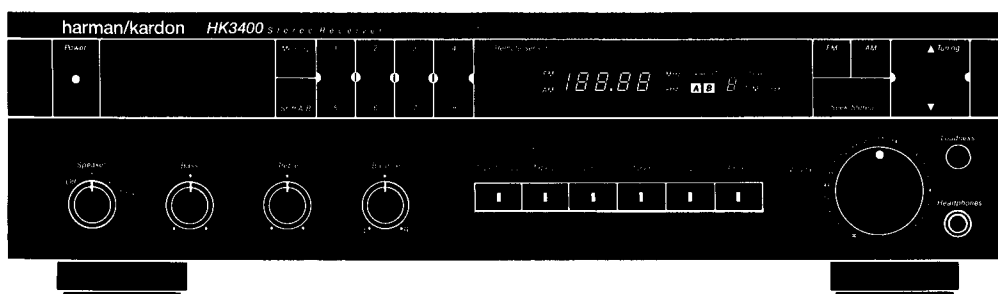


The Harman Kardon Model HK3400 STEREO RECEIVER

Manual 168A

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

harman/kardon

240 Crossways Park West, Woodbury, N.Y. 11797
1112-3152168A1 P-079011 1000 Printed in Japan

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SPECIFICATIONS

● **FM SECTION**

	Nominal	Limit
Tuning Range	87.5	~ 108.0MHz
50dB Quieting Sensitivity		
Mono	15.2dBf	≧ 19dBf
Stereo	38dBf	≧ 41dBf
Usable Sensitivity	11.2dBf	≧ 15dBf
Image Ratio	45dB	≧ 40dB
IF Rejection	105dB	≧ 80B
Spurious Response Rejection	80dB	
Capture Ratio	1.3dB	≧ 2.0dB
Alternate Channel Selectivity	77dB	≧ 60dB
AM Rejection	60dB	≧ 45dB
Signal to Noise Ratio		
Mono	80.5dB	≧ 76dB
Stereo	73dB	≧ 68dB
Total Harmonic Distortion (65dBf 1kHz Input)		
Mono	0.09%	≧ 0.3%
Stereo	0.12%	≧ 0.4%
Stereo Separation at 1kHz	55dB	≧ 42dB

● **AM SECTION**

Tuning Range	530	~ 1,710kHz
Usable Sensitivity		
External Antenna	12.5 μ V	≧ 25.0 μ V
Loop Antenna	400 μ Vm	≧ 700 μ Vm
Selectivity	35dB	≧ 25dB
Signal to Noise Ratio	52dB	≧ 47dB
Image Rejection	39dB	≧ 30dB
IF Rejection	63dB	≧ 50dB

● **AUDIO SECTION**

Usable Sensitivity		
Video/CD	135mV	± 25mV
Phono	2.2mV	± 0.2mV
Signal to Noise Ratio		
Video/CD	80dB	≧ 75dB
Phono	80dB	≧ 73dB

Channel Separation at 10kHz

	Nominal	Limit
Video/CD	63dB	≧ 45dB
Phono	71.3dB	≧ 45dB
IM Distortion Ratio	0.047%	≧ 0.1%
RMS Output Power		
8 Ω , 1kHz, THD 0.1%	46.8W	≧ 35W
4 Ω , 1kHz, THD 0.3%	48.8W	≧ 35W
Damping Factor at 1kHz	84	≧ 60
Tone Control Characteristics		
Bass at 50Hz		
Boost	11dB	± 2dB
Cut	-11dB	± 2dB
Treble at 10kHz		
Boost	11dB	± 2dB
Cut	-11dB	± 2dB
Loudness Control at 50Hz	10dB	± 2dB
DC Output Voltage		
L channel	34mV	± 60mV
R channel	24mV	± 60mV
RIAA Equalization at Tape Out (20Hz/20kHz)	0.1dB	± 0.5dB/0.2dB ± 0.5dB

● **DIMENSIONS (W x H x D)** 17-3/8" x 5 x 13-3/4"
 (443 x 126 x 349 mm)

● **WEIGHT** 15.4 lbs. (7 kg)

● **POWER SUPPLY** AC120V, 60Hz

● **POWER CONSUMPTION** 210W (240VA)

These specifications are Service target specs.

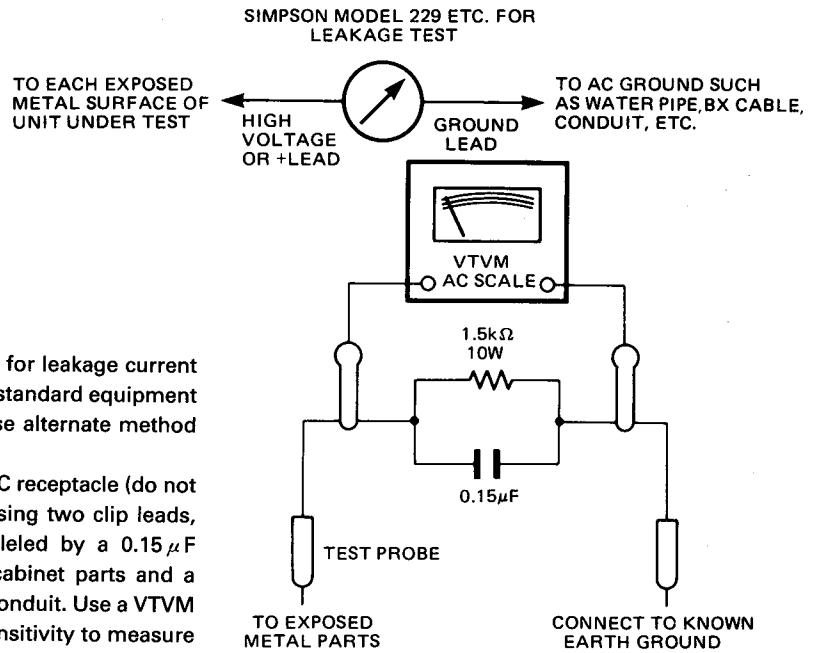
Specifications and components subject to change without notice.
 Overall performance will be maintained or improved.

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

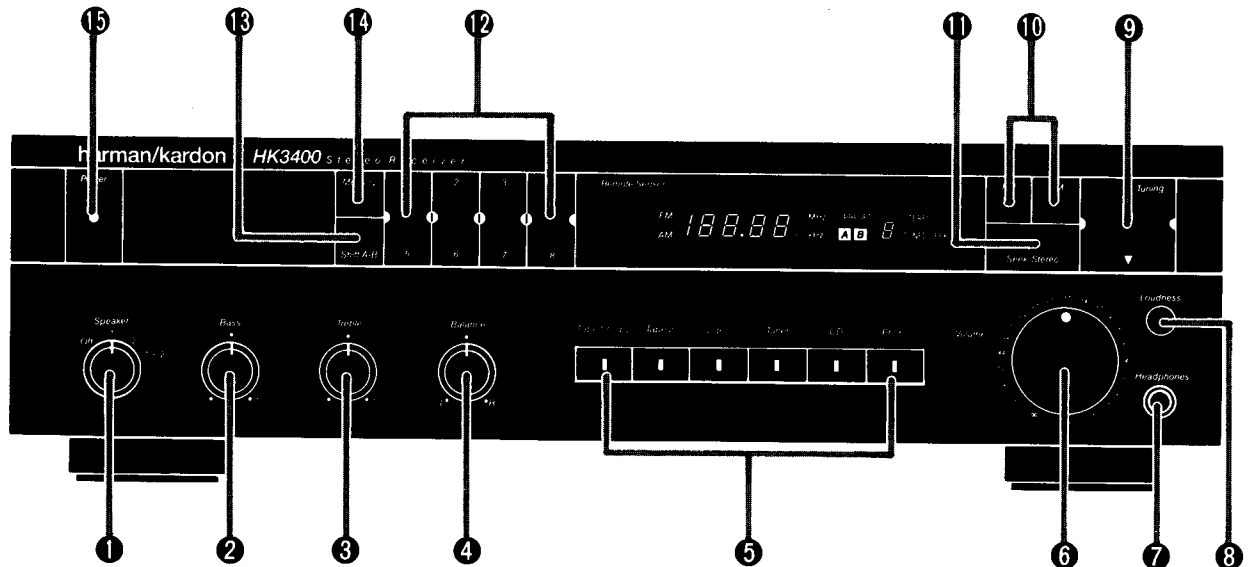
Before returning the unit to the user, perform the following safety checks:

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, adjustment and compartment covers 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 0.15 μ F 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 & FUNCTIONS



1 Speaker

Turn to select either of two sets of speakers, or both, or neither (headphone output only).

2 Bass

Turn to increase or decrease the proportion of low frequency sound.

3 Treble

Turn to increase or decrease the proportion of high frequency sound.

4 Balance

Turn to adjust relative output level of left and right speakers.

5 Function Selector

Select desired input source by pressing the corresponding key.

6 Volume

Turn to raise or lower output volume.

7 Headphone Jack

Plug in headphones if desired. (With Speaker switch in Off position, output is supplied only to headphones.)

8 Loudness

Press to improve sound quality when listening to your system at low volume.

9 Tuning

Press ▲ to tune to stations with higher frequencies; press ▼ for lower frequencies.

10 FM/AM

Press to select FM or AM reception.

11 Seek-Stereo

Press to select Seek tuning in stereo, or manual tuning in mono.

12 Preset Buttons

Press to access pre-selected stations.

13 Shift A-B

Allows you to access 16 pre-selected stations using the 8 preset buttons.

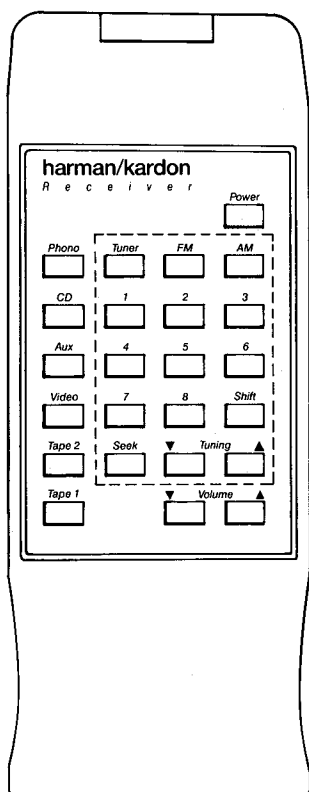
14 Memory

Press to set a new preset station in memory.

15 Power

Press to turn the unit on and off.

REMOTE CONTROL



Independent Remote Control

The keys on the remote control unit function the same as the corresponding buttons on the receiver itself, except for the power switch.

The power switch on the receiver turns the unit On and Off. The switch on the remote control switches the receiver from On (green LED illuminates on receiver power switch) to Standby (amber LED), as follows.

When power is On, pressing the power switch on the remote control puts the receiver in Standby mode. From this mode, the receiver can be turned back on from the remote control.

When power is Off, the receiver can be turned on only from the unit itself, not from the remote control.

Operating Conditions

The control unit operates effectively within a distance of 7 meters (23 feet) and an angle of 30° from the receiver. Using the control near fluorescent lights may shorten this range, as will any dust or dirt that accumulates on the front of the remote control, or the "Remote Sensor" area of the receiver. Also avoid blocking the line of sight between receiver and remote.

The control unit is powered by two AA batteries, included with your receiver.

When you replace weak batteries, replace both at the same time. When the remote is to be unused for an extended period, remove the batteries to prevent damage from corrosion.

DISASSEMBLY PROCEDURES (REFER TO PAGES 9 THROUGH 13)**1 CABINET TOP (127) REMOVAL**

Remove 6 screws (A) and then remove the Cabinet Top (127).

2 FRONT PANEL ASSEMBLY (AA) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step 1.
2. Disconnect the (CW15) from (CN15) on the Tuner P.C. Board (PCB-1).
3. Pull out the Volume Knob (139) with the Volume Indicator P.C. Board (PCB-16).
4. Disconnect the (CW100) from (CN100) on the Trans Terminal P.C. Board (PCB-13).
5. Disconnect the (JL101, JL804) from (CN101A, CN804B) on the Tuner P.C. Board (PCB-1).
6. Remove 3 screws (B) and 3 screws (C) and then remove the Front Panel Assembly (AA).

3 FRONT P.C. BOARD (PCB-14) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step 2.
2. Remove 11 screws (D) and then remove the Front P.C. Board (PCB-14).

4 TONE CONTROL P.C. BOARD (PCB-6) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step 2.
2. Pull out the Bass, Treble and Balance Knobs (140).
3. Remove the 3 nuts (E) and then remove the Tone Control P.C. Board (PCB-6).
4. Disconnect the (CW401) from (CN401) on the Tone Control P.C. Board (PCB-6).
5. If necessary, unsolder the lead wires.

5 VOLUME P.C. BOARD (PCB-7) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step 2.
2. Disconnect the (CW504) from (CN504) on the Tuner P.C. Board (PCB-1).
3. Remove the 1 nut (F) and then remove the Volume P.C. Board (PCB-7).
4. If necessary, unsolder the lead wires.

6 HEADPHONE P.C. BOARD (PCB-10) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step 2.
2. Pull out the Loudness Button (151).
3. Remove 2 screws (G) and then remove the Headphone P.C. Board (PCB-10).
4. If necessary, unsolder the lead wires.

7 SPEAKER SWITCH P.C. BOARD (PCB-11) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step 2.
2. Pull out the Speaker Knob (140).
3. Remove 1 nut (H) and then remove the Speaker Switch P.C. Board (PCB-11).
4. If necessary, unsolder the lead wires.

8 POWER SWITCH P.C. BOARD (PCB-15) REMOVAL

1. Remove the Front Panel Assembly (AA), referring to the previous step 2.
2. Pull out the Power Indicator P.C. Board (PCB-17) with the Holder (187).
3. Remove 2 screws (I) and then remove the Power Switch P.C. Board (PCB-15).
4. Open the lid of connector (CN11) on the Power Switch P.C. Board (PCB-15) and then disconnect the lead wire.

9 TUNER P.C. BOARD (PCB-1) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step 1.
2. Disconnect the (CW15, CW102, CW504) from (CN15, CN102, CN504) on the Tuner P.C. Board (PCB-1).
3. Open the lid of connectors (CN12, CN501) on the Tuner P.C. Board (PCB-1) and then disconnect the lead wire.
4. Remove 3 screws (C) and 8 screws (J) and then remove the Front Panel Assembly and Chassis.
5. Remove 10 screws (K) and then remove the Tuner P.C. Board (PCB-1), Equalizer P.C. Board (PCB-2) and Monitor P.C. Board (PCB-3).
6. If necessary, unsolder the lead wires.
7. Pull out the Equalizer P.C. Board (PCB-2).
8. Pull out the Monitor P.C. Board (PCB-3).

10 SUB WOOFER BOARD (PCB-4) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step 1.
2. Remove 2 screws (L) and then remove the Sub Woofer P.C. Board (PCB-4).
3. Open the lid of connector (CN104) on the Sub Woofer P.C. Board (PCB-4).
4. If necessary, unsolder the lead wires.

11 SPEAKER TERMINAL P.C. BOARD (PCB-12) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step 1.
2. Remove 2 screws (M) and then remove the Speaker Terminal P.C. Board (PCB-12).

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

1. Remove the Speaker Terminal P.C. Board (PCB-12), referring to the previous step 1.
2. Remove 5 screws (N) and then remove the Main P.C. Board (PCB-5) with Metal Fittings (167, 168).
3. If necessary, unsolder the lead wires.

13 SECONDRY P.C. BOARD (PCB-9) REMOVAL

1. Remove the Cabinet Top (127), referring to the previous step 1.
2. Remove 6 screws (O) and then remove the Power Transformer (T1) with Secondary P.C. Board (PCB-9) and Trans Terminal P.C. Board (PCB-13).

14 PRIMARY P.C. BOARD (PCB-8) REMOVAL

1. Remove the Secondary P.C. Board (PCB-9), referring to the previous step 13.
2. Remove 2 screws (P) and then remove the Primary P.C. Board (PCB-8).

CIRCUIT DESCRIPTION

■ FM TUNER SECTION

The FM signal which has entered through the antenna is high-frequency amplified in the front end. Then it is mixed with the output of the local oscillators and converted into the 10.7MHz intermediate-frequency.

The 10.7MHz signal is amplified in the intermediate frequency amplifying section which consists of CF201, Q201, CF202, Q202 and CF203 and fed to pin 1 of IC201. In IC201, the signal is sent through the IF amplifier and after being detected in the quadrature, it is sent through the post amplifier to pin 12 and then input to pin 2 of IC301. In IC301, the pilot signal is detected out of the signal which has been fed and 38kHz signal is produced. Then by this signal, stereo signal is demodulated, output from pin 4 for the left channel and from pin 7 for the right channel and transmitted to the input selector section.

■ AM TUNER SECTION

The AM signal which has entered through the antenna passes through the tuning circuit consisting of CB251 and is inputted to pin 21 of IC201. In IC201, it undergoes radio-frequency amplification and local oscillation and is output from pin 20, and passed through the transformer (T251) and ceramic filter (CF252) and enters pin 18 of IC201. It is then passed through the IF amplification and detection and is output from pin 15. This signal is fed to IC301.

■ AUDIO AMPLIFIER SECTION

The signal which has entered from each input terminal is selected by the input selector, passes through the balance circuit, volume and loudness circuit and is fed into the pre-amplifier.

Then it is fed into the power amplifier through the tone control circuit, power is amplified and transmitted to the speaker terminal.

The power amplifier has an over-output protective circuit. If current exceeding the specification flows to Q419, Q421 (L ch), Q420, Q422 (R ch), it is detected at Q27 (L ch) and Q28 (R ch) and the protective circuit consisting of Q22 and Q24 draws in Q23 and Q29, and thus the input signal is cut to protect the circuit.

■ MUTING CIRCUIT

If FM or AM is received out of tuning or in a very weak field intensity, pin 31 of IC701 becomes high level. This is fed to the base of Q707, whose collector then becomes low level and the collector of Q708 high level. As a result, Q301 (L ch) and Q302 (R ch) are conducted to mute the output.

■ SYNTHESIZER SECTION

● FM

The local oscillation output at the front end is fed to pin 21 of the prescaler IC702 and after being frequency divided into 30 or 32, control output signal is fed from IC701, compared with the divided local oscillation output and output to pin 16. This voltage is level converted at Q701 and Q702, and fed to the front end.

● AM

The local oscillation output is fed from pin 24 of IC201 to pin 19 of IC702. In IC702, control output signal is fed from IC701, compared with the local oscillation output and output to pin 16. This voltage is level converted at Q701 and Q702, and fed to the AM local oscillation section.

■ INDICATOR SECTION

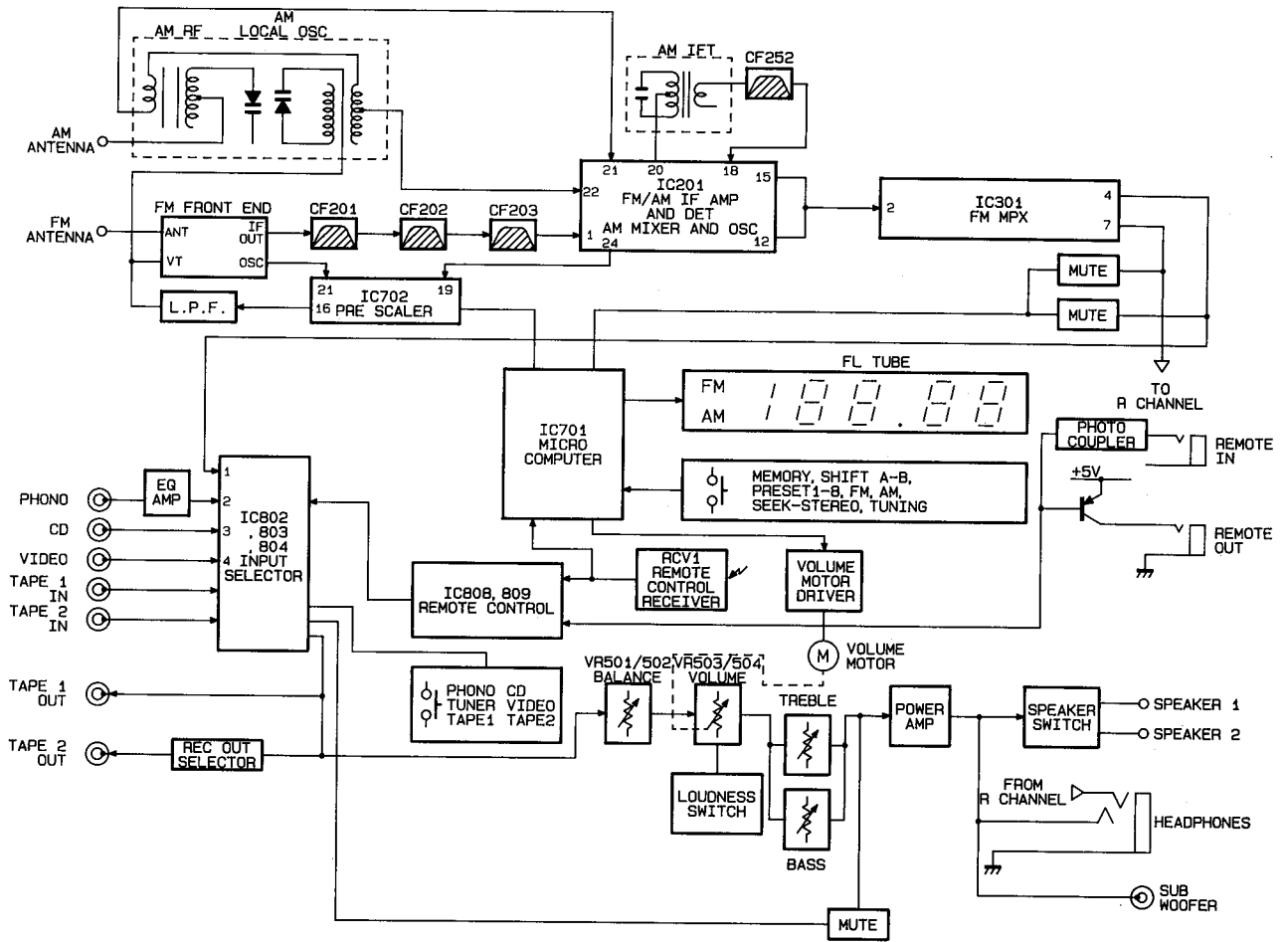
● Frequency display

The indicator tube is turned ON by the output decoded in IC701.

● Tuning

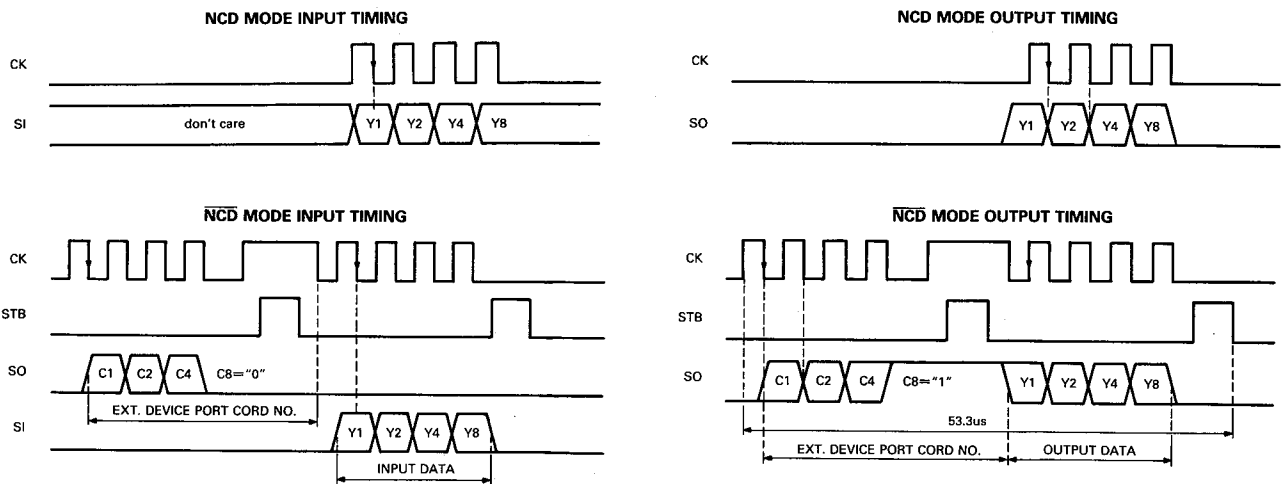
When broadcast is received, Q711 turns ON by the control signal in IC301 and "Tuned" of the indicator tube is turned ON. When FM or stereo broadcast is received, pin 9 of IC301 becomes low level, Q712 turns ON and "Stereo" of the indicator tube is turned ON.

BLOCK DIAGRAM

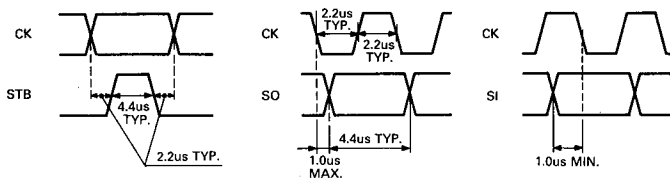


TIMING CHART

Frequency display timing chart of IC701 (TC9301AN-020)



SERIAL TIMING PULSE WIDTH



ALIGNMENT PROCEDURES (REFER TO PAGES 14 THROUGH 17 AND 26 THROUGH 30)

Conditions: ● Set the Volume control to minimum.

- Set the Speaker switches to on (button in) position.
- Set the Speaker Operating Mode switch to "8Ω" position.
- Make the adjustment at a room temperature of 77°F (25°C).
- After the Power switch is pushed on, wait for 30 minutes before measuring to be sure of the most stable operation.

■ IDLING CURRENT ADJUSTMENT

Step	Terminal to be Connected	Adjustment	For
1	Connect the Digital Volt Meter to TP401 and TP403.	VR401 (L ch)	40mV ±2mV
2	Connect the Digital Volt Meter to TP402 and TP404.	VR402 (R ch)	40mV ±2mV

■ AM ADJUSTMENT

Conditions: ● Set the AM mode by pressing the "FM/AM" button.

- Set the Seek switch to off (put out seek indicator) position.
- Standard modulation of the AM signal Generator is 400Hz at 30%.

Step	Alignment	Terminal to be Connected	Measurement Frequency	Station Display	Adjustment	For
1	IF	<ul style="list-style-type: none"> • Connect the AM Test Loop Antenna cable into the output jack of AM Signal Generator (80 dBμV signal). Place AM Test Loop Antenna close enough to couple signal into the AM Loop Antenna. • Connect the VTVM and oscilloscope to the OUTPUT jacks. 	1400kHz	1400kHz	T251	Maximum output level and symmetrical curve on scope.
2	Tracking		600kHz	600kHz	CB251	Maximum output.

■ FM ADJUSTMENT

Conditions: ● Set the FM mode by pressing the "FM/AM" button.

- Set the Seek switch to off (put out seek indicator) position.

FM Signal Generator	1kHz, 100% modulation
Stereo Modulator	L+R=45.5%, L-R=45.5%, 19kHz=9%

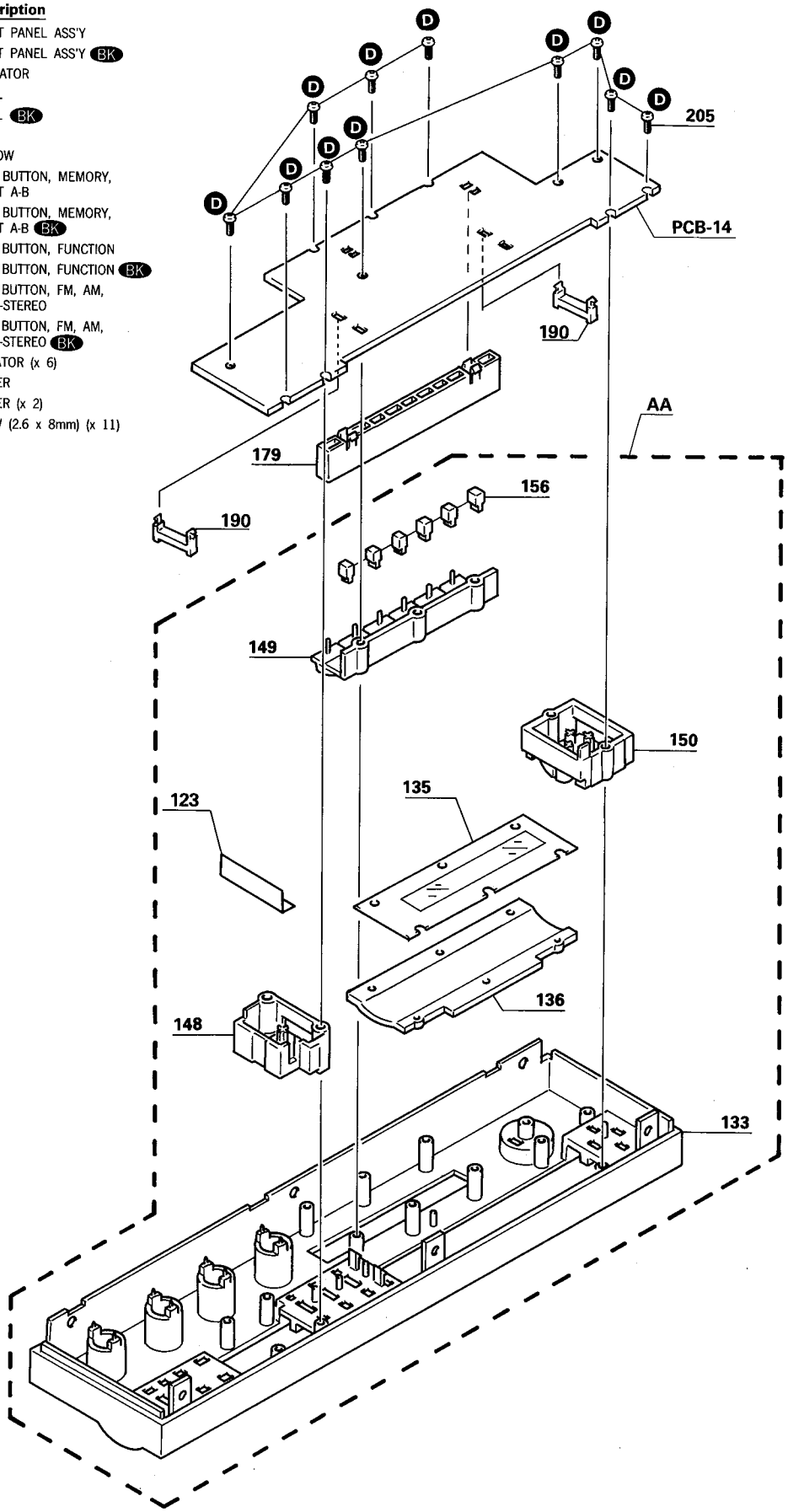
Step	Alignment	Terminal to be Connected	Measurement Frequency	Station Display	Adjustment	For
1	Discriminator	<ul style="list-style-type: none"> • Connect the FM Signal Generator to FM 300Ω BAL Antenna terminals through the 300Ω balanced dummy. [1mV(65dBf) input signal] • Connect the Oscilloscope and Distortion meter to the Tape 1 OUTPUT jacks. • Set the Seek switch to on (seek indicator lights) position. 	97.9MHz	97.9MHz	T201(A)	Adjust so that the TUNED indicator lights in the same range on both plus (+) and minus (-) sides of 97.9 MHz.
2			97.9MHz	97.9MHz	T201(B)	Minimum distortion.
3			Repeat steps 1 and 2 for optimum sensitivity.			
4	Muting level		97.9MHz	97.9MHz	VR201	Adjust VR201 so that the waveform is disappear at 30 dBf input.
5	Separation	<ul style="list-style-type: none"> • Connect the Stereo Modulator to FM Signal Generator. Connect FM Signal Generator to FM 300Ω BAL Antenna terminal through the 300Ω balanced dummy. (65 dBf input signal) • Connect the VTVM and Oscilloscope to the Tape 1 OUTPUT jacks. 	97.9MHz	97.9MHz	VR301	Adjust so that the left channel output becomes minimum when only the right channel of the Stereo Modulator is modulated.
					VR301	Adjust so that the right channel output becomes minimum when only the left channel of the Stereo Modulator is modulated.

GENERAL UNIT PARTS LIST

**GENERAL UNIT
EXPLODED VIEW (FRONT PANEL ASS'Y)**

1
2
3
4
5
6
7

Ref. No.	Part No.	Description
AA	A442-HK3400A	FRONT PANEL ASS'Y
AA	A442-HK3400B	FRONT PANEL ASS'Y (BK)
123	2224-7135	INSULATOR
133	1442-25603	PANEL
133	1442-25604	PANEL (BK)
135	1511-19805	PLATE
136	1532-17505	WINDOW
148	1662-59003	PUSH BUTTON, MEMORY, SHIFT A-B
148	1662-59004	PUSH BUTTON, MEMORY, SHIFT A-B (BK)
149	1662-62301	PUSH BUTTON, FUNCTION
149	1662-62302	PUSH BUTTON, FUNCTION (BK)
150	1662-62401	PUSH BUTTON, FM, AM, SEEK-STEREO
150	1662-62402	PUSH BUTTON, FM, AM, SEEK-STEREO (BK)
156	1732-08101	INDICATOR (x 6)
179	2240-7376	HOLDER
190	2240-7386	HOLDER (x 2)
205	2347-R0126082	SCREW (2.6 x 8mm) (x 11)



GENERAL UNIT PARTS LIST

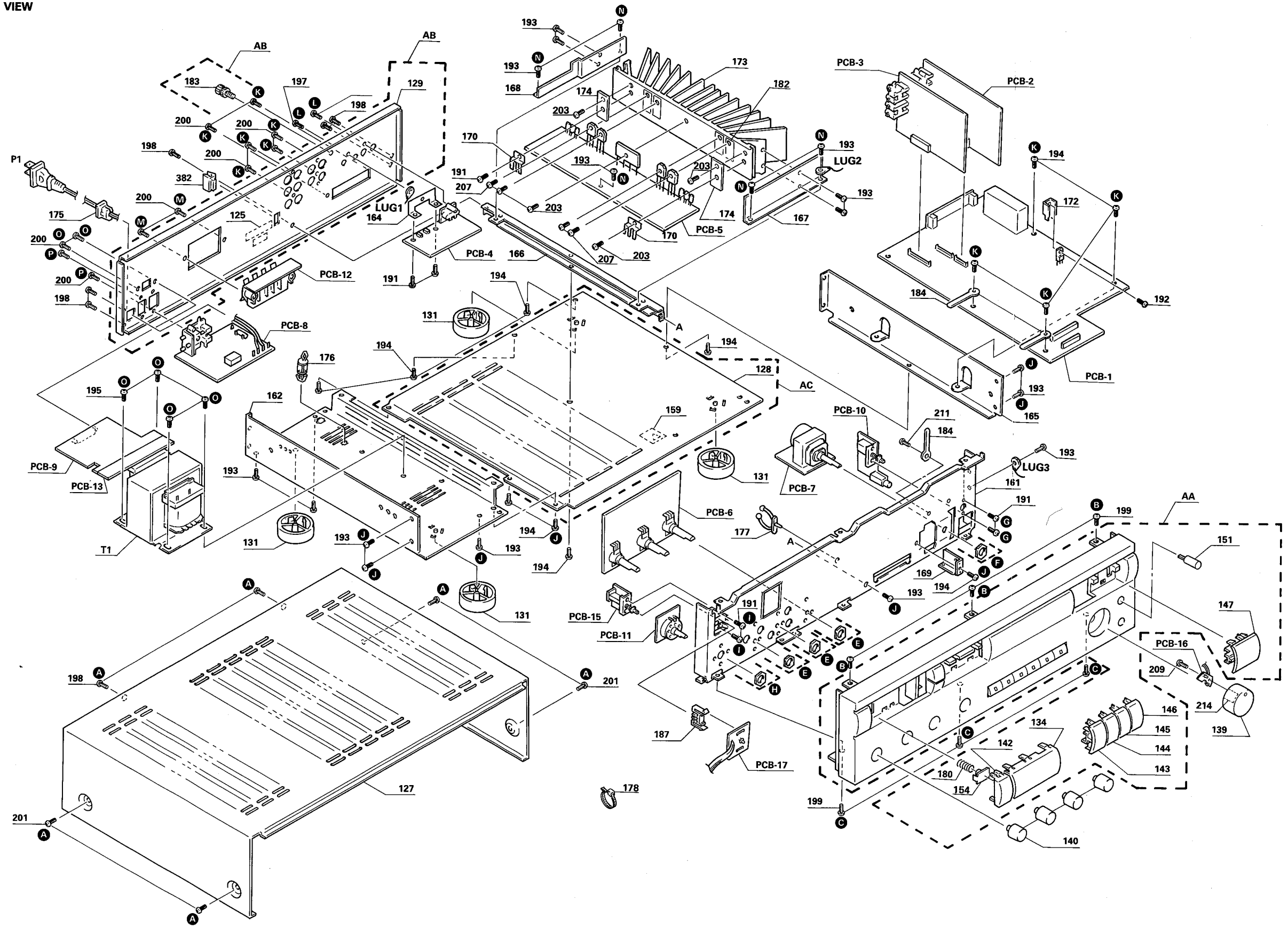
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
AA	A442-HK3400A	FRONT PANEL ASSY	168	2219-8303	METAL FITTG
AA	A442-HK3400B	FRONT PANEL ASSY BK	169	2219-8304	METAL FITTG
AB	A424-HK3400A	CABI BACK REAR ASSY	170	2219-8305	METAL FITTG (x 2)
AC	A424-HK3400B	CABI BACK BOTTOM ASSY	172	2222-7230	HEAT SINK
125	1756-CSA	LABEL	173	2222-7283	HEAT SINK
127	1414-16201	CABINET TOP	174	2222-7285	HEAT SINK (x 2)
128	1424-33301	CABI BACK BOTTOM	175	2240-364	HOLDER
129	1424-33102	CABI BACK REAR	176	2240-7369	HOLDER
131	1319-03301	LEG (x 4)	177	2240-7049	HOLDER
134	1442-24701	PANEL	178	2240-R0101	HOLDER (x 18)
134	1442-24702	PANEL BK	180	2651-2101736	SPRING
139	1630-04601	ROTARY KNOB, VOLUME	182	2224-7134	INSULATOR (x 4)
139	1630-04602	ROTARY KNOB, VOLUME BK	183	4214-168	TERMINAL
140	1632-20701	ROTARY KNOB, SPEAKER, BASS, TREBLE, BALANCE (x 4)	184	2218-R0130	BRACKET, FIX (x 3)
140	1632-20702	ROTARY KNOB, SPEAKER, BASS, TREBLE, BALANCE (x 4) BK	187	2240-7373	HOLDER
142	1662-62501	PUSH BUTTON, POWER	191	2327-R0130062	SCREW (3 x 6mm) (x 6)
142	1662-62502	PUSH BUTTON, POWER BK	192	2327-R0130082	SCREW (3 x 8mm)
143	1662-58601	PUSH BUTTON, PRESET 1/5	193	2347-R0130062	SCREW (3 x 6mm) (x 17)
143	1662-58605	PUSH BUTTON, PRESET 1/5 BK	194	2347-R0130062	SCREW (3 x 6mm) (x 12)
144	1662-58602	PUSH BUTTON, PRESET 2/6	195	2347-R0140082	SCREW (4 x 8mm) (x 4)
144	1662-58606	PUSH BUTTON, PRESET 2/6 BK	197	2327-R0130064	SCREW (3 x 6mm)
145	1662-58603	PUSH BUTTON, PRESET 3/7	198	2347-R0130064	SCREW (3 x 6mm) (x 7)
145	1662-58607	PUSH BUTTON, PRESET 3/7 BK	199	2347-R0130084	SCREW (3 x 8mm) (x 6)
146	1662-58604	PUSH BUTTON, PRESET 4/8	200	2347-R0130104	SCREW (3 x 10mm) (x 13)
146	1662-58608	PUSH BUTTON, PRESET 4/8 BK	201	2347-R0140064	SCREW (4 x 6mm) (x 4)
147	1662-58901	PUSH BUTTON, TUNING	203	2347-R0130082	SCREW (3 x 8mm) (x 5)
147	1662-58902	PUSH BUTTON, TUNING BK	207	2557-301029	SCREW (3 x 10mm) (x 4)
151	1662-62901	PUSH BUTTON, LOUDNESS	209	2347-R0126082	SCREW (2.6 x 8mm)
151	1662-62902	PUSH BUTTON, LOUDNESS BK	211	2347-R0130062	SCREW (3 x 6mm)
154	1732-07901	INDICATOR	214	2134-11411	ADHESI SHEET
159	1751-01018	LABEL	382	2240-7208	HOLDER
161	2211-7313	CHASSIS	△P1	4161-71151	CORD W/PLUG
162	2211-7314	CHASSIS	△T1	5584-S9001	XFORMER, POWER
164	2219-8298	METAL FITTG			
165	2219-8300	METAL FITTG			
166	2219-8301	METAL FITTG			
167	2219-8302	METAL FITTG			

NOTE

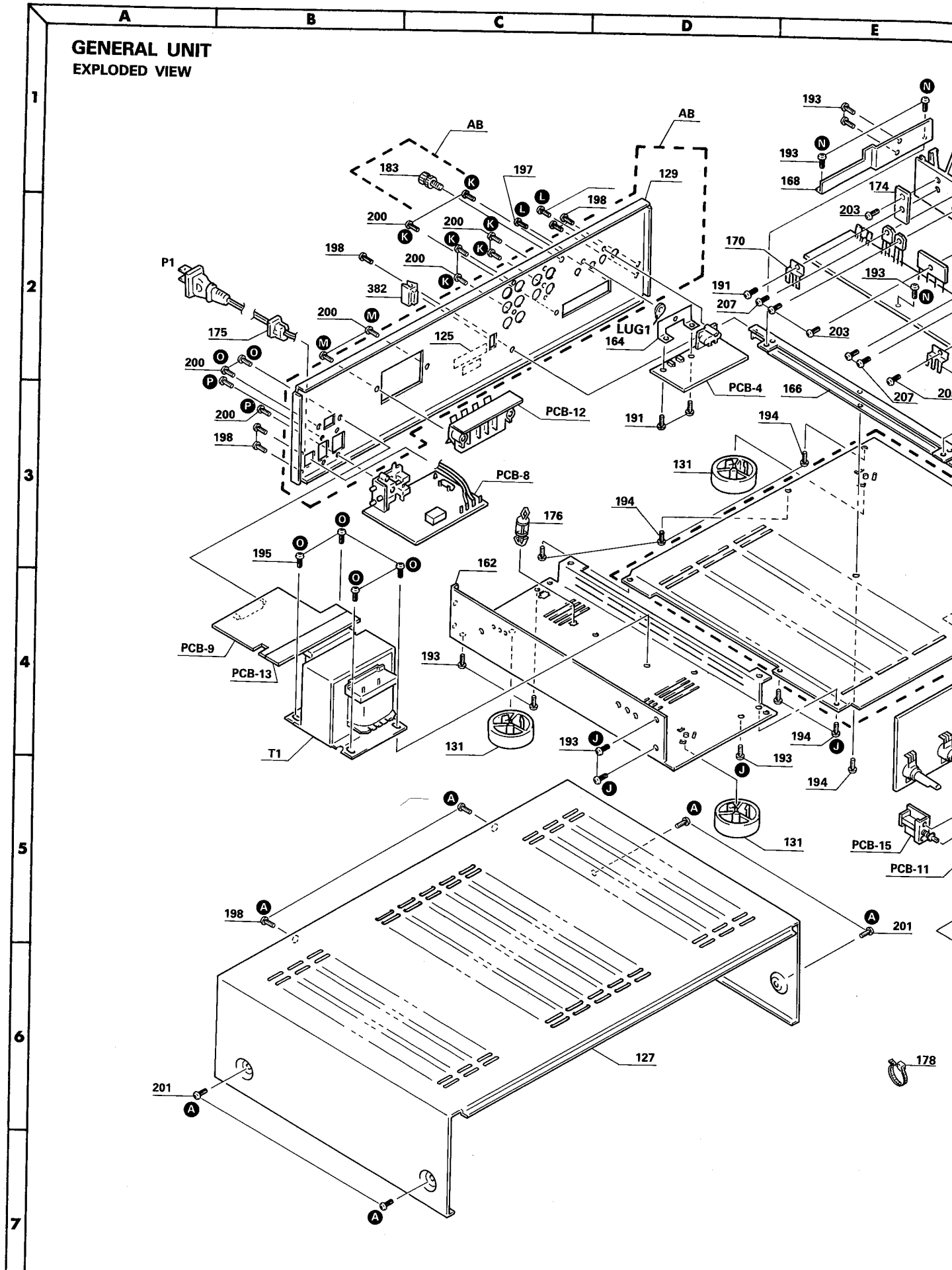


SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

GENERAL UNIT
EXPLODED VIEW



**GENERAL UNIT
EXPLODED VIEW**



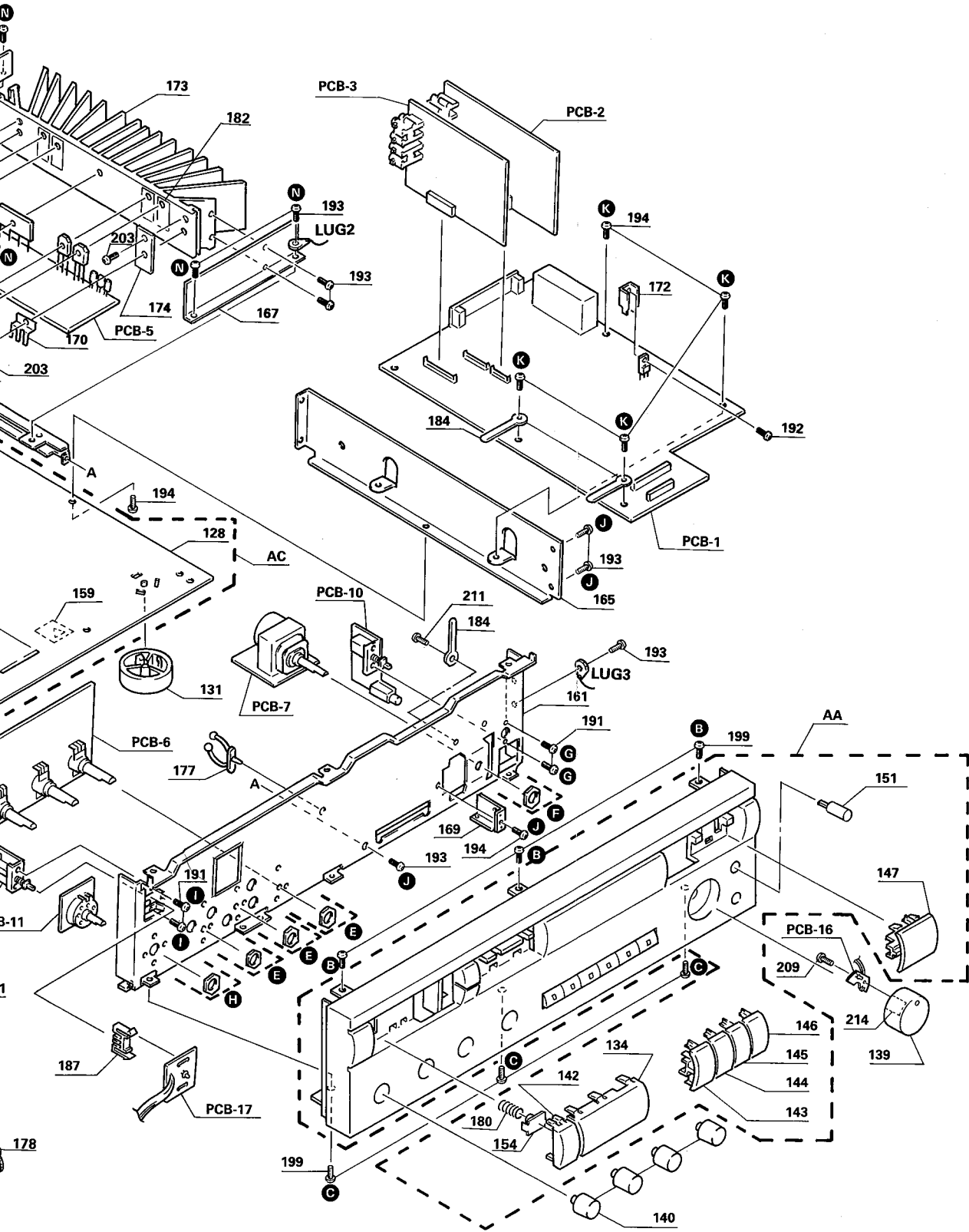
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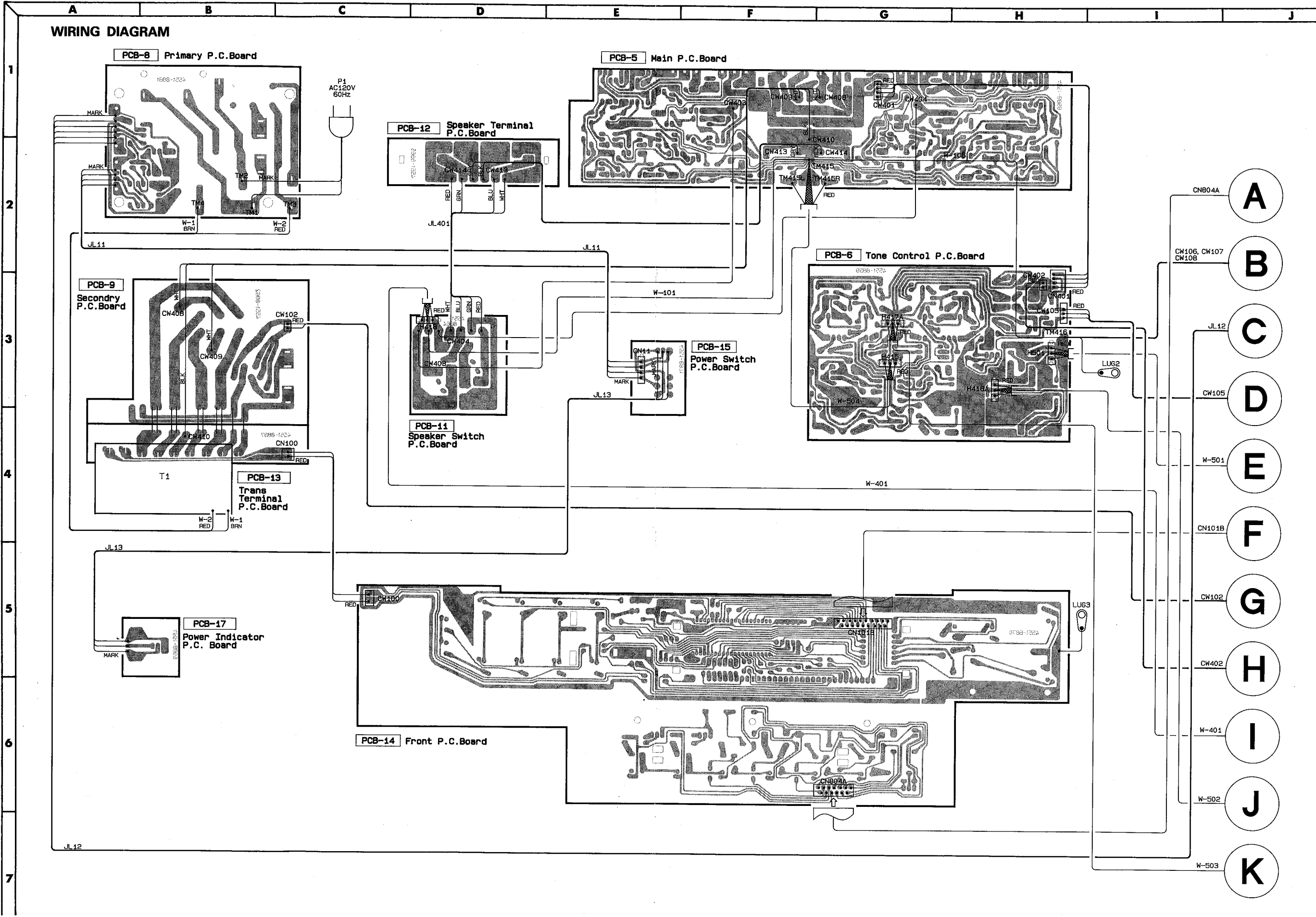
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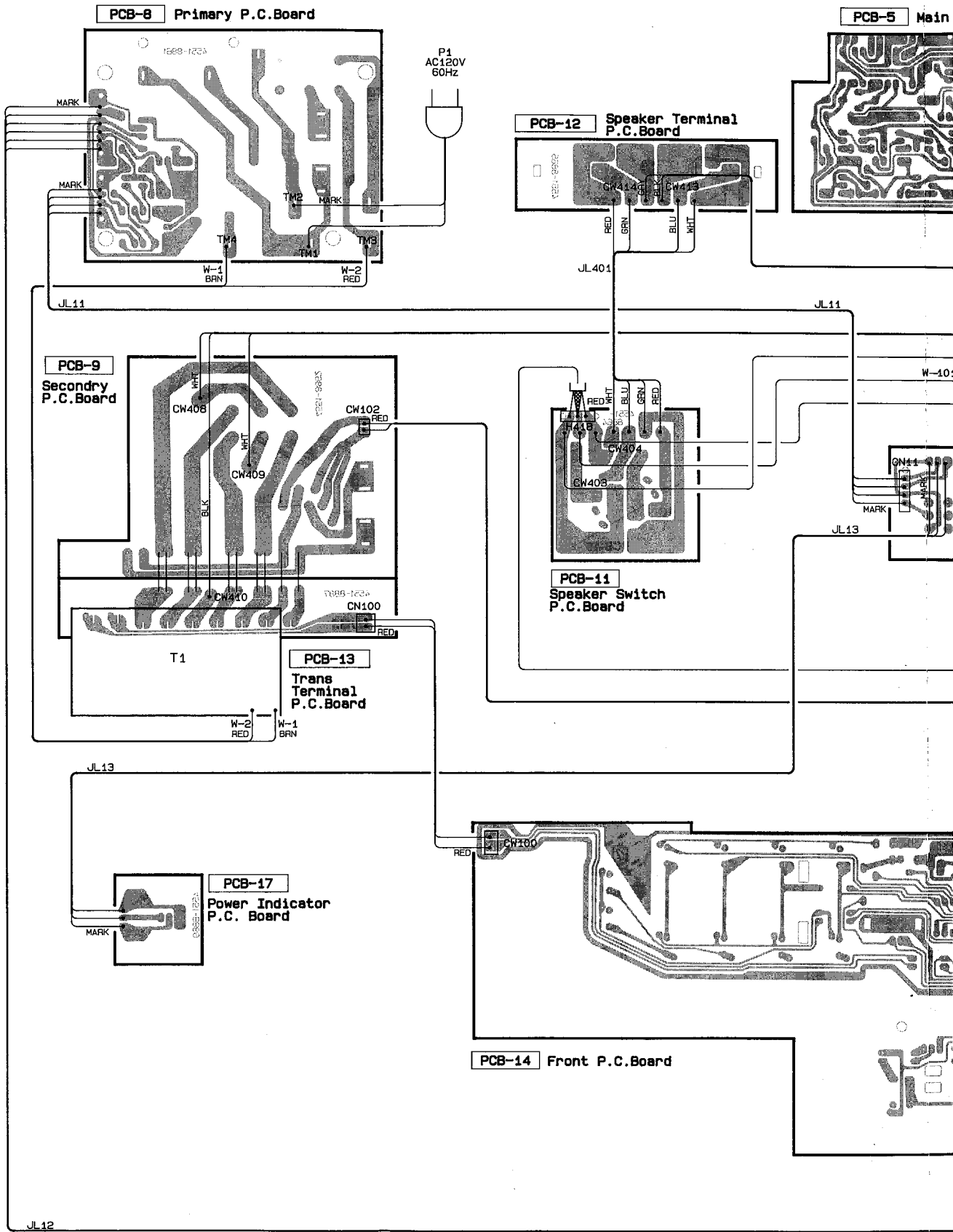
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WIRING DIAGRAM



WIRING DIAGRAM



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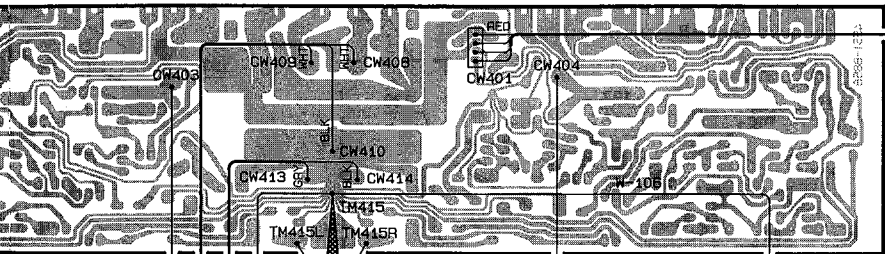
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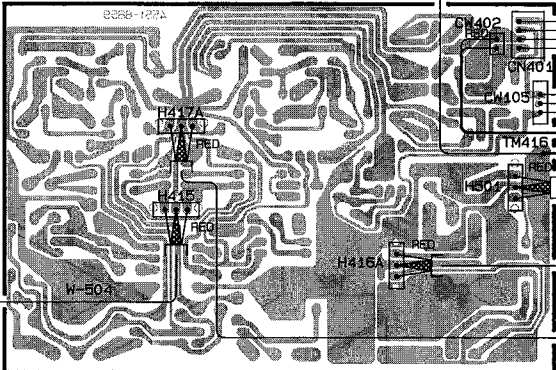
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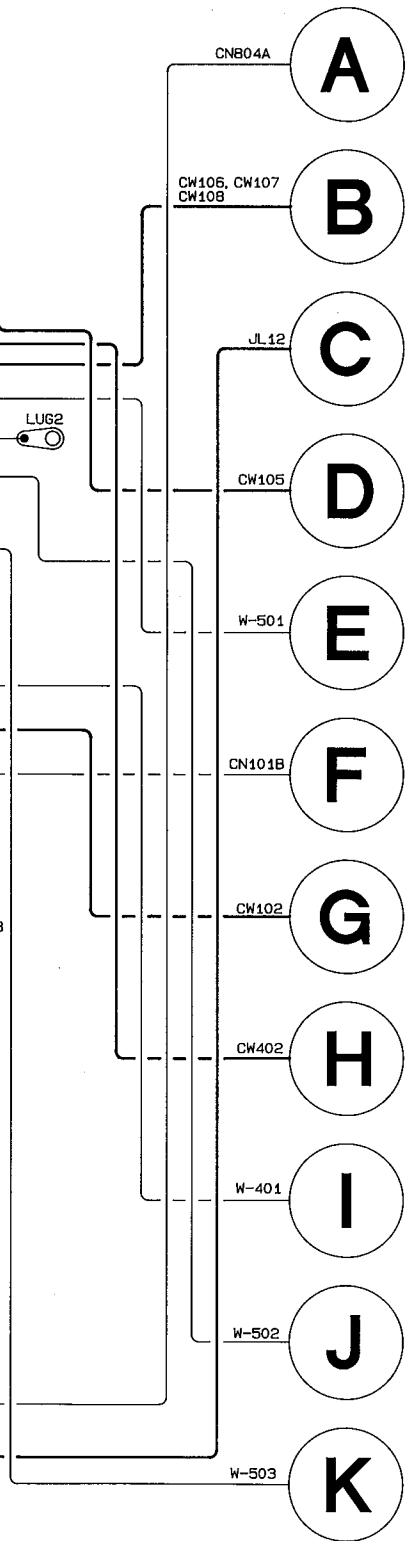
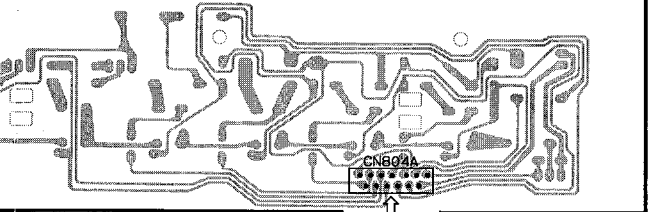
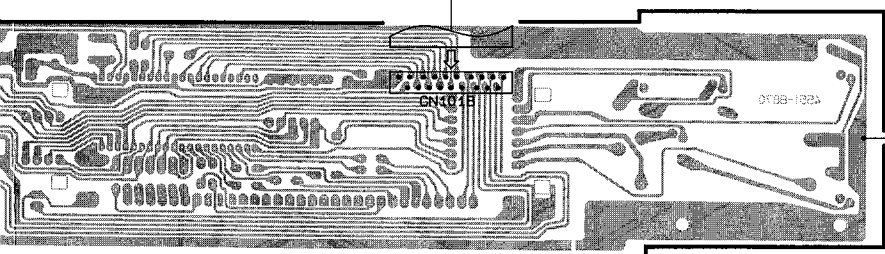
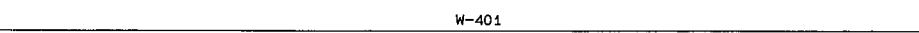
Main P.C.Board



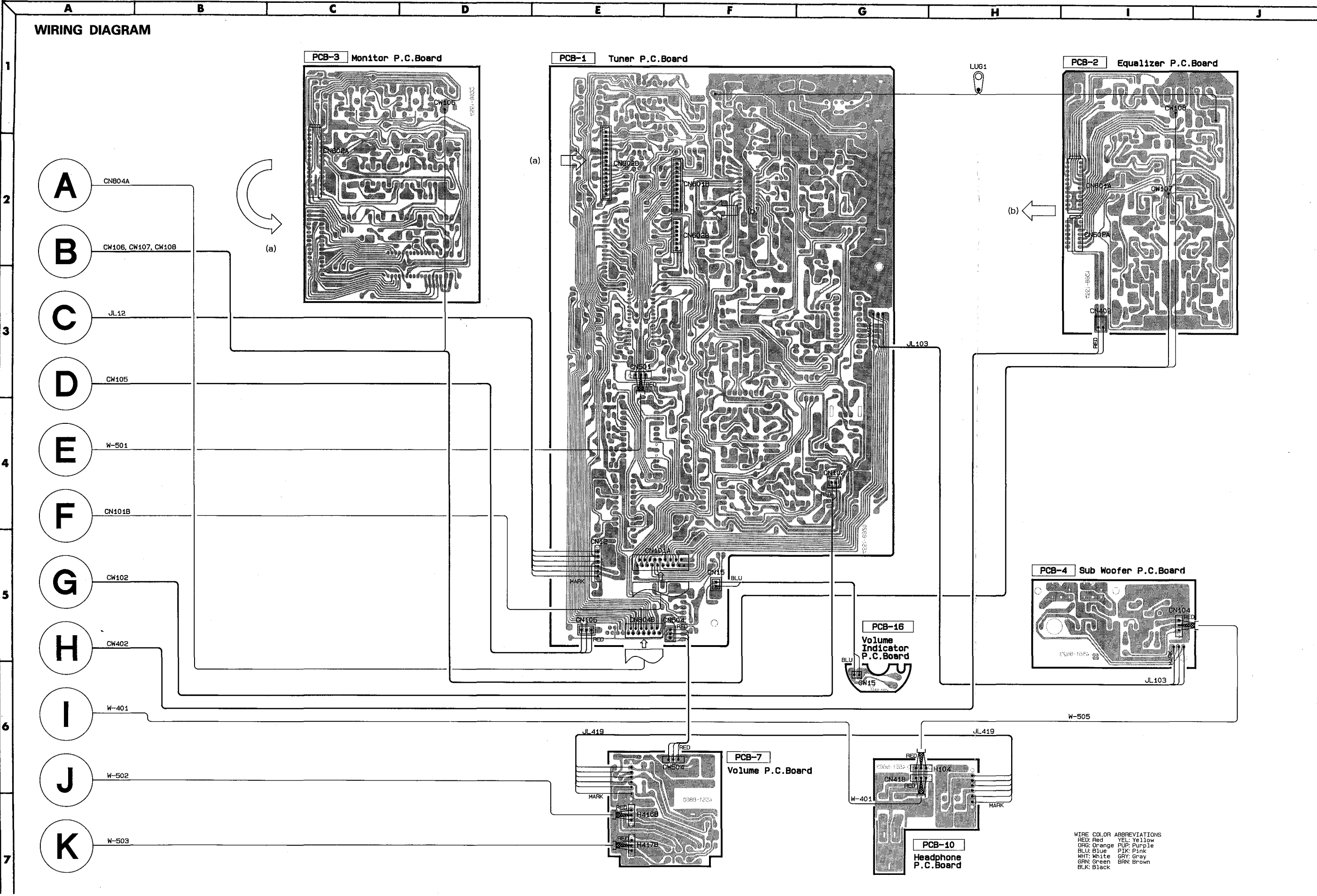
PCB-6 Tone Control P.C.Board



PCB-15 Power Switch P.C.Board



WIRING DIAGRAM



WIRE COLOR ABBREVIATIONS
 RED: Red YEL: Yellow
 ORG: Orange PUR: Purple
 BLU: Blue PIK: Pink
 WHT: White GRY: Gray
 GRN: Green BRN: Brown
 BLK: Black

WIRING DIAGRAM

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- A
- B
- C
- D
- E
- F
- G
- H
- I
- J
- K

CN804A

CW106, CW107, CW108

JL12

CW105

W-501

CN101B

CW102

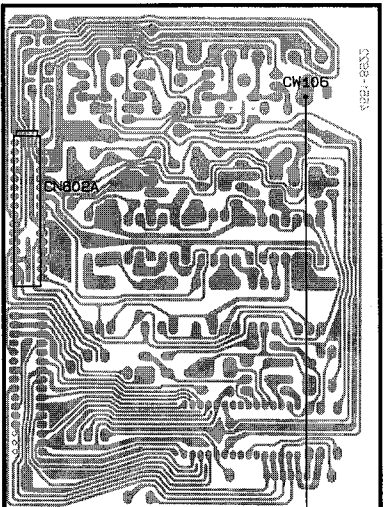
CW402

W-401

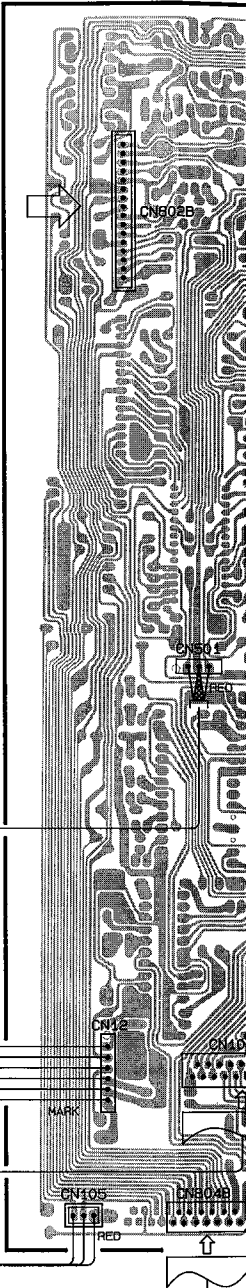
W-502

W-503

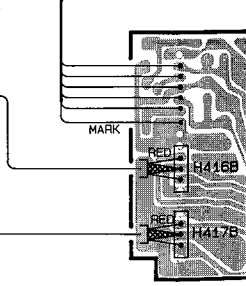
PCB-3 Monitor P.C.Board



PCB-1 Tuner P.C.Board



JL419



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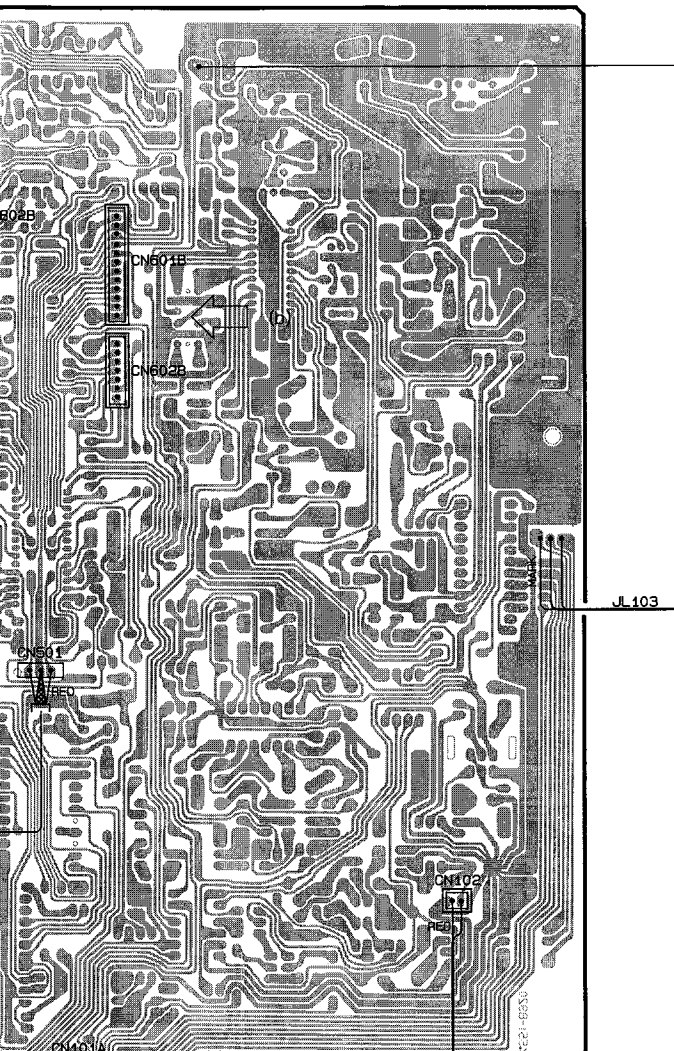
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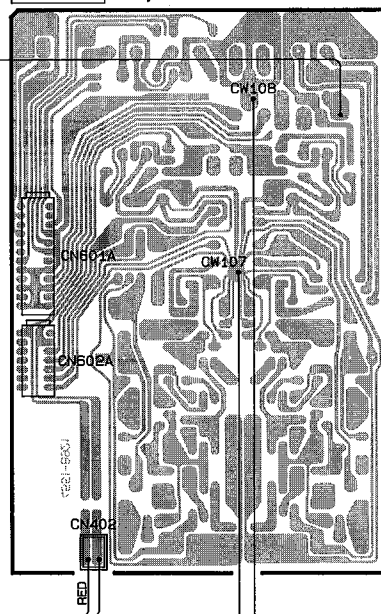
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er P.C.Board



LU61

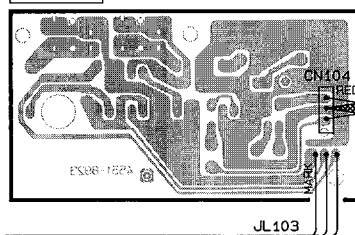
PCB-2 Equalizer P.C.Board



(b) ←

JL103

PCB-4 Sub Woofer P.C.Board



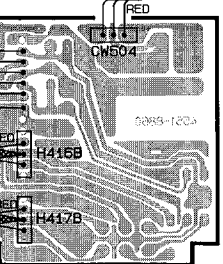
PCB-16

Volume Indicator P.C.Board

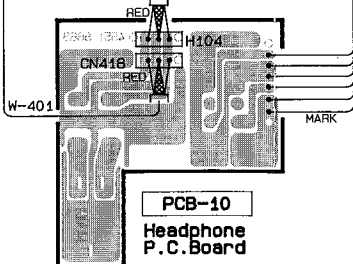


W-505

PCB-7 Volume P.C.Board



JL419



PCB-10 Headphone P.C.Board

WIRE COLOR ABBREVIATIONS
 RED: Red YEL: Yellow
 ORG: Orange PUR: Purple
 BLU: Blue PINK: Pink
 WHT: White GRY: Gray
 GRN: Green BRN: Brown
 BLK: Black

P.C. BOARDS

PCB-1 Tuner P.C. BOARD

FM MUTING LEVEL ADJUSTMENT

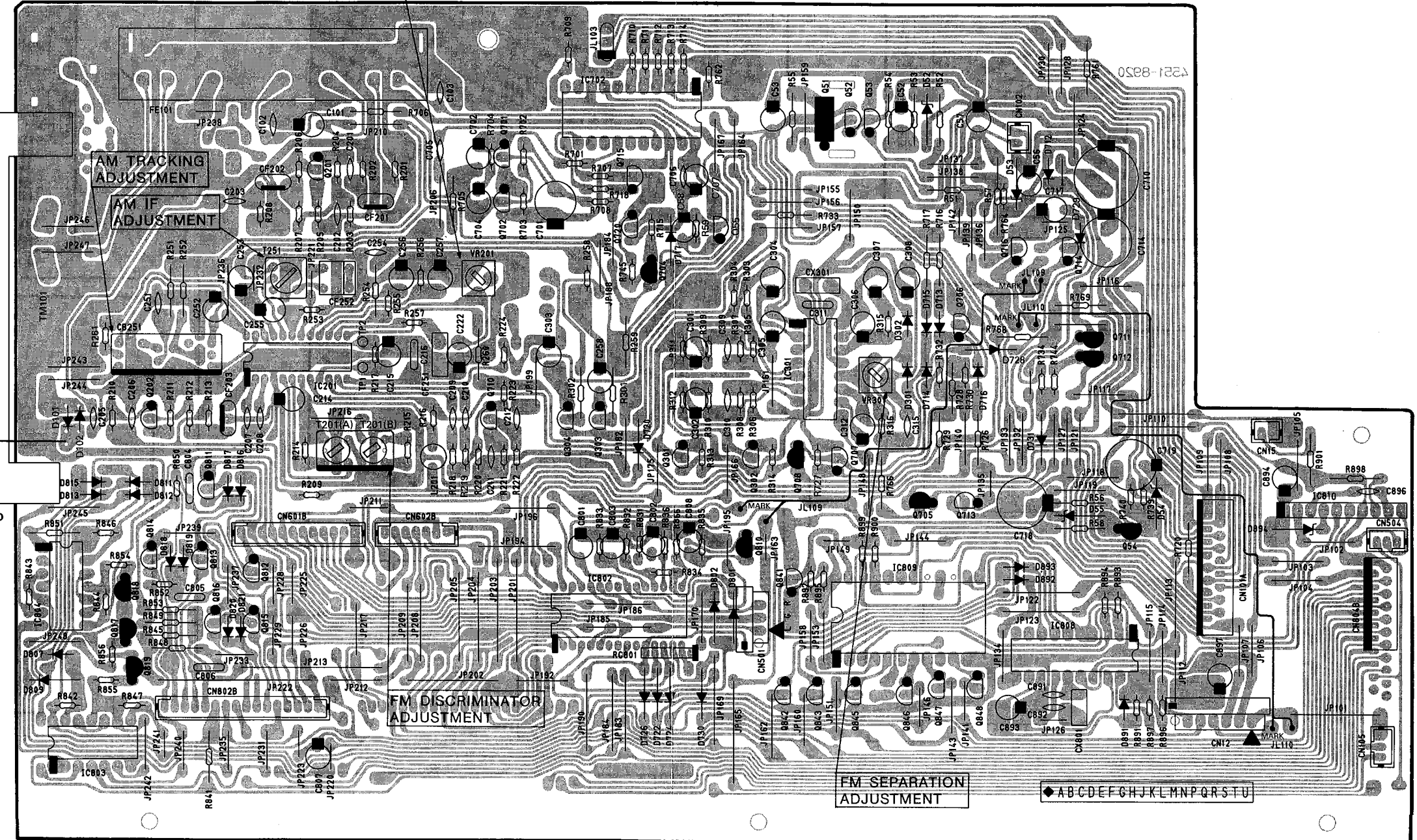
AM TRACKING ADJUSTMENT

AM IF ADJUSTMENT

FM DISCRIMINATOR ADJUSTMENT

FM SEPARATION ADJUSTMENT

LUG1
From
PCB-2
Equalizer P.C. BOARD



◆ ABCDEF GHIJKL MNPQRSTU

P.C. BOARDS

PCB-1 Tuner P.C. BOARD

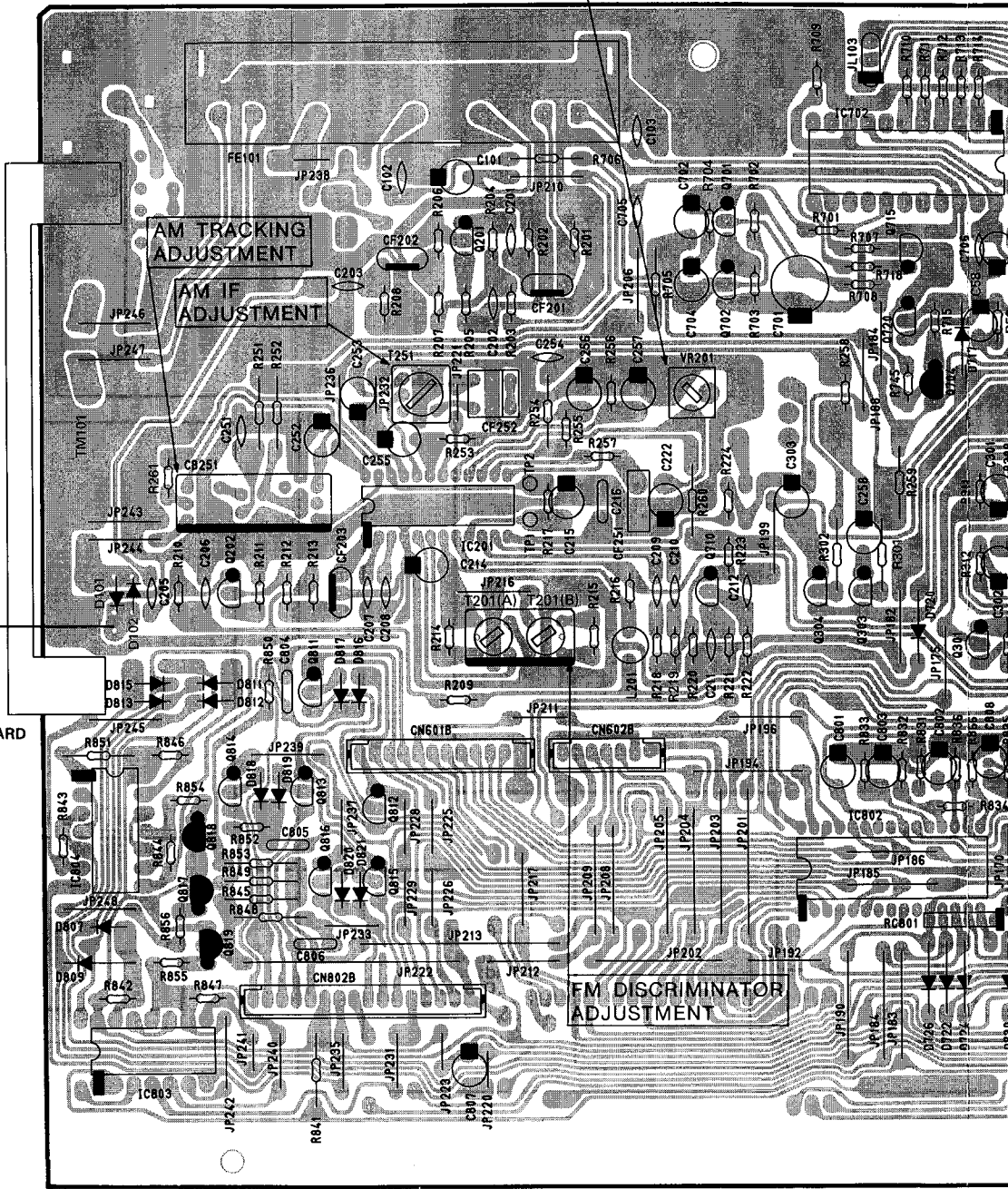
FM MUTING LEVEL ADJUSTMENT

AM TRACKING ADJUSTMENT

AM IF ADJUSTMENT

FM DISCRIMINATOR ADJUSTMENT

LUG1
From
PCB-2
Equalizer P.C. BOARD



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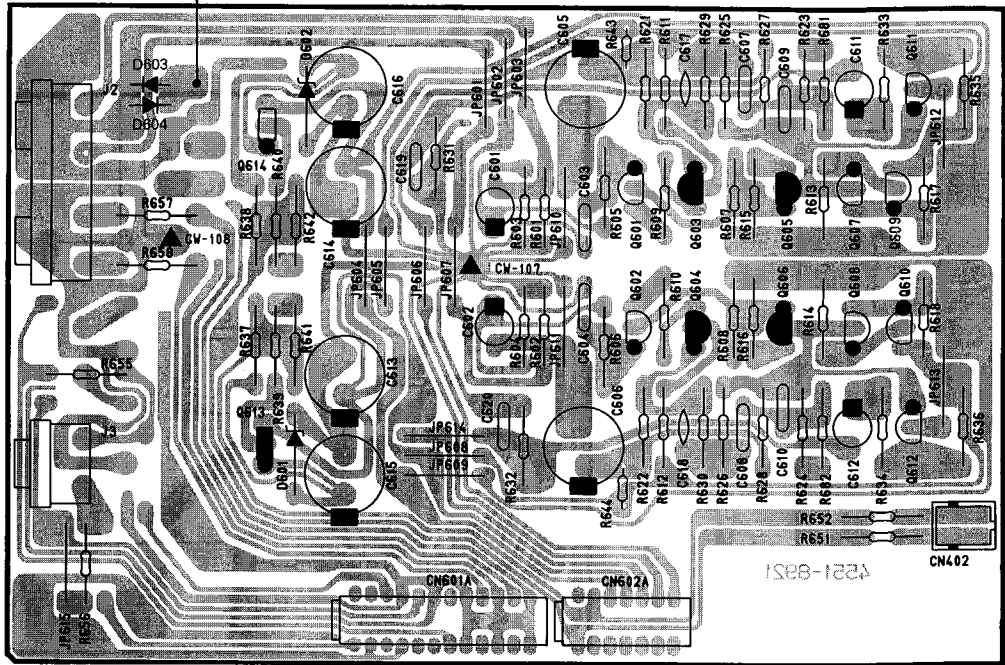
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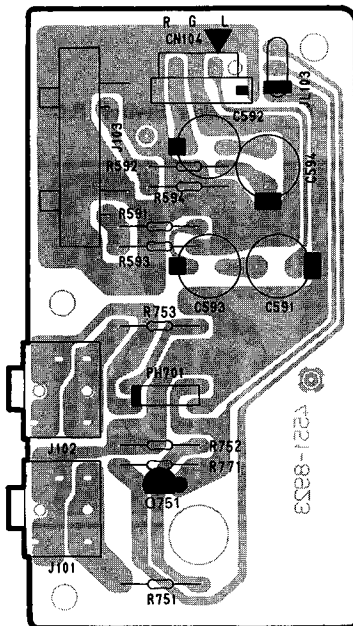
P.C. BOARDS

To PCB-1
Tuner P.C. BOARD

PCB-2 Equalizer P.C. BOARD

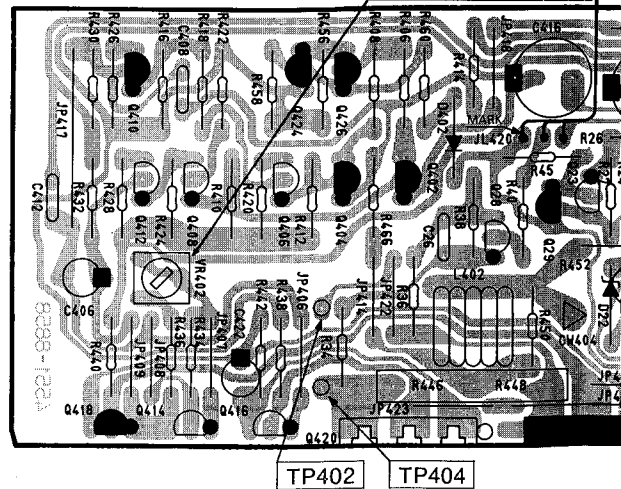


PCB-4 Sub Woofer P.C. BOARD



PCB-5 Main P.C. BOARD

IDLING CURRENT ADJUSTMENT (R channel)



F

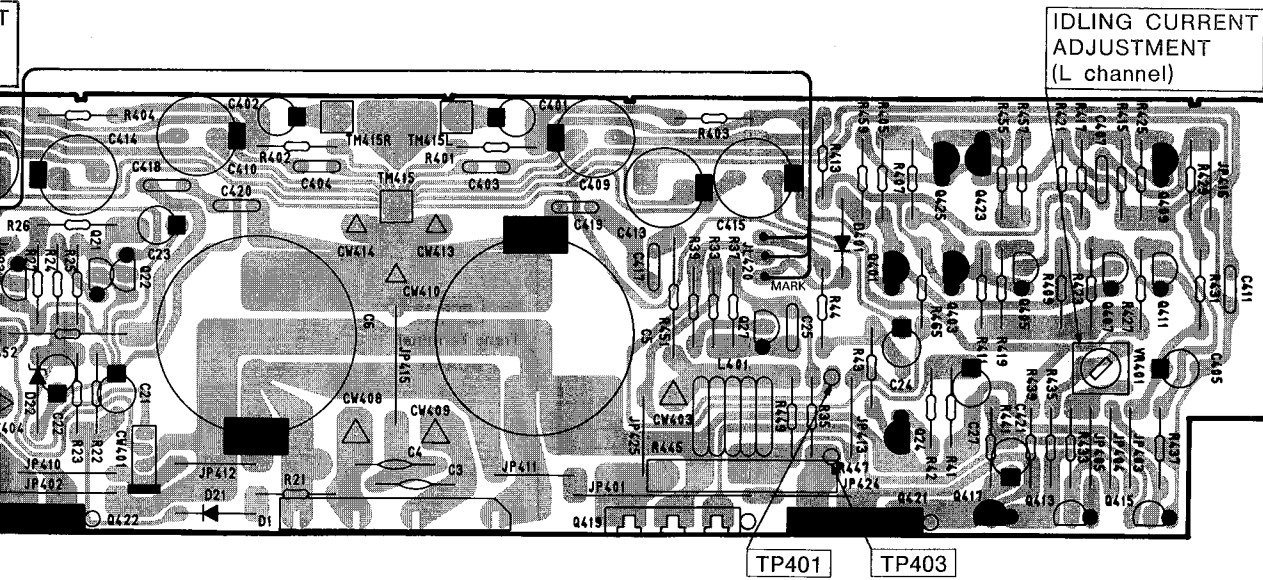
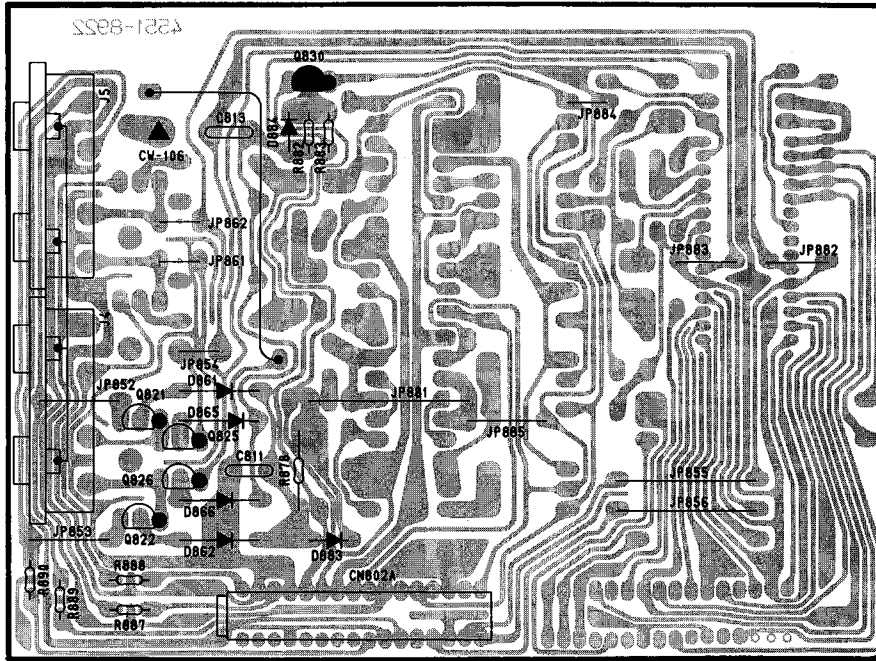
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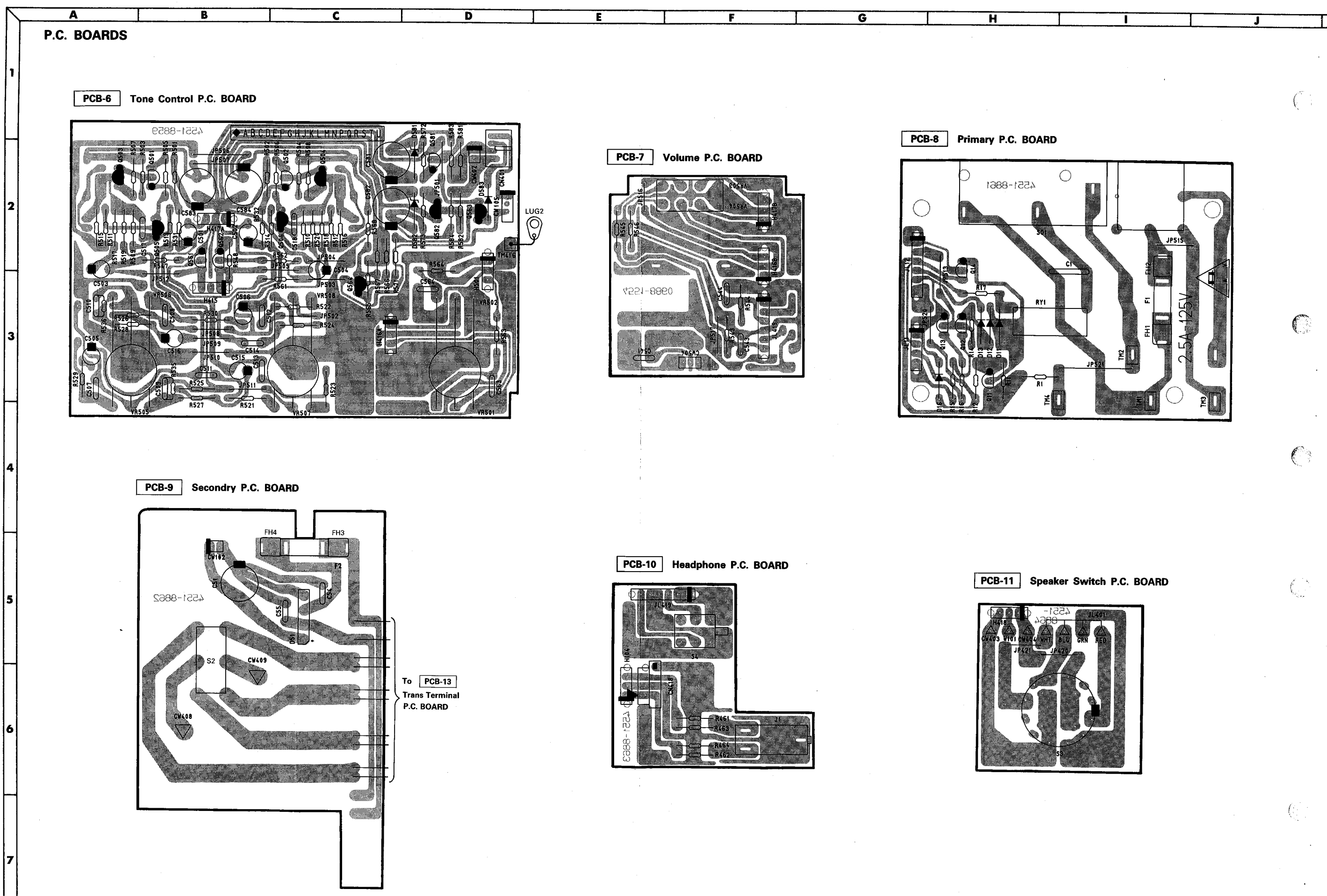
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PCB-3 Monitor P.C. BOARD

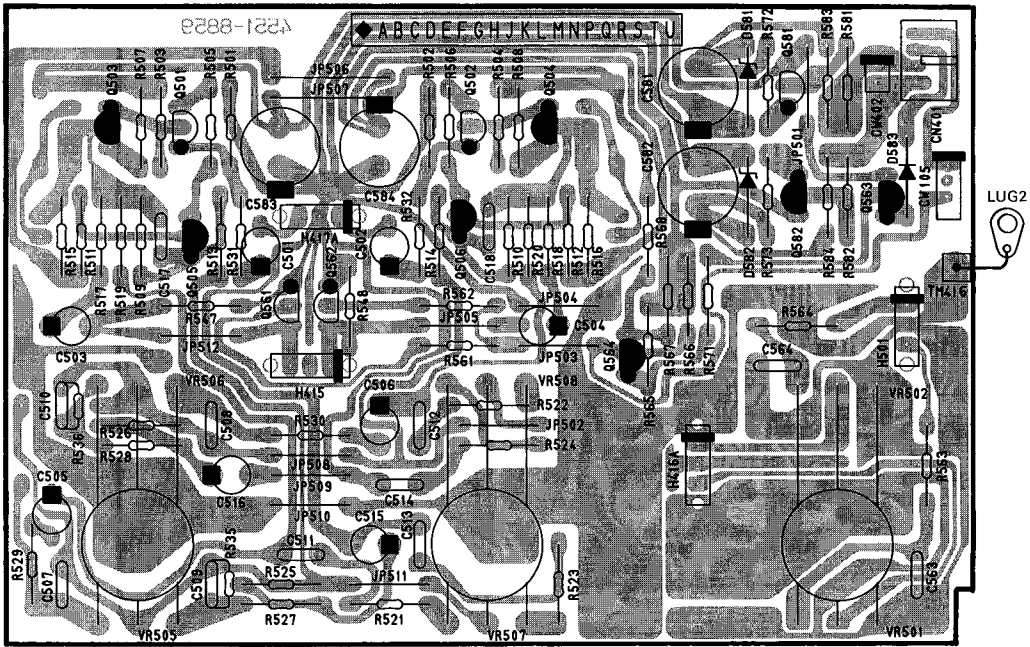




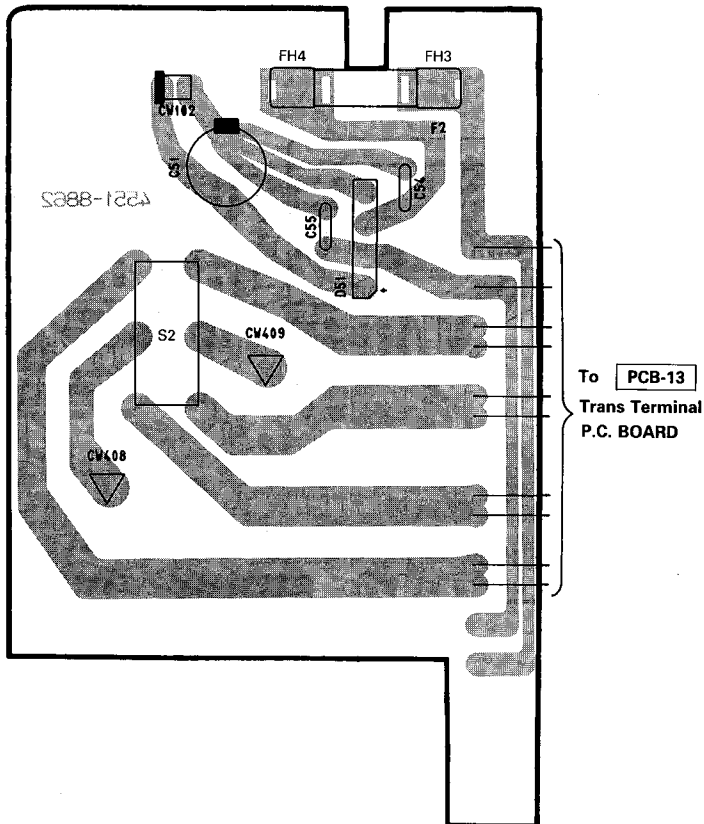
To **PCB-13**
Trans Terminal
P.C. BOARD

P.C. BOARDS

PCB-6 Tone Control P.C. BOARD



PCB-9 Secondary P.C. BOARD



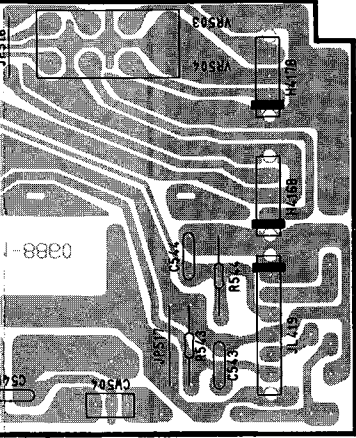
PCB-7



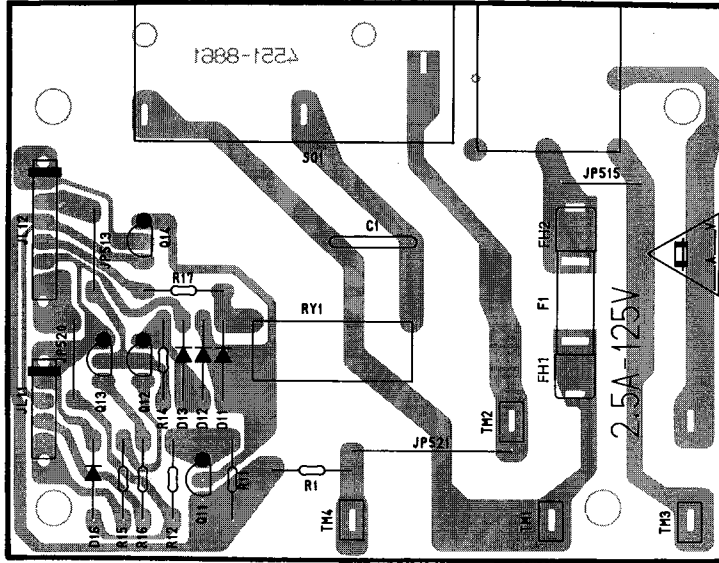
PCB-10



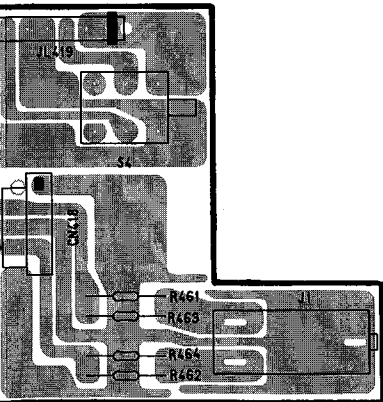
7 Volume P.C. BOARD



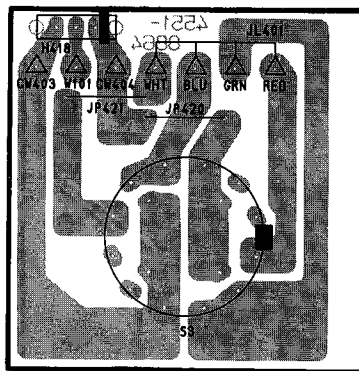
PCB-8 Primary P.C. BOARD



B-10 Headphone P.C. BOARD

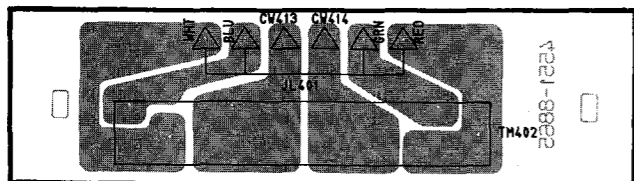


PCB-11 Speaker Switch P.C. BOARD

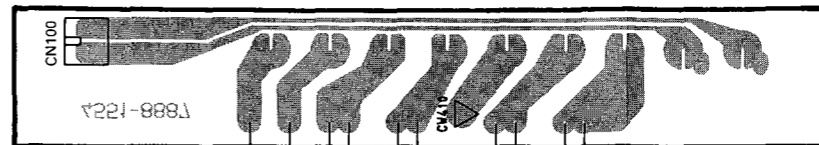


P.C. BOARDS

PCB-12 Speaker Terminal P.C. BOARD

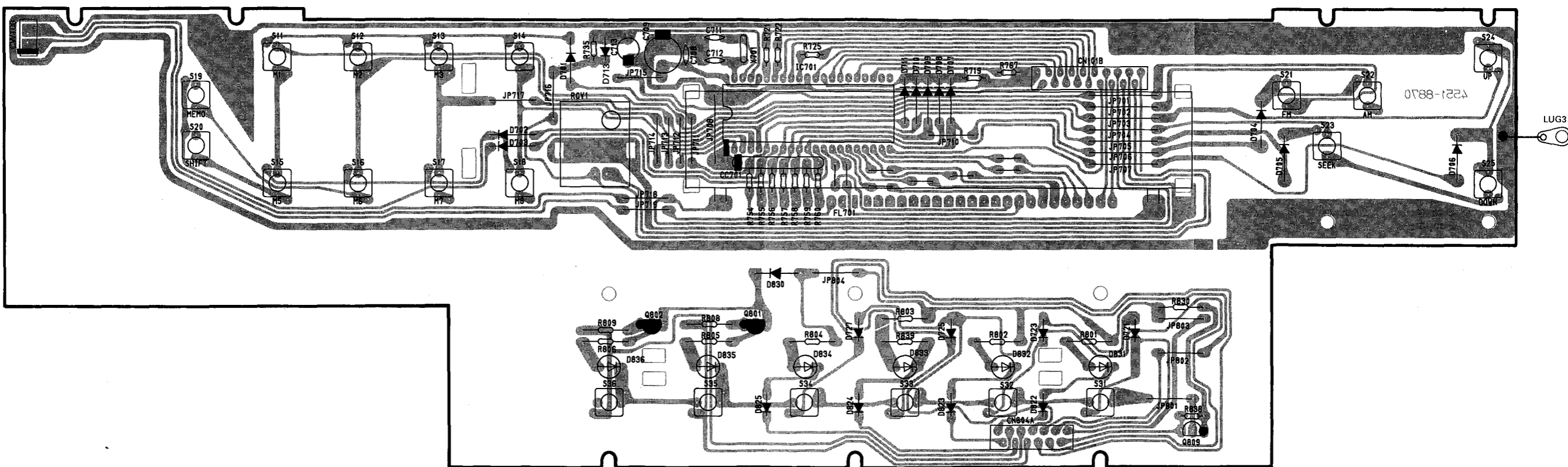


PCB-13 Trans Terminal P.C. BOARD

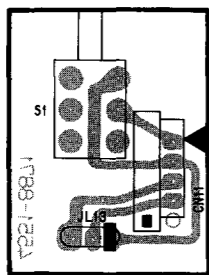


To PCB-9 Secondary P.C. BOARD

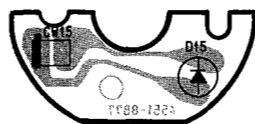
PCB-14 Front P.C. BOARD



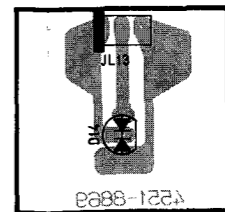
PCB-15 Power Switch P.C. BOARD



PCB-16 Volume Indicator P.C. BOARD



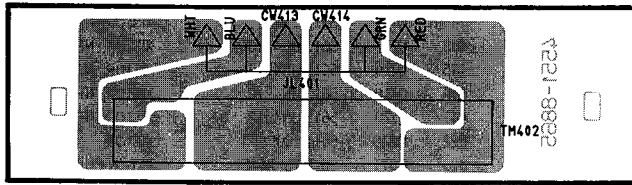
PCB-17 Power Indicator P.C. BOARD



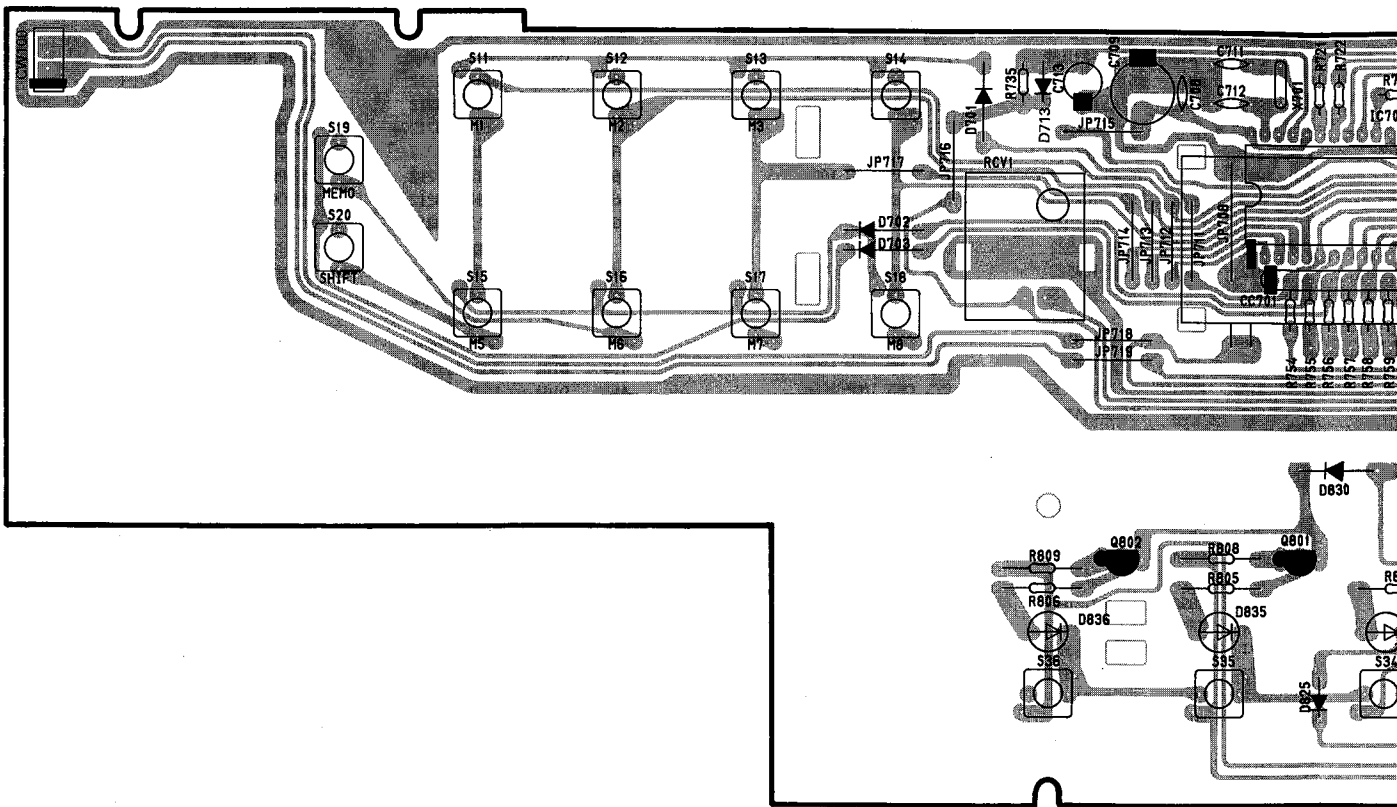
P.C. BOARDS

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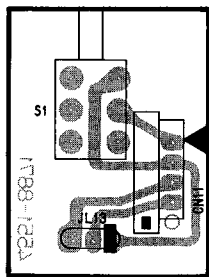
PCB-12 Speaker Terminal P.C. BOARD



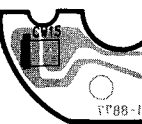
PCB-14 Front P.C. BOARD



PCB-15 Power Switch P.C. BOARD



PCB-16 Vo



F

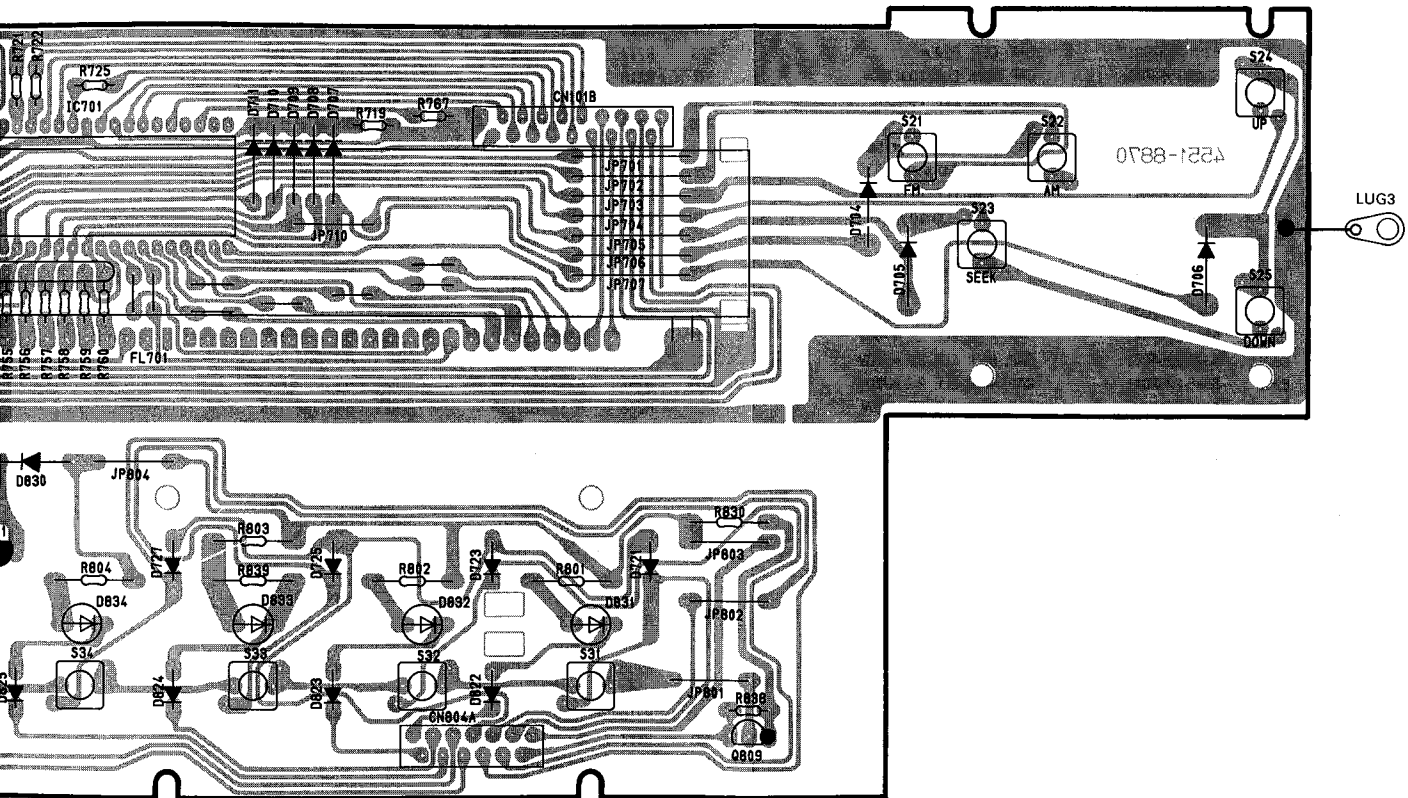
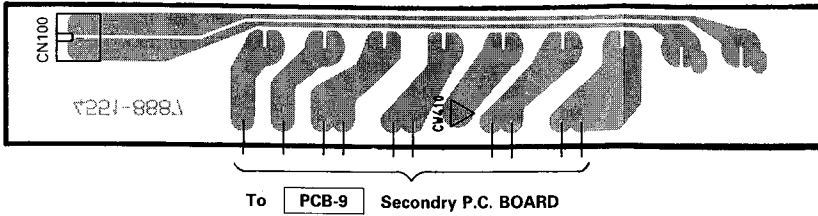
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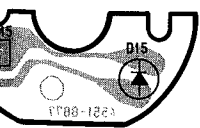
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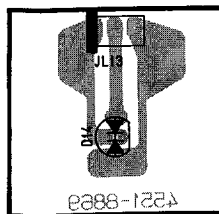
PCB-13 Trans Terminal P.C. BOARD



PCB-16 Volume Indicator P.C. BOARD



PCB-17 Power Indicator P.C. BOARD



ELECTRICAL PARTS LIST

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
PCB-1 TUNER P.C. BOARD															
CAPACITORS															
515	C52	5345-107C041	CAP, MINI ELE 100 μ /16V	518	R54	5135-101522	RES, CBN 1/2P 100	477	R727	5232-473J16P	RES, CBN 1/6P 47K	446	Q705	5611-UN4112	XISTOR, PNP R
512	C53	5345-476D041	CAP, MINI ELE 47 μ /25V	519	R55	5135-331522	RES, CBN 1/2P 330	476	R728	5135-223522	RES, CBN 1/2P 22K	445	Q706	5613-UN4212	XISTOR, NPN R
513	C56	5345-107B041	CAP, MINI ELE 100 μ /10V	520	Δ R56	5102-3915116	RES, FUSE 390	473	R729	5135-103522	RES, CBN 1/2P 10K	444	Q707	5613-3311A(R)	XISTOR, NPN R
512	C57	5345-476D041	CAP, MINI ELE 47 μ /25V	523	R57	5171-221593	RES, MTL 1P 220	464	R730	5232-223J16P	RES, CBN 1/6P 22K	446	Q708	5611-UN4112	XISTOR, PNP R
512	C58	5345-476D041	CAP, MINI ELE 47 μ /25V	521	R58	5135-272522	RES, CBN 1/2P 2.7K	465	R732	5232-103J16P	RES, CBN 1/6P 10K	444	Q710	5613-3311A(R)	XISTOR, NPN R
325	C101	5345-476D041	CAP, MINI ELE 47 μ /25V	522	R59	5232-102J16P	RES, CBN 1/6P 1K	478	R733	5135-104522	RES, CBN 1/2P 100K	446	Q711	5611-UN4112	XISTOR, PNP R
327	C102	5361-223Z921	CAP, CER .022 μ	369	R201	5232-331J16P	RES, CBN 1/6P 330	465	R734	5232-103J16P	RES, CBN 1/6P 10K	448	Q712	5611-1309A(R)	XISTOR, PNP R
329	C103	5361-150KSL	CAP, CER 15p	370	R202	5232-391J16P	RES, CBN 1/6P 390	470	R739	5232-104J16P	RES, CBN 1/6P 100K	445	Q713	5613-UN4212	XISTOR, NPN R
361	C201	5361-223Z921	CAP, CER .022 μ	374	R203	5232-102J16P	RES, CBN 1/6P 1K	470	R740	5232-104J16P	RES, CBN 1/6P 100K	498	Q714	5613-UN4213	XISTOR, NPN R
361	C202	5361-223Z921	CAP, CER .022 μ	371	R204	5232-154J16P	RES, CBN 1/6P 150K	470	R744	5232-104J16P	RES, CBN 1/6P 100K	445	Q715	5613-UN4212	XISTOR, NPN R
362	C203	5361-223ZF	CAP, CER .022 μ	372	R205	5232-100J16P	RES, CBN 1/6P 10	472	R745	5232-273J16P	RES, CBN 1/6P 27K	445	Q716	5613-UN4212	XISTOR, NPN R
361	C205	5361-223Z921	CAP, CER .022 μ	373	R206	5232-101J16P	RES, CBN 1/6P 100	483	R761	5135-101522	RES, CBN 1/2P 100	445	Q720	5613-UN4212	XISTOR, NPN R
361	C206	5361-223Z921	CAP, CER .022 μ	370	R207	5232-391J16P	RES, CBN 1/6P 390	484	R762	5232-332J16P	RES, CBN 1/6P 3.3K	822	Q810	5611-1309A(R)	XISTOR, PNP R
361	C207	5361-223Z921	CAP, CER .022 μ	370	R208	5232-391J16P	RES, CBN 1/6P 390	465	R764	5232-103J16P	RES, CBN 1/6P 10K	803	Q811	5616-2SK364BL	FET, N-CH
361	C208	5361-223Z921	CAP, CER .022 μ	374	R209	5232-102J16P	RES, CBN 1/6P 1K	482	R766	5135-332522	RES, CBN 1/2P 3.3K	803	Q812	5616-2SK364BL	FET, N-CH
361	C209	5361-223Z921	CAP, CER .022 μ	371	R210	5232-154J16P	RES, CBN 1/6P 150K	474	R768	5135-472522	RES, CBN 1/2P 4.7K	803	Q813	5616-2SK364BL	FET, N-CH
361	C210	5361-223Z921	CAP, CER .022 μ	372	R211	5232-100J16P	RES, CBN 1/6P 10	482	R769	5135-332522	RES, CBN 1/2P 3.3K	803	Q814	5616-2SK364BL	FET, N-CH
361	C211	5361-223Z921	CAP, CER .022 μ	373	R212	5232-101J16P	RES, CBN 1/6P 100	819	R831	5232-224J16P	RES, CBN 1/6P 220K	803	Q815	5616-2SK364BL	FET, N-CH
361	C212	5361-223Z921	CAP, CER .022 μ	370	R213	5232-391J16P	RES, CBN 1/6P 390	815	R832	5232-104J16P	RES, CBN 1/6P 100K	803	Q816	5616-2SK364BL	FET, N-CH
364	C214	5345-106F041	CAP, MINI ELE 10 μ /50V	375	R214	5232-103J16P	RES, CBN 1/6P 10K	821	R833	5232-274J16P	RES, CBN 1/6P 270K	804	Q817	5611-UN4112	XISTOR, PNP R
365	C215	5345-105F041	CAP, MINI ELE 1 μ /50V	376	R215	5232-332J16P	RES, CBN 1/6P 3.3K	819	R834	5232-224J16P	RES, CBN 1/6P 220K	804	Q818	5611-UN4112	XISTOR, NPN R
363	C216	5359-1015851	CAP, PPP 100p	377	R216	5232-472J16P	RES, CBN 1/6P 4.7K	818	R835	5232-223J16P	RES, CBN 1/6P 22K	804	Q819	5611-UN4112	XISTOR, PNP R
393	C222	5345-224F041	CAP, MINI ELE .22 μ /50V	378	R217	5232-153J16P	RES, CBN 1/6P 15K	818	R836	5232-223J16P	RES, CBN 1/6P 22K	863	Q841	5613-3311A(R)	XISTOR, NPN R
389	C251	5361-473ZF	CAP, CER .047 μ	377	R218	5232-472J16P	RES, CBN 1/6P 4.7K	820	R841	5135-472522	RES, CBN 1/2P 4.7K	864	Q842	5613-UN4212	XISTOR, NPN R
391	C252	5345-106F041	CAP, MINI ELE 10 μ /50V	368	R219	5232-104J16P	RES, CBN 1/6P 100K	815	R842	5232-104J16P	RES, CBN 1/6P 100K	864	Q843	5613-UN4212	XISTOR, NPN R
391	C253	5345-106F041	CAP, MINI ELE 10 μ /50V	366	R220	5232-154J16P	RES, CBN 1/6P 150K	817	R843	5232-473J16P	RES, CBN 1/6P 47K	864	Q844	5613-UN4212	XISTOR, NPN R
390	C254	5361-472M919	CAP, CER 4700p	374	R221	5232-102J16P	RES, CBN 1/6P 1K	817	R844	5232-473J16P	RES, CBN 1/6P 47K	864	Q845	5613-UN4212	XISTOR, NPN R
392	C255	5345-475F041	CAP, MINI ELE 4.7 μ /50V	377	R222	5232-472J16P	RES, CBN 1/6P 4.7K	812	R845	5135-104522	RES, CBN 1/2P 100K	864	Q846	5613-UN4212	XISTOR, NPN R
392	C256	5345-475F041	CAP, MINI ELE 4.7 μ /50V	367	R223	5232-104J16P	RES, CBN 1/6P 100K	815	R846	5232-104J16P	RES, CBN 1/6P 100K	864	Q847	5613-UN4212	XISTOR, NPN R
365	C257	5345-105F041	CAP, MINI ELE 1 μ /50V	377	R224	5232-472J16P	RES, CBN 1/6P 4.7K	817	R847	5232-473J16P	RES, CBN 1/6P 47K	864	Q848	5613-UN4212	XISTOR, NPN R
393	C258	5345-224F041	CAP, MINI ELE .22 μ /50V	397	R251	5135-334522	RES, CBN 1/2P 330K	813	R848	5135-105522	RES, CBN 1/2P 1M	DIODES			
419	C301	5345-225F041	CAP, MINI ELE 2.2 μ /50V	398	R252	5135-104522	RES, CBN 1/2P 100K	812	R849	5135-104522	RES, CBN 1/2P 100K	506	D52	5635-HZ12C2L	DIODE, ZENER
419	C302	5345-225F041	CAP, MINI ELE 2.2 μ /50V	401	R253	5232-103J16P	RES, CBN 1/6P 10K	816	R850	5232-105J16P	RES, CBN 1/6P 1M	507	D53	5635-HZ6B1L	DIODE, ZENER
420	C303	5345-226D041	CAP, MINI ELE 22 μ /25V	399	R254	5135-102522	RES, CBN 1/2P 1K	812	R851	5135-104522	RES, CBN 1/2P 100K	508	D54	5635-HZ5B2	DIODE, ZENER
420	C304	5345-226D041	CAP, MINI ELE 22 μ /25V	401	R255	5232-103J16P	RES, CBN 1/6P 10K	816	R852	5232-105J16P	RES, CBN 1/6P 1M	509	D55	5635-HZ24-1L	DIODE, ZENER
421	C305	5345-476D041	CAP, MINI ELE 47 μ /25V	402	R256	5232-223J16P	RES, CBN 1/6P 22K	814	R853	5135-104522	RES, CBN 1/2P 100K	416	D101	5631-1SS133	DIODE, DET
422	C306	5345-224F0951	CAP, MINI ELE .22 μ /50V	403	R257	5232-820J16P	RES, CBN 1/6P 82	819	R854	5232-224J16P	RES, CBN 1/6P 220K	416	D102	5631-1SS133	DIODE, DET
423	C307	5345-474F0951	CAP, MINI ELE .47 μ /50V	405	R258	5232-183J16P	RES, CBN 1/6P 18K	819	R855	5232-224J16P	RES, CBN 1/6P 220K	416	D301	5631-1SS133	DIODE, DET
424	C308	5345-106F041	CAP, MINI ELE 10 μ /50V	404	R259	5135-152522	RES, CBN 1/2P 1.5K	819	R856	5232-224J16P	RES, CBN 1/6P 220K	416	D302	5631-1SS133	DIODE, DET
417	C309	5359-4715851	CAP, PPP 470p	406	R260	5135-103522	RES, CBN 1/2P 10K	811	R866	5232-100J16P	RES, CBN 1/6P 10	450	D712	5631-1SS133	DIODE, DET
417	C310	5359-4715851	CAP, PPP 470p	407	R261	5232-471J16P	RES, CBN 1/6P 470	872	R891	5232-104J16P	RES, CBN 1/6P 100K	450	D714	5631-1SS133	DIODE, DET
418	C311	5354-473K1HM	CAP, MYL .047 μ	435	R301	5135-105522	RES, CBN 1/2P 1M	873	R892	5232-473J16P	RES, CBN 1/6P 47K	450	D715	5631-1SS133	DIODE, DET
419	C312	5345-225F041	CAP, MINI ELE 2.2 μ /50V	435	R302	5135-105522	RES, CBN 1/2P 1M	873	R893	5232-473J16P	RES, CBN 1/6P 47K	450	D716	5631-1SS133	DIODE, DET
425	C315	5361-101K918	CAP, CER 100p	427	R303	5232-104J16P	RES, CBN 1/6P 100K	873	R894	5232-473J16P	RES, CBN 1/6P 47K	450	D717	5631-1S2473	DIODE, DET
453	C701	5345-227C041	CAP, MINI ELE 220 μ /16V	427	R304	5232-104J16P	RES, CBN 1/6P 100K	873	R895	5232-473J16P	RES, CBN 1/6P 47K	450	D718	5631-1SS133	DIODE, DET
459	C702	5345-224F0951	CAP, MINI ELE .22 μ /50V	428	R305	5232-753J16P	RES, CBN 1/6P 75K	879	R896	5232-472J16P	RES, CBN 1/6P 4.7K	450	D729	5631-1SS133	DIODE, DET
454	C704	5345-684F0951	CAP, MINI ELE .68 μ /50V	428	R306	5232-753J16P	RES, CBN 1/6P 75K	879	R897	5232-472J16P	RES, CBN 1/6P 4.7K	452	D720	5631-1S2473	DIODE, DET
460	C705	5361-223Z921	CAP, CER .022 μ	429	R307	5232-164J16P	RES, CBN 1/6P 160K	874	Δ R898	5102-2205116	RES, FUSE 22	856	D722	5631-1S2473	DIODE, DET
461	C706	5361-102K918	CAP, CER 1000p	429	R308	5232-164J16P	RES, CBN 1/6P 160K	873	R899	5232-473J16P	RES, CBN 1/6P 47K	856	D724	5631-1S2473	DIODE, DET
455	C707	5345-476D041	CAP, MINI ELE 47 μ /25V	430	R309	5232-182J16P	RES, CBN 1/6P 1.8K	873	R900	5232-473J16P	RES, CBN 1/6P 47K	856	D726	5631-1S2473	DIODE, DET
458	C710	5345-228A041	CAP, MINI ELE 2200 μ /6.3V	430	R310	5232-182J16P	RES, CBN 1/6P 1.8K	882	R901	5135-821522	RES, CBN 1/2P 820	805	D728	5631-1S2473	DIODE, DET
456	C714	5345-108A041	CAP, MINI ELE 1000 μ /6.3V	431	R311	5232-103J16P	RES, CBN 1/6P 10K	INTEGRATED CIRCUITS							
494	C717	5345-105F041	CAP, MINI ELE 1 μ /50V	431	R312	5232-103J16P	RES, CBN 1/6P 10K	351	IC201	5653-LA1266	IC, LINEAR	450	D718	5631-1SS133	DIODE, DET
495	C718	5345-227D041	CAP, MINI ELE 220 μ /25V	431	R313	5232-103J16P	RES, CBN 1/6P 10K	411	IC301	5653-LA3410	IC, LINEAR	450	D729	5631-1SS133	DIODE, DET
496	C719	5345-106F041	CAP, MINI ELE 10 μ /50V	432	R314	5232-103J16P	RES, CBN 1/6P 10K	442	IC702	5654-TC9227P	IC, DIGITAL	856	D730	5631-1S2473	DIODE, DET
809	C801	5345-106F041	CAP, MINI ELE 10 μ /50V	432	R315	5232-472J16P	RES, CBN 1								

ELECTRICAL PARTS LIST

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
PCB-1 TUNER P.C. BOARD							
CAPACITORS							
515	C52	5345-107C041	CAP, MINI ELE 100 μ /16V	518	R54	5135-101522	RES, CBN 1/2P 100
512	C53	5345-476D041	CAP, MINI ELE 47 μ /25V	519	R55	5135-331522	RES, CBN 1/2P 330
513	C56	5345-107B041	CAP, MINI ELE 100 μ /10V	520	Δ R56	5102-3915116	RES, FUSE 390
512	C57	5345-476D041	CAP, MINI ELE 47 μ /25V	523	R57	5171-221593	RES, MTL 1P 220
512	C58	5345-476D041	CAP, MINI ELE 47 μ /25V	521	R58	5135-272522	RES, CBN 1/2P 2.7K
325	C101	5345-476D041	CAP, MINI ELE 47 μ /25V	522	R59	5232-102J16P	RES, CBN 1/6P 1K
327	C102	5361-223Z921	CAP, CER .022 μ	369	R201	5232-331J16P	RES, CBN 1/6P 330
329	C103	5361-150KSL	CAP, CER 15p	370	R202	5232-391J16P	RES, CBN 1/6P 390
361	C201	5361-223Z921	CAP, CER .022 μ	374	R203	5232-102J16P	RES, CBN 1/6P 1K
361	C202	5361-223Z921	CAP, CER .022 μ	371	R204	5232-154J16P	RES, CBN 1/6P 150K
362	C203	5361-223Z921	CAP, CER .022 μ	372	R205	5232-100J16P	RES, CBN 1/6P 10
361	C205	5361-223Z921	CAP, CER .022 μ	373	R206	5232-101J16P	RES, CBN 1/6P 100
361	C206	5361-223Z921	CAP, CER .022 μ	370	R207	5232-391J16P	RES, CBN 1/6P 390
361	C207	5361-223Z921	CAP, CER .022 μ	370	R208	5232-391J16P	RES, CBN 1/6P 390
361	C208	5361-223Z921	CAP, CER .022 μ	374	R209	5232-102J16P	RES, CBN 1/6P 1K
361	C209	5361-223Z921	CAP, CER .022 μ	371	R210	5232-154J16P	RES, CBN 1/6P 150K
361	C210	5361-223Z921	CAP, CER .022 μ	372	R211	5232-100J16P	RES, CBN 1/6P 10
361	C211	5361-223Z921	CAP, CER .022 μ	373	R212	5232-101J16P	RES, CBN 1/6P 100
361	C212	5361-223Z921	CAP, CER .022 μ	370	R213	5232-391J16P	RES, CBN 1/6P 390
364	C214	5345-106F041	CAP, MINI ELE 10 μ /50V	375	R214	5232-103J16P	RES, CBN 1/6P 10K
365	C215	5345-105F041	CAP, MINI ELE 1 μ /50V	376	R215	5232-332J16P	RES, CBN 1/6P 3.3K
363	C216	5359-1015851	CAP, PPP 100p	377	R216	5232-472J16P	RES, CBN 1/6P 4.7K
393	C222	5345-224F041	CAP, MINI ELE .22 μ /50V	378	R217	5232-153J16P	RES, CBN 1/6P 15K
389	C251	5361-473ZF	CAP, CER .047 μ	377	R218	5232-472J16P	RES, CBN 1/6P 4.7K
391	C252	5345-106F041	CAP, MINI ELE 10 μ /50V	368	R219	5232-104J16P	RES, CBN 1/6P 100K
391	C253	5345-106F041	CAP, MINI ELE 10 μ /50V	366	R220	5232-154J16P	RES, CBN 1/6P 150K
390	C254	5361-472M919	CAP, CER 4700p	374	R221	5232-102J16P	RES, CBN 1/6P 1K
392	C255	5345-475F041	CAP, MINI ELE 4.7 μ /50V	377	R222	5232-472J16P	RES, CBN 1/6P 4.7K
392	C256	5345-475F041	CAP, MINI ELE 4.7 μ /50V	367	R223	5232-104J16P	RES, CBN 1/6P 100K
365	C257	5345-105F041	CAP, MINI ELE 1 μ /50V	377	R224	5232-472J16P	RES, CBN 1/6P 4.7K
393	C258	5345-224F041	CAP, MINI ELE .22 μ /50V	397	R251	5135-334522	RES, CBN 1/2P 330K
419	C301	5345-225F041	CAP, MINI ELE 2.2 μ /50V	398	R252	5135-104522	RES, CBN 1/2P 100K
419	C302	5345-225F041	CAP, MINI ELE 2.2 μ /50V	401	R253	5232-103J16P	RES, CBN 1/6P 10K
420	C303	5345-226D041	CAP, MINI ELE 22 μ /25V	399	R254	5135-102522	RES, CBN 1/2P 1K
420	C304	5345-226D041	CAP, MINI ELE 22 μ /25V	401	R255	5232-103J16P	RES, CBN 1/6P 10K
421	C305	5345-476D041	CAP, MINI ELE 47 μ /25V	402	R256	5232-223J16P	RES, CBN 1/6P 22K
422	C306	5345-224F0951	CAP, MINI ELE .22 μ /50V	403	R257	5232-820J16P	RES, CBN 1/6P 82
423	C307	5345-474F0951	CAP, MINI ELE .47 μ /50V	405	R258	5232-183J16P	RES, CBN 1/6P 18K
424	C308	5345-106F041	CAP, MINI ELE 10 μ /50V	404	R259	5135-152522	RES, CBN 1/2P 1.5K
417	C309	5359-4715851	CAP, PPP 470p	406	R260	5135-103522	RES, CBN 1/2P 10K
417	C310	5359-4715851	CAP, PPP 470p	407	R261	5232-471J16P	RES, CBN 1/6P 470
418	C311	5354-473K1HM	CAP, MYL .047 μ	435	R301	5135-105522	RES, CBN 1/2P 1M
419	C312	5345-225F041	CAP, MINI ELE 2.2 μ /50V	435	R302	5135-105522	RES, CBN 1/2P 1M
425	C315	5361-101K918	CAP, CER 100p	427	R303	5232-104J16P	RES, CBN 1/6P 100K
453	C701	5345-227C041	CAP, MINI ELE 220 μ /16V	427	R304	5232-104J16P	RES, CBN 1/6P 100K
459	C702	5345-224F0951	CAP, MINI ELE .22 μ /50V	428	R305	5232-753J16P	RES, CBN 1/6P 75K
454	C704	5345-684F0951	CAP, MINI ELE .68 μ /50V	428	R306	5232-753J16P	RES, CBN 1/6P 75K
460	C705	5361-223Z921	CAP, CER .022 μ	429	R307	5232-164J16P	RES, CBN 1/6P 160K
461	C706	5361-102K918	CAP, CER 1000p	429	R308	5232-164J16P	RES, CBN 1/6P 160K
455	C707	5345-476D041	CAP, MINI ELE 47 μ /25V	430	R309	5232-182J16P	RES, CBN 1/6P 1.8K
458	C710	5345-228A041	CAP, MINI ELE 2200 μ /6.3V	430	R310	5232-182J16P	RES, CBN 1/6P 1.8K
456	C714	5345-108A041	CAP, MINI ELE 1000 μ /6.3V	431	R311	5232-103J16P	RES, CBN 1/6P 10K
494	C717	5345-105F041	CAP, MINI ELE 1 μ /50V	431	R312	5232-103J16P	RES, CBN 1/6P 10K
495	C718	5345-227D041	CAP, MINI ELE 220 μ /25V	431	R313	5232-103J16P	RES, CBN 1/6P 10K
496	C719	5345-106F041	CAP, MINI ELE 10 μ /50V	431	R314	5232-103J16P	RES, CBN 1/6P 10K
809	C801	5345-106F041	CAP, MINI ELE 10 μ /50V	432	R315	5232-472J16P	RES, CBN 1/6P 4.7K
809	C802	5345-106F041	CAP, MINI ELE 10 μ /50V	431	R316	5232-103J16P	RES, CBN 1/6P 10K
810	C803	5345-104F041	CAP, MINI ELE .1 μ /50V	465	R701	5232-103J16P	RES, CBN 1/6P 10K
808	C804	5354-104593	CAP, MYL .1 μ	465	R702	5232-103J16P	RES, CBN 1/6P 10K
808	C805	5354-104593	CAP, MYL .1 μ	466	R703	5232-473J16P	RES, CBN 1/6P 47K
808	C806	5354-104593	CAP, MYL .1 μ	467	R704	5232-222J16P	RES, CBN 1/6P 2.2K
809	C807	5345-106F041	CAP, MINI ELE 10 μ /50V	471	R705	5135-102522	RES, CBN 1/2P 1K
809	C808	5345-106F041	CAP, MINI ELE 10 μ /50V	471	R706	5135-102522	RES, CBN 1/2P 1K
869	C891	5361-101KB	CAP, CER 100p	465	R707	5232-103J16P	RES, CBN 1/6P 10K
869	C892	5361-101KB	CAP, CER 100p	468	R708	5232-102J16P	RES, CBN 1/6P 1K
870	C893	5345-104F041	CAP, MINI ELE .1 μ /50V	470	R709	5232-104J16P	RES, CBN 1/6P 100K
871	C894	5345-106F041	CAP, MINI ELE 10 μ /50V	467	R710	5232-222J16P	RES, CBN 1/6P 2.2K
880	C896	5354-103K1HM	CAP, MYL .01 μ	467	R711	5232-222J16P	RES, CBN 1/6P 2.2K
919	C897	5345-477B041	CAP, MINI ELE 470 μ /10V	467	R712	5232-222J16P	RES, CBN 1/6P 2.2K
524	Δ R51	5102-2R25116	RES, FUSE 2.2	467	R713	5232-222J16P	RES, CBN 1/6P 2.2K
517	R52	5135-272522	RES, CBN 1/2P 2.7K	469	R714	5232-472J16P	RES, CBN 1/6P 4.7K
518	R53	5135-101522	RES, CBN 1/2P 100	472	R715	5232-273J16P	RES, CBN 1/6P 27K
				473	R716	5135-103522	RES, CBN 1/2P 10K
				473	R717	5135-103522	RES, CBN 1/2P 10K
				465	R718	5232-103J16P	RES, CBN 1/6P 10K
				471	R720	5135-102522	RES, CBN 1/2P 1K
				473	R726	5135-103522	RES, CBN 1/2P 10K

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
477	R727	5232-473J16P	RES, CBN 1/6P 47K	446	Q705	5611-UN4112	XISTOR, PNP R
476	R728	5135-223522	RES, CBN 1/2P 22K	445	Q706	5613-UN4212	XISTOR, NPN R
473	R729	5135-103522	RES, CBN 1/2P 10K	444	Q707	5613-3311A(R)	XISTOR, NPN R
464	R730	5232-223J16P	RES, CBN 1/6P 22K	446	Q708	5611-UN4112	XISTOR, PNP R
465	R732	5232-103J16P	RES, CBN 1/6P 10K	444	Q710	5613-3311A(R)	XISTOR, NPN R
478	R733	5135-104522	RES, CBN 1/2P 100K	446	Q711	5611-UN4112	XISTOR, PNP R
465	R734	5232-103J16P	RES, CBN 1/6P 10K	448	Q712	5611-1309A(R)	XISTOR, PNP R
470	R739	5232-104J16P	RES, CBN 1/6P 100K	445	Q713	5613-UN4212	XISTOR, NPN R
470	R740	5232-104J16P	RES, CBN 1/6P 100K	498	Q714	5613-UN4213	XISTOR, NPN R
470	R744	5232-104J16P	RES, CBN 1/6P 100K	445	Q715	5613-UN4212	XISTOR, NPN R
472	R745	5232-273J16P	RES, CBN 1/6P 27K	445	Q716	5613-UN4212	XISTOR, NPN R
483	R761	5135-101522	RES, CBN 1/2P 100	445	Q720	5613-UN4212	XISTOR, NPN R
484	R762	5232-332J16P	RES, CBN 1/6P 3.3K	822	Q810	5611-1309A(R)	XISTOR, PNP R
465	R764	5232-103J16P	RES, CBN 1/6P 10K	803	Q811	5616-2SK364BL	FET, N-CH
482	R766	5135-332522	RES, CBN 1/2P 3.3K	803	Q812	5616-2SK364BL	FET, N-CH
474	R768	5135-472522	RES, CBN 1/2P 4.7K	803	Q813	5616-2SK364BL	FET, N-CH
482	R769	5135-332522	RES, CBN 1/2P 3.3K	803	Q814	5616-2SK364BL	FET, N-CH
819	R831	5232-224J16P	RES, CBN 1/6P 220K	803	Q815	5616-2SK364BL	FET, N-CH
815	R832	5232-104J16P	RES, CBN 1/6P 100K	803	Q816	5616-2SK364BL	FET, N-CH
821	R833	5232-274J16P	RES, CBN 1/6P 270K	804	Q817	5611-UN4112	XISTOR, PNP R
819	R834	5232-224J16P	RES, CBN 1/6P 220K	804	Q818	5611-UN4112	XISTOR, PNP R
818	R835	5232-223J16P	RES, CBN 1/6P 22K	804	Q819	5611-UN4112	XISTOR, PNP R
818	R836	5232-223J16P	RES, CBN 1/6P 22K	863	Q841	5613-3311A(R)	XISTOR, NPN R
820	R841	5135-472522	RES, CBN 1/2P 4.7K	864	Q842	5613-UN4212	XISTOR, NPN R
815	R842	5232-104J16P	RES, CBN 1/6P 100K	864	Q843	5613-UN4212	XISTOR, NPN R
817	R843	5232-473J16P	RES, CBN 1/6P 47K	864	Q844	5613-UN4212	XISTOR, NPN R
817	R844	5232-473J16P	RES, CBN 1/6P 47K	864	Q845	5613-UN4212	XISTOR, NPN R
812	R845	5135-104522	RES, CBN 1/2P 100K	864	Q846	5613-UN4212	XISTOR, NPN R
815	R846	5232-104J16P	RES, CBN 1/6P 100K	864	Q847	5613-UN4212	XISTOR, NPN R
817	R847	5232-473J16P	RES, CBN 1/6P 47K	864	Q848	5613-UN4212	XISTOR, NPN R
813	R848	5135-105522	RES, CBN 1/2P 1M			DIODES	
812	R849	5135-104522	RES, CBN 1/2P 100K	506	D52	5635-HZ12C2L	DIODE, ZENER
816	R850	5232-105J16P	RES, CBN 1/6P 1M	507	D53	5635-HZ6B1L	DIODE, ZENER
812	R851	5135-104522	RES, CBN 1/2P 100K	508	D54	5635-HZ5B2	DIODE, ZENER
816	R852	5232-105J16P	RES, CBN 1/6P 1M	509	D55	5635-HZ24-1L	DIODE, ZENER
814	R853	5135-104522	RES, CBN 1/2P 100K	416	D101	5631-1SS133	DIODE, DET
819	R854	5232-224J16P	RES, CBN 1/6P 220K	416	D102	5631-1SS133	DIODE, DET
819	R855	5232-224J16P	RES, CBN 1/6P 220K	416	D301	5631-1SS133	DIODE, DET
819	R856	5232-224J16P	RES, CBN 1/6P 220K	416	D302	5631-1SS133	DIODE, DET
811	R866	5232-100J16P	RES, CBN 1/6P 10	450	D712	5631-1SS133	DIODE, DET
872	R891	5232-104J16P	RES, CBN 1/6P 100K	450	D714	5631-1SS133	DIODE, DET
873	R892	5232-473J16P	RES, CBN 1/6P 47K	450	D715	5631-1SS133	DIODE, DET
873	R893	5232-473J16P	RES, CBN 1/6P 47K	450	D716	5631-1SS133	DIODE, DET
873	R894	5232-473J16P	RES, CBN 1/6P 47K	452	D717	5631-1S2473	DIODE, DET
873	R895	5232-473J16P	RES, CBN 1/6P 47K	450	D718	5631-1SS133	DIODE, DET
879	R896	5232-472J16P	RES, CBN 1/6P 4.7K	450	D729	5631-1SS133	DIODE, DET
879	R897	5232-472J16P	RES, CBN 1/6P 4.7K	452	D720	5631-1S2473	DIODE, DET
874	△R898	5102-2205116	RES, FUSE 22	856	D722	5631-1S2473	DIODE, DET
873	R899	5232-473J16P	RES, CBN 1/6P 47K	856	D724	5631-1S2473	DIODE, DET
873	R900	5232-473J16P	RES, CBN 1/6P 47K	856	D726	5631-1S2473	DIODE, DET
882	R901	5135-821522	RES, CBN 1/2P 820	805	D728	5631-1S2473	DIODE, DET
		INTEGRATED CIRCUITS		450	D718	5631-1SS133	DIODE, DET
351	IC201	5653-LA1266	IC, LINEAR	450	D729	5631-1SS133	DIODE, DET
411	IC301	5653-LA3410	IC, LINEAR	856	D730	5631-1S2473	DIODE, DET
442	IC702	5654-TC9227P	IC, DIGITAL	452	D731	5631-1S2473	DIODE, DET
801	IC802	5654-LC7818	IC, DIGITAL	805	D801	5631-1S2473	DIODE, DET
802	IC803	5654-TC4011BP	IC, DIGITAL	805	D802	5631-1S2473	DIODE, DET
802	IC804	5654-TC4011BP	IC, DIGITAL	806	D807	5631-1SS133	DIODE, DET
861	IC808	5654-M761281P	IC, DIGITAL	805	D809	5631-1S2473	DIODE, DET
862	IC809	5654-TC4514BP	IC, DIGITAL	806	D811	5631-1SS133	DIODE, DET
875	IC810	5653-LB1641	IC, LINEAR	806	D812	5631-1SS133	DIODE, DET
		TRANSISTORS		806	D813	5631-1SS133	DIODE, DET
501	Q51	5612-1375	XISTOR, PNP A	806	D815	5631-1SS133	DIODE, DET
502	Q52	5613-3311A(R)	XISTOR, NPN R	806	D816	5631-1SS133	DIODE, DET
503	Q53	5613-UN4212	XISTOR, NPN R	806	D817	5631-1SS133	DIODE, DET
504	Q54	5612-647(C)	XISTOR, PNP A	806	D818	5631-1SS133	DIODE, DET
502	Q55	5613-3311A(R)	XISTOR, NPN R	806	D819	5631-1SS133	DIODE, DET
352	Q201	5613-2058(N)	XISTOR, NPN R	806	D820	5631-1SS133	DIODE, DET
352	Q202	5613-2058(N)	XISTOR, NPN R	806	D821	5631-1SS133	DIODE, DET
412	Q301	5614-1450(T)	XISTOR, NPN A	866	D891	5631-1SS133	DIODE, DET
412	Q302	5614-1450(T)	XISTOR, NPN A	866	D892	5631-1SS133	DIODE, DET
413	Q303	5616-2SK364BL	FET, N-CH	866	D893	5631-1SS133	DIODE, DET
413	Q304	5616-2SK364BL	FET, N-CH	878	D894	5635-HZ3C2	DIODE, ZENER
443	Q701	5613-2240(BL)	XISTOR, NPN R			COIL	
444	Q702	5613-3311A(R)	XISTOR, NPN R	358	L201	5995-2R2J69	COIL W/CORE
446	Q704	5611-UN4112	XISTOR, PNP R				

Ser. No.	Ref. No.	Part No.	Description
TRANSFORMERS			
357	T201	5572-10201	DISCRI 7
384	T251	5552-00712	IFT, AM 7
CONTROLS			
354	VR201	5101-50301934	RES, SEMI FIX 50K
415	VR301	5101-10401934	RES, SEMI FIX 100K
MISCELLANEOUS			
383	CB251	6111-02401	RF BLOCK
355	CF201	5671-7120A	FILTER, CER S
355	CF202	5671-7120A	FILTER, CER S
356	CF203	5671-012A	FILTER, CER S
386	CF251	5671-7137C	FILTER, CER S
385	CF252	5671-0159	FILTER, CER S
941	CN12	4443-060185	CONNECTOR
949	CN15	4443-0201140	CONNECTOR
939	CN102	4443-0201140	CONNECTOR
946	CN105	4443-0301140	CONNECTOR
940	CN501	4443-030185	CONNECTOR
937	CN504	4443-0301140	CONNECTOR
539	CN101A	4443-05501019	CONNECTOR
825	CN601B	4443-01801012	CONNECTOR
826	CN602B	4443-01801007	CONNECTOR
827	CN802B	4443-01801016	CONNECTOR
867	CN804B	4443-05501013	CONNECTOR
414	CX301	5693-CSB456F1	OSC, CER
865	CX801	5693-CSB400P	OSC, CER
321	△FE101	6114-00701	FM TUNER
959	JL103	4242-R0103181	JUMPER LEAD
545	JL109	4132-R0100101	CORD, 2C
546	JL110	4132-R0100121	CORD, 2C
330	LUG1	4211-4	LUG
829	RC801	5212-223J0503	R COMPOSITE
547	△TM101	4214-164	TERMINAL
541	TP1	4214-132	TERMINAL
541	TP2	4214-132	TERMINAL

PCB-2 EQUALIZER P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
576	C601	5345-106C0951	CAP, MINI ELE 10 μ/16V
576	C602	5345-106C0951	CAP, MINI ELE 10 μ/16V
582	C603	5359-1215851	CAP, PPP 120p
582	C604	5359-1215851	CAP, PPP 120p
575	C605	5345-227A0951	CAP, MINI ELE 220 μ/6.3V
575	C606	5345-227A0951	CAP, MINI ELE 220 μ/6.3V
583	C607	5359-5625851	CAP, PPP 5600p
583	C608	5359-5625851	CAP, PPP 5600p
584	C609	5359-2025851	CAP, PPP 2000p
584	C610	5359-2025851	CAP, PPP 2000p
576	C611	5345-106C0951	CAP, MINI ELE 10 μ/16V
576	C612	5345-106C0951	CAP, MINI ELE 10 μ/16V
577	C613	5345-227D041	CAP, MINI ELE 220 μ/25V
577	C614	5345-227D041	CAP, MINI ELE 220 μ/25V
578	C615	5345-107D041	CAP, MINI ELE 100 μ/25V
578	C616	5345-107D041	CAP, MINI ELE 100 μ/25V
588	C617	5353-040934	CAP, MCA 4p
588	C618	5353-040934	CAP, MCA 4p
585	C619	5359-1825851	CAP, PPP 1800p
585	C620	5359-1825851	CAP, PPP 1800p
RESISTORS			
591	R601	5135-823522	RES, CBN 1/2P 82K
591	R602	5135-823522	RES, CBN 1/2P 82K
592	R603	5135-124522	RES, CBN 1/2P 120K
592	R604	5135-124522	RES, CBN 1/2P 120K
593	R605	5135-221522	RES, CBN 1/2P 220
593	R606	5135-221522	RES, CBN 1/2P 220
594	R607	5135-122522	RES, CBN 1/2P 1.2K
594	R608	5135-122522	RES, CBN 1/2P 1.2K
595	R609	5135-220522	RES, CBN 1/2P 22
595	R610	5135-220522	RES, CBN 1/2P 22
594	R611	5135-122522	RES, CBN 1/2P 1.2K
594	R612	5135-122522	RES, CBN 1/2P 1.2K
596	R613	5135-473522	RES, CBN 1/2P 47K
596	R614	5135-473522	RES, CBN 1/2P 47K
597	R615	5135-820522	RES, CBN 1/2P 82
597	R616	5135-820522	RES, CBN 1/2P 82

Ser. No.	Ref. No.	Part No.	Description
597	R617	5135-820522	RES, CBN 1/2P 82
597	R618	5135-820522	RES, CBN 1/2P 82
599	R621	5135-821522	RES, CBN 1/2P 820
599	R622	5135-821522	RES, CBN 1/2P 820
600	R623	5135-393522	RES, CBN 1/2P 39K
600	R624	5135-393522	RES, CBN 1/2P 39K
601	R625	5135-564522	RES, CBN 1/2P 560K
601	R626	5135-564522	RES, CBN 1/2P 560K
602	R627	5135-334522	RES, CBN 1/2P 330K
602	R628	5135-334522	RES, CBN 1/2P 330K
603	R629	5135-102522	RES, CBN 1/2P 1K
603	R630	5135-102522	RES, CBN 1/2P 1K
604	R631	5135-333522	RES, CBN 1/2P 33K
604	R632	5135-333522	RES, CBN 1/2P 33K
603	R633	5135-102522	RES, CBN 1/2P 1K
603	R634	5135-102522	RES, CBN 1/2P 1K
605	R635	5135-222522	RES, CBN 1/2P 2.2K
605	R636	5135-222522	RES, CBN 1/2P 2.2K
606	R637	5135-472522	RES, CBN 1/2P 4.7K
606	R638	5135-472522	RES, CBN 1/2P 4.7K
607	R639	5135-820522	RES, CBN 1/2P 82
607	R640	5135-820522	RES, CBN 1/2P 82
610	△R641	5102-1814715	RES, FUSE 180
610	△R642	5102-1814715	RES, FUSE 180
608	R643	5232-105J16P	RES, CBN 1/6P 1M
608	R644	5232-105J16P	RES, CBN 1/6P 1M
611	△R651	5102-1005116	RES, FUSE 10
611	△R652	5102-1005116	RES, FUSE 10
603	R655	5135-102522	RES, CBN 1/2P 1K
603	R656	5135-102522	RES, CBN 1/2P 1K
603	R657	5135-102522	RES, CBN 1/2P 1K
603	R658	5135-102522	RES, CBN 1/2P 1K
605	R681	5135-222522	RES, CBN 1/2P 2.2K
605	R682	5135-222522	RES, CBN 1/2P 2.2K
TRANSISTORS			
561	Q601	5613-2320L(F)	XISTOR, NPN R
561	Q602	5613-2320L(F)	XISTOR, NPN R
563	Q603	5611-999L(F)	XISTOR, PNP R
563	Q604	5611-999L(F)	XISTOR, PNP R
564	Q605	5611-999(F)	XISTOR, PNP R
564	Q606	5611-999(F)	XISTOR, PNP R
562	Q607	5613-2320(F)	XISTOR, NPN R
562	Q608	5613-2320(F)	XISTOR, NPN R
562	Q609	5613-2320(F)	XISTOR, NPN R
562	Q610	5613-2320(F)	XISTOR, NPN R
562	Q611	5613-2320(F)	XISTOR, NPN R
562	Q612	5613-2320(F)	XISTOR, NPN R
565	Q613	5612-941(Q)	XISTOR, PNP A
566	Q614	5614-1266(Q)	XISTOR, NPN A
DIODES			
569	D601	5635-HZ15-2L	DIODE, ZENER
569	D602	5635-HZ15-2L	DIODE, ZENER
570	D603	5631-1SS133	DIODE, DET
570	D604	5631-1SS133	DIODE, DET
MISCELLANEOUS			
938	CN402	4443-0201141	CONNECTOR
613	CN601A	4443-01701012	CONNECTOR
614	CN602A	4443-01701007	CONNECTOR
936	CW107	4163-0140039	CONNECTOR W/W
936	CW108	4163-0140039	CONNECTOR W/W
615	LUG2	4211-4	LUG
912	△J2	4484-46	PIN JACK, 4P
914	△J3	4482-0133	PIN JACK, 2P

PCB-3 MONITOR P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
838	C811	5354-104593	CAP, MYL .1 μ
838	C813	5354-104593	CAP, MYL .1 μ
RESISTORS			
842	R878	5135-105522	RES, CBN 1/2P 1M
850	R882	5232-105J16P	RES, CBN 1/6P 1M
847	R883	5232-104J16P	RES, CBN 1/6P 100K
845	R887	5232-102J16P	RES, CBN 1/6P 1K
845	R888	5232-102J16P	RES, CBN 1/6P 1K
845	R889	5232-102J16P	RES, CBN 1/6P 1K

Ser. No.	Ref. No.	Part No.	Description
845	R890	5232-102J16P	RES, CBN 1/6P 1K
TRANSISTORS			
833	Q821	5616-2SK364BL	FET, N-CH
833	Q822	5616-2SK364BL	FET, N-CH
833	Q825	5616-2SK364BL	FET, N-CH
833	Q826	5616-2SK364BL	FET, N-CH
834	Q830	5611-JUN4112	XISTOR, PNP R
DIODES			
835	D861	5631-1S2473	DIODE, DET
835	D862	5631-1S2473	DIODE, DET
835	D865	5631-1S2473	DIODE, DET
835	D866	5631-1S2473	DIODE, DET
836	D883	5631-1SS133	DIODE, DET
836	D884	5631-1SS133	DIODE, DET
MISCELLANEOUS			
849	CN802A	4443-01701016	CONNECTOR
935	CW106	4163-0145039	CONNECTOR W/W
913	△J4	4484-46	PIN JACK, 4P
913	△J5	4484-46	PIN JACK, 4P

PCB-4 SUB-WOOFER P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
702	C591	5345-107B041	CAP, MINI ELE 100 μ /10V
702	C592	5345-107B041	CAP, MINI ELE 100 μ /10V
702	C593	5345-107B041	CAP, MINI ELE 100 μ /10V
702	C594	5345-107B041	CAP, MINI ELE 100 μ /10V
RESISTORS			
733	R591	5135-822522	RES, CBN 1/2P 8.2K
733	R592	5135-822522	RES, CBN 1/2P 8.2K
734	R593	5135-102522	RES, CBN 1/2P 1K
734	R594	5135-102522	RES, CBN 1/2P 1K
479	R751	5135-470522	RES, CBN 1/2P 47
480	R752	5135-473522	RES, CBN 1/2P 47K
481	R753	5135-271522	RES, CBN 1/2P 270
486	R771	5135-392522	RES, CBN 1/2P 3.9K
TRANSISTOR			
447	Q751	5611-JUN411L	XISTOR, PNP R
MISCELLANEOUS			
945	CN104	4443-030185	CONNECTOR
551	J101	4451-00184	JACK, 1P
551	J102	4451-00184	JACK, 1P
552	△J103	4489-00705002	PIN JACK, MLT
556	PH701	5624-ON3161(R)	PHOTO COUPLER

PCB-5 MAIN P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
766	C3	5362-103048	CAP, CER .01 μ
766	C4	5362-103048	CAP, CER .01 μ
765	C5	5341-S08FM688	CAP, ELE 6800 μ /50V
765	C6	5341-S08FM688	CAP, ELE 6800 μ /50V
748	C21	5345-106F041	CAP, MINI ELE 10 μ /50V
748	C22	5345-106F041	CAP, MINI ELE 10 μ /50V
749	C23	5345-107B041	CAP, MINI ELE 100 μ /10V
750	C24	5345-105F041	CAP, MINI ELE 1 μ /50V
751	C25	5354-683J1HM	CAP, MYL .068 μ
751	C26	5354-683J1HM	CAP, MYL .068 μ
747	C27	5345-105F0951	CAP, MINI ELE 1 μ /50V
696	C401	5345-476B0951	CAP, MINI ELE 47 μ /10V
696	C402	5345-476B0951	CAP, MINI ELE 47 μ /10V
699	C403	5359-6805851	CAP, PPP 68p
699	C404	5359-6805851	CAP, PPP 68p
698	C405	5345-106C0951	CAP, MINI ELE 10 μ /16V
698	C406	5345-106C0951	CAP, MINI ELE 10 μ /16V
700	C407	5353-050934	CAP, MCA 1p
700	C408	5353-050934	CAP, MCA 1p
697	C409	5345-477A0952	CAP, MINI ELE 470 μ /6.3V
697	C410	5345-477A0952	CAP, MINI ELE 470 μ /6.3V
703	C411	5359-1015851	CAP, PPP 100p
703	C412	5359-1015851	CAP, PPP 100p
704	C413	5345-476F041	CAP, MINI ELE 47 μ /50V
704	C414	5345-476F041	CAP, MINI ELE 47 μ /50V
704	C415	5345-476F041	CAP, MINI ELE 47 μ /50V
704	C416	5345-476F041	CAP, MINI ELE 47 μ /50V
701	C417	5354-104593	CAP, MYL .1 μ

Ser. No.	Ref. No.	Part No.	Description
701	C418	5354-104593	CAP, MYL .1 μ
701	C419	5354-104593	CAP, MYL .1 μ
701	C420	5354-104593	CAP, MYL .1 μ
705	C421	5345-475D0951	CAP, MINI ELE 4.7 μ /25V
705	C422	5345-475D0951	CAP, MINI ELE 4.7 μ /25V
RESISTORS			
753	R21	5135-471522	RES, CBN 1/2P 470
754	R22	5135-392522	RES, CBN 1/2P 3.9K
755	R23	5135-332522	RES, CBN 1/2P 3.3K
756	R24	5135-472522	RES, CBN 1/2P 47K
757	R25	5135-104522	RES, CBN 1/2P 100K
758	R26	5135-683522	RES, CBN 1/2P 68K
759	R27	5135-333522	RES, CBN 1/2P 33K
762	R33	5135-102522	RES, CBN 1/2P 1K
762	R34	5135-102522	RES, CBN 1/2P 1K
763	R35	5135-911522	RES, CBN 1/2P 910
763	R36	5135-911522	RES, CBN 1/2P 910
752	R37	5135-331522	RES, CBN 1/2P 330
752	R38	5135-331522	RES, CBN 1/2P 330
756	R39	5135-472522	RES, CBN 1/2P 47K
756	R40	5135-472522	RES, CBN 1/2P 47K
757	R41	5135-104522	RES, CBN 1/2P 100K
758	R42	5135-683522	RES, CBN 1/2P 68K
756	R43	5135-472522	RES, CBN 1/2P 47K
756	R44	5135-472522	RES, CBN 1/2P 47K
767	R45	5135-222522	RES, CBN 1/2P 2.2K
711	R401	5135-333522	RES, CBN 1/2P 33K
711	R402	5135-333522	RES, CBN 1/2P 33K
712	R403	5135-331522	RES, CBN 1/2P 330
712	R404	5135-331522	RES, CBN 1/2P 330
713	R405	5135-471522	RES, CBN 1/2P 470
713	R406	5135-471522	RES, CBN 1/2P 470
713	R407	5135-471522	RES, CBN 1/2P 470
713	R408	5135-471522	RES, CBN 1/2P 470
714	R409	5135-152522	RES, CBN 1/2P 1.5K
714	R410	5135-152522	RES, CBN 1/2P 1.5K
714	R411	5135-152522	RES, CBN 1/2P 1.5K
714	R412	5135-152522	RES, CBN 1/2P 1.5K
715	R413	5135-152522	RES, CBN 1/2P 1.5K
715	R414	5135-152522	RES, CBN 1/2P 1.5K
716	R415	5135-561522	RES, CBN 1/2P 560
716	R416	5135-561522	RES, CBN 1/2P 560
716	R417	5135-561522	RES, CBN 1/2P 560
716	R418	5135-561522	RES, CBN 1/2P 560
716	R419	5135-561522	RES, CBN 1/2P 560
716	R420	5135-561522	RES, CBN 1/2P 560
716	R421	5135-561522	RES, CBN 1/2P 560
716	R422	5135-561522	RES, CBN 1/2P 560
716	R423	5135-561522	RES, CBN 1/2P 560
716	R424	5135-561522	RES, CBN 1/2P 560
717	△R425	5102-5605116	RES, FUSE 56
717	△R426	5102-5605116	RES, FUSE 56
717	△R427	5102-5605116	RES, FUSE 56
717	△R428	5102-5605116	RES, FUSE 56
718	R429	5135-223522	RES, CBN 1/2P 22K
718	R430	5135-223522	RES, CBN 1/2P 22K
718	R431	5135-223522	RES, CBN 1/2P 22K
718	R432	5135-223522	RES, CBN 1/2P 22K
720	R433	5135-152522	RES, CBN 1/2P 1.5K
720	R434	5135-152522	RES, CBN 1/2P 1.5K
719	R435	5135-271522	RES, CBN 1/2P 270
719	R436	5135-271522	RES, CBN 1/2P 270
721	△R437	5102-8205116	RES, FUSE 82
721	△R438	5102-8205116	RES, FUSE 82
721	△R439	5102-8205116	RES, FUSE 82
721	△R440	5102-8205116	RES, FUSE 82
722	R441	5135-820522	RES, CBN 1/2P 82
722	R442	5135-820522	RES, CBN 1/2P 82
730	R445	5275-S040JR27	RES, CEM 5P .27
730	R446	5275-S040JR27	RES, CEM 5P .27
730	R447	5275-S040JR27	RES, CEM 5P .27
730	R448	5275-S040JR27	RES, CEM 5P .27
726	R449	5135-100522	RES, CBN 1/2P 10
726	R450	5135-100522	RES, CBN 1/2P 10
731	R451	5171-100571	RES, MTL 1P 10
731	R452	5171-100571	RES, MTL 1P 10

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
724	R455	5135-271522	RES, CBN 1/2P 270	632	C505	5345-225F0951	CAP, MINI ELE 2.2 μ /50V
724	R456	5135-271522	RES, CBN 1/2P 270	632	C506	5345-225F0951	CAP, MINI ELE 2.2 μ /50V
725	R457	5135-103522	RES, CBN 1/2P 10K	636	C507	5354-273J1HM	CAP, MYL .027 μ
725	R458	5135-103522	RES, CBN 1/2P 10K	636	C508	5354-273J1HM	CAP, MYL .027 μ
723	R459	5135-333522	RES, CBN 1/2P 33K	635	C509	5354-154593	CAP, MYL .15 μ
723	R460	5135-333522	RES, CBN 1/2P 33K	635	C510	5354-154593	CAP, MYL .15 μ
723	R465	5135-333522	RES, CBN 1/2P 33K	638	C511	5354-682J1HM	CAP, MYL 6800p
723	R466	5135-333522	RES, CBN 1/2P 33K	638	C512	5354-682J1HM	CAP, MYL 6800p
TRANSISTORS				637	C513	5354-393J1HM	CAP, MYL .039 μ
741	Q21	5611-1309A(R)	XISTOR, PNP R	637	C514	5354-393J1HM	CAP, MYL .039 μ
742	Q22	5613-3311A(R)	XISTOR, NPN R	630	C515	5345-226C0951	CAP, MINI ELE 22 μ /16V
743	Q23	5613-2240(BL)	XISTOR, NPN R	630	C516	5345-226C0951	CAP, MINI ELE 22 μ /16V
744	Q24	5611-970(BL)	XISTOR, PNP R	640	C517	5353-020934	CAP, MCA 2p
743	Q27	5613-2240(BL)	XISTOR, NPN R	640	C518	5353-020934	CAP, MCA 2p
743	Q28	5613-2240(BL)	XISTOR, NPN R	643	C563	5359-1015851	CAP, PPP 100p
744	Q29	5611-970(BL)	XISTOR, PNP R	643	C564	5359-1015851	CAP, PPP 100p
683	Q401	5611-970(BL)	XISTOR, PNP R	633	C581	5345-337D045	CAP, MINI ELE 330 μ /25V
683	Q402	5611-970(BL)	XISTOR, PNP R	633	C582	5345-337D045	CAP, MINI ELE 330 μ /25V
683	Q403	5611-970(BL)	XISTOR, PNP R	633	C583	5345-337D045	CAP, MINI ELE 330 μ /25V
683	Q404	5611-970(BL)	XISTOR, PNP R	633	C584	5345-337D045	CAP, MINI ELE 330 μ /25V
681	Q405	5613-2240(BL)	XISTOR, NPN R	RESISTORS			
681	Q406	5613-2240(BL)	XISTOR, NPN R	651	R501	5135-154522	RES, CBN 1/2P 150K
681	Q407	5613-2240(BL)	XISTOR, NPN R	651	R502	5135-154522	RES, CBN 1/2P 150K
681	Q408	5613-2240(BL)	XISTOR, NPN R	652	R503	5135-102522	RES, CBN 1/2P 1K
686	Q409	5612-646A(C)	XISTOR, PNP A	652	R504	5135-102522	RES, CBN 1/2P 1K
686	Q410	5612-646A(C)	XISTOR, PNP A	653	R505	5135-101522	RES, CBN 1/2P 100
685	Q411	5614-666A(C)	XISTOR, NPN A	653	R506	5135-101522	RES, CBN 1/2P 100
685	Q412	5614-666A(C)	XISTOR, NPN A	654	R507	5135-820522	RES, CBN 1/2P 82
687	Q413	5613-945(K)	XISTOR, NPN R	654	R508	5135-820522	RES, CBN 1/2P 82
687	Q414	5613-945(K)	XISTOR, NPN R	655	R509	5135-274522	RES, CBN 1/2P 270K
688	Q415	5614-667A(C)	XISTOR, NPN A	655	R510	5135-274522	RES, CBN 1/2P 270K
688	Q416	5614-667A(C)	XISTOR, NPN A	652	R511	5135-102522	RES, CBN 1/2P 1K
689	Q417	5612-647A(C)	XISTOR, PNP A	652	R512	5135-102522	RES, CBN 1/2P 1K
689	Q418	5612-647A(C)	XISTOR, PNP A	658	R513	5135-331522	RES, CBN 1/2P 330
690	Q419	5613-3181(O)	XISTOR, NPN R	658	R514	5135-331522	RES, CBN 1/2P 330
690	Q420	5613-3181(O)	XISTOR, NPN R	657	R515	5135-222522	RES, CBN 1/2P 2.2K
692	Q421	5611-1264(O)	XISTOR, PNP R	657	R516	5135-222522	RES, CBN 1/2P 2.2K
692	Q422	5611-1264(O)	XISTOR, PNP R	658	R517	5135-331522	RES, CBN 1/2P 330
684	Q423	5611-999(F)	XISTOR, PNP R	658	R518	5135-331522	RES, CBN 1/2P 330
684	Q424	5611-999(F)	XISTOR, PNP R	659	R519	5135-221522	RES, CBN 1/2P 220
684	Q425	5611-999(F)	XISTOR, PNP R	659	R520	5135-221522	RES, CBN 1/2P 220
684	Q426	5611-999(F)	XISTOR, PNP R	660	R521	5135-122522	RES, CBN 1/2P 1.2K
DIODES				660	R522	5135-122522	RES, CBN 1/2P 1.2K
764	D1	5685-RBV-602	SILICON, BRIG	661	R523	5135-121522	RES, CBN 1/2P 120
745	D21	5636-1S2471	DIODE, SWITCH	661	R524	5135-121522	RES, CBN 1/2P 120
746	D22	5635-HZ6B1L	DIODE, ZENER	656	R525	5135-473522	RES, CBN 1/2P 47K
694	D401	5631-1S2473	DIODE, DET	656	R526	5135-473522	RES, CBN 1/2P 47K
694	D402	5631-1S2473	DIODE, DET	662	R527	5135-272522	RES, CBN 1/2P 2.7K
COILS				662	R528	5135-272522	RES, CBN 1/2P 2.7K
707	L401	5991-7165	SPRING COIL	663	R529	5135-153522	RES, CBN 1/2P 15K
707	L402	5991-7165	SPRING COIL	663	R530	5135-153522	RES, CBN 1/2P 15K
CONTROLS				658	R531	5135-331522	RES, CBN 1/2P 330
729	VR401	5101-50101930	RES, SEMI FIX 500	658	R532	5135-331522	RES, CBN 1/2P 330
729	VR402	5101-50101930	RES, SEMI FIX 500	651	R535	5135-154522	RES, CBN 1/2P 150K
MISCELLANEOUS				651	R536	5135-154522	RES, CBN 1/2P 150K
921	CW401	4163-S0204351	CONNECTOR W/W	656	R547	5135-473522	RES, CBN 1/2P 47K
923	CW403	4163-0135027	CONNECTOR W/W	656	R548	5135-473522	RES, CBN 1/2P 47K
924	CW404	4163-0135025	CONNECTOR W/W	666	R561	5135-105522	RES, CBN 1/2P 1M
925	CW413	4163-0122024	CONNECTOR W/W	666	R562	5135-105522	RES, CBN 1/2P 1M
926	CW414	4163-0122026	CONNECTOR W/W	667	R563	5135-331522	RES, CBN 1/2P 330
966	JL420	4242-R0103141	JUMPER LEAD	667	R564	5135-331522	RES, CBN 1/2P 330
770	TM415	4214-11013	TERMINAL	736	R565	5135-224522	RES, CBN 1/2P 220K
770	TM415L	4214-11013	TERMINAL	735	R566	5135-104522	RES, CBN 1/2P 100K
770	TM415R	4214-11013	TERMINAL	737	R567	5135-223522	RES, CBN 1/2P 22K
769	TP401	4214-132	TERMINAL	738	R568	5135-153522	RES, CBN 1/2P 15K
769	TP402	4214-132	TERMINAL	739	R571	5135-334522	RES, CBN 1/2P 330K
769	TP403	4214-132	TERMINAL	740	R572	5135-100522	RES, CBN 1/2P 10
769	TP404	4214-132	TERMINAL	740	R573	5135-100522	RES, CBN 1/2P 10
PCB-6 TONE CONTROL P.C. BOARD				665	△R581	5102-1215116	RES, FUSE 120
CAPACITORS				665	△R582	5102-1215116	RES, FUSE 120
631	C501	5345-226C0951	CAP, MINI ELE 22 μ /16V	664	R583	5135-562522	RES, CBN 1/2P 5.6K
631	C502	5345-226C0951	CAP, MINI ELE 22 μ /16V	664	R584	5135-562522	RES, CBN 1/2P 5.6K
629	C503	5345-476C0951	CAP, MINI ELE 47 μ /16V	TRANSISTORS			
629	C504	5345-476C0951	CAP, MINI ELE 47 μ /16V	621	Q501	5613-2320L(F)	XISTOR, NPN R
				621	Q502	5613-2320L(F)	XISTOR, NPN R
				623	Q503	5611-999(F)	XISTOR, PNP R

Ser. No.	Ref. No.	Part No.	Description
623	Q504	5611-999(F)	XISTOR, PNP R
622	Q505	5611-999L(F)	XISTOR, PNP R
622	Q506	5611-999L(F)	XISTOR, PNP R
649	Q561	5616-2SK364BL	FET, N-CH
649	Q562	5616-2SK364BL	FET, N-CH
650	Q563	5611-UN4112	XISTOR, PNP R
650	Q564	5611-UN4112	XISTOR, PNP R
625	Q581	5614-667(C)	XISTOR, NPN A
626	Q582	5612-647(C)	XISTOR, PNP A
DIODES			
627	D581	5635-HZ15-2L	DIODE, ZENER
627	D582	5635-HZ15-2L	DIODE, ZENER
628	D583	5631-1S2473	DIODE, DET
CONTROLS			
900	VR501 /502	5113-S0906503	RES, V CBN 16 50K
894	VR505 /506	5113-S0904104	RES, V CBN 16 100K
897	VR507 /508	5113-S0905503	RES, V CBN 16 50K
MISCELLANEOUS			
942	CN401	4443-0401141	CONNECTOR
933	CW105	4163-S0203301	CONNECTOR W/W
922	CW402	4163-S0202401	CONNECTOR W/W
951	H415	2240-Z031	HOLDER
951	H416A	2240-Z031	HOLDER
951	H417A	2240-Z031	HOLDER
952	H501	2240-Z031	HOLDER
645	LUG3	4211-4	LUG
647	TM416	4214-11013	TERMINAL

PCB-7 VOLUME P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
675	C541	5354-104593	CAP, MYL .1 μ
646	C543	5354-823J1HM	CAP, MYL .082 μ
646	C544	5354-823J1HM	CAP, MYL .082 μ
RESISTORS			
673	R543	5135-273522	RES, CBN 1/2P 27K
673	R544	5135-273522	RES, CBN 1/2P 27K
674	R545	5135-472522	RES, CBN 1/2P 4.7K
674	R546	5135-472522	RES, CBN 1/2P 4.7K
CONTROLS			
891	VR503 /504	6161-00701	VR BLOCK
MISCELLANEOUS			
934	CW504	4163-S0203101	CONNECTOR W/W
953	H416B	2240-Z031	HOLDER
953	H417B	2240-Z031	HOLDER
960	JL419	4242-R0106121	JUMPER LEAD

PCB-8 PRIMARY P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITOR			
787	Δ C1	5352-S010M103	CAP, MTL .01 μ
RESISTORS			
788	Δ R1	5135-335522	RES, CBN 1/2P 3.3M
794	R11	5135-103522	RES, CBN 1/2P 10K
795	R12	5135-332522	RES, CBN 1/2P 3.3K
799	R14	5135-472522	RES, CBN 1/2P 4.7K
796	R15	5135-331522	RES, CBN 1/2P 330
797	R16	5135-221522	RES, CBN 1/2P 220
798	R17	5135-221522	RES, CBN 1/2P 220
TRANSISTORS			
791	Q11	5614-667(C)	XISTOR, NPN A
792	Q12	5613-3311A(R)	XISTOR, NPN R
792	Q13	5613-3311A(R)	XISTOR, NPN R
780	Q14	5613-UN4212	XISTOR, NPN R
DIODES			
793	D11	5631-1S2473	DIODE, DET
793	D12	5631-1S2473	DIODE, DET
793	D13	5631-1S2473	DIODE, DET
793	D16	5631-1S2473	DIODE, DET
MISCELLANEOUS			
784	Δ FH1	4472-04501	HOLDER, FUSE
784	Δ FH2	4472-04501	HOLDER, FUSE

Ser. No.	Ref. No.	Part No.	Description
961	JL11	4242-R0404351	JUMPER LEAD
962	JL12	4242-R0406651	JUMPER LEAD
789	Δ RY1	4331-01702	RELAY, DC
916	Δ SO1	4474-02901	SOCKET
790	TM1	4214-122	TERMINAL
790	TM2	4214-122	TERMINAL
790	TM3	4214-122	TERMINAL
790	TM4	4214-122	TERMINAL

PCB-9 SECONDRY P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
511	C51	5345-228D045	CAP, MINI ELE 2200 μ /25V
514	C54	5361-473ZF	CAP, CER .047 μ
514	C55	5361-473ZF	CAP, CER .047 μ
DIODE			
505	Δ D51	5685-S1VB10	SILICON, BRIG
MISCELLANEOUS			
932	CW102	4163-S0202751	CONNECTOR W/W
930	CW408	4163-0125025	CONNECTOR W/W
927	CW409	4163-0125027	CONNECTOR W/W
536	Δ FH3	4472-04501	HOLDER, FUSE
537	Δ FH4	4472-04501	HOLDER, FUSE
783	S2	4421-02001022	SWITCH, SLIDE

PCB-10 HEADPHONE P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
RESISTORS			
732	R461	5135-102522	RES, CBN 1/2P 1K
732	R462	5135-102522	RES, CBN 1/2P 1K
732	R463	5135-102522	RES, CBN 1/2P 1K
732	R464	5135-102522	RES, CBN 1/2P 1K

MISCELLANEOUS

956	CN418	4443-030185	CONNECTOR
954	H104	2240-Z031	HOLDER
911	Δ J1	4451-51501	JACK, 1P
908	S4	4431-A027610	SWITCH, PUSH

PCB-11 SPEAKER SWITCH P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
MISCELLANEOUS			
955	H418	2240-Z031	HOLDER
965	JL401	4242-044005	JUMPER LEAD
903	S3	4411-00305103	SWITCH, ROTARY

PCB-12 SPEAKER TERMINAL P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
MISCELLANEOUS			
915	Δ TM402	4214-165	TERMINAL

PCB-13 TRANS TERMINAL P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
MISCELLANEOUS			
943	CN100	4443-0201141	CONNECTOR
929	CW410	4163-0125024	CONNECTOR W/W

PCB-14 FRONT P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
487	C708	5361-223Z921	CAP, CER .022 μ
488	C709	5345-476D041	CAP, MINI ELE 47 μ /25V
462	C711	5361-300JCH	CAP, CER 30p
462	C712	5361-300JCH	CAP, CER 30p
457	C713	5345-225F041	CAP, MINI ELE 2.2 μ /50V
RESISTORS			
491	R719	5232-104J16P	RES, CBN 1/6P 100K
492	R721	5232-472J16P	RES, CBN 1/6P 4.7K
475	R722	5232-222J16P	RES, CBN 1/6P 2.2K
475	R725	5232-222J16P	RES, CBN 1/6P 2.2K
491	R735	5232-104J16P	RES, CBN 1/6P 100K
490	R754	5232-102J16P	RES, CBN 1/6P 1K
490	R755	5232-102J16P	RES, CBN 1/6P 1K
490	R756	5232-102J16P	RES, CBN 1/6P 1K
490	R757	5232-102J16P	RES, CBN 1/6P 1K
490	R758	5232-102J16P	RES, CBN 1/6P 1K
490	R759	5232-102J16P	RES, CBN 1/6P 1K

Ser. No.	Ref. No.	Part No.	Description
490	R760	5232-102J16P	RES, CBN 1/6P 1K
489	R767	5232-473J16P	RES, CBN 1/6P 47K
859	R801	5135-681522	RES, CBN 1/2P 680
859	R802	5135-681522	RES, CBN 1/2P 680
859	R803	5135-681522	RES, CBN 1/2P 680
859	R804	5135-681522	RES, CBN 1/2P 680
858	R805	5135-102522	RES, CBN 1/2P 1K
858	R806	5135-102522	RES, CBN 1/2P 1K
857	R808	5135-472522	RES, CBN 1/2P 4.7K
857	R809	5135-472522	RES, CBN 1/2P 4.7K
857	R830	5135-472522	RES, CBN 1/2P 4.7K
848	R838	5232-471J16P	RES, CBN 1/6P 470
858	R839	5135-102522	RES, CBN 1/2P 1K
INTEGRATED CIRCUIT			
441	IC701	5654-T9301-20	IC, DIGITAL
TRANSISTORS			
852	Q801	5611-1309A(R)	XISTOR, PNP R
852	Q802	5611-1309A(R)	XISTOR, PNP R
851	Q809	5613-3311A(R)	XISTOR, NPN R
DIODES			
451	D701	5631-1S2473	DIODE, DET
451	D702	5631-1S2473	DIODE, DET
451	D703	5631-1S2473	DIODE, DET
451	D704	5631-1S2473	DIODE, DET
451	D705	5631-1S2473	DIODE, DET
451	D706	5631-1S2473	DIODE, DET
451	D707	5631-1S2473	DIODE, DET
451	D708	5631-1S2473	DIODE, DET
451	D709	5631-1S2473	DIODE, DET
451	D710	5631-1S2473	DIODE, DET
451	D711	5631-1S2473	DIODE, DET
485	D713	5631-1SS133	DIODE, DET
854	D721	5631-1SS133	DIODE, DET
854	D723	5631-1SS133	DIODE, DET
854	D725	5631-1SS133	DIODE, DET
854	D727	5631-1SS133	DIODE, DET
837	D822	5631-1SS133	DIODE, DET
837	D823	5631-1SS133	DIODE, DET
837	D824	5631-1SS133	DIODE, DET
837	D825	5631-1SS133	DIODE, DET
839	D830	5631-1S2473	DIODE, DET
853	D831	5637-S2410E1	LED
853	D832	5637-S2410E1	LED
853	D833	5637-S2410E1	LED
853	D834	5637-S2410E1	LED
846	D835	5637-S2210S1	LED
846	D836	5637-S2210S1	LED
MISCELLANEOUS			
463	CC701	5213-S0207221	C COMPOSITE
540	CN101B	4443-05401019	CONNECTOR
860	CN804A	4443-05501013	CONNECTOR
931	CW100	4163-S0202401	CONNECTOR W/W
531	FL701	5722-057	TUBE DISPLAY
554	LUG4	4211-4	LUG
555	△RCV1	6143-00802	RECEIV BLOCK
534	S11	4437-00603	SWITCH, PU-TC
534	S12	4437-00603	SWITCH, PU-TC
534	S13	4437-00603	SWITCH, PU-TC
534	S14	4437-00603	SWITCH, PU-TC
534	S15	4437-00603	SWITCH, PU-TC
534	S16	4437-00603	SWITCH, PU-TC
534	S17	4437-00603	SWITCH, PU-TC
534	S18	4437-00603	SWITCH, PU-TC
533	S19	4437-00604	SWITCH, PU-TC
533	S20	4437-00604	SWITCH, PU-TC
533	S21	4437-00604	SWITCH, PU-TC
533	S22	4437-00604	SWITCH, PU-TC
533	S23	4437-00604	SWITCH, PU-TC
534	S24	4437-00603	SWITCH, PU-TC
534	S25	4437-00603	SWITCH, PU-TC
855	S31	4437-00604	SWITCH, PU-TC
855	S32	4437-00604	SWITCH, PU-TC
855	S33	4437-00604	SWITCH, PU-TC
855	S34	4437-00604	SWITCH, PU-TC

Ser. No.	Ref. No.	Part No.	Description
855	S35	4437-00604	SWITCH, PU-TC
855	S36	4437-00604	SWITCH, PU-TC
449	X701	5691-00720027	XTAL, OSC

PCB-15 POWER SWITCH P.C. BOARD

MISCELLANEOUS

944	CN11	4443-040185	CONNECTOR
964	JL13	4242-R0103101	JUMPER LEAD
906	S1	4431-A027610	SWITCH, PUSH

PCB-16 VOLUME INDICATOR P.C. BOARD

DIODE

889	D15	5637-S2410E1	LED
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MISCELLANEOUS

948	CW15	4163-01524002	CONNECTOR W/W
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PCB-17 POWER INDICATOR P.C. BOARD

DIODE

888	D14	5637-GL3ED8	LED
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ABBREVIATIONS IN PARTS LIST

CAPACITORS

CAP, MINI ELE	: Electrolytic
CAP, CER	: Ceramic
CAP, PPP	: Polypropylene
CAP, MYL	: Mylar
CAP, MCA	: Mica
CAP, MINI BP	: Bipolar
CAP, ELE BP	: Electrolytic Bipolar
CAP, STY	: Polystyrene Film
CAP, SPE	: Special
CAP, TAN	: Tantalum
470 μ	: 470 μ F
6800p	: 6800pF
.047 μ	: 0.047 μ F

RESISTORS

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

TRANSISTORS

XISTOR	: Transistor
FET	: Field Effect Transistor

CONTROLS

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

CHASSIS MISCELLANEOUS

786	△F1	5732-252031	FUSE
535	△F2	5732-162031	FUSE
543	JL101	4242-S0319131	JUMPER LEAD
868	JL804	4242-S0313151	JUMPER LEAD
381	L251	5911-266	ANT COIL, BC
917	△P1	4161-71151	CORD W/PLUG
771	△T1	5584-S9001	XFORMER, POWER

PACKAGE PARTS LIST

111	1221-28013	CARTON BOX
111	1221-28014	CARTON BOX BK
112	1222-7362	CUSHION
113	1222-7365	CUSHION
116	1223-R0120055	SOFT SHEET
117	1241-R0123350	POLYETHY BAG, OWNER GUIDE
118	1241-R0160600	POLYETHY BAG, SET
119	1111-J30337	OWNER GUIDE
120	1113-717004	OWNER CARD
121	1119-047	ATTACH SHEET, WARRANTY
122	1119-01201	ATTACH SHEET, UL SAFETY
123	1119-0137	ATTACH SHEET, SERVICE AGENCIES
548	1397-6	T FEEDER ANT
890	6142-02704	REMOTE CONTROL

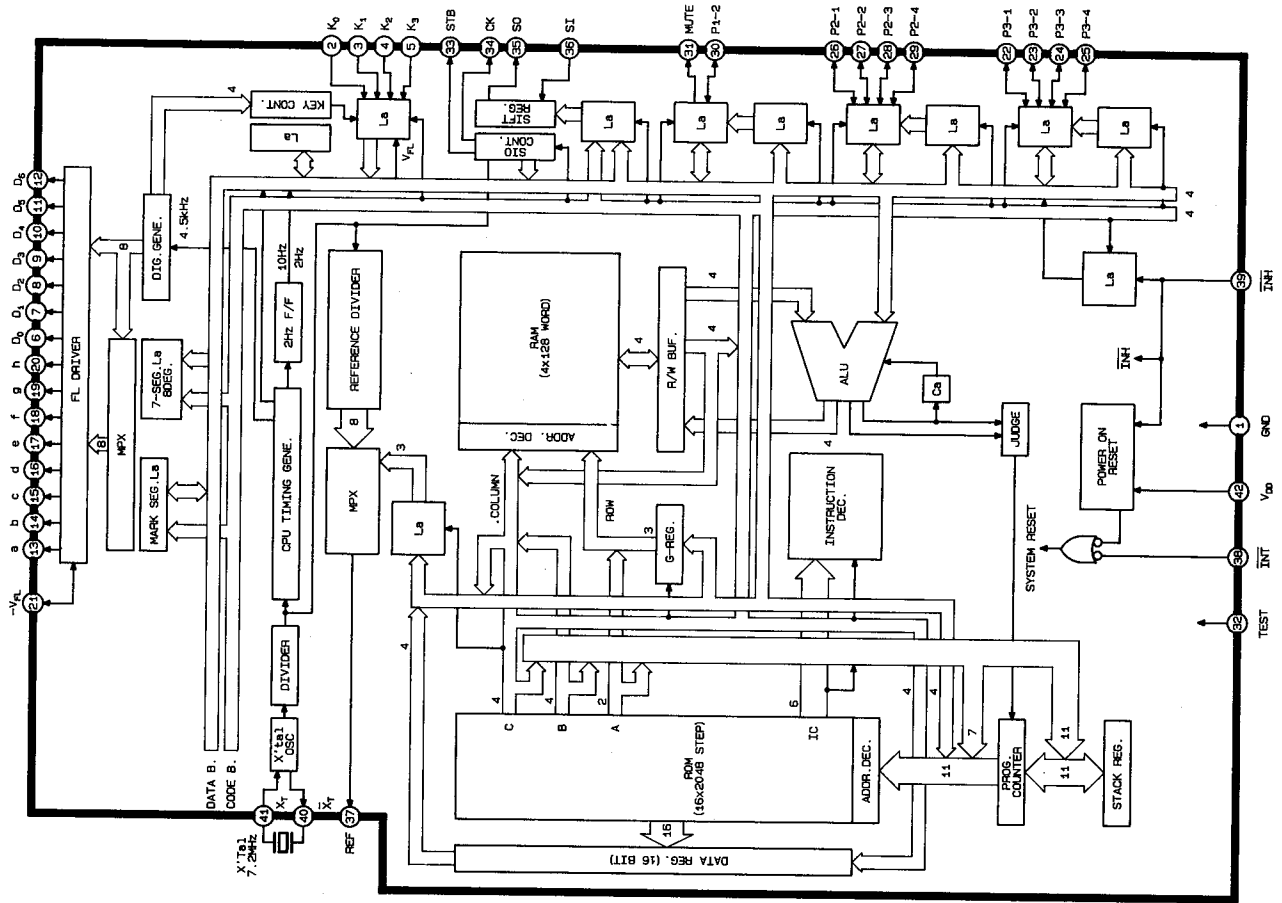
NOTE



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

IC BLOCK DIAGRAM / IC TERMINAL FUNCTIONS

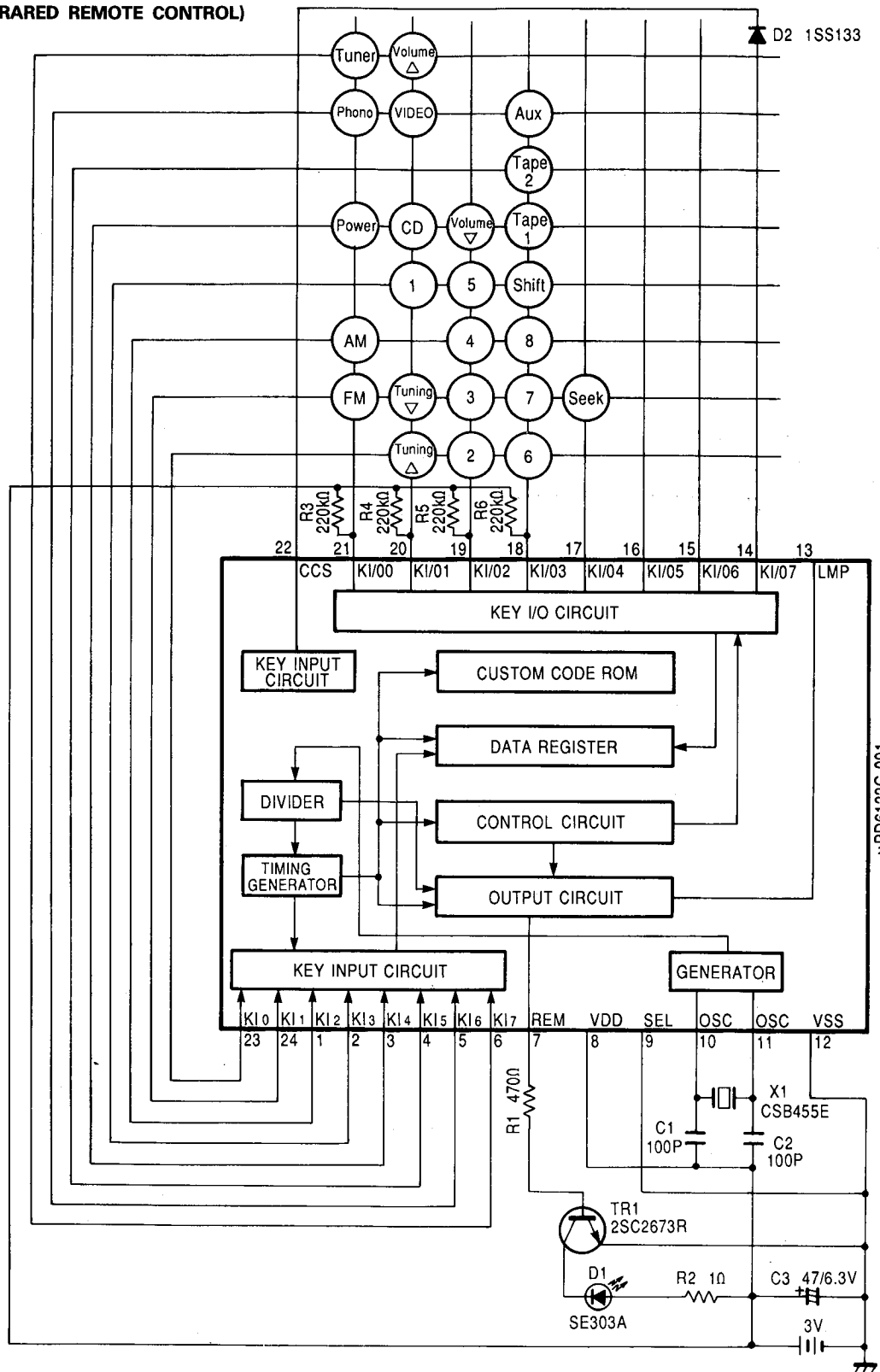
IC701 : TC9301AN-020 Micro Computer



Pin No.	Pin Name	I/O	Function
1	GND	—	GND pin
2	K0	I	4-bit key input port
3	K1	I	4-bit key input port
4	K2	I	4-bit key input port
5	K3	I	4-bit key input port
6	D0	O	Digit output
7	D1	O	Digit output
8	D2	O	Digit output
9	D3	O	Digit output
10	D4	O	Digit output
11	D5	O	Digit output
12	D6	O	Digit output
13	a	O	Segment output
14	b	O	Segment output
15	c	O	Segment output
16	d	O	Segment output
17	e	O	Segment output
18	f	O	Segment output
19	g	O	Segment output
20	h	O	Segment output
21	-VFL	I	Negative power terminal (4-bit key input port, digit output, segment output)

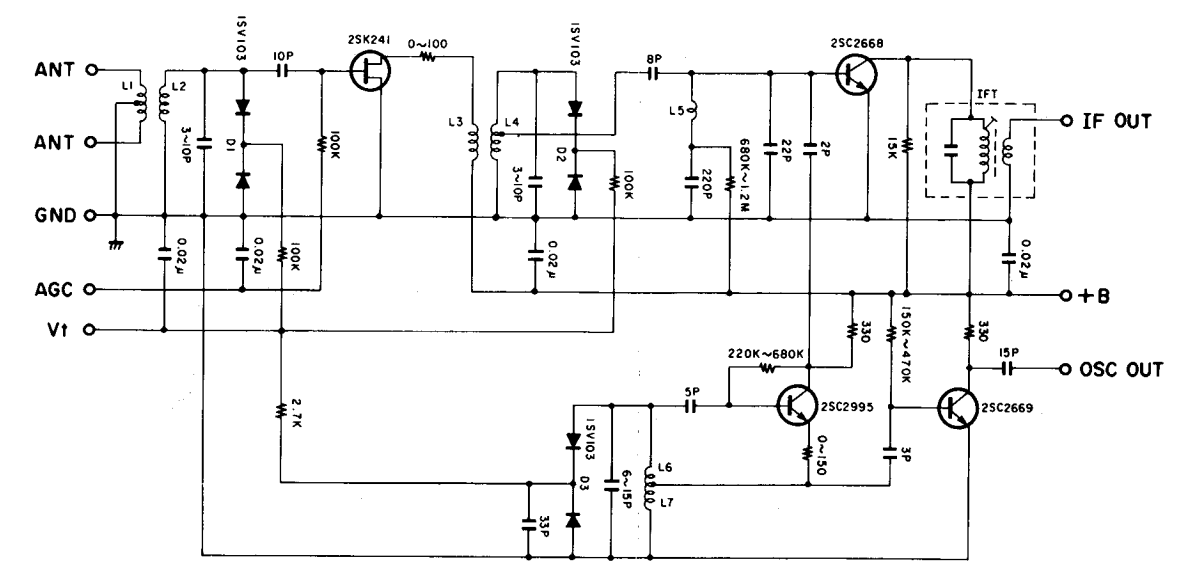
Pin No.	Pin Name	I/O	Function
22	P3-1	I/O	4-bit I/O port (3)
23	P3-2	I/O	4-bit I/O port (3)
24	P3-3	I/O	4-bit I/O port (3)
25	P3-4	I/O	4-bit I/O port (3)
26	P2-1	I/O	4-bit I/O port (2)
27	P2-2	I/O	4-bit I/O port (2)
28	P2-3	I/O	4-bit I/O port (2)
29	P2-4	I/O	4-bit I/O port (2)
30	P1-2	I/O	1-bit I/O port (1)
31	MUTE	O	1-bit muting signal output port
32	TEST	I	Test mode control input terminal
33	STB	O	Serial interface (stroke pulse output)
34	CK	O	Serial interface (serial clock output)
35	SO	O	Serial interface (serial data output)
36	SI	I	Serial interface (serial data input)
37	REF	O	Reference frequency signal output terminal
38	INT	I	Initialize input (system reset signal input terminal)
39	INH	I	Inhibit input (select signal input port of radio mode)
40	XT	—	Connect quartz oscillator
41	XT	—	Connect quartz oscillator
42	VDD	I	Power supply terminal

SCHEMATIC DIAGRAM
(INFRARED REMOTE CONTROL)

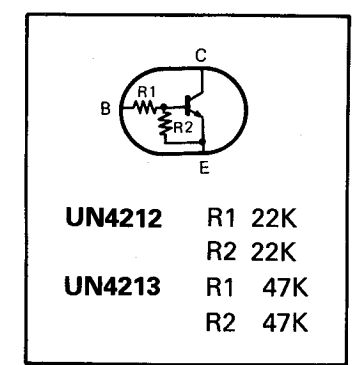
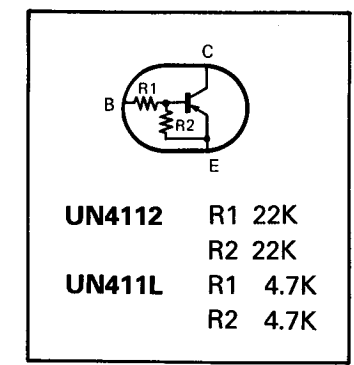


NOTE: Infrared Remote Control parts not available.
Schematic diagram supplied for reference only.

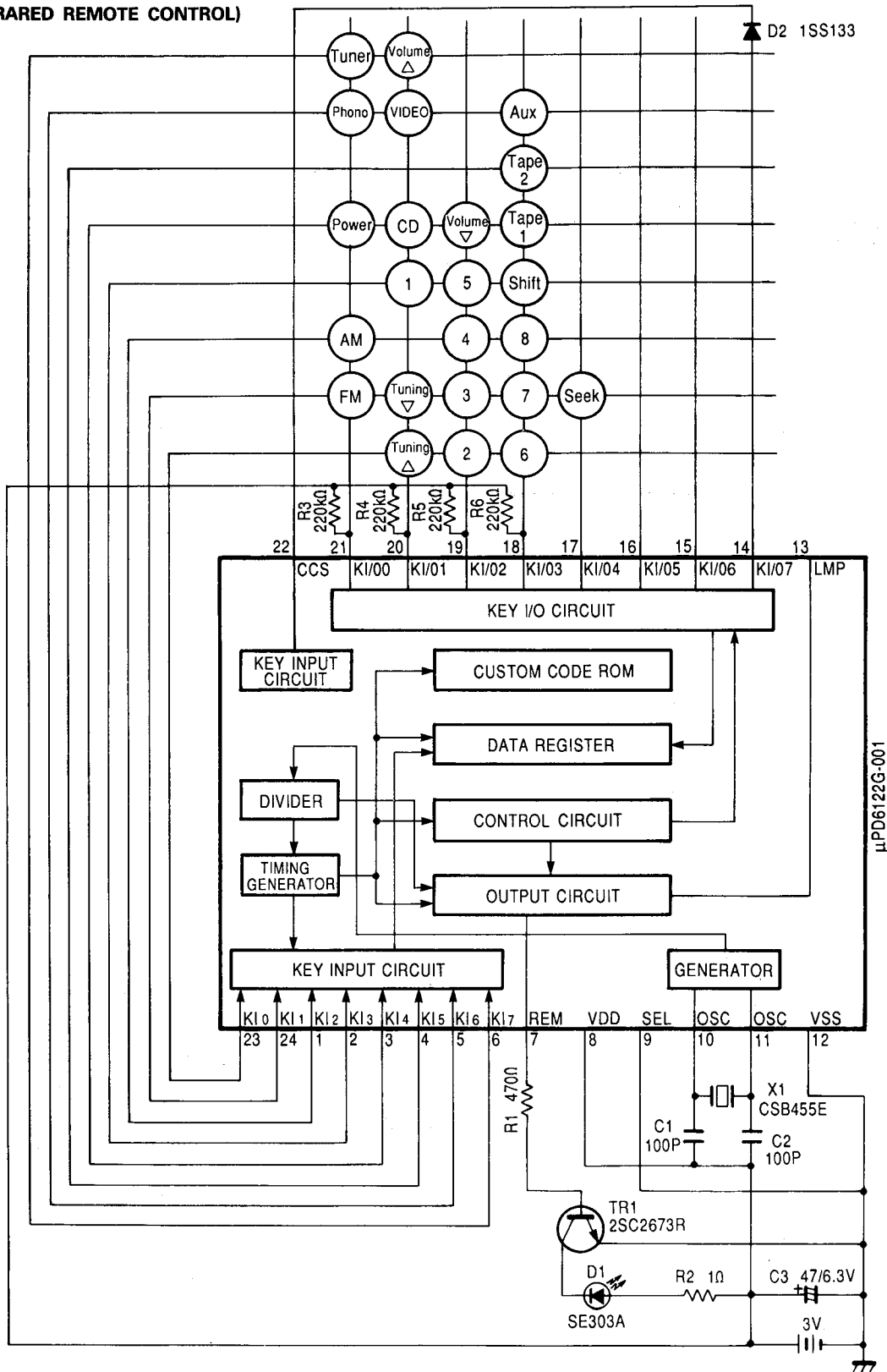
(FM TUNER PACK SECTION)



NOTE: Front End parts not available.
Schematic diagram supplied for reference only.



**SCHEMATIC DIAGRAM
(INFRARED REMOTE CONTROL)**

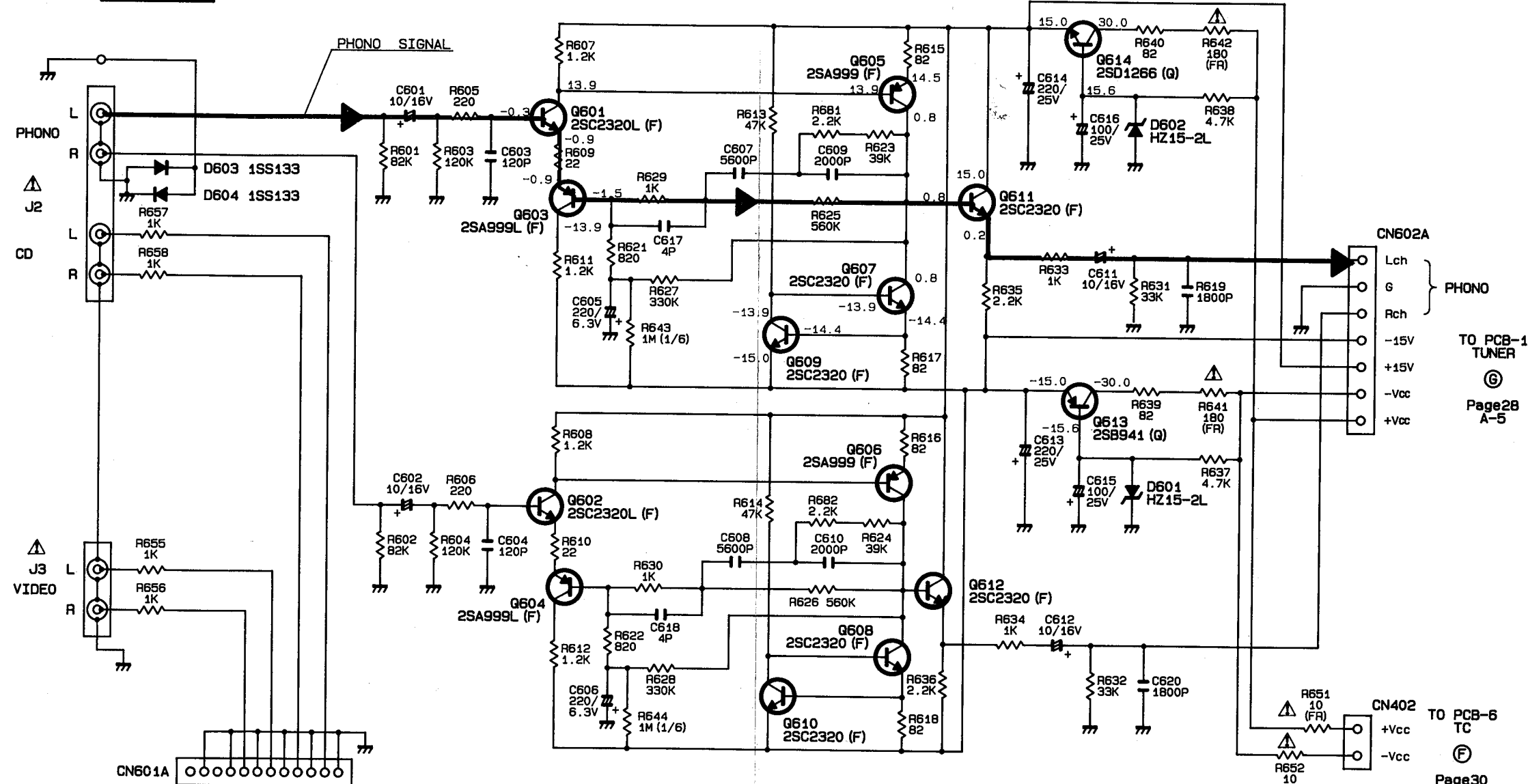


**NOTE: Infrared Remote Control parts not available.
Schematic diagram supplied for reference only.**

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SCHEMATIC DIAGRAM

PCB-2 EQ



NOTE:
 1. ALL RESISTANCES VALUES ARE IN Ω .
 $K\Omega=1000\Omega$, $M\Omega=1000K\Omega$.
 2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
 3. ALL CAPACITANCES VALUES ARE IN μF UNLESS OTHERWISE NOTED. $P=\mu\mu F$.
 4. ...V: DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
 5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS, THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

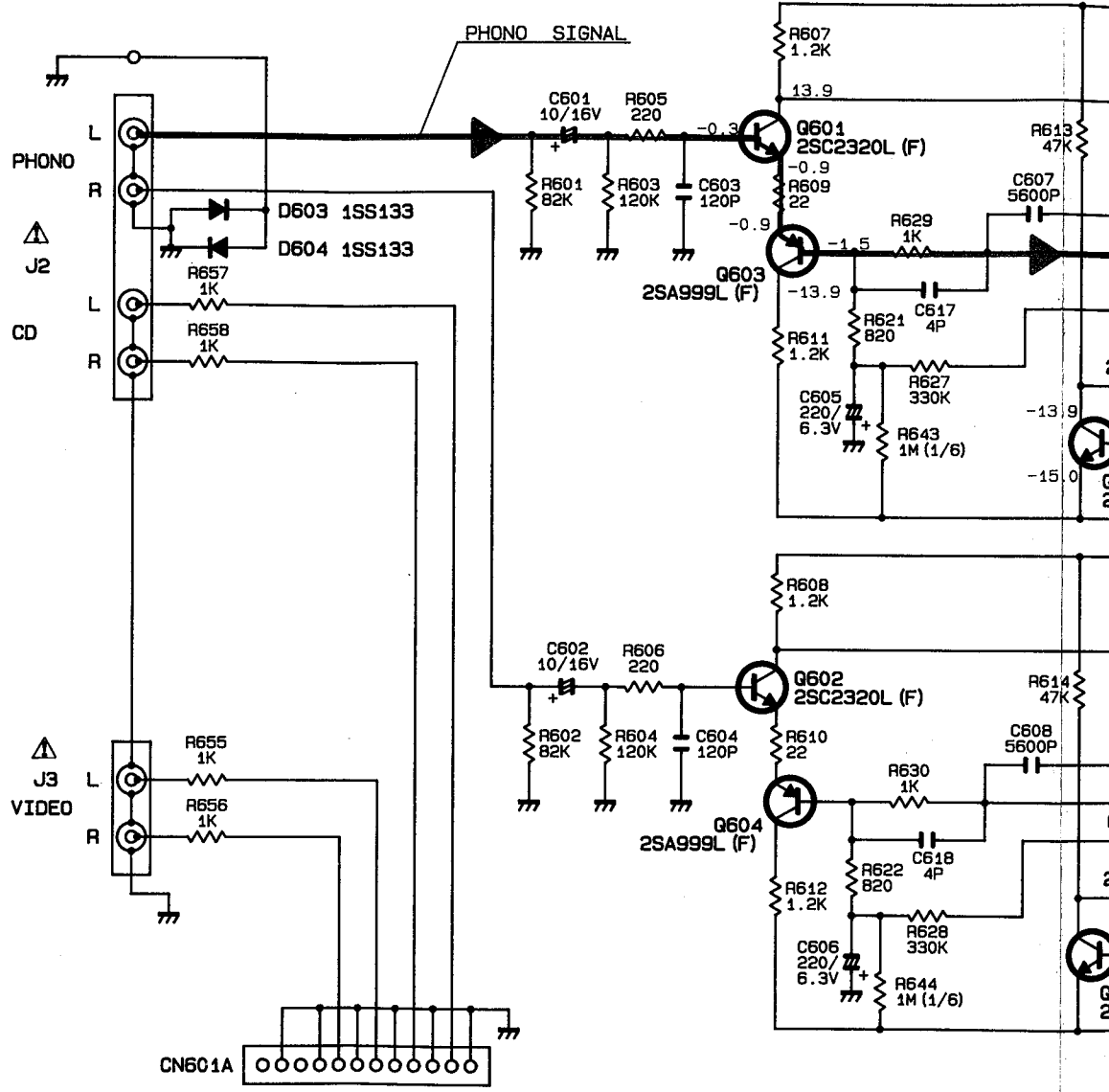
TO PCB-1
 TUNER
 (H)
 Page28
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TO PCB-1
 TUNER
 (G)
 Page28
 A-5

TO PCB-6
 TC
 (F)
 Page30
 D-1

SCHMATIC DIAGRAM

PCB-2 EQ

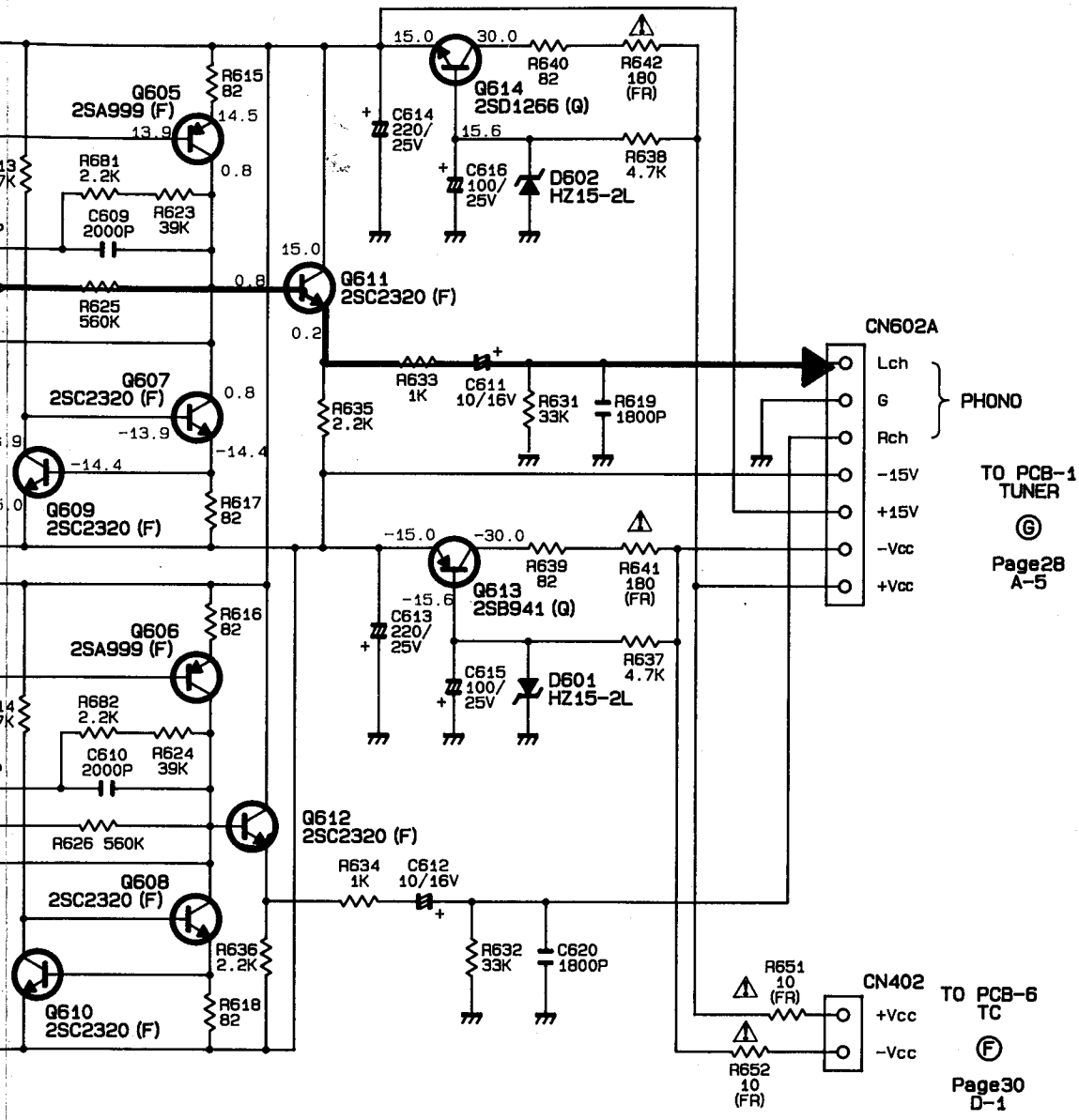


NOTE:
 1. ALL RESISTANCES VALUES ARE IN Ω ,
 $K\Omega=1000\Omega$, $M\Omega=1000K\Omega$.
 2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS
 3. ALL CAPACITANCES VALUES ARE IN μF UNLESS
 4. ... V: DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE
 5. SAFETY REQUIREMENTS COMPONENTS IN
 SAFETY REGULATIONS, THESE COMPONENTS
 BY ORIGINAL PARTS.

TO PCB-1
TUNER



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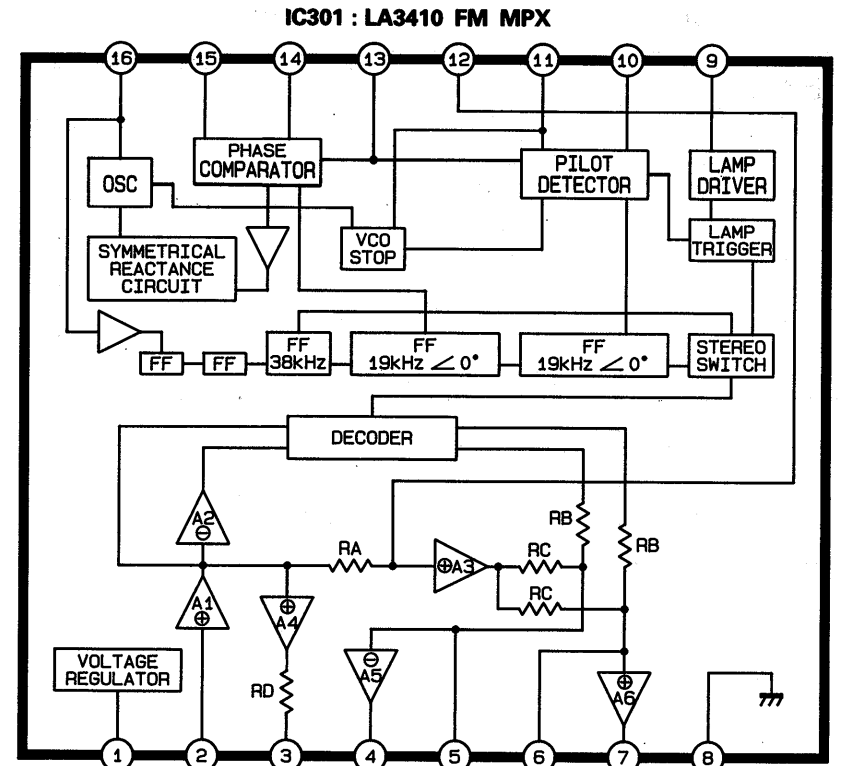
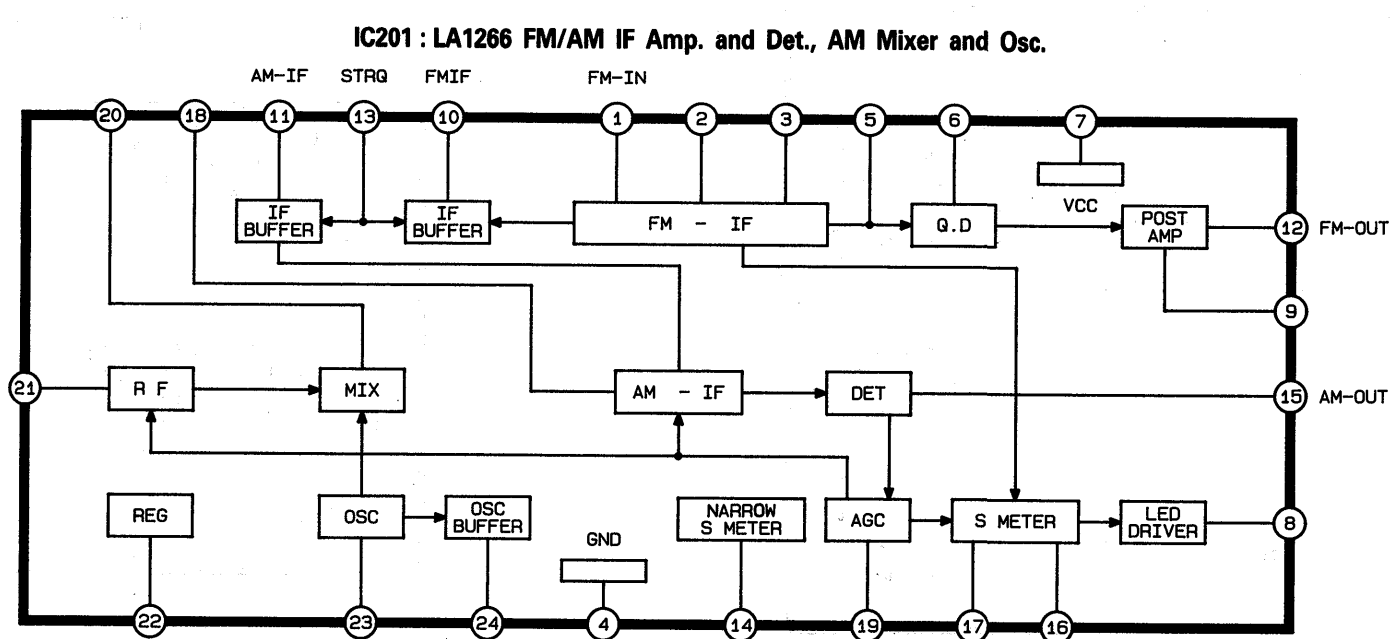
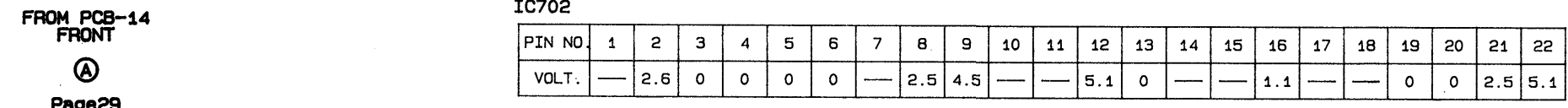
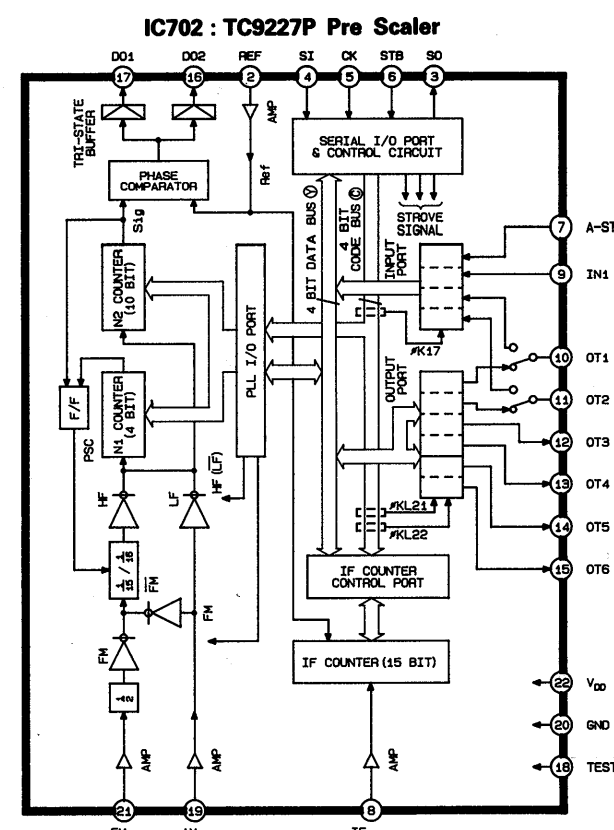
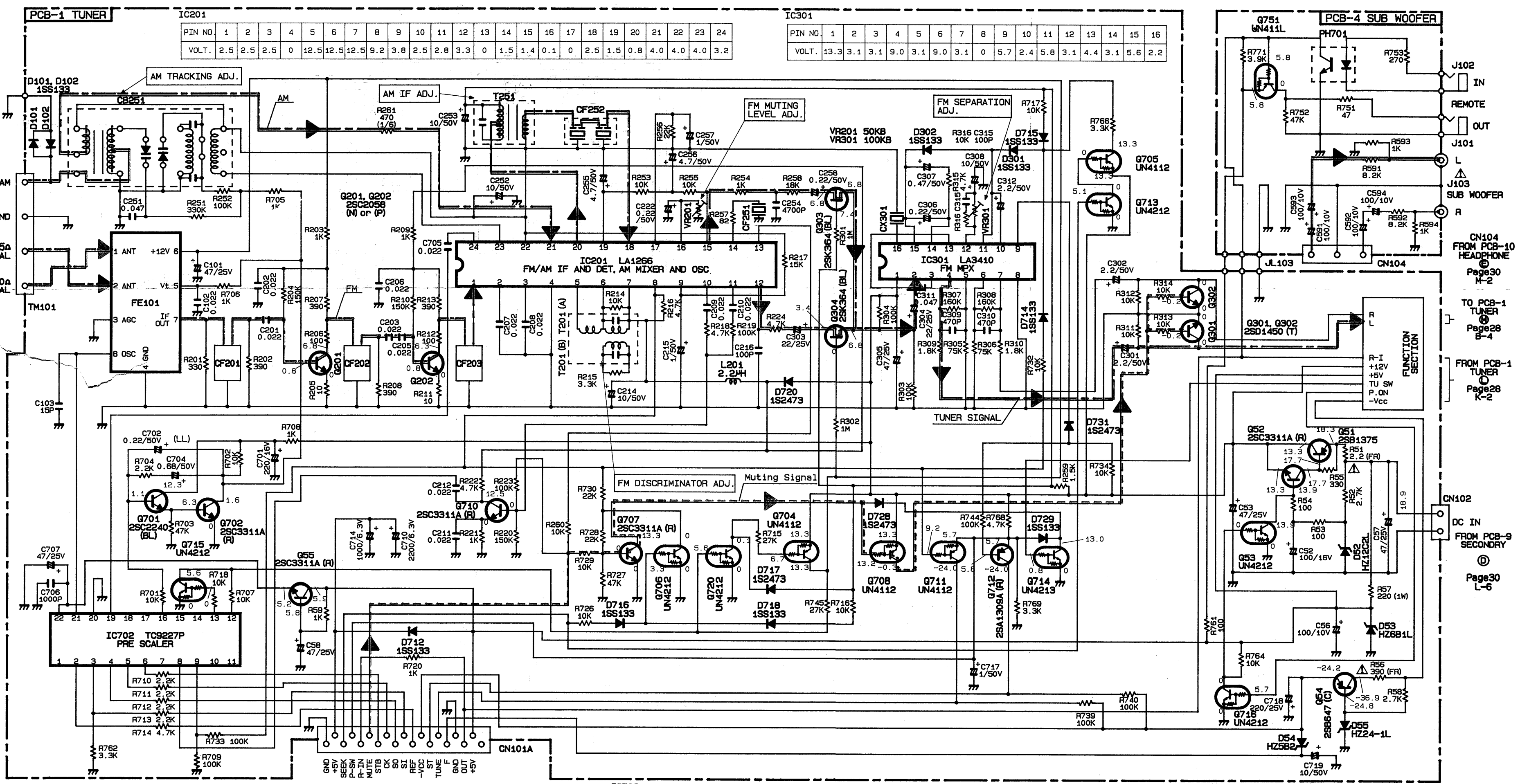


TO PCB-1
TUNER
Ⓞ
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TO PCB-6
TC
Ⓞ
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D-1

UNLESS OTHERWISE NOTED.
UNLESS OTHERWISE NOTED, P=μF.
UNLESS OTHERWISE NOTED.
IN ACCORDANCE WITH PRESENT
COMPONENTS MUST ONLY BE REPLACED

SCHEMATIC DIAGRAM



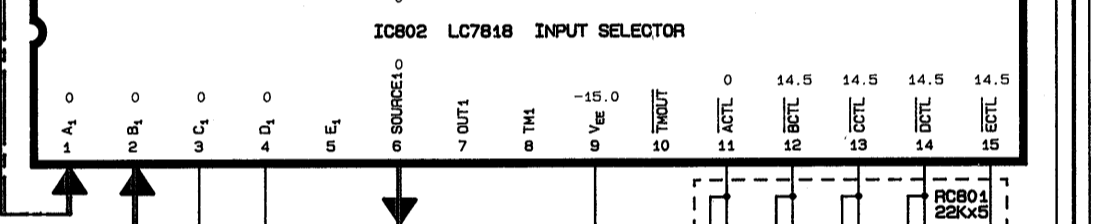
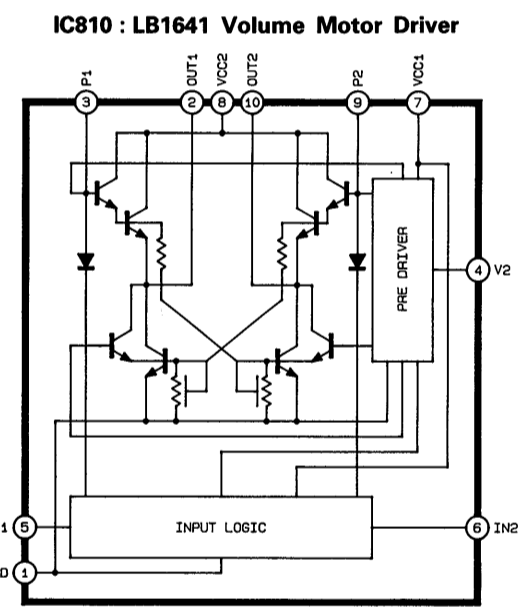
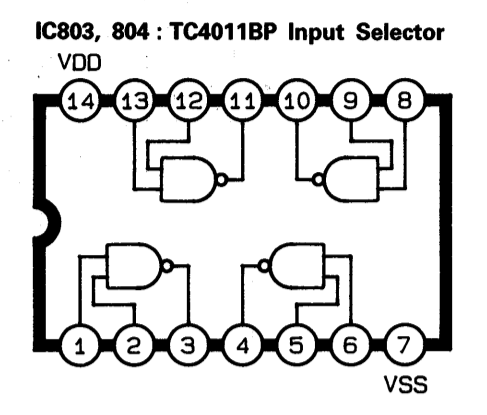
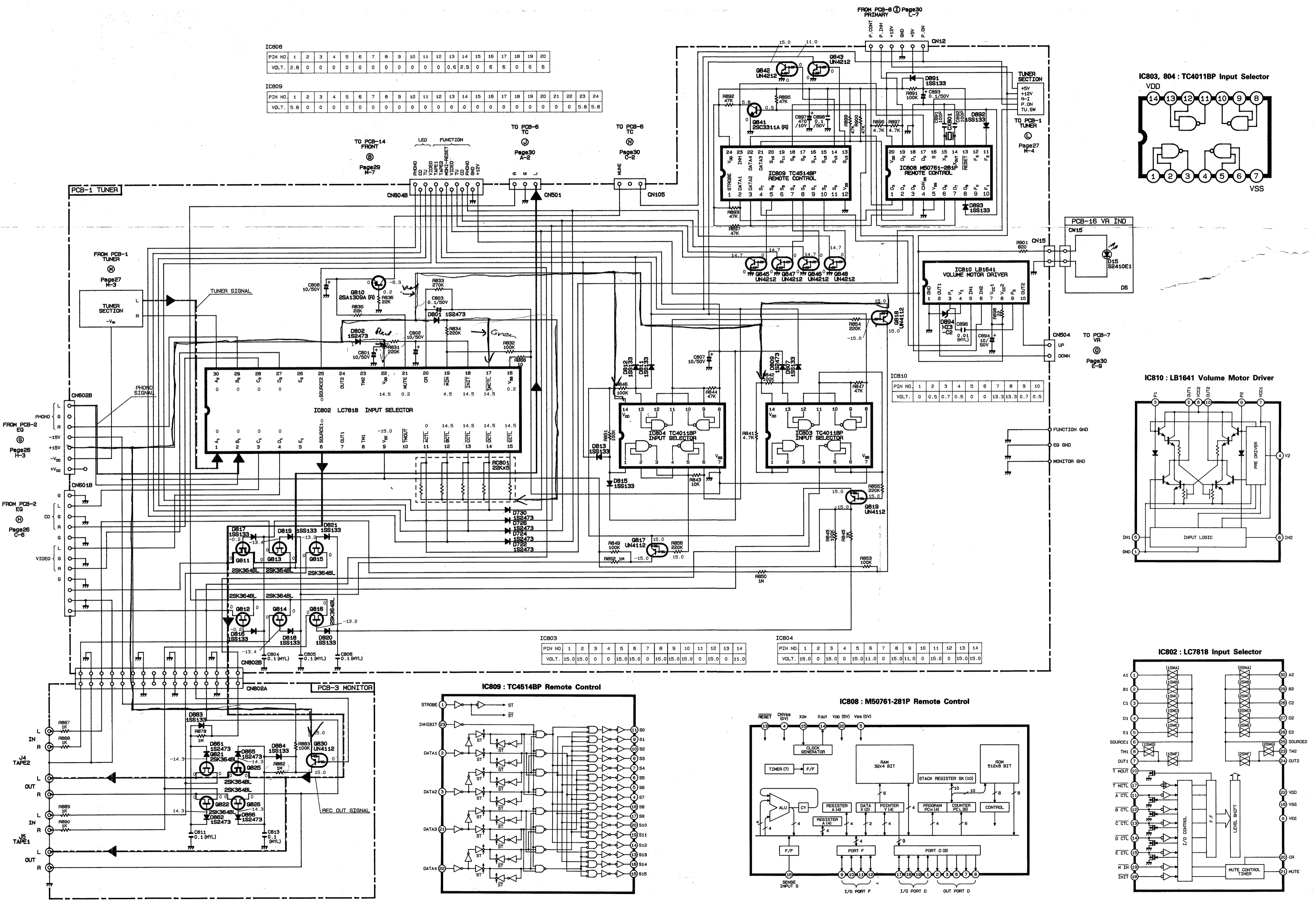
SCHEMATIC DIAGRAM

IC808

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VOLT.	2.8	0	0	0	0	0	0	0	0	0	0	0.6	2.9	0	6	6	0	6	6	0	6

IC809

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
VOLT.	5.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5.8	5.8	

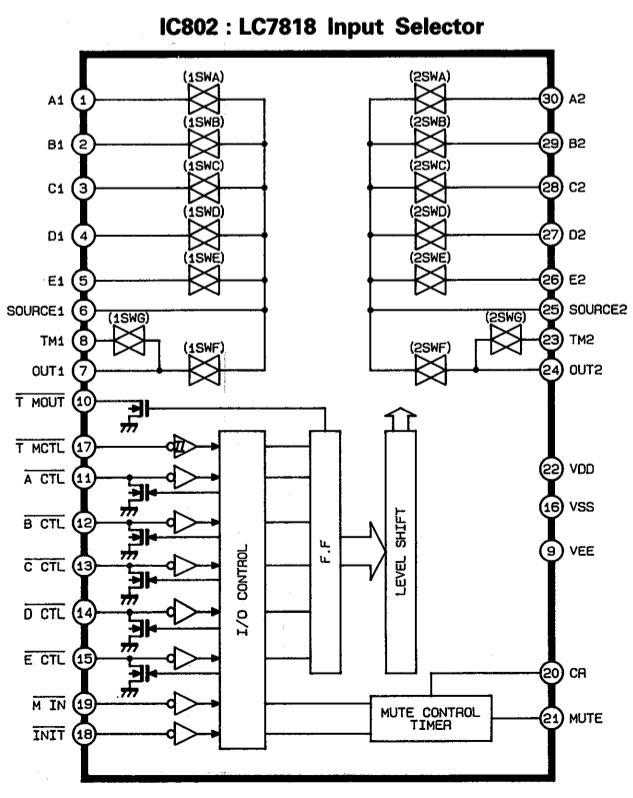
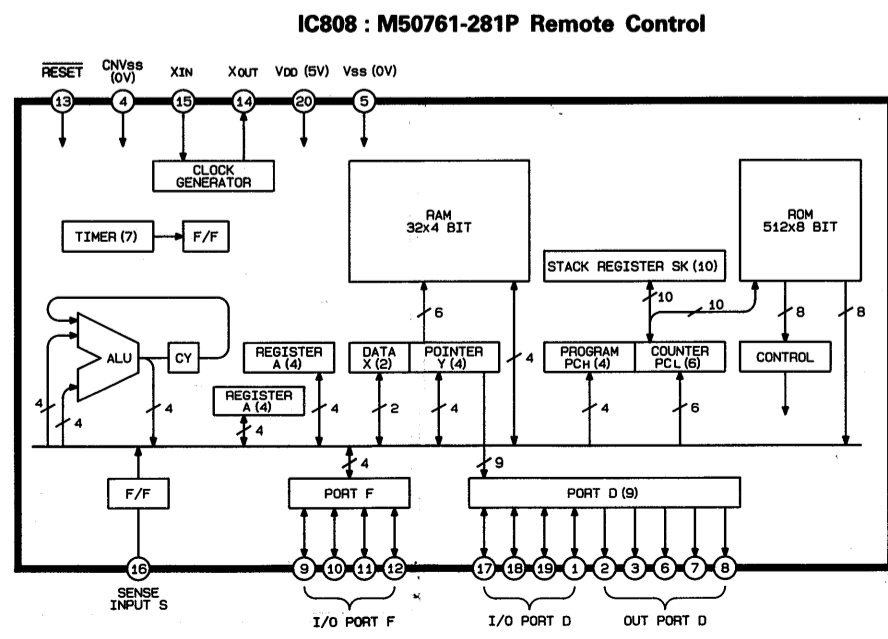
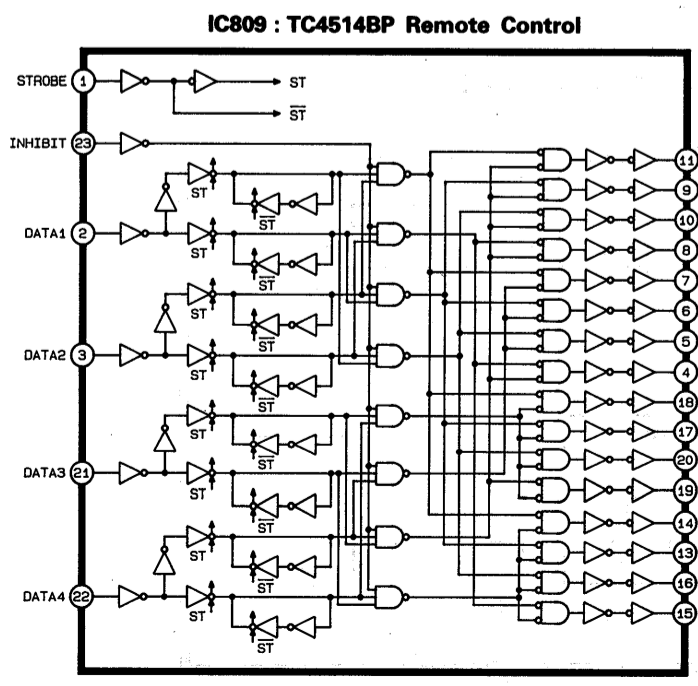


IC803

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	15.0	0	0	15.0	15.0	0	15.0	15.0	15.0	0	15.0	0	11.0

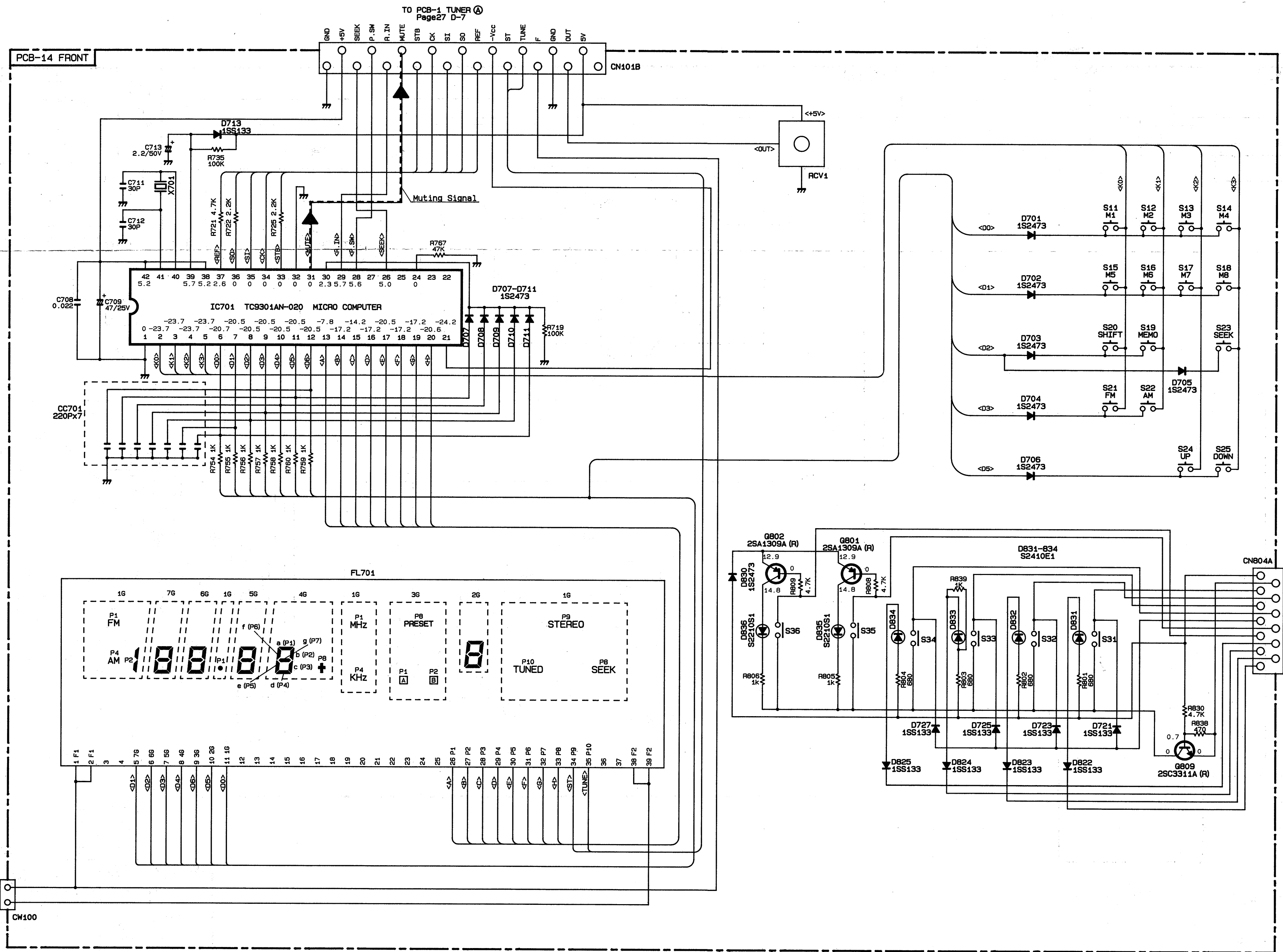
IC804

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	0	15.0	0	15.0	11.0	0	15.0	11.0	0	15.0	0	15.0	15.0



A B C D E F G H I J K L M N

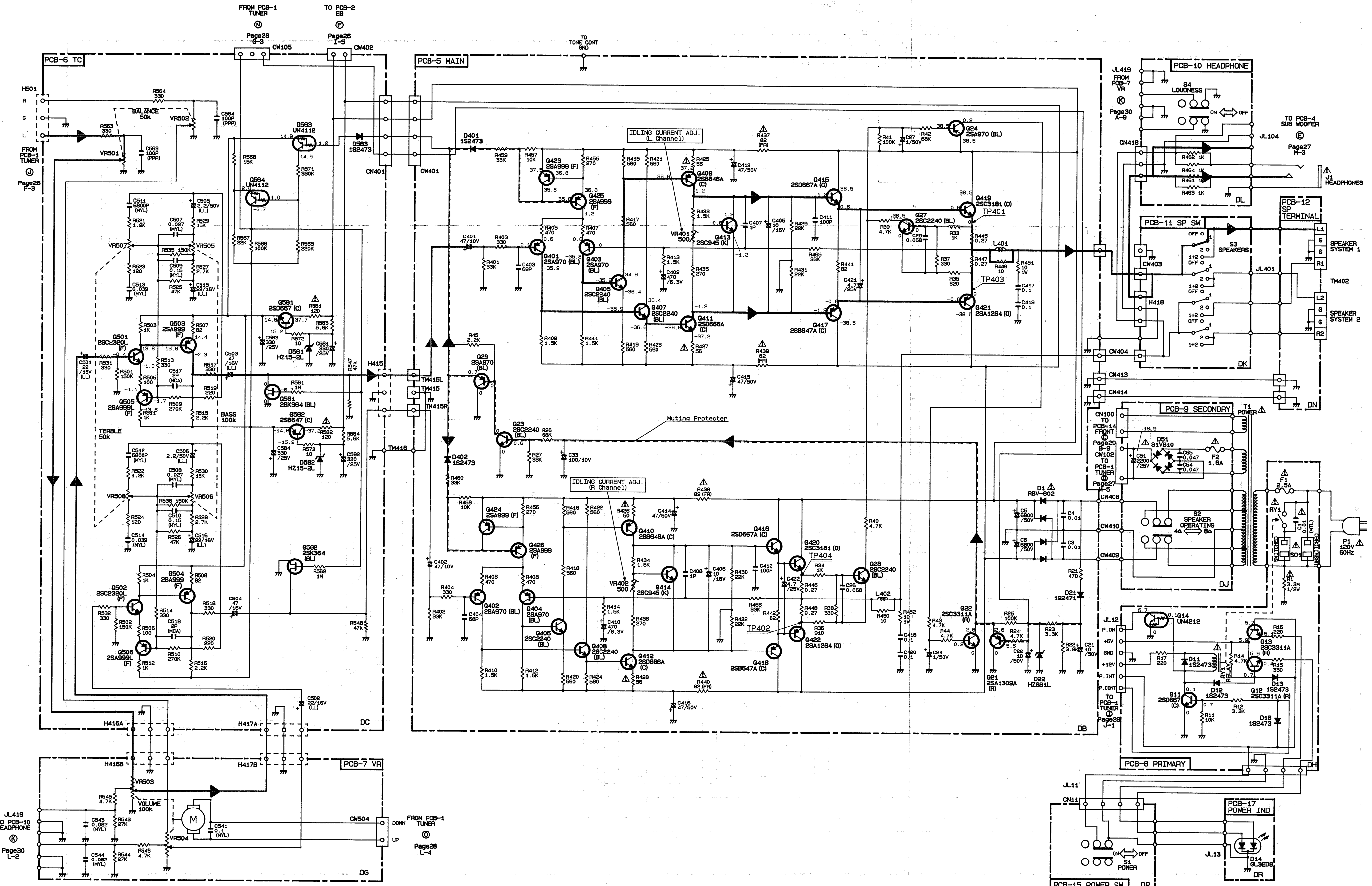
SCHEMATIC DIAGRAM



FROM PCB-9 SECONDARY
©
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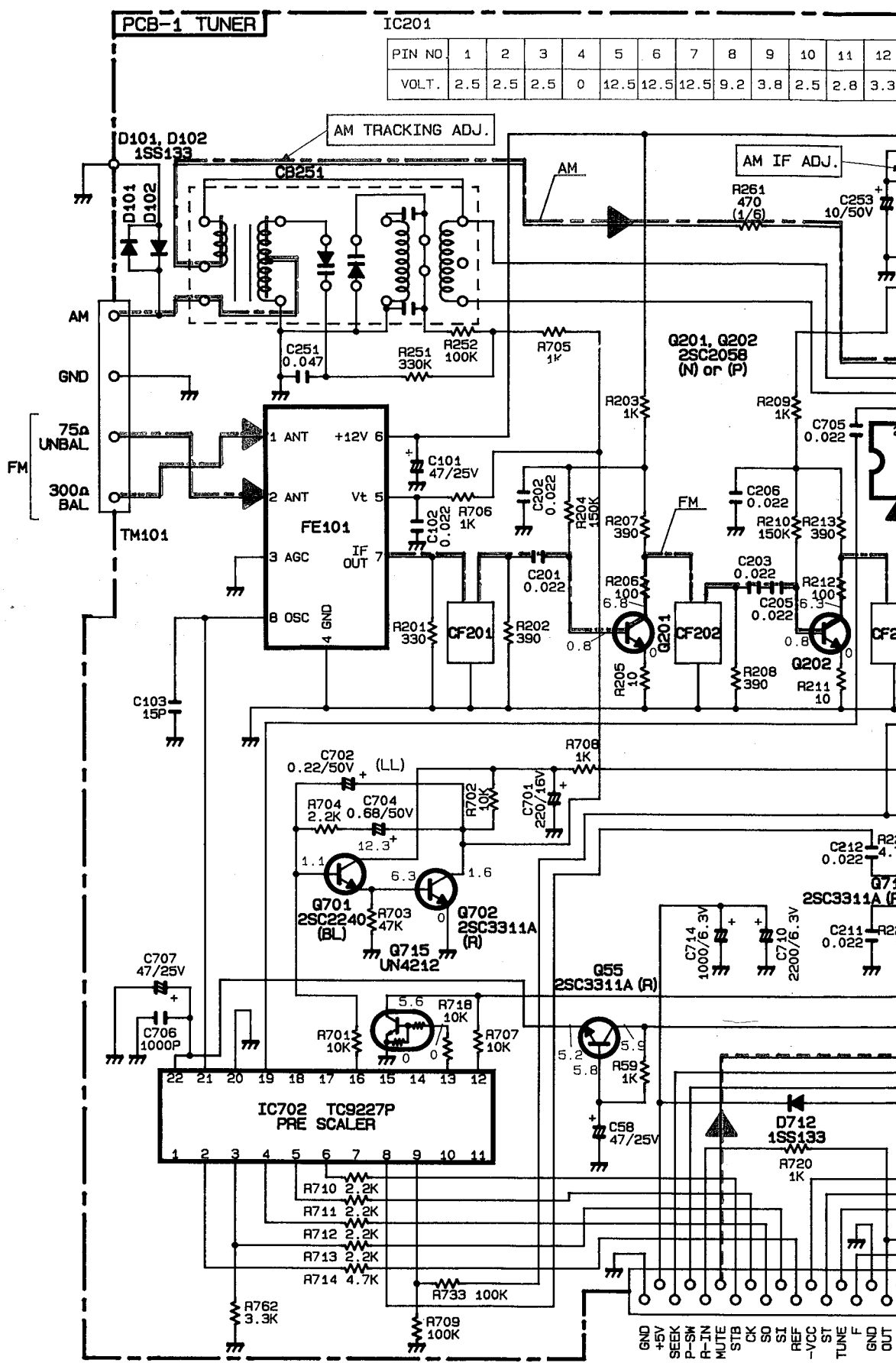
+15V
GND
PHONO
CD
TU
VIDEO
MONI-RESET
TAPE2
VIDEO
TU
CD
PHONO
LED
FROM PCB-1 TUNER
©
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SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM

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IC201

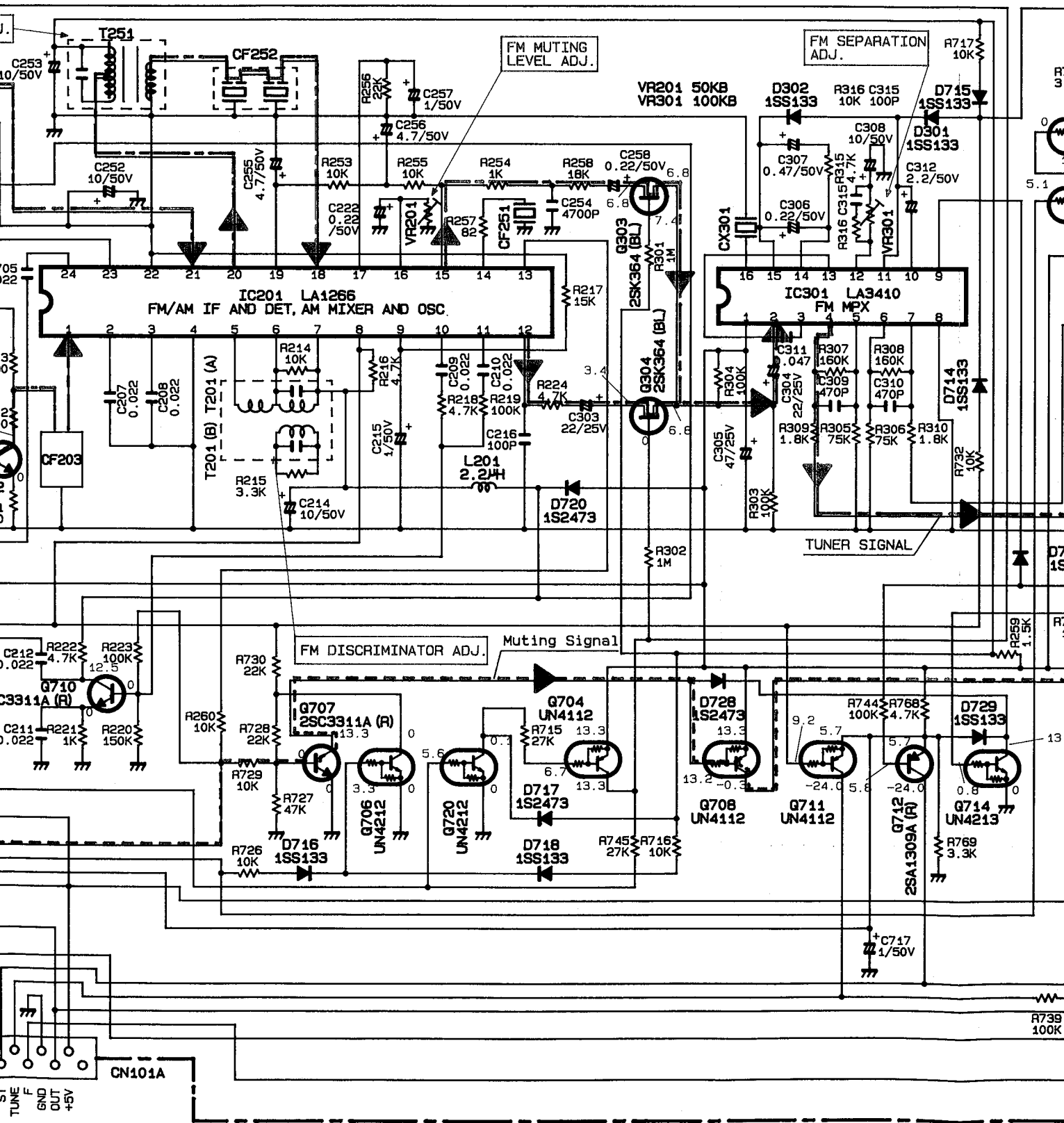
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12
VOLT.	2.5	2.5	2.5	0	12.5	12.5	12.5	9.2	3.8	2.5	2.8	3.3

IC702 : TC9227P Pre Scaler

11	12	13	14	15	16	17	18	19	20	21	22	23	24
2.8	3.3	0	1.5	1.4	0.1	0	2.5	1.5	0.8	4.0	4.0	4.0	3.2

IC301

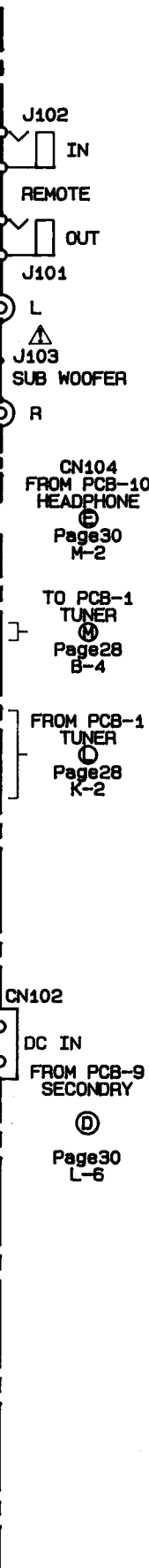
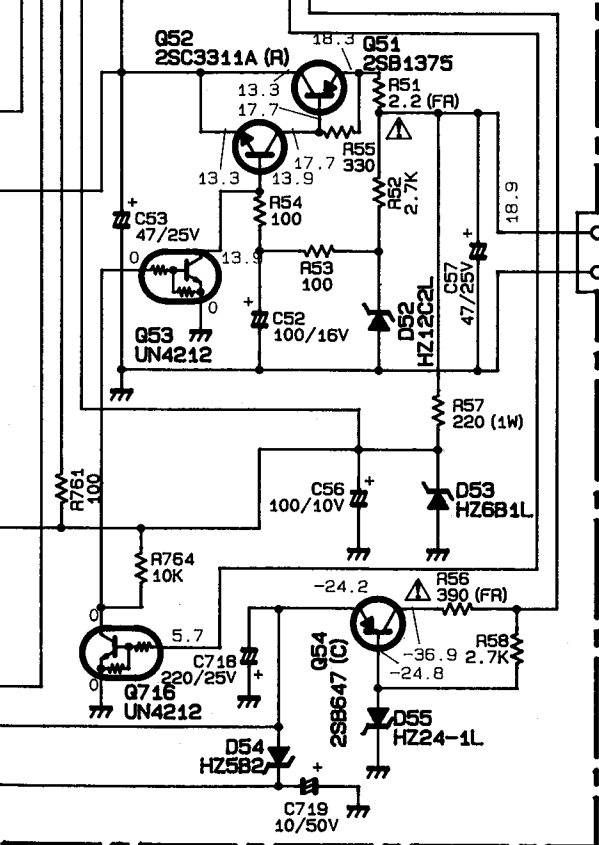
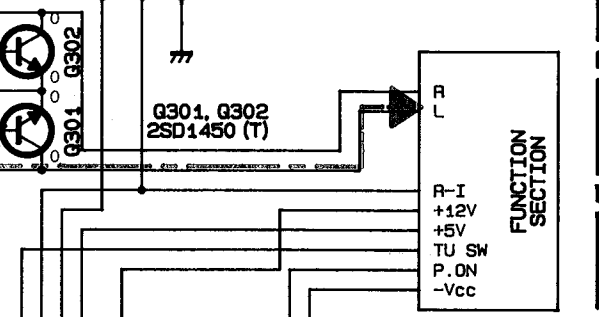
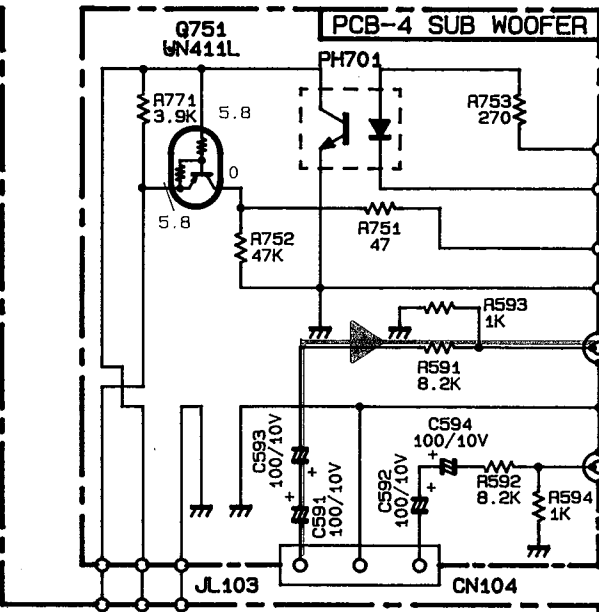
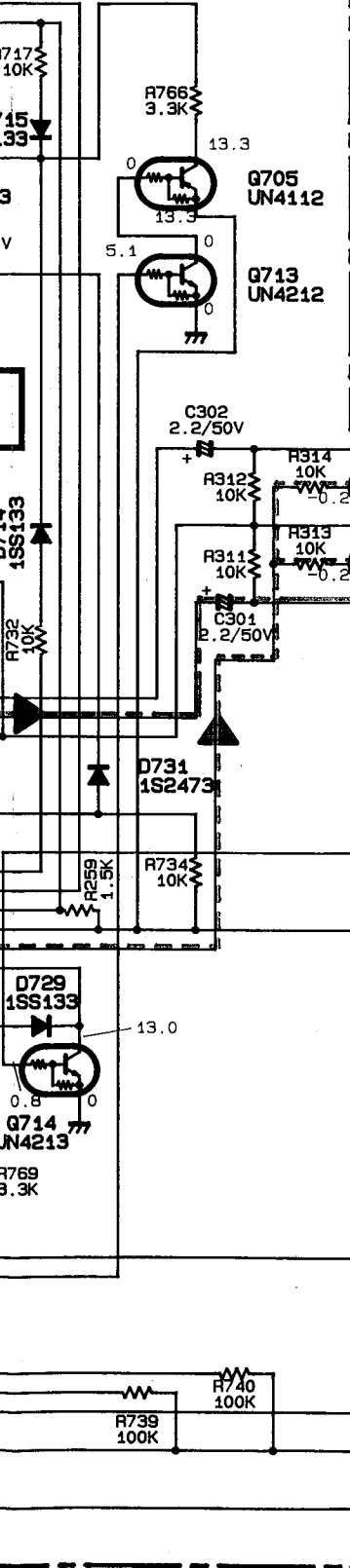
PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13
VOLT.	13.3	3.1	3.1	9.0	3.1	9.0	3.1	0	5.7	2.4	5.8	3.1	4.4



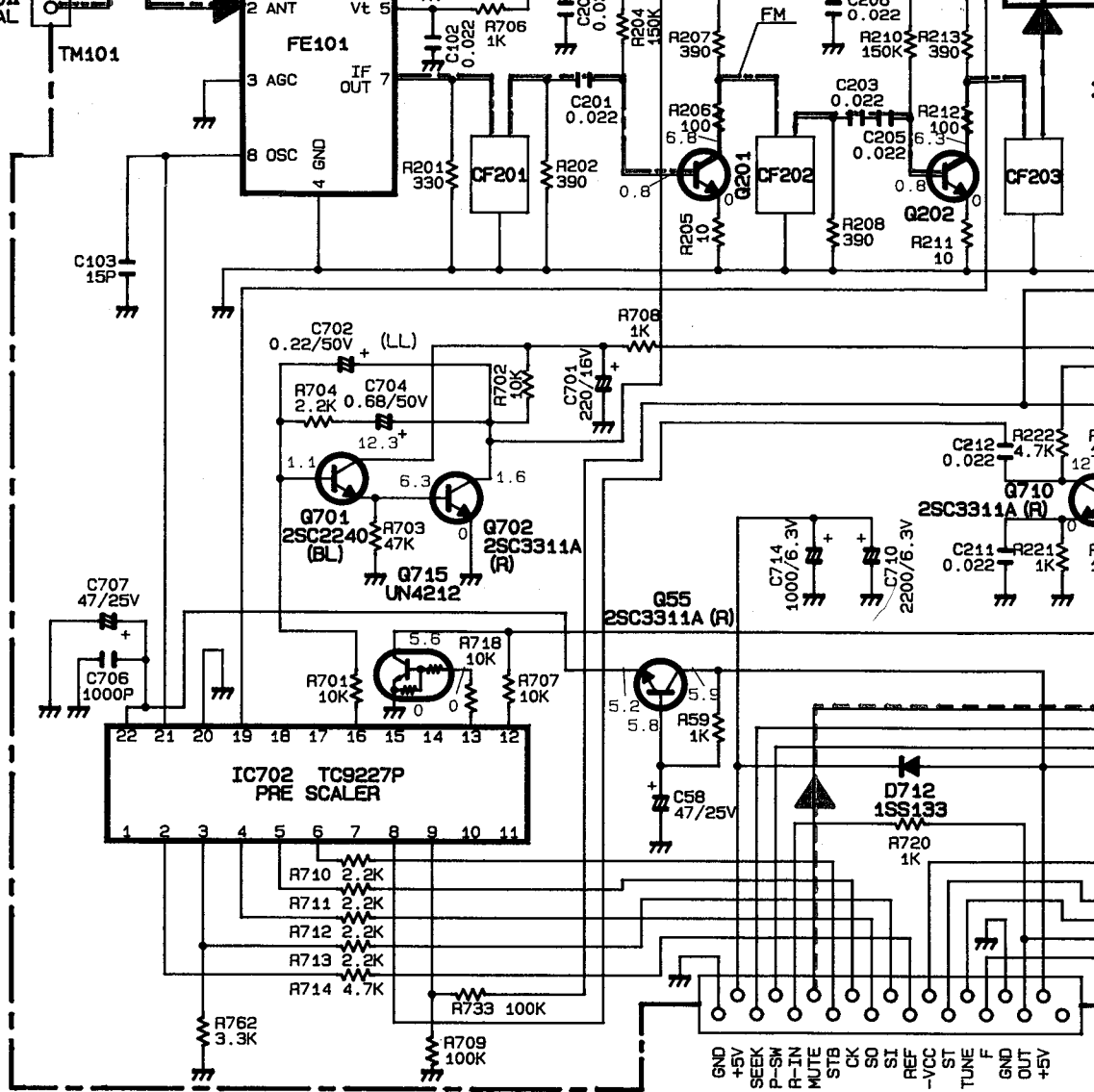
IC702

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
VOLT.	—	2.6	0	0	0	0	—	2.5	4.5	—	—	5.1	0	—	—	1.1	—	—	0	0	2.5

0	11	12	13	14	15	16
4	5.8	3.1	4.4	3.1	5.6	2.2

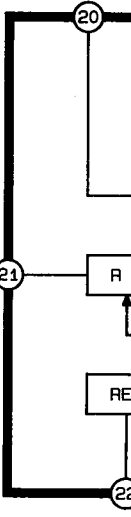
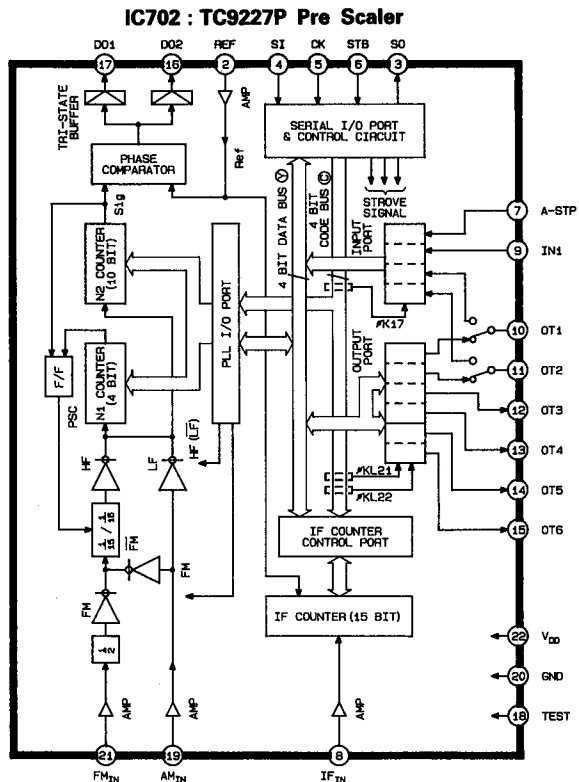


8	19	20	21	22
0	0	2.5	5.1	

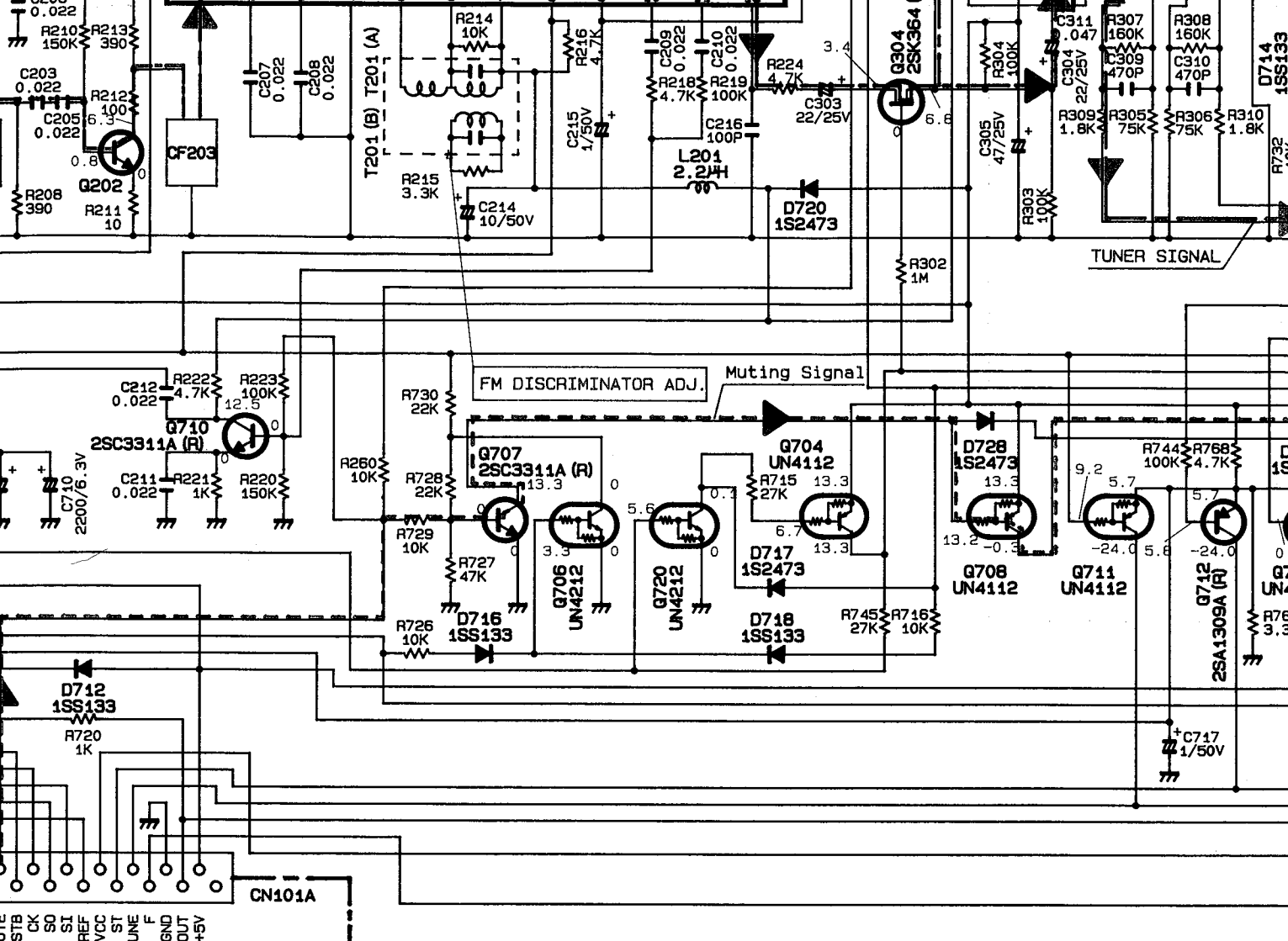


FROM PCB-14
FRONT

(A)
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4
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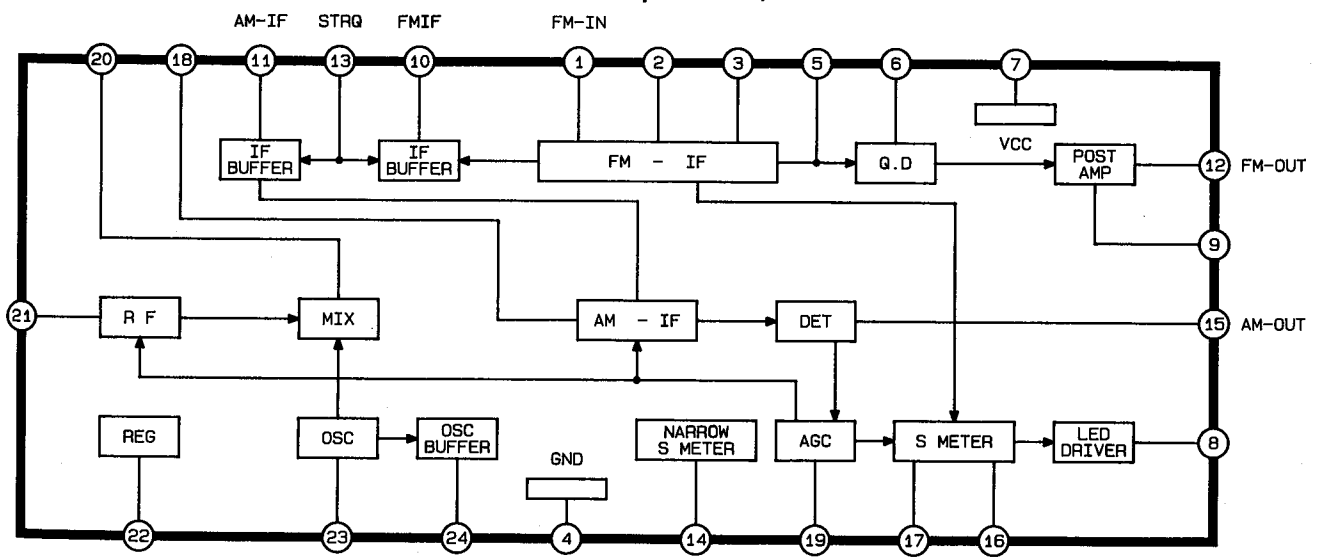


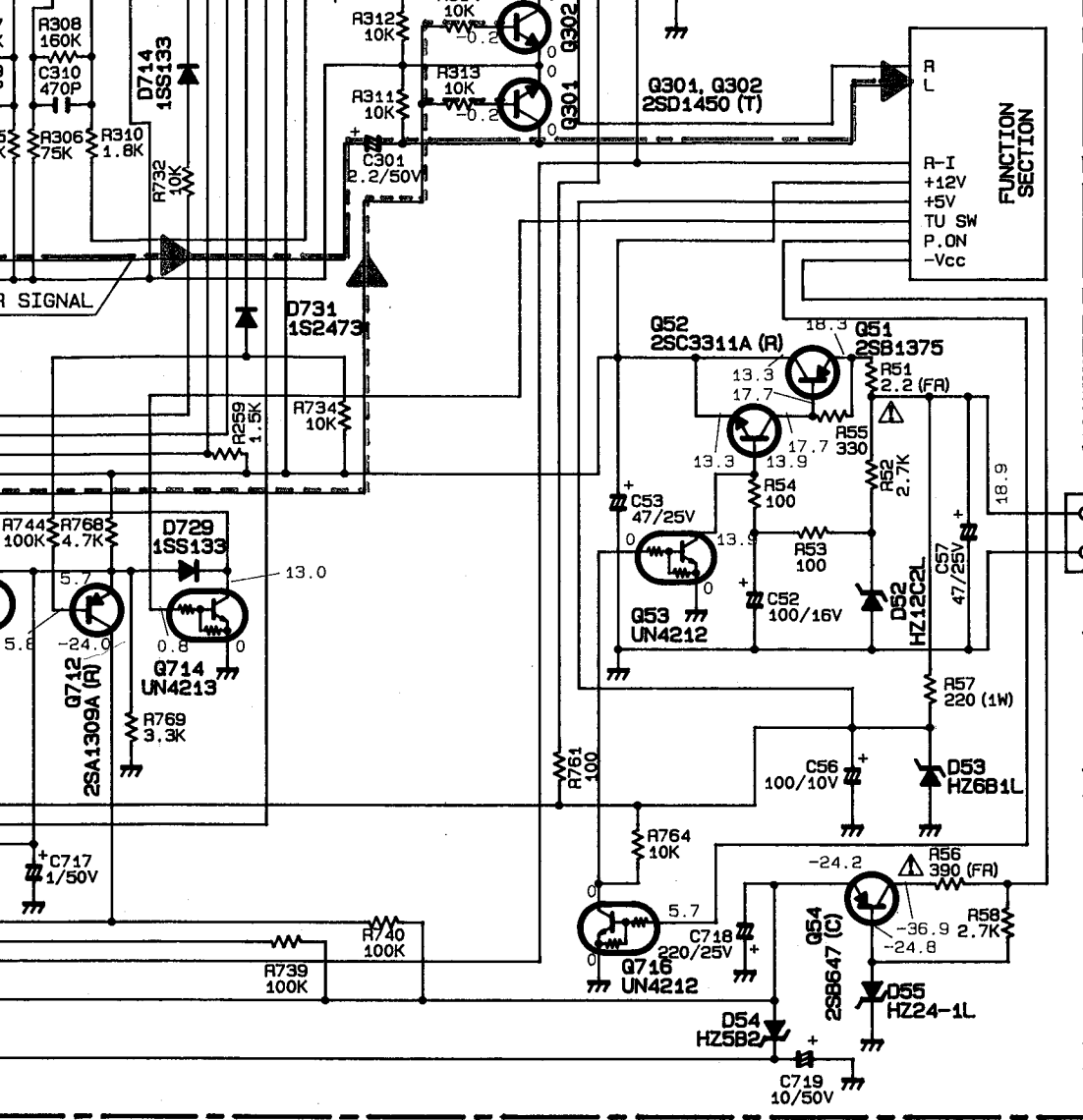
FROM PCB-14
FRONT
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IC702

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
VOLT.	—	2.6	0	0	0	0	—	2.5	4.5	—	—	5.1	0	—	—	1.1	—	—

IC201 : LA1266 FM/AM IF Amp. and Det., AM Mixer and Osc.





TO PCB-1
TUNER
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B-4

FROM PCB-1
TUNER
Page 28
K-2

CN102
DC IN
FROM PCB-9
SECONDARY

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L-6

5	16	17	18	19	20	21	22
—	1.1	—	—	0	0	2.5	5.1

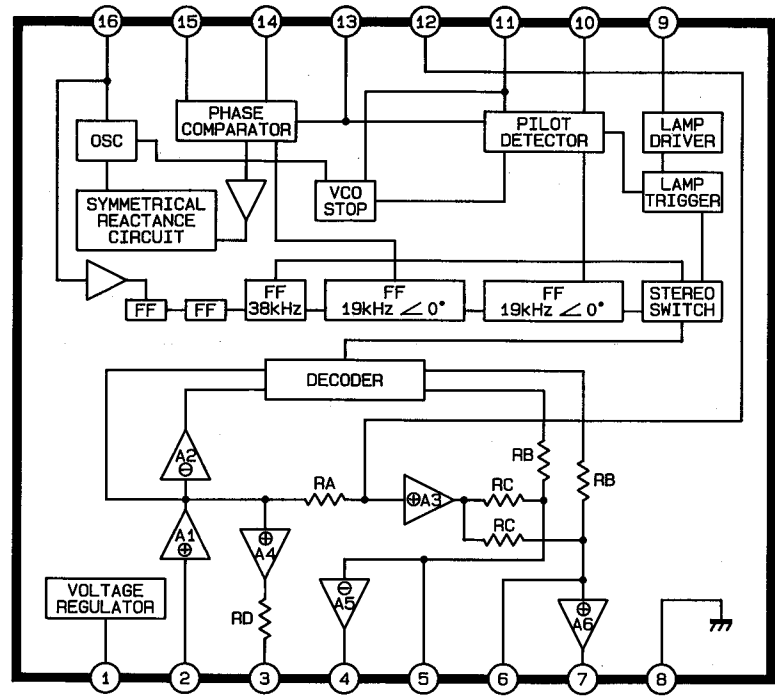
12 FM-OUT

9

15 AM-OUT

8

IC301 : LA3410 FM MPX



SCHEMATIC DIAGRAM

IC808

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLT.	2.8	0	0	0	0	0	0	0	0	0	0	0	0.6	2.9	0

IC809

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
VOLT.	5.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TO PCB-14 FRONT

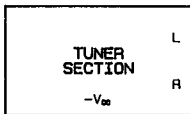
ⓑ
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H-7

LED FUNCTION
PHONO CD TU VIDEO TAPE1 TAPE2 MONI-RESET VIDEO TU PHONO CD TU

PCB-1 TUNER

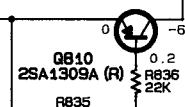
FROM PCB-1 TUNER

Ⓜ
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M-3



TUNER SIGNAL

C808
10/50V

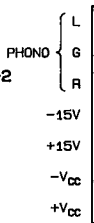


PHONO SIGNAL

CN602B

FROM PCB-2 EQ

ⓐ
Page26
H-3



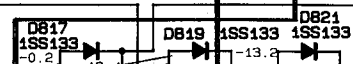
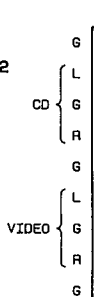
30	29	28	27	26	25	24	23	22	21	20	19	18
A ₂	B ₂	C ₂	D ₂	E ₂	SOURCE2	OUT2	TM2	V _{BE}	MUTE	CF	MIN	INIT
0	0	0	0	0	0	0	0	14.5	0.2	0	4.5	14.5

IC802 LC7818 INPUT SELECTOR

1	2	3	4	5	6	7	8	9	10	11	12	13
A ₁	B ₁	C ₁	D ₁	E ₁	SOURCE1	OUT1	TM1	V _{BE}	TMOUT	ACTL	BCTL	CCTL
0	0	0	0	0	0	0	0	-15.0	0	0	14.5	14.5

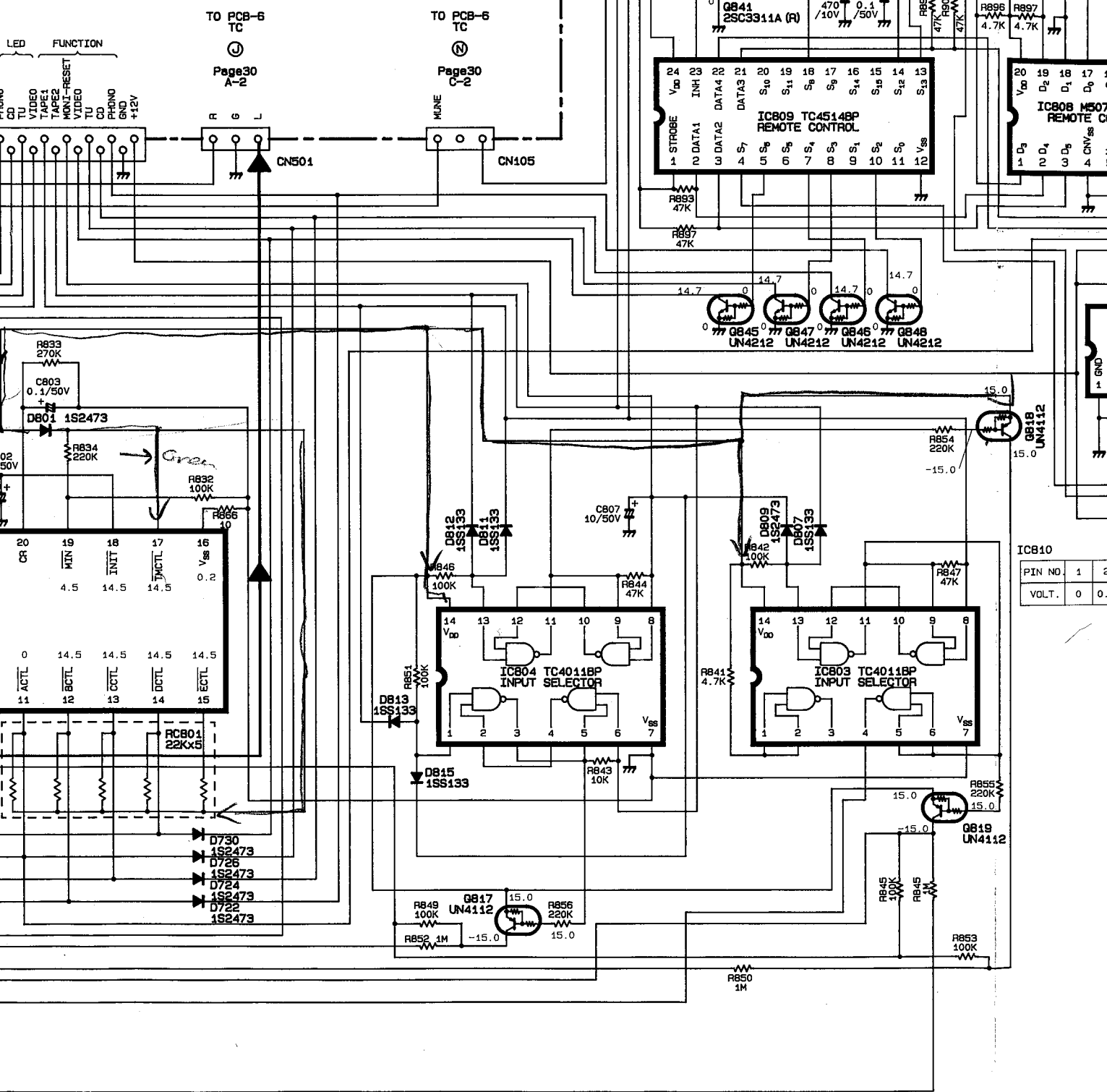
FROM PCB-2 EQ

ⓑ
Page26
C-6



11	12	13	14	15	16	17	18	19	20
0	0	0.6	2.9	0	6	6	0	6	6

11	12	13	14	15	16	17	18	19	20	21	22	23	24
0	0	0	.0	0	0	0	0	0	0	0	0	5.8	5.8

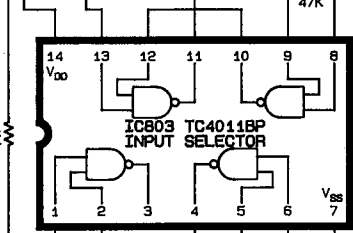
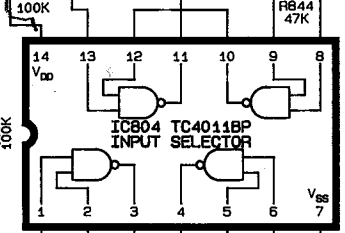
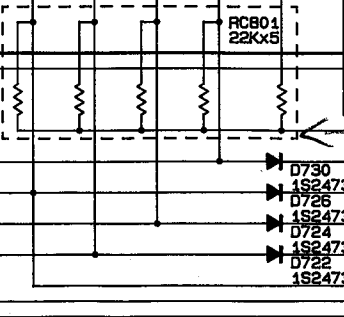
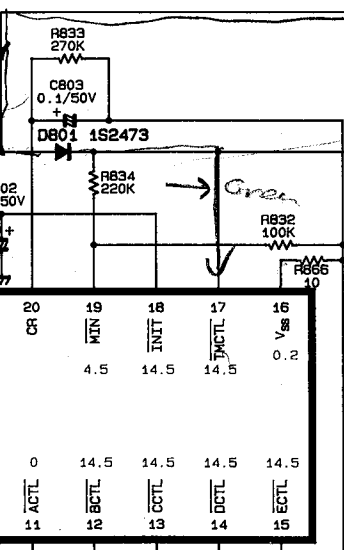
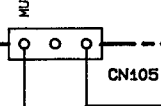
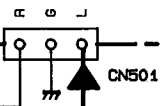


TO PCB-6
TC
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A-2

TO PCB-6
TC
Page30
C-2

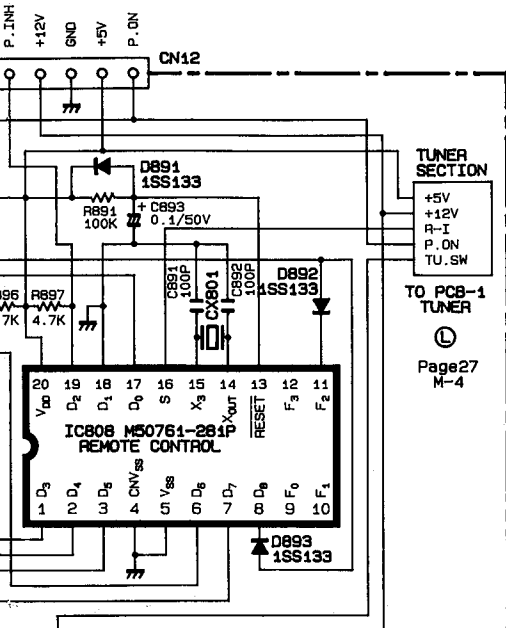
LED FUNCTION

- VIDEO
- TAPE1
- TAPE2
- MONI-RESET
- VIDEO
- PHONO
- GND
- +12V



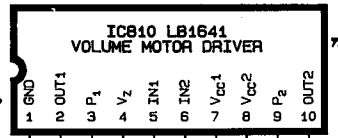
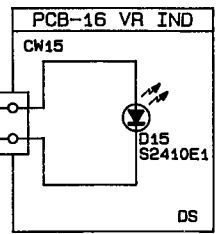
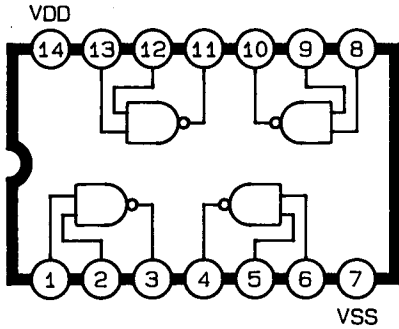
IC810

PIN NO.	1	2
VOLT.	0	0



TUNER SECTION
 +5V
 +12V
 R-I
 P_ON
 TU_SW
 TO PCB-1
 TUNER
 Page 27
 M-4

IC803, 804 : TC4011BP Input Selector

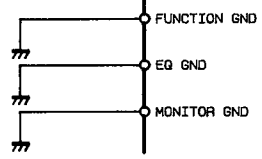
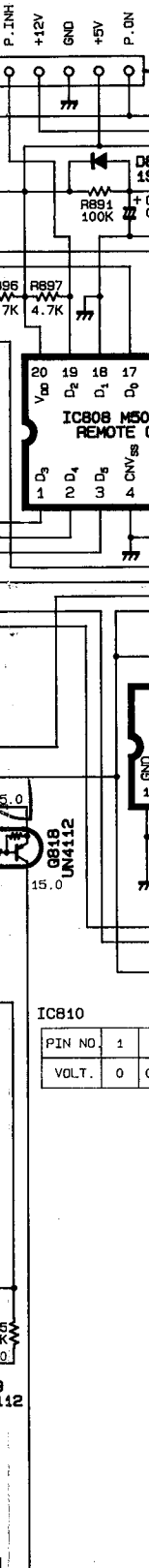
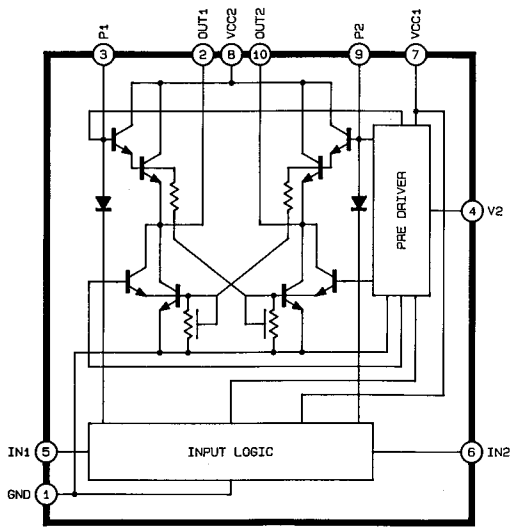


CN504
 UP
 DOWN
 TO PCB-7
 VR
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IC810

PIN NO.	1	2	3	4	5	6	7	8	9	10
VOLT.	0	0.5	0.7	0.5	0	0	13.3	13.3	0.7	0.5

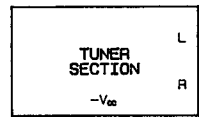
IC810 : LB1641 Volume Motor Driver



4
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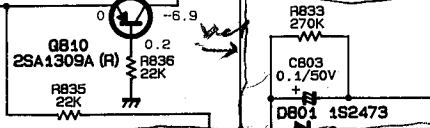
FROM PCB-1
TUNER

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M-3



TUNER SIGNAL

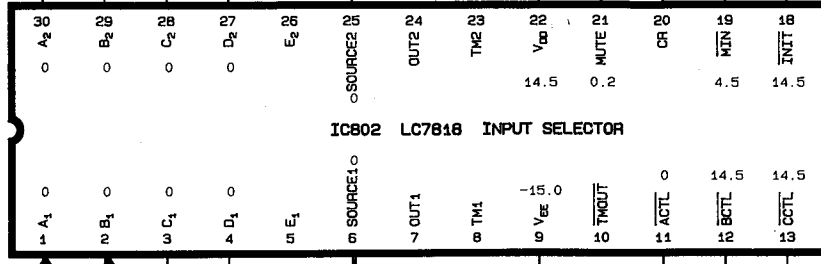
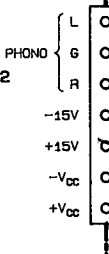
CB08
10/50V



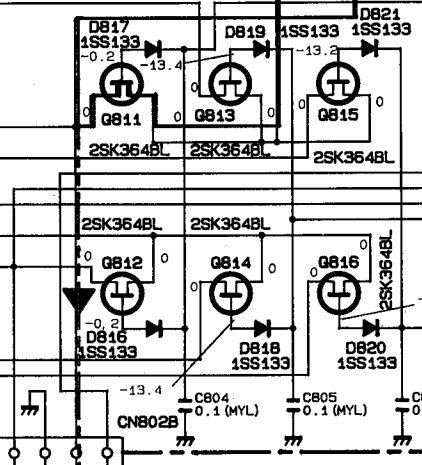
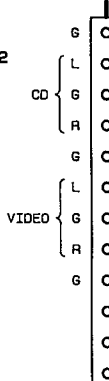
PHONO SIGNAL

CN602B

FROM PCB-2
EQ
Page26
H-3



FROM PCB-2
EQ
Page26
C-6

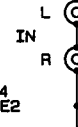


CB04 0.1 (MYL)
CB05 0.1 (MYL)
CB06 0.1 (MYL)

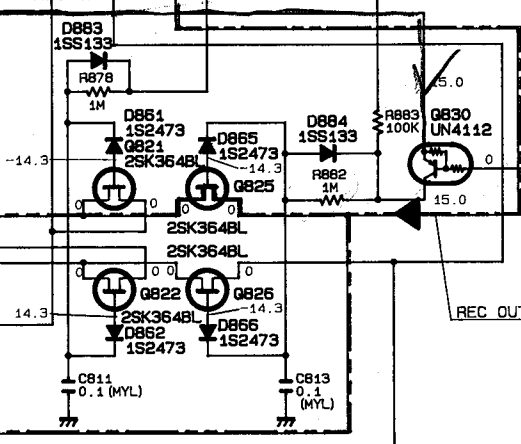
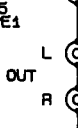
CN802B

PCB-3 MONITOR

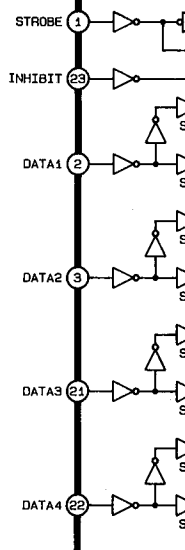
J4 TAPE2

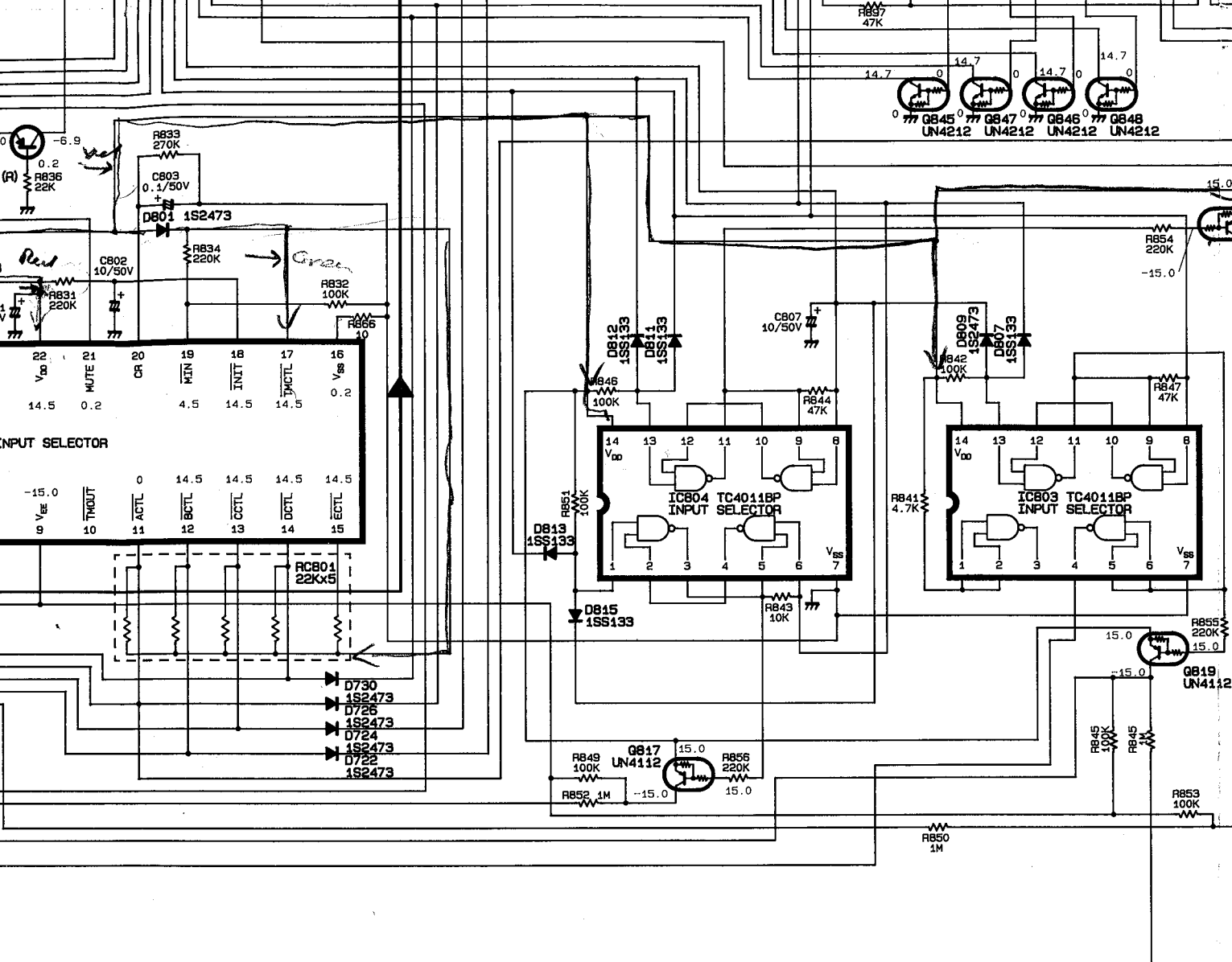


J5 TAPE1



REC OUT SIGNAL





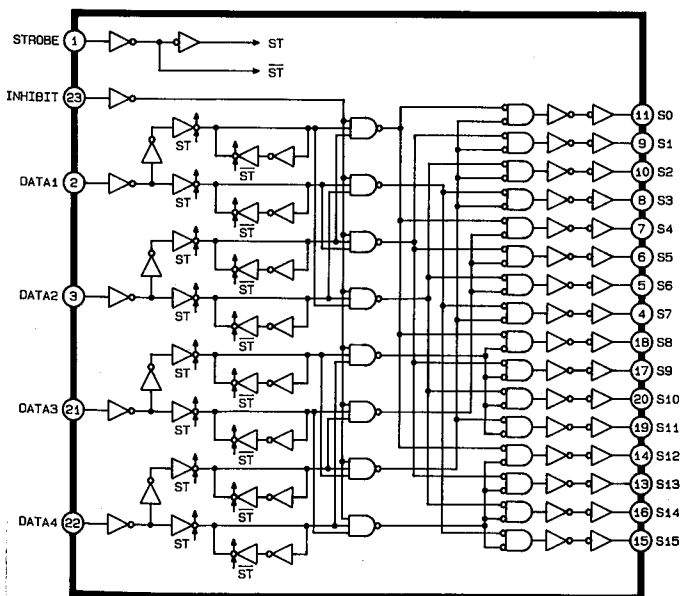
IC803

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
VOLT.	15.0	15.0	0	0	15.0	15.0	0	15.0	15.0	15.0	0	15.0	0	11.0

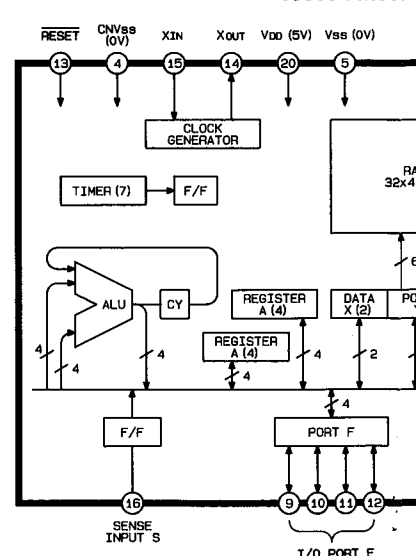
IC804

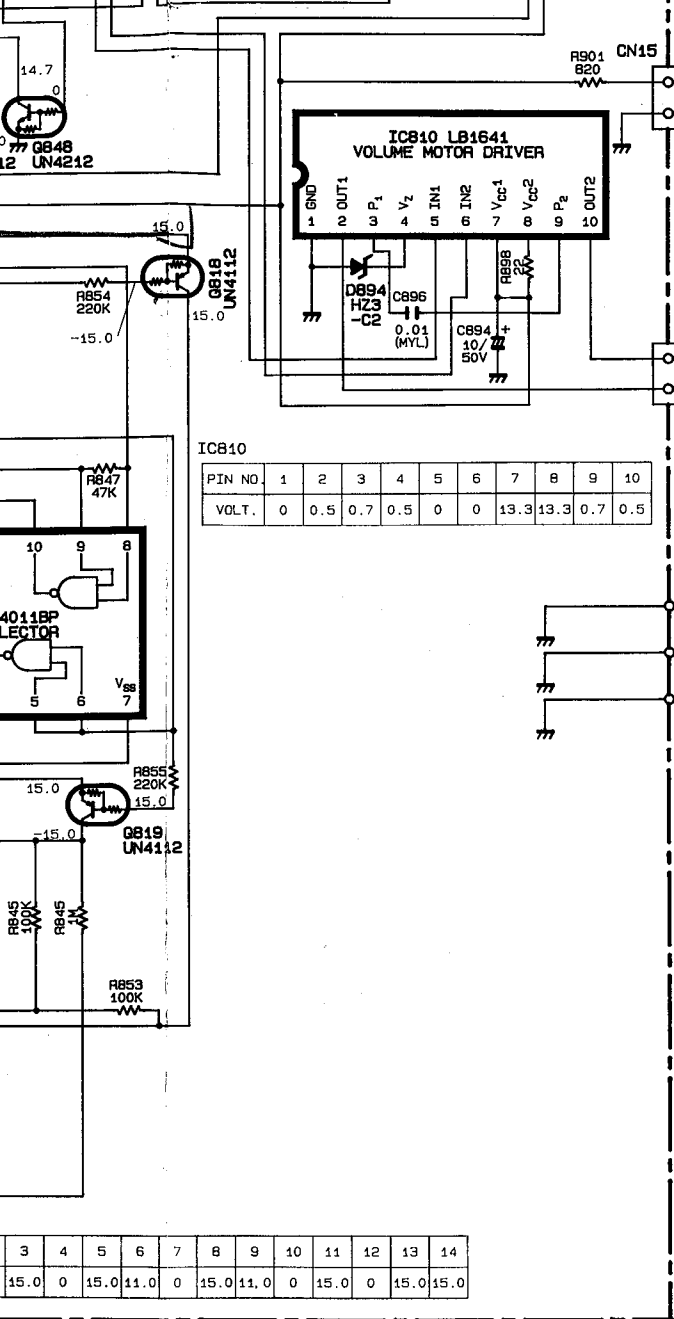
PIN NO.	1	2	3	4	5	6	7
VOLT.	15.0	0	15.0	0	15.0	11.0	0

IC809 : TC4514BP Remote Control



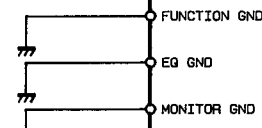
IC808 : M5070



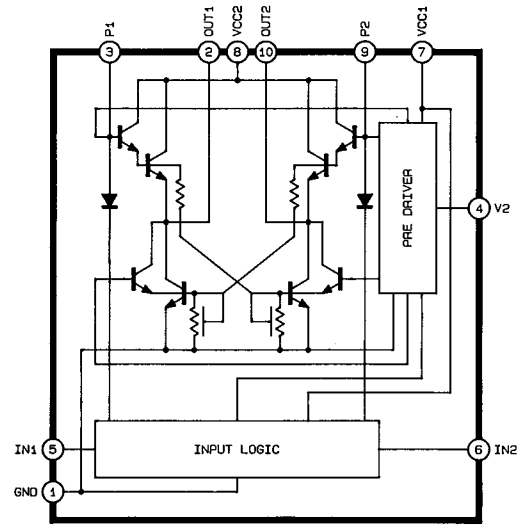


IC810

PIN NO.	1	2	3	4	5	6	7	8	9	10
VOLT.	0	0.5	0.7	0.5	0	0	13.3	13.3	0.7	0.5

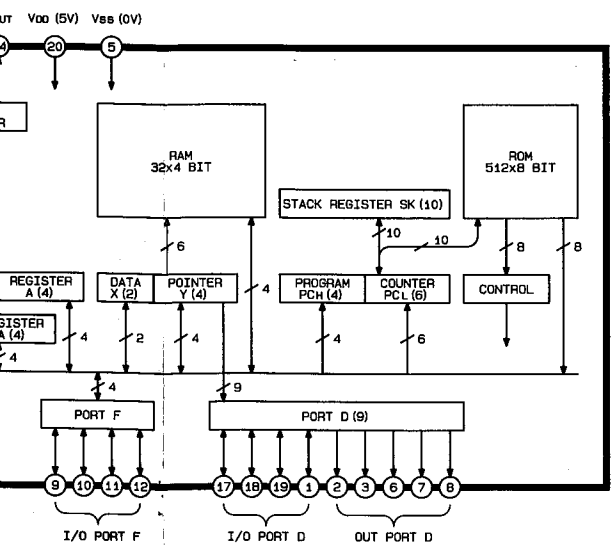


IC810 : LB1641 Volume Motor Driver

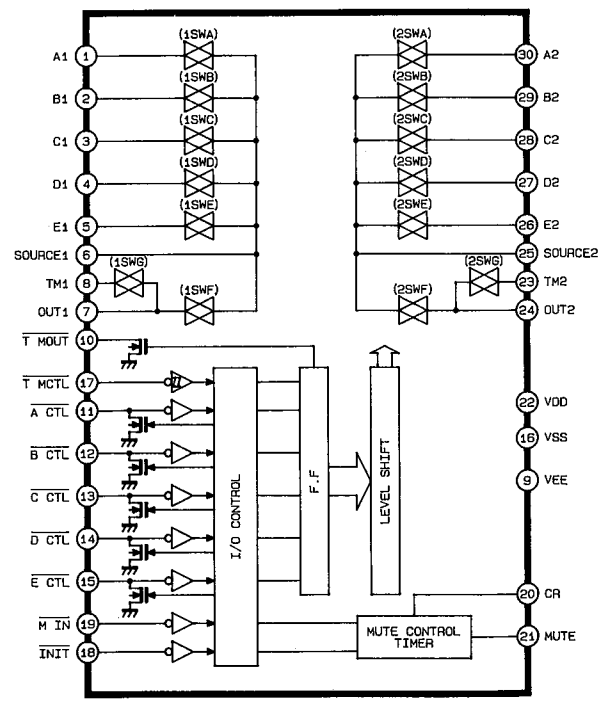


3	4	5	6	7	8	9	10	11	12	13	14
15.0	0	15.0	11.0	0	15.0	11.0	0	15.0	0	15.0	15.0

IC808 : M50761-281P Remote Control



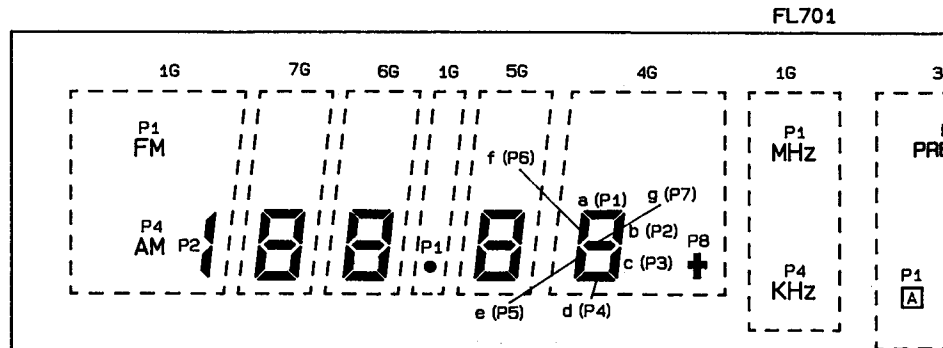
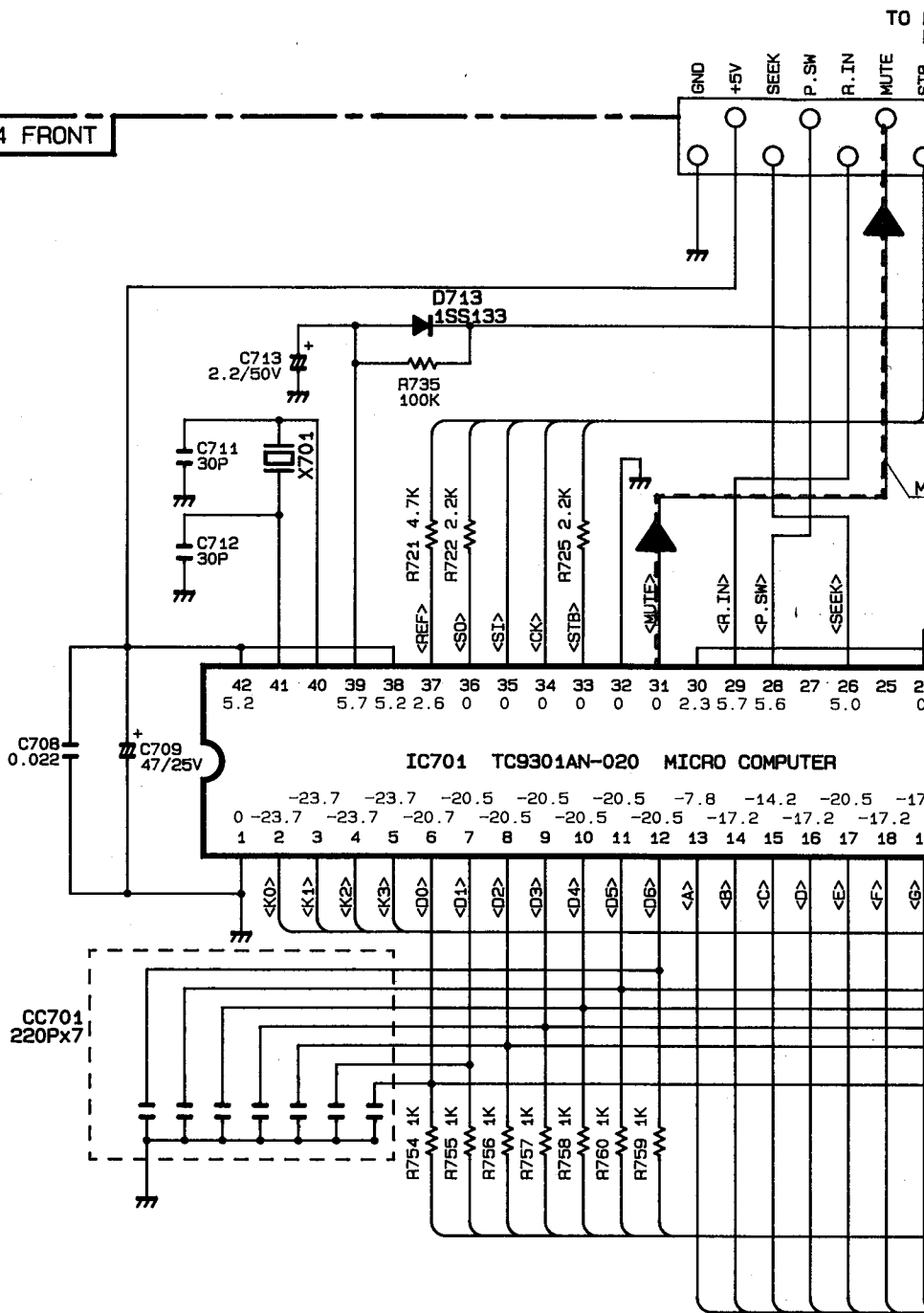
IC802 : LC7818 Input Selector



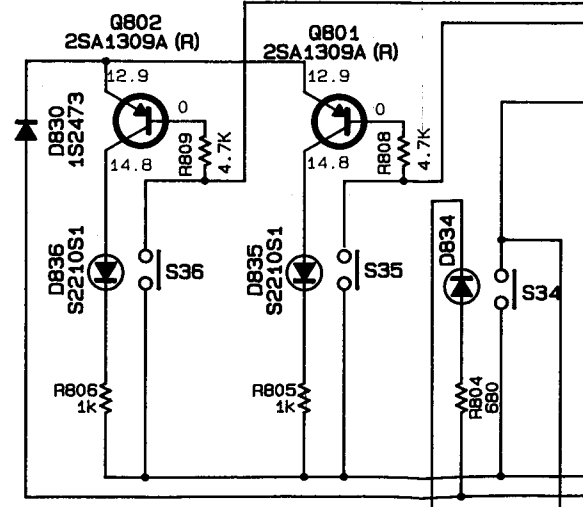
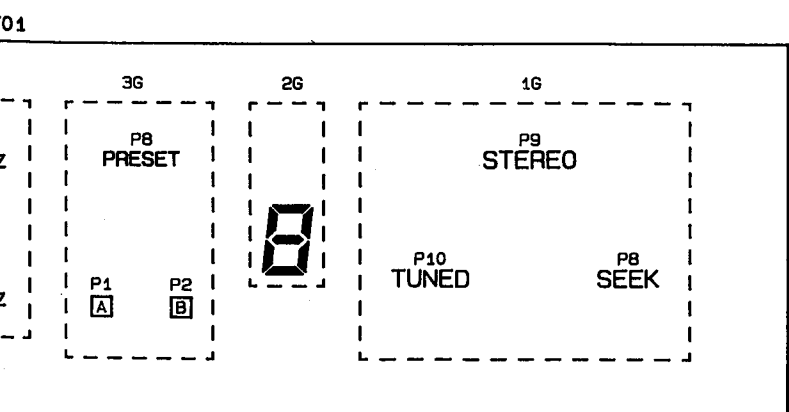
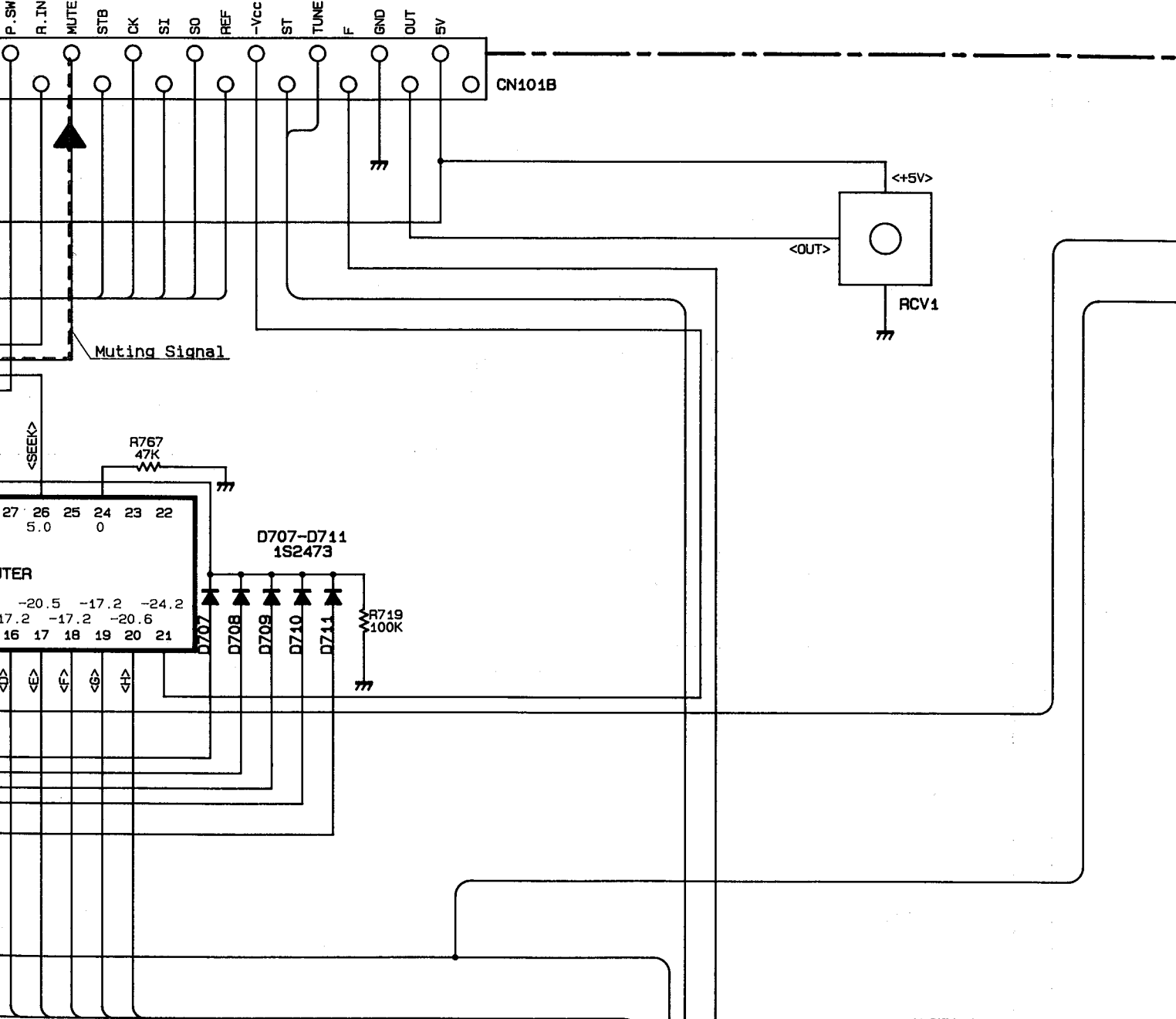
SCHEMATIC DIAGRAM

1
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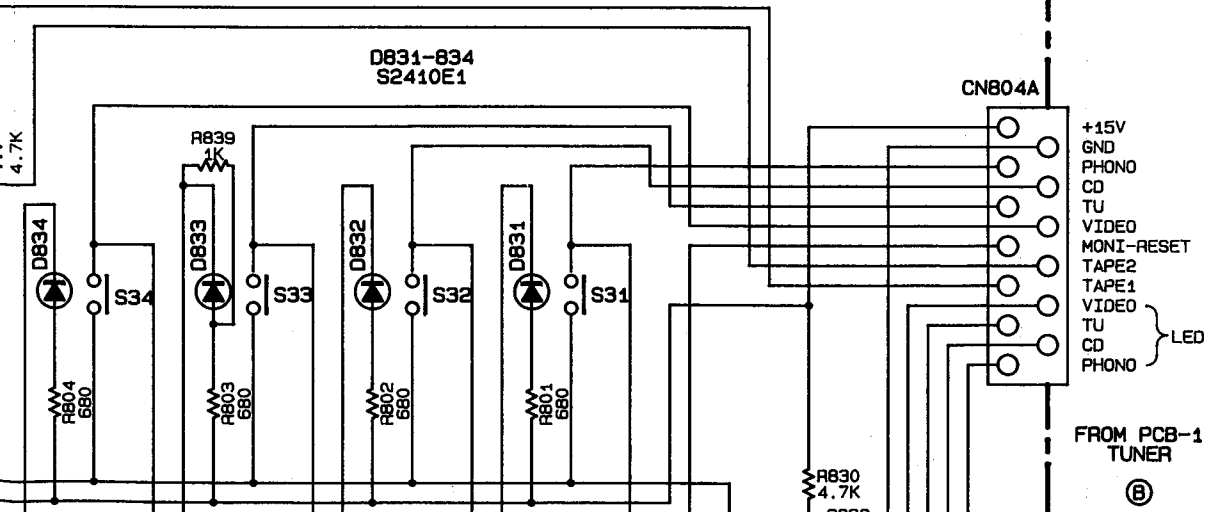
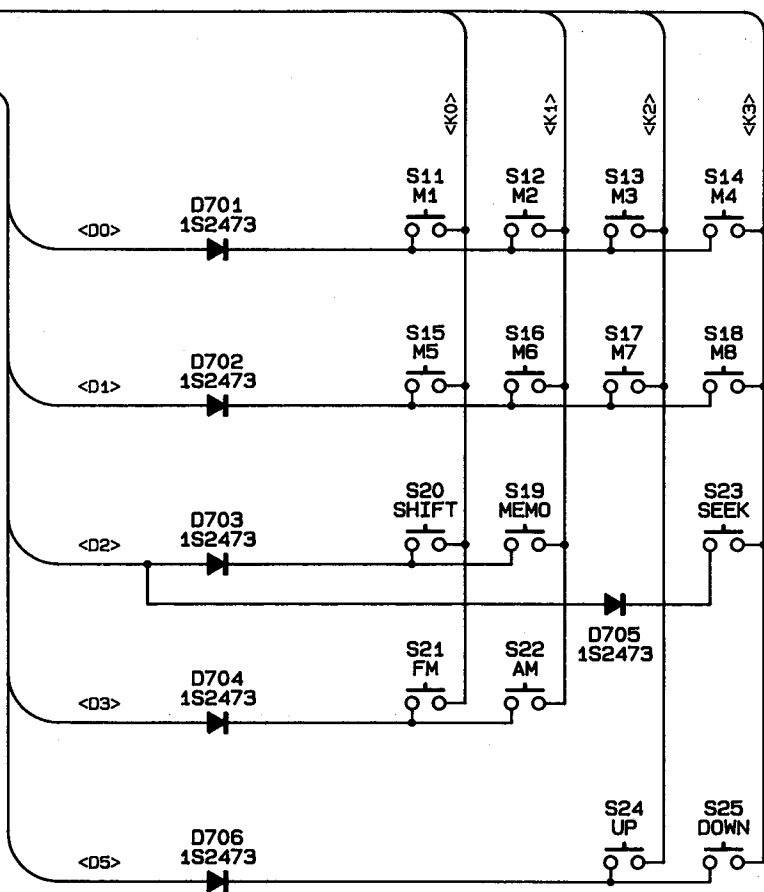
PCB-14 FRONT



TO PCB-1 TUNER (A)
Page 27 D-7



J K L M N



D831-834
S2410E1

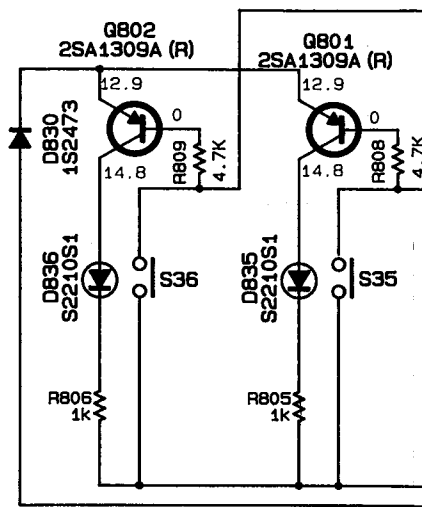
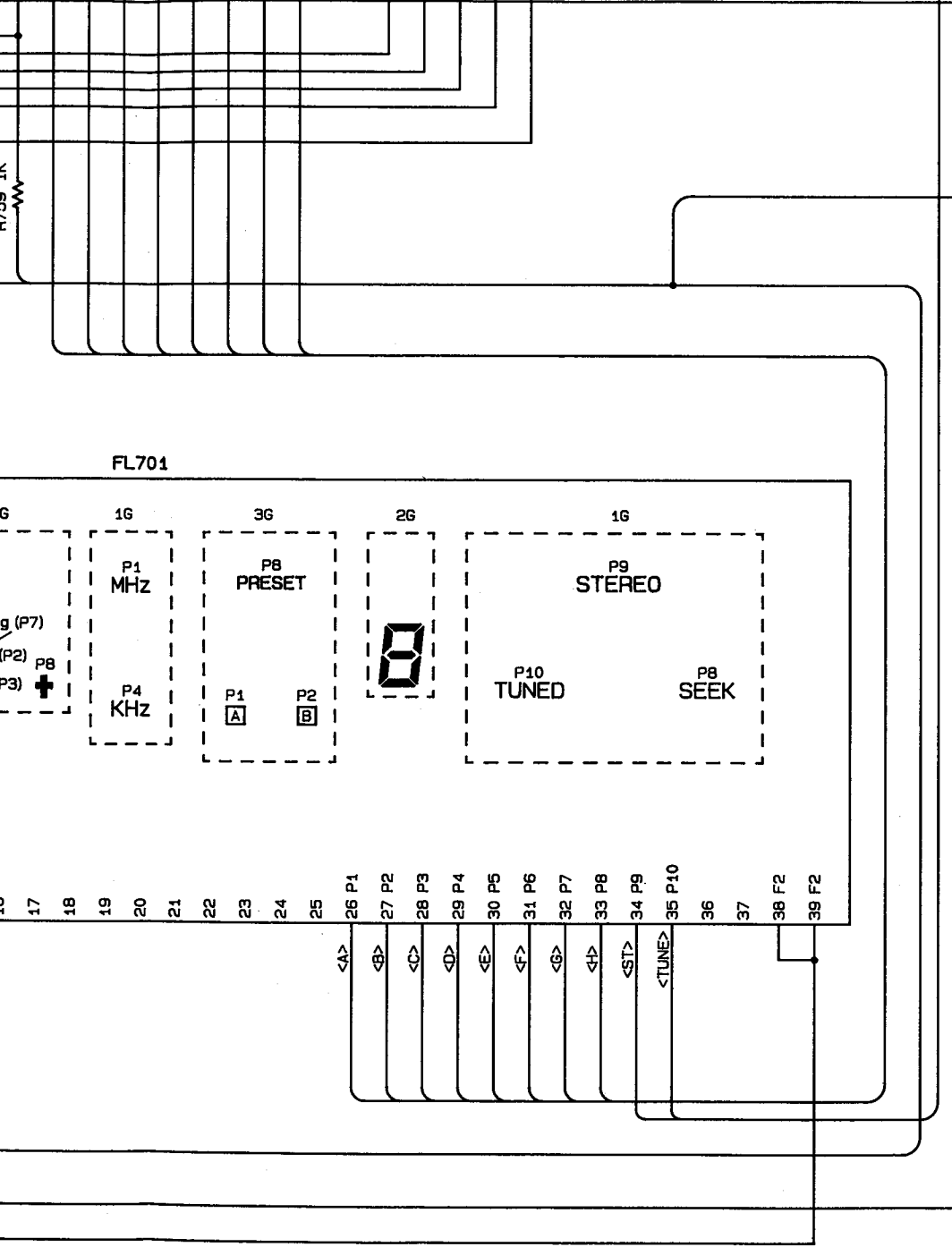
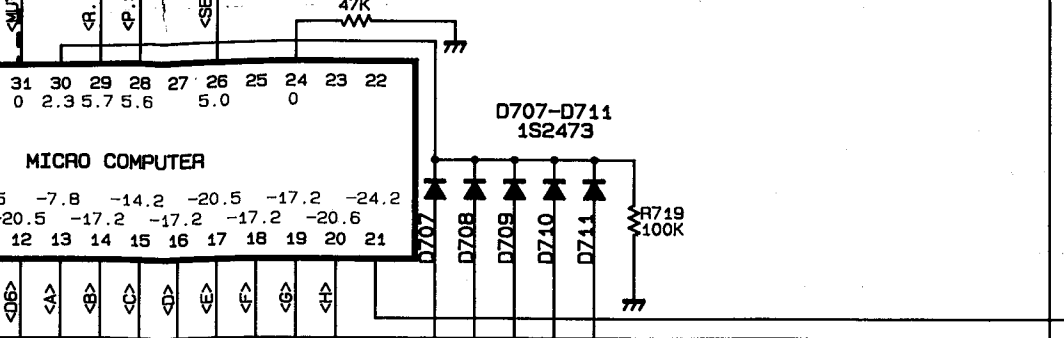
CN804A

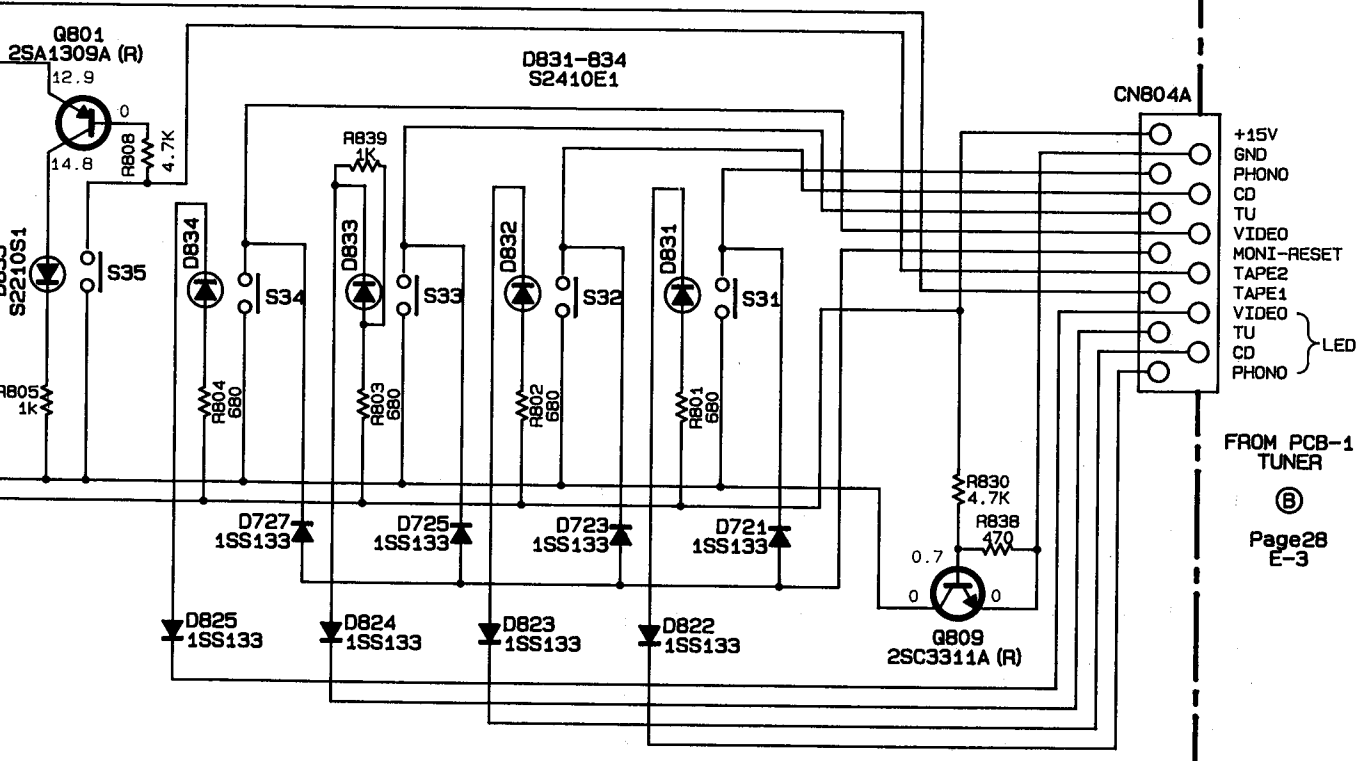
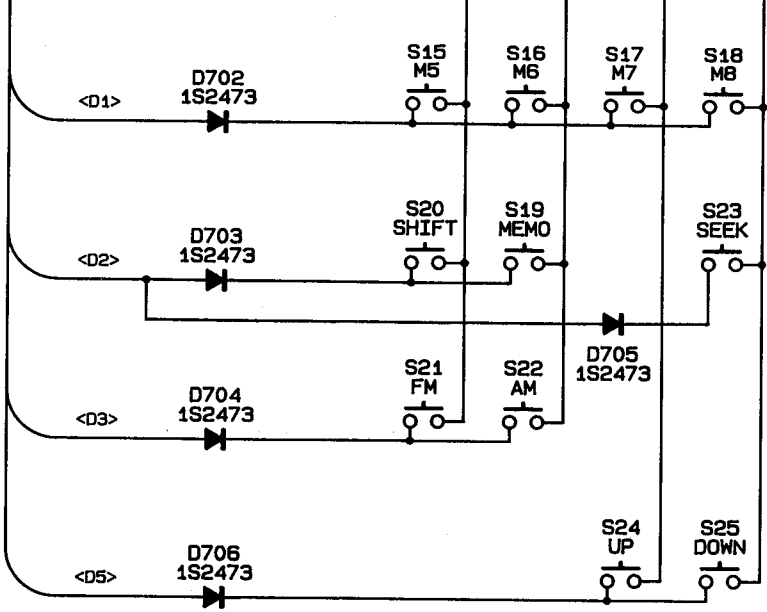
+15V
 GND
 PHONO
 CD
 TU
 VIDEO
 MONI-RESET
 TAPE2
 TAPE1
 VIDEO
 TU
 CD
 PHONO

LED

FROM PCB-1
TUNER

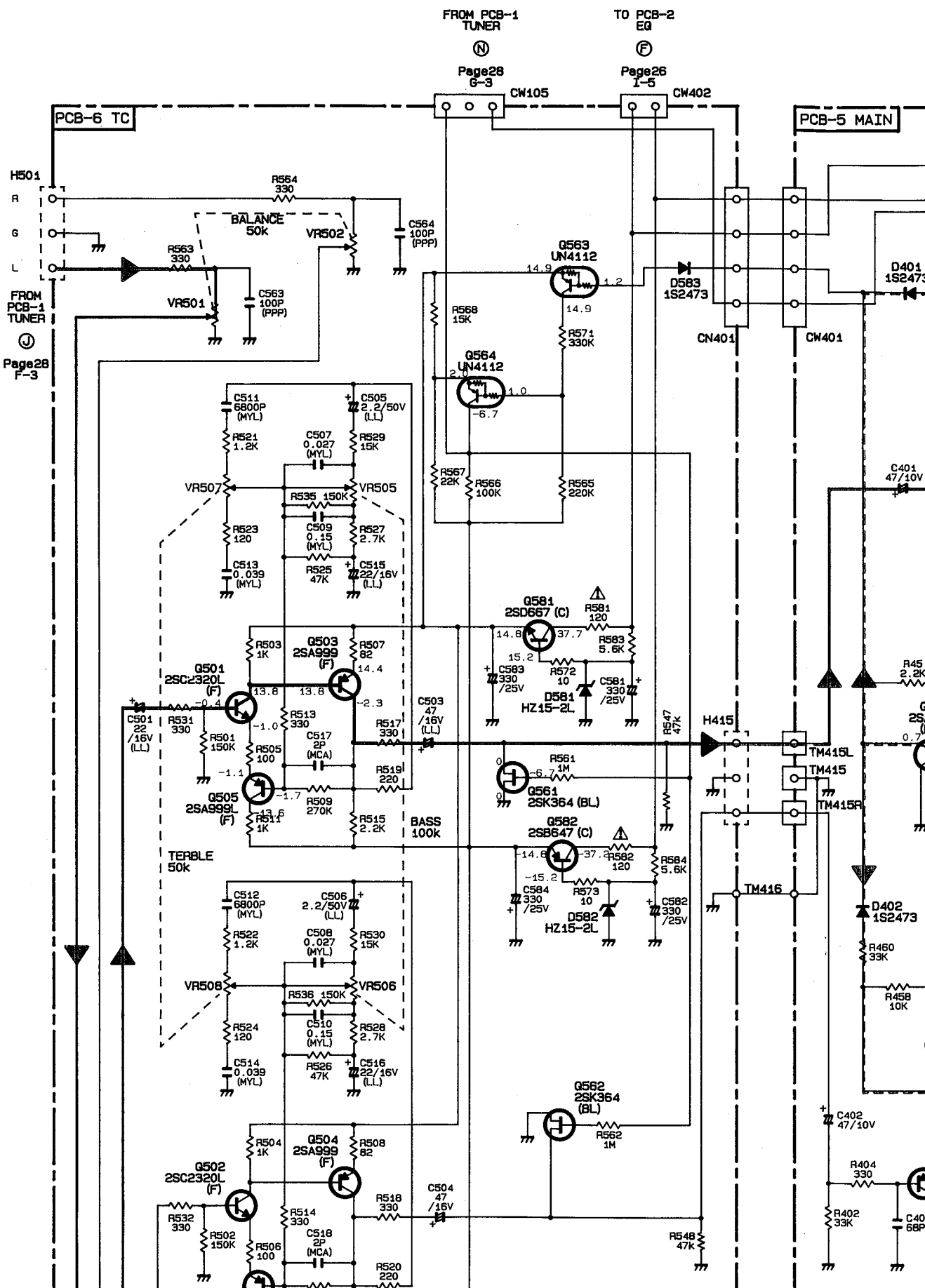
Ⓑ





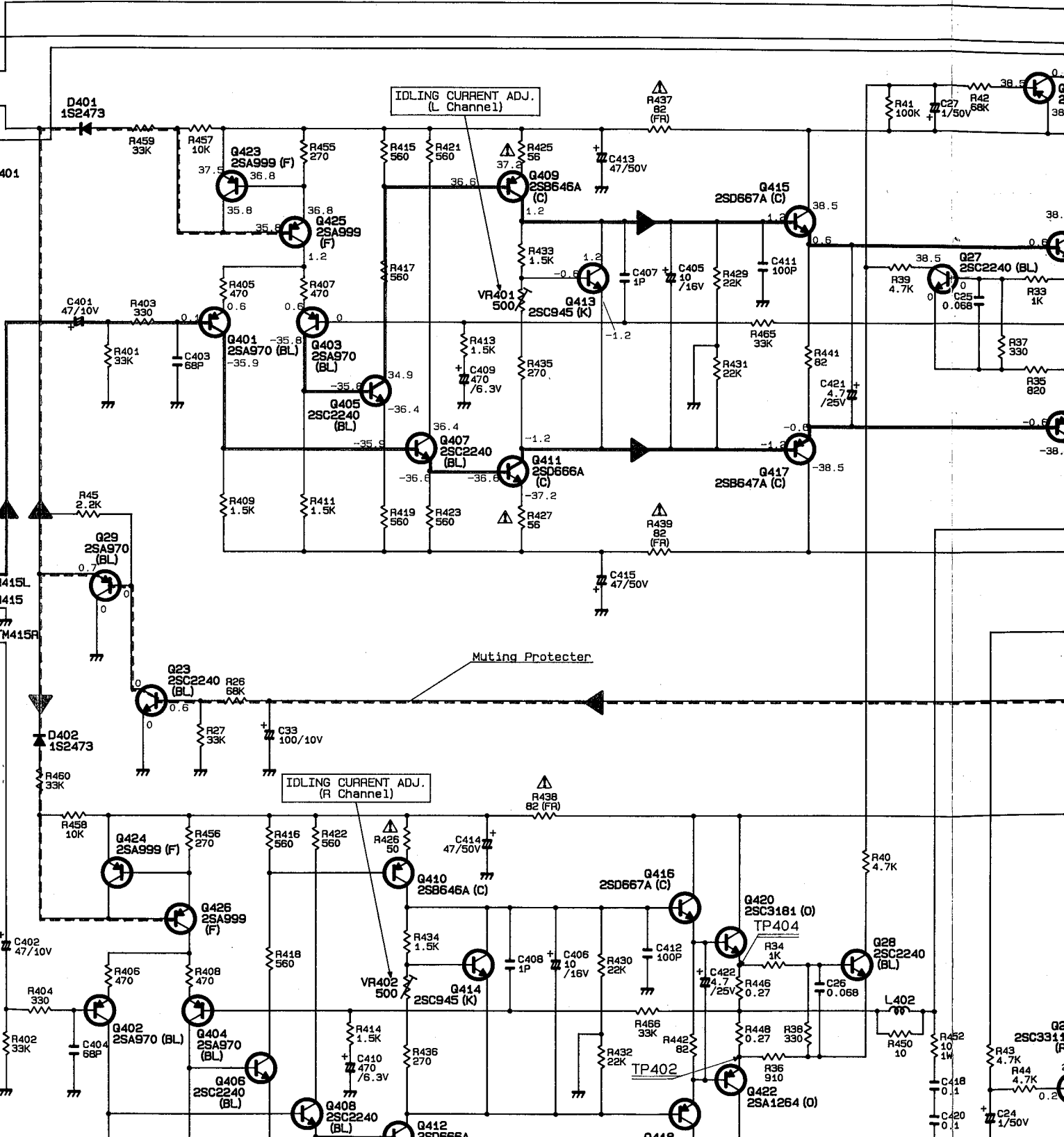
SCHEMATIC DIAGRAM

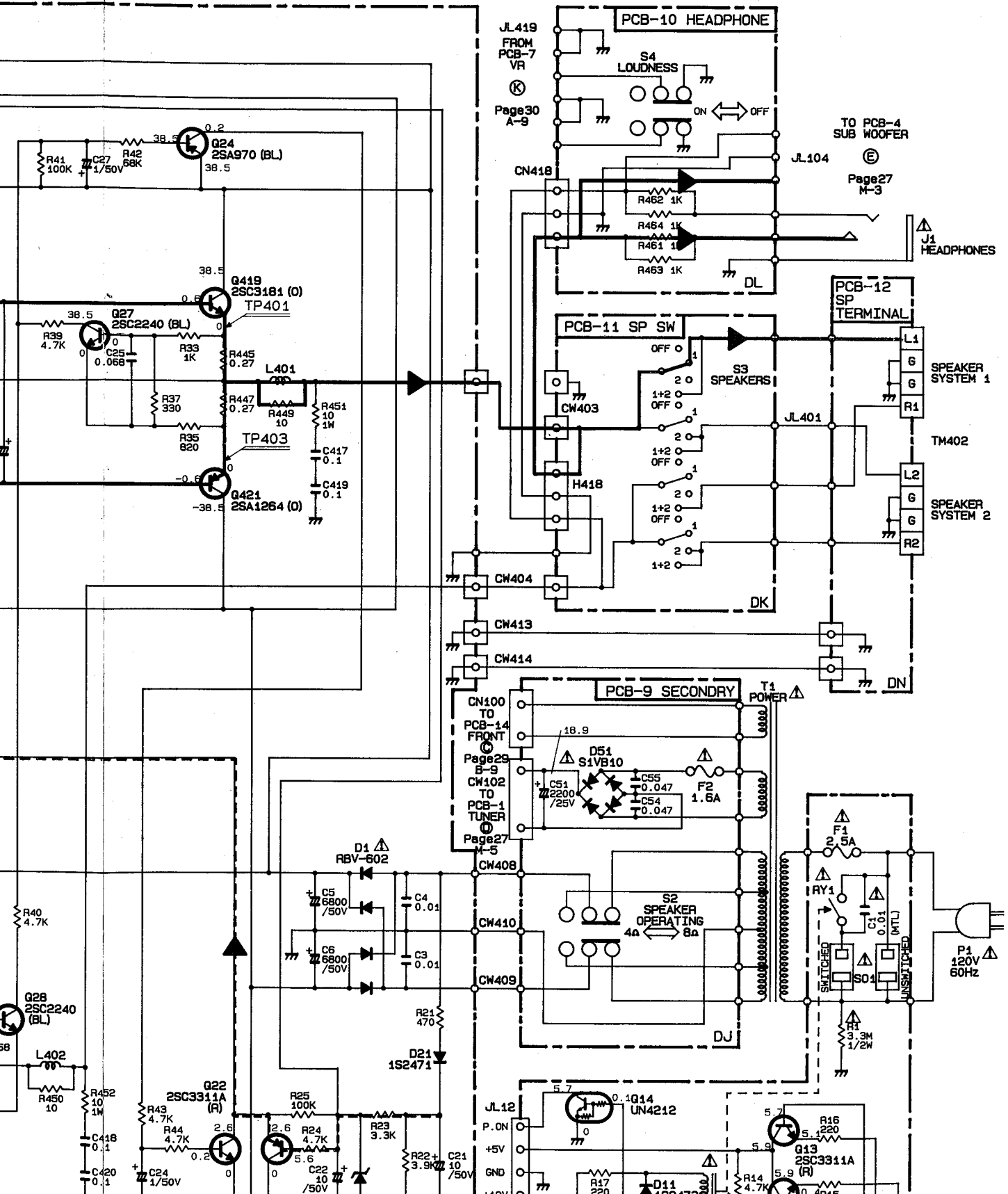
1
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7



3-5 MAIN

TO TONE CONT GND





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4

5

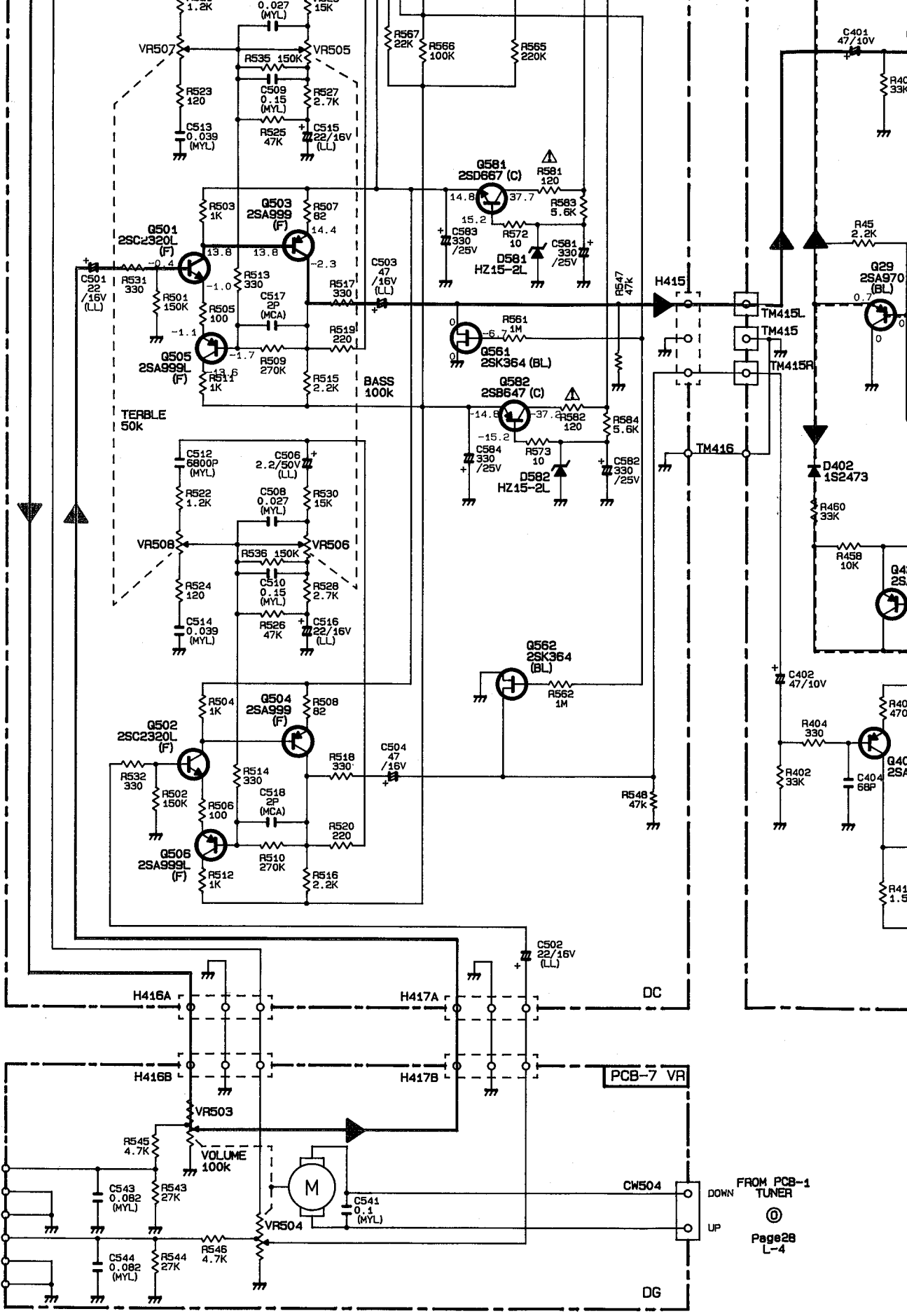
6

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10



JL419
TO PCB-10
HEADPHONE

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L-2

PCB-7 VR

DG

FROM PCB-1
TUNER

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