



# SERVICE MANUAL

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MODELS : T531B/T531C/T531AH

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**T531B  
T531C  
T531AH**  
DVD VIDEO PLAYER

DVD VIDEO PLAYER

**T531B/T531C  
T531AH**



**T531B/T531C  
T531AH**  
DVD VIDEO PLAYER

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NAD ELECTRONICS INTERNATIONAL  
TORONTO

# CIRCUIT DIAGRAM

## 1. POWER(SMPS) CIRCUIT DIAGRAM

### IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE NAD ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIR-

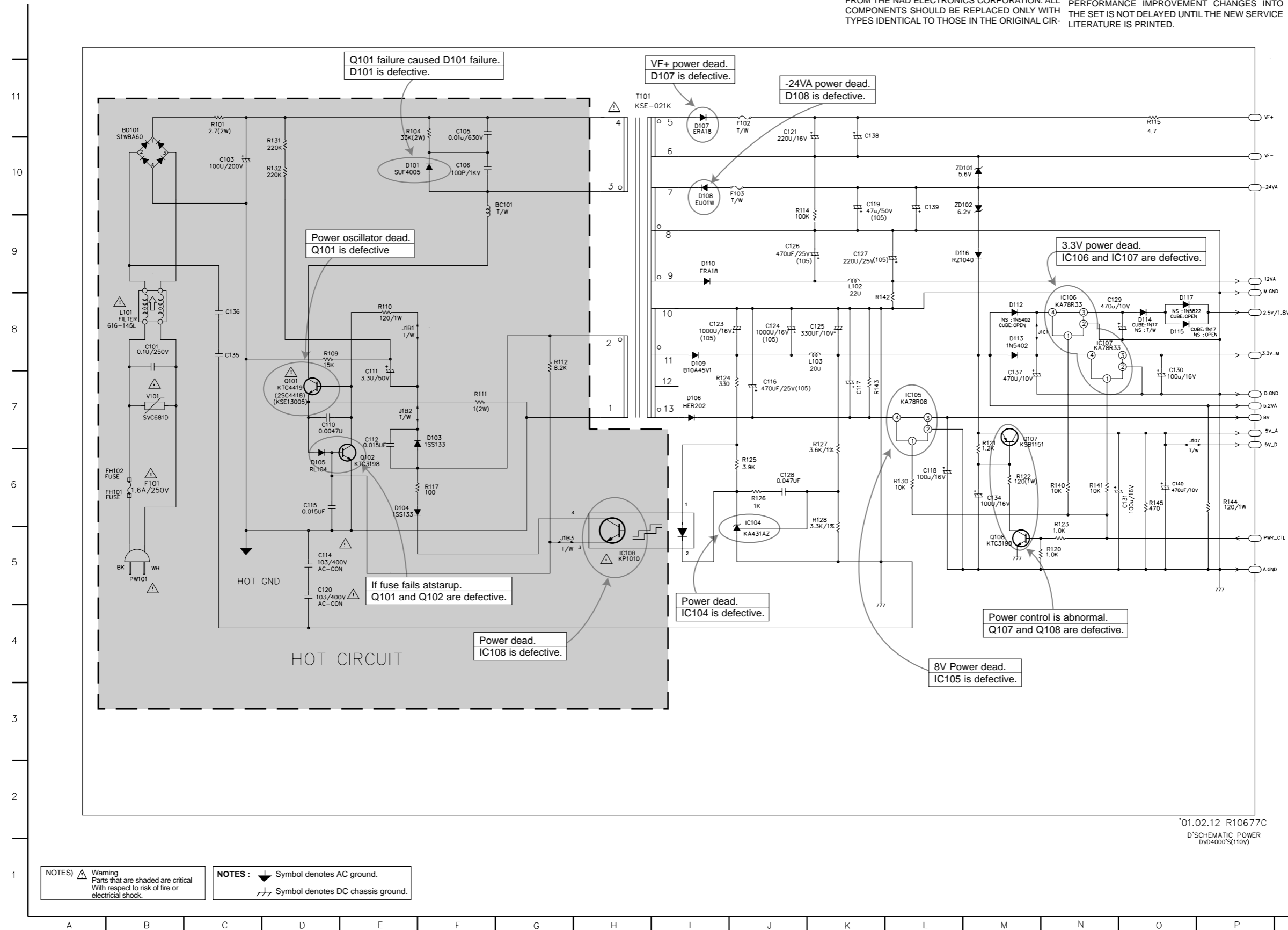
CUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

### NOTE :

1. Shaded(■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.

### LOCATION GUIDE

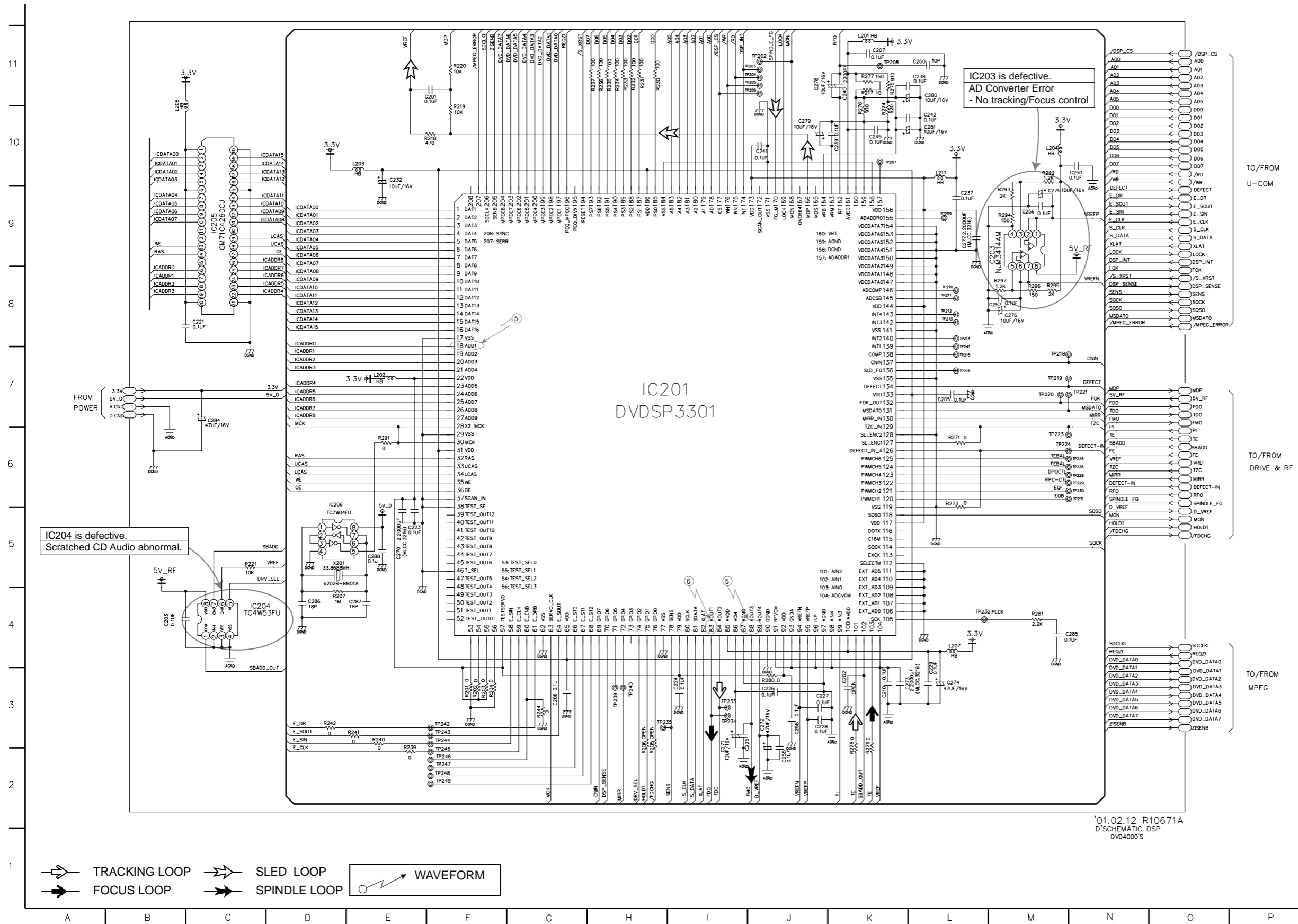
BC101	G10
BD101	B11
C101	B8
C103	C10
C105	F11
C106	F10
C110	D7
C111	E7
C112	E7
C114	D5
C115	D6
C116	J7
C117	K7
C118	L6
C119	K10
C120	D5
C121	J11
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	N8
C130	O7
C131	O6
C134	M6
C135	C8
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D101	P7
D103	F7
D104	E6
D105	D6
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D112	M8
D113	M8
D114	O8
D115	O8
D116	L9
D117	O8
F102	J11
F103	J10
FH101	B6
FH102	B6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
IC108	H5
J107	O7
J1B1	E8
J1B2	E7
J1B3	C5
J1C1	M8
L101	B8
L102	K9
L103	K8
M.GND	P9
PWR101	B5
PWR_CTL	P5
Q101	D7
Q102	E6
Q107	M7
Q108	M5
R101	C11
R104	E11
R109	D8
R110	E8
R111	F7
R112	C8
R114	J10
R115	O11
R117	F6
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R131	D10
R132	D10
R140	N6
R141	N6
R142	K8
R143	K7
R144	P6
R145	O6
T101	H11
V101	B7
VF+	P11
VF-	P10
ZD101	L10
ZD102	L10



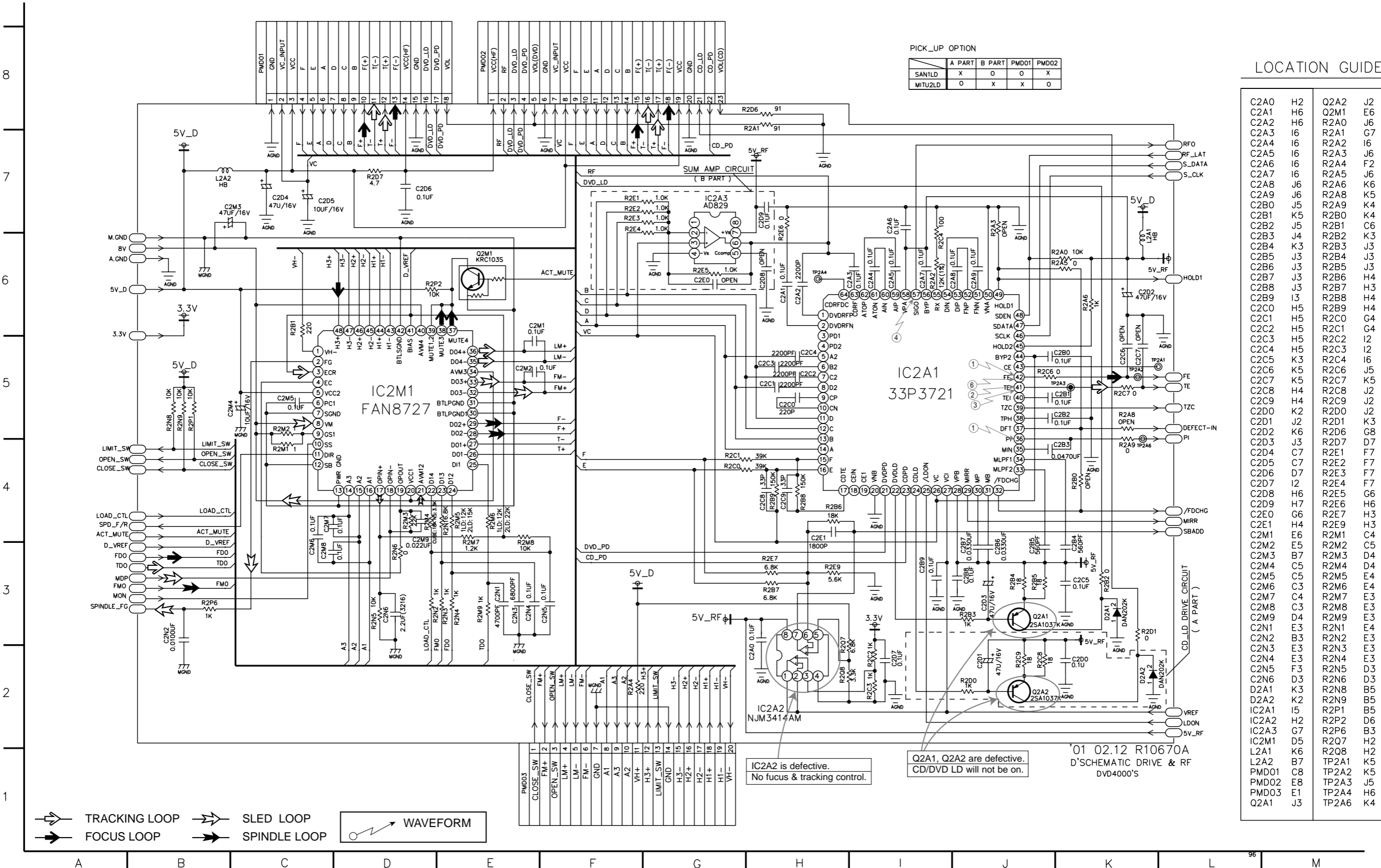
NOTES) ⚠ Warning  
Parts that are shaded are critical  
With respect to risk of fire or  
electrical shock.

NOTES : ⚡ Symbol denotes AC ground.  
⚡ Symbol denotes DC chassis ground.

## 2. DVD DSP CIRCUIT DIAGRAM



### 3. DRIVE & RF CIRCUIT DIAGRAM



PICK\_UP OPTION

	A PART	B PART	PMD01	PMD02
SAN1LD	X	O	O	X
MITU2LD	O	X	X	O

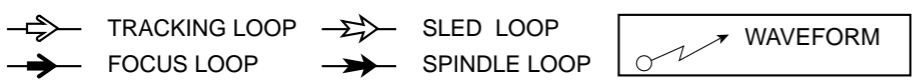
#### LOCATION GUIDE

C2A0	H2	Q2A2	J2
C2A1	H6	Q2M1	E6
C2A2	H6	R2A0	J6
C2A3	I6	R2A1	G7
C2A4	I6	R2A2	I6
C2A5	I6	R2A3	J6
C2A6	I6	R2A4	F2
C2A7	I6	R2A5	J6
C2A8	J6	R2A6	K6
C2A9	J6	R2A8	K5
C2B0	J5	R2A9	K4
C2B1	K5	R2B0	K4
C2B2	J5	R2B1	C6
C2B3	J4	R2B2	K3
C2B4	K3	R2B3	J3
C2B5	J3	R2B4	J3
C2B6	J3	R2B5	J3
C2B7	J3	R2B6	H4
C2B8	J3	R2B7	H3
C2B9	I3	R2B8	H4
C2C0	H5	R2B9	H4
C2C1	H5	R2C0	G4
C2C2	H5	R2C1	G4
C2C3	H5	R2C2	I2
C2C4	H5	R2C3	I2
C2C5	K3	R2C4	I6
C2C6	K5	R2C6	J5
C2C7	K5	R2C7	K5
C2C8	H4	R2C8	J2
C2C9	H4	R2C9	J2
C2D0	K2	R2D0	J2
C2D1	J2	R2D1	K3
C2D2	K6	R2D6	G8
C2D3	J3	R2D7	D7
C2D4	C7	R2E1	F7
C2D5	C7	R2E2	F7
C2D6	D7	R2E3	F7
C2D7	I2	R2E4	F7
C2D8	H6	R2E5	G6
C2D9	H7	R2E6	H6
C2E0	G6	R2E7	H3
C2E1	H4	R2E9	H3
C2M1	E6	R2M1	C4
C2M2	E5	R2M2	C5
C2M3	B7	R2M3	D4
C2M4	C5	R2M4	D4
C2M5	C5	R2M5	E4
C2M6	C3	R2M6	E4
C2M7	C4	R2M7	E3
C2M8	C3	R2M8	E3
C2M9	D4	R2M9	E3
C2N1	E3	R2N1	E4
C2N2	B3	R2N2	E3
C2N3	E3	R2N3	E3
C2N4	E3	R2N4	E3
C2N5	F3	R2N5	D3
C2N6	D3	R2N6	D3
D2A1	K3	R2N8	B5
D2A2	K2	R2N9	B5
IC2A1	I5	R2P1	B5
IC2A2	H2	R2P2	D6
IC2A3	G7	R2P6	B3
IC2M1	D5	R2Q7	H2
L2A1	K6	R2Q8	H2
L2A2	B7	TP2A1	K5
PMD01	C8	TP2A2	K5
PMD02	E8	TP2A3	J5
PMD03	E1	TP2A4	H6
Q2A1	J3	TP2A6	K4

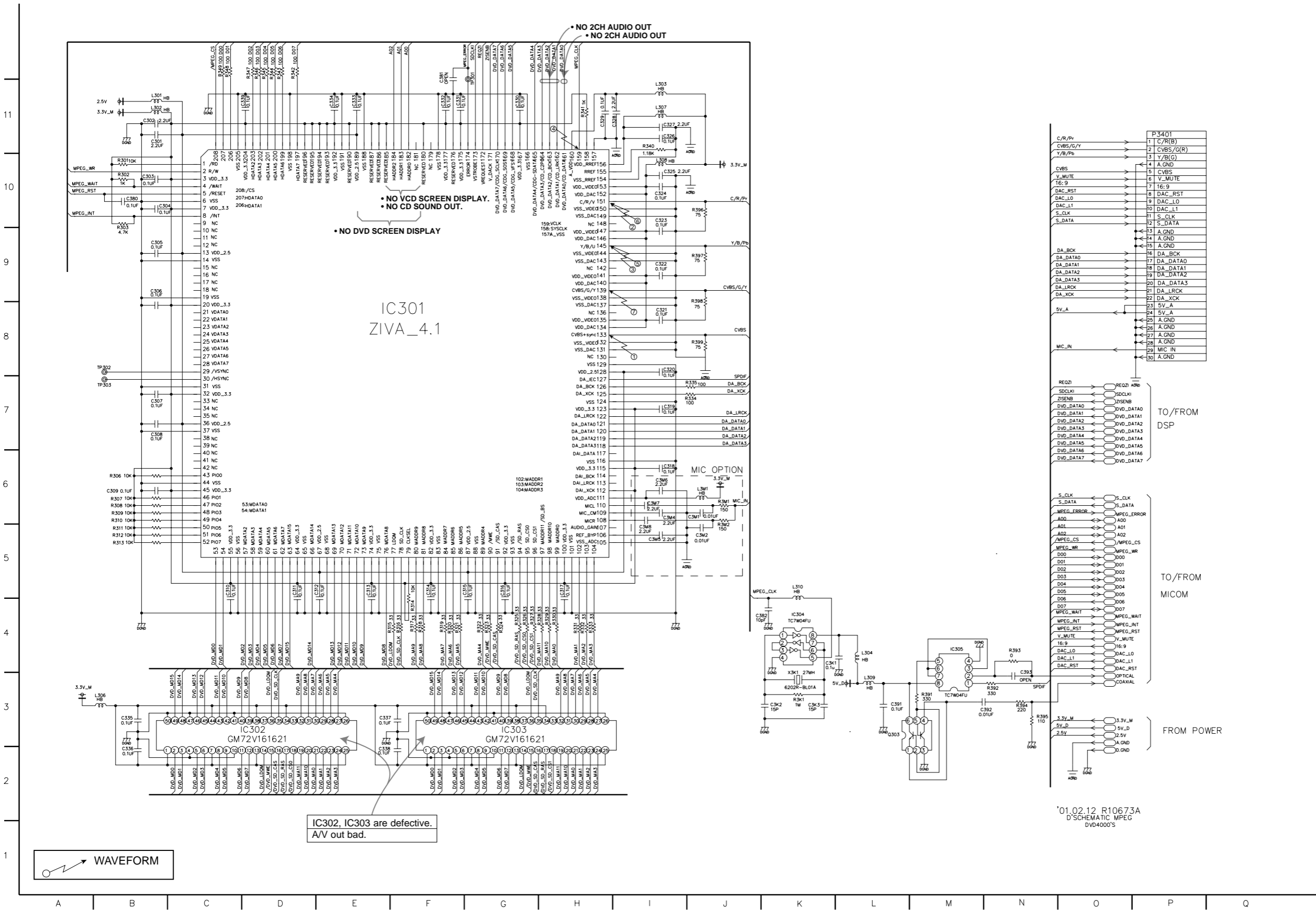
IC2A2 is defective.  
No focus & tracking control.

Q2A1, Q2A2 are defective.  
CD/DVD LD will not be on.

'01 02.12 R10670A  
D'SCHEMATIC DRIVE & RF  
DVD4000's



# 4. MPEG CIRCUIT DIAGRAM



C/R/Pr	P3401
CVBS/G/Y	1 C/R(B)
Y/B/Pb	2 CVBS/G(R)
	3 Y/B(G)
CVBS	4 A.GND
V_MUTE	5 CVBS
16:9	6 V_MUTE
DAC_RST	7 16:9
DAC_LO	8 DAC_RST
DAC_L1	9 DAC_LO
S_CLK	10 DAC_L1
S_DATA	11 S_CLK
	12 S_DATA
	13 A.GND
	14 A.GND
	15 A.GND
DA_BCK	16 DA_BCK
DA_DATA0	17 DA_DATA0
DA_DATA1	18 DA_DATA1
DA_DATA2	19 DA_DATA2
DA_DATA3	20 DA_DATA3
DA_LRCK	21 DA_LRCK
DA_XCK	22 DA_XCK
5V_A	23 5V_A
	24 5V_A
	25 A.GND
	26 A.GND
	27 A.GND
	28 A.GND
MIC_IN	29 MIC_IN
	30 A.GND

REQ2I	REQ2I A200
SDCLKI	SDCLKI
ZISENB	ZISENB
DVD_DATA0	DVD_DATA0
DVD_DATA1	DVD_DATA1
DVD_DATA2	DVD_DATA2
DVD_DATA3	DVD_DATA3
DVD_DATA4	DVD_DATA4
DVD_DATA5	DVD_DATA5
DVD_DATA6	DVD_DATA6
DVD_DATA7	DVD_DATA7

TO/FROM DSP

S_CLK	S_CLK
S_DATA	S_DATA
MPEG_ERROR	MPEG_ERROR
A00	A00
A01	A01
A02	A02
MPEG_CS	MPEG_CS
MPEG_WR	MPEG_WR
D00	D00
D01	D01
D02	D02
D03	D03
D04	D04
D05	D05
D06	D06
D07	D07
MPEG_WAIT	MPEG_WAIT
MPEG_RST	MPEG_RST
V_MUTE	V_MUTE
16:9	16:9
DAC_LO	DAC_LO
DAC_L1	DAC_L1
DAC_RST	DAC_RST
OPTICAL	OPTICAL
COAXIAL	COAXIAL

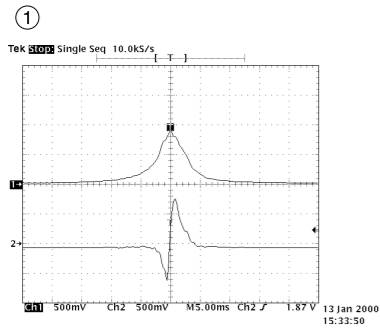
TO/FROM MICOM

3.3V_M	3.3V_M
5V_D	5V_D
2.5V	2.5V
A.GND	A.GND
0.GND	0.GND

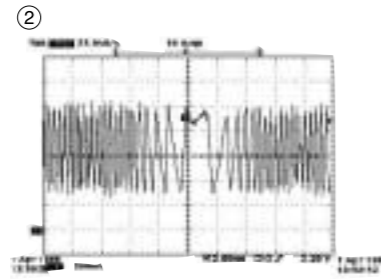
FROM POWER

'01.02.12 R10673A  
D'SCHEMATIC MPEG  
DVD4000'S

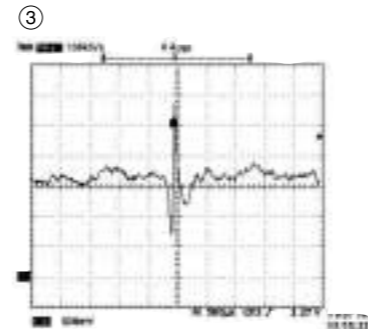
• WAVEFORMS



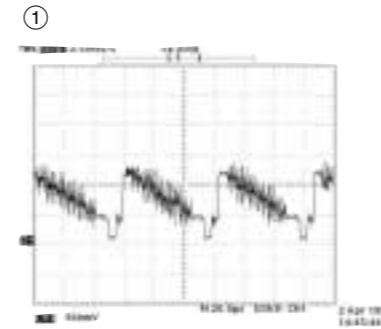
IC2A1 Pin 42, Focus Error  
IC2A1 Pin 36, Pi



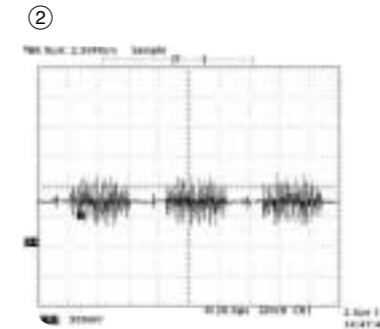
IC2A1 Pin 41  
Tracking Error



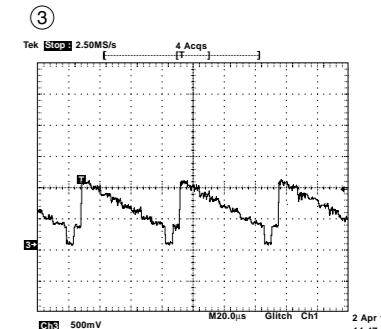
IC2A1 Pin 41  
VBR TRACKING Error



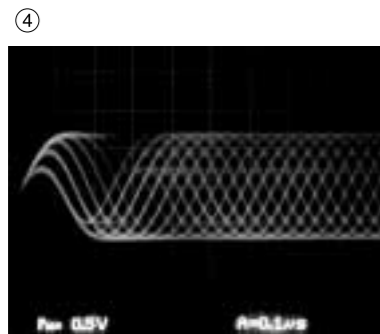
IC301 Pin 133, Composite



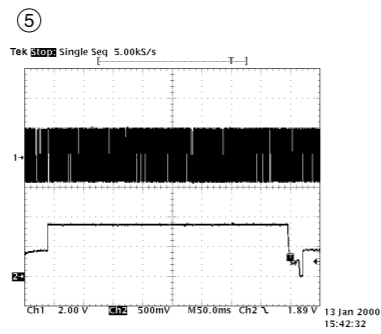
IC301 Pin 151, Chrominance  
(Super video out Mode)



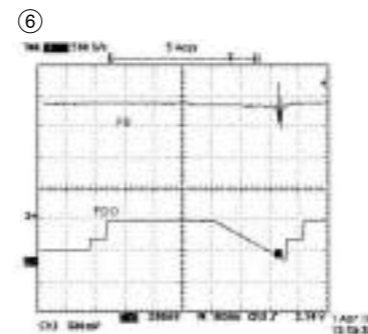
IC301 Pin 145, Luminance  
(Super video out Mode)



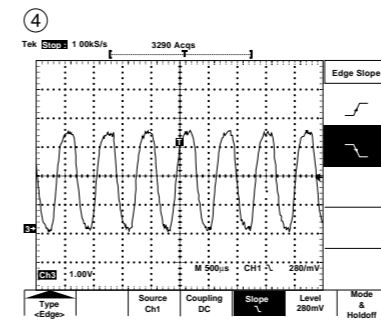
IC2A1 Pin 57,  
RF



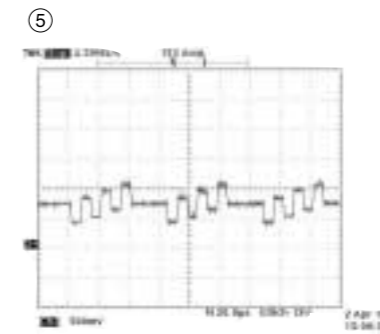
IC201 Pin 88, SLED Drive(FMO)  
IC201 Pin 18, SLED FG



IC2A1 Pin42, Focus Error(in Focus Search)  
IC201 Pin 83, Focus Drive(FDO)



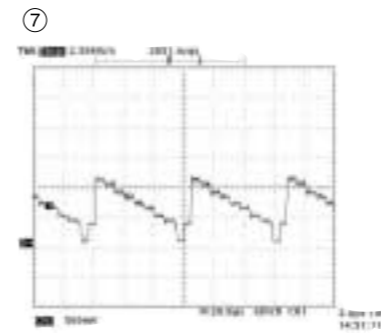
IC301 Pin 159,  
MPEG Clock(27MHz)



IC301 Pin 145  
Component Pb

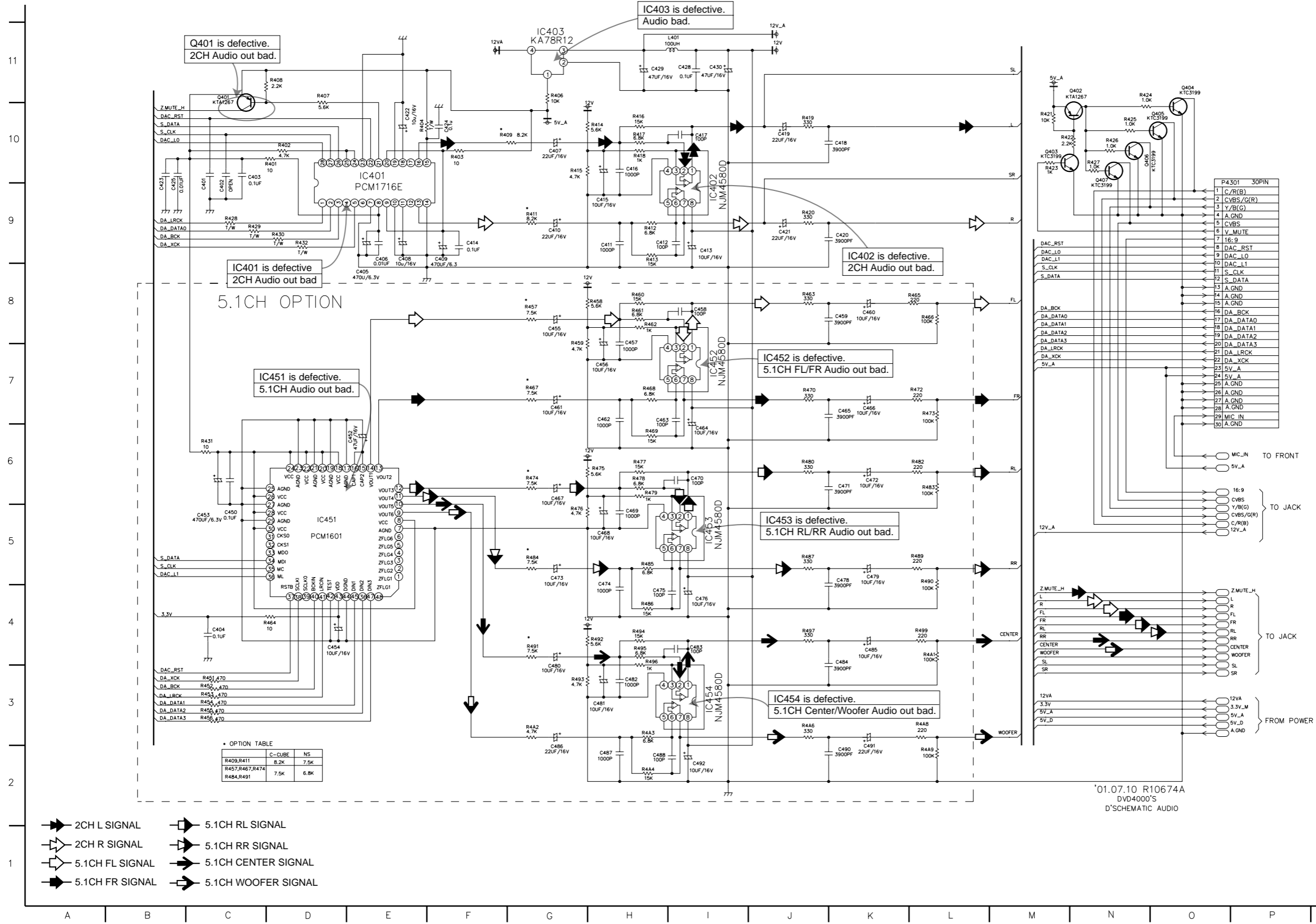


IC301 Pin 151  
Component Pr

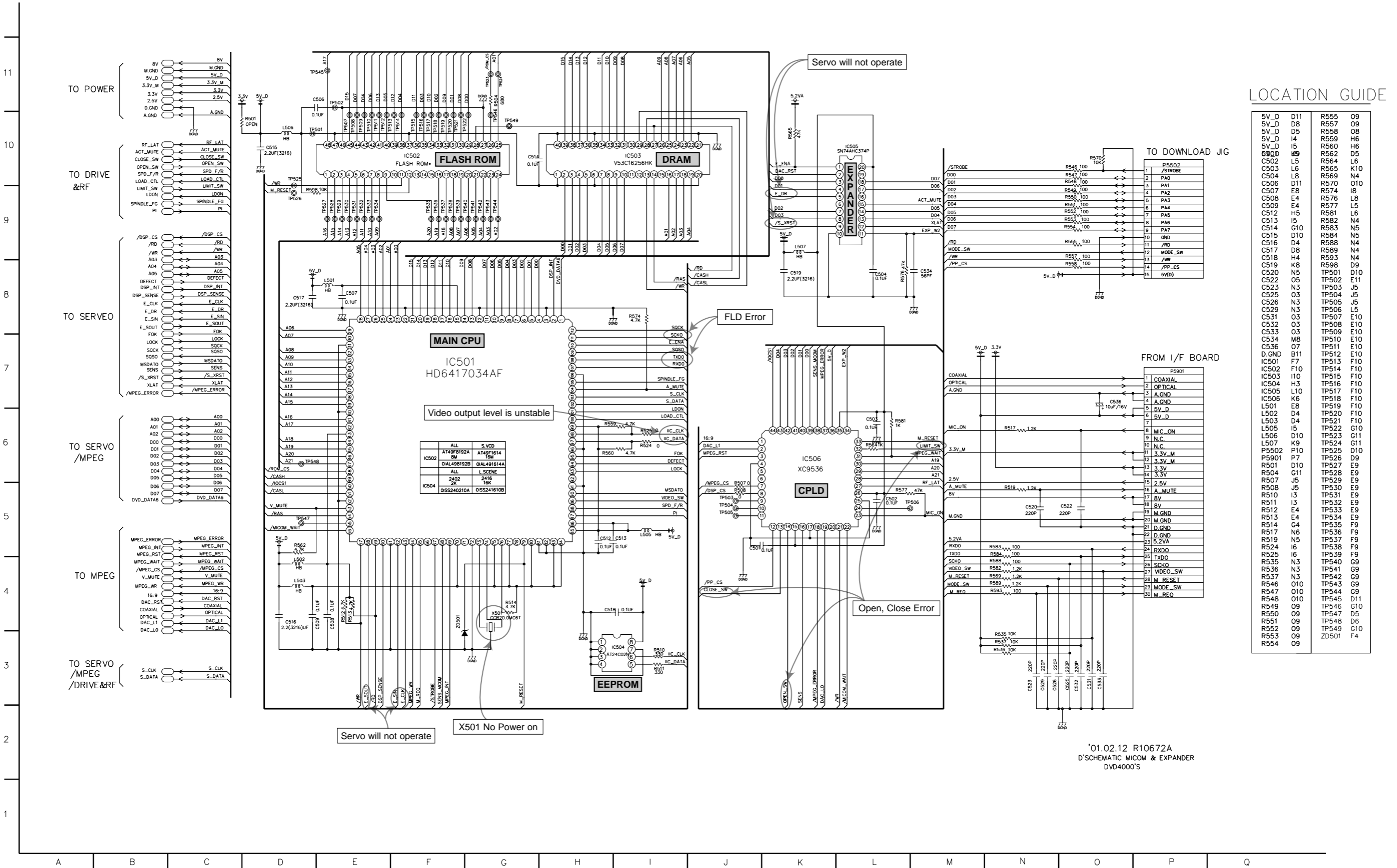


IC301 Pin 139  
Component Y

# 5. AUDIO DM & 5.1CH CIRCUIT DIAGRAM

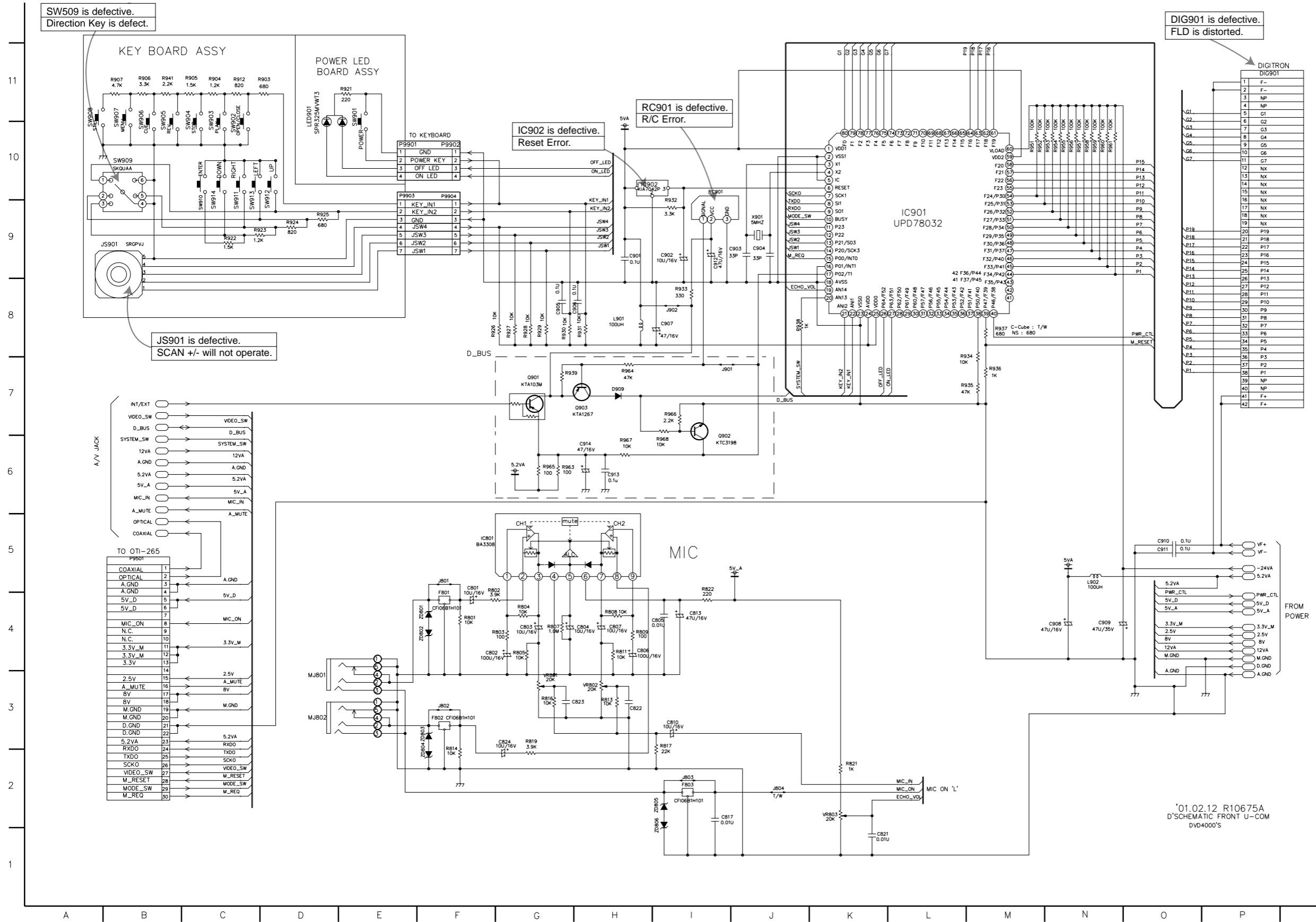


# 6. μ-COM/EXPANDER CIRCUIT DIAGRAM





# 7. DIGITRON(TIMER) & KEY CIRCUIT DIAGRAM



## LOCATION GUIDE

DIGITRON			
DIG901			
1	F-		
2	F-		
3	NP		
4	NP		
5	G1		
6	G2		
7	G3		
8	G4		
9	G5		
10	G6		
11	G7		
12	Nx		
13	Nx		
14	Nx		
15	Nx		
16	Nx		
17	Nx		
18	Nx		
19	Nx		
20	P19		
21	P18		
22	P17		
23	P16		
24	P15		
25	P14		
26	P13		
27	P12		
28	P11		
29	P10		
30	P9		
31	P8		
32	P7		
33	P6		
34	P5		
35	P4		
36	P3		
37	P2		
38	P1		
39	NP		
40	NP		
41	F+		
42	F+		

C801	F5	R907	B11
C802	F4	R912	C11
C803	G4	R921	E11
C804	H4	R922	C9
C805	I4	R923	C9
C806	H4	R924	D9
C807	H4	R925	D9
C810	I3	R926	F8
C813	I4	R927	G8
C817	I2	R928	G8
C821	K1	R929	G8
C822	H3	R930	G8
C823	G3	R931	H8
C824	G3	R932	I9
C901	H9	R933	I8
C902	I9	R934	L7
C903	I9	R935	L7
C904	J9	R936	M7
C905	G8	R937	M8
C906	H8	R938	J8
C907	I8	R939	G7
C908	N4	R941	B11
C909	N4	R951	M10
C910	O5	R952	M10
C911	O5	R953	N10
C912	I9	R954	N10
C913	H6	R955	N10
C914	H6	R956	N10
D.GND	P4	R957	N10
D909	H7	R958	N10
DIG901	P1	R959	N10
F801	F4	R960	N10
F802	F3	R961	N10
F803	I2	R963	G6
IC801	F5	R964	H7
IC901	L9	R965	G6
IC902	H10	R966	I7
J801	F5	R967	H6
J802	F3	R968	I6
J803	I2	RC901	I10
J804	J2	SW901	E10
J901	I7	SW902	C10
J902	I8	SW903	C10
JS901	A9	SW904	C10
JSW1	J9	SW905	B10
JSW1	H9	SW906	B10
JSW2	J9	SW907	B10
JSW2	H9	SW908	A10
JSW3	J9	SW909	B10
JSW3	H9	SW910	C9
JSW4	J9	SW911	C9
JSW4	H9	SW912	D9
L901	H8	SW913	C9
L902	N5	SW914	C9
LED901	D10	VR801	G3
MJ801	D3	VR802	H3
MJ802	D3	VR803	K2
P9501	B5	X901	J9
P9901	E10	ZD801	F4
P9902	F10	ZD802	F4
P9903	E10	ZD803	F3
P9904	F10	ZD804	F2
Q901	G7	ZD805	I2
Q902	I6	ZD806	I1
Q903	H7		
R801	F4		
R802	F5		
R803	F4		
R804	G4		
R805	G4		
R807	G4		
R808	H4		
R809	H4		
R811	H4		
R813	H3		
R814	F2		
R816	G3		
R817	I3		
R819	G3		
R821	K2		
R822	I5		
R903	C11		
R904	C11		
R905	C11		
R906	B11		

DIG901 is defective.  
FLD is distorted.

IC902 is defective.  
Reset Error.

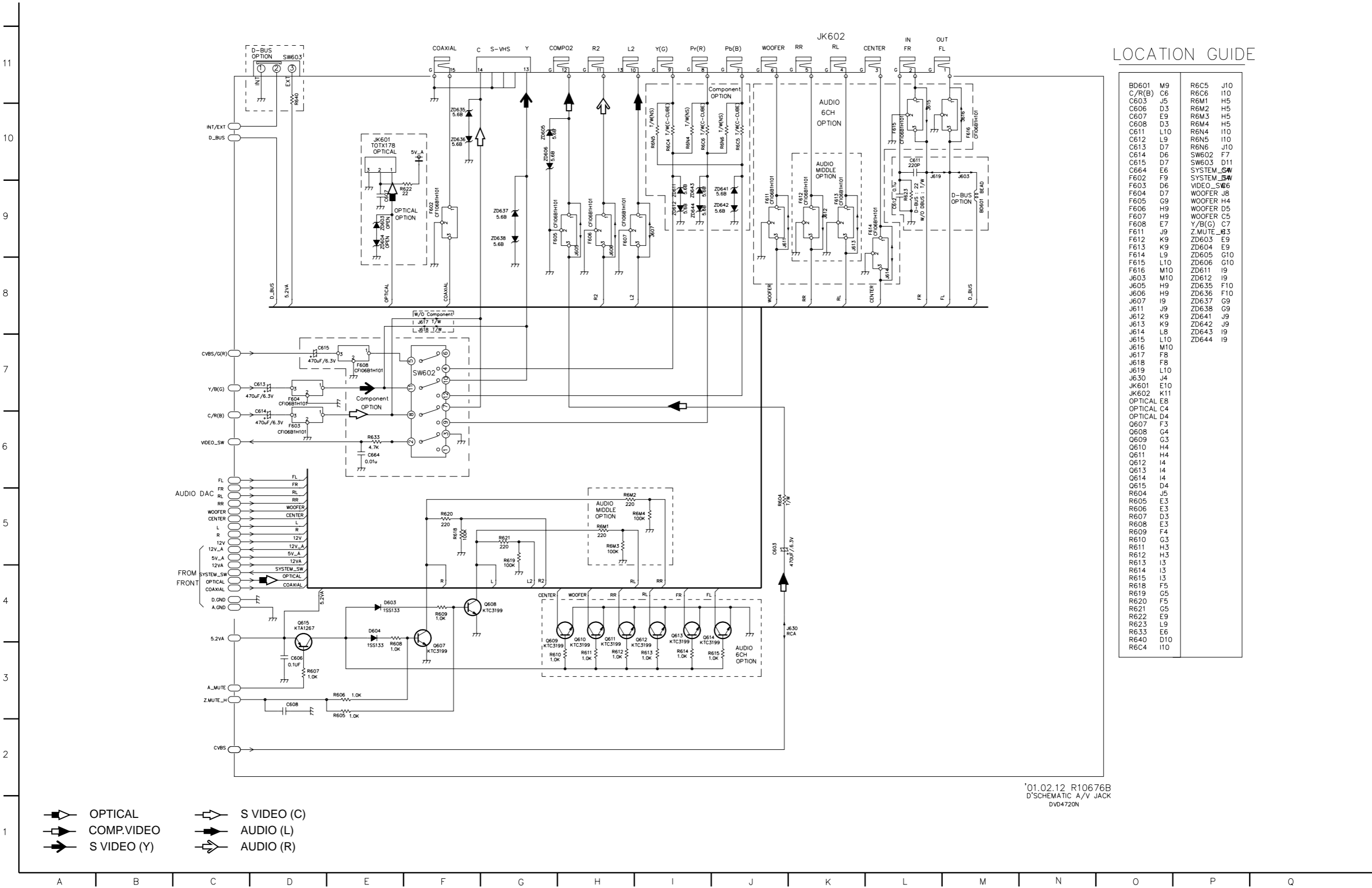
RC901 is defective.  
R/C Error.

SW509 is defective.  
Direction Key is defect.

JS901 is defective.  
SCAN +/- will not operate.

'01.02.12 R10675A  
D'SCHEMATIC FRONT U-COM  
DVD4000'S

# 8. JACK CIRCUIT DIAGRAM



## LOCATION GUIDE

BD601	M9	R6C5	J10
C/R(B)	C6	R6C6	I10
C603	J5	R6M1	H5
C606	D3	R6M2	H5
C607	E9	R6M3	H5
C608	D3	R6M4	H5
C611	L10	R6N4	I10
C612	L9	R6N5	I10
C613	D7	R6N6	J10
C614	D6	SW602	F7
C615	D7	SW603	D11
C664	E6	SYSTEM_SW	C4
F602	F9	SYSTEM_SW	D6
F603	D6	VIDEO_SW	D6
F604	D7	WOOFER	J8
F605	G9	WOOFER	H4
F606	H9	WOOFER	D5
F607	H9	WOOFER	C5
F608	E7	Y(B)(G)	C7
F611	J9	ZMUTE	B3
F612	K9	ZD603	E9
F613	K9	ZD604	E9
F614	L9	ZD605	G10
F615	L10	ZD606	G10
F616	M10	ZD611	I9
J603	M10	ZD612	I9
J605	H9	ZD635	F10
J606	H9	ZD636	F10
J607	I9	ZD637	G9
J611	J9	ZD638	G9
J612	K9	ZD641	J9
J613	K9	ZD642	I9
J614	L8	ZD643	I9
J615	L10	ZD644	I9
J616	M10		
J617	F8		
J618	F8		
J619	L10		
J630	J4		
JK601	E10		
JK602	K11		
OPTICAL	E8		
OPTICAL	C4		
OPTICAL	D4		
Q607	F3		
Q608	G4		
Q609	G3		
Q610	H4		
Q611	H4		
Q612	I4		
Q613	I4		
Q614	I4		
Q615	D4		
R604	J5		
R605	E3		
R606	E3		
R607	D3		
R608	E3		
R609	F4		
R610	G3		
R611	H3		
R612	H3		
R613	I3		
R614	I3		
R615	I3		
R618	F5		
R619	G5		
R620	F5		
R621	G5		
R622	E9		
R623	L9		
R633	E6		
R640	D10		
R6C4	I10		

'01.02.12 R10676B  
D'SCHEMATIC A/V JACK  
DVD4720N

- OPTICAL
- COMP.VIDEO
- S VIDEO (Y)
- S VIDEO (C)
- AUDIO (L)
- AUDIO (R)





MODE PIN NO.	EE	PLAY
35	4.99	4.98
36	4.99	4.98
37	0.00	0.00
38	0.00	4.98
39	2.26	1.25
40	2.18	2.21
41	1.73	1.73
42	2.18	2.16
43	1.81	1.81
44	4.95	4.94
<b>IC505 HC374P</b>		
1	0.00	0.00
2	5.03	5.02
3	2.26	2.13
4	2.20	2.40
5	5.03	5.01
6	0.00	0.00
7	1.75	1.88
8	2.19	1.90
9	5.02	5.01
10	0.00	0.00
11	5.00	5.00
12	5.00	5.01
13	1.80	1.76
14	2.20	2.10
15	5.00	5.00
16	0.00	0.00
17	1.30	1.34
18	1.00	1.10
19	0.00	0.00
20	5.00	5.00
<b>IC504 24C02N</b>		
1	0.00	0.00
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	4.99	4.97
6	4.98	4.97
7	0.00	0.00
8	4.99	0.00
<b>F R O N T</b>		
<b>IC901 78032</b>		
1	5.00	5.01
2	0.00	0.00
3	2.77	2.52
4	2.86	2.86
5	0.70	0.00
6	5.00	5.00
7	4.98	4.96
8	4.93	4.92
9	4.94	4.95
10	4.97	2.89
11	4.97	4.97
12	4.97	3.00
13	4.97	4.96

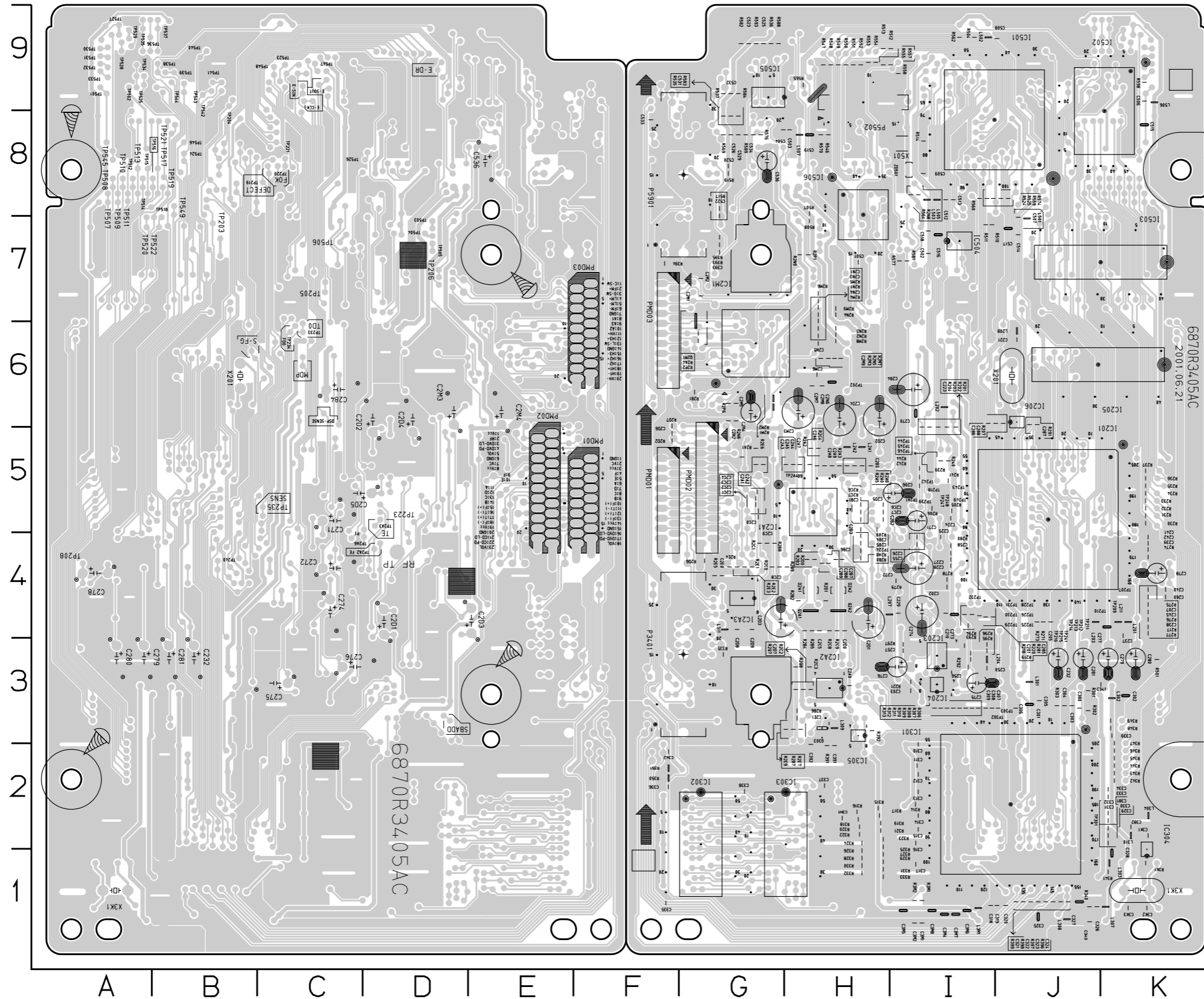
MODE PIN NO.	EE	PLAY
14	4.97	3.30
15	4.86	4.90
16	0.00	0.00
17	4.80	4.81
18	0.00	4.31
19	4.78	4.76
20	0.00	0.00
21	4.96	4.98
22	4.97	4.98
23	0.00	0.00
24	4.99	5.00
25	5.00	5.00
26	1.18	1.14
27	4.11	4.12
28	4.96	4.96
29	4.96	4.97
30	4.97	4.96
31	4.96	4.97
32	4.97	4.97
33	4.96	4.96
34	4.96	4.97
35	4.96	4.97
36	4.97	4.97
37	4.97	4.96
38	4.96	4.96
39	4.77	4.97
40	4.80	4.80
41	-21.60	-22.00
42	-22.90	-21.60
43	-22.30	-21.30
44	-17.80	-16.80
45	-12.40	-12.30
46	-9.30	-18.00
47	-18.90	-16.70
48	-15.60	-15.00
49	-17.00	-17.50
50	-16.90	-16.00
51	-18.60	-18.10
52	-18.00	-18.30
53	-18.40	-20.00
54	-20.20	-24.80
55	-18.60	-23.70
56	-16.90	-23.60
57	-18.50	-23.50
58	-18.50	-24.40
59	5.00	5.02
60	-25.00	-27.00
61	-20.40	-20.00
62	-16.90	-16.90
63	-18.00	-18.40
64	-17.80	18.30
65	-17.60	-18.70
66	-17.70	-18.00
67	-17.70	-18.20
68	-17.50	-18.70

MODE PIN NO.	EE	PLAY
69	-17.50	-18.70
70	-17.70	-18.80
71	-17.30	-19.40
72	-17.30	-19.50
73	-17.20	-21.80
74	-17.20	-21.80
75	-17.20	-21.90
76	-17.10	-21.80
77	-17.50	-21.80
78	-17.30	-21.80
79	-17.30	-21.80
80	-16.80	-21.80
<b>IC801 BA3308</b>		
1	1.76	1.76
2	0.00	0.00
3	1.76	1.76
4	0.00	0.00
5	0.00	0.00
6	4.53	4.52
7	1.77	1.77
8	0.00	0.00
9	1.77	1.77
<b>IC902 7042P</b>		
1	5.09	5.00
2	0.00	0.00
3	5.07	5.00
<b>J A C K</b>		
1	4.55	4.54
2	2.24	2.24
3	3.82	3.82
4	0.00	0.00
5	3.82	3.82
6	2.95	2.63
7	2.24	2.24
8	2.74	2.73
9	3.66	3.17
10	0.00	0.00
11	4.58	4.57
12	2.24	2.24
13	1.94	8.93
14	4.54	4.53
15	0.00	0.00
16	4.57	4.57

	Emitter		Base		Collector	
	EE	PLAY	EE	PLAY	EE	PLAY
<b>S E R V O</b>						
Q2M1	0.00	0.00	4.98	4.98	0.00	0.00
Q2A1	4.67	4.69	4.97	4.01	0.96	2.20
Q2A2	4.97	4.93	4.96	4.93	0.00	0.50
<b>A U D I O</b>						
A401	5.04	5.33	4.32	5.03	4.08	0.00
A402	5.04	5.03	5.03	4.99	0.00	0.00
A403	0.00	0.00	0.00	0.00	5.03	5.02
A404	0.00	0.00	-0.30	-0.30	0.98	0.98
A405	0.00	0.00	0.00	0.00	1.05	0.72
A406	0.00	0.00	0.00	0.00	1.30	0.89
A407	0.00	0.00	-0.49	-0.35	1.31	0.88
<b>J A C K</b>						
Q601	12.74	12.67	11.97	11.89	12.73	12.65
Q602	0.000	0.00	5.03	5.06	0.00	0.00
Q603	0.00	0.00	0.00	0.00	12.72	12.65
Q604	0.00	0.00	5.04	5.03	0.00	0.00
Q605	1.99	1.53	1.31	0.89	0.00	0.00
Q606	1.99	1.70	1.31	1.15	0.00	0.00
Q607	0.00	0.00	0.78	0.00	0.00	0.00
Q608	0.00	0.00	0.77	-0.70	0.00	0.00
Q609	0.00	0.00	0.76	-0.60	0.00	0.00
Q610	0.00	0.00	0.76	0.00	0.00	0.00
Q611	0.00	0.00	0.75	-0.70	0.00	0.00
Q612	0.00	0.00	0.76	-0.90	0.00	0.00
Q613	0.00	0.00	0.76	-0.50	0.00	0.00
Q614	0.00	0.00	0.76	-0.50	0.00	0.00
Q615	5.09	5.09	4.29	4.92	4.96	-1.00
Q616	3.62	3.91	2.96	2.50	0.00	0.00
Q617	1.99	1.74	1.31	1.08	0.00	0.00
Q618	0.00	0.00	0.76	-1.20	0.00	0.00
Q619	0.00	0.00	0.76	-0.60	0.00	0.00

# PRINTED CIRCUIT DIAGRAMS

## 1. MAIN P.C.BOARD



### LOCATION GUIDE

TP203	B7	TP518	A8
TP204	B9	TP519	B8
TP205	C7	TP520	A7
TP206	D7	TP521	B8
TP208	A4	TP522	B7
TP219	C8	TP523	C9
TP220	C8	TP524	B8
TP221	C8	TP525	A9
TP223	D5	TP526	D8
TP233	C6	TP527	A9
TP234	C6	TP528	A9
TP235	C5	TP529	A9
TP240	B4	TP530	A9
TP2A2	D4	TP531	A9
TP2A3	D5	TP532	A9
TP2A6	D4	TP533	A9
TP501	A9	TP534	A9
TP502	A9	TP535	A9
TP503	D7	TP536	A9
TP504	D7	TP537	B9
TP505	D7	TP538	B9
TP506	C7	TP539	B9
TP507	A8	TP540	B9
TP508	A8	TP541	B9
TP509	A8	TP542	B9
TP510	A8	TP543	B9
TP511	A8	TP544	B9
TP512	A8	TP545	A8
TP513	A8	TP546	B8
TP514	A8	TP547	C9
TP515	A8	TP548	C9
TP516	B8	TP549	B8
TP517	B8		

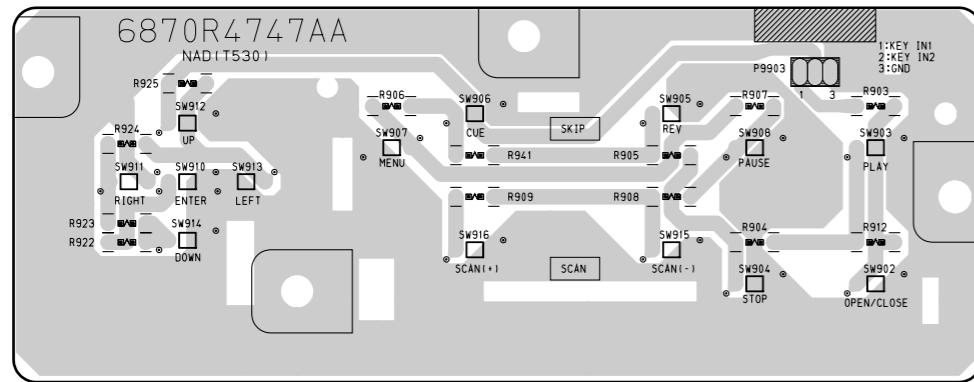
  

C201	L4	C298	H4	C322	J1	C533	F8	R203	I5	R2C3	H3	R324	H2	R558	I9
C202	L4	C287	H4	C323	J1	C534	G8	R204	I5	R2C4	H5	R325	H2	R559	J8
C203	L3	C288	H4	C324	J1	C536	G8	R205	I5	R2C6	H5	R326	H1	R560	I8
C205	J4	C289	H4	C325	J1	D2A1	H4	R206	I5	R2C7	H5	R327	H5	R562	I9
C206	I5	C2C0	G5	C326	J1	D2A2	H4	R207	J6	R2C8	H4	R328	H1	R564	I8
C207	K4	C2C1	G5	C327	J1	IC201	J5	R217	K4	R2C9	H4	R329	H1	R565	H9
C210	L4	C2C2	G5	C328	K1	IC203	I3	R218	I4	R2D0	H4	R330	H1	R569	H8
C221	J6	C2C3	G5	C329	K2	IC204	I3	R219	I4	R2D1	H4	R331	H1	R570	H8
C223	I5	C2C4	G5	C330	K2	IC205	J6	R220	I4	R2D2	F5	R332	H1	R574	J8
C224	I5	C2C5	H4	C331	K2	IC206	J6	R221	I3	R2D6	G4	R333	H1	R576	G8
C225	L4	C2C6	H5	C332	K2	IC2A1	H5	R230	K5	R2D7	F6	R335	G3	R577	I7
C226	L4	C2C7	H5	C333	K2	IC2A2	H3	R231	K5	R2E1	G4	R340	J1	R581	I7
C227	L4	C2C8	G4	C334	K2	IC2A3	G4	R232	K5	R2E2	G4	R341	K1	R582	G9
C228	L4	C2C9	G4	C335	F1	IC2M1	G6	R233	K5	R2E3	G4	R342	K2	R583	G8
C229	L4	C2D0	H4	C336	F2	IC301	J2	R234	K5	R2E4	G4	R343	K2	R584	G9
C232	J3	C2D1	H4	C337	H2	IC302	G2	R235	K5	R2E5	G4	R344	K2	R588	G9
C237	K4	C2D2	H6	C338	G2	IC303	H2	R236	K5	R2E6	G5	R345	K2	R589	G8
C238	K4	C2D3	G4	C339	K3	IC304	K1	R237	K5	R2E7	H3	R346	K2	R593	G9
C239	K4	C2D4	H6	C340	J1	IC305	H3	R239	I5	R2E9	H3	R347	K2	R598	K8
C240	K7	C2D5	F5	C341	K3	IC501	I8	R240	I5	R2M1	G6	R348	K3	TP202	H6
C241	K7	C2D6	F5	C342	F2	IC502	K8	R241	I5	R2M2	G6	R349	K3	TP207	K4
C242	K4	C2D7	H3	C380	J3	IC503	K7	R242	I5	R2M3	H6	R350	F2	TP209	K4
C245	K4	C2D8	G4	C381	K2	IC504	I7	R244	I5	R2M4	H6	R351	F2	TP210	J4
C250	L3	C2D9	G4	C382	K2	IC505	G9	R271	J4	R2M5	H7	R391	H2	TP211	J4
C255	L4	C2E0	G4	C391	H2	IC506	H8	R273	J4	R2M6	H7	R392	H3	TP212	J4
C259	L3	C2E1	H3	C392	H2	L201	K4	R274	K4	R2M7	H6	R393	F7	TP213	J4
C257	I3	C2M1	G7	C393	G7	L202	I6	R275	K4	R2M8	H6	R394	F7	TP214	J4
C258	L4	C2M2	G7	C3H1	H2	L203	J4	R276	K4	R2M9	H7	R395	G7	TP215	J4
C260	K4	C2M3	H6	C3K1	K2	L204	I3	R277	K4	R2N1	H6	R396	J1	TP216	J4
C261	K3	C2M4	H6	C3K2	K1	L207	H4	R278	I4	R2N2	H6	R397	J1	TP218	I5
C271	I5	C2M5	G9	C3K3	K1	L208	J6	R279	I7	R2N3	H6	R398	J1	TP224	H4
C272	L4	C2M6	H6	C3M1	I1	L211	K4	R280	I4	R2N4	H7	R399	J1	TP225	J4
C273	L4	C2M7	H6	C3M2	I1	L2A1	H5	R281	I4	R2N5	H6	R3K1	K1	TP226	J4
C274	L4	C2M8	H6	C3M4	I1	L2A2	H5	R291	J6	R2N6	G6	R3M1	I1	TP228	J4
C275	L3	C2M9	H6	C3M5	I1	L301	J3	R292	I3	R2N8	I8	R3M2	I1	TP229	J4
C276	I3	C2N1	H7	C3M6	I1	L302	K3	R293	I3	R2N9	H7	R501	K3	TP230	J4
C277	K4	C2N2	G6	C3M7	I1	L303	K1	R294	I3	R2P1	H7	R504	I9	TP231	J4
C278	K4	C2N3	H7	C3M8	I1	L304	K2	R295	I3	R2P2	H6	R507	H8	TP232	I4
C279	K3	C2N4	H6	L307	K1	R296	I3	R2P6	G6	R508	H7	TP239	I5		
C280	K3	C2M5	H6	C502	I7	L308	J1	R297	I3	R510	I7	TP241	J4		
C281	K3	C2N6	H6	C503	H8	L309	H3	R2A0	H5	R208	H3	R511	I7	TP242	I5
C284	I6	C301	F3	C504	G8	L310	K2	R2A1	G5	R301	J3	R512	I9	TP243	I5
C285	L4	C302	K3	C506	K9	L311	H4	R2A2	H5	R302	J3	R513	H9	TP244	I5
C286	I6	C303	F3	C507	J7	L3M1	I1	R2A3	H5	R303	J3	R514	I8	TP245	I5
C287	J9	C304	J7	C508	J9	L501	I7	R2A4	G6	R306	I3	R517	G8	TP246	I5
C288	J9	C305	F3	C509	I8	L502	I9	R2A5	H5	R307	I3	R519	G8	TP247	I5
C2A0	G5	C306	F3	C512	I8	L503	I8	R2A6	H5	R308	I3	R524	I8	TP248	I5
C2A1	G5	C307	F3	C513	I8	L505	I8	R2A8	H4	R309	I3	R525	I8	TP249	I5
C2A2	G5	C308	I3	C514	J7	L506	K9	R2A9	H5	R310	I3	R535	G8	TP2A1	I5
C2A3	H5	C309	I3	C515	K8	L507	H8	R2B0	H4	R311	I3	R536	G9	TP2A4	G5
C2A4	H5	C310	I2	C516	I7	P3401	G3	R2B1	G5	R212	I3	R537	G9	TP301	J3
C2A5	H5	C311	I2	C517	J7	P5502	H9	R2B2	H4	R313	I3	R546	H8	TP302	J3
C2A6	H5	C312	I2	C518	I7	P5901	G8	R2B3	H4	R314	I2	R547	H9	TP303	J3
C2A7	H5	C313	I2	C519	H8	PMD01	F5	R2B4	H4	R315	H2	R548	H9	X201	J6
C2A8	H5	C314	I2	C520	G8	PMD02	G5	R2B5	H4	R316	H2	R549	H9	X3K1	K1
C2A9	H5	C315	I2	C522	G7	PMD03	F7	R2B6	H3	R317	H2	R550	H9	X501	K1
C2B0	H5	C316	I2	C523	G9	Q2A1	H4	R2B7	H3	R318	H2	R551	H9	Z0501	I8
C2B1	H5	C317	I1	C525	G9	Q2A2	H4	R2B8	G4	R319	H2	R552	H9		
C2B2	H5	C318	I1	C526	G8	Q2M1	G6	R2B9	H4	R320	H2	R553	H9		
C2B3	H5	C319	I1	C529	G8	Q303	G3	R2C0	G4	R321	H2	R554	H9		
C2B4	H4	C320	I1	C531	G6	R201	I5	R2C1	G4	R322	H2	R555	H9		
C2B5	H4	C321	I1	C532	G9	R202	I5	R2C2	H3	R323	H2	R557	I9		

(Solder Side)

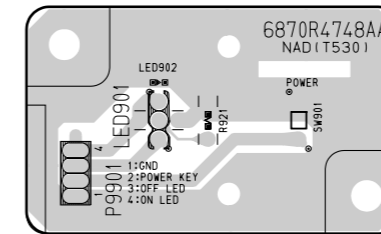


### 3. KEY P.C.BOARD



(Solder Side)

### 4. Power LED P.C.BOARD



(Solder Side)





# CIRCUIT DIAGRAM

## 1. POWER(SMPS) CIRCUIT DIAGRAM (T531B, T531C ONLY)

### IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE NAD ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIR-

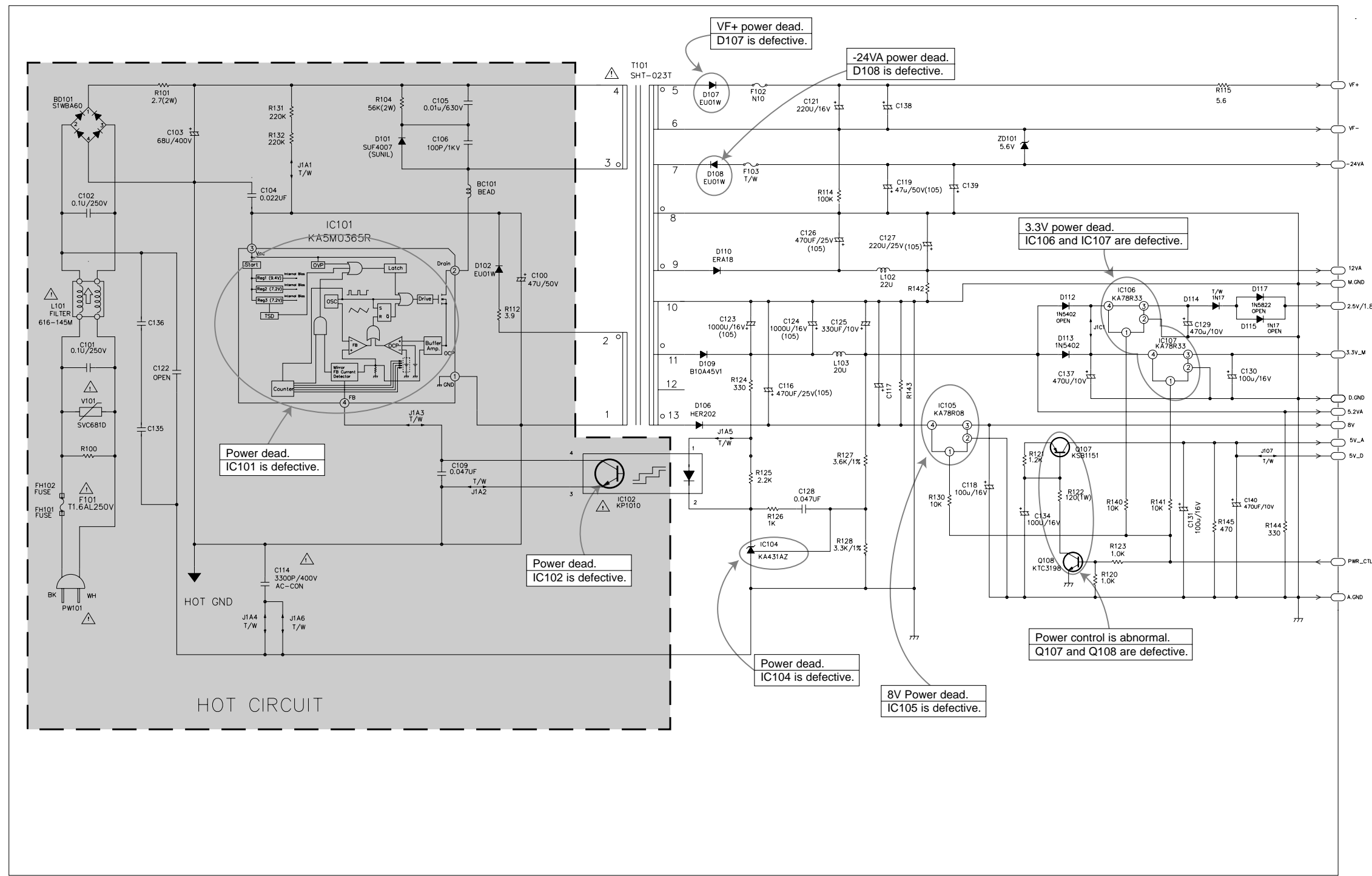
CUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

### NOTE :

- Shaded (■) parts are critical for safety. Replace only with specified part number.
- Voltages are DC-measured with a digital voltmeter during Play mode.

### LOCATION GUIDE

BC101	G10
BD101	B11
C100	G9
C101	B8
C102	B9
C103	C10
C104	D10
C105	F11
C106	F10
C109	F6
C114	D5
C116	J7
C117	K7
C118	L6
C119	K10
C121	J11
C122	C8
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	O8
C130	O7
C131	O6
C134	M6
C135	C7
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D	F7
D101	E10
D102	F9
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D112	M8
D113	M8
D114	O8
D115	O8
D117	O8
FH102	J11
FH101	J10
FH102	B6
FH102	B6
IC101	E9
IC102	H6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
J107	O7
J1A1	D10
J1A2	F6
J1A3	F7
J1A4	D5
J1A5	I7
J1A6	D5
J1C1	M8
L101	B8
L102	K9
L103	K8
M.GND	P9
PW101	B5
PWR_CTLP5	M7
Q107	M7
Q108	M5
R100	B7
R101	C11
R104	E11
R112	G8
R114	J10
R115	O11
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R131	D10
R132	D10
R140	N6
R141	N6
R142	K8
R143	K7
R144	O6
R145	O6
T101	H11
V101	B7
VF+	P11
VF-	P10
ZD101	L10



'01.02.12 R10677B  
D'SCHEMATIC POWER  
NAD (220V)

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

NOTES: ⚡ Symbol denotes AC ground.

⚡ Symbol denotes DC chassis ground.

# 1. POWER(SMPS) CIRCUIT DIAGRAM (T531AH ONLY)

## IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE NAD ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIR-

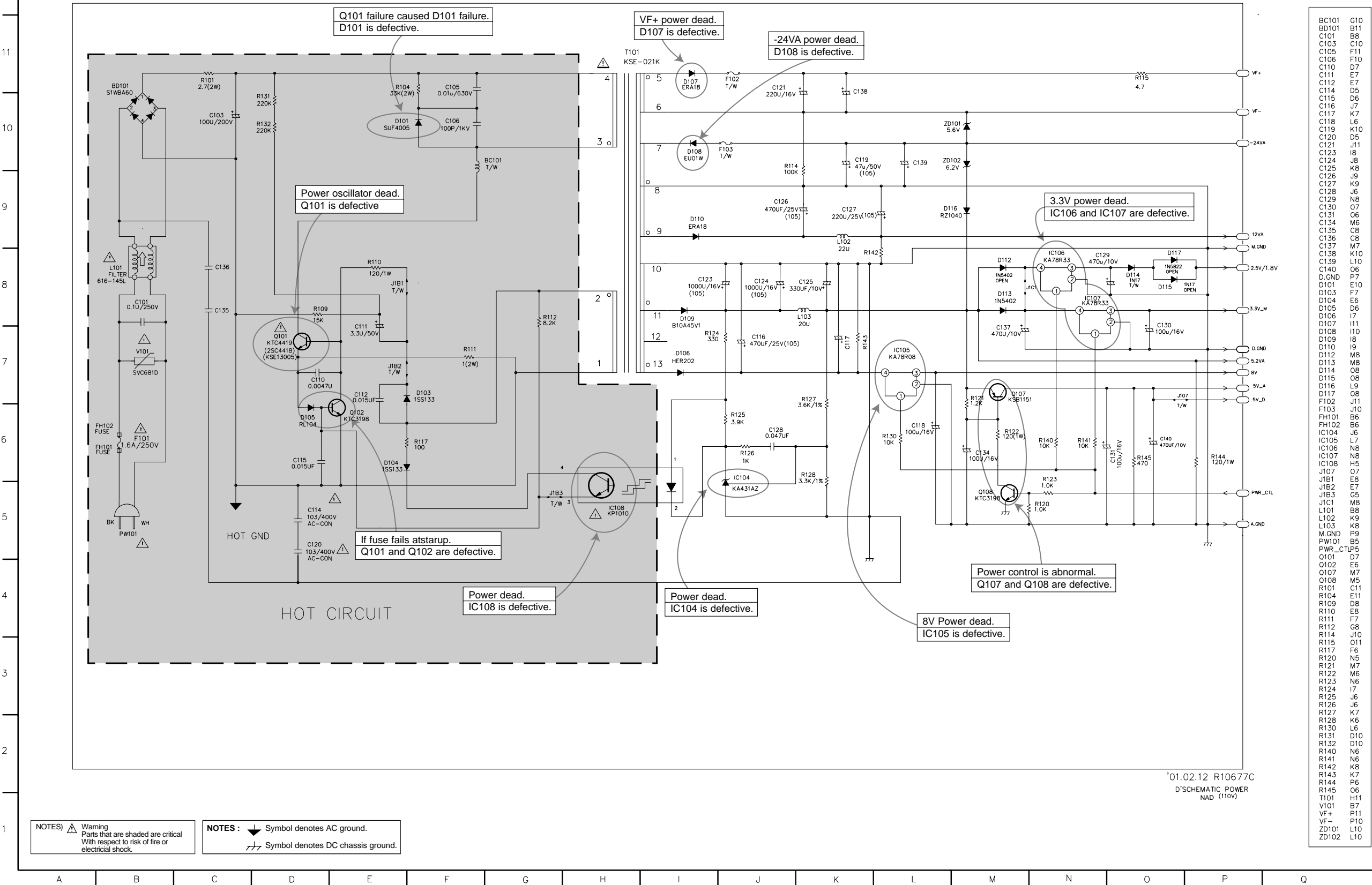
CUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

## NOTE :

1. Shaded (■) parts are critical for safety. Replace only with specified part number.
2. Voltages are DC-measured with a digital voltmeter during Play mode.

## LOCATION GUIDE

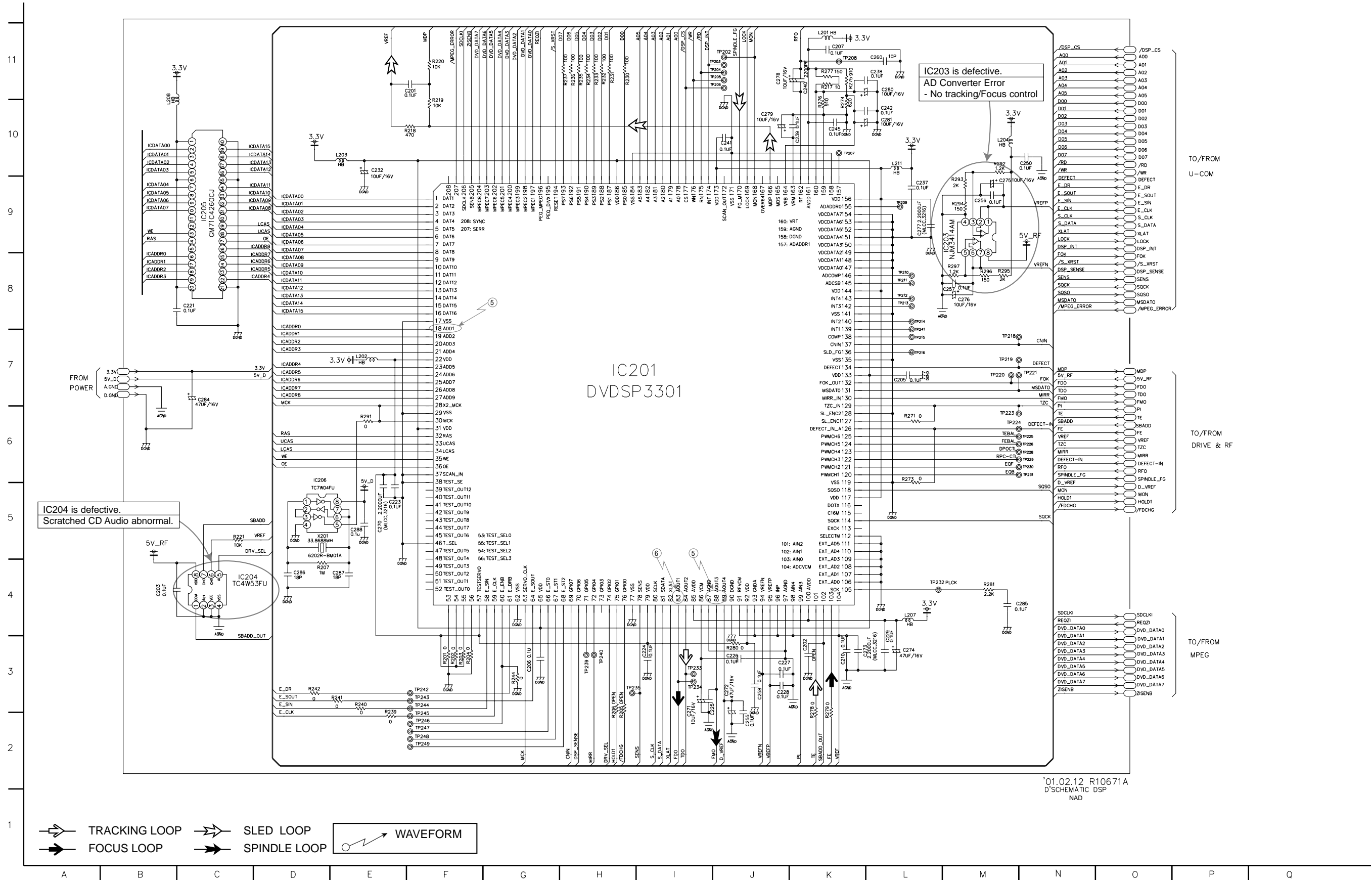
BC101	G10
BD101	B11
C101	B8
C103	C10
C105	F11
C106	F10
C110	D7
C111	E7
C112	E7
C114	D5
C115	D6
C116	J7
C117	K7
C118	L6
C119	K10
C120	D5
C121	J11
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	N8
C130	O7
C131	O6
C134	M6
C135	C8
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D.GND	P7
D101	E10
D103	F7
D104	E6
D105	D6
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D112	M8
D113	M8
D114	O8
D115	O8
D116	L9
D117	O8
F102	J11
F103	J10
FH101	B6
FH102	B6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
IC108	H5
J107	O7
J1B1	E8
J1B2	F7
J1B3	G5
J1C1	M8
L101	B8
L102	K9
L103	K8
M.GND	P9
PW101	B5
PWR_CTLP5	D7
Q101	D7
Q102	E6
Q107	M7
Q108	M5
R101	C11
R104	E11
R109	D8
R110	E8
R111	F7
R112	G8
R114	J10
R115	O11
R117	F6
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R131	D10
R132	D10
R140	N6
R141	N6
R142	K8
R143	K7
R144	P6
R145	O6
T101	H11
V101	B7
VF+	P11
VF-	P10
ZD101	L10
ZD102	L10



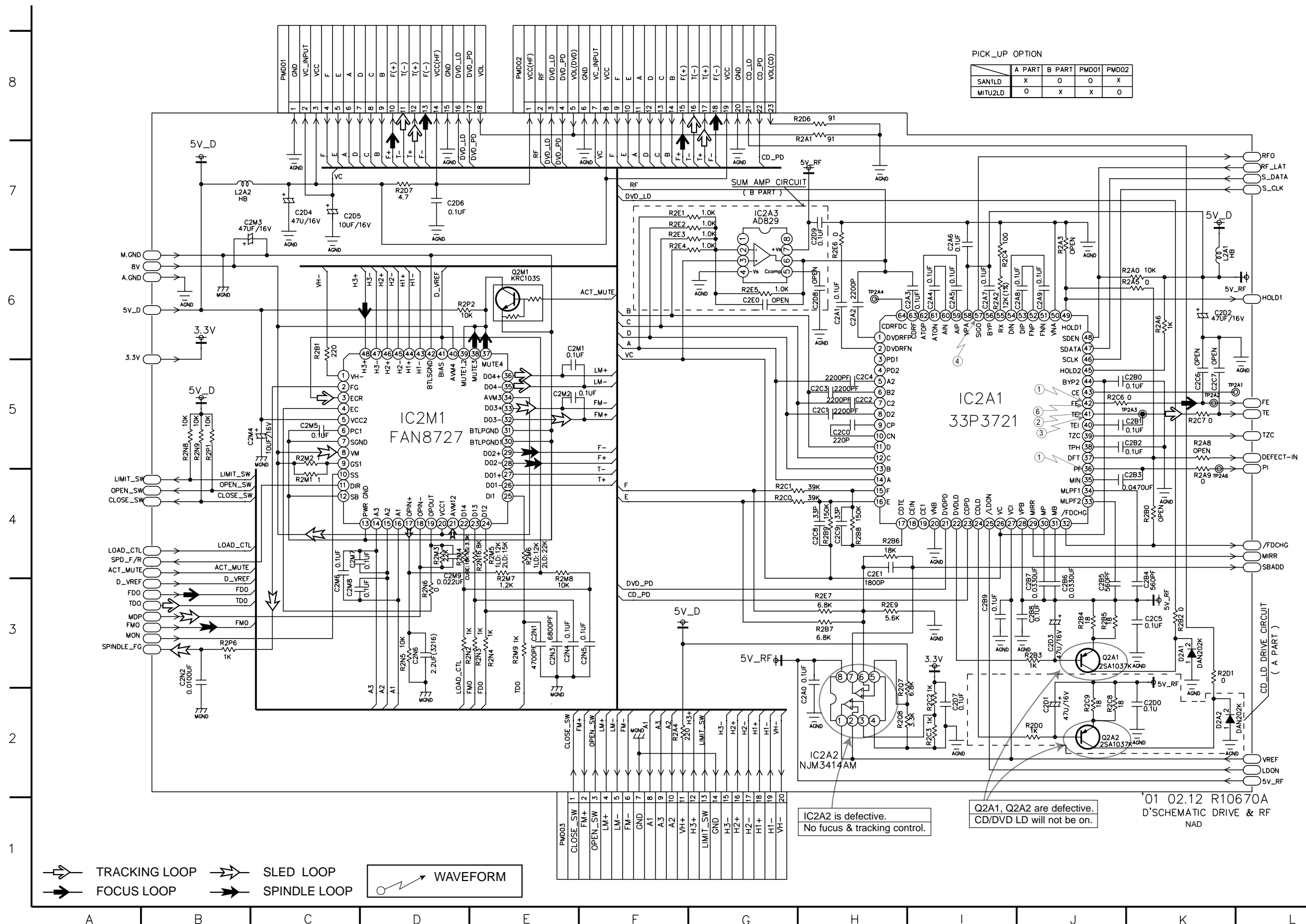
NOTES: ⚠ Warning Parts that are shaded are critical With respect to risk of fire or electrical shock.

NOTES: ⚡ Symbol denotes AC ground. ⚡ Symbol denotes DC chassis ground.

## 2. DVD DSP CIRCUIT DIAGRAM



### 3. DRIVE & RF CIRCUIT DIAGRAM



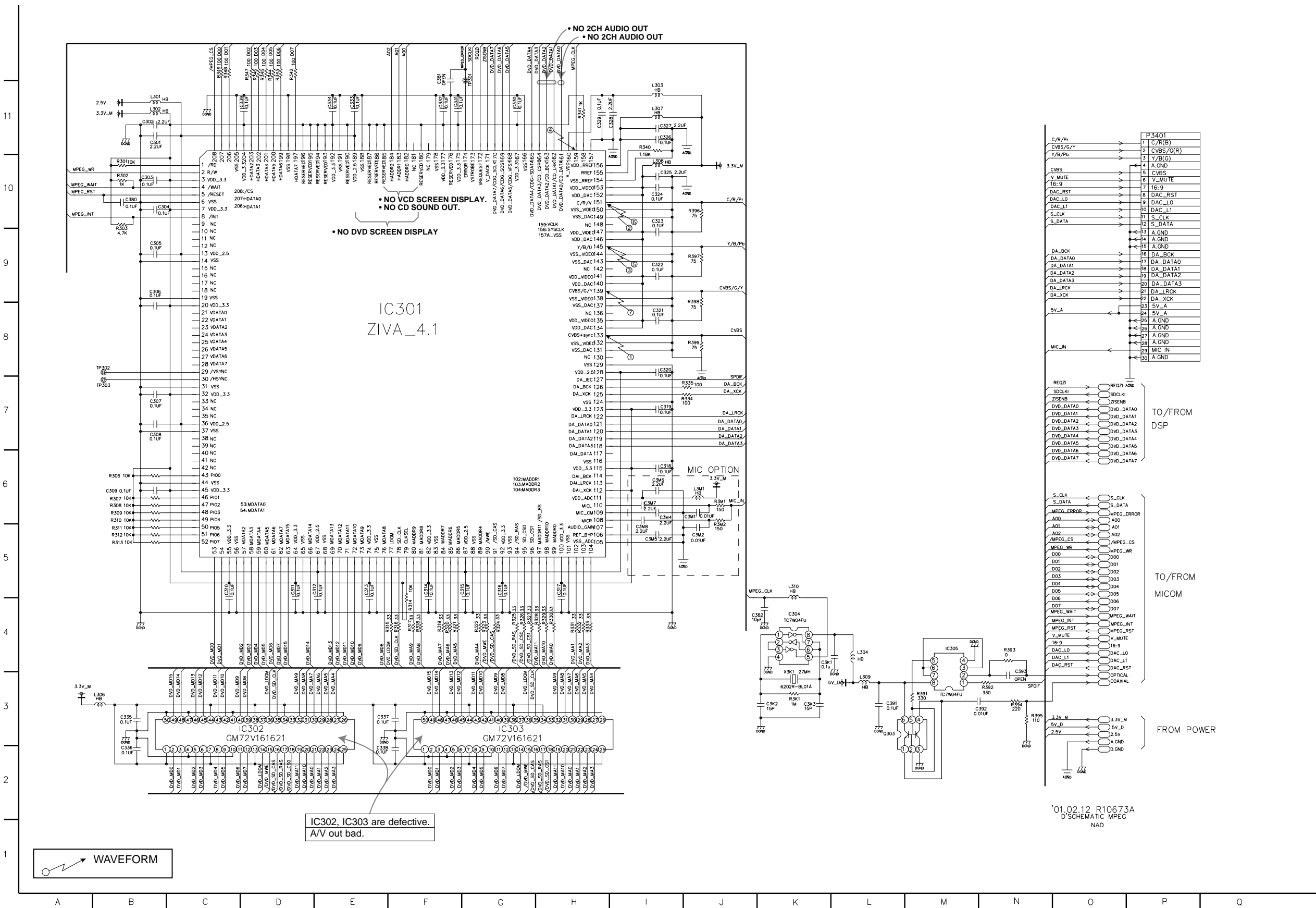
PICK\_UP OPTION

	A PART	B PART	PMD01	PMD02
SAN1LD	X	O	O	X
MITU2LD	O	X	X	O

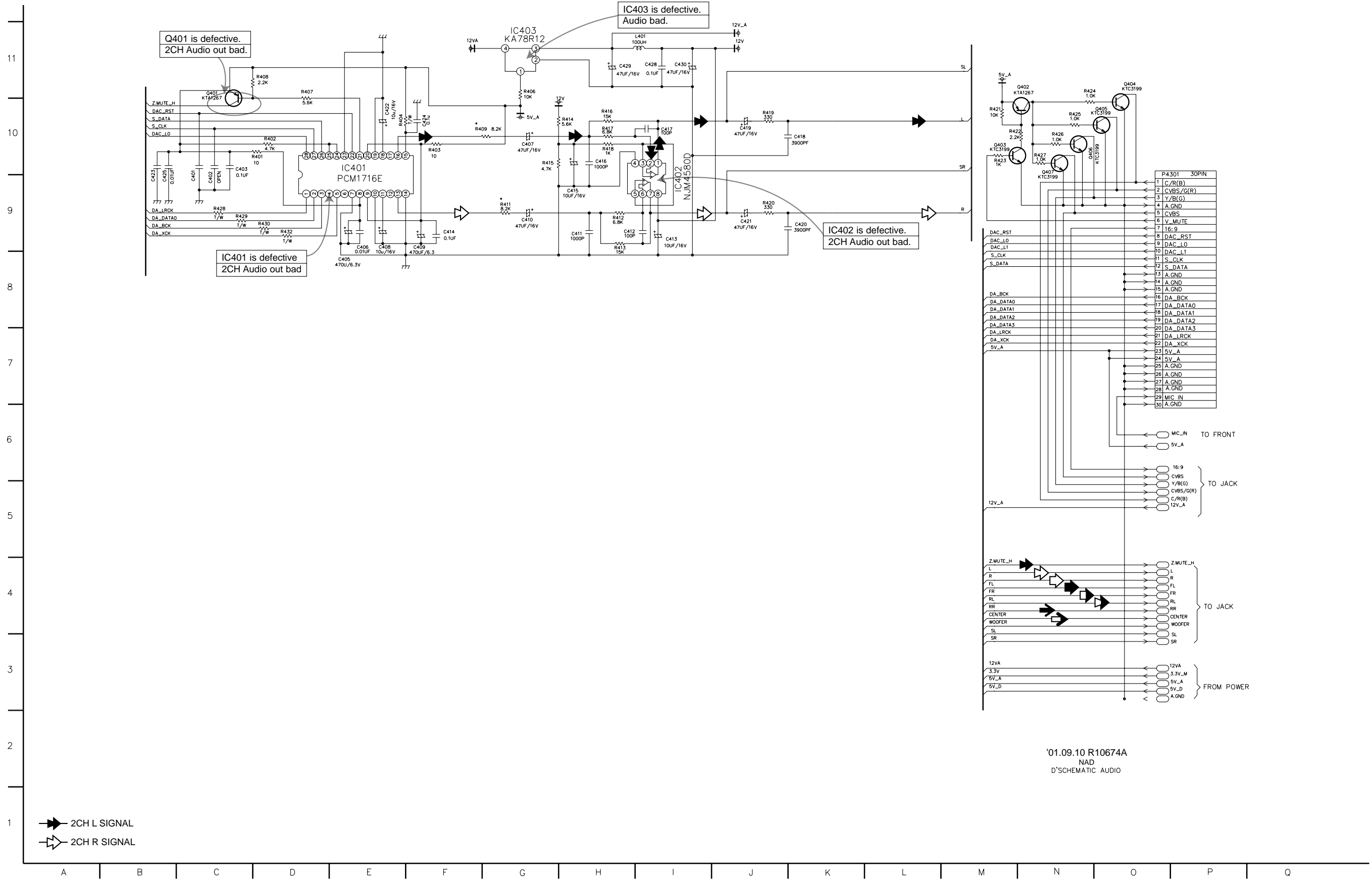
#### LOCATION GUIDE

C2A0	H2	Q2A2	J2
C2A1	H6	Q2M1	E6
C2A2	H6	R2A0	J6
C2A3	I6	R2A1	G7
C2A4	I6	R2A2	I6
C2A5	I6	R2A3	J6
C2A6	I6	R2A4	F2
C2A7	I6	R2A5	J6
C2A8	J6	R2A6	K6
C2A9	J6	R2A8	K5
C2B0	J5	R2A9	K4
C2B1	K5	R2B0	K4
C2B2	J5	R2B1	C6
C2B3	J4	R2B2	K3
C2B4	K3	R2B3	J3
C2B5	J3	R2B4	J3
C2B6	J3	R2B5	J3
C2B7	J3	R2B6	H4
C2B8	J3	R2B7	H3
C2B9	I3	R2B8	H4
C2C0	H5	R2B9	H4
C2C1	H5	R2C0	G4
C2C2	H5	R2C1	G4
C2C3	H5	R2C2	I2
C2C4	H5	R2C3	I2
C2C5	K3	R2C4	I6
C2C6	K5	R2C6	J5
C2C7	K5	R2C7	K5
C2C8	H4	R2C8	J2
C2C9	H4	R2C9	J2
C2D0	K2	R2D0	J2
C2D1	J2	R2D1	K3
C2D2	K6	R2D6	G8
C2D3	J3	R2D7	D7
C2D4	C7	R2E1	F7
C2D5	C7	R2E2	F7
C2D6	D7	R2E3	F7
C2D7	I2	R2E4	F7
C2D8	H6	R2E5	G6
C2D9	H7	R2E6	H6
C2E0	G6	R2E7	H3
C2E1	H4	R2E9	H3
C2M1	E6	R2M1	C4
C2M2	E5	R2M2	C5
C2M3	B7	R2M3	D4
C2M4	C5	R2M4	D4
C2M5	C5	R2M5	E4
C2M6	C3	R2M6	E4
C2M7	C4	R2M7	E3
C2M8	C3	R2M8	E3
C2M9	D4	R2M9	E3
C2N1	E3	R2N1	E4
C2N2	B3	R2N2	E3
C2N3	E3	R2N3	E3
C2N4	E3	R2N4	E3
C2N5	F3	R2N5	D3
C2N6	D3	R2N6	D3
D2A1	K3	R2N8	B5
D2A2	K2	R2N9	B5
IC2A1	I5	R2P1	B5
IC2A2	H2	R2P2	D6
IC2A3	G7	R2P6	B3
IC2M1	D5	R2Q7	H2
L2A1	K6	R2Q8	H2
L2A2	B7	TP2A1	K5
PMD01	C8	TP2A2	K5
PMD02	E8	TP2A3	J5
PMD03	E1	TP2A4	H6
Q2A1	J3	TP2A6	K4

# 4. MPEG CIRCUIT DIAGRAM

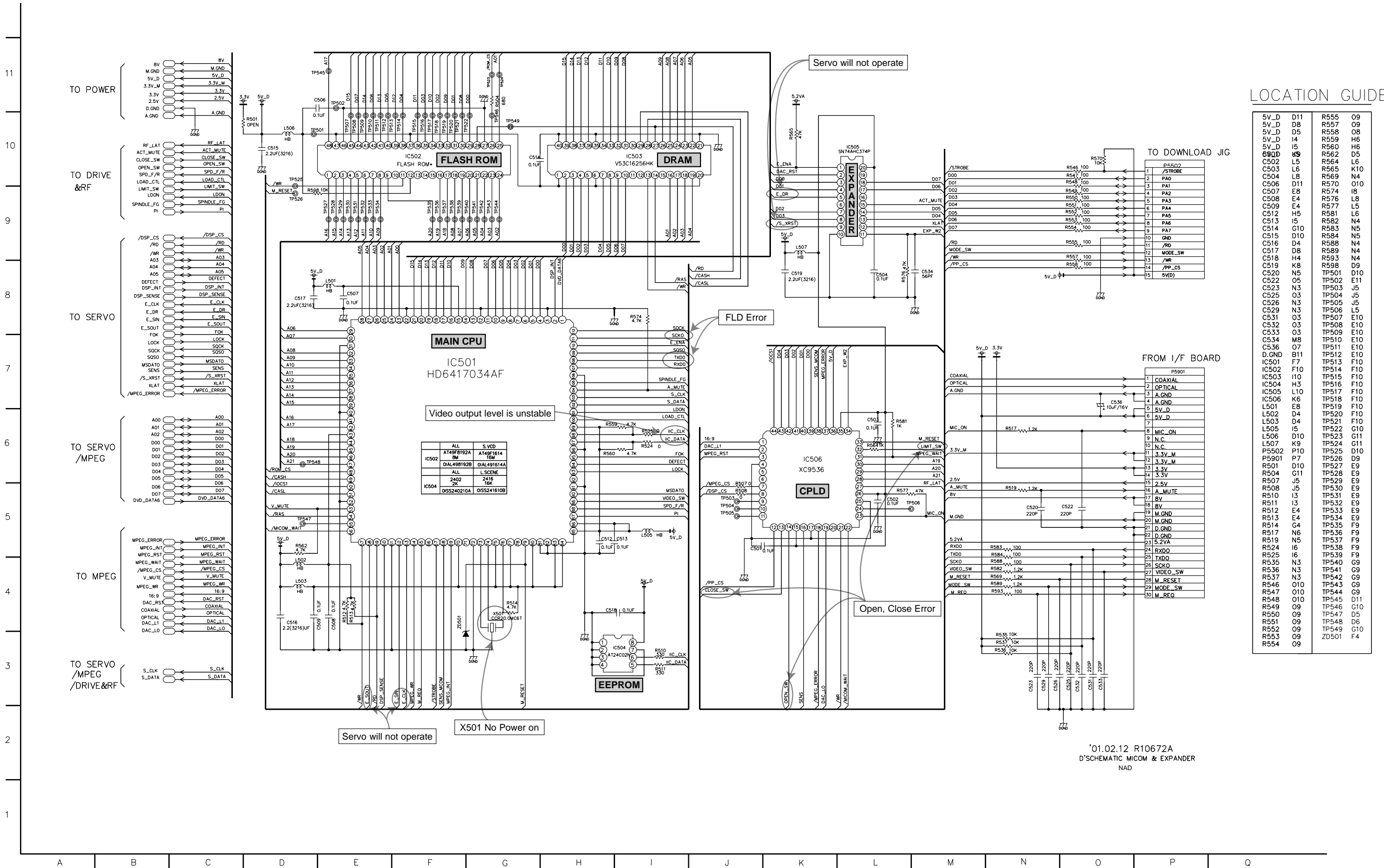


# 5. AUDIO DM CIRCUIT DIAGRAM



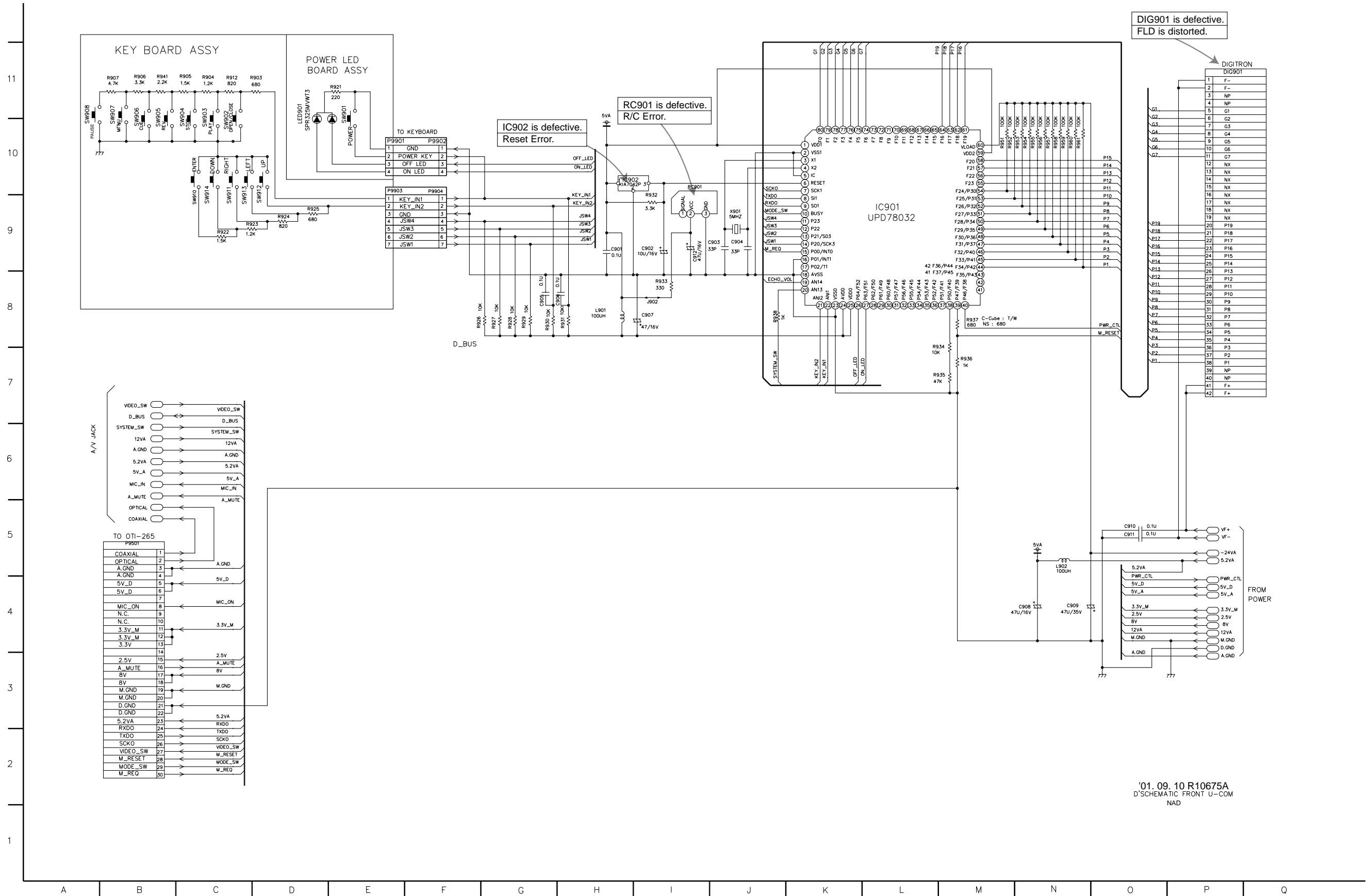
'01.09.10 R10674A  
 NAD  
 D'SCHEMATIC AUDIO

# 6. μ-COM/EXPANDER CIRCUIT DIAGRAM

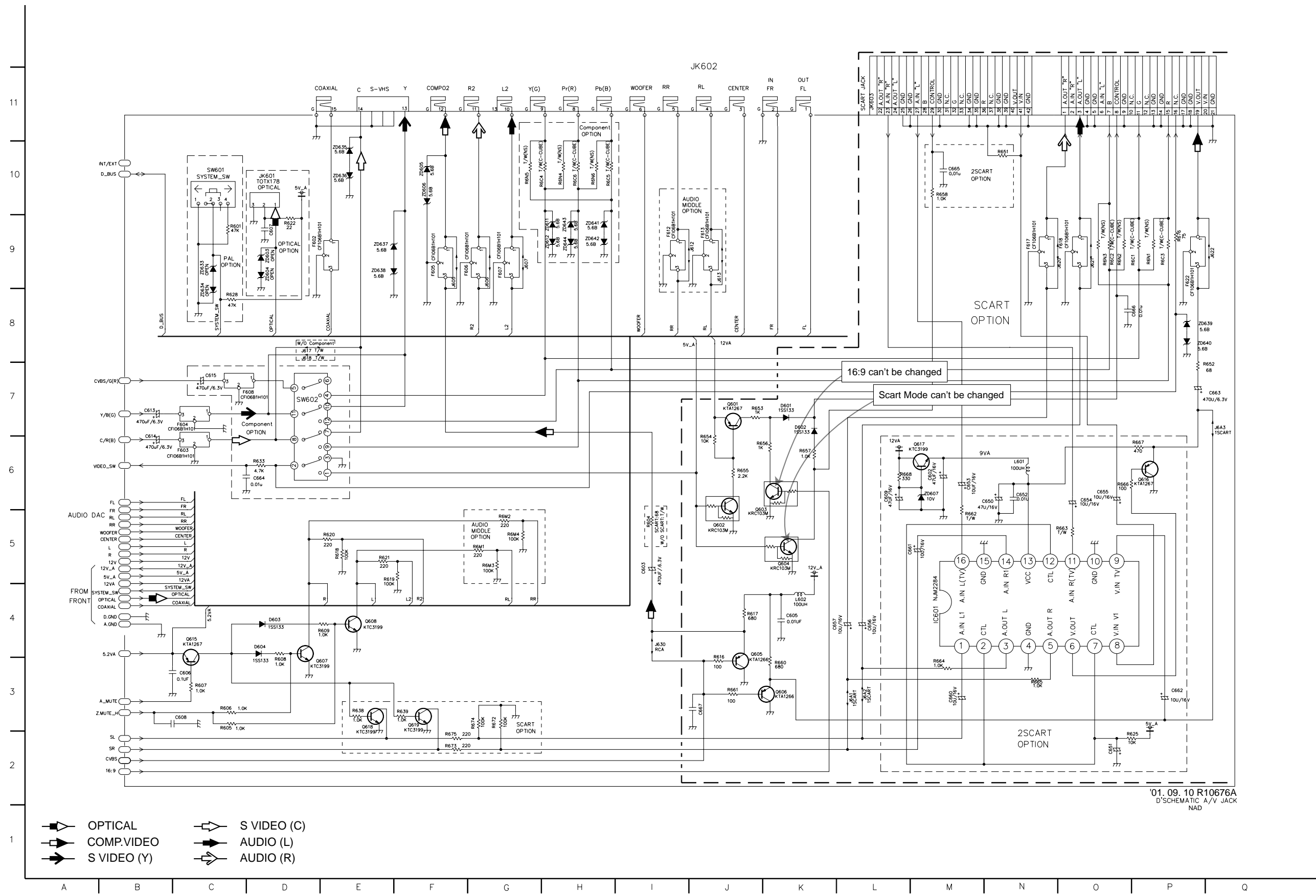




# 7. DIGITRON(TIMER) & KEY CIRCUIT DIAGRAM



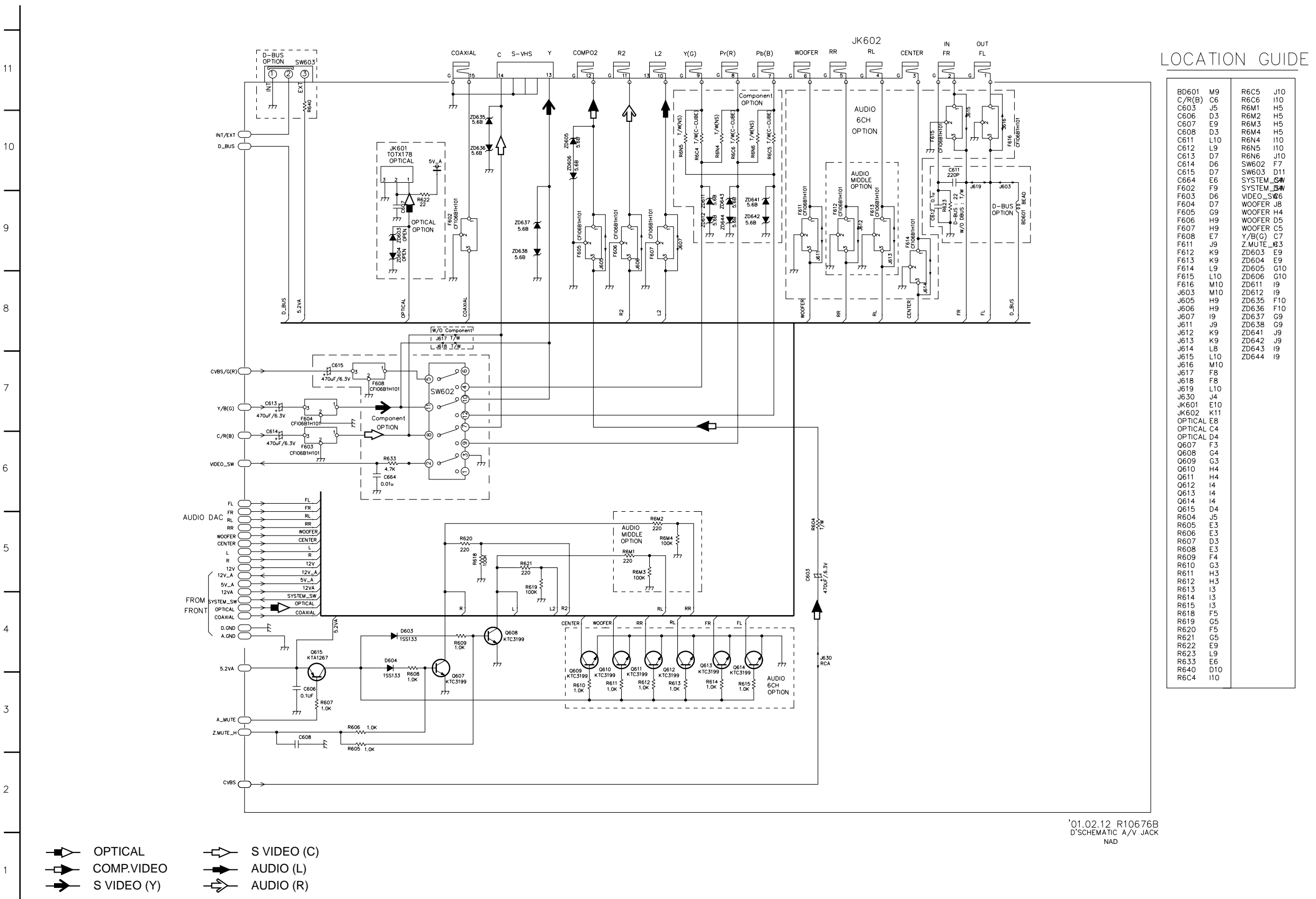
# 8. SCART CIRCUIt DIAGRAM



'01.09.10 R10676A  
D'SCHEMATIC A/V JACK  
NAD

- OPTICAL
- COMP.VIDEO
- S VIDEO (Y)
- S VIDEO (C)
- AUDIO (L)
- AUDIO (R)

# 9. JACK CIRCUIT DIAGRAM



'01.02.12 R10676B  
D'SCHEMATIC A/V JACK  
NAD

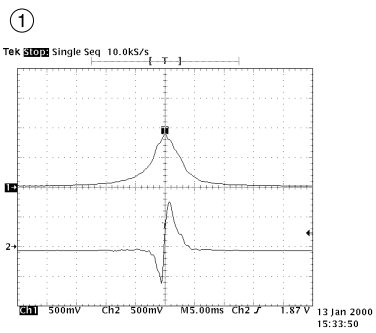
- OPTICAL
- COMP.VIDEO
- S VIDEO (Y)
- S VIDEO (C)
- AUDIO (L)
- AUDIO (R)



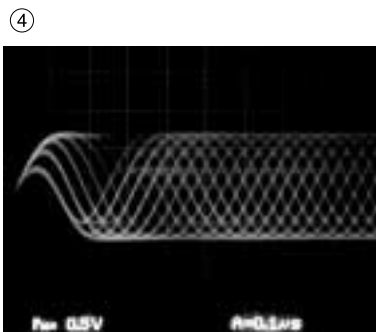




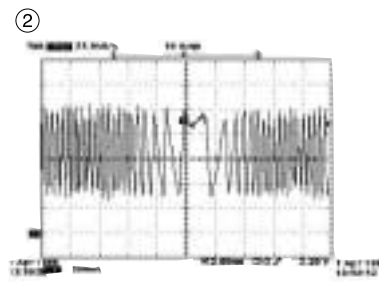
• **WAVEFORMS**  
(Circuit 3 DRIVE & RF)



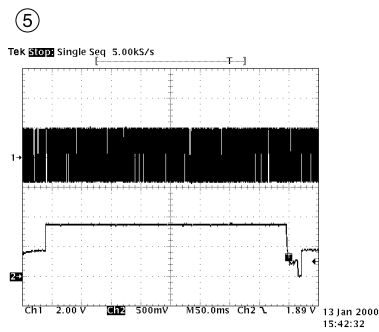
IC2A1 Pin 42, Focus Error  
IC2A1 Pin 36, Pi



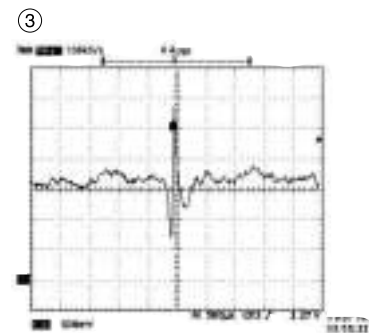
IC2A1 Pin 57,  
RF



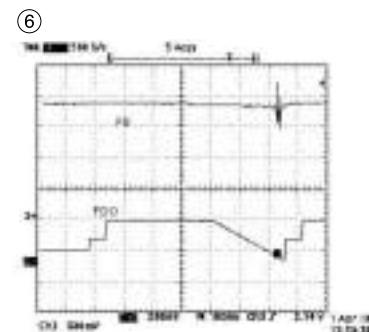
IC2A1 Pin 41  
Tracking Error



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

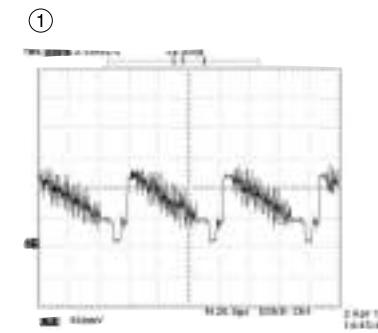


IC2A1 Pin 41  
VBR TRACKING Error

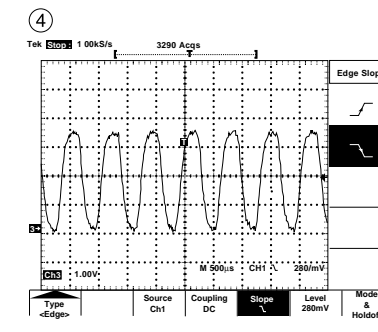


IC2A1 Pin42, Focus Error(in Focus Search)  
IC201 Pin 83, Focus Drive(FDO)

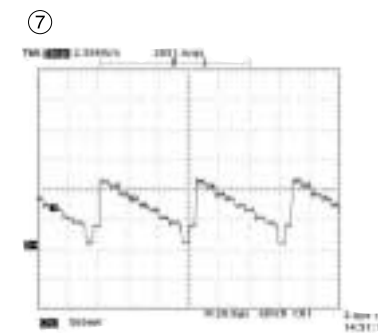
(Circuit 4 MPEG)



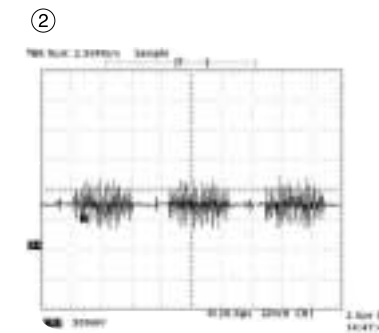
IC301 Pin 133, Composite



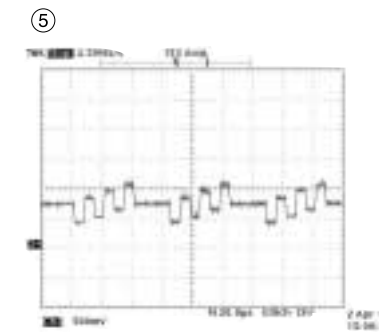
IC301 Pin 159,  
MPEG Clock(27MHz)



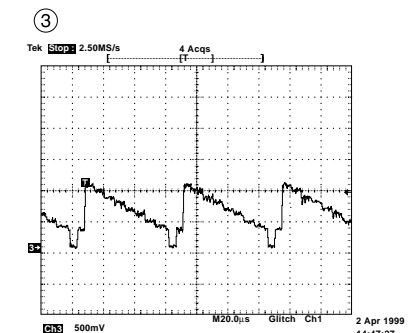
IC301 Pin 139  
Component Y



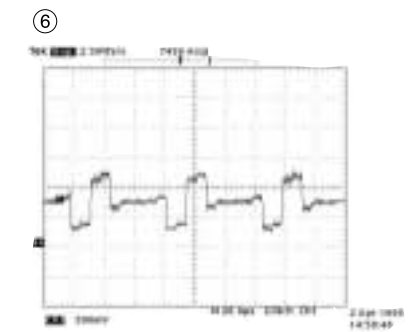
IC301 Pin 151, Chrominance  
(Super video out Mode)



IC301 Pin 145  
Component Pb



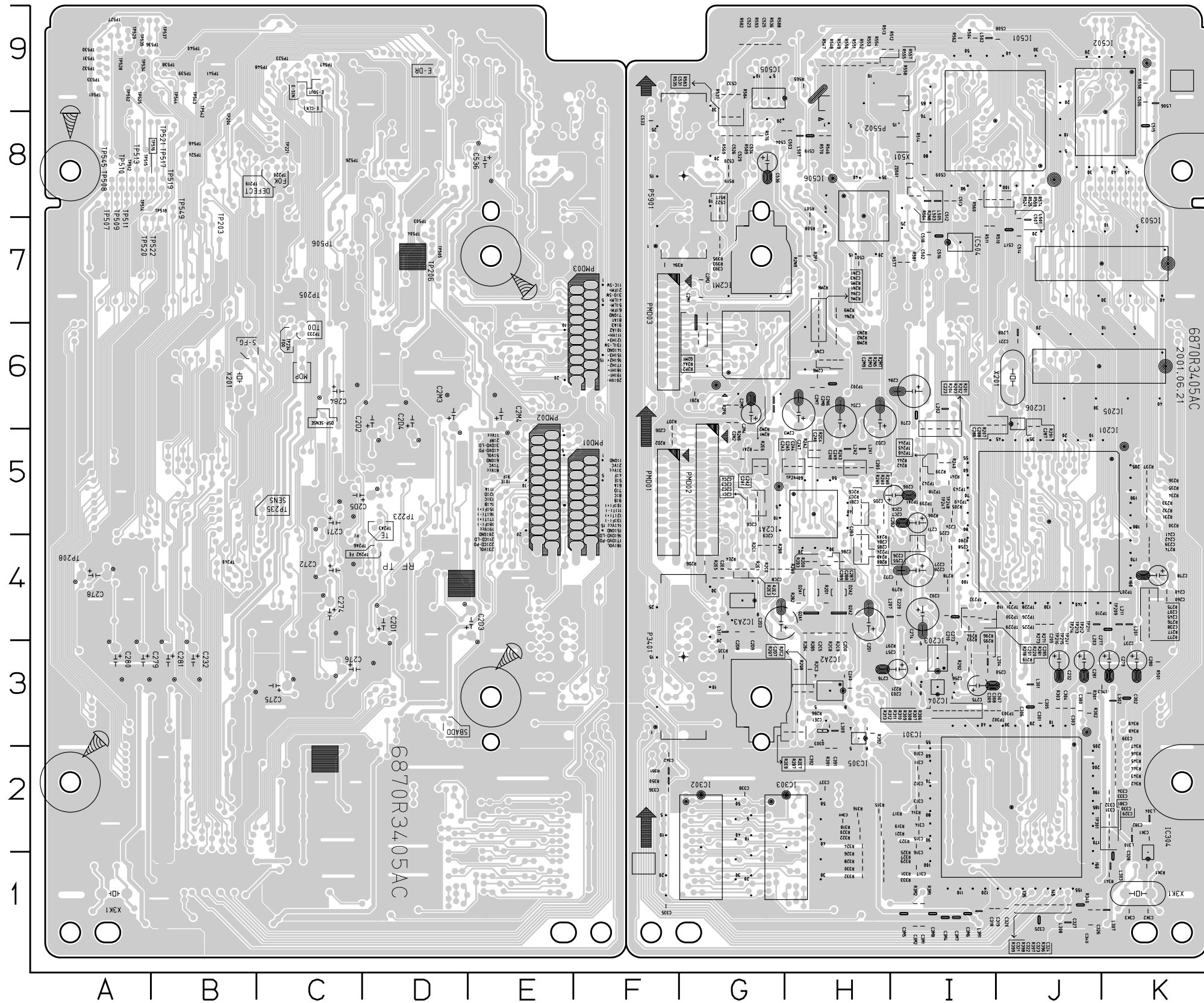
IC301 Pin 145, Luminance  
(Super video out Mode)



IC301 Pin 151  
Component Pr

# PRINTED CIRCUIT DIAGRAMS

## 1. MAIN P.C.BOARD



### LOCATION GUIDE

TP203	B7	TP518	A8
TP204	B9	TP519	B8
TP205	C7	TP520	A7
TP206	D7	TP521	B8
TP208	A4	TP522	B7
TP219	C8	TP523	C8
TP220	C8	TP524	B8
TP221	C8	TP525	A9
TP223	D5	TP526	D8
TP233	C6	TP527	A9
TP234	C6	TP528	A9
TP235	C5	TP529	A9
TP240	B4	TP530	A9
TP2A2	D4	TP531	A9
TP2A3	D5	TP532	A9
TP2A6	D4	TP533	A9
TP501	A9	TP534	A9
TP502	A9	TP535	A9
TP503	D7	TP536	A9
TP504	D7	TP537	B9
TP505	D7	TP538	B9
TP506	C7	TP539	B9
TP507	A8	TP540	B9
TP508	A8	TP541	B9
TP509	A8	TP542	B9
TP510	A8	TP543	B9
TP511	A8	TP544	B9
TP512	A8	TP545	A8
TP513	A8	TP546	B8
TP514	A8	TP547	C8
TP515	B8	TP548	C8
TP516	B8	TP549	B8
TP517	B8		

C201	I4	C286	H4	C322	J1	C533	F8	R203	I5	R2C3	H3	R324	H2	R558	I9
C202	I4	C287	H4	C323	J1	C534	G8	R204	I5	R2C4	H5	R325	H2	R559	J8
C203	I3	C288	H4	C324	J1	C535	G8	R205	I5	R2C6	H5	R326	H2	R560	J8
C205	J4	C289	H4	C325	J1	D2A1	H4	R206	I5	R2C7	H5	R327	H1	R562	I9
C206	I5	C290	G5	C326	J1	D2A2	H4	R207	J6	R2C8	H4	R328	H4	R564	I8
C207	K4	C291	G5	C327	J1	IC201	J5	R217	K4	R2C9	H4	R329	H1	R565	H9
C210	I4	C292	G5	C328	K1	IC203	J3	R218	I4	R2D0	H4	R330	H1	R569	G8
C221	J6	C293	G5	C329	K2	IC204	I3	R219	I4	R2D1	H4	R331	H1	R570	H8
C223	I5	C294	G5	C330	K2	IC205	J6	R220	I4	R2D2	F5	R332	H1	R574	J8
C224	I5	C295	H4	C331	K2	IC206	J6	R221	I3	R2D6	G4	R333	H1	R576	G8
C225	I4	C296	H5	C332	K2	IC2A1	H5	R230	K5	R2D7	F6	R335	G3	R577	I7
C226	I4	C297	H5	C333	K2	IC2A2	H5	R231	K5	R2E1	G4	R340	J1	R581	I7
C227	I4	C298	G4	C334	K2	IC2A3	G4	R232	K5	R2E2	G4	R341	K1	R582	I9
C228	I4	C299	G4	C335	F1	IC2M1	G6	R233	K5	R2E3	G4	R342	K2	R583	G8
C229	I4	C300	H4	C336	F2	IC301	J2	R234	K5	R2E4	G4	R343	K2	R584	G9
C232	J3	C301	H4	C337	H2	IC302	G2	R235	K5	R2E5	G4	R344	K2	R588	G9
C237	K4	C302	H5	C338	G2	IC303	H2	R236	K5	R2E6	G5	R345	K2	R589	G8
C238	K4	C303	G4	C339	K3	IC304	K1	R237	K5	R2E7	H3	R346	K2	R593	G9
C239	K4	C304	H4	C340	J1	IC305	H3	R239	I5	R2E9	H3	R347	K2	R598	K9
C240	K4	C305	H5	C341	K3	IC501	I8	R240	I5	R2M1	GG	R348	K3	TP202	H6
C247	K4	C306	F5	C342	F2	IC502	K8	R241	I5	R2M2	GG	R349	K3	TP207	K4
C242	K4	C307	H3	C380	J3	IC503	K7	R242	I5	R2M3	GG	R350	F2	TP209	K4
C245	K4	C308	K2	C381	K2	IC504	I7	R244	I5	R2M4	GG	R351	F2	TP210	J4
C250	I3	C309	G4	C382	K2	IC505	G9	R271	J4	R2M5	H7	R391	H2	TP211	J4
C255	I4	C310	G4	C383	H2	IC506	H8	R279	J4	R2M6	H7	R392	H3	TP212	J4
C256	I3	C311	H3	C384	H2	IC392	H2	L21	K4	R2M7	H6	R393	G7	TP213	J4
C257	I3	C312	G7	C393	G7	L202	I6	R275	K4	R2M8	H6	R394	F7	TP214	J4
C258	I4	C313	G7	C3H1	H2	L203	J4	R276	K4	R2M9	H7	R395	G7	TP215	J4
C260	K4	C314	G6	C3K1	K2	L204	I3	R277	K4	R2N1	H6	R396	J1	TP216	J4
C267	I1	C315	GG	C3K2	K1	L207	H4	R278	I4	R2N2	H6	R397	J1	TP218	I5
C271	I5	C316	GG	C3K3	K1	L208	J6	R279	I4	R2N3	H6	R398	J1	TP224	H4
C272	I4	C317	H5	C3M1	I1	L211	K4	R280	I4	R2N4	H7	R399	J1	TP225	J4
C273	I4	C318	H5	C3M2	I1	L2A1	H5	R281	I4	R2N5	H6	R3M1	K1	TP226	J4
C274	I4	C319	H5	C3M4	I1	L2A2	H5	R291	J6	R2N6	GG	R3M2	I1	TP228	J4
C275	I3	C320	H5	C3M5	I1	L301	J3	R292	I3	R2N8	I8	R3M2	I1	TP229	J4
C276	I3	C321	H7	C3M6	I1	L302	K3	R293	I3	R2N9	H7	R501	K3	TP230	J4
C277	K4	C322	GG	C3M7	I1	L303	K1	R294	I3	R2P1	H7	R504	J9	TP231	J4
C278	K4	C323	H7	C3M8	I1	L304	K2	R295	I3	R2P2	GG	R507	H8	TP232	I4
C279	K3	C324	H5	C501	I7	L307	K1	R296	I3	R2P6	GG	R508	H7	TP239	I5
C280	K3	C325	H5	C502	I7	L308	J1	R297	I3	R2P7	H3	R510	I7	TP241	J4
C281	J3	C326	H5	C503	H8	L309	H3	R2A0	H5	R2P8	H3	R511	I7	TP242	I5
C284	I6	C301	J3	C504	G8	L310	K2	R2A1	G5	R301	J3	R512	I9	TP243	I5
C285	I4	C302	K3	C505	K9	L311	G4	R2A2	H5	R302	J3	R513	H9	TP244	I5
C286	I6	C303	J3	C507	J7	L3M1	I1	R2A3	H5	R303	J3	R514	I5	TP245	I5
C287	J6	C304	J3	C508	J9	L501	J7	R2A4	GG	R306	I3	R517	G8	TP246	I5
C288	J6	C305	J3	C509	I8	L502	I9	R2A5	H5	R307	I3	R519	G8	TP247	I5
C2A0	H3	C306	J3	C512	I8	L503	I8	R2A6	H5	R308	I3	R524	I8	TP248	I5
C2A1	G5	C307	J3	C513	I8	L505	I8	R2A8	H4	R309	I3	R525	I8	TP249	I5
C2A2	G5	C308	I3	C514	J7	L506	K9	R2A9	H5	R310	I3	R535	G8	TP2A1	I5
C2A3	H5	C309	I3	C515	K8	L507	H8	R2B0	H4	R311	I3	R536	G9	TP2A4	G5
C2A4	H5	C310	I2	C516	J7	P3401	G3	R2B1	GG	R312	I3	R537	G9	TP301	J2
C2A5	H5	C311	I2	C517	J7	P502	H8	R2B2	H4	R313	I3	R546	H6	TP302	J3
C2A6	H5	C312	I2	C518	J7	P501	G8	R2B3	H4	R314	I2	R547	H9	TP303	J3
C2A7	H5	C313	I2	C519	H8	PM001	F5	R2B4	H4	R315	H2	R548	H9	X201	J6
C2A8	H5	C314	I2	C520	G8	PM002	G5	R2B5	H4	R316	H2	R549	H9	X3K1	K1
C2A9	H5	C315	I2	C522	G7	PM003	F7	R2B6	H3	R317	H2	R550	H9	X501	K1
C2B0	H5	C316	I2	C523	G9	Q2A1	H4	R2B7	H3	R318	H2	R551	H9	ZD501	I8
C2B1	H5	C317	I1	C525	G8	Q2A2	H4	R2B8	H4	R319	H2	R552	H9		
C2B2	H5	C318	I1	C526	G8	Q2M1	GG	R2B9	H4	R320	H2	R553	H9		
C2B3	H5	C319	I1	C529	G8	Q303	H3	R2C0	G4	R321	H2	R554	H9		
C2B4	H4	C320	J1	C531	G8	R201	I5	R2C1	G4	R322	H2	R555	H9		
C2B5	H4	C321	J1	C532	G9	R202	I5	R2C2	H3	R323	H2	R557	I9		

(Solder Side)





## **CONTENTS**

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**SECTION 2 . . . .CABINET & MAIN CHASSIS**

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**SECTION 5 . . . .REPLACEMENT PARTS LIST**

# SECTION 1

## SUMMARY

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<b>SERVICING PRECAUTIONS .....</b>	<b>1-4</b>
• General Servicing Precautions	
• Insulation Checking Prodedure	
• Electrostatically Sensitive Devices	
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# IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, the products are strictly inspected to conform with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

## • Precautions during Servicing

1. Locations requiring special caution are denoted by labels and inscriptions on the cabinet, chassis and certain parts of the product. When performing service, be sure to read and comply with these and other cautionary notices appearing in the operation and service manuals.

2. Parts identified by the  $\Delta$  symbol and shaded (  $\nabla$  ) parts are critical for safety. Replace only with specified part numbers.

Note : Parts in this category also include those specified to comply with X-ray emission standards for products using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

3. Use Specified internal wiring. Note especially:

- 1) Double insulated wires
- 2) High voltage leads

4. Use specified insulating materials for hazardous live parts. Note especially:

- 1) Insulation Tape
- 2) PVC tubing
- 3) Spacers
- 4) Insulation sheets for transistor

5. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)

6. Check that replaced wires do not contact sharp edged or pointed parts.

7. 1) When a power cord has been replaced, check that A mark is made on the cord, under strain, near the aperture, and the flexible cord is subjected 100 times to a pull of 40N for a duration of 1 second each.

- 2) During the test, the cord shall not be displaced by more than 2mm

8. Also check areas surrounding repaired locations.

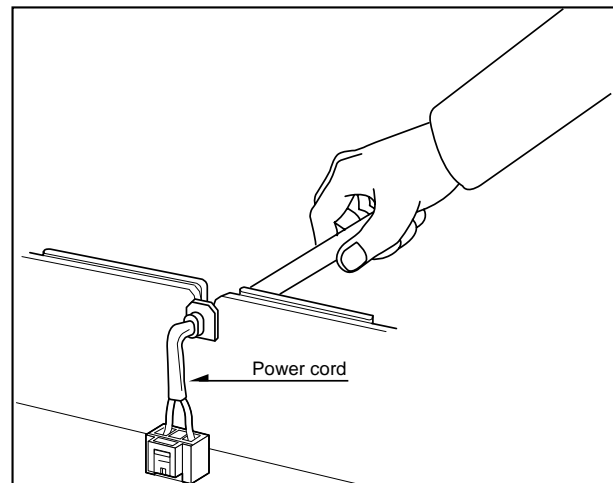


Fig. 1

# SAFETY CHECK AFTER SERVICING

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

- **Insulation resistance test**

confirm the specified insulation resistance or greater between power cord plug prongs and externally exposed parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) See table below.

- **Dielectric strength test**

Confirm specified dielectric strength or greater between power cord prongs and exposed accessible parts of the set (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) See table below.

- **Clearance distance**

When replacing primary circuit components, confirm specified clearance distance (d), (d') between soldered terminals, and between terminals and surrounding metallic parts. See table below.

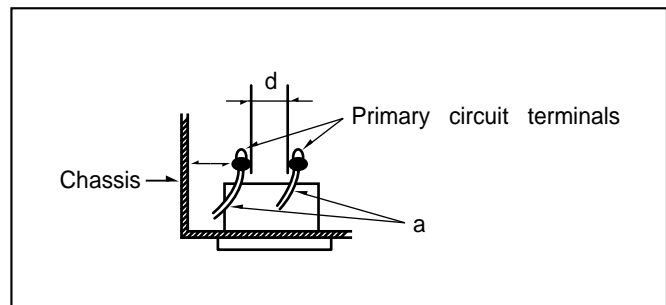


Fig. 2

Table 1 : Ratings for selected areas

AC Line Voltage	Region	Insulation Resistance	Dielectric Strength	Clearance Distance(d),(d')
*100 to 130 V 200 to 240 V	Australia Europe	F 10 MΩ/500 V DC	4kV 1 minute	F 6mm(d) F 8mm(d) (a Power cord)

\* Class II model only.

Note. This table is unofficial and for reference only. Be sure to confirm the precise values for your particular country and locality.

- **Leakage Current test**

Confirm specified or lower leakage current between B(earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.)

Measuring Method: (Power ON)

Insert load Z between B(earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See figure and following table.

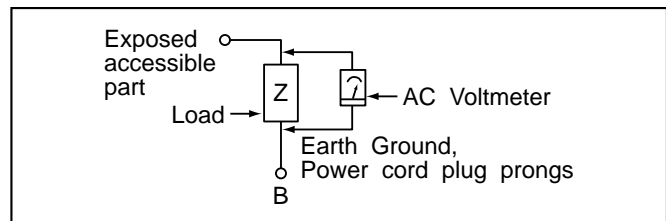


Fig. 3

Table 2:Leakage current ratings for selected areas.

AC Line Voltage	Region	Load Z	Leakage Current(i)	Earth Ground (B) to :
100 to 130 V	Australia	2kΩ	i E 0.7m A peak i E 2m A DC	Antenna earth terminals
200 to 240 V	Europe	50kΩ	i E 0.7m A peak i E 2m A DC	Other terminals

Note. This table is for IEC member only. Be sure to confirm the precise values for your particular country and locality.

# SPECIFICATIONS

## DVD VIDEO PLAYER

Power supply	AC 110~240V, 50/60Hz(T531B, T531C) AC 120V, 60Hz(T531AH)
Power consumption	16W
Mass	3.0kg(6.6lbs)
External dimensions	435 x 88 x 247 mm (W x H x D)
Signal system	PAL 625/50, NTSC 525/60
Laser	Semiconductor laser, wavelength 650nm
Frequency range (digital audio)	4Hz to 20kHz
Signal-to-noise ratio (digital audio)	More than 100dB (EIAJ)
Audio dynamic range (digital audio)	More than 95dB (EIAJ)
Harmonic distortion(digital audio)	0.008%
Wow and flutter	Below measurable level (less than +0.001%(W.PEAK)) (EIAJ)
Operations	Temperature : 5°C(41°F) to 35°C(95°F), Operation status : Horizontal

## OUTPUTS

Video outputs	1.0V(p-p), 75Ω, negative sync., RCA jack x 1/ SCART(TO TV) (T531C ONLY)
S video outputs	(Y)1.0V(p-p), 75Ω, negative sync.,Mini DIN 4-pin x 1 (C)0.286V(p-p), 75Ω
Audio output(digital audio)	0.5V(p-p), 75Ω, RCA jack X 1
Audio output(optical audio)	Optical connector x 1
Audio output(analog audio)	2.0Vrms (1kHz, 0dB), 330Ω, RCA jack (L, R) x 1/ SCART(TO TV) (T531C ONLY)

\*Designs and specifications are subject to change without notice.

\*Weight and dimensions shown are approximate.

**SECTION 2**  
**CABINET & MAIN CHASSIS**

**CONTENTS**

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  - CABINET DISASSEMBLY .....2-2**
  - CIRCUIT BOARD DISASSEMBLY .....2-3**
- 2. EXPLODED VIEWS .....2-4**
  - 1. Cabinet and Main Frame Section .....2-4**
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# DISASSEMBLY

## CAUTION BEFORE STARTING SERVICING

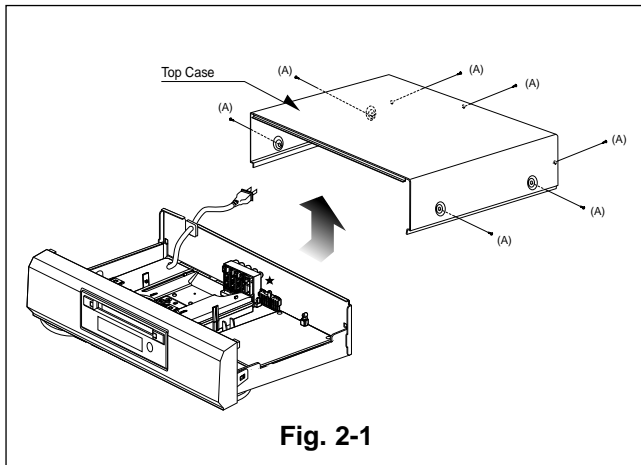
Electronic parts are susceptible to static electricity and may easily be damaged, so do not forget to take a proper grounding treatment as required.

Many screws are used inside the unit. To prevent missing, dropping, etc. of the screws, always use a magnetized screw driver in servicing. Several kinds of screws are used and some of them need special cautions. That is, take care of the tapping screws securing molded parts and fine pitch screws used to secure metal parts. If they are used improperly, the screw holes will be easily damaged and the parts can not be fixed.

## CABINET DISASSEMBLY

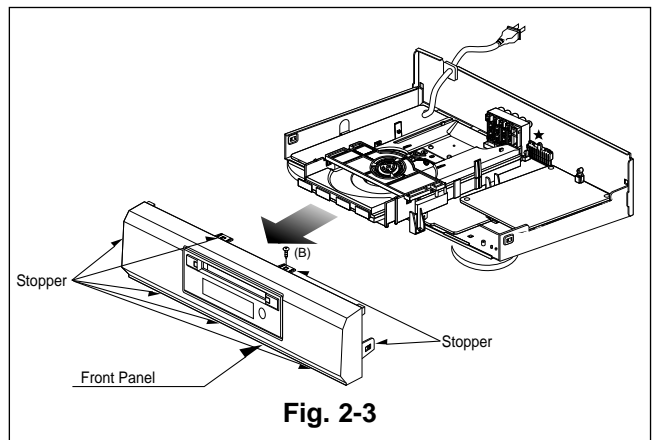
### 1. Top Case

1. Release 7 screws (A). (See Fig. 2-1)
2. Lift the top case with holding the back of it, and remove it in the direction of the arrow



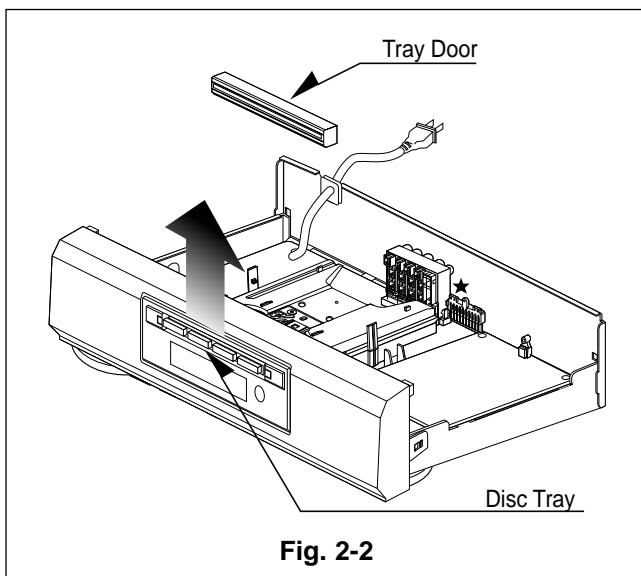
### 3. Front Panel

1. Eject the disc tray. (See Fig. 2-2)
2. Remove the tray door. (See Fig. 2-2)
3. Release 2 screws (B).
4. Pull the front panel toward you while pressing 7 stoppers to disengage, and remove the front panel. (See Fig. 2-3)



### 2. Tray Door

1. Eject the disc tray.
2. Lift up the tray door in the direction of the arrow.



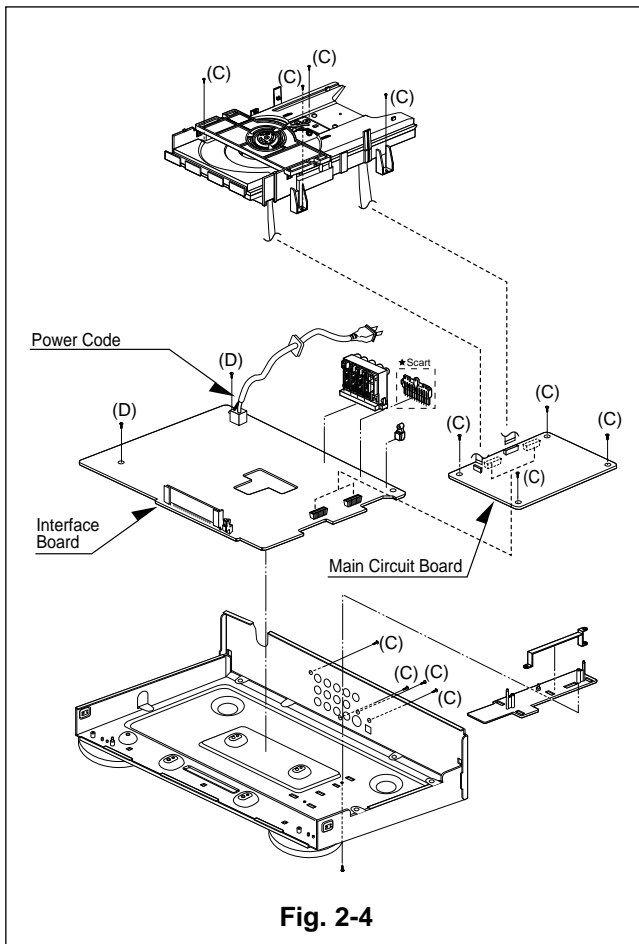


## CIRCUIT BOARD DISASSEMBLY

**Note:** Before removing the main circuit board, be sure to shortcircuit the laserdiode output land.  
After replacing the main circuit board, open the land after inserting the flexible connector.  
(Refer to Mechanism Disassembly)

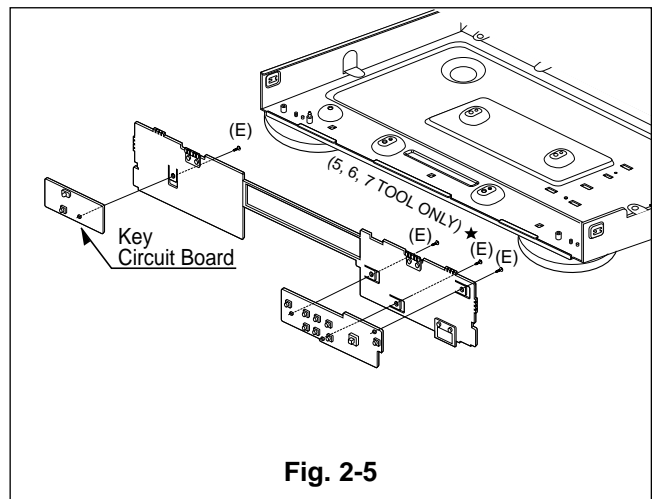
### 1. Disassembling of Main Circuit Board and Interface Board

1. Remove the top case.(See Fig. 2-1)
2. Remove 12 screw (C).
3. Remove the deck from Main Circuit Board.
4. Remove Main Circuit Board from Interface Board.
5. Remove 2 screw (D).
6. Remove Interface Board from the chassis.



### 2. Digitron and Key Circuit Board

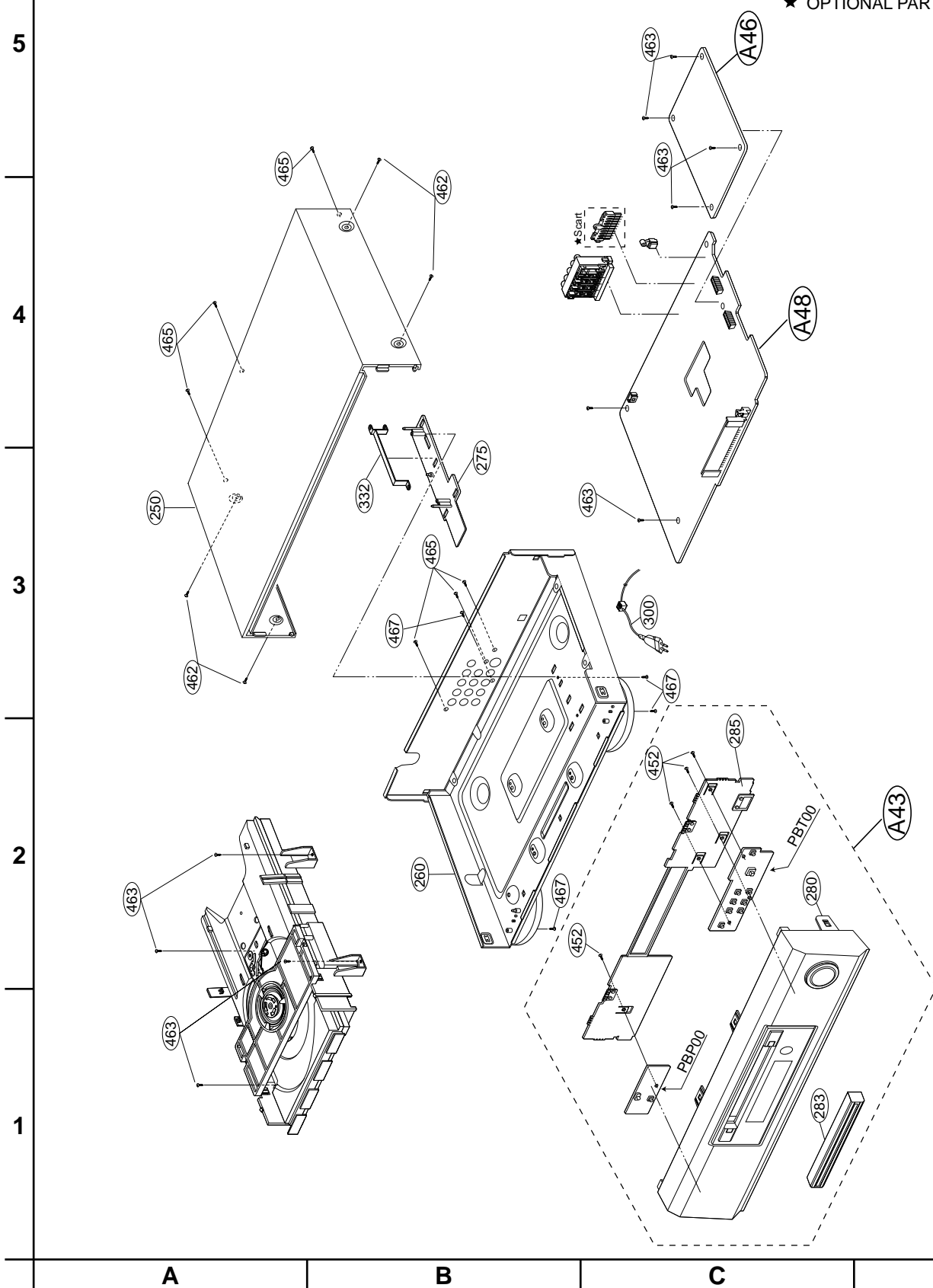
1. Remove the front panel.(See Fig. 2-3)
2. Release 4 screws (E), and remove the digitron circuit board.



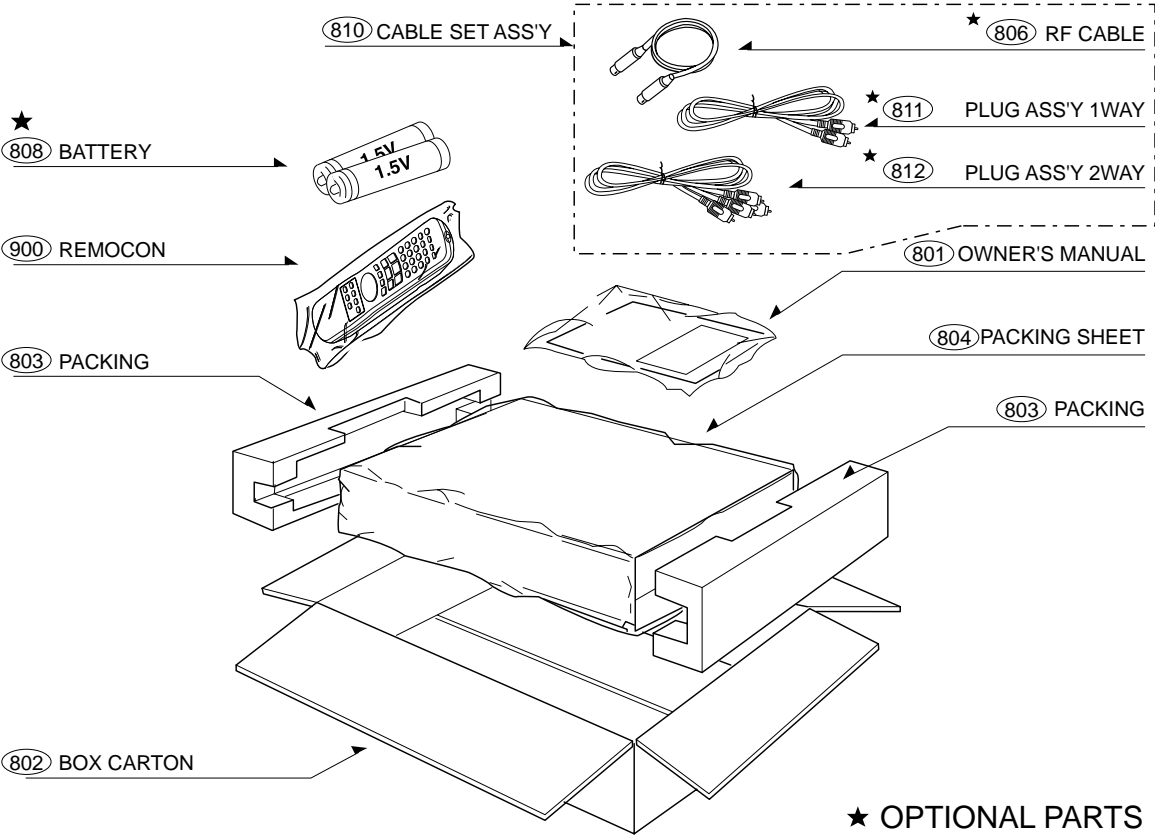
# EXPLODED VIEWS

## 1. Cabinet and Main Frame Section

★ OPTIONAL PART



## 2.Packing Accessory Section

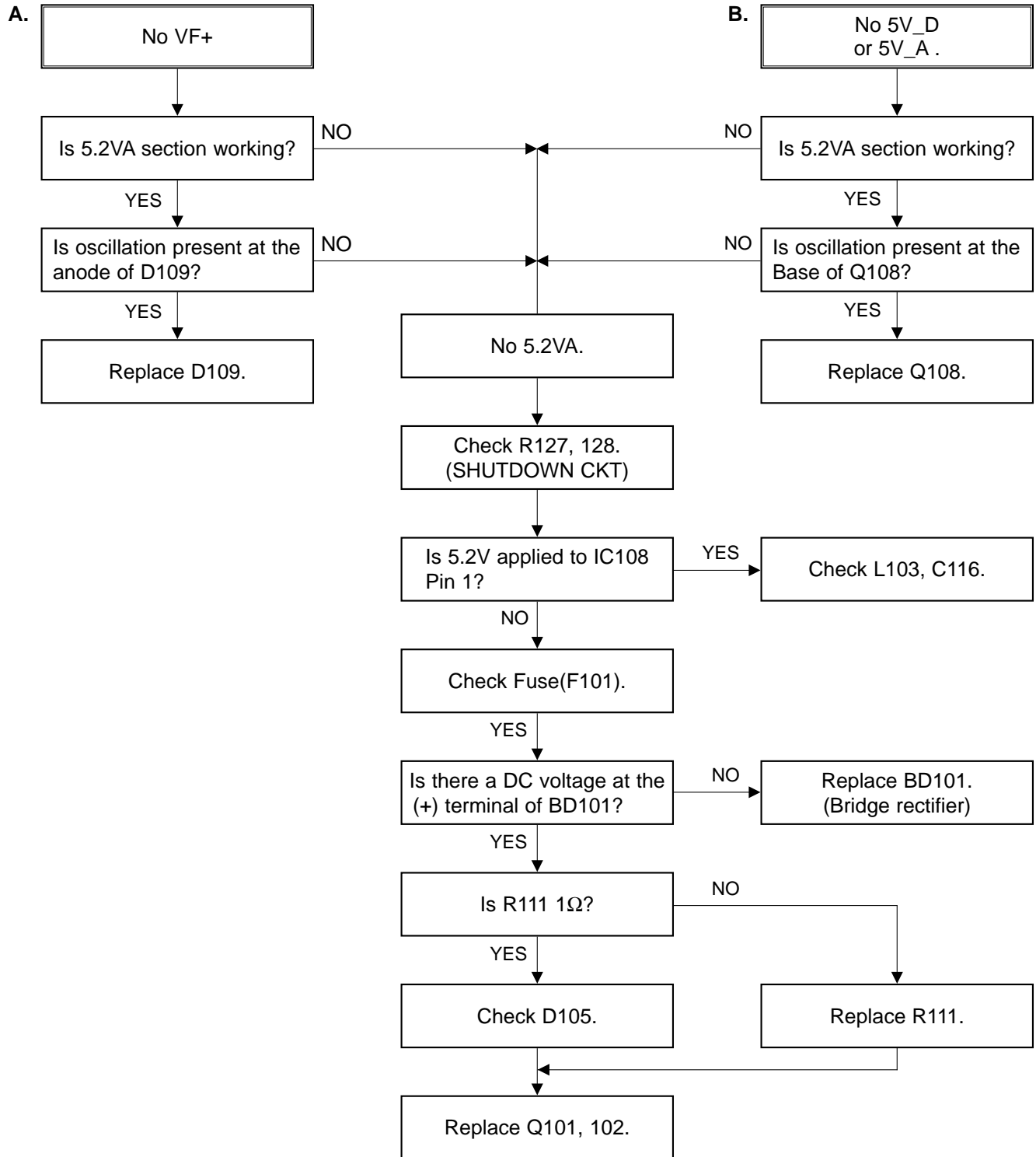


# SECTION 3 ELECTRICAL CONTENTS

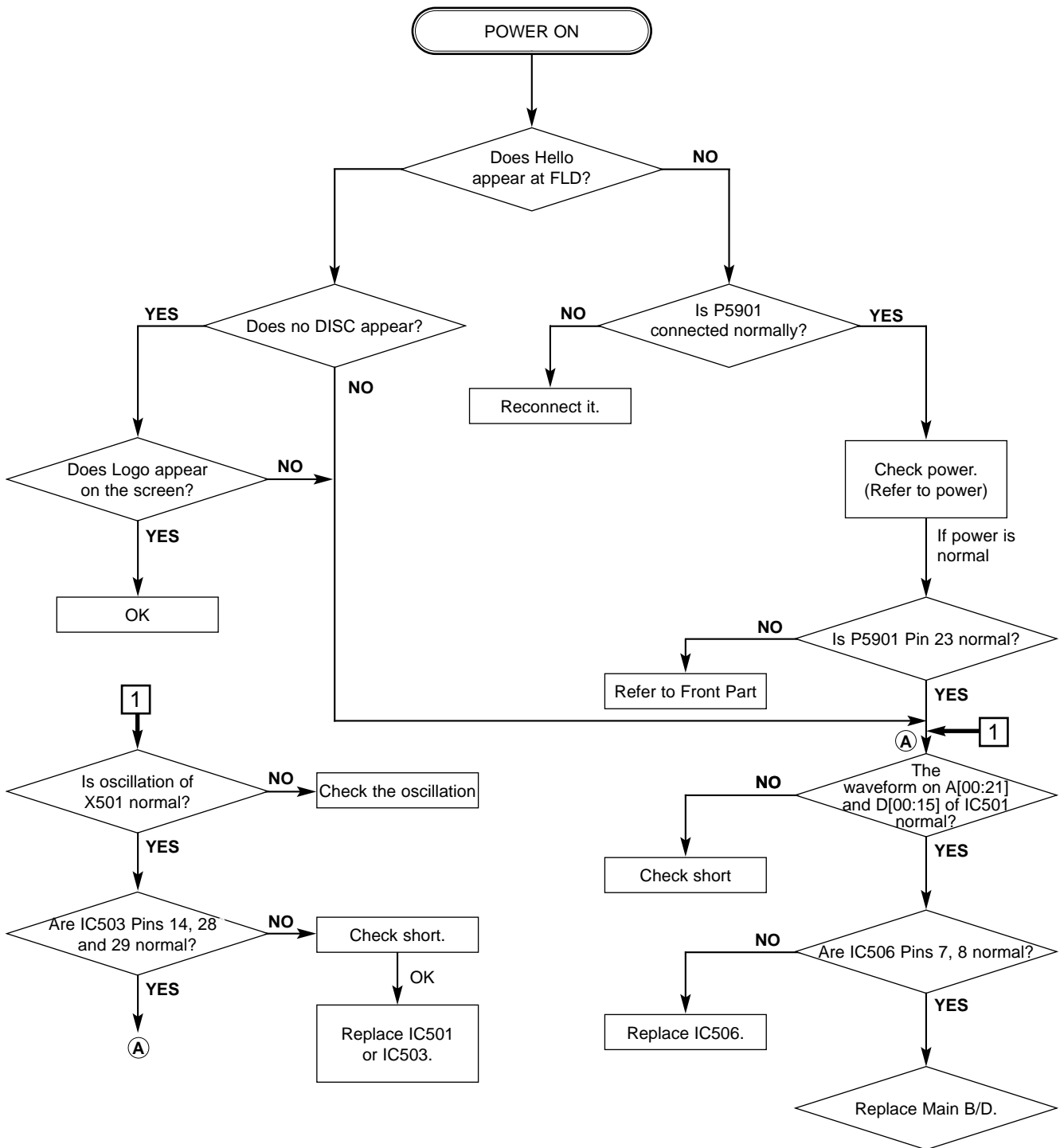
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# ELECTRICAL TROUBLESHOOTING GUIDE

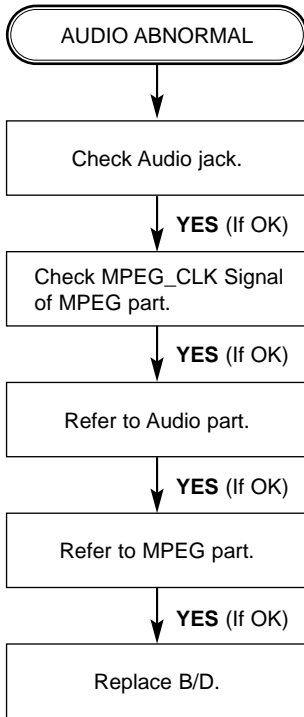
## 1. Power(SMPS) Circuit



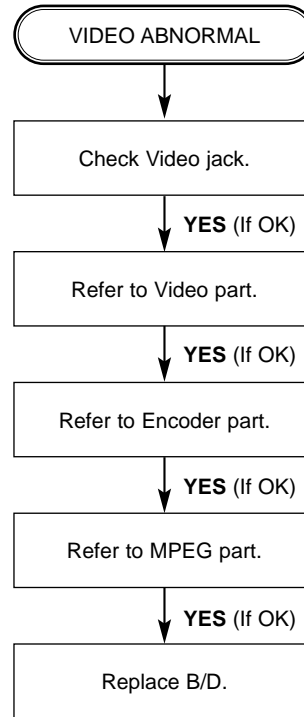
**2.  $\mu$ -COM Circuit**  
**A. No Power**



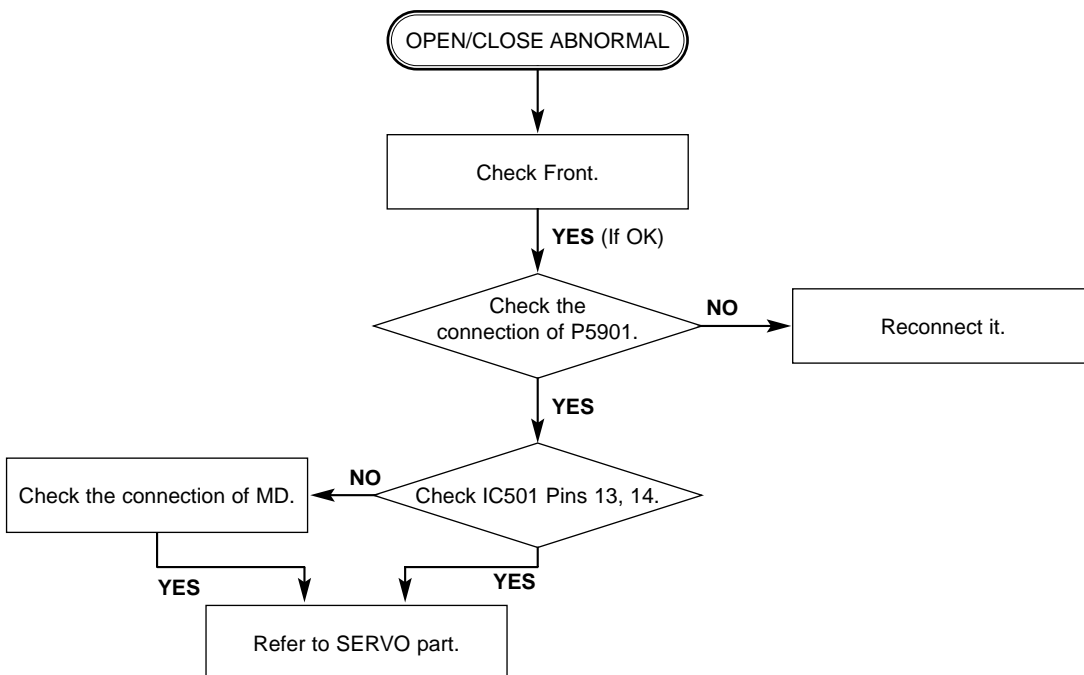
**B. Audio abnormal**



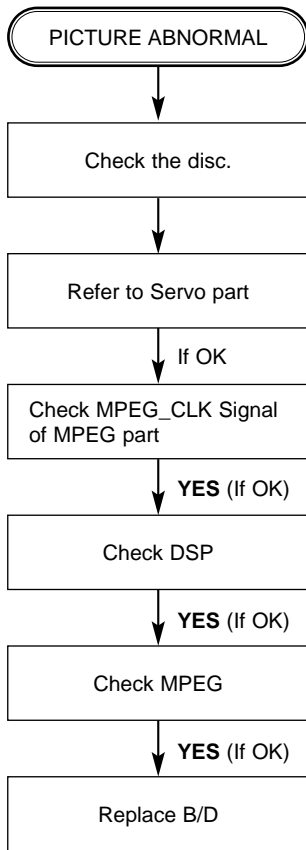
**C. Video abnormal**



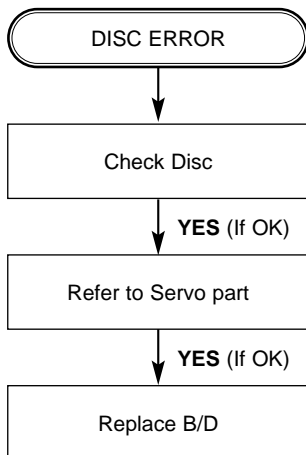
**D. Open/Close abnormal**



### E. Picture abnormal

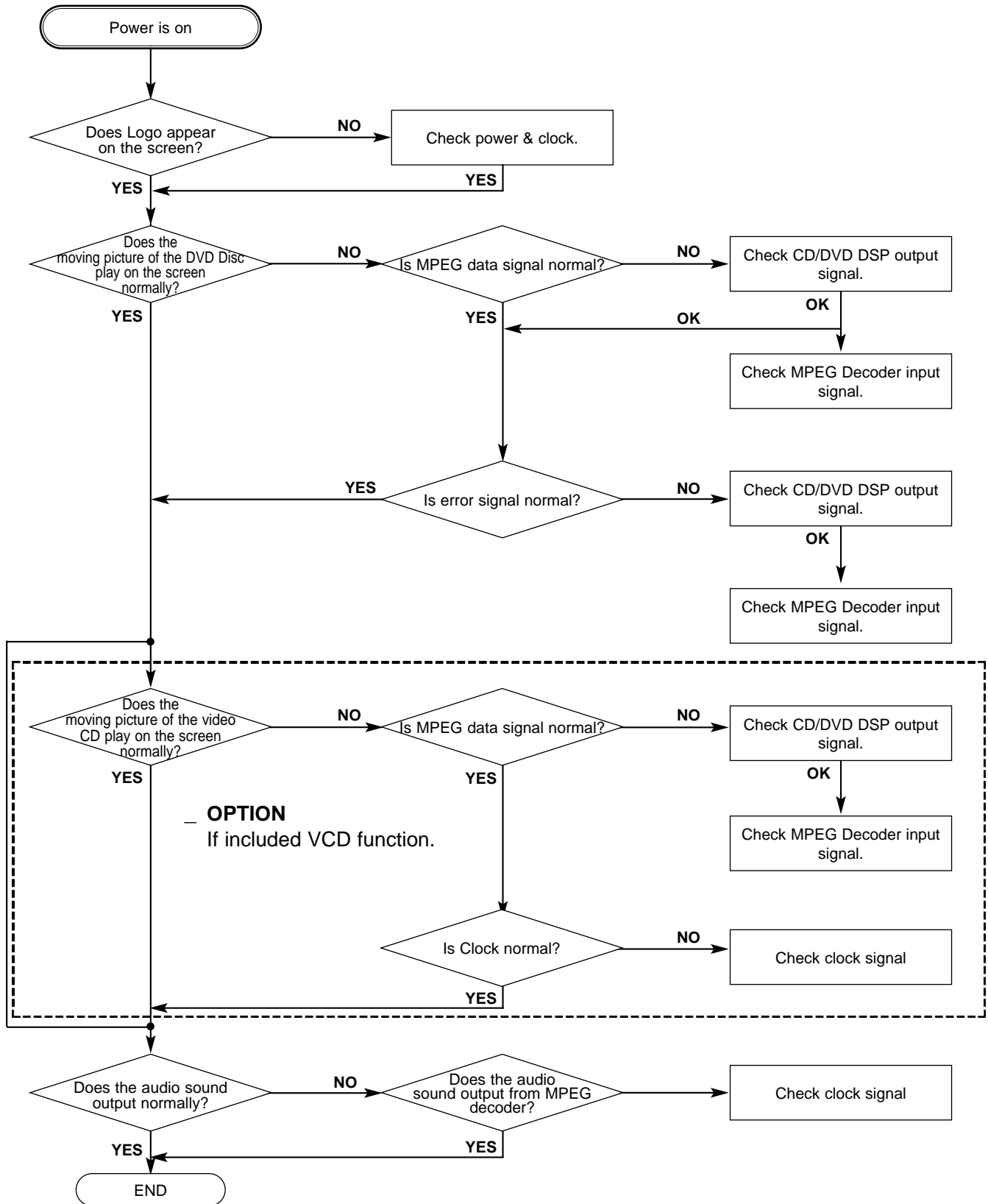


### F. Disc Error

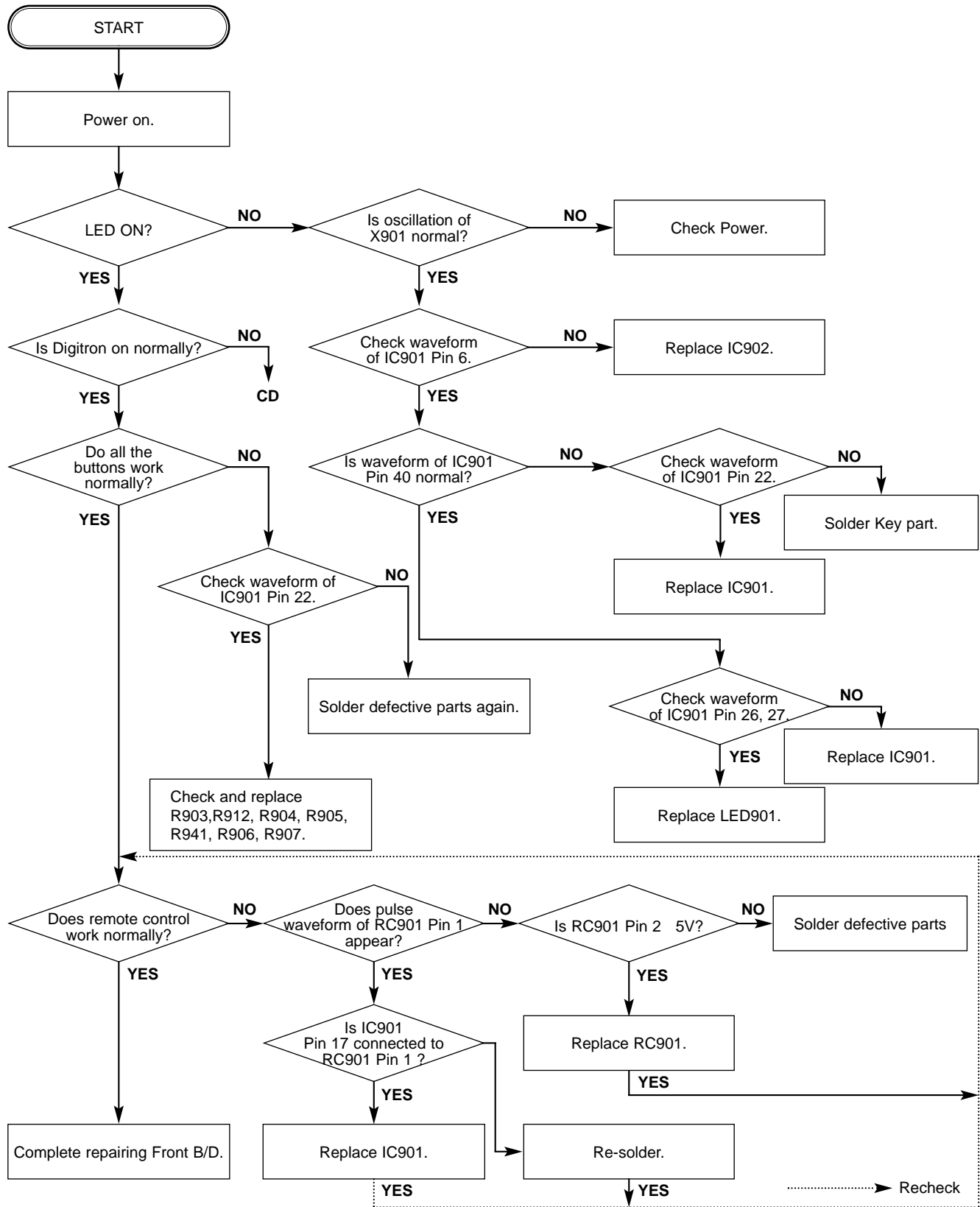




### 3. MPEG Circuit

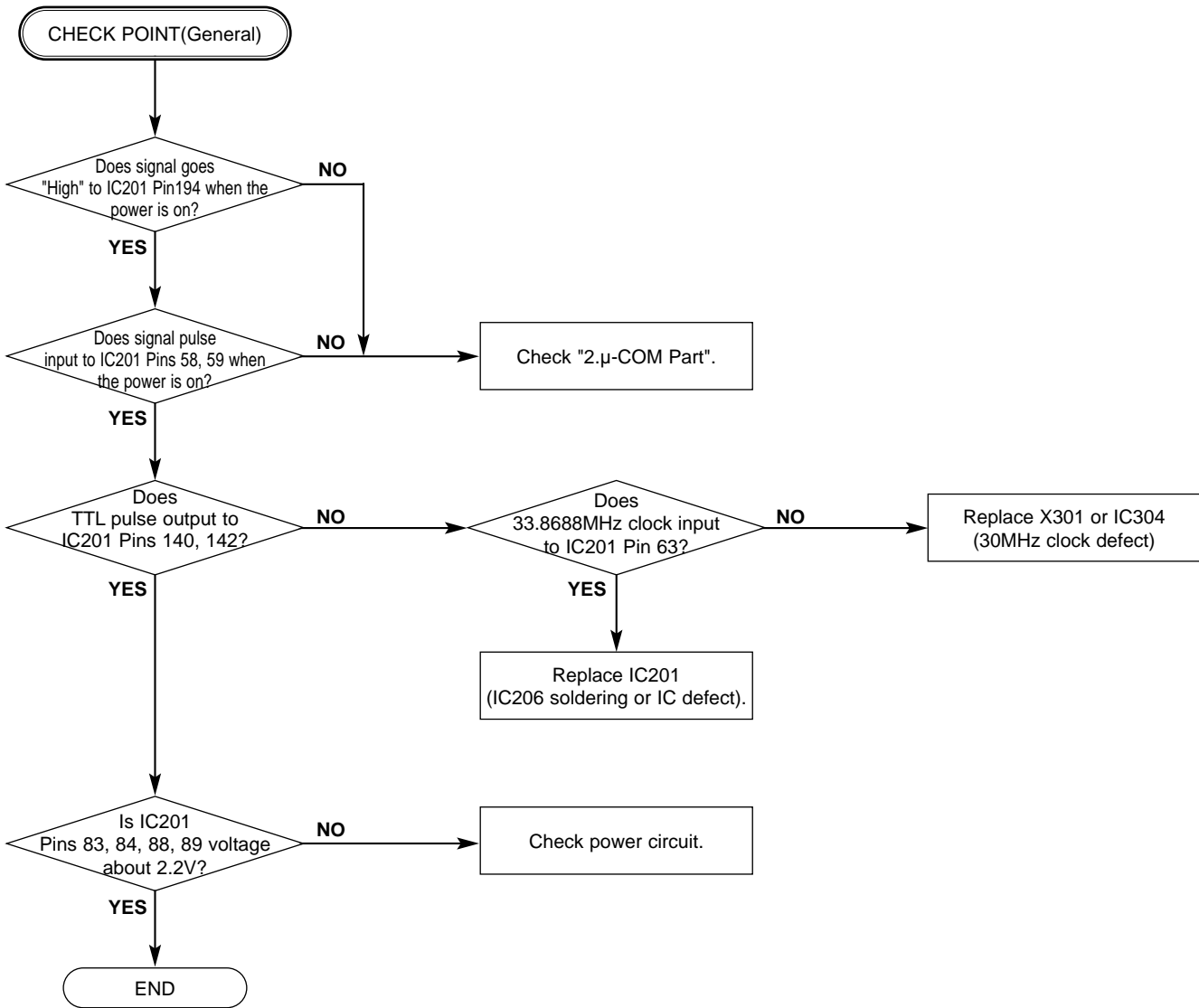


#### 4. Front Circuit (Digitron & key)

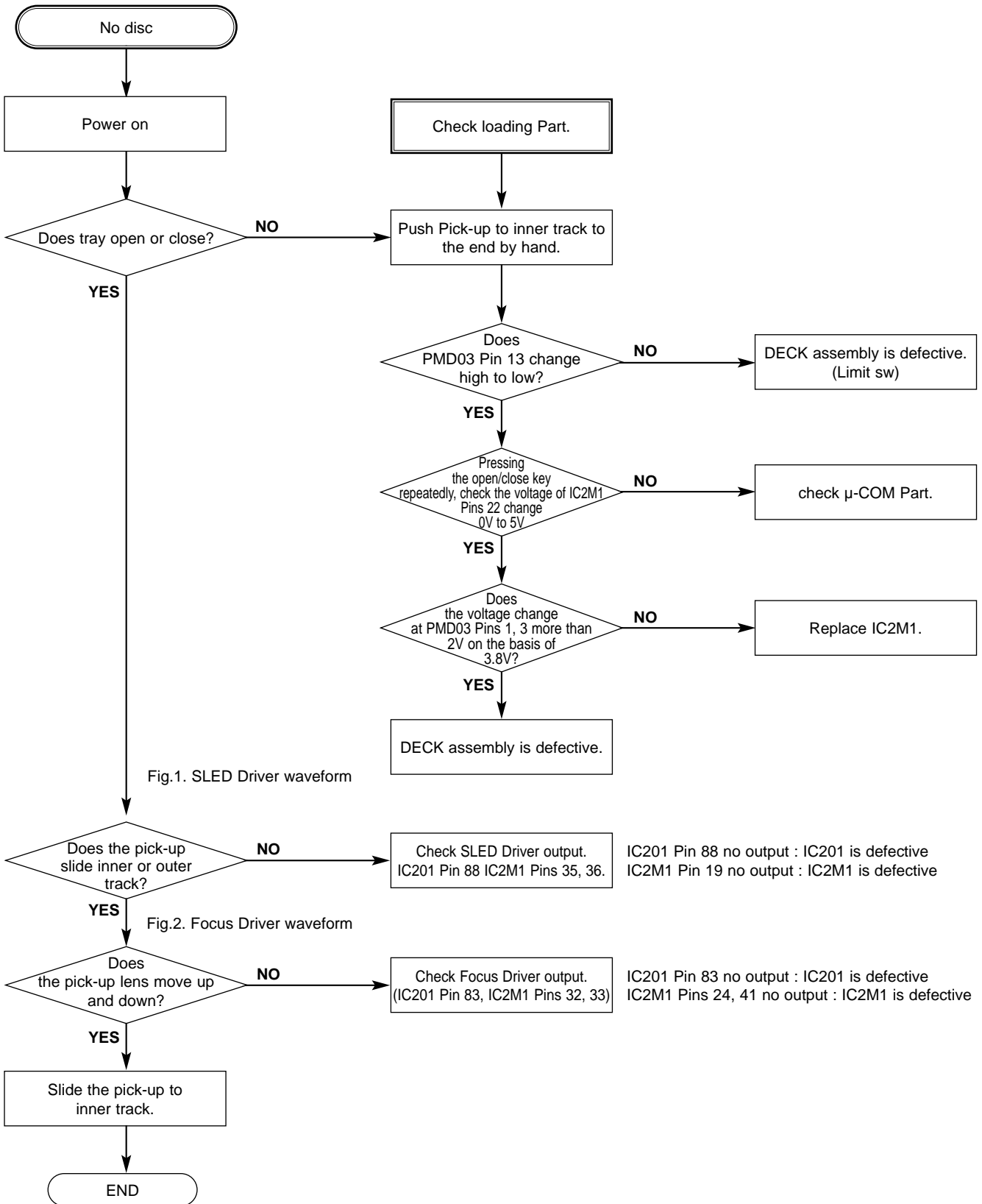


## 5. RF/Servo Circuit

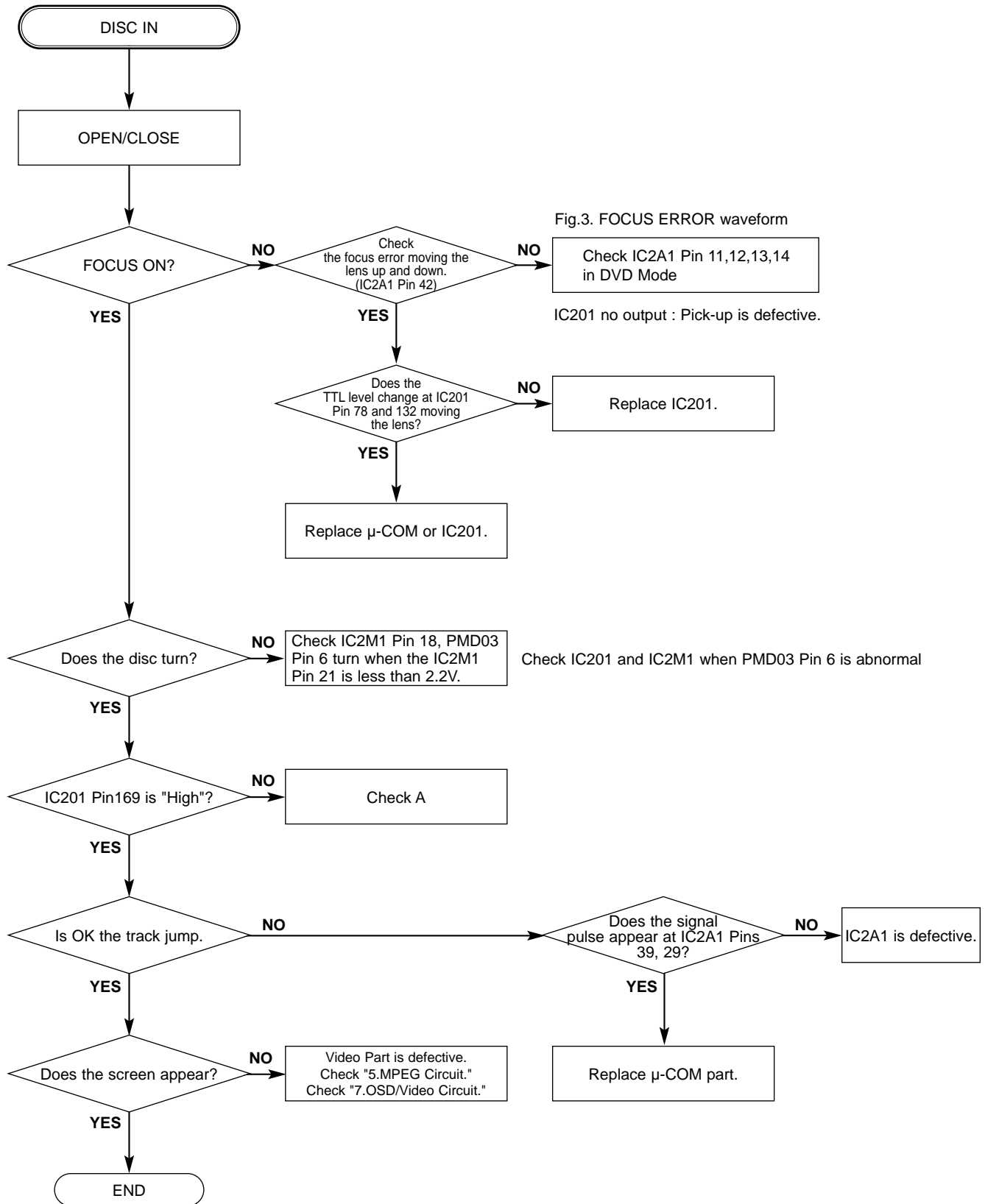
A.



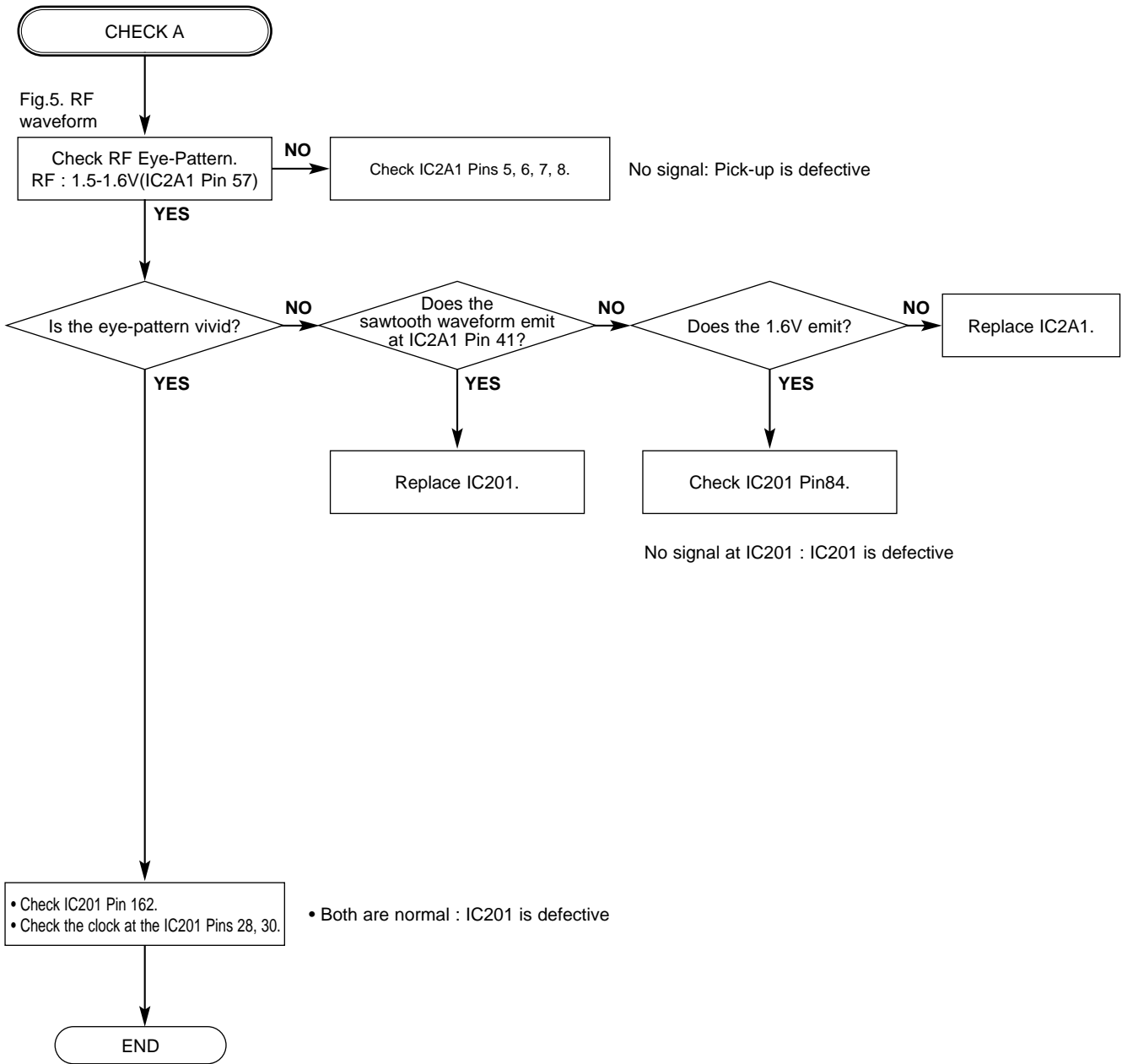
**B.**



C.

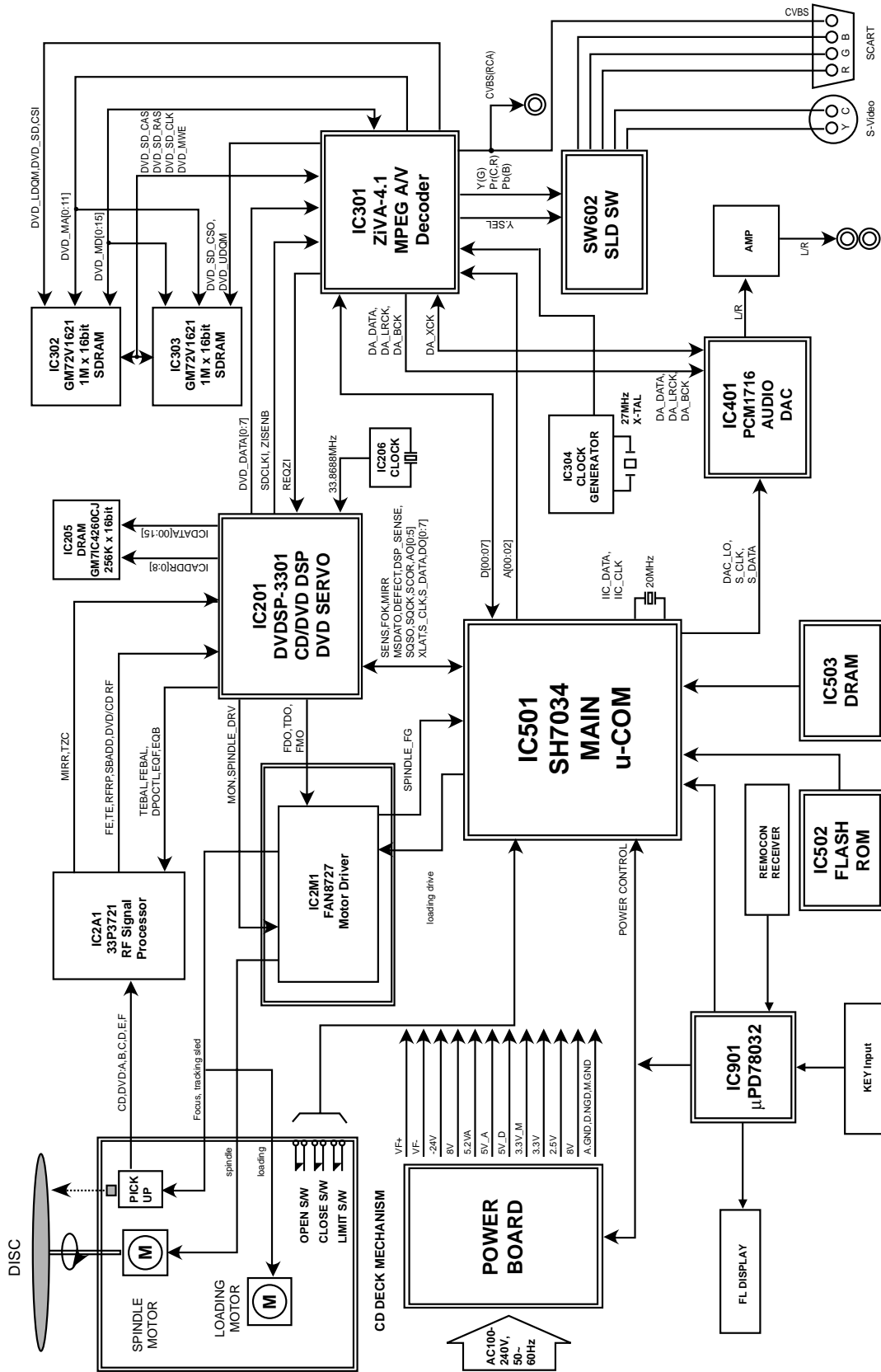


**D.**



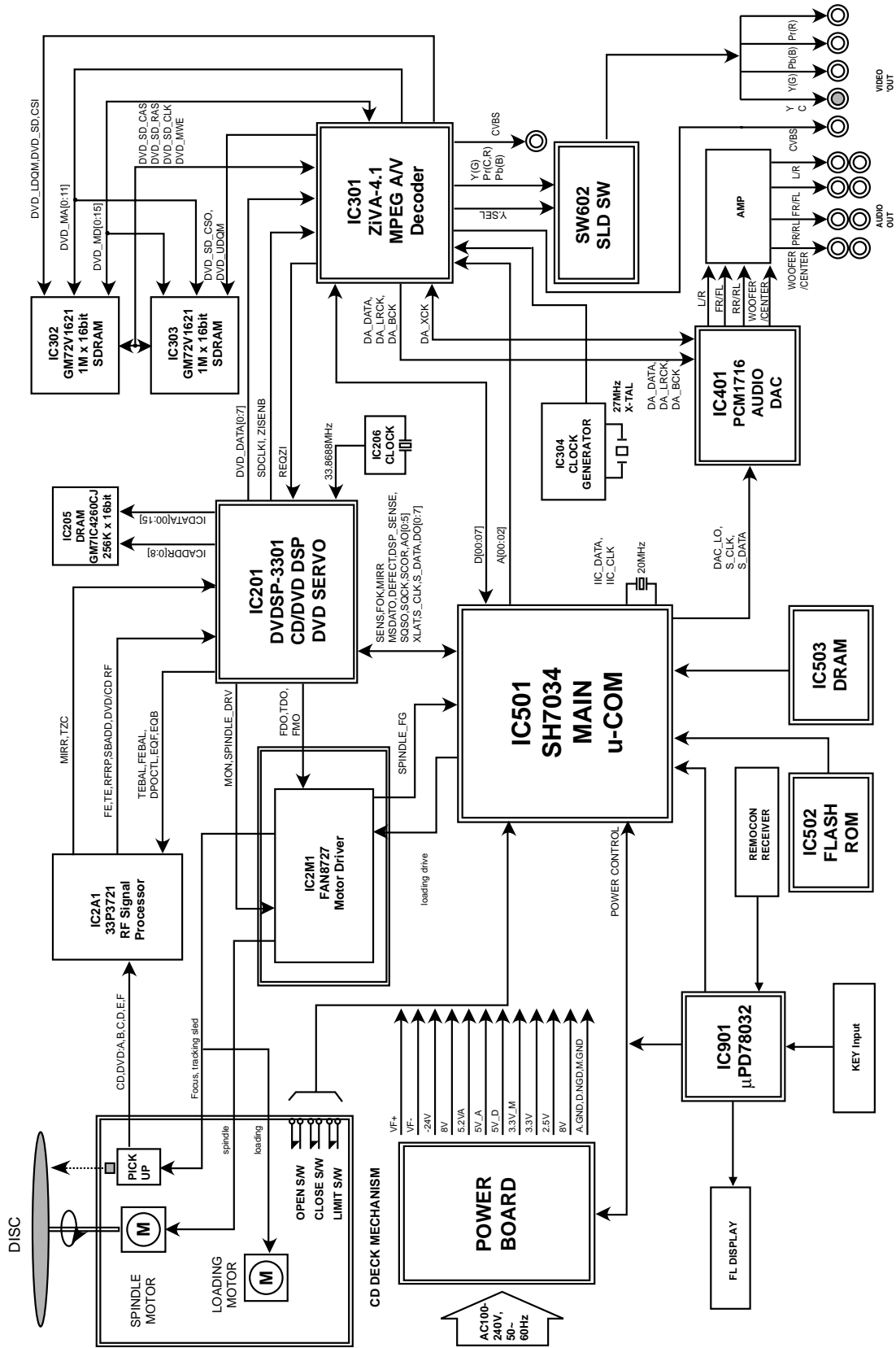
# BLOCK DIAGRAMS

## 1. Overall Block Diagram (T531C ONLY)



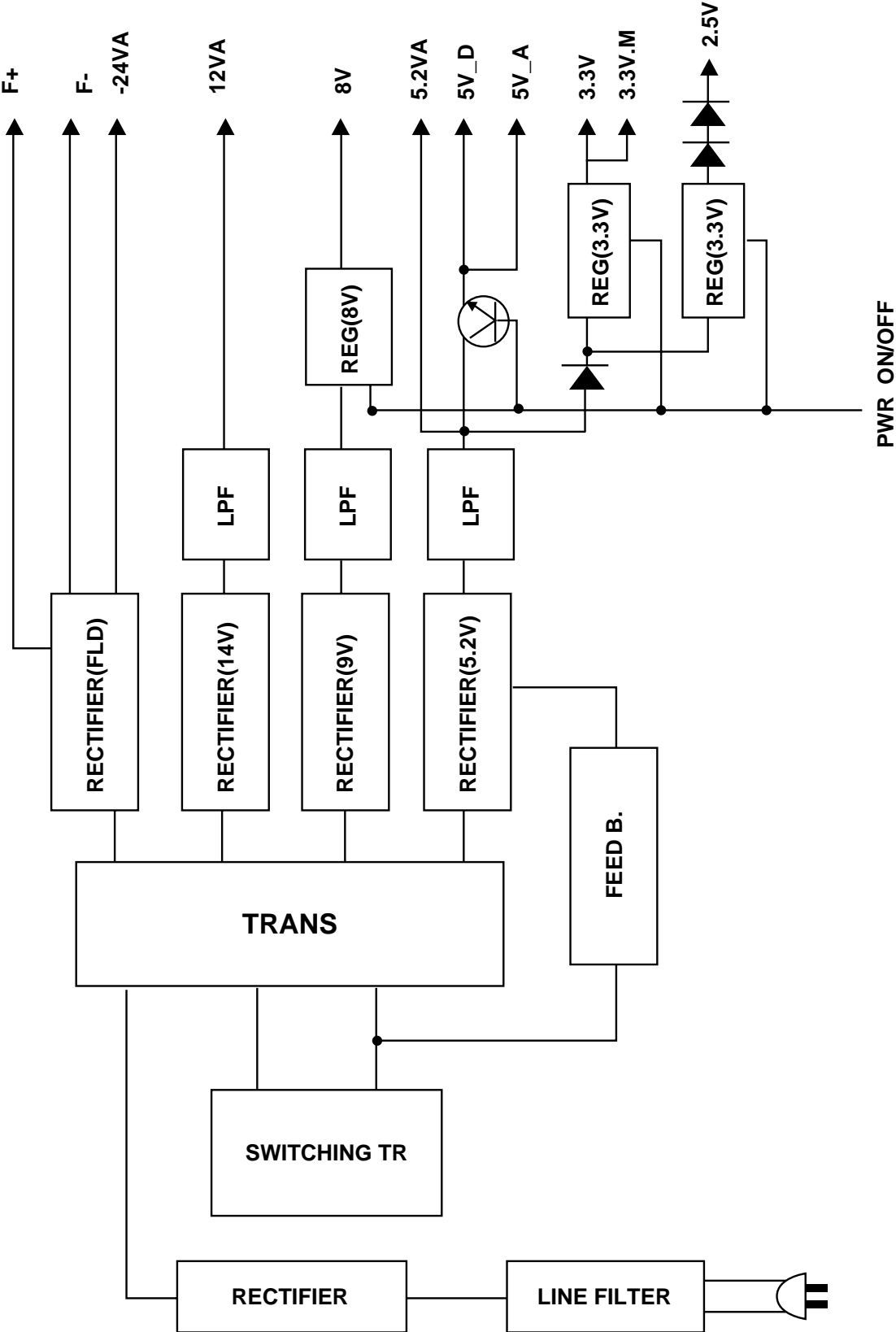
# BLOCK DIAGRAMS

## 1. Overall Block Diagram (T531B, T531AH ONLY)

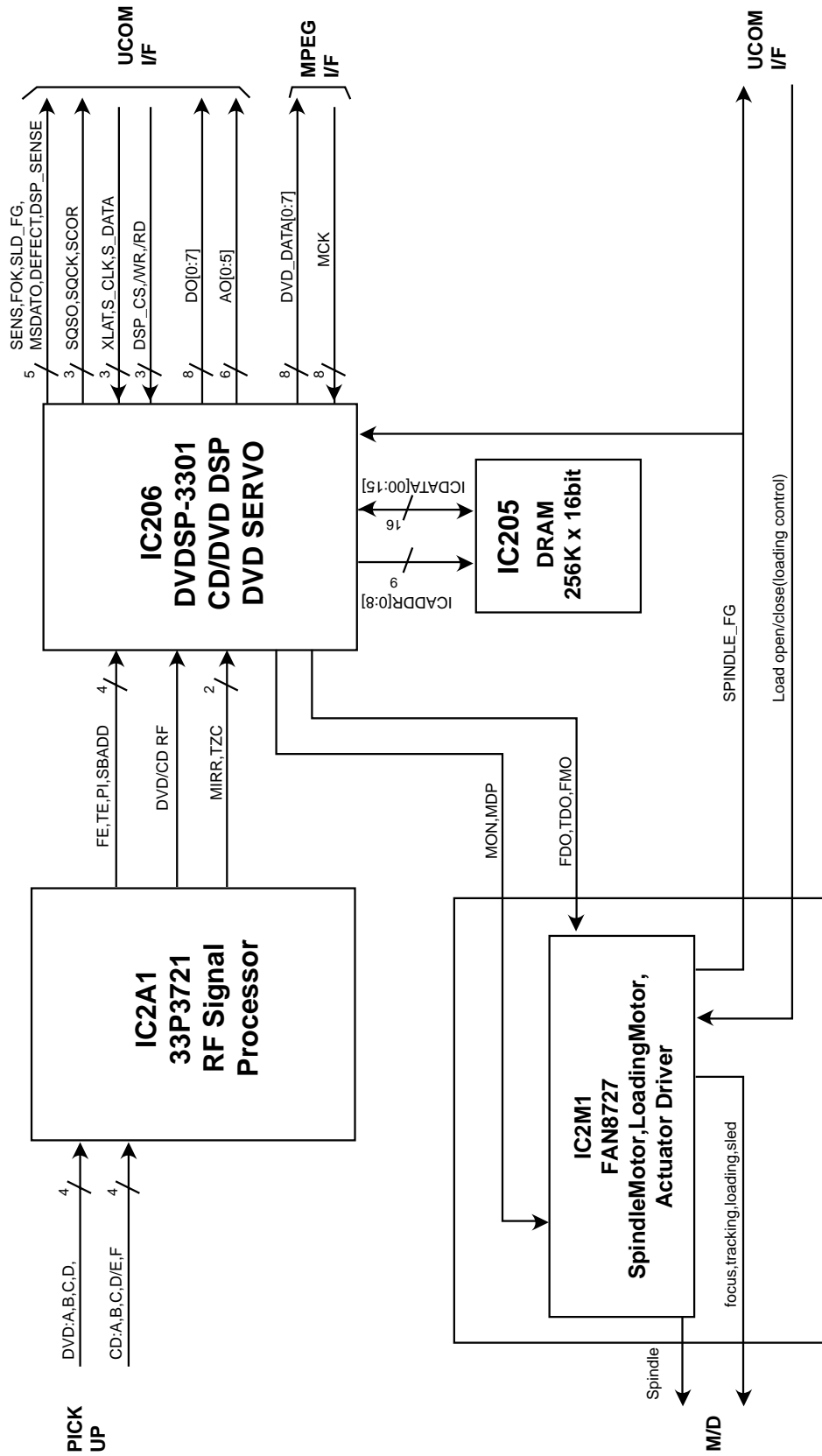




## 2. Power(SMPS) Block Diagram

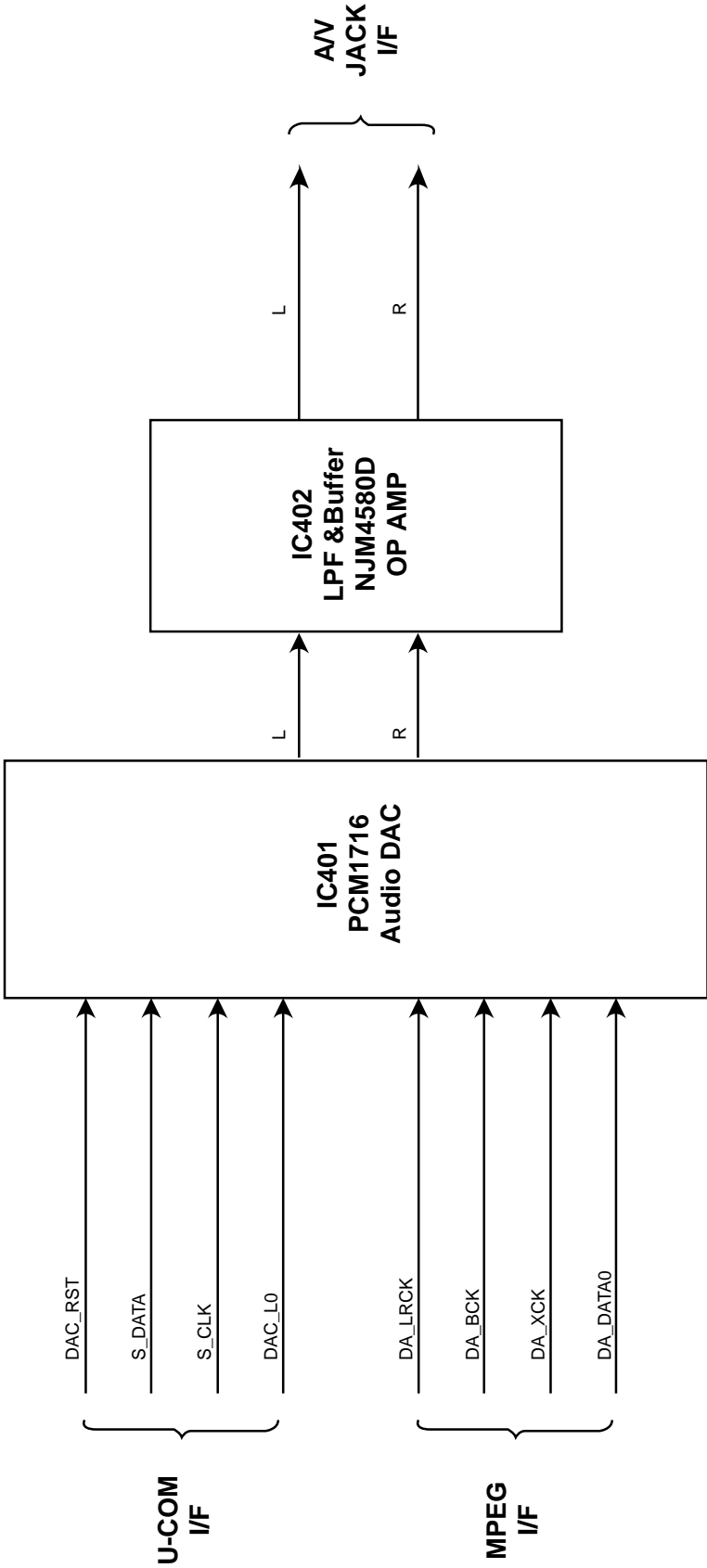


### 3. RF/CD DSP/DVD DSP/DVD SERVO Block Diagram

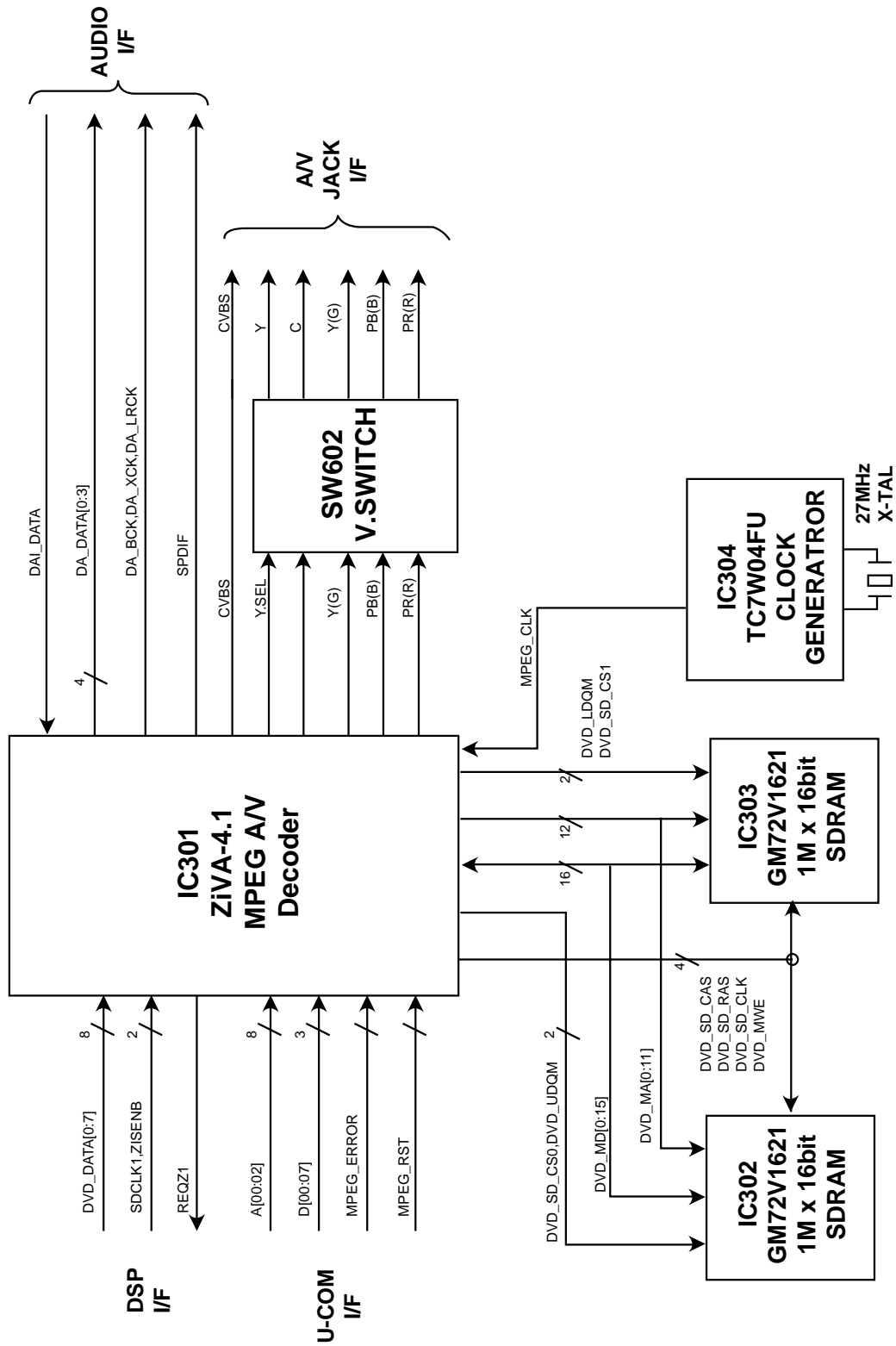


NAD

# 4. Audio Block Diagram

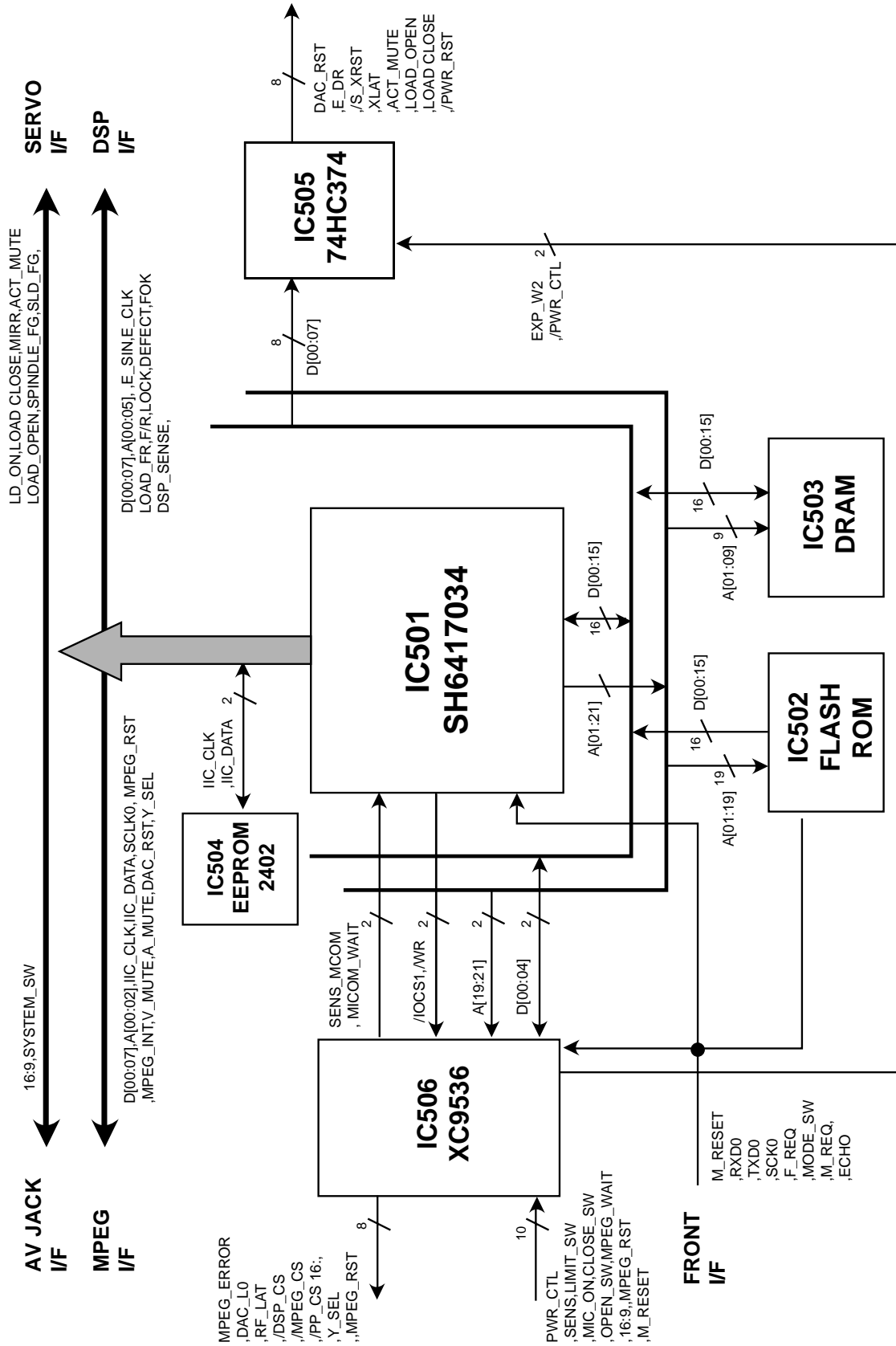


# 5. MPEG Block Diagram

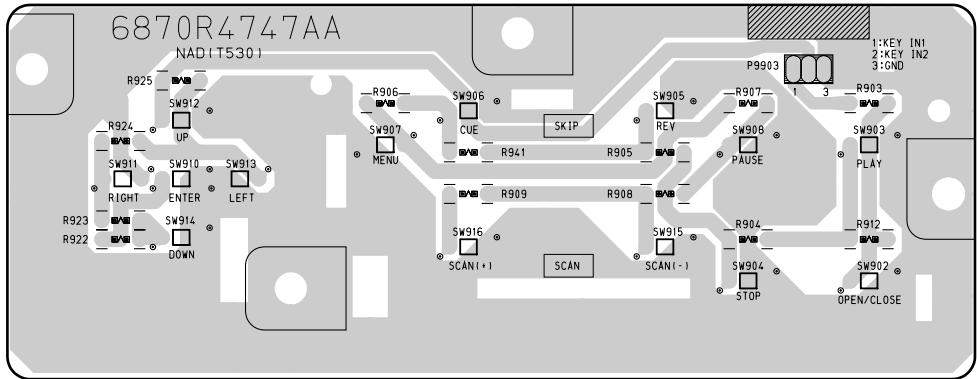


NAD

## 6. $\mu$ -COM Block Diagram

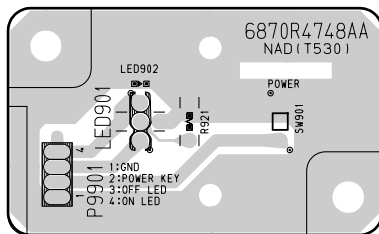


### 3. KEY P.C.BOARD



(Solder Side)

### 4. Power LED P.C.BOARD



(Solder Side)

**SECTION 5 REPLACEMENT PARTS LIST**  
**MODEL : A:T531B , B:T531C , C:T531AH (NAD)**

RUN DATE : 01.11.07

**. Mechanical Section**

NSP : Not Service Part

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
<b>ASSEMBLY SECTION</b>									
		A00	6721R-0322A	O	O	O	DECK ASSY,VIDEO	DP4 (MITSUMI 2LD, BLDC)	NSP
		A01	4861R-0013A	O	O	O	CLAMP ASSY	DISC (DP4)	
		A02	3041R-0030A	O	O	O	BASE ASSY	MAIN(DP-4RM,BLDC)	
		A03	3041R-0029A	O	O	O	BASE ASSY	SLED (DP-4RM,BLDC)	
<b>PARTS SECTION</b>									
		001	3300R-0547A	O	O	O	PLATE	CLAMP	NSP
		002	5016H-1016B	O	O	O	MAGNET	CLAMP(LDM-R608,10*5,1*1.5T)	NSP
		003	4860R-0013A	O	O	O	CLAMP	UPPER	NSP
		004	4930R-0171A	O	O	O	HOLDER	CLAMP	
		008	4470R-0047A	O	O	O	GEAR	ASSY RACK	
		009	4470R-0053A	O	O	O	GEAR	MIDDLE	
		011	3211R-0021B	O	O	O	FRAME ASSY	UP/DOWN(DP2)	
		012	5040R-0047B	O	O	O	RUBBER	DAMPER(E2,5040H-1054A),CHUNPOO	
		013	4400R-0006A	O	O	O	BELT	LOADING	
		014	4470R-0055A	O	O	O	GEAR	PULLEY	
		015	6871R-4415A	O	O	O	PWB(PCB) ASSY,TOTAL	LOADING DP4	
		016	4470R-0050A	O	O	O	GEAR	ASSY FEED	
		017	4470R-0056A	O	O	O	GEAR	LOADING	
		018	4974R-0023A	O	O	O	GUIDE	UP/DOWN	
		020	3040R-0024A	O	O	O	BASE	MAIN	NSP
		026	3390R-0005A	O	O	O	TRAY	DISC	
<b>SCREW</b>									
		429	1SZZR-0012A	O	O	O	SCREW,	B-TITE	
		430	1SZZH-1003A	O	O	O	SCREW,	+D2.0 6MM SWRCH16A/NIY 4.5M M	
		431	1SZZH-1007B	O	O	O	SCREW,DRAWING	+D2.0 6MM SWRCH16A/ZNBK 4MM 1	
		432	1SZZR-0011A	O	O	O	SCREW,	MACHINE	
<b>. Cabinet &amp; Main Frame Section</b>									
<b>ASSEMBLY SECTION</b>									
		A43	3501R-4001A			O	BOARD ASSEMBLY	FRONT(DVN4021N)	
		A43	3501R-4001B			O	BOARD ASSEMBLY	FRONT(DVN4021E)	
		A43	3501R-4001C	O			BOARD ASSEMBLY	FRONT(DVN4021P)	
		A46	6871R-3405C	O	O	O	PWB(PCB) ASSY,TOTAL	DV4951E C-CUBE EVNT MAIN	
		A48	6871R-3457H			O	PWB(PCB) ASSEMBLY,TOTAL	DVN4021N PT I/O (NAD)	
		A48	6871R-3457J			O	PWB(PCB) ASSEMBLY,TOTAL	DV4021E PT I/O (NAD)	
		A48	6871R-3457N	O			PWB(PCB) ASSEMBLY,TOTAL	DVN4021P AA3SNN NAD	
<b>PARTS SECTION</b>									
		250	3110R-0184P	O	O	O	CASE	TOP(MITSUBISHI VCM 0.65T K858,E)	
		260	3141R-0047J			O	CHASSIS ASSY	MAIN (NAD- #1)	NSP
		260	3141R-0047K			O	CHASSIS ASSY	MAIN (NAD-#2)	NSP
		260	3141R-0047L	O			CHASSIS ASSEMBLY	MAIN (NAD-#4)	NSP
		275	4930R-0183A	O	O	O	HOLDER	MAIN PCB	
		280	3721R-F229A			O	PANEL ASSY,FRONT	FRONT (T531)NAD	NSP
		280	3721R-F229B			O	PANEL ASSY,FRONT	FRONT (T531)NAD	NSP
		280	3721R-F229C	O			PANEL ASSEMBLY,FRONT	FRONT (T531)NAD	NSP
		283	3580R-T042A	O	O	O	DOOR,CASE	TRAY (T531)NAD	
		285	3301R-M020A	O	O	O	PLATE ASSEMBLY	SHIELD(T530 NAD)	
		300	6410RAHS02A			O	POWER CORD	AP-10W NI SP2 CORE 80 STP SANG	
		300	6410RCHS02D	O	O		POWER CORD	EP11 LTFZ-2F 2*0.75 EMI OR SAN	
		332	3300R-M018A	O	O	O	PLATE	MAIN GND(DVD-3000 SUS-0.2T)	
<b>SCREW</b>									
		452	353-051A	O	O	O	SCREW	SPECIAL	
		462	353-085E	O	O	O	SCREW,DRAWING	+ 3 D4.0 L10.0 MSWR3/FZMCW-2	
		463	353-051G	O	O	O	SCREW,DRAWING	+ 2 D3.0 L8.0 MSWR3/FN TB ROUN	
		465	353-046K	O			SCREW	SPECIAL (3X10 B.K)	
		465	353-046K			O	SCREW	SPECIAL (3X10 B.K)	
		467	353-046N	O	O	O	SCREW,	SPECIAL(3X8 BK.)	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
<b>. Packing Accessory Section</b>									
		801	3835RS0023F			O	INSTRUCTION ASSEMBLY	DVN4021N AA1UNN	
		801	3835RS0023Z	O			INSTRUCTION ASSEMBLY	DVN4021P AA3NN	
		801	3835RS0026P			O	INSTRUCTION ASSEMBLY	DVN4021E AA2DNN_NEW	
		802	3890R-H762P			O	BOX	DVN4021N AA1UNN SW3-A 0.952 1	
		802	3890R-H762Q			O	BOX	DVN4021E AA2DNN SW3-A 0.952 1	
		802	3890R-H763Z	O			BOX	DVN4021P AA3SNN SW3-A 0.952 1	
		803	3920R-E037A	O	O	O	PACKING,CASING	DVN4021N(NAD) 0.02 85 EPS 10 9	
		804	3858R-S001A	O	O	O	SHEET (MECH)	LDPE 600M 630MM 0.5 VCR_DVD	NSP
		808	534-008C	O	O	O	BATTERY	AAAM(R03) 1.5V 1PAIR(LOCAL)	
		811	6611R1G001A	O	O	O	PLUG ASSY	1WAY YELLOW GLOBAL	
		812	6611R2G001A	O	O	O	PLUG ASSY	2WAY RED/WHITE GLOBAL	
<b>. Remote Control Section</b>									
		900	6711R2N010W	O	O	O	REMOTE CONTROLLER ASSY	D1 NOR DVN4021N NAD	



## . Electrical Section

NSP : Not Service Part

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
<b>CAPACITOR</b>									
		C100	0CE1064K638	O	O		CAPACITOR, FIXED ELECTROLYTIC	10M SRA 50V M FM5 TP(5)	
		C101	624-088L	O	O	O	CAPACITOR, DRAWING	435D SUNIL ELECTRONICS 0.1UF/2	
		C102	624-088L	O	O		CAPACITOR, DRAWING	435D SUNIL ELECTRONICS 0.1UF/2	
		C103	0CE1076Q600			O	CAPACITOR, ELECTROLYTIC	100UF SMS 200V M W BULK	
		C103	0CE686CU611	O	O		CAPACITOR, AL, ELECTROLYTIC	68UF SHL, SD 400V M FL BK7.5	
		C104	0CN223AK948	O	O		CAPACITOR, TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C105	0CQ1031Y519	O	O	O	CAPACITOR, POLYESTER	0.01UF D 630V K PE NI TP	
		C106	624-087B	O	O	O	CAPACITOR	HIGH-VOL 100P/1KV SMPS SAMHWA	
		C109	0CQ4732K409	O	O		CAPACITOR, FIXED FILM	0.047UF S 50V J PE TP	
		C110	0CQ4722K409			O	CAPACITOR, POLYESTER	0.0047U S 50V J TS TP	
		C111	0CE3354K638			O	CAPACITOR, FIXED ELECTROLYTIC	3.3UF SRA, SS 50V 20% FM5 TP 5	
		C112	0CQ1532K409			O	CAPACITOR, FIXED FILM	0.015UF S 50V J PE TP	
		C114	0CG3320U630	O	O		CAPACITOR, SEMI CERAMIC	3300 PF 400V M E R(NK, AD, SD)	
		C114	624-086B			O	CAPACITOR	AC-CON 103/400V SMPS NEW-KORE	
		C115	0CQ1532K409			O	CAPACITOR, FIXED FILM	0.015UF S 50V J PE TP	
		C116	0CE477BH638	O	O	O	CAPACITOR, ELECTROLYTIC	470UF KME 25V M FM5 TP5	
		C118	0CE1076F638	O	O	O	CAPACITOR, AL, ELECTROLYTIC	100M SMS 16V M FM5 TP(5)	
		C119	624-085D	O	O	O	CAPACITOR	CE 47UF/50V KME (SMPS)	
		C120	624-086B			O	CAPACITOR	AC-CON 103/400V SMPS NEW-KORE	
		C121	0CE2276F638	O	O	O	CAPACITOR, ELECTROLYTIC	220U SMS 16V M FM5 TP(5)	
		C123	0CE108BF638	O	O	O	CAPACITOR, FIXED ELECTROLYTIC	1000UF KME TYPE 16V M FM5 TP 5	
		C124	0CE108BF638	O	O	O	CAPACITOR, FIXED ELECTROLYTIC	1000UF KME TYPE 16V M FM5 TP 5	
		C125	0CE3376D638	O	O	O	CAPACITOR, ELECTROLYTIC	330UF SMS 10V M FM5 TP5	
		C126	0CE477BH638	O	O	O	CAPACITOR, ELECTROLYTIC	470UF KME 25V M FM5 TP5	
		C127	0CE2276H638	O	O	O	CAPACITOR, FIXED ELECTROLYTIC	220UF SMS, SG 25V 20% FM5 TP 5	
		C128	0CQ4732K409	O	O	O	CAPACITOR, FIXED FILM	0.047UF S 50V J PE TP	
		C129	0CE1076F638	O	O	O	CAPACITOR, AL, ELECTROLYTIC	100M SMS 16V M FM5 TP(5)	
		C130	0CE1076F638	O	O	O	CAPACITOR, AL, ELECTROLYTIC	100M SMS 16V M FM5 TP(5)	
		C131	0CN223AK948	O	O	O	CAPACITOR, TUBULAR(HIGH DIELEC)	0.022UF 50V Z F TA26 S	
		C134	0CE1076F638	O	O	O	CAPACITOR, AL, ELECTROLYTIC	100M SMS 16V M FM5 TP(5)	
		C137	0CE477CD638	O	O	O	CAPACITOR, AL, ELECTROLYTIC	470UF SHL, SD 10V M FM5 TP 5	
		C140	0CE477CD638	O	O	O	CAPACITOR, AL, ELECTROLYTIC	470UF SHL, SD 10V M FM5 TP 5	
		C201	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C203	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C205	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C206	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C207	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C210	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C221	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C223	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C224	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C226	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C227	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C228	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C229	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C232	0CE1064F638	O	O	O	CAPACITOR, ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C237	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C238	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C239	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C240	0CH1222K562	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	2200PF 50V K X7R(X) 1608 R/TP	
		C241	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C242	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C245	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C250	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C255	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C256	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C257	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C258	0CH1104K942	O	O	O	CAPACITOR, CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C260	0CH4100K112	O	O	O	CHIP CAPA CERAMIC M/L T.C F/S	10P 50V D COG 1.6X0.8 R/TP	
		C270	0CH1225F944	O	O	O	CAPACITOR, FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C271	0CE1064F638	O	O	O	CAPACITOR, ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C272	0CE4764F638	O	O	O	CAPACITOR, ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C273	0CH1225F944	O	O	O	CAPACITOR, FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C274	0CE4764F638	O	O	O	CAPACITOR, ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
		C275	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C276	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C277	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C278	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C279	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C280	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C281	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C284	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C285	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C286	0CH4180K412	O	O	O	CAPACITOR,CHIP[CERAMIC M/L TC	18P 50V J COG 1.6X0.8 R/TP	
		C287	0CH4180K412	O	O	O	CAPACITOR,CHIP[CERAMIC M/L TC	18P 50V J COG 1.6X0.8 R/TP	
		C288	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A0	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A1	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A2	0CH1222K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	2200PF 50V K X7R(X) 1608 R/TP	
		C2A3	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A4	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A5	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A6	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A7	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A8	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2A9	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2B0	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2B1	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2B2	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2B3	0CH1473H942	O	O	O	CAPA,CHIP CERAMIC M/L H.D F/S	0.0470UF 25V Z Y5V(F) 1608 R/T	
		C2B4	0CH4561K512	O	O	O	CAPACITOR,FIXED CERAMIC(High d	560PF 50V K NP0 1608 R/TP	
		C2B5	0CH4561K512	O	O	O	CAPACITOR,FIXED CERAMIC(High d	560PF 50V K NP0 1608 R/TP	
		C2B6	0CH1333K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.033UF 50V K X7R(X) 1508 R/TP	
		C2B7	0CH1333K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.033UF 50V K X7R(X) 1508 R/TP	
		C2B8	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2B9	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2C0	0CH4221K412	O	O	O	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
		C2C1	0CH1222K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	2200PF 50V K X7R(X) 1608 R/TP	
		C2C2	0CH1222K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	2200PF 50V K X7R(X) 1608 R/TP	
		C2C3	0CH1222K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	2200PF 50V K X7R(X) 1608 R/TP	
		C2C4	0CH1222K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	2200PF 50V K X7R(X) 1608 R/TP	
		C2C5	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2C8	0CH4330K412	O	O	O	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C2C9	0CH4330K412	O	O	O	CAPACITOR,CHIP[CERAMIC M/L TC	33P 50V J COG 1.6X0.8 R/TP	
		C2D0	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2D1	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C2D2	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C2D3	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C2D4	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C2D5	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C2D6	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2D7	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2E1	0CH1182K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	1800P 50V K X7R 1.6X0.8 R/TP	
		C2M1	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2M2	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2M3	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C2M4	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C2M5	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2M6	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2M7	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2M8	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2M9	0CH1223K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.022UF 50V Z Y5V(F) 1508 R/TP	
		C2N1	0CH1472K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	4700PF 50V K X7R(X) 1608 R/TP	
		C2N2	0CH1103K562	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C2N3	0CH1682K562	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	6800P 50V K X7R 1.6X0.8 R/TP	
		C2N4	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2N5	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C2N6	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C301	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C302	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C303	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C304	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
		C305	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C306	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C307	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C308	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C309	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C310	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C311	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C312	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C313	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C314	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C315	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C316	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C317	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C318	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C319	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C320	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C321	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C322	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C323	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C324	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C325	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C326	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C327	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C328	0CH1225F944	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
		C329	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C330	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C331	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C332	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C333	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C334	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C335	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C336	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C337	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C338	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C339	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C340	0CH1103K562	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C341	0CH1103K562	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C380	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C382	0CH4100K112	O	O	O	CHIP CAPA CERAMIC M/L T.C F/S	10P 50V D COG 1.6X0.8 R/TP	
		C391	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C392	0CH1103K562	O	O	O	CAPACITOR,FIXED CERAMIC(Temp.c	0.01UF 50V 10% X7R(X) 1608 R/T	
		C3K1	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
		C3K2	0CH4150K412	O	O	O	CAPA,CHIP CERAMIC M/L T.C F/S	15P 50V J COG 1.6X0.8 R/TP	
		C3K3	0CH4150K412	O	O	O	CAPA,CHIP CERAMIC M/L T.C F/S	15P 50V J COG 1.6X0.8 R/TP	
		C403	0CN1040K948	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C405	0CE477CC618	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	470UF SHL,SD 6.3V 20% TP 5 FL	
		C406	0CN1030F678	O	O	O	CAPACITOR,TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C407	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C408	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C409	0CE477CC618	O	O	O	CAPACITOR,FIXED ELECTROLYTIC	470UF SHL,SD 6.3V 20% TP 5 FL	
		C410	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C411	0CN1020K518	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C412	0CN1010K418	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	100PF 50V J B TA26	
		C413	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C414	0CN1040K948	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C415	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C416	0CN1020K518	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	1000P 50V K B TA26	
		C417	0CN1010K418	O	O	O	CAPACITOR,TUBULAR(HIGH DIELEC)	100PF 50V J B TA26	
		C418	0CN3920F668	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	3900P 16V M X TA26	
		C419	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C420	0CN3920F668	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	3900P 16V M X TA26	
		C421	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C422	0CE1064F638	O	O	O	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
		C424	0CN1040K948	O	O	O	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
		C425	0CN1030F678	O	O	O	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
		C429	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C430	0CE4764F638	O	O	O	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
		C501	0CH1104K942	O	O	O	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
			C502	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C503	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C504	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C506	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C507	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C508	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C509	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C512	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C513	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C514	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C515	0	0	0	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
			C516	0	0	0	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
			C517	0	0	0	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
			C518	0	0	0	CAPACITOR,CHIP[CERAMIC M/L HD	0.1UF 50V Z Y5V(F) 1508 R/TP	
			C519	0	0	0	CAPACITOR,FIXED CERAMIC(Temp.c	2.2UF 16V 80%,-20% Y5V(F) 3216	
			C520	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C522	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C523	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C525	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C526	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C529	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C531	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C532	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C533	0	0	0	CAPACITOR,CHIP[CERAMIC M/L TC	220P 50V J COG 1.6X0.8 R/TP	
			C534	0	0	0	CAPA,CHIP CERAMIC M/L T.C F/S	56P 50V J COG 1.6X0.8 R/TP	
			C536	0	0	0	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
			C601	0	0	0	CAPACITOR,ELECTROLYTIC	22M SRA 16V M FM5 TP(5)	
			C603	0	0	0	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
			C604	0	0	0	CAPACITOR,ELECTROLYTIC	22M SRA 16V M FM5 TP(5)	
			C605	0	0	0	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
			C606	0	0	0	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
			C613	0	0	0	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
			C614	0	0	0	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
			C615	0	0	0	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
			C616	0	0	0	CAPACITOR TUBULA(HIGH DIELE)	3900P 16V M X TA26	
			C617	0	0	0	CAPACITOR TUBULA(HIGH DIELE)	3900P 16V M X TA26	
			C656	0	0	0	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
			C657	0	0	0	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
			C663	0	0	0	CAPACITOR,ELECTROLYTIC	220M SRA 6.3V M FM5 TP(5)	
			C901	0	0	0	CAPACITOR TUBULA(HIGH DIELE)	0.01M 16V M Y TA26	
			C902	0	0	0	CAPACITOR,ELECTROLYTIC	10M SRA 16V M FM5 TP(5)	
			C905	0	0	0	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
			C906	0	0	0	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
			C907	0	0	0	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
			C908	0	0	0	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
			C909	0	0	0	CAPACITOR,AL.ELECTROLYTIC	47UF SRA,SS 35V M FM5 TP 5	
			C910	0	0	0	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
			C911	0	0	0	CAPACITOR,FIXED TUBULAR(High d	0.1UF D 50V 80%,-20% F(Y5V) TA	
			C912	0	0	0	CAPACITOR,ELECTROLYTIC	47M SRA/SS 16V M FM5 TP(5)	
<b>DIODE</b>									
			BD101	0	0	0	DIODE	S1WBA60(1A 600V) SHIDENKEN	
			D101	0	0	0	DIODE,RECTIFIERS	SUF4005 R. TP GULF SEMICONDUCT	
			D101	0	0	0	DIODE,RECTIFIERS	10SP07U(SUF4007SP) TP GULF SEM	
			D102	0	0	0	DIODE	EU01W(R-FORM) TP SANKEN	
			D103	0	0	0	DIODE,SWITCHING	1SS133 DETECT,SW TP	
			D104	0	0	0	DIODE,SWITCHING	1SS133 DETECT,SW TP	
			D105	0	0	0	DIODE,RECTIFIER	RL104 R. TP GULF SEMICONDUCTOR	
			D106	0	0	0	DIODE,RECTIFIER	HER202 BK RECTRON NON 100V 2A	
			D107	0	0	0	DIODE	EU01W(R-FORM) TP SANKEN	
			D107	0	0	0	DIODE,RECTIFIER	ERA18-02KFRB TP FUJI DO204AL 2	
			D108	0	0	0	DIODE	EU01W(R-FORM) TP SANKEN	
			D109	0	0	0	DIODE,RECTIFIERS	FMB-G24H LF651 SANKEN BK NON	
			D110	0	0	0	DIODE,RECTIFIER	ERA18-02KFRB TP FUJI DO204AL 2	
			D112	0	0	0	DIODE,RECTIFIER	1N5402 BK GULF SEMICONDUCTOR L	
			D113	0	0	0	DIODE,RECTIFIER	1N5402 BK GULF SEMICONDUCTOR L	
			D114	0	0	0	DIODE,RECTIFIERS	1N17 RECTRON TP NON 20V 1A 20	
			D115	0	0	0	DIODE,RECTIFIERS	1N17 RECTRON TP NON 20V 1A 20	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
			D116				DIODE,RECTIFIERS	RZ1040 BK SANKEN DO41 40V 30A	
			D2A1				DIODE,SWITCHING	DAN202K TP ROHM KOREA SOT23 80	
			D2A2				DIODE,SWITCHING	DAN202K TP ROHM KOREA SOT23 80	
			D601				DIODE,SWITCHING	1SS133 DETECT,SW TP	
			D602				DIODE,SWITCHING	1SS133 DETECT,SW TP	
			D603				DIODE,SWITCHING	1SS133 DETECT,SW TP	
			D604				DIODE,SWITCHING	1SS133 DETECT,SW TP	
			D605				DIODE,SWITCHING	1SS133 DETECT,SW TP	
<b>FUSE,DIGITRON</b>									
			DIG901				DIGITRON	7-BT-273GN FUTABA UNIVERSAL DV	
			F101				FUSE,SLOW BLOW	1600MA 250 V 5.2X20 CY/GL SEMK	
			F101				FUSE,SLOW BLOW	1600MA 250 V 5.2X20 CY/GL KS /	
<b>IC,JACK,FILTER,HOLDER,SENSOR,COIL</b>									
			F102				IC,ROHM	ICP-N10 T104 TP IC DETACT	
			F104				IC,ROHM	ICP-N20 T104 TP IC DETACT	
			F602				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F603				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F604				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F605				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F606				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F607				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F608				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F612				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F613				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F617				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F618				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			F622				FILTER(CIRC),EMI	CFI06B1H101MF SAMWHA TP 2.5K/T	
			FH101				HOLDER	FUSE CLIP TP SINSUNG	
			FH102				HOLDER	FUSE CLIP TP SINSUNG	
			IC01				IC,XILINX	XC9536-15VQ44C 44P VQFP BK CPL	
			IC101				IC,POWER MANAGEMENT	KA5M0365R-YDTU FAIRCHILD 4 T0-	
			IC102				SENSOR	LTV-817B,PHOTO COUPLER(LITEON)	
			IC104				IC,SAMSUNG ELECTRONICS	KA431AZ (LM431AZ)	
			IC105				IC,POWER MANAGEMENT	KIA78R08PI CU KEC 4P TO-220IS	
			IC106				IC,POWER MANAGEMENT	KIA78R33PI CU KEC 4P TO-220IS	
			IC107				IC,POWER MANAGEMENT	KIA78R33PI CU KEC 4P TO-220IS	
			IC108				SENSOR	LTV-817B,PHOTO COUPLER(LITEON)	
			IC201				IC,HYUNDAI	GDC25D801D 208 QFP BK DSP+SERV	
			IC203				IC,JRC	NJM3414AM-TE1,3K/REEL. JRC	
			IC204				IC,STANDARD LOGIC	KIC7W53FU KEC 8PIN SM8 R/TP 2-	
			IC205				IC,MEMORIES	M11L416256A-35J ELITE MEMORY T	
			IC206				IC,TOSHIBA	TC7W04FU	
			IC2A1				IC,TEXAS INSTRUMENT	SSI33P3721 (VER.2) 64 TQFP BK R	
			IC2A2				IC,JRC	NJM3414AM-TE1,3K/REEL. JRC	
			IC2M1				IC,LINEAR	FAN8727 FAIRCHILD 48PIN QFP TR	
			IC301				IC,C-CUBE	ZIVA4.1B0 208 QFP TRAY MPEG DE	
			IC302				IC,LG SEMICONDUCTOR	GM72V161621ET-7 50TSOP TP 16MS	
			IC303				IC,LG SEMICONDUCTOR	GM72V161621ET-7 50TSOP TP 16MS	
			IC304				IC,TOSHIBA	TC7W04FU	
			IC305				IC,TOSHIBA	TC7W04FU	
			IC401				IC,BUR BROWN	PCM1716E 28P SSOP TP DAC 2K/R	
			IC402				IC,PERIPHERALS	NJM4580D JRC 8 DIP ST SWITCHIN	
			IC403				IC,KEC	KIA78R12PI CU 4P TO-220IS ST 1	
			IC501				IC,HITACHI	HD6417034AFI20 112QFP BK MICOM	
			IC502				IC,ATMEL	AT49F8192A-90TC 48TSOP BK 8M(1	
			IC503				IC,ELITE MEMORY TECHNOLOGY	M11B416256A-35J ELITE 4M(256K	
			IC504				IC,SAMSUNG ELECTRONICS	KS24C021CS SOP8 TP EEPROM 2K L	
			IC505				IC,STANDARD LOGIC	MC74VHC374DTR2 ON SEMI 20P TSS	
			IC506				IC,HYUNDAI	HS602002 44 QFP BK CPLD ASIC D	
			IC901				IC,MICRO CONTROLLER	UPD780232GC-043-8BT NEC 80 QFP	
			IC902				IC,KEC	KIA7042P 3P 4.2V RESET(TAPING)	
			JK601				JACK,FIBER OPTIC	GP1FA550TZ SHARP VE	
			JK602				JACK,RCA	RCA DIN-11G YUQIU D.GND R9P+DI	
			JK602				JACK,RCA	RCA DIN-09G YUQIU D.GND R4P+DI	
			JK603				JACK,SCART	1F-21P 3.81 BAEUN (BK) W/SHIEL	
			BC101				COIL	BEAD CORE BFS3550R2FD8,R T/P	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
		L101	616-145L			O	FILTER(CIRC)	LS-AI99F-009 FORDGOOD	
		L101	616-145M	O	O		FILTER(CIRC),DRAWING	V-04350 LS FUTAI BULK =616-145	
		L102	633-088G	O	O	O	COIL,CHOKE	CHOCK(22MH) TP 5MM	
		L103	633-088D	O	O	O	COIL,CHOKE	CHOCK ,20UH,LEAD CUT	
		L201	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L202	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L203	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L204	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L207	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L208	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L211	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L2A1	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L2A2	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L301	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L302	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L303	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L304	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L307	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L308	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L309	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L310	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L311	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L401	0LR1000J0N5	O	O	O	INDUCTOR,RADIAL LEAD	100UH 5% TP 3X5 TR5	
		L501	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L502	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L503	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L505	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L506	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L507	6200HJC102A	O	O	O	FILTER(CIRC),EMI	HB-1M2012-102JT CERATECH TP 3K	
		L602	0LR1000J0N5			O	INDUCTOR,RADIAL LEAD	100UH 5% TP 3X5 TR5	
		L603	0LA0101K018	O	O	O	INDUCTOR AXIAL LEAD	1.0M K 2.3X3.4 L5 TP	
		L604	0LA0101K018	O	O	O	INDUCTOR AXIAL LEAD	1.0M K 2.3X3.4 L5 TP	
		L901	0LR1000J0N5	O	O	O	INDUCTOR,RADIAL LEAD	100UH 5% TP 3X5 TR5	
		L902	0LR1000J0N5	O	O	O	INDUCTOR,RADIAL LEAD	100UH 5% TP 3X5 TR5	
<b>LED ASSY&amp;CONNECTOR,PWB ASSY</b>									
		LED01	0DL111209CA	O	O	O	LED	LTL-1CHEES-UA TP LITEON RED =0	
		LED02	0DL111209EA	O	O	O	LED	LTL-1CHKES-UA TP LITEON GREEN	
		LED03	0DL111209CA	O	O	O	LED	LTL-1CHEES-UA TP LITEON RED =0	
		LED901	0DLAU0029AA	O	O	O	LED	AUK SYM3272 (YELLOW-GREEN,GREE	
		P3401	6630R-BE034	O	O	O	CONNECTOR (CIRC),BOARD TO BOAR	2254-30S-T ILSSAN 30PIN 2.0MM	
		P4301	6630R-BE024	O	O	O	CONNECTOR (CIRC),BOARD TO BOAR	2254-30P-T ILSSAN 30PIN 2.0MM	
		P5502	6630XE00115	O	O	O	CONNECTOR (CIRC),FFC/FPC	04-6232-015-010-000 ELCO 15P 1	
		P5901	6630R-BE034	O	O	O	CONNECTOR (CIRC),BOARD TO BOAR	2254-30S-T ILSSAN 30PIN 2.0MM	
		P9501	6630R-BE024	O	O	O	CONNECTOR (CIRC),BOARD TO BOAR	2254-30P-T ILSSAN 30PIN 2.0MM	
		P9901	563-602U	O	O	O	CONNECTOR ASSY	GIL-S/9073AN 4 150M/M UL1571 A	
		P9902	561-711D	O	O	O	CONNECTOR (CIRC),HOUSING	GIL-S-04P-S2T2-EF LG CABLE 4PI	
		P9903	6631R-E009L	O	O	O	CONNECTOR ASSY	GIL-S/9073AN 3 PIN 100M/M UL15	
		P9904	561-711C	O	O	O	CONNECTOR	*WAFER,G/S GIL-S-03P-S2T2-EF	
		PBJIG	6871R-1959A	O	O	O	PWB(PCB) ASSY,TOTAL	DVD-3000'S JIG A'Y	
		PBP00	6871R-4748A	O	O	O	PWB(PCB) ASSEMBLY,TOTAL	DV4000 NAD (LED)	
		PBT00	6871R-4747A	O	O	O	PWB(PCB) ASSEMBLY,TOTAL	DV4000 NAD (KEY)	
		PMD02	6630R-FB10W	O	O	O	CONNECTOR (CIRC),FFC/FPC	00-6232-023-006-800 ELCO 23PIN	
		PW101	561-292B	O	O	O	CONNECTOR	GP390 LGC 3P 3.96 STRAIGHT SN	
		PMD03	6630R-FB10T	O	O	O	CONNECTOR (CIRC),FFC/FPC	00-6232-020-006-800 ELCO 20 PI	
<b>PROGRAM</b>									
		IC502	6957R-015AA			O	PROGRAM	DV4751E LG 5LANG	
		IC502	6957R-015BB	O			PROGRAM	DVN 4021P NAD A3 CHINA SVC	
<b>TRANSISTOR</b>									
		Q101	0TR130050AB			O	TRANSISTOR	KSE13005F BK SAMSUNG TO220F ST	
		Q102	0TR319809AC			O	TRANSISTOR	KTC3198-TP-BL (KTC1815)KEC	
		Q107	0TR115100AA	O	O	O	TRANSISTOR	KSB1151-Y BK SAMSUNG TO-126	
		Q108	0TR319909AF	O	O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
		Q2A1	0TR103709BB	O	O	O	TRANSISTOR	2SA1037K-Q CHIP ROHM-J	
		Q2A2	0TR103709BB	O	O	O	TRANSISTOR	2SA1037K-Q CHIP ROHM-J	
		Q2M1	0TR124009AP	O	O	O	TRANSISTOR	DTC124EK TP ROHM KOREA SOT23 3	
		Q303	0TR100009BM	O	O	O	TRANSISTOR	UMZ1N TL UM6 3K TP ROHM	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
			Q401		O	O	TRANSISTOR	KTA1267-GR MINI TP KEC	
			Q402		O	O	TRANSISTOR	KTA1267-GR MINI TP KEC	
			Q403		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q404		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q405		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q406		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q407		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q601			O	TRANSISTOR	KTA1267-GR MINI TP KEC	
			Q602			O	TRANSISTOR	KRC103M-TP (KRC1203) KEC	
			Q603			O	TRANSISTOR	KRC103M-TP (KRC1203) KEC	
			Q604			O	TRANSISTOR	KRC103M-TP (KRC1203) KEC	
			Q605			O	TRANSISTOR	KTA1267-GR MINI TP KEC	
			Q606			O	TRANSISTOR	KTA1267-GR MINI TP KEC	
			Q607		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q608		O	O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q615		O	O	TRANSISTOR	KTA1267-GR MINI TP KEC	
			Q618			O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
			Q619			O	TRANSISTOR,BIPOLARS	KTC3199-BL MINI TP KEC	
<b>RESISTER</b>									
			R101		O	O	RESISTOR	2.7/2W CEMENT SMPS V	
			R104			O	RESISTOR,FIXED METAL OXIDE FIL	33K OHM 2 W 5.00% TR	
			R104		O	O	RESISTOR,FIXED METAL OXIDE FIL	56K OHM 2 W 5.00% TR	
			R109			O	RESISTOR,FIXED CARBON FILM	15K OHM 1/6 W 5.00% TA26	
			R110			O	RESISTOR,FIXED METAL OXIDE FIL	120 OHM 1 W 5.00% TR	
			R111			O	RESISTOR,FIXED METAL OXIDE FIL	1 OHM 2 W 5.00% TR	
			R112		O	O	RESISTOR,FIXED CARBON FILM	3.9 OHM 1/6 W 5.00% TA26	
			R112			O	RESISTOR,FIXED CARBON FILM	8.2K OHM 1/6 W 5.00% TA26	
			R114		O	O	RESISTOR,FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R115			O	RESISTOR,FIXED CARBON FILM	4.7 OHM 1/6 W 5.00% TA26	
			R115		O	O	RESISTOR,FIXED CARBON FILM	5.6 OHM 1/6 W 5.00% TA26	
			R117			O	RESISTOR,FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R120		O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R121		O	O	RESISTOR,FIXED CARBON FILM	1.2K OHM 1/6 W 5.00% TA26	
			R122		O	O	RESISTOR,FIXED METAL OXIDE FIL	120 OHM 1 W 5.00% TR	
			R123		O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R124		O	O	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5.00% TA26	
			R125		O	O	RESISTOR,FIXED CARBON FILM	3.9K OHM 1/6 W 5.00% TA26	
			R126		O	O	RESISTOR,FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R127		O	O	RESISTOR,FIXED METAL FILM	3.6K OHM 1/8 W 1.00% TA26	
			R128		O	O	RESISTOR,FIXED METAL FILM	3.3K OHM 1/6 W 1.00% TA26	
			R130		O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R131		O	O	RESISTOR,FIXED CARBON FILM	220K OHM 1/6 W 5.00% TA26	
			R132		O	O	RESISTOR,FIXED CARBON FILM	220K OHM 1/6 W 5.00% TA26	
			R140		O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R141		O	O	RESISTOR,FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R144		O	O	RESISTOR,FIXED CARBON FILM	330 OHM 1/6 W 5.00% TA26	
			R144			O	RESISTOR,FIXED METAL OXIDE FIL	120 OHM 1 W 5.00% TR	
			R145		O	O	RESISTOR,FIXED CARBON FILM	470 OHM 1/6 W 5.00% TA26	
			R201		O	O	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
			R202		O	O	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
			R203		O	O	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
			R204		O	O	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	
			R207		O	O	RESISTOR,METAL GLAZED(CHIP)	1M OHM 1 / 16 W 1608 5.00% D	
			R217		O	O	RESISTOR,METAL GLAZED(CHIP)	10 OHM 1 / 16 W 1608 5.00% D	
			R218		O	O	RESISTOR,METAL GLAZED(CHIP)	470 OHM 1 / 16 W 1608 5.00% D	
			R219		O	O	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
			R220		O	O	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
			R221		O	O	RESISTOR,METAL GLAZED(CHIP)	10K OHM 1 / 16 W 1608 5.00% D	
			R230		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R231		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R232		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R233		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R234		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R235		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R236		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R237		O	O	RESISTOR,METAL GLAZED(CHIP)	100 OHM 1 / 16 W 1608 5.00% D	
			R239		O	O	RESISTOR,METAL GLAZED(CHIP)	0 OHM 1 / 16 W 1608 5.00% D	









S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
			R606	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R607	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R608	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R609	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R616	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R617	0	0	0	RESISTOR, FIXED CARBON FILM	680 OHM 1/6 W 5.00% TA26	
			R618	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R619	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R620	0	0	0	RESISTOR, FIXED CARBON FILM	220 OHM 1/6 W 5.00% TA26	
			R621	0	0	0	RESISTOR, FIXED CARBON FILM	220 OHM 1/6 W 5.00% TA26	
			R622	0	0	0	RESISTOR, FIXED CARBON FILM	22 OHM 1/6 W 5.00% TA26	
			R624	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R628	0	0	0	RESISTOR, FIXED CARBON FILM	47K OHM 1/6 W 5.00% TA26	
			R633	0	0	0	RESISTOR, FIXED CARBON FILM	4.7K OHM 1/6 W 5.00% TA26	
			R638	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R639	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R652	0	0	0	RESISTOR, FIXED CARBON FILM	68 OHM 1/6 W 5.00% TA26	
			R653	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R654	0	0	0	RESISTOR, FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R655	0	0	0	RESISTOR, FIXED CARBON FILM	2.2K OHM 1/6 W 5.00% TA26	
			R656	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R657	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R660	0	0	0	RESISTOR, FIXED CARBON FILM	680 OHM 1/6 W 5.00% TA26	
			R661	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R672	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R673	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R674	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R675	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R676	0	0	0	RESISTOR, FIXED CARBON FILM	75 OHM 1/6 W 5.00% TA26	
			R6M1	0	0	0	RESISTOR, FIXED CARBON FILM	220 OHM 1/6 W 5.00% TA26	
			R6M2	0	0	0	RESISTOR, FIXED CARBON FILM	220 OHM 1/6 W 5.00% TA26	
			R6M3	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R6M4	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R903	0	0	0	RESISTOR, FIXED CARBON FILM	680 OHM 1/6 W 5.00% TA26	
			R904	0	0	0	RESISTOR, FIXED CARBON FILM	1.2K OHM 1/6 W 5.00% TA26	
			R905	0	0	0	RESISTOR, FIXED CARBON FILM	1.5K OHM 1/6 W 5.00% TA26	
			R906	0	0	0	RESISTOR, FIXED CARBON FILM	3.3K OHM 1/6 W 5.00% TA26	
			R907	0	0	0	RESISTOR, FIXED CARBON FILM	4.7K OHM 1/6 W 5.00% TA26	
			R908	0	0	0	RESISTOR, FIXED CARBON FILM	8.2K OHM 1/6 W 5.00% TA26	
			R909	0	0	0	RESISTOR, FIXED CARBON FILM	15K OHM 1/6 W 5.00% TA26	
			R912	0	0	0	RESISTOR, FIXED CARBON FILM	820 OHM 1/6 W 5.00% TA26	
			R921	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R922	0	0	0	RESISTOR, FIXED CARBON FILM	1.5K OHM 1/6 W 5.00% TA26	
			R923	0	0	0	RESISTOR, FIXED CARBON FILM	1.2K OHM 1/6 W 5.00% TA26	
			R924	0	0	0	RESISTOR, FIXED CARBON FILM	820 OHM 1/6 W 5.00% TA26	
			R925	0	0	0	RESISTOR, FIXED CARBON FILM	680 OHM 1/6 W 5.00% TA26	
			R930	0	0	0	RESISTOR, FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R931	0	0	0	RESISTOR, FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R932	0	0	0	RESISTOR, FIXED CARBON FILM	3.3K OHM 1/6 W 5.00% TA26	
			R933	0	0	0	RESISTOR, FIXED CARBON FILM	330 OHM 1/6 W 5.00% TA26	
			R934	0	0	0	RESISTOR, FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
			R935	0	0	0	RESISTOR, FIXED CARBON FILM	47K OHM 1/6 W 5.00% TA26	
			R936	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R938	0	0	0	RESISTOR, FIXED CARBON FILM	1K OHM 1/6 W 5.00% TA26	
			R941	0	0	0	RESISTOR, FIXED CARBON FILM	2.2K OHM 1/6 W 5.00% TA26	
			R943	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R944	0	0	0	RESISTOR, FIXED CARBON FILM	100 OHM 1/6 W 5.00% TA26	
			R951	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R952	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R953	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R954	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R955	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R956	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R957	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R958	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R959	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R960	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	
			R961	0	0	0	RESISTOR, FIXED CARBON FILM	100K OHM 1/6 W 5.00% TA26	

S	AL	LOCA.NO	PART NO(LG)	A	B	C	DESCRIPTION	SPECIFICATION	REMARKS
		R999	0RD1002F608	O	O	O	RESISTOR, FIXED CARBON FILM	10K OHM 1/6 W 5.00% TA26	
<b>REMOTE CONTROL RECEIVER</b>									
		RC901	6712R1938GA	O	O	O	REMOTE CONTROLLER RECEIVER	TSOP2838WE1 TEMIC 19MM 37.9KHZ	
<b>SWITCH</b>									
		SW601	6600R-SH02A	O	O		SWITCH, SLIDE	SKQ-23D15-G5-NA LUP FUNG NON 3	
		SW602	6600R-SH18A	O	O	O	SWITCH, TACT	CSS-4206 CHANG SHIN NON DC 30V	
		SW901	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW902	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW903	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW904	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW905	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW906	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW907	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW908	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW910	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW911	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW912	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW913	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW914	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW915	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
		SW916	556-219B	O	O	O	SWITCH, TACT	THVV502GAA POSTECH NON 12V 5A	
<b>TRANSISTOR, RESONATOR, CRYSTAL, X-TAL</b>									
		T101	642-021K			O	TRANSFORMER, SMPS	KSE-021K/LSE-021K KS/LSE NARRO	
		T101	642-023T	O	O		TRANSFORMER, SMPS	SHT-023T/KSE-023T KWANGSUNG/SA	
		V101	656-004C	O	O	O	VARISTOR	SVC681D-10A SAMHWA 4.0 CUT	
		X201	6202R-BM04C	O	O	O	CRYSTAL, STANDARD	HC-49/S BUBANG AXIAL 33.8688MH	
		X3K1	6202R-BL06C	O	O	O	CRYSTAL, STANDARD	HC-49/S BUBANG AXIAL 27MHZ 20P	
		X501	6212R-L002A	O	O	O	RESONATOR	CSTCW20M0X53-R0 CSTCW20M0X53-R	
		X901	6212R-J003A	O	O	O	RESONATOR	CSTLS5M00G53-A0 CSTLS5M00G53-A	
<b>ZENER DIODE</b>									
		ZD101	0DZ332609FA	O	O	O	DIODE, ZENER	UZ-3.3BSB 26MM TP PYUNG CHANG	
		ZD102	0DZ620009BC			O	DIODE, ZENER	MTZJ6.2B TP ROHM-K DO34 0.5W 5	
		ZD605	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD606	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD611	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD635	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD637	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD638	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD641	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	
		ZD643	0DZ562609AA	O	O	O	DIODE, ZENER	GDZJ5.6B 26MM TP GRANDE DO34	

# CIRCUIT DIAGRAM

## 1. POWER(SMPS) CIRCUIT DIAGRAM

### IMPORTANT SAFETY NOTICE

WHEN SERVICING THIS CHASSIS, UNDER NO CIRCUMSTANCES SHOULD THE ORIGINAL DESIGN BE MODIFIED OR ALTERED WITHOUT PERMISSION FROM THE NAD ELECTRONICS CORPORATION. ALL COMPONENTS SHOULD BE REPLACED ONLY WITH TYPES IDENTICAL TO THOSE IN THE ORIGINAL CIR-

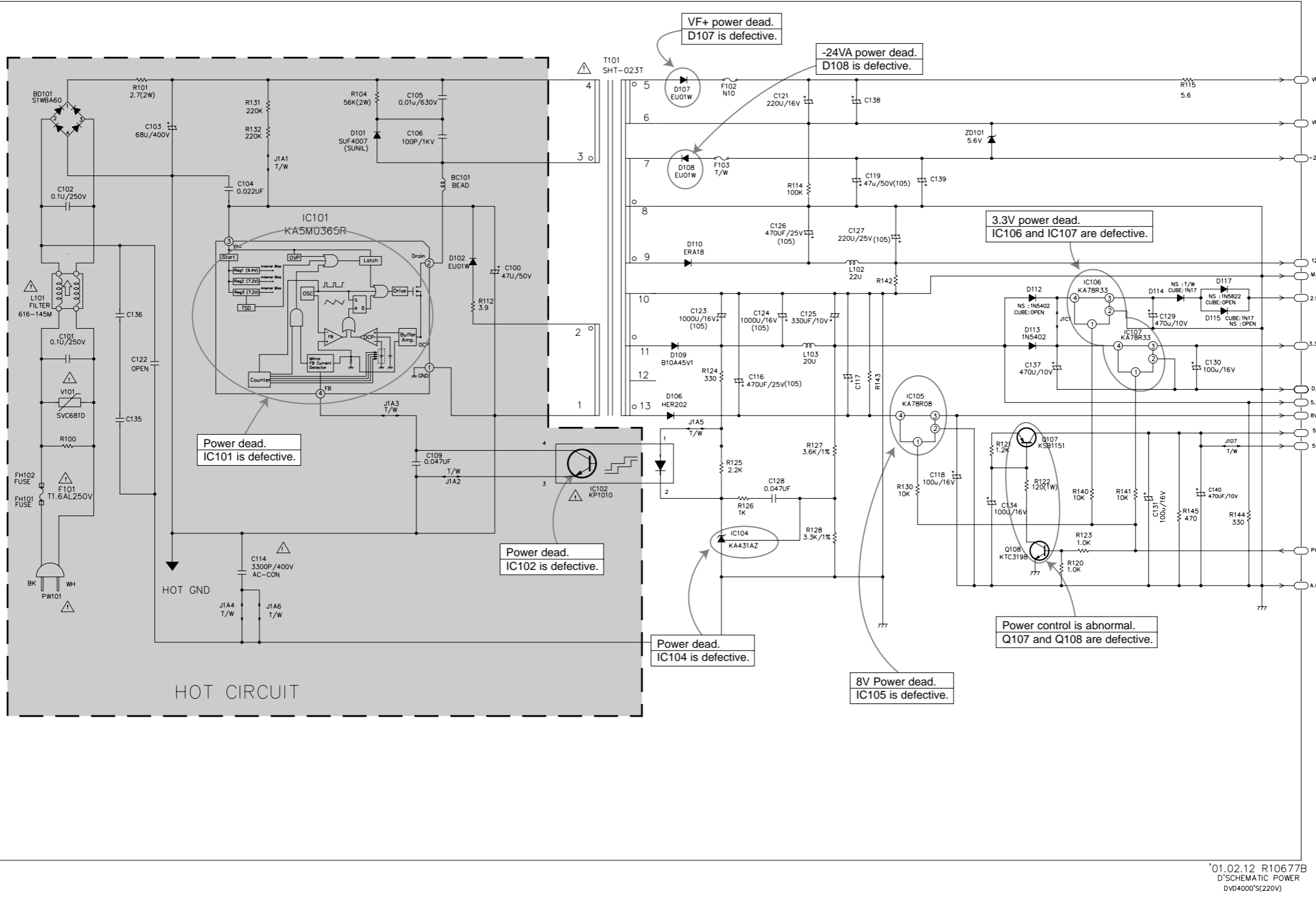
CUIT. SPECIAL COMPONENTS ARE SHADED ON THE SCHEMATIC FOR EASY IDENTIFICATION. THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY, IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SET IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

### NOTE :

- 1. Shaded(■) parts are critical for safety. Replace only with specified part number.
- 2. Voltages are DC-measured with a digital voltmeter during Play mode.

### LOCATION GUIDE

BC101	G10
BD101	B11
C100	G9
C101	B8
C102	B9
C103	C10
C104	D10
C105	F11
C106	F10
C109	F6
C114	D5
C116	J7
C117	K7
C118	L6
C119	K10
C121	J11
C122	C8
C123	I8
C124	J8
C125	K8
C126	J9
C127	K9
C128	J6
C129	O8
C130	O7
C131	O6
C134	M6
C135	C7
C136	C8
C137	M7
C138	K10
C139	L10
C140	O6
D.GND	P7
D101	E10
D102	F9
D106	I7
D107	I11
D108	I10
D109	I8
D110	I9
D112	M8
D113	M8
D114	O8
D115	O8
D117	O8
F102	J11
F103	J10
FH101	B6
FH102	B6
IC101	E9
IC102	H6
IC104	J6
IC105	L7
IC106	N8
IC107	N8
J107	O7
J1A1	D10
J1A2	F6
J1A3	F7
J1A4	D5
J1A5	I7
J1A6	D5
J1C1	M8
L101	B8
L102	K9
L103	K8
M.GND	P9
PW101	B5
PWR_CTLP5	
Q107	M7
Q108	M5
R100	B7
R101	C11
R104	E11
R112	G8
R114	J10
R115	O11
R120	N5
R121	M7
R122	M6
R123	N6
R124	I7
R125	J6
R126	J6
R127	K7
R128	K6
R130	L6
R131	D10
R132	D10
R140	N6
R141	N6
R142	K8
R143	K7
R144	O6
R145	O6
T101	H11
V101	B7
VF+	P11
VF-	P10
ZD101	L10

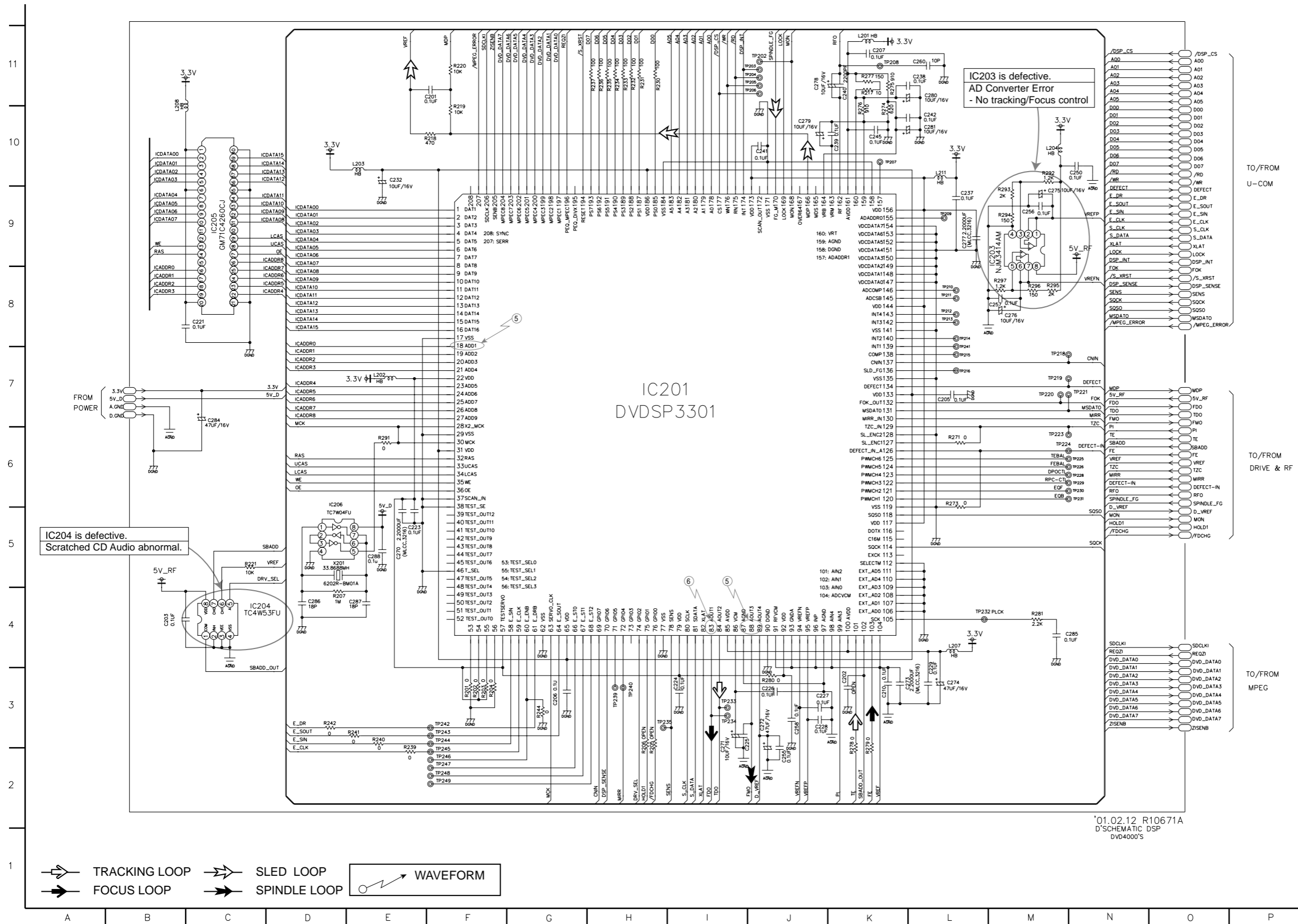


NOTES) ⚠ Warning  
Parts that are shaded are critical  
With respect to risk of fire or  
electrical shock.

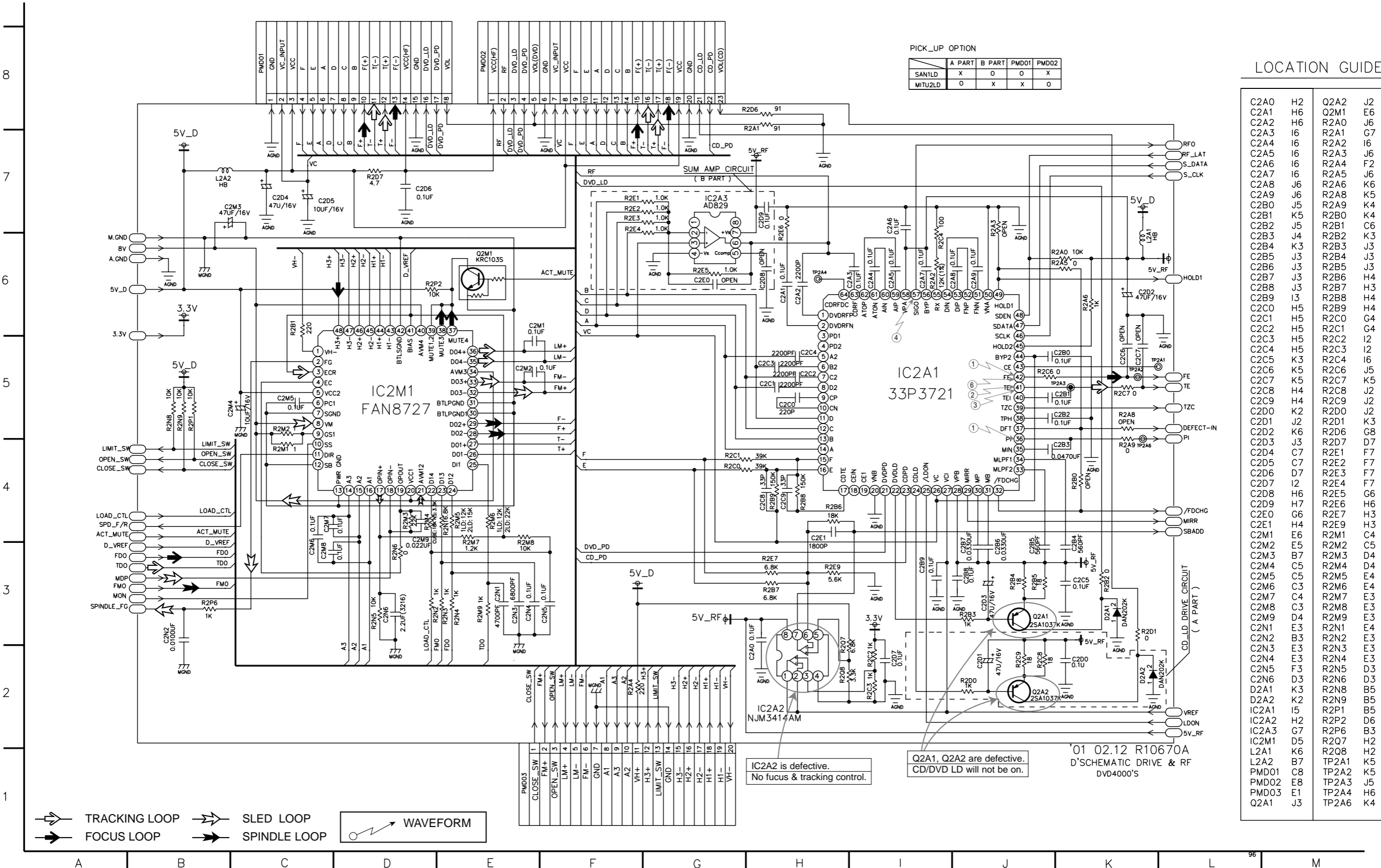
NOTES : ⚡ Symbol denotes AC ground.  
⚡ Symbol denotes DC chassis ground.

\*01.02.12 R10677B  
D'SCHEMAIC POWER  
DV04000'S(220V)

## 2. DVD DSP CIRCUIT DIAGRAM



### 3. DRIVE & RF CIRCUIT DIAGRAM



PICK\_UP OPTION

	A PART	B PART	PMD01	PMD02
SAN1LD	X	O	O	X
MITU2LD	O	X	X	O

#### LOCATION GUIDE

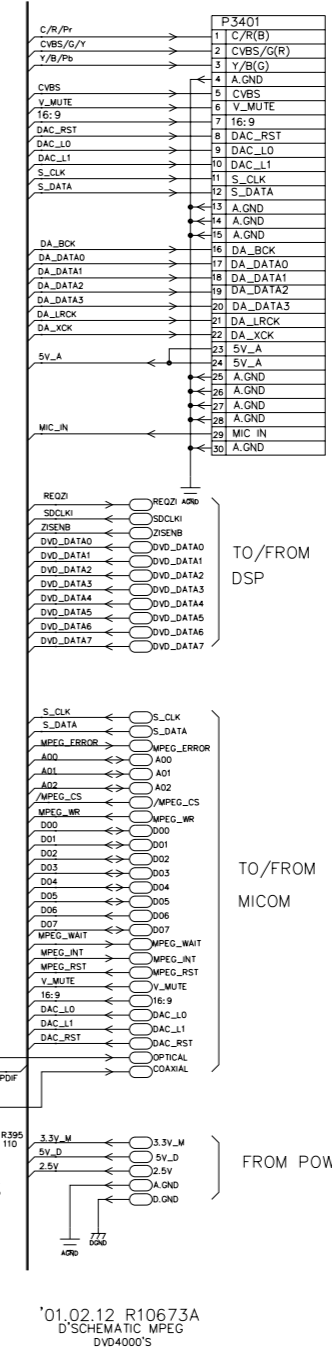
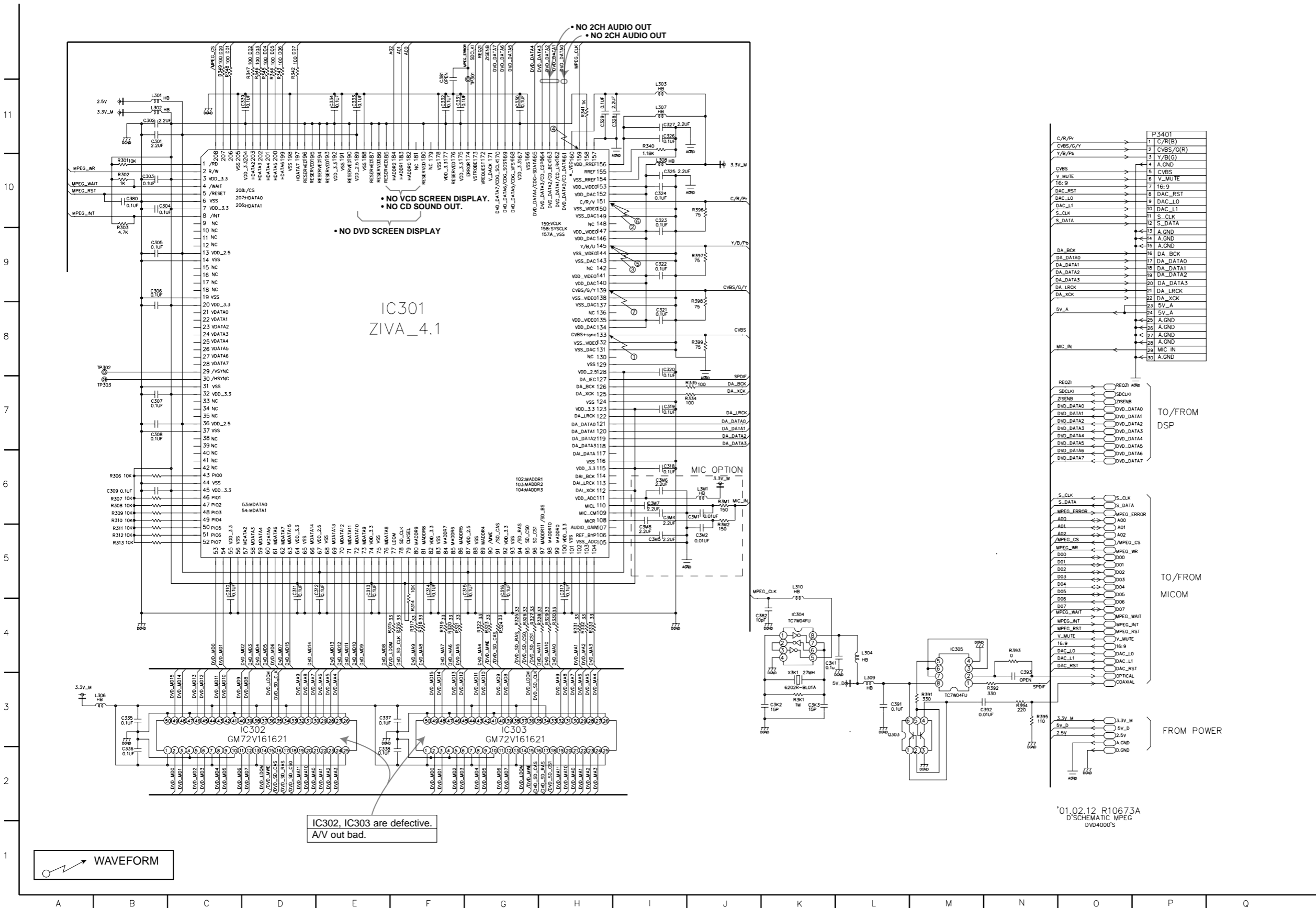
C2A0	H2	Q2A2	J2
C2A1	H6	Q2M1	E6
C2A2	H6	R2A0	J6
C2A3	I6	R2A1	G7
C2A4	I6	R2A2	I6
C2A5	I6	R2A3	J6
C2A6	I6	R2A4	F2
C2A7	I6	R2A5	J6
C2A8	J6	R2A6	K6
C2A9	J6	R2A8	K5
C2B0	J5	R2A9	K4
C2B1	K5	R2B0	K4
C2B2	J5	R2B1	C6
C2B3	J4	R2B2	K3
C2B4	K3	R2B3	J3
C2B5	J3	R2B4	J3
C2B6	J3	R2B5	J3
C2B7	J3	R2B6	H4
C2B8	J3	R2B7	H3
C2B9	I3	R2B8	H4
C2C0	H5	R2B9	H4
C2C1	H5	R2C0	G4
C2C2	H5	R2C1	G4
C2C3	H5	R2C2	I2
C2C4	H5	R2C3	I2
C2C5	K3	R2C4	I6
C2C6	K5	R2C6	J5
C2C7	K5	R2C7	K5
C2C8	H4	R2C8	J2
C2C9	H4	R2C9	J2
C2D0	K2	R2D0	J2
C2D1	J2	R2D1	K3
C2D2	K6	R2D6	G8
C2D3	J3	R2D7	D7
C2D4	C7	R2E1	F7
C2D5	C7	R2E2	F7
C2D6	D7	R2E3	F7
C2D7	I2	R2E4	F7
C2D8	H6	R2E5	G6
C2D9	H7	R2E6	H6
C2E0	G6	R2E7	H3
C2E1	H4	R2E9	H3
C2M1	E6	R2M1	C4
C2M2	E5	R2M2	C5
C2M3	B7	R2M3	D4
C2M4	C5	R2M4	D4
C2M5	C5	R2M5	E4
C2M6	C3	R2M6	E4
C2M7	C4	R2M7	E3
C2M8	C3	R2M8	E3
C2M9	D4	R2M9	E3
C2N1	E3	R2N1	E4
C2N2	B3	R2N2	E3
C2N3	E3	R2N3	E3
C2N4	E3	R2N4	E3
C2N5	F3	R2N5	D3
C2N6	D3	R2N6	D3
D2A1	K3	R2N8	B5
D2A2	K2	R2N9	B5
IC2A1	I5	R2P1	B5
IC2A2	H2	R2P2	D6
IC2A3	G7	R2P6	B3
IC2M1	D5	R2Q7	H2
L2A1	K6	R2Q8	H2
L2A2	B7	TP2A1	K5
PMD01	C8	TP2A2	K5
PMD02	E8	TP2A3	J5
PMD03	E1	TP2A4	H6
Q2A1	J3	TP2A6	K4

IC2A2 is defective.  
No focus & tracking control.

Q2A1, Q2A2 are defective.  
CD/DVD LD will not be on.

'01 02.12 R10670A  
D'SCHEMATIC DRIVE & RF  
DVD4000's

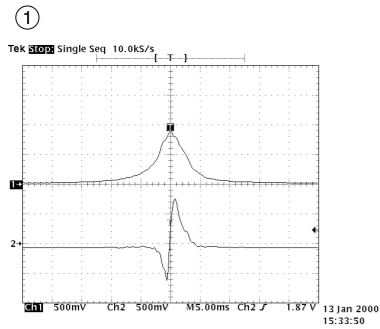
# 4. MPEG CIRCUIT DIAGRAM



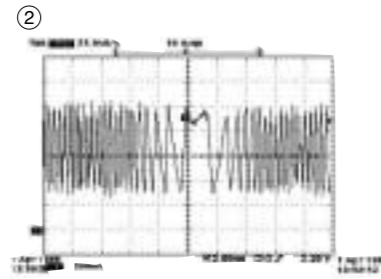
'01.02.12 R10673A  
D'SCHEMATIC MPEG  
DVD4000'S



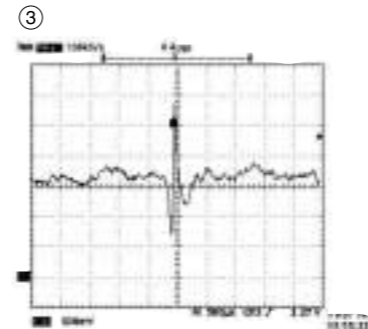
• WAVEFORMS



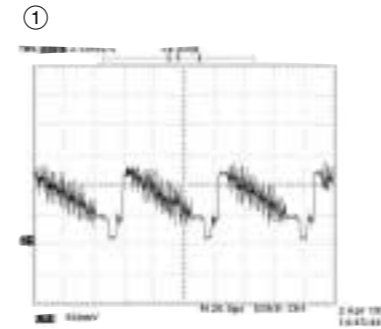
IC2A1 Pin 42, Focus Error  
IC2A1 Pin 36, Pi



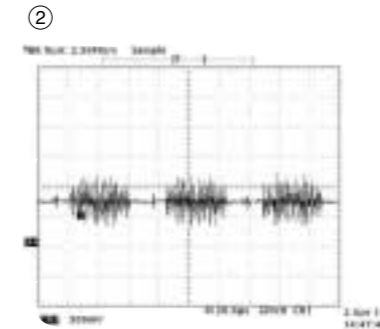
IC2A1 Pin 41  
Tracking Error



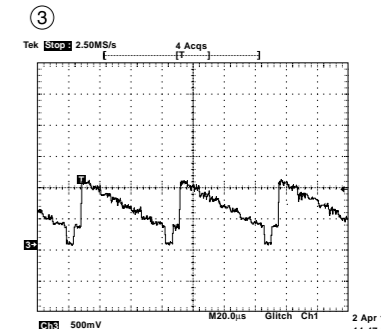
IC2A1 Pin 41  
VBR TRACKING Error



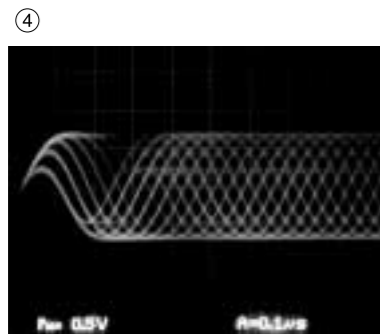
IC301 Pin 133, Composite



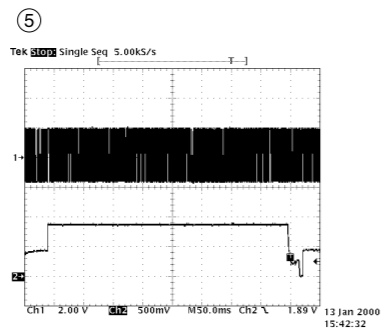
IC301 Pin 151, Chrominance  
(Super video out Mode)



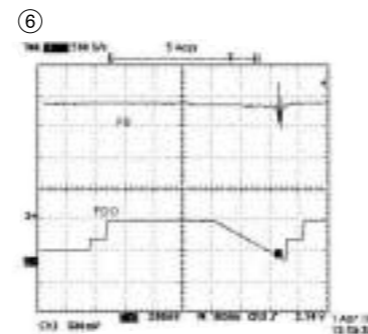
IC301 Pin 145, Luminance  
(Super video out Mode)



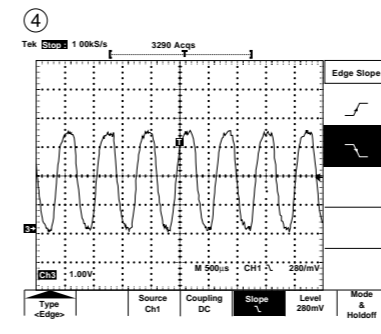
IC2A1 Pin 57,  
RF



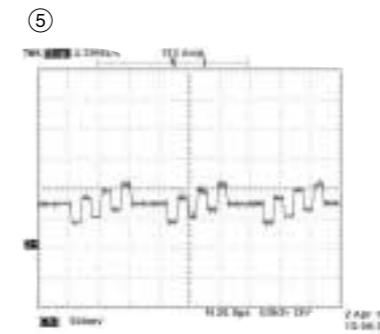
IC201 Pin 88, SLED Drive(FMO)  
IC201 Pin 18, SLED FG



IC2A1 Pin42, Focus Error(in Focus Search)  
IC201 Pin 83, Focus Drive(FDO)



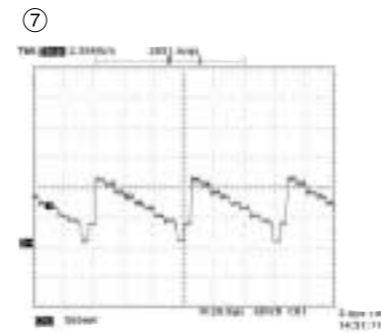
IC301 Pin 159,  
MPEG Clock(27MHz)



IC301 Pin 145  
Component Pb

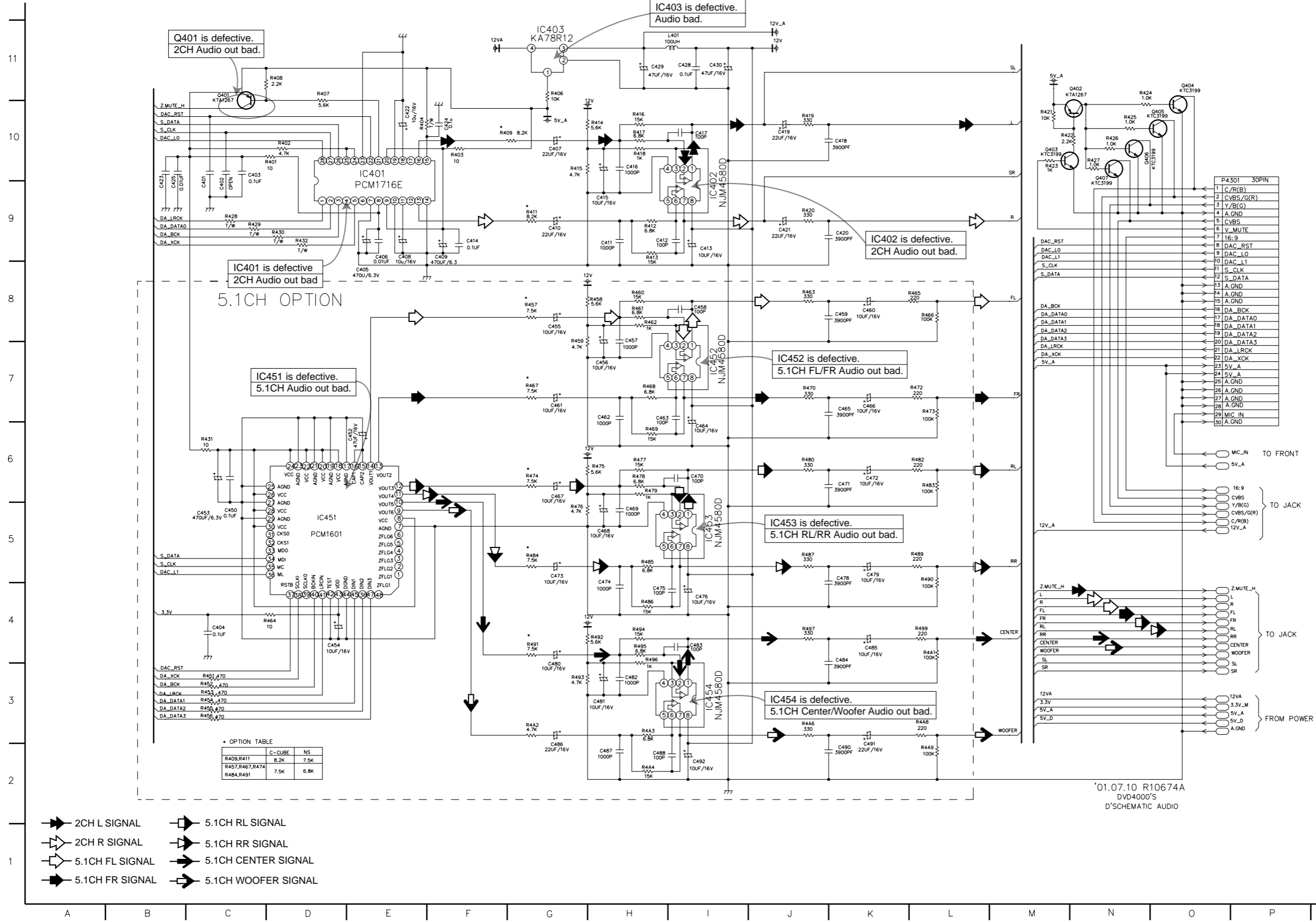


IC301 Pin 151  
Component Pr



IC301 Pin 139  
Component Y

# 5. AUDIO DM & 5.1CH CIRCUIT DIAGRAM

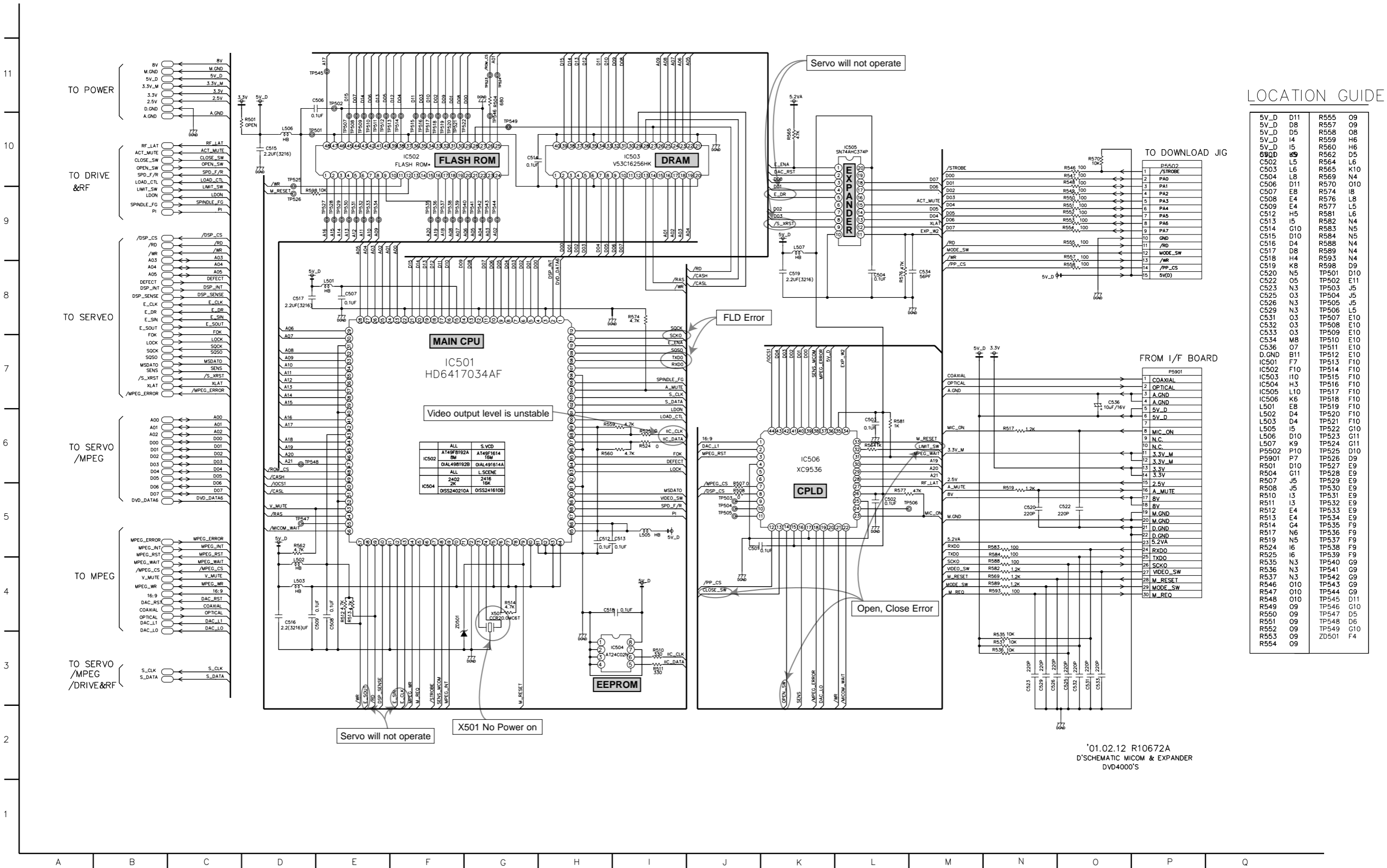


\* OPTION TABLE

Component	C-CUBE	NS
R409,R411	8.2K	7.5K
R457,R467,R474	7.5K	6.8K
R484,R491	7.5K	6.8K

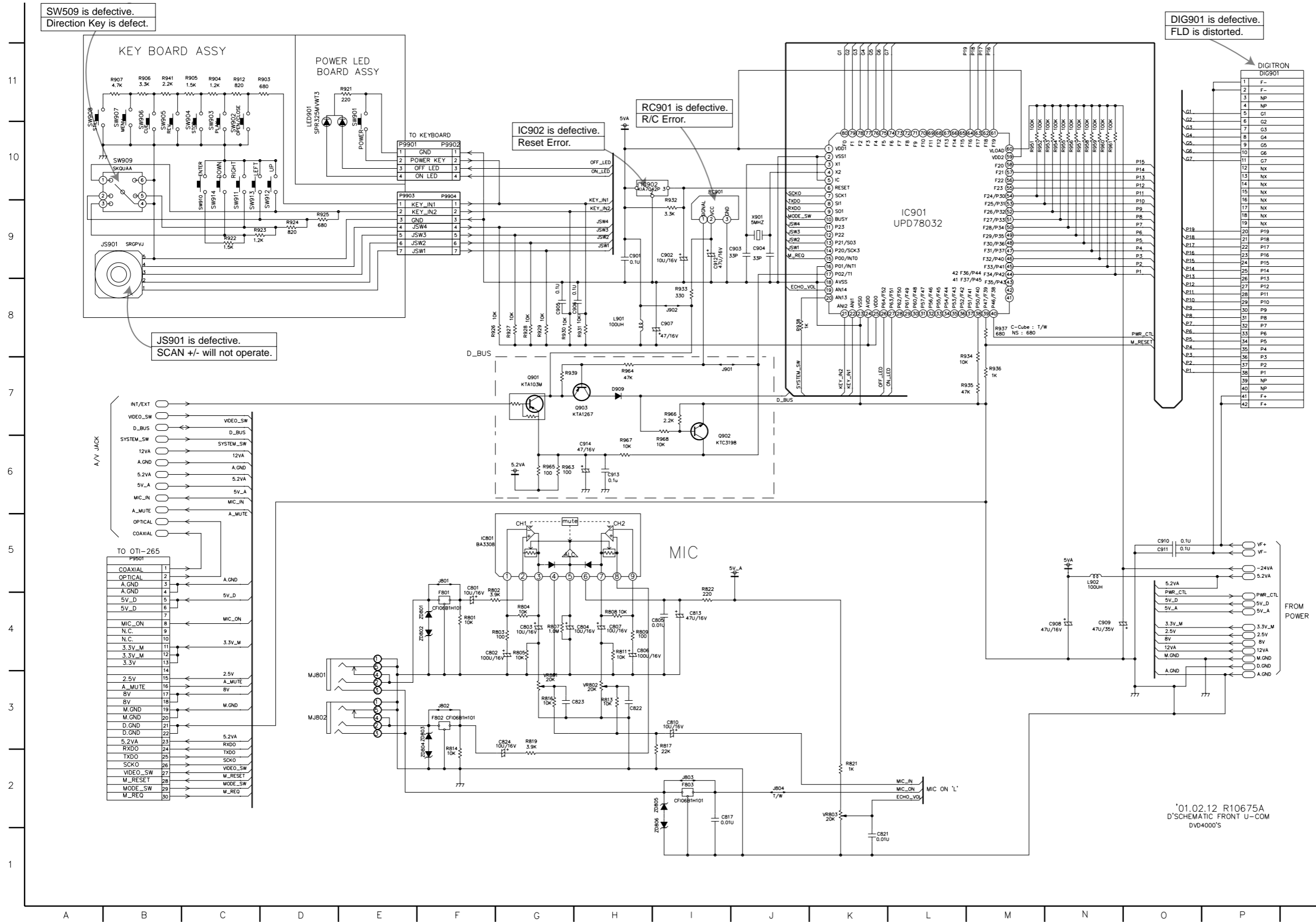
'01.07.10 R10674A  
DVD4000'S  
D'SCHEMATIC AUDIO

# 6. μ-COM/EXPANDER CIRCUIT DIAGRAM



'01.02.12 R10672A  
D'SCHEMATIC MICOM & EXPANDER  
DVD4000'S

# 7. DIGITRON(TIMER) & KEY CIRCUIT DIAGRAM



## LOCATION GUIDE

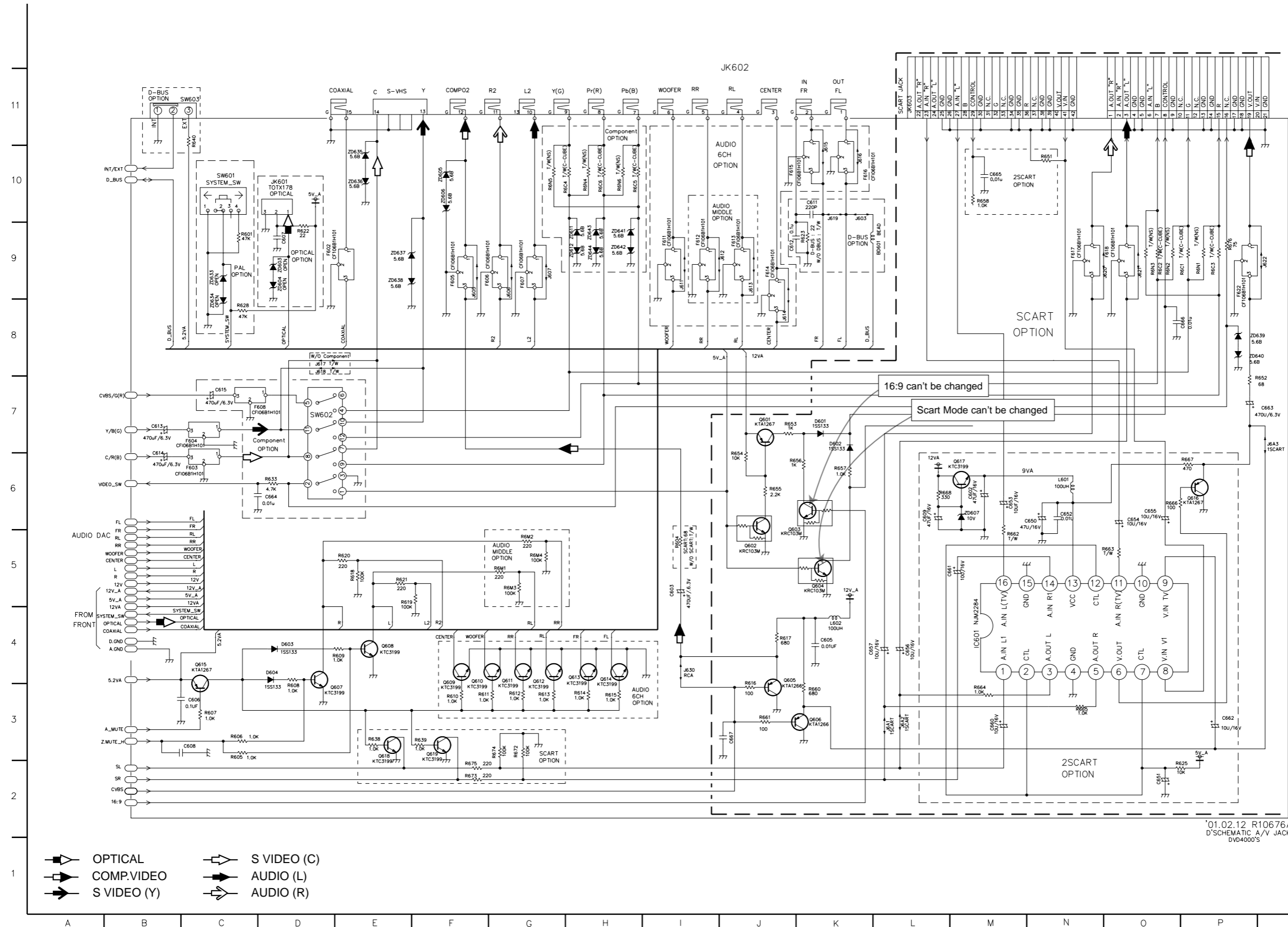
DIGITRON			
DIG901			
1	F-		
2	F-		
3	NP		
4	NP		
5	G1		
6	G2		
7	G3		
8	G4		
9	G5		
10	G6		
11	G7		
12	Nx		
13	Nx		
14	Nx		
15	Nx		
16	Nx		
17	Nx		
18	Nx		
19	Nx		
20	P19		
21	P18		
22	P17		
23	P16		
24	P15		
25	P14		
26	P13		
27	P12		
28	P11		
29	P10		
30	P9		
31	P8		
32	P7		
33	P6		
34	P5		
35	P4		
36	P3		
37	P2		
38	P1		
39	NP		
40	NP		
41	F+		
42	F+		

C801	F5	R907	B11
C802	F4	R912	C11
C803	G4	R921	E11
C804	H4	R922	C9
C805	I4	R923	C9
C806	H4	R924	D9
C807	H4	R925	D9
C810	I3	R926	F8
C813	I4	R927	G8
C817	I2	R928	G8
C821	K1	R929	G8
C822	H3	R930	G8
C823	G3	R931	H8
C824	G3	R932	I9
C901	H9	R933	I8
C902	I9	R934	L7
C903	I9	R935	L7
C904	J9	R936	M7
C905	G8	R937	M8
C906	H8	R938	J8
C907	I8	R939	G7
C908	N4	R941	B11
C909	N4	R951	M10
C910	O5	R952	M10
C911	O5	R953	N10
C912	I9	R954	N10
C913	H6	R955	N10
C914	H6	R956	N10
D.GND	P4	R957	N10
D909	H7	R958	N10
DIG901	P1	R959	N10
F801	F4	R960	N10
F802	F3	R961	N10
F803	I2	R963	G6
IC801	F5	R964	H7
IC901	L9	R965	G6
IC902	H10	R966	I7
J801	F5	R967	H6
J802	F3	R968	I6
J803	I2	RC901	I10
J804	J2	SW901	E10
J901	I7	SW902	C10
J902	I8	SW903	C10
JS901	A9	SW904	C10
JSW1	J9	SW905	B10
JSW1	H9	SW906	B10
JSW2	J9	SW907	B10
JSW2	H9	SW908	A10
JSW3	J9	SW909	B10
JSW3	H9	SW910	C9
JSW4	J9	SW911	C9
JSW4	H9	SW912	D9
L901	H8	SW913	C9
L902	N5	SW914	C9
LED901	D10	VR801	G3
MJ801	D3	VR802	H3
MJ802	D3	VR803	K2
P9501	B5	X901	J9
P9901	E10	ZD801	F4
P9902	F10	ZD802	F4
P9903	E10	ZD803	F3
P9904	F10	ZD804	F2
Q901	G7	ZD805	I2
Q902	I6	ZD806	I1
Q903	H7		
R801	F4		
R802	F5		
R803	F4		
R804	G4		
R805	G4		
R807	G4		
R808	H4		
R809	H4		
R811	H4		
R813	H3		
R814	F2		
R816	G3		
R817	I3		
R819	G3		
R821	K2		
R822	I5		
R903	C11		
R904	C11		
R905	C11		
R906	B11		

'01.02.12 R10675A  
D'SCHEMATIC FRONT U-COM  
DVD4000'S

# 8. JACK CIRCUIT DIAGRAM



## LOCATION GUIDE

BD601	L9	R601	C9
C602	M6	R604	I5
C603	I5	R605	C3
C605	K4	R606	C3
C606	C3	R607	C3
C607	D9	R608	D3
C608	C3	R609	D4
C609	L6	R610	F3
C611	K10	R611	F3
C612	J9	R612	G3
C613	B7	R613	G3
C614	B6	R614	H3
C615	C7	R615	H3
C650	M6	R616	J3
C651	O2	R617	J4
C652	N6	R618	E5
C653	M6	R619	E5
C654	O6	R620	E5
C655	O6	R621	E5
C656	L4	R622	K9
C657	K4	R623	K9
C660	M3	R625	O2
C661	M5	R628	C8
C663	O7	R638	D6
C664	O6	R639	F3
C665	M10	R640	C10
C666	P8	R651	N10
D607	K7	R652	P7
D602	K7	R653	J7
D603	D4	R654	J6
D604	D4	R655	J6
F602	D9	R656	J6
F603	C6	R657	K6
F604	C7	R658	M10
F605	F9	R660	K3
F606	G9	R661	J3
F607	G9	R662	M5
F608	C7	R663	N5
F611	I9	R664	M3
F612	I9	R665	N3
F613	J9	R666	O6
F614	J9	R667	P6
F615	J10	R668	L6
F616	K10	R672	G3
F617	N9	R673	F2
F618	O9	R674	G3
F622	P9	R675	F2
IC601	M4	R676	P9
J603	K10	R6C1	P9
J605	F9	R6C2	O9
J606	G9	R6C3	P9
J607	G9	R6C4	H10
J611	I9	R6C5	H10
J612	J9	R6C6	H10
J613	J9	R6M1	G5
J614	J8	R6M2	G5
J615	K10	R6M3	G5
J616	K10	R6M4	G5
J617	D8	R6N1	P9
J618	D8	R6N2	O9
J619	K10	R6N3	O9
J620	O9	R6N4	H10
J621	O9	R6N5	C10
J622	O9	R6N6	H10
J630	I4	SW601	C10
J6A1	L3	SW602	D7
J6A2	L3	SW603	C11
J6A3	O7	ZD603	D9
JK601	D10	ZD604	D9
JK602	J11	ZD605	F10
JK603	L11	ZD606	F10
L601	N6	ZD607	M6
L602	K4	ZD611	H9
Q601	J7	ZD612	H9
Q602	J5	ZD633	C9
Q603	J5	ZD634	C8
Q604	K5	ZD635	E10
Q605	J4	ZD636	E10
Q606	K3	ZD637	E9
Q607	D3	ZD638	E9
Q608	E4	ZD639	P8
Q609	F3	ZD640	P8
Q610	F4	ZD641	H9
Q611	G4	ZD642	H9
Q612	G4	ZD643	H9
Q613	H4	ZD644	H9
Q614	H4		
Q615	C4		
Q616	P6		
Q617	M6		
Q618	E3		
Q619	F3		

'01.02.12 R10676A  
D'SCHEMATIC A/V JACK  
DVD4000'S

- OPTICAL
- COMP.VIDEO
- S VIDEO (Y)
- S VIDEO (C)
- AUDIO (L)
- AUDIO (R)

## • CIRCUIT VOLTAGE CHART

MODE PIN NO.	EE	PLAY
<b>D S P</b>		
<b>IC201 SP3301</b>		
1	2.00	1.30
2	2.00	1.30
3	2.00	1.30
4	2.00	1.30
5	2.00	1.30
6	2.00	1.30
7	2.00	1.30
8	2.00	1.30
9	2.00	1.30
10	2.00	1.30
11	2.00	1.30
12	2.00	1.30
13	2.00	1.30
14	2.00	1.30
15	2.00	1.30
16	2.00	1.30
17	0.00	0.00
18	0.00	1.50
19	0.00	1.50
20	0.00	1.50
21	0.00	1.50
22	3.10	3.00
23	0.00	1.50
24	0.00	1.50
25	0.00	1.50
26	0.00	1.50
27	0.00	1.50
28	2.10	1.50
29	0.00	0.00
30	2.10	2.00
31	3.10	3.00
32	3.10	1.50
33	3.10	2.50
34	3.10	2.50
35	2.10	1.30
36	1.10	1.80
37	0.00	0.00
38	0.00	0.00
39	0.00	0.00
40	3.10	3.00
41	0.00	0.00
42	3.10	3.00
43	0.00	0.00
44	0.00	0.00
45	3.10	3.00
46	0.00	0.00
47	0.00	0.00
48	0.00	0.00
49	0.00	3.00
50	0.00	0.00
51	0.00	0.00
52	3.10	1.80
53	0.00	0.00

MODE PIN NO.	EE	PLAY
54	3.10	3.00
55	3.10	3.00
56	0.00	0.00
57	0.00	3.13
58	5.00	4.98
59	0.00	0.00
60	0.00	0.00
61	5.00	4.98
62	0.00	0.00
63	2.10	2.10
64	0.00	0.00
65	3.10	3.00
66	0.00	0.00
67	3.10	3.12
68	0.00	0.00
69	0.00	0.20
70	0.00	0.00
71	3.10	3.10
72	0.00	0.20
73	0.00	0.00
74	3.10	3.10
75	0.00	0.00
76	0.00	0.00
77	0.00	0.00
78	0.00	2.30
79	3.10	3.10
80	5.00	5.00
81	0.00	0.00
82	5.00	5.00
83	2.10	2.00
84	2.10	2.10
85	3.10	3.10
86	1.40	1.40
87	0.00	0.00
88	2.10	2.00
89	2.10	2.00
90	0.00	0.00
91	1.50	1.55
92	3.10	3.12
93	1.60	1.55
94	1.10	1.11
95	2.00	2.00
96	1.55	1.55
97	0.00	0.00
98	1.55	1.55
99	1.56	2.15
100	3.10	3.10
101	1.55	1.58
102	1.55	1.55
103	1.62	1.64
104	1.55	1.55
105	1.50	1.50
106	0.00	0.00
107	0.00	0.00
108	0.00	0.00

MODE PIN NO.	EE	PLAY
109	0.00	0.00
110	0.00	0.00
111	0.00	0.00
112	0.00	0.00
113	3.40	4.70
114	5.00	5.00
115	1.50	1.50
116	1.50	1.53
117	3.10	3.10
118	0.00	0.00
119	0.00	0.00
120	3.50	4.20
121	3.25	4.20
122	3.45	4.30
123	3.50	4.30
124	3.50	4.30
125	3.50	4.50
126	0.00	0.00
127	3.60	2.60
128	0.00	0.00
129	3.60	2.60
130	0.00	0.20
131	0.00	0.00
132	0.00	3.10
133	3.10	3.10
134	0.00	0.00
135	0.00	0.00
136	3.10	2.20
137	0.00	0.00
138	0.00	0.00
139	3.10	3.10
140	3.00	3.10
141	0.00	0.00
142	3.00	3.00
143	3.10	3.10
144	3.10	3.10
145	3.10	0.90
146	3.50	4.50
147	0.00	0.00
148	0.00	0.00
149	0.00	0.00
150	0.00	0.00
151	0.00	0.00
152	0.00	0.00
153	0.00	0.00
154	0.00	0.00
155	1.55	1.55
156	3.10	3.10
157	1.50	1.50
158	0.00	0.00
159	0.00	0.00
160	2.60	2.60
161	3.10	3.10
162	2.00	2.00
163	2.00	2.00

MODE PIN NO.	EE	PLAY
164	1.40	1.40
165	3.20	0.00
166	1.60	1.75
167	0.00	0.00
168	0.00	3.10
169	0.00	3.10
170	5.00	2.50
171	0.00	2.50
172	3.10	0.00
173	3.10	3.10
174	3.10	3.10
175	3.10	3.10
176	2.53	1.30
177	4.24	4.97
178	5.00	5.00
179	2.70	0.20
180	3.26	2.30
181	3.10	2.50
182	2.40	2.50
183	3.66	2.80
184	2.40	2.50
185	0.00	0.00
186	2.26	2.00
187	3.10	3.10
188	2.20	2.40
189	1.75	1.90
190	2.20	1.80
191	1.80	1.80
192	2.20	2.20
193	1.25	1.30
194	1.00	1.10
195	5.00	5.00
196	0.00	2.25
197	0.00	1.60
198	0.00	1.50
199	0.00	1.50
200	0.00	1.50
201	0.00	1.50
202	0.00	1.50
203	0.00	1.50
204	0.00	1.50
205	3.10	2.60
206	1.50	1.50
207	3.10	3.10
208	3.10	3.10
<b>IC205 GM71C4260CJ</b>		
1	3.16	3.18
2	2.01	2.07
3	2.01	2.07
4	2.02	2.07
5	2.02	2.07
6	3.16	3.18
7	2.02	2.08
8	2.02	2.07
9	2.02	2.07

MODE PIN NO.	EE	PLAY
10	2.02	2.07
11	0.10	0.00
12	0.26	0.00
13	2.08	2.09
14	3.16	3.17
15	0.00	0.00
16	0.00	0.00
17	0.00	0.00
18	0.00	0.00
19	0.00	0.00
20	3.15	3.18
21	0.00	0.00
22	0.00	0.00
23	0.00	0.00
24	0.00	0.00
25	0.00	0.00
26	0.00	0.00
27	1.06	1.07
28	3.14	3.17
29	3.14	3.16
30	0.00	0.00
31	2.01	2.08
32	2.02	2.08
33	2.02	2.08
34	2.02	2.08
35	0.00	0.00
36	2.02	2.08
37	2.02	2.08
38	2.02	2.08
39	2.02	2.08
40	0.00	0.00
<b>IC204 4W53FU</b>		
1	1.50	1.50
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	3.10	3.10
6	1.50	1.50
7	2.72	2.60
8	5.00	5.00
<b>IC206 7W04FU</b>		
1	2.60	2.60
2	2.80	2.70
3	2.80	2.70
4	0.00	0.00
5	2.10	2.10
6	2.20	2.20
7	2.20	2.20
8	5.00	5.00
<b>IC203 NJM3414AM</b>		
1	2.00	2.00
2	2.00	2.00
3	2.00	2.00
4	0.00	0.00
5	1.10	1.10

MODE PIN NO.	EE	PLAY
6	1.10	1.10
7	1.10	1.10
8	5.00	5.00
<b>S E R V O</b>		
<b>IC2M1 FAN8727</b>		
1	5.02	0.80
2	5.01	2.48
3	2.08	2.07
4	2.12	1.95
5	5.01	4.98
6	0.20	0.60
7	0.00	0.00
8	7.92	7.89
9	7.92	7.87
10	0.00	3.07
11	3.87	0.00
12	0.00	0.00
13	0.00	0.00
14	0.00	5.34
15	0.00	5.33
16	0.00	5.34
17	1.84	1.84
18	1.84	1.84
19	2.12	1.95
20	7.92	7.88
21	7.92	7.88
22	2.07	2.05
23	2.07	2.05
24	2.07	2.05
25	2.06	2.05
26	4.04	4.01
27	4.04	4.01
28	4.04	4.04
29	4.04	3.98
30	0.00	0.00
31	0.00	0.00
32	4.03	4.10
33	4.01	3.90
34	7.93	7.88
35	4.02	4.01
36	4.02	4.01
37	0.00	0.00
38	0.00	0.00
39	0.00	0.00
40	7.92	7.90
41	2.07	2.06
42	0.00	0.00
43	5.01	2.90
44	5.01	2.90
45	5.01	2.90
46	5.01	2.90
47	5.01	2.90
48	5.01	2.90
<b>IC2A1 33P3721</b>		
1	3.44	3.38

MODE PIN NO.	EE	PLAY
2	3.12	3.40
3	2.50	2.50
4	2.51	2.53
5	3.50	3.44
6	3.46	3.44
7	3.47	3.45
8	3.47	3.44
9	3.48	3.44
10	3.43	3.41
11	2.52	2.70
12	2.52	2.70
13	2.52	2.60
14	2.52	2.60
15	2.56	2.70
16	2.48	2.50
17	2.98	3.30
18	0.00	0.00
19	4.50	4.58
20	0.00	0.00
21	0.00	0.20
22	4.96	3.85
23	0.00	0.00
24	4.95	4.92
25	5.00	0.00
26	2.52	2.50
27	1.55	1.55
28	4.97	4.93
29	0.00	0.40
30	2.55	2.63
31	2.51	2.56
32	4.90	4.65
33	0.00	0.20
34	0.00	2.60
35	0.00	2.50
36	1.56	2.15
37	3.58	0.00
38	2.62	3.20
39	0.00	2.60
40	2.50	2.60
41	1.55	1.60
42	1.46	1.65
43	1.58	1.64
44	2.52	2.50
45	4.92	4.97
46	4.99	5.00
47	0.00	0.00
48	0.00	0.00
49	3.59	0.00
50	0.00	0.00
51	2.35	0.00
52	2.37	2.30
53	3.51	3.47
54	3.51	3.46
55	0.61	0.00
56	1.67	2.42

MODE PIN NO.	EE	PLAY
57	2.95	2.88
58	4.98	4.93
59	3.48	3.40</

MODE PIN NO.	EE	PLAY
138	0.00	0.00
139	0.54	1.00
140	3.10	3.10
141	3.10	3.10
142	0.00	0.00
143	0.00	0.00
144	0.00	0.00
145	0.67	1.40
146	3.10	3.10
147	3.10	3.10
148	0.00	0.00
149	0.00	0.00
150	0.00	0.00
151	1.00	1.00
152	3.10	3.10
153	3.10	3.10
154	0.00	0.00
155	1.30	1.30
156	3.10	3.10
157	0.00	0.00
158	3.16	3.11
159	2.23	2.21
160	3.13	3.12
161	0.00	1.50
162	0.00	1.50
163	0.00	1.50
164	0.00	1.50
165	0.00	1.50
166	0.00	0.00
167	3.12	3.12
168	0.00	1.50
169	0.00	1.50
170	0.00	1.50
171	0.00	2.62
172	0.00	1.50
173	1.54	1.50
174	0.00	0.00
175	3.12	3.11
176	0.00	0.00
177	3.12	3.12
178	0.00	0.00
179	3.12	3.10
180	3.12	3.10
181	3.12	0.00
182	0.15	0.16
183	2.32	2.30
184	2.54	2.50
185	3.12	3.12
186	3.12	3.12
187	3.12	3.12
188	0.00	0.00
189	2.50	2.44
190	3.12	3.11
191	0.00	0.00
192	3.12	3.11

MODE PIN NO.	EE	PLAY
193	3.12	3.12
194	3.12	3.12
195	3.12	3.12
196	1.05	3.12
197	0.00	1.05
198	0.00	0.00
199	1.25	1.34
200	2.17	2.10
201	1.80	1.75
202	0.00	1.90
203	1.80	1.90
204	3.12	3.10
205	0.00	0.00
206	2.20	2.38
207	2.26	2.10
208	5.00	5.00
<b>IC302 161621</b>		
1	3.15	3.10
2	0.65	1.20
3	0.70	1.20
4	0.00	0.00
5	0.92	1.10
6	0.77	1.10
7	3.13	3.15
8	0.71	0.95
9	0.90	1.30
10	0.00	0.00
11	0.86	0.90
12	1.10	1.50
13	3.16	3.10
14	0.00	0.00
15	2.97	2.90
16	1.54	1.60
17	2.35	2.70
18	3.13	3.10
19	1.23	1.00
20	0.64	0.30
21	0.64	0.70
22	1.23	1.20
23	1.42	1.40
24	1.32	1.30
25	3.13	3.10
26	0.00	0.00
27	1.47	1.40
28	1.40	1.40
29	1.16	1.40
30	0.60	1.40
31	0.60	0.90
32	0.00	0.00
33	0.00	0.00
34	3.13	3.14
35	1.54	1.50
36	0.00	0.00
37	0.30	0.00
38	3.13	3.14

MODE PIN NO.	EE	PLAY
39	0.53	1.20
40	0.56	1.20
41	0.93	0.00
42	0.00	1.20
43	0.59	1.10
44	3.14	3.14
45	0.92	1.40
46	0.84	1.50
47	0.00	0.00
48	0.87	1.40
49	0.77	1.10
50	0.00	0.00
<b>IC303 161621</b>		
1	3.15	3.10
2	0.65	1.20
3	0.70	1.20
4	0.00	0.00
5	0.92	1.10
6	0.77	1.10
7	3.13	3.15
8	0.71	0.95
9	0.90	1.30
10	0.00	0.00
11	0.86	0.90
12	1.10	1.50
13	3.16	3.10
14	0.00	0.00
15	2.97	2.90
16	1.54	1.60
17	2.35	2.70
18	3.13	3.10
19	1.23	1.00
20	0.64	0.30
21	0.64	0.70
22	1.23	1.20
23	1.42	1.40
24	1.32	1.30
25	3.13	3.10
26	0.00	0.00
27	1.47	1.40
28	1.40	1.40
29	1.16	1.40
30	0.60	1.40
31	0.60	0.90
32	0.00	0.00
33	0.00	0.00
34	3.13	3.14
35	1.54	1.50
36	0.00	0.00
37	0.30	0.00
38	3.13	3.14

MODE PIN NO.	EE	PLAY
43	0.59	1.10
44	3.14	3.14
45	0.92	1.40
46	0.84	1.50
47	0.00	0.00
48	0.87	1.40
49	0.77	1.10
50	0.00	0.00
<b>IC304 7W04FU</b>		
1	2.67	2.76
2	2.76	2.76
3	2.76	2.76
4	0.00	0.00
5	2.22	2.21
6	2.23	2.22
7	2.23	2.22
8	5.00	4.99
<b>IC305 7W04FU</b>		
1	1.56	1.56
2	2.48	2.46
3	2.56	2.55
4	0.00	0.00
5	2.47	2.46
6	2.56	2.55
7	2.56	2.55
8	5.00	4.99
<b>AUDIO</b>		
<b>IC305 7W04FU</b>		
1	1.57	1.57
2	0.00	1.56
3	1.57	1.57
4	2.22	1.22
5	1.57	1.57
6	3.05	3.82
7	3.73	4.01
8	4.99	4.89
9	5.03	5.02
10	0.00	2.44
11	3.50	2.47
12	3.20	2.40
13	1.47	2.47
14	0.00	2.09
15	4.91	4.92
16	2.00	2.48
17	2.00	4.49
18	1.49	4.96
19	0.00	0.00
20	5.02	5.02
21	0.00	5.02
22	5.00	5.53
23	0.00	0.00
24	4.90	4.89
25	1.24	5.27
26	0.00	0.00
27	4.98	3.00

MODE PIN NO.	EE	PLAY
28	4.99	4.08
<b>IC403</b>		
1	5.03	5.03
2	0.00	0.00
3	11.84	11.85
4	12.78	12.69
<b>IC403</b>		
1	0.00	0.00
2	0.00	0.00
3	0.00	0.00
4	0.00	0.00
5	0.00	0.00
6	0.00	0.00
7	0.00	0.00
8	4.75	4.74
9	2.40	2.40
10	2.40	2.40
11	2.40	2.40
12	2.40	2.40
13	2.40	2.40
14	2.40	2.40
15	2.40	2.40
16	2.40	2.40
17	0.00	0.00
18	4.75	4.74
19	0.00	0.00
20	4.75	4.74
21	0.00	0.00
22	4.75	4.74
23	0.00	0.00
24	4.75	4.74
25	0.00	0.00
26	4.75	4.74
27	0.00	0.00
28	4.75	4.74
29	0.00	0.00
30	4.74	4.74
31	0.00	0.00
32	0.00	0.00
33	1.45	0.10
34	0.00	0.00
35	5.10	5.10
36	3.10	3.10
37	3.10	3.10
38	1.57	1.56
39	1.56	1.55
40	1.59	1.58
41	1.59	1.58
42	0.00	0.00
43	3.10	3.06
44	0.00	0.00
45	0.00	1.20
46	0.00	1.20
47	0.00	1.20
48	3.10	0.00

MODE PIN NO.	EE	PLAY
<b>IC402 NJM4580</b>		
1	5.36	5.37
2	5.37	5.35
3	5.37	5.35
4	0.00	0.00
5	5.36	5.37
6	5.37	5.37
7	5.37	5.35
8	11.80	11.78
<b>IC452 NJM4580</b>		
1	5.36	5.38
2	5.37	5.37
3	5.37	5.36
4	0.00	0.00
5	5.36	5.37
6	5.37	5.36
7	5.37	5.36
8	11.80	11.79
<b>IC453 NJM4580</b>		
1	5.36	5.38
2	5.37	5.37
3	5.37	5.36
4	0.00	0.00
5	5.36	5.37
6	5.37	5.38
7	5.37	5.36
8	11.80	11.79
<b>IC454 NJM4580</b>		
1	5.36	5.38
2	5.37	5.37
3	5.37	5.36
4	0.00	0.00
5	5.36	5.37
6	5.37	5.38
7	5.37	5.36
8	11.80	11.79
<b>SYSTEM</b>		
<b>IC501 HD6417034AF</b>		
1	0.00	0.00
2	3.10	3.13
3	0.00	0.00
4	2.20	1.06
5	2.20	2.22
6	1.70	1.74
7	2.20	0.97
8	1.80	1.82
9	2.20	0.95
10	1.20	0.95
11	1.00	0.94
12	0.00	0.00
13	0.00	2.06
14	0.00	1.27
15	5.00	1.94
16	0.90	1.94
17	0.70	0.92

MODE PIN NO.	EE	PLAY
18	0.00	1.28
19	0.00	2.06
20	0.00	2.52
21	0.00	2.13
22	0.00	0.00
23	1.20	0.99
24	2.60	2.29
25	2.70	2.52
26	1.50	1.04
27	1.80	2.98
28	2.90	2.33
29	1.80	2.80
30	1.90	1.25
31	0.00	0.00
32	0.90	1.78
33	0.80	2.28
34	2.10	3.93
35	2.20	2.72
36	0.70	0.88
37	0.70	3.77
38	0.70	0.92
39	0.70	0.97
40	0.00	0.00
41	0.70	0.50
42	2.20	1.35
43	5.00	4.97
44	0.70	0.32
45	0.70	0.95
46	0.50	0.25
47	0.50	0.25
48	3.40	0.53
49	4.90	4.84
50	2.60	4.94
51	4.90	4.83
52	0.00	0.00
53	0.00	2.90
54	4.90	4.75
55	5.00	4.57
56	4.90	4.96
57	5.00	4.94
58	0.00	0.00
59	1.60	1.17
60	0.00	0.00
61	0.00	0.00
62	5.00	4.97
63	0.00	0.00
64	0.00	0.16
65	5.00	4.99
66	0.20	3.55
67	5.00	4.96
68	0.00	0.00
69	3.20	0.00
70	5.00	4.97
71	2.40	2.37
72	0.00	0.00

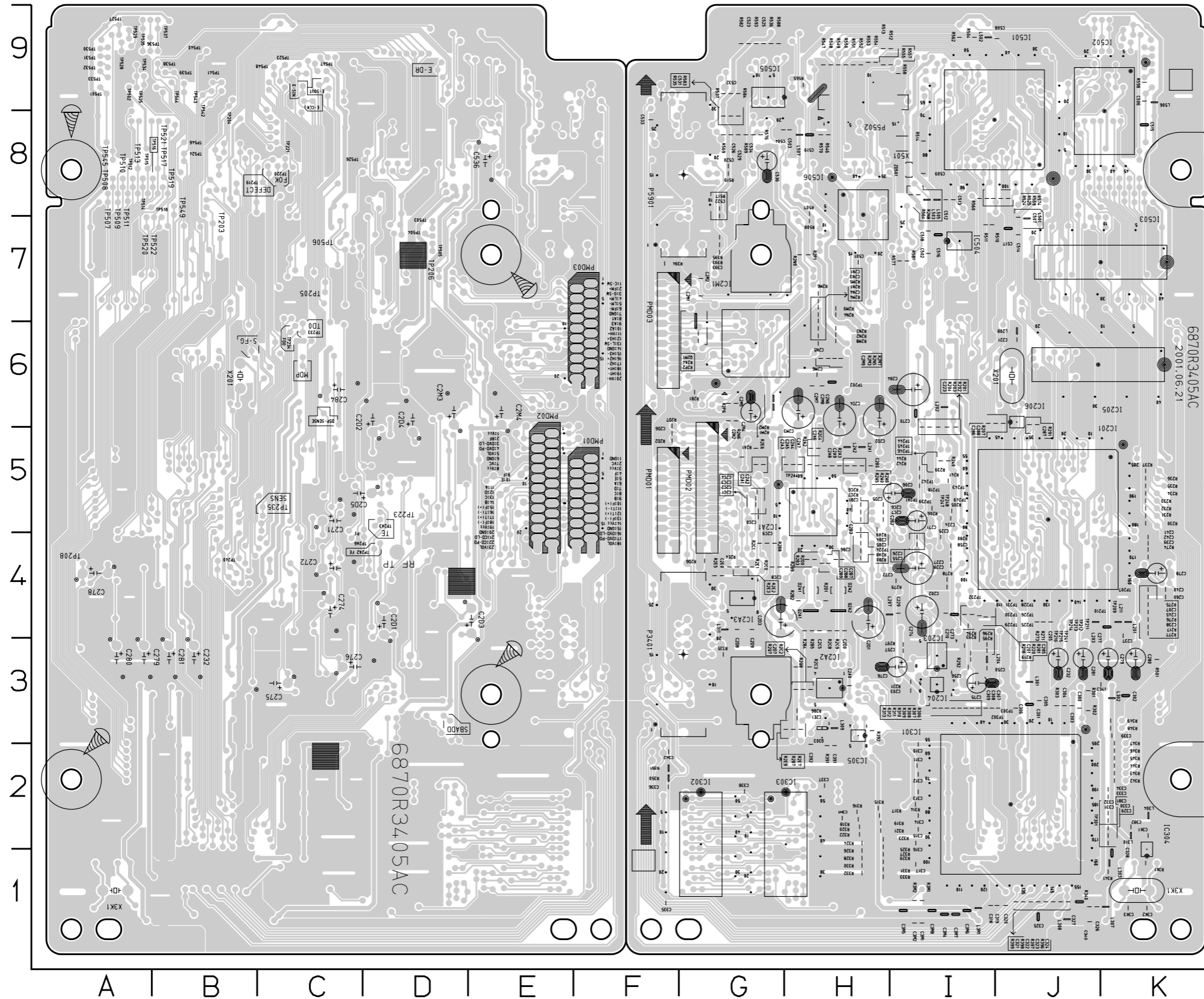
MODE PIN NO.	EE	PLAY
73	2.40	2.24
74	2.20	2.11
75	5.00	4.97
76	5.00	4.96
77	5.00	4.97
78	5.00	4.97
79	4.80	4.81
80	4.90	4.98
81	0.00	0.00
82	0.00	0.00
83	5.00	4.98
84	4.90	4.97





# PRINTED CIRCUIT DIAGRAMS

## 1. MAIN P.C.BOARD



### LOCATION GUIDE

TP203	B7	TP518	A8
TP204	B9	TP519	B8
TP205	C7	TP520	A7
TP206	D7	TP521	B8
TP208	A4	TP522	B7
TP219	C8	TP523	C9
TP220	C8	TP524	B8
TP221	C8	TP525	A9
TP223	D5	TP526	D8
TP233	C6	TP527	A9
TP234	C6	TP528	A9
TP235	C5	TP529	A9
TP240	B4	TP530	A9
TP2A2	D4	TP531	A9
TP2A3	D5	TP532	A9
TP2A6	D4	TP533	A9
TP201	A9	TP534	A9
TP502	A9	TP535	A9
TP503	D7	TP536	A9
TP504	D7	TP537	B9
TP505	D7	TP538	B9
TP506	C7	TP539	B9
TP507	A8	TP540	B9
TP508	A8	TP541	B9
TP509	A8	TP542	B9
TP510	A8	TP543	B9
TP511	A8	TP544	B9
TP512	A8	TP545	A8
TP513	A8	TP546	B8
TP514	A8	TP547	C9
TP515	A8	TP548	C9
TP516	B8	TP549	B8
TP517	B8		

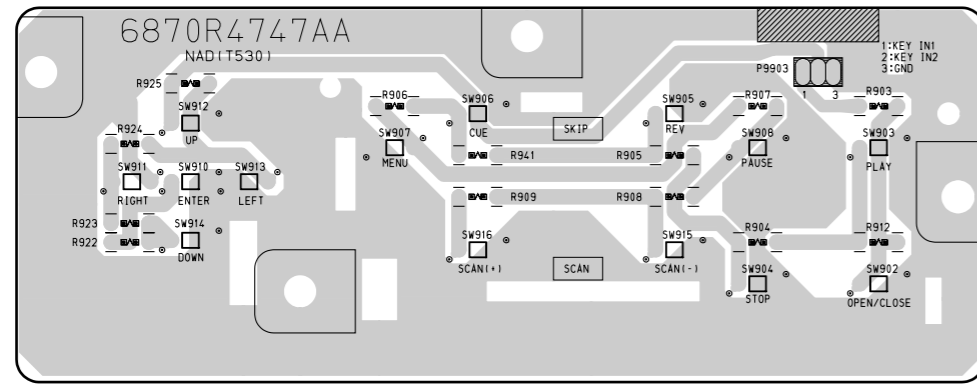
  

C201	L4	C298	H4	C322	J1	C533	F8	R203	I5	R2C3	H3	R324	H2	R558	I9
C202	L4	C287	H4	C323	J1	C534	G8	R204	I5	R2C4	H5	R325	H2	R559	J8
C203	L3	C288	H4	C324	J1	C536	G8	R205	I5	R2C6	H5	R326	H1	R560	I8
C205	J4	C289	H4	C325	J1	D2A1	H4	R206	I5	R2C7	H5	R327	H5	R562	I9
C206	I5	C2C0	G5	C326	J1	D2A2	H4	R207	J6	R2C8	H4	R328	H1	R564	I8
C207	K4	C2C1	G5	C327	J1	IC201	J5	R217	K4	R2C9	H4	R329	H1	R565	H9
C210	L4	C2C2	G5	C328	K1	IC203	I3	R218	I4	R2D0	H4	R330	H1	R569	H8
C221	J6	C2C3	G5	C329	K2	IC204	I3	R219	I4	R2D1	H4	R331	H1	R570	H8
C223	I5	C2C4	G5	C330	K2	IC205	J6	R220	I4	R2D2	F5	R332	H1	R574	J8
C224	I5	C2C5	H4	C331	K2	IC206	J6	R221	I3	R2D6	G4	R333	H1	R576	G8
C225	L4	C2C6	H5	C332	K2	IC2A1	H5	R230	K5	R2D7	F6	R335	G3	R577	I7
C226	L4	C2C7	H5	C333	K2	IC2A2	H3	R231	K5	R2E1	G4	R340	J1	R581	I7
C227	L4	C2C8	G4	C334	K2	IC2A3	G4	R232	K5	R2E2	G4	R341	K1	R582	G9
C228	L4	C2C9	G4	C335	F1	IC2M1	G6	R233	K5	R2E3	G4	R342	K2	R583	G8
C229	L4	C2D0	H4	C336	F2	IC301	J2	R234	K5	R2E4	G4	R343	K2	R584	G9
C232	J3	C2D1	H4	C337	H2	IC302	G2	R235	K5	R2E5	G4	R344	K2	R588	G9
C237	K4	C2D2	H6	C338	G2	IC303	H2	R236	K5	R2E6	G5	R345	K2	R589	G8
C238	K4	C2D3	G4	C339	K3	IC304	K1	R237	K5	R2E7	H3	R346	K2	R593	G9
C239	K4	C2D4	H6	C340	J1	IC305	H3	R239	I5	R2E9	H3	R347	K2	R598	K8
C240	K7	C2D5	F5	C341	K3	IC501	I8	R240	I5	R2M1	G6	R348	K3	TP202	H6
C241	K7	C2D6	F5	C342	F2	IC502	K8	R241	I5	R2M2	G6	R349	K3	TP207	K4
C242	K4	C2D7	H3	C380	J3	IC503	K7	R242	I5	R2M3	H6	R350	F2	TP209	K4
C245	K4	C2D8	G4	C381	K2	IC504	I7	R244	I5	R2M4	H6	R351	F2	TP210	J4
C250	L3	C2D9	G4	C382	K2	IC505	G9	R271	J4	R2M5	H7	R391	H2	TP211	J4
C255	L4	C2E0	G4	C391	H2	IC506	H8	R273	J4	R2M6	H7	R392	H3	TP212	J4
C259	L3	C2E1	H3	C392	H2	L201	K4	R274	K4	R2M7	H6	R393	F7	TP213	J4
C257	I3	C2M1	G7	C393	G7	L202	I6	R275	K4	R2M8	H6	R394	F7	TP214	J4
C258	L4	C2M2	G7	C3H1	H2	L203	J4	R276	K4	R2M9	H7	R395	G7	TP215	J4
C260	K4	C2M3	H6	C3K1	K2	L204	I3	R277	K4	R2N1	H6	R396	J1	TP216	J4
C261	K3	C2M4	H6	C3K2	K1	L207	H4	R278	I4	R2N2	H6	R397	J1	TP218	I5
C271	I5	C2M5	G9	C3K3	K1	L208	J6	R279	I7	R2N3	H6	R398	J1	TP224	H4
C272	L4	C2M6	H6	C3M1	I1	L211	K4	R280	I4	R2N4	H7	R399	J1	TP225	J4
C273	L4	C2M7	H6	C3M2	I1	L2A1	H5	R281	I4	R2N5	H6	R3K1	K1	TP226	J4
C274	L4	C2M8	H6	C3M4	I1	L2A2	H5	R291	J6	R2N6	G6	R3M1	I1	TP228	J4
C275	L3	C2M9	H6	C3M5	I1	L301	J3	R292	I3	R2N8	I8	R3M2	I1	TP229	J4
C276	I3	C2N1	H7	C3M6	I1	L302	K3	R293	I3	R2N9	H7	R501	K3	TP230	J4
C277	K4	C2N2	G6	C3M7	I1	L303	K1	R294	I3	R2P1	H7	R504	I9	TP231	J4
C278	K4	C2N3	H7	C3M8	I1	L304	K2	R295	I3	R2P2	H6	R507	H8	TP232	I4
C279	K3	C2N4	H6	L307	K1	R296	I3	R296	I3	R2P6	G6	R508	H7	TP239	I5
C280	K3	C2M5	H6	C502	I7	L308	J1	R297	I3	R2P7	H3	R510	I7	TP241	J4
C281	K3	C2M6	H6	C503	H8	L309	H3	R2A0	H5	R2Q8	H3	R511	I7	TP242	I5
C284	I6	C301	F3	C504	G8	L310	K2	R2A1	G5	R301	J3	R512	I9	TP243	I5
C285	L4	C302	K3	C506	K9	L311	H4	R2A2	H5	R302	J3	R513	H9	TP244	I5
C286	I6	C303	F3	C507	J7	L3M1	I1	R2A3	H5	R303	J3	R514	I8	TP245	I5
C287	J9	C304	J3	C508	J6	L501	I7	R2A4	G6	R306	I3	R517	G8	TP246	I5
C288	J9	C305	F3	C509	I8	L502	I9	R2A5	H5	R307	I3	R519	G8	TP247	I5
C2A0	G5	C306	F3	C512	I8	L503	I8	R2A6	H5	R308	I3	R524	I8	TP248	I5
C2A1	G5	C307	F3	C513	I8	L505	I8	R2A8	H4	R309	I3	R525	I8	TP249	I5
C2A2	G5	C308	I3	C514	J7	L506	K9	R2A9	H5	R310	I3	R535	G8	TP2A1	I5
C2A3	H5	C309	I3	C515	K8	L507	H8	R2B0	H4	R311	I3	R536	G9	TP2A4	G5
C2A4	H5	C310	I2	C516	I7	P3401	G3	R2B1	G5	R2I2	I3	R537	G9	TP301	J3
C2A5	H5	C311	I2	C517	J7	P5502	H9	R2B2	H4	R313	I3	R546	H8	TP302	J3
C2A6	H5	C312	I2	C518	I7	P5901	G8	R2B3	H4	R314	I2	R547	H9	TP303	J3
C2A7	H5	C313	I2	C519	H8	PMD01	F5	R2B4	H4	R315	H2	R548	H9	X201	J6
C2A8	H5	C314	I2	C520	G8	PMD02	G5	R2B5	H4	R316	H2	R549	H9	X3K1	K1
C2A9	H5	C315	I2	C522	G7	PMD03	F7	R2B6	H3	R317	H2	R550	H9	X501	K1
C2B0	H5	C316	I2	C523	G9	Q2A1	H4	R2B7	H3	R318	H2	R551	H9	Z0501	I8
C2B1	H5	C317	I1	C525	G9	Q2A2	H4	R2B8	G4	R319	H2	R552	H9		
C2B2	H5	C318	I1	C526	G8	Q2M1	G6	R2B9	H4	R320	H2	R553	H9		
C2B3	H5	C319	J1	C529	G8	Q303	H3	R2C0	G4	R321	H2	R554	H9		
C2B4	H4	C320	I1	C531	G6	R201	I5	R2C1	G4	R322	H2	R555	H9		
C2B5	H4	C321	I1	C532	G9	R202	I5	R2C2	H3	R323	H2	R557	I9		

(Solder Side)

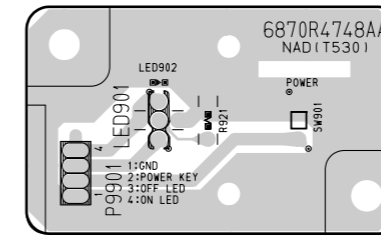


### 3. KEY P.C.BOARD



(Solder Side)

### 4. Power LED P.C.BOARD



(Solder Side)

