

SERVICE MANUAL



FISHER

STEREO DOUBLE CASSETTE
DECK WITH RCR-WZ1
WIRELESS REMOTE CONTROL

CR-WZ1

(EUROPE)



142 512 01 (EUROPE)
142 512 02 (SWISS)

SPECIFICATIONS

Remote Control (RCR-WZ1)	39-function Wireless Remote Control
Track System	4-track, 2-channel
Recording System	High Bias (210 kHz) Dolby* HX PRO
Noise Reduction	Dolby* B NR, Dolby* C NR, dbx**
Mechanism	Full Logic Auto Reverse x 2
Heads	
Rec/Play (DECK 1)	OFC Amorphous Head x 1
Erase (DECK 1)	Ferrite Head x 1
Play (DECK 2)	OFC Amorphous Head x 1
Motors	DC Governor Motor x 2 DC Motor x 2
Tape Selector Switch	Automatic (Normal, CrO ₂ , Metal)
Level Indicator	FL Meter (12 x 2)
Wow and Flutter	0.045 % WRMS
Fast-Forward/Rewind Time (C-60 Tape)	Approx. 100 sec.
Frequency Response (MPX Filter OFF)	
Normal Tape	20 Hz ~ 17 kHz [30 Hz ~ 16 kHz, ±3 dB]
CrO ₂ Tape	20 Hz ~ 18 kHz [30 Hz ~ 17 kHz, ±3 dB]
Metal Tape	20 Hz ~ 20 kHz [30 Hz ~ 19 kHz, ±3 dB] (Direct Rec) 12 Hz ~ 21 kHz

Signal-to-Noise Ratio (CCIR Weighted)	
Noise Reduction OFF/DIRECT	52 dB
Dolby* B NR	62 dB
Dolby* C NR	72 dB
dbx** NR	92 dB
Harmonic Distortion (at 1 kHz, 3rd H.D., Normal Tape)	0.6%
Channel Separation	40 dB
Signal Crosstalk	60 dB
Inputs (Sensitivity/Impedance)	
Line x 2	100 mV/50 k Ω
Outputs (Level at 0 VU/Impedance)	
Line x 2	500 mV/2.2 k Ω
Headphones	0 ~ 100 mV/8 Ω

GENERAL

Power Requirements	AC: 220V (50/60 Hz)	30 Watts
Dimensions (WxHxD)	480 x 130 x 380mm	
Weight (approx.)	8.6 kg	

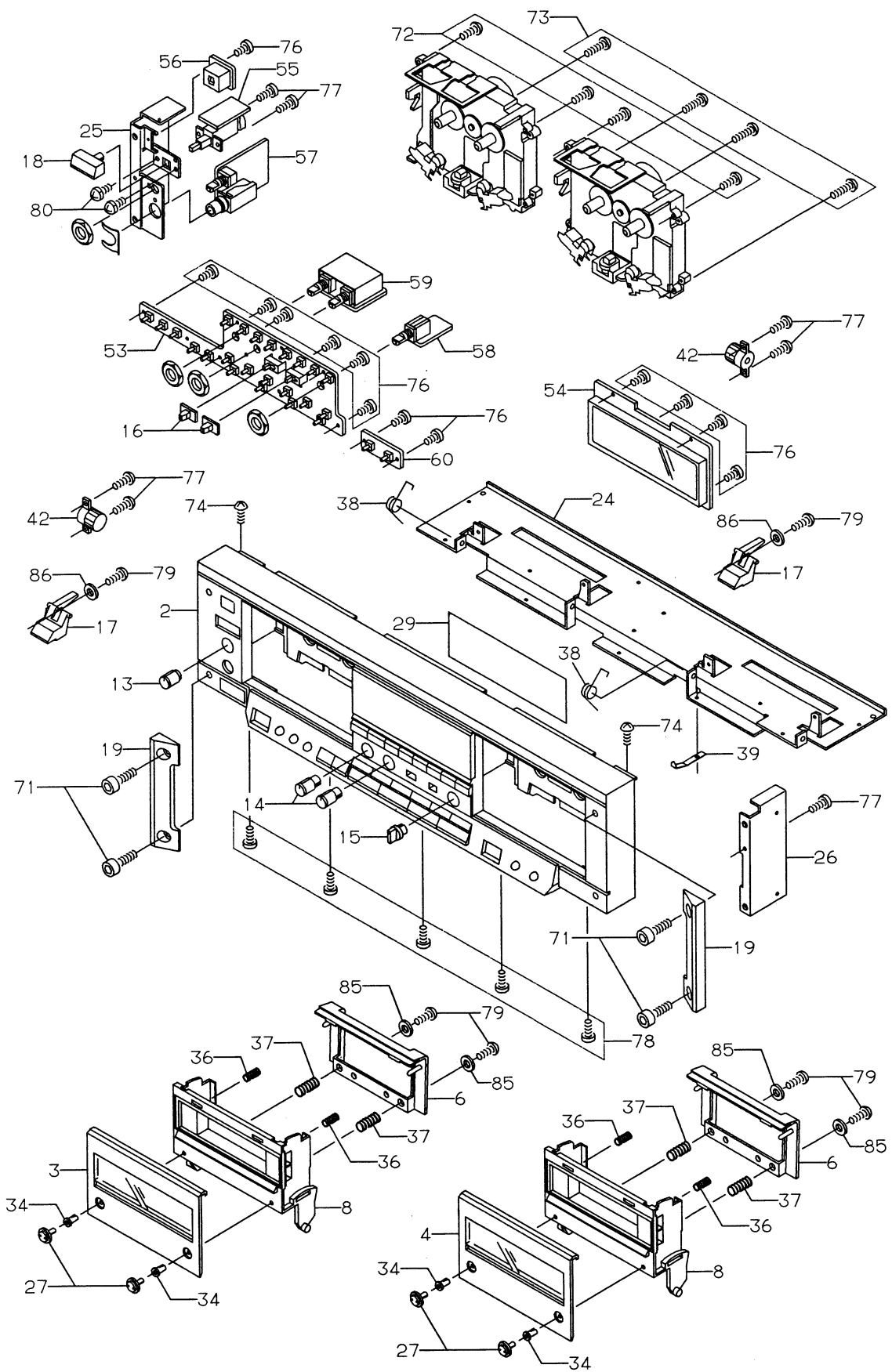
* "Dolby" and "HX PRO" are trademarks of Dolby Laboratories Licensing Corporation.

** "dbx" is a trademark of dbx Incorporated.

— Specifications and design are subject to change without notice. —

REFERENCE No. WM-570362

CABINET EXPLODED VIEW (2)



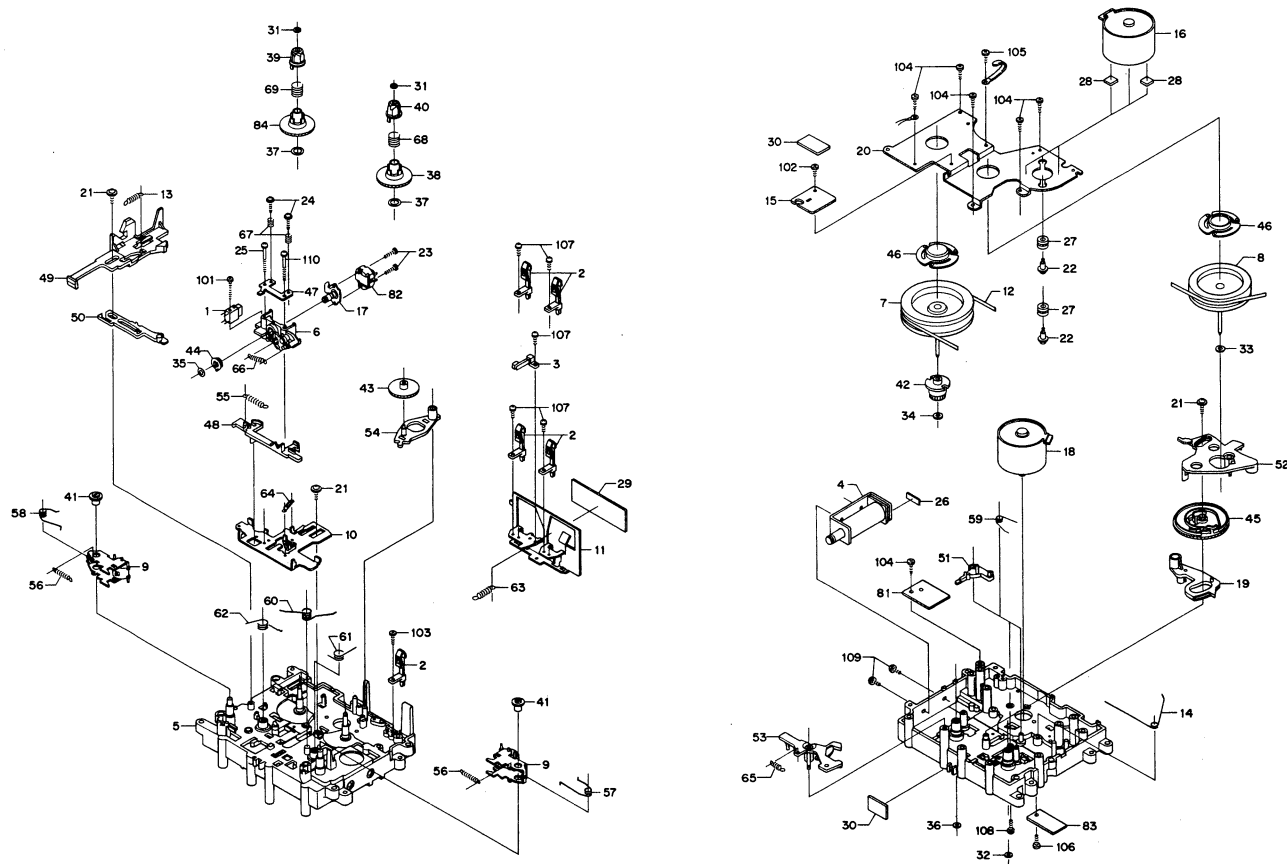
CABINET PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
PACKAGE							
	620 000 0024	Bag Polyethylene	1	41	620 053 2136	Bushing (MP4N-4)	1
	620 201 7778	Outer Carton	1	42	620 083 1765	Gear Eject Assy	2
	620 203 6236	Outer Carton,EXP	1	43	620 191 7994	Post Support P.C.B.	3
	620 196 4844	Sheet,Poly	1	51	620 196 5599	Assy,PCB,Audio	1
	620 195 3787	Pad,Bottom	1	52	620 202 0778	Assy,PCB,Control	1
	620 195 3794	Pad,Top	1	53	620 196 5629	Assy,PCB,Switch	1
	620 062 2127	Rubber Band	1	54	620 196 5636	Assy,PCB,FL	1
				55	620 202 0785	Assy,PCB,Power	1
ACCESSORIES							
	620 202 7968	Assy,Poly Cover	1	56	620 196 5650	Assy,PCB,Remocon	1
	620 202 7975	Instruction Manual	1	57	620 196 5667	Assy,PCB,Headphone	1
	620 196 9757	Cord	2	58	620 196 5674	Assy,PCB,Rotary	1
	620 152 2624	Certificate Card	1	59	620 196 5681	Assy,PCB,Volume	1
	620 152 7452	Serial No. Sheet	1	60	620 196 5698	Assy,PCB,SUB Switch	1
	620 057 8783	Bag Fan	1	71	412 033 7503	SPECIAL SCREW	4
	620 203 6144	Remocon,RCR-WZ1	1	72	411 020 5904	SCR S-TPG BRZ 3X10	4
				73	411 020 6208	SCR S-TPG BRZ 3X12	4
CABINET							
	620 197 3877	Assy,Connector-S,7P	1	74	411 020 8004	SCR S-TPG BRZ 3X8	34
	620 197 3884	Assy,Connector-S,2P	1	75	411 099 9803	SCR S-TPG BRZ 3X8	9
	620 197 3891	Assy,Connector-S,4P	1	76	411 021 0809	SCR S-TPG BIN 2X6	17
	620 197 4003	Assy,Connector-S,2P	1	77	411 021 3107	SCR S-TPG BIN 2.6X8	7
	620 197 4034	Assy,Connector-S,6P	1	78	411 021 6603	SCR S-TPG BIN 3X8	5
	620 197 4041	Assy,Connector-S,3P	1	79	411 023 3006	SCR S-TPG PAN 2.6X6	6
	620 197 4065	Assy,Connector-S,7P	1	80	411 003 8908	SCR PAN + SW 3X6	2
	620 197 4072	Assy,Connector-S,2P	1	81	411 111 3000	SCR TRS 5X8	4
	620 197 4089	Assy,Connector-S,3P	1	82	412 033 7602	SPECIAL SCREW	4
	620 197 4096	Assy,Connector-S,3P	1	83	411 082 9605	SCR WOOD FLT 3.1X16	4
	620 199 7668	Cushion,Button	1	84	412 033 7909	SPECIAL WASHER	4
	620 196 8842	Felt,Cushion	10	85	412 034 0602	SPECIAL WASHER	4
	620 125 8424	Wire Band	16	86	411 126 4405	WASHER Z 2.6X10X0.5	2
	620 152 7452	Serial No. Sheet	2				
W30	620 024 3261	Wire 3Parallel Assy	1				
W46	620 017 6392	Connector 1P Assy	1				
W47	620 017 6392	Connector 1P Assy	1				
1	△ 620 023 7550	Power Cord	1				
2	620 195 4142	Assy,Cabinet,Front	1				
3	620 201 7747	Assy,Panel,Lid,Left	1				
4	620 195 4173	Assy,Panel,Lid,Right	1				
5	620 201 8508	Assy,Foot (EUROPE)	4				
5	620 195 9413	Assy,Foot (SWISS)	4				
6	620 195 9154	Assy,Holder,Cassette	2				
7	620 195 3886	Cover,Top	1				
8	620 195 3947	Lid,Cassette	2				
9	620 195 3909	Plate,Bottom	1				
10	620 201 7723	Panel,Rear	1				
11	620 201 7754	Panel,Side,Wood,Left (EUROPE)	1				
11	620 195 3732	Panel,Side,Wood,Left (SWISS)	1				
12	620 201 7761	Panel,Side,Wood,Right (EUROPE)	1				
12	620 195 3749	Panel,Side,Wood,Right (SWISS)	1				
13	620 195 4227	Knob,Rotary,Phone	1				
14	620 195 4234	Knob,Rotary,Volume	2				
15	620 195 4258	Knob,Rotary,NR	1				
16	620 195 4265	Knob,Slide	2				
17	620 195 4074	Button,Eject	2				
18	620 195 4098	Button,Power	1				
19	620 195 1943	Handle	2				
20	620 195 3817	Chassis,Center	1				
21	620 195 3831	Chassis,Left	1				
22	620 195 3848	Chassis,Right	1				
23	620 195 3855	Chassis,Beam	1				
24	620 195 3879	Chassis,Front	1				
25	620 195 3916	Bracket-M,Left	1				
26	620 195 3923	Bracket-M,Right	1				
27	620 195 3756	Cap,Lid	4				
28	620 201 7099	Cap,Wood	4				
29	620 195 4036	Filter,Front	1				
30	620 195 3800	Spacer	4				
31	620 201 7105	Spacer,Wood	4				
32	620 201 9949	Spacer	4				
33	620 203 7073	Cushion	4				
34	620 198 0400	Bush,Rivet	4				
35	620 197 5192	Pad,Damper	1				
36	620 195 4326	Spring,Comp,Cassette 1	4				
37	620 195 6757	Spring,Comp,Cassette 2	4				
38	620 195 4296	Spring,Tors,Lid	2				
39	620 195 4043	Spring,Plate,Earth	1				
40	△ 620 201 8546	Power Trans,SEV,25VA	1				

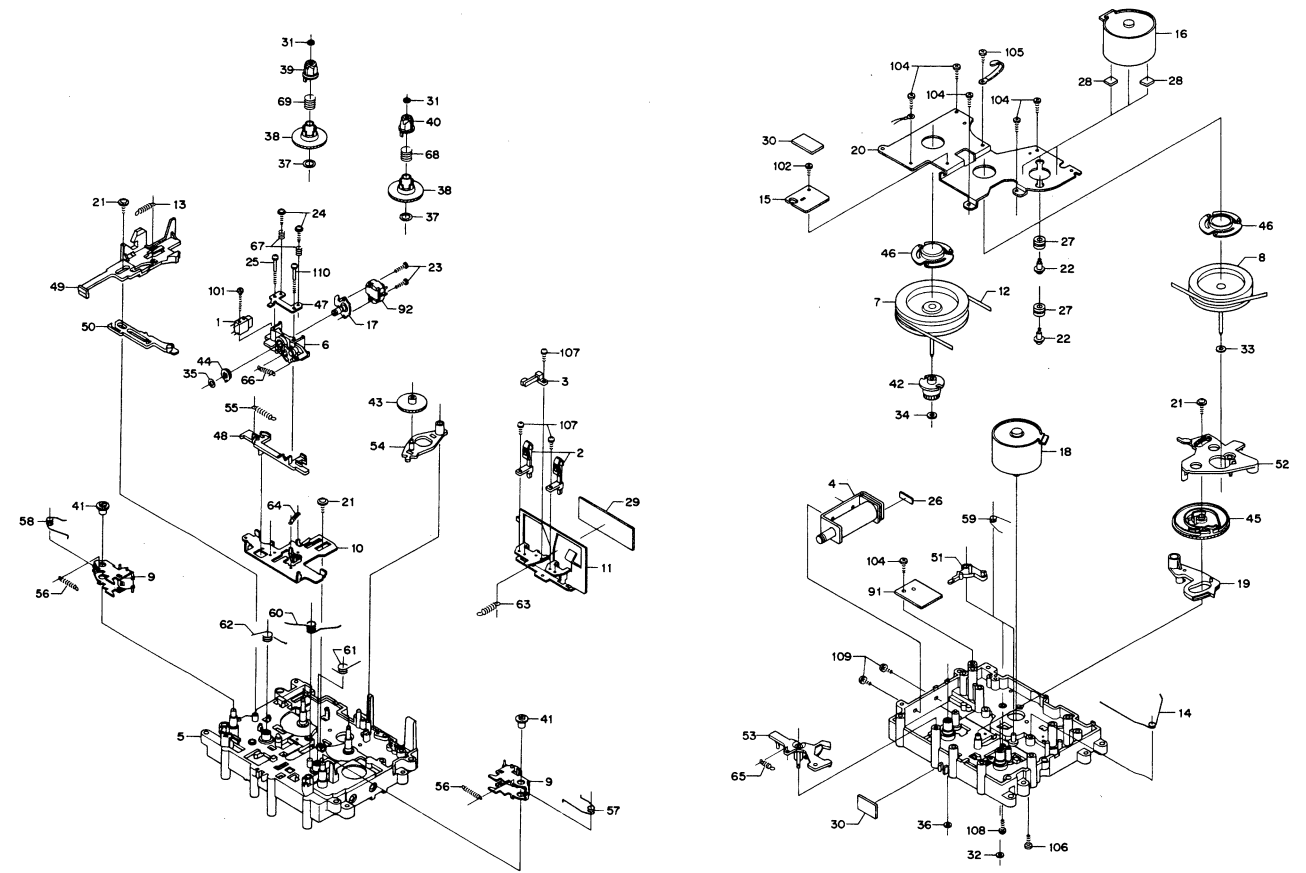
NOTES:
 1. Parts order must contain Model Number, Part Number and Description.
 2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE
 Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

MECHANISM EXPLODED VIEW



MECHANISM EXPLODED VIEW (Continued)



Ref. No.	Part No.	Description	Q'ty
MECHANISM			
	620 125 8110	Lug	2
1	620 004 2505	Photo R.	2
2	620 016 9332	Leaf Switch [SW701 ~ SW707]	7
3	620 016 9349	Leaf Switch [SW708, SW709]	2
4	620 029 3624	Plunger [PL1, PL2]	2
5	620 195 6511	Assy,Chassis	2
6	620 196 2772	Assy,Base,Head	2
7	620 195 6481	Assy,Flywheel,FWD	2
8	620 195 6504	Assy,Flywheel,REV	2
9	620 196 2789	Assy,Pinchroller	4
10	620 196 2796	Assy,Base,Slide	2
11	620 196 2703	BRACKET-E,Switch	2
12	620 195 6436	Belt,Flat,Drive	2
13	620 196 2994	Spring,Tension	2
14	620 197 8223	Spring,Tors,Earth	2
15	620 196 5803	PCB,Head Z1	2
16	620 195 7648	Motor [M1, M3]	2
17	620 082 2787	Plate Head Assy	2
18	620 191 0483	Gear Motor Assy [M2, M4]	2
19	620 085 0902	Lever Assist B Assy	2
20	620 119 1547	Support Flywheel	2
21	620 122 7277	Screw W/Washer + M2.0X6.0	6
22	620 122 9356	Screw Washer + M2.6X1.5	4
23	620 123 0550	Screw + PMS M1.6X6.0	4
24	620 123 0901	Screw Azimuth	4
25	620 123 1038	Screw C Switch M2X20	2
26	620 123 5920	Sheet	2
27	620 123 9942	Cushion Motor	4
28	620 124 5530	Cushion	4
29	620 124 5950	Cushion	2
30	620 124 7350	Cushion	4
31	620 125 1630	Washer M1.5X3.5X0.4	4

Ref. No.	Part No.	Description	Q'ty
32	620 125 1982	Washer	2
33	620 125 3450	Washer	2
34	620 125 3870	Washer	2
35	620 125 4280	Washer CUT	2
36	620 125 4761	Washer	2
37	620 125 4846	Washer	4
38	620 126 6252	Reel Plate	3
39	620 126 6269	Fin Reel Supply	2
40	620 126 6276	Fin Reel Take UP	2
41	620 126 8492	Bush	4
42	620 127 8118	Gear Flywheel	2
43	620 127 8132	Gear Idler	2
44	620 127 8156	Gear Head	2
45	620 127 8163	Gear Actuate	2
46	620 129 1230	Thrust Flywheel	4
47	620 130 6019	Plate-Azimuth	2
48	620 130 6026	Plate Reverse	2
49	620 130 6033	Rod Eject	2
50	620 130 6040	Rod Eject Base	2
51	620 131 8982	Lever Lock Base	2
52	620 131 9002	Lever REV Select	2
53	620 131 9019	Lever Play Start	2
54	620 132 4914	Arm Idler	2
55	620 136 9922	Spring Slide Base	2
56	620 137 4346	Spring Base Head	4
57	620 137 9051	Spring Arm Pinch R	2
58	620 137 9068	Spring Arm Pinch Left	2
59	620 137 9082	Spring Lever REV SEL	2
60	620 137 9099	Spring Lever Base	2
61	620 137 9358	Spring Earth FWD	2
62	620 137 9365	Spring Earth Revs	2
63	620 138 9616	Spring Base	2
64	620 139 1077	Spring Lever Base	2

Ref. No.	Part No.	Description	Q'ty
65	620 139 1121	Spring Lever Start	2
66	620 139 1220	Spring Gear Reverse	2
67	620 139 4139	Spring Azimuth	4
68	620 139 4207	Spring Reel FWD	2
69	620 139 4214	Spring Reel Revs	2
81	620 197 3419	Assy,PCB,Adjust,D.1	1
82	620 197 2887	Head,R/P,2 [HD1]	1
83	620 080 2871	Photo.DET.Assy	1
84	620 082 8819	Reel Plate Assy	1
91	620 197 3433	Assy,PCB,Adjust,D.2	1
92	620 197 2894	Head,Play,2 [HD2]	1
101	411 108 9305	SCR S-TPG BIN 2X12	2

Ref. No.	Part No.	Description	Q'ty
102	411 021 0809	SCR S-TPG BIN 2X6	2
103	411 021 1202	SCR S-TPG BIN 2X8	1
104	411 021 1806	SCR S-TPG BIN 2.6X10	12
105	411 021 2704	SCR S-TPG BIN 2.6X6	2
106	411 031 1605	SCR BIN 2.6X6	2
107	411 044 7205	SCR PAN + SW 2X4	8
108	411 003 8809	SCR PAN + SW 2.6X6	2
109	411 045 5408	SCR PAN + SW 3X5	4
110	411 106 5606	SCR PAN + SW + W 2X20	2

NOTES:

- Parts order must contain Model Number, Part Number and Description.
- Ordering quantity of screws and resistors must be multiple of 10 pcs.

CASSETTE DECK ADJUSTMENT

BEFORE ADJUSTMENT

If the tape surface which contacts the head, the capstan, and the pinch roller, etc., is stained, it will cause unstable running of the tape, wow and flutter, imperfect recording and erasing, deterioration of tonal quality, and even tape jam around the capstan, etc. Occasionally clean each part as follows;

1. Cut off power.
2. Open the cassette lid.
3. Wipe the head, the capstan, and the pinch roller with a cotton swab. If they are excessively stained, clean them with a swab soaked in absolute alcohol or cleaning liquid available on the market.

MEASURING INSTRUMENTS REQUIRED

- Dualtrace Oscilloscope
- AC VTVM (AC voltmeter with high impedance)
- Dummy Load (47k Ω)
- Frequency Counter
- Signal Oscillator
- Test Tapes
 - ‡ 12.5kHz Test Tape (Example: A.BEX TCC-154) for Azimuth Adjustment
 - ‡ 3kHz Test Tape (Example: TEAC MTT-111) for Tape Speed Adjustment
 - ‡ 1.5kHz Test Tape (Example: A.BEX TCW-211) for Tape Speed Adjustment
 - ‡ 400Hz Test Tape (Example: TEAC MTT-150) for Playback sensitivity Adjustment
- Test Tape for Recording and Playback Operations
 - ‡ Metal Tape (Example: TDK AC 712)
 - ‡ CrO₂ Tape (Example: TDK AC 512)
 - ‡ Normal Tape (Example: TDK AC 223)

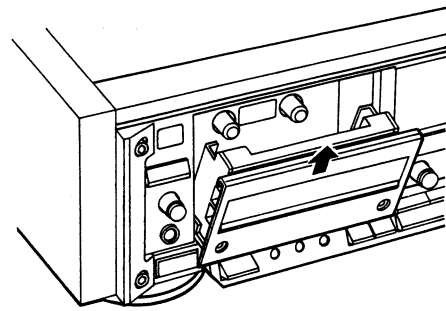
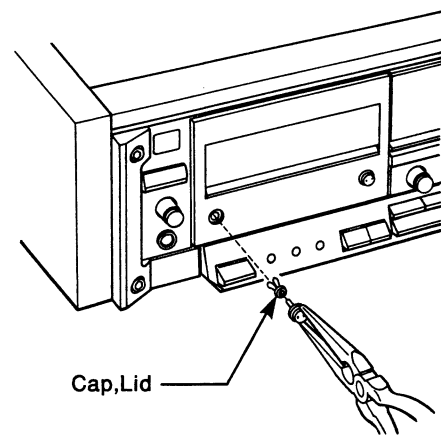
SWITCH POSITIONS

Unless especially indicated, set each switch as follows;

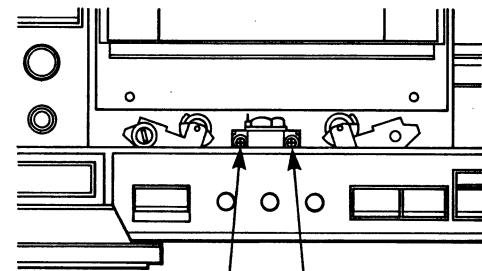
BALANCE	CENTER
INPUT LEVEL	MAX
MPX FILTER Switch	OFF
NOISE REDUCTION Switch	OFF
TIMER STANDBY	OFF

HEAD AZIMUTH ADJUSTMENT

1. Pull out the Cap,Lid carefully by pliers and remove the Lid.



2. Connect the dummy load (47k Ω) and the dualtrace oscilloscope to the LINE OUT terminals L and R.
3. Load Deck 1 with a test tape (Example: A.BEX TCC-154) and set it in the forward playback mode.
4. Adjust the forward head azimuth adjustment screw, so that the waveforms become maximum on the oscilloscope and the right wave form overlaps with the left one.
5. Set to the reverse playback mode.
6. Adjust the reverse head azimuth adjustment screw in the same way as for the forward side.
7. Repeat the above several times.
8. Adjust Deck 2 in the same way as for Deck 1.



Forward Head Azimuth Adjustment Screw
Reverse Head Azimuth Adjustment Screw

NORMAL TAPE SPEED ADJUSTMENT

1. Connect the dummy load (47k Ω) and the frequency counter to the LINE OUT terminal L.
2. Load Deck 1 with a test tape (Example: TEAC MTT-111) and set it in the forward playback mode.
3. Adjust P403 in the control P.C.B., so that the output becomes 3000Hz \pm 5Hz.
4. Perform the same adjustment for Deck 2 (P404).

HIGH SPEED TAPE SPEED ADJUSTMENT

1. Connect the dummy load (47k Ω) and the frequency counter to the LINE OUT terminal L.
2. Load Deck 1 with a test tape (Example: A.BEX MTT-111) and set it in the forward playback mode.
3. Short circuit TP1 to TP2.
4. Then adjust P405, so that the output becomes 6000Hz \pm 10Hz.
5. Perform the same adjustment for Deck 2 (P406).
6. Open circuit TP1 to TP2.

CASSETTE DECK ADJUSTMENT (Continued)

PLAYBACK & METER SENSITIVITY ADJUSTMENT

1. Connect the AC VTVM to the Test Pin TP3 to GND and TP4 to GND.
2. Load Deck 1 with a test tape (Example: TEAC MTT-150) and set it in the playback mode.
3. Adjust P103, so that the output of LINE OUT (L) becomes 600mV.
4. Adjust P104, so that the output of LINE OUT (R) becomes 600mV.
5. Load Deck 2 with a test tape (Example: TEAC MTT-150) and set it in the playback mode.
6. Adjust P101, so that the output of LINE OUT (L) becomes 600mV.
7. Adjust P102, so that the output of LINE OUT (R) becomes 600mV.
8. Adjust P401, so that left meter 0dB point just lights up.
9. Adjust P402, so that Right meter 0dB point just lights up.

dbx TIMING ADJUSTMENT

1. Connect the signal oscillator to the LINE IN terminal L and feed the signal 1kHz at 35mV (-29dBs).
2. Load Deck 1 with a normal tape and set in the Rec. mode.
3. Connect AC VTVM to the test pin TP5 to TP6.
4. Adjust P301, so that the output becomes 15 mV \pm 0.1mV.

BIAS ERASE CURRENT OSC ADJUSTMENT

1. ERASE CURRENT ADJUSTMENT
 - a. Load Deck 1 with a METAL tape (Example: TDK AC 712) and set in the Rec. mode.
 - b. Connect AC VTVM and Frequency Counter to the test pin TP7 to GND.
 - c. Adjust L301, so that the output frequency is 105kHz \pm 1kHz.
 - d. Adjust L302, so that the output voltage reaches maximum level. Then if the voltage is over 200mV, cut the staple J34 and if the voltage is lower -165mV, short test terminal TP8 to TP9.
2. HX PRO CIRCUIT ADJUSTMENT
 - a. Load Deck 1 with METAL tape (Example: TDK AC 712) and set in the Rec. mode.
 - b. Connect AC VTVM to the test pin TP10 to GND.
 - c. Adjust L303, so that the output voltage reaches maximum level.

HX PRO CIRCUIT DRIVE TRANS ADJUSTMENT

1. Load Deck 1 with a METAL tape (Example: TDK AC 712) and set in the Rec. mode.
2. Short test terminal TP11 to TP12 and TP15 to TP16.
3. Connect AC VTVM to the test terminal TP13 to GND.
4. Adjust L305, so that the output voltage reaches maximum level.
5. Connect AC VTVM to the test terminal TP14 to GND. and adjust L306, so that the output voltage reaches maximum level.
6. Open circuit TP11 to TP12 and TP15 to TP16.

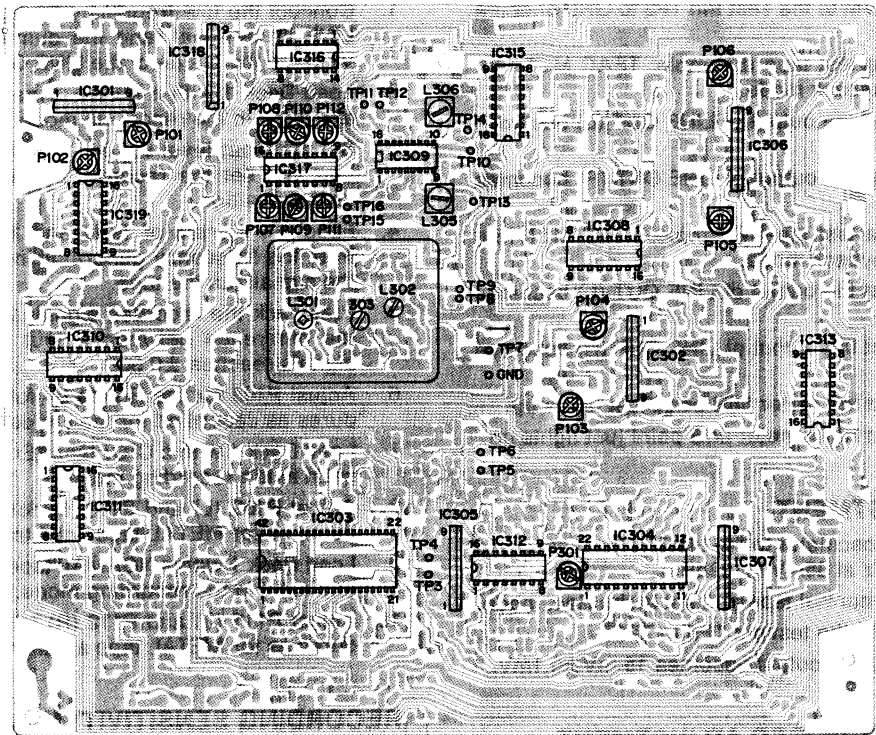
RECORD BIAS ADJUSTMENT

1. Connect the low frequency oscillator to the L side of the LINE IN terminal, and the dummy load (47k Ω) and AC VTVM to the L side of the LINE OUT terminal.
2. Load Deck 1 with a METAL tape (Example: TDK AC 712) and set it in the recording mode.
3. Set the input level volume control to the maximum position and set the record balance volume control to the center position.
4. Feed the signals of 1kHz and 14kHz at 7mV (-43dBs) from the frequency generator into the unit. Then, record the signals on the tape.
5. Play back the recorded signals and adjust P107, so that the difference between output of the 1kHz and 14kHz signals reaches \pm 0.5dB.
6. Adjust P108 for the R side by following the same procedures as described for the L side.
7. Load Deck 1 with a CrO₂ tape (Example: TDK AC 512) and set it in the recording mode.
8. Adjust P109 (L) and P110 (R) following the same procedures as for METAL tape adjustment.
9. Load Deck 1 with a NORMAL tape (Example: TDK AC 223) and set it in the recording mode.
10. Adjust P111 (L) and P112 (R) following the same procedures as for METAL tape adjustment.

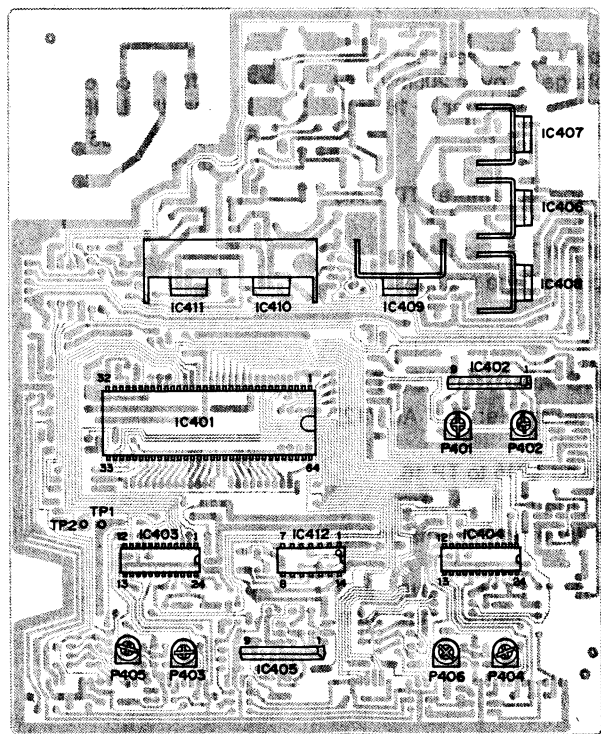
RECORDING SENSITIVITY ADJUSTMENT

1. Connect the low frequency oscillator to the L side of the LINE IN terminal, and the dummy load (47k Ω) and AC VTVM to the L side of the LINE OUT terminal.
2. Load Deck 1 with a METAL tape (Example: TDK AC 712) and set it in the record pause mode.
3. Feed a signal of 1kHz at 100mV (-20dBs) from the frequency generator into the unit. Then, adjust INPUT LEVEL volume so that LINE OUT voltage becomes 340mV and record the signals on the tape.
4. After recording, play back the tape and adjust P105 so that the LINE OUT voltage becomes 340mV \pm 20mV.
5. Adjust P106 for the R side by following the same procedures as described for the L side.

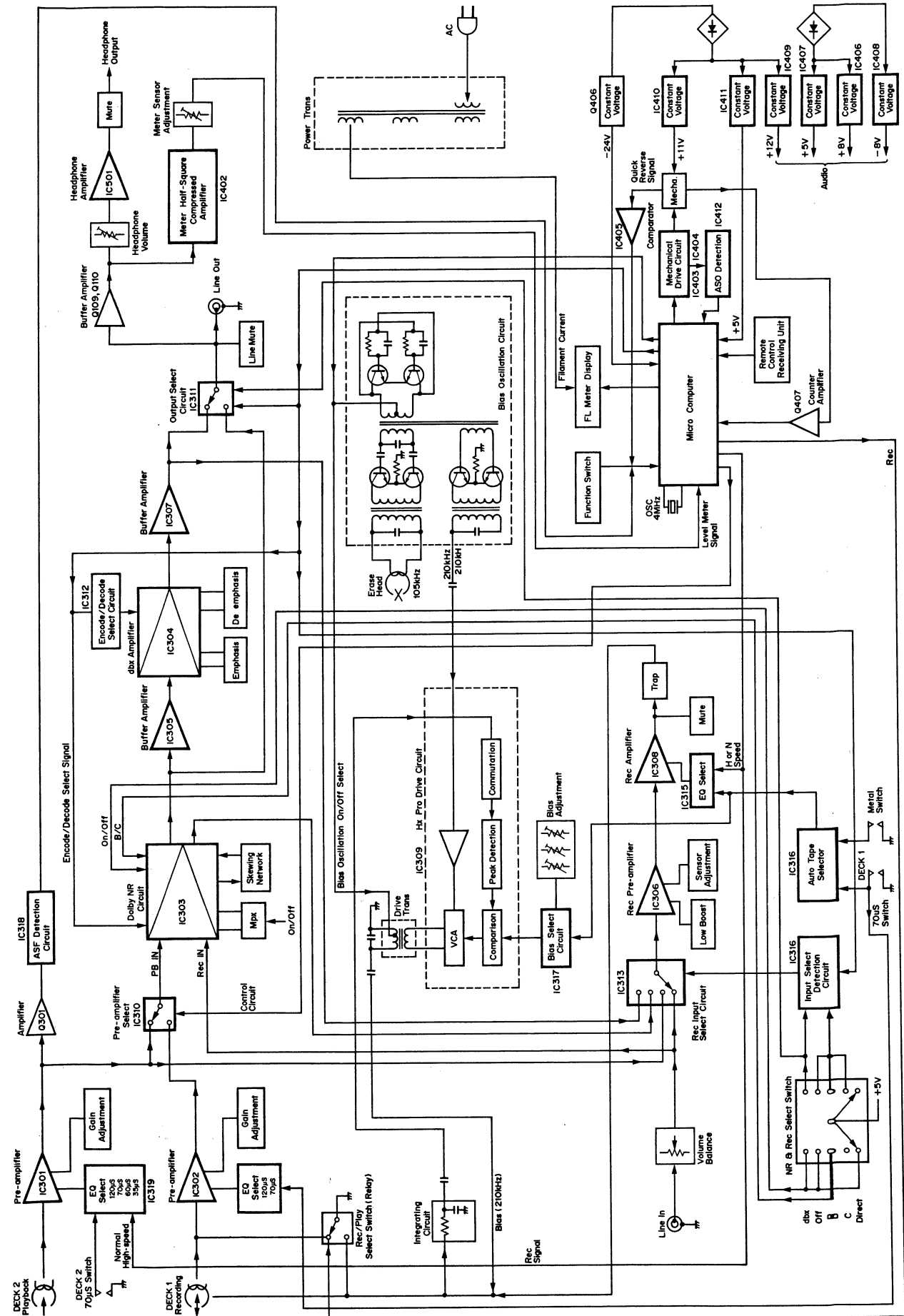
AUDIO P.C.BOARD ALIGNMENT POINTS



CONTROL P.C.BOARD ALIGNMENT POINTS



FUNCTIONAL BLOCK DIAGRAM



P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
ASSY,PCB,AUDIO				Q115	405 010 9607	TR 2SC1571-F-NP	1
51	620 196 5599	Assy,PCB,Audio	1	or	405 010 9706	TR 2SC1571-G-NP	1
	620 021 6838	RT Pin 0.8 X7L	17	Q116	405 010 9607	TR 2SC1571-F-NP	1
	620 196 3953	Jack,RCA,4P,Gold	1	or	405 010 9706	TR 2SC1571-G-NP	1
	620 195 3770	Shield,Cover	1	Q117	405 035 9101	TR BS170-TP	1
CN2	620 021 8610	Plug 6P	1	Q118	405 035 9101	TR BS170-TP	1
CN3	620 021 5923	Plug 3P	1	Q119	405 019 2906	TR 2SC536-F-SP	1
CN4	620 021 8320	Plug 5P	1	or	405 019 4009	TR 2SC536-G-SP	1
CN8	620 021 2106	Plug 8P	1	Q120	405 019 2906	TR 2SC536-F-SP	1
CN9	620 021 8405	Plug 8P	1	or	405 019 4009	TR 2SC536-G-SP	1
CN20	620 021 5923	Plug 3P	1	Q121	405 019 2906	TR 2SC536-F-SP	1
CN21	620 021 1970	Plug 2P	1	or	405 019 4009	TR 2SC536-G-SP	1
CN22	620 021 8306	Plug 2P	1	Q122	405 019 2906	TR 2SC536-F-SP	1
CN23	620 021 1970	Plug 2P	1	or	405 019 4009	TR 2SC536-G-SP	1
CN24	620 021 7811	Plug 3P	1	Q123	405 079 7101	TR DTC343TS-PT	1
CN25	620 021 5954	Plug 6P	1	Q124	405 079 7101	TR DTC343TS-PT	1
L103	620 197 3013	Filter,LC,Trap,210K,Bias	1	Q301	405 019 4009	TR 2SC536-G-SP	1
L104	620 197 3013	Filter,LC,Trap,210K,Bias	1	Q302	405 019 2906	TR 2SC536-F-SP	1
L105	620 197 3037	Filter,LC,MPX,210kHz	1	or	405 019 4009	TR 2SC536-G-SP	1
L106	620 197 3037	Filter,LC,MPX,210kHz	1	Q303	405 001 0200	TR RN1202-TPE4	1
L107	620 029 5673	Filter Skew	1	Q304	405 001 1108	TR RN2202-TPE4	1
L108	620 029 5673	Filter Skew	1	Q305	405 001 0200	TR RN1202-TPE4	1
L301	620 197 2931	Trans,OSC,Master	1	Q306	405 091 7608	TR 2SC2785F	1
L302	620 197 2955	Trans,OSC,Erase Head	1	Q307	405 091 7608	TR 2SC2785F	1
L303	620 197 2962	Trans,OSC,HX,PRO	1	Q308	405 091 7707	TR 2SD1423Q	1
L304	620 197 3006	Trans,OSC,Bias	1	or	405 091 7806	TR 2SD1423R	1
L305	620 197 3006	Trans,OSC,Bias	1	Q309	405 091 7707	TR 2SD1423Q	1
P101	620 006 1346	Potentiometer 220	1	or	405 091 7806	TR 2SD1423R	1
P102	620 006 1346	Potentiometer 220	1	Q310	405 091 7608	TR 2SC2785F	1
P103	620 006 1346	Potentiometer 220	1	Q311	405 091 7608	TR 2SC2785F	1
P104	620 006 1346	Potentiometer 220	1	Q312	405 001 0200	TR RN1202-TPE4	1
P105	620 006 1377	Potentiometer 10KB	1	Q313	405 001 0200	TR RN1202-TPE4	1
P106	620 006 1377	Potentiometer 10KB	1	Q314	405 001 0200	TR RN1202-TPE4	1
P107	620 006 1360	Potentiometer 22KB	1	Q315	405 001 0200	TR RN1202-TPE4	1
P108	620 006 1360	Potentiometer 22KB	1	Q316	405 001 1108	TR RN2202-TPE4	1
P109	620 006 1360	Potentiometer 22KB	1	Q317	405 001 1108	TR RN2202-TPE4	1
P110	620 006 1360	Potentiometer 22KB	1	Q318	405 019 2906	TR 2SC536-F-SP	1
P111	620 006 1360	Potentiometer 22KB	1	or	405 019 4009	TR 2SC536-G-SP	1
P112	620 006 1360	Potentiometer 22KB	1	Q319	405 001 0200	TR RN1202-TPE4	1
P301	620 006 1407	Potentiometer 2.2KB	1	D101	407 008 0405	DIODE GMB01-BT	1
RY301	620 196 6831	Relay,2-2	1	or	407 061 2200	DIODE 1SS254-TA	1
IC301	409 057 4601	IC UPC4570HA	1	D102	407 008 0405	DIODE GMB01-BT	1
IC302	409 057 4601	IC UPC4570HA	1	or	407 061 2200	DIODE 1SS254-TA	1
IC303	409 004 9208	IC CX20187	1	D301	407 005 8602	DIODE ERA15-02-V5	1
IC304	409 001 1502	IC AN6291	1	D302	407 005 3805	DIODE DS442-BT	1
IC305	409 057 4601	IC UPC4570HA	1	D303	407 008 0405	DIODE GMB01-BT	1
IC306	409 183 8702	IC UPC4072HA	1	or	407 061 2200	DIODE 1SS254-TA	1
IC307	409 057 4601	IC UPC4570HA	1	D304	407 008 0405	DIODE GMB01-BT	1
IC308	409 146 5403	IC CXA1198AP	1	or	407 061 2200	DIODE 1SS254-TA	1
IC309	409 183 8603	IC UPC1297CA	1	D305	407 008 0405	DIODE GMB01-BT	1
IC310	409 051 2801	IC TC4052BP	1	or	407 061 2200	DIODE 1SS254-TA	1
IC311	409 051 2801	IC TC4052BP	1	D306	407 008 0405	DIODE GMB01-BT	1
IC312	409 051 3006	IC TC4053BP	1	or	407 061 2200	DIODE 1SS254-TA	1
IC313	409 051 2801	IC TC4052BP	1	D307	407 008 0405	DIODE GMB01-BT	1
IC315	409 051 2603	IC TC4051BP	1	or	407 061 2200	DIODE 1SS254-TA	1
IC316	409 050 7807	IC TC4001BP	1	D308	407 061 2200	DIODE 1SS254-TA	1
IC317	409 051 2801	IC TC4052BP	1	D309	407 061 2200	DIODE 1SS254-TA	1
IC318	409 016 5502	IC LA2000	1	C101	403 177 5500	POLYPRO 560P J 50V	1
IC319	409 051 2801	IC TC4052BP	1	C102	403 177 5500	POLYPRO 560P J 50V	1
Q101	405 001 0200	TR RN1202-TPE4	1	C103	403 058 1003	POLYESTER 1500P J 50V	1
Q102	405 001 0200	TR RN1202-TPE4	1	C104	403 058 1003	POLYESTER 1500P J 50V	1
Q103	405 001 0200	TR RN1202-TPE4	1	C105	403 058 9801	POLYESTER 0.018U J 50V	1
Q104	405 001 0200	TR RN1202-TPE4	1	C106	403 058 9801	POLYESTER 0.018U J 50V	1
Q105	405 019 2906	TR 2SC536-F-SP	1	C107	403 177 4602	ELECT 220U M 6.3V	1
or	405 019 4009	TR 2SC536-G-SP	1	C108	403 177 4602	ELECT 220U M 6.3V	1
Q106	405 019 2906	TR 2SC536-F-SP	1	C109	403 068 9402	CERAMIC 100P K 50V	1
or	405 019 4009	TR 2SC536-G-SP	1	C110	403 068 9402	CERAMIC 100P K 50V	1
Q107	405 021 0204	TR 2SD1012-F-SPA	1	C111	403 177 3209	ELECT 4.7U M 25V	1
or	405 021 0600	TR 2SD1012-G-SPA	1	C112	403 177 3209	ELECT 4.7U M 25V	1
Q108	405 021 0204	TR 2SD1012-F-SPA	1	C115	403 177 5104	ELECT 2.2U M 50V	1
or	405 021 0600	TR 2SD1012-G-SPA	1	C116	403 177 5104	ELECT 2.2U M 50V	1
Q109	405 010 9607	TR 2SC1571-F-NP	1	C117	403 177 5005	ELECT 10U M 25V	1
or	405 010 9706	TR 2SC1571-G-NP	1	C118	403 177 5005	ELECT 10U M 25V	1
Q110	405 010 9607	TR 2SC1571-F-NP	1	C119	403 149 7105	POLYPRO 680P J 100V	1
or	405 010 9706	TR 2SC1571-G-NP	1	C120	403 149 7105	POLYPRO 680P J 100V	1
Q111	405 079 7101	TR DTC343TS-PT	1	C121	403 149 7105	POLYPRO 680P J 100V	1
Q112	405 079 7101	TR DTC343TS-PT	1	C122	403 149 7105	POLYPRO 680P J 100V	1
Q113	405 035 9101	TR BS170-TP	1	C123	403 061 8006	POLYESTER 4700P J 50V	1
Q114	405 035 9101	TR BS170-TP	1	C124	403 061 8006	POLYESTER 4700P J 50V	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
C125	403 067 7805	MT-COMPO 0.47U J 50V	1	C204	403 082 0300	POLYPRO 470P J 100V	1
C126	403 067 7805	MT-COMPO 0.47U J 50V	1	C205	403 059 5802	POLYESTER 0.022U J 50V	1
C127	403 067 6204	MT-COMPO 0.15U J 50V	1	C206	403 059 5802	POLYESTER 0.022U J 50V	1
C128	403 067 6204	MT-COMPO 0.15U J 50V	1	C207	403 177 1007	ELECT 100U M 6.3V	1
C129	403 058 3106	POLYESTER 0.015U J 50V	1	C208	403 177 1007	ELECT 100U M 6.3V	1
C130	403 058 3106	POLYESTER 0.015U J 50V	1	C211	403 082 2304	POLYPRO 560P J 100V	1
C131	403 067 6709	MT-COMPO 0.22U J 50V	1	C212	403 082 2304	POLYPRO 560P J 100V	1
C132	403 067 6709	MT-COMPO 0.22U J 50V	1	C213	403 057 0304	POLYESTER 0.01U J 50V	1
C133	403 067 8208	MT-COMPO 0.068U J 50V	1	C214	403 057 0304	POLYESTER 0.01U J 50V	1
C134	403 067 8208	MT-COMPO 0.068U J 50V	1	C215	403 067 8307	MT-COMPO 0.68U J 50V	1
C135	403 067 7706	MT-COMPO 0.047U J 50V	1	C216	403 067 8307	MT-COMPO 0.68U J 50V	1
C136	403 067 7706	MT-COMPO 0.047U J 50V	1	C217	403 177 3209	ELECT 4.7U M 25V	1
C137	403 062 9903	POLYESTER 6800P J 50V	1	C218	403 177 3209	ELECT 4.7U M 25V	1
C138	403 062 9903	POLYESTER 6800P J 50V	1	C301	403 177 5906	ELECT 220U M 10V	1
C139	403 057 0304	POLYESTER 0.01U J 50V	1	C302	403 177 5906	ELECT 220U M 10V	1
C140	403 057 0304	POLYESTER 0.01U J 50V	1	C303	403 177 5906	ELECT 220U M 10V	1
C141	403 177 3209	ELECT 4.7U M 25V	1	C304	403 177 5906	ELECT 220U M 10V	1
C142	403 177 3209	ELECT 4.7U M 25V	1	C305	403 074 9205	CERAMIC 680P K 50V	1
C143	403 177 3209	ELECT 4.7U M 25V	1	C306	403 061 8006	POLYESTER 4700P J 50V	1
C144	403 177 3209	ELECT 4.7U M 25V	1	C307	403 057 0304	POLYESTER 0.01U J 50V	1
C145	403 177 3209	ELECT 4.7U M 25V	1	C308	403 048 7602	ELECT 0.47U M 50V	1
C146	403 177 3209	ELECT 4.7U M 25V	1	C309	403 067 6204	MT-COMPO 0.15U J 50V	1
C147	403 067 5603	MT-COMPO 0.1U J 50V	1	C310	403 048 7602	ELECT 0.47U M 50V	1
C148	403 067 5603	MT-COMPO 0.1U J 50V	1	C311	403 039 7901	ELECT 100U M 10V	1
C149	403 067 5603	MT-COMPO 0.1U J 50V	1	C312	403 042 0302	ELECT 10U M 16V	1
C150	403 067 5603	MT-COMPO 0.1U J 50V	1	C313	403 177 1304	ELECT 1U M 50V	1
C151	403 060 6003	POLYESTER 3300P J 50V	1	C314	403 177 5005	ELECT 10U M 25V	1
C152	403 060 6003	POLYESTER 3300P J 50V	1	C315	403 047 1502	ELECT 4.7U M 25V	1
C153	403 060 6003	POLYESTER 3300P J 50V	1	C317	403 051 2106	ELECT 4.7U M 50V	1
C154	403 060 6003	POLYESTER 3300P J 50V	1	C318	403 050 7805	ELECT 3.3U M 50V	1
C155	403 081 6105	POLYPRO 330P J 100V	1	C319	403 042 0302	ELECT 10U M 16V	1
C156	403 081 6105	POLYPRO 330P J 100V	1	C320	403 059 3501	POLYESTER 2200P J 50V	1
C157	403 067 7300	MT-COMPO 0.33U J 50V	1	C321	403 059 3501	POLYESTER 2200P J 50V	1
C158	403 067 7300	MT-COMPO 0.33U J 50V	1	C322	403 058 3106	POLYESTER 0.015U J 50V	1
C159	403 067 7201	MT-COMPO 0.033U J 50V	1	C323	403 042 0302	ELECT 10U M 16V	1
C160	403 067 7201	MT-COMPO 0.033U J 50V	1	C324	403 082 3004	POLYPRO 5600P J 100V	1
C161	403 177 6200	TA-SOLID 10U M 4V	1	C325	403 073 7004	CERAMIC 470P K 50V	1
C162	403 177 6200	TA-SOLID 10U M 4V	1	C326	403 082 1307	POLYPRO 4700P J 100V	1
C163	403 177 6309	TA-SOLID 68U M 4V	1	C327	403 042 3600	ELECT 100U M 16V	1
C164	403 177 6309	TA-SOLID 68U M 4V	1	C328	403 083 2204	POLYPRO 0.012U J 250V	1
C165	403 081 8505	POLYPRO 390P J 100V	1	C329	403 073 7004	CERAMIC 470P K 50V	1
C166	403 081 8505	POLYPRO 390P J 100V	1	C330	403 073 7004	CERAMIC 470P K 50V	1
C167	403 059 5802	POLYESTER 0.022U J 50V	1	C331	403 042 0302	ELECT 10U M 16V	1
C168	403 059 5802	POLYESTER 0.022U J 50V	1	C332	403 057 0304	POLYESTER 0.01U J 50V	1
C169	403 061 8006	POLYESTER 4700P J 50V	1	C333	403 057 0304	POLYESTER 0.01U J 50V	1
C170	403 061 8006	POLYESTER 4700P J 50V	1	C334	403 057 0304	POLYESTER 0.01U J 50V	1
C171	403 177 5005	ELECT 10U M 25V	1	C335	403 057 0304	POLYESTER 0.01U J 50V	1
C172	403 177 5005	ELECT 10U M 25V	1	C336	403 183 3408	CERAMIC 33P K 50V	1
C173	403 071 6207	CERAMIC 220P K 50V	1	C337	403 067 5603	MT-COMPO 0.1U J 50V	1
C174	403 071 6207	CERAMIC 220P K 50V	1	C338	403 067 5603	MT-COMPO 0.1U J 50V	1
C175	403 177 5609	POLYPRO 820P J 50V	1	C339	403 042 0302	ELECT 10U M 16V	1
C176	403 177 5609	POLYPRO 820P J 50V	1	C340	403 057 0304	POLYESTER 0.01U J 50V	1
C177	403 058 9801	POLYESTER 0.018U J 50V	1	C341	403 050 7805	ELECT 3.3U M 50V	1
C178	403 058 9801	POLYESTER 0.018U J 50V	1	R101	401 148 8307	MT-FILM 100 GC 1/4W	1
C179	403 068 9402	CERAMIC 100P K 50V	1	R102	401 148 8307	MT-FILM 100 GC 1/4W	1
C180	403 068 9402	CERAMIC 100P K 50V	1	R105	401 027 0309	CARBON 47K JA 1/6W	1
C181	403 177 4602	ELECT 220U M 6.3V	1	R106	401 027 0309	CARBON 47K JA 1/6W	1
C182	403 177 4602	ELECT 220U M 6.3V	1	R107	401 024 7004	CARBON 1K JA 1/6W	1
C183	403 177 3209	ELECT 4.7U M 25V	1	R108	401 024 7004	CARBON 1K JA 1/6W	1
C184	403 177 3209	ELECT 4.7U M 25V	1	R109	401 148 8901	MT-FILM 6.8K GC 1/4W	1
C185	403 067 6204	MT-COMPO 0.15U J 50V	1	R110	401 148 8901	MT-FILM 6.8K GC 1/4W	1
C186	403 067 6204	MT-COMPO 0.15U J 50V	1	R111	401 148 9007	MT-FILM 9.1K GC 1/4W	1
C187	403 177 5104	ELECT 2.2U M 50V	1	R112	401 148 9007	MT-FILM 9.1K GC 1/4W	1
C188	403 177 5104	ELECT 2.2U M 50V	1	R113	401 148 8604	MT-FILM 2.7K GC 1/4W	1
C189	403 081 6105	POLYPRO 330P J 100V	1	R114	401 148 8604	MT-FILM 2.7K GC 1/4W	1
C190	403 081 6105	POLYPRO 330P J 100V	1	R115	401 148 8901	MT-FILM 6.8K GC 1/4W	1
C191	403 178 7701	POLYPRO 180P J 250V	1	R116	401 148 8901	MT-FILM 6.8K GC 1/4W	1
C192	403 178 7701	POLYPRO 180P J 250V	1	R117	401 025 4903	CARBON 180K JA 1/6W	1
C193	403 004 0500	CERAMIC 0.047U K 25V	1	R118	401 025 4903	CARBON 180K JA 1/6W	1
C194	403 004 0500	CERAMIC 0.047U K 25V	1	R119	401 025 1902	CARBON 15K JA 1/6W	1
C195	403 004 0500	CERAMIC 0.047U K 25V	1	R120	401 025 1902	CARBON 15K JA 1/6W	1
C196	403 004 0500	CERAMIC 0.047U K 25V	1	R121	401 026 4605	CARBON 33K JA 1/6W	1
C197	403 003 2802	CERAMIC 0.022U K 25V	1	R122	401 026 4605	CARBON 33K JA 1/6W	1
C198	403 003 2802	CERAMIC 0.022U K 25V	1	R123	401 025 0806	CARBON 13K JA 1/6W	1
C199	403 042 0302	ELECT 10U M 16V	1	R124	401 025 0806	CARBON 13K JA 1/6W	1
C200	403 042 0302	ELECT 10U M 16V	1	R125	401 024 9701	CARBON 12K JA 1/6W	1
C201	403 073 7004	CERAMIC 470P K 50V	1	R126	401 024 9701	CARBON 12K JA 1/6W	1
C202	403 073 7004	CERAMIC 470P K 50V	1	R127	401 027 4307	CARBON 6.2K JA 1/6W	1
C203	403 082 0300	POLYPRO 470P J 100V	1	R128	401 027 4307	CARBON 6.2K JA 1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R129	401 027 5502	CARBON 6.8K JA 1/6W	1	R208	401 024 7004	CARBON 1K JA 1/6W	1
R130	401 027 5502	CARBON 6.8K JA 1/6W	1	R209	401 024 7400	CARBON 10K JA 1/6W	1
R131	401 027 7209	CARBON 7.5K JA 1/6W	1	R210	401 024 7400	CARBON 10K JA 1/6W	1
R132	401 027 7209	CARBON 7.5K JA 1/6W	1	R211	401 148 8406	MT-FILM 10K GC 1/4W	1
R133	401 026 8504	CARBON 430 JA 1/6W	1	R212	401 148 8406	MT-FILM 10K GC 1/4W	1
R134	401 026 8504	CARBON 430 JA 1/6W	1	R213	401 026 7606	CARBON 390K JA 1/6W	1
R135	401 026 7002	CARBON 3.9K JA 1/6W	1	R214	401 026 7606	CARBON 390K JA 1/6W	1
R136	401 026 7002	CARBON 3.9K JA 1/6W	1	R215	401 024 7707	CARBON 100K JA 1/6W	1
R137	401 026 1000	CARBON 2.7K JA 1/6W	1	R216	401 024 7707	CARBON 100K JA 1/6W	1
R138	401 026 1000	CARBON 2.7K JA 1/6W	1	R217	401 025 3302	CARBON 16K JA 1/6W	1
R139	401 027 5502	CARBON 6.8K JA 1/6W	1	R218	401 025 3302	CARBON 16K JA 1/6W	1
R140	401 027 5502	CARBON 6.8K JA 1/6W	1	R219	401 148 8703	MT-FILM 4.7K GC 1/4W	1
R141	401 027 5205	CARBON 680 JA 1/6W	1	R220	401 148 8703	MT-FILM 4.7K GC 1/4W	1
R142	401 027 5205	CARBON 680 JA 1/6W	1	R221	401 026 9907	CARBON 4.7K JA 1/6W	1
R143	401 024 7400	CARBON 10K JA 1/6W	1	R222	401 026 9907	CARBON 4.7K JA 1/6W	1
R144	401 024 7400	CARBON 10K JA 1/6W	1	R223	401 026 4308	CARBON 3.3K JA 1/6W	1
R145	401 024 7004	CARBON 1K JA 1/6W	1	R224	401 026 4308	CARBON 3.3K JA 1/6W	1
R146	401 024 7004	CARBON 1K JA 1/6W	1	R225	401 025 1902	CARBON 15K JA 1/6W	1
R147	401 025 4606	CARBON 18K JA 1/6W	1	R226	401 025 1902	CARBON 15K JA 1/6W	1
R148	401 025 4606	CARBON 18K JA 1/6W	1	R227	401 025 6709	CARBON 200K JA 1/6W	1
R149	401 026 8702	CARBON 4.3K JA 1/6W	1	R228	401 025 6709	CARBON 200K JA 1/6W	1
R150	401 026 8702	CARBON 4.3K JA 1/6W	1	R229	401 026 4605	CARBON 33K JA 1/6W	1
R151	401 026 4605	CARBON 33K JA 1/6W	1	R230	401 026 4605	CARBON 33K JA 1/6W	1
R152	401 026 4605	CARBON 33K JA 1/6W	1	R231	401 027 4307	CARBON 6.2K JA 1/6W	1
R153	401 025 7805	CARBON 2.2K JA 1/6W	1	R232	401 027 4307	CARBON 6.2K JA 1/6W	1
R154	401 025 7805	CARBON 2.2K JA 1/6W	1	R233	401 016 3809	CARBON 2.2K JA 1/4W	1
R155	401 024 7400	CARBON 10K JA 1/6W	1	R234	401 016 3809	CARBON 2.2K JA 1/4W	1
R156	401 024 7400	CARBON 10K JA 1/6W	1	R235	401 024 7400	CARBON 10K JA 1/6W	1
R157	401 024 7707	CARBON 100K JA 1/6W	1	R236	401 024 7400	CARBON 10K JA 1/6W	1
R158	401 024 7707	CARBON 100K JA 1/6W	1	R237	401 026 4308	CARBON 3.3K JA 1/6W	1
R159	401 025 4200	CARBON 1.8K JA 1/6W	1	R238	401 026 4308	CARBON 3.3K JA 1/6W	1
R160	401 025 4200	CARBON 1.8K JA 1/6W	1	R239	401 025 4606	CARBON 18K JA 1/6W	1
R161	401 024 6403	CARBON 10 JA 1/6W	1	R240	401 025 4606	CARBON 18K JA 1/6W	1
R162	401 024 6403	CARBON 10 JA 1/6W	1	R241	401 026 0003	CARBON 24K JA 1/6W	1
R163	401 148 8307	MT-FILM 100 GC 1/4W	1	R242	401 026 0003	CARBON 24K JA 1/6W	1
R164	401 148 8307	MT-FILM 100 GC 1/4W	1	R243	401 025 6204	CARBON 2K JA 1/6W	1
R165	401 027 0309	CARBON 47K JA 1/6W	1	R244	401 025 6204	CARBON 2K JA 1/6W	1
R166	401 027 0309	CARBON 47K JA 1/6W	1	R245	401 148 8505	MT-FILM 22K GC 1/4W	1
R167	401 025 4903	CARBON 180K JA 1/6W	1	R246	401 148 8505	MT-FILM 22K GC 1/4W	1
R168	401 025 4903	CARBON 180K JA 1/6W	1	R301	401 026 9600	CARBON 470 JA 1/6W	1
R169	401 148 8901	MT-FILM 6.8K GC 1/4W	1	R302	401 026 9600	CARBON 470 JA 1/6W	1
R170	401 148 8901	MT-FILM 6.8K GC 1/4W	1	R303	401 026 4605	CARBON 33K JA 1/6W	1
R171	401 148 9007	MT-FILM 9.1K GC 1/4W	1	R304	401 026 9600	CARBON 470 JA 1/6W	1
R172	401 148 9007	MT-FILM 9.1K GC 1/4W	1	R305	401 026 9600	CARBON 470 JA 1/6W	1
R173	401 025 1902	CARBON 15K JA 1/6W	1	R306	401 026 4605	CARBON 33K JA 1/6W	1
R174	401 025 1902	CARBON 15K JA 1/6W	1	R307	401 026 4605	CARBON 33K JA 1/6W	1
R175	401 026 9907	CARBON 4.7K JA 1/6W	1	R308	401 026 4605	CARBON 33K JA 1/6W	1
R176	401 026 9907	CARBON 4.7K JA 1/6W	1	R309	401 027 6103	CARBON 680K JA 1/6W	1
R177	401 026 0300	CARBON 240K JA 1/6W	1	R310	401 024 7400	CARBON 10K JA 1/6W	1
R178	401 026 0300	CARBON 240K JA 1/6W	1	R311	401 024 7004	CARBON 1K JA 1/6W	1
R179	401 025 1902	CARBON 15K JA 1/6W	1	R312	401 025 2305	CARBON 150K JA 1/6W	1
R180	401 025 1902	CARBON 15K JA 1/6W	1	R313	401 012 4503	CARBON 100 JA 1/4W	1
R181	401 025 2305	CARBON 150K JA 1/6W	1	R314	401 025 8208	CARBON 22K JA 1/6W	1
R182	401 025 2305	CARBON 150K JA 1/6W	1	R315	401 025 8208	CARBON 22K JA 1/6W	1
R183	401 025 1902	CARBON 15K JA 1/6W	1	R316	401 026 4605	CARBON 33K JA 1/6W	1
R184	401 025 1902	CARBON 15K JA 1/6W	1	R317	401 026 4605	CARBON 33K JA 1/6W	1
R185	401 026 4308	CARBON 3.3K JA 1/6W	1	R318	401 024 7707	CARBON 100K JA 1/6W	1
R186	401 026 4308	CARBON 3.3K JA 1/6W	1	R319	401 024 7707	CARBON 100K JA 1/6W	1
R187	401 024 7004	CARBON 1K JA 1/6W	1	R320	401 012 7009	CARBON 10K JA 1/4W	1
R188	401 024 7004	CARBON 1K JA 1/6W	1	R321	401 026 4605	CARBON 33K JA 1/6W	1
R189	401 024 7400	CARBON 10K JA 1/6W	1	R322	401 024 7707	CARBON 100K JA 1/6W	1
R190	401 024 7400	CARBON 10K JA 1/6W	1	R323	401 052 6505	MT-FILM 1K FA 1/6W	1
R191	401 026 4605	CARBON 33K JA 1/6W	1	or	401 149 3202	MT-FILM 1K GC 1/4W	1
R192	401 026 4605	CARBON 33K JA 1/6W	1	R324	401 025 8208	CARBON 22K JA 1/6W	1
R193	401 025 1902	CARBON 15K JA 1/6W	1	R325	401 024 7400	CARBON 10K JA 1/6W	1
R194	401 025 1902	CARBON 15K JA 1/6W	1	R326	401 024 7004	CARBON 1K JA 1/6W	1
R195	401 026 9907	CARBON 4.7K JA 1/6W	1	R327	401 026 4605	CARBON 33K JA 1/6W	1
R196	401 026 9907	CARBON 4.7K JA 1/6W	1	R328	401 026 4605	CARBON 33K JA 1/6W	1
R197	401 025 1308	CARBON 150 JA 1/6W	1	R329	401 026 4308	CARBON 3.3K JA 1/6W	1
R198	401 025 1308	CARBON 150 JA 1/6W	1	R330	401 026 4605	CARBON 33K JA 1/6W	1
R199	401 026 9907	CARBON 4.7K JA 1/6W	1	R331	401 024 7400	CARBON 10K JA 1/6W	1
R200	401 026 9907	CARBON 4.7K JA 1/6W	1	R332	401 021 4105	CARBON 56K JA 1/4W	1
R201	401 025 1902	CARBON 15K JA 1/6W	1	R333	401 024 7400	CARBON 10K JA 1/6W	1
R202	401 025 1902	CARBON 15K JA 1/6W	1	R334	401 024 7400	CARBON 10K JA 1/6W	1
R203	401 024 7400	CARBON 10K JA 1/6W	1	R335	401 026 4605	CARBON 33K JA 1/6W	1
R204	401 024 7400	CARBON 10K JA 1/6W	1	R336	401 027 0309	CARBON 47K JA 1/6W	1
R205	401 024 7400	CARBON 10K JA 1/6W	1	R337	401 024 7400	CARBON 10K JA 1/6W	1
R206	401 024 7400	CARBON 10K JA 1/6W	1	R338	401 026 4902	CARBON 330K JA 1/6W	1
R207	401 024 7004	CARBON 1K JA 1/6W	1	R339	401 026 4902	CARBON 330K JA 1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R340	401 024 7400	CARBON 10K JA 1/6W	1	CN7	620 021 8337	Plug 6P	1
R341	401 027 9302	CARBON 820K JA 1/6W	1	CN10	620 021 8313	Plug 3P	1
R342	401 027 5205	CARBON 680 JA 1/6W	1	CN11	620 021 5930	Plug 4P	1
R343	401 027 0309	CARBON 47K JA 1/6W	1	CN12	620 021 8306	Plug 2P	1
R344	401 027 0309	CARBON 47K JA 1/6W	1	CN13	620 021 8399	Plug 7P	1
R345	401 026 8108	CARBON 4.7 JA 1/6W	1	CN14	620 021 8597	Plug 4P	1
R346	401 024 5604	CARBON 1 JA 1/6W	1	CN15	620 021 5923	Plug 3P	1
R347	401 026 0003	CARBON 24K JA 1/6W	1	CN16	620 021 8399	Plug 7P	1
R348	402 015 3302	FUSIBLE RES 12 J- 1/4W	1	CN17	620 021 8313	Plug 3P	1
R349	402 015 4507	FUSIBLE RES 39 J- 1/4W	1	CN18	620 021 5923	Plug 3P	1
R350	402 015 2909	FUSIBLE RES 1 J- 1/4W	1	CN19	620 021 5947	Plug 5P	1
R351	401 025 0004	CARBON 120K JA 1/6W	1	CO401	620 182 6975	FARC4SA-04000	1
R352	401 026 3202	CARBON 30K JA 1/6W	1	EC1	620 022 2587	EC Terminal 1P	2
R353	401 027 3003	CARBON 56K JA 1/6W	1	F401	△ 423 003 4101	FUSE 250V T0.4A	1
R354	401 024 8605	CARBON 11K JA 1/6W	1	F402	△ 423 003 4101	FUSE 250V T0.4A	1
R355	401 027 0309	CARBON 47K JA 1/6W	1	F405	△ 423 005 0507	FUSE 250V T1A	1
R356	401 027 3003	CARBON 56K JA 1/6W	1	F406	△ 423 005 0507	FUSE 250V T1A	1
R357	401 026 4605	CARBON 33K JA 1/6W	1	FCLP	620 017 2721	Fuse Clip	8
R358	401 027 7407	CARBON 75K JA 1/6W	1	P401	620 006 1377	Potentiometer 10KB	1
R359	401 026 1307	CARBON 27K JA 1/6W	1	P402	620 006 1377	Potentiometer 10KB	1
R360	401 025 4606	CARBON 18K JA 1/6W	1	P403	620 006 1407	Potentiometer 2.2KB	1
R361	401 026 4605	CARBON 33K JA 1/6W	1	P404	620 006 1407	Potentiometer 2.2KB	1
R362	401 027 0309	CARBON 47K JA 1/6W	1	P405	620 006 1377	Potentiometer 10KB	1
R363	401 026 4605	CARBON 33K JA 1/6W	1	P406	620 006 1377	Potentiometer 10KB	1
R364	401 027 9005	CARBON 82K JA 1/6W	1	RA401	620 004 5506	Resistor 10K-6	1
R365	401 026 3202	CARBON 30K JA 1/6W	1	IC401	409 204 7707	IC M50941-32BSP	1
R366	401 025 3302	CARBON 16K JA 1/6W	1	IC402	409 003 0404	IC BA6138	1
R367	401 026 9006	CARBON 43K JA 1/6W	1	IC403	409 115 8800	IC TA8121AN	1
R368	401 028 0308	CARBON 91K JA 1/6W	1	IC404	409 115 8800	IC TA8121AN	1
R369	401 026 4902	CARBON 330K JA 1/6W	1	IC405	409 018 4206	IC LA6393S	1
R370	401 027 4604	CARBON 62K JA 1/6W	1	IC406	409 183 8207	IC M5F78M08L	1
R371	401 024 7707	CARBON 100K JA 1/6W	1	IC407	409 183 8108	IC M5F78M05L	1
R372	401 027 5908	CARBON 68K JA 1/6W	1	IC408	409 183 8306	IC M5F79M08L	1
R373	401 026 7408	CARBON 39K JA 1/6W	1	IC409	409 034 3009	IC M5F78M12L	1
R374	401 027 1801	CARBON 51K JA 1/6W	1	IC410	409 168 2107	IC UPC7812HF	1
R375	401 027 7407	CARBON 75K JA 1/6W	1	IC411	409 183 8801	IC UPC78M05HF	1
R376	401 027 7407	CARBON 75K JA 1/6W	1	IC412	409 020 6601	IC LC4001B	1
R377	401 027 7407	CARBON 75K JA 1/6W	1	Q401	405 004 4601	TR 2SA608-F-SPA-AC	1
R378	401 025 6501	CARBON 20K JA 1/6W	1	Q402	405 001 0200	TR RN1202-TPE4	1
R379	401 027 1801	CARBON 51K JA 1/6W	1	Q403	405 001 0200	TR RN1202-TPE4	1
R380	401 027 1801	CARBON 51K JA 1/6W	1	Q404	405 001 1108	TR RN2202-TPE4	1
R381	401 027 3003	CARBON 56K JA 1/6W	1	Q405	405 001 0200	TR RN1202-TPE4	1
R382	401 027 4604	CARBON 62K JA 1/6W	1	Q406	405 052 8002	TR 2SB1274-R	1
R383	401 025 0905	CARBON 130K JA 1/6W	1	or	405 052 8101	TR 2SB1274-S	1
R384	401 027 3003	CARBON 56K JA 1/6W	1	Q407	405 035 1402	TR RN1205-TP	1
R385	401 026 4605	CARBON 33K JA 1/6W	1	Q408	405 001 0200	TR RN1202-TPE4	1
R386	401 026 7408	CARBON 39K JA 1/6W	1	Q409	405 021 0600	TR 2SD1012-G-SPA-AC	1
R387	401 012 4503	CARBON 100 JA 1/4W	1	or	405 021 0204	TR 2SD1012-F-SPA-AC	1
R388	401 025 1605	CARBON 1.5K JA 1/6W	1	Q410	405 021 0600	TR 2SD1012-G-SPA-AC	1
R389	401 024 7400	CARBON 10K JA 1/6W	1	or	405 021 0204	TR 2SD1012-F-SPA-AC	1
R390	401 024 7400	CARBON 10K JA 1/6W	1	Q411	405 079 7200	TR DTB123YS-TP	1
R391	401 024 9701	CARBON 12K JA 1/6W	1	Q412	405 079 7200	TR DTB123YS-TP	1
R392	401 025 1902	CARBON 15K JA 1/6W	1	Q413	405 019 2906	TR 2SC536-F-SP-AC	1
R393	401 025 7805	CARBON 2.2K JA 1/6W	1	Q414	405 001 0200	TR RN1202-TPE4	1
R394	401 024 7400	CARBON 10K JA 1/6W	1	Q415	405 019 2906	TR 2SC536-F-SP-AC	1
R395	401 027 2600	CARBON 5.6K JA 1/6W	1	Q416	405 001 0200	TR RN1202-TPE4	1
				Q417	405 001 0200	TR RN1202-TPE4	1
				Q418	405 001 0200	TR RN1202-TPE4	1
				Q419	405 079 7200	TR DTB123YS-TP	1
				Q420	405 004 4601	TR 2SA608-F-SPA-AC	1
				D401	407 003 9205	DIODE DBB10C	1
				D402	407 005 8602	DIODE ERA15-02	1
				D403	407 005 8602	DIODE ERA15-02	1
				D404	407 005 8602	DIODE ERA15-02	1
				D405	407 005 8602	DIODE ERA15-02	1
				D406	407 005 3805	DIODE DS442-BT	1
				D407	407 008 0405	DIODE GMB01-BT	1
				or	407 061 2200	DIODE 1SS254-TA	1
				D408	407 008 0405	DIODE GMB01-BT	1
				or	407 061 2200	DIODE 1SS254-TA	1
				D409	407 005 8602	DIODE ERA15-02	1
				D410	407 005 8602	DIODE ERA15-02	1
				D411	407 008 0405	DIODE GMB01-BT	1
				or	407 061 2200	DIODE 1SS254-TA	1
				D412	407 008 0405	DIODE GMB01-BT	1
				or	407 061 2200	DIODE 1SS254-TA	1
				D413	407 008 0405	DIODE GMB01-BT	1
				or	407 061 2200	DIODE 1SS254-TA	1
				D415	407 008 0405	DIODE GMB01-BT	1
ASSY,PCB,CONTROL							
52	620 202 0778	Assy,PCB,Control	1				
	620 197 3921	Assy,Connector-S,8P	1				
	620 197 4027	Assy,Connector-S,8P	1				
	411 002 9104	SCR PAN 3X8	1				
	411 002 9104	SCR PAN 3X8	1				
	411 002 9104	SCR PAN 3X8	1				
	411 002 9104	SCR PAN 3X8	1				
	411 002 9104	SCR PAN 3X8	1				
	411 002 9104	SCR PAN 3X8	1				
	620 196 3359	Heat Sink	1				
	620 196 3342	Heat Sink	1				
	620 196 3342	Heat Sink	1				
	620 196 3342	Heat Sink	1				
	620 196 3342	Heat Sink	1				
	620 196 3366	Heat Sink	1				
	620 031 4763	Wire Wrap Terminal	12				
	620 197 4119	Assy,Terminal	1				
CN1	620 021 5947	Plug 5P	1				
CN5	620 021 8344	Plug 10P	1				
CN6	620 022 1641	Plug 13P	1				

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
ASSY,PCB,REMOCON			
56	620 196 5650	Assy,PCB,Remocon	1
	620 196 1935	Converter,QH3111H0	1
	620 197 3914	Assy,Connector-S,3P	1
ASSY,PCB,HEADPHONE			
57	620 196 5667	Assy,PCB,Headphone	1
	620 197 3938	Assy,Connector-S,5P	1
JK501	620 196 3960	Jack,H/P,6.3D,Gold	1
V1	620 197 2818	VR,Rotary,2X50KA	1
IC501	409 074 1300	IC M5216L	1
Q501	405 035 9101	TR BS170-TP	1
Q502	405 035 9101	TR BS170-TP	1
D501	407 008 0405	DIODE GMB01-BT	1
or	407 005 3805	DIODE DS442-BT	1
C501	403 067 5900	MT-COMPO 0.12U J 50V	1
C502	403 067 5900	MT-COMPO 0.12U J 50V	1
C503	403 028 3808	CERAMIC 56P J 50V	1
C504	403 028 3808	CERAMIC 56P J 50V	1
C505	403 067 8208	MT-COMPO 0.068U J 50V	1
C506	403 067 8208	MT-COMPO 0.068U J 50V	1
C507	403 059 5802	POLYESTER 0.022U J 50V	1
C508	403 059 5802	POLYESTER 0.022U J 50V	1
C509	403 044 0300	ELECT 47U M 16V	1
R501	401 028 3705	CARBON 10K JA 1/8W	1
R502	401 028 3705	CARBON 10K JA 1/8W	1
R503	401 030 7708	CARBON 30K JA 1/8W	1
R504	401 030 7708	CARBON 30K JA 1/8W	1
R505	401 028 6102	CARBON 110K JA 1/8W	1
R506	401 028 6102	CARBON 110K JA 1/8W	1
R507	401 032 3500	CARBON 68 JA 1/8W	1
R508	401 032 3500	CARBON 68 JA 1/8W	1
R509	401 028 2609	CARBON 100 JA 1/8W	1
R510	401 028 2609	CARBON 100 JA 1/8W	1
R511	401 032 1100	CARBON 56K JA 1/8W	1
ASSY,PCB,ROTARY			
58	620 196 5674	Assy,PCB,Rotary	1
	620 197 3952	Assy,Connector-S,5P	1
S1	620 197 2870	Switch,Rotary,4-2-5	1
ASSY,PCB,VOLUME			
59	620 196 5681	Assy,PCB,Volume	1
	620 197 3969	Assy,Connector-S,6P	1
	620 197 3976	Assy,Connector-S,3P	1
	620 196 1669	Shield,Volume	1
VAL1	620 197 2825	VR,Rotary,1X200KW	1
VOL1	620 197 2818	VR,Rotary,2X50KA	1
ASSY,PCB,SUB SWITCH			
60	620 196 5698	Assy,PCB,SUB Switch	1
SW1	620 197 2856	Switch,Tact	2
ASSY,PCB,ADJUST,D.1			
81	620 197 3419	Assy,PCB,Adjust,D.1	1
	620 197 3860	Assy,Connector-S,4P	1
P701	620 006 1964	Potentiometer 200KB	1
R701	401 030 3700	CARBON 270 JA 1/8W	1
R702	401 032 5108	CARBON 68K JA 1/8W	1
R703	401 030 3700	CARBON 270 JA 1/8W	1
PHOTO.DET.ASSY			
83	620 080 2871	Photo.DET.Assy	1
PHI1	407 094 3809	PHOTO COUPLE GP2S06-B	1
ASSY,PCB,ADJUST,D.2			
91	620 197 3433	Assy,PCB,Adjust,D.2	1
	620 197 4058	Assy,Connector-S,3P	1
P702	620 006 1964	Potentiometer 200KB	1
R704	401 030 3700	CARBON 270 JA 1/8W	1

Ref. No.	Part No.	Description	Q'ty
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PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

NOTES:

- Parts order must contain Model Number, Part Number and Description.
- Ordering quantity of screws and resistors must be multiple of 10 pcs.

IC & TRANSISTOR DC VOLTAGES

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC303	CX20187	0V	3.1V	0V	7.8V	0V	0V	0V	0V	0V	0V	0V	0V	-7.7V	-7.8V	0V	-7.6V	-7.8V	0V	0V	0V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		0V	0V	0V	0V	0V	-7.8V	-7.7V	0V	-7.8V	-7.7V	0V	0V	0V	0V	0V	0V	0V	0V	-8.1V	0V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
		-6.8V	3.3V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC304	AN6291	4.8V	0V	0.8V	0.3V	0.6V	0.6V	1.3V	1.3V	1.3V	1.3V	4.9V	0.4V	4.9V	1.3V	1.3V	1.3V	0.5V	0.5V	0.2V	0.8V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		0V	4.9V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC401	M50941	5.0V	0V	0V	5.0V	5.0V	5.0V	5.0V	5.0V	5.0V	0V	0V	0V	0V	0V	0V	0V	4.9V	0V	0V	0V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		0V	0V	0V	0V	0V	0V	5.0V	2.3V	0.8V	0V	4.8V	0V	0V	0V	0V	4.9V	5.0V	-28.2V	-16.6V	-16.6V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
		-16.6V	-22.1V	-16.6V	-16.6V	-11.2V	-16.5V	-17.0V	-17.0V	-27.7V	-17.0V	-17.0V	-17.0V	-23.0V	-23.1V	-22.7V	-22.7V	-22.9V	-22.8V	-27.1V	4.9V
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80		
		4.9V	4.9V	5.0V	5.0V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC403	TA8121AN	0V	0V	0V	0V	0V	0V	10.5V	10.5V	10.5V	0V	0V	0V	0V	0.3V	5.2V	0.6V	10.5V	0V	9.4V	0.6V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		1.6V	0V	1.6V	5.9V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IC PIN NUMBERS DC VOLTAGES																					
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC404	TA8121AN	0V	0V	0V	0V	0V	0V	10.5V	10.5V	10.5V	0V	0V	0V	0V	1.0V	5.2V	0.6V	10.5V	0V	9.4V	0.7V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
		1.6V	0V	1.5V	5.8V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

IC PIN NUMBERS DC VOLTAGES															
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
IC402	BA6138	0V	0V	0.5V	2.0V	0V	2.0V	0.6V	0V	11.0V	-	-	-	-	-
IC405	LA6393S	5.0V	0.6V	1.7V	2.9V	0V	1.7V	3.6V	0V	5.0V	-	-	-	-	-
IC406	M5F78M08L	14.3V	0V	7.8V	-	-	-	-	-	-	-	-	-	-	-
IC407	M5F78M05L	14.4V	0V	4.9V	-	-	-	-	-	-	-	-	-	-	-
IC408	M5F79M08L	0V	-14.7V	-8.1V	-	-	-	-	-	-	-	-	-	-	-
IC409	M5F78M12L	23.1V	0V	11.5V	-	-	-	-	-	-	-	-	-	-	-
IC410	UPC7812HF	23.0V	0V	11.9V	-	-	-	-	-	-	-	-	-	-	-
IC411	UPC78M05HF	11.9V	0V	5.0V	-	-	-	-	-	-	-	-	-	-	-
IC412	LC4001B	4.9V	4.9V	0V	5.0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V

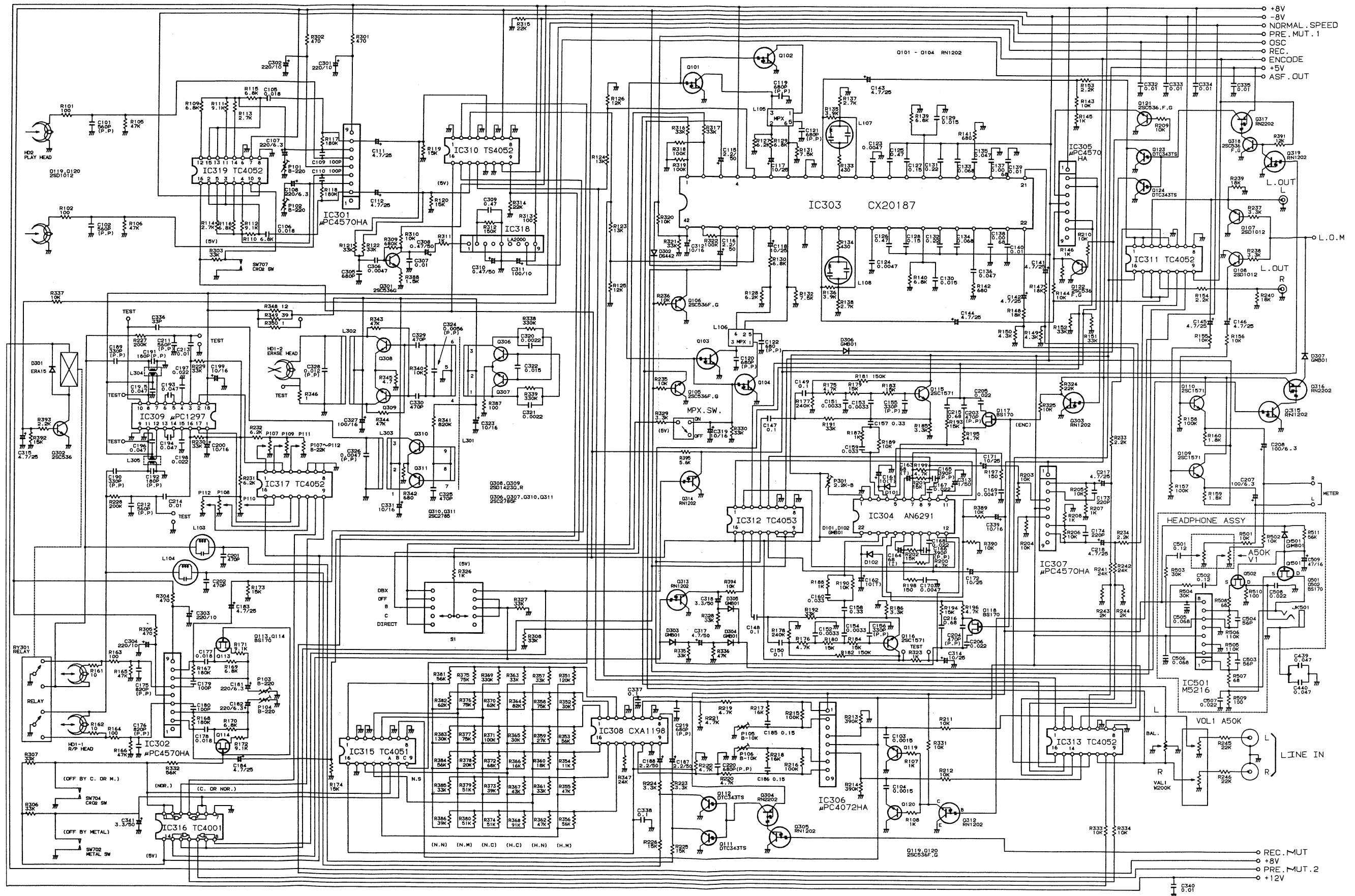
IC & TRANSISTOR DC VOLTAGES (Continued)

IC PIN NUMBERS DC VOLTAGES																				
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
IC301	UPC4570	5.3V	0V	0V	0V	-5.6V	0V	0V	0V	5.3V	-	-	-	-	-	-	-	-	-	
IC305	UPC4570	7.8V	0V	0V	0V	-8.1V	0V	0V	0V	7.8V	-	-	-	-	-	-	-	-	-	
IC306	UPC4072	7.8V	0V	0V	0V	0V	0V	0V	0V	7.7V	-	-	-	-	-	-	-	-	-	
IC307	UPC4570	7.8V	0V	0V	0V	-8.1V	0V	0V	0V	7.8V	-	-	-	-	-	-	-	-	-	
IC308	CXA1198	1.2V	1.2V	1.2V	0V	-8.1V	0V	0V	1.0V	1.2V	0V	0V	7.8V	1.2V	1.2V	1.2V	1.2V	-	-	
IC309	UPC1297	0V	0V	0V	0.2V	0V	0V	0.1V	0.1V	0V	0V	0.1V	0.1V	0V	0V	0.3V	0V	0V	0.1V	
IC310	TC4052	0V	0V	0V	0V	0V	0V	-8.1V	0V	0V	0V	0V	0V	0V	0V	0V	0V	4.9V	-	-
IC311	TC4052	0V	0V	0V	0V	0V	0V	-8.1V	0V	4.2V	0V	0V	0V	0V	0V	0V	0V	4.9V	-	-
IC312	TC4053BP	4.9V	0V	0V	0V	1.3V	0V	-8.1V	0V	4.2V	4.2V	4.2V	1.3V	0V	0V	4.9V	4.9V	-	-	-
IC313	TC4052	0V	0V	0V	0V	0V	0V	-8.1V	0V	0V	0V	0V	0V	0V	0V	0V	0V	4.9V	-	-
IC315	TC4051	1.2V	0V	0V	0V	1.2V	0V	-8.1V	0V	4.3V	4.9V	4.9V	1.2V	1.2V	1.2V	0V	4.9V	-	-	-
IC316	TC4001	4.8V	4.8V	0V	0V	4.8V	4.8V	0V	0V	4.2V	0V	0V	4.2V	4.7V	4.9V	-	-	-	-	-
IC317	TC4052	0V	0V	0V	0V	0V	0V	0V	0V	0V	-	-	-	-	-	-	-	-	-	-
IC318	LA2000	1.9V	0V	1.9V	0V	0V	0V	0V	0V	7.1V	-	-	-	-	-	-	-	-	-	-
IC319	TC4052	0V	0V	0V	0V	0V	0V	-5.6V	0V	4.3V	4.9V	0V	0V	0V	0V	4.9V	-	-	-	-

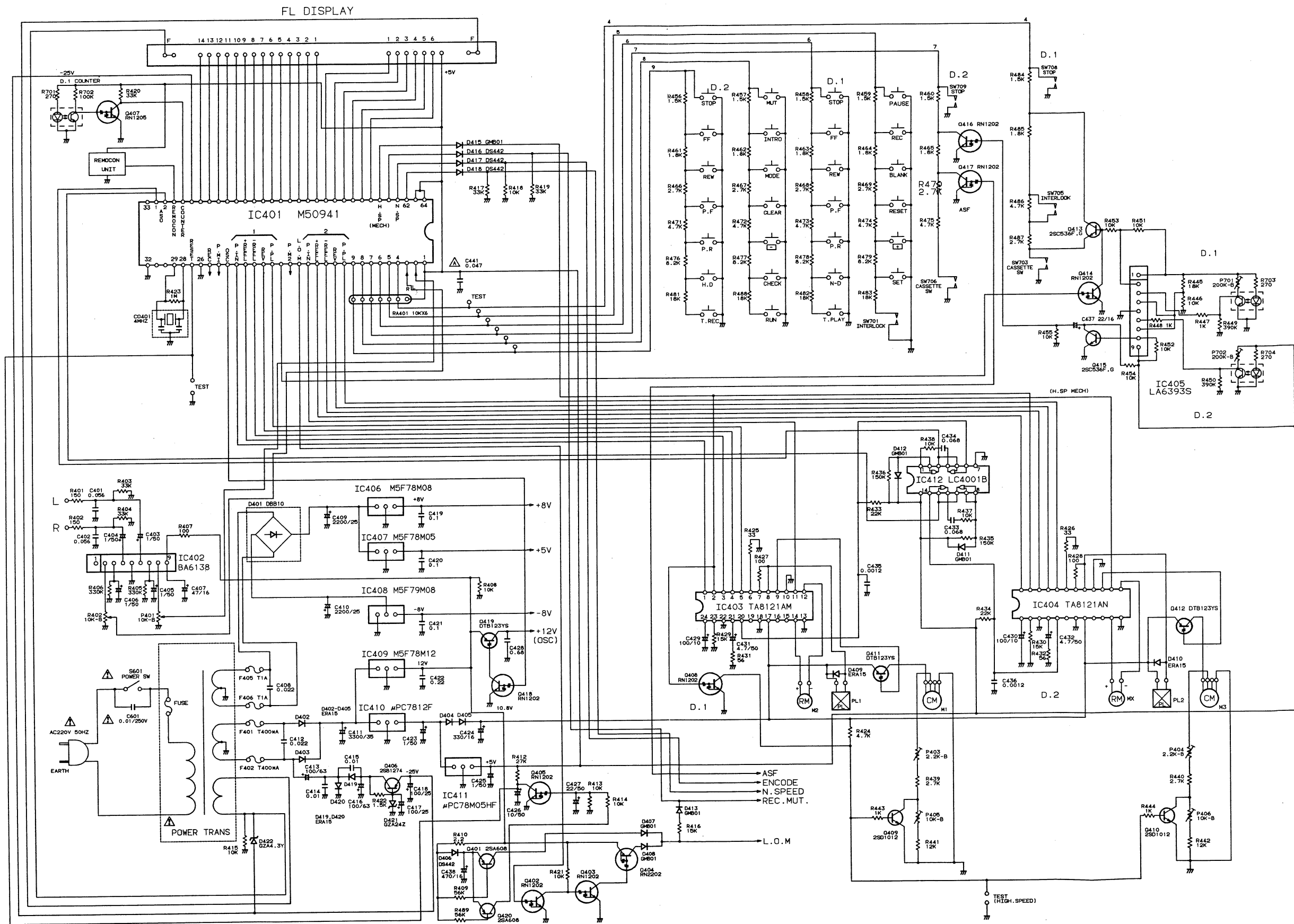
TRANSISTOR DC VOLTAGES				
Ref. No.	DEVICE	B	C	E
Q115	2SC1571	2.5V	4.9V	1.9V
Q116	2SC1571	2.6V	4.9V	2.0V

TRANSISTOR DC VOLTAGES				
Ref. No.	DEVICE	B	C	E
Q401	2SA608	11.4V	0.2V	11.2V
Q406	2SB1274	-28.8V	-38.7V	-28.2V
Q420	2SA608	11.2V	0V	11.0V

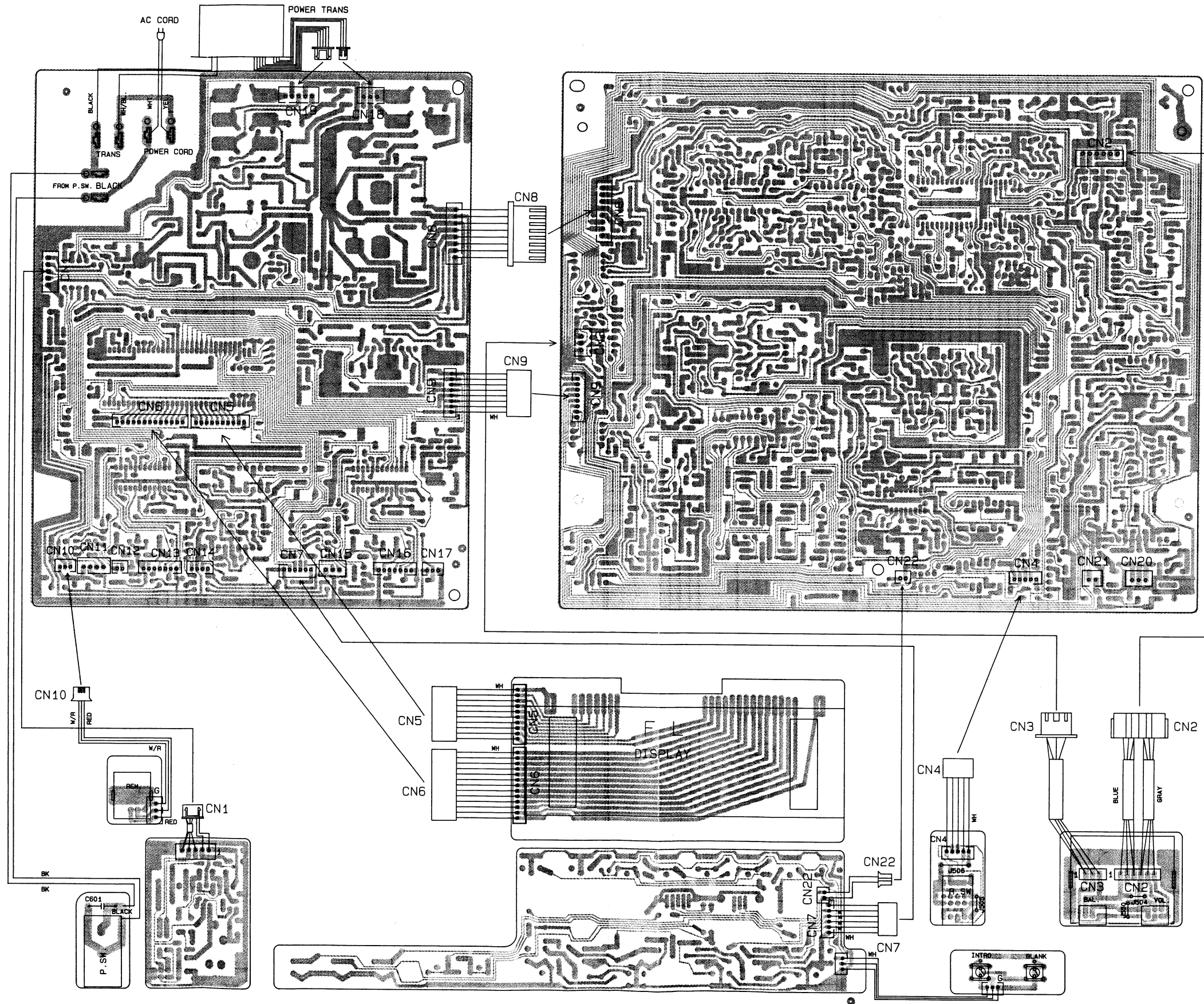
SCHEMATIC DIAGRAM (Amplifier)

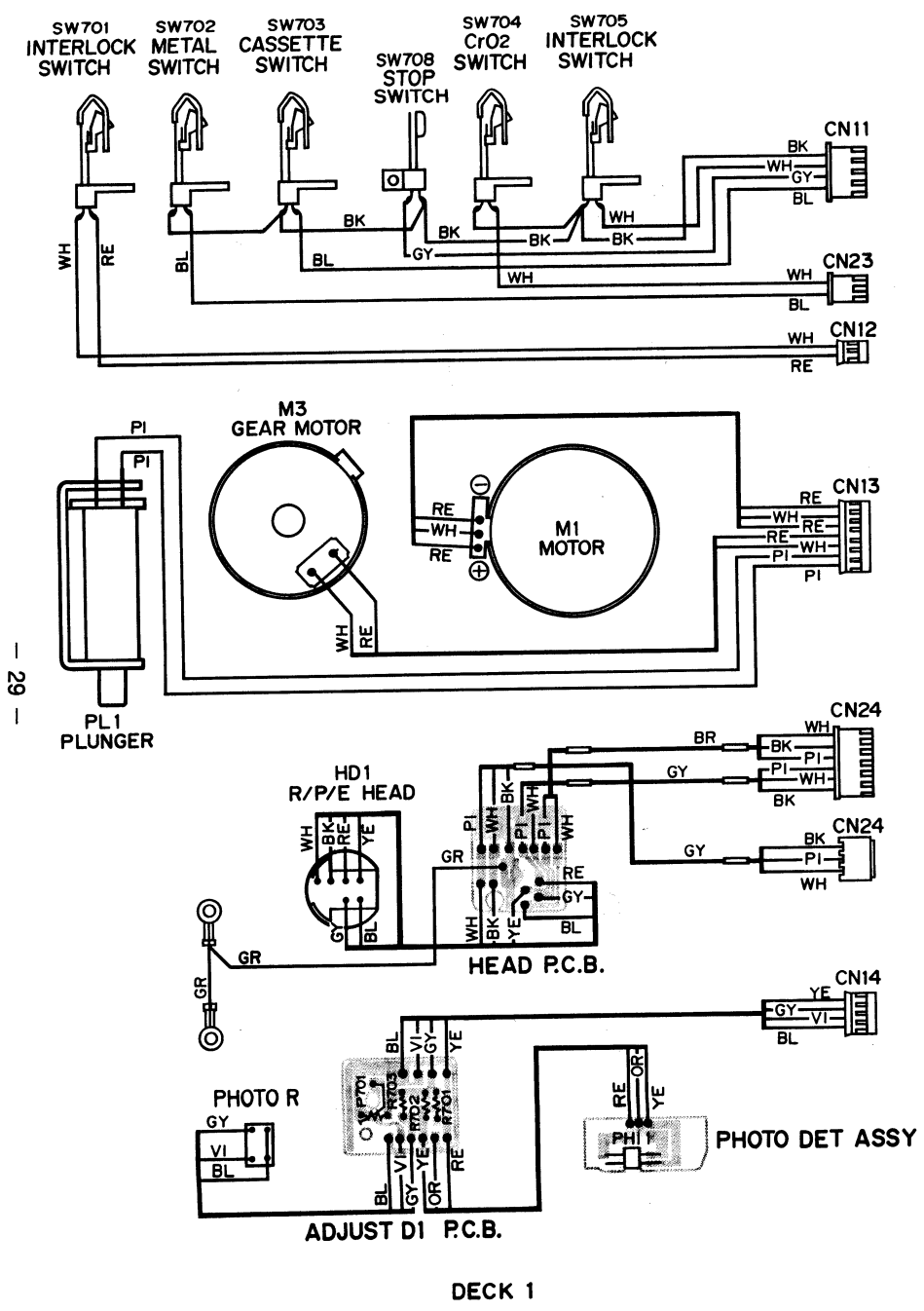


SCHEMATIC DIAGRAM (Control)

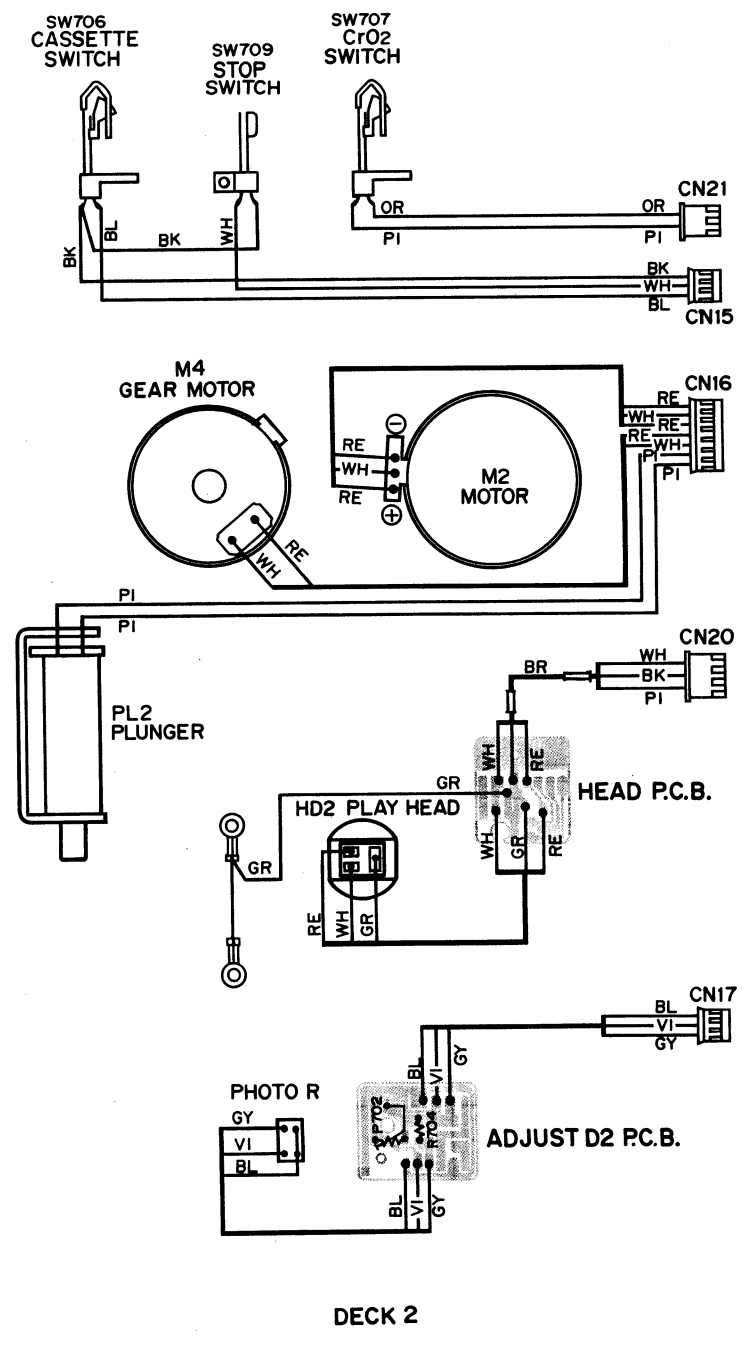


WIRING DIAGRAM (1)







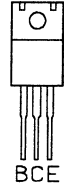

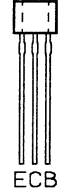
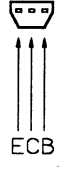

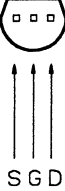
DECK 1



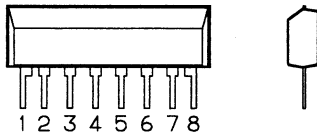
DECK 2

WIRING DIAGRAM (2)

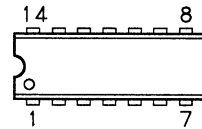
IC & TRANSISTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SC1571 2SC536	 ECB	 ECB	2SB1274	 BCE	 BCE
DTB123YS DTC343TS RN1202 RN1205 RN2202 2SA608 2SC536 2SD1012	 ECB	 ECB	BS170	 S G D	 S G D
TERMINAL NAME					
B → BASE C → COLLECTOR E → EMITTER			S → SOURCE G → GATE D → DRAIN		

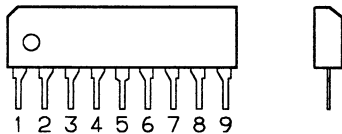
M5216L FRONT/SIDE VIEWS



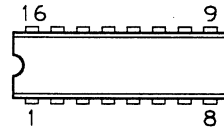
LC4001B TOP VIEW



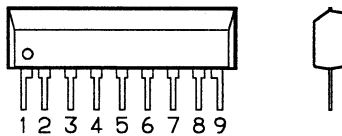
**LA2000 FRONT/SIDE VIEWS
LA6393S FRONT/SIDE VIEWS**



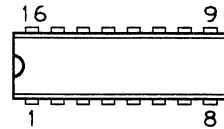
**TC4051BP TOP VIEW
TC4052BP TOP VIEW**



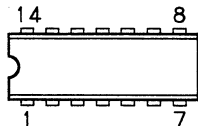
**UPC4072HA FRONT/SIDE VIEWS
UPC4570HA FRONT/SIDE VIEWS**



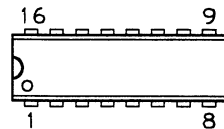
TC4053BP TOP VIEW



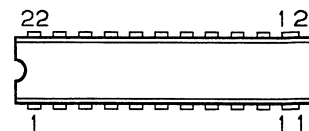
TC4001BP TOP VIEW



CXA1198AP TOP VIEW

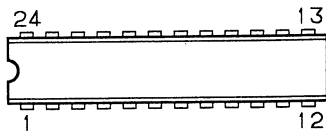


AN6291 TOP VIEW

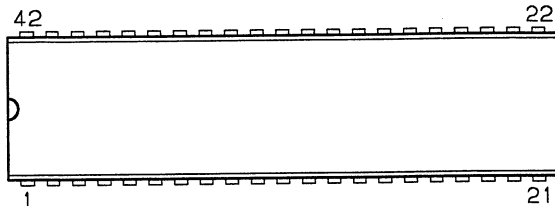


IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

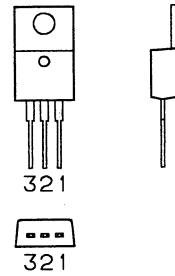
TA8121AN TOP VIEW



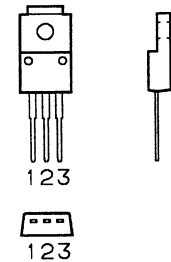
CX20187 TOP VIEW



**UPC78M05HF TOP/SIDE VIEWS
UPC7812HF TOP/SIDE VIEWS**

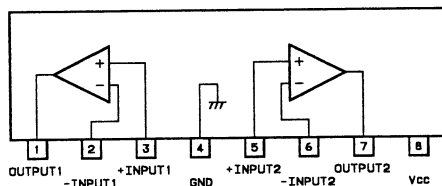


**M5F78M05L TOP/SIDE VIEWS
M5F78M08L TOP/SIDE VIEWS
M5F78M12L TOP/SIDE VIEWS
M5F79M08L TOP/SIDE VIEWS**

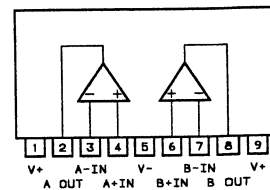


IC BLOCK DIAGRAM

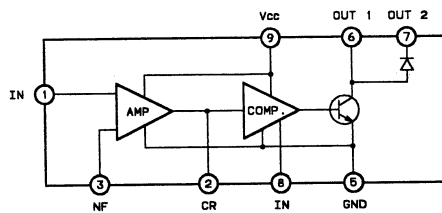
M5216L BLOCK DIAGRAM



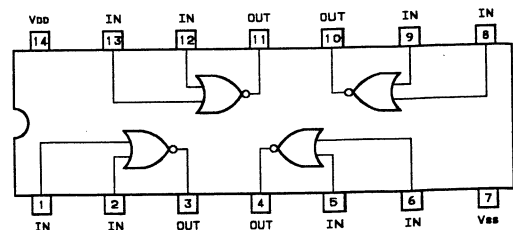
**UPC4072HA BLOCK DIAGRAM
UPC4570HA BLOCK DIAGRAM**



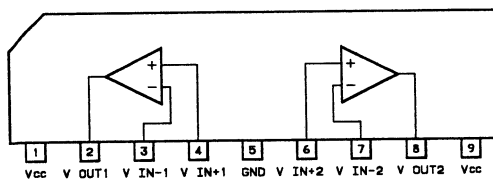
LA2000 BLOCK DIAGRAM



**TC4001BP BLOCK DIAGRAM
LC4001B BLOCK DIAGRAM**

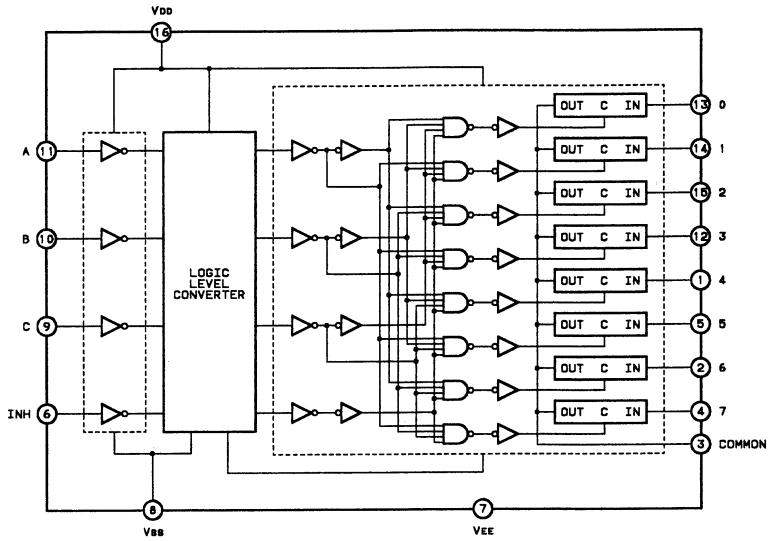


LA6393S BLOCK DIAGRAM

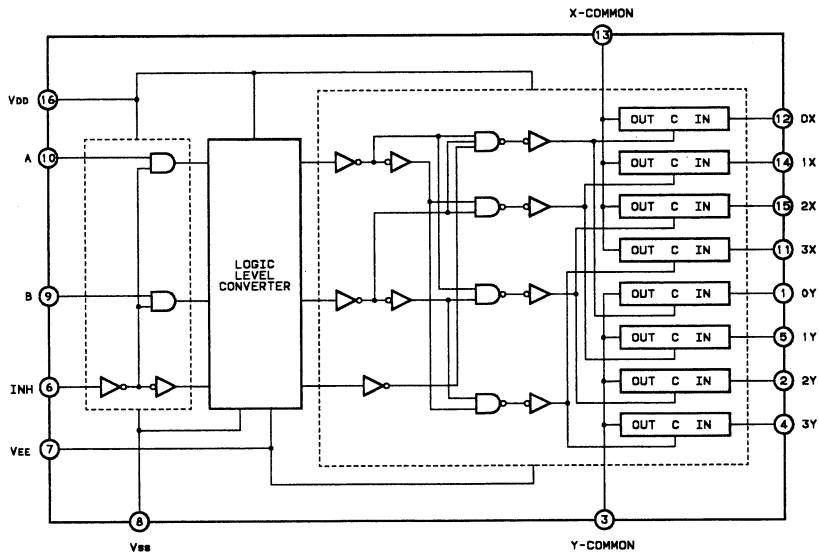


IC BLOCK DIAGRAM (Continued)

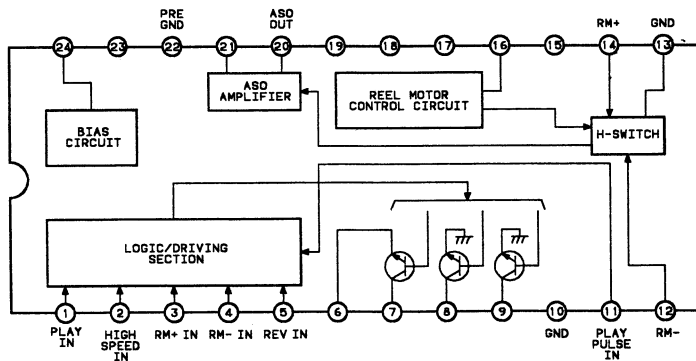
TC4051BP BLOCK DIAGRAM



TC4052BP BLOCK DIAGRAM

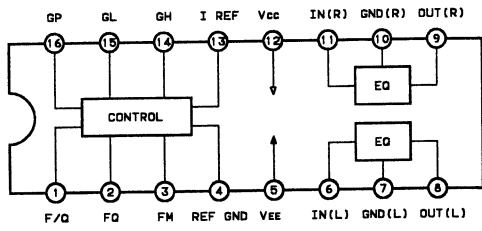


TA8121AN BLOCK DIAGRAM

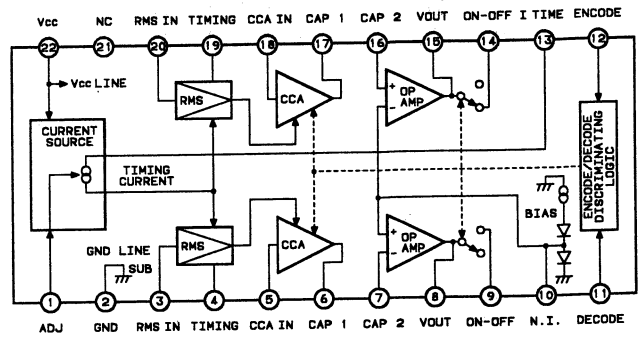


IC BLOCK DIAGRAM (Continued)

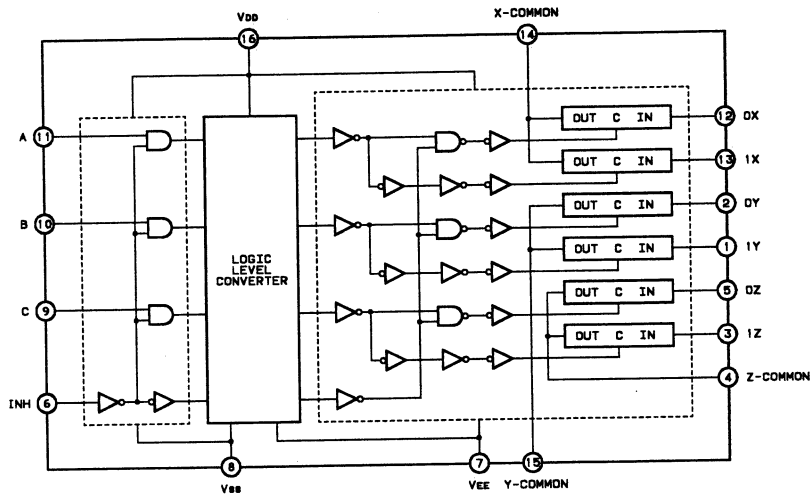
CXA1198AP BLOCK DIAGRAM



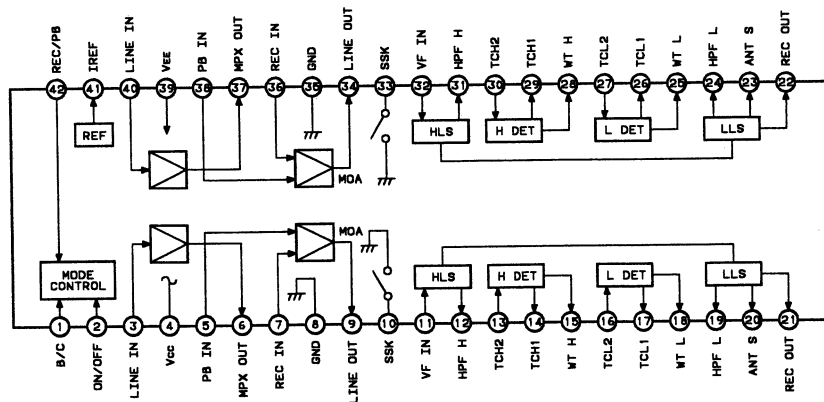
AN6291 BLOCK DIAGRAM



TC4053BP BLOCK DIAGRAM

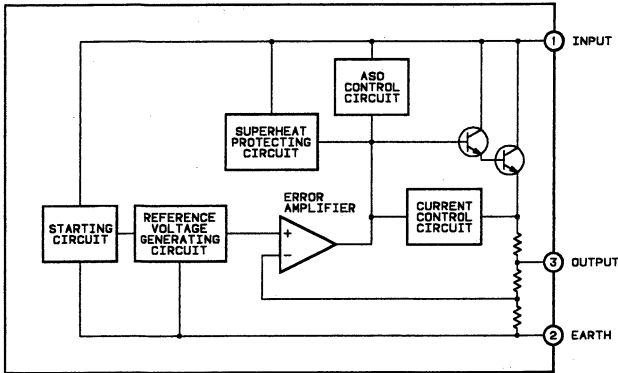


CX20187 BLOCK DIAGRAM

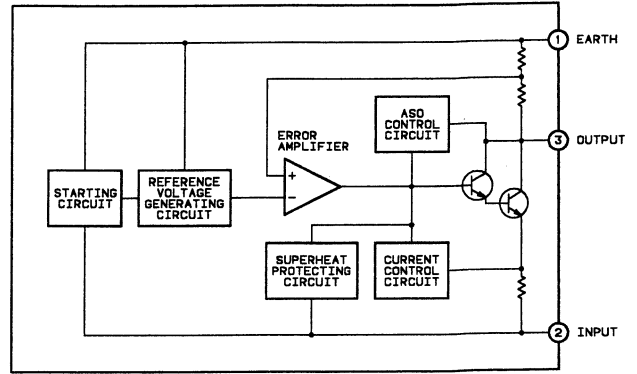


IC BLOCK DIAGRAM (Continued)

M5F78M05L BLOCK DIAGRAM
 M5F78M08L BLOCK DIAGRAM
 M5F78M12L BLOCK DIAGRAM



M5F79M08L BLOCK DIAGRAM



UPC78M05HF BLOCK DIAGRAM
 UPC7812HF BLOCK DIAGRAM

