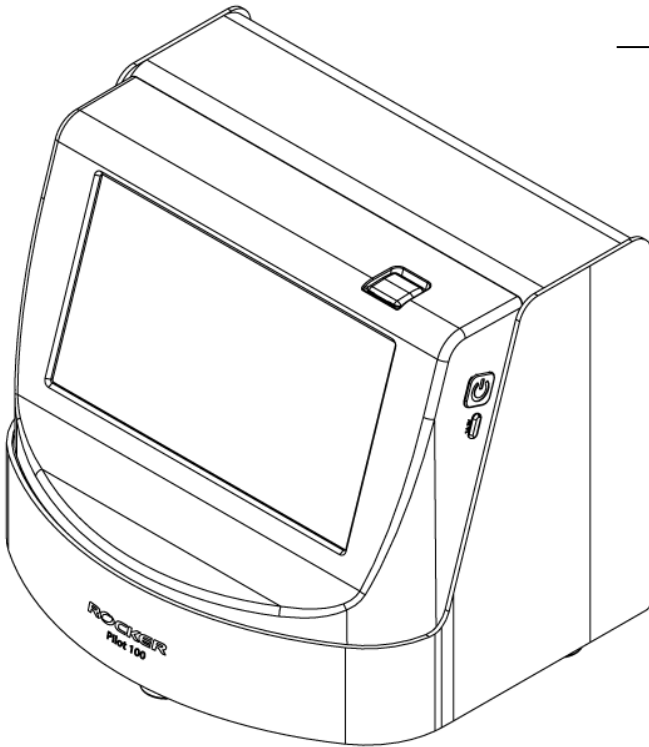


# Service Manual

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Pilot Vacuum controller

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**Model No.**

**Pilot 100**

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Pilot 100
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# Instruction

## **Important notice before troubleshooting:**

1. Be aware of electrical safety when maintenance.
2. Make sure the terminal wiring is firmly fixed according to wiring diagram to prevent wires from loose or falling off.

## **Maintenance**

1. Please keep it clean and operate in well-ventilated circumstance.
2. The instrument cannot be autoclaved. Please use purified water or alcohol 75% to clean surface of instrument.
3. Unplug the power if there is any solution spill over. Wipe the instrument immediately to avoid infiltration into the fuselage or corrosion.
4. When the operation is completed, please turn on the self-cleaning function, do not turn off the pump immediately, in order to discharge the liquid remaining in the pipeline to prolong the life of the instrument.
5. Ensure normal operation › O-ring › Wiring › Filter etc. are consumables, and it is recommended to replace them every year or according to the needs of use.

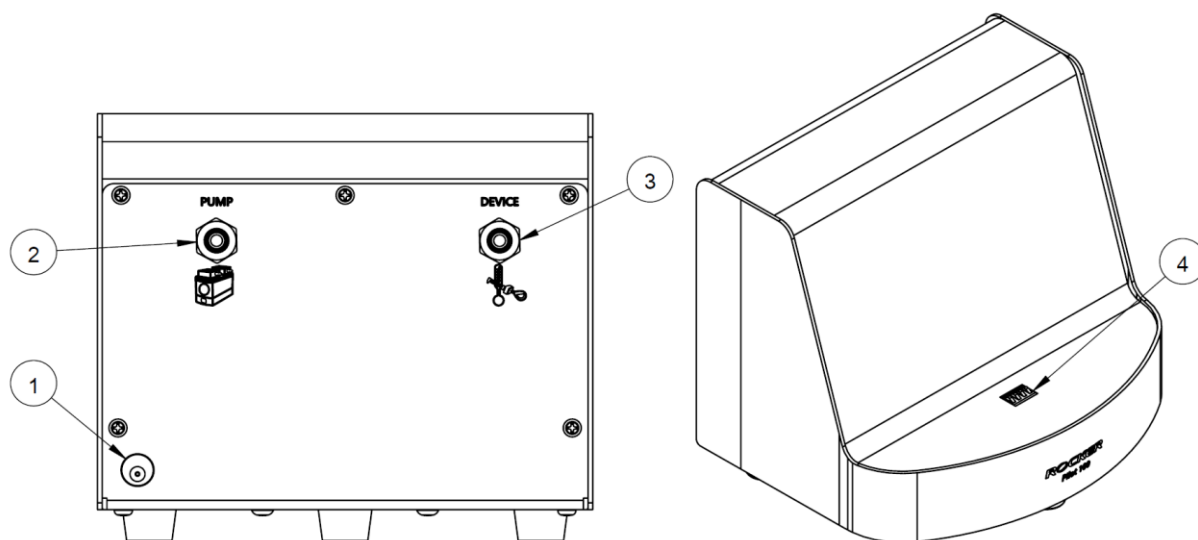
***If the instrument is forced to turn on when the water is in, depending on the water inflow that will cause electric shock, short circuit, or burn.***

## Most Common Problems

Issue	Cause	Solution
Instrument cannot turn on	1. Check battery is installed	Install battery.
	2. Check the battery is charged	Put on the host or use the Type C to charge.
	3. Mainboard disorder	Replace a new mainboard.
LCD abnormal Display	1.Misconnect or damage of circuit	Replace a new set of wiring, and install the circuit set correctly.
	2.LCD screen disorder	Replace a new screen.
	3. Mainboard disorder	Replace a new mainboard.
Alert sound is too low or no sound	1. Check Basic Setting Button Tone is ON or not	Turn Button Tone ON
	2. Check indicator sticker of the buzzer is torn off or not	Torn off indicator sticker of the buzzer
	3. Controller board disorder	Replace a new controller board.
Insufficient Vacuum	1. Check the vacuum degree and valve setting is correct.	Adjustment vacuum degree and valve setting correct.
	2.Check if internal tubing connection is wrong or loose.	Adjustment or leak tube to reinforce.
	3.Check vacuum pump is failure.	Open or replace a vacuum pump.
	4. Pressure sensor disorder	Replace a new pressure sensor.
	5.Check the valve is failure.	Replace a new valve.
	6. Mainboard disorder	Replace a new mainboard.
Bluetooth cannot connect, or the Vacuum value is incorrect during operation	1. Check the communication module crash or failure.	Take the 18650 battery out and put it back in.
	2.Program version error	Please contact your local agent.
Fail to start	1. Loose plug	Reconnect plug to power supply.
	2. Power switch failure	Replace a new power switch.
	3. Mainboard or screen disorder	Replace a new mainboard or screen.
	4.Adapter disorder	Replace a new adapter.

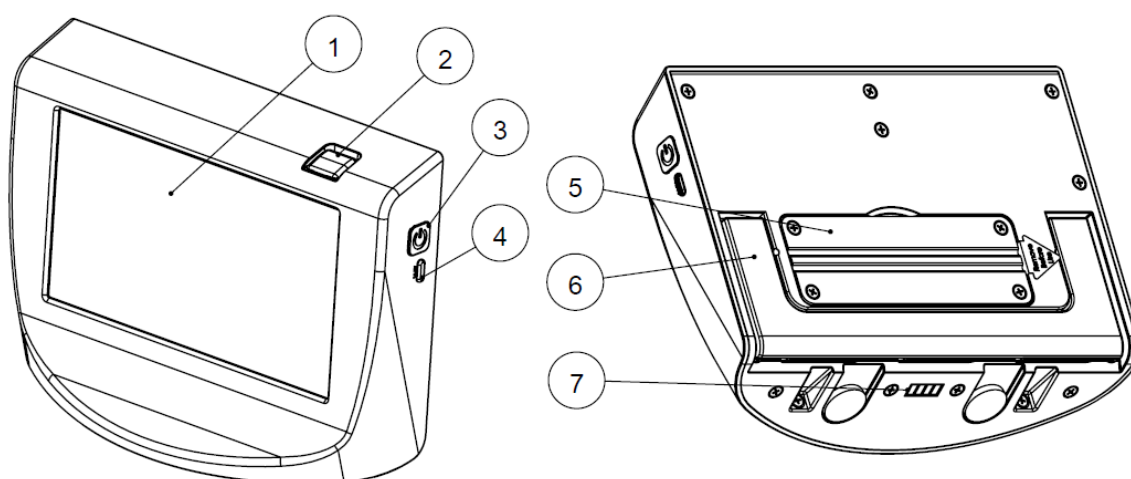
## Exploded view & Parts List

### Station :



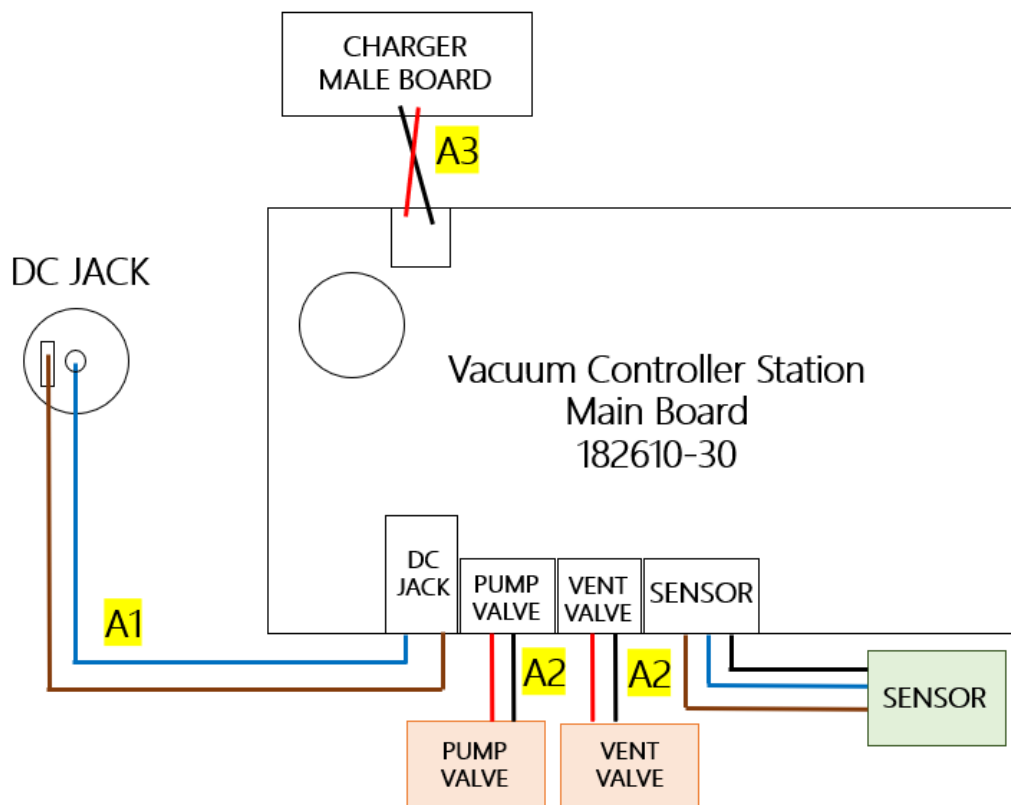
Position	Designation	Position	Designation
1	Power Plug	3	Plug type quick coupler (Device)
2	Plug type quick coupler (Pump)	4	Battery connector(Male)

### Controller :

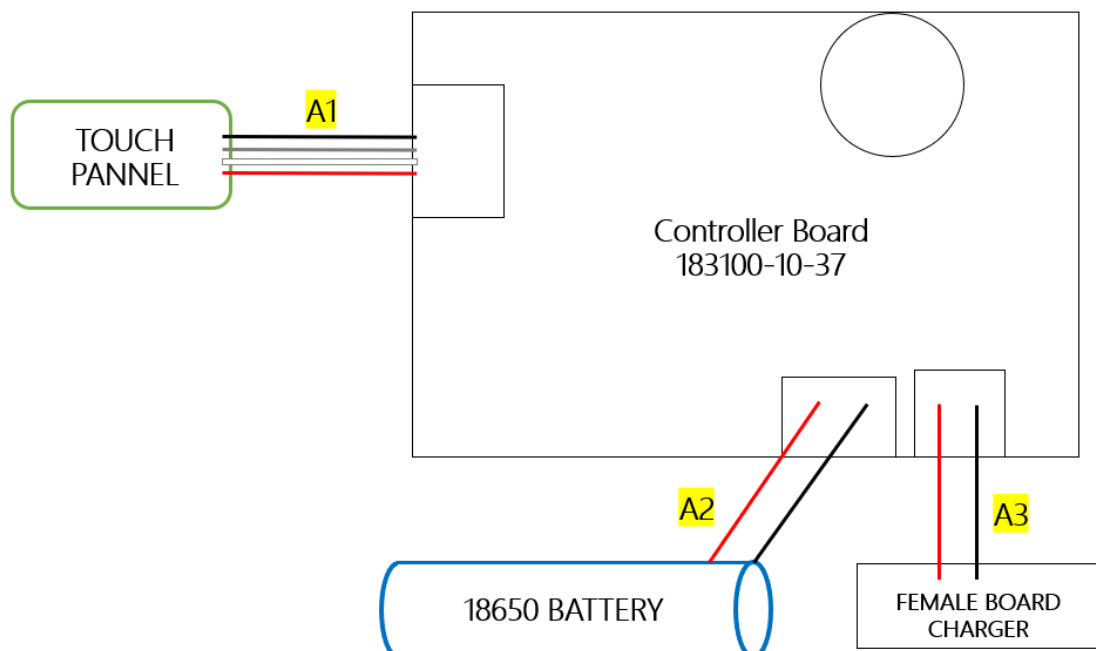


Position	Designation	Position	Designation
1	Touch Pannel	5	Battery Cover (Including CR1220 、 18650 Battery)
2	SD Card Plug		
3	Power Switch	6	Stand
4	Type-C (5V1A)	7	Battery connector (Female)

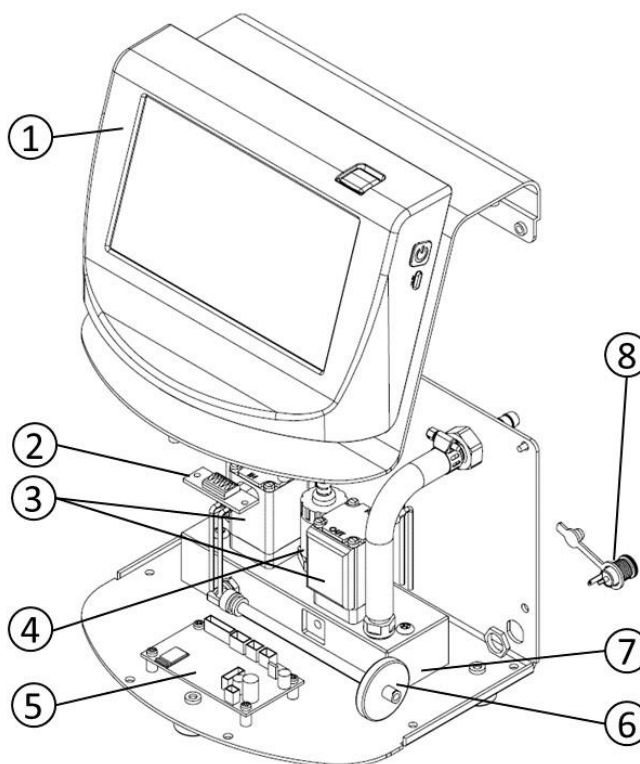
## Wiring Diagram - Station



## Wiring Diagram - Controller



## Parts List of Pilot 100



Pilot 100			
Index No.	Part No.	Description	Qty
1	183100-10	Controller	1
2	182610-30-2-P	Battery PCB (Male)	1
3	183100-36	Solenoid valve	2
4	183100-53	Pressure sensor	1
5	182610-30	PCB	1
6	202PTFE-25-045	Filter (Syringe PTFE;0.45um;25mm)	1
7	183100-34	Valve base	1
8	181200-42	Power socket (with waterproof cover)	1
9	183100-52	Station wiring set	1

## Service Video Links

Model No.	Subject	Video Link
Pilot 100	Assembly & Disassembly	<a href="https://www.youtube.com/watch?v=wxT82JGPC1I">https://www.youtube.com/watch?v=wxT82JGPC1I</a>