



# Troubleshooting Guide

## - electrical -

*Vivaz*



*U5i, U5a*



*U5at*



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# 1 Troubleshooting Flow

**For information about troubleshooting and optional troubleshooting equipment, refer to the 'Generic Repair Manual – electrical', section 'Troubleshooting Directions'!**

## 1.1 Display

<b>Symptom:</b>	Display problem
<b>Replace:</b>	<b>X2821</b> if damaged (vision check all pins) <b>Z2500, Z2501, Z2502, Z2503 or Z2504</b> <b>N4153</b>



## Troubleshooting Flow

### 1.2 Illumination

<b>Symptom:</b>	No Display and Key illumination
<b>Replace:</b>	<b>R4186</b> if more than 1 Ohm
<b>Symptom:</b>	No Display illumination
<b>Replace:</b>	<b>X2821</b> if damaged (vision check pins A16 and B16)
<b>Symptom:</b>	No keys illuminations Green (Send/Call key) ,White (Menu/Multi Task key) or Red (End key) LED
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins B6 and B7)
<b>Symptom:</b>	No Light Gu Side LED 1
<b>Replace:</b>	<b>X2902</b> if damaged (vision pins B10 and B11)
<b>Symptom:</b>	No Light Gu Side LED 2
<b>Replace:</b>	<b>X2902</b> if damaged (vision pins B10 and B12)
<b>Symptom:</b>	No Flash (Torch) LED
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A2 and A3)
<b>Symptom:</b>	No Tally LED (Red tally LED for video recording indication and self-timer indication)
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A4 and B10)
<b>Symptom:</b>	No Red LED 1 of Notification LED on Key FCP (Trickle Charge LED)
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins B3 and B17)
<b>Symptom:</b>	No Red LED 2 of Notification LED on Key FCP (Charger LED)
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins B2 and B10)
<b>Symptom:</b>	No Green LED of Notification LED on Key FCP
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins B4 and B10)



## Troubleshooting Flow

### 1.3 Keys and Sensors

<b>Symptom:</b>	Power On keys problems
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins A11 and A12)
<b>Symptom:</b>	Touch Screen problems
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins B5-B8)
<b>Symptom:</b>	Volume Down key problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A7 and A9)
<b>Symptom:</b>	Volume Up key problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A6 and A10)
<b>Symptom:</b>	Mode Select key problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A11 and A14)
<b>Symptom:</b>	End Key problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A10 and A15)
<b>Symptom:</b>	Menu (Multi Task) Key problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A13 and A14)
<b>Symptom:</b>	Send (Call) Key problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A12 and A14)
<b>Symptom:</b>	Auto focus and Camera shutter problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins A10, A14 and A15)
<b>Symptom:</b>	Ambient Light Sensor problems (no changes in display illuminations when covering light sensors)
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins B13, B14 and B15)
<b>Symptom:</b>	Accelerometer problems
<b>Replace:</b>	<b>N2800</b>

## Troubleshooting Flow

### 1.4 Alert / RTC

<b>Symptom:</b>	Vibrator problems
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins B8 and B9)



## Troubleshooting Flow

### 1.5 Audio

<b>Symptom:</b>	No Microphone
<b>Replace:</b>	<b>X2902</b> if damaged (vision check pins B14, A15 and B16)

<b>Symptom:</b>	No Earphone / Ear speaker
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins B1, B2 and B3)

<b>Symptom:</b>	No Hands-free (PHF) Aux Microphone
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins A1 and A2) <b>L3002</b> if more than 2 Ohm <b>N3004</b>

<b>Symptom:</b>	No Hands-free (PHF) Aux Earphone / Aux Ear speaker
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins A4 ,A6 and A14) <b>L3000</b> , <b>L3003</b> or <b>L3004</b> if more than 2 Ohm

<b>Symptom:</b>	No Hands-free (PHF) audio. Phone not recognizes PHF set
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins A7 and A8) <b>L3001</b> if more than 2 Ohm <b>R3056</b> if more than 250 Ohm

<b>Symptom:</b>	No or bad FM Radio (PHF)
<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins A1 and A14) <b>V3011</b>



## Troubleshooting Flow

### 1.6 On/Off

<b>Symptom:</b>	Using no current when On/Off key is pressed and will not start. Starts when charger is inserted
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<b>Replace:</b>	<b>X2900</b> if damaged (vision check pins A11 and A12)
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<b>Symptom:</b>	Draws current when On/Off key is pressed, returns to zero
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<b>Replace:</b>	<b>L4001</b> if more than 1 Ohm <b>N4000</b>
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<b>Symptom:</b>	Other
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<b>Replace:</b>	<b>X4000</b> if damaged (vision check all pins)
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## Troubleshooting Flow

### 1.7 Charging/Capacity

<b>Symptom:</b>	No Charging via USB
<b>Replace:</b>	<b>X3001</b> if damaged (vision check pin 1 and 5, <b>if X3001 is not glued</b> ) <b>X4000</b> if damaged (vision check all pins)

### 1.8 SIM

<b>Symptom:</b>	SIM not detected
<b>Replace:</b>	<b>X2100</b> if damaged (vision check all pins)

### 1.9 Camera

<b>Symptom:</b>	Main Camera problems
<b>Replace:</b>	<b>X2820</b> if damaged (vision check all pins) <b>Z2800, Z2801 or Z2802</b>



## Troubleshooting Flow

### 1.10 Data Communication

Symptom:	No communication via USB
Replace:	<b>X3001</b> if damaged (vision check pin 2,3 and 5, <u>if X3001 is not glued</u> )
Symptom:	Bad Bluetooth and WLAN connection
Replace:	<b>X1402</b> if damaged <u>Only for U5i and U5a</u> <b>X1401</b> if damaged <b>Z1402</b> <b>N1401</b>
Symptom:	No GPS connection
Replace:	<b>X1402</b> if damaged <u>Only for U5i and U5a</u> <b>X1500</b> if damaged <u>Only for U5at</u> <b>X1401</b> if damaged <u>Only for U5i and U5a</u> <b>L1501</b> if more than 1 Ohm <u>Only for U5i and U5a</u> <b>Z1500</b> <b>B1500</b> <b>N1500</b>
Symptom:	No or bad TV out
Replace:	<b>X2900</b> if damaged (vision check pins A1 ,A2 and A8)



## Troubleshooting Flow

### 1.11 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:	<b>X1001</b> for damage and replace if necessary
Check:	<b>X1000</b> for damage and replace if necessary
Replace:	RF Cable, Antenna FPC Assembly or Main Antenna
Action:	Rerun the phone through radiated (wireless) Go/No Go testing
Symptom:	Phone fails conducted (RF probe) Go / No Go test
Replace:	<b>X1000</b> if damaged <b>L1000</b> if more than 1 Ohm and UMTS fault <b>N1000</b> if UMTS fault



## 2 Revision History

Rev.	Date	Changes / Comments
1	2010-Feb-20	Initial release
2	2010-Jun-30	Updated due to Micro USB connector X3001 is glued from week1025.
3	2010-Jul-28	U5at added.