

SIP-T3X Defective Phones Checking List and Repairing Instruction

Defective Sort	Category	Checking List	Possible Defective Reason	Suggested Fix Manner
Audio	□A1、No audio	□A11. The system can finish the bootup □A12. Has voice in handset □A13. Speaker once worked well □A14. Once connected with a non-original AC adapter □A15. Speaker has voice in play, while no voice in send □A16. Handset once worked well □A17. Works well with a new handset	 Fit A11, A12, 95% generally the audio amplifier break down. Fit A11, A12, A13, A14, 99.9% must be audio amplifier burnout. Fit A15, handfree microphone defect. Fit A17, handset defect. Fit A11, don't fit A12, A15, generally because of no operation of VPM, no oscillation starting of 8.192M crystal oscillator or damaged master chip Codec. 	1. Replace audio amplifier U2, model: CS6205T, packing: DFN2x2_8L. 2. Replace a handset if handset has problem but the speaker works well. 3. Upgrade firmware if no audio both in handset and speaker, and then replace Y2, if still the same problem, replace the mainboard.
	□A2、Noise in conversation	□A21. Noise in local speaker □A22. Noise in local handset □A23. Noise in local headset □A24. When using speaker in handfree mode, the other party hears noise □A25. When using handset in handset mode, the other party hears noise □A26. When using headset in headset mode, the other party hears noise	1. Headset has noise in send generally because of the former shielded speakers. It uses a power supply with Y capacitance and when you hold the helix cable with a hand, there is acoustoelectric current in send, new headsets have fixed the problem. 2. Speaker & handset noise (electricity or background noise) generally because of electroacoustical component defect, or insufficient solder in devices. 3. Noise heard on the other party generally is handfree microphone defect. 4. Radio-frequency interference (mobile phone) because of short distance to the microphone.	 Handset noise: replace a new handset. Speaker noise: check if there is insufficient solder or short in the speaker circuit, then try to replace a new speaker. Replace a new microphone. Weld 100pF capacitance to the positive and negative polarities of the microphone.
	□A3、The volume heard on the other party is low.	□A31、The sending volume of local handset is low	 Line sequence of handset is wrong welded. Mistake the positive and negative of microphone cables. 	 Re-weld the cable. Replace the handset.
Display	D1. Display black screen or white screen	□D11、Power indicator is on □D12、Has voice in handset □D13、Once displayed correctly	1、Fit D11, D12, D13, possibility: LCD defect, productoin problem, broken 7PIN cable connecting KB2 board and mainboard (for T38G), backlight chip U12 defect. 2、Fit D11, don't fit D12, D13, generally the phone cannot startup normally. 3、Fit D11, D13, don't fit D12, generally the phone cannot startup normally.	1. Replace the LCD, if still the problem, check if the 7PIN cable is broken, if so, fix the problem, and replace to the original LCD; If still the problem, replace U12, model: MP1488DJ-LF-Z, packing: TSOT23-6. 2. Check if the 7PIN cable is broken, and whether U3, U4 are welded well, if still the problem, it's better to replace mainboard. 3. Power off the phone for at least 10 seconds, and then power it on again, if still doesn't work, replace the mainboard.
	□D2、Display error	□D21. No display of certain horizontal line or vertical line □D22. Display black patches □D23. Screen flickers or interference stripes roll cycling	Fit certain items of D21, D22, D23, generally LCD defect.	Replace a new LCD.

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Network	□N1、Internet port can't acquire IP	□N11、MAC address displayed on the LCD is different from that displayed on the back label □N12、Switch or router indicates connection (indicator LED is on) after Ethernet cable being plugged into the Internet port of the phone □N13、LCD screen prompts "network unavailable" □N14、LCD screen prompts "updating network" □N15、LCD screen prompts "obtaining IP address" □N16、Can ping through with 'Static IP'	1. Failed in burning MAC address. 2. Fit N12, N13, N14, N15, generally Internet port has soldering problem. 3. Fit N12, N13, N14, N15, N16, maybe software problem, Internet port has problem with initialization or failed in initializing. 4. Fit N12, N13, N14, N15, N16, maybe Internet port PHY fail. 5. U8 is damaged, and can't powered on with Internet port chip.	 Re-burn the MAC address if it's incorrect. Check if there is insufficient solder, if so, fix the solder. Update the software to the latest version through bootloader. Replace the U8. Replace the mainboard if all failed in above solutions.
	□N2、PC port can't acquire IP	□N21、PC indicates connection (indicator LED of network card is on) after Ethernet cable being plugged into the PC port of the phone □N22、PC port can't acquire IP with router mode □N23、PC port can't acquire IP with bridge mode		
Keys		□K11、All keys can not work □K12、Some keys can not work □K13、Only one key can not work □K14、Input a wrong key value □K15、The phone reboots once by pressing a certain key	 Bad pin contacts of mainboard & KB1 board. Contaminated of golden pad or rubber. Key stuck results in all keys can't work. 	 Check the connection of mainboard and KB1 board. Check if contaminated of golden pad or rubber, wipe and clean if less contaminated, replace KB1 board & rubber if heavy polluted. Reassemble the rubber & keys, fix the stuck key.
Power		□P11、Can't power on with AC adapter □P12、Can't power on with PoE □P13、Can't power on with certain PoE switch	 Fit P11, generally because of bad contact of adapter, damaged adapter or bad MOS tube. Exclude the possibility of adapter problem, generally because of DC-DC IC damage. Abnormal PoE circuit. 	 Unplug or plug the adapter again, or replace a new adapter. Replace the U9, U10. If difficult to replace the device, replace the mainboard directly.
Software		□S11、LCD screen stops at 'initializing' interface □S12、LCD screen enters safety mode □S13、Can't access to web user interface □S14、The phone reboots constantly	Software problems.	 Upgrade software through web user interface if it can be accessed to. Upgrade software through recovery mode, refer to the specific documentation for operation guidance. If can not access to the recovery mode, replace the mainboard directly.