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SERVICE MANUAL

STEREO CASSETTE RECEIVER

MODEL NO.

CX-W10

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TYPE. HB, UB, EB, KB, GB

SPECIFICATIONS

<Common>

Power requirements	**CX-W10H:** 120 V/220 V/240 V (switchable), 50/60 Hz **CX-W10U:** 120 V, 60 Hz **CX-W10K,G:** 240 V, 50/60 Hz **CX-W10E:** 220 V, 50/60 Hz
Power consumption	**CX-W10E,K,G:** 110 W **CX-W10H:** 48 W **CX-W10U:** 48 W
Dimensions	330(W)×210(H)×295(D)mm
Weight	6.8 kg
Accessories	FM feeder antenna AM loop antenna SW antenna (except U model)

<Amplifier section>

Power output	**CX-W10E,K,G** 20 W + 20 W (8 ohms, T.H.D. 1%, 1 kHz) **CX-W10H** 25 W + 25 W (8 ohms, EIAJ) **FTC Rule U model only** 20 Watts per channel, Min. RMS at 8 ohms, from 100 Hz — 20 kHz, with no more than 0.9% Total Harmonic Distortion.
Frequency response (IHF)	45 Hz — 50 kHz
Signal-to-noise ratio	AUX 1, AUX 2 : 85 dB
Output terminals	
SPEAKERS	8 ohms
HEADPHONES	8 ohms
Input terminals (Sensitivity/impedance)	AUX 1: 300 mV/33 k ohms AUX 2: 440 mV/47 k ohms

<FM section> (IHF)

Frequency range	FM: 88 MHz to 108 MHz
Usable sensitivity (IHF)	6 μV (300 ohms) 20.8 dBf
Alternate channel Selectivity	45 dB (±400 kHz)
Signal-to-noise ratio	76 dB (MONO)
Total harmonic distortion (1 kHz)	0.7% (MONO)
Frequency response	30 Hz to 15 kHz (+0.5, −1.5 dB)
Stereo separation	30 dB at 1 kHz
Antenna	75 ohms (unbalanced) 300 ohms (balanced)

<SW section> (except U model)

Frequency range	**CX-W10H,G** SW_1: 2.3 MHz to 7.0 MHz SW_2: 7.0 MHz to 22 MHz **CX-W10E,K** SW: 5.9 MHz to 18 MHz
SW Sensitivity	SW: 35 μV SW_1: 300 μV/m SW_2: 35 μV
Antenna	External antenna terminal

<MW (AM) section>

Frequency range	MW: 530 kHz to 1,605 kHz
MW (AM) sensitivity	300 μV/m
Selectivity	27 dB/9 kHz
Signal-to-noise ratio	53 dB (100 dB input)
Antenna	Loop antenna External antenna terminals

<LW section> (E,K model only)

Frequency range	LW: 150 kHz to 285 kHz
LW sensitivity	800 μV/m
Antenna	Loop antenna External antenna terminals

<Deck section>

Track format	4 tracks 2 channels
Frequency response	Normal tape: 40—13,000 Hz CrO_2 tape: 40—15,000 Hz METAL tape: 40—16,000 Hz
Signal-to-noise ratio	54 dB (NORMAL tape DOLBY NR OFF)
Wow & flutter	0.2% (WRMS)
Tape speed	4.8 cm/sec. (1-7/8 ips)
Recording system	**II:** AC bias (frequency 85 kHz)
Erase system	**II:** AC erase
Motor	DC servomotor

- Design and specifications are subject to change without notice.
- Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.
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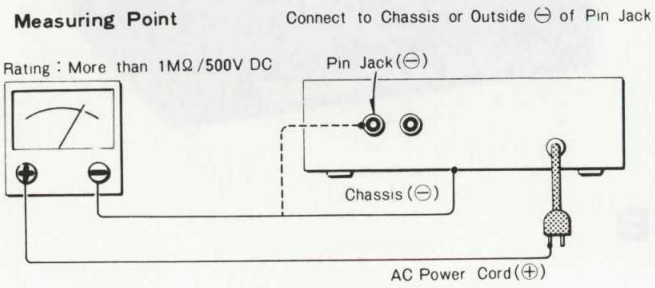
Follow the instructions carefully, which will allow the user to optimise the products' performance and give many years of serivce.

1. **No scratch and melting shall be made to covered lead-wires of an a.c. primary circuit including mains leads.**
2. **No illegibility shall be given to the specification plate, the caution labels, the fuse labels and others.**
3. **When, on pattern sides of circuit boards, additional repair-parts have been made up, the parts shall be firmly glued to circuit boards or other components, unless the parts can be attached firmly.**
4. **The following matters shall be maintained as they are, when repairing.**
   1) Soldering of lead-wire ends
      * Care should be taken of the space distance in an a.c. primary circuit as well as soldering.
   2) Wiring and holding of lead-wires with wire-clips and binders
   3) Materials of lead-wires
      * e.g.; For UL models, lead-wires to be used shall be approved or accepted by the UL.
   4) Location of all kinds of insulators
   5) Setting of voltage selector switch
      * Set the Voltage Selector Switch to 240V, 220V, or 120V, According to your Local Voltage.
5. **After repaired, the insulation resistance or leakage current shall be measured with 500 ± 5V D.C and shall be not less than 1MΩ.**

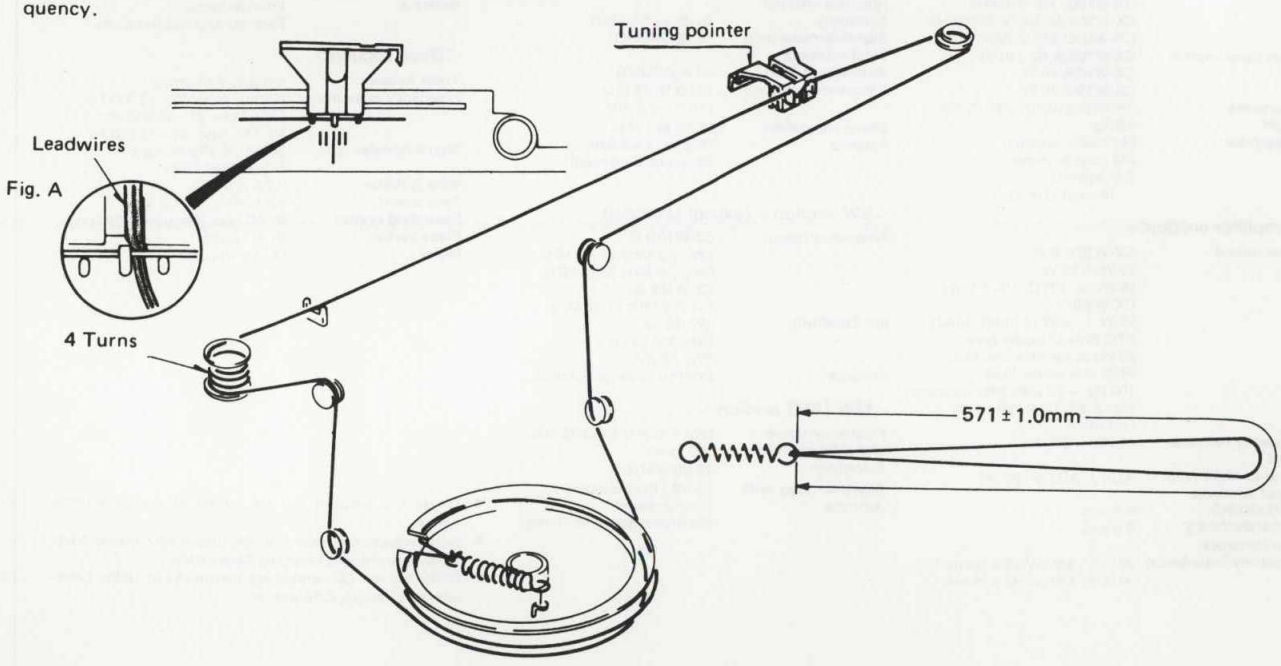
Measuring Point



6. **General instructions for mechanism repair**
   1) The heads, capstan and pinch roller shall be cleaned of good quality alcohol after repaired, because dirty heads shall cause distorted sounds while dirty capstan and pinch roller shall occur wow/flutter and take-up fault.
   2) Lubricants been stained the surfaces of transmitting portion of the belts, idlers, capstan and pinch roller shall be removed, because slippery and faulty tape travel shall be caused.
   3) When oiling, only one or two drops shall be applied so as not to run over and be dispersed. Note should be taken of the metal fitting for the capstan and rotating portions of the idlers and pinch roller, especially.
   4) E-rings and poly slider washers shall be replaced with new ones, if once those have been removed. – No re-utilization due to unreliability.
   5) Regular spare-parts shall always be used for repair, because using irregular parts and tampering with the products shall cause deterioration, mulfunction and damage.

DIAL CORD STRINGING

Adjust the tuning pointer for the marking on the guide plate, putting the pointer leadwires in order as shown in Fig. A after turned the tuning dial to set the lowest frequency.



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ELECTRICAL MAIN PARTS LIST

- +++ mark denotes a component of assembled part which part code is represented by a previously stated component.
- *-mark means less required items and availabilities may be limited.

CAPACITORS
No mark, U, UF: μF
P, PF : pF

COILS
MMH: mH
UH : μH

FUSE
MMA:mA

Ref. No.	Part No.	Description
		--- IC ---
	87-020-291	IC,BA3812L
	87-027-925	IC,M5220L
	87-027-683	IC,TA7325P
	87-027-867	IC,TA7343P
	87-027-913	IC,TA7640AP
	87-020-443	IC,TA7719P
	87-027-656	IC,TC4066BP
	87-020-079	IC,TD62555S
	87-020-318	IC,UPC1188H
	87-027-910	IC,UPC1228H
	87-027-912	IC,UPC1255C
		--- TRANSISTOR ---
	89-501-615	FET,2SK161 GR
	89-502-414	FET 2SK-241Y
	89-110-155	TRANSISTOR,2SA1015,GR
	89-106-834	TRANSISTOR,2SA683R,S
	89-209-412	TRANSISTOR,2SB941 PQ
	89-110-155	TRANSISTOR,2SC1815 GR
	89-318-154	TRANSISTOR,2SC1815,Y
	89-318-464	TRANSISTOR,2SC1846,R
	89-320-011	TRANSISTOR,2SC2001 KL
	89-413-023	TRANSISTOR,2SD1302S
		--- MAIN CIRCUIT BOARD SECTION ---
PCB-A	*	MAIN CIRCUIT BOARD
⚠	* 87-033-147	FUSE CLAMP
C103	* 87-018-038	CAP,CERA-SOL S 330P
C104	* 87-018-038	CAP,CERA-SOL S 330P
C105	* 87-018-037	CAP,CERA-SOL S 270P
C106	* 87-018-037	CAP,CERA-SOL S 270P
C141	* 87-015-681	CAP,ELECT 10-16
C153	* 87-018-042	CAP,CERA-SOL S 680P
C154	* 87-018-042	CAP,CERA-SOL S 680P
C205	* 87-018-032	CAP,CERA-SOL S 100P
C206	* 87-018-032	CAP,CERA-SOL S 100P
C223	* 87-018-042	CAP,CERA-SOL S 680P
C224	* 87-018-042	CAP,CERA-SOL S 680P
C233	* 87-018-032	CAP,CERA-SOL S 100P
C234	* 87-018-032	CAP,CERA-SOL S 100P
C235	* 87-015-681	CAP,ELECT 10-16V
C236	* 87-015-681	CAP,ELECT 10-16V
C251	* 87-015-694	CAP,ELECT 0.47-50V
C252	* 87-015-694	CAP,ELECT 0.47-50V
C253	* 87-015-681	CAP,ELECT 10-16V
C254	* 87-015-681	CAP,ELECT 10-16V
C255	* 87-018-032	CAP,CERA-SOL S 100P
C256	* 87-018-032	CAP,CERA-SOL S 100P
C261	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C301	* 87-015-688	CAP,ELECT 4.7-35V
C302	* 87-015-688	CAP,ELECT 4.7-35V
C303	* 87-018-038	CAP,CERA-SOL S 330P
C304	* 87-018-038	CAP,CERA-SOL S 330P
C307	* 87-015-681	CAP,ELECT 10-16V
C308	* 87-015-681	CAP,ELECT 10-16V
C315	* 87-015-681	CAP,ELECT 10-16V
C316	* 87-015-681	CAP,ELECT 10-16V
C319	* 87-015-691	CAP,ELECT 0.1-50
C320	* 87-015-691	CAP,ELECT 0.1-50
C321	* 87-015-693	CAP,ELECT 0.33-50
C322	* 87-015-693	CAP,ELECT 0.33-50
C603	* 87-014-069	CAP,PP 3300P
C611	* 87-015-308	CAP,TANTALUM 10-10
C560	* 87-015-694	CAP,ELECT 0.47-50V
C661	* 87-015-696	CAP,ELECT 2.2-50
C662	* 87-015-681	CAP,ELECT 10-16V
C805	* 87-015-693	CAP,ELECT 0.33-50V SRA
C903	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C907	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C912	* 87-018-036	CAP,CERA-SOL S 220P
D1	87-027-163	DIODE ENCAP 1B4B1
D11	87-020-123	DIODE DS446
D13	87-027-097	DIODE 1S1555
D17	87-027-097	DIODE 1S1555
D19	87-027-097	DIODE 1S1555
D20	87-027-097	DIODE 1S1555
D21	87-027-097	DIODE 1S1555
D22	87-027-097	DIODE 1S1555
D23	87-027-097	DIODE 1S1555
D24	87-027-097	DIODE 1S1555
D25	87-027-097	DIODE 1S1555
D26	87-027-097	DIODE 1S1555
D28	87-027-097	DIODE 1S1555
D29	87-027-301	DIODE,ZENER HZ 3A1
D30	87-027-301	DIODE,ZENER HZ 3A1
D31	87-027-097	DIODE 1S1555
D33	87-027-509	DIODE,ZENER HZ12B3
D34	87-027-509	DIODE,ZENER HZ12B3
D35	87-027-606	DIODE,ZENER HZ7C2L
D36	87-027-097	DIODE 1S1555
D38	87-027-097	DIODE 1S1555
D39	87-027-097	DIODE 1S1555
D40	87-027-097	DIODE 1S1555
D41	87-027-097	DIODE 1S1555
D43	87-027-097	DIODE 1S1555
D44	87-027-173	DIODE,ZENER RD4.7(E)
D45	87-027-097	DIODE 1S1555
D46	87-027-502	DIODE,ZENER 0.5Z3.9
D47	87-027-173	DIODE,ZENER RD4.7(E)
D48	87-027-097	DIODE 1S1555
⚠F1	* 87-035-301	FUSE 2.5A (U ONLY)
⚠F1	* 87-039-139	FUSE T2.5A (E,K ONLY)
L1	* 81-541-621	COIL OSC 85K
L2	* 82-401-661	COIL,CHOKE 600UH
L3	* 82-135-631	FILTER TRAP 85K
L4	* 82-135-631	FILTER TRAP 85K
L5	* 81-541-622	COIL,PEAKING
L6	* 81-541-622	COIL,PEAKING
LPF1	* 87-008-253	LPF
S101	81-541-607	SLIDE SW 1-9-2 (REC/PB)
S102	+++	SLIDE SW 1-9-2 (REC/PB)
S103	+++	SLIDE SW 1-9-2 (REC/PB)
S104	+++	SLIDE SW 1-9-2 (REC/PB)
S105	+++	SLIDE SW 1-9-2 (REC/PB)
S106	+++	SLIDE SW 1-9-2 (REC/PB)
S107	+++	SLIDE SW 1-9-2 (REC/PB)
S108	+++	SLIDE SW 1-9-2 (REC/PB)
S109	+++	SLIDE SW 1-9-2 (REC/PB)
S601	81-541-605	PUSH SW 4KEY (U ONLY)
S602	+++	PUSH SW 4KEY (TAPE) (U ONLY)
S603	+++	PUSH SW 4KEY (TAPE) (U ONLY)
S604	+++	PUSH SW 4KEY (TAPE) (U ONLY)
S605	+++	PUSH SW 4KEY (CD/AUX) (U ONLY)
S606	+++	PUSH SW 4KEY (CD/AUX) (U ONLY)
S607	+++	PUSH SW 4KEY (CD/AUX) (U ONLY)

Ref. No.	Part No.	Description
S608	+++	PUSH SW 4KEY (CD/AUX) (U ONLY)
S609	+++	PUSH SW 4KEY (AM) (U ONLY)
S610	+++	PUSH SW 4KEY (AM) (U ONLY)
S611	+++	PUSH SW 4KEY (FM) (U ONLY)
S612	+++	PUSH SW 4KEY (FM) (U ONLY)
S601	81-541-667	PUSH SW 3KEY (TAPE) (E,K ONLY)
S602	+++	PUSH SW 3KEY (TAPE) (E,K ONLY)
S603	+++	PUSH SW 3KEY (TAPE) (E,K ONLY)
S604	+++	PUSH SW 3KEY (TAPE) (E,K ONLY)
S605	+++	PUSH SW 3KEY (CD/AUX) (E,K ONLY)
S606	+++	PUSH SW 3KEY (CD/AUX) (E,K ONLY)
S607	+++	PUSH SW 3KEY (CD/AUX) (E,K ONLY)
S608	+++	PUSH SW 3KEY (CD/AUX) (E,K ONLY)
S609	+++	PUSH SW 3KEY (TUNER) (E,K ONLY)
S610	+++	PUSH SW 3KEY (TUNER) (E,K ONLY)
SCR1	* 87-026-185	SCR,DRA03A
SFR1	* 87-021-857	SFR 220
SFR2	* 87-021-857	SFR 220
SFR3	* 87-021-735	SFR 220
SFR4	* 87-021-735	SFR 220
SFR5	* 81-541-659	SFR 100K
SFR6	* 81-541-659	SFR 100K
SFR7	* 87-021-745	SFR 47K
SFR8	* 87-021-745	SFR 47K
SFR9	* 87-021-910	SFR 4.7K
SFR10	* 87-021-910	SFR 4.7K
SFR11	* 87-021-910	SFR 4.7K
		--- TUNER CIRCUIT BOARD SECTION ---
PCB-B	81-744-661	TUNER CIRCUIT BOARD (U ONLY)
PCB-B	81-744-652	TUNER CIRCUIT BOARD (E,K ONLY)
BPF1	* 87-030-082	FILTER BP BPM F4
C1	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C2	* 87-018-016	CAP,CERA-SOL S 22P
C3	* 87-018-047	CAP,CERA-SOL S 0.01Y
C4	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C7	* 87-018-055	CAP,CERA-SOL S 12P CH
C10	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C11	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C12	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C13	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C14	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C15	* 87-018-036	CAP,CERA-SOL S 220P (E,K ONLY)
C17	* 87-012-105	CAP,CERA-SOL ,0.022
C18	* 87-018-079	CAP,CERA-SOL S 8.5P (U ONLY)
C20	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C21	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C23	* 87-018-047	CAP,CERA-SOL S 0.01Y/16 (U ONLY)
C24	* 87-018-036	CAP,CERA-SOL S 220P
C26	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C29	* 87-018-047	CAP,CERA-SOL S 0.01Y/16 (U ONLY)
C33	* 87-015-697	CAP,ELECT 3.3-50
C35	* 87-014-057	CAP,PP 1000P
C39	* 87-015-695	CAP,ELECT 1-50
C40	* 87-015-695	CAP,ELECT 1-50
C42	* 87-015-677	CAP,ELECT 100-6.3 (U ONLY)
C43	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C44	* 87-018-047	CAP,CERA-SOL S 0.01Y/16 (U ONLY)
C45	* 87-018-036	CAP,CERA-SOL S 220P (U ONLY)
C48	* 87-018-014	CAP,CERA-SOL S 18P (E,K ONLY)
C49	* 87-018-047	CAP,CERA-SOL S 0.01Y/16
C55	* 87-018-091	CAP,CERA-SOL S 56P UJ
C58	* 87-018-032	CAP,CERA-SOL S 100P (E,K ONLY)
C59	* 87-014-045	CAP,PP 330P (E,K ONLY)

Ref. No.	Part No.	Description
C60	* 87-018-095	CAP,CERA-SOL 0.01-K (E,K ONLY)
C61	* 87-018-032	CAP,CERA-SOL S 100P (E,K ONLY)
C72	* 87-018-083	CAP,CERA-SOL 18P UJ (E,K ONLY)
CF1	* 87-008-261	FILTER SFE10.7MA5-A (U ONLY)
CF1	* 87-008-264	FILTER SFE10.7MS-A (E,K ONLY)
CF2	* 87-008-261	FILTER SFE10.7MA5-A (U ONLY)
CF2	* 87-008-264	FILTER SFE10.7MS-A (E,K ONLY)
CFT1	* 87-008-260	FILTER CFT-468 PS
D1	87-017-004	DIODE,VAR SD-117
D2	87-027-332	DIODE,ZENER HZ6B1L
D3	87-027-097	DIODE 1S1555 (E,K ONLY)
IFT1	* 87-008-258	IFT FM PS
IFT2	* 87-008-259	IFT FM(QUAD)PS
IFT3	* 87-008-256	IFT AM(DET)PS
L1	* 87-006-066	COIL RF FM EX
L2	* 87-007-121	COIL OSC FM-H
L4	* 87-007-120	COIL OSC AM PS (U ONLY)
L5	* 87-003-078	COIL 0.22UH (U ONLY)
L5	* 87-005-151	COIL 2.2UH (E,K ONLY)
L6	* 87-005-151	COIL 2.2UH (U ONLY)
L6	* 87-006-058	COIL ANT SW E (E,K ONLY)
L9	* 87-007-127	COIL OSC SW PS (E,K ONLY)
L10	* 87-007-123	COIL OSC MW PS (E,K ONLY)
L11	* 87-007-126	COIL OSC LW PS (E,K ONLY)
L12	* 87-005-151	COIL 2.2UH (E,K ONLY)
R25	87-029-102	RES,FUSIBLE ,1/4W-47
S11	81-542-607	ROTARY SW 6-4-2 (BAND SELECTOR) (E,K ONLY)
SFR1	* 87-021-741	SFR 4.7KB
TC1	* 87-011-159	PVC 20P (U ONLY)
TC2	+++	PVC 20P (U ONLY)
TC3	+++	PVC 20P (U ONLY)
TC4	+++	PVC 20P (U ONLY)
VC1	+++	PVC 20P (U ONLY)
VC2	+++	PVC 20P (U ONLY)
VC3	+++	PVC 20P (U ONLY)
VC4	+++	PVC 20P (U ONLY)
TC1	81-011-138	PVC 335-20P (E,K ONLY)
TC2	+++	PVC 335-20P (E,K ONLY)
TC4	+++	PVC 335-20P (E,K ONLY)
VC1	+++	PVC 335-20P (E,K ONLY)
VC2	+++	PVC 335-20P (E,K ONLY)
VC3	+++	PVC 335-20P (E,K ONLY)
VC4	+++	PVC 335-20P (E,K ONLY)
TC5	* 87-011-139	TRIMMER,CAP 6PF (E,K ONLY)
TC7	* 87-011-142	TRIMMER,CAP 10PF (E,K ONLY)
TC8	* 87-011-142	TRIMMER,CAP 30P (E,K ONLY)
		--- LED-2 CIRCUIT BOARD SECTION ---
PCB-C	*	LED-2 CIRCUIT BOARD
D24	* 87-027-921	LED,SR506D (TUNING)
		--- AMP. CIRCUIT BOARD SECTION ---
PCB-D	*	AMP. CIRCUIT BOARD
⚠	* 87-033-147	FUSE CLAMP
	* 81-744-601	ANT TERMINAL BOARD ASSY D
	* 81-744-602	ANT TERMINAL BOARD ASSY E (E ONLY)
	* 81-744-603	ANT TERMINAL BOARD ASSY K (K ONLY)
C54	* 87-018-009	CAP,CERA-SOL 10P
C56	* 87-018-014	CAP,CERA-SOL 18P
C1101	* 82-186-685	CAP,ELECT ,3300-35
C1102	* 82-186-685	CAP,ELECT ,3300-35
C1104	* 87-010-047	CPA,ELECT 100-50

Ref. No.	Part No.	Description
C1108	* 87-018-047	CAP,CERA-SOL 0.01
C1125	* 87-018-127	CAP,CERA-SOL SS 470P
C1126	* 87-018-127	CAP,CERA-SOL SS 470P
C1127	* 87-018-024	CAP,CERA-SOL S 47P
C1128	* 87-018-024	CAP,CERA-SOL S 47P
C1131	* 87-018-024	CAP,CERA-SOL S 47P
C1132	* 87-018-024	CAP,CERA-SOL S 47P
C1151	* 87-018-032	CAP,CERA-SOL S 100P
C1152	* 87-018-032	CAP,CERA-SOL S 100P
D60	87-020-285	DIODE DBA30C
D61	87-027-097	DIODE 1S1555
D62	87-027-555	DIODE,ZENER HZ5C2
D63	87-027-097	DIODE 1S1555
D64	87-027-097	DIODE 1S1555
D65	87-027-606	DIODE,ZENER HZ7C2L
D66	87-020-400	DIODE 1SR35 200
D67	87-027-555	DIODE,ZENER HZ5C2
D68	87-027-097	DIODE 1S1555
⚠F5	87-035-256	FUSE 3.15A (U ONLY)
⚠F5	87-035-191	FUSE T3.15A (E,K ONLY)
⚠F6	87-035-256	FUSE 3.15A (U ONLY)
⚠F6	87-035-191	FUSE T3.15A (E,K ONLY)
J1	87-049-084	JACK,3.5 (SPEAKER L)
J2	87-049-084	JACK,3.5 (SPEAKER R)
J5	87-049-450	PIN JACK,4P (AUX-1 L)
J6	+++	PIN JACK,4P (AUX-1 R)
J7	+++	PIN JACK,4P (AUX-2 L/CD)
J8	+++	PIN JACK,4P (AUX-2 R/CD)
J9	87-049-338	JACK 2.5 (PLAYER SYNC)
L13	* 87-005-165	COIL 1UH
⚠R1131	87-029-105	RES,FUSIBLE,1/2W-10
⚠R1132	87-029-105	RES,FUSIBLE,1/2W-10
S613	87-031-819	SLIDE SW 1-1-3 (OSC)
		--- CONTROL CIRCUIT BOARD SECTION ---
PCB-E	*	CONTROL CIRCUIT BOARD
C401	* 87-018-044	CAP,CERA-SOL S 1000P
C402	* 87-018-044	CAP,CERA-SOL S 1000P
C409	* 87-015-695	CAP,ELECT 1-50
C413	* 87-015-693	CAP,ELECT 0.33-50
C415	* 87-015-691	CAP,ELECT 0.1-50
C416	* 87-015-691	CAP,ELECT 0.1-50
C417	* 87-018-130	CAP,CERA-SOL SS 820P
C418	* 87-018-043	CAP,CERA-SOL S 820P
C421	* 87-018-045	CAP,CERA-SOL 2200P
C422	* 87-018-045	CAP,CERA-SOL 2200P
C425	* 87-018-037	CAP,CERA-SOL S 270P
C426	* 87-018-124	CAP,CERA-SOL SS 270P
S701	81-541-618	PUSH SW 2-2-2SPH D (GRAPHIC EQ)
S702	+++	PUSH SW 2-2-2SPH D (GRAPHIC EQ)
S703	81-541-618	PUSH SW 2-2-2SPH D (DOLBY NR)
S704	+++	PUSH SW 2-2-2SPH D (DOLBY NR)
S705	81-541-618	PUSH SW 2-2-2SPH D (FM MODE)
S706	+++	PUSH SW 2-2-2SPH D (FM MODE)
VR1	81-744-622	SLIDE VR 20KA 2KEYS (VOLUME)
VR2	+++	SLIDE VR 20KA 2KEYS (VOLUME)
VR3	81-541-620	VOLUME 100KW (BALANCE)
VR4	81-541-619	VOLUME 20KA (MIC VOLUME)
VR5	87-021-898	SLIDE VR 100KB (70HZ)
VR6	+++	SLIDE VR 100KB (70HZ)
VR7	87-021-898	SLIDE VR 100KB (350HZ)
VR8	+++	SLIDE VR 100KB (350HZ)
VR9	87-021-898	SLIDE VR 100KB (1KHZ)
VR10	+++	SLIDE VR 100KB (1KHZ)
VR11	87-021-898	SLIDE VR 100KB (3.5KHZ)
VR12	+++	SLIDE VR 100KB (3.5KHZ)
VR13	87-021-898	SLIDE VR 100KB (10KHZ)
VR14	+++	SLIDE VR 100KB (10KHZ)
		--- JACK CIRCUIT BOARD SECTION ---
PCB-F	*	JACK CIRCUIT BOARD
C521	* 87-015-430	CAP,AL 0.47-25V
C522	* 87-018-032	CAP,CERA-SOL S 100P
C526	* 87-018-044	CAP,CERA-SOL S 1000P
J3	81-744-621	JACK 6.3 2KEYS (PHONES)
J4	+++	JACK 6.3 2KEYS (MIX MIC)
R1145	* 87-025-348	RES,MF,1W-270
R1146	* 87-025-348	RES,MF,1W-270
		--- LED-3 CIRCUIT BOARD SECTION ---
PCB-G	*	LED-3 CIRCUIT BOARD
D4	* 87-027-773	LED,GL-9NG4 (REV PLAY)
D5	* 87-027-773	LED,GL-9NG4 (PLAY)
S502	87-031-771	TACT SW,EVQ-QSK04M (REC MUTE)
		--- POWER CIRCUIT BOARD SECTION ---
PCB-H	*	POWER CIRCUIT BOARD
⚠	* 87-033-147	FUSE CLAMP (E,K ONLY)
⚠F7	87-035-139	FUSE T2.5A (E,K ONLY)
⚠J10	* 87-049-017	AC OUTLET (AC OUTLET) (U ONLY)
⚠J10	* 87-049-514	AC OUTLET (AC OUTLET) (E ONLY)
⚠J10	* 87-049-416	AC OUTLET (AC OUTLET) (K ONLY)
		--- LED-1 CIRCUT BOARD SECTION ---
PCB-I	*	LED-1 CIRCUIT BOARD
D25	* 87-027-542	LED,LN217RP (FM STEREO)
D26	* 87-027-543	LED,LN317GP (DOLBY NR)
D401	* 87-027-542	LED,LN217RP (POWER)
D403	* 87-027-542	LED,LN217RP (REC/DUBBING)
D404	* 87-027-542	LED,LN217RP (HI-SPEED)
		--- ANTENNA CIRCUIT BOARD SECTION ---
PCB-J	81-744-616	ANTENNA CIRCUIT BOARD
C54	* 87-018-009	CAP,CERA-SOL S10P
C56	* 87-018-014	CAP,CERA-SOL S18P (E,K ONLY)
L3	* 81-744-628	COIL ANT MW (U ONLY)
L7	* 81-744-625	COIL ANT MW-4B (E,K ONLY)
L8	* 81-744-626	COIL ANT LW (E,K ONLY)
L13	* 87-005-165	CHOKE COIL 1UH (E,K ONLY)
TC3	* 87-011-139	TRIMMER,CAP 6PF (E,K ONLY)
TC6	* 87-011-131	TRIMMER,CERAMIC 30PF
		--- SUB CIRCUIT BOARD SECTION ---
PCB-K	81-744-654	SUB CIRCUIT BOARD (E,K ONLY)
		--- MISCELLANEOUS ---
⚠	* 87-034-578	AC CORD (U ONLY)
⚠	* 87-034-877	AC CORD (E ONLY)
⚠	* 87-034-975	AC CORD (K ONLY)
⚠	87-085-184	AC CORD BUSHING D (U ONLY)
⚠	87-085-185	AC CORD BUSHING (E,K ONLY)
⚠C1107	* 87-019-112	SPARK KILLER 0.01
M1	81-506-605	MOTOR BFB2L71C (DECK1)
M2	81-506-605	MOTOR BFB2L71C (DECK2)
PH	87-046-261	HEAD PH HY 4225VS (DECK1)
⚠PT1	81-744-607	POWER TRANSFORMER U (U ONLY)
⚠PT1	81-744-608	POWER TRANSFORMER E (E ONLY)
⚠PT1	81-744-609	POWER TRANSFORMER K (K ONLY)
RP/E	87-046-255	RP/E HEAD HD4258ORVJ (DECK2)
S201	81-533-328	LEAF SW (FR,DECK1)
S202	87-031-615	LEAF SW FR (CD,DECK1)
S203	81-533-623	LEAF SW TN (PLAY,DECK1)
S204	81-533-399	LEAF SW (MUTING,DECK1)
S205	81-533-399	LEAF SW (MOTOR,DECK1)
S301	87-031-615	LEAF SW FR (RV CAM,DECK2)
S302	87-031-548	LEAF SW PAUSE (DIRECTION,DECK2)
S303	87-031-548	LEAF SW PAUSE (REC,DECK2)
S304	86-513-608	LEAF SW,BSW-180 (MUTING,DECK2)
S305	86-513-602	LEAF SW CASSETTE (METAL,DECK2)
S306	86-513-602	LEAF SW CASSETTE (CO,DECK2)
S307	87-031-615	LEAF SW FR (FR,DECK2)
S308	87-031-548	LEAF SW PAUSE (MOTOR,DECK2)
S401	87-031-615	LEAF SW FR (HI-SPEED,DECK1)
⚠S402	81-744-620	PUSH SW (POWER)
	81-533-423	DUMMY HEAD (DECK1)

Note; Combination Circuit Board

The parts on the electrical parts list which are indicated by an asterisk (*) are supplied as one single combined circuit board. Therefore, they will not be supplied separately. If this becomes necessary,please order the entire circuit board.

Combination circuit board A 81-541-685

PCB-A	81-541-686
PCB-G	81-541-687

Combination circuit board B 81-541-680

PCB-C	81-541-682
PCB-E	81-541-681

Combination circuit board C 81-744-610

PCB-D	81-744-611
PCB-F	81-744-613
PCB-H	81-744-614
PCB-I	81-744-615

⚠ Safety component symbol

This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

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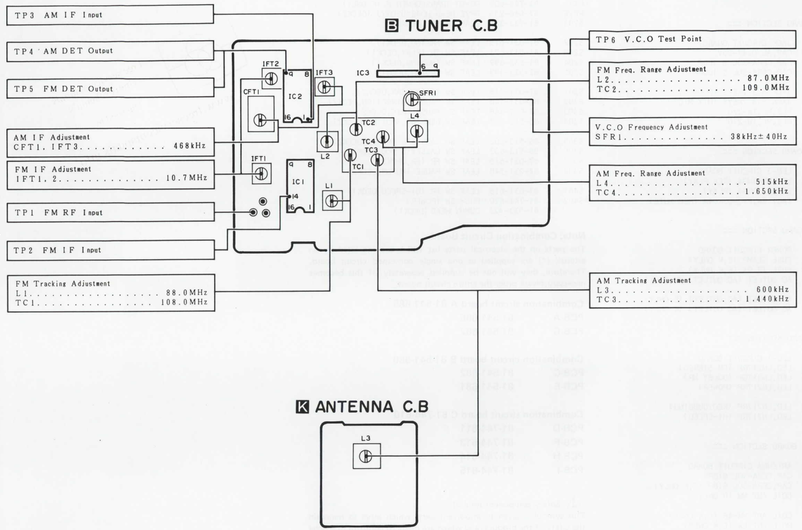
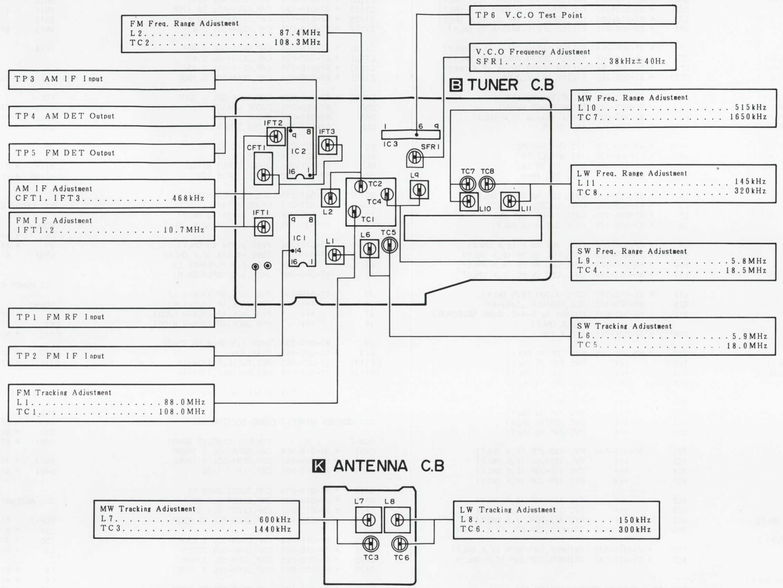
ADJUSTMENT(CX-W10)

(U model only)



(E,K model only)



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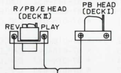
7. Bias OSC Frequency Adjustment
Settings: • Test point: SP OUT (L, R)
• Adjustment location: L1
Method: Adjust so that the frequency at test point becomes 86.0kHz± 0.5kHz.



1. Azimuth Adjustment [DECK I, DECK II]
Settings: • Test tape: TTA-317E
• Adjustment location: Azimuth adjustment screw
Method: Perform adjustment on each PLAY mode and REV PLAY mode. [DECK II]

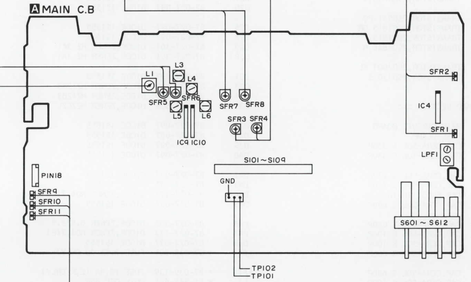
6. Bias Current Adjustment [DECK II]
Settings: • Test tape: TTA-117J
• Test point: SP OUT (L, R)
• Input: AUX (L, R)
• Dolby NR switch: OFF
• Adjustment location: SFR5 (Lch) SFR6 (Rch)
Method: Load the test tape into DECK II and record 10kHz, −30dB signal. Playback the recorded signal and adjust so that the output is −2.0± 1.0dB against the REC current adjustment of 1kHz.

5. REC Current Adjustment [DECK II]
Settings: • Test tape: TTA-117J
• Test point: SP OUT (L, R)
• Input: AUX (L, R)
• Dolby NR switch: OFF
• Adjustment location: SFR7 (Lch) SFR8 (Rch)
Method: Load the test tape into DECK II and record 1kHz, −30dB signal. Playback the recorded signal and adjust so that the output is the same value as recording within −0.5±0.5dB.

4. Dolby Level Adjustment [DECK II]
Settings: • Test tape: TTA-161
• Test point: TP101 (Lch) TP102 (Rch)
• Dolby NR switch: OFF
• Adjustment location: SFR3 (Lch) SFR4 (Rch)
Method: Playback the test tape and adjust so that the output is 300mV.

3. Dolby Level Adjustment [DECK I]
Settings: • Test tape: TTA-161
• Test point: TP101 (Lch) TP102 (Rch)
• Dolby NR switch: OFF
• Adjustment location: SFR1 (Lch) SFR2 (Rch)
Method: Playback the test tape and adjust so that the output is 300mV.

A MAIN C.B



2. Speed Adjustment

Item	Normal Speed		High Speed	
	DECK I	DECK II	DECK I	DECK II
Adjustment procedure	①	②	③	④
Test tape	TTA-111S	TTA-111S	TTA-111S	TTA-111S
Operation of button	PLAY button of DECK I	PLAY button of DECK II	1)PLAY buttons of DECK I & DECK II 2)Hi-SPEED (blue) button	1)PLAY buttons of DECK I & DECK II 2)Hi-SPEED (blue) button
Adjustment location	SFR11	SFR10	Non-adjustment	SFR9

Method: ① Normal Speed Adjustment
DECK I: Playback test tape TTA-111S and adjust SFR11 so that the frequency is 2995±10Hz.
DECK II: Playback test tape TTA-111S and adjust SFR10 so that the frequency is 2995±10Hz.
③ High Speed Adjustment
DECK I: 1) Playback test tape TTA-111S on DECK I and depress the PLAY button of DECK II.
2) Depressing the dubbing button to do not release the PLAY button, depress the Hi-SPEED button.
3) DECK I is non-adjustment. Confirm speed at this time.
DECK II: 1) Playback test tape TTA-111S on DECK II and depress the PLAY button of DECK I.
2) Perform DECK II to high speed operation same as the above.
3) Adjust SFR9 so that the speed is the same as DECK I within ±10Hz.

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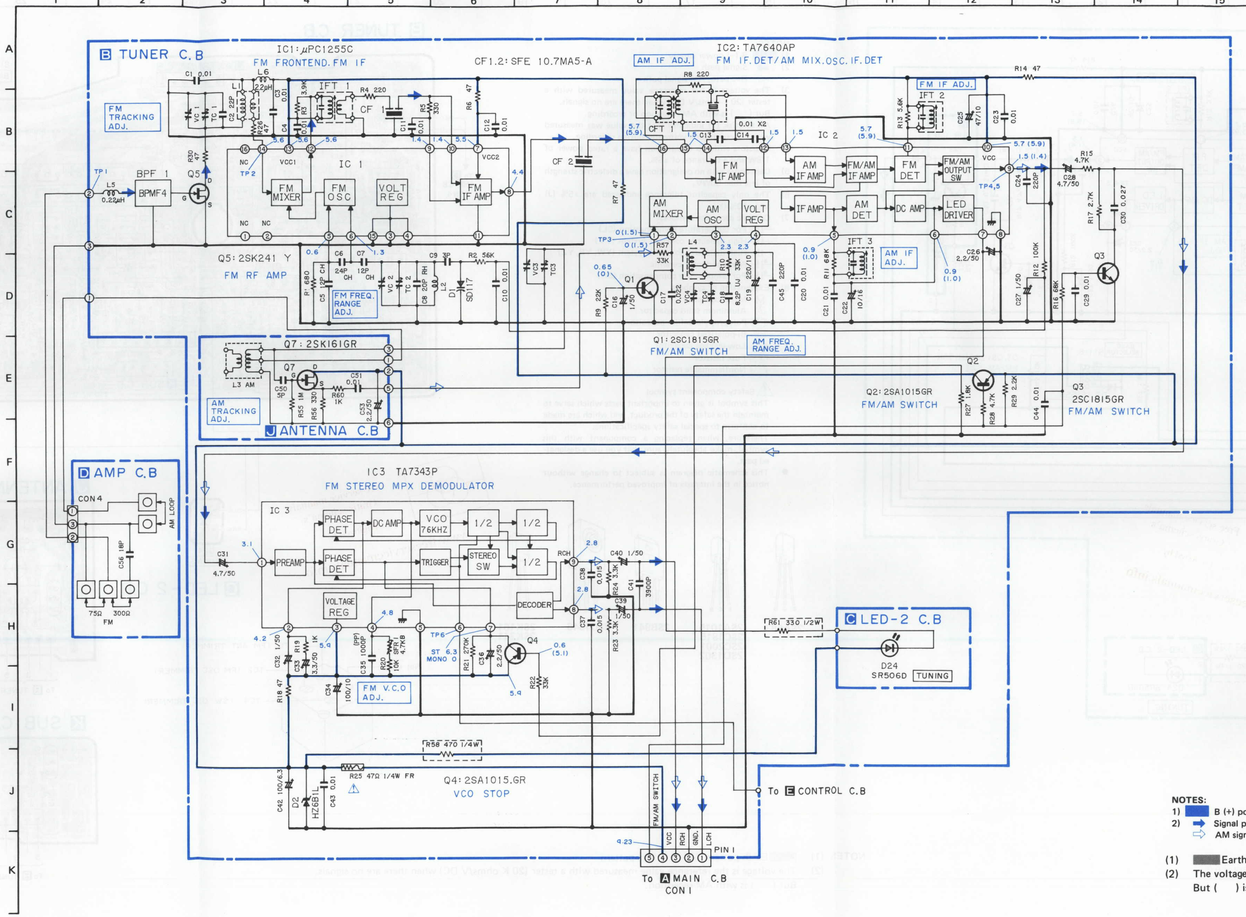
Practical Service Figure

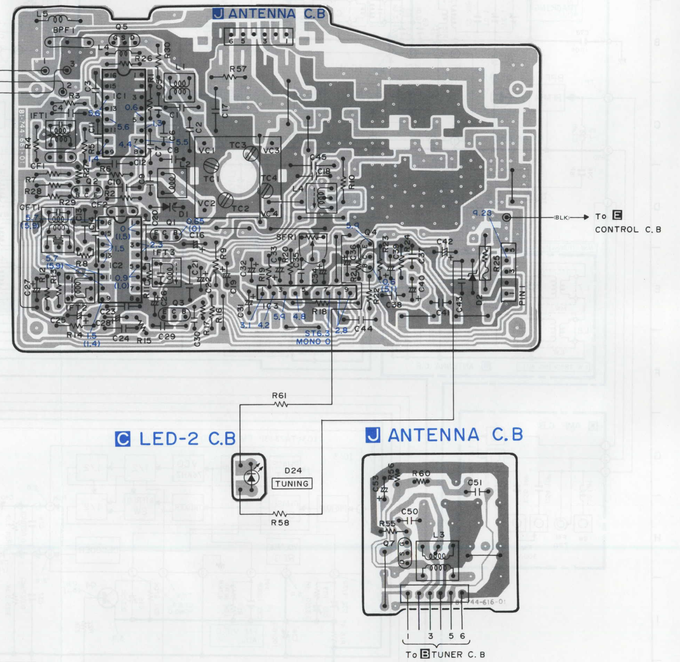
<RADIO SECTION>

Sensitivity:	U model
(IHF, THD 3%)	FM 15±5dB (at 100MHz)
(S/N 10dB)	AM 40±5dB (at 1,000kHz)
	E, K models
(IHF, THD 3%)	FM 15±5dB (at 100MHz)
(S/N 10dB)	SW 18±4dB (at 12MHz)
(S/N 10dB)	MW 40±5dB (at 1,000kHz)
(S/N 10dB)	LW 48±5dB (at 200kHz)
Intermediate frequency:	FM 10.7±0.03MHz)
	AM 468±3.5kHz
FM stereo separation:	FM 22±3dB (at 1kHz)

<TAPE RECORDER SECTION>

Bias frequency:	85kHz
Erasing ratio:	65±5dB (DECK Ⅱ)
Channel balance:	Less than 3dB (REC/PB)
Distortion:	Less than 2% (PB)
	Less than 3% (REC/PB)
Signal noise ratio:	51±4dB (AC, PB)
	49±4dB (AC, REC/PB)
Noise level:	1.7±0.4mV (AC MIN)
Wow and Flutter:	Less than 0.36% (RMS) (DECK Ⅰ)
	Less than 0.35% (RMS) (DECK Ⅱ)
Pinch roller pressure:	300g (2.9N) (DECK Ⅰ)
	295±25g (2.9±0.25N) (DECK Ⅱ)
Take up torque:	45±15g-cm (0.44±0.15mN・m) (DECK Ⅰ)
	40 $^{+15}_{-5}$g-cm (0.39$^{+0.15}_{-0.05}$mN・m) (DECK Ⅱ)
F. FWD torque:	110±30g-cm (1.1±0.3mN・m) (DECK Ⅰ)
	90~150g-cm (0.88~1.5mN・m) (DECK Ⅱ)
Rewind torque:	110±30g-cm (1.1±0.3mN・m) (DECK Ⅰ)
	90~150g-cm (0.88~1.5mN・m) (DECK Ⅱ)
Back Tension:	3~6g-cm (0.03~0.06mN・m) (DECK Ⅰ)
	3.5 $^{+1.5}_{-1}$g-cm (0.03$^{+0.01}_{-0.01}$mN・m) (DECK Ⅱ)





NOTES:

1) B (+) power supply
2) Signal path
   AM signal path

(1) Earth pattern Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.
But ( ) is with AM reception.

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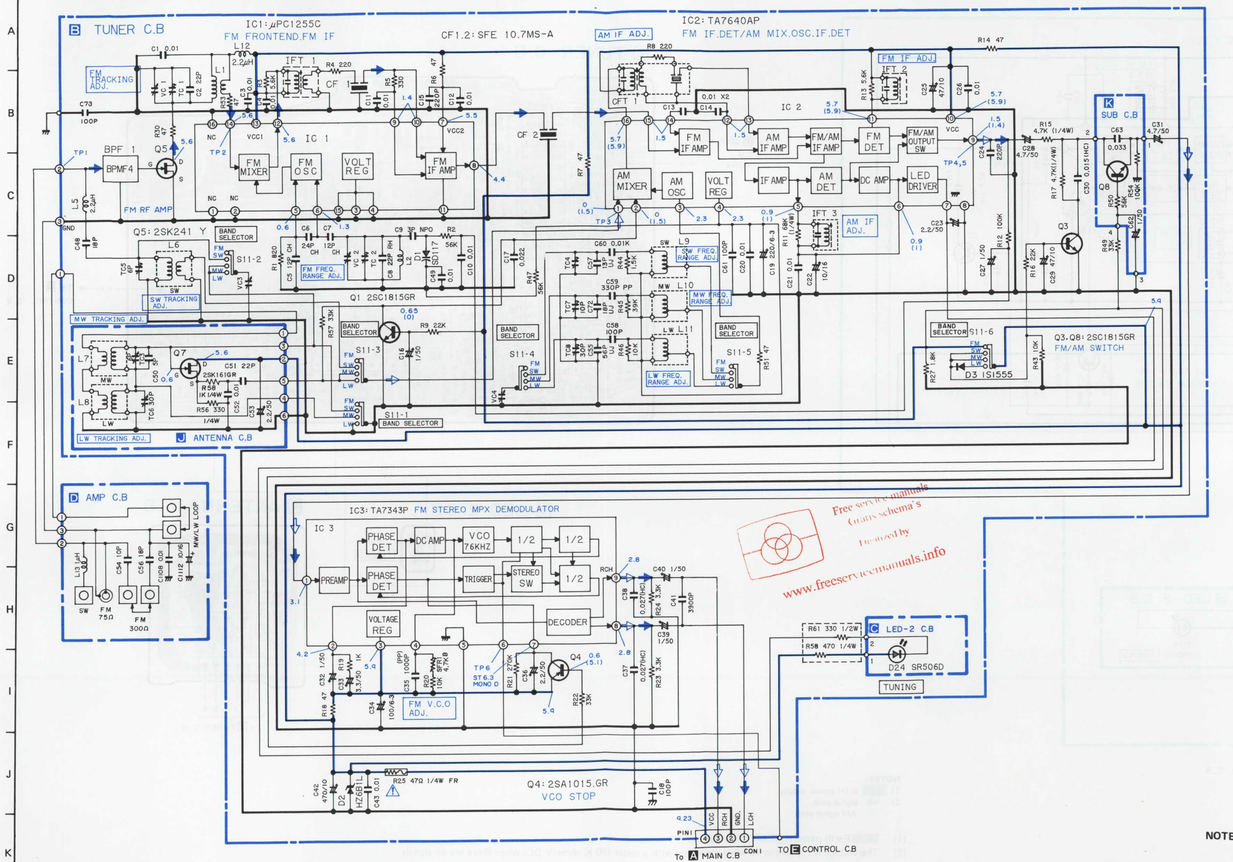

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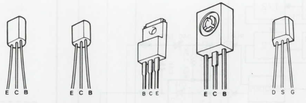
NOTES:

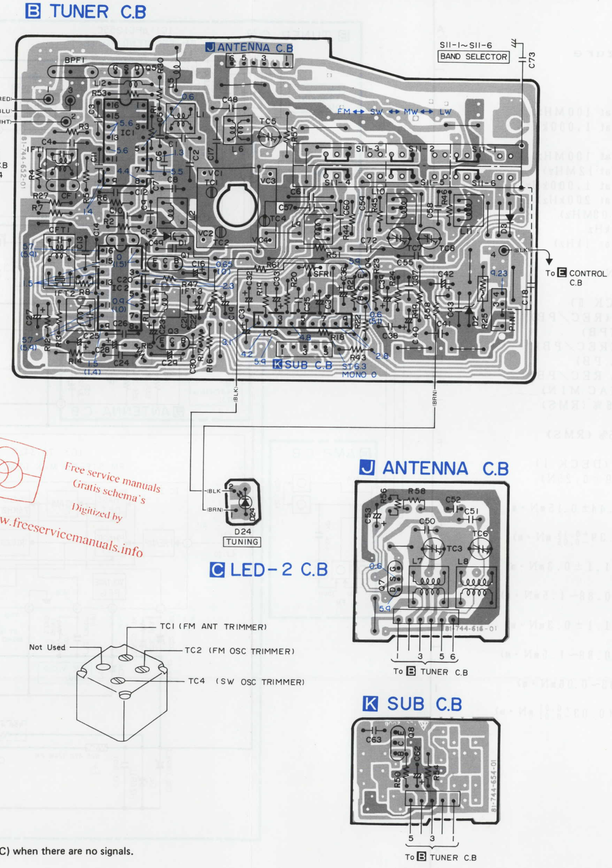
1) B (+) power supply
2) Signal path
   Rec path, AM signal path
3) The voltage is the reference value measured with a tester (20 k-ohms/V DC) when there are no signals.
   But ( ) is with AM reception or recording.
   An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.
4) Resistors with no designation have a rated power of 1/8W and a tolerance of ±5%.
5) Capacitors with no designation have a dielectric strength of less than 50WV.
6) The only capacitor tolerance indicated are ±5% (J) and ±10% (K).
7) Ceramic capacitor symbols:
   - For temperature compensation (SL)
   - High dielectric constant system (YY)
   - High dielectric constant system (YW, YP, YZ)
   - Semiconductor ceramic
   - For temperature compensation (SH)
8) Explanation of symbols
   - Mylar capacitor
   - Aluminum solid capacitor
   - Polypropylene film capacitor
   - Bi-polarized capacitor
   - Low-leakage capacitor
   - Fuse resistor
   - Nonflammable resistor

⚠ Safety component symbol
This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications.
Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

- This schematic diagram is subject to change without notice in the interests of improved performance.



NOTES (1) Earth pattern Others pattern
(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.
But ( ) is with AM reception.



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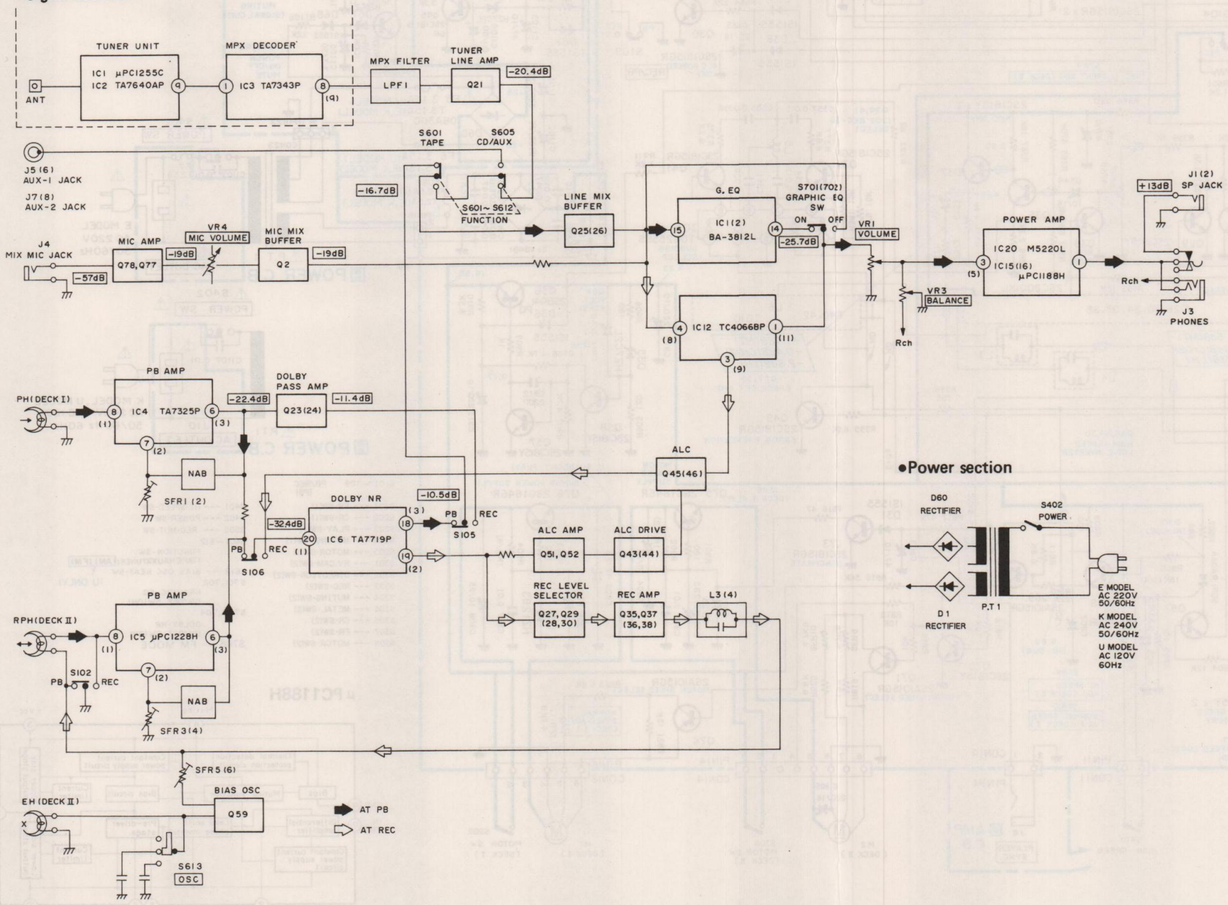
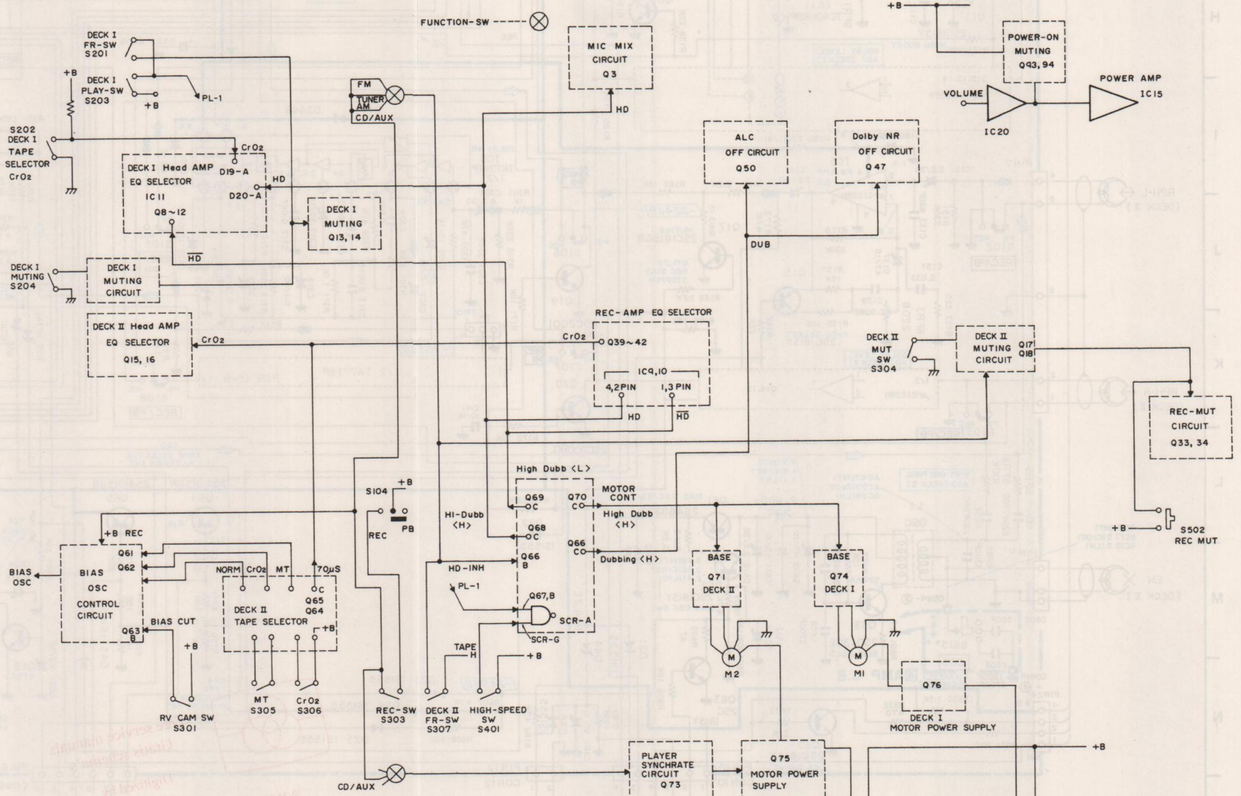
BLOCK DIAGRAM (CX-W10)

•Signal section



•Power section

• Control section



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SCHEMATIC DIAGRAM -3(CX-W10)

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A MAIN C.B

B TUNER C.B

C CONTROL C.B

D AMP C.B

E LED-1 C.B

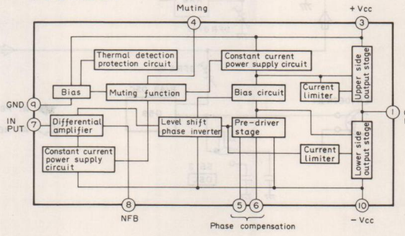
F JACK C.B

G LED-3 C.B

H POWER C.B

I POWER C.B

μPC1188H



NOTES:

1) B (+) power supply
2) Signal path
   Rec path

⚠ Safety component symbol
This symbol is given to important parts which serve to maintain the safety of the product, and which are made to conform to special safety specifications. Therefore, when replacing a component with this symbol, make absolutely sure that you use a designated part.

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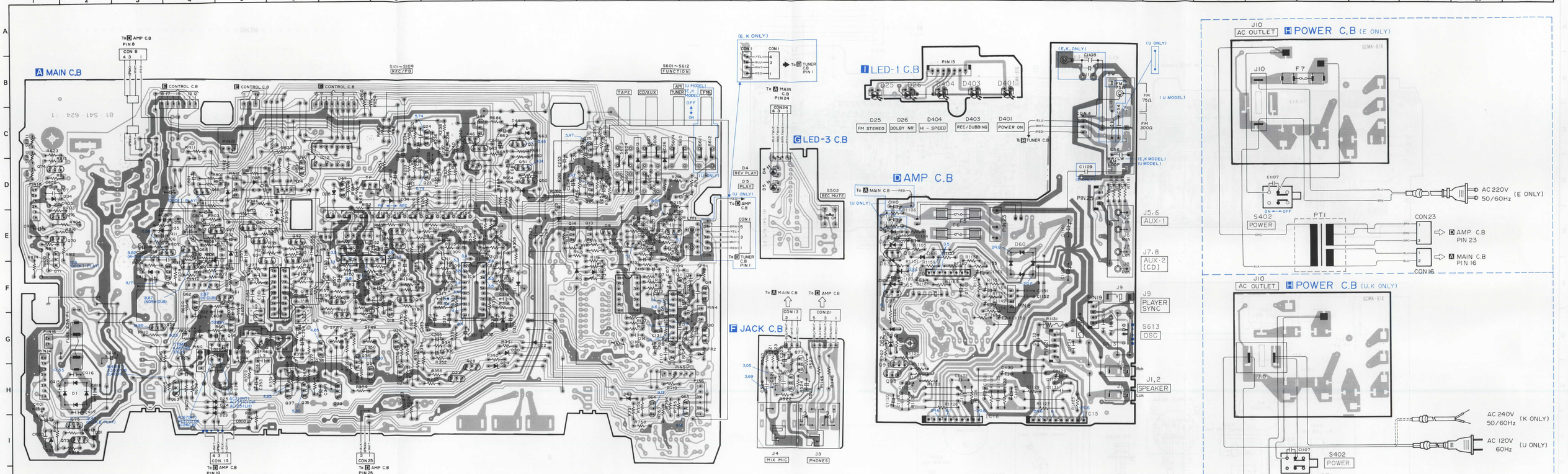

NOTES (1) Earth pattern Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals.
An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.

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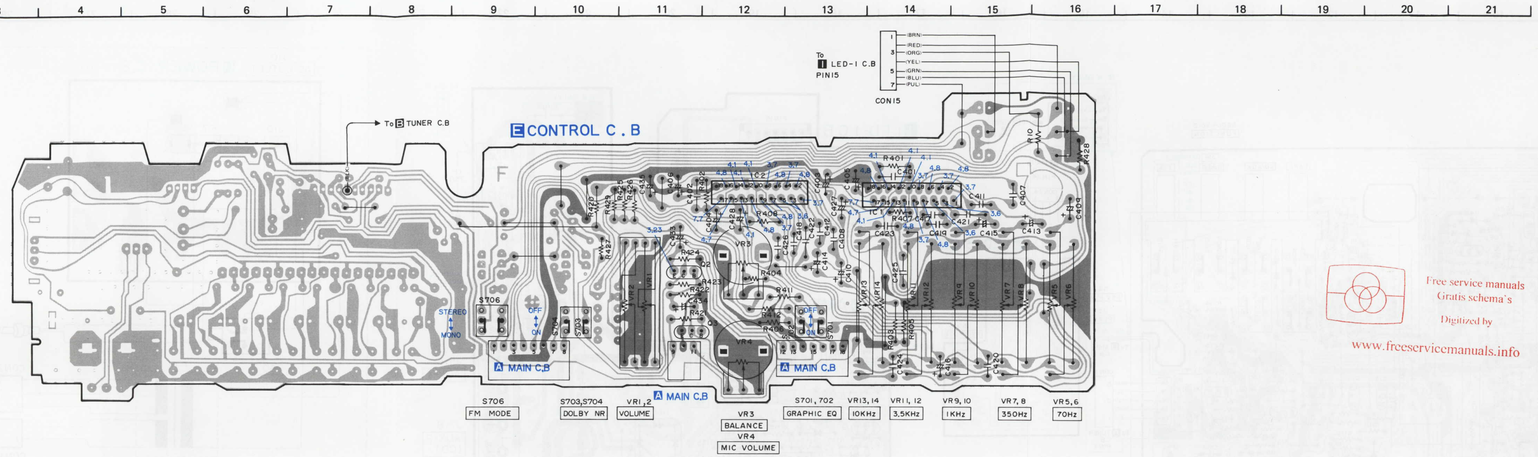

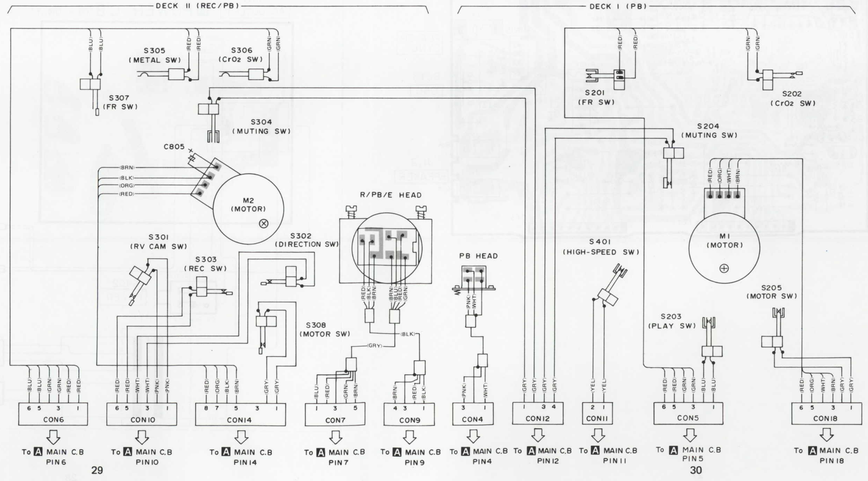

NOTES (1) ■ Earth pattern ■ Others pattern

(2) The voltage is the reference value measured with a tester (20 K ohms/V DC) when there are no signals. An asterisk (*) indicates that the value was measured with a vacuum-tube voltmeter during recording.

MEMO

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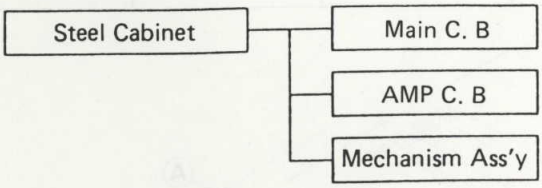
DISASSEMBLY INSTRUCTIONS



1. Removing Main C.B.

1) Remove the left and right holders (PCB-R and PCB-L) and remove the screw of the holder PCB-M. The holder PCB-R can be detached with together.
2) Remove the 3 screws on the ratio chassis (1 – 3). (See Figure – 1)

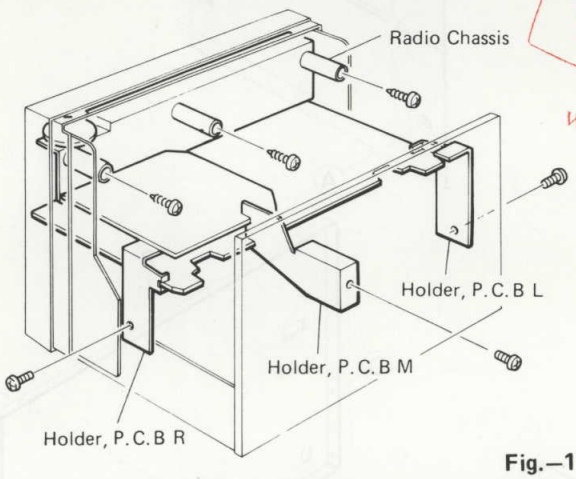


Fig.–1

3) Move the circuit board backward slightly and turn it over in the direction of the arrow. (See Figure – 2)

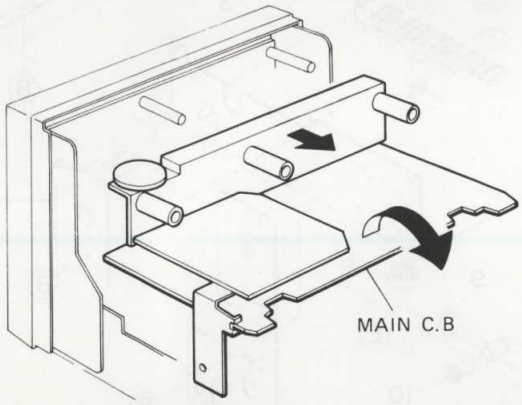


Fig.–2

2. Removing AMP.C.B.

1) Remove the screw on the holder PCB-M to detach the holder. (See Figure – 1)
2) Remove the screw of the pin jack terminal and remove the 2 nylon rivets of the antenna terminal.
3) Remove the 5 screws and turn the heat-sink and circuit board with together in the direction of the arrow, then pull it out upward. (See Figure – 3)

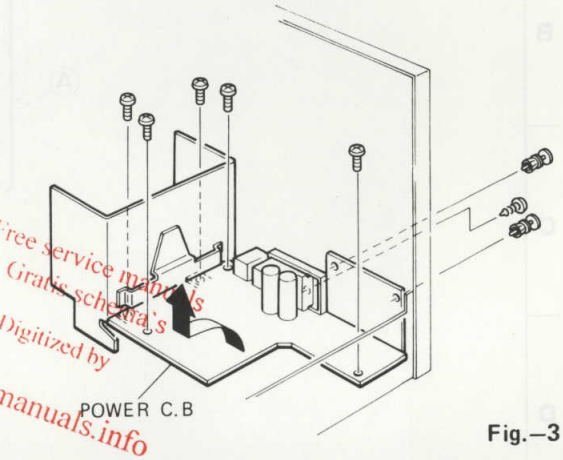


Fig.–3

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3. Removing Mechanism Ass'y

1) Remove the 3 screws from the bottom of the front panel, and remove the 4 screws of the holders R and L. (See Figure – 4)

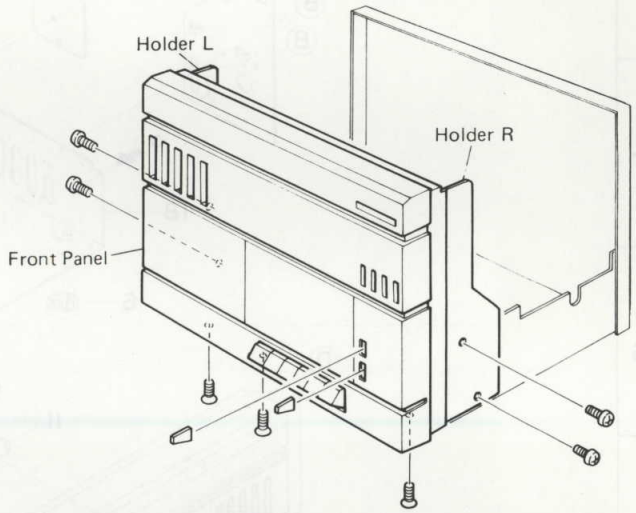

Fig.–4

2) Remove the 7 mechanism mounting screws. (See Figure – 5)

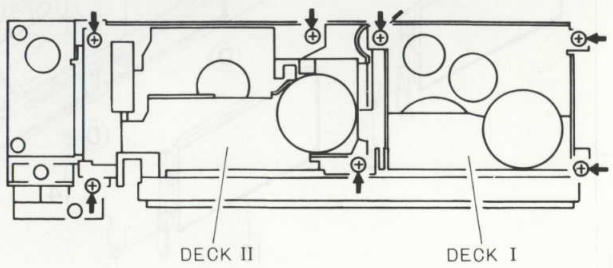

Fig.–5

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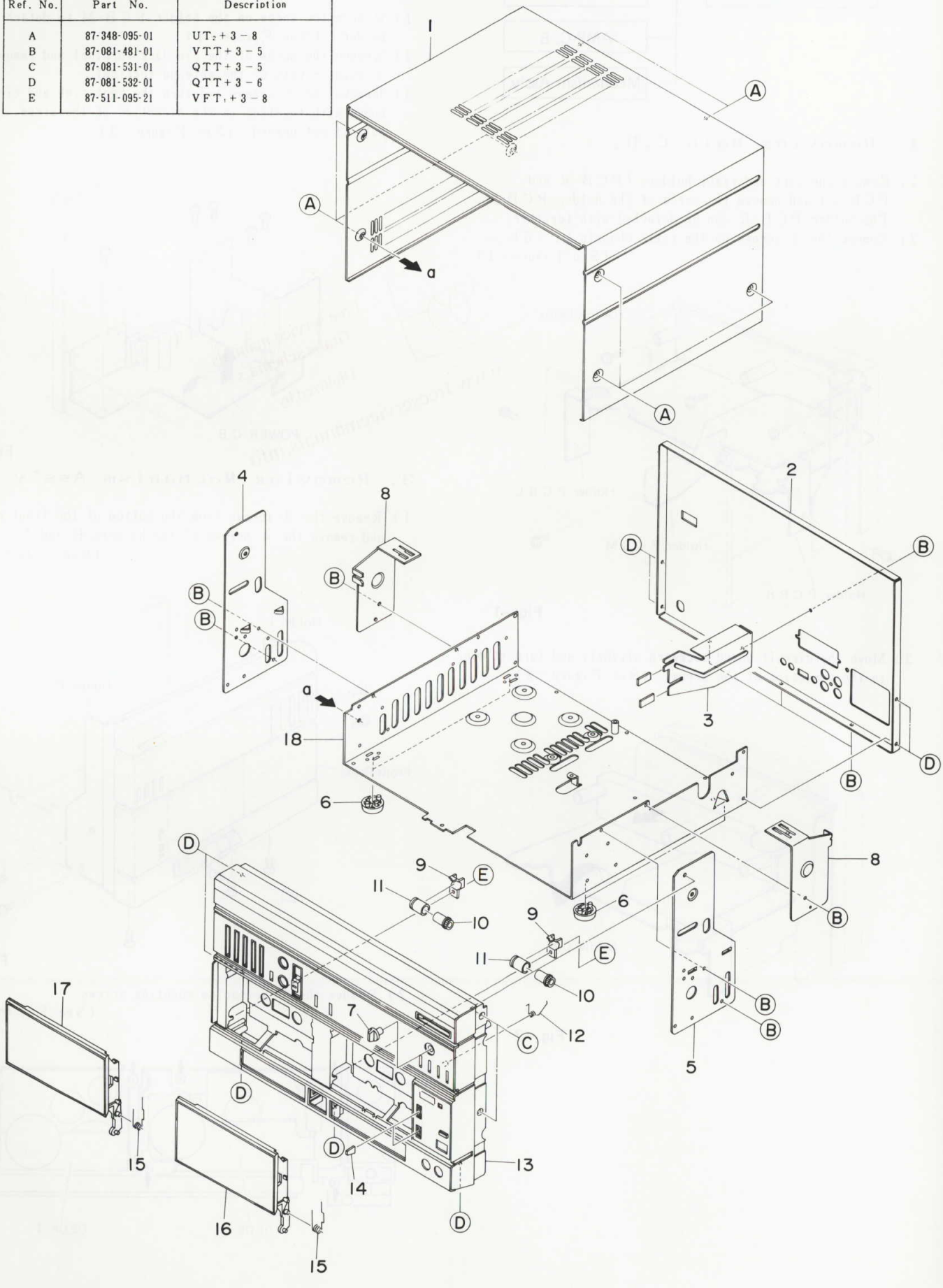
EXPLODED VIEW-I

Ref. No.	Part No.	Description
A	87-348-095-01	UT$_2$+3-8
B	87-081-481-01	VTT+3-5
C	87-081-531-01	QTT+3-5
D	87-081-532-01	QTT+3-6
E	87-511-095-21	VFT$_1$+3-8



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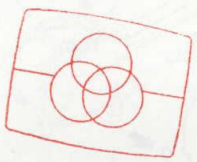
MECHANICAL PARTS LIST

- ※ mark in this part list shows exclusive part.
- ★-mark means less required items availabilities may be limited.
- No availability part is marked with —— in Part No. list.

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1-1	★81-744-015	CABINET, STEEL	※	1	
	1-2	—	PANEL, REAR		1	
	1-3	—	HOLDER, P. C. B M		1	
	1-4	—	HOLDER L		1	
	1-5	—	HOLDER R		1	
	1-6	★87-085-186	FOOT		4	
	1-7	81-518-078	KNOB, SELECTOR (EXCEPT U)	CS-W330	1	
	1-8	—	HOLDER, P. C. B L		2	
	1-9	★82-683-212	HOLDER, OIL-DAMP 2		2	
	1-10	82-534-264	GEAR, OIL-DAMP		2	
	1-11	★82-175-207	SHAFT BEARING, OIL-DAMP		2	
	1-12	★81-744-212	EARTH, FRONT	※	1	
	1-13	★81-744-030	FRONT CABINET Ass'y (H, G only)	※	1	
		★81-744-044	FRONT CABINET Ass'y (U only)	※	1	
		★81-744-045	FRONT CABINET Ass'y (E, K only)	※	1	
	1-14	82-138-057	TOGGLE KNOB S	FX-W20	2	
	1-15	★81-744-220	T-SPRING, CASSETTE BOX	※	2	
	1-16	81-744-041	CASSETTE BOX R Ass'y	※	1	
	1-17	81-744-039	CASSETTE BOX L Ass'y	※	1	
	1-18	—	AMP. CHASSIS Ass'y		1	



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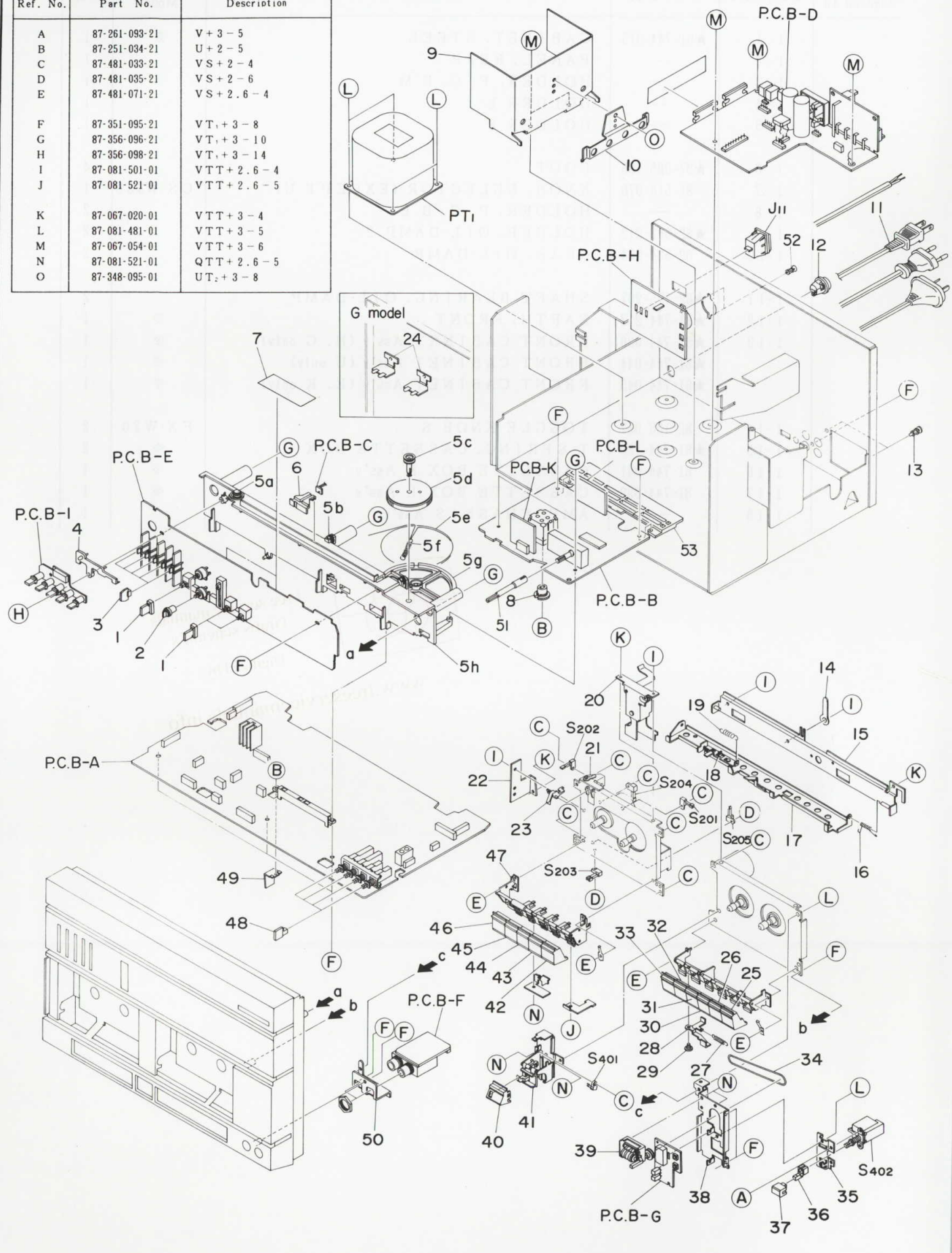
EXPLODED VIEW-2

Ref. No.	Part No.	Description
A	87-261-093-21	V + 3 − 5
B	87-251-034-21	U + 2 − 5
C	87-481-033-21	VS + 2 − 4
D	87-481-035-21	VS + 2 − 6
E	87-481-071-21	VS + 2.6 − 4
F	87-351-095-21	VT, + 3 − 8
G	87-356-096-21	VT, + 3 − 10
H	87-356-098-21	VT, + 3 − 14
I	87-081-501-01	VTT + 2.6 − 4
J	87-081-521-01	VTT + 2.6 − 5
K	87-067-020-01	VTT + 3 − 4
L	87-081-481-01	VTT + 3 − 5
M	87-067-054-01	VTT + 3 − 6
N	87-081-521-01	QTT + 2.6 − 5
O	87-348-095-01	UT$_2$ + 3 − 8



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Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty
	2-1	★81-744-055	PUSH-BUTTON, DOLBY M	※	3
	2-2	★81-744-056	KNOB, BIAS M	※	2
	2-3	★81-541-024	KNOB, GRAPHIC E. Q	CA-W90	5
	2-4	—	SPACER, LED		1
	2-5	★81-541-201	CHASSIS TU Ass'y	CA-W90	1
	5a	★87-071-019	ROLLER ø7		3
	5b	★82-439-317	ROLLER		2
	5c	★81-533-202	SHAFT, TU	CA-W50	1
	5d	★81-533-013	KNOB, TU	CA-W50	1
	5e	★87-096-090	STRING 0.3, DIAL		1
	5f	★82-541-291	E-SPRING, DIAL	CA-W90	1
	5g	★81-534-213	DRUM, DIAL	CS-W770	1
	5h	—	CHASSIS, TU		1
	2-6	★81-533-028	POINTER, TU	CA-W50	1
	2-7	—	HIMERON 20-80		2
	2-8	★81-511-203	JOINT DRUM		1
	2-9	—	HEAT SINK		1
	2-10	—	HOLDER, IC		1
	2-11	★87-034-958	AC POWER CORD (H only)		1
		★87-034-578	AC POWER CORD (U only)		1
		★87-034-877	AC POWER CORD (E only)		1
		★87-034-975	AC POWER CORD (K only)		1
		★87-034-892	AC POWER CORD (G only)		1
	2-12	—	CORD BUSHING		1
	2-13	★87-085-102	NYLON RIVET 3.5-5.5		2
	2-14	—	WIRE BINDER		1
	2-15	★81-538-213	HOLDER SYNCHRO Ass'y		1
	2-16	★81-538-208	C-SPRING, SLIDE LEVER		1
	2-17	★81-539-213	LEVER SYNCHRO Ass'y		1
	2-18	★81-539-216	SLIDE LEVER SYNCHRO Ass'y		1
	2-19	★81-539-226	E-SPRING, EJECT		1
	2-20	—	HOLDER REC Ass'y		1
	2-21	—	HOLDER, CHROME		1
	2-22	—	HOLDER M		1
	2-23	★82-138-209	LEVER, CHROME	FX-W20	1
	2-24	—	HOLDER, P. C. B Z (G only)		2
	2-25	★81-541-098	PUSH-BUTTON, PAUSE-U	CA-W90	1
	2-26	★81-541-099	PUSH-BUTTON, PLAY-U	CA-W90	1
	2-27	★81-539-230	E-SPRING, DETECTION		1
	2-28	★81-539-229	LEVER, DETECTION		1
	2-29	★81-544-215	SPECIAL SCREW, M2.6	CS-W550	1
	2-30	★81-541-100	PUSH-BUTTON, FF-U	CA-W90	1
	2-31	★81-541-101	PUSH-BUTTON, PLAY-U	CA-W90	1
	2-32	★81-541-102	PUSH-BUTTON, REW-U	CA-W90	1
	2-33	★81-541-103	PUSH-BUTTON, REC-U	CA-W90	1
	2-34	82-535-236	BELT, COUNTER		1
	2-35	—	HOLDER, POWER SWITCH		1
	2-36	★82-795-206	ROD, POWER		1

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty
	2-37	★81-541-038	PUSH-BUTTON, POWER	CA-W90	1
	2-38	—	HOLDER C, COUNTER		1
	2-39	★87-040-178	COUNTER		1
	2-40	★81-541-110	PUSH-BUTTON, SYNCHRO U	CA-W90	1
	2-41	★81-541-236	PUSH-BUTTON HIGH Ass'y	CA-W90	1
	2-42	★81-541-104	PUSH-BUTTON, PAUSE (T) U	CA-W90	1
	2-43	★81-541-105	PUSH-BUTTON, STOP (T) U	CA-W90	1
	2-44	★81-541-106	PUSH-BUTTON, FF (T) U	CA-W90	1
	2-45	★81-541-107	PUSH-BUTTON, REW (T) U	CA-W90	1
	2-46	★81-541-108	PUSH-BUTTON, PLAY (T) U	CA-W90	1
	2-47	★81-539-227	BUTTON FLAME PLAY Ass'y		1
	2-48	★81-541-023	PUSH-BUTTON, FUNCTION	CA-W90	H,E,K,G/3 U/4
	2-49	★81-744-219	HOLDER, REC SW2	※	1
	2-50	—	HOLDER, MIC		1
	2-51	★81-533-286	JOINT, BAND KNOB (EXCEPT U)	CA-W50	1
	2-52	★87-085-090	NYLON RIVET (H only)		2
	2-53	—	HOLDER, TU		1

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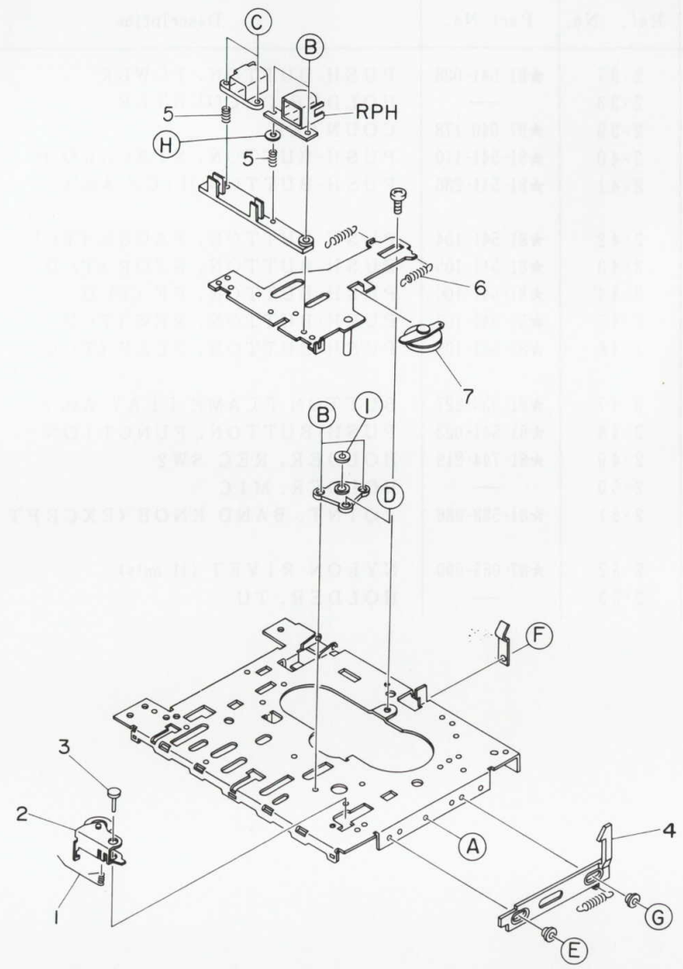
EXPLODED VIEW-3

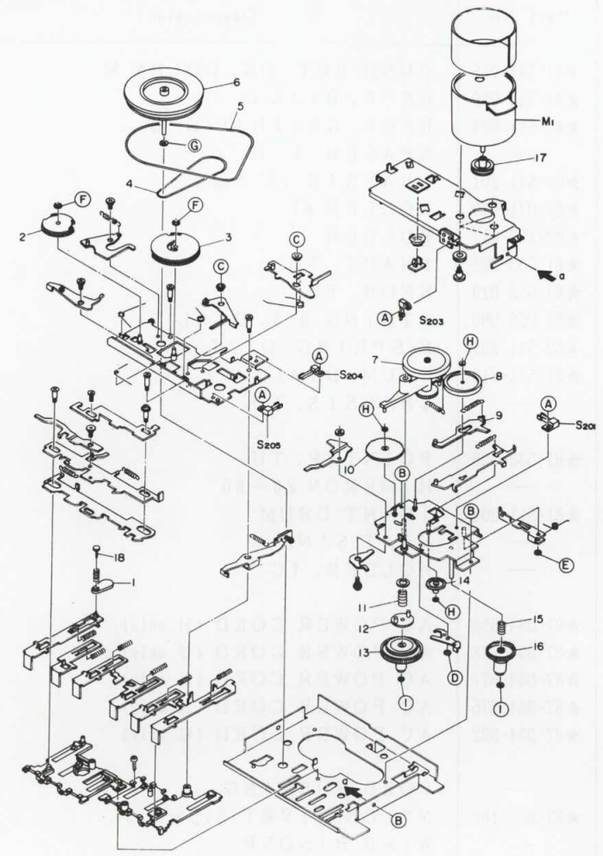
Ref. No.	Description
A	V+2-4
B	V+2-7
C	V+2-8
D	Q+2-3
E	VS+2-6
F	VTT+2.6-3
G	VTT+2.6-5
H	W2.1-5-0.2
I	NW2-5-0.5



Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty
	3-	★81-541-242	MECHANISM Ass'y	※	1
	3-1	★81-533-396	PINCH ROLLER SPRING	CA-W50	1
	3-2	81-533-309	PINCH ROLLER ARM Ass'y	CA-W50	1
	3-3	★81-533-308	ACTUATING PLATE STOPPER	CA-W50	1
	3-4	★81-533-314	EJECT SLIDE LEVER	CA-W50	1
	3-5	★81-533-301	HEAD SPRING	CA-W50	2
	3-6	★81-533-307	TAKE-UR ROLLER BEARING SPRING	CA-W50	1
	3-7	81-533-306	TAKE-UR ROLLER BEARING Ass'y	CA-W50	1

EXPLODED VIEW-4

Ref. No.	Description
A	V+2-4
B	VS+2-4
C	VS+2.6-6
D	STE-1.2
E	STE-1.5
F	STE-2
G	PW2.2-3.8-0.5
H	PW1.2-3-0.25
I	STE-1.5



Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty
	4-	★81-541-242	MECHANISM Ass'y	※	1
	4-1	81-533-355	PAUSE LEVER	CA-W50	1
	4-2	81-533-378	P GEAR	CA-W50	1
	4-3	81-533-377	M GEAR	CA-W50	1
	4-4	81-533-335	FULL AUTO BELT	CA-W50	1
	4-5	81-533-379	MAIN BELT	CA-W50	1
	4-6	81-533-380	FLYWHEEL Ass'y	CA-W50	1
	4-7	81-533-338	RF CLUTCH ARM Ass'y	CA-W50	1
	4-8	81-533-334	PULLEY	CA-W50	1
	4-9	★81-533-332	LEVER, DETECTION	CA-W50	1
	4-10	81-533-336	GEAR, CAM	CA-W50	1
	4-11	★81-533-326	DETECTION PEACE SPRING	CA-W50	1
	4-12	★81-533-325	DETECTION PEACE	CA-W50	1
	4-13	81-533-324	TAKE-UP REEL PLATFORM Ass'y	CA-W50	1
	4-14	81-533-327	GEAR, FF	CA-W50	1
	4-15	★81-533-323	BACK TENSION SPRING	CA-W50	1
	4-16	81-533-322	SUPPLY REEL PLATFORM Ass'y	CA-W50	1
	4-17	81-533-424	MOTOR PULLEY	CA-W50	1
	4-18	★81-533-356	STOPPER, P	CA-W50	1

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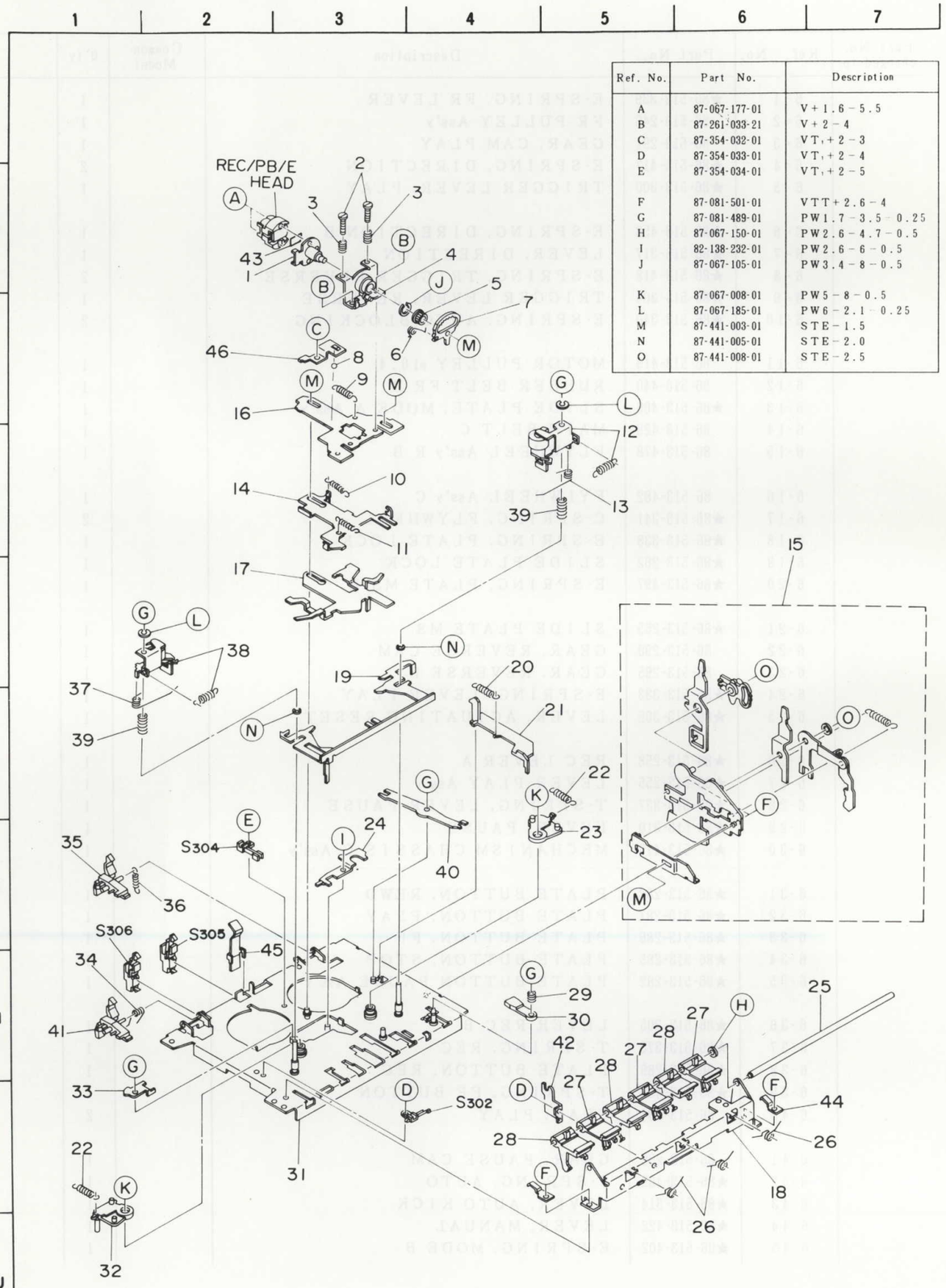
EXPLODED VIEW-5



Ref. No.	Part No.	Description
A	87-067-177-01	V+1.6-5.5
B	87-261-033-21	V+2-4
C	87-354-032-01	VT,+2-3
D	87-354-033-01	VT,+2-4
E	87-354-034-01	VT,+2-5
F	87-081-501-01	VTT+2.6-4
G	87-081-489-01	PW1.7-3.5-0.25
H	87-067-150-01	PW2.6-4.7-0.5
I	82-138-232-01	PW2.6-6-0.5
J	87-067-105-01	PW3.4-8-0.5
K	87-067-008-01	PW5-8-0.5
L	87-067-185-01	PW6-2.1-0.25
M	87-441-003-01	STE-1.5
N	87-441-005-01	STE-2.0
O	87-441-008-01	STE-2.5

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty
	5-1	★86-513-267	HEAD HOUSING Ass'y		1
	5-2	★81-506-230	AZIMUTH ADJUSTMENT SCREW		2
	5-3	★86-513-437	C-SPRING, AZIMUTH		2
	5-4	★86-513-270	HEAD BASE Ass'y		1
	5-5	86-513-299	GEAR, HEAD HOUSING		1
	5-6	★86-513-374	T-SPRING, GEAR SEGMENT		1
	5-7	86-513-298	GEAR, SEGMENT		1
	5-8	★86-513-376	STEEL BALL 1.2		1
	5-9	★86-513-332	E-SPRING, ACTUATING		1
	5-10	★86-513-334	E-SPRING, PLATE PAUSE		1
	5-11	★86-513-421	E-SPRING, PLATE PINCH		1
	5-12	86-513-231	PINCH LEVER F Ass'y		1
	5-13	★86-513-368	T-SPRING, PINCH F		1
	5-14	★86-513-279	PLATE, PINCH		1
	5-15	★86-513-448	LEVER MODE SEME Ass'y		1
	5-16	★86-513-280	ACTUATING CHASSIS		1
	5-17	★86-513-281	PLATE, PAUSE		1
	5-18	★86-513-315	HOLDER, PUSH-BUTTON		1
	5-19	★86-513-276	LEVER HEAD SELECT Ass'y		1
	5-20	★86-513-417	E-SPRING, DIRECTION		1
	5-21	★86-513-316	PLATE, RID LOCK		1
	5-22	★86-513-340	E-SPRING, AUTO BLOCKING		2
	5-23	★86-513-226	LEVER PLAY GEAR F Ass'y		1
	5-24	★86-513-423	PLAY GEAR RESET F		1
	5-25	★86-513-319	SHAFT, PUSH-KEY		1
	5-26	★86-513-372	T-SPRING, PUSH-KEY		3
	5-27	★86-513-307	PUSH-KEY, PLAY		3
	5-28	★86-513-306	PUSH-KEY, PAUSE		3
	5-29	★86-513-331	C-SPRING, LOCK PLATE		1
	5-30	★82-668-252	LOCK PLATE AB		1
	5-31	★86-513-201	MECHANISM CHASSIS A Ass'y		1
	5-32	★86-513-229	LEVER PLAY GEAR R Ass'y		1
	5-33	★86-513-424	PLAY GEAR RESET F		1
	5-34	★86-513-450	T-SPRING, REC BLOCKING		1
	5-35	★86-513-433	REC BLOCKING R		1
	5-36	★86-513-434	E-SPRING, REC BLOCKING		1
	5-37	★86-513-369	T-SPRING, PINCH R		1
	5-38	86-513-233	PINCH LEVER R Ass'y		1
	5-39	★86-513-456	C-SPRING, PINCH LEVER		2
	5-40	★86-513-364	LEVER, DIRECTION SELECT		1
	5-41	★86-513-367	REC BLOCKING		1
	5-42	★81-513-465	HOLDER, PUSH-BUTTON B		1
	5-43	★81-513-466	SHEET		1
	5-44	★81-539-236	P-SPRING, C-UP		1
	5-45	★86-513-323	P-SPRING, CASSETTE HOLDER		1
	5-46	★86-513-324	P-SPRING, ACTUATING		1

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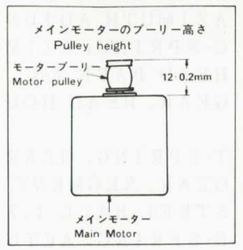
EXPLODED VIEW-6

Ref. No.	Part No.	Description
A	87-251-034-21	V + 2 − 5
B	87-351-034-21	VT, + 2 − 5
C	87-356-096-21	VT, + 3 − 10
D	87-481-033-21	VS + 2 − 4
E	87-481-035-21	VS + 2 − 6
F	87-481-073-21	VS + 2.6 − 4
G	87-081-501-01	VTT + 2.6 − 4
H	87-067-020-01	VTT + 3 − 4
I	87-081-521-01	QTT + 2.6 − 5
J	87-081-531-01	QTT + 3 − 6
K	87-511-096-21	VFT, + 3 − 10



Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty
	6-1	★86-513-339	E-SPRING, FR LEVER		1
	6-2	86-513-246	FR PULLEY Ass'y		1
	6-3	86-513-291	GEAR, CAM PLAY		1
	6-4	★86-513-417	E-SPRING, DIRECTION		2
	6-5	★86-513-300	TRIGGER LEVER, PLAY		1
	6-6	★86-513-458	E-SPRING, DIRECTION B		1
	6-7	★86-513-317	LEVER, DIRECTION		1
	6-8	★86-513-418	E-SPRING, TRIGGER REVERSE		2
	6-9	★86-513-304	TRIGGER LEVER, REVERSE		1
	6-10	★86-513-340	E-SPRING, AUTO BLOCKING		2
	6-11	86-513-419	MOTOR PULLEY ø10.4		1
	6-12	86-513-440	RUBBER BELT FR B		1
	6-13	★86-513-406	SLIDE PLATE, MODE A Ass'y		1
	6-14	86-513-429	MAIN BELT C		1
	6-15	86-513-478	FLYWHEEL Ass'y R B		1
	6-16	86-513-482	FYLWHEEL Ass'y C		1
	6-17	★86-513-341	C-SPRING, FLYWHEEL		2
	6-18	★86-513-338	E-SPRING, PLATE LOCK		1
	6-19	★86-513-262	SLIDE PLATE LOCK		1
	6-20	★86-513-497	E-SPRING, PLATE MS B		1
	6-21	★86-513-265	SLIDE PLATE MS		1
	6-22	86-513-293	GEAR, REVERSE CAM		1
	6-23	86-513-295	GEAR, REVERSE B		1
	6-24	★86-513-333	E-SPRING, LEVER PLAY		1
	6-25	★86-513-309	LEVER, ACTUATING RESET		1
	6-26	★86-513-258	REC LEVER A		1
	6-27	★86-513-255	LEVER PLAY Ass'y		1
	6-28	★86-513-337	T-SPRING, LEVER PAUSE		1
	6-29	★86-513-310	LEVER, PAUSE		1
	6-30	★86-513-415	MECHANISM CHASSIS C Ass'y		1
	6-31	★86-513-288	PLATE BUTTON, REWD		1
	6-32	★86-513-287	PLATE BUTTON, PLAY		1
	6-33	★86-513-286	PLATE BUTTON, FF		1
	6-34	★86-513-285	PLATE BUTTON, STOP		1
	6-35	★86-513-282	PLATE BUTTON PAUSE Ass'y		1
	6-36	★86-513-305	LEVER REC B		1
	6-37	★86-513-373	T-SPRING, REC		1
	6-38	★86-513-289	PLATE BUTTON, REC		1
	6-39	★86-513-428	T-SPRING, FF BUTTON		1
	6-40	86-513-294	GEAR, PLAY		2
	6-41	86-513-292	GEAR, PAUSE CAM		1
	6-42	★86-513-489	P-SPRING, AUTO		1
	6-43	★86-513-314	LEVER, AUTO KICK		1
	6-44	★86-513-422	LEVER, MANUAL		1
	6-45	★86-513-402	E-SPRING, MODE B		1

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Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	6-46	★86-513-401	E-SPRING, MODE A		1	
	6-47	★86-513-339	T-SPRING, REC BLOCKING C		1	
	6-48	★86-513-351	SLIDE PLATE, REC BLOCKING C		1	
	6-49	★86-513-400	E-SPRING, SLIDE PLATE REC		1	
	6-50	★86-513-350	SLIDE PLATE, REC		1	
	6-51	★86-513-387	LEVER, REC BLOCKING		1	
	6-52	★86-513-365	LEVER, REC BLOCKING		1	
	6-53	86-513-296	GEAR, AUTO STOP		1	
	6-54	★86-513-356	SLIDE LEVER, REC BLOCKING		1	
	6-55	★86-513-355	LEVER REC A		1	
	6-56	★86-513-398	E-SPRING, REC A		1	
	6-57	★86-513-308	SLIDE PLATE, BRAKE		1	
	6-58	★86-513-371	E-SPRING, BRAKE		1	
	6-59	86-513-239	REEL PLATFORM T Ass'y		1	
	6-60	86-513-240	REEL PLATFORM S Ass'y		1	
	6-61	86-513-313	SLIP DISK		2	
	6-62	★86-513-453	C-SPRING, AUTO B		1	
	6-63	★86-513-312	SLIDE PLATE AUTO		1	
	6-64	86-513-297	GEAR, FF		1	
	6-65	★86-513-311	LEVER AUTO EJECT		1	
	6-66	★86-513-454	MECHANISM CHASSIS B Ass'y		1	
	6-67	★86-513-403	T-SPRING, LEVER SLIDE PLATE		1	
	6-68	★86-513-273	LEVER REVERSE Ass'y		1	
	6-69	★86-513-381	C-SPRING, AUTO		1	
	6-70	★86-513-301	LEVER, MUT SW		1	
	6-71	★86-513-303	LEVER REVERSE BLOCKING		1	
	6-72	★86-513-414	LEVER AUTO A Ass'y		1	
	6-73	★86-513-441	COLLAR		2	
	6-74	86-513-459	GEAR REVERSE C		1	
	6-75	★86-513-475	MOTOR HOLDER SEME Ass'y		1	
	6-76	★86-513-219	GUIDE, BUTTON		1	
	6-77	★86-513-260	SLIDE PLATE MOTOR SW Ass'y		1	
	6-78	★86-513-261	EJECT LEVER		1	
	6-79	★86-513-385	SLIDE PLATE, MODE B		1	

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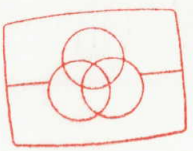
■ SPEAKER LIST (SX-M10)

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1	★83-097-113	FRONT PANEL Ass'y YB		1	
	2	★83-075-039	FASTENER		4	
	3	★83-092-630	PLAG CORD 3.5ø		1	
	4	★83-097-601	SPEAKER WOOFER		1	
	5	★81-541-661	TWEETER		1	

■ ACCESSORIES / PACKAGE LIST

Part No. changed to	Ref. No.	Part No.	Description	Common Model	Q'ty	
	1	★81-744-904	INSTRUCTION BOOKLET	※	1	
	2	★82-795-670	LOOP ANTENNA B (U) Ass'y		1	
	3	★87-032-845	SIEMENS PLUG (HB only)		1	
	4	★87-043-065	FM FEEDER ANTENNA (HB, ÜB only)		1	
	5	★87-043-084	FM 5M WIRE ANTENNA Ass'y (EXCEPT UB)		1	



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