

Dent-X Processors



810 Basic (Manual P/N: 801-050253)

810 Plus

9000 (Manual P/N: 801-050253)

Excel (Manual P/N: 801-050253-1)

Troubleshooting Reference

Trained Service Personal ONLY

Observe ALL safety Procedures in the service manual

Reference: Installation, Operation and Maintenance Manual

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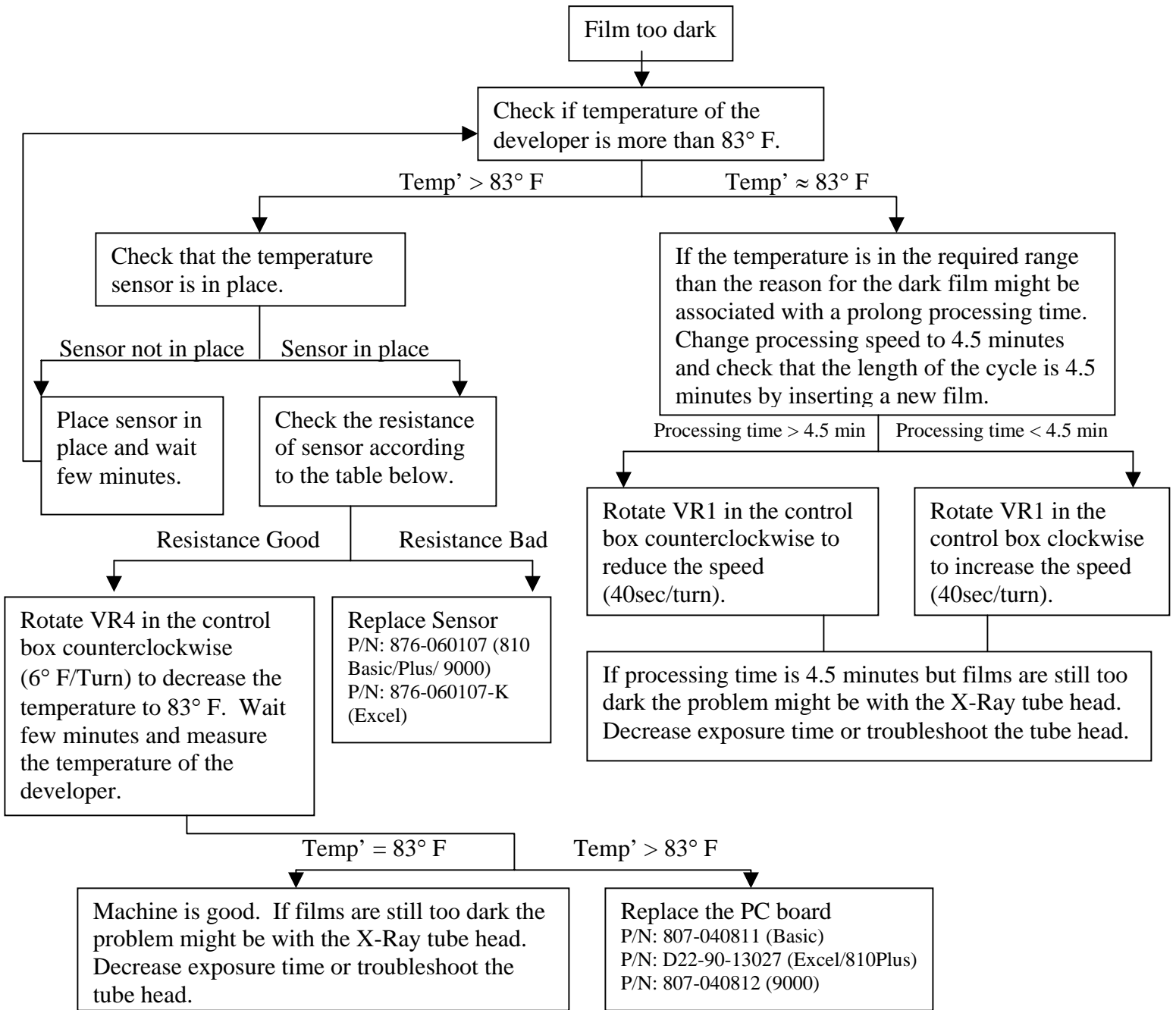
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<u>Key</u>	
>	Greater Than
<	Lower Than
=	Equal To
≈	About the Same

Note: If you have 220V film processor, please consult page 10 for common resistance values and parts numbers.

1) **Dark Film: Over Heated Developer or Prolong Processing Time**

810 Basic/ 810 plus/Excel/ 9000

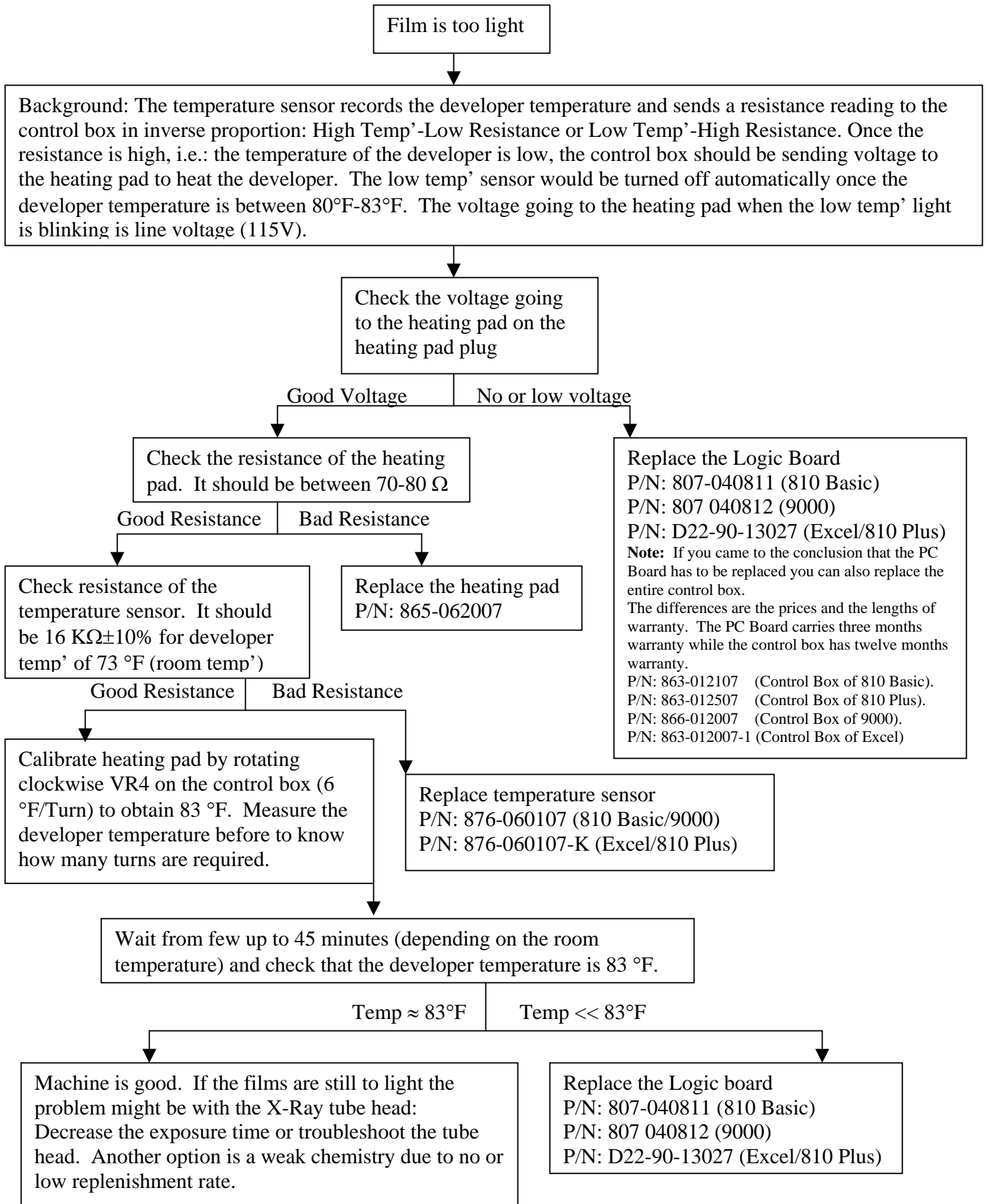


Developer Temp		Resistance
F	C	K Ohms
97	36.1	9.5
95	34.9	9.75
93	33.8	9.95
91	32.6	10.5
89	31.5	11
87	30.4	11.6
85	29.3	12.4
83	28.2	13
81	27.3	12.5
80	26.8	13.8
76	24.4	14.8
74	23.3	15.6
72	22.2	16.25

Note: Dark films can also be associated with light leaks in the darkroom or with wrong filter in safelight.

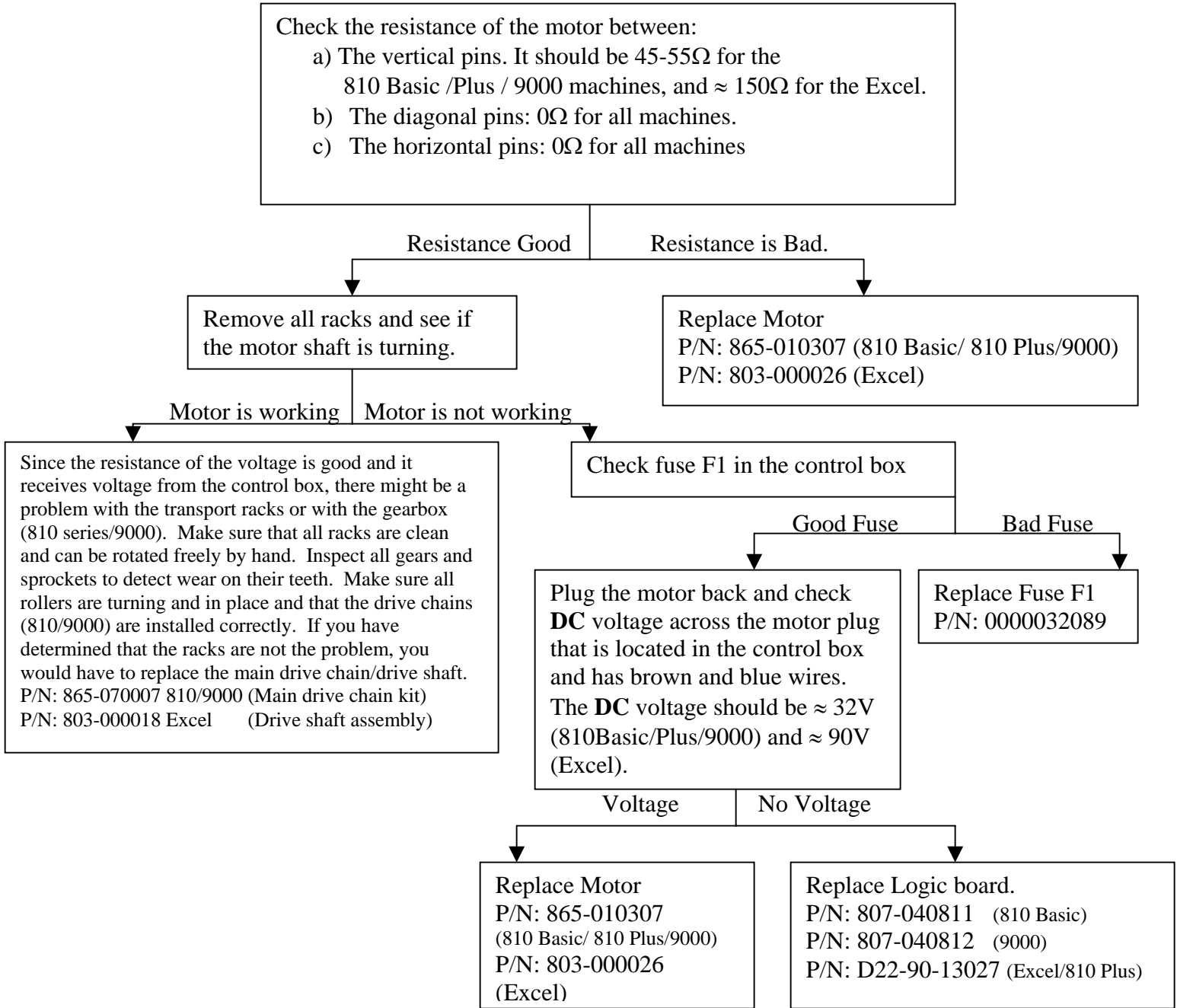
2) No Heat-Low Temp' Light doesn't Come off

810 Basic/ 810 Plus/ Excel/ 9000



3) Motor Not Working

810 Basic/ 810 Plus/ Excel/ 9000

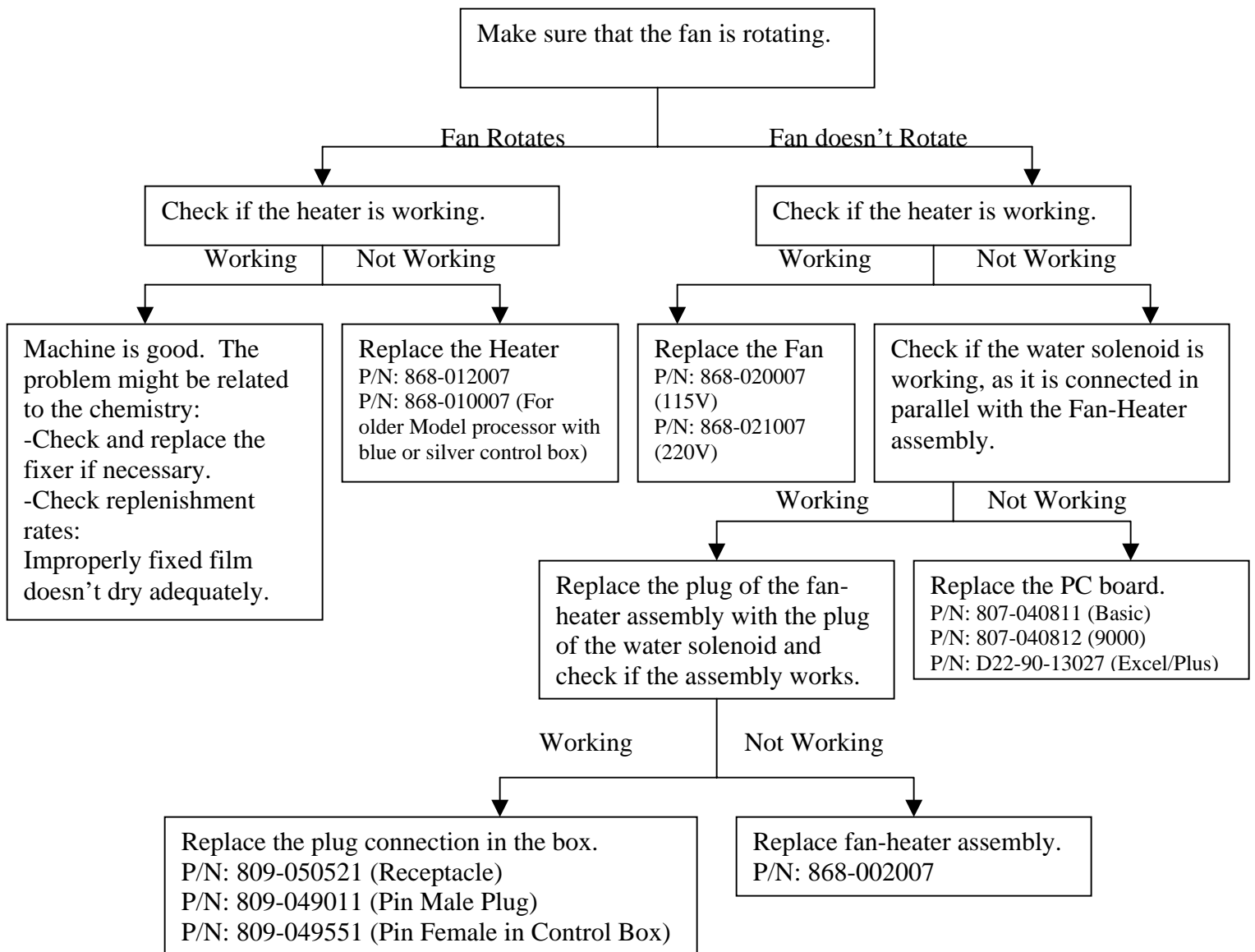


Note: If you came to the conclusion that the PC Board has to be replaced you can also replace the entire control box. The differences are the prices and the lengths of warranty. The PC Board carries three months warranty while the control box has twelve months warranty.

- P/N: 863-012107 (Control Box of 810 Basic).
- P/N: 863-012507 (Control Box of 810 Plus).
- P/N: 863-012007 (Control Box of 9000).
- P/N: 863-012007-1 (Control Box of Excel)

4) Fan or Heater don't work-Film Coming Out Wet

810 Basic/ 810 Plus/ Excel/ 9000



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P/N: 863-012107 (Control Box of 810 Basic).

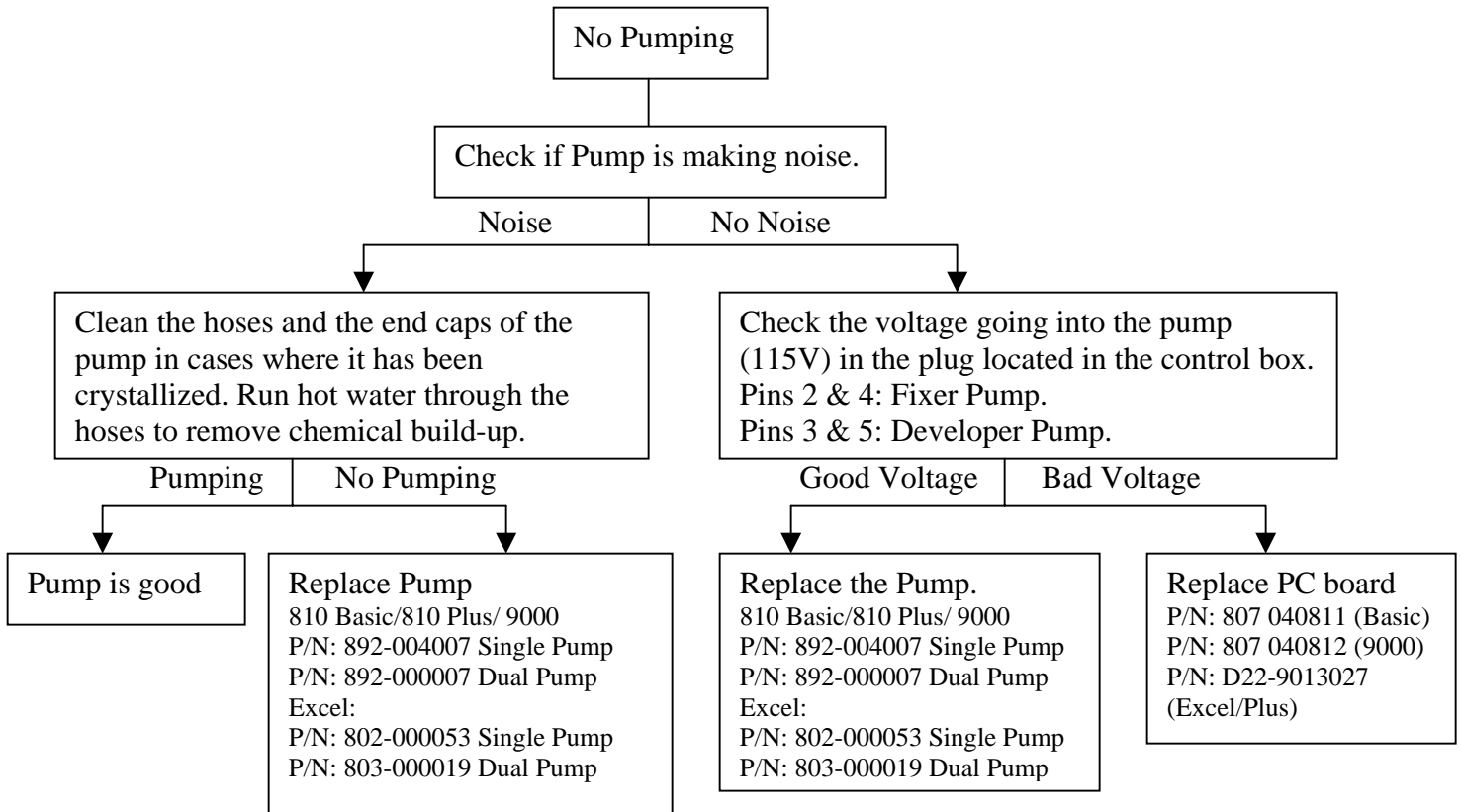
P/N: 863-012507 (Control Box of 810 Plus).

P/N: 863-012007 (Control Box of 9000).

P/N: 863-012007-1 (Control Box of Excel)

5) Pumps Do Not Work

810 Plus / Excel / 9000 technician



Note: If the pump is working but not a sufficient amount of fluid is being pumped, rotate pot VR7/VR6 in the control box clockwise to increase the pumping rate of the Fixer/Developer, respectively.

Continuous Flow of Water

-If water is running continuously open the water solenoid and clean it thoroughly.

-Note: If you came to the conclusion that the PC Board has to be replaced you can also replace the entire control box. The differences are the prices and the lengths of warranty. The PC Board carries three months warranty while the control box has twelve months warranty.

P/N: 863-012107 (Control Box of 810 Basic).

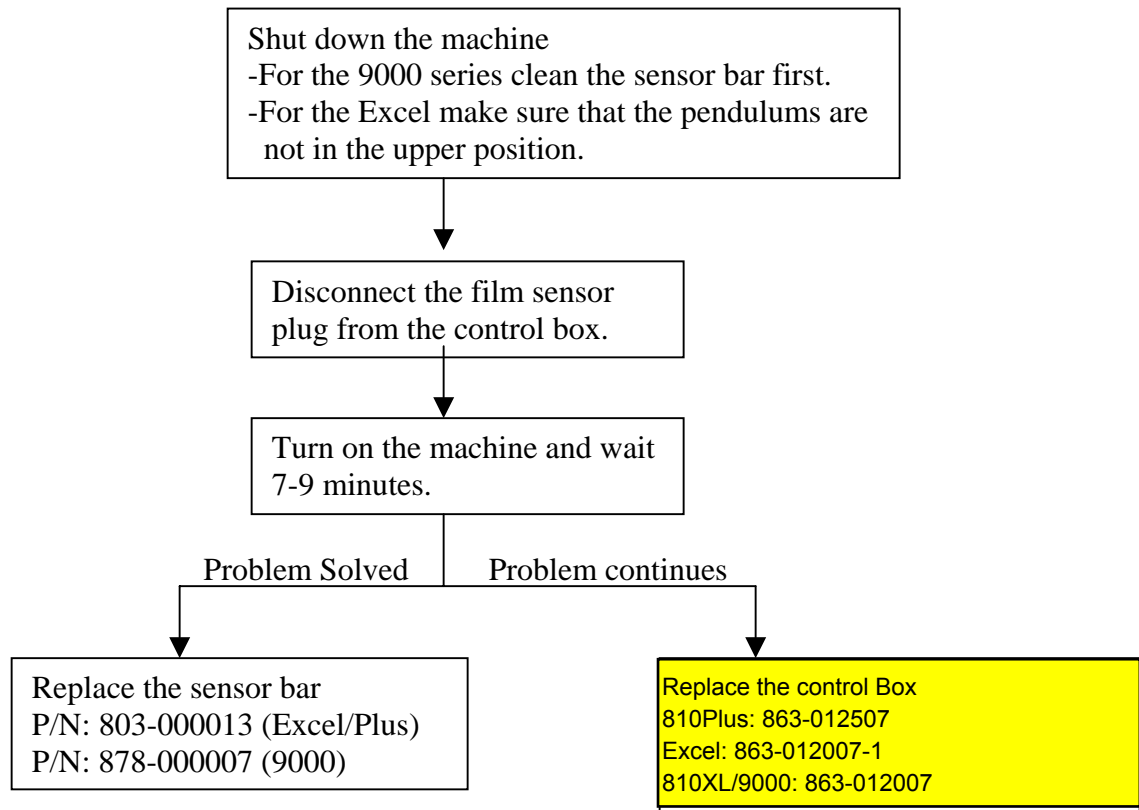
P/N: 863-012507 (Control Box of 810 Plus).

P/N: 863-012007 (Control Box of 9000).

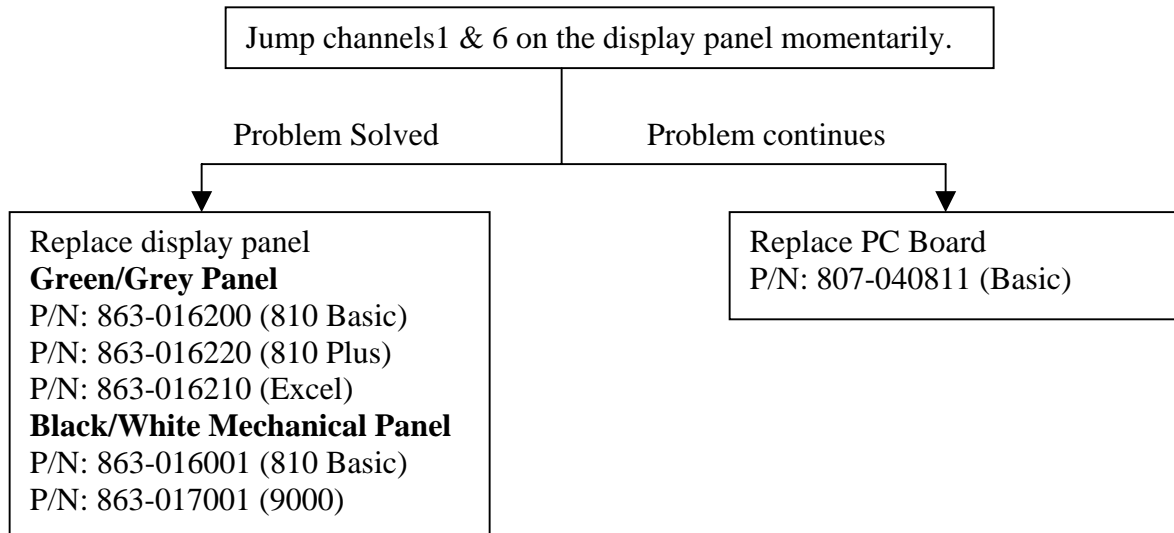
P/N: 863-012007-1 (Control Box of Excel)

6) Machine Runs Continuously

a) 810 Plus / Excel / 9000



b) 810 Basic



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P/N: 863-012507 (Control Box of 810 Plus).

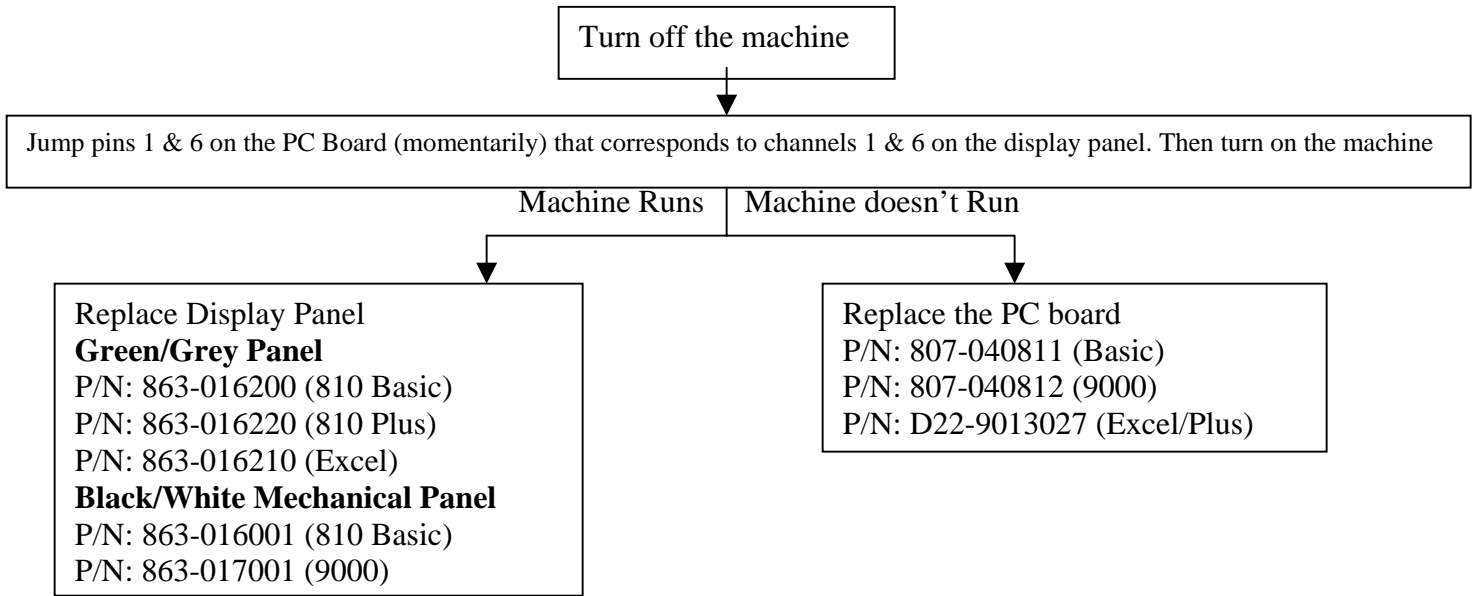
P/N: 863-012007 (Control Box of 9000).

P/N: 863-012007-1 (Control Box of Excel).

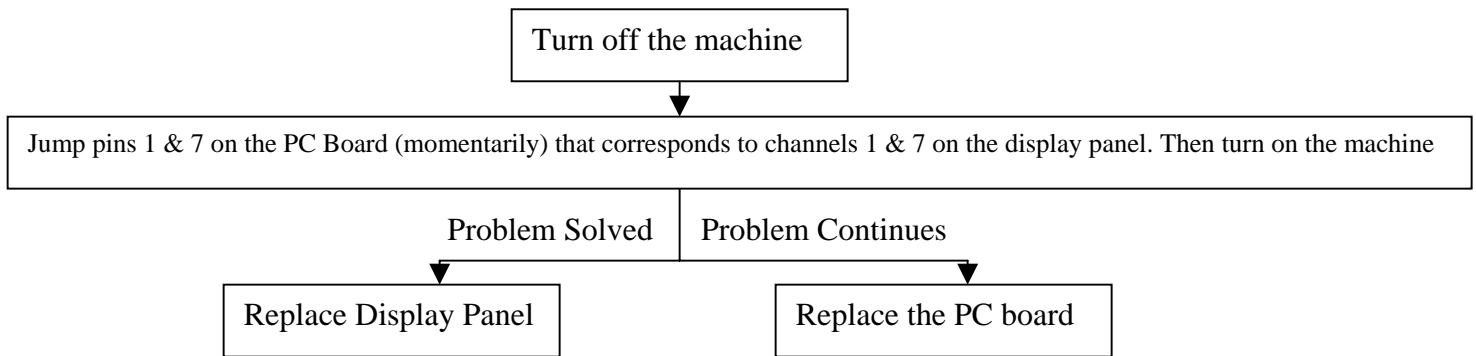
7) **Troubleshooting the control box.**

810 basic / 810 Plus / Excel / 9000

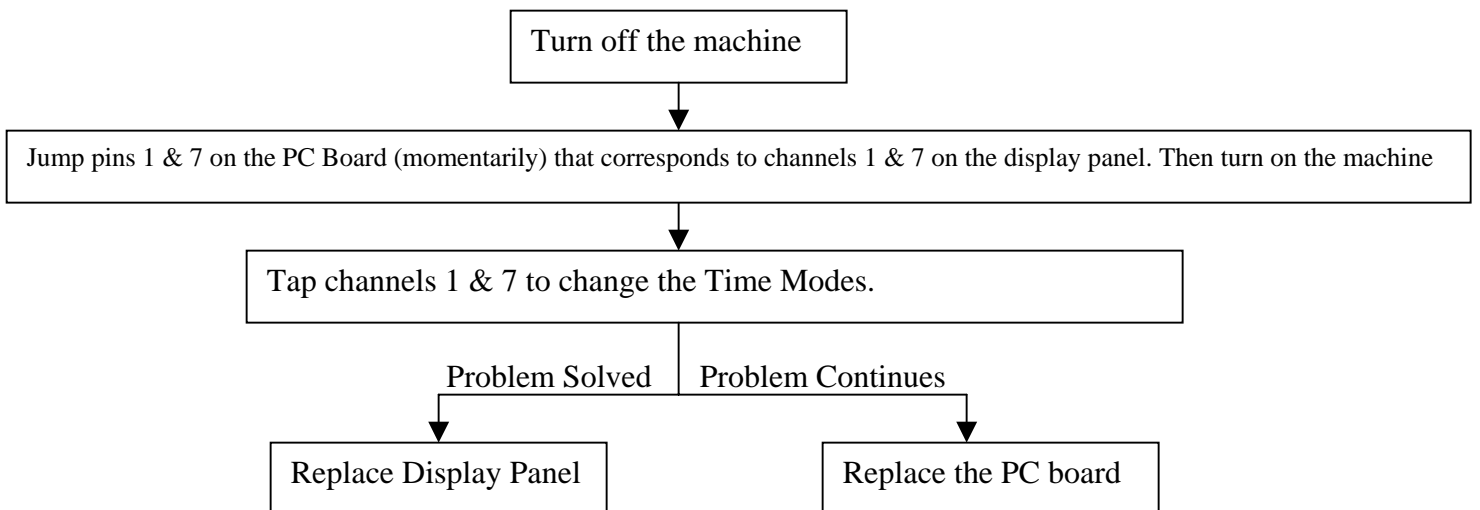
a) Machine Doesn't Work but Mode Switch Works.



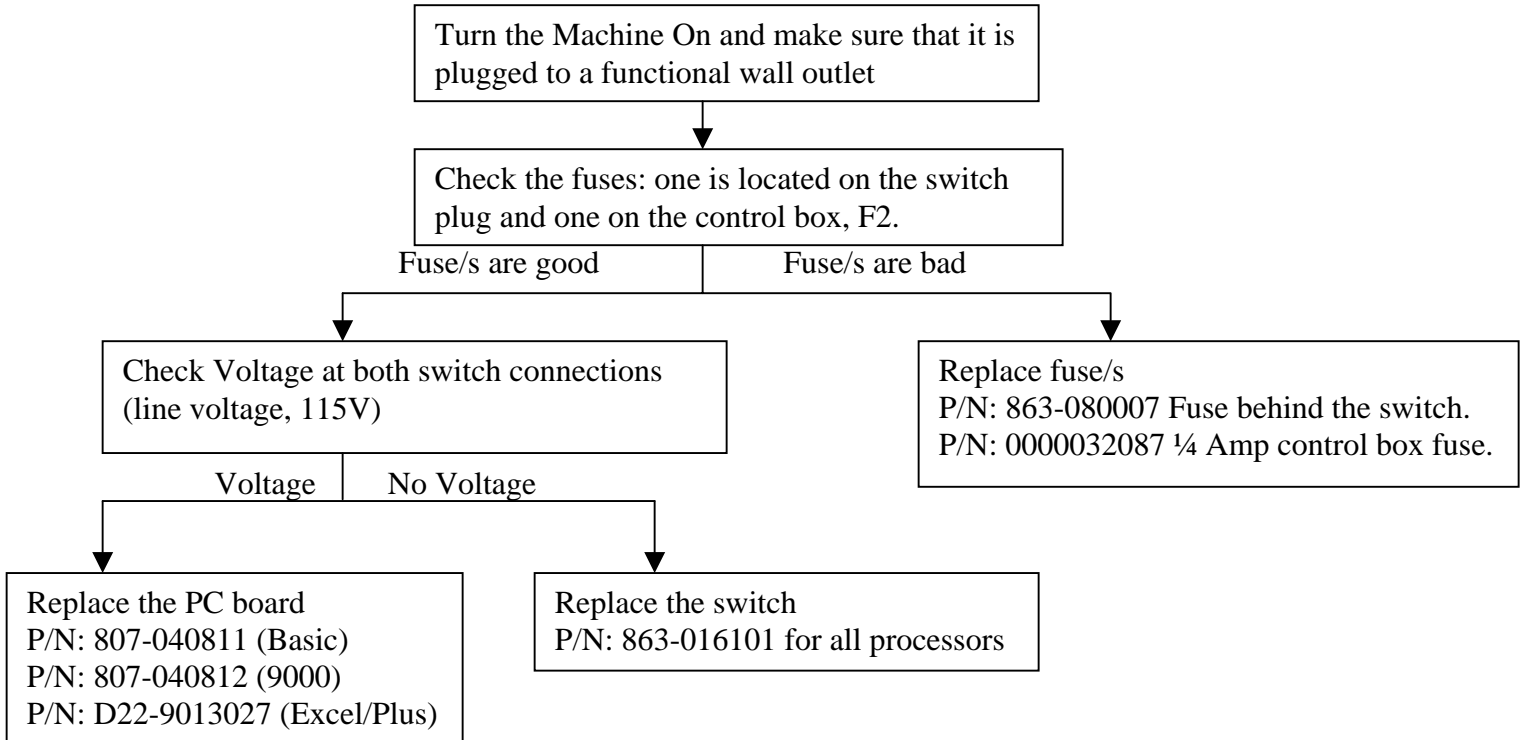
b) Machine Works but the Time Mode Doesn't Work



c) Only One Time Mode Works (Endo, 4.5 min, 6 min)



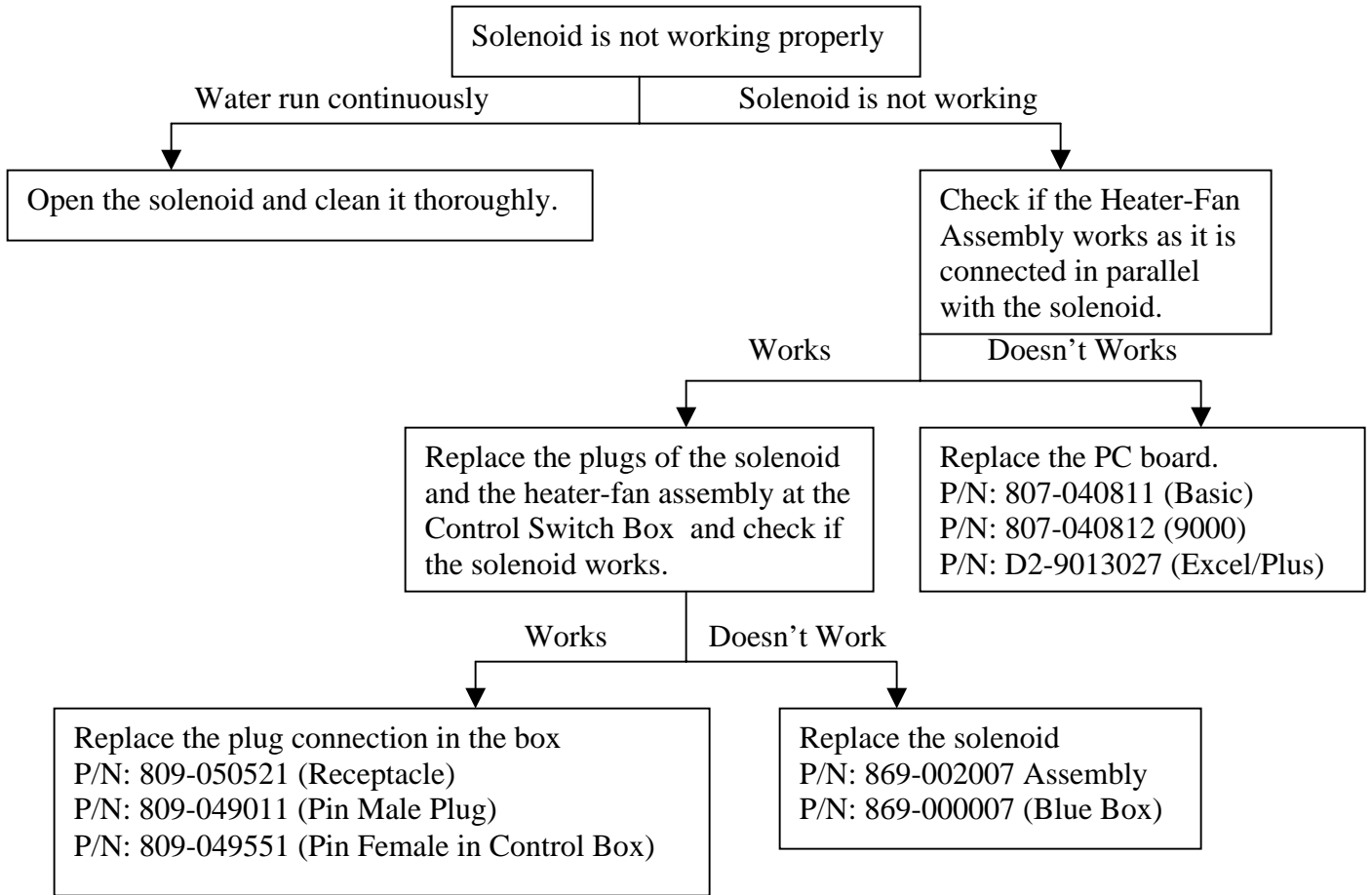
d) No Display



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- P/N: 863-012507 (Control Box of 810 Plus).
- P/N: 863-012007 (Control Box of 9000).
- P/N: 863-012007-1 (Control Box of Excel)

8) Solenoid is Not Working Properly



Note: If you came to the conclusion that the PC Board has to be replaced you can also replace the entire control box. The differences are the prices and the lengths of warranty. The PC Board carries three months warranty while the control box has twelve months warranty.

P/N: 863-012107 (Control Box of 810 Basic).

P/N: 863-012507 (Control Box of 810 Plus).

P/N: 863-012007 (Control Box of 9000).

P/N: 863-012007-1 (Control Box of Excel)

Philips 810, 810 XL, 810 Basic, 810 Plus, 9000 and Excel

Resistance Values

Component	120 V	220 V
	Ohms	Ohms
heater pad	70-80	230-240
Heater -Fan Assembly	38-40	145-165
Heater Element	47-49	175-200
Dryer Fan	205-210	845-860
Solenoid	500	1500
Motor (Blue Box)	150-170	
Motor (Black Box)	45-55	
Excel Motor	130-160	

Temperature Sensor Values

Developer Temp		Resistance
F	C	K Ohms
97	36.1	9.5
95	34.9	9.75
93	33.8	9.95
91	32.6	10.5
89	31.5	11
87	30.4	11.6
85	29.3	12.4
83	28.2	13
81	27.3	12.5
80	26.8	13.8
76	24.4	14.8
74	23.3	15.6
72	22.2	16.25

220 V Parts List

Part	P/N	Note
810 Control Box	863-013107	
9000 Control Box	863-013207	
Excel Control Boc	863-012007-2	
4 Amp fuse	809-090031	Main fuse
Heater-Fan assembly	868-002107	810/9000 only
Heater Element assembly	868-013007	All machines
Dryer Fan	868-021007	All machines
Solenoid Assembly	869-003007	All machines
Water recirculator Ass.	9992405201	All machines
Heating Pad	865-061007	