

Service Manual

Model: BX518UC



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SPECIFICATIONS

Model No: CD127 (PLL)

Date:2012-8-10

Section AM

Pate: 1 of 6

Measuring Items	Condition	Unit	Normal	Limit	Test Data		
					1	2	3
Frequency Range	Low End	KHz	522	+/-10			
	High End	KHz	1602	+/-20			
Intermediate Frequency		KHz	465	+/-5			
Max. Sensitivity	603KHz	dB	80	86			
	999KHz	dB	80	86			
	1404KHz	dB	80	86			
-20dB Quieting S/N Sensitivity	603KHz	dB	88	96			
	999KHz	dB	88	96			
	1404KHz	dB	88	96			
Dial Calibration	603KHz	KHz		30			
	999KHz	KHz		40			
	1404KHz	KHz		50			
IF Rejection	603KHz	dB	40	35			
Image Rejection	1404KHz	dB	30	25			
Distortion at Standard Output	999KHz	%	3	5			
RF Overload Distortion at 100Db/M	Mod. 30%	%	3	3			
	Mod. 80%/60%	%	6	10			
10% THD Max. Output Power at 80% Mod	999KH	W	1.2				
Distortion at Max Volume AII Controls Max	Mod. 30%	%					
	Mod. 80%/60%	%		25			
-6Db Audio Fidelity Frequency Response	LOW	Hz	100	150			
	High	KHz	2.5	2.2			
Bandwidth -6dB	999KHz	KHz		4-11			
S/N Ratio at 5Mv/M Input	999KHz	dB	35	30			
Tweet (Whistle) at 5Mv/M	2nd IF	%		7			
	3rd IF	%		7			
ACA +/-10KHz	999KHz	dB	26	20			
Modulation Hum	999KHz	dB	40	35			
Noise Output (Hum and Noise)	Min. Volume	mV		3			
AGC/Figure of Merit Effect 100Mv/M	999KHz	dB	40	35			
Auto Tuning Stop(Seek)Sensitivity	603KHz	dB		98			
	999KHz	dB		98			
	1404KHz	dB		98			
Fall Out Voltage (AC)	999KHz	%		<70			
Fall Out Voltage (DC)	999KHz	%		<70			

Test Conditions

Approved By: ZHANGJIAN YANG

1. Supply Voltage : AC
2. Standard Output : 50Mw
3. Speaker Impedance: 4 OHM

SPECIFICATIONS

Model No CD127 (PLL)
Section: FM TUNER

Date:2012-08-10
Page: 2 of 6

Measuring Items	Condition	Unit	Normal	Limit	Test Data		
					1	2	3
Tuning Frequency Range	Low End	MHz	64	+/-0.5			
	High End	MHz	108	+/-0.5			
Intermediate Frequency		MHz	10.7	+/-0.1			
Max. Sensitivity	68MHz	dB		20			
	98MHz	dB		20			
	106MHz	dB		20			
-30dB Quieting S/N Sensitivity	68MHz	dB		26			
	98MHz	dB		26			
	106MHz	dB		26			
Dial Calibration	68MHz	MHz		0.5			
	98MHz	MHz		0.5			
	106MHz	MHz		0.5			
IF Rejection	68MHz	dB	40	35			
Image Rejection	106MHz	dB	26	20			
AM Rejection	98MHz	dB	40	30			
RF Overload Distortion:100dB 75KHz Dev	98MHz	%	3	4			
10%THD Output Power 75KHz Dev	98MHz	W	1.2				
AC 127V input 10%THD Output value	75KHz Dev 60dB	W					
Maximum o/p	75KHz Dev 60dB	W	2	1.8			
Distortion at Max Volume 22.5KHz Dev	98MHz	%		10			
	98MHz	%		25			
-6dBAudio Fidelity	Low Freq	Hz	100	150			
	High Freq	KHz	4.5	4			
-3dB Limiting Sensitivity	98MHz	dB	30	35			
Distortion at Ref Output,75KHz Dev	98MHz	%	1	3			
S/N Ratio with 1mV	98MHz	dB	50	40			
Modulation Hum	98MHz	dB	55	45			
Noise Output (Hum and Noise)	Max Vol	mV		500			
	Min Vol	mV		<3			
Auto Tuning Stop(Seek) Sensitivity	68MHz	dB		28			
	98MHz	dB		28			
	106MHz	dB		28			
Fall Out Voltage(AC)	98MHz	%		<70			
Fall Out Voltage(DC)	98MHz	%		<70			
Fall Out Voltage 9VDC Clock Backup		%		-30			
AFC Holding -3dB		KHz		+/-300			
Stereo Separation: 1Mv75KHzDev	100HZ	dB					
	1KHZ	dB		30			
	10KHZ	dB					
Stereo indicator Sensitivity	98MHZ	dB	20	24			
Mono/Stereo Output Difference	98MHZ	dB		1			
L/R Channel Output Difference		dB		3			

Test Conditions

Approved By: ZHANGJIAN YANG

1. Supply Voltage : AC
2. Standard Output : 50Mw
3. Speaker impedance: 4 OHM

SPECIFICATIONS

Model No : CD127 (PLL)
Section: Cassette Playback

Date:2012-08-10

Page: 3 of 6

Measuring Items	Condition	Unit	Normal	Limit	Test Data		
					1	2	3
Distortion at Max Vol all Controls Max	MTT-112BN	%		25			
10% Distortion Output Power	MTT-112BN	W	1.2				
Frequency Response 1KHz=0dB MTT-257	125Hz	dB		+/-3			
	6.3KHz	dB		-/-3			
	8KHz	dB					
Distortion at Standard Output	MTT-112N	%		3			
Separation	MTT-142N	dB	35	30			
Cross Talk		dB		35			
*MTT-121N W/B. P, F							
MTT-141N W/OB. P. F							
Tape Speed (3KHz)	MTT-111N	%		+3/-2			
Wow and Flutter	MTT-111N	%		0.3			
S/N Ratio (Play)	MTT-112BN	dB	40	35			
Hum and Noise:	Max Vol	mV	20	30			
	Min. Vol	mV	1	3			
Winding time:Fast Forward and Rewind	C-60 Type	Sec		<170			
Tension Torque:Torque Meter	Play	G-CM		30-60			
	Fast Forward	G-CM		50-80			
	Rewind	G-CM		50-80			
Left/Right Channel Difference	MTT-118N	dB	1	3			
Cassette A and B Output Difference	MTT-118N	dB		3			
Fall Out Voltage(AC)	MTT-112BN	%		<70			
Fall Out Voltage(DC)	MTT-112BN	%		<70			
Minimum operation voltage	AC or DC	V					
Maximum power Consumption	Full load burn-in	W					
High/low voltage operation test	+25%-30%	V					
Control range	Test in normal indoor lighting condition. With fresh battery	M	No shorter than 6 meter				
Control angle		°	Per product spec. +/- 30 degree				

Test Conditions

1. Supply Voltage : AC
2. Standard Output : 50Mw
3. Speaker impedance: 4 OHM

Approved By:ZHANGJIAN YANG

SPECIFICATIONS

Model No: CD127 (PLL)

Date:2012-08-10

Section: Cassette Recording

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Measuring Items	Condition	Unit	Normal	Limit	Test Data		
					1	2	3
R/P Max Power O/P	CD784 (2)	W	2	1.8			
R/P 10% THD Output Power	CD784 (2)	W	1.2				
Record /Playback Freq Response: 1KHz=0dB RADIO							
	125Hz	dB		+3/-6			
	6.3KHz	dB		+3/-6			
	8KHz	dB					
Record/Playback Level Difference	CD784	dB		+/-3			
Record/Playback Channel Separation	CD784	dB		26			
Mic Recording Sensitivity (1V=0dB)	S. R. L=66dB	dB					
Mic Recording ALC Effect	30Dbv of SRL	dB					
Record/Play S/N Ratio (Magnetic Erase)	CD784	dB		28			
Record/Play Erase Ratio (Magnetic Erase)	CD784	dB		28			
R/P Channel Balance	CD784	dB		3			
R/P CD 0dB Distortion at Ref Output		%		10			
R/P CD -10dB Distortion at Ref Output		%		10			
R/P FM Radio 75KHz Dev at Ref Output		%		10			
R/P FM Radio 22.5KHz Dev at Ref Output		%		10			

Remarks:

Cross Talk (MTT-121N)

Db

45

40

Test Conditions

Approved By:ZHANGJIAN YANG

1. Supply Voltage : AC

2. Standard Output : 50Mw

3. Speaker impedance: 4 OHM

SPECIFICATIONS

Mode NO:CD127 (PLL)

Date:2012-08-10

Section: CD/USB

Page: 5 of 6

Measuring Items	Condition	Unit	Normal	Limit	Test Data		
					1	2	3
Distortion at Max Vol CD-1(0dB)	1KHz	%		25			
CD/USB10% THD Output Power CD-1 (0dB)	1KHz	W	1.2				
CD/USB Output Level Voltage(Max)	1KHz	W	2	1.8			
Frequency Response Speaker Output CD-1, 1Khz at Reference Output 0dB	63Hz	dB					
	100Hz	dB		+/-3			
	1KHz	dB	0	0			
	10KHz	dB		+/-3			
	20KHz	dB					
THD at Standard Output(at-10dB)	1KHz	%		1			
Separation:CD-1at Speaker Output	100Hz	dB		35			
	1KHz	dB	45	40			
	10KHz	dB		35			
S/N Ratio(Input Filter)	TCD-782	dB		50			
Dynamic Range	TCD-782	Sec					
Initial Reading Time	TCD-782	Sec		<10			
Access Time: TCD—782	First Track	Sec		<5			
	Last Track	Sec		<10			
Interruption Philips#444A	Scratch	mm		0.8			
	Black Doc	mm		0.6			
	Fingerprint	mm		0.075			
Eccentricity	TCD-712R	mm					
Vertical Deviation	TCD-713R	mm		0.8			
Hum and Noise	Vol Max	mV		<10			
	Vol Min	mV		<3			
Minimum Operating Voltage(AC)		%		<80			
Minimum Operating Voltage(DC)		%		<70			
Maximum power Consumption	Full load burn-in	W					

Test Conditions

1. Supply Voltage : AC
2. Standard Output : 50mW
3. Speaker impedance: 4 OHM

Approved By:ZHANGJIAN YANG

SPECIFICATIONS

Model N0:CD127 (PLL)

Date:2012-08-10

Section: Audio

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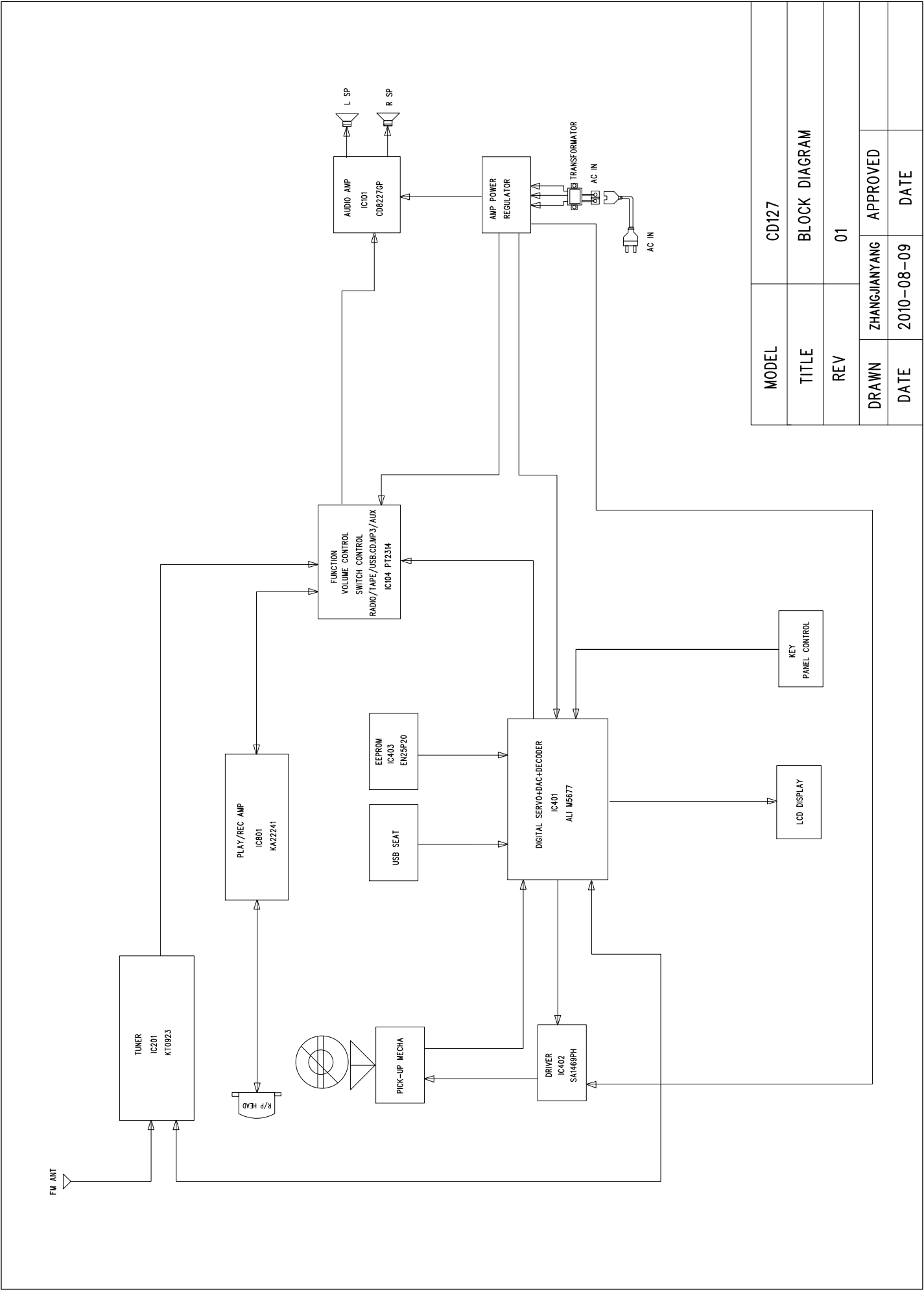
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Test Conditions

Approved By: ZHANGJIAN YANG

1. Supply Voltage : AC
2. Standard Output : 50Mw
3. Speaker impedance: 4 OHM

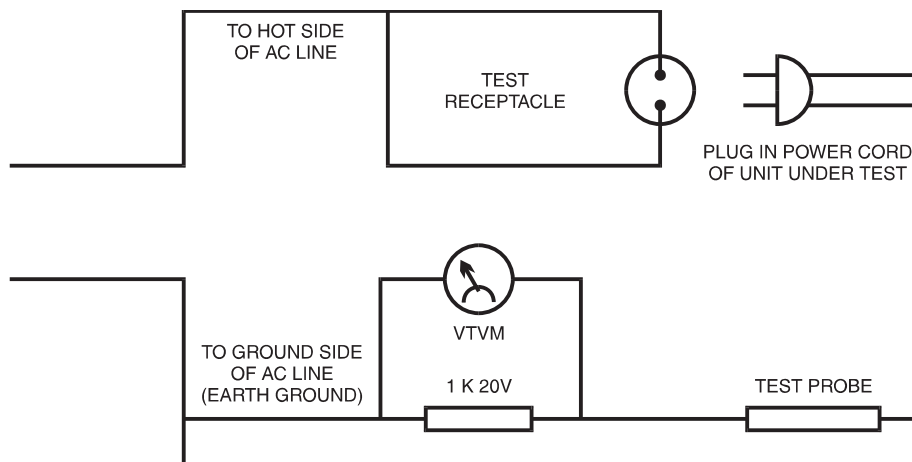
BLOCK DIAGRAM



SAFETY CHECKS

Important Note!!! Do the following safety checks after servicing this unit.

1. Remove all the externally connected test equipment and wires before testing the unit.
2. Use the safety test circuit as shown below.
3. Plug the power cord or unit to be tested into the test receptacle.
4. Switch the unit being tested to ON or PLAY.
5. Connect external jack/terminal contact VTVM across a 1k resistor in the test circuit. Set the meter to a high (150V AC) scale to avoid meter damage and then touch the points with the test probe. If the meter reading indicates less than 3 volts on all test points, set the meter to a low (3V AC) scale and repeat the test.
6. Any reading greater than 0.2 volt indicates a potential shock hazard. If this occurs, determine the cause of the leakage, correct the problem, and repeat the safety test.



SAFETY TEST CIRCUIT

Play/Record and Playback Head Azimuth Adjustment

To adjust the play/record and playback head azimuth screw:

1. Connect two (2) VTVMs and a dual trace scope to the stereo headphone jack (as shown) with a 32 ohm dummy load. (See Figure 1.)

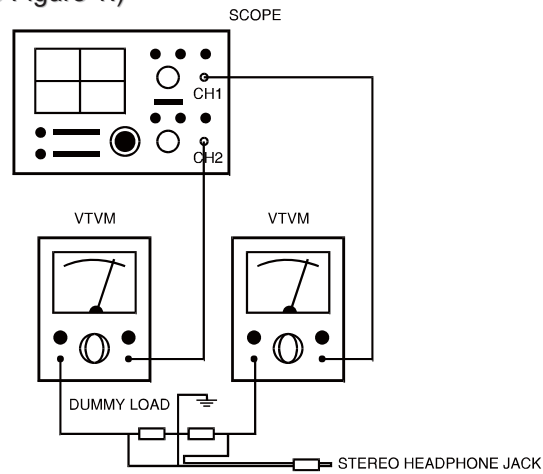
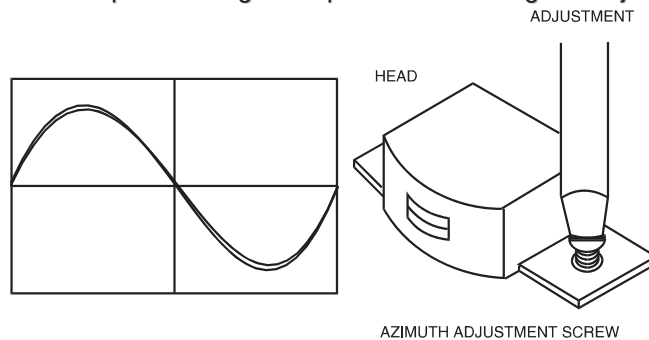
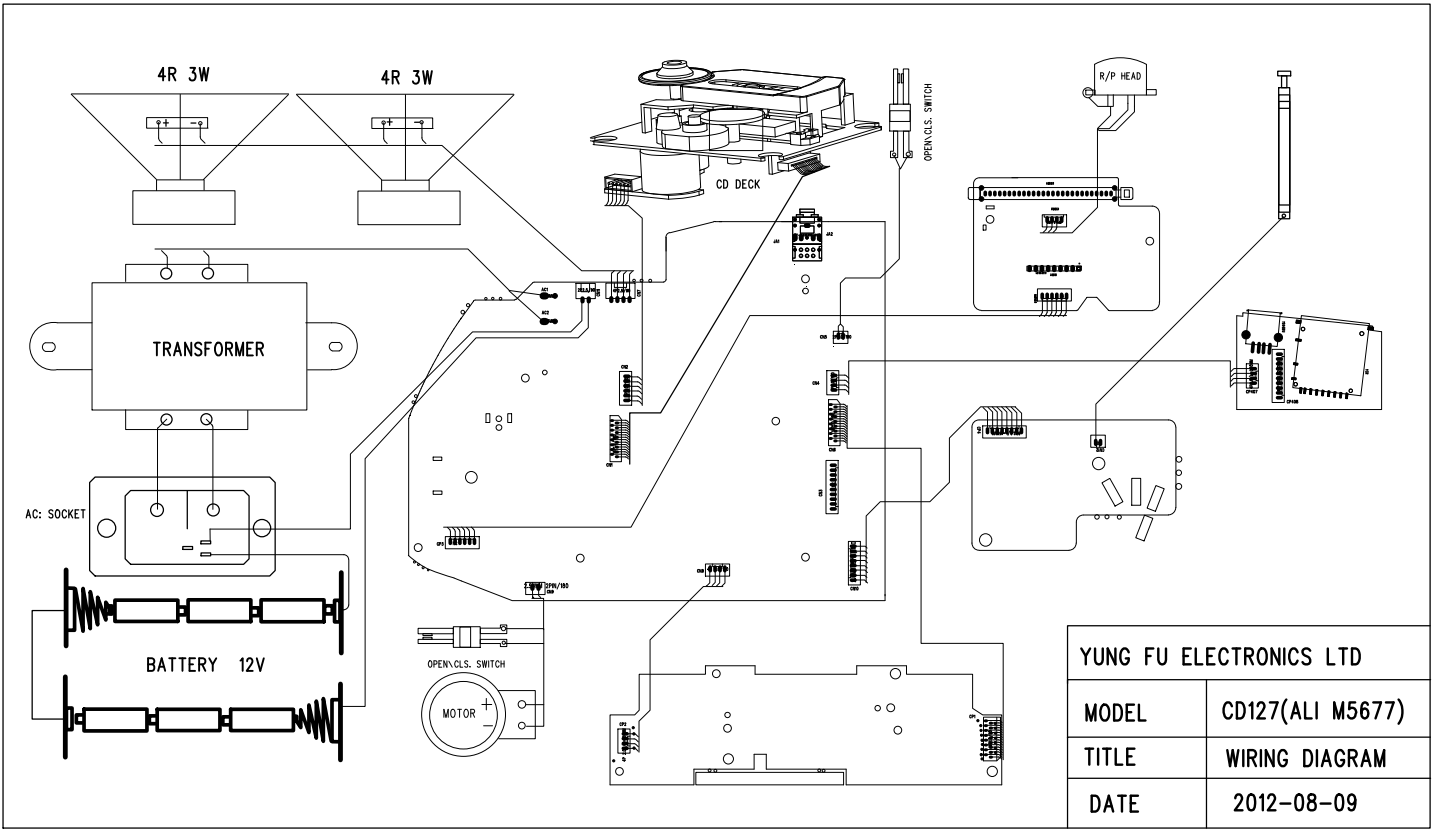


Figure 3. Azimuth Adjustment

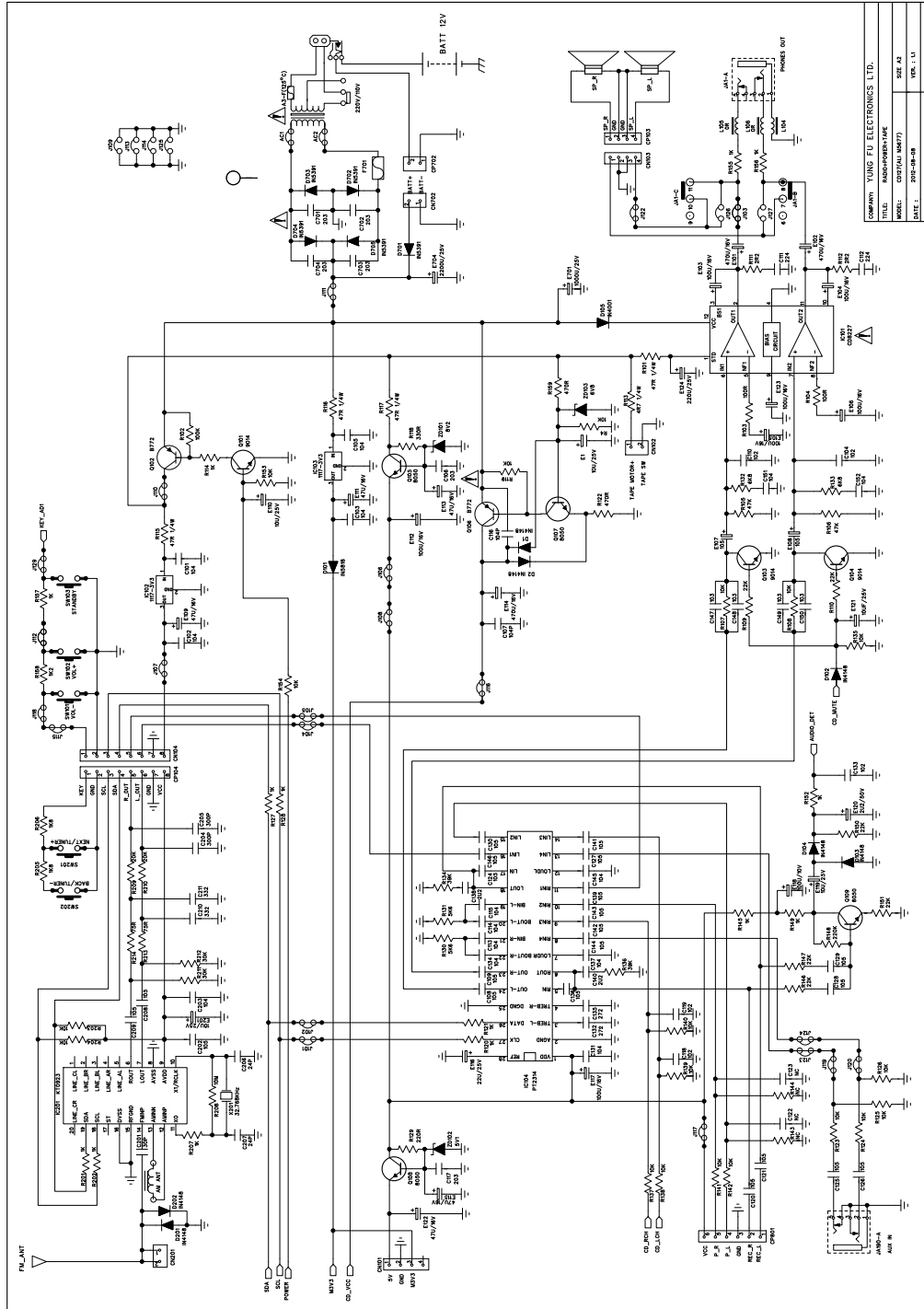
2. Insert a 10 kHz test tape (such as ABEX. TCC-153) into the tape mechanism and play it back.
3. While playing back the test tape, slowly turn the azimuth adjusting screw until the amplitude of both channel output waveforms is maximum and infuse. (See Figure 2.)
4. Secure the azimuth screw in place with glue or paint after making the adjustment.



WIRING DRAWING

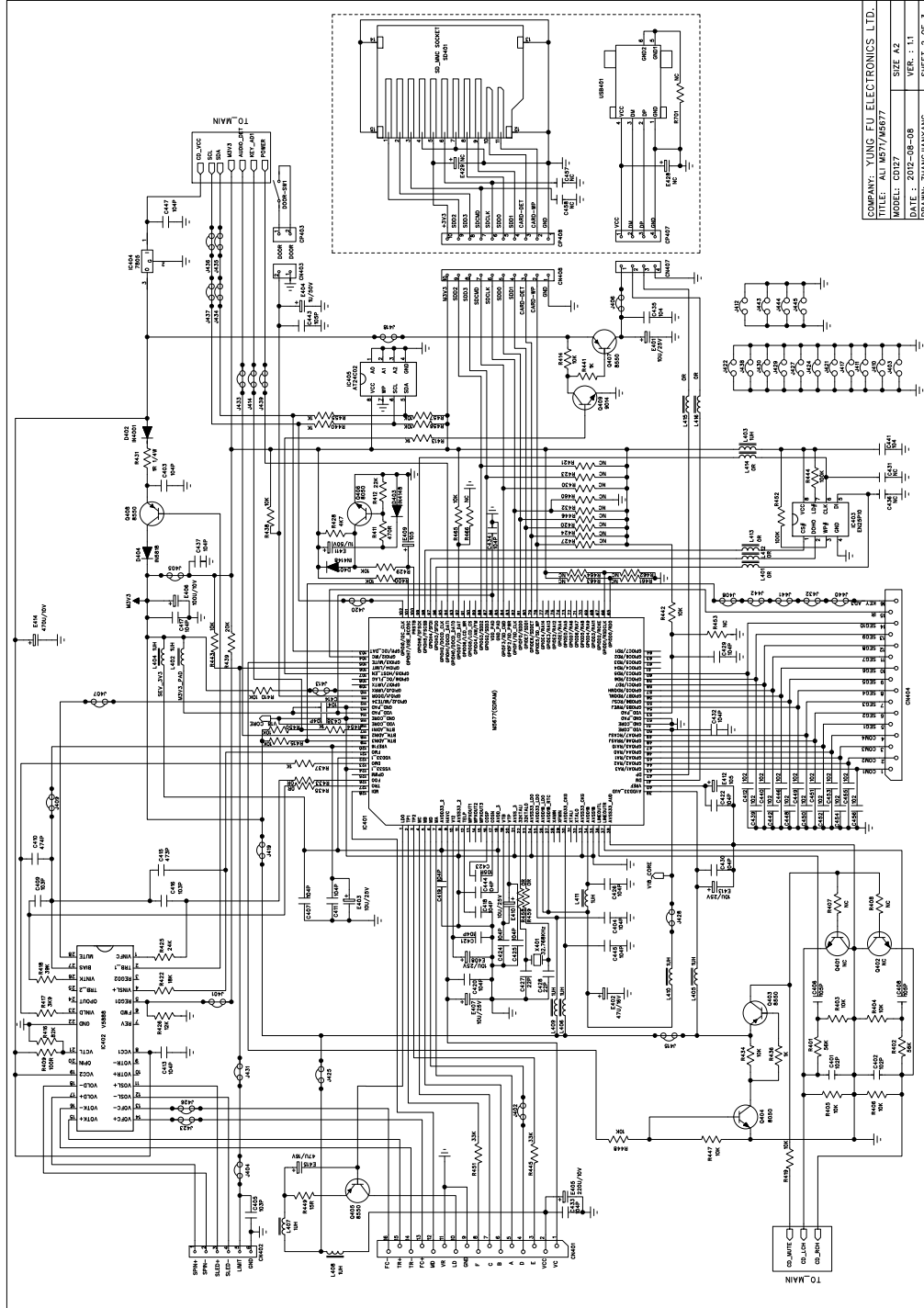


SCHEMATIC DIAGRAMS



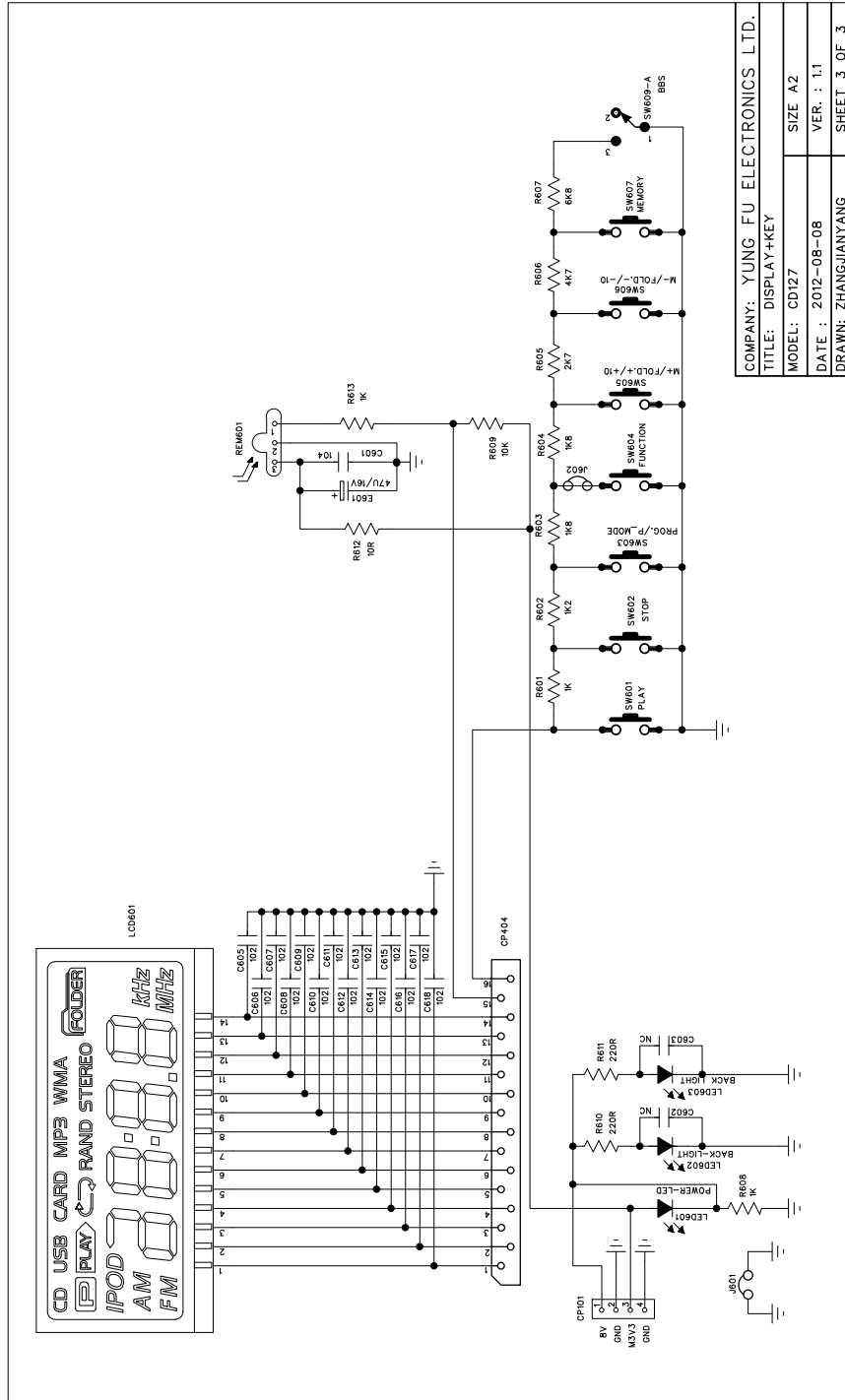
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MODEL	COPY-1-1-1
DATE	2002-08-08
DESIGNER	ZHANGJIANHONG
SHEET	1 OF 3

SCHEMATIC DIAGRAMS

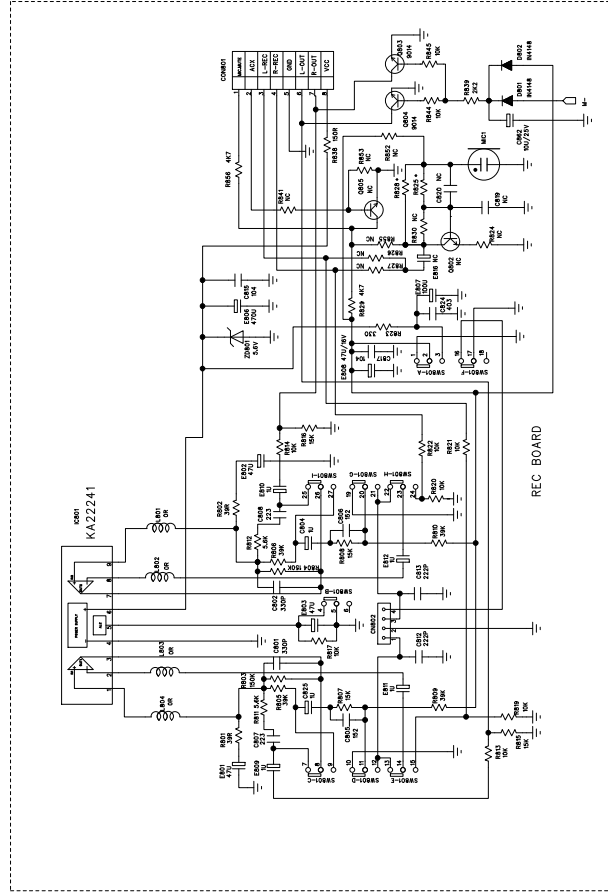


COMPANY: YUNG FU ELECTRONICS LTD.	SIZE: A2
TITLE: ALI M577M5677	VER: 1.13
MODEL: C0127	SHEET 2 OF 3
DATE: 2012-08-08	
DRAWN: ZHANGJANTANG	

SCHEMATIC DIAGRAMS



SCHEMATIC DIAGRAMS

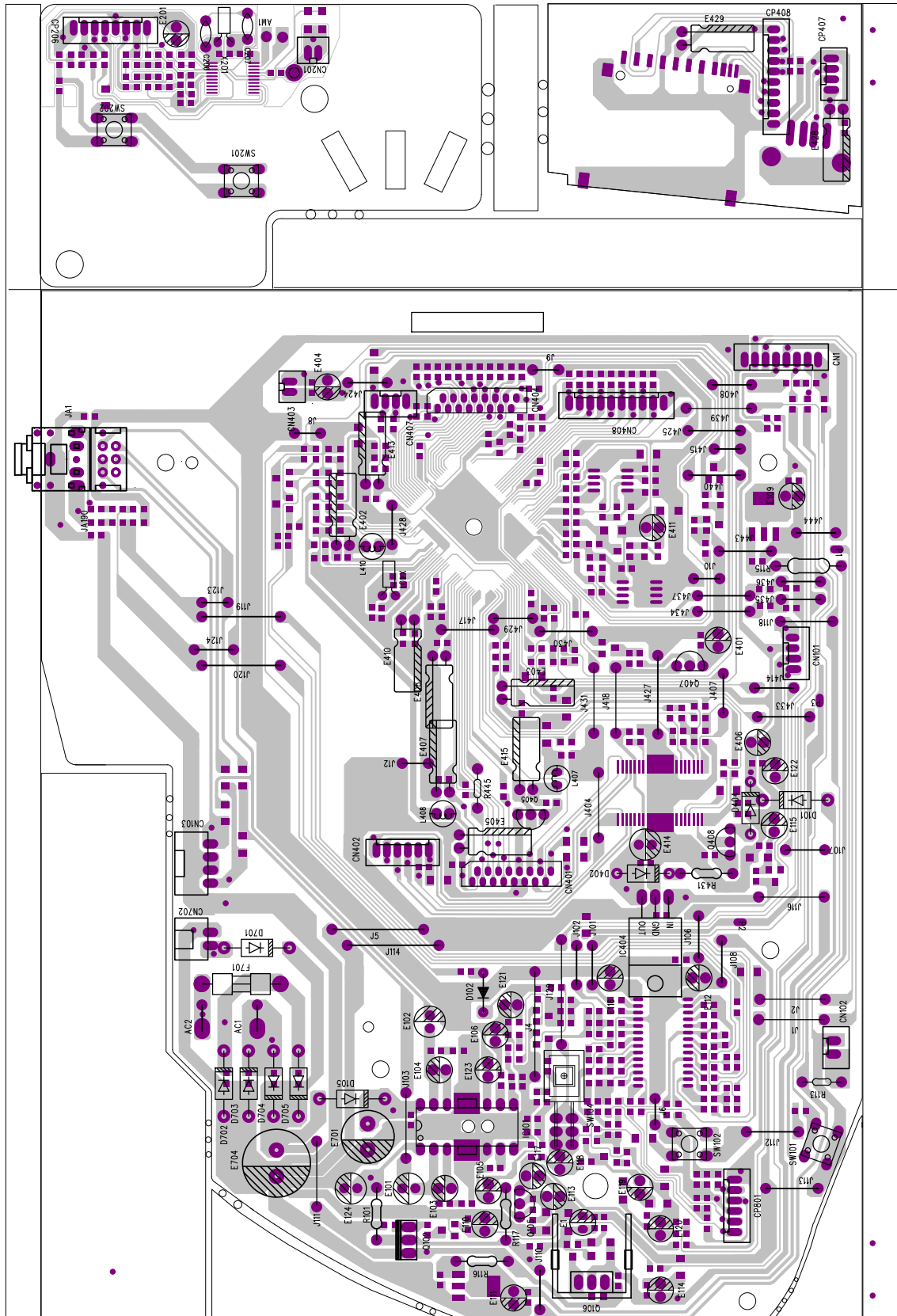


MODEL: BS-196.TAPE.SCH

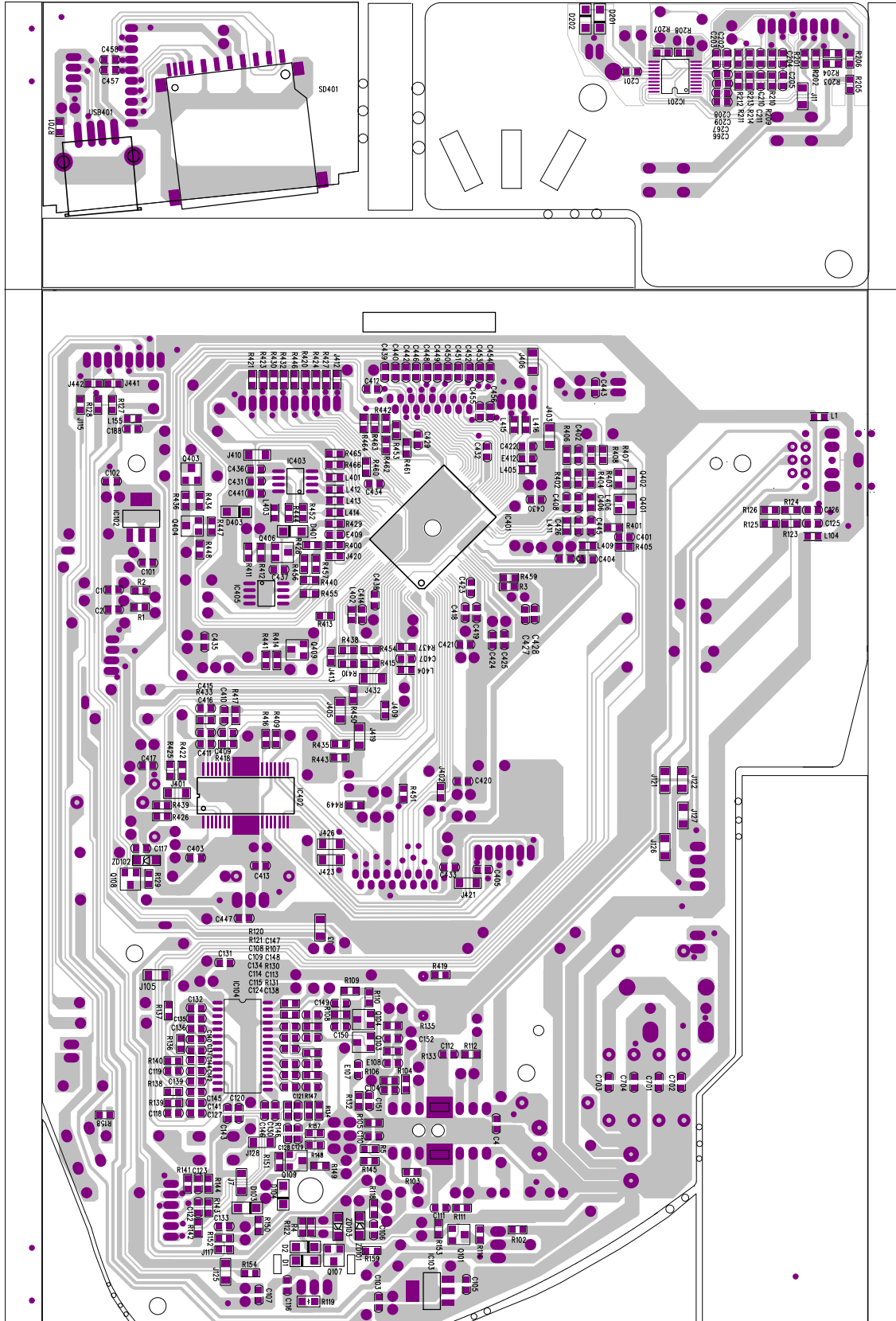
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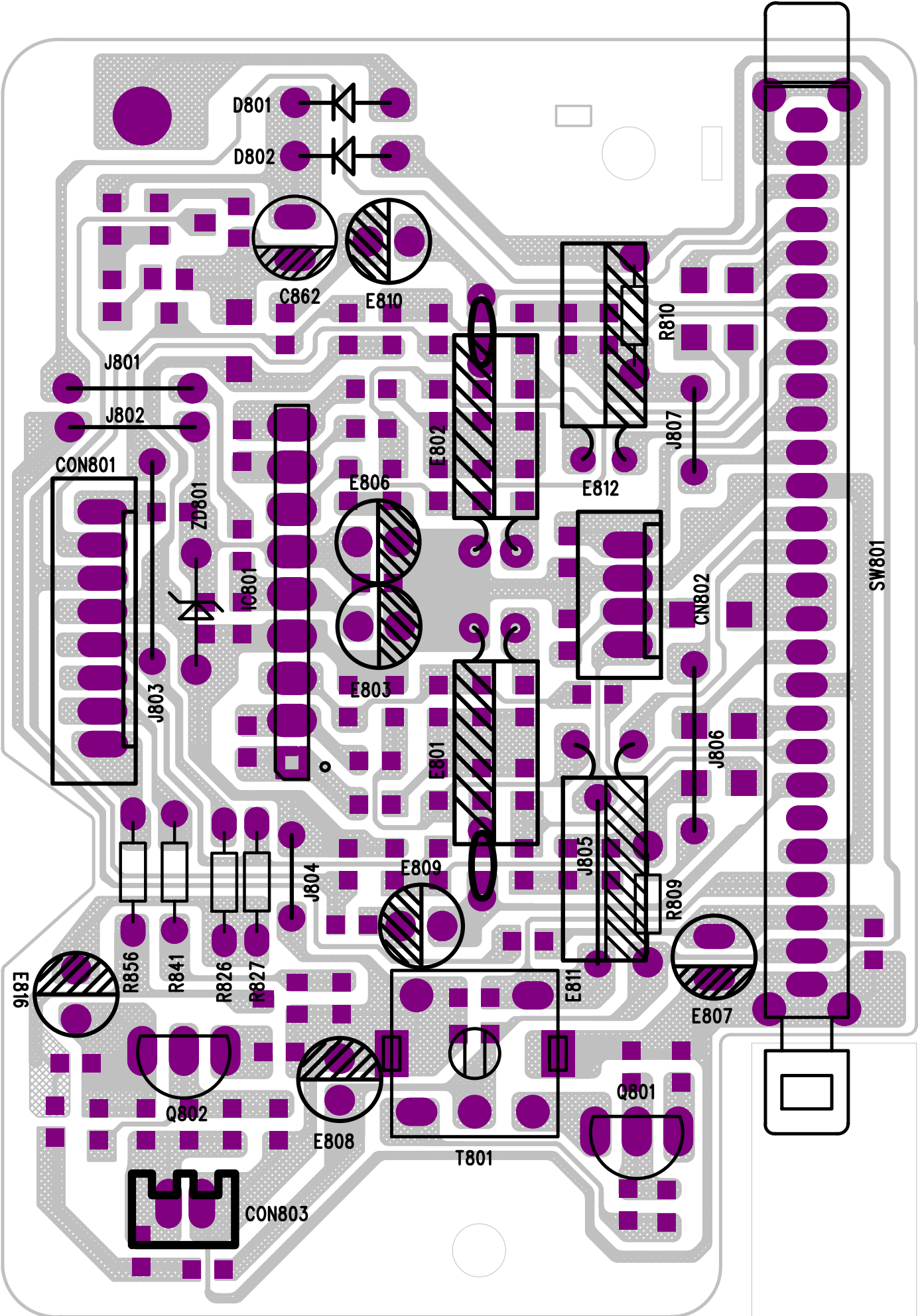
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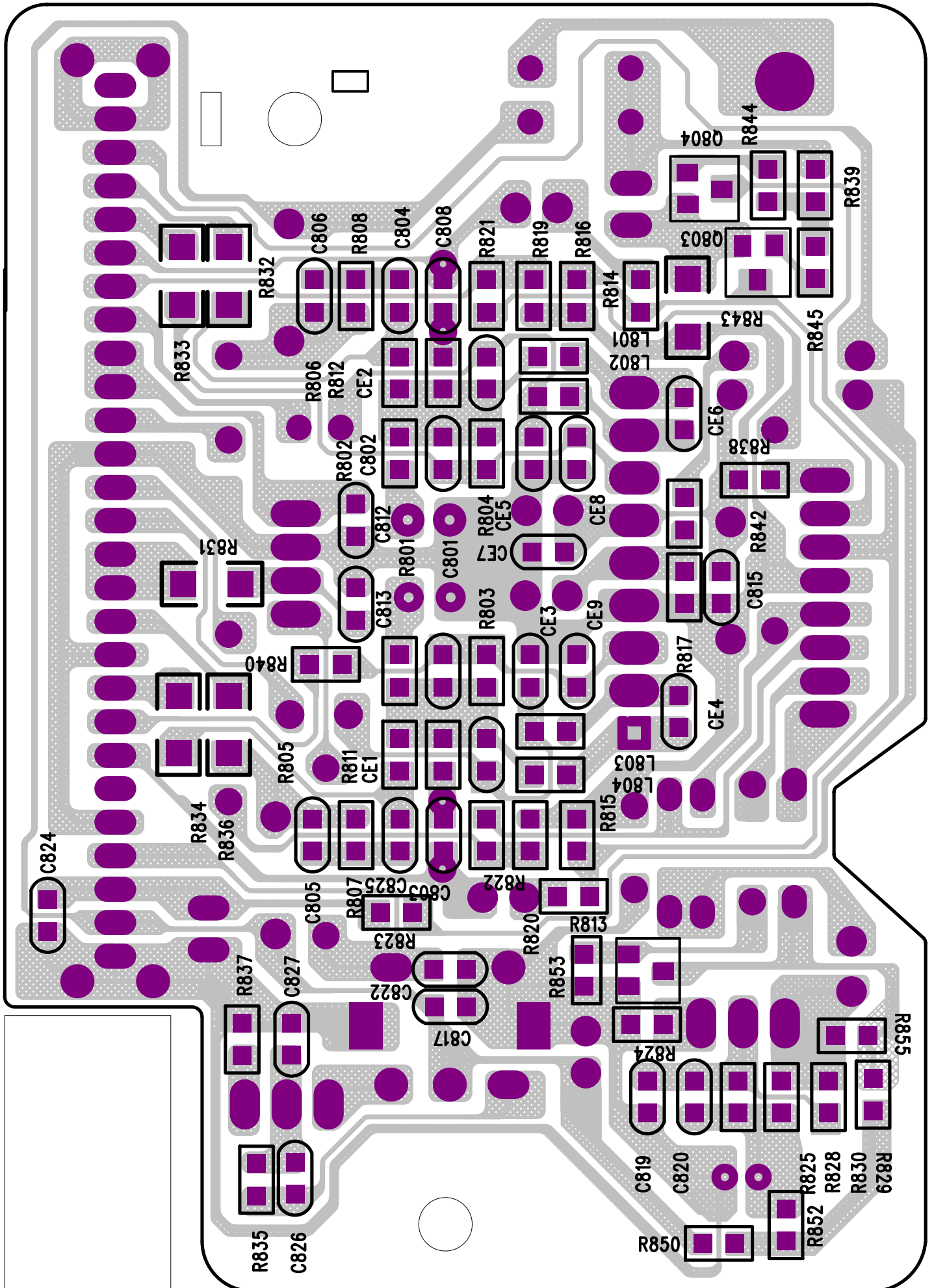
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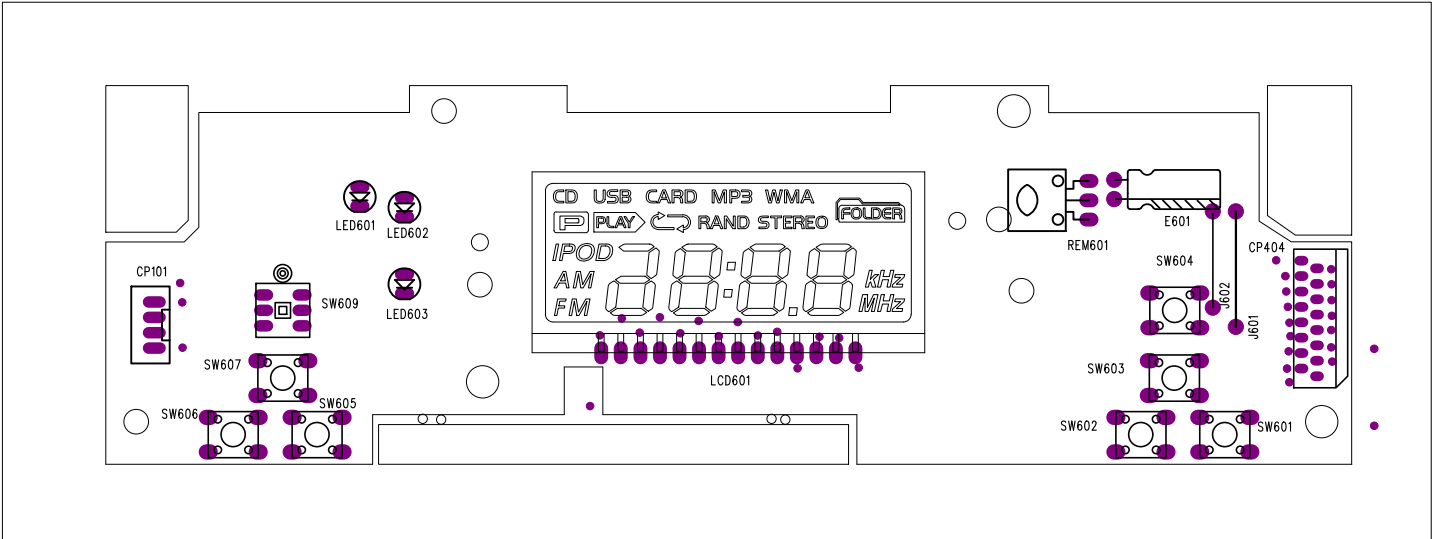
PRINTED CIRCUIT BOARDS



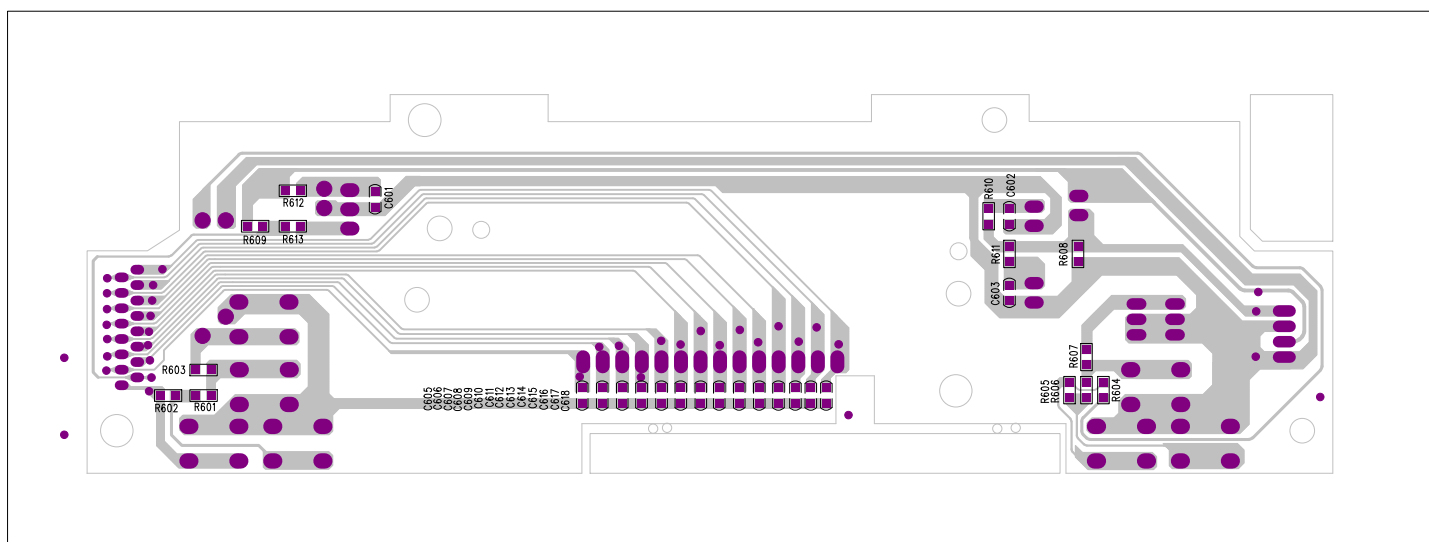




PRINTED CIRCUIT BOARDS



PRINTED CIRCUIT BOARDS



MODEL : CD127PLL EXPLODED VIEW PART LIST

NO.	DESCRIPTION	QTY	NO.	DESCRIPTION	QTY
1	CASSETTE DOOR INSERT	1	46	FIBRE WASHER	4
2	CASSETTE DOOR LENS	1	47	CD CUSHION	4
3	CASSETTE DOOR	1	48	CD DECK	1
4	CASSETTE DOOR SPRING	1	49	SCREW 2.0*12PA	1
5	CASSETTE DOOR BRACKET	1	50	CD DOOR SWITCH	1
6	RIGHT SPEAKER GRILL	1	51	SCREW 3.0*8KA	3
7	LEFT SPEAKER GRILL	1	52	SCREW 3.0*10PA	1
8	FRONT CABINET INSERT	1	53	PHONE PCB	1
9	TOOTH WHEEL	1	54	SCREW 3.0*8PA	2
10	TOOTH WHEEL HOLDER	1	55	USB/SD CARD PCB BRACKET	1
11	SCREW 3.0*12PWA	1	56	USB/SD CARD PCB	1
12	DISPLAY LENS INSERT	1	57	SCREW 3.0*12PWA	1
13	DISPLAY LENS	1	58	TOOTH WHEEL HOLDER	1
14	FRONT CABINET	1	59	TOOTH WHEEL	1
15	SPEAKER	2	60	TOP CABINET	1
16	SPEAKER CLIP A	2	61	TUNING KNOB INSERT A	1
17	SPEAKER CLIP B	2	62	SCREW 3.0*10PA	1
18	FRONT CABINET CONNECT BRK	2	63	FM ANTENNA	1
19	FRONT CABINET BRACKET	1	64	TUNING KNOB INSERT B	1
20	SCREW 3.0*10PA	1	65	CD DOOR SPRING	1
21	CD PLAY BUTTON	1	66	VOLUME KNOB INSERT A	1
22	CD SKIP BUTTON	1	67	VOLUME KNOB INSERT B	1
23	POWER BUTTON	1	68	TOP CABINET INSERT	1
24	LCD BRACKET	1	69	HANDLE	1
25	DISPLAY PCB BRACKET	1	70	SCREW 2.6*8KA	2
26	SCREW 3.0*10PA	2	71	CD DOOR	1
27	SCREW 2.6*10PA	4	72	CD DOOR DECORATE	1
28	KEY PCB	1	73	CD DOOR LENS	1
29	CASS DECK BRACKET	2	74	SCREW 3X10PA	2
30	SCREW 3.0*10PA	4	75	POWER PCB	1
31	CASSETTE KNOB SET	1	76	SCREW 3X12PWA	2
32	CASSETTE DECK	1	77	TRANSFORMER EI-48	1
33	PLAY/RECORD PCB	1	78	SCREW 3X10PA	2
34	SCREW 3.0*8PA	3	79	AC SOCKET COVER	1
35	PLAY/RECORD PCB	1	80	AC SOCKET	1
36	SCREW 3.0*10PA	3	81	AC SOCKET BRACKET	1
37	TUNING PCB	1	82	BATTERY PLATE(+)	1
38	TUNING KNOB	1	83	BATTERY PLATE A	1
39	SCREW 3.0*10PA	4	84	BATTERY PLATE(-)	1
40	MAIN PCB	1	85	BATTERY PLATE B	1
41	VOLUME KNOB	1	86	BATTERY PLATE C	1
42	POWER KNOB	1	87	BATTERY DOOR	1
43	SCREW 3.0*10PA	4	88	SCREW 3X18PA	6
44	MP3 PCB	1	89	BOTTOM CABINET	1
45	SCREW 2.6X16PWA	4			

