

SERVICE MANUAL

VACUUM CLEANER



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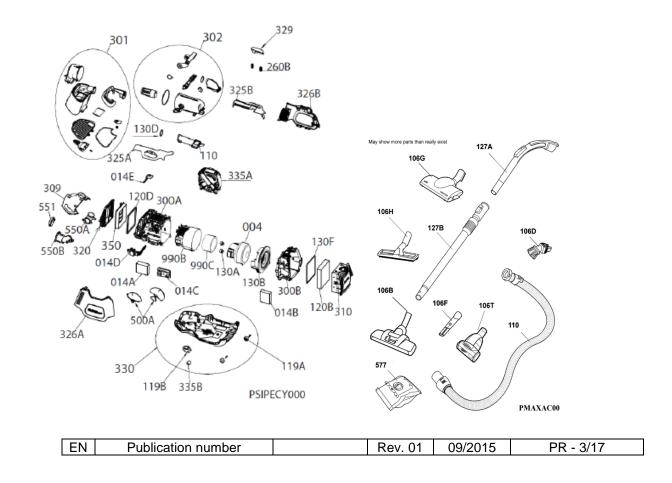
1 General description



* Accessories may vary from model to model.

1.1 Exploded view

May show more parts than really exists.



Denomination	Position
MOTOR	4
SUSPENSION RING	130B
SUSPENSION PIN	130A
LID MOTOR	990C
MOTOR HOUSING	300A
FILTER SEALING	120D
CORD WINDER	335A
LID MOTOR HOUSING	300B
PCB	014C
POWER REGULATOR	500A
HYGIENE FILTER	350
LOWER PART WITH	
WHEELS	330
HOLDER FRONT WHEEL	119B
FRONTWHEEL	335B
REARWHEEL	119A
HOSE CONNECTION OUTER	550B
HOSE CONNECTION INNER	550A
LID FRONT	309
SIDE PANEL LEFT	326A
SIDE PANEL RIGHT	326B
DUST CONTAINER	302
LID TIP RIGHT	325B
CORD WINDER PEDAL	329
LID TOP LEFT	325A
LID FINE DUST	310
DUST COMPARTMENT	301
LID HOSE CONNECTION	551
HOSE	110
HANDLE	127A
TELESCOPIC TUBE	127B
NOZZLE MAIN	106B
NOZZLE 2IN1	106D

2 ACCESSIBILITY

The following chapter follows a disassembling process that step by step will allow the Technician to completely dismount the vacuum cleaner. Tags have been added to help finding quickly the needed item to be removed quickly.

ATTENTION:

Boards and electronic devices could be damaged by electrostatic discharges. Don't touch any components without any ESD protection.

At first step remove the dust compartment from the appliance.





Then remove the fine dust lid.





Click out the CW pedal snapping ribs at both side.





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Now you can take out the CW pedal easily.



Remove two screw from the CW pedal nest.



To remove the top cover need to click out the snappers at the following places:



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Now you can remove the lid easily.



To remove the left side top cover click out the snappers at the following places:





Now its easy to remove the lid by hand.

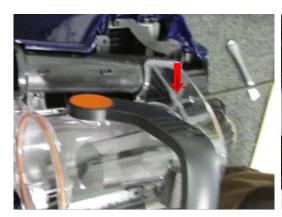




Remove the 4 screw from the cyclone unit.









Than take out the cyclone unit and the air channel.





Remove the screw from the rear side.

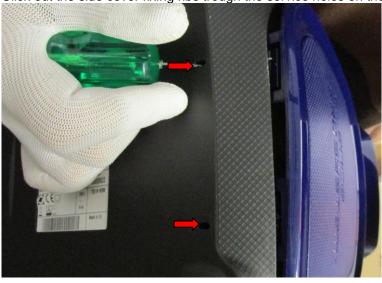


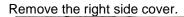
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Pull the regilation button to the minimum position.



Click out the side cover fixing ribs trough the service holes on the bottom part.









Click out the left side cover fixing ribs trough the service holes on the bottom part. Then remove the left side cover.





Remove the screws from the front lid.



Click out the snappers at both side.





Rotate the hose connection ring clockwise.



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Now remove the front lid and hose connection ring from the appliance.



Take out the motor house from the bottom plate.

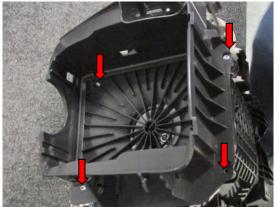




Remove the Hepa filter frame from the back side.

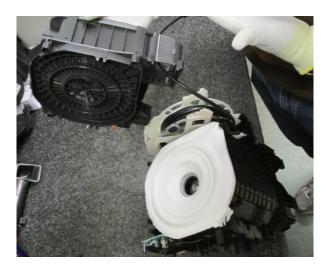


Remove the screws from the motor house lid.



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Remove the motor house lid.



Pull out the suspension ring from the motor house.



Now you can reach the motor.





3 Electronic Control

3.1 Motor power regulation

- 1. Main plug connected:
 - Motor shall be off.
- **2.** First start (after main plug is connected):
 - Motor power starts in Max power position (remote version).
- **3.** Power setting is changed by regulation button:
 - Motor power steps up or down.
- 4. Cleaner is turned off by On/Off switch:
 - Motor turns off; last power setting is remembered by the microcontroller (remote version).
- 5. Cleaner is turned on by On/Off switch after being at point 4:
 - Motor turns on, and starts at the last used power setting (remote version).

3.2 RF transmitter

Introduction

The RF transmitter is used as remote control for a vacuum cleaner powered by a 3V changeable lithium cell. The transmitter uses the **2.4 GHz (carry over from Ceres/Castor)** band for transmitting data inside EU. With the transmitter it is possible to turn the appliance on and off, and regulate the motor power. Estimated lifetime for the battery in normal use is approximately 8-12 months.

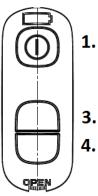
Learning

If the PCB has not saved transmitter address - New PCB from supplier

- 1. Plug in the cord to the main. The motor will fluctuate.
- 2. Push the buttons in the given combination at the same time (to do this you have 20s after connection to main)

/ 1+3+4 /

- 3. If the teaching was successful the cleaner will turn on (1.5s) and after that turns off.
- 4. The cleaner is ready to use.



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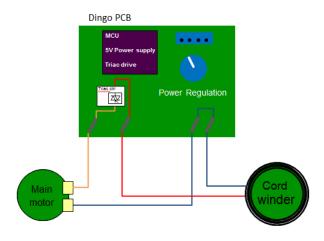
Reset

If the receiver has saved transmitter address – New transmitter / New bentend

- 1. Plug in the cord to the main. Do not turn on.
- 2. Send Reset signal 1+4 button combination at the same time (to do this you have 20s after connection to main)) If the cleaner received the right reset signal it will fluctuate.
- 3. Unplug the cord from the main.
- 4. Wait min 5sec.
- 5. Plug in the cord to the main again. The cleaner should fluctuate.
- 6. Send teaching signal 1+3 button combination at the same time (to do this you have 20s after connection to main)
- 7. If the teaching was successful the cleaner will turn on (1.5s) and after that turns off.
- 8. The cleaner is ready to use.

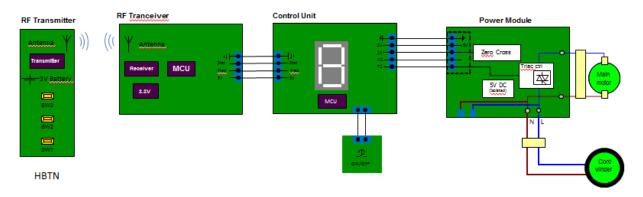
3.2 Electronic layout

Angerona L1 model:



Angerona L2 model:

Angerona RF



ATTENTION:

Boards and electronic devices could be damaged by electrostatic discharges. Don't touch any components without any ESD protection.

4 TROUBLE SHOOTING

Problem	Checks
	Cleaner without remote: Investigate if the plastic knob reaches the ON/OFF switch on the PCB. Replace the control unit (display PCB)
Cleaner doesn't start	 Cleaner with radio remote: Investigate if both ON/OFF (cleaner and remote) is not working. If remote ON/OFF working, but not cleaner ON/OFF: Investigate if the plastic knob reaches the ON/OFF switch on the PCB. Replace the control unit (display PCB). If cleaner ON/OFF working, but not remote ON/OFF: Investigate if the LED on the remote indicates transmission. If not, change battery and try again. If still no LED indication on remote, change remote control and reprogram the cleaner according to above instruction. If LED indicates transmission, try replacing the remote according to above instruction. If cleaner starts, replace the RF remote control. If still no function, replace the control unit in the cleaner. Be aware of the position of the radio antenna. If replacing the control unit this has to learn the RF-remote address according to above description. If no reaction on any ON/OFF buttons: replace the control unit (display PCB).
Cleaner doesn't start	 Check if the Power module PCB gets main voltage. Check communication wire between Power module and control unit for failure or bad connection. Change the control unit. Change the Power module.
Cleaner doesn't start	 Check motor voltage, if no voltage, check the electronics as below, else check motor TCO and motor. Check communication wire between Power module and control unit for failure or bad connection. Change the control unit. Change the Power module.
	Cleaner without remote: Investigate if the plastic knob reaches the potenciometer on the PCBReseting the main/power PCB -Change power regulation wheel -Replace the control unit (PCB).
Not ponssible to change power level	 Cleaner with radio remote: Investigate if the LED on the remote indicates transmission. If not, change battery and try again. If still no LED indication on remote, change remote control and reprogram the cleaner according to above instruction. If LED indicates transmission, try replacing the remote according to above instruction. If cleaner starts, replace the RF remote control. If still no function, replace the control unit in the cleaner. Be aware of the position of the radio antenna. If replacing the control unit this has to learn the RF-remote address according to above description.
	No failure found
If no any fault found after investigate the appliance, then use following coding	Product: 901 - Please use correct defect code to describe problem details, such as 53 (Customer misuse), 54 (Instructions missing or unclear), 55 (Not meeting expectations), 57 (No fault found)
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