SUPERSCOPE®

STEREO
CASSETTE
DECK

Model CD-301A

SERVICE DATA

—Jul. 1974—

SUPERSCOPE INC.
8150 VINELAND AVENUE
SUN VALLEY, CALIFORNIA·91352·U.S.A.

SPECIFICATIONS

Tape Speed . . . . . 4.8 cm/sec (1-7/8 I.P.S.)
Reel Size . . . . . Cassette
Recording System . . . . . Quarter-Track Stereo
Rewind and Fast Forward Time 85 sec/C-60
Frequency Response. . . .Standard Tape : 40Hz to 10KHz
Chromium Dioxide Tape : 40Hz to 14KHz
Signal to Noise Ratio . . . . . Standard Tape : 48dB
Chromium Dioxide Tape : 51dB
Inputs . . . . . Two Microphone : (one for each channel)

Plug Type : Mini
Impedance : Low
Input Sensitivity : -72dB

One DIN (Play/Rec)

Plug Type : DIN
Impedance : 47Kohms
Input Sensitivity : 12mV

Two Auxiliary : (one for each channel)

Plug Type : Phono
Impedance : 390Kohms
Input Sensitivity : 60mV
Bias Frequency 85KHz

Type of Level Indication . . . . . Two VU Meters
Head Configuration . . . . . 1 Half-Track Erase
1 Quarter-Track Record/Playback
Wow and Flutter . . . . . 0.2% at 4.8 cm/sec
Number and Type of Motor . . . . . One DC, Electrical
Governor Controlled
Number of Semi-Conductors . . . . . 16 Transistors
12 Diodes
Outputs . . . . . Two Line : (one for each channel)

Plug type : Phono
Impedance : 6Kohms
Output Level : 0.775V (at 0VU)

One Stereo Headphone:

Plug Type : Phone
Impedance : 8 ohms
Output Level : 44mV
Power Requirements . . . . . 110/200/220V AC, 50/60Hz,
11 Watts
Dimensions . . . . . Width : 318mm (12-1/2")
Height : 83mm (3-1/4")
Depth : 225mm (8-7/8")
Unit Weight . . . . . 2.7Kg (6 lbs)

ADJUSTING AND MEASURING PROCEDURES

1. SPEED ADJUSTMENT

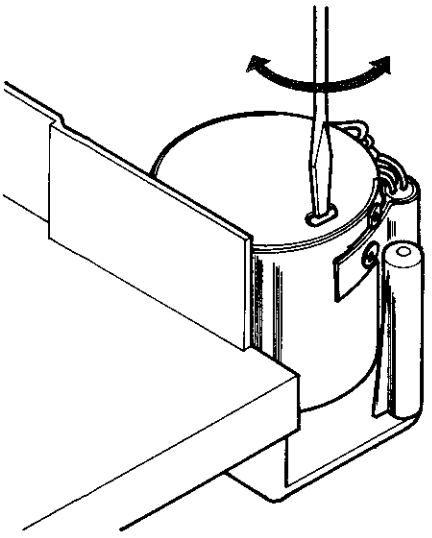
Load and run a pre-recorded test tape (3kHz), and read out and adjust its running speed with a Philip's screwdriver on the speed counter for 2,990 to 3,010Hz in the output frequency.

Note: (1) For the speed adjustment, wait 30 seconds after having set the recorder to the PLAY position to make to tape run free from drift due to the motor.

(2) The speed adjustment an checking should be performed halfway between the beginning and end of the test tape.

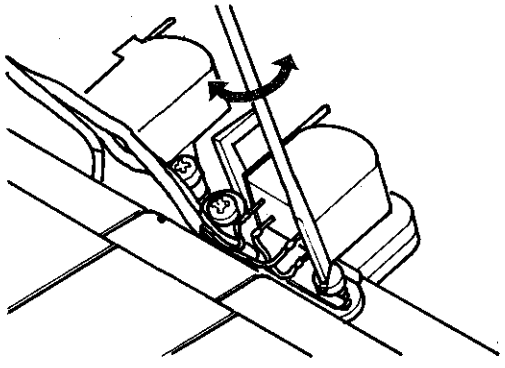
(3) When adjusting the speed do not turn the semifixed resistor more than five times of reciprocation.

(4) Do not perform the speed adjustment immediately after the recorder has been moved from a warm storage place to cold place (and reversely).



2. AZIMUTH ADJUSTMENT

Play a pre-recorded tape on which both 333Hz and 10kHz signals, or only 10kHz signals, is recorded and adjust the azimuth adjusting screws so that the output levels of both R and L channels may be maximum at the LINE OUT jack. If the R and L channels are different in the output peak level, set the azimuth adjusting screws to the mechanical peak position. After adjustment, repeat playback and stop of the tape several times, and check to assure that no azimuth deviation is found.

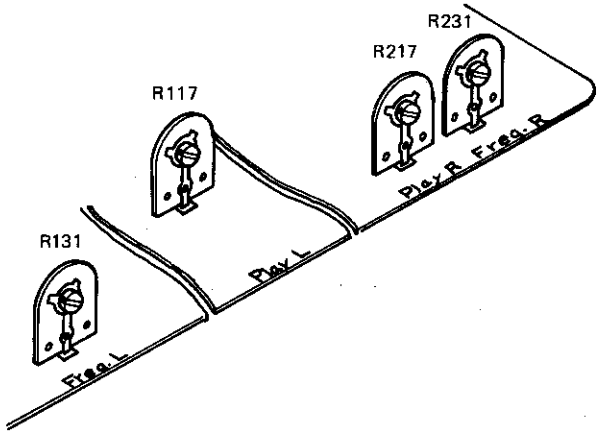


3. PLAYBACK LEVEL ADJUSTMENT

Play a 333Hz. 25mM/mm pre-recorded tape, and adjust the resistors R117 and R217 for 0.9V of the LINE OUT output levels. Counterclockwise turning of each resistor will increase the output level. The recorder is so designed that the VU meter indicates OUT when a 400Hz, 20mM/mm pre-recorded tape is played back, thus the VU meter indicates in the positive range in this adjustment.

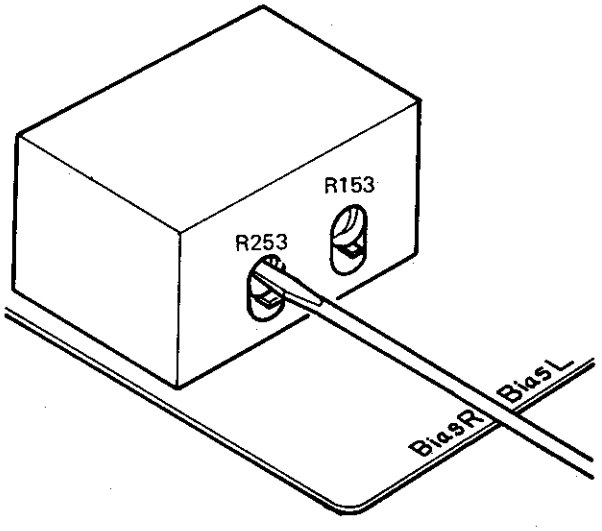
4. PLAYBACK EQUALIZER ADJUSTMENT

Play a 333Hz-and-10kHz pre-recorded tape, and adjust the resistors R131 and R231 to obtain each 10kHz output level 0 to 1dB lower than the corresponding 333Hz output level. Counterclockwise turning will increase the output level.



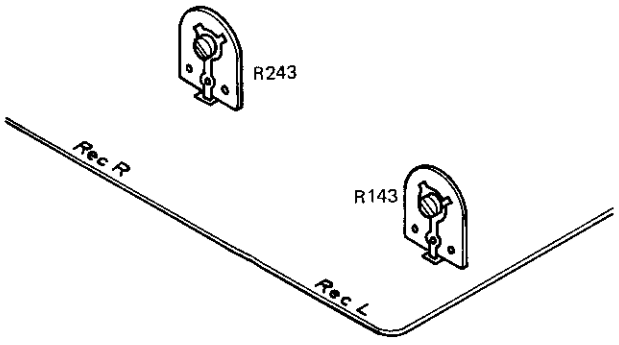
5. BIAS CURRENT ADJUSTMENT

Set the tape selector switch to the NORMAL position. Keeping the recording push-button depressed, connect a VTVM across the resistors R106 and R206 and adjust R153 and R253 to obtain 52mV across each resistor. Counterclockwise turning will increase the current. The adjustment screw driver should be bamboo made. A metal screw driver, if used, may damage the transistors due to contact with the shield case. The available range for proper adjustment is 45 to 58mV which is determined with tolerable distortions and frequency response.



6. RECORDING LEVEL ADJUSTMENT

Set the tape selector switch to the NORMAL position. Shortcircuit between the terminal 2 of the bias circuit and the ground. Keeping the recording push-button depressed, apply a -60dB signal to the microphone input, and adjust the VOL control to obtain OVU indication on the level meter. Next, connect a VTVM across the resistors R106 and R206, and adjust R143 and R243 to obtain 4.4mV across each resistor.



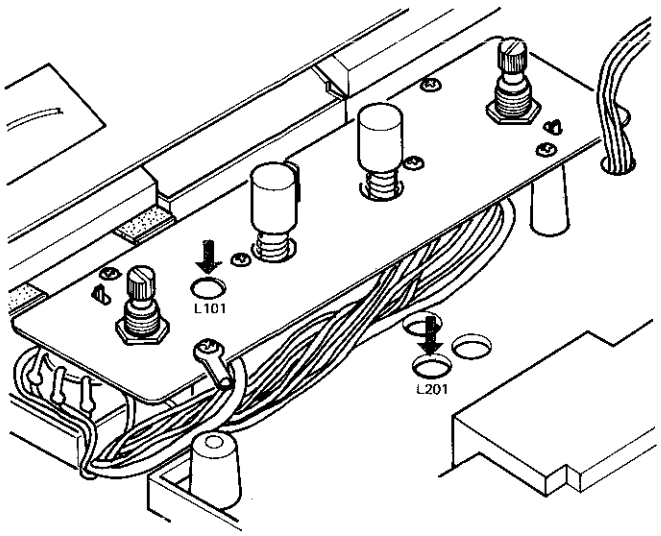
7. RECORDING EQUALIZER ADJUSTMENT

Measure the recording frequency response of every tape recorder set.

If there is a recorder not conforming to the specified recording frequency response, proceed as follows:

(1) Set the tape selector switch to the CrO_2 position.
(2) Shortcircuit between the terminal 2 of the bias circuit and the ground.
(3) Keeping the recording push-button depressed, apply a -60dB signal to the microphone input and adjust the VOL control to obtain OVU read on the level meter. Leaving the VOL control set position, reduce the input level by 20dB and adjust the peak level at a high frequency in reference to 0dB at 1kHz.

Clockwise turning of L101 and L201 will shift the respective high-frequency peak position to lower frequency, and counterclockwise turning to higher frequency.



8. PLAYBACK OUTPUT LEVEL MEASUREMENT

Play a 333Hz. 25mM/mm pre-recorded tape and measure the playback output level using a VTVM.

9. PLAYBACK SIGNAL-TO-NOISE RATIO MEASUREMENT

Play a 333Hz, 25mM/mm pre-recorded tape, and read the playback output level as 0dB reference. Next, load and run a no-signal tape, and measure the output noise level.

10. PLAYBACK FREQUENCY RESPONSE MEASUREMENT

Play a 40Hz-to-10kHz, 25mM/mm, -10dB pre-recorded tape prepared specifically for frequency response measurement or a 333Hz-and-10kHz, 25mM/mm, -10dB pre-recorded tape. Measure the output level of the 10kHz signal in reference to that of the 333Hz output level.

11. RECORDING-PLAYBACK OUTPUT LEVEL, DISTORTION, AND SIGNAL-TO-NOISE RATIO MEASUREMENTS

Apply a 1kHz, -60dB signal to the microphone jack. Adjust the VOL control to obtain OVU read on the level meter. Record the input signal on an unrecorded tape. Next, disconnect the input signal, and in this state perform the no-signal recording.

Playback the recorded signal, and measure its output level and distortion.

Measure the output level deviation of the no-signal recorded noise in reference to 0dB of the above recorded 1kHz signal.

12. RECORDING-PLAYBACK FREQUENCY RESPONSE MEASUREMENT

Apply a 1kHz, -60dB signal to the microphone jack. Adjust the VOL control to obtain OVU read on the level meter. Leaving the VOL control set position, reduce the input level by 20dB, and record on an unrecorded tape. Repeat this recording for frequencies of 40Hz, 10kHz, and 14kHz.

Play the above recorded signals and measure the output level deviation of each recorded signal in reference to that of the 1kHz signal.

13. ERASE CHARACTERISTIC MEASUREMENT

Apply a 1kHz, -60dB signal to the microphone jack. Adjust the VOL control to obtain OVU read on the level meter. Leaving the VOL control set in position, raise the input level by 10dB and record on an unrecorded tape.

Next, rewind the tape halfway across the recorded portion. Disconnect the input signal from the microphone jack and perform the no-signal recording from the half position.

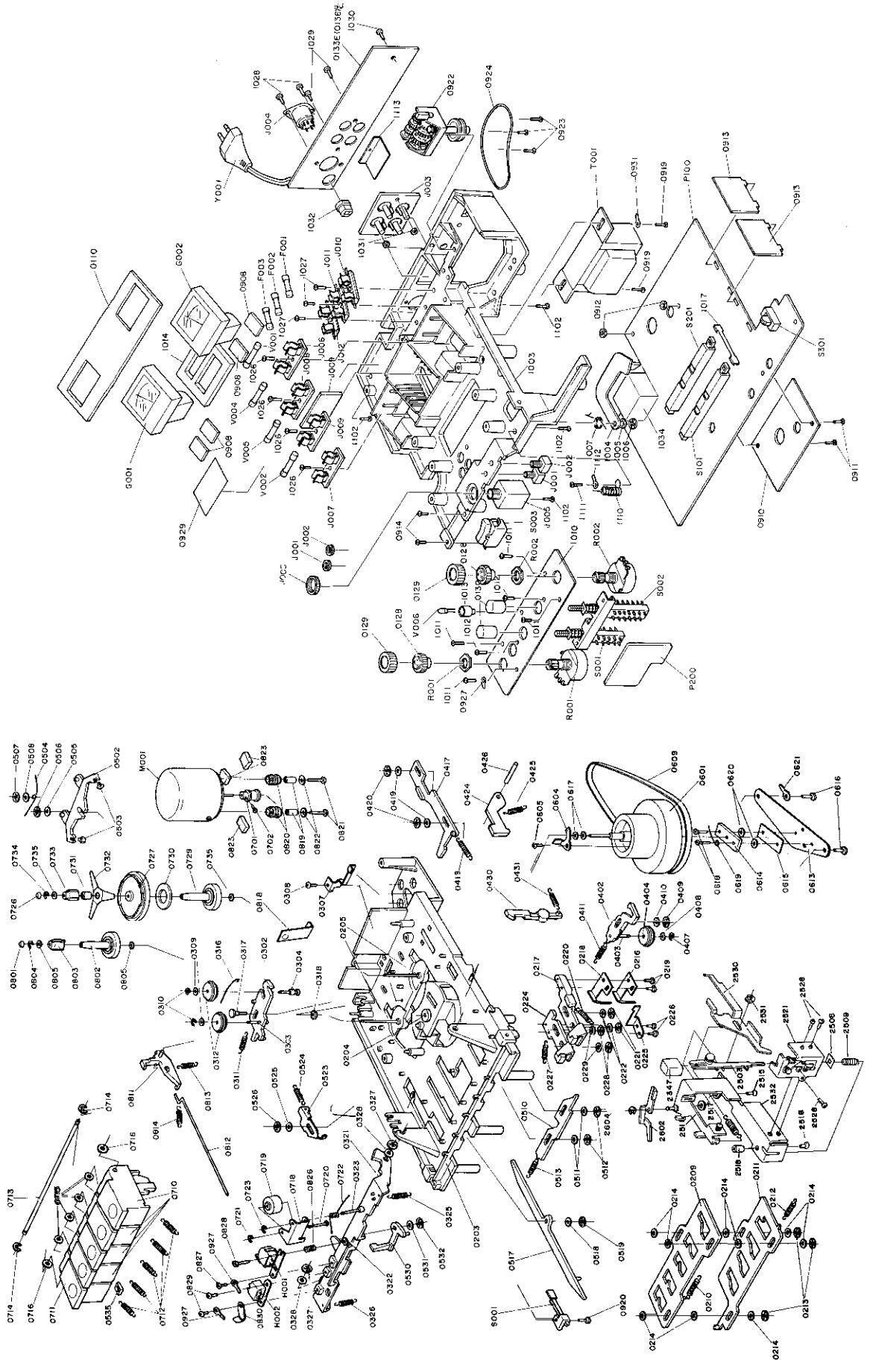
Play the recorded and erased portions through a 1kHz bandpass filter, and measure the level difference between the recorded signal and residual signal after erasing.

CAUTION: Before making any adjustment and measurement, clean the front of the heads with gauze containing alocohol or carbon tetrachloride, and fully demagnetize the heads, capstans and similar parts. After adjustment, apply a little amount of paint on the adjusted portions.

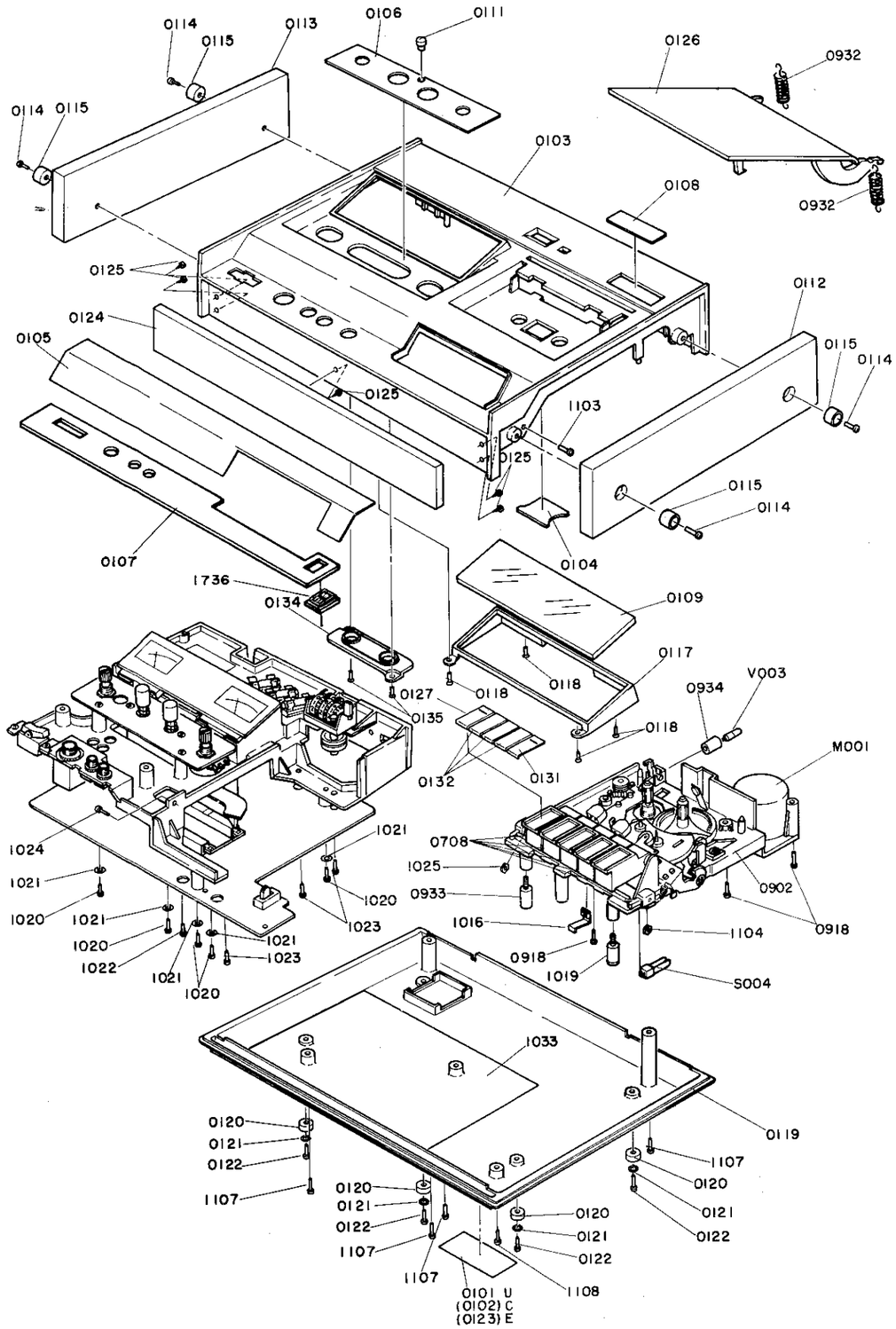
14. POWER VOLTAGE CHANGE

Plug the power voltage selection connector into the pin marked with the proper voltage on the power board.

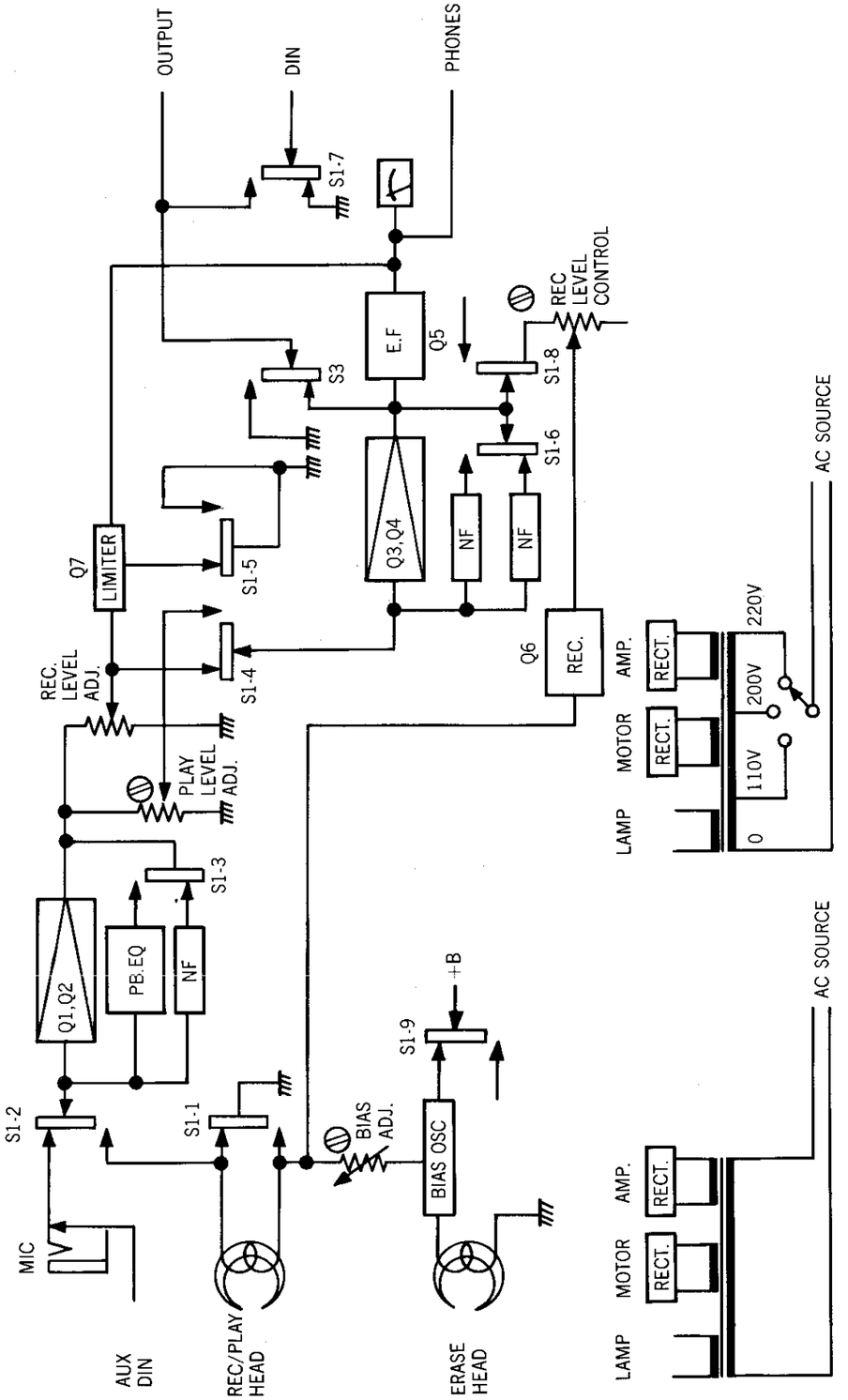
EXPLODED DIAGRAM OF THE MECHANISM



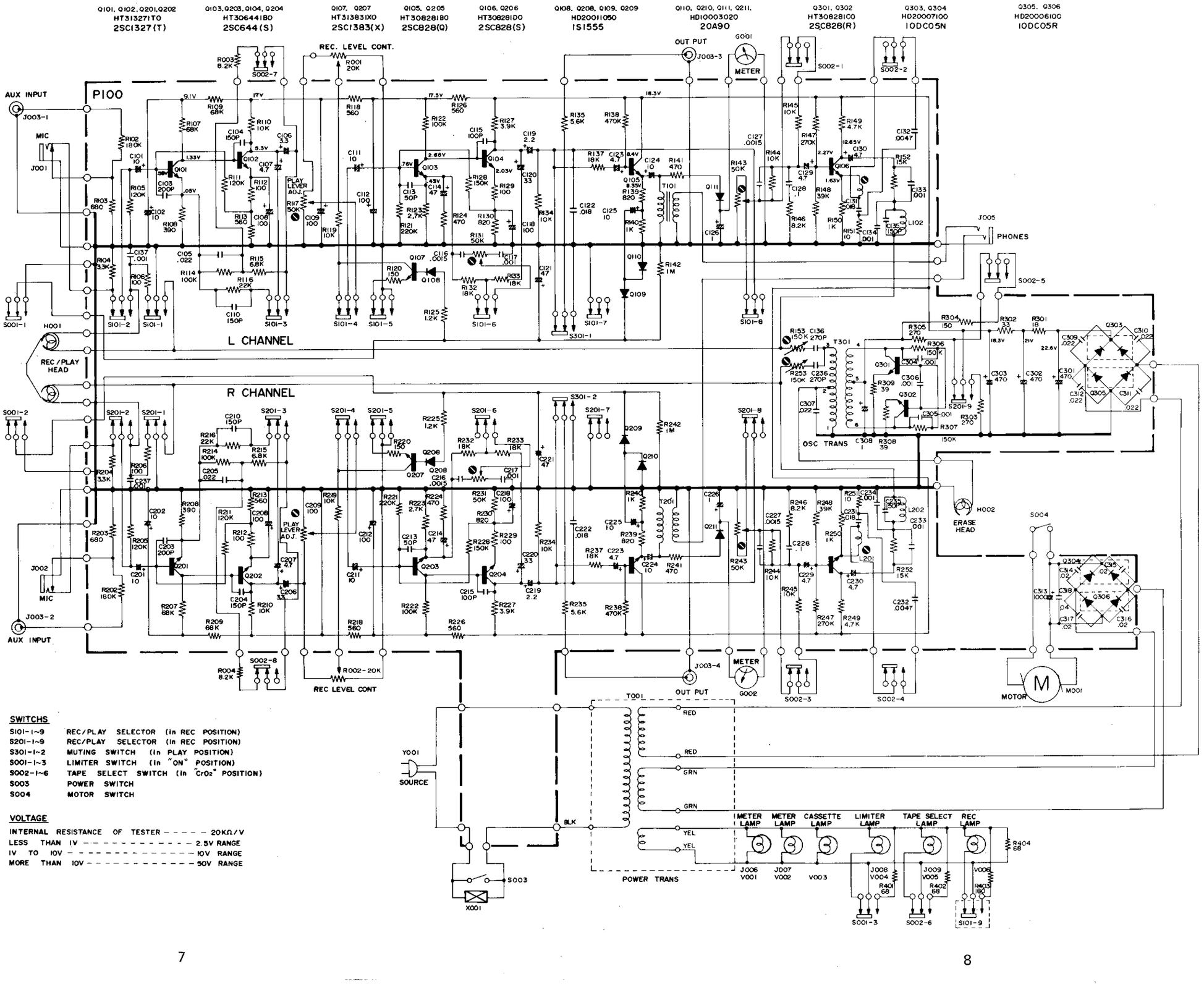
EXPLODED DIAGRAM OF THE CABINET



BLOCK DIAGRAM



SCHEMATIC DIAGRAM (For U.S.A. & Canada)



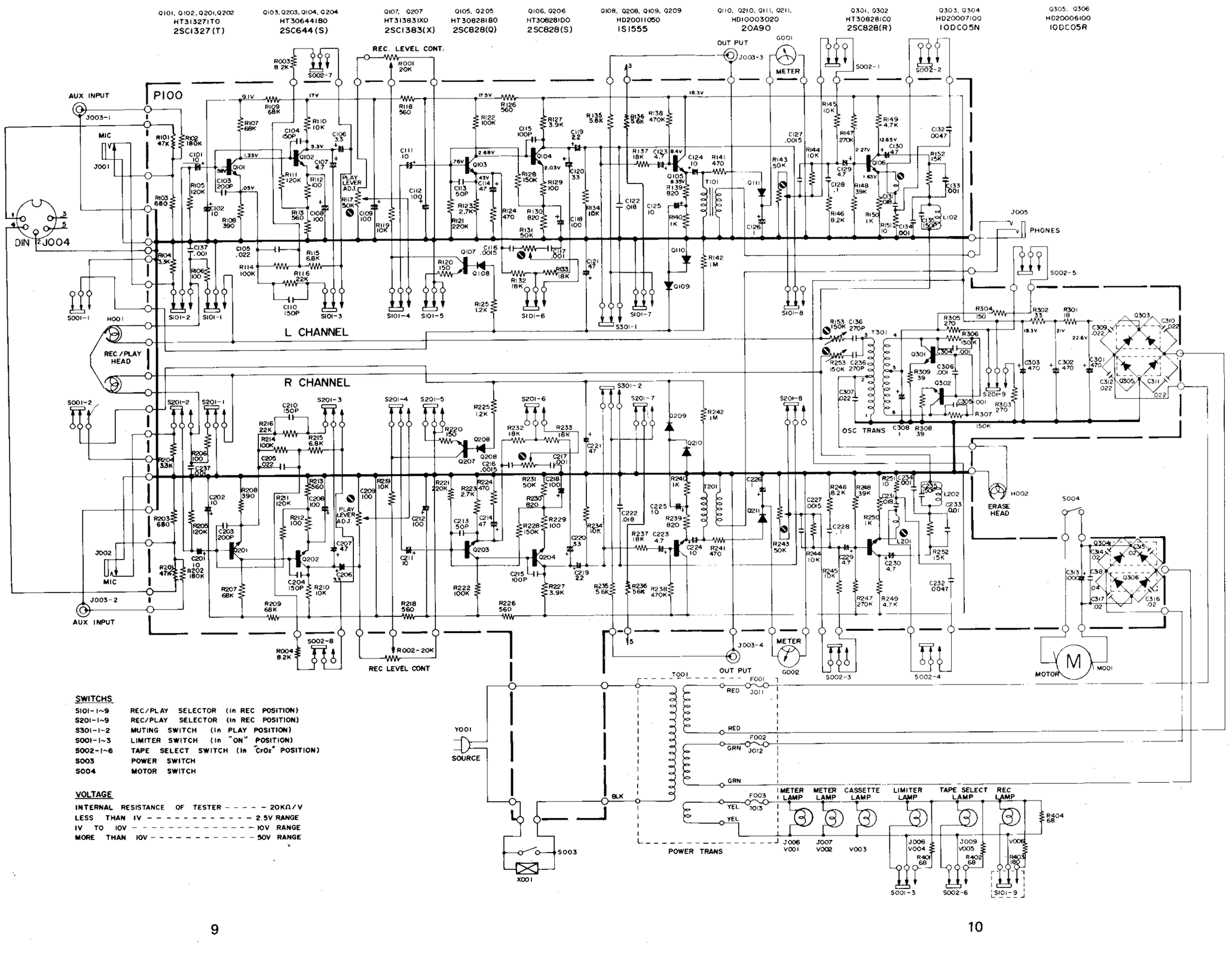
SWITCHS

S101-1~9	REC/PLAY SELECTOR (in REC POSITION)
S201-1~9	REC/PLAY SELECTOR (in REC POSITION)
S301-1~2	MUTING SWITCH (in PLAY POSITION)
S001-1~3	LIMITER SWITCH (in "ON" POSITION)
S002-1~6	TAPE SELECT SWITCH (in "CrO2" POSITION)
S003	POWER SWITCH
S004	MOTOR SWITCH

VOLTAGE

INTERNAL RESISTANCE OF TESTER ----- 20KΩ/V
LESS THAN 1V ---------- 2.5V RANGE
1V TO 10V ---------- 10V RANGE
MORE THAN 10V ---------- 50V RANGE

SCHEMATIC DIAGRAM (For Europe)



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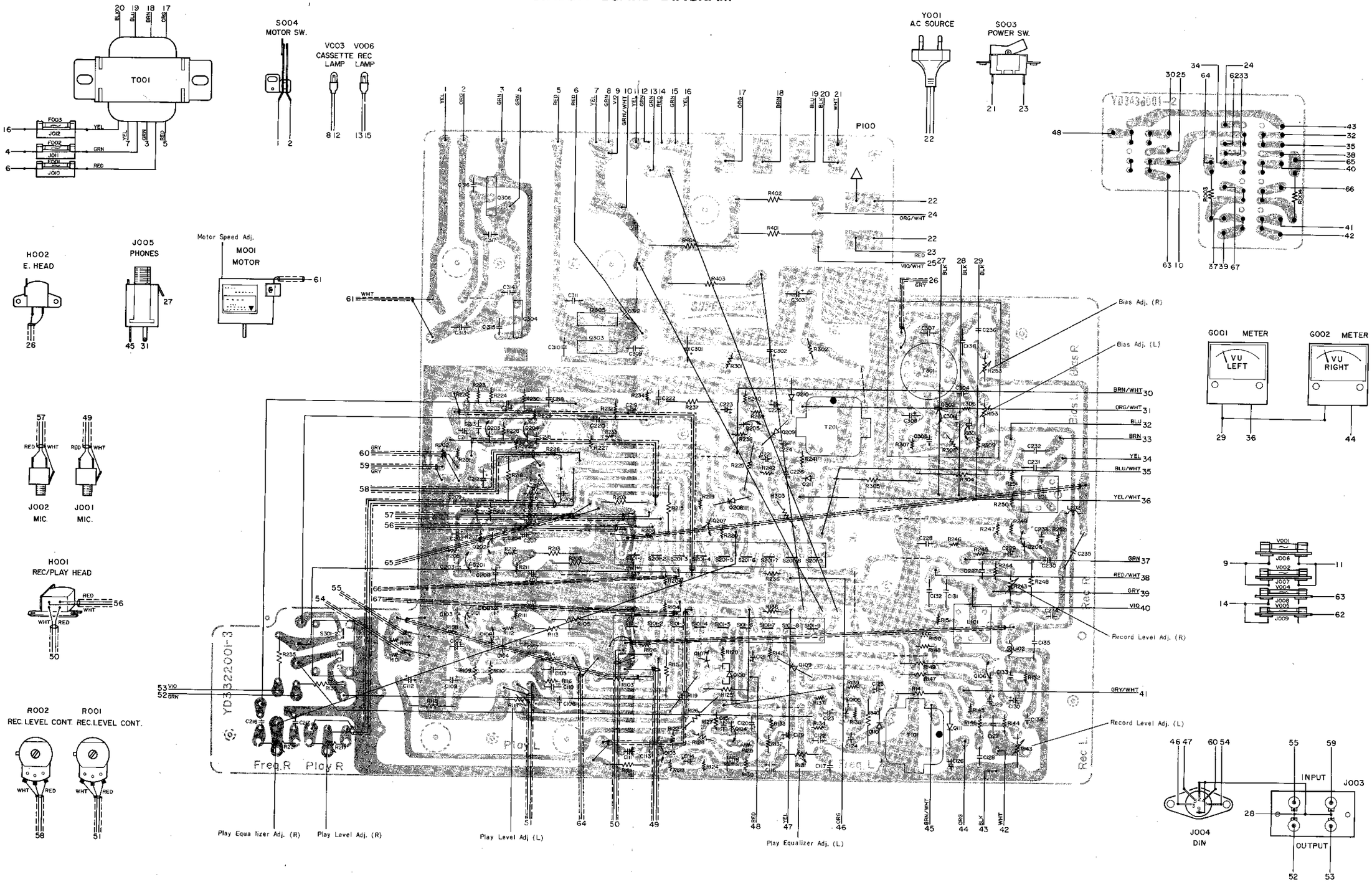
LESS THAN 1V - - - - - - - - - - - - - 2.5V RANGE
1V TO 10V - - - - - - - - - - - - - - - 10V RANGE
MORE THAN 10V - - - - - - - - - - - - - 50V RANGE

CIRCUIT BOARD DIAGRAM



REPLACEMENT PARTS

REF. DESIG.	PART NO.	DESCRIPTION
A	343606440	Case Assembly
0103	332206430	Case
0104	305115830	Cover Cassette Case
0105	343606301	Escutcheon Case Upper
0106	332206302	Escutcheon Volume Around
0107	343606302	Escutcheon Power Switch
0109	332215831	Window
0111	284505301	Cover Record Lamp Red
0124	332206307	Escutcheon Front
0125	51522406E	R.H. Wood Screw x 5
B	343625740	Back Lid Assembly, For U.S.A.
B1	343625741	Back Lid Assembly, For Canada
B2	343625742	Back Lid Assembly, For Europe
0101	343626501	Indicator, Spec. Plate For U.S.A.
0102	343626503	Indicator, Spec. Plate For Canada
0123	343626502	Indicator, Spec. Plate For Europe
0119	332225730	Back Lid Buttom
1033	332210904	Shield Buttom Lid
D	332227040	Button Assembly, Play/F.F./Rew. x 3
0708	332227030	Button x 3
0132	332206306	Escutcheon x 3
E	332227041	Button Assembly, (Stop)
0708	332227030	Button
0131	332206308	Escutcheon
F	332227042	Button Assembly, (Rec.)
0708	332227030	Button
0127	332206309	Escutcheon
G	336710540	Chassis K Tape Mechanism
0203	329510530	Chassis
0204	336710602	Bearing
0205	329511202	Shaft x 2
0206	332211201	Shaft
H	329535440	Lever S FF, Rew Idler
0302	329535401	Lever
0303	329511204	Shaft
I	333216040	Bracket S (Head)
0321	333216030	Bracket
0322	329525901	Bush
0323	329511201	Shaft
J	336700240	Arm S (Take Up)
0402	336700202	Arm
0403	329511205	Shaft
K	329535441	Lever S (Brake)
0502	329535433	Lever
0503	329526301	Brake x 2
L	333200440	Table Assembly, Take Up
0631	333226202	Pulley
0727	329500402	Table
0729	334700430	Table
0730	185206101	Clatch
0731	329505501	Collar
0732	321511509	Spring x 2

REF. DESIG.	PART NO.	DESCRIPTION
0733	321506701	Cap
0725	334735301	Ring
M	334700441	Table Assembly, (Rew.)
0802	334700430	Table
0803	321506701	Cap
0806	334735301	Ring
0209	334705430	Cam
0210	329511528	Spring
0211	329505430	Cam
0212	329511528	Spring
0213	64020300Q	R.G. Ring CS Type x 3
0214	59350602G	Poli Washer x 9
0216	329511525	Spring FF
0217	329535430	Lever FF
0218	329511503	Spring
0219	51322606P	R.H. Tap Screw x 2
0220	329511506	Spring
0221	64020300Q	R.G. Ring CS Type x 2
0222	59350602G	Poli Washer x 2
0224	329535431	Lever
0225	334711502	Spring x 2
0226	51322606P	R.H. Tap Screw x 2
0227	329511507	Spring
0228	64020300Q	R.G. Ring CS Type x 2
0229	59350602G	Poli Washer x 2
0304	329511207	Shaft
0305	331211802	Spacer
0306	59010149E	Washer x 2
0307	329511502	Spring
0308	51322606P	R.H. Tap Screw
0310	64001500R	R.G. Ring E Type x 2
0311	329511504	Spring
0312	329500151	Idler K x 2
0315	59020402G	Poli Washer x 2
0316	329511524	Spring
0317	329511208	Shaft
0318	53112603E	Hexagon Nut
0319	54042602N	Spring Washer
0325	332011525	Spring
0326	329511519	Spring
0327	64020300Q	R.G. Ring CS Type x 2
0328	59046502G	Poli Washer x 2
0330	332127110	Holder
0331	51320306P	R.H. Tap Screw
0404	329500150	Idler K
0407	64001500R	R.G. Ring E Type
0408	59020402G	Poli Washer
0409	64020300Q	R.G. Ring CS Type
0410	59350602G	Poli Washer
0411	329511510	Spring
0417	329535432	Lever
0419	59350602G	Poli Washer x 2
0420	64020300Q	R.G. Ring CS Type x 2
0424	329500203	Arm
0425	329511512	Spring
0426	329525401	Pin
0430	329500230	Arm
0431	329511518	Spring
0432	329525402	Pin
0504	329511513	Spring
0505	59350602G	Poli Washer x 2

REF. DESIG.	PART NO.	DESCRIPTION
0506	64020300Q	R.G. Ring CS Type
0507	64020300Q	R.G. Ring CS Type
0508	186111806	Spacer
0510	329500231	Arm
0511	59350602G	Poli Washer x 2
0512	64020300Q	R.G. Ring CS Type x 2
0513	329511514	Spring
0517	331235430	Lever
0518	331205502	Collar
0519	51320310P	R.H. Tap Screw
0523	329535404	Lever
0524	334711501	Spring
0526	51400208P	B.H. Tap Screw
0527	334705501	Collar
0528	332016030	Bracket
0530	329500204	Arm
0531	333211202	Shaft
0601	336727350	Fly Wheel K
0604	326125801	Hook
0605	51040204E	F.H.M. Screw
0609	329526401	Belt
0613	329510401	Retainer
0614	336710601	Bearing
0615	141511801	Spacer
0616	51400310P	B.H. Tap Screw x 2
0617	307711801	Spacer
0618	51102605E	B.H.M. Screw x 2
0619	329511526	Spring
0621	62631650W	Lug
0622	59110269E	Washer x 2
0623	54012600E	Washer x 2
0628	333226201	Pulley
0629	59020402G	Poli Washer x 2
0630	64001500R	R.G. Ring E Type
0701	336726201	Pulley
0702	51071079G	C.H.M. Screw
0711	329511528	Spring
0712	329511516	Spring x 4
0713	336711202	Shaft
0714	64000300R	R.G. Ring E Type x 2
0715	186111804	Spacer x 7
0716	186111806	Spacer x 2
0718	336700203	Arm
0719	186125501	Pinch Rollar
0720	182311209	Shaft
0721	64001500R	R.G. Ring E Type
0722	329511517	Spring
0723	64001500R	R.G. Ring E Type
0724	59010219E	Washer
0726	329506701	Cap
0734	64001500R	R.G. Ring E Type
0735	59080402G	Poli Washer x 3
0801	329506701	Cap
0804	64001500R	R.G. Ring E Type
0805	59020402G	Poli Washer x 3
0811	329535434	Lever
0812	329535701	Rod
0813	329511516	Spring
0814	329511504	Spring
0817	331205603	Buffer
0818	329500501	Clamper
0819	329505503	Collar x 3
0820	329525902	Bush x 3
0821	51102610E	B.H.M. Screw x 3
0822	54022601E	Washer x 2

REF. DESIG.	PART NO.	DESCRIPTION
0823	62261240W	Lug
0826	329511527	Spring
0827	51400208P	B.H. Tap Screw
0828	304825402	Pin
0829	51400210P	B.H. Tap Screw x 2
0830	112600501	Clamper
0831	62021030W	Lug
0906	304805602	Buffer
0920	51322606P	R.H. Tap Screw x 2
H001	LH4277101	REC./PLAY Head
H002	LH3100028	Erase Head
M001	MM1060029	DC Motor
W001	YX3367001	Wiring Material, For Head
S004	SM0101029	Mini Switch
		P100-AUDIO BOARD
P100	YD3322001	P.W. Board (Print Only)
	ZZ3436101	P.W. Board Assembly For U.S.A. & Canada
	ZZ3436801	P.W. Board Assembly For Europe
Q101	HT313271T	Transistor, 2SC1327 (T)
Q201	HT313271T	Transistor, 2SC1327 (T)
Q102	HT313271T	Transistor, 2SC1327 (T)
Q202	HT313271T	Transistor, 2SC1327 (T)
Q103	HT306441B	Transistor, 2SC644 (S)
Q203	HT306441B	Transistor, 2SC644 (S)
Q104	HT306441B	Transistor, 2SC644 (S)
Q204	HT306441B	Transistor, 2SC644 (S)
Q105	HT308281B	Transistor, 2SC828 (Q)
Q205	HT308281B	Transistor, 2SC828 (Q)
Q106	HT308281D	Transistor, 2SC828 (S)
Q206	HT308281D	Transistor, 2SC828 (S)
Q107	HT313831X	Transistor, 2SC1383 (X)
Q207	HT313831X	Transistor, 2SC1383 (X)
Q108	HD2001105	Diode, 1S1555
Q208	HD2001105	Diode, 1S1555
Q109	HD2001105	Diode, 1S1555
Q209	HD2001105	Diode, 1S1555
Q110	HD1000302	Diode, 20A90
Q210	HD1000302	Diode, 20A90
Q111	HD1000302	Diode, 20A90
Q211	HD1000302	Diode, 20A90
Q301	HT308281C	Transistor, 2SC828 (R)
Q302	HT308281C	Transistor, 2SC828 (R)
Q303	HD2000710	Diode, 10DC05N (+) Black
Q304	HD2000710	Diode, 10DC05N (+) Black
Q305	HD2000610	Diode, 10DC05R (—) Red
Q306	HD2000610	Diode, 10DC05R (—) Red
		P100-MISCELLANEOUS
0913	332210903	Shield x 2
1017	332211502	Spring
1034	332210902	Shield
T101	TO1190504	Out Put Transf.
T201	TO1190504	Out Put Transf.
T301	TC1018007	O.S.C. Transf. Bias
L101	LC2565003	Choke Coil
L201	LC2565003	Choke Coil
L102	LC2226001	Choke Coil
L202	LC2226001	Choke Coil
S101	SS0902006	Slide Switch Left Rec/Play
S201	SS0902006	Slide Switch Right Rec/Play
S301	SS0202034	Slide Switch Muting
J301	YP1000109	Plug, For Europe
J302	YP1000109	Plug, For Europe
J303	YP1000109	Plug, For Europe

REF. DESIG.	PART NO.	DESCRIPTION
1335	YP1000113	Plug
		P100-RESISTORS
		All resistors are ±5% and ¼W, unless otherwise indicated.
R101	RT0547314	47KΩ, For Europe
R201	RT0547314	47KΩ, For Europe
R102	RT0518414	180KΩ
R202	RT0518414	180KΩ
R103	RT0568114	680Ω
R203	RT0568114	680Ω
R104	RT0533214	3.3KΩ
R204	RT0533214	3.3KΩ
R105	RN1012414	120KΩ ± 10%, ¼W
R205	RN1012414	120KΩ ± 10%, ¼W
R106	RT0510114	100Ω
R206	RT0510114	100Ω
R107	RN1068314	68KΩ ± 10%, ¼W
R207	RN1068314	68KΩ ± 10%, ¼W
R108	RT0539114	390Ω
R208	RT0539114	390Ω
R109	RN1068314	68KΩ ± 10%, ¼W
R209	RN1068314	68KΩ ± 10%, ¼W
R110	RN1010314	10KΩ ± 10%, ¼W
R210	RN1010314	10KΩ ± 10%, ¼W
R111	RN1012414	120KΩ ± 10%, ¼W
R211	RN1012414	120KΩ ± 10%, ¼W
R112	RT0510114	100Ω
R212	RT0510114	100Ω
R113	RT0556114	560Ω
R213	RT0556114	560Ω
R114	RT0510414	100KΩ
R214	RT0510414	100KΩ
R115	RT0568214	6.8KΩ
R215	RT0568214	6.8KΩ
R116	RT0522314	22KΩ
R216	RT0522314	22KΩ
R117	RA0503015	Trimming, 50KΩ, Play Level Adj.
R217	RA0503015	Trimming, 50KΩ, Play Level Adj.
R118	RT0556114	560Ω
R218	RT0556114	560Ω
R119	RT0510314	10KΩ
R219	RT0510314	10KΩ
R120	RT0515114	150Ω
R220	RT0515114	150Ω
R121	RT0522414	220KΩ
R221	RT0522414	220KΩ
R122	RT0510414	100KΩ
R222	RT0510414	100KΩ
R123	RT0527214	2.7KΩ
R223	RT0527214	2.7KΩ
R124	RT0547114	470Ω
R224	RT0547114	470Ω
R125	RT0512214	1.2KΩ
R225	RT0512214	1.2KΩ
R126	RT0556114	560Ω
R226	RT0556114	560Ω
R127	RT0539214	3.9KΩ
R227	RT0539214	3.9KΩ
R128	RT0515414	150KΩ
R228	RT0515414	150KΩ
R129	RT0510114	100Ω
R229	RT0510114	100Ω
R130	RT0582114	820Ω
R230	RT0582114	820Ω

REF. DESIG.	PART NO.	DESCRIPTION
R131	RA0503015	Trimming, 50KΩ, Left Play Frequency Charact. Adj.
R231	RA0503015	Trimming, 50KΩ, Right Play Frequency Charact. Adj.
R132	RT0518314	18KΩ
R232	RT0518314	18KΩ
R133	RT0518314	18KΩ
R233	RT0518314	18KΩ
R134	RT0510314	10KΩ
R234	RT0510314	10KΩ
R135	RT0556214	5.6KΩ
R235	RT0556214	5.6KΩ
R136	RT0556214	5.6KΩ, For Europe
R236	RT0556214	5.6KΩ, For Europe
R137	RT0518314	18KΩ
R237	RT0518314	18KΩ
R138	RT0547414	470KΩ
R238	RT0547414	470KΩ
R139	RT0582114	820Ω
R239	RT0582114	820Ω
R140	RT0510214	1KΩ
R240	RT0510214	1KΩ
R141	RT0547114	470Ω
R241	RT0547114	470Ω
R142	RT0510514	1MΩ
R242	RT0510514	1MΩ
R143	RA0503015	Trimming, 50KΩ, Rec. Amp.
R243	RA0503015	Trimming, 50KΩ, Rec. Amp.
R144	RT0510314	10KΩ
R244	RT0510314	10KΩ
R145	RT0510314	10KΩ
R245	RT0510314	10KΩ
R146	RT0582214	8.2KΩ
R246	RT0582214	8.2KΩ
R147	RT0527414	270KΩ
R247	RT0527414	270KΩ
R148	RT0539314	39KΩ
R248	RT0539314	39KΩ
R149	RT0547214	4.7KΩ
R249	RT0547214	4.7KΩ
R150	RT0510214	1KΩ
R250	RT0510214	1KΩ
R151	RT0510014	10Ω
R251	RT0510014	10Ω
R152	RT0515314	15KΩ
R252	RT0515314	15KΩ
R153	RA0154001	Trimming, 150KΩ (B), Rec. Bias Adj.
R253	RA0154001	Trimming, 150KΩ (B), Rec. Bias Adj.
		P100-CAPACITORS
C101	EA1060169	Electroly, 10μF, 16V
C201	EA1060169	Electroly, 10μF, 16V
C102	EA1060169	Electroly, 10μF, 16V
C202	EA1060169	Electroly, 10μF, 16V
C103	DD1620101	Ceramic, 200PF
C203	DD1620101	Ceramic, 200PF
C104	DD1615101	Ceramic, 150PF
C204	DD1615101	Ceramic, 150PF
C105	DF1522305	Film, 0.022μF
C205	DF1522305	Film, 0.022μF
C106	EA3350509	Electroly, 3.3μF, 50V
C206	EA3350509	Electroly, 3.3μF, 50V
C107	EA4750359	Electroly, 4.7μF, 35V
C207	EA4750359	Electroly, 4.7μF, 35V
C108	EA1070109	Electroly, 100μF, 10V
C208	EA1070109	Electroly, 100μF, 10V

REF. DESIG.	PART NO.	DESCRIPTION
C109	EA1070259	Electroly, 100μF, 25V
C209	EA1070259	Electroly, 100μF, 25V
C110	DD1615101	Ceramic, 150PF
C210	DD1615101	Ceramic, 150PF
C111	EA1060169	Electroly, 10μF, 16V
C211	EA1060169	Electroly, 10μF, 16V
C112	EA1070259	Electroly, 100μF, 25V
C212	EA1070259	Electroly, 100μF, 25V
C113	DD1650001	Ceramic, 50PF
C213	DD1650001	Ceramic, 50PF
C114	EA4760109	Electroly, 47μF, 10V
C214	EA4760109	Electroly, 47μF, 10V
C115	DD1610101	Ceramic, 100PF
C215	DD1610101	Ceramic, 100PF
C116	DF1615201	Film, 0.0015μF
C216	DF1615201	Film, 0.0015μF
C117	DF1710201	Film, 0.001μF
C217	DF1710201	Film, 0.001μF
C118	EA1070109	Electroly, 100μF, 10V
C218	EA1070109	Electroly, 100μF, 10V
C119	EA2250509	Electroly, 2.2μF, 50V
C219	EA2250509	Electroly, 2.2μF, 50V
C120	EA3360259	Electroly, 33μF, 25V
C220	EA3360259	Electroly, 33μF, 25V
C121	EA4760109	Electroly, 47μF, 10V
C221	EA4760109	Electroly, 47μF, 10V
C122	DF1618301	Film, 0.018μF
C222	DF1618301	Film, 0.018μF
C123	EA4750359	Electroly, 4.7μF, 35V
C223	EA4750359	Electroly, 4.7μF, 35V
C124	EA1060169	Electroly, 10μF, 16V
C224	EA1060169	Electroly, 10μF, 16V
C125	EA1060169	Electroly, 10μF, 16V
C225	EA1060169	Electroly, 10μF, 16V
C126	EA1050509	Electroly, 1μF, 50V
C226	EA1050509	Electroly, 1μF, 50V
C127	DF1615201	Film, 0.0015μF
C227	DF1615201	Film, 0.0015μF
C128	DF1710401	Film, 0.1μF
C228	DF1710401	Film, 0.1μF
C129	EA4750359	Electroly, 4.7μF, 35V
C229	EA4750359	Electroly, 4.7μF, 35V
C130	EA4750359	Electroly, 4.7μF, 35V
C230	EA4750359	Electroly, 4.7μF, 35V
C131	DF1518305	Film, 0.018μF
C231	DF1518305	Film, 0.018μF
C132	DF1547205	Film, 0.0047μF
C232	DF1547205	Film, 0.0047μF
C133	DF1610205	Film, 0.001μF
C233	DF1610205	Film, 0.001μF
C134	DF1610205	Film, 0.001μF
C234	DF1610205	Film, 0.001μF
C135	DF6515151	Film, 150PF
C235	DF6515151	Film, 150PF
C136	DF6527151	Film, 270PF
C236	DF6527151	Film, 270PF
C137	DF1710201	Film, 0.001μF
C237	DF1710201	Film, 0.001μF
		RESISTORS
R301	GJ0518002	18Ω ± 5%, 2W
R302	GJ0533002	33Ω ± 5%, 2W
R303	GJ0527103	270Ω ± 5%, 3W
R304	GJ0515102	150Ω ± 5%, 2W
R305	GJ0527102	270Ω ± 5%, 2W

REF. DESIG.	PART NO.	DESCRIPTION
R306	RT0515414	150KΩ ± 5%, ¼W
R307	RT0515414	150KΩ ± 5%, ¼W
R308	RC1039012	39Ω ± 10%, ½W
R309	RC1039012	39Ω ± 10%, ½W
R401	GJ0568002	68Ω ± 5%, 2W
R402	GJ0568002	68Ω ± 5%, 2W
R403	GJ0518102	180Ω ± 5%, 2W
R404	GJ0568002	68Ω ± 5%, 2W
		CAPACITORS
C301	EA4770359	Electroly, 470μF, 35V
C302	EA4770259	Electroly, 470μF, 25V
C303	EA4770259	Electroly, 470μF, 25V
C304	DF1610251	Film, 0.001μF, 200V
C305	DF1610251	Film, 0.001μF, 200V
C306	DF1710201	Film, 0.001μF
C307	DF1622350	Film, 0.022μF, 200WV
C308	EA1050509	Electroly, 1μF, 50V
C309	DF1722350	Film, 0.022μF, 200WV
C310	DF1722350	Film, 0.022μF, 200WV
C311	DF1722350	Film, 0.022μF, 200WV
C312	DF1722350	Film, 0.022μF, 200WV
C313	EA1080109	Electroly, 1000μF, 10V
C314	DK1820303	Ceramic, 0.02μF, 25V
C315	DK1820303	Ceramic, 0.02μF, 25V
C316	DK1820303	Ceramic, 0.02μF, 25V
C317	DK1820303	Ceramic, 0.02μF, 25V
C318	DK1840302	Ceramic, 0.04μF
		GENERAL MISCELLANEOUS
J001	YJ0100094	Jack, Mic.
J002	YJ0100094	Jack, Mic.
J005	YJ0100095	Jack, Headphone
S003	SC0101006	Wave Switch, Power
C001	DK1710250	Ceramic Cap, 0.001μF, For Europe
X001	BF3030001	Printed Comp., For U.S.A., & Canada
J008	YJ0800013	Jack, Lamp Holder
J007	YJ0800013	Jack, Lamp Socket
J003	YT0204008	Terminal, Output
J004	YJ1100001	Jack, DIN, For Europe
J010	YJ0800009	Jack, Fuse Holder, For Europe
J011	YJ0800009	Jack, Fuse Holder, For Europe
J012	YJ0800009	Jack, Fuse Holder, For Europe
0110	332215830	Window Limiter Cro2
1014	332205601	Buffer Ollo, Window
1012	51020306E	R.H.M. Screw x 2
1010	343616001	Bracket Volume
1013	332225901	Bush Record Lamp
V006	IN1006034	Lamp, Recording Ind.
R001	RK0203026	Variable Resistor, 20KΩ (A)
R002	RK0203026	Variable Resistor, 20KΩ (A)
		P400-SWITCH BOARD
P400	YD3436001	P.W. Board Switch (Print Only)
	ZZ3436001	P.W. Board Assembly
R003	RT0582214	Resistor 8.2K ¼W 5%
R004	RT0582214	Resistor 8.2K ¼W 5%
S001	SP0602007	Push Switch Limiter
S002	SP0602005	Push Switch Tape Select.
V003	IN1006032	Lamp, Cassette Compartment
0934	145025901	Bush Cassette Compartment Lamp
0927	62031650W	Lug
G001	IM1103613	Meter, Level (L)

REF. DESIG.	PART NO.	DESCRIPTION
G002	IM1103615	Meter, Level (R)
0113	332206305	Escutcheon Case Left Side
0114	51320314T	R.H. Tap Screw x 2
0115	332205530	Collar x 2 Wooden Case
0117	332240130	Frame Window Lock
0118	51340308P	F.H. Tap Screw x 4
0126	332225731	Lid Cassette Case
0134	332225930	Bush Push Switch
0135	51340308P	F.H. Tap Screw x 2
0932	329511519	Spring x 2
1736	343625901	Bush Pause Button
1738	332211401	Stopper x 2
1739	332205633	Buffer x 2 Cassette Case
1740	332011430	Stopper x 4
1741	331211801	Spacer
1737	332211505	Spring x 2
0120	332205701	Leg x 4 Bottom Lid
0121	54010300E	Washer x 4
0122	51320306T	R.H. Tap Screw x 4
1034	57271240W	Lug Eyelet
0133	332226530	Indicator, Jack For Europe
0136	343626530	Indicator, Jack For U.S.A. & Canada
0908	332205632	Buffer x 4 Meter
0910	332212030	Insulator PW Board
0911	51020306E	R.H.M. Screw x 2
0912	53110303E	Hexagon Nut x 2
0914	51100306H	B.H.M. Screw x 2
0919	51320408P	R.H. Tap Screw x 2
0922	332205230	Tape Counter
0923	51020306E	R.H.M. Screw x 3
0927	62031650W	Lug
0929	332226503	Indicator, Fuse, For Europe
0924	333226401	Belt Tape Counter
0931	62041760W	Lug
0933	332010101	Support
1003	332210530	Chassis
1004	332200230	Arm Record Switch
1005	59350602G	Poli Washer
1006	64020300Q	R.G. Ring CS Type
1007	332211503	Spring
1011	51320308P	R.H. Tap Screw x 4
1009	332220130	Partitioner Lamp
2036	59030810P	Washer x 2
1016	332211501	Spring
1019	332210101	Support
1020	51320310P	R.H. Tap Screw x 5
1021	59030810P	Washer x 5
1023	51320310P	R.H. Tap Screw x 3
1024	51020310E	R.H.M. Screw
1025	53110301E	Hexagon Nut
1026	51320308P	R.H. Tap Screw x 4
1027	51322610P	R.H. Tap Screw x 3
1028	51320308E	R.H. Tap Screw x 2, For Europe
1029	51020310E	P.H.M. Screw x 2
1030	51322606T	R.H. Tap Screw
1031	53110303E	Hexagon Nut x 2
1032	145525901	Bush
1104	53110301E	Hexagon Nut
1113	332210905	Shield Din Jack
1022	51020308E	R.H.M. Screw
2037	65010306G	Insert x 3
J006	YJ0800013	Jack Lamp Holder
J009	YJ0800013	Jack Lamp Holder
V001	IN1008007	Lamp Meter

REF. DESIG.	PART NO.	DESCRIPTION
V002	IN1008007	Lamp Meter
V004	IN1008007	Lamp Limiter
V005	IN1008007	Lamp Tape Select
F001	FS1005002	Fuse, 0.5A, For Europe
F002	FS1010007	Fuse, 1A, For Europe
F003	FS1020005	Fuse, 2A, For Europe
T001	TS1540110	Power Transf., For Europe
T001	TS1540111	Rower Transf., For U.S.A. & Canada
Y001	YC0240013	Power Cord, For Europe
Y001	YC0240012	Power Cord, For U.S.A. & Canada
2503	343635450	Lever K Pause
2508	343611401	Stopper
2509	343611501	Spring
2511	343616051	Bracket K Pause Lever
2515	51380308P	P.H. Tap Screw
2516	51380314P	P.H. Tap Screw
2517	343611802	Spacer 2511 Bracket
2518	343611801	Spacer 2511 Bracket
2521	343616050	Bracket K Lock Cam
2528	51050305E	P.H.M. Screw x 2
2530	343635402	Lever Pause Lever
2531	64002500R	R.G. Ring E Type
2532	329511514	Spring
2602	343600201	Arm Pause Lever
2604	64001500R	R.G. Ring E Type x 2
0108	287625102	Badge Superscope
0130	332215402	Knob x 2 Limiter Cro2
1102	51060306E	R.H. Tap Screw x 4
1103	51020310E	R.H.M. Screw
0918	51060306E	R.H. Tap Screw x 3
1108	51020308H	R.H.M. Screw x 5
2336	51320314T	R.H. Tap Screw x 2
2337	332205531	Collar x 2
0112	332206304	Escutcheon Case Right Side
2339	951091101	Label, LL No. For Canada
2340	951120107	Label, UL For U.S.A.
2341	951091102	Label, Factory Cord No. For U.S.A.
2343	59030805P	Washer
2342	54050300R	T.L. Washer OR
2344	332210102	Support
2345	331205603	Buffer
2347	343627030	Button Pause
2326	257886101	Label, Caution For U.S.A. & Canada
2349	956000005	Hang Tag Volume
2303	ZD0200007	Connective Cord, For Europe
2304	308907102	Cleaner
2305	ZD0120007	Connective Cord x 2, For U.S.A., Canada & Japan
2309	343685101	Instructions, For U.S.A. & Canada
2310	343685131	Instructions, For Europe
2313	287685103	Instructions, For U.S.A. & Canada
2314	963000015	Guarantee Card, For U.S.A. & Canada
2316	287681301	Paper Bag, For U.S.A. & Canada
2321	343680101	Packing Case Outer
2322	343680501	Master Carton
2323	332280301	Partitioner x 2
2324	901334501	Polyethy Bag Set
2325	952281501	Serial NO Card x 2
2328	901092001	Polyethy Bag Instruction

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