



# Trouble shooting Guide

## - electrical -



*X10i, X10a, SO-01B*

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



# 1 Troubleshooting Flow

## 1.1 Display

**Symptom:** Display problem

**Replace:** **X3402**, if damaged vision check all pins  
**X3406** or **X3407**, if damaged  
**L3405** or **L3406**, if more than 5  $\Omega$

## Troubleshooting Flow

### 1.2 Illumination

**Symptom:** No Display illumination, Photo LED and Call LEDs

**Replace:** **L3401**, if more than 1  $\Omega$

**C3420** if short circuit

**V3402**

**Symptom:** No Display illumination

**Replace:** **X3402**, if damaged vision check pin B5 - B10

**Symptom:** No Photo LED

**Replace:** **X3404**, if damaged vision check pin B8 - B11

**Symptom:** Key flex LED 1 and LED2

**Replace:** **X3403**, if damaged vision check pin B3, B4 and B6, B7

**Symptom:** Call R G B LED s

**Replace:** **X3405**, if damaged vision check pin A11 - A14

## Troubleshooting Flow

### 1.3 Keys & Sensors

**Symptom:** On / Off key problems

**Replace:** **X3405**, if damaged vision check pin B10 and B15

**Symptom:** Back, Home, Menu or Camera AF/Snap Keys problems

**Replace:** **X3403**, if damaged vision check pin A3-A7

**Symptom:** Touch Screen problems

**Replace:** **X3401**, if damaged vision check all pins

**Symptom:** Volume Up and Down key problems

**Replace:** **X3405**, if damaged vision check pin B11-B13

**Symptom:** Proximity sensor

**Replace:** **X3405**, if damaged vision check pin A7-A10 and B14

**Symptom:** Light Sensor

**Replace:** **X3405**, if damaged vision check pin B8, B9 and A15,B15

**Symptom:** Compass problems

**Replace:** **N4100**

## Troubleshooting Flow

### 1.4 Alert & RTC

**Symptom:** Vibrator problems

**Replace:** **B3200**

**Symptom:** The clock gain or lose time when the phone is powered off

**Replace:** **B3001**

**Symptom:** The clock has to be set after the battery has been detached

**Replace:** **C3108**

## Troubleshooting Flow

### 1.5 Audio

**Symptom:** No Audio at all

**Replace:** **L3300** if more than 1  $\Omega$   
**N3100**

**Symptom:** No Microphone

**Replace:** **B4600**

**Symptom:** No or bad Earphone

**Replace:** **X3405**, if damaged vision check pin A2-A3  
**V4600**, if short circuit

**Symptom:** No Speaker

**Replace:** **L3200** or **L3201** if more than 1  $\Omega$

**Symptom:** No or bad Hands-free (PHF) Microphone

**Replace:** **X3405**, if damaged vision check pin A5 and B3  
**V4602** if short circuit

**Symptom:** No or bad Hands-free (PHF) Aux Earphone

**Replace:** **X3405**, if damaged vision check pin B2-B4  
**L4604** or **L4605** if more than 2  $\Omega$   
**N4600**

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

**Replace:** **X3405**, if damaged vision check pin B3 and B6

## Troubleshooting Flow

### 1.6 On/Off

**Symptom:** Current draw greater than 300 mA

**Replace:** **N3300** , if getting hot

**Symptom:** Current draw when powered off

**Replace:** **N3300** , if getting hot

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

**Replace:** **X3405**, if damaged vision check pin A1,B1 and B10

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

**Replace:** **L3301**, if more than 1  $\Omega$

**L3302**, if more than 1  $\Omega$

**N3300**

**N1001**

**Symptom:** Will not power off

**Replace:** **V3103**



## Troubleshooting Flow

### 1.7 Charging & Capacity

**Symptom:** No Charging from USB

**Replace:** **X3101**, if damaged vision check pin 1 and 5 if X3101 is not glued  
**R3137 or R3138**, if more than 1  $\Omega$  if X3101 is not glued  
**C3128**, if short circuit if X3101 is not glued  
**N3104** if X3101 is not glued  
**V3406**, if damaged  
**V3405**, if damaged  
**V3101 or V3100**

**Symptom:** Bad Charging from USB

**Replace:** **V3106**, if short circuit

**Symptom:** Wrong Battery level

**Replace:** **N3103**

**Symptom:** The Clock has to be set after the battery has been detached.

**Replace:** **C3108**

**B3001**

## Troubleshooting Flow

### 1.8 SIM

**Symptom:** SIM not detected

**Replace:** **X3404**, if damaged

vision check pin A1-A3, B1-B2, B4 and B6



## Troubleshooting Flow

### 1.9 Camera

**Symptom:** Main Camera problems

**Replace:** **X3500**, if damaged vision check all pins  
**N3701** or **N3702**  
**L3501, L3502, L3503 or L3504**

## Troubleshooting Flow

### 1.10 Data Communication

**Symptom:** No communication via the USB Connector, charging via USB connector is working

**Replace:** **X3101**, if damaged vision check pin 2 and 3 **if X3101 is not glued**

**Symptom:** No GPS ,Bad Bluetooth and WLAN connection

**Replace:** **X1500**  
**Z1501**

**Symptom:** No Bluetooth and WLAN connection

**Replace:** **L3300** if more than 1  $\Omega$   
**N3700**

**Symptom:** No GPS connection

**Replace:** **Z1500**  
**N1500**

## Troubleshooting Flow

### 1.11 Memory Stick

**Symptom:** Memory stick not detected

**Replace:** **X3404**, if damaged      vision check pin A5-A14 , B13 and B15

## 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:** **X1603** to **X1608** for damage and replace, if necessary

**X1600** for damage and replace, if necessary

**Replace:** **Antenna**

**Action:** Rerun the phone through radiated (wireless) Go / No Go testing

**Symptom:** Phone fails conducted (RF probe) Go / No Go test

**Replace:** **X1600** if damaged



## Revision History

Rev.	Date	Changes / Comments
1	2010-01-12	Initial release
2	2010-05-26	Updated due to Micro USB connector X3101 is glued after wk1021.
3	2010-10-11	Add V3405,V3406 to check in chapter 1.7
4	2011-03-29	Remove accelerometer N4101