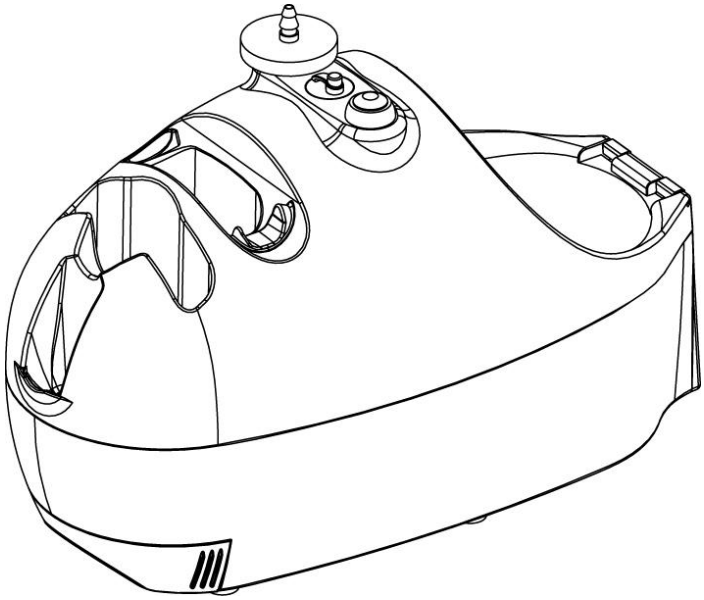
ROCKER

Service Manual

Lafil 100 Portable Suction System (main unit)



Model No.

Lafil 100

CONTENTS

1. Instruction
2. Failure to start – Maintenance SOP
3. Poor / No Vacuum – Maintenance SOP
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Instruction

- Important notice before troubleshooting:
  1. Please comply with all electrical safety standards during repair.
  2. Do not make both positive terminal (+) and negative terminal (-) contact each other to avoid short-circuit when repairing the main unit with Lithium battery module.
  3. The main unit of Lailf 100 uses a brushless motor, please watch out for both positive terminal (+) and negative terminal (-) when wiring to avoid burning out motor.

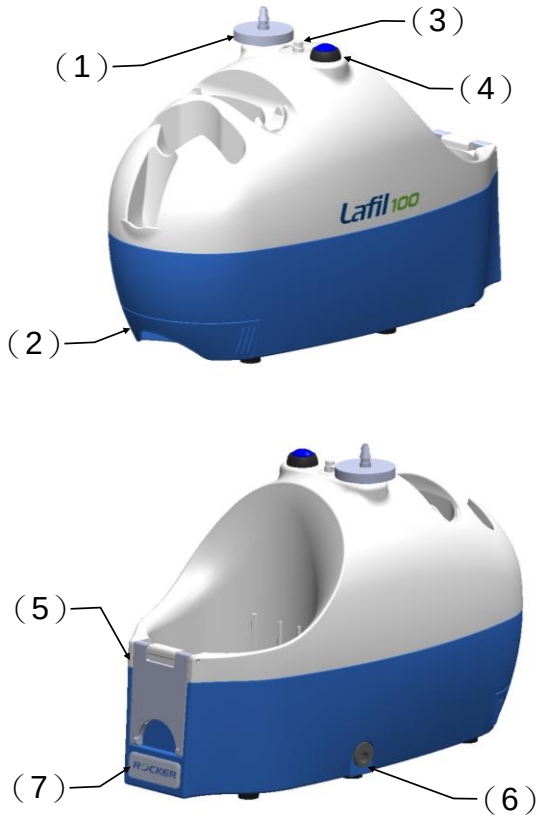
- Applicable Models:

  Lafil 100

- Tools Preparation:

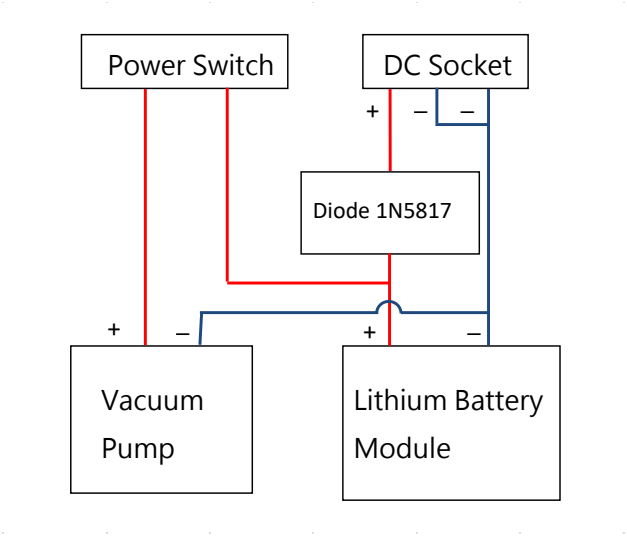
  Screwdriver, Allen key, needle nose pliers, soldering iron, Wire Stripper/Cutter

- Main Unit

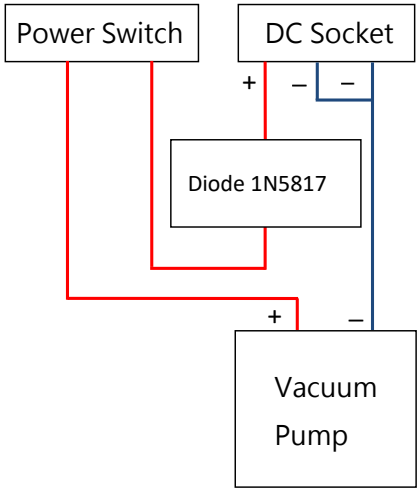


Index No.	Description
(1)	Disc filter
(2)	Residual liquid collection tray
(3)	Outlet
(4)	Power switch
(5)	Centrifuge tube rack
(6)	Power connection port
(7)	Logo sticker

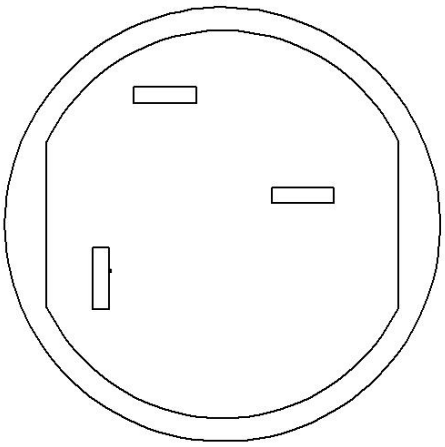
- Circuit Diagram:



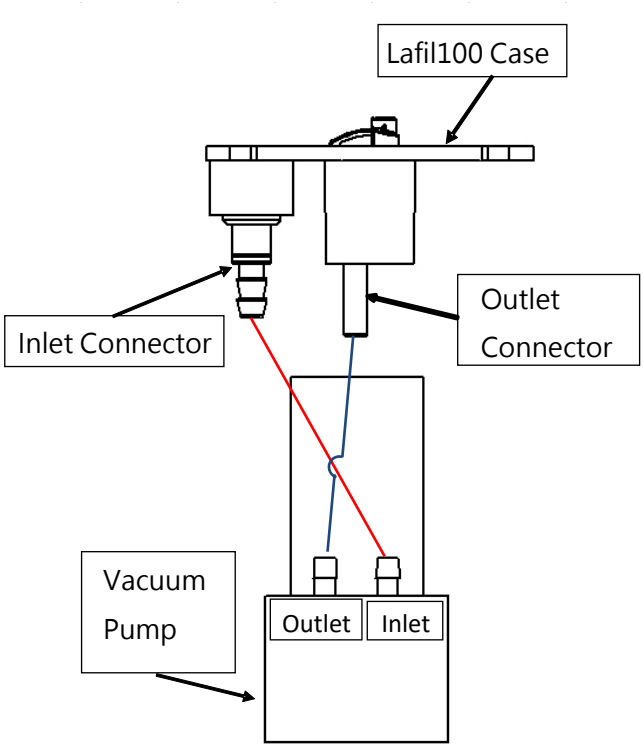
With Lithium battery module



W/O. Lithium battery module

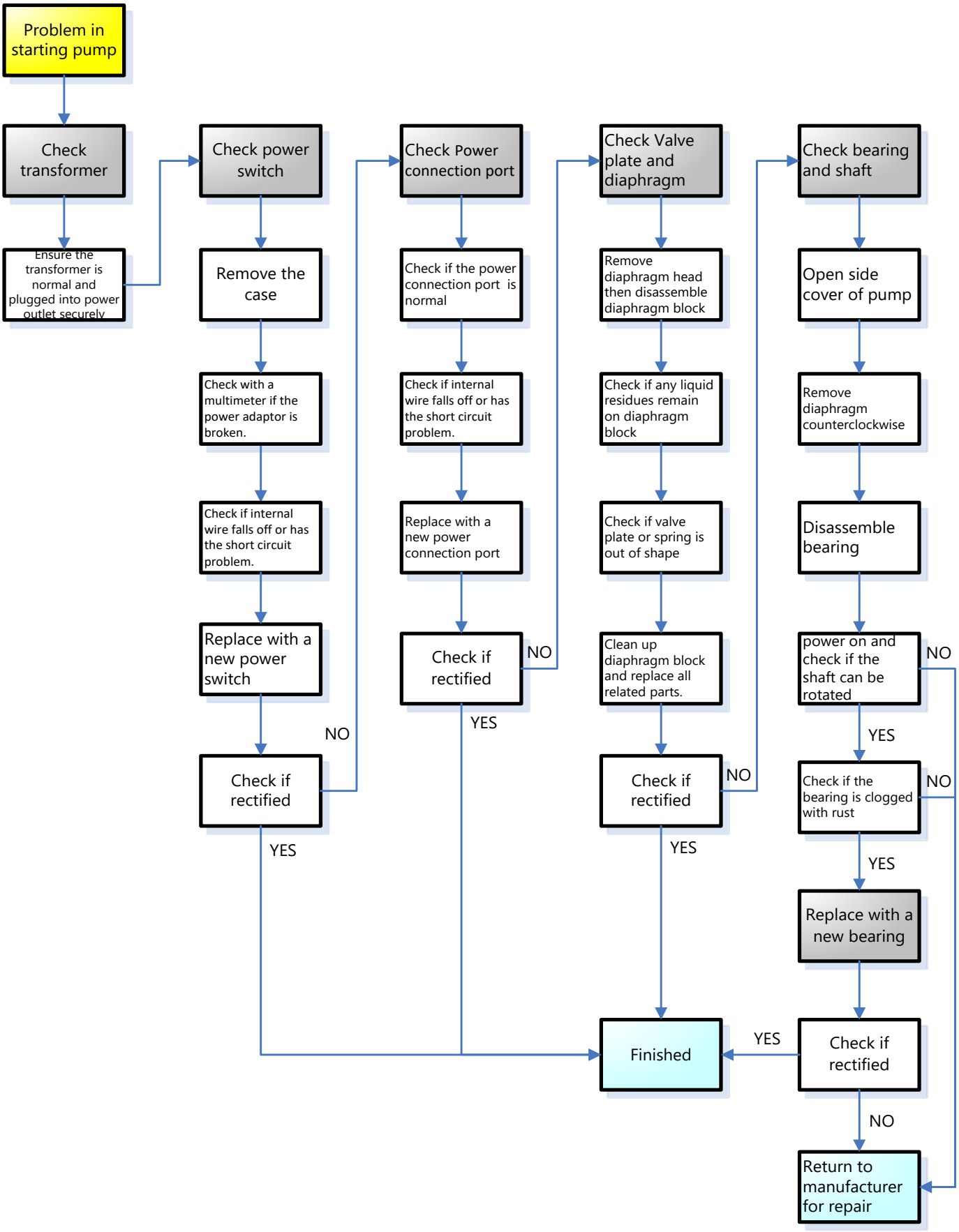


Power Socket pin diagram

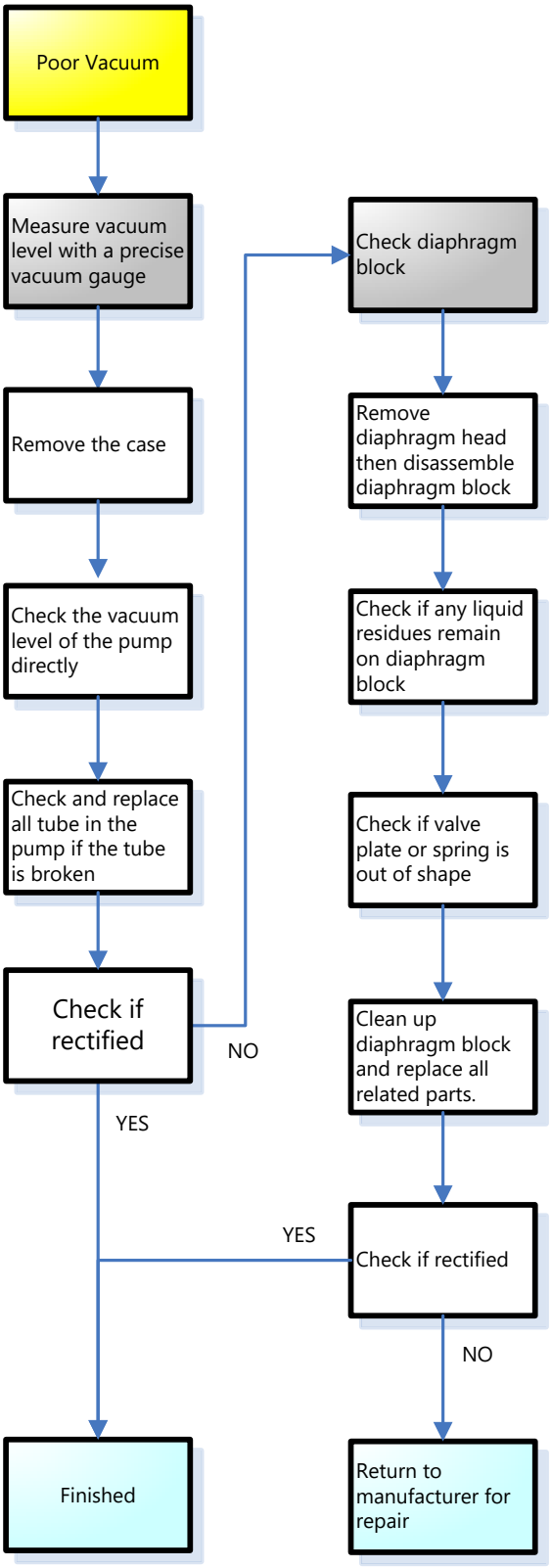


Tubing Connection

Failure to start – Maintenance SOP



Poor / No Vacuum - Maintenance SOP

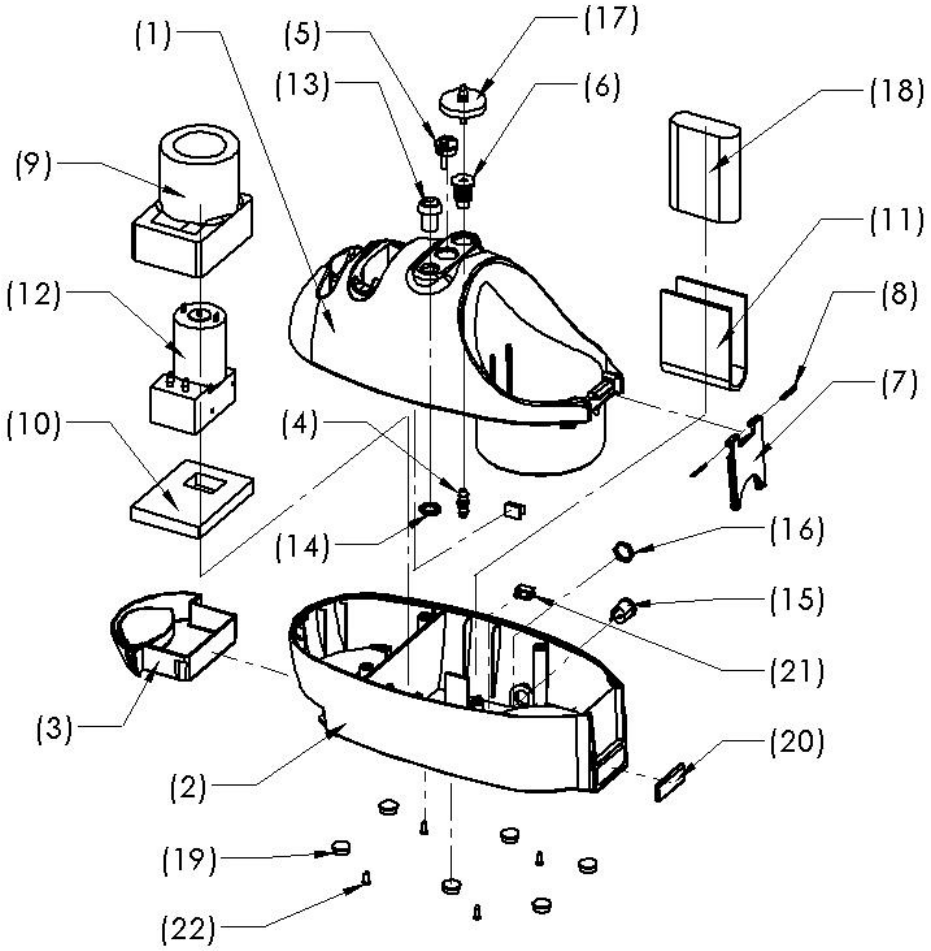


Most Common Problems

Common Problem	Cause	Solution
Failure to start	Check if the power adaptor is connected properly; if the main unit is supplied with lithium battery module then check if the battery is running out of power	Connect with the power adaptor and switch on again.
	Check if the power supply conforms to power specified on main unit.	Use the power supply specified on the main unit.
	Check with a multimeter if the power adaptor is broken.	Replace with a new power adaptor.
	Check if internal wire falls off or has the short circuit problem.	Replace with a terminal bond by crimping pliers and plug it back the right pin position.
	Check with a multimeter if the power switch is connected with power supply.	Replace with a new power switch.
	Check with a multimeter if the voltage of lithium battery is normal.	Replace with a new lithium battery.
	Check if the pump inside the case can run normally after connecting it with correct voltage.	Replace with a new pump or return the main unit to manufacturer for repair.
Poor vacuum	Check if the outlet is clogged.	Remove the clogged material or replace with a new outlet cap
	Check if the disc filter is in the correct specification or broken.	Replace a new disc filter..
	Check if internal tubing connection is wrong or loose.	Make sure the tubing size is 4x8mm -> connect the correct tubing again.
	Check if the vacuum pump inside the case is working at decreased vacuum.	Replace a new pump or return the pump to manufacturer for repair.
Increased noise level	Check if the rubber stand of the main unit is broken.	Replace with a new rubber stand of the main unit.
	Check if unusual sound or vibration when the pump is running.	Replace a new pump or return the pump to manufacturer for repair.

Exploded Part List

Lafil 100



Index	Description	Quantity	Index	Description	Quantity	Index	Description	Quantity
1	Upper Case	1	9	Sponge for motor	1	17	Disc filter	1
2	Bottom Case	1	10	Sponge for base	1	18	Lithium battery module	1
3	Liquid collection tray	1	11	Sponge for battery	1	19	Stand (RF012)	6
4	Inlet tubing connector	1	12	Vacuum pump	1	20	LOGO Sticker	1
5	Outlet cap	1	13	Power switch (blue)	1	21	Cable Clamp	2
6	Inlet silicone plug	1	14	Power switch screw nut	1	22	M3x10 self-tapping screw	4
7	Centrifuge tube rack	1	15	Power connection port	1			
8	Shaft	2	16	Power connection port screw port	1			

Service Video Links

Model No.	Subject	Video Link
Lafil 100	Disassembly	https://drive.google.com/file/d/1CRqUIAG4bSB9BaIA8RWxbiRlubbRh8fA/view?usp=sharing
Lafil 100	Assembly	https://drive.google.com/file/d/1yitoMNLiJVog4Sy4kwqiGQ-8bYJbOh--/view?usp=sharing
Lafil 100	Replacement of valve plate	https://drive.google.com/file/d/1Vzb8ix8OrJfAFFY2IQRtiLzBSLU-irgX/view?usp=sharing