



Sony Ericsson

Troubleshooting Guide

- electrical -



Yari
U100a, U100i



CONTENTS

1	Troubleshooting Flow	3
1.1	Display	3
1.2	Illumination	3
1.3	Keys & Sensors	4
1.4	Alert & RTC	4
1.5	Audio	5
1.6	On/Off	6
1.7	Charging & Capacity	7
1.8	SIM	7
1.9	Camera	7
1.10	Data Communication	8
1.11	Memory Card	8
1.12	Network & Signal	9
2	Revision History	10

*For general information about troubleshooting, refer to
1220-1336: Generic Repair Manual - electrical*



1 Troubleshooting Flow

1.1 Display

Symptom: Display problem

Replace: **X4000**, if damaged visual check pin A2-A13 , B1-B14 and B27
Z4200, **Z4201** or **Z4202**

1.2 Illumination

Symptom: No Display illumination

Replace: **X4000**, if damaged visual check pin A12-A13 and B12-B13
L4200, if more than 1 Ω
C4203, if short circuit
N4200

Symptom: No Navigation keys illumination

Replace: **X4000**, if damaged visual check pin A38-A39 and B37-B38

Symptom: No Numeric keyboard illumination

Replace: **X4001**, if damaged visual check pin 3 and 4

Symptom: No Flash LED

Replace: **X4300**, if damaged visual check pin B7
V4208
N4206

Symptom: No Charge LED

Replace: **X4000**, if damaged visual check pin B16 and B17

Troubleshooting Flow

1.3 Keys & Sensors

Symptom: Numeric keyboard problems

Replace: **X4001**, if damaged visual check pin 7 - 16

Symptom: Navigation keys problems

Replace: **X4000**, if damaged visual check pin A32 - A36 and B31 - B36

Symptom: Side keys problems

Replace: **X4001**, if damaged visual check pin 1 , 8 , 12 and 17

Symptom: Opto Sensor problems

Replace: **X4000**, if damaged visual check pin B28 - B30

Symptom: Slide Sensor problems

Replace: **X4001**, if damaged visual check pin 1, 2 and 5

Symptom: Accelerometer problems

Replace: **N2411**

1.4 Alert & RTC

Symptom: Vibrator problems

Replace: **B4200**
N2440

Symptom: The clock gain or lose time – SERP calibrating is performed

Replace: **B2100**

Troubleshooting Flow

1.5 Audio

Symptom: No Microphone

Replace: **B3101**

Symptom: No Ear Speaker

Replace: **X4000**, if damaged visual check pin A29 and A30

Symptom: No or bad Top Loudspeaker 11x15

Replace: **L3102** or **L3103**, if more than 2 Ω

V3101, if Top Loudspeaker connectors are short circuit to GND

N3100

Symptom: No or bad Bottom Loudspeaker 9x18

Replace: **L3104** or **L3105**, if more than 2 Ω

V3102 or **V3103**, if Bottom Loudspeaker connectors are short circuit to GND

N3102

Symptom: No Hands-free (PHF) Aux Microphone

Replace: **X2405**, if damaged visual check pin 3 and 4

L2401 or **L2402**, if more than 2 Ω

N3101

Symptom: No Hands-free (PHF) Aux Ear Speaker

Replace: **X2405**, if damaged visual check pin 2 , 5 and 6

L2403 or **L2404**, if more than 2 Ω

L2406, if more than 1 Ω

N3101

Symptom: No Microphone and no Ear Speaker.

Phone stuck in PHF mode when PHF is not attached

Replace: **V2417**, if short circuit

N2422

Symptom: No Hands-free (PHF) audio. Phone not recognizes PHF set.

Replace: **X2405**, if damaged visual check pin 8 and 9

N2422

Symptom: No FM Radio (PHF)

Replace: **X2405**, if damaged visual check pin 2 ,8 and 9

N1300



Troubleshooting Flow

1.6 On/Off

Symptom: Current draw greater than 300 mA.

Replace: **N1200**, if module getting hot.
N2420, if getting hot

Symptom: Current draw when powered off.

Replace: **N1200**
N2420

Symptom: Using no current when On/Off key is pressed and will not start.
Starts when charger is inserted.

Replace: **X4000**, if damaged visual check pin A1, A36, B40

Symptom: Hangs at gray display. Constant vibration. Will not power off.

Replace: **B2100**

Symptom: Draws current when On/Off key is pressed, returns to zero.

Replace: **L2200** or **L2202**, if more than 1 Ω
C4203, if short circuit
N2207
N1211
N1200

Symptom: Will not power off

Replace: **V2470**

Symptom: Other

Replace: **X2201**, if damaged



Troubleshooting Flow

1.7 Charging & Capacity

Symptom: No Charging from power outlet

Replace: **X2405**, if damaged visual check pin 9 and 12
X2201, if damaged visual check all pins
C2440 or **V2412**, if pin12 at X2405 are short circuit to pin9 at X2405 (GND)
V2200, if short circuit
R2443 or **R2448**, if more than 1 Ω
V2202

Symptom: No Charging from computer via USB

Replace: **X2405**, if damaged visual check pin 1 and 9
L2407, if more than 1 Ω
C2439, if pin1 at X2405 are short circuit to pin9 at X2405 (GND)
N2421

1.8 SIM

Symptom: SIM not detected

Replace: **X2403**, if damaged visual check all pins

1.9 Camera

Symptom: Main Camera and VT Camera (QCIF) problems

Replace: **N2209** or **N2212**

Symptom: Main Camera problems

Replace: **X4300**, if damaged visual check all pins
N2208
N2210 or **N2211**

Symptom: VT Camera (QCIF) problems

Replace: **X4000**, if damaged visual check pin A14-A16 , B15 and B23 - B26



Troubleshooting Flow

1.10 Data Communication

Symptom: No communication via the System Connector.

Action: Go to Charging problems if not Charging via USB.

Replace: **X2405**, if damaged visual check pin 9 ,10 and 11

V2415, if pin10 at X2405 are short circuit to GND

V2416, if pin11 at X2405 are short circuit to GND

Z2400

N2420

Symptom: No or bad Bluetooth connection

Replace: **Z1300**

N1300

Symptom: No GPS connection

Replace: **N1401**

Z1400 or **Z1401**

B1401

N1400

1.11 Memory Card

Symptom: Memory card (MicroSD) not detected

Replace: **X2401**, if damaged visual check all pins

N2402

Troubleshooting Flow

1.12 Network & Signal

Symptom: Phone fails to lock on to network during radiated (wireless) Go/NoGo test

Action: Use RF probe to perform conducted Go/NoGo test

Symptom: Phone passes conducted (RF cable) Go/NoGo test but fails radiated (wireless) Go/NoGo test

Check: **X2, X3, X5, X1210** and **X1211** for damage and replace if necessary
X1200 for damage and replace, if necessary

Replace: Antenna (Inner Frame)

Action: Rerun the phone through radiated (wireless) Go/NoGo testing

Symptom: Phone fails conducted (RF probe) Go/NoGo test

Action: Run the calibration routine

Symptom: Fails conducted (RF probe) Go/NoGo test, but passes calibration

Action: Rerun the phone through Go/NoGo testing

Symptom: Fails any part of the calibration routine

Replace: **X1200**, if damaged
N1211 or **N1200**, if GSM fault
N1200, if UMTS fault



2 Revision History

Rev.	Date	Changes / Comments
1	2009-Sept-25	Initial release
2	2009-Oct-05	Commercial names added on front page.
3	2010-Apr-30	N1210 has been removed. Two version of N1210, depends on L1200.