

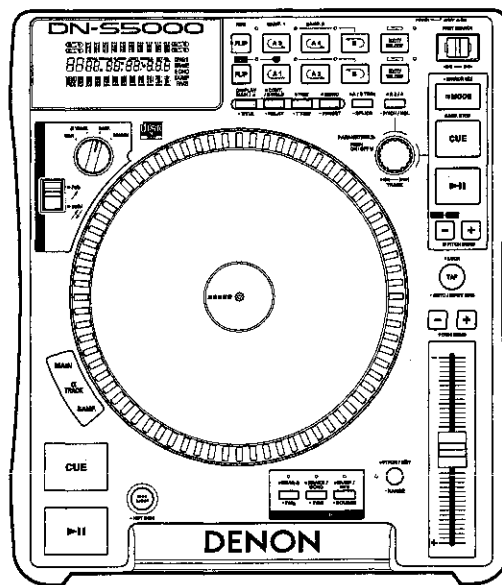
DENON

For U.S.A., Canada &
Europe model

SERVICE MANUAL

MODEL DN-S5000

TABLE TOP SINGLE CD PLAYER



• Some illustrations using in this service manual are slightly different from the actual set.

DENON, Ltd.

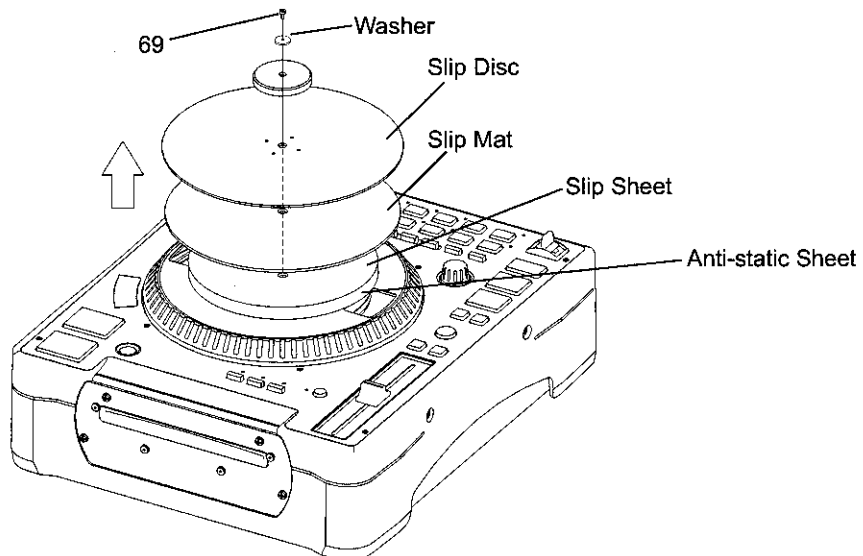
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DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

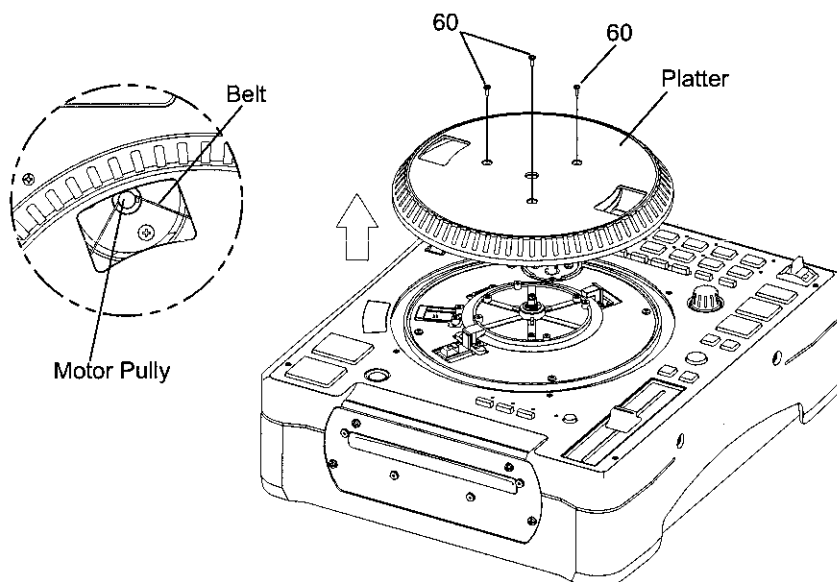
1. SLIP DISC, SLIP MAT

- (1) Remove a screw 69 and pull out Slip Disc and Slip Mat.



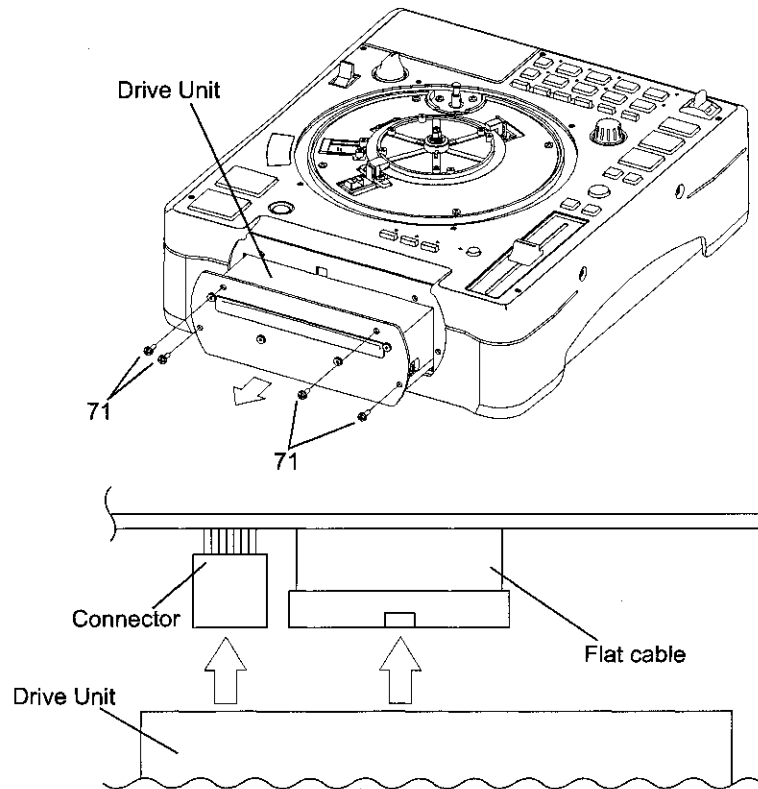
2. PLATTER

- (1) Remove Belt from Motor Pully.
- (2) Remove 3 screws 60 and pull out Platter.



3. DRIVE UNIT

- (1) Remove 4 screws 71 and pull out Drive Unit.
- (2) Disconnect Flat cable and Connector.
- (3) Detach Drive Unit.



Note:

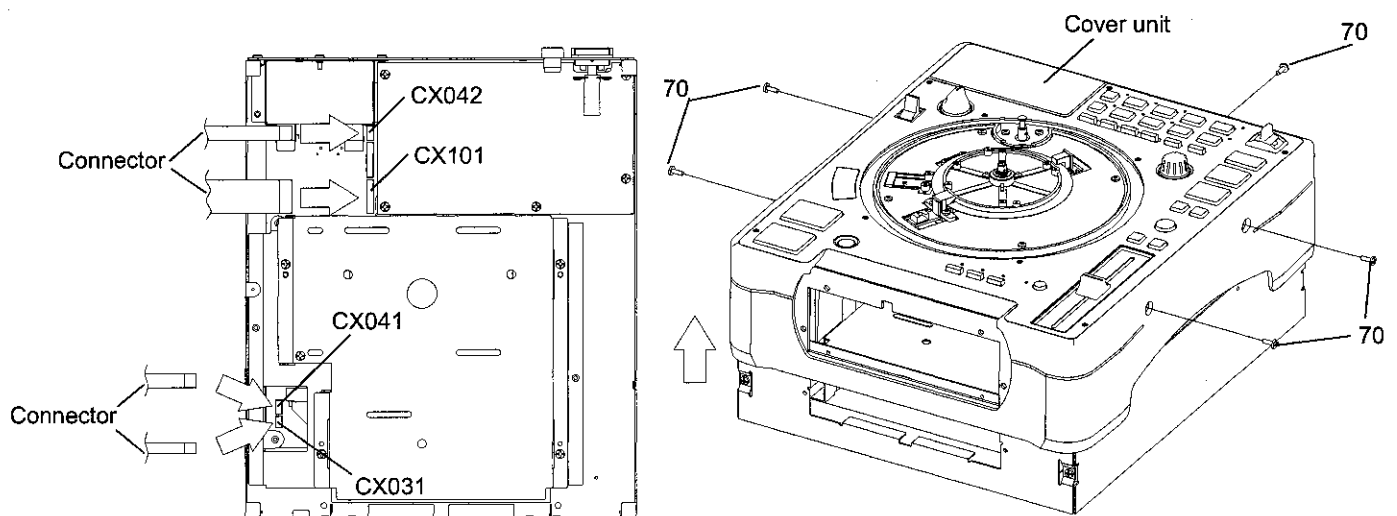
Do not pull out aslant to prevent Flat cable damage.

Do not fail to pull AC cord from wall outlet before disconnect the Flat cable and Connector.

If AC cord is remained plugged into wall outlet, power is kept supplied in the unit, which may cause danger.

4. COVER UNIT

- (1) Remove 5 screws 70 and pull out Cover Unit.
- (2) Disconnect Connectors.
- (3) Detach Cover unit.



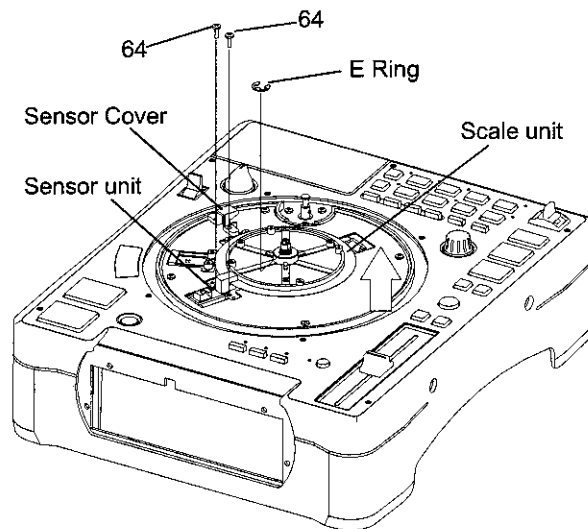
Note:

Do not fail to pull AC cord from wall outlet before disconnect Connectors.

If AC cord is remained plugged into wall outlet, power is kept supplied in the unit, which may cause danger.

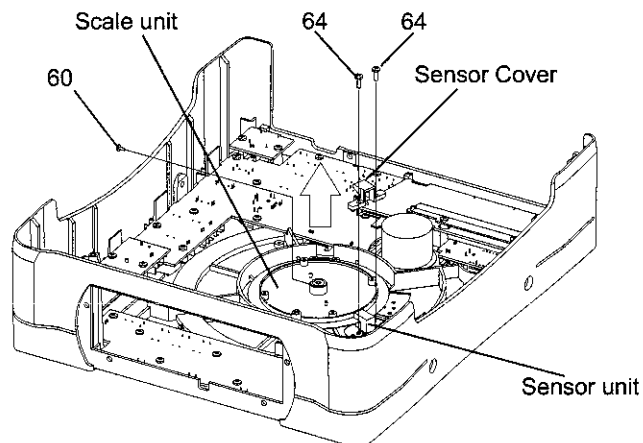
5. SENSOR AND SCALE UNITS OF PLATTER

- (1) Remove 2 screws 64 and pull out Sensor Cover and Sensor unit.
- (2) Remove a E Ring.
- (3) Pull out Scale unit.



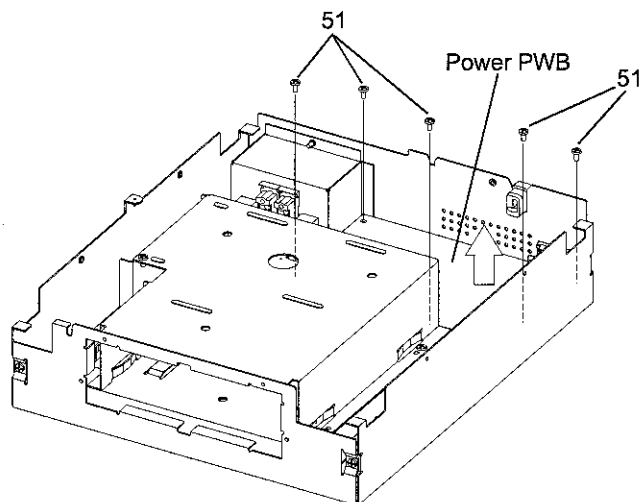
6. SENSOR AND SCALE UNITS OF SLIP DISC

- (1) Remove 2 screws 64 and pull out Sensor Cover and Sensor unit.
- (2) Remove a screw 60 and pull out Scale unit.



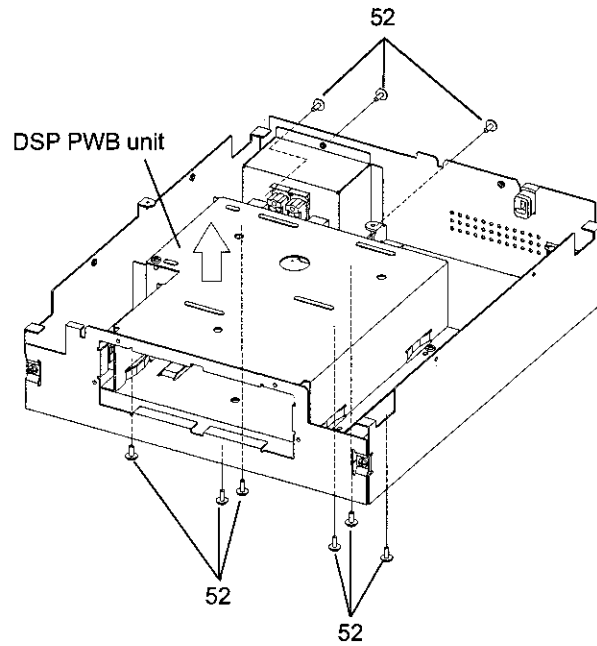
7. POWER PWB

- (1) Remove 5 screw 51 and pull out Power PWB.



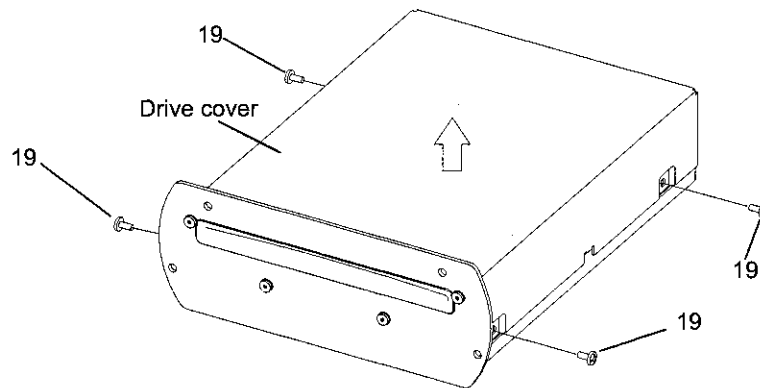
8. DSP PWB UNIT

- (1) Remove 9 screws 52 and pull out DSP PWB unit



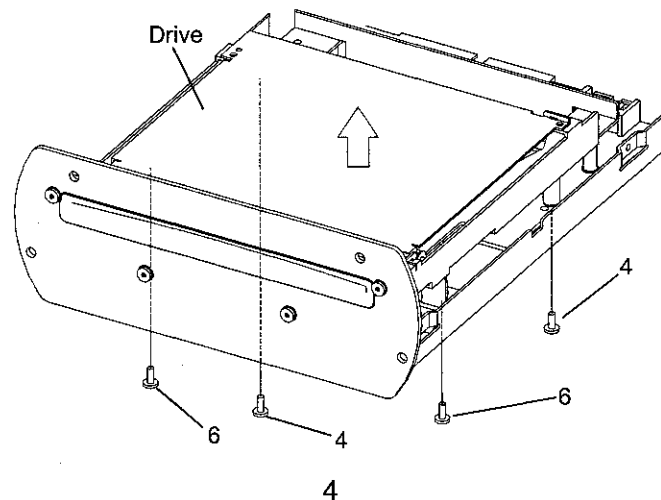
9. DRIVE COVER

- (1) Remove 4 screws 19 and pull out Drive cover.

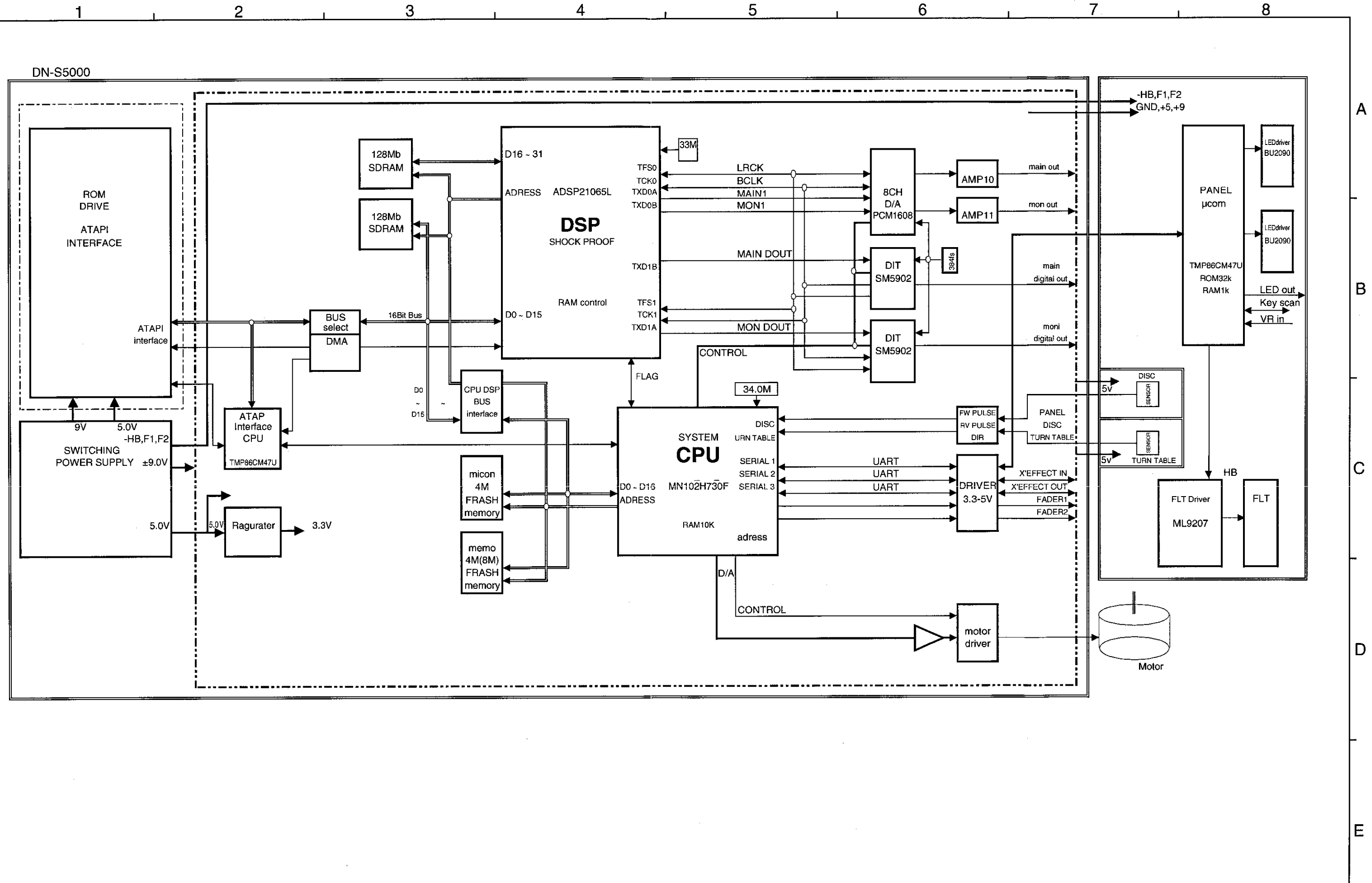


10. DRIVE

- (1) Move Drive Rack in arrow direction through the Hole on the bottom chassis. Loader frame comes out.
- (2) Pull up Loader panel while pulling it towards front.
- (3) Remove 4 screws 6 and pull out Drive.



BLOCK DIAGRAM



CONFIRMING THE SERVO

Required Measuring Implement

- Reference disc (TCD784 or CO-74176)

1. What is Service Program

Service program is a special program intended for confirming servo functions etc.

2. Contents of Service Program

Switch on the power while pushing the PITCH BEND + button and α CUE button at the same time. After actuating the servo program, select an aiming process number with the SELECT knob, A1 button, A2 button, or A3 button. Press the SELECT knob to execute the selected process, the process number is then displayed on the track indicator of the display. To exit from the service program, just switch off the power.

	Process No. (TRACK Indication)	Function (Character-display)	Contents
SELECT knob	01	μ com Version check (Version No.)	Check Version with JOG dial. 1. System μ com version No.: "Sys_XXXX" 2. DSP soft version No.: "Dsp_XXXX" 3. ATAPI μ com version No.: "Atapi_XXXX" 4. PANEL μ com version No.: "Panel_XXXX" 5. ROM drive mecha. μ com version No.: "Drive_XXXX"
	02	OPEN/CLOSE (Open Close)	Performs open/close each time when the SELECT knob is pushed.
	03	Drive Diagnostic (Drive_Diag)	ROM drive performs operation check when the SELECT knob is pushed, and indicates the operational result. If the disc holder open, it starts the operation check after closing. It indicates "Normal_End" if it ends normal. In case of error, ROM drive error code is displayed in the character's lower portion as "E****".
	04	Drive Data Read (Data Read)	Starts continuous playback at its maximum reading speed from the beginning of disc when the SELECT knob is pushed. It halts reading and stops if the knob is pushed again.
	05	Error Code Check (Error Data)	Turn the PLATTER to display the logging error codes in the occurred order. ("Error Data" is displayed.) 10 error logs are memorized at maximum. Kinds of Error Code, displayed Error Code Table (Appears only at Heat Run and Chucking Test function) Pressing SELECT knob enters to data erase mode. ("Err Clear?" is displayed.) If the SELECT knob is pushed again, the memorized error data are cleared.
	06	Total Running Time (Total_Time)	Total time span of servo function that counted by the hour is displayed. ("Total Time" is displayed.) The display time is less than 65535 hours. Note: No time is counted if powered down within 59 minutes. Pressing SELECT knob enters to data erase mode. ("Time Clear?" is displayed.) If the SELECT knob is pushed again, the memorized time data are cleared.
	07	Automatic Servo Adjustment call	Starts automatic servo adjustment when the SELECT knob is pushed, and after completing the adjustment, sort of the used disc is indicated. Data is selectable with the PLATTER. 1. Disc check, CD/CD-RW 2. Focus gain data 3. Focus balance data 4. Focus offset data 5. Tracking gain data 6. Tracking balance data 7. Tracking offset data 8. PreAMP Tracking Sensor Gain 9. DSP Tracking Sensor Gain 10. PI offset

	Adjustment Item	Adjustment Value indication at character portions.
1	Focus Gain	35 ~ 120
2	Focus Balance	-20 ~ +20
3	Focus Offset	-20 ~ +20
4	Tracking Gain	35 ~ 120
5	Tracking Balance	-20 ~ +20
6	Tracking Offset	-20 ~ +20

* Reference data.

3. TEST MODE

	Process No. (TRACK Indication)	Function (Character-display)	Contents
A1 button	—	Heat Run (H/R1_Normal)	Starting with the PLAY/PAUSE button, it repeats open/close of the tray and playback. All tracks are played back if the track count is less than 20. Only the first and last tracks are played back if the tracks are more than 21. When any errors, it stops and indicates error code (see Error Code Table).
A2 button	—	Chucking Test (H/R2_Tray)	Starting with the PLAY/PAUSE button, it repeats open/close of the tray, servo on, and TOC read. The display shows the number of the tray operation. When any errors, it stops and indicates error code (see Error Code Table).
A3 button	—	System check (Sys._Check)	It starts system check when the PLAY/PAUSE button is pushed, and indicates the status by performing plain operational check in the system . 1. Communication judge between the system μ com and DSP 2. DSP SDRAM write/read operation check 3. Communication judge between the system μ com and ATAPI μ com 4. Communication judge between the ATAPI μ com and ROM drive 5. ROM drive operation check 6. D/A register write/read operation check 7. DIT register write/read operation check After finishing the check, it indicates the result on the character display lower portion. When the 1. ~ 7. items are OK, their item numbers are indicated. But if there is a NG item, its item number is not indicated.
A4 button	—		Judges whether PLATTER can rotate at the specified rotating speed. The message "Platter_OK" is displayed on the character display if the rotating speed meets the specification. Otherwise, "Platter_NG" is displayed.

4. Error Code Table (Appears only at Heat Run and Chucking Test function)

Error Code	Contents
	Automatic Adjustment Error
E1 00	Unable to detect disc
E1 01	Unable to adjust tracking offset
E1 03	Unable to adjust focus fine gain
E1 04	Unable to actuate focus
E1 05	Unable to actuate tracking
E1 06	Unable to adjust tracking fine gain
E2 02	Servo down during automatic adjustment
E3 00	Unable to read TOC
E4 00	Unable to close the disc holder in the regular time
E4 01	Unable to open the disc holder in the regular time
E5 00	Slide error

Detailed error can be displayed by PLATTER when error occurs.

Error Indication				
TR	MIN	SEC	FRAM	CHARACTER
Displays the track No. in which error occurred.	Displays the time at which error occurred.			"H ***** E *****" ↑ ↑ Operation count Error code

5. System μ com and DSP Version Upgrade

System μ com and DSP can be upgraded in the following manner.

Version Upgrade Method

- Record the version upgrade software on a CD-R or CD-RW disc, only as one file with the format ISO9660 Mode-1. The file name of the supplied version upgrade software should be used as is and this disc needs to finalize.
- After loading the disc made in above step 1, turn off the power. Then, turn on the power while pressing the α MODE button and α PITCH BEND button. The version upgrade starts with reading data of the disc.
- When you start version upgrade operation, messages "Version_Up" and "System&DSP" are displayed on the character display. Recovery positions are turned on one by one from the left end according as the upgrade operation proceeds. When this operation is completed, all recovery positions are turned on. In case of some error or the power is turned off during the version upgrade, it may be impossible to operate at all thereafter. Changing of IC502 on GU-3482 is necessary in this case, and software writing to IC502 should be done beforehand.
- When the upgrade is completed, the disk is ejected and operation returns to the normal mode.
- File name of the upgrade software indicates version numbers.

File name T5.***.***.BIN
 ↑ ↑
 System μ com DSP version
 version

6. ROM Drive (FG-5000) μ com Version Upgrade

Drive (FG-5000) μ com can be upgraded in the following manner.

Version Upgrade Method

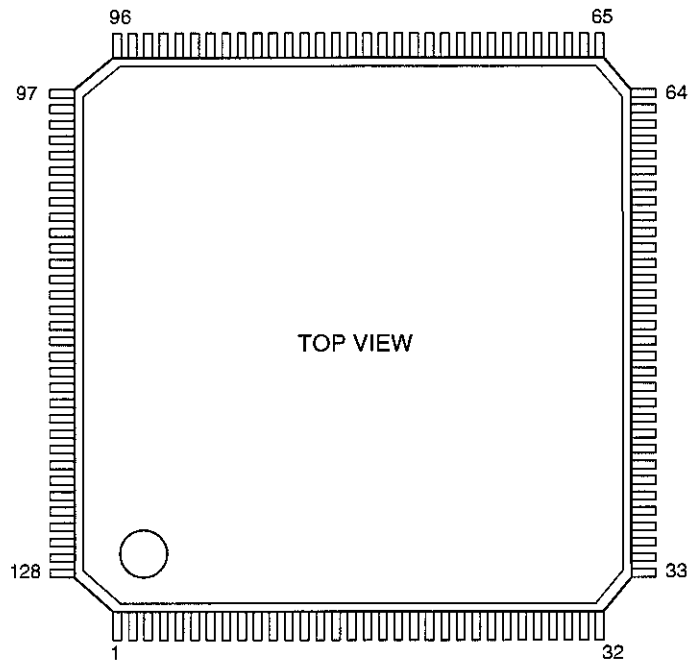
- Record the version upgrade software on a CD-R or CD-RW disc, only as one file with the format ISO9660 Mode-1. The file name of the supplied version upgrade software should be used as is and this disc needs to finalize.
- After turning on the power, load the disc made in above step 1 into the mecha. you want to upgrade the version.
- "Drive" and "Version UP?" are indicated in the character display. Press the CD EJECT button and remove the disc when not upgrade the version.
- Press the PLAY/PAUSE to start the version upgrade. "Now Loading" is indicated.
- When the version upgrade is finished, "Complete" is indicated and the disc EJECT.
- Turn off the power once and turn on again after take out the disc. The version upgrade ends in 20~30 seconds normally. If the power turned off underway or the version upgrade ends abnormally, the drive may become malfunction. In such a case, version upgrade with PC will be needed.
- File name of the upgrade software indicates version number.

File name FG5K *****.BIN
 ↑
 Version number

SEMICONDUCTORS

● IC's

MN102H730F (IC501)



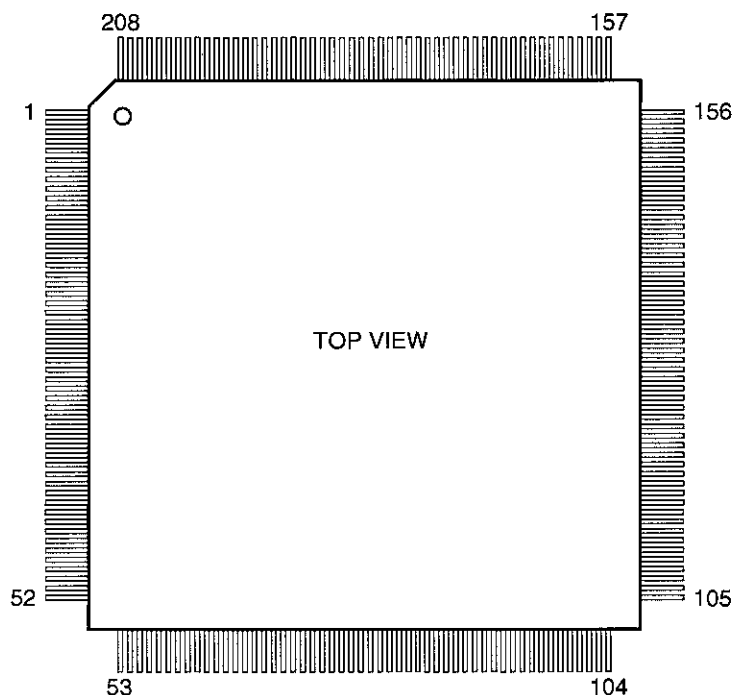
MN102H730F Terminal Function

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Ini	Res	Function
1	CS0_	CS0_	O	—	Pu	—	—	Ext. memory chip select 0 (Flash ROM CS)
2	CS1	CS1	O	—	Pu	—	—	Ext. memory chip select 1 (Flash ROM for memo)
3	D00	DQ0	I/O	—	—	—	—	Ext. memory data in/output 0, DSP interface 0
4	D01	DQ1	I/O	—	—	—	—	Ext. memory data in/output 1, DSP interface 1
5	D02	DQ2	I/O	—	—	—	—	Ext. memory data in/output 2, DSP interface 2
6	D03	DQ3	I/O	—	—	—	—	Ext. memory data in/output 3, DSP interface 3
7	VDD	VDD	—	—	—	—	—	Power (+3.3V)
8	VSS	VSS	—	—	—	—	—	GND
9	D04	DQ4	I/O	—	—	—	—	Ext. memory data in/output 4, DSP interface 4
10	D05	DQ5	I/O	—	—	—	—	Ext. memory data in/output 5, DSP interface 5
11	D06	DQ6	I/O	—	—	—	—	Ext. memory data in/output 6, DSP interface 6
12	D07	DQ7	I/O	—	—	—	—	Ext. memory data in/output 7, DSP interface 7
13	D08	DQ8	I/O	—	—	—	—	Ext. memory data in/output 8, DSP interface 8
14	D09	DQ9	I/O	—	—	—	—	Ext. memory data in/output 9, DSP interface 9
15	D10	DQ10	I/O	—	—	—	—	Ext. memory data in/output 10, DSP interface 10
16	PD0,DMAACK1_	RESERVE	O	—	—	L	—	
17	PD1,DMAREQ1_	RESERVE	O	—	—	L	—	
18	D11	DQ11	I/O	—	—	—	—	Ext. memory data in/output 11, DSP interface 11
19	D12	DQ12	I/O	—	—	—	—	Ext. memory data in/output 12, DSP interface 12
20	D13	DQ13	I/O	—	—	—	—	Ext. memory data in/output 13, DSP interface 13
21	D14	DQ14	I/O	—	—	—	—	Ext. memory data in/output 14, DSP interface 14
22	D15	DQ15	I/O	—	—	—	—	Ext. memory data in/output 15, DSP interface 15
23	WORD	WORD	I	—	—	—	—	Data bus width select (H: 16bit),GND fixed
24	VDD	VDD	—	—	—	—	—	Power (+3.3V)
25	MODE	MODE	I	—	—	L	L	Processor mode, GND fixed

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Ini	Res	Function
26	PC3	MUTE	O	—	Pu	H	H	Mute signal (H: Mute)
27	XI	XI	I	—	—	—	—	Oscillation input
28	XO	XO	O	—	—	—	—	Oscillation output
29	VDD	VDD	—	—	—	—	—	Power (+3.3V)
30	OSCI	OSCI	I	—	—	—	—	Oscillation input, 34.0MHz
31	OSCO	OSCO	O	—	—	—	—	Oscillation output
32	VSS	VSS	—	—	—	—	—	GND
33	P57,BOSC	TEST	I	—	Pu	H	—	P.W.B. check mode IN
34	PC5,NMI	NMI	I	—	—	—	—	Connect to Power
35	RST_	RST_	I	—	—	—	—	µcom reset
36	PC0	YMCLK	O	—	—	H	—	Clock for SM5902(DOUT)/PCM1608(D/A) data
37	P76	MDO	O	—	Pd	—	L	PCM1608(D/A) input data
38	P60,IRQ0	DTIMA	I	—	Pu	H	H	Main playback clock input
39	P61,IRQ1	DTIMB	I	—	Pu	H	H	Monitor playback clock input
40	P62,IRQ2,TM10IOA	TABLE	I	—	(Pu)	H	H	Clock pulse input for platter
41	P63,IRQ3,TM10IOA	CLK4M	I	—	—	—	—	Clock pulse input for platter
42	P64,IRQ4	ATANS_	I	—	(Pu)	—	H	ATAPI µcom serial interface
43	P65,IRQ5,TM12IOA	DISCPA	I	—	(Pu)	H	H	Clock pulse input for scratch disc
44	P66,IRQ6	DISCDIR	I	—	(Pu)	H	H	Direction pulse input for scratch disc
45	P67,IRQ7	DISCINT	I	—	(Pu)	H	H	Start pulse input for scratch disc
46	P70,TM13IOB	DISCA	I	—	—	—	—	SCRATCH for DISC pulse A count input
47	P71	YMDATA	O	—	—	H	—	SM5902(DOUT)/PCM1608(D/A) output data
48	PD2,DMAACK0_	NRES_	O	—	Pd	L	L	SM5902(DOUT)/PCM1608(D/A) reset signal
49	PD3,TM3IO	DISCPA_	I	—	—	—	—	Clock invert pulse input for scratch disc
50	VDD	VDD	—	—	—	—	—	Power (+3.3V)
51	P77	ZSENCE2	I	—	—	—	—	SM5902 µcom interface status for MONITOR
52	P72,TM14IOB	DISCPB	I	—	—	—	—	SCRATCH for DISC pulse B count input
53	P73	YMLD1_	O	—	—	H	—	SM5902(DOUT) chip select for MAIN
54	P74	YMLD2_	O	—	—	H	—	SM5902(DOUT) chip select for MONITOR
55	P75,TM12IOB	CLK4M	I	—	—	—	—	Clock pulse input for disc
56	PA0,SBI0	RXD1	I	—	(Pu)	—	H	Data receive from PANEL
57	PA1,SBO0	TXD1	O	—	Pu	H	H	Data send to PANEL (PU µcom specify)
58	PA2,SBT0	MCMD_	O	—	Pu	H	H	ATAPI µcom serial interface (PU µcom specify)
59	PA3,SBI1	X'RXDOUT	I	—	(Pd)	—	H	Data receive from X'EFFECT OUT
60	PA4,SBO1	X'TXDOUT	O	—	Pu	H	H	Data send to X'EFFECT OUT
61	PA5	ZSENCE1	I	—	—	—	—	SM5902 µcom interface status for MAIN
62	PB0,SBI2	X'RXD IN	I	—	(Pd)	—	H	Data receive from X'EFFECT IN
63	PB1,SBO2	X'TXD IN	O	—	Pu	H	H	Data send to X'EFFECT IN
64	PB2	APRES_	O	—	Pd	L	L	ATAPI µcom reset signal
65	PB3,SBI3	ATDATA	I	—	(Pu)	—	H	ATAPI µcom serial receive signal
66	PB4,SBO3	MDATA	O	—	—	H	—	ATAPI µcom serial send signal
67	PB5,SBT3	MCLK	O	—	—	H	—	ATAPI µcom serial send/receive clock
68	VDD	VDD	—	—	—	—	—	Power (+3.3V)
69	VSS	VSS	—	—	—	—	—	GND
70	AVSS	AVSS	—	—	—	—	—	Analog ref. GND for A/D conversion, GND
71	Vref	Vref	—	—	—	—	—	Analog ref. V for A/D conversion, GND
72	P80	DFLG2	I/O	—	Pu	—	H	DSP gener al flag 2
73	P81	DFLG1	I/O	—	Pu	—	H	DSP gener al flag 1
74	P82	DR_W1	O	—	—	H	—	DSP interf ace send/receive select signal
75	P83	DACK_	I	—	Pu	H	H	DSP interf ace ACK
76	P84	DBSY_	I	—	Pu	H	H	DSP interf ace busy signal
77	P85	DFLG0	I/O	—	Pu	—	H	DSP gener al flag 0
78	P86	DREQ_	O	—	Pu	H	H	DSP interf ace request signal
79	P87	FPLAY1	I	—	(Pu)	H	H	Main fader start PLAY input
80	PD4	FCUE1	I	—	(Pu)	H	H	Main fader start CUE input
81	PD5	FPLAY2	I	—	(Pu)	H	H	Monitor fader start PLAY input
82	P90	FCUE2	I	—	(Pu)	H	H	Monitor fader start CUE input
83	P91	RESERVE	O	—	—	L	—	
84	P92	PNLRST	—	—	Pd	L	L	Panel µcom reset signal (L:Reset)
85	P93	APOWER	O	—	Pd	L	L	Analog output voltage ON/OFF (L:OFF)
86	Vref+	Vref+	—	—	—	—	—	Analog ref. V for A/D conversion, +3.3V
87	AVDD	AVDD	—	—	—	—	—	Power (+3.3V)

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Ini	Res	Function
88	P94	MCNT0	O	—	Pu	L	L	Motor control signal 0
89	P95	MCNT1	O	—	Pu	L	L	Motor control signal 1
90	P96,DAC2	MCNTDA	O	—	Pu	L	L	Motor rotation speed control signal A/D 0
91	P97,DAC3	RESERVE	O	—	—	H	—	
92	BREQ_	BREQ_	I	—	(Pu)	H	H	Bus request signal
93	BRACK_	BRACK_	O	—	Pu	H	H	Bus request accept signal
94	WEL_	WE_	O	—	Pu	—	H	Ext. memory write enable (Lower 8bit)
95	P51	RESERVE	O	—	—	H	—	
96	RE_	RE_	O	—	Pu	—	H	Ext. memory read enable
97	CS2_	CS2_	O	—	Pu	—	H	Ext. memory chip select 2 (DSP1 interface)
98	VDD	VDD	—	—	—	—	—	Power (+3.3V)
99	VSS	VSS	—	—	—	—	—	GND
100	P54, BSTRE	ML	O	—	—	H	—	PCM1608 (D/A) chip select
101	P55, WR_	RESERVE	O	—	—	H	—	
102	CS3_	CS3_	O	—	—	—	—	Not used
103	A00	A00	O	—	—	—	—	Ext. memory address bus 0
104	A01	A01	O	—	—	—	—	Ext. memory address bus 1
105	A02	A02	O	—	—	—	—	Ext. memory address bus 2
106	A03	A03	O	—	—	—	—	Ext. memory address bus 3
107	A04	A04	O	—	—	—	—	Ext. memory address bus 4
108	A05	A05	O	—	—	—	—	Ext. memory address bus 5
109	A06	A06	O	—	—	—	—	Ext. memory address bus 6
110	A07	A07	O	—	—	—	—	Ext. memory address bus 7
111	A08	A08	O	—	—	—	—	Ext. memory address bus 8
112	PD6	RESERVE	O	—	—	L	—	
113	PD7,TM7IO	DISCPB_	I	—	—	—	—	
114	A09	A09	O	—	—	—	—	Ext. memory address bus 9
115	A10	A10	O	—	—	—	—	Ext. memory address bus 10
116	A11	A11	O	—	—	—	—	Ext. memory address bus 11
117	A12	A12	O	—	—	—	—	Ext. memory address bus 12
118	A13	A13	O	—	—	—	—	Ext. memory address bus 13
119	VDD	VDD	—	—	—	—	—	Power (+3.3V)
120	PC4	RESERVE	O	—	—	L	—	
121	A14	A14	O	—	—	—	—	Ext. memory address bus 14
122	A15	A15	O	—	—	—	—	Ext. memory address bus 15
123	A16	A16	O	—	—	—	—	Ext. memory address bus 16
124	A17	A17	O	—	Pu	—	—	Ext. memory address bus 17
125	A18	A18	O	—	Pu	—	—	Ext. memory address bus 18
126	A19	A19	O	—	Pu	—	—	Ext. memory address bus 19
127	A20	A20	O	—	Pu	—	—	Ext. memory address bus 20
128	A21	A21	O	—	Pu	—	—	Ext. memory address bus 21

ADSP-21065L (IC401)



ADSP-21065L Terminal Function

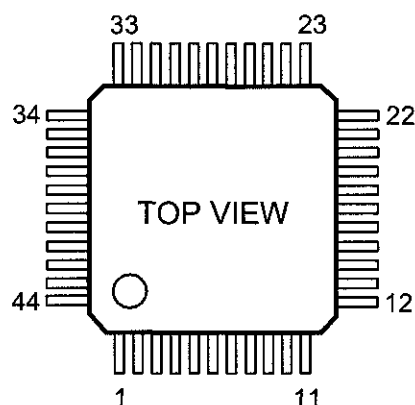
Pin No.	Port Name	Symbol (IC301)	Symbol (IC401)	I/O	DET	Ext	Ini	Res	Function
1	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
2	RFS0	YLRCK	YLRCK	I	—	IPu	—	H	Receive frame sync (LRCK) signal (Serial port IN 0)
3	GND	GND	GND	—	—	—	—	—	GND
4	RCLK0	YBCK	YBCK	I	—	—	—	—	Receive frame sync (BCK) signal (Serial port IN 0)
5	DR0A	ADDATA	ADDATA	I	—	IPu	—	H	Data receive A (serial port IN 0)
6	DR0B			I	—	IPu	—	H	Data receive B (serial port IN 0)
7	TFS0	YLRCK	YLRCK	I	—	IPu	—	H	Send frame sync (LRCK) signal (Serial port OUT 0)
8	TCLK0	YBCK	YBCK	I	—	—	—	—	Send frame sync (BCK) signal (Serial port OUT 0)
9	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
10	GND	GND	GND	—	—	—	—	—	GND
11	DT0A	MOUT1	MOUT2	O	—	IPu	—	H	Data send A (Serial port OUT 0)
12	DT0B	DOUT1	DOUT2	O	—	IPu	—	H	Data send B (Serial port OUT 0)
13	RFS1	LRCK1	LRCK2	I	—	IPu	—	H	Receive frame sync (LRCK) signal (Serial port IN 1)
14	GND	GND	GND	—	—	—	—	—	GND
15	RCLK1	BCK1	BCK2	I	—	—	L	—	Receive frame sync (BCK) signal (Serial port IN 1)
16	DR1A	SAMP2	SAMP1	I	—	IPu	—	H	Data receive A (serial port IN 1)
17	DR1B			I	—	IPu	—	H	Data receive B (serial port IN 1)
18	TFS1	LRCK2	LRCK1	I/O	—	IPu	—	H	Send frame sync (LRCK) signal (Serial port OUT 1)
19	TCLK1	BCK2	BCK1	I/O	—	—	—	—	Send frame sync (BCK) signal (Serial port OUT 1)
20	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
21	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
22	DT1A	SOUT1	SOUT2	O	—	IPu	—	H	Data send A (Serial port OUT 1)
23	DT1B	SAMP1	SAMP2	O	—	IPu	—	H	Data send B (Serial port OUT 1)
24	PWM_EVENT1			I/O	—	Pd	—	L	PWM1 output
25	GND	GND	GND	—	—	—	—	—	GND
26	PWM_EVENT0			I/O	—	Pd	—	L	PWM0 output
27	BR1			I	—	Pu	—	H	Multi-processing bus request 1
28	BR2			I	—	Pu	—	H	Multi-processing bus request 1
29	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
30	CLKIN			I	—	—	—	—	Clock input
31	XTAL			O	—	—	—	—	X'tal oscillator pin
32	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)

Pin No.	Port Name	Symbol (IC301)	Symbol (IC401)	I/O	DET	Ext	Ini	Res	Function
33	GND	GND	GND	—	—	—	—	—	GND
34	SDCLK1			O	—	Pd	—	L	SDRAM clock enable 1
35	GND	GND	GND	—	—	—	—	—	GND
36	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
37	SDCLK0			I/O	—	—	—	—	SDRAM clock enable 0
38	DMAR1_			I	—	Pu	H	H	DMA request 1
39	DMAR2_			I	—	Pu	H	H	DMA request 2
40	HBR_			I	—	Pu	—	H	Host bus request (BOOT)
41	GND	GND	GND	—	—	—	—	—	GND
42	RAS_			I/O	—	Pu	H	H	SDRAM row access strobe
43	CAS_			I/O	—	Pu	H	H	SDRAM column access strobe
44	SDWE_			I/O	—	Pu	H	H	SDRAM write enable
45	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
46	DQM			O	—	—	—	—	SDRAM data mask
47	SDCKE			I/O	—	—	H	—	SDRAM clock enable
48	SDA10			O	—	Pd	L	L	SDRAM A10
49	GND	GND	GND	—	—	—	—	—	GND
50	DMAG1_			O	—	—	H	—	DMA ground 1
51	DMAG2_			O	—	—	H	—	DMA ground 2
52	HBG_			O	—	—	H	—	Host bus ground (BOOT)
53	BMSTR			O	—	—	H	—	Bus master output (H out)
54	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
55	CS_			I	—	—	L	L	Chip select (BOOT)
56	SBTS_			I	—	Pu	H	H	Extend bus three state
57	GND	GND	GND	—	—	—	—	—	GND
58	WR_			I/O	—	—	—	—	Memory write strobe
59	RD_			I/O	—	—	—	—	Memory read strobe
60	GND	GND	GND	—	—	—	—	—	GND
61	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
62	GND	GND	GND	—	—	—	—	—	GND
63	REDY			O	—	—	—	—	Host bus ACK
64	SW_			I/O	—	—	—	—	Sync type write select
65	CPA_			I/O	—	—	—	—	Core priority access
66	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
67	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
68	GND	GND	GND	—	—	—	—	—	GND
69	ACK			I/O	—	—	—	—	Memory ACK
70	MS0_			I/O	—	Pu	H	H	Memory select 0
71	MS1_			I/O	—	—	—	—	Memory select 1
72	GND	GND	GND	—	—	—	—	—	GND
73	GND	GND	GND	—	—	—	—	—	GND
74	MS2_			I/O	—	—	—	—	Memory select 2
75	MS3_			I/O	—	—	—	—	Memory select 3
76	FLAG11	DMABSY1	DMABSY2	O	—	Pu	—	H	General flag 11 (In DMA flag L: DMA)
77	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
78	FLAG10	SAMPCOP	SAMPCOPY	I/O	—	Pu	—	H	General flag 10 (In SAMPLER copy flag)
79	FLAG9	JOGB1	JOGB2	I	—	—	—	—	General flag 9 (JOG turning direction detect signal B)
80	FLAG8	JOGA1	JOGA2	I	—	—	—	—	General flag 8 (JOG turning direction detect signal A)
81	GND	GND	GND	—	—	—	—	—	GND
82	DATA0			I/O	—	—	—	—	Ext. bus data 0
83	DATA1			I/O	—	—	—	—	Ext. bus data 1
84	DATA2			I/O	—	—	—	—	Ext. bus data 2
85	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
86	DATA3			I/O	—	—	—	—	Ext. bus data 3
87	DATA4			I/O	—	—	—	—	Ext. bus data 4
88	DATA5			I/O	—	—	—	—	Ext. bus data 5
89	GND	GND	GND	—	—	—	—	—	GND
90	DATA6			I/O	—	—	—	—	Ext. bus data 6
91	DATA7			I/O	—	—	—	—	Ext. bus data 7
92	DATA8			I/O	—	—	—	—	Ext. bus data 8
93	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
94	GND	GND	GND	—	—	—	—	—	GND

Pin No.	Port Name	Symbol (IC301)	Symbol (IC401)	I/O	DET	Ext	Ini	Res	Function
95	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
96	DATA9			I/O	—	—	—	—	Ext. bus data 9
97	DATA10			I/O	—	—	—	—	Ext. bus data 10
98	DATA11			I/O	—	—	—	—	Ext. bus data 11
99	GND	GND	GND	—	—	—	—	—	GND
100	DATA12			I/O	—	—	—	—	Ext. bus data 12
101	DATA13			I/O	—	—	—	—	Ext. bus data 13
102	NC			—	—	—	—	—	NC
103	NC			—	—	—	—	—	NC
104	DATA14			I/O	—	—	—	—	Ext. bus data 14
105	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
106	GND	GND	GND	—	—	—	—	—	GND
107	DATA15			I/O	—	—	—	—	Ext. bus data 15
108	DATA16			I/O	—	—	—	—	Ext. bus data 16
109	DATA17			I/O	—	—	—	—	Ext. bus data 17
110	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
111	DATA18			I/O	—	—	—	—	Ext. bus data 18
112	DATA19			I/O	—	—	—	—	Ext. bus data 19
113	DATA20			I/O	—	—	—	—	Ext. bus data 20
114	GND	GND	GND	—	—	—	—	—	GND
115	NC			—	—	—	—	—	NC
116	DATA21			I/O	—	—	—	—	Ext. bus data 21
117	DATA22			I/O	—	—	—	—	Ext. bus data 22
118	DATA23			I/O	—	—	—	—	Ext. bus data 23
119	GND	GND	GND	—	—	—	—	—	GND
120	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
121	DATA24			I/O	—	—	—	—	Ext. bus data 24
122	DATA25			I/O	—	—	—	—	Ext. bus data 25
123	DATA26			I/O	—	—	—	—	Ext. bus data 26
124	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
125	GND	GND	GND	—	—	—	—	—	GND
126	DATA27			I/O	—	—	—	—	Ext. bus data 27
127	DATA28			I/O	—	—	—	—	Ext. bus data 28
128	DATA29			I/O	—	—	—	—	Ext. bus data 29
129	GND	GND	GND	—	—	—	—	—	GND
130	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
131	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
132	DATA30			I/O	—	—	—	—	Ext. bus data 30
133	DATA31			I/O	—	—	—	—	Ext. bus data 31
134	FLAG7	DFLG12	DFLG22	I/O	—	Pu	—	H	General flag 7 (RESERVE)
135	GND	GND	GND	—	—	—	—	—	GND
136	FLAG6	DFLG11	DFLG21	I/O	—	Pu	—	H	General flag 6 (RESERVE)
137	FLAG5	DTIMB1	DTIMB2	O	—	—	—	—	General flag 5 (Pulse output for generating monitor play time)
138	FLAG4	DTIMA1	DTIMA2	O	—	—	—	—	General flag 4 (Pulse output for generating main play time)
139	GND	GND	GND	—	—	—	—	—	GND
140	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
141	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
142	NC			—	—	—	—	—	NC
143	ID1			I	—	—	L	L	Multi-processing ID1 (Single processor: 0)
144	ID0			I	—	—	L	L	Multi-processing ID2 (Single processor: 0)
145	EMU_	EMU1_	EMU2_	O	—	—	—	—	Emulation status
146	TD0	TD01	TD02	O	—	—	—	—	Test data output (JTAG)
147	TRST_	TRST1_	TRST2_	I	—	IPu	—	H	Test reset (JTAG)
148	TDI	TDI1	TDI2	I	—	Pd	—	L	Test data input (JTAG)
149	TMS	TMS1	TMS2	I	—	IPu	—	H	Test mode select (JTAG)
150	GND	GND	GND	—	—	—	—	—	GND
151	TCK	TCK1	TCK2	I	—	Pu	—	H	Test clock (JTAG)
152	BSEL			I	—	—	H	H	EPROM boot select (Boot by EPROM: 1)
153	BMS_	BMS1_	BMS2_	I	—	—	H	H	Boot memory select (Host processor boot: 1)
154	GND	GND	GND	—	—	—	—	—	GND
155	GND	GND	GND	—	—	—	—	—	GND
156	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)

Pin No.	Port Name	Symbol (IC301)	Symbol (IC401)	I/O	DET	Ext	Ini	Res	Function
157	RESET_	DRES_	DRES_	I	—	—	H	L	DSP reset signal
158	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
159	GND	GND	GND	—	—	—	—	—	GND
160	ADDR23			I/O	—	—	—	—	Ext. bus address 23
161	ADDR22			I/O	—	—	—	—	Ext. bus address 22
162	ADDR21			I/O	—	—	—	—	Ext. bus address 21
163	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
164	ADDR20			I/O	—	—	—	—	Ext. bus address 20
165	ADDR19			I/O	—	—	—	—	Ext. bus address 19
166	ADDR18			I/O	—	—	—	—	Ext. bus address 18
167	GND	GND	GND	—	—	—	—	—	GND
168	GND	GND	GND	—	—	—	—	—	GND
169	ADDR17			I/O	—	—	—	—	Ext. bus address 17
170	ADDR16			I/O	—	—	—	—	Ext. bus address 16
171	ADDR15			I/O	—	—	—	—	Ext. bus address 15
172	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
173	ADDR14			I/O	—	—	—	—	Ext. bus address 14
174	ADDR13			I/O	—	—	—	—	Ext. bus address 13
175	ADDR12			I/O	—	—	—	—	Ext. bus address 12
176	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
177	GND	GND	GND	—	—	—	—	—	GND
178	ADDR11			I/O	—	—	—	—	Ext. bus address 11
179	ADDR10			I/O	—	—	—	—	Ext. bus address 10 (SDRAM: Connects SDA10)
180	ADDR9			I/O	—	—	—	—	Ext. bus address 9
181	GND	GND	GND	—	—	—	—	—	GND
182	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
183	ADDR8			I/O	—	—	—	—	Ext. bus address 8
184	ADDR7			I/O	—	—	—	—	Ext. bus address 7
185	ADDR6			I/O	—	—	—	—	Ext. bus address 6
186	GND	GND	GND	—	—	—	—	—	GND
187	GND	GND	GND	—	—	—	—	—	GND
188	ADDR5			I/O	—	—	—	—	Ext. bus address 5
189	ADDR4			I/O	—	—	—	—	Ext. bus address 4
190	ADDR3			I/O	—	—	—	—	Ext. bus address 3
191	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
192	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
193	ADDR2			I/O	—	—	—	—	Ext. bus address 2
194	ADDR1			I/O	—	—	—	—	Ext. bus address 1
195	ADDR0			I/O	—	—	—	—	Ext. bus address 0
196	GND	GND	GND	—	—	—	—	—	GND
197	FLAG0	DR_/W1	DR_/W2	I/O	—	—	—	—	General flag 0 (Command read write select)
198	FLAG1	DACK1_	DACK2_	I/O	—	—	—	—	General flag 1
199	FLAG2	DBSY1	DBSY2	I/O	—	—	—	—	General flag 2
200	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
201	FLAG3	DFLG10	DFLG20	I/O	—	Pu	—	H	General flag 3 (RESERVE)
202	NC			—	—	—	—	—	—
203	NC			—	—	—	—	—	—
204	GND	GND	GND	—	—	—	—	—	GND
205	IRQ0_	DREQ1	DREQ2	I	—	Pu	—	H	Interrupt request input 0 (SYS mcom interface)
206	IRQ1_	DREQ1_	DREQ2_	I	—	Pu	—	L	Interrupt request input 1 (SYS mcom interface)
207	IRQ2_	JOGINT1	JOGINT2	I	—	—	—	—	Interrupt request input 2 (JOG turning speed detect signal)
208	NC			—	—	—	—	—	NC

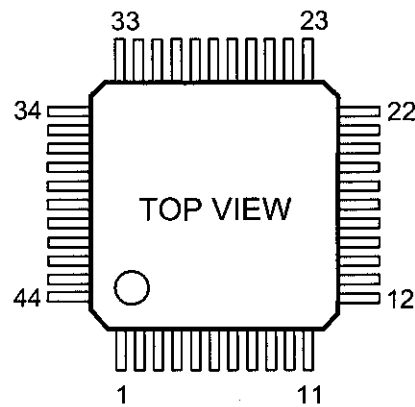
TMP86CM47U(IC151)



TMP86CM47U Terminal Function

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Ini	Res	Function
1	VSS	VSS	—	—	—	—	—	GND (0V)
2	XIN	XIN	I	—	—	—	—	Oscillation input 16.0MHz
3	XOUT	XOUT	O	—	—	—	—	Oscillation output
4	TEST	TEST	I	—	—	—	—	Fixed to L
5	VDD	VDD	—	—	—	—	—	Power (+5.0V)
6	P21	LED AT	O	—	Pu	L	H	BU2090 data (1&2)
7	P22	LECLK1	O	—	Pu	H	H	Clock signal 1 for BU2090 data output
8	RESET_	RST_	I	—	—	—	—	μcom reset
9	P20 (LED)	LED4	O	—	—	H	—	LED4 ON/OFF (L: ON)
10	P00 (INT0)	TRSB	I	—	Pu	—	H	Track select encorder B input
11	P01	αBEND_	O	—	Pu	H	—	αBEND button
12	P02, (RXD)	RXD	I	—	Pu	—	H	Data receive from system μcom
13	P03, (TXD)	TXD	O	—	Pu	H	H	Data send to system μcom
14	P04 (SO)	FLDA	O	—	Pu	H	H	ML9207 data signal
15	P05	FLCS_	O	—	Pu	H	H	ML9207 latch signal
16	P06 (SCK)	FLCP_	O	—	Pu	H	H	Clock signal for ML9207 data output
17	P07	LECLK2	O	—	Pu	L	H	Clock signal 2 for BU2090 data output
18	P17	KIN5	I	—	Pu	—	H	Key scan input 5
19	P16	KIN4	I	—	Pu	—	H	Key scan input 4
20	P15	KIN3	I	—	Pu	—	H	Key scan input 3
21	P14	KIN2	I	—	Pu	—	H	Key scan input 2
22	P13	KIN1	I	—	Pu	—	H	Key scan input 1
23	P12	KIN0	I	—	Pu	—	H	Key scan input 0
24	P11 (INT1)	TRSA	I	Ed	Pu	—	H	Track select encorder A input
25	P10	FLRES_	O	—	Pd	L	L	ML9207 reset signal
26	P30 (AIN0)	PITCH	I	—	—	—	—	Pitch VR signal
27	P31 (AIN1)	SCRSEL	I	—	Pu	—	H	A/D SCRATCH source select key input
28	P32 (AIN2)	SCRDIR	I	—	Pu	—	H	A/D SCRATCH DIR select key input
29	P33 (AIN3)	SEARCH	I	—	Pu	—	H	SEARCH VR A/D input O
30	P34 (AIN4)	SCAN	I	—	Pu	—	H	SCAN VR A/D input O
31	P35 (AIN5)	KINAD	I	—	Pu	—	H	key A/D input
32	P36	PLAY	I	—	Pu	—	H	PLAY/PAUSE key input
33	P37	CUE	I	—	Pu	—	H	CUE key input
34	VAREF	VAREF	I	—	—	—	—	Power (+5.0V), Analog ref.V for A/D conversion
35	AVDD	AVDD	I	—	—	—	—	Power (+5.0V), Power for A/D conversion circuit only
36	AVSS	AVSS	I	—	—	—	—	GND (0V), Analog GND for A/D conversion
37	P40 (LED)	KOUT0	O	—	Pu	H	H	Key scan output 0/LED line select 0 (L: select)
38	P41 (LED)	KOUT1	O	—	Pu	H	H	Key scan output 1/LED line select 1 (L: select)
39	P42 (LED)	KOUT2	I/O	—	Pu	H	H	Key scan output 2 (Except scanning: IN)
40	P43 (LED)	KOUT3	I/O	—	Pu	H	H	Key scan output 3 (Except scanning: IN)
41	P44 (LED)	LED0	O	—	—	H	—	LED ON/OFF 0 (L: ON)
42	P45 (LED)	LED1	O	—	—	H	—	LED ON/OFF 1
43	P46 (LED)	LED2	O	—	—	H	—	LED ON/OFF 2
44	P47 (LED)	LED3	O	—	—	H	—	LED ON/OFF 3

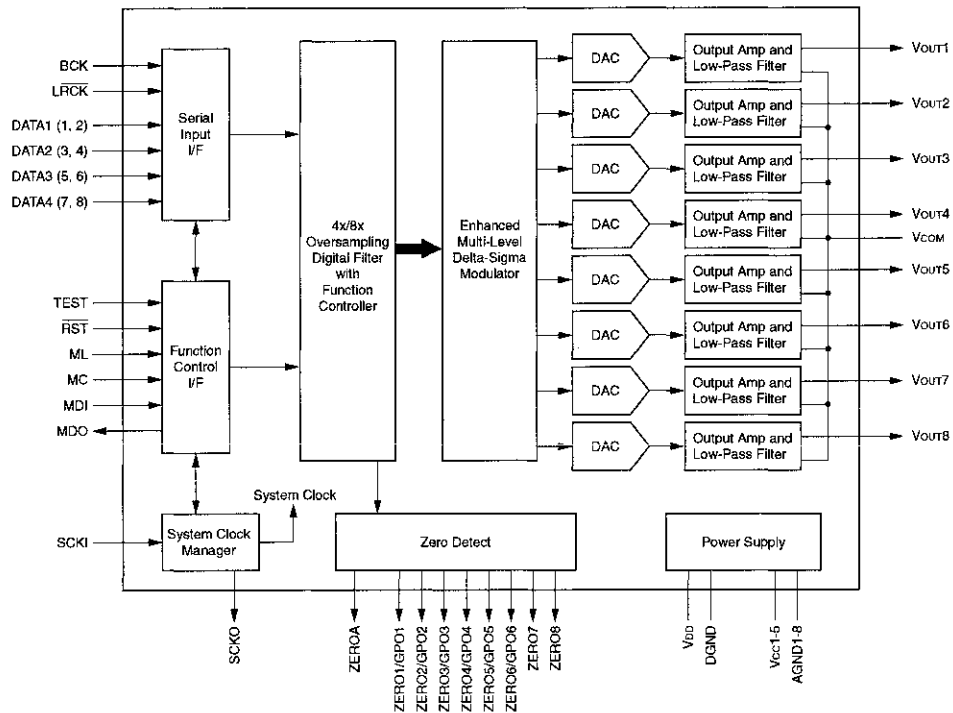
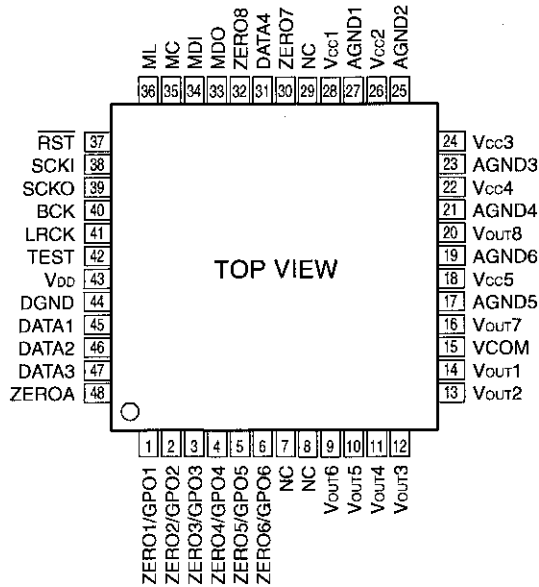
SM5902AF (IC651, 652)



SM5902AF Terminal Function

Pin No.	Symbol	I/O	Function	Setting	
				H	L
1	VDD2	—	VDD power supply terminal.		
2	UC1	IP/O	Microcomputer interface extended I/O 1. Not Used (OPEN)		
3	UC2	IP/O	Microcomputer interface extended I/O 2. Not Used (OPEN)		
4	UC3	IP/O	Microcomputer interface extended I/O 3. Not Used (OPEN)		
5	UC4	IP/O	Microcomputer interface extended I/O 4. Not Used (OPEN)		
6	UC5	IP/O	Microcomputer interface extended I/O 5. Not Used (OPEN)		
7	DIT	O	Digital audio interface terminal.		
8	NTEST	IP	Test terminal.		Test
9	CLK	I	16.9344 MHz clock input.		
10	Vss	—	Ground terminal.		
11	YSRDATA	I	Audio serial input data.		
12	YLRCK	I	Audio serial input LR clock.	Lch	Rch
13	YSCK	I	Audio serial input bit clock.		
14	ZSCK	O	Audio serial output bit clock.		
15	ZLRCK	O	Audio serial output LR clock.	Lch	Rch
16	ZSRDATA	O	Audio serial output data.		
17	YFLAG	I	RAM overflow flag for signal processing IC.		Over
18	YFCLK	I	X'tal system frame clock.		
19	YBLKCK	I	Sub-code block clock signal.		
20	NRESET	I	System reset terminal.		Reset
21	ZSENSE	O	Microcomputer interface status output.		
22	VDD1	—	VDD power supply terminal.		
23	YDMUTE	I	Forcible mute terminal.	Mute	
24	YMLD	I	Microcomputer interface latch clock.		
25	YMDATA	I	Microcomputer interface serial data.		
26	YMCLK	I	Microcomputer interface shift clock.		
27	A10	O	DRAM address 10.		
28	NCAS	O	DRAM CAS control.		
29	D2	I/O	DRAM data input/output 2.		
30	D3	I/O	DRAM data input/output 3.		
31	D0	I/O	DRAM data input/output 0.		
32	D1	I/O	DRAM data input/output 1.		
33	NWE	O	DRAM WE control.		
34	NRAS	O	DRAM RAS control.		
35	A9	O	DRAM address 9.		
36	A8	O	DRAM address 8.		
37	A7	O	DRAM address 7.		
38	A6	O	DRAM address 6.		
39	A5	O	DRAM address 5.		
40	A4	O	DRAM address 4.		
41	A0	O	DRAM address 0.		
42	A1	O	DRAM address 1.		
43	A2	O	DRAM address 2.		
44	A3	O	DRAM address 3.		

PCM1608Y (IC705)



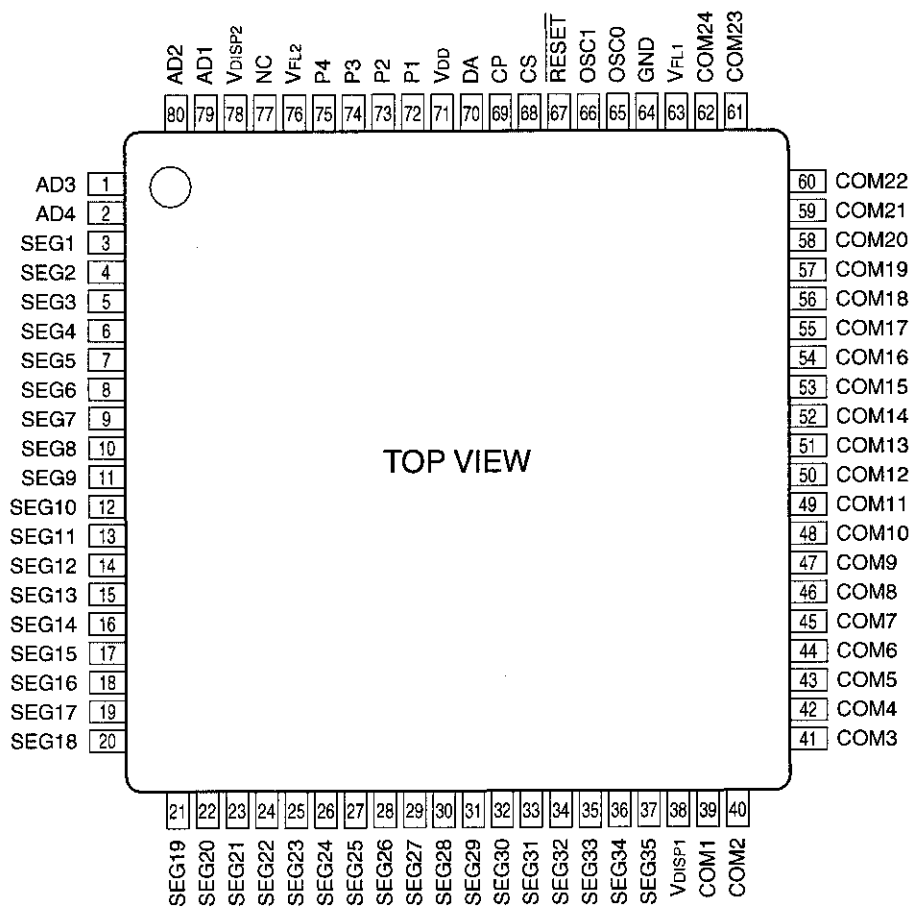
PCM1608Y Terminal Function

Pin No.	Pin Name	I/O	Function
1	ZERO1/GPO1	O	Zero Data Flag for Vout1. Can also be used as GPO pin
2	ZERO2/GPO2	O	Zero Data Flag for Vout2. Can also be used as GPO pin
3	ZERO3/GPO3	O	Zero Data Flag for Vout3. Can also be used as GPO pin
4	ZERO4/GPO4	O	Zero Data Flag for Vout4. Can also be used as GPO pin
5	ZERO5/GPO5	O	Zero Data Flag for Vout5. Can also be used as GPO pin
6	ZERO6/GPO6	O	Zero Data Flag for Vout6. Can also be used as GPO pin
7	NC	—	No Connection
8	NC	—	No Connection
9	Vout6	O	Voltage Output of Audio Signal Corresponding to Rch on DATA3. Up to 96kHz
10	Vout5	O	Voltage Output of Audio Signal Corresponding to Rch on DATA3. Up to 96kHz

Pin No.	Pin Name	I/O	Function
11	VOUT4	O	Voltage Output of Audio Signal Corresponding to Rch on DATA2. Up to 96kHz
12	VOUT3	O	Voltage Output of Audio Signal Corresponding to Rch on DATA2. Up to 96kHz
13	VOUT2	O	Voltage Output of Audio Signal Corresponding to Rch on DATA1. Up to 192kHz
14	VOUT1	O	Voltage Output of Audio Signal Corresponding to Rch on DATA1. Up to 192kHz
15	VCOM	O	Common Voltage Output. This pin should be bypassed with a 10 μ F capacitor to AGND
16	VOUT7	O	Voltage Output for Audio Signal Corresponding to Rch on DATA4. Up to 192kHz
17	AGND5	—	Analog Ground
18	Vcc5	—	Analog Power Supply, +5V
19	AGND6	—	Analog Ground
20	VOUT8	—	Voltage Output for Audio Signal Corresponding to Rch on DATA4. Up to 192kHz
21	AGND4	—	Analog Ground
22	Vcc4	—	Analog Power Supply, +5V
23	AGND3	—	Analog Ground
24	Vcc3	—	Analog Power Supply, +5V
25	AGND2	—	Analog Ground
26	Vcc2	—	Analog Power Supply, +5V
27	AGND1	—	Analog Ground
28	Vcc1	—	Analog Power Supply, +5V
29	NC	—	No Connection
30	ZERO7	—	Zero Data Flag for Vout7
31	DATA4	—	Serial Audio Data Input Vout7 and Vout8 ⁽²⁾
32	ZERO8	—	Zero Data Flag for Vout7
33	MDO	O	Serial Audio Data Output for Serial Port ⁽³⁾
34	MDI	I	Serial Audio Data Input for Serial Port ⁽¹⁾
35	MC	I	Shift Clock for Serial Control Port ⁽¹⁾
36	ML	I	Latch Enable for Serial Control Port ⁽¹⁾
37	RST	I	System Reset, Active LOW ⁽¹⁾
38	SCKI	I	System Clock Input frequency is 128,192,256,384,512,or 768fs. ⁽²⁾
39	SCKO	O	Buffered Clock Output frequency is 128,192,256,384,512,or 768fs. ⁽²⁾
40	BCK	I	Shift Clock Input for Serial Audio Data. Clock must be 32,48,or,64fs. ⁽²⁾
41	LRCK	I	Left and Right Clock Input. This clock is equal to the sampling rate, fs. ⁽²⁾
42	TEST	—	Test Pin. This pin should be connected to DGND. ⁽¹⁾
43	VDD	—	Digital Power Supply, +3.3V
44	DGND	—	Digital Ground
45	DATA1	I	Serial Audio Data Input Vout1 and Vout2 ⁽²⁾
46	DATA2	I	Serial Audio Data Input Vout3 and Vout4 ⁽²⁾
47	DATA3	I	Serial Audio Data Input Vout5 and Vout6 ⁽²⁾
48	ZEROA	O	Zero Data Flag. Logical "AND" of ZERO1 through ZERO6

Note: (1) Schmitt-Trigger input with internal pull-down, 5V tolerant. (2) Schmitt-Trigger input, 5V tolerant. (3) Tri-state output.

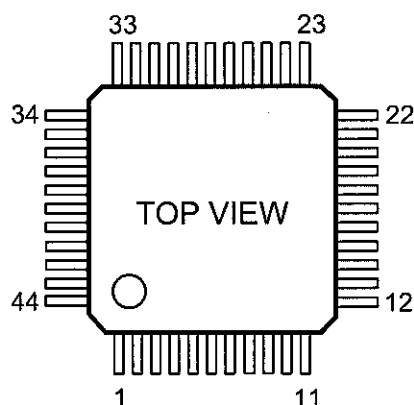
ML9207-01GP (IC101)



ML9207-01GP Terminal Function

Pin No.	Symbol	I/O	Function
3~37	SEG1~35	O	FL display anode electrode drive output pin
39~62	COM1~24	O	FL display grid electrode drive output pin
1, 2, 79, 80	AD1~4	O	FL display anode electrode drive output pin
72~75	P1~4	O	General port output pin
71	V _{DD}	—	V _{DD} -GND: Power for logic V _{DISP} -V _{FL} : Power for FL display drive Same power source should be used for V _{DD} and V _{DISP}
38, 78	V _{DISP1-2}		
64	GND		
63, 76	V _{FL1-2}		
70	DA	I	Serial data input pin (positive logic).
69	CP	I	Shift clock input pin
68	CS	I	Chip select input pin
67	RESET	I	Reset input pin, L: All functions are initialized
65	OSCO	I	Pin for self-oscillation, target oscillation frequency 4.0MHz
66	OSC1	O	
77	NC	—	Not used

TMP86CM47U (IC102)

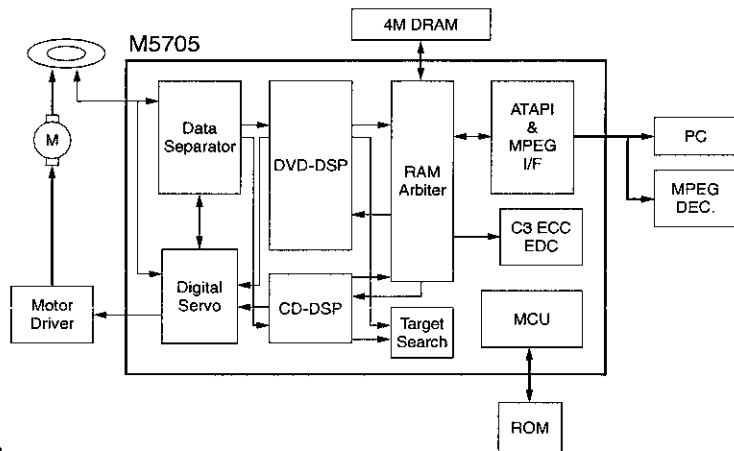
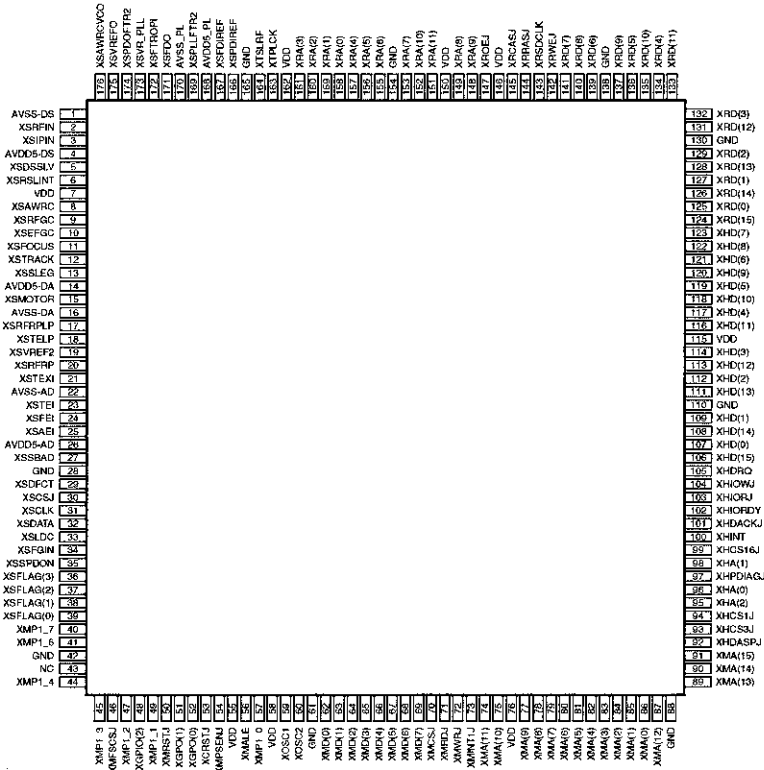


TMP86CM47U Terminal Function

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Ini	Res	Function
1	VSS	VSS	—	—	—	—	—	GND(0V)
2	XIN	XIN	I	—	—	—	—	Oscillation input 16.0MHz
3	XOUT	XOUT	O	—	—	—	—	Oscillation output
4	TEST	TEST	I	—	—	—	—	Fixed to L
5	VDD	VDD	—	—	—	—	—	Power (+5.0V)
6	P21(LED)	LEDAT	O	—	Pu	L	H	BU2090 data
7	P22(LED)	LECLK	O	—	Pu	L	H	Clock signal for BU2090 data output
8	RESET_	RST	I	—	—	—	—	μcom reset
9	P20(LED)	LED8	O	—	—	H	—	LED ON/OFF8 (L: ON)
10	P00(INT0)	TRSB	I	—	Pu	—	H	Track select encoder B input
11	P01	KIN7	I	—	Pu	—	H	Key scan input 7
12	P02(RXD)	RXD	I	—	Pu	—	H	Data receive from main unit
13	P03(TXD)	TXD	O	—	Pu	H	H	Data send to main unit
14	P04(SO)	FLDA	O	—	Pu	H	H	ML9207 data signal
15	P05	FLCS_	O	—	Pu	H	H	ML9207 latch signal
16	P06(SCK_)	FLCP_	O	—	Pu	H	H	Clock signal for ML9207 data output
17	P07	KIN6	I	—	Pu	—	H	Key scan input 6
18	P17	FLRES_	O	—	Pd	L	L	ML9207 reset signal
19	P16	KIN5	I	—	Pu	—	H	Key scan input 5
20	P15(INT3)	JOGD	I	Ed	Pu	—	H	JOG encoder D interrupt input
21	P14	KIN4	I	—	Pu	—	H	Key scan input 4
22	P13	KIN3	I	—	Pu	—	H	Key scan input 3
23	P12(INT2)	JOGC	I	Ed	Pu	—	H	JOG encoder C interrupt input
24	P11(INT1)	TRSA	I	Ed	Pu	—	H	Track select encoder A interrupt input
25	P10	KIN2	I	—	Pu	—	H	Key scan input 2
26	P30(AIN0)	PIT	I	—	—	—	—	Pitch VR signal
27	P31(AIN1)	PITC	I	—	—	—	—	Pitch VR center value signal
28	P32	KIN1	I	—	Pu	—	H	Key scan input 1
29	P33	KIN0	I	—	Pu	—	H	Key scan input 0
30	P34	KOUT0	O	—	Pu	H	H	Key scan output 0/LED line select 0 (L: Select)
31	P35	KOUT1	O	—	Pu	H	H	Key scan output 1/LED line select 1 (L: Select)
32	P36	KOUT2	I/O	—	Pu	H	H	Key scan output 2 (Other than scan, IN)
33	P37	KOUT3	I/O	—	Pu	H	H	Key scan output 3 (Other than scan, IN)
34	VAREF	VAREF	I	—	—	—	—	Power (+5.0V), Analog ref. V for A/D conversion
35	AVDD	AVDD	I	—	—	—	—	Power (+5.0V), For A/D conversion circuit only
36	AVSS	AVSS	I	—	—	—	—	GND(0V), Analog GND for A/D conversion
37	P40(LED)	LED0	O	—	—	H	—	LED ON/OFF0 (L: ON)
38	P41(LED)	LED1	O	—	—	H	—	LED ON/OFF1
39	P42(LED)	LED2	O	—	—	H	—	LED ON/OFF2
40	P43(LED)	LED3	O	—	—	H	—	LED ON/OFF3
41	P44(LED)	LED4	O	—	—	H	—	LED ON/OFF4
42	P45(LED)	LED5	O	—	—	H	—	LED ON/OFF5
43	P46(LED)	LED6	O	—	—	H	—	LED ON/OFF6
44	P47(LED)	LED7	O	—	—	H	—	LED ON/OFF7

* Pd or Pu detected in input port when power on, Pd=CD1, Pu=CD2

M5705 (IC501)



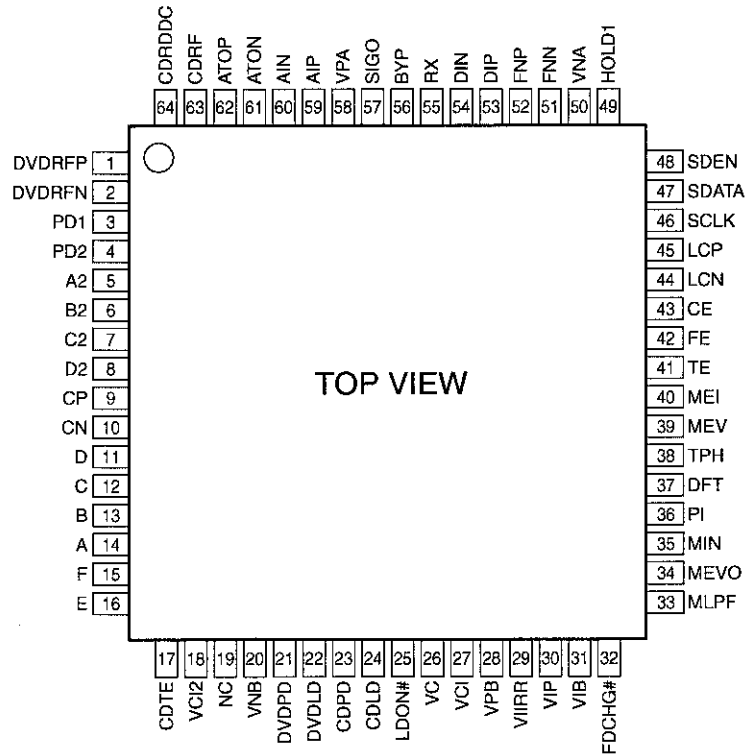
M5705 Terminal Function

Pin No.	Pin Name	Type	Description
2	XSRFIN	I/A	Analog RF signal input after passing through the equalizer
3	XSIPIN	I/A	Inverting input pin of data slicer
5	XSDSSLV	O/A	Slice level output pin
6	XSRSLINT	I/A	Reference current setting pin for analog data slicer
8	XSAWRC	O/A	Output for enlarge VCO range. Analog output from DAC buffer
9	XSRFGC	O/A	RF gain control output
10	XSEFGC	O/A	E,F gain control output
11	XSFOCUS	O/A	Output voltage level for focusing buffer IC
12	XSTRACK	O/A	Output voltage level for tracking buffer IC
13	XSSLEG	O/A	Output voltage level for sledge buffer IC
15	XSMOTOR	O/A	Output voltage level for spindle motor buffer IC
17	XSRFRPLP	I/A	High bandwidth low pass filter input for RFRP
18	XSTELP	I/A	High bandwidth low pass filter input for TE
19	XSVREF2	I/A	2.1V reference voltage input
20	XSRFRP	I/A	RF ripple/envelope signal input
21	XSTEXI	I/A	Tracking zero crossing input signal
23	XSTEI	I/A	Tracking error input signal
24	XSFEI	I/A	Focus error input signal
25	XSCEI	I/A	1. Center error input signal 2. Photo Interrupt input

Pin No.	Pin Name	Type	Description
27	XSSBAD	I/A	Sub-beam addition signal input
166	XSPDIREF	I/A	Phase detector reference current generator. Connect a resistor between this pin and ground to set reference current
167	XSFDIRF	I/A	Frequency detector reference current generator. Connect a resistor between this pin and ground to set reference current
169	XSPLLFTR2	I/A	Data PLL loop filter pin#2
171	XSFDO	O/A	Output node of frequency detector charge pump circuit
172	XSFTRPI	I/A	Input node of loop filter OP circuit
173	XSVR_PLL	I/A	PLL reference voltage input
174	XSPDOFTR2	I/A	Phase detector filter pin#1
175	XSVREFO	O/A	Reference voltage output
176	XSAWRCVCO	I/A	Auto Wide Range Control of VCO input pin. For enlarge VCO range in CAV mode
29	XSDFCT	I	Detect detection signal input
30	XSCSJ	O	Chip select signal for accessing control registers
31	XSCLK	O	Clock output for accessing control registers
32	XSDATA	I/O	Registers data input/output pin
33	XSLDC	O	Laser diode on/off control output for both CD/DVD
34	XSFGIN	I	Motor Hall sensor input
35	XSSPDON	O	Spindle motor on output
36, 37, 38, 39	XSFLAG[3:0]	O	These pins are used to monitor some status of servo control block
48, 51, 52	XGPIO[2:0]	I/O	1. These pins are used as general purpose I/O bus 2. When use internal microcontroller, XGPIO[2] can be used as programmable I/O port 3.6.
40	XMP1_7	I/O	Internal microcontroller programmable I/O port 1.7.
41	XMP1_6	I/O	Internal microcontroller programmable I/O port 1.6.
43	XMP1_5	I/O	This pin is now changed to be NC.
44	XMP1_4	I/O	Internal microcontroller programmable I/O port 1.4.
45	XMP1_3	I/O	Internal microcontroller programmable I/O port 1.3.
47	XMP1_2	I/O	Internal microcontroller programmable I/O port 1.2.
49	XMP1_1	I/O	Internal microcontroller programmable I/O port 1.1.
57	XMP1_0	I/O	Internal microcontroller programmable I/O port 1.0. This pin is default used as the A16 (microcontroller address line 16)
46	XMFSCSJ	I/O	Output chip select connected to external flash ROM chip enable pin
54	XMPSENJ	I/O	Output program store enable connected to external ROM PSENJ pin.
56	XMALE	I/O	This signal is used as address latch signal in address/data mux mode
70	XMCSJ	I/O	1. This signal must be asserted for all microcontroller accesses to the register of this chip 2. When use internal microcontroller, this signal can be used as programmable I/O port 3.1
71	XMRDJ	I/O	1. This signal is used as the Read Strobe signal 2. When use internal microcontroller, this signal can be used as programmable I/O port 3.0
72	XMWRJ	I/O	This signal is used as the Wire Strobe signal
73	XMINT1J	I/O	1. This signal is an interrupt line to the microcontroller 2. When use internal microcontroller, this signal can be used as programmable I/O port 3.7
74, 75, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 89, 90, 91	XMA[15:0]	I/O	These pins are used as address bus
62, 63, 64, 65, 66, 67, 68, 69	XMD[7:0]	I/O	These pins are used as data bus for the 16-bit processor mode, or the address/data mux bus for the 8-bit processor mode.
163	XTPLCK	I/O	PLCK test pin
164	XTSLRF	I/O	SLRF test pin
59	XOSC1	I	Crystal input/System clock. The input frequency from outside crystal or oscillator is 33.8688MHz
60	XOSC2	O	Crystal output
53	XCRSTJ	I	Chip Reset. As asserted low input generates a component reset that stops all operations within the chip and deasserts all output signals. All input/output signals are set to input.
94	XHCS1J	I	This pin is used to select the command block task file registers
93	XHCS3J	I	This pin is used to select the control block task file registers
103	XHIORJ	I	Asserted by the host during a host I/O read operation
104	XHIOWJ	I	Asserted by the host during a host I/O write operation
105	XHDRQ	O	1. DMA request. This pin is configured as the DMA request signal, and is used during DMA transfer between the host and the controller. This pin is tri-stated when DMA transfers are not enabled. 2. MPEG acknowledge. This pin is used as the ACKJ signal when MPEG interface mode is selected.
101	XHDACKJ	I	1. DMA acknowledge. This pin is configured as DACKJ, and is used as the DMA acknowledge signal during DMA data transfers. 2. MPEG request. This pin is used as the REQ signal when MPEG interface mode is selected
99	XHCS16J	O	1. 16-bit data select. This signal indicates that a 16-bit data transfer is active on the host data bus. This pin is open-drain tri-state output. 2. MPEG clock. This pin is used as the CLOCK signal when MPEG interface mode is selected.
50	XHRSTJ	I	Host Reset. The reset of ATA bus
100	XHINT	O	1. Host interface request. This tri-state pin is the host interrupt request, and is asserted to indicate to the host that the controller needs attention. 2. MPEG begin. This pin is used as the BEGIN signal when MPEG interface mode is selected

Pin No.	Pin Name	Type	Description
97	XHPDIAGJ	I/O	This pin is used as the Passed Diagnostics signal, and may be an input or an open-drain output
92	XHDASPJ	I/O	This pin is used as the Drive Active/Slave Present signal, and is an input or an open-drain output. This pin is used for Master/Slave drive communication and/or for driving an LED
102	XHIORDY	I/O	1. I/O channel ready. This signal is driven low to extend host transfer cycles when the controller is not ready to respond. This pin will be tri-stated when a read or write is not in progress. 2. MPEG error. This pin is used as the ERROR signal when MPEG interface mode is selected
95, 96, 98	XHA[2:0]	I	Host address lines. The host address lines A[2:0] are used to access the various host control, status, and data registers
106, 107, 108, 109, 111, 112, 113, 114, 116, 117, 118, 119, 120, 121, 122, 123	XHD[15:0]	I/O	1. Host data bus. This bus is used to transfer data and status between the host and the controller. 2. MPEG data bus 7-8. The HD[7:0] are used as the DATA [7:0] when MPEG interface mode is selected. 3. VCD I/F. Bit3-0 are used as VCD I/F signal when VCD function is enabled. The relationship of bit3-0 and VCD I/F is as follow HD0—CD-DATA HD1—CD-LRCK HD2—CD-BCK HD3—CD-C2PO
143	XRSDCLK	O	This signal is the clock output for SDRAM
147	XROEJ	O	This signal is used as the memory output enable for external DRAM buffers. After RSTJ is asserted, this signal will be low
142	XRWEJ	O	This signal is asserted low when a buffer memory write operation is active
144	XRRASJ	O	This signal is used as Row address output to external DRAM buffer. After RSTJ is asserted, this signal will be high
145	XRCASJ	O	This signal is used as column address output to external DRAM. After RSTJ is asserted, this signal will be high
148, 149, 151, 152, 153, 155, 156, 157, 158, 159, 160, 161	XRA[11:0]	O	1. RAM address lines. These are bits11-0 for addressing the buffer memory. 2. Hardware setting. The bits6-0 are used as hardware setting for some functions. RA[9] : FLASH size is 64K/128K 1: FLASH size is 64K 0: FLASH size is 128K RA[8] : External CPU is 8032/H8 1: 8032 0: H8 RA[7] : Microcontroller programmable I/O port 1 pin control 1: By internal microcontroller 0: By registers to decide input/output RA[6] : System test pin output 1: Normal operation 0: System test pin output RA[5] : For testing purpose, don't need to set RA[4] : IDE master/slave 1: Slave 0: Master RA[3] : For testing purpose, don't need to set RA[2] : For testing purpose, don't need to set RA[1-0] : MCU Mode selection 11: Normal Mode (internal uP, internal address latch) 10: Outside uP Mode (ICE Mode) 01: Test mode for internal uP testing 00: Internal uP mode with external address latch
124, 125, 126, 127, 128, 129, 131, 132, 134, 135, 136, 137, 138, 139, 140, 141	XRD[15:0]	I/O	These signals are the 8-bit parallel data lines to/from the buffer memory.
4	AVDD5_DS		Analog Power +5V for Data Slicer part
14	AVDD5_DA		Analog Power +5V for DAC part
26	AVDD5_AD		Analog Power +5V for ADC part
168	AVDD5_PL		Analog Power +5V for Data PLL part
7, 55, 58, 76, 115, 146, 150, 162	VDD		Power +3.3V for digital core logic and pad
1	AVSS_DS		Analog Ground for Data Slicer part
16	AVSS_DA		Analog Ground for DAC part
22	AVSS_AD		Analog Ground for ADC part
170	AVSS_PL		Analog Ground for Data PLL part
28, 42, 61, 88, 110, 130, 138, 154, 165	GND		Digital Ground core logic and pad.

SP3721A (IC502)

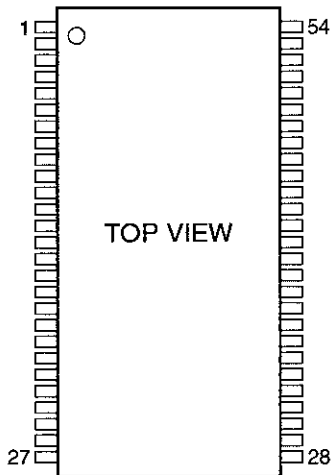


SP3721A Terminal Function

Pin No.	Pin Name	Type	Description
1, 2	DVDREP, DVDREN	I	RF Signal Inputs. Differential RF signal attenuator input pins
63	CDRF	I	RF Signal Inputs. Single-ended RF signal attenuator input pin
59, 60	AIP, AIN	I	AGC Amplifier Inputs. Differential AGC amplifier input pins
53, 54	DIP, DIN	I	Analog inputs for RF Single Buffer. Differential analog inputs to the RF single-ended output buffer and full wave rectifier
32	FDCHG#	I	Low Impedance Enable. A TTL compatible input pin that activates the FDCHG switches. A low level activates the switches and the falling edge of the internal FDCHG triggers the fast decay for the MIRR bottom hold circuit. (open high)
49	HOLD1	I	Hold Control. A TTL compatible control pin which, when pulled high, disables the RF AGC charge pump and holds the RF AGC amplifier gain at its present value. (open high)
11~14	D, C, B, A	I	Photo Detector Interface Inputs. Inputs from the main beam Photo detector matrix outputs
5~8	A2, B2, C2, D2	I	Photo Detector Interface Inputs. AC coupled inputs for the DPD from the main beam Photo detector matrix outputs
15~16	F, E	I	CD tracking Error Inputs. Inputs from the CD photo detector error outputs.
3~4	PD1, PD2	I	CD Photo detector Interface Inputs. Inputs from the CD photo detector error outputs
40	MEI	I	Mirror Envelope Inputs. The SIGO envelope input pin
35	MIN	I	RF signal Input for Mirror. AC coupled inputs for the mirror detection circuit from the pull-in signal output. (PI)
21	DVDPD	I	APC Input. DVD APC input pin from the monitor photo diode
23	CDPD	I	APC Input. CD APC input pin from the monitor photo diode
25	LDON#	I	APC Output On/Off. APC output control pin. A low level activates the LD output. (open high)
61, 62	ATON/ATOP	O	Differential Attenuator Output. Attenuator outputs
51, 52	FNN, FNP	O	Differential Normal Output. Filter normal outputs
57	SIGO	O	Single Ended Normal Output. Single-ended RF output
64	CDRFDC	O	CD RF Signal Output. Single ended CD RF summing output
42	FE	O	Focusing Error Signal Output. Focus error output reference to VCI
41	TE	O	Tracking Error Signal Output. Tracking error output reference to VCI

Pin No.	Pin Name	Type	Description
43	CE	O	Center Error Signal Output. Center error output reference to VCI
34	NEVO	O	SIGO Bottom Envelope Output. Bottom envelope for mirror detection
37	DFT	O	Defect Output. Pseudo CMOS output. When a defect is detected, the DFT output goes high. Also the servo AGC output can be monitored at this pin, when CAR bits 7-4 are '0011'
29	MIRR	O	Mirror Detect Output. Mirror Detect comparator output. Pseudo CMOS output
36	PI	O	Pull-in Signal Output. The summing signal output of A, B, C, D or PD1, PD2 for mirror detection. Reference to VCI
22	DVDLD	O	APC output. DVD APC output pin to control the laser power
24	CDLD	O	APC output. CD APC output pin to control the laser power
56	BYP	I/O	The RF AGC integration capacitor CBYP, is connected between BYP and VPA
9	CP	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CN pin
10	CN	I/O	Differential Phase tracking LPF pin. An external capacitance is connected between this pin and the CP pin
45	LCP	—	Center Error LPF pin. An external capacitance is connected between this pin and the LCN pin
44	LCN	—	Center Error LPF pin. An external capacitance is connected between this pin and the LCP pin
30	MP	—	MIRR signal Peak hold pin. An external capacitance is connected to between this pin and VPB
31	MB	—	MIRR signal Bottom hold pin. An external capacitance is connected to between this pin and VPB
39	MEV	—	Sigo Bottom Envelope pin. An external capacitance is connected to between this pin and VPB
17	CDTE	—	CD Tracking. E-F Opamp output for feedback
38	TPH	—	PI Top Hold pin. An external capacitance is connected to between this pin and VPB
26	VC	—	Reference Voltage output. This pin provides the internal DC bias reference voltage (+2.5V Iix). Output Impedance is less than 50ohms
27	VCI	—	Reference Voltage input. DC bias voltage input for the servo input reference
18	VCI2	—	Reference Voltage input. DC bias voltage input for the servo input reference
55	RX	—	Reference Resistor Input. An external 8.2kohm, 1% resistor is connected from this pin to ground to establish a precise PTAT (proportional to absolute temperature) reference current for the filter
33	MLPF	—	MIRR signal LPF pin. An external capacitance is connected between this pin and VPB
19	NC	—	No Connect
48	SDEN	I	Serial Data Enable. Serial Enable CMOS input. A high level input enable the serial port (Not to be left open)
47	SDATA	I/O	Serial Data. Serial data bi-directional CMOS pin. NRZ programming data for the internal registers is applied to this input (Not to be left open)
46	SCLK	I	Serial Clock. Serial Clock CMOS input. The clock applied to this pin is synchronized with the data applied to SDATA (Not to be left open)
58	VPA		Power. Power supply pin for the RF block and serial port
28	VPB		Power. Power supply pin for the servo block
50	VNA		Ground. Ground pin for the RF block and serial port
20	VNB		Ground. Ground pin for the servo block

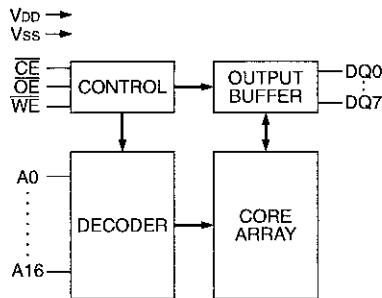
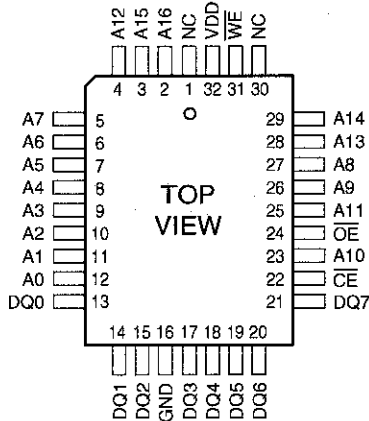
**128M SDRAM
(IC402, 403)**



Pin Assignment

Pin No.	Pin Name	Function	Description
22, 23-26, 29-35	A0-A11	Address	Multiplexed pins for row and column address. Row address: A0-A11. Column address: A0-A8.
20, 21	BS0, BS1	Bank Select	Select bank to activate during row address latch time, or bank to read/write during address latch time.
2, 4, 5, 7, 8, 10, 11, 13, 42, 44, 45, 47, 48, 50, 51, 53	DQ0-DQ15	Data Input/Output	Multiplexed pins for data output and input.
19	CS#	Chip Select	Disable or enable the command decoder. When command decoder is disabled, new command is ignored and previous operation continues.
18	RAS#	Row Address Strobe	Command input. When sampled at the rising edge of the clock, RAS#, CAS# and WE# define the operation to be executed.
17	CAS#	Column Address Strobe	Referred to RAS#
16	WE#	Write Enable	Referred to RAS#
15, 39	UDQM/LDQM	input/output mask	The output buffer is placed at Hi-A (with latency of 2) when DQM is sampled high in read cycle. In write cycle, sampling DQM high will block the write operation with zero latency.
38	CLK	Clock Inputs	System clock used to sample inputs on the rising edge of clock.
37	CKE	Clock Enable	CKE controls the clock activation and deactivation. When CKE is low, Power Down mode, Suspend mode, or Self Refresh mode is entered.
1, 14, 27	Vcc	Power (+3.3V)	Power for input buffers and logic circuit inside DRAM.
28, 41, 54	Vss	Ground	Ground for input buffers and logic circuit inside DRAM.
3, 9, 43, 49	VccQ	Power (+3.3V) for I/O buffer	Separated power from Vcc, used for output buffers to improve noise.
6, 12, 46, 52	VssQ	Ground for I/O buffer	Separated ground from Vss, used for output buffers to improve noise.
36, 40	NC	No Connection	No Connection

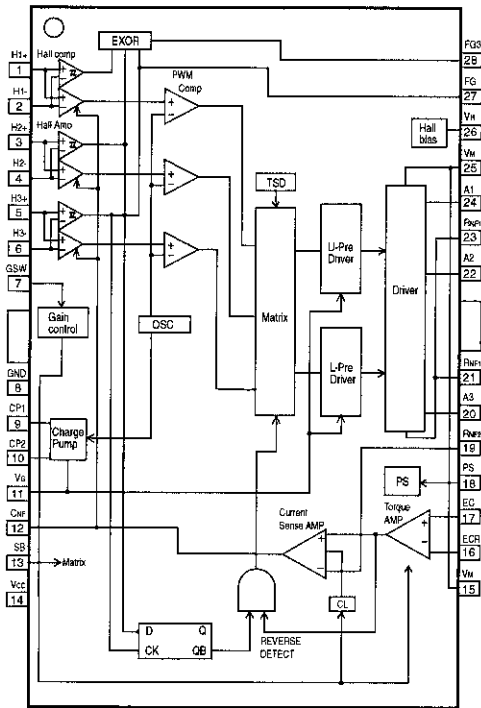
W29EE011P (IC507)



Terminal Function

Name	Function
A0 - A16	Address Inputs
DQ0 - DQ7	Data Inputs/Outputs
\overline{CE}	Chip Enable
\overline{OE}	Output Enable
WE	Write Enable
VDD	Power Supply
GND	Ground
NC	No Connection

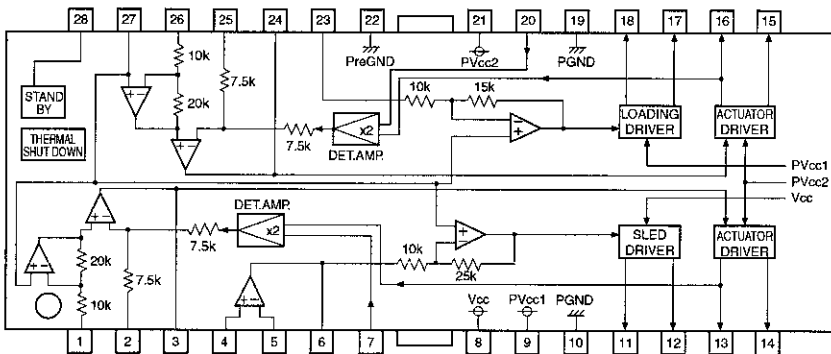
BD6670FM (IC510)



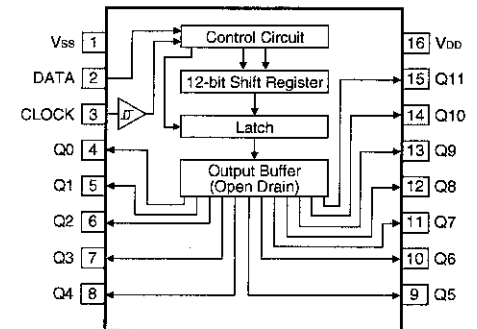
BD6670FM Terminal Function

Pin No.	Pin Name	Function
1	H1+	Hall input Amp 1 positive input
2	H1-	Hall input Amp 1 negative input
3	H2+	Hall input Amp 2 positive input
4	H2-	Hall input Amp 2 negative input
5	H3+	Hall input Amp 3 positive input
6	H3-	Hall input Amp 3 negative input
7	GSW	Gain switch pin
8	GND	GND
9	CP1	Capacitor pin 1 for charge pump
10	CP2	Capacitor pin 2 for charge pump
11	VG	Capacitor connection pin for charge pump
12	CNF	Capacitor connection pin for phase compensation
13	SB	Short Brake Pin
14	VCC	Power supply for signal division
15	VM	Power supply for driver
16	ECR	Torque control standard voltage input terminal
17	EC	Torque control voltage input terminal
18	PS	Power Save in
19	RNF2	Resistor connection pin for current sense
20	A3	Output3 for motor
21	RNF1	Resistor connection pin for current sense
22	A2	Output2 for motor
23	RNF1	Resistor connection pin for current sense
24	A1	Output1 for motor
25	VM	Power supply for driver
26	VH	Hall bias pin
27	FG	FG output pin
28	FG3	FG3 output pin

BA5954FP (IC509)



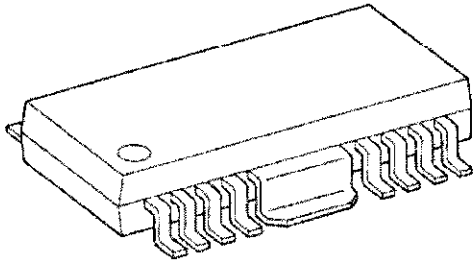
BU2090F (IC103, 201)



BA5954FP Terminal Function

Pin No.	Pin Name	Function	Pin No.	Pin Name	Function
1	VINFC	Focus driver input	15	VOTK+	Output (+) of tracking driver
2	CFCerr1	Cap. connection pin for error amp filter	16	VOTK-	Output (-) of tracking driver
3	CFCerr2	Cap. connection pin for error amp filter	17	VOLD+	Output (+) of loading driver
4	VINSL+	Op. amp input (+) for sled driver	18	VOLD-	Output (-) of loading driver
5	VINSL-	Op. amp input (-) for sled driver	19	PGND	Power GND
6	VOSL	Op. amp output for sled driver	20	VNFTK	Tracking driver feedback pin
7	VNFFC	Focus driver feedback pin	21	PVcc2	Power Vcc for actuator driver
8	Vcc	Pre Vcc, power Vcc for sled driver	22	PreGND	Pre GND
9	PVcc1	Power Vcc for loading driver	23	VINLD	Loading driver input
10	PGND	Power GND	24	CTKerr2	Cap. connection pin for error amp filter
11	VOSL-	Output (-) of sled driver	25	CTKerr1	Cap. connection pin for error amp filter
12	VOSL+	Output (+) of sled driver	26	VINTK	Tracking driver input
13	VOFC-	Output (-) of focus driver	27	BIAS	Bias input
14	VOFC+	Output (+) of focus driver	28	STBY	Standby pin

TA7291F(IC512)

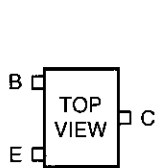


TA7291F Terminal Function

PIN No.			SYMBOL	FUNCTION DESCRIPTION
P	S	F		
7	2	11	Vcc	Supply voltage terminal for Logic
8	6	15	Vs	Supply voltage terminal for Motor driver
4	8	5	Vref	Supply voltage terminal for control
1	5	1	GND	GND terminal
5	9	7	IN1	Input terminal
6	1	9	IN2	Input terminal
2	7	4	OUT1	Output terminal
10	3	13	OUT2	Output terminal

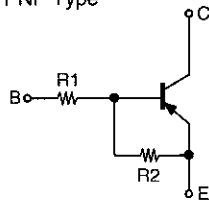
● TRANSISTORS

DTA114EK
DTC114EK



DTA114EK

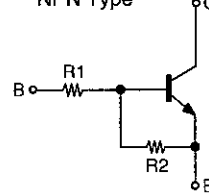
PNP Type



	R1	R2
DTA114EK	10kohm	10kohm

DTC114EK

NPN Type



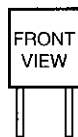
	R1	R2
DTC114EK	10kohm	10kohm

● DIODES

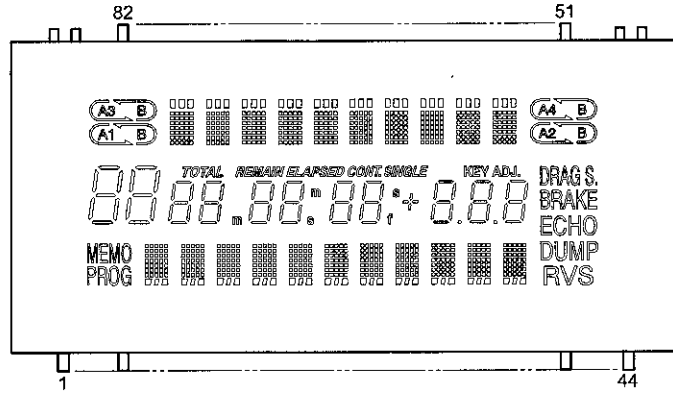


AW04
RN1Z
RN2Z
RN3Z

FMB-G14



● FL DISPLAY
24-ST-09GN (FL101)



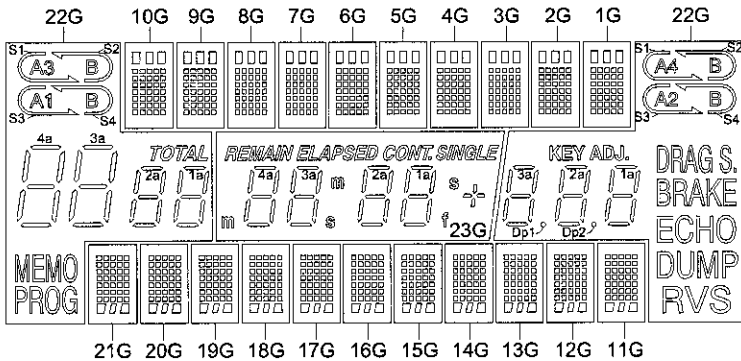
Pin Connection

Pin No.	8	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	4	4			
Connection	N	N	N	N	N	N	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	0	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5

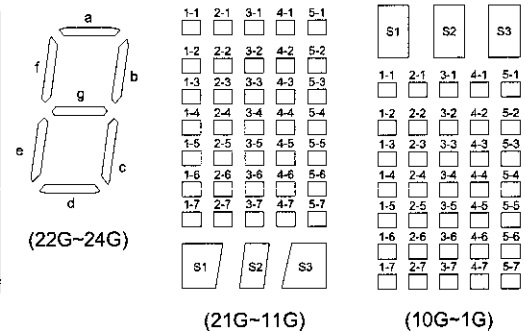
Pin No.	1	2	3	4	5	6	7	8	9	10	11	11	11	11	11	11	11	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4
Connection	F	F	F	F	N	N	I	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	F	F	F	F	F	F

NOTE: 1) F-, F+ Filament 2) NP No Pin 3) DL Datum Line 4) 1G~24G Grid
5) IC Internal Connection 6) Visual Field Upper 26°, lower 26°(min.)

Grid Assignment



Segment Designation

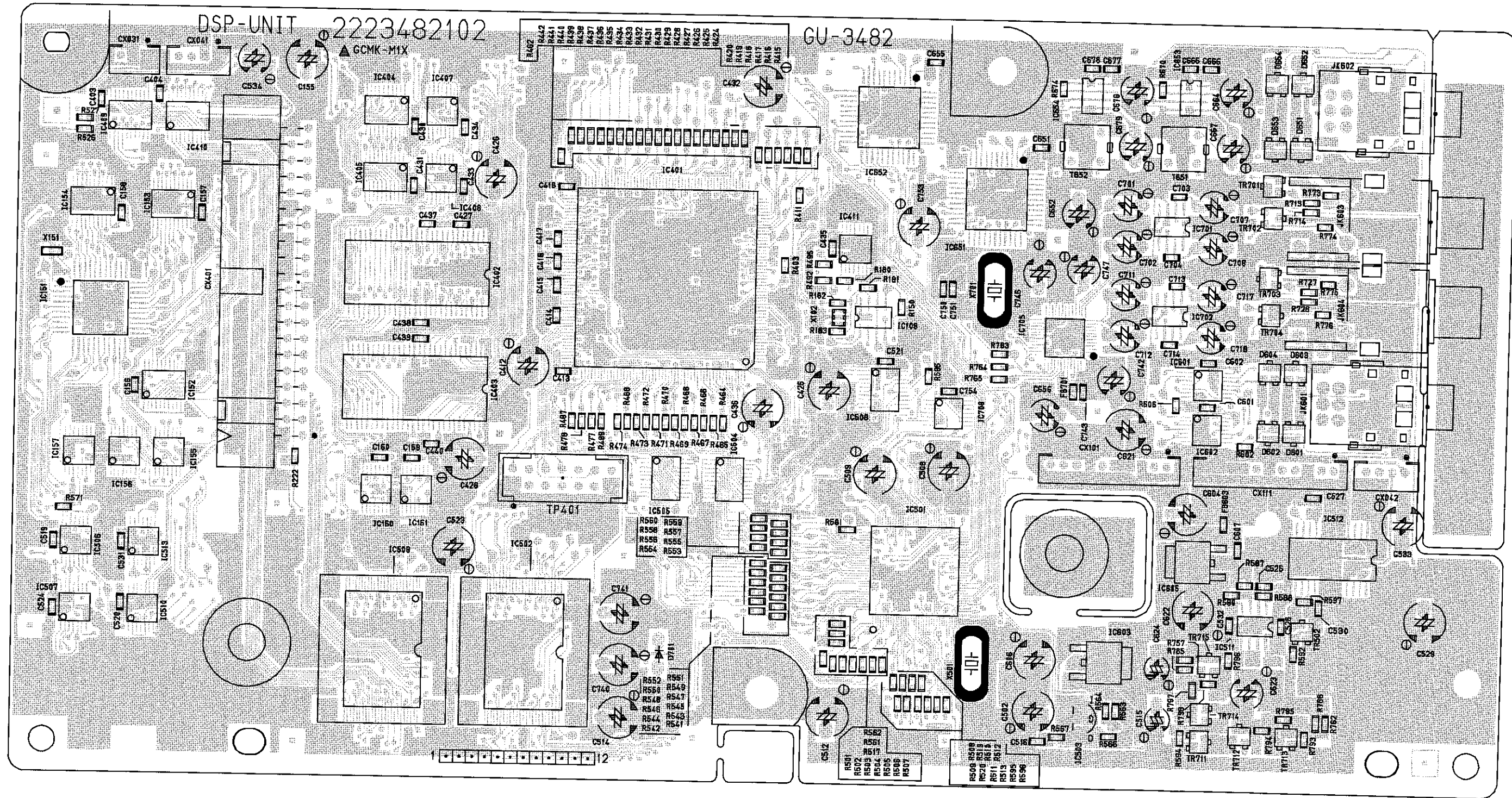


Anode Connection

	24G	23G	22G	21G-1G		24G	23G	22G	21G-1G
P1	RVS	1d	1d	1-1	P21	Dp1	3b	2a	1-5
P2	DUMP	1e	1e	2-1	P22	2d	3a	TOTAL	2-5
P3	ECHO	1c	1c	3-1	P23	2e	4d	MEMO	3-5
P4	BRAKE	1g	1g	4-1	P24	2c	4e	PROG	4-5
P5	DRAG S.	1f	1f	5-1	P25	2g	4c	4d	5-5
P6	⌋	1b	1b	1-2	P26	2f	4g	4e	1-6
P7	A4	1a	1a	2-2	P27	2b	4f	4c	2-6
P8	⌋	2d	2d	2-2	P28	2a	4b	4g	2-6
P9	B	2e	2e	4-2	P29	Dp2	4a	4f	4-6
P10	⌋	2c	2c	5-2	P30	KEY ADJ.	m	4b	5-6
P11	A2	2g	2g	1-3	P31	3d	!	4a	1-7
P12	⌋	2f	2f	2-3	P32	3e	--	A1	2-7
P13	B	2b	2b	3-3	P33	3c	!	⌋	3-7
P14	1d	2a	2a	4-3	P34	3g	m	B	4-7
P15	1e	s	3d	5-3	P35	3f	s	⌋	5-7
P16	1c	3d	3e	1-4	P36	3b	REMAIN	A3	S-1
P17	1g	3e	3c	2-4	P37	3a	ELAPSED	⌋	S-2
P18	1f	3c	3g	3-4	P38	—	CONT	B	S-3
P19	1b	3g	3f	4-4	P39	—	SINGLE	⌋	—
P20	1a	3f	3b	5-4					

1 2 3 4 5 6 7 8

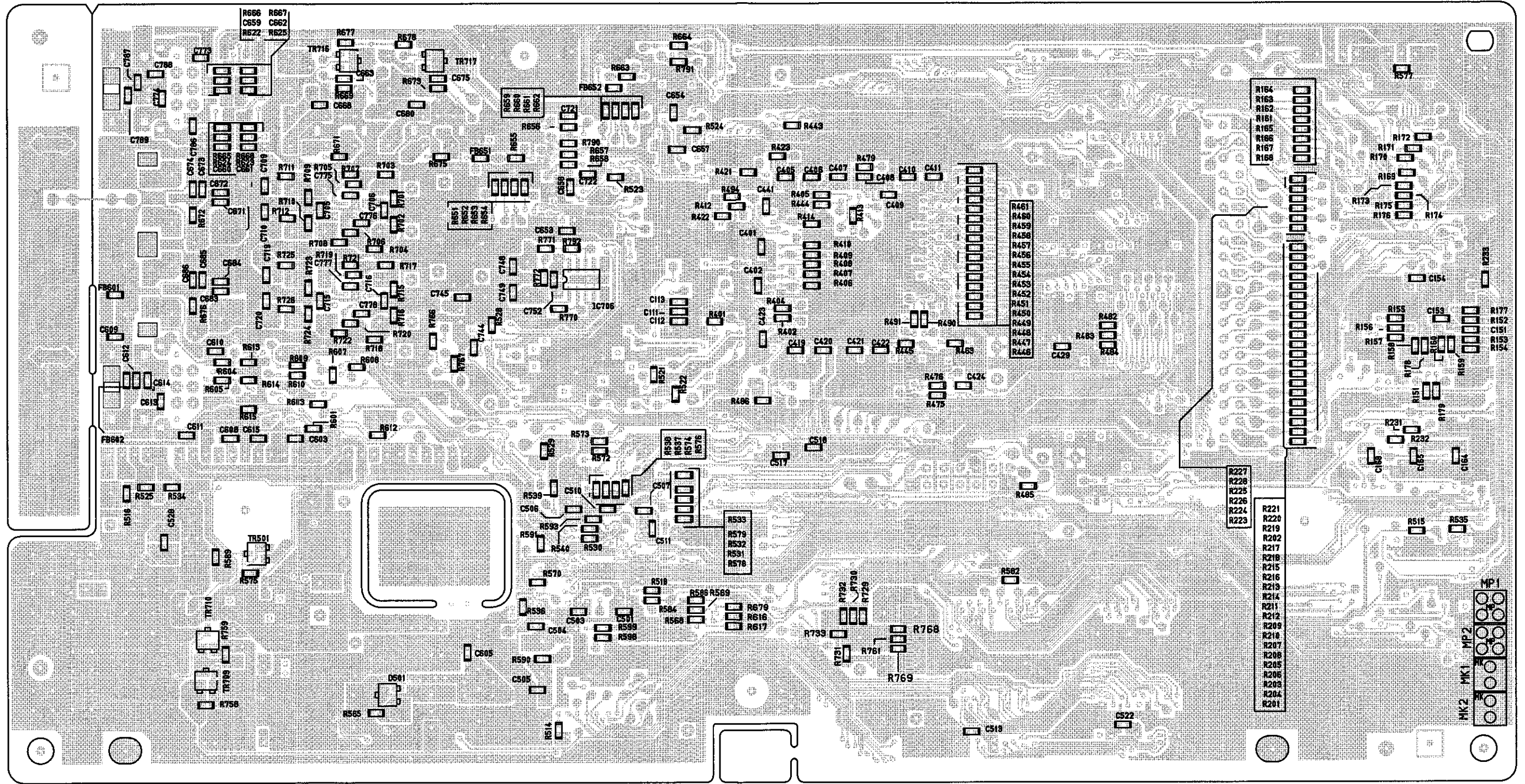
GU-3482 DSP P.W.B. UNIT



COMPONENT SIDE

A
B
C
D
E

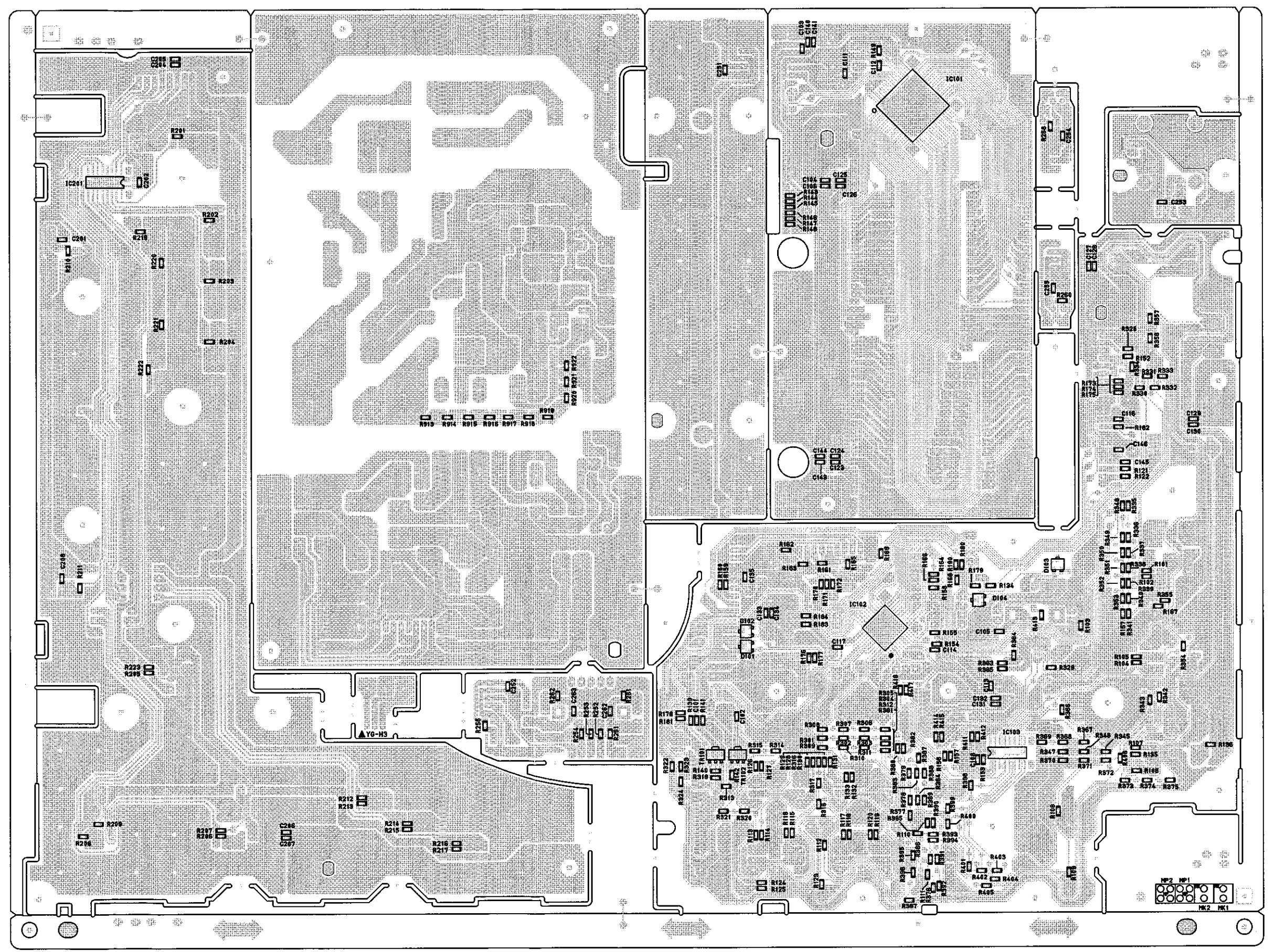
1 2 3 4 5 6 7 8
GU-3482 DSP P.W.B. UNIT



FOIL SIDE

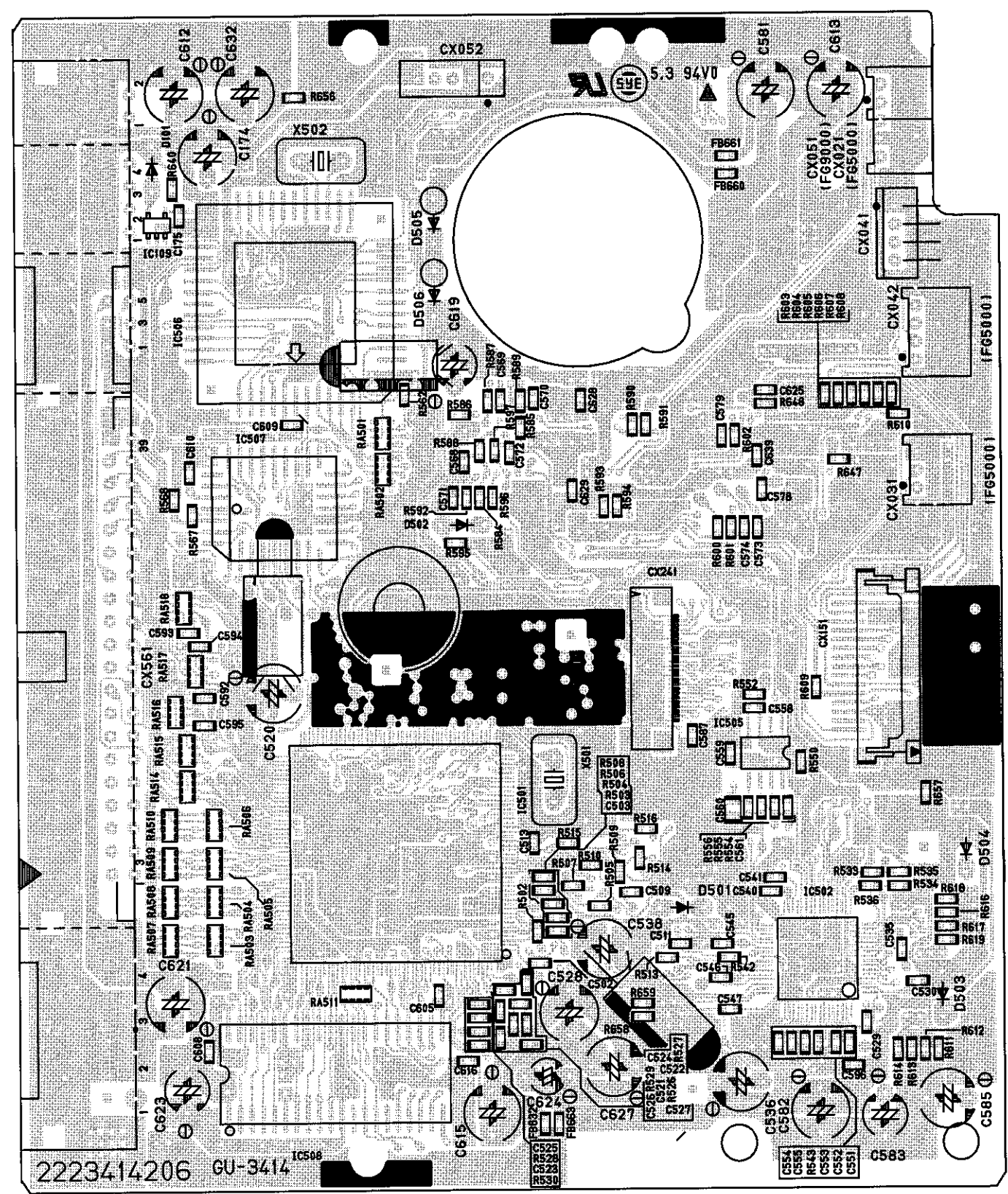
1 2 3 4 5 6 7 8

GU-3483 PANEL P.W.B. UNIT

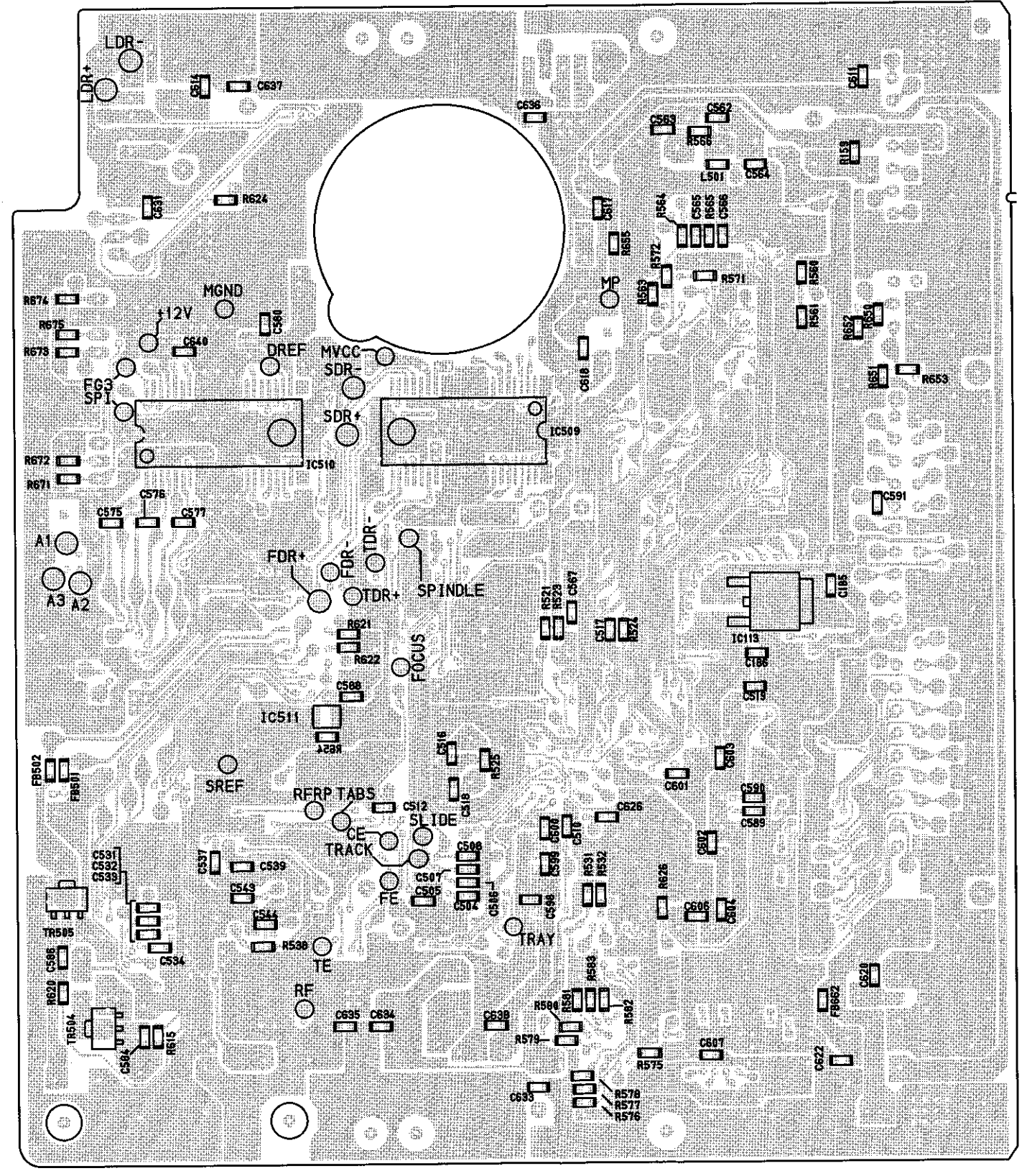


FOIL SIDE

GU-3414 CD-ROM P.W.B. UNIT




COMPONENT SIDE




FOIL SIDE

NOTE FOR PARTS LIST

- Part indicated with the mark "◎" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
 - When ordering of part, clearly indicate "I" and "I" (i) to avoid mis-supplying.
 - Ordering part without stating its part number can not be supplied.
 - Part indicated with the mark "★" is not illustrated in the exploded view.
 - Not including Carbon Film Resistor ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
 - Not including Carbon Chip Resistor 1/16W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)
- WARNING:**
Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacturer.

部品表について

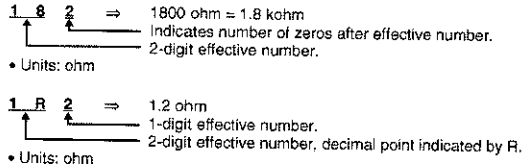
- 印の部品は常時在庫していませんので供給に長時間を要することがあります。場合によっては、供給をお断りすることがあります。
- 部品を発注する際は特に数字の "I" と英字の "I" との区別をはっきり記入してください。
- 部品番号を表示していない部品は供給できません。
- 印の部品は安全上重要な部品です。交換するときは、安全および性能維持のため必ず指定の部品をご使用ください。
- ★印のついている部品は分解図中には記載していません。
- カーボン抵抗器 ± 5%、1/4W 型は記載していません。定数は回路図を参照願います。
- カーボンチップ抵抗器 1/16W 型は記載していません。定数は回路図を参照願います。
- 部品表の抵抗器、コンデンサの品名記号の読み方は表を参照してください。

● Resistors

Ex.: **RN** **14K** **2E** **182** **G** **FR**
 Type Shape and performance Power Resistance Allowable error Others

RD : Carbon RC : Composition RS : Metal oxide film RW : Winding RN : Metal film RK : Metal mixture	2B : 1/8W 2E : 1/4W 2H : 1/2W 3A : 1W 3D : 2W 3F : 3W 3H : 5W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : Pulse-resistant type NL : Low noise type NB : Non-burning type FR : Fuse-resistor F : Lead wire forming
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* Resistance

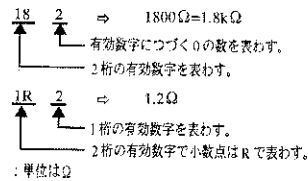


● 抵抗器

例) **RN** **14K** **2E** **182** **G** **FR**
 種類 形状特性 電力 抵抗値 許容差 その他

RD : カーボン RC : 固定体 RS : 金属系皮膜 RW : 巻線 RN : 金属皮膜 RK : 金属混合体	2B : 1/8 W 2E : 1/4 W 2H : 1/2 W 3A : 1 W 3D : 2 W 3F : 3 W 3H : 5 W	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20%	P : 耐パルス形 NL : 低雑音形 NB : 不燃形 FR : ヒューズ抵抗 F : リード線成形
---------------------------------------------------------------------------	----------------------------------------------------------------------------------------	-------------------------------------------------------	-----------------------------------------------------------------

* 抵抗値

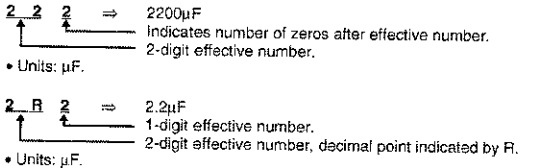


● Capacitors

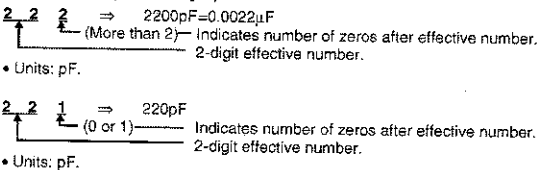
Ex.: **CE** **04W** **1H** **2R2** **M** **BP**
 Type Shape and performance Dielectric strength Capacity Allowable error Others

CE : Aluminum foil electrolytic CA : Aluminum solid electrolytic CS : Tantalum electrolytic CQ : Film CK : Ceramic CC : Ceramic CP : Oil CM : Mica CF : Metallized CH : Metallized	0J : 6.3V 1A : 10V 1C : 16V 1E : 25V 1V : 35V 1H : 50V 2A : 100V 2B : 125V 2C : 160V 2D : 200V 2E : 250V 2H : 500V 2J : 630V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% -20% P : +100% -0% C : ±0.25pF D : ±0.5pF = : Others	HS : High stability type BP : Non-polar type HR : Ripple-resistant type DL : For charge and discharge HF : For assuring high frequency U : UL part C : CSA part W : UL-CSA type F : Lead wire forming
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

* Capacity (electrolyte only)



* Capacity (except electrolyte)



● When the dielectric strength is indicated in AC, "AC" is included after the dielectric strength value.

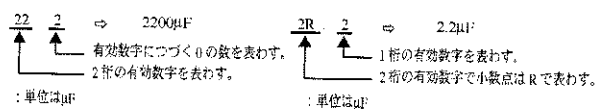
● コンデンサ

例) **CE** **04W** **1H** **2R2** **M** **BP**
 種類 形状特性 耐圧 容量 許容差 その他

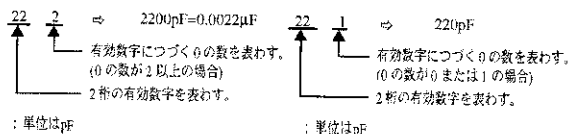
CE : アルミ箔電解 CA : アルミ固体電解 CS : タンタル電解 CQ : フィルム CK : セラミック CC : セラミック CP : オイル CM : マイカ CF : メタライズド CH : メタライズド	0J : 6.3 V 1A : 10 V 1C : 16 V 1E : 25 V 1V : 35 V 1H : 50 V 2A : 100 V 2B : 125 V 2C : 160 V 2D : 200 V 2E : 250 V 2H : 500 V 2J : 630 V	F : ±1% G : ±2% J : ±5% K : ±10% M : ±20% Z : +80% -20% P : +100% - 0% C : ±0.25pF D : ±0.5pF = : その他	HS : 高安定形 BP : 無極性形 HR : 耐リップル形 DL : 充放電対策用 HF : 高周波保証用 U : UL 部品 C : CSA 部品 W : UL-CSA 部品 F : リード線成形
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* 容量値

● 電解コンデンサの場合



● 電解コンデンサ以外の場合



● 耐圧を交流で表示する場合は、耐圧表示の次に「AC」を表示します。

PARTS LIST OF P.W.B. UNIT ASS'Y
GU-3414 CD-ROM P.W.B. UNIT ASS'Y

Note: The symbols in the column "Remarks" indicate the following destinations.
 E3: U.S.A. model, Csnada model
 E2: Europe model

Ref. No.	Part No.	Part Name	Remarks	New	Ref. No.	Part No.	Part Name	Remarks	New
SEMICONDUCTORS GROUP					CAPACITORS GROUP				
IC109	262 3082 908	BD4743G			R595	247 2009 983	RM73B--103JT		
IC113	263 1079 903	BA033FP			R596	247 2011 900	RM73B--333JT		
IC501	262 3083 004	M5705			R597	247 2018 903	RM73B--0R0KT		
IC502	262 3084 003	SP-3721A			R601	247 2018 903	RM73B--0R0KT		
IC505	262 3085 905	TL3472			R602	247 2003 989	RM73B--330JT		
IC507	262 3086 001	W29EE011P-90			R603-606	247 2018 987	RM73B--2R0KT		
IC508	262 3087 903	M11B416256A-35J			R609,610	247 2005 929	RM73B--121JT		
IC509	262 3088 902	BA5954FP			R611-614	247 2004 904	RM73B--390JT		
IC510	262 3089 901	BD6670FM			R615	247 2009 912	RM73B--512JT		
TR504,505	272 0160 901	2SB1132T100Q			R616-619	247 2004 904	RM73B--390JT		
D101	276 0401 905	1SS133T77 (TAPE)			R620	247 2007 943	RM73B--102JT		
D502-504	276 0401 905	1SS133T77 (TAPE)			R621	247 2007 969	RM73B--122JT		
RESISTORS GROUP					R622	247 2006 960	RM73B--471JT		
R159	247 2005 987	RM73B--221JT			R626	247 2008 926	RM73B--222JT		
R502	247 2010 956	RM73B--203JT			R640	247 2009 983	RM73B--103JT		
R503	247 2011 955	RM73B--513JT			R647	247 2018 903	RM73B--0R0KT		
R505-507	247 2008 968	RM73B--332JT			R648	247 2009 983	RM73B--103JT		
R508	247 2009 983	RM73B--103JT			R650,651	247 2009 983	RM73B--103JT		
R509	247 2011 942	RM73B--473JT			R653	247 2008 968	RM73B--332JT		
R510	247 2003 989	RM73B--330JT			R654,655	247 2018 903	RM73B--0R0KT		
R513	247 2007 998	RM73B--162JT			R671,672	247 2011 942	RM73B--473JT		
R514	247 2009 909	RM73B--472JT (1608)			R673,674	247 2004 933	RM73B--510JT		
R515	247 2009 912	RM73B--512JT			R675	247 2005 987	RM73B--221JT		
R516	247 2009 909	RM73B--472JT (1608)			CAPACITORS GROUP				
R521	247 2002 964	RM73B--100JT			C174	254 4299 964	CE04W1C470MT(SRE)		
R523	247 2009 983	RM73B--103JT			C185,186	257 0512 903	CK73F1E104ZT		
R524	247 2002 964	RM73B--100JT			C502	257 0509 929	CK73B1H102KT		
R525	247 2014 965	RM73B--105JT			C503	257 0510 950	CK73B1H682KT		
R527	247 2009 909	RM73B--472JT (1608)			C505,506	257 0508 917	CC73CH1H471JT		
R528	247 2009 983	RM73B--103JT			C507,508	257 0516 941	CK73B1E473KT		
R529	247 2009 912	RM73B--512JT			C509,510	257 0516 954	CK73B1E104KT		
R530	247 2007 969	RM73B--122JT			C511,512	257 0509 929	CK73B1H102KT		
R531	247 2012 925	RM73B--104JT			C513	257 0516 954	CK73B1E104KT		
R532	247 2011 968	RM73B--563JT			C516	257 0504 908	CC73CH1H220JT		
R533	247 2009 996	RM73B--113JT			C517	257 0504 982	CC73CH1H470JT		
R534,535	247 2007 969	RM73B--122JT			C518	257 0504 908	CC73CH1H220JT		
R536	247 2009 996	RM73B--113JT			C519	257 0512 903	CK73F1E104ZT		
R538	247 2009 983	RM73B--103JT			C520	254 4533 934	CE04W0J221MT SMG/RE3		
R542	247 2018 903	RM73B--0R0KT			C521-523	257 0516 954	CK73B1E104KT		
R543	247 2019 931	RM73B--822FT			C524	257 0504 982	CC73CH1H470JT		
R550	247 2007 985	RM73B--152JT			C525	257 0508 933	CC73CH1H561JT		
R552	247 2019 931	RM73B--822FT			C526	257 0516 941	CK73B1E473KT		
R554	247 2011 968	RM73B--563JT			C527	257 0512 903	CK73F1E104ZT		
R555	247 2009 983	RM73B--103JT			C528	254 4300 963	CE04W0J101MT(SRE)		
R556	247 2013 982	RM73B--474JT			C529	257 0508 959	CC73CH1E681JT		
R562	247 2009 983	RM73B--103JT			C530	257 0516 954	CK73B1E104KT		
R567	247 2018 903	RM73B--0R0KT			C531-534	257 0508 959	CC73CH1E681JT		
R584	247 2003 989	RM73B--330JT			C535	257 0506 951	CC73CH1H101JT		
R585	247 2009 983	RM73B--103JT			C536	254 4300 963	CE04W0J101MT(SRE)		
R586	247 2011 900	RM73B--333JT			C537	257 0512 903	CK73F1E104ZT		
R587	247 2018 903	RM73B--0R0KT			C538	254 4533 921	CE04W0J101MT SMG/RE3		
R588	247 2010 901	RM73B--123JT			C539	257 0512 903	CK73F1E104ZT		
R589	247 2008 968	RM73B--332JT			C540	257 0510 934	CK73B1H472KT		
R590,591	247 2018 916	RM73B--010KT			C541	257 0509 929	CK73B1H102KT		
R592	247 2009 983	RM73B--103JT			C543	257 0507 918	CC73CH1H181JT		
R593,594	247 2018 916	RM73B--010KT			C544	257 0509 929	CK73B1H102KT		
					C545	257 0516 954	CK73B1E104KT		
					C546	257 0516 941	CK73B1E473KT		
					C547	257 0508 959	CC73CH1E681JT		
					C551-555	257 0516 954	CK73B1E104KT		
					C558	257 0516 954	CK73B1E104KT		
					C559	257 0512 903	CK73F1E104ZT		
					C560	257 0033 903	CK73B1E474KT		

Ref. No.	Part No.	Part Name	Remarks	New	Ref. No.	Part No.	Part Name	Remarks	New
C561	257 0504 940	CC73CH1H330JT			C623,624	254 4300 963	CE04W0J101MT(SRE)		
C568	257 0512 903	CK73F1E104ZT			C625	257 0501 901	CK73B1H103KT (1608)		
C569	257 0506 951	CC73CH1H101JT			C626	257 0510 934	CK73B1H472KT		
C570	257 0510 934	CK73B1H472KT			C627	254 4300 963	CE04W0J101MT(SRE)		
C571,572	257 0506 951	CC73CH1H101JT			C628,629	257 0512 903	CK73F1E104ZT		
C573,574	257 0516 954	CK73B1E104KT			C632	254 4193 947	CE04W1C101MT (SRA)		
C575-577	257 0509 929	CK73B1H102KT			C633-640	257 0512 903	CK73F1E104ZT		
C578	257 0516 954	CK73B1E104KT			OTHER PARTS GROUP				
C579,580	257 0512 903	CK73F1E104ZT			CX31	205 0355 033	3P KR CON BASE(L)		
C581	254 4193 947	CE04W1C101MT (SRA)			CX42	205 0355 046	4P KR CON BASE(L)		
C582	254 4300 963	CE04W0J101MT(SRE)			CX151	205 1224 901	15P FFC BASE(P=1.0)L		
C583	254 4299 919	CE04W1C220MT(SRE)			CX241	205 1225 900	24P FFC BASE(P=0.5)L		
C584	257 0509 929	CK73B1H102KT			CX561	205 1231 004	IDE CONNECTOR(56P)		
C585	254 4300 963	CE04W0J101MT(SRE)			FB501,502	235 0130 903	CHIP EMIFIL(11A121)		
C586	257 0509 929	CK73B1H102KT			FB632	235 0158 901	CHIP BEADS(18PG121)		
C587,588	257 0512 903	CK73F1E104ZT			FB660-663	235 0158 901	CHIP BEADS(18PG121)		
C589,590	257 0503 925	CC73CH1H100DT			RA501,502	247 9002 909	MNR14=330JE0AB		
C592-595	257 0503 925	CC73CH1H100DT			RA503-506	247 9007 904	MNR14=101JE0		
C596	257 0512 903	CK73F1E104ZT			RA507-510	247 9007 917	MNR14=103JE0		
C598-608	257 0512 903	CK73F1E104ZT			RA511	247 9002 909	MNR14=330JE0AB		
C610,611	257 0512 903	CK73F1E104ZT			RA514	247 9002 909	MNR14=330JE0AB		
C612	254 4193 947	CE04W1C101MT (SRA)			RA515	247 9007 917	MNR14=103JE0		
C613	254 4300 963	CE04W0J101MT(SRE)			RA516	247 9002 909	MNR14=330JE0AB		
C614	257 0512 903	CK73F1E104ZT			RA517	247 9007 917	MNR14=103JE0		
C615	254 4300 963	CE04W0J101MT(SRE)			RA518	247 9002 909	MNR14=330JE0AB		
C616	257 0508 917	CC73CH1H471JT			X501	399 0790 906	CSALS33M8X51-A0		
C617,618	257 0512 903	CK73F1E104ZT							
C619	254 4538 942	CE04W1C101MT SMG/RE3							
C620	257 0512 903	CK73F1E104ZT							
C621	254 4300 963	CE04W0J101MT(SRE)							
C622	257 0512 903	CK73F1E104ZT							

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Ref. No.	Part No.	Part Name	Remarks	New	Ref. No.	Part No.	Part Name	Remarks	New
SEMICONDUCTORS GROUP									
IC108	262 1953 903	TC7WU04F			R157	247 2009 925	RM73B--562JT		
IC151	262 3139 000	TMP86CM47U-3RD2(AT)			R158-160	247 2009 983	RM73B--103JT		
IC152	262 2642 909	SN74LV573APW-EL2			R161-176	247 2003 947	RM73B--220JT		
IC153,154	262 2640 901	SN74LV245APW-EL2			R177-179	247 2009 983	RM73B--103JT		
IC155	262 2517 908	SN74LV08APW-EL2			R180	247 2003 947	RM73B--220JT		
IC157	262 2519 906	SN74LV00APW-EL2			R181,182	247 2018 903	RM73B--0R0KT		
IC160	262 2519 906	SN74LV00APW-EL2			R183	247 2014 965	RM73B--105JT		
IC161	262 2518 907	SN74LV74APW-EL2			R201-228	247 2003 989	RM73B--330JT		
IC401	262 3115 008	ADSP-21065L(MP3)			R231,232	247 2018 903	RM73B--0R0KT		
IC402,403	262 3042 003	128M SDRAM(TSOP)			R233	247 2003 947	RM73B--220JT		
IC404,405	262 2642 909	SN74LV573APW-EL2			R401-404	247 2005 903	RM73B--101JT		
IC406	262 2729 903	SN74LV02APW-EL2			R405-410	247 2009 983	RM73B--103JT		
IC407	262 2516 909	SN74LV32APW-EL2			R411,412	247 2005 903	RM73B--101JT		
IC409,410	262 2642 909	SN74LV573APW-EL2			R413,414	247 2009 983	RM73B--103JT		
IC501	262 3044 001	MN102H730F			R415-421	247 2005 903	RM73B--101JT		
IC502	262 3226 007	8M FLASH MEMORY(70N)			R422,423	247 2009 983	RM73B--103JT		
IC503	263 0913 905	PST600C TP			R424-442	247 2005 903	RM73B--101JT		
IC504,505	262 2640 901	SN74LV245APW-EL2			R443,444	247 2009 983	RM73B--103JT		
IC506	262 2518 907	SN74LV74APW-EL2			R445-462	247 2005 903	RM73B--101JT		
IC507	262 2948 904	SN74LV86APW			R463	247 2009 983	RM73B--103JT		
IC508	262 2959 906	SN74LV244APW			R464-478	247 2005 903	RM73B--101JT		
IC509	262 3043 002	4M FLASH MEMORY(70N)			R479	247 2009 983	RM73B--103JT		
IC510	262 2517 908	SN74LV08APW-EL2			R482-484	247 2009 983	RM73B--103JT		
IC511	263 0615 902	BA15218F-DXE2			R485	247 2008 913	RM73B--202JT		
IC512	262 3183 904	TA7291F			R486	247 2009 983	RM73B--103JT		
IC513	262 2518 907	SN74LV74APW-EL2			R487-489	247 2005 903	RM73B--101JT		
IC601	262 2515 900	SN74LV04APW-EL2			R490,491	247 2003 947	RM73B--220JT		
IC602	262 2813 903	SN74AHCT08PW-EL2			R492	247 2018 903	RM73B--0R0KT		
IC603	263 1079 903	BA033FP			R494	247 2009 983	RM73B--103JT		
IC605	263 1078 904	BA05FP			R501-513	247 2003 947	RM73B--220JT		
IC651,652	262 2465 005	SM5902AF			R514	247 2010 956	RM73B--203JT		
IC653,654	262 1953 903	TC7WU04F			R515	247 2003 947	RM73B--220JT		
IC701,702	263 0615 902	BA15218F-DXE2			R516	247 2007 943	RM73B--102JT		
IC705	262 3045 000	PCM1608Y			R517,518	247 2009 983	RM73B--103JT		
IC706	262 1953 903	TC7WU04F			R519-522	247 2003 947	RM73B--220JT		
IC708	262 2517 908	SN74LV08APW-EL2			R523,524	247 2009 983	RM73B--103JT		
TR501,502	269 0082 902	DTC114EKT96			R525	247 2010 901	RM73B--123JT		
TR701-704	273 0460 905	KTC2875B-RTK			R526-530	247 2009 983	RM73B--103JT		
TR709	269 0083 901	DTA114EKT96			R531,532	247 2003 947	RM73B--220JT		
TR710,711	269 0082 902	DTC114EKT96			R533	247 2009 983	RM73B--103JT		
TR712	269 0083 901	DTA114EKT96			R534	247 2009 938	RM73B--622JT		
TR713	273 0437 909	2SC2411K-T146			R536-540	247 2009 983	RM73B--103JT		
TR714	269 0082 902	DTC114EKT96			R541-559	247 2003 947	RM73B--220JT		
TR715	271 0260 905	2SA1036KT146(S/R)			R564	247 2018 903	RM73B--0R0KT		
TR716,717	273 0460 905	KTC2875B-RTK			R565	247 2006 915	RM73B--271JT		
D501	276 0559 909	DAP202KT146			R566	247 2007 943	RM73B--102JT		
D601,602	276 0559 909	DAP202KT146			R567	247 2018 903	RM73B--0R0KT		
D603,604	276 0560 901	DAN202KT146			R570-576	247 2009 983	RM73B--103JT		
D651	276 0559 909	DAP202KT146			R577	247 2011 942	RM73B--473JT		
D652	276 0560 901	DAN202KT146			R578,579	247 2009 983	RM73B--103JT		
D653	276 0559 909	DAP202KT146			R580	247 2011 942	RM73B--473JT		
D654	276 0560 901	DAN202KT146			R581	247 2009 983	RM73B--103JT		
D701	276 0432 903	1SS270A TE (TAPE)			R582	247 2018 903	RM73B--0R0KT		
RESISTORS GROUP									
R150	247 2003 947	RM73B--220JT			R584	247 2003 947	RM73B--220JT		
R151-155	247 2009 983	RM73B--103JT			R585	247 2018 903	RM73B--0R0KT		
R156	247 2007 943	RM73B--102JT			R587	247 2007 943	RM73B--102JT		
					R588	247 2007 985	RM73B--152JT		
					R589,590	247 2018 903	RM73B--0R0KT		
					R591,592	247 2011 942	RM73B--473JT		
					R593,594	247 2009 983	RM73B--103JT		
					R595,596	247 2003 947	RM73B--220JT		
					R597	247 2009 983	RM73B--103JT		
					R598	247 2018 903	RM73B--0R0KT		
					R601	247 2003 947	RM73B--220JT		
					R602,603	247 2005 903	RM73B--101JT		

Ref. No.	Part No.	Part Name	Remarks	New	Ref. No.	Part No.	Part Name	Remarks	New
R604,605	247 2008 913	RM73B-202JT			C156-160	257 0512 903	CK73F1E104ZT		
R606-610	247 2003 947	RM73B-220JT			C164	257 0512 903	CK73F1E104ZT		
R612	247 2003 947	RM73B-220JT			C168	257 0512 903	CK73F1E104ZT		
R613-615	247 2011 942	RM73B-473JT			C401-411	257 0512 903	CK73F1E104ZT		
R616,617	247 2009 983	RM73B-103JT			C412	254 4302 958	CE04W1A470MT(SRE)		
R622-625	247 2011 942	RM73B-473JT			C413-423	257 0512 903	CK73F1E104ZT		
R651-654	247 2009 983	RM73B-103JT			C424	257 0509 929	CK73B1H102KT		
R655	247 2005 987	RM73B-221JT			C425,426	254 4302 958	CE04W1A470MT(SRE)		
R656-658	247 2003 947	RM73B-220JT			C427	257 0512 903	CK73F1E104ZT		
R659-662	247 2009 983	RM73B-103JT			C428	254 4302 958	CE04W1A470MT(SRE)		
R663	247 2005 987	RM73B-221JT			C429-431	257 0512 903	CK73F1E104ZT		
R664	247 2003 947	RM73B-220JT			C432	254 4302 958	CE04W1A470MT(SRE)		
R665-668	247 2007 943	RM73B-102JT			C433,434	257 0512 903	CK73F1E104ZT		
R669	247 2006 960	RM73B-471JT			C436	254 4302 958	CE04W1A470MT(SRE)		
R670	247 2014 965	RM73B-105JT			C437-441	257 0512 903	CK73F1E104ZT		
R671	247 2004 975	RM73B-750JT			C501	257 0512 903	CK73F1E104ZT		
R672	247 2018 903	RM73B-0R0KT			C502	254 4302 958	CE04W1A470MT(SRE)		
R673	247 2006 960	RM73B-471JT			C503	257 0512 903	CK73F1E104ZT		
R674	247 2014 965	RM73B-105JT			C504,505	257 0503 909	CC73CH1H8R0DT		
R675	247 2004 975	RM73B-750JT			C506	257 0512 903	CK73F1E104ZT		
R676	247 2018 903	RM73B-0R0KT			C507	257 0506 951	CC73CH1H101JT		
R677,678	247 2008 942	RM73B-272JT			C508,509	254 4302 958	CE04W1A470MT(SRE)		
R679	247 2009 983	RM73B-103JT			C510,511	257 0512 903	CK73F1E104ZT		
R701,702	247 2010 998	RM73B-303JT			C512	254 4302 958	CE04W1A470MT(SRE)		
R703,704	247 2009 970	RM73B-912JT			C513	257 0512 903	CK73F1E104ZT		
R705,706	247 2009 938	RM73B-622JT			C514	254 4302 958	CE04W1A470MT(SRE)		
R707,708	247 2011 913	RM73B-363JT			C515	254 4299 906	CE04W1C100MT(SRE)		
R709,710	247 2010 998	RM73B-303JT			C516	257 0509 929	CK73B1H102KT		
R711,712	247 2007 901	RM73B-681JT			C517-522	257 0512 903	CK73F1E104ZT		
R713,714	247 2008 942	RM73B-272JT			C523	254 4302 958	CE04W1A470MT(SRE)		
R715,716	247 2010 998	RM73B-303JT			C524	257 0512 903	CK73F1E104ZT		
R717,718	247 2009 970	RM73B-912JT			C525	257 0501 901	CK73B1H103KT (1608)		
R719,720	247 2009 938	RM73B-622JT			C526	257 0512 903	CK73F1E104ZT		
R721,722	247 2011 913	RM73B-363JT			C529	254 4299 964	CE04W1C470MT(SRE)		
R723,724	247 2010 998	RM73B-303JT			C530-532	257 0512 903	CK73F1E104ZT		
R725,726	247 2007 901	RM73B-681JT			C533	254 4299 951	CE04W1C330MT(SRE)		
R727,728	247 2008 942	RM73B-272JT			C534	254 4538 942	CE04W1C101MT SMG/RE3		
R729-733	247 2009 912	RM73B-512JT			C601-603	257 0512 903	CK73F1E104ZT		
R757	247 2006 960	RM73B-471JT			C604	254 4302 974	CE04W1A101MT(SRE)		
R758	247 2010 956	RM73B-203JT			C605	257 0512 903	CK73F1E104ZT		
R759	247 2012 996	RM73B-204JT			C606	254 4302 974	CE04W1A101MT(SRE)		
R761	247 2006 915	RM73B-271JT			C607,608	257 0512 903	CK73F1E104ZT		
R762	247 2006 960	RM73B-471JT			C609-614	257 0508 917	CC73CH1H471JT		
R763-767	247 2003 947	RM73B-220JT			C615	257 0512 903	CK73F1E104ZT		
R768,769	247 2006 915	RM73B-271JT			C621	254 4536 957	CE04W1A471MT SMG/RE3		
R770	247 2003 947	RM73B-220JT			C622	254 4299 964	CE04W1C470MT(SRE)		
R771	247 2007 901	RM73B-681JT			C623,624	254 4305 968	CE04W1H010MT(SRE)		
R772	247 2014 965	RM73B-105JT			C651	257 0512 903	CK73F1E104ZT		
R773-776	247 2005 987	RM73B-221JT			C652	254 4536 928	CE04W1A101MT SMG/RE3		
R785,786	247 2006 960	RM73B-471JT			C653	257 0512 903	CK73F1E104ZT		
R790,791	247 2003 947	RM73B-220JT			C654	257 0506 951	CC73CH1H101JT		
R792	247 2018 903	RM73B-0R0KT			C655	257 0512 903	CK73F1E104ZT		
R794	247 2007 943	RM73B-102JT			C656	254 4536 928	CE04W1A101MT SMG/RE3		
R797	247 2007 943	RM73B-102JT			C657	257 0512 903	CK73F1E104ZT		
R798	247 2012 925	RM73B-104JT			C658	257 0506 951	CC73CH1H101JT		
CAPACITORS GROUP					C659-662	257 0508 917	CC73CH1H471JT		
C111	257 0509 929	CK73B1H102KT			C663	257 0509 929	CK73B1H102KT		
C112	257 0511 904	CK73F1H103ZT			C664	254 4536 928	CE04W1A101MT SMG/RE3		
C113	257 0512 903	CK73F1E104ZT			C665	257 0501 901	CK73B1H103KT (1608)		
C151	257 0509 929	CK73B1H102KT			C666	257 0512 903	CK73F1E104ZT		
C153,154	257 0512 903	CK73F1E104ZT			C667	254 4254 925	CE04W1C330MT (SME)		
C155	254 4302 958	CE04W1A470MT(SRE)			C668	257 0501 901	CK73B1H103KT (1608)		
					C671	257 0501 901	CK73B1H103KT (1608)		
					C672	257 0512 903	CK73F1E104ZT		
					C674	257 0512 903	CK73F1E104ZT		
					C675	257 0509 929	CK73B1H102KT		

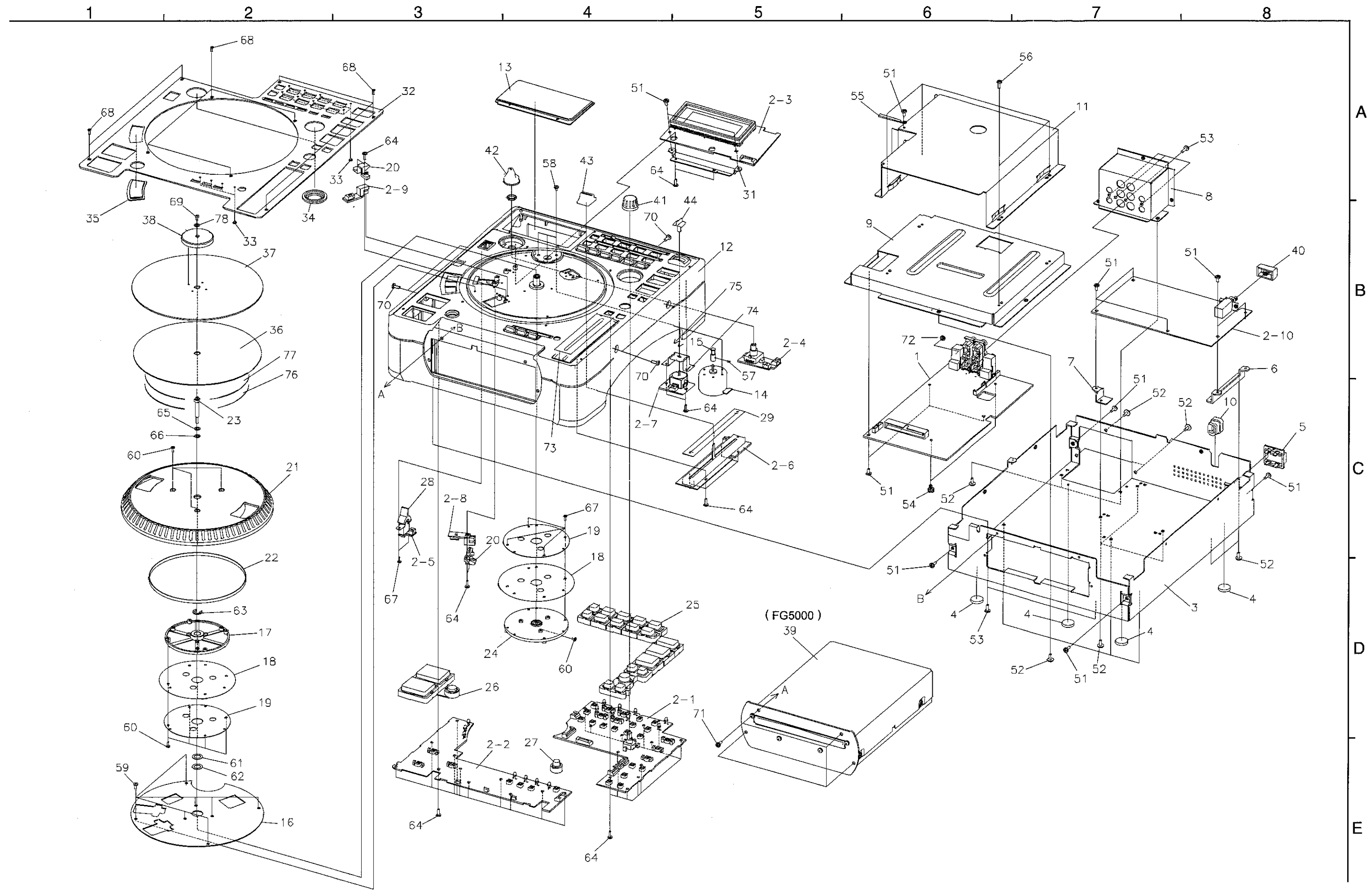
Ref. No.	Part No.	Part Name	Remarks	New
C676	254 4536 928	CE04W1A101MT SMG/RE3		
C677	257 0501 901	CK73B1H103KT (1608)		
C678	257 0512 903	CK73F1E104ZT		
C679	254 4254 925	CE04W1C330MT (SME)		
C680	257 0501 901	CK73B1H103KT (1608)		
C683	257 0501 901	CK73B1H103KT (1608)		
C684	257 0512 903	CK73F1E104ZT		
C686	257 0512 903	CK73F1E104ZT		
C701,702	254 4538 900	CE04W1C100MT SMG/RE3		
C703,704	257 0506 951	CC73CH1H101JT		
C705,706	257 0512 903	CK73F1E104ZT		
C707,708	254 4541 900	CE04W1E100MT SMG/RE3		
C709,710	257 0509 929	CK73B1H102KT		
C711,712	254 4538 900	CE04W1C100MT SMG/RE3		
C713,714	257 0506 951	CC73CH1H101JT		
C715,716	257 0512 903	CK73F1E104ZT		
C717,718	254 4541 900	CE04W1E100MT SMG/RE3		
C719,720	257 0509 929	CK73B1H102KT		
C722	257 0506 951	CC73CH1H101JT		
C740,741	254 4299 964	CE04W1C470MT(SRE)		
C742	254 4536 928	CE04W1A101MT SMG/RE3		
C743	257 0512 903	CK73F1E104ZT		
C744	257 0506 951	CC73CH1H101JT		
C745	257 0512 903	CK73F1E104ZT		
C746	254 4536 915	CE04W1A470MT SMG/RE3		
C747	254 4299 906	CE04W1C100MT(SRE)		
C748,749	257 0503 967	CC73CH1H150JT		
C750	257 0511 904	CK73F1H103ZT		
C751	257 0512 903	CK73F1E104ZT		
C752	257 0509 929	CK73B1H102KT		
C753	254 4302 958	CE04W1A470MT(SRE)		
C754	257 0512 903	CK73F1E104ZT		
C773,774	257 0508 917	CC73CH1H471JT		
C775-778	257 0509 961	CK73B1H152KT		
C786-789	257 0508 917	CC73CH1H471JT		
OTHER PARTS GROUP				
CX31	205 0343 032	3P CONN.BASE(KR-PH)		
CX41	205 0343 045	4P CONN.BASE(KR-PH)		
CX42	205 0321 041	4P CONNE.BASE(RED)		
CX101	205 0375 000	10P CON.BASE(KR-PH)		
CX111	205 0375 013	11P CON.BASE(KR-PH)		
CX401	205 0429 024	40P PIN HEADER		
FB601,602	235 0130 903	CHIP EMIFIL(11A121)		
FB651,652	235 0130 903	CHIP EMIFIL(11A121)		
FB701	235 0130 903	CHIP EMIFIL(11A121)		
JK601,602	204 8665 007	2P MINI JACK		*
JK603,604	204 8664 008	3P PIN JACK		*
T651,652	231 8063 009	PULSE TRANS		
X102	399 0845 903	CSTCW33M0X51-R0		*
X151	399 0801 905	CSTCE8M00G52-RO		
X501	399 0846 009	X'TAL (34.0MHZ)		*
X701	399 0165 007	X'TAL (16.9344)		

GU-3483/3423A PANEL P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	New	Ref. No.	Part No.	Part Name	Remarks	New
SEMICONDUCTORS GROUP									
					R114	247 2005 990	RM73B--241JT		
					R115	247 2005 945	RM73B--151JT		
IC101	262 3048 007	ML9207-01GP			R116	247 2005 990	RM73B--241JT		
IC102	262 3227 006	TMP86CM47U-4K73(PN)			R117	247 2005 945	RM73B--151JT		
IC103	262 2745 903	BU2090F(E2)			R118	247 2005 990	RM73B--241JT		
IC201	262 2745 903	BU2090F(E2)			R119	247 2005 945	RM73B--151JT		
IC251,252	269 0203 008	GP1A70R			R120	247 2005 990	RM73B--241JT		
IC901	265 0112 003	STR-F6674			R121,122	247 2018 903	RM73B--0R0KT		
IC902	262 3047 008	PC123 Y-22			R123	247 2006 902	RM73B--331JT (1608)		
IC903	263 1113 005	SE005N			R124,125	247 2005 987	RM73B--221JT		
TR101,102	272 0081 909	2SB766S(TAPE)			R126	247 2005 945	RM73B--151JT		
D101-104	276 0559 909	DAP202KT146			R127	247 2005 990	RM73B--241JT		
D901	276 0767 005	RBV-406			R128	247 2005 945	RM73B--151JT		
D902	276 0730 906	AG01ZT (V1)			R129	247 2005 990	RM73B--241JT		
D904-906	276 0730 906	AG01ZT (V1)			R130	247 2005 945	RM73B--151JT		
D908	276 0784 004	FMB-G14		*	R131	247 2005 990	RM73B--241JT		
D909	276 0786 002	RN1Z		*	R132	247 2005 945	RM73B--151JT		
D910	276 0787 001	RN2Z		*	R133	247 2005 990	RM73B--241JT		
D911	276 0788 000	RN3Z		*	R134	247 2003 947	RM73B--220JT		
D912	276 0789 003	RK-44		*	R135	247 2006 944	RM73B--391JT		
D913	276 0785 906	AW04		*	R136	247 2007 927	RM73B--821JT		
ZD901	276 0760 989	MTZJ7.5B T77			R139-142	247 2007 943	RM73B--102JT		
ZD902	276 0760 905	MTZJ3.6B T77			R143-148	247 2004 904	RM73B--390JT		
LD101	393 9605 900	SEL6427EP(TP5)			R149	247 2007 901	RM73B--681JT		
LD102,103	393 9604 901	SEL6227S(TP5)			R152-155	247 2009 983	RM73B--103JT		
LD104	393 9606 909	SEL6927A(TP5)			R156,157	247 2018 903	RM73B--0R0KT		
LD105,106	393 9608 907	SLR342MC(TB7)			R158	247 2011 942	RM73B--473JT		
LD107-110	393 9607 908	SLR342VC(TB7)			R159,160	247 2009 983	RM73B--103JT		
LD111,112	393 9608 907	SLR342MC(TB7)			R161-163	247 2009 983	RM73B--103JT	for E3	
LD113	393 9605 900	SEL6427EP(TP5)			R161-163	247 2007 943	RM73B--102JT	for E2	
LD114,115	393 9604 901	SEL6227S(TP5)			R164	247 2011 942	RM73B--473JT		
LD116	393 9606 909	SEL6927A(TP5)			R165	247 2009 983	RM73B--103JT		
LD117-120	393 9620 901	SMLU79423C(TP15)			R166-168	247 2011 942	RM73B--473JT		
LD126-129	393 9620 901	SMLU79423C(TP15)			R169-172	247 2003 947	RM73B--220JT		
LD201	393 9608 907	SLR342MC(TB7)			R173-175	247 2007 943	RM73B--102JT		
LD202-204	393 9610 908	SLR342YC(TB7)			R176-178	247 2009 983	RM73B--103JT	for E3	
LD205	393 9605 900	SEL6427EP(TP5)			R176-178	247 2009 983	RM73B--103JT	for E2	
LD206	393 9604 901	SEL6227S(TP5)			R179	247 2011 942	RM73B--473JT	for E3	
LD207	393 9605 900	SEL6427EP(TP5)			R179	247 2009 983	RM73B--103JT	for E2	
LD209	393 9543 910	SLR-325MC (GRN) TAPE			R180,181	247 2009 983	RM73B--103JT	for E3	
LD210	393 9543 923	SLR-325DC (ORG) TAPE			R180,181	247 2009 983	RM73B--103JT	for E2	
LD211	393 9543 907	SLR-325VC (RED) TAPE			R182	247 2018 903	RM73B--0R0KT		
LD212	393 9605 900	SEL6427EP(TP5)			R183,184	247 2012 925	RM73B--104JT		
LD213	393 9604 901	SEL6227S(TP5)			R187	247 2011 942	RM73B--473JT		
LD214	393 9605 900	SEL6427EP(TP5)			R190	247 2011 942	RM73B--473JT		
LD215,216	393 9625 003	LNW901BZFZ(BLUE)			R201-204	247 2005 987	RM73B--221JT		
LD251,252	393 9604 901	SEL6227S(TP5)			R205	247 2007 901	RM73B--681JT		
TH901	279 0044 002	NTH11D8R0LA			R206,207	247 2006 902	RM73B--331JT (1608)		
RESISTORS GROUP									
R101,102	247 2005 990	RM73B--241JT			R208,209	247 2005 990	RM73B--241JT		
R103-105	247 2006 902	RM73B--331JT (1608)			R210-212	247 2005 945	RM73B--151JT		
R106	247 2007 927	RM73B--821JT			R214	247 2005 945	RM73B--151JT		
R107	247 2006 944	RM73B--391JT			R216	247 2005 961	RM73B--181JT		
R108,109	247 2005 987	RM73B--221JT			R219	247 2006 944	RM73B--391JT		
R110-112	247 2006 902	RM73B--331JT (1608)			R220	247 2006 915	RM73B--271JT		
R113	247 2005 945	RM73B--151JT			R221	247 2005 961	RM73B--181JT		
					R222	247 2005 945	RM73B--151JT		
					R223	247 2007 901	RM73B--681JT		
					R251-255	247 2009 983	RM73B--103JT		
					R258	247 2005 974	RM73B--201JT		
					R260	247 2005 974	RM73B--201JT		
					R261,262	247 2005 987	RM73B--221JT		
					R301-325	247 2018 903	RM73B--0R0KT		
					R329-343	247 2018 903	RM73B--0R0KT		
					R345-357	247 2018 903	RM73B--0R0KT		
					R363-406	247 2018 903	RM73B--0R0KT		

Ref. No.	Part No.	Part Name	Remarks	New	Ref. No.	Part No.	Part Name	Remarks	New
R411,412	247 2018 903	RM73B--0R0KT			C913	254 4629 709	CE04W1C152MC(LXV)K25		*
R413	247 2006 902	RM73B--331JT (1608)			C914	254 4632 709	CE04W1H471MC(LXV)K25		*
R414,415	247 2018 903	RM73B--0R0KT			C915	254 4630 905	CE04W1E820MT(LXV)F11		*
R416,417	247 2003 947	RM73B--220JT			C916	253 9031 904	CK45=1E473KT		*
R901	244 2675 716	RS14B3D683JNBF (ERG)			C917	254 4628 904	CE04W1C331MT(LXV)H15		*
R902	244 2671 956	RS14B3DR47JNBST(S)			C918	254 4631 700	CE04W1E222MC(LXV)K40		*
R913-922	247 2011 968	RM73B--563JT			C919	254 4538 939	CE04W1C470MT SMG/RE3		*
VR251	211 5648 009	SLIDE VOLUME(100MM)		*	C922	254 4539 705	CE04W1C102MC SMG/RE3		*
VR252	211 5650 000	STICK CONTROLLER		*	C923	253 8029 700	CK45F2EAC222MC (KX)		*
CAPACITORS GROUP					OTHER PARTS GROUP				
C101,102	257 0509 929	CK73B1H102KT			AS901	417 0610 009	HEAT SINK(OSH-2430)		
C103-105	257 0512 903	CK73F1E104ZT			CW31	203 5280 039	3P KR-DS CONN.CORD		*
C106	257 0511 904	CK73F1H103ZT			CW32	203 5280 026	3P KR-DS CONN.CORD		*
C107	254 4193 947	CE04W1C101MT (SRA)			CW33	203 5280 013	3P KR-DS CONN.CORD		*
C108	257 0512 903	CK73F1E104ZT			CW41	203 6393 048	4P KR-DS CON CORD		*
C109,110	254 4302 958	CE04W1A470MT(SRE)			CW42	203 6393 022	4P KR-DS CON CORD		*
C111	257 0512 903	CK73F1E104ZT			CW43	203 6393 035	4P KR-DS CON CORD		*
C112	257 0501 901	CK73B1H103KT (1608)			CW81	204 2481 025	8P KR-DS CONN.CORD		*
C113	257 0512 903	CK73F1E104ZT			CW91	204 2464 013	9P KR-DS CONN.CORD		*
C114	257 0501 901	CK73B1H103KT (1608)			CW101	204 2412 049	10P KR-DS CONNE.CORD		*
C116,117	257 0512 903	CK73F1E104ZT			CX21	205 0581 001	2P VH CONNECTOR BASE		
C118	254 4302 958	CE04W1A470MT(SRE)			CX32,33	205 0355 033	3P KR CON BASE(L)		
C123-126	257 0511 920	CK73F1H473ZT			CX42,43	205 0355 046	4P KR CON BASE(L)		
C127	257 0512 903	CK73F1E104ZT			CX81	205 0355 088	8P KR CON BASE(L)		
C128	257 0511 904	CK73F1H103ZT			CX91	205 0355 091	9P KR CON BASE(L)		
C129	257 0512 903	CK73F1E104ZT			CX911	205 0375 013	11P CON.BASE(KR-PH)		
C130	257 0511 904	CK73F1H103ZT			CX941	205 0653 049	4P VH CON.BASE		
C131	257 0512 903	CK73F1E104ZT			Δ F901	206 1087 015	FUSE (ET1A)	for E3	
C132	257 0511 904	CK73F1H103ZT			Δ F901	206 1087 028	FUSE (ET2A)	for E2	
C133	257 0512 903	CK73F1E104ZT			F901	GEN6256-2	FUSE LABEL SUB ASS'Y	for E2	
C134	257 0511 904	CK73F1H103ZT			FB901	235 0049 900	BEADS INDUCTOR TAPE		
C135	257 0512 903	CK73F1E104ZT			FF901	202 0040 909	FUSE CLIP (TAPE)		
C140,141	257 0511 904	CK73F1H103ZT			FH901	202 0040 909	FUSE CLIP (TAPE)		
C143	257 0512 903	CK73F1E104ZT			FL101	393 8063 006	FLT(24-ST-09GN)		
C144	257 0511 904	CK73F1H103ZT			L901	235 0157 009	PLA10AN7720R7D2B		
C145,146	257 0512 903	CK73F1E104ZT			L902	235 0156 903	COIL LHL10TB220KT		
C201,202	257 0512 903	CK73F1E104ZT			S101-120	212 5604 907	TACT SWITCH-TA(ALPS)		
C203	254 4302 958	CE04W1A470MT(SRE)			S122-125	212 5604 907	TACT SWITCH-TA(ALPS)		
C204	257 0512 903	CK73F1E104ZT			S140	212 0410 002	ROTARY ENCODER-JOG		
C205	257 0511 904	CK73F1H103ZT			S201-207	212 5604 907	TACT SWITCH-TA(ALPS)		
C206	257 0512 903	CK73F1E104ZT			S251	212 0492 004	ROTARY SW		*
C207	257 0511 904	CK73F1H103ZT			S252	212 0495 001	TOGGLE SW(PADORU)		*
C208	257 0512 903	CK73F1E104ZT			S261	212 1176 015	POWER SWITCH(TV-5)		*
C251-255	257 0512 903	CK73F1E104ZT			T901	233 0654 001	SW TRANSFORMER		
C261	253 8022 707	CK45F2EAC103MC			X101	399 0661 909	CSTS4.00MG06		
C261	415 0299 000	CONDENSER COVER	for E2		X102	399 0805 901	CSTLS16M0X53-A0		
C902	256 8038 017	CF99--2EAC224M			★	471 3305 027	3X10 CBS	for E2	
C903	256 8038 004	CF99--2EAC104M							
C904	254 4633 708	GE04W2D151MC(KMH)22S	for E3	*					
C904	254 4616 712	CE04W2G151MC(KMH)25C	for E2	*					
C905	253 4546 724	CC45SL3D561JC		*					
C906	253 4452 902	CC45SL1H471JT							
C907	253 9030 963	CK45=1E103KT							
C908	254 4423 905	CE04W1V470MT(KMG)							
C910	253 8029 700	CK45F2EAC222MC (KX)							
C910	415 0866 006	CONDENSER COVER							
C911	253 1118 906	CK45B1H332KT							
C912	253 4546 724	CC45SL3D561JC		*					

EXPLODED VIEW



Note: The symbols in the column "Remarks" indicate the following destinations.

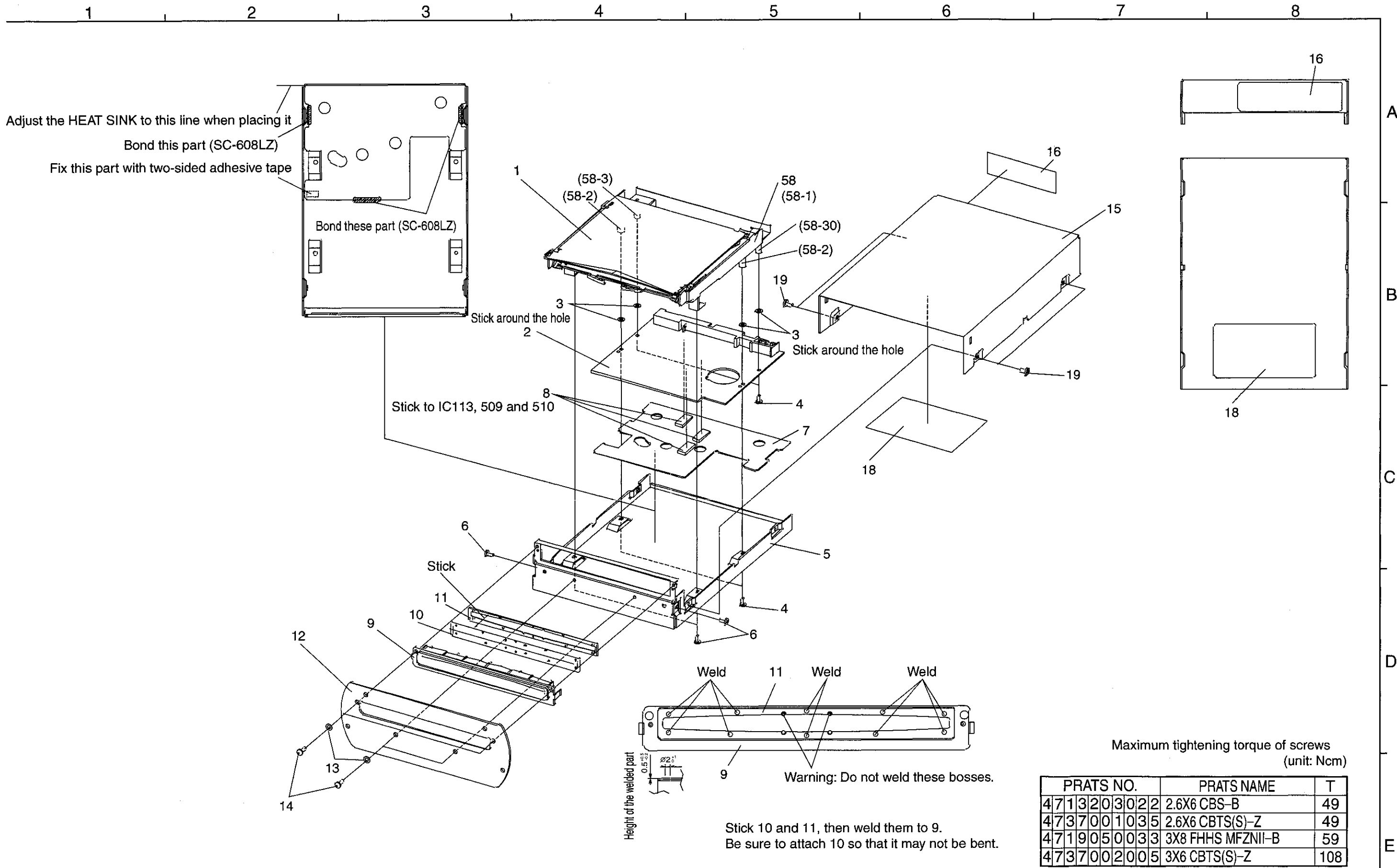
E3: U.S.A. model, Csnada model

E2: Europe model

PARTS LIST OF EXPLODED VIEW

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
1	GU-3482	DSP PWB UNIT		1		44	113 1952 107	SEARCH KNOB		1	*
2	GU-3483	PANEL PWB UNIT	for E3	1		54	412 2814 031	CARD SPACER (L=4)		2	
2	GU-3483A	PANEL PWB UNIT	for E2	1		55	445 8028 009	CORD HOLDER		1	
2-1		PANEL UNIT				61	475 1187 003	WASHER 13/8.2		1	*
2-2		PANEL2 UNIT				62	475 1161 058	WASHER 8.2/12		2	*
2-3		FLT UNIT				63	476 1006 006	6 E RING ZNP		1	
2-4		SCRATCH SOURCE UNIT				65	475 1187 016	WASHER 7/4.1		1	*
2-5		SCRATCH DIR UNIT				66	475 1161 016	WASHER		1	*
2-6		SLIDE VR UNIT				72	461 1150 002	SP WASHER	for E2	1	
2-7		SCAN VR UNIT				73	146 2308 103	FADER PLATE		1	*
2-8		DISC SENSOR UNIT				74	412 5027 003	VR BRACKET	for E2	1	*
2-9		TABLE SENSOR UNIT				75	463 0957 008	SPRING	for E2	1	*
2-10		POWER UNIT				76	421 0810 002	ANTI-STATIC SHEET		1	
3	411 2027 207	CHASSIS		1	*	77	421 0809 000	SLIP SHEET		1	
4	461 0706 127	FOOT SHEET		4		78	475 1187 029	WASHER 5/2.2		1	
5	146 2302 002	P.SW KNOB GUIDE		1	*	★	204 6752 006	40P FLAT CABLE	CX401	1	*
6	412 4921 003	PWB BRACKET		1		★	203 6577 000	4P LC-VH CON.CORD	CX941	1	
7	412 5003 001	PWB SUPPORT		3	*	△ ★	206 2155 001	AC CORD W/CON.E3	for E3	1	*
8	412 5004 107	JACK BRACKET		1	*	△ ★	206 2089 106	AC CORD W/CON.E2	for E2	1	*
9	412 5005 009	MAIN BRACKET		1	*	★	445 8028 009	CORD HOLDER		1	
10	445 0084 009	CORD BUSH	for E3	1		★	203 6596 007	4P PH CON CORD		1	*
10	445 0056 008	CORD BUSH	for E2	1		★	445 0033 005	WIRE CLAMP BAND		2	
11	412 5006 008	MECHA COVER		1	*	★	204 6307 037	11P KR-KR CON.CORD	CW911	1	*
12	146 2303 108	INNER COVER ASS'Y		1	*	★	342 0027 000	FERRITE CORE		1	
13	146 2305 009	WINDOW		1		★	513 3870 005	RATING SHEET	for E3	1	*
14	217 0181 006	LOADING MOTOR		1		★	513 3870 018	RATING SHEET	for E2	1	*
15	422 0670 106	MOTOR PULLY		1	*	★	513 2303 007	VERSION LABEL		1	
16	441 1974 006	BASE PLATE		1	*	★	513 1519 009	MANUFAC.DATE LABEL	for E3	1	
17	421 0798 001	PLATTER HOLDER		1	*	★	513 3776 002	E3 LABEL	for E3	1	
18	421 0799 000	SCALE DISK		2	*	★	513 3384 009	C-UL MARK US (813)	for E3	1	
19	441 1975 005	DISK FIX PLATE		2	*	★	513 3159 001	FCC/CLASS B CAUTION	for E3	1	
20	443 1573 005	S.COVER (GP1A70R)		2	*	★	513 0985 003	INST LABEL	for E2	1	
21	421 0808 001	PLATTER (TK)		1	*	★	513 2521 009	CE LABEL	for E2	1	
22	423 0079 108	BELT		1	*	★	513 3253 004	C-TICK LABEL	for E2	1	
23	422 0669 201	DISC HOLDER SHAFT		1	*	SCREWS					
24	421 0801 105	WHEEL ASS'Y		1	*						
25	119 0118 102	R.KEY (FUNCTION)		1	*	51	473 7002 005	3X6 CBTS(S)-Z		15	
26	119 0119 208	R KEY (PLAY/PAUSE)		1	*	52	473 8007 083	3X8 CUP SCREW		14	
27	119 0120 006	R.KEY (PITCH)		1	*	53	473 7500 044	3X8 CBTS (P)-B		4	
28	113 1950 002	TOGGLE SW KNOB		1	*	56	473 7015 005	3X6 CBTS(S)-B		4	
29	122 0241 004	BLIND SHEET (SL)		1	*	57	474 4300 004	2.6X4 BSS (A)		1	
31	412 5007 007	FL BRACKET		1	*	58	471 3202 010	2.6X5 CBS		2	
32	144 2823 103	TOP PANEL		1	*	59	473 7505 010	2.6X6 CBTS (P)-Z		7	
33	143 1163 007	LENS		12		60	471 3103 012	2X6 CBS		8	
34	146 2306 008	KNOB (MARU) LENS		2		64	473 7505 007	2.6X8 CBTS (P)-Z		35	
35	146 2307 007	WINDOW (SELECT)		1		67	473 7506 022	2X6 CBTS(P)-B		6	
36	421 0802 007	SLIP MAT		1	*	68	473 8087 003	2X6 CFTS(B)-B		9	*
37	421 0803 103	SLIP DISC		1	*	69	475 5122 006	2X4 HSHB		1	*
38	421 0804 209	STABILIZER		1	*	70	473 7002 021	3X8 CBTS (S)-B		5	
39	FG5000	DRIVE UNIT		1	*	71	471 1832 013	M3-SEMS SCREW(6W)		4	*
40	113 1689 001	P.SW KNOB		1							
41	112 0902 003	KNOB (MARU)		1	*						
42	112 0903 002	SELECT KNOB		1	*						
43	113 1951 001	FADER KNOB		1	*						

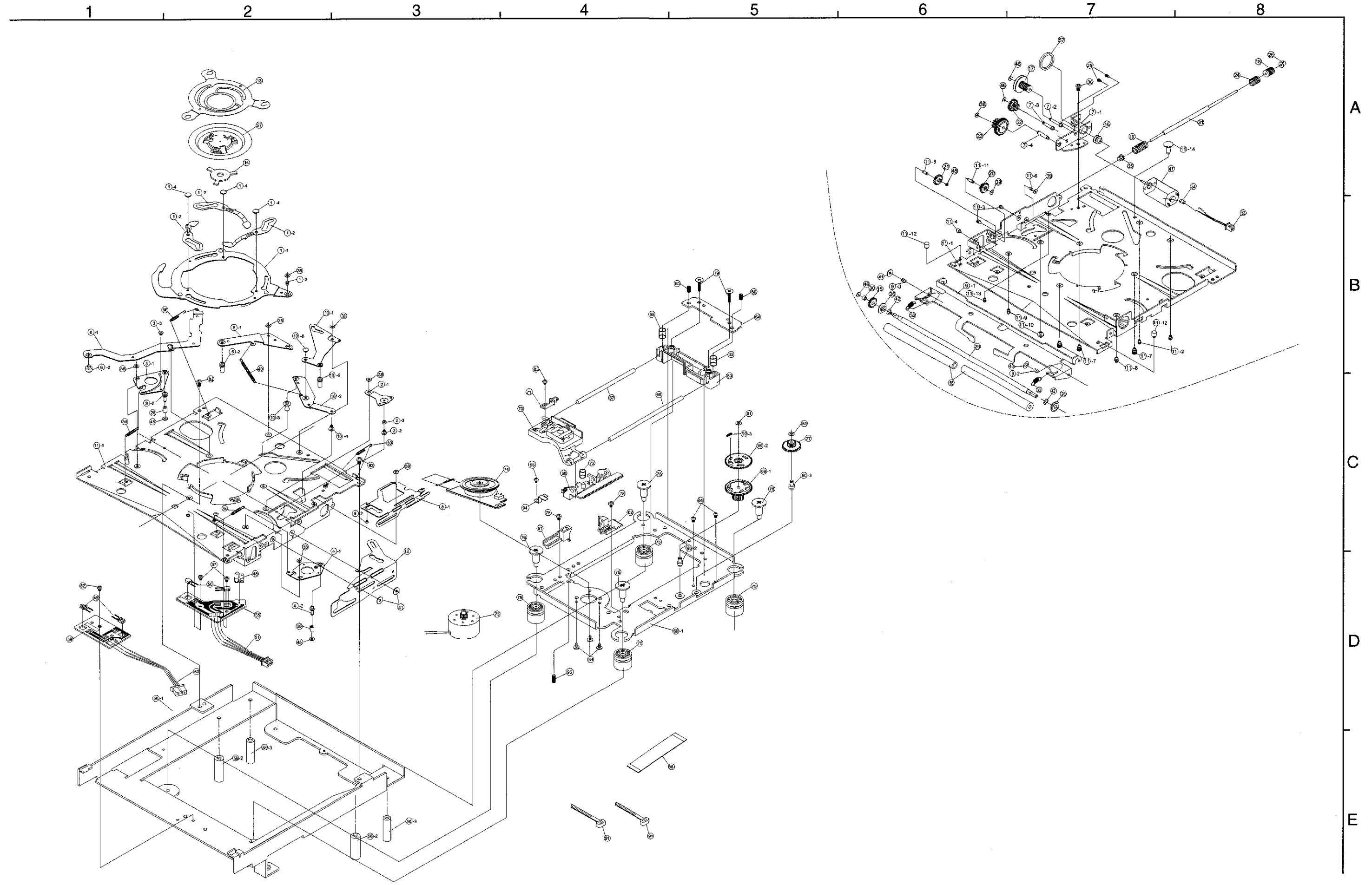
EXPLODED VIEW OF CD DRIVE UNIT (FG-5000)



PARTS LIST OF CD DRIVE UNIT (FG-5000)

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
1	9KA 2A49 6A	DRIVE UNIT	TD-S202H2D (FG5000MECHA)ASSY	1	*
2	GU-3414	CD-ROM PWB UNIT		1	
3	415 0900 001	PROTECT SHEET		4	*
5	412 4997 008	DRIVE BRACKET		1	*
7	-	HEAT SINK		1	
8	9KC 2G03 9A	HEAT PAD		3	
9	146 2296 309	DISC GUIDE		1	*
10	415 0897 004	BLIND SHEET		1	*
11	415 0898 003	FIX PLATE		1	*
12	144 2816 107	DRIVE PANEL		1	*
15	102 0657 018	DRIVE COVER		1	*
16	513 3797 007	CONNECT LABEL		1	
18	513 3826 004	E2 LASER CAUTION		1	
58	441 1972 105	MAIN BASE ASS'Y		1	*
58-1		MAIN BASE		1	
58-2		PWB SHAFT		2	
58-3		PWB SHAFT		2	
SCREWS					
4	471 3203 022	2.6X6 CBS-B		4	
6	473 7001 035	2.6X6 CBTS (S)-Z		4	
13	475 1178 009	3W-B		4	
14	471 9050 033	3X8 FHHS MFZNII-B		4	
19	473 7002 005	3X6 CBTS(S)-Z		4	

EXPLODED VIEW OF CD MECHANISM



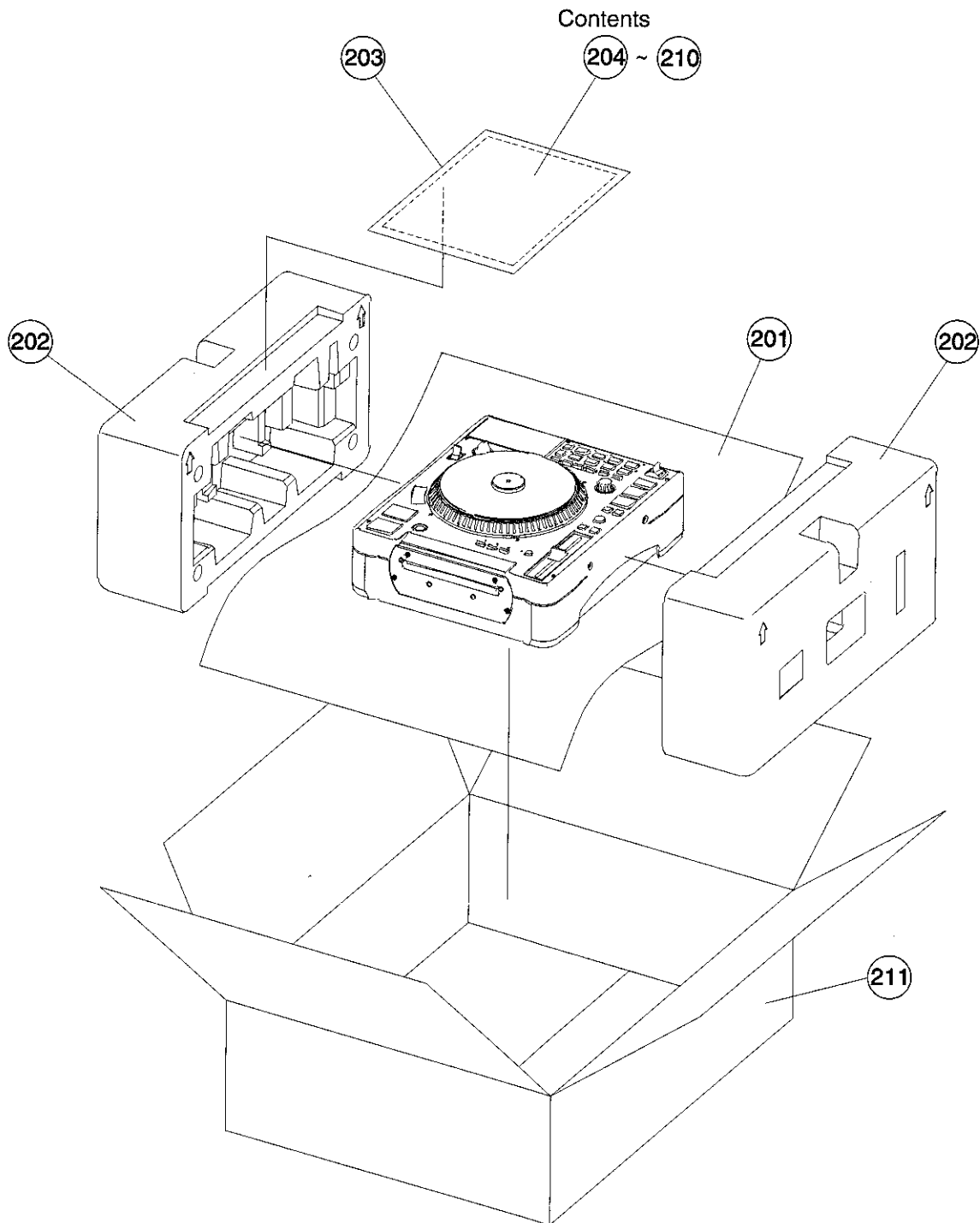
PARTS LIST OF CD MECHANISM UNIT (TD-S202SA(D))

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
1	9KC 8A00 1	CLAMPER-PLATE ASSY		(1)		20	9KC 8G00 6	GEAR-LOAD-A		1	
1-1		CLAMPER-PLATE		1		21	9KC 8G00 7	IDLE-GEAR-ROLLER		1	
1-2		LIFTER-CAM		3		22	9KC 8G00 8	CHUCK-GEAR-A		1	
1-3		CL-PLATE-SFT		1		23	9KC 8G00 9	CHUCK-GEAR-B		1	
1-4		LIFTER-CAM-SFT		3		24	9KC 8G01 0	WORM-CHUCK		1	
2	9KC 8A00 2	TIMING-LEVER ASSY		(1)		25	9KC 8G01 1	SHAFT-CAP		2	
2-1		TIMING-LEVER		1		26	9KC 8G01 2	BERRING-ROLLER		2	
2-2		T-LEVER-SHAFT		1		27	9KC 8G01 3	CLAMPER		1	
2-3		T-LEVER-COLOR		1		28	9KC 8G01 4	DISC-OPEN-COLOR		2	
3	9KC 8A00 3	D-G-LEVER-L ASSY		(1)		29	9KC 8H02 8	ROLLER-SHAFT		1	
3-1		D-GUIDE-LEVER-L		1		30	9KC 8H02 9	ROLLER-COLOR		1	
3-2		DISC-OPEN-SFT-L		1		31	9KC 8H03 0	WORM-SHAFT		1	
3-3		CLP-GUIDE-SFT		1		32	9KC 8S00 6	ROLLER-SPRING		2	
4	9KC 8A00 4	D-G-LEVER-R ASSY		(1)		33	9KC 8S00 8	LEVER-SPRING		1	
4-1		D-GUIDE-LEVER-R		1		34	9KC 8S00 5	D-GUIDE-SP		2	
4-2		DISC-OPEN-SFT-R		1		38	9KP 16C3 25	PSW1.6X3.5X0.25C(BLACK)		7	
5	9KC 8A00 5	LINK-LEVER-L ASSY		(1)		39	9KP 12CR 32	PSW1.2X3.2X0.25C(RED)		3	
5-1		LINK-LEVER-L		1		40	9KC 8S00 7	C-LEVER-SPRING		1	
5-2		D-SELECT-SHAFT		1		41	9KP 16C5 04	PSW1.6X5X0.4C(BLACK)		3	
6	9KC 8A00 6	D-SELECT-LEVER ASSY		(1)		42	9KP 22W4 13	PSW2.2X4X0.13		2	
6-1		DISC-SELECT-LEVER		1		43	9KC 8P02 9	SPRING-WASHER		1	
6-2		D-SELECT-SFT-A		1		45	9KP 12C2 02	PSW1.2X2.0X0.25C		3	
7	9KC 8A00 7	GEAR-BASE ASSY		(1)		46	9KP 12C4 04	PSW1.2X4X0.4C		3	
7-1		GEAR-BASE		1		47	9KM 01T2 78	M1N10FB10K	MATSUSHITA	1	
7-2		TWIN-GEAR-SHAFT		1		48	9KS 01W2 05	ESE22MH23	MATSUSHITA	1	
7-3		C-GEAR-A-SHAFT		1		49	9KE 01L9 76	PT4800		2	
7-4		C-GEAR-B-SHAFT		1		50	9KE 01L9 75	GL4800	SHARP	2	
8	9KC 8A00 8	RACK-PLATE ASSY		(1)		51	9KC 8G03 6	CNW4P-TL-S		1	
8-1		RACK-PLATE		1		52	9KC 8G03 4	CNW2P-TL-S		1	
8-2		RACK-PLATE-SHAFT		1		53	9KC 8G03 5	CNW3P-TL-S		1	
9	9KC 8A00 9	ROLLER-BASE ASSY		(1)		54	9KC 5G02 2	ø2.5X3 TUBE(BLACK)		1	
9-1		ROLLER-BASE		1		55	9KC 8P01 7	SW-PCB		1	
9-2		R-B-SHAFT-L		1		56	9KC 8G03 2	ROLLER		2	
9-3		R-B-SHAFT-R		1		57	9KC 8G01 7	LOADING BELT-L		1	
10	9KC 8A01 0	LINK-CHANGE ASSY		(1)		58	9KA 2A47 9	MAIN BASE ASSY		(1)	*
10-1		LINK-LEVER-R		1		58-1		MAIN BASE		1	
10-2		CHANGE-LEVER		1		58-2		PWB SHAFT		2	
10-3		C-LEVER-SFT-A		1		58-3		PWB SHAFT		2	
10-4		C-LEVER-SFT-B		1		59	9KC 8P01 9	SENSOR-PCB		1	
10-5		C-LEVER-SFT-C		1			9KC 7A00 7A	TRAVERSE UNIT(FEED)ASSY	80-74,77-81, 83,84,95-95Assy	(1)	
10-6		D-SELECT-SHAFT		1			9KC 7A00 8A	TRAVERSE UNIT ASSY	80-72,74,77-81, 83,84,93-95Assy	(1)	
11	9KC 8A01 5	LOADER-BASE ASSY		(1)		60		CHASSIS-PU-TDT ASSY		(1)	
11-1		LOADER-BASE		1		60-1		CHASSIS-PU-TDT		1	
11-2		LEVER-SHAFT		2		60-2		SFT-G-2ND-84M		1	
11-3		CAM-SHAFT		2		60-3		SFT-G-3RD-2MP		1	
11-4		CAM-GUIDE-SFT		1		61		HLD-SFT-L-84H		1	
11-5		ROLLER-GEAR-SFT		1		62		HLD-SFT-R-84H		1	
11-6		L-P-GUIDE-SFT-A		1		63		BASE TILT-84H		1	
11-7		CLAMP-GUIDE-SFT		3		64		PLATE TILT-84H		1	
11-8		D-G-A-SHAFT-L		1		65		TILT SP		2	
11-9		D-G-A-SHAFT-R		1		66		RAIL		1	
11-10		TIMING-LVR-SFT-N		1		67		S-GUIDE BAR-84H		1	
11-11		GEAR-LOAD-SFT		1		68		RACK PU-84H		1	
11-12		D-G-SHAFT		2		69		GEAR 2ND ASSY		(1)	
11-13		L-P-GUIDE-SFT-B		1		69-1		GEAR 2nd(A)		1	
11-14		EJECT-GUIDE-SFT		1		69-2		GEAR 2nd(B)		1	
						69-3		SPG GEAR 2ND		1	
12	9KC 8P01 4	CAM-R		1		70		PICK UP HOP-1200R		1	
13	9KC 8P01 5	CLAMPER-TOP		1		71		SPG PICK-84H		1	
14	9KC 8P01 6	CLAMPER-YOKE		1		72		SPG RACK-84H		1	
15	9KC 8G00 1	ROLLER-GEAR		1		73	9KC 2A02 3	MOTOR FEED-2HP ASSY		(1)	
16	9KC 8G00 2	MOTOR-PULLY		1		73-1		MDN3BL4FPQ		1	
17	9KC 8G00 3	PULLY-GEAR		1		73-2		GEAR 1ST 2MP		1	
18	9KC 8G00 4	HERICAL-GEAR		1		73-3		PSW1.95X3.5X0.25		1	
19	9KC 8G00 5	WORM-LOAD		1							

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
74		T/T MOTOR ASSY		(1)	
74-1		TABLE-M32		1	
74-2		MAGNET-M32		1	
74-3		RUBBER-M32		1	
74-4		BACK YOKE-M32		1	
74-5		T.T BUSH-SLOT-NI		1	
74-6		BML5E7CRS		1	
75	9KC 2G08 3	DAMPER IDLE		4	
76	9KC 1H01 1	SCW-DAMPER		4	
77		GEAR 3rd 2MP		1	
81		PSW2.1X4X0.25C		2	
86	9KC 8S00 9	LEVER-SPRING-S		1	
88	9KC 2P11 4	FFC-0.5-24P L60		1	
91	9KM 01N1 22	NYLON BAND 80		2	
94		SPRING-RAIL-84H		1	

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
SCREWS					
35	9KS 14N1 02	M1.4X2 PRECISION SCREW	TYPE-1	2	
36	9KS 20N3 03	M2X3 PRECISION SCREW	TYPE-3	1	
37	9KS 17N0 15	M1.7X1.5 PRECISION SCREW	TYPE-3	2	
78	9KB 26TK 06	M2.6X6 SCREW	S	2	
79	9KH 26TK 15	M2.6X15 SCREW	S	2	
80	9KB 7H00 8	M3X4 SCREW		2	
82	9KB 20TK 04	M2X4 SCREW	S	3	
83	9KS 17B3 05	M1.7X5 PRECISION SCREW	B TYPE-3	1	
84	9KS 17N0 22	M1.7X2.2 PRECISION SCREW	TYPE-3	5	
93	9KB 26TK 04	M2.6X4 SCREW	S	1	
95	9KC 2H00 4	M3X8 HEXAGON S. S. SCREW		1	

PACKING VIEW



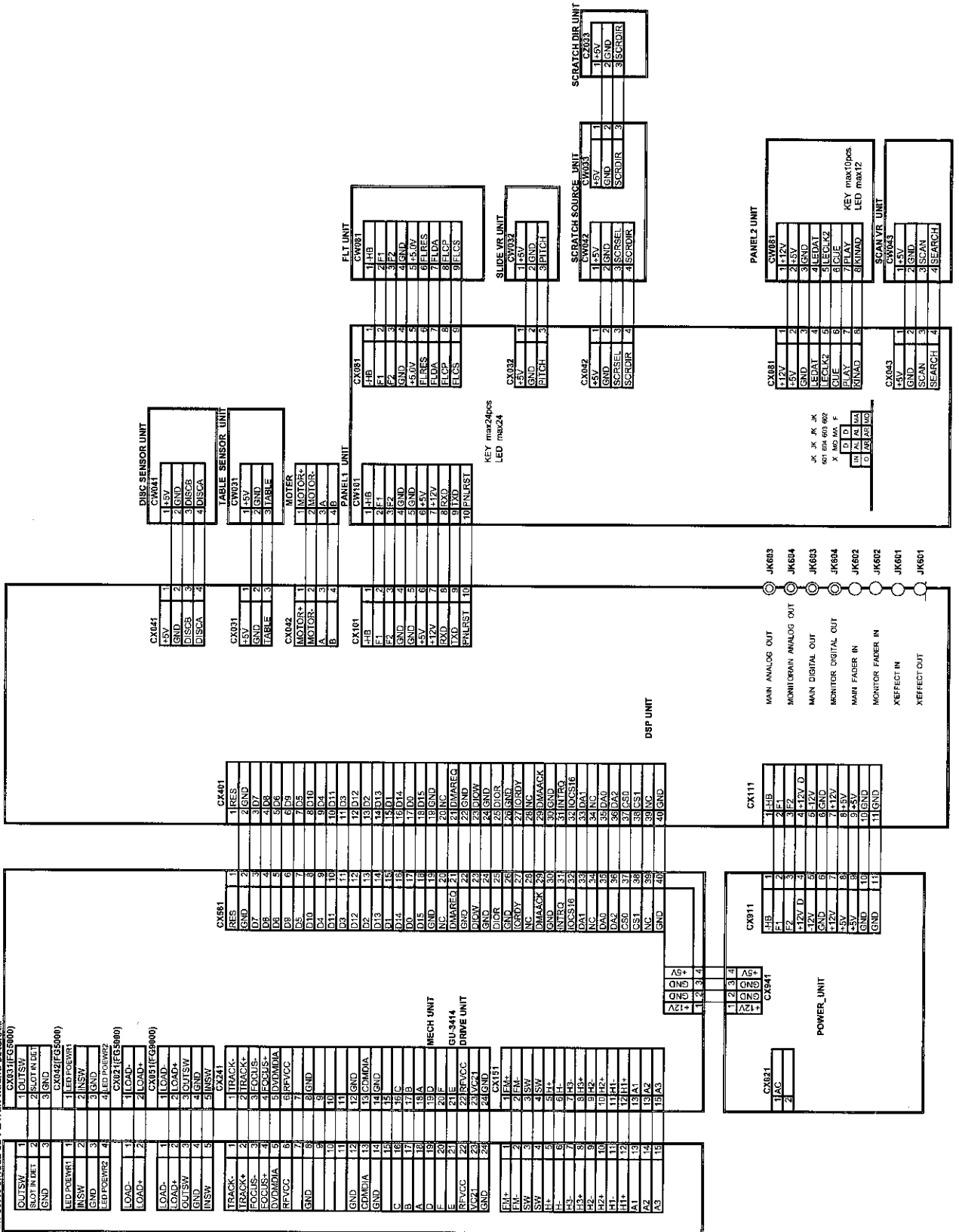
Note: The symbols in the column "Remarks" indicate the following destinations.
 E3: U.S.A. model, Csnada model
 E2: Europe model

PARTS LIST OF PACKING & ACCESSORIES

Ref. No.	Part No.	Part Name	Remarks	Q'ty	New	Ref. No.	Part No.	Part Name	Remarks	Q'ty	New
201	505 0350 019	STYLEN PAPER		1	*	208	505 8006 006	ENVELOPE		1	
202	503 1448 005	CUSHION		2	*	209	423 0079 108	BELT		1	*
203	505 0038 030	POLY COVER		1		210	529 0128 001	HEXAGON WRENCH		1	*
204	515 0945 007	WARRANTY (COM.)	for E3	1		211	501 2230 009	CARTON CASE	for E3	1	*
205	511 3976 000	INST. MANUAL		1	*	211	501 2179 050	CARTON CASE	for E2	1	*
206	515 0923 100	S.S.LIST COM.(EX)		1		★	-	CONTROL CARD		2	
207	203 2360 004	2P PIN CORD		2		★	-	BAR CODE LABEL		1	


WIRING DIAGRAM

DN-S5000 SINGLE CD PLAYER WIRING DIAGRAM



NOTE FOR SCHEMATIC DIAGRAM

WARNING:

Parts marked with this symbol  have critical characteristics.

Use ONLY replacement parts recommended by the manufacturer.

CAUTION:

Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 milliamps, or if the resistance from chassis to either side of the power cord is less than 460 kohms, the unit is defective.

WARNING:

DO NOT return the unit to the customer until the problem is located and corrected.

NOTICE

ALL RESISTANCE VALUES IN OHM. k=1,000 OHM

M=1,000,000 OHM


ALL CAPACITANCE VALUES IN MICRO FARAD.

P=MICRO-MICRO FARAD

EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.

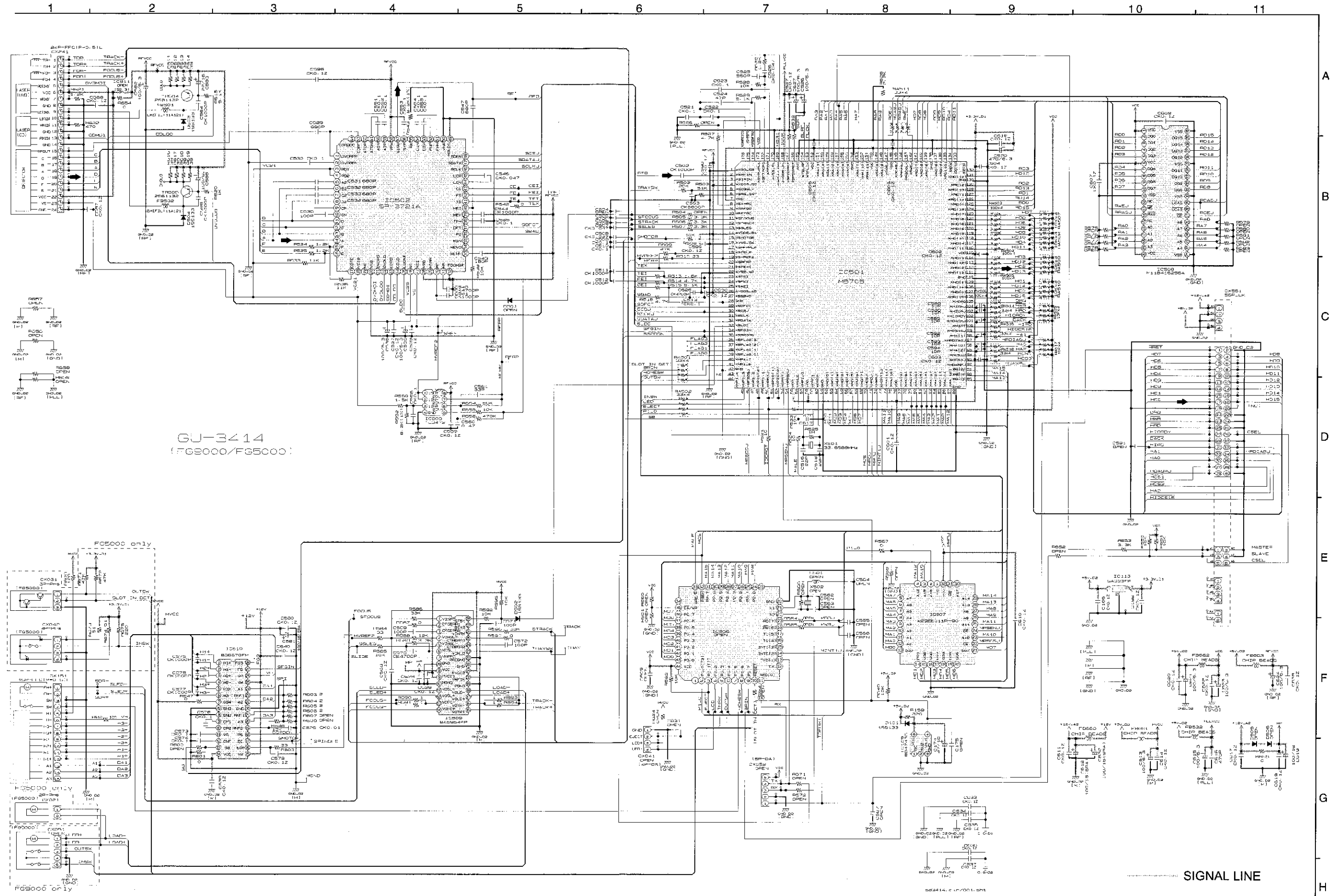
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

配線図について

 印の部品は安全を維持するために重要な部品です。従って交換時は必ず指定の部品を使用してください。

- 注) 1. 指定なき抵抗値は Ω 、kは $k\Omega$ 、Mは $M\Omega$ を示す。
2. 指定なきコンデンサーの値は μF 、pはpFを示す。
3. 各部の電圧は無信号の値を示す。
4. この配線図は基本配線図です。改良等のため変更することがありますのでご了承ください。

SCHEMATIC DIAGRAMS (1/5)

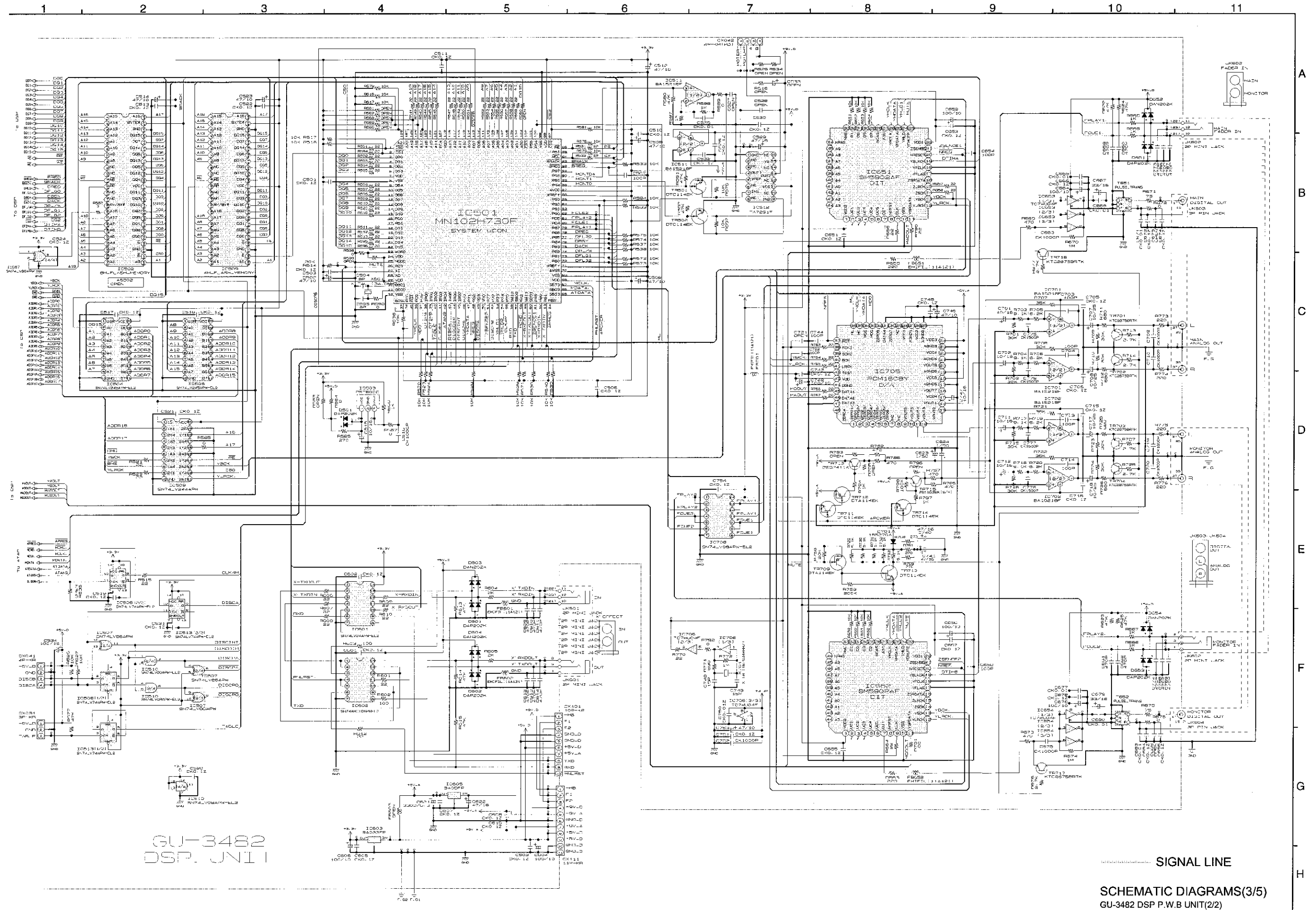


GJ-3414 (FG9000/FG5000)

SIGNAL LINE

SCHEMATIC DIAGRAMS (1/5)
GU-3414 CD-ROM P.W.B UNIT

SCHEMATIC DIAGRAMS (3/5)

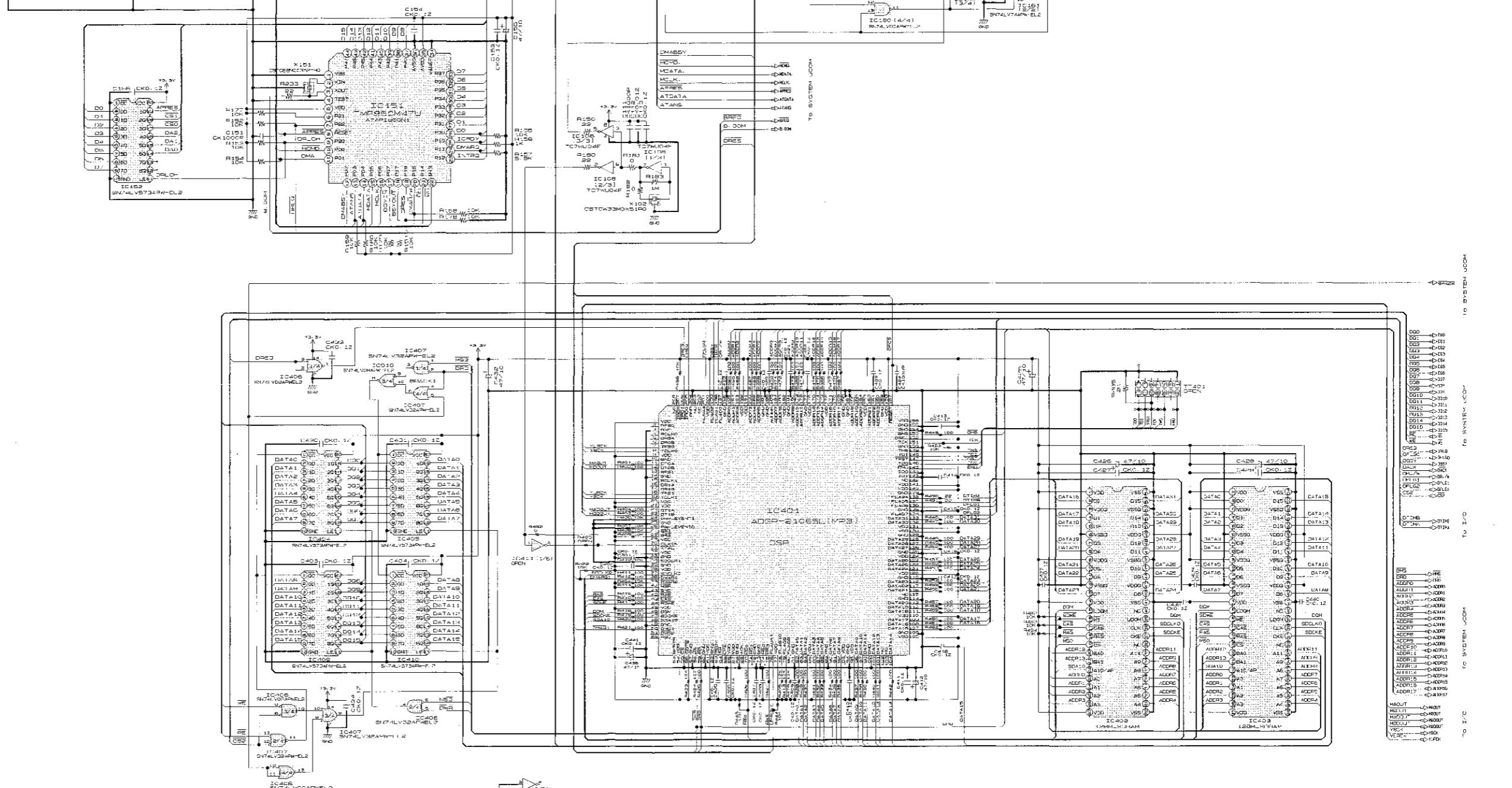
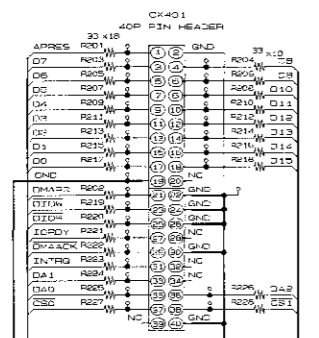


GU-3482
DSP UNIT

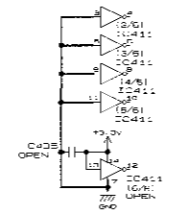
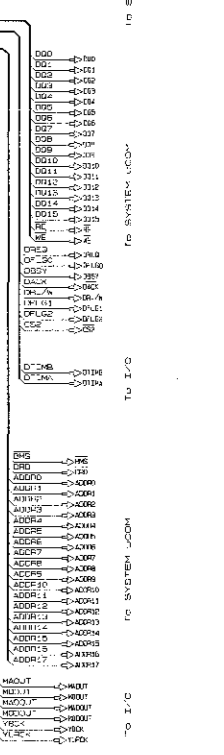
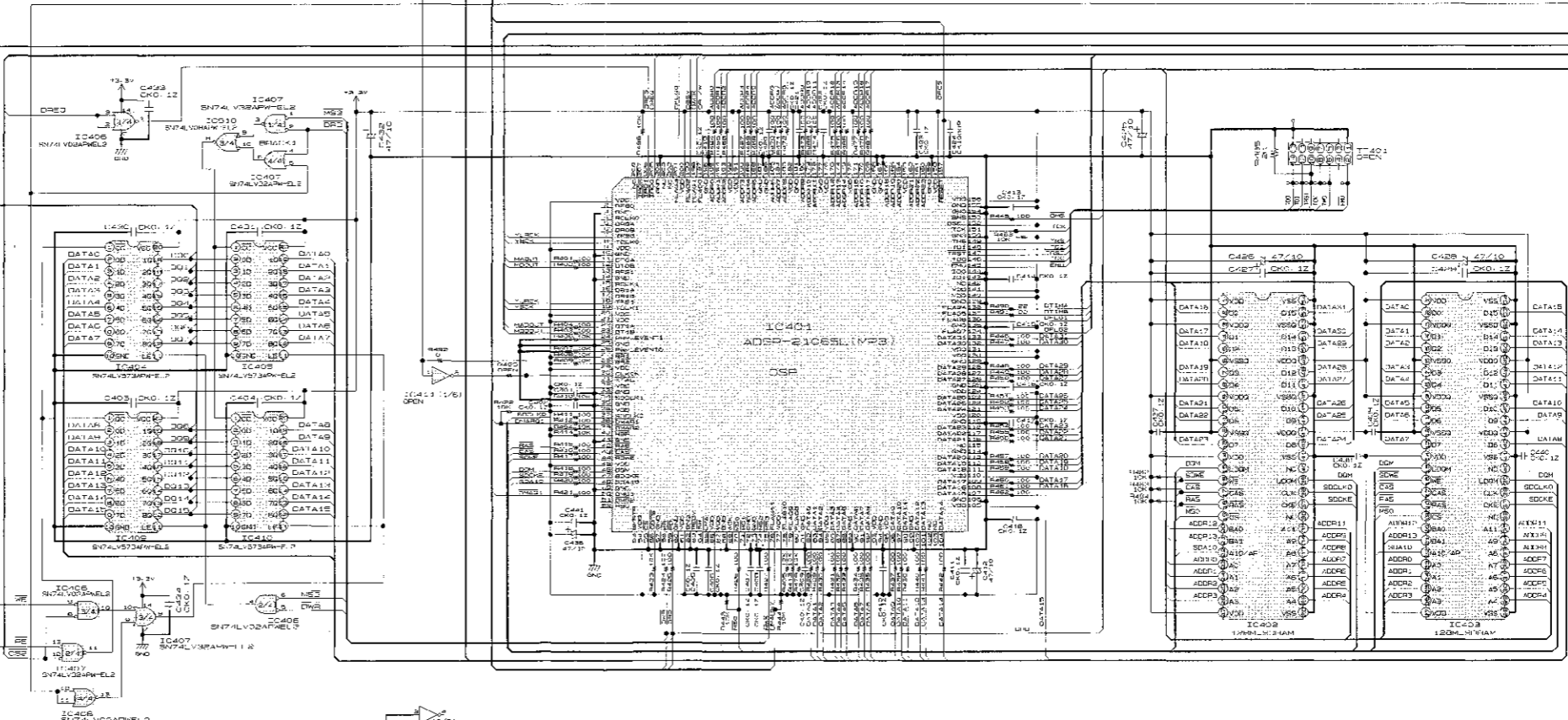
SIGNAL LINE
SCHEMATIC DIAGRAMS(3/5)
GU-3482 DSP P.W.B UNIT(2/2)

SCHEMATIC DIAGRAMS (2/5)

1 2 3 4 5 6 7 8 9 10 11



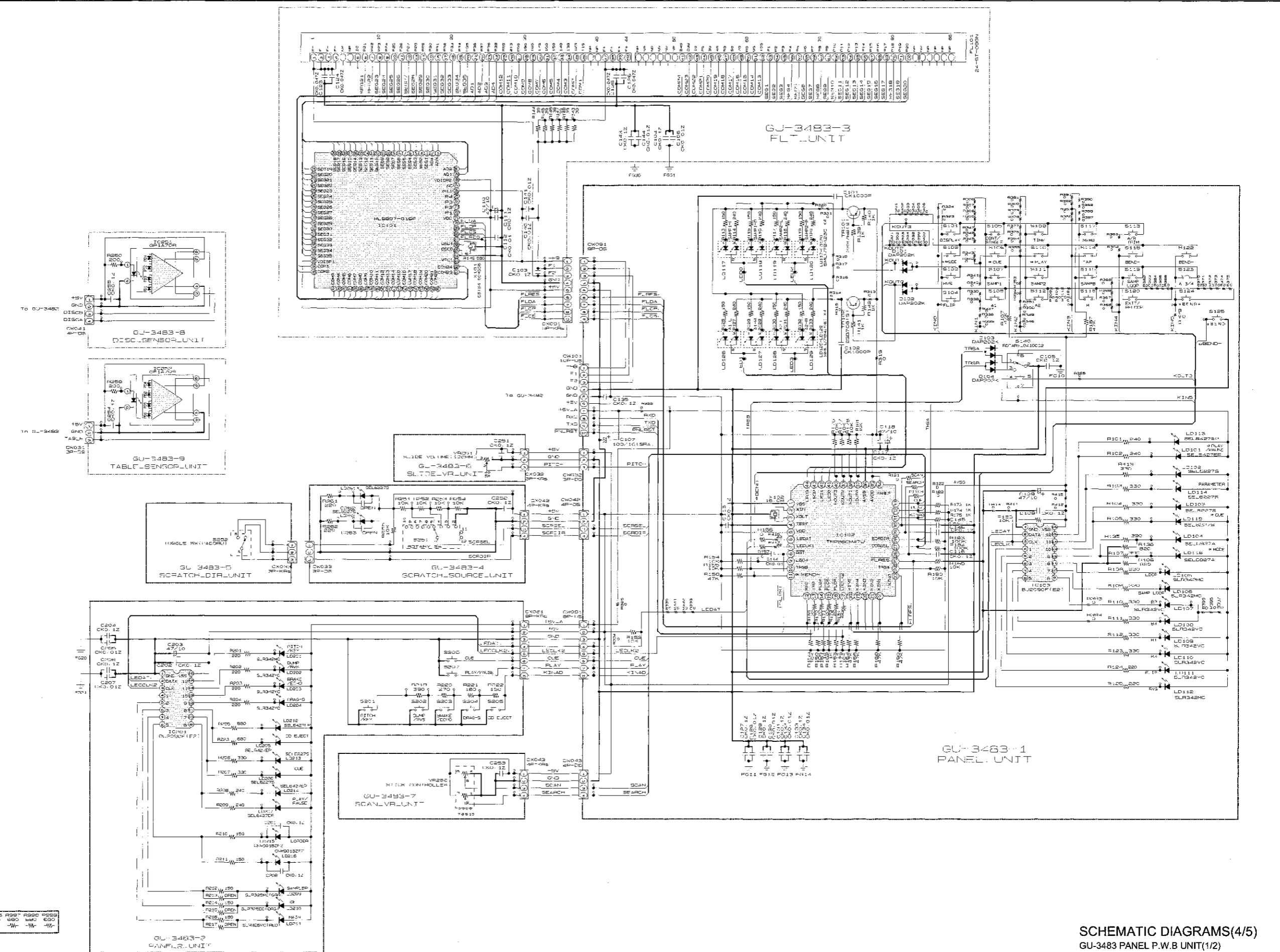
GU-3482
DSP UNIT



SIGNAL LINE
SCHEMATIC DIAGRAMS(2/5)
GU-3482 DSP P.W.B UNIT(1/2)

SCHMATIC DIAGRAMS (4/5)

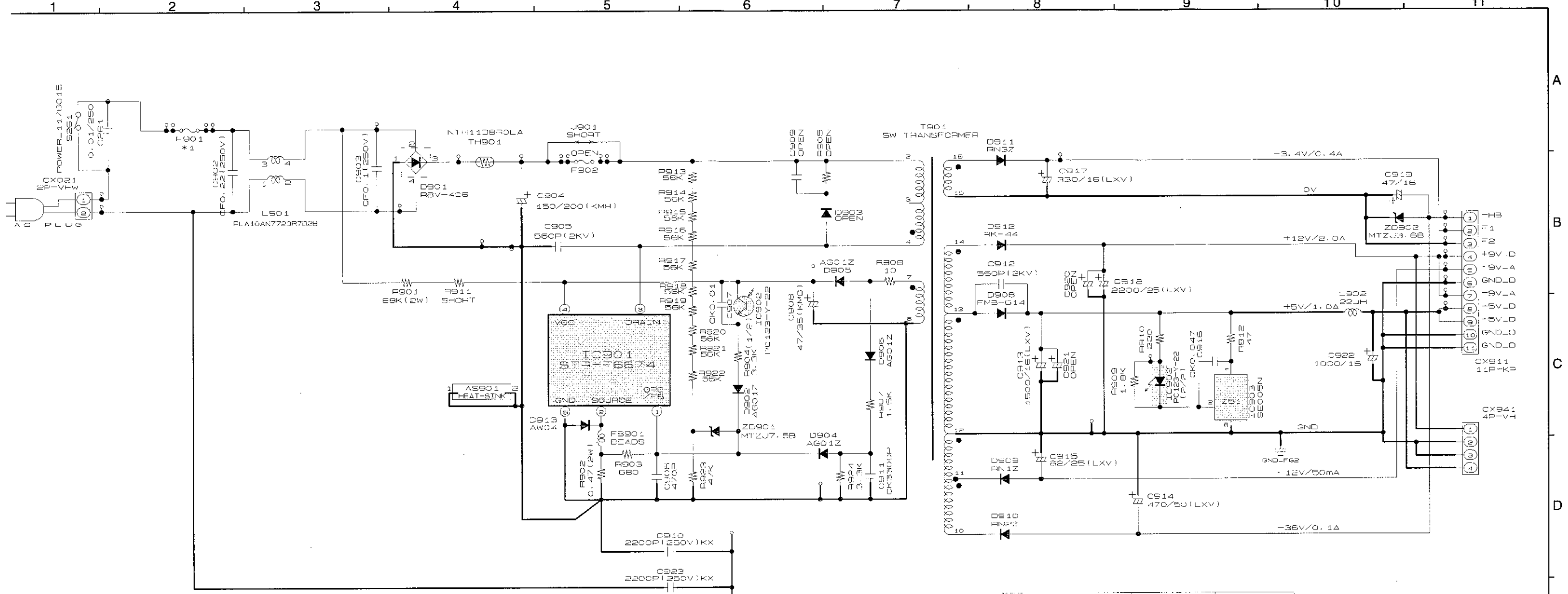
1 2 3 4 5 6 7 8 9 10 11



A
B
C
D
E
F
G
H

SCHMATIC DIAGRAMS(4/5)
GU-3483 PANEL P.W.B UNIT(1/2)

SCHEMATIC DIAGRAMS (5/5)



	F901	C904	R911
E2	T2AL 250V	220 μF/100V	68KΩ (2W)
E3	1.1AL 250V	220 μF/200V	SHORT