



Sony Ericsson

Trouble Shooting Guide Repair Instruction Additional Soldering Process/

Troubleshooting Guide

- electrical -



XPERIA arc, LT15i, LT15a, SO-01C



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1 Troubleshooting Flow

1.1 Display

Symptom:	Display problem	
Replace:	X7002 , if damaged Z9800, Z9801 or Z9802	vision check all pins



Troubleshooting Flow

1.2 Illumination

Symptom:	No Display illumination	
Replace:	X7002 , if damaged	vision check pin A11 - A12 and B7
	L7600 , if more than 1 Ω	
	V7601	

Symptom:	No Key Back Light	
Replace:	X9800 , if damaged	vision check pin B4 and A3 - A4

Symptom:	R G B MMI LED s	
Replace:	V5107	

Symptom:	No Flash LED	
Replace:	L7801 ,if more than 1 Ω	



Troubleshooting Flow

1.3 Keys & Sensors

Symptom: On / Off key problems

Replace: **X9801**, if damaged vision check pin B6 – B7

Symptom: Back Key problems

Replace: **X9800**, if damaged vision check pin B2 - B6

Symptom: Home Key problems

Replace: **X9800**, if damaged vision check pin B2 - B5

Symptom: Menu Key problems

Replace: **X9800**, if damaged vision check pin B2 - B3

Symptom: Camera shutter key problems

Replace: **X9800**, if damaged vision check pin A1 - A2 and B1 - B2

Symptom: Display Touch Sensor problems

Replace: **X5303**, if damaged vision check all pins

Symptom: Volume Up key problems

Replace: **S5203**

Symptom: Volume Down key problems

Replace: **S5204**

Symptom: Proximity sensor problems

Replace: **X9801**, if damaged vision check pin A10 - A11
N5500

Symptom: Ambient Light Sensor problems

Replace: **X9801**, if damaged vision check pin B4 - B5

Symptom: Compass problems

Replace: **N5400**



Troubleshooting Flow

1.4 Alert

Symptom: Vibrator problems

Replace: **R9805**, if more than 1 Ω

X9801, if damaged vision check pin B11 - B12



Troubleshooting Flow

1.5 Audio

Symptom:	No audio
Replace:	L1001 ,if more than 1 Ω
Symptom:	No Primary Microphone
Replace:	X9800 , if damaged vision check pin A6 - A7 and B8 N2800
Symptom:	No Secondary Microphone
Replace:	L2852 or L2853 ,if more than 3 Ω B3502 N2800
Symptom:	No or bad Earphone / Ear speaker
Replace:	X9801 , if damaged vision check pin B8 and B9 V3502 , if pin1 or pin 2 is short circuit to GND N2800
Symptom:	No or bad Loudspeaker
Replace:	X9800 , if damaged vision check pin A9 - A12 V3500 , if pin1 or pin 2 is short circuit to GND N2800
Symptom:	No or bad Hands-free (PHF) Microphone
Replace:	X9801 , if damaged vision check pin A6 L3100 or L3604 , if more than 2 Ω N2800
Symptom:	No or bad Hands-free (PHF) Aux Earphone / Ear speaker
Replace:	X9801 , if damaged vision check pin A2 - A4 L3602 or L3603 if more than 2 Ω N2800
Symptom:	No Hands-free (PHF) Microphone – Phone not recognizes PHF set
Replace:	X9801 , if damaged vision check pin B1 - B2



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Symptom:	No or bad FM Radio	
Replace:	X9801 , if damaged	vision check pin B3
	V3100	
	N8102	
	N8100	
	N2800	



Troubleshooting Flow

1.6 On/Off

Symptom:	Current draw greater than 300 mA
Replace:	N2801 , if getting hot N2903 ,N2900 or N2902 , if getting hot

Symptom:	Current draw when powered off
Replace:	N2801 , if getting hot N2903 ,N2900 or N2902 , if getting hot

Symptom:	Using no current when On/Off key is pressed and will not start.
Replace:	X9801 , if damaged vision check pin B6 - B7

Symptom:	Draws current when On/Off key is pressed, returns to zero
Replace:	L1000, L1003 , L1004 or L2400 , if more than 1 Ω N2401

Symptom:	Other
Replace:	X1300 , if damaged vision check all pins



Troubleshooting Flow

1.7 Charging & Capacity

Symptom:	No or bad Charging from USB
Replace:	X2200 , if damaged vision check pin 1 and 5 C2200 , if X2200 pin 1 is short circuit to GND X1300 , if damaged vision check all pins N1310

Symptom:	Wrong Battery indicator
Replace:	N1302



Troubleshooting Flow

1.8 SIM

Symptom:	SIM not detected
Replace:	X4000 , if damaged vision check all pins V4000 or V4001 , if short circuit to GND



Troubleshooting Flow

1.9 Camera

Symptom:	Main Camera problems	
Replace:	X7301 , if damaged	vision check all pins
	L1002 , if more than 1 Ω	
	Z9803, Z9804 or Z9805	



Troubleshooting Flow

1.10 Data Communication

Symptom:	No communication via the USB Connector, charging via USB connector is working
Replace:	X2200 , if damaged vision check pin 2 and 3

Symptom:	Bad Bluetooth ,WLAN and no GPS connection
Replace:	X8402 , if damaged X8401 , if more than 1 Ω between term A and C

Symptom:	Bad Bluetooth and WLAN connection
Replace:	Z8001 or Z8402

Symptom:	No Bluetooth and / or WLAN connection
Replace	N8102 N8101 N8100 N2800

Symptom:	No GPS connection
Replace:	Z8401 , Z8402 , Z8403 N8400 N2800

Symptom:	No or bad HDMI
Replace:	X6501 , if damaged vision check all pins N6502 or N6504 N6505 , N6506 or N6507



Troubleshooting Flow

1.11 Memory Stick / Card

Symptom:	Memory stick / Card (micro SD) not detected
Replace:	X4100 , if damaged vision check pin all pins V4100



Troubleshooting Flow

1.12 Network & Signal

Symptom:	Phone fails to lock on to network during radiated (wireless) Go/ No Go test
Action:	Use RF probe to perform conducted Go / No Go test
Symptom:	Phone passes conducted (RF cable) Go / No Go test but fails radiated (wireless) Go / No Go test
Check:	X2802, X8404, X8405, X8406, X8407 and X8408 for damage and replace, if necessary X2801 for damage and replace, if more than 1 Ω between A and C term
Replace:	RF Antenna ,Sub PCB or Antenna RF Cable
Action:	Rerun the phone through radiated (wireless) Go / No Go testing
Symptom:	Phone fails conducted (RF probe) Go / No Go test
Action:	Run the calibration routine
Symptom:	Fails conducted (RF probe) Go/No Go test, but passes calibration
Action:	Rerun the phone through Go/No Go testing
Symptom:	Fails any part of the calibration routine
Check:	X2801 for damage and replace, if more than 1 Ω between RF probe and C term or A and C term is short circuit then the probe is inserted.
Replace:	Z2800, N2803 or N2800 , if GSM Rx fault N2803 or N2800 , if WCDMA Rx fault V9830, N2801 ,N2803 or N2800 , if GSM Tx fault N2900 ,N2803 or N2800 ,if WCDMA Tx band 5 or 8 N2903 ,N2803 or N2800 ,if WCDMA Tx band 1 fault N2902 ,N2803 or N2800 ,if WCDMA Tx band 2 fault



2 Revision History

Rev.	Date	Changes / Comments
PA1	2011-03-09	Initial release
2	2011-05-06	X8408 added , N7600 deleted due to under fill
3	2011-05-19	R9805 added to 1.4 Vibrator problems