V	0.7V

Q 501

	TAPE	RADIO
S	1.3V	1.3V
G	0V	1.8V
D	1.3V	1.3V

Q 502

	TAPE	RADIO
S	1.3V	1.3V
G	0V	1.8V
D	1.3V	1.3V

Q 503

	Nor.	REC HIGH
S	1.3V	1.3V
G	0V	1.9V
D	1.3V	1.3V

Q 504

	Nor.	REC HIGH
S	1.3V	1.3V
G	0V	1.9V
D	1.3V	1.3V

Q 505

	TAPE	RADIO
E	0V	0V
C	0V	0.9V
B	0.7V	0V

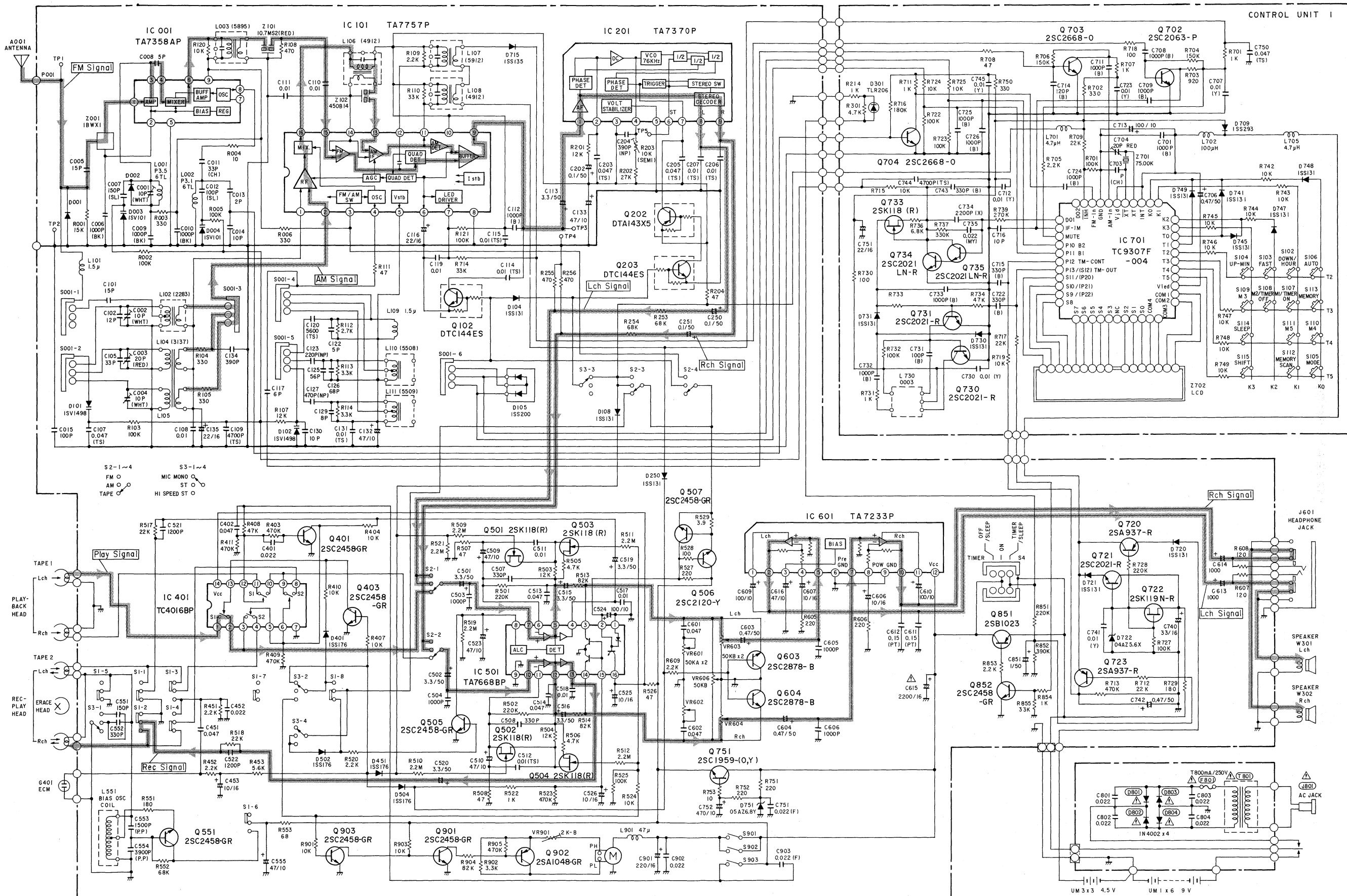
Q 551

	REC	PLAY
E	1.96V	0V
C	5.23V	0V
B	2.65V	0V

Q 507

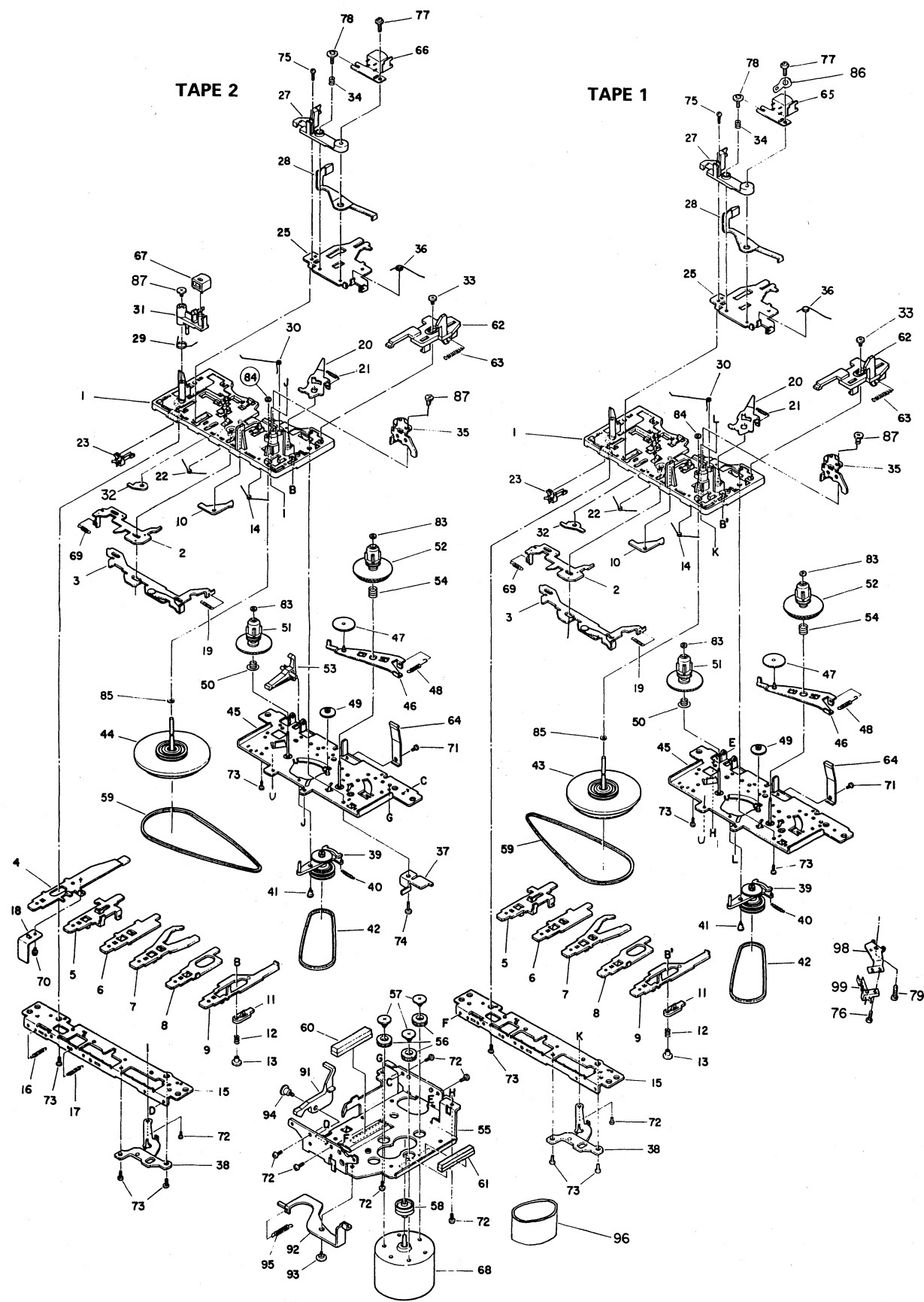
E	5.3V
C	6.0V
B	5.3V

SCHEMATIC DIAGRAM



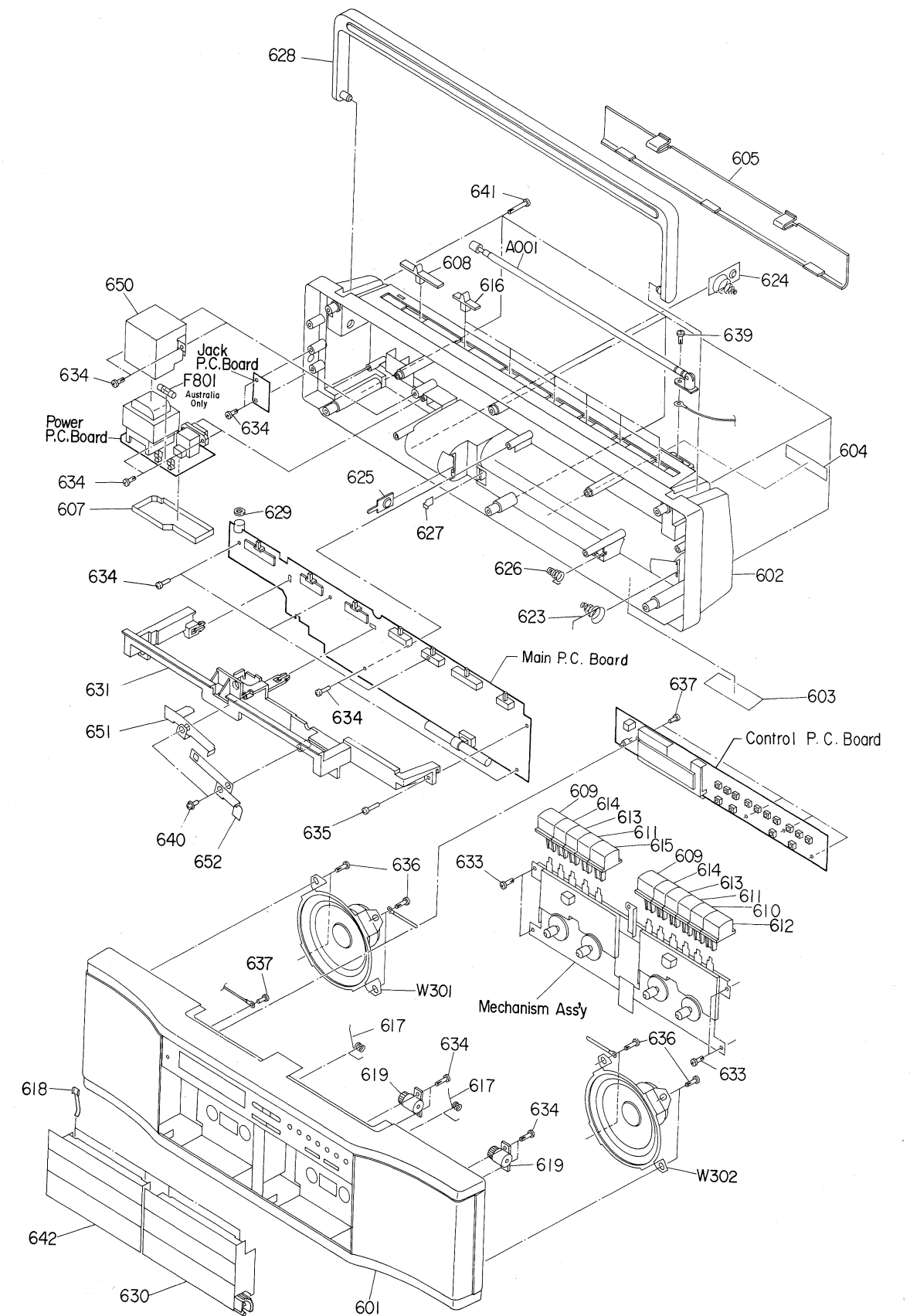
CAUTION:
 The Δ mark, the Location No. circled with oval in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

MECHANISM EXPLODED VIEW



NOTE: Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

CABINET EXPLODED VIEW



NOTE: Parts excluded in the parts list are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

CABINET PARTS LIST

Location No.	Part No.	Description	Location No.	Part No.	Description
601	25889863	CABINET ASSY, FRONT, BLACK	614	25888749	BUTTON, GREY, STOP/EJECT FOR WHITE
601	25889865	CABINET ASSY, FRONT EUROPE, WHITE	615	25888606	BUTTON, BLACK, PLAY FOR BLACK
602	25889868	CABINET ASSY, BACK BLACK	615	25888750	BUTTON, GREY, PLAY FOR WHITE
602	25889870	CABINET ASSY, BACK EUROPE, WHITE	616	25888607	KNOB, BLACK FOR BLK,BALANCE
603	25807137	NAME LABEL EUROPE	616	25888742	KNOB, GREY FOR WHT,BALANCE
603	25807140	NAME LABEL UK	617	25778610	SPRING
603	25807157	NAME LABEL, CZECHO	618	25779732	SPRING CASSETTE HOLDER
604	25807135	NAME LABEL, BATTERY	619	25885915	DAMPER
605	25877133	COVER, BATTERY, BLACK EUROPE	623	25777779	SPRING, BATTERY
605	25877196	COVER, BATTERY, WHITE	624	25777780	CONTACT, BATTERY
606	25766502	WASHER, 4.1X8.0X0.5MM, PO	625	25779740	CONTACT, BATTERY
607	25887633	COVER, AC	626	25779779	SPRING
608	25888598	KNOB, BLACK FOR BLACK, VOL.	627	25779781	CONTACT, BATTERY
608	25888740	KNOB, GREY FOR WHITE, VOL.	628	25825410	HANDLE, BLACK FOR BLACK
609	25888600	BUTTON, BLACK, PAUSE FOR BLACK	628	25825413	HANDLE, GREY FOR WHITE
609	25888744	BUTTON, GREY, PAUSE FOR WHITE	629	25856009	CUSHION, MICROPHONE
610	25888601	BUTTON, BLACK, PLAY FOR BLACK	630	25889894	BOX ASSY,CASSETTE,RIGHT,BLACK
610	25888745	BUTTON, GREY, PALY FOR WHITE	630	25889897	BOX ASSY,CASSETTE,RIGHT,WHITE EUROPE
611	25888602	BUTTON, BLACK, REW FOR BLACK	631	25889871	FRAME ASSY
611	25888746	BUTTON, GREY, REW FOR WHITE	633	22707802	SCREW, 3.0X12MM, Z, 2DTBID
612	25888603	BUTTON, BLACK, REC FOR BLACK	634	22707826	SCREW, 3.0X10MM, Z, 2DTBID
612	25888747	BUTTON, GREY, REC FOR WHITE	635	22707835	SCREW, 3.0X16MM, Z, 2DTBID
613	25888604	BUTTON, BLACK, FF FOR BLACK	636	22707842	SCREW, 3.0X8MM, Z, 2DTBID
613	25888748	BUTTON, GREY, FF FOR WHITE	637	22707979	SCREW, 2.6X8MM, Z, 2DTBID
614	25888605	BUTTON, BLACK, STOP/EJECT FOR BLACK	639	22708184	SCREW, 3.0X10MM, N, 2DTBID
			640	22708045	SCREW, 3.0X8MM, Z, 2DTPAN
			641	22708412	SCREW, 3.0X30MM, Z, 2DTBID
			642	25889895	BOX ASSY,CASSETTE,LEFT,BLACK
			642	25889896	BOX ASSY,CASSETTE,LEFT,WHITE EUROPE

MECHANISM PARTS LIST

Location No.	Part No.	Description	Location No.	Part No.	Description
1	25781344	BASE ASSY, MAIN	45	25784609	BASE ASSY, REEL
2	25724998	PLATE, SWITCH	46	25784610	PLATE ASSY, TAKE-UP
3	25784604	ACTUATOR ASSY	47	25757202	GEAR, TAKE-UP
5	25784395	LEVER	48	25776911	SPRING
10	25784496	LEVER, REWIND	49	25757203	GEAR, FF
11	25784607	LEVER, PAUSE	50	25777771	SPRING
12	25776903	SPRING	51	25712476	REEL ASSY, SUPPLY
13	25784456	STOPPER, PAUSE	52	25754537	REEL ASSY, TAKE-UP
14	25778500	SPRING	53	25747303	LEVER, RECORD SAFETY (TAPE 2)
15	25792017	CHASSIS, SUB	54	25777418	SPRING
16	25776905	SPRING (TAPE 2)	56	25761541	CUSHION, MOTOR
17	25770107	SPRING (TAPE 2)	57	22708942	SCREW, SPECIAL
18	25779468	SPRING, REC PLATE (TAPE 2)	59	25759139	BELT, MAIN
19	25776907	SPRING	62	25747267	LEVER, SLIDE, EJECT
20	25784494	LEVER, AUTO	63	25776912	SPRING
21	25776908	SPRING	65	22217555	HEAD, PLAYBACK (TAPE 1)
22	25776972	SPRING BUTTON LEVER	66	22217556	HEAD, RECORD/PLAYBACK (TAPE 2)
23	22108017	LEAF SWITCH	67	22218320	HEAD, ERASE (TAPE 2)
25	25733549	PANEL, HEAD	68	25793479	MOTOR ASSY
27	25733550	BASE, HEAD	69	25776971	SPRING
28	25784608	PLATE ASSY, SENCING	70	22708010	SCREW, 2.0X3MM, TAMS (TAPE 2)
29	25770082	SPRING (TAPE 2)	71	22708503	SCREW, 2.0X3MM
30	25778326	SPRING	72	22708504	SCREW, 2.0X4MM
31	25747266	ARM, MG (TAPE 2)	73	22708723	SCREW, 2.0X5MM
33	22708501	SCREW, SPECIAL	77	22708015	SCREW, 2.0X7MM, CAP
34	25778327	SPRING	78	22708507	SCREW, 2.0X7MM, AZIMUTH
35	25797148	ARM ASSY, PRESSURE ROLLER	83	25766492	WASHER, 1.2X3.7X0.4MM, OP
36	25778702	SPRING	84	22703441	WASHER, 1.55X3.8X0.5MM, PO
39	25793049	ARM ASSY, RF PULLEY	85	25766336	WASHER
40	25776910	SPRING	87	22708728	SCREW
41	22708724	SCREW, COLLAR	91	25784611	LEVER, PLAY KICK
42	25759084	BELT	93	22709326	SCREW, SPECIAL
43	25797216	FLYWHEEL ASSY (TAPE 1)	94	22708943	SCREW, SPECIAL
44	25797121	FLYWHEEL ASSY (TAPE 2)	95	25770077	SPRING
			99	22108016	LEAF SWITCH (TAPE 1)

PARTS LIST

CAUTION:

The Δ mark, the Location No. circled with oval in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list.

ABBREVIATIONS

1. **CAPACITOR:** CD = Ceramic Disk, PF = Plastic Film, BL = Barrier Layer, EL = Electrolytic, MY = Mylar, PP = Polypropylene, PS = Polystyrene, TT = Tantalum, PE = Polyethylene
 MFD = Microfarad, PF = Picofarad, V = Voltage, NP = Non Polarity
2. **RESISTOR:** CF = Carbon Film, CC = Carbon Composition, OMF = Oxide Metal Film, MF = Metal Film
 K = Kilo (1000), M = Mega (1000000)
3. **TOLERANCE**

Symbol	F	G	J	K	M	N	Z	P
%	± 1	± 2	± 5	± 10	± 20	± 30	-20+80	0+100

Symbol	C	D
pF	± 0.25	± 0.5

Location No.	Part No.	Description	Location No.	Part No.	Description
IC/TRANSISTORS			DIODE		
IC001	B0325502	IC, TA7358AP	D001	22119403	DIODE, 1SS131T-72
IC101	B0358070	IC, TA7757P	D002	A7153050	DIODE, 1SS242
IC201	B0325620	IC, TA7370P	D003	A7288690	DIODE, 1SV101
IC401	B0470162	IC, TC4016BP	D004	A7288690	DIODE, 1SV101
IC501	B0356695	IC, TA7668BP	D101	A7288911	DIODE, 1SV149-B(PAIR)
IC601	B0319970	IC, TA7233P	D102	A7288911	DIODE, 1SV149-B(PAIR)
Q102	22128241	TRANSISTOR, DTC144ES	D104	22119403	DIODE, 1SS131T-72
Q202	22128244	TRANSISTOR, DTA143XS	D108	22119403	DIODE, 1SS131T-72
Q203	22128241	TRANSISTOR, DTC144ES	D250	22119403	DIODE, 1SS131T-72
Q401	A6332440	TRANSISTOR, 2SC2458-GR	D301	A8603120	DIODE, TLR206, LED
Q403	A6332440	TRANSISTOR, 2SC2458-GR	D401	22119403	DIODE, 1SS131T-72
Q501	A6041970	TRANSISTOR, 2SK118-R, FET	D451	22119403	DIODE, 1SS131T-72
Q502	A6041970	TRANSISTOR, 2SK118-R, FET	D502	22119403	DIODE, 1SS131T-72
Q503	A6041970	TRANSISTOR, 2SK118-R, FET	D504	22119403	DIODE, 1SS131T-72
Q504	A6041970	TRANSISTOR, 2SK118-R, FET	D709	A7153850	DIODE, 1SS293
Q505	A6332440	TRANSISTOR, 2SC2458-GR	D715	22119404	DIODE, 1SS135T-72
Q506	A6321240	TRANSISTOR, 2SC2120-Y	D720	22119403	DIODE, 1SS131T-72
Q507	A6332440	TRANSISTOR, 2SC2458-GR	D721	22119403	DIODE, 1SS131T-72
Q551	A6332440	TRANSISTOR, 2SC2458-GR	D722	A7116405	DIODE, 04AZ5.6-X, ZENER
Q603	A6342210	TRANSISTOR, 2SC2878-B	D730	22119403	DIODE, 1SS131T-72
Q604	A6342210	TRANSISTOR, 2SC2878-B	D731	22119403	DIODE, 1SS131T-72
Q701	22128656	IC, TC9307F-004-BS	D741	22119403	DIODE, 1SS131T-72
Q702	22128384	TRANSISTOR, 2SC2063-P	D742	22119403	DIODE, 1SS131T-72
Q703	A6332530	TRANSISTOR, 2SC2668-O	D745	22119403	DIODE, 1SS131T-72
Q704	A6332530	TRANSISTOR, 2SC2668-O	D746	22119403	DIODE, 1SS131T-72
Q720	22128397	TRANSISTOR, 2SA937-R	D747	22119403	DIODE, 1SS131T-72
Q721	22128383	TRANSISTOR, 2SC2021-R	D748	22119403	DIODE, 1SS131T-72
Q722	A6041970	TRANSISTOR, 2SK118-R, FET	D749	22119403	DIODE, 1SS131T-72
Q723	22128397	TRANSISTOR, 2SA937-R	D751	A7110115	DIODE, 05Z6.8-Y, ZENER
Q730	22128383	TRANSISTOR, 2SC2021-R	Δ D801	A7978380	DIODE, S5277B
Q731	22128383	TRANSISTOR, 2SC2021-R	Δ D802	A7978380	DIODE, S5277B
Q733	A6041970	TRANSISTOR, 2SK118-R, FET	Δ D803	A7978380	DIODE, S5277B
Q734	22128382	TRANSISTOR, 2SC2021LN-R	Δ D804	A7978380	DIODE, S5277B
Q735	22128382	TRANSISTOR, 2SC2021LN-R			
Q751	A6319300	TRANSISTOR, 2SC1959-Y			
Q851	A6639700	TRANSISTOR, 2SB1023			
Q852	A6332440	TRANSISTOR, 2SC2458-GR			
Q901	A6332440	TRANSISTOR, 2SC2458-GR	A001	22124812	ROD ANTENNA
Q902	A6534440	TRANSISTOR, 2SA1048-GR	EP01	22165097	HOLDER, FUSE
Q903	A6332440	TRANSISTOR, 2SC2458-GR			
			ELECTRICAL PARTS		

Location No.	Part No.	Description	Location No.	Part No.	Description
△ F801	22144387	FUSE, 250V, 800MA EUROPE	S109	22196493	KEY SWITCH M3
△ F801	22144513	FUSE, 250V, 800MA, TIME LUG UK	S110	22196493	KEY SWITCH M4
G401	22154265	MICROPHONE, BUILT-IN	S111	22196493	KEY SWITCH M5
J601	22198377	JACK, 3.5MM HEADPHONE	S112	22196493	KEY SWITCH MEMORY SCAN
△ J901	22169187	AC SOCKET EUROPE	S113	22196493	KEY SWITCH MEMORY
△ J901	22169188	AC SOCKET UK	S114	22196493	KEY SWITCH SLEEP
L001	22294722	COIL FM ANTENNA	S115	22196493	KEY SWITCH SHIFT
L002	22294634	COIL FM OSCILLATOR	S2	22108163	SLIDE SWITCH FM-AM-TAPE
L003	22265895	IF TRANSFORMER, FM	S3	22108163	SLIDE SWITCH MONO-STEREO
L101	22291188	CHOKE COIL, 1.5UH	S4	22108162	SLIDE SWITCH TIMER
L102	22282283	COIL, ANTENNA SW	S901	22108017	LEAF SWITCH PLAY(TAPE 1)
L104	22243165	COIL, ANTENNA, MW/LW L105	S902	22108017	LEAF SWITCH PLAY(TAPE 2)
L106	22264912	IF TRANSFORMER, AM	S903	22108016	LEAF SWITCH POWER
L107	22265912	IF TRANSFORMER, FM	△ T901	22225089	POWER TRANSFORMER EUROPE
L108	22264912	IF TRANSFORMER, AM	△ T901	22225090	POWER TRANSFORMER UK
L109	22291413	CHOKE COIL, 1.5UH	W301	22157003	SPEAKER, 10CM, 4 OHM
L110	22245508	COIL, OSCILLATOR LW	W302	22157003	SPEAKER, 10CM, 4 OHM
L111	22245509	COIL, OSCILLATOR MW	Z001	22153377	FILTER, RF, FM
L551	22235227	COIL, OSCILLATOR TAPE BIAS	Z101	22153320	FILTER, CERAMIC, 10.7MS2A
L701	22291419	CHOKE COIL	Z102	22153449	FILTER, CERAMIC, AM
L702	22291435	CHOKE COIL, 100UH	Z701	22153538	OSCILLATOR, CRYSTAL, 75KHZ
L705	22291419	CHOKE COIL	Z702	22104730	DISPLAY, LIQUID CRYSTAL
L730	22240008	COIL, DC/DC CONVERTER			
L901	22291512	CHOKE COIL			
S001	22108164	SLIDE SWITCH BAND SELECT			
S1	22196990	SLIDE SWITCH REC/PLAY			
S102	22196493	KEY SWITCH DOWN/HOUR			
S103	22196493	KEY SWITCH FAST			
S104	22196493	KEY SWITCH UP/MIN			
S105	22196493	KEY SWITCH MODE			
S106	22196493	KEY SWITCH AUTO			
S107	22196493	KEY SWITCH M1/TIMER ON			
S108	22196493	KEY SWITCH M2/TIMER OFF			

CAPACITORS

C001	22309252	TRIMMER, 10PF FM ANTENNA
C002	22309287	TRIMMER, 10PF SW ANTENNA
C003	22309288	TRIMMER, 20PF LW ANTENNA
C004	22309287	TRIMMER, 10PF MW ANTENNA
C005	20311150	CD, 15PF, 50V, J
C006	20343102	CD, 1000PF, 50V, K
C007	20311151	CD, 150PF, 50V, J
C008	20311509	CD, 5PF, 50V, D
C009	20343102	CD, 1000PF, 50V, K

Location No.	Part No.	Description	Location No.	Part No.	Description
C010	20343102	CD, 1000PF, 50V, K	C509	20414470	EL, 47MFD, 10V
C011	20312330	CD, 33PF, 50V, J(CH)	C510	20414470	EL, 47MFD, 10V
C012	20311101	CD, 100PF, 50V, J	C511	20318103	BL, 0.01MFD, 25V, K
C013	20311209	CD, 2PF, 50V, D	C512	20318103	BL, 0.01MFD, 25V, K
C014	20311100	CD, 10PF, 50V, D	C513	20318473	BL, 0.047MFD, 25V, K
C015	20343101	CD, 100PF, 50V, K	C514	20318473	BL, 0.047MFD, 25V, K
C101	20311150	CD, 15PF, 50V, J	C515	20418339	EL, 3.3MFD, 50V
C102	20311120	CD, 12PF, 50V, J	C516	20418339	EL, 3.3MFD, 50V
C105	20311270	CD, 27PF, 50V, J	C517	20341103	CD, 0.01MFD, 50V, Z
C107	20318473	BL, 0.047MFD, 25V, K	C518	20341103	CD, 0.01MFD, 50V, Z
C108	20318103	BL, 0.01MFD, 25V, K	C519	20418339	EL, 3.3MFD, 50V
C109	20318472	BL, 4700PF, 25V, K	C520	20418339	EL, 3.3MFD, 50V
C110	20318103	BL, 0.01MFD, 25V, K	C521	20343122	CD, 1200PF, 50V, K
C111	20318103	BL, 0.01MFD, 25V, K	C522	20343122	CD, 1200PF, 50V, K
C112	20343102	CD, 1000PF, 50V, K	C523	20414470	EL, 47MFD, 10V
C113	20418339	EL, 3.3MFD, 50V	C524	20414101	EL, 100MFD, 10V
C114	20318103	BL, 0.01MFD, 25V, K	C525	20415100	EL, 10MFD, 16V
C115	20318103	BL, 0.01MFD, 25V, K	C526	20415100	EL, 10MFD, 16V
C116	20415220	EL, 22MFD, 16V	C551	20311151	CD, 150PF, 50V, J
C117	20311609	CD, 6PF, 50V, J	C552	20311331	CD, 330PF, 50V, J
C119	20318103	BL, 0.01MFD, 25V, K	C553	20381152	PP, 1500PF, 100V, J
C120	20318562	BL, 5600PF, 25V, K	C554	20381392	PP, 3900PF, 100V, J
C122	20311509	CD, 5PF, 50V, D	C555	20414470	EL, 47MFD, 10V
C123	20311509	CD, 5PF, 50V, D	C601	20341473	CD, 0.047MFD, 50V, Z
C123	20381221	PP, 220PF, 100V, J	C602	20341473	CD, 0.047MFD, 50V, Z
C124	20381221	PP, 220PF, 100V, J	C603	20418478	EL, 0.47MFD, 50V
C125	20311560	CD, 56PF, 50V, J	C604	20418478	EL, 0.47MFD, 50V
C126	20311680	CD, 68PF, 50V, J	C605	20343102	CD, 1000PF, 50V, K
C127	20381471	PP, 470PF, 100V, J	C606	20343102	CD, 1000PF, 50V, K
C129	20311809	CD, 8PF, 50V, D	C607	20415100	EL, 10MFD, 16V
C130	20311100	CD, 10PF, 50V, D	C608	20415100	EL, 10MFD, 16V
C131	20318103	BL, 0.01MFD, 25V, K	C609	20414101	EL, 100MFD, 10V
C132	20414470	EL, 47MFD, 10V	C610	20414101	EL, 100MFD, 10V
C133	20414470	EL, 47MFD, 10V	C611	20371154	MY, 0.15MFD, 100V, J
C134	20343391	CD, 390PF, 50V, K	C612	20371154	MY, 0.15MFD, 100V, J
C135	20415220	EL, 22MFD, 16V	C613	20413102	EL, 1000MFD, 6.3V
C202	20418108	EL, 0.1MFD, 50V	C614	20413102	EL, 1000MFD, 6.3V
C203	20318473	BL, 0.047MFD, 25V, K	C615	20415222	EL, 2200MFD, 16V
C204	20381391	PP, 390PF, 100V, J	C616	20414470	EL, 47MFD, 10V
C205	20314473	CD, 0.047MFD, 50V, J, RH	C701	20343102	CD, 1000PF, 50V, K
C206	20318103	BL, 0.01MFD, 25V, K	C703	20322100	CD, 10PF, 50V, J(CH)
C207	20318103	BL, 0.01MFD, 25V, K	C704	22309253	TRIMMER, 20PF TIMER ADJUST
C250	20418108	EL, 0.1MFD, 50V	C706	20428478	EL, 0.47MFD, 50V
C251	20418108	EL, 0.1MFD, 50V	C707	20328103	BL, 0.01MFD, 16V, M
C401	20341223	CD, 0.022MFD, 50V, Z	C708	20343102	CD, 1000PF, 50V, K
C402	20341473	CD, 0.047MFD, 50V, Z	C709	20343102	CD, 1000PF, 50V, K
C451	20318473	BL, 0.047MFD, 25V, K	C711	20343102	CD, 1000PF, 50V, K
C452	20341223	CD, 0.022MFD, 50V, Z	C712	20328103	BL, 0.01MFD, 16V, M
C453	20415100	EL, 10MFD, 16V	C713	20414101	EL, 100MFD, 10V
C501	20418339	EL, 3.3MFD, 50V	C714	20343121	CD, 120PF, 50V, K
C502	20418339	EL, 3.3MFD, 50V	C715	20343331	CD, 330PF, 50V, K
C503	20343102	CD, 1000PF, 50V, K	C716	20311100	CD, 10PF, 50V, D
C504	20343102	CD, 1000PF, 50V, K	C722	20343331	CD, 330PF, 50V, K
C507	20343331	CD, 330PF, 50V, K			
C508	20343331	CD, 330PF, 50V, K			

Location No.	Part No.	Description	Location No.	Part No.	Description
C723	20328103	BL, 0.01MFD, 16V, M	R254	20512683	CF, 68K OHM, 1/6W, J
C724	20343102	CD, 1000PF, 50V, K	R255	20512471	CF, 470 OHM, 1/6W, J
C725	20343102	CD, 1000PF, 50V, K	R256	20512471	CF, 470 OHM, 1/6W, J
C726	20343102	CD, 1000PF, 50V, K	R301	20512472	CF, 4.7K OHM, 1/6W, J
C730	20328103	BL, 0.01MFD, 16V, M	R403	20512474	CF, 470K OHM, 1/6W, J
C731	20343101	CD, 100PF, 50V, K	R404	20512103	CF, 10K OHM, 1/6W, J
C732	20343102	CD, 1000PF, 50V, K	R406	20512103	CF, 10K OHM, 1/6W, J
C733	20343102	CD, 1000PF, 50V, K	R407	20512103	CF, 10K OHM, 1/6W, J
C734	20329222	BL, 2200PF, 16V, M	R408	20512473	CF, 47K OHM, 1/6W, J
C735	20371223	MY, 0.022MFD, 50V, J	R409	20512474	CF, 470K OHM, 1/6W, J
C740	20415330	EL, 33MFD, 16V	R410	20512103	CF, 10K OHM, 1/6W, J
C741	20318103	BL, 0.01MFD, 25V, K	R411	20512474	CF, 470K OHM, 1/6W, J
C742	20418478	EL, 0.47MFD, 50V	R451	20512222	CF, 2.2K OHM, 1/6W, J
C743	20343331	CD, 330PF, 50V, K	R452	20512222	CF, 2.2K OHM, 1/6W, J
C744	20318472	BL, 4700PF, 25V, K	R453	20512562	CF, 5.6K OHM, 1/6W, J
C745	20328103	BL, 0.01MFD, 16V, M	R501	20512224	CF, 220K OHM, 1/6W, J
C750	20341473	CD, 0.047MFD, 50V, Z	R502	20512224	CF, 220K OHM, 1/6W, J
C751	20341223	CD, 0.022MFD, 50V, Z	R503	20512123	CF, 12K OHM, 1/6W, J
C752	20414471	EL, 470MFD, 10V	R504	20512123	CF, 12K OHM, 1/6W, J
C801	20341223	CD, 0.022MFD, 50V, Z	R505	20512472	CF, 4.7K OHM, 1/6W, J
C802	20341223	CD, 0.022MFD, 50V, Z	R506	20512472	CF, 4.7K OHM, 1/6W, J
C803	20341223	CD, 0.022MFD, 50V, Z	R507	20512470	CF, 47 OHM, 1/6W, J
C804	20341223	CD, 0.022MFD, 50V, Z	R508	20512470	CF, 47 OHM, 1/6W, J
C851	20418109	EL, 1MFD, 50V	R509	20512225	CF, 2.2M OHM, 1/6W, J
C901	20415221	EL, 220MFD, 16V	R510	20512225	CF, 2.2M OHM, 1/6W, J
C902	20341223	CD, 0.022MFD, 50V, Z	R511	20512225	CF, 2.2M OHM, 1/6W, J
C903	20341223	CD, 0.022MFD, 50V, Z	R512	20512225	CF, 2.2M OHM, 1/6W, J
RESISTORS					
R001	20512153	CF, 15K OHM, 1/6W, J	R513	20512823	CF, 82K OHM, 1/6W, J
R002	20512104	CF, 100K OHM, 1/6W, J	R514	20512823	CF, 82K OHM, 1/6W, J
R003	20512331	CF, 330 OHM, 1/6W, J	R517	20512223	CF, 22K OHM, 1/6W, J
R004	20512100	CF, 10 OHM, 1/6W, J	R518	20512223	CF, 22K OHM, 1/6W, J
R005	20512104	CF, 100K OHM, 1/6W, J	R519	20512225	CF, 2.2M OHM, 1/6W, J
R006	20512331	CF, 330 OHM, 1/6W, J	R520	20512222	CF, 2.2K OHM, 1/6W, J
R103	20512104	CF, 100K OHM, 1/6W, J	R521	20512225	CF, 2.2M OHM, 1/6W, J
R104	20512331	CF, 330 OHM, 1/6W, J	R522	20512102	CF, 1K OHM, 1/6W, J
R105	20512331	CF, 330 OHM, 1/6W, J	R523	20512474	CF, 470K OHM, 1/6W, J
R107	20512123	CF, 12K OHM, 1/6W, J	R524	20512103	CF, 10K OHM, 1/6W, J
R108	20512471	CF, 470 OHM, 1/6W, J	R525	20512104	CF, 100K OHM, 1/6W, J
R109	20512222	CF, 2.2K OHM, 1/6W, J	R526	20512470	CF, 47 OHM, 1/6W, J
R110	20512333	CF, 33K OHM, 1/6W, J	R527	20512221	CF, 220 OHM, 1/6W, J
R111	20512470	CF, 47 OHM, 1/6W, J	R528	20512101	CF, 100 OHM, 1/6W, J
R112	20512272	CF, 2.7K OHM, 1/6W, J	R529	20512399	CF, 3.9 OHM, 1/6W, J
R113	20512332	CF, 3.3K OHM, 1/6W, J	R551	20512181	CF, 180 OHM, 1/6W, J
R114	20512332	CF, 3.3K OHM, 1/6W, J	R552	20512680	CF, 68 OHM, 1/6W, J
R120	20512103	CF, 10K OHM, 1/6W, J	R552	20512683	CF, 68K OHM, 1/6W, J
R121	20512104	CF, 100K OHM, 1/6W, J	R553	20512680	CF, 68 OHM, 1/6W, J
R201	20512123	CF, 12K OHM, 1/6W, J	R605	20512221	CF, 220 OHM, 1/6W, J
R202	20512273	CF, 27K OHM, 1/6W, J	R606	20512221	CF, 220 OHM, 1/6W, J
R204	20512470	CF, 47 OHM, 1/6W, J	R607	20512212	CF, 120 OHM, 1/6W, J
R214	20512102	CF, 1K OHM, 1/6W, J	R608	20512121	CF, 120 OHM, 1/6W, J
R253	20512683	CF, 68K OHM, 1/6W, J	R609	20512222	CF, 2.2K OHM, 1/6W, J
			R701	20512104	CF, 100K OHM, 1/6W, J
			R702	20512331	CF, 330 OHM, 1/6W, J
			R703	20512821	CF, 820 OHM, 1/6W, J

Location No.	Part No.	Description
R704	20512154	CF, 150K OHM, 1/6W, J
R705	20512222	CF, 2.2K OHM, 1/6W, J
R706	20512184	CF, 180K OHM, 1/6W, J
R707	20512102	CF, 1K OHM, 1/6W, J
R708	20512470	CF, 47 OHM, 1/6W, J
R709	20512223	CF, 22K OHM, 1/6W, J
R710	20512101	CF, 100 OHM, 1/6W, J
R711	20512102	CF, 1K OHM, 1/6W, J
R712	20512102	CF, 1K OHM, 1/6W, J
R713	20512474	CF, 470K OHM, 1/6W, J
R714	20512333	CF, 33K OHM, 1/6W, J
R715	20512103	CF, 10K OHM, 1/6W, J
R716	20512184	CF, 180K OHM, 1/6W, J
R717	20512223	CF, 22K OHM, 1/6W, J
R719	20512103	CF, 10K OHM, 1/6W, J
R722	20512104	CF, 100K OHM, 1/6W, J
R723	20512104	CF, 100K OHM, 1/6W, J
R724	20512103	CF, 10K OHM, 1/6W, J
R725	20512103	CF, 10K OHM, 1/6W, J
R727	20512104	CF, 100K OHM, 1/6W, J
R728	20512224	CF, 220K OHM, 1/6W, J
R729	20512181	CF, 180 OHM, 1/6W, J
R730	20512101	CF, 100 OHM, 1/6W, J
R731	20512102	CF, 1K OHM, 1/6W, J
R732	20512104	CF, 100K OHM, 1/6W, J
R733	20512105	CF, 1M OHM, 1/6W, J
R734	20512473	CF, 47K OHM, 1/6W, J
R736	20512682	CF, 6.8K OHM, 1/6W, J
R737	20512334	CF, 330K OHM, 1/6W, J
R739	20512274	CF, 270K OHM, 1/6W, J
R742	20512103	CF, 10K OHM, 1/6W, J
R743	20512103	CF, 10K OHM, 1/6W, J
R744	20512103	CF, 10K OHM, 1/6W, J
R745	20512103	CF, 10K OHM, 1/6W, J
R746	20512103	CF, 10K OHM, 1/6W, J
R747	20512103	CF, 10K OHM, 1/6W, J
R748	20512103	CF, 10K OHM, 1/6W, J
R749	20512103	CF, 10K OHM, 1/6W, J
R750	20512331	CF, 330 OHM, 1/6W, J
R751	20512221	CF, 220 OHM, 1/6W, J
R752	20512221	CF, 220 OHM, 1/6W, J
R753	20512100	CF, 10 OHM, 1/6W, J
R851	20512224	CF, 220K OHM, 1/6W, J
R852	20512394	CF, 390K OHM, 1/6W, J
R853	20512222	CF, 2.2K OHM, 1/6W, J
R854	20512102	CF, 1K OHM, 1/6W, J
R855	20512333	CF, 33K OHM, 1/6W, J
R901	20512103	CF, 10K OHM, 1/6W, J
R902	20512332	CF, 3.3K OHM, 1/6W, J
R903	20512103	CF, 10K OHM, 1/6W, J
R904	20512823	CF, 82K OHM, 1/6W, J
R905	20512474	CF, 470K OHM, 1/6W, J
VR203	22659048	VARIABLE, SEMI FIXED, 10K-B FREE RUN
VR601	22657478	VARIABLE, 50K OHM, A

Location No.	Part No.	Description
VR603	22657477	VARIABLE, 50K OHM, B VR604, VOLUME
VR605	22657479	VARIABLE, 50K OHM, B BALANCE
VR901	22659047	VARIABLE, SEMI FIXED, 2K-B TAPE SPEED

ACCESSORIES

△ AC01	22176541	POWER CORD EUROPE/CZECHO
△ AC01	22176578	POWER CORD UK
AC02	22908826	OWNER'S MANUAL, EUROPE
AC02	22908827	OWNER'S MANUAL, UK
AC02	22908939	OWNER'S MANUAL, CZECHO