



SPECIFICATIONS

NUMBER OF HEADS:

4 Heads: Forward Erase, Forward Record-Playback,
Reverse Record-Playback,
Reverse Erase, 4-Track Stereo or Mono

RECORD/PLAYBACK SYSTEM:

4 Track STEREO/MONO Recording and Playback,
on both Forward and Reverse.
Permits Auto-Reverse Playback and Auto-Repeat
Playback

TAPE SPEEDS:

7-1/2, 3-3/4, 1-7/8 ips

REEL SIZE:

Standard NAB 7" Maximum

FREQUENCY RESPONSE:

20 ~ 20,000 Hz at 7-1/2 ips (RMS)
30 ~ 15,000 Hz at 3-3/4 ips (RMS)
30 ~ 8,000 Hz at 1-7/8 ips (RMS)

SIGNAL TO NOISE RATIO:

Better than 50dB at 7-1/2 ips

HARMONIC DISTORTION (PRE-AMP):

Less than 0.5% at 0dB (0.775V)

WOW AND FLUTTER:

Less than 0.12% at 7-1/2 ips (RMS)
Less than 0.18% at 3-3/4 ips (RMS)
Less than 0.25% at 1-7/8 ips (RMS)

RECORDING TIME: (with 1,800 feet tape)

1 hr. 30 min. at 7-1/2 ips
3 hrs. at 3-3/4 ips
6 hrs. at 1-7/8 ips

FAST WIND/REWIND TIME:

Within 260 sec. with 1,200 feet tape

LEVEL INDICATION:

Two VU Meters
Record: Standard Recording Level at 0VU
Playback: 0dB Line Output at 0VU

INPUTS:

2 Microphone Input Jacks
Sensitivity: -70dB (0.25mV)
Input Impedance: 600 Ω
(Optimum Microphone 600 Ω)
2 Line Input Jacks
Sensitivity: -18dB (100mV)
Input Impedance: 100k Ω

OUTPUTS:

2 Line Output Jacks
Output Level: 0dB (0.775V)
Head Phone Jack
Output Level: -28dB (30mV)
Impedance: 8 Ω

DIN CONNECTOR:

Input Side
Sensitivity: -36dB (12.5mV)
Output Side
Output Level: 0dB (0.775V)

EQUALIZER:

NAB Standard

SEMICONDUCTORS:

14 Transistors and 17 Diodes

OPERATING POSITION:

Horizontal or Vertical

OTHER SPECIAL FEATURES:

Solenoid Action Micro Touch Direction Controls
Automatic Pinch Roller OFF
Automatic Recording Start with Timer
Automatic Power Switch OFF
Remote Control Jack for Pause Control
2 Luminous VU Meters
Four Digit Automatic Counter with Reset Button

DIMENSIONS:

16 5/16" (W) x 17 3/8" (H) x 7 7/8" (D)

WEIGHT:

26.5 lbs.

POWER REQUIREMENTS:

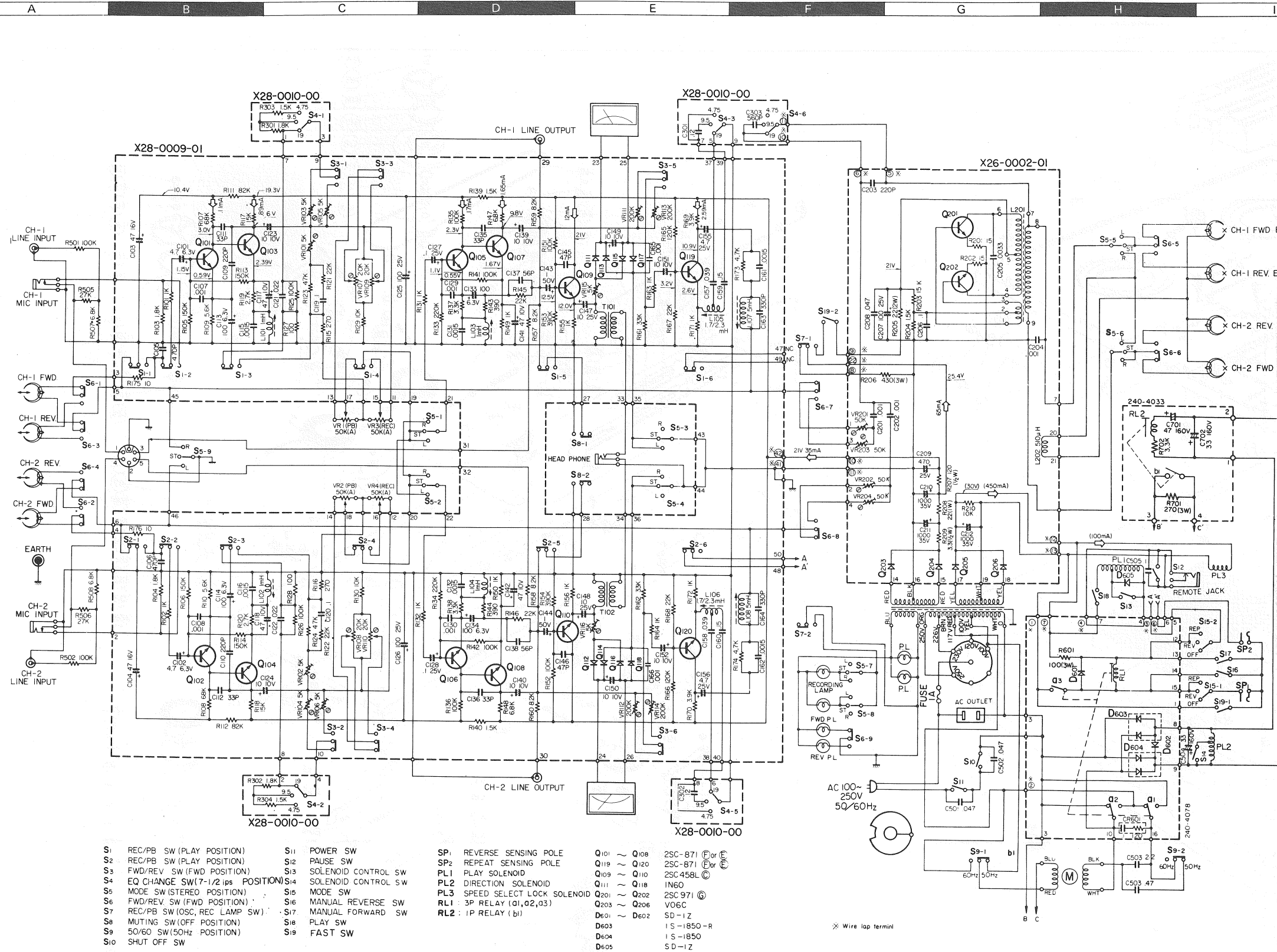
100 - 120 - 230 - 250V, 50 watts

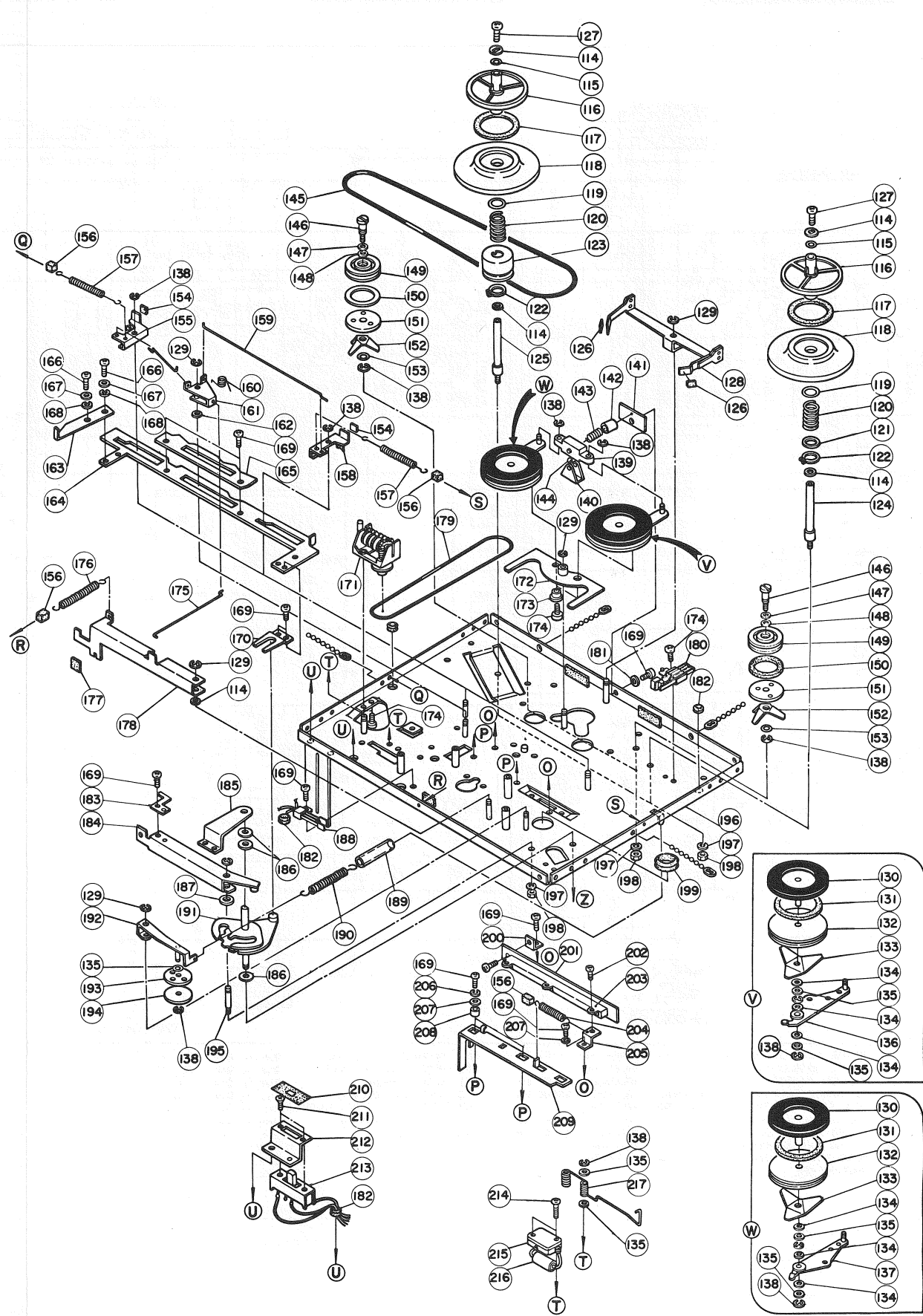
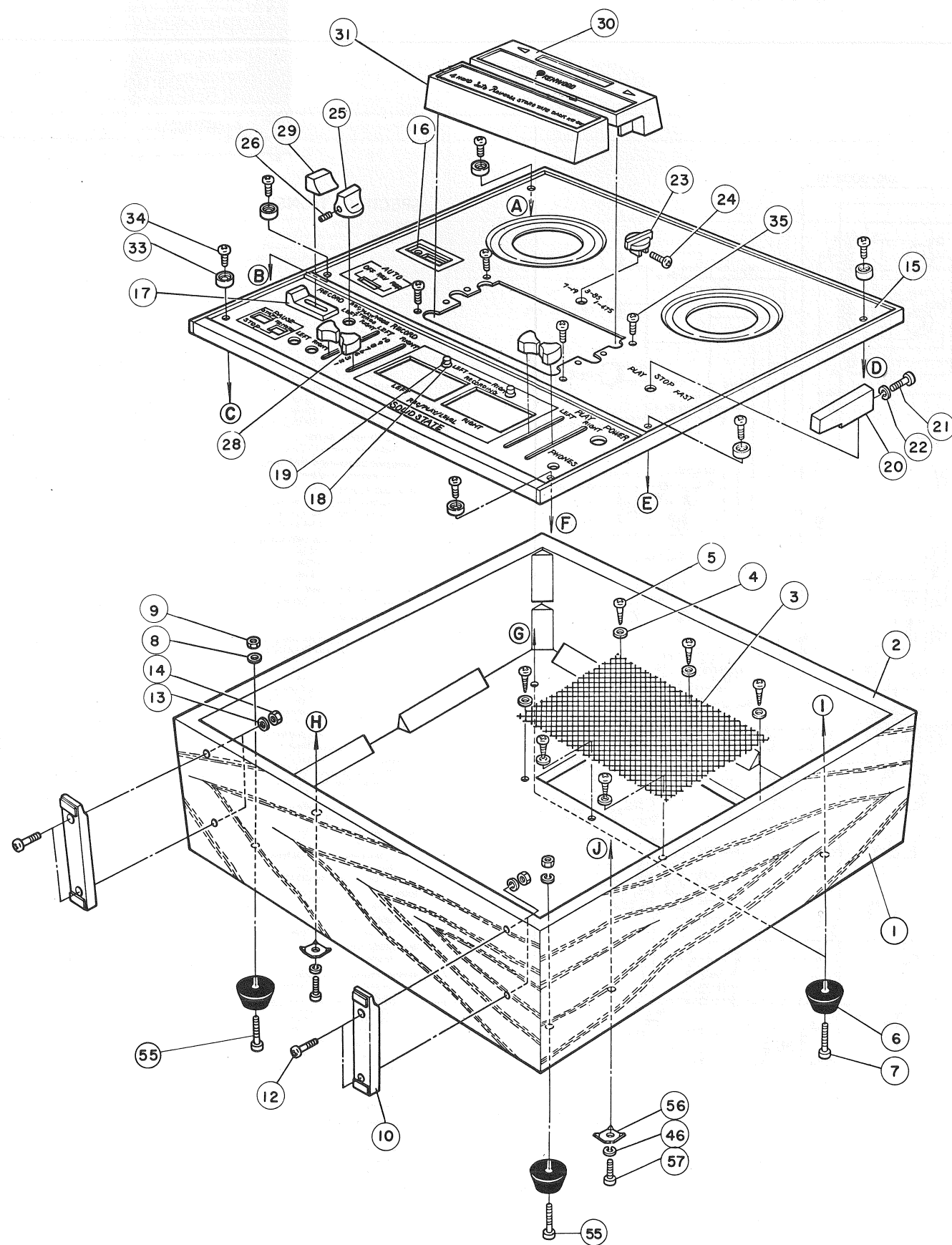
SUPPLIED ACCESSORIES:

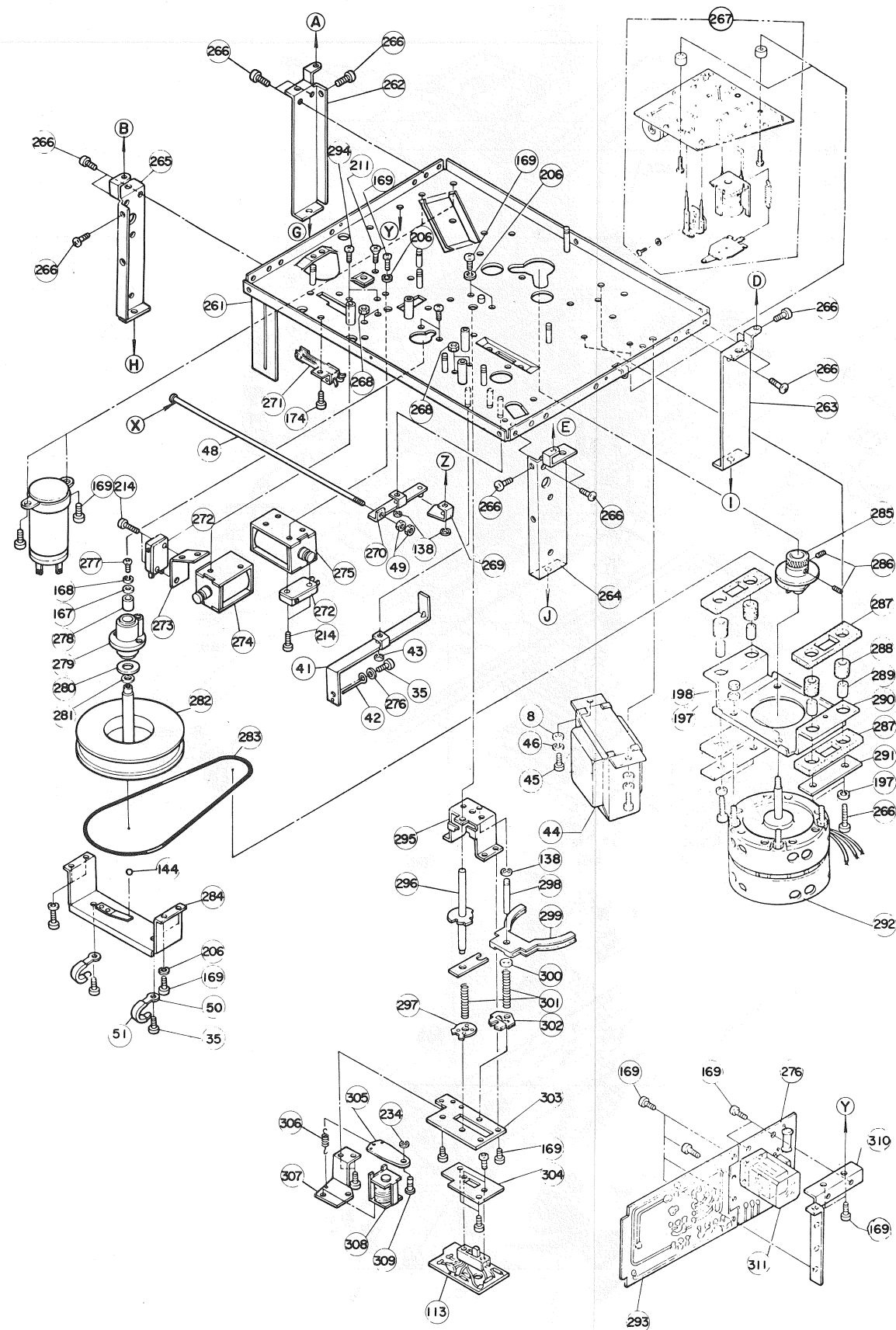
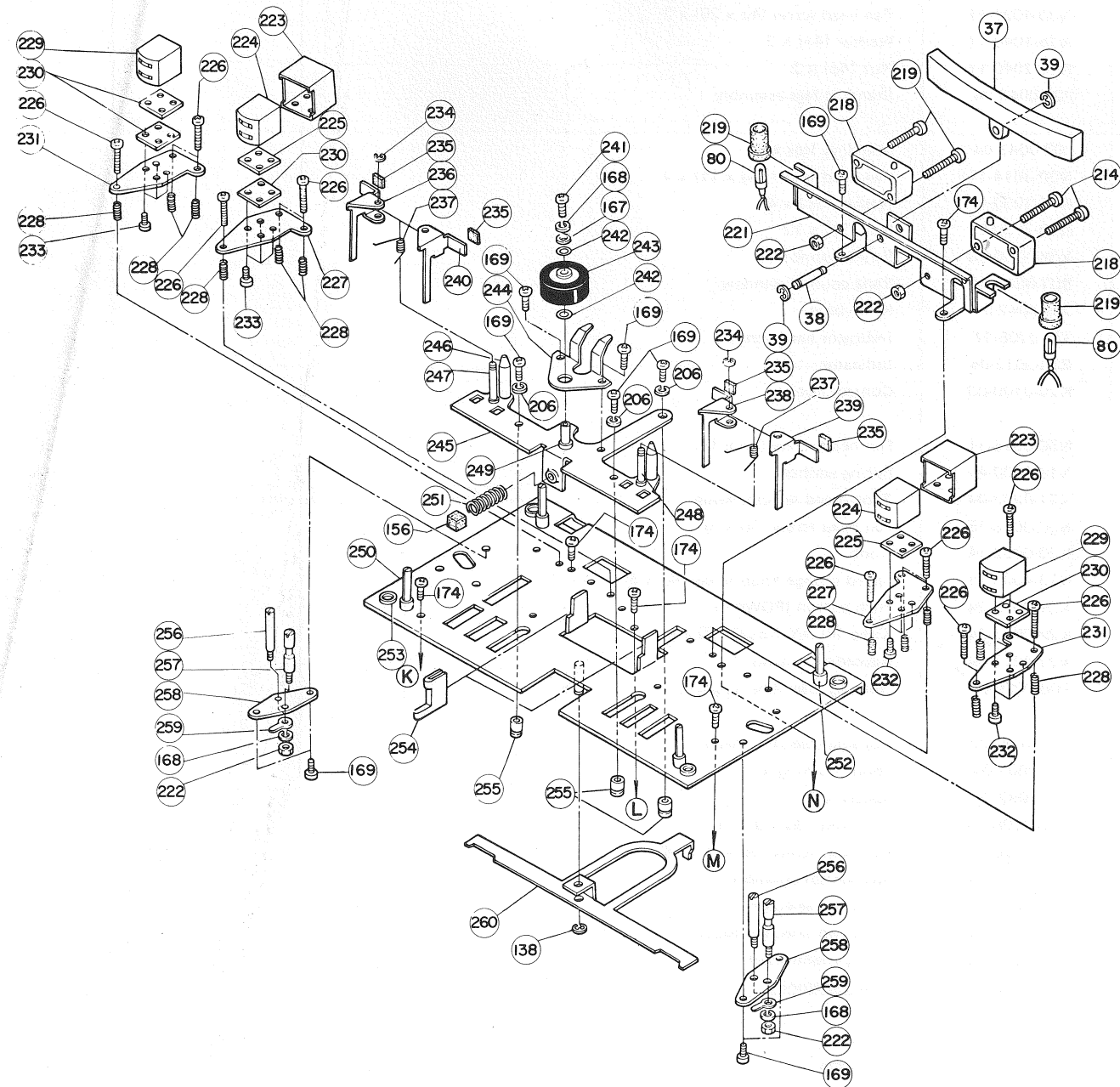
Extra 7" Reel
2 Connecting Cords
2 Reel Caps
2 Reel Adjusting Discs
Remote Controller RC-75
Plastic Dust Cover SR-23

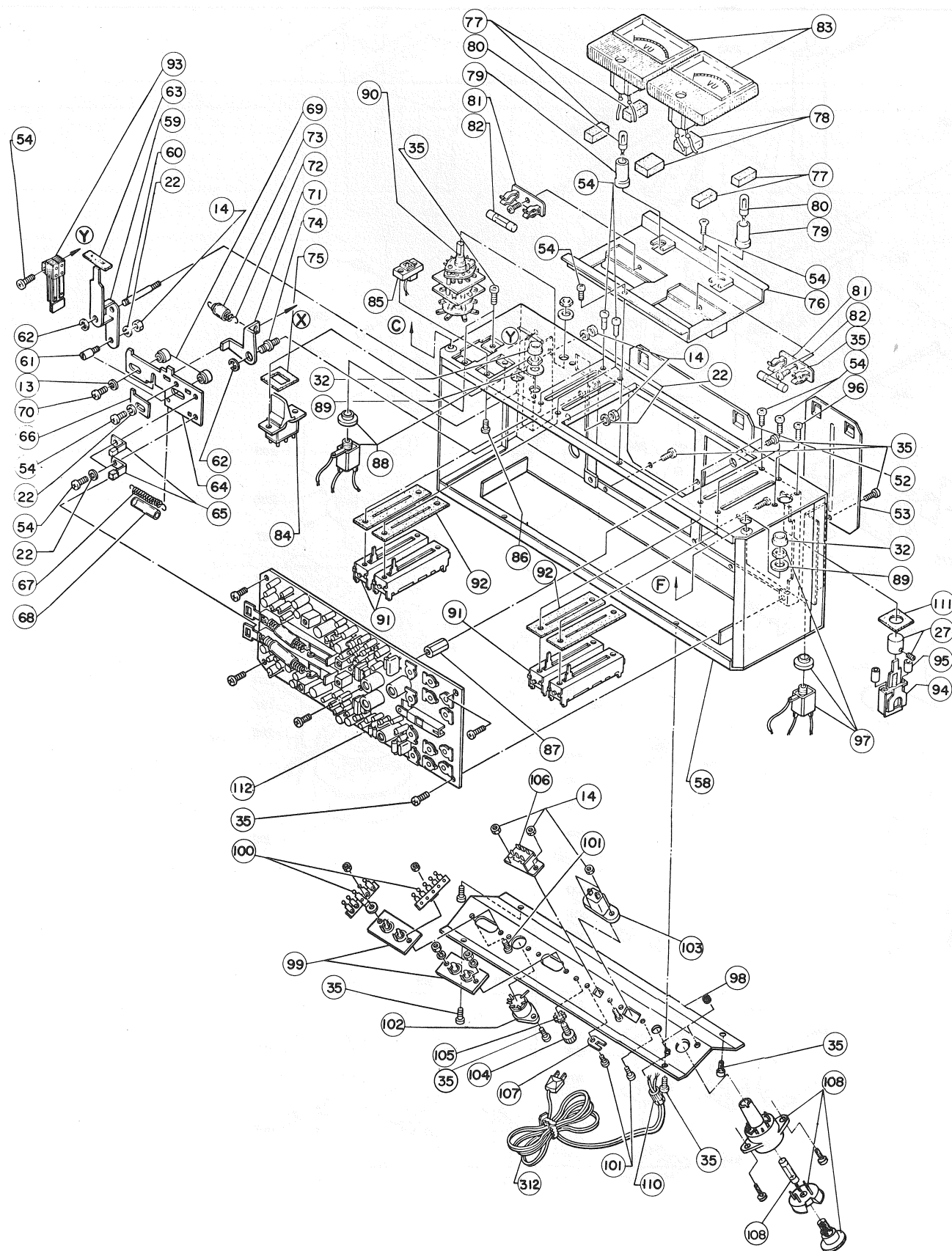
OPTIONAL ACCESSORIES:

Microphone MC-501









Ref. No.	Parts No.	Description	Remarks
1	X35-1280-00	Case assembly	
2	A03-0056-11	Case	
3	B04-0036-03	Screen	
4	N15-1030-11	Washer (3φ) x 8	
5	N61-2710-11	Wood screw (2.7φ) x 8	
6	J03-0012-04	Rubber legs x 2	
7	N30-4020-11	Pan head screw (4φ x 20) x 2	
8	N15-1040-11	Washer (4φ) x 2	
9	N10-2040-11	Nut (4φ) x 2	
10	J09-0043-04	Standing legs assembly	
11	J02-0043-04	Standing legs x 2	
12	N30-3014-11	Pan head screw (3φ x 14) x 4	
13	N15-1030-11	Washer (3φ) x 4	
14	N10-2030-11	Nut (3φ) x 12	
15	X35-1320-00	Panel assembly	
16	B07-0045-14	Tape counter window	
17	J09-0042-04	Knob base	
18	J21-0708-14	Indicator hardware x 2	
19	B08-2012-04	Indicator	
20	K20-0100-03	Control lever	
21	N30-3016-11	Pan head screw (3φ x 16)	
22	N16-0030-41	Spring washer	
23	K21-0222-04	Tape speed selector knob	
24	N30-3006-15	Pan head screw (3φ x 6)	
25	K20-0002-14	Knob	
26	N73-4006-11	Speed change knob screw (4φ x 6)	
27	K29-0029-24	Push button (POWER)	
28	K29-0037-04	Knob (PLAY RECORD) x 4	
29	K27-0012-04	Recording button	
30	F08-0029-03	Housing assembly (upper)	
31	F08-0030-02	Housing assembly (lower)	
32	J41-0005-04	Phone bushing x 3	
33	J19-0092-04	Spacer x 6	
34	N35-3008-15	Set screw (3φ x 8) x 6	
35	N30-3006-11	Pan head screw (3φ x 6) x 38	
36	X35-1470-21	Mechanism assembly	
37	K29-0054-14	Direction selector	
38	D21-0146-04	Direction selector stopper	
39	N24-3020-60	E ring washer (2φ) x 2	
40	D40-0084-04	Lever assembly	
41	D10-0055-04	Lever	
42	J12-0044-04	Lever pin	
43	N24-3030-60	E ring washer (3φ) x 6	
44	L09-0091-05	Power transformer	
45	N30-4006-11	Pan head screw (4φ x 6) x 2	
46	N16-0040-41	Spring washer (4φ) x 6	
47	X25-0005-22	Amp assembly	
48	D17-0016-04	Rod	
49	N10-2020-11	Nut (2φ) x 2	
50	J21-0392-04	Wire holder x 2	

Ref. No.	Parts No.	Description	Remarks
51	212-0603-00	Sleeve	
52	F10-0188-04	Shielding plate (A)	
53	F10-0189-04	Shielding plate (B)	
54	N30-3004-11	Pan head screw (3φ x 4) x 18	
55	N30-4025-11	Pan head screw (4φ x 25) x 2	
56	N19-0002-04	Square washer x 2	
57	N30-4016-11	Pan head screw (4φ x 16) x 2	
58	A70-0020-01	Amp chassis	
59	D10-0052-04	Lever	
60	D21-0147-14	Lever shaft	
61	D19-0022-04	Knock pin	
62	N24-3040-60	E ring washer (4φ)	
63	G16-0027-04	Sheet (B)	
64	D19-0023-04	Slide plate	
65	D40-0064-04	Spring plate assembly	
66	J29-0025-04	Adjusting plate	
67	G01-0001-04	Coil spring	
68	212-4501-05	Vinyl	
69	J30-0062-04	Spacer x 2	
70	N30-3010-11	Pan head screw (3φ x 10) x 2	
71	D10-0053-04	Recording rock lever	
72	G01-0090-04	Coil spring	
73	212-4501-05	Vinyl tube	
74	D21-0148-04	Rock lever shaft	
75	G16-0028-04	Sheet (C)	
76	J20-0158-03	VU meter bracket assembly	
77	G11-0009-14	Cushion (C) x 4	
78	G11-0010-14	Cushion (D) x 2	
79	F07-0177-04	Lamp cover x 2	
80	B30-0026-15	Pilot lamp x 4	
81	J13-0023-05	Fuse holder x 2	
82	B30-0015-15	Pilot lamp x 2	
83	B31-0106-15	VU meter x 2	
84	S38-2003-05	Pause switch	
85	E08-0217-05	Remote jack	
86	N30-2606-11	Pan head screw (2.6φ x 6) x 2	
87	J32-0112-04	Stud	
88	E11-0040-05	MIC jack x 2	
89	N19-0138-04	Nylon washer x 3	
90	S07-3001-05	MODE switch (3-9-3)	
91	R13-4006-05	Slide volume (RECORD, PLAY) x 4	
92	F15-0057-04	Dust sheet x 4	
93	S47-2002-15	Leaf switch	
94	S39-1001-05	POWER switch	
95	J31-0061-04	Collar x 2	
96	N30-3020-11	Pan head screw (3φ x 20) x 2	
97	E11-0041-05	PHONES jack	
98	A23-0206-13	Rear panel	
99	E13-0204-05	2P pin jack (LINE IN, OUT) x 4	
100	E22-0405-05	Lug type terminal strip x 2	

Ref. No.	Parts No.	Description	Remarks
101	N30-3008-11	Pan head screw (3φ x 8) x 6	
102	E06-0501-05	DIN connector	
103	E08-0205-15	AC OUTLET UL	
104	N08-0002-04	Gnd. terminal	
105	N17-1040-41	Inter rock washer	
106	S31-2004-05	Hz switch (slide) UL	
107	D32-0021-04	Switch stopper	
108	E29-0018-05	Voltage selector with fuse holder	
109	F05-1023-05	Fuse	
110	J41-0006-00	Cord bushing UL	
111	G16-0029-04	Sheet (D)	
112	X28-0009-01	REC/PLAY PC board assembly	
113	X28-0010-00	Equalizer PC board assembly	
114	003-4003	Washer (3) x 2	
115	003-4016	Washer (2) x 2	
116	099-4005	Reel table x 2	
117	065-4005	Spring felt x 2	
118	099-4001	Reel (1) x 2	
119	003-4031	Washer x 2	
120	123-4012	Spring x 2	
121	003-4032	Washer	
122	S-10	Stop ring x 2	
123	081-4015	Counter pulley	
124	084-4021	Reel shaft	
125	084-4046	Reel shaft	
126	069-4005	Brake lining x 2 (for tension)	
127		Truss screw (3φ x 6) x 2	
128	TIF-0327	Back tension spring assembly	
129	RE-4HHC	E ring washer	
130	TIF-0325	Idler assembly x 2	
131	065-4024	Friction felt x 2	
132	081-4018	Intermediate pulley x 2	
133	123-4030	Take up spring x 2	
134	003-4048	Washer x 10	
135	003-4035	Washer x 7	
136	TIF-0339	Intermediate pulley lever assembly (2)	
137	TIF-0338	Intermediate pulley lever assembly (1)	
138	RE-3HHC	E ring washer x 14	
139	172-4001	Balancer	
140	122-4007	Ball bearing	
141	322-4083	Spring bracket	
142	062-4006	Vinyl tube	
143	123-4039	Spring	
144		Steel ball (3φ)	
145	085-4031	Reverse round belt	
146	084-4053	Pulley shaft x 2	
147	033-4056	Washer x 2	
148	003-4054	Washer x 2	
149	TIF-0326	Pulley	
150	003-4043	Ring x 2	

Ref. No.	Parts No.	Description	Remarks
151	313-4004	Slip disc	
152	123-4029	Spring x 2	
153	TX-3380A	Washer	
154	069-4001	Brake lining x 2	
155	086-4036	Brake (L)	
156	065-4023	Sponge x 5	
157	123-4021	Brake spring x 2	
158	086-4035	Brake (R)	
159	086-4061	Remote control brake lever (3)	
160	123-4033	Remote control brake spring	
161	086-4058	Remote control brake spring	
162	033-4001	Washer	
163	086-4043	Shut off switch lever (1)	
164	086-4034	Main lever	
165	086-4052	Sub lever	
166	SP26-3HHC	Pan head screw (2.6φ x 3) x 4	
167	2W26-HH	Washer (2.6φ) x 2	
168	SW26	Spring washer x 7	
169	SP3-5HHC	Pan head screw x 28	
170	086-4015	Main lever (2)	
171	299-4012	Tape counter	
172	TIF-0378	Drive pulley lever assembly	
173	003-4007	Drive pulley lever stopper x 2	
174	SP3-6R	Pan head screw x 28	
175	086-4059	Remote control brake lever (1)	
176	123-4032	Pinch roller off spring	
177	069-4004	Belt stopper x 4	
178	086-4056	Auto shut off lever	
179	085-4029	Counter belt	
180	264-4012PU	Leaf switch (for FF)	
181	W3-HH	Washer x 4	
182	NG-79C	Bushing (2) x 4	
183	160-4003	Pinch roller lever stopper	
184	086-4050	Pinch roller lever	
185	105-4006	Holder	
186	033-4040	Washer x 3	
187	003-4046	Washer	
188	264-4007PU	Leaf switch (for play)	
189	062-4004	Vinyl tube	
190	123-4036	Spring	
191	TIF-0375	Main shaft assembly	
192	TIF-0021	Arm	
193	320-4015	Arm plate	
194	003-4041	Washer	
195	084-4049	Pinch roller lever shaft	
196	TIF-0363	Chassis	
197	SW4-HHC	Spring washer x 7	
198	N4-HH	Nut x 7	
199	NG-79L	Bushing (3)	
200	322-4067	Switch bracket	

Ref. No.	Parts No.	Description	Remarks
201	240-4029	PC board	
202	SP26-5HHC	Pan head screw	
203	264-4002PU	Slide switch	
204	123-4025	Slide switch spring	
205	322-4064	Switch bracket	
206	SW3-HHC	Spring washer x 20	
207	2W3HH	Washer x 3	
208	003-4050	Sleeve x 2	
209	086-4057	Reverse switch lever	
210	G16-0026-04	Sheet (A)	
211	SS3-6HHC	Flat head screw x 4	
212	322-4063	Speed change bracket	
213	264-4010PU	AUTO switch	
214	SP26-12HHC	Pan head screw x 6	
215	264-4005PU	Microswitch (for shut off)	
216	C502	Capacitor (0.047μF)	
217	086-4044	Shut off switch lever (2)	
218	264-4006PU	Microswitch (for change of direction)	
219	341-4008	Lamp cover	
221	322-4065	Lamp bracket	
222	N2.6-HH	Nut x 6	
223	020-4002	Shield case x 2	
224	284-4001PU	Rec/playback head x 2	
225	005-4004	Spacer (2) x 2	
226	SP2-8HHC	Pan head screw x 12	
227	320-4028	Rec/playback head plate x 2	
228	123-4035	Spring x 12	
229	284-4002PU	Erase head x 2	
230	005-4003	Spacer (1) x 4	
231	320-4019	Rec/playback head plate x 2	
232	SP1.7-4HHC	Pan head screw (1.7φ) x 4	
233	SP1.7-5.5HHC	Pan head screw (1.7φ) x 4	
234	RE-2HHC	E ring washer x 5	
235	065-4001	Tape pad x 4	
236	320-4025	Tape pad plate (2)	
237	123-4023	Pad spring x 2	
238	320-4026	Tape pad plate (4)	
239	320-4027	Tape pad plate (3)	
240	320-4020	Tape pad plate (1)	
241	SP2.6-5HHC	Truss screw (2.6 x 5)	
242	003-4004	Washer x 2	
243	081-4006(60Hz)	Pinch roller	
	081-4020(50Hz)	Pinch roller	
244	326-4006	Tape lifter	
245	TIF-0347	Pinch roller lever assembly	
246	168-4003	Tape guide x 2	
247	084-4044	Pad plate	
248	084-4055	Pad shaft	
249	084-4045	Pinch roller shaft	
250	TIF-0361	Sub chassis assembly	

Ref. No.	Parts No.	Description	Remarks
251	123-4031	Pinch roller spring	
252	J12-0043-04	Housing pin x 4	
253	J30-0064-04	Spacer x 4	
254	105-4016	Tape guide x 2	
255	084-4052	Pinch roller lever guide x 3	
256	168-4005	Sensing pole (A) x 2	
257	168-4006	Sensing pole (B) x 2	
258	021-4003	Base x 2	
259		Lug type terminal strips	
260	086-4051	Pad lever	
261	322-4072	PC board holder	
262	321-4016	Install hardware (B)	
263	321-4015	Install hardware (A)	
264	321-4017	Install hardware (C)	
265	321-4018	Install hardware (D)	
266	SP4-6HHC	Pan head screw (4φ x 6)	
267	240-4033	Control PC board (B)	
268	N3-HH	Nut (3φ) x 4	
269	083-4009	Record control cam	
270	086-4062	Record control lever	
271	264-4011PU	Leaf switch (S8)	
272	264-4004PU	Microswitch (S14)	
273	020-4003	Shield plate	
274	P9F-0085	Solenoid (PL1)	
275	P9F-0086	Solenoid (PL2)	
276	TIF-0381	Control PC board (A)	
277		Truss screw (2.6φ x 6)	
278	084-4051	Capstan sleeve	
279	TIF-0333	Capstan holder assembly	
280	003-4029	Washer	
281	003-4026	Washer	
282	TIF-332	Capstan assembly	
283	085-4007	Capstan belt	
284	TIF-0025	Flywheel bracket assembly	
285	081-4017	Motor pulley	
286	M3-6	Set screw	
287	003-4036	Motor cushion	
288	003-4037	Collar	
289	010-4009	Collar	
290	322-4066	Motor bracket	
291	003-4051	Washer	
292	281-4001PU	Motor	
293	X26-0002-01	POWER SUPPLY and OSC board assembly	
294	P3-6R	Pan head screw (3φ x 6) x 2	
295	322-4061	Speed change cam bracket	
296	TIF-0369	Speed change calked assembly	
297	083-4010	Cam (for equalizer)	
298	084-4043	Speed change shaft (1)	
299	086-4046	Speed change lever	
300	TX-3380A	Washer x 4	

Ref. No.	Parts No.	Description	Remarks
301	123-4026	Speed change spring x 2	
302	086-4042	Equalizer change lever x 2	
303	322-4082	Speed change bracket	
304	320-4024	Equalizer switch stopper	
305	162-4001	Armature	
306	123-4037	Speed change stopper spring	
307	322-4081	Speed change stopper bracket	
308	299-4013	Small solenoid (PL3)	
309	084-4066	Speed change stopper shaft	
310	322-4074	Relay bracket	
311	REF-31502	Relay	
312	E30-0034-05	Power cord	