



Trouble Shooting Guide, Mechanical

Applicable for J220 and J230

Contents

1	General	2
1.1	Misuse and other no warranty issues	2
2	Appearance Problems	5
3	Power Problems	6
4	Network/Signal Problems	8
5	Audio Problems	9
	Microphone.....	9
	Earphone9	
6	Alert Problems	11
	Vibrator 11	
	Loudspeaker	11
7	Key Problems	12
8	Display Problems	13
	Display 13	
	Illumination	13
9	SIM Problems	14
10	Charging/Capacity Problems	15
11	Data Communication Problems	16
12	Software Problems.....	16
13	Revision History.....	17

1 General

This document outlines the mechanical repairs that should be made in an attempt to fix the common failures that are seen in the field. To gain a complete understanding of how to test and repair a specific failure, this document should be used in conjunction with the Test Instructions, Mechanical and the Working Instructions, Mechanical.

1.1 Misuse and other no warranty issues






Misuse is not covered by warranty. This chapter will explain what's not covered by warranty. Phones that have been exposed to misuse will not be covered by warranty.

This means: if it is possible to repair the phone, the customer will have to pay for the repair. SEMC will not allow any of these phones to be claimed into WCMS. Some local perspectives may interfere with this. Please reference to local directives.


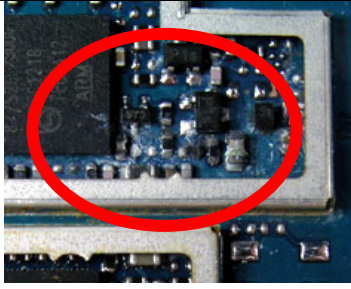
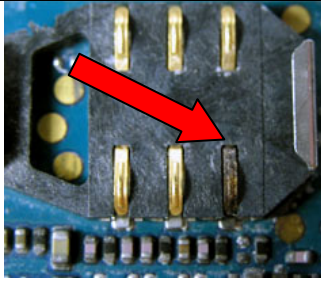
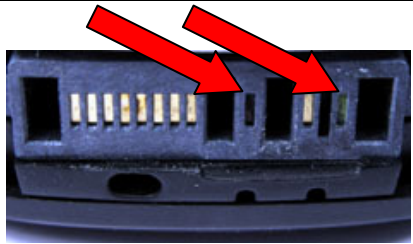
1.1.1 Action

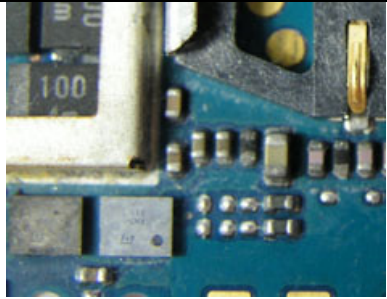
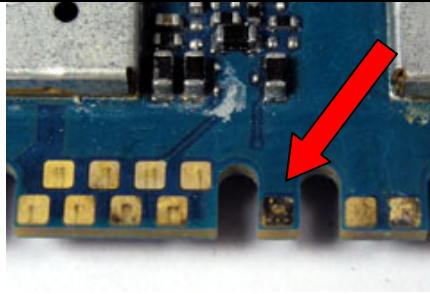
Make a general visual inspection for misuse.

Below are some **examples** of what is not covered by warranty.

				
Front window broken due to misuse.	LCD cracked due to drop.	Clear scratches	Mark after drop	Corrosion components on the PCB.

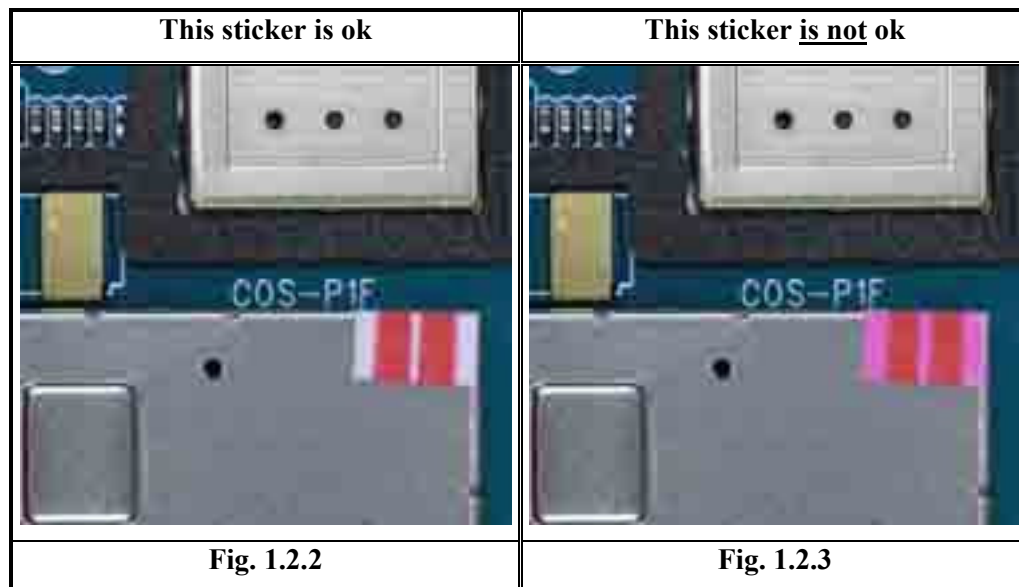


			
Corrosion components on the PCB.	Corrosion components on the PCB.	SIM reader damaged by liquid.	System connector damaged by liquid

	
Components around system connector damaged by liquid	System connector pad(s) damaged by liquid

1.1.2 Liquid damage sticker

On the pictures below you will see the different between a sticker that has been in contact with liquid (Fig. 1.2.3) and with one that hasn't (Fig. 1.2.2).



1.1.3 Action

Make a general visual inspection for misuse, corrosion or oxidation from liquid damage. No further action should be taken for a liquid damaged phone. Handle the unit according to local directives.




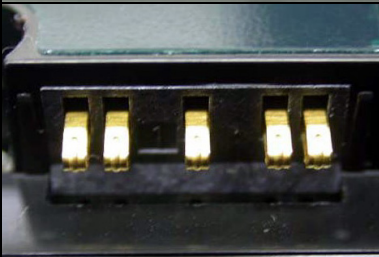
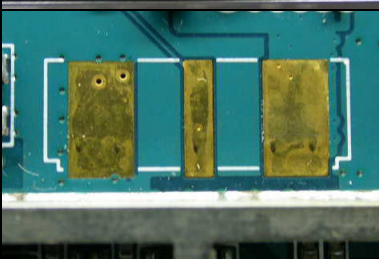
2 Appearance Problems

Problem Area	Items to Check	Repair Action	Reference Image
Appearance	Visually inspect the cosmetic quality of all user viewable surfaces	<ul style="list-style-type: none">• If dirty – Clean• If unacceptably scratched or damaged – Replace parts that are unacceptable	
	Visually inspect all keys	<ul style="list-style-type: none">• If dirty – Clean• If unacceptably damaged – Replace	
	Visually inspect for improper gap between seams	<ul style="list-style-type: none">• Reassemble or replace damaged parts as necessary	


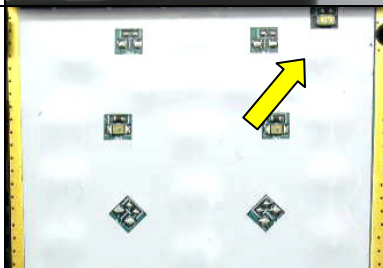


3 Power Problems

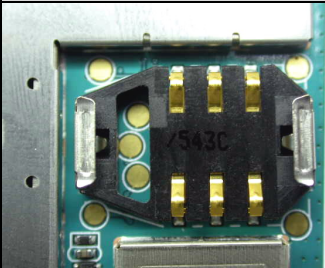
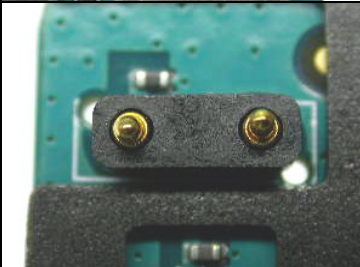


Insert a regular functionality Battery and connect a Charger to the phone. The phone will charge the Battery without turning on the phone while the Battery voltage is too low. (It takes less than 10 minutes) When the Battery voltage is high enough to turn on the phone, it will show “charging only” on the LCD.

Problem Area	Items to Check	Repair Action	Reference Image
No Power On	Check whether the phone Keypad illuminated	<ul style="list-style-type: none">If the Keypad are undetectable, refer to the “Display Problems” section	
	Visually inspect contact the pads of Battery	<ul style="list-style-type: none">If dirty or oxidized – Clean padsIf damaged – Replace Battery	
	Visually inspect Battery Connector	<ul style="list-style-type: none">If dirty or oxidized – Clean padsIf damaged – Replace Battery ConnectorIf can’t power on – Replace Battery Connector	
	Visually inspect Battery pads	<ul style="list-style-type: none">If dirty or oxidized – Clean pads	

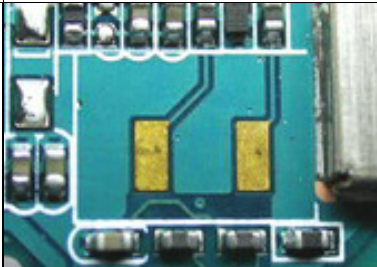


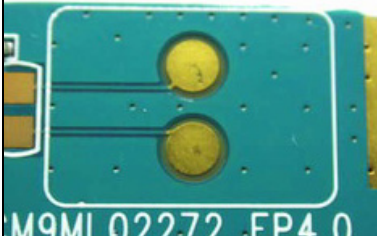


Problem Area	Items to Check	Repair Action	Reference Image
	Visually inspect the power key portion of the Keypad for debris or damage	<ul style="list-style-type: none">• If dirty – Clean• If damaged – Replace Keypad	
	Visually inspect the power contact portion of the Dome Switch Foil	<ul style="list-style-type: none">• If dirty – Clean• If damaged – Replace Dome Switch Foil	
	If the issue has not been resolved→	<ul style="list-style-type: none">• Replace the Keypad and the Dome Switch Foil, if they have not already been replaced	


4 Network/Signal Problems

Problem Area	Items to Check	Repair Action	Reference Image
No Signal or Poor Signal	Visually inspect SIM Holder	<ul style="list-style-type: none"> If dirty or – Clean If damaged – Send to an electrical repair location 	
	Visually inspect the Antenna Connector	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	
	Visually inspect the Antenna Insert	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Replace the Frame Cabinet 	
	Visually inspect the Antenna Flex	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Replace the Frame Cabinet 	

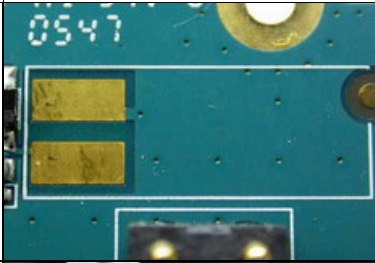



5 Audio Problems

Problem Area	Items to Check	Repair Action	Reference Image
Microphone	Before proceeding →	<ul style="list-style-type: none"> Perform a setting reset 	
	Visually inspect the Microphone pads	<ul style="list-style-type: none"> If dirty or oxidized – Clean 	
	Visually inspect the Microphone Assy	<ul style="list-style-type: none"> If damaged, dirty or oxidized - Replace Microphone Assy 	
Earphone No sound or poor quality sound	Before proceeding →	<ul style="list-style-type: none"> Perform a setting reset 	
	Visually inspect the Front Cover Assy Insert external	<ul style="list-style-type: none"> If clogged – Replace Front Cover Assy 	
	Visually inspect the Earphone Speaker pads	<ul style="list-style-type: none"> If dirty or oxidized – Clean 	





Problem Area	Items to Check	Repair Action	Reference Image
Earphone No sound or poor quality sound (Cont.)	Visually inspect the Earphone Speaker	<ul style="list-style-type: none">If damaged, dirty or oxidized - Replace Earphone Speaker	
	Check for the latest Software version	<ul style="list-style-type: none">Update to the latest Software	

6 Alert Problems

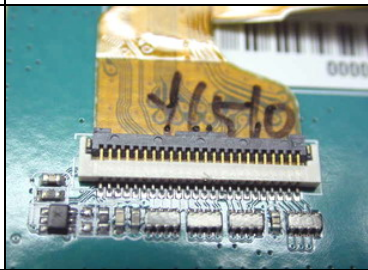
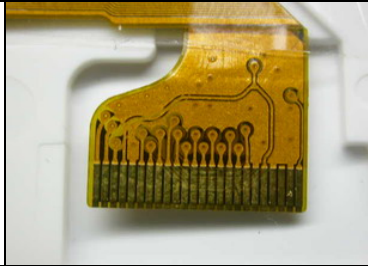
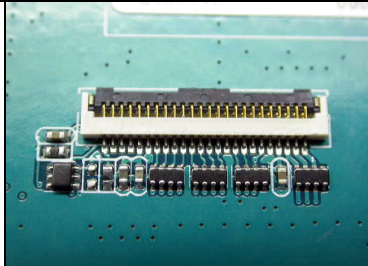
Problem Area	Items to Check	Repair Action	Reference Image
Vibrator	Before proceeding →	<ul style="list-style-type: none"> Perform a setting reset 	
	Visually inspect the Vibrator pads	<ul style="list-style-type: none"> If dirty or oxidized – Clean 	
	Visually inspect the Vibrator Assy	<ul style="list-style-type: none"> If damaged, dirty or oxidized - Replace Vibrator Assy 	
Loudspeaker	Before proceeding →	<ul style="list-style-type: none"> Perform a setting reset 	
	Visually inspect the Speaker Connector	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	
	Visually inspect the Loudspeaker Assy	<ul style="list-style-type: none"> If damaged, dirty or oxidized - Replace Loudspeaker Assy 	



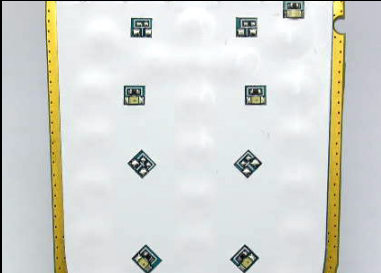
7 Key Problems

Problem Area	Items to Check	Repair Action	Reference Image
Keypad A key on the keypad is not functioning or is intermittent	Before proceeding →	<ul style="list-style-type: none">Perform a setting reset	
	Visually inspect the Dome Switch Foil	<ul style="list-style-type: none">If damaged, dirty or oxidized - Replace the Dome Switch Foil Make sure that the surface of the PCB is cleaned before replacing.	
	Visually inspect the Keypad	<ul style="list-style-type: none">If damaged, dirty or oxidized - Replace the keypad	

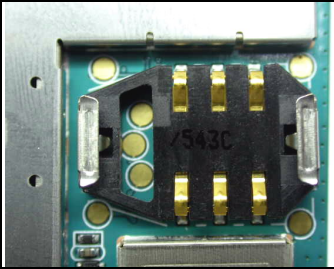
8 Display Problems

Problem Area	Items to Check	Repair Action	Reference Image
Display	Check whether the phone keypad is illuminates	<ul style="list-style-type: none"> If the Keypad are undetectable, refer to the “Power Problems” section 	
	Visually inspect whether the Flex Film is properly connected into the LCD connector	<ul style="list-style-type: none"> If improperly connected - Reestablish proper connection If dirty or oxidized – Clean If damaged – Replace the LCD 	
	Visually inspect the LCD Flex Film	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Replace the LCD 	
	Visually inspect the LCD connector	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	
	If issue has not been resolved →	<ul style="list-style-type: none"> Replace the LCD 	
Illumination	Before proceeding →	<ul style="list-style-type: none"> Perform a setting reset 	






Problem Area	Items to Check	Repair Action	Reference Image
	Visually inspect the 5 LEDS	<ul style="list-style-type: none">• If dirty or oxidized– Clean• If damaged or no light - Send to an electrical repair location	


9 SIM Problems

Problem Area	Items to Check	Repair Action	Reference Image
Display “Insert SIM “	Inspect SIM holder	<ul style="list-style-type: none">• If dirty or oxidized – Clean• If damaged – Send to an electrical repair location	
Unit indicates the incorrect SIM is inserted	Check whether the phone is locked to a particular carrier and whether the correct carrier’s SIM is being used	<ul style="list-style-type: none">• Use Correct Carrier SIM or test SIM	

10 Charging/Capacity Problems

Problem Area	Items to Check	Repair Action	Reference Image
Battery can not charge	Visually inspect the contact pads of the Battery	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Replace the Battery 	
	Visually the Battery Connector	<ul style="list-style-type: none"> If dirty or oxidized – Clean If damaged – Replace the Battery Connector 	
	Visually inspect the System Connector	<ul style="list-style-type: none"> If damaged, dirty or oxidized – Send to an electrical repair location 	
Battery loses charge quickly/ standby time seems short	<p>NOTE - Some features noticeably reduce the amount of standby time if they are turned on. Some examples are the back light (when turn on all the time), Blue tooth, and infrared.</p> <p>Perform the following repair action →</p>	<ul style="list-style-type: none"> Replace the Battery 	

11 Data Communication Problems

Problem Area	Items to Check	Repair Action	Reference Image
Problem transferring data using a direct connection	Visually inspect the System Connector	<ul style="list-style-type: none"> If damaged, dirty or oxidized – Send to an electrical repair location 	

12 Software Problems

- If there are problems with the response of the keypad commands, or spelling errors in the menu, if they are not related to mechanical damage, make a master reset and flash the phone with the latest software from EMMA III.
- Checking the software revision can be done in the Service info, see chapter *Service functions in the software*.
Choose: Service info / SW information.
The Software revision and date will be shown in the display.

Note: Do a SW upgrade before sending the unit to a higher level. Do **not** scrap a phone that hasn't been upgraded.

If the failure still occurs, handle the unit according to the local directives.

13 Revision History

Rev.	Date	Changes / Comments
A	2006-03-07	First Release
B	2006-12-11	Chapter 1.1 Misuse and other no warranty issues added