

Applicable for W600i, W600c, W550i, and W550c

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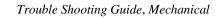
1 General

This document outlines the mechanical repairs that should be made in an attempt to fix the common failures that are seen in the field. To gain a complete understanding of how to test and repair a unit, this document should be used in conjunction with the Test Instructions, Mechanical and the Working Instructions, Mechanical.

- NOTE! A unit should always be inspected for liquid damage and flashed with latest software before using the Mechanical Trouble Shooting Guide. Refer the Mechanical Test Instructions for details regarding inspecting for liquid damage and upgrading software.
- NOTE! If all of the repair actions listed in this document for addressing a problem have been preformed and a unit still is not working, handle the unit according to your local company directives.

2 Network/Signal Problems

Problem Area	Items to Check	Repair Action	Reference Image
No Signal or Poor Signal	Inspect SIM holder	 If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	



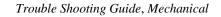


Problem Area	Items to Check	Repair Action	Reference Image
No Signal or Poor Signal (Cont.)	Inspect antenna-to-board connector	 If dirty or oxidized – Clean the antenna-to-board connector and replace the antenna assembly If damaged – Send to an electrical repair location 	
	Inspect external RF connector	 If dirty or oxidized – Clean the external RF connector If damaged – Send to an electrical repair location 	
	If the issue has not been resolved \rightarrow	Replace the antenna assembly if it has not been replaced	



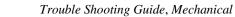
3 Power Problems

Problem Area	Items to Check	Repair Action	Reference Image
Unit will not Power On	With the phone in the open position, check whether the main keypad illuminates 5 to 10 seconds after pressing the power key	• If illumination of the keypad is detected, refer to the "Display Problems" section	
	Visually inspect contact pads on battery	 If dirty or oxidized – Clean the pads If damaged – Replace the battery 	
	Visually inspect battery connector	 If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	Soriu Cricoson Mer Type appoved Protospe trai brede CB5015RFRQ2 ever3
	Visually inspect the power key for debris or damage	 If dirty – Clean If damaged – Replace the power key 	





Problem Area	Items to Check	Repair Action	Reference Image
Jnit will not Power Dn (Cont.)	Visually inspect the power switch portion of the display flex film	 If dirty – Clean the power switch If damaged – Replace the display flex film 	-
	Visually inspect the cable assemblies and their mating connectors on the display flex film and the circuit board	 If any of the four cable connections are improperly connected - Reestablish a proper connection If any portion of the four cable connections are dirty - Replace both cables and clean the mating portions of the cable connections that are on the display flex film and the circuit board If a cable assembly is damaged – Replace both cable assemblies If a cable connector on the display flex film is damaged – Replace the display flex film If a cable connector on the circuit 	
	If the issue has not been resolved ->	 board is damaged – Send to an electrical repair location Replace the power key, the display flex film, and both cable assemblies, if they have not already been replaced 	





4 Audio Problems

Problem Area	Items to Check	Repair Action	Reference Image
Microphone:	Before proceeding → Visually inspect microphone assembly	 Perform a setting reset If the microphone is dirty – Clean If the microphone grommet is damaged or deformed - Replace the microphone grommet If the microphone is damaged – Replace the display flex film 	
	If the issue has not been resolved \rightarrow	• Replace the display flex film and the microphone grommet, if they have not been replaced	
Receiver:	Before proceeding \rightarrow	• Perform a setting reset	
No sound or poor quality sound	Visually inspect the receiver's external port	• If clogged – Clean the port or replace the display cover as necessary	
	Visually inspect the dust cloth that is adhered to the receiver	• If clogged – Replace the receiver	Dust Cloth



Problem Area	Items to Check	Repair Action	Reference Image
Receiver: No sound or poor quality sound (Cont.)	Visually inspect the receiver's dust cloth that is adhered to the inner flip cover	• If clogged – Replace the dust cloth	
	Visually inspect the receiver's contact pads on the display flex film	 If dirty - Clean the pads If damaged – Replace the display flex film 	
	Visually inspect the receiver	• If dirty or damaged - Replace	Rect of the second seco
	If the issue has not been resolved \rightarrow	• Replace the receiver, if it has not been replaced	

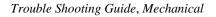




Rear Base Speaker:	Before proceeding \rightarrow	•	Perform a setting reset	
No sound or poor quality sound	Visually inspect whether the rear base speaker's external port is clogged	•	If clogged – clean the speaker port opening in outer base cover	
	Visually inspect the rear base speaker assembly's dust cloth	•	If dirty or damaged - Replace the dust cloth	Performance Pust Cloth
	Visually inspect the rear base speaker assembly (including its circuit board connection pads)	•	If dirty or damaged – Replace the rear base speaker assembly	Rear Base Speaker Assembly Circuit Board Connection Pads



Rear Base Speaker: No sound or poor quality sound (Cont.)	Visually inspect the rear base speaker connection springs on the circuit board	 If dirty or oxidized – Clean both springs and their corresponding connection pads If damaged – Send to an electrical repair location 	
	If the issue has not been resolved \rightarrow	• Replace the rear base speaker assembly, if it has not already been replaced	
Side Base Speaker:	Before proceeding \rightarrow	• Perform a setting reset	
No sound or poor quality sound	Visually inspect whether the side base speaker's external port is clogged	• If clogged – clean its speaker port opening in outer base cover	
	Visually inspect side base speaker (including the wire connection extending from it and its dust cloth)	 If dirty –Replace the side base speaker and clean the connector on the circuit board If damaged - Replace the side base speaker 	CREAT CREAT

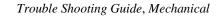




Side Base Speaker: No sound or poor quality sound (Cont.)	Visually inspect the side base speaker connector on the circuit board	•	If dirty – Clean the connector on the circuit board and replace the side base speaker If damaged – Send to an electrical repair location	
	If the issue has not been resolved \rightarrow	•	Replace the side base speaker, if it has not already been replaced	

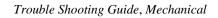
5 Key Problems

Problem Area	Items to Check	Repair Action	Reference Image
Base Keypad: A key on the keypad is not functioning or	Visually inspect for debris between and/or damage to the keypad and the dome foil.	 If dirty – Clean both parts If damaged - Replace the keypad and/or the dome foil as necessary 	Keypard Switch Assembly
is intermittent	If the issue has not been resolved \rightarrow	• Replace the dome foil, if it has not already been replaced	
	If the issue still has not been resolved \rightarrow	• Replace the keypad switch assembly	Dome Foll
Base Keypad: Entire keypad is not functioning or is intermittent	Visually inspect the keypad switch assembly's board connection	 If improperly connected – Reestablish a proper connection If the flex film portion of the connector is damaged – Replace the keypad switch assembly If the circuit board portion of the connection is damaged – Send to an electrical repair location 	





Problem Area	Items to Check	Repair Action	Reference Image
Flip Keypad: One of the keys around the navigation key or a portion of the navigation key is not functioning or is intermittent	Visually inspect for debris between and/or damage to the flip keypad and its dome foil.	 If dirty – Clean both parts If damaged - Replace the flip keypad and/or the dome foil as necessary 	Keypad Dome Foil
	If the issue has not been resolved \rightarrow	• Replace the flip dome foil, if it has not already been replaced	
	If the issue still has not been resolved \rightarrow	• Replace the display flex film	
Flip Keypad: The navigation key and all of the keys around the navigation key are not functioning	Visually inspect the cable assemblies and their mating connectors on the display flex film and the circuit board	 If any of the four cable connections are improperly connected - Reestablish a proper connection If any portion of the four cable connections are dirty - Replace both cables and clean the mating portions of the cable connections that are on the display flex film and the circuit board If a cable assembly is damaged – Replace both cable assemblies If a cable connector on the display flex film is damaged – Replace the display flex film If a cable connector on the circuit board is damaged – Replace the display flex film 	





Problem Area	Items to Check	Repair Action	Reference Image
Gaming keys:	Visually inspect for debris between and/or damage to the gaming key in question and its switch.	• If dirty – Clean both the key and its switch	
		• If the key is damaged – Replace it	
		• If the switch is damaged – Replace the display flex film	
Music Player Key:	Visually inspect for debris between and/or damage to the music player key and its switch.	• If dirty – Clean both the key and its switch	
		• If the key is damaged – Replace it	
		• If the switch is damaged – Replace the display flex film	



Problem Area	Items to Check	Repair Action	Reference Image
Volume keys:	Visually inspect for debris between and/or damage to the volume key and the volume key switches.	• If dirty – Clean both the volume key and its switches	
		• If the volume key is damaged – Replace it	
		• If one or both of the volume key's switches are damaged - Replace the display flex film	and the second
	Visually inspect for debris between and/or damage to the camera key and its switch.	• If dirty - Clean both the key and its switch	
		• If the key is damaged – Replace it	Cert
		• If the switch is damaged – Replace the display flex film	



Problem Area	Items to Check	Repair Action	Reference Image
Keypad Lock Key:	Check the positioning and the condition of the keypad lock key	Reposition or replace the keypad lock key as necessary	
	Inspect the keypad lock key's switch	If dirty - Clean If damaged - Replace the display flex film	

6 SIM Problems

Problem Area	Items to Check	Repair Action	Reference Image
SIM undetected	Inspect SIM holder	 If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	Conv Cressor - Her New York C
Unit indicates the incorrect SIM is inserted	Check whether the phone is locked to a particular carrier and whether the correct carrier's SIM is being used	• Use the correct carrier's SIM or a test SIM	



7 IR Problems

Problem Area	Items to Check	Repair Action	Reference Image
Will not connect with a functional IR device	Inspect the IR window for dirt, scratches, and damage	 If dirty – Clean If damaged – Replace the outer base cover 	IR Window
	Inspect the IR transceiver	 If dirty – Clean If damaged - Send to an electrical repair location 	IR Transceiver

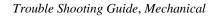
8 Hands-Free Problems

Problem Area	Items to Check	Repair Action	Reference Image
Hands-free not working	Visually inspect the system connector	 If dirty or oxidized – Replace the system connector If damaged – Replace the system connector 	



9 Display Problems

Problem Area	Items to Check	Repair Action	Reference Image
If the display is not functioning	With the phone in the open position, check whether the base keypad illuminates 5 to 10 seconds after pressing the power key	• If illumination of the keypad is not detected , refer to the "Power Problems" section	
	Visually inspect the cable assemblies and their mating connectors on the display flex film and the circuit board	 If any of the four cable connections are improperly connected - Reestablish a proper connection If any portion of the four cable connections are dirty - Replace both cables and clean the mating portions of the cable connections that are on the display flex film and the circuit board If a cable assembly is damaged – Replace both cable assemblies If a cable connector on the display flex film is damaged – Replace the display flex film If a cable connector on the circuit board flex film is damaged – Replace the display flex film 	





Problem Area	Items to Check	Repair Action	Reference Image
If the display is not functioning (Cont.)	Visually inspect the LCD to display flex film connection	 If improperly connected - Reestablish a proper connection If dirty or oxidized – Clean (If it is determined that cleaning is needed, clean all pads and contacts that are part of this connection) If pads of the LCD module's flex film are damaged - replace LCD module If the LCD connector on the display flex film is damaged - Replace the display flex film 	Connector
	If issue has not been resolved \rightarrow	• Replace any of the following components that have not been replaced - LCD module, display flex assembly, cable assemblies	



10 Data Communication Problems

Problem Area	Items to Check	Repair Action	Reference Image
Problem transferring data using a direct connection	Visually inspect the system connector	 If dirty or oxidized – Replace the system connector If damaged – Replace the system connector 	

11 Illumination Problems

Problem Area	Items to Check	Repair Action	Reference Image
Base Keypad:	Before proceeding \rightarrow	• Perform a setting reset	
The entire keypad is not illuminating	Visually inspect the keypad switch assembly's board connection	 If improperly connected - Reestablish a proper connection If the flex film portion of the connector is damaged – Replace the keypad switch assembly If the circuit board portion of the connection is damaged – Send to an electrical repair location 	
	If the issue has not been resolved \rightarrow	• Replace the keypad switch assembly, if it has not been replaced	
Base Keypad:	Perform the following action \rightarrow	• Replace the keypad switch assembly	
A portion of the keypad is not illuminating			



Flip Keypad	Before proceeding \rightarrow	Perform a setting reset
(Navigation Keypad): The entire keypad is not illuminating	Visually inspect the cable assemblies and their mating connectors on the display flex film and the circuit board	 If any of the four cable connections are improperly connected - Reestablish a proper connection If any portion of the four cable connections are dirty - Replace both cables and clean the mating portions of the cable connections that are on the display flex film and the circuit board If a cable assembly is damaged – Replace both cable assemblies If a cable connector on the display flex film is damaged – Replace the display flex film If a cable connector on the circuit board is damaged – Send to an
	If the issue has not been resolved \rightarrow	 electrical repair location Replace the display flex film, if it has not been replaced
Flip Keypad: A portion of the keypad is not illuminating	Perform the following action \rightarrow	Replace the display flex film assembly
Gaming Key: A gaming key is not illuminating	Perform the following action \rightarrow	• Replace the display flex film assembly



Display:	Before proceeding \rightarrow	• Perform a setting reset	
The display is not illuminating	Visually inspect the LCD to display flex film connection	 If improperly connected - Reestablish a proper connection If dirty or oxidized – Clean (If it is determined that cleaning is needed, clean all pads and contacts that are part of this connection) If any pads of the LCD module's flex film are damaged - replace LCD module If the LCD connector on the display flex film is damaged - Replace the display flex film assembly 	Connector Pads

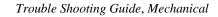


The display is not illuminating (Cont.)	Visually inspect the cable assemblies and their mating connectors on the display flex film and the circuit board	 If any of the four cable connections are improperly connected - Reestablish a proper connection If any portion of the four cable connections are dirty - Replace both cables and clean the mating portions of the cable connections that are on the display flex film and the circuit board If a cable assembly is damaged – Replace both cable assemblies If a cable connector on the display flex film is damaged – Replace the display flex film assembly If a cable connector on the circuit board is damaged – Send to an electrical repair location 	
	If the issue has not been resolved \rightarrow	• Replace the LCD assembly, if it has not been replaced	
	If the issue still has not been resolved \rightarrow	• Replace the display flex film assembly and both cable assemblies, if they have not been replaced	



12 Alert Problems

Problem Area	Items to Check	Repair Action	Reference Image
Vibrator:	Before proceeding \rightarrow	• Perform a setting reset	
	Visually inspect the vibrator contact pads on the circuit board	 If dirty or oxidized – Clean If damaged – Handle according to local directives 	Sony Crassors File Norther and the second file Sony Crassors File Norther and the second file Song Crassors File Norther and the second file Song Crassors File
	Visually inspect the vibrator	 If dirty or oxidized – Replace vibrator If damaged - Replace vibrator 	
Rear Base Speaker:	Before proceeding \rightarrow	Perform a setting reset	
No sound or poor quality sound	Visually inspect whether the rear base speaker's external port is clogged	• If clogged – Clean its speaker port opening in the outer base cover	





Problem Area	Items to Check	Repair Action	Reference Image
Rear Base Speaker: No sound or poor quality sound (Cont.)	Visually inspect the rear base speaker assembly's dust cloth	• If dirty or damaged – Replace the dust cloth	Port Cloth
	Visually inspect the rear base speaker assembly (including its connection pads to the circuit board)	• If dirty or damaged - Replace the rear base speaker assembly	Rear Base Speaker Assembly Circuit Board Connection Pads
	Visually inspect the rear base speaker connection springs on the circuit board	 If dirty or oxidized – Clean both springs and replace the rear base speaker assembly If damaged – Send to an electrical repair location 	





Problem Area	Items to Check	Repair Action	Reference Image
Rear Base Speaker:	If the issue has not been resolved \rightarrow	• Replace the rear base speaker	
No sound or poor quality sound (Cont.)		assembly, if it has not already been replaced	
Side Base Speaker:	Before proceeding \rightarrow	• Perform a setting reset	
No sound or poor quality sound	Visually inspect whether the side base speaker's external port is clogged	• If clogged – Clean its speaker port opening in outer base cover	
	Visually inspect side base speaker (including the wire connection extending from it and its dust cloth)	 If dirty –Replace the side base speaker and clean the connector on the circuit board If damaged - Replace side base speaker 	CITAT
	Visually inspect the side base speaker connector on the circuit board	 If dirty – Clean the connector on the circuit board and replace the side base speaker If damaged – Send to an electrical repair location 	
	If the issue has not been resolved \rightarrow	• Replace the side base speaker, if it has not already been replaced	



13 Charging/Capacity Problems

Problem Area	Items to Check	Repair Action	Reference Image
Battery will not charge	Visually inspect the contact pads of the battery	 If dirty or oxidized – Clean If damaged – Replace the battery 	
	Visually inspect the of the connector that connects the battery to the circuit board	 If dirty or oxidized – Clean If damaged – Send to an electrical repair location 	Soru Cricopon Nel Ton approve Petropa taller set CBS 015RFQ2 esw23
	Visually inspect the system connector	 If dirty or oxidized – Replace the system connector If damaged – Replace the system connector 	



14 Camera Problems

Problem Area	Items to Check	Repair Action	Reference Image
Lines or marks in picture	Visually inspect the camera lens	 If dirty – Clean the camera lens If scratched or damaged – Replace the camera module 	
	If the issue has not been resolved \rightarrow	• Replace the camera module, if it has not been replaced	
Will not capture an image	Visually inspect for debris between and/or damage to the camera key and its switch.	 If dirty - Clean both the key and its switch If the key is damaged – Replace it If the switch is damaged – Replace the display flex film 	
	If the issue has not been resolved \rightarrow	• Replace the display flex film assembly, if it has not already been replaced	
	If the issue still has not been resolved \rightarrow	• Replace the camera module	



15 Bluetooth Problems

Problem Area	Items to check	Repair Action	
Will not connect with a functional Bluetooth device	Check the Bluetooth antenna contact pads on the circuit board	 If dirty or oxidized – Clean If damaged, handle according to your local company directives 	
	Check the Bluetooth antenna	If dirty – CleanIf damaged - Replace	



16 Revision History

Rev	Date	Changes / Comments
Α	2005-Sept 13	Initial Release