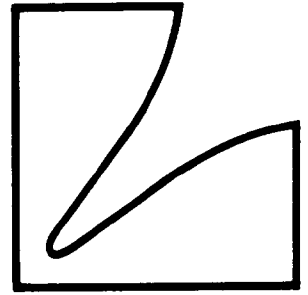


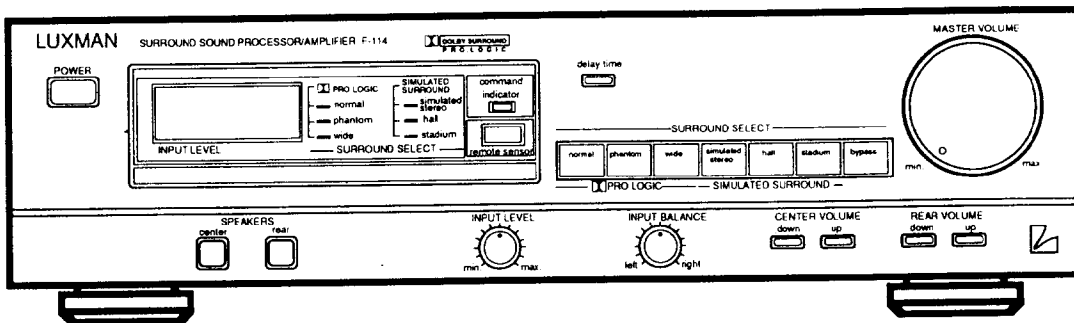
SERVICE MANUAL



Surround Sound Processor/Amplifier

F-114

Disassembly Instructions
Adjustment Procedures
Adjustment Locations
Block Diagram

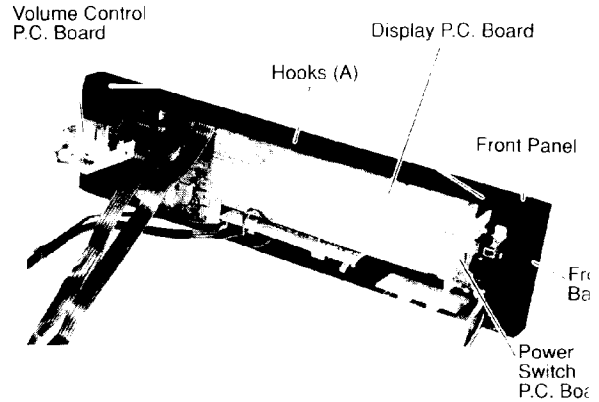


Disassembly Instructions

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).

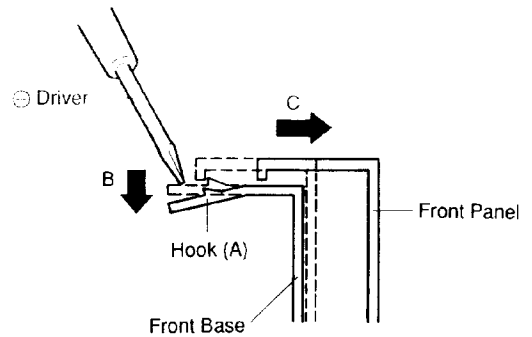


Figuer 1

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).

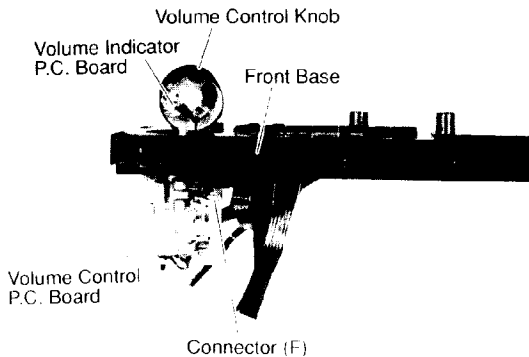
Note: Be careful when you handle Hooks (A) and (D). They may break easily.



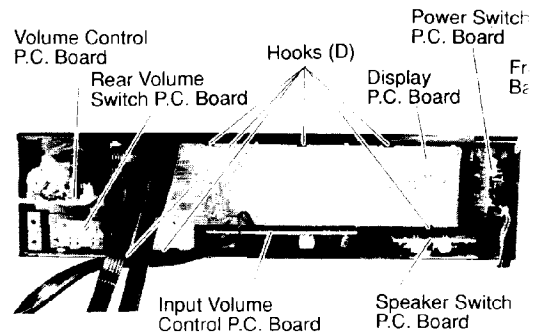
Figuer 2

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

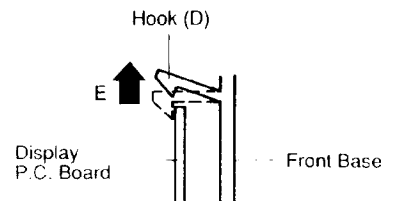
To prevent cutting off the Connector (F) which comes out from the Volume Indicator P.C.Board at the rear of the Volume Control Knob, disconnect the connector before removing the knob (see Figure 5).



Figuer 5



Figuer 3



Figuer 4

Adjustment Procedures

1. Idling Adjustment

(1) Connection

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

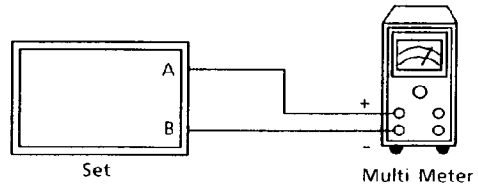


Figure 6

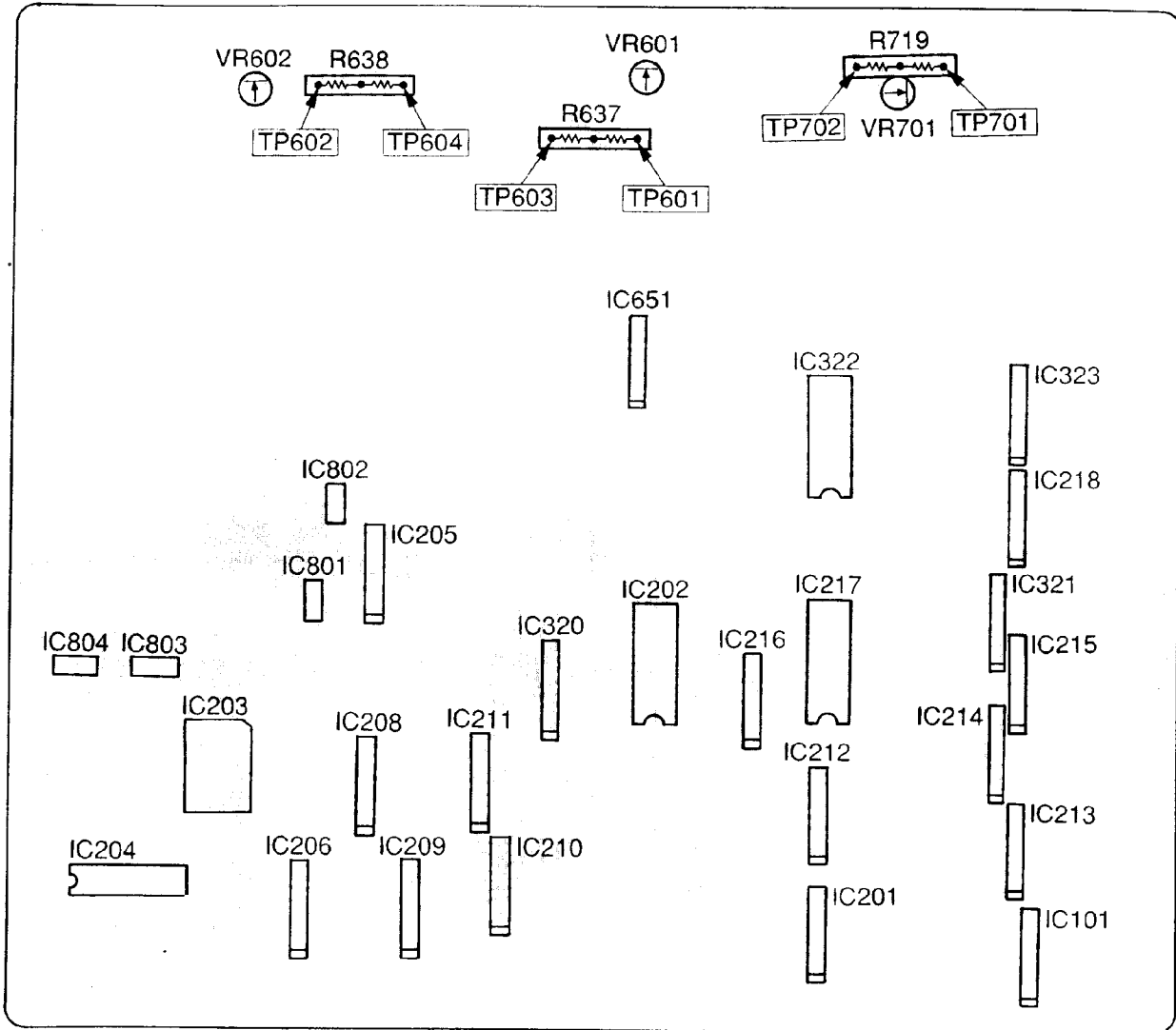
(2) Control Settings

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

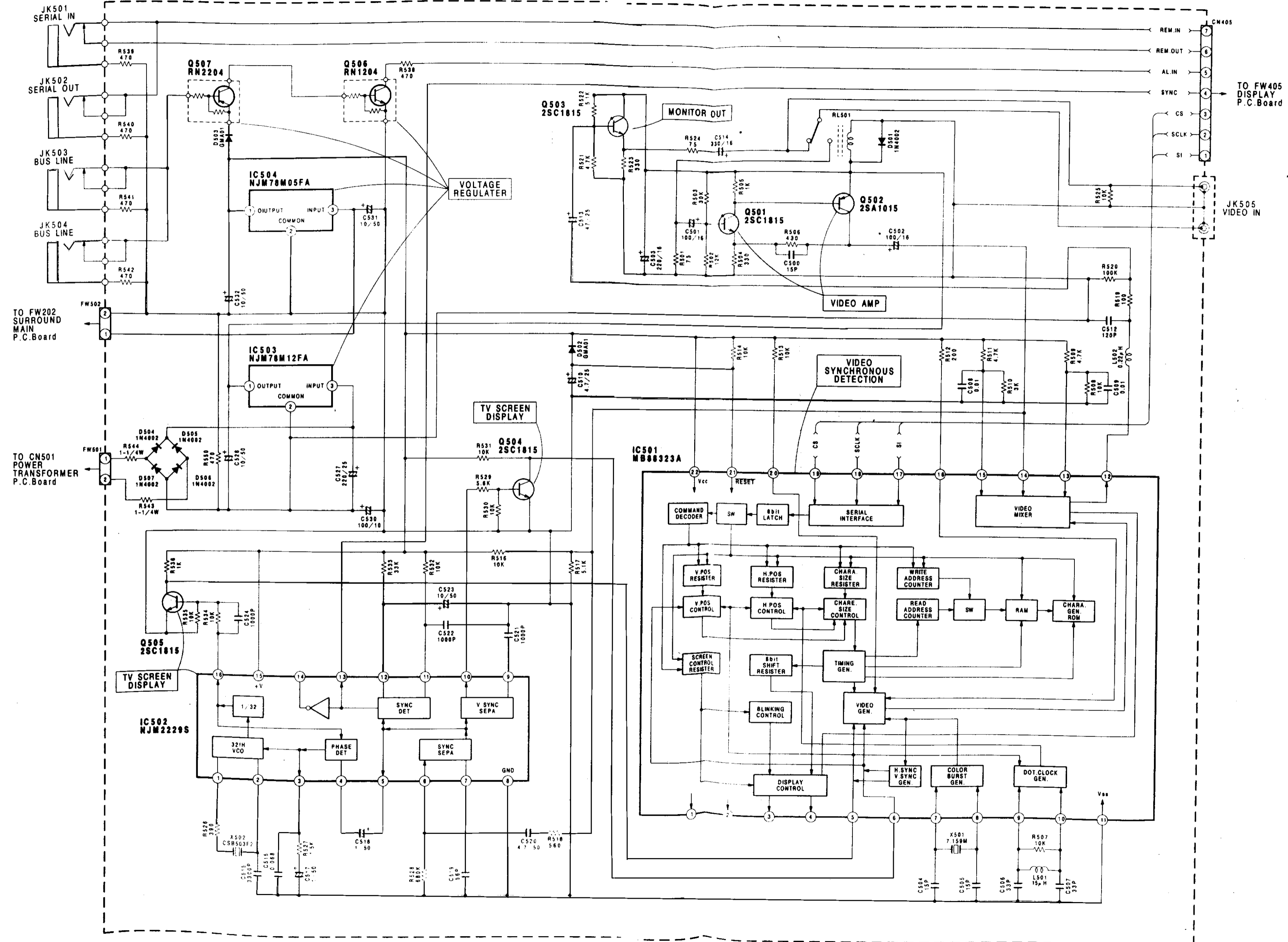


SURROUND MAIN P.C. Board (Top View)

Schematic Diagram (1/4)

IC'S	IC502	IC504	IC503	IC501
TRANSISTORS (Q)	Q507 Q505	Q506	Q504 Q503	Q501 Q502

VIDEO P.C. Board



	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

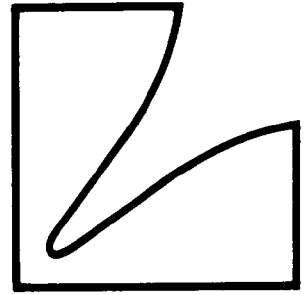
IC401			
1	4.9V	33	0V
2	4.9V	34	4.9V
3	4.9V	35	4.9V
4	4.9V	36	0V
5	4.9V	37	0V
6	4.9V	38	0V
7	0V	39	4.9V
8	0V	40	0V
9	4.8V	41	0V
10	4.8V	42	0V
11	4.7V	43	0V
12	4V	44	0V
13	4V	45	4.9V
14	3V	46	2.6V
15	5V	47	2.6V
16	5V	48	NC
17	5V	49	NC
18	5V	50	4.9V
19	NC	51	4.9V
20	0V	52	NC
21	3.6V	53	0V
22	3.6V	54	0V
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

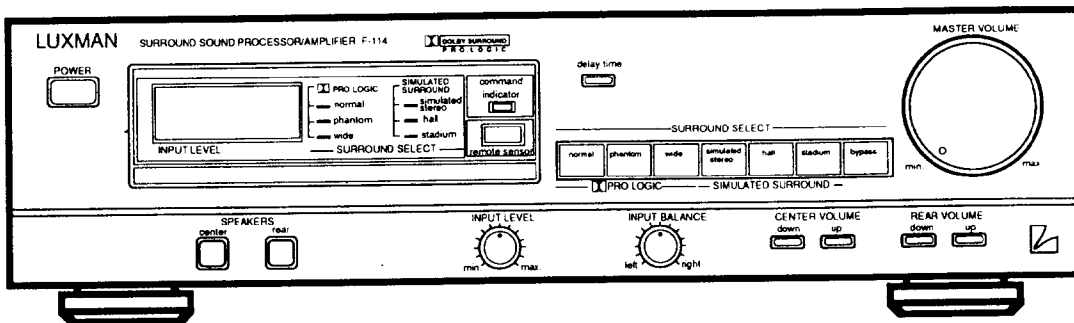
SERVICE MANUAL



Surround Sound Processor/Amplifier

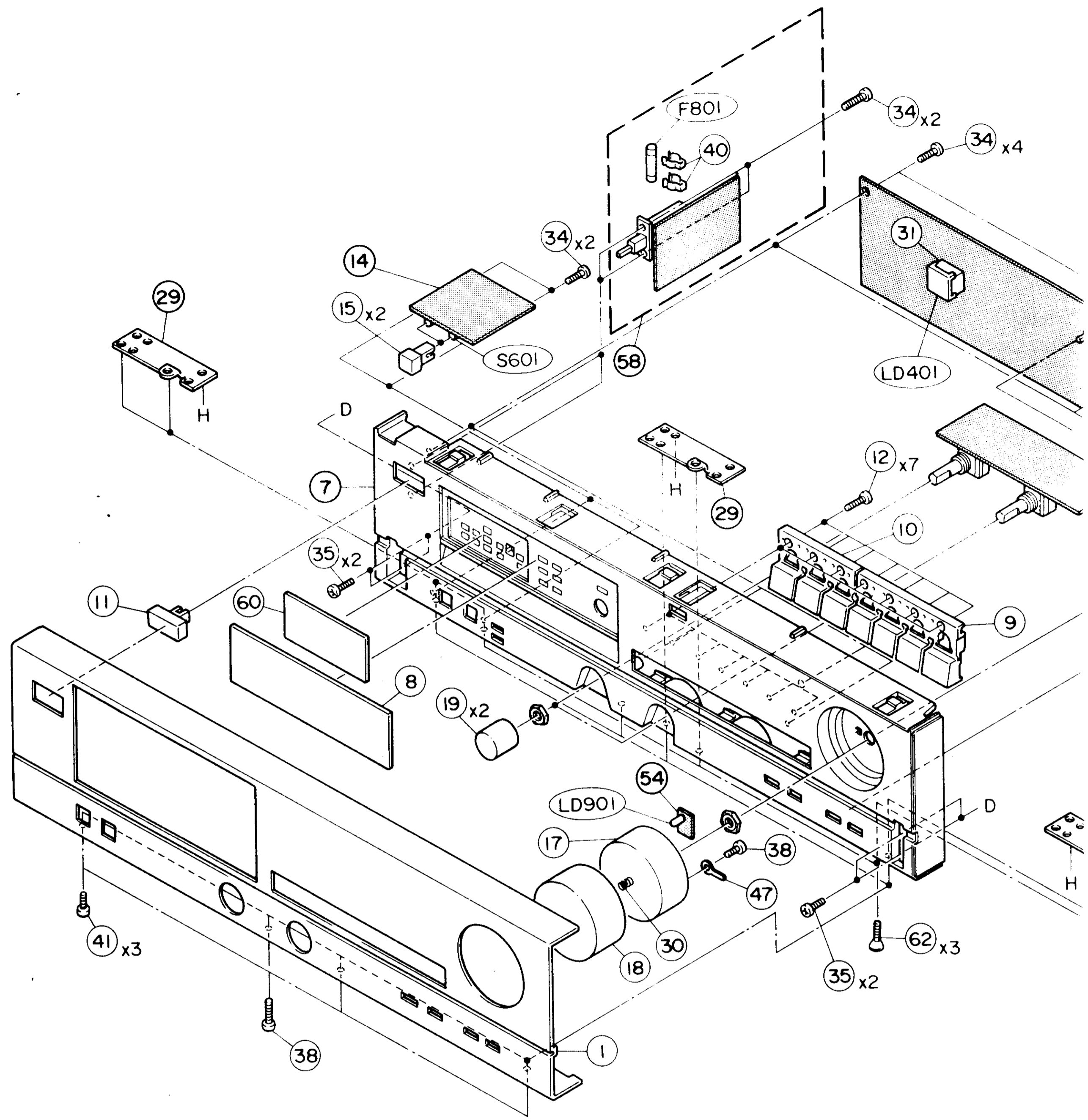
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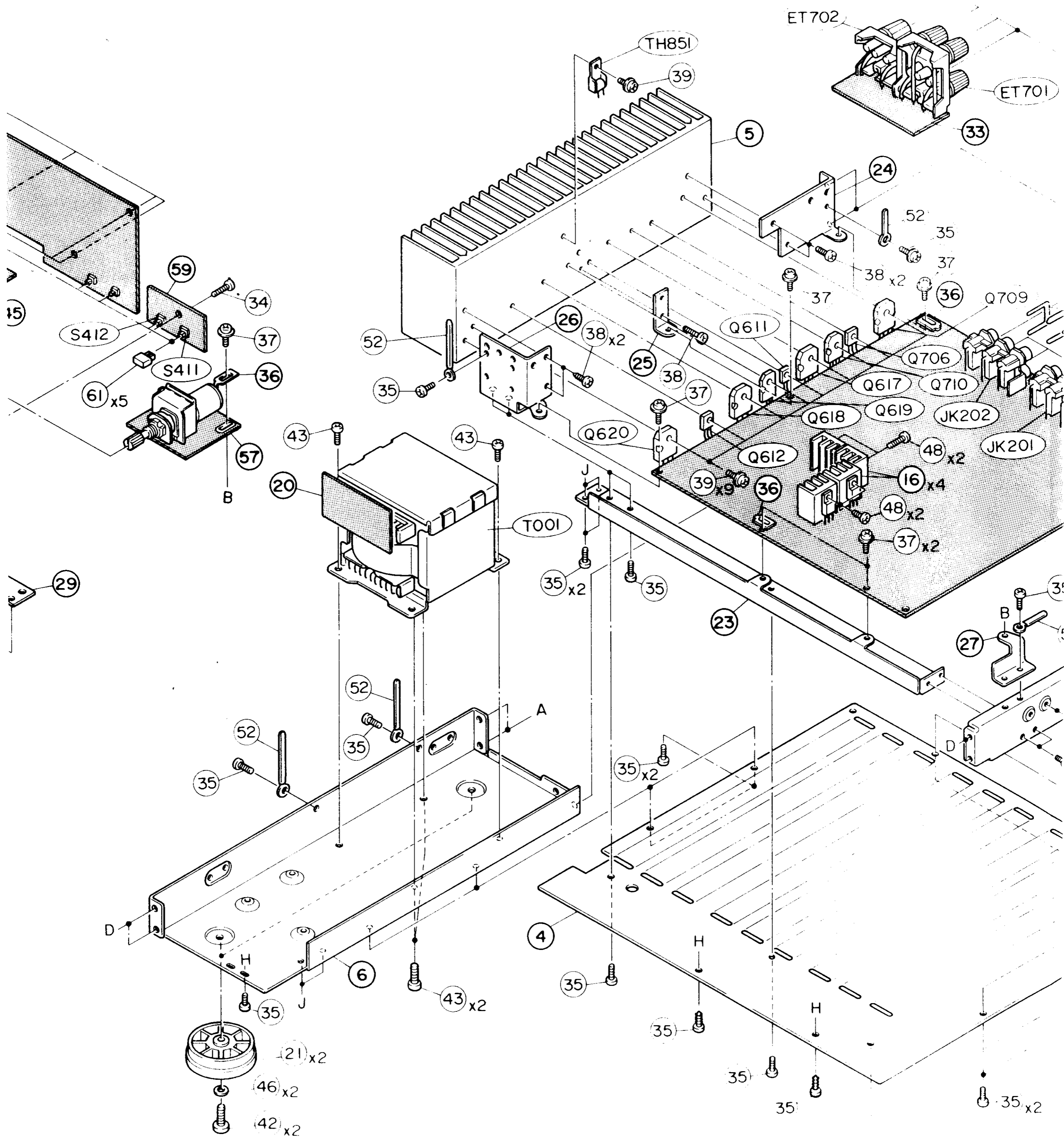
Parts List



Exploded View (Cabinet)

1
2
3
4
5



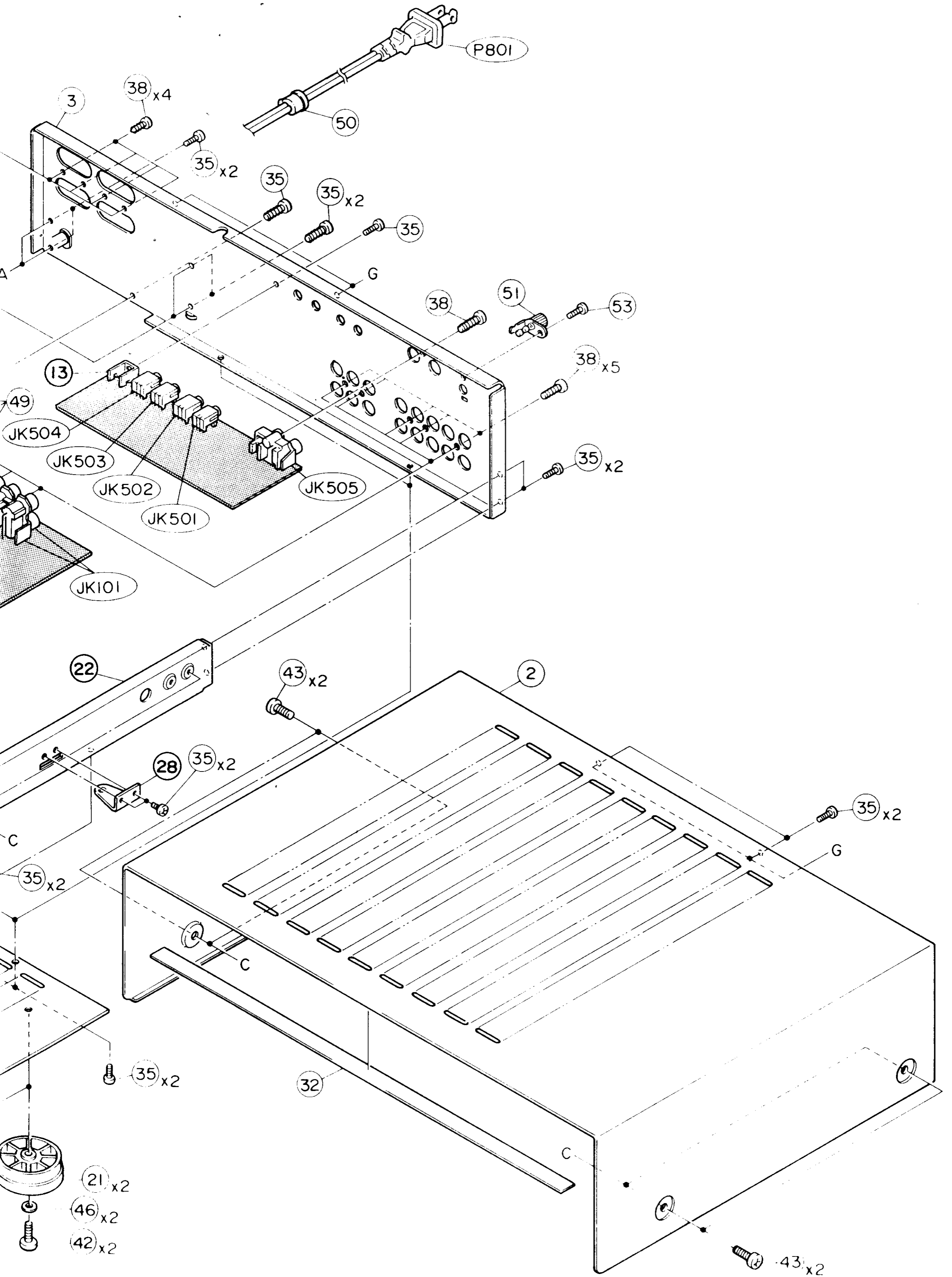


F

F

G

H



Electrical Parts List

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

Capacitor: μ F = microfarads, pF = picofarads

Abbreviations			Symbol No.	Part No.	Description
RES. = Resistor	CAP. = Capacitor		Q206	48E08922S01	RN1241
C.F. = Carbon Film	ELY. = Electrolytic		Q207	48E08922S01	RN1241
M.F. = Metal Film	CER. = Ceramic		Q208	48E08922S01	RN1241
M.O. = Metal Oxide Film	MYL. = Mylar		Q321	48T81101F02	2SC1815
M.P. = Metal Plate	TAN. = Tantalum		Q322	48T81101F02	2SC1815
TR. = Transistor	POLY. = Polystyrol		Q323	48E08923S01	RN2209
TRANS. = Transformer	PP. = Polypropylene		Q324	48E08922S01	RN1241
CP. = Chip	PLT. = Polyethylene		Q325	48E08922S01	RN1241
	PF. = Polyester Film		Q350	48E08923S01	RN2209
			Q351	48E08923S01	RN2209
Symbol No.	Part No.	Description	Q352	48E08923S01	RN2209
Surround Main P. C. Board					
IC's					
IC101	51E07540S01	NJM4565SB	Q601	48T52545F02	2SA970
IC201	51E07540S01	NJM4565SB	Q602	48T52545F02	2SA970
IC202	51E08931S01	LC7B23N	Q603	48T52545F02	2SA970
IC203	51E08932S01	YM7306B	Q604	48T52545F02	2SA970
IC204	51E08933S01	MB81464	Q605	48T53301F02	2SC2240
IC205	51E07540S01	NJM4565SB	Q606	48T53301F02	2SC2240
IC206	51E08934S01	NJM2082S	Q607	48T60751F01	2SA1145
IC207	51E07540S01	NJM4565SB	Q608	48T60751F01	2SA1145
IC208	51E08934S01	NJM2082S	Q609	48T60752F01	2SC2705
IC209	51E08934S01	NJM2082S	Q610	48T60752F01	2SC2705
IC210	51E07540S01	NJM4565SB	Q613	48T69176F01	2SC3421
IC211	51E08934S01	NJM2082S	Q614	48T69176F01	2SC3421
IC212	51E07540S01	NJM4565SB	Q615	48T69177F01	2SA1358
IC213	51E07540S01	NJM4565SB	Q616	48T69177F01	2SA1358
IC214	51E07540S01	NJM4565SB	Q651	48T53301F02	2SC2240
IC215	51E07540S01	NJM4565SB	Q652	48T53301F02	2SC2240
IC216	51E07540S01	NJM4565SB	Q653	48T52545F02	2SA970
IC217	51E08935S01	LC7535	Q654	48T53301F02	2SC2240
IC218	51E07540S01	NJM4565SB	Q655	48T53301F02	2SC2240
IC320	51E07540S01	NJM4565SB	Q656	48T53301F02	2SC2240
IC321	51E07540S01	NJM4565SB	Q701	48T52545F02	2SA970
IC322	51E08935S01	LC7535	Q702	48T52545F02	2SA970
IC323	51E07540S01	NJM4565SB	Q703	48T53301F02	2SC2240
IC651	51T63437F01	TA7317P	Q704	48T60751F01	2SA1145
IC801	51E08120S01	NJM78M15FA	Q705	48T60752F01	2SC2705
IC802	51E08121S01	NJM79M15FA	Q707	48T69176F01	2SC3421
IC803	51E08127S01	NJM78M05FA	Q708	48T69177F01	2SA1358
IC804	51E08127S01	NJM78M05FA	Q751	48T53301F02	2SC2240
Transistors			Diodes		
Q201	48E08922S01	RN1241	D201	48E04197S01	GMA01
Q202	48E08922S01	RN1241	D202	48E04197S01	GMA01
Q203	48E08922S01	RN1241	D203	48E04197S01	GMA01
Q204	48E08922S01	RN1241	D204	48E04197S01	GMA01
Q205	48E08922S01	RN1241	D205	48E04197S01	GMA01

Symbol No.	Part No.	Description
D206	48E04197S01	GMA01
D207	48E04197S01	GMA01
D208	48E04197S01	GMA01
D321	48E04197S01	GMA01
D350	48E04197S01	GMA01
D351	48E04197S01	GMA01
D352	48E04197S01	GMA01
D353	48E04197S01	GMA01
D354	48E04197S01	GMA01
D355	48E04197S01	GMA01
D601	48E08921S01	GMB01U
D602	48E08921S01	GMB01U
D603	48E08921S01	GMB01U
D604	48E08921S01	GMB01U
D605	48E08921S01	GMB01U
D606	48E08921S01	GMB01U
D607	48E08921S01	GMB01U
D608	48E08921S01	GMB01U
D609	48E08921S01	GMB01U
D610	48E08921S01	GMB01U
D651	48E08921S01	GMB01U
D652	48E08921S01	GMB01U
D653	48E04209S01	1N4002
D654	48E08921S01	GMB01U
D655	48E08921S01	GMB01U
D656	48E08921S01	GMB01U
D657	48E08921S01	GMB01U
D658	48E08921S01	GMB01U
D701	48E08921S01	GMB01U
D702	48E08921S01	GMB01U
D703	48E08921S01	GMB01U
D704	48E08921S01	GMB01U
D705	48E08921S01	GMB01U
D751	48E08921S01	GMB01U
D752	48E04209S01	1N4002
D801	48E04210S01	1N5402
D802	48E04210S01	1N5402
D803	48E04210S01	1N5402
D804	48E04210S01	1N5402
D805	48E04209S01	1N4002
D806	48E04209S01	1N4002
D807	48E04209S01	1N4002
D808	48E04209S01	1N4002
D809	48E04209S01	1N4002
D810	48E04209S01	1N4002
D811	48E04209S01	1N4002
D812	48E04209S01	1N4002
D813	48E04209S01	1N4002
D814	48E04209S01	1N4002
D815	48E04209S01	1N4002
D816	48E04209S01	1N4002
D817	48E04209S01	1N4002

Symbol No.	Part No.	Description
ZD611	48E08986S01	Zener, GZ58.2X
ZD612	48E08986S01	Zener, GZ58.2X
ZD613	48E08986S01	Zener, GZ58.2X
ZD614	48E08986S01	Zener, GZ58.2X
ZD706	48E08986S01	Zener, GZ58.2X
ZD707	48E08986S01	Zener, GZ58.2X

Coils / Filters		
LF201	24E08946S01	Filter
LF202	24E08946S01	Filter
L350	24E08947S01	Inductor
L601	24E04241S01	Air-Core
L602	24E04241S01	Air-Core
L701	24E04241S01	Air-Core

Crystal / Relays		
X350	91E08951S01	Crystal, 8.46MHz
RL651	80E08960S01	OSA-SS-224DM3
RL751	80E08961S01	OS-SS-124DM

Capacitors			
C101	23E04338S05	ELY.,	10 μ F / 50V
C102	23E04338S05	ELY.,	10 μ F / 50V
C103	21E04358S01	CER.,	100pF
C104	21E04358S01	CER.,	100pF
C105	23E04338S07	ELY.,	4.7 μ F / 50V
C106	23E04338S07	ELY.,	4.7 μ F / 50V
C110	21E08222S01	CER.,	0.047 μ F
C200	08E04348S22	MYL.,	1000pF
C201	23E04338S07	ELY.,	4.7 μ F / 50V
C202	23E04338S07	ELY.,	4.7 μ F / 50V
C203	21E04354S14	CER.,	33pF
C204	21E04354S14	CER.,	33pF
C205	23E04338S08	ELY.,	22 μ F / 50V
C206	23E04338S08	ELY.,	22 μ F / 50V
C207	21E04358S04	CER.,	120pF
C208	21E04358S04	CER.,	120pF
C209	23E04338S07	ELY.,	4.7 μ F / 50V
C210	23E04338S07	ELY.,	4.7 μ F / 50V
C211	08E07655S04	MTL.,	0.1 μ F
C212	23E04334S01	ELY.,	100 μ F / 10V
C213	23E04338S05	ELY.,	10 μ F / 50V
C214	23E04338S05	ELY.,	10 μ F / 50V

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C215	23E04338S07	ELY., 4.7 μ F / 50V	C267	23E04338S04	ELY., 1 μ F / 50V
C216	23E04338S07	ELY., 4.7 μ F / 50V	C268	23E04338S04	ELY., 1 μ F / 50V
C217	21E04354S15	CER., 68pF	C269	23E04338S07	ELY., 4.7 μ F / 50V
C218	21E04354S15	CER., 68pF	C270	23E04338S07	ELY., 4.7 μ F / 50V
C219	23E04338S07	ELY., 4.7 μ F / 50V	C271	23E04338S07	ELY., 4.7 μ F / 50V
C220	23E04338S07	ELY., 4.7 μ F / 50V	C272	23E04338S07	ELY., 4.7 μ F / 50V
C221	21E04358S01	CER., 100pF	C273	21E04358S01	CER., 100pF
C222	21E04358S01	CER., 100pF	C274	21E04358S01	CER., 100pF
C223	23E04338S07	ELY., 4.7 μ F / 50V	C275	23E04338S07	ELY., 4.7 μ F / 50V
C224	23E04338S07	ELY., 4.7 μ F / 50V	C276	23E04338S07	ELY., 4.7 μ F / 50V
C225	08E04350S04	Styrol, 30pF	C321	23E04338S05	ELY., 10 μ F / 50V
C226	08E04350S04	Styrol, 30pF	C322	21E04354S15	CER., 68pF
C227	08E04350S04	Styrol, 30pF	C323	23E04338S07	ELY., 4.7 μ F / 50V
C228	08E04350S04	Styrol, 30pF	C324	08E07655S06	MTL., 0.15 μ F
C229	23E04338S07	ELY., 4.7 μ F / 50V	C325	21E04358S01	CER., 100pF
C230	23E04338S07	ELY., 4.7 μ F / 50V	C326	23E04338S07	ELY., 4.7 μ F / 50V
C231	23E04338S07	ELY., 4.7 μ F / 50V	C327	23E04338S07	ELY., 4.7 μ F / 50V
C232	23E04338S07	ELY., 4.7 μ F / 50V	C328	23E04338S07	ELY., 4.7 μ F / 50V
C233	08E04348S05	MYL., 2700pF	C330	23E04338S07	ELY., 4.7 μ F / 50V
C234	08E04348S05	MYL., 2700pF	C331	23E04338S04	ELY., 1 μ F / 50V
C235	08E04348S05	MYL., 2700pF	C332	23E04338S07	ELY., 4.7 μ F / 50V
C236	08E04348S05	MYL., 2700pF	C333	23E04338S07	ELY., 4.7 μ F / 50V
C237	21E04364S01	CER., 390pF	C334	21E04358S01	CER., 100pF
C238	21E04364S01	CER., 390pF	C335	23E04338S07	ELY., 4.7 μ F / 50V
C239	21E04364S01	CER., 390pF	C350	23E04334S01	ELY., 100 μ F / 10V
C240	21E04364S01	CER., 390pF	C351	08E07655S04	MTL., 0.1 μ F
C241	08E04348S23	MYL., 6800pF	C352	21E04357S04	CER., 30pF
C242	08E04348S23	MYL., 6800pF	C353	21E04357S04	CER., 30pF
C243	08E04348S23	MYL., 6800pF	C354	23E04338S07	ELY., 4.7 μ F / 50V
C244	08E04348S23	MYL., 6800pF	C355	08E07655S04	MTL., 0.1 μ F
C245	23E04338S07	ELY., 4.7 μ F / 50V	C356	23E04335S03	ELY., 220 μ F / 16V
C246	23E04338S07	ELY., 4.7 μ F / 50V	C357	08E07655S04	MTL., 0.1 μ F
C247	23E04338S07	ELY., 4.7 μ F / 50V	C358	08E07655S04	MTL., 0.1 μ F
C248	23E04338S07	ELY., 4.7 μ F / 50V	C359	23E04334S01	ELY., 100 μ F / 10V
C249	08E08942S01	POLY., 3300pF	C360	08E07655S04	MTL., 0.1 μ F
C250	08E08942S01	POLY., 3300pF	C361	23E04338S04	ELY., 1 μ F / 50V
C251	23E04338S07	ELY., 4.7 μ F / 50V	C362	23E04338S04	ELY., 1 μ F / 50V
C252	23E04338S07	ELY., 4.7 μ F / 50V	C601	21E08221S01	CER., 330pF
C253	21E04358S01	CER., 100pF	C602	21E08221S01	CER., 330pF
C254	21E04358S01	CER., 100pF	C603	23E04338S05	ELY., 10 μ F / 50V
C255	23E04338S07	ELY., 4.7 μ F / 50V	C604	23E04338S05	ELY., 10 μ F / 50V
C256	23E04338S07	ELY., 4.7 μ F / 50V	C605	08E04348S18	MYL., 2200pF
C257	23E04338S07	ELY., 4.7 μ F / 50V	C606	08E04348S18	MYL., 2200pF
C258	23E04338S07	ELY., 4.7 μ F / 50V	C607	23E04335S02	ELY., 100 μ F / 16V
C259	23E04338S07	ELY., 4.7 μ F / 50V	C608	23E04335S02	ELY., 100 μ F / 16V
C260	23E04338S07	ELY., 4.7 μ F / 50V	C609	21E04354S11	CER., 10pF
C261	23E04338S07	ELY., 4.7 μ F / 50V	C610	21E04354S11	CER., 10pF
C262	23E04338S07	ELY., 4.7 μ F / 50V	C611	23E04338S05	ELY., 10 μ F / 50V
C263	23E04338S07	ELY., 4.7 μ F / 50V	C612	23E04338S05	ELY., 10 μ F / 50V
C264	23E04338S07	ELY., 4.7 μ F / 50V	C613	08E04348S15	MYL., 0.047 μ F
C265	23E04338S07	ELY., 4.7 μ F / 50V	C614	08E04348S15	MYL., 0.047 μ F
C266	23E04338S07	ELY., 4.7 μ F / 50V	C651	23E04338S07	ELY., 4.7 μ F / 50V

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
C652	23E04336S06	ELY., 47 μ F / 25V	R641	06E04319S04	MO., 10 ohm 1W
C653	23E04338S08	ELY., 22 μ F / 50V	R642	06E04319S04	MO., 10 ohm 1W
C654	23E04338S03	ELY., 0.47 μ F / 50V	R670	06E04319S05	MO., 470 ohm 1W
C656	23E04362S01	CER., 0.01 μ F	R707	06E04318S03	MF., 30K ohm 1/4W
C701	23E08221S01	CER., 330pF	R716	06E04321S09	RF., 4.7 ohm 1/4W
C702	23E04338S05	ELY., 10 μ F / 50V	R717	06E04321S09	RF., 4.7 ohm 1/4W
C703	08E04348S18	MYL., 2200pF	R718	06E04322S06	RF., 220 ohm 1/2W
C704	23E04354S11	CER., 10pF	R719	06E08225S01	MPC., 0.22 ohm 5W x 2
C705	23E04335S02	ELY., 100 μ F / 16V	R720	06E04319S03	MO., 4.7 ohm 1W
C706	23E04338S05	ELY., 10 μ F / 50V	R721	06E04319S04	MO., 10 ohm 1W
C707	08E04348S15	MYL., 0.047 μ F	R756	06E04319S05	MO., 470 ohm 1W
C802	23E08943S01	ELY., 15000 μ F / 50V	R802	06E04321S07	RF., 1 ohm 1/4W
C803	23E08943S01	ELY., 15000 μ F / 50V	R803	06E04321S07	RF., 1 ohm 1/4W
C804	23E08950S01	CER., 0.022 μ F	R804	06E04321S07	RF., 1 ohm 1/4W
C805	23E08950S01	CER., 0.022 μ F	R805	06E04321S07	RF., 1 ohm 1/4W
C806	23E04338S06	ELY., 2.2 μ F / 50V	R806	06E04319S07	MO., 150 ohm 1W
C807	23E04336S08	ELY., 1000 μ F / 25V	VR601	18E08226S01	Variable 1K ohm
C808	23E04336S08	ELY., 1000 μ F / 25V	VR602	18E08226S01	Variable 1K ohm
C809	23E04338S05	ELY., 10 μ F / 50V	VR701	18E08226S01	Variable 1K ohm
C810	23E04338S05	ELY., 10 μ F / 50V			
C811	23E04336S07	ELY., 470 μ F / 25V	Power Switch P. C. Board		
C812	23E04336S07	ELY., 470 μ F / 25V	Switch		
C813	23E04334S01	ELY., 100 μ F / 10V	S801	40E08963S01	Switch, Power
C814	08E07655S04	MTL., 0.1 μ F			
C815	23E04336S06	ELY., 47 μ F / 25V	Capacitor		
C816	23E04336S08	ELY., 1000 μ F / 16V	C801	08E08224S01	MTL., 0.01 μ F
C817	23E04338S05	ELY., 10 μ F / 50V			
C818	23E04338S04	ELY., 1 μ F / 50V	Display P. C. Board		
C819	23E04338S04	ELY., 1 μ F / 50V	IC's / Receiving Unit		
Resistors			IC401	51E08936S01	μ PD75106CW
R229	06E04317S02	MF., 10K ohm 1/6W	IC402	51E08937S01	PST572C
R230	06E04317S02	MF., 10K ohm 1/6W	RV401	01E08159S01	Remote Signal Receiving Unit (SBX1610-12)
R231	06E04317S02	MF., 10K ohm 1/6W			
R232	06E04317S02	MF., 10K ohm 1/6W	Transistors		
R321	06E04317S02	MF., 10K ohm 1/6W	Q401	48T81101F02	2SC1815
R322	06E04317S02	MF., 10K ohm 1/6W	Q402	48T81101F02	2SC1815
R613	06E04318S03	MF., 30K ohm 1/4W	Q403	48T81101F02	2SC1815
R614	06E04318S03	MF., 30K ohm 1/4W	Q404	48T81101F02	2SC1815
R631	06E04321S09	RF., 4.7 ohm 1/4W	Q405	48T81101F02	2SC1815
R632	06E04321S09	RF., 4.7 ohm 1/4W			
R633	06E04321S09	RF., 4.7 ohm 1/4W			
R634	06E04321S09	RF., 4.7 ohm 1/4W			
R635	06E04322S06	RF., 220 ohm 1/2W			
R636	06E04322S06	RF., 220 ohm 1/2W			
R637	06E08225S01	MPC., 0.22 ohm 5W x 2			
R638	06E08225S01	MPC., 0.22 ohm 5W x 2			
R639	06E04319S03	MO., 4.7 ohm 1W			
R640	06E04319S03	MO., 4.7 ohm 1W			

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Q406	48T81101F02	2SC1815	Capacitors		
Q407	48T81101F02	2SC1815	C401	23E04322S04	ELY., 10000 μ F / 5.5V
Q408	48T81101F02	2SC1815	C402	08E07655S04	MTL., 0.1 μ F
Q409	48T81101F02	2SC1815	C403	23E08944S01	ELY., 10 μ F / 16V
Q410	48T81101F02	2SC1815	C404	23E08944S02	ELY., 4.7 μ F / 16V
Q411	48T81101F02	2SC1815	C405	21E04357S04	CER., 30pF
Switches / Crystal			C406	21E04357S04	CER., 30pF
S401	40E08198S01	Tact, SOA-132HS (normal)	C413	23E08945S01	ELY., 100 μ F / 6.3V
S402	40E08198S01	Tact, SOA-132HS (phantom)	Input Volume Control P. C. Board		
S403	40E08198S01	Tact, SOA-132HS (wide)	IC		
S404	40E08198S01	Tact, SOA-132HS (simulated stereo)	IC551	51E07540S01	NJM4565SB
S405	40E08198S01	Tact, SOA-132HS (hall)	Diodes		
S406	40E08198S01	Tact, SOA-132HS (stadium)	D551	48E04197S01	GMA01
S407	40E08198S01	Tact, SOA-132HS (bypass)	D552	48E04197S01	GMA01
S408	40E08199S01	Tact, SKHDA (delay time)	Capacitors		
S409	40E08199S01	Tact, SKHDA (down)	C551	23E04336S03	ELY., 22 μ F / 25V
S410	40E08199S01	Tact, SKHDA (up)	C552	23E04336S03	ELY., 22 μ F / 25V
X401	91E08206S01	Crystal, 4.19MHz	Resistors		
LED's			VR551	18E08968S01	Rotary, Potentiometer 50K ohm (INPUT LEVEL)
LD401	48E08924S01	SLR-34VC120 (RED)	VR552	18E08969S01	Rotary, Potentiometer 100K ohm (INPUT BALANCE)
LD402	48E08925S01	SLR-34VC102 (RED)	Volume Control P. C. Board		
LD409	48E08925S01	SLR-34VC102 (RED)	IC		
LD410	48E08925S01	SLR-34VC102 (RED)	IC901	51E08938S01	LB1638
LD411	48E08925S01	SLR-34VC102 (RED)	Capacitors		
LD412	48E08924S01	SLR-34VC120 (RED)	C901	23E04338S05	ELY., 10 μ F / 50V
LD413	48E08924S01	SLR-34VC120 (RED)	C902	08E07655S04	MTL., 0.1 μ F
LD414	48E08924S01	SLR-34VC120 (RED)	Diodes		
LD415	48E08924S01	SLR-34VC120 (RED)	D403	48E04209S01	1N4002
LD416	48E08924S01	SLR-34VC120 (RED)	D405	48E04197S01	GMA01
LD417	48E08924S01	SLR-34VC120 (RED)	D406	48E04197S01	GMA01
LD419	48E08997S01	SLR-34MC102 (RED)	D408	48E04197S01	GMA01
LD420	48E08925S01	SLR-34VC102 (RED)	Capacitors		
LD421	48E08997S01	SLR-34MC102 (RED)	C901	23E04338S05	ELY., 10 μ F / 50V
LD422	48E08925S01	SLR-34VC102 (RED)	C902	08E07655S04	MTL., 0.1 μ F
LD423	48E08925S01	SLR-34VC102 (RED)	Diodes		
LD424	48E08925S01	SLR-34VC102 (RED)	D403	48E04209S01	1N4002
LD425	48E08925S01	SLR-34VC102 (RED)	D405	48E04197S01	GMA01
Diodes			D406	48E04197S01	GMA01
D403	48E04209S01	1N4002	D408	48E04197S01	GMA01
D405	48E04197S01	GMA01	Capacitors		
D406	48E04197S01	GMA01	C901	23E04338S05	ELY., 10 μ F / 50V
D408	48E04197S01	GMA01	C902	08E07655S04	MTL., 0.1 μ F

Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
Resistors			Capacitors		
VR901 M901	18E08970S01	Rotary, Potentiometer 100K ohm (MASTER VOLUME)	C500	21E04353S05	CER., 15pF
Video P. C. Board			C501	23E04335S02	ELY., 100μF / 16V
IC's			C502	23E04335S02	ELY., 100μF / 16V
IC501	51E08939S01	MB88323A	C503	23E04335S03	ELY., 220μF / 16V
IC502	51E08940S01	NJM2229S	C504	21E04353S05	CER., 15pF
IC503	51E08122S01	NJM78M12FA	C505	21E04353S05	CER., 15pF
IC504	51E08127S01	NJM78M05FA	C506	21E04357S03	CER., 33pF
Transistors			C507	21E04357S03	CER., 33pF
Q501	48T81101F02	2SC1815	C508	21E04362S01	CER., 0.01μF
Q502	48T51118F03	2SA1015	C509	21E04362S01	CER., 0.01μF
Q503	48T81101F02	2SC1815	C510	23E04338S07	ELY., 4.7μF / 50V
Q504	48T81101F02	2SC1815	C512	21E04355S05	CER., 120pF
Q505	48T81101F02	2SC1815	C513	23E04336S06	ELY., 47μF / 25V
Q506	48E08928S01	RN1204	C514	23E04335S07	ELY., 330μF / 16V
Q507	48E08929S01	RN2204	C515	08E08942S01	POLY., 3300pF
Diodes			C516	08E07655S07	MTL., 0.068μF
D501	48E04209S01	1N4002	C517	23E04338S04	ELY., 1μF / 50V
D502	48E04197S01	GMA01	C518	23E04338S04	ELY., 1μF / 50V
D503	48E04197S01	GMA01	C519	21E04354S16	CER., 56pF
D504	48E04209S01	1N4002	C520	23E04338S07	ELY., 4.7μF / 50V
D505	48E04209S01	1N4002	C521	21E04359S01	CER., 1000pF
D506	48E04209S01	1N4002	C522	21E04359S01	CER., 1000pF
D507	48E04209S01	1N4002	C523	23E04338S05	ELY., 10μF / 50V
Coils / Relay			C524	08E04348S22	MYL., 1000pF
L501	24E08948S01	Inductor 15μH	C527	23E04336S09	ELY., 220μF / 25V
L502	24E08949S01	Inductor 0.22μH	C528	23E04338S05	ELY., 10μF / 50V
RL501	80E08962S01	Relay	C530	23E04334S01	ELY., 100μF / 10V
Crystals			C531	23E04338S05	ELY., 10μF / 50V
X501	48E08930S01	7.15909MHZ	C532	23E04338S05	ELY., 10μF / 50V
X502	91E08952S01	CSB503F2	Resistors		
			R543	06E04321S07	RF., 1 ohm 1/4W
			R544	06E04321S07	RF., 1 ohm 1/4W
			Miscellaneous		
			ET701	09E08958S01	Socket, 4P (CENTER / REAR - R SPEAKER)
			ET702	09E08959S01	Socket, 2P (REAR - L SPEAKER)
			F801	65E08967S01	Fuse, 5A
			JK101	09E08953S01	Jack, RCA 4P (LINE IN / FRONT PRE OUT VARIABLE)
			JK201	09E08956S01	Jack, RCA 6P (FRONT / REAR / CENTER PRE OUT FIXED)
			JK202	09E08956S01	Jack, RCA 6P (REAR PRE OUT VARIABLE / MAIN IN, CENTER PRE OUT VARIABLE / MAIN IN)

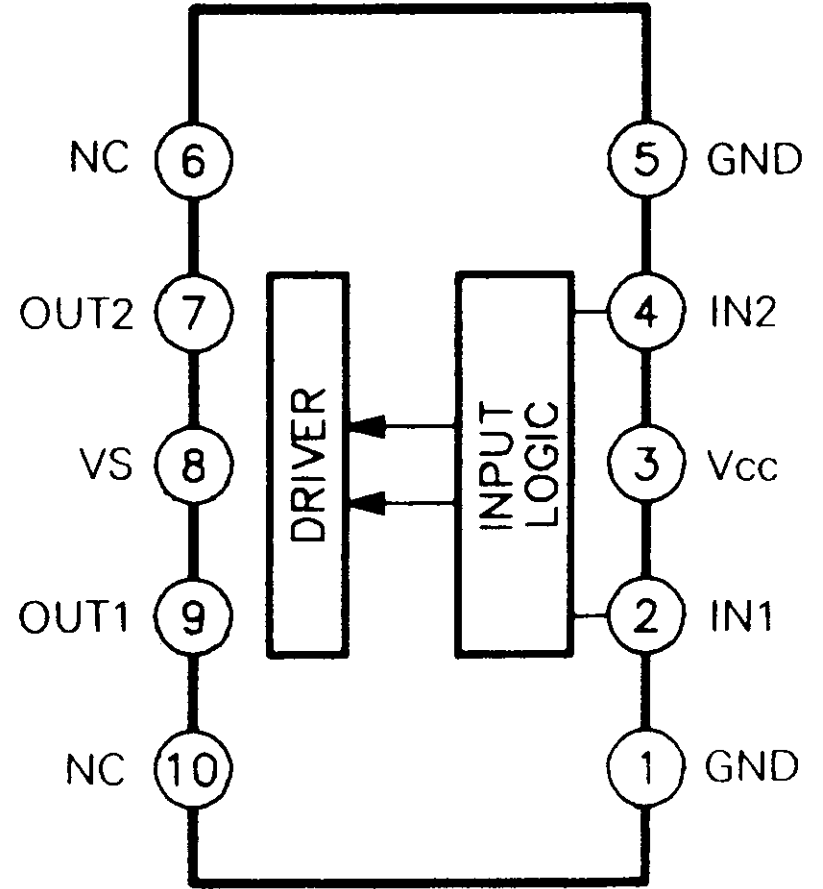
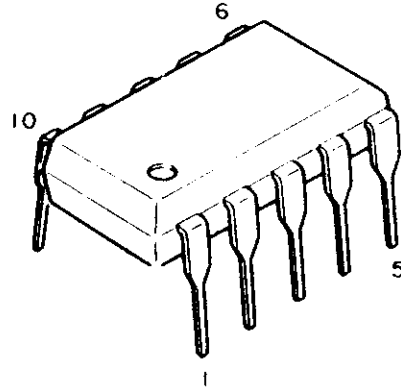
Symbol No.	Part No.	Description	Symbol No.	Part No.	Description
JK501	09E04290S01	Jack, Mic (SERIAL REMOTE IN)			
JK502	09E04290S01	Jack, Mic (SERIAL REMOTE OUT)			
JK503	09E08965S01	Jack, Mic (BUS LINE)			
JK504	09E08965S01	Jack, Mic (BUS LINE)			
JK505	09E08966S01	Jack, RCA 2P (VIDEO IN/VIDEO TV MONITOR OUT)			
LD401	48E08926S01	LED Display			
LD901	48E04216S01	LED, SLR - 34VC5F (RED)			
Q611	48E08113S01	Transistor, 2SC1846			
Q612	48E08113S01	Transistor, 2SC1846			
Q617	48E08114S01	Transistor, 2SC3182N			
Q618	48E08114S01	Transistor, 2SC3182N			
Q619	48E08115S01	Transistor, 2SA1265N			
Q620	48E08115S01	Transistor, 2SA1265N			
Q706	48E08113S01	Transistor, 2SC1846			
Q709	48E08114S01	Transistor, 2SC3182N			
Q710	48E08115S01	Transistor, 2SA1265N			
S601	40E08964S01	Switch, Push (SPEAKER CENTER/REAR)			
S411	40E08199S01	Switch, Tact SKHHDA (REAR VOLUME UP)			
S412	40E08199S01	Switch, Tact SKHHDA (REAR VOLUME DOWN)			
T801	25E08972S01	Power Transformer			
TH651	48E08116S01	Thermistor, 500ohm			
P001	30E08982S01	Line Cord			

Cabinet Assembly Parts List

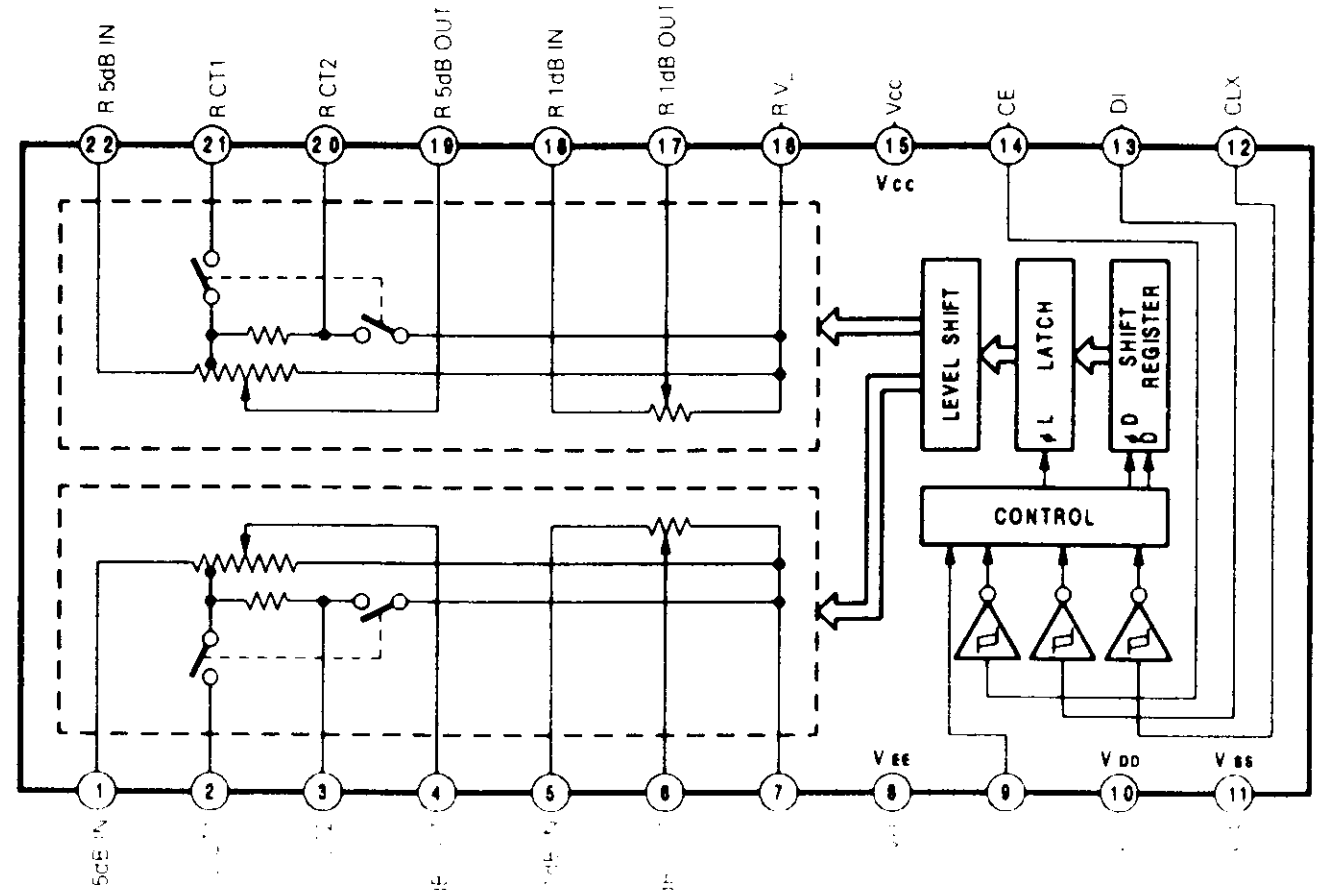
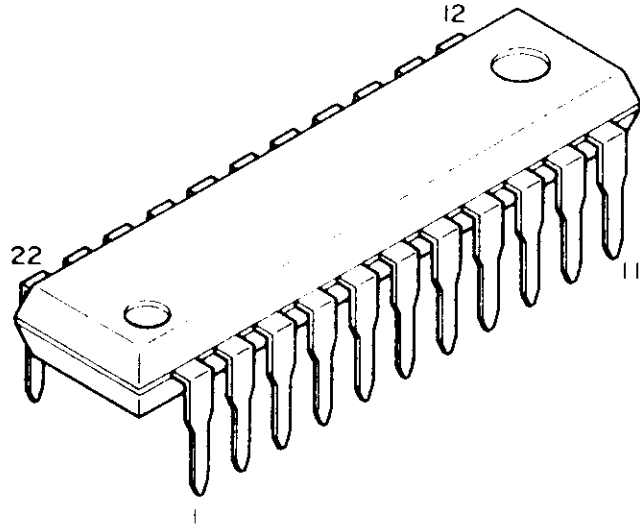
NOTE : The parts without parts list are not supplied.

Symbol No.	Index	Part No.	Description	Symbol No.	Index	Part No.	Description
1	4-C	64E08973S01	Front Panel				
2	3-J	15E08976S01	Cabinet				
3	1-I	64E08974S01	Rear Panel				
8	3-B	61E08977S01	Display Glass A				
9	3-D	36E08140S02	Tact Button, 4				
10	2-D	36E08139S02	Tact Button, 3				
11	2-A	36B70885F07	Knob, Push				
12	2-D	03E08163S01	Screw, Countersink (M2.6×8)				
15	2-B	36A80694F01	Knob, Push Recout				
17	3-C	36E04386S01	Knob, Base Volume				
18	4-C	36E08142S01	Knob, Cap Volume				
19	3-B	36E08979S01	Volume Knob 17				
21		01E08147S01	Assy., Foot				
30	3-C	41E08157S01	Spring				
31	1-D	73E08980S01	Spacer				
32	5-I	75E04473S01	Cabinet Mat				
34		03E07923S01	Screw, Bind (M2.6×8)				
35		03E04479S02	Screw, Bind (M3×6)				
37		03E08160S01	Screw, W/Washer (M3×8)				
38		03E04477S04	Screw, Bind (M3×8)				
39		03E08161S01	Screw, W/Washer (M3×12)				
40	1-C	07E08154S01	Holder, Fuse				
41	4-A	03E08162S01	Screw, Bind (M3×6)				
42		03E04480S04	Screw, Bind (M4×10)				
43		03E07927S01	Screw, Bind (M4×6)				
46		04E08169S01	Washer, Flat (M4.6)				
47	3-C	29E08165S01	Snake Lug				
48	3-H	03E04480S02	Screw, Bind (M3×8)				
49	2-H	22E08993S01	Short Pin				
50	1-H	43E07929S01	Cord Stopper				
51	2-J	09E04499S01	Ground Terminal				
52		29E07915S01	Snake Lug				
53	2-J	03E07917S02	Screw, Bind (M3×6)				
60	2-B	61E08978S01	Display Glass B				
61	3-E	36E08141S01	Tact Button				
62	4-D	03E08981S01	Screw, Countersink (M3×6)				

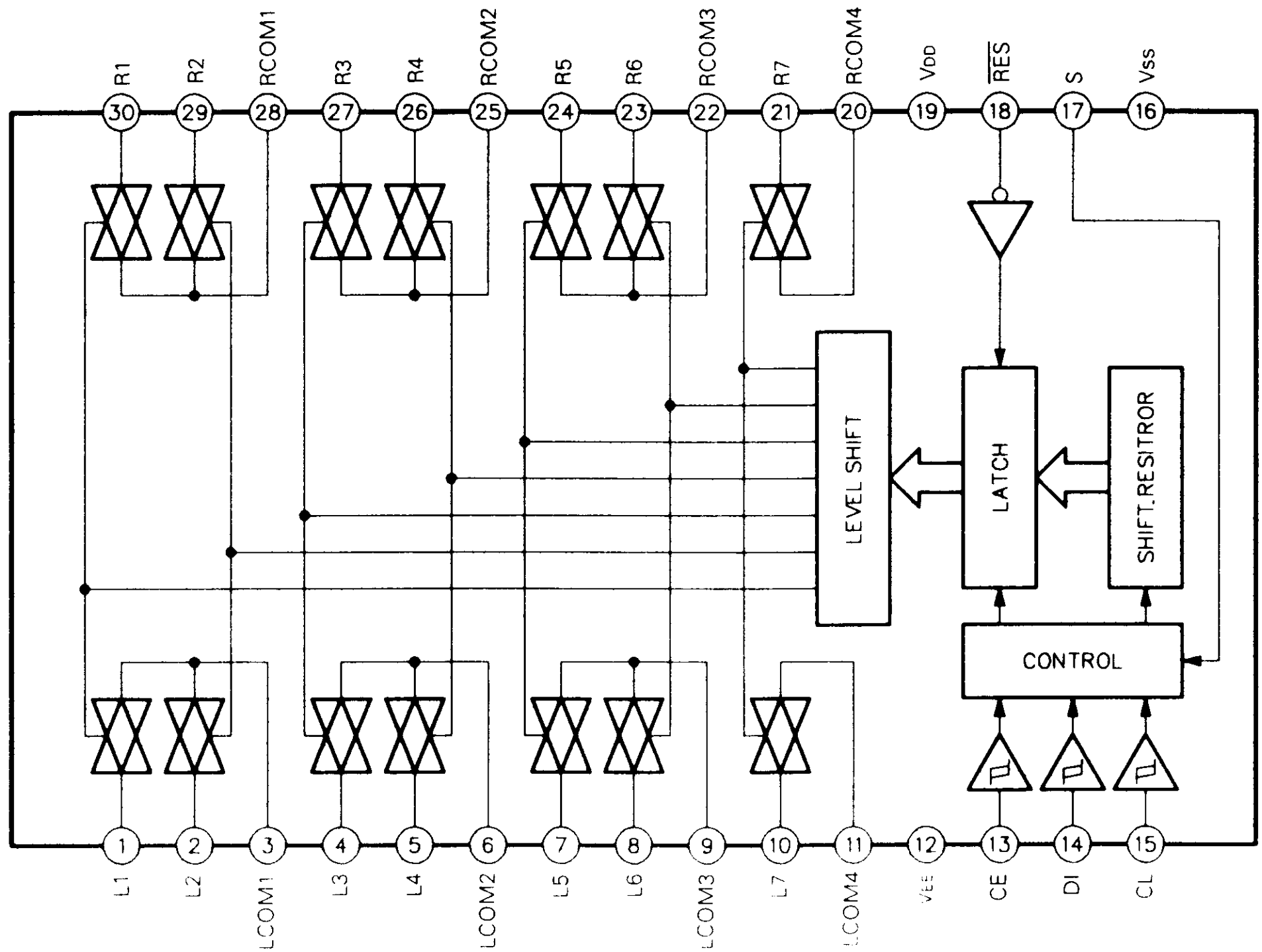
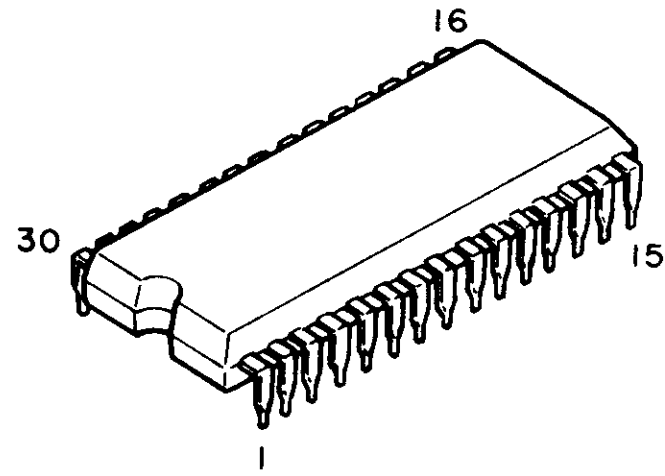
LB1638 : IC901



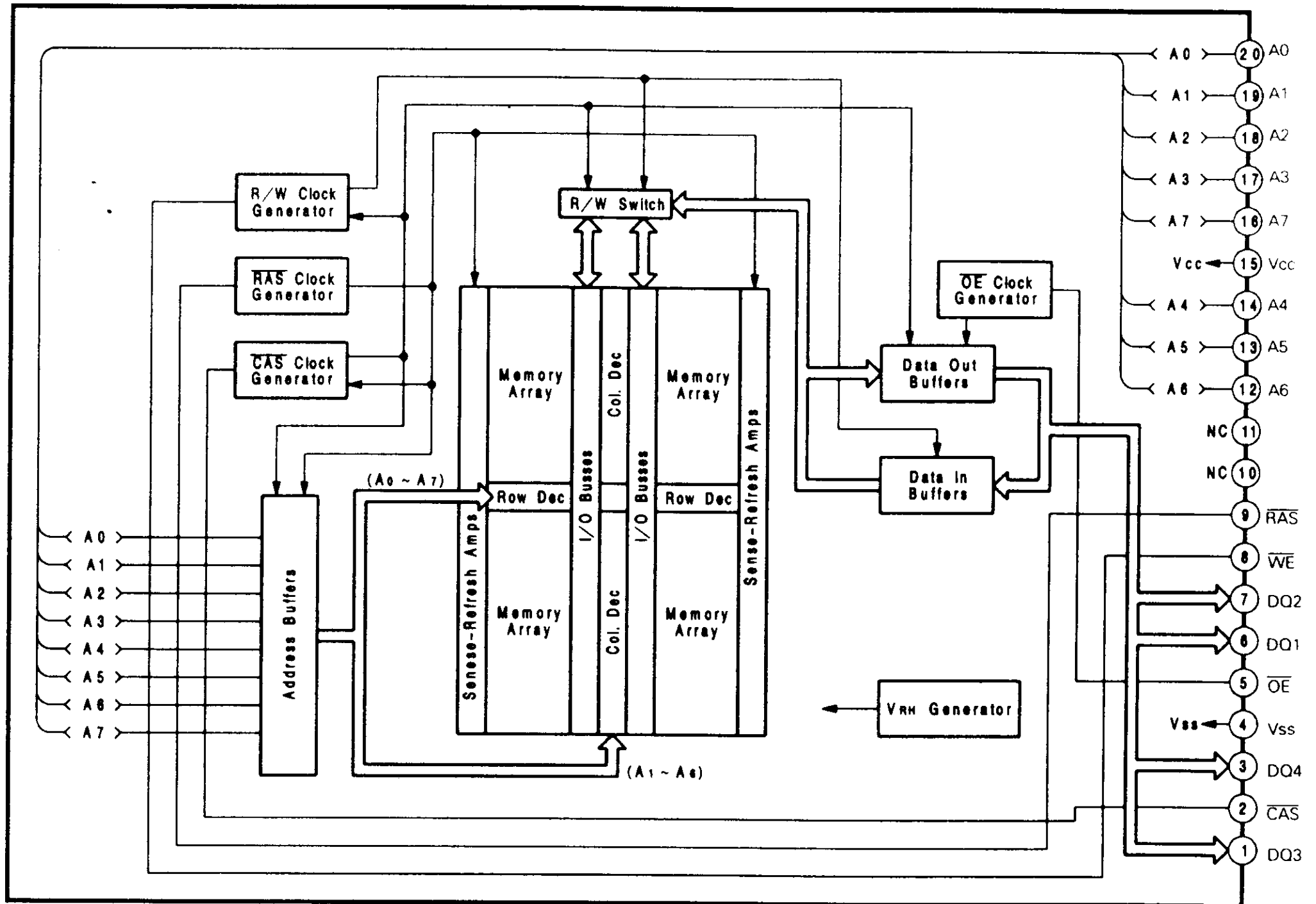
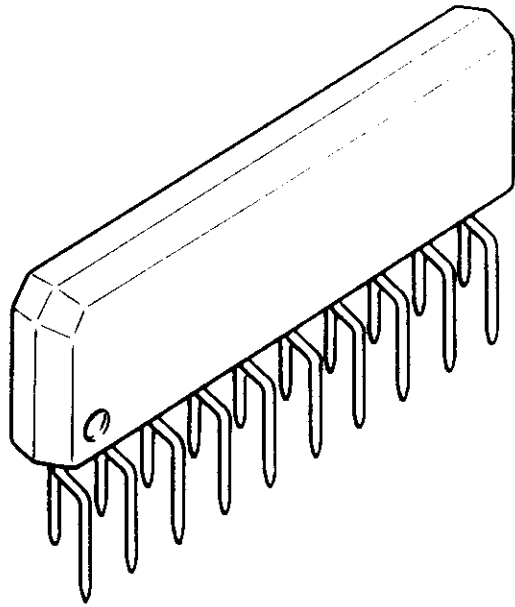
LC7535 : IC217,322



LC7823N : IC202

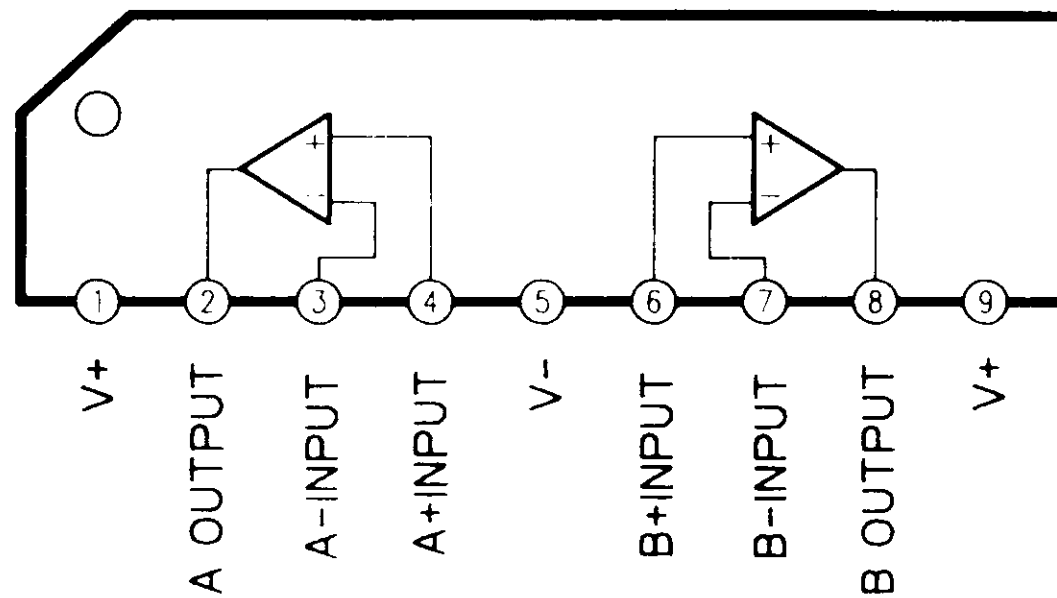
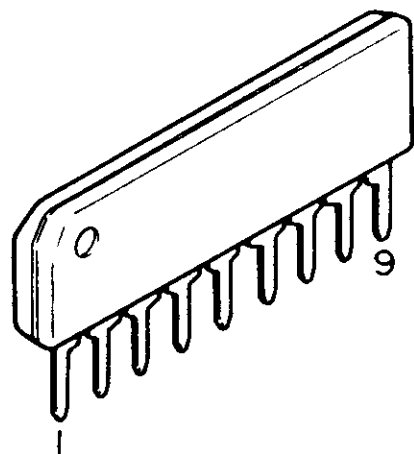


MB81464 : IC204

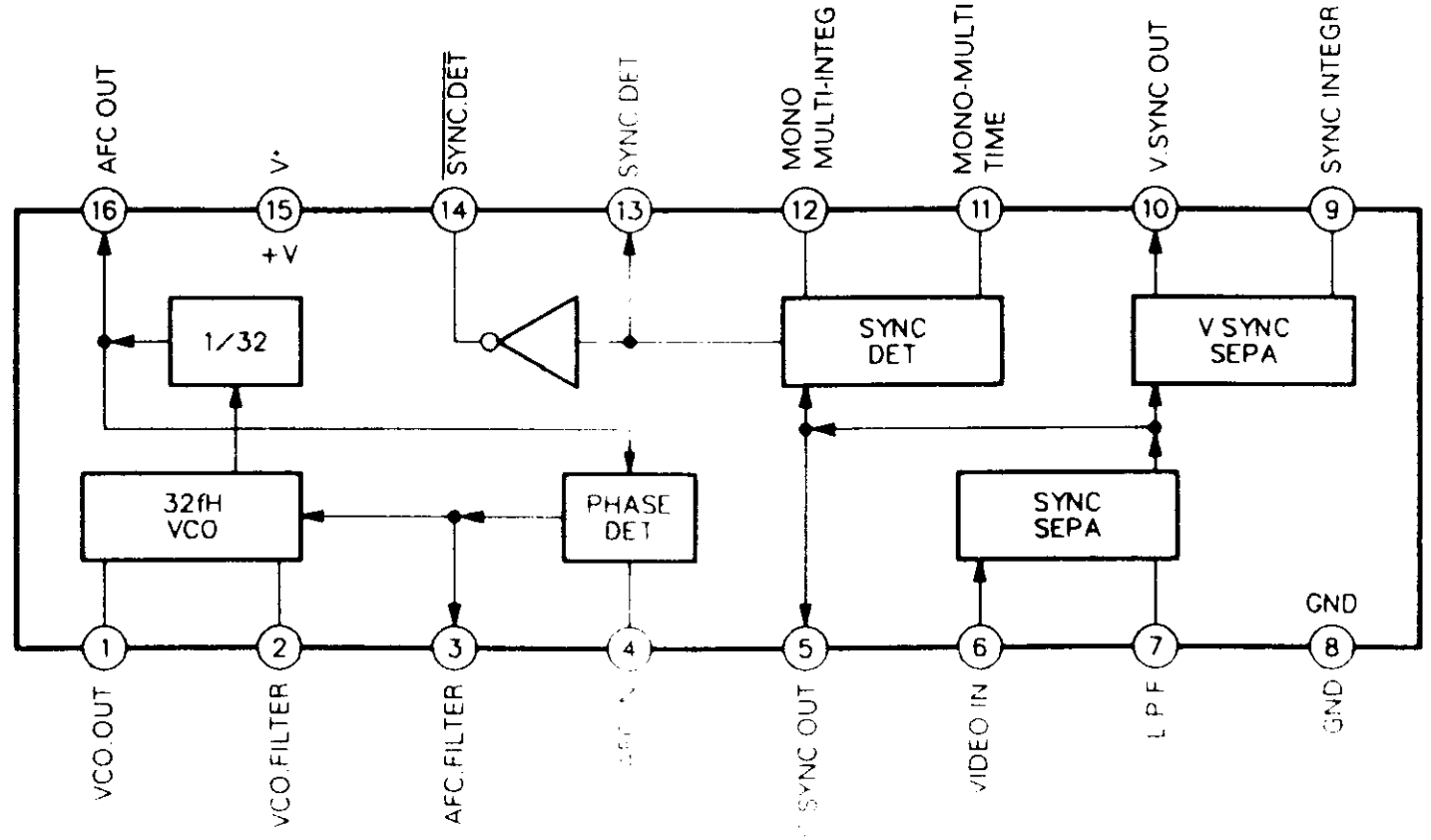
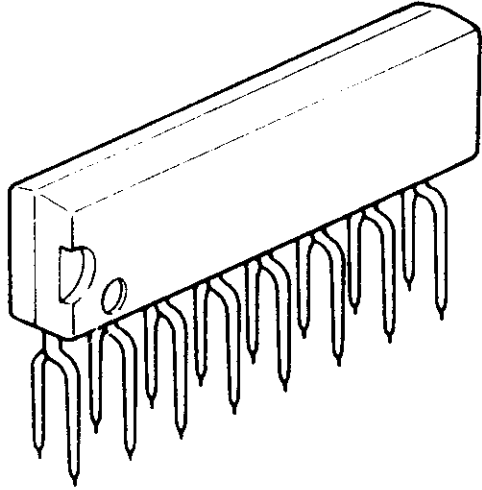


NJM4565SB : IC101,201,205,207,210,212~216,218,320,321,323,551

NJM2082S : IC206,208,209,211

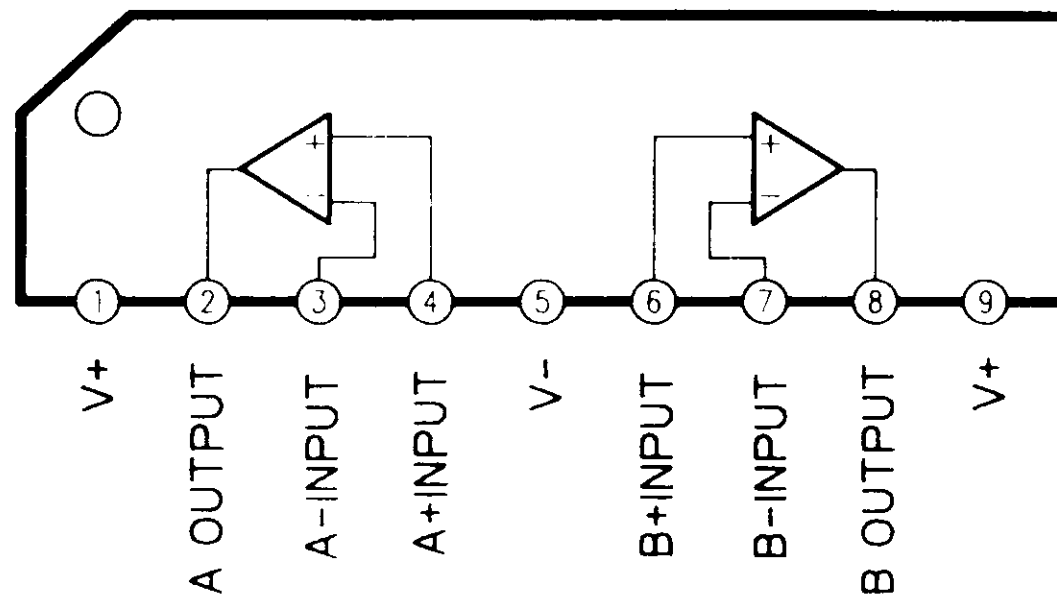
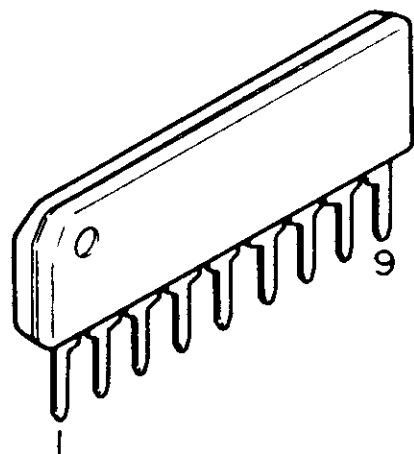


NJM2229S : IC502



NJM4565SB : IC101,201,205,207,210,212~216,218,320,321,323,551

NJM2082S : IC206,208,209,211

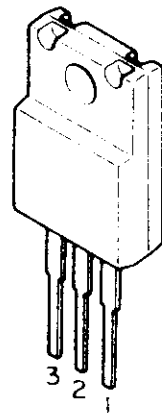


NJM78M05FA : IC803,804,504

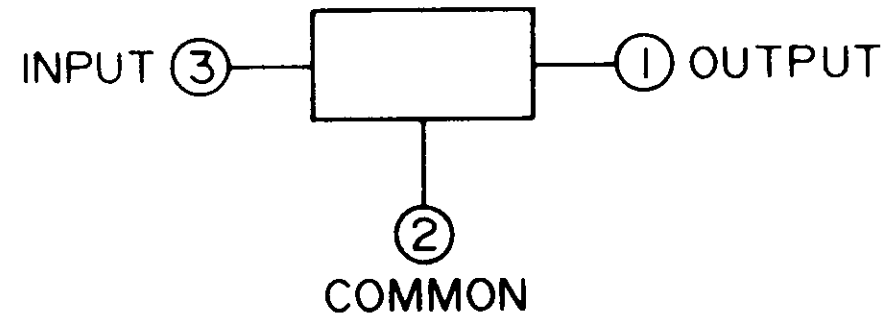
NJM78M12FA : IC503

NJM78M15FA : IC801

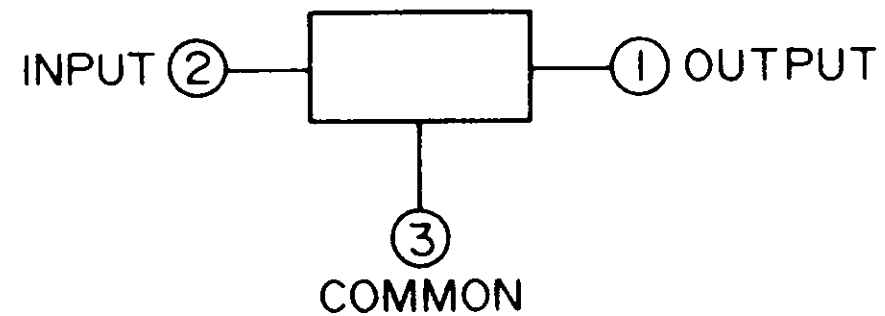
NJM79M15FA : IC802



NJM78M



NJM79M

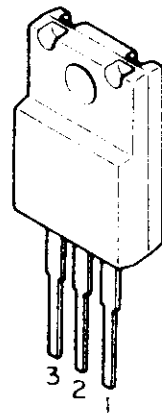


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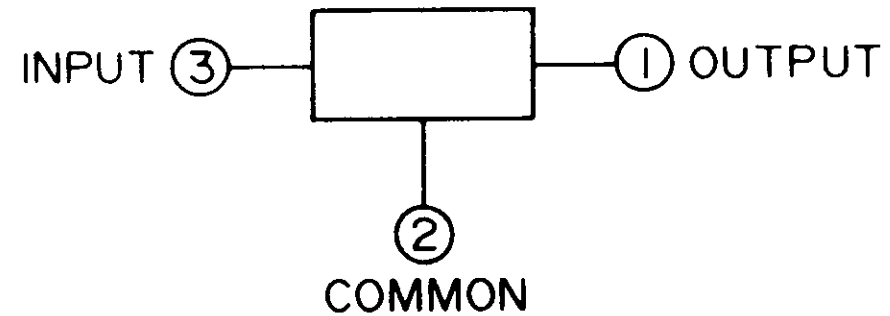
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NJM78M15FA : IC801

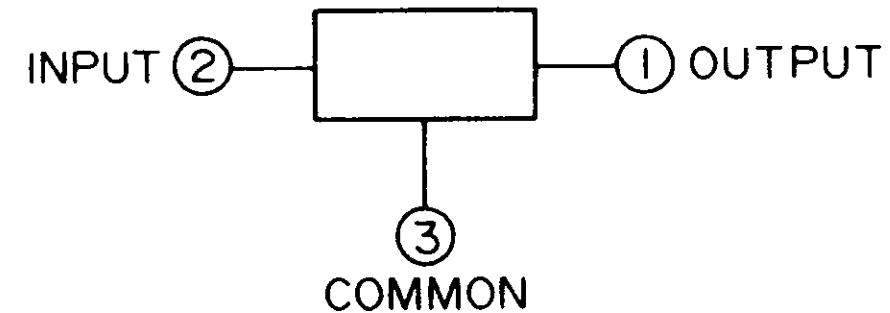
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NJM78M



NJM79M

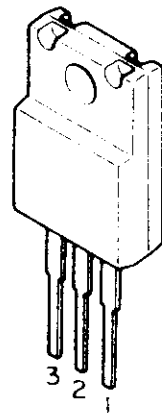


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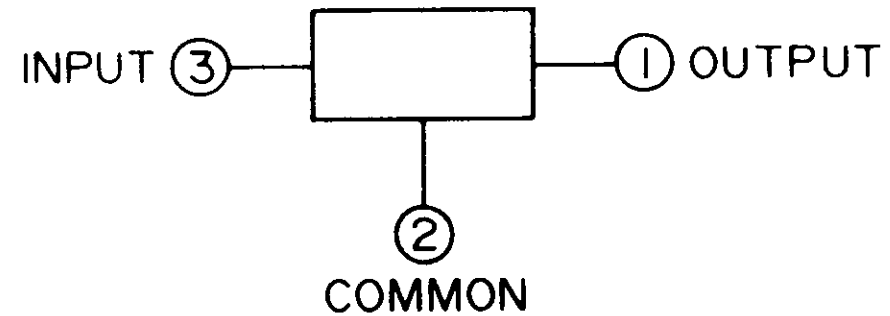
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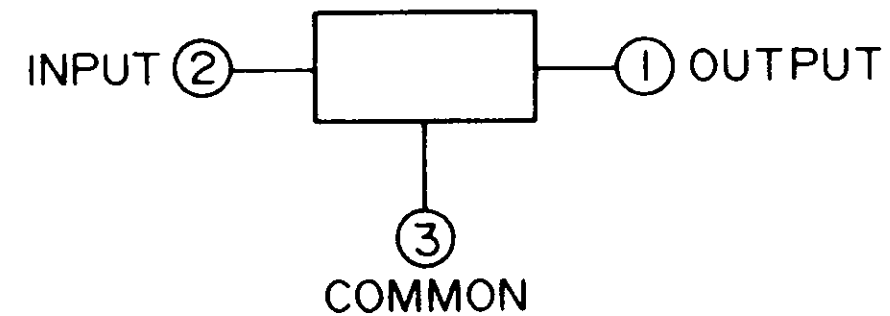
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NJM78M



NJM79M

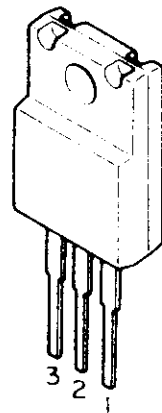


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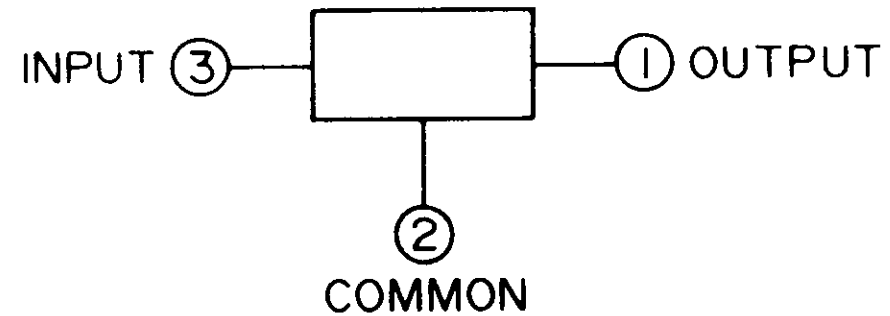
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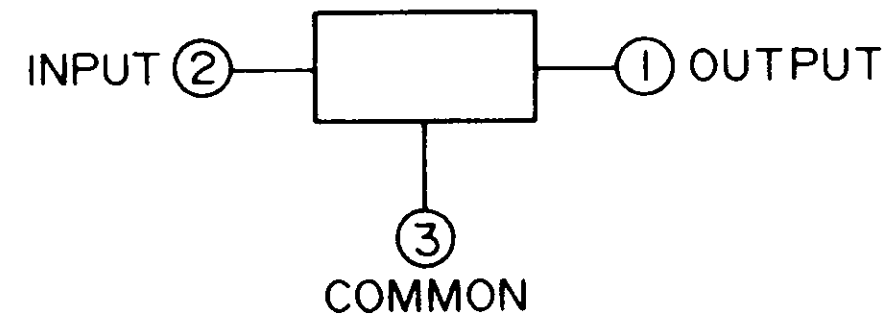
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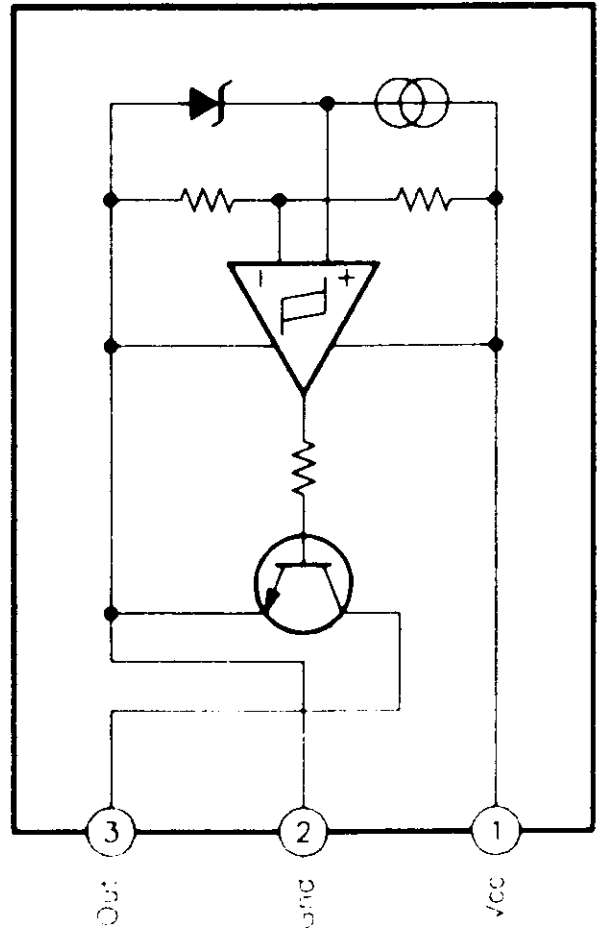
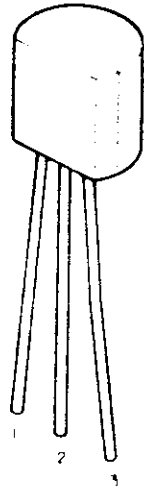
NJM78M



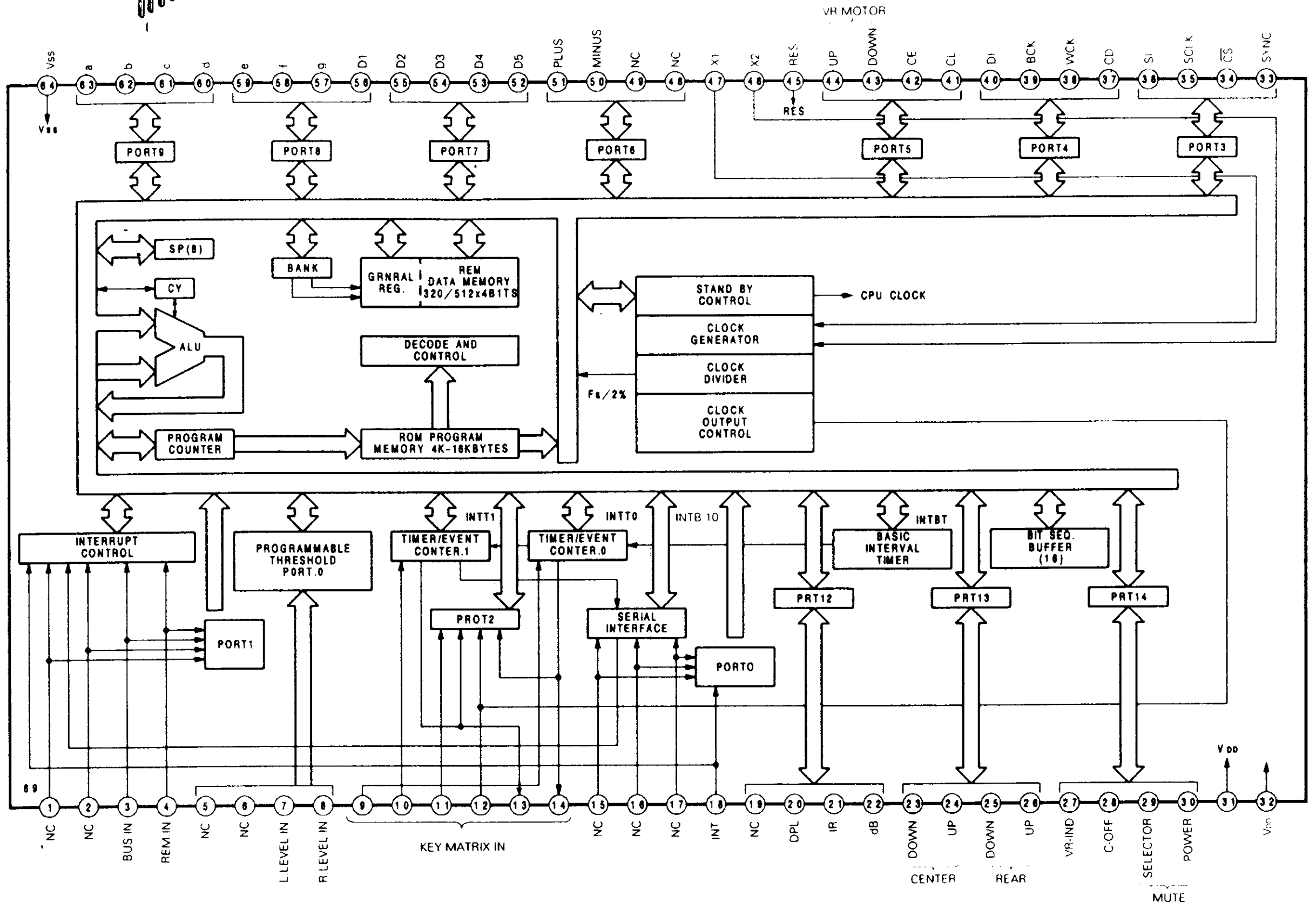
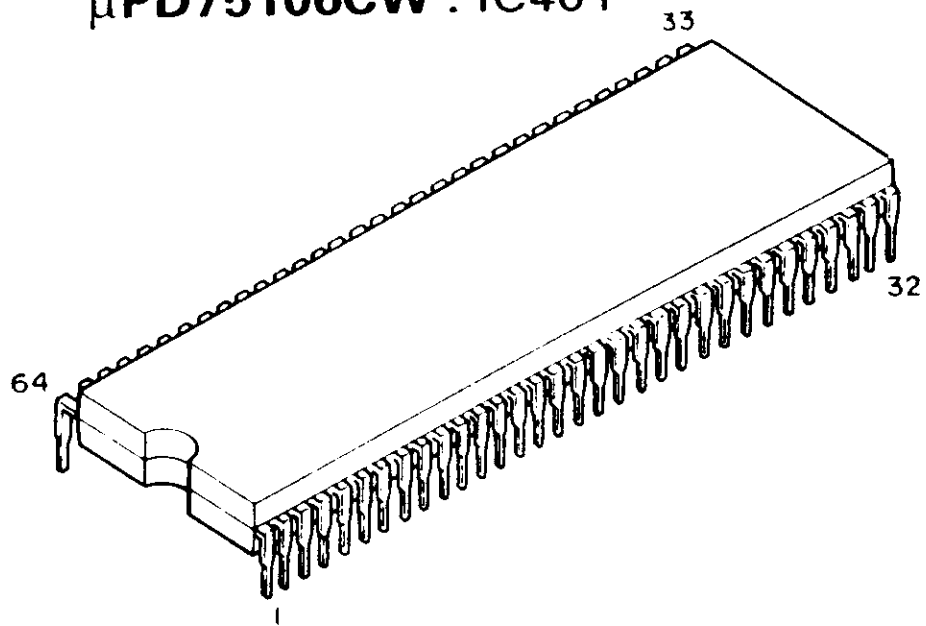
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PST572C : IC402



μPD75106CW : IC401



YM7306B : IC203

