

SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. Check that all control knobs, shields, covers, grounds, and mounting hardware have been replaced. Be sure to replace all insulators and restore proper lead dress.

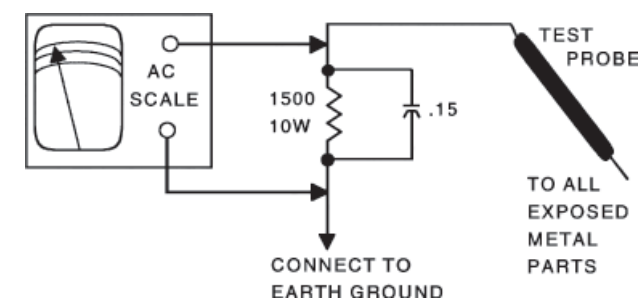
SAFETY CHECKS — FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15μF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) Use an AC voltmeter with at least 5000 ohms per volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point. Voltage measurements should not exceed .75VAC, 500μA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by SAMS Technical Publishing, LLC as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to SAMS Technical Publishing, LLC by the manufacturers of the specific type of replacement part listed.

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QUICKFACT™ FROM PHOTOFACT® Technical Service Data
LCD SERIES

ZENITH
MODEL Z32LC2D/DA (CHASSIS LA63E)
(WITH POWER SUPPLY 6709900016)



Representative Model

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THIS IS A GREEN PRODUCT

Do not use lead based solder for repair. Use only green product parts for replacement.

For a Complete List of Manuals,
Visit www.samswebsite.com

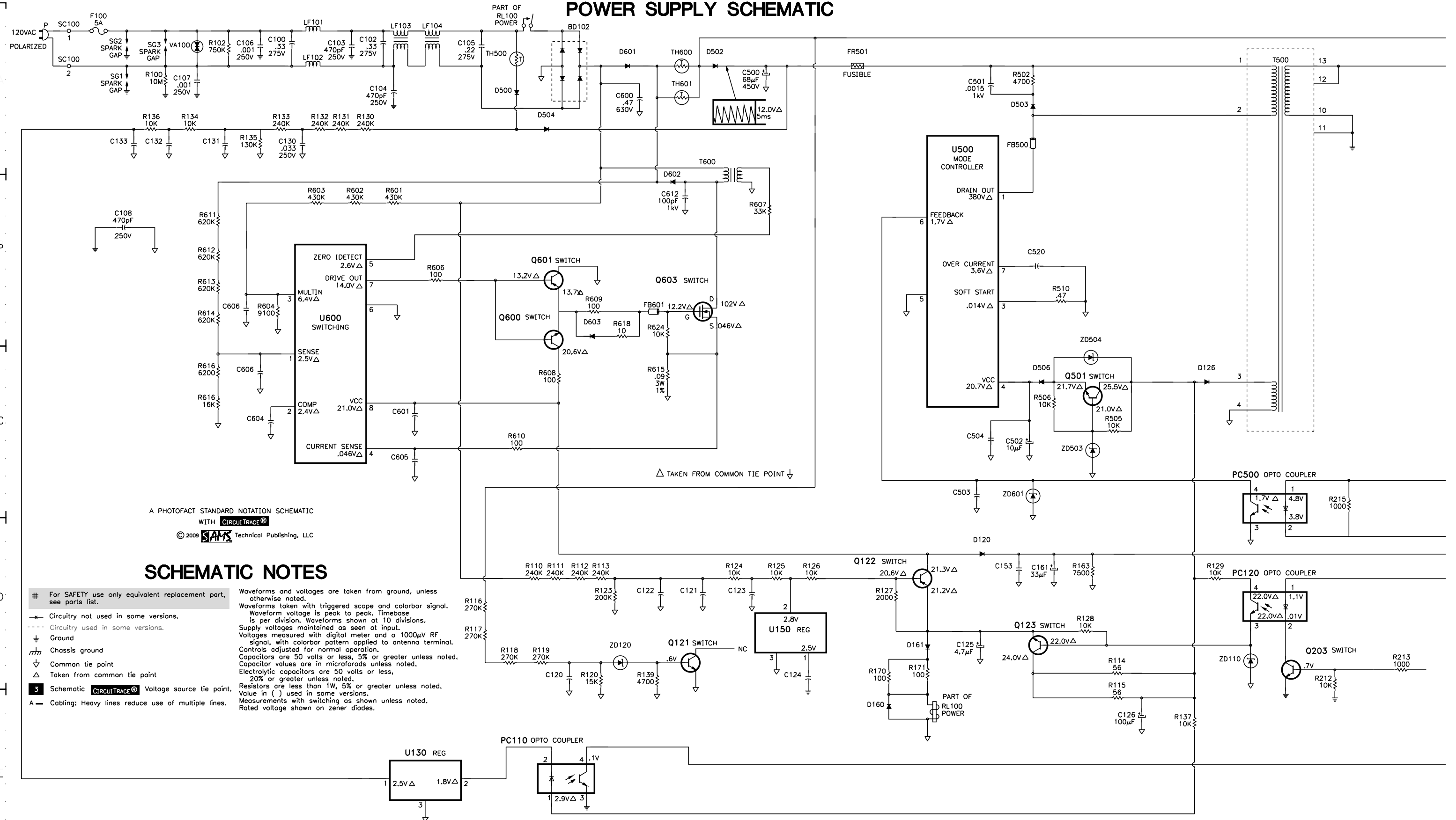


MARCH 2009 SET 5445

A

POWER SUPPLY SCHEMATIC

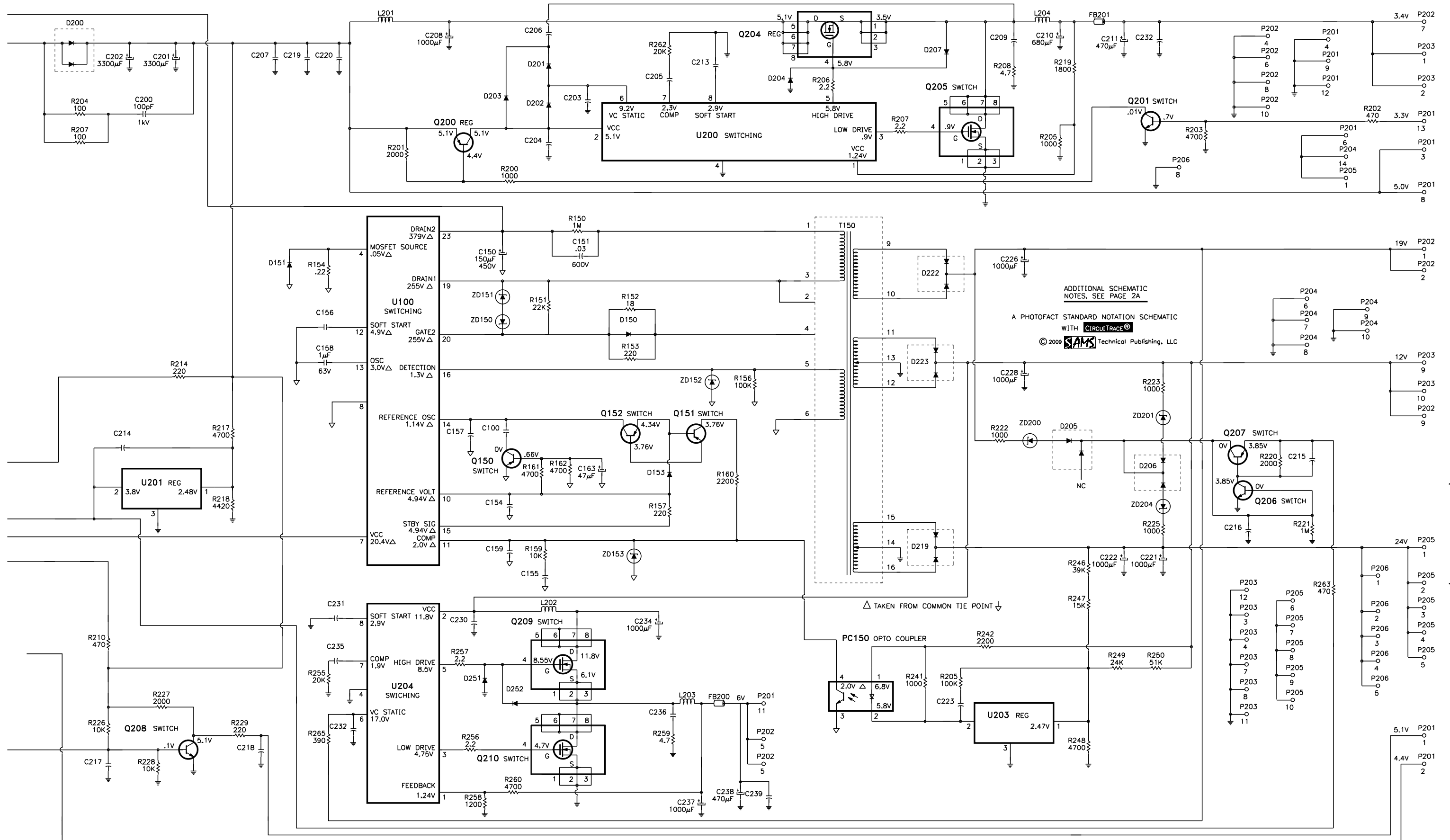
B



C

POWER SUPPLY SCHEMATIC continued

D



MISCELLANEOUS ADJUSTMENTS

SCHEMATIC COMPONENT LOCATION GUIDE

BD102	A4	C220	A10	D503	A6	R114	D7	R214	C9	R624	C4
C100	A2	C221	D15	D504	A4	R115	E7	R215	C8	RL100	A3
C100	C11	C222	D15	D506	C6	R116	D3	R217	C10	RL100	E6
C102	A3	C223	E14	D601	A4	R117	D3	R218	D10	SG3	A1
C103	A2	C226	B14	D602	B4	R118	D3	R219	A14	T150	B13
C104	A3	C228	C14	D603	C4	R119	D3	R220	C16	T500	A8
C105	A3	C230	D11	F100	A1	R120	D4	R221	D16	T600	B5
C106	A2	C231	D10	FB200	E12	R123	D4	R222	C14	TH500	A3
C107	A2	C232	A15	FB201	A14	R124	D5	R223	C15	TH600	A4
C108	B1	C232	E10	FB500	A6	R125	D5	R225	D15	TH601	A4
C120	D4	C234	D12	FB601	B4	R126	D5	R226	E9	U100	C11
C121	D4	C235	D10	FR501	A5	R127	D5	R227	E9	U130	E3
C122	D4	C236	E12	L201	A10	R128	D7	R228	E9	U150	D5
C123	D5	C237	E12	L202	D11	R129	D7	R229	E10	U200	B12
C124	D5	C238	E12	L203	E12	R130	A2	R241	E13	U201	C9
C125	D6	C239	E13	L204	A14	R131	A2	R242	D14	U203	E14
C126	E7	C500	A5	LF101	A2	R132	A2	R246	D14	U204	E11
C130	A2	C501	A6	LF102	A2	R133	A2	R247	D14	U500	B6
C131	A2	C502	C6	LF103	A3	R134	A1	R248	E14	U600	B2
C132	A1	C503	C6	LF104	A3	R135	A2	R249	E15	VA100	A2
C133	A1	C504	C6	P	A1	R136	A1	R250	E15	ZD110	D7
C150	B11	C520	B6	PC110	E4	R137	E7	R255	E10	ZD120	D4
C151	B12	C600	A4	PC120	D8	R139	D4	R256	E11	ZD150	C11
C153	D6	C601	C3	PC150	D13	R150	B12	R257	E11	ZD151	B11
C154	D11	C604	C2	PC500	C8	R151	B11	R258	E11	ZD152	C12
C155	D11	C605	C3	Q121	D4	R152	C12	R259	E12	ZD153	D12
C156	C10	C606	B2	Q122	D6	R153	C12	R260	E11	ZD200	C14
C157	C11	C606	C2	Q123	D6	R154	B10	R262	A12	ZD201	C15
C158	C10	C612	B4	Q150	C11	R156	C13	R263	D16	ZD204	D15
C159	D11	D120	D6	Q151	C12	R157	D12	R265	E10	ZD503	C7
C161	D6	D126	C7	Q152	C12	R159	D11	R502	A6	ZD504	C7
C163	C12	D150	C12	Q200	B11	R160	C12	R505	C7	ZD601	C6
C200	A9	D151	B10	Q201	A15	R161	C11	R506	C6		
C201	A9	D153	C12	Q203	D8	R162	C12	R510	B6		
C202	A9	D160	E5	Q204	A13	R163	D7	R601	B3		
C203	A12	D161	D6	Q205	A14	R170	D5	R602	B2		
C204	B11	D200	A9	Q206	D15	R171	D6	R603	B2		
C205	A12	D201	A11	Q207	C15	R200	B11	R604	B2		
C206	A11	D202	A11	Q208	E9	R201	B11	R606	B3		
C207	A10	D203	A11	Q209	D11	R202	A16	R607	B5		
C208	A11	D204	A13	Q210	E11	R203	B15	R608	C4		
C209	A14	D205	C14	Q501	C7	R204	A9	R609	B4		
C210	A14	D206	C15	Q600	C4	R205	B14	R610	C3		
C211	A15	D207	A14	Q601	B4	R205	E14	R611	B2		
C213	A12	D219	D14	Q603	B4	R206	A13	R612	B2		
C214	C9	D222	B14	R100	A1	R207	B13	R613	B2		
C215	C16	D223	C14	R102	A2	R207	B9	R614	B2		
C216	D15	D251	E11	R110	D3	R208	A14	R615	C4		
C217	E9	D252	E11	R111	D4	R210	D9	R616	C2		
C218	E10	D500	A3	R112	D4	R212	D8	R616	C2		
C219	A10	D502	A4	R113	D4	R213	D8	R618	C4		

Entering the calibration mode

Hold menu key down for approximately 10 seconds
Enter password (8741)

Example screen below

Calibration DTV, AV1, AV2, Component 1, Component 2, RGB-PC, HDMI/DVI, HDMI2, Analog

Pic.Mode Expert1/Expert2

1. Contrast 90
2. Brightness 50
3. Color 50
4. Tint 0
5. Sharpness 50
6. R Gain 192
7. G Gain 184
8. B Gain 161
9. R Offset 64
10. G Offset 64
11. B Offset 64

POS/SIZE ADJUST

1. H Position 0
2. V Position 0
3. H Size 0
4. V Size 0

DEFAULT LOAD NO/YES
(Yes sets factory default values)

Count 1

Exiting hold menu key down for approximately 10 seconds
The Enter password prompt will appear and time out in a few seconds.

TO ENTER EZ ADJUST MODE

(Using the sets remote)
Press menu key on the set first and the menu key on remote second and hold both for approximately 10 seconds.

(Using the Service Remote Press the adjust key)

EZ ADJUST

1. CVBS ACC ADJUST (Unhighlighted)
2. ADC 480i Comp1
3. ADC 1080i Comp1/RGB
4. Reserved (Unhighlighted)

5. Sub-Brightness/Contrast
6. White-Balance
7. Module Control (Unhighlighted)
8. Temperature Threshold (Unhighlighted)
9. White-Pattern Press “Enter” and Right arrow to view: White, R, G, B, Blk, Gray, screen.
10. 2 Hour Off Option
11. OAD

The selections that are (Unhighlighted) cannot be selected.

TO ENTER IN-START MODE

(Using the sets remote)
Press menu key on the remote first and the menu key on set second and hold both for approximately 10 seconds.

Or:Use the Service Remote Press the IN-START key.

IN-START MODE

MODEL : Z32LC2D/DA S/W Ver : 03:06 Mic. Ver: V3.06

UTT : 5 PQ Ver : 02.10.00 PQ Model:Z32LC2D/DA

COMP 480i : OK COMP 1080i : OKRGB 1080i : OK

1. MST3361 BANKO

2. MST3361 BANK1

3. Spread Spectrum Control

4. Model Info.

5. Reserved

6. PowerOffStatus

7. BaudRate

8. ADC Adj. Data

9. Reserved

10. Sub B/C Data

11. WB Adj. Data

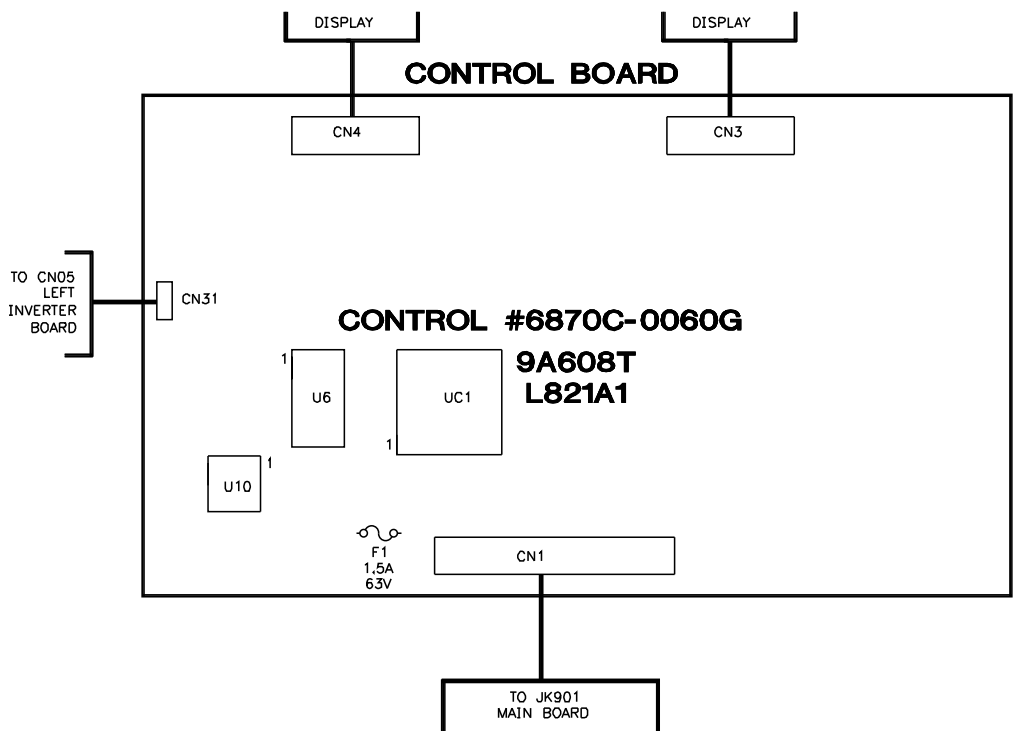
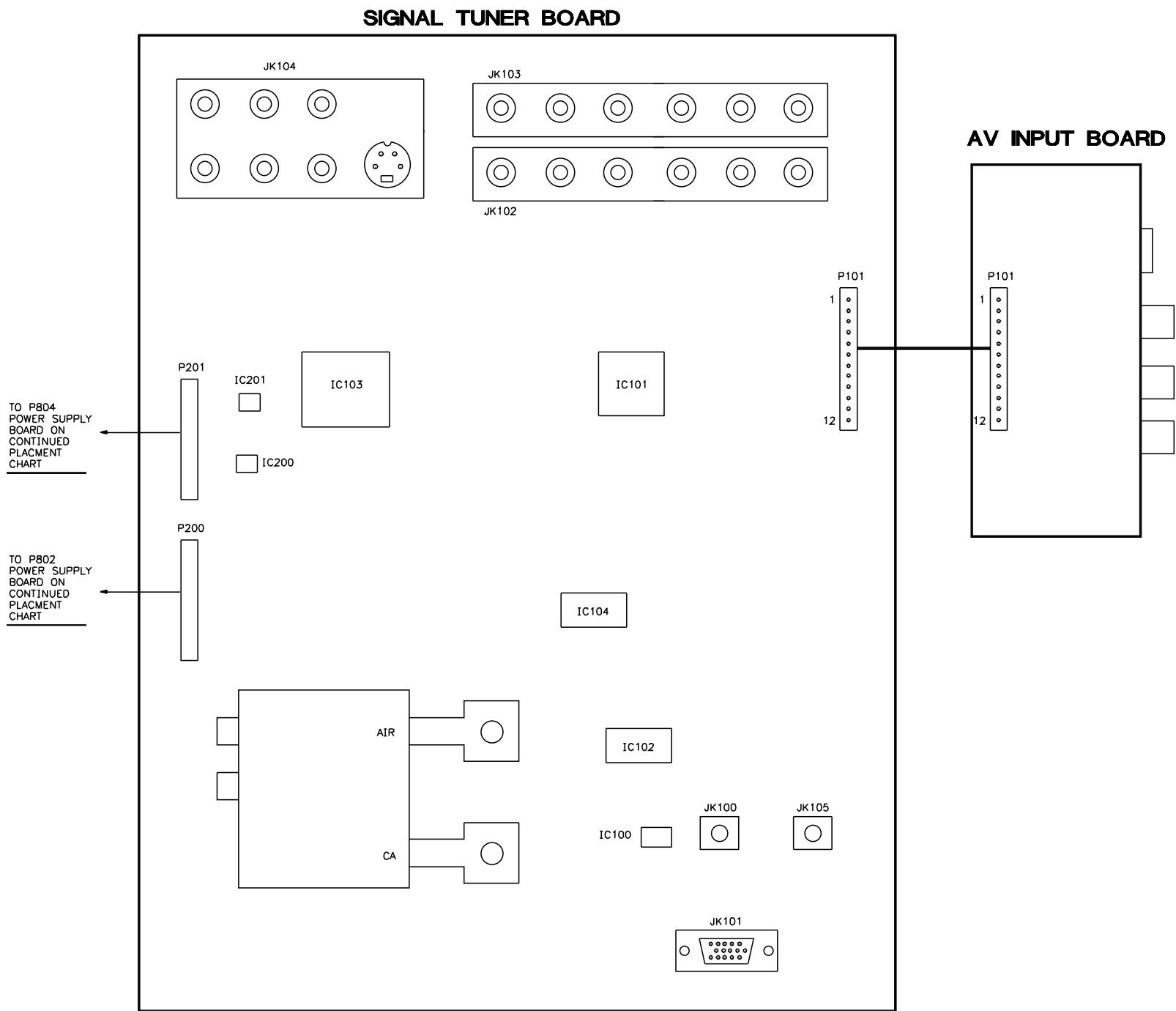
12. Image Position & Size

The selections that are (Unhighlighted) cannot be selected.

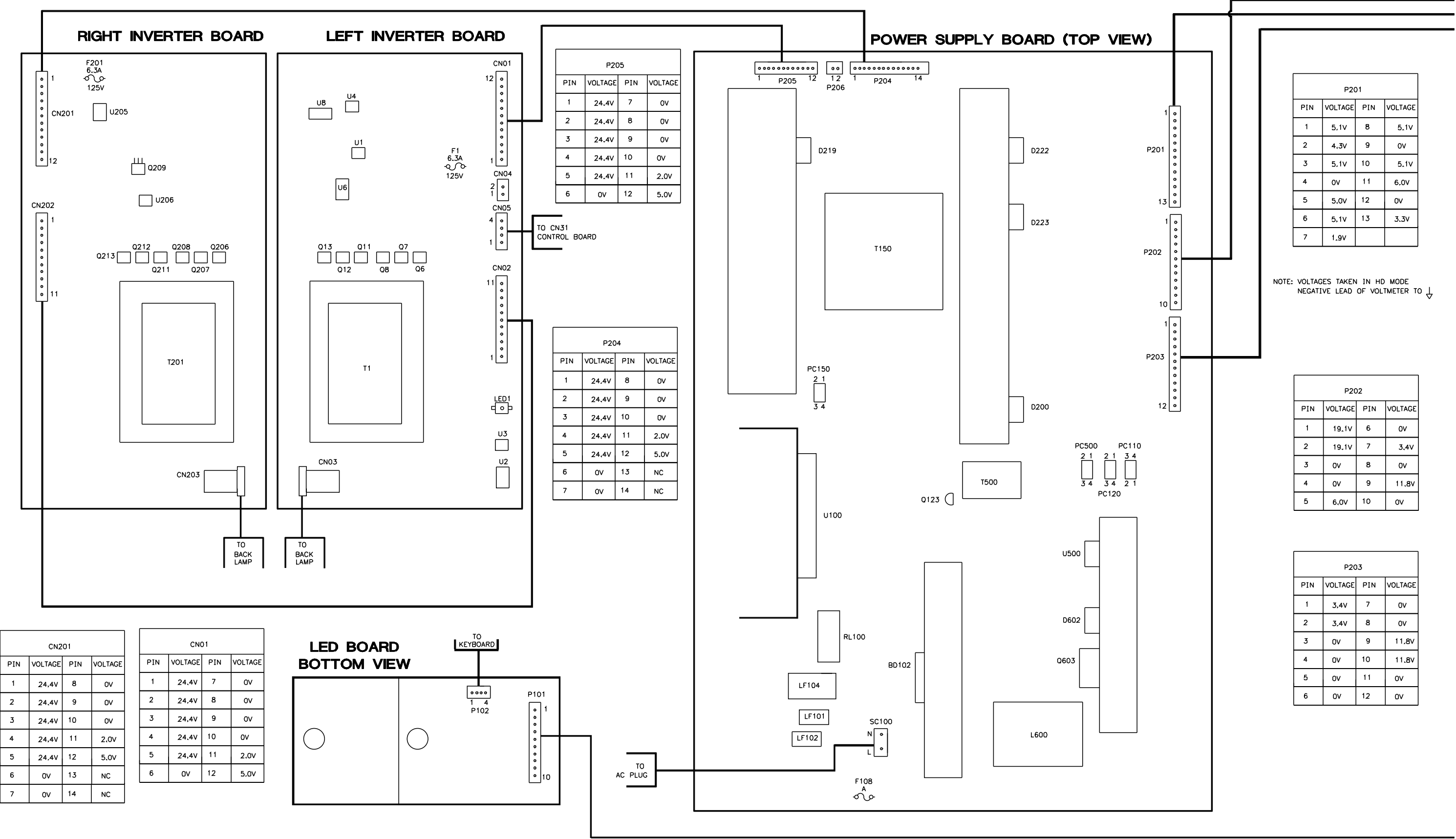
Arrow down & press “Enter” on remote to select parameter.
Left or Right arrows to change value.

Press “Menu” to exit.

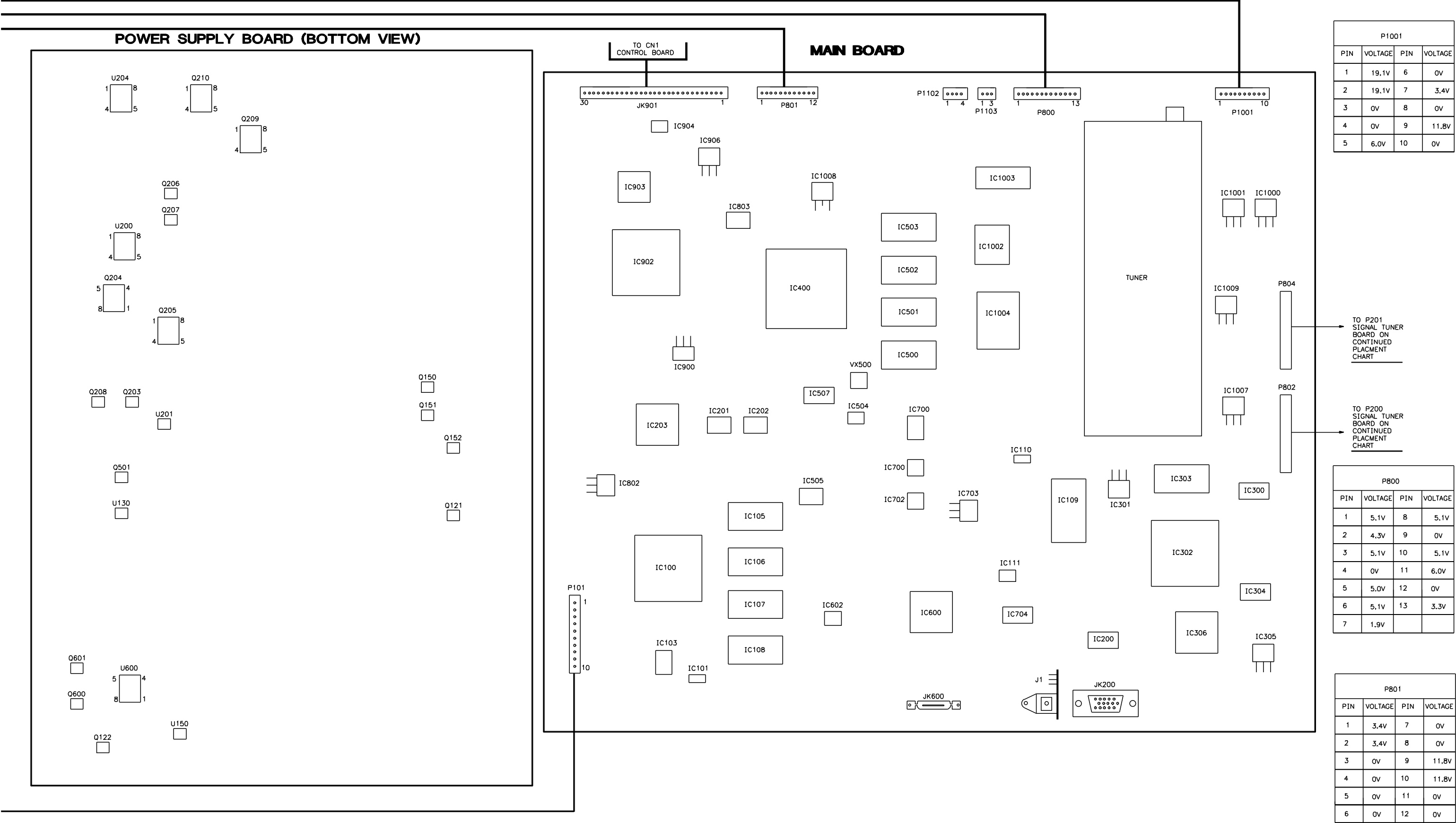
PLACEMENT CHART



PLACEMENT CHART (VOLTAGES)



PLACEMENT CHART (VOLTAGES) continued



P1001

PIN	VOLTAGE	PIN	VOLTAGE
1	19.1V	6	0V
2	19.1V	7	3.4V
3	0V	8	0V
4	0V	9	11.8V
5	6.0V	10	0V

P800

PIN	VOLTAGE	PIN	VOLTAGE
1	5.1V	8	5.1V
2	4.3V	9	0V
3	5.1V	10	5.1V
4	0V	11	6.0V
5	5.0V	12	0V
6	5.1V	13	3.3V
7	1.9V		

P801

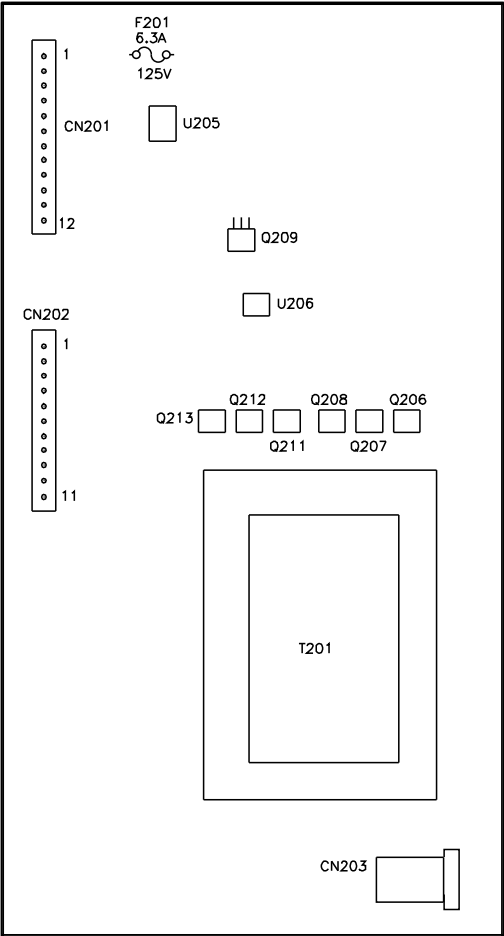
PIN	VOLTAGE	PIN	VOLTAGE
1	3.4V	7	0V
2	3.4V	8	0V
3	0V	9	11.8V
4	0V	10	11.8V
5	0V	11	0V
6	0V	12	0V

ZENITH

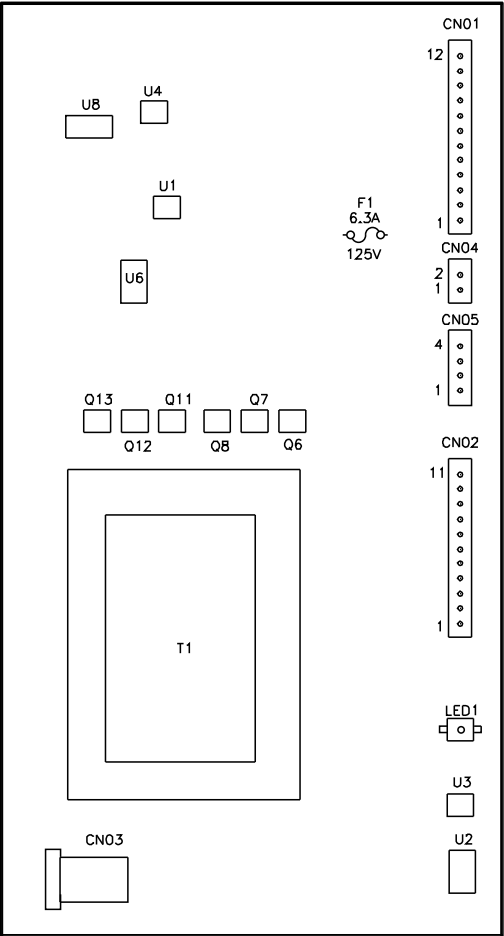
MODEL Z32LC2D/DA (CHASSIS LA63E)

PLACEMENT CHART (RESISTANCES)

RIGHT INVERTER BOARD



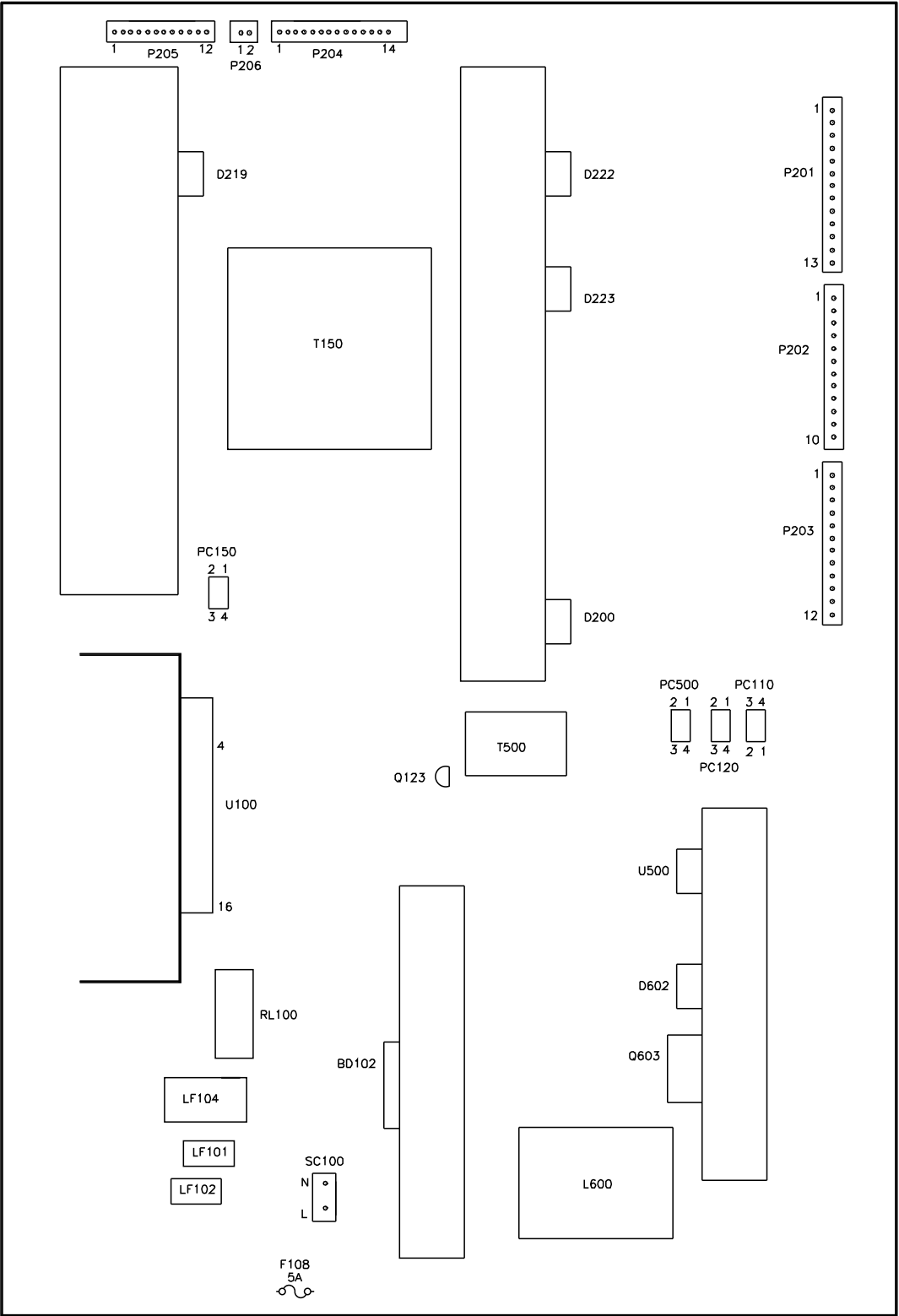
LEFT INVERTER BOARD



P205			
PIN	RES	PIN	RES
1	~	7	GND
2	~	8	GND
3	~	9	GND
4	~	10	GND
5	~	11	66K
6	GND	12	71.8K

P204			
PIN	RES	PIN	RES
1	13K	8	GND
2	13K	9	GND
3	13K	10	GND
4	13K	11	~
5	13K	12	~
6	GND	13	NC
7	GND	14	NC

POWER SUPPLY BOARD (TOP VIEW)



P201			
PIN	RES	PIN	RES
1	4.8K	8	3.8K
2	11K	9	GND
3	3.3K	10	~
4	GND	11	5.5K
5	~	12	GND
6	~	13	5K
7	~		

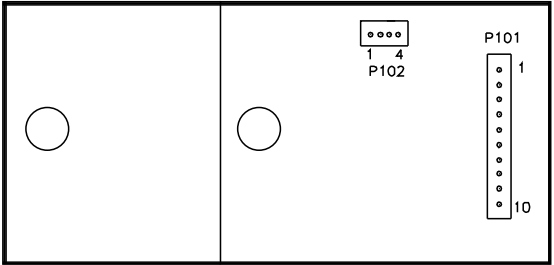
P202			
PIN	RES	PIN	RES
1	18K	6	GND
2	18K	7	2.6K
3	GND	8	GND
4	GND	9	15K
5	5.5K	10	GND

P203			
PIN	RES	PIN	RES
1	2.8K	7	GND
2	2.8K	8	GND
3	GND	9	13K
4	GND	10	13K
5	6K	11	GND
6	6K	12	GND

CN201			
PIN	RES	PIN	RES
1	13K	8	GND
2	13K	9	GND
3	13K	10	GND
4	13K	11	~
5	13K	12	~
6	GND	13	NC
7	GND	14	NC

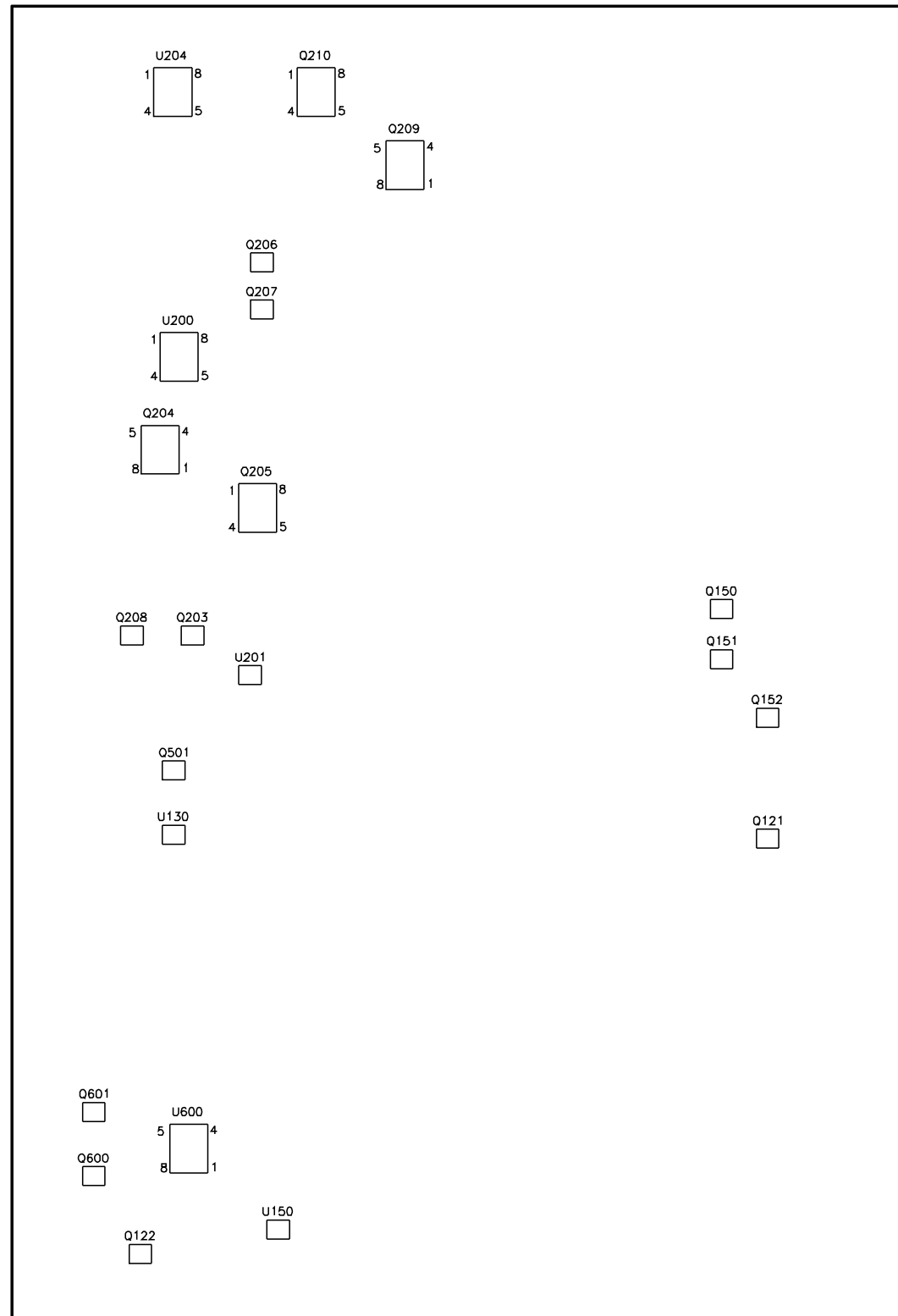
CN01			
PIN	RES	PIN	RES
1	~	7	GND
2	~	8	GND
3	~	9	GND
4	~	10	GND
5	~	11	66K
6	GND	12	71.8K

LED BOARD
BOTTOM VIEW

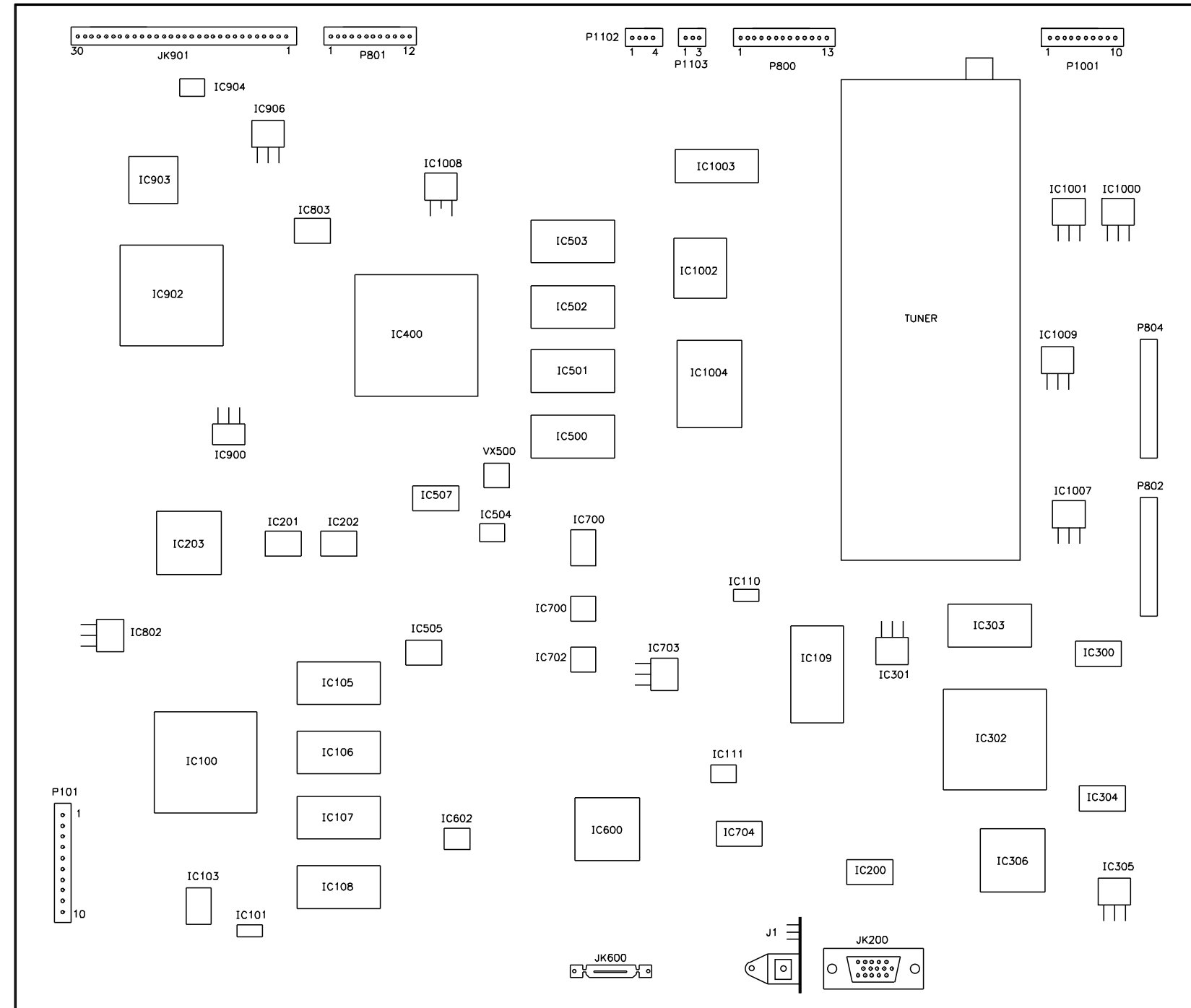


PLACEMENT CHART (RESISTANCES) continued

POWER SUPPLY BOARD (BOTTOM VIEW)



MAIN BOARD



P1001			
PIN	RES	PIN	RES
1	18K	6	GND
2	18K	7	2.6K
3	GND	8	GND
4	GND	9	15K
5	5.5K	10	GND

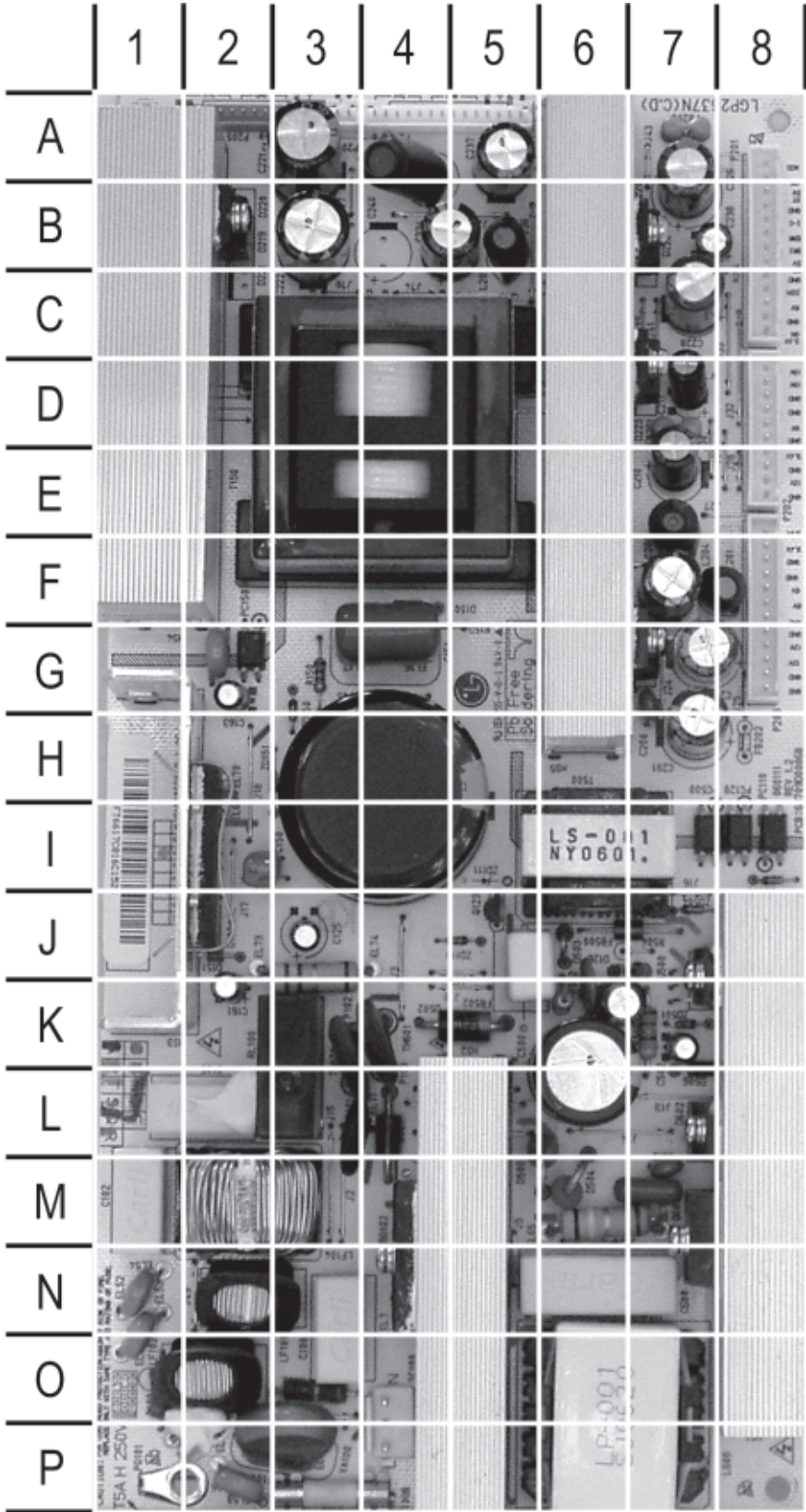
P800			
PIN	RES	PIN	RES
1	4,8K	8	3,8K
2	11K	9	GND
3	3,3K	10	~
4	GND	11	5,5K
5	~	12	GND
6	~	13	5K
7	~		

P801			
PIN	RES	PIN	RES
1	2.8K	7	GND
2	2.8K	8	GND
3	GND	9	13K
4	GND	10	13K
5	6K	11	GND
6	6K	12	GND

ZENITH

MODEL Z32LC2D/DA (CHASSIS LA63E)

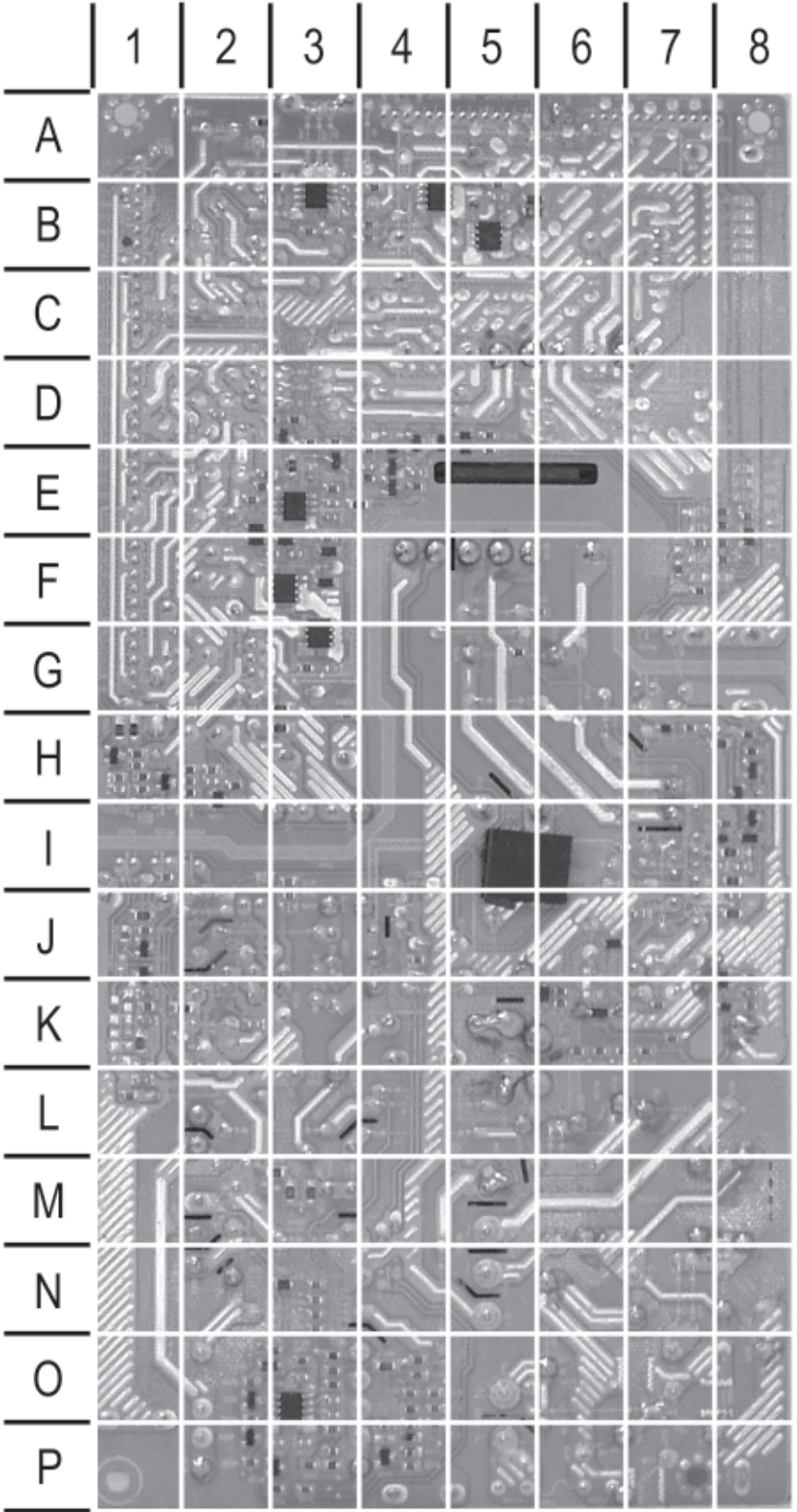
POWER SUPPLY BOARD TOP



POWER SUPPLY BOARD TOP, GRIDTRACE LOCATION GUIDE

BD102	M4	C210	D7	D500	L6	P202	D8	SC100	P4
C100	N3	C211	D7	D502	K5	P203	E8	T150	E3
C102	M1	C221	A3	D503	J6	P204	A4	T500	I6
C103	N1	C222	B3	D504	M6	P205	A2	TH500	L3
C104	N1	C226	A7	D506	L7	P206	A3	TH600	K3
C105	L2	C228	C7	D601	L4	PC110	I8	TH601	K4
C106	P2	C234	B4	D602	L7	PC150	G2	U100	H2
C107	O2	C237	A5	F100	P3	PC500	I7	U500	J7
C108	G2	C238	B7	FB200	A7	Q123	J5	VA100	P3
C125	J3	C500	K6	FB201	D7	Q205	G3	ZD110	J5
C126	K6	C501	K6	FB500	J7	Q603	M7	ZD150	G3
C130	M7	C502	K7	FR501	J5	R100	O1	ZD151	G3
C150	H4	C600	N6	L202	B5	R102	O3	ZD501	K7
C151	G4	C612	M7	L203	A4	R150	G3	ZD504	J7
C158	I2	D126	J7	L204	E7	R153	G4		
C161	K2	D150	F4	L600	O6	R154	J3		
C163	G2	D151	J2	L201	F8	R214	H2		
C200	G7	D200	G7	LF101	N2	R502	K6		
C201	H7	D219	B2	LF102	O2	R510	K7		
C202	G7	D222	B7	LF104	M2	R615	M6		
C208	F7	D223	D7	P201	A8	RL100	K3		

POWER SUPPLY BOARD BOTTOM



POWER SUPPLY BOARD BOTTOM, GRIDTRACE LOCATION GUIDE									
C120	K8	C601	P3	R113	O4	R203	D3	R505	J1
C121	P4	C602	O3	R114	J3	R204	H3	R506	J1
C122	P4	C604	O3	R115	I3	R205	E2	R601	O4
C123	P4	C605	O3	R116	K6	R206	E3	R602	O4
C124	P4	C606	P3	R117	K6	R207	F3	R603	O3
C131	L1	D120	J6	R118	K6	R208	G3	R604	O3
C132	K1	D153	I8	R119	K7	R209	G3	R606	P2
C133	K1	D160	K6	R120	K8	R210	H2	R607	O3
C153	J7	D161	K6	R122	K7	R212	H1	R608	P2
C154	J8	D201	F3	R123	O4	R213	H1	R609	O2
C155	H7	D202	E2	R124	P4	R215	H2	R610	O3
C156	I8	D203	E3	R125	P4	R217	H2	R611	N3
C157	I8	D204	F3	R126	P3	R218	H2	R612	N3
C159	I7	D205	D4	R127	P2	R219	E2	R613	N3
C160	H8	D206	D4	R128	J4	R220	E4	R614	N3
C203	E3	D207	F3	R129	I1	R221	E4	R616	P3
C204	E2	D251	B5	R130	M3	R222	E4	R617	P3
C205	E3	D252	B5	R131	M3	R223	E5	R618	O3
C206	F3	D603	O3	R132	M3	R225	D5	U130	J1
C207	G1	FB601	N3	R133	L1	R226	H1	U150	P4
C209	G3	Q121	J8	R134	K1	R227	H1	U200	E3
C212	D2	Q122	P2	R135	L1	R228	H1	U201	H2
C213	E3	Q150	H8	R136	K1	R229	H1	U203	F8
C214	H2	Q151	H8	R137	J1	R242	F7	U204	B3
C215	E4	Q152	I8	R139	J8	R244	F7	U600	O3
C216	E4	Q200	E3	R151	G5	R245	F8	ZD120	K8
C217	H1	Q201	D3	R152	F5	R246	E8	ZD152	I8
C218	A1	Q203	H1	R156	I8	R247	E8	ZD153	H7
C219	B1	Q204	F3	R157	J8	R248	E8	ZD200	E4
C220	C1	Q206	E4	R159	H7	R249	F8	ZD204	D5
C223	F8	Q207	E4	R160	H8	R250	F7		
C230	B3	Q208	H1	R161	H8	R256	B4		
C231	A3	Q209	B5	R162	H8	R257	A4		
C232	B3	Q501	J1	R163	K7	R258	B3		
C235	B5	Q600	P2	R170	K6	R269	B5		
C236	B3	Q601	O2	R171	K6	R260	A3		
C239	B1	R110	O4	R200	D3	R262	E3		
C503	K2	R111	O4	R201	D3	R263	H3		
C504	K1	R112	O4	R202	D3	R265	B3		

PARTS LIST

Item No.	Type No.	Mfr. Part No.	Notes
D100, 01, 02	-	-	-
D104, 05, 08	-	-	-
D120	1N4148W, X	-	Marking Code: T4
D126, 51	-	-	-
D153	1N4148W, X	-	Marking Code: T4
D160, 61	-	-	-
D200	FCH10U10	-	10A, 100V Dual Diode
D201 Thru			
D204	1N4148W, X	-	Marking Code: T4
D205, 06	BAV70	-	Marking Code: KJJ
D207	1N4148W, X	-	Marking Code: T4
D209	-	-	-
D213, 14	-	-	-
D219	FCH20U10	-	20A, 100V Dual Diode
D222, 23	FCW10U06	-	10A, 60V Dual Diode
D251, 52	1N4148W, X	-	Marking Code: T4
D500 Thru			
D506	-	-	-
D510	-	-	-
D601	-	-	-
D602	FFPF10UP60S	-	ULTRA FAST RECTIFIER
D603	1N4148W, X	-	Marking Code: T4
PC100	LTV-817B	-	OPTO-COUPLER
PC110	LTV-817B	-	OPTO-COUPLER
PC150	LTV-817B	-	OPTO-COUPLER
PC500	LTV-817B	-	OPTO-COUPLER
Q121	MMBT2222A	-	Marking Code: 1P
Q122	MMPT2907A	-	Marking Code: 2F
Q123	KSP2222A	-	-
Q150	MBT2222A	-	Mar king Code: 1P
Q151, 52	MMPT2907A	-	Marking Code: 2F
Q200	MMPT2907A	-	Marking Code: 2F
Q201	MMBT2222A	-	Marking Code: 1P
Q202	FDS6690A	-	N-CHANNEL MOSFET
Q203	MMBT2222A	-	Marking Code: 1P
Q204, 05	FDS6690A	-	N-CHANNEL MOSFET
Q206, 08	MMBT2222A	-	Marking Code: 1P
Q207	MMPT2907A	-	Marking Code: 2F
Q209, 10	IRF7807Z	-	HEX-FET MOSFET
Q501	MMBT2222A	-	Marking Code: 1P
Q600	MMBT2222A	-	Marking Code: 1P
Q601	MMPT2907A	-	Marking Code: 2F
Q603	STW20NM60	-	N-CHANNEL MOSFET
U100	F9223L	-	(Mfr. FE)
U130, 50	APR3021/2/3	-	Marking Code: 41B (Mfr. ANPEC)
U200	IRU3037CS	-	PWM Controller
U201, 03	APR3021/2/3	-	Marking Code: 41B (Mfr. ANPEC)
U204	IRU3037CS	-	PWM Controller
U500	STRW6251	-	STRW6735
U600	5501A	-	UCC38051D
VA100	TVR 14621	-	-
ZD110	-	-	-
ZD120	BZT52C2V4LP	-	Marking Code: WX
ZD150	-	-	-
ZD152	BZT52C5V6S	-	Marking Code: W9
ZD153	BZT52C10S	-	Marking Code: WF
ZD200	BZT52C22S	-	Marking Code: WN
ZD201	BZT52C15S	-	Marking Code: WJ
ZD204	BZT52C24S	-	Marking Code: WO
ZD501, 03, 04	1N5251	-	22v, 500mW

Item No.	Function/Rating	Mfr. Part No.	Notes
BD102	D3SBA60	-	4A, 600V
C201, 06	.01 1kV	-	-
C210, 19	.01 1kV	-	-
C501	.22 1kV	-	-
C509	.047 1kV	-	-
R615	.19 1% 3W	-	-
RL100	10A, 250vAC	-	SDT-S-118DMR
F100	5A, 250v	-	-
FB200, 01	Ferrite Bead	-	-
FB500	-	-	-
FB601	Ferrite Bead	-	-
FR501	-	-	-
L200	-	-	-
L202 Thru			
L206	-	-	-
L600	LP-001	-	-
L201	-	-	-
LF101, 02, 04	-	-	-
P100	Line Cord	-	AC, Polarized
T150	LM-001	-	-
T500	LS-001	-	-
TU4001	Tuner	EBL32758001	TDVS-H703P
TH500	DSC 8D-13	-	-
TH600, 01	DSC 15D-15	-	-
#	Panel	6304FAU022A	LCD
	PC Board	EBU3410101	Main
	PC Board	EBR31360201	Preamp/LED
#	PC Board	6709900016A	Power Supply
		6709900016C	Power Supply
	PC Board	68719ST899B	Key Board
	PC Board	EBR32682101	Side A/V
	Speaker's	EAB30827201	8Ohms 15W, 4X11mm
	Transmitter	-	Remote

Used Lead Free Solder.

Important Parts Information

- Parts not listed in the parts list are commonly available at your local electronics parts retailer.
- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.