

CONTENTS

SECTION 1. GENERAL

• SERVICING PRECAUTIONS	1-2
• ESD PRECAUTIONS	1-4
• SPECIFICATIONS	1-5
• LOCATION OF CUSTOMER CONTROLS	1-6

SECTION 2. AUDIO PART

• ELECTRICAL TROUBLESHOOTING GUIDE	2-1
• DVD PLAYER PROGRAM DOWNLOAD METHOD	2-5
• WAVEFORMS OF MAJOR CHECK POINT	2-7
• INTERNAL BLOCK DIAGRAM OF IC's	2-8
• IC VOLTAGE SHEET	2-10
• BLOCK DIAGRAM	2-14
• SCHEMATIC DIAGRAMS	2-16
• PRINTED CIRCUIT DIARGAMS	2-28

SECTION 3. DVD PART

• ELECTRICAL TROUBLESHOOTING GUIDE	3-1
• BLOCK DIAGRAMS	3-9
• SCHEMATIC DIAGRAMS	3-13
• WAVEFORMS	3-21
• PRINTED CIRCUIT DIAGRAM	3-27

SECTION 4. MECHANSIM

SECTION 5. EXPLODED VIEWS

SECTION 6. SPEAKER PART

SECTION 7. REPLACEMENT PARTS LIST

SECTION 1. GENERAL PART

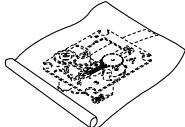
SERVICING PRECAUTIONS

NOTES REGARDING HANDLING OF THE PICK-UP

1. Notes for transport and storage

- 1) The pick-up should always be left in its conductive bag until immediately prior to use.
- 2) The pick-up should never be subjected to external pressure or impact.

Storage in conductive bag

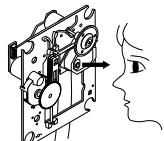


Drop impact



2. Repair notes

- 1) The pick-up incorporates a strong magnet, and so should never be brought close to magnetic materials.
- 2) The pick-up should always be handled correctly and carefully, taking care to avoid external pressure and impact. If it is subjected to strong pressure or impact, the result may be an operational malfunction and/or damage to the printed-circuit board.
- 3) Each and every pick-up is already individually adjusted to a high degree of precision, and for that reason the adjustment point and installation screws should absolutely never be touched.
- 4) Laser beams may damage the eyes!
Absolutely never permit laser beams to enter the eyes!
Also NEVER switch ON the power to the laser output part (lens, etc.) of the pick-up if it is damaged.

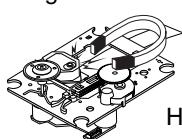


NEVER look directly at the laser beam, and don't let contact fingers or other exposed skin.

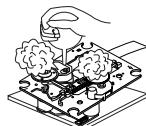
5) Cleaning the lens surface

If there is dust on the lens surface, the dust should be cleaned away by using an air bush (such as used for camera lens). The lens is held by a delicate spring. When cleaning the lens surface, therefore, a cotton swab should be used, taking care not to distort this.

Magnet

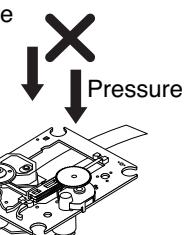


How to hold the pick-up

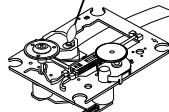


Conductive Sheet

aPressure



Cotton swab



6) Never attempt to disassemble the pick-up.

Spring by excess pressure. If the lens is extremely dirty, apply isopropyl alcohol to the cotton swab. (Do not use any other liquid cleaners, because they will damage the lens.) Take care not to use too much of this alcohol on the swab, and do not allow the alcohol to get inside the pick-up.

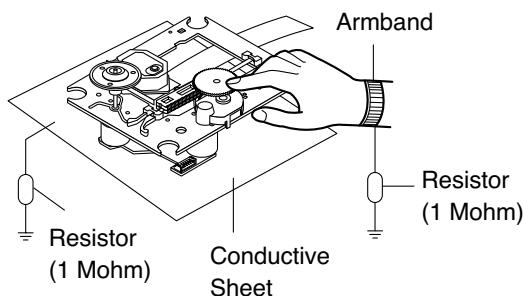
NOTES REGARDING COMPACT DISC PLAYER REPAIRS

1. Preparations

- 1) Compact disc players incorporate a great many ICs as well as the pick-up (laser diode). These components are sensitive to, and easily affected by, static electricity. If such static electricity is high voltage, components can be damaged, and for that reason components should be handled with care.
- 2) The pick-up is composed of many optical components and other high-precision components. Care must be taken, therefore, to avoid repair or storage where the temperature or humidity is high, where strong magnetism is present, or where there is excessive dust.

2. Notes for repair

- 1) Before replacing a component part, first disconnect the power supply lead wire from the unit
- 2) All equipment, measuring instruments and tools must be grounded.
- 3) The workbench should be covered with a conductive sheet and grounded.
When removing the laser pick-up from its conductive bag, do not place the pick-up on the bag. (This is because there is the possibility of damage by static electricity.)
- 4) To prevent AC leakage, the metal part of the soldering iron should be grounded.
- 5) Workers should be grounded by an armband ($1M\Omega$)
- 6) Care should be taken not to permit the laser pick-up to come in contact with clothing, in order to prevent static electricity changes in the clothing to escape from the armband.
- 7) The laser beam from the pick-up should NEVER be directly facing the eyes or bare skin.



ESD PRECAUTIONS

Electrostatically Sensitive Devices (ESD)

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive Devices (ESD). Examples of typical ESD devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ESD devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ESD devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESD devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESD devices.
6. Do not remove a replacement ESD device from its protective package until immediately before you are ready to install it. (Most replacement ESD devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive materials).
7. Immediately before removing the protective material from the leads of a replacement ESD device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION : BE SURE NO POWER IS APPLIED TO THE CHASSIS OR CIRCUIT, AND OBSERVE ALL OTHER SAFETY PRECAUTIONS.

8. Minimize bodily motions when handing unpackaged replacement ESD devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ESD device).

CAUTION. GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH A PROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



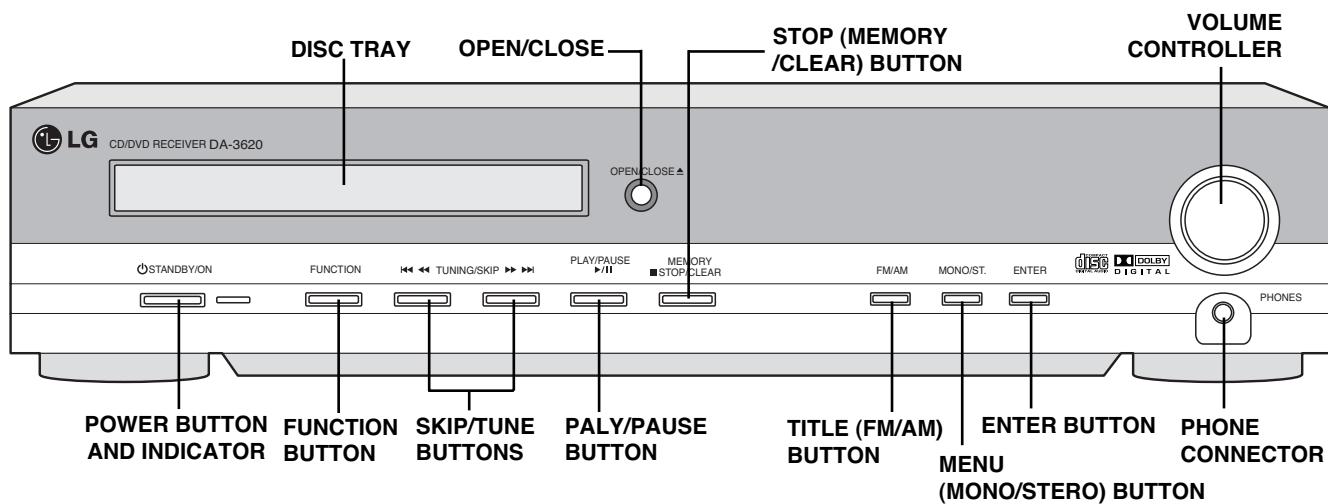
THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

SPECIFICATIONS

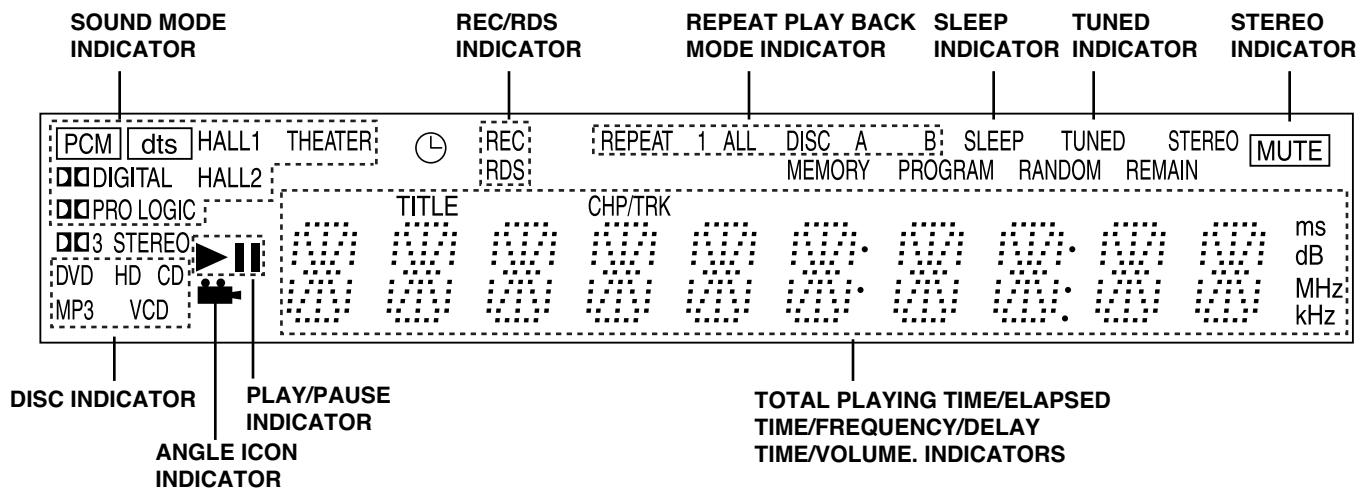
[General]		Power supply	AC 220~240V, 50/60Hz
		Power consumption	70W
		Mass	4.6kg
		External dimensions (W x H x D)	360 x 72 x 350mm
		Operating conditions	Temperature: 5°C to 35°C, Operation status: Horizontal
		Operating humidity	5% to 85%
[CD/DVD]		Laser	Semiconductor laser, wavelength 650nm
		Signal system	PAL 625/50, NTSC 525/60
		Frequency range(audio)	4 Hz to 20 kHz
		Signal-to-noise ratio(audio)	More than 75dB (1kHz, NOP, 20kHz LPF/A-Filter)
		Dynamic range (audio)	More than 75dB
		Harmonic distortion(audio)	0.5% (1kHz, at 12Q position) (20kHz LPF/A-Filter)
[Video]		Video input	1.0V (p-p), 75Ω, negative sync., RCA jack
		Video output	1.0V (p-p), 75Ω, negative sync., RCA jack
		S-video output	(Y) 1.0V (p-p), 75Ω, negative sync., Mini DIN 4-pin x 1 (C) 0.3V (p-p), 75Ω
[Tuner]	FM	Tuning Range	87.5~108MHz
		Intermediate Frequency	10.7MHz
		Signal-to Noise Ratio	60dB
		Frequency Response	150~10,000Hz
	AM(MW)	Tuning Range	522~1, 611kHz
		Intermediate Frequency	450kHz
[Amplifier]		Stereo mode	35W + 35W(8Ω at 1kHz, THD 10%)
		Surround mode * Depending on the sound mode settings and the source, there may be no sound output.	Front: 50W+50W (THD 10%) Center*: 35W Surround*: 50W +50W(8Ω at 1Hz, THD 10%)~35W Subwoofer*: 35W(8Ω at 30Hz, THD 1%)
		Inputs	VIDEO 1, 2, OPTICAL AUDIO
		Outputs	VIDEO 1(AUDIO OUT): 2V WOOFER: 2V
[Speakers]		Satellite Speaker(FE-3620TE)	Passive Subwoofer(FE-3620WE)
		Type	1 Way 1Speaker
		Impedance	8Ω
		Frequency Response	110~40,000Hz
		Sound Pressure Level	83dB/W(1m)
		Rated Inut Power	35W
		Max. Input Power	70W
		Net dimensions(W x H x D)	90 x 70 x 106.5mm
		Net Weight	0.65kg
[Supplied Accessories]		• Audio cable.....	1
		• Speakers	6
		• Remote control	1
		• AM loop antenna	1
		• Video cable.....	1
		• Speaker cables.....	5
		• Batteries (AAA).....	2
		• FM antenna	1

LOCATION OF CUSTOMER CONTROLS

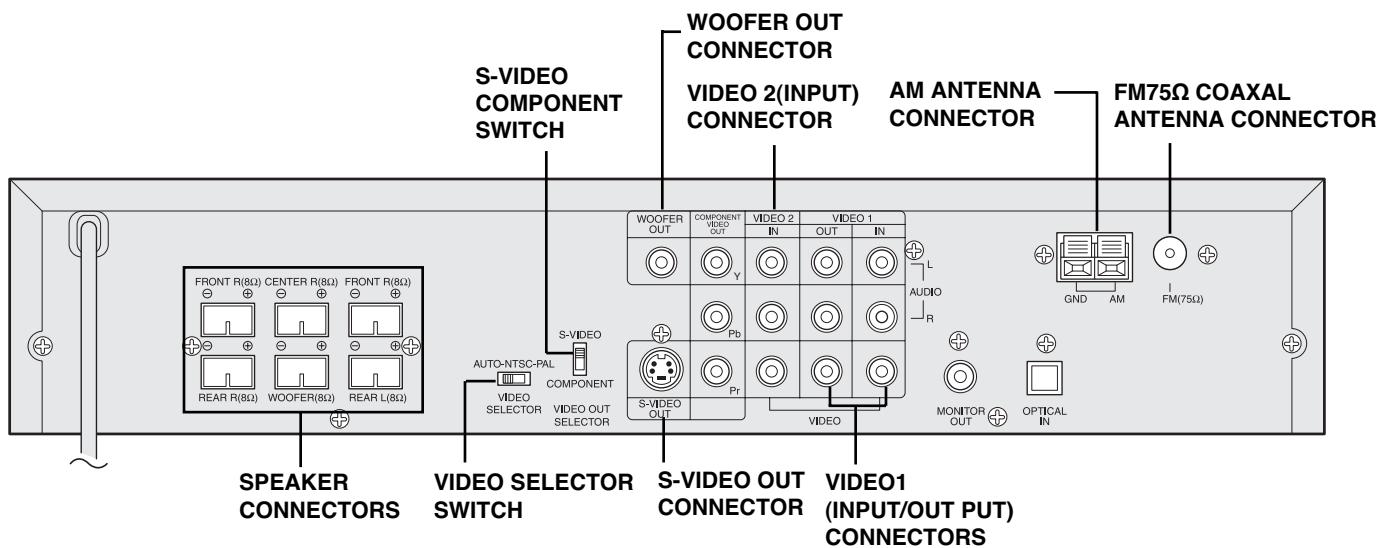
FRONT PANEL



DISPLAY WINDOW



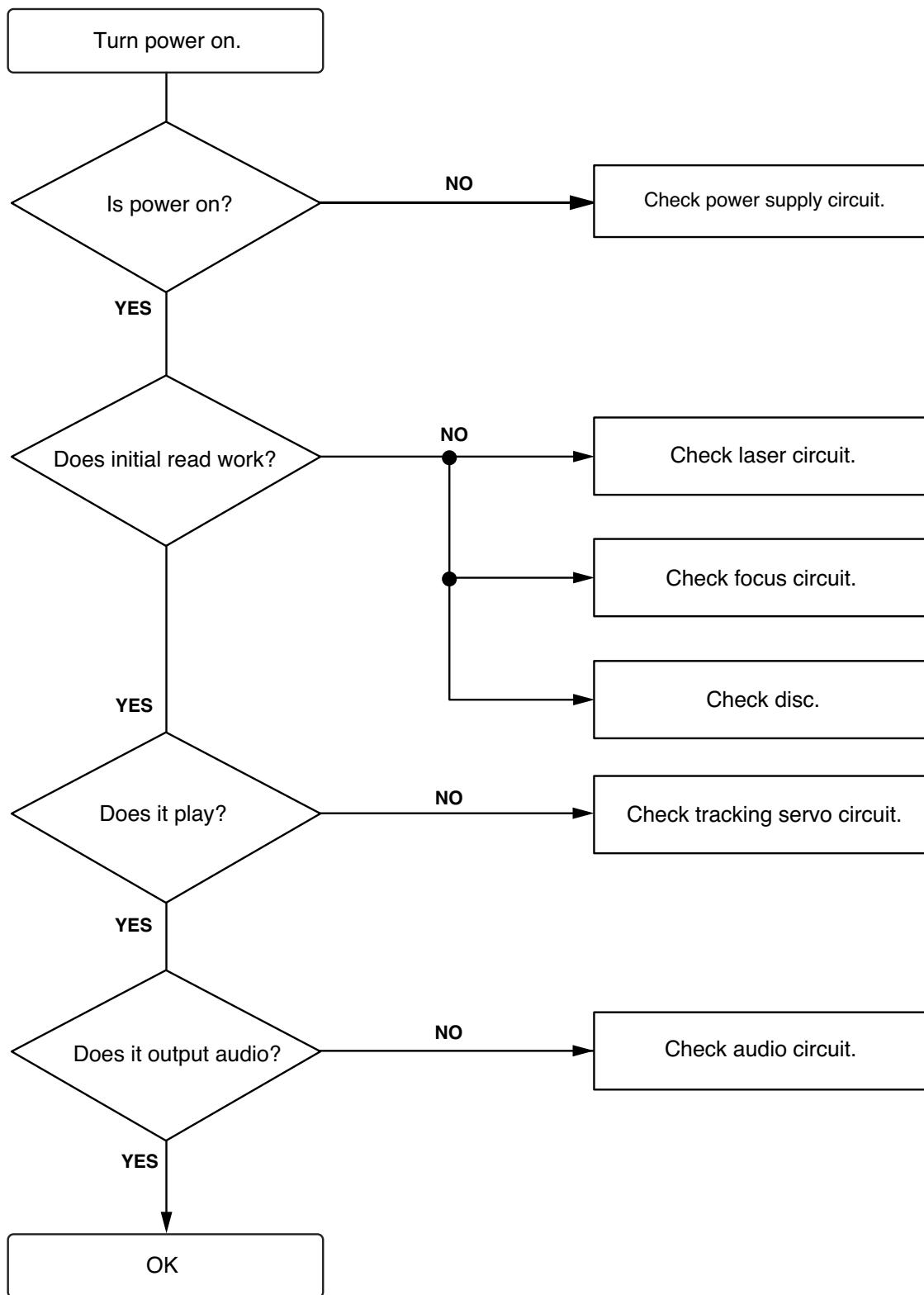
REAR PANEL



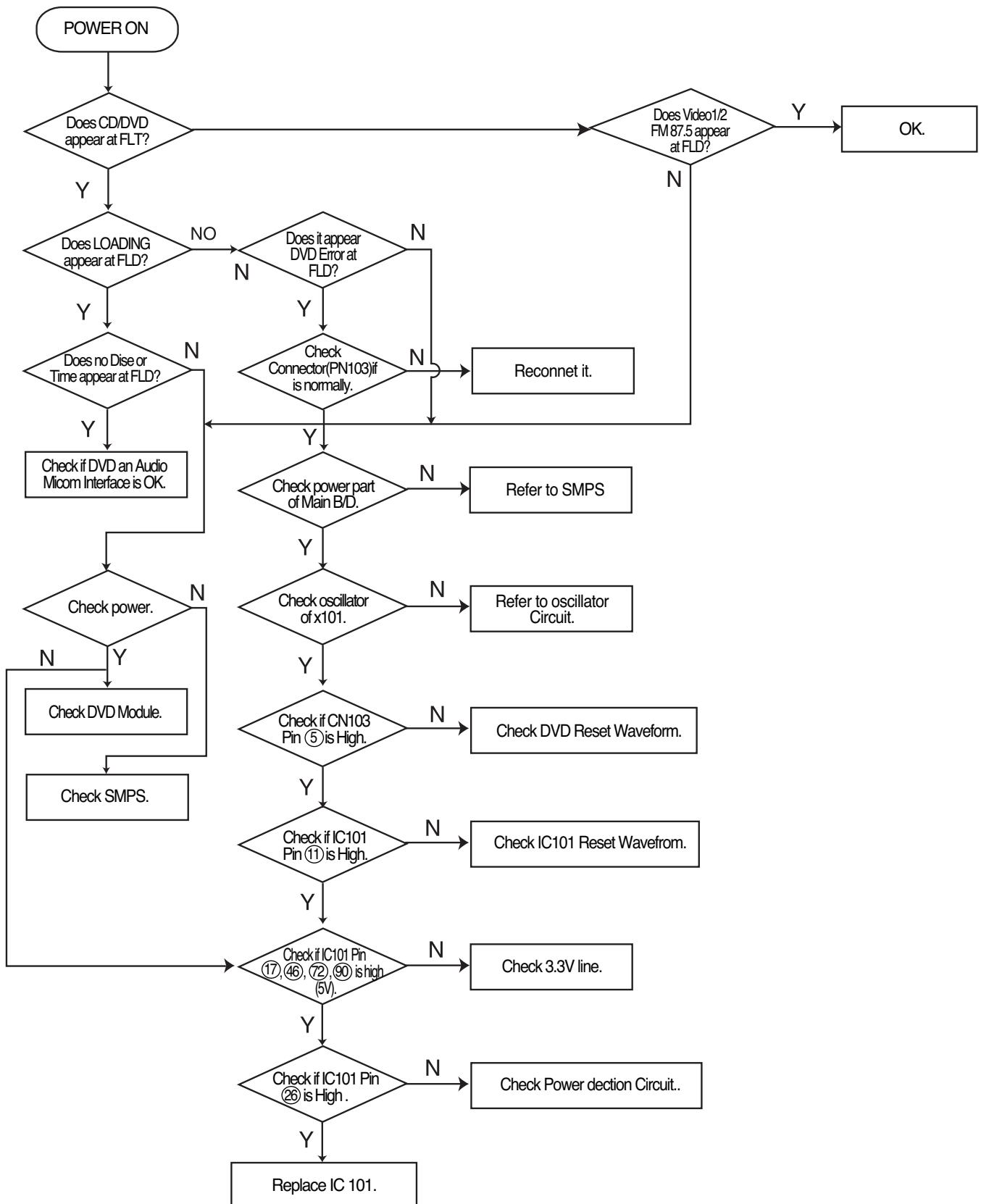
SECTION 2. AUDIO PART

ELECTRICAL TROUBLESHOOTING GUIDE

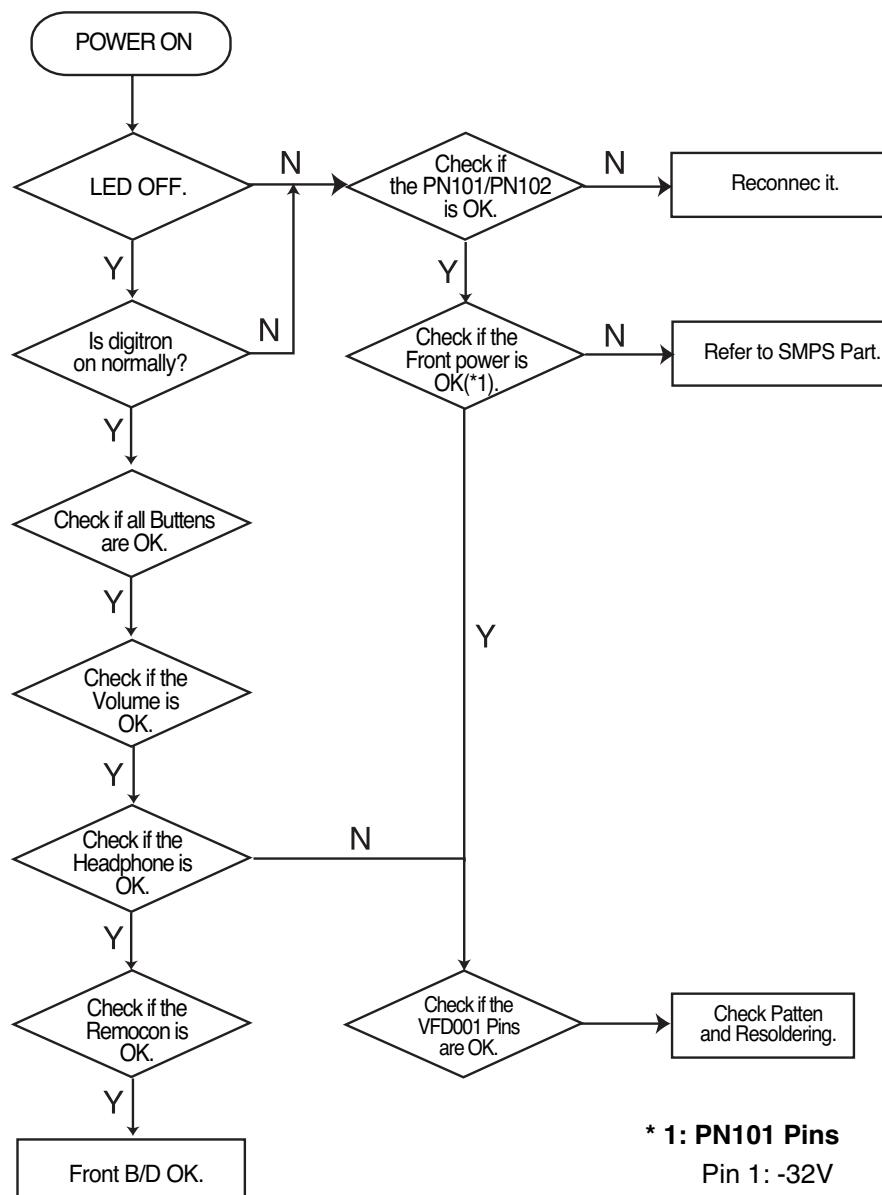
1.



2. AUDIO μ . COM Circuit



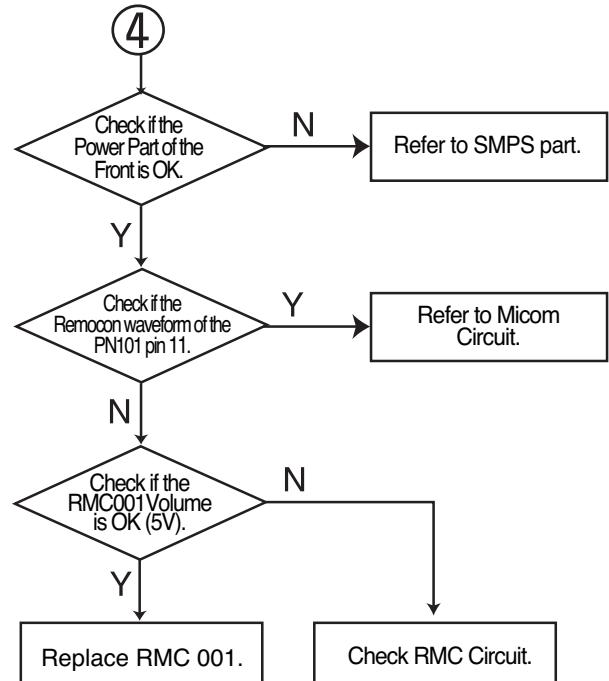
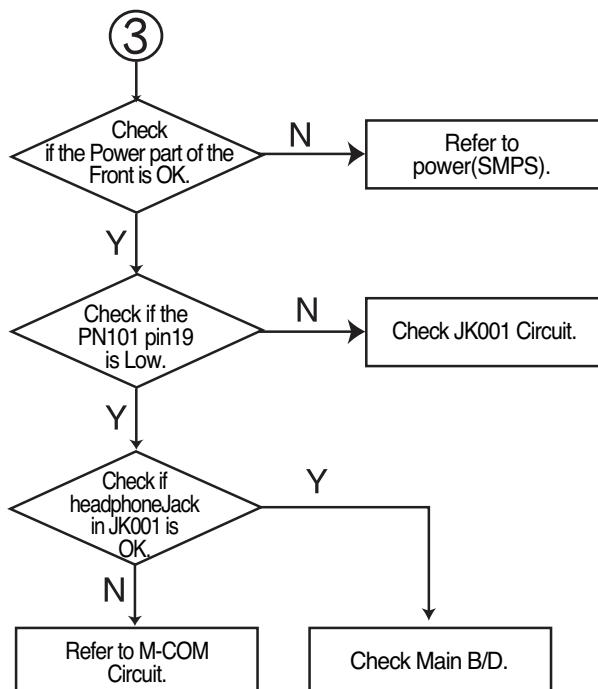
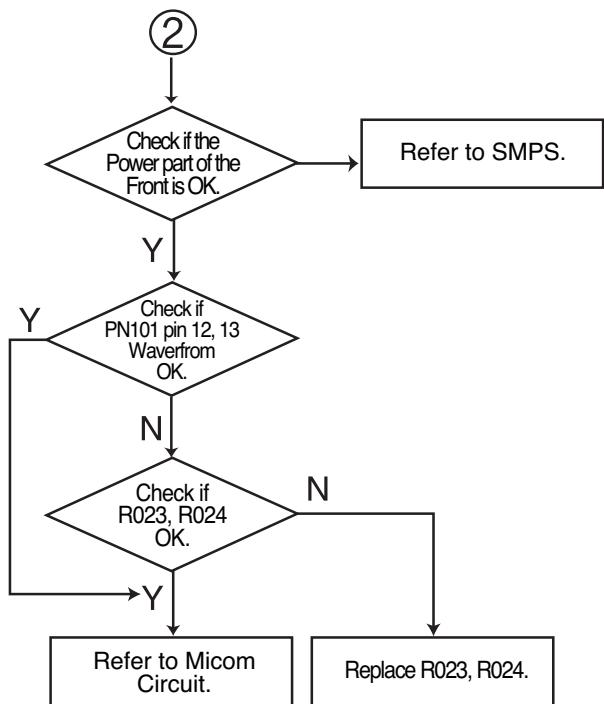
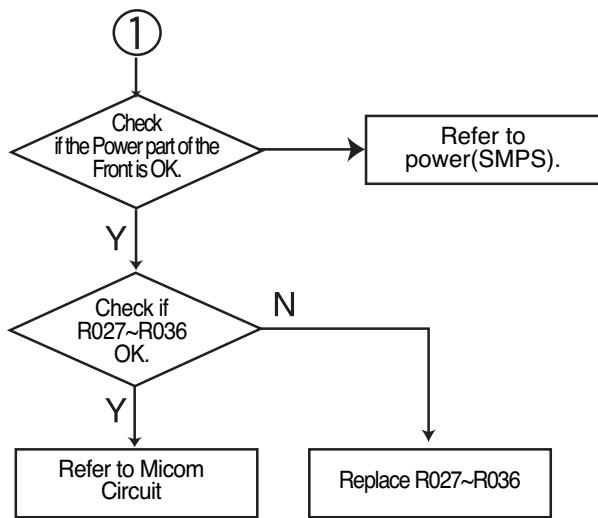
3. Front Circuit (1/2)



* 1: PN101 Pins

Pin 1: -32V
Pin 8: -28V
Pin 9: -32V
Pin 20: 12V

Front Circuit (2/2)



DVD PLAYER PROGRAM DOWNLOAD METHOD

1. DVD player without CD-RW option

1-1) Download the DVD program from your PC as following procedure

ACTION	FLD display
• Plug the Power cord out	
• Connect the Fixture for download (Refer to Deck Mechanism Adjustment)	
• Execute the prgram for download(Flashrom.exe)	
• Open the DVD program file	
• Plug the Power cord in	FLASH
• Press the MENU Key on the Remote controller	
• Select Down icon with injector icon then start download from the P.C	
■ In status of download	
• Erased the Flash memory	FLASH ERA
• Written the Flash memory	FLASH XX(XX: Program counter)
• Verified the Flash memory	FLASH XX(XX: Program counter)
• Completed the download	FINISHED
■ If an error was occurred during download, do not unplug the Power cord, and retry the download form the P.C until it is completed.	

2. DVD player with CD-RW option(for models using C-CUBE MPEG chip, marking on the IC is ZIVA)

2-1) Make the DVD program upgrade Disc as following procedure

*Recommended S/W: adaptec Easy CD Creator

*use file format: ISO9660

- Rename the souce file from the P.C to FIRMWARE.BIN
(Ex, If Source file is lg_a3_korea.bin, rename to FIRMWARE.BIN)
- Format the CD-RW Disc as below Make the Folder name to UPGRSADE.DVD under root folder
(Ex, WUPGRADE.DVD)
- Download the source file renamed to FIRMWARE.BIN in the folder
(Ex, WUPGRADE.DVD WFIRMWARE.BIN)

2-2) Insert the upgrade Disc into the DVD player slot, then the DVD player reads the Disc and upgrade the Firmware itself as followings

Status	FLD display on DVD player
• Detect the upgrade Disc	No display
• Read the Disc	Cd rEAD XX(XX: Program counter)
• Erased the Flash memory	FLASH ERA
• Written the Flash memory	FLASH XX(XX: Program counter)
• Verified the Flash memory	FLASH XX(XX: Program counter)
• Completed the upgrade	FINISHED

Note: After completed, plug the Power cord out and in again, and then press the Open key, then the Disc will be ejected.

Caution: While CD detecting and reading, if Open key or Power is pressed Then download procedure will be aborted.

**3. DVD player with CD-RW option
(for models using NS MPEG chip, marking on the IC is PANTERA)**

3-1) Make the DVD program upgrade Disc as following procedure

*Recommended S/W: adaptec Easy CD Creator

*use file format: ISO9660

- Format the CD-RW Disc as below.
Make the Folder name to “lg_dvd \UPGRADE\lg” under root folder
(\lg_dvd_firmware \upgrade \lg)
- Download the source file in the folder
(Ex, If the source file is “lg_a3_korea.bin”, “lg_dvd \firmware \upgrade \lg \lg_a3_korea.bin”)

3-2) UPgrade the firmware for DVD player as followings

ACTION	FLD display on dvd player
• Insert the upgraded Disc into the DVD player slot then starts the detecting	Press Up
• Press the UP key on the Remote controller then starts the reading	READ 0(if error is occurred, displayed retry counter)
- Starts the upgrading	UPGRADE 0(if error is occurred, displayed retry counter)
- Completed the upgrading	FINISHED → checksum
- Opened the Tray Disc	("FINISHED → checksum" is displayed repeatedly at 2 second intervals)
• Plug the Power Cord out	

Note: In the status of FLD with “READ 0” or “UPGRADE 0”

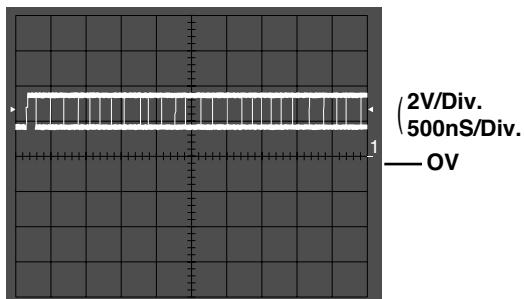
If an error is occurred, the read counter, “READ 0”, shows retry counter or “ERROR num”

If the num has 0~2, retry the firmware upgrade procedure.

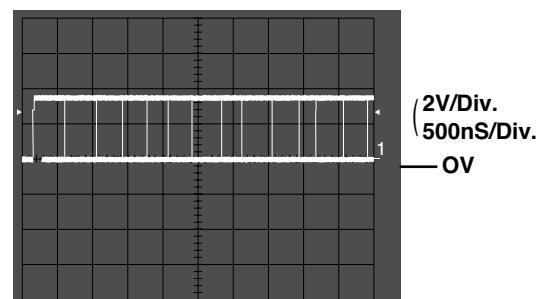
If the error is continued after retrying 5 times, replace the Flash ROM IC.

WAVEFORMS OF MAJOR CHECK POINT

1)



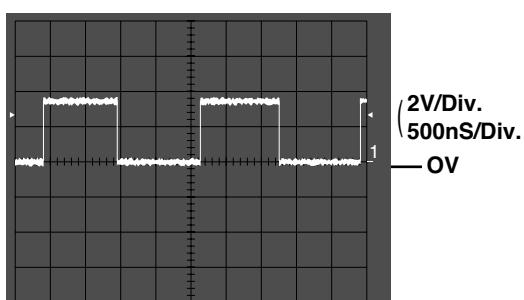
2)



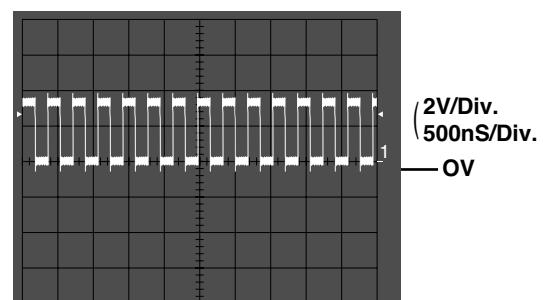
- IC 208 pin ⑤
- Serial data clock waveform during normal play.

- IC 208 pin ⑦
- Serial data output waveform during normal play.

3)



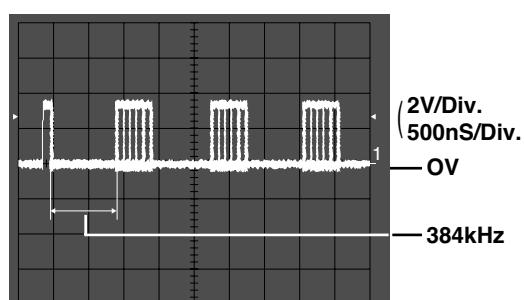
4)



- IC 201 pin ④②
- L/R clock data input waveform during normal operation.

- IC 201 pin ④③
- Bit clock data input waveform during normal operation.

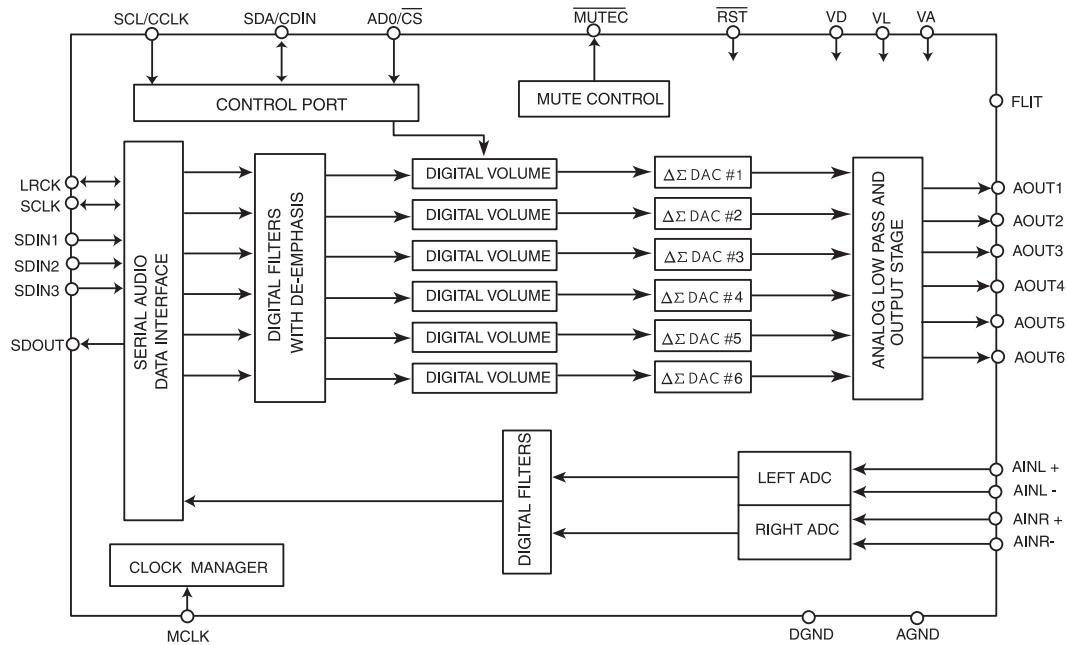
5)



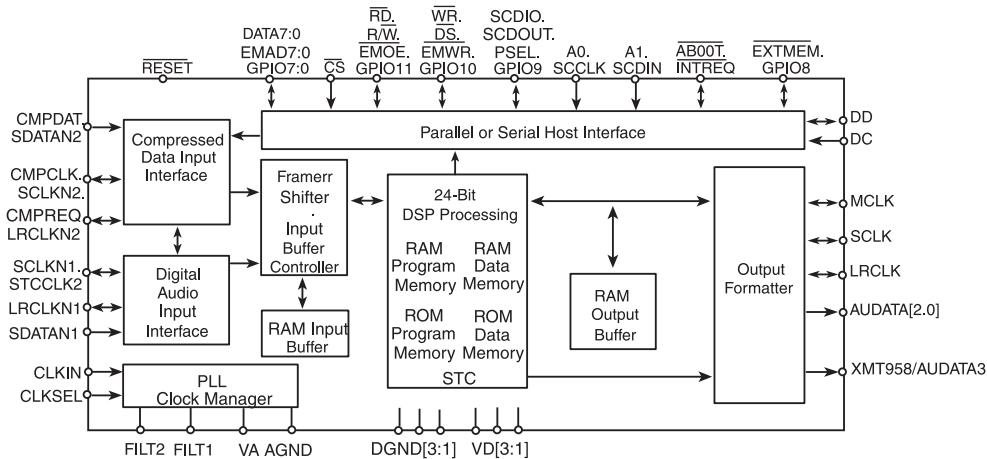
- IC 301 pin ⑤₃ , ⑤₄ , ⑤₆ , ⑤₇ , ⑥₀ , ⑥₁ , ⑥₃ , ⑥₄ , ⑥₇ , ⑥₈ , ⑦₀ , ⑦₁ .
- PWM data output waveform during normal operation.

INTERNAL BLOCK DIAGRAM OF ICs

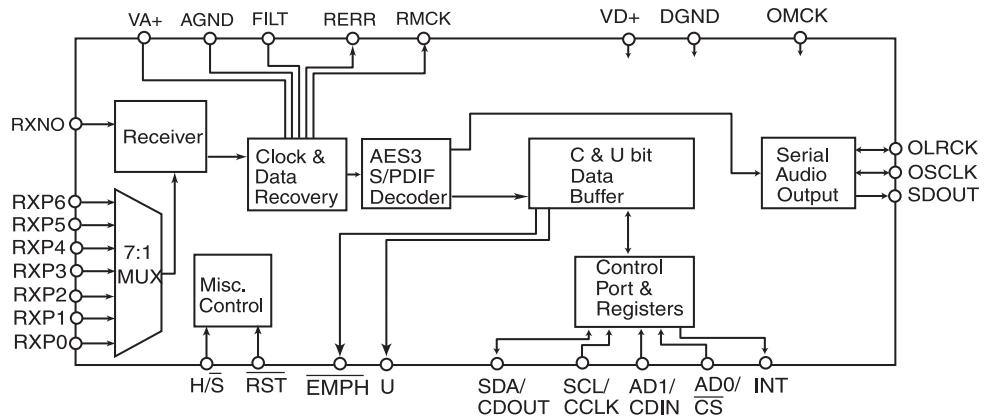
■ CS4228



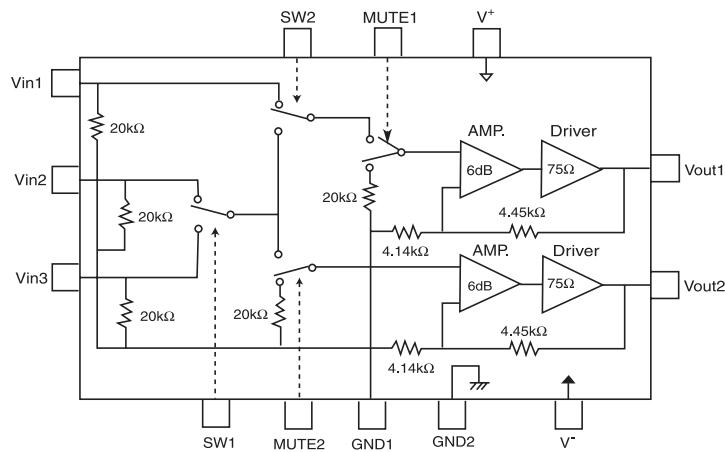
■ CS49300



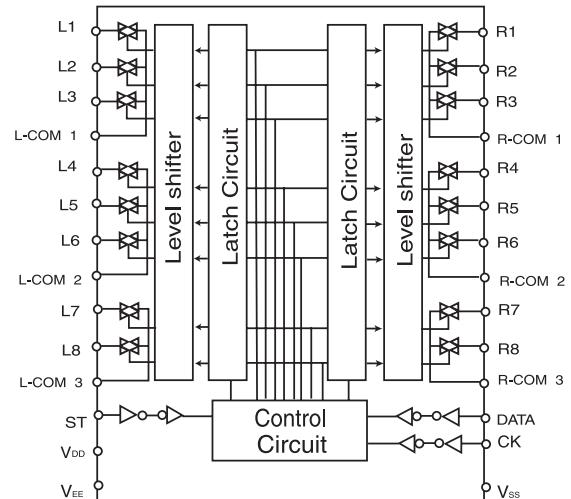
■ CS8415A



■ NJM2279



■ NJU7312A



IC VOLTAGE SHEET

■ STA505
(IC710, IC730, IC750, IC770)

PIN No.	Volt(V)
1	
2	
3	
4	32
5	
6	
7	32
8	
9	
10	
11	
12	32
13	
14	
15	32
16	
17	
18	
19	
20	
21	
22	
23	3.3
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	

■ NJM 2279
(IC102)

PIN No.	Volt(V)
1	0
2	2
3	0
4	5
5	1.3
6	0
7	0
8	5
9	0
10	1.3
11	0
12	1.4
13	5
14	-5

■ CS8415
(IC206)

PIN No.	Volt(V)	PIN No.	Volt(V)
1	2.8	15	0
2	2.9	16	1.6
3	3.2	17	1.6
4	2.8	18	0
5	2.8	19	3
6	5	20	0
7	0	21	0
8	2.2	22	3
9	1.6	23	0
10	1.6	24	0
11	0	25	0
12	0	26	3
13	0	27	0
14	0	28	

■ PS9702B
(IC301)

PIN No.	Volt(V)						
1	0	26	0	51	3.21	76	2.92
2	0	27	0	52	0	77	3.21
3	3.21	28	0	53	1.6	78	0
4	4.78	29	0	54	1.6	79	3.28
5		30		55	0	80	0
6	2.95	31	0	56	1.6	81	3.21
7	1.67	32	3.21	57	1.6	82	3.21
8	0	33	0	58	3.21	83	0
9	0	34	0	59	0	84	3.21
10	0	35	0	60	1.6	85	0
11	0	36	0	61	1.6	86	1.67
12	0	37	0	62	0	87	0
13	0	38	1.62	63	1.6	88	0
14	0	39	0	64	1.6	89	0
15	3.21	40	3.21	65	3.21	90	3.21
16	0	41	0	66	0	91	0
17	0	42	0	67	1.6	92	4.77
18	0	43	0	68	1.6	93	0
19	0	44	0	69	0	94	0
20	0	45	0	70	1.6	95	0
21	0	46	3.21	71	1.6	96	0
22	1.6	47	0	72	3.21	97	0
23	1.64	48	0	73	0	98	0
24	3.21	49	0	74	0	99	3.21
25	0	50	0	75	0	100	0

■ LC87F67
(IC101)

PIN No.	Volt(V)						
1	0	26	2.45	51	-1	76	-3.25
2	0	27	1.02	52	-1	77	-3.25
3	0	28	1.63	53	0	78	-3.25
4	0	29	4.96	54	-17.71	79	-3.25
5	5.19	30	-1	55	-1	80	4.97
6	0	31	-1	56	-1	81	1.27
7	0	32	-1	57	-1	82	2
8	0	33	-1	58	-1	83	4.98
9	3.23	34	-1	59	-14.91	84	4.98
10	1.21	35	-1	60	1.31	85	4.79
11	4.9	36	-1	61	-3.23	86	1.83
12	0	37	-1	62	-3.23	87	0
13	4.85	38	-1	63	-3.23	88	4.79
14	0	39	-1	64	-3.23	89	0
15	2.4	40	-1	65	4.99	90	4.86
16	2.52	41	-1	66	4.93	91	4.86
17	4.98	42	-1	67	4.93	92	4.33
18	0	43	-1	68	0	93	4.99
19	0	44	-14.91	69	4.97	94	4.99
20	0	45	-1	70	4.97	95	4.86
21	3.58	46	5.4	71	0	96	4.79
22	3.59	47	-1	72	5.08	97	4.79
23	3.59	48	-1	73	0	98	0
24	3.59	49	-1	74	-3.94	99	1.79
25	0.9	50	-1	75	0	100	3.19

■ NJU7312AM(IC501)

■ CS49326(IC201)

■ CS4228 (IC205)

PIN No.	Volt(V)	PIN No.	Volt(V)
1	-12	16	0
2	0	17	0
3	0	18	0
4	0	19	0
5	0	20	0
6	0	21	0
7	0	22	0
8	0	23	0
9	0	24	0
10	0	25	0
11	0	26	0
12	0	27	0
13		28	0
14		29	0
15		30	12

PIN No.	Volt(V)	PIN No.	Volt(V)
1	2.4	23	2.5
2	0	24	
3	0	25	1.6
4	0	26	1.6
5		27	1
6	2.9	28	1.6
7	0	29	1.6
8	2.4	30	1
9	2.4	31	0
10	2.4	32	2
11	2.4	33	1.3
12	2.5	34	2.5
13	0	35	0
14	2.4	36	3.2
15	2.4	37	2.5
16	2.4	38	2.5
17	2.4	39	0
18	3.2	40	0
19	1.7	41	0
20	2.4	42	1.6
21	2.4	43	1.6
22	0	44	1.6

PIN No.	Volt(V)	PIN No.	Volt(V)
1	0	16	2.5
2	0	17	2.2
3	0	18	3.5
4	1.5	19	2.2
5	1.5	20	2.2
6	1.5	21	5
7		22	
8	3.2	23	2.3
9	2.5	24	2.3
10	1.6	25	2.3
11	0	26	2.3
12	2.9	27	2.3
13	3.2	28	2.3
14	3.2	29	2.3

■ IC910

PIN No.	Volt(V)
1	
2	
3	-12

■ IC921

PIN No.	Volt(V)
1	
2	12
3	

■ PN901, CN901

PIN No.	Volt(V)
1	-30
2	-25
3	-37
4	-37
5	-37
6	5.1
7	
8	
9	
10	

■ PN902, CN902

PIN No.	Volt(V)
1	27.6
2	27.6
3	27.6
4	16.9
5	5.8
6	5.8
7	0
8	
9	
10	5.8

■ IC911

PIN No.	Volt(V)
1	
2	
3	-5

■ IC922

PIN No.	Volt(V)
1	
2	8.1
3	

■ IC926

PIN No.	Volt(V)
1	
2	3.3
3	

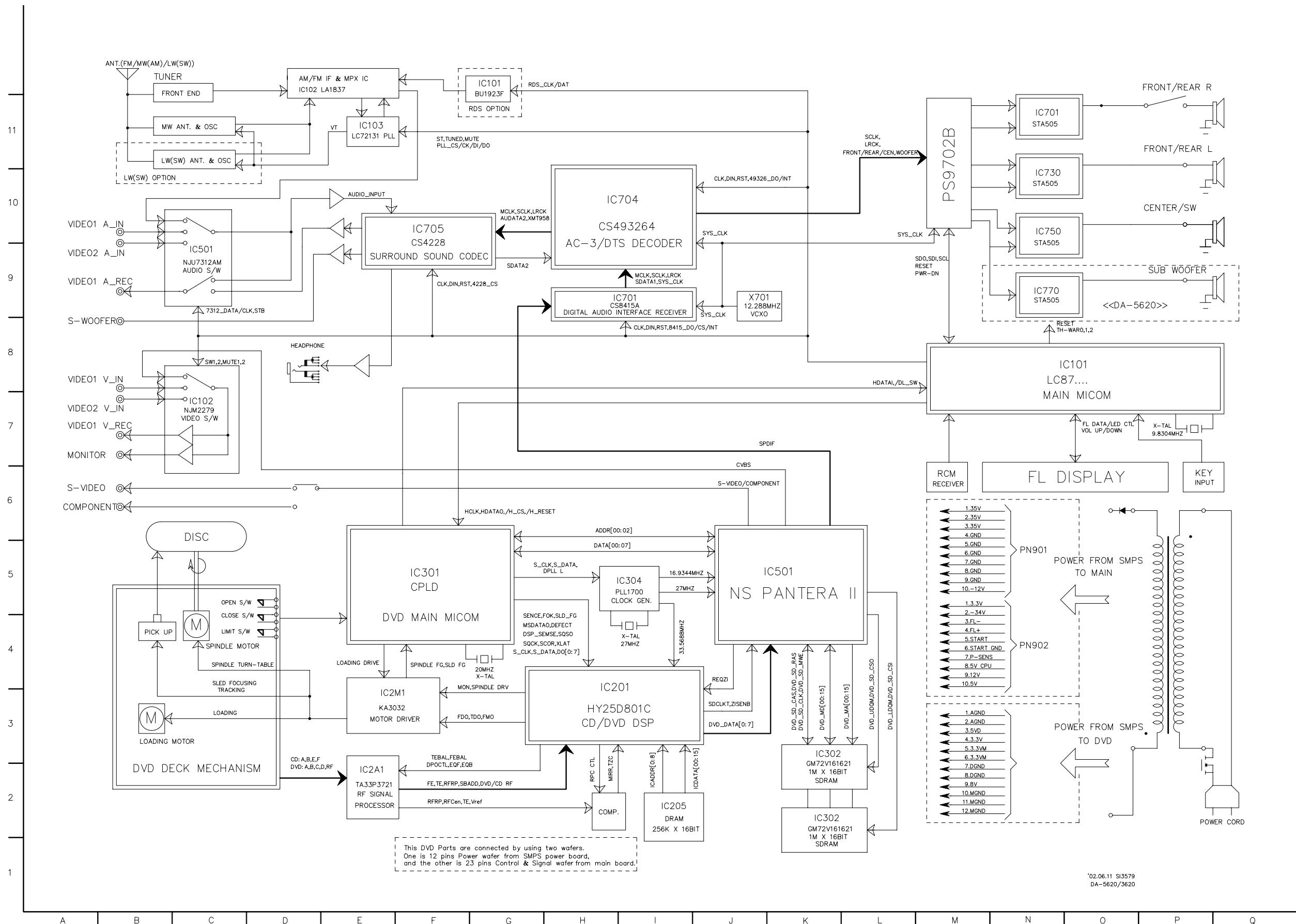
■ IC923

PIN No.	Volt(V)
1	
2	5
3	

■ IC924

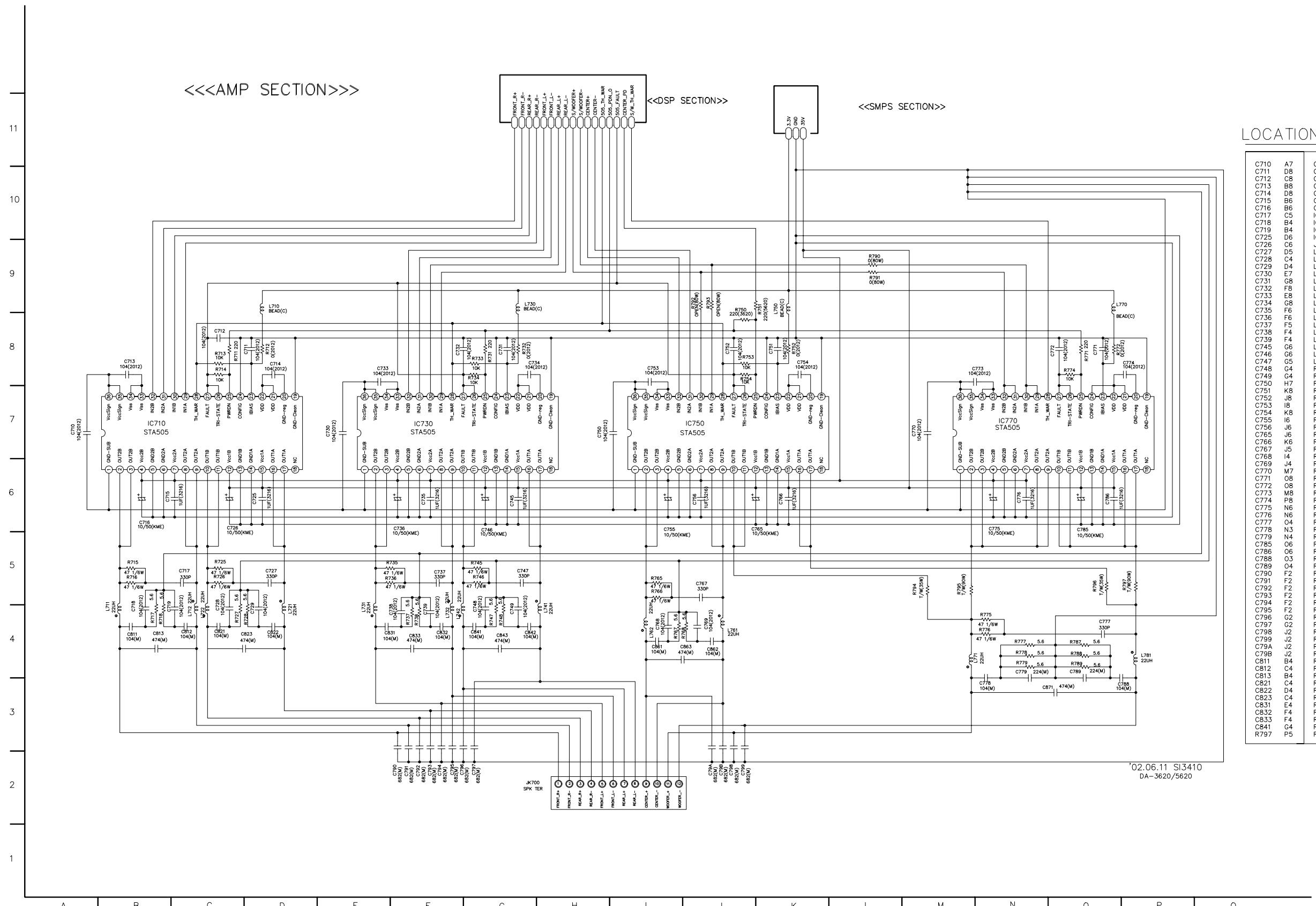
PIN No.	Volt(V)
1	
2	3.3
3	

BLOCK DIAGRAM

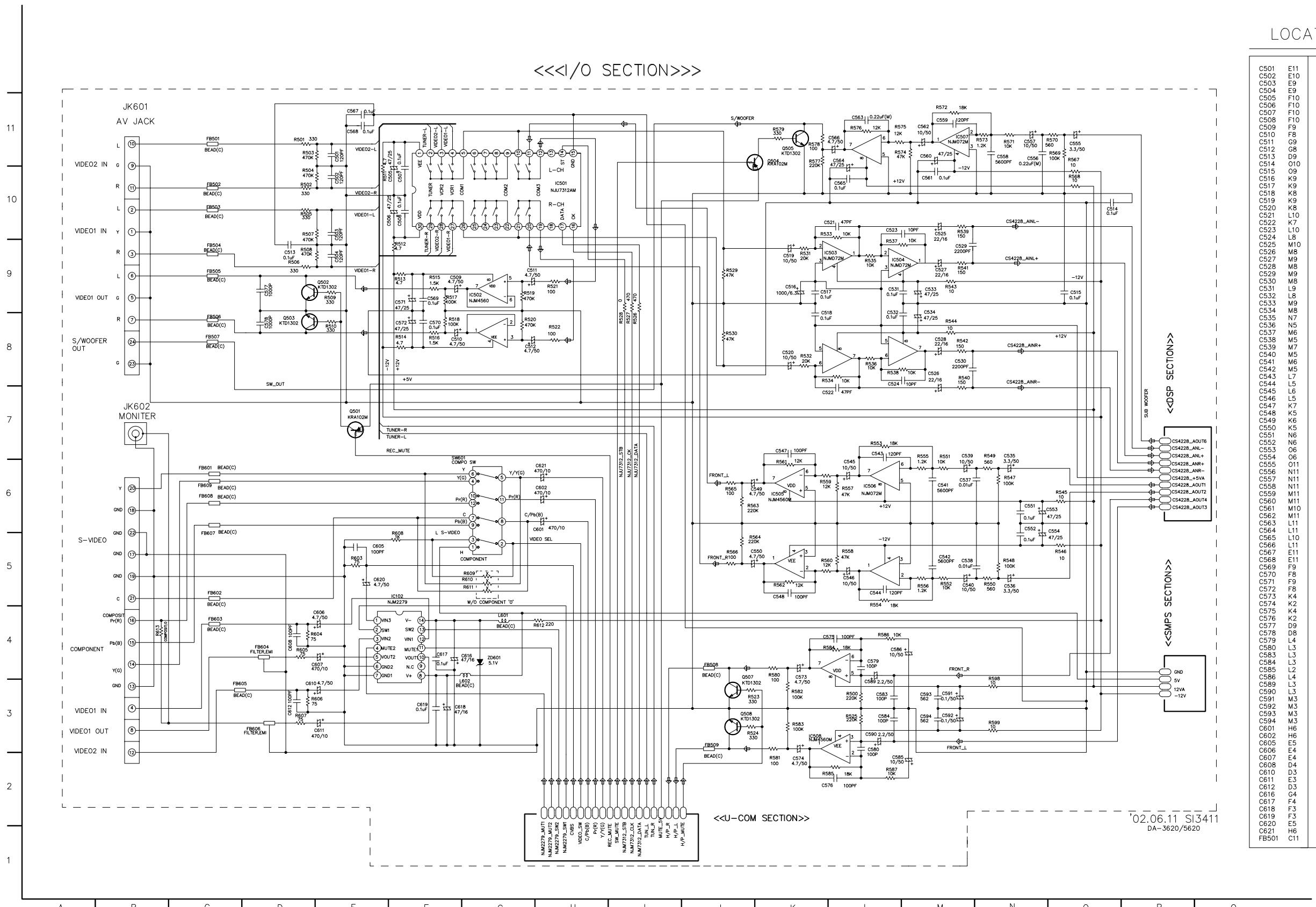


SHEMATIC DIAGRAMS

• AMP SCHEMATIC DIAGRAM



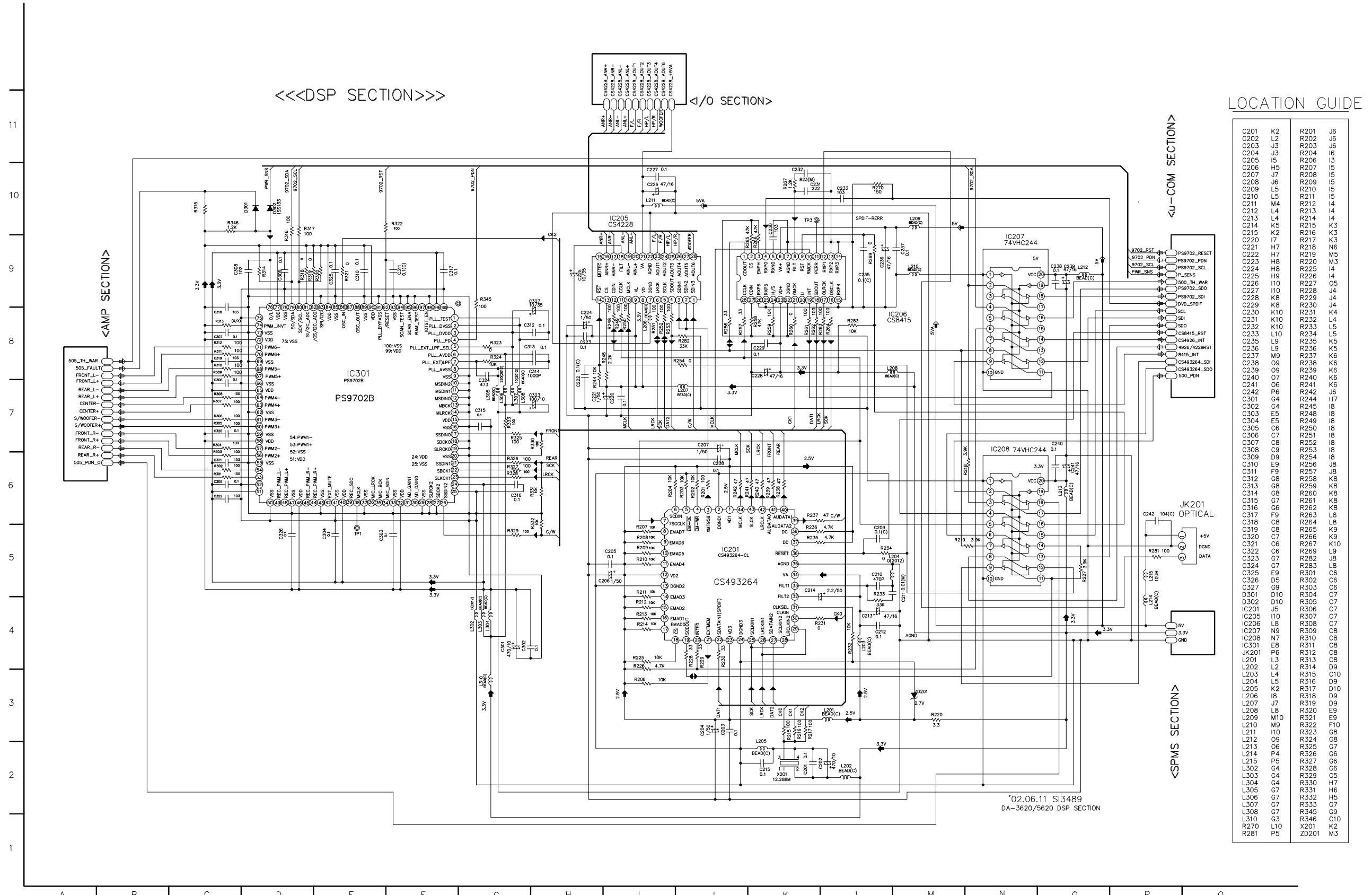
• I/O SCHEMATIC DIAGRAM



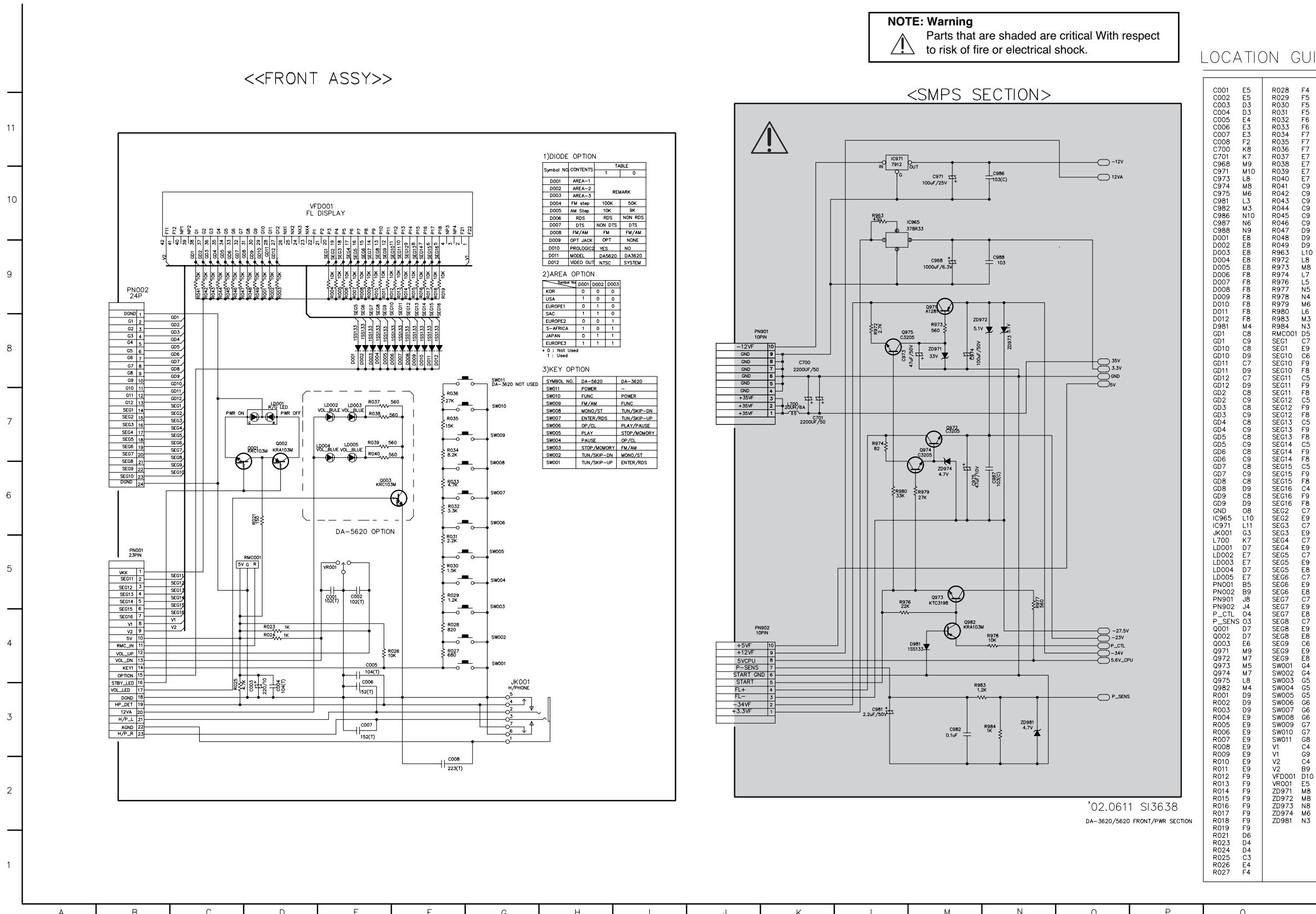
LOCATION GUIDE

C501	E11	FB502	C10	R570	O11
C502	E10	FB503	C10	R571	N11
C503	E9	FB504	C9	R572	M11
C504	E8	FB505	C9	R573	N11
C505	F10	FB506	C8	R574	L11
C506	F10	FB507	C8	R575	L11
C507	F10	FB508	C4	R576	L1
C508	F9	FB509	C4	R577	K11
C509	F9	FB601	C6	R578	K11
C510	G9	FB602	C5	R579	K11
C511	G9	FB603	C4	R580	K4
C512	G8	FB604	D4	R581	K2
C513	G9	FB605	C3	R582	K3
C514	O10	FB606	D3	R583	K3
C515	O9	FB607	C5	R584	K4
C516	K9	FB608	C6	R585	K2
C517	K9	FB609	C5	R586	L4
C518	K8	FB610	C4	R587	L2
C519	K9	IC501	H10	R588	N3
C520	K8	IC502	G9	R589	N3
C521	L10	IC504	L6	R590	E5
C522	L10	IC505	K6	R603	E4
C523	L10	IC506	K6	R605	D4
C524	L8	IC507	M1	R606	E3
C525	M10	IC508	K3	R607	D3
C526	M8	JK601	B11	R608	F5
C527	M9	JK602	B7	R609	G5
C528	M8	L601	G4	R610	G5
C529	M9	L602	G3	R611	G5
C530	M8	L603	E7	R612	B4
C531	L9	Q502	E9	SW601	F7
C532	L8	Q503	D8	ZD601	G4
C533	M9	Q504	K11		
C534	M8	Q505	K11		
C535	N7	Q507	J4		
C536	N5	Q508	J3		
C537	N6	Q500	L3		
C538	M5	Q503	K11		
C539	M7	Q502	D10		
C540	M5	Q504	D11		
C541	M6	Q505	D10		
C542	M5	Q506	D10		
C543	L7	Q507	D9		
C544	L5	Q508	D9		
C545	L6	Q509	E9		
C546	K7	Q510	E8		
C547	K5	Q511	F10		
C548	K6	Q512	F9		
C549	K5	Q513	F9		
C550	N6	Q514	F9		
C551	N6	Q515	F9		
C552	O6	Q516	F9		
C553	O6	Q517	F9		
C554	O6	Q518	F9		
C555	O11	Q519	G9		
C556	N11	Q520	G8		
C557	N11	Q521	H9		
C558	N11	Q522	H8		
C559	M11	Q523	J3		
C560	M11	Q524	J3		
C561	M10	Q525	L3		
C562	M11	Q526	I8		
C563	L11	Q527	I8		
C564	L11	Q528	J8		
C565	L10	Q529	J9		
C566	L11	Q530	J8		
C567	E11	Q531	K9		
C568	F9	Q532	K8		
C569	F9	Q533	K10		
C570	F8	Q534	K8		
C571	F9	Q535	L9		
C572	F8	Q536	L8		
C573	K4	Q537	L9		
C574	K2	Q538	L8		
C575	K4	Q539	M10		
C576	D9	Q540	M8		
C577	D9	Q541	M9		
C578	D8	Q542	M8		
C579	L4	Q543	M9		
C580	L3	Q544	M8		
C583	L3	Q545	G6		
C584	L3	Q546	M5		
C585	L4	Q547	M5		
C586	L4	Q548	N6		
C587	L3	Q549	N7		
C588	L3	Q550	N5		
C589	L3	Q551	M3		
C590	N7	Q552	M3		
C591	M3	Q553	M7		
C592	M3	Q554	M5		
C593	M3	Q555	L7		
C594	M3	Q556	L4		
C601	H6	Q557	M7		
C602	H6	Q558	M5		
C605	E5	Q559	L6		
C606	E4	Q560	L5		
C607	E4	Q561	D3		
C608	D4	Q562	K6		
C610	D3	Q563	K5		
C611	D3	Q564	K6		
C612	D3	Q565	J6		
C616	G4	Q566	J5		
C617	F4	Q567	J6		
C618	F3	Q568	J6		
C619	F3	Q569	J5		
C620	E5	Q570	O11		
C621	H6	Q571	O10		
FB501	C11	Q572	O11		

• DSP(DIGITAL AUDIO PROCESSING) SCHEMATIC DIAGRAM

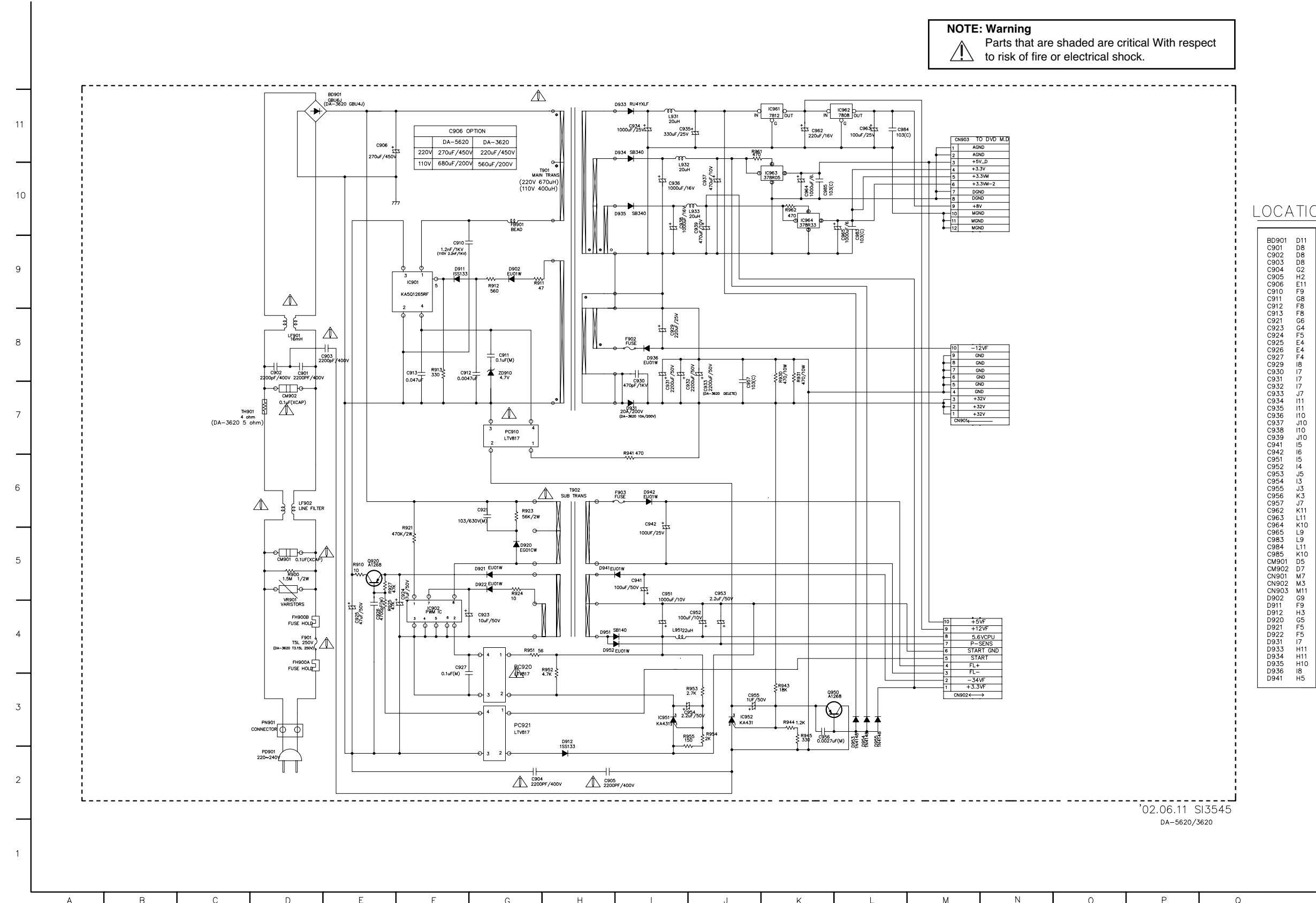


• FRONT & POWER SCHEMATIC DIAGRAM

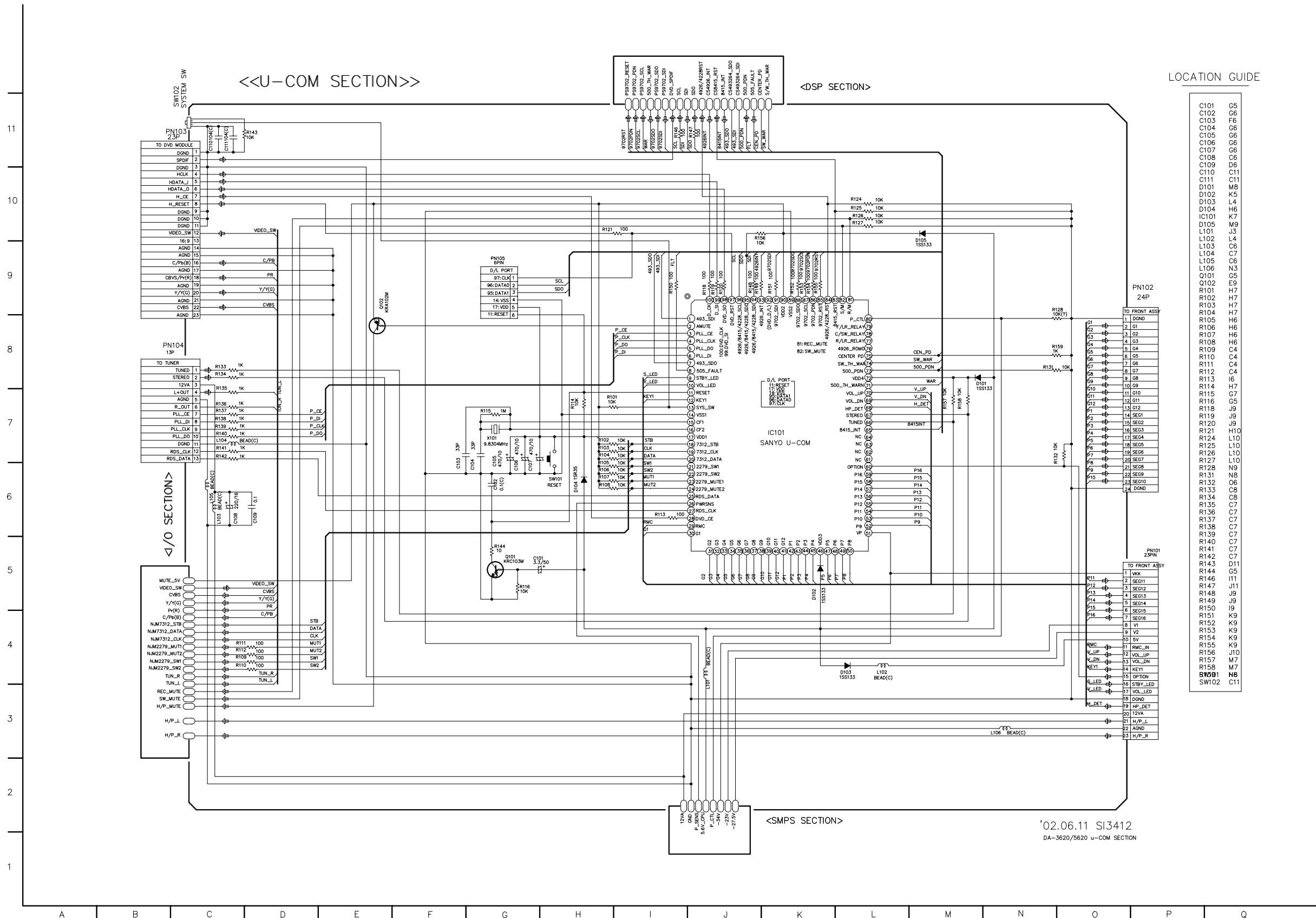


• SMPS SCHEMATIC DIAGRAM

NOTE: Warning
 Parts that are shaded are critical With respect
 to risk of fire or electrical shock.

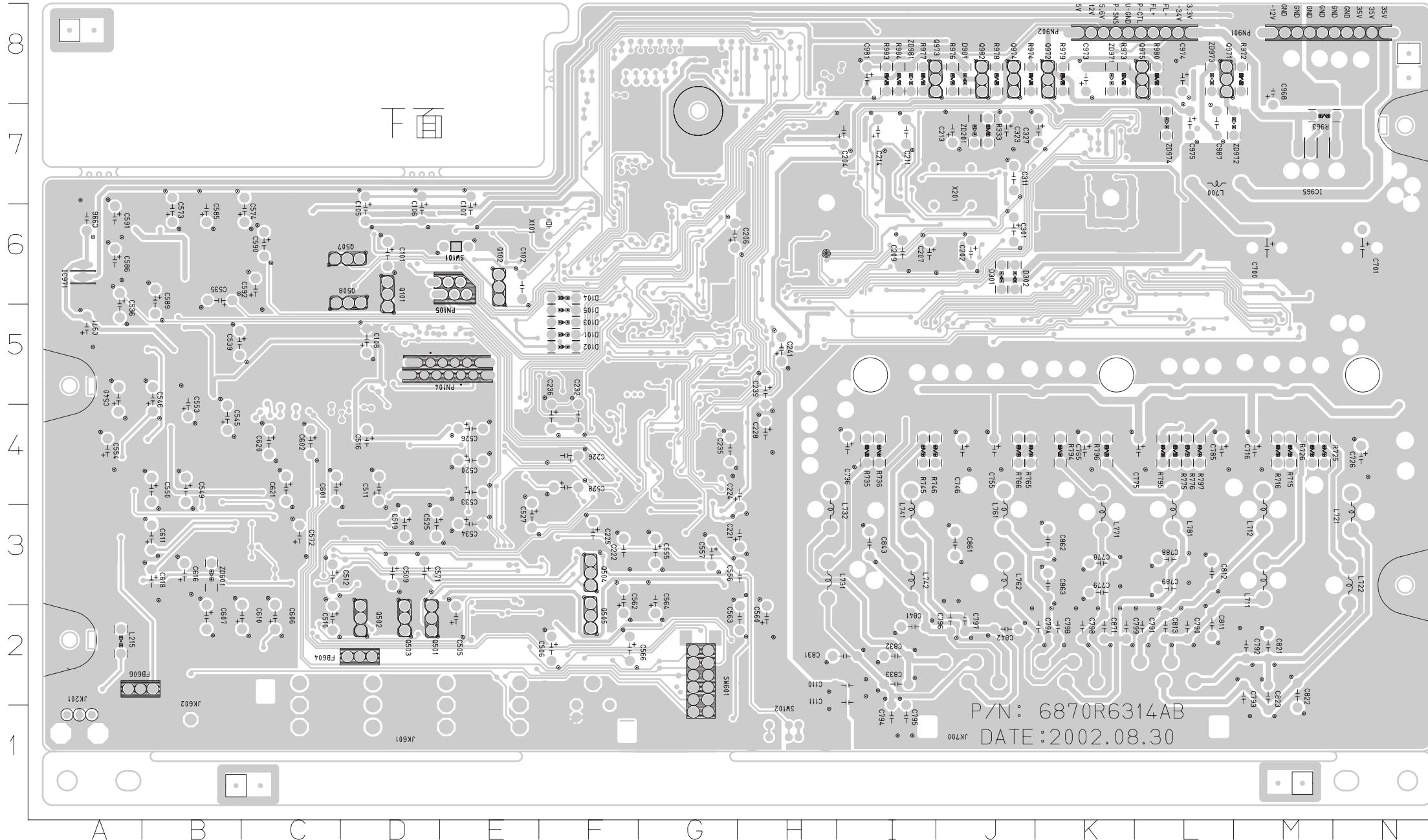


• µ-COM SCHEMATIC DIAGRAM



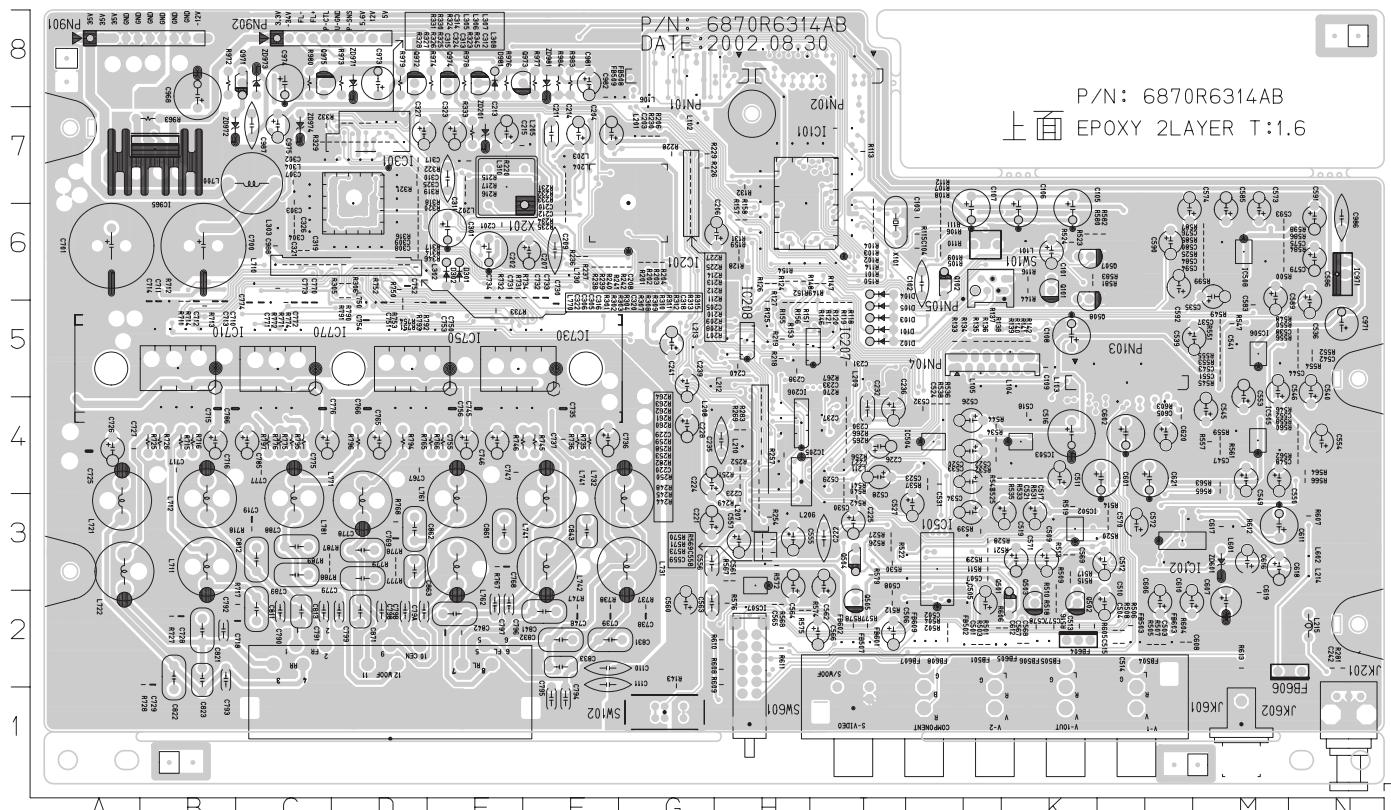
PRINTED CIRCUIT DIAGRAMS

• MAIN P.C. BOARD(SOLDER SIDE)



ICT110	E3	ICT259	D5	ICT478	G5
ICT111	E2	ICT262	D5	ICT480	G6
ICT185	E3	ICT263	D5	ICT481	G6
ICT186	D3	ICT270	F5	ICT482	M5
ICT200	G2	ICT274	F6	ICT483	M6
ICT221	F7	ICT277	G6	ICT484	J5
ICT222	F8	ICT284	D5	ICT486	G6
ICT223	F8	ICT286	D5	ICT488	J5
ICT224	F8	ICT289	G6	ICT489	K5
ICT225	F7	ICT292	G6	ICT49	L5
ICT226	F7	ICT296	G7	ICT492	F4
ICT227	F7	ICT300	F6	ICT50	L5
ICT228	F8	ICT301	F6	ICT501	G5
ICT229	F8	ICT304	H7	ICT502	F6
ICT230	F8	ICT307	F6	ICT503	C5
ICT231	F8	ICT322	G5	ICT508	M5
ICT232	F8	ICT326	G5	ICT509	M5
ICT233	F8	ICT327	H6	ICT510	I8
ICT234	G8	ICT330	I7	ICT511	D6
ICT235	G8	ICT331	I7	ICT512	H8
ICT236	G8	ICT355	K6	ICT513	C3
ICT237	G8	ICT364	J7	ICT517	F7
ICT238	G8	ICT371	G5	ICT518	F7
ICT239	G8	ICT387	K7	ICT519	F6
ICT240	G8	ICT391	K7	ICT520	K7
ICT241	G8	ICT399	H7	ICT521	H6
ICT242	G8	ICT400	H7	ICT524	G5
ICT243	G8	ICT401	G4	ICT528	J5
ICT244	G8	ICT402	G4	ICT529	M5
ICT245	G8	ICT404	K7	ICT530	L6
ICT246	G8	ICT406	K7	ICT533	K6
ICT247	G8	ICT415	H5	ICT534	L5
ICT248	H8	ICT419	G4	ICT535	H5
ICT249	F7	ICT424	F4	ICT536	G5
ICT250	G6	ICT425	D3	ICT538	F5
ICT251	H8	ICT449	G5	ICT540	G6
ICT252	H8	ICT450	G4	ICT541	E5
ICT253	G7	ICT465	N8	ICT542	E5
ICT254	H8	ICT472	H8	ICT543	A6
ICT255	H8	ICT473	L7	ICT544	C4
ICT256	H8	ICT474	G8	ICT582	C3
ICT258	D5	ICT476	H5	ICT97	H7

- MAIN P.C. BOARD(COMPONENT SIDE)

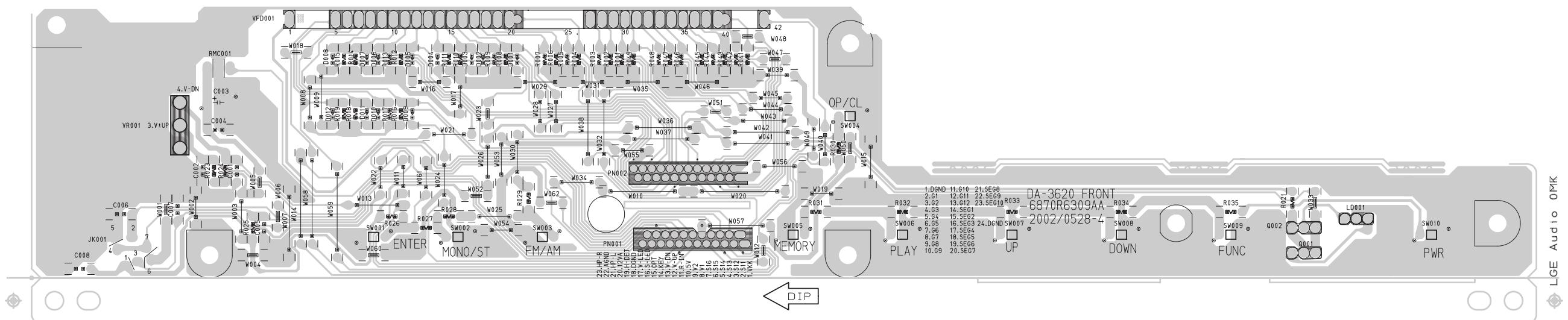


P/N: 6870R63
DATE: 2002.08.

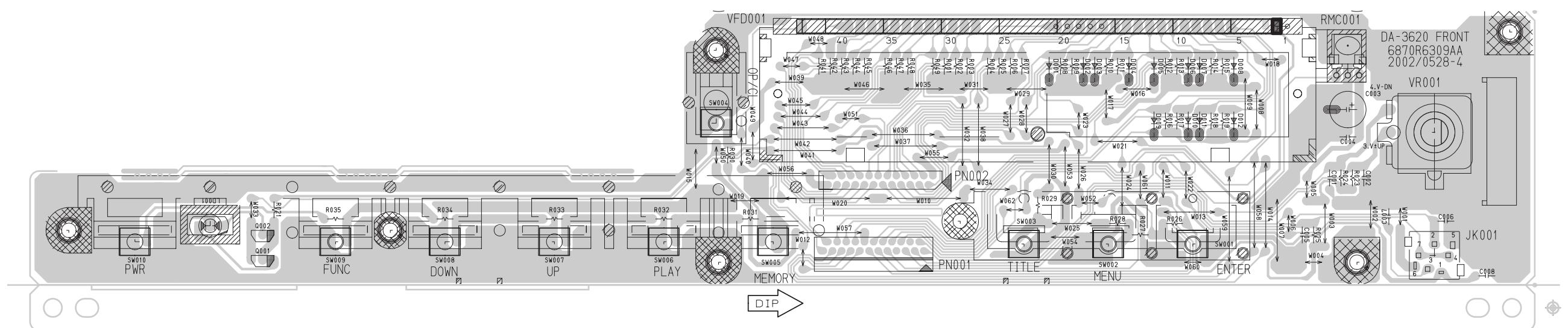
P/N: 6870R6314AB
上面 EPOXY 2LAYER T:1.6

C101	K6	C306	C6	C532	J4	C589	M6	C750	E5	C871	D2	IC710	B5	IC738	G7	IC748	H4	IC775	C5	L761	E3	R132	H7	R232	F7	R317	D6	R534	J4	R587	M6	R778	D3								
C102	J6	C307	C7	C533	J3	C590	L6	C751	D5	C986	B8	IC730	E5	IC739	E7	IC749	I4	IC776	C5	L762	E3	R133	J5	R323	F7	R318	D6	R535	K4	R588	M6	R779	D3								
C103	J6	C308	D6	C534	J3	C591	N5	C752	D6	C971	N5	IC750	D5	IC740	D6	IC743	I4	IC777	C6	R134	J5	R324	F6	R319	D7	R536	J4	R589	M6	R787	C3										
C104	J6	C309	D6	C535	M6	C592	L6	C753	E5	C973	D6	IC770	D6	IC741	D6	IC743	I4	IC778	C6	R135	J5	R325	F6	R320	D6	R537	J4	R603	L4	R788	C3										
C105	K6	C310	D7	C536	M5	C593	M6	C754	D5	C974	C8	IC965	B7	IC742	D6	IC746	I4	IC793	M6	L761	C3	R136	J5	R326	F6	R321	D7	R538	J4	R604	L2	R789	C3								
C106	K6	C311	E7	C537	M5	C594	M6	C755	E4	C975	C7	IC971	N6	IC743	D6	IC746	I4	IC794	M6	P101	H8	R137	J5	R327	F6	R322	D7	R539	J3	R605	K2	R790	D6								
C107	J6	C312	D7	C538	M5	C601	L4	C756	E4	C981	F8	IC710	M7	IC744	D6	IC747	I4	JK201	N1	P102	I8	IC738	J5	R328	F6	R323	D7	R540	I3	R606	J2	R791	D3								
C108	K5	C313	D7	C539	M5	C602	L4	C765	D4	C982	F8	IC710	I8	IC745	D6	IC747	I4	JK601	I1	P103	L5	IC739	K5	R239	F6	R324	D7	R541	I4	R607	N3	R792	D5								
C109	K5	C314	D7	C540	M5	C603	L5	C766	D4	C986	N6	IC710	I9	IC746	D6	IC747	I4	JK602	M1	P104	J5	IC740	K5	R240	F6	R325	D7	R542	I4	R608	H2	R793	D5								
C110	F2	C315	D7	C541	M5	C606	L2	C767	D4	C987	C7	IC727	J4	IC747	D6	IC747	D7	JK700	D1	P105	J6	IC741	K5	R241	F6	R326	D7	R543	J4	R609	H2	R794	C4								
C111	F2	C316	D6	C542	M5	C607	M2	C768	E3	C988	C6	IC729	I4	IC749	D6	IC747	D7	JK101	M6	P901	A8	IC742	K5	R242	F6	R327	D7	R544	J4	R610	H2	R795	C4								
C201	E6	C317	D7	C543	M5	C608	L2	C769	D3	IC101	I5	IC732	G6	IC750	C6	IC750	C6	JK102	G7	P902	C8	IC743	G2	R244	H3	IC738	C29	R545	M5	R561	H2	R796	C4								
C202	E6	C318	D6	C544	M5	C610	L2	C770	C5	IC102	I5	IC733	K4	IC751	C6	IC751	C6	JK103	H1	Q101	K6	IC744	K5	R245	H3	IC739	C29	R546	N4	R612	M3	R797	C4								
C203	G7	C319	C6	C545	M4	C611	M3	C771	C5	IC103	I5	IC748	M4	IC752	C6	IC752	C6	JK104	D5	IC740	I4	JK104	J5	IC746	I5	R248	H3	IC730	R30	R547	M5	R613	M2	R793	B7						
C204	F7	C320	D6	C546	M5	C612	K2	C772	C5	IC104	I6	IC751	M4	IC756	C6	IC756	C6	JK105	M5	Q501	K2	IC747	I6	IC749	I5	IC731	D1	IC748	N5	R548	N5	R711	B5	R792	D8						
C205	G7	C321	C6	C547	M4	C616	M3	C773	C5	IC105	I5	IC753	M5	IC761	F6	IC741	I4	JK106	G7	Q502	K2	IC748	I6	IC750	H4	IC732	C7	IC749	M5	R549	M5	R712	B5	R793	D8						
C206	H6	C322	C6	C548	M4	C617	M3	C774	C5	IC106	I6	IC754	M5	IC762	F7	IC743	I3	JK101	G7	Q503	K2	IC749	I6	IC751	H4	IC733	E7	IC749	M5	R550	N5	R713	M5	R794	C4						
C207	F6	C323	E7	C549	M4	C618	M3	C775	C4	IC107	I6	IC755	M5	IC763	F7	IC743	I3	JK102	E6	Q504	I3	IC750	H4	IC752	H4	IC745	D7	IC751	M5	R551	M5	R714	B5	R796	E6						
C208	G6	C324	D7	C550	M5	C619	M2	C776	C4	IC108	I6	IC756	G8	IC759	I3	IC730	H5	IC753	H5	JK103	F7	Q505	I2	IC751	H5	IC753	H5	IC746	D6	IC752	H4	IC746	D6	IC752	N5	R552	M5	R715	B4	R797	E6
C209	F6	C325	D7	C551	M5	C620	L4	C777	C4	IC109	I6	IC757	F4	IC751	I2	IC760	M6	IC732	G7	IC756	D6	JK104	F7	Q507	K6	IC752	H5	IC754	H3	IC750	M5	IC753	M5	IC750	R30	R553	M5	R716	C4	R798	E6
C210	F7	C326	C6	C552	M4	C621	L4	C778	D3	IC110	I2	IC758	F4	IC760	I2	IC761	H7	IC733	G6	IC757	D6	JK105	D6	Q508	K6	IC753	H5	IC756	I4	IC751	D6	IC752	H3	IC753	N5	R554	I2	R799	C4		
C211	F7	C327	D7	C553	M4	C704	B6	C779	D3	IC111	I2	IC759	F4	IC761	I2	IC762	H7	IC734	G6	IC758	D5	JK106	H3	Q971	C8	IC753	H5	IC757	I4	IC751	D6	IC752	H3	IC753	N5	R555	M5	R717	C2	R799	C4
C212	F6	C328	J3	C554	M4	C705	A6	C785	C4	IC112	I2	IC763	F4	IC764	I2	IC765	H7	IC735	G6	IC759	D5	JK107	H3	Q972	D8	IC754	H5	IC758	I4	IC752	D6	IC753	H3	IC754	N5	R556	I2	R799	C4		
C213	E7	C329	J2	C555	H3	C710	B5	C786	B4	IC113	I2	IC766	F4	IC767	I2	IC768	H7	IC736	G7	IC761	J6	JK108	M5	Q973	F8	IC755	H5	IC759	I4	IC753	D6	IC754	H3	IC755	N5	R557	I2	R799	E8		
C214	F7	C329	C5	C556	H3	C711	B5	C787	C8	IC114	I2	IC769	F4	IC770	I2	IC771	H7	IC737	G7	IC762	J6	JK109	M5	Q974	F8	IC756	H5	IC760	I4	IC754	D6	IC755	H3	IC756	N5	R558	I2	R799	E8		
C215	E7	C330	C5	C557	H3	C712	B5	C788	C8	IC115	I2	IC772	F4	IC773	I2	IC774	H7	IC738	G7	IC763	J6	JK110	M5	Q975	F8	IC757	H5	IC761	I4	IC755	D6	IC756	H3	IC757	N5	R559	I2	R799	E8		
C216	K4	C330	C5	C558	H3	C713	B5	C789	C8	IC116	I2	IC775	F4	IC776	I2	IC777	H7	IC739	G7	IC764	J6	JK111	M5	Q976	F8	IC758	H5	IC762	I4	IC756	D6	IC757	H3	IC758	N5	R560	I2	R799	E8		
C217	E7	C331	C5	C559	H3	C714	B5	C790	C8	IC117	I2	IC778	F4	IC779	I2	IC780	H7	IC740	G6	IC765	J6	JK112	M5	Q977	F8	IC759	H5	IC763	I4	IC757	D6	IC758	H3	IC759	N5	R561	I2	R799	E8		
C218	G3	C332	C5	C560	H3	C715	B5	C791	C8	IC118	I2	IC781	F4	IC782	I2	IC783	H7	IC741	G6	IC766	J6	JK113	M5	Q978	F8	IC760	H5	IC764	I4	IC758	D6	IC759	H3	IC760	N5	R562	I2	R799	E8		
C219	C3	C333	C5	C561	H3	C716	B5	C792	C8	IC119	I2	IC784	F4	IC785	I2	IC786	H7	IC742	G6	IC767	J6	JK114	M5	Q979	F8	IC761	H5	IC765	I4	IC759	D6	IC760	H3	IC761	N5	R563	I2	R799	E8		
C220	C3	C334	C5	C562	H3	C717	B5	C793	C8	IC120	I2	IC787	F4	IC788	I2	IC789	H7	IC743	G6	IC768	J6	JK115	M5	Q980	F8	IC762	H5	IC766	I4	IC760	D6	IC761	H3	IC762	N5	R564	I2	R799	E8		
C221	C3	C335	C5	C563	H3	C718	B5	C794	C8	IC121	I2	IC790	F4	IC791	I2	IC792	H7	IC744	G6	IC769	J6	JK116	M5	Q981	F8	IC763	H5	IC767	I4	IC761	D6	IC762	H3	IC763	N5	R565	I2	R799	E8		
C222	C3	C336	C5	C564	H3	C719	B5	C795	C8	IC122	I2	IC793	F4	IC794	I2	IC795	H7	IC745	G6	IC770	J6	JK117	M5	Q982	F8	IC764	H5	IC768	I4	IC762	D6	IC763	H3	IC764	N5	R566	I2	R799	E8		
C223	C3	C337	C5	C565	H3	C720	B5	C796	C8	IC123	I2	IC796	F4	IC797	I2	IC798	H7	IC746	G6	IC771	J6	JK118	M5	Q983	F8	IC765	H5	IC769	I4	IC763	D6	IC764	H3	IC765	N5	R567	I2	R799	E8		
C224	C4	C338	C5	C566	H3	C721	B5	C797	C8	IC124	I2	IC799	F4	IC800	I2	IC801	H7	IC747	G6	IC772	J6	JK119	M5	Q984	F8	IC766	H5	IC770	I4	IC764	D6	IC765	H3	IC766	N5	R568	I2	R799	E8		
C225	I3	C339	C5	C567	H3	C722	B5	C802	C8	IC125	I2	IC802	F4	IC803	I2	IC804	H7	IC748	G6	IC773	J6	JK120	M5	Q985	F8	IC767	H5	IC771	I4	IC765	D6	IC766	H3	IC767	N5	R569	I2	R799	E8		
C226	I4	C340	C5	C568	H3	C723	B5	C803	C8	IC126	I2	IC805	F4	IC806	I2	IC807	H7	IC749	G6	IC774	J6	JK121	M5	Q986	F8	IC768	H5	IC772	I4	IC766	D6	IC767	H3	IC768	N5	R570	I2	R799	E8		
C227	I4	C341	C5	C569	H3	C724	B5	C804	C8	IC127	I2	IC808	F4	IC809	I2	IC810	H7	IC750	G6	IC775	J6	JK122	M5	Q987	F8	IC769	H5	IC773	I4	IC767	D6	IC768	H3	IC769	N5	R571	I2	R799	E8		
C228	G4	C342	C5	C570	H3	C725	B5	C805	C8	IC128	I2	IC811	F4	IC812	I2	IC813	H7	IC751	G6	IC776	J6	JK123	M5	Q988	F8	IC770	H5	IC774	I4	IC768	D6	IC769	H3	IC770	N5	R572	I2	R799	E8		
C229	H4	C343	C5	C571	H3	C726	B5	C806	C8	IC129	I2	IC814	F4	IC815	I2	IC816	H7	IC752	G6	IC777	J6	JK124	M5	Q989	F8	IC771	H5	IC775	I4	IC769	D6	IC770	H3	IC771	N5	R573	I2	R799	E8		
C230	C4	C344	C5	C572	H3	C727	B5	C807	C8	IC130	I2	IC817	F4	IC818	I2	IC819	H7	IC753	G6	IC778	J6	JK125	M5	Q990	F8	IC772	H5	IC776	I4	IC770	D6	IC771	H3	IC772	N5	R574	I2	R799	E8		
C231	C4	C345	C5	C573	H3	C728	B5	C808	C8	IC131	I2	IC820	F4	IC821	I2	IC822	H7	IC754	G6	IC779	J6	JK126	M5	Q991	F8	IC773	H5	IC777	I4	IC771	D6	IC772	H3	IC773	N5	R575	I2	R799	E8		
C232	I4	C346	C5	C574	H3	C729	B5	C809	C8	IC132	I2	IC823	F4	IC824	I2	IC825	H7	IC755	G6	IC780	J6	JK127	M5	Q992	F8	IC774	H5	IC778	I4	IC772</											

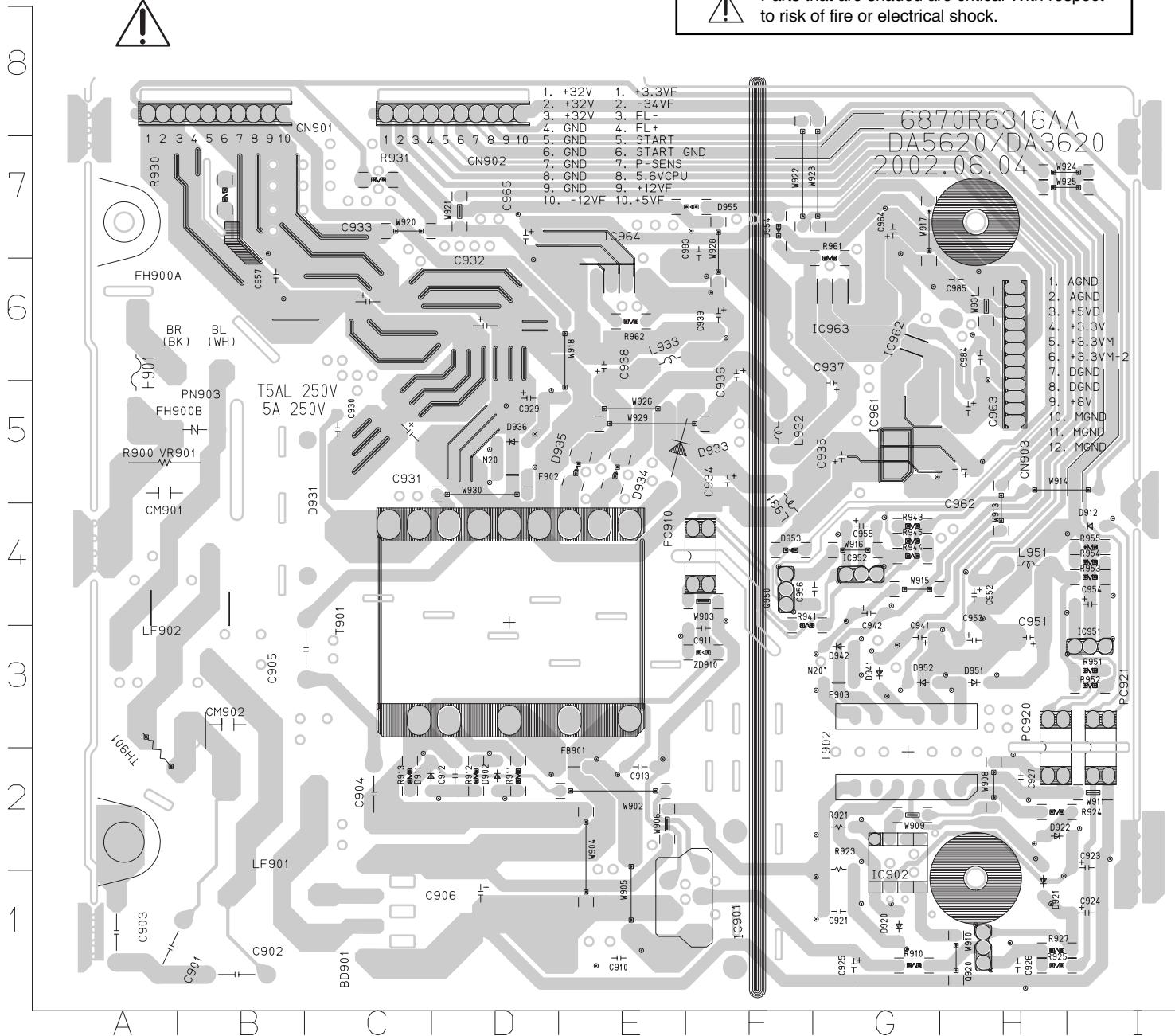
• MAIN/FRONT P.C. BOARD(SOLDER SIDE)



• MAIN/FRONT P.C. BOARD(COMPONENT SIDE)



- POWER P.C. BOARD



BD901	C1	D941	C3
C901	A1	D942	G3
C902	B1	D951	H3
C903	A1	D952	G3
C904	C2	D953	F4
C905	C3	D954	F7
C906	D1	D955	F7
C910	E1	F902	D5
C911	F3	F903	G3
C912	D2	FB901	E2
C913	E2	FH900A	A6
C921	G1	FH900B	A5
C923	I2	IC901	F1
C924	I1	IC902	G2
C925	G1	IC951	I3
C926	H1	IC952	G4
C927	H2	IC961	G5
C929	D5	IC962	G6
C930	C5	IC963	G6
C931	C5	IC964	E6
C932	D6	L931	F5
C933	C6	L932	F5
C934	F5	L933	E6
C935	G5	L951	H4
C936	F6	LF901	B2
C937	G5	LF902	A4
C938	E6	PC910	F4
C939	F6	PC920	H3
C941	G3	PC921	I3
C942	G4	PN903	B6
C951	H3	Q920	H1
C952	H4	Q950	F4
C953	H3	R900	A5
C954	I4	R910	G1
C955	G4	R911	D2
C956	G4	R912	D2
C957	B6	R913	C2
C962	H5	R921	G2
C963	H5	R923	G2
C964	G7	R924	H2
C965	D7	R925	H1
C983	F7	R927	H1
C984	H6	R930	B7
C985	H6	R931	C7
CM901	A5	R941	F3
CM902	B3	R943	G4
CN901	B8	R944	G4
CN902	D8	R945	G4
CN903	H6	R951	I3
D902	D2	R952	I3
D911	C2	R953	I4
D912	I4	R954	I4
D920	G1	R955	I4
D921	H1	R961	G6
D922	H2	R962	E6
D931	C4	T901	D4
D933	E5	T902	G2
D934	E5	TH901	A2
D935	E5	VR901	B5
D936	D5	ZD910	F3

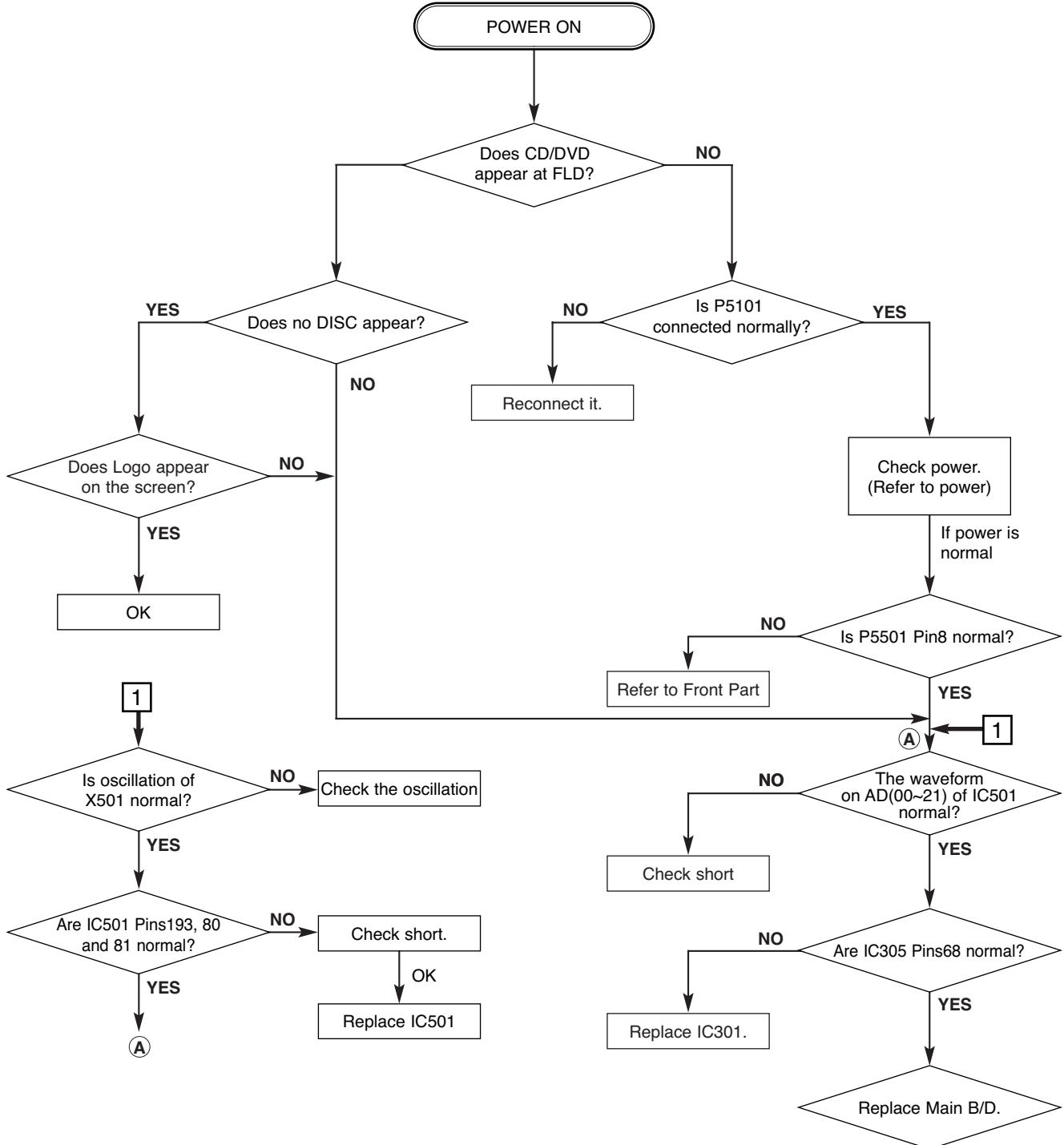
MEMO

SECTION 3. DVD PART

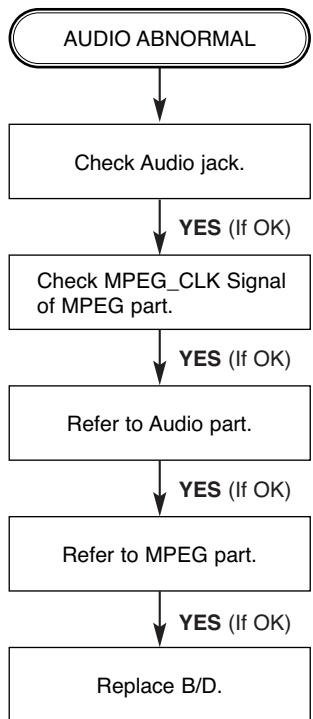
ELECTRICAL TROUBLESHOOTING GUIDE

1. μ -COM Circuit

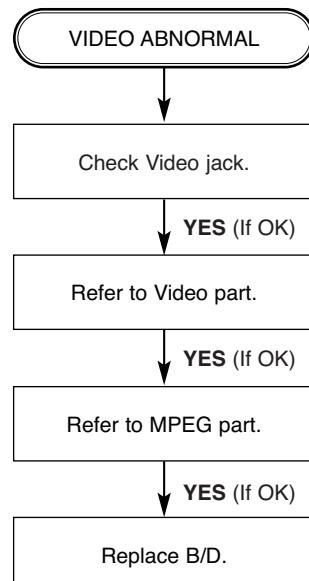
A. No Power



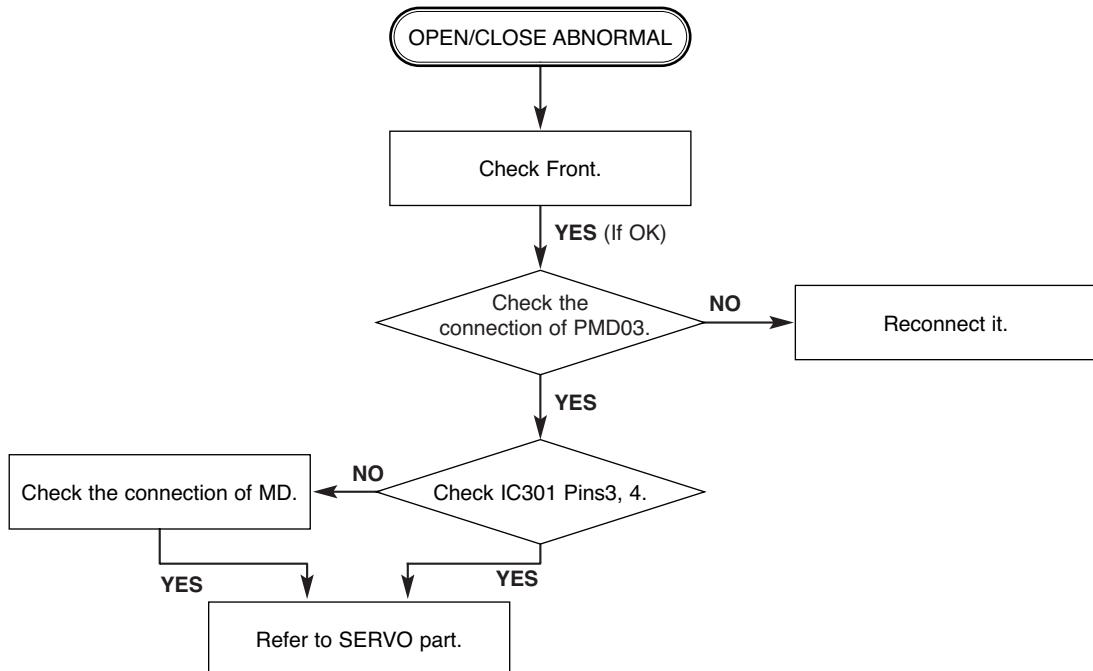
B. Audio abnormal



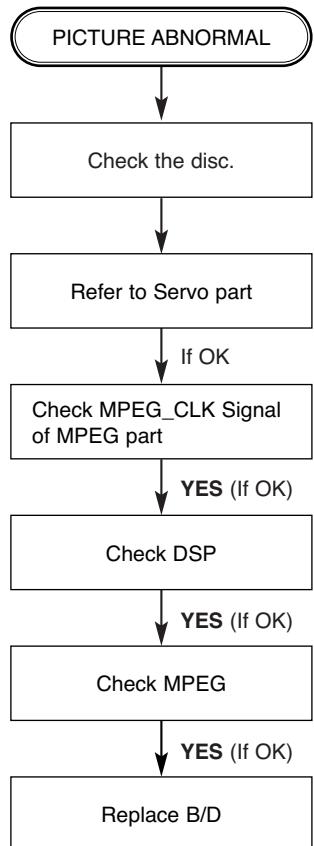
C. Video abnormal



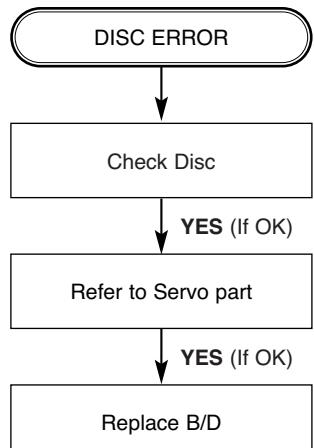
D. Open/Close abnormal



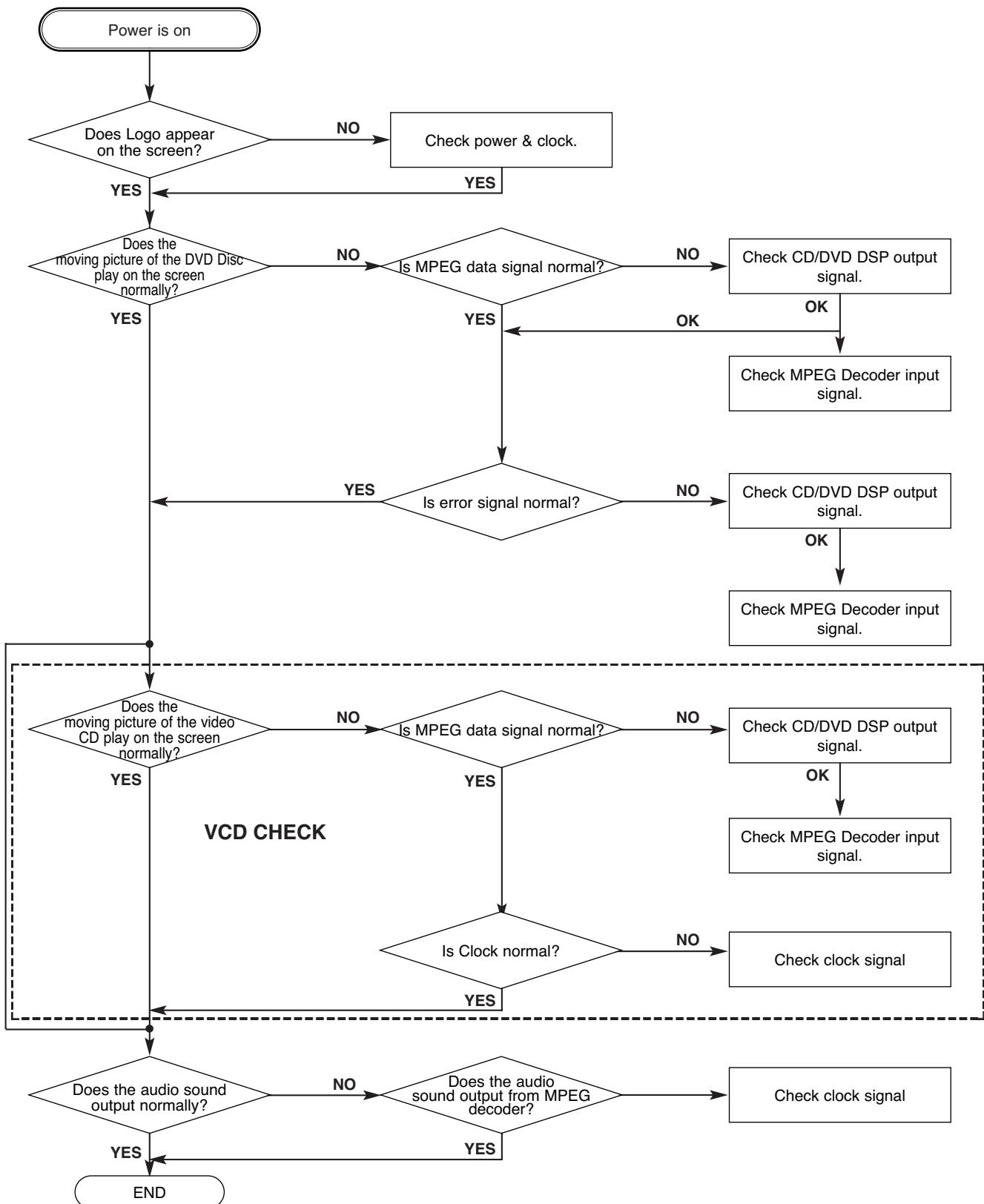
E. Picture abnormal



F. Disc Error

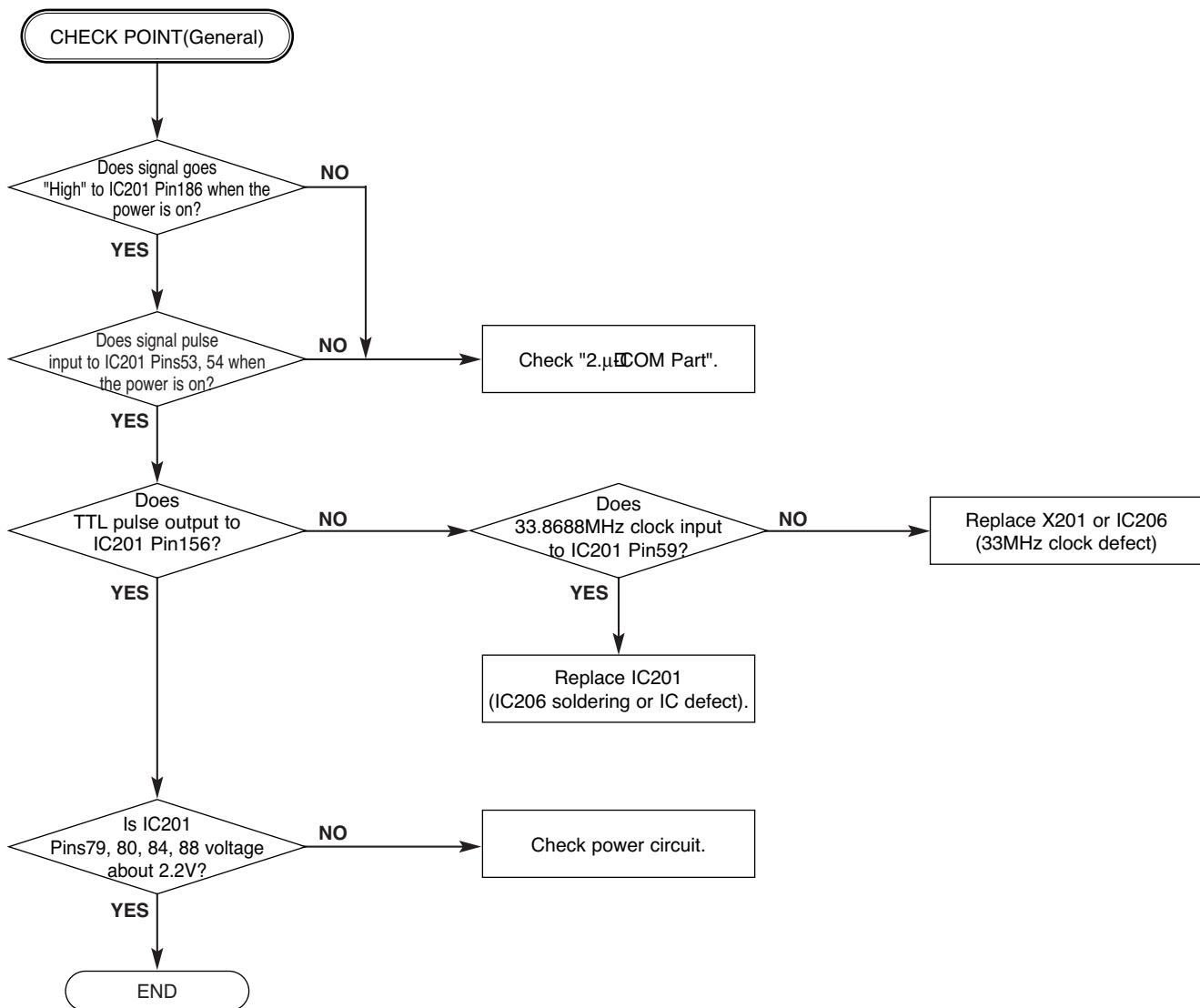


2. MPEG Circuit

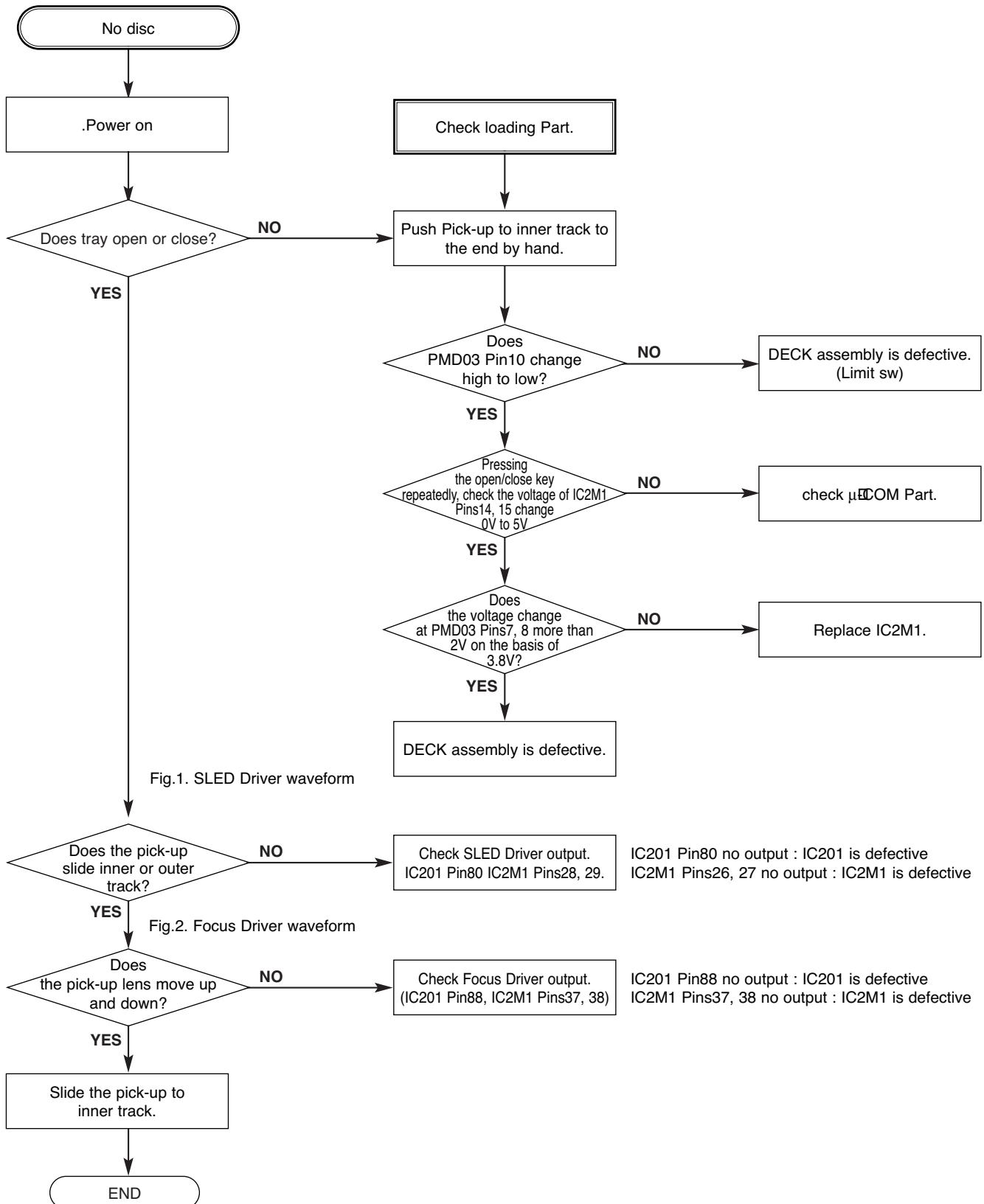


3. RF/Servo Circuit

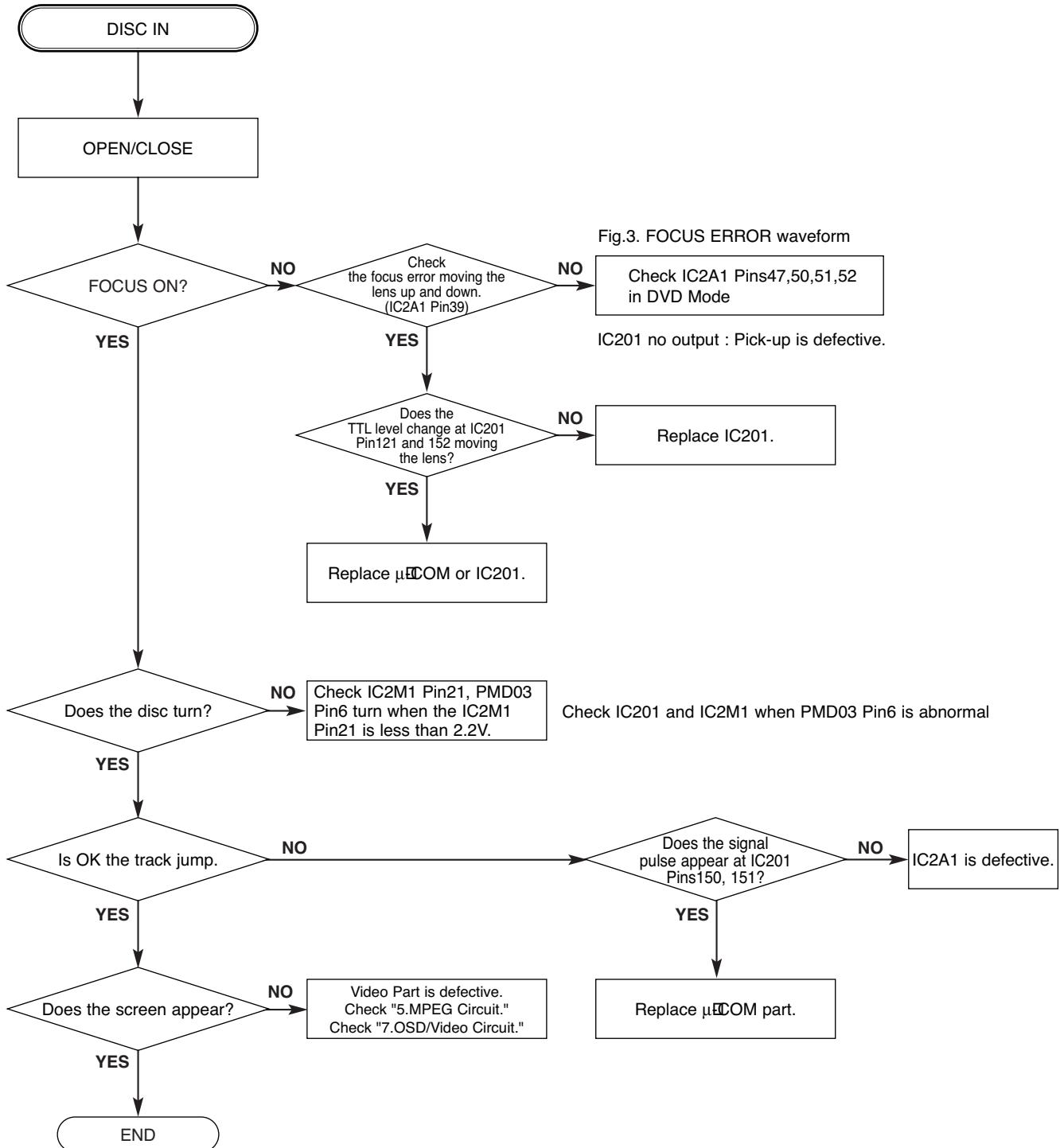
A.



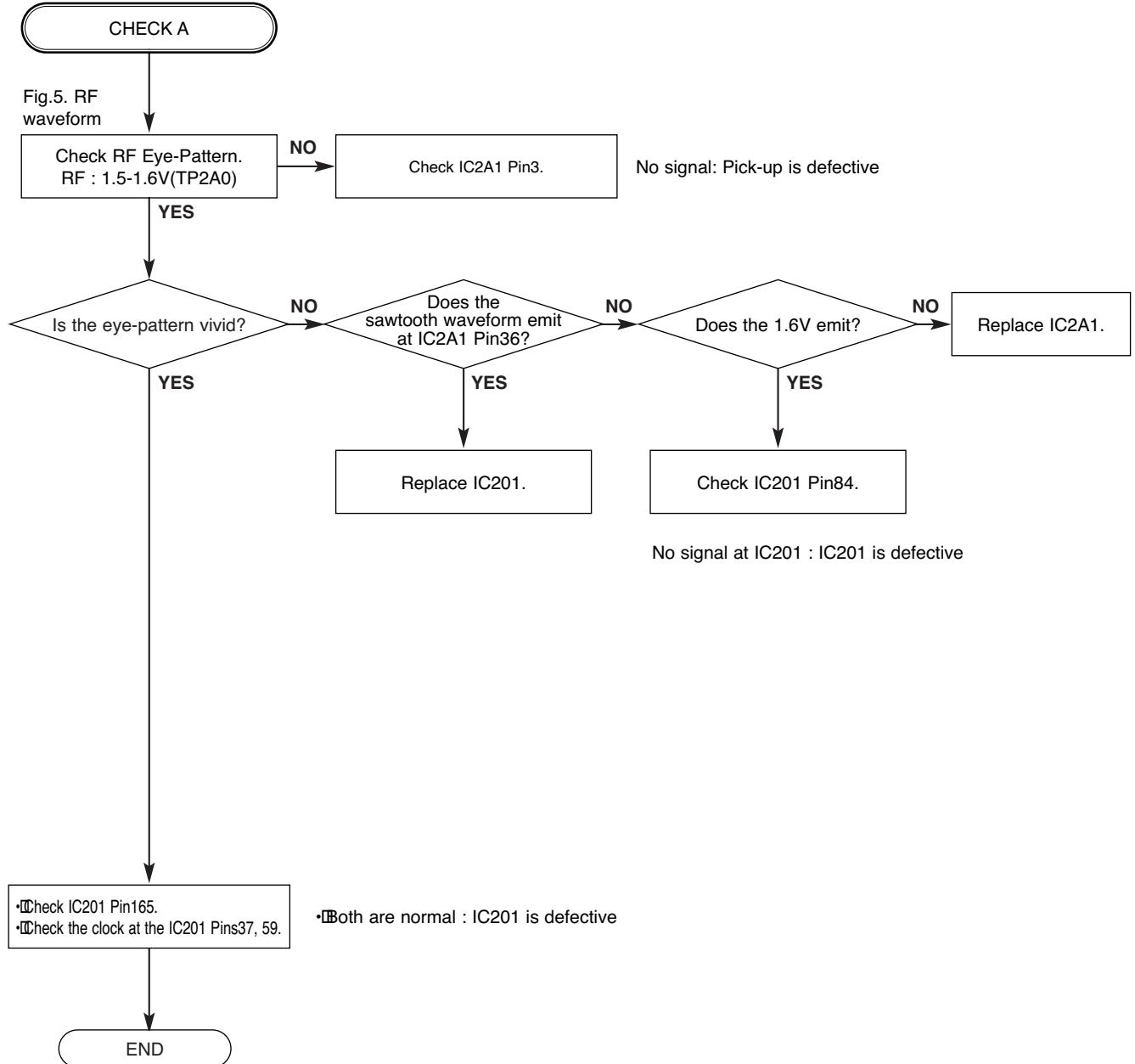
B.



C.

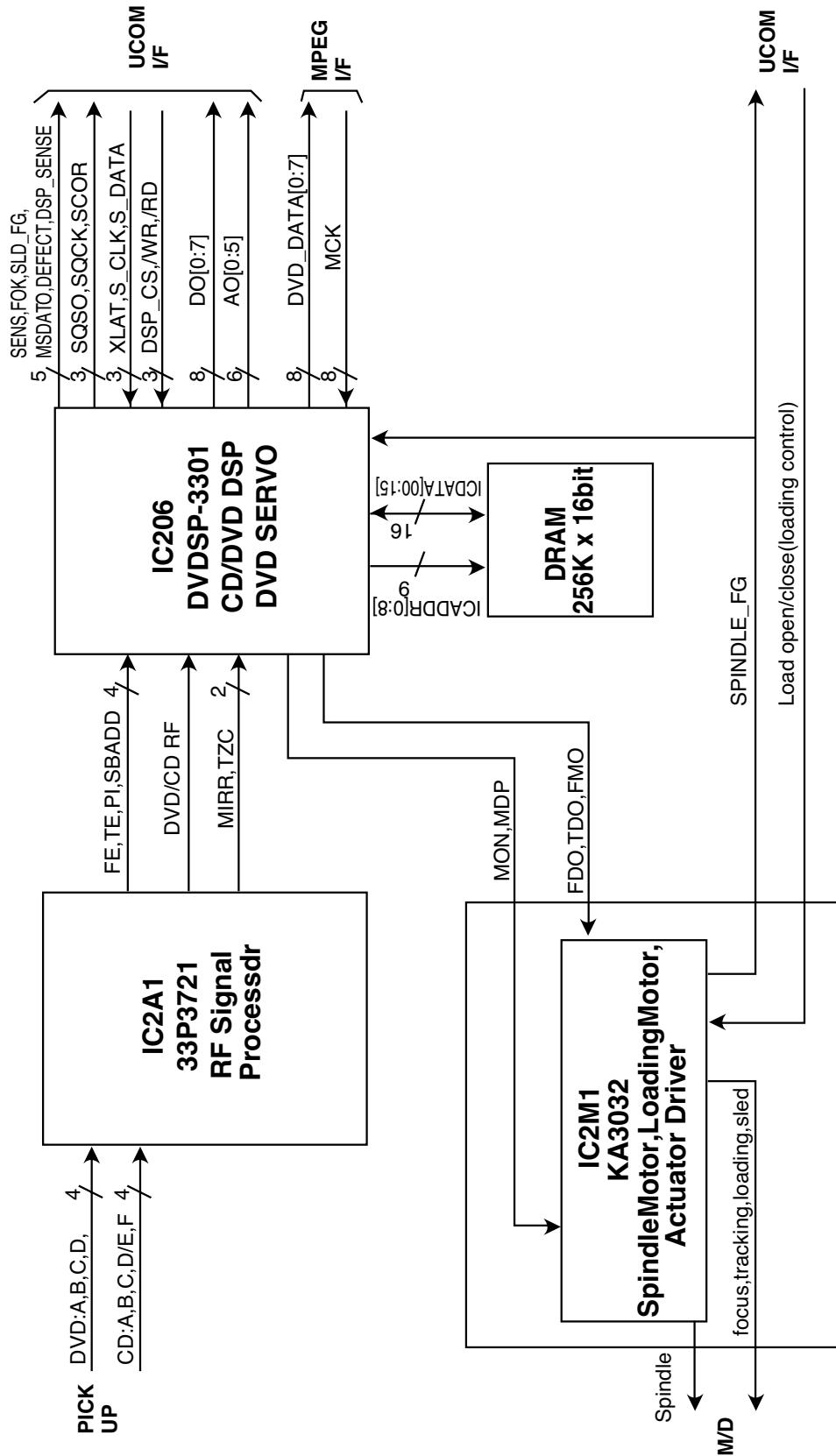


D.

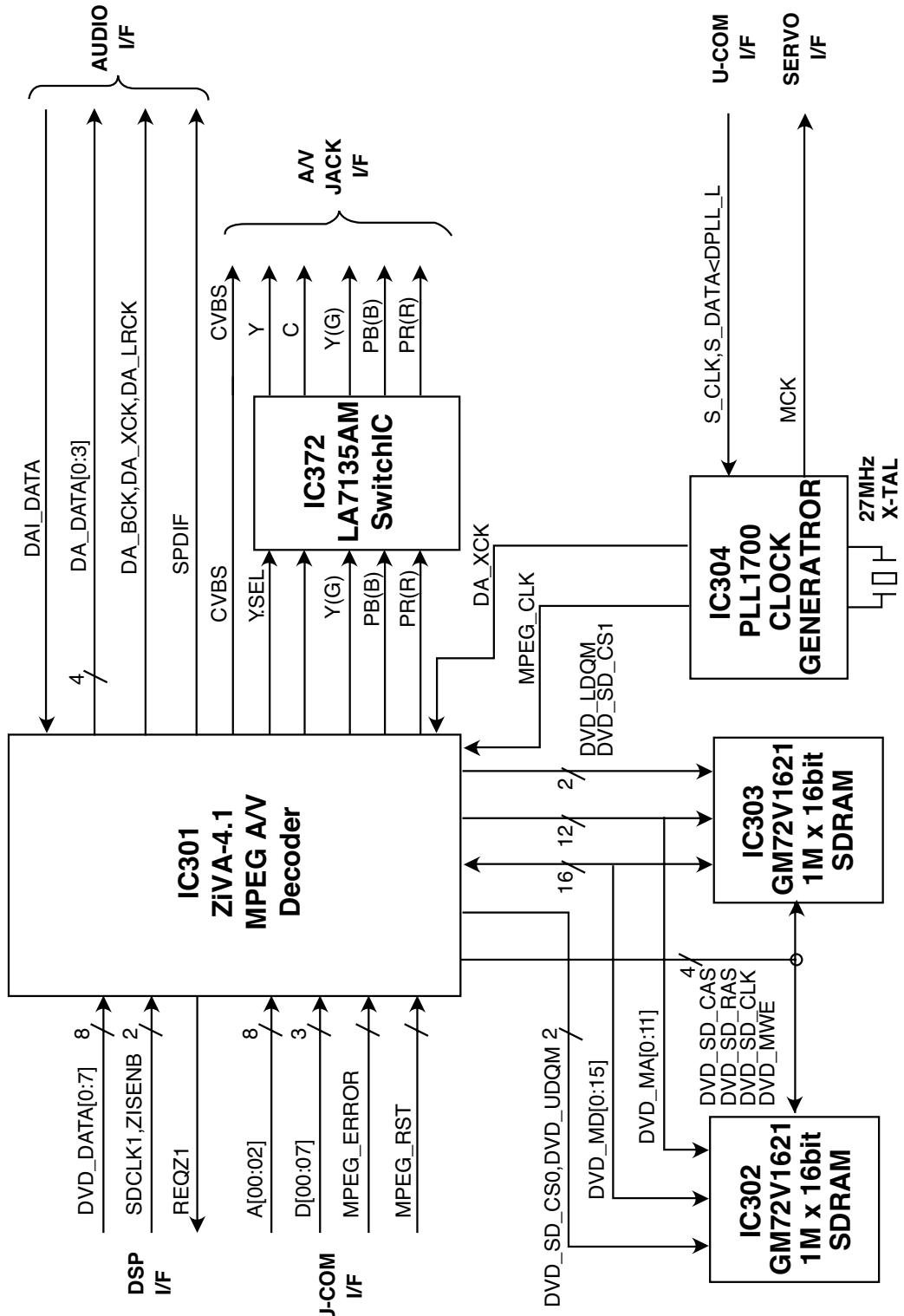


BLOCK DIAGRAMS

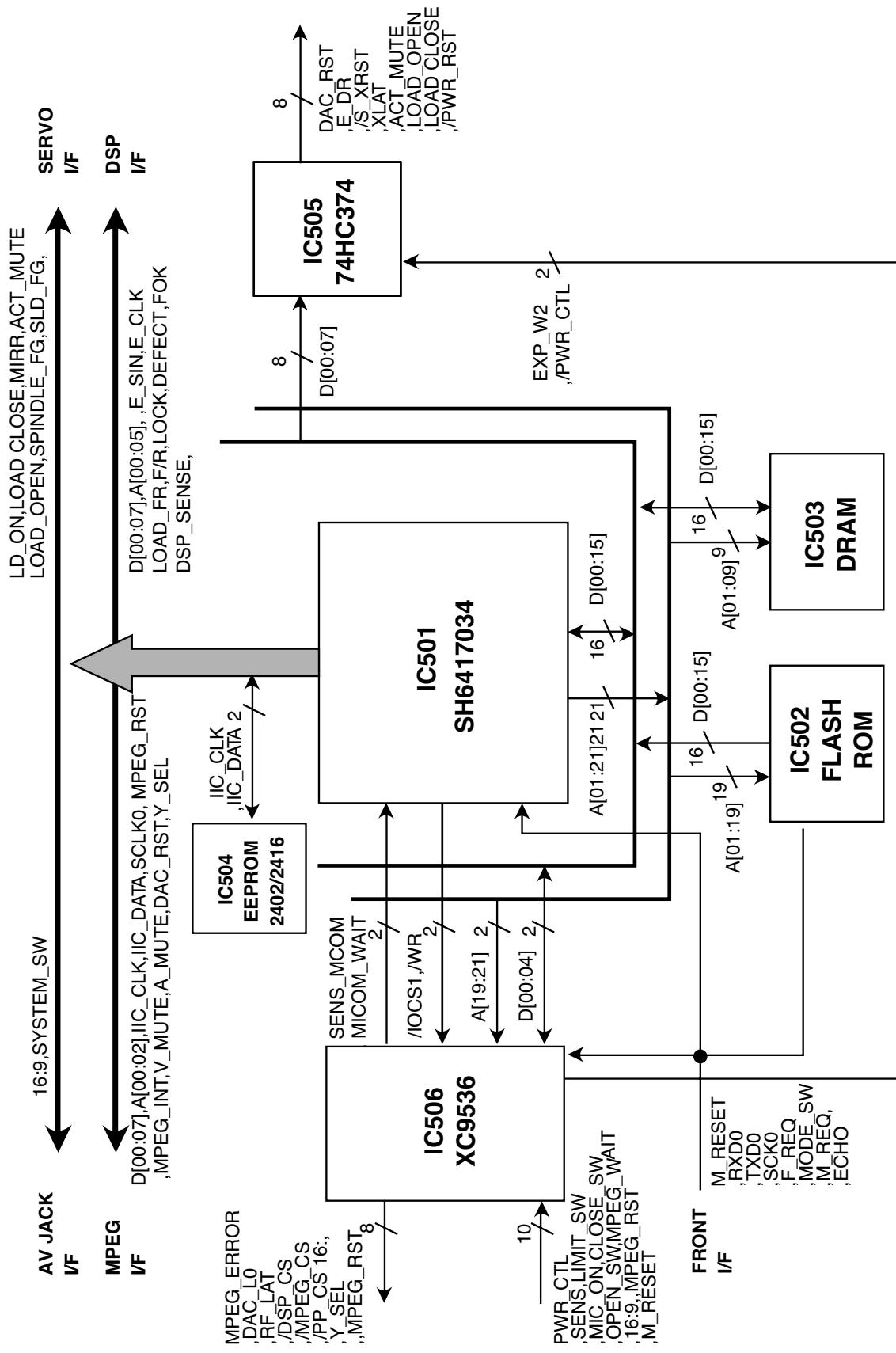
1. RF/CD DSP/DVD DSP/DVD SERVO Block Diagram



2. MPEG Block Diagram



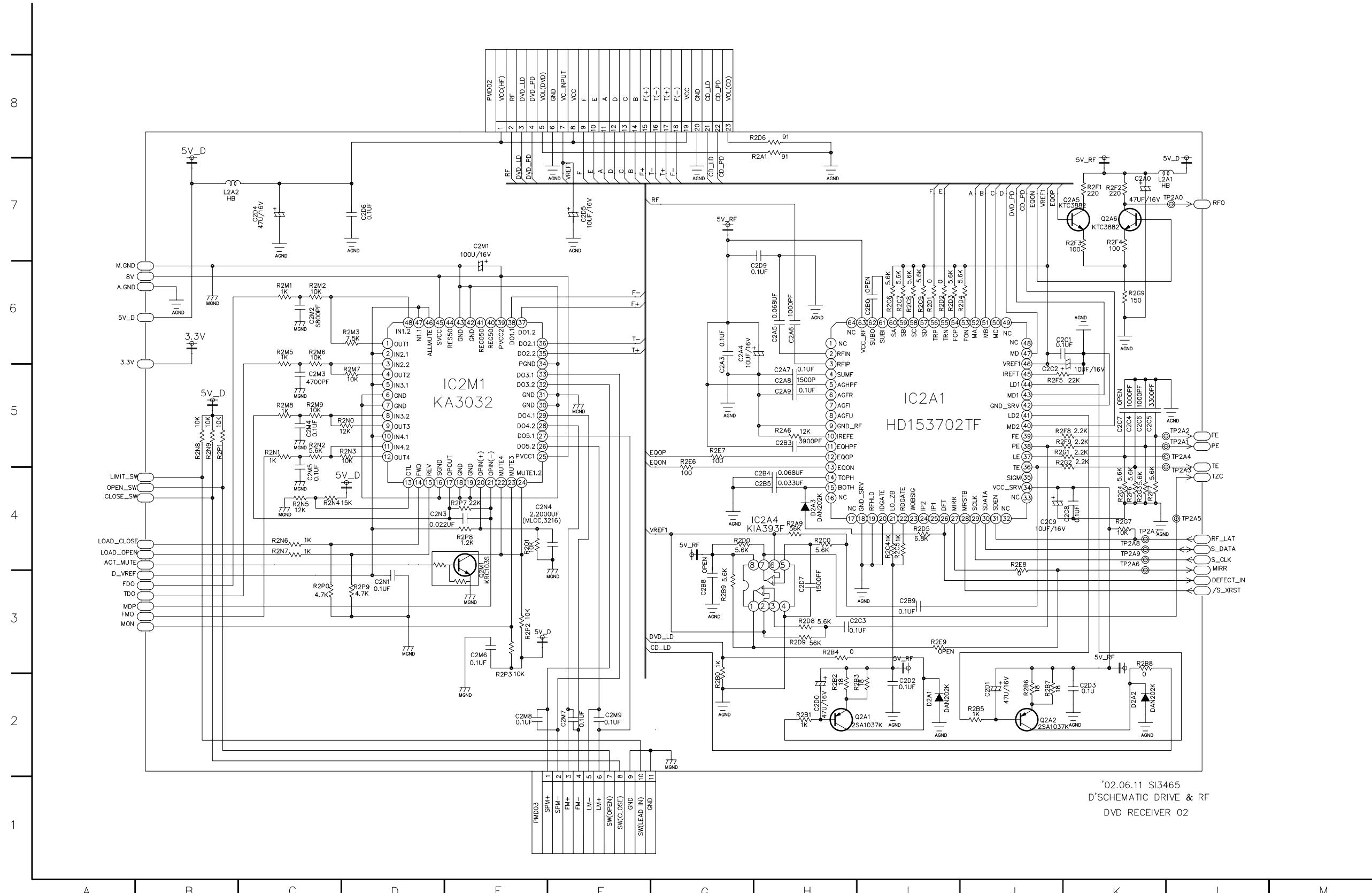
3. μ -COM Block Diagram



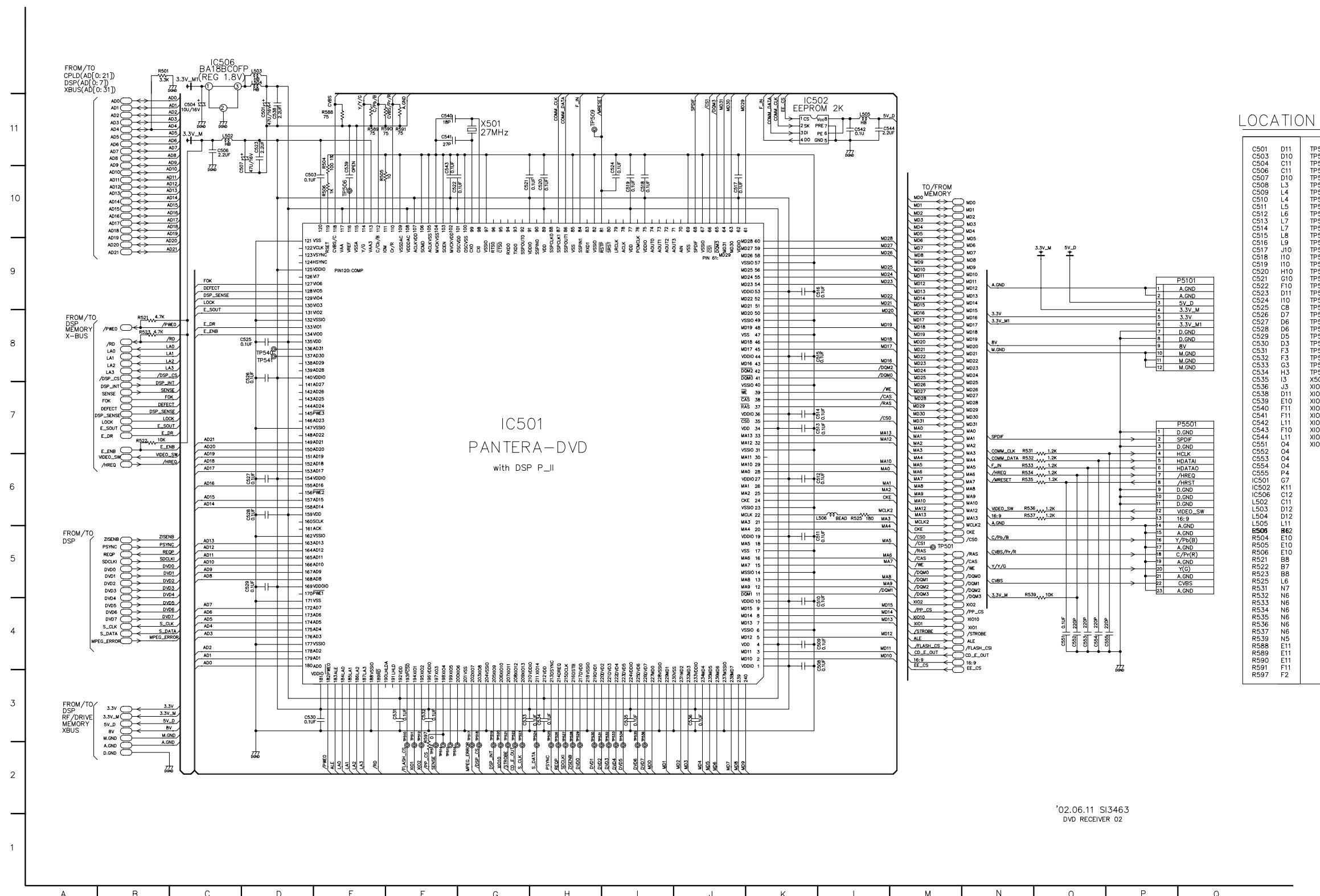
MEMO

SCHEMATIC DIAGRAMS

• DRIVE & RF SCHEMATIC DIAGRAM

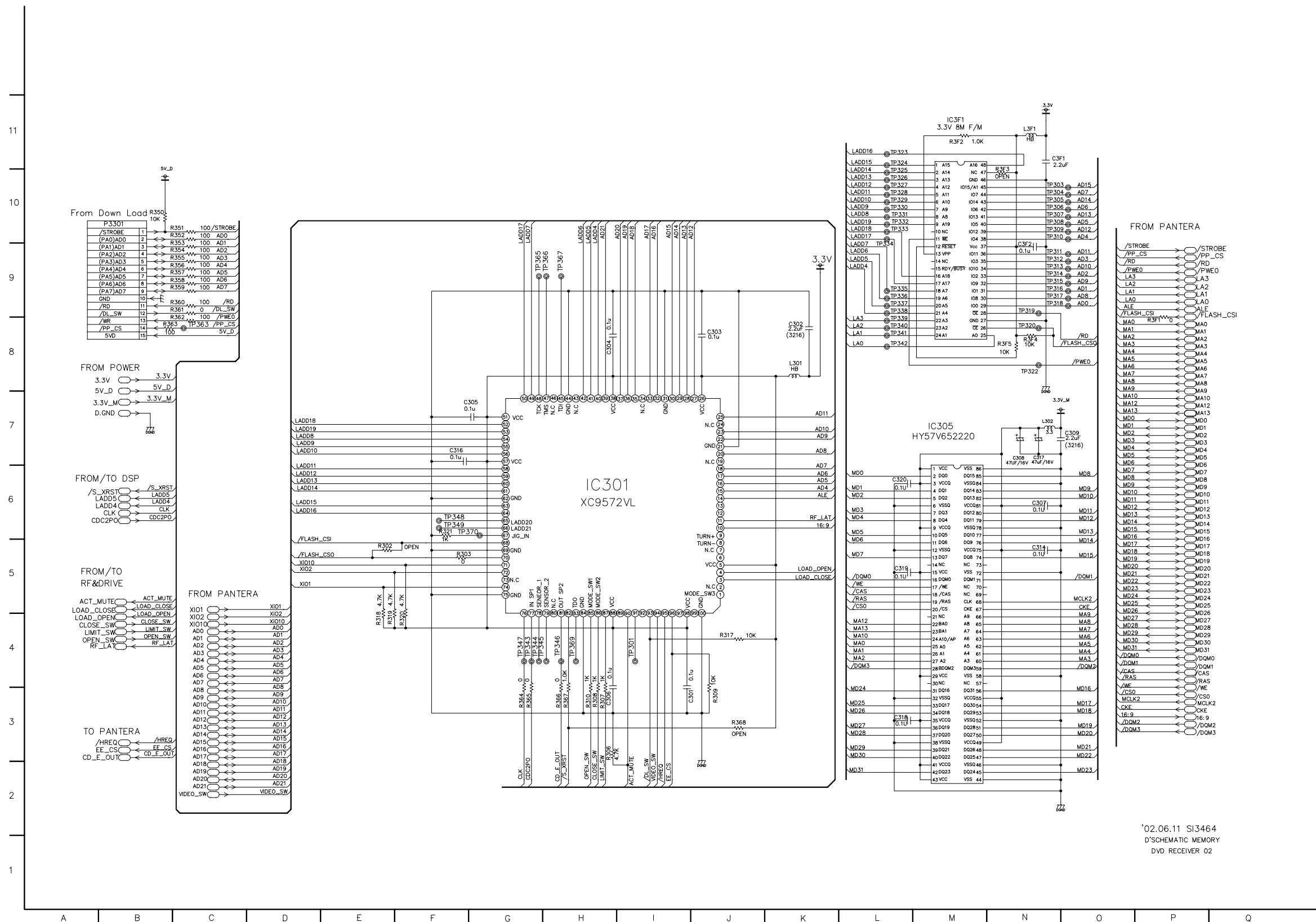


• MPEG SCHEMATIC DIAGRAM

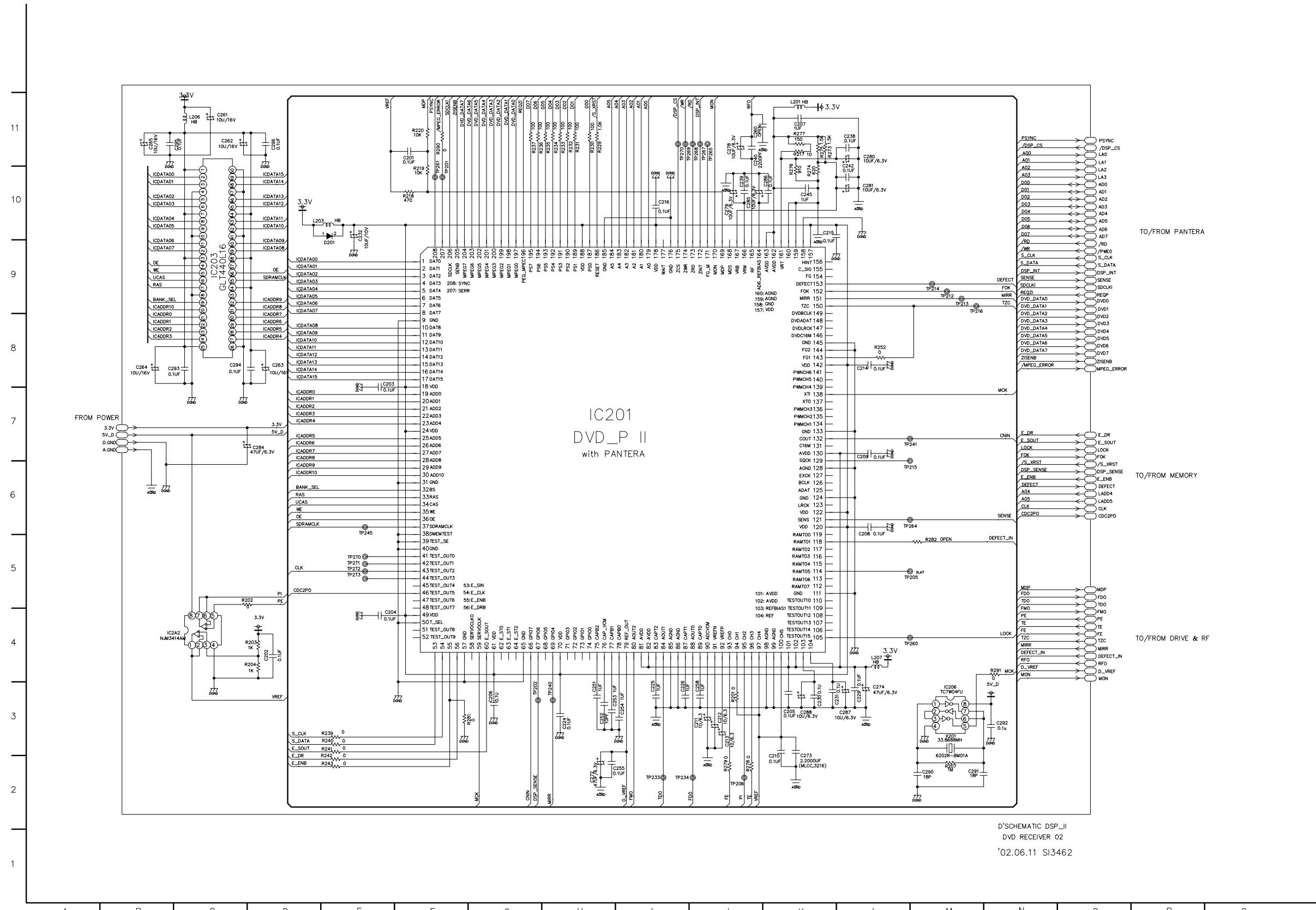


'02.06.11 SI3463
DVD RECEIVER 02

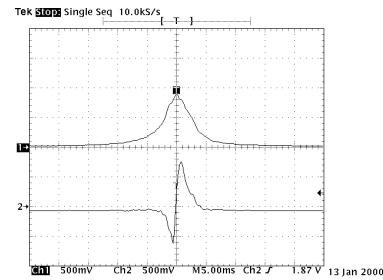
• µ-COM SCHEMATIC DIAGRAM



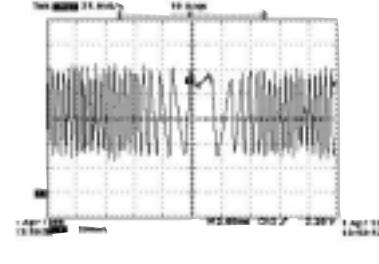
• DVD DSP(DIGITAL SIGNAL PROCESSING) SCHEMATIC DIAGRAM



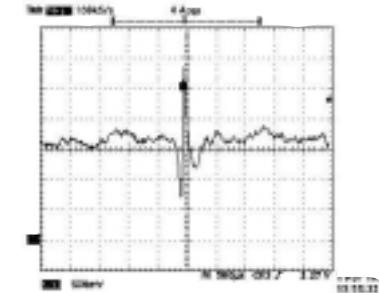
WAVEFORMS



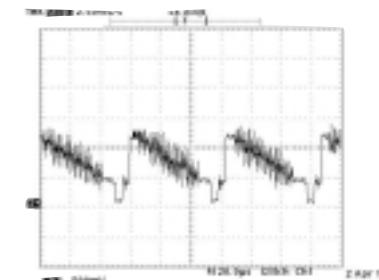
IC2A1 Pin 42, Focus Error
IC2A1 Pin 36, Pi



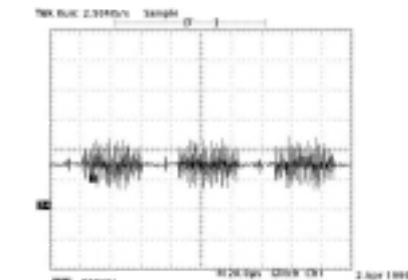
IC2A1 Pin 41
Tracking Error



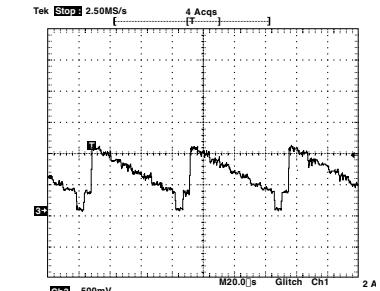
IC2A1 Pin 41
VBR TRACKING Error



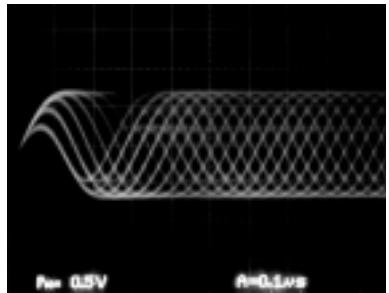
IC501 Pin 118, Composite



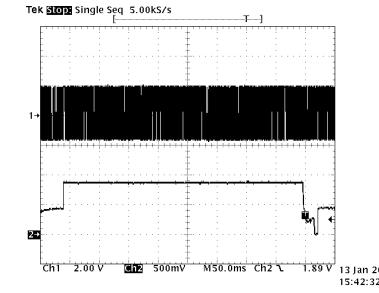
IC501 Pin 112, Chrominance
(Super video out Mode)



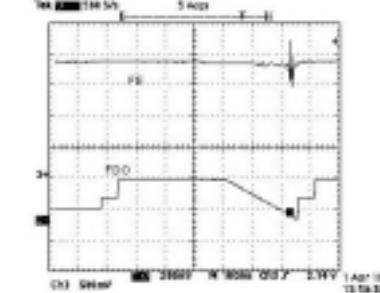
IC501 Pin 114, Luminance
(Super video out Mode)



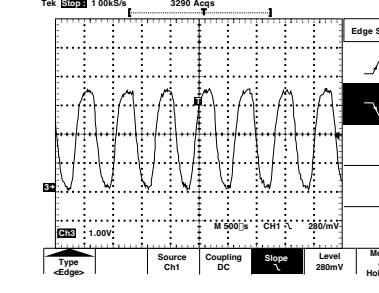
IC2A1 Pin 57
RF



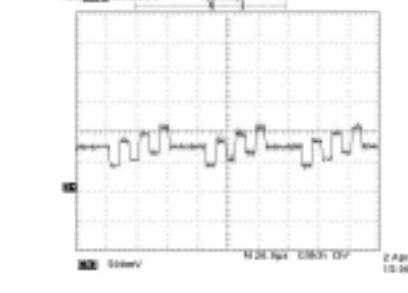
IC201, Pin 88, SLED Drive(FMO)
IC201, Pin 18 SLED FG



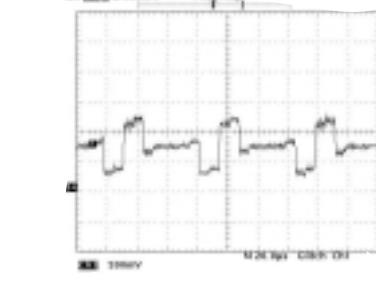
IC2A1 Pin 42, Focus Error(Focus Search)
IC2A1 Pin 83, Focus Drive(FDO)



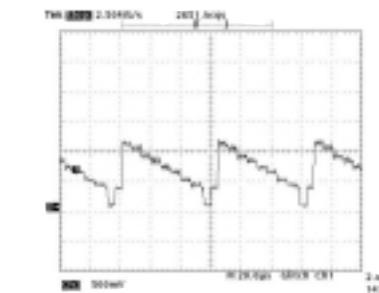
IC501 Pin 98,
MPEG Clock(27MHz)



IC501 Pin 114,
Component Pb



IC501 Pin 112,
Component Pr



IC501 PIN 118,
COMPONENT Y

• CIRCUIT VOLTAGE CHART

	IC203	IC201	IC301	IC3F1	IC501	IC305	IC2A1	IC2M1
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
1	3.18	3.16	3.12	0	3.17	3.16	0	0
2	3.12	2.69	3.12	0	0	0	0	2.11
3	3.12	2.69	3.12	0	3.16	0	0	2.12
4	0	0	3.12	0	3.16	0	0	1.75
5	3.12	2.74	3.12	3.17	3.16	0	0	0.49
6	3.12	2.71	3.12	3.12	3.17	3.16	0	0
7	3.18	3.17	3.12	0	0	0	0	0.37
8	3.12	2.68	3.12	3.12	3.17	3.16	0	0.35
9	3.12	2.63	0	0	0	3.13	2.92	0
10	0	0	3.12	3.12	0	0	0	3.22
11	3.12	2.7	3.12	3.12	0	0	0.41	1.72
12	3.12	2.7	3.12	0	0	3.2	3.2	0
13	3.18	3.17	3.12	3.12	3.17	3.16	3.2	3.2
14	0	0	3.12	0	0	0	0	0.46
15	3.12	3.04	3.12	0	0	0	0.79	3.06
16	3.12	0	3.12	0	2.17	2.18	3.19	0
17	3.12	3.02	3.12	0	0.38	2.21	0	0
18	0	0	3.13	3.12	0.41	0.61	0	0
19	0	0	3.13	0	0	0	0	0.71
20	0	0	3.12	0	0	0	0	3.22
21	3.13	0	3.13	0	0	0	0	3.13
22	3.13	3.17	0	0	0	0	0	3.22
23	3.13	0	0	0	0	0	0	1.64
24	0	0	3.13	0	0	0	0	0
25	3.18	0	3.12	0	0	0.31	3.11	0
26	0	0	0	3.21	3.16	3.17	3.2	0
27	0	0	0	3.12	0	0	0	3.22
28	3.12	0	0	0	0	3.11	0	0
29	0	3.12	0	0	0	0.61	1.07	0
30	0	0	0	0	0	0	0	0
31	0	3.17	0	3.12	0	0	0.6	0
32	0	0	0	0	0	0	0	3.22
33	3.1	0	3.12	0	0	0	0.59	0
34	3.18	0	3.12	0	0	0	0	1.75
35	1.5	0	3.12	0	0	0	0.61	0
36	0	3.12	0	0	0	0	0	3.22
37	0	0	1.51	0	0	0	3.18	0
38	3.18	0	0	0	3.17	3.16	0	0
39	3.12	3.12	0	0	0	0	3.22	3.08
40	3.12	3.12	0	0	0	2.17	0	0
41	0	3.17	0	0	0	0	0	0.56
42	3.12	0	0	0	0	0.38	2.28	0
43	3.12	0	0	0	0	0	0.34	3.03
44	3.18	0	0	0	0	0.41	0.65	3.22
45	3.12	0	0	3.17	3.15	0	0	0.45
46	2.76	3.12	1.56	0	0	0	0	0
47	0	0	0.91	0	3.17	3.15	0	0
48	3.12	1.65	0	2.19	0	0	0	0
49	3.12	3.14	0.53	0	0	0	0	3.03
50	0	0	0	0	0	0.43	0.39	0.36
51	0.64	0	3.17	0	0	0.42	0.45	0
52	0.43	0	3.17	3.19	0	0.43	0.35	0
53	0	0	3.11	2.91	0	3.12	3.11	0
54	2.58	0	0	0	0	0	0.41	0
55	0	0	0	0	0	0.33	3.03	3.05
56	3.11	0	0	0	0	0.39	0.36	0
57	0	0	3.17	3.19	0	0	0	2.3
58	1.65	0	0	0	0	0	0	2.3
59	1.79	0	0	0	0	0.42	0	0
60	0	0	0	0	0	0.44	0.4	0
61	3.13	0	0	0	0	0.44	0.47	0
62	0	0	0	0	0	3.12	3.11	0
63	3.13	0	0	0	0	0.45	0.35	0
64	0	0	0	0	0	0	0	0.78
65	0	0	0	0	0	0	0	0
66	3.12	0	0	0	0	0	0	0
67	0	0	0	0	0	0.31	3.11	3.1
68	3.13	3.12	3.11	3.1	0	1.51	0	1.6
69	4.08	0	0	0	0	1.5	0	0
70	3.13	0	0	3.16	0	1.47	0	0
71	0	0	3.11	3.1	0	0	0	0
72	3.13	3.13	0	0	0	0	0	0
73	0	0	0	0	0	0	0	0
74	0	0	3.11	3.1	0	0	0	0.45
75	0.78	0	0	0	0	3.12	3.11	3.04
76	1.41	0	0	0	0	1.48	1.26	0
77	0.77	0	0	0	0	1.74	1.74	0
78	0.77	0	0	0	0	1.54	1.54	0
79	2.1	2.11	3.17	0	0	1.56	1.55	0
80	2.12	2.11	0	0	0	3.11	3.1	0
81	3.18	0	3.17	0	0	3.01	3.01	1.69

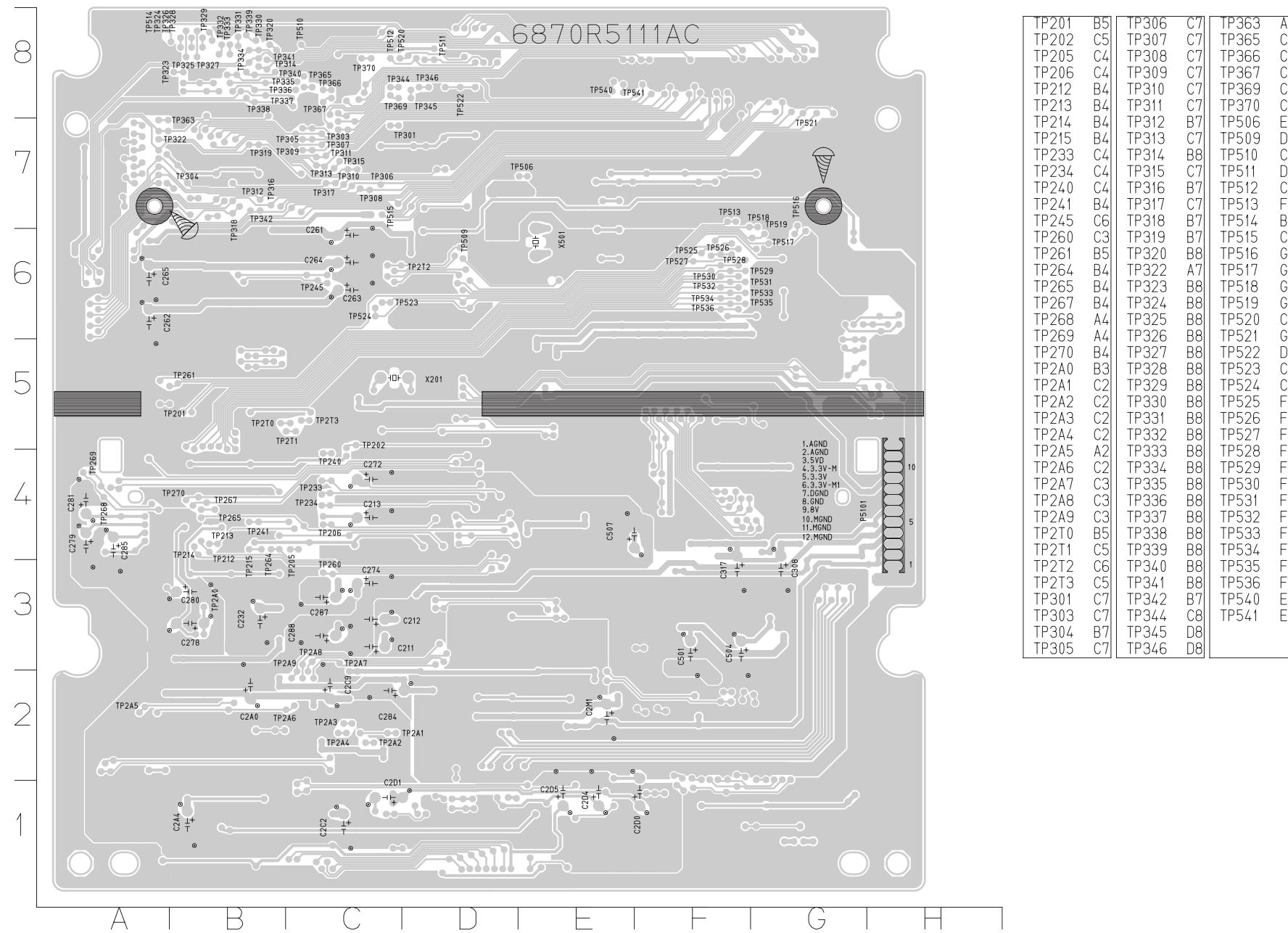
	IC203	IC201	IC301	IC3F1	IC501	IC305	IC2A1	IC2M1
PIN	STOP	PLAY	STOP	PLAY	STOP	PLAY	STOP	PLAY
82		3.18	0	3.17	3.19	0	0	0
83		1.93	1.93	2.12	2.27	0	0.33	0
84		2.11	2.11	0	0	1.74	5.12	0
85		0	0	4.41	4.41	0	0	0.33
86		0	0	0	0	0	0	0
87		1.93	0	0	0	1.42	3.11	
88		2.1	0	3.17	3.19	1.87	3.11	
89		1.93	1.92	2.66	0	1.67	1.74	
90		1.59	0	0	3.17	0	0	
91		0.8	0	3.19	0	3.11	3.11	
92		2.36	2.36	3.19	3.19	0	3.11	
93		2.24	1.6	3.19	3.19	3.11	3.11	
94		1.58	1.56	0	0	0.34		
95		1.64	1.62	3.13	3.13	0	0.34	
96		1.58	1.62	0	0	2.82	3.11	
97		1.58	1.56	3.19	3.19	0	0	
98		0	0	3.19	3.19	0.85	0.92	
99		0						

	Q2M1		Q2A1		Q2A6		Q2A5		Q2A2	
	STOP	PLAY								
E	0	0	5.02	0	0	2.41	2.34	2.35	5.02	4.95
B	0	0	0	0	3.62	3.72	3.82	0	0	0
C	0	3.14	0	0	0	3.1	0	0	5.01	4.94

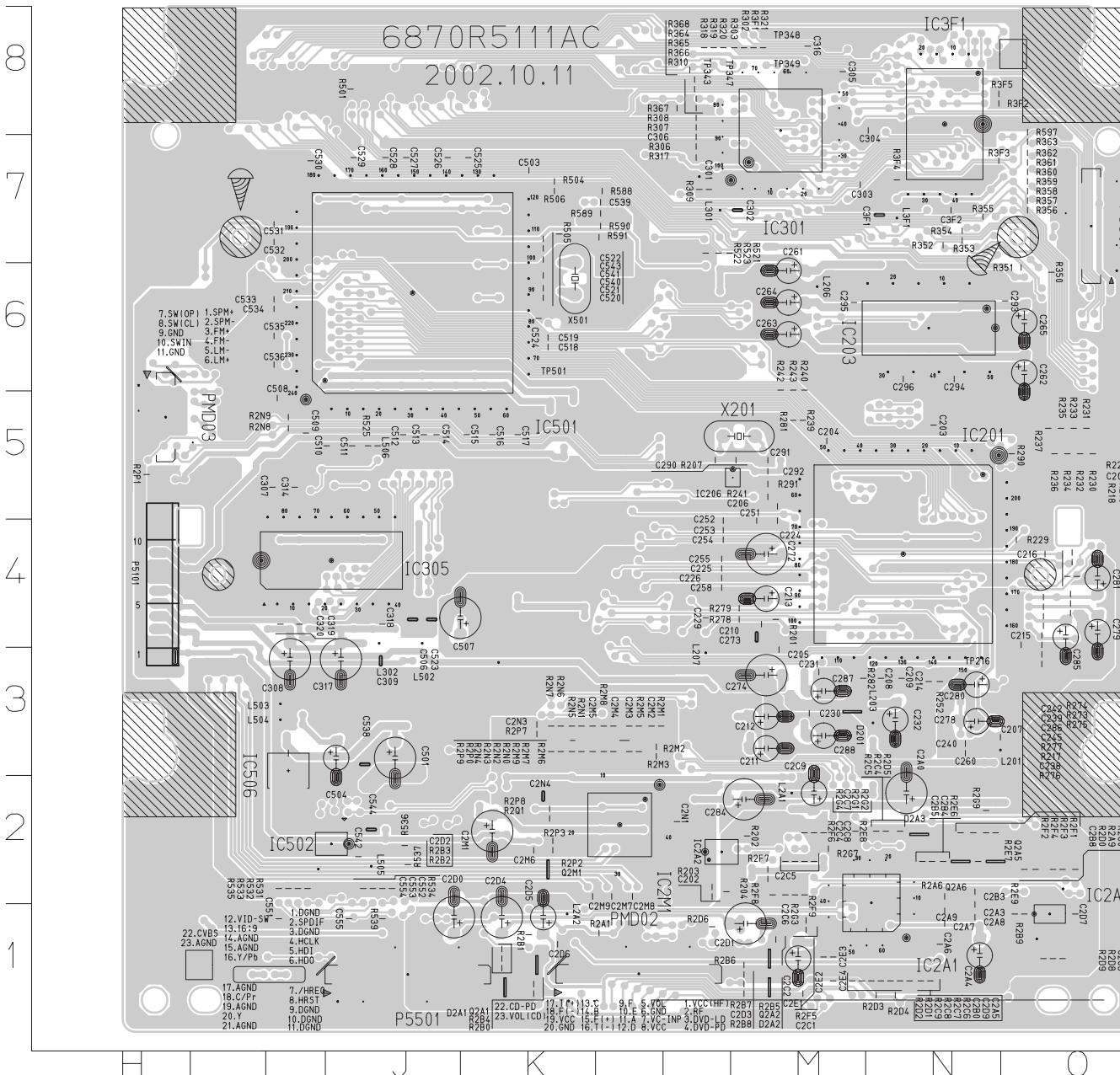
	Q610		Q611		Q609		Q613		Q614		Q612	
PIN	STOP	PLAY										
Emitter	0	0	0	0	0	0	0	0	0	0	0	0
Collector	0	0	0	0	0	0	0	0	0	0	0	0
Base	0.77	0.78	0.77	0.77	0.76	0.77	0.76	0.77	0.77	0.77	0.76	0.79

PRINTED CIRCUIT DIAGRAM

- #### • DVD P.C. BOARD(SOLDER SIDE)



• DVD P.C. BOARD(COMPONENT SIDE)

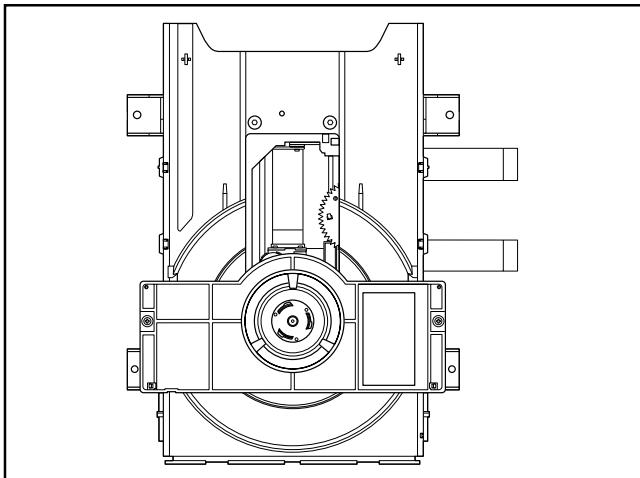


C201	04	C286	04	C2M4	L3	C526	J7	L502	J4	R291	M5	R2M1	L3	R361	07
C202	L2	C287	M3	C2M5	K3	C527	J7	L503	I3	R2A1	L1	R2M2	L3	R362	07
C203	N5	C288	M3	C2M6	K2	C528	J7	L504	I3	R2A6	N2	R2M3	L3	R363	07
C204	M5	C289	L5	C2M7	L2	C529	J7	L505	J2	R2A9	O2	R2M5	L3	R364	L8
C205	M3	C290	M5	C2M8	L2	C530	I7	L506	J5	R2B0	K1	R2M6	L3	R365	L8
C206	M5	C291	M5	C2M9	K2	C531	I7	P3301	07	R2B1	K1	R2M7	L3	R366	L8
C207	N3	C293	06	C2N1	L2	C532	I7	P5101	H3	R2B2	K1	R2M8	L3	R367	L8
C208	N3	C294	N6	C2N3	K3	C533	I6	P5501	J1	R2B3	K1	R2M9	L3	R368	L8
C209	N3	C295	M6	C2N4	K2	C534	I6	PMD02	L1	R2B4	K1	R2N0	L3	R3F1	M8
C210	M4	C296	N6	C301	L7	C535	I6	PMD03	H5	R2B5	M1	R2N1	K3	R3F2	N8
C211	M3	C2A0	N2	C302	M7	C536	I6	Q2A1	K1	R2B6	M1	R2N2	K3	R3F3	N7
C212	M3	C2A3	N1	C303	M7	C538	J3	Q2A2	M1	R2B7	M1	R2N3	K3	R3F4	N7
C213	M4	C2A4	N1	C304	N8	C539	L7	Q2A5	N2	R2B8	M1	R2N4	K3	R3F5	N8
C214	N3	C2A5	N1	C305	M8	C540	K6	Q2A6	N2	R2B9	O1	R2N5	K3	R501	J8
C215	O4	C2A6	N1	C306	L7	C541	K7	Q2M1	K2	R2C0	O2	R2N6	K3	R504	K7
C216	O4	C2A7	N1	C307	I5	C542	J2	R201	M4	R2C4	N2	R2N7	K3	R505	K7
C224	M4	C2A8	N1	C308	I3	C543	K7	R202	M2	R2C5	N2	R2N8	I5	R506	K7
C225	L4	C2A9	N1	C309	J3	C544	J2	R203	L2	R2C6	N1	R2N9	I5	R521	L7
C226	L4	C2B0	N1	C314	I5	C551	I1	R204	L2	R2C7	N1	R2P0	K3	R522	L7
C229	L4	C2B3	N2	C316	M8	C552	J2	R207	M5	R2C8	N1	R2P1	H5	R523	L7
C230	M3	C2B4	N2	C317	J3	C553	J2	R217	O4	R2C9	N1	R2P2	K2	R525	J5
C231	M3	C2B5	N2	C318	J4	C554	J2	R218	O4	R2D0	O2	R2P3	K2	R531	I2
C232	N3	C2B8	O2	C319	I4	C555	J1	R219	O4	R2D1	M1	R2P7	K3	R532	I2
C238	O3	C2B9	O2	C320	I4	D201	M3	R220	O4	R2D2	M1	R2P8	K2	R533	I2
C239	O4	C2C1	M1	C3F1	N7	D2A1	K1	R229	O4	R2D3	N1	R2P9	K3	R534	J2
C240	N3	C2C2	M1	C3F2	N7	D2A2	M1	R230	O5	R2D4	N1	R2Q1	K2	R535	I2
C242	O4	C2C3	O1	C501	J3	D2A3	N2	R231	O5	R2D5	N2	R302	M8	R536	J2
C245	O4	C2C4	M2	C503	K7	IC201	N4	R232	O5	R2D6	L1	R303	M8	R537	J2
C251	M4	C2C5	M2	C504	J3	IC203	N6	R233	O5	R2D8	O1	R306	L7	R539	J1
C252	L4	C2C6	M2	C506	J4	IC206	M5	R234	O5	R2D9	O1	R307	L8	R588	L7
C253	L4	C2C7	M2	C507	J4	IC2A1	N2	R235	O5	R2E6	N2	R308	L8	R589	L7
C254	L4	C2C8	M2	C508	I5	IC2A2	L2	R236	O5	R2E7	N2	R309	L7	R590	L7
C255	L4	C2C9	M2	C509	I5	IC2A4	O1	R237	O5	R2E8	M2	R310	L8	R591	L7
C258	L4	C2D0	J1	C510	J5	IC2M1	L2	R239	M5	R2E9	O1	R317	L7	R597	O8
C260	N3	C2D1	M1	C511	J5	IC301	M8	R240	M6	R2F1	N2	R318	L8	TP216	N3
C261	M6	C2D2	K1	C512	J5	IC305	J4	R241	M5	R2F2	N2	R319	L8	TP343	L8
C262	O6	C2D3	K1	C513	J5	IC3F1	N8	R242	M6	R2F3	N2	R320	L8	TP347	L8
C263	M6	C2D4	K1	C514	J5	IC501	J6	R243	M6	R2F4	N2	R321	M8	TP348	M8
C264	M6	C2D5	K1	C515	K5	IC502	J2	R252	N3	R2F5	M1	R350	O6	TP349	M8
C265	O6	C2D6	K1	C516	K5	IC506	I3	R273	O4	R2F6	M2	R351	O6	TP501	K6
C272	M4	C2D7	O1	C517	K5	L201	N3	R274	O4	R2F7	M2	R352	N7	X201	M5
C273	M4	C2D9	N1	C518	K6	L203	N3	R275	O4	R2F8	M2	R353	N7	X501	K6
C274	M3	C2E1	M1	C519	K6	L206	M6	R276	O3	R2F9	M2	R354	N7		
C278	N3	C2E2	M1	C520	K6	L207	L3	R277	O4	R2G1	M2	R355	N7		
C279	O4	C2E3	M1	C521	K6	L2A1	M2	R278	M4	R2G2	M2	R356	O7		
C280	N3	C2E4	M1	C522	K7	L2A2	K1	R279	M4	R2G3	M2	R357	O7		
C281	O4	C2M1	K2	C523	J4	L301	L7	R281	M5	R2G4	M2	R358	O7		
C284	M2	C2M2	L3	C524	K6	L302	J4	R282	M3	R2G7	M2	R359	O7		
C285	O4	C2M3	L3	C525	K7	L3F1	N7	R290	O5	R2G9	N2	R360	O7		

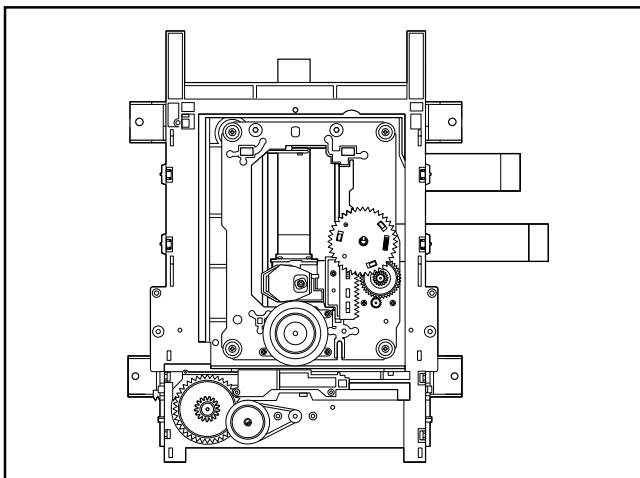
SECTION 4. MECHANISM

■ DECK MECHANISM PARTS LOCKATION

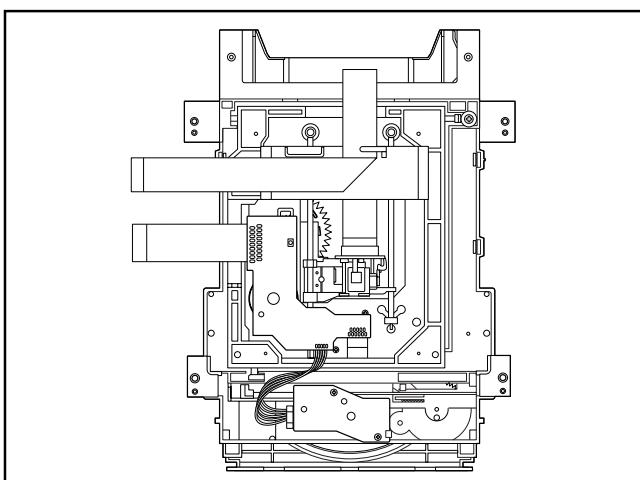
• Top View(With Tray)



• Top View(Without Tray)



• Bottom View



Procedure Starting No.	Parts	Fixing Type	Disassembly	Figure
	1 Holder Clamp	2 Screws, 2 Locking Tabs		4-1
1	2 Clamp Assembly Disc			4-1
1, 2	3 Plate Clamp			4-1
1, 2, 3	4 Magnet Clamp			4-1
1, 2, 3, 4	5 Clamp Upper			4-1
1	6 Tray Disc			4-2
1, 6	7 Base Assembly Sled			4-3
1, 2, 6	8 Gear Assembly Feed	4 Screws, 1 Connector 1 Locking Tabs		4-3
1, 2, 6, 8	9 Gear Middle			4-3
1, 2, 6, 8, 9	10 Gear Assembly Rack	1 Screw		4-3
1, 2, 7	11 Rubber Rear			4-3
1, 2, 7	12 Frame Assembly Up/Down	1 Screw	Bottom	4-4
1, 2	13 Belt Loading	1 Locking Tab		4-4
1, 2, 13	14 Gear Pulley			4-4
1, 2, 13, 14	15 Gear Loading	1 Locking Tab		4-4
1, 2, 7, 12, 13, 14	16 Guide Up/Down			4-4
1, 2, 13	17 PWB Assembly Loading	1 Locking Tab 1 Hook 2Screw	Bottom	4-4
1, 2, 7, 12, 13, 14, 15, 16, 17	18 Base Main	2 Locking Tabs		4-4

Note

When reassembling, perform the procedure in reverse order.

The “Bottom” on Disassembly column of above Table indicates the part should be disassembled at the Bottom side.

■ DECK MECHANISM DISASSEMBLY

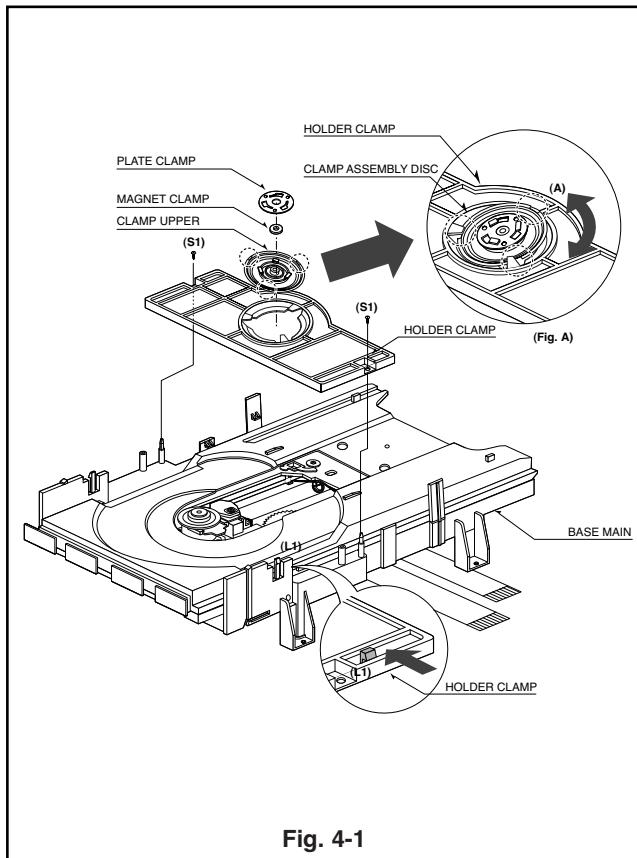


Fig. 4-1

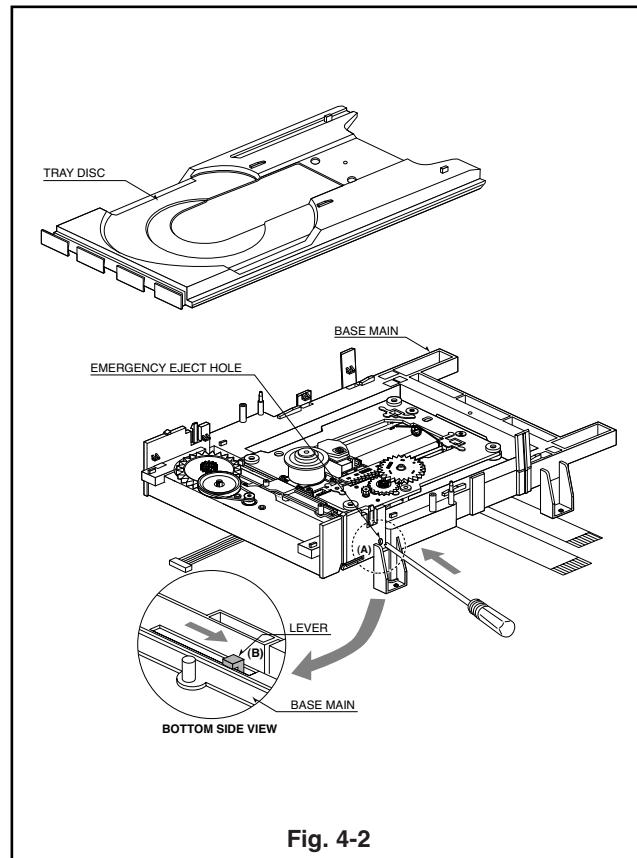


Fig. 4-2

1. Holder Clamp (Fig. 4-1)

- 1) Release 2 Screws(S1).
- 2) Unhook 2 Locking Tabs(L1).
- 3) Lift up the Holder Clamp and then separate it from the Base Main.

1-1. Clamp Assembly Disc

- 1) Place the Clamp Assembly Disc as Fig. (A)
- 2) Lift up the Clamp Assembly Disc in direction of arrow(A).
- 3) Separate the Clamp Assembly Disc from the Holder Clamp.

1-1-1. Plate Clamp

- 1) Turn the Plate Clamp to counterclockwise direction and then lift up the Plate Clamp.

1-1-2. Magnet Clamp

1-1-3. Clamp Upper

2. Tray Disc (Fig. 4-2)

- 1) Insert and push a Driver in the emergency eject hole(A) at the right side, or put the Driver on the Lever(B) of the Gear Emergency and pull the Lever(B) in direction of arrow so that the Tray Disc is ejected about 15~20mm.
- 2) Pull the Tray Disc until it is separated from the Base Main completely.

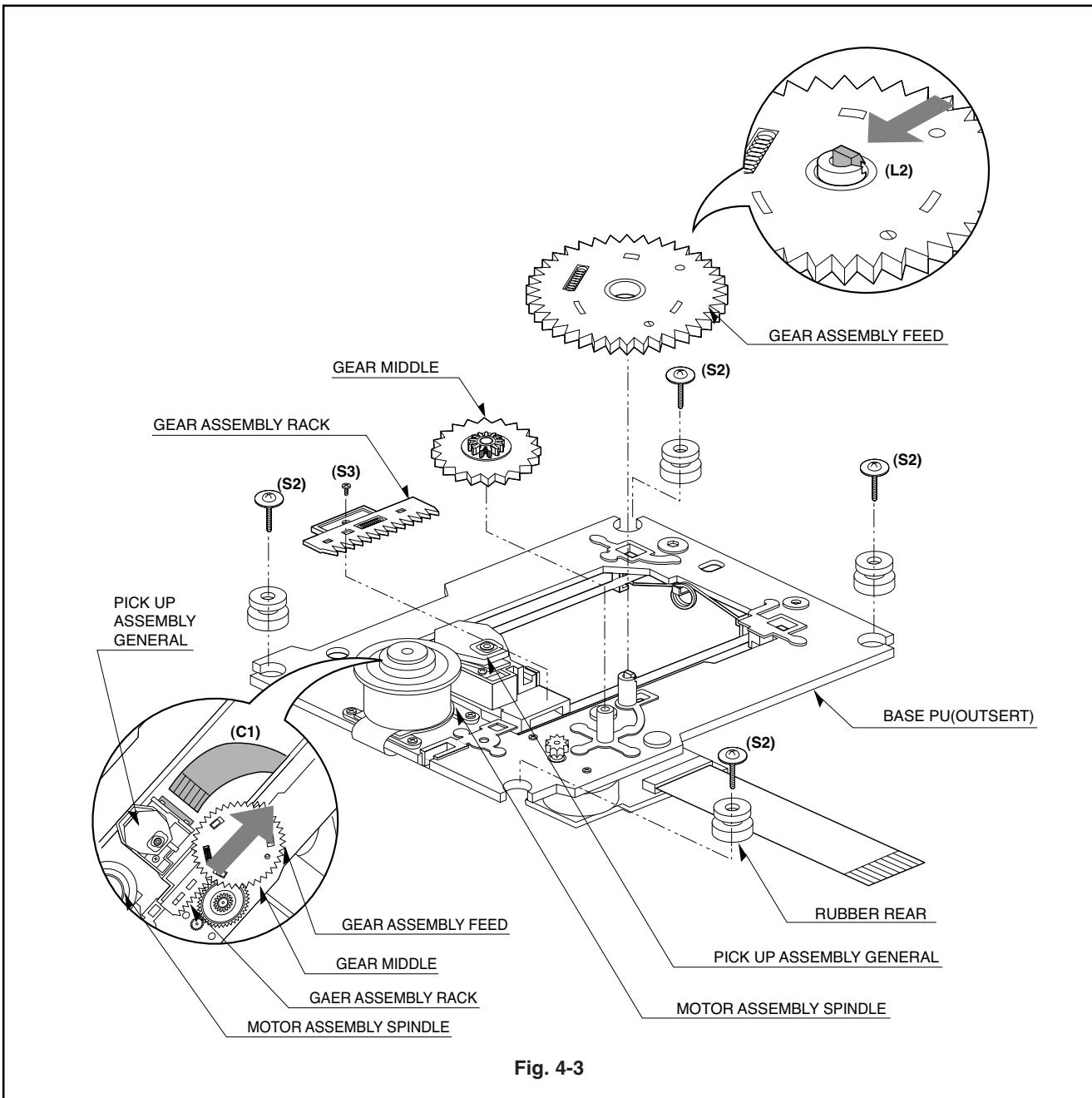


Fig. 4-3

3. Base Assembly Sled (Fig. 4-3)

- 1) Release 4 Screw(S2).
- 2) Disconnect the FFC Connector(C1)

3-1. Gear Assembly Feed

- 1) Unhook the Locking Tab(L2) in direction of arrow.

3-2. Gear Middle

3-3. Gear Assembly Rack

- 1) Release the Scerw(S3)

4. Rubber Rear (Fig. 4-3)

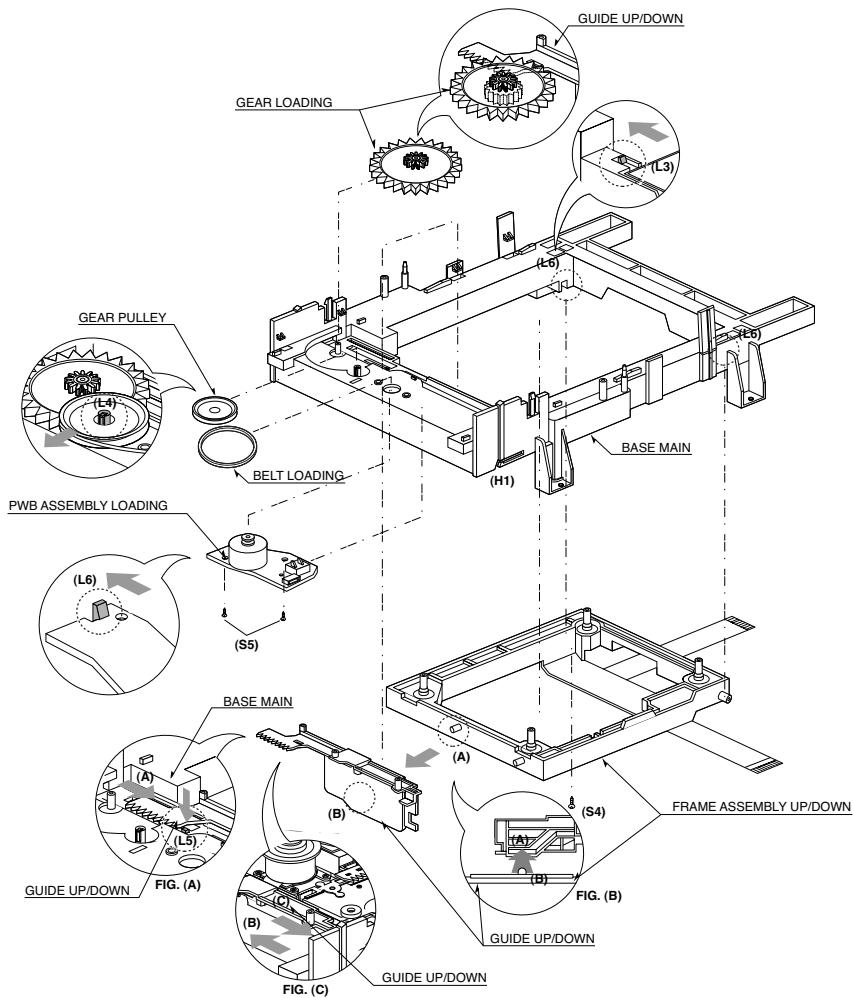


Fig. 4-4

5. Frame Assembly Up/Down

Note

Put the Base Main face down(Bottom Side)

- 1) Release the Screw(S4)
- 2) Unlock the Locking Tab(L3) in direction of arrow and then lift up the Frame Assembly Up/Down to separate it from the Base Main.

Note

- When reassembling move the Guide Up/Down in direction of arrow(C) until it is positioned as Fig.(C).
- When reassembling insert (A) portion of the Frame Assembly Up/Down in the (B) portion of the Guide Up/Down as Fig.(B)

6. Belt Loading(Fig. 4-4)

Note

Put the Base Assembly Main on original position(Top Side)

7. Gear pulley (Fig. 4-4)

- 1) Unlock the Locking Tab(L4) in direction of arrow(B) and then separate the Gear Pulley from the Base Main.

8. Gear Loading (Fig. 4-4)

9. Guide Up/Down (Fig. 4-4)

- 1) Move the Guide Up/Down in direction of arrow(A) as Fig.(A)
- 2) Push the Locking Tab(L5) down and then lift up the Guide Up/Down to separate it from the Base Main.

Note

When reassembling place the Guide Up/Down as Fig.(C) and move it in direction arrow(B) until it is locked by the Locking Tab(L5). And confirm the Guide Up/Down as Fig.(A)

10. PWB Assembly Loading

Note

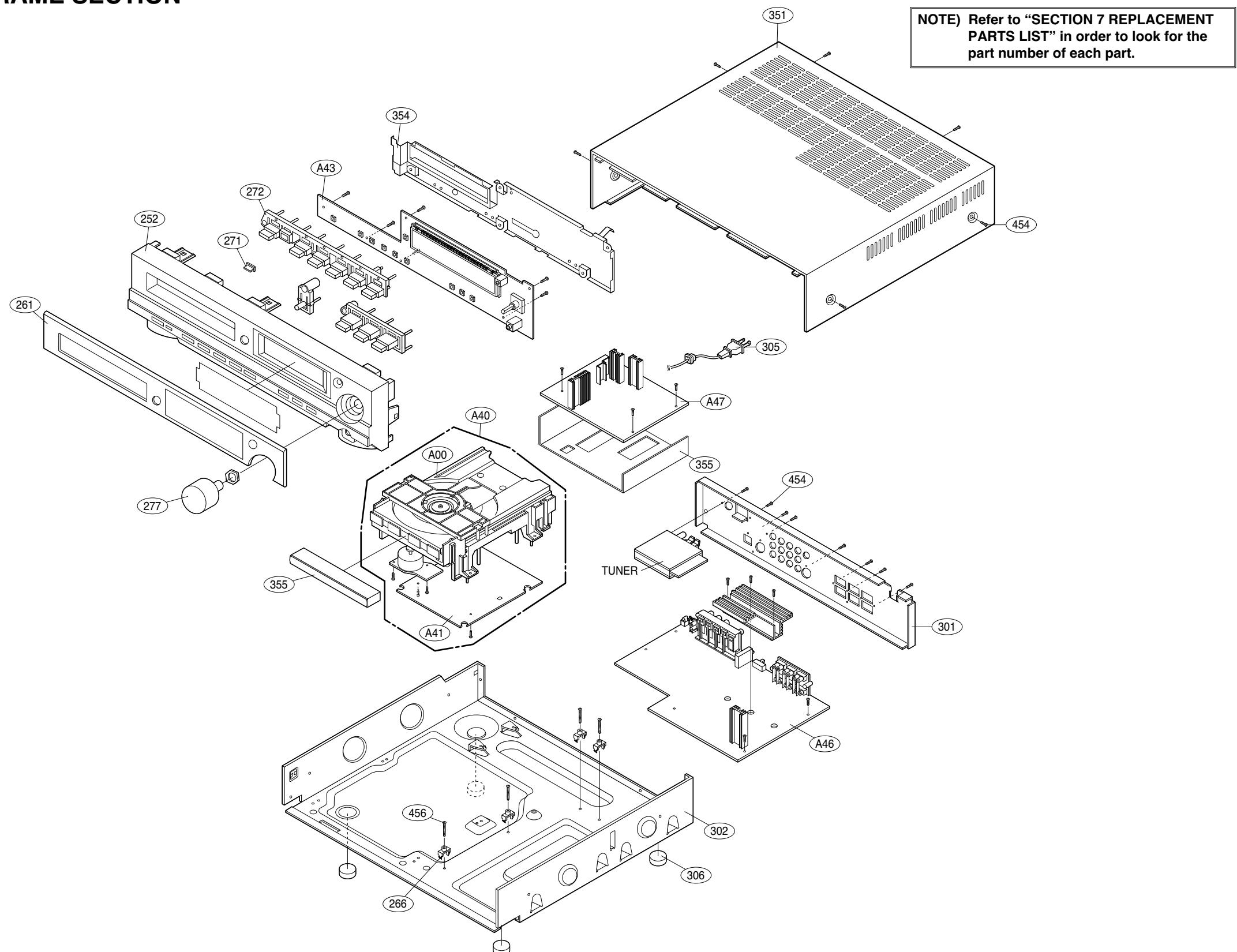
Put the Base Main face down(Bottom Side)

- 1) Release 2 Screws(S5)
- 2) Unkool the Loading Motor Connector (C2) from the Hook (H1) on the Base Main.
- 3) Unlock 2 Locking Tabs(L6) and separate the PWB Assembly Loading from the Base Main.

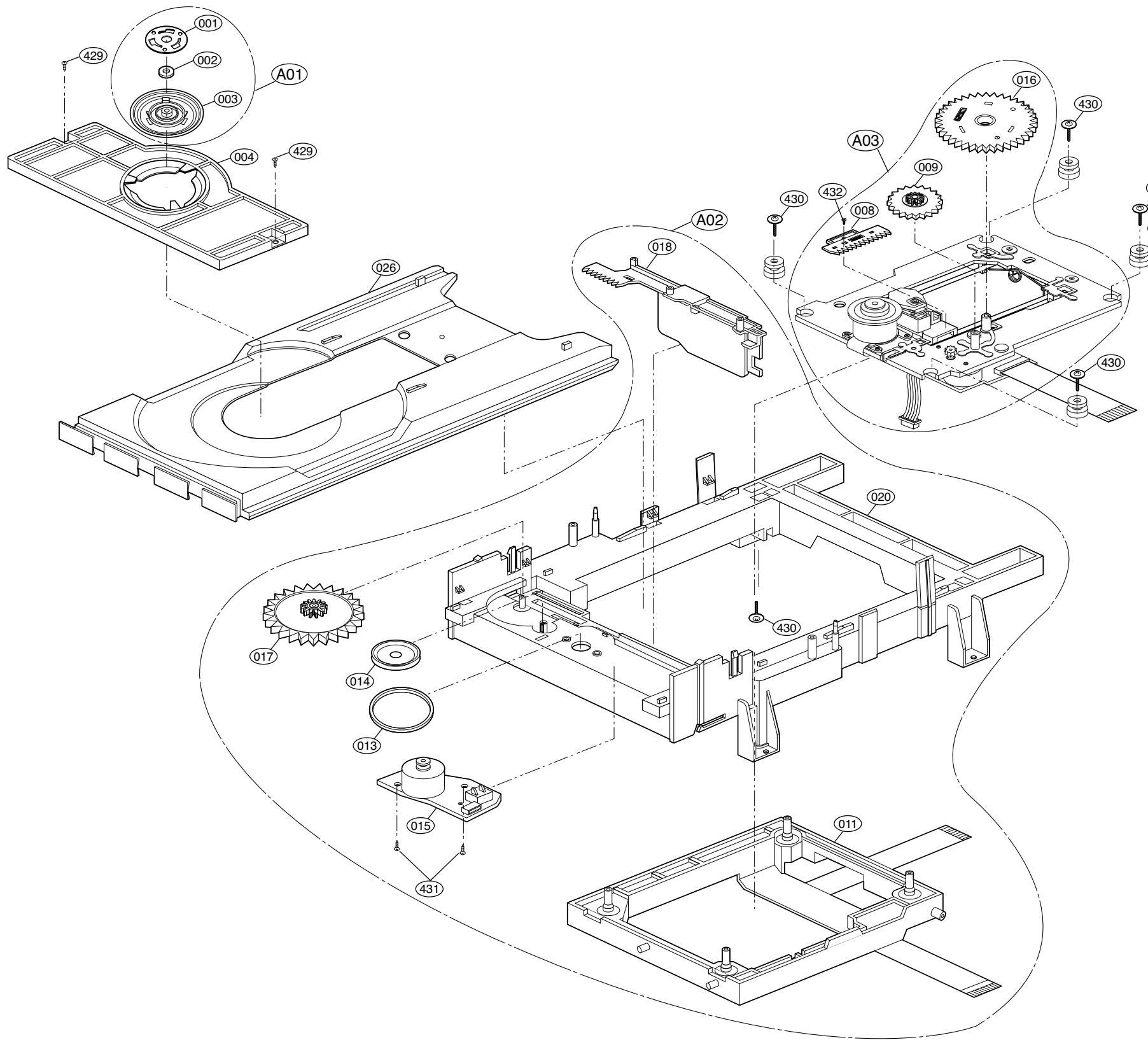
11. Base Main(Fig. 4-4)

SECTION 5. EXPLODED VIEWS

• CABINET AND MAIN FRAME SECTION



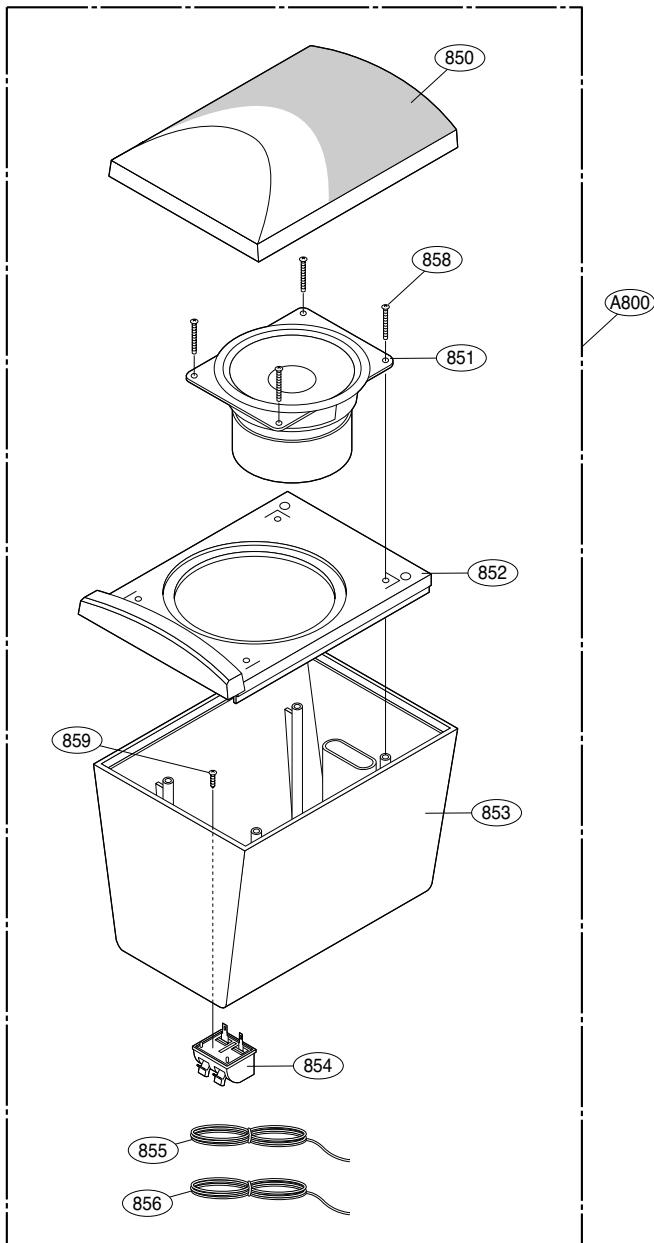
• Deck Mechanism Exploded View



LOCA.NO.	PART NO	DESCRIPTION	SPECIFICATION
A00	6721RJ0354A	DECK ASSEMBLY,VIDEO	DP-5RM MULTI -HZ
A01	4861R-0006B	CLAMP ASSEMBLY	DISC(DP2)-SH
A02	3041R-0057A	BASE ASSEMBLY	MAIN(DP-4R MULTI)-HZ
A03	3041R-D001A	BASE ASSEMBLY	DP5 MULTI (SLED)- HZ
001	3300R-0547A	PLATE	CLAMP
002	5016H-1016B	MAGNET	CLAMP(LDM-R608,10*5,1*1.5T)
003	4860R-0006A	CLAMP	UPPER
004	4930R-0171A	HOLDER	CLAMP
008	4470R-0047A	GEAR	ASSY RACK
009	4470R-0053A	GEAR	MIDDLE
011	3210R-0058A	FRAME	UP/D (MULTI)
012	5040R-0047B	RUBBER	DAMPER(E2,5040H-1054A),CHUNPOO
012A	5040R-0047D	RUBBER	DAMPER(HARDNESS=30),DARKGREEN
013	4400R-0006A	BELT	LOADING
014	4470R-0055A	GEAR	PULLEY
015	6871R-4415E	PWB(PCB) ASSEMBLY,TOTAL	LOADING DP-4R MULTI HZ
016	4470R-0050A	GEAR	ASSY FEED
017	4470R-0056A	GEAR	LOADING
018	4974R-0023A	GUIDE	UP/DOWN
020	3040R-0076A	BASE	MAIN(DP-5RM MULTI)
026	3390R-0012A	TRAY	DISC(DP-5RM MULTI)
429	1SZZR-0012A	SCREW,	B-TITE
430	1SZZH-1003A	SCREW,	+ D2.0 6MM SWRCH16A/NIY 4.5MM
431	1SZZH-1007B	SCREW,DRAWING	+ D2.0 6MM SWRCH16A/ZNBK 4MM 1
432	1SZZR-0011A	SCREW,	MACHINE

SECTION 6. SPEAKER PART

MODEL: FE-3620TE

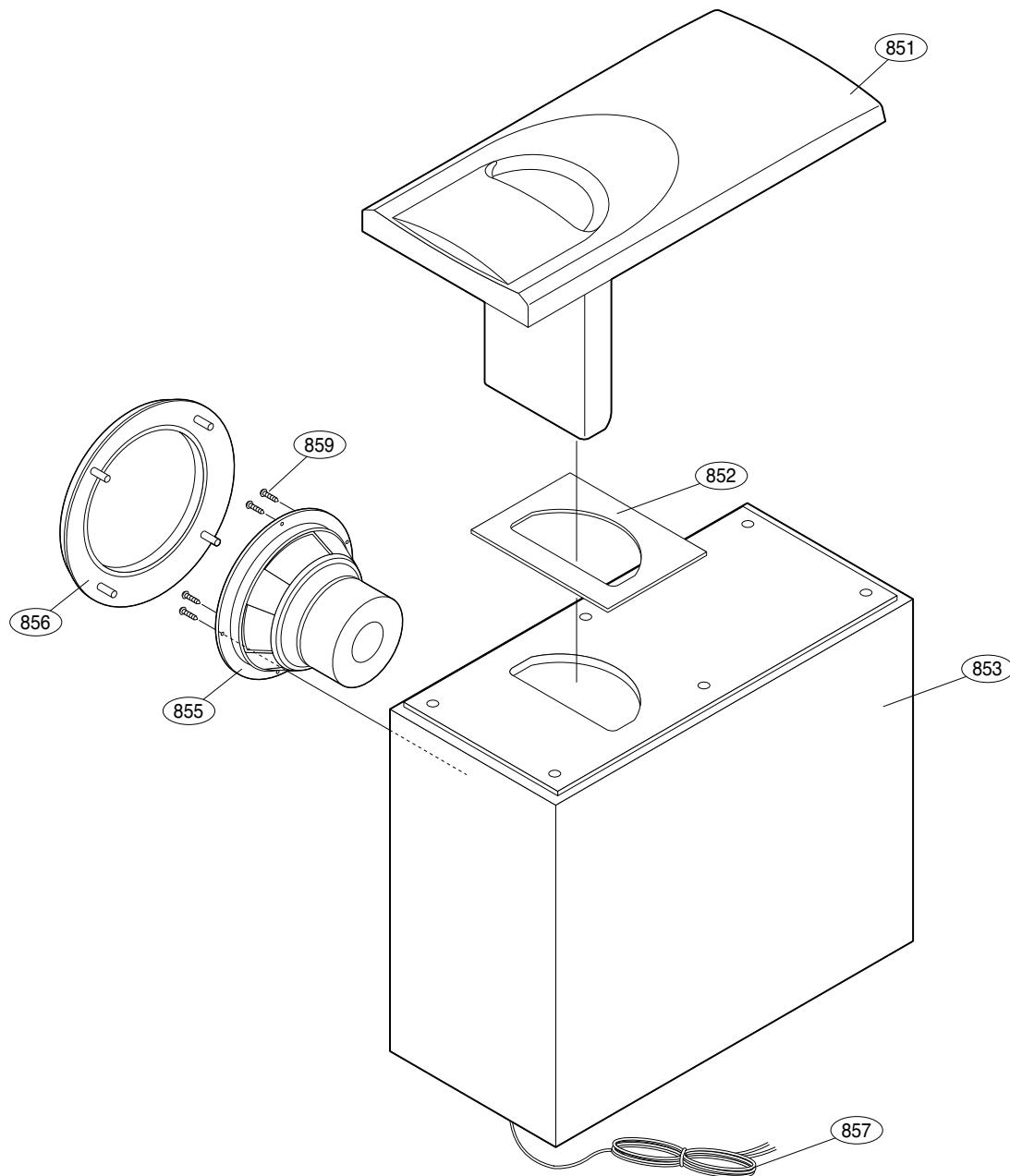


RUN DATE : 13.FEBRUARY.2003

LOCA.NO.	PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
850	3701RM0022A	NET ASSEMBLY	ASSY FE-3620TE STANDARD	
851	6400RMSC02B	SPEAKER,FULLRANGE	MSF-30SB30L-1 SAMMI FULL-RANGE	
852	3720RMF026A	PANEL,FRONT	FRONT FE-3620TE STANDARD	
853	3110RM0009A	CASE	REAR FE-3620TE STANDARD	
854	6871RU4116B	PWB(PCB) ASSEMBLY, SUBSET(AUDIO)	FE-3620TE 2P NEW TERMINAL 150M	
855	6871RU4117E	PWB(PCB) ASSEMBLY, SUBSET(AUDIO)	FE-3620TE HOUSING +0.16 11C 5M	
856	6871RU4117F	PWB(PCB) ASSEMBLY, SUBSET(AUDIO)	FE-3620TE HOUSING +0.16 11C 10	
857	3806RM0006B	DECO	FE-3620TE AIR PLATE	
858	353M025U	SCREW,DRAWING	+ 2 D3.0 L27.0 MSWR3/FZB	
859	353M025G	SCREW	TAPTTITE, 3X10 FZMY	
A800	6401RM0001A	SPEAKER ASSEMBLY	CW-165B30L-1 SAMMI FE-3620TE S	

SECTION 6. SPEAKER PART

MODEL: FE-3620WE



RUN DATE : 13.FEBRUARY.2003

LOCA.NO.	PART NO.	DESCRIPTION	SPECIFICATION	REMARKS
851	3720RMF027A	PANEL,FRONT	FRONT FE-3620WE STANDARD	
852	4766RM0006B	FELT	DUCT FE-3620WE 320X10X1T BLACK	
853	3091RMW010G	CABINET ASSEMBLY	ASSY,FE-3620WE BF/BB E-1 9T C	
855	6400RMSJ02B	SPEAKER,WOOFER	CW-165B30L-1 SAMMI WOOFER 3620	
856	3701RM0005C	NET ASSEMBLY	ASSY, FE-3620WE STANDARD	
857	6871RU3091D	PWB(PCB) ASSEMBLY,SUBSET(AUDIO)	FE-3620WE HOUSING +AWG 24 2.5M	
859	353M050C	SCREW	BH 3.5X16 FBK	