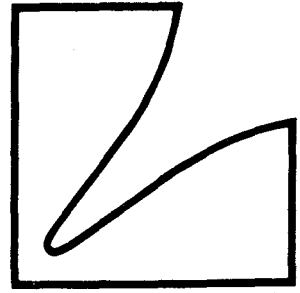
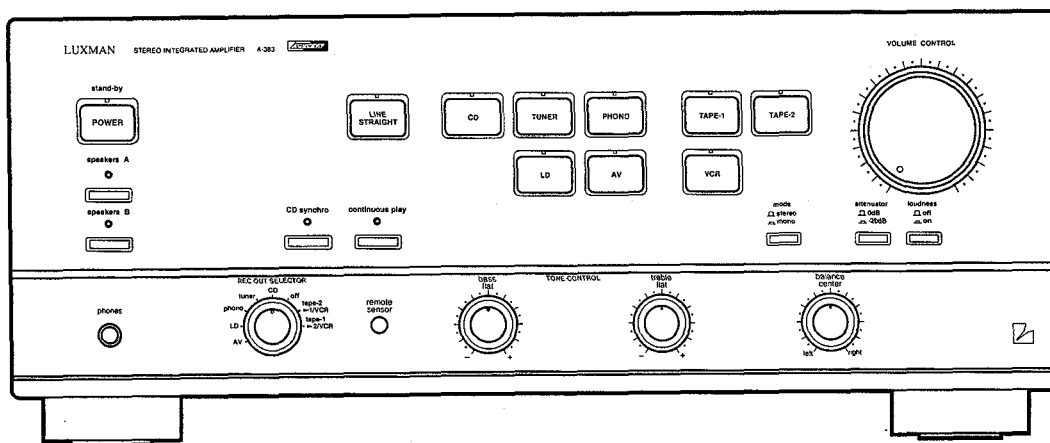


SERVICE MANUAL



Stereo Integrated Amplifier

A-383



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Spare Schematic Diagram Inserted.

Specifications

Power Output (20Hz~20kHz)	95W
Headphones Output (100W / 8 ohm, 1kHz)	0.52±0.1V
Input Sensitivity (1kHz)	Line: 150±30mV Phono (MM): 2.5±0.4mV (MC): 200±40μV
Input Impedance (1kHz)	Line (Straight=ON): 46k±7kohm Phono (MM): 47k±7kohm (MC): 100±15ohm
Frequency Response	Line: (20Hz~70kHz) 1dB - 3dB Phono: (100Hz) 13.09±1dB Phono: (10kHz) -13.73±1dB
T.H.D (20Hz~20kHz) LINE STRAIGHT ON	0.04%
Loudness Control (VR- 30dB)	(100Hz) 6.5±2dB (10kHz) 4.5±2dB
Tone Controls	Bass: (100Hz) ±10±2dB Treble: (10kHz) ±10±2dB
S / N Ratio (Input Terminal Shorted)	Phono (MM): 63dB (MC): 43dB Line: 83dB
Cross Talk (1kHz, Between Channels)	Phono (MM): 55dB (MC): 40dB Line: 55dB
Residual Noise	1.5mV
Power Supply	220V / 50Hz
Semiconductors	24 IC's, 47 Transistors, 2 FET's, 65 Diodes, 1 Zener Diode
Dimensions	438 (W)×160 (H)×330 (D) mm
Weight	14kg

NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

In Case of Difficulty

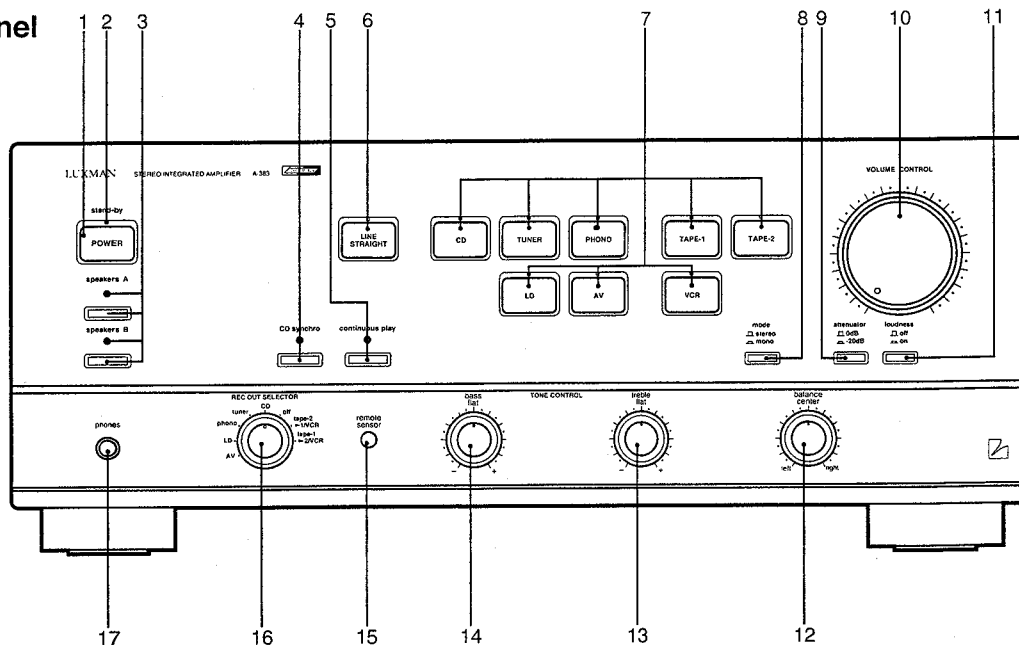
If you encounter a problem, please review the items in the following checklist. Also, be sure to thoroughly check other connected components, such as speakers,

turntable, CD player, TV, cassette deck, equalizer, etc.

PROBLEM	PROBABLE CAUSE AND SOLUTION
Power does not come on.	<ul style="list-style-type: none"> • Check AC power cord to ensure good connection at AC outlet.
No sound.	<ul style="list-style-type: none"> • Incorrect input selected. Check input leads on rear panel (be sure they match input selected). • Line inputs and outputs of a connected tape deck are reversed. • SIGNAL PROCESSOR OUT/IN jumper bars are removed. Replace. • "VOLUME" control (item #10) is set at its minimum position. • Incorrect "speakers A/B" buttons (item #3) setting or rear panel SPEAKER LEAD connections. (Check for shorted speaker leads.)
No record signal.	<ul style="list-style-type: none"> • Incorrect settings of "REC OUT SELECTOR" (item #16).
Remote inoperative.	<ul style="list-style-type: none"> • Check "AA" batteries. • Reset unit. Unplug power cord for 15 seconds. Then replug.

Names & Functions of Parts

Front Panel



1. "POWER" button

Pressing this button turns the unit on and off. When this button is pressed, the time delay muting circuit is turned on, putting the amplifier into perfect operational condition in about 7 seconds.

2. "stand-by" indicator

This indicator shows that the unit is ready to receive remote control commands and will stay lit at all times as long as the power cord is plugged in.

3. "speakers A and B" buttons and indicators

Two sets of stereo speaker systems may be used with the A-383; A and B buttons corresponding with "SPEAKERS A and B" terminals (item #42) on the rear panel. You may choose independent or simultaneous operation of the two systems by using these buttons.

Note:

The impedance of each speaker system should equal or exceed 8 ohms when driving two sets at the same time.

4. "CD synchro" button and indicator

CD play and tape recording can be started simultaneously by simply pressing the "CD synchro" button. In addition the LED indicator will blink.

Notes:

- CD Synchro only works with a BUS connected system.
- The "REC OUT SELECTOR" switch (item #16) must be in the "CD" position.

5. "continuous play" button and indicator

When this button is depressed during cassette or CD play, the cassette deck or CD player will continue to operate even when the Input Selector is switched. However, you can hear the sound of the selected source with the Input Selector.

6. "LINE STRAIGHT" button and indicator

Press this button to bypass control and switching functions.

7. Input Select buttons and indicators

Press one of these buttons to select any one of eight sources; CD, TUNER, PHONO, TAPE-1, TAPE-2, LD, AV and VCR. The LED indicator for the selected input source will light up to tell which source is selected with the Input Select buttons.

8. "mode stereo/mono" button

Place in the mono (in) position for mono sources, for balance control adjustment, for lower noise operation from high noise stereo source, or for checking speaker phasing. Otherwise, leave it in the stereo (out) position.

9. "attenuator 0dB/-20 dB" button

Press this button to reduce the volume level by -20 dB.

10. "VOLUME CONTROL"

Allows precision, low noise adjustment of volume level. It is recommended that the volume control be set to a low position prior to power turn on and when switching between sources.

11. "loudness off/on" button

Depressing this button introduces a moderate boost of the very low and high frequencies when the volume control is set below the half-way position. This compensates for the human ear's characteristic at low listening levels.

12. "balance" control

Adjusts for unequal volume level between channels. Normally, with today's high quality sources, it is seldom necessary to move this control from its precision centre detent position.

13. "treble" control

This control will increase or decrease high frequency content in the program material. At the centre detent position, a flat frequency response results.

14. "bass" control

This control will increase or decrease low frequency content in the program material. At the centre detent position, a flat frequency response results.

15. "remote sensor"

When using the hand held remote control, it must be pointed toward this sensor to activate operational functions.

16. "REC OUT SELECTOR" switch

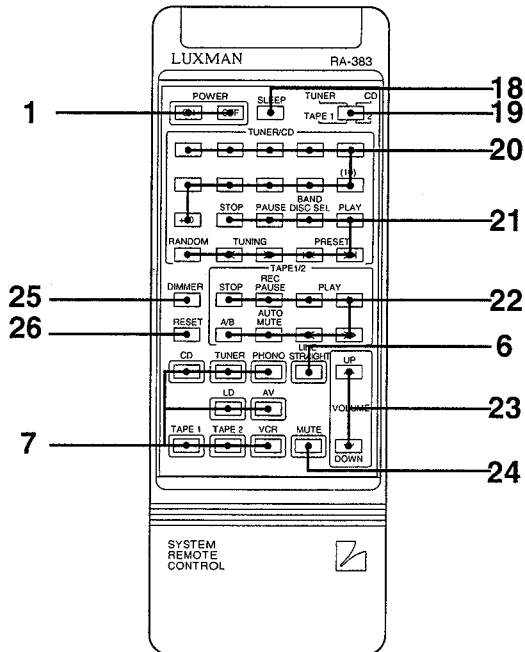
This 8 position rotary switch selects any one of 5 sources, AV, LD, phono, tuner and CD, to be fed to the "IN" jacks of VCR, tape 1 and tape 2 for recording purpose. And two tape dubbing positions, tape-1▶2/VCR and tape-2▶1/VCR, are also selectable. All of these recording operations can be performed independently of any selected source that you may wish to listen to at the same time.

Set it to the off position, when recordings or dubs are not being made.

17. "phones" jack

Connection of stereophonic headphones to this jack allows private listening. There is signal at the jack at all times.

Remote Control Unit (RA-383)

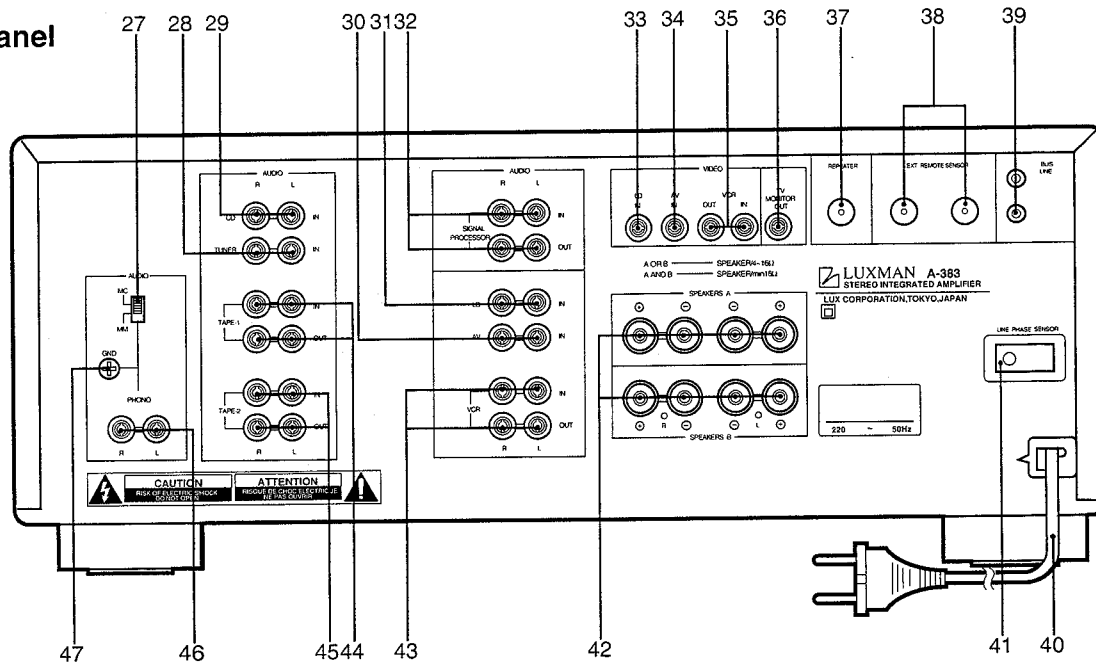


- 18. "SLEEP" button
- 19. "TUNER CD/TAPE-1 TAPE-2" Select switch
- 20. "TUNER" Station Presets/"CD" Direct Access buttons (1 -10 and +10)
- 21. CD/TUNER Control buttons
- 22. Tape Deck Control buttons
- 23. "VOLUME UP/DOWN" buttons
- 24. "MUTE" button
- 25. "DIMMER" button
- 26. "RESET" (dimmer) button

Note:

Some models are not equipped with the dimmer function. Refer to the Owner's Manual of the unit in use for details.

Rear Panel

**27. "MM/MC" Cartridge Select switch**

Use this switch to match with the cartridge type connected to the A-383's PHONO IN jacks (item #46).

Note:

See Reference Illustrations, for typical connections to all jacks and terminals (items #27 through 47).

28. "TUNER IN" jacks

This set of jacks is for connection of a tuner. They may also be used for any other high level signal source as well.

29. "CD IN" jacks

This set of jacks is for connection of a CD (compact disc) player. They may also be used for any other high level signal source as well.

30. "AV IN (AUDIO)" jacks

Connect the audio output terminals of a video deck or laser disc player to these jacks.

31. "LD IN (AUDIO)" jacks

Connect the audio output terminals of a laser disc player to these jacks.

32. "SIGNAL PROCESSOR IN and OUT" jacks

For connection of a surround sound processor, an equalizer or other signal processor as desired.

Note:

Jumper bars are factory installed in these jacks. They need to be removed only when connecting a processor. Retain for possible future reuse.

33. "LD IN (VIDEO)" jacks

Connect the video output terminals of a laser disc player to these jacks.

34. "AV IN (VIDEO)" jacks

Connect the video output terminals of a video deck or laser disc player to these jacks.

35. "VCR IN and OUT (VIDEO)" jacks

Connect the video output/input terminals of a video deck to the VCR IN/OUT (VIDEO) jacks on the A-383 respectively.

36. "TV MONITOR OUT" jack

Connect the video input jack of a TV to the "TV MONITOR OUT" jack of the A-383.

37. "REPEATER" jack

For connection of Luxman's remote control command repeater, RC-503.

38. "EXT. REMOTE SENSOR IN" jacks

These "F" type coaxial connectors are for connection of Luxman's RC-501 remote room sensor "eyes." This permits remote control of a complete A-383 system from other rooms.

39. Remote Control "BUS LINE" jacks

Use these jacks only with Luxman CD players, Tape Decks and Tuners that are also equipped with BUS line jacks, such as the D-373 and the K-373.

When interconnecting these units with the A-383, the mini phone cables may be inserted into either of their two BUS jacks (the control signals are bidirectional, therefore no "IN OUT" protocol is required).

40. AC Power Cord

Insert the AC plug of the A-383 into an appropriate wall outlet.

41. "LINE PHASE SENSOR" indicator

When plugging the AC power cord into the wall outlet, check the polarity of the AC power cord at this sensor and indicator. When the sensor is touched after connecting the AC power cord, the polarity is correct if the indicator remains unlit. If the indicator lights up, unplug the AC power cord then plug its other side into the AC wall outlet.

Note:

Check the polarity before connecting any sources. If you live in an apartment building where the power supply is floating, the indicator may not change status.

42. "SPEAKERS A and B" terminals

You may connect 2 pairs of stereo speaker systems to these terminals, one pair to the upper "A" terminals and a 2nd pair to the lower "B" terminals.

The speaker systems may be switched on and off by the front panel "speakers A and B" buttons (item #3).

43. "VCR IN and OUT (AUDIO)" jacks

Connect the audio output/input terminals of a video deck to the VCR IN/OUT (AUDIO) jacks on the A-383 respectively.

44. "TAPE-1 IN and OUT (AUDIO)" jacks

Connect the LINE IN and LINE OUT jacks of your audio tape deck to these OUT and IN jacks respectively.

45. "TAPE-2 IN and OUT (AUDIO)" jacks

Connect a 2nd tape deck to these jacks in the same manner as item #44 above.

46. "PHONO IN" jacks

Connect a phono turntable equipped with an MM (moving magnet) or MC (moving coil) cartridge. Set the MM/MC cartridge select switch (item #27) in the matching position.

47. "GND" terminal

Connect the common (ground) lead of your phono turntable to this terminal.

Operation Guidelines

The following guidelines assume that all connections have been made according to the "Reference Illustrations,"

Power and Source Switching

To prevent the possibility of excessive, sudden sound levels, it is recommended that the volume control be placed at a low level position each time the power button is turned on or when switching between sources by the INPUT SELECTORS.

To Play Source Units

1. Turn the power on to all the components in use.
2. Choose your desired source with the Input Selector buttons (item #7).
3. Operate the source unit.

TAPE DECK OPERATIONS

Tape Recording Operations

To make a tape recording of any source, proceed as follows:

1. Rotate the "REC OUT SELECTOR" (item #16) to the source you wish to record.
2. The source signal will now be fed to the tape deck. Follow the recording instructions for the tape deck in use.
3. If you have a 3 head deck, you can monitor the actual recording by pressing the corresponding "TAPE-1" or "TAPE-2" buttons (item #7) on the A-383.

Video Recording

To make a video tape recording of any video source, proceed as follows:

1. Rotate the "REC OUT SELECTOR, (item #16) to the source you wish to record (LD or AV).
2. The source signal will now be fed to the connected VCR. Follow the recording instructions for the VCR in use.

Tape Dubbing

Tape copies can be made from TAPE-1 to TAPE-2/VCR or from TAPE-2 to TAPE-1/VCR as follows:

1. To dub from TAPE-1 to TAPE-2/VCR, rotate the "REC OUT SELECTOR" (item #16) to the tape-1▶2/VCR dubbing position.
2. Place tape deck 1 in the PLAY mode and deck 2 in the RECORD mode.
3. If the audio tape deck 2 is a 3 head machine, actual monitoring of the audio recording can take place by selecting "tape-2" on the Input Select button (item #7).
4. Similarly, to dub from TAPE-2 to TAPE-1/VCR, rotate the "REC OUT SELECTOR" to the tape-2▶1/VCR dubbing position.
5. Follow steps (2) and (3) above except remember decks 1 and 2 are reversed.

Remote Control Operation

To Turn Power ON or OFF

Press "POWER ON/OFF" buttons (item #1).

Operating the A-383

- To select a desired source, press a source button (item #7), CD, TUNER, PHONO, LD, AV, TAPE-1, TAPE-2 and VCR.
- To turn up the volume, press "VOLUME UP" button (item #23).
- To turn down the volume, press "VOLUME DOWN" button (item #23).
- To mute the sound temporarily, press "MUTE" button (item #24).
- To restore the sound, press it again. (During muting, the volume indicator blinks.)

BUS SYSTEM OPERATIONS

Products connected to the "BUS LINE" jack allow following operations from the RA-383 remote control unit.

Automatic Source Switching and Play of Music Sources

When a source button on the RA-383 is pressed, the corresponding source unit will automatically be placed in the PLAY mode and be heard. Similarly, when a play button is pressed on a source unit or the tuning or station preset buttons pressed on the tuner, the input source selector on the A-383 will automatically be switched to the corresponding source. This feature works only with Luxman CD players, Tuners and Tape Decks that are equipped with BUS line jacks.

Operating the Cassette Deck

The operations in the following table are possible for either one or two "SYSTEM BUS" decks connected to the "TAPE-1" and "TAPE-2" jacks. Choose the desired deck with the "TAPE-1/TAPE-2" selector (item #19).

To start playback	>
To start reverse playback	<
To fast forward to the right/rewind to the right	>>
To fast-forward to the left/rewind to the left	<<
To music search to the right • Each time a >> or << button is pressed, a track is added. (Up to 8 tracks in both directions.)	> or < ↓ >>
To music search to the left • Each time a >> or << button is pressed, a track is added. (Up to 8 tracks in both directions.)	> or < ↓ <<
To select deck A or B	A/B
To stop playback or recording	STOP
To set the cassette deck to recording pause mode	REC PAUSE
To record • Press the < or > button, use direction that is the same as that indicated by the tape direction indicator on the tape deck.	REC PAUSE ↓ < or >

Note:

Location of the switches will be different depending upon the models connected, so perform operations by referring to the Owner's Manual for each model.

Operating a CD Player

The following operations are possible.
Set the "TUNER CD" switch (item #19) to the CD position.

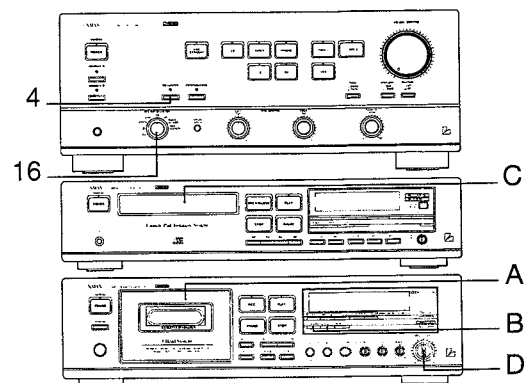
To start play	PLAY
To stop play	STOP
To stop play temporarily	PAUSE
To skip tracks in forward direction	>>
To skip tracks in backward direction	<<
To search a track in forward direction	>>
To search a track in backward direction	<<
To select a disc in a CD changer	DISC SEL ↓ << >>

Note:

Location of the switches will be different depending upon the models connected, so perform operations by referring to the Owner's Manual for each model.

"CD Synchro" Recording

When the A-383 is used with BUS line equipped source units, such as the Luxman D-373 CD player and K-373 cassette tape deck, synchronized start/record, pause and stop functions are possible when making recordings of CDs with the press of a single button. For instance, when the "CD synchro" button (item #4) on the A-383 is pressed, the K-373 cassette deck will go into record mode and the D-373 begins playing at the same time.



Use the following procedure:

1. Set the "REC OUT SELECTOR" (item #16) to "CD."
2. Insert a tape for recording into the deck (item #A in a previous diagram).
3. Select the Dolby NR mode with the "DOLBY NR" switch (item #B).

	DOLBY NR ON/OFF button	B/C button
To record in Dolby B NR mode	■ ON (depressed)	■ B (released)
To record in Dolby C NR mode	■ ON (depressed)	■ C (depressed)
To record without Dolby NR mode	■ OFF (released)	Any position

4. Place the disc in the CD player (item #C).
Recordings can be made to fit the length of the tape used, if your CD player has an editing function. For further details, refer to the manual of the CD player.
5. Turn "REC LEVEL" control (item #D) to adjust the recording level.
6. Press "CD synchro" button (item #4) of the A-383. CD play and tape recording will start simultaneously. The recording level is indicated by the level indicator. When +3 lights up on music peaks, the level is set appropriately.
7. To stop synchronized recording, press the STOP button on the cassette deck or CD player.

Notes:

- CD Synchro recording can only be performed using the tape deck connected to the "TAPE-1" jacks on the A-383.
 - Be sure to advance past the leader tape before recording. Otherwise, the beginning of the CD may not be recorded.
 - Location of the switches will be different depending upon the models connected, so perform operations by referring to the Owner's Manual for each model.
 - To record on both sides using an auto-reverse deck, start with the front side. Recording cannot be continued from the reverse side to the front side. Therefore, when the recording on the reverse side is completed, it stops.
 - Recording will not start if the playback button for the opposite direction is pressed when using an auto-reverse deck.
-

How to Use Sleep Timer

When a tuner with the sleep timer function is connected to the system control, timer operations are available. The power can be cut off automatically after 90 – 10 minutes. Setting step is 10 minutes.

1. Push the "SLEEP" button (item #18) during playback.
2. Set a desired time by repeatedly pushing the "SLEEP" button. The time will be changed by 10 minutes step each time the button is pushed.

With the tuner used, various timer playback can be made. For further details, refer to the manual for the tuner.

Timer Playback and Timer Recoding

When a Luxman tuner having the timer function and the "SYSTEM BUS" jacks is connected to the A-383, timer operations are possible. The power to your system can be turned on and off automatically at the set time.

If a Luxman cassette deck equipped with a timer recording button and the "SYSTEM BUS" jacks is connected to your system, unattended timer recordings are also possible.

To make a timer recording, select the desired recording source with the REC OUT SELECTOR switch (item #16) and set the Timer Recording switch on the cassette deck to the ON position. For further information, refer to the Owner's Manual for each unit in use.

Note:

Timer operations can be performed only when the units in use are "SYSTEM BUS" connected. The operation of the tuner will be different depending upon the model, refer to the Owner's Manual for the tuner connected.

Remote Operations

For reliable operation, use the hand-held remote control within the basic dimensional area.

Battery Replacement

1. Open the battery compartment cover on the rear of the remote control unit. The cover should open easily if you press on it with your thumb and slide it in the direction of the arrow.
2. Place two "AA" size dry batteries in the battery compartment in accordance with the diagram in the compartment, then replace the cover.

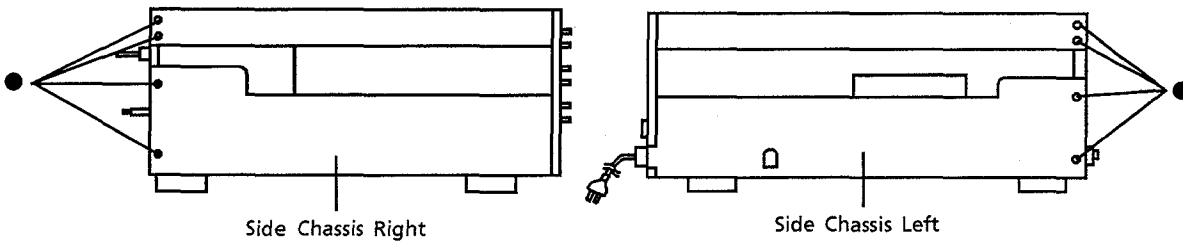
Incorrect use of batteries may lead to leakage or rupture. Be sure to follow these guidelines:

- A. Always insert batteries into the battery compartment correctly matching the positive (+) and negative (-) polarities as shown in the diagram inside the compartment.
- B. Never mix new and used batteries together.
- C. Both rechargeable and non-rechargeable batteries are available. Be sure to use your batteries in accordance with the instructions provided on the cells.

Disassembly Instructions

1. Removal of Front Chassis

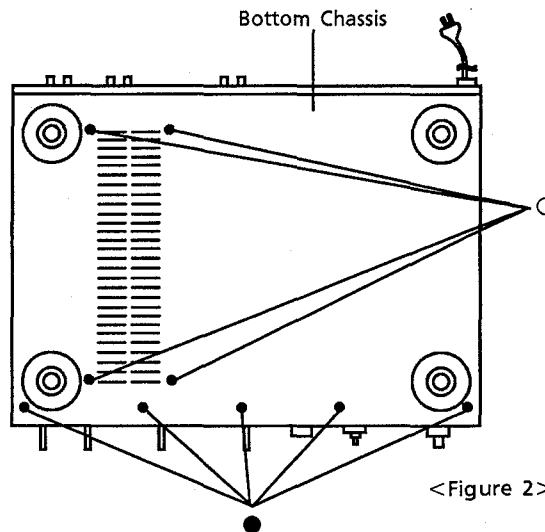
- (1) After removal of Front Panel, remove thirteen screws marked "●" as shown in Figures 1 and 2.
- (2) Disconnect all connectors from the P.C.Board.
- (3) Front Chassis with Control, Volume and Tone P.C.Boards can be removed completely.



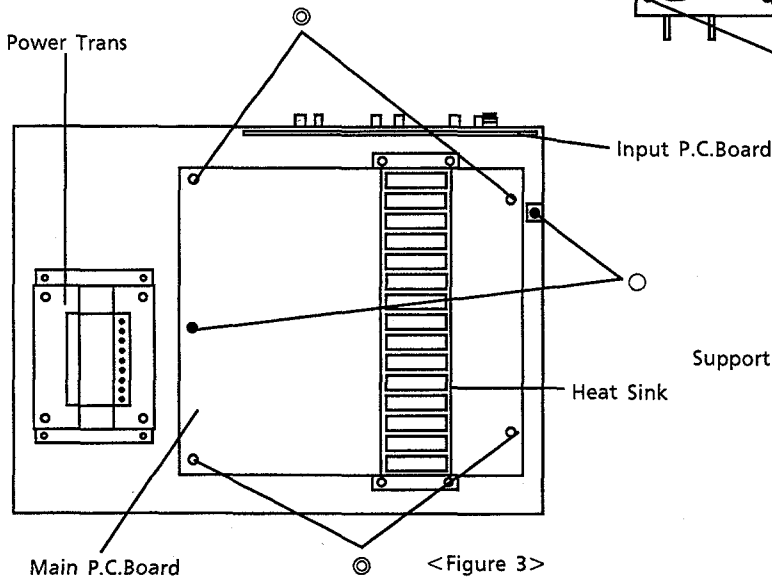
<Figure 1>

2. Removal of Main P.C.Board

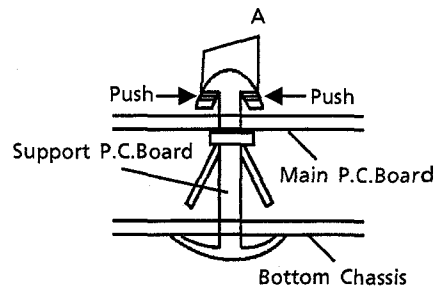
- (1) After removal of Front Chassis, Video and SP Terminal P.C.Boards, remove six screws marked "○" as shown in Figures 2 and 3.
- (2) Remove four Support P.C.Boards marked "⊙" as shown in Figure 3, by pushing the point "A" as shown in Figure 4.
- (3) Disconnect all wires from the P.C.Board.
- (4) Main P.C.Board with Heat Sink can be removed completely.



<Figure 2>



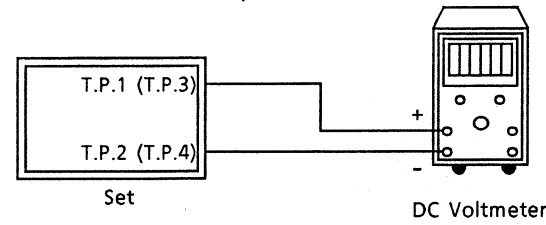
<Figure 3>



<Figure 4>

Adjustment Procedures

1. Connection



<Figure 5>

2. Control Settings

Power Switch ON
 Others OFF

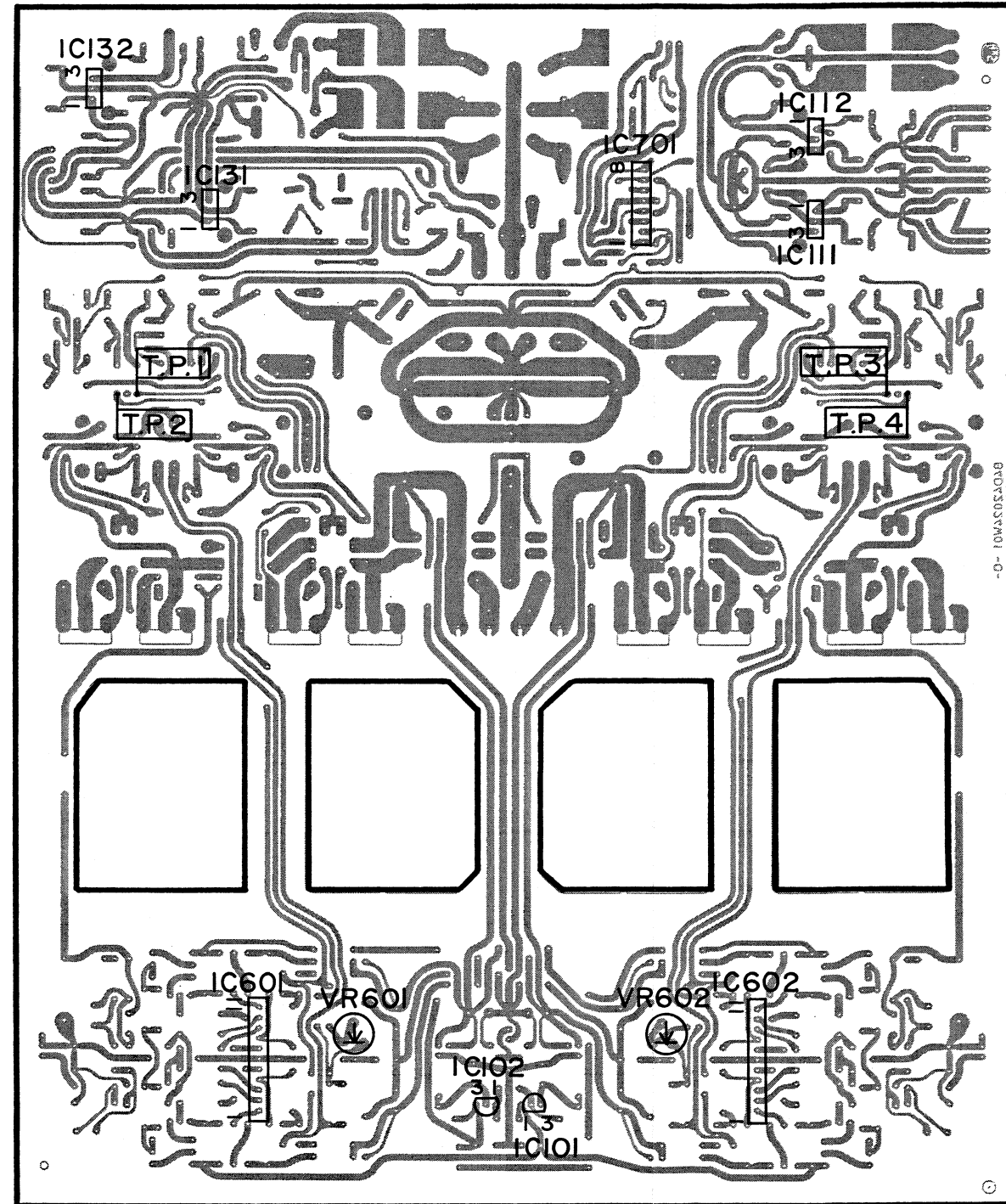
3. Adjustment Procedures

● Idling adjustment

- (1) Set VR501 (sound volume) to its minimum.
- (2) Adjust VR601 (VR602) so that the voltage between T.P.1 (T.P.3) and T.P.2 (T.P.4) is 8mV.

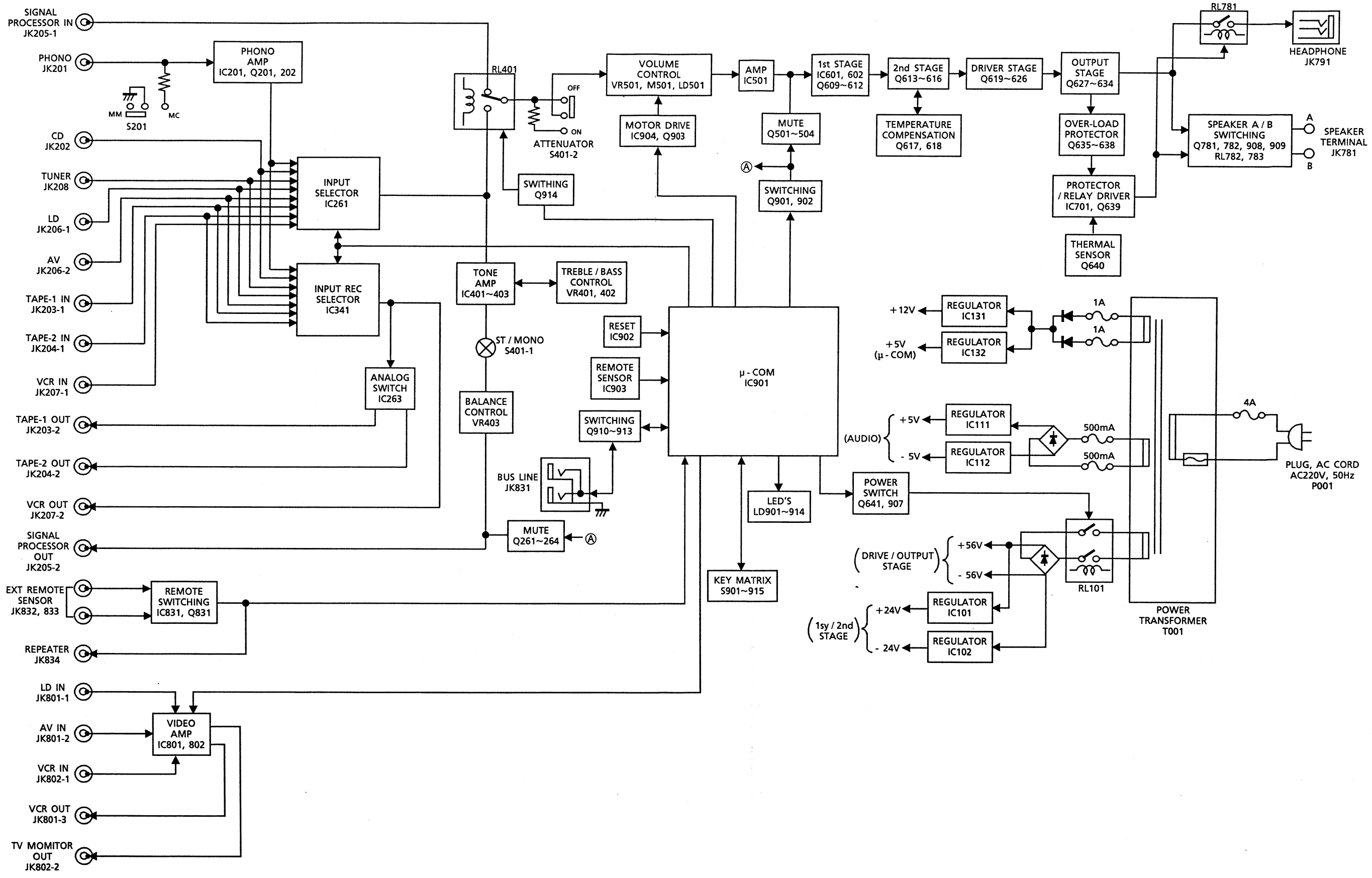
Note: Wait about 3 minutes after turning ON the power to make the above adjustment.

Adjustment Locations



Main P.C. Board (Top View)

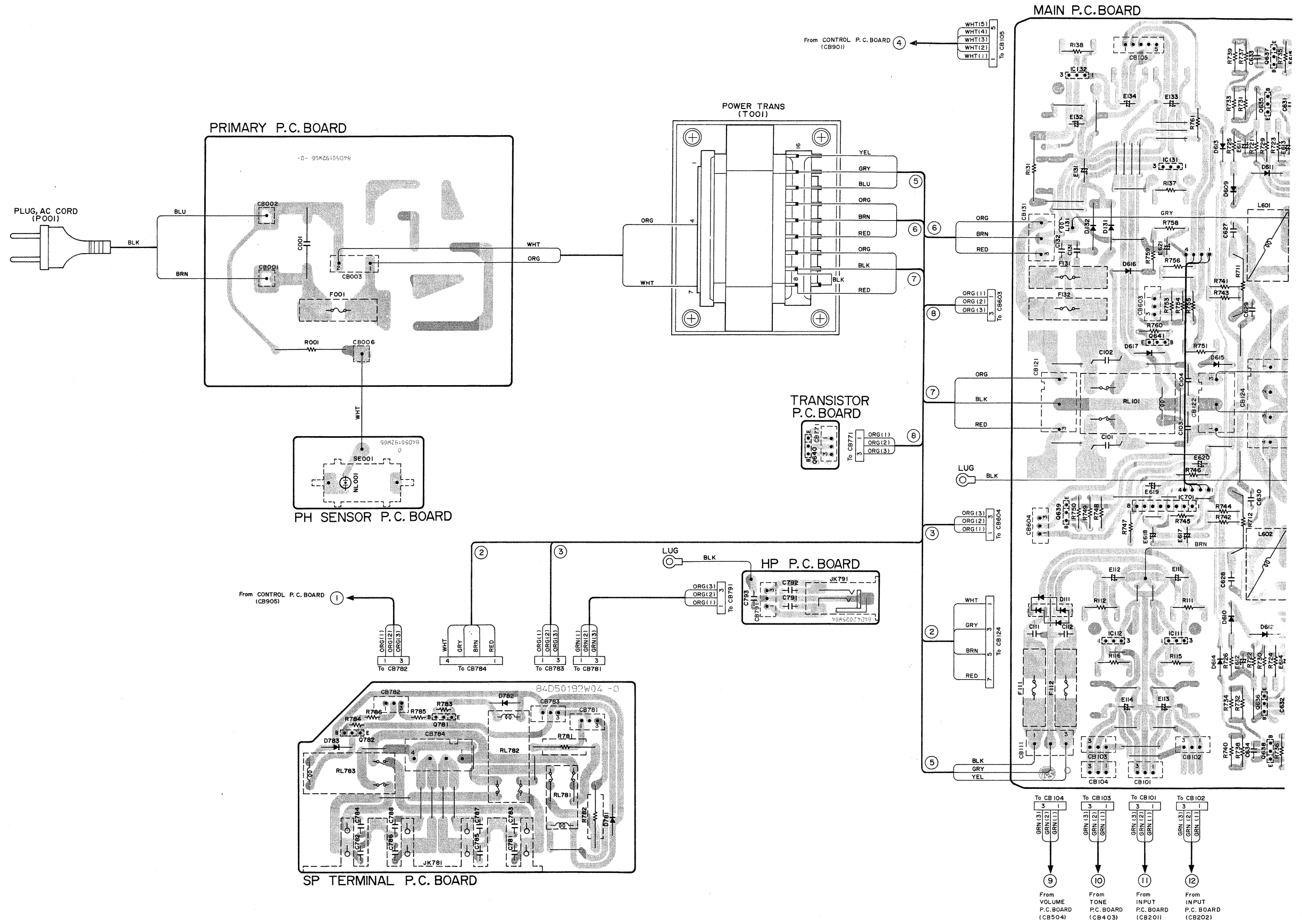
Block Diagram



Parts Layout on P.C. Boards and Wiring Diagram (1/2)

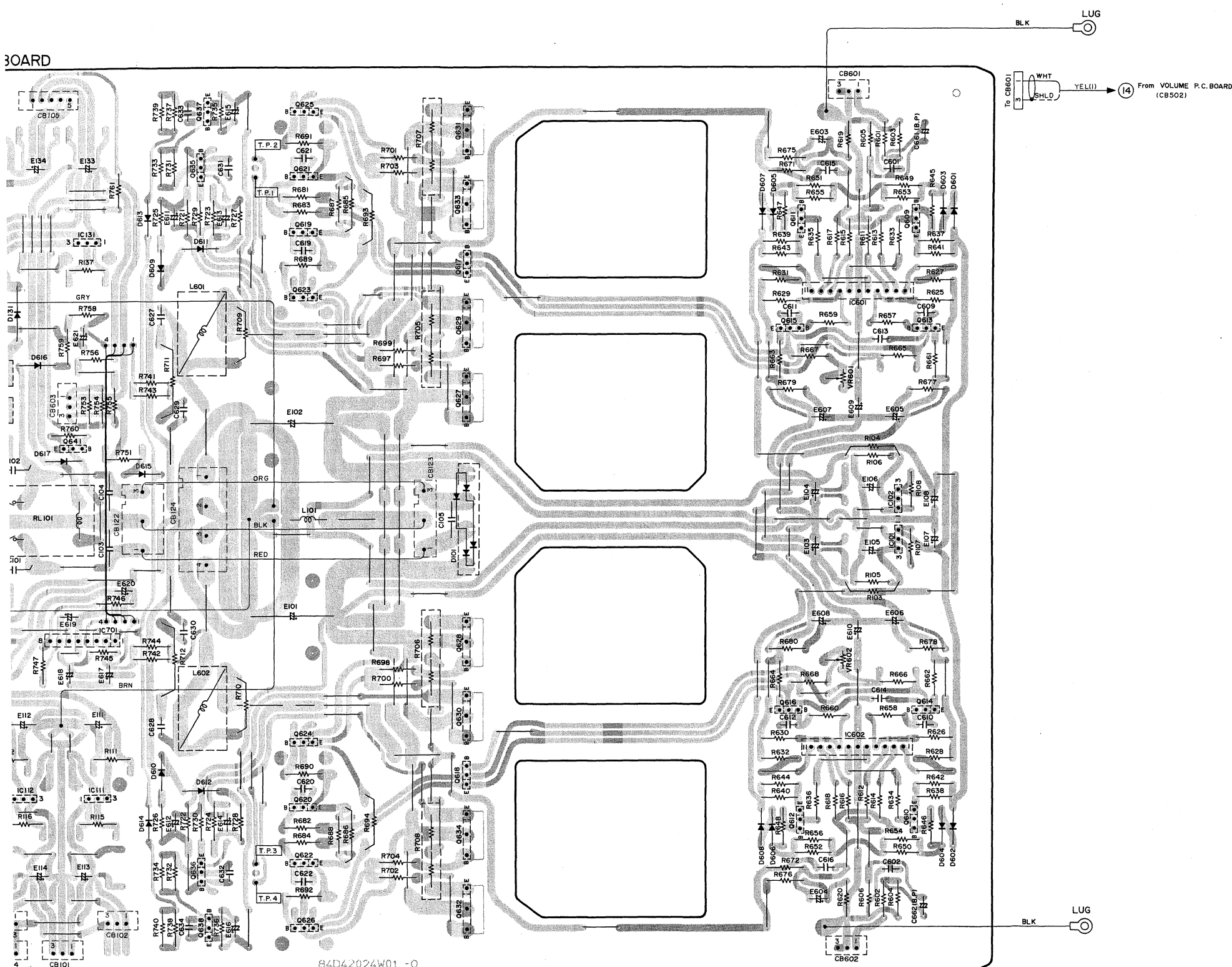
All P.C. Boards viewed from foil side.

1
2
3
4
5

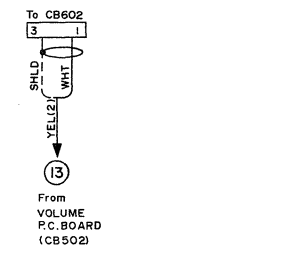
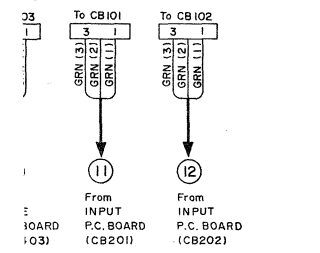


Blue Pattern: Foil Side Pattern.

BOARD

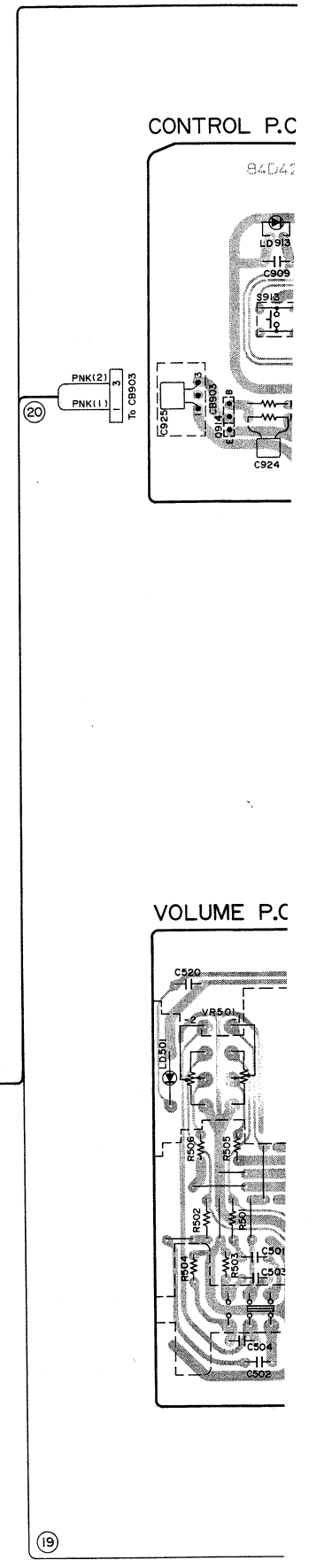
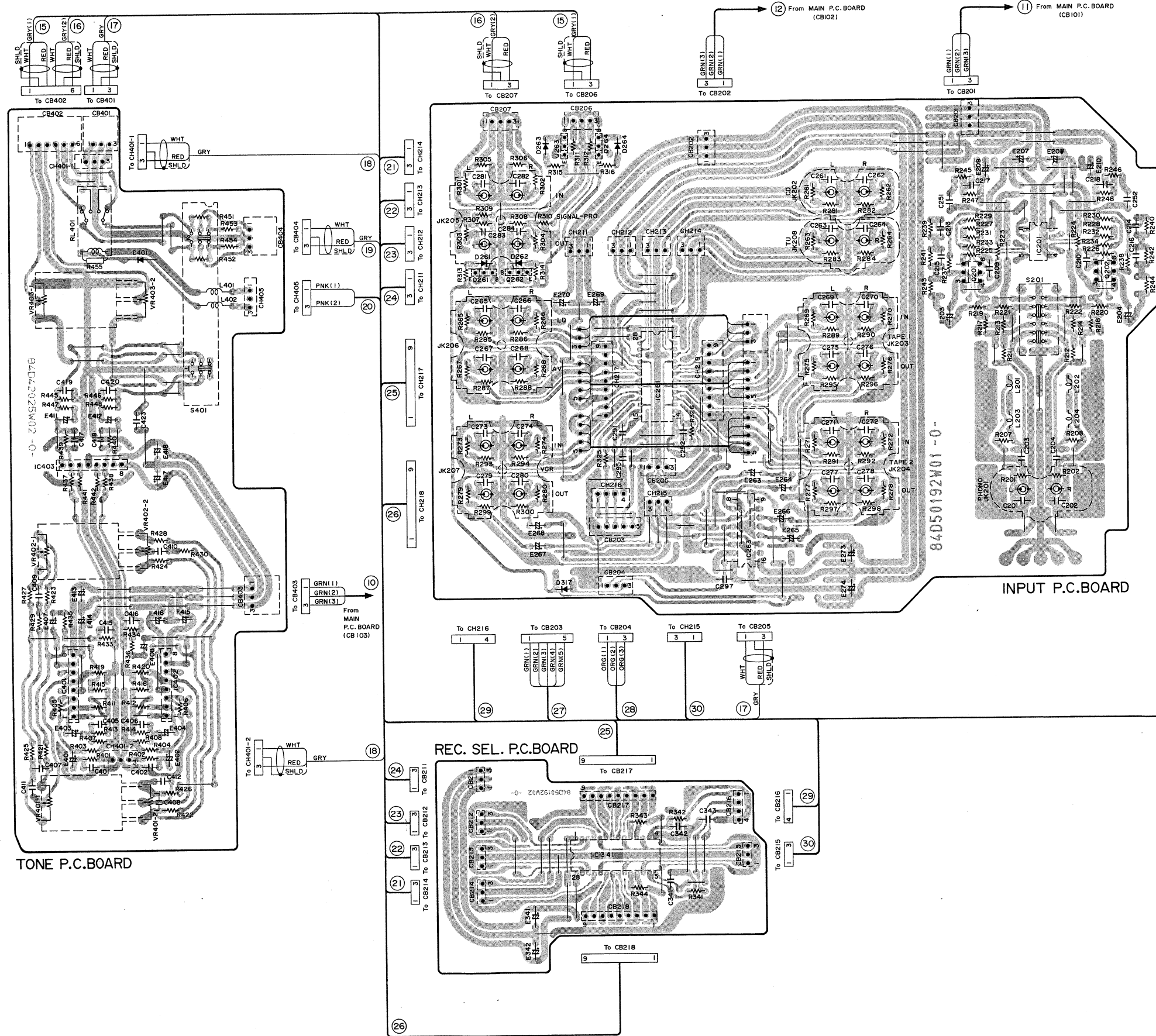


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Parts Layout on P.C. Boards and Wiring Diagram (2/2)

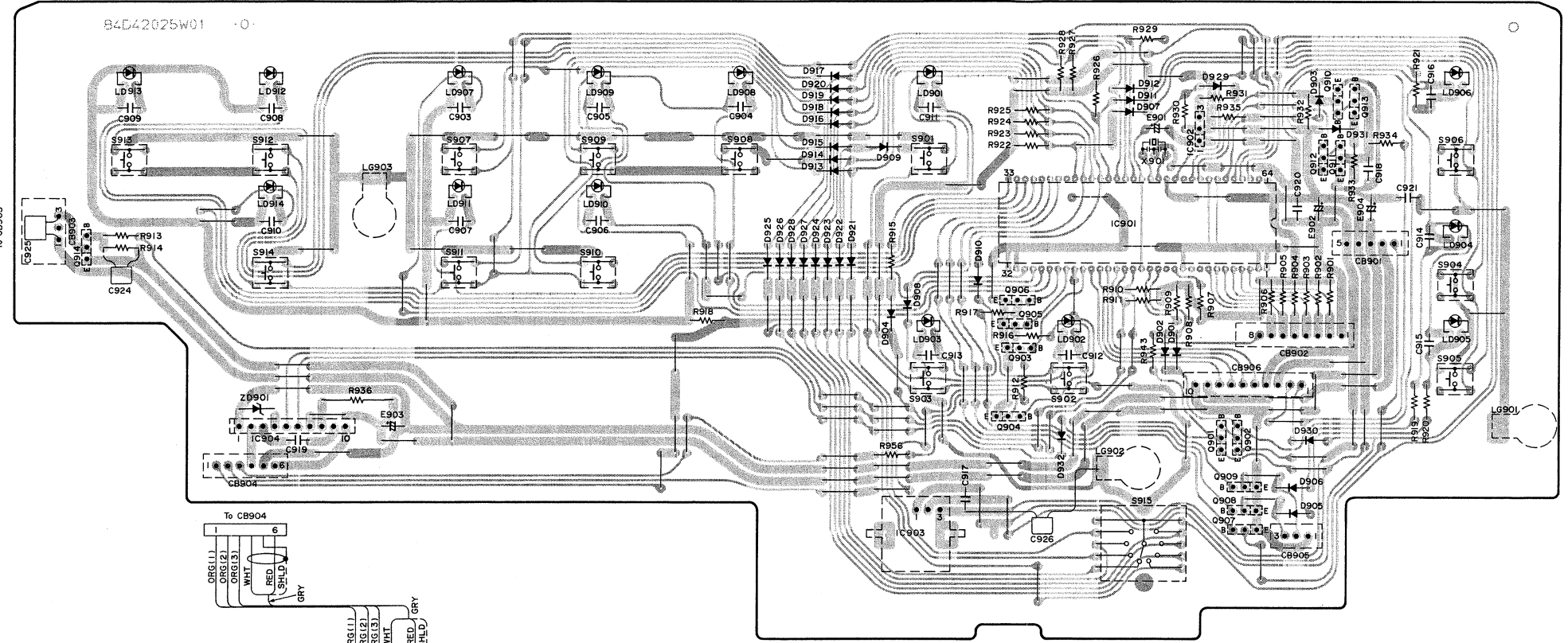
All P.C. Boards viewed from foil side.



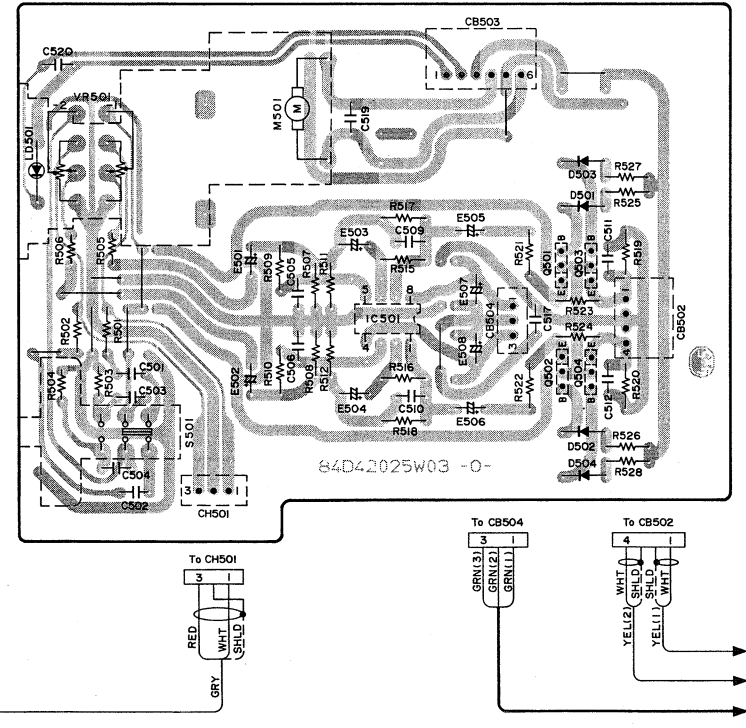
A | B | C | D | E | F | G | H | I

Blue Pattern: Foil Side Pattern.

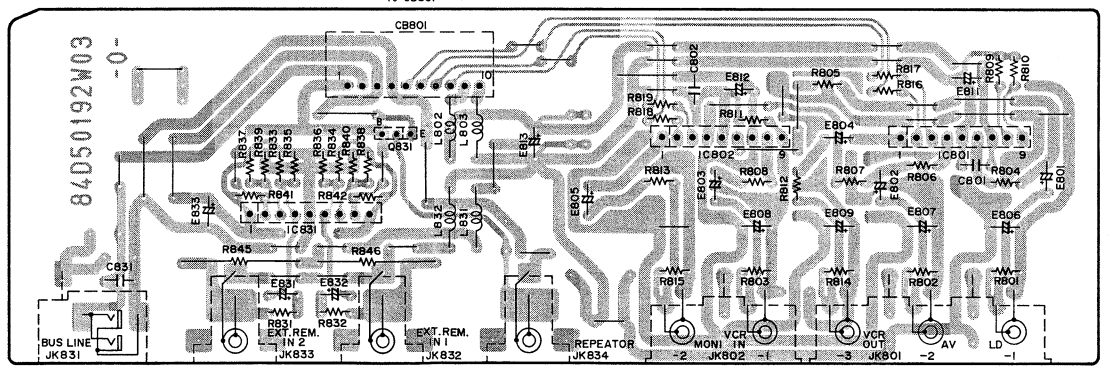
CONTROL P.C.BOARD



VOLUME P.C.BOARD



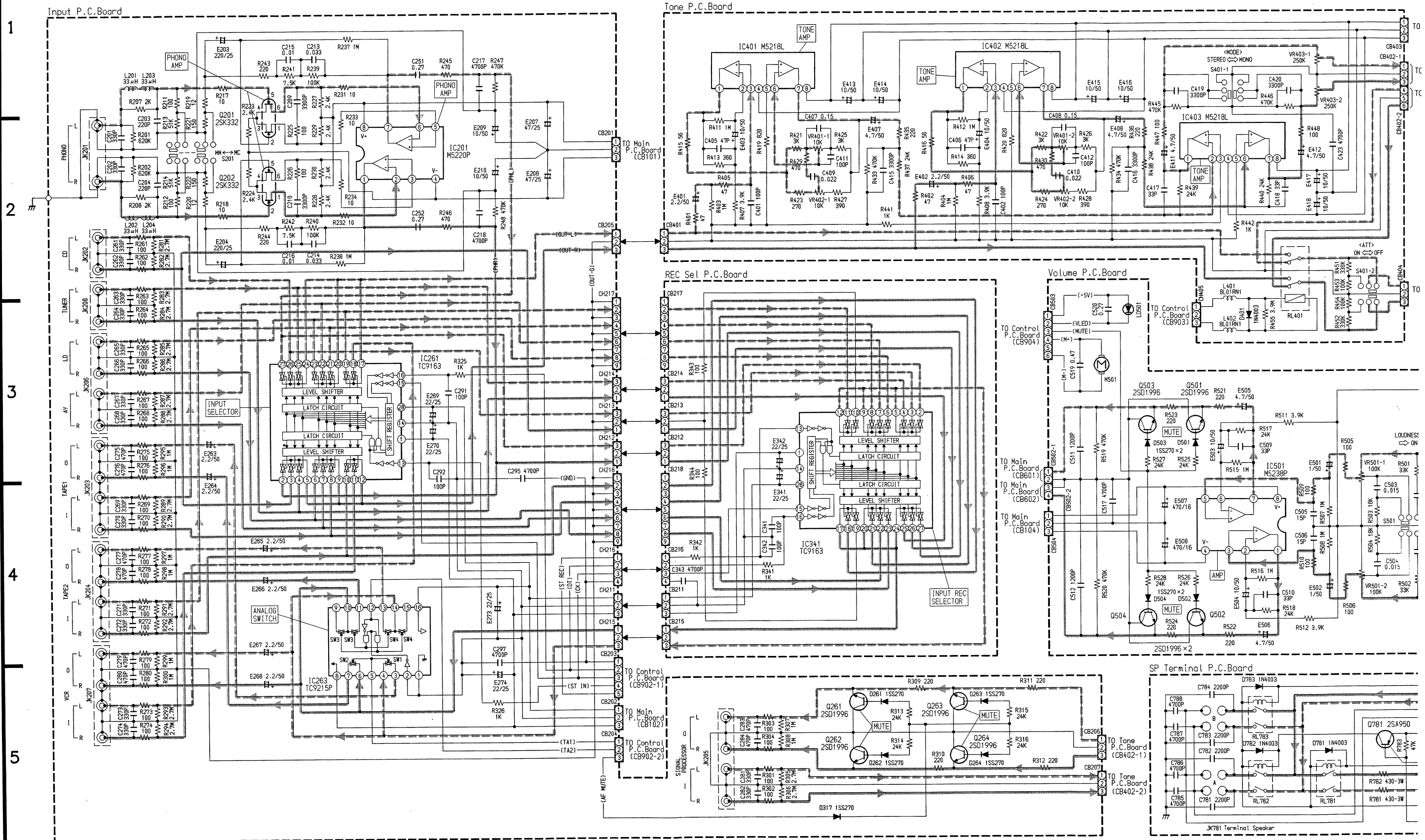
VIDEO P.C.BOARD



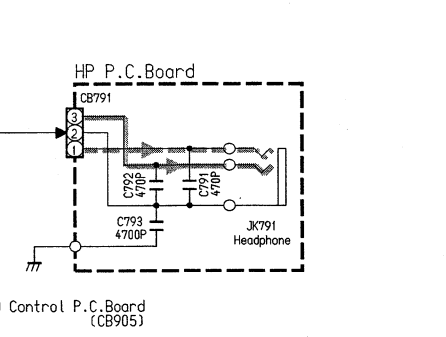
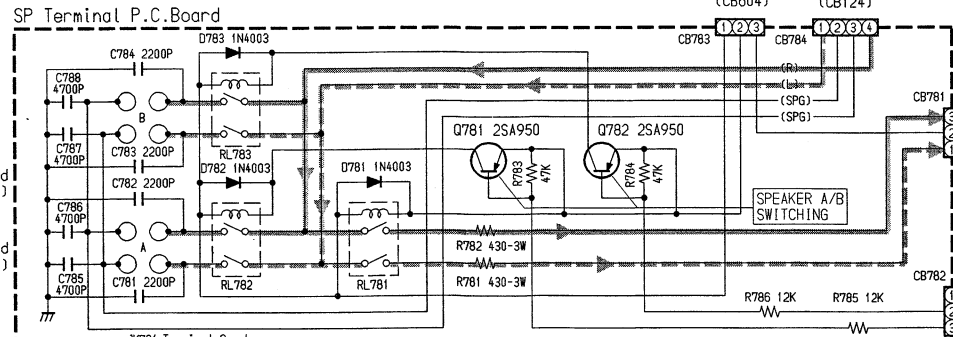
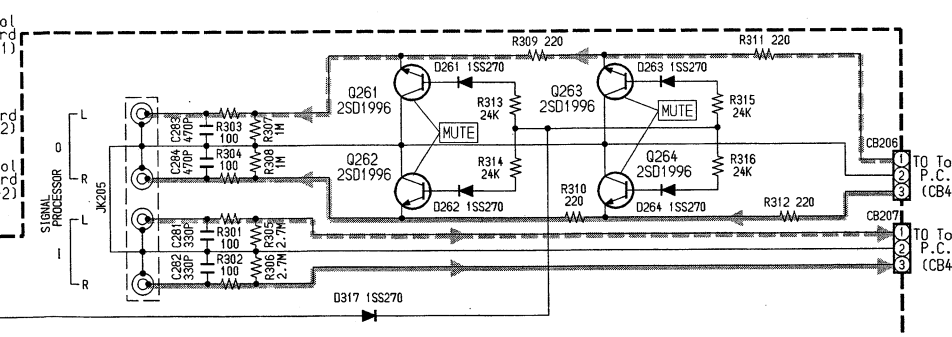
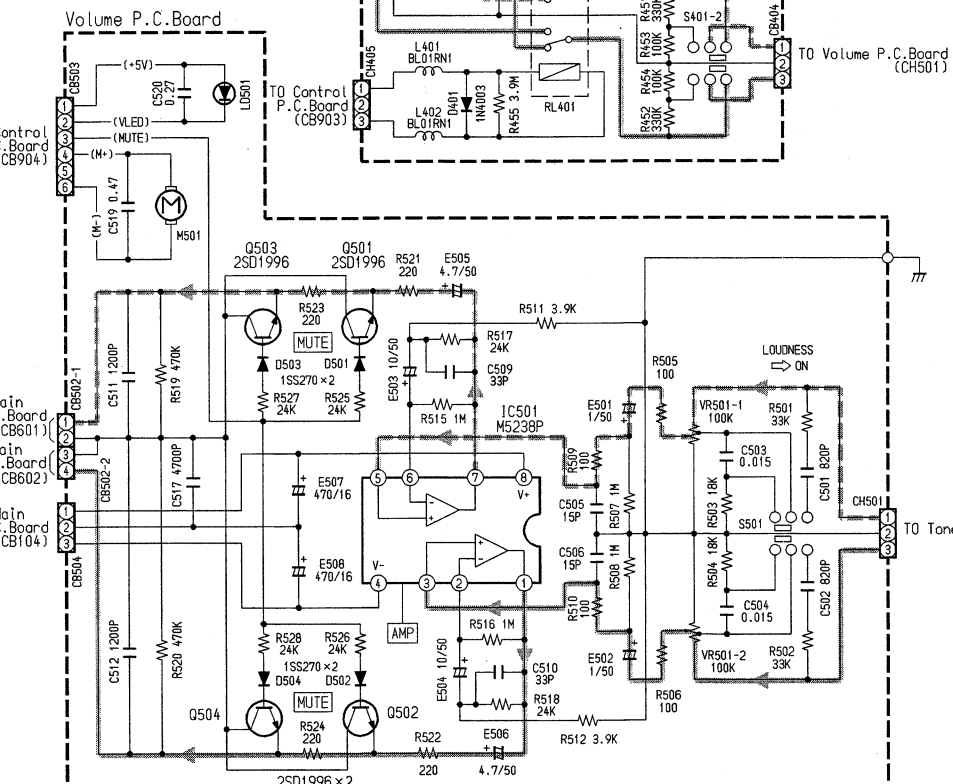
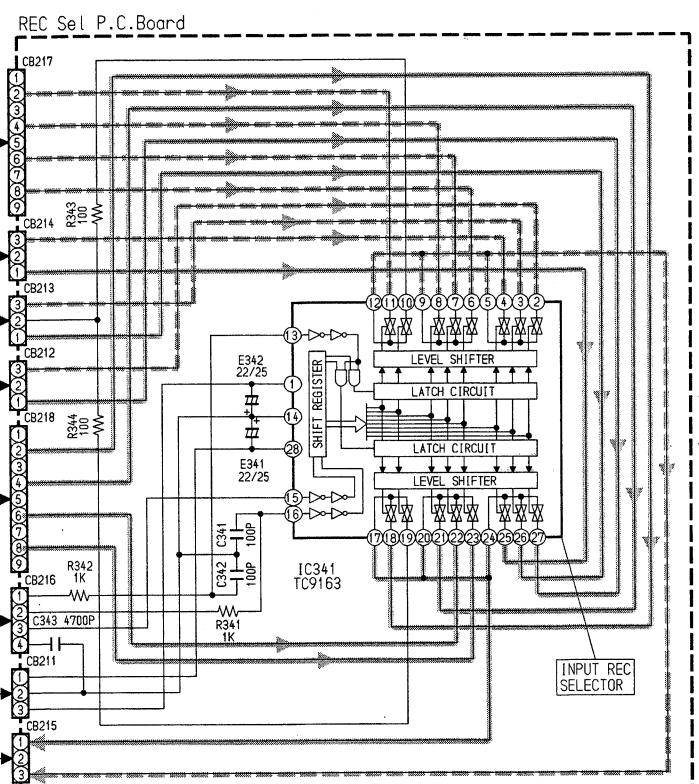
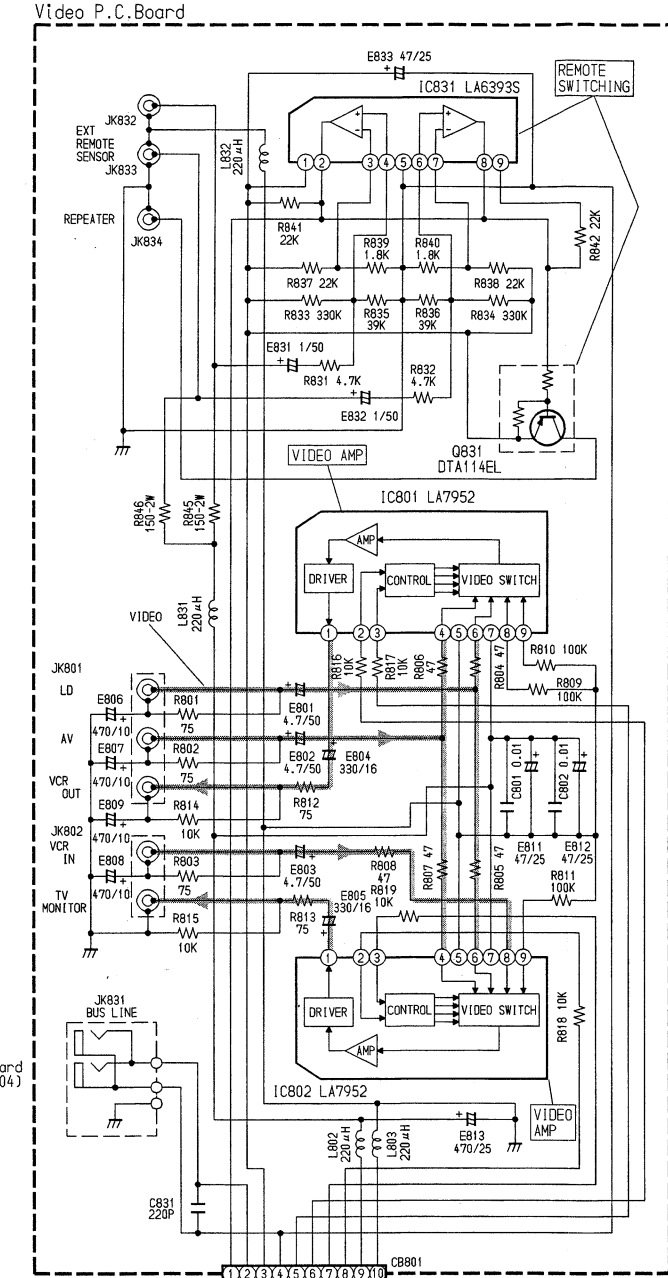
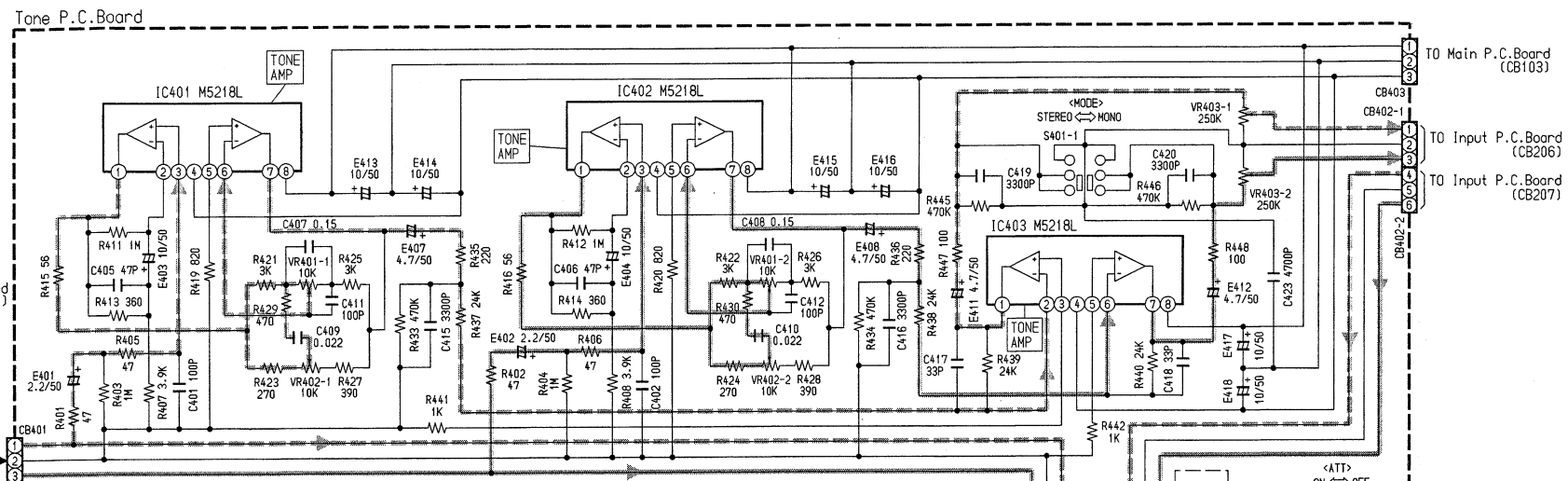
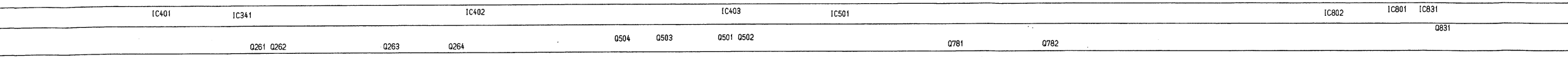
H | I | J | K | L | M | N | O

Schematic Diagram (1/3)

IC	Q201 Q202	IC263	IC261	IC201	IC401	IC341	IC402	IC403	IC501		
Transistor (Q)					Q261 Q262	Q263	Q264	Q504	Q503	Q501 Q502	Q781



A | B | C | D | E | F | G | H

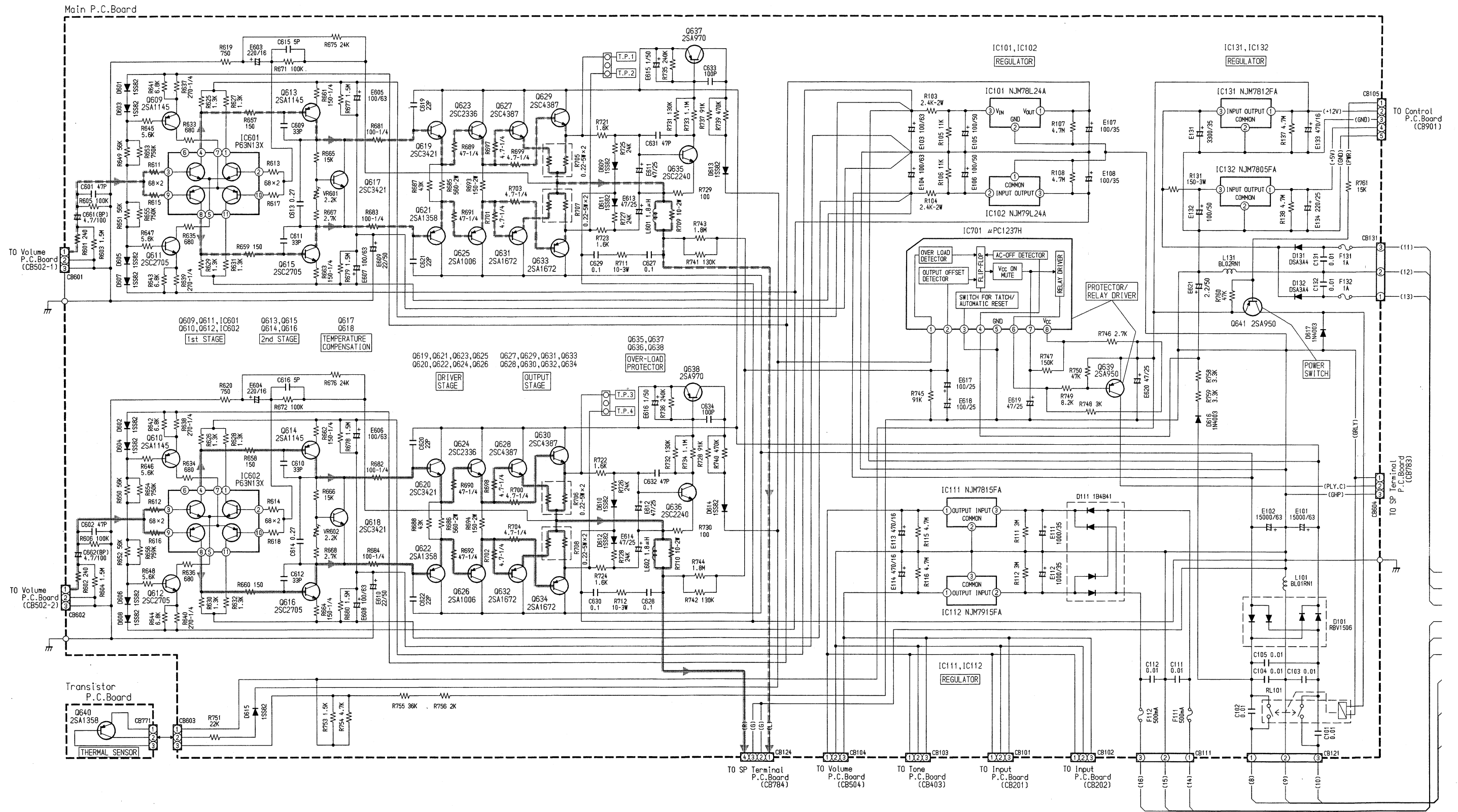


IC201		IC401		IC402			
1	0V	1	0V	1	0V		
2	0V	2	0V	2	0V		
3	0V	3	0V	3	0V		
4	-15V	4	-15V	4	-15V		
5	0V	5	0V	5	0V		
6	0V	6	0V	6	0V		
7	0V	7	0V	7	0V		
8	15V	8	15V	8	15V		
IC403		IC501		Q201, 202			
1	0V	1	0V	1	7.5V		
2	0V	2	0V	2	0.1V		
3	0V	3	0V	3	0V		
4	-15V	4	-15V	4	0V		
5	0V	5	0V	5	0.1V		
6	0V	6	0V	6	7.5V		
7	0V	7	0V				
8	15V	8	15V				
IC261, 341		IC801, 802		IC831			
1	-15V	15	0V/5V	1	5V		
2	0V	16	0V/5V	2	5V/0V		
3	0V	17	0V	3	5V/0V		
4	0V	18	0V	4	3V		
5	0V	19	0V	5	0V		
6	0V	20	0V	6	3V		
7	0V	21	0V	7	12V		
8	0V	22	0V	8	3V		
9	0V	23	0V	9	3V		
10	0V	24	0V				
11	0V	25	0V	IC831			
12	0V	26	0V	1	5V		
13	0V/5V	27	0V	2	5V		
14	0V	28	15V	3	0.38V		
				4	0.53V		
				5	0V		
				6	0.53V		
				7	0.38V		
				8	5V		
				9	5V		
IC263		Q261, 262, 263, 264		Q501, 502, 503, 504			
1	0V	9	0V	1	0V		
2	0V	10	0V	2	0V		
3	0V	11	0V	3	0V		
4	0V	12	5V/0V	4	0V		
5	5V/0V	13	0V	5	0V		
6	0V	14	0V	6	0V		
7	0V	15	0V	7	0V		
8	-15V	16	15V	8	0V		
				9	0V		
Q781, 782, 831		E, C, B					
11.95V	11.9V/0V	11.3V	11.9V	Q261	0V	0V	0V
11.95V	0V/11.9V	11.9V	11.3V	Q262	0V	0V	0V
5V	0V	0V	5V	Q263	0V	0V	0V
				Q264	0V	0V	0V
				Q501	0V	0V	0V
				Q502	0V	0V	0V
				Q503	0V	0V	0V
				Q504	0V	0V	0V

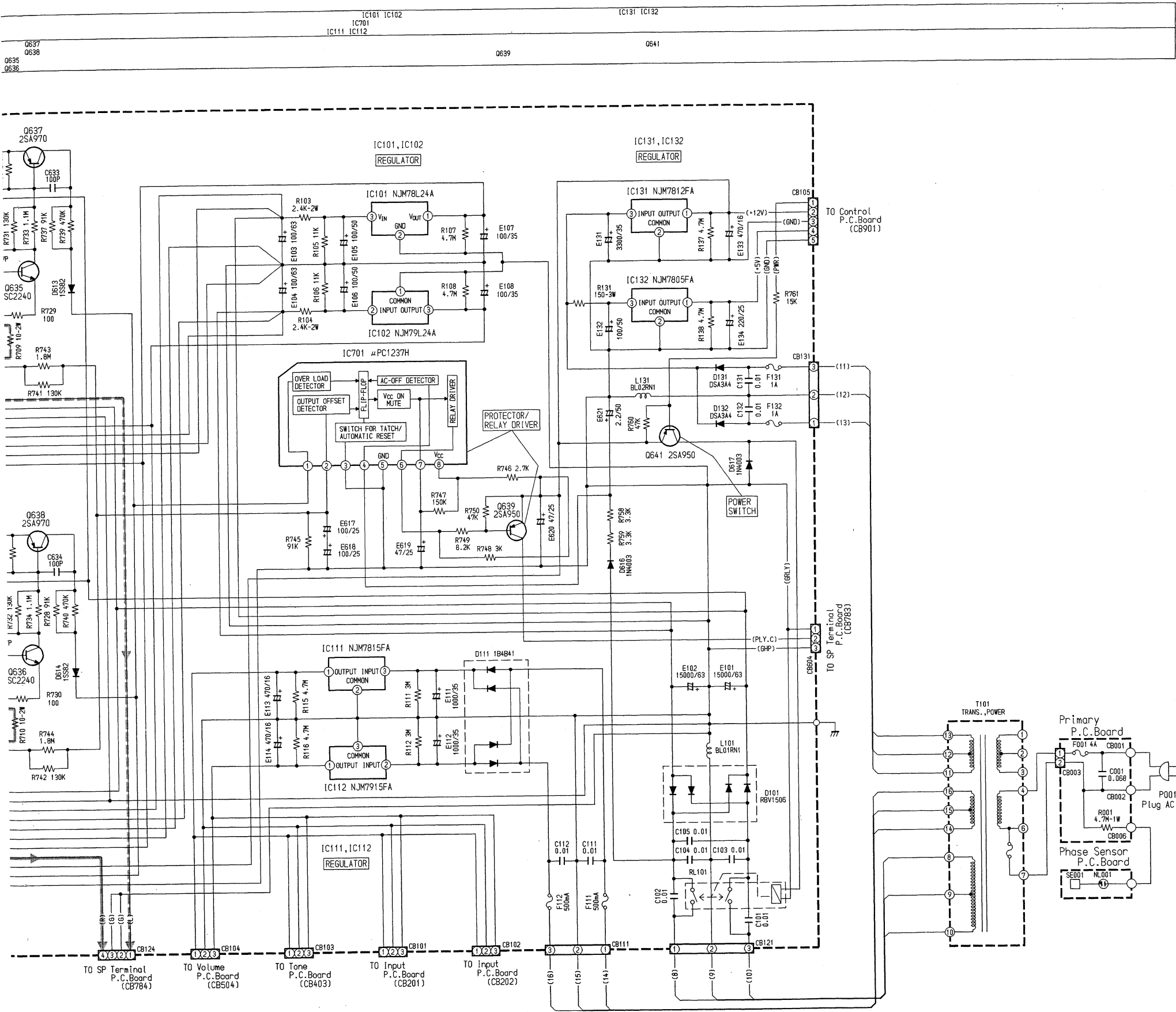
D I E I F I G I H I I I J I K I

Schematic Diagram (2/3)

IC	IC601										IC602										IC701										IC101 IC102										IC131 IC132																													
Transistor (D)	0609, 0611, 0610, 0612										0613, 0615, 0614, 0616										0617, 0618										0619, 0621, 0623, 0625, 0627, 0629, 0631, 0633, 0635, 0636										0637, 0638										0639										0641									



A | B | C | D | E | F | G | H | I

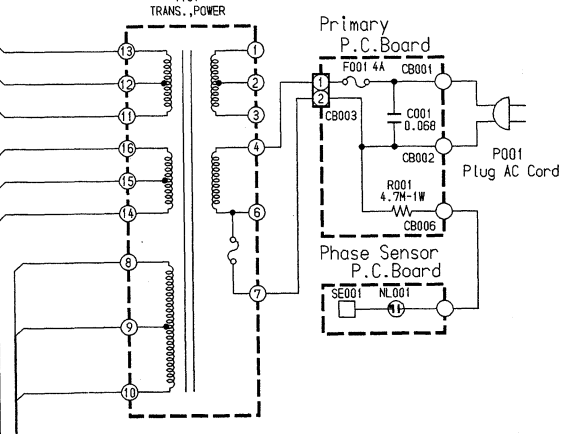


IC601		IC602		IC701	
1	55V	1	55V	1	0V
2	0V	2	0V	2	0V
3	0V	3	0V	3	0V
4	55V	4	55V	4	7V
5	0.6V	5	0.6V	5	0V
6	0V	6	0V	6	0.7V
7	-0.6V	7	-0.6V	7	2.2V
8	-55V	8	-55V	8	3.3V
9	0V	9	0V		
10	0V	10	0V		
11	-55V	11	-55V		

	1	2	3
IC101	32V	0V	24V
IC102	0V	-32V	-24V
IC111	15V	0V	22.5V
IC112	-15V	-22.5V	0V
IC131	12V	0V	19V
IC132	5V	0V	14V

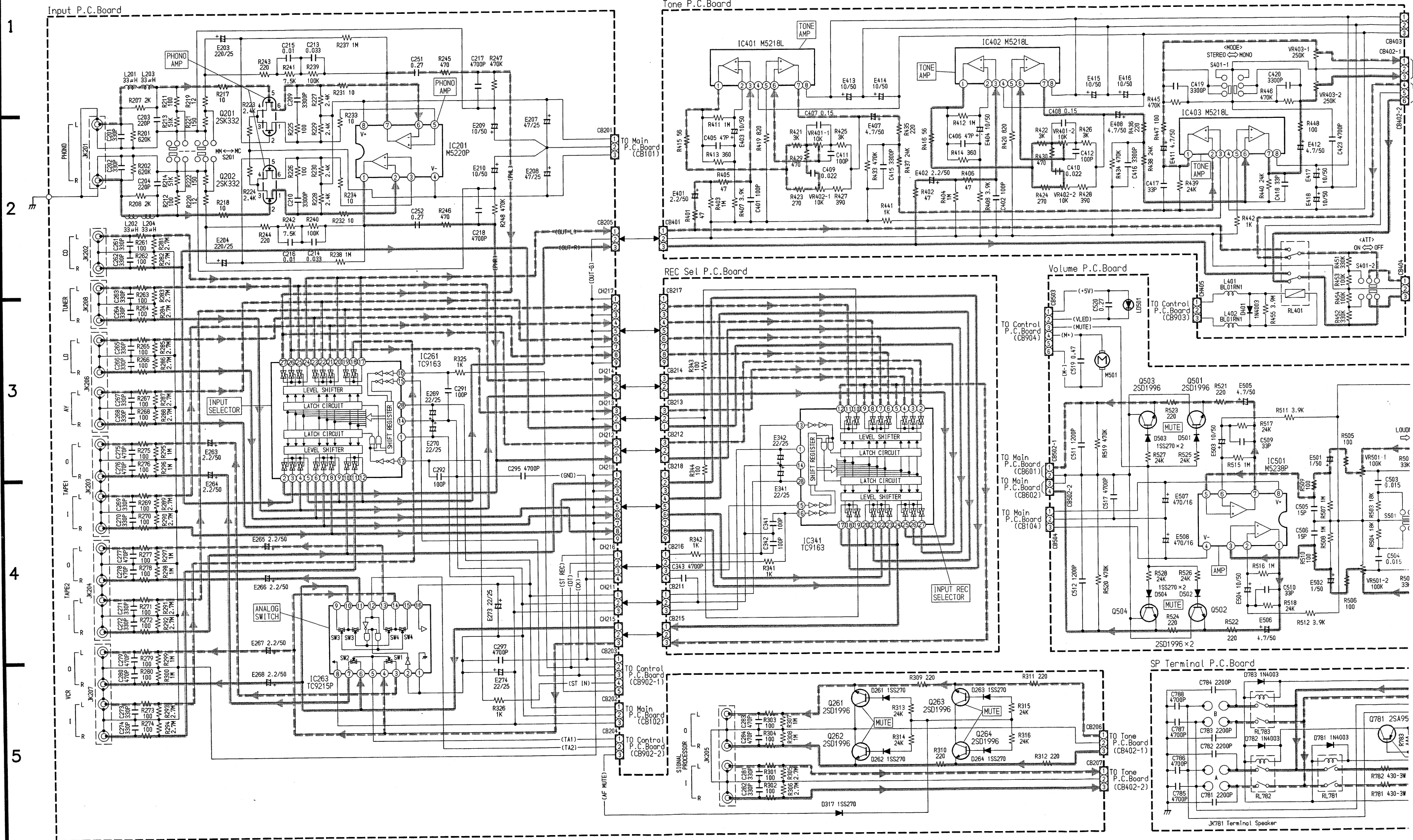
	E	C	B	E	C	B	
Q609	23.6V	1.6V	23V	Q626	-0.6V	-56V	-1.2V
Q610	23.6V	1.6V	23V	Q627	0V	56V	0.6V
Q611	-24V	-1.6V	-23V	Q628	0V	56V	0.6V
Q612	-24V	-1.6V	-23V	Q629	0V	56V	0.6V
Q613	55.6V	1.8V	55V	Q630	0V	56V	0.6V
Q614	55.6V	1.8V	55V	Q631	0V	-56V	-0.6V
Q615	-55.6V	-1.8V	-55V	Q632	0V	-56V	-0.6V
Q616	-55.6V	-1.8V	-55V	Q633	-56V	0V	-0.6V
Q617	-1.8V	1.8V	-1.2V	Q634	-56V	0V	-0.6V
Q618	-1.8V	1.8V	-1.2V	Q635	0V	56V	0V
Q619	1.2V	56V	1.8V	Q636	0V	56V	0V
Q620	1.2V	56V	1.8V	Q637	56V	0V	56V
Q621	-1.2V	-56V	-1.8V	Q638	56V	0V	56V
Q622	-1.2V	-56V	-1.8V	Q639	11.95V	12V	11.4V
Q623	0.6V	56V	1.2V	Q640	12V	0V	12V
Q624	0.6V	56V	1.2V	Q641	12V	11.95V	11.3V
Q625	-0.6V	-56V	-1.2V				

- <Voltage Measuring Conditions>
1. Power Supply : AC220V / 50Hz
 2. Measuring Meter : Digital Multimeter
 3. Measuring Point Reference : Between Ground
 4. Measuring Conditions : No Signal Input, Power Switch 'ON'

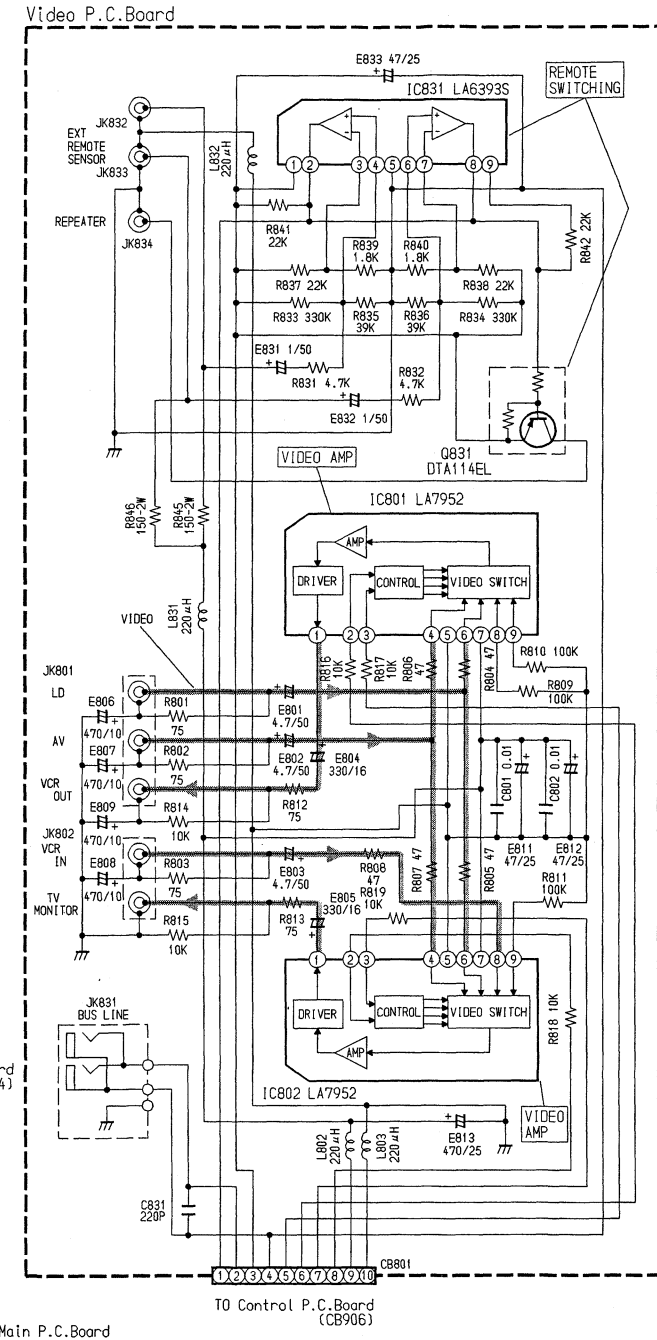
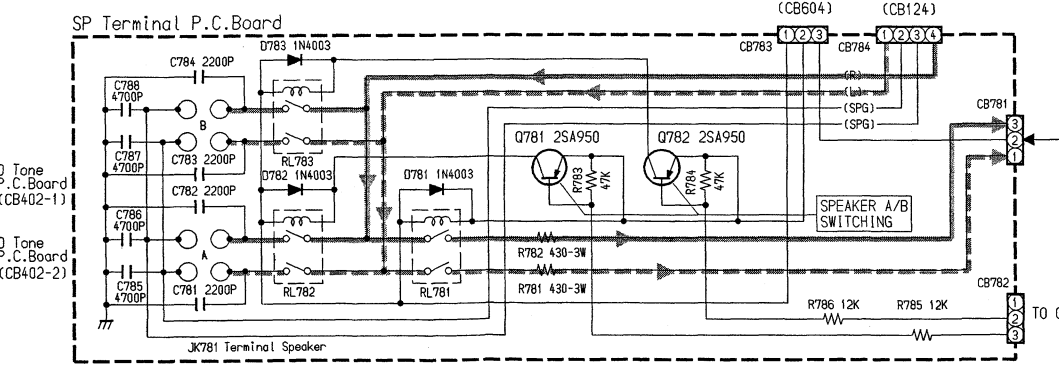
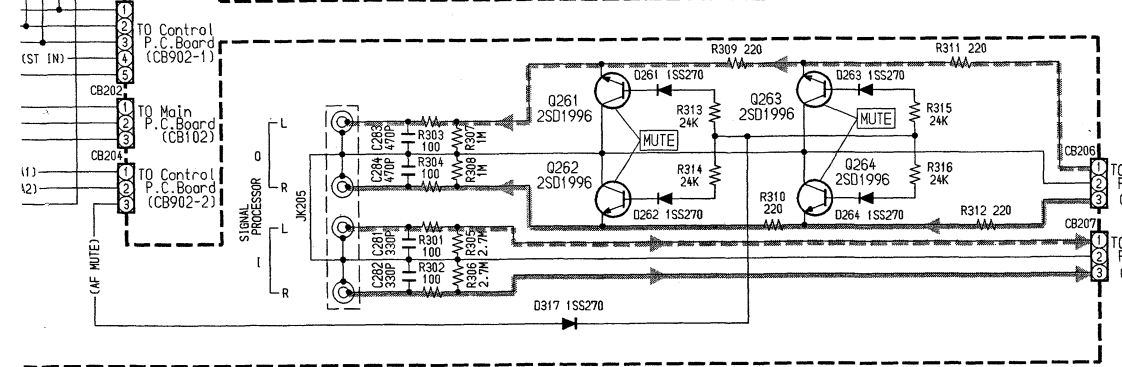
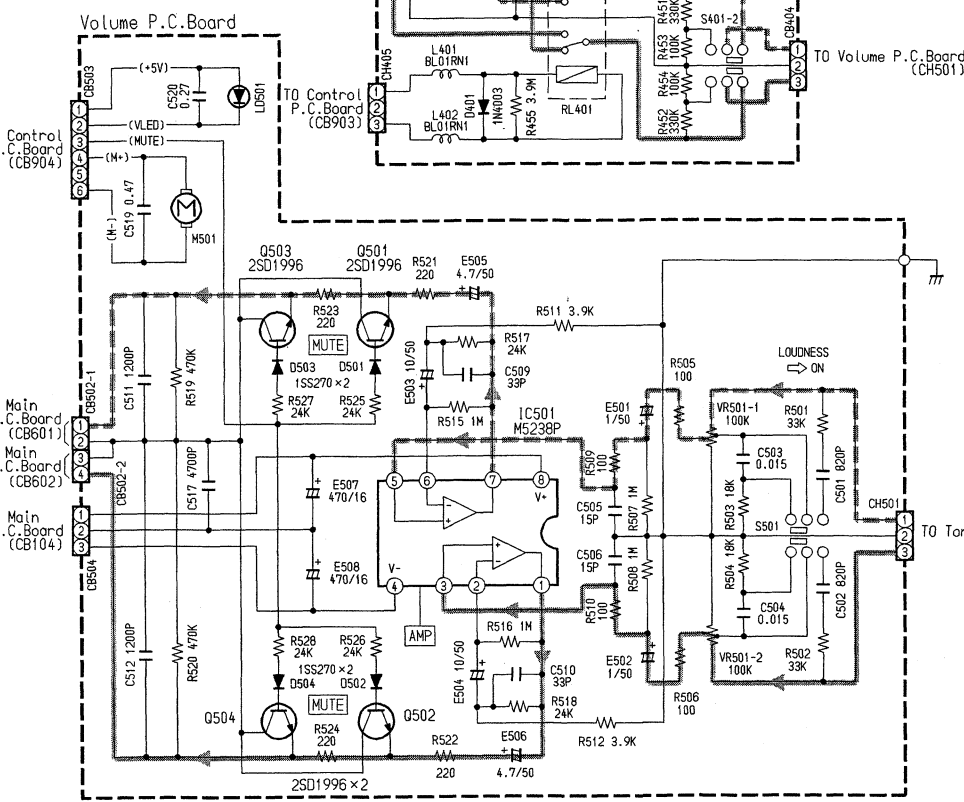
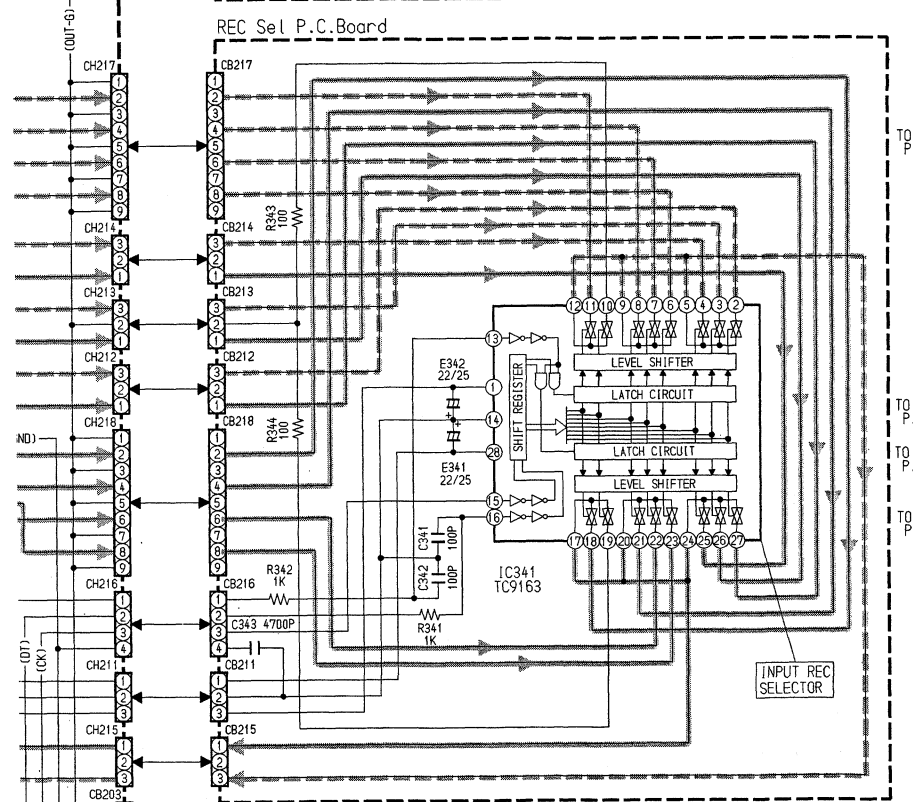
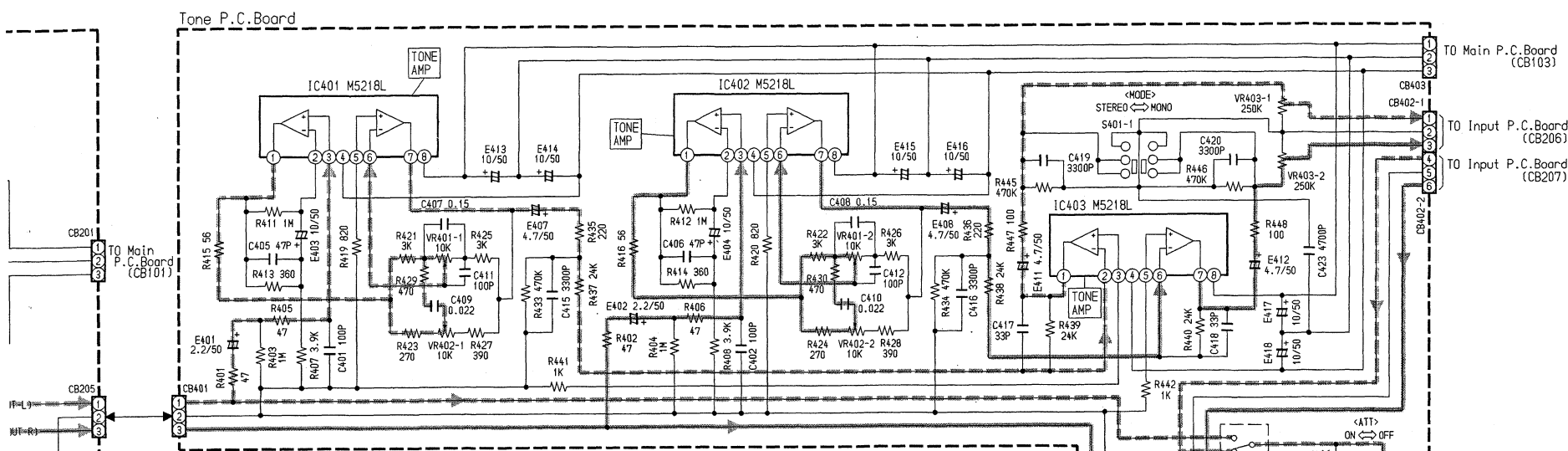
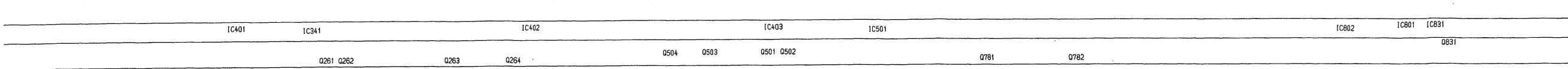


Schematic Diagram (1/3)

IC	IC263	IC261	IC201	IC401	IC341	IC402	IC403	IC501	
Transistor (Q)	Q201 Q202			Q261 Q262	Q263	Q264	Q504 Q503	Q501 Q502	Q781



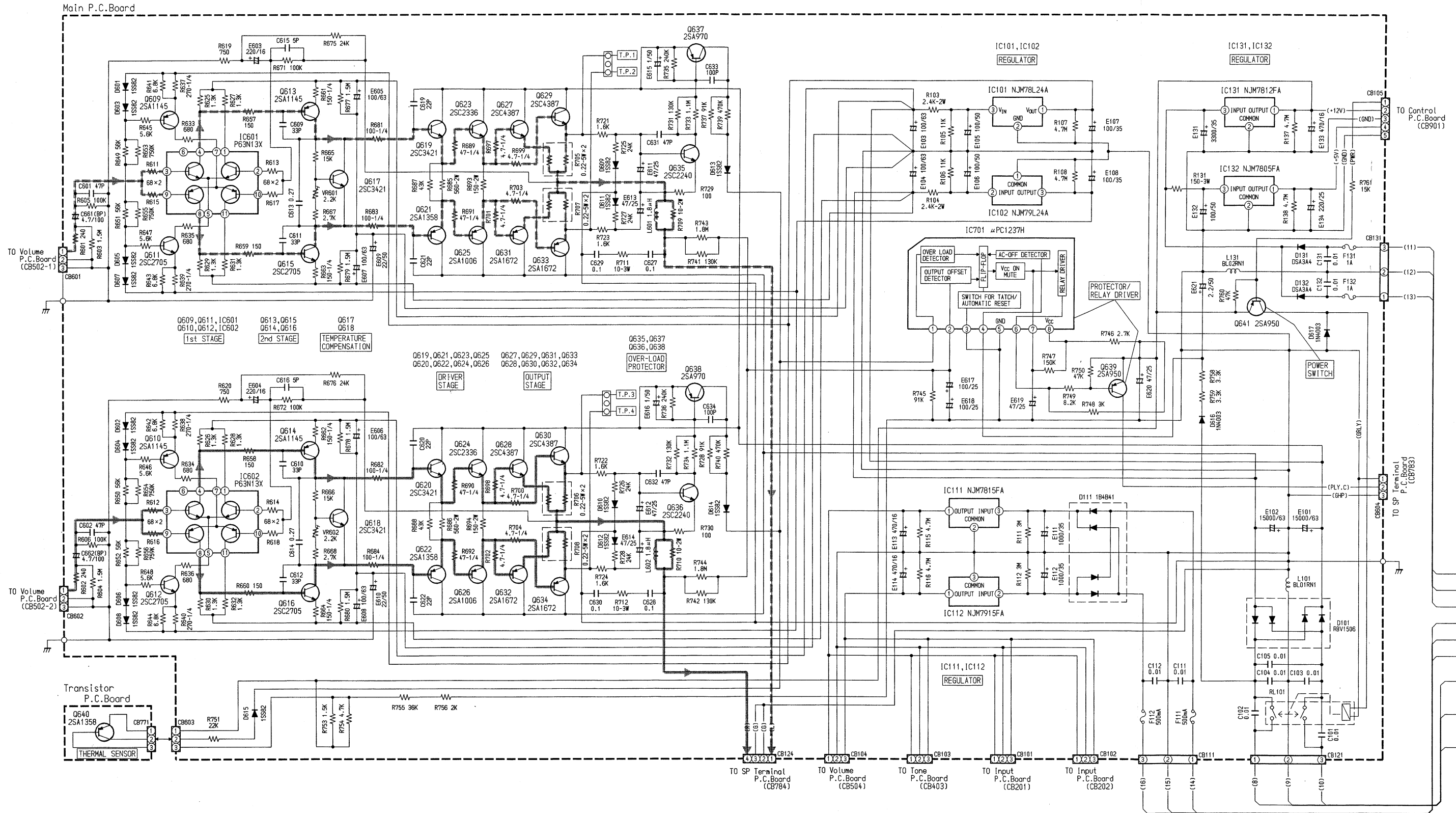
A | B | C | D | E | F | G | H



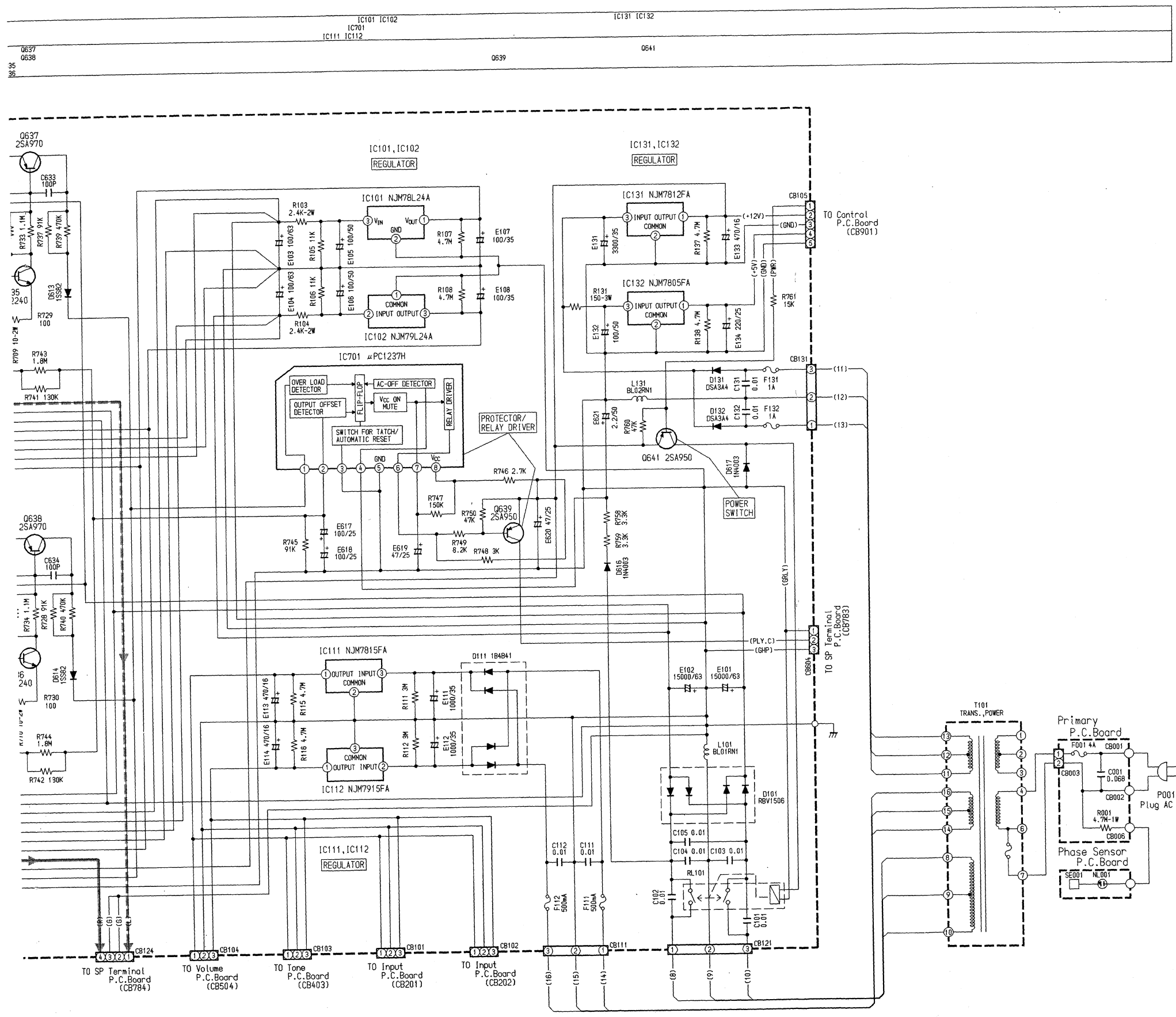
IC201		IC401		IC402	
1	0V	1	0V	1	0V
2	0V	2	0V	2	0V
3	0V	3	0V	3	0V
4	-15V	4	-15V	4	-15V
5	0V	5	0V	5	0V
6	0V	6	0V	6	0V
7	0V	7	0V	7	0V
8	15V	8	15V	8	15V
IC403		IC501		Q201, 202	
1	0V	1	0V	1	7.5V
2	0V	2	0V	2	0.1V
3	0V	3	0V	3	0V
4	-15V	4	-15V	4	0V
5	0V	5	0V	5	0.1V
6	0V	6	0V	6	0V
7	0V	7	0V	7	0V
8	15V	8	15V	8	15V
IC261, 341		IC801, 802		IC831	
1	-15V	15	0V/SV	1	6V
2	0V	16	0V/SV	2	5V/0V
3	0V	17	0V	3	5V/0V
4	0V	18	0V	4	3V
5	0V	19	0V	5	0V
6	0V	20	0V	6	3V
7	0V	21	0V	7	12V
8	0V	22	0V	8	3V
9	0V	23	0V	9	3V
10	0V	24	0V		
11	0V	25	0V	1	1V
12	0V	26	0V	2	5V
13	0V/SV	27	0V	3	0.38V
14	0V	28	15V	4	0.53V
				5	0V
				6	0.53V
				7	0.38V
				8	5V
				9	5V
IC263		IC831			
1	0V	9	0V		
2	0V	10	0V		
3	0V	11	0V		
4	0V	12	5V/0V		
5	5V/0V	13	0V		
6	0V	14	0V		
7	0V	15	0V		
8	-15V	16	15V		
Q261, 262, 263, 264, 503, 504, 781, 782, 831					
Q261	0V	E	C	B	
Q262	0V	0V	0V	0V	
Q263	0V	0V	0V	0V	
Q264	0V	0V	0V	0V	
Q503	0V	0V	0V	0V	
Q504	0V	0V	0V	0V	
Q781	11.95V	11.9V/0V	11.3V/11.9V		
Q782	11.95V	0V/11.9V	11.9V/11.3V		
Q831	5V	0V	5V		

Schematic Diagram (2/3)

IC	IC601										IC101 IC102		IC131 IC132																
Transistor (Q)	Q609	Q611	Q610	Q612	Q613	Q615	Q614	Q616	Q617	Q618	Q619	Q621	Q620	Q622	Q623	Q624	Q626	Q627	Q628	Q631	Q630	Q632	Q634	Q635	Q636	Q637	Q638	Q639	Q641



A | B | C | D | E | F | G | H | I



IC601		IC602		IC701	
1	55V	1	55V	1	0V
2	0V	2	0V	2	0V
3	0V	3	0V	3	0V
4	55V	4	55V	4	7V
5	0.6V	5	0.6V	5	0V
6	0V	6	0V	6	0.7V
7	-0.6V	7	-0.6V	7	2.2V
8	-55V	8	-55V	8	3.3V
9	0V	9	0V		
10	0V	10	0V		
11	-55V	11	-55V		

	1	2	3
IC101	32V	0V	24V
IC102	0V	-32V	-24V
IC111	15V	0V	22.5V
IC112	-15V	-22.5V	0V
IC131	12V	0V	19V
IC132	5V	0V	14V

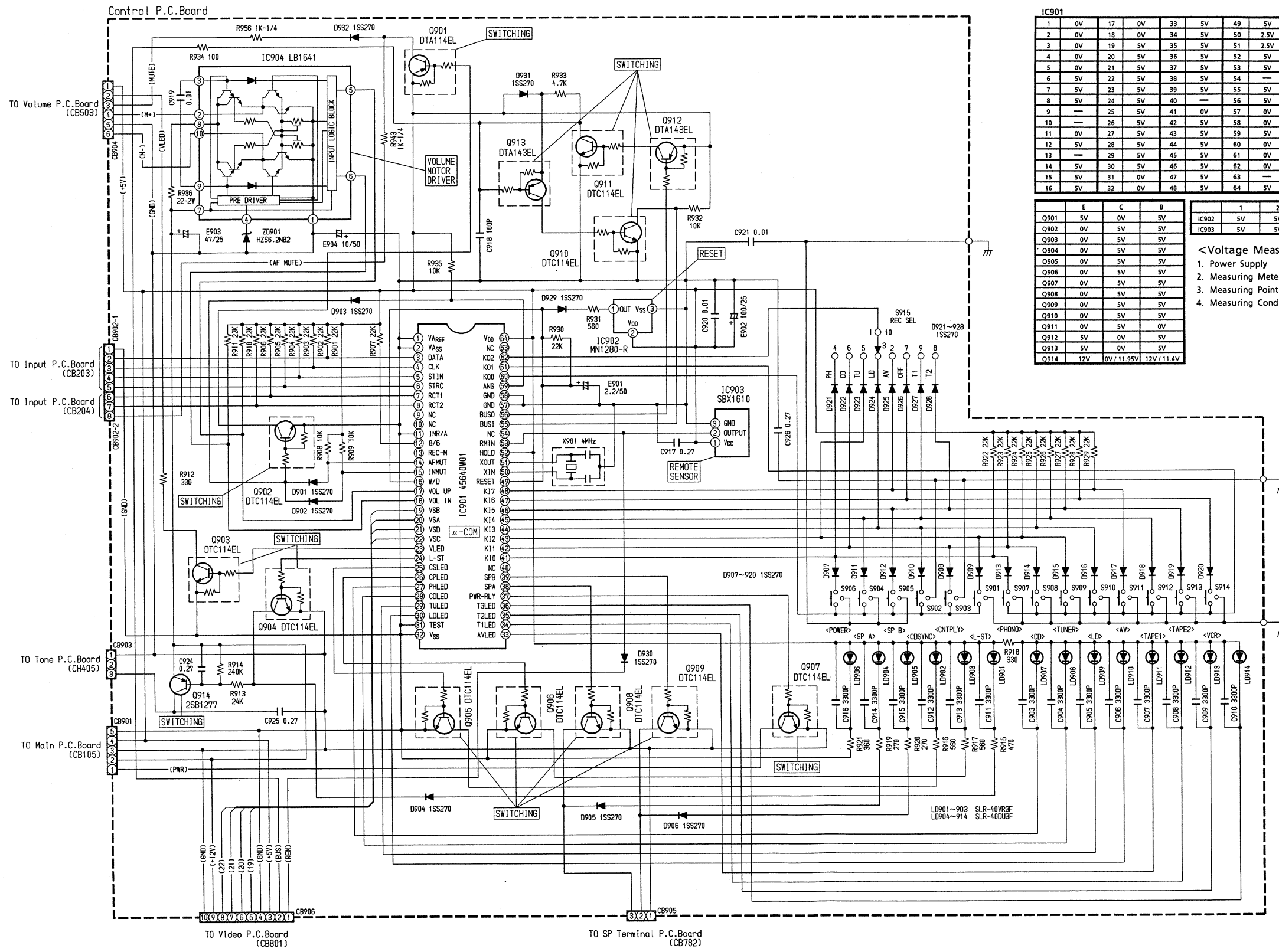
	E	C	B	E	C	B	
Q609	23.6V	1.6V	23V	Q626	-0.6V	-56V	-1.2V
Q610	23.6V	1.6V	23V	Q627	0V	56V	0.6V
Q611	-24V	-1.6V	-23V	Q628	0V	56V	0.6V
Q612	-24V	-1.6V	-23V	Q629	0V	56V	0.6V
Q613	55.6V	1.8V	55V	Q630	0V	56V	0.6V
Q614	55.6V	1.8V	55V	Q631	0V	-56V	-0.6V
Q615	-55.6V	-1.8V	-55V	Q632	0V	-56V	-0.6V
Q616	-55.6V	-1.8V	-55V	Q633	-56V	0V	-0.6V
Q617	-1.8V	1.8V	-1.2V	Q634	-56V	0V	-0.6V
Q618	-1.8V	1.8V	-1.2V	Q635	0V	56V	0V
Q619	1.2V	56V	1.8V	Q636	0V	56V	0V
Q620	1.2V	56V	1.8V	Q637	56V	0V	56V
Q621	-1.2V	-56V	-1.8V	Q638	56V	0V	56V
Q622	-1.2V	-56V	-1.8V	Q639	11.95V	12V	11.4V
Q623	0.6V	56V	1.2V	Q640	12V	0V	12V
Q624	0.6V	56V	1.2V	Q641	12V	11.95V	11.3V
Q625	-0.6V	-56V	-1.2V				

<Voltage Measuring Conditions>
 1. Power Supply : AC220V / 50Hz
 2. Measuring Meter : Digital Multimeter
 3. Measuring Point Reference : Between Ground
 4. Measuring Conditions : No Signal Input, Power Switch 'ON'

I E I F I G I H I I J I K I L

Schematic Diagram (3/3)

IC	IC904				IC901		IC902				IC903	
Transistor (Q)	0903	0902	0904		0901	0905	0913	0910	0911	0912	0909	0907
	0914							0906	0908			



1	0V	17	0V	33	5V	49	5V
2	0V	18	0V	34	5V	50	2.5V
3	0V	19	5V	35	5V	51	2.5V
4	0V	20	5V	36	5V	52	5V
5	0V	21	5V	37	5V	53	5V
6	5V	22	5V	38	5V	54	—
7	5V	23	5V	39	5V	55	5V
8	5V	24	5V	40	—	56	5V
9	—	25	5V	41	0V	57	0V
10	—	26	5V	42	5V	58	0V
11	0V	27	5V	43	5V	59	5V
12	5V	28	5V	44	5V	60	0V
13	—	29	5V	45	5V	61	0V
14	5V	30	5V	46	5V	62	0V
15	5V	31	0V	47	5V	63	—
16	5V	32	0V	48	5V	64	5V

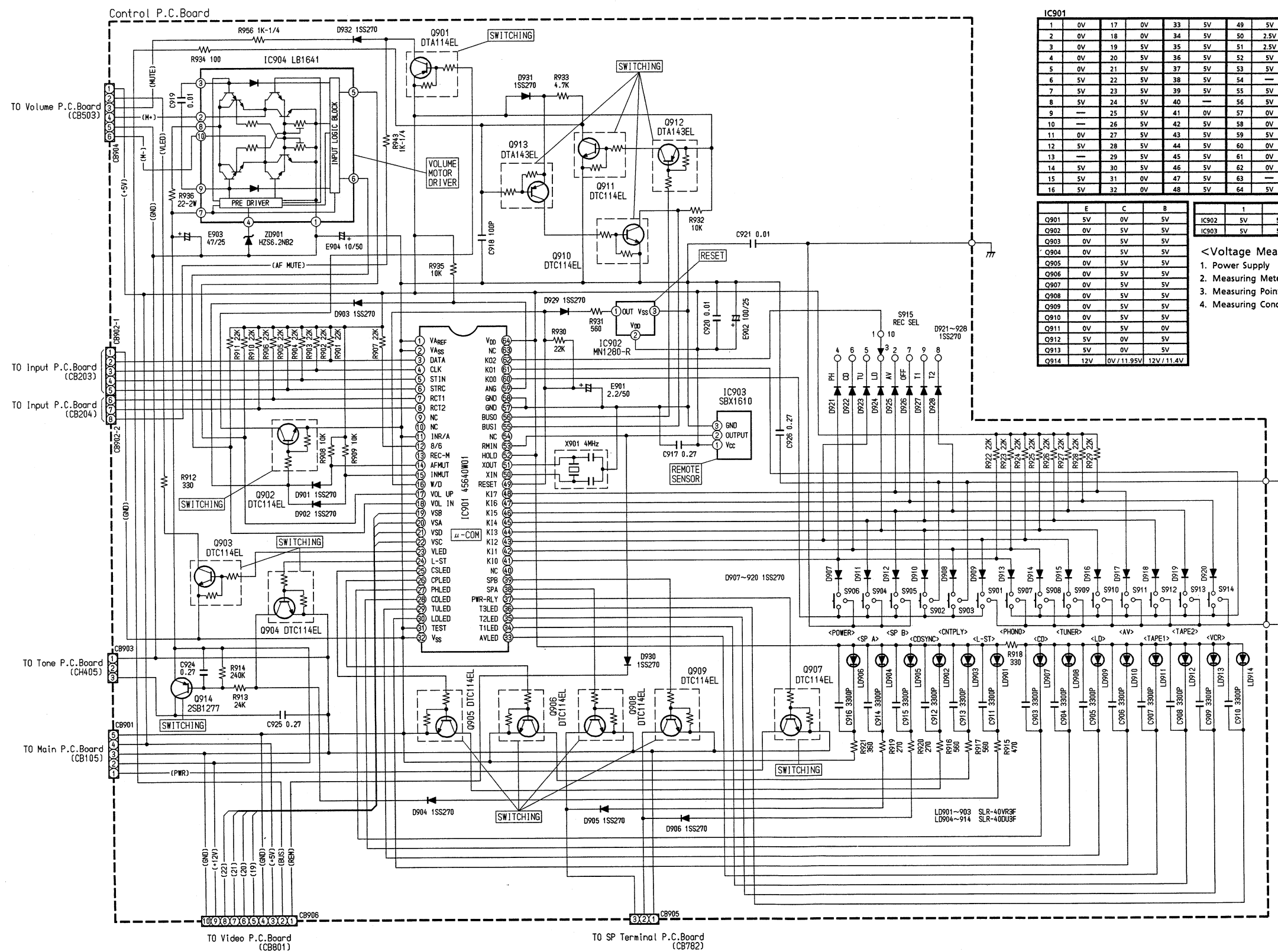
1	0V
2	0.6V
3	0V
4	0.4V/6V
5	0V
6	0V
7	12V
8	12V
9	0.7V
10	0.6V

- <Voltage Measuring Conditions>
- Power Supply : AC220V / 50Hz
 - Measuring Meter : Digital Multimeter
 - Measuring Point Reference : Between Ground
 - Measuring Conditions : No Signal Input, Power Switch 'ON'

1
2
3
4
5

Schematic Diagram (3/3)

IC	IC904				IC901				IC902				IC903				
Transistor (Q)	0903	0902	0904		0901	0905	0913	0910	0911	0912	0908	0909	0907				
	0914							0906									



IC901						IC904					
1	0V	17	0V	33	5V	49	5V	1	0V		
2	0V	18	0V	34	5V	50	2.5V	2	0.6V		
3	0V	19	5V	35	5V	51	2.5V	3	0V		
4	0V	20	5V	36	5V	52	5V	4	0.4V / 6V		
5	0V	21	5V	37	5V	53	5V	5	0V		
6	5V	22	5V	38	5V	54	—	6	0V		
7	5V	23	5V	39	5V	55	5V	7	12V		
8	5V	24	5V	40	—	56	5V	8	12V		
9	—	25	5V	41	0V	57	0V	9	0.7V		
10	—	26	5V	42	5V	58	0V	10	0.6V		
11	0V	27	5V	43	5V	59	5V				
12	5V	28	5V	44	5V	60	0V				
13	—	29	5V	45	5V	61	0V				
14	5V	30	5V	46	5V	62	0V				
15	5V	31	0V	47	5V	63	—				
16	5V	32	0V	48	5V	64	5V				

IC901				IC902			IC903		
Q901	5V	0V	5V	1	2	3	1	2	3
Q902	0V	5V	5V	5V	5V	5V	5V	5V	5V
Q903	0V	5V	5V						
Q904	0V	5V	5V						
Q905	0V	5V	5V						
Q906	0V	5V	5V						
Q907	0V	5V	5V						
Q908	0V	5V	5V						
Q909	0V	5V	5V						
Q910	0V	5V	5V						
Q911	0V	5V	0V						
Q912	5V	0V	5V						
Q913	5V	0V	5V						
Q914	12V	0V / 11.95V	12V / 11.4V						

<Voltage Measuring Conditions>
 1. Power Supply : AC220V / 50Hz
 2. Measuring Meter : Digital Multimeter
 3. Measuring Point Reference : Between Ground
 4. Measuring Conditions : No Signal Input, Power Switch 'ON'

Electrical Parts List

Resistor : Carbon resistors under 1 / 4 watts are not mentioned in the parts list, please confirm them by schematic diagram.

Capacitor : μF = microfarads, pF = picofarads

Abbreviations			Symbol No.	Part No.	Description
RES. = Resistor	CAP. = Capacitor		Diodes D111 48T61415F01 Bridge, 1B4B41 D131 48T68580F03 DSA3A4 D132 48T68580F03 DSA3A4 D601 48T73079F02 1SS82 D602 48T73079F02 1SS82 D603 48T73079F02 1SS82 D604 48T73079F02 1SS82 D605 48T73079F02 1SS82 D606 48T73079F02 1SS82 D607 48T73079F02 1SS82 D608 48T73079F02 1SS82 D609 48T73079F02 1SS82 D610 48T73079F02 1SS82 D611 48T73079F02 1SS82 D612 48T73079F02 1SS82 D613 48T73079F02 1SS82 D614 48T73079F02 1SS82 D615 48T73079F02 1SS82 D616 48S40477U01 1N4003 D617 48S40477U01 1N4003		
C.F. = Carbon Film	ELY. = Electrolytic				
M.F. = Metal Film	CER. = Ceramic				
M.O. = Metal Oxide Film	MYL. = Mylar				
M.P. = Metal Plate	TAN. = Tantalum				
TR. = Transistor	POLY. = Polystyrol				
TRANS. = Transformer	PP. = Polypropylene				
CP. = Chip	PLT. = Polyethylene				
	PF. = Polyester Film				
Symbol No.	Part No.	Description			
Main P. C. Board					
IC's					
IC101	51T61180F08	NJM78L24A			
IC102	51T67538F08	NJM79L24A			
IC111	51T82394F01	NJM7815FA			
IC112	51T82395F01	NJM7915FA			
IC131	51T80340F01	NJM7812FA			
IC132	51T80338F01	NJM7805FA			
IC601	51T55373W01	P63N13X			
IC602	51T55373W01	P63N13X			
IC701	51T60527F01	$\mu\text{PC}1237\text{H}$			
Transistors					
Q609	48T60751F02	2SA1145			
Q610	48T60751F02	2SA1145			
Q611	48T60752F02	2SC2705			
Q612	48T60752F02	2SC2705			
Q613	48T60751F02	2SA1145			
Q614	48T60751F02	2SA1145			
Q615	48T60752F02	2SC2705			
Q616	48T60752F02	2SC2705			
Q619	48T69176F02	2SC3421			
Q620	48T69176F02	2SC3421			
Q621	48T69177F02	2SA1358			
Q622	48T69177F02	2SA1358			
Q623	48T62642F03	2SC2336			
Q624	48T62642F03	2SC2336			
Q625	48T62641F03	2SA1006			
Q626	48T62641F03	2SA1006			
Q635	48T53301F01	2SC2240			
Q636	48T53301F01	2SC2240			
Q637	48T52545F01	2SA970			
Q638	48T52545F01	2SA970			
Q639	48T43526F02	2SA950			
Q641	48T43526F02	2SA950			
Relay					
RL101	80T95141F01	DE2T			
Coils					
L101	24T35072W02	BL01RN1			
L131	24T35072W03	BL02RN1			
L601	24T67517F02	Choke, 1.8 μH			
L602	24T67517F02	Choke, 1.8 μH			
Capacitors					
C101	08T57437F11	CER., 0.01 μF			
E101	23T55337W01	ELY., 15000 μF / 63V			
C102	08T57437F11	CER., 0.01 μF			
E102	23T55337W01	ELY., 15000 μF / 63V			
C103	08T68834F01	CER., 0.01 μF			
E103	23T00181L56	ELY., 100 μF / 63V			
C104	08T68834F01	CER., 0.01 μF			
E104	23T00181L56	ELY., 100 μF / 63V			

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C105	08T68834F01	CER., 0.01 μ F	C629	08T90316F29	TF, 0.1 μ F
E105	23T00181L48	ELY., 100 μ F / 50V	C630	08T90316F29	TF, 0.1 μ F
E106	23T00181L48	ELY., 100 μ F / 50V	C631	08T81196F25	MICA, 47pF
E107	23T00181L34	ELY., 100 μ F / 35V	C632	08T81196F25	MICA, 47pF
E108	23T00181L34	ELY., 100 μ F / 35V	C633	08T81196F34	MICA, 100pF
C111	08T90316F17	TF, 0.01 μ F	C634	08T81196F34	MICA, 100pF
E111	23T00181L37	ELY., 1000 μ F / 35V	C661	23T61177F06	ELY., (B.P) 4.7 μ F / 100V
C112	08T90316F17	TF, 0.01 μ F	C662	23T61177F06	ELY., (B.P) 4.7 μ F / 100V
E112	23T00181L37	ELY., 1000 μ F / 35V			
E113	23T35119W01	ELY., 470 μ F / 16V			
E114	23T35119W01	ELY., 470 μ F / 16V			
C131	08T90316F17	TF, 0.01 μ F			
E131	23T00134L61	ELY., 3300 μ F / 35V			
C132	08T90316F17	TF, 0.01 μ F			
E132	23T00181L48	ELY., 100 μ F / 50V			
E133	23T35119W01	ELY., 470 μ F / 16V			
E134	23T00181L28	ELY., 220 μ F / 25V			
C601	08T81196F25	MICA, 47pF			
C602	08T81196F25	MICA, 47pF			
E603	23T00132L02	ELY., 220 μ F / 16V			
E604	23T00132L02	ELY., 220 μ F / 16V			
E605	23T00181L56	ELY., 100 μ F / 63V			
E606	23T00181L56	ELY., 100 μ F / 63V			
E607	23T00181L56	ELY., 100 μ F / 63V			
E608	23T00181L56	ELY., 100 μ F / 63V			
C609	08T81196F19	MICA, 33pF			
E609	23T00180L26	ELY., 22 μ F / 50V			
C610	08T81196F19	MICA, 33pF			
E610	23T00180L26	ELY., 22 μ F / 50V			
C611	08T81196F19	MICA, 33pF			
E611	23T00180L13	ELY., 47 μ F / 25V			
C612	08T81196F19	MICA, 33pF			
E612	23T00180L13	ELY., 47 μ F / 25V			
C613	08T90316F34	TF, 0.27 μ F			
E613	23T00180L13	ELY., 47 μ F / 25V			
C614	08T90316F34	TF, 0.27 μ F			
E614	23T00180L13	ELY., 47 μ F / 25V			
C615	08T81196F04	MICA, 5pF			
E615	23T00180L21	ELY., 1 μ F / 50V			
C616	08T81196F04	MICA, 5pF			
E616	23T00180L21	ELY., 1 μ F / 50V			
E617	23T00180L14	ELY., 100 μ F / 25V			
E618	23T00180L14	ELY., 100 μ F / 25V			
C619	08T81196F14	MICA, 22pF			
E619	23T00180L13	ELY., 47 μ F / 25V			
C620	08T81196F14	MICA, 22pF			
E620	23T00180L13	ELY., 47 μ F / 25V			
C621	08T81196F14	MICA, 22pF			
E621	23T00180L22	ELY., 2.2 μ F / 50V			
C622	08T81196F14	MICA, 22pF			
C627	08T90316F29	TF, 0.1 μ F			
C628	08T90316F29	TF, 0.1 μ F			
			Resistors		
			R103	06T92264F58	M.F., 2.4K ohm 2W
			R104	06T92264F58	M.F., 2.4K ohm 2W
			R131	06T92265F25	M.F., 100 ohm 3W
			R685	06T92264F43	M.F., 560 ohm 2W
			R686	06T92264F43	M.F., 560 ohm 2W
			R693	06T92264F29	M.F., 150 ohm 2W
			R694	06T92264F29	M.F., 150 ohm 2W
			R705	06T67397F01	MPC., 0.22 ohm 5W
			R706	06T67397F01	MPC., 0.22 ohm 5W
			R707	06T67397F01	MPC., 0.22 ohm 5W
			R708	06T67397F01	MPC., 0.22 ohm 5W
			R709	06T92264F01	M.F., 10 ohm 2W
			R710	06T92264F01	M.F., 10 ohm 2W
			R711	06T92265F01	M.F., 10 ohm 3W
			R712	06T92265F01	M.F., 10 ohm 3W
			VR601	18C41732G18	Variable, 2.2K ohm
			VR602	18C41732G18	Variable, 2.2K ohm
			Input P. C. Board		
			IC's		
			IC201	51T00038L01	M5220P
			IC261	51T10818W01	TC9163
			IC263	51T55162W01	TC9215P
			Transistors		
			Q201	48T72887F01	FET, 2SK332
			Q202	48T72887F01	FET, 2SK332
			Q261	48T90183F04	2SD1996

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Q262	48T90183F04	2SD1996	C218	08T90316F13	PF., 4700pF
Q263	48T90183F04	2SD1996	C251	08T90316F34	TF., 4700pF
Q264	48T90183F04	2SD1996	C252	08T90316F34	TF., 4700pF
			C261	08S65480F43	CER., 330pF
			C262	08S65480F43	CER., 330pF
Diodes			C263	08S65480F43	CER., 330pF
D261	48T84758F01	1SS270	E263	23T00180L22	ELY., 2.2 μ F / 50V
D262	48T84758F01	1SS270	C264	08S65480F43	CER., 330pF
D263	48T84758F01	1SS270	E264	23T00180L22	ELY., 2.2 μ F / 50V
D264	48T84758F01	1SS270	C265	08S65480F43	CER., 330pF
D317	48T84758F01	1SS270	E265	23T00180L22	ELY., 2.2 μ F / 50V
			C266	08S65480F43	CER., 330pF
Switch			E266	23T00180L22	ELY., 2.2 μ F / 50V
S201	40T55280W01	Slide, SSSP04 (MC / MM)	C267	08S65480F43	CER., 330pF
			E267	23T00180L22	ELY., 2.2 μ F / 50V
Coils			C268	08S65480F43	CER., 330pF
L201	24T83130F02	Inductor, 33 μ H	E268	23T00180L22	ELY., 2.2 μ F / 50V
L202	24T83130F02	Inductor, 33 μ H	C269	08S65480F43	CER., 330pF
L203	24T83130F02	Inductor, 33 μ H	E269	23T00181L25	ELY., 22 μ F / 25V
L204	24T83130F02	Inductor, 33 μ H	C270	08S65480F43	CER., 330pF
Capacitors			E270	23T00181L25	ELY., 22 μ F / 25V
C201	08S65480F43	CER., 330pF	C271	08S65480F43	CER., 330pF
C202	08S65480F43	CER., 330pF	C272	08S65480F43	CER., 330pF
C203	08S65480F41	CER., 220pF	C273	08S65480F43	CER., 330pF
E203	23T00181L28	ELY., 220 μ F / 25V	E273	23T00180L12	ELY., 22 μ F / 25V
C204	08S65480F41	CER., 220pF	C274	08S65480F43	CER., 330pF
E204	23T00181L28	ELY., 220 μ F / 25V	E274	23T00180L12	ELY., 22 μ F / 25V
E207	23T00180L13	ELY., 47 μ F / 25V	C275	08S65480F45	CER., 470pF
E208	23T00180L13	ELY., 47 μ F / 25V	C276	08S65480F45	CER., 470pF
C209	08T90316F11	PF., 3300pF	C277	08S65480F45	CER., 470pF
E209	23T00180L25	ELY., 10 μ F / 50V	C278	08S65480F45	CER., 470pF
C210	08T90316F11	PF., 3300pF	C279	08S65480F45	CER., 470pF
E210	23T00180L25	ELY., 10 μ F / 50V	C280	08S65480F45	CER., 470pF
C213	08T90316F23	TF, 0.033 μ F	C281	08S65480F43	CER., 330pF
C214	08T90316F23	TF, 0.033 μ F	C282	08S65480F43	CER., 330pF
C215	08T90316F17	TF, 0.01 μ F	C283	08S65480F45	CER., 470pF
C216	08T90316F17	TF, 0.01 μ F	C284	08S65480F45	CER., 470pF
C217	08T90316F13	PF., 4700pF	C291	08S65480F37	CER., 100pF
			C292	08S65480F37	CER., 100pF
			C295	08T90316F13	PF., 4700pF
			C297	08T90316F13	PF., 4700pF
Control P. C. Board					
IC's					
IC901	51T45640W01	45640W01	IC902	51T72309F02	MN1280-R
IC903	51T26032W01	SBX1610	IC904	51T15267W01	LB1641

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Transistors			D931	48T84758F01	1SS270
Q901	48T82762F02	DTA114EL	D932	48T84758F01	1SS270
Q902	48T82763F02	DTC114EL	ZD901	48T90517F30	Zener, HZS6.2NB2
Q903	48T82763F02	DTC114EL	LED's		
Q904	48T82763F02	DTC114EL	LD901	48T72160F01	SLR-40VR3F (RED)
Q905	48T82763F02	DTC114EL	LD902	48T72160F01	SLR-40VR3F (RED)
Q906	48T82763F02	DTC114EL	LD903	48T72160F01	SLR-40VR3F (RED)
Q907	48T82763F02	DTC114EL	LD904	48T72159F01	SLR-40DU3F (ORG)
Q908	48T82763F02	DTC114EL	LD905	48T72159F01	SLR-40DU3F (ORG)
Q909	48T82763F02	DTC114EL	LD906	48T72159F01	SLR-40DU3F (ORG)
Q910	48T82763F02	DTC114EL	LD907	48T72159F01	SLR-40DU3F (ORG)
Q911	48T82763F02	DTC114EL	LD908	48T72159F01	SLR-40DU3F (ORG)
Q912	48T82762F01	DTA143EL	LD909	48T72159F01	SLR-40DU3F (ORG)
Q913	48T82762F01	DTA143EL	LD910	48T72159F01	SLR-40DU3F (ORG)
Q914	48T82759F01	2SB1277	LD911	48T72159F01	SLR-40DU3F (ORG)
Diodes			LD912	48T72159F01	SLR-40DU3F (ORG)
D901	48T84758F01	1SS270	LD913	48T72159F01	SLR-40DU3F (ORG)
D902	48T84758F01	1SS270	LD914	48T72159F01	SLR-40DU3F (ORG)
D903	48T84758F01	1SS270	Switches		
D904	48T84758F01	1SS270	S901	40T83324F13	Tact, SKHHPP (LINE STRAIGHT)
D905	48T84758F01	1SS270	S902	40T83324F13	Tact, SKHHPP (CD synchro)
D906	48T84758F01	1SS270	S903	40T83324F13	Tact, SKHHPP (continuous play)
D907	48T84758F01	1SS270	S904	40T83324F13	Tact, SKHHPP (speakers A)
D908	48T84758F01	1SS270	S905	40T83324F13	Tact, SKHHPP (speakers B)
D909	48T84758F01	1SS270	S906	40T83324F13	Tact, SKHHPP (POWER)
D910	48T84758F01	1SS270	S907	40T83324F13	Tact, SKHHPP (PHONO)
D911	48T84758F01	1SS270	S908	40T83324F13	Tact, SKHHPP (CD)
D912	48T84758F01	1SS270	S909	40T83324F13	Tact, SKHHPP (TUNER)
D913	48T84758F01	1SS270	S910	40T83324F13	Tact, SKHHPP (LD)
D914	48T84758F01	1SS270	S911	40T83324F13	Tact, SKHHPP (AV)
D915	48T84758F01	1SS270	S912	40T83324F13	Tact, SKHHPP (TAPE-1)
D916	48T84758F01	1SS270	S913	40T83324F13	Tact, SKHHPP (TAPE-2)
D917	48T84758F01	1SS270	S914	40T83324F13	Tact, SKHHPP (VCR)
D918	48T84758F01	1SS270	S915	40T55148W02	Rotary, SRBV18 (REC OUT SELECTOR)
D919	48T84758F01	1SS270	Crystal		
D920	48T84758F01	1SS270	X901	91T15848W01	CER., Lock 4MHz
D921	48T84758F01	1SS270			
D922	48T84758F01	1SS270			
D923	48T84758F01	1SS270			
D924	48T84758F01	1SS270			
D925	48T84758F01	1SS270			
D926	48T84758F01	1SS270			
D927	48T84758F01	1SS270			
D928	48T84758F01	1SS270			
D929	48T84758F01	1SS270			
D930	48T84758F01	1SS270			

Symbol No.	Part No.	Description
Capacitors		
E901	23T00180L22	ELY., 2.2 μ F / 50V
E902	23T00180L14	ELY., 100 μ F / 25V
C903	08T90316F11	PF., 3300pF
E903	23T00180L13	ELY., 47 μ F / 25V
C904	08T90316F11	PF., 3300pF
E904	23T00180L25	ELY., 10 μ F / 50V
C905	08T90316F11	PF., 3300pF
C906	08T90316F11	PF., 3300pF
C907	08T90316F11	PF., 3300pF
C908	08T90316F11	PF., 3300pF
C909	08T90316F11	PF., 3300pF
C910	08T90316F11	PF., 3300pF
C911	08T90316F11	PF., 3300pF
C912	08T90316F11	PF., 3300pF
C913	08T90316F11	PF., 3300pF
C914	08T90316F11	PF., 3300pF
C915	08T90316F11	PF., 3300pF
C916	08T90316F11	PF., 3300pF
C917	08T90316F34	TF, 0.27 μ F
C918	08S65480F37	CER, 100pF
C919	08T90316F17	TF, 0.01 μ F
C920	08T90316F17	TF, 0.01 μ F
C921	08T90316F17	TF, 0.01 μ F
C924	08T94456F34	TF, 0.27 μ F
C925	08T94456F34	TF, 0.27 μ F
C926	08T94456F34	TF, 0.27 μ F
Resistor		
R936	06T92264F09	M.F., 22 ohm 2W
Video P. C. Board		
IC's		
IC801	51T35588W01	LA7952
IC802	51T35588W01	LA7952
IC831	51T72008F01	LA63935
Transistor		
Q831	48T82762F02	DTA114EL

Symbol No.	Part No.	Description
Coils		
L802	24T50508F38	Inductor, 220 μ H
L803	24T50508F38	Inductor, 220 μ H
L831	24T50508F38	Inductor, 220 μ H
L832	24T50508F38	Inductor, 220 μ H
Capacitors		
C801	08T90316F17	TF, 0.01 μ F
E801	23T00180L24	ELY., 4.7 μ F / 50V
C802	08T90316F17	TF, 0.01 μ F
E802	23T00180L24	ELY., 4.7 μ F / 50V
E803	23T00180L24	ELY., 4.7 μ F / 50V
E804	23T00149L27	ELY., 330 μ F / 16V
E805	23T00149L27	ELY., 330 μ F / 16V
E806	23T00149L16	ELY., 470 μ F / 10V
E807	23T00149L16	ELY., 470 μ F / 10V
E808	23T00149L16	ELY., 470 μ F / 10V
E809	23T00149L16	ELY., 470 μ F / 10V
E811	23T00180L13	ELY., 47 μ F / 25V
E812	23T00180L13	ELY., 47 μ F / 25V
E813	23T00181L30	ELY., 470 μ F / 25V
C831	08S65480F41	CER, 220pF
E831	23T00180L21	ELY., 1 μ F / 50V
E832	23T00180L21	ELY., 1 μ F / 50V
E833	23T00180L13	ELY., 47 μ F / 25V
Resistors		
R845	06T92264F29	M.F., 150 ohm 2W
R846	06T92264F29	M.F., 150 ohm 2W
Volume P. C. Board		
IC		
IC501	51T80136F01	M5238P

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Transistors			Resistor		
Q501	48T90183F04	2SD1996	VR501 LD501 M501	18T55144W01	Volume, Control 100K ohm
Q502	48T90183F04	2SD1996			
Q503	48T90183F04	2SD1996			
Q504	48T90183F04	2SD1996			
Diodes			Tone P. C. Board		
D501	48T84758F01	1SS270	IC's		
D502	48T84758F01	1SS270	IC401	51T90149F02	M5218L
D503	48T84758F01	1SS270	IC402	51T90149F02	M5218L
D504	48T84758F01	1SS270	IC403	51T90149F02	M5218L
Switch			Diode		
S501	40T95031F02	Push, SPUN12 (loudness)	D401	48S40477U01	1N4003
Capacitors			Switch		
C501	08T90316F04	PF., 820pF	S401	40T55221W01	Push, SPEC21 (mode / attenuator)
E501	23T00180L21	ELY., 1μF / 50V	Relay		
C502	08T90316F04	PF., 820pF	RL401	80T45542W01	RY-12W
E502	23T00180L21	ELY., 1μF / 50V	Coils		
C503	08T90316F19	TF, 0.015μF	L401	24T35072W02	BL01RN1
E503	23T00180L25	ELY., 10μF / 50V	L402	24T35072W02	BL01RN1
C504	08T90316F19	TF, 0.015μF	Capacitors		
E504	23T00180L25	ELY., 10μF / 50V	C401	08S65480F37	CER, 100pF
C505	08T81196F10	MICA, 15pF	E401	23T16145W06	ELY., 2.2μF / 50V
E505	23T00180L24	ELY., 4.7μF / 50V	C402	08S65480F37	CER, 100pF
C506	08T81196F10	MICA, 15pF	E402	23T16145W06	ELY., 2.2μF / 50V
E506	23T00180L24	ELY., 4.7μF / 50V	E403	23T16145W13	ELY., 10μF / 50V
E507	23T35119W01	ELY., 470μF / 16V	E404	23T16145W13	ELY., 10μF / 50V
E508	23T35119W01	ELY., 470μF / 16V	C405	08S65480F29	CER., 47pF
C509	08T81196F19	MICA, 33pF	C406	08S65480F29	CER., 47pF
C510	08T81196F19	MICA, 33pF	C407	08T90316F31	TF, 0.15μF
C511	08T90316F06	PF., 1200pF	E407	23T16145W09	ELY., 4.7μF / 50V
C512	08T90316F06	PF., 1200pF			
C517	08T90316F13	PF., 4700pF			
C519	08T90316F37	TF, 0.47μF			
C520	08T90316F34	TF, 0.27μF			

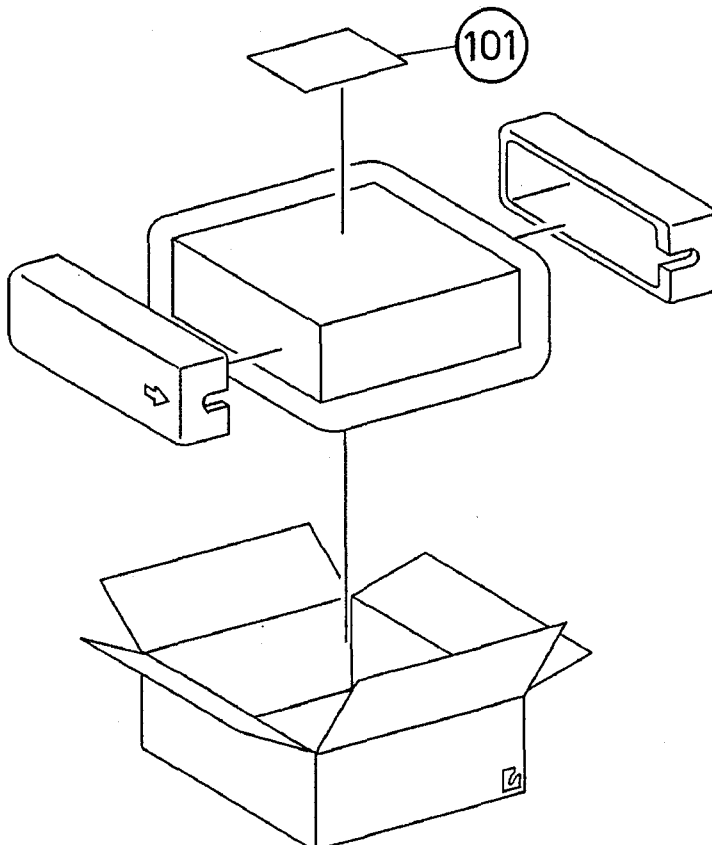
Symbol No.	Part No.	Description	Symbol No.	Part No.	Description						
C408	08T90316F31	TF, 0.15 μ F	SP. Terminal P. C. Board								
E408	23T16145W09	ELY., 4.7 μ F / 50V									
C409	08T90316F21	TF, 0.022 μ F									
C410	08T90316F21	TF, 0.022 μ F									
C411	08S65480F37	CER, 100pF									
E411	23T16145W09	ELY., 4.7 μ F / 50V									
C412	08S65480F37	CER, 100pF									
E412	23T16145W09	ELY., 4.7 μ F / 50V									
E413	23T16145W13	ELY., 10 μ F / 50V									
E414	23T16145W13	ELY., 10 μ F / 50V									
C415	08T90316F11	PF., 3300pF									
E415	23T16145W13	ELY., 10 μ F / 50V									
C416	08T90316F11	PF., 3300pF									
E416	23T16145W13	ELY., 10 μ F / 50V									
C417	08S65480F25	CER., 33pF									
E417	23T16145W13	ELY., 10 μ F / 50V	Transistors								
C418	08S65480F25	CER., 33pF									
E418	23T16145W13	ELY., 10 μ F / 50V									
C419	08T90316F11	PF., 3300pF									
C420	08T90316F11	PF., 3300pF									
C423	08T90316F13	PF., 4700pF									
Resistors						Diodes					
VR401	18T55220W01	Volume, 10K ohm (bass)									
VR402	18T55220W01	Volume, 10K ohm (treble)									
VR403	18T55219W01	Volume, 250K ohm (balance)									
Rec. Sel. P. C. Board									Relays		
IC											
IC341	51T10818W01	TC9163									
Capacitors											
C341	08S65480F37	CER., 100pF									
E341	23T00181L25	ELY., 22 μ F / 25V									
C342	08S65480F37	CER., 100pF									
E342	23T00181L25	ELY., 22 μ F / 25V									
C343	08T90316F13	PF., 4700pF									
Resistors			Resistors								
R781	06T92265F40	M.F., 430 ohm 3W									
R782	06T92265F40	M.F., 430 ohm 3W									
HP P. C. Board											
Capacitors						Capacitors					
C791	08T90316F01	PF., 470pF									
C792	08T90316F01	PF., 470pF									
C793	08T90316F13	PF., 4700pF									

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Primary P. C. Board			SE001 NL001 T001	01A50395W01 25T55257W02	Assy., Phase Sensor TRANS., Power
Capacitor					
C001	08T00195L03	XE, 0.068 μ F			
Resistor					
R001	06T00209L54	C.F., 4.7M ohm 1W			
Miscellaneous					
D101	48T55225W01	Diode, Bridge RBV-1506			
F001	65T42077U22	Fuse, Semko 4A			
F111	65T42077U13	Fuse, Semko 500mA			
F112	65T42077U13	Fuse, Semko 500mA			
F131	65T42077U16	Fuse, Semko 1A			
F132	65T42077U16	Fuse, Semko 1A			
JK201	09T84779F04	Jack (PHONO)			
JK202	09T84779F05	Jack (CD IN)			
JK203	09T80740F02	Jack (TAPE-1 IN / OUT)			
JK204	09T80740F02	Jack (TPAE-2 IN / OUT)			
JK205	09T80740F02	Jack (SIGNAL PROCESSOR IN / OUT)			
JK206	09T80740F02	Jack (LD / AV)			
JK207	09T80740F02	Jack (VCR IN / OUT)			
JK208	09T84779F06	Jack (TUNER IN)			
JK781	09T15463W01	Terminal, Speaker			
JK791	09T66672F05	Jack, Headphone (phones)			
JK801	09T95188F02	Jack, PIN (LD / AV / VCR OUT)			
JK802	09T25782W02	Jack, PIN (VCR IN / TV MONITOR)			
JK831	09T15461W01	Jack, MIN (BUS LINE)			
JK832	09T55153W01	Jack, DIN (EXT REMOTE SENSOR)			
JK833	09T55153W01	Jack, DIN (EXT REMOTE SENSOR)			
JK834	09T55153W01	Jack, DIN (REPEATER)			
P001	28T65151F03	Plug, AC Cord			
Q617	48T69176F02	TR., 2SC3421			
Q618	48T69176F02	TR., 2SC3421			
Q627	48T96316F01	TR., 2SC4387			
Q628	48T96316F01	TR., 2SC4387			
Q629	48T96316F01	TR., 2SC4387			
Q630	48T96316F01	TR., 2SC4387			
Q631	48T96317F01	TR., 2SA1672			
Q632	48T96317F01	TR., 2SA1672			
Q633	48T96317F01	TR., 2SA1672			
Q634	48T96317F01	TR., 2SA1672			
Q640	48T69177F02	TR., 2SA1358			

Packing Assembly Parts List

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
101-1	68P21552W82	Owner's Manual			
101-2	01T55150W01	Unit, Remocon			
101-3	60T58064F01	Battery, SUM-3			

Packing Method View



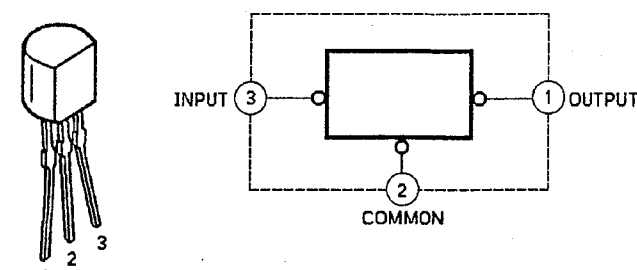
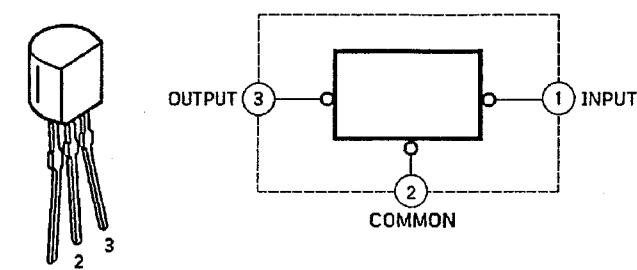
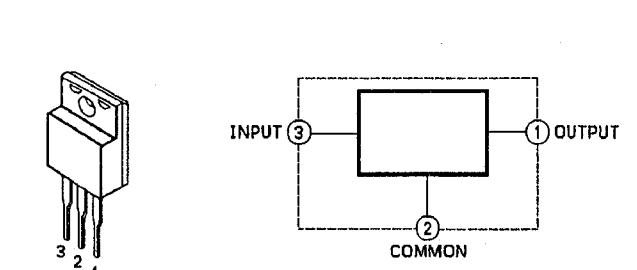
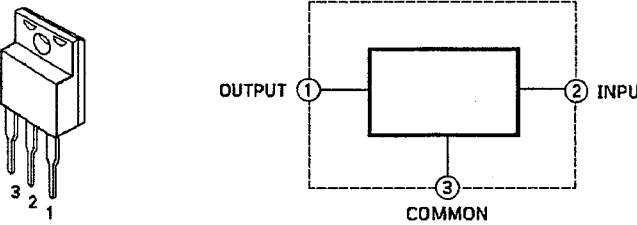
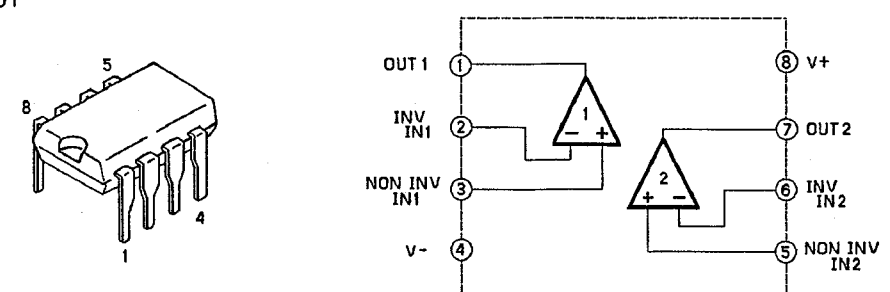
Cabinet Assembly Parts List

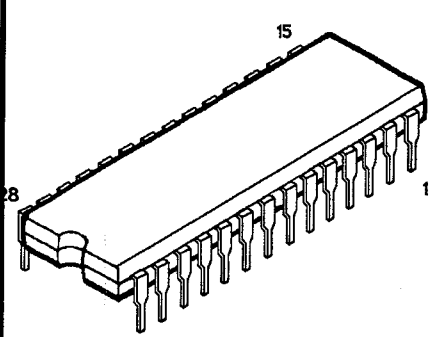
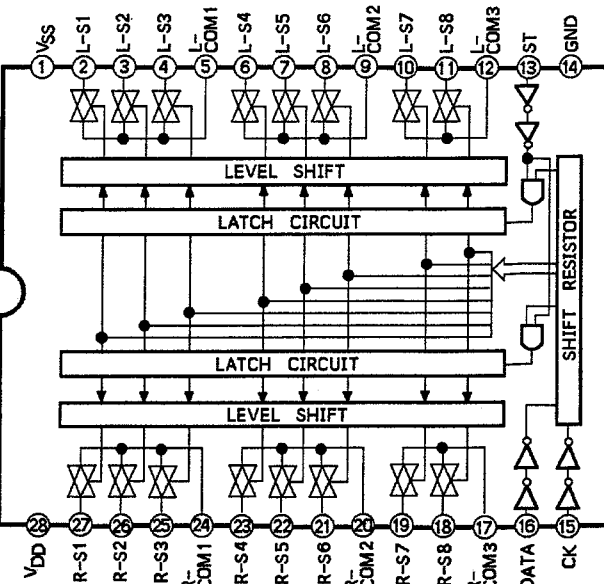
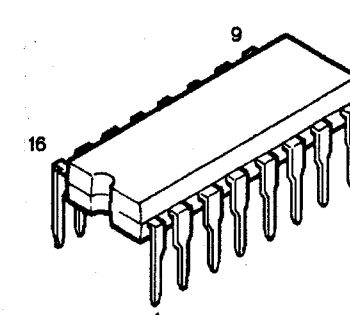
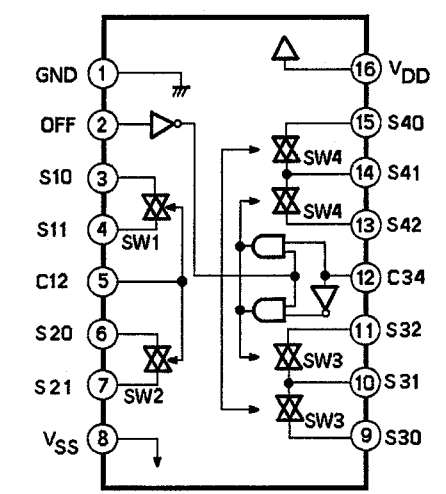
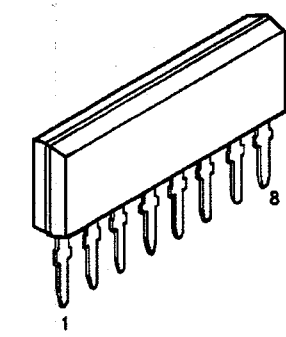
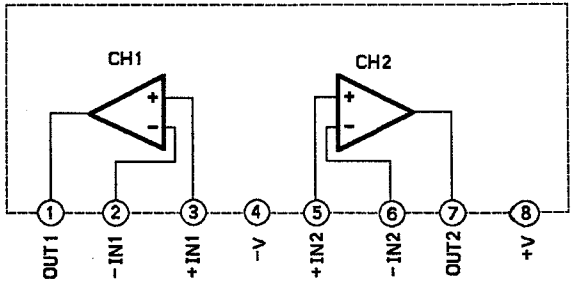
Notes : ● No parts number on parts list are not supplied.
● Parts marked * will need a long delivery time, or may be not supplied in some cases.

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description		
○	*1	3-A	01V51900W04	Assy., Front Panel	●	58	4-A	36A50777W02	Knob, Rotary Select
●	*1	3-A	01V51900W10	Assy., Front Panel	59	2-E	43T16093W01	Support, Cord	
	2	1-E	15C50776W01	Cover, Top	60	2-F	09T95168F01	Plug, Jumper	
	6		15T84846F04	Support, P.C.Board	61	3-F	29T66964F01	Terminal, GND	
	7	5-D	15T84846F06	Support, P.C.Board	62	3-F	15T55361W11	Support, P.C.Board	
	8		75T55242W01	Assy., Trannleg	64	2-A	03S71677F23	Screw, Countersink (M3×8)	
	9		03S44205G82	Screw, Bind (M4×10)					
	10	5-C	03S73647F06	Screw, Bind (M4×10)					
	11	5-C	03S73647F05	Screw, Bind (M3×8)					
	12		42T35152W01	Clamp					
	13	4-D	42T35152W02	Clamp					
	14	5-B	04S40070G40	Washer, Flat (M4)					
	15	4-B	02B47353F03	Nut, Hex. Flange (M4)					
	16	3-E	75S30010W20	Cushion, Rubber					
	17		02B47353F02	Nut, Hex. Flange (M3)					
	18		03S71677F38	Screw, Flange (M3×6)					
	19		03S44205G38	Screw, Bind (M3×6)					
	20		15C50771W01	Support, Top					
	21	3-C	03S43997P76	Screw, Bind (M3×6)					
	22		03S40011G41	Screw, Countersink (M3×6)					
	23	3-D	75S30010W78	Cushion, Rubber					
	24	4-C	75S30010W64	Cushion, Rubber					
	27		03S71031F04	Screw, Bind (M3×8)					
	28		03D40121T18	Bolt, Hex W/Washer (M3×10)					
	32		03D40121T05	Screw, W/Double Washer (M3×8)					
	34	4-C	03D40121T02	Screw, W/Double Washer (M3×6)					
	35		09T51410F01	Holder, Fuse					
	38	4-B	75S30010W78	Cushion, Rubber					
	40	3-B	29A11624W01	Lug, P.C.Board					
	43		03S82672F22	Screw, Bind (M3×10)					
	44	2-F	05B41635J07	Rivet, Push					
	45	2-F	15B50123W01	Cover, Sensor					
	52	4-B	36A50782W01	Knob, Push					
	53	2-C	14S96390F20	Insulator, Cover					
	54		03S44205G74	Screw, Bind (M4×8)					
	55	2-E	03S82672F20	Screw, Bind (M3×8)					
	56	4-A	01A50346W01	Assy., Main Volume Knob					
○	57	4-A	36A50319W01	Knob, Rotary REC					
●	57	4-A	36A50319W02	Knob, Rotary REC					
○	58	4-A	36A50777W01	Knob, Rotary Select					

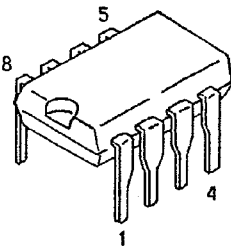
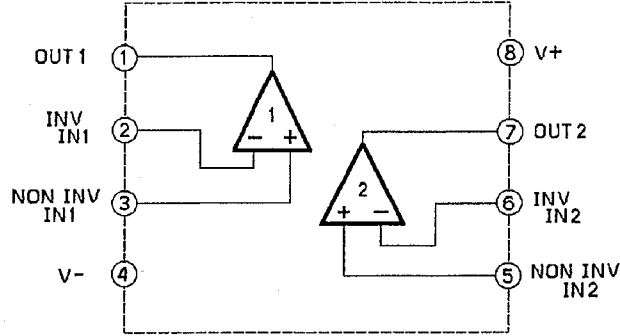
Notes : ○ : For Black Type (Without Safety Regulation Version),
● : For Champagne Gold Type (Without Safety Regulation Version),
Others : Common.

Semi - Conductor Lead Identifications

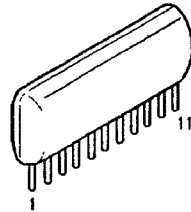
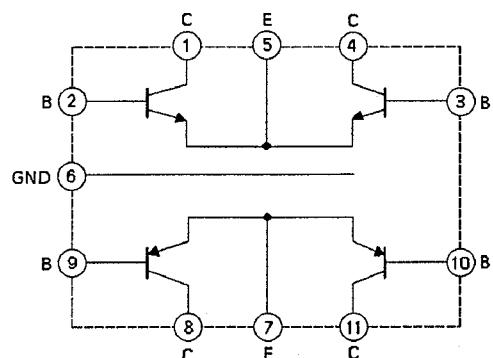
<p>NJM78L24A : IC101</p>	 <p>Diagram showing a 3-pin component with leads 1, 2, and 3. The circuit diagram shows pin 3 as INPUT, pin 2 as COMMON, and pin 1 as OUTPUT.</p>
<p>NJM79L24A : IC102</p>	 <p>Diagram showing a 3-pin component with leads 1, 2, and 3. The circuit diagram shows pin 3 as OUTPUT, pin 2 as COMMON, and pin 1 as INPUT.</p>
<p>NJM7815FA : IC111 NJM7812FA : IC131 NJM7805FA : IC132</p>	 <p>Diagram showing a 3-pin component with leads 1, 2, and 3. The circuit diagram shows pin 3 as INPUT, pin 2 as COMMON, and pin 1 as OUTPUT.</p>
<p>NJM7915FA : IC112</p>	 <p>Diagram showing a 3-pin component with leads 1, 2, and 3. The circuit diagram shows pin 1 as OUTPUT, pin 3 as COMMON, and pin 2 as INPUT.</p>
<p>M5220P : IC201</p>	 <p>Diagram showing an 8-pin component with leads 1 through 8. The circuit diagram shows two operational amplifiers. Pin 1 is OUT 1, pin 2 is INV IN1, pin 3 is NON INV IN1, pin 4 is V-, pin 5 is NON INV IN2, pin 6 is INV IN2, pin 7 is OUT 2, and pin 8 is V+.</p>

<p>TC9163 : IC261, 341</p> 	 <p>Internal circuit diagram of TC9163 showing a 16-pin package with pins 1-15 and 16. It includes two LATCH CIRCUIT blocks and two LEVEL SHIFT blocks. Pins are labeled: VSS (1), L-S1 (2), L-S2 (3), L-S3 (4), COM1 (5), L-S4 (6), L-S5 (7), L-S6 (8), COM2 (9), L-S7 (10), L-S8 (11), COM3 (12), ST (13), GND (14), VDD (15), R-S1 (16), R-S2 (17), R-S3 (18), COM1 (19), R-S4 (20), R-S5 (21), R-S6 (22), COM2 (23), R-S7 (24), R-S8 (25), COM3 (26), DATA (27), CK (28).</p>
<p>TC9215P : IC263</p> 	 <p>Internal circuit diagram of TC9215P showing a 16-pin package with pins 1-16. It includes three switches (SW1, SW2, SW3) and three switches (SW4, SW4, SW3). Pins are labeled: GND (1), OFF (2), S10 (3), S11 (4), C12 (5), S20 (6), S21 (7), VSS (8), VDD (16), S40 (15), S41 (14), S42 (13), C34 (12), S32 (11), S31 (10), S30 (9).</p>
<p>M5218L : IC401-403</p> 	 <p>Internal circuit diagram of M5218L showing two operational amplifiers, CH1 and CH2. Pin 1 is OUT 1, pin 2 is -IN1, pin 3 is +IN1, pin 4 is -V, pin 5 is +IN2, pin 6 is -IN2, pin 7 is OUT 2, and pin 8 is +V.</p>

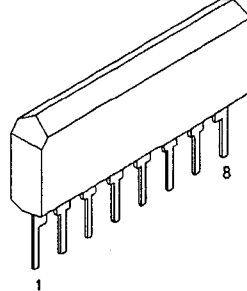
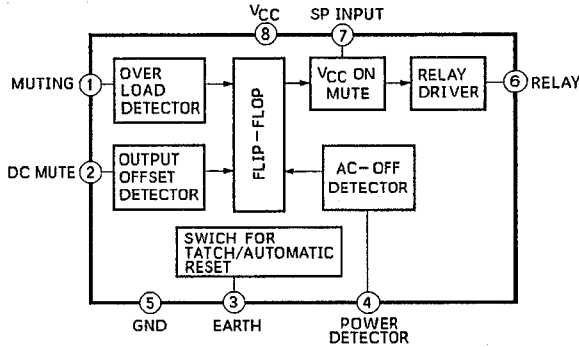
M5238P : IC501

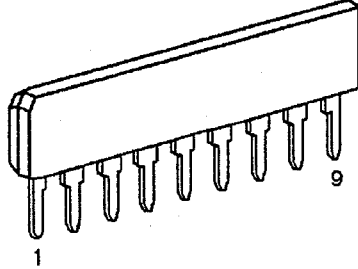
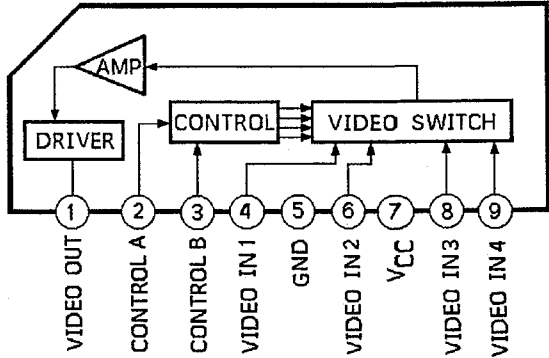
P63N13X : IC601, 602

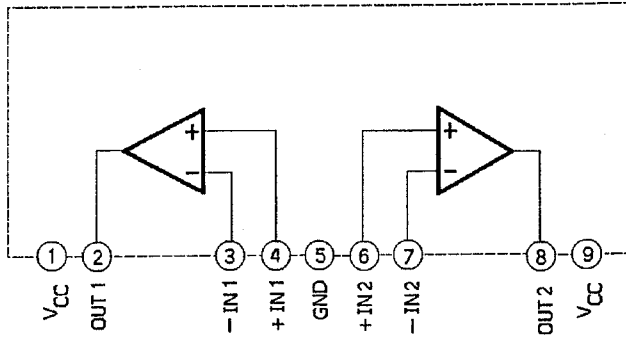
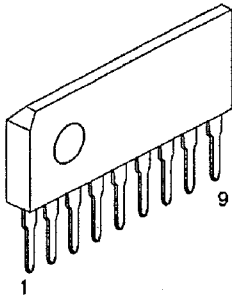
μPC1237H : IC701

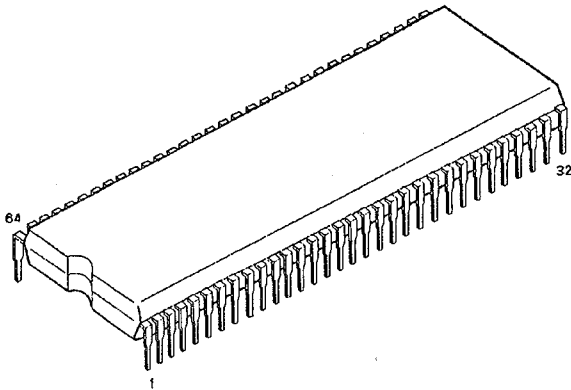
LA7952 : IC801, 802

LA6393S : IC831

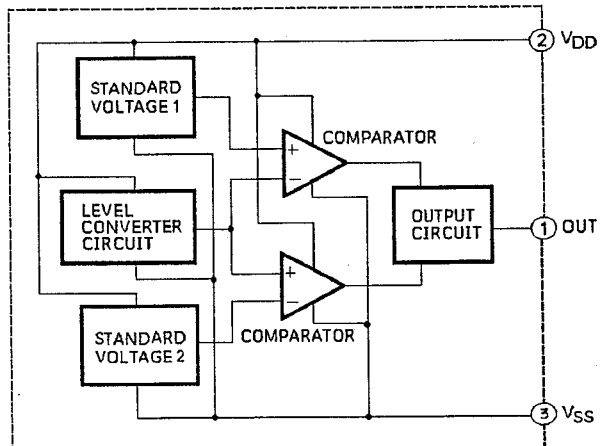
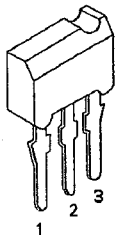


45640W01 : IC901

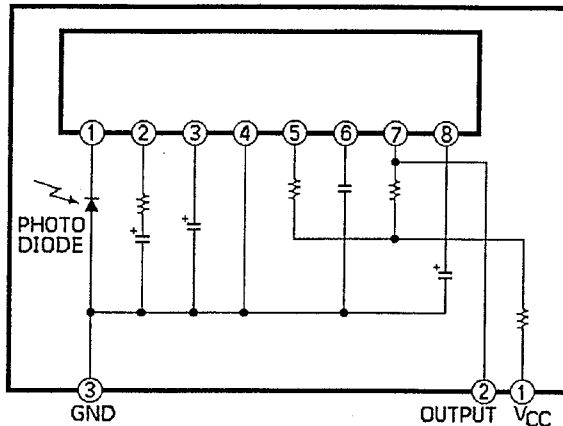
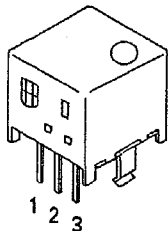


PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	VAREF	-	23	VLED	0	45	K14	I
2	VASS	-	24	L-ST	0	46	K15	I
3	DATA	0	25	CSLED	0	47	K16	I
4	CLK	0	26	CPLLED	0	48	K17	I
5	STIN	0	27	PHLED	0	49	RESET	-
6	STRC	0	28	CDLED	0	50	XIN	-
7	RCT1	0	29	TULED	0	51	XOUT	-
8	RCT2	0	30	LDLED	0	52	HOLD	-
9	NC	-	31	TEST	-	53	RMIN	I
10	NC	-	32	VSS	-	54	NC	-
11	INR/A	I	33	AVLED	0	55	BUSI	I
12	8/8	I	34	T1LED	0	56	BUSO	O
13	NC	-	35	T2LED	0	57	GND	-
14	AFMUT	0	36	T3LED	0	58	GND	-
15	INMUT	0	37	PWR-RLY	0	59	ANG	O
16	W/D	I/O	38	SPA	0	60	K00	O
17	VOL UP	0	39	SPB	0	61	K01	O
18	VOL IN	0	40	NC	-	62	K02	O
19	VS8	0	41	K10	I	63	NC	-
20	VSA	0	42	K11	I	64	VDD	-
21	VSD	0	43	K12	I			
22	VSC	0	44	K13	I			

MN1280-R : IC902



SBX1610 : IC903



LB1641 : IC904

