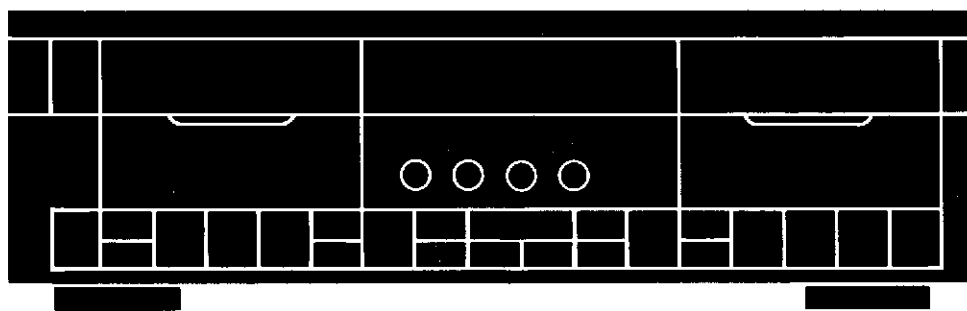


The Harman Kardon Model DC5500 DUAL CASSETTE DECK

Manual 178A

Technical Manual



The following marks found in the parts list of this manual identify the models as follows.

- BK** : North America area model Black version
- IB** : International model Black version
- BB** : Australia model Black version

CONTENTS

SPECIFICATIONS	2	GENERAL UNIT	8
LEAKAGE TEST	2	GENERAL UNIT PARTS LIST	9
CONTROLS AND FUNCTIONS	3	CASSETTE TAPE PLAYER/RECORDER	
DISASSEMBLY PROCEDURES	4	MECHANISM, PARTS LIST	9
POWER CORD REPLACEMENT	4	WIRING DIAGRAM	10
BLOCK DIAGRAM	4	P. C. BOARD	11
CIRCUIT DESCRIPTION	4	ELECTRICAL PARTS LIST	13
TIMING CHART	5	IC BLOCK DIAGRAM	20
ALIGNMENT PROCEDURES	6	SCHEMATIC DIAGRAM	22

harman/kardon

Parts and Service Office
240 Crossways Park West, Woodbury, N.Y. 11797
1112-0020A152 P-129109 2000 Printed in Japan

SPECIFICATIONS

		Nominal	Limit			Nominal	Limit
Track Configuration		4-track 2 Channel Stereo Cassette Deck		Dolby C NR		LN	66 dB
						CrO ₂	70 dB
						Metal	70 dB
				Channel Separation			45 dB
				Crosstalk			70 dB
				Record/Playback Distortion (Input 1 kHz)		LN	0.7%
						CrO ₂	0.8%
						Metal	0.9%
				MPX Filter Attenuation		at 15 kHz	0.3 dB
						at 19 kHz	35 dB
				Erase Ratio (Input 80 Hz)		LN	70 dB
						Metal	60 dB
				Input Sensitivity (Input 1 kHz) at Line Input			43 mV
				Input Impedance (Input 1 kHz) at Line Input			23 kΩ
							30 – 80 mV
							15 – 25 kΩ
				• DIMENSIONS (WxHxD)		17-3/8" x 5" x 12-5/8"	
						(443 x 134 x 342) mm	
				• WEIGHT		17.2 lbs (7.8 kg)	
				• POWER SUPPLY		U.S.A and Canada models	
						AC120V, 60 Hz	
						International model	
						AC230V/240V, 50/60 Hz	
				• POWER CONSUMPTION		U.S.A. and Canada models	
						29 W	
						International model	
						31 W	

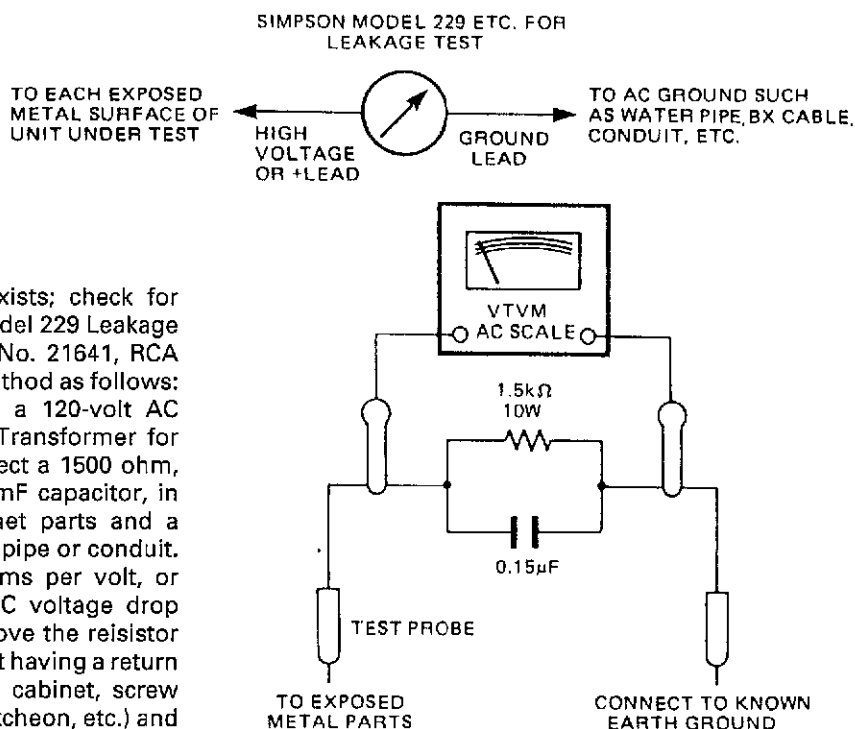
These specifications are service target specs.
Specifications and components are subject to change without notice.
Overall performance will be maintained or improved.

LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A)

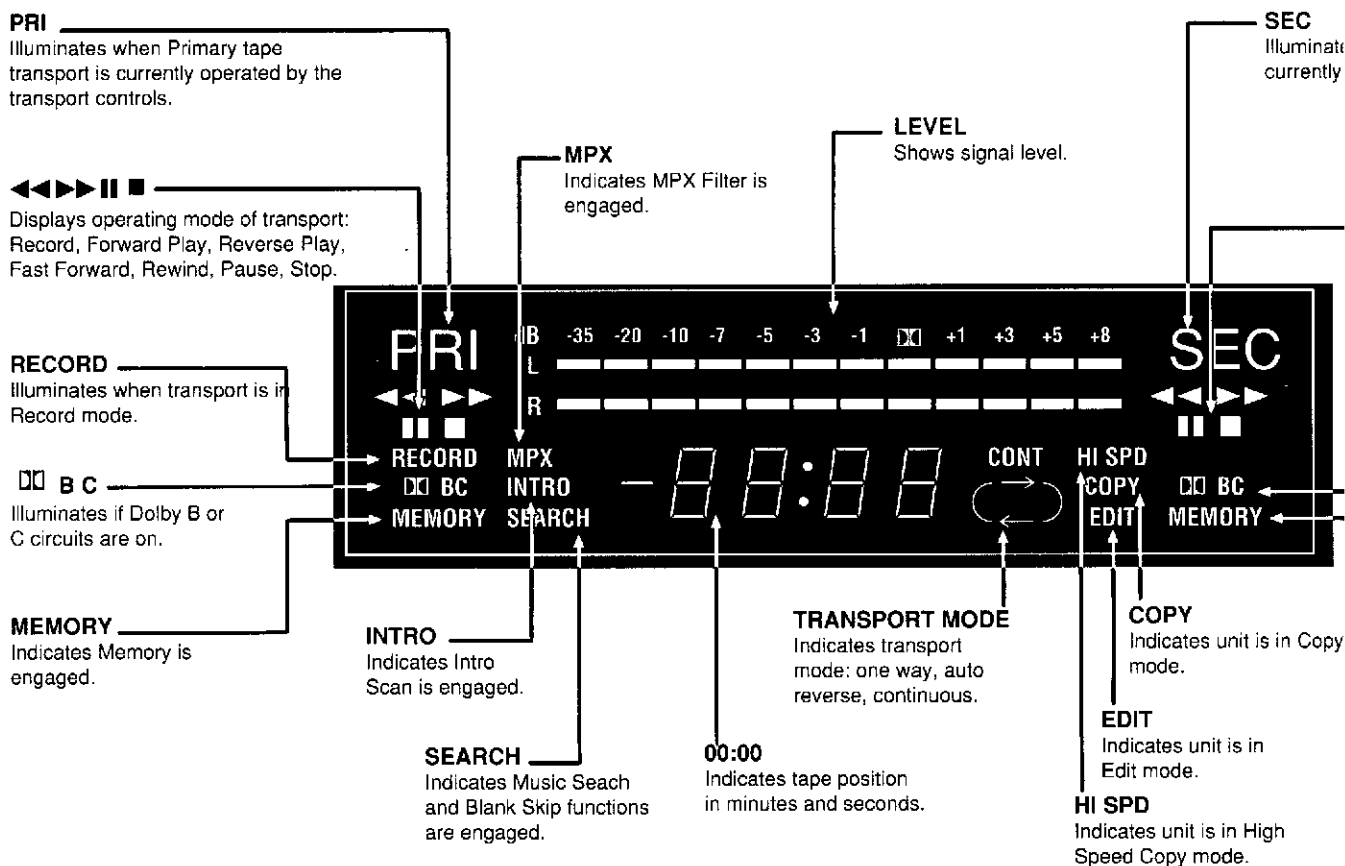
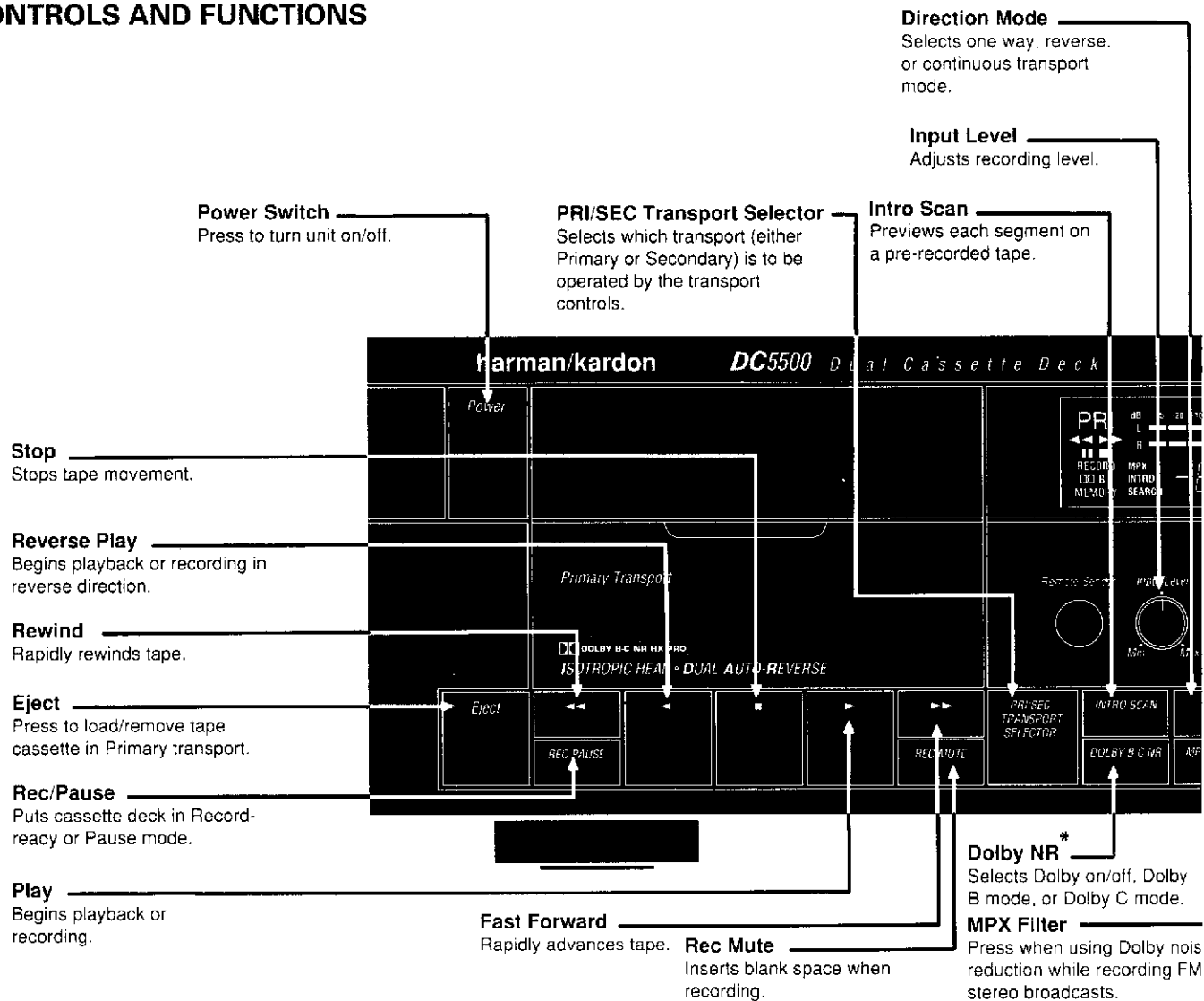
Before returning the unit to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
2. Replace all protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, or shields, isolation resistor/capacitor networks, mechanical insulators, etc.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows:
Plug the AC line cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 ohm, 10-watt resistor paralleled by a 0.15mF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.)

A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.



CONTROLS AND FUNCTIONS



DISASSEMBLY PROCEDURES (REFER TO PAGES 8, 9 and 10)**1 TOP COVER (133) REMOVAL**

Remove 4 screws (A) and 2 screws (B), and then remove the Top Cover (133).

2 FRONT PANEL ASSEMBLY (AA) REMOVAL

1. Remove the Top Cover (133).
2. Disconnect 1 connector (JL901) from (CN904) on the Main P. C. Board (PCB-1).
3. Remove 6 screws (C) and 3 screws (D), and then remove the Front Panel Assembly (AA).
4. If necessary, unsolder the lead wires.

3 CASSETTE TAPE RECORDER MECHANISM ASSEMBLY (103) REMOVAL

1. Remove the Front Panel Assembly (AA). (Refer to Step 2.)
2. Disconnect 4 connectors (LCN801, LCN802, LCN803 and LCN101/351) on the Primary Transport P. C. Board (103).
3. Remove 4 screws (E), and then the Cassette Tape Recorder Mechanism Assembly (103).

4 CASSETTE TAPE PLAYER MECHANISM ASSEMBLY (104) REMOVAL

1. Remove the Front Panel Assembly (AA). (Refer to Step 2.)
2. Disconnect 4 connectors (LCN151, LCN806, LCN807 and LCN808) on the Secondary Transport P. C. Board (104).
3. Remove 4 screws (F), and then the Cassette Tape Player Mechanism Assembly (104).

5 MAIN P. C. BOARD (PCB-1) REMOVAL

1. Remove the Front Panel Assembly (AA). (Refer to step 2).

2. Disconnect 4 connectors (LCN151, LCN806, LCN807 and LCN808) on the Secondary Transport P. C. Board (104).
3. Disconnect 4 connectors (LCN101/351, LCN801, LCN802 and LCN803) on the Primary Transport P. C. Board (104).
4. Disconnect 5 Jumper Leads (JL1, JL2, JL3, JL4 and JL5) from 5 connectors (CN805, CN804, CN803, CN802 and CN801) on the Power P. C. Board (PCB-4).
5. Remove 9 screws (G), 1 screw (H) and 2 screws (I) and then remove the Main P. C. Board (PCB-1).

6 POWER P. C. BOARD (PCB-4) REMOVAL

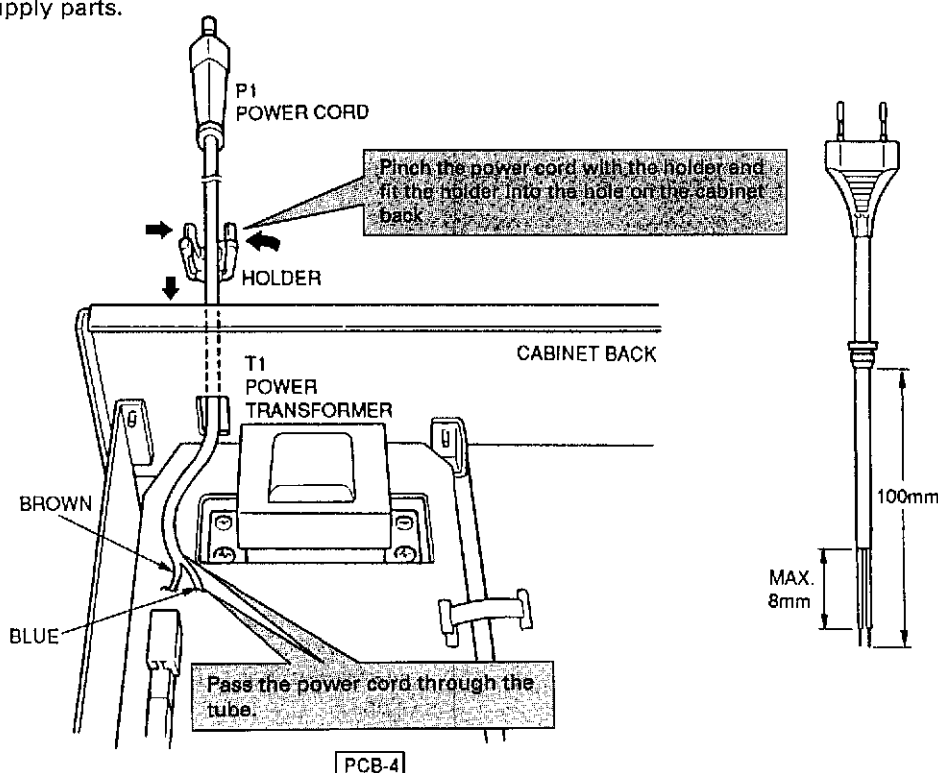
1. Remove the Front Panel Assembly (AA). (Refer to step 2).
2. Disconnect 5 Jumper Leads (JL1, JL2, JL3, JL4 and JL5) on the Power P. C. Board (PCB-4).
3. Disconnect 3 connectors (LCN801, LCN802 and LCN803) on the Primary Transport P. C. Board.
4. Remove 5 screws (J) and 4 screws (K), and then remove the Power P. C. Board (PCB-4).

7 OTHER P.C. BOARDS REMOVAL

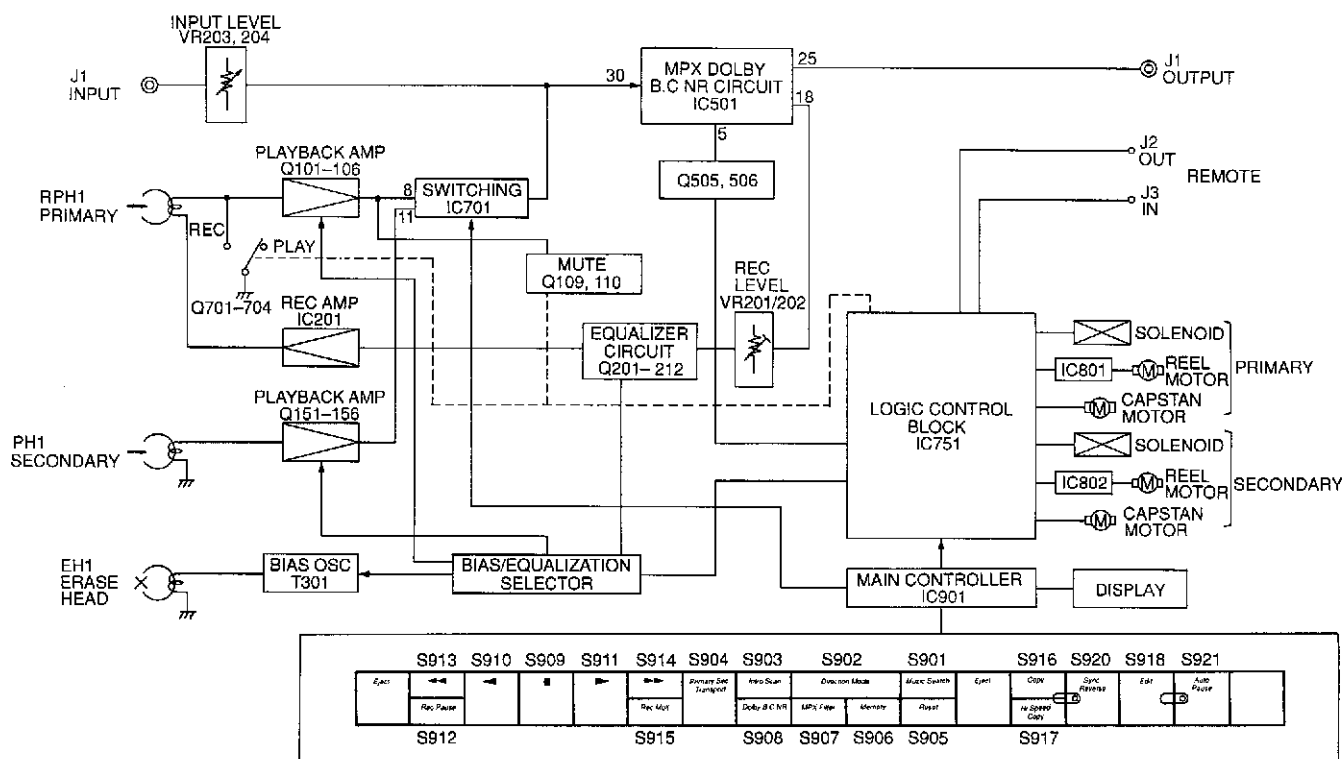
1. Remove the Front Panel Assembly (AA). (Refer to step 2).
2. Remove 4 screws (L), and then remove the Cont SW-L P. C. Board (PCB-7).
3. Remove 3 screws (M), and then remove the Cont SW-R P. C. Board (PCB-6).
4. Remove 3 Rotary Knobs (146) and 3 screws (N), and then remove the Volume P. C. Board (PCB-2).
5. Remove 7 screws (O), and then remove the Front P. C. Board (PCB-5).

POWER CORD REPLACEMENT (FOR SERVICE ENGINEERS OTHER THAN NORTH AMERICA)

In order to prevent fire shock hazard when replacing the power cord, follow the Procedure below to replace the part with the standard supply parts.



BLOCK DIAGRAM



CIRCUIT DESCRIPTION

PLAYBACK SIGNAL

The signal from the playback head (Primary Transport) is amplified by the playback amplifier Q101, Q103 and Q105 (L ch.), and is applied to the pin 29 (L ch.) and 2 (R ch.) of the Dolby NR IC501 (B/C type) through the Switching IC701. Use the same signal for both the secondary transport and the primary transport. Switching of the playback signal from the record mode (external input signal) to the playback mode is performed inside IC501.

IC501 is usually switched to the playback mode. However, the control signal transmitted to the pin 5 of IC501 from IC751 through Q505 and Q506 switches IC501 from the record mode to the playback mode. The input signal to IC501 is output from the pins 25 (L ch.) and 6 (R ch.) and applied to the OUTPUT AMP.

RECORD SIGNAL

The signal from the INPUT jack is controlled by the INPUT LEVEL control. It is applied to the pins 30 (L ch.) and 1 (R ch.) of the Dolby NR IC501 (B/C type). Switching of the record signal from the playback mode to the record mode is performed inside IC501. The control signal transmitted to the pin 5 of IC501 from IC751 through Q505 and Q506 switches IC501 from the playback mode to the record mode.

The input signal to the Dolby NR IC is output from the pins 28 (L ch.) and 3 (R ch.) of IC501 and passed through the MPX filter. Then it is input to the pins 27 (L ch.) and 4 (R ch.) and is output from the pins 24 (L ch.) and 7 (R ch.). The encoded signal is input to the pins 23 (L ch.) and 8 (R ch.) and then it is output from the pins 18 (L ch.) and 13 (R ch.). The signal output from IC501 passes through the record equalizer circuit and is amplified by the record amplifier of IC201. The amplified signal is then applied to the recording head after being synthesized by a bias signal.

MUTING OPERATION

The signal that mutes the sound produced at switching to recording or playback is applied from IC751 of the logic control block.

When the "STOP" button is pressed, the mute signal output from the pin 22 of IC751 turns ON Q709 (L ch.) and Q710 (R ch.) to short-circuit the output signals of the playback amplifiers for muting. For the purpose of preventing generation of noise at power ON/OFF, the mute signal is output from Q51. The muting is done by short circuiting the output signal with Q709 (L ch.) and Q710 (R ch.) turned ON.

LOGIC FOR RECORD MODE

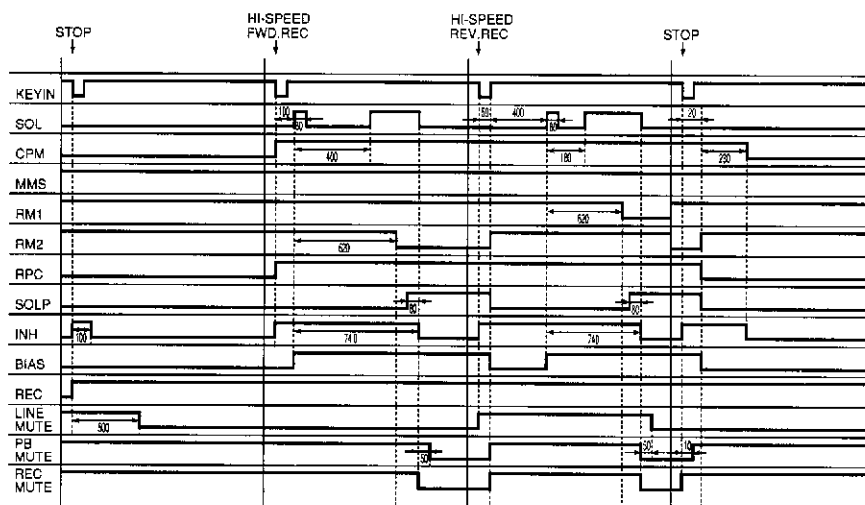
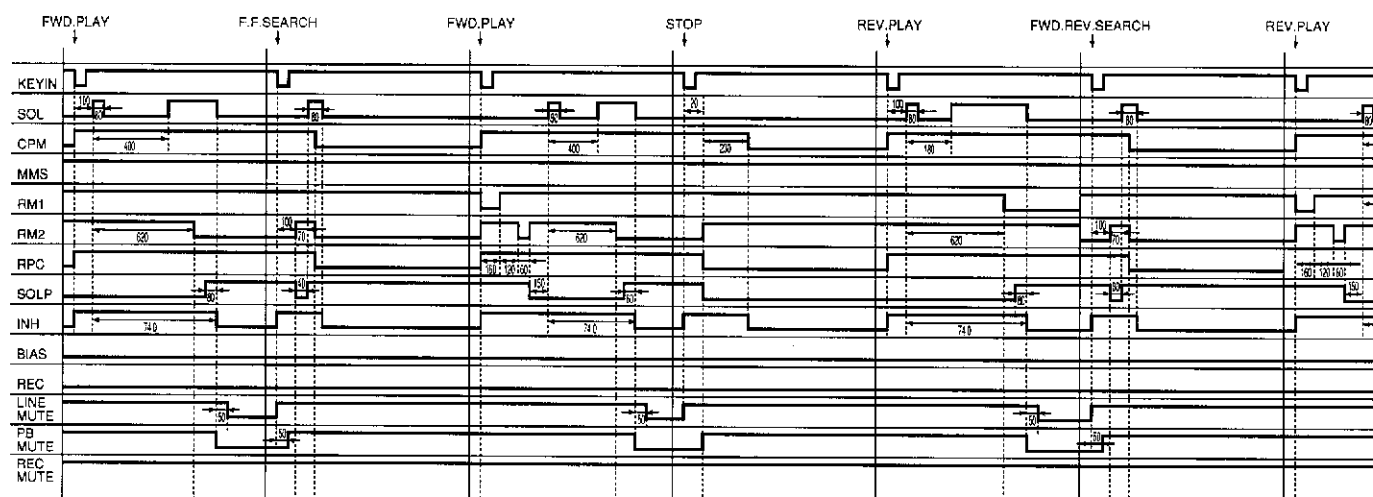
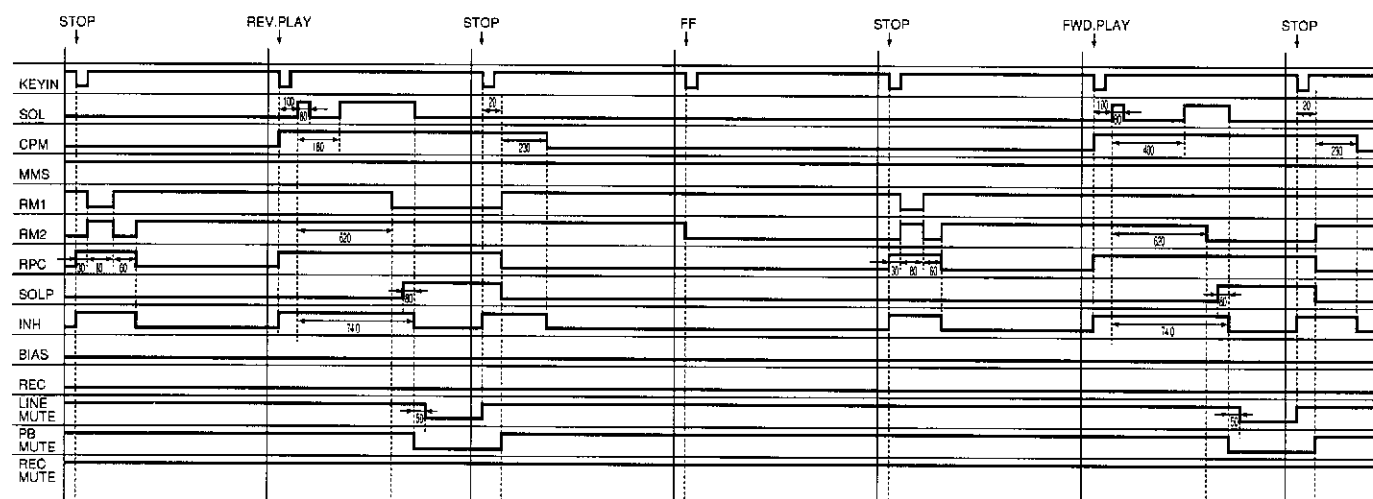
When the "REC" button is pressed, the pin 11 of IC751 becomes high level and Q109 (L ch.) and Q110 (R ch.) turn ON. The input to the Dolby NR IC is muted. Also Q712 and Q713 turn ON and Q711 turns OFF. Therefore Q701, Q703 (L ch.) and Q702, Q704 (R ch.) turn OFF to release the muting of the outputs from the record amplifiers.

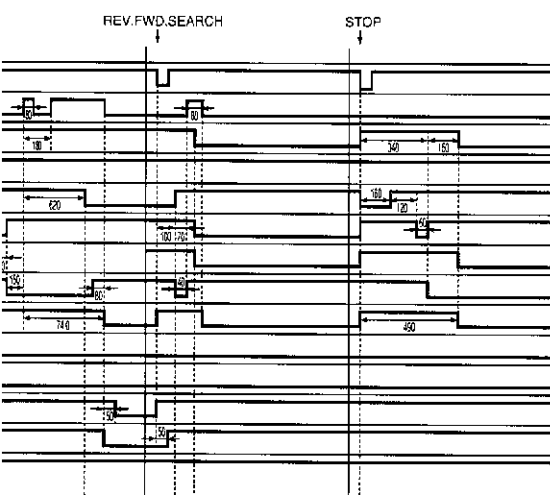
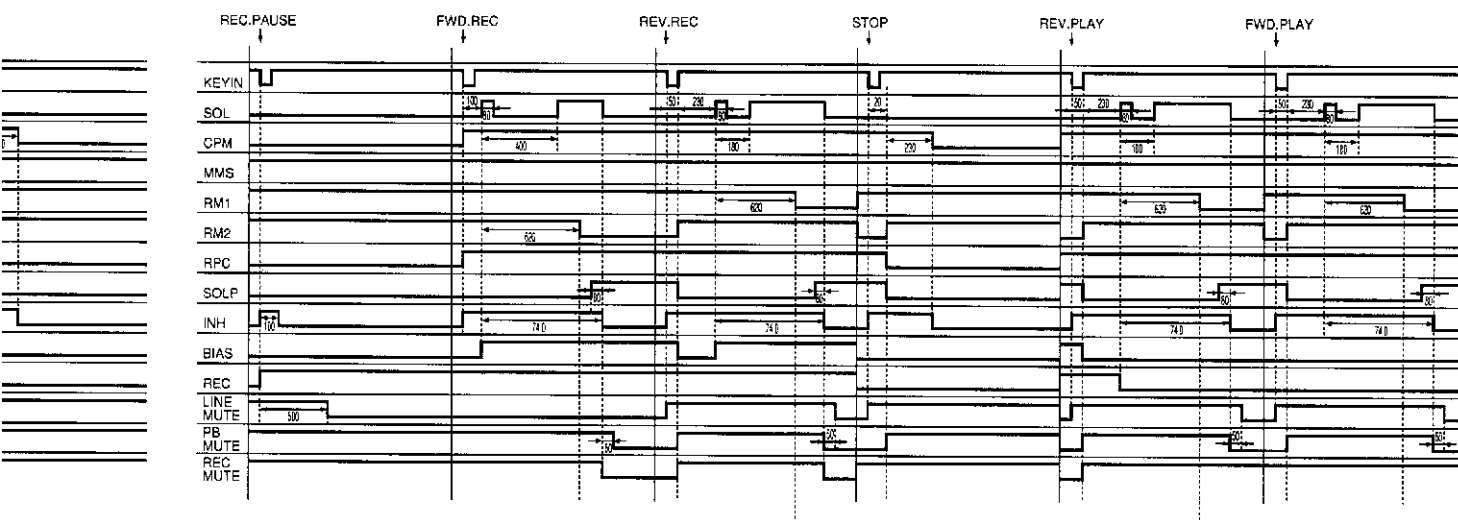
Also, Q505 turns ON and Q506 turns OFF to make the pin 5 of IC501 high level. Therefore the mode is switched to the record mode.

LOGIC FOR RECORD TO PLAYBACK MODE

When the "STOP", "PAUSE" or "PLAY" button is pressed, the pin 12 of IC751 becomes high level. Q219 turns ON and Q213 (L ch.), Q214 (R ch.) turn ON to mute the inputs to the record amplifiers. Also, Q712 and Q713 turn OFF and Q711 turns ON to turn ON Q701, Q703 (L ch.) and Q702, Q704 (R ch.). Therefore the outputs from the record amplifiers are muted. Also, Q505 turns OFF and Q506 turns ON to make the pin 5 of IC501 low level. Therefore the mode is switched to the playback mode.

TIMING CHART





ALIGNMENT PROCEDURES (REFER TO PAGES 11, 12, 23, 24 AND 25)

CASSETTE MECHANISM CONFIRMATION

Make sure to confirm conditons of the cassette mechanism as follows before adjustment.

- 1. **Confirmation of erase prevention function**
 - The switch should turn ON when a tape with erroneous erase preventive pawl is inserted. (Use a tape which is 0.2 mm smaller than the minimum size of 62.9 mm or a MAZ-0184-C gauge one.)
 - When the switch arm is moved back gradually from the ON position, the switch turn OFF.
- 2. **Confirmation of cassette pack detection function**
 - The switch should turn ON when a tape is inserted. (Use a tape whose minimum size is 63.5 mm or a MAZ-0184-C gauge one.)
 - When the switch arm is moved back gradually from the ON position, the switch should turn OFF.
- 3. **Confirmation of eject function**
 - The cassette compartment opens smoothly and no abnormal noise should be heard while opening and closing.
 - The eject lever opens smoothly without contacting the chassis and damper.
 - The eject button can not be pressed during playback.
- 4. **Confirmation of playback, fast forward and rewind functions**
 - The torque used in each of the playback, fast forward and rewind modes should be within specification.

Playback	35 gr.cm – 70 gr.cm
Fast Forward	70 gr.cm – 150 gr.cm
Rewind	70 gr.cm – 150 gr.cm
 - No abnormal noise should be heard during operation in any mode. The solenoid switching sound should not be considered as a noise.
- 5. **Confirmation of positions of record/playback head and playback head**
 - Head height
 - a) Set the M-300 head gauge.
 - b) Set the unit in the playback mode and place the adjustment chip on the head gauge as shown in the Fig. 1.
 - c) The adjustment chip should not contact the tape guide of both record/playback head and playback head.

- Head position
 - a) Set the M-300 head gauge.
 - b) Set the unit in the playback mode and place the adjustment chip on the head gauge as shown in the Fig. 2.
 - c) With both record/playback head and playback head, the adjustment chip should be between MIN and MAX of the M-300 head gauge.

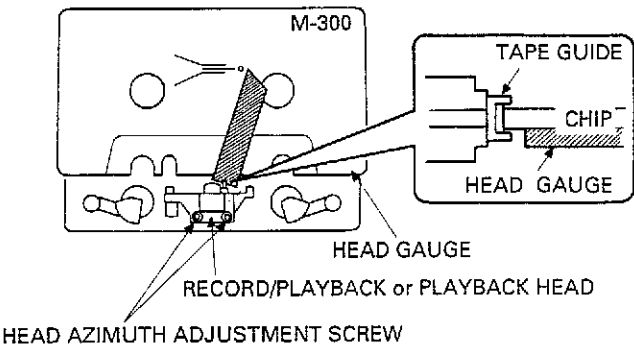
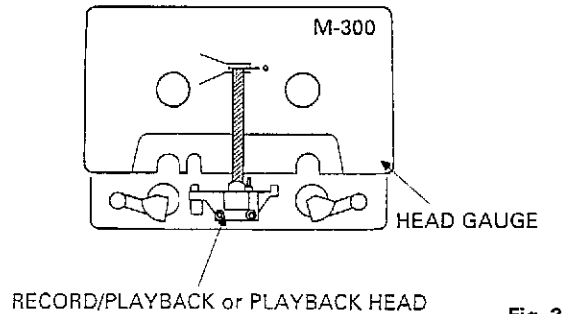


Fig. 1

ELECTRICAL ADJUSTMENT AND CONFIRMATION

1. Before adjustment

- Before electrical adjustment, make sure that confirmations of the cassette mechanism are all completed.
- After the power switch is pushed on, wait for 10 minutes before measuring to be sure of the most stable operation.
- Since head magnetization, dust accumulations, etc. are likely to introduce errors in the various characteristics, it is very important that the heads are properly demagnetized and cleaned before commencing any adjustment, particularly frequency response and head azimuth adjustment.

2. Instruments required

- Low frequency oscillator
- AC VTVM or dual channel AC VTVM
- Oscilloscope
- Wow/flutter meter
- Frequency counter
- Distortion meter

3. Test tapes

- Azimuth adjustment MTT-114 or TCC-153
- Tape speed adjustment MTT-111DN or TCC-112
- Playback output level adjustment MTT-150 or TCC-130
- Music search adjustment SCC-1425
- Playback frequency characteristic confirmation TCC-1216 or TCC-162C and TCC-262C
- Reference tapes
LN SCC-502
CrO₂ SCC-1360
METAL SCC-565

Note:

C-90 differs with C-60 in the thickness and bias is of unequal, so adjust with the tape whose bias is of Specified Value.

4. General conditions (unless otherwise noted)

Controls and Switches	Settings
Dolby NR	Off
Input Level	Maximum
MPX Filter	Off
Bias Fine Trim	Center
Input Balance	Center

Azimuth Adjustment

When the maximum level point of R channel does not equal that L channel, connect the oscilloscope as shown in Fig. 3 and proceed with azimuth adjustment so that L and R channels are in phase.

- Connect L channel tape out to "X (or V)" and R channel to "Y (or H)". Observe the lissajous waveform.
- Set L and R channels to monaural. Adjust vertical and horizontal gain so that the waveform becomes 45 degree.
- Adjust azimuth so that the measurement of "a" becomes maximum and the measurement of "b" becomes minimum against the 45 degree line.

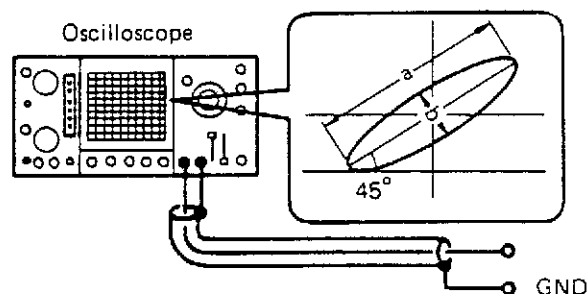


Fig. 3

PLAYBACK FREQUENCY CHARACTERISTIC TEST TAPE : TCC-162C, TCC-262C

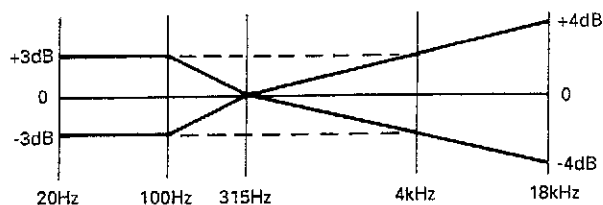


Fig. a

COPY/PLAYBACK FREQUENCY CHARACTERISTIC TEST TAPE : TCC-262C TO SCC-502 TCC-162C SCC-1360 SCC-565

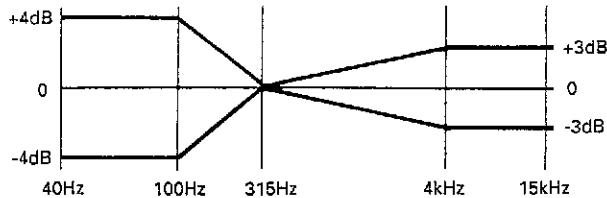


Fig. c

RECORD/PLAYBACK FREQUENCY CHARACTERISTIC TEST TAPE : SCC-502, SCC-1360, SCC-565 DOLBY NR : OFF

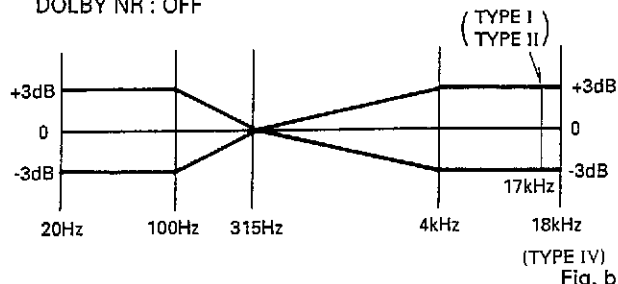


Fig. b

HI-SPEED COPY/PLAYBACK FREQUENCY CHARACTERISTIC TEST TAPE : TCC-262C TO SCC-502, TCC-162C SCC-1360 SCC-565

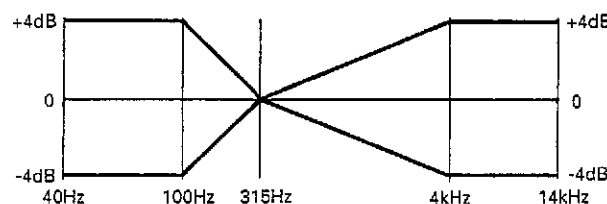
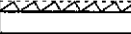
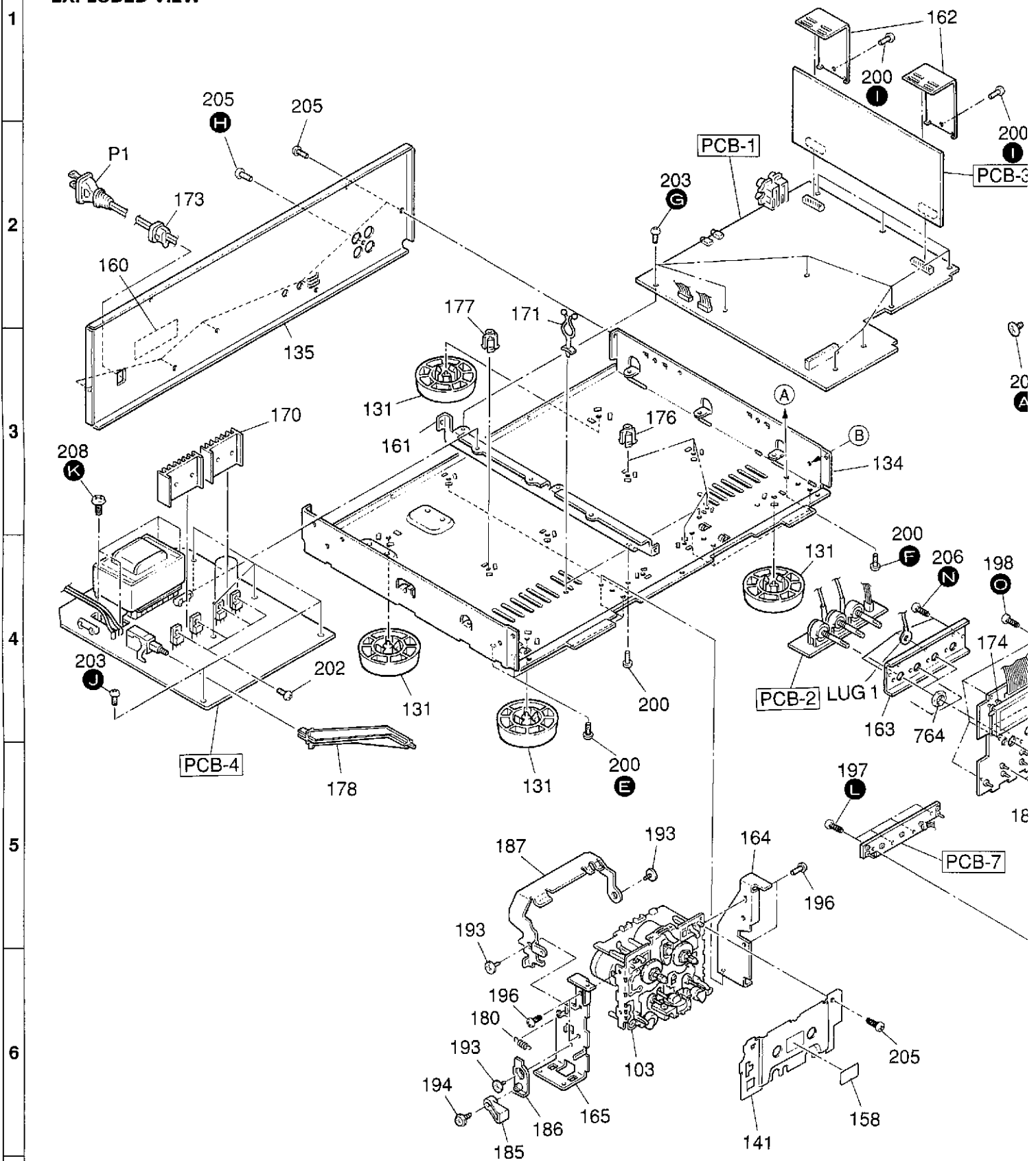
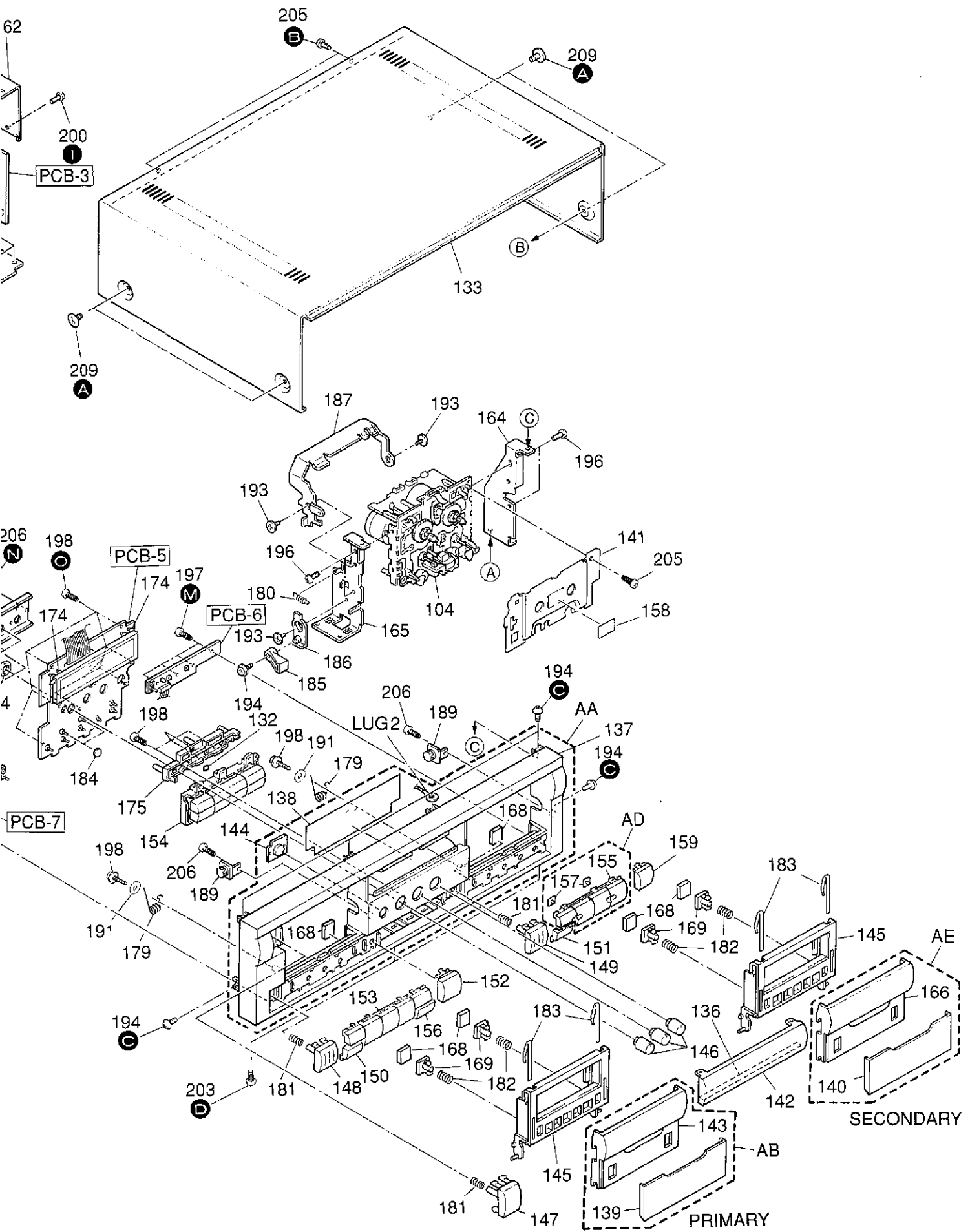


Fig. d

Step		Alignment	Instrument Required	Input Signal
1		Primary Deck Quick sensor	VTVM Black tape with leader tape	
2		Secondary Deck Quick sensor	VTVM Black tape with leader tape	
3		Azimuth	VTVM Oscilloscope Test tape (MTT-114 or TCC-153)	
4		Primary Deck Tape speed (Hi-speed)	Frequency counter Test tape (MTT-111DN)	
5		Primary Deck Tape speed (Normal speed)	Frequency counter Test tape (MTT-111DN)	
6		Secondary Deck Tape speed (Hi-speed)	Frequency counter Test tape (MTT-111DN)	
7		Secondary Deck Tape speed (Normal speed)	Frequency counter Test tape (MTT-111DN)	
8		Primary Deck Playback output level	VTVM Test tape (MTT-150 or TCC-130)	
9		Secondary Deck Playback output level	VTVM Test tape (MTT-150 or TCC-130)	
10		Primary Deck Playback frequency characteristic confirmation	VTVM Test tape (TCC-1216 or TCC-162C and TCC-262C)	
11		Secondary Deck Playback frequency characteristic confirmation	VTVM Test tape (TCC-1216 or TCC-162C and TCC-262C)	
12		Music Search	Oscilloscope Test tape (SCC-1425)	
13		Blank Search	Oscilloscope Test tape (SCC-1425)	
14		Bias frequency confirmation	Frequency counter	
15		Dolby HX PRO	Oscilloscope	
16		Bias trap	VTVM	
17	1	Bias level (pre-adjustment)	VTVM	
	2			
	3			
18		Record level (pre-adjustment)	VTVM Blank tapes METAL SCC-565 CrO ₂ SCC-1360 Normal SCC-502	Apply 1 kHz signal to INPUT jack. Set INPUT LEVEL knob so that TP501 and TP502 to GND voltage is 560 mV in REC-PAUSE mode.
19	1	Record/playback frequency characteristic	VTVM Blank tapes CrO ₂ SCC-1360 METAL SCC-565 Normal SCC-502	Apply 1 kHz signal to INPUT jack. The output at TP501 and TP502 are Dolby level -25dB. Then adjust with a 20 Hz to 30 kHz sweep signal.
	2			
	3			
20		Record level	VTVM Blank tapes CrO ₂ SCC-1360 METAL SCC-565 Normal SCC-502	Set INPUT LEVEL knob so that TP501 and TP502 to GND voltage is 560 mV (1 kHz) in REC-PAUSE mode.
21		High speed copy frequency characteristic	VTVM Blank tapes (Primary Deck) CrO ₂ SCC-1360 METAL SCC-565 Normal SCC-502 Test tape (Secondary Deck) TCC-185C	Apply 1 kHz signal to INPUT jack. The output at TP501 and TP502 are Dolby level -25dB. Then adjust with a 20 Hz to 30 kHz sweep signal.
22		High speed copy frequency characteristic	VTVM Blank tapes CrO ₂ SCC-1360 METAL SCC-565 Normal SCC-502 Test tape TCC-285C	Apply 1 kHz signal to INPUT jack. The output at TP501 and TP502 are Dolby level -25dB. Then adjust with a 20 Hz to 30 kHz sweep signal.
23		Meter level	VTVM	Apply 1 kHz signal to INPUT jack. Set INPUT LEVEL knob so that TP501 and TP502 to GND voltage is 1.5 dB below 775 mV.
24		MPX filter characteristic confirmation	VTVM	Apply 19 kHz, 15 kHz and 1 kHz signal to INPUT jack. Set INPUT LEVEL knob so that TP501 and TP502 to GND voltage is 775mV.

	Mode	Test Point	Adjustment	For
	PB (Primary)	TP809	VR803	Adjust VR803 so the voltage at the test point is 0.62V when the leader tape is running and 200 mV or less in the middle of tape.
	PB (Secondary)	TP859	VR853	Adjust VR853 so the voltage at the test point is 0.62V when the leader tape is running and 200 mV or less in the middle of tape.
	PB	TP501 (L ch), GND TP502 (R ch), GND	Azimuth screw	Maximum output Refer to "Azimuth Adjustment" on page 6.
	PB	TP501 (L ch), GND TP502 (R ch), GND	VR801	6020 Hz ± 20 Hz (TP806 : GND connection) Adjust at the center of test tape.
	PB	TP501 (L ch), GND TP502 (R ch), GND	VR802	3010 Hz ± 10 Hz Adjust at the center of test tape.
	PB	TP501 (L ch), GND TP502 (R ch), GND	VR851	6020 Hz ± 20 Hz (TP856 : GND connection) Adjust at the center of test tape.
	PB	TP501 (L ch), GND TP502 (R ch), GND	VR852	3010 Hz ± 10 Hz Adjust at the center of test tape.
	PB (Primary)	TP501 (L ch), GND TP502 (R ch), GND	VR101 (L ch) VR102 (R ch)	775 mV Tape selector is Normal position. Adjust at Dolby NR off.
	PB (Secondary)	TP501 (L ch), GND TP502 (R ch), GND	VR151 (L ch) VR152 (R ch)	775 mV Tape selector is Normal position. Adjust at Dolby NR off.
	PB (Primary)	TP501 (L ch), GND TP502 (R ch), GND	VR103 VR104	Adjust VR103 and VR104 so the playback frequency response (1 kHz/18 kHz) is $+0.6 \sim 0.7$ dB. Refer to Fig. a.
	PB (Secondary)	TP501 (L ch), GND TP502 (R ch), GND	VR153 VR154	Adjust VR153 and VR154 so the playback frequency response (1 kHz/18 kHz) is $+0.6 \sim 0.7$ dB. Refer to Fig. a.
	FORWARD SEARCH	TP601, GND	VR602	3.0 ± 0.05 V 
	SEARCH PLAYBACK	TP601, GND	VR601	1.0 ± 0.05 V 
	REC/PB (Primary)	TP101 (L ch), GND TP102 (R ch), GND	T301	105 kHz ± 3 kHz Use METAL tape. Short-circuit R708 and JP699, R707 and JP700
	REC/PB	Pin 13 of IC301, GND Pin 6 of IC301, GND	L301 L302	Minimum voltage Use METAL tape
	REC/PB (Primary)	TP201 (L ch), GND TP202 (R ch), GND	LC201, LC202	Minimum voltage Use METAL tape. INPUT VR. minimum
	REC/PB (Primary)	TP101 (L ch), GND TP102 (R ch), GND	VR301 VR302	35 mV Test tape is METAL blank tape. Short-circuit R708 and JP699, R707 and JP700
			VR305 VR306	20 mV Test tape is CrO ₂ blank tape. Short-circuit R708 and JP699, R707 and JP700
			VR303 VR304	15 mV Test tape is Normal blank tape. Short-circuit R708 and JP699, R707 and JP700
VEL knob mV in	REC/PB (Primary)	TP501 (L ch), GND TP502 (R ch), GND	VR201, VR202 VR351, VR352	560 mV Test tape is METAL tape. Adjust VR301 and VR302 so that the distortion becomes 0.9% $\sim$ 1.2%
			VR305, VR306	560 mV Adjust VR305 and VR306 so that the distortion becomes 0.9% (CrO ₂).
			VR303, VR304	Adjust VR303 and VR304 so that the distortion becomes 0.8% (Normal).
TP501	REC/PB	OUTPUT jack	VR305, VR306 L201, L202 (VR301, VR302)	So that the record/playback frequency response is flat (at least within the range in Fig. b.) Test tape is CrO ₂ tape.
			VR301 VR302	So that the record/playback frequency response is flat (at least within the range in Fig. b.) Test tape is METAL tape.
			VR303, VR304 L201, L202 (VR301, VR302)	So that the record/playback frequency response is flat (at least within the range in Fig. b.) Test tape is Normal tape.
to GND	REC/PB	TP501 (L ch), GND TP502 (R ch), GND	VR201 VR202	560 mV Perform adjustment using CrO ₂ . Perform checking only for Normal and METAL tapes.
TP501	Hi-Speed Copy Play	OUTPUT jack	L203, L204	Load TCC-185C in SEC DECK and SCC-565 in PRI DECK and execute high-speed copying, then play the tape in the PRI DECK. Check that the frequency response of the 14 kHz signal is within ± 3 dB of that of the 1 kHz signal. If this specification cannot be satisfied, adjust L203 and L204. After adjustment is confirmed, also use the SCC-502 and SCC-1360 tapes to check.
TP501	Hi-Speed Copy Play	OUTPUT jack	L203, L204	Load TCC-285C in SEC DECK and SCC-565 in PRI DECK and execute high-speed copying, then play the tape in the PRI DECK. Check that the frequency response of the 14 kHz signal is within ± 3 dB of that of the 1 kHz signal. If this specification cannot be satisfied, adjust L203 and L204. After adjustment is confirmed, also use the SCC-502 and SCC-1360 tapes to check.
VEL knob B below	REC/PAUSE	PEAK LEVEL METER	VR401 VR402	Adjust so the -1 dB segments light.
jack. to GND	REC/PAUSE MPX filter ON	TP501 (L ch), GND TP502 (R ch), GND	LC501 LC502	Adjust for -0.3 dB at 15 kHz and > 35 dB at 19 kHz

**GENERAL UNIT
EXPLODED VIEW**



GENERAL UNIT PARTS LIST

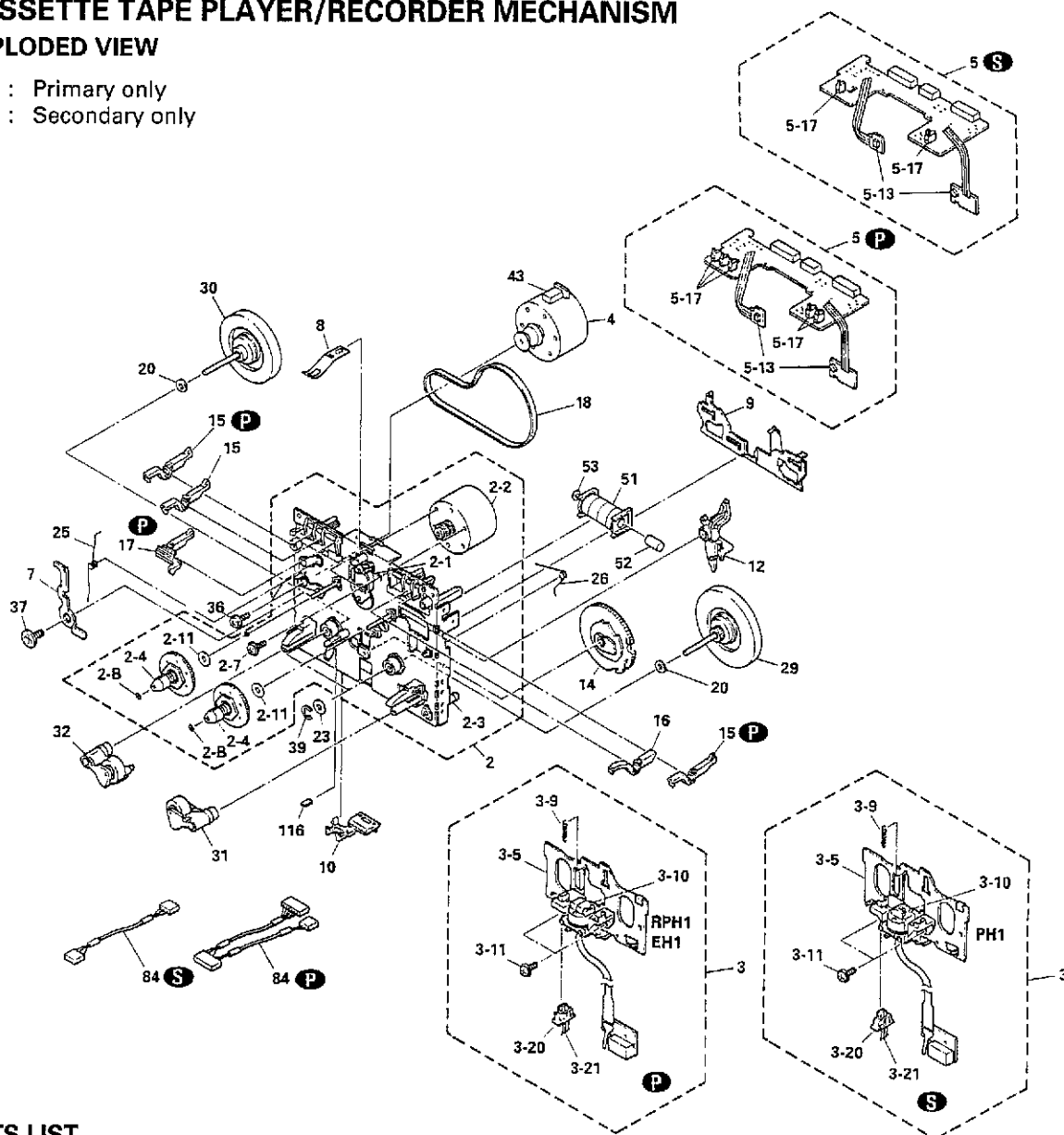
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
AA	A442-DC5500B	FRONT PANEL ASSEMBLY	166	1532-21001	WINDOW, CASS.LID
AB	A532-DC5500B	WINDOW ASSEMBLY, PRI	167	2216-7197	SHIELD PLATE
AD	A662-DC5500B	PUSH BUTTON ASSEMBLY	168	2114-87143	BUSHING (x6)
AE	A532-DC5500F	WINDOW ASSEMBLY, SEC	169	2240-7371	HOLDER (x4)
103	3112-15905	MECHA ASSEMBLY, PRI(REC/PLAY)	170	2222-7281	HEAT SINK (x2)
104	3112-15906	MECHA ASSEMBLY, SEC(PLAY ONLY)	171	2240-7050	HOLDER (x2)
131	1319-D3301	LEG (x4)	172	2240-RD101	HOLDER (x5)
132	1751-19702	LABEL	173	2240-364	HOLDER
133	1414-16701	TOP COVER	174	2240-7387	HOLDER (x2)
134	1424-34201	CABINET BOTTOM	175	2240-7391	HOLDER
135	1424-34302	CABI BACK BK	176	2360-7022	BOSS, SPE (x4)
135	1424-34305	CABI BACK IB BB	177	2360-7063	BOSS, SPE
136	1751-22201	LABEL, WINDOW	178	2601-7199	SHAFT
137	1442-26802	PANEL, FRONT	179	2651-059	SPRING (x2)
138	1511-22101	PLATE, DISPLAY	180	2651-11212	SPRING (x2)
139	1512-07505	PLATE, CASS. LID (PRI)	181	2651-2101732	SPRING (x3)
140	1512-07502	PLATE, CASS. LID (SEC)	182	2651-2101735	SPRING (x4)
141	1514-23501	PLATE, MECHA (x2)	183	2652-105	LEAF SPRING (x4)
142	1532-20901	WINDOW, DISPLAY	184	2132-413	SPACER
143	1532-21001	WINDOW, CASS. LID	185	2672-7051	LEVER (x2)
144	1532-21101	WINDOW	186	2672-7052	LEVER (x2)
145	1612-07801	CASS. LID (x2)	187	2672-7053	LEVER (x2)
146	1632-20401	ROTARY KNOB (x3)	189	2692-015	DAMPER (x2)
147	1662-58401	PUSH BUTTON, POWER	191	2401-0216	WASHER, METAL (x2)
148	1662-65001	PUSH BUTTON, EJECT L	193	2320-044	SCREW, SPE+ (x6)
149	1662-65101	PUSH BUTTON, EJECT R	194	2340-7009	SCREW, SPE T+ (x8)
150	1662-65201	PUSH BUTTON, REC/PAUSE	196	2347-260527	SCREW, BND T+ (2.6x5mm)(x8)
151	1662-65301	PUSH BUTTON, HIGH SPEED COPY	197	2347-260626	SCREW, BND T+ (2.6x6mm)(x8)
152	1662-65401	PUSH BUTTON, TRANSPORT	198	2347-R0126122	SCREW, BND T+ (2.6x12mm)(x13)
153	1662-65501	PUSH BUTTON, CASS. L	200	2347-R0130062	SCREW, BND T+ (3x6mm)(x13)
154	1662-65801	PUSH BUTTON, CENTER	202	2347-R0130082	SCREW, BND T+ (3x8mm)(x4)
155	1662-65901	PUSH BUTTON, CASS. R	203	2347-R0130082	SCREW, BND T+ (3x8mm)(x17)
156	1662-66301	PUSH BUTTON, REC MUTE	205	2347-R0130084	SCREW, BND T+ (3x8mm)(x10)
157	1732-08201	INDICATOR	206	2347-R0130122	SCREW, BND T+ (3x12mm)(x5)
158	1741-01601	ORNAMENT (x2)	208	2347-R0140062	SCREW, BND T+ (4x6mm)(x4)
159	1742-08201	ORNAMENT, CASS. R	209	2347-R0140064	SCREW, BND T+ (4x6mm)(x4)
160	1756-CSA	LABEL BK	△ P1	4161-71151	CORD W/PLUG BK
161	2219-8293	METAL FITTG, CENTER PCB	△ P1	4161-7256	CORD W/PLUG IB
162	2219-8323	METAL FITTG, DOLBY PCB (x2)	△ P1	4161-04100	CORD W/PLUG BB
163	2219-8324	METAL FITTG, VR HOLD			
164	2219-8325	METAL FITTG, MECHA R (x2)			
165	2219-8326	METAL FITTG, MECHA L (x2)			

NOTE:

△ SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

CASSETTE TAPE PLAYER/RECORDER MECHANISM **EXPLODED VIEW**

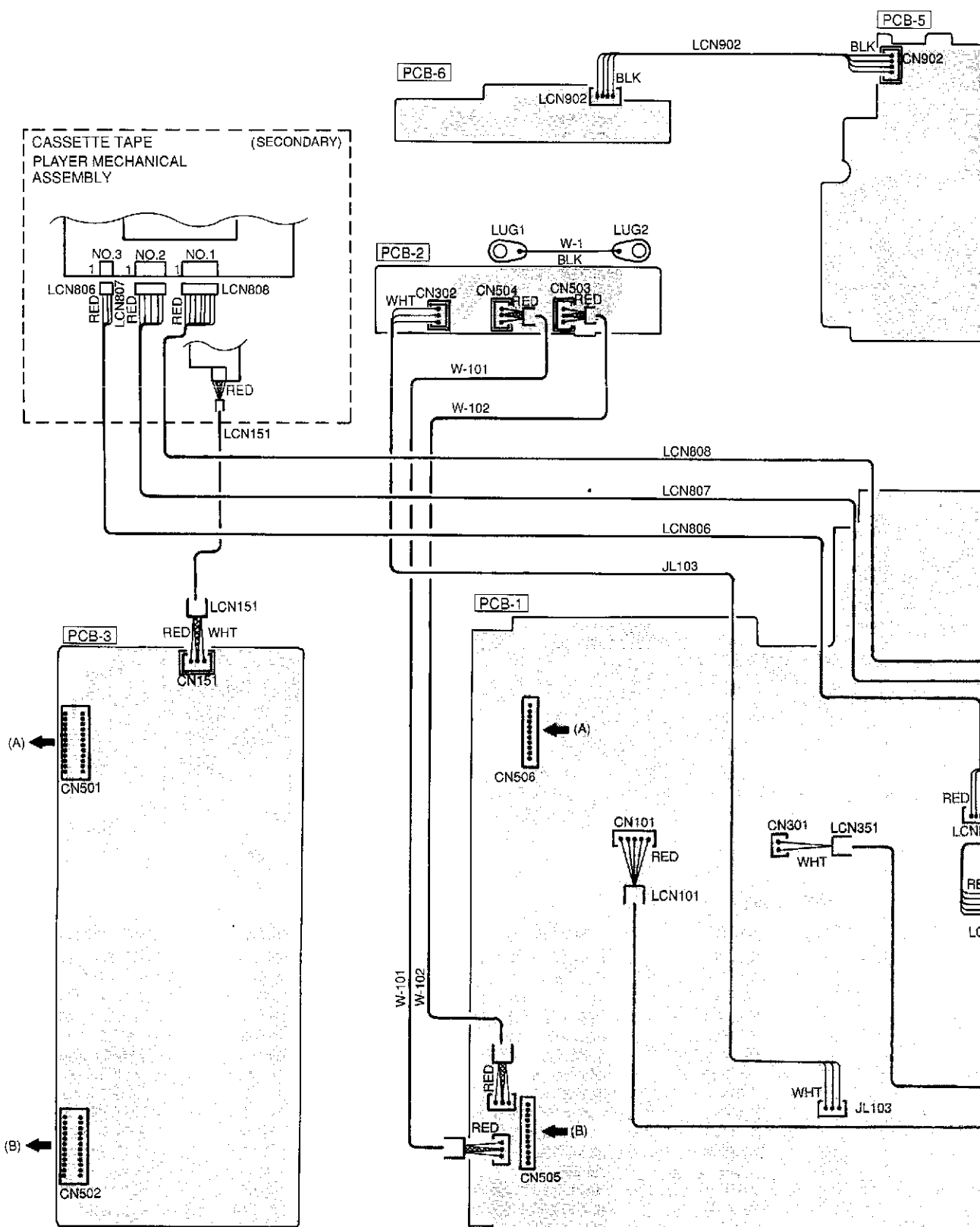
P : Primary only
S : Secondary only

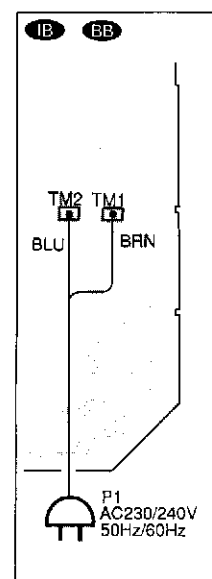
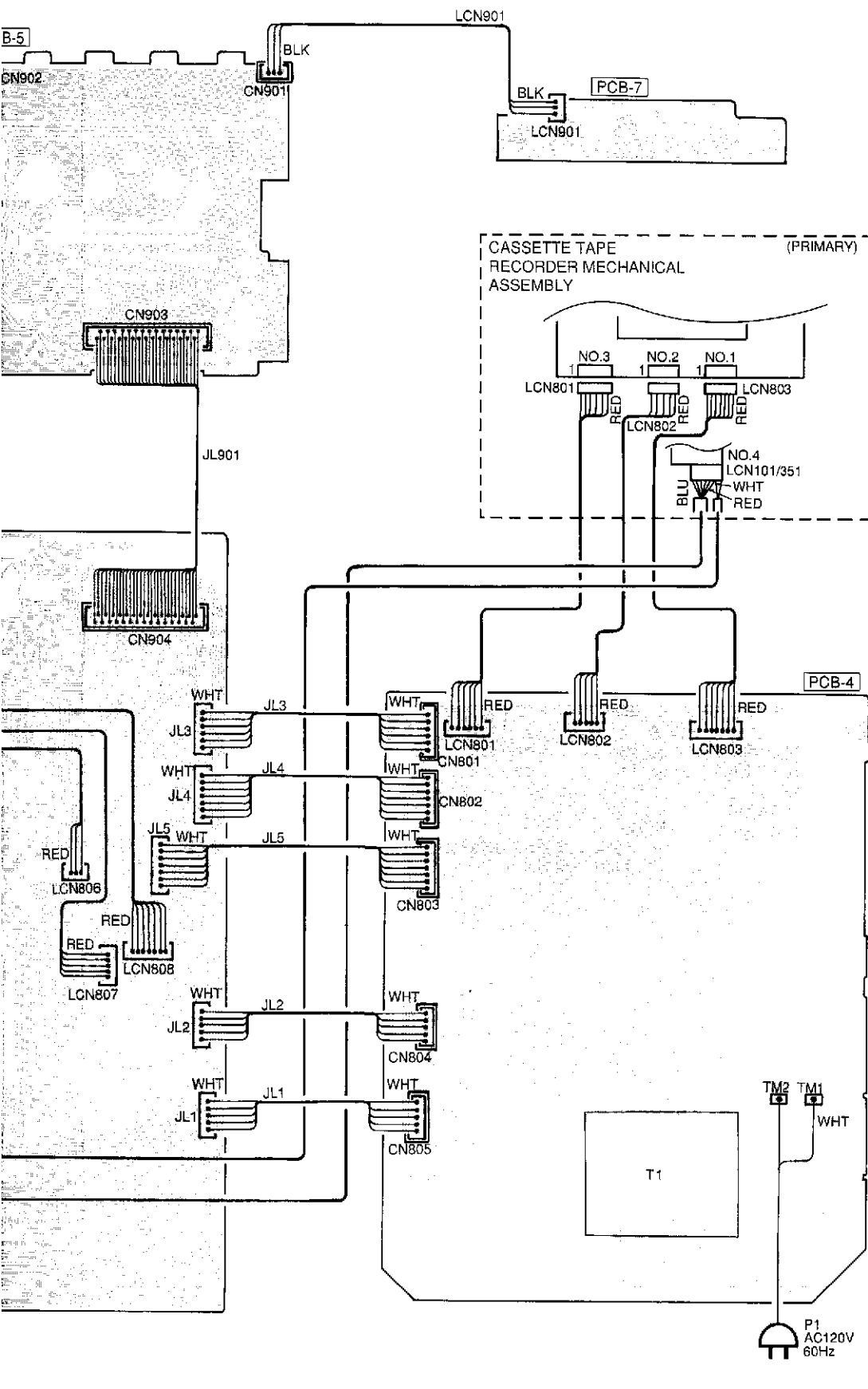


PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
2	F511-496	XPORT CHASSIS (EXCL. HEAD)	10	FD45H-15	LEAD HOLDER
2-1	F517-049	IDLER BLK	12	FD45G-12	PLAY ARM
2-2	F564-280	MTR REEL BLK	14	FD45B-15	CAM GEAR (3R)
2-3	F612-168	CHASSIS BASE BLK	15	FD44T-14	SWITCH ARM, REC
2-4	F623-037	REEL BASE BLK	16	FD44Y-12	SWITCH ARM(R), PACK
2-7	FG156-11A	SCREW 2.6×6.4 ZN	17	FD44V-12	SWITCH ARM(L), METAL P
2-8	FJ111-17	WASHER 1.7×0.25	18	FF17G-21, 31	MAIN BELT
2-11	UJ12V-11	WASHER 2.1×0.25T	20	FJ111-30	WASHER 2.6×0.25
3	F513-538	PLATE HD BLK P	23	FJ111-14	WASHER 2.6×0.5
3	F513-583	PLATE HD BLK S	25	FK28M-15	EJECT PREVENTION SPRING (L)
3-5	FC52E-36	HEAD BASE	26	FK28R-11	SLIDE SPRING
3-9	FK26N-14	HB SP	29	FR23B-11	FLYWHEEL ASS'Y (ZDC)
3-10	FU18D-61	HADKH5725B P R/P HEAD	30	FR22K-13	FLYWHEEL ASS'Y (RVS)
3-10	FU18L-61	HADKH2707B S P HEAD	31	FR20L-21A	PINCH ROLLER ASS'Y(R)
3-11	UG19D-11	SCREW TT 2.0×5 ZN	32	FR20M-22	PINCH ROLLER ASS'Y(L)
3-20	AZ13P-00	SPI-320BC	36	FG114-14	SCREW 2.6×5 ZN
3-21	WG50M-03A	QS LEAD WIRE	37	UG15S-11A	SCREW
4	F525-256	MTR MAIN BLK	39	UG13U-15	E RING
5	F567-404	PCB CONTROL BLK P	43	FF17C-12	HOLDER CUSHION(L)
5	F567-405	PCB CONTROL BLK S	51	F765-263	SOLENOID BLK
5-1	F743-065	PCB BASE BLK	52	FL39H-12A	FIXED BAR
5-13	AZ15S-00	GP2S04B	53	FL39K-12	PLANGER
5-17	UE16E-11	PUSH SWITCH	84	WH52P-66	WIRE CONNECTOR (R/P) P
7	FC39L-70	EJECT PREVENTION ARM(L)	84	WH52N-04A	WIRE CONNECTOR (PB) S
8	FC52H-12	SPRING CASSETTE	116	UT11R-11	REFLECTION PLATE
9	FC52F-15	SLIDE PLATE			

WIRING DIAGRAM





WIRE COLOR ABBREVIATIONS

REC : Red	YEL : Yellow
ORG : Orange	PUP : Purple
BLU : Blue	PIK : Pink
WHT : White	BRN : Brown
BLK : Black	

P. C. BOARD (1)

PCB-1 Main P. C. Board

SECONDARY
QUICK SENSOR

SECONDARY
TAPE SPEED
(NORMAL) ADJ.

SECONDARY
TAPE SPEED (HI)
ADJ.

RECORD/PLAY
CHARACTER

PCB-2

VR P. C. Board

BIAS
FREQUENCY

PRIMARY
PLAYBACK
FREQUENCY
CHARACTERISTIC
ADJ.

BIAS
FINE TRIM

INPUT
BALANCE

INPUT
VOLUME

PRIMARY PLAYBACK
OUTPUT LEVEL
(Rch) ADJ.

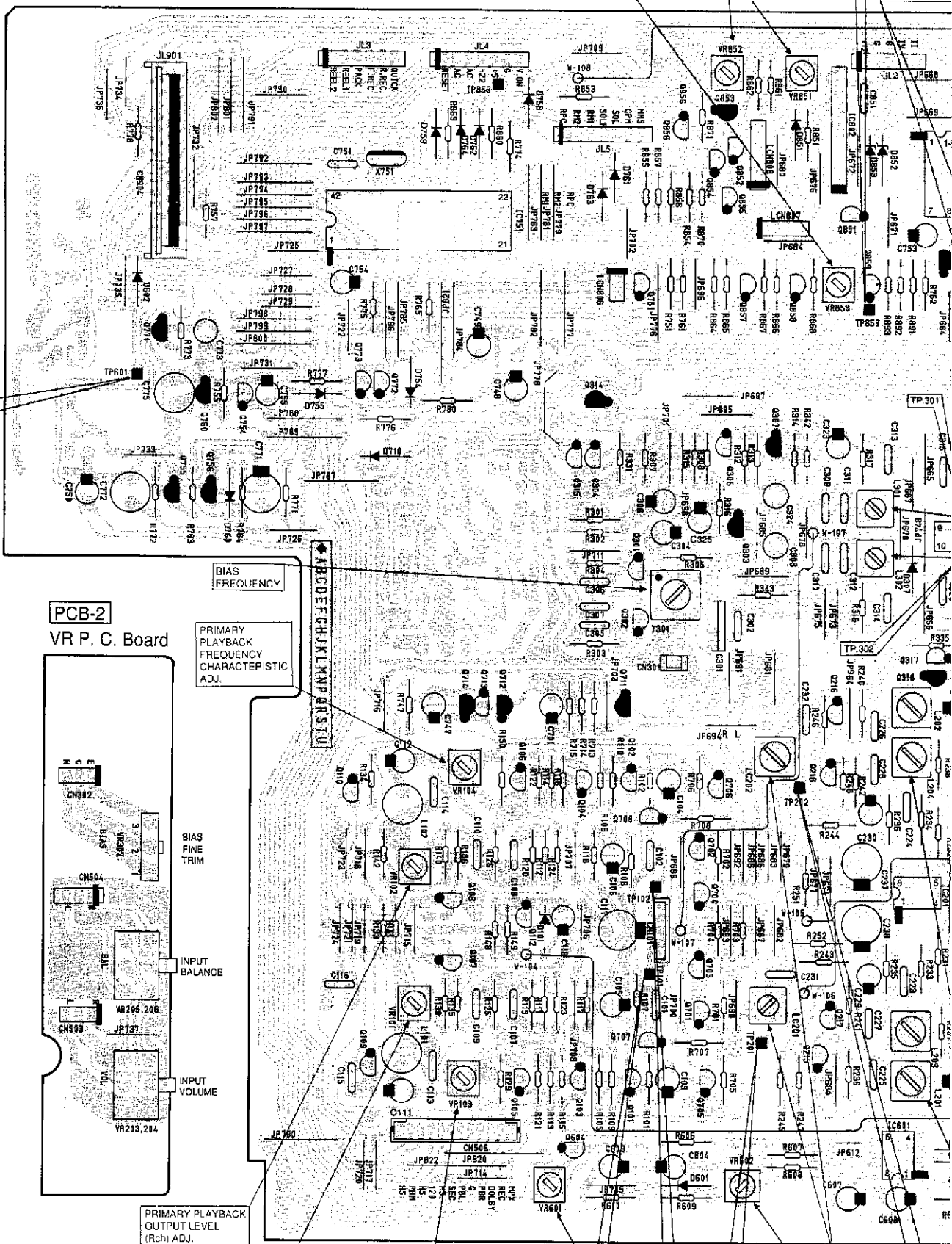
PRIMARY PLAYBACK
OUTPUT LEVEL
(Lch) ADJ.

PRIMARY PLAYBACK
FREQUENCY
CHARACTERISTIC ADJ.

BLANK
SEARCH

MUSIC
SEARCH

BIAS
TRAP ADJ.

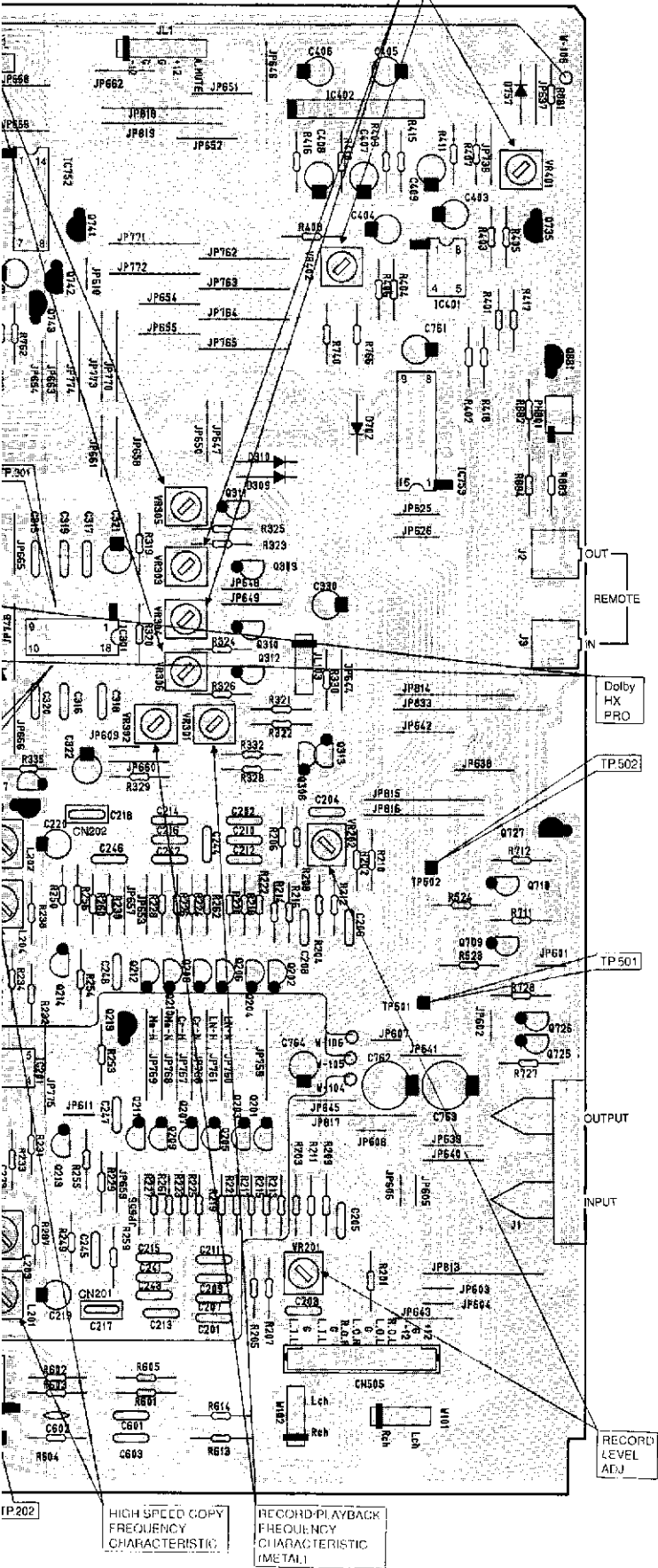


F G H I J

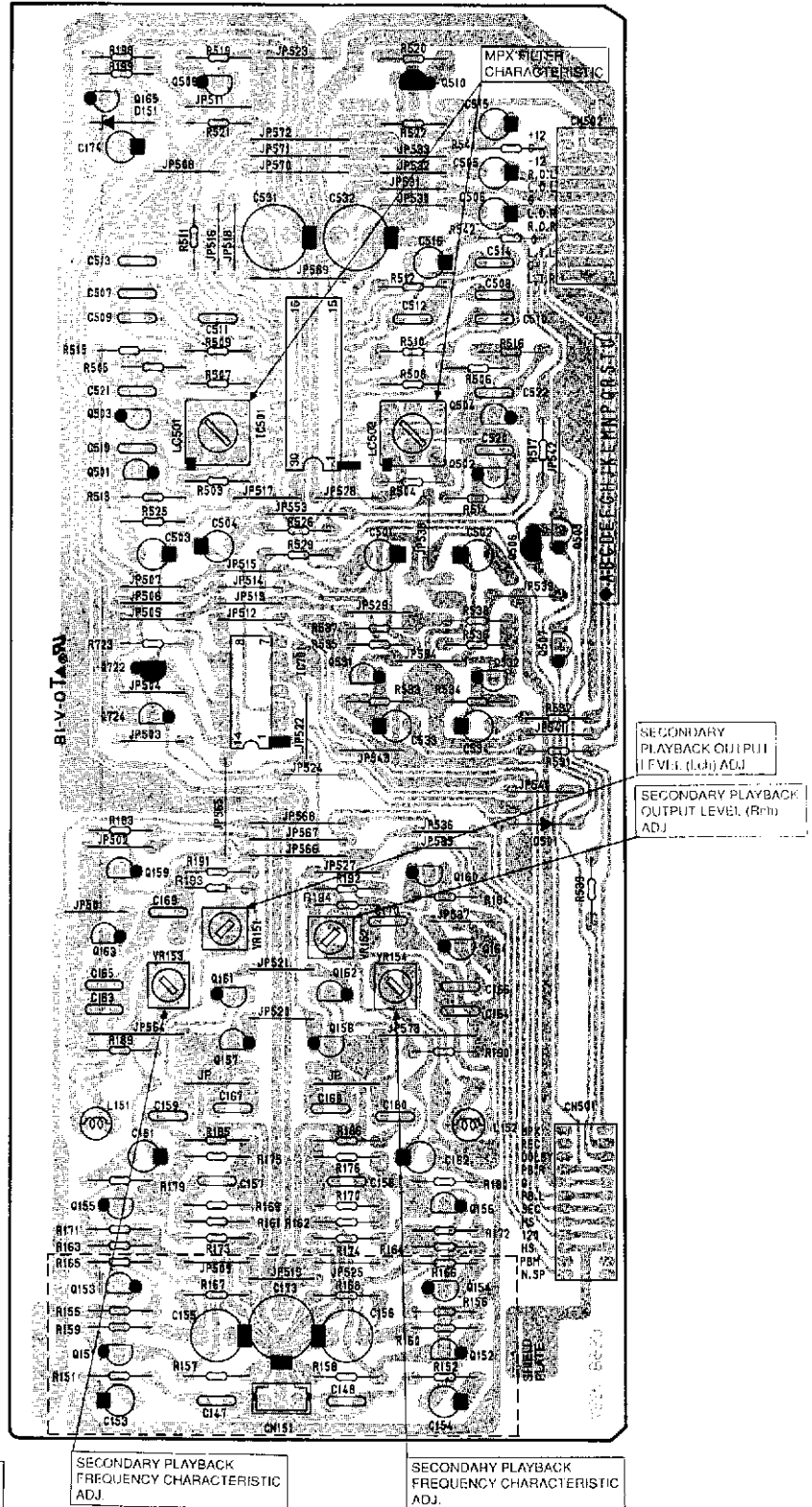
RECORD/PLAYBACK FREQUENCY
CHARACTERISTIC (C.O.F.)

RECORD/PLAYBACK FREQUENCY
CHARACTERISTIC (Normal)

METER LEVEL
ADJ.

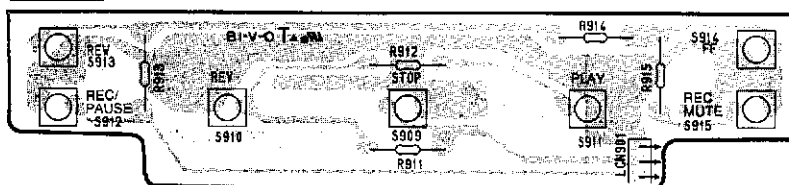


PCB-3 Dolby P. C. Board

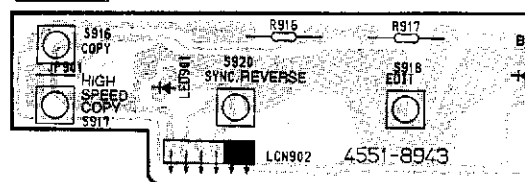


P. C. BOARD (2)

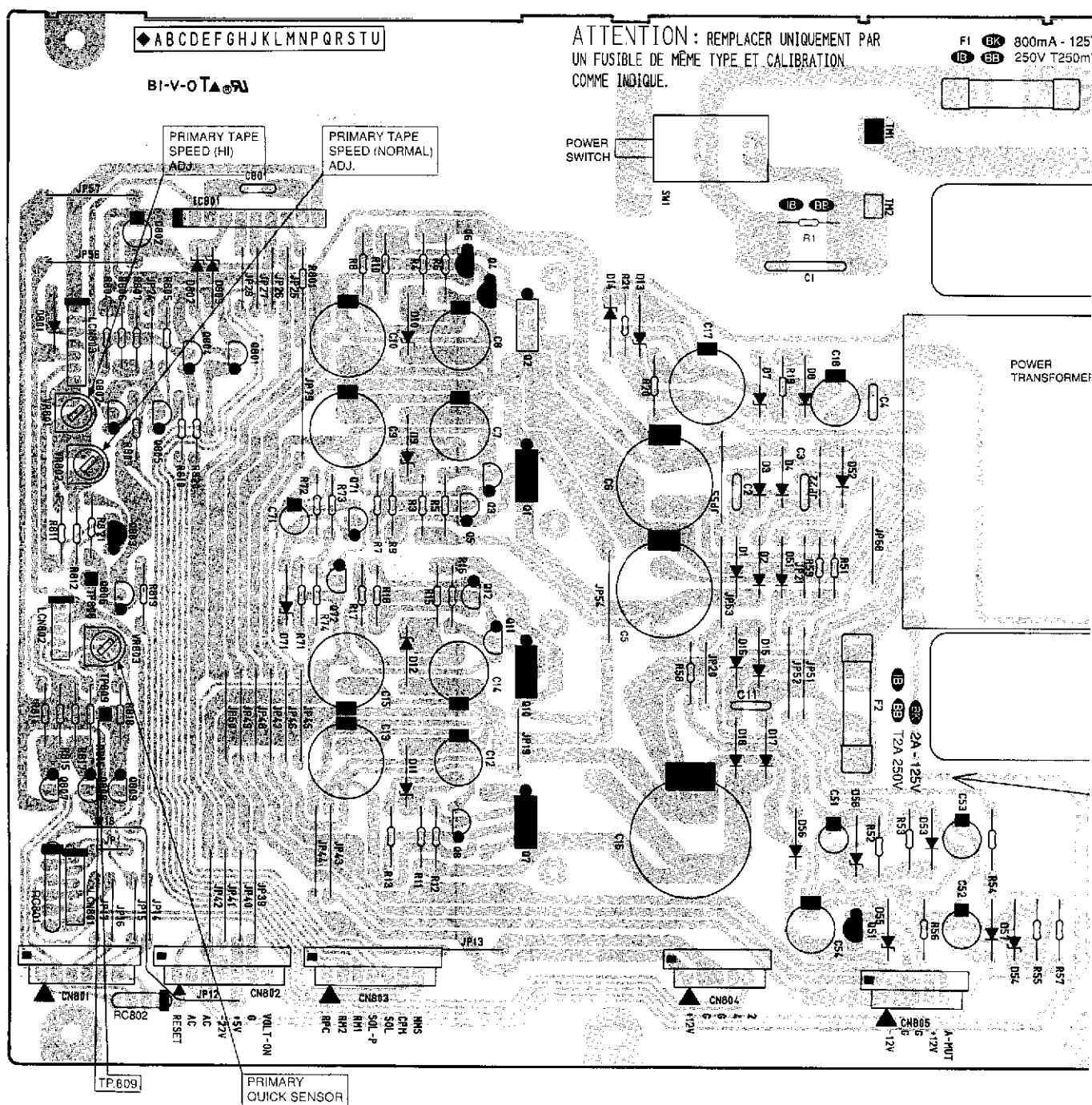
PCB-7 Cont SW-L P. C. Board



PCB-6 Cont SW-R P. C. Board



PCB-4 Power P. C. Board



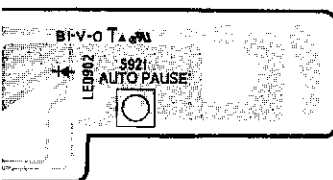
F

G

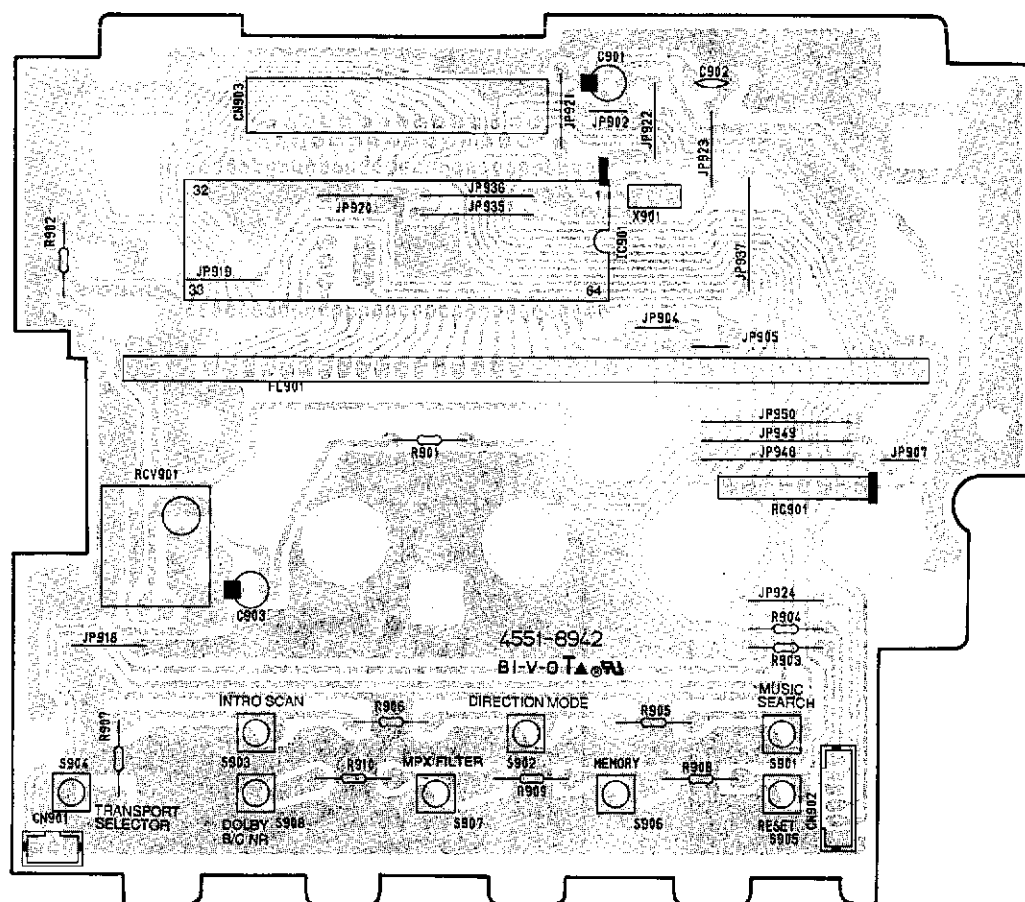
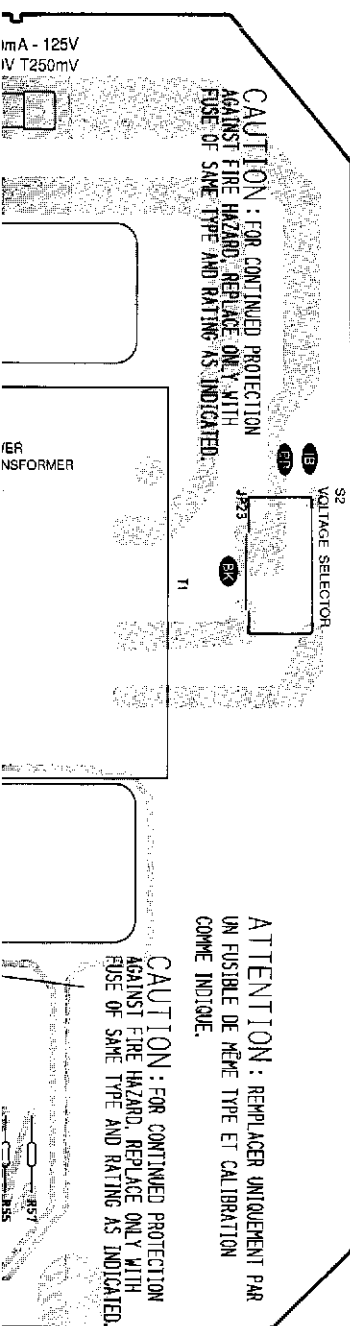
H

I

J



PCB-5 Front P. C. Board



ELECTRICAL PARTS LIST

Ser. No.	Ref.No.	Part No.	Description	Ser. No.	Ref.No.	Part No.	Description
PCB-1 MAIN P.C.BOARD				538	C315	5354-104593	CAP, MYL .1μ
CAPACITORS				538	C316	5354-104593	CAP, MYL .1μ
323	C101	5353-101534	CAP, MCA 100P	543	C317	5359-S010J103	CAP, PPP .01μ
323	C102	5353-101534	CAP, MCA 100P	543	C318	5359-S010J103	CAP, PPP .01μ
315	C103	5345-106C0951	CAP, MINI ELE 10μ/16V	544	C319	5359-S010J223	CAP, PPP .022μ
315	C104	5345-106C0951	CAP, MINI ELE 10μ/16V	544	C320	5359-S010J223	CAP, PPP .022μ
316	C105	5345-227B0952	CAP, MINI ELE 220μ/10V	533	C321	5345-106E041	CAP, MINI ELE 10μ/35V
316	C106	5345-227B0952	CAP, MINI ELE 220μ/10V	533	C322	5345-106E041	CAP, MINI ELE 10μ/35V
324	C107	5359-6825851	CAP, PPP 6800P	533	C323	5345-106E041	CAP, MINI ELE 10μ/35V
324	C108	5359-6825851	CAP, PPP 6800P	531	C324	5342-106D041	CAP, ELE BP 10μ/25V
324	C109	5359-6825851	CAP, PPP 6800P	535	C325	5345-107C041	CAP, MINI ELE 100μ/16V
324	C110	5359-6825851	CAP, PPP 6800P	534	C330	5345-475F0951	CAP, MINI ELE 4.7μ/50V
315	C111	5345-106C0951	CAP, MINI ELE 10μ/16V	736	C403	5345-476D041	CAP, MINI ELE 47μ/25V
315	C112	5345-106C0951	CAP, MINI ELE 10μ/16V	736	C404	5345-476D041	CAP, MINI ELE 47μ/25V
325	C113	5359-S010J123	CAP, PPP .012μ	735	C405	5345-475F041	CAP, MINI ELE 4.7μ/50V
325	C114	5359-S010J123	CAP, PPP .012μ	735	C406	5345-475F041	CAP, MINI ELE 4.7μ/50V
326	C115	5359-S010J272	CAP, PPP 2700P	735	C407	5345-475F041	CAP, MINI ELE 4.7μ/50V
326	C116	5359-S010J272	CAP, PPP 2700P	735	C408	5345-475F041	CAP, MINI ELE 4.7μ/50V
318	C117	5345-477C041	CAP, MINI ELE 470μ/16V	736	C409	5345-476D041	CAP, MINI ELE 47μ/25V
317	C118	5345-336C041	CAP, MINI ELE 33μ/16V	959	C601	5359-S010J103	CAP, PPP .01μ
440	C201	5359-S010J152	CAP, PPP 1500P	956	C602	5359-S010K101	CAP, PPP 100P
440	C202	5359-S010J152	CAP, PPP 1500P	958	C603	5359-S010J223	CAP, PPP .022μ
441	C203	5359-S010J821	CAP, PPP 820P	952	C604	5345-225F041	CAP, MINI ELE 2.2μ/50V
441	C204	5359-S010J821	CAP, PPP 820P	956	C605	5359-S010K101	CAP, PPP 100P
442	C205	5359-S010J682	CAP, PPP 6800P	951	C607	5345-476D041	CAP, MINI ELE 47μ/25V
442	C206	5359-S010J682	CAP, PPP 6800P	951	C608	5345-476D041	CAP, MINI ELE 47μ/25V
439	C207	5359-S010J472	CAP, PPP 4700P	955	C609	5345-224F0951	CAP, MINI ELE .22μ/50V
439	C208	5359-S010J472	CAP, PPP 4700P	681	C701	5345-106E041	CAP, MINI ELE 10μ/35V
443	C209	5359-S010J472	CAP, PPP 4700P	684	C747	5345-107C041	CAP, MINI ELE 100μ/16V
443	C210	5359-S010J472	CAP, PPP 4700P	687	C748	5345-226D041	CAP, MINI ELE 22μ/25V
444	C211	5359-S010J152	CAP, PPP 1500P	681	C749	5345-106E041	CAP, MINI ELE 10μ/35V
444	C212	5359-S010J152	CAP, PPP 1500P	680	C750	5345-106C041	CAP, MINI ELE 10μ/35V
445	C213	5359-S010J222	CAP, PPP 2200P	688	C751	5359-S010J103	CAP, PPP .01μ
445	C214	5359-S010J222	CAP, PPP 2200P	681	C753	5345-106E041	CAP, MINI ELE 10μ/35V
446	C215	5359-S010J222	CAP, PPP 2200P	685	C754	5345-106C0951	CAP, MINI ELE 10μ/16V
446	C216	5359-S010J222	CAP, PPP 2200P	689	C755	5345-227B041	CAP, MINI ELE 220μ/10V
447	C217	5359-S010J471	CAP, PPP 470P	686	C761	5345-476D041	CAP, MINI ELE 47μ/25V
447	C218	5359-S010J471	CAP, PPP 470P	684	C762	5345-107C041	CAP, MINI ELE 100μ/16V
433	C219	5345-105F0951	CAP, MINI ELE 1μ/50V	684	C763	5345-107C041	CAP, MINI ELE 100μ/16V
433	C220	5345-105F0951	CAP, MINI ELE 1μ/50V	684	C764	5345-107C041	CAP, MINI ELE 100μ/16V
451	C223	5354-124593	CAP, MYL .12μ	681	C771	5345-106E041	CAP, MINI ELE 10μ/35V
451	C224	5354-124593	CAP, MYL .12μ	683	C772	5342-476C041	CAP, ELE BP 47μ/16V
448	C225	5359-S010J103	CAP, PPP .01μ	682	C773	5342-106D041	CAP, ELE BP 10μ/25V
448	C226	5359-S010J103	CAP, PPP .01μ	682	C775	5342-106D041	CAP, ELE BP 10μ/25V
449	C227	5359-S010J222	CAP, PPP 2200P	916	C851	5359-S010J103	CAP, PPP .01μ
449	C228	5359-S010J222	CAP, PPP 2200P	RESISTORS			
434	C229	5345-225F0951	CAP, MINI ELE 2.2μ/50V	331	R101	5135-470522	RES, CBN 1/2P 47
434	C230	5345-225F0951	CAP, MINI ELE 2.2μ/50V	331	R102	5135-470522	RES, CBN 1/2P 47
438	C231	5361-4710423	CAP, CER 470P	333	R105	5174-S010F223	RES, MTL 1/4P 22K
438	C232	5361-4710423	CAP, CER 470P	333	R106	5174-S010F223	RES, MTL 1/4P 22K
436	C237	5345-227C041	CAP, MINI ELE 220μ/16V	334	R107	5174-S010F331	RES, MTL 1/4P 330
436	C238	5345-227C041	CAP, MINI ELE 220μ/16V	334	R108	5174-S010F331	RES, MTL 1/4P 330
450	C241	5359-S010J681	CAP, PPP 680P	335	R109	5135-224522	RES, CBN 1/2P 220K
450	C242	5359-S010J681	CAP, PPP 680P	335	R110	5135-224522	RES, CBN 1/2P 220K
445	C243	5359-S010J222	CAP, PPP 2200P	336	R111	5135-332522	RES, CBN 1/2P 3.3K
445	C244	5359-S010J222	CAP, PPP 2200P	336	R112	5135-332522	RES, CBN 1/2P 3.3K
444	C245	5359-S010J152	CAP, PPP 1500P	338	R113	5135-562522	RES, CBN 1/2P 5.6K
444	C246	5359-S010J152	CAP, PPP 1500P	338	R114	5135-562522	RES, CBN 1/2P 5.6K
445	C247	5359-S010J222	CAP, PPP 2200P	331	R115	5135-470522	RES, CBN 1/2P 47
445	C248	5359-S010J222	CAP, PPP 2200P	331	R116	5135-470522	RES, CBN 1/2P 47
537	C301	5354-S070K103	CAP, MYL .01μ	340	R117	5135-681522	RES, CBN 1/2P 680
547	C302	5353-070534	CAP, MCA 7P	340	R118	5135-681522	RES, CBN 1/2P 680
532	C303	5342-107D041	CAP, ELE BP 100μ/25V	341	R119	5135-684522	RES, CBN 1/2P 680K
531	C304	5342-106D041	CAP, ELE BP 10μ/25V	341	R120	5135-684522	RES, CBN 1/2P 680K
541	C305	5359-S010J332	CAP, PPP 3300P	342	R121	5135-101522	RES, CBN 1/2P 100
541	C306	5359-S010J332	CAP, PPP 3300P	342	R122	5135-101522	RES, CBN 1/2P 100
542	C307	5359-S010J183	CAP, PPP .018μ	343	R123	5135-102522	RES, CBN 1/2P 1K
533	C308	5345-106E041	CAP, MINI ELE 10μ/35V	343	R124	5135-102522	RES, CBN 1/2P 1K
549	C309	5361-1010423	CAP, CER 100P	344	R125	5135-822522	RES, CBN 1/2P 8.2K
549	C310	5361-1010423	CAP, CER 100P	344	R126	5135-822522	RES, CBN 1/2P 8.2K
550	C311	5361-4710423	CAP, CER 470P	346	R129	5135-101522	RES, CBN 1/2P 100
550	C312	5361-4710423	CAP, CER 470P	346	R130	5135-101522	RES, CBN 1/2P 100
545	C313	5359-S010J561	CAP, PPP 560P	348	R133	5135-103522	RES, CBN 1/2P 10K
545	C314	5359-S010J561	CAP, PPP 560P	348	R134	5135-103522	RES, CBN 1/2P 10K

Ser. No.	Ref.No.	Part No.	Description	Ser. No.	Ref.No.	Part No.	Description
349	R135	5135-392522	RES, CBN 1/2P 3.9K	558	R312	5135-472522	RES, CBN 1/2P 4.7K
349	R136	5135-392522	RES, CBN 1/2P 3.9K	559	R313	5135-822522	RES, CBN 1/2P 8.2K
351	R139	5135-183522	RES, CBN 1/2P 18K	558	R314	5135-472522	RES, CBN 1/2P 4.7K
351	R140	5135-183522	RES, CBN 1/2P 18K	556	R315	5135-820522	RES, CBN 1/2P 82
352	R141	5135-104522	RES, CBN 1/2P 100K	555	R316	5135-103522	RES, CBN 1/2P 10K
352	R142	5135-104522	RES, CBN 1/2P 100K	557	R317	5135-154522	RES, CBN 1/2P 150K
345	R148	5135-4R7522	RES, CBN 1/2P 4.7	557	R318	5135-154522	RES, CBN 1/2P 150K
343	R149	5135-102522	RES, CBN 1/2P 1K	560	R319	5135-333522	RES, CBN 1/2P 33K
453	R201	5135-152522	RES, CBN 1/2P 1.5K	560	R320	5135-333522	RES, CBN 1/2P 33K
453	R202	5135-152522	RES, CBN 1/2P 1.5K	563	R321	5135-102522	RES, CBN 1/2P 1K
456	R203	5135-222522	RES, CBN 1/2P 2.2K	563	R322	5135-102522	RES, CBN 1/2P 1K
456	R204	5135-222522	RES, CBN 1/2P 2.2K	561	R323	5135-121522	RES, CBN 1/2P 120
457	R205	5135-104522	RES, CBN 1/2P 100K	561	R324	5135-121522	RES, CBN 1/2P 120
457	R206	5135-104522	RES, CBN 1/2P 100K	562	R325	5135-561522	RES, CBN 1/2P 560
463	R207	5135-223522	RES, CBN 1/2P 22K	562	R326	5135-561522	RES, CBN 1/2P 560
463	R208	5135-223522	RES, CBN 1/2P 22K	564	R328	5135-471522	RES, CBN 1/2P 470
464	R209	5135-103522	RES, CBN 1/2P 10K	565	R329	5135-123522	RES, CBN 1/2P 12K
464	R210	5135-103522	RES, CBN 1/2P 10K	565	R330	5135-123522	RES, CBN 1/2P 12K
465	R211	5135-183522	RES, CBN 1/2P 18K	566	R331	5135-473522	RES, CBN 1/2P 47K
465	R212	5135-183522	RES, CBN 1/2P 18K	564	R332	5135-471522	RES, CBN 1/2P 470
466	R213	5135-123522	RES, CBN 1/2P 12K	565	R335	5135-123522	RES, CBN 1/2P 12K
466	R214	5135-123522	RES, CBN 1/2P 12K	559	R342	5135-822522	RES, CBN 1/2P 8.2K
472	R215	5135-103522	RES, CBN 1/2P 10K	567	R343	5135-104522	RES, CBN 1/2P 100K
472	R216	5135-103522	RES, CBN 1/2P 10K	740	R401	5135-102522	RES, CBN 1/2P 1K
467	R217	5135-682522	RES, CBN 1/2P 6.8K	740	R402	5135-102522	RES, CBN 1/2P 1K
467	R218	5135-682522	RES, CBN 1/2P 6.8K	741	R403	5135-222522	RES, CBN 1/2P 2.2K
469	R219	5135-223522	RES, CBN 1/2P 22K	741	R404	5135-222522	RES, CBN 1/2P 2.2K
469	R220	5135-223522	RES, CBN 1/2P 22K	742	R405	5135-102522	RES, CBN 1/2P 1K
470	R221	5135-104522	RES, CBN 1/2P 100K	742	R406	5135-102522	RES, CBN 1/2P 1K
470	R222	5135-104522	RES, CBN 1/2P 100K	743	R407	5135-331522	RES, CBN 1/2P 330
471	R223	5135-333522	RES, CBN 1/2P 33K	743	R408	5135-331522	RES, CBN 1/2P 330
471	R224	5135-333522	RES, CBN 1/2P 33K	744	R409	5135-334522	RES, CBN 1/2P 330K
469	R225	5135-223522	RES, CBN 1/2P 22K	744	R410	5135-334522	RES, CBN 1/2P 330K
469	R226	5135-223522	RES, CBN 1/2P 22K	743	R411	5135-331522	RES, CBN 1/2P 330
473	R227	5135-154522	RES, CBN 1/2P 150K	745	R415	5135-103522	RES, CBN 1/2P 10K
473	R228	5135-154522	RES, CBN 1/2P 150K	745	R416	5135-103522	RES, CBN 1/2P 10K
474	R229	5135-153522	RES, CBN 1/2P 15K	746	R417	5135-104522	RES, CBN 1/2P 100K
474	R230	5135-153522	RES, CBN 1/2P 15K	746	R418	5135-104522	RES, CBN 1/2P 100K
457	R231	5135-104522	RES, CBN 1/2P 100K	693	R523	5135-222522	RES, CBN 1/2P 2.2K
457	R232	5135-104522	RES, CBN 1/2P 100K	693	R524	5135-222522	RES, CBN 1/2P 2.2K
475	R233	5135-273522	RES, CBN 1/2P 27K	966	R601	5135-223522	RES, CBN 1/2P 22K
475	R234	5135-273522	RES, CBN 1/2P 27K	963	R602	5135-104522	RES, CBN 1/2P 100K
468	R235	5135-563522	RES, CBN 1/2P 56K	965	R603	5135-331522	RES, CBN 1/2P 330
468	R236	5135-563522	RES, CBN 1/2P 56K	963	R604	5135-104522	RES, CBN 1/2P 100K
456	R237	5135-222522	RES, CBN 1/2P 2.2K	962	R605	5135-822522	RES, CBN 1/2P 8.2K
456	R238	5135-222522	RES, CBN 1/2P 2.2K	964	R606	5135-102522	RES, CBN 1/2P 1K
476	R239	5135-121522	RES, CBN 1/2P 120	967	R607	5135-102522	RES, CBN 1/2P 1K
476	R240	5135-121522	RES, CBN 1/2P 120	966	R608	5135-223522	RES, CBN 1/2P 22K
462	R241	5135-561522	RES, CBN 1/2P 560	968	R609	5135-103522	RES, CBN 1/2P 10K
462	R242	5135-561522	RES, CBN 1/2P 560	963	R610	5135-104522	RES, CBN 1/2P 100K
464	R243	5135-103522	RES, CBN 1/2P 10K	965	R613	5135-331522	RES, CBN 1/2P 330
464	R244	5135-103522	RES, CBN 1/2P 10K	965	R614	5135-331522	RES, CBN 1/2P 330
464	R245	5135-103522	RES, CBN 1/2P 10K	691	R701	5135-103522	RES, CBN 1/2P 10K
464	R246	5135-103522	RES, CBN 1/2P 10K	691	R702	5135-103522	RES, CBN 1/2P 10K
464	R247	5135-103522	RES, CBN 1/2P 10K	692	R703	5135-392522	RES, CBN 1/2P 3.9K
464	R248	5135-103522	RES, CBN 1/2P 10K	692	R704	5135-392522	RES, CBN 1/2P 3.9K
456	R249	5135-222522	RES, CBN 1/2P 2.2K	691	R705	5135-103522	RES, CBN 1/2P 10K
456	R250	5135-222522	RES, CBN 1/2P 2.2K	691	R706	5135-103522	RES, CBN 1/2P 10K
477	R251	5135-331522	RES, CBN 1/2P 330	691	R707	5135-103522	RES, CBN 1/2P 10K
477	R252	5135-331522	RES, CBN 1/2P 330	691	R708	5135-103522	RES, CBN 1/2P 10K
478	R253	5135-472522	RES, CBN 1/2P 4.7K	694	R711	5135-222522	RES, CBN 1/2P 2.2K
478	R254	5135-472522	RES, CBN 1/2P 4.7K	694	R712	5135-222522	RES, CBN 1/2P 2.2K
480	R255	5135-183522	RES, CBN 1/2P 18K	694	R713	5135-222522	RES, CBN 1/2P 2.2K
480	R256	5135-183522	RES, CBN 1/2P 18K	695	R714	5135-103522	RES, CBN 1/2P 10K
479	R259	5135-154522	RES, CBN 1/2P 150K	695	R715	5135-103522	RES, CBN 1/2P 10K
479	R260	5135-154522	RES, CBN 1/2P 150K	694	R727	5135-222522	RES, CBN 1/2P 2.2K
466	R261	5135-123522	RES, CBN 1/2P 12K	694	R728	5135-222522	RES, CBN 1/2P 2.2K
466	R262	5135-123522	RES, CBN 1/2P 12K	701	R740	5135-473522	RES, CBN 1/2P 47K
553	R301	5135-4R7522	RES, CBN 1/2P 4.7	697	R747	5135-102522	RES, CBN 1/2P 1K
553	R302	5135-4R7522	RES, CBN 1/2P 4.7	698	R751	5135-223522	RES, CBN 1/2P 22K
554	R303	5135-224522	RES, CBN 1/2P 220K	699	R755	5135-472522	RES, CBN 1/2P 4.7K
554	R304	5135-224522	RES, CBN 1/2P 220K	698	R757	5135-223522	RES, CBN 1/2P 22K
556	R305	5135-820522	RES, CBN 1/2P 82	701	R761	5135-473522	RES, CBN 1/2P 47K
555	R307	5135-103522	RES, CBN 1/2P 10K	701	R762	5135-473522	RES, CBN 1/2P 47K
556	R308	5135-820522	RES, CBN 1/2P 82	697	R763	5135-102522	RES, CBN 1/2P 1K

Ser. No.	Ref.No.	Part No.	Description	Ser. No.	Ref.No.	Part No.	Description
697	R764	5135-102522	RES, CBN 1/2P 1K	423	Q216	5613-C114TS	XISTOR, NPN R
697	R765	5135-102522	RES, CBN 1/2P 1K	423	Q217	5613-C114TS	XISTOR, NPN R
700	R766	5135-331522	RES, CBN 1/2P 330	423	Q218	5613-C114TS	XISTOR, NPN R
697	R771	5135-102522	RES, CBN 1/2P 1K	425	Q219	5611-A114YS	XISTOR, PNP R
697	R772	5135-102522	RES, CBN 1/2P 1K	512	Q301	5613-2320(F)	XISTOR, NPN R
697	R773	5135-102522	RES, CBN 1/2P 1K	512	Q302	5613-2320(F)	XISTOR, NPN R
697	R774	5135-102522	RES, CBN 1/2P 1K	519	Q303	5611-933S(S)	XISTOR, PNP R
697	R775	5135-102522	RES, CBN 1/2P 1K	514	Q304	5613-C124ES	XISTOR, NPN R
697	R776	5135-102522	RES, CBN 1/2P 1K	513	Q306	5613-2120(Y)	XISTOR, NPN R
704	R777	5135-562522	RES, CBN 1/2P 5.6K	518	Q307	5611-950(Y)	XISTOR, PNP R
697	R778	5135-102522	RES, CBN 1/2P 1K	513	Q308	5613-2120(Y)	XISTOR, NPN R
704	R780	5135-562522	RES, CBN 1/2P 5.6K	514	Q309	5613-C124ES	XISTOR, NPN R
920	△ R851	5102-1005116	RES, FUSE 10	514	Q310	5613-C124ES	XISTOR, NPN R
924	R853	5135-103522	RES, CBN 1/2P 10K	514	Q311	5613-C124ES	XISTOR, NPN R
925	R854	5135-150522	RES, CBN 1/2P 15	514	Q312	5613-C124ES	XISTOR, NPN R
925	R855	5135-150522	RES, CBN 1/2P 15	512	Q313	5613-2320(F)	XISTOR, NPN R
925	R856	5135-150522	RES, CBN 1/2P 15	515	Q314	5611-A143ES	XISTOR, PNP R
925	R857	5135-150522	RES, CBN 1/2P 15	514	Q315	5613-C124ES	XISTOR, NPN R
924	R860	5135-103522	RES, CBN 1/2P 10K	517	Q316	5611-A124ES	XISTOR, PNP R
927	R861	5174-S010F243	RES, MTL 1/4P 24K	516	Q317	5613-C114YS	XISTOR, NPN R
923	R862	5174-S010F113	RES, MTL 1/4P 11K	943	Q604	5613-C114YS	XISTOR, NPN R
926	R864	5135-222522	RES, CBN 1/2P 2.2K	664	Q701	5613-2240(BL)	XISTOR, NPN R
928	R865	5135-223522	RES, CBN 1/2P 2.2K	664	Q702	5613-2240(BL)	XISTOR, NPN R
926	R866	5135-222522	RES, CBN 1/2P 2.2K	664	Q703	5613-2240(BL)	XISTOR, NPN R
928	R867	5135-223522	RES, CBN 1/2P 2.2K	664	Q704	5613-2240(BL)	XISTOR, NPN R
929	R868	5135-471522	RES, CBN 1/2P 470	667	Q705	5613-2878(B)	XISTOR, NPN R
924	R869	5135-103522	RES, CBN 1/2P 10K	667	Q706	5613-2878(B)	XISTOR, NPN R
924	R870	5135-103522	RES, CBN 1/2P 10K	667	Q707	5613-2878(B)	XISTOR, NPN R
922	R871	5135-224522	RES, CBN 1/2P 220K	667	Q708	5613-2878(B)	XISTOR, NPN R
936	R881	5135-392522	RES, CBN 1/2P 3.9K	667	Q709	5613-2878(B)	XISTOR, NPN R
935	R882	5135-470522	RES, CBN 1/2P 47	667	Q710	5613-2878(B)	XISTOR, NPN R
938	R883	5135-271522	RES, CBN 1/2P 270	668	Q711	5611-970(BL)	XISTOR, PNP R
937	R884	5135-473522	RES, CBN 1/2P 47K	669	Q712	5611-A114YS	XISTOR, PNP R
701	R891	5135-473522	RES, CBN 1/2P 47K	665	Q713	5613-C114YS	XISTOR, NPN R
701	R892	5135-473522	RES, CBN 1/2P 47K	669	Q714	5611-A114YS	XISTOR, PNP R
701	R893	5135-473522	RES, CBN 1/2P 47K	672	Q725	5613-C114TS	XISTOR, NPN R
INTEGRATED CIRCUITS				672	Q726	5613-C114TS	XISTOR, NPN R
421	IC201	5653-UPC4570C	IC, LINEAR	669	Q727	5611-A114YS	XISTOR, PNP R
511	IC301	5653-UPC1297CA	IC, LINEAR	669	Q735	5611-A114YS	XISTOR, PNP R
721	IC401	5652-NJM4558D	IC, MONO	669	Q741	5611-A114YS	XISTOR, PNP R
722	IC402	5653-BA6138	IC, LINEAR	669	Q742	5611-A114YS	XISTOR, PNP R
941	IC601	5652-NJM4558D	IC, MONO	669	Q743	5611-A114YS	XISTOR, PNP R
871	IC751	5654-MN15542	IC, DIGITAL	665	Q751	5613-C114YS	XISTOR, NPN R
663	IC752	5654-TC4011BP	IC, DIGITAL	665	Q754	5613-C114YS	XISTOR, NPN R
662	IC753	5654-TC4051BP	IC, DIGITAL	669	Q755	5611-A114YS	XISTOR, PNP R
901	IC802	5653-BA6229	IC, LINEAR	671	Q756	5611-933S(S)	XISTOR, PNP R
TRANSISTORS				669	Q760	5611-A114YS	XISTOR, PNP R
301	Q101	5613-1775(F)	XISTOR, NPN R	669	Q771	5611-A114YS	XISTOR, PNP R
301	Q102	5613-1775(F)	XISTOR, NPN R	672	Q772	5613-C114TS	XISTOR, NPN R
301	Q103	5613-1775(F)	XISTOR, NPN R	673	Q773	5613-C114YS	XISTOR, NPN R
301	Q104	5613-1775(F)	XISTOR, NPN R	907	Q851	5613-C114YS	XISTOR, NPN R
302	Q105	5613-2320L(F)	XISTOR, NPN R	905	Q852	5613-2925(T)	XISTOR, NPN R
302	Q106	5613-2320L(F)	XISTOR, NPN R	904	Q853	5611-933S(S)	XISTOR, PNP R
303	Q107	5613-C114TS	XISTOR, NPN R	905	Q854	5613-2925(T)	XISTOR, NPN R
303	Q108	5613-C114TS	XISTOR, NPN R	905	Q855	5613-2925(T)	XISTOR, NPN R
304	Q109	5613-2878(B)	XISTOR, NPN R	906	Q856	5613-1740S(S)	XISTOR, NPN R
304	Q110	5613-2878(B)	XISTOR, NPN R	906	Q857	5613-1740S(S)	XISTOR, NPN R
305	Q112	5613-2320(F)	XISTOR, NPN R	906	Q858	5613-1740S(S)	XISTOR, NPN R
422	Q201	5613-C114YS	XISTOR, NPN R	908	Q859	5613-2320(F)	XISTOR, NPN R
422	Q202	5613-C114YS	XISTOR, NPN R	932	Q881	5611-A143ES	XISTOR, PNP R
422	Q203	5613-C114YS	XISTOR, NPN R	DIODES			
422	Q204	5613-C114YS	XISTOR, NPN R	306	D101	5635-HZ11B2L	DIODE, ZENER
422	Q205	5613-C114YS	XISTOR, NPN R	520	D307	5631-1S2473	DIODE, DET
422	Q206	5613-C114YS	XISTOR, NPN R	520	D309	5631-1S2473	DIODE, DET
422	Q207	5613-C114YS	XISTOR, NPN R	520	D310	5631-1S2473	DIODE, DET
422	Q208	5613-C114YS	XISTOR, NPN R	945	D601	5631-1S2473	DIODE, DET
422	Q209	5613-C114YS	XISTOR, NPN R	945	D602	5631-1S2473	DIODE, DET
422	Q210	5613-C114YS	XISTOR, NPN R	675	D702	5631-1S2473	DIODE, DET
422	Q211	5613-C114YS	XISTOR, NPN R	675	D710	5631-1S2473	DIODE, DET
422	Q212	5613-C114YS	XISTOR, NPN R	675	D754	5631-1S2473	DIODE, DET
424	Q213	5613-2878(B)	XISTOR, NPN R	675	D755	5631-1S2473	DIODE, DET
424	Q214	5613-2878(B)	XISTOR, NPN R	675	D757	5631-1S2473	DIODE, DET
423	Q215	5613-C114TS	XISTOR, NPN R	675	D758	5631-1S2473	DIODE, DET
				675	D759	5631-1S2473	DIODE, DET

Ser. No.	Ref. No.	Part No.	Description
675	D760	5631-1S2473	DIODE, DET
675	D761	5631-1S2473	DIODE, DET
675	D762	5631-1S2473	DIODE, DET
675	D763	5631-1S2473	DIODE, DET
675	D764	5631-1S2473	DIODE, DET
913	D851	5632-S5566B	DIODE, RECT
912	D852	5635-HZ5C2	DIODE, ZENER
911	D853	5635-HZ7C3L	DIODE, ZENER

COILS

309	L101	5995-S160J472	COIL W/CORE
309	L102	5995-S160J472	COIL W/CORE
428	L201	5932-11504	COIL CASE, 7
428	L202	5932-11504	COIL CASE, 7
427	L203	5932-11501	COIL CASE, 7
427	L204	5932-11501	COIL CASE, 7
522	L301	5932-11401	COIL CASE, 7
522	L302	5932-11401	COIL CASE, 7
523	T301	5923-10701	OSC COIL, 10

CONTROLS

311	VR101	5101-S0801203	RES, SEMI FIX 20K
311	VR102	5101-S0801203	RES, SEMI FIX 20K
312	VR103	5101-S0801501	RES, SEMI FIX 500
312	VR104	5101-S0801501	RES, SEMI FIX 500
430	VR201	5101-S0801202	RES, SEMI FIX 2K
430	VR202	5101-S0801202	RES, SEMI FIX 2K
525	VR301	5101-S0801203	RES, SEMI FIX 20K
525	VR302	5101-S0801203	RES, SEMI FIX 20K
526	VR303	5101-S0801202	RES, SEMI FIX 2K
526	VR304	5101-S0801202	RES, SEMI FIX 2K
527	VR305	5101-S0801502	RES, SEMI FIX 5K
527	VR306	5101-S0801502	RES, SEMI FIX 5K
730	VR401	5101-S0801203	RES, SEMI FIX 20K
730	VR402	5101-S0801203	RES, SEMI FIX 20K
947	VR601	5101-S0801104	RES, SEMI FIX 100K
947	VR602	5101-S0801104	RES, SEMI FIX 100K
918	VR851	5101-S0801103	RES, SEMI FIX 10K
918	VR852	5101-S0801103	RES, SEMI FIX 10K
919	VR853	5101-S0801502	RES, SEMI FIX 5K

MISCELLANEOUS

790	CN101	4443-03201005	CONNECTOR
431	CN201	4443-030185	CONNECTOR
431	CN202	4443-030185	CONNECTOR
791	CN301	4443-03201002	CONNECTOR
825	CN505	4443-01801012	CONNECTOR
826	CN506	4443-01801012	CONNECTOR
794	CN904	4443-05501030	CONNECTOR
779	J1	4484-46	PIN JACK, 4P
780	J2	4451-00184	JACK, 1P
780	J3	4451-00184	JACK, 1P
811	JL1	4242-R0505101	JUMPER LEAD
811	JL2	4242-R0505101	JUMPER LEAD
812	JL3	4242-R0506101	JUMPER LEAD
813	JL4	4242-R0507101	JUMPER LEAD
813	JL5	4242-R0507101	JUMPER LEAD
814	JL901	4242-S0330151	JUMPER LEAD
429	LC201	5214-13801	LC COMPOSITE
429	LC202	5214-13801	LC COMPOSITE
806	LCN806	4163-S0203251	CONNECTOR W/W
807	LCN807	4163-S0205251	CONNECTOR W/W
808	LCN808	4163-S0207251	CONNECTOR W/W
931	PH801	5624-PC817	PHOTO COUPLR
781	TP101	4214-132	TERMINAL
781	TP102	4214-132	TERMINAL
781	TP201	4214-132	TERMINAL
781	TP202	4214-132	TERMINAL
781	TP501	4214-132	TERMINAL
781	TP502	4214-132	TERMINAL
781	TP601	4214-132	TERMINAL
781	TP856	4214-132	TERMINAL
781	TP859	4214-132	TERMINAL

Ser. No.	Ref. No.	Part No.	Description
933	X751	5693-CST4MGW	OSC, CER

PCB-2 VR P.C. BOARD**CONTROLS**

758	VR203/204	5113-S1102503	RES, V CBN 16 50K
760	VR205/206	5113-S1103104	RES, V CBN 16 100K
762	VR307	5113-S1104502	RES, V CBN 16 5K

MISCELLANEOUS

799	CN302	4443-030185	CONNECTOR
799	CN503	4443-030185	CONNECTOR
799	CN504	4443-030185	CONNECTOR
815	JL103	4242-R0503301	JUMPER LEAD

PCB-3 DOLBY P.C. BOARD**CAPACITORS**

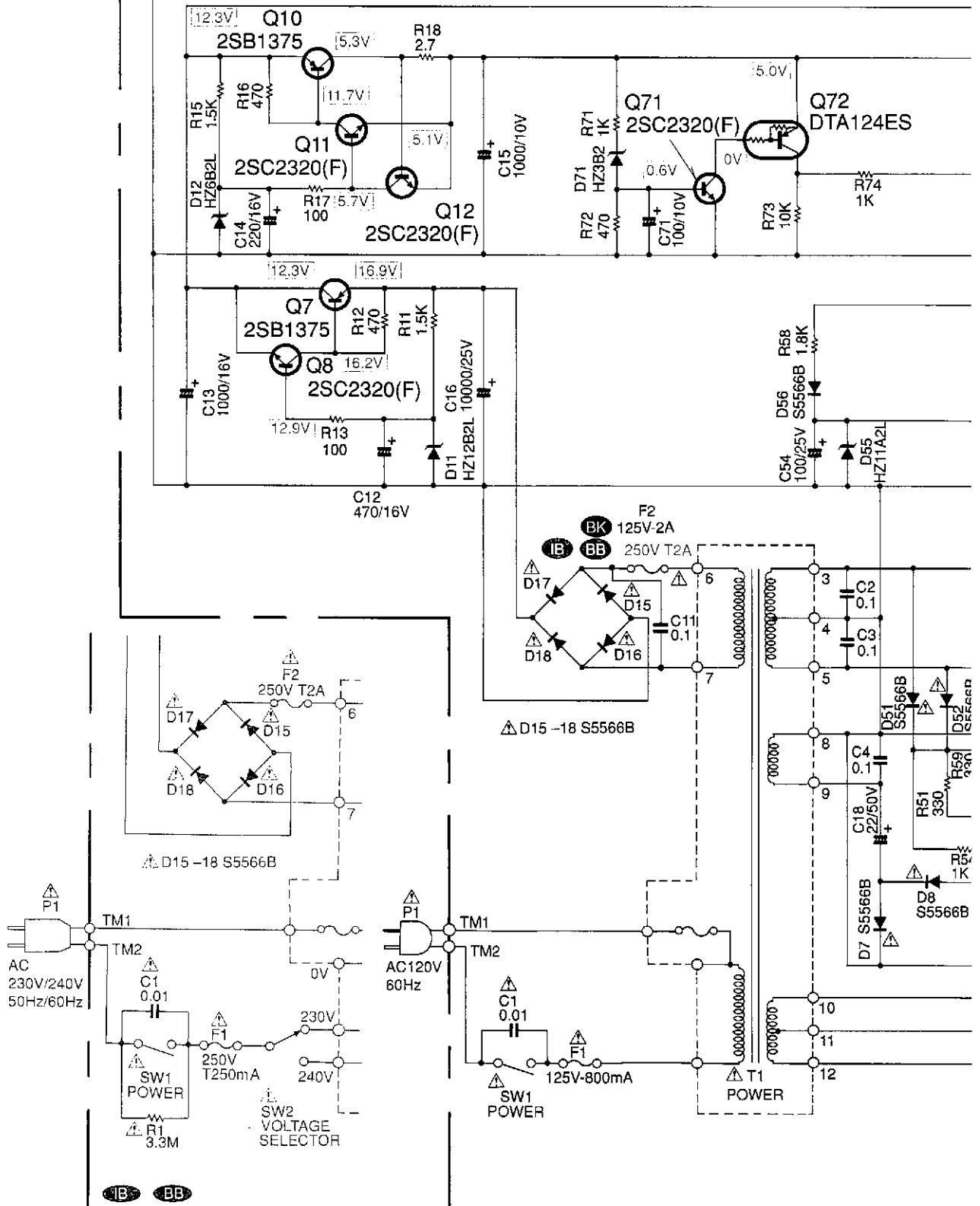
383	C147	5353-101534	CAP, MCA 100P
383	C148	5353-101534	CAP, MCA 100P
375	C153	5345-106C0951	CAP, MINI ELE 10μ/16V
375	C154	5345-106C0951	CAP, MINI ELE 10μ/16V
376	C155	5345-227B0952	CAP, MINI ELE 220μ/10V
376	C156	5345-227B0952	CAP, MINI ELE 220μ/10V
384	C157	5359-8225851	CAP, PPP 8200P
384	C158	5359-8225851	CAP, PPP 8200P
386	C159	5359-8225851	CAP, PPP 8200P
386	C160	5359-8225851	CAP, PPP 8200P
375	C161	5345-106C0951	CAP, MINI ELE 10μ/16V
375	C162	5345-106C0951	CAP, MINI ELE 10μ/16V
387	C163	5359-S010J562	CAP, PPP 5600P
387	C164	5359-S010J562	CAP, PPP 5600P
385	C165	5359-S010J682	CAP, PPP 6800P
385	C166	5359-S010J682	CAP, PPP 6800P
388	C167	5359-S010J682	CAP, PPP 6800P
388	C168	5359-S010J682	CAP, PPP 6800P
389	C169	5359-S010J272	CAP, PPP 2700P
389	C170	5359-S010J272	CAP, PPP 2700P
378	C173	5345-477C041	CAP, MINI ELE 470μ/16V
377	C174	5345-336C041	CAP, MINI ELE 33μ/16V
639	C501	5345-106C0951	CAP, MINI ELE 10μ/16V
639	C502	5345-106C0951	CAP, MINI ELE 10μ/16V
639	C503	5345-106C0951	CAP, MINI ELE 10μ/16V
639	C504	5345-106C0951	CAP, MINI ELE 10μ/16V
640	C505	5345-106C0951	CAP, MINI ELE 10μ/16V
640	C506	5345-106C0951	CAP, MINI ELE 10μ/16V
645	C507	5359-S010J222	CAP, PPP 2200P
645	C508	5359-S010J222	CAP, PPP 2200P
645	C509	5359-S010J222	CAP, PPP 2200P
645	C510	5359-S010J222	CAP, PPP 2200P
643	C511	5354-564593	CAP, MYL .56μ
643	C512	5354-564593	CAP, MYL .56μ
644	C513	5354-334593	CAP, MYL .33μ
644	C514	5354-334593	CAP, MYL .33μ
640	C515	5345-106C0951	CAP, MINI ELE 10μ/16V
640	C516	5345-106C0951	CAP, MINI ELE 10μ/16V
646	C519	5359-S010J182	CAP, PPP 1800P
646	C520	5359-S010J182	CAP, PPP 1800P
645	C521	5359-S010J222	CAP, PPP 2200P
645	C522	5359-S010J222	CAP, PPP 2200P
641	C531	5345-227B041	CAP, MINI ELE 220μ/10V
641	C532	5345-227B041	CAP, MINI ELE 220μ/10V
640	C533	5345-106C0951	CAP, MINI ELE 10μ/16V
640	C534	5345-106C0951	CAP, MINI ELE 10μ/16V

RESISTORS

390	R151	5135-470522	RES, CBN 1/2P 47
390	R152	5135-470522	RES, CBN 1/2P 47
393	R155	5174-S010F223	RES, MTL 1/4P 22K
393	R156	5174-S010F223	RES, MTL 1/4P 22K
394	R157	5174-S010F331	RES, MTL 1/4P 330
394	R158	5174-S010F331	RES, MTL 1/4P 330

SCHEMATIC DIAGRAM (2)

PCB-4 POWER P. C. BOARD (1/2)



Ser. No.	Ref.No.	Part No.	Description	Ser. No.	Ref.No.	Part No.	Description
RESISTORS				DIODES			
042B	△ R1	5135-335522	RES, CBN 1/2P 3.3M IB BB	477	Q807	5613-1740S(S)	XISTOR, NPN R
608	R3	5135-152522	RES, CBN 1/2P 1.5K	477	Q808	5613-1740S(S)	XISTOR, NPN R
608	R4	5135-152522	RES, CBN 1/2P 1.5K	479	Q809	5613-2320(F)	XISTOR, NPN R
609	R5	5135-471522	RES, CBN 1/2P 470	TRANSFORMERS			
609	R6	5135-471522	RES, CBN 1/2P 470	479	△ D1	5632-S5566B	DIODE, RECT
610	R7	5135-101522	RES, CBN 1/2P 100	479	△ D2	5632-S5566B	DIODE, RECT
610	R8	5135-101522	RES, CBN 1/2P 100	479	△ D3	5632-S5566B	DIODE, RECT
611	R9	5135-2R7522	RES, CBN 1/2P 2.7	479	△ D4	5632-S5566B	DIODE, RECT
611	R10	5135-2R7522	RES, CBN 1/2P 2.7	479	△ D7	5632-S5566B	DIODE, RECT
608	R11	5135-152522	RES, CBN 1/2P 1.5K	479	△ D8	5632-S5566B	DIODE, RECT
609	R12	5135-471522	RES, CBN 1/2P 470	581	D9	5635-HZ12B2L	DIODE, ZENER
610	R13	5135-101522	RES, CBN 1/2P 100	581	D10	5635-HZ12B2L	DIODE, ZENER
608	R15	5135-152522	RES, CBN 1/2P 1.5K	581	D11	5635-HZ12B2L	DIODE, ZENER
609	R16	5135-471522	RES, CBN 1/2P 470	582	D12	5635-HZ6B2L	DIODE, ZENER
610	R17	5135-101522	RES, CBN 1/2P 100	583	D13	5635-HZ22-2L	DIODE, ZENER
611	R18	5135-2R7522	RES, CBN 1/2P 2.7	584	D14	5635-RD5R1EB3	DIODE, ZENER
612	R19	5135-221522	RES, CBN 1/2P 220	479	△ D15	5632-S5566B	DIODE, RECT
613	R20	5135-223522	RES, CBN 1/2P 22K	479	△ D16	5632-S5566B	DIODE, RECT
613	R21	5135-223522	RES, CBN 1/2P 22K	479	△ D17	5632-S5566B	DIODE, RECT
620	R51	5135-331522	RES, CBN 1/2P 330	479	△ D18	5632-S5566B	DIODE, RECT
621	R52	5135-562522	RES, CBN 1/2P 5.6K	479	△ D51	5632-S5566B	DIODE, RECT
622	R53	5135-154522	RES, CBN 1/2P 150K	479	△ D52	5632-S5566B	DIODE, RECT
623	R54	5135-102522	RES, CBN 1/2P 1K	585	D53	5631-1S2473	DIODE, DET
623	R55	5135-102522	RES, CBN 1/2P 1K	586	D54	5635-RD5R1EB2	DIODE, ZENER
624	R56	5135-104522	RES, CBN 1/2P 100K	588	D55	5635-HZ11A2L	DIODE, ZENER
625	R57	5135-103522	RES, CBN 1/2P 10K	479	D56	5632-S5566B	DIODE, RECT
626	R58	5135-182522	RES, CBN 1/2P 1.8K	479	D57	5632-S5566B	DIODE, RECT
620	R59	5135-331522	RES, CBN 1/2P 330	587	D58	5635-HZ16-2L	DIODE, ZENER
623	R71	5135-102522	RES, CBN 1/2P 1K	590	D71	5635-HZ3B2	DIODE, ZENER
627	R72	5135-471522	RES, CBN 1/2P 470	884	D801	5632-S5566B	DIODE, RECT
625	R73	5135-103522	RES, CBN 1/2P 10K	883	D802	5635-HZ5C2	DIODE, ZENER
623	R74	5135-102522	RES, CBN 1/2P 1K	882	D803	5635-HZ7C3L	DIODE, ZENER
893	△ R801	5102-1005116	RES, FUSE 10	CONTROLS			
895	R803	5135-103522	RES, CBN 1/2P 10K	479	△ T1	5584-S9401	XFORMER, POWER BK
896	R804	5135-150522	RES, CBN 1/2P 15	479B	△ T1	5584-S9402	XFORMER, POWER IB BB
896	R805	5135-150522	RES, CBN 1/2P 15	MISCELLANEOUS			
896	R806	5135-150522	RES, CBN 1/2P 15	889	VR801	5101-S0801103	RES, SEMI FIX 10K
896	R807	5135-150522	RES, CBN 1/2P 15	889	VR802	5101-S0801103	RES, SEMI FIX 10K
895	R810	5135-103522	RES, CBN 1/2P 10K	890	VR803	5101-S0801502	RES, SEMI FIX 5K
898	R811	5174-S010F243	RES, MTL 1/4P 24K	PCB-5 FRONT P.C. BOARD			
894	R812	5174-S010F113	RES, MTL 1/4P 11K	797	CN801	4443-060185	CONNECTOR
897	R814	5135-222522	RES, CBN 1/2P 2.2K	798	CN802	4443-070185	CONNECTOR
899	R815	5135-223522	RES, CBN 1/2P 22K	798	CN803	4443-070185	CONNECTOR
897	R816	5135-222522	RES, CBN 1/2P 2.2K	796	CN804	4443-050185	CONNECTOR
899	R817	5135-223522	RES, CBN 1/2P 22K	796	CN805	4443-050185	CONNECTOR
900	R818	5135-471522	RES, CBN 1/2P 470	617	△ F1	5732-801031	FUSE BK
895	R819	5135-103522	RES, CBN 1/2P 10K	617B	△ F1	5732-251030	FUSE IB BB
895	R820	5135-103522	RES, CBN 1/2P 10K	618	△ F2	5732-202031	FUSE BK
888	R821	5135-224522	RES, CBN 1/2P 220K	618B	△ F2	5732-202030	FUSE IB BB
INTEGRATED CIRCUIT				616	△ HL1	4472-04501	HOLDER, FUSE
872	IC801	5653-BA6229	IC, LINEAR	616	△ HL2	4472-04501	HOLDER, FUSE
TRANSISTORS				616	△ HL3	4472-04501	HOLDER, FUSE
571	Q1	5612-1375	XISTOR, PNP A	616	△ HL4	4472-04501	HOLDER, FUSE
572	Q2	5614-2012	XISTOR, NPN A	804	LCN801	4163-S0206151	CONNECTOR W/W
574	Q3	5613-2320(F)	XISTOR, NPN R	803	LCN802	4163-S0205151	CONNECTOR W/W
573	Q4	5611-999(F)	XISTOR, PNP R	805	LCN803	4163-S0207151	CONNECTOR W/W
574	Q5	5613-2320(F)	XISTOR, NPN R	891	RC801	5212-S0305473	R COMPOSITE
573	Q6	5611-999(F)	XISTOR, PNP R	892	RC802	5212-S0303473	R COMPOSITE
571	Q7	5612-1375	XISTOR, PNP A	751	△ SW1	4433-01301	SWITCH, PU-PW
574	Q8	5613-2320(F)	XISTOR, NPN R	041B	△ SW2	4411-00501102	SWITCH, ROTARY IB
571	Q10	5612-1375	XISTOR, PNP A	041C	△ SW2	4411-1047111	SWITCH, ROTARY BB
574	Q11	5613-2320(F)	XISTOR, NPN R	782	TM1	4214-122	TERMINAL
574	Q12	5613-2320(F)	XISTOR, NPN R	782	TM2	4214-122	TERMINAL
575	Q51	5611-999(F)	XISTOR, PNP R	783	TP806	4214-132	TERMINAL
576	Q71	5613-2320(F)	XISTOR, NPN R	783	TP809	4214-132	TERMINAL
577	Q72	5611-A124ES	XISTOR, PNP R	CAPACITORS			
878	Q801	5613-C114YS	XISTOR, NPN R	849	C901	5345-106D0356	CAP, MINI ELE 10μ/25V
876	Q802	5613-2925(T)	XISTOR, NPN R	852	C902	5359-S010J103	CAP, PPP .01μ
875	Q803	5611-933S(S)	XISTOR, PNP R				
876	Q804	5613-2925(T)	XISTOR, NPN R				
876	Q805	5613-2925(T)	XISTOR, NPN R				
877	Q806	5613-1740S(S)	XISTOR, NPN R				

Ser. No.	Ref. No.	Part No.	Description
850	C903	5345-476C0356	CAP, MINI ELE 47 μ /16V

RESISTORS

862	R901	5135-101522	RES, CBN 1/2P 100
866	R902	5135-102522	RES, CBN 1/2P 1K
858	R903	5135-221522	RES, CBN 1/2P 220
858	R904	5135-221522	RES, CBN 1/2P 220
859	R905	5135-472522	RES, CBN 1/2P 4.7K
860	R906	5135-682522	RES, CBN 1/2P 6.8K
861	R907	5135-183522	RES, CBN 1/2P 18K
859	R908	5135-472522	RES, CBN 1/2P 4.7K
860	R909	5135-682522	RES, CBN 1/2P 6.8K
861	R910	5135-183522	RES, CBN 1/2P 18K

INTEGRATED CIRCUIT

841	IC901	5654-MN187167	IC, DIGITAL
-----	-------	---------------	-------------

MISCELLANEOUS

784	CN901	4443-0301140	CONNECTOR
785	CN902	4443-0601140	CONNECTOR
793	CN903	4443-05401030	CONNECTOR
765	FL901	5722-058	TUBE DISPLAY
845	RCV901	6143-00802	RECEIVE BLOCK
855	RC901	5212-S0307123	R COMPOSITE
752	S901	4437-01202	SWITCH, PU-TC
752	S902	4437-01202	SWITCH, PU-TC
752	S903	4437-01202	SWITCH, PU-TC
752	S904	4437-01202	SWITCH, PU-TC
752	S905	4437-01202	SWITCH, PU-TC
752	S906	4437-01202	SWITCH, PU-TC
752	S907	4437-01202	SWITCH, PU-TC
752	S908	4437-01202	SWITCH, PU-TC
847	X901	5693-CST4MGW	DSC, CER

PCB-6 CONT SW-R P.C. BOARD**RESISTORS**

867	R916	5135-472522	RES, CBN 1/2P 4.7K
868	R917	5135-682522	RES, CBN 1/2P 6.8K

MISCELLANEOUS

810	LCN902	4163-S0106800	CONNECTOR W/W
843	LED901	5637-SEL2410E	LED
843	LED902	5637-SEL2410E	LED
755	S916	4437-01201	SWITCH, PU-TC
756	S917	4437-01202	SWITCH, PU-TC
755	S918	4437-01201	SWITCH, PU-TC
755	S920	4437-01201	SWITCH, PU-TC
755	S921	4437-01201	SWITCH, PU-TC

PCB-7 CONT SW-L P.C. BOARD**RESISTORS**

863	R911	5135-472522	RES, CBN 1/2P 4.7K
864	R912	5135-682522	RES, CBN 1/2P 6.8K
863	R913	5135-472522	RES, CBN 1/2P 4.7K
864	R914	5135-682522	RES, CBN 1/2P 6.8K
865	R915	5135-183522	RES, CBN 1/2P 18K

MISCELLANEOUS

809	LCN901	4163-S0103800	CONNECTOR W/W
753	S909	4437-01201	SWITCH, PU-TC
753	S910	4437-01201	SWITCH, PU-TC
753	S911	4437-01201	SWITCH, PU-TC
754	S912	4437-01202	SWITCH, PU-TC
753	S913	4437-01201	SWITCH, PU-TC
753	S914	4437-01201	SWITCH, PU-TC
754	S915	4437-01202	SWITCH, PU-TC

Ser. No.	Ref. No.	Part No.	Description
----------	----------	----------	-------------

ABBREVIATIONS IN PARTS LIST**CAPACITORS**

CAP, MINI ELE	: Electrolytic
CAP, CER	: Ceramic
CAP, PPP	: Polypropylene
CAP, MYL	: Mylar
CAP, MCA	: Mica
470 μ	: 470 μ F
6800P	: 6800PF
.047 μ	: 0.047 μ F

RESISTORS

RES, CBN 1/6P	: Carbon 1/6W
2.2K	: 2.2k Ω
220	: 220 Ω
RES, FUSE	: Fuse
RES, CEM 5P	: Cement 5W
RES, MTL 1P	: Metal 1W

TRANSISTORS

XISTOR	: Transistor
FET	: Field Effect Transistor

CONTROLS

RES, V CBN	: Variable Carbon Resistor
RES, SEMI FIX	: Semi - fixed Resistors

CHASSIS MISCELLANEOUS

766	Δ P1	4161-71151	CORD W/PLUG BK
766	Δ P1	4161-7256	CORD W/PLUG IB
766	Δ P1	4161-04100	CORD W/PLUG BB
767		4161-71184	CORD W/PLUG, RCA TYPE (ACCESSORY) (x2)
786	LUG1	4211-4	LUG, CABINET FRONT
786	LUG2	4211-4	LUG, CABINET FRONT

PACKAGE PARTS LIST

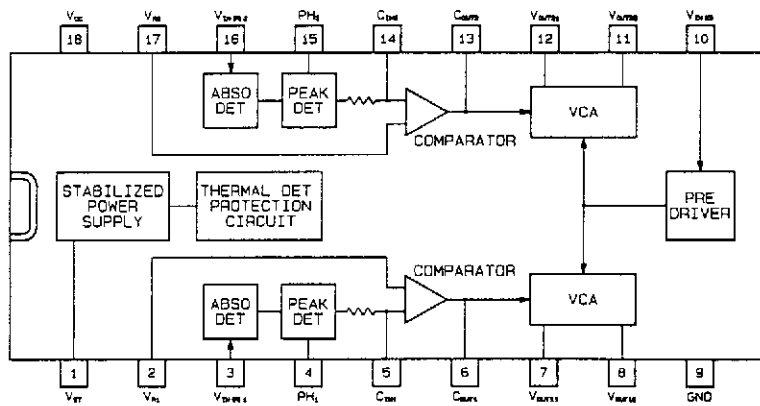
021B	1756-03108	LABEL (x2) IB
021C	1756-03111	LABEL (x2) BB
022B	1756-06303	LABEL IB BB
023C	1756-08501	LABEL 240V BB
024C	1111-J30319	OWNER GUIDE
		240V CAUTION BB
109	1111-J30355	OWNER GUIDE BK BB
109B	1111-J30356	OWNER GUIDE IB
110	1113-02501	OWNER CARD BK
112	1116-03801	WARRANTY CARD BK
113	1119-04501	ATTACH SHEET, SERVICE STATION BK
114	1119-01201	ATTACH SHEET, SAFETY BK
117A	1221-30203	CARTON BOX BK IB BB
118	1222-7384	CUSHION, R
119	1222-7385	CUSHION, L
121	1223-R0220055	SOFT SHEET, SET FRONT
122	1223-00403012	SOFT SHEET, CASS. LID
123	1241-R0160600	POLYETHY BAG, SET
124	1241-R0123350	POLYETHY BAG, OG
768	6142-02707	CONTROL BLOCK

NOTE:

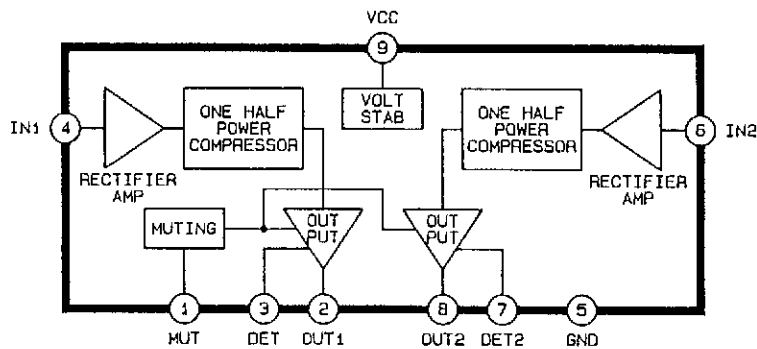
Δ SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

IC BLOCK DIAGRAM

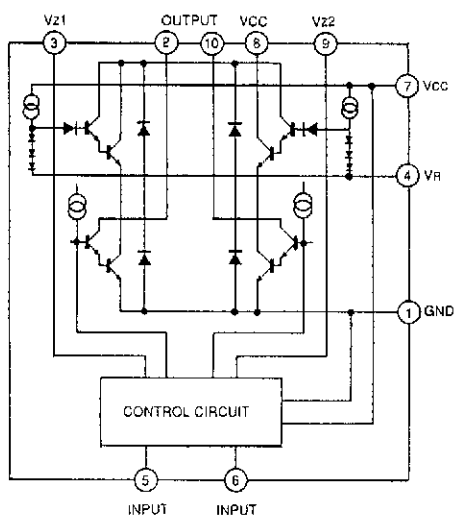
IC301 : μ PC1297CA
Dolby HX Pro



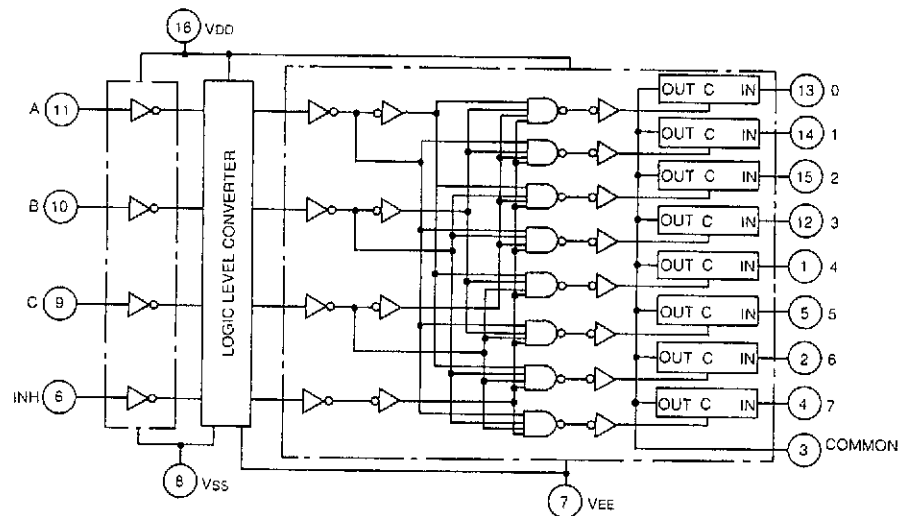
IC402 : BA6138
Signal Level Meter



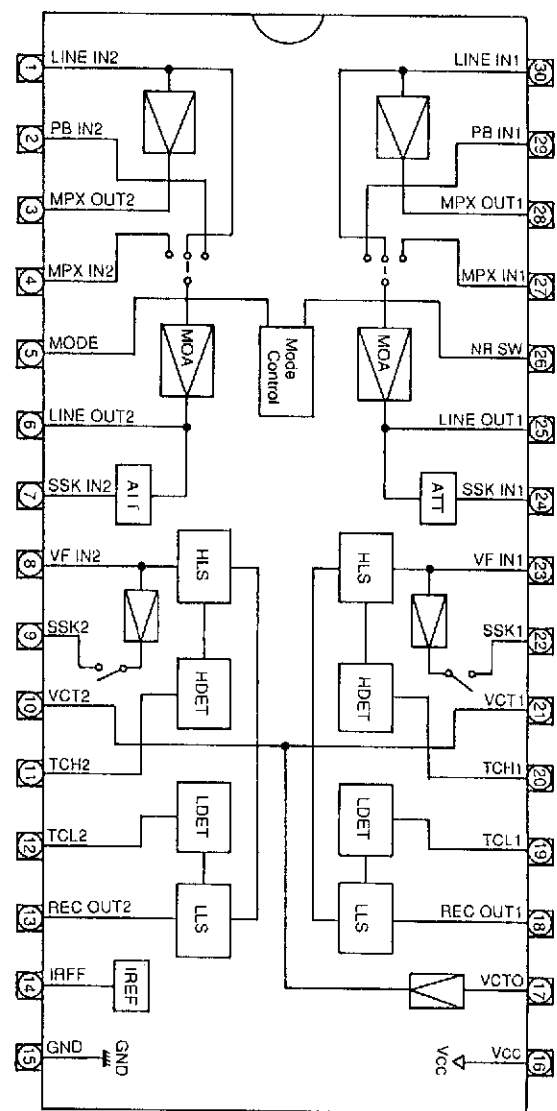
IC801, 802 : BA6229
Motor Driver



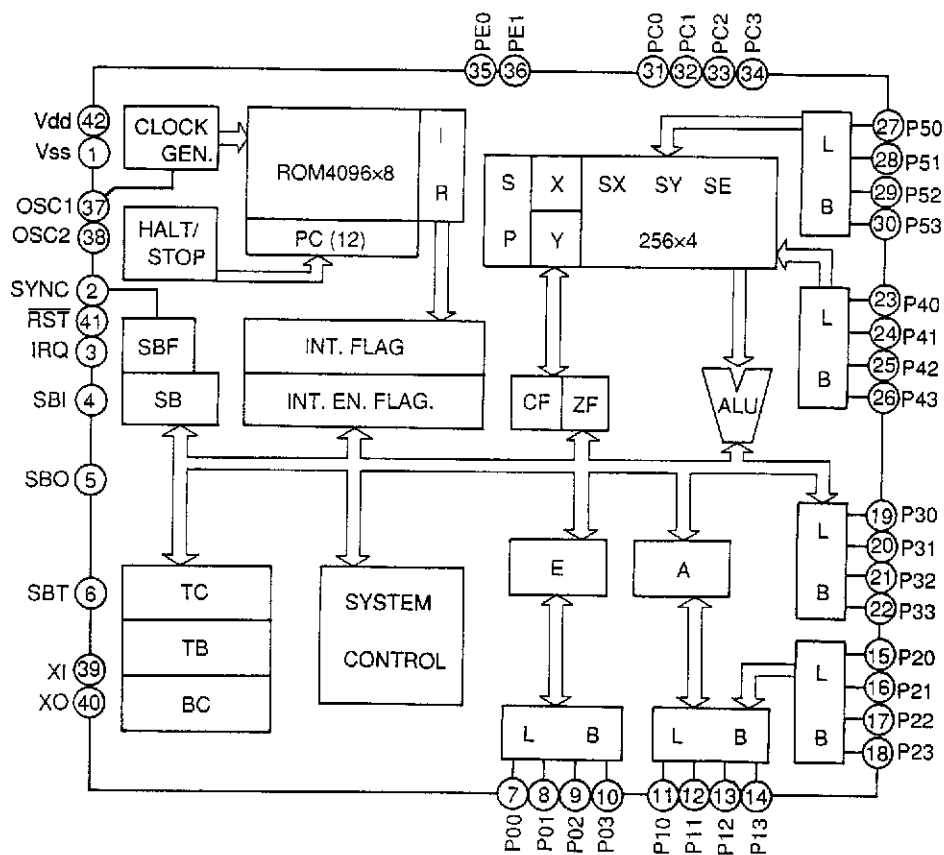
IC753 : TC4051BP



IC501 : CXA1330S
Dolby B/C NR



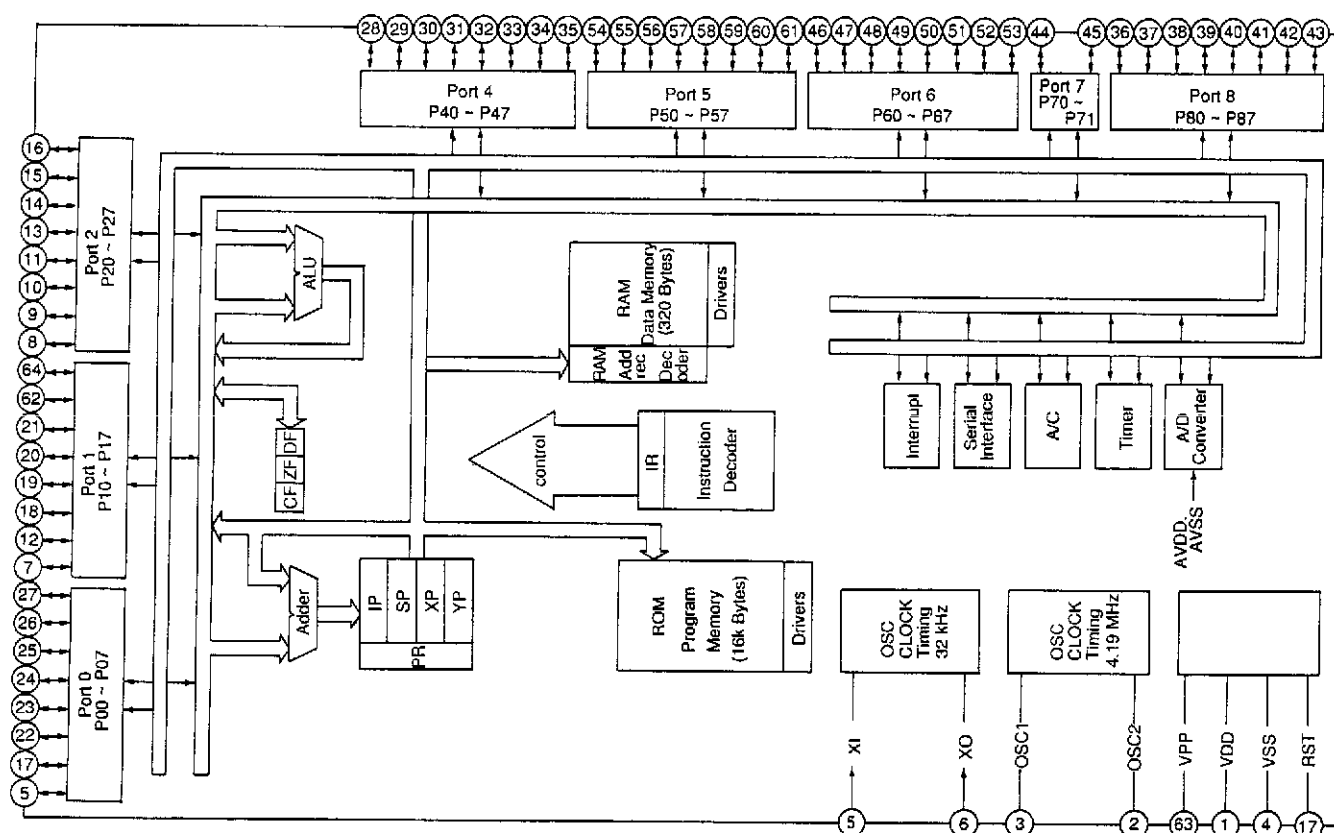
IC751 : MN15542
Logic Control Block



TERMINAL FUNCTIONS

NO.	Name	Functional Name	I/O	Description	NO.	Name	Functional Name	I/O	Description
1	Vss	Vss		GND	22	P33	LINE MUTE	O	Line mute output
2	SYNC			Not used	23	P40	SEC-RPC	O	SEC reel motor drive voltage change-over
3	IRQ	STB IN	I	STB input from MAIN	24	P41	SEC-RM2	O	SEC reel motor reverse drive output
4	SBI	DATA IN	I	Data input from MAIN	25	P42	SEC-RM1	O	SEC reel motor forward drive output
5					26	P43	SEC-SOLP	O	SEC solenoid retaining output
6	SBT	CLK IN/OUT	I/O	Clock input/output for data communication with SUB	27	P50	SEC-SOL	O	SEC solenoid trigger output
7	P00	SEC-RE MUTE	O	SEC playback mute output	28	P51	SEC-CPM	O	SEC capstan motor drive output
8	P01	SEC-REC MUTE	O	SEC REC mute output	29	P52	SEC-MMS	O	SEC capstan motor rpm change-over
9	P02	SEC-REC	O	SEC REC change-over output	30	P53	HI SPD	O	EQ change-over at high-speed copy
10	P03	SEC-BIAS	O	SEC bias drive output	31	PC0	PRI-DOLBY C	O	PRI Dolby C drive output
11	P10	PRO-PB MUTE	O	PRI playback mute output	32	PC1	PRI-DOLBY B	O	PRI Doby B drive output
12	P11	PRI-REC MUTE	O	PRI recording mute output	33	PC2	PRI-MPX	O	PRI MPX filter drive output
13	P12	PRI-REC	O	PRI recording mute change-over	34	PC3	SEC-DOLBY C	O	SEC Dolby C drive output
14	P13	PRI-BIAS	O	PRI bias drive output	35	PE0	SEC-DOLBY B	O	SEC Dolby B drive output
15	P20	PRI-RPC	O	PRI reel motor drive voltage change-over	36	PE1	BUSY OUT	O	
16	P21	PRI-RM2	O	PRI reel motor reverse drive output	37	OSC1	OSC1		Ceramic resonator connection
17	P22	PRI-RM2	O	PRI reel motor forward DRIVE output	38	OSC2	OSC2		Transmitting frequency : 4.0 MHz
18	P30	PRI-SOLP	O	PRI solenoid retaining power	39	XI			Not used
19	P23	PRI-SOL	O	PRI solenoid trigger output	40	XO			
20	P31	PRI-CPM	O	PRI capstan motor drive output	41	RST	RESET	I	Reset
21	P32	PRI-MMS	O	PRI capstan motor rpm change-over	42	Vdd	Vdd		5V DC power connection

IC901 : MN187167
Main Controller



TERMINAL FUNCTIONS

NO.	Name	Functional Name	I/O	Description	NO.	Name	Functional Name	I/O	Description	NO.	Name	Functional Name	I/O	Description
1	Vdd	Vdd		5V DC power supply	22	P05	R-ST	I	Remote control input	39	P84	S. R. LED	O	H when SYNC. REVERSE LED is on
2	OSC	OSC OUT		Ceramic resonator connection Transmitting frequency : 4.0 MHz	23	P04	VOLT-DN	I	Power OFF detection ; L when OFF	40	P83	A. P. LED	O	H when AUTO PAUSE LED is on
3	OSC	OSC IN			24	P03	MS GAIN	I	MS amplifier gain control ; H when the gain is small	41	P82	G0	O	FL display grid drive output
4	Vss	Vss		GND	25	P02	CLK IN/OUT	I/O	Clock input/output terminal for data communication with SUB	42	P81	G1	O	
5	P06	BUSY IN	I	BUSY IN	26	P01	DATA IN	I	Serial data input from SUB	43	P80	G2	O	
6	X0			Not used	27	P00	DATA OUT	O	Serial data output to SUB	44	P71	G3	O	
7	P17	SYNC. REV. KEY	I	SYNC. REVERSE key input	28	P47	SEC-F. REC	I	SEC tape front hook detection ; L when REC enabled	45	P70	G4	O	
12	P16	A-PAUSE KEY	I	AUTO PAUSE key input	29	P46	SEC-R. REC	I	SEC tape rear hook detection	46	P67	G5	O	FL display anode drive output
8	AD7	KEY IN 5	I	Key input	30	P45	PRI-REEL 2	I	PRI right reel pulse input	47	P66	G6	O	
9	AD6	KEY IN 4	I	Judging which key has been pressed by DC voltage detection with an A/D converter	31	P44	PRI-REEL 1	I	PRI left reel pulse input	48	P65	G7	O	
10	AD5	KEY IN 3	I		32	P43	PRI-PACK DET	I	PRI pack detection	49	P64	G8	O	
11	AD4	KEY IN 2	I		33	P42	PRI-QUICK DET	I	PRI quick photo detection	50	P63	a	O	
13	AD3	KEY IN 1	I		34	P41	PRI-R. REC	I	PRI tape rear hook detection	51	P62	b	O	
14	AD2	MS IN	I	A/D input port for MS detection	35	P40	PRI-F. REC	I	PRI tape front hook detection	52	P61	c	O	
15	AD1	METER R	I	Level meter right channel input	36	P37	STB OUT	O	STB output to SUB	53	P60	d	O	
16	AD0	METER L	I	Level meter left channel input	37	P36	COPY	O	H when copying from SEC to PRI	54	P57	e	O	
17	RST	RESET	I	Reset	38	P35	SEC	O	Voice output to LINE OUT and MS amplifier; H when SEC output and L when PRI output	55	P56	f	O	
18	P15	SEC-REEL 2	I	SEC right reel pulse input						56	P55	g	O	
19	P14	SEC-REEL 1	I	SEC left reel pulse input						57	P54	h	O	
20	P13	SEC-PACK DET	I	SEC pack detection ; L when a cassette is present						58	P53	i	O	
21	P12	SEC-QUICK DET	I	SEC quick photo detection ; L at the leader tape position						59	P52	j	O	
										60	P51	k	O	
										61	P50	l	O	
										62	P11	INI SET B	I	Initial setting SW B connection
										63	Vpp	Vpp		Negative voltage load terminal for FL
										64	P10	INI SET A		Initial setting SW A connection

SCHEMATIC DIAGRAM (1)

NOTES:

1. ALL RESISTANCES VALUES ARE IN Ω
 $k\Omega = 1000\Omega$, $M\Omega = 1000k\Omega$
2. THE WATTAGE OF RESISTORS IS 1/2W UNLESS

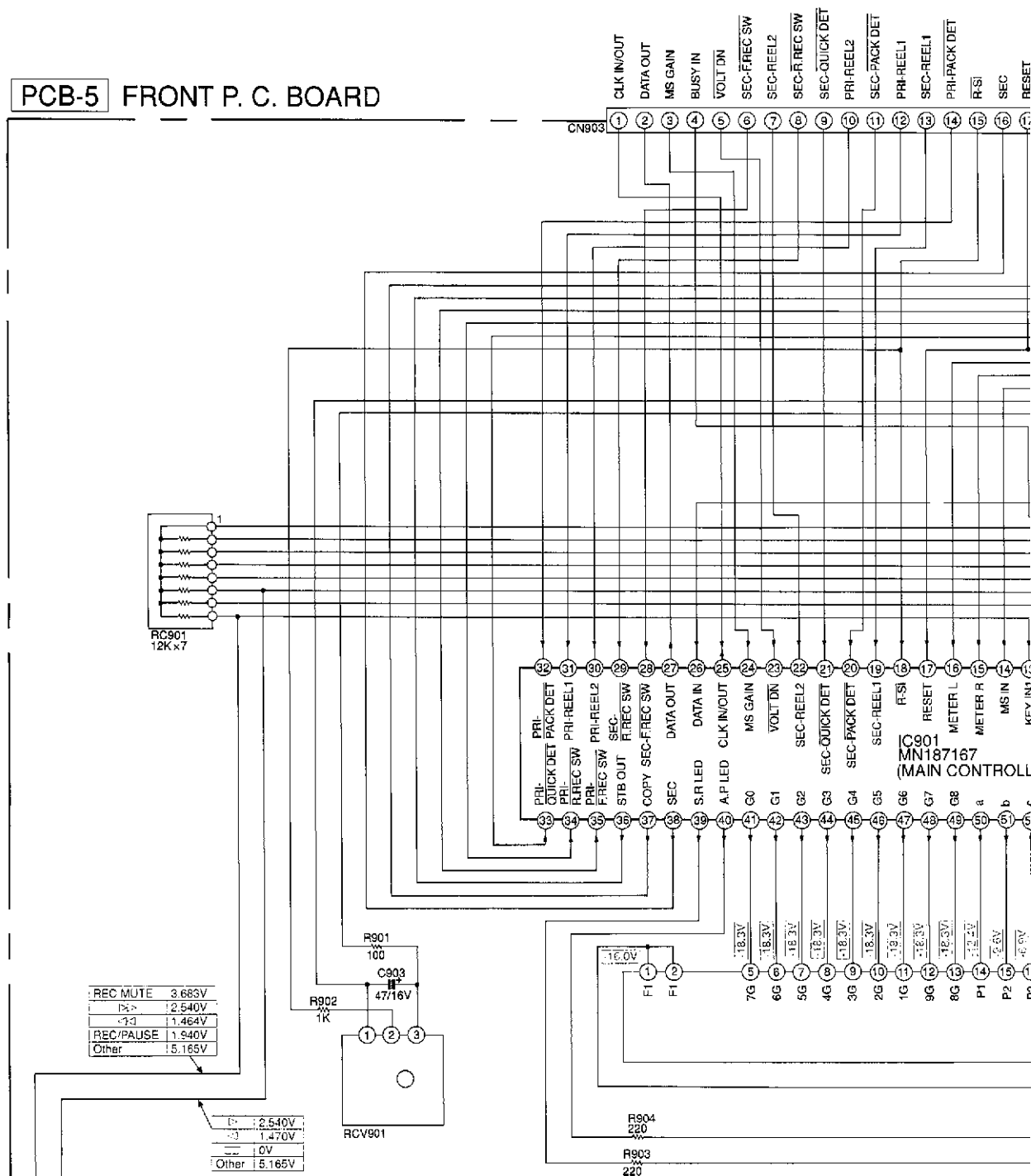
OTHERWISE NOTED.

3. ALL CAPACITANCES VALUES ARE IN μF UNLESS OTHERWISE NOTED. $P = \mu\mu F$.
4. V : DC VOLTAGE AT NO SIGNAL

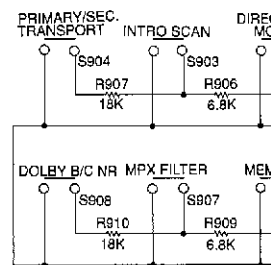
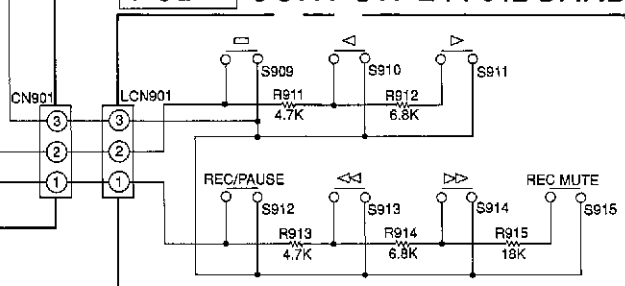
Page 25

7 N A

PCB-5 FRONT P. C. BOARD

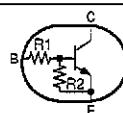


PCB-7 CONT SW-L P.C. BOARD

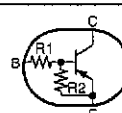


E F G H I J

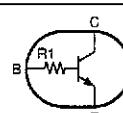
SS



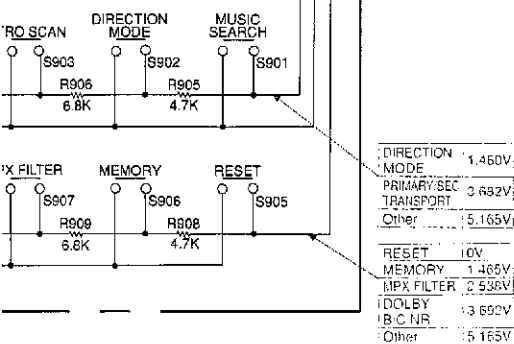
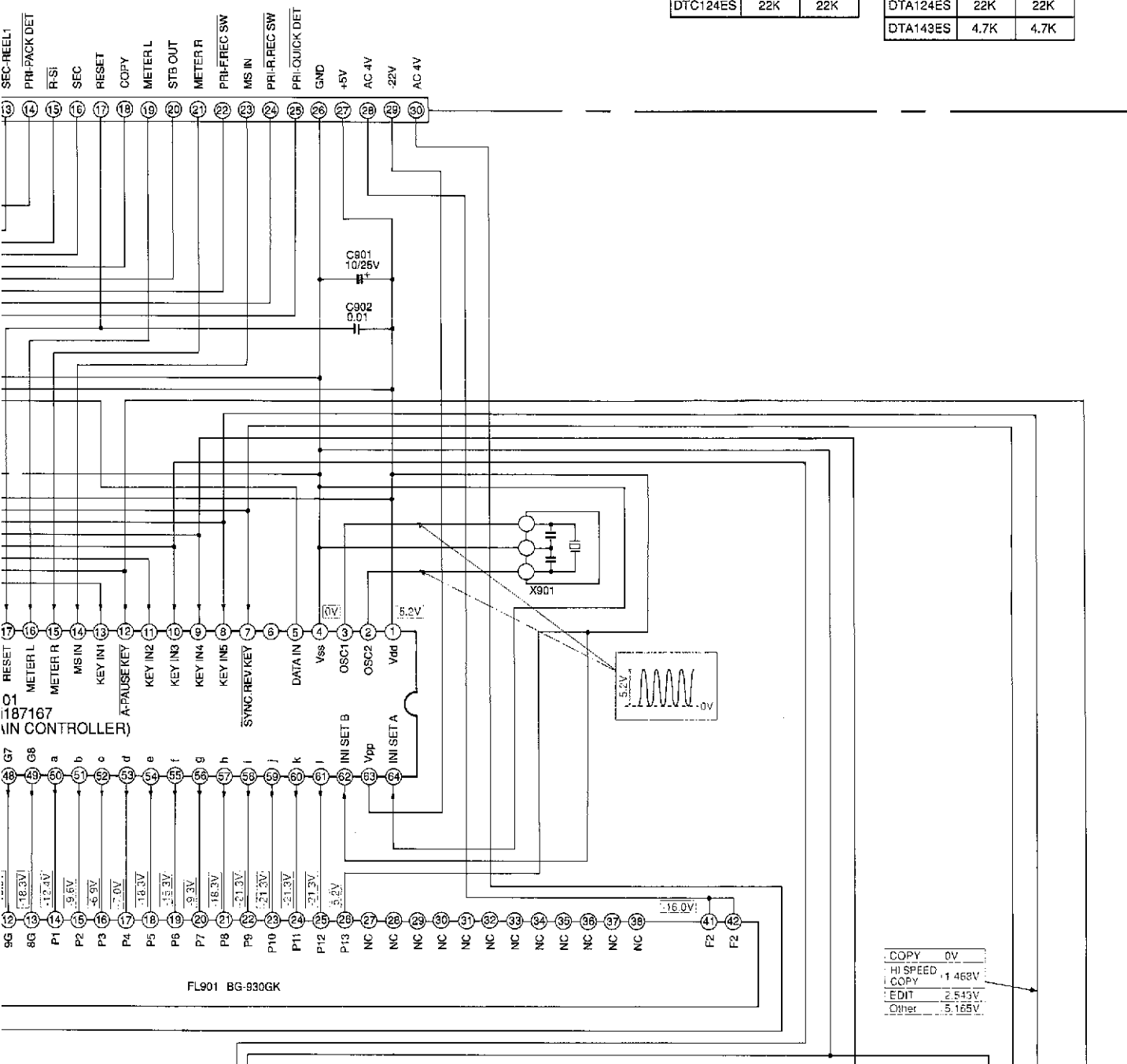
Type	R1	R2
DTC114YS	10K	47K
DTC124ES	22K	22K



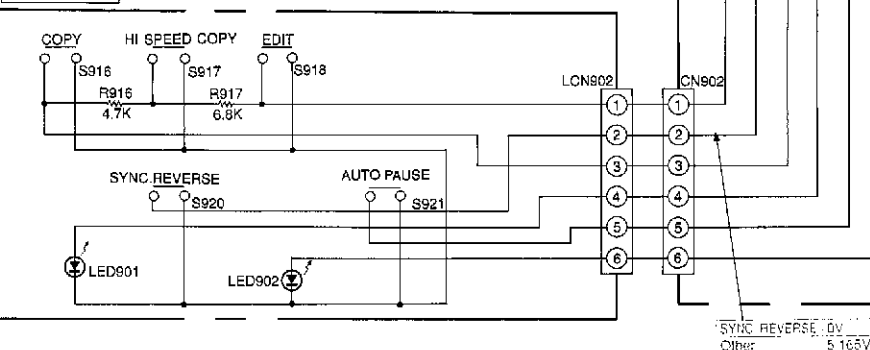
Type	R1	R2
DTA114YS	10K	47K
DTA124ES	22K	22K
DTA143ES	4.7K	4.7K



Type	R1
DTC114TS	10K

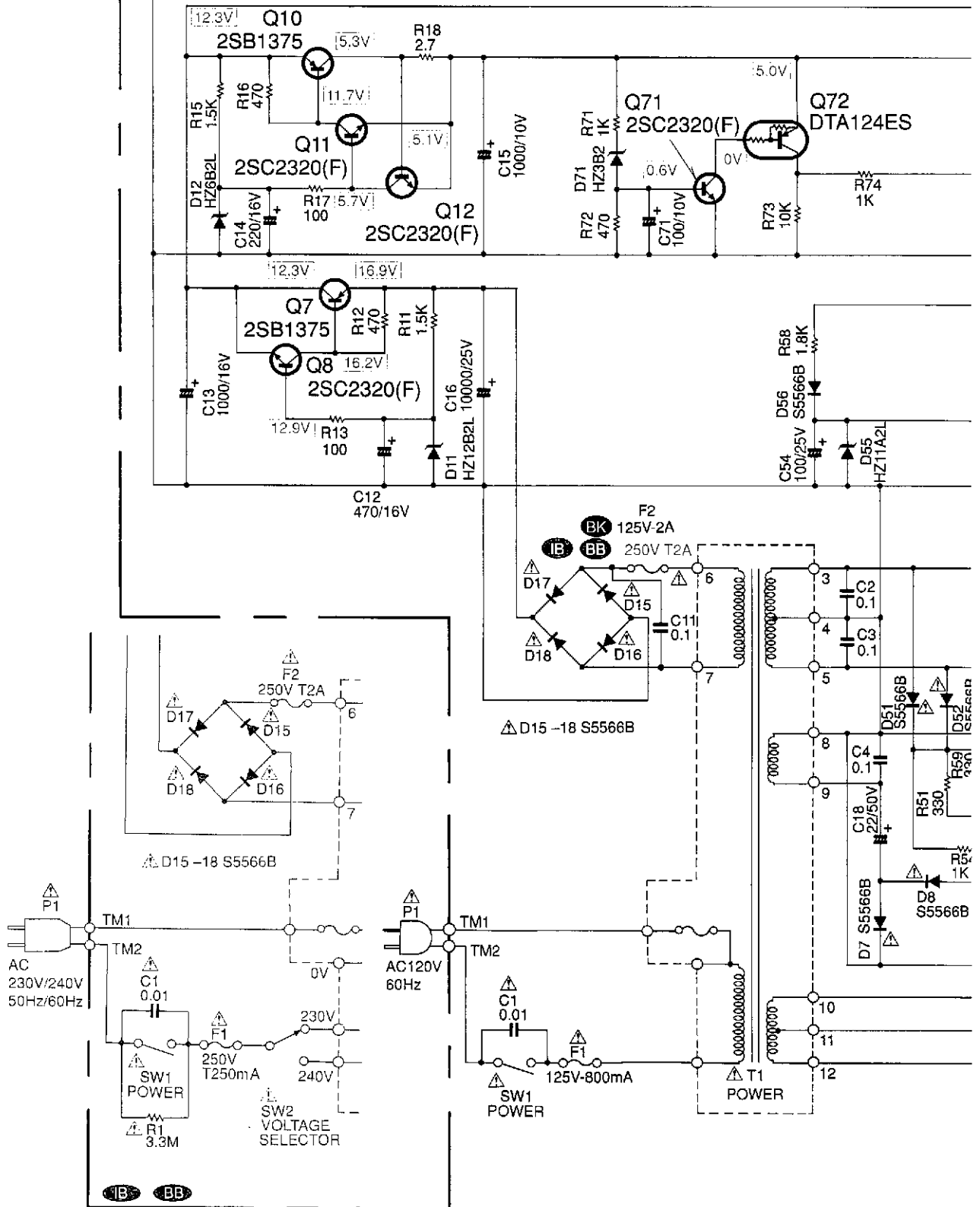


PCB-6 CONT SW-R P.C. BOARD

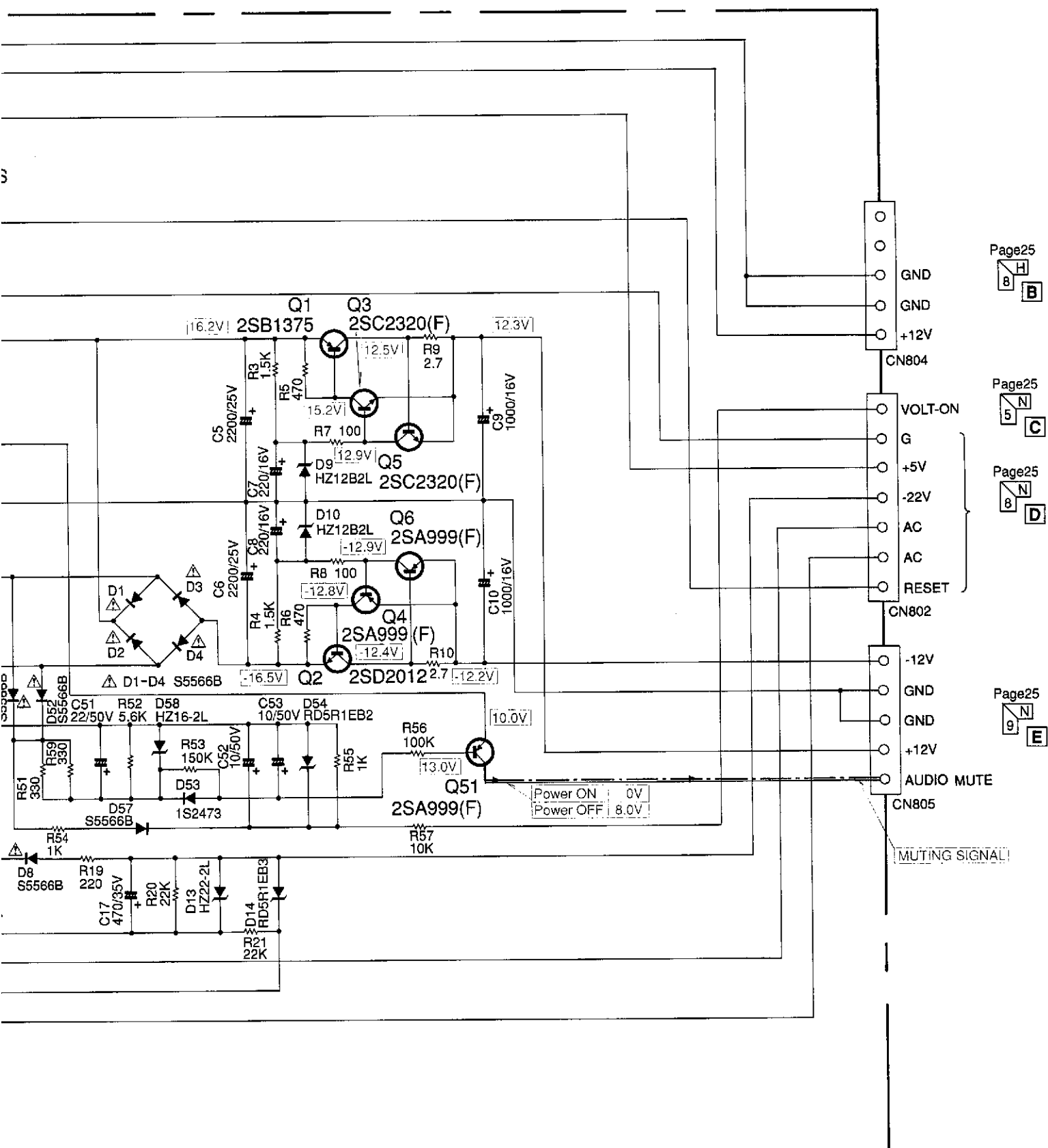


SCHEMATIC DIAGRAM (2)

PCB-4 POWER P. C. BOARD (1/2)



E F G H I J



Page25

H
8 B

Page25

N
5 C

Page25

N
8 D

Page25

N
9 E

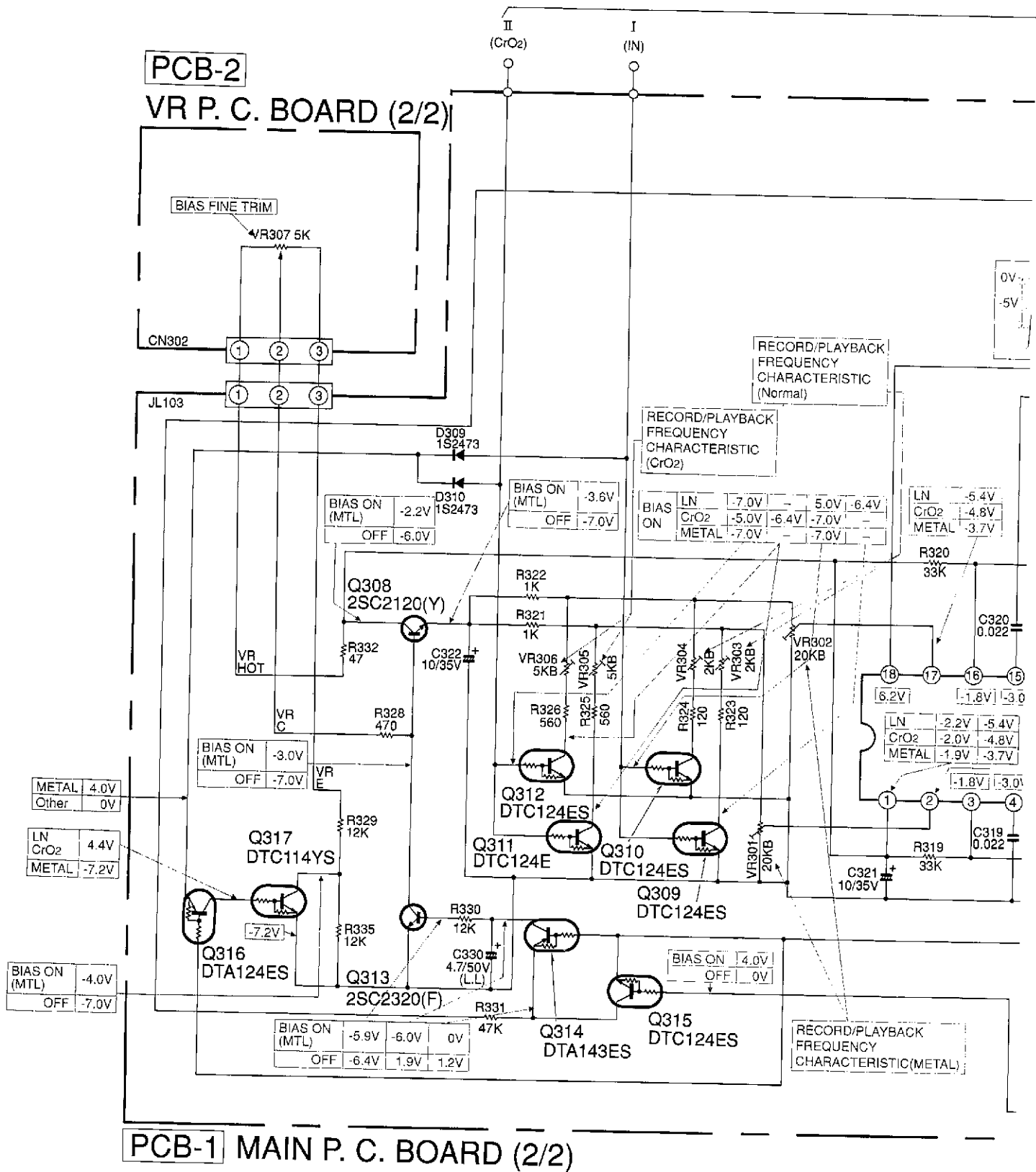
SCHEMATIC DIAGRAM (3)

Page 25

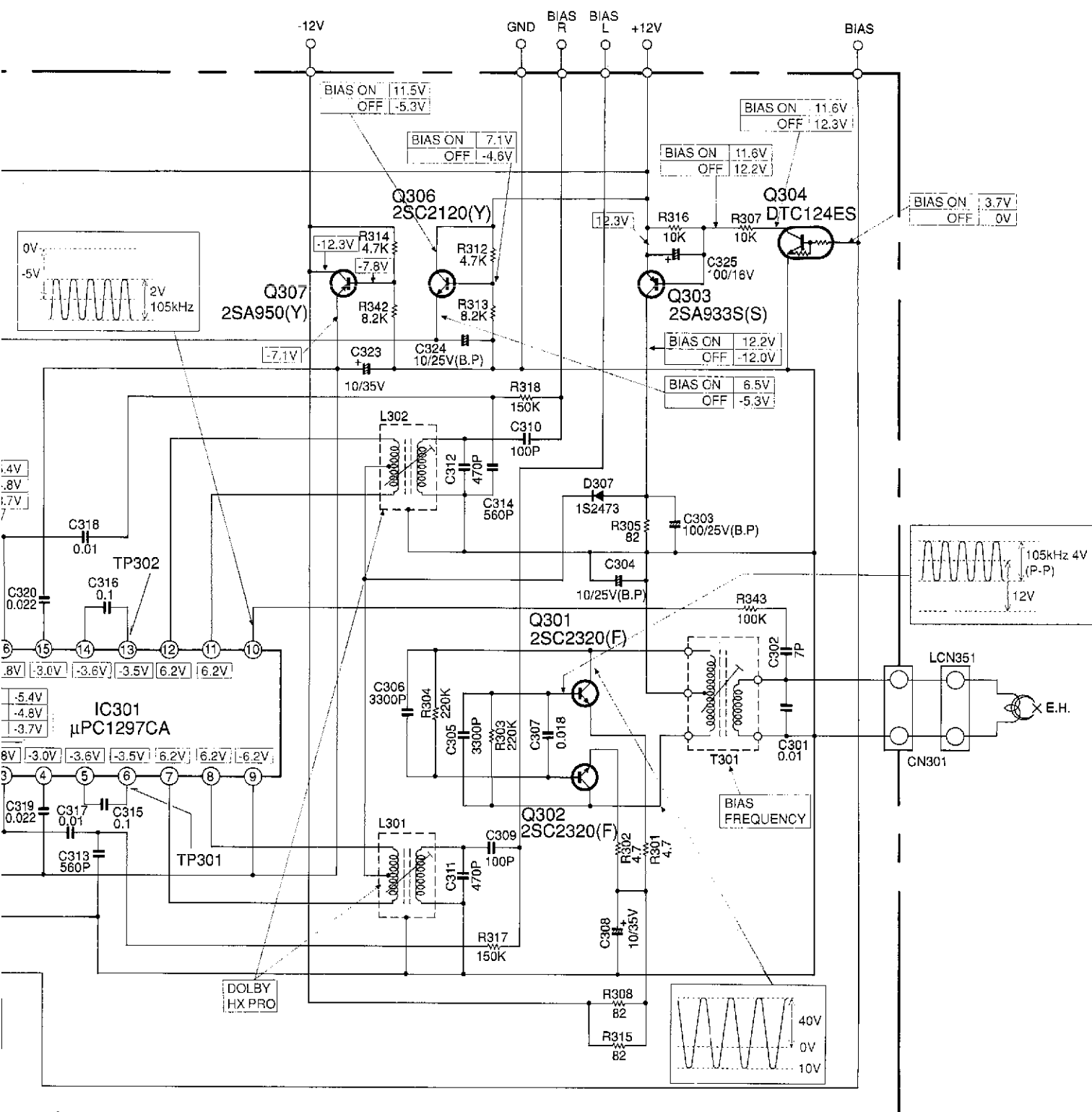
6 F

PCB-2

VR P. C. BOARD (2/2)



PCB-1 MAIN P. C. BOARD (2/2)



A

B

C

D

E

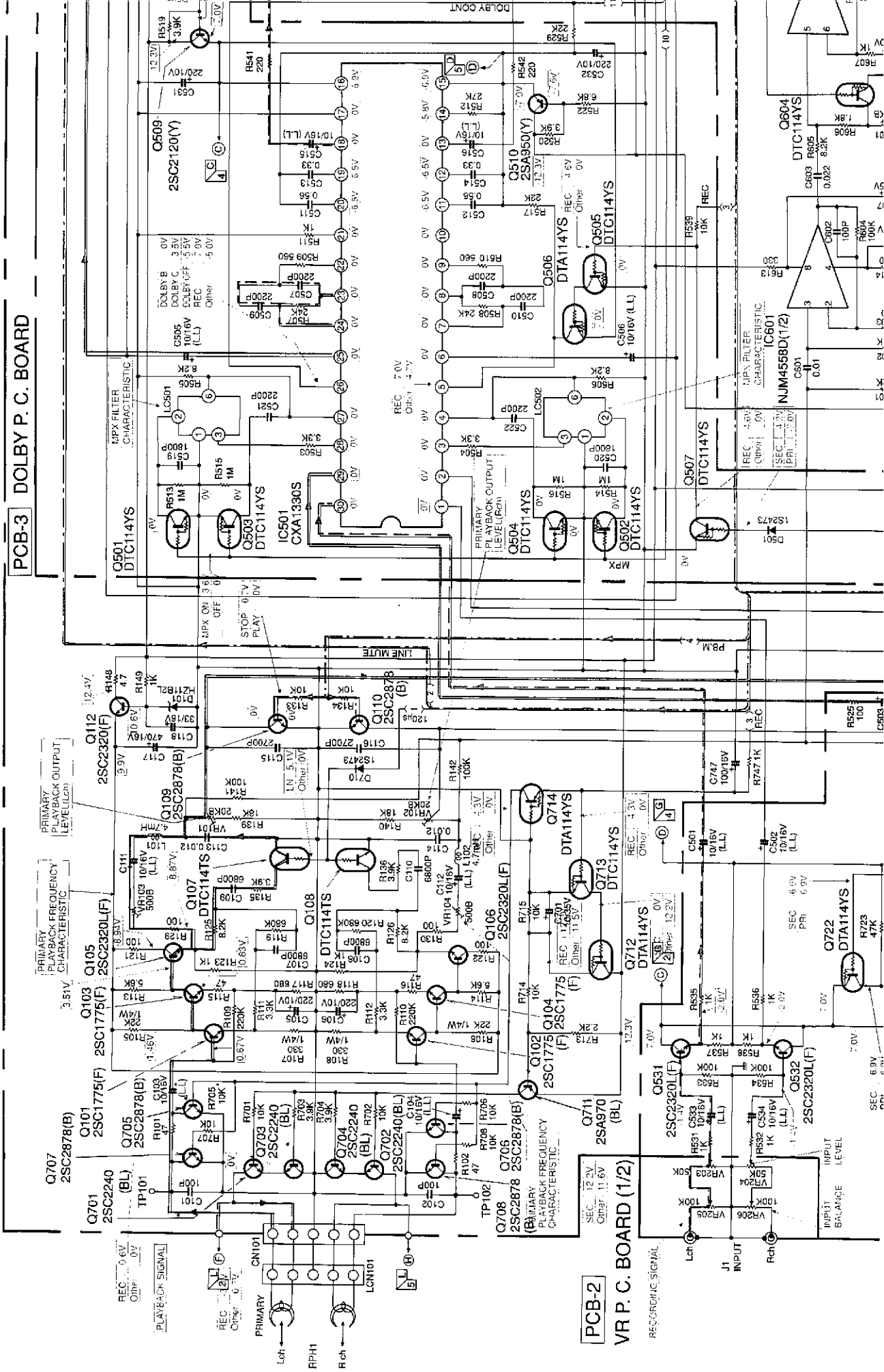
F

G

SCHEMATIC DIAGRAM (4)

1

PCB-1 MAIN P. C. BOARD (1/2)



2

3

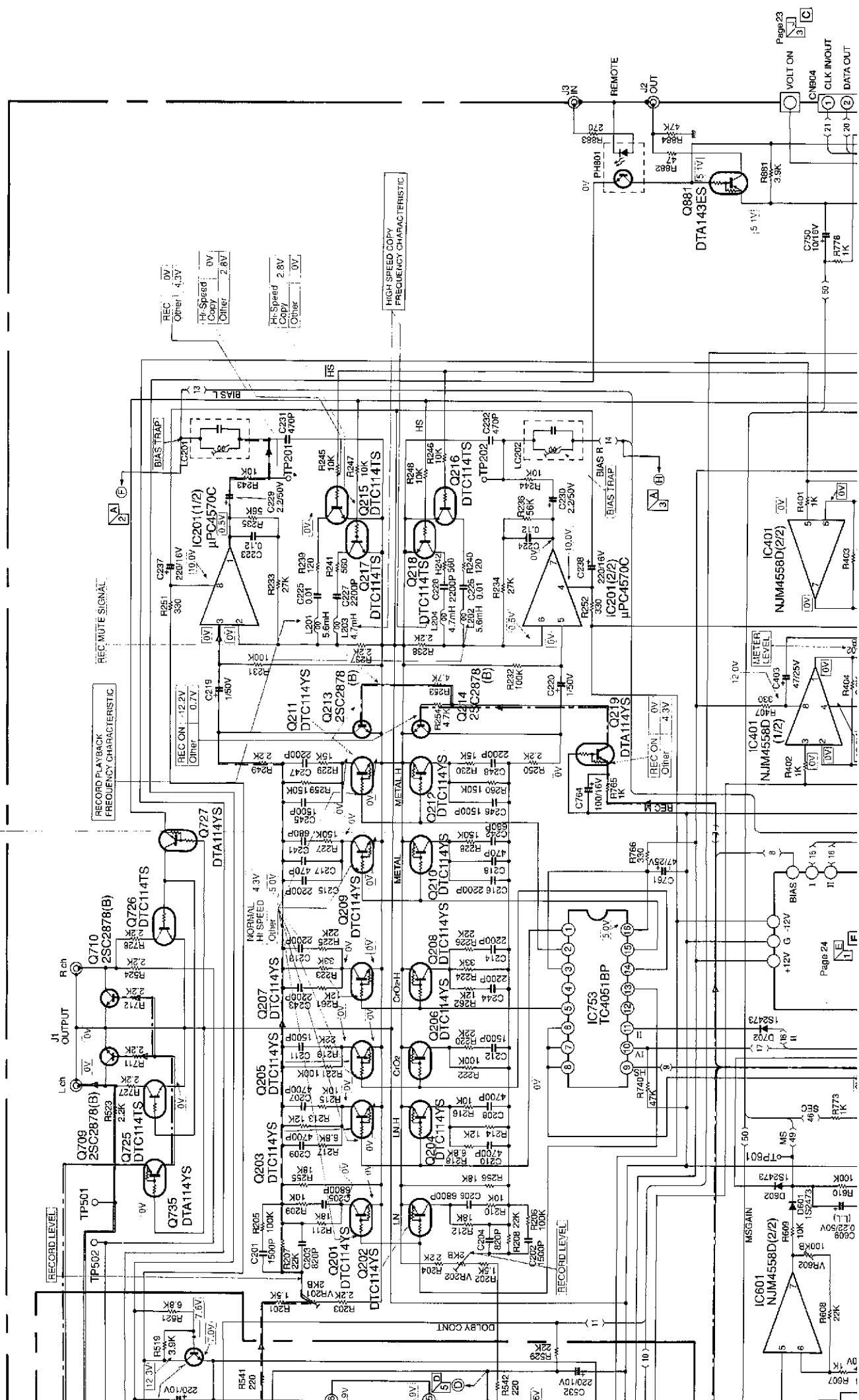
PCB-2

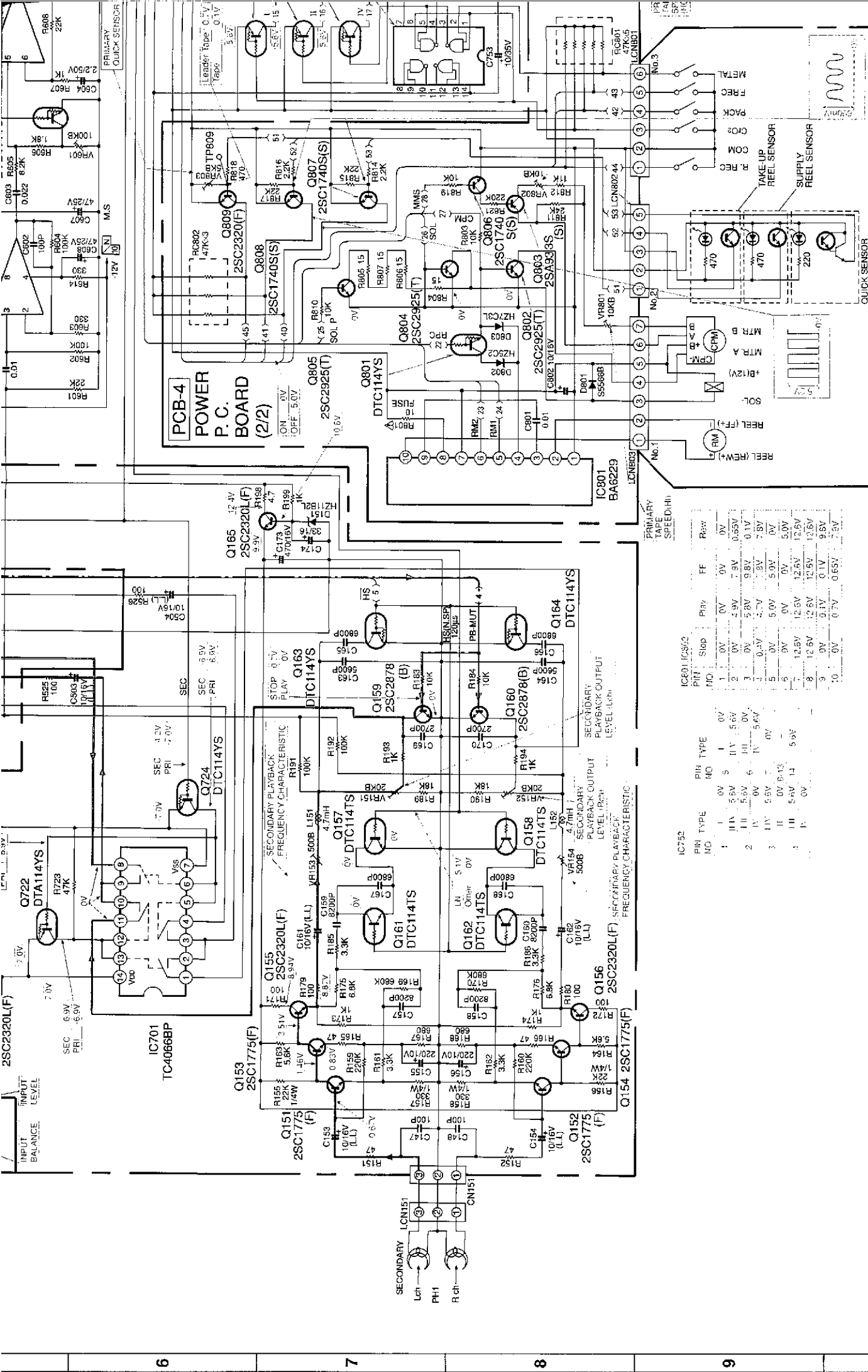
VR P. C. BOARD (1/2)

RECORDING SIGNAL

4

5





PRIMARY P.C. BOARD

