

# TECHNICAL SERVICE BULLETIN

**LANIER RICOH SAVIN**

**BULLETIN NUMBER: D223/D224/D225 – 018 REISSUE**

**03/13/2018**

**APPLICABLE MODEL:**

**LANIER – MP 6503SP/MP 7503SP/MP 9003SP**

**RICOH – MP 6503SP/MP 7503SP/MP 9003SP**

**SAVIN – MP 6503SP/MP 7503SP/MP 9003SP**

**SUBJECT: SMART OPERATION PANEL TROUBLESHOOTING**



**GENERAL:**

The following bulletin describes troubleshooting steps for issues with the Smart Operation Panel.


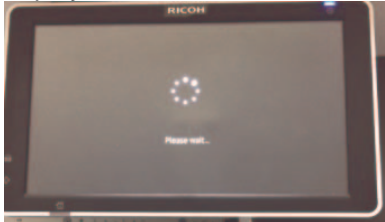

**Note**

- Before disconnecting or replacing any electrical parts: Turn the main power switch OFF. With power OFF, remove the power cord from the wall outlet and press the power switch a few times to drain residual power from the machine. The residual power is drained when the blue LED does light when the main power switch is pressed.
- After replacing any boards, check the firmware versions and update the firmware if necessary.
- Follow the [Updating Smart Operation Panel](#) procedure for the needed steps for updating the SOP OS and factory reset (Wipe data/factory reset).
- Use proper [SD Card Structure](#).
- Reference the correct Service Manual for the replacement of parts.
- Reference the correct Part Catalog for the correct part numbers.
- There are two types of electrical board construction in the SOP, a “1 Board Type” and “2 Board Type”.

**TROUBLESHOOTING FOR THE SMART OPERATION PANEL:**

| No | Symptom  |    | Cause   | Possible Solution  |
|----|--|----|---|--|
| 1  | Both the Smart Operation Panel and the blue LED on the operation panel do not turn ON.<br>        | HW | The Smart Operation Panel cannot be supplied with electrical power.   | <ol style="list-style-type: none"><li>1. Reconnect the USB cable between the BCU and the Smart Operation Panel.</li><li>2. Replace the USB cable.</li><li>3. Replace the Main Board (CPU Board) for SOP (2 Board Type).</li><li>4. Replace the Sub Board (Micro Computer Board) for SOP (2 Board Type).</li><li>5. Replace 1 Board Type PCB.</li><li>6. Replace the BCU.</li></ol> |
| 2  | The Smart Operation Panel does not turn ON, but the blue LED on the Operation Panel turns ON.<br> | HW | The Smart Operation Panel can be supplied with electrical power (blue LED lamp), but nothing can be displayed on the LCD. | <ol style="list-style-type: none"><li>1. Reconnect the LCD I/F cable.</li><li>2. Replace the LCD Unit for SOP.</li><li>3. Replace the Sub Board (Micro Computer Board) for SOP (2 Board Type).</li><li>4. Replace 1 Board Type PCB.</li><li>5. Replace the LCD I/F cable for SOP.</li></ol>  |

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| No | Symptom  |          | Cause   | Possible Solution   |
|----|--|----------|---|---|
| 3  | A splash (blue) screen appears.<br>   | SW<br>HW | The Smart Operation Panel and LCD can be supplied with electrical power, but software issues occur during the boot-up sequence.<br>Firmware or eMMC data on the Sub board is defective. | <ol style="list-style-type: none"> <li>1. Update the Cheetah System firmware in recovery mode.</li> <li>2. Perform a factory reset.</li> <li>3. Replace the Main Board (CPU Board) for SOP (2 Board Type).</li> <li>4. Replace 1 Board Type PCB.</li> </ol> |
| 4  | “Please wait” stays on the display.<br>   | SW<br>HW | A software issue occurs during the boot-up sequence, when executing the step after #3 described above.<br><b>(The difference between #3 and #4 cannot be identified in the field.)</b>  | <ol style="list-style-type: none"> <li>1. Update the Cheetah System firmware in recovery mode.</li> <li>2. Perform a factory reset.</li> <li>3. Replace the Main Board (CPU Board) for SOP (2 Board Type).</li> <li>4. Replace 1 Board Type PCB.</li> </ol> |
| 5  | LCDC firmware version not showing correctly / Apps missing from Self-Diagnosis Report (SP5990-005).<br> | SW       | An issue occurred during firmware update.   | <ol style="list-style-type: none"> <li>1. Perform a factory reset.</li> <li>2. Update the Cheetah System firmware in recovery mode.</li> </ol>  |

\*HW: Hardware issue, SW: Software issue

**★ Important**

Please check if the Fuser Unit is warming up. If the Fuser is not warming up, the symptom can be different. For example: SC 670, SC 672, etc.

**COMPONENTS TO CHECK DURING TROUBLESHOOTING:**

1. 1 Board Type PCB.



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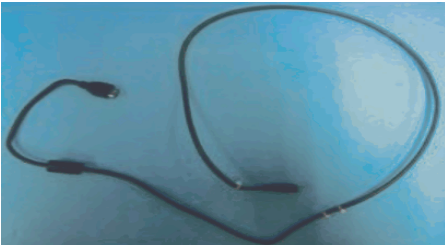
2. 2 Board Type Main Board (CPU Board).



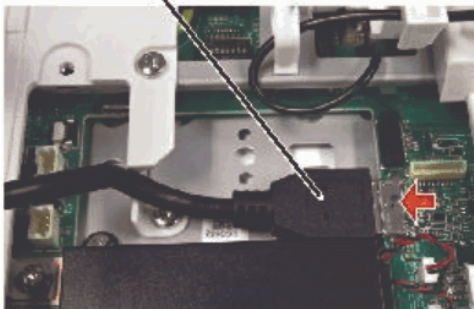
3. 2 Board Type Sub Board (Micro Computer Board).



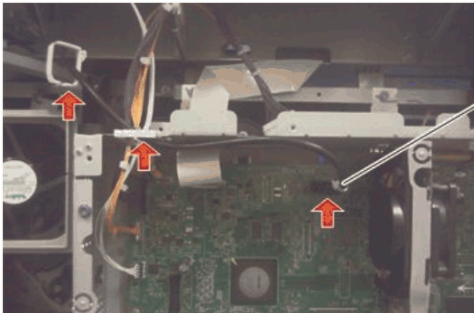
4. USB Cable.



5. Connection between USB Cable and Smart Operation Panel.

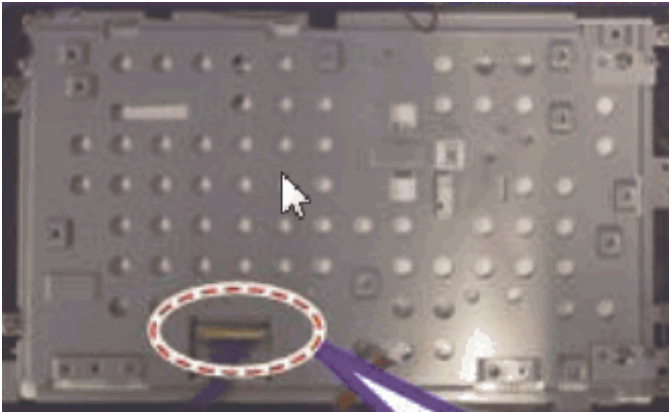


6. Connection between USB Cable and BICU



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7. LCD Unit

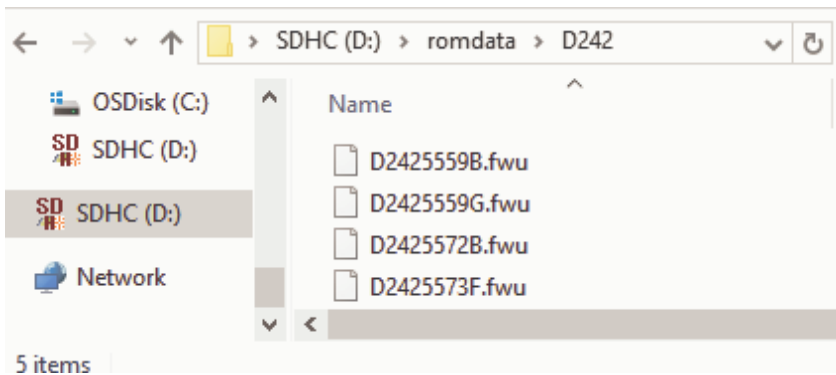


8. LCD I/F Cable

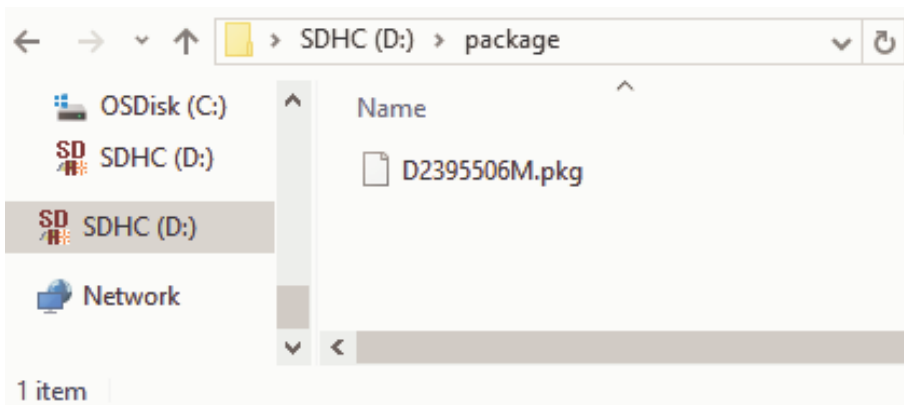


**SD CARD STRUCTURE:**

**For Module Firmware:** SD Card root > “romdata” folder > “product code” folder > “xxxxxxx.fwu” files.

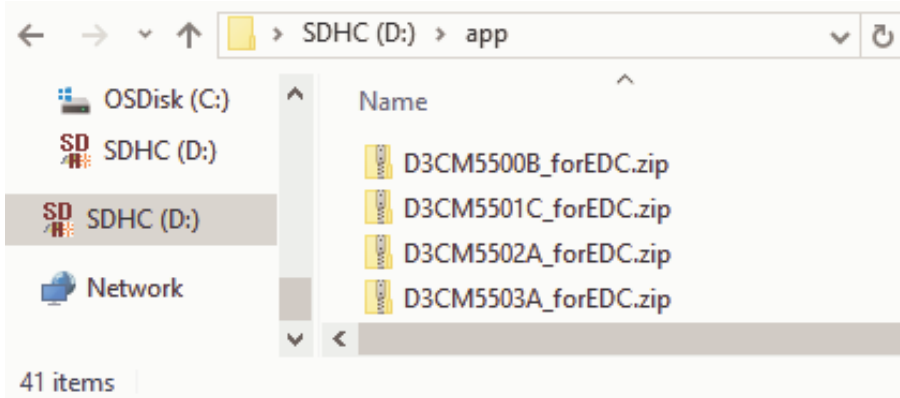


**For Package Firmware:** SD Card root > “package” folder > “xxxxxxx.pkg” files.

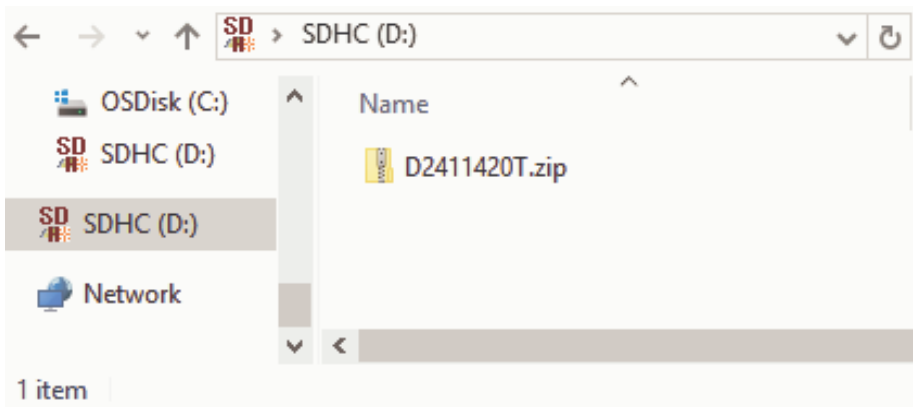


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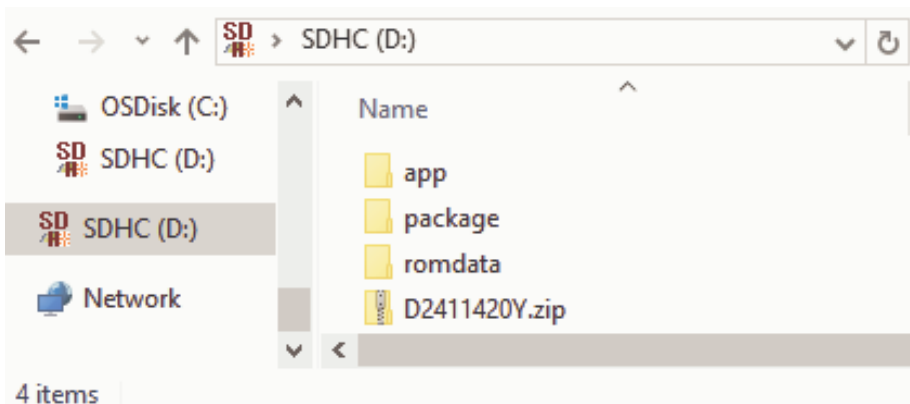
For SOP Apps: SD Card root > “app” folder > “xxxxxxxx\_forEDC.zip” files.



For SOP OS (Cheetah System): SD Card root > “D241xxxxx.zip” file.



One SD card with a “romdata” folder, “package” folder, “apps” folder and “SOP OS” (Cheetah System) file under the SD card root. The SD card size should be at least 2GB in size.



## UPDATING SMART OPERATION PANEL PROCEDURE:

### Note

- Before performing, read through the entire procedure first.
- Before starting the procedure make sure the SOP screen start up mode is set to "Normal" in User Tools → Screen Features → Screen Device Settings → Screen Start Up Mode → Select "Normal".
- This procedure includes the needed steps for a factory reset (Wipe data/factory reset).

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1. Turn the Main Power Switch OFF. With power OFF, remove the Power Cord and press the Power Switch a few times to drain residual power from the machine.
2. Remove the small access cover on the left side of the Operation Panel. There are three button switches.

**Note**

- Upper button = Special key1, Middle button = Special key2 and Lower button = Special key3.
  - Always follow the screen prompts for the functions of the Special keys.
3. Turn the Main Power Switch ON while pressing the upper button (Special key1) and the lower button (Special key3). After the blue splash screen appears, release the two buttons. Quickly, press and hold down the upper button and the middle button until the screen switches to recovery mode. Release the keys when the recovery mode screen appears.
  4. Insert the SD Card with the firmware and apps into the left side SD Card slot on the SOP.
  5. Select "Wipe data/factory reset" → press "Special key3" →select "Yes – delete all user data" → press "Special key3" to execute. Once complete, it will show the recovery mode screen.
  6. Select "apply update from sdcard" from recovery menu, select "D241xxxx.zip" and update "D241xxxx.zip" by pressing "Special key1" (the upper button).
  7. After you see the "Install from sdcard complete" message, select "reboot system now" and press "Special key3" to execute. It takes a few minutes.
  8. After the system reboot enter the Service mode of Smart Operation Panel. To enter Service mode, open the Document Server app, and use the number keypad to enter the following: "Reset" → "8 0 6 1 8 2 # # Clear".
  9. Select "Apps" → "Install" → "install from SD Card".

**Note**

- It takes a few minutes to read and display the Apps on the SD Card.
10. Press "Select all" → Press, "Install".

**Note**

- If the alert message appears, press "yes".
11. After the "Result" message appears on the screen, press "Panel restart".

**Note**

- It takes a few minutes for the Panel to restart and the Apps to show up.
  - If you see the "Unfortunately, LegacyUI type-1 has stopped" message, press "OK".
  - If you see the "Changing settings" screen, wait until the "Changing settings" is complete and press "OK".
  - Some of the text maybe in Japanese but will return to English after turning the machine OFF and back ON.
12. Enter SP Mode. Enter SP5-761-001, enter "1" and press execute.

**Note**

- To bring up number keypad, open the Document Server App.
  - Some of the text maybe in Japanese but will return to English after turning the machine OFF and back ON.
13. Turn the Main Power OFF.
  14. Remove the SD Card.
  15. Turn ON machine and check operation.

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## HOW TO DISTINGUISH THE TYPE OF ELECTRICAL BOARD CONSTRUCTION:

PCB construction type is distinguishable from the prefix (4 digits) of SOP parts number shown on SOP back side. In the case of "D196", "D223", "D241", "D261", "D263", "M0AJ" or "D296", it is 2 Board Type. Others are 1 Board Type.

