

SERVICE MANUAL

M-7411

Home stereo music system

SPECIFICATIONS

● TUNER SECTION

Frequency range: FM: 87.5 – 108 MHz
MW: 515 – 1620 kHz
LW: 150 – 300 kHz

Usable sensitivity: FM: 5 μ V (IHF)
MW: 300 μ V/m (IHF)
LW: 600 μ V/m (IHF)

FM signal to noise ratio: 60 dB
FM THD (mono/stereo): 0.5/1%
FM frequency response: 50 – 10,000 Hz (2 dB)
FM separation: 36 dB (1 kHz)
Antenna: FM: 300 Ω balanced terminal and 75 Ω coaxial socket
AM: Built-in ferrite-core antenna and external ANT socket

● AUDIO SECTION

Power output: 25 + 25 watts (RMS) 8 ohms load,
76 watts total MUSIC power (IHF)

Frequency response: 40 – 15,000 Hz (± 3 dB, at AUX)
THD: Less than 0.2% at 500mW (1 kHz)
Less than 1.0% at rated output power

Input sens. and impedance: PHONO: 2.5mV (50k ohms)
AUX: 180mV (50k ohms)
MIC: 2mV (600 ohms)
SPEAKERS: 8 ohms
HEADPHONES: 8 ohms

Load impedance:

Output and load impedance: TAPE-OUT: 300mV/100k ohms

Tone control action: BASS: 100 Hz \pm 10 dB
TREBLE: 10 kHz \pm 10 dB

Loudness control effect: 100 Hz + 6 dB
10 kHz + 6 dB

● CASSETTE SECTION

Track system: 4-track 2-channel, stereo recording and playback

Tape speed: 4.75 cm/sec. (1-7/8 i.p.s.)

Wow and flutter: 0.15% (WRMS)

Signal to noise ratio: 60 dB (Dolby NR on, CrO₂ tape)
51 dB (Dolby NR off, CrO₂ tape)

Frequency response (Dolby NR off): Normal tape: 63 – 12,500 Hz (± 3 dB),
(40 – 13,000 Hz)
CrO₂ tape: 63 – 12,500 Hz (± 3 dB),
(40 – 14,000 Hz)
FeCr tape: 63 – 12,500 Hz (± 3 dB),
(40 – 14,000 Hz)
(Dolby NR on: ± 5 dB)

Rec. system and bias freq.: AC bias, 60 kHz

Erasing system: AC erase

● RECORD PLAYER SECTION

System: 2 speed belt drive

Motor: DC motor

Speeds: 33-1/3, 45 r.p.m.

Wow and flutter: 0.15% (WRMS)

Signal to noise ratio: 45 dB

Cartridge: Moving Magnet

Stylus pressure: 2 \pm 0.5 gr.

● DIMENSION

Center unit (mm): 607(W) x 220(H) x 420(D)

● WEIGHT

Center unit: 14.5 kg. (31.9 lbs.)

- Dolby NR under license from Dolby Laboratories.
- The word "DOLBY" and the Double-D-Symbol are trademarks of Dolby Laboratories.

* SPECIFICATIONS AND DESIGN ARE SUBJECT TO CHANGE WITHOUT NOTICE.

ALIGNMENT PROCEDURE (TUNER)

<ol style="list-style-type: none"> Signal input must be kept as low as possible to avoid AGC and limiting action. Standard modulation is 400Hz at 30% amplitude. Set volume control at maximum unless otherwise indicated, when using V.T.V.M. for output indicator. Set function selector to "RADIO" position. 						
Step	Signal Generator or Sweep Generator		Radio Dial Setting	Output Indicator Connection	Adjust	Adjust for
	Connection	Frequency				
AM-IF-ALIGNMENT						
1.	Push MW button					
2.	To standard loop-ANT placed at a distance of 60cm from the built-in bar-ANT.	470 KHz	Point of non-interference	Scope or V.M. To TP101(GND to R122) or SPoutput	T103 (1st IFT) T104 (2nd IFT)	Maximum output
MW-RF ALIGNMENT						
3.	SAME AS STEP (2)	540 KHz	540 KHz	SAME AS STEP (2)	L5 (MW OSC coil)	Maximum output
4.	SAME AS STEP (2)	1600 KHz	1600 KHz	SAME AS STEP (2)	TC6 (MW OSC trimmer)	Maximum output
5.	Repeat steps (3) and (4).					
6.	SAME AS STEP (2)	600 KHz	600 KHz	SAME AS STEP (2)	L901 (MW ANT coil)	Maximum output
7.	SAME AS STEP (2)	1400 KHz	1400 KHz	SAME AS STEP (2)	TC4 (MW ANT trimmer)	Maximum output
8.	Repeat steps (6) and (7).					
LW-RF ALIGNMENT						
9.	Push LW button.					
10.	SAME AS STEP (2)	150 KHz	150 KHz	SAME AS STEP (2)	L6 (LW OSC coil)	Maximum output
11.	SAME AS STEP (2)	300 KHz	300 KHz	SAME AS STEP (2)	TC7 (LW OSC trimmer)	Maximum output
12.	Repeat steps (10) and (11).					
13.	SAME AS STEP (2)	160 KHz	160 KHz	SAME AS STEP (2)	L902 (LW ANT coil)	Maximum output
14.	SAME AS STEP (2)	280 KHz	280 KHz	SAME AS STEP (2)	TC5 (LW ANT trimmer)	Maximum output
15.	Repeat steps (13) and (14).					
FM-IF ALIGNMENT						
16.	Push FM button.					
17.	SWEEP GENERATOR Hot side to TP103 GND to TP104	10.7 MHz	Point of non-interference	Vertical amplifier of scope. To TP102 (GND to R122)	T2 (FM Det. Coil)	Turn fully counter clockwise
					T101 (1st IFT) T1 (FM Det. Coil)	Flat and maximum as shown in Fig. A.
					T2 (FM Det. Coil)	"S" curve as shown in Fig. B.

ALIGNMENT PROCEDURE (TUNER)

Step	Signal Generator or Sweep Generator		Radio Dial Setting	Output indicator Connection	Adjust	Adjust for
	Connection	Frequency				
FM-RF MANUAL ALIGNMENT						
18.	Push MANUAL button.					
19.	To FM ANT terminal	87.4 MHz	Low end	SAME AS STEP (17)	SVR802	Maximum output
20.	SAME AS STEP (19)	108.3 MHz	High end	SAME AS STEP (17)	SVR801	Maximum output
FM-RF PRESET ALIGNMENT						
21.	Push PRESET buttons, ch1 – ch8.					
22.	SAME AS STEP (19))	87.4 MHz		SAME AS STEP (17)	SVR803	Maximum output
FM PRESET FREQUENCY METER ALIGNMENT						
23.	Push one of PRESET buttons, ch1 – ch8.					
24.	SAME AS STEP (19)	98.0 MHz 40–60dB	98.0 MHz PVR801 –806	SAME AS STEP (17)	SVR804	98 MHz (See Fig. C)
FM SIGNAL METER ALIGNMENT						
25.	Push MANUAL button					
26.	SAME AS STEP (19)	90, 98, 100 or 106 MHz 60 dB	90, 98, 100 or 106 MHz	SAME AS STEP (17)	SVR100	Within the range of Fig. D
FM MPX PILOT ALIGNMENT						
27.		No. signal	Point of non-inter- ference	Frequency counter To TP151 (GND to R122) Short-circuit between R122 and TP102.	SVR152	19 KHz ± 30 Hz
FM STEREO SEPARATION ALIGNMENT						
28.	SAME AS STEP (19)	98 MHz Input 1mV stereo mod. 1 KHz 30% L (and R)	98 MHz	Scope or V.M. To right ch. output (To Left ch. output)	SVR151	Minimum output

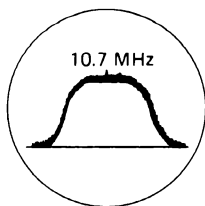


Fig. A

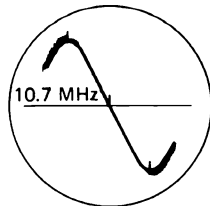


Fig. B

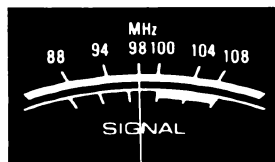


Fig. C

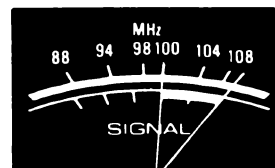


Fig. D

ALIGNMENT PROCEDURE (CASSETTE TAPE RECORDER)

Step	Output Indicator Connection	Adjust	Adjust for
PLAYBACK LEVEL ALIGNMENT			
1.	Set function selector to "TAPE" position, Dolby NR switch "OFF" and the tape selector switch to "NORMAL" position.		
2.	Insert Dolby B type tone 200 nwb/m Test Tape (e.g. TEAC brand MTT-150) in the cassette holder, then push play key.		
3.	Connect V.T.V.M. to Test Point TP705	SVR-701	100 mV
4.	Connect V.T.V.M. to Test Point TP706	SVR-702	100 mV
LEVEL METER ALIGNMENT			
5.	Follow above steps (1) and (2).		
6.	Left level meter	SVR-703	+2dB (See Fig. E)
7.	Right level meter	SVR-704	+2dB (See Fig. E)
RECORDING BIAS ALIGNMENT			
8.	Set blank tape in the holder, and then push play and record keys. (Tape select switch CrO ₂)		
9.	Connect V.T.V.M. across TP701 and TP703	SVR-707	5.5 mV
10.	Connect V.T.V.M. across TP702 and TP704	SVR-708	5.5 mV
11.	Follow above step (8), then shift tape selector switch to "NORMAL" position.		
12.	Shift tape selector switch to "FeCr" position.		

DCA-146A Top view for Cassette Alignment

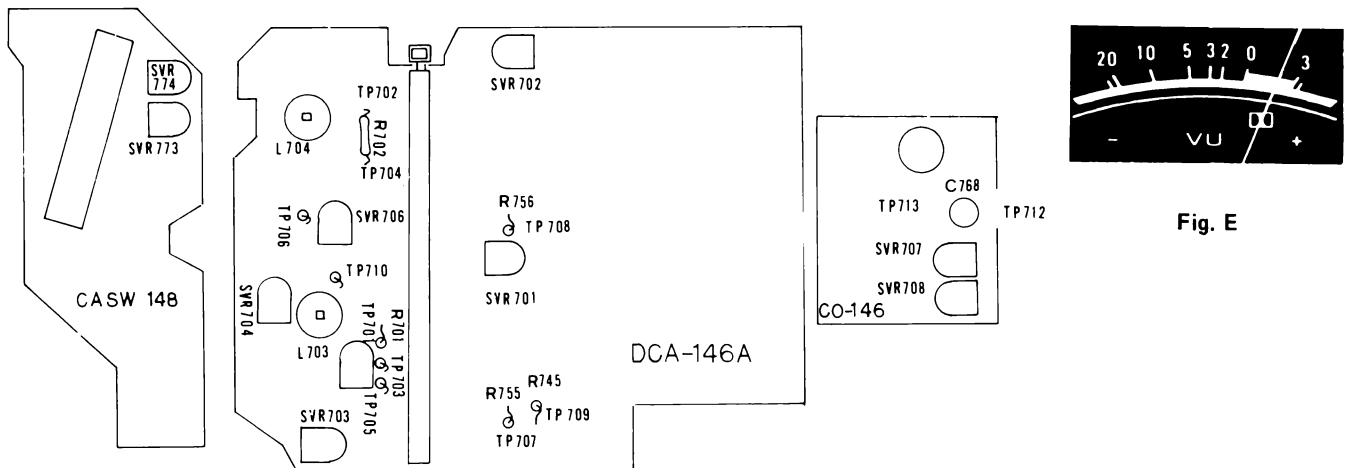
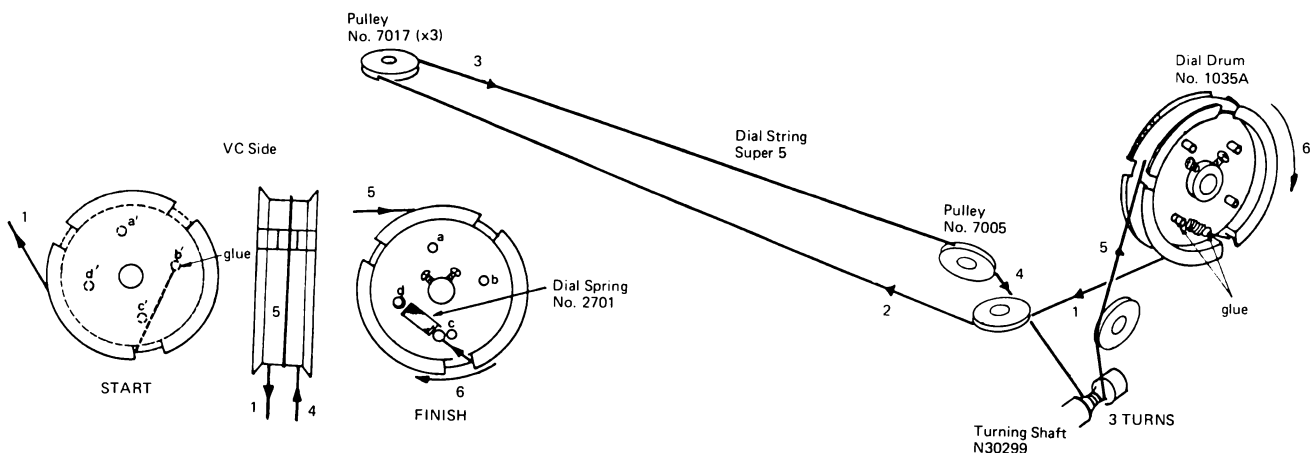


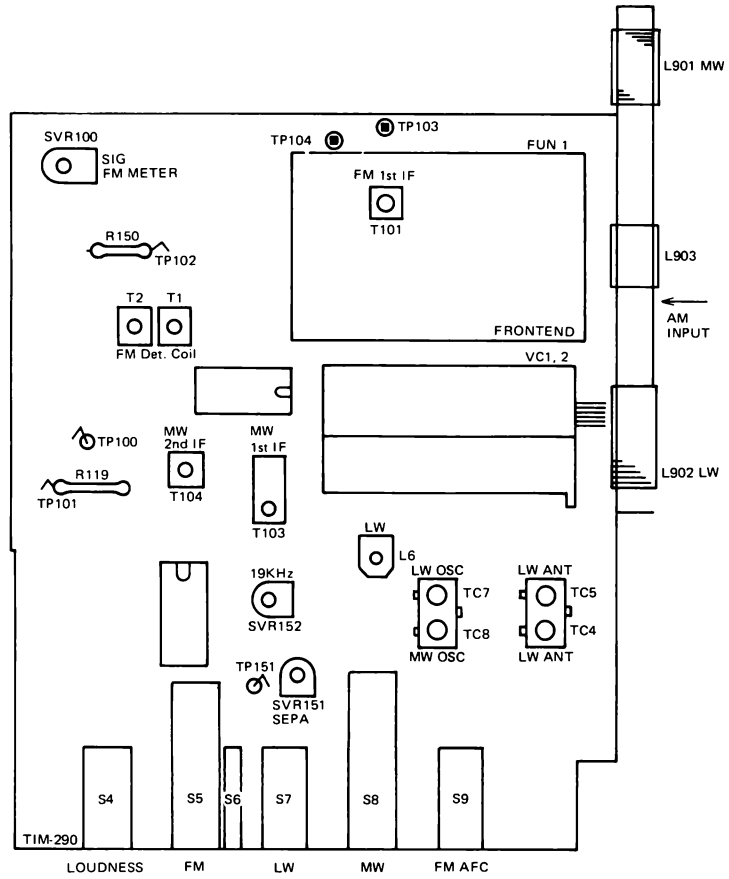
Fig. E

STRINGING DIAGRAM

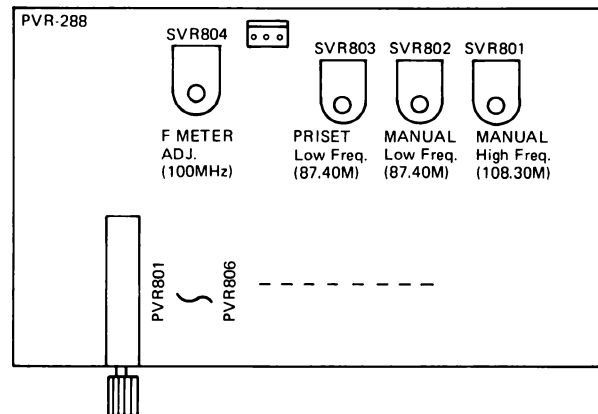


ALIGNMENT POINT

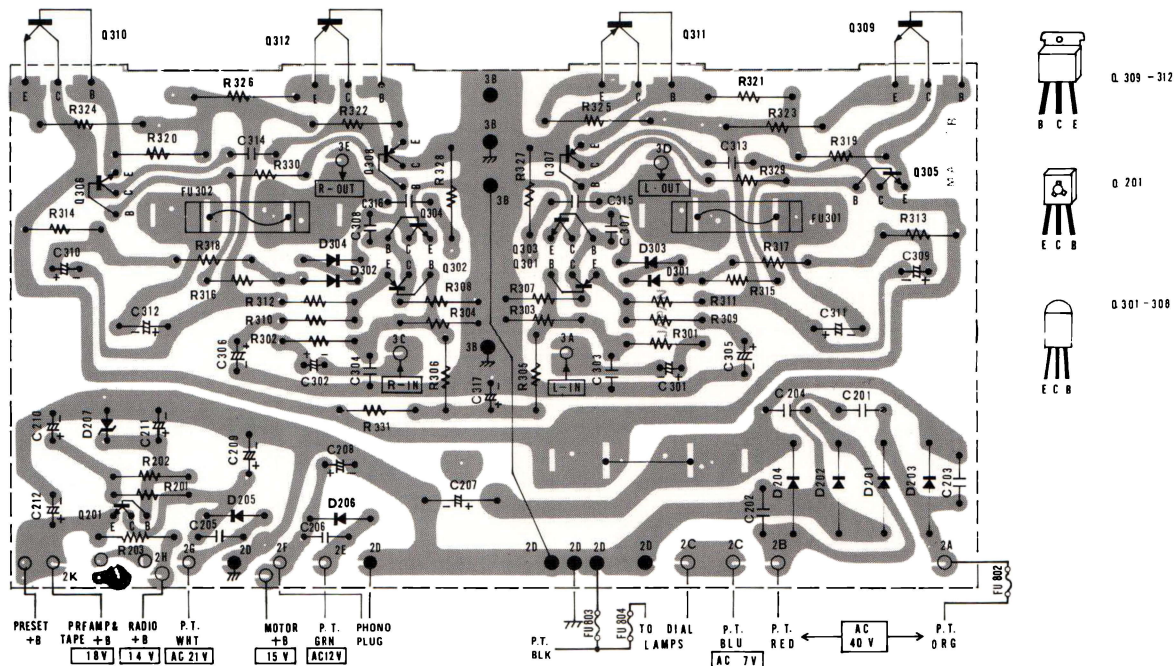
TUNER (TIM-290)



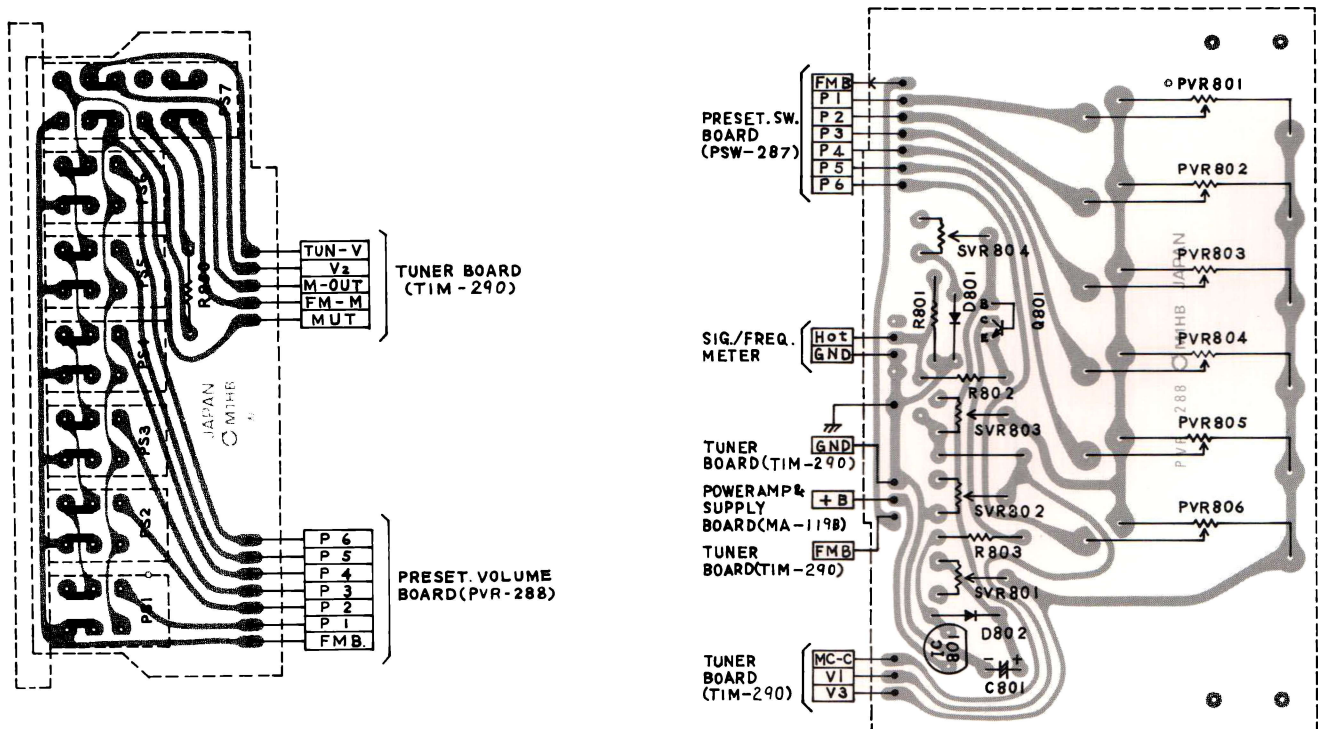
PRESET VOLUME (PVR-288)



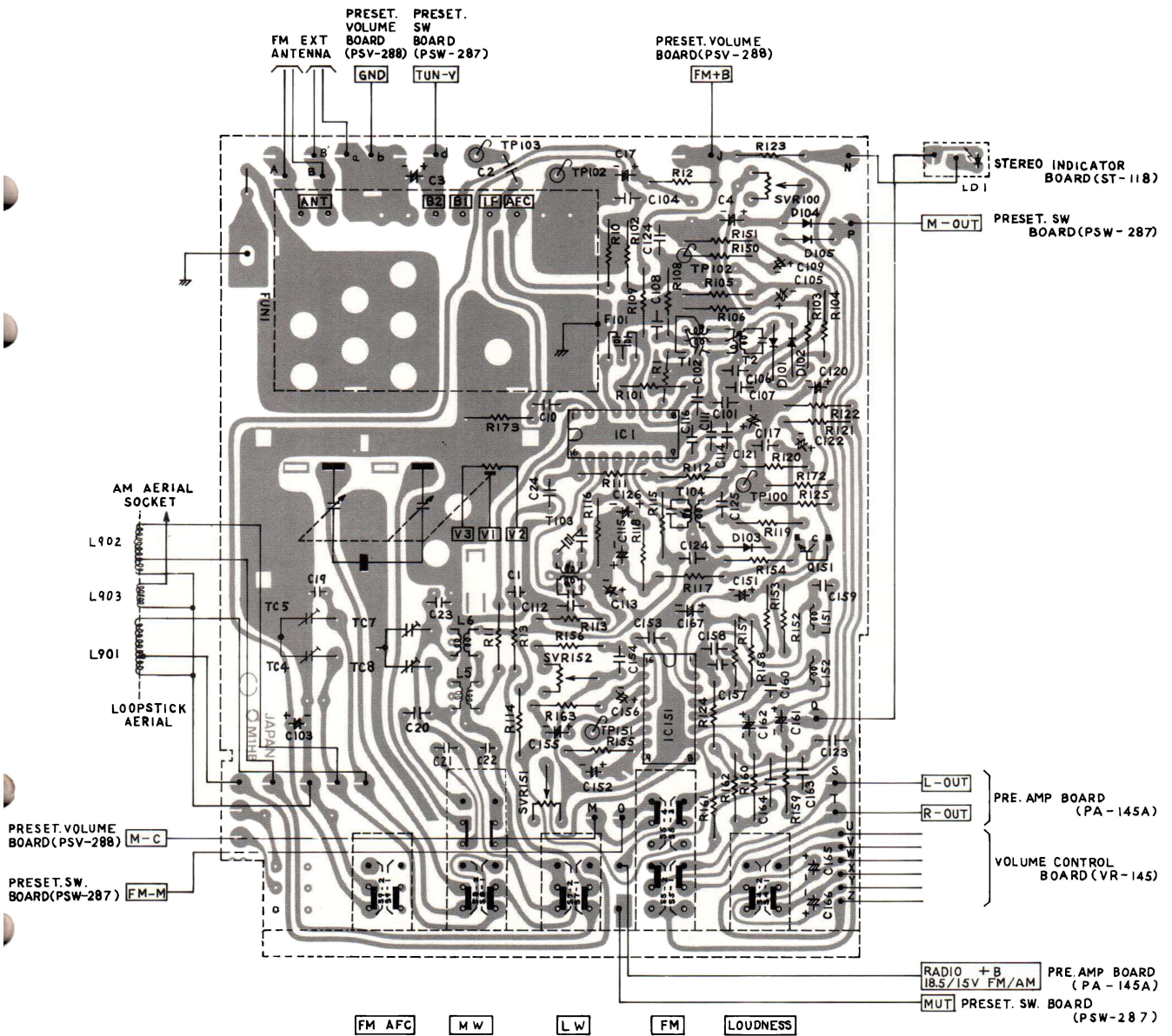
POWER AMPLIFIER & POWER SUPPLY (MA-119B)



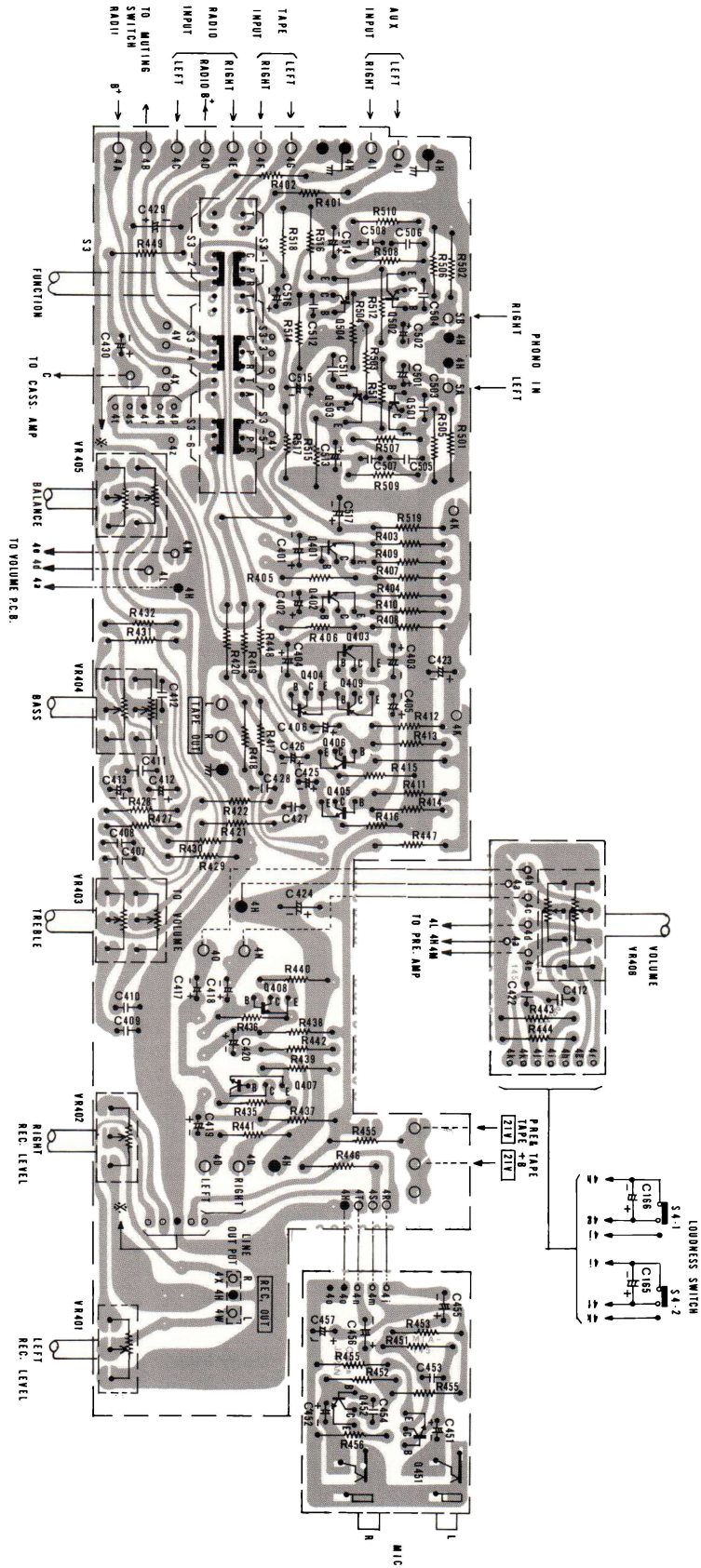
PRESET SWITCH & VOLUME (PSW-287, PVR-288)



TUNER (TIM-290)



PREAMPLIFIER & PHONO AMPLIFIER (PA-145, MIA-145)



PARTS LIST

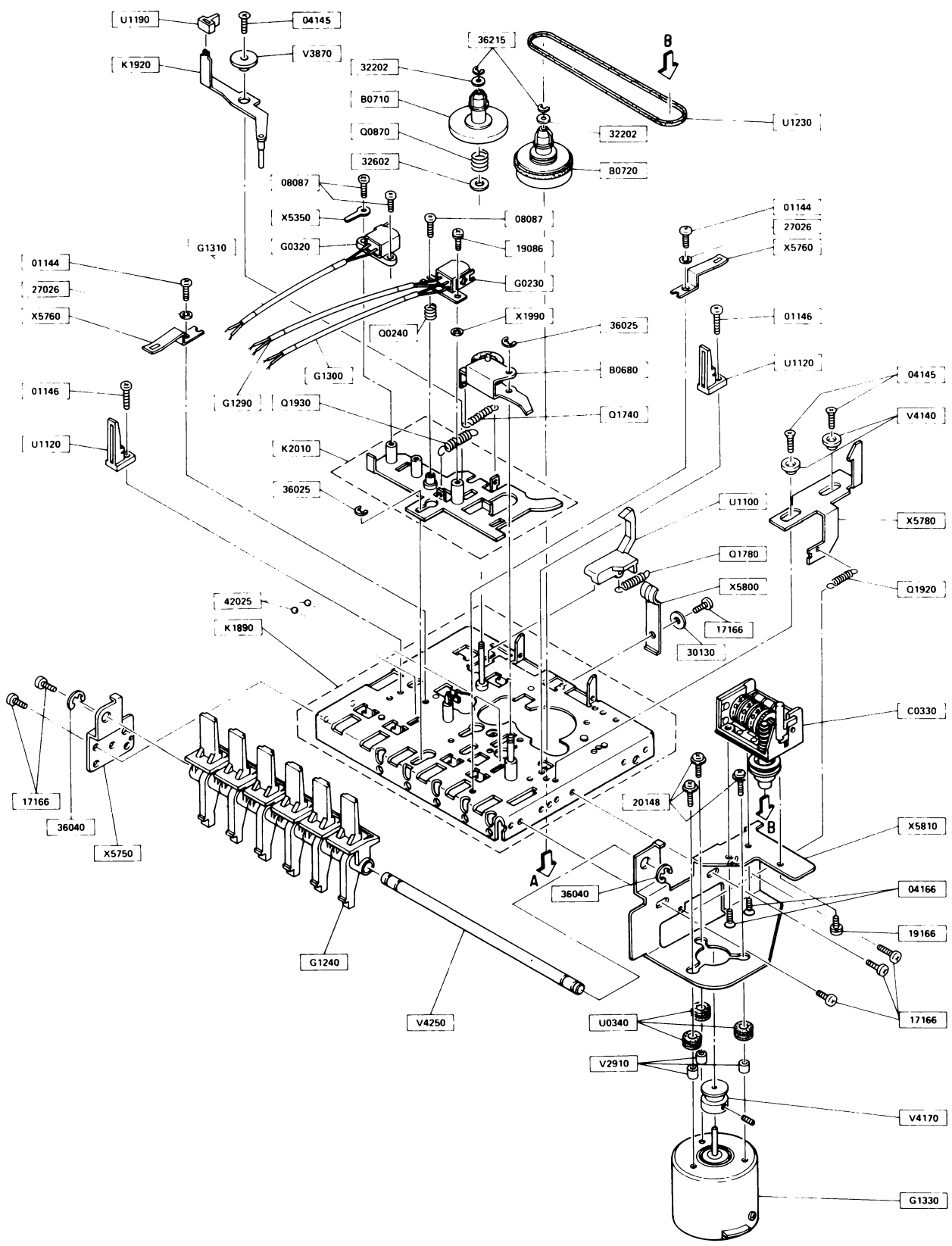
CASSETTE MECHANISM (CT-3709B)

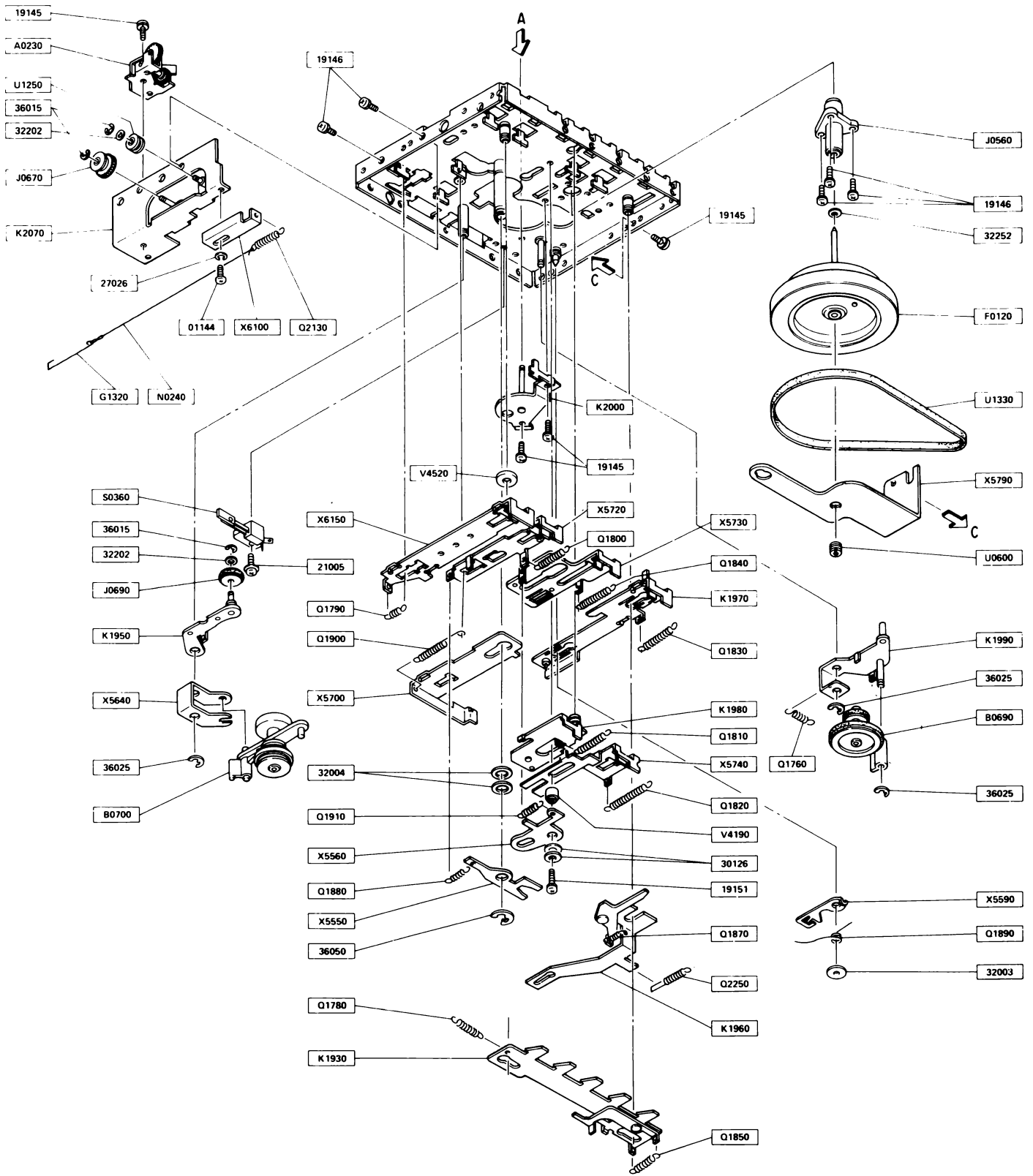
Part No.	Description	Q'ty	Part No.	Description	Q'ty
A0230	Soft Damp Ass'y (C)	1	V2910	Spring Tube	3
B0680	Pinch Roller Ass'y	1	V3870	Sensor Arm Spacer	1
B0690	TU Idler Ass'y	1	V4140	Case Lock Arm Collar (B)	2
B0700	FF Idler Ass'y	1	V4170	Motor Pulley	1
B0710	Supply Reel Ass'y	1	V4190	FF Collar (A)	1
B0720	Take Up Reel Ass'y	1	V4250	Button Shaft (F)	1
C0330 (MP-390-323)	Counter	1	V4520	Rec Arm Collar	1
F0120	Flywheel (L)	1	X1990	R/P Head Washer	1
G0230 (WY-481AZ)	R/P Head	1	X5350	Lug Terminal (F)	1
G0320 (WY-241Z)	Erase Head	1	X5550	Rew Lever (D)	1
G1240 (N30204A)	Cassette Button	6	X5560	FF Lever (D)	1
G1290	Shield Wire (Double-280)	1	X5590	Pause Cam (C)	1
G1300	Shield Wire (Double-220)	1	X5640	FF Idler Lever (A)	1
G1310	Shield Wire (Single-280)	1	X5700	Switch Arm (A)	1
G1320	Cord Hook	1	X5720	Rew Arm (D)	1
G1330 (MMI-6A2LK)	Motor	1	X5730	FF Arm (D)	1
J0560	Flywheel Metal (I)	1	X5740	Stop Arm (A)	1
J0670	Cord Pulley Ass'y (A)	1	X5750	Button Side (LA)	1
J0690	Rew Idle (C)	1	X5760	Head Panel Pushing Plate (H)	2
K1890	Chassis Ass'y	1	X5780	Case Lock Arm (A)	1
K1920	Sensor Arm	1	X5790	Flywheel Support (N)	1
K1930	Lock Plate	1	X5800	Spring Plate (R) (Holding Pack)	1
K1950	Rew Idler Arm	1	X5810	Motor Bracket (M)	1
K1960	Eject Arm	1	X6100	Soft Adjust Plate	1
K1970	Pause Arm	1	X6150	Res Arm (D)	1
K1980	Play Arm	1			
K1990	TU Lever	1	01144	Pan Head Screw M2.6 x 3	3
K2000	Reel Base	1	01146	Pan Head Screw M2.6 x 5	2
K2010	Head Panel Ass'y	1	04145	Flat Head Screw M2.6 x 4	3
K2070	Soft Damp Plate	1	04166	Flat Head Screw M3 x 5	2
N0240	Eject Cord (E)	1	08087	Pan Head Screw M2 x 6 (Bind)	3
Q0240	R/P Head Spring (B)	1	17166	Pan Head Tapping Screw M3 x 5	6
Q0870	Rew Reel Spring (B)	1			
Q1740	Pinch Roller Spring (G)	1	19086	Pan Head Screw M2 x 5 W/Spring Washer	1
Q1760	TU Lever Spring (A)	1	19145	Pan Head Screw M2.6 x 4 W/Spring Washer	4
Q1780	Rec Sensor Spring (F)	2			
Q1790	Rec Arm Spring (A)	1	19146	Pan Head Screw M2.6 x 5 W/Spring Washer	5
Q1800	Rew Arm Spring (C)	1			
Q1810	Play Arm Spring (A)	1	19151	Pan Head Screw M2.6 x 10 W/Spring Washer	1
Q1820	Stop Arm Spring (A)	1			
Q1830	Pause Arm Spring (C)	1	19166	Pan Head Screw M3 x 5 W/Spring Washer	1
Q1840	FF Arm Spring (B)	1			
Q1850	Pick Up Lever Spring (E)	1	20148	Pan Head Screw M2.6 x 7 W/Flat Washer	3
Q1870	Eject Lever Spring (N)	1			
Q1880	Rew Lever Spring (C)	1	21005	Pan Head Screw M2 x 4 W/Flat Washer	1
Q1890	Pause Cam Spring (E)	1			
Q1900	Switch Arm Spring (A)	1	27026	Spring Washer M2.6	3
Q1910	FF Lever Spring (C)	1	30126	Flat Washer M2.6	2
Q1920	Case Lock Arm Spring (A)	1	30130	Flat Washer M3	1
Q1930	Head Panel Spring (G)	1	32003	Poly. Slide Washer $\phi 2 \times 0.25t$	1
Q2130	Eject Cord Spring (D)	1	32004	Poly. Slide Washer $\phi 6.0 \times 1.0t$	2
Q2250	Eject Arm Spring (A)	1	32202	Poly. Slide Washer $\phi 2 \times 0.25$	4
S0360	Leaf Switch	1	32252	Poly. Slide Washer $\phi 2.5 \times 0.25$	1
U0340	Rubber Cushion	3	32602	Poly. Slide Washer $\phi 6.0 \times 0.25$	1
U0600	Polyacetall Screw	1	36015	E Ring $\phi 1.5$	3
U1100	Rec Sensor (I)	1	36025	E Ring $\phi 2.5$	5
U1120	Cassette Guide (G)	2	36040	E Ring $\phi 4.0$	2
U1190	Sensor	1	36050	E Ring $\phi 5.0$	1
U1230	Counter Belt	1	36215	E Ring $\phi 1.5$ (Black)	2
U1250	Cord Pulley (C)	1	42025	Steel Ball	2
U1330	Drive Belt	1			

NOTES: 1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

EXPLODED DIAGRAM

CASSETTE MECHANISM (CT-3709B)





PARTS LIST

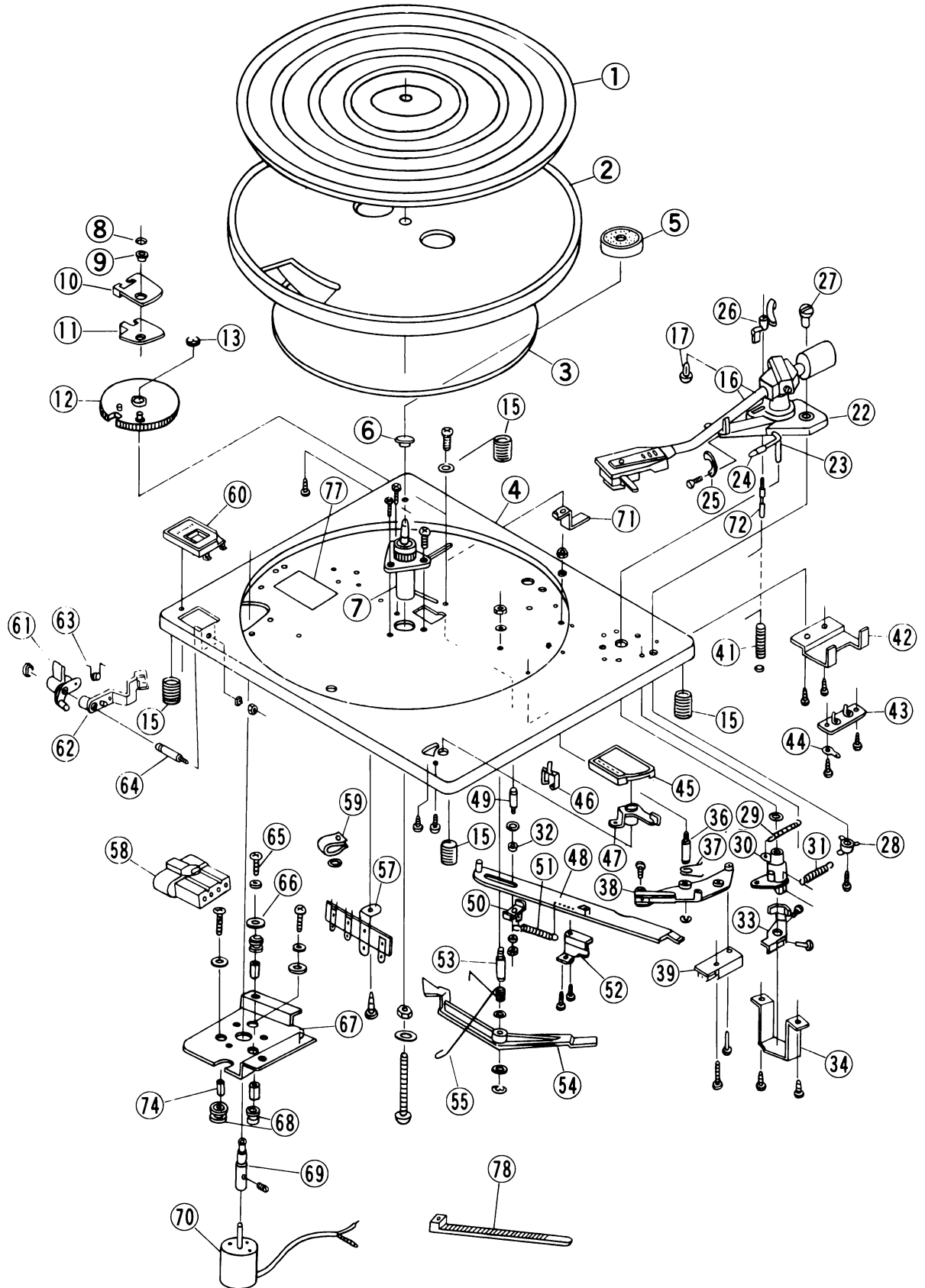
TURNTABLE MECHANISM (BD-55NB-9)

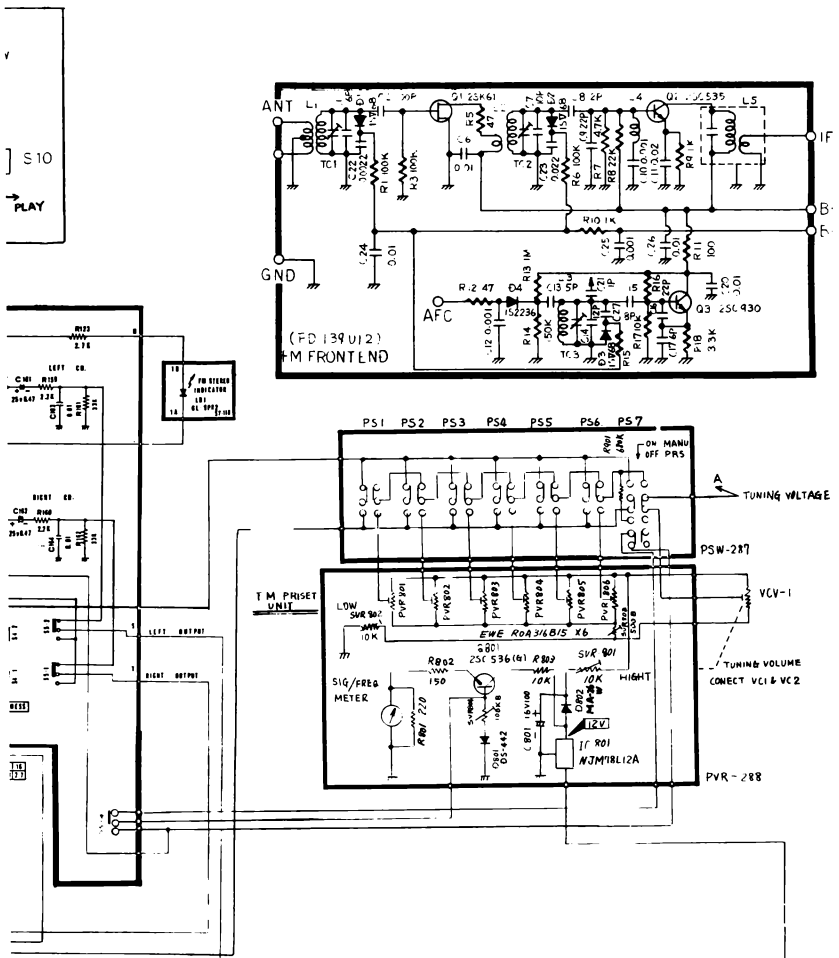
Ref.No.	Part No.	Description	Q'ty	Ref.No.	Part No.	Description	Q'ty
1	C30215S	Rubber mat.	1	42	CA44243	Metal mount, 2P socket	1
2	CD20717-1	Turn table	1			Tap. Screw, Pan Hd., M3 x 5	2
3	CD43681-1	Belt	1	43	CF44279	2P socket	1
4	C20612S	Unit plate assembly	1			Tap. Screw, Pan Hd., M3 x 5	2
		Screw, Pan Hd., M4 x 35	1	44	CR44544	Lug, 3φ	1
		Nut, Hex Hd., 4	1	45	C45350S	Reject cover assembly	1
		Plane Washer, 4.2 x 18 x 1t	1			Tap. Screw, Pan Hd., M2.6 x 5	2
5	CD43100	Adaptor, 45 rpm dic (EP)	1	46	CD45052	Cord clamper	1
6	CD46698	Bush	1	47	CD44261	Reject knob	1
				48	C44256S	Arm return assembly	1
7	C45393S	Shaft bracket assembly,	1	49	CB43791	Rotating shaft	1
	or C46754S	Screw, Pan Hd., S-tight, M3 x 8	3			Spring washer, 3	1
8		CSTW 3φ	1			Nut, Hex Hd., 3	1
9	CB44117	Gear stop stud	1	50	CA44263	Plate	1
10	CA43782	Eccentricity mounting	1	51	CE44269	Spring	1
11	CA43783-1	Gear stop arm	1	52	CA44266	Guide, Arm return	1
12	CD30343	D gear	1			Tap. Screw, Pan Hd., M3 x 5	2
		Plane washer, 3.2 x 8 x 0.5t	1	53	CB44262	Shaft, Reject lever	1
13		E-type washer, 4	1			Nut, Hex Hd., 3	1
15	CE44246	Spring	4			Plane washer, 4.5 (5) x 10 x 0.3t	1
16	C30673S	Pick-up arm assembly,	1			Spring washer, 3	1
		with cartridge				E-type washer, 3	2
		E-type washer, 4	1	54	CD44267-1	Reject lever	1
16-1	MC-15	Cartridge-assembly	(1)	55	CE44268	Torsion spring	1
16-2	MC-15S	Stylus	(1)	57	CF43314	Terminal plate, 4P-lug	1
17	CD41936	Lift cap	1			Tap. Screw, Pan Hd., M3 x 5	1
22	CD30422	Base, Pick-up	1			Lock washer, 3	1
		Tap. Screw, Pan Hd., M2.6 x 5	2	58	C45375S	A.C. cord assembly	1
		Tap. Screw, Pan Hd., M3 x 8	1	59	CD43307	Cord clamper, Nylon	1
23	CB44281	Lift lever	1			Plane washer, 3 x 12 x 1t	1
		E-type washer, 2	1			Tap. Screw, Pan Hd., M3 x 8	1
24	CD43819	Knob, Lift lever	1	60	CD46621	Cover assembly, Speed change	1
25	CD43845	Lock lever	1			Tap. Screw, Pan Hd., M2.6 x 5	1
		Tap. Screw, Pan Hd., M2.6 x 6	1	61	CD44275	Speed change knob	1
26	CD44700	Elevation base	1	62	C46717S	Speed change lever assembly	1
27	CD44393	IFC knob	1	63	CE46733	Torsion spring	1
28	CD43824	IFC arm	1	64	CB44276	Speed change shaft	1
		Tap. Screw, Pan Hd., M2.6 x 5	1			Spring washer, 3	1
29	CE41817	Spring, Pick-up	1			Nut, Hex Hd., 3	1
30	CD43811	Shaft bracket, Pick-up	1			E-type washer, 3	1
		Screw, Pan Hd., M3 x 16	1	65		Screw, Pan Hd., M2.6 x 8	3
31	CE44282	IFC spring	1			with Spring washer.	
32	CB43795	Collar, Return plate	1	66		Plane washer, 2.6 x 10 x 1.2t	3
33	C44253S	Plate pick-up table assembly	1	67	CA45265	Plate assembly, Motor	1
		Screw, Pan Hd., M3 x 6	2			Tap. Screw, Pan Hd., M3 x 5	2
34	CA44242-1	Bracket, Plate assembly	1	68	CD43786	Rubber cushion	3
		Tap. Screw, Pn Hd., M3 x 5	2	69	CB45317-1	Pulley,	1
36	CB42476	Reject lever axis	1	70	CF30663	Motor	1
		Spring washer, 3	1	71	CA43263	Metal bracket ②	1
		Nut, Hex Hd., 3	1			Screw, Pan Hd., M4 x 8	1
		E-type washer, 3	1			Plane washer, 4.2 x 10 x 1t	1
37	CE44271	Torsion spring	1	72	CB44265	Elevation axis	1
38	CD44264	Switch arm	1			E-type washer, 2	1
		Screw, Pan Hd., S-tight, M3 x 12	1				
39	CF30266	Micro switch	1	74	CB45423	Spacer, Motor	3
		Self Tap. Screw, B-tight, M3x16	1	77	CH45262	Label, Note	1
41	CE44270	Spring	1	78	CD45269	Cable tie	1

NOTE: 1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

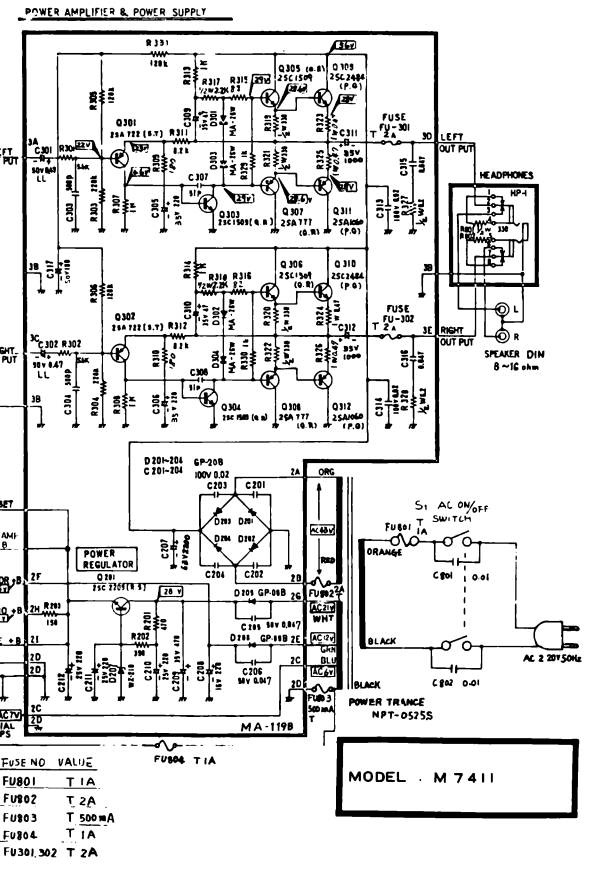
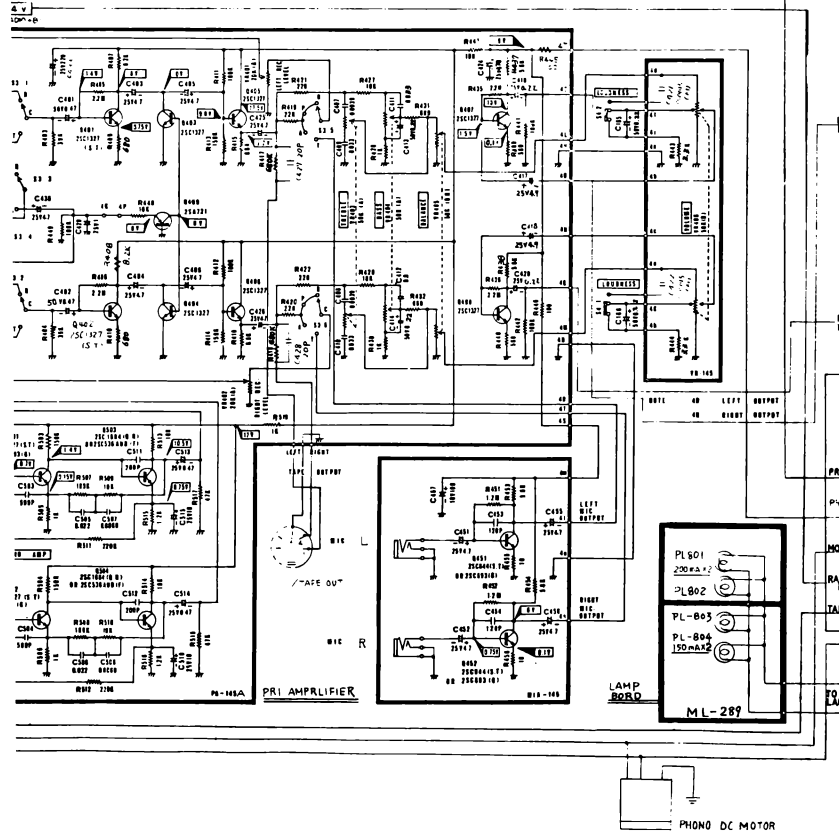
EXPLODED DIAGRAM

TURNTABLE MECHANISM (BD-55NB-9)





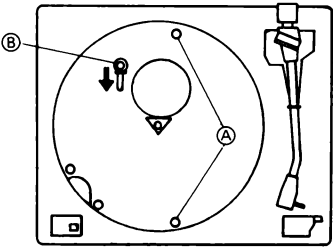
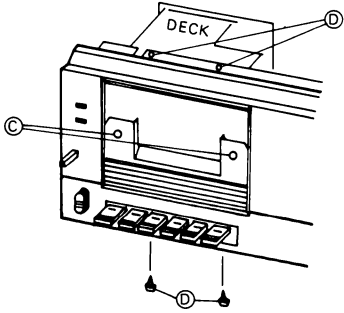
SYMBOL NUMBER	PART NUMBER	SUPPLIER
Q 1	2SK 61	TOSHIBA
Q 2	2SC 535	HITACHI
Q 3	2SC 430	SANYO
Q 151, 401 402 403	2SC 1327 or 2SC 693	MATSUSHITA or SANYO
404, 405 406 407 408		
501 502 701 702		
Q 409	2SA 721	MATSUSHITA
Q 451 452	2SC 644 or 2SC 693	MATSUSHITA or SANYO
Q 503 504 703 704	2SC 1624 or 2SC 536	
705 706		
Q 751	2SD 592	MATSUSHITA
Q 801	2SC 534	SANYO
Q 301 302	2SA 722	MATSUSHITA
Q 303 304 305 306	2SC 1509	
Q 707 308	2SA 717	
Q 309 310	2SC 2494	MATSUSHITA
Q 311 312	2SA 1060	
Q 201	2SC 2709	MATSUSHITA
D 1	IS 2236	TOSHIBA
D 2 3 4	15V 68	NEC
D 101 102	1S 198 FM	SANYO
D	1S 198 AM	
L D 1 701 702	GL 9PR 2	SHARP
D 801	DS 442	SANYO
D 201 202 203 204	GP-30B	G. I.
D 205 206	GP-09B	
D 301 302 303 304	MA 26 W	MATSUSHITA
1 C 101	AN 721B	MATSUSHITA
1 C 151	LA 3350SS	SANYO
1 C 701 702	LA 7300PC	FAIRCHILD
1 C 801	MM78L12L	JRC



- FUSE NO VALUE
- FU801 T 1A
- FU802 T 2A
- FU803 T 500mA
- FU804 T 1A
- FU301,302 T 2A

MODEL M 7411

DISASSEMBLY INSTRUCTION

STEP	PROCEDURE	REMARKS
TURNTABLE UNIT REMOVAL		
<ol style="list-style-type: none"> 1. 2. 3. 4. 5. 	<ol style="list-style-type: none"> 1. Remove the turntable. 2. Remove the 2 transit screws (A). 3. Loose the screw (B) and then move it to the arrow mark indicated. 4. Remove the turntable unit. 5. Unplug the connectors. 	
CHASSIS REMOVAL		
<ol style="list-style-type: none"> 6. 7. 	<ol style="list-style-type: none"> 6. Remove 6 bottom screws and lock washers. 7. Pull the front panel forward to remove the chassis from the cabinet. 	
CASSETTE DECK UNIT REMOVAL		
<ol style="list-style-type: none"> 8. 9. 10. 11. 12. 13. 	<ol style="list-style-type: none"> 8. Remove the 2 screws on the cassette window (C). (The cassette window will be removed.) 9. Remove the 4 screws (D) which is securing the cassette deck unit to the front panel. 10. Remove the L.E.D. for the recording indicator and Dolby indicator from the rubber bush on the front panel. 11. Unplug the connectors. 12. Remove the Lever Knob. 13. Remove the cassette deck unit from the front panel. 	
FRONT PANEL REMOVAL		
<ol style="list-style-type: none"> 14. 15. 16. 17. 	<ol style="list-style-type: none"> 14. Remove 7 control knobs and 1 tuning knob. 15. Unplug the connectors for meters. 16. Remove 2 top screws and 3 bottom screws on the front panel. 17. Remove the front panel. 	

PARTS LIST

Part No.	Description	Symbol No.	Q'ty a set	Part No.	Description	Symbol No.	Q'ty a set
SEMICONDUCTORS				SWITCHES			
AN7218	IC	IC1	1	EWK-KJA337B54	Potentiometer	VR406	1
LA3350SS	IC	IC151	1	EWK-ENA337751	Potentiometer	VR405	1
μA7300PC	IC	IC701, 702	2	EWK-ENA337A54	Potentiometer	VR403, 404	2
NJM78L12A	IC	IC801	1	EVH-2AA337A24	Potentiometer	VR407, 408	2
2SC1327(S, T)	Transistor	Q151, 401~	11	EWE-ROA316B15	Preset VR	PVR801~806	6
or 2SC1571L-NP(G)		408, 501, 502		FILTERS			
2SB691(P, Q)	Transistor	Q311, 312	2	SFE-10.7MM-Z	Ceramic Filter	F101	1
or 2SA1060				FB2060B	Filter Block	F701, 702	2
2SD727(P, Q)	Transistor	Q309, 310	2	FUSES & FUSE HOLDERS			
or 2SC2484				FU-522025T	Fuse (T2A)	FU802	1
2SC1509(Q, R)	Transistor	Q303~306	4	FU-521025T	Fuse (T1A)	FU803, 804	2
2SA777(Q, R)	Transistor	Q307, 308	2	FU-525015T	Fuse (T500mA)	FU801	1
2SA722(S, T)	Transistor	Q301, 302	2	FU-521225T	Fuse (T1.25A)	FU301, 302	2
2SC2209(R, S)	Transistor	Q201	1	FH-033	Fuse Holder		1
or 2SD612K				S-N5053	Fuse Holder		4
2SA721(S, T)	Transistor	Q409	1	FUH-001	Fuse Holder		3
2SC1684(R)	Transistor	Q503, 504	6	METERS & LAMPS			
or 2SC536AUD(F)		703~706		EMT-10160	VU Meter		2
2SC536(G)	Transistor	Q801	1	EMT-10159	Meter with Signal		1
2SC644(S, T)	Transistor	Q451, 452	2	BF310-50020A	Lamp	PL801, 802	2
or 2SC1571L-NP(G)				BQ141-26404A	Lamp	PL803, 804	2
2SC1327(S, T)	Transistor	Q701, 702	2	CAPACITORS			
2SD592NC(R, S)	Transistor	Q751	1	HE40SJSL120K	Ceramic (12pF)	C22	1
2SC1685(Q, R, S)	Transistor	Q752	1	HE40SJSL200K	Ceramic (20pF)	C427, 428	2
or 2SC2274(E, F)				HE40SJSL390K	Ceramic (39pF)	C19	1
1S188FM	Ge. Diode	D101, 102	6	HE40SJSL510K	Ceramic (51pF)	C307, 308	1
		701~704		HE50SJSL121K	Ceramic (120pF)	C453, 454	2
1S188AM	Ge. Diode	D103~105	3	HE50SJSL101K	Ceramic (100pF)	C1, 705, 706	3
GP-20B	Si. Diode	D201~204	4	HE70SJSL201K	Ceramic (200pF)	C511, 512, 771, 772, 903	5
GP-08B	Si. Diode	D205, 206	2	HE80SJSL301K	Ceramic (300pF)	C106~108, 124	4
DS-442	Si. Diode	D801	1	HE90SJSL511K	Ceramic (510pF)	C303, 304, 503, 504	4
MA-26W	Variable Resistor	D301~304, 802	5	HE95SJSL561K	Ceramic (560pF)	C761, 762	2
	Diode			HE11SJSL681K	Ceramic (680pF)	C769	1
WZ-210	Zener Diode	ZD207	1	HE40SJSL050D	Ceramic (5pF)	C2	1
WZ-182	Zener Diode	ZD701	1	HE70SJYF103Z	Ceramic (0.01μF)	C24, 104, 111, 114, 116, 121, 125	7
GL-9PR2	LED	LD1, 701, 702	3	HE80SJYD472M	Ceramic (0.0047μF)	C10, 123	2
COILS & TRANSFORMERS				HE90SJYF223Z	Ceramic (0.022μF)	C101, 102, 112	3
141014	FM DET coil	T2	1	HE13SJYF473Z	Ceramic (0.047μF)	C124, 205, 206, 764, 775	5
141013	FM DET coil	T1	1	H11SEYF223Z	Ceramic (0.022μF)	C201~204, 313, 314	6
FSN-1072	AM IFT	T103	1	10TW 22μF	Electrolytic	C711, 712	2
140030	AM IFT	T104	1	10TW 33μF	Electrolytic	C113	1
135003	MW OSC Coil	L5	1	10TW 470μF	Electrolytic	C719, 720	2
132005	LW OSC Coil	L6	1	16TW 10μF	Electrolytic	C701~704, 741, 742, 747,	8
N013	Bias OSC Coil	L752	1	CONTROLS			
39mH(393K)	Inductor(RX-9P)	L151, 152	2	FD139U12	Frontend	FUN1	1
4.7mH(472K)	Inductor(RX-9P)	L701, 702	2	ECV-2MZ34X51G	Tuning Capacitor	VC1, 2, VCV1	1
1.5mH(152K)	Inductor(RX-9P)	L751	1	AT2-52-7W	2P Trimmer	TC45, 78	2
2.2mH(222K)	Inductor(RX-9P)	L705, 706	2	8φ 500Ω(B)	Carbon Trimmer	SVR803	1
39mH(393K)	Variable Inductor (MC129Y)	L703, 704	2	8φ 1KΩ(B)	Carbon Trimmer	SVR701~704, 773, 774	6
				8φ 2KΩ(B)	Carbon Trimmer	SVR151	1
124016	Ferrite Loopstick	L901~903	1	8φ 5KΩ(B)	Carbon Trimmer	SVR152	1
NPT-0525S	Power Transformer		1	8φ 10KΩ(B)	Carbon Trimmer	SVR801, 802	2
CONTROLS				CONTROLS			
FD139U12	Frontend	FUN1	1	8φ 20KΩ(B)	Carbon Trimmer	SVR100, 705, 706	3
ECV-2MZ34X51G	Tuning Capacitor	VC1, 2, VCV1	1	8φ 100KΩ(B)	Carbon Trimmer	SVR804	1
AT2-52-7W	2P Trimmer	TC45, 78	2	8φ 200KΩ(B)	Carbon Trimmer	SVR707, 708	2
8φ 500Ω(B)	Carbon Trimmer	SVR803	1	CONTROLS			
8φ 1KΩ(B)	Carbon Trimmer	SVR701~704, 773, 774	6	CONTROLS			
8φ 2KΩ(B)	Carbon Trimmer	SVR151	1	CONTROLS			
8φ 5KΩ(B)	Carbon Trimmer	SVR152	1	CONTROLS			
8φ 10KΩ(B)	Carbon Trimmer	SVR801, 802	2	CONTROLS			
8φ 20KΩ(B)	Carbon Trimmer	SVR100, 705, 706	3	CONTROLS			
8φ 100KΩ(B)	Carbon Trimmer	SVR804	1	CONTROLS			
8φ 200KΩ(B)	Carbon Trimmer	SVR707, 708	2	CONTROLS			

PARTS LIST

Part No.	Description	Symbol No.	Q'ty a set	Part No.	Description	Symbol No.	Q'ty a set
16TW 47 μ F	Electrolytic	748	3	or ECO-P1472FZ	or Polypropylene		
16TW 100 μ F	Electrolytic	C17, 729, 730	2	50V 0.033 μ F (J)	Mylar	C713, 714	2
16TW 220 μ F	Electrolytic	C457, 801	3	or ECO-P1333FZ	or Polypropylene		
25TW 0.47 μ F	Electrolytic	C167,208,517, 770	4	RESISTORS			
25TW 1 μ F	Electrolytic	C161,162,515, 516	4	1W(K) 0.47 Ω	Metal Film	R323, 323~ 326	4
25TW 4.7 μ F	Electrolytic	C429,501,502, 707, 708, 715, 716, 725, 726	9	1/2W(J) 8.2 Ω	Carbon or Metal Film	R327, 328	2
25TW 10 μ F	Electrolytic	C4, 105, 115, 122,151,403~ 406,417~420, 425, 426, 430, 451, 452, 455, 456, 717, 718, 735, 736, 739, 740, 745, 746	28	1/2W(J) 330 Ω	Carbon or Metal Film	R801, 802	2
25TW 47 μ F	Electrolytic	C117,120,126 513, 514	5	1/2W(J) 1k Ω	Carbon or Metal Film	R776	1
25TW 748	Electrolytic	C767	1	1/2W(J,K) 8.2 Ω	Flame Proof	R315, 316	2
25TW 100 μ F	Electrolytic	C763	1	1/2W(J,K) 330 Ω	Flame Proof	R319~322	4
25TW 220 μ F	Electrolytic	C210~212, 305, 306, 423	6	1/2W(J,K) 2.2k Ω	Flame Proof	R317, 318	2
25TW 470 μ F	Electrolytic	C424	1	CONNECTORS			
35TW 47 μ F	Electrolytic	C309, 310	2	D2-713N-01	75 Ω Co-axial Socket		1
35TW 100 μ F	Electrolytic	C317	1	B2-702D-01	FM ANT Socket		1
35TW 470 μ F	Electrolytic	C209	1	B2-701D-01	AM ANT Socket		1
35TW 1000 μ F	Electrolytic	C311, 312	2	D2-714N-00	DIN Socket		1
50TW 0.47 μ F	Electrolytic	C401,402,737 738	4	D5-710N-01	5P DIN Socket		1
63TW 2200 μ F	Electrolytic	C207	1	LJ252-1-1	Headphone Jack		1
50TW 0.15 μ F	Alum. Electrolytic \pm 20%	C743, 744	2	XG-8010	Microphone Jack		2
50TW 0.22 μ F	Alum. Electrolytic \pm 20%	C152;156,165, 166, 413, 414	6	323HDS	AC Block Terminal		1
50TW 0.47 μ F	Alum. Electrolytic \pm 20%	C3, 103, 109, 155	4	TP-1	Test Pin	TP100, 151	6
50TW 0.1 μ F	Alum. Electrolytic \pm 20%	C731, 732	2	RP-001	Terminal Pin	TP103, 104	2
50TW 0.33 μ F	Alum. Electrolytic \pm 20%	C733, 734	2	BP-001	Phono Input Plug		2
50TW 0.47 μ F	Electrolytic (MSR)	C301, 302	2	MC03-007	3P Connector Ass'y	for REC INPUT	1
0.039 μ F (K)	Mylar	C759,760,773, 774	4	MC03-008	3P Connector Ass'y	for VU Meter	1
0.033 μ F (J)	Mylar	C727, 728	2	MC03-019	3P Connector Ass'y	for Inter- ference SW	1
0.027 μ F (K)	Mylar	C755, 756	2	MC03-020	3P Connector Ass'y	for Cass' Moter	1
0.047 μ F (K)	Mylar	C771, 772	2	MC03-038	3P Connector Ass'y	for Signal, F Meter	1
0.056 μ F (K)	Mylar	C757, 758	2	MC04-011	4P Connector Ass'y	for + B, Play Back	1
0.001 μ F (K)	Mylar	C749, 750	2	171825-3	3P Micro Plug		5
0.0015 μ F (M)	Mylar	C159,160,421, 422	4	171825-4	4P Micro Plug		1
0.0033 μ F (M)	Mylar	C709, 710	2	FRONT PANEL PARTS			
0.0039 μ F (M)	Mylar	C407, 408	2	N10105	Front Panel		1
0.0068 μ F (M)	Mylar	C157,158,507, 508	4	N41098A-GY1	Right Side Plate		1
0.01 μ F (M)	Mylar	C163,164,765	3	N41099A-GY1	Left Side Plate		1
0.022 μ F (M)	Mylar	C505, 506	2	N30410	Dial Scale		1
0.033 μ F (M)	Mylar	C409~412, 723, 724	6	N30206-T	Tinted Window		1
0.047 μ F (M)	Mylar	C153,315,316	3	N41153A	Decoration Rivet		2
50V 350pF (J)	Styrol	C20	1	N41111	Dial Base Plate		1
50V 1500pF (J)	Styrol	C154	1	N41786	Tuning Knob 34		1
125V 4700pF (J)	Styrol	C768	1	N41787	Knob 34	for Volume Cont.	1
ECN-C4A103M	Oil	C901, 902	2	N41788	Knob 19	for Audio Cont.	6
UBD10V223K-L ₂ A	B.L. Ceramic	C766	1	N30254A	Lever Knob		1
UFD04SA101J-L ₀ B	B.L. Ceramic	C753, 754	2	N41281-S	Pushbutton		7
UFD05SA221J-L ₀ B	B.L. Ceramic	C21	1	N41521-S	Pushbutton	for Preset	7
UFD05SA151J-L ₀ B	B.L. Ceramic	C23	1	N41477A-BK	Screw Driver	for Preset	1
50V 0.0047 μ F (J)	Mylar	C721, 722	2	CABINET PARTS			
				N20695-BK	Cabinet		1
				or N20695-1BK			
				No. 7104	Cabinet Foot		4
				N20696	Rear Cover		1
				N20358	Cassette		1
					Compartment Tray		
				N20314	Dust Cover		1
				N41157	Rubber Cushion		2

Part No.	Description	Symbol No.	Q'ty a set
N41789	Name Plate		1
30007	Hinge		2
CASSETTE PARTS			
CT-3709B	Cassette Mech.	See Page 10.	1K
N41538-S	Cassette Key Cap		5
N41538-SR	Cassette Key Cap	with Read Mark	1
N20315	Cassette Holder		1
N30215	Holder Rear Base		1
N41214	Identification Plate		1
N41110-T	Cassette Window		1
N41109	Counter Window		1
N41151	Decoration Screw		2
TURNTABLE PARTS			
BD-55NB-9	Turntable Mech.	See Page 13.	1K
STRINGING PARTS			
N41107	Pointer		1
N30299	Tuning Shaft Ass'y	with Flywheel (ϕ 54)	1
No. 2701	Dial Spring		1
No. 1035A	Dial Drum		1
No. 7017	Pulley		3
No. 7005	Pulley		1
No. 5508	Pulley Shaft		4

Part No.	Description	Symbol No.	Q'ty a set
Super 5	Dial String		1.5M
HARDWARE & MISC.			
ACC-005	Power Supply Cord		1
SR3P-4	Cord Bush		1
4SM-88X8A	Phono Power Plug Ass'y		1
N41164A	Heat Sink		1
N018E	Mica		2
N024B	Insulation Bush		2
N41369	Stud 35		2
DM-1552NY1	Microphone		2
MS-53	Mic. Stand		2
FM5002A	FM Antenna		1
CPO-72	FM ANT Plug		1
OM-239	Instruction Book		1
4PC-46	Mic. Case		2
N42148	Inner Carton		1
N41201	Top Pad		1
N42150	Turntable Pad		1
N20371	Right Side Pad		1
N20372A	Left Side Pad		1
N41194A	Bag	for Unit	1
N40487	Bag	for Acce.	1
N40769A	Sheet	for Cass'Holder	1

- NOTE: 1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.
3. Resistors not detailed in parts list are all carbon type, 1/4 watt. With regard to the value, refer to the schematic diagram.