SERVICE DATA
FILE NO. 110-266

TOSHIBA

STEREO RADIO CASSETTE RECORDER

RT-200S

SPECIFICATIONS			
Cassette tape used:	Normal: C-30, C-60, C-90, C-120 Chrome: C-45, C-60, C-90 Metal: C-46, C-60	Jack:	[MIC] jack x 2, Impedance 200 ohm to 2K ohm [MIXING MIC] jack x 1, Impedance 200 ohm to 2K ohm [AUX] jack x 2, Impedance 47K ohm [LINE OUT] jack x 2, Impedance 4.7K ohm [EXT SP] jack x 2, Impedance 3.2 ohm to 8 ohm [PHONES] jack headphone
Tape speed:	4.8 cm/sec.		
Track system:	Four-track two-channel stereophonic		
Recording system:	AC bias (85 kHz)		
Erasing system:	AC erasing		
Frequency response:	Normal: 80 Hz to 10 kHz Metal: 80 Hz to 12 kHz		
Receiving frequency:	FM: 88 MHz to 108 MHz SW: 5.9 MHz to 15.4 MHz MW: 525 kHz to 1605 kHz LW: 145 kHz to 270 kHz	Power supply:	AC 220V to 240V, 50 Hz DC 12V (SUM-1 "D" size x 8)
Intermediate frequency:	FM: 10.7 MHz LW, MW, SW: 460 kHz	Power consumption:	18W
Antenna:	FM, SW: telescopic antenna LW, MW: ferrite-core antenna	Dimensions (W x H x D):	455 x 258 x 118 mm
Speakers	120 mm (dia.) dynamic x 2 40 mm (dia.) dynamic x 2	Weight:	3.9 kg (without batteries)

Specifications are subject to change without notice.

TE, TU, AY

CONTENTS

1. BLOCK DIAGRAM 2
2. OPERATING CONTROLS . . . . . 3 to 7
3. DISASSEMBLY INSTRUCTIONS . . . . . 7 to 8
4. HANDLE REMOVAL 8
5. DIAL CORD RESTRINGING 8
6. ALIGNMENT INSTRUCTIONS . . . . . 9 to 12
7. ELECTRICAL PARTS LOCATIONS 13
8. SCHEMATIC DIAGRAM 14
9-1. MECHANISM EXPLODED VIEW (UPPER) 15
9-2. MECHANISM EXPLODED VIEW (LOWER) 16
10. MECHANISM DISASSEMBLY AND SET UP . . . . . 17 to 18
11. MECHANISM PARTS LIST 19
12. CABINET EXPLODED VIEW 20
13. PARTS LIST . . . . . 21 to 24

1. BLOCK DIAGRAM

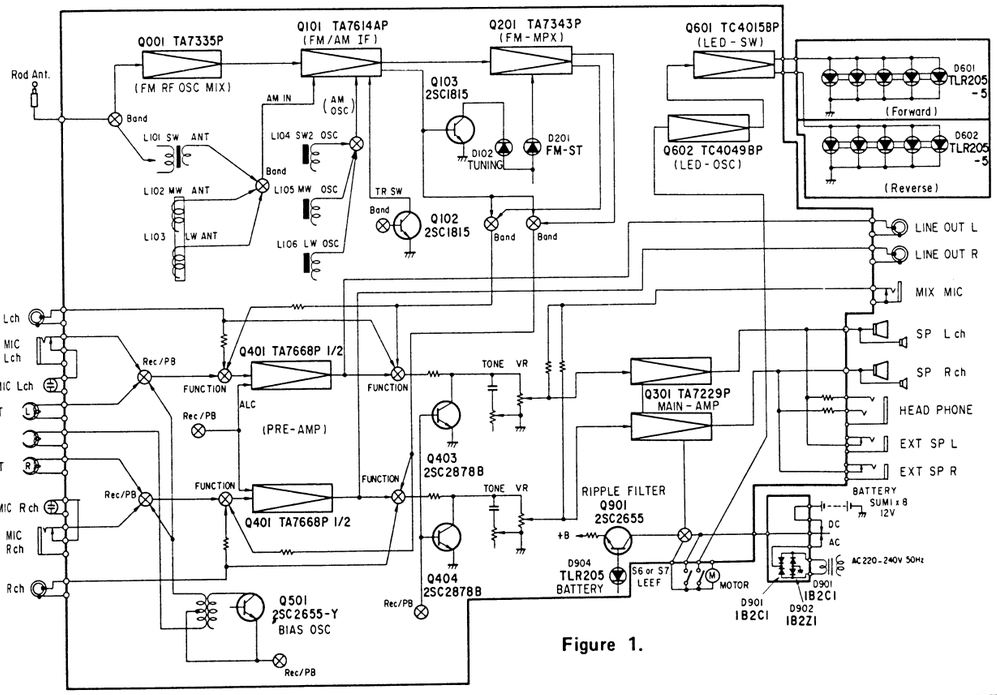
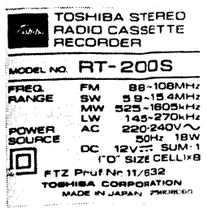


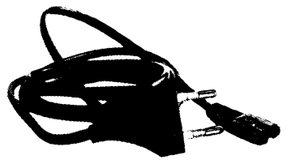
Figure 1.

Nameplate



TE, TU, AY

Power Supply Cord



TE

TU

AY

2. OPERATING CONTROLS

CONTROL FUNCTIONS

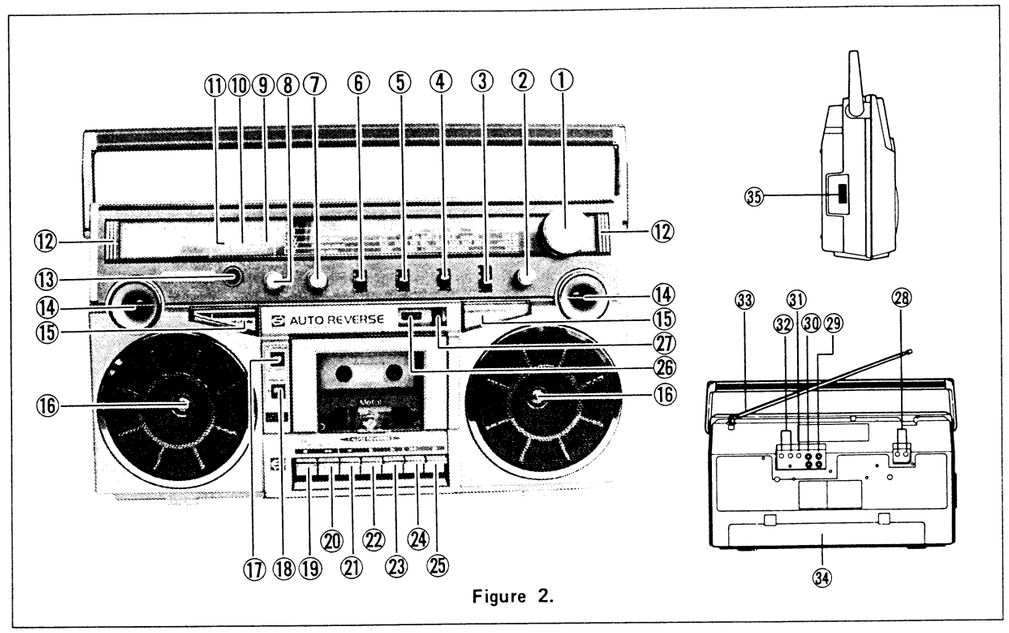


Figure 2.

① Tuning Knob
② [FINE TUNING] Control
③ [BAND] Selector: LM/MW/SW/FM
④ [FUNCTION] Selector: RADIO OFF TAPE/RADIO/AUX
Note: In the RADIO OFF/TAPE position the mains power will still be supplied. Therefore, when not in use unplug the cord from the socket.
⑤ [TAPE SELECTOR] Selector: METAL/CrO_2/NORMAL
⑥ [MODE/BEAT] Selector
⑦ [VOLUME] Control
⑧ [TONE] Control
⑨ [TUNING] Indicator
⑩ [FM STEREO] Indicator
⑪ [BATTERY] Indicator
⑫ Built-in Microphones
⑬ [PHONES] Jack
⑭ Tweeters (Speakers for high-pitched sound)
⑮ Tape Running Indicators
⑯ Woofers (Speakers for low to mid-range sound)
⑰ Cycle Change Lever for AUTO REVERSE: 1 CYCLE/CONT
⑱ CH (channel) Change Lever for AUTO REVERSE: MANUAL
⑲ [■STOP/OPEN] Key
⑳ [◀◀CUE/REVIEW] Key
㉑ [◀PLAY] Key
㉒ [●RECORD] Key
㉓ [▶PLAY] Key
㉔ [▶▶CUE/REVIEW] Key
㉕ [IIPAUSE] Key
㉖ Tape Counter
㉗ Counter Reset Button
㉘ [EXT SP] Jacks
㉙ [LINE OUT] Jacks (Tape play)
㉚ [AUX] Jacks
㉛ [MIXING MIC] Jack
㉜ [MIC] Jacks
㉝ Telescopic Antenna
㉞ Batteries Compartment
㉟ [AC POWER] Socket

5 Recording with External Microphones

Plug external microphones (optional) into the MIC jacks (32) in the rear of the set, and then proceed in exactly the same way as described above for "Recording via Built-in Microphones."

6 Recording from other Audio Equipment

An external amplifier can be connected to the [AUX] jacks (30) in the rear of the set. To record, switch the [FUNCTION] selector (4) to the AUX position, and then proceed in exactly the same way as described above for "Recording via Built-in Microphones."

7 Line Out

When another amplifier or tape deck is connected to the [LINE OUT] jack (29) on the back of the unit, tape sound can be amplified or tape dubbing (copying) can be performed.
After connecting the cord, operate the unit according to the sequence given in Listening to Tapes.

PLAYBACK MIXING

When optional external microphone is to be used, live sounds can be mixed with sound from a played-back tape. When connect it to the [MIXING MIC] jack (31), the sound will still be heard from both left and right speakers. (The mixing microphone jack require 3.5 mm plug.)

3. DISASSEMBLY INSTRUCTIONS

FRONT PANEL REMOVAL

1. Remove 8 Knobs (A) (Tuning, Fine Tuning, Band, Function, Tape Selector, Mode/Beat, Volume and Tone). Figure 3.
2. Remove 7 screws (B). Figure 4.
3. Depress the stop/open button.
4. Separate the front panel from the back cabinet.

MECHANISM ASS'Y REMOVAL

1. Remove 3 screws (C). Figure 5.
2. Disconnect 2 leads wire (D). Figure 5.
3. Separate the mechanism ass'y from the back cabinet.

LED P.C. BOARD ASS'Y REMOVAL

1. Remove 4 screws (E) and (F). Figure 5.
2. Separate 2 LED P.C. Board (Reverse and Forward).

MAIN P.C. BOARD REMOVAL

1. Remove 2 tweeter speakers. Figure 5.
2. Remove 2 screws (G) and the hook of 4P jack (AUX, LINE OUT). Figure 5.
3. Separate the main P.C. Board from the back cabinet.

POWER P.C. BOARD REMOVAL

1. Remove 2 screws (H). Figure 5.
2. Separate the power P.C. Board from the back cabinet.

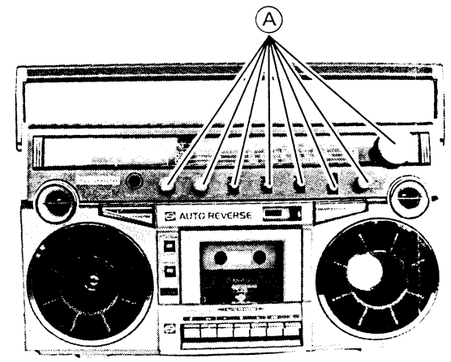


Figure 3.

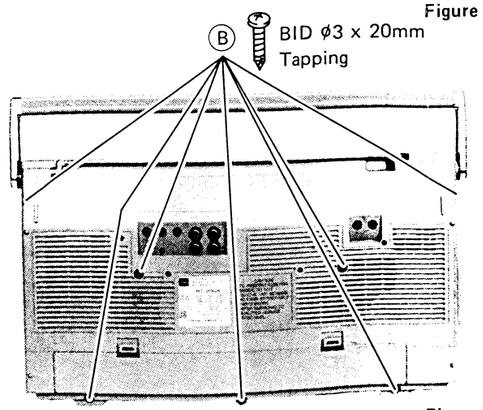


Figure 4.

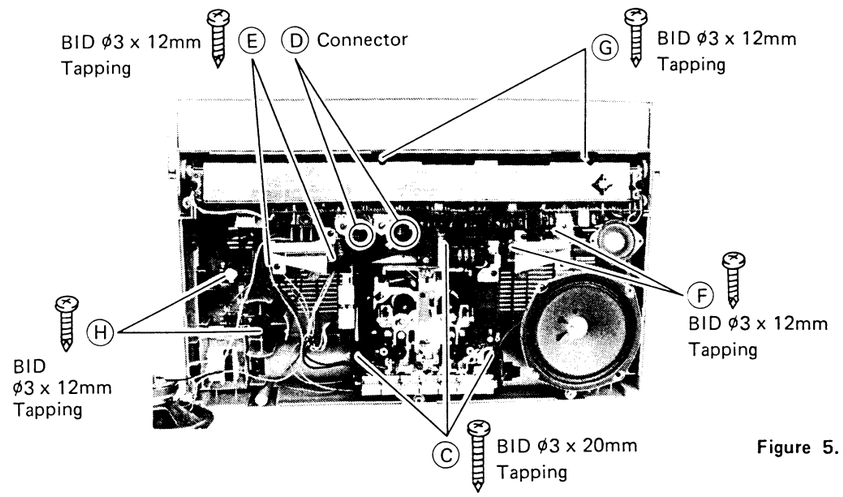


Figure 5.

4. HANDLE REMOVAL

When replacing the handle, remove it by cutting the handle washer shown in figure below with nipper etc.

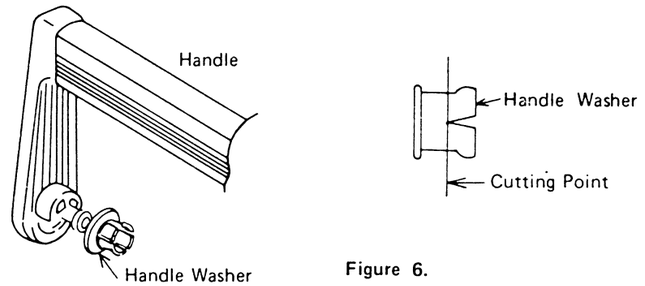


Figure 6.

5. DIAL CORD RESTRINGING

1. Turn the shaft of variable capacitor fully clockwise.
2. Set the dial drum on the shaft of variable capacitor with a screw.
3. Insert the dial cord through the dial drum eye and wind the cord in the numerical stringing sequence indicated in the diagram.
4. Hook the drum spring on the dial drum.
5. Adjust the pointer to "0" with the tuning shaft turning extremely counterclockwise.

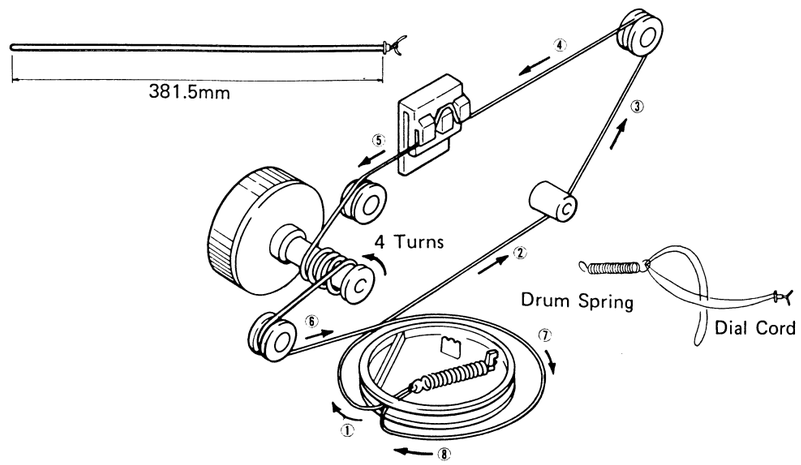


Figure 7.

6. ALIGNMENT INSTRUCTIONS

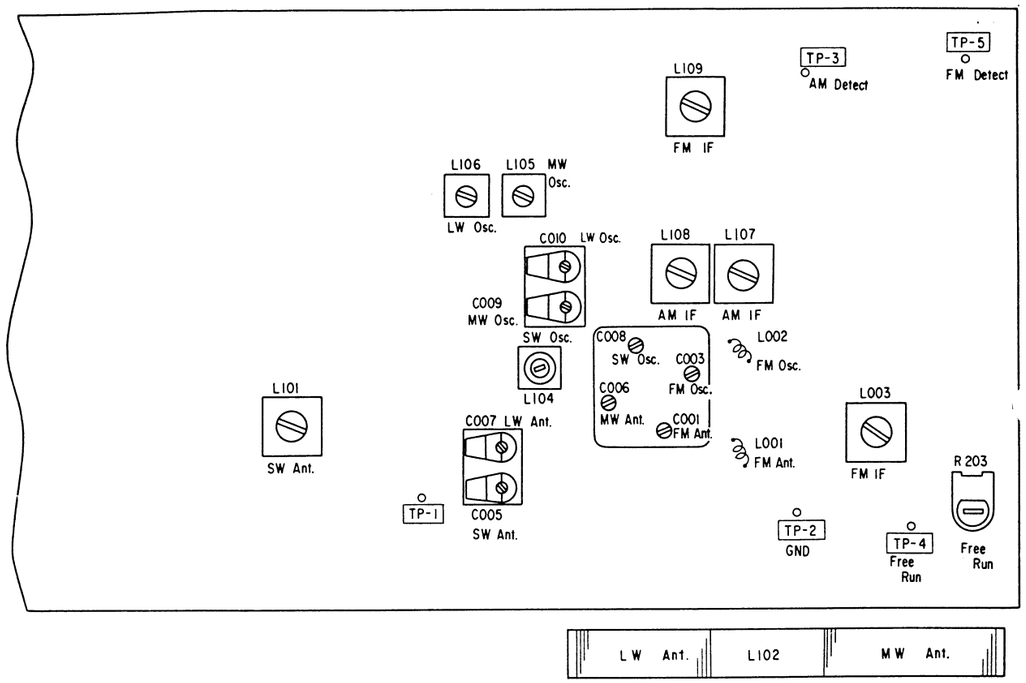


Figure 8.

TEST EQUIPMENT

1. Signal generator with a frequency range of at least from 140 kHz to 23 MHz AM.
2. Oscilloscope with a wide range amplifier of approximately 100 kHz.
3. Test loop – a coil of any size wire, one turn or more. (LW & MW)
4. A 75 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 voice coil or a 3.2 ohm dummy load.
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-LW, MW and SW ALIGNMENT CHARTS.

MW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
IF	1	460 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	L107, L108	Adjust for maximum indication.
MW	2	510 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil , L105 (MW)	Adjust for maximum indication.
	3	1650 kHz	Tuning Gang Fully clockwise (Highest Frequency)	OSC. Trim C009	Adjust for maximum indication.
	4	Repeat steps 2 and 3 as required.			
	5	600 kHz	Tune to Signal.	Ant. Coil L102 (MW)	Adjust for maximum indication.
	6	1400 kHz	Tune to Signal.	Ant. Trim. C006	Adjust for maximum indication.
	7	Repeat steps 5 and 6 as required.			

LW & SW ALIGNMENT CHART

Band	Step	Signal Generator Frequency	Radio Dial Setting	Adjustment	Remarks
LW	1	142 kHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L106 (LW)	Adjust for maximum indication.
	2	280 kHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C010	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			
	4	160 kHz	Tune to Signal.	Ant. Coil L102 (LW)	Adjust for maximum indication.
	5	280 kHz	Tune to Signal.	Ant. Trim. C007	Adjust for maximum indication.
	6	Repeat steps 4 and 5 as required.			
SW	1	5.75 MHz	Tuning Gang Fully Counter-clockwise (Lowest Frequency)	OSC. Coil L104 (SW)	Adjust for maximum indication.
	2	16 MHz	Tuning Gang Fully Clockwise (Highest Frequency)	OSC. Trim. C008	Adjust for maximum indication.
	3	Repeat steps 1 and 2 as required.			
	4	6.5 MHz	Tune to Signal.	Ant. Trim. L101 (SW)	Adjust for maximum indication.
	5	14 MHz	Tune to Signal.	Ant. Trim. C005	Adjust for maximum indication.
	6	Repeat steps 4 and 5 as required.			

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 TUN OUT H and connect the shielded lead to the test point E 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

Step	Signal coupling	Equip.	Tuning	Connection	Adjust. point	Pattern
1	Connect sweep generator output to a three-turn loop antenna of 10cm diameter.	Sweep generator of 10.7 MHz center freq. with 10.7 MHz marker.	Tuning Knob fully counter-clockwise (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, L109	Turn the coil L109 fully counterclockwise to obtain a single peak. Adjust coil L003 in order until the best single peak is obtained. Finally turn the coil L109 to obtain S curve. Fig. 11

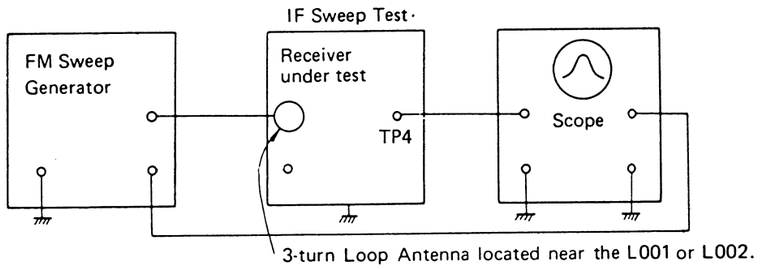


Figure 9.

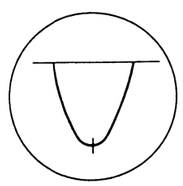


Figure 10.

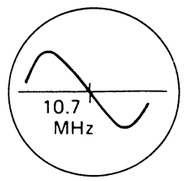


Figure 11.

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 a 3.2 ohm dummy load.
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

Step	Signal Generator	Radio Dial Setting	Adjustment	Remarks
1	87.5 MHz	Tuning Knob fully Counterclockwise (Lowest Frequency)	OSC. Coil L002	Adjust for maximum output indication
2	108 MHz	Tuning Knob fully Clockwise (Highest Frequency)	OSC. Trim. C003	Adjust for maximum output indication
3	Repeat steps 1 and 2 as required.			
4	90 MHz	Tune to signal	Ant. Coil L001	Adjust for maximum output indication
5	106 MHz		Ant. Trim. C001	
6	Repeat steps 4 and 5 as required.			

CAUTION: When realigning the FM Receiving Frequency, the lowest side of the frequency range must not be below 87.5 MHz and upper 108.2 MHz in order to comply with FTZ regulations in West Germany.

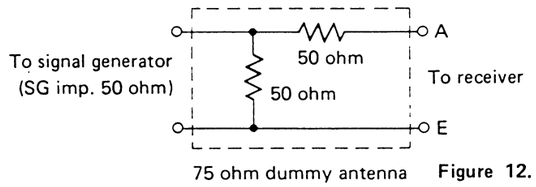


Figure 12.

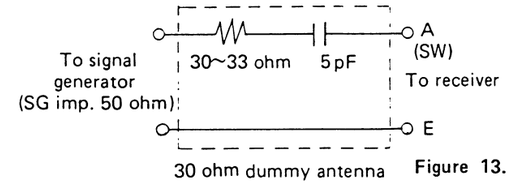


Figure 13.

FREE RUN FREQUENCY ALIGNMENT

Adjust R203 under no signal condition so as to obtain 38 kHz ±75 Hz.

RECORD/PLAYBACK HEAD ADJUSTMENT

A 6.3 kHz standard tape must be used for this adjustment. Connect a VTVM or an oscilloscope to the EXT Speaker jack and adjust the forward azimuth and the reverse one by using a phillips screwdriver to maintain the maximum output voltage.

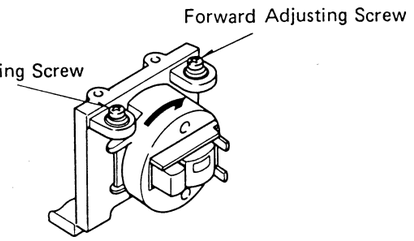


Figure 14.

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 drive belt with alcohol, or replace belt.

7. ELECTRICAL PARTS LOCATIONS

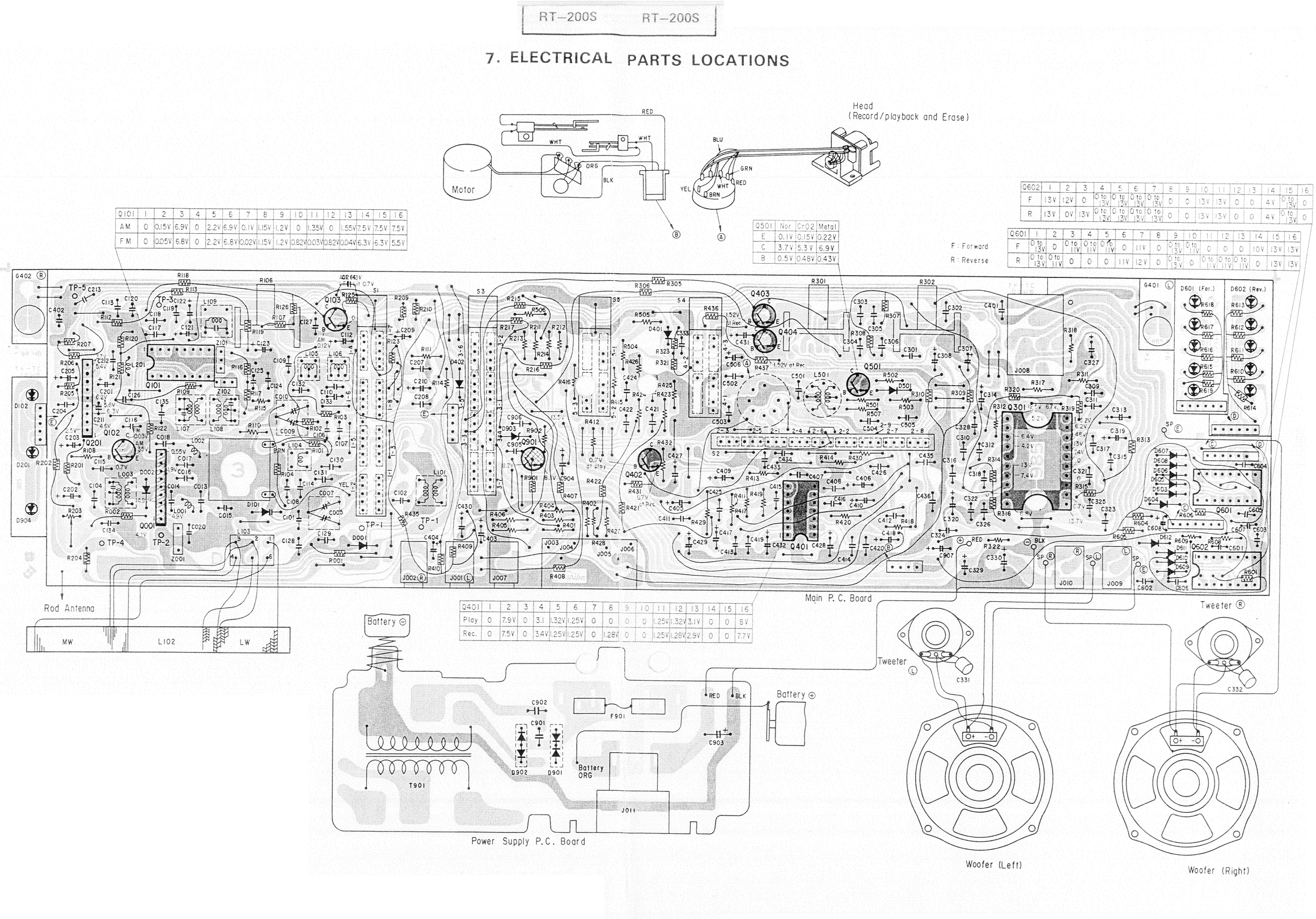
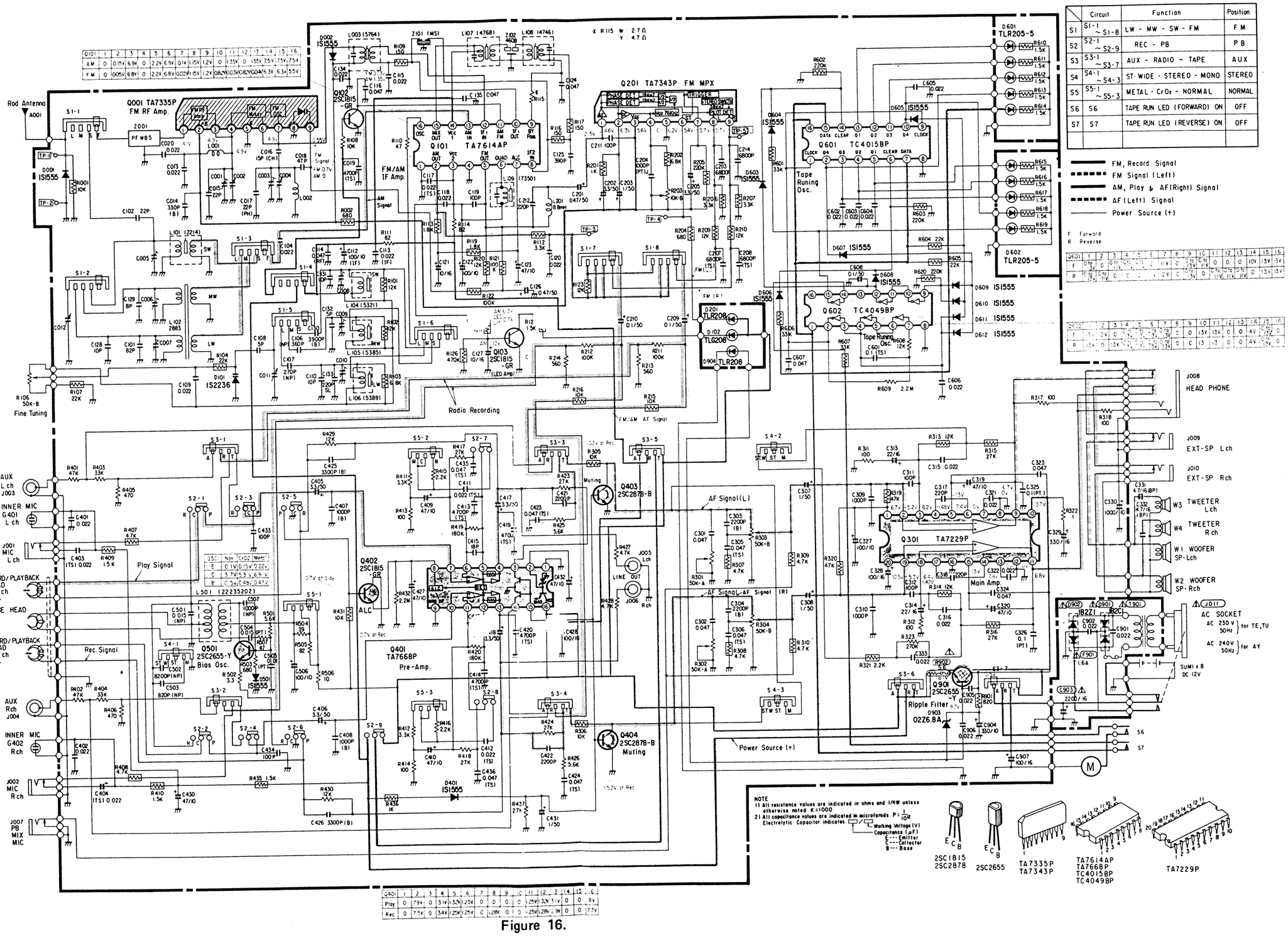


Figure 15.

8. SCHEMATIC DIAGRAM



	Circuit	Function	Position
S1	S1-1 ~ S1-8	LW - MW - SW - FM	FM
S2	S2-1 ~ S2-9	REC - PB	PB
S3	S3-1 ~ S3-7	AUX - RADIO - TAPE	AUX
S4	S4-1 ~ S4-3	ST-WIDE - STEREO - MONO	STEREO
S5	S5-1 ~ S5-3	METAL - CrO2 - NORMAL	NORMAL
S6	S6	TAPE RUN LED (FORWARD) ON	OFF
S7	S7	TAPE RUN LED (REVERSE) ON	OFF

FM, Record Signal
FM Signal (Left)
AM, Play & AF(Right) Signal
AF(Left) Signal
Power Source (+)

F Forward
R Reverse

Q601	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F	0	0.1V	0	0.1V	0.2V	0.2V	0.2V	0	0	0	0	0	0	0	10V	13V
R	10V	13V	0	0.1V	0.2V	0.2V	0.2V	0	0	0	0	0	0	0	13V	13V

Q602	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F	0.2V	0	0.2V	0.2V	0.2V	0.2V	0.2V	0.2V	0.2V	0	13V	13V	0	0	0	0
R	13V	0	13V	13V	13V	13V	13V	13V	13V	0	0	0	13V	13V	0	0

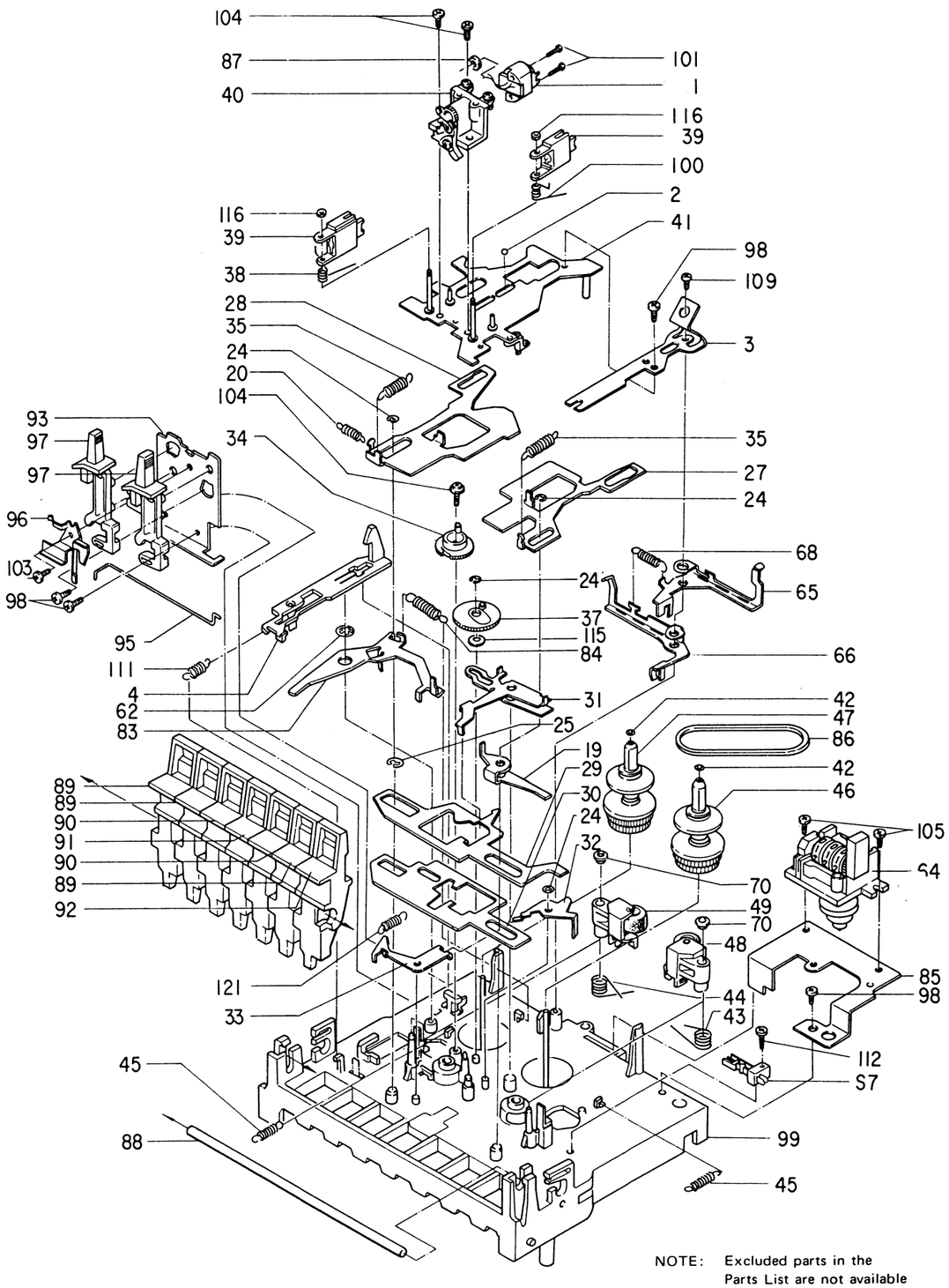
Q401	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Play	0	7.9V	0	3.1V	3.2V	1.25V	0	0	0	0	1.25V	3.2V	3.1V	0	0	8V
Rec	0	7.5V	0	3.4V	1.25V	1.25V	0	1.28V	0	0	1.25V	1.28V	2.9V	0	0	7.7V

NOTE
1) All resistance values are indicated in ohms and 1/4W unless otherwise noted K=1000
2) All capacitance values are indicated in microfarads P=1/10^12
Electrolytic Capacitor indicates — Working Voltage (V) / Capacitance (μF)
E --- Emitter
C --- Collector
B --- Base

2SC1815 2SC2878 — 2SC2655 — TA7335P TA7343P — TA7614AP TA7668P TC4015BP TC4049BP — TA7229P

Figure 16.

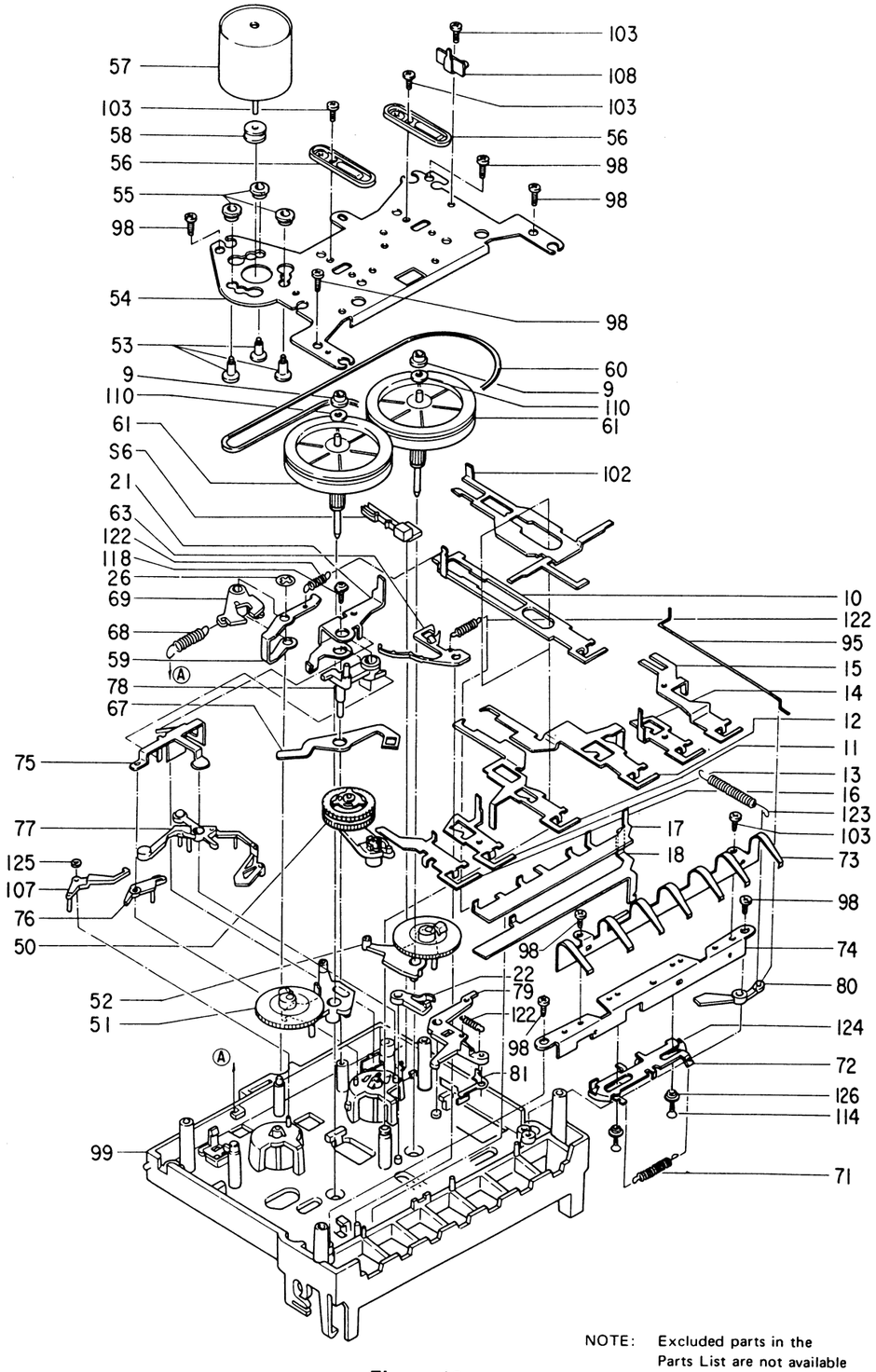
9–1. MECHANISM EXPLODED VIEW (UPPER)



NOTE: Excluded parts in the Parts List are not available as replacement parts.

Figure 17.

9–2. MECHANISM EXPLODED VIEW (LOWER)



NOTE: Excluded parts in the Parts List are not available as replacement parts.

Figure 18.

11. MECHANISM PARTS LIST

Symbol No.	Part No.	Description
		MECHANISM
1	22217387	Head, Record/Playback, HRPET97
2	25757129	Steel Ball
4	25782463	Slider, Cassette Lock
9	25725340	Holder, Flywheel
10	25741871	Operation Plate, Record
20	25776376	Spring, Tension
21	25782456	Lever, Pause Lock
22	25782457	Lever, Play Lock
23	22707718	Screw, BID ϕ2 x 6mm, Azimuth
24	22703118	Retaining Ring, ϕ2
25	22703279	Retaining Ring, ϕ
26	20798037	Ring
34	25791401	Gear A Ass'y, Reverse
35	25776377	Spring, Tension
36	25783226	Bushing
37	25791381	Gear B Ass'y, Reverse
38	25773591	Spring, Tape Guide, Left
39	25783246	Tape Guide
40	25791377	Holder Ass'y, Head
41	25791385	Slider Ass'y, Head
42	25764549	Washer
43	25773571	Spring, Pressure Roller, Right
44	25773572	Spring, Pressure Roller, Left
45	25776372	Spring, Tension
46	25712398	Hub Plate, Right
47	25712399	Hub Plate, Left
48	25717492	Pressure Roller, Right
49	25717493	Pressure Roller, Left
50	25791378	Lever Ass'y, High Speed
51	25791379	Lever Right Ass'y, Take-up
52	25791380	Lever Left Ass'y, Take-up
53	22707429	Screw, Special, ϕ2.6 x 4.9mm
55	25761238	Cushion, Motor
56	25783245	Thrust Plate
57	22125762	Motor, 012E009A
58	25758100	Pulley, Motor
60	25755506	Belt, Drive
61	25717494	Flywheel Ass'y
62	20798033	Ring
64	25873196	Counter, Tape
68	25776373	Spring
69	25782455	Lever, Recording Stop
70	25783260	Bushing
71	25776399	Spring, High Speed Shift
73	25779193	Spring, Operation
76	25782450	Lever, Detect
77	25791409	Lever Ass'y, ASO
78	25782452	Lever, Bias
79	25782453	Lever, Release
80	25782454	Lever, Limit
82	22706010	Ring, CS-5
84	25776378	Spring, Tension
86	25755507	Belt, Counter
89	25782465	Button
90	25782466	Button, Play Operation Plate
91	25782467	Button, Record Operation Plate
92	25782468	Button, Pause Operation Plate
97	25791411	Button Ass'y, Reverse
98	22797301	Screw, BID ϕ2.6 x 8mm, Tapping
99	25781239	Chassis, Main
100	25773592	Spring, Tape Guide
101	22702173	Screw, PAN ϕ1.4 x 6mm, BLK
103	22707350	Screw, DTBID ϕ2.6 x 5mm
104	22707426	Screw, DTBID ϕ2 x 5mm
105	22707366	Screw, DTBID ϕ2.6 x 6mm
106	25782464	Lever, Reverse Button
107	25782491	Detect Lever Ass'y
109	22707299	Screw, BID ϕ2 x 8mm
110	25764486	Washer, Flywheel
111	25776374	Spring
112	22707303	Screw, BID ϕ2.6 x 10mm
113	22707755	Screw, TPAN ϕ2 x 4mm with Washer
114	22701354	Screw, FLT ϕ2 x 6mm
115	25764566	Washer
116	25783258	Adjusting Nut
117	25783260	Bushing, BLK
118	22707361	Screw, TPAN ϕ2.6 x 8mm with Washer
119	25776365	Spring
121	25776401	Spring
122	25776402	Spring
123	25776380	Spring
125	25783199	Washer
126	25726637	Spacer

12. CABINET EXPLODED VIEW

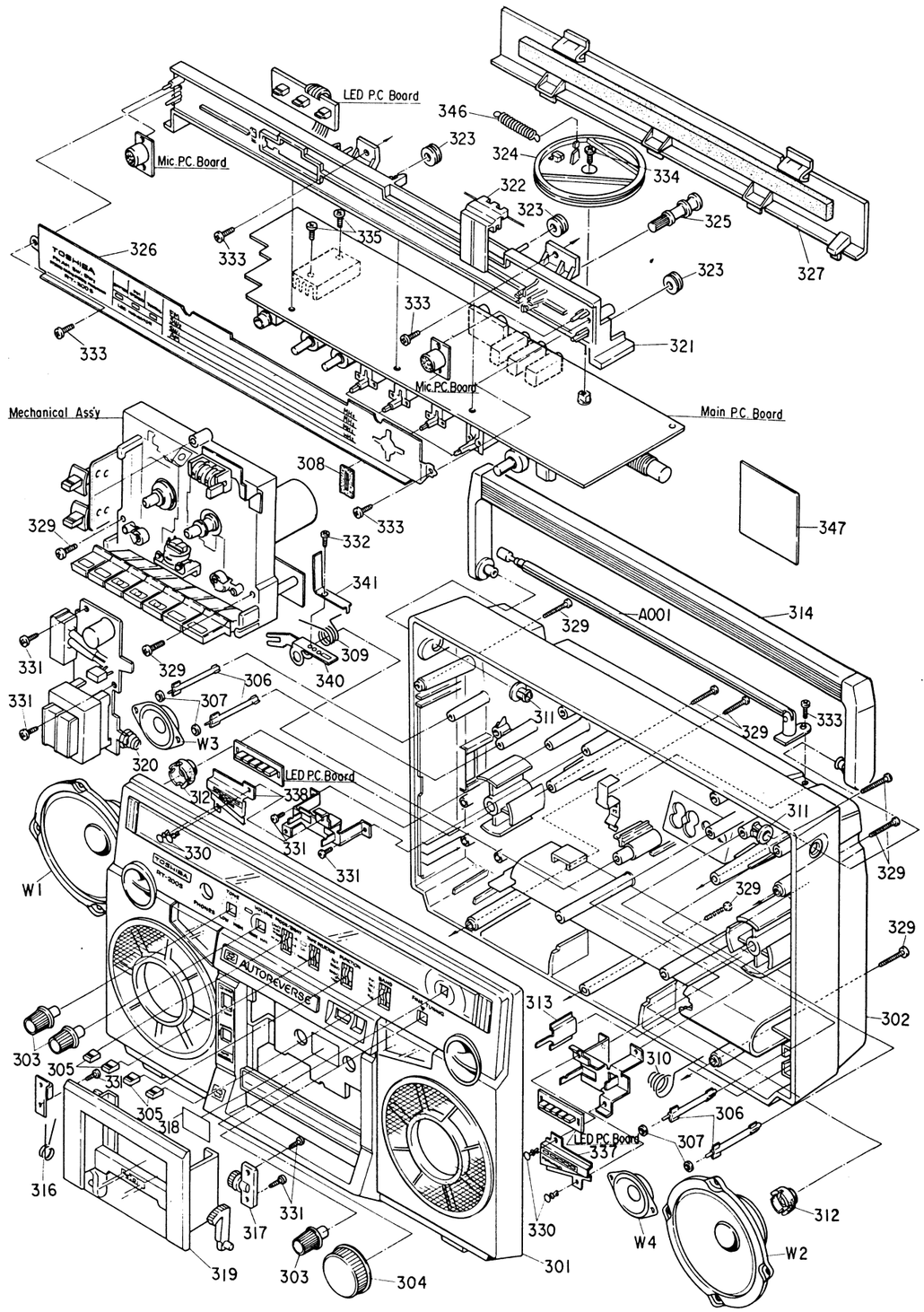


Figure 28.

NOTE: Excluded parts in the Parts List are not available as replacement parts.

13. PARTS LIST

CAUTION: The ⚠ mark, the symbol No. circled with rectangle in the schematic diagram and the shaded area in 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.

Symbol No.	Part No.	Description
	CABINET PARTS	
301	25881285	Cabinet Front Ass'y
302	25881286	Cabinet Back Ass'y
303	25837629	Knob, Tone
304	25837650	Knob, Tuning
305	25837651	Knob, Lever Switch
306	25846548	Mold Stud A
307	25857028	Cushion, Tweeter
308	25858490	Cover, Switch
309	25773586	Return Spring
310	25776366	Battery Spring, L
311	25835411	Washer, Handle
312	25857039	Speaker Cushion
313	25864007	Contact, Battery
314	25881253	Handle Ass'y
316	25773588	Spring, Torsion
317	25791314	Dumper Unit
318	25824247	Reflector, Cassette
319	25881207	Cassette Cover Ass'y
320	25772571	Battery Spring A
321	22714109	Tuner Frame
322	22741366	Pointer Ass'y, Corsor Type
323	22742162	Pulley
324	22742269	Dial Drum
325	22749316	Tuning Shaft, M
326	25808059	Dial Plate
327	25881302	Battery Cover Ass'y
329	22707054	Screw, BID ϕ3 x 20mm, Tapping
330	22705021	Plastic Rivet ϕ3 x 3.5mm
331	22707118	Screw, BID ϕ3 x 12mm, Tapping
332	22707367	Screw, DTBID ϕ2.6 x 8mm
333	22707382	Screw, BID ϕ3 x 10mm, Tapping
334	22707473	Screw, BID ϕ2.6 x 6mm
335	22707536	Screw, BID ϕ3 x 10mm
336	22707382	Screw, BID ϕ3 x 10mm, Tapping
337	25808076	LED Decoration, Right
338	25808077	LED Decoration, Left
340	25748566	Lever, Recording
341	25779210	Spring, Recording
346	25776387	Spring, Dial Drum
347	25808060	Nameplate, Main
348	22701457	Screw, BID ϕ3 x 6mm

Symbol No.	Part No.	Description
	TRANSISTORS, ICS & DIODES	
Q001		I.C., TA7335P
Q101		I.C., TA7614AP-Y
Q102, 103, 402		Transistor, 2SC1815-GR
Q201		I.C., TA7343P
Q301		I.C., TA7229P
Q401		I.C., TA7668P
Q403, 404		Transistor, 2SC2878-B
Q501, 901		Transistor, 2SC2655-Y
Q601		I.C., TC4015BP
Q602		I.C., TC4049BP
D001, 002, 401, 402, 501, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612		Diode, 1S1555
D101		Diode, 1S2236
D102		Diode, (LED) TLG208
D201, 904		Diode, (LED) TLR208
D601		Diode, (LED) TLR205x5
D602		Diode, (LED) TLR205x5
⚠ D901		Diode, 1B2C1
⚠ D902		Diode, 1B2Z1
D903		Diode, Zener, 02Z6.8A
	COILS & TRANSFORMERS	
L001	22294441	Coil, FM Antenna, LH8404L
L002	22294442	Coil, FM Oscillator, LH8405R
L003	22265830	IF Transformer, FM
L101	22282140	Coil, SW Antenna
L102	22242883	Coil, LW/MW Antenna
L104	22285321	Coil, SW Oscillator
L105	22245402	Coil, MW Oscillator
L106	22245389	Coil, LW Oscillator
L107	22264851	IF Transformer, AM
L108	22264852	IF Transformer, AM
L109	22267414	IF Transformer, FM
L201	22232253	Coil, Choke, 8.8mH
L501	22235202	Coil, Tape Oscillator
⚠ T901	22224012	Power Transformer, TE, TU
⚠ T901	22224013	Power Transformer, AY

Symbol No.	Part No.	Description
R315, 316	22545273	27K ohm (PRC)
R317, 318	22545101	100 ohm
R319, 320	22545473	47K ohm (PRC)
R321	22545222	2.2K ohm (PRC)
R322	22545109	1 ohm
R323	22545274	270K ohm
R401, 402	22545473	47K ohm
R403, 404	22545333	33K ohm
R405, 406	22545471	470 ohm
R407, 408	22545472	4.7K ohm (PRC)
R409, 410	22545152	1.5K ohm (PRC)
R411, 412	22545332	3.3K ohm
R413, 414	22545101	100 ohm
R415, 416	22545222	2.2K ohm
R417, 418	22545273	27K ohm
R419, 420	22545184	180K ohm
R421, 422	22545103	10K ohm (PRC)
R423, 424	22545273	27K ohm
R425, 426	22545562	5.6K ohm
R427, 428	22545472	4.7K ohm
R429, 430	22545123	12K ohm
R431	22545103	10K ohm (PRC)
R432	22545225	2.2M ohm
R435	22545152	1.5K ohm (PRC)
R436	22545102	1K ohm (PRC)
R437	22545273	27K ohm
R501	22545562	5.6K ohm
R502	22545339	3.3 ohm
R503	22545681	680 ohm

Symbol No.	Part No.	Description
R504	22545390	39 ohm
R505	22545820	82 ohm
R506	22545100	10 ohm
R507	22545470	47 ohm
R601	22545333	33K ohm (PRC)
R602, 603	22545224	220K ohm (PRC)
R604, 605	22545223	22K ohm (PRC)
R606, 607	22545333	33K ohm (PRC)
R608	22545123	12K ohm
R609	22545225	2.2M ohm
R610 to 619	22545152	1.5K ohm (PRC)
R620	22545224	220K ohm (PRC)
R901	22545821	820 ohm (PRC)
⚠ R902	22500205	5.6 ohm, ½W, Fuse Resistor
ACCESSORIES		
⚠ AC01	22176614	Power Supply Cord, AY
⚠ AC02	22176616	Power Supply Cord, TE
⚠ AC03	22176626	Power Supply Cord, TU
AC04	22903082	Owner's Manual, TE
AC05	22903105	Owner's Manual, TU, AY
AC06	22906290	Pop Cord

TOSHIBA CORPORATION
2-1, GINZA 5-CHOME, CHUO-KU, TOKYO 104, JAPAN

PRINTED IN JAPAN 22905042 Sept., 1981 Ⓑ