

Trouble Shooting Guide, Electrical

Applicable for F500 and K500 family

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1 Abstract

The purpose of this document is to provide a sequence of repair actions associated with different failure modes. The repair actions are listed in order of their probability of creating a successful repair. The first action has the highest probability, and subsequent actions have lower probabilities. The intention is for the repair technician to implement the first repair action and then retest the phone. If the phone continues to fail the same test, then the technician should continue to the second repair action. If the phone continues to fail the same test after all of the repair actions are exhausted, then the phone will be considered not repairable at this level.

This document should be used only after the steps specified in the Mechanical Trouble Shooting Guide have been exhausted for the given problem area.

2 Repair Actions for Manuel Test Failures

Test	Repair Action
Backup battery	1) C2606
Camera	1) X2510
Capacity/Short standby	1) V2610 2) N1400 3) N2600
Charging	1) J2400 1) V2610 2) V2210 3) N2400 4) N2600
Display	1) X2500
Earphone	1) N2400 2) N2300 3) D1201 4) N2310
IR communication	1) H2410
Illumination, Keyboard	1) R2550, R2551 2) V2550
Illumination, Display	1) N2500 2) X2500



Keyboard, Joystick & side keys	1) Z2450
	2) S2420
	3) J2404, J2406
Red LED/Charging light	1) D2500
Microphone	1) N2400
	2) N2300
	3) D1201
On/Off	1) S2410
	2) X2600
	3) N2600
	4) N1400
	5) Z2450
	6) B2200
Real Time Clock	1) B2200
SIM	1) J2401
	2) N2600
Network	1) X1100
	2) X1101

3 Repair Actions for Calibration Routine Failures

3.1 Calibrate 900

Routine	Repair Action
GSM900_Calibrate_RXVCO:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM900_Calibrate_TXVCO:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM900_Check_Output_Power:	1) N1400
	2) N1200
	3) N2600
	4) W1400
	5) N1202
GSM900_Loop_BW_Calibration:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM900_VCXO_Calibration:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM900_PA_Isolation:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM900_Measure_Multiframe_XXX: (XXX can be : High or Low)	1) N2600
GSM900_Calc_XXXX_Power_DAC: (XXXX can be: Full, Low Up, High Up, High Down or Low Down)	1) No repair action
GSM900_Calibrate_RSSI	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202



3.2 Calibrate 1800

Routine	Repair Action
GSM1800_Calibrate_RXVCO:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM1800_Calibrate_TXVCO:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM900_Loop_BW_Calibration:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM1800_PA_Isolation:	1) N1200
	2) B1300, V1300, C1311, C1314
GSM1800_Check_Output_Power:	1) N1400
	2) N1200
	3) N2600
	4) W1410
GSM1800_Measure_Multiframe_XXX: (XXX can be : High or Low)	1) N2600
GSM1800_Calc_XXXX_Power_DAC: (XXXX can be: Full, Low Up, High Up, High Down or Low Down)	1) No repair action
GSM1800_Calibrate_RSSI	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202

3.3 Calibrate 1900

Routine	Repair Action
GSM1900_Calibrate_RXVCO:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM1900_Calibrate_TXVCO:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202



GSM1900_Loop_BW_Calibration:	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202
GSM1900_PA_Isolation:	1) N1200
	2) B1300, V1300, C1311, C1314
GSM1900_Check_Output_Power:	1) N1400
	2) N1200
	3) N2600
	4) W1410
GSM1900_Measure_Multiframe_XXX: (XXX can be : High or Low)	1) N2600
GSM1900_Calc_XXXX_Power_DAC: (XXXX can be: Full, Low Up, High Up, High Down or Low Down)	1) No repair action
GSM1900_Calibrate_RSSI	1) N1200
	2) B1300, V1300, C1311, C1314
	3) N1202

4 Revision History

Rev.	Date	Changes / Comments
A	2004-06-30	First release
B	2004-07-13	Revision update due to publishing problems
C	2004-08-19	K500 Added