Service Guide Specification

담 당	관 리 자
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1. Model Description

MODEL	L1915SM	BRAND	LG	Part No.	3828TSL095Y
SUFFIX	ALAUR	Product Name	FLATRON L1915S		

2. Printing Specification

1. Trim Size (Format) : 215mm x 280 mm

2. Printing Colors
• Cover : LG COLORS
• Inside : Black

3. Stock (Paper)
• Cover : Snow White 150 g/㎡
• Inside : Snow White 100 g/㎡

4. Printing Method :
5. Bindery : Saddle stitch
6. Language : English
7. Number of pages : 24

3. Special Instructions

(1) Origin Notification

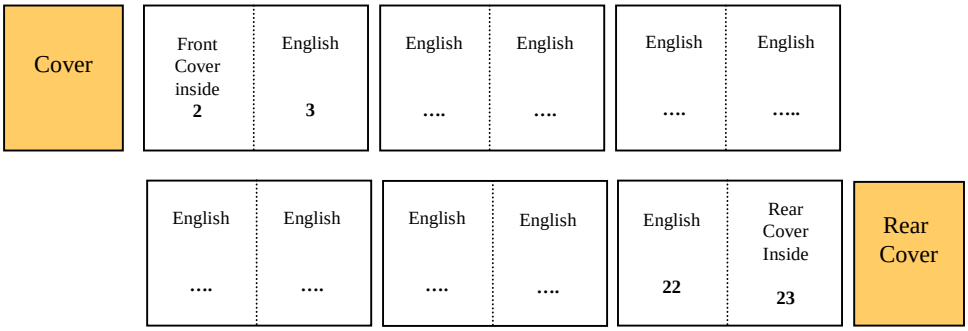
* LGEDI : Printed in Indonesia
* LGESP : Printed in Brazil
* LGENT : Printed in China
* LGEWA : Printed in U.K.
* LGEMX : Printed in Mexico
* LGEIL : Printed in India

4. Changes

REV. NO.	MM/DD/YY	SIGNATURE	CHANGE NO.	CHANGE CONTENTS
8				
7				
6				
5				
4				
3				
2				
1				

Pagination sheet

P/NO.3828TSL095Y
Total pages : 24pages



Website:http://biz.LGservice.com
E-mail:http://www.LGEservice.com/techsup.html

COLOR MONITOR
SERVICE MANUAL

CHASSIS NO. : CL-61

MODEL: FLATRON L1915S (L1915SM-AL**R)

( ) **Same model for Service

CAUTION

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

*To apply the **Mstar Chip**.

CONTENTS

SPECIFICATIONS

1. LCD CHARACTERISTICS

Type : TPT Color LCD Module
Size : 19inch(48cm)diagonal
Pixel Pitch : 0.294(H) x 0.294(V)
Color Depth : 16,2M colors
Electrical Interface : LVDS
Surface Treatment : Anti-Glare, Hard Coating(3H)
Operating Mode : Normally Black, Transmissive mode
Backlight Unit : 4-CCFL (Cold Cathode Fluorescent Lamp)

2. OPTICAL CHARACTERISTICS

2-1. Viewing Angle by Contrast Ratio ≥ 10

LPL Module

Left : -60° min., -70°(Typ)
Right : +60° min., +70°(Typ)
Top : +65° min., +75°(Typ)
Bottom : -55° min., -65°(Typ)

2-2. Luminance : 200(min), 250(Typ)

2-3. Contrast Ratio : 300(min), 500(Typ)

3. SIGNAL (Refer to the Timing Chart)

3-1. Sync Signal

• Type : Separate, Composite, SOG (Sync On Green)

3-2. Video Input Signal

1) Type : R, G, B Analog
2) Voltage Level : 0~0.7 V
a) Color 0, 0 : 0 Vp-p
b) Color 7, 0 : 0.35 Vp-p
c) Color 15, 0 : 0.7 Vp-p
3) Input Impedance : 75 Ω

3-3. Operating Frequency

Horizontal(Analog) : 30 ~ 83kHz
Vertical : 56 ~ 75Hz

4. MAX. RESOLUTION

MAX : 1280 x 1024@75Hz
Recommend : 1280 x 1024@60Hz

5. POWER SUPPLY

5-1. Power Adaptor(Built-in Power)

Input : AC 100-240V~, 50/60Hz , 1.0A

5-2. Power Consumption

MODE	H/V SYNC	VIDEO	POWER CONSUMPTION	LED COLOR
POWER ON (NORMAL)	ON/ON	ACTIVE	less than 45 W	GREEN
STAND-BY	OFF/ON	OFF	less than 1 W	AMBER
SUSPEND	ON/OFF	OFF	less than 1 W	AMBER
DPMS OFF	OFF/OFF	OFF	less than 1 W	AMBER
POWER S/W OFF	-	OFF	less than 1 W	OFF

6. ENVIRONMENT

6-1. Operating Temperature: 10°C~35°C (50°F~95°F) (Ambient)
6-2. Relative Humidity : 10%~80% (Non-condensing)
6-3. MTBF : 50,000 Hours
Lamp Life : 40,000 Hours(Typ)

7. DIMENSIONS (with TILT/SWIVEL)

Width : 418 mm (16.45")
Depth : 219 mm (8.62")
Height : 421mm (16.57")

8. WEIGHT (with TILT/SWIVEL)

Net. Weight : 5.7kg (12.56 lbs)
Gross Weight : 8.1kg (17.86 lbs)

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 manufacturer 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

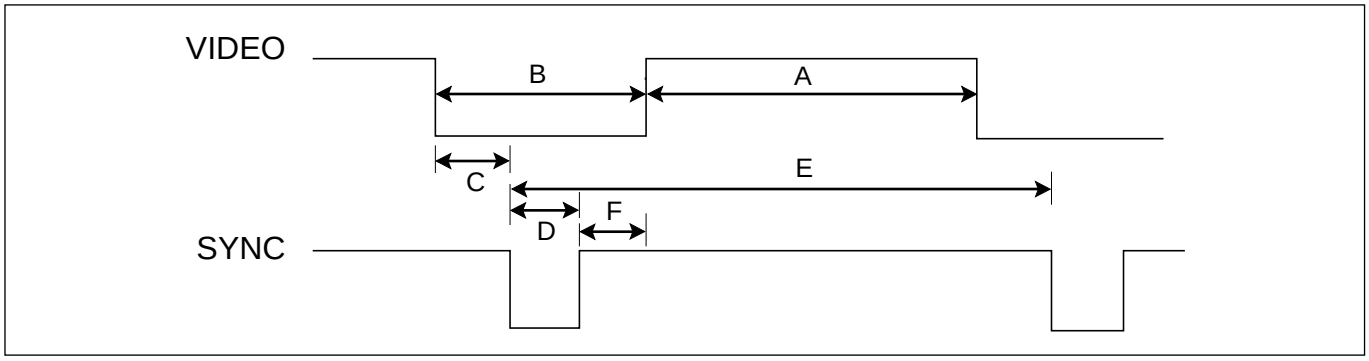
Please use only a plastic screwdriver to protect yourself from shock hazard during service operation.

⚠ 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

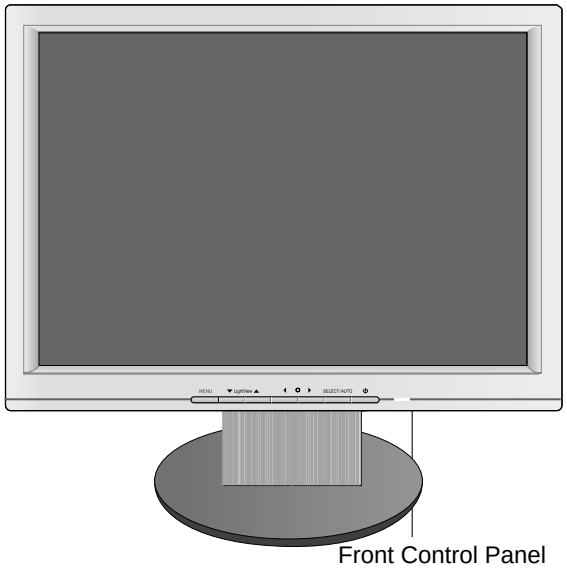


<< Dot Clock **(MHz),** Horizontal Frequency **(kHz)**, Vertical Frequency **(Hz)**, Horizontal etc... **(µs)**, Vertical etc... **(ms) >>**

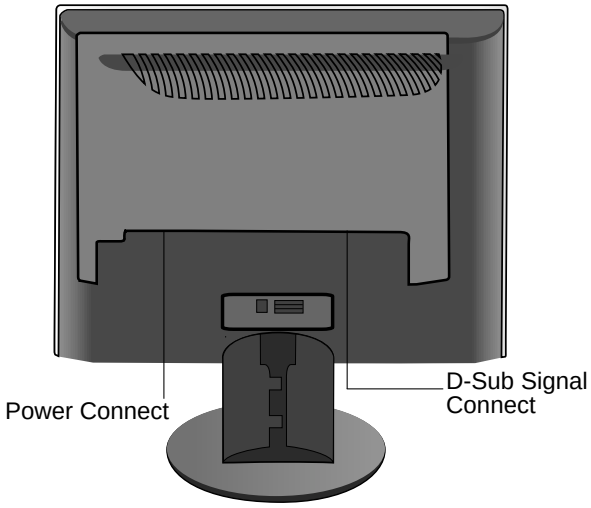
Mode	H/V Sort	Sync Polarity	Dot Clock	Frequency	Total Period (E)	Video Active Time (A)	Front Porch (C)	Sync Duration (D)	Back Porch (F)	Resolution
1	H	+	25.175	31.469	800	640	16	96	48	**640x350 70Hz**
	V	–		70.8	449	350	37	2	60	
2	H	–	28.321	31.468	900	720	18	108	54	**720x400 70Hz**
	V	+		70.09	449	400	12	2	35	
3	H	–	25.175	31.469	800	640	16	96	48	**640x480 60Hz**
	V	–		59.94	525	480	10	2	33	
4	H	–	31.5	37.5	840	640	16	64	120	**640x480 75Hz**
	V	–		75	500	480	1	3	16	
5	H	+	40.0	37.879	1056	800	40	128	88	**800x600 60Hz**
	V	+		60.317	628	600	1	4	23	
6	H	+	49.5	46.875	1056	800	16	80	160	**800x600 75Hz**
	V	+		75.0	625	600	1	3	21	
7	H	+/–	57.283	49.725	1152	832	32	64	224	**832x624 75Hz**
	V	+/–		74.55	667	624	1	3	39	
8	H	–	65.0	48.363	1344	1024	24	136	160	**1024x768 60Hz**
	V	–		60.0	806	768	3	6	29	
9	H	–	78.75	60.123	1312	1024	16	96	176	**1024x768 75Hz**
	V	–		75.029	800	768	1	3	28	
10	H	+/–	100.0	68.681	1456	1152	32	128	144	**1152x900 75Hz**
	V	+/–		75.062	915	870	3	3	39	
11	H	+/–	92.978	61.805	1504	1152	18	134	200	**1152x900 65Hz**
	V	+/–		65.96	937	900	2	4	31	
12	H	+	108.0	63.981	1688	1280	48	112	248	**1280x1024 60Hz**
	V	+		60.02	1066	1024	1	3	38	
13	H	+	135.0	79.976	1688	1280	16	144	248	**1280x1024 75Hz**
	V	+		75.035	1066	1024	1	3	38	

OPERATING INSTRUCTIONS

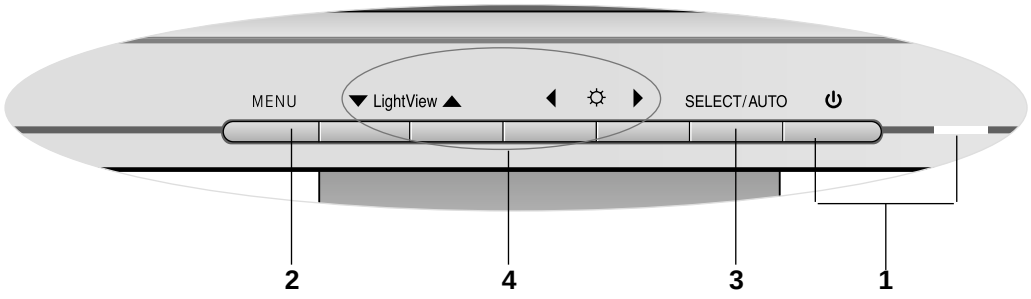
FRONT VIEW



REAR VIEW



Front Control Panel



1. Power ON/OFF Button

Use this button to turn the monitor on or off.

Power Indicator

This indicator lights up green when the monitor operates normally. If the display is in DPM(Energy Saving)mode, this indicator color change to amber.

2. MENU Button

Use these button to enter or exit the On Screen Display.

3. SELECT/AUTO Button

Use this button to enter a selection in the On Screen Display.

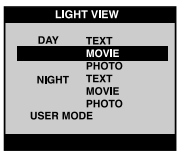
When adjusting your display settings, always press the **SELECT/AUTO** button before entering the On Screen Display(OSD). This will automatically adjust your display image to the ideal settings for the current screen resolution size (display mode).

The best display mode is **1280 x 1024**.

4. ▼▲◀▶ Button

Use these buttons to choose or adjust items in the On Screen Display.

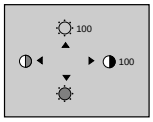
▼ LightView ▲



This feature lets you easily select the best desired image condition optimized to the environment (ambient illumination, image types etc.).

- **DAY** : Bright ambient illumination
- **NIGHT** : Dark ambient illumination
- **TEXT** : For text images (Word processing etc.)
- **MOVIE** : For animation images in videos or movies
- **PHOTO** : For pictures or drawings
- **USER MODE** : For use under user setup image conditions (Brightness, contrast and color tint are selected by the user in OSD Screen Setup Menu.)

▼ LightView ▲ → ▼ LightView ▲ → MENU

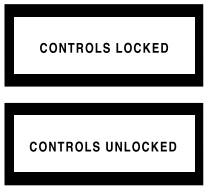


◀ ☼ ▶

Bring up Contrast and Brightness adjustment.

: **◀ ☼ ▶ →▼▲◀ ▶ → MENU**

OPERATING INSTRUCTIONS



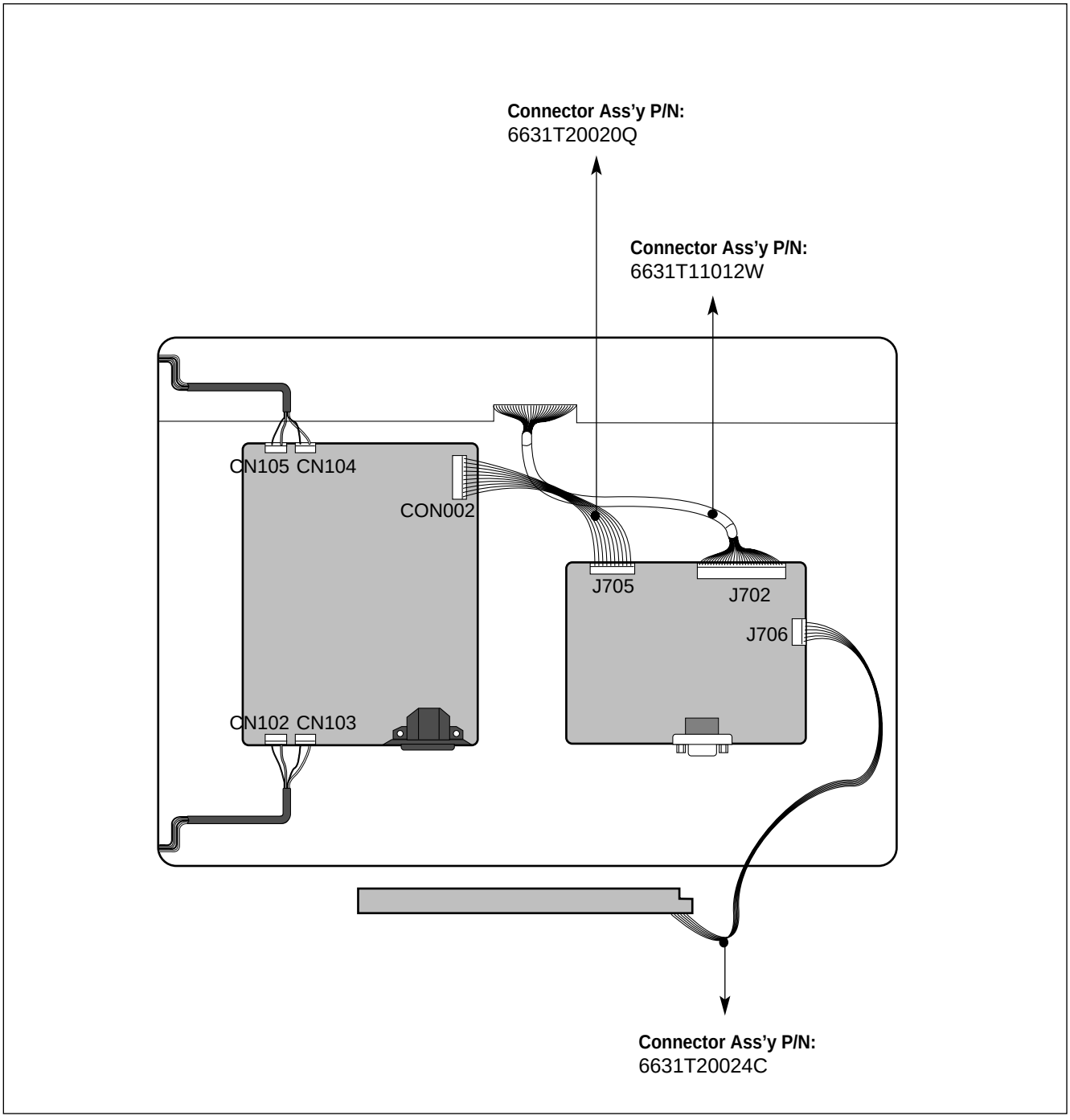
CONTROLS LOCKED/UNLOCKED

: MENU and ▶

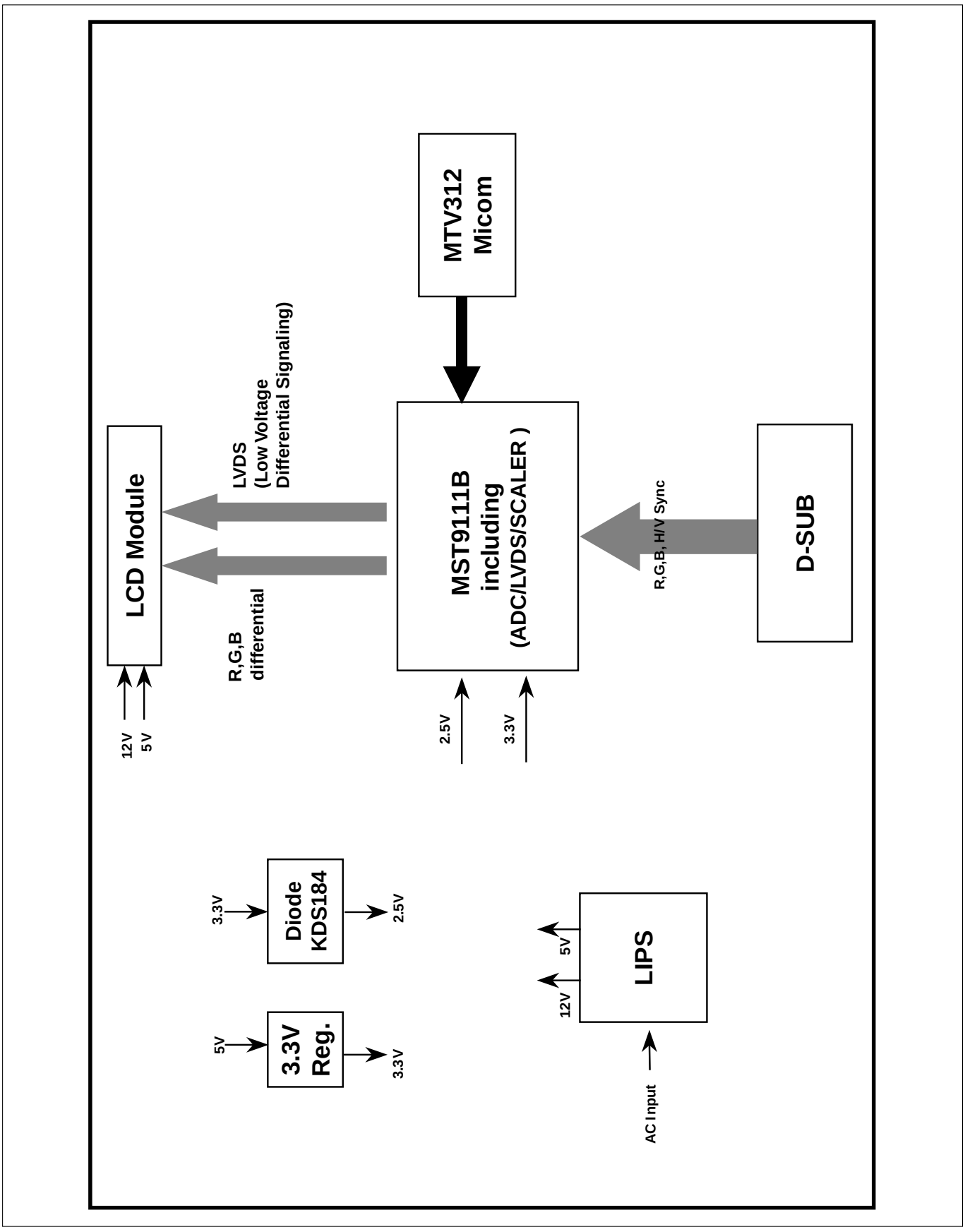
This function allows you to secure the current control settings, so that they cannot be inadvertently changed. Press and hold the MENU button and ▶ button for 3 seconds: the message **"CONTROLS LOCKED"** appears.

You can unlock the OSD controls at any time by pushing the MENU button and ▶ button for 3 seconds: the message **"CONTROLS UNLOCKED"** will appear.

WIRING DIAGRAM



BLOCK DIAGRAM



DESCRIPTION OF BLOCK DIAGRAM

1. Video Controller Part.

This part amplifies the level of video signal for the digital conversion and converts from the analog video signal to the digital video signal using a pixel clock.
The pixel clock for each mode is generated by the PLL.
The range of the pixel clock is from 25MHz to 135MHz.
This part consists of the Scaler, ADC, LVDS transmitter.
The Scaler gets the video signal converted analog to digital, interpolates input to 1280 X 1024 resolution signal and outputs 8-bit R, G, B signal to transmitter.

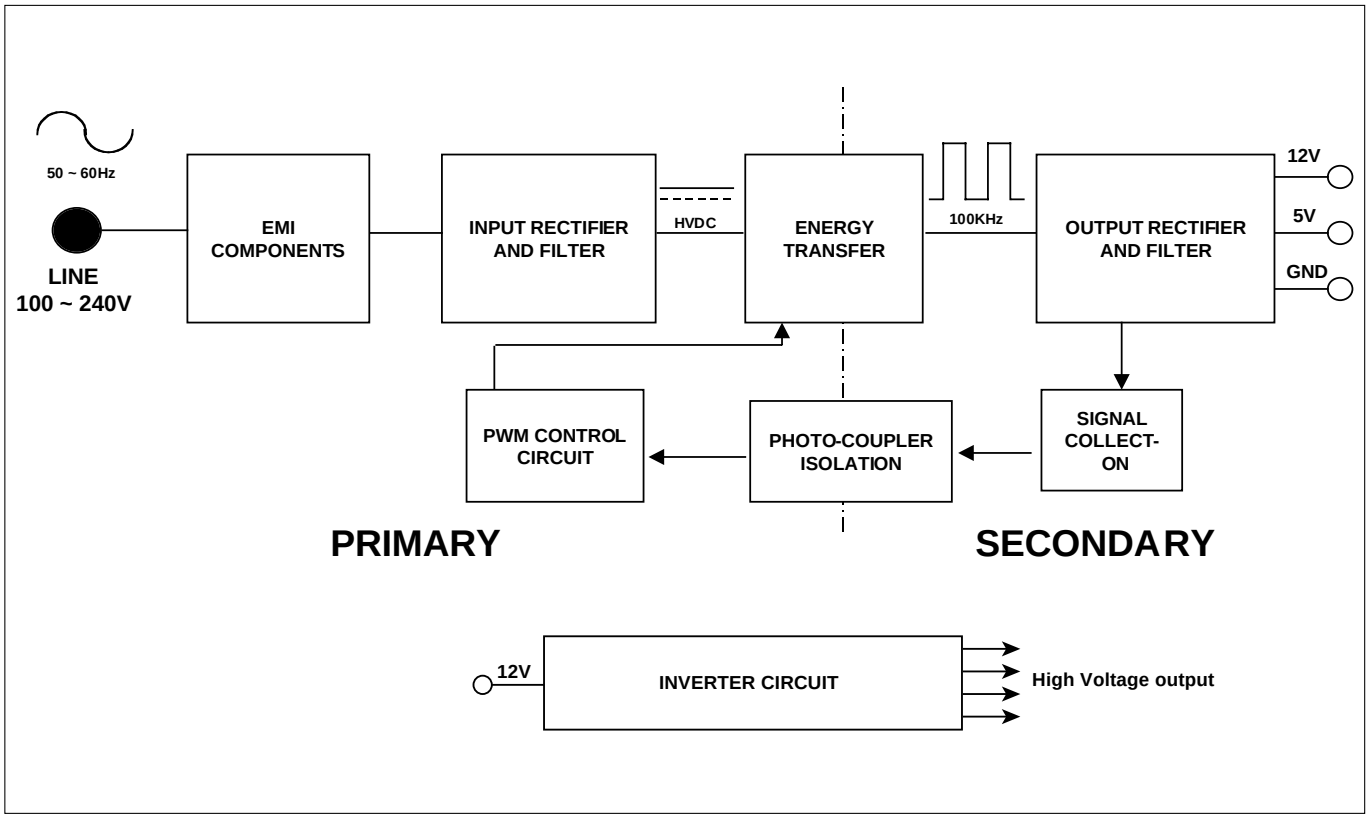
2. Power Part.

This part consists of the one 3.3V regulator, and two 2.5V drop diodes to convert power which is provided 12V, 5V in Power board.
5V is provided for and 12V is provided for LCD panel Micom.
Also, 5V is converted 3.3V by regulator and 3.3V is converted 2.5V by drop diode.
Converted power is provided for IC in the main board.

3. MICOM Part.

This part consists of EEPROM IC which stores control data, Reset IC and the Micom.
The Micom distinguishes polarity and frequency of the H/V sync are supplied from signal cable.
The controlled data of each modes is stored in EEPROM.

LIPS Board Block Diagram



Operation description_LIPS

1. EMI components.

This part contains of EMI components to comply with global marketing EMI standards like FCC, VCCI CISPR, the circuit included a line-filter, across line capacitor and of course the primary protection fuse.

2. Input rectifier and filter.

This part function is for transfer the input AC voltage to a DC voltage through a bridge rectifier and a bulk capacitor.

3. Energy Transfer.

This part function is transfer the primary energy to secondary through a power transformer.

4. Output rectifier and filter.

This part function is to make a pulse width modulation control and to provide the driver signal to power switch, to adjust the duty cycle during different AC input and output loading condition to achive the dc output stablize, and also the over power protection is also monitor by this part.

5. Photo-Coupler isolation.

This part function is to feed back the dc output changing status through a photo transistor to primary controller to achieve the stabilized dc output voltage.

6. Signal collection.

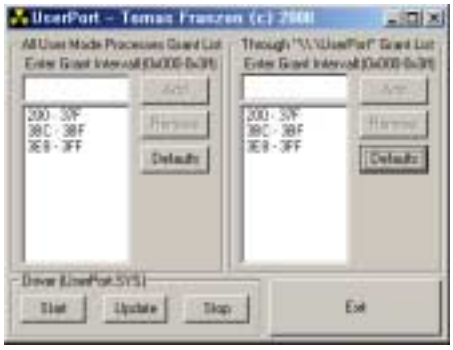
This part function is to collect the any change from the dc output and feed back to the primary through photo transistor.

ADJUSTMENT

Windows EDID V1.0 User Manual

Operating System: MS Windows 98, 2000, XP
Port Setup: Windows 98 => Don't need setup
Windows 2000, XP => Need to Port Setup.
This program is available to LCD Monitor only.

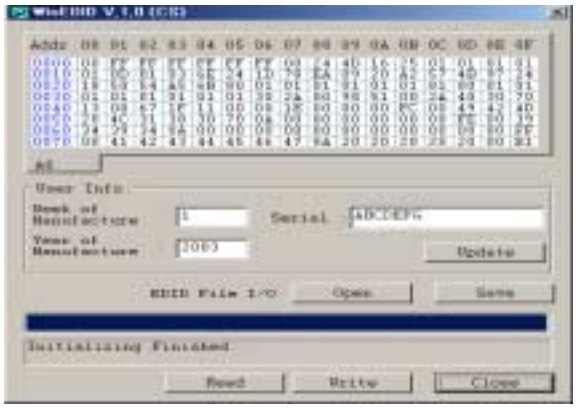
1. Port Setup
   a) Copy "UserPort.sys" file to
   "c:\WINNT\system32\drivers" folder
   b) Run Userport.exe



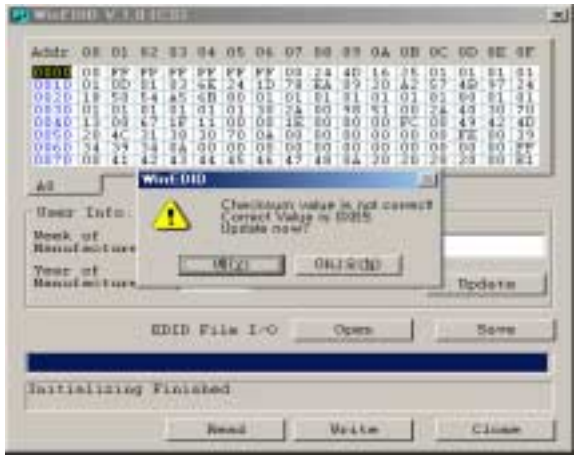
   c) Remove all default number
   d) Add 300-3FF

   e) Click Start button.
   f) Click Exit button.

2. EDID Read & Write
   1) Run WinEDID.exe



   2) Edit Week of Manufacture, Year of Manufacture, Serial Number
      a) Input User Info Data
      b) Click "Update" button
      c) Click " Write" button



SERVICE OSD

1) Turn off the power switch at the front side of the display.

2) Wait for about 3 seconds and press MENU, POWER switch with 1 second interval.

3) The SVC OSD menu contains additional menus that the User OSD menu as described below.

a) MODULE : To select applied module.
b) NVRAM INIT : EEPROM initialize(24C08)
c) ADC OFFSET : The lowest value of input leves sets to digitally 0(zero).
d) ADC GAIN : The highest value of input levels sets to digitally 255.
e) ADC CAL : W/B balance sets the gain and offset value.
f) ELAPSED CLEAR : To initialize using time.

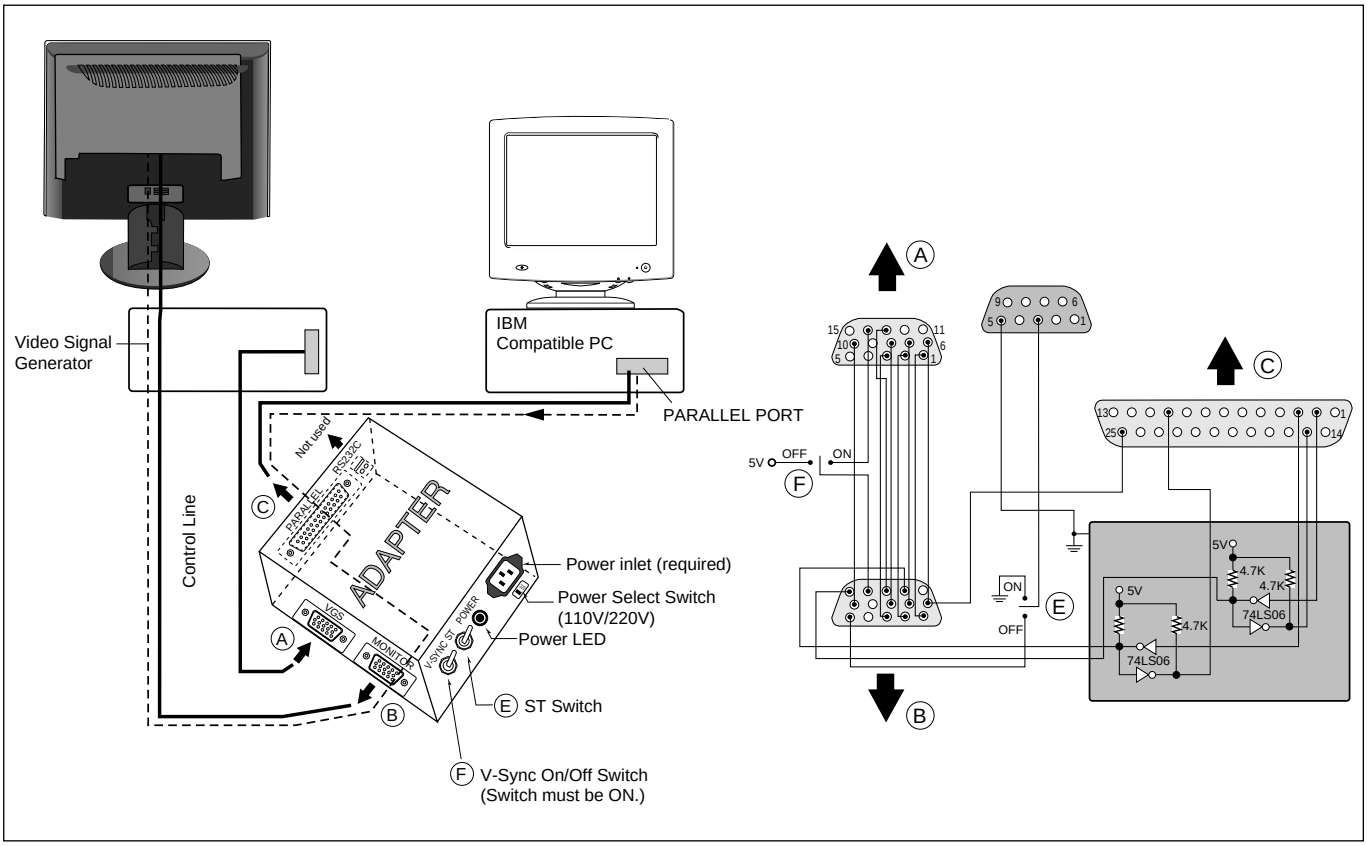
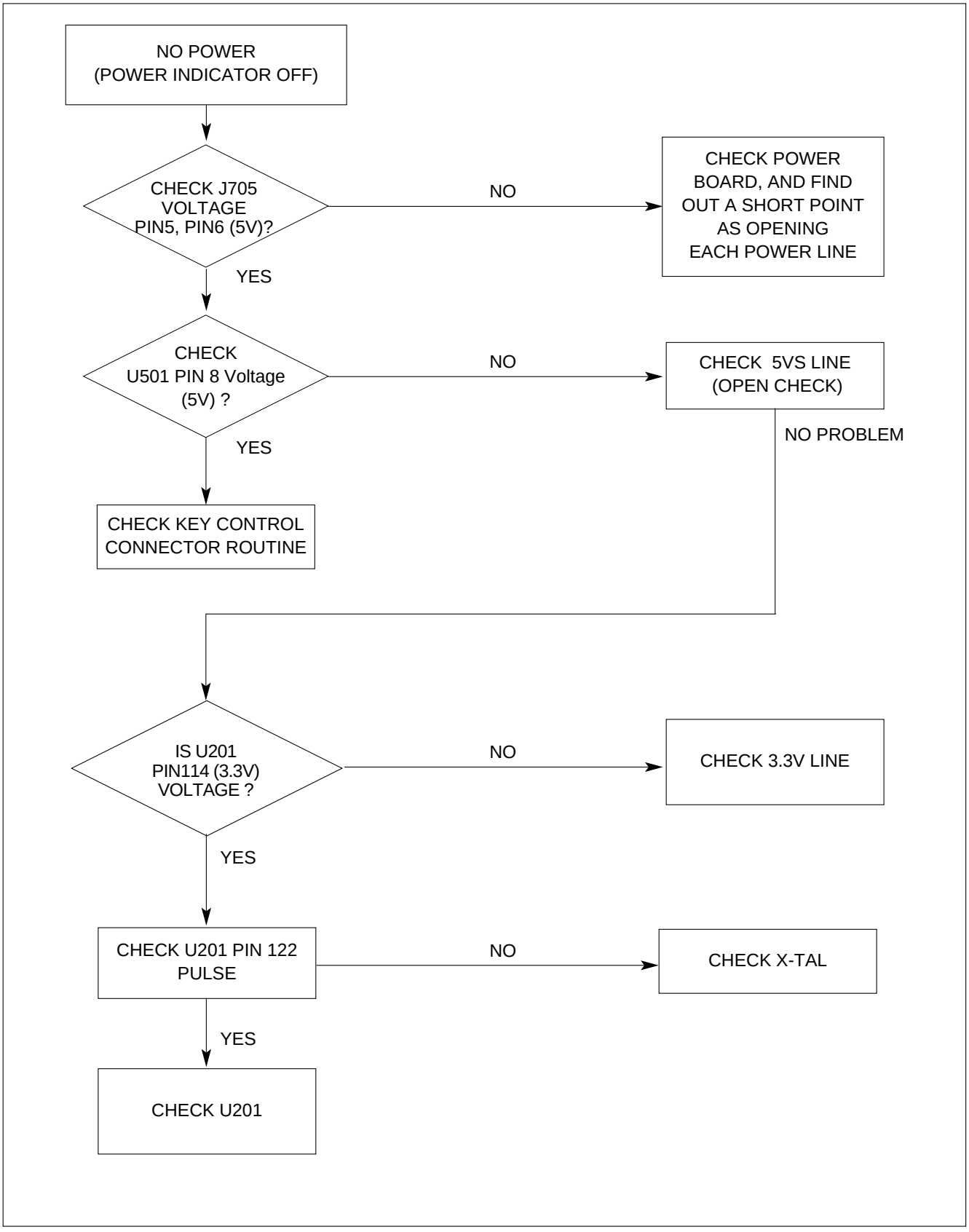


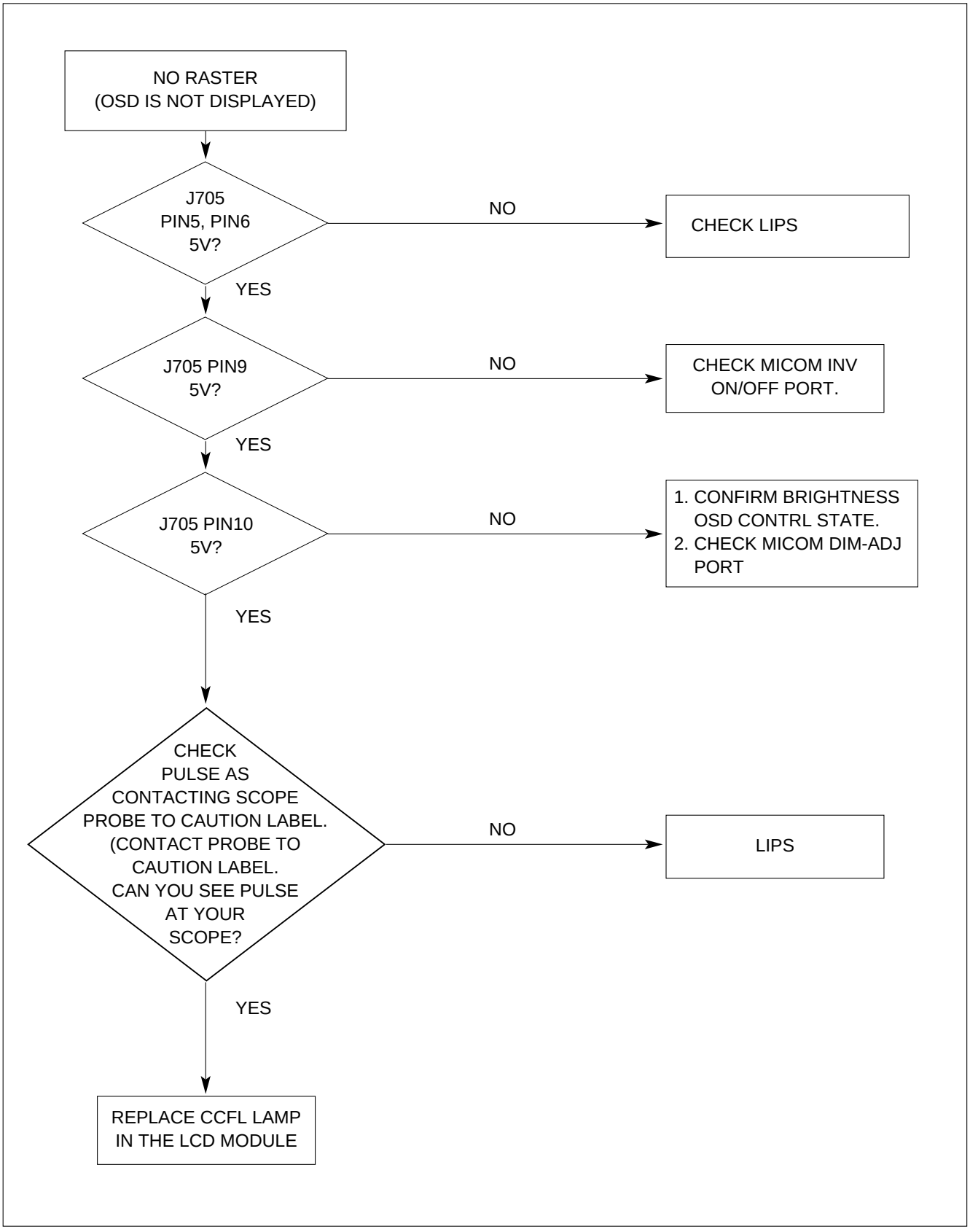
Figure 1. Cable Connection

TROUBLESHOOTING GUIDE

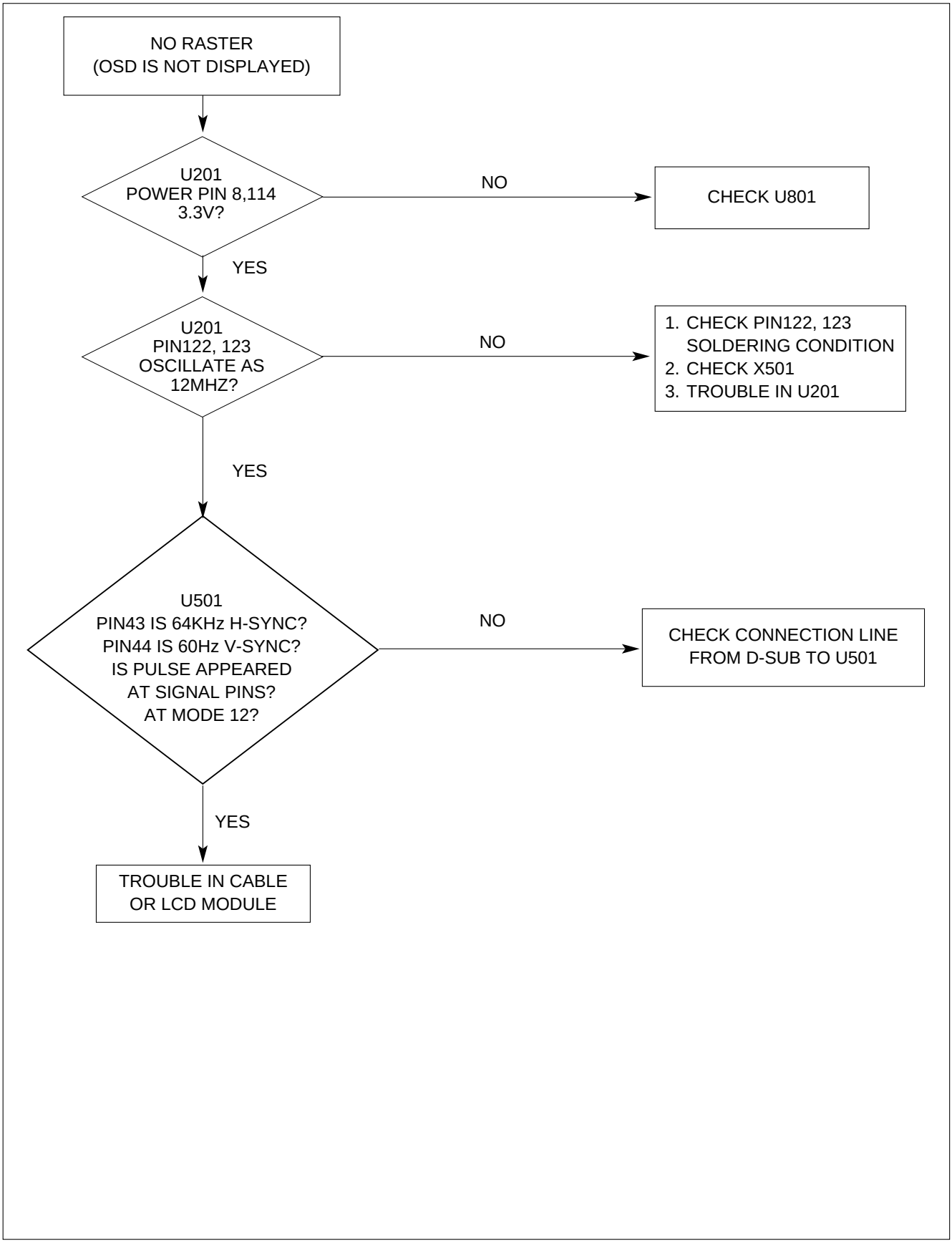
1. NO POWER



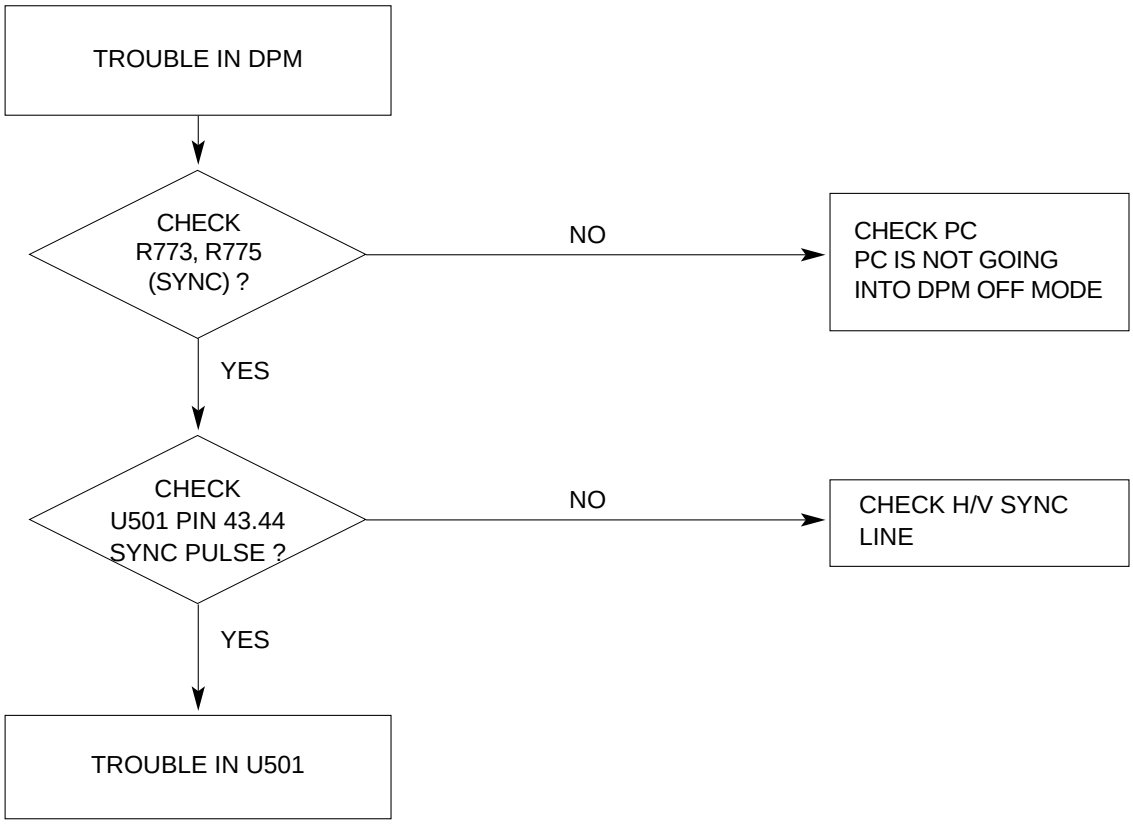
2. NO RASTER (OSD IS NOT DISPLAYED) – LIPS



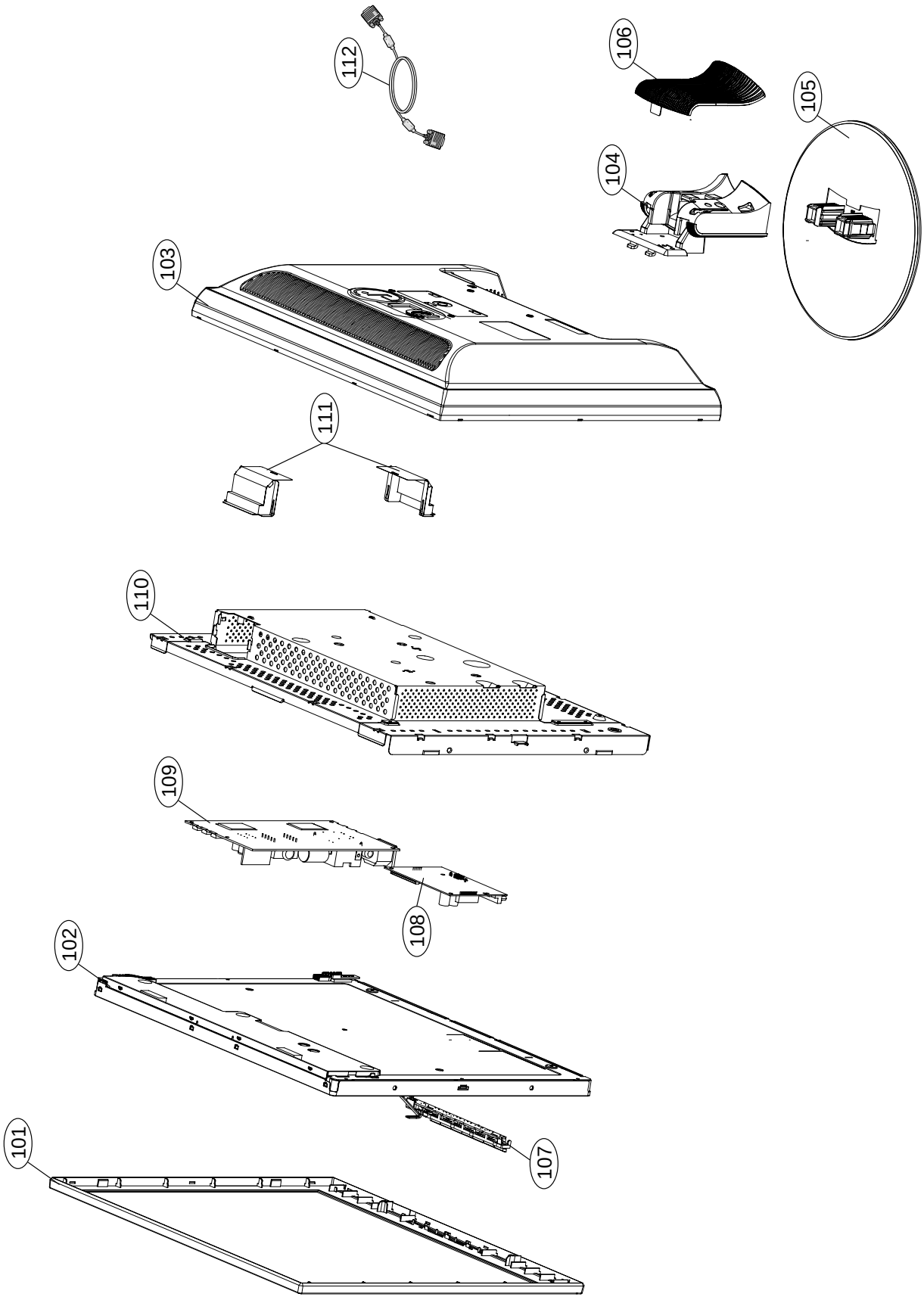
3. NO RASTER (OSD IS NOT DISPLAYED) – MST9111B



4. TROUBLE IN DPM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

Ref. No.	Part No.	Description
101	3091TKL122D	CABINET ASSEMBLY, L1915S BRAND TKL104 LIFE IS GOOD 89483**-For Australia**
	3091TKL122C	CABINET ASSEMBLY, L1915S BRAND TKL104 89483 **WA-LOCAL -For Europe**
102	6304FLP142A	LCD(LIQUID CRYSTAL DISPLAY), LM190E03-B4K1 LG PHILPS TFT COLOR 20T,TN,250NITS,SXGA,LVDS
103	3809TKL086A	BACK COVER ASSEMBLY, L1915S 3808TKL086A ABS,8D966 **-For Australia**
	3809TKL086C	BACK COVER ASSEMBLY, L1915S TKL086A **WA-LOCAL -For Europe**
104	3043TKK145W	TILT SWIVEL ASSEMBLY, L1915S . NO SWIVEL 8D966 **-For Australia**
	3043TKK145Z	TILT SWIVEL ASSEMBLY, L1915SN . L1915SN **LGEWA LOCAL -For Europe**
105	3043TKK147G	TILT SWIVEL ASSEMBLY, L1915S . M/GRAY,NO SWIVEL **-For Australia**
	3043TKK147M	TILT SWIVEL ASSEMBLY, L1915S . "G"-**LOCAL(LGEWA) -For Europe**
106	3550TKK452G	COVER, L1915S STAND REAR CAP ABS 8D966
107	6871TST717A	PWB(PCB) ASSEMBLY,SUB, L1915SM CONTROL TOTAL BRAND CONTROL
108	3313TL9053A	MAIN TOTAL ASSEMBLY, L1915SM BRAND CL-61
109	6871TPT271R	PWB(PCB) ASSEMBLY, POWER, M-CHASSIS 1719 SOCKET,2PIN,450V POWER TOTAL LIEN CHANG
	6871TPT271B	PWB(PCB) ASSEMBLY, POWER, L1710SM POWER TOTAL LIEN CHANG M-CHASSIS THE INTERGRATED LIPS FOR LPL,CMO,HD
110	4951TKS145N	METAL ASSEMBLY, FRAME L1915S, LPL **-For Australia**
	4951TKS145P	METAL ASSEMBLY, FRAME L1915S N-CKD **-For Europe**
111	4814TKK268A	SHIELD, INVERTER CAP [L1930]
112	6850TD9004J	CABLE,D-SUB, UL20276-9C(5.8MM) DT 1500MM,CORE POS400MM GRAY(85964) L1720BM DM"

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

DATE: 2004. 08.12

*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		MAIN BOARD		
		CAPACITORS		
		C204	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C205	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C206	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C207	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C208	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C209	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C210	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C211	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C214	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C215	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C216	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C217	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C218	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C219	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C220	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C221	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C222	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C223	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C225	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C226	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C227	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C230	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C231	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C232	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C233	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C240	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C251	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C501	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C502	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C503	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C504	0CH8106F611	10UF 16V M 85STD(CYL) R/TP
		C506	0CC030CK01A	3PF 1608 50V 0.25 PF R/TP N
		C507	0CC180CK41A	18PF 1608 50V 5% R/TP NP0
		C508	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C701	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C703	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C708	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C709	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C710	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C711	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C717	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C718	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C719	0CC680CK41A	68PF 1608 50V 5% R/TP NP0
		C720	0CC101CK41A	100PF 1608 50V 5% R/TP NP0
		C721	0CC680CK41A	68PF 1608 50V 5% R/TP NP0
		C727	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C732	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C733	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C734	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C735	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C760	0CE107EF610	"100UF KMG,RD 16V 20% FL BUL"
		C801	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		C803	0CE107EF610	"100UF KMG,RD 16V 20% FL BUL"
		C804	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C805	0CK105CD56A	1UF 1608 10V 10% R/TP X7R
		C806	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C807	0CE107EF610	"100UF KMG,RD 16V 20% FL BUL"
		C808	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C809	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C810	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C812	0CE107EF610	"100UF KMG,RD 16V 20% FL BUL"
		C814	0CE107EF610	"100UF KMG,RD 16V 20% FL BUL"
		C815	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C816	0CK103CK51A	0.01UF 1608 50V 10% R/TP B(
		C817	0CK104CK56A	0.1UF 1608 50V 10% R/TP X7R
		C818	0CC102CK41A	1000PF 1608 50V 5% R/TP NP0
		DIODEs		
		D701	0DS226009AA	KDS226 TP KEC SOT-23 80V 3
		D702	0DS226009AA	KDS226 TP KEC SOT-23 80V 3
		D706	0DS226009AA	KDS226 TP KEC SOT-23 80V 3
		D804	0DD184009AA	KDS184 TP KEC - 85V - - - 3
		D805	0DD184009AA	KDS184 TP KEC - 85V - - - 3
		ZD701	0DZ560009GB	BZT52C5V6S DIODES R/TP SOD3
		ZD702	0DZ560009GB	BZT52C5V6S DIODES R/TP SOD3
		ZD703	0DZ560009GB	BZT52C5V6S DIODES R/TP SOD3
		ZD704	0DZ560009GB	BZT52C5V6S DIODES R/TP SOD3
		ZD705	0DZ560009GB	BZT52C5V6S DIODES R/TP SOD3
		ZD711	0DZ560009GB	BZT52C5V6S DIODES R/TP SOD3
		ICs		
		U201	0IPRPM3008B	MST9111B(ANALOG) MSTAR 128P
		U501	0IZZTSZ531A	MYSON 44P - MTV312 L1915SM-
		U502	0ISG240860B	M24C08W6 SGS-THOMSON 8SOP R
		U801	0IPMGKE011A	KIA78D33F KEC DPAK R/TP 3.3
		Q502	0IKE704200H	KIA7042AP TO-92 TP 4.2 VOL
		TRANSISTOR		
		U802	0TFVI80023A	VISHAY SI3865DV R/TP TSOP-6
		Q503	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q504	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q505	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q703	0TR390609FA	KST3906-MTF TP SAMSUNG SOT
		Q704	0TR390609FA	KST3906-MTF TP SAMSUNG SOT
		Q706	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		Q707	0TR390409AE	FAIRCHILD KST3904(LGEMTF) T
		RESISTORs		
		R201	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R202	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R203	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R207	0RJ3900D677	390 OHM 1/10 W 5% 1608 R/TP

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*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R208	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R209	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R210	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R213	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R214	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R220	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R240	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R506	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R508	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R512	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R513	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R514	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R515	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R516	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R518	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R519	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R520	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R521	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R522	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R523	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R524	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R525	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R526	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R527	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R528	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R529	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R531	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R532	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R534	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R535	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/T
		R537	0RJ3301D677	3.3K OHM 1/10 W 5% 1608 R/T
		R541	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R542	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R543	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R544	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R545	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R546	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R547	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R548	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R549	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R555	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R556	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R557	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R560	0RJ4702D677	47000 OHM 1/10 W 5% 1608 R/
		R561	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R563	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R564	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R565	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R566	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R701	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R703	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R706	0RJ0752D677	75 OHM 1/10 W 5% 1608 R/TP
		R708	0RJ4700D677	470 OHM 1/10 W 5% 1608 R/TP
		R709	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R716	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R717	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R720	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R722	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R723	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R724	0RJ0332D677	33 OHM 1/10 W 5% 1608 R/TP
		R726	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP
		R727	0RJ1002D677	10K OHM 1/10 W 5% 1608 R/TP

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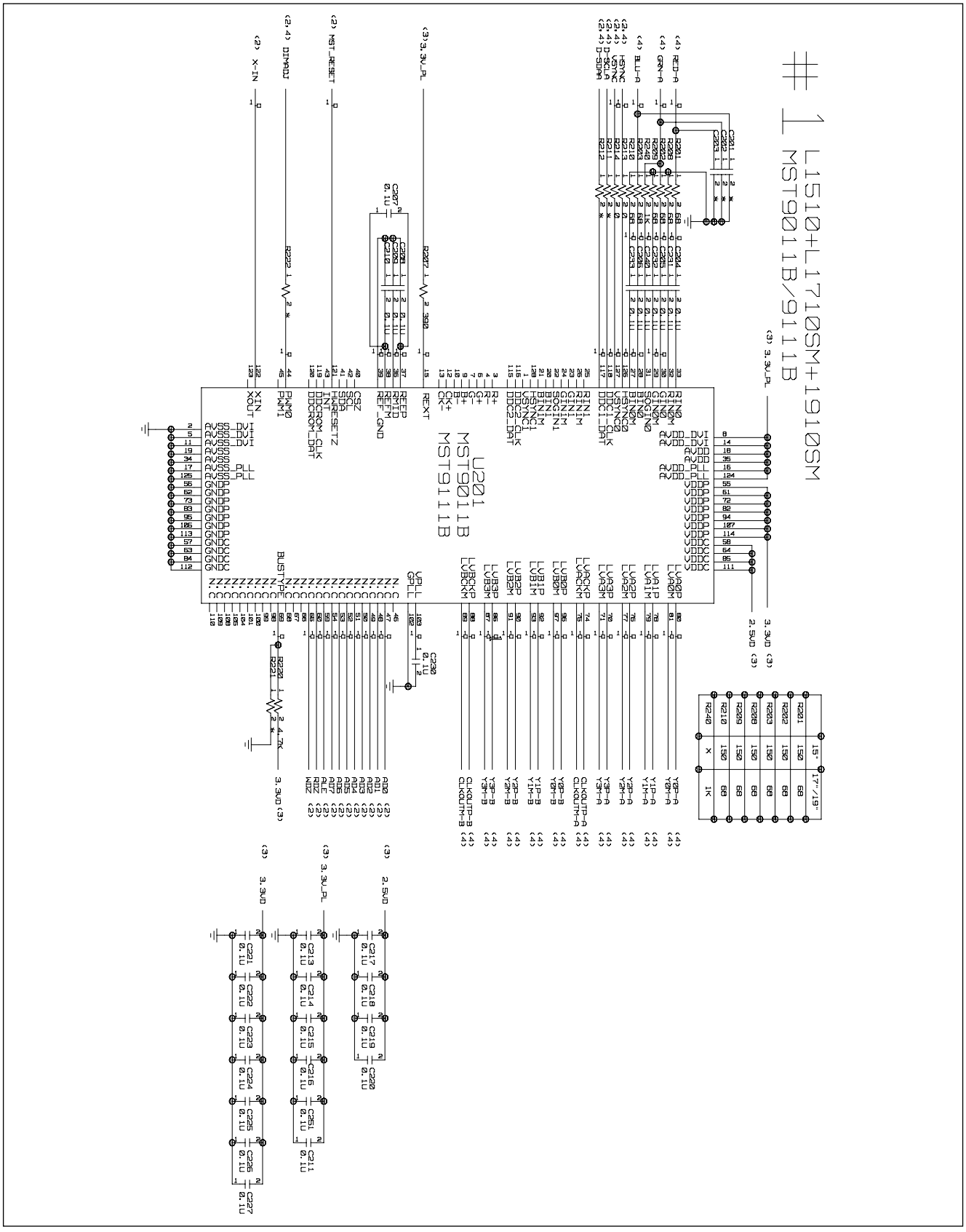
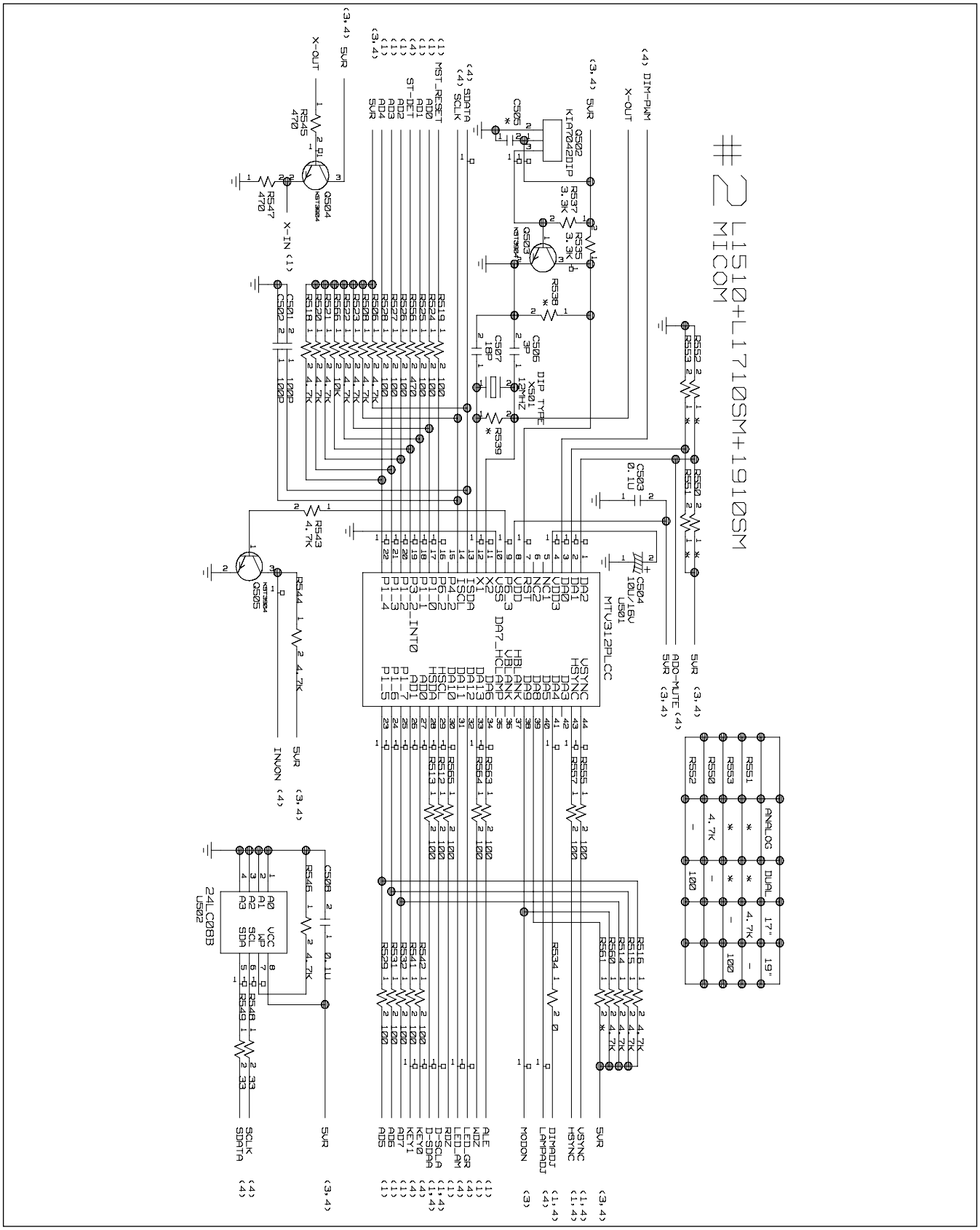
*S	*AL	LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
		R737	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R744	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R745	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R747	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R748	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R769	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R772	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R773	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R774	0RJ1001D677	1K OHM 1/10 W 5% 1608 R/TP
		R775	0RJ4701D677	4.7K OHM 1/10 W 5% 1608 R/T
		R779	0RJ0682D677	68 OHM 1/10 W 5% 1608 R/TP
		R780	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R781	0RJ2001D677	2K OHM 1/10 W 5% 1608 R/TP
		R782	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R783	0RJ0102D677	10 OHM 1/10 W 5% 1608 R/TP
		R803	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R807	0RJ1000D677	100 OHM 1/10 W 5% 1608 R/TP
		R808	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R810	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R814	0RJ2202D677	22K OHM 1/10 W 5% 1608 R/TP
		R815	0RJ5600D677	560 OHM 1/10 W 5% 1608 R/TP
		R821	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R822	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
		R824	0RJ0000D677	0 OHM 1/10 W 5% 1608 R/TP
	OTHERs			
		X501	6212AA2004A	HC-49U TXC 12.0MHZ +/- 30 P
	CONTROL BOARD			
		R1	0RD4701Q609	4.70K 1/4W(3 5% TA52
		R2	0RD4701Q609	4.70K 1/4W(3 5% TA52
		R3	0RD1501Q609	1.50K 1/4W(3 5% TA52
		R4	0RD1501Q609	1.50K 1/4W(3 5% TA52
		R5	0RD3301Q609	3.30K 1/4W(3 5% TA52
		R6	0RD3301Q609	3.30K 1/4W(3 5% TA52
		R7	0RD9101Q609	9.10K 1/4W(3 5% TA52
		SW1	140-058E	SKHV10910B LGEC NON 12V 20A
		SW2	140-058E	SKHV10910B LGEC NON 12V 20A
		SW3	140-058E	SKHV10910B LGEC NON 12V 20A
		SW4	140-058E	SKHV10910B LGEC NON 12V 20A
		SW5	140-058E	SKHV10910B LGEC NON 12V 20A
		SW6	140-058E	SKHV10910B LGEC NON 12V 20A
		SW7	140-058E	SKHV10910B LGEC NON 12V 20A
		ZD1	0DZ560009AG	GDZJ5.6B TP GRANDE DO-34 50
		ZD2	0DZ560009AG	GDZJ5.6B TP GRANDE DO-34 50
		LED1	0DLLT0089AA	LITEON LTL-1BEDJ-0C2 TP GRE

SCHEMATIC DIAGRAM

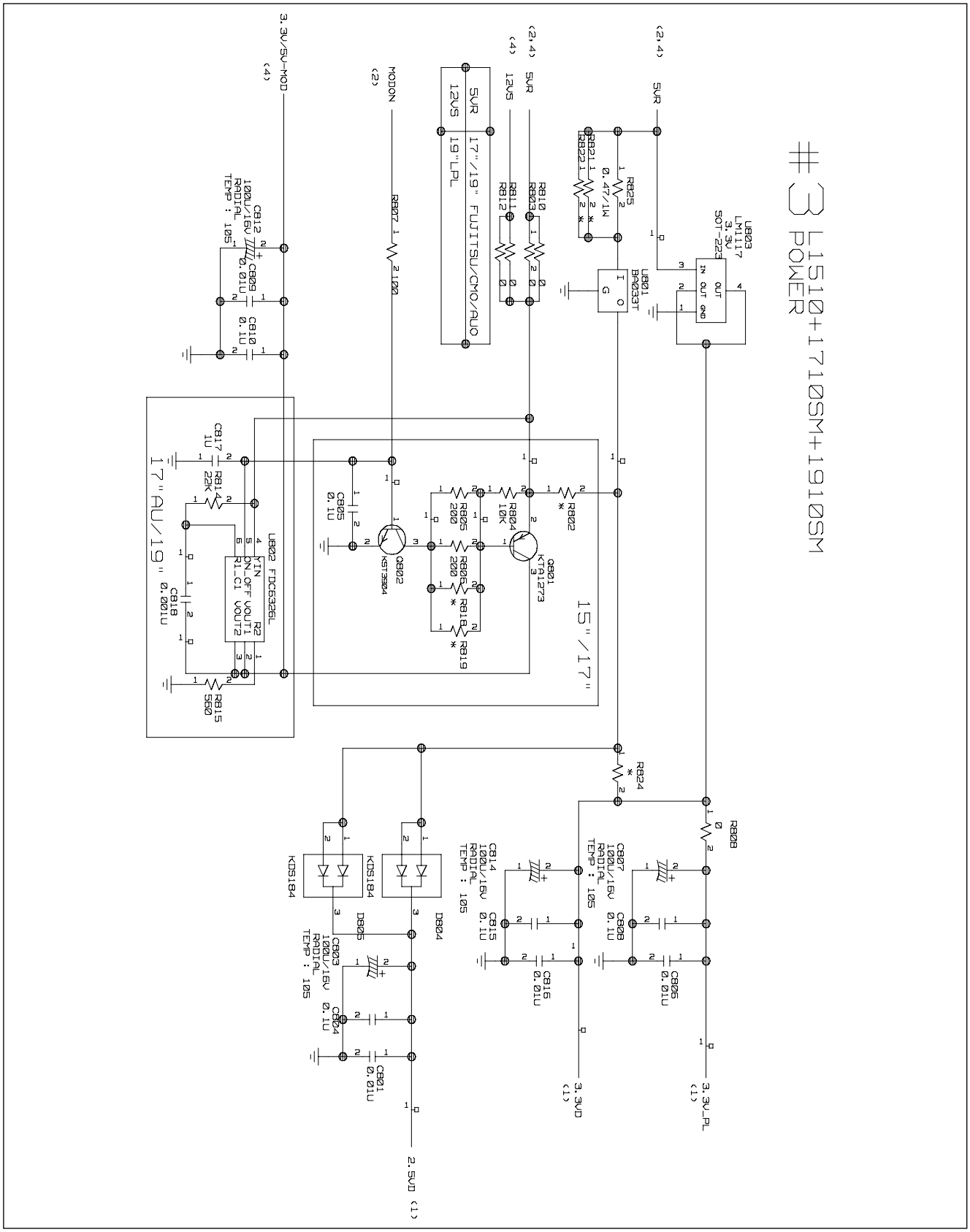
1. SCALER



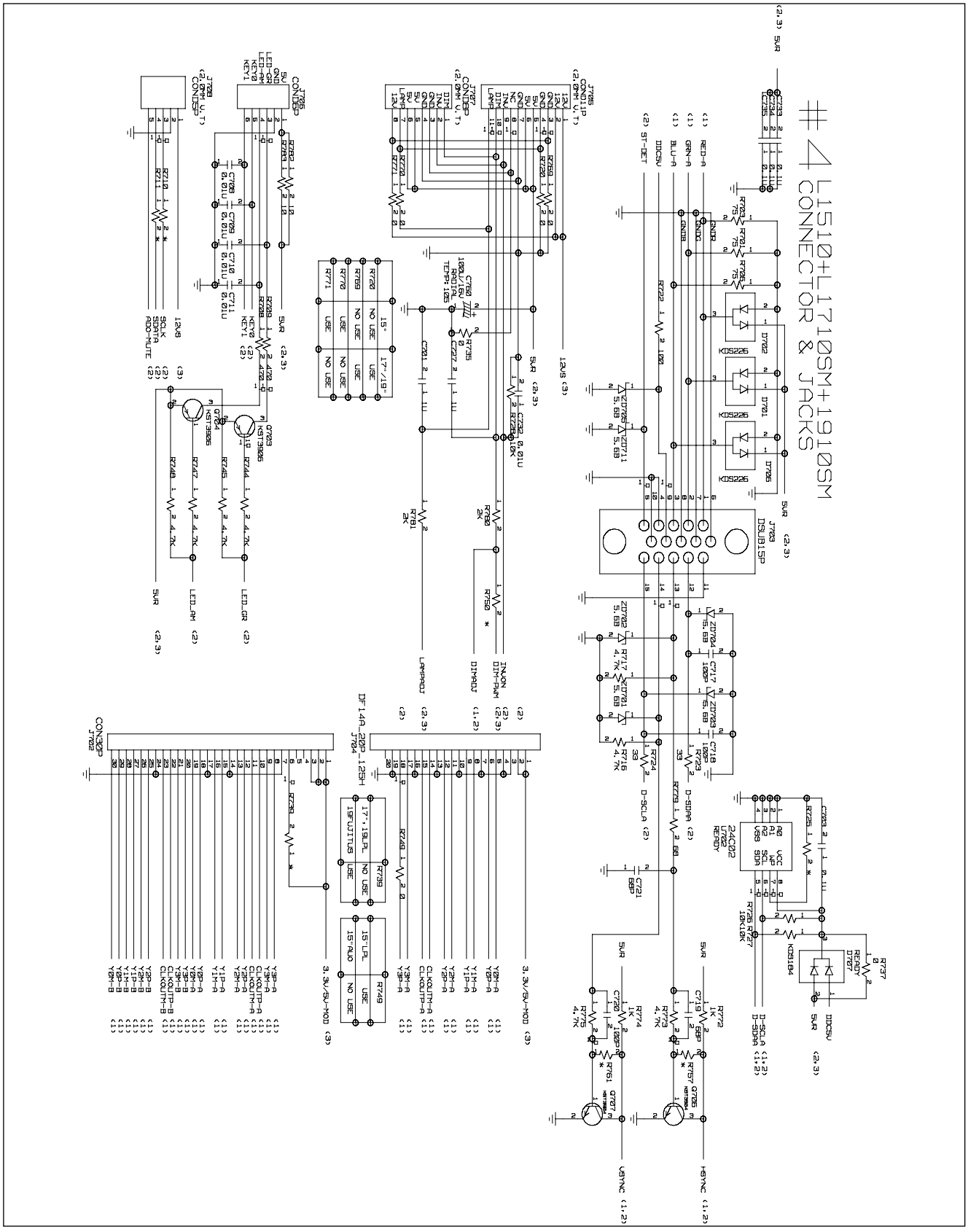
2. MICOM


#2 L1510+L1710SM+1910SM
MTV312PLCC
U501
24LC08B
U502
Q502
KIA7042DIP
Q503
Q504
Q505
X501
12MHZ
DIP TYPE
ANALOG
DUAL
17"
19"
4.7K
100
5VR
ADD-MUTE
DIM-PWM
X-OUT
X-IN
SDATA
SCLK
MST_RESET
INVON
MODON
VSYNC
HSYNC
DIMADJ
LAMPADJ
ALE
WDZ
LED_GR
LED_AM
RDZ
D-SCLA
D-SDAA
KEY0
KEY1
SCLK
SDATA

3. POWER


#3 L1510+1710SM+1910SM POWER
5VR
12VS
MODON
3.3V/5V-MOD
17"/19" FUJITSU/CMO/AUO
19"LPL
15"/17"
17"AU/19"
U803 LM1117 3.3V SOT-223
U801 BA033T
U802 FDC6326L
Q802 KST3904
Q801 KTA1273
KDS184
3.3VD (1)
3.3V_PL (1)
2.5VD (1)

4. CONNECTOR/JACKS



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