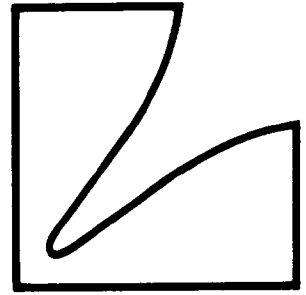




For more Hi-Fi manuals and set-up information
please visit www.hifiengine.com

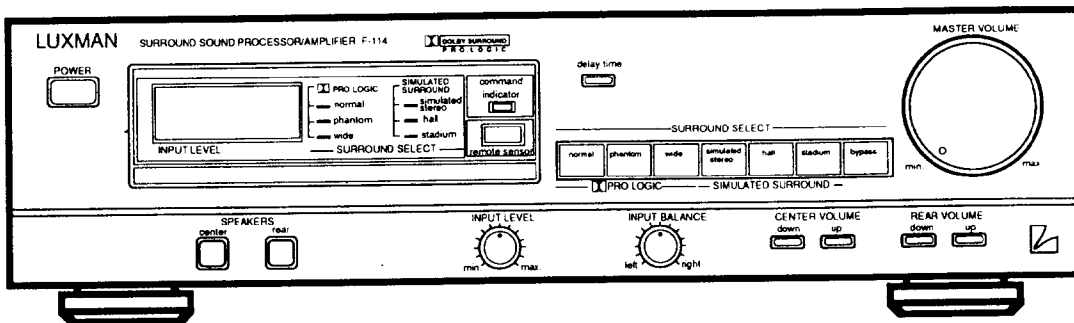
SERVICE MANUAL



Surround Sound Processor/Amplifier

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Disassembly Instructions
Adjustment Procedures
Adjustment Locations
Block Diagram

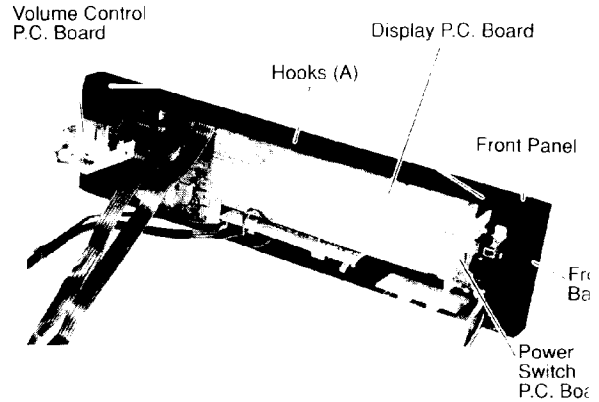


Disassembly Instructions

1. Caution on Removing the Front Base

You cannot remove the Front Base unless you remove the Front Panel first. When you remove the Front Panel, follow the procedure given below.

- (1) Remove the four screws that fix the lower Part of the Front Panel. To remove the Front Panel, push the panel in the direction of arrow C as you press down Hooks (A) (located in three places) in the direction of arrow B using a minus (-) screwdriver (see Figures 1 and 2).

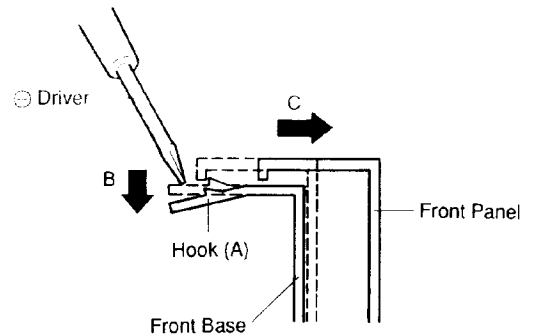


Figuer 1

2. Caution on Removing the Display P.C.Board

Remove the four screws fixing the Board. Remove the Display P.C.Board as you press Hooks (D) (located in six places) in the direction of arrow E using your fingers (see Figures 3 and 4).

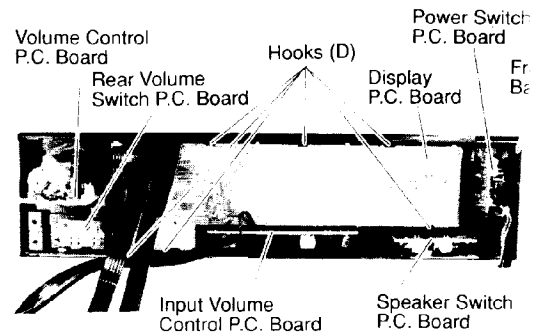
Note: Be careful when you handle Hooks (A) and (D). They may break easily.



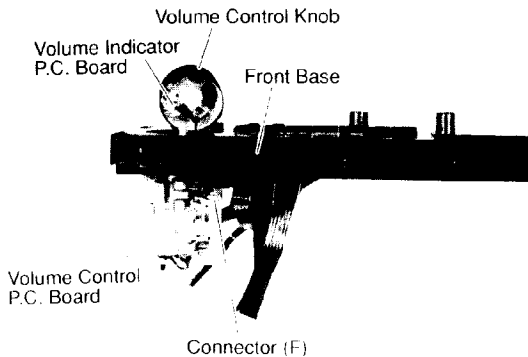
Figuer 2

3. Caution on Removing the Volume Control P.C.Board

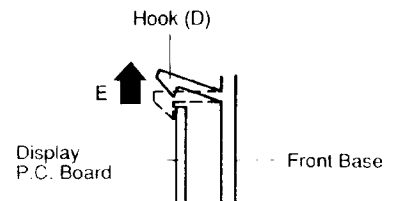
To prevent cutting off the Connector (F) which comes out from the Volume Indicator P.C.Board at the rear of the Volume Control Knob, disconnect the connector before removing the knob (see Figure 5).



Figuer 3



Figuer 5



Figuer 4

Adjustment Procedures

1. Idling Adjustment

(1) Connection

Step	A	B
1	TP601	TP603
2	TP604	TP602
3	TP701	TP702

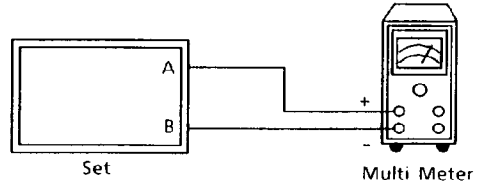


Figure 6

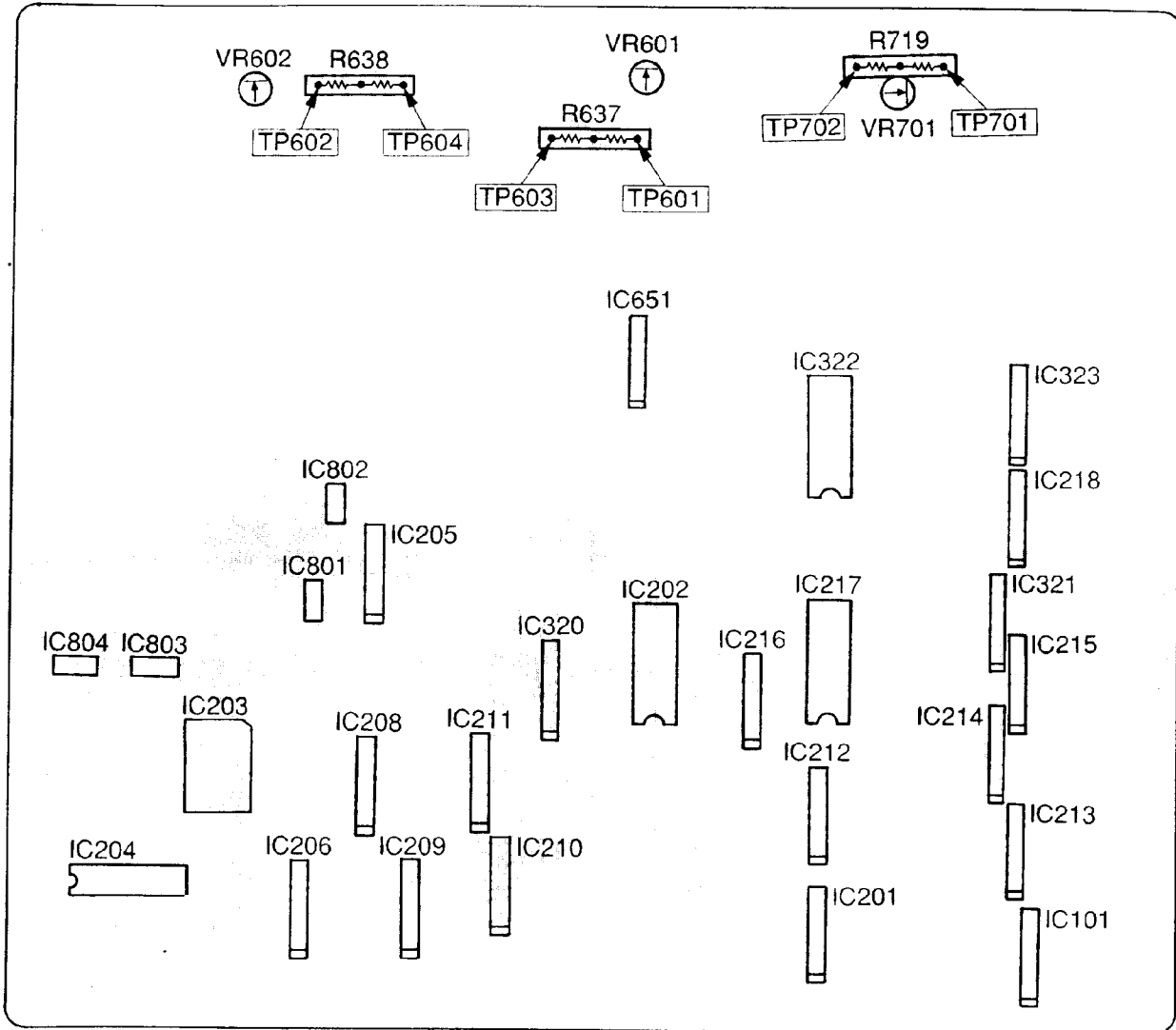
(2) Control Settings

Volume Control Minimum
 Power Switch ON
 Others OFF

(3) Adjustment Procedures

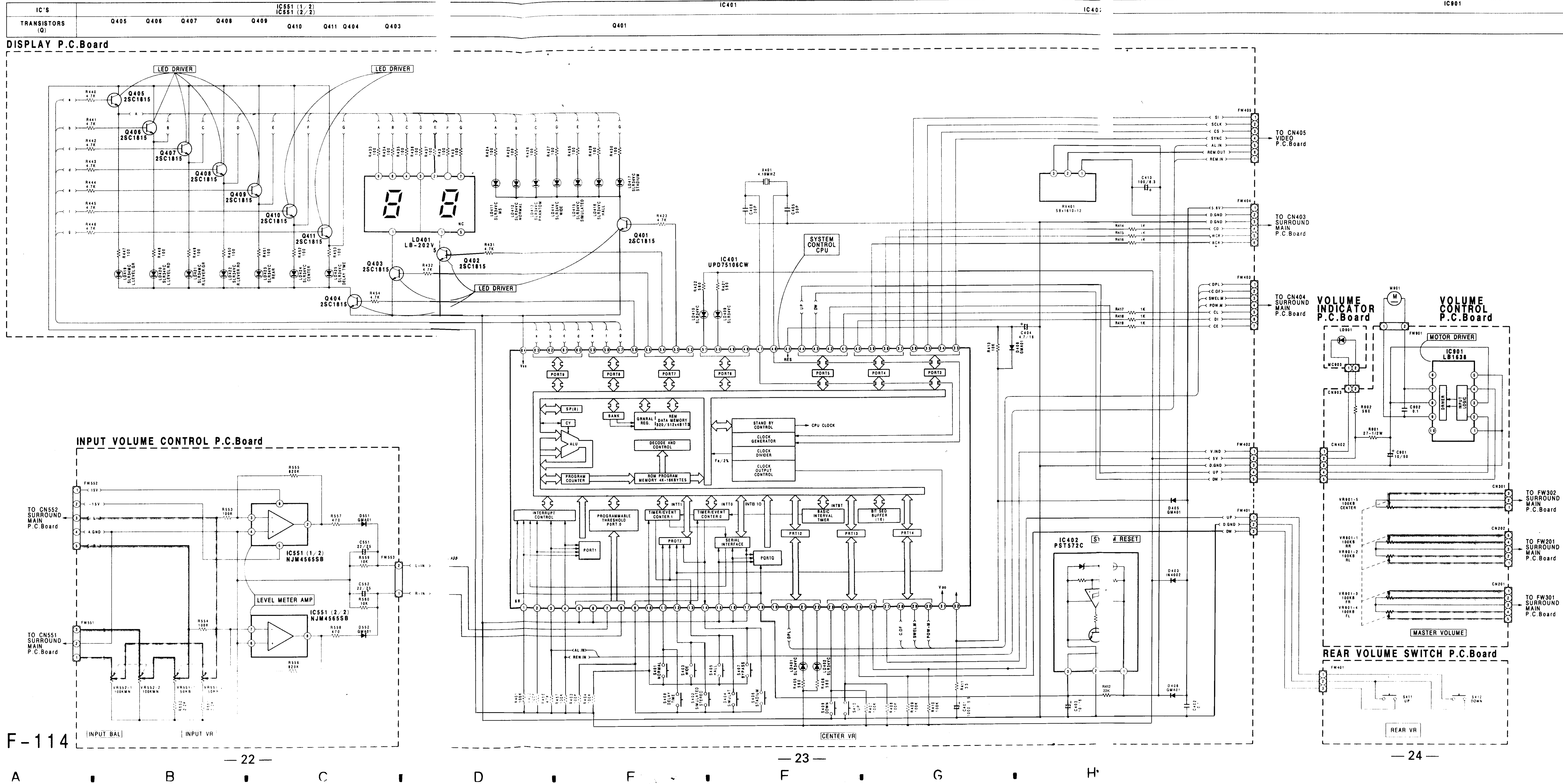
Step	Description	Connection	Adjust Points	Test Point	Remarks
1	Idling Adjustment	Figure 6	VR601 (REAR - L)	TP601, 603 (REAR - L)	Power switch on and wait 5 minutes for warming-up Adjust to 5~7mV.
2			VR602 (REAR - R)	TP602, 604 (REAR - R)	
3			VR701 (CENTER)	TP701, 702 (CENTER)	

Adjustment Locations



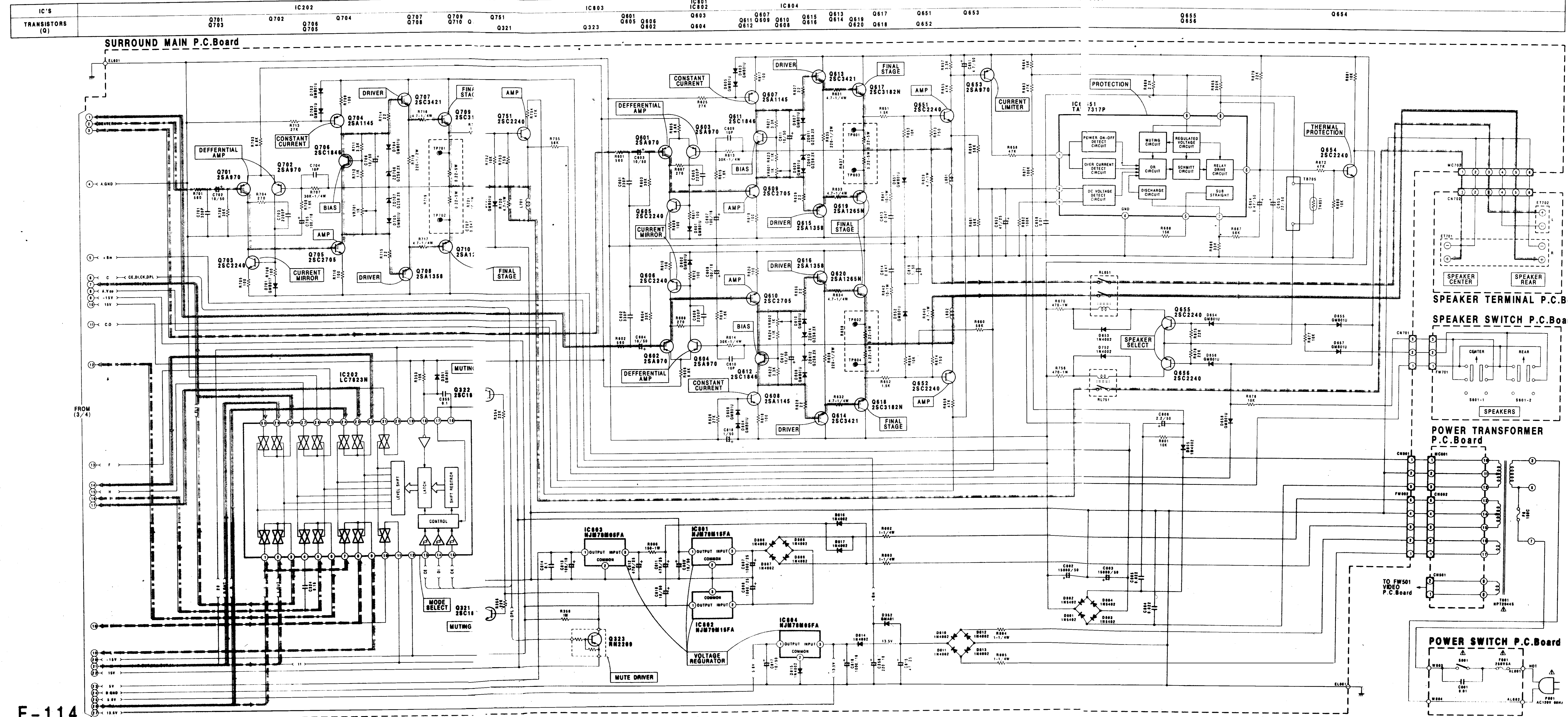
SURROUND MAIN P.C. Board (Top View)

Schematic Diagram (2/4)

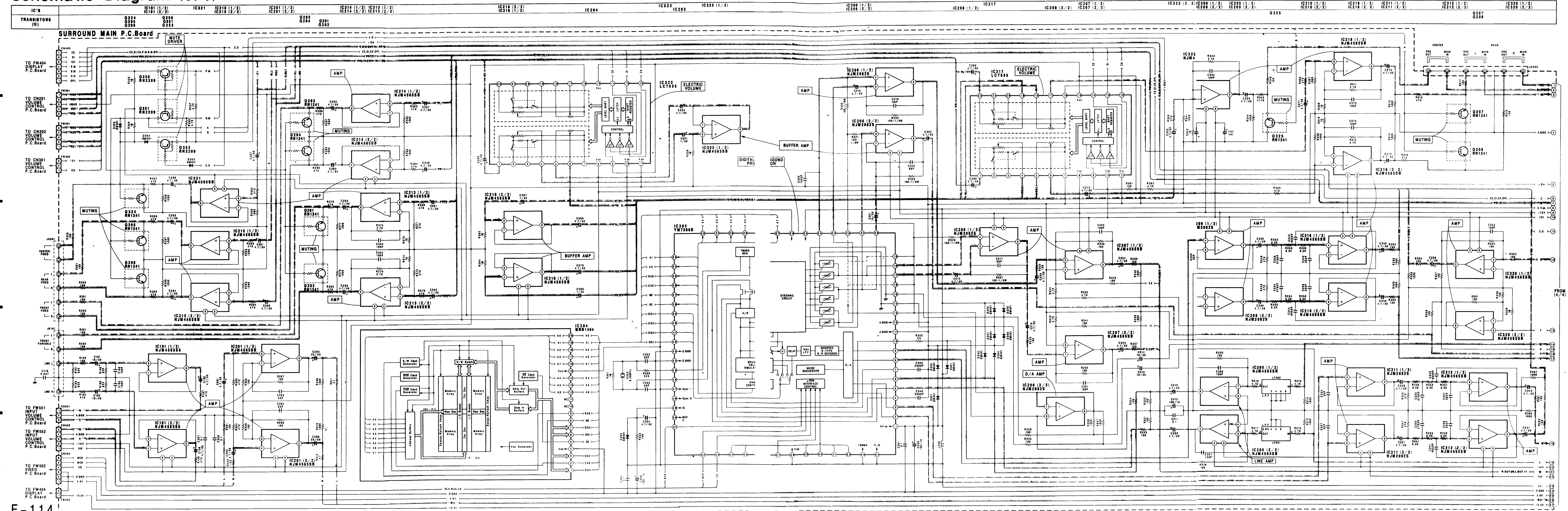


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Schematic Diagram (4/4)

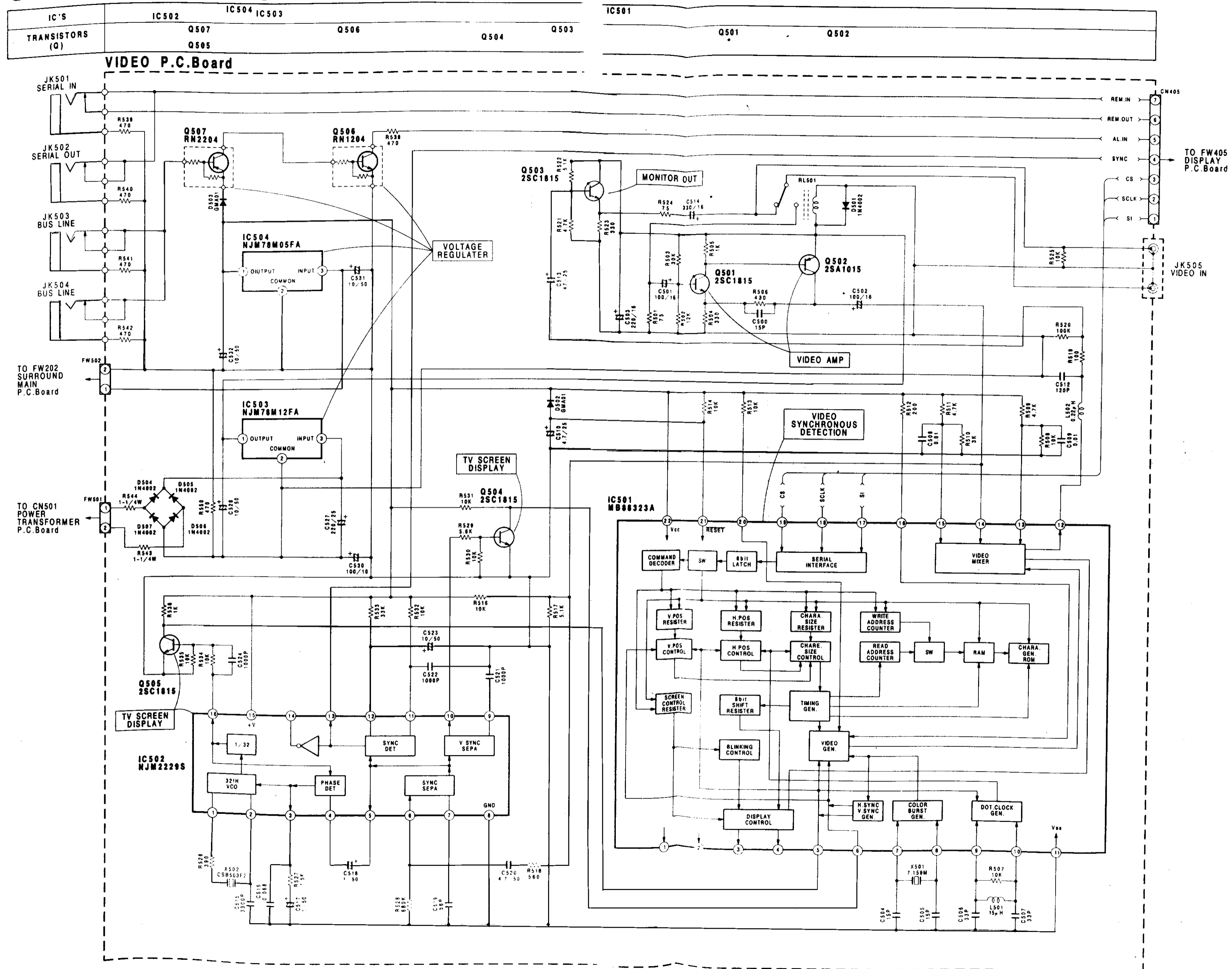


Schematic Diagram (3/4)



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Schematic Diagram (1/4)



	E	C	B
Q201	0V	0V	-13V
Q202	0V	0V	-13V
Q203	0V	0V	-13V
Q204	0V	0V	-13V
Q205	0V	0V	-13V
Q206	0V	0V	-13V
Q207	0V	0V	-13V
Q208	0V	0V	-13V
Q321	0V	0V	0.7V
Q322	0V	0V	0.7V
Q323	15V	15V	0V
Q324	0V	0V	-13V
Q325	0V	0V	-13V
Q350	0.1V	-13V	0V
Q351	0.1V	-13V	0V
Q352	13V	-13V	13V
Q401	0V	2.5V	0.2V
Q402	0V	2.5V	0.2V
Q403	0V	2.5V	0.2V
Q404	0V	2.5V	0.2V
Q405	3.5V	5V	3.8V
Q406	2V	5V	1.7V
Q407	PULSE	5V	1V
Q408	3.4V	5V	3.7V
Q409	2V	5V	1.7V
Q410	PULSE	5V	1V
Q411	2.2V	5V	1.7V
Q501	2.8V	11V	3.4V
Q502	12V	6V	11V
Q503	5V	12V	5.7V
Q504	0V	0V	0.7V
Q505	0V	4.6V	0V
Q506	0V	5V	0V
Q507	4.8V	0V	4.8V
Q601	0.6V	-43V	0.1V
Q602	0.6V	-43V	0.1V
Q603	0.6V	-43V	0V
Q604	0.6V	-43V	0V
Q605	-4.4V	-43V	-43V
Q606	-4.4V	-43V	-43V
Q607	43V	1V	42V
Q608	43V	1V	42V
Q609	-43V	-1V	-42V
Q610	-43V	-1V	-42V
Q611	-1V	1V	-0.5V
Q612	-1V	1V	-0.5V
Q613	0.5V	44.5V	1.1V
Q614	0.5V	44.5V	1.1V
Q615	-0.5V	-44.5V	-1.1V
Q616	-0.5V	-44.5V	-1.1V
Q617	0V	44.5V	0.5V
Q618	0V	44.5V	0.5V
Q619	0V	-44.5V	-0.5V
Q620	0V	-44.5V	-0.5V
Q651	0V	43V	0V
Q652	0V	43V	0V
Q653	44.5V	0.7V	44.5V
Q654	0V	43V	0.1V
Q655	0V	0.15V	0.7V
Q656	0V	0.15V	0.7V
Q701	0.6V	-43V	0.1V
Q702	0.6V	-43V	0V
Q703	-4.4V	-43V	-43V
Q704	43V	1V	42V
Q705	-43V	-1V	-42V
Q706	-1V	1V	-0.5V
Q707	0.5V	44.5V	1.1V
Q708	-0.5V	-44.5V	-1.1V
Q709	0V	44.5V	0.5V
Q710	0V	44.5V	-0.5V
Q751	0V	43V	0V

	IC101	IC201	IC205	IC206	IC207	IC208	IC209	IC210	IC211	IC212	IC213	IC214	IC215	IC216	IC218
1															
2	0V	0V	0V	2.5V	0V	2.5V	NC	0V	2.5V	0V	0V	0V	0V	0V	0V
3	0V	0V	0V	2.5V	0V	2.5V	NC	0V	2.5V	0V	0V	0V	0V	0V	0V
4	0V	0V	0V	2.5V	0V	2.5V	NC	0V	2.5V	0V	0V	0V	0V	0V	0V
5	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V	-15V
6	0V	0V	0V	2.5V	0V	2.5V	2.5V	0V	2.5V	0V	0V	0V	0V	0V	0V
7	0V	0V	0V	2.5V	0V	2.5V	2.5V	0V	2.5V	0V	0V	0V	0V	0V	0V
8	0V	0V	0V	2.5V	0V	2.5V	2.5V	0V	2.5V	0V	0V	0V	0V	0V	0V
9	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V	15V

IC202	
1	0V
2	0V
3	0V
4	0V
5	0V
6	0V
7	0V
8	0V
9	0V
10	0V
11	0V
12	-15V
13	0V
14	0V
15	0V
16	0V
17	0V
18	15V
19	15V
20	0V
21	0V
22	0V
23	0V
24	0V
25	0V
26	0V
27	0V
28	0V
29	0V
30	0V

IC203			
1	5V	33	PULSE
2	2.5V	34	PULSE
3	2.5V	35	PULSE
4	2.5V	36	PULSE
5	2.5V	37	PULSE
6	2.5V	38	PULSE
7	2.5V	39	PULSE
8	2.5V	40	PULSE
9	2.5V	41	PULSE
10	2.5V	42	PULSE
11	0V	43	0V
12	0V	44	0V
13	2.5V	45	2.1V
14	2.5V	46	2V
15	2.5V	47	5V
16	2.5V	48	NC
17	2.5V	49	5V
18	2.5V	50	NC
19	2.5V	51	5V
20	2.5V	52	0V
21	2.5V	53	0V
22	2.5V	54	NC
23	2.5V	55	NC
24	2.5V	56	NC
25	5V	57	NC
26	5V	58	5V
27	PULSE	59	NC
28	PULSE	60	NC
29	PULSE	61	NC
30	PULSE	62	NC
31	PULSE	63	5V
32	PULSE	64	5V

IC204	
1	PULSE
2	PULSE
3	PULSE
4	0V
5	PULSE
6	PULSE
7	PULSE
8	PULSE
9	PULSE
10	NC
11	NC
12	PULSE
13	PULSE
14	PULSE
15	5V
16	PULSE
17	PULSE
18	PULSE
19	PULSE
20	PULSE

IC217	IC322	
1	0V	0V
2	NC	NC
3	NC	NC
4	0V	0V
5	0V	0V
6	0V	0V
7	0V	0V
8	0V	NC
9	-15V	-15V
10	5V	5V
11	15V	15V
12	0V	0V
13	0V	0V
14	0V	0V
15	5V	5V
16	5V	5V
17	0V	0V
18	0V	NC
19	0V	NC
20	NC	NC
21	NC	NC
22	0V	NC

IC401			
1	4.9V	33	0V
2	4.9V	34	4.9V
3	4.9V	35	4.9V
4	4.9V	36	0V
5	4.9V	37	0V
6	4.9V	38	0V
7	0V	39	4.9V
8	0V	40	0V
9	4.8V	41	0V
10	4.8V	42	0V
11	4.7V	43	0V
12	4V	44	0V
13	4V	45	4.9V
14	3V	46	2.6V
15	5V	47	2.6V
16	5V	48	NC
17	5V	49	NC
18	5V	50	4.9V
19	NC	51	4.9V
20	0V	52	NC
21	3.6V	53	0V
22	3.6V	54	0V
23	4.8V	55	0V
24	4.8V	56	0V
25	4.8V	57	5V
26	4.8V	58	0V
27	0.2V	59	0V
28	13V	60	0V
29	0.1V	61	0V
30	0.1V	62	0V
31	NC	63	0V
32	5V	64	0V

IC501	IC502	
1	NC	2.7V
2	NC	2.2V
3	NC	1.8V
4	NC	0V
5	4.6V	4.3V
6	0V	2.7V
7	2.5V	2V
8	2.5V	0V
9	2.3V	4.9V
10	2.7V	4.2V
11	0V	0.4V
12	1.7V	5V
13	3.4V	0V
14	1.7V	NC
15	2V	5V
16	3.9V	0.7V
17	0.1V	
18	4.9V	
19	4.9V	
20	5V	
21	5V	
22	5V	

IC320	IC321	IC323	IC561	IC651
1				-0.7V
2	0V	0V	0V	0V
3	0V	0V	0V	0.1V
4	0V	0V	0V	0V
5	-15V	-15V	-15V	-0.8V
6	0V	0V	0V	0.7V
7	0V	0V	0V	0V
8	0V	0V	0V	1.3V
9	15V	15V	15V	2.8V

IC402	IC503	IC504	IC801	IC802	IC803	IC804	
1	5V	12V	5V	15V	-15V	5V	5.6V
2	0V	0V	0V	0V	-23V	0V	0V
3	5V	17V	13V	22.5V	0V	14V	12.8V