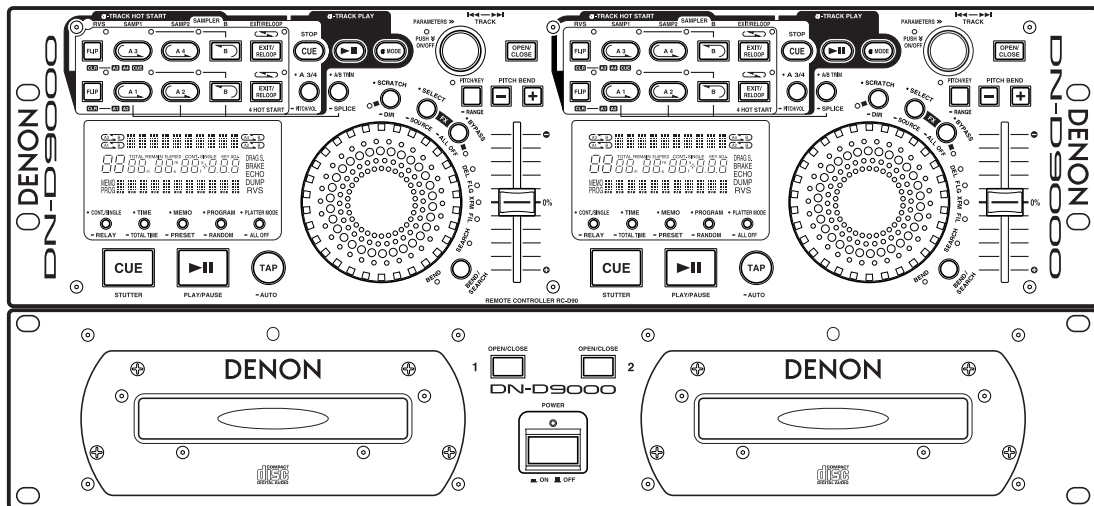


DENON

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

Hi-Fi Component

SERVICE MANUAL MODEL DN-D9000 DOUBLE CD PLAYER



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

DENON, Ltd.

16-11, YUSHIMA 3-CHOME, BUNKYOU-KU, TOKYO 113-0034 JAPAN
Telephone: 03 (3837) 5321

SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

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.

SPECIFICATIONS

GENERAL

Type:	Twin mechanism compact disc player with wired remote control	
Disc Type:	Standard compact discs (12 cm and 8 cm discs) For CD-R and CD-RW discs, only finalized ones can be played back. However, some discs may not be playable depending on their recording conditions.	
Dimensions:	Player unit:	482 (W) × 88 (H) × 252 (D) mm (without feet) 18-31/32" (W) × 3-15/32" (H) × 9-59/64" (D)
	Remote control unit:	482 (W) × 62 (H) × 40 (D) mm (without feet) 18-31/32" (W) × 2-7/16" (H) × 1-37/64" (D)
Installation:	19-inch rack mountable	
	Player unit:	2U
	Remote control unit:	3U
	Player unit:	8 kg (17 lbs. 10.2oz)
	Remote control unit:	4 kg (8 lbs. 13.1oz)
Power Supply:	U.S.A. & Canada model:	120 V AC ±10 %, 60 Hz
	Europe & Asia model:	230 V AC ±10 %, 50 Hz
Power Consumption:	33 W	
Environmental Conditions:	Operational temperature:	5 to 35 °C (41 to 95 °F)
	Operational humidity:	25 to 85 % (no condensation)
	Storage temperature:	-20 to 60 °C (4 to 140 °F)

AUDIO SECTION

Main out/Monitor out	
Quantization:	24-bit linear per channel
Sampling Frequency:	44.1 kHz at normal pitch
Oversampling Rate:	8 times
Total Harmonic Distortion:	±0.01 % or less
S/N Ratio:	90 dB or more
Channel Separation:	85 dB or more
Frequency Response:	20 to 20,000 Hz
Analog output	
Main Out Level:	2.0 Vrms
Monitor Out Level:	2.0 Vrms
Digital Output:	
Signal Format:	SPDIF (-6 dB)
Output Level:	0.5 Vp-p 75 Ω/ohms
Load Impedance:	10 kΩ/kohms or more

FUNCTIONS

Instant Start:	Within 20 msec.
Variable Pitch	
Main, α Track:	±4 % (0.05 % pitch), ±10 % (0.1 % pitch), ±16 % (0.1 % pitch), ±24 % (0.1 % pitch), ±100 % (1 % pitch)
Pitch Bend:	Pitch range: ±4 %, ±10 % : ±12 % Pitch range: ±16 %, ±24 % : ±26 % Pitch range: ±100 % : ±99 %

SAMPLER

Sampling:	44.1 kHz
Length:	15 sec
Output Level:	2.0 Vrms (Variable/-14~+6 dB)
Variable Pitch:	±24 % (0.1 % pitch)
Search Precision:	1/75 sec (1 subcode frame)
Max. Scan Speed:	Over 20 times normal speed
Max. Memo Memory Steps:	5,000 steps

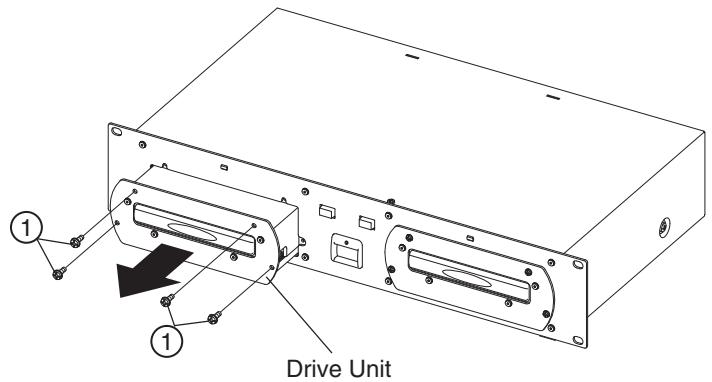
DISASSEMBLY

(Follow the procedure below in reverse order when reassembling)

Main Unit

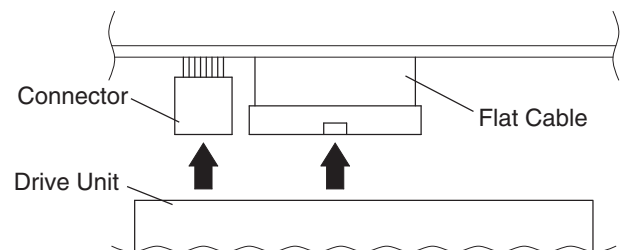
1. Drive Unit

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



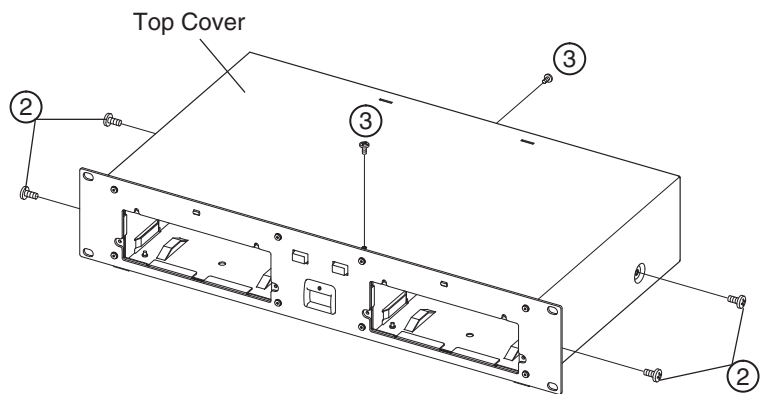
Note:

- Pull at a straight angle to avoid 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.



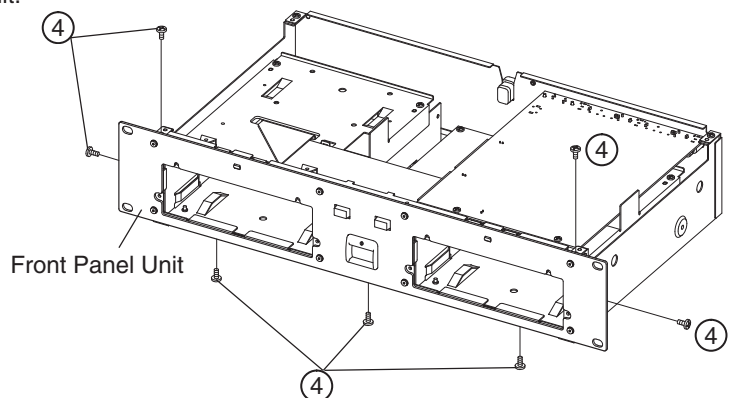
2. Top Cover

- 1) Remove 4 screws ② and 2 screws ③.
- 2) Detach Top Cover.



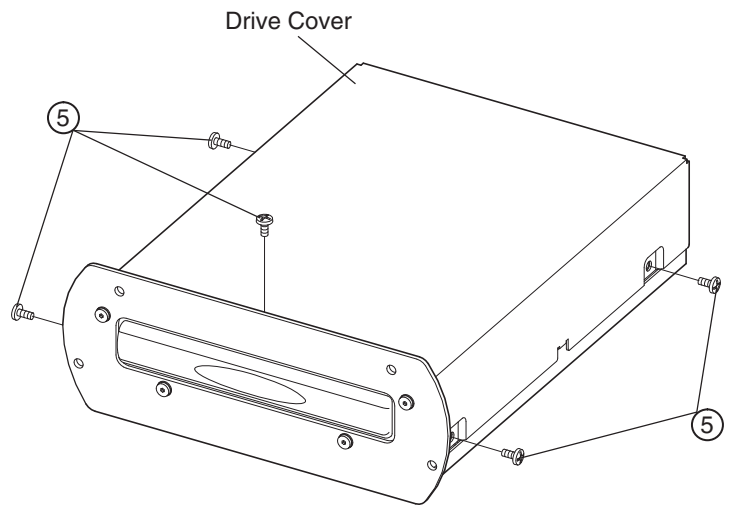
3. Front Panel Unit

- 1) Remove 7 screws ④ and pull out Front Panel Unit.



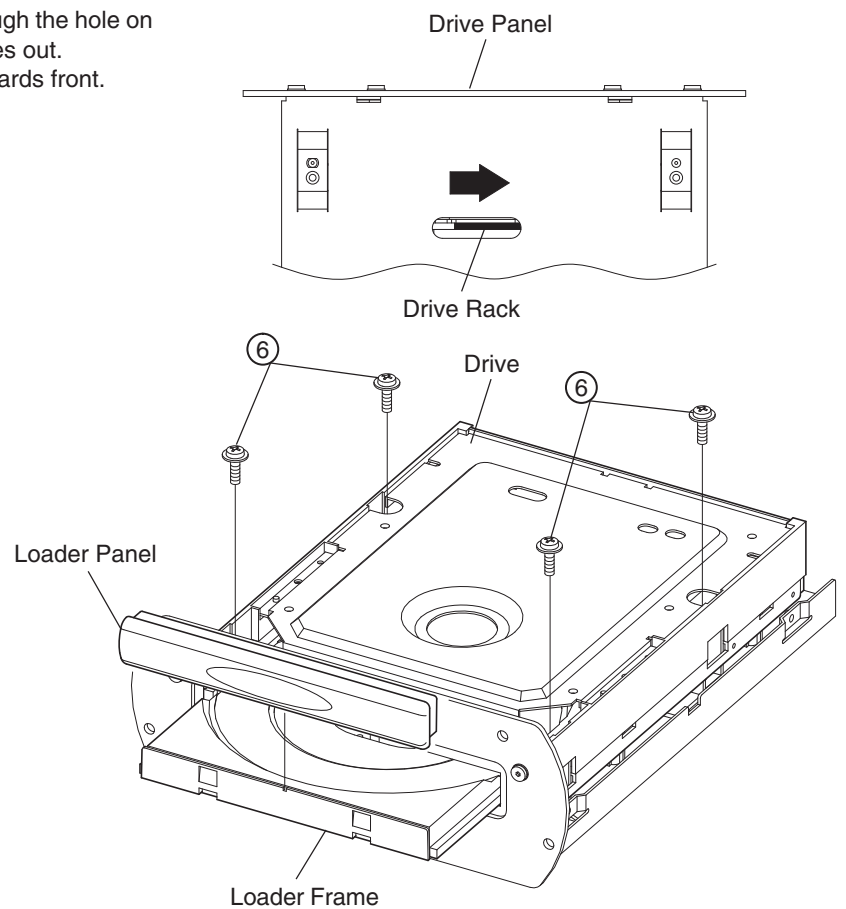
4. Drive Cover

- 1) Remove 5 screws ⑤ and pull out Drive Cover.



5. Drive

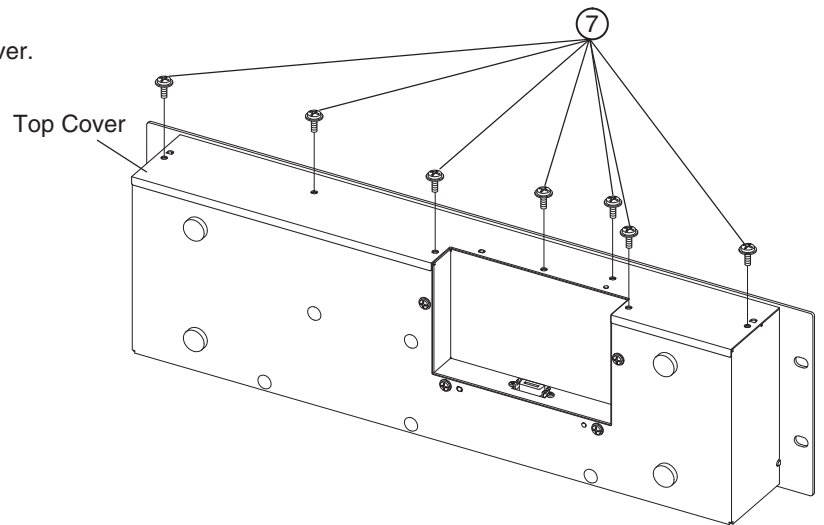
- 1) Move Drive Rack in arrow direction through the hole on the bottom chassis. Loader Frame comes out.
- 2) Pull up Loader Panel while pulling it towards front.
- 3) Remove 4 screws ⑥ and pull out Drive.



Remote Control Unit

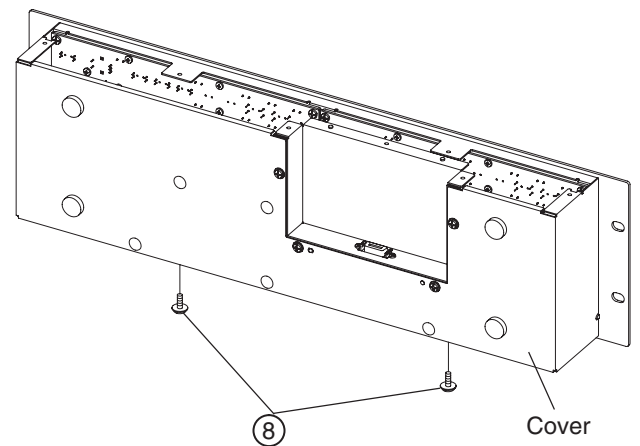
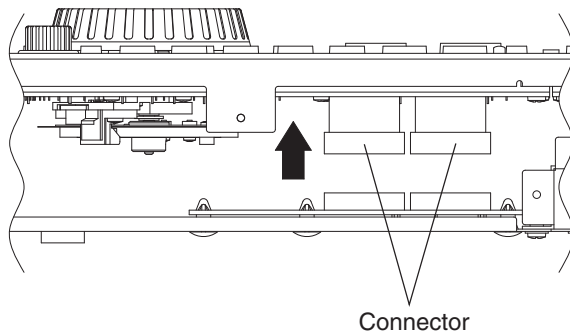
1. Top Cover

- 1) Remove 7 screws ⑦ and pull out Top Cover.



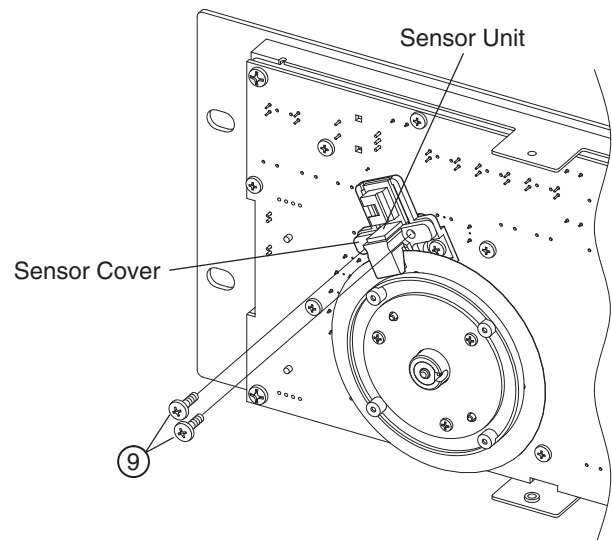
2. Cover

- 1) Disconnect Connector.
- 2) Remove 2 screws ⑧ and pull out Cover.



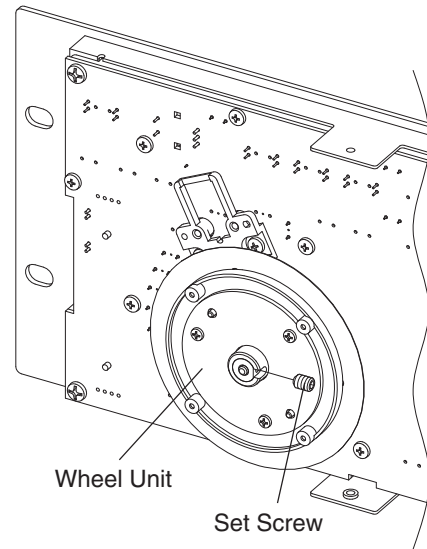
3. Sensor Unit

- 1) Remove 2 screws ⑨ and pull out Sensor Cover.
- 2) Detach Sensor Unit.



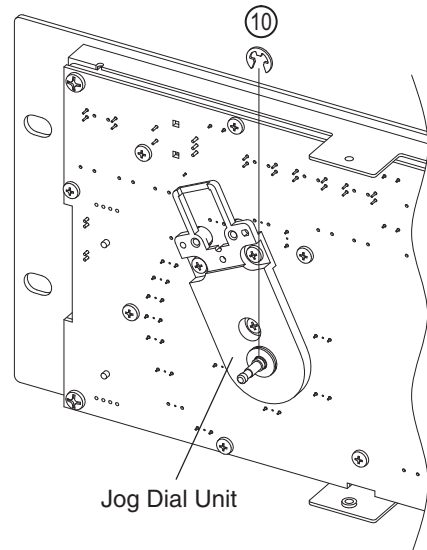
4. Wheel Unit

- 1) Remove Set Screw and pull out Wheel Unit.



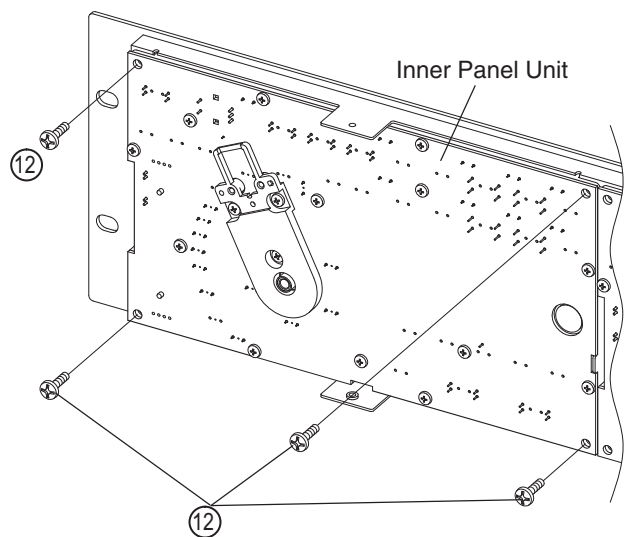
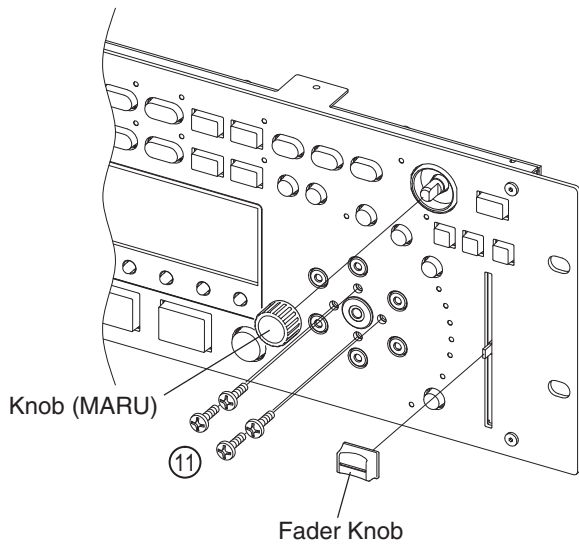
5. Jog Dial Unit

- 1) Remove a E ring ⑩ and pull out Jog Dial Unit.



6. Inner Panel Unit

- 1) Remove 4 screws ⑪ and pull out Knob (MARU) and Fader Knob.
- 2) Remove 4 screws ⑫ and pull out Inner Panel Unit.

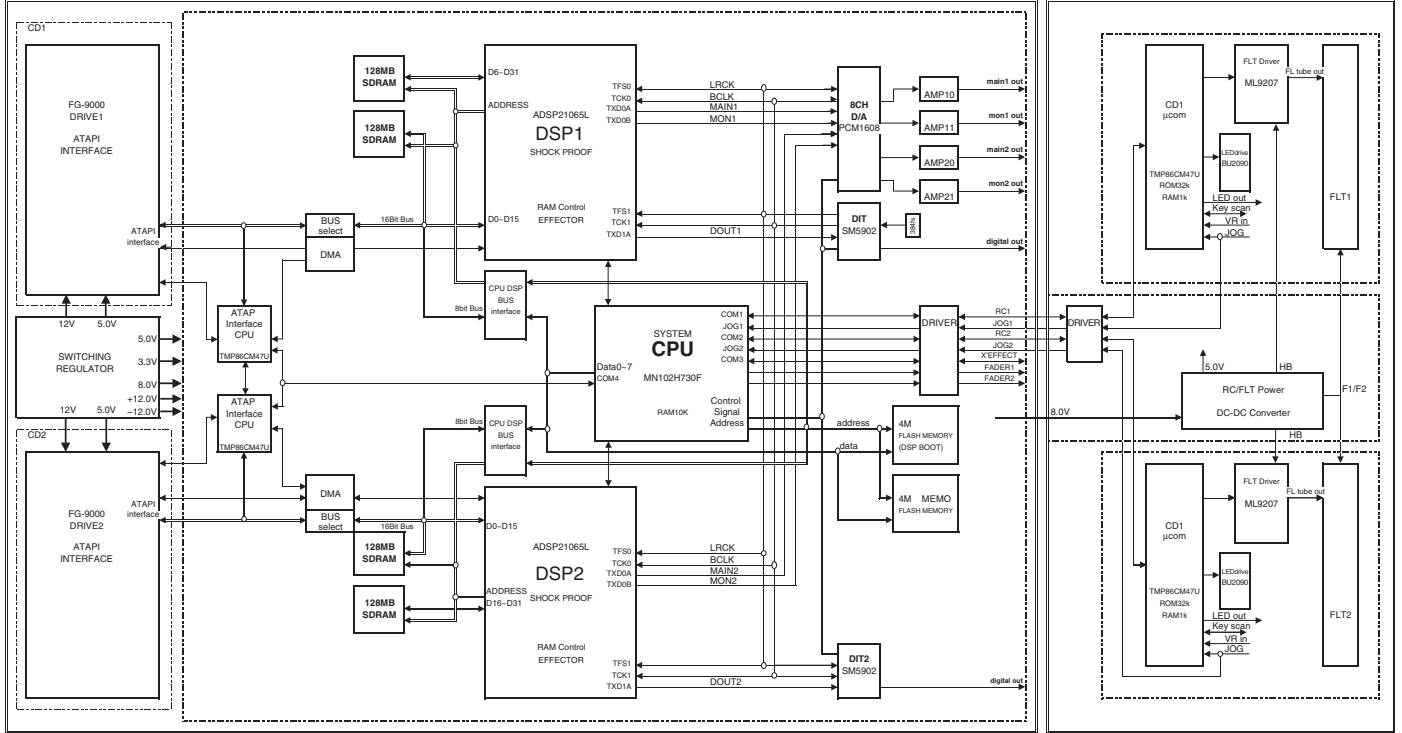


BLOCK DIAGRAM

1 2 3 4 5 6 7 8

DN-D9000

RC-D90



A
B
C
D
E

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 CD1's PITCH BEND + button and CD2's 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. RC μ com version No.: "Rc_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 JOG dial 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 JOG dial. 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.

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

Error Code	Contents
E1 00	Automatic Adjustment Error
E1 01	Unable to detect disc
E1 03	Unable to adjust tracking offset
E1 04	Unable to adjust focus fine gain
E1 05	Unable to actuate focus
E1 06	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 JOG dial when error occurs.

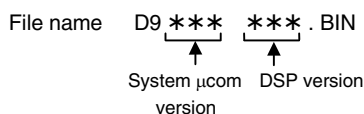
Error Indication				
TR	MIN	SEC	FRAM	CHARACTER
Displays the track No. in which error occurred.	Displays the time at which error occurred.			"H *** * E ***" ↑ ↑ Operation count Error code

5. System μcom and DSP Version Upgrade

System μcom and DSP can be upgraded in the following manner.

Version Upgrade Method

1. 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.
2. After loading the disc made in above step 1 into CD1, turn off the power. Then, turn on the power while pressing the OPEN/CLOSE button of CD1. The version upgrade starts with reading data of the disc. No disc should be loaded into CD2.
3. TRAY LED of both CD1 and CD2 will turn on when the version upgrade starts, and they will turn off when the version upgrade ends.
 - TRAY LED of both CD1 and CD2 will blink if the version upgrade ends abnormally due to error etc.
 - 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-3412 is necessary in this case, and software writing to IC502 should be done beforehand.
4. Turn off the power after finishing the version upgrade, and turn on again to take out the disc.
5. File name of the upgrade software indicates version numbers.

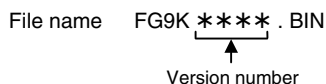


6. ROM Drive (FG-9000) μcom Version Upgrade

Drive (FG-9000) μcom can be upgraded in the following manner.

Version Upgrade Method

1. 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.
2. After turning on the power, load the disc made in above step 1 into the mecha. you want to upgrade the version.
3. "Drive" and "Version UP?" are indicated in the character display. Press the OPEN/CLOSE button and remove the disc when not upgrade the version.
4. Press the PLAY/PAUSE to start the version upgrade. "Now Loading" is indicated.
5. When the version upgrade is finished, "Complete" is indicated and the tray opens.
6. 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.
7. File name of the upgrade software indicates version number.



SEMICONDUCTORS

● IC's

Note: Indication before IC Numbers denotes P.W.B. name.

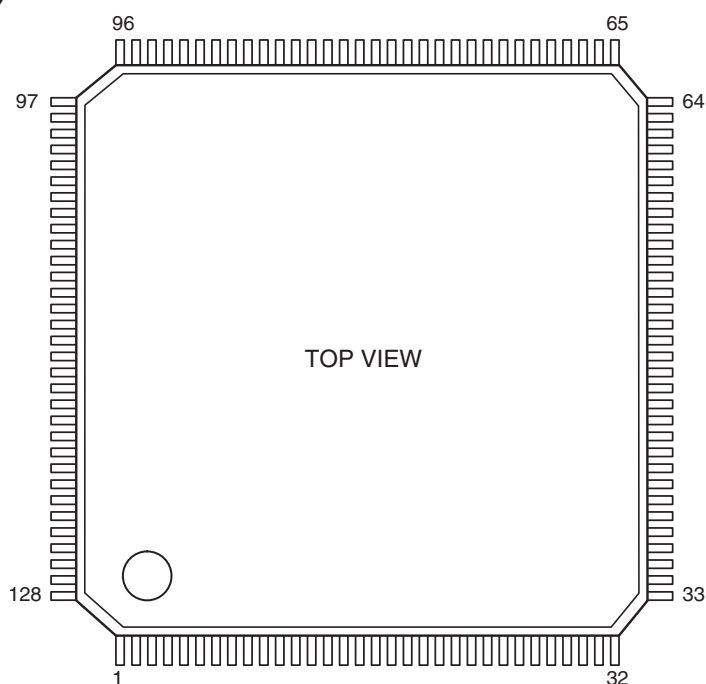
FG : CD-ROM P.W.B. Unit

DS : DSP P.W.B. Unit

PO : Power P.W.B. Unit

RC : Remote P.W.B. Unit

MN102H730F (DS: IC501)



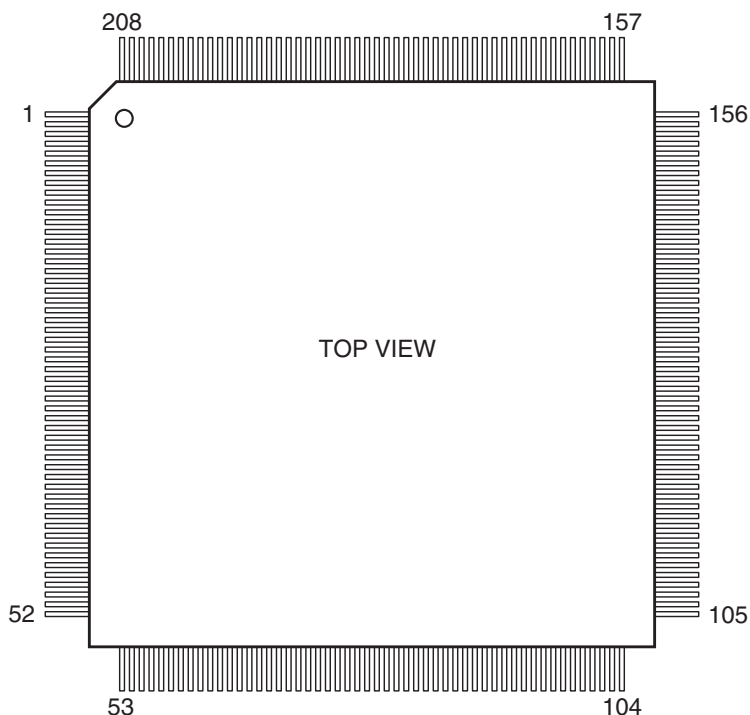
MN102H730F Terminal Function

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,P10	KEYIN2	I	—	Pu	H	H	OPEN/CLOSE2 key input
14	D09,P11	KEYIN1	I	—	Pu	H	H	OPEN/CLOSE1 key input
15	D10,P12	FPLAY1	I	—	Pu	H	H	CD1 fader start PLAY input
16	PD0,DMAACK1_	FCUE1	I	—	Pu	H	H	CD1 fader start CUE input
17	PD1,DMAREQ1_	FPLAY2	I	—	Pu	H	H	CD2 fader start PLAY input
18	D11,P13	FCUE2	I	—	Pu	H	H	CD2 fader start CUE input
19	D12,P14	JOGA2	I	—	(Pu)	H	H	JOGA pulse input for CD2 scratch (Direction detect)
20	D13,P15	JOGB2	I	—	(Pu)	H	H	JOGB pulse input for CD2 scratch (Direction detect)
21	D14,P16	JOGA1	I	—	Pu	H	H	JOGA pulse input for CD1 scratch (Direction detect)
22	D15,P17	JOGB1	I	—	Pu	H	H	JOGB pulse input for CD1 scratch (Direction detect)
23	WORD	WORD	I	—	—	—	—	Data bus width select (H: 8bit), VDD 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, 32.0MHz
31	OSCO	OSCO	O	—	—	—	—	Oscillation output
32	VSS	VSS	—	—	—	—	—	GND
33	BOSC	32.0MHz	O	—	—	—	—	System clock output
34	PC5,NMI_	RESERVE	I	—	Pu	H	H	
35	RST_	RST_	I	—	—	—	—	μcom reset
36	PC0	LEDOUT1	O	—	Pu	H	H	TRAY1 LED
37	P76	LEDOUT2	O	—	Pu	H	H	TRAY2 LED
38	P60,IRQ0	JOGINT1	I	—	(Pu)	H	H	JOGA pulse input for CD1 scratch
39	P61,IRQ1	JOGINT2	I	—	(Pu)	H	H	JOGA pulse input for CD2 scratch
40	P62,IRQ2	DTIMA1	I	—	(Pu)	H	H	CD1 main playback clock input
41	P63,IRQ3	DTIMB1	I	—	Pu	H	H	CD1 monitor playback clock input
42	P64,IRQ4	ATANS_	I	—	Pu	—	H	ATAPI μcom serial interface
43	P65,IRQ5	DTIMA2	I	—	Pu	H	H	CD2 main playback clock input
44	P66,IRQ6	DTIMB2	I	—	Pu	H	H	CD2 monitor playback clock input
45	P67,IRQ7	RESERVE	O	—	—	H	—	
46	P70	YMCLK	O	—	—	H	—	Clock for SM5902(DOUT)/PCM1608(D/A) data
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,DMAREQ0_	ZSENCE1	I	—	—	—	—	SM5902 μcom interface status for CD1
50	VDD	VDD	—	—	—	—	—	Power (+3.3V)
51	P77	ZSENCE2	I	—	—	—	—	SM5902 μcom interface status for CD2
52	P72	MDO	I	—	Pd	—	L	PCM1608(D/A) input data
53	P73	YMLD1_	O	—	—	H	—	SM5902(DOUT) chip select for CD1
54	P74	YMLD2	O	—	—	H	—	SM5902(DOUT) chip select for CD2
55	P75	ML	O	—	—	H	—	PCM1608(D/A) chip select
56	PA0,SBI0	RXD1	I	—	(Pu)	—	H	Data receive from RC CD1
57	PA1,SBO0	TXD1	O	—	Pu	H	H	Data send to RC CD1 (PU μcom specify)
58	PA2,SBT0	MCMD_	O	—	Pu	H	H	ATAPI μcom serial interface (PU μcom specify)
59	PA3,SBI1	RXD2	I	—	(Pu)	—	H	Data receive from RC CD2
60	PA4,SBO1	TXD2	O	—	Pu	H	H	Data send to RC CD2
61	PA5	ATDIR	O	—	—	H	—	Not used
62	PB0,SBI2	X'RXD	I	—	(Pu)	—	H	Data receive from X'EFFECT
63	PB1,SBO2	X'TXD	O	—	Pu	H	H	Data send to X'EFFECT
64	PB2	APRES_	O	—	Pd	L	L	ATAPI μcom reset signal (CD1, CD2 common)
65	PB3,SBI3	ATDATA	I	—	Pu	—	H	ATAPI μcom serial receive signal
66	PB4,SBO3	MDATA	O	—	Pu	H	H	ATAPI μcom serial send signal
67	PB5,SBT3	MCLK	O	—	Pd	H	L	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	DFLG12	I/O	—	Pu	—	H	DSP1 general flag 2
73	P81	DFLG11	I/O	—	Pu	—	H	DSP1 general flag 1
74	P82	DR_/W1	O	—	—	H	—	DSP1 interface send/receive select signal
75	P83	DACK1_	I	—	Pu	H	H	DSP1 interface ACK
76	P84	DBSY1_	I	—	Pu	H	H	DSP1 interface busy signal
77	P85	DFLG10	I/O	—	Pu	—	H	DSP1 general flag 0
78	P86	DREQ1_	O	—	(Pu)	H	H	DSP1 interface request signal
79	P87	DR_/W2	O	—	—	H	—	DSP2 interface send/receive select signal
80	PD4	DACK2_	I	—	Pu	H	H	DSP2 interface ACK
81	PD5	DBSY2_	I	—	Pu	H	H	DSP2 interface busy signal
82	P90	DFLG20	I/O	—	Pu	—	H	DSP2 general flag 0
83	P91	DREQ2_	O	—	(Pu)	H	H	DSP2 interface request signal
84	P92	DFLG21	I/O	—	Pu	—	H	DSP2 general flag 1
85	P93	DFLG22	I/O	—	Pu	—	H	DSP2 general flag 2
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	RCRST_	O	—	Pd	L	L	RCD90 reset signal (L: Reset)
89	P95	APOWER	O	—	Pd	L	L	Analog output voltage ON/OFF (L: OFF)
90	P96	RESERVE	O	—	—	H	—	
91	P97	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	SAMPC1	O	—	Pu	H	H	Not used
101	P55, WR_	SAMPC2	O	—	Pu	H	H	Not used
102	CS3_	CS3_	O	—	Pu	—	H	Ext. memory chip select 3 (DSP2 interface)
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	RESERVE	O	—	—	L	—	
114	A09	A09	I	—	—	—	—	Ext. memory address bus 9
115	A10	A10	I	—	—	—	—	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 (DS: IC301, 401)



ADSP-21065L Terminal Function

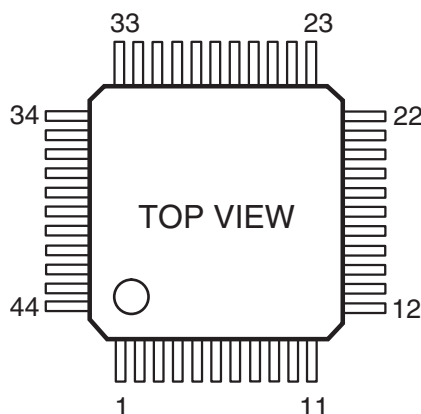
Pin No.	Port Name	Symbol (IC301)	Symbol (IC401)	I/O	DET	Ext	Ini	Res	Function
1	VDD	VDD	VDD	—	—	—	—	—	Power (+3.3V)
2	RFS0	YLRCK	YLRCK	I	—	IPu	—	H	Receive frame sync (LRCK) signal (Serial port IN 0)
3	GND	GND	GND	—	—	—	—	—	GND
4	RCLK0	YBCK	YBCK	I	—	—	—	—	Receive frame sync (BCK) signal (Serial port IN 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	IDO			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 (DS: IC101, 151)

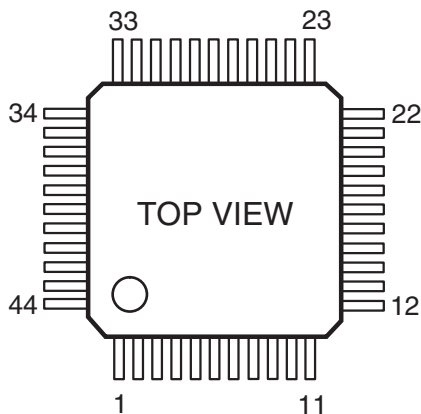


TMP86CM47U Terminal Function

Pin No.	Pin Name	Symbol	I/O	DET	Ext	Ini	Res	Function
1	VSS	VSS	—	—	—	—	—	GND (0V)
2	XIN	XIN	I	—	—	—	—	Oscillation input 8.0MHz
3	XOUT	XOUT	O	—	—	—	—	Oscillation output
4	TEST	TEST	I	—	—	—	—	Fixed to L
5	VDD	VDD	—	—	—	—	—	Power (+3.3V)
6	P21(LED)	DVSEL	O	—	Pu	L	H	Not used
7	P22	BREQ1_	O	—	Pu	H	H	System μ com bus request
8	RESET_	RST_	I	—	—	—	—	μ com reset
9	P20	DRLCH	O	—	Pu	H	H	ATAPI data register latch signal, H: Latch
10	P00(INT0)	MCMD_	I	—	—	—	—	System μ com serial interface
11	P01	DMA	O	—	Pu	L	H	ATAPI DMA mode select (H: DMA)
12	P02	DMABSY1	I	—	Pu	—	H	In DMA flag (L: DMA data transfer)
13	P03	ATANS	O	—	Pu	H	H	System μ com serial interface
14	P04(SO)	ATDATA	O	—	Pu	H	H	System μ com serial data receive signal
15	P05(SI)	MDATA	I	—	—	—	—	System μ com serial data send signal
16	P06(SCK_)	MCLK	I	—	—	—	—	System μ com serial send/receive clock
17	P07(INT4/LED)	BSYIN_	I	—	—	—	H	TXD BUSY input
18	P17	BSYOUT_	O	—	Pu	H	H	TXD BUSY output signal (L: BUSY)
19	P16	DRRES_	O	—	Pd	L	L	DSP reset (L: Reset)
20	P15	DMAR_/_W	I/O	—	Pu/Pd	H	L/H	ATAPI DMA direction select (L: Read) *
21	P14	RD_	O	—	—	H	—	ATAPI read strobe
22	P13	WR_	O	—	—	H	—	ATAPI write strobe
23	P12(INT2)	INTRQ	I	Lv	—	—	—	ATAPI interrupt request signal
24	P11(INT1)	DMARQ	I	Lv	Pd	—	—	ATAPI DMA request signal (Pd with 5.6kW)
25	P10	IORDY	I	—	Pu	—	H	ATAPI data transfer cycle extend request signal (Pu with 1.0kW)
26	P30	D0	I/O	—	Pd	L	L	ATAPI data bus 0 (APRES_ATAPI reset)
27	P31	D1	I/O	—	—	—	—	ATAPI data bus 1 (CS1 device register chip select 1)
28	P32	D2	I/O	—	—	—	—	ATAPI data bus 2 (CS0 device register chip select 0)
29	P33	D3	I/O	—	—	—	—	ATAPI data bus 3 (DA2 device register select 2)
30	P34	D4	I/O	—	—	—	—	ATAPI data bus 4 (DA1 device register select 1)
31	P35	D5	I/O	—	—	—	—	ATAPI data bus 5 (DA0 device register select 0)
32	P36	D6	I/O	—	—	—	—	ATAPI data bus 6
33	P37	D7	I/O	—	—	—	—	ATAPI data bus 7
34	VAREF	VAREF	I	—	—	—	—	GND (0V), Analog ref. V for A/D conversion, A/D not used
35	AVDD	AVDD	I	—	—	—	—	Power (+3.3V), Power for A/D conversion circuit only
36	AVSS	AVSS	I	—	—	—	—	GND (0V), Analog GND for A/D conversion
37	P40	D8	I/O	—	—	—	—	ATAPI data bus 8
38	P41	D9	I/O	—	—	—	—	ATAPI data bus 9
39	P42	D10	I/O	—	—	—	—	ATAPI data bus 10
40	P43	D11	I/O	—	—	—	—	ATAPI data bus 11
41	P44	D12	I/O	—	—	—	—	ATAPI data bus 12
42	P45	D13	I/O	—	—	—	—	ATAPI data bus 13
43	P46	D14	I/O	—	—	—	—	ATAPI data bus 14
44	P47	D15	I/O	—	—	—	—	ATAPI data bus 15

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

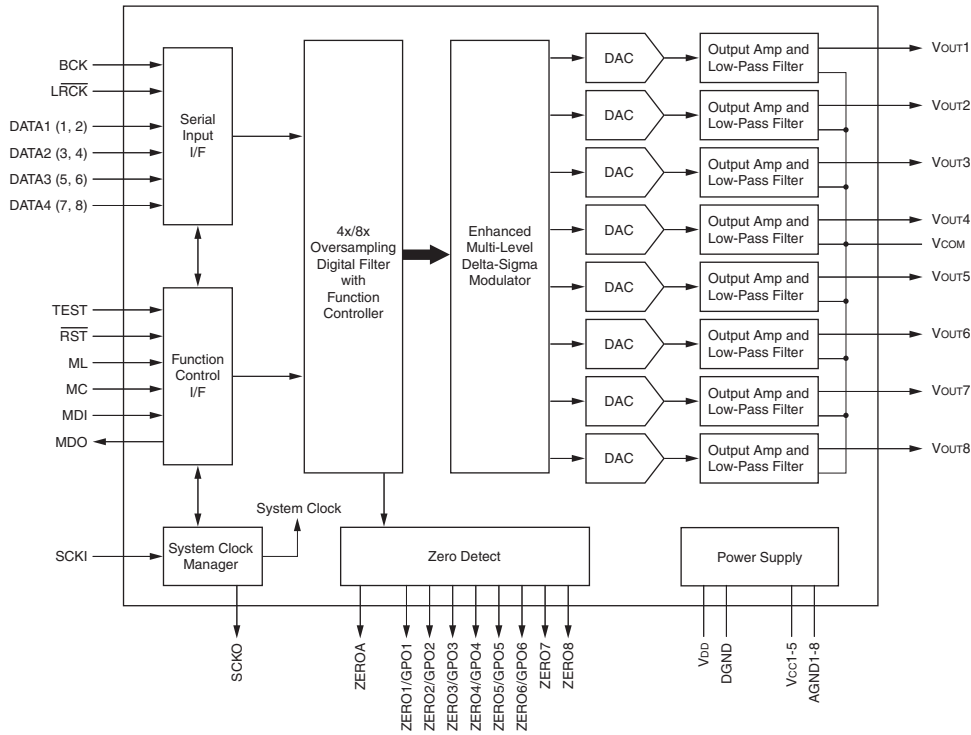
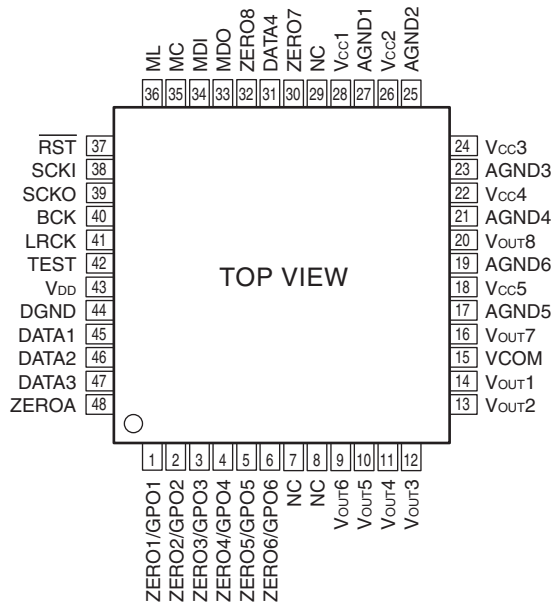
SM5902AF (DS: IC651, 652)



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	YLCK	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	ZLCK	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 (DS: IC705)



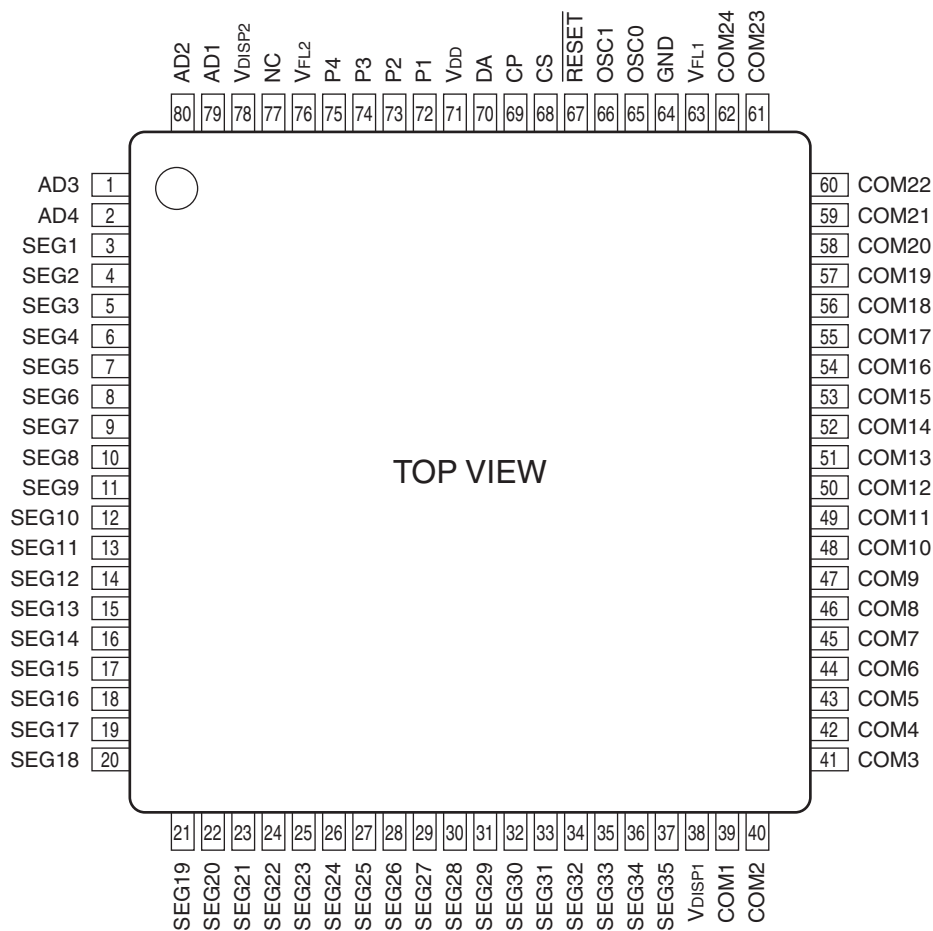
PCM1608Y Terminal Function

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.

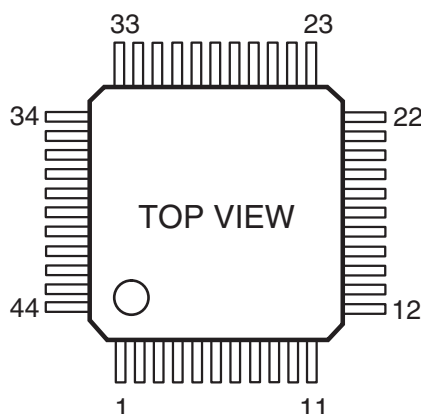
ML9207-01GP (RC: IC101, 201)



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	VDD	—	VDD-GND: Power for logic VDISP-VFL: Power for FL display drive Same power source should be used for VDD and VDISP
38, 78	VDISP1-2		
64	GND		
63, 76	VFL1-2		
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 (RC: IC102, 202)

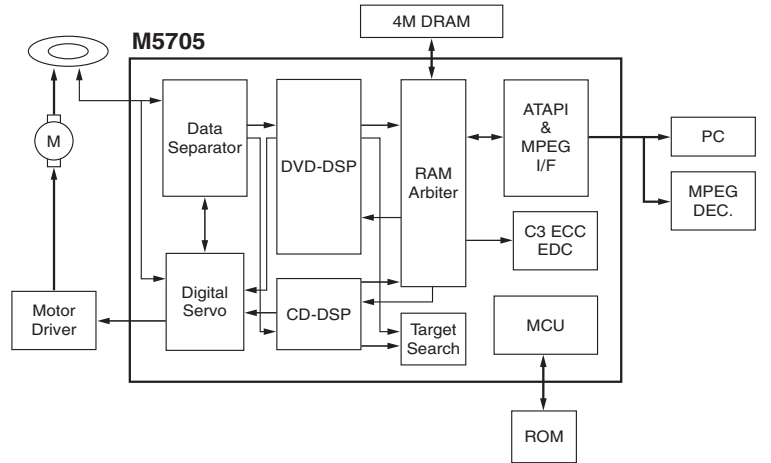
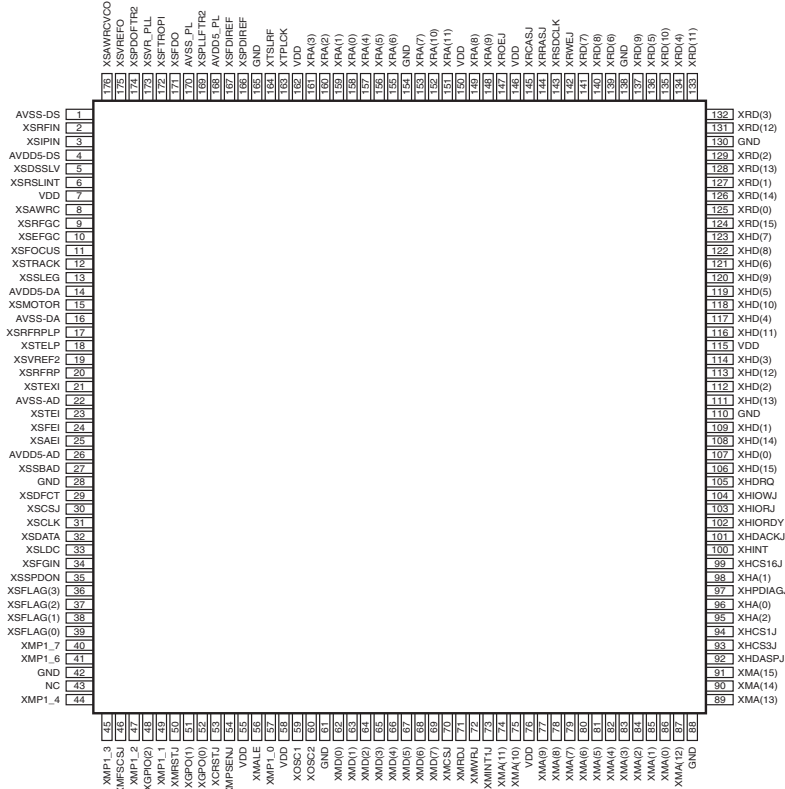


TMP86CM47U Terminal Function

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 (FG: IC501)



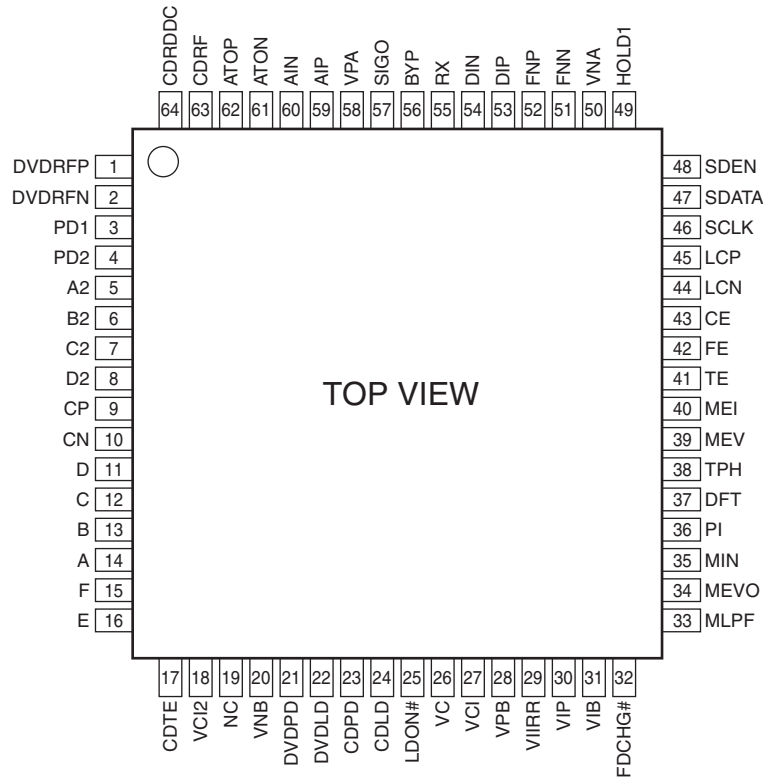
M5705 Terminal Function

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 output 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	XSFDIRREF	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	XSFTRUPI	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	XSDFACT	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	XFLAG[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 (FG: IC502)

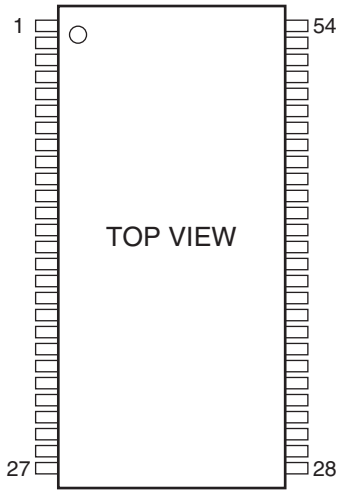


SP3721A Terminal Function

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

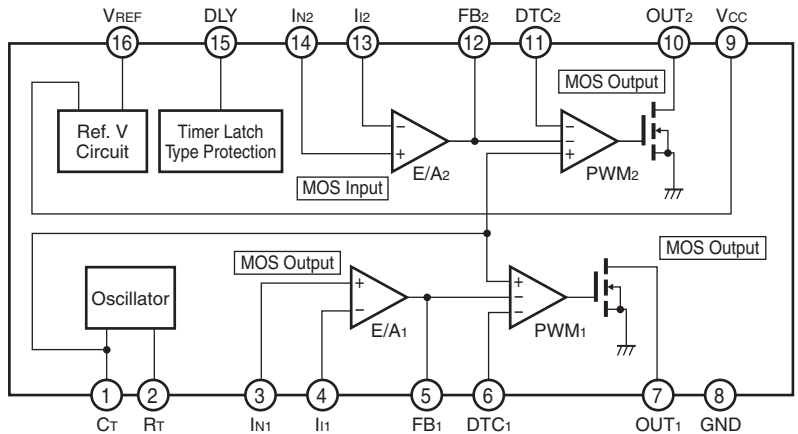
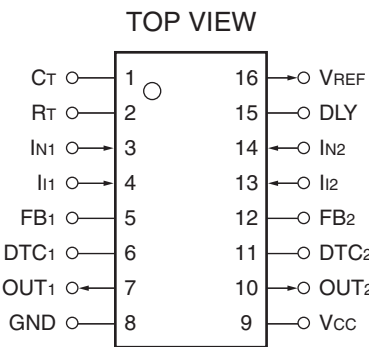
128M SDRAM
(DS: IC302, 303, 402, 403)



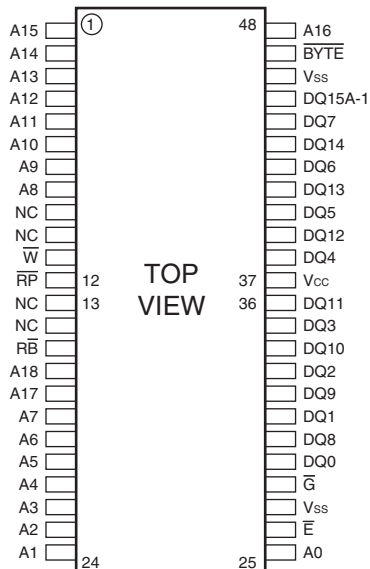
Pin Assignment

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

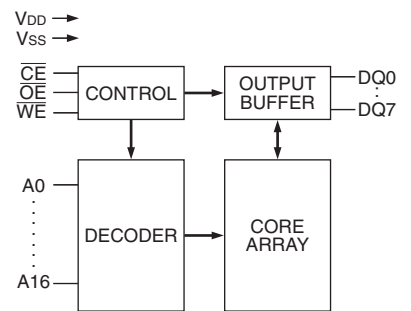
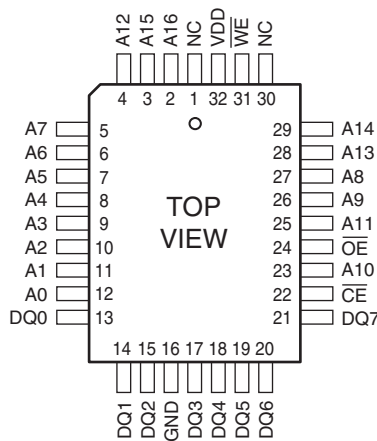
uPC1934GR-1JG-E1 (RC: IC310)



4M FLASH MEMORY (M29W800AB)
(DS: IC502, 509)



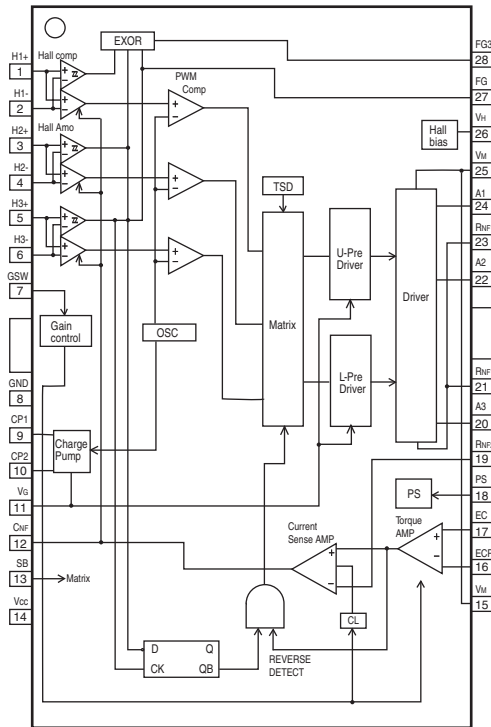
W29EE011P (FG: IC507)



Terminal Function

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

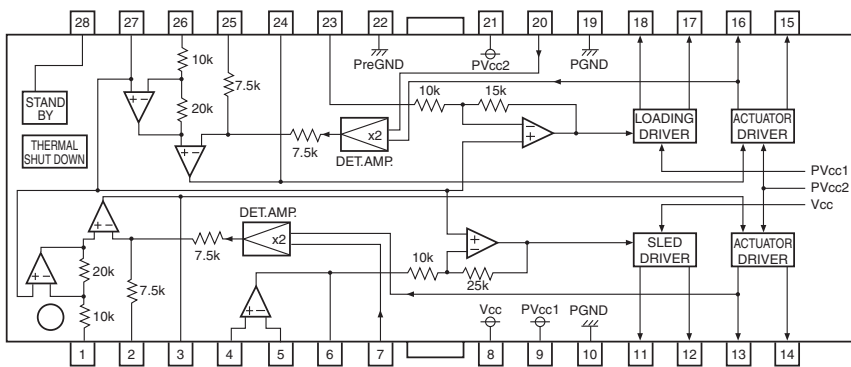
BD6670FM (FG: IC510)



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

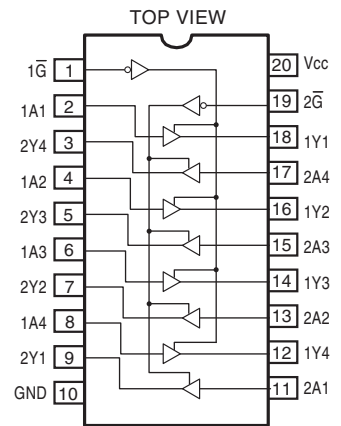
BA5954FP (FG: IC509)



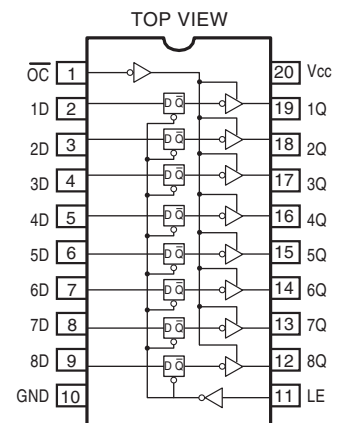
BA5954FP Terminal Function

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

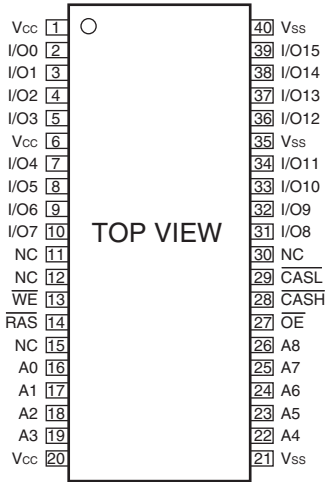
SN74LV244APW (DS: IC508)



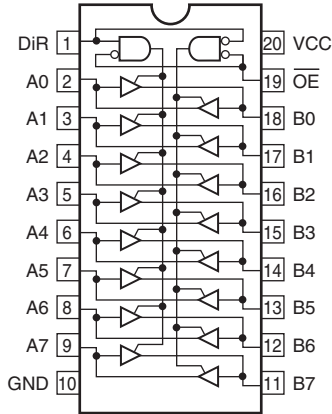
SN74LV573APW (DS: IC102, 152, 304, 305, 404, 405)



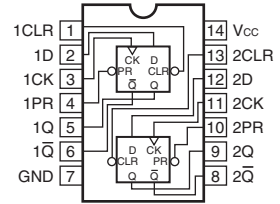
M11B416256A-35J
(FG: IC508)



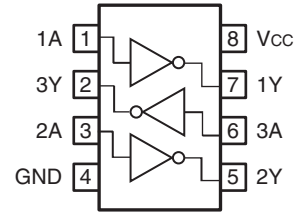
SN74AHC245APW (RC: IC301)
SN74LV245APW (DS: IC103, 104, 153, 154, 504-507, 601, 707)



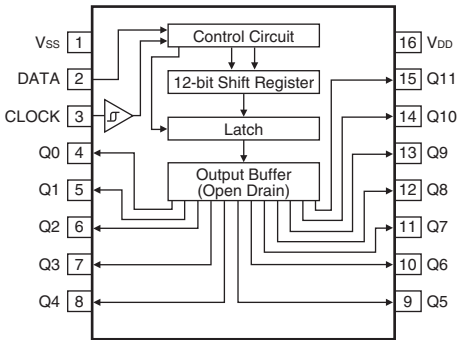
SN74LV74APW
(DS: IC111, 161)



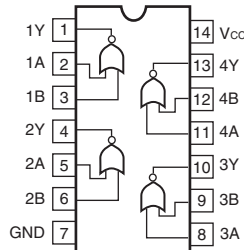
TC7WU04F
(DS: IC653, 654, 706)



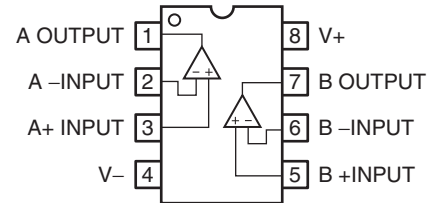
BU2090F (RC: IC103, 203)



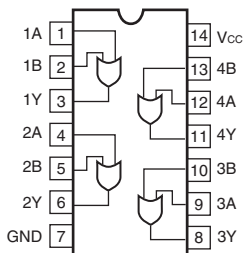
SN74LV02APW
(DS: IC306, 406)



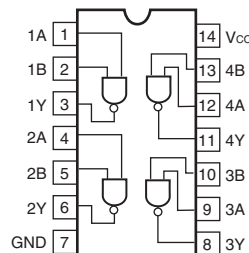
BA15218F (DS: IC701-704)
TL3472 (FG: IC505)



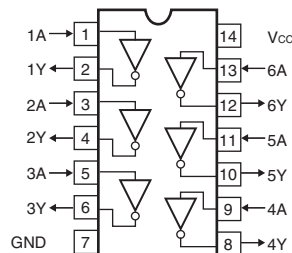
SN74LV32APW
(DS: IC106, 156, 307, 407)



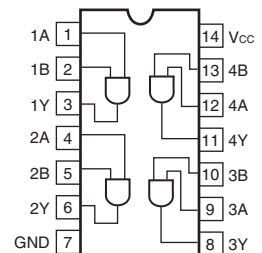
SN74LV00APW
(DS: IC107, 110, 160)



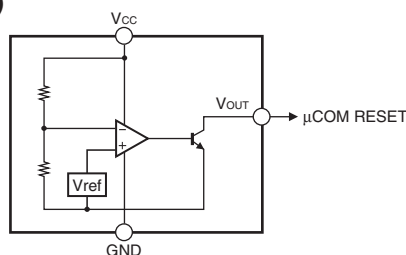
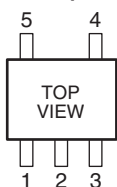
SN74ALVC04PW
(DS: IC604)



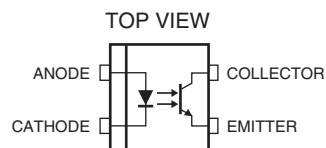
SN74AHCT08PW
(DS: IC105, 155, 602)
SN74LV08APW
(DS: IC109, 308)



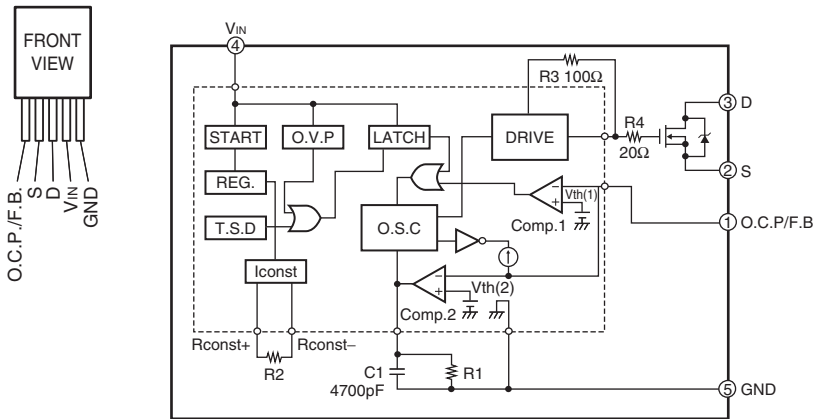
BD4743G (FG: IC109)



PC123 (PO: IC902)



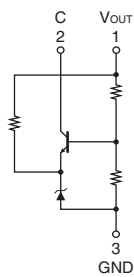
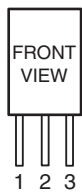
STR-F6676 (PO: IC901)



**BA033T (PO: IC905)
NJM7805FA (DS: IC605) (RC: IC312)**



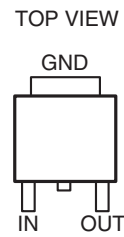
SE012N (PO: IC903)



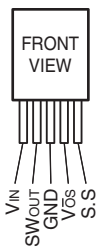
PST600H (DS: IC503)



BA033FP (FG: IC113)

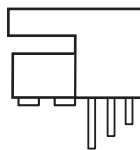


SI-8050S (PO: IC904)

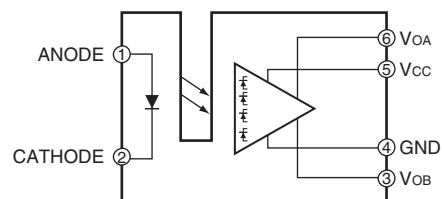
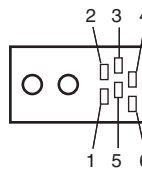


GP1A70R (RC: IC105, 205)

SIDE VIEW

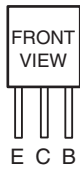


BOTTOM VIEW

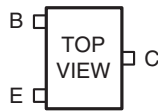


● TRANSISTORS

2SB1328 (P)
2SD2004 (P)



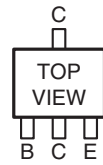
2SA1036K
2SC2411K
KTC2875B



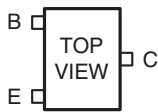
2SK2414



2SB766S
2SB1132

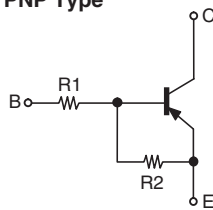


DTA114EK
DTC114EK
DTC143EK



DTA114EK

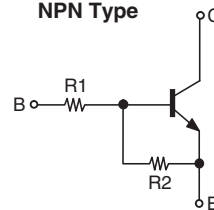
PNP Type



	R1	R2
DTA114EK	10kohm	10kohm

DTC114EK
DTC143EK

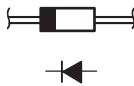
NPN Type



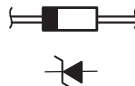
	R1	R2
DTC114EK	10kohm	10kohm
DTC143EK	4.7kohm	4.7kohm

● DIODES (included LED)

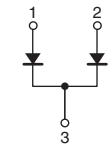
1SR35-400A
1SS133
1SS270A
AG01ZT (V1)
AL01ZT (V1)
SARS01T (V1)
RK14
RK44
RK46



MTZJ3.6A

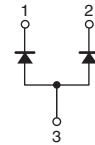


DAN202K



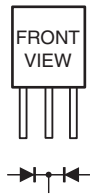
1: Anode
2: Anode
3: Cathode

DAP202K



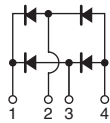
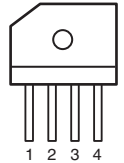
1: Cathode
2: Cathode
3: Anode

FMB-36



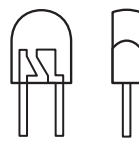
RBV-406

FRONT VIEW



SEL6227S (Red)
SEL6427EP (Green)
SEL6927A (Orange)

SIDE VIEW



SEL2510C (Green)

TOP VIEW



SIDE VIEW

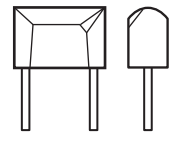


SELU5E20C (Blue)

TOP VIEW



SIDE VIEW



SLR-325VC (Red)

TOP VIEW



SIDE VIEW



L-934MBCK (Blue)
SLR-342DC (Orange)
SLR-342MC (Green)
SLR-342VC (Red)
SLR-342YC (Yellow)

SIDE VIEW

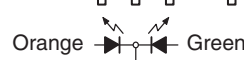
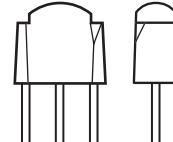


SML79423C

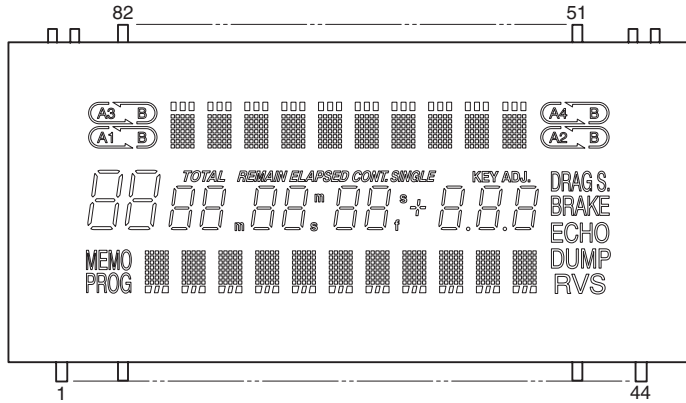
TOP VIEW



SIDE VIEW



● FL DISPLAY
24-ST-09GN (RC: FL102, 202)



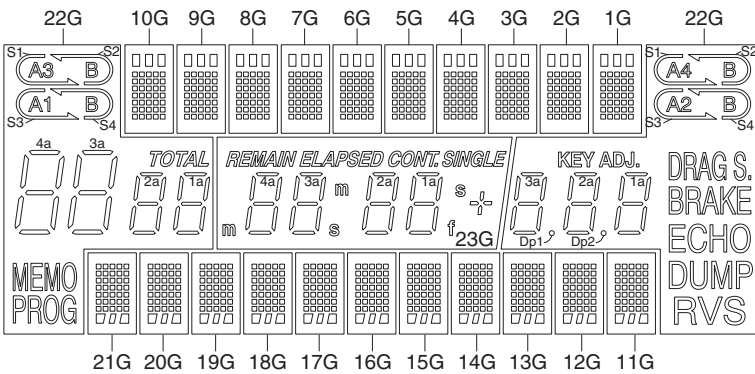
Pin Connection

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

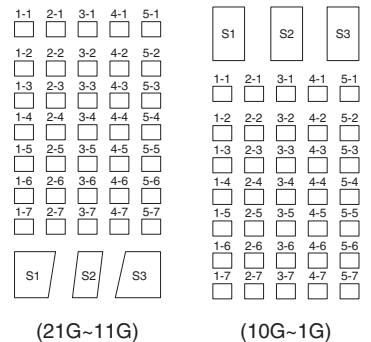
Pin No.	1	2	3	4	5	6	7	8	9	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	
Connection	F	F	F	F	N	N	I	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	2	2	2	1	1	1	1	1	1	1	N	N	P	P	F	F

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



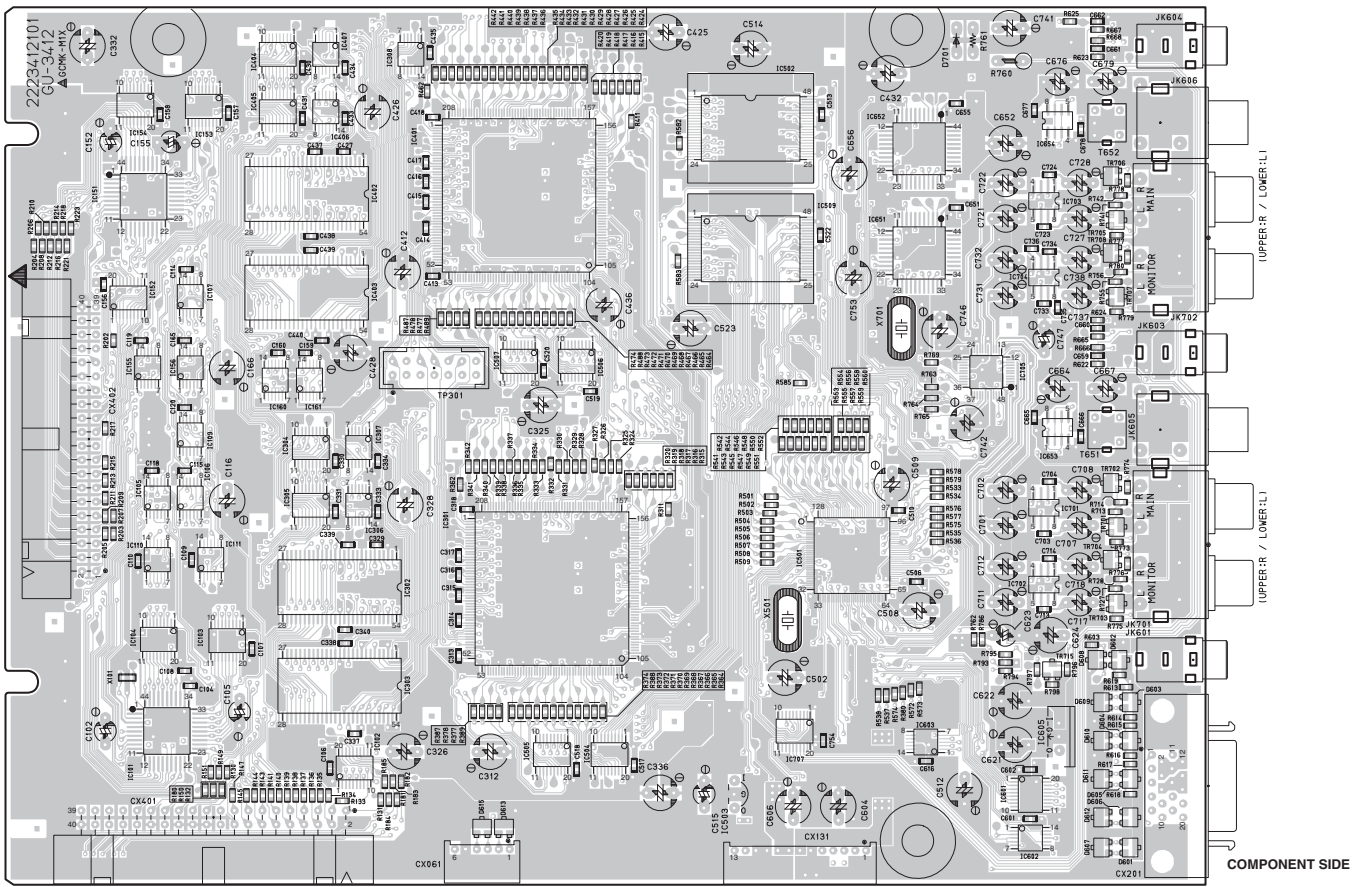
Anode Connection

	24G	23G	22G	21G~1G		24G	23G	22G	21G~1G
P1	RVS	1d	1d	1-1	P21	Dp1	3b	3a	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	f	4a	1-7
P12	↪	2f	2f	2-3	P32	3e	--	A1	2-7
P13	B	2b	2b	3-3	P33	3c	i	↪	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					

PRINTED WIRING BOARDS

1 2 3 4 5 6 7 8

GU-3412 DSP P.W.B. UNIT Ass'y



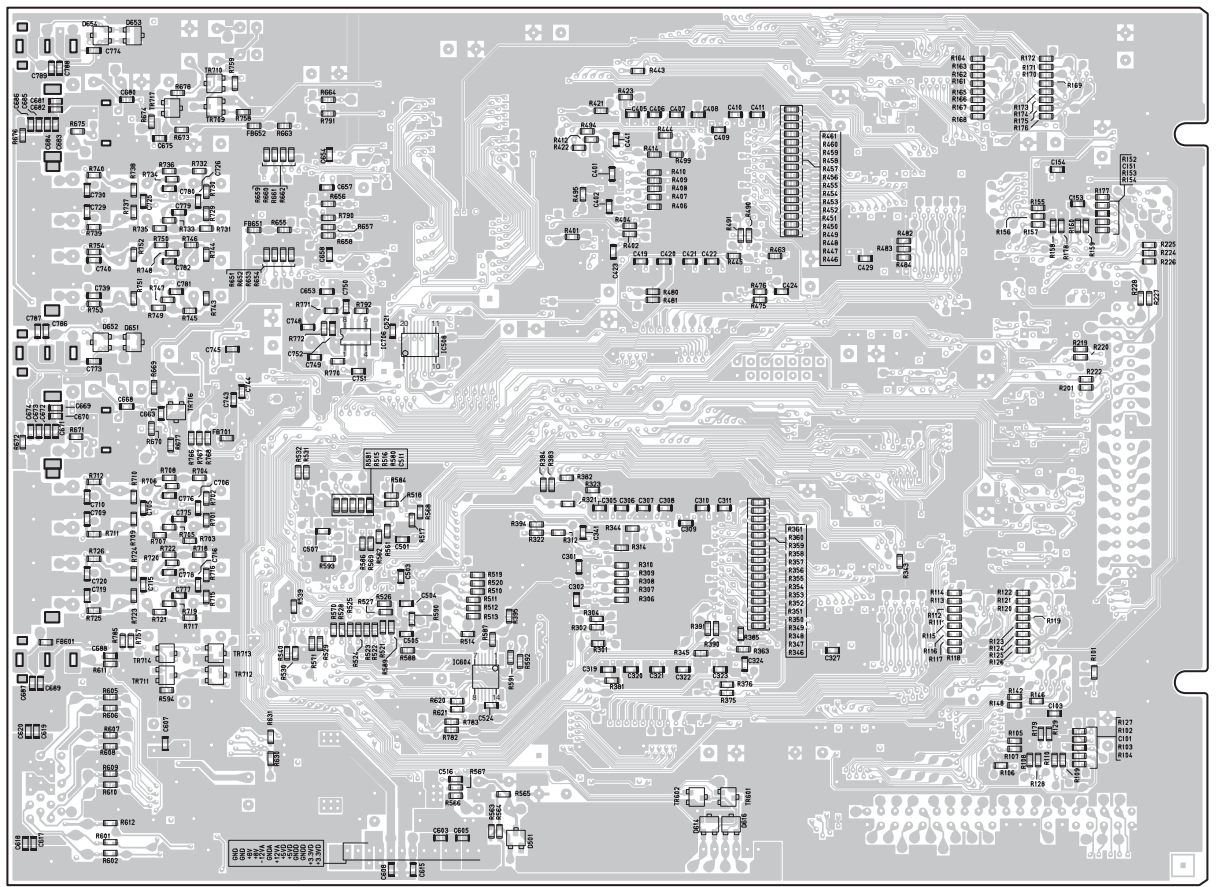
A
B
C
D
E

UPPER-R / LOWER-LI
UPPER-R / LOWER-LI

COMPONENT SIDE

1 2 3 4 5 6 7 8

GU-3412 DSP P.W.B. UNIT Ass'y



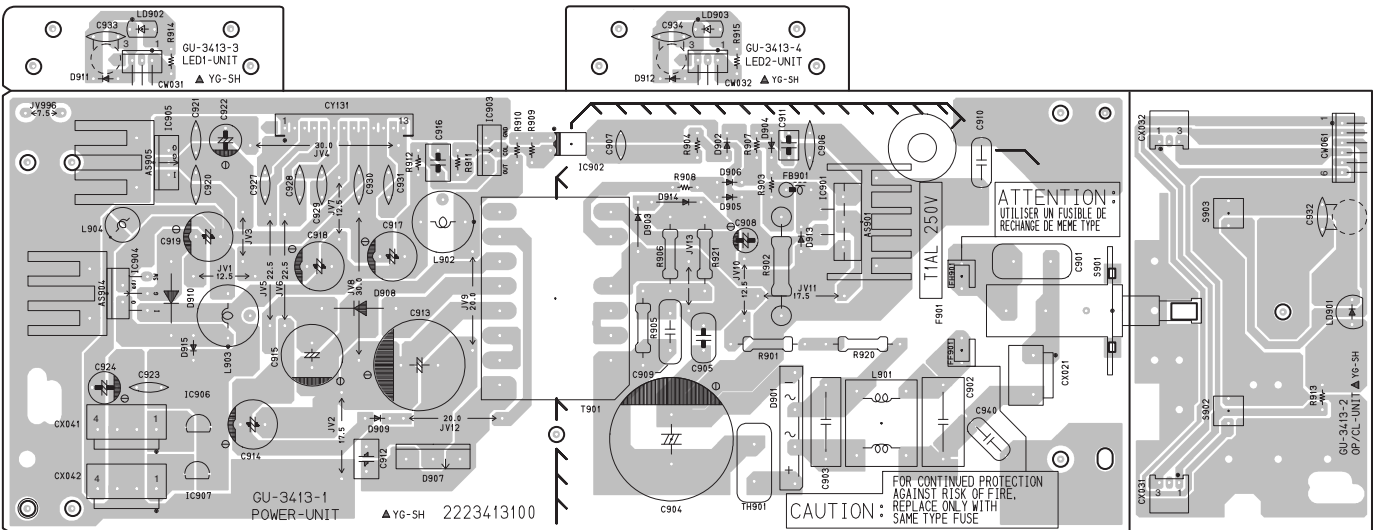
A
B
C
D
E

FOIL SIDE



1 2 3 4 5 6 7 8

GU-3413 POWER P.W.B. UNIT Ass'y



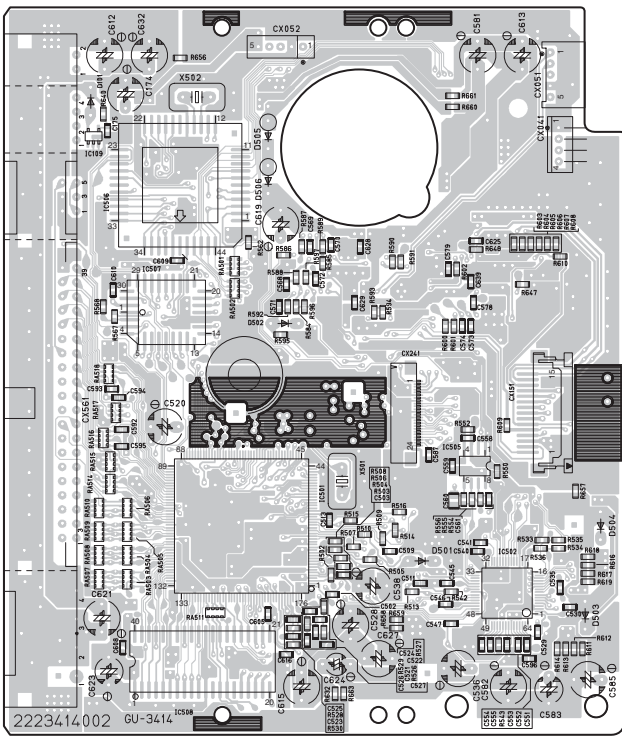
COMPONENT SIDE



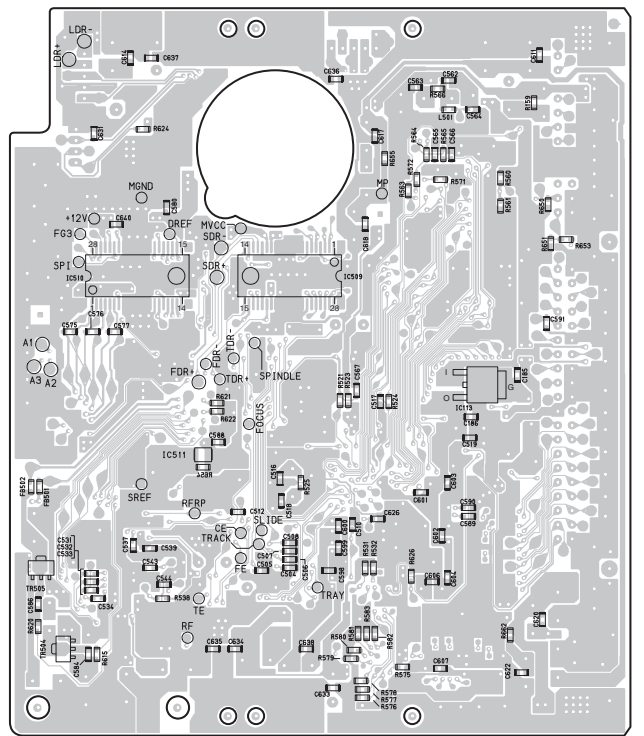
A
B
C
D
E

1 2 3 4 5 6 7 8

GU-3414 CD-ROM P.W.B. UNIT Ass'y



COMPONENT SIDE

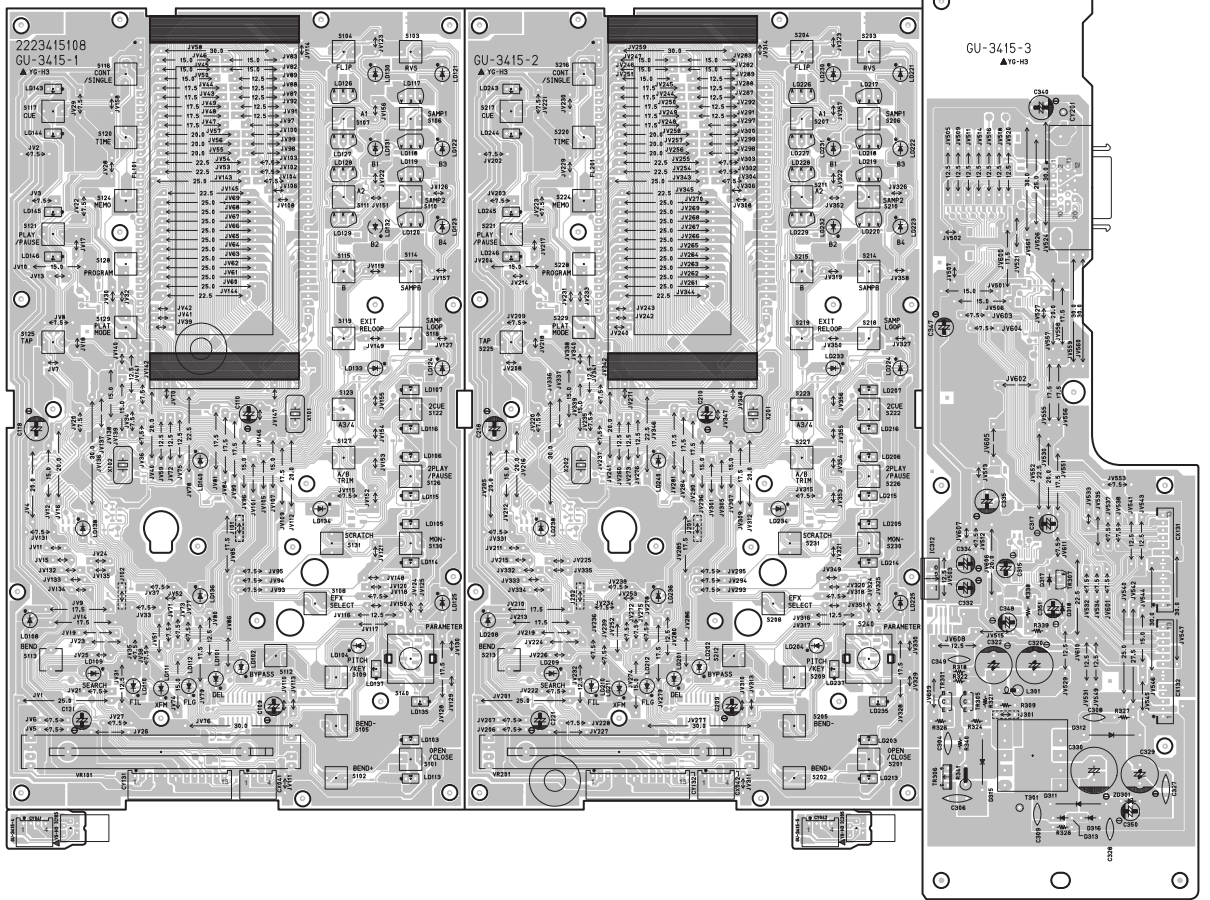


FOIL SIDE

A
B
C
D
E

1 2 3 4 5 6 7 8

GU-3415 REMOTE P.W.B. UNIT Ass'y



COMPONENT SIDE

A

B

C

D

E

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 "1" 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 ±5%, 1/4W 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.

● **Resistors**

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

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

* **Resistance**

1 8 2 ⇒ 1800 ohm = 1.8 kohm
 ↑ ↑ ↑
 Indicates number of zeros after effective number.
 2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
 ↑ ↑ ↑
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.

• Units: ohm

● **Capacitors**

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

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

* **Capacity (electrolyte only)**

2 2 2 ⇒ 2200µF
 ↑ ↑ ↑
 Indicates number of zeros after effective number.
 2-digit effective number.

• Units: µF.

2 R 2 ⇒ 2.2µF
 ↑ ↑ ↑
 1-digit effective number.
 2-digit effective number, decimal point indicated by R.

• Units: µF.

* **Capacity (except electrolyte)**

2 2 2 ⇒ 2200pF=0.0022µF
 ↑ ↑ ↑
 (More than 2) — Indicates number of zeros after effective number.
 2-digit effective number.

• Units: pF.

2 2 1 ⇒ 220pF
 ↑ ↑ ↑
 (0 or 1) — Indicates number of zeros after effective number.
 2-digit effective number.

• Units: pF.

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

PARTS LIST OF P.W.B. UNIT ASS'Y

GU-3412 DSP P.W.B. UNIT ASS'Y

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP				RESISTORS GROUP			
IC102	262 2642 909	IC SN74LV573APW-EL2		TR710,711	269 0082 902	Transistor DTC114EKT96	
IC103,104	262 2640 901	IC SN74LV245APW-EL2		TR712	269 0083 901	Transistor DTA114EKT96	
IC105	262 2813 903	IC SN74AHCT08PW-EL2		TR713	273 0437 909	Transistor 2SC2411K-T146	
IC106	262 2516 909	IC SN74LV32APW-EL2		TR714	269 0082 902	Transistor DTC114EKT96	
IC107	262 2519 906	IC SN74LV00APW-EL2		TR715	271 0260 905	Transistor 2SA1036KT146(S/R)	
IC109	262 2517 908	IC SN74LV08APW-EL2		TR716,717	273 0460 905	Transistor KTC2875B-RTK	
IC110	262 2519 906	IC SN74LV00APW-EL2		D501	276 0559 909	Diode DAP202KT146	
IC111	262 2518 907	IC SN74LV74APW-EL2		D601-606	276 0560 901	Diode DAN202KT146	
IC152	262 2642 909	IC SN74LV573APW-EL2		D607-612	276 0559 909	Diode DAP202KT146	
IC153,154	262 2640 901	IC SN74LV245APW-EL2		D651	276 0559 909	Diode DAP202KT146	
IC155	262 2813 903	IC SN74AHCT08PW-EL2		D652	276 0560 901	Diode DAN202KT146	
IC156	262 2516 909	IC SN74LV32APW-EL2		D653	276 0559 909	Diode DAP202KT146	
IC160	262 2519 906	IC SN74LV00APW-EL2		D654	276 0560 901	Diode DAN202KT146	
IC161	262 2518 907	IC SN74LV74APW-EL2		D701	276 0432 903	Diode 1SS270A TE (TAPE)	
IC301	262 3115 008	IC ADSP-21065L(MP3)					
IC302,303	262 3042 003	IC 128M SDRAM(TSOP)					
IC304,305	262 2642 909	IC SN74LV573APW-EL2					
IC306	262 2729 903	IC SN74LV02APW-EL2					
IC307	262 2516 909	IC SN74LV32APW-EL2					
IC308	262 2517 908	IC SN74LV08APW-EL2					
IC401	262 3115 008	IC ADSP-21065L(MP3)					
IC402,403	262 3042 003	IC 128M SDRAM(TSOP)					
IC404,405	262 2642 909	IC SN74LV573APW-EL2					
IC406	262 2729 903	IC SN74LV02APW-EL2					
IC407	262 2516 909	IC SN74LV32APW-EL2					
IC501	262 3044 001	IC MN102H730F					
IC502	262 3043 002	IC 4M FLASH MEMORY(70N)					
IC503	263 0913 905	IC PST600C TP					
IC504-507	262 2640 901	IC SN74LV245APW-EL2					
IC508	262 2959 906	IC SN74LV244APW					
IC509	262 3043 002	IC 4M FLASH MEMORY(70N)					
IC601	262 2640 901	IC SN74LV245APW-EL2					
IC602	262 2813 903	IC SN74AHCT08PW-EL2					
IC604	262 3117 909	IC SN74ALVC04PW					
IC605	263 0809 006	IC NJM7805FA(S)					
IC651,652	262 2465 005	IC SM5902AF					
IC653,654	262 1953 903	IC TC7WU04F					
IC701-704	263 0615 902	IC BA15218F-DXE2					
IC705	262 3045 000	IC PCM1608Y					
IC706	262 1953 903	IC TC7WU04F					
IC707	262 2640 901	IC SN74LV245APW-EL2					
TR601,602	269 0082 902	Transistor DTC114EKT96		R101	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
TR701-708	273 0460 905	Transistor KTC2875B-RTK		R102-105	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
TR709	269 0083 901	Transistor DTA114EKT96		R106	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
				R107	247 2009 925	Carbon chip 5.6 kohm 1/16W	RM73B--562JT
				R108-110	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R111-126	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
				R127-129	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R130-151	247 2003 989	Carbon chip 22 ohm 1/16W	RM73B--330JT
				R152-155	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R156	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
				R157	247 2009 925	Carbon chip 5.6 kohm 1/16W	RM73B--562JT
				R158-160	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R161-176	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
				R177-179	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R180-185	247 2003 989	Carbon chip 22 ohm 1/16W	RM73B--330JT
				R201-228	247 2003 989	Carbon chip 22 ohm 1/16W	RM73B--330JT
				R301,302	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R304	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R306-310	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R311,312	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R314	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R315-321	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R322,323	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R324-342	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R343,344	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R345-362	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R363	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R364-378	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
				R380-384	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
				R385	247 2008 913	Carbon chip 2 kohm 1/16W	RM73B--202JT
				R387-389	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R390,391	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R620,621	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R394	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R622-625	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R395	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R630,631	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R401,402	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R651-654	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R404	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R655	247 2005 987	Carbon chip 100 ohm 1/16W	RM73B--221JT
R406-410	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R656-658	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
R411,412	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R659-662	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R414	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R663	247 2005 987	Carbon chip 100 ohm 1/16W	RM73B--221JT
R415-421	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R664	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
R422,423	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R665-668	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT
R424-442	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R669	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT
R443,444	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R670	247 2014 965	Carbon chip 1 Mohm 1/16W	RM73B--105JT
R445-462	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R671	247 2004 975	Carbon chip 75 ohm 1/16W	RM73B--750JT
R463	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R672	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R464-478	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R673	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT
R480-484	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R674	247 2014 965	Carbon chip 1 Mohm 1/16W	RM73B--105JT
R487-489	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R675	247 2004 975	Carbon chip 75 ohm 1/16W	RM73B--750JT
R490,491	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R676	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R494	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R677,678	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R495	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R701,702	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R499	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R703,704	247 2009 970	Carbon chip 9.1 kohm 1/16W	RM73B--912JT
R501-509	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R705,706	247 2009 938	Carbon chip 6.2 kohm 1/16W	RM73B--622JT
R510-513	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R707,708	247 2011 913	Carbon chip 36 kohm 1/16W	RM73B--363JT
R514	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT	R709,710	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R515-530	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R711,712	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R531,532	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R713,714	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R533-540	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R715,716	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R541-560	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R717,718	247 2009 970	Carbon chip 9.1 kohm 1/16W	RM73B--912JT
R561,562	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R719,720	247 2009 938	Carbon chip 6.2 kohm 1/16W	RM73B--622JT
R564	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R721,722	247 2011 913	Carbon chip 36 kohm 1/16W	RM73B--363JT
R565	247 2006 915	Carbon chip 470 ohm 1/16W	RM73B--271JT	R723,724	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R566	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT	R725,726	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R567	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R727,728	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R568-581	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R729,730	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R582,583	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R731,732	247 2009 970	Carbon chip 9.1 kohm 1/16W	RM73B--912JT
R584	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R733,734	247 2009 938	Carbon chip 6.2 kohm 1/16W	RM73B--622JT
R586	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R735,736	247 2011 913	Carbon chip 36 kohm 1/16W	RM73B--363JT
R587,588	247 2003 989	Carbon chip 22 ohm 1/16W	RM73B--330JT	R737,738	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R589	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R739,740	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R590	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R741,742	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R591	247 2003 989	Carbon chip 22 ohm 1/16W	RM73B--330JT	R743,744	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R592	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R745,746	247 2009 970	Carbon chip 9.1 kohm 1/16W	RM73B--912JT
R593,594	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R747,748	247 2009 938	Carbon chip 6.2 kohm 1/16W	RM73B--622JT
R601,602	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R749,750	247 2011 913	Carbon chip 36 kohm 1/16W	RM73B--363JT
R603	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT	R751,752	247 2010 998	Carbon chip 30 kohm 1/16W	RM73B--303JT
R605-610	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R753,754	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R611	247 2008 913	Carbon chip 2 kohm 1/16W	RM73B--202JT	R755,756	247 2008 942	Carbon chip 2.7 kohm 1/16W	RM73B--272JT
R612	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R757	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT
R613-619	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R758	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT
				R759	247 2012 996	Carbon chip 200 kohm 1/16W	RM73B--204JT
				R760	244 2051 974	Metal oxide 1 kohm 1W(NB)	RS14B3A102JNBST(S)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R762	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT	C429-431	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R763-770	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	C432	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
R771	247 2006 986	Carbon chip 470 ohm 1/16W	RM73B--561JT	C433-435	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R772	247 2014 965	Carbon chip 1 Mohm 1/16W	RM73B--105JT	C436	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
R773-780	247 2005 987	Carbon chip 100 ohm 1/16W	RM73B--221JT	C437-441	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R782,783	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	C501	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R785,786	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT	C502	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
R790,791	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	C503	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R792	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	C504,505	257 0503 941	Ceramic chip 12pF/50V	CC73CH1H120JT
R794	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT	C506	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R797	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT	C507	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
R798	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT	C508,509	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
CAPACITORS GROUP				C510,511	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C101	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT	C512	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
C102	254 4299 906	Electrolytic 10μF/16V	CE04W1C100MT(SRE)	C513	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C103,104	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C514	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
C105	254 4299 906	Electrolytic 10μF/16V	CE04W1C100MT(SRE)	C515	254 4299 906	Electrolytic 10μF/16V	CE04W1C100MT(SRE)
C106-110	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C516	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C114,115	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C517-522	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C116	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C523	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
C118-120	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C524	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C151	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT	C601-603	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C152	254 4299 906	Electrolytic 10μF/16V	CE04W1C100MT(SRE)	C604	254 4299 964	Electrolytic 47μF/16V	CE04W1C470MT(SRE)
C153,154	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C605	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C155	254 4299 906	Electrolytic 10μF/16V	CE04W1C100MT(SRE)	C606	254 4302 974	Electrolytic 100μF/10V	CE04W1A101MT(SRE)
C156-160	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C607,608	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C165	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C615	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C166	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C617	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C301,302	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C618	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)
C305-311	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C619	257 0511 904	Ceramic chip 0.01μF/50V	CK73F1H103ZT
C312	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C620	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C313-323	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C621	254 4536 957	Electrolytic 470μF/10V	CE04W1A471MT SMG/RE3
C324	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT	C622	254 4299 964	Electrolytic 47μF/16V	CE04W1C470MT(SRE)
C325,326	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C623	254 4538 955	Electrolytic 220μF/16V	CE04W1C221MT SMG/RE3
C327	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C624	254 4305 968	Electrolytic 1μF/50V	CE04W1H010MT(SRE)
C328	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C651	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C329-331	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C652	254 4302 974	Electrolytic 100μF/10V	CE04W1A101MT(SRE)
C332	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C653	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C333,334	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C654	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C336	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C655	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C337-341	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C656	254 4302 974	Electrolytic 100μF/10V	CE04W1A101MT(SRE)
C401,402	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C657	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C405-411	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C658	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
C412	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C659-662	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT
C413-423	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C663	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
C424	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT	C664	254 4536 928	Electrolytic 100μF/10V	CE04W1A101MT SMG/RE3
C425,426	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C665	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)
C427	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C666	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
C428	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C667	254 4254 925	Electrolytic 33μF/16V	CE04W1C330MT (SME)
				C668	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	Q'ty
C669	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT	OTHER PARTS GROUP				
C670,671	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	CX061	205 0355 062	6P KR connector base (L)		1
C672	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	CX131	205 0480 034	13P KR connector base (L)		1
C674	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	CX201	204 6716 000	20P D connector (MSY-20S)		1
C675	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT	CX401,402	205 0429 024	40P pin header		2
C676	254 4536 928	Electrolytic 100μF/10V	CE04W1A101MT SMG/RE3	FB601	235 0130 903	Chip emifil (11A121)		1
C677	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	FB651,652	235 0130 903	Chip emifil (11A121)		2
C678	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	FB701	235 0130 903	Chip emifil (11A121)		1
C679	254 4254 925	Electrolytic 33μF/16V	CE04W1C330MT (SME)	JK601	204 8421 005	Mini jack		1
C680	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	JK603,604	204 8421 005	Mini jack		2
C681	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT	JK605,606	204 8375 009	1P pin jack		2
C682,683	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	JK701,702	204 8507 026	4P pin jack (Shied)		2
C684	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	T651,652	231 8063 009	Pulse trans.		2
C686	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	X101	399 0801 905	Ceramic 8 MHz	CSTCE8M00G52-RO	1
C687-689	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT	X501	399 0794 009	Crystal 32.00 MHz		1
C701,702	254 4538 900	Electrolytic 10μF/16V	CE04W1C100MT SMG/RE3	X701	399 0165 007	Crystal 16.9344 MHz		1
C703,704	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT					
C705,706	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C707,708	254 4541 900	Electrolytic 10μF/25V	CE04W1E100MT SMG/RE3					
C709,710	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT					
C711,712	254 4538 900	Electrolytic 10μF/16V	CE04W1C100MT SMG/RE3					
C713,714	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT					
C715,716	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C717,718	254 4541 900	Electrolytic 10μF/25V	CE04W1E100MT SMG/RE3					
C719,720	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT					
C721,722	254 4538 900	Electrolytic 10μF/16V	CE04W1C100MT SMG/RE3					
C723,724	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT					
C725,726	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C727,728	254 4541 900	Electrolytic 10μF/25V	CE04W1E100MT SMG/RE3					
C729,730	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT					
C731,732	254 4538 900	Electrolytic 10μF/16V	CE04W1C100MT SMG/RE3					
C733,734	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT					
C735,736	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C737,738	254 4541 900	Electrolytic 10μF/25V	CE04W1E100MT SMG/RE3					
C739,740	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT					
C741	254 4538 955	Electrolytic 220μF/16V	CE04W1C221MT SMG/RE3					
C742	254 4302 974	Electrolytic 100μF/10V	CE04W1A101MT(SRE)					
C743	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C744	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT					
C745	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C746	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)					
C747	254 4299 906	Electrolytic 10μF/16V	CE04W1C100MT(SRE)					
C748,749	257 0503 967	Ceramic chip 15pF/50V	CC73CH1H150JT					
C750	257 0511 904	Ceramic chip 0.01μF/50V	CK73F1H103ZT					
C751	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C752	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT					
C753	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)					
C754	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C773,774	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT					
C775-782	257 0509 961	Ceramic chip 1500pF/50V	CK73B1H152KT					
C786-789	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT					

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

Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP			
IC901	265 0115 000	IC STR-F6676	
IC902	262 3047 008	IC PC123 Y-22	
IC903	263 1168 005	IC SE012N	
IC904	263 1169 004	IC SI-8050S	
IC905	263 1048 002	IC BA033T	
D901	276 0767 005	Diode RBV-406	
D902	276 0730 906	Diode AG01ZT (V1)	
D903	276 0724 909	Diode SARS01T (V1)	
D904-906	276 0730 906	Diode AG01ZT (V1)	
D907	276 0768 004	Diode FMB-36	
D908	276 0769 003	Diode RK-44	
D909	276 0730 906	Diode AG01ZT (V1)	
D910	276 0770 005	Diode RK-46	
D913	276 0730 906	Diode AG01ZT (V1)	
D914	276 0724 909	Diode SARS01T (V1)	
D915	276 0730 906	Diode AG01ZT (V1)	
LD901	393 9543 907	LED SLR-325VC (RED) TAPE	Red
LD902,903	393 9612 906	LED SELU5E20C(TP15)	Blue
TH901	279 0044 002	Thermistor NTH11D8R0LA	
RESISTORS GROUP			
R901	244 2675 716	Metal oxide 68 kohm 2W(NB)	RS14B3D683JNBF(ERG), for E3
R901	244 2675 732	Metal oxide 100 kohm 2W(NB)	RS14B3D104JNBF(ERG), for E2
R902	244 2677 002	Metal oxide 0.22 ohm 3W(NB)	RS14B3FR22JNBF(ERG)
R905	244 2675 732	Metal oxide 100 kohm 2W(NB)	RS14B3D104JNBF(ERG)
R906	244 2675 745	Metal oxide 100 ohm 2W(NB)	RS14B3D101JNBF(ERG)
R920	244 2675 732	Metal oxide 100 kohm 2W(NB)	RS14B3D104JNBF(ERG), for E2
R921	244 2675 745	Metal oxide 100 ohm 2W(NB)	RS14B3D101JNBF(ERG)
CAPACITORS GROUP			
△ C901	253 8022 707	Ceramic 0.01µF/250V(AC)	CK45F2EAC103MC
△ C902	256 8038 017	Metalized 0.22µF/250V	CF99--2EAC224M
△ C903	256 8038 004	Metalized 0.1µF/250V	CF99--2EAC104M
C904	254 4616 709	Electrolytic 220µF/400V	CE04W2G221MC25E(KMH)
C905	253 4546 711	Ceramic 220pF/2000V	CC45SL3D221JC
C906	253 4452 902	Ceramic 470pF/50V	CC45SL1H471JT
C907	253 9030 963	Ceramic 0.01µF/25V	CK45=1E103KT
C908	254 4423 905	Electrolytic 47µF/35V	CE04W1V470MT(KMG)
C909	253 8028 701	Ceramic 2200pF/1000V	CK45R3A222KC
△ C910	253 8029 700	Ceramic 2200pF/250V(AC)	CK45F2EAC222MC (KX)
C911	255 4201 984	Mylar film 560pF/50V	CQ93P1H561JT
C912	253 4548 706	Ceramic 1000pF/1000V	CC45R3A102KC
C913	254 4592 755	Electrolytic 6800µF/16V	CE04W1C682MCM35(LXV)
C914	254 4617 902	Electrolytic 220µF/16V	CE04W1C221MT(KMF)
C915	254 4592 742	Electrolytic 2200µF/16V	CE04W1C222MCK30(LXV)
C916	256 1058 971	Metalized 0.1µF/50V	CF93A1H104JT (JL)
C917	254 4592 726	Electrolytic 470µF/16V	CE04W1C471MCH20(LXV)

Ref. No.	Part No.	Part Name	Remarks	
C918,919	254 4592 739	Electrolytic 1200µF/16V	CE04W1C122MCJ30(LXV)	
C920,921	253 9039 906	Ceramic 0.1µF/25V	CK45=1E104ZT(DD-3)	
C922	254 4533 950	Electrolytic 470µF/6.3V	CE04W0J471MT SMG/RE3	
C923	253 9039 906	Ceramic 0.1µF/25V	CK45=1E104ZT(DD-3)	
C924	254 4539 705	Electrolytic 1000µF/16V	CE04W1C102MC SMG/RE3	
C927-934	253 9039 906	Ceramic 0.1µF/25V	CK45=1E104ZT(DD-3)	
△ C940	253 8029 700	Ceramic 2200pF/250V(AC)	CK45F2EAC222MC (KX)	
OTHER PARTS GROUP				Q'ty
CX021	205 0581 001	2P VH connector base		1
CX031,032	205 0355 033	3P KR connector base (L)		2
CX041,042	205 0653 049	4P VH connector base		2
CY131	205 0375 039	13P connector base (KR-PH)		1
△ F901	206 1087 015	Fuse ET1A	for E3	1
△ F901	206 1087 028	Fuse ET2A	for E2	1
FB901	235 0049 900	Beads inductor		1
FF901	202 0040 909	Fuse clip		1
FH901	202 0040 909	Fuse clip		1
△ L901	235 0141 002	Line filter (PLA10A)		1
L902	235 0154 002	Coil (4.7µH)		1
L903	235 0155 001	Coil (56µH)		1
L904	235 0156 903	Coil (22µH)		1
△ S901	212 1176 015	Power switch (TV-5)		1
S902,903	212 5604 907	Tact switch		2
△ T901	233 6416 007	Switching trans.		1
	417 0476 023	Radiator		2
	417 0610 009	Heat sink		1
	471 3304 015	Screw 3x8 CBS-Z		2
	471 3305 027	Screw 3x10 CBS-B		1

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Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP				SEMICONDUCTORS GROUP			
IC109	262 3082 908	IC BD4743G		R562	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
IC113	263 1079 903	IC BA033FP		R567	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
IC501	262 3083 004	IC M5705		R584	247 2003 989	Carbon chip 33 ohm 1/16W	RM73B--330JT 1608
IC502	262 3084 003	IC SP-3721A		R585	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
IC505	262 3085 905	IC TL3472		R586	247 2011 900	Carbon chip 33 kohm 1/16W	RM73B--333JT 1608
IC507	262 3086 001	IC W29EE011P-90		R587	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
IC508	262 3087 903	IC M11B416256A-35J		R588	247 2010 901	Carbon chip 12 kohm 1/16W	RM73B--123JT 1608
IC509	262 3088 902	IC BA5954FP		R589	247 2008 968	Carbon chip 3.3 kohm 1/16W	RM73B--332JT 1608
IC510	262 3089 901	IC BD6670FM		R590,591	247 2018 916	Carbon chip 1 ohm 1/16W	RM73B--010KT 1608
TR504,505	272 0160 901	Transistor 2SB1132T100Q		R592	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
D101	276 0401 905	Diode 1SS133T77 (TAPE)		R593,594	247 2018 916	Carbon chip 1 ohm 1/16W	RM73B--010KT 1608
D502-504	276 0401 905	Diode 1SS133T77 (TAPE)		R595	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
RESISTORS GROUP				RESISTORS GROUP			
R159	247 2005 987	Carbon chip 220 ohm 1/16W	RM73B--221JT 1608	R601	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
R502	247 2010 956	Carbon chip 20 kohm 1/16W	RM73B--203JT 1608	R602	247 2003 989	Carbon chip 33 ohm 1/16W	RM73B--330JT 1608
R503	247 2011 955	Carbon chip 51 kohm 1/16W	RM73B--513JT 1608	R603-606	247 2018 987	Carbon chip 2 ohm 1/16W	RM73B--2R0KT 1608
R505-507	247 2008 968	Carbon chip 3.3 kohm 1/16W	RM73B--332JT 1608	R609,610	247 2005 929	Carbon chip 120 ohm 1/16W	RM73B--121JT 1608
R508	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608	R611-614	247 2004 904	Carbon chip 39 ohm 1/16W	RM73B--390JT 1608
R509	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT 1608	R615	247 2009 912	Carbon chip 5.1 kohm 1/16W	RM73B--512JT 1608
R510	247 2003 989	Carbon chip 33 ohm 1/16W	RM73B--330JT 1608	R616-619	247 2004 904	Carbon chip 39 ohm 1/16W	RM73B--390JT 1608
R513	247 2007 998	Carbon chip 1.6 kohm 1/16W	RM73B--162JT 1608	R620	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT 1608
R514	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT 1608	R621	247 2007 969	Carbon chip 1.2 kohm 1/16W	RM73B--122JT 1608
R515	247 2009 912	Carbon chip 5.1 kohm 1/16W	RM73B--512JT 1608	R622	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT 1608
R516	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT 1608	R626	247 2008 926	Carbon chip 2.2 kohm 1/16W	RM73B--222JT 1608
R521	247 2002 964	Carbon chip 10 ohm 1/16W	RM73B--100JT 1608	R632	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
R523	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608	R640	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
R524	247 2002 964	Carbon chip 10 ohm 1/16W	RM73B--100JT 1608	R647	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
R525	247 2014 965	Carbon chip 1 Mohm 1/16W	RM73B--105JT 1608	R648	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
R527	247 2009 909	Carbon chip 4.7 kohm 1/16W	RM73B--472JT 1608	R650,651	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608
R528	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608	R653	247 2008 968	Carbon chip 3.3 kohm 1/16W	RM73B--332JT 1608
R529	247 2009 912	Carbon chip 5.1 kohm 1/16W	RM73B--512JT 1608	R654,655	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
R530	247 2007 969	Carbon chip 1.2 kohm 1/16W	RM73B--122JT 1608	R660-663	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608
R531	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT 1608	RA501,502	247 9002 909	Chip network 33 ohm 1/16W	MNR14=330JE0AB
R532	247 2011 968	Carbon chip 56 kohm 1/16W	RM73B--563JT 1608	RA503-506	247 9007 904	Chip network 100 ohm 1/16W	MNR14=101JE0
R533	247 2009 996	Carbon chip 11 kohm 1/16W	RM73B--113JT 1608	RA507-510	247 9007 917	Chip network 10 kohm 1/16W	MNR14=103JE0
R534,535	247 2007 969	Carbon chip 1.2 kohm 1/16W	RM73B--122JT 1608	RA511	247 9002 909	Chip network 33 ohm 1/16W	MNR14=330JE0AB
R536	247 2009 996	Carbon chip 11 kohm 1/16W	RM73B--113JT 1608	RA514	247 9002 909	Chip network 33 ohm 1/16W	MNR14=330JE0AB
R538	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608	RA515	247 9007 917	Chip network 10 kohm 1/16W	MNR14=103JE0
R542	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT 1608	RA516	247 9002 909	Chip network 33 ohm 1/16W	MNR14=330JE0AB
R543	247 2019 931	Carbon chip 8.2 kohm 1/16W	RM73B--822FT 1608	RA517	247 9007 917	Chip network 10 kohm 1/16W	MNR14=103JE0
R550	247 2007 985	Carbon chip 1.5 kohm 1/16W	RM73B--152JT 1608	RA518	247 9002 909	Chip network 33 ohm 1/16W	MNR14=330JE0AB
R552	247 2019 931	Carbon chip 8.2 kohm 1/16W	RM73B--822FT 1608	CAPACITORS GROUP			
R554	247 2011 968	Carbon chip 56 kohm 1/16W	RM73B--563JT 1608	C174	254 4299 964	Electrolytic 47µF/16V	CE04W1C470MT (SRE)
R555	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT 1608	C185,186	257 0512 903	Ceramic chip 0.1µF/25V	CK73F1E104ZT 1608
R556	247 2013 982	Carbon chip 470 kohm 1/16W	RM73B--474JT 1608	C502	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608
				C503	257 0510 950	Ceramic chip 6800pF/50V	CK73B1H682KT 1608
				C505,506	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT 1608

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
C507,508	257 0516 941	Ceramic chip 0.047μF/25V	CK73B1E473KT 1608	C596	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C509,510	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608	C598-608	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C511,512	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608	C610,611	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C513	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608	C612	254 4193 947	Electrolytic 100μF/16V	CE04W1C101MT (SRA)
C516	257 0504 908	Ceramic chip 22pF/50V	CC73CH1H220JT 1608	C613	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)
C517	257 0504 982	Ceramic chip 47pF/50V	CC73CH1H470JT 1608	C614	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C518	257 0504 908	Ceramic chip 22pF/50V	CC73CH1H220JT 1608	C615	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)
C519	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608	C616	257 0508 917	Ceramic chip 470pF/50V	CC73CH1H471JT 1608
C520	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)	C617,618	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C521-523	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608	C619	254 4538 942	Electrolytic 100μF/16V	CE04W1C101MT SMG/RE3
C524	257 0504 982	Ceramic chip 47pF/50V	CC73CH1H470JT 1608	C620	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C525	257 0508 933	Ceramic chip 560pF/50V	CC73CH1H561JT 1608	C621	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)
C526	257 0516 941	Ceramic chip 0.047μF/25V	CK73B1E473KT 1608	C622	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C527	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608	C623	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)
C528	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)	C624	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)
C529	257 0508 959	Ceramic chip 680pF/50V	CC73CH1E681JT 1608	C625	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT 1608
C530	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608	C626	257 0510 934	Ceramic chip 4700pF/50V	CK73B1H472KT 1608
C531-534	257 0508 959	Ceramic chip 680pF/50V	CC73CH1E681JT 1608	C627	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)
C535	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT 1608	C628,629	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C536	254 4306 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)	C632	254 4193 947	Electrolytic 100μF/16V	CE04W1C101MT (SRA)
C537	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608	C633-640	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608
C538	254 4533 921	Electrolytic 100μF/6.3V	CE04W0J101MT SMG/RE3	OTHER PARTS GROUP			
C539	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608	CX051	205 0355 059	5P KR connector base (L)	1
C540	257 0510 934	Ceramic chip 4700pF/50V	CK73B1H472KT 1608	CX151	205 1224 901	15P FFC base (P=1)	1
C541	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608	CX241	205 1225 900	24P FFC base (P=1)	1
C543	257 0507 918	Ceramic chip 180pF/50V	CC73CH1H181JT 1608	CX561	205 1231 004	IDE connector (56P)	1
C544	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608	FB501,502	235 0130 903	Chip emifil (11A121)	2
C545	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608	X501	399 0790 906	Ceramic 33 MHz	CSALS33M8X51-A0 1
C546	257 0516 941	Ceramic chip 0.047μF/25V	CK73B1E473KT 1608				
C547	257 0508 959	Ceramic chip 680pF/50V	CC73CH1E681JT 1608				
C551-555	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608				
C558	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608				
C559	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608				
C560	257 0033 903	Ceramic chip 0.47μF/25V	CK73B1E474KT 2125				
C561	257 0504 940	Ceramic chip 33pF/50V	CC73CH1H330JT 1608				
C568	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608				
C569	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT 1608				
C570	257 0510 934	Ceramic chip 4700pF/50V	CK73B1H472KT 1608				
C571,572	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT 1608				
C573,574	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608				
C575-577	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608				
C578	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT 1608				
C579,580	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608				
C581	254 4193 947	Electrolytic 100μF/16V	CE04W1C101MT (SRA)				
C582	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)				
C583	254 4299 919	Electrolytic 22μF/16V	CE04W1C220MT(SRE)				
C584	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608				
C585	254 4300 963	Electrolytic 100μF/6.3V	CE04W0J101MT (SRE)				
C586	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT 1608				
C587,588	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT 1608				
C589,590	257 0503 925	Ceramic chip 10pF/50V	CC73CH1H100DT 1608				
C592-595	257 0503 925	Ceramic chip 10pF/50V	CC73CH1H100DT 1608				

GU-3415 REMOTE P.W.B. UNIT ASS'Y

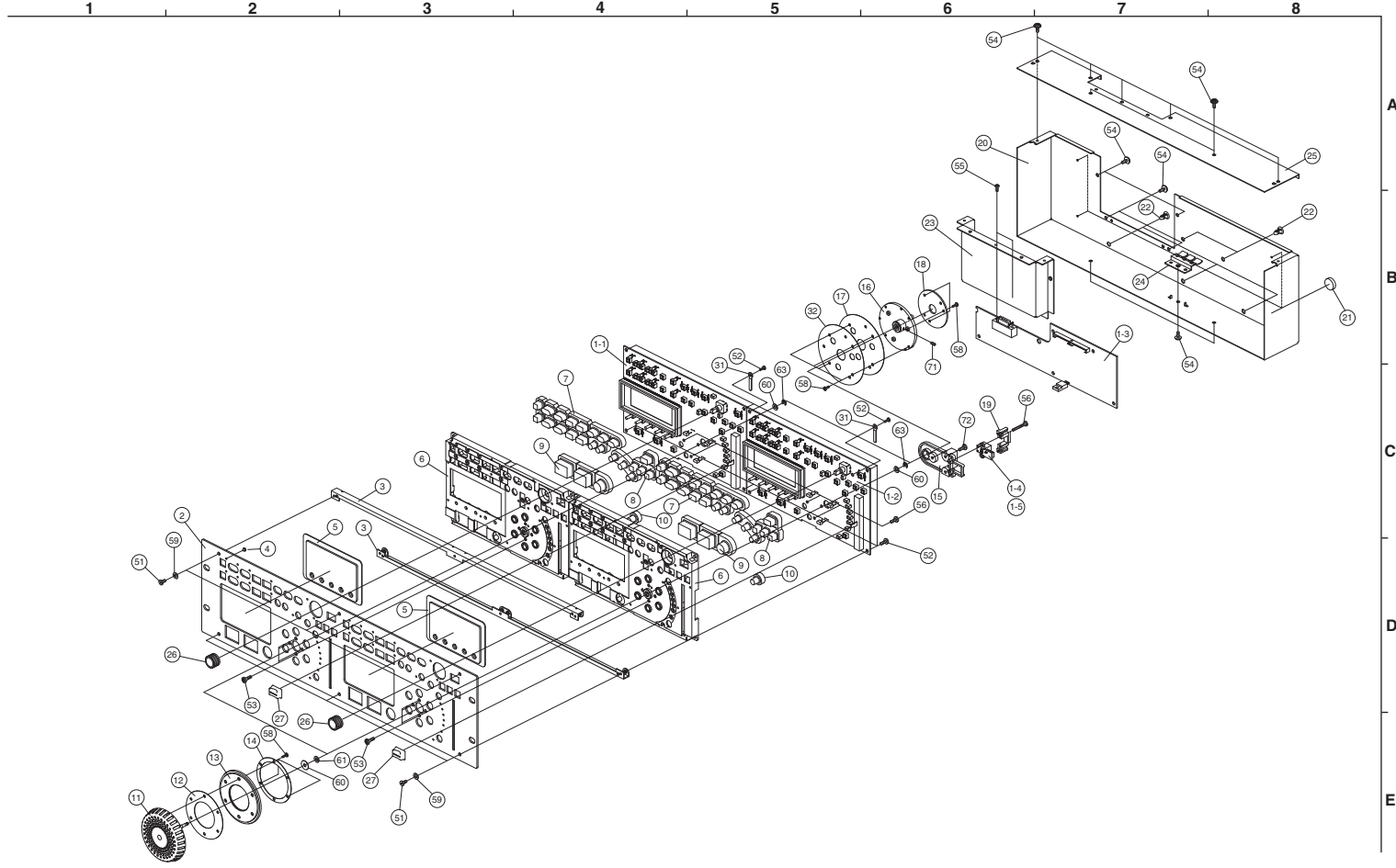
Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
SEMICONDUCTORS GROUP				SEMICONDUCTORS GROUP			
IC101	262 3048 007	IC ML9207-01GP		LD116	393 9604 901	LED SEL6227S(TP5)	Red
IC103	262 2745 903	IC BU2090F(E2)		LD117-120	393 9602 903	LED SML79423C(TP15)	Orange/Green
IC105	269 0203 008	Photo interrupter GP1A70R		LD121	393 9608 907	LED SLR342MC(TB7)	Green
IC201	262 3048 007	IC ML9207-01GP		LD122,123	393 9607 908	LED SLR342VC(TB7)	Red
IC203	262 2745 903	IC BU2090F(E2)		LD124	393 9608 907	LED SLR342MC(TB7)	Green
IC205	269 0203 008	Photo interrupter GP1A70R		LD125	393 9609 906	LED SLR342DC(TB7)	Orange
IC301	262 3116 900	IC SN74AHC245APW		LD126-129	393 9602 903	LED SML79423C(TP15)	Orange/Green
IC302	262 2813 903	IC SN74AHCT08PW-EL2		LD130	393 9608 907	LED SLR342MC(TB7)	Green
IC310	262 3130 902	IC UPC1934GR-1JG-E1		LD131,132	393 9607 908	LED SLR342VC(TB7)	Red
IC312	263 0809 006	IC NJM7805FA(S)		LD133	393 9608 907	LED SLR342MC(TB7)	Green
TR101,102	272 0081 909	Transistor 2SB766S(TAPE)		LD134	393 9603 902	LED SEL2510C(TP6)	Green
TR103-105	269 0048 904	Transistor DTC143EK-T96		LD136	393 9611 907	LED L-934MBCK(BLUE)	Blue
TR201,202	272 0081 909	Transistor 2SB766S(TAPE)		LD138	393 9611 907	LED L-934MBCK(BLUE)	Blue
TR203-205	269 0048 904	Transistor DTC143EK-T96		LD140	393 9611 907	LED L-934MBCK(BLUE)	Blue
TR301	273 0465 900	Transistor 2SC2002-T		LD143,144	393 9604 901	LED SEL6227S(TP5)	Red
TR305	271 0307 907	Transistor 2SA953-T		LD145,146	393 9605 900	LED SEL6427EP(TP5)	Green
TR306	275 0108 001	FET 2SK2414		LD201	393 9610 908	LED SLR342YC(TB7)	Yellow
TR307	269 0093 904	Transistor DTA144ES (47K-47K) T		LD202	393 9609 906	LED SLR342DC(TB7)	Orange
D101-104	276 0559 909	Diode DAP202KT146		LD203	393 9605 900	LED SEL6427EP(TP5)	Green
D201-204	276 0559 909	Diode DAP202KT146		LD204	393 9608 907	LED SLR342MC(TB7)	Green
D301-304	276 0560 901	Diode DAN202KT146		LD205	393 9606 909	LED SEL6927A(TP5)	Orange
D305-309	276 0559 909	Diode DAP202KT146		LD206	393 9605 900	LED SEL6427EP(TP5)	Green
D310	276 0560 901	Diode DAN202KT146		LD207	393 9604 901	LED SEL6227S(TP5)	Red
D312	276 0766 705	Diode RK14 LF-C4		LD208	393 9608 907	LED SLR342MC(TB7)	Green
D313	276 0727 906	Diode AL01ZT (V1)		LD209	393 9609 906	LED SLR342DC(TB7)	Orange
D315	276 0766 705	Diode RK14 LF-C4		LD210-212	393 9610 908	LED SLR342YC(TB7)	Yellow
D317,318	276 0432 903	Diode 1SS270A TE (TAPE)		LD213	393 9605 900	LED SEL6427EP(TP5)	Green
ZD301	276 0643 941	Zener diode MTZJ3.6A T77		LD214	393 9606 909	LED SEL6927A(TP5)	Orange
LD101	393 9610 908	LED SLR342YC(TB7)	Yellow	LD215	393 9605 900	LED SEL6427EP(TP5)	Green
LD102	393 9609 906	LED SLR342DC(TB7)	Orange	LD216	393 9604 901	LED SEL6227S(TP5)	Red
LD103	393 9605 900	LED SEL6427EP(TP5)	Green	LD217-220	393 9602 903	LED SML79423C(TP15)	Orange/Green
LD104	393 9608 907	LED SLR342MC(TB7)	Green	LD221	393 9608 907	LED SLR342MC(TB7)	Green
LD105	393 9606 909	LED SEL6927A(TP5)	Orange	LD222,223	393 9607 908	LED SLR342VC(TB7)	Red
LD106	393 9605 900	LED SEL6427EP(TP5)	Green	LD224	393 9608 907	LED SLR342MC(TB7)	Green
LD107	393 9604 901	LED SEL6227S(TP5)	Red	LD225	393 9609 906	LED SLR342DC(TB7)	Orange
LD108	393 9608 907	LED SLR342MC(TB7)	Green	LD226-229	393 9602 903	LED SML79423C(TP15)	Orange/Green
LD109	393 9609 906	LED SLR342DC(TB7)	Orange	LD230	393 9608 907	LED SLR342MC(TB7)	Green
LD110-112	393 9610 908	LED SLR342YC(TB7)	Yellow	LD231,232	393 9607 908	LED SLR342VC(TB7)	Red
LD113	393 9605 900	LED SEL6427EP(TP5)	Green	LD233	393 9608 907	LED SLR342MC(TB7)	Green
LD114	393 9606 909	LED SEL6927A(TP5)	Orange	LD234	393 9603 902	LED SEL2510C(TP6)	Green
LD115	393 9605 900	LED SEL6427EP(TP5)	Green	LD236	393 9611 907	LED L-934MBCK(BLUE)	Blue
				LD238	393 9611 907	LED L-934MBCK(BLUE)	Blue
				LD240	393 9611 907	LED L-934MBCK(BLUE)	Blue
				LD243,244	393 9604 901	LED SEL6227S(TP5)	Red
				LD245,246	393 9605 900	LED SEL6427EP(TP5)	Green
RESISTORS GROUP				RESISTORS GROUP			
R101,102	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	R101	247 2007 927	Carbon chip 820 ohm 1/16W	RM73B--821JT
R103	247 2007 927	Carbon chip 820 ohm 1/16W	RM73B--821JT	R104	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT
R104	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	R105	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT
R105	247 2006 931	Carbon chip 360 ohm 1/16W	RM73B--361JT				

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks
R106	247 2005 990	Carbon chip 240 ohm 1/16W	RM73B--241JT	R264	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R107	247 2006 944	Carbon chip 390 ohm 1/16W	RM73B--391JT	R265	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R108,109	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	R266-268	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R110-112	247 2006 999	Carbon chip 620 ohm 1/16W	RM73B--621JT	R269-272	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
R113-120	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT	R273-276	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R121-125	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT	R277-279	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT
R126-133	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT	R280	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R134-137	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT	R281,282	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT
R138	247 2005 974	Carbon chip 200 ohm 1/16W	RM73B--201JT	R284,285	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R139-145	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT	R288	247 2005 974	Carbon chip 200 ohm 1/16W	RM73B--201JT
R146-148	247 2005 987	Carbon chip 220 ohm 1/16W	RM73B--221JT	R289	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R149	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	R299	247 2007 985	Carbon chip 1.5 kohm 1/16W	RM73B--152JT
R150	247 2005 990	Carbon chip 240 ohm 1/16W	RM73B--241JT	R301-307	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
R151	247 2005 958	Carbon chip 160 ohm 1/16W	RM73B--161JT	R311	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R152-155	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R312	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT
R156,157	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R313,314	247 2005 903	Carbon chip 100 ohm 1/16W	RM73B--101JT
R158	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT	R315,316	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT
R159-163	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R320	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R164	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT	R325	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R165	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R331	247 2010 943	Carbon chip 18 kohm 1/16W	RM73B--183JT
R166-168	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT	R332	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT
R169-172	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT	R333	247 2008 913	Carbon chip 2 kohm 1/16W	RM73B--202JT
R173-176	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R334	247 2010 901	Carbon chip 12 kohm 1/16W	RM73B--123JT
R177-179	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT	R335	247 2008 913	Carbon chip 2 kohm 1/16W	RM73B--202JT
R180	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	R336	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R181,182	247 2012 925	Carbon chip 100 kohm 1/16W	RM73B--104JT	R337	247 2010 901	Carbon chip 12 kohm 1/16W	RM73B--123JT
R184,185	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R341	244 2051 987	Metal oxide 4.7 ohm 1W(NB)	RS14B3A4R7JNBST(S)
R188	247 2005 974	Carbon chip 200 ohm 1/16W	RM73B--201JT	R401-417	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R189	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT	R451-467	247 2018 903	Carbon chip 0 ohm 1/16W	RM73B--0R0KT
R199	247 2007 985	Carbon chip 1.5 kohm 1/16W	RM73B--152JT	VR101	211 0908 003	Slide volume	Pitch control
R201,202	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	VR201	211 0908 003	Slide volume	Pitch control
R203	247 2007 927	Carbon chip 820 ohm 1/16W	RM73B--821JT	CAPACITORS GROUP			
R204	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	C101,102	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT
R205,206	247 2005 990	Carbon chip 240 ohm 1/16W	RM73B--241JT	C103	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R207	247 2006 944	Carbon chip 390 ohm 1/16W	RM73B--391JT	C104	254 4302 945	Electrolytic 33μF/10V	CE04W1A330MT(SRE)
R208,209	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	C105	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R210-212	247 2006 999	Carbon chip 620 ohm 1/16W	RM73B--621JT	C108	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R213-220	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT	C109	254 4302 974	Electrolytic 100μF/10V	CE04W1A101MT(SRE)
R221-225	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT	C110	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
R226-233	247 2005 945	Carbon chip 150 ohm 1/16W	RM73B--151JT	C111	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R234-237	247 2006 960	Carbon chip 470 ohm 1/16W	RM73B--471JT	C112	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
R238	247 2005 974	Carbon chip 200 ohm 1/16W	RM73B--201JT	C113	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R239-245	247 2007 943	Carbon chip 1 kohm 1/16W	RM73B--102JT	C114	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT
R246-248	247 2005 987	Carbon chip 220 ohm 1/16W	RM73B--221JT	C115-117	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R249	247 2007 901	Carbon chip 680 ohm 1/16W	RM73B--681JT	C118	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
R250	247 2005 990	Carbon chip 240 ohm 1/16W	RM73B--241JT	C119	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R251	247 2005 958	Carbon chip 160 ohm 1/16W	RM73B--161JT	C121	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)
R252-255	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT	C122	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT
R256,257	247 2003 947	Carbon chip 22 ohm 1/16W	RM73B--220JT				
R258	247 2011 942	Carbon chip 47 kohm 1/16W	RM73B--473JT				
R259-263	247 2009 983	Carbon chip 10 kohm 1/16W	RM73B--103JT				

Ref. No.	Part No.	Part Name	Remarks	Ref. No.	Part No.	Part Name	Remarks	
C123-126	257 0511 920	Ceramic chip 0.047μF/50V	CK73F1H473ZT	C327	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104ZT(DD-3)	
C127	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C328	253 9037 908	Ceramic 0.1μF/50V	CK45=1H104ZT(BC)	
C128	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	C329	254 4592 904	Electrolytic 120μF/16V	CE04W1C121MTF11(LXV)	
C129	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C330	254 4592 768	Electrolytic 56μF/50V	CE04W1H560MCF15(LXV)	
C130	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	C331	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	
C131	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C332	254 4538 942	Electrolytic 100μF/16V	CE04W1C101MT SMG/RE3	
C132	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	C333	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	
C133	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C334	254 4538 942	Electrolytic 100μF/16V	CE04W1C101MT SMG/RE3	
C134	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	C337	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	
C135-137	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C338	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT	
C201,202	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT	C339	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	
C203	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C340	254 4299 964	Electrolytic 47μF/16V	CE04W1C470MT(SRE)	
C204	254 4302 945	Electrolytic 33μF/10V	CE04W1A330MT(SRE)	C341	257 0509 929	Ceramic chip 1000pF/50V	CK73B1H102KT	
C205	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C342	257 0511 904	Ceramic chip 0.01μF/50V	CK73F1H103ZT	
C208	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C343-346	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	
C209	254 4302 974	Electrolytic 100μF/10V	CE04W1A101MT(SRE)	C347	254 4538 939	Electrolytic 47μF/16V	CE04W1C470MT SMG/RE3	
C210	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	C349	253 1180 934	Ceramic 1200pF/50V	CK45B1H122KT(DD-3)	
C211	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	C350	254 4538 939	Electrolytic 47μF/16V	CE04W1C470MT SMG/RE3	
C212	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT	C351	254 4524 972	Electrolytic 4.7μF/50V	CE04W1H4R7MT SMG/RE3	
C213	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	OTHER PARTS GROUP				Q'ty
C214	257 0506 951	Ceramic chip 100pF/50V	CC73CH1H101JT	CX041,042	205 0355 046	4P KR connector base (L)	2	
C215-217	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	CX131	205 0375 039	13P connector base (KR-PH)	1	
C218	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	CX132	205 1236 009	13P connector base (RD)	1	
C219	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	CY041,042	205 0355 046	4P KR connector base (L)	2	
C221	254 4302 958	Electrolytic 47μF/10V	CE04W1A470MT(SRE)	CY131,132	205 0480 034	13P KR connector base (L)	2	
C222	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	CY201	204 6716 000	20P D connector (MSY-20S)	1	
C223-226	257 0511 920	Ceramic chip 0.047μF/50V	CK73F1H473ZT	FL101	393 8063 006	FLT (24-ST-09GN)	1	
C227	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	FL201	393 8063 006	FLT (24-ST-09GN)	1	
C228	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	S101-131	212 5604 907	Tact switch	31	
C229	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	S140	212 0410 002	Rotary encoder-jog	1	
C230	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	S201-231	212 5604 907	Tact switch	31	
C231	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	S240	212 0410 002	Rotary encoder-jog	1	
C232	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	▲ T301	233 6413 000	DC-DC converter trans.	1	
C233	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	X101	399 0661 909	Ceramic 4.00 MHz	CSTS4.00MG06	
C234	257 0501 901	Ceramic chip 0.01μF/50V	CK73B1H103KT (1608)	X102	399 0805 901	Ceramic 16.0 MHz	CSTLS16M0X53-A0	
C235-237	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	X201	399 0661 909	Ceramic 4.00 MHz	CSTS4.00MG06	
C301-303	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT	X202	399 0805 901	Ceramic 16.0 MHz	CSTLS16M0X53-A0	
C304	253 1179 903	Ceramic 100pF/50V	CK45B1H101KT(DD-3)					
C305	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C306	253 9039 906	Ceramic 0.1μF/25V	CK45=1E104ZT(DD-3)					
C310	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C312	257 0507 976	Ceramic chip 330pF/50V	CC73CH1H331JT					
C314	257 0507 976	Ceramic chip 330pF/50V	CC73CH1H331JT					
C315	254 4524 972	Electrolytic 4.7μF/50V	CE04W1H4R7MT SMG/RE3					
C316	257 0516 954	Ceramic chip 0.1μF/25V	CK73B1E104KT					
C317	254 4538 942	Electrolytic 100μF/16V	CE04W1C101MT SMG/RE3					
C318,319	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C320	254 4592 739	Electrolytic 1200μF/16V	CE04W1C122MCJ30(LXV)					
C321	257 0512 903	Ceramic chip 0.1μF/25V	CK73F1E104ZT					
C322	254 4592 739	Electrolytic 1200μF/16V	CE04W1C122MCJ30(LXV)					



EXPLODED VIEW OF REMOTE CONTROL UNIT (RC-D90)



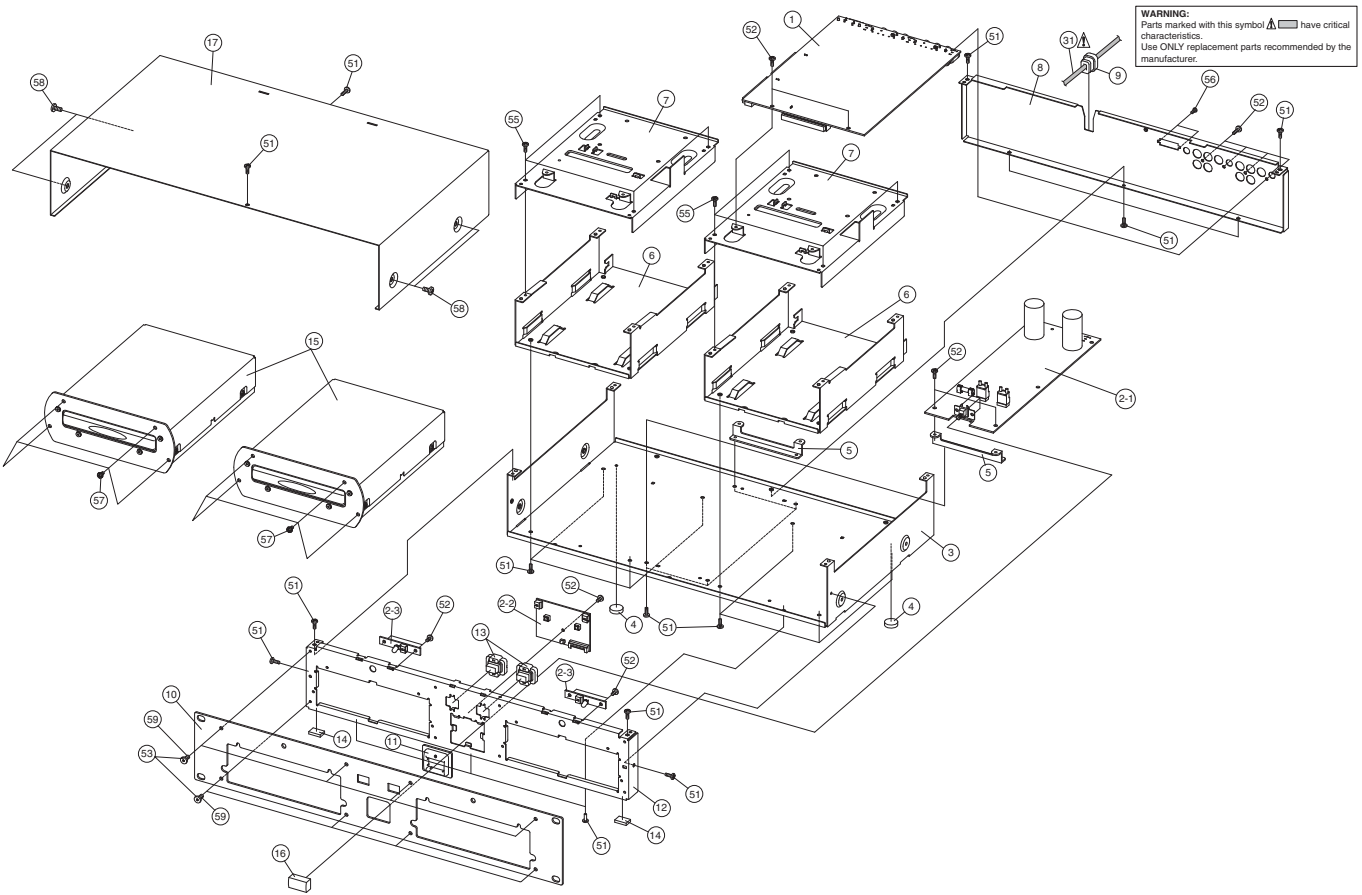
PARTS LIST OF REMOTE CONTROL UNIT (RC-D90)

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	GU-3415	Remote P.W.B. unit Ass'y		1
1-1	—	Panel P.W.B. unit		
1-2	—	Panel P.W.B. unit		
1-3	—	Connect P.W.B. unit		
1-6	—	Sensor P.W.B. unit		
1-7	—	Sensor P.W.B. unit		
2	144 2800 100	RC front panel		1
3	412 4925 009	RC front bracket		2
4	143 1072 004	Lens		36
5	146 2278 107	Window		2
6	146 2279 203	Inner panel Ass'y		2
7	119 0114 009	Rubber key (Function)		2
8	119 0115 008	Rubber key (Pitch bend)		2
9	119 0116 007	Rubber key (Play/Pause)		2
10	119 0117 006	Rubber key (Mode)		2
11	112 0890 102	Jog dial Ass'y		2
12	441 1960 007	Reflect plate		2
13	143 1144 000	Jog ring		2
14	441 1961 006	Reflect ring		2
15	443 1572 006	S. holder (GP1A70R)		2
16	421 0796 100	Wheel Ass'y		2
17	421 0797 002	Scale disk		2
18	441 1962 005	Wheel plate		2
19	443 1573 005	S. cover (GP1A70R)		2
20	105 1399 002	Cover		1
21	461 0706 127	Foot sheet		4
22	449 0070 002	Locking card spacer		5
23	105 1400 001	Connect cover		1
24	412 4812 015	Spring plate		1
25	102 0658 004	Top cover		1
26	112 0891 004	Knob (MARU)		2
27	113 1925 008	Fader knob		2
31	445 8028 009	Cord holder		2
32	441 1970 000	Disk fix plate		2
59	475 1178 009	3 washer-B		6
60	475 1185 005	Washer 10/4.5		4
61	475 1177 000	Washer		2
63	476 1003 009	3 E ring		2
SCREWS				
51	471 9050 020	Screw 3X6 FHHS-B		6
52	473 7002 021	Screw 3X8 CBTS(S)-B		8
53	473 7508 017	Screw 3X10 CBTS(P)-B		8
54	473 8007 083	Cup screw 3x8		14
55	471 1204 036	Screw 2.6X8 CPS-NiB		2
56	473 7505 007	Screw 2.6X8 CBTS(P)-Z		30
58	473 7506 022	Screw 2X6 CBTS(P)-B		20
71	471 3103 012	Screw 2.6X6 CBS		2
72	473 7505 052	Screw 2.6X10 CBTS(P)-B		6



EXPLODED VIEW OF MAIN UNIT

1 2 3 4 5 6 7 8



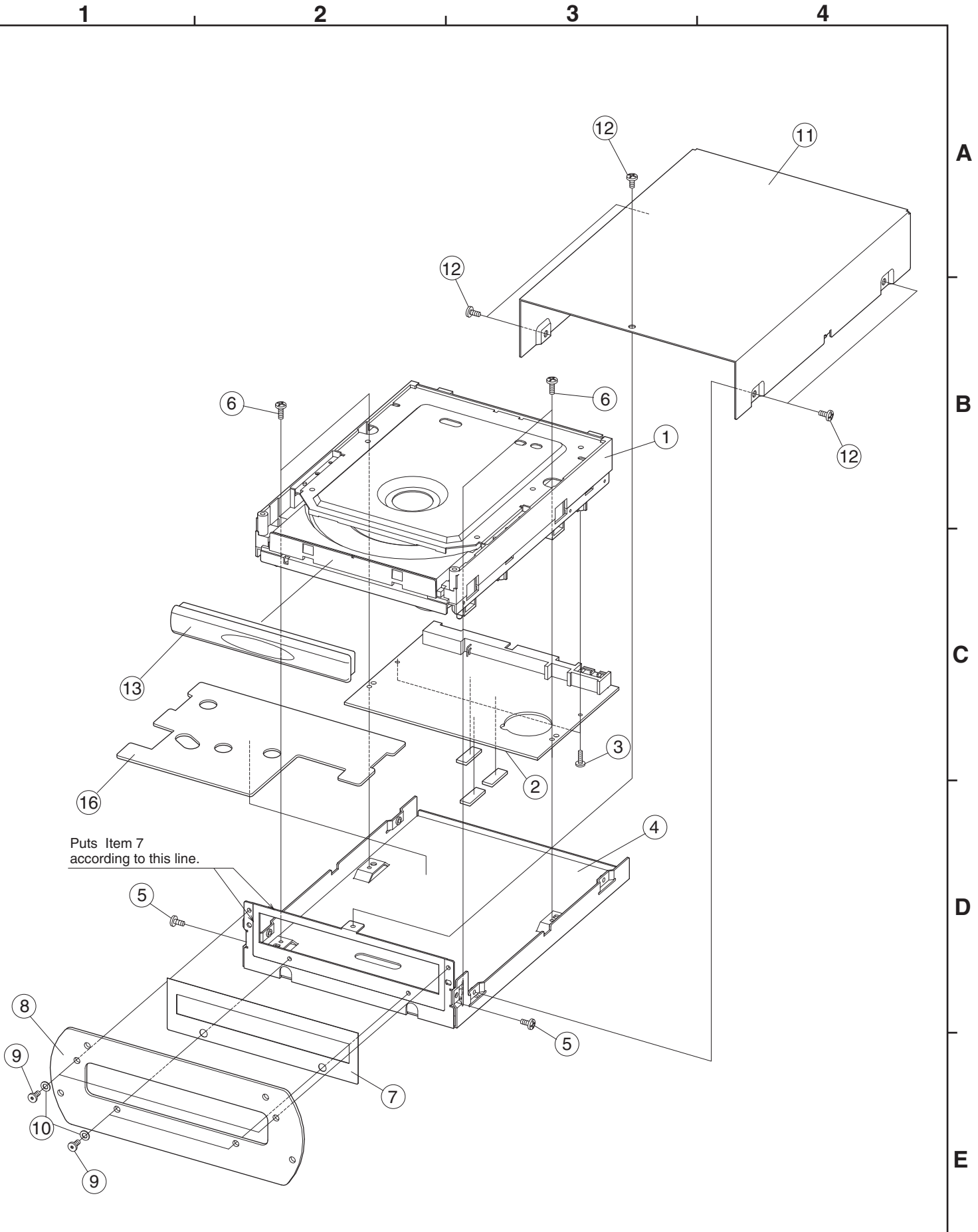
A
B
C
D
E

PARTS LIST OF MAIN UNIT

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

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	GU-3412	DSP P.W.B. unit Ass'y		1	SCREWS				
2	GU-3413	Power P.W.B. unit Ass'y		1	51	473 7015 005	Screw 3X6 CBTS (S)-B		26
2-1	-	Power P.W.B. unit			52	473 7002 005	Screw 3X6 CBTS(S)-Z		11
2-2	-	OP/CL switch P.W.B. unit			53	471 9050 020	Screw 3X6 FHHS-B		8
2-3	-	LED P.W.B. unit			54	473 7508 017	Screw 3X10 CBTS(P)-B		4
3	411 2005 009	Chassis		1	55	471 3301 021	Screw 3X4 CBS-B		8
4	461 0706 127	Foot sheet		2	56	471 1204 036	Screw 2.6X8 CPS-NiB		2
5	412 4921 003	PWB bracket		2	57	471 1832 013	Screw 3X8 SEMS		8
6	412 4922 002	Mecha. bracket		2	58	477 0263 005	3P. swelling screw		4
7	412 4923 001	Mecha. cover		2					
8	105 1398 003	Back panel		1					
9	445 0084 009	Cord bush	for E3	1					
9	445 0056 008	Cord bush	for E2	1					
10	144 2798 005	Front panel		1					
11	146 2275 003	P. switch knob guide Ass'y		1					
12	441 1959 005	Front sub panel		1					
13	119 0096 004	Rubber key (C)		2					
14	461 0740 002	Sheet		2					
15	FG- 9000	Drive unit		2					
16	113 1689 001	P. switch knob		1					
17	102 0425 253	Top cover		1					
★	21 415 0335 032	PWB support		1					
★	22 445 0033 005	Wire clamp band		5					
★	23 445 0123 009	Clamp band (PLT2I)		2					
★	24 445 0122 000	Clamp plate (FCPI2)		4					
⚠	31 206 2155 001	AC cord with connector	for E3	1					
⚠	31 206 2089 106	AC cord with connector	for E2	1					
★	32 203 6577 000	4P LC-VH connector cord		1					
★	33 203 6577 013	4P LC-VH connector cord		1					
★	34 204 6719 007	40P flat cable		1					
★	35 204 6719 010	40P flat cable		1					
★	41 513 3796 008	Fuse label	for E2	1					
★	42 513 3744 018	Rating sheet	for E3	1					
★	42 513 3744 005	Rating sheet	for E2	1					
★	43 513 2303 007	Version label		1					
★	44 513 1519 009	Manufac. date label	for E3	1					
★	45 513 0985 003	Inst. label	for E2	1					
★	46 513 3776 002	E3 label	for E3	1					
★	47 513 2521 009	CE label	for E2	1					
★	48 513 3384 009	C-UL mark US (813)	for E3	1					
★	49 513 3253 004	C-tick label	for E2	1					
★	50 513 3159 001	FCC/class B caution	for E3	1					
	59 475 1178 009	3 washer-B		8					

EXPLODED VIEW OF CD DRIVE UNIT (FG-9000)

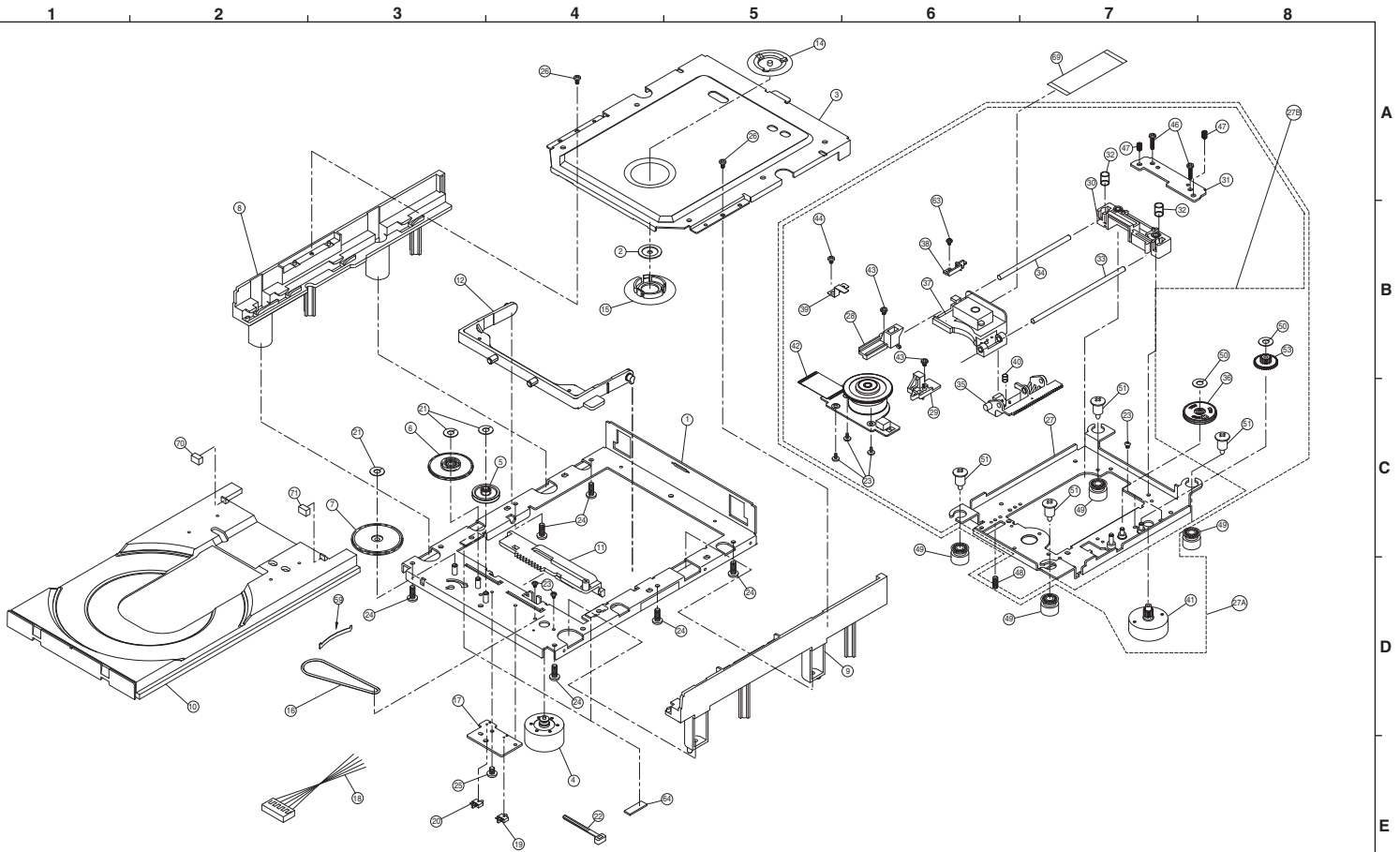


PARTS LIST OF CD DRIVE UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty
1	9KC 2A06 5A	CD mecha. Unit TD-5HP-D2		1
2	GU-3414	CD-ROM P.W.B. unit Ass'y		1
4	412 4924 000	Drive bracket		1
7	415 0876 009	Blind sheet		1
8	144 2799 004	Drive panel		1
10	475 1178 009	3 washer-B		4
11	102 0657 005	Drive cover		1
13	146 2277 001	Loader panel		1
16	417 0630 005	Heat sink		1
★ 21	513 2065 002	E2 laser caution		1
★ 22	513 3797 007	Connect label		1
SCREWS				
3	473 7506 019	Screw 2X6 CBTS(P)-Z		2
5	473 7001 035	Screw 2.6X6 CBTS(S)-Z		2
6	473 7400 005	Cup screw 2.6X8(S)-Z		4
9	471 9050 020	Screw 3X6 FHHS-B		4
12	473 7002 005	Screw 3X6 CBTS(S)-Z		5



EXPLODED VIEW OF CD MECHANISM



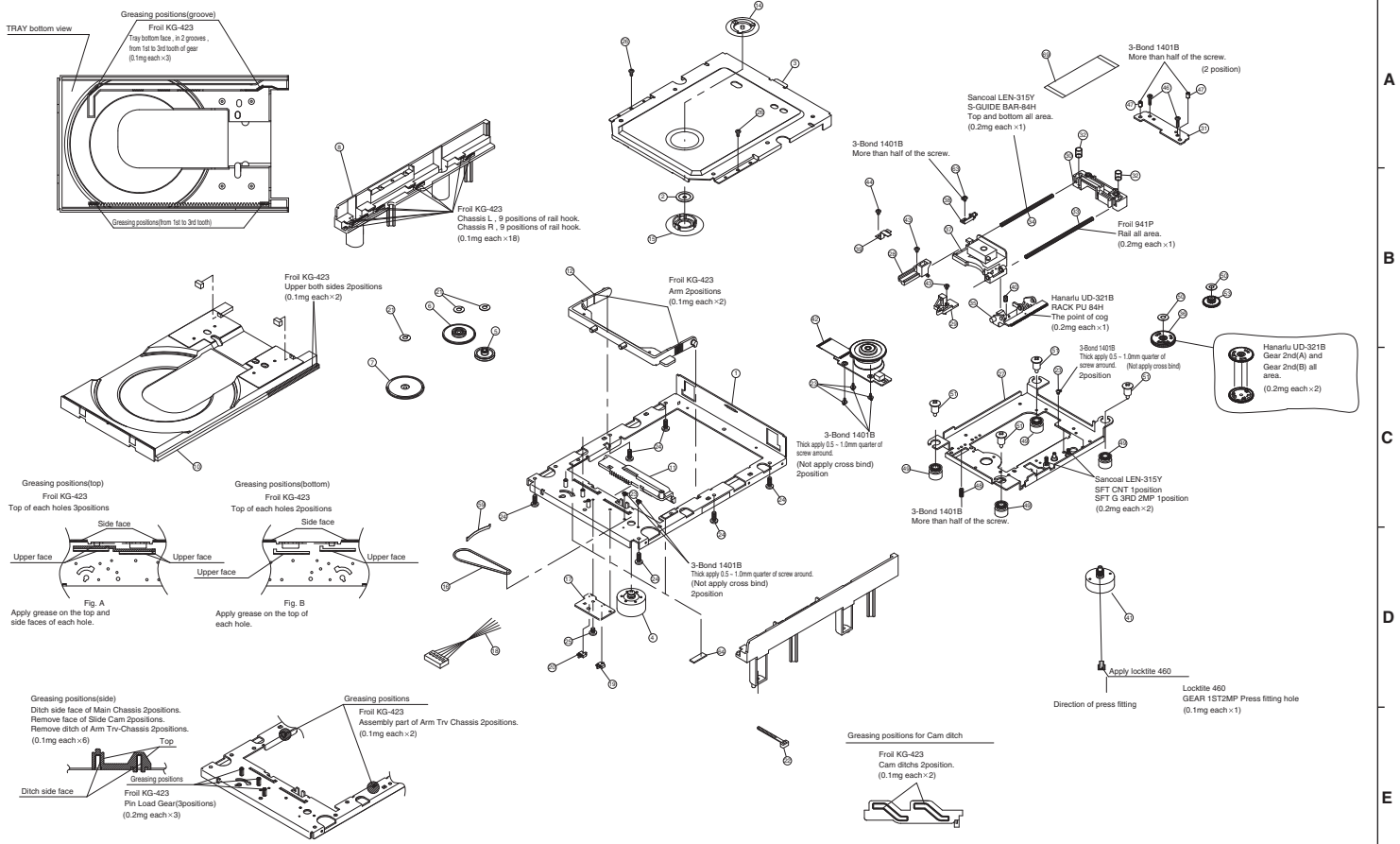
PARTS LIST OF CD MECHANISM UNIT

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
1A	9KC 2A06 5A	CD Mecha. unit TD-5HP-D2			49	9KC 1G04 3	Damper		4
1	9KC 1A01 7	Main chassis Ass'y		1	51	9KC 1H01 1A	Special screw		4
2	9KA 7P08 5	Clamper bracket		1	59	9KB 7P02 4	Tray-spring-VXF		1
3	9KC 4P00 7	Guide clamp bracket		1	63	9KS 17N0 35	Precision screw 1.7X3.5 type3		1
4	9KC 2A00 3	Loading motor Ass'y		1	64	9KC 1G04 2	Rubber cushion		2
5	9KC 2G02 9	Loading gear		1	69	9KC 2G09 7	FFC (PU L52)		1
6	9KB 9G03 0	Loading gear 2nd		1	70	9KC 2G08 5	Cushion (L)		1
7	9KB 9G03 1	Loading gear 3rd		1	71	9KC 2G08 4	Cushion (R)		1
8	9KB 9G02 5	Sub chassis-L		1					
9	9KC 1G00 2	Sub chassis-R		1					
10	9KA 2G39 9	Tray		1					
11	9KC 1G00 3	Slide-cam		1					
12	9KC 1G00 4	Traverse arm		1					
14	9KA 7G20 2	Clamper H		1					
15	9KA 7G20 3	Clamper L		1					
16	9KB 9G01 5	Loading belt		1					
17	9KC 1P01 4	Switch P.W.B.		1					
18	9KC 2G04 3	5P PH wire		1					
19	9KS 01W2 04	Switch ESE22MH1	or 9KS 01W1 97	1					
20	9KS 01W2 05	Switch ESE22MH3	or 9KS 01W1 98	1					
21	9KP 26C6 25	Poly.slit washer 2.6X6X0.25C		3					
22	445 8004 007	Wire clamper		1					
23	9KS 17N0 22	Precision screw 1.7X2.2 type3		2					
24	9KB 26BK 06	Screw 2.6X6 CBTS(B)-Z		6					
26	473 7506 019	Screw 2X6 CBTS(P)-Z		2					
27A	9KC 2A06 3A	Traverse mecha (feed) Ass'y	Assembled part	1					
27B	9KC 2A06 4A	Traverse mecha Ass'y	Assembled part	1					
23	9KS 17N0 22	Precision screw 1.7X2.2 type3	For spindle motor						
27	9KC 2A00 7	PU chassis Ass'y							
28	9KC 2G00 8	Shaft holder L							
29	9KC 2G00 7	Shaft holder R							
30	9KC 2G01 0	Shaft tilt base							
31	9KC 2P00 5	Shaft tilt plate							
32	9KB 7S00 3	Tilt spring							
33	9KC 2H00 1	Main shaft							
34	9KC 2H00 2	Sub shaft							
35	9KC 2G00 9	PU rack gear							
37	9KC 2G10 4A	Pick up HOP-1200							
38	9KC 2G01 5	PU spring							
39	9KC 2P01 6	Shaft spring							
40	9KC 2S00 5	Rack gear spring							
42	9KC 2A04 0	T/T motor Ass'y							
43	9KB 26TK 06	Screw 2.6X6 CBTS(S)-Z							
44	9KB 26TK 04	Screw 2.6X4 CBTS(S)-Z							
46	9KH 26TK 15	Screw 2.6X15 CFTS(S)-Z							
47	9KB 7H00 8	Screw 3X4 BSS							
63	9KS 17N3 05	Precision screw 1.7X5 type3							
23	9KS 17N0 22	Precision screw 1.7X2.2 type3							
25	9KS 20TK 33	Precision screw 2X3(S) type3							
36	9KB 8A00 5	Feed gear 2nd Ass'y							
41	9KC 2A02 3	Feed motor Ass'y							
50	9KP 21C4 25	Poly.slit washer 2.1X4X0.25C							
53	9KC 4G00 5	Feed gear 3rd							
48	474 4302 002	Screw 3X8 BSS (A)		1					



POINTS OF GREASING

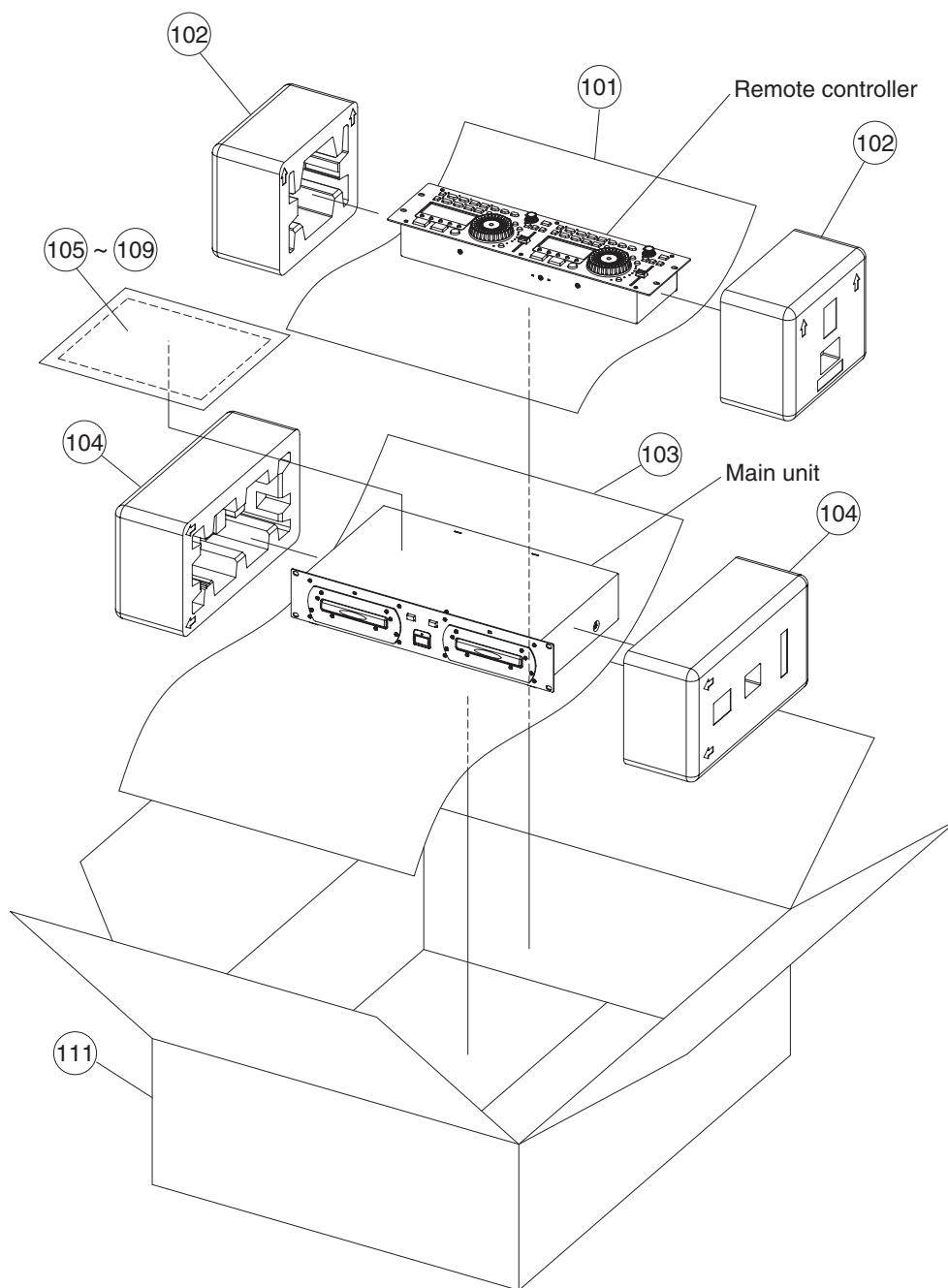
1 2 3 4 5 6 7 8



A
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C
D
E



PACKING VIEW



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

PARTS LIST OF PACKING & ACCESSORIES

Ref. No.	Part No.	Part Name	Remarks	Q'ty	Ref. No.	Part No.	Part Name	Remarks	Q'ty
101	505 0350 006	Stylen paper		1	108	203 2360 004	2P pin cord		4
102	503 1431 009	Cushion (RC)		2	109	204 6704 009	20P D-sub cable		1
103	505 0102 092	Stylen paper		1	110	RC- D90	Remote controller		1
104	503 1430 000	Cushion		2	111	501 2179 005	Carton case		1
105	505 0038 030	Poly. cover		1	★ 112	—	Control card		
106	511 3876 003	Instruction manual		1	★ 113	—	Bar code label		
107	515 0886 108	Service station list com. (EX)		1	★ 114	515 0692 101	DEL warranty com.	for E3	1

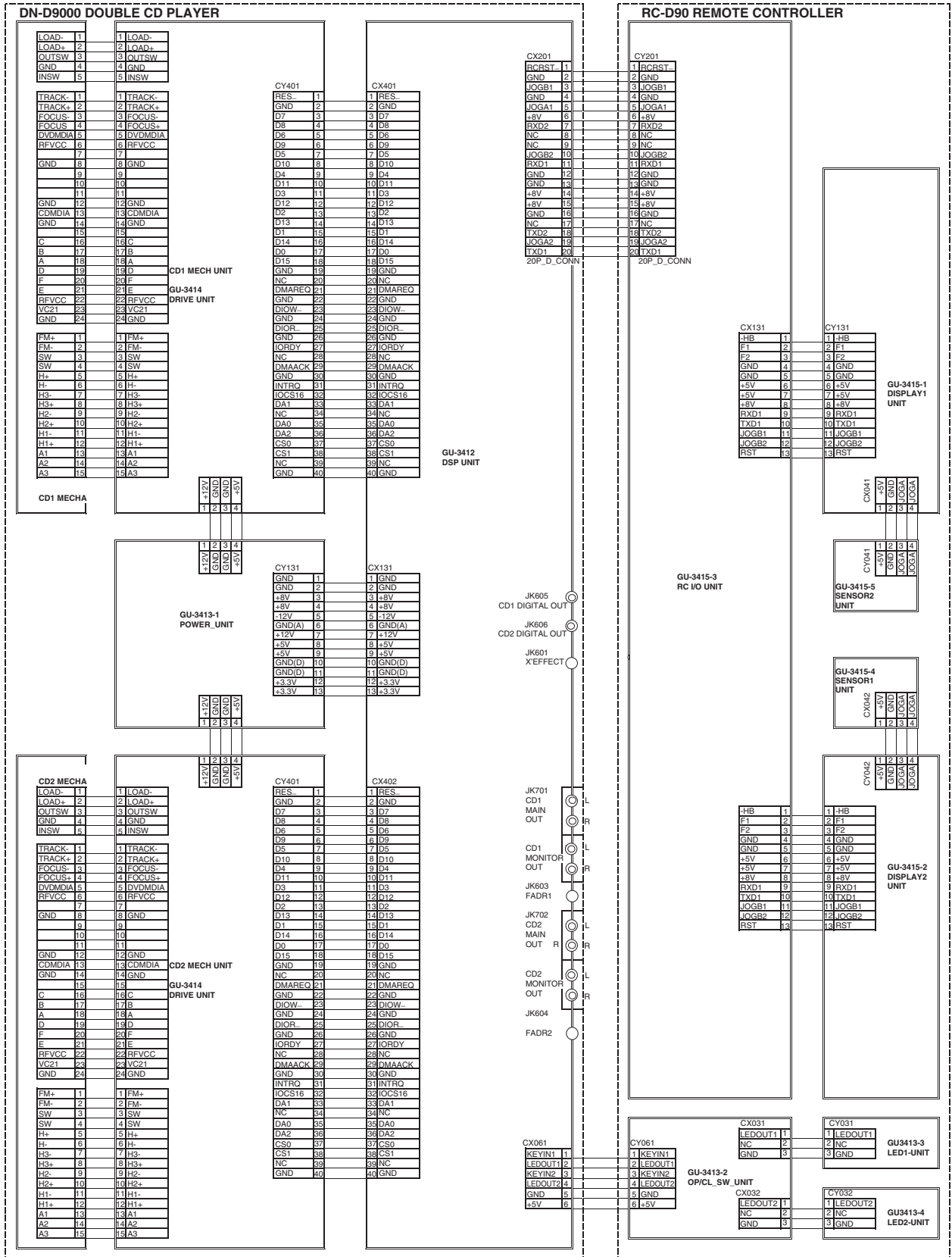
WIRING DIAGRAM

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A

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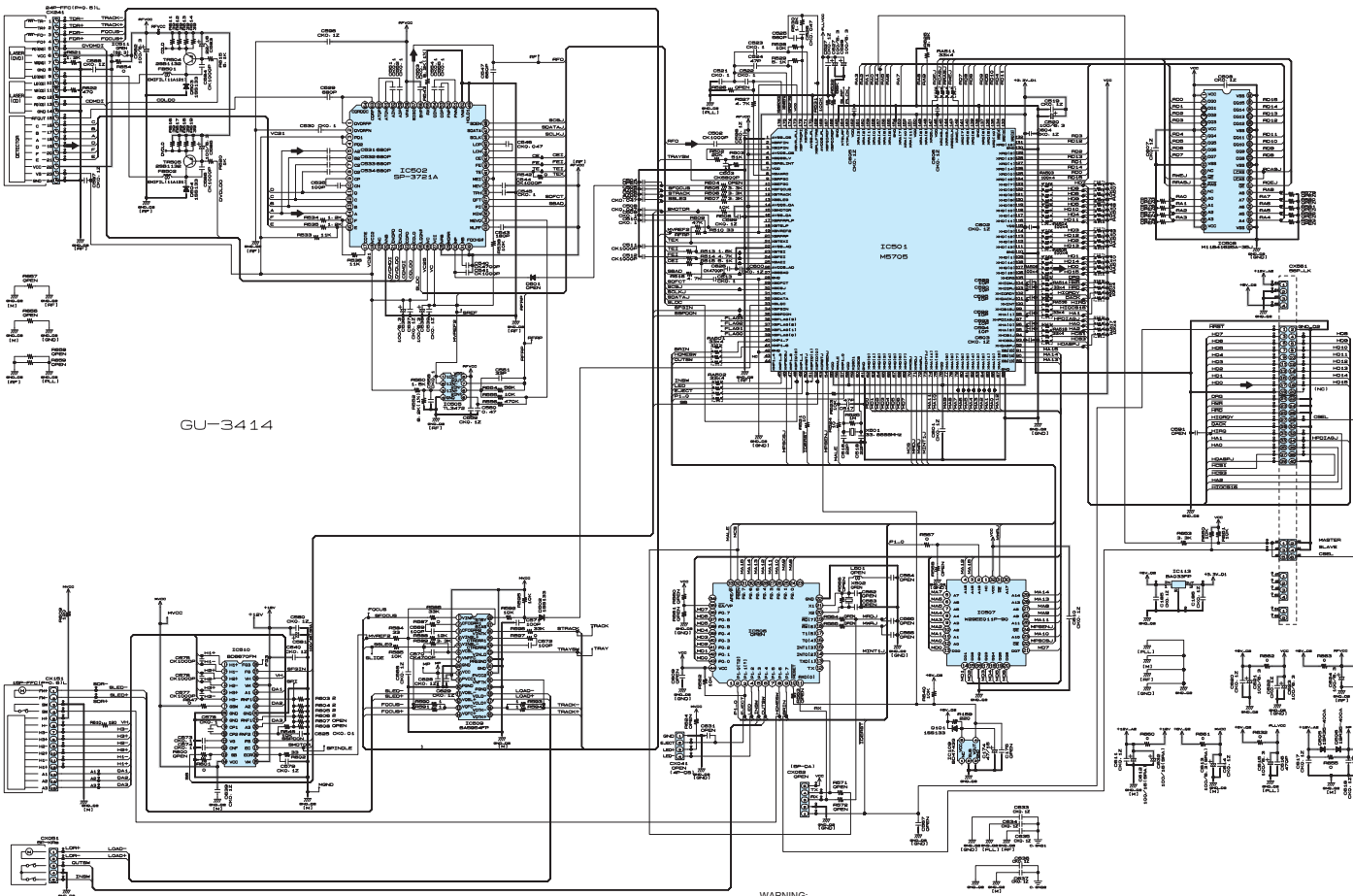
C

D

E

SCHMATIC DIAGRAMS (1/6)

1 2 3 4 5 6 7 8 9 10 11



GU-3414

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.

WARNING:
 Parts marked with this symbol \triangle 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 millamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

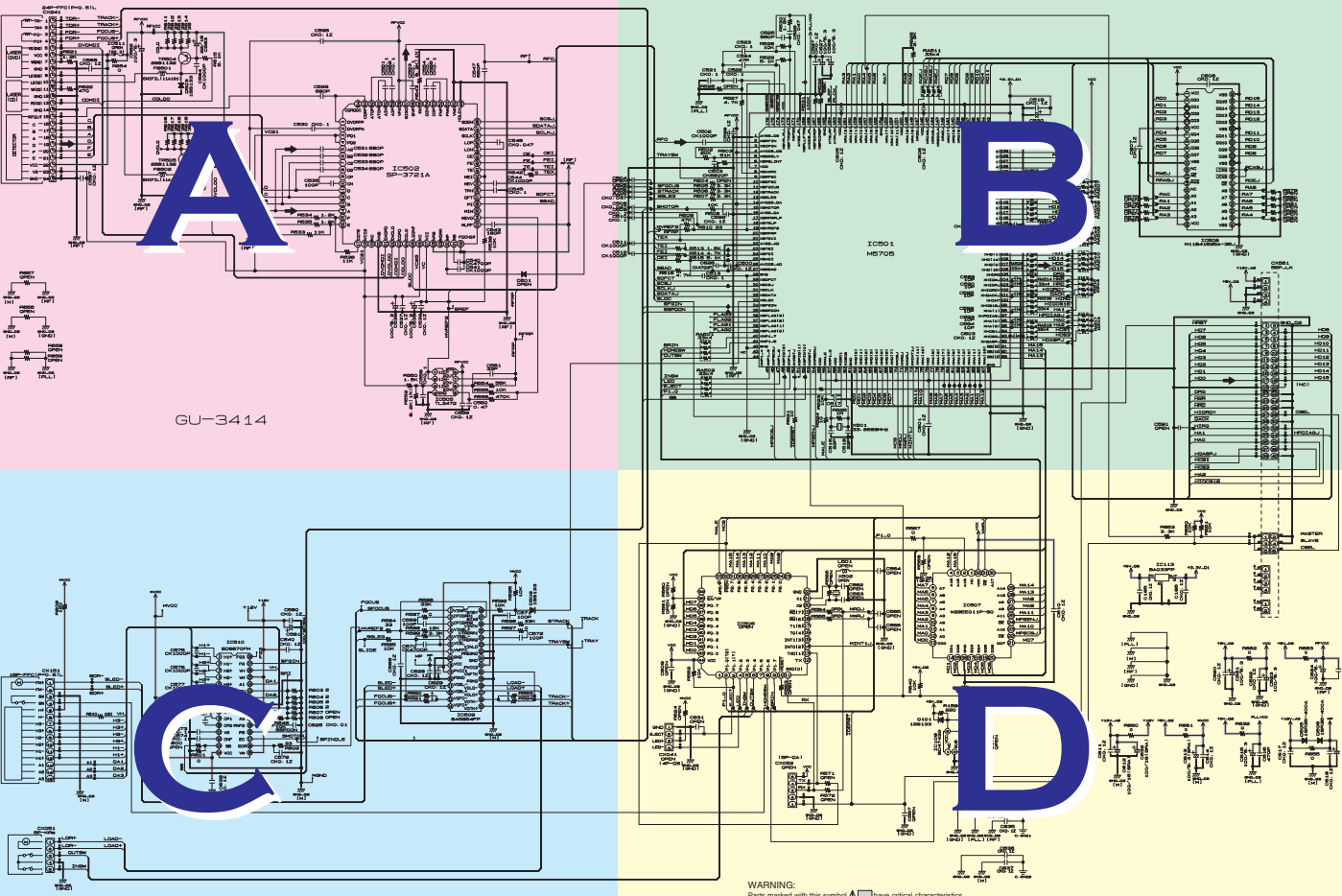
WARNING:
 DO NOT return the unit to the customer until the problem is located and corrected.

— +B LINE
 - - - - - SIGNAL LINE

SCHMATIC DIAGRAMS (1/6)
 1U-3414 CD-ROM UNIT


SCHMATIC DIAGRAMS (1/6)

1 2 3 4 5 6 7 8 9 10 11



GU-3414

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.

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 millamps, or if the resistance from chassis to either side of the power card is less than 480kohms, the unit is defective.

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

— +B LINE
 → SIGNAL LINE

SCHMATIC DIAGRAMS (1/6)
 1U-3414 CD-ROM UNIT

SCHEMATIC DIAGRAMS (1/6)

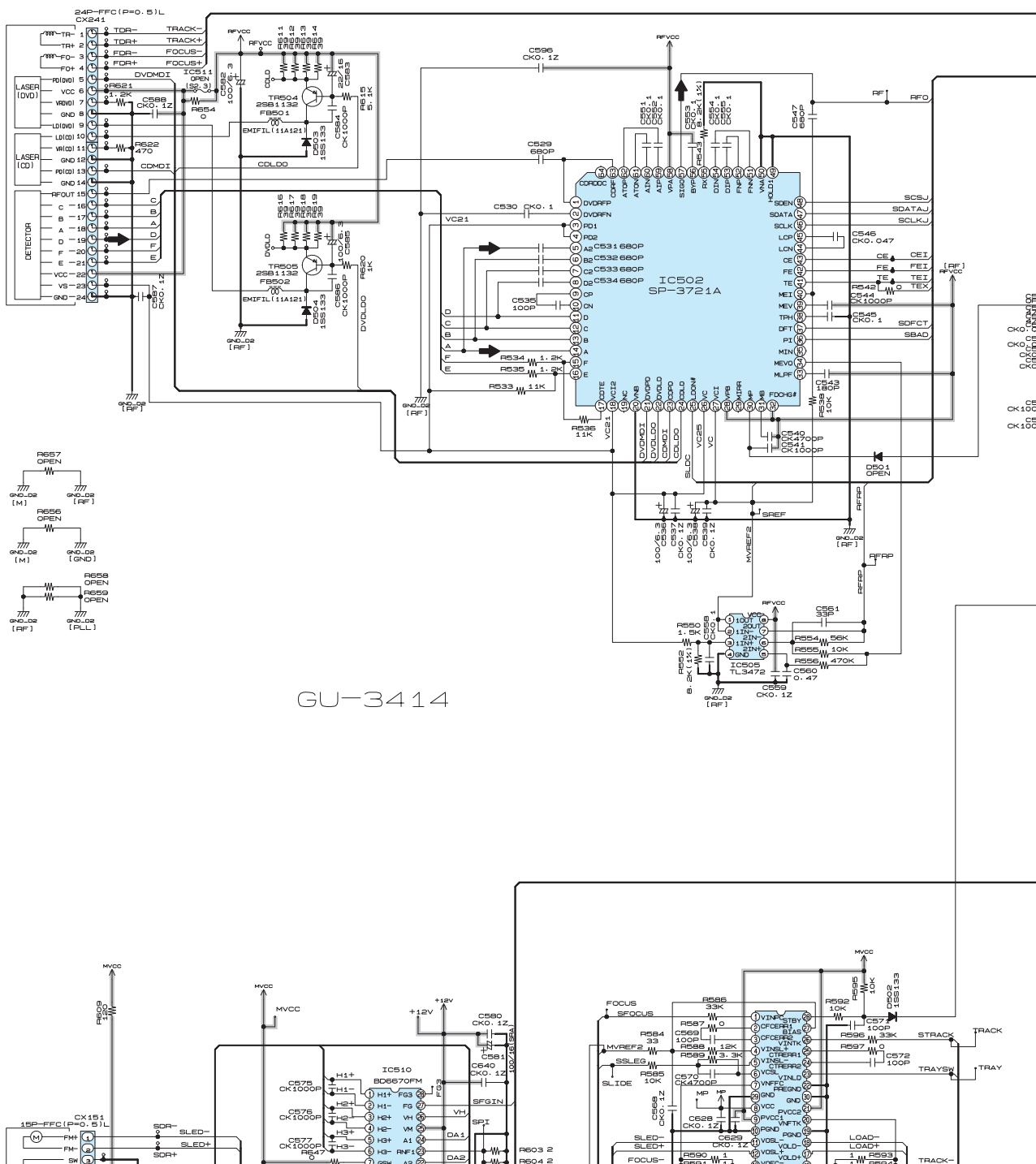
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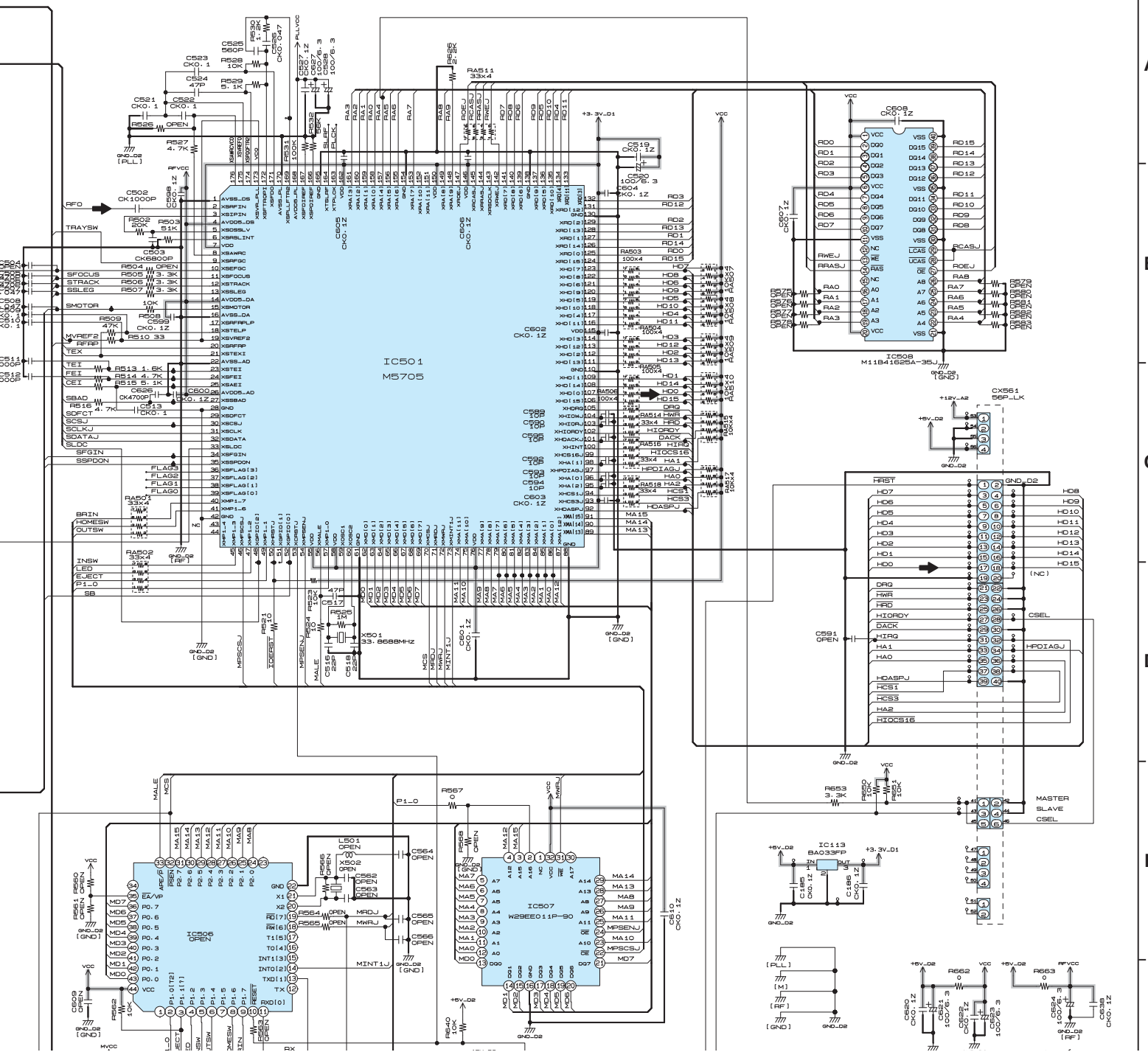
4

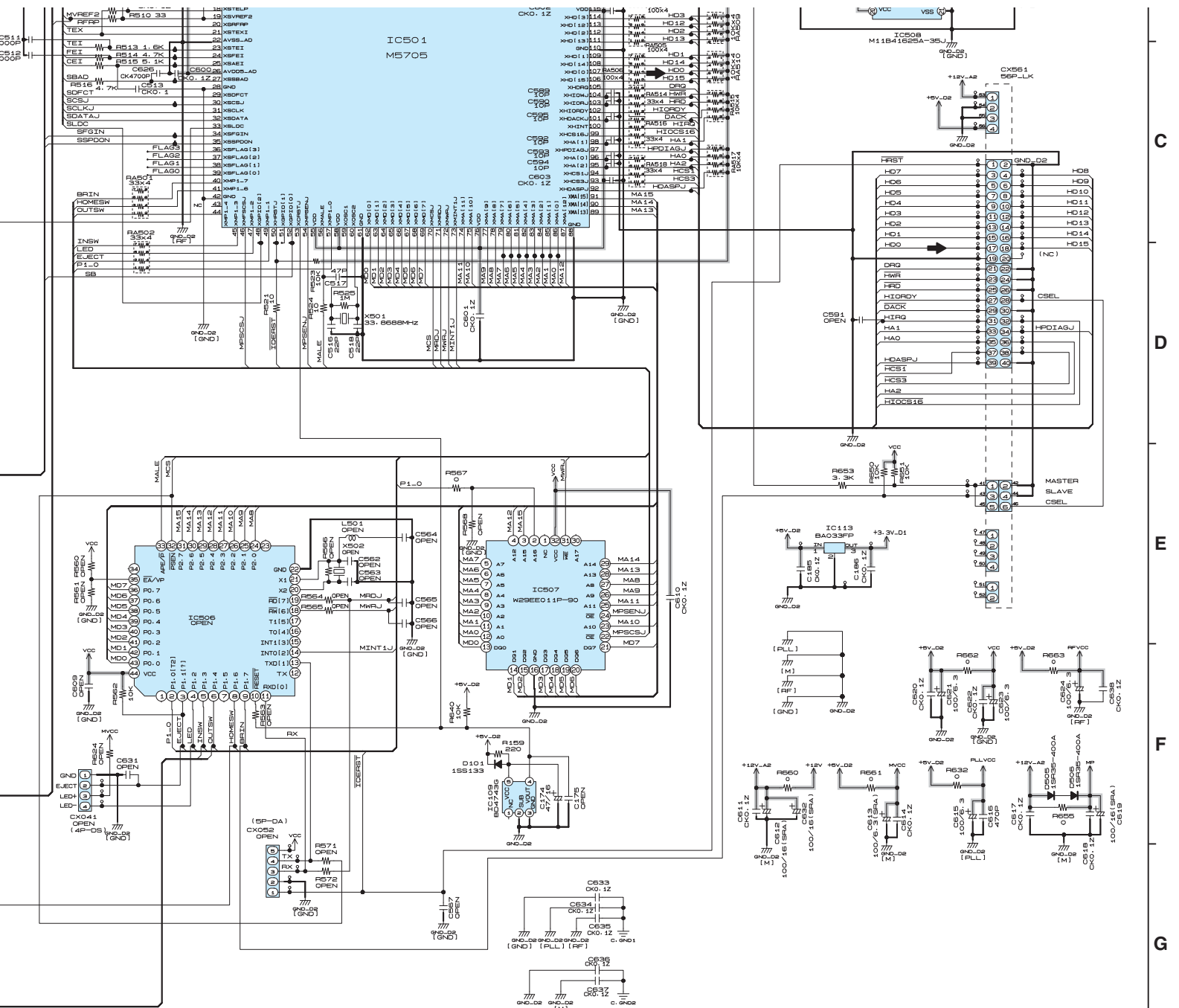
5



GU-3414

6 7 8 9 10 11





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 card is less than 460kohms, the unit is defective.

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

k=1,000 OHM M=1,000,000 OHM
μ=0.001 MICRO-FARAD. P=MICRO-MICRO FARAD
E MEASURED AT MO SIGNAL INPUT

DO NOT CHANGE WITHOUT PRIOR

— +B LINE
➔ SIGNAL LINE

SCHEMATIC DIAGRAMS (1/6) 1U-3414 CD-ROM UNIT

C

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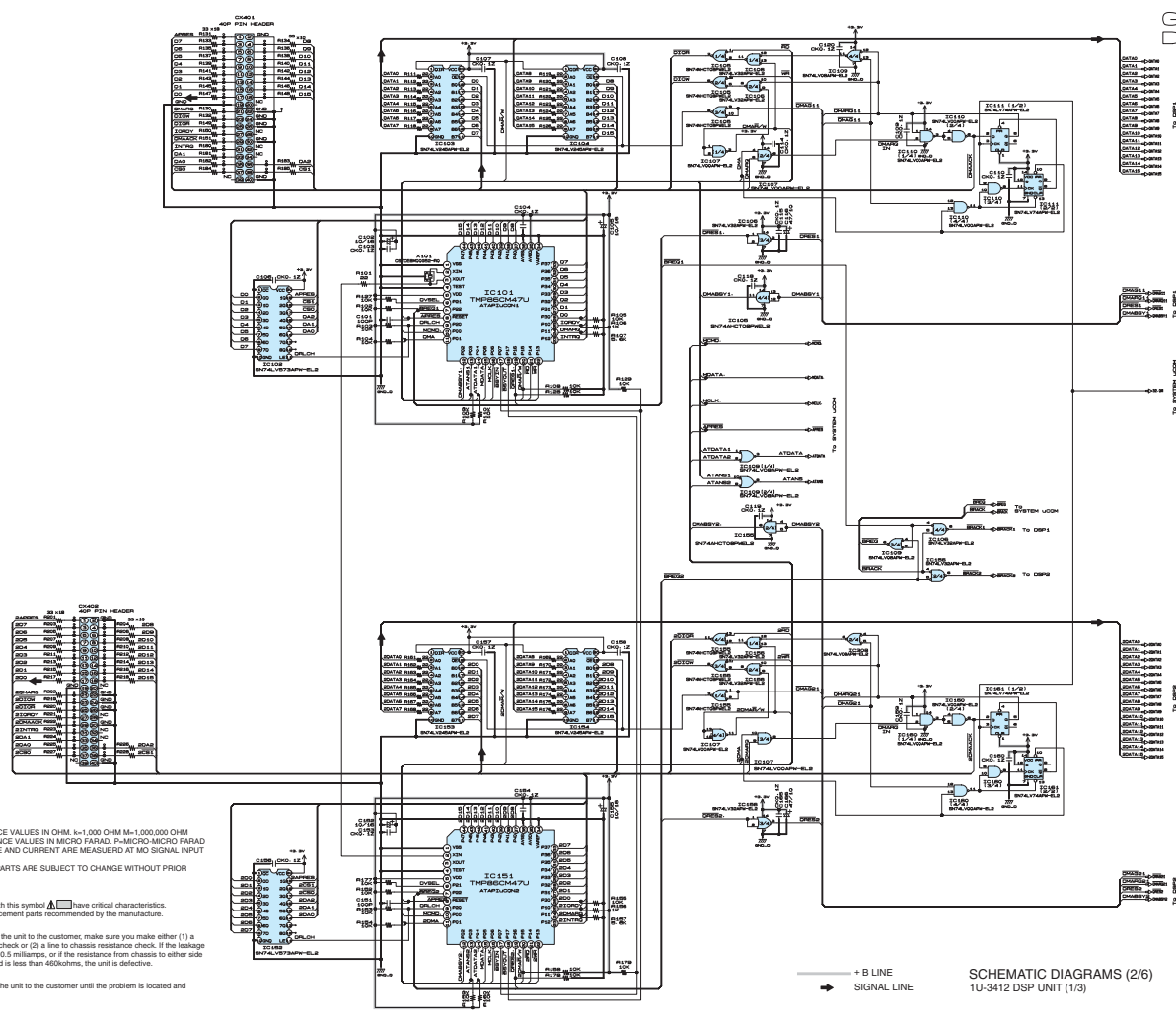
G

H

SCHMATIC DIAGRAMS (2/6)

1 2 3 4 5 6 7 8 9 10 11

GU-3412 DSP UNIT



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.

WARNING:
 Parts marked with this symbol [A] 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 milliamperes, or if the resistance from chassis to either side
 of the power cord is less than 400 ohms, the unit is defective.

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

— + B LINE
 → SIGNAL LINE

SCHMATIC DIAGRAMS (2/6)
1U-3412 DSP UNIT (1/3)

SCHMATIC DIAGRAMS (2/6)

1 2 3 4 5 6 7 8 9 10 11

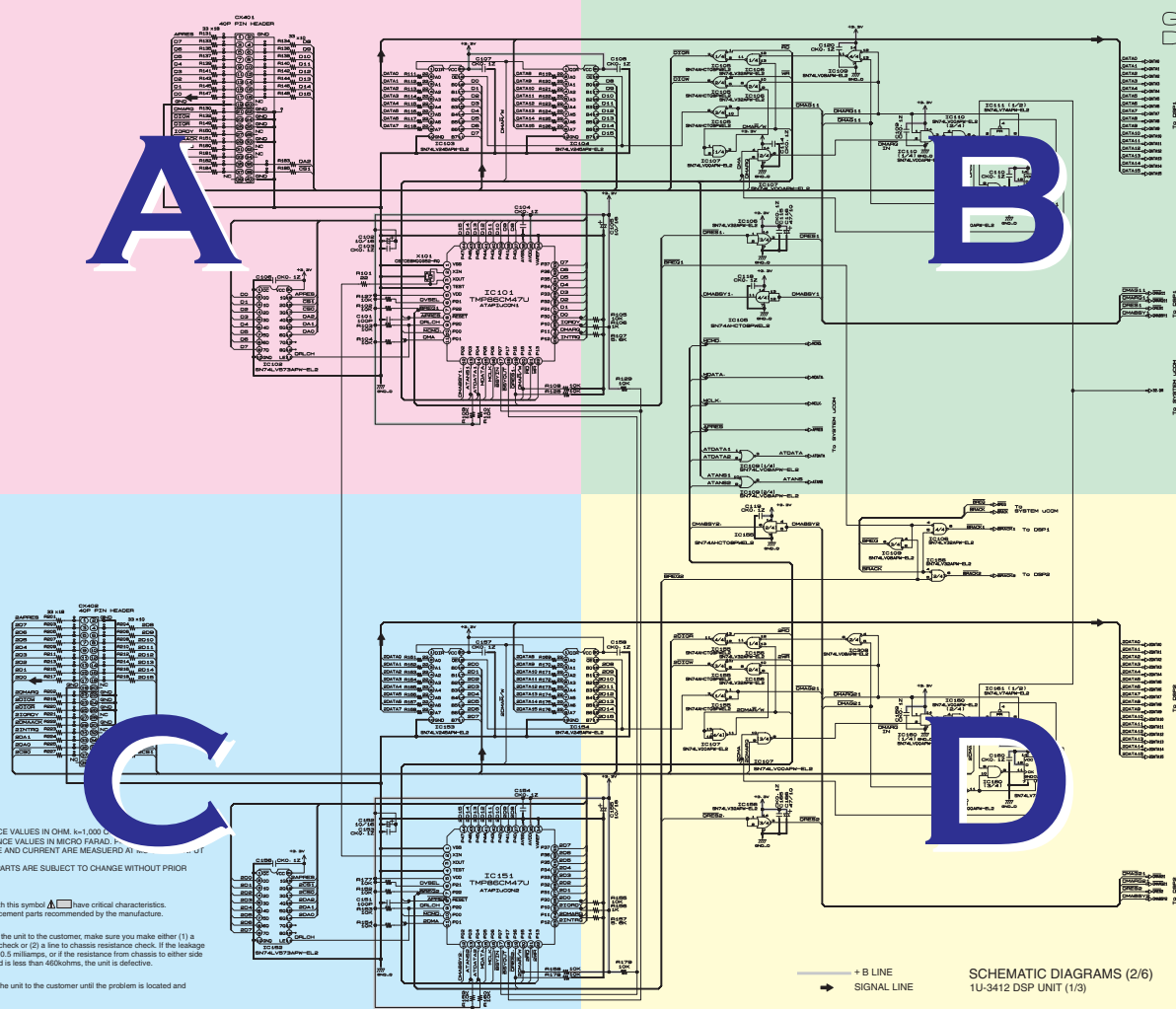
GU-3412 DSP UNIT

A


B

C

D



NOTICE
 ALL RESISTANCE VALUES IN OHM, k-1,000 Ω
 ALL CAPACITANCE VALUES IN MICRO FARAD (μF)
 EACH VOLTAGE AND CURRENT ARE MEASURED AT ROOM TEMPERATURE
 CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

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 milliamperes, or if the resistance from chassis to either side of the power cord is less than 400ohms, the unit is defective.

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

— + B LINE
 → SIGNAL LINE

SCHMATIC DIAGRAMS (2/6)
 1U-3412 DSP UNIT (1/3)

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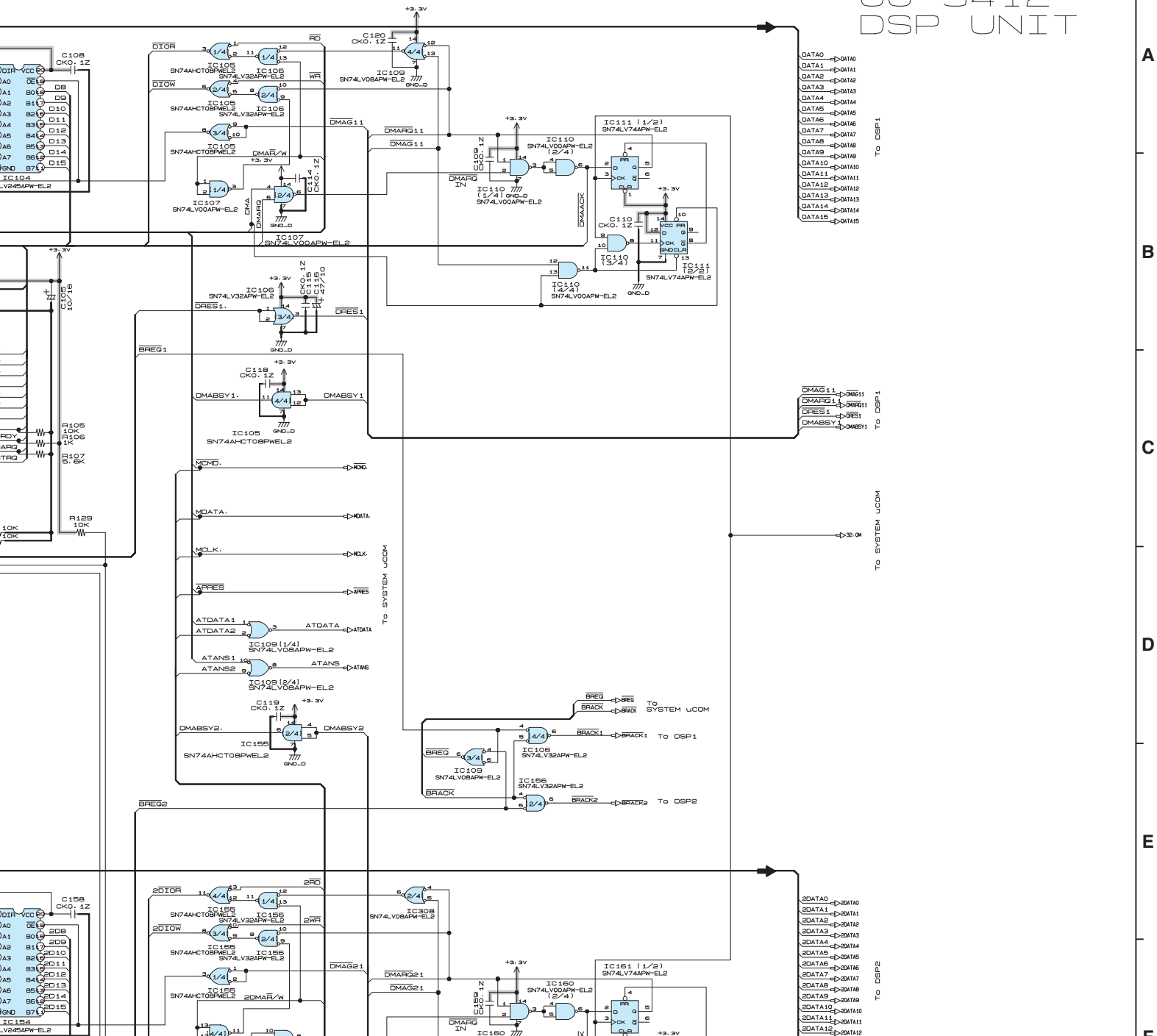
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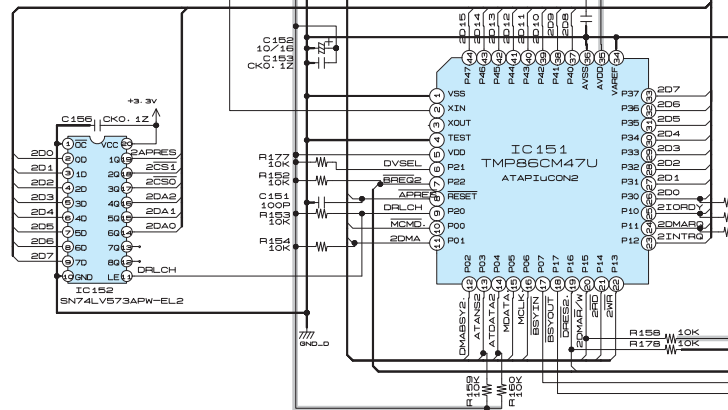
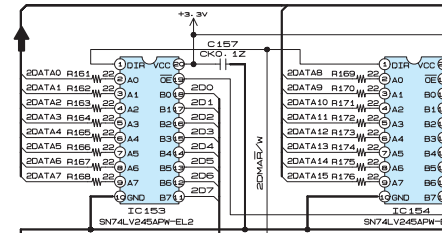
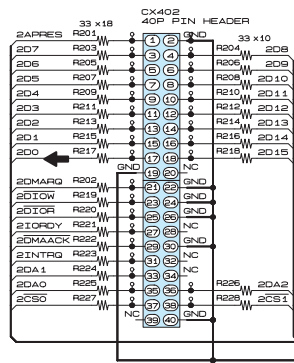
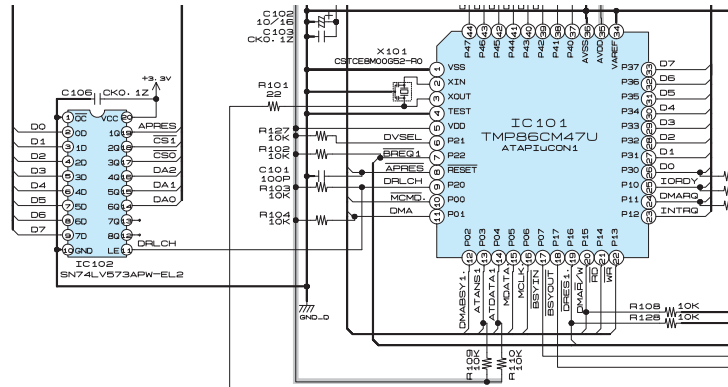
10

11

GU-3412 DSP UNIT



A
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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 MO SIGNAL INPUT
 CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:

Parts marked with this symbol  have critical characteristics.
 Use ONLY replacement parts recommended by the manufacture.

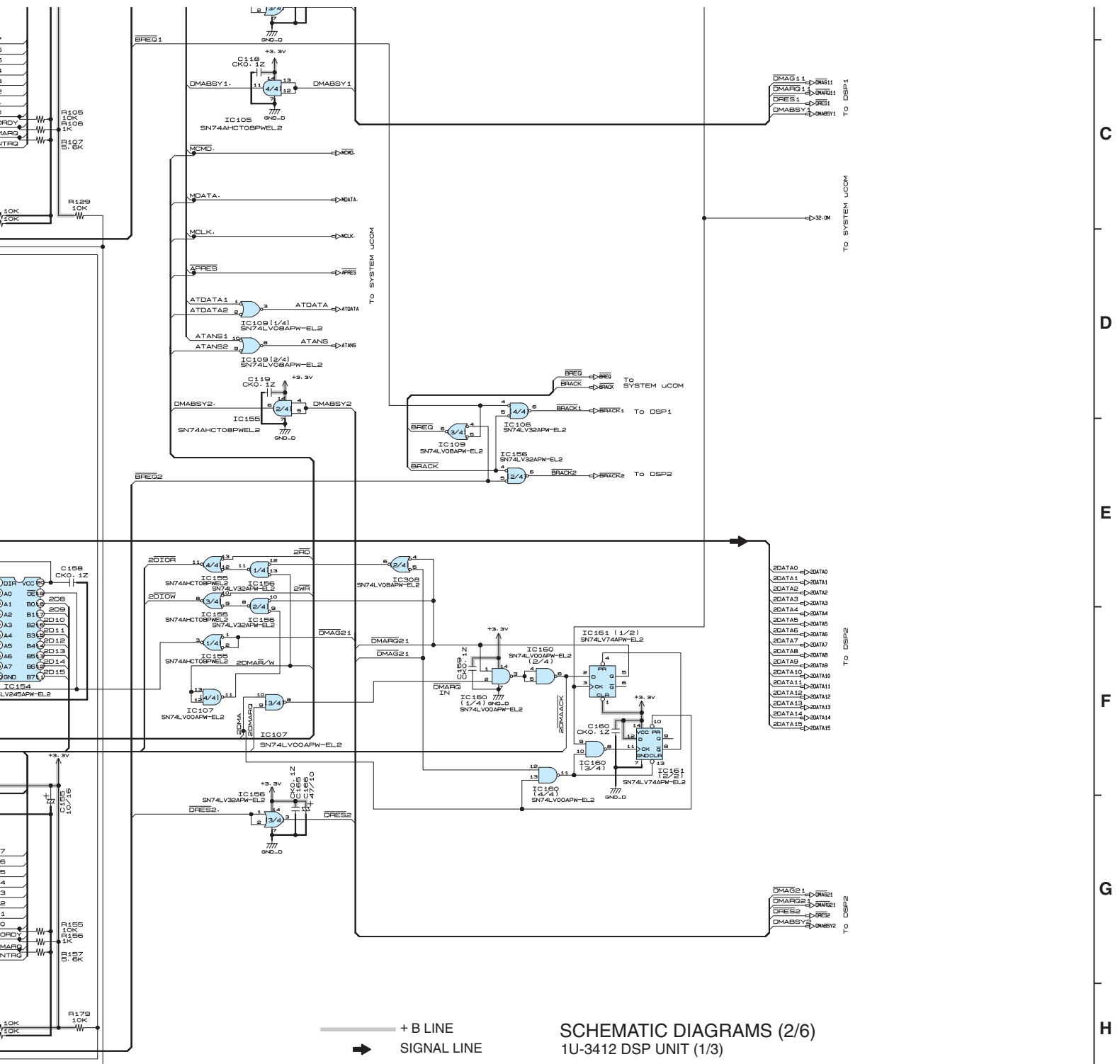
CAUTION:

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 card is less than 460kohms, the unit is defective.

WARNING:

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





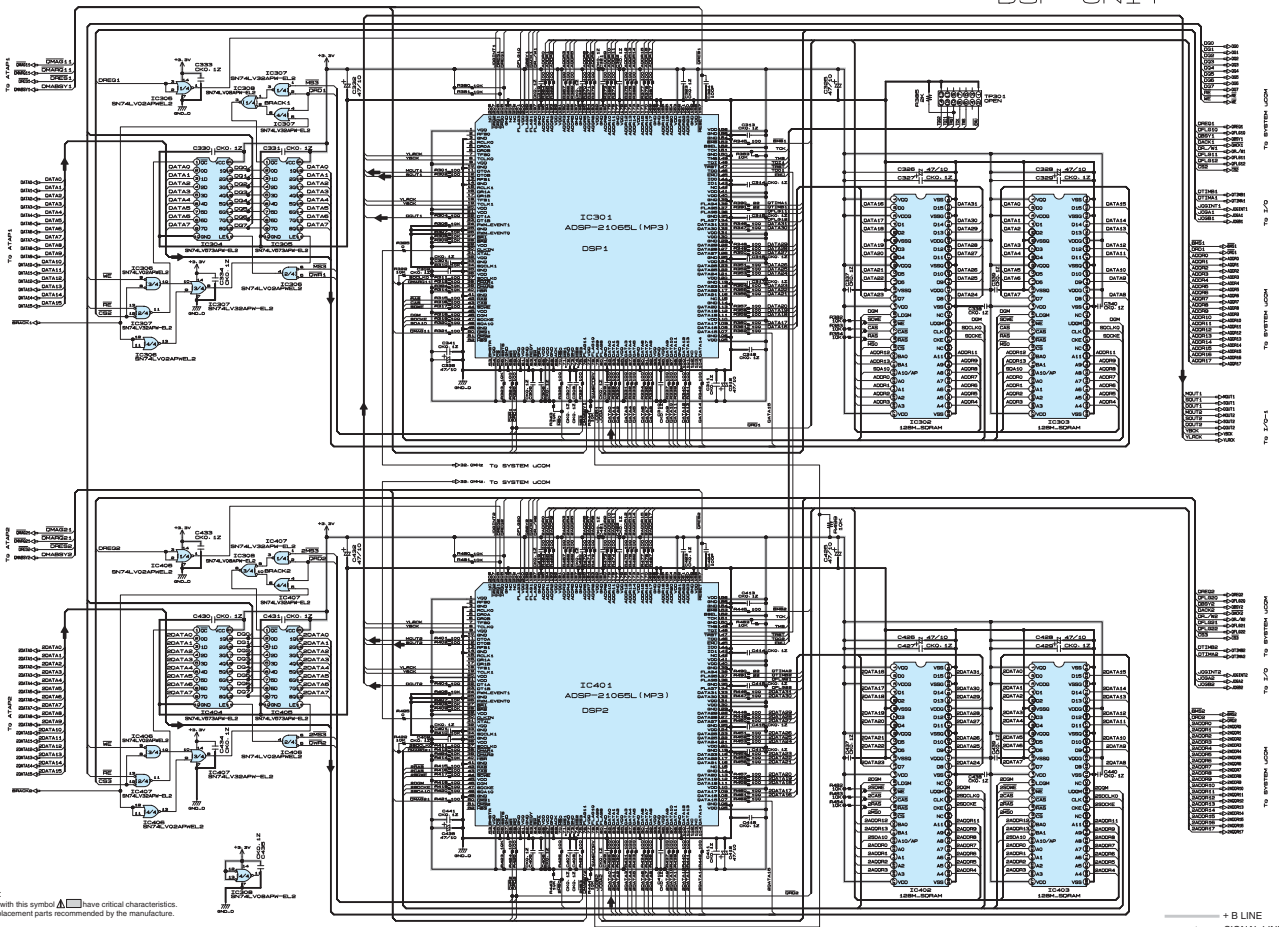
SCHMATIC DIAGRAMS (2/6)
 1U-3412 DSP UNIT (1/3)

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SCHMATIC DIAGRAMS (3/6)

1 2 3 4 5 6 7 8 9 10 11

GU-3412 DSP UNIT



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 milliamperes, or if the resistance from chassis to either side of the power card is less than 480kohms, the unit is defective.

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

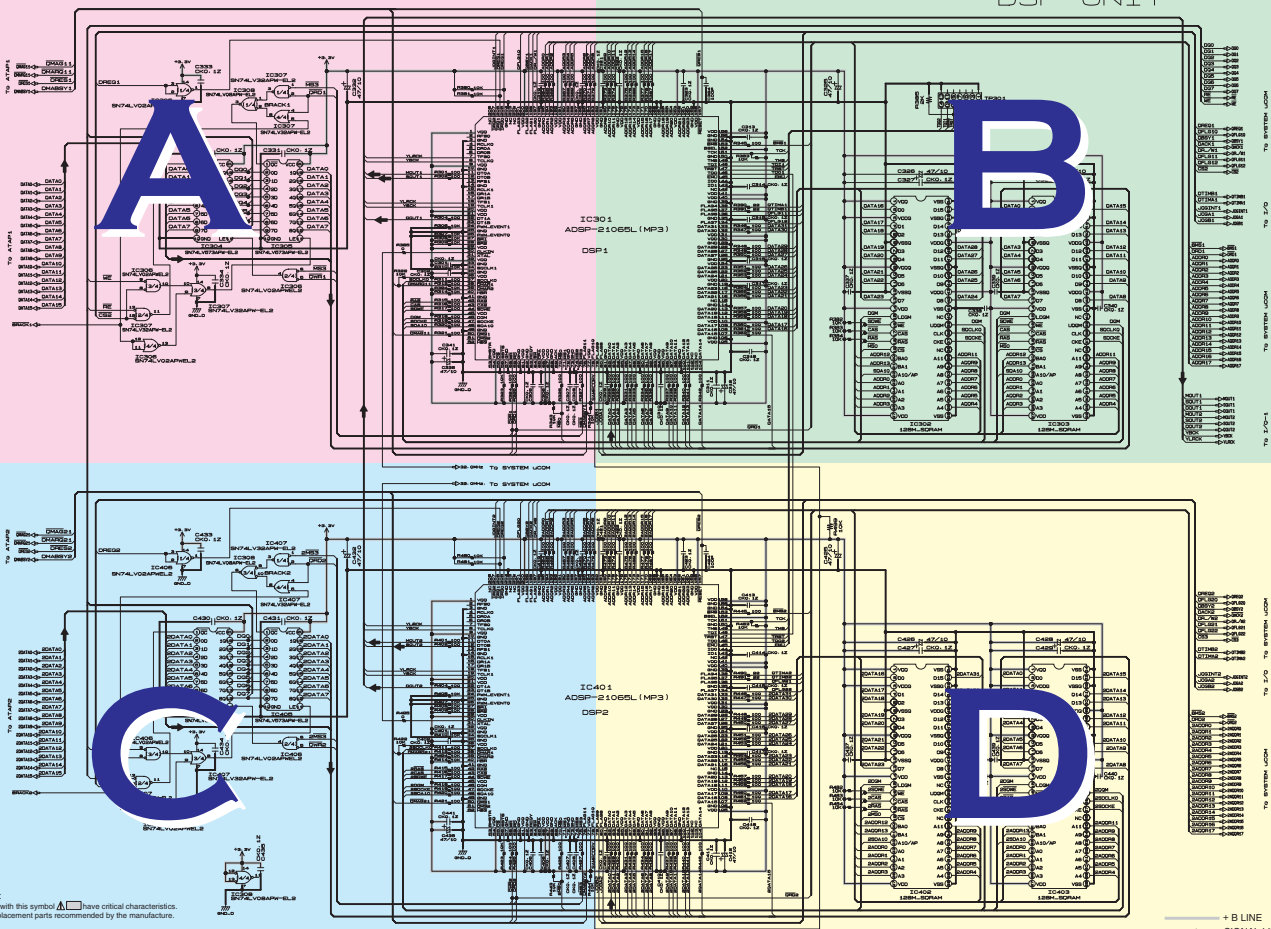
NOTICE
ALL RESISTANCE VALUES IN OHM, k-1,000 OHM M-1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD, P-PICTO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT AO SIGNAL INPUT
CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
NOTICE.


SCHMATIC DIAGRAMS (3/6)
1U-3412 DSP UNIT (2/3)

SCHMATIC DIAGRAMS (3/6)

1 2 3 4 5 6 7 8 9 10 11

GU-3412 DSP UNIT



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 milliamperes, or if the resistance from chassis to either side of the power card is less than 480kohms, 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=PICTO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT AO SIGNAL INPUT
CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

SCHMATIC DIAGRAMS (3/6)
1U-3412 DSP UNIT (2/3)

SCHEMATIC DIAGRAMS (3/6)

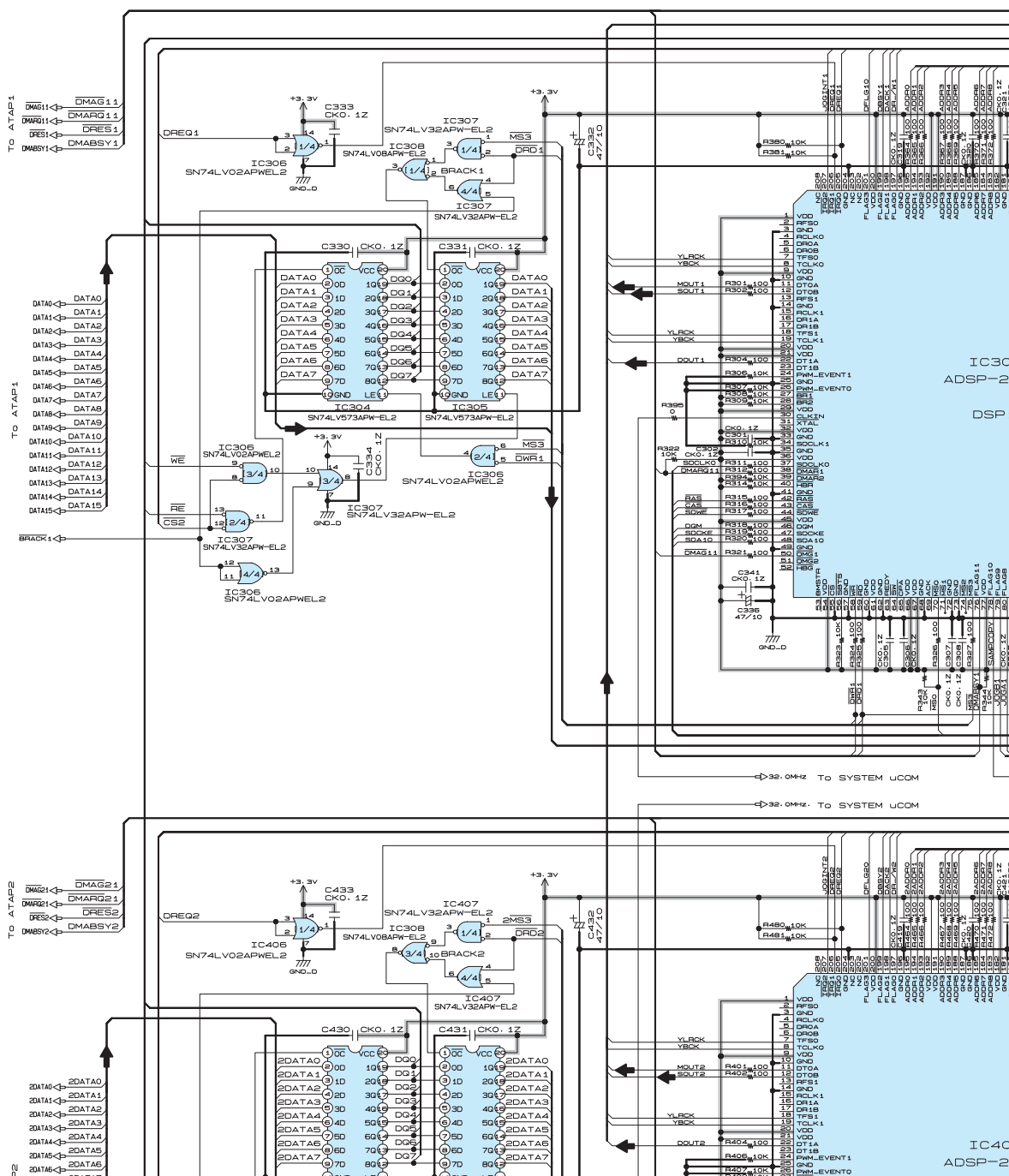
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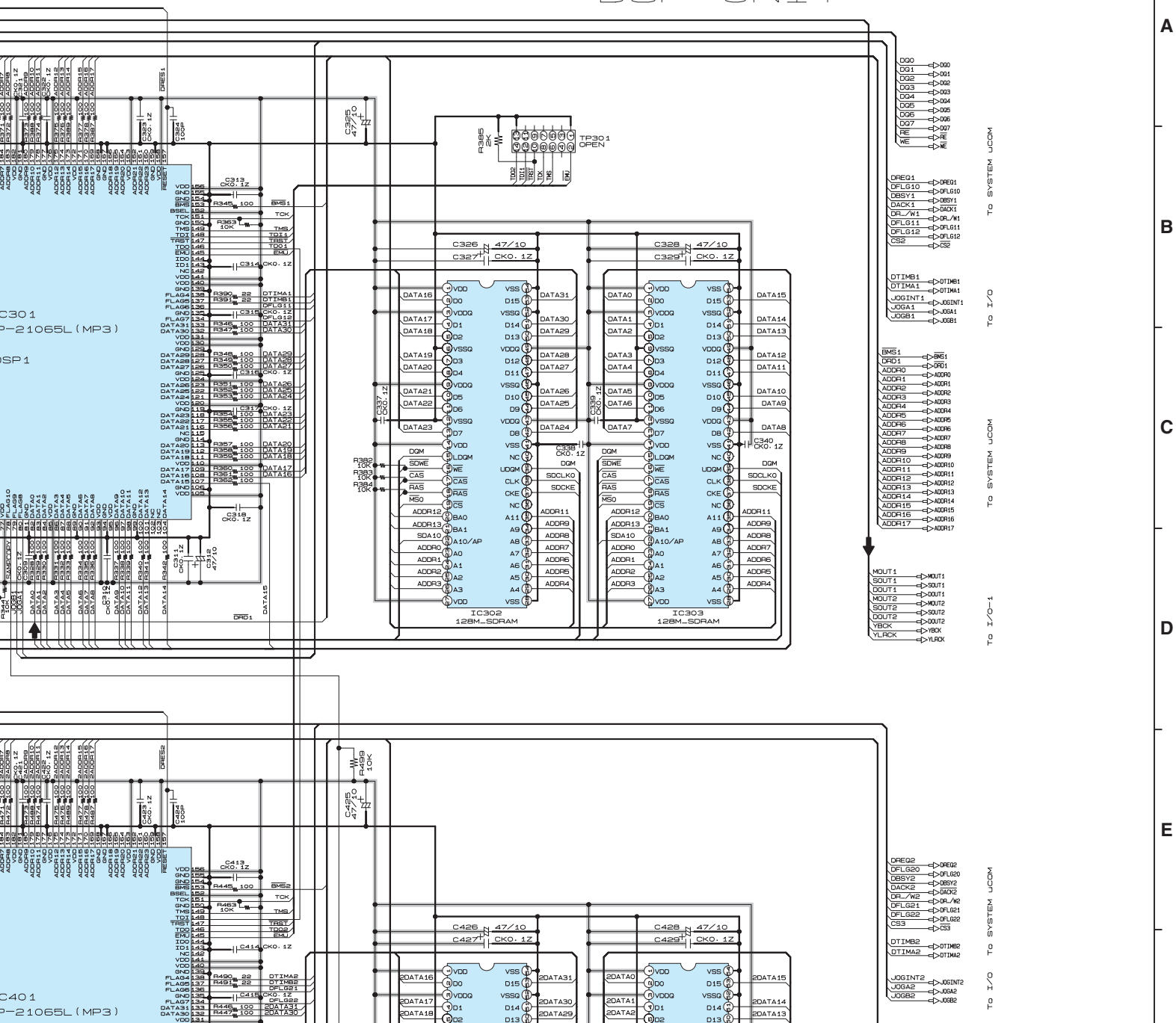
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GU-3412 DSP UNIT



- D00 → D00
- D01 → D01
- D02 → D02
- D03 → D03
- D04 → D04
- D05 → D05
- D06 → D06
- D07 → D07
- RE → D07
- WE → WE

- DREQ1 → DREQ1
- DFLG10 → DFLG10
- DESY1 → DESY1
- DACK1 → DACK1
- DL_W1 → DL_W1
- DFLG11 → DFLG11
- DFLG12 → DFLG12
- CS2 → CS2

- DTIME1 → DTIME1
- DTIMA1 → DTIMA1
- JOGINT1 → JOGINT1
- JOGA1 → JOGA1
- JOGB1 → JOGB1

- BMS1 → BMS1
- DRD1 → DRD1
- ADDR0 → ADDR0
- ADDR1 → ADDR1
- ADDR2 → ADDR2
- ADDR3 → ADDR3
- ADDR4 → ADDR4
- ADDR5 → ADDR5
- ADDR6 → ADDR6
- ADDR7 → ADDR7
- ADDR8 → ADDR8
- ADDR9 → ADDR9
- ADDR10 → ADDR10
- ADDR11 → ADDR11
- ADDR12 → ADDR12
- ADDR13 → ADDR13
- ADDR14 → ADDR14
- ADDR15 → ADDR15
- ADDR16 → ADDR16
- ADDR17 → ADDR17

- MOUT1 → MOUT1
- SOUT1 → SOUT1
- DOU1 → DOU1
- MOUT2 → MOUT2
- SOUT2 → SOUT2
- DOU2 → DOU2
- YBCK → YBCK
- YLCK → YLCK

- DREQ2 → DREQ2
- DFLG20 → DFLG20
- DESY2 → DESY2
- DACK2 → DACK2
- DL_W2 → DL_W2
- DFLG21 → DFLG21
- DFLG22 → DFLG22
- CS3 → CS3

- DTIME2 → DTIME2
- DTIMA2 → DTIMA2
- JOGINT2 → JOGINT2
- JOGA2 → JOGA2
- JOGB2 → JOGB2

To SYSTEM UCDM

To I/O

To SYSTEM UCDM

To I/O-1

To SYSTEM UCDM

To I/O

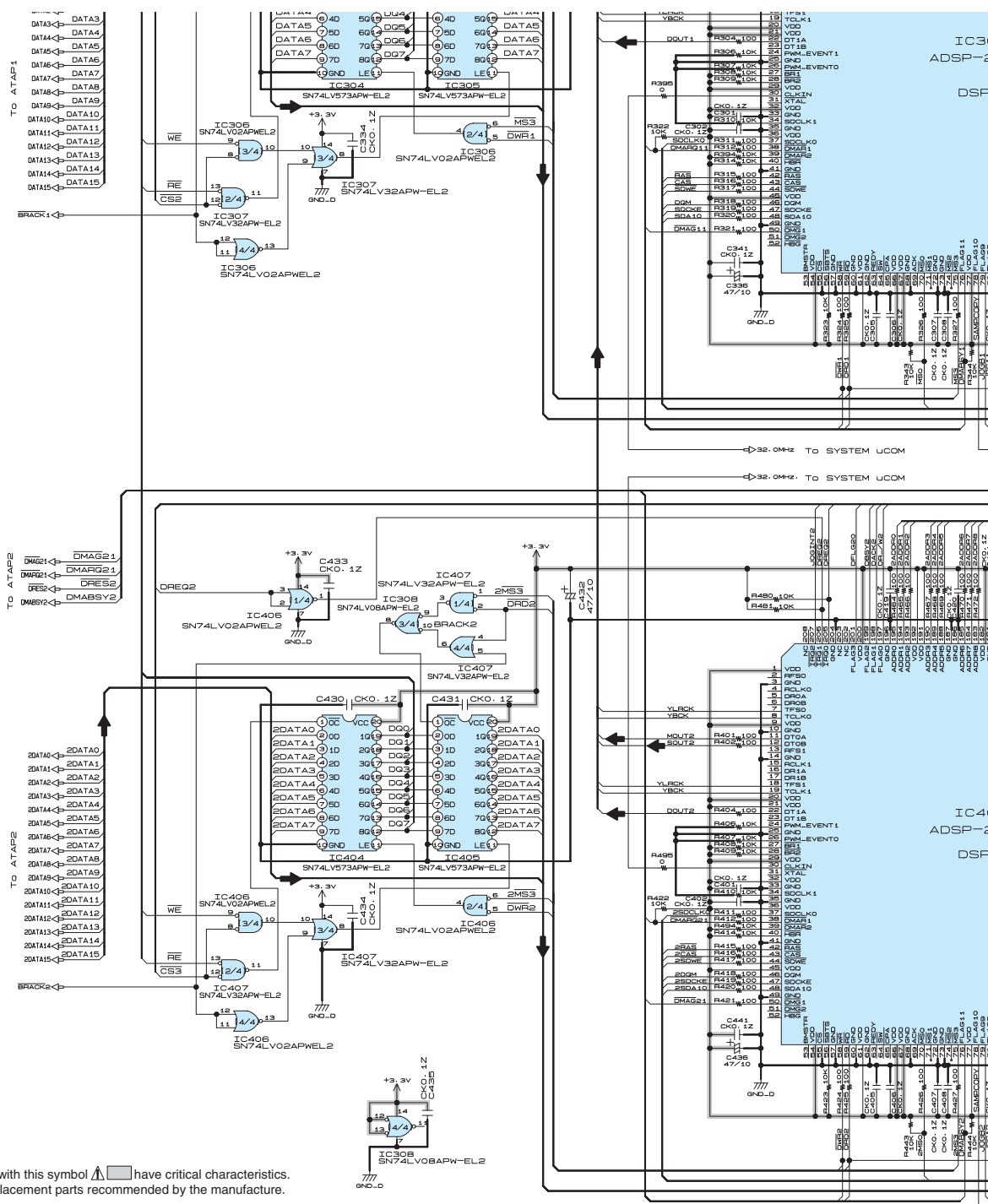
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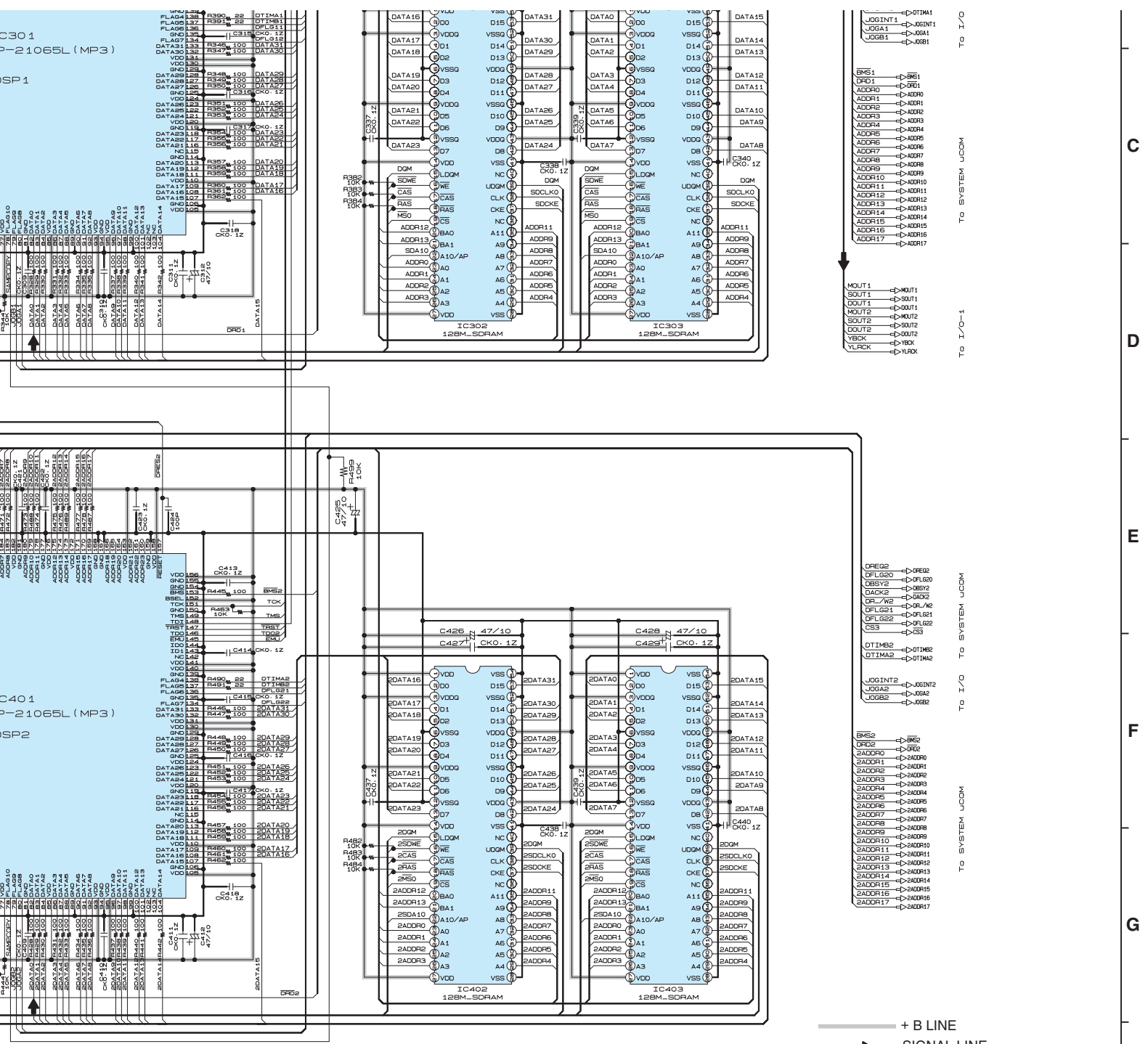
WARNING:
 Parts marked with this symbol have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.

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 millamps, or if the resistance from chassis to either side of the power card is less than 460kohms, 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 MO SIGNAL INPUT CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.





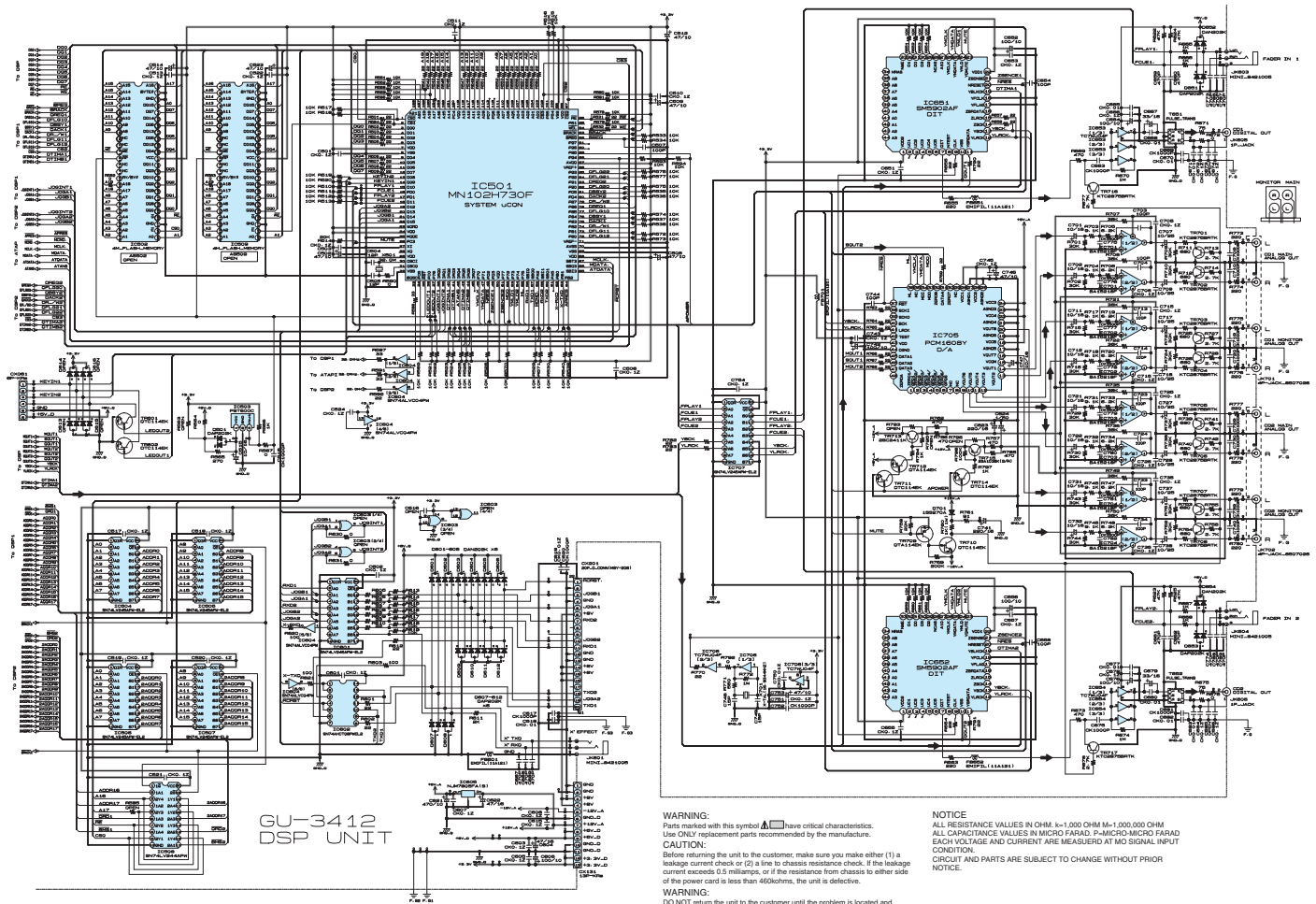
— + B LINE
— SIGNAL LINE

SCHEMATIC DIAGRAMS (3/6)
1U-3412 DSP UNIT (2/3)


C
D
E
F
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H

SCHEMATIC DIAGRAMS (4/6)

1 2 3 4 5 6 7 8 9 10 11



GU-3412
DSP UNIT

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 milliamperes, or if the resistance from chassis to either side of the power card is less than 450kohms, the unit is defective.

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

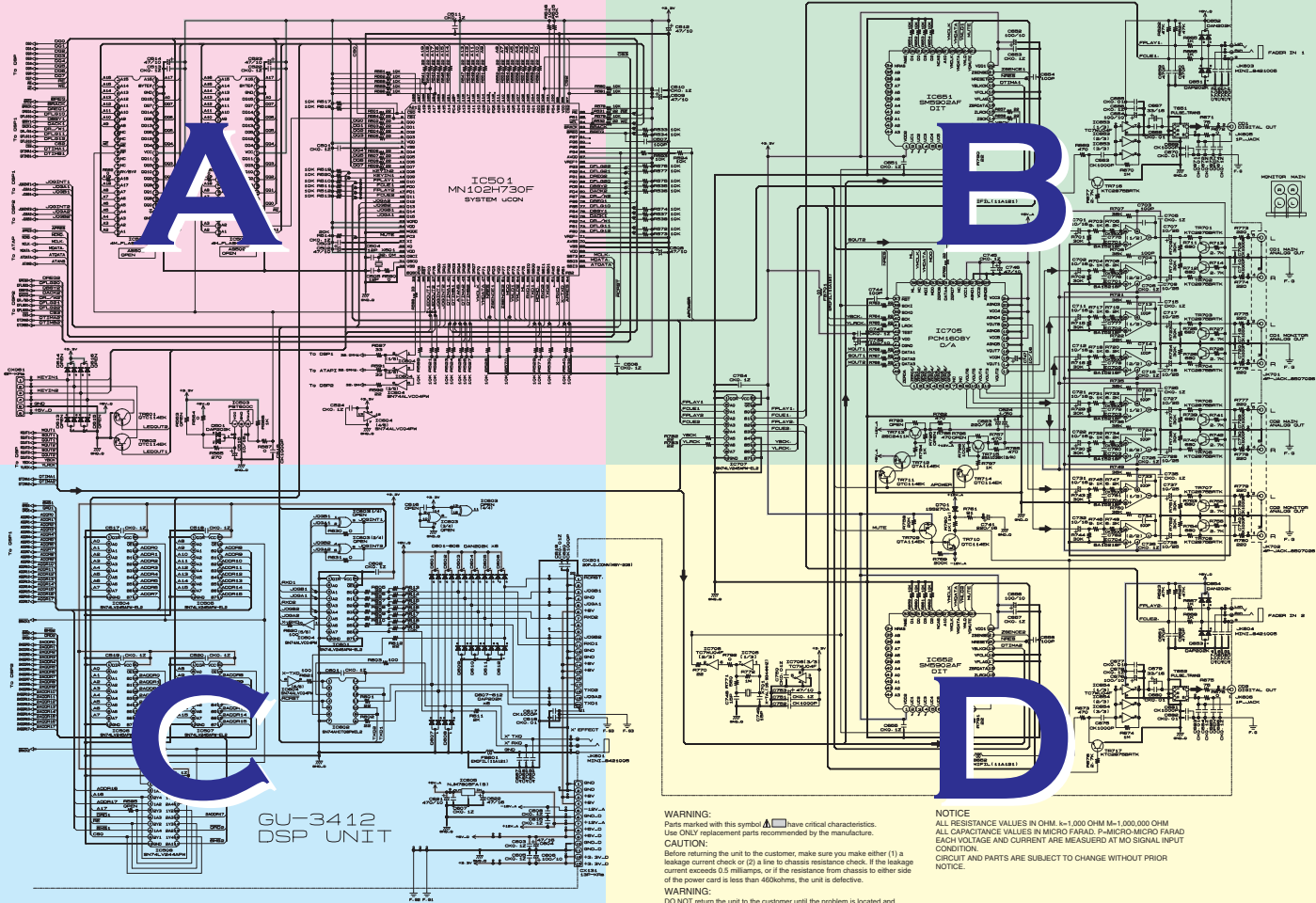
NOTICE
ALL RESISTANCE VALUES IN OHM, K=1,000 OHM M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD, P=MICRO MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT MO SIGNAL INPUT
CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
NOTICE.

— ± B LINE
→ SIGNAL LINE


SCHEMATIC DIAGRAMS (4/6)
1U-3412 DSP UNIT (3/3)

SCHMATIC DIAGRAMS (4/6)

1 2 3 4 5 6 7 8 9 10 11



GU-3412 DSP UNIT

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 card is less than 450kohms, the unit is defective.

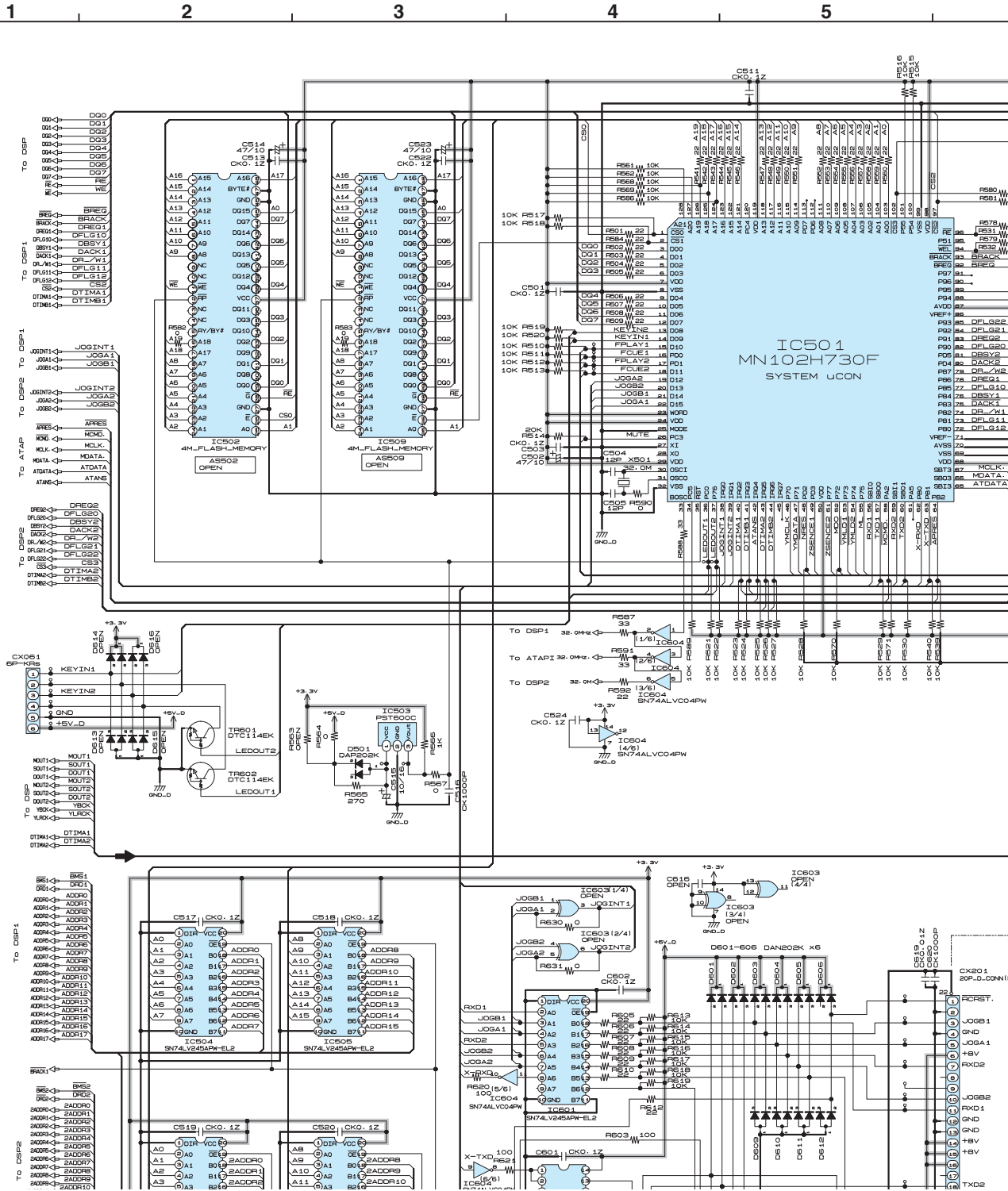
WARNING:
DO NOT return the unit to the customer until the problem is located and corrected.

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 MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

— ± B LINE
→ SIGNAL LINE

SCHMATIC DIAGRAMS (4/6)
1U-3412 DSP UNIT (3/3)

SCHEMATIC DIAGRAMS (4/6)



6

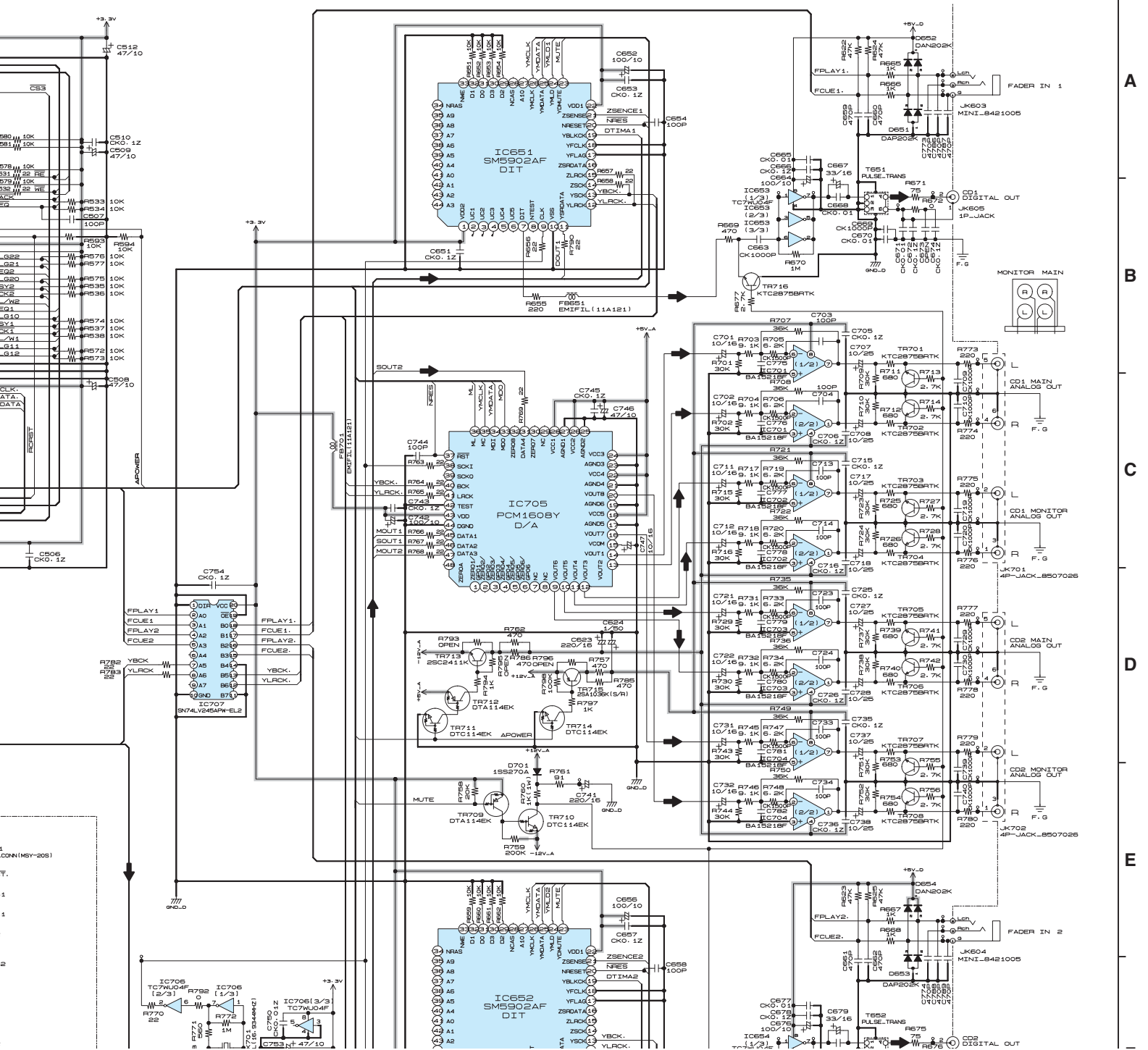
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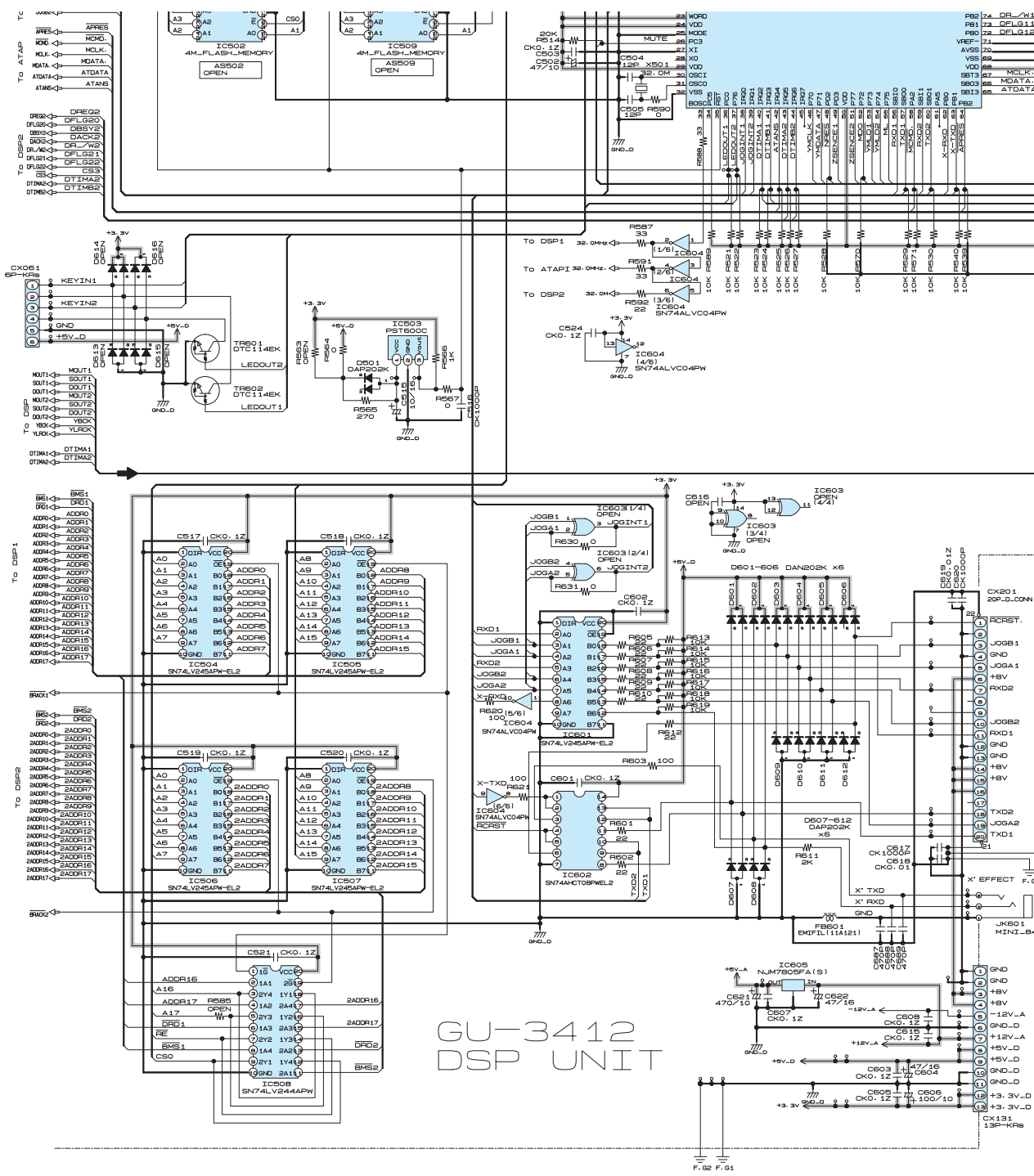
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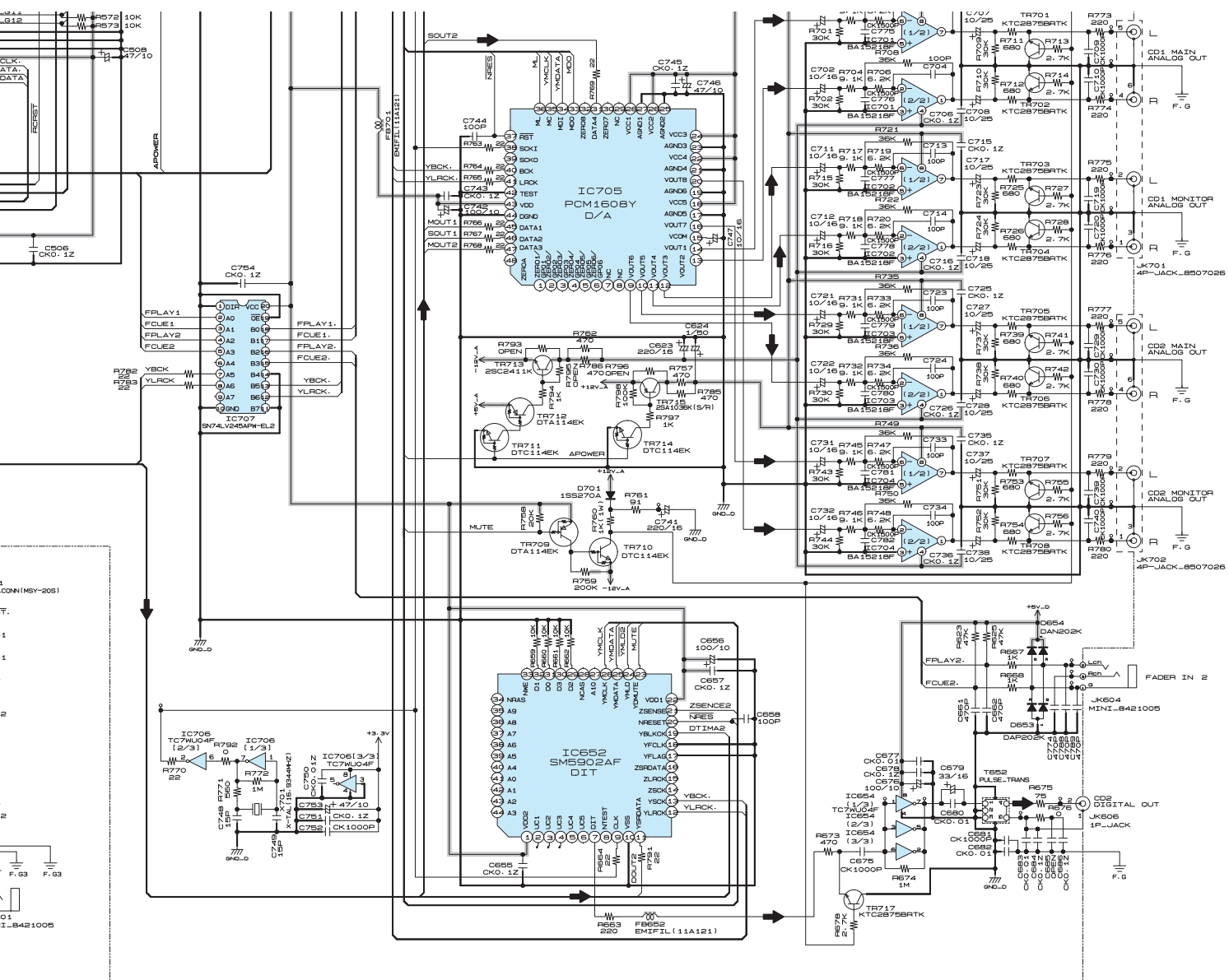
11



A
B
C
D
E



GU-3412
DSP UNIT



WARNING:
Parts marked with this symbol Δ 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 card is less than 460kohms, 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 MO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.

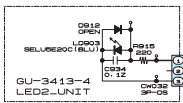
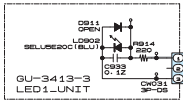
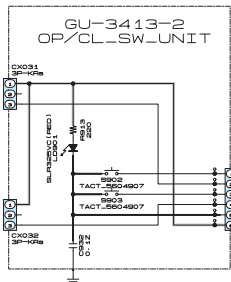
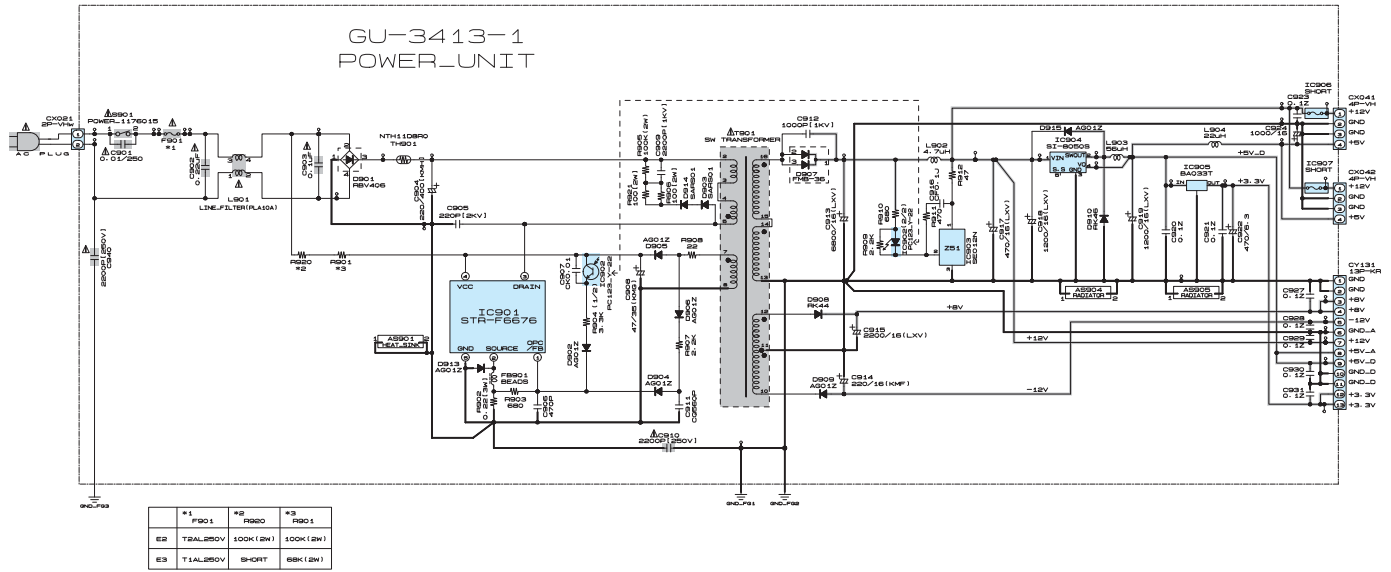
— ± B LINE
➔ SIGNAL LINE

SCHEMATIC DIAGRAMS (4/6)
1U-3412 DSP UNIT (3/3)

C
D
E
F
G
H

SCHEMATIC DIAGRAMS (5/6)

1 2 3 4 5 6 7 8 9 10 11



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 MO SIGNAL INPUT
 CONDITION
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:
 Parts marked with this symbol Δ 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 millamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

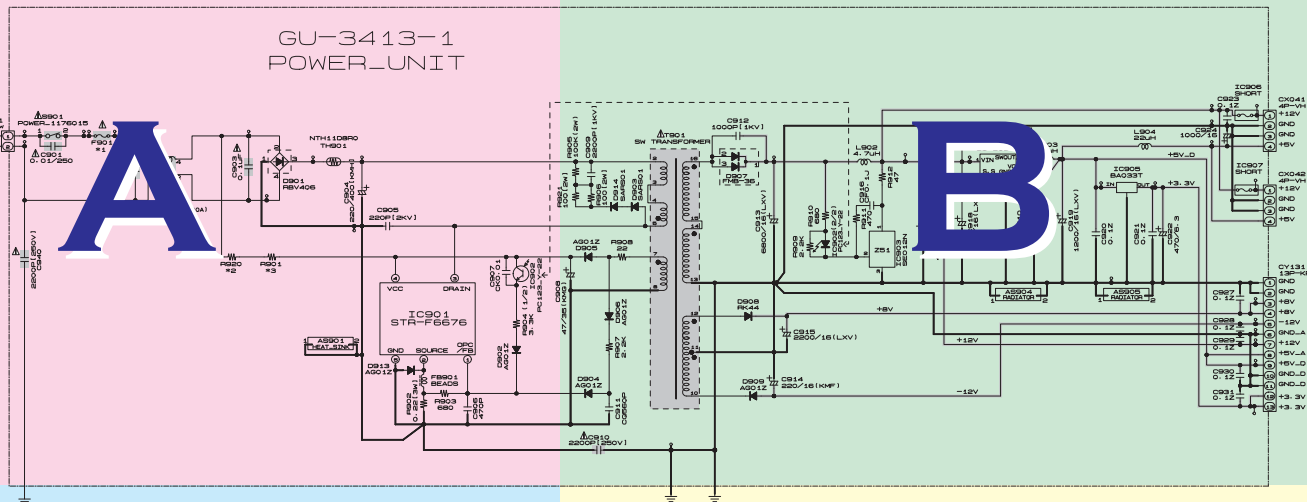
WARNING:
 DO NOT return the unit to the customer until the problem is located and corrected.

+ B LINE

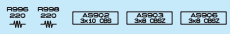
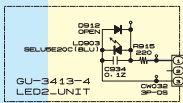
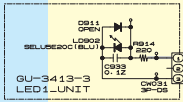
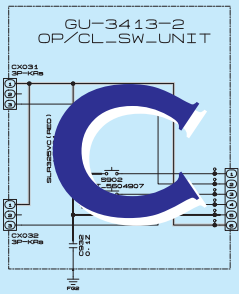
SCHEMATIC DIAGRAMS (5/6)
 GU-3413-1 POWER UNIT
 GU-3413-2 OP/CL SW UNIT
 GU-3413-3 LED1 UNIT
 GU-3413-4 LED2 UNIT

SCHEMATIC DIAGRAMS (5/6)

1 2 3 4 5 6 7 8 9 10 11



*1	F801	*2	R820	*3	R801
E2	T8AL250V		100K (2W)		100K (2W)
E3	T1AL250V		SHORT		68K (2W)



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 MO SIGNAL INPUT
 CONDITION
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:
 Parts marked with this symbol have critical characteristics.
 Use ONLY replacement parts recommended by the manufacturer.

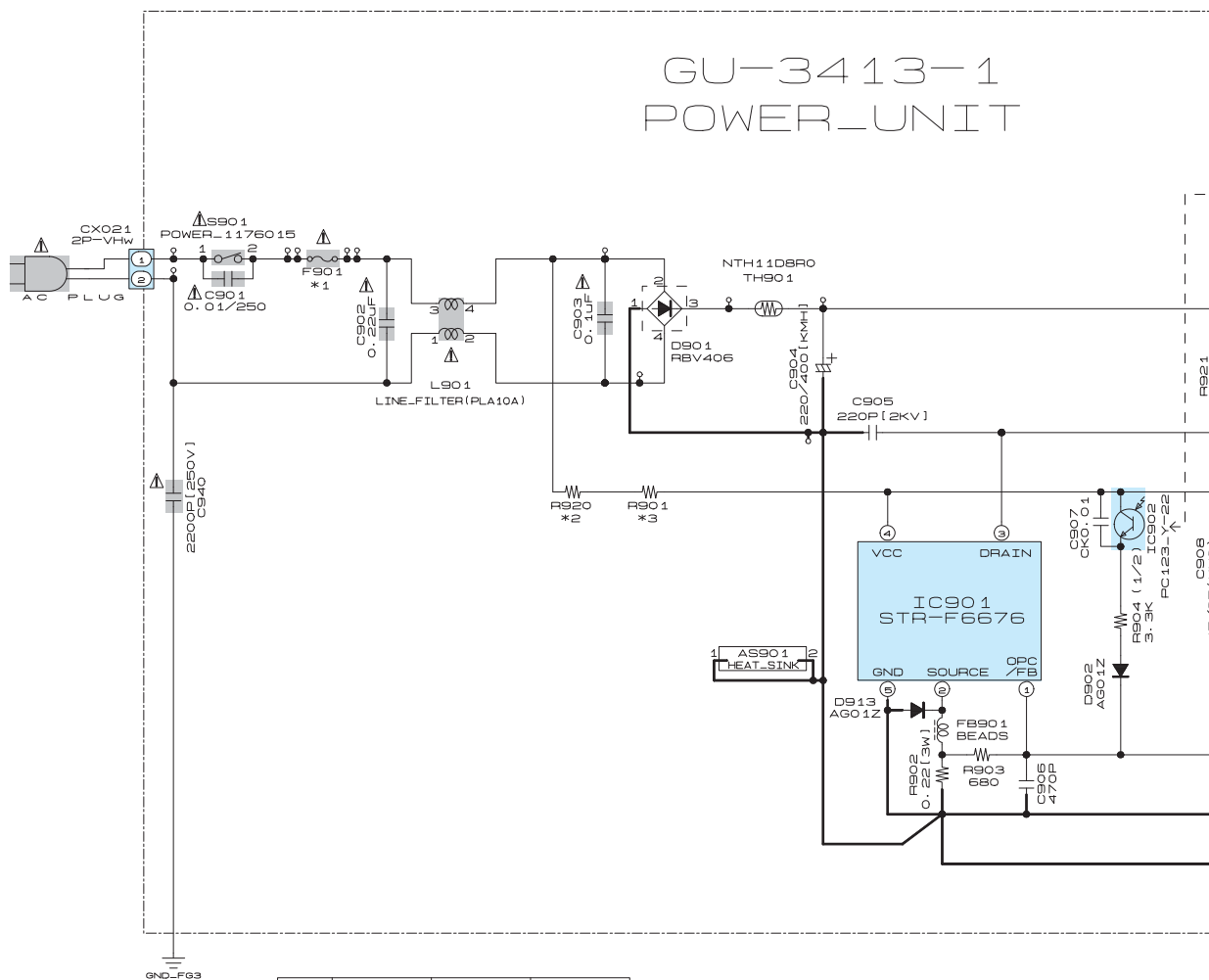
CAUTION:
 Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power card is less than 460kohms, the unit is defective.

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

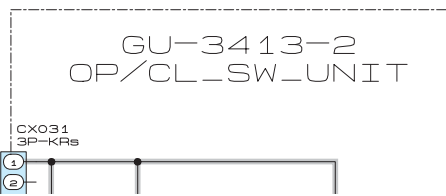
SCHEMATIC DIAGRAMS (5/6)
 GU-3413-1 POWER UNIT
 GU-3413-2 OP/CL_SW UNIT
 GU-3413-3 LED1 UNIT
 GU-3413-4 LED2 UNIT

SCHEMATIC DIAGRAMS (5/6)

1 2 3 4 5



	*1	*2	*3
	F901	R920	R901
E2	T2AL250V	100K (2W)	100K (2W)
E3	T1AL250V	SHORT	68K (2W)



6

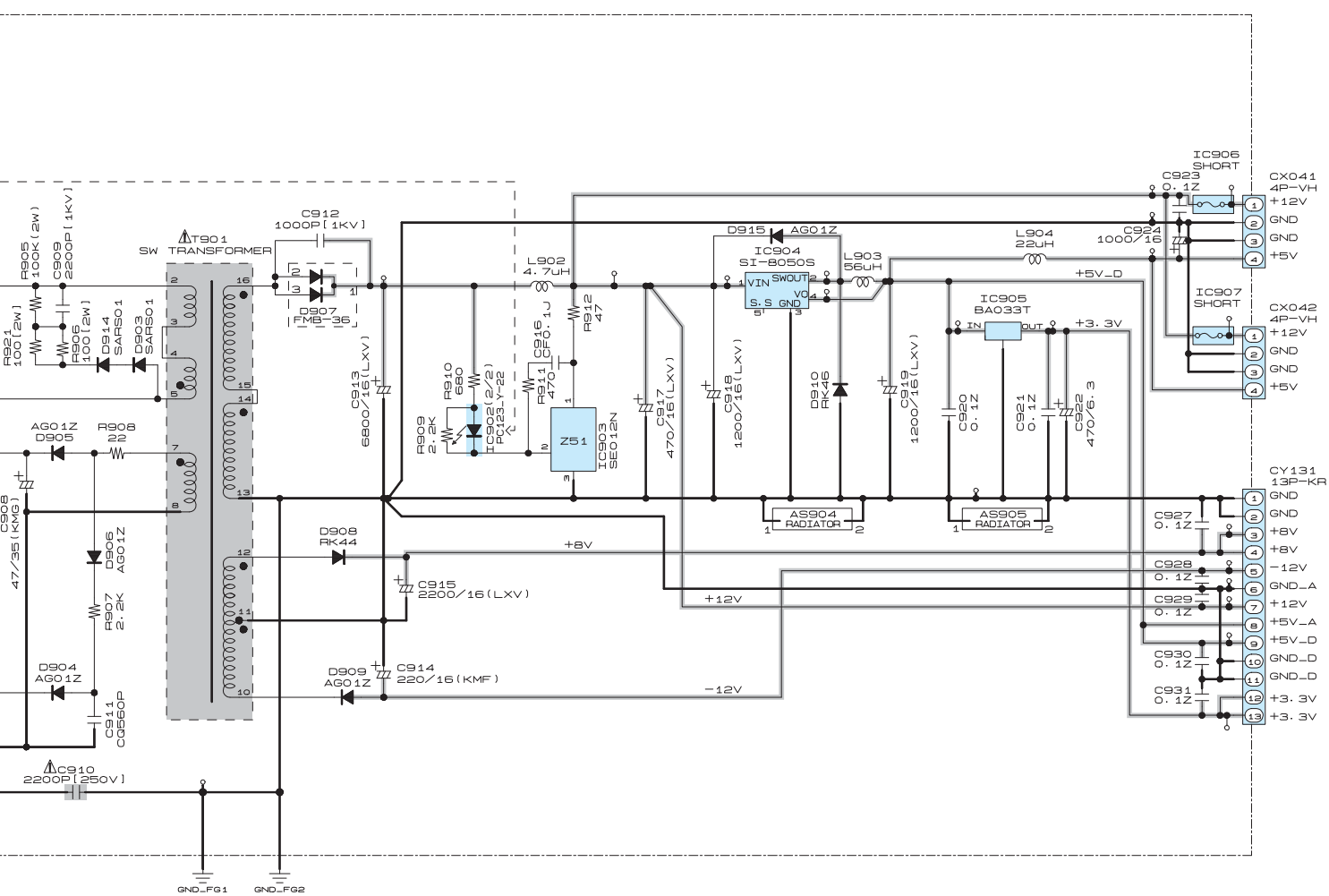
7

8

9

10

11



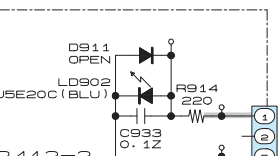
A

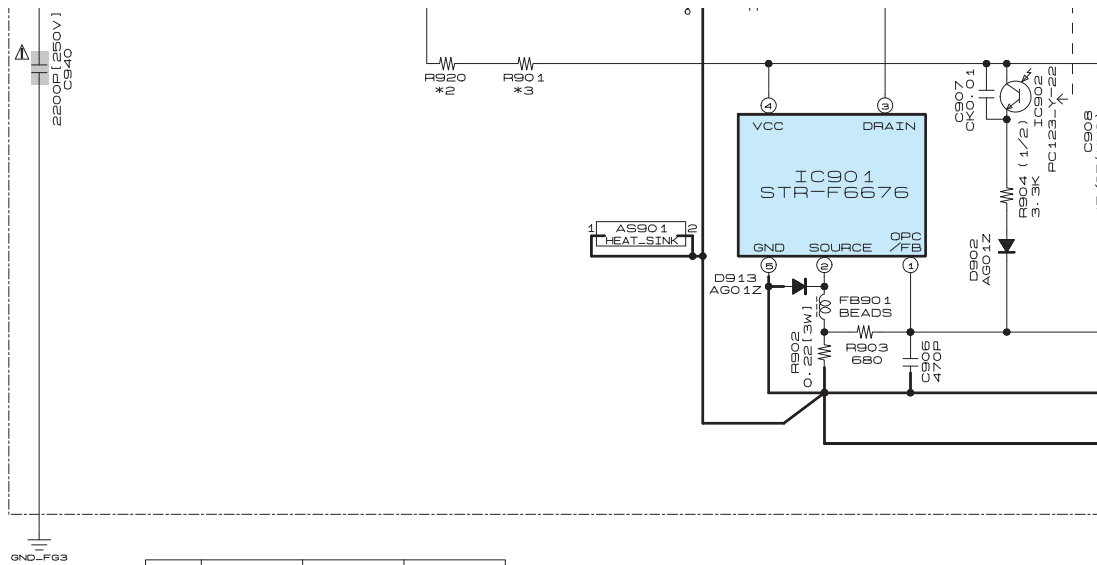
B

C

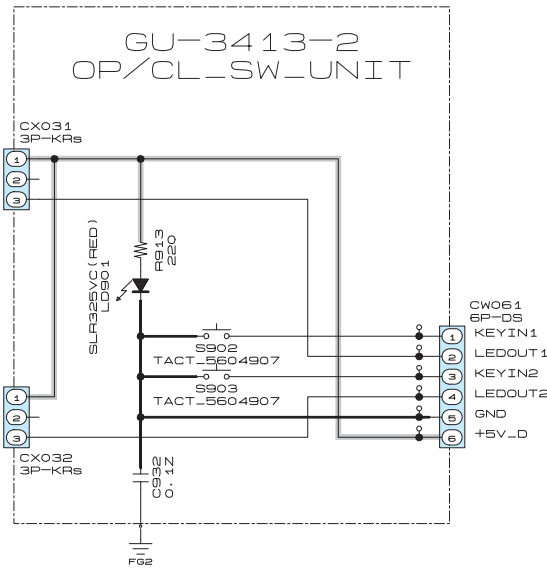
D

E





	*1 F901	*2 R920	*3 R901
E2	T2AL250V	100K (2W)	100K (2W)
E3	T1AL250V	SHORT	68K (2W)



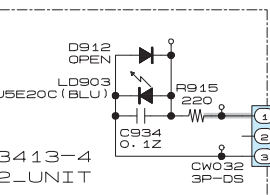
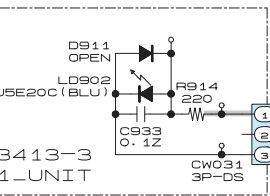
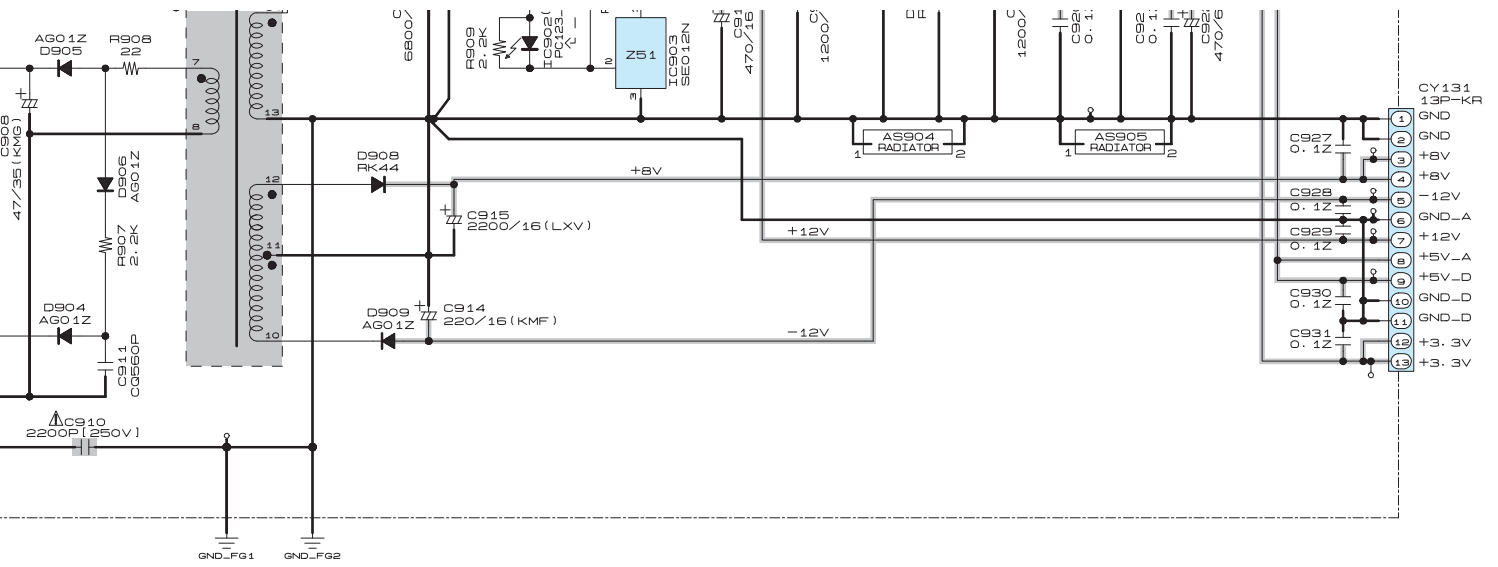
R996 220
R998 220

AS902 3x10 CBS
AS903 3x8 CBSZ
AS906 3x8 CBSZ



NOTICE
ALL RESISTANCE VALUES IN OHM. k=
ALL CAPACITANCE VALUES IN MICRO
EACH VOLTAGE AND CURRENT ARE IN
CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO
NOTICE.





WARNING:

Parts marked with this symbol  have critical characteristics. Use ONLY replacement parts recommended by the manufacture.

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 card is less than 460kohms, the unit is defective.

WARNING:

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

k=1,000 OHM M=1,000,000 OHM
 P=MICRO-MICRO FARAD
 MEASUERD AT MQ SIGNAL INPUT

TO CHANGE WITHOUT PRIOR

— + B LINE

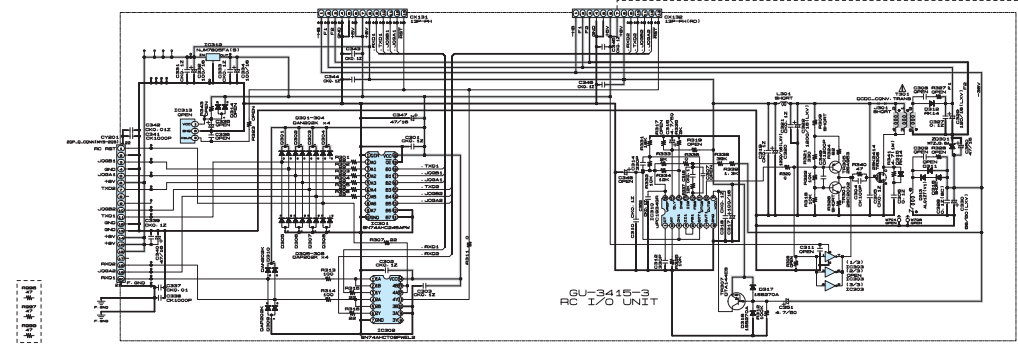
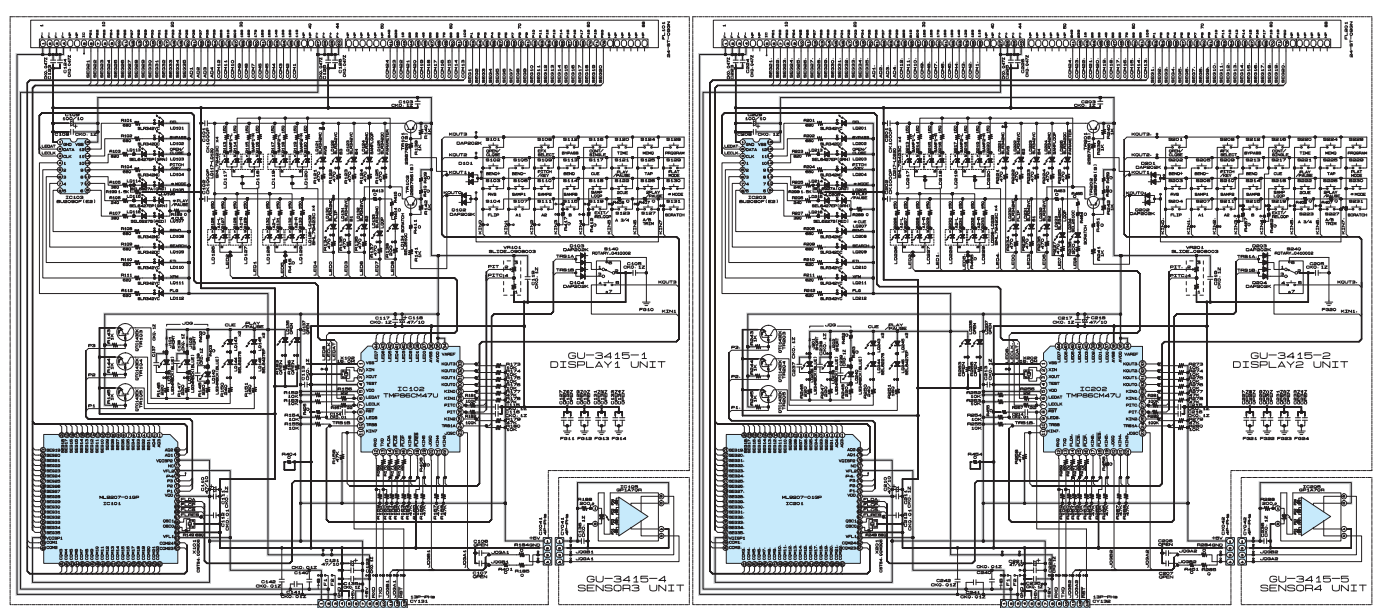
SCHEMATIC DIAGRAMS (5/6)

- GU-3413-1 POWER UNIT
- GU-3413-2 OP/CL SW UNIT
- GU-3413-3 LED1 UNIT
- GU-3413-4 LED2 UINIT


C
D
E
F
G
H

SCHMATIC DIAGRAMS (6/6)

1 2 3 4 5 6 7 8 9 10 11



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 MD SIGNAL INPUT
 CONDITION
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE

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 time to chassis resistance check. If the leakage
 current exceeds 0.5 millamps, or if the resistance from chassis to either side
 of the power card is less than 450ohms, the unit is defective.

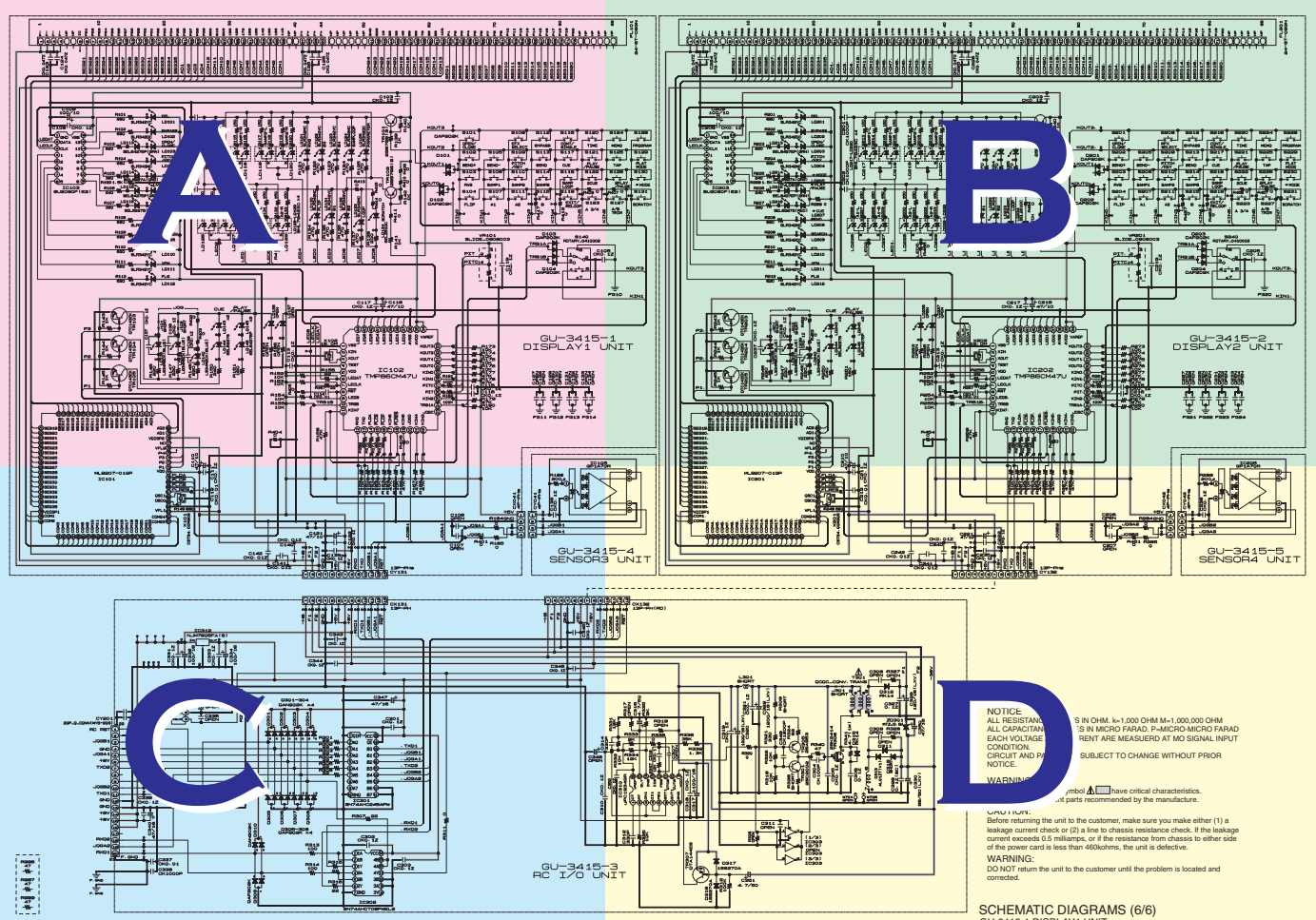
WARNING:
 DO NOT return the unit to the customer until the problem is located and
 corrected.

SCHMATIC DIAGRAMS (6/6)
 GU-3415-1 DISPLAY1 UNIT
 GU-3415-2 DISPLAY2 UNIT
 GU-3415-3 RC I/O UNIT
 GU-3415-4 SENSOR3 UNIT
 GU-3415-5 SENSOR4 UNIT

* B LINE

SCHMATIC DIAGRAMS (6/6)

1 2 3 4 5 6 7 8 9 10 11



NOTICE:
 ALL RESISTANCE VALUES IN OHMS, K=1,000 OHMS, M=1,000,000 OHMS
 ALL CAPACITANCE VALUES IN MICRO FARAD, P=PICTO MICRO FARAD
 EACH VOLTAGE VALUE IS MEASURED AT NO SIGNAL INPUT
 CONDITION
 CIRCUIT AND PARTS LIST ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE

WARNING:
 Symbols with a triangle in a square have critical characteristics. Do not substitute other 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 time to chassis resistance check. If the leakage current exceeds 0.5 millamps, or if the resistance from chassis to either side of the power card is less than 450ohms, the unit is defective.

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

SCHMATIC DIAGRAMS (6/6)
 GU-3415-1 DISPLAY1 UNIT
 GU-3415-2 DISPLAY2 UNIT
 GU-3415-3 RC I/O UNIT
 GU-3415-4 SENSOR3 UNIT
 GU-3415-5 SENSOR4 UNIT

* B LINE

SCHEMATIC DIAGRAMS (6/6)

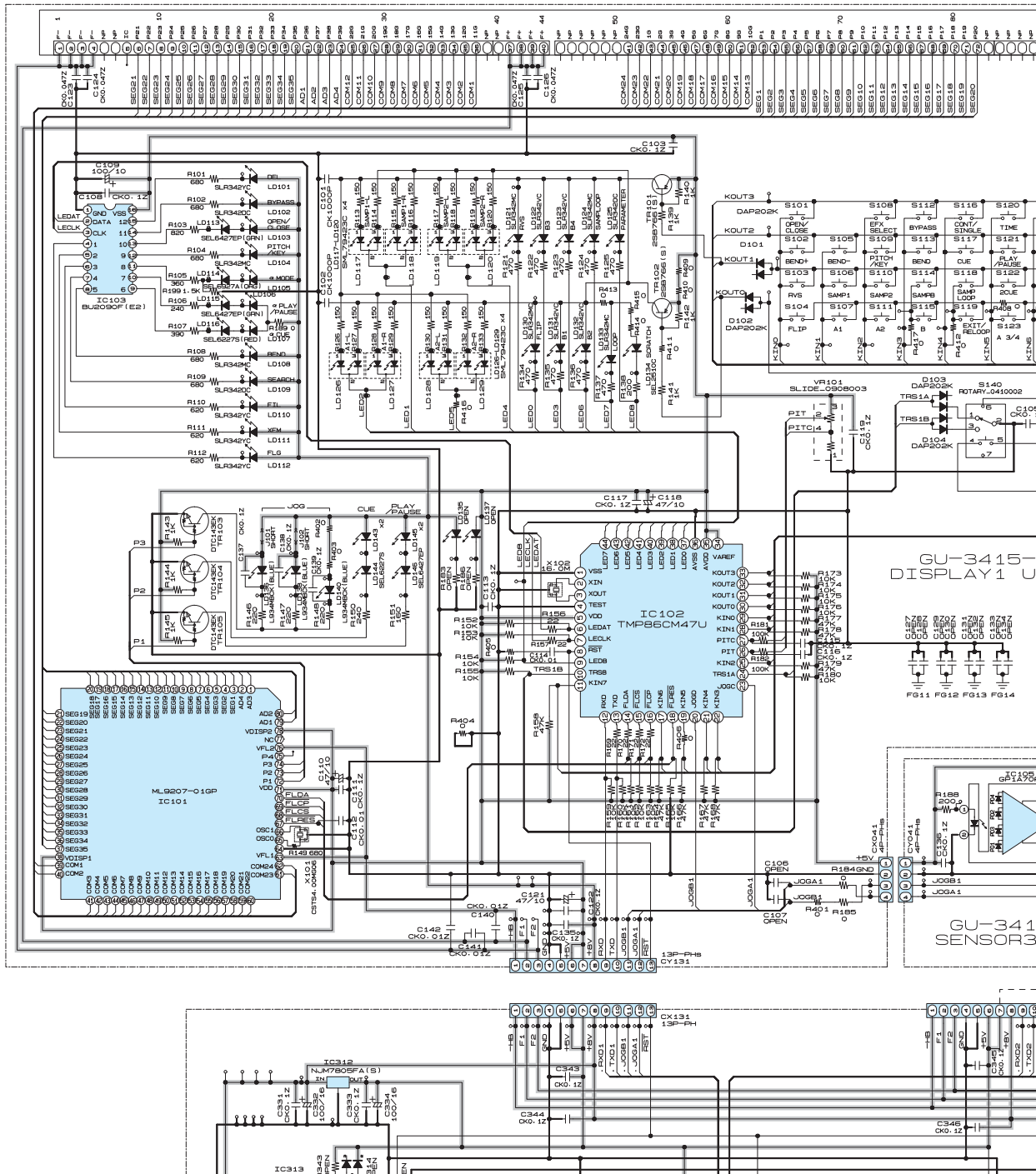
1

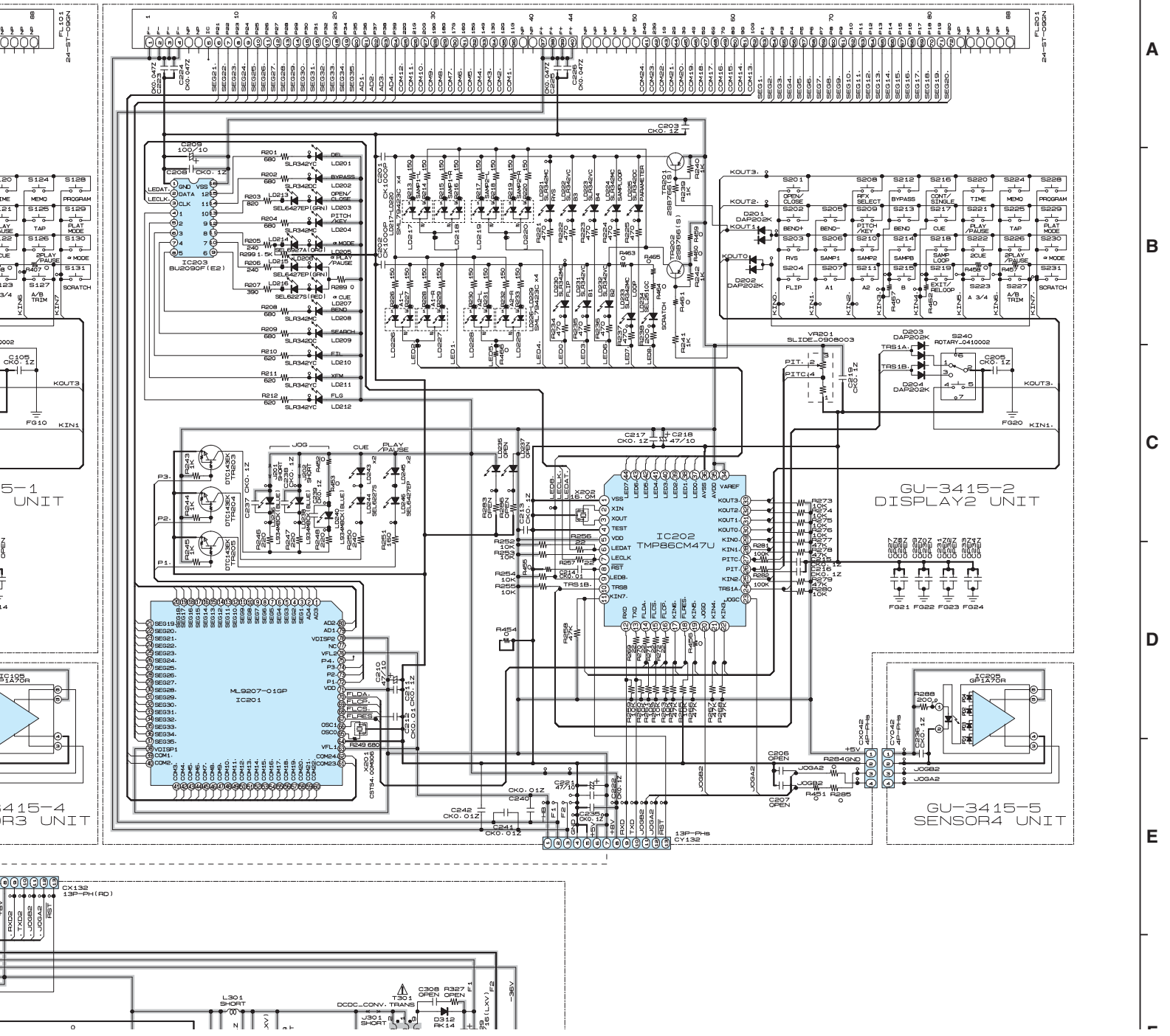
2

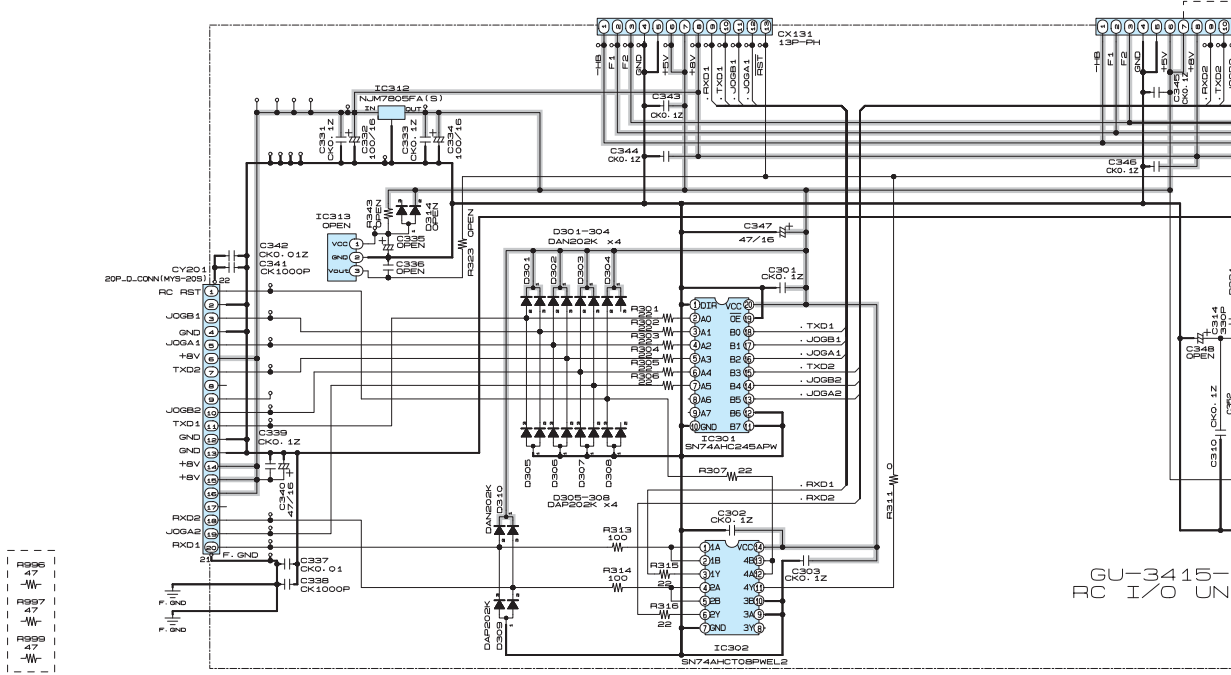
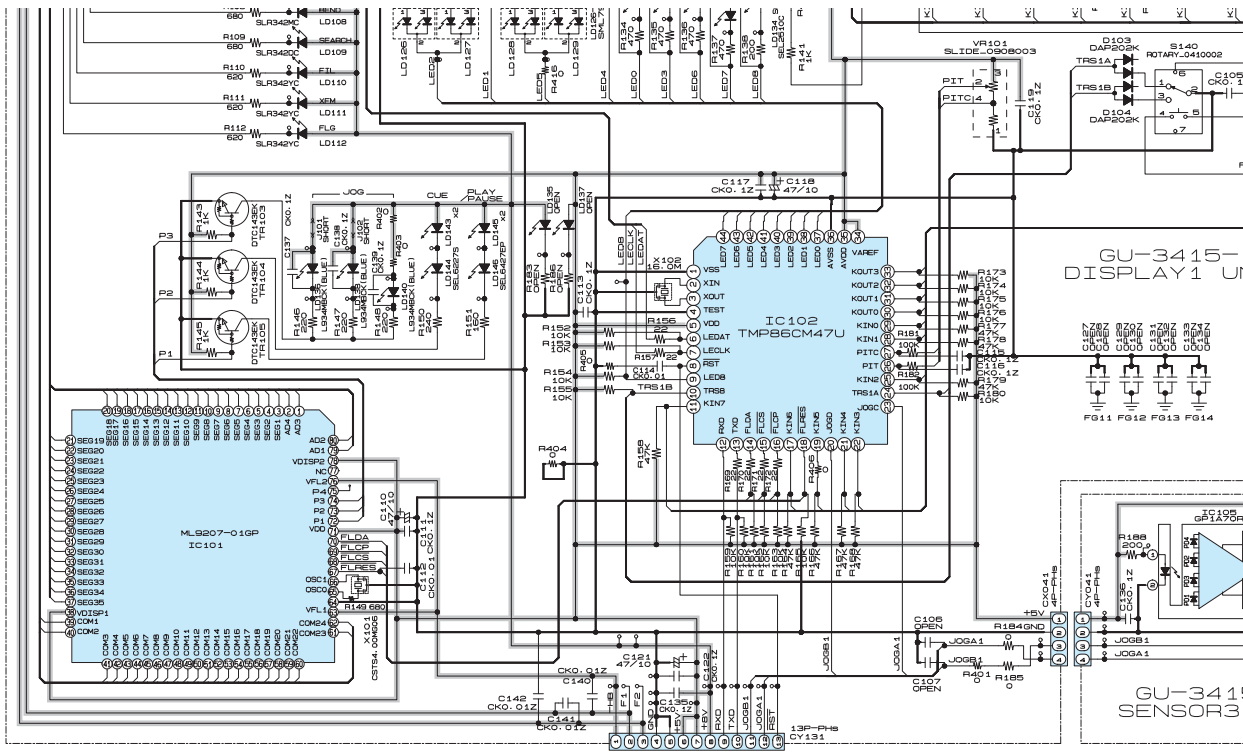
3

4

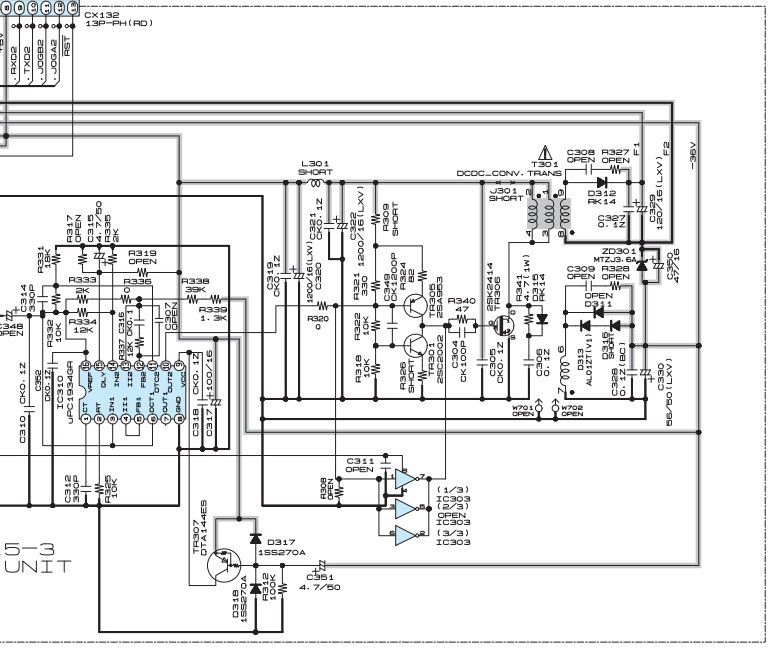
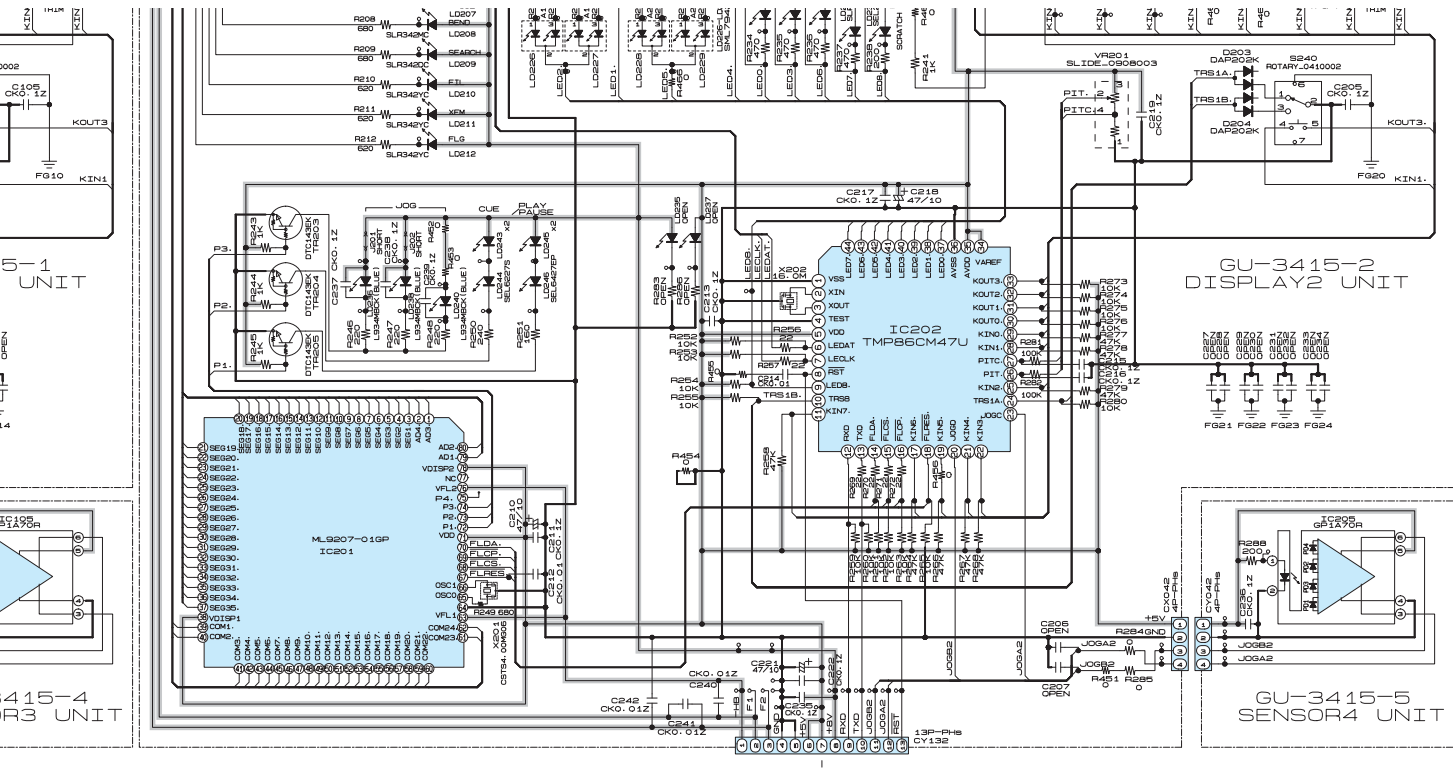
5







- R996
- W
- R997
- W
- R999
- W



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 MO SIGNAL INPUT
 CONDITION.
 CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR
 NOTICE.

WARNING:
 Parts marked with this symbol Δ have critical characteristics.
 Use ONLY replacement parts recommended by the manufacture.

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 card is less than 460kohms, the unit is defective.

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

SCHEMATIC DIAGRAMS (6/6)

- GU-3415-1 DISPLAY1 UNIT
- GU-3415-2 DISPLAY2 UNIT
- GU-3415-3 RC I/O UNIT
- GU-3415-4 SENSOR3 UNIT
- GU-3415-5 SENSOR4 UNIT

— + B LINE

C
D
E
F
G
H