LG

COLOR MONITOR

SERVICE MANUAL

CHASSIS NO. : CL-18

FACTORY MODEL: LB565C, LB565D, LM565D

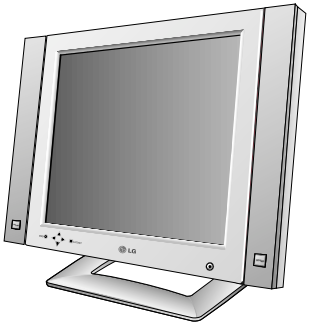
MODEL: FLATRON LCD 575LE (LB565C-EA)

FLATRON LCD 575LE (LB565D-EA)

FLATRON LCD 575LM (LM565D-EA)

CAUTION

BEFORE SERVICING THE UNIT,
READ THE **SAFETY PRECAUTIONS** IN THIS MANUAL.



CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type	: TFT XGA LCD
Size	: 15 inch (38.1cm)
Pixel Pitch	: 0.297mm (H) x 0.297mm (V)
Electrical Interface	: LVDS Interface
Color Depth	: 6-bits/ 16,194,277 colors
Active Video Area	: 304.1mm (H) x 228.1mm (V)
Surface Treatment	: Anti-Glare, Hard Coating (3H)
Backlight Unit	: Top/Bottom edge side 4CCFL

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

Left	: 65° typ., 60° min.
Right	: 65° typ., 60° min.
Top	: 40° typ., 35° min.
Bottom	: 55° typ., 50° min.

2-2. Luminance : 250 cd/m^2 typ.

2-3. Angle at Half Luminance

Left	: 70° min.
Right	: 70° min.
Top	: 40° min.
Bottom	: 70° min.

2-4. Contrast Ratio : 300 typ.

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

1) Type : Separate Sync. (Horizontal & Vertical)
2) Input Voltage Level : Low=0~0.8V, High=2.1~5.5V
3) Sync Polarity : Positive or Negative

3-2. Video Input Signal

1) Type	: R, G, B Analog
2) Voltage Level	: 0~0.714 V
a) Color 0, 0	: 0 Vp-p
b) Color 7, 0	: 0.467 Vp-p
c) Color 15, 0	: 0.714 Vp-p
3) Input Impedance	: 75 Ω

3-3. Operating Frequency

Horizontal	: 31 ~ 61 kHz
Vertical	: 56 ~ 75 Hz

4. POWER SUPPLY

4-1. Power Adaptor

Input	: AC 100~240V, 50/60Hz 1.2A
Output	: DC 12V ⎓ 3.0A

4-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 36 W	GREEN
STAND-BY	OFF/ON	OFF	less than 3 W	YELLOW
SUSPEND	ON/OFF	OFF	less than 3 W	YELLOW
OFF	OFF/OFF	OFF	less than 3 W	YELLOW
POWER OFF	-	-	less than 3 W	OFF

5. ENVIRONMENT

5-1. Operating Temperature:	10°C~35°C (50°F~95°F) (Ambient)
5-2. Relative Humidity	: 5%~95% (Non-condensing)
5-3. Altitude	: 0~10,000ft (3,030m)

6. DIMENSIONS (with TILT/SWIVEL)

Width	: 394 mm (15.51") + Speaker: 64+64mm
Depth	: 161.8 mm (6.37")
Height	: 378.7 mm (14.91")

7. WEIGHT (with TILT/SWIVEL)

Net. Weight	: 4.8 kg (10.58 lbs)
Gross Weight	: 7.9 kg (17.42 lbs) + Speaker: 1kg

PRECAUTION

WARNING FOR THE SAFETY-RELATED COMPONENT.

- There are some special components used in LCD monitor that are important for safety. ***These parts are marked ⚠ on the schematic diagram and the replacement parts list.*** It is essential that these critical parts should be replaced with the manufacturer's specified parts to prevent electric shock, fire or other hazard.
- Do not modify original design without obtaining written permission from LG or you will void the original parts and labor guarantee.

TAKE CARE DURING HANDLING THE LCD MODULE WITH BACKLIGHT UNIT.

- Must mount the module using mounting holes arranged in four corners.
- Do not press on the panel, edge of the frame strongly or electric shock as this will result in damage to the screen.
- Do not scratch or press on the panel with any sharp objects, such as pencil or pen as this may result in damage to the panel.
- Protect the module from the ESD as it may damage the electronic circuit (C-MOS).
- Make certain that treatment person's body are grounded through wrist band.
- Do not leave the module in high temperature and in areas of high humidity for a long time.
- The module not be exposed to the direct sunlight.
- Avoid contact with water as it may a short circuit within the module.
- If the surface of panel become dirty, please wipe it off with a softmaterial. (Cleaning with a dirty or rough cloth may damage the panel.)

⚠ CAUTION

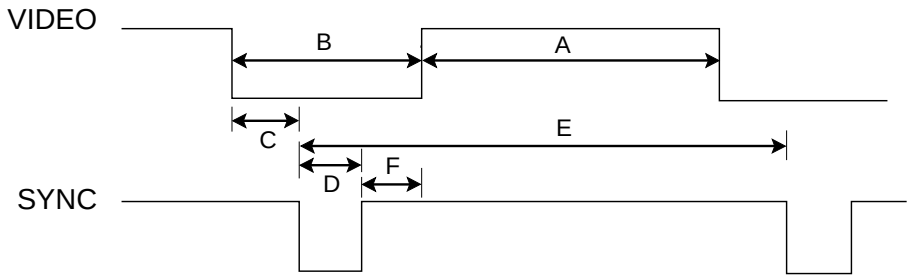
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ WARNING

BE CAREFUL ELECTRIC SHOCK !

- If you want to replace with the new backlight (CCFL) or inverter circuit, must disconnect the AC adapter because high voltage appears at inverter circuit about 650Vrms.
- Handle with care wires or connectors of the inverter circuit. If the wires are pressed cause short and may burn or take fire.

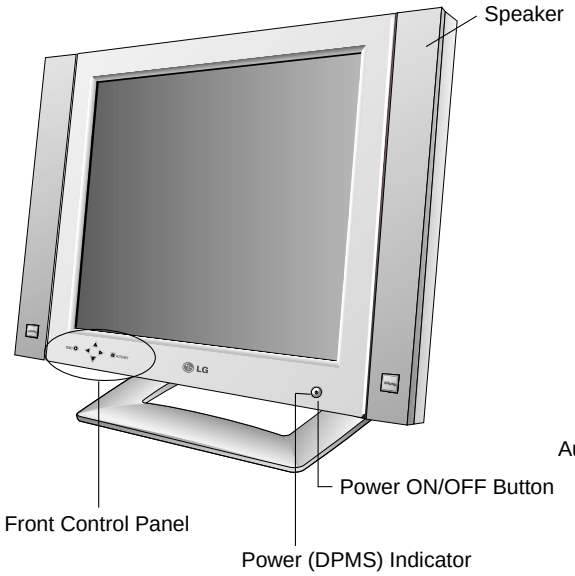
TIMING CHART



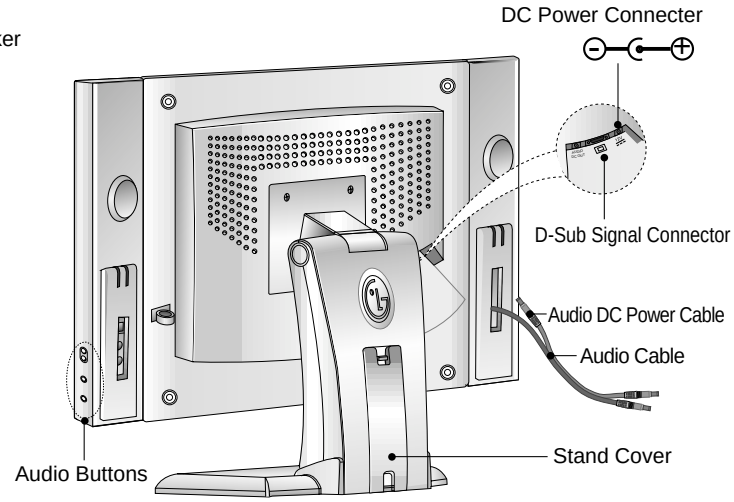
MODE	H / V	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Blanking Time (B)	Sync Duration (D)	Back Porch (F)	Front Porch (C)	Resolution
1	H (Pixels)	+	25.175	31.468 KHz	800	640	160	96	48	16	640 x 350
	V (Lines)	–		70.0 Hz	449	350	99	2	60	37	
2	H (Pixels)	–	28.322	31.468 KHz	900	720	180	108	55	17	720 x 400 (TEXT)
	V (Lines)	+		70.0 Hz	449	400	49	2	34	13	
3	H (Pixels)	–	25.175	31.469 KHz	800	640	160	96	48	16	640 x 480
	V (Lines)	–		60.0 Hz	525	480	45	2	33	10	
4	H (Pixels)	–	30.24	35.00 KHz	864	640	224	64	96	64	640 x 480
	V (Lines)	–		66.67 Hz	525	480	45	3	39	3	
5	H (Pixels)	–	31.5	37.861 KHz	832	640	192	40	128	24	640 x 480
	V (Lines)	–		72.8 Hz	520	480	40	3	28	9	
6	H (Pixels)	–	31.5	37.50 KHz	840	640	200	64	120	16	640 x 480
	V (Lines)	–		75.0 Hz	500	480	20	3	16	1	
7	H (Pixels)	+	36.0	35.156 KHz	1024	800	224	72	128	24	800 x 600
	V (Lines)	+		56.25 Hz	625	600	25	2	22	1	
8	H (Pixels)	+	40.0	37.879 KHz	1056	800	256	128	88	40	800 x 600
	V (Lines)	+		60.3 Hz	628	600	28	4	23	1	
9	H (Pixels)	+	50.0	48.077 KHz	1040	800	240	120	64	56	800 x 600
	V (Lines)	+		72.188 Hz	666	600	66	6	23	37	
10	H (Pixels)	+	49.5	46.875 KHz	1056	800	256	80	160	16	800 x 600
	V (Lines)	+		75.0 Hz	625	600	25	3	21	1	
11	H (Pixels)	–	57.2832	49.725 KHz	1152	832	320	64	224	32	832 x 624 (MAC)
	V (Lines)	–		74.55 Hz	667	624	43	3	39	1	
12	H (Pixels)	–	65	48.363 KHz	1344	1024	320	136	160	24	1024 x 768
	V (Lines)	–		60.0 Hz	806	768	38	6	29	3	
13	H (Pixels)	–	75	56.476 KHz	1328	1024	304	136	144	24	1024 x 768
	V (Lines)	–		70.0 Hz	806	768	38	6	29	3	
14	H (Pixels)	+	78.75	60.023 KHz	1312	1204	288	96	176	16	1024 x 768
	V (Lines)	+		75.0 Hz	800	768	32	3	28	1	

OPERATING INSTRUCTIONS

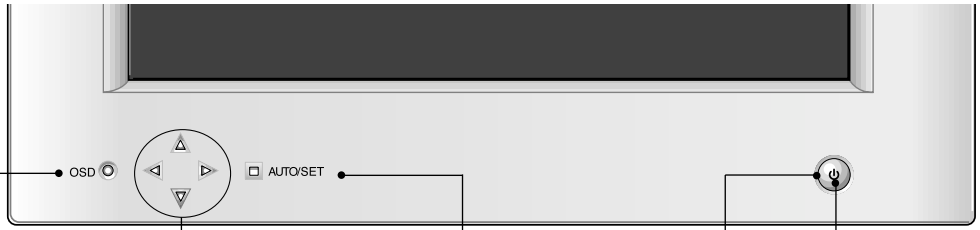
FRONT VIEW



REAR VIEW



Front Control Panel



5 OSD Buttons

4 OSD Selection/Adjustment Buttons

3 AUTO/SET Buttons

2 Power (DPMS) Indicator

1 Power ON/OFF Button

1. Power ON/OFF Button

This button is used to turn the monitor ON and OFF.

2. Power Indicator

This indicator lights up green when the monitor perates normally. If the monitor is in DPM (Energy Saving) mode (stand-by/ suspend/power off), this indicator color changes to orange.

3. AUTO/SET Button

Use this button to enter a selection in the on screen display.

*** AUTO adjustment function**

Touch the **AUTO/SET** button before using OSD menu. This button is for the automatic adjustment of the screen position, clock and phase.

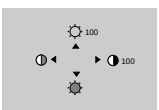
Note: Some signal from some graphics boards may not function properly. I**f the results are unsatisfactory**, adjust your monitor's Position, Clock and Phase manually.

4. OSD Selection/Adjustment Buttons

Use these buttons to choose or adjust items in the on screen display.

<Shortcut Keys>

- Brightness and Contrast can be adjusted directly without entering the On Screen Display (OSD) system. Touch the ◁/▷/△/▽ buttons to adjust the settings and then the **OSD button** to save all changes. The Brightness and Contrast functions are also available in the On Screen Display (OSD) menu.



5. OSD Button

Use this button to enter or exit the on screen display.

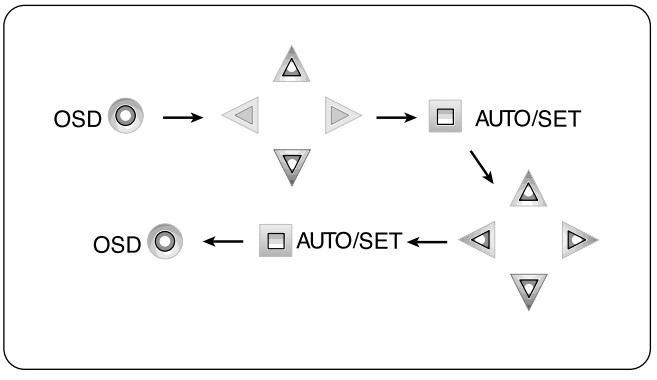
On Screen Display (OSD) Control Adjustment

Making adjustments to the image size, position and operating parameters of the monitor are quick and easy with the On Screen Display Control system. A quick example is given below to familiarize you with the use of the controls. Following section is an outline of the available adjustments and selections you can make using the OSD.

NOTE

Allow the monitor to stabilize for at least 30 minutes before making image adjustment.

To make adjustments in the On Screen Display, follow these steps:



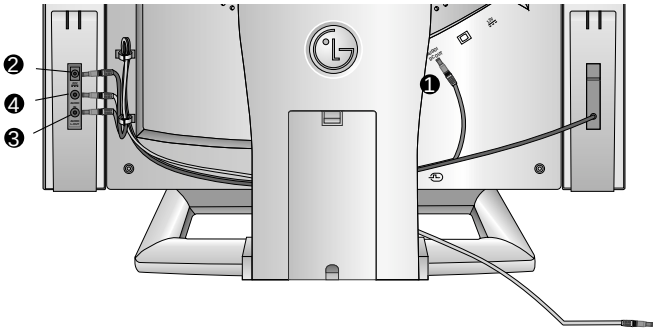
1. Press the OSD Button, then the main menu of the OSD appears.
2. To acces a control, use the △ or ▽ Buttons. When the icon you want becomes highlighted, press the SET Button.
3. Use the △ ▽ ◁ ▷ Buttons to adjust the item to the desired level.
4. Accept the changes by pressing the SET Button.
5. Exit the OSD by Pressing the OSD Button.

Connection the Audio

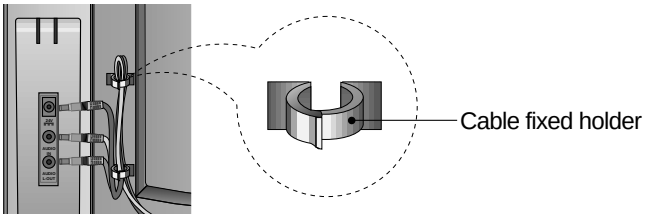
1. Connect the speaker as described in below picture.

2. Connect the one end of Audio DC power cable,which is attached on the speaker to AUDIO DC OUT connector ❶ and the other end to DC 24V connector ❷ on the back of the speaker.Then connect the audio cable port which is directly connected to the speaker to AUDIO L-OUT port ❸ .

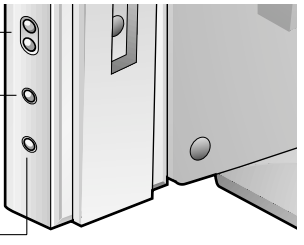
3. Connect the audio cable from the Speaker's AUDIO IN port ❹ to the audio output port of your computer's sound card.

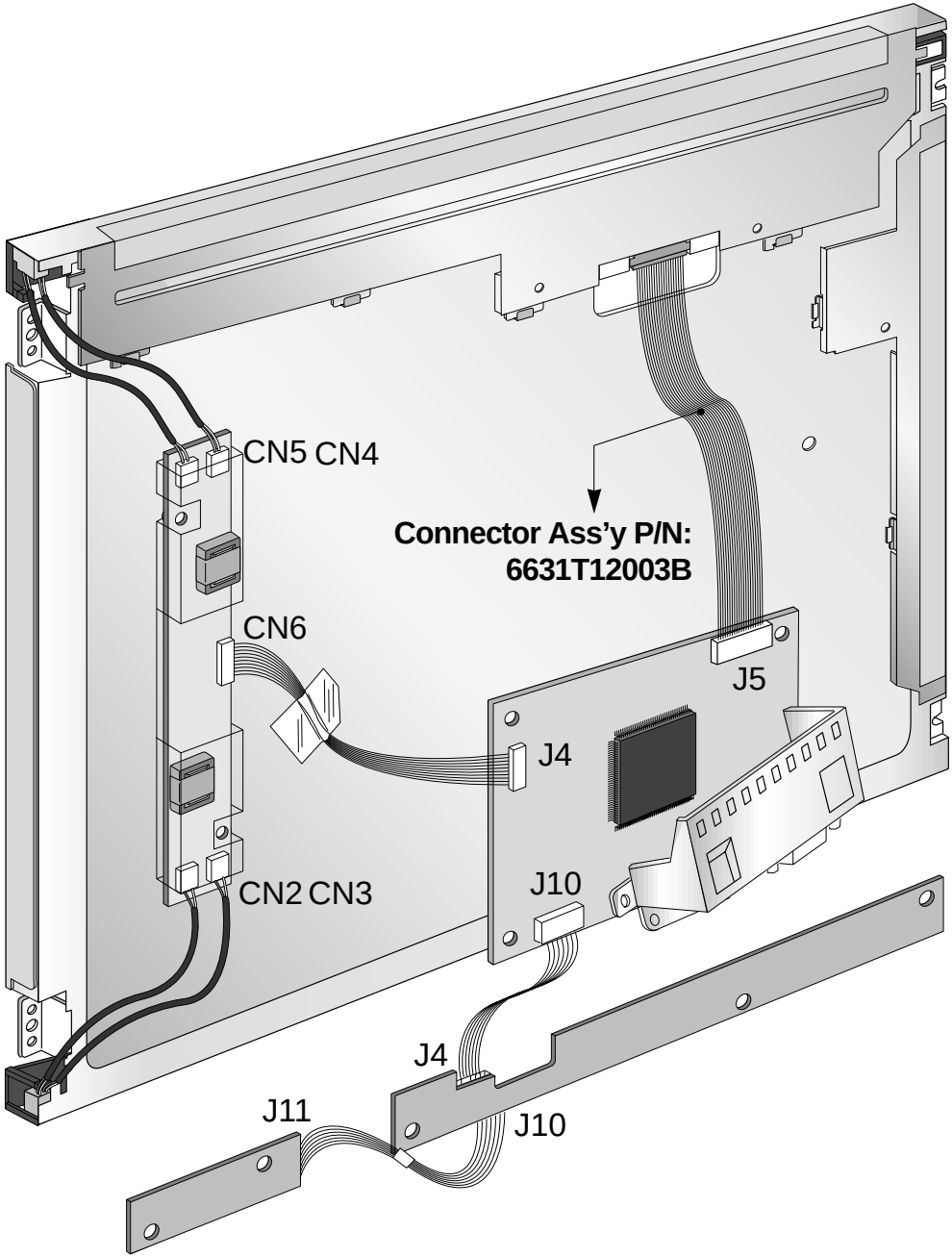


4. After connecting both cables, fix them with cable fixed holder (extra cable fixed holders are shipped with the speaker).



5. Turn on the speaker with power button and adjust volume to proper level.

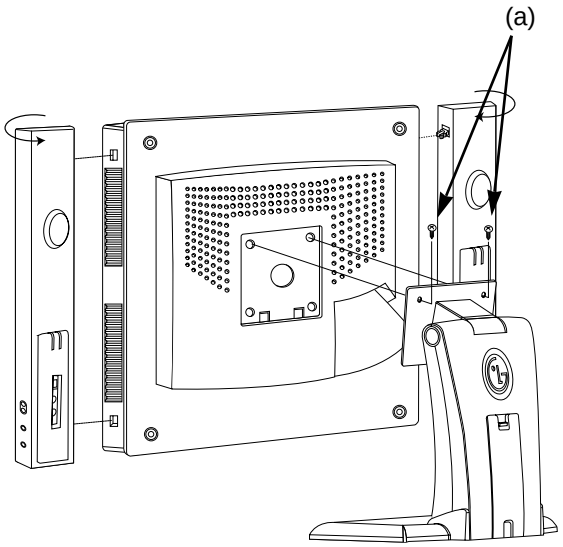



CN5 CN4
Connector Ass'y P/N:
6631T12003B
CN6
J5
J4
CN2 CN3
J10
J4
J11
J10

DISASSEMBLY

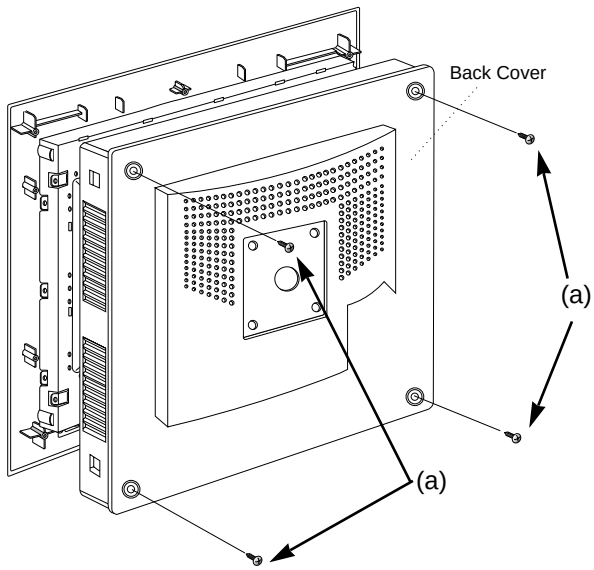
1. TILT/SWIVEL REMOVAL

(1) Remove speaker from the Monitor.
(Push the speaker in arrow direction.)
(2) Remove two screws (a).
(3) Remove the Tilt/swivel.



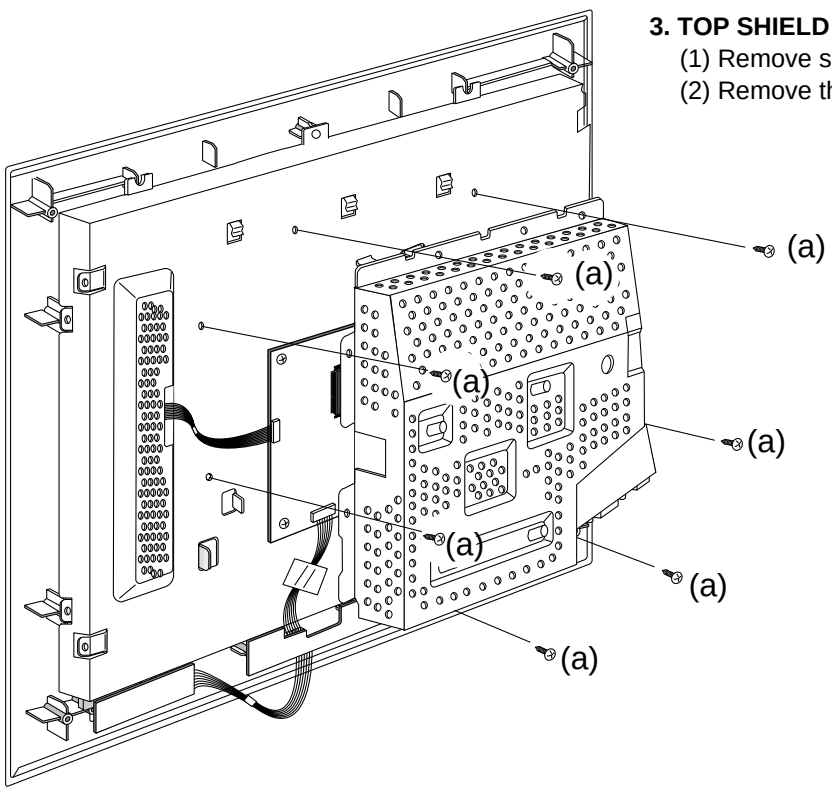
2. BACK COVER REMOVAL

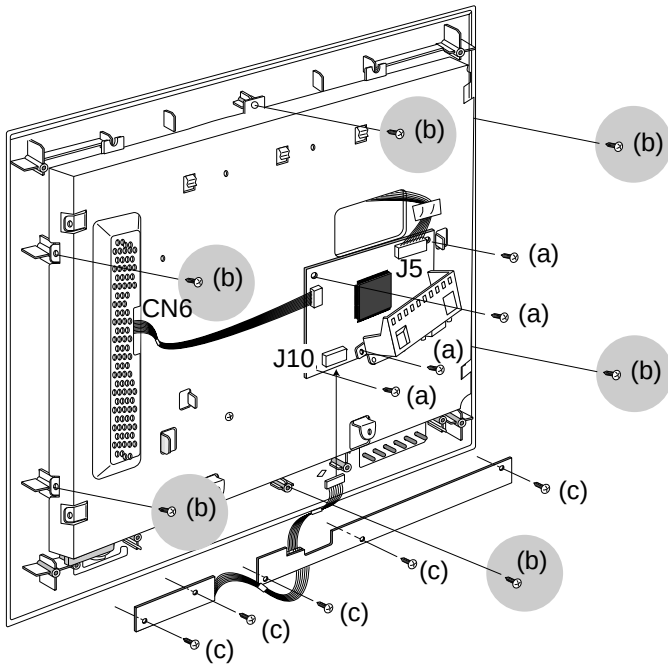
(1) Remove four screws (a) from the Back Cover.
(2) Remove the Back Cover.



3. TOP SHIELD REMOVAL

(1) Remove seven screws (a).
(2) Remove the Top Shield and Interface Shield.



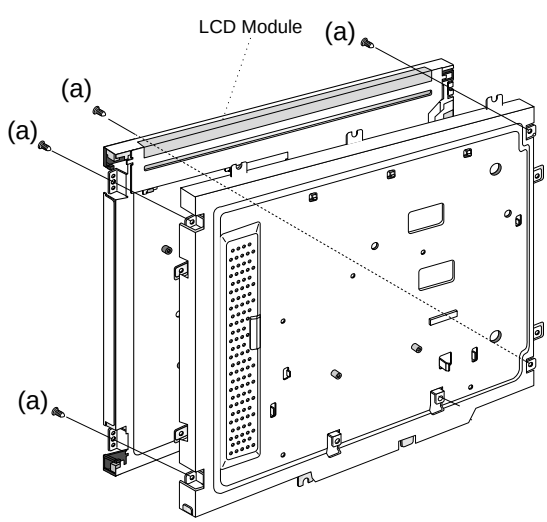


4. MAIN PCB ASS'Y & CABINET ASS'Y REMOVAL

(1) Disconnect CN6, J5 and J10.
(2) Remove four screws (a).
(3) Remove the Main PCB Ass'y
(4) Remove six screws (b).
(5) Remove the CABINET Ass'y.
(6) Remove five screws (c).
(7) Remove the Control PCB Ass'y.

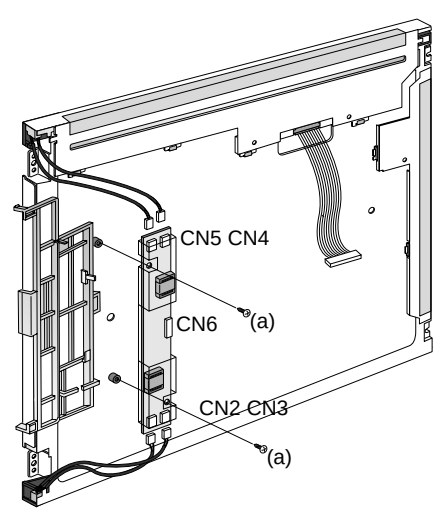
5. LCD MODULE REMOVAL

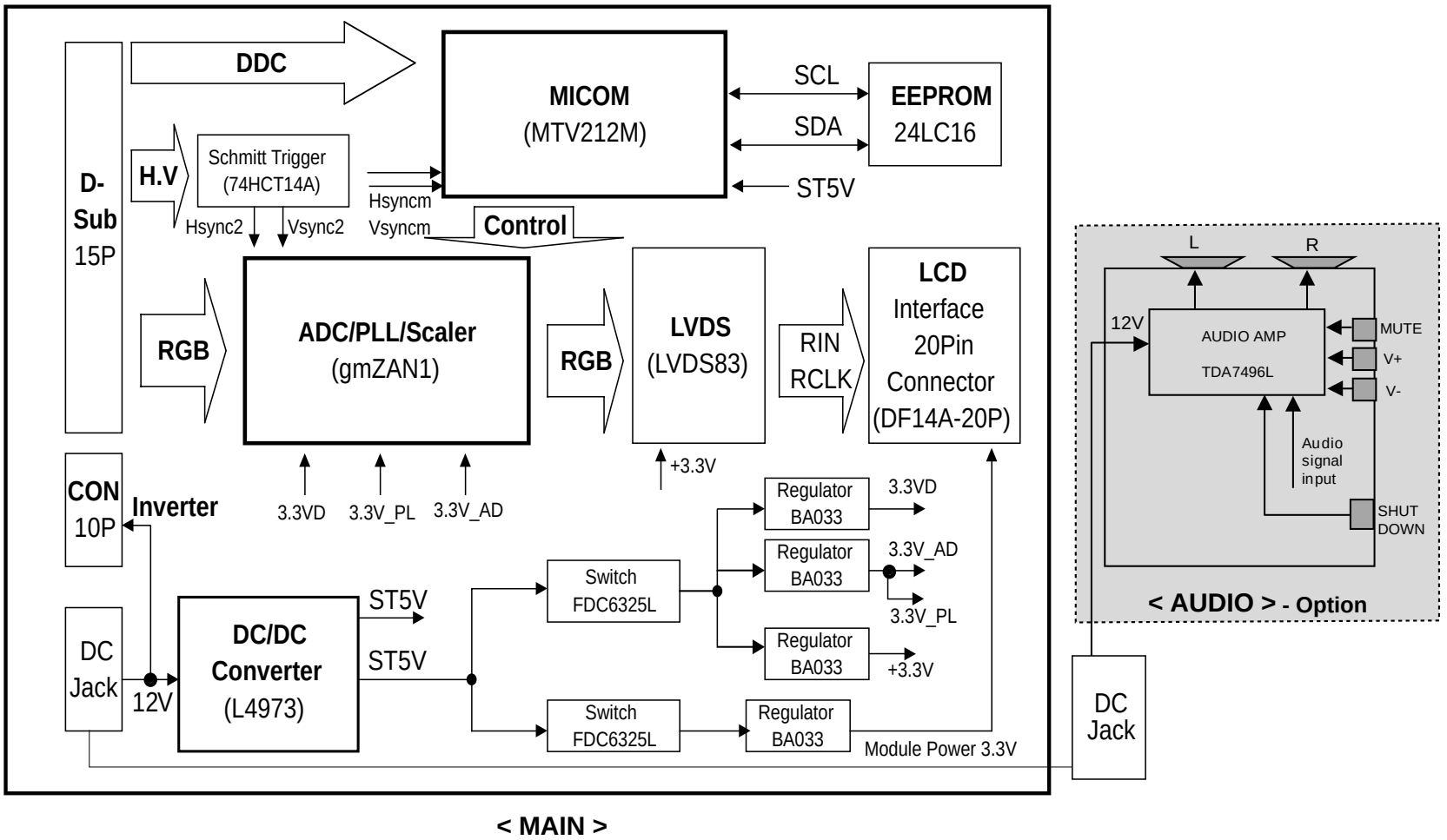
(1) Remove four screws (a).
(2) Separate the LCD Module from the Main Frame.



6. INVERTER PCB ASS'Y REMOVAL

(1) Disconnect CN2, CN3 and CN4, CN5.
(2) Remove two screws (a). ***(LB565D, LM565D)***
(3) Remove the Inverter PCB Ass'y.




DDC
MICOM
(MTV212M)
SCL
SDA
ST5V
EEPROM
24LC16
D-
Sub
15P
H.V
Schmitt Trigger
(74HCT14A)
Hsync2
Vsync2
Hsyncm
Vsyncm
Control
RGB
ADC/PLL/Scaler
(gmZAN1)
RGB
LVDS
(LVDS83)
RIN
RCLK
LCD
Interface
20Pin
Connector
(DF14A-20P)
CON
10P
Inverter
3.3VD
3.3V_PL
3.3V_AD
+3.3V
Regulator
BA033
3.3VD
Regulator
BA033
3.3V_AD
3.3V_PL
Regulator
BA033
+3.3V
Switch
FDC6325L
DC
Jack
12V
DC/DC
Converter
(L4973)
ST5V
ST5V
Switch
FDC6325L
Regulator
BA033
Module Power 3.3V
DC
Jack
L
R
12V
AUDIO AMP
TDA7496L
MUTE
V+
V-
Audio
signal
input
SHUT
DOWN
< AUDIO > - Option

< MAIN >

DESCRIPTION OF BLOCK DIAGRAM

1. Scaler One chip IC(GMZAN1, U3)

GMZAN1 (U3) is one chip IC which it supports four internal function blocks of Video Amp, PLL, A/D converter and Video processor.

Video signal (0.7Vp.p) clamped through C44, 45, 191 with matching IC's proper cut off voltage.

This signal is processed as a proper 8 bit digital signal by U3's amplifying, phase locking, A/D converting, and scaling operations.

U3 generates Clock, Horizontal and Vertical sync, Data Enable signals as LCD Panel's input signals.

2. System Controller (Microprocessor) Circuit

1) Microprocessor (U4) distinguishes polarity and frequency by calculating horizontal and vertical sync input from signal source.
2) Microprocessor (U4) carries out power control by sending power-down trigger signal to each IC.
3) Microprocessor (U4) communicates with EEPROM (U1), and GMZAN1 (U3) through IIC(2 lines) or 6 bit bus line. It makes all devices operated properly.
4) Microprocessor (U4) let User adjust screen by OSD function.

3. DC/ DC Converter

This circuit supplies DC power for each device needing DC voltage of 3.3VD, 3.3V_AD, 3.3V_PL, Module Power 3.3V and 5VS.

L4973D5.1(U13) , the DC/DC controller IC converts input 12Vdc into 5VS and 3.3Vdc with peripheral circuit composed of Inductor (L11), condensing components (ZD5, C72), and Regulators(U2, U7, U24,U30).

MODPWR(3.3V) for LCD module power is switched by U12, switching FET, controlled by Microprocessor.

3.3VD, 3.3V_AD, and 3.3V_PL for GMZAN1 (U3) and 3.3V for LVDS (U9) are switched by U5, switching FET, controlled by Microprocessor for Power saving.

4. Display Data Transmitter Part (LVDS).

This part transmit digital signal from the Scaler to the receiver of module.

ADJUSTMENT

All adjustment are thoroughly checked and corrected when the monitor leaves the factory, but sometimes several minor adjustment may be required. Adjustment should be following procedure and after warming up for a minimum of 10 minutes.
Alignment appliances and tools.

- IBM Compatible PC
- Programmable Signal Generator.
  (eg. VG-819 made by Astrodesign Co.)
- E(E)PROM with each mode data saved.
- Alignment Adapter and Software.

1. Adjustment for Factory Preset Mode

1) Run alignment program for LB565C, LB565D, LM565D on the IBM PC.
2) Select EEPROM ALL Init command and Enter.
3) Display cross hatch pattern at Mode 1.
4) Select FOS DEFAULT command and Enter.
5) Press "Y" key, it will automatically save all FOS data to EEPROM.

2. Adjustment for White Balance

1) Display color 0,0 pattern at Mode 12.
2) Set External Bright to MAX position and Contrast to MAX Position.
3) PRESET START command and Enter.
4) BIAS CAL command and Enter.
5) No attempt to manually adjust, BIAS data is automatically adjusted and saved to the EEPROM.
6) Display color 15,0 pattern at Mode 12.
7) Select DRIVE CAL command and Enter.
8) Color 1 (9300K) and Color 2 (6500K) are automatically adjusted and saved to the EEPROM.
9) Select PRESET EXIT command and Enter.

3. DDC Data Write Procedure

1) Use this procedure only when there is some probelm on EDID data.
2) Select EEPROM → EDID Write command and Enter.
3) This will write the EDID data to EEPROM.

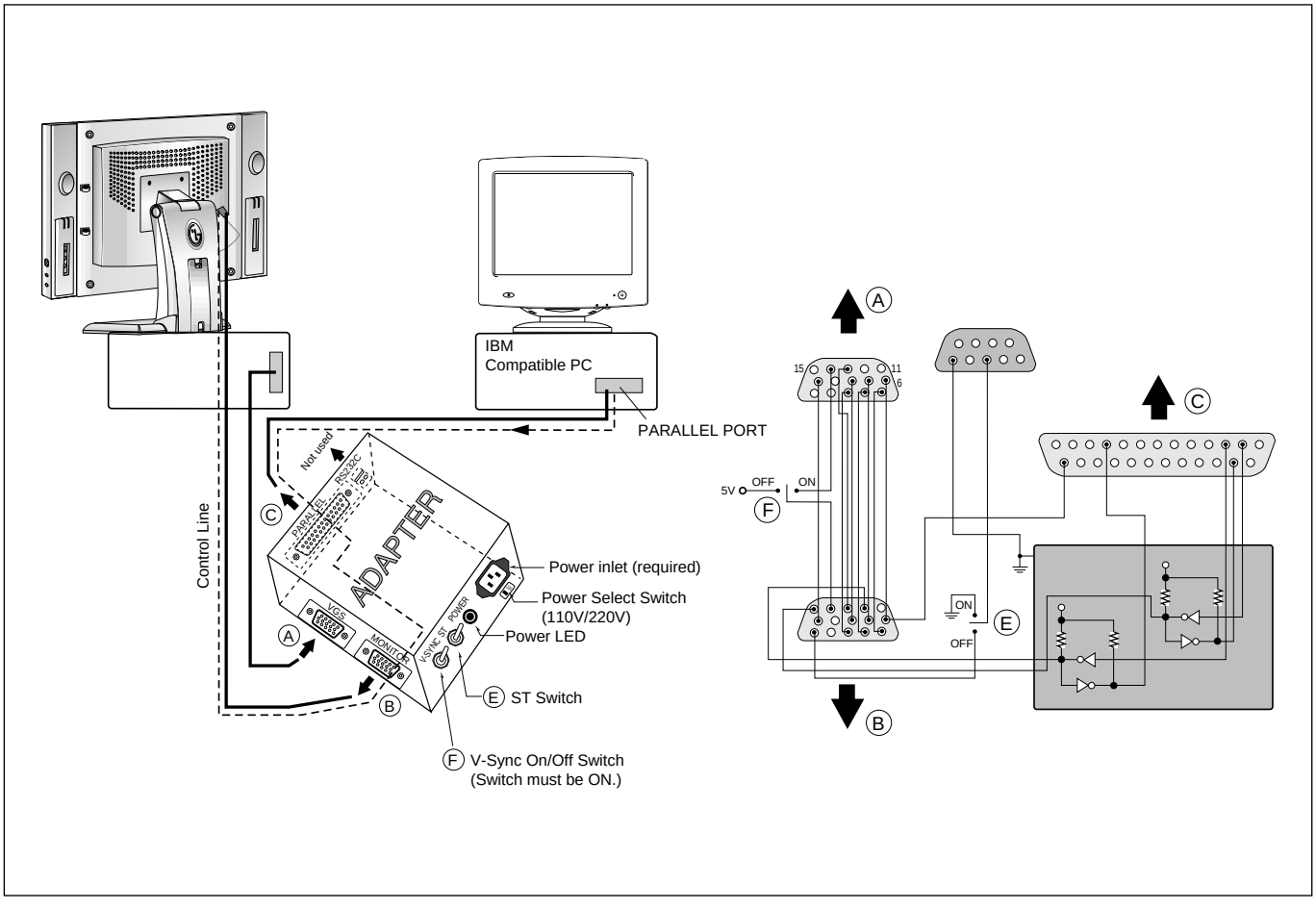
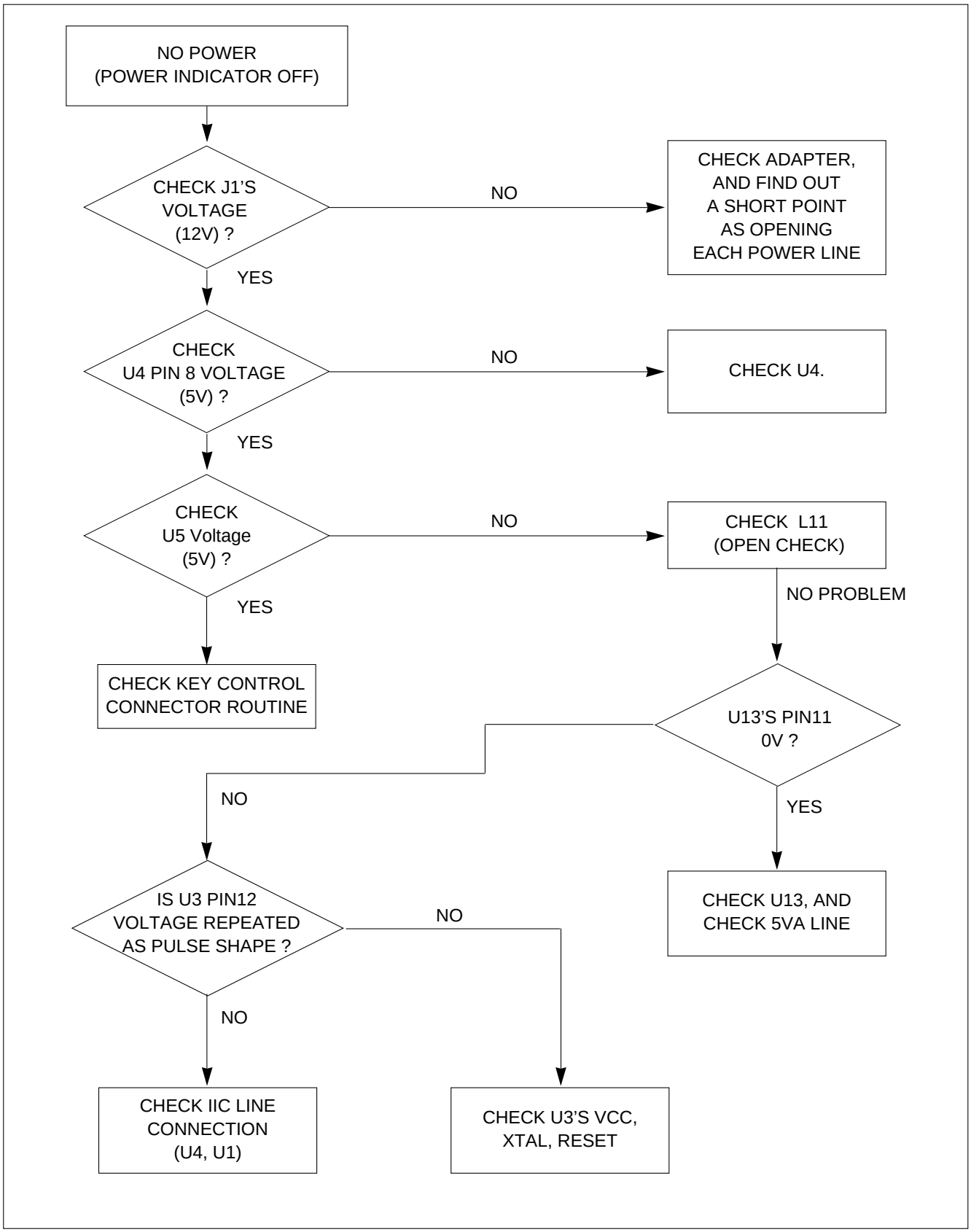


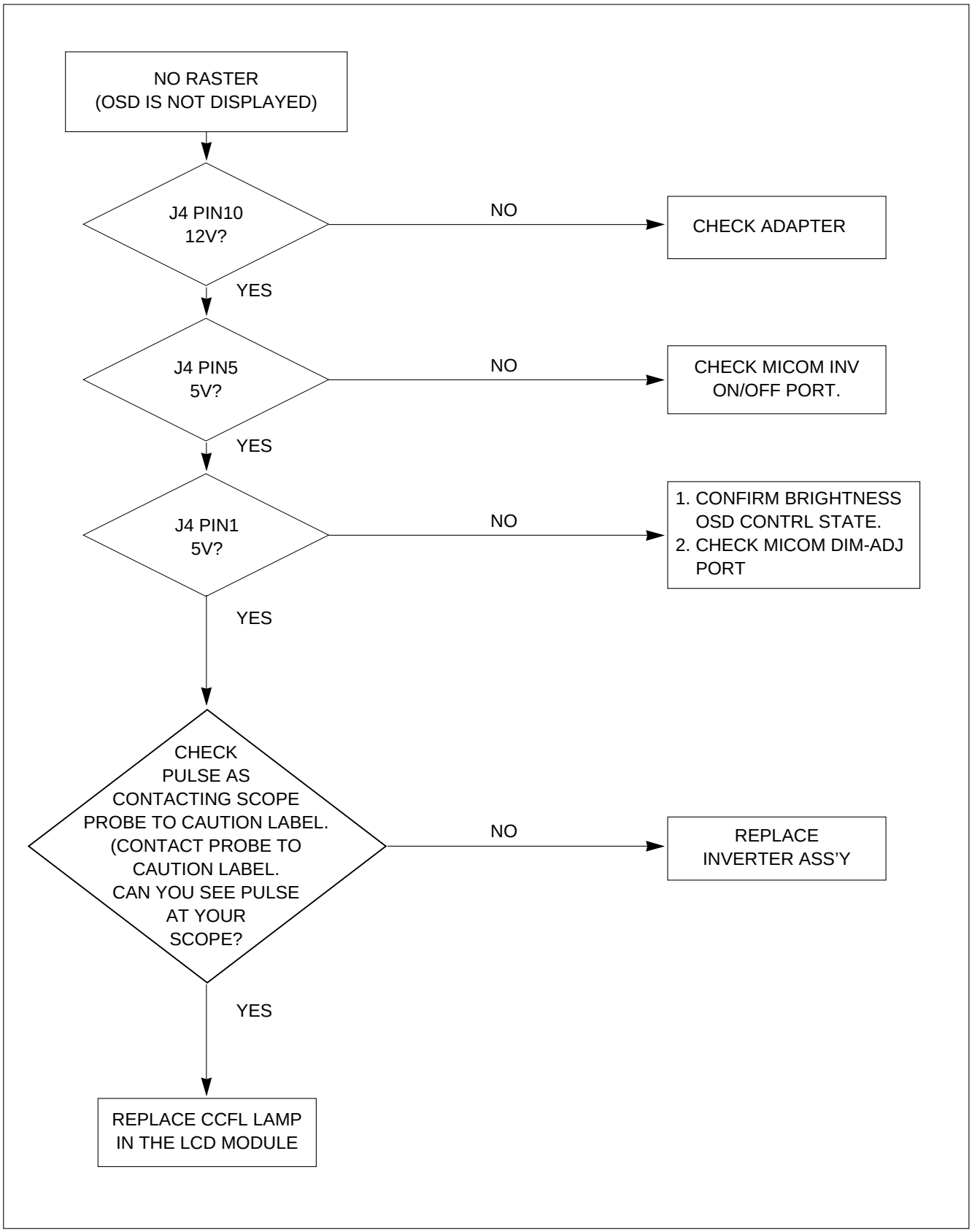
Figure 1. Cable Connection

TROUBLESHOOTING GUIDE

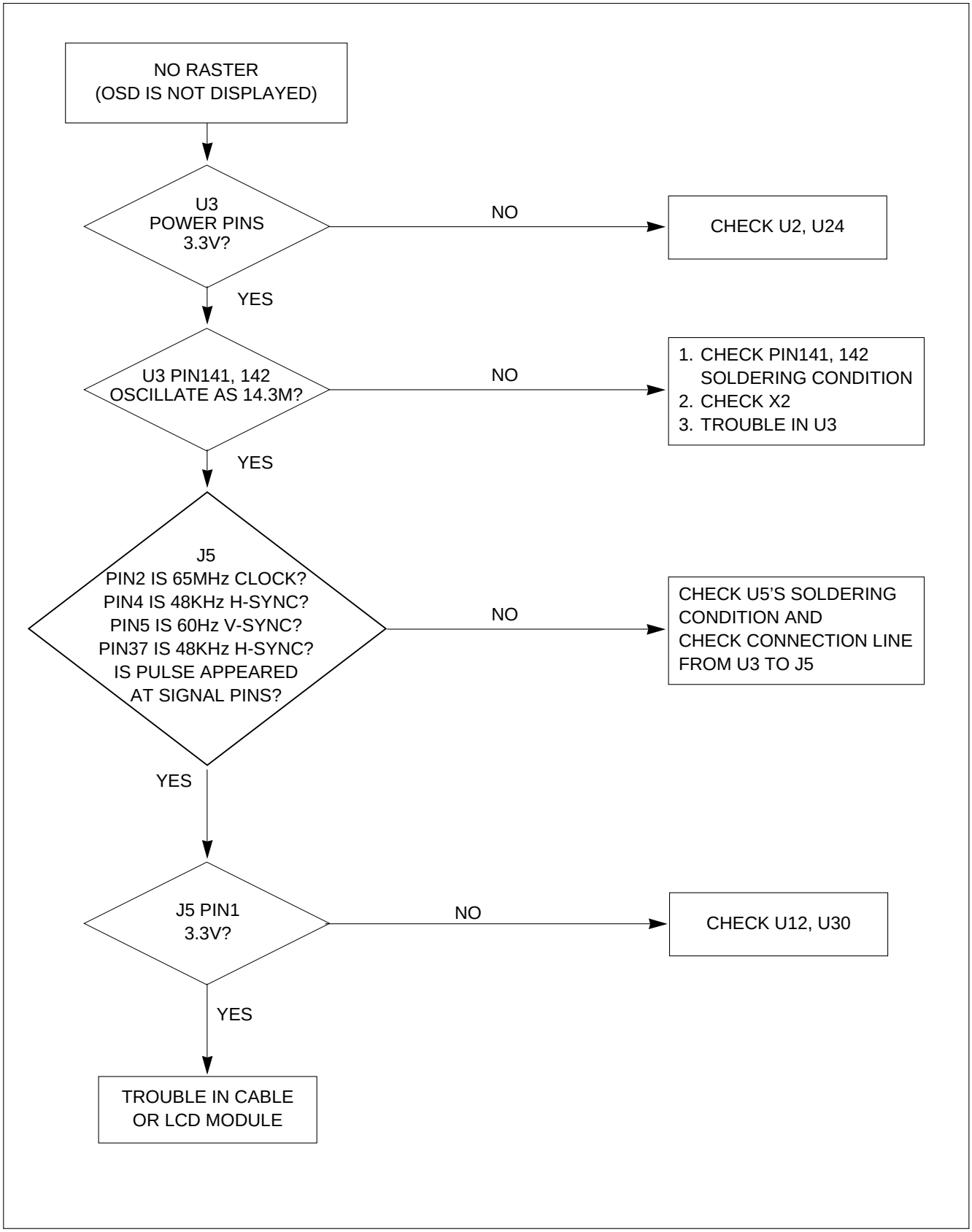
1. NO POWER



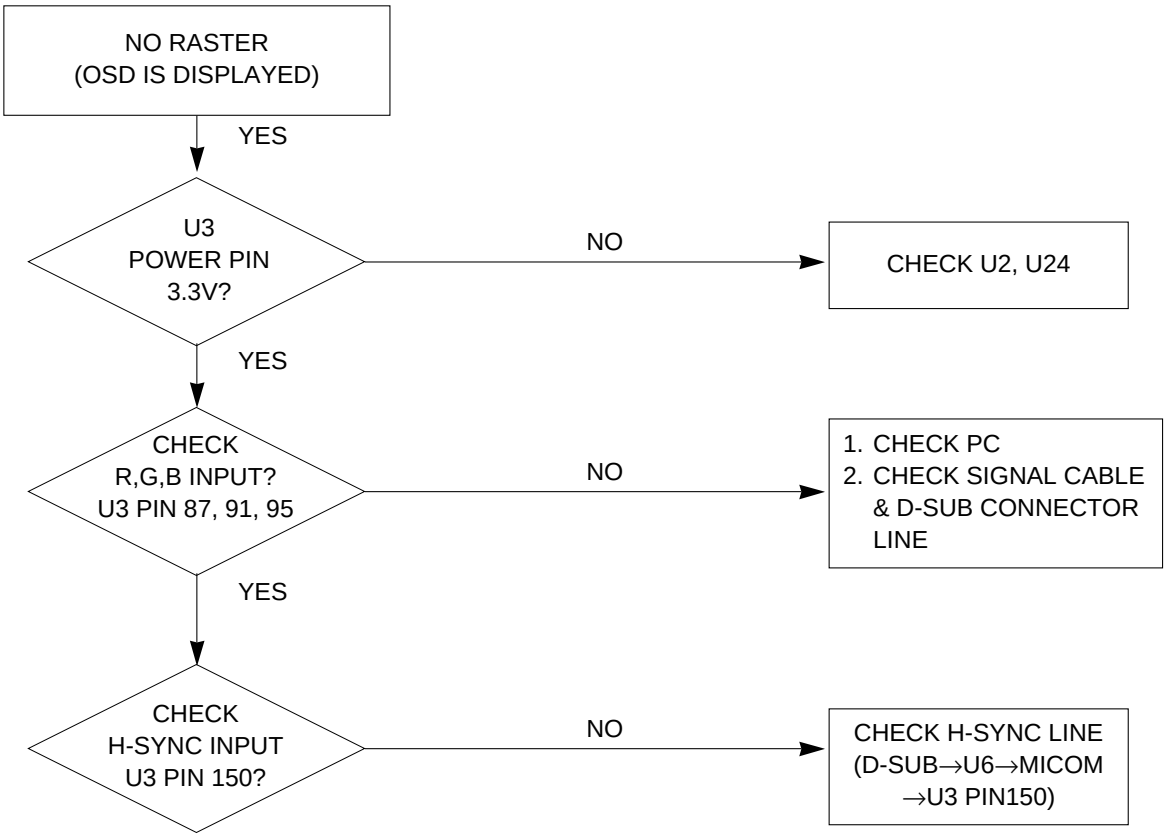
2. NO RASTER (OSD IS NOT DISPLAYED) – INVERTER

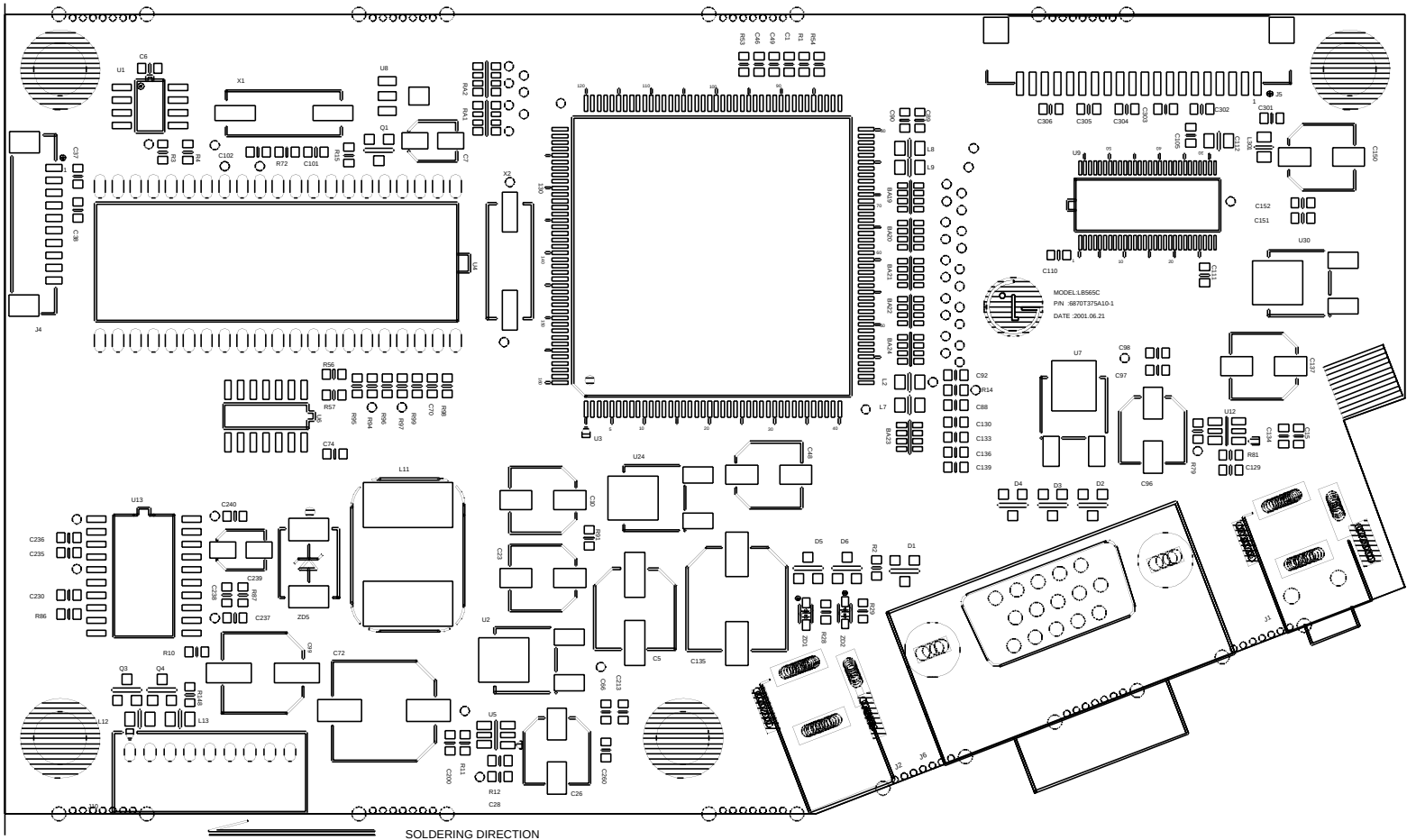


3. NO RASTER (OSD IS NOT DISPLAYED) – gmzanl

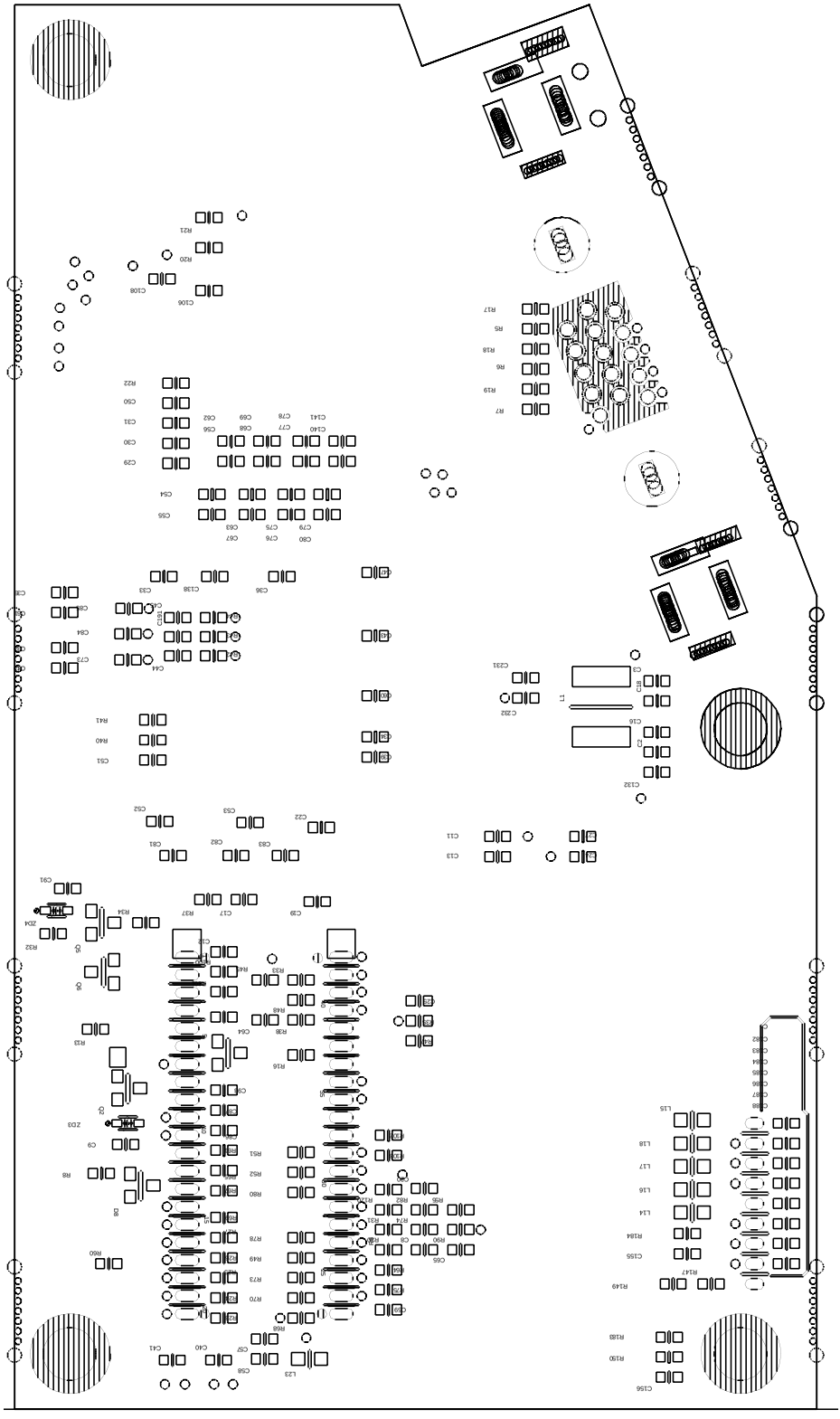


4. NO RASTER (OSD IS DISPLAYED) – gmzanl

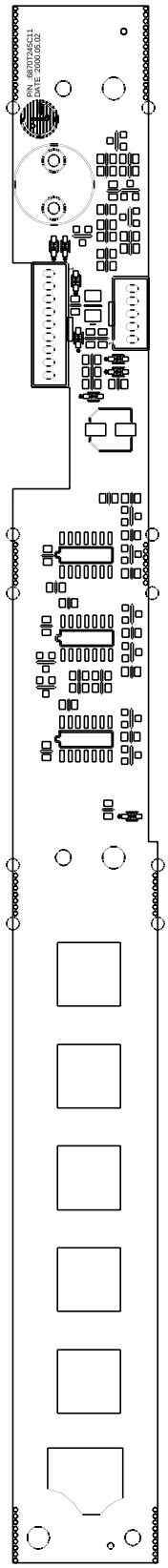



MODEL:LB565C
P/N :6870T375A10-1
DATE :2001.06.21
SOLDERING DIRECTION

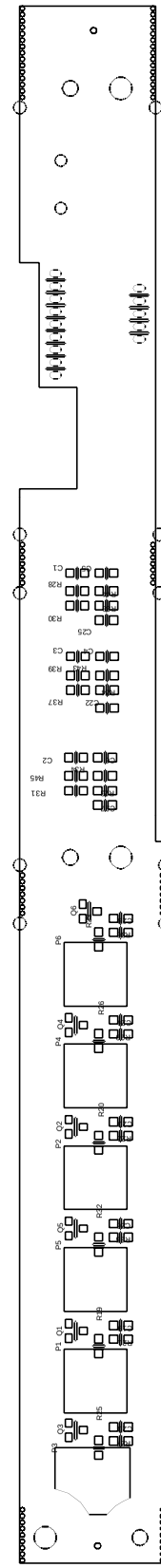
2. MAIN BOARD (Solder Side)

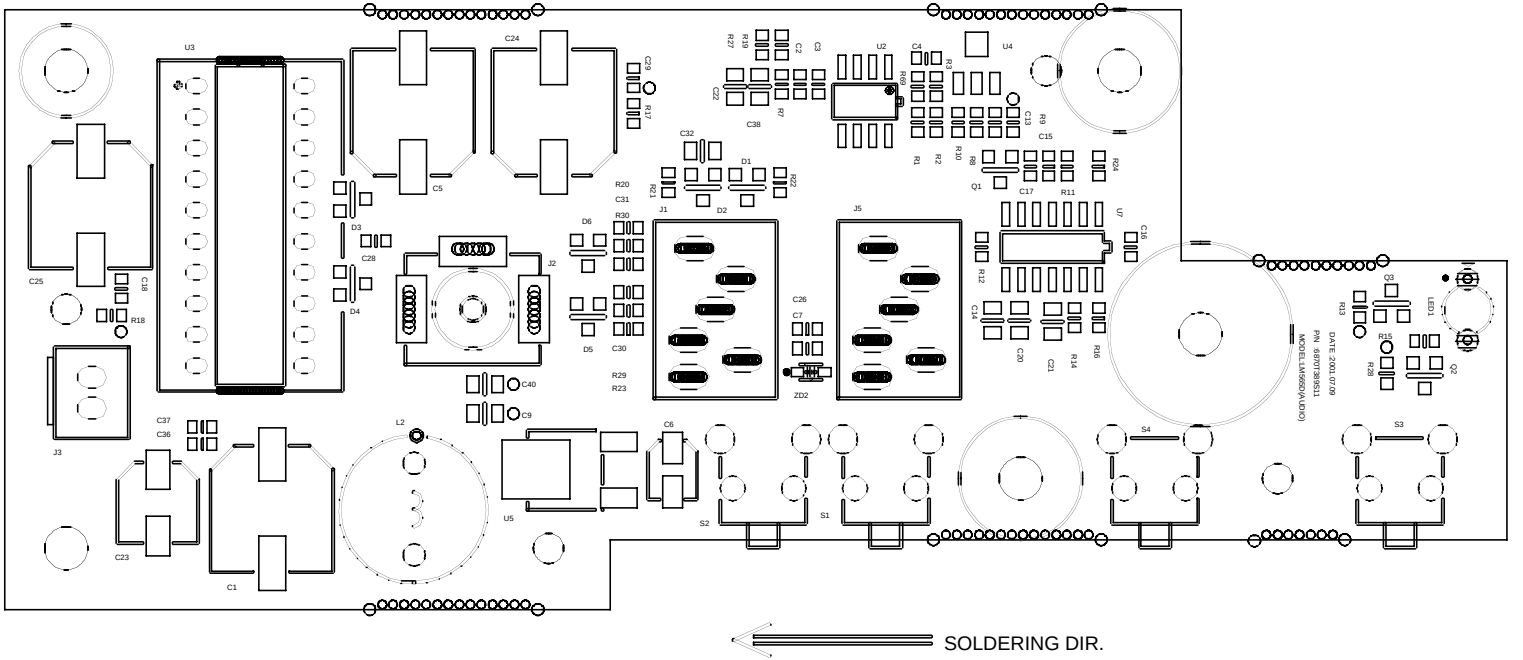


3. CONTROL BOARD (Component Side)



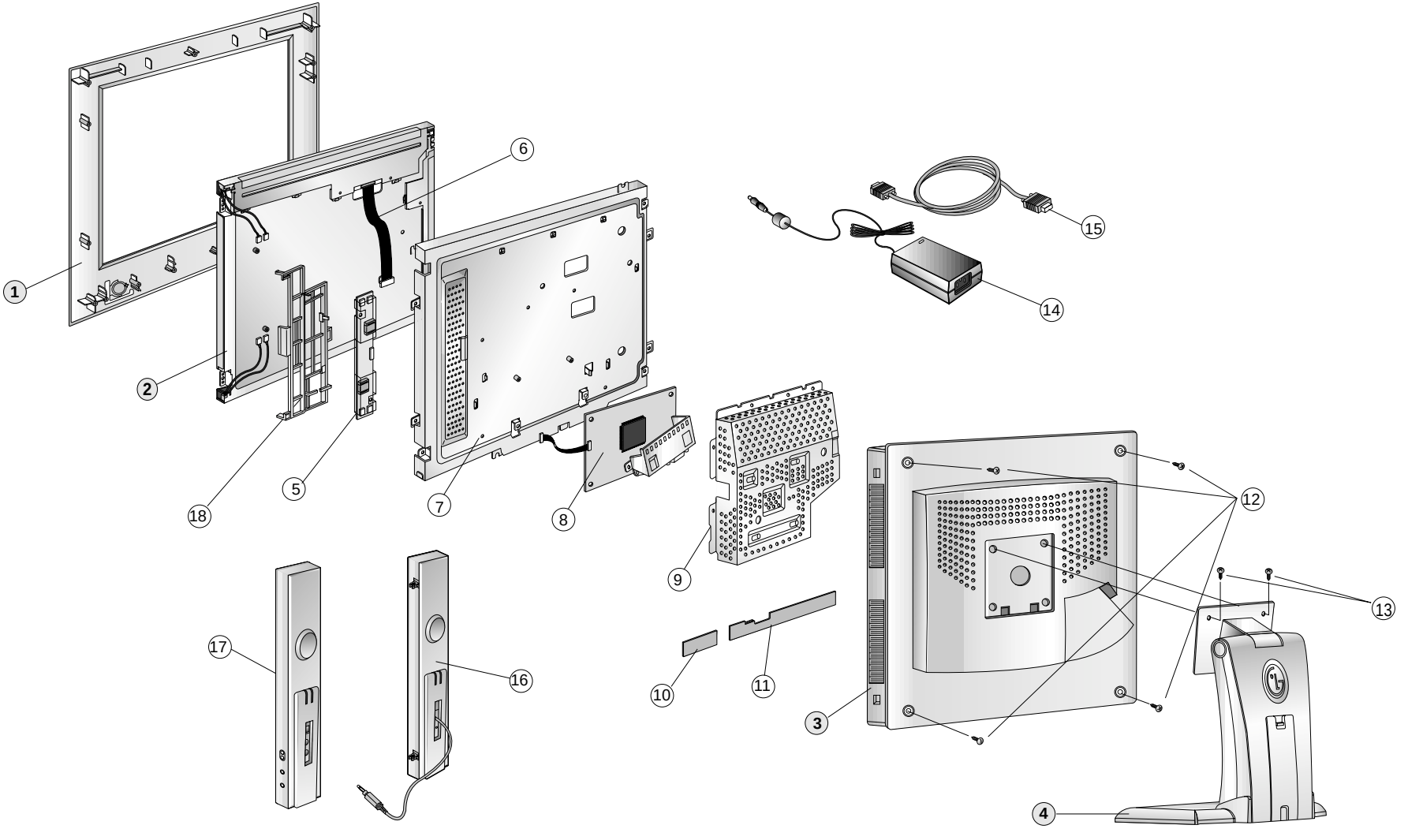
4. CONTROL BOARD (Solder Side)





SOLDERING DIR.

EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description
1	3091TKL028C	CABINET ASSEMBLY, LM565D BRAND . 575LM 86698, TCO99 **(LM565D-EA)**
	3091TKL028B	CABINET ASSEMBLY, LB565C BRAND . 575LE 86698 GRAY COLOR, TCO99 **(LB565D-EA), (LB565C-EA: AUSTRALIA)**
	3091TKL028A	CABINET ASSEMBLY, LB565C BRAND . 575LE 85964 COLOR, TCO99 **(LB565C-EA: JAPAN)**
2	6304FHD001A	LCD(LIQUID CRYSTAL DISPLAY), HT15X13-200 HYUNDAI COLOR 15.0 **(LM565D-EA)**
	6304FHS001A	LCD(LIQUID CRYSTAL DISPLAY), HSD150MX12-A HANNSTAR COLOR 15.0 8 BIT **(LB565C-EA)**
3	3809TKL010Q	BACK COVER ASSY, LM565 3809TKL011 12V AUDIO(INK) **(LM565D-EA)**
	3809TKL010P	BACK COVER ASSY, LB565 3809TKL011 12V (INK) **(LB565D-EA) (LB565C-EA)**
4	3043TKK057A	TILT SWIVEL ASSY, LB575 . STAND **(LM565D-EA), (LB565D-EA), (LB565C-EA: AUSTRALIA)**
	3043TKK057C	TILT SWIVEL ASSY, LB575B . JLJE 85964 **(LB565C-EA: JAPAN)**
5	6633TZA003F	INVERTER ASSEMBLY, SAMSUNG LG1509 LB563C **(LM565D-EA), (LB565D-EA)**
	6633TZA003G	INVERTER ASSEMBLY, SAMSUNG LG1511 LB565C **(LB565C-EA)**
6	6631T12003B	CONNECTOR ASSEMBLY, 20P H-H 120MM UL 2651 #28 LB565C
7	4951TKS071B	METAL ASSEMBLY, FRAME (LM565D) **(LM565D-EA), (LB565D-EA)**
	4951TKS072A	METAL ASSEMBLY, FRAME MAIN (LB565C) **(LB565C-EA)**
8	3313TL5030B	MAIN TOTAL ASSEMBLY, LM565D BRAND CL-18 **(LM565D-EA)**
	3313TL5030C	MAIN TOTAL ASSEMBLY, LB565D BRAND CL-18 **(LB565D-EA)**
	3313TL5030A	MAIN TOTAL ASSEMBLY, LB565C BRAND CL-18 **(LB565C-EA)**
9	4950TKK205C	METAL, REAR LB565
10	6871TST244A	PWB(PCB) ASSEMBLY, SUB, LB565A XAGC BRAND POWER KEY TOTAL
11	6871TST243A	PWB(PCB) ASSEMBLY, SUB, LB565A XAGC BRAND SOFT TOUCH TOTAL
12	1BWF0302816	SCREW TAP TITE(B), PAN HEAD WASHER, D3.0 L12.0 MSWR3/(BK)
13	332-105G	SCREW, PVS+4*10(MSWR/BK)
14	6634TBZ016A	ADAPTER,AC-DC, ADP-36UB DELTA 12V 3.0A FOR LG **(LM565D-EA), (LB565D-EA)**
	6634TBZ014A	ADAPTER,AC-DC, PSCV360104A SAMSUNG 12V 3.0A FOR LG **(LB565C-EA)**
15	6866TD9001F	SIGNAL CABLE, UL 2990-9C(7.5) DT 1870MM GRAY(85964) LB500 DM
16	6401TZZ015C	SPEAKER ASSY, LB565D 15.1" LCD MNT SPK SYSTEM [L] **(LM565D-EA) ONLY**
17	6401TZZ015D	SPEAKER ASSY, LB565D 15.1" LCD MNT SPK SYSTEM [R] **(LM565D-EA) ONLY**
18	4810TKK173A	BRACKET, LB565C SUPPORTER INVERTER **(LB565C-EA) ONLY**

REPLACEMENT PARTS LIST

CAUTION: BEFORE REPLACING ANY OF THESE COMPONENTS,
READ CAREFULLY THE **SAFETY PRECAUTIONS** IN THIS MANUAL.
* NOTE : **S** SAFETY Mark ⚠
AL ALTERNATIVE PARTS

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA) DATE: 2001. 7. 19.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C1	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C2	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C3	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C4	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C5	0CH8107J611	100UF 35V M 85STD(CYL) R/TP
		C6	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C8	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C10	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C11	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C12	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C13	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C15	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C16	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C17	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C18	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C19	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C20	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C22	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C23	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C24	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C25	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C26	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C27	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C28	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C29	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C30	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C31	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C32	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C33	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C34	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C35	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C36	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C37	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C38	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C39	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C40	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C41	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C42	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C43	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C44	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C45	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C46	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C47	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C48	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C49	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C50	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C51	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C52	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C53	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C54	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C55	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C56	0CC330CK41A	33PF 1608 50V 5% R/TP NP0

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA) DATE: 2001. 7. 19.

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C57	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C58	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C59	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C60	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C61	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C62	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C63	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C64	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C65	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C66	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C67	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C68	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C69	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C70	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C72	0CZZTAT002D	SVP SANYO 10V 270UF M REEL OS-
		C73	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C74	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C75	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C76	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C77	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C78	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C79	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C80	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C81	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C82	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C83	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C84	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C85	0CC220CK41A	22PF 1608 50V 5% R/TP NP0
		C86	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C87	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C88	0CC680CK41A	68PF 1608 50V 5% R/TP NP0
		C89	0CC680CK41A	68PF 1608 50V 5% R/TP NP0
		C90	0CC680CK41A	68PF 1608 50V 5% R/TP NP0
		C91	0CC680CK41A	68PF 1608 50V 5% R/TP NP0
		C92	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C93	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C96	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C97	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C98	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C99	0CH8227D611	220UF 10V M 85STD (CYL) R/TP
		C101	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C102	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C105	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C106	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C108	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C110	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C111	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C112	0CH6560K416	56PF 50V J NP0 2012 R/TP
		C129	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C130	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C132	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C133	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C134	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C135	0CH8477F611	470UF 16V M 85STD(CYL) R/TP

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA)				DATE: 2001. 7. 19.
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C136	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C137	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C138	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C139	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C140	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C141	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C150	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C151	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C152	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C155	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C156	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C182	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C183	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C184	0CC330CK41A	33PF 1608 50V 5% R/TP NP0
		C185	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C186	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C187	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C188	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C191	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C200	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C213	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C230	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C231	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C232	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C235	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C236	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C237	0CC221CK41A	220PF 1608 50V 5% R/TP NP0
		C238	0CK223CK51A	0.022UF 1608 50V 10% R/TP B(Y5
		C239	0CH8105K611	1UF 50V M 85STD(CYL) R/TP
		C240	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C260	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C301	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C302	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C303	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C304	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C305	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		C306	0CC150CK41A	15PF 1608 50V 5% R/TP NP0
		DIODEs		
		D1	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D2	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D3	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D4	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D5	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D6	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		ZD1	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD4	0DZ910009FE	UDZS 9.1B TP ROHM - - 9.1V - -
		ZD5	0DR340009AA	MBRS340 TP FAIRCHILD NON 40V 3
		ICs		
		U1	0ICS240813B	CAT24WC08J-TE13 8P,SOIC R/TP 8
		U2	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
		U3	0IPRPGA001A	GMZAN1A-160P GENESIS MICROCHIP
		U4	0IZZTSZ139B	MYSON DIP 42PIN BK OTP LB(M)56
		U5	0TF632509AA	FDC6325L TP FAIRCHILD 8V 2.4A
		U6	0IMO741420B	MC74HCT14ADR2 14P,SOIC TP LEVE
		U7	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
		U8	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOLTA
		U9	0ITH638300A	THC63LVDM83A,LVDS(THINE)
		U12	0TF632509AA	FDC6325L TP FAIRCHILD 8V 2.4A
		U13	0ISG497351A	L4973D5.1 SO20 TP 3.5A S/DOWN

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA)				DATE: 2001. 7. 19.
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		U24	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
		U30	0IRH033200A	BA033FP-E2 MOLD-3 TP REGULATOR
		COILs & COREs		
		L1	6210TCT002C	HF50ACC575018-T TDK ,MM CHIP B
		L2	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L7	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L8	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L9	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L11	6200TEZ003D	TPRH1207-330M BOAM R/TP 33 UH
		L12	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L13	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L14	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L15	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L16	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L17	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L18	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L23	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		L301	6210TCE001P	HB-1S2012-121JT CERATECH 2012M
		TRANSISTOR		
		Q1	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q3	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q4	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q5	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q6	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		RESISTORs		
		R1	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R2	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R3	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R4	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R5	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R6	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R7	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R9	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R10	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R11	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R12	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R13	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R14	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R15	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/TP
		R16	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R17	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R18	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R19	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R20	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R21	0RJ0222D677	22 OHM 1/10 W 5% 1608 R/TP
		R22	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R23	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R24	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R25	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R26	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R27	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R28	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R29	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R30	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R31	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R32	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R33	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R34	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R35	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA)				DATE: 2001. 7. 19.
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R37	0RJ2701D677	2.7K OHM 1/10 W 5% 1608 R/TP
		R38	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R40	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R41	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R42	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R43	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R44	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R45	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R47	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R48	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R49	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R51	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R52	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R53	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R54	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R55	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R60	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R61	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R64	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R65	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R67	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R68	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R69	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R70	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R72	0RJ1004D677	1000000 OHM 1/10 W 5% 1608 R/T
		R73	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R74	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R75	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R78	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R79	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R80	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R81	0RJ1500D677	150 OHM 1/10 W 5% 1608 R/TP
		R82	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R86	0RJ3602D677	36K OHM 1/10 W 5% 1608 R/TP
		R87	0RJ9101D677	9.1K OHM 1/10 W 5% 1608 R/TP
		R90	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R91	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R94	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R96	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R97	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R98	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R99	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R100	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R101	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R102	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/TP
		R103	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R120	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R147	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R148	0RJ0472D677	47 OHM 1/10 W 5% 1608 R/TP
		R149	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R150	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		RA1	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
		RA2	0RHZTCZ001A	100 OHM 1/16 W 5% 3215 R/TP CH
	OTHERs			
		J1	6612TAH003A	DJ-023 KSD R/ANGLE LB563B
		J2	6612TAH002A	DC-001 UNITOP DC-001 2.0MM (UN
		X1	6202TST003D	HC-49/SM5H KONY CHIP 12 MHZ 30
		X2	6202TST001A	SX-1 SUNNY ,SMS, 14.31818MHZ ,
	CONTROL BOARD			
		B1	126-005A	PKM13EPP-4002-B0 PKM13EPP-4002
		C19	0CH6050K116	5PF 50V D NP0 2012 R/TP
		C20	0CH6050K116	5PF 50V D NP0 2012 R/TP
		C21	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C22	0CH3104K566	0.1UF 50V K X 2012 R/TP

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA)				DATE: 2001. 7. 19.
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C23	0CH6050K116	5PF 50V D NP0 2012 R/TP
		C24	0CH6050K116	5PF 50V D NP0 2012 R/TP
		C25	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C26	0CH6050K116	5PF 50V D NP0 2012 R/TP
		C27	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C28	0CH6050K116	5PF 50V D NP0 2012 R/TP
		C30	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C31	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C32	0CH8107F611	100UF 16V M 85STD(CYL) R/TP
		C33	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C34	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C35	0CH3104K566	0.1UF 50V K X 2012 R/TP
		C36	0CH3103K516	10000PF 50V K B 2012 R/TP
		C37	0CH3103K516	10000PF 50V K B 2012 R/TP
		C38	0CH3103K516	10000PF 50V K B 2012 R/TP
		C39	DCH7106F621	10UF 16V M 3528MM TP(-)
		C42	0CH3104K566	0.1UF 50V K X 2012 R/TP
		J1	6612TCV002A	SHQ8593-01-050 HOSIDEN VERTICA
		J2	6612TAV001A	HEC0486-01-010 HOSIDEN DC12V 1
		J5	6612TCV002A	SHQ8593-01-050 HOSIDEN VERTICA
		L1	6210TCT002B	ACB2012M-300-T TDK , CHIP BEAD
		L2	150-985J	DR10*12 2MH 0.28MM 220.5T R/CE
		LD1	0DL305029BA	LTL-305DJ-0C2 TP LITEON GREEN/
		Q1	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q2	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q3	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q4	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q5	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q6	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q8	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q9	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q10	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q11	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q12	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q13	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q14	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q15	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q16	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q17	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		Q18	0TR390409AE	KST3904-MTF TP SAMSUNG SOT23 G
		Q19	0TR102009AJ	KRC102S NPN SOT-23 TP KEC
		R1	0RH4701D622	4.7K 1/10W 5 D.R/TP
		R2	0RH1000D622	100 1/10W 5 D.R/TP
		R3	0RH1000D622	100 1/10W 5 D.R/TP
		R19	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R20	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R21	0RH3902D622	39K 1/10W 5 D.R/TP
		R22	0RH4702D622	47K 1/10W 5 D.R/TP
		R23	0RH1002D622	10K OHM 1 / 10 W 2012 5.00% D
		R24	0RH1002D622	10K OHM 1 / 10 W 2012 5.00% D
		R25	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R26	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R27	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R28	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R29	0RH3602D622	36K 1/10W 5 D.R/TP
		R30	0RH1002D622	10K OHM 1 / 10 W 2012 5.00% D
		R31	0RH1002D622	10K OHM 1 / 10 W 2012 5.00% D
		R32	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R33	0RH2402D622	24K OHM 1 / 10 W 2012 5.00% D
		R34	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R35	0RH3902D622	39K 1/10W 5 D.R/TP
		R36	0RH3002D622	30K 1/10W 5 D.R/TP
		R37	0RH1002D622	10K OHM 1 / 10 W 2012 5.00% D
		R38	0RH1002D622	10K OHM 1 / 10 W 2012 5.00% D
		R39	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R41	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D

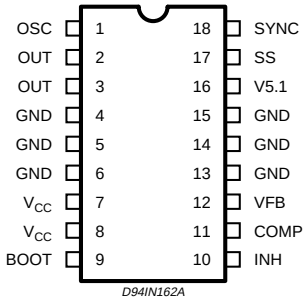
MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA)			DATE: 2001. 7. 19.	
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R42	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R43	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R44	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R45	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R46	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R47	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R48	0RH1001D622	1K OHM 1 / 10 W 2012 5.00% D
		R49	0RH4701D622	4.7K 1/10W 5 D.R/TP
		R50	0RH1502D622	15K 1/10W 5 D.R/TP
		R51	0RH1502D622	15K 1/10W 5 D.R/TP
		R52	0RH8200D622	820 1/10W 5 D.R/TP
		R53	0RH1501D622	1.5K OHM 1 / 10 W 2012 5.00% D
		R54	0RH2201D622	2.2K 1/10W P-TYPE TAPPING
		R55	0RH8200D622	820 1/10W 5 D.R/TP
		R56	0RH1501D622	1.5K OHM 1 / 10 W 2012 5.00% D
		R57	0RH4701D622	4.7K 1/10W 5 D.R/TP
		R58	0RH4702D622	47K 1/10W 5 D.R/TP
		R59	0RH1000D622	100 1/10W 5 D.R/TP
		R61	0RH1501D622	1.5K OHM 1 / 10 W 2012 5.00% D
		R62	0RH2200D622	220 1/10W 5 D.R/TP
		R63	0RH2200D622	220 1/10W 5 D.R/TP
		R66	0RH4700D622	470 1/10W 5 D.R/TP
		R67	0RH1000D622	100 1/10W 5 D.R/TP
		R73	0RH4701D622	4.7K 1/10W 5 D.R/TP
		R74	0RH4700D622	470 1/10W 5 D.R/TP
		S1	140-058B	EVQ PB2 05K MATUSHITA NON 12 2
		S10	140-058E	SKHV10910B LGEC NON 12V 20A HO
		S2	140-058B	EVQ PB2 05K MATUSHITA NON 12 2
		S3	140-058B	EVQ PB2 05K MATUSHITA NON 12 2
		S4	140-058B	EVQ PB2 05K MATUSHITA NON 12 2
		U3	0ISG749600A	TDA7496L 20DIP BK 2W+2W AMP WI
		U6	0IPH401300B	HEF4013BT 14SOP TP DUAL D FLIP
		U7	0IPH401300B	HEF4013BT 14SOP TP DUAL D FLIP
		U8	0IPH401300B	HEF4013BT 14SOP TP DUAL D FLIP
		ZD1	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD3	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD4	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD5	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD6	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD7	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
		ZD8	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
AUDIO BOARD_ONLY (LM565D-EA)				
		C1	0CH8477F691	470UF 16V M 105STD (CYL) R/TP
		C2	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C3	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C4	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		C5	0CH8477F691	470UF 16V M 105STD (CYL) R/TP
		C6	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C7	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C9	0CH3105F946	1UF 16V Z F 2012 R/TP
		C13	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C14	0CH3105F946	1UF 16V Z F 2012 R/TP
		C15	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C16	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C18	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C20	0CH3105F946	1UF 16V Z F 2012 R/TP
		C21	0CH3105F946	1UF 16V Z F 2012 R/TP
		C22	0CH3105F946	1UF 16V Z F 2012 R/TP
		C23	0CE107WF6DC	100UF MVK 16V 20% R/TP(SMD) SM
		C24	0CH8477F691	470UF 16V M 105STD (CYL) R/TP
		C25	0CH8477F691	470UF 16V M 105STD (CYL) R/TP
		C26	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C28	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(Y5P
		C29	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R

MODEL: (LM565D-EA), (LB565D-EA), (LB565C-EA)			DATE: 2001. 7. 19.	
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C30	0CC121CK41A	120PF 1608 50V 5% R/TP NP0
		C31	0CC121CK41A	120PF 1608 50V 5% R/TP NP0
		C32	0CH3105F946	1UF 16V Z F 2012 R/TP
		C36	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C37	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C38	0CH3105F946	1UF 16V Z F 2012 R/TP
		C40	0CH3105F946	1UF 16V Z F 2012 R/TP
		D1	0DS181009AA	KDS181 TP KEC SOT-23 80V 300
		D2	0DS181009AA	KDS181 TP KEC SOT-23 80V 300
		D3	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		D4	0DS226009AA	KDS226 TP KEC SOT-23 80V 300M
		Q1	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q2	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		Q3	0TR162309CA	KSC1623 TP SAMSUNG SOT23 NPN
		R1	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/TP
		R2	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/TP
		R3	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R7	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R8	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R9	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/TP
		R10	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R11	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R12	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R13	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/TP
		R14	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R15	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R16	0RJ1003D677	100K OHM 1/10 W 5% 1608 R/TP
		R17	0RJ0471D677	4.7 OHM 1/10 W 5% 1608 R/TP
		R18	0RJ0471D677	4.7 OHM 1/10 W 5% 1608 R/TP
		R19	0RJ3002D677	30000 OHM 1/10 W 5% 1608 R/TP
		R20	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R21	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R22	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R23	0RJ3302D677	33K OHM 1/10 W 5% 1608 R/TP
		R24	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R28	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/TP
		R29	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R30	0RJ1502D677	15K OHM 1/10 W 5% 1608 R/TP
		R69	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		U2	0IXI951100A	X9511WS 8SOP TP PUSH BUTTON CO
		U4	0IKE704200J	KIA7042AF SOT-89 TP 4.2V VOLTA
		U5	0ISS780500H	KA78M05-R 3P,D-PAK TP 5V 0.5A
		U7	0IPH401300B	HEF4013BT 14SOP TP DUAL D FLIP
		ZD2	0DZ560009DA	UDZ S 5.6B TP ROHM-K SOD323 20
MISCELLANEOUS				
⚠		P/CORD	6410TEW003C	SP023+IS14 I-SHENG VDE/SEMKO 1-**EUROPE**
⚠		P/CORD	6410TWP001D	IS011+IS14 I-SHENG UNIVERSAL 1560MM-**Australia**
⚠		P/CORD	174-240A	SP30+IS14 I-SHENG JIS 1830MM WALL-**JAPAN**
⚠		ADAPTER	381-240A	KPR-24 KAWASAKI 125V 15A BLACK **-JAPAN**
⚠		MAC ADAPTER	6634TFZ002A	SIGNAL LIBERTY ENHANCE MAC 6-DIP-**JAPAN**
⚠		A/CORD	6852TZZ005B	AUDIO UL 2547#26-2C 1560MM 866

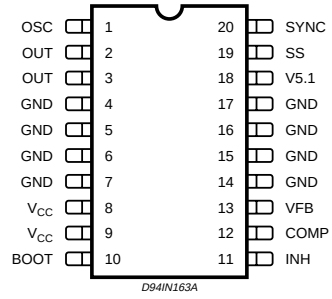
PIN CONFIGURATION

L4973V3-L4973V5 L4973D3-L4973D5 — 3.5A STEP DOWN SWITCHING REGULATOR

Pin Configuration



DIP18

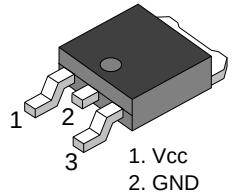


SO20

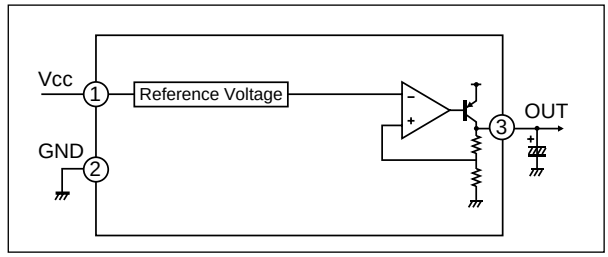
PIN FUNCTIONS

PIN DIP-18	PIN SO-20	NAME	DESCRIPTION
11	12	COMP	E/A output to be used for frequency compensation
10	11	INH	A logic signal (active high) disables the device (sleep mode operation). If not used it must be connected to GND; if floating the device is disabled.
9	10	BOOT	A capacitor connected between this pin and the output allows to drive the internal D-MOS.
18	20	SYNC	Input/Output synchronization.
7,8	8,9	Vcc	Not regulated DC input voltage
2,3	2,3	OUT	Stepdown regulator output.
12	13	VFB	Stepdown feedback input. Connecting directly this pin to the output 3.3V and 5.1V are obtained; a voltage divider is requested for higher output voltages. For voltage below 3.3V see note **
16	18	V5.1	Reference voltage externally available.
4,5,6 13,14,15	4,5,6,7 14,15,16,17	GND	Signal ground
1	1	OSC	An external resistor connected between the unregulated input voltage and Pin 1 and a capacitor connected from Pin 1 to ground fixes the switching frequency. (Line feed forward is automatically obtained)
17	19	SS	Soft start time constant. A capacitor connected between this terminal and ground determinates the soft start time.

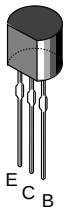
BA033 — Low Saturation Voltage type 3-terminal Regulator



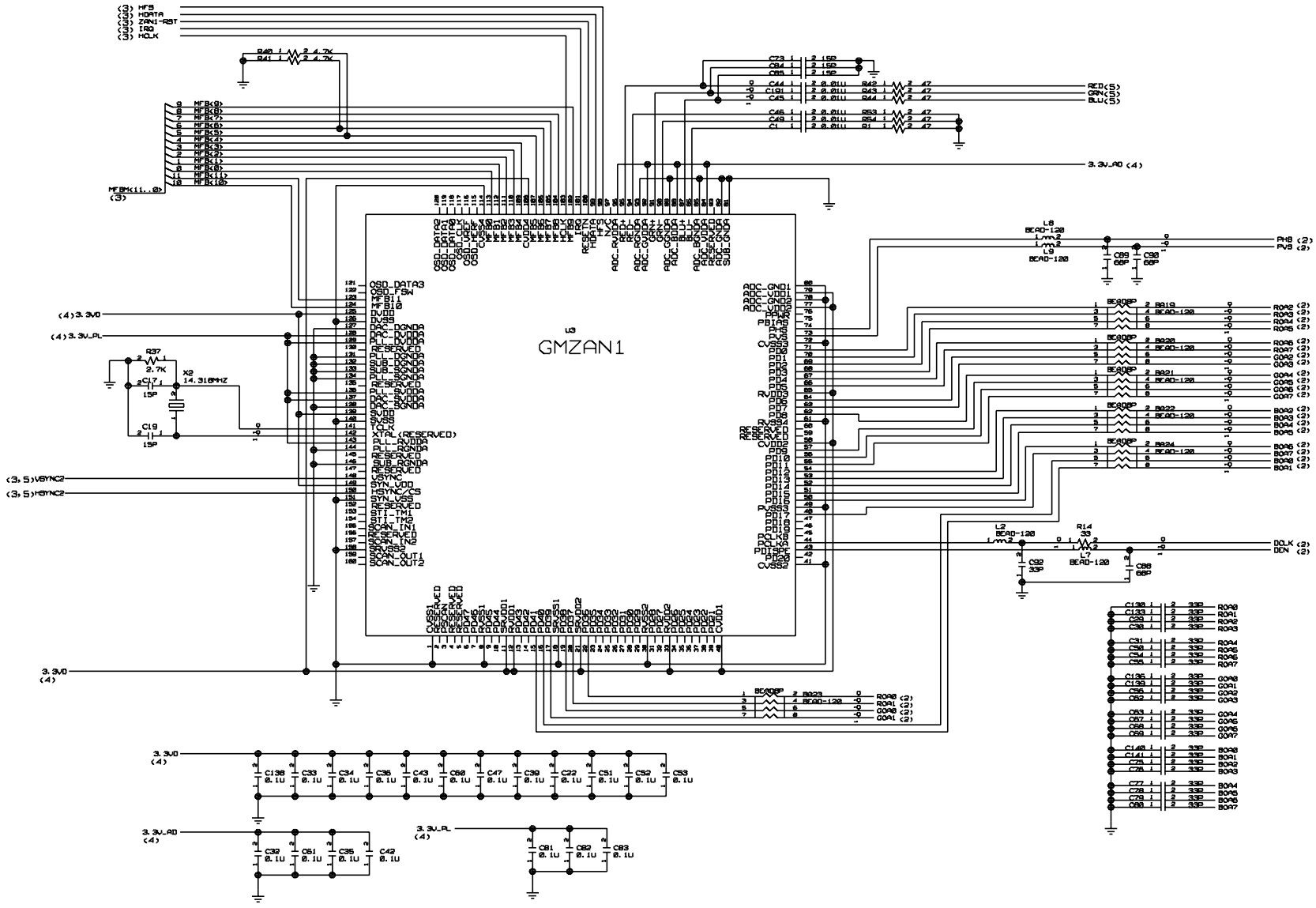
1. Vcc
2. GND
3. OUTPUT



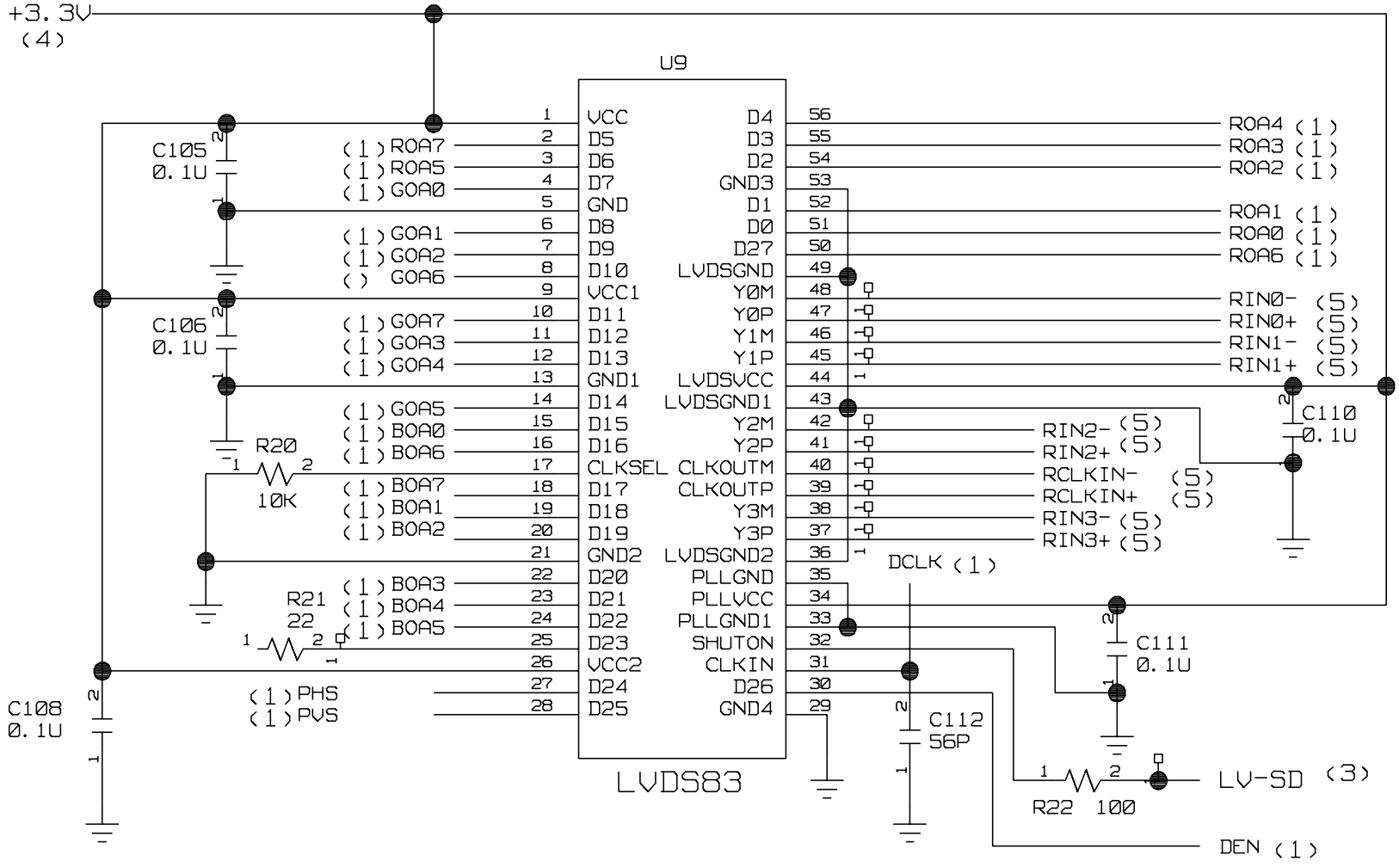
BLOCK DIAGRAM

TYPE	PARTS
	KIA7042

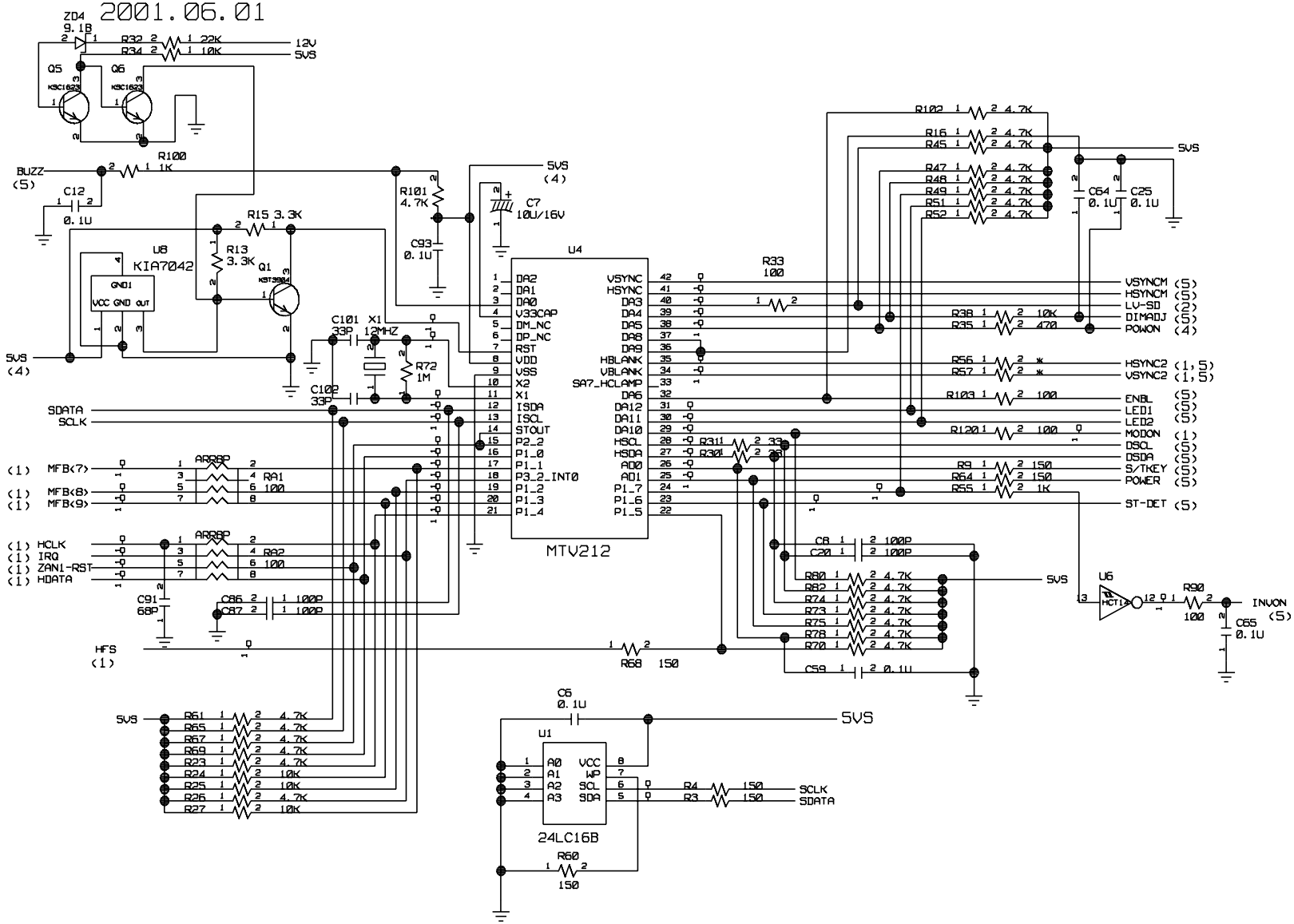
1 LB565C
GMZAN1
2001.06.01



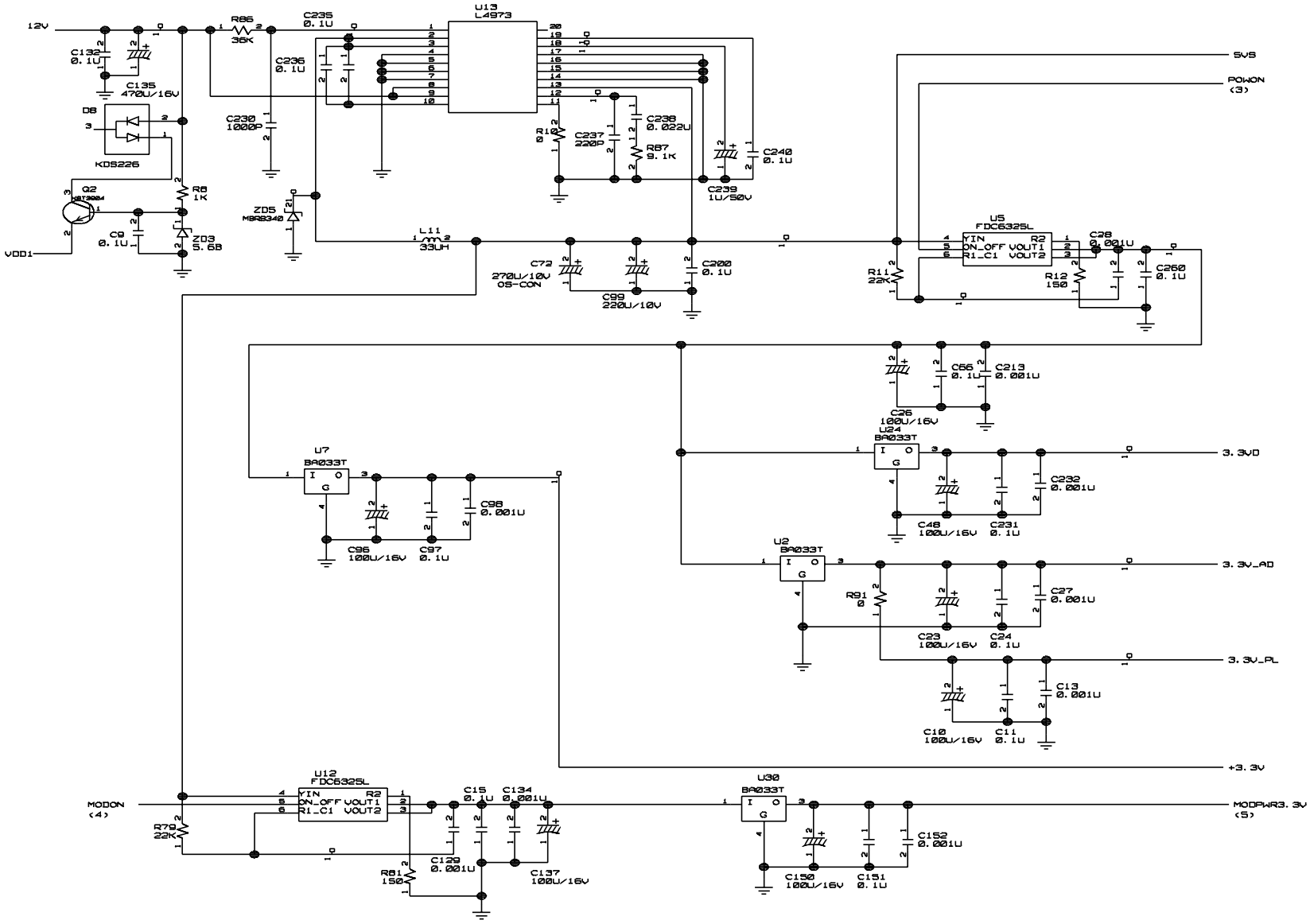
#2 LB565C LVDS 2001.06.01



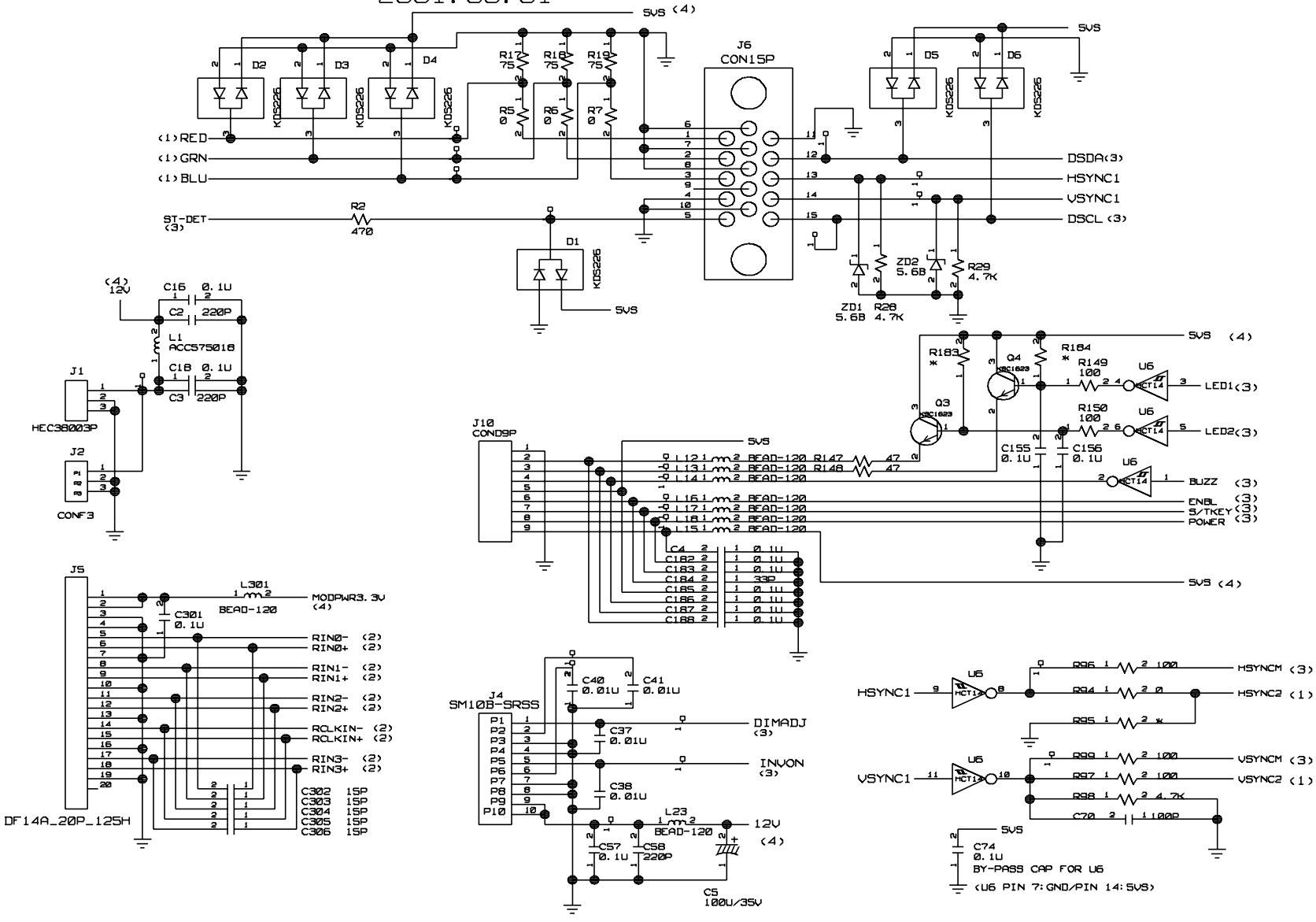
#3 LB565C MICOM 2001.06.01



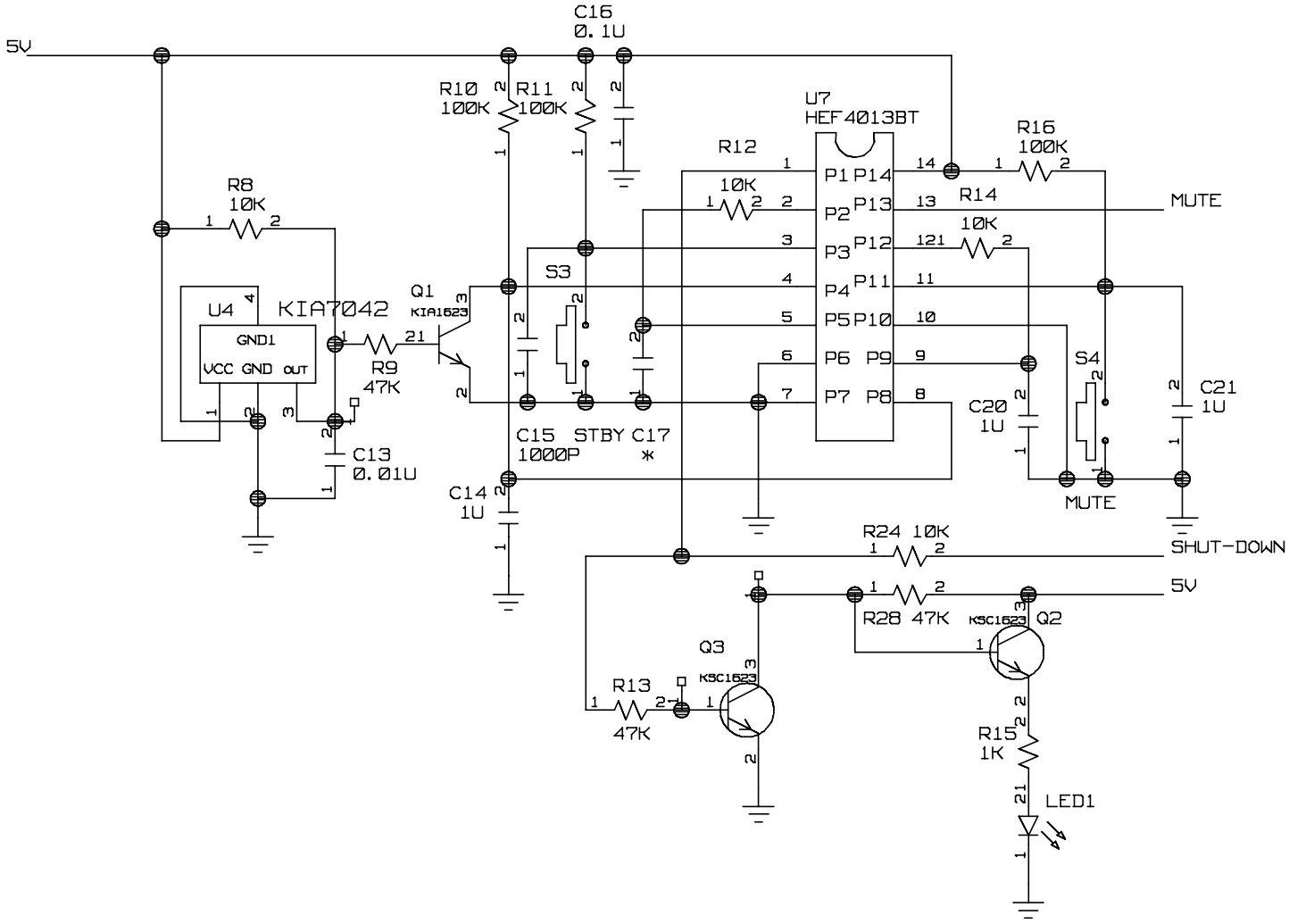
#4 LB565C POWER 2001.06.01

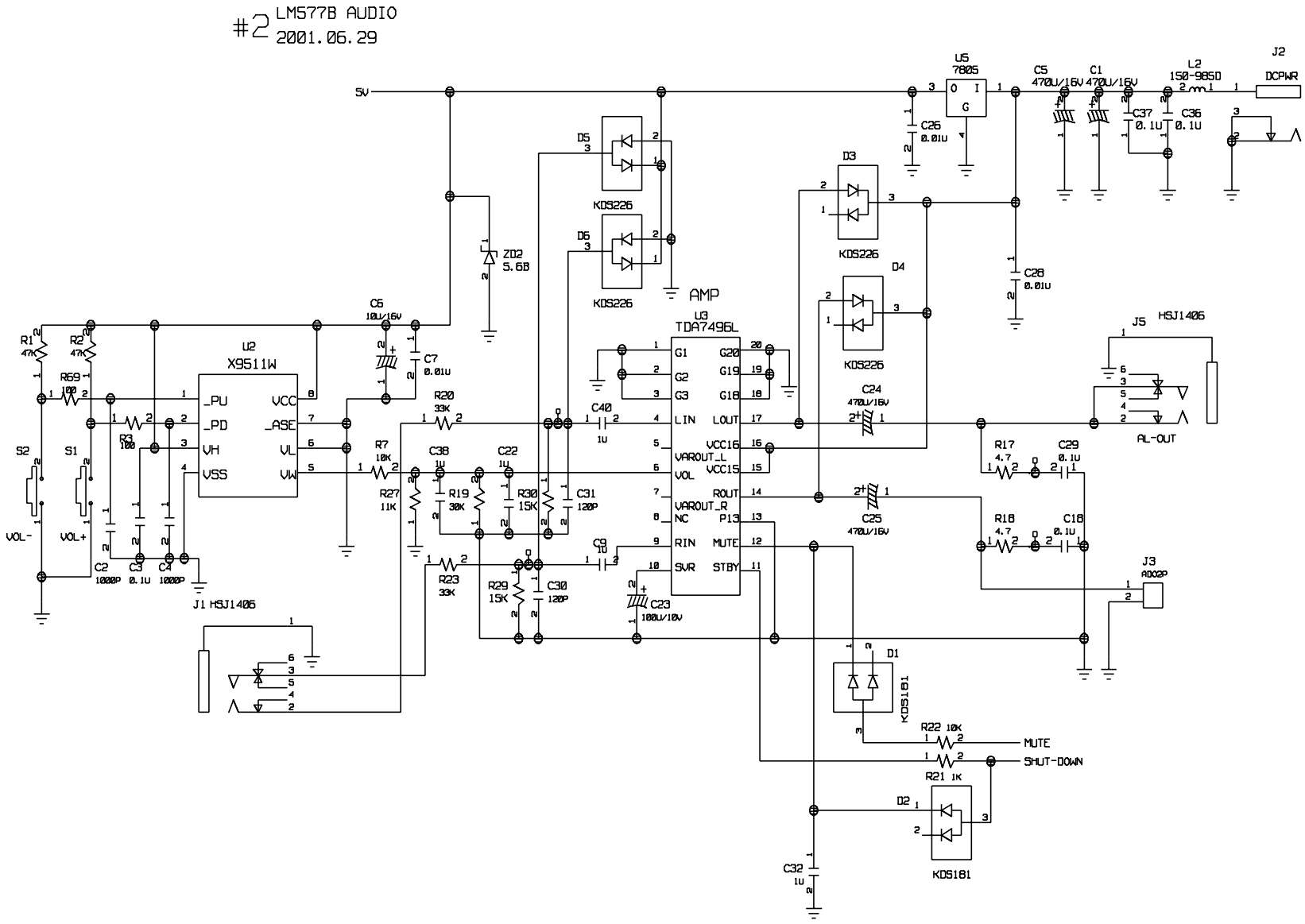


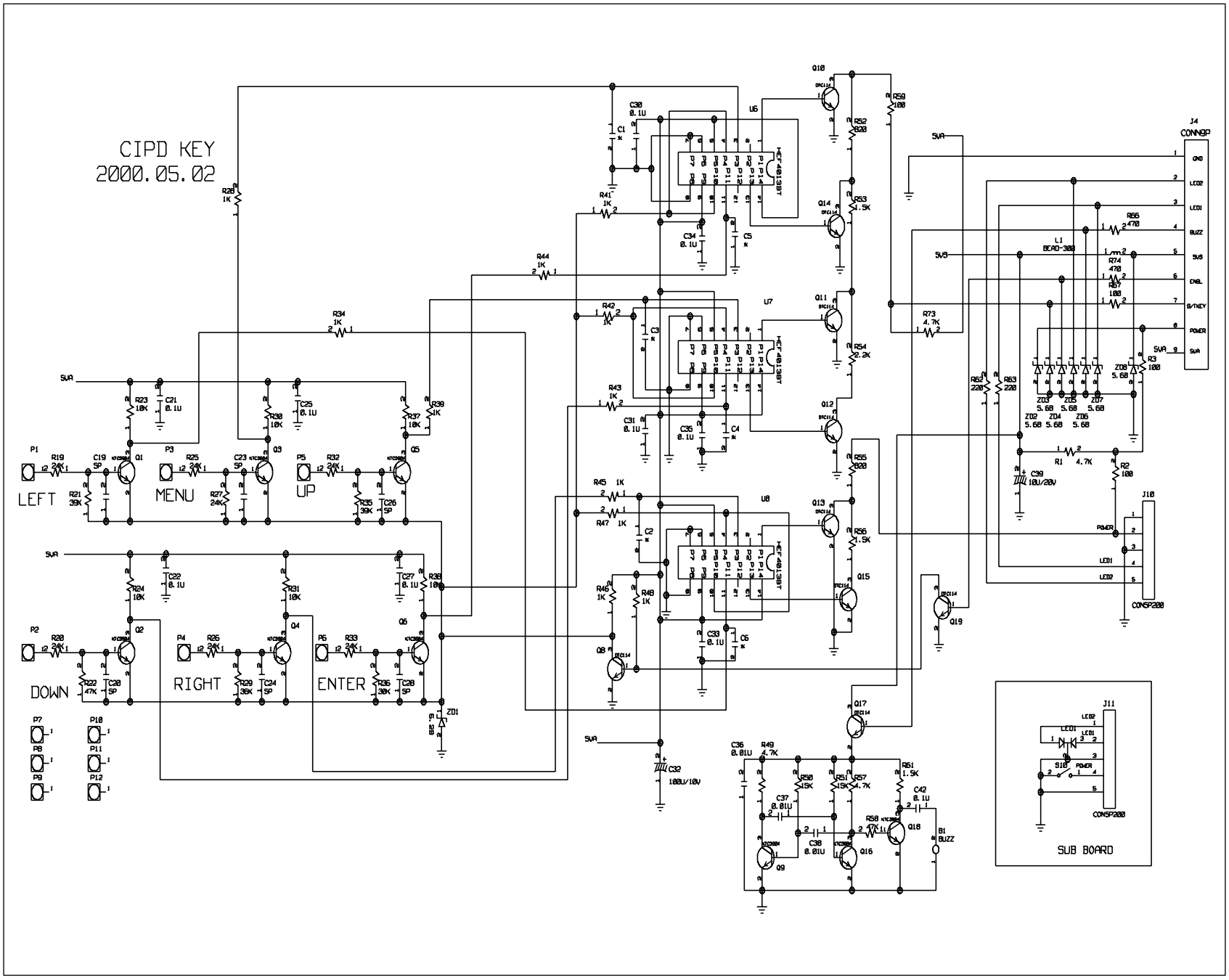
#5 LB565C CONNECTOR & JACKS 2001.06.01



#1 LM577B AUDIO POWER
2001.06.29




#2 LM577B AUDIO
2001.06.29
5V
U5
7805
C26
0.01U
C5
470U/16V
C1
470U/16V
L2
150-985D
J2
DCPWR
C37
0.1U
C36
0.1U
D5
KDS226
D6
KDS226
ZD2
5.6B
AMP
D3
KDS226
D4
KDS226
C28
0.01U
U3
TDA7496L
G1
G2
G3
LIN
VCC16
VAROUT_L
VOL
ROUT
VAROUT_R
NC
RIN
SVR
G20
G19
G18
LOUT
VCC15
P13
MUTE
STBY
C24
470U/16V
C25
470U/16V
J5
HSJ1406
AL-OUT
R17
4.7
C29
0.1U
R18
4.7
C18
0.1U
J3
AD02P
C6
10U/16V
C7
0.01U
U2
X9511W
_PU
_PD
VH
VSS
VCC
_ASE
VL
VW
R1
47K
R2
47K
R69
100
R3
100
S2
S1
VOL-
VOL+
C2
1000P
C3
0.1U
C4
1000P
J1 HSJ1406
R20
33K
R7
10K
C38
1U
C22
1U
R27
11K
R19
30K
R30
15K
C31
120P
C40
1U
C8
10
C23
100U/10V
R23
33K
R29
15K
C30
120P
D1
KDS181
R22 10K
MUTE
SHUT-DOWN
R21 1K
D2
KDS181
C32
1U


CIPD KEY
2000.05.02
LEFT
MENU
UP
DOWN
RIGHT
ENTER
SUB BOARD
CONNSP
CONSP200
BUZZ
BEAD-300
HEF4013BT
5VA