

SERVICE GUIDE

KEY SYSTEM CORP



Revision History

Version	Date	Change
1.0	06/08/2009	

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Getting Started

Conventions Used in the Guide

Pay Special Attention: Instructions that are important to remember and may prevent mistakes.

Caution: Information that, if not followed, may result in damage to the product.

Safety Precautions

The following precautions should be observed in handling the speaker described in this guide:

Place the speakers on a flat, level and stable surface.

Do not place the speakers in environments subject to mist, smoke, vibration, excessive dust, salty or greasy air, or other corrosive gases and fumes.

Do not drop or jolt the speakers.

Do not allow anything to drop into the subwoofer case through its ventilator, as it could result in fatal electric shock or fire.

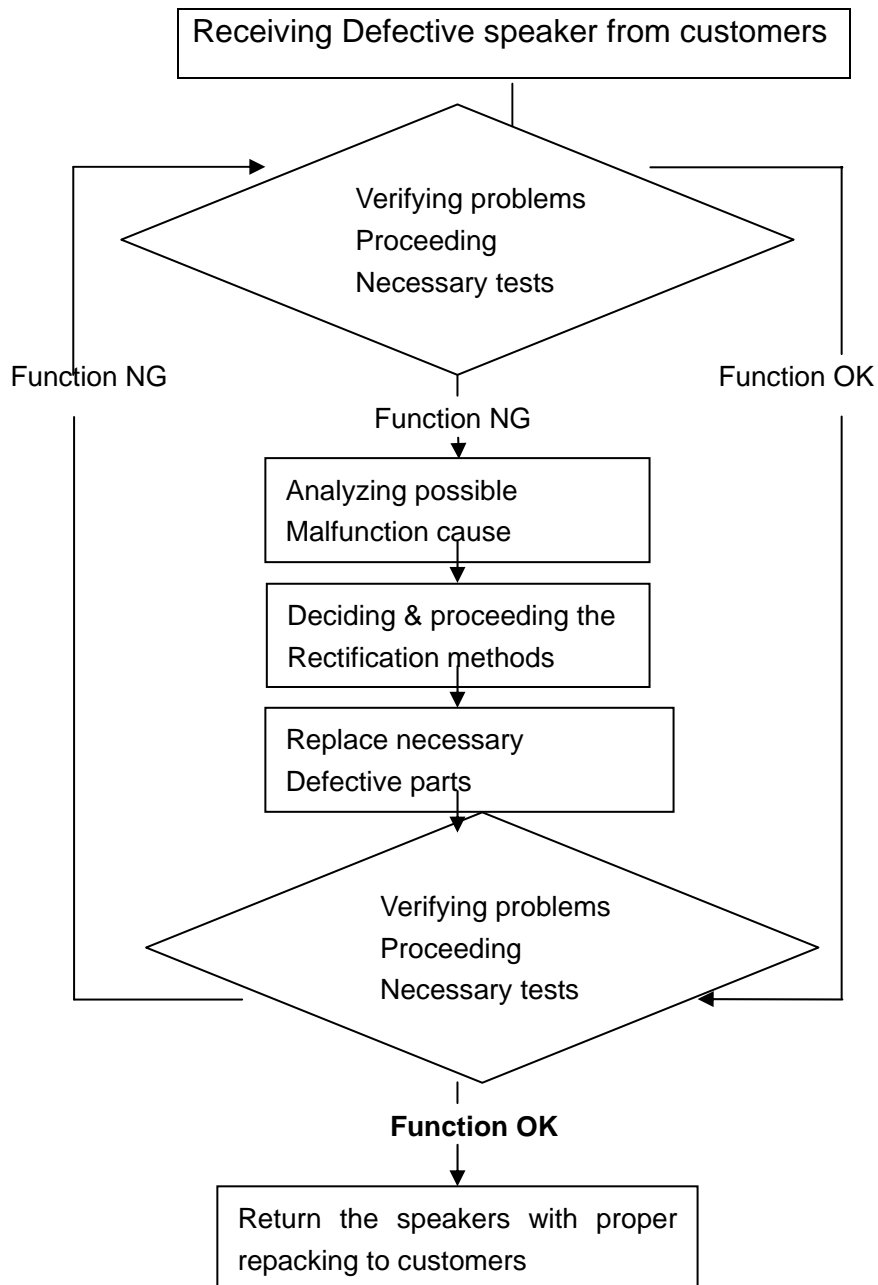
Place the unit far enough from other equipments for good heat dissipation.

Do not perform any maintenance with wet hand.

Prevent foreign substance, such as water, other liquids or chemical, from entering the speakers while performing maintenance procedures on the speakers.

Chapter 1. How to Handle Defective Returns

1.1 Overview



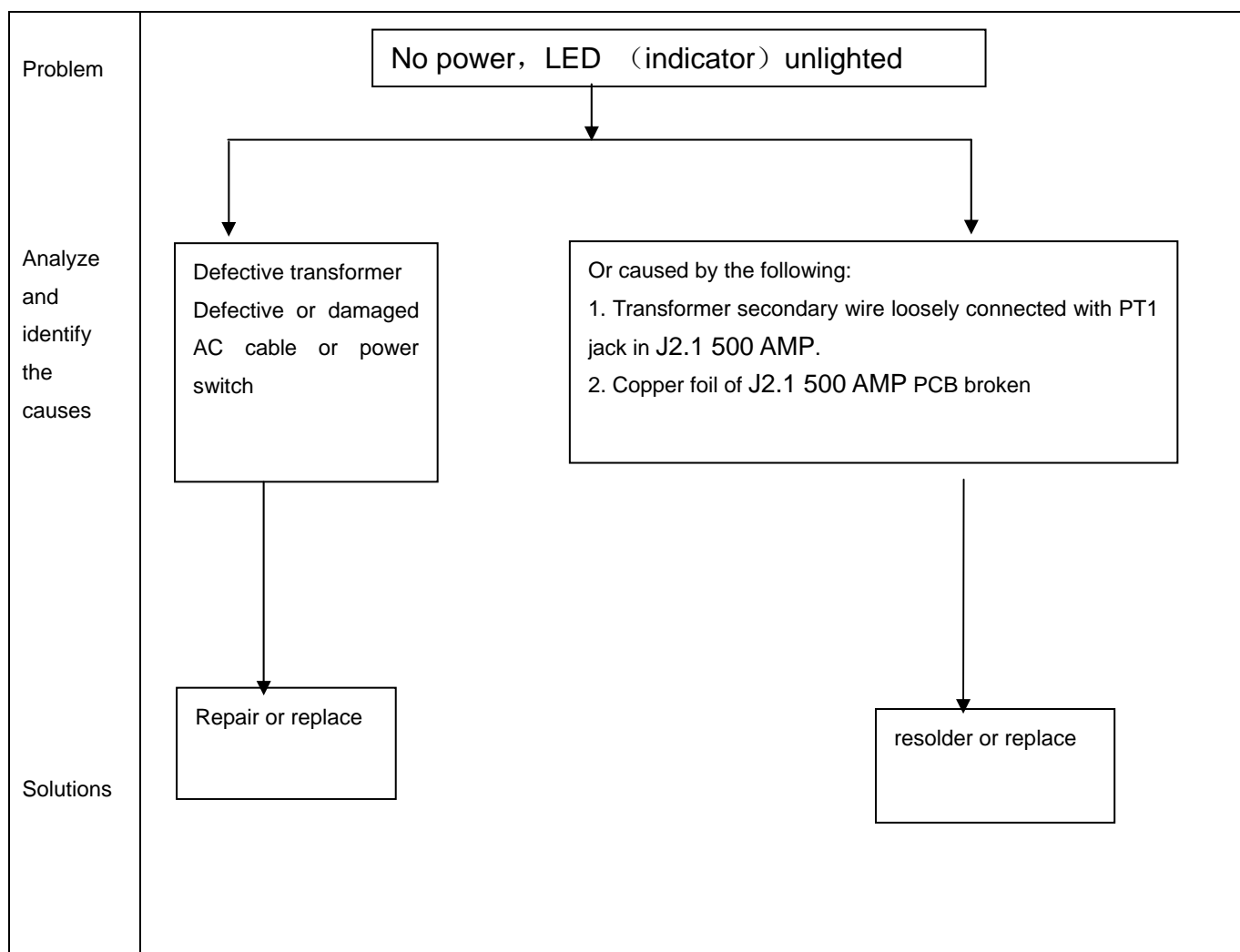
1.2 Problems

Item	<u>Problem Description</u>
1.2.1	No power, LED (indicator) no light
1.2.2	No sound
1.2.3	Right or left channel no sound
1.2.4	Woofer no sound
1.2.5	Noise
1.2.6	LED indicator no light
1.2.7	Headphone jack output no sound
1.2.8	VR, headphone jack or line-in jack abnormal

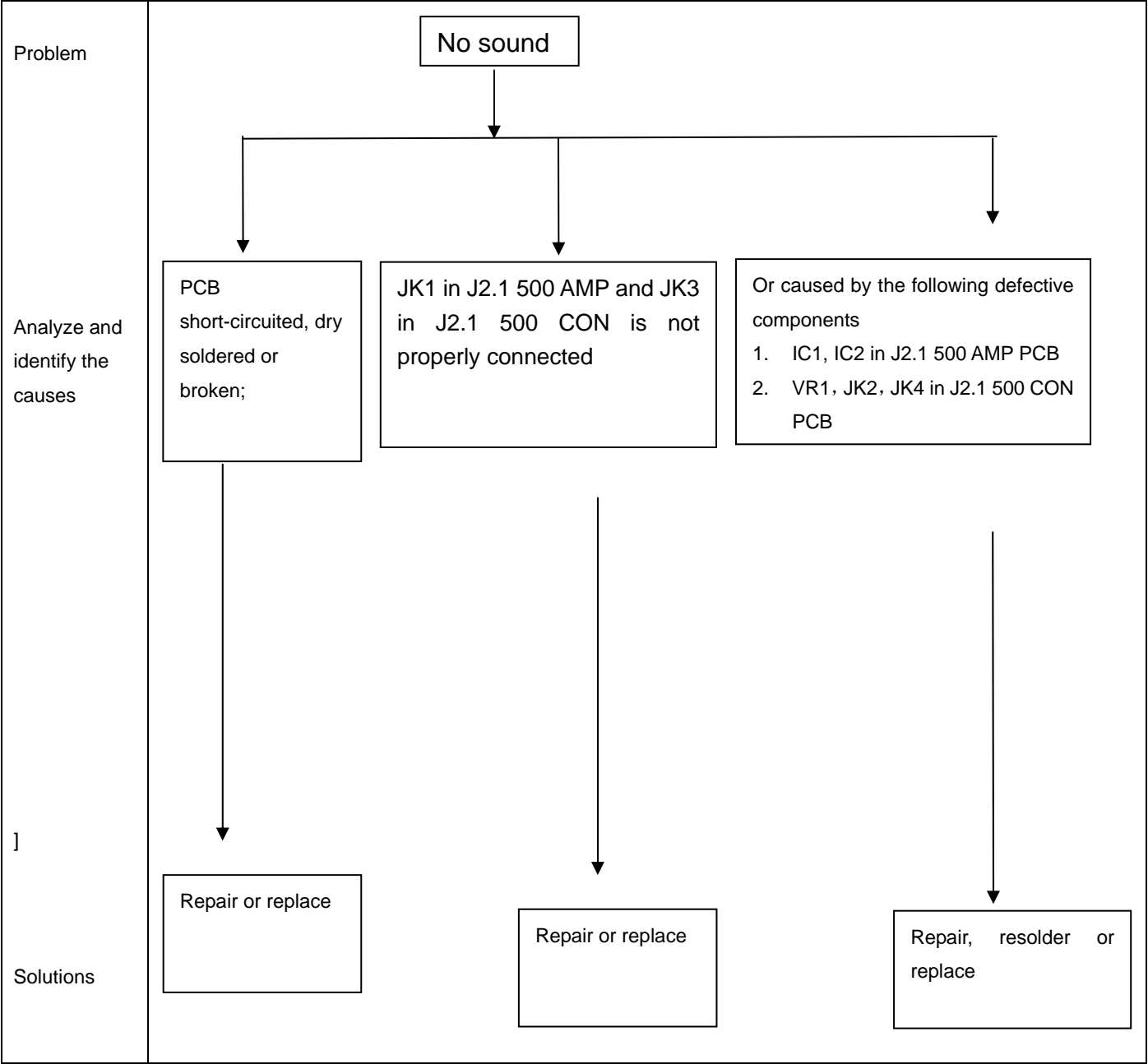
*Attention

Please follow the numbered sequence marked within parenthesis given in individual Flow chat in that this is the best-recommended sequence to rectify the problems.

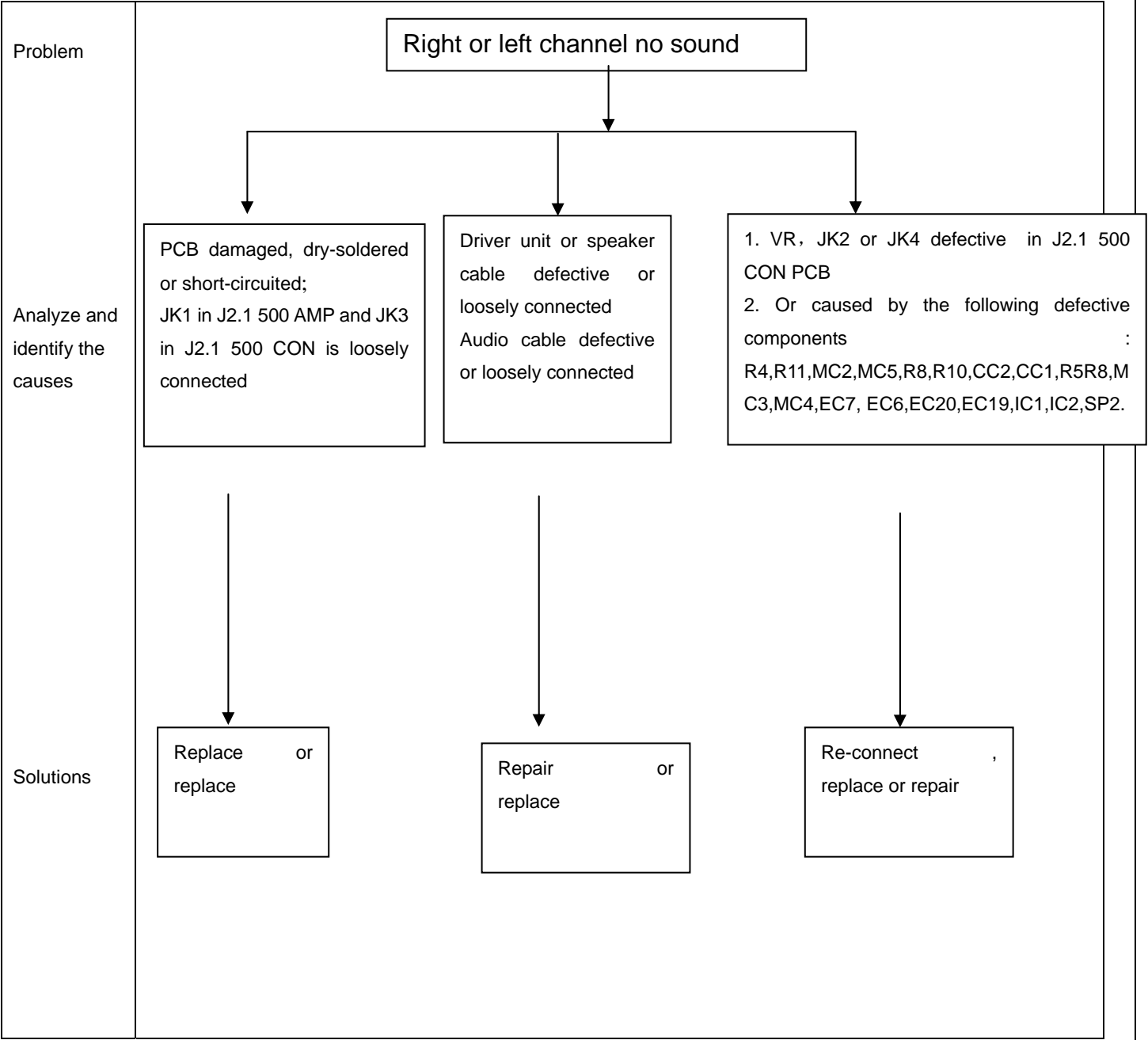
1.2.1 No power, LED (indicator) unlighted



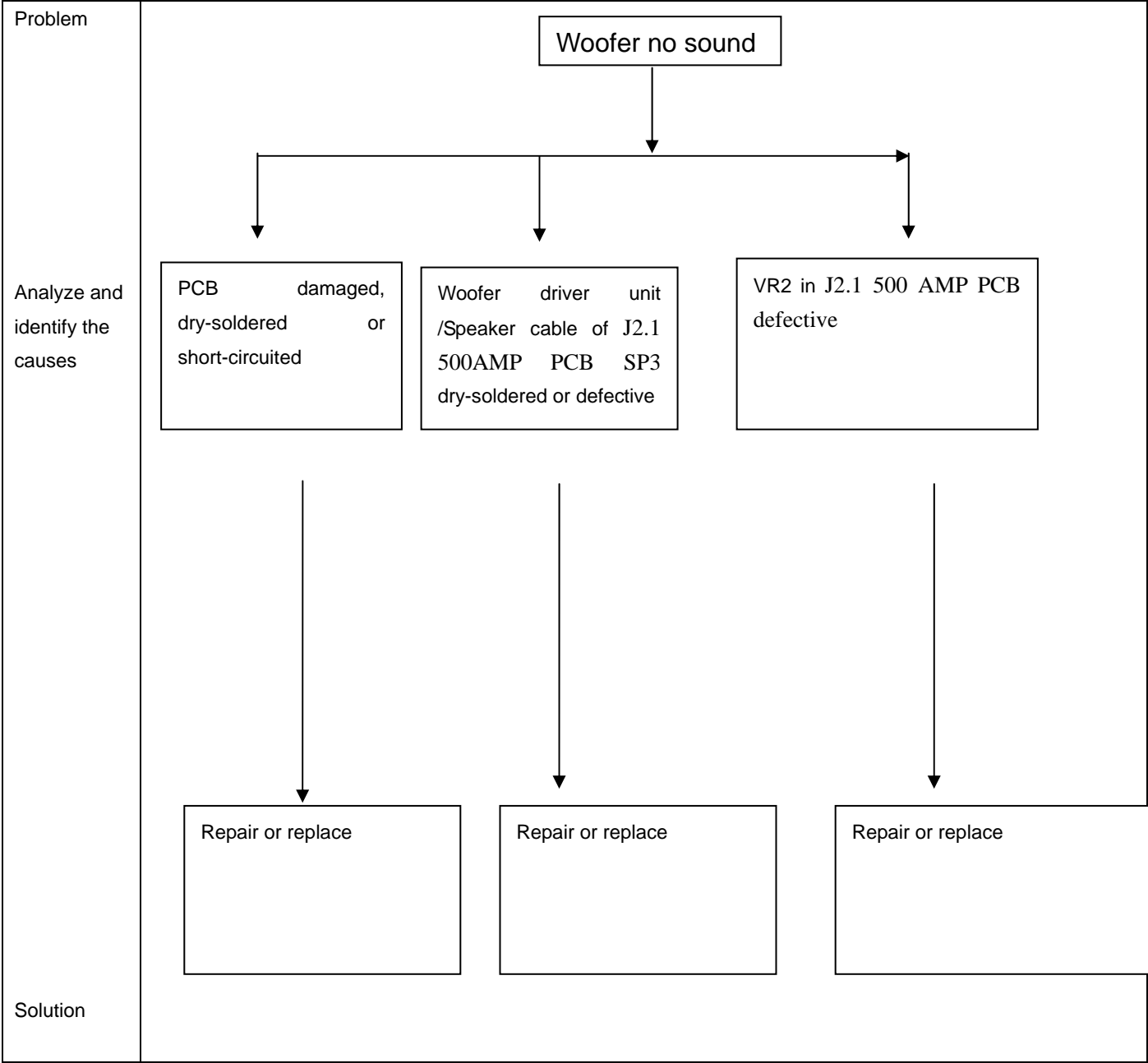
1.2.2 No sound



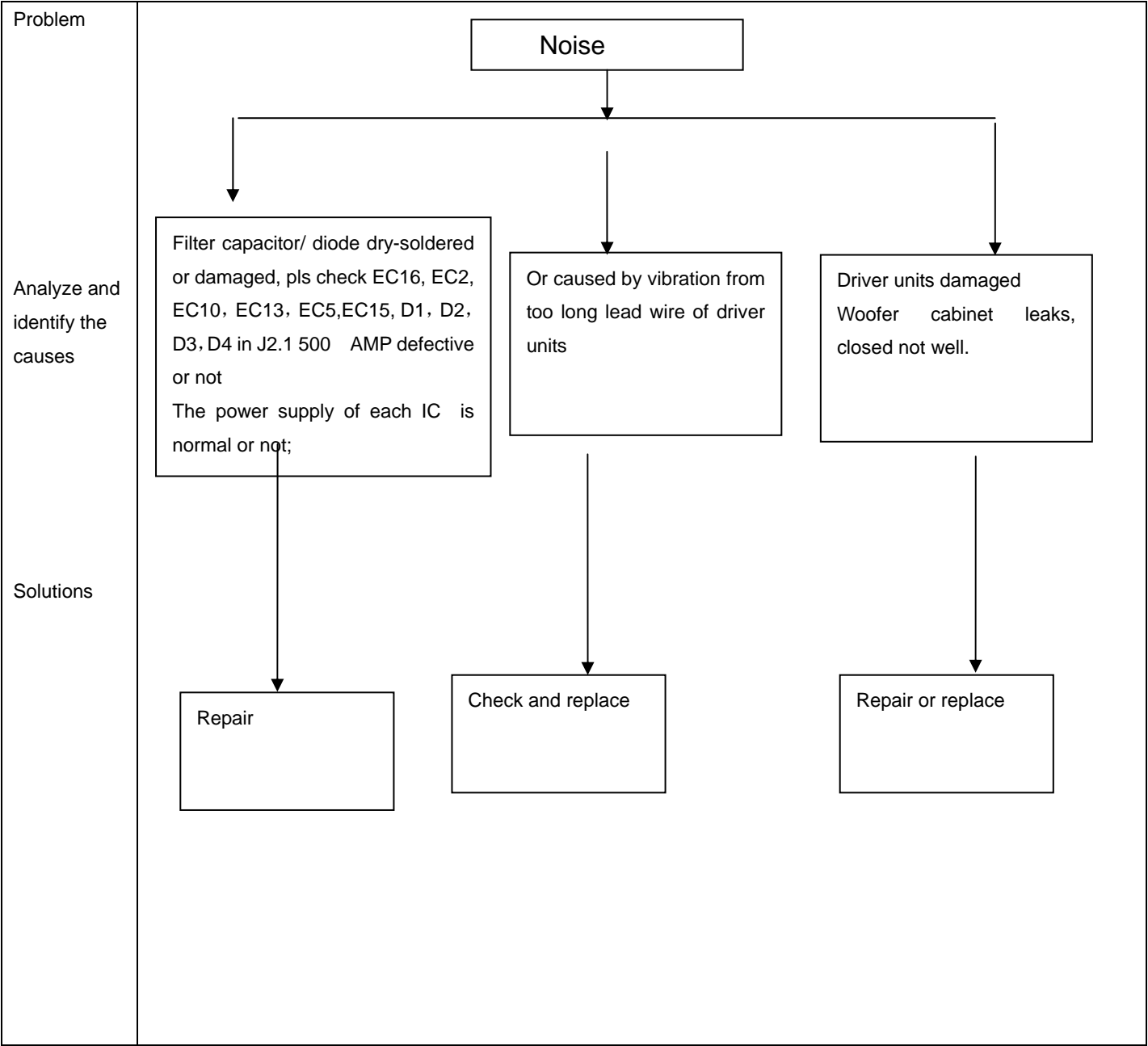
1.2.3 Right or left channel no sound



1.2.4 Woofer no sound



1.2.5 Noise



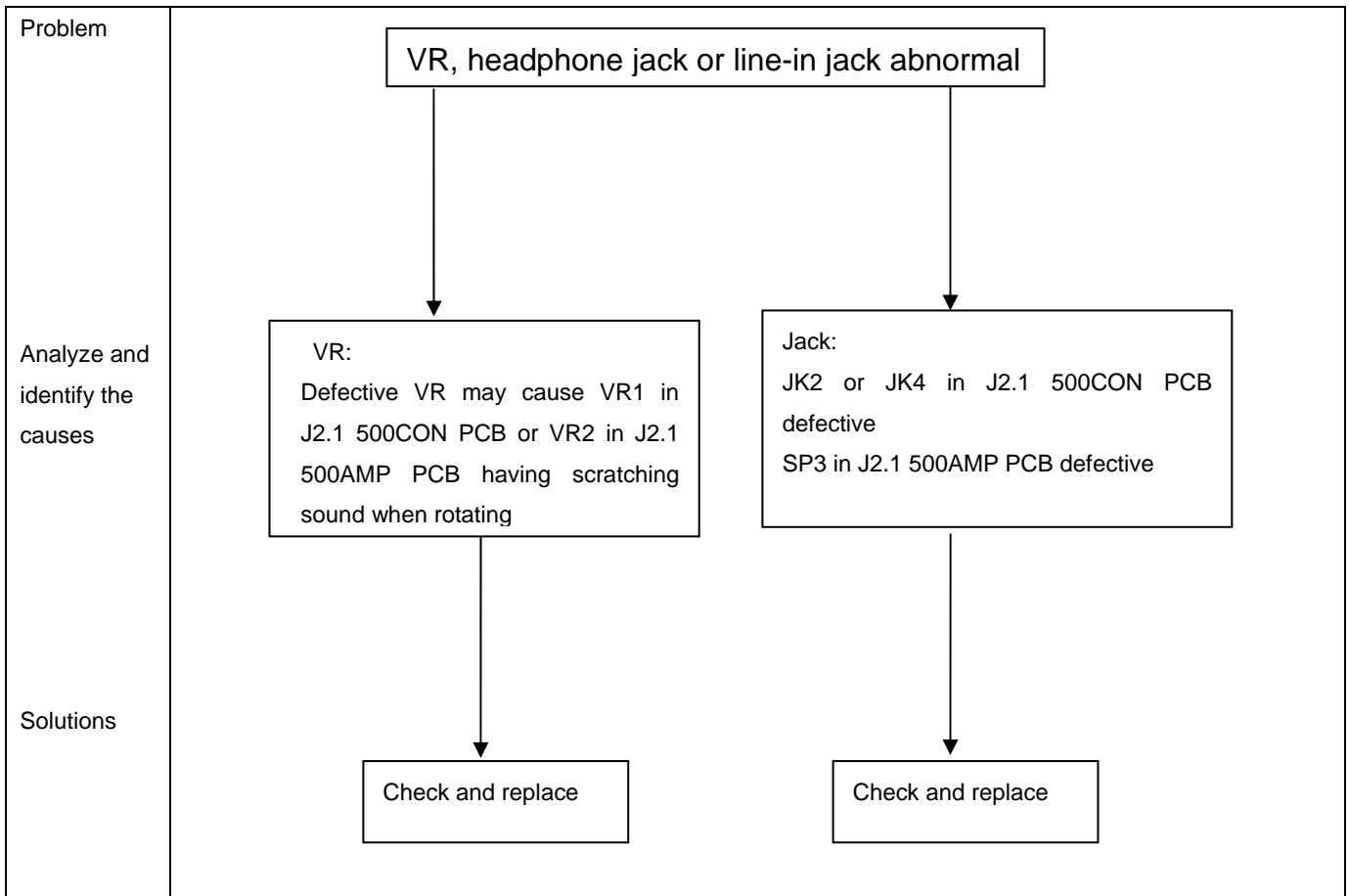
1.2.6 LED indicator no light

Problem	<div>LED indicator no light</div>
Analyze and identify the causes	<div><div>1. PCB damaged, dry-soldered or short-circuited</div><div>2. R1 in J2.1 500AMP PCB R1defective</div><div>3. Poor connection of JK1 in J2.1 500AMP PCB and JK3 in J2.1 500CON PCB</div><div>4. Defective LED1 inJ2.1 500 CON PCB</div></div>
Solutions	<div>Check and replace</div>

1.2.7 Headphone jack output no sound

Problem	<div><div>Headphone jack no sound</div><div></div><div>JK2 in J2.1 500 CON PCB defective or its related copper foil broken</div><div></div><div>Check and replace</div></div>
Analyze and identify the causes	
Solutions	

1.2.8 VR, headphone jack or line-in jack abnormal



Chapter 2. Specifications

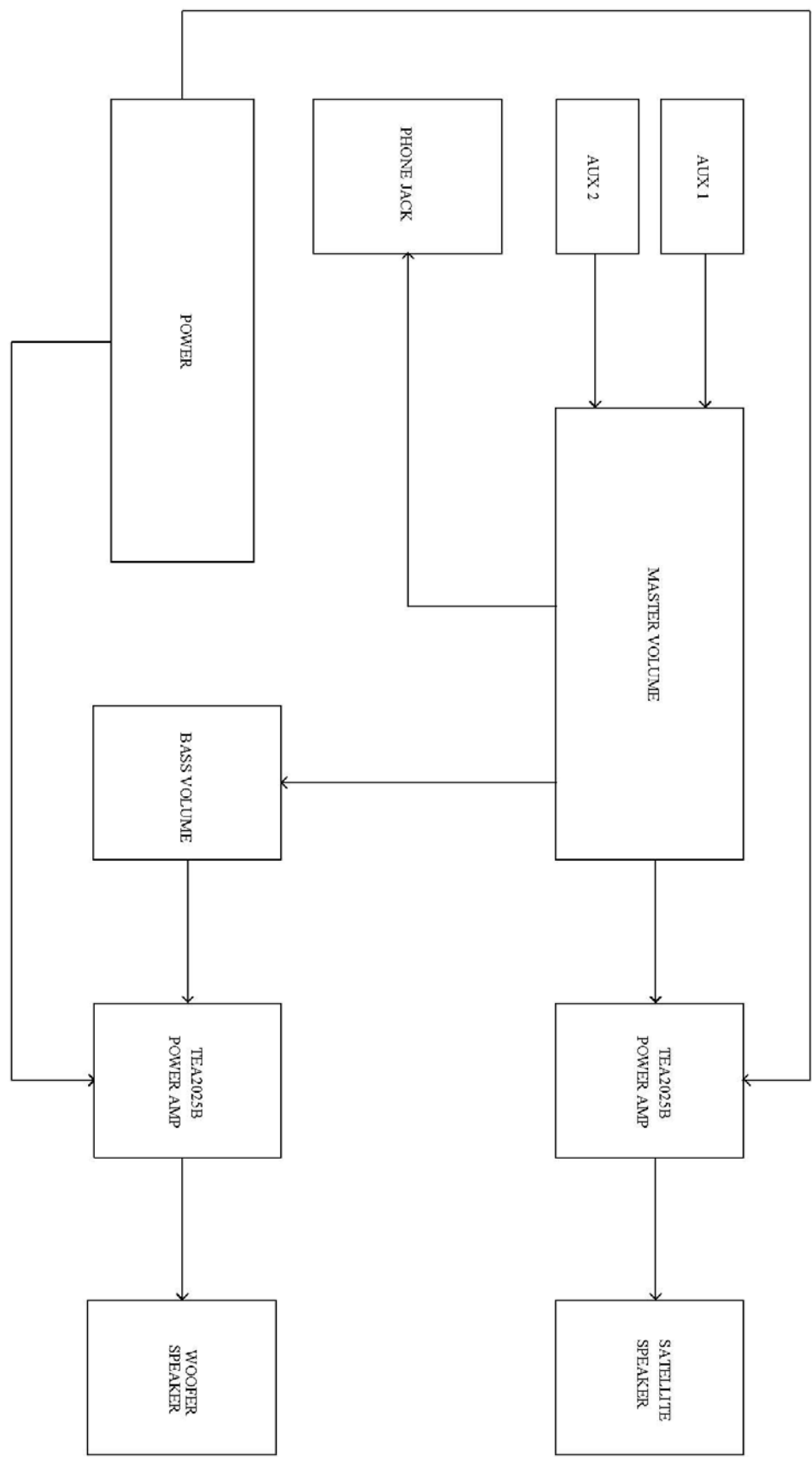
Satellite

NO	DESCRIPTION	UNIT	Normal		LIMIT
			R	L	
1	RATED OUTPUT POWER @THD 10%	W	3.7	4	≥ 3
2	SENSITIVITY (1KHz) @RATED O/P POWER	m V	590	600	600 \pm 60
3	SENSITIVITY (1KHz) @1W O/P POWER	m V	260	260	260 \pm 60
4	MAX INPUT LEVEL@1% THD	m V	360	350	350 \pm 35
5	DISTOPTION@1kHz 1W OUT	%	0.8	0.8	≤ 1
6	FREQUENCY RESPONSE(1KHz -3DB) LOW	Hz	190	190	190 \pm 20
7	FREQUENCY RESPONSE(1KHz -3DB) HI	KHz	110	110	110 \pm 20
8	S/N@RATED O/P POWER	d B	80	79	≥ 70
9	CHANNEL UNBALANCE @REF O/P POWER	d B	0.3	0.5	≤ 1
10	CHANNEL SEPARATION(ONE CHANNELIN;OTHER CHANNEL INPUT SHORTING	d B	51	50	≥ 40
11	HUM NOISE (VOLUME MAX;INPUT SHORTING)	m V	0.6	0.7	≤ 2
12	HUM NOISE (VOLUME MIN INPUT SHORTING)	m V	0.3	0.4	≤ 1

Woofers

NO	DESCRIPTION	UNIT	Normal	LIMIT
1	RATED OUTPUT POWER@100HZ (10%THD)	W	6.8	≥ 6
2	SENSITIVITY (100Hz) @RATED O/P POWER	m V	140	130 \pm 30
3	SENSITIVITY (100Hz) @1W O/P POWER	m V	58	55 \pm 6
4	MAX INPUT LEVEL@1% THD	m V	110	110 \pm 15
5	DISTOPTION@100Hz 1W OUT	%	0.5	≤ 1
6	FREQUENCY RESPONSE(100Hz -3DB) LOW	Hz	27	25 \pm 5
7	FREQUENCY RESPONSE(100Hz -3DB) HI	Hz	190	190 \pm 20
8	S/N RATIO@100HZ RATED O/P POWER	d B	73	≥ 70
9	HUM NOISE (VOLUME MAX;INPUT SHORTING)	m V	1.4	≤ 2
10	HUM NOISE (VOLUME MIN INPUT SHORTING)	m V	0.6	≤ 1

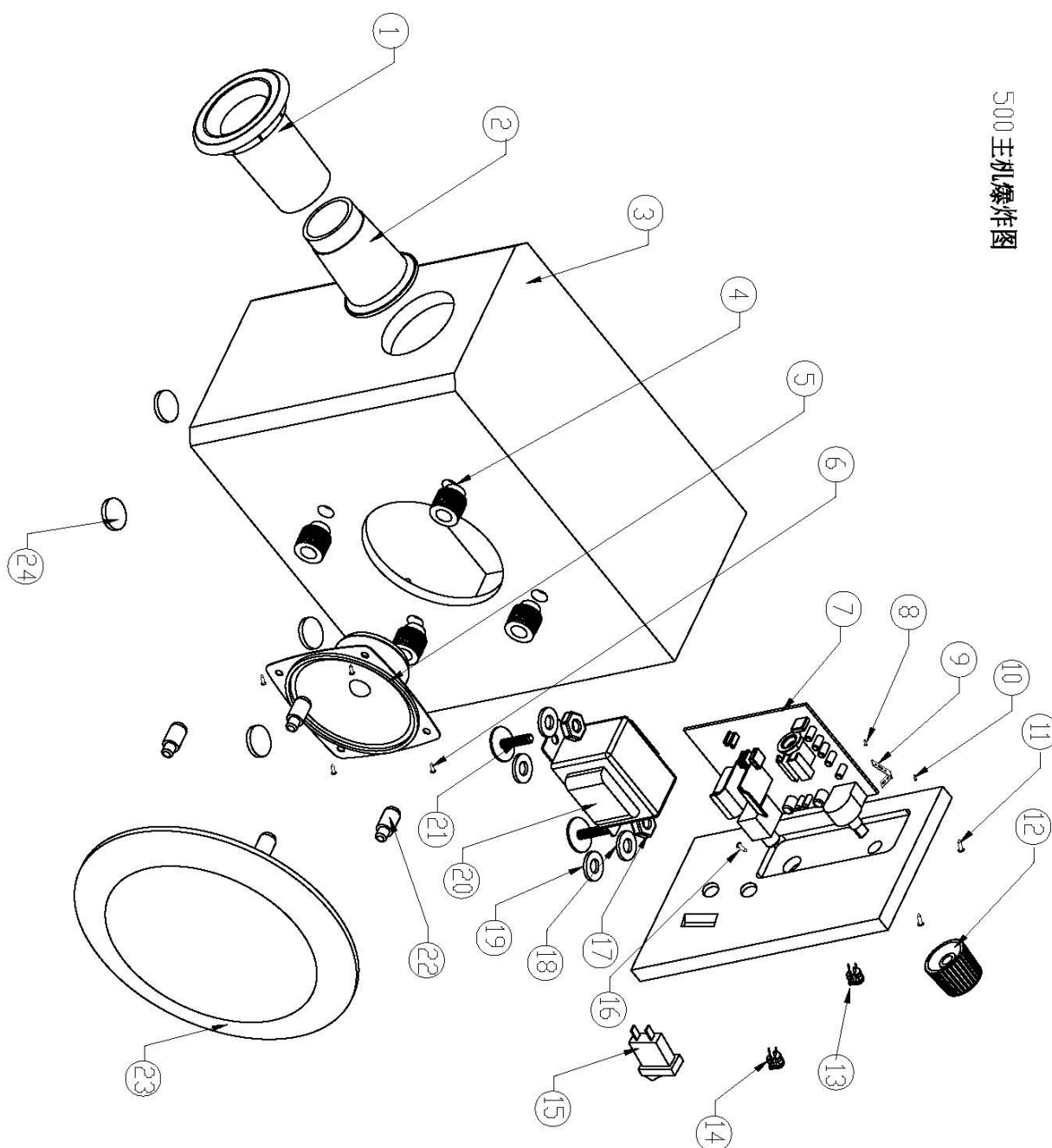
Chapter 3 Block diagram



Chapter 4 Exploded view

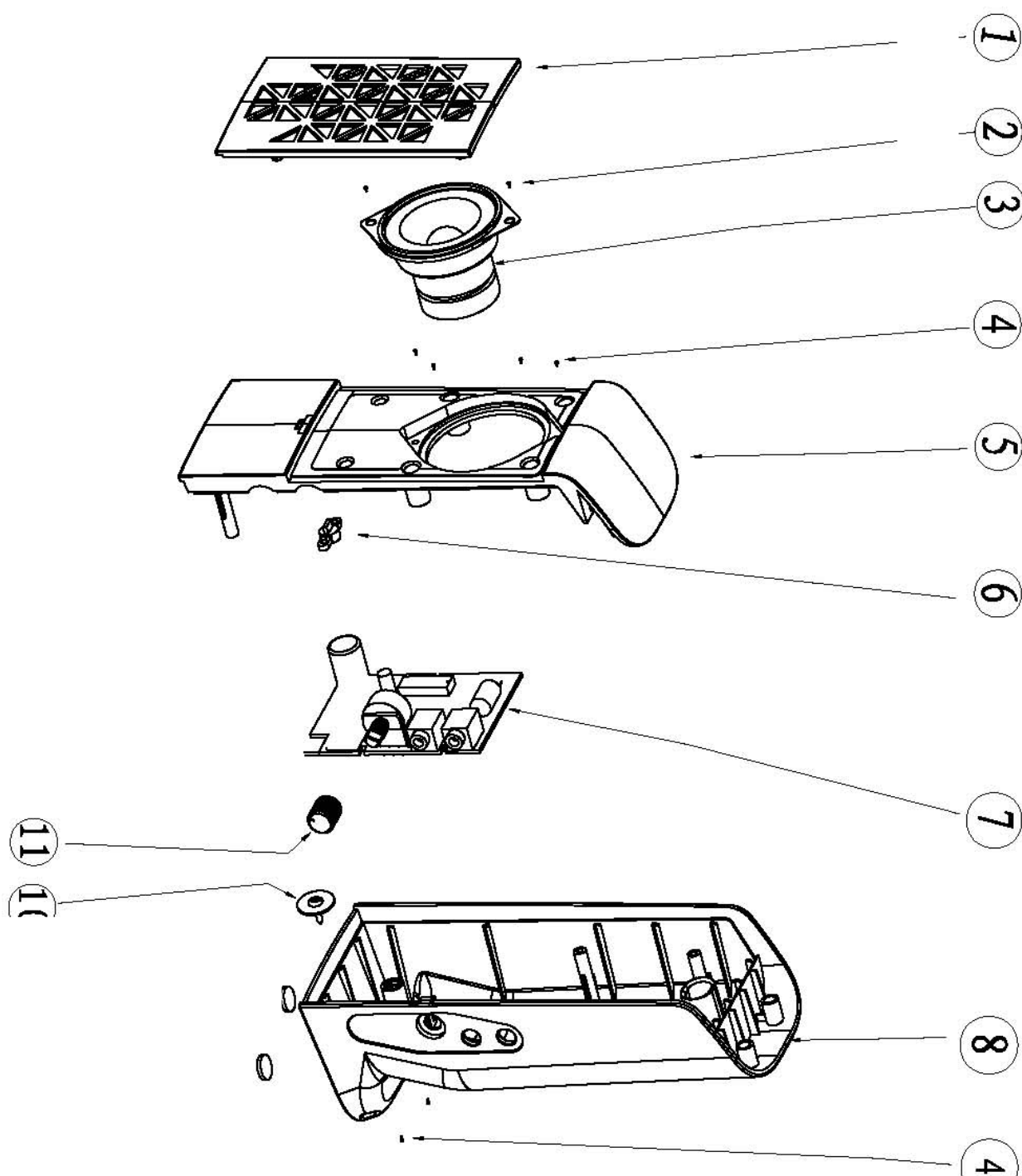
Subwoofer

500 主机爆炸图



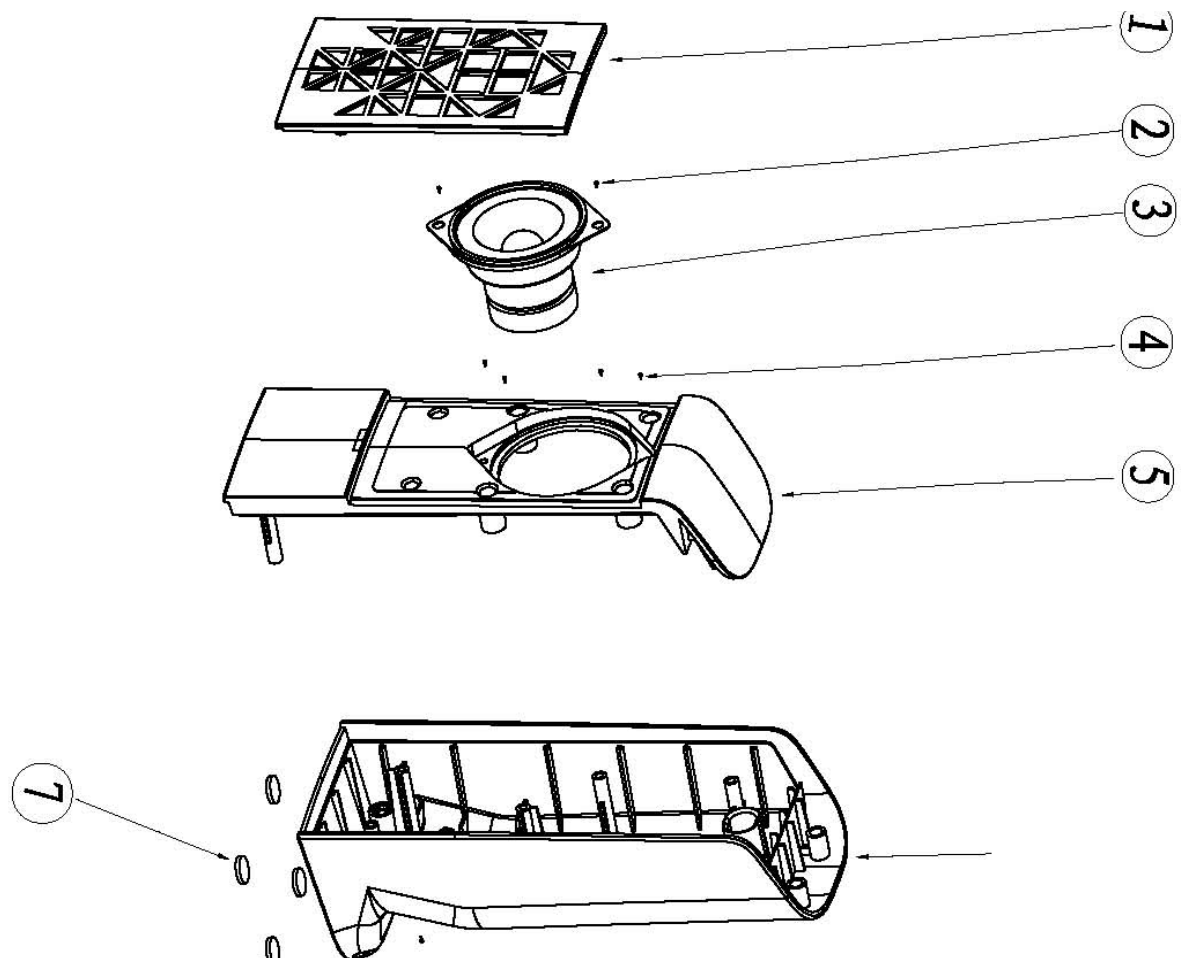
Chapter 4 Exploded view

Right Satellite



Chapter 4 Exploded view

Left Satellite



Chapter 5 Part list

Woofers

Description	Part NO
port tube, SW2.1 500	EP41510068
port tube, YM777	EP41510065
wooden cabinet, J2.1 500	EP53500J03A
driver unit, A-862-3	EP16030073
PCBA, J2.1 500	EPH1P500001
knob, YM230	EP40711187
power switch	EP19030008
transformer, 230V 50HZ/10V-1.5A	EP13500056
woofer driver unit cloth cover, J2.1 500	EP41010173
IC1, TEA2025B	EP1C010200
IC2, TEA2025B	EP1C010200
AC cable	EP32020044
VR2, 16KG-B50K-L15	EP1B010070

Chapter 5 Part list

Right Satellite

Description	Part NO
cloth grill of satellite, Y036	EP64000187
driver unit, A-50-13	EP16020061
Front panel, Y036	EP40310338
LED cover, KA-814-2.1	EP41610019
PCBA, J2.1 500 94HB	EP15500005
Back cover, Y036-2	EP40610401
Knob, J200	EP40711186
VR1, 16KG-B10K-L12F	EP1B010084

Left Satellite

Description	Part NO
cloth grill of satellite, Y036	EP64000187
driver unit, A-50-13	EP16020061
front panel, Y036	EP404100148
back cover, Y036-1	EP40610400

Chapter 6. Important Notes

6.1 Packing requirement for sending the PCB assembly by post
PCB assembly is a kind of sophisticated electronic circuit board. Well packing will be required when sending them by post.

*Some sophisticated IC components are mounted on the PCB assembly; hence it is necessary to pack each PCB assembly with a separate static protecting bag, in order to avoid static electricity.

*Reliable external packing is also very important when sending the PCB assembly by post, in that it would avoid unnecessarily lost or damage.

6.2 Short of spare parts while repairing a speaker system

If you are short of spare parts when you have some speaker systems waiting to be repaired, it would be recommended to take the necessary parts from one

Speaker system, so that you may have the as many speaker systems

Chapter 7. Schematic diagram

SW-J2.1 500 PCB

