



Sony Ericsson

# Component Replacement

- electrical -



*Hazel*  
*J20, J20i*

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



# 1 Replaceable Components

## EXPLANATION OF ABBREVIATIONS USED IN THE COLUMN 'COMMENTS' BELOW

### COMPONENT LOCATION

P = Primary side

S = Secondary side

### MOISTURE SENSITIVITY LEVEL

MSLX (X = 1, 2, 2A, 3, 4, 5, 5A or 6)

**For more information on moisture sensitivity levels:**

**Refer to 1220-1336: Generic Repair Manual – electrical, section 'Moisture & Baking'!**

### REPAIR METHOD

HA = Hot Air Device (removal & mounting)

ST = Soldering Tool (removal & mounting)

HA/ST = Hot Air for removal - Soldering Tool for mounting

BGA = BGA Station

BH = Bottom Heater

### ADDITIONAL INFORMATION

⇒1 (2,3,4, etc.) = Proceed to 'Additional Repair Info' for further instructions in the indicated section(s).

### CALIBRATION

C = Calibration of the phone is required after replacing the component

**Calibration to be done by authorized centers only!**



## Component Replacement Repair Drawing Electrical/

Position	Component	Part no.	Comments
B1401	Osc TCXO 16.368 MHz	1201-6457	P HA ⇒1
B2100	Crystal 32768Hz	1000-8271	P HA C
B3101	Mic 4.0 Electret	1224-0804	P HA
B3102	Mic 4.0 Electret	1224-0804	P HA ⇒2
B4201	IC	1220-4470	S HA
C2405	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	P HA ⇒3
C2406	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	P HA
C4206	Capacitor Ceramic 1,0 uF +/-10% 25,0 V K	1000-0076	P HA
L1200	Ind Chip 2,2 uH 20% K2520	1200-2913	P HA
L2200	Inductor Wirewound 4.7 ?H	1200-2190	P HA
L2202	Ind Chip 2,2 uH K2520	1200-2028	P HA
L2311	Ind WW 4.7 uH +/-20% 3X2.8X1	1200-0119	P HA
L2400	Inductor	1200-0317	P HA ⇒3
L2401	Inductor	1200-0317	P HA ⇒3
L2403	Inductor	1200-0317	P HA ⇒3
L2404	Inductor	1200-0317	P HA ⇒3
L2405	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒4
L2406	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒4
L2407	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒4
L2408	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒4
L2409	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒4
L2410	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒4
L2411	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA
L2412	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA
L3100	Inductor Chip	1203-8594	P HA ⇒4
L3104	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	S HA ⇒5
L3105	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	S HA ⇒5
L3106	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒6
L3107	Ferrite B 1.5 kOhm 100.0 mA 0402	1001-1223	P HA ⇒6
L3302	Ind Chip 220, nH K0603	1000-0122	P HA ⇒3
L4200	Inductor	1000-3333	P HA
N1200	Pre-bumped Tiger II Band 1,8	1218-1888	P MSL5A BGA C
N1210	IC Lin 16-pin WLP (2x2mm)	1227-3531	P HA
N1211	IC Voltage Regulator	1204-5903	P HA
N1300	IC Bluetooth and FM Transceiver	1230-5044	P HA ⇒7
N1400	ASIC GPS5350	1201-7557	P HA
N1500	Module WLAN	1225-8208	P BGA
N1510	Mod Radio WLAN R041D	1200-6173	P HA ⇒8
N2200	IC Lin CSP-9	1216-7892	P HA
N2207	IC Voltage Regulator	1224-8749	P HA
N2300	ASIC PM WLAN PMU	1203-2790	P HA
N2400	IC IF	1224-5383	P HA
N2411	MEMS 3-axis accelerometer BMA120	1211-3461	P HA
N2420	IC IF 2,4x2,4x0,6mm 25 Bumps	1230-4432	P HA
N2422	ASIC Baseband	1201-4120	P HA
N3100	IC Amp 9-Pin Flip-Chip	1209-3641	P HA
N3101	ASIC Tjatte3 CSP20	1000-0198	P HA ⇒3
N4200	Transistor	1001-0077	P HA
N4400	IC Dri TQFN34-24	1222-7380	P HA
N4401	IC Vreg	1215-2684	P HA
S2402	Input Switch Side Push	1235-0484	P HA/ST
S2403	Input Switch	1001-0060	P HA/ST



## Component Replacement Repair Drawing Electrical/

Position	Component	Part no.	Comments
V2200	Diode	1000-0282	P HA ⇒6
V2202	Transistor	1200-0145	P HA
V2400	Diode	1000-0272	P HA ⇒3
V2403	Dual ESD protection diode	1000-0399	P HA
V2406	Dual ESD protection diode	1000-0399	P HA
V2415	Diode	1201-8440	P HA ⇒3
V2416	Diode	1201-8440	P HA ⇒3
V2417	Diode	1000-0272	P HA ⇒3
V2475	Diode Schottky 0,28 V	1200-2065	P HA
V4200	Trans Array	1200-0320	P HA
V4201	LED White 1.8*0.6mm, height 0.3mm	1204-6085	S HA ⇒5
V4202	LED White 1.8*0.6mm, height 0.3mm	1204-6085	S HA ⇒5
V4402	LED White 4,6x5x5,05	1230-1326	P BGA
W1300	Balun BT	1212-8566	P HA
X1200	Conn Coax Plug 6p RF-probe contact	1203-9688	P HA/ST ⇒9
X1201	Conn Pogopin 2p for BL antenna	1214-1927	P HA ⇒10
X1401	Conn Pogopin 2p	1214-8705	P HA ⇒11
X1500	Conn Coax Plug 6p RF-probe contact	1203-9688	P HA/ST ⇒12
X1501	Conn Pogopin 1p 3.5 mm	1218-4490	P HA ⇒13
X2200	Battery leaf connector	1201-0774	P BGA ⇒14
X2400	System Connector	1226-5144	P BGA ⇒15
X2401	Card Conn Micro SD	1225-5520	P BGA ⇒16
X2402	Conn FPC 4p	1228-2783	P BGA
X2403	Conn FPC 67p	1228-3234	S BGA
X2404	Card Conn SIM	1230-1308	P BGA
X4300	Cam Socket	1227-4003	P BGA ⇒17
Z1401	Filter SAW 1,575 GHz	1201-7439	P HA ⇒1
Z2400	Filter 100, MHz K1210	1201-6833	P HA ⇒3
Z4200	Filter 400.0 MHz KNA16400	1200-1824	S HA ⇒5
Z4201	Filter 400.0 MHz KNA16400	1200-1824	S HA ⇒5
Z4202	Filter 400.0 MHz KNA16400	1200-1824	S HA ⇒5

## 2 Component Placing

To access the Component Placing document, double-click the icon below.  
Applicable for on-screen viewing only – icon not shown on hard-copies.





## 3 Repair Actions

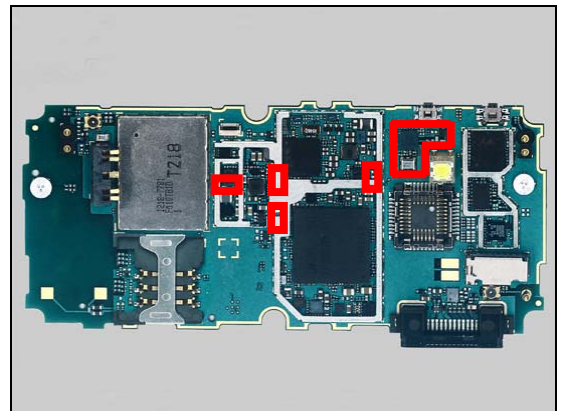
**Refer to the Tools Catalogue/Matrix for information about equipment required for PBA repair!**

### 3.1 Shield Can Fence Modifications

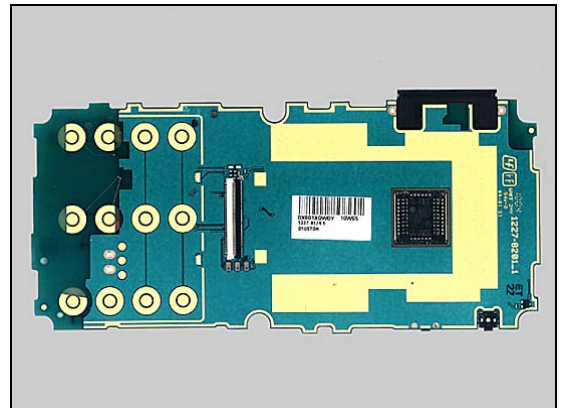
Refer to the pictures below of the primary and secondary sides for repairs that require the Shield Can Fence to be modified:

- the shield can lid has to be removed
- the red symbols show where the frame should be cut to enable rework
- after rework the height of the frame should not be affected
- it should not be visible that rework has been carried out when the lid has been mounted

*Primary side*



*Secondary side*



## Repair Actions

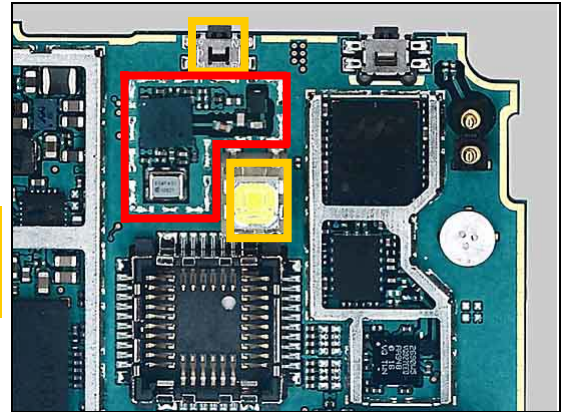
### 3.2 Additional Repair Info

1

B1401, Z1401

**Remove shield can before repair!**

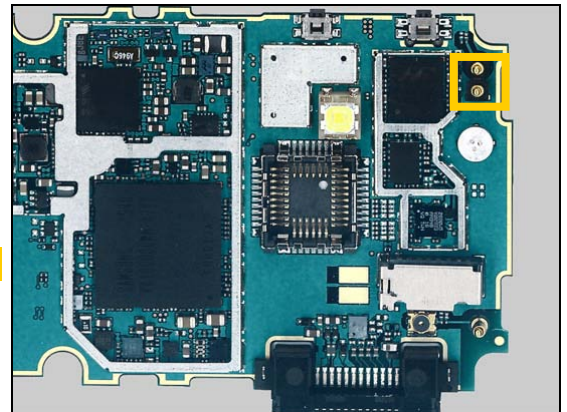
**Protect flash LED, camera socket and switch with capton tape!**



2

B3102

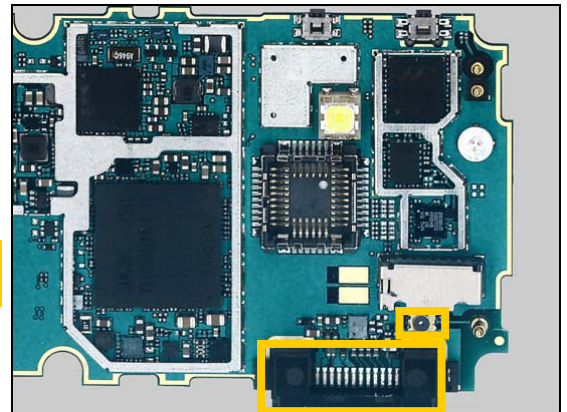
**Protect connector with capton tape!**



3

C2405, L2400, L2401, L2403, L2404, L3302, N3101, V2400, V2415, V2416, V2417, Z2400

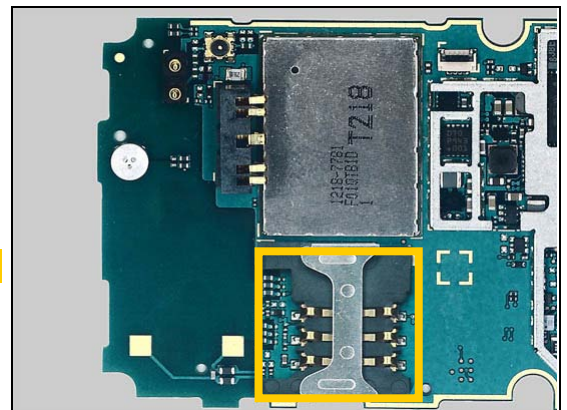
**Protect System Connector and connector with capton tape!**



4

L2405, L2406, L2407, L2408, L2409, L2410, L3100

**Protect SIM connector with capton tape!**

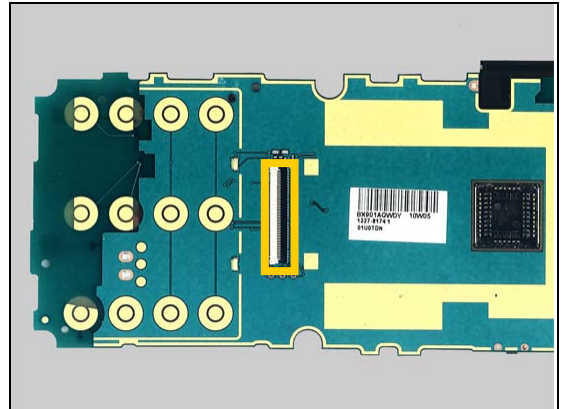


## Repair Actions

**5**

L3104, L3105, V4201, V4202, Z4200, Z4201, Z4202

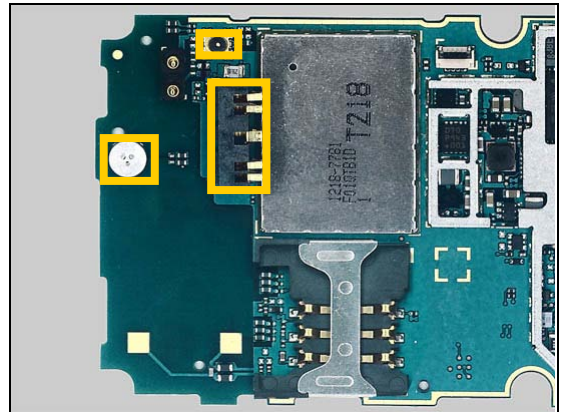
**Protect Conn FPC 67p with capton tape!**



**6**

L3106, L3107, V2200

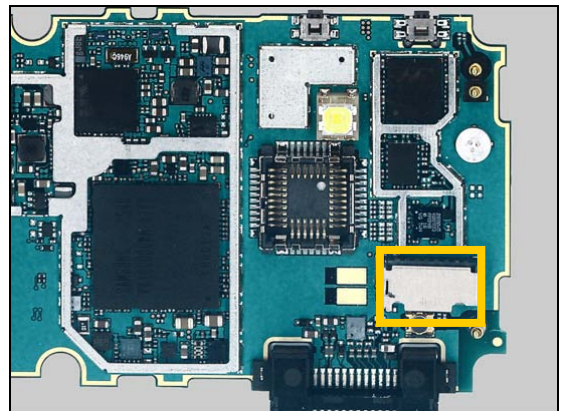
**Protect battery connector, Microphone and connector with capton tape!**



**7**

N1300

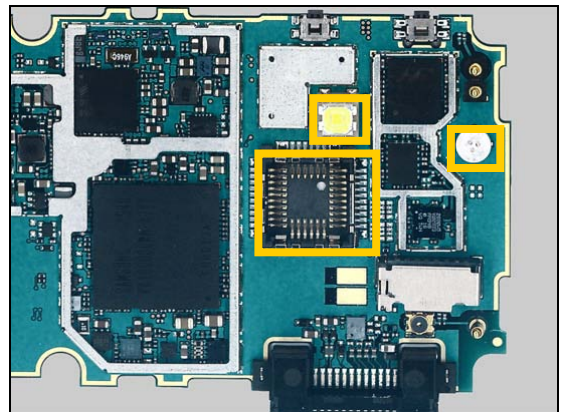
**Protect memory card holder with capton tape!**



**8**

N1510

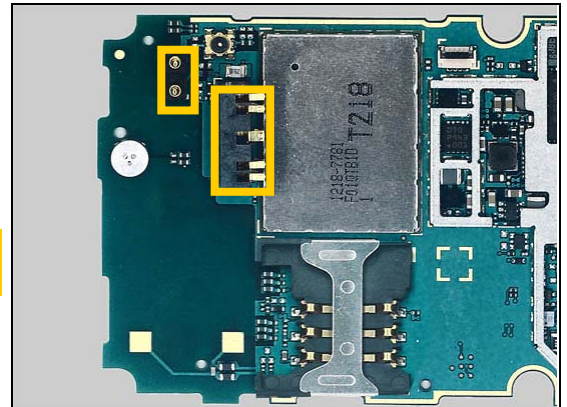
**Protect Microphone, camera socket and flash LED with capton tape!**



## Repair Actions

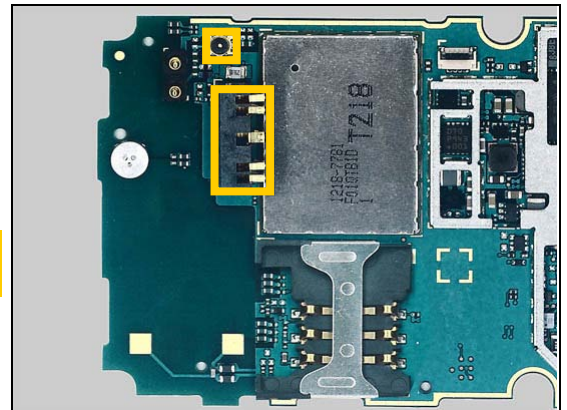
**9**  
**X1200**

**Protect battery connector and connector with capton tape!**



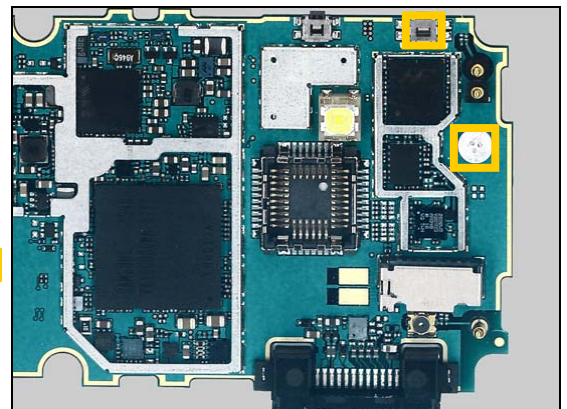
**10**  
**X1201**

**Protect battery connector and connector with capton tape!**



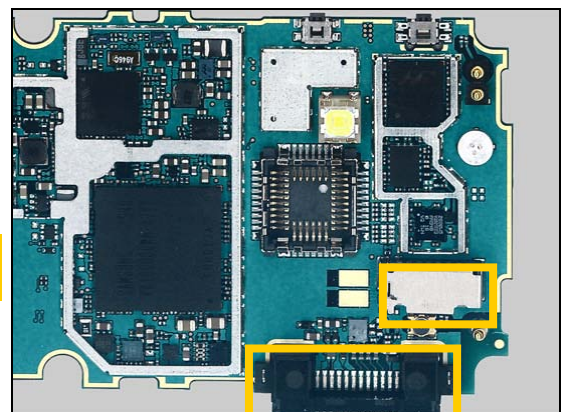
**11**  
**X1401**

**Protect switch and Microphone with capton tape!**



**12**  
**X1500**

**Protect memory card holder and system connector with capton tape!**

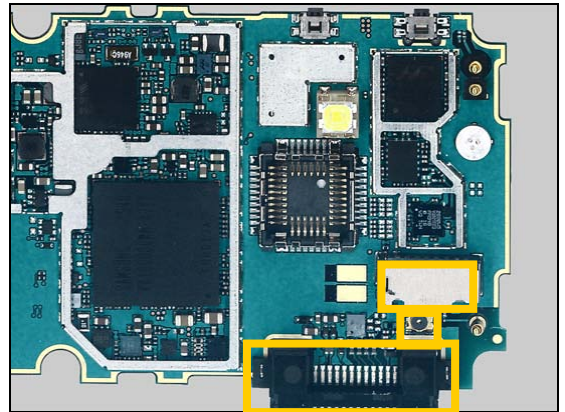


## Repair Actions

13

X1501

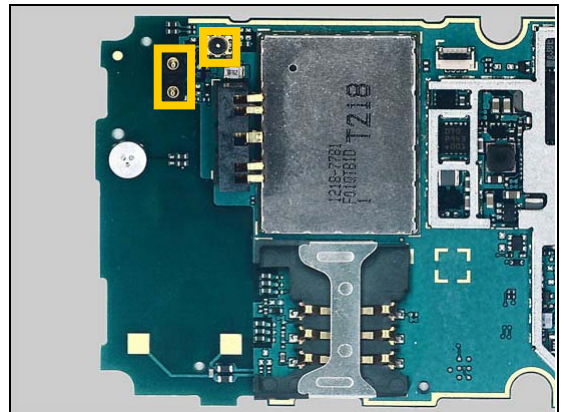
**Protect memory card holder, connector and system connector with capton tape!**



14

X2200

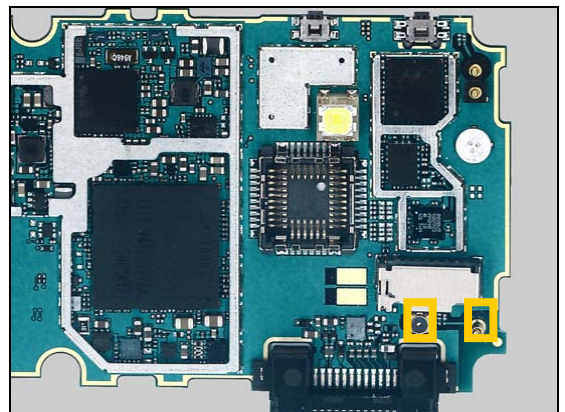
**Protect two connectors with capton tape!**



15

X2400

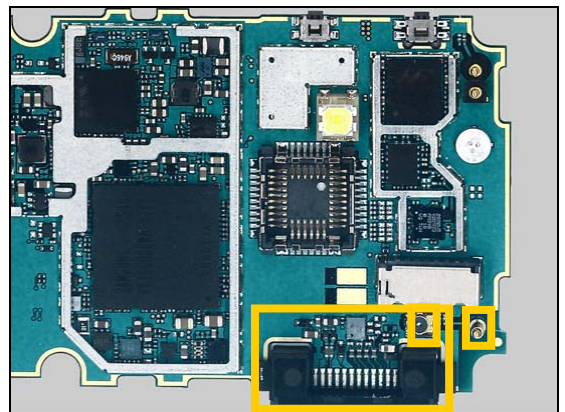
**Protect two connectors with capton tape!**



16

X2401

**Protect system connector and two connectors with capton tape!**

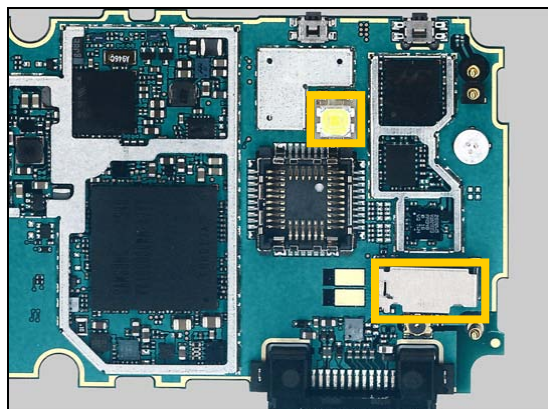


## Repair Actions

17

X4300

**Protect flash LED and memory card holder with capton tape!**





## 4 Revision History

Rev.	Date	Changes / Comments
1	2010-Apr-13	1 <sup>st</sup> release
2	2011-Apr-07	L2405 - L2412 added