

AW 20 S

EN

OPERATING MANUAL
AIR WASHER



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Notes regarding the operating manual

Symbols



Hazardous electric current!

Warns about hazards from electric current which can lead to injuries or even death.



Danger!

Warns of a hazard which can lead to personal injury.



Caution!

Warns of a hazard which can lead to property damage.

The current version of the operating manual can be found at:



AW 20 S



<http://download.trotec.com/?sku=1160000020&id=1>

Legal notice

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Warranty and liability

The device complies with the fundamental health and safety requirements of the applicable EU regulations and was tested at the factory for perfect functionality multiple times.

However, if faults in the functionality occur and cannot be remedied with the measures in the chapter Errors and faults, please get in touch with your dealer or distributor.

When manufacturer's instructions or legal regulations have not been followed, or after unauthorised changes to the device are made, the manufacturer is not responsible for the resulting damages. Changes to the device or unauthorised replacement of individual parts can drastically impact the electrical safety of this product and leads to the forfeit of the warranty. Liability does not extend to damages to people or property caused by the device being used other than as described in the instructions in this operating manual. Subject to changes to technical design and model changes as part of constant development and product improvement without prior notice.

No liability is accepted for damages resulting from improper use. In such a case, any warranty claims be voided also.

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use!

- Do not use the device in potentially explosive rooms.
- Do not use the device in aggressive atmosphere.
- Fill the device with fresh drinking water only.
- Set the device up in an upright and stable position.
- Ensure that the air inlet and outlet are not obstructed.
- Ensure that the side of the device where the air inlet is found is kept free of dirt and loose objects.
- Never reach or put objects into the device.
- Do not cover or transport the device during operation.
- This appliance is not a toy! Do not leave the device running unattended with children nearby.
- Ensure that all electric cables outside of the device are protected from damage (e.g. from animals). Never use the device if the cable or power connection is damaged!
- Only use extensions to the connecting cable which are appropriate to the device power consumption, the length of its cable and its use. Completely unroll extension cables. Avoid electrical overload.
- Unplug the device from the mains before starting with maintenance, service or repair work.

Intended use

Use the device AW 20 S for humidifying and cleaning indoor air, while adhering to and following the technical data. The device is suited for humidifying the room air in order to create an agreeable room climate.

Improper use

The device AW 20 S is not suited for the distribution of liquids other than fresh drinking water. It is not suited for removing heavy contaminations from the air.

Personnel qualifications

People who use this device must:

- have read and understood the operating manual, especially the Safety chapter.

Residual risks



Hazardous electric current!

Work on the electrical components must only be carried out by an authorised specialist company!



Hazardous electric current!

Before any work on the device, remove the mains plug from the mains socket!



Danger!

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



Danger!

Do not leave the packaging lying around. Children may use it as a dangerous toy.

Behaviour in the event of an emergency

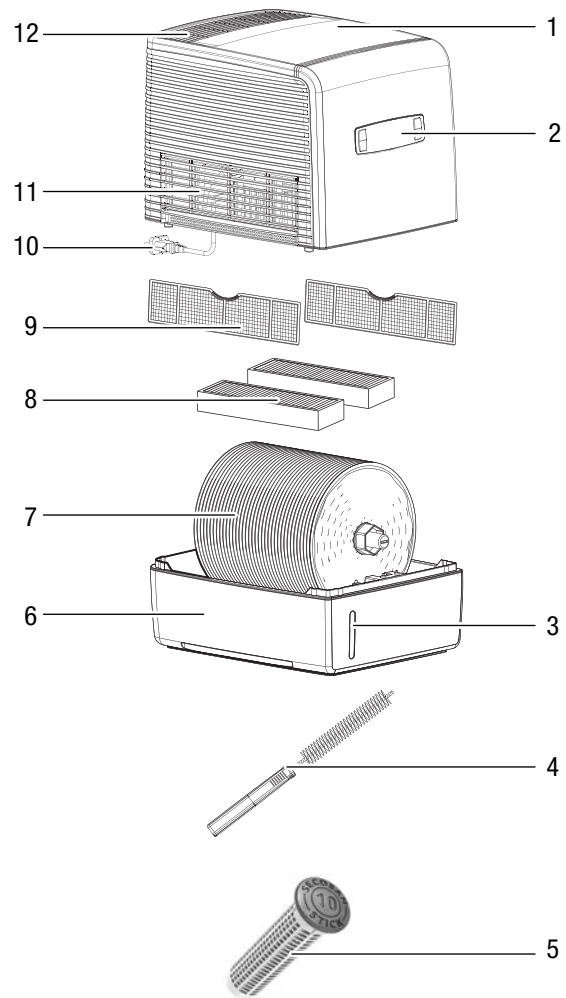
1. In an emergency, disconnect the device from the mains feed-in: Switch the device off and disconnect it from the mains.
2. Do not reconnect a defective device to the mains.

Information about the device

Device description

- 3-in-1 combination device for air purification, humidification and odour elimination
- Suitable for rooms sized up to 55 m² / 138 m³
- Humidification performance max. 750 ml/h
- Air flow rate max. 228 m³/h
- Display of relative humidity
- (Changeable) prefilter for coarse dirt such as animal hair, fluff and dust
- HEPA filter selectable
- HEPA filter reduces the growth of bacteria and mould
- Electrostatic charging and odours are reduced
- No limescale or wet spots
- Sensor-controlled automatic operation:
 - An intelligent sensor measures the air quality and humidity level for automatic control.
- 3-stage light signal indicates the air quality in the room
- 9 operating modes
- 3 fan stages
- Noiseless night operation in whisper mode
- Plasma generator selectable
- Water tank approx. 9 litres
- Water level indicator
- Warning signal and automatic switch-off when water tank is empty
- Quiet operation < 55 dB

Device depiction



No.	Designation
1	Upper part
2	Control panel
3	Water level indicator
4	Cleaning brush
5	SecoSan® Stick 10 (optional accessory)
6	Lower part
7	Disk
8	HEPA filter
9	Pre-filter
10	Power cable
11	Air inlet with pre-filter flap
12	Air outlet

Transport and storage

Transport

Before transporting the device, proceed as follows:

- Switch off the device at the mains switch.
- Remove the mains plug from the mains socket.
- Prior to every transport check whether the upper and lower part of the device are firmly interconnected.
- Lift the device at the foot.

Storage

Empty and clean the water tank prior to storage (see chapter Maintenance).

When the device is not being used, observe the following storage conditions:

- Dry.
- Protected from dust and direct sunlight.
- With a cover to protect it from invasive dust, if necessary.

Assembly and installation

Assembly

- 1 x Air washer AW 20 S
- 1 x Easy Kit cleaning brush

In addition to the scope of delivery, a SecoSan® Stick 10 is optionally also available.

Unpacking the device

1. Open the cardboard box and take the device out.
2. Remove the packaging from the device.
3. Open the device by lifting the upper part and putting it aside.
4. Remove the packaging from the disk.
5. Lift the disk out of the water tank.
6. Remove further packaging.
7. Refit the disk into the device.
8. Leave the device open during the following activities for start-up.

Inserting the SecoSan® Stick (optional)

✓ The device is opened.

1. Insert the SecoSan® Stick into the lower part of the water tank.
2. Check whether the distance between the SecoSan® Stick and the disk is sufficient. The disk must be able to move freely.

Installing the device

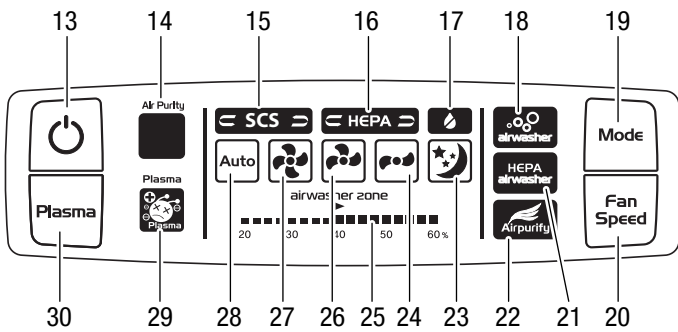
Keep a sufficient distance to walls and other objects when choosing the device's site of use. The air inlet and outlet must not be obstructed or covered, e.g. by curtains.

Filling the water tank

1. Fill the water tank with fresh drinking water.
 - ⇒ The filling level should not exceed the water level line in the water tank.
2. Place the upper part onto the water tank.
 - ⇒ The display on the upper part and the logo on the lower part should point in the same direction.
3. Check whether the upper and lower part are properly interconnected as otherwise the device cannot be switched on.
4. Plug the mains plug into a sufficiently fused mains socket.

Operation

Operating elements



No.	Designation
13	Power button
14	Air purity indication blue light: high air purity yellow light: medium air purity red light: low air purity
15	SecoSan® Stick indication
16	HEPA filter indication The LED is illuminated if the HEPA filter must be replaced.
17	Water tank indication
18	Operating mode humidification indication
19	Operating mode selection button
20	Fan stage selection button
21	Operating mode humidification with HEPA filter indication
22	Operating mode air purification indication
23	Night mode indication
24	Fan min indication
25	Humidity level indication airwasher zone = comfort zone between 40 % and 60 %. The indicator shows the current room humidity level up to 60 % even if the device switches off at 50 %.
26	Fan med indication
27	Fan max indication
28	Automatic/continuous operation indication
29	Plasma generator indication
30	Plasma generator button

Switching the device on

- ✓ The water tank is filled with fresh drinking water.
- ✓ The power cable is connected to a sufficiently fused mains socket.

1. Press the power button (13).

⇒ The device switches on.

Setting the operating mode

Operating mode	Description	Display
Humidification	The room air is humidified continuously.	
Humidification with HEPA filter	The room air is humidified continuously. Additionally the air is cleaned by the HEPA filter.	
Air purification	The room air is cleaned.	

Setting the fan stage

The following table shows an overview of the fan stages:

Operating mode	Description	Display
Auto	Fan speed control depending on room humidity. When reaching a humidity level of 50 %, the device stops. It continues to operate as soon as the measured humidity level falls below 50 %.	
Night mode	The device runs in night mode. The LED illumination of the control panel is dimmed. The fan runs at the lowest speed. When reaching a humidity level of 50 %, the device stops. It continues to operate as soon as the measured humidity level falls below 50 %.	
Fan max	The fan runs at the highest speed, regardless of the room humidity.	
Fan med	The fan runs at medium speed, regardless of the room humidity.	
Fan min	The fan runs at the lowest speed, regardless of the room humidity.	

1. Press the selection button for the fan stage (20) until the desired fan stage is set.

⇒ The corresponding display is illuminated.

Switching the plasma generator on or off

The plasma generator can be switched on or off as needed.

1. Press the button for the plasma generator (30) to switch the plasma generator on or off.
 - ⇒ If the plasma generator is switched on, the plasma generator display (29) is illuminated.
 - ⇒ If the plasma generator is switched off, the plasma generator display (29) goes out.

Refilling water

If the water tank indication (17) is illuminated, you have to refill water.

Note:

After approx. one week of operation, the water tank should be cleaned before refilling with fresh drinking water. Further information on cleaning the water tank can be found in the chapter Maintenance.

1. Press the power button (13).
 - ⇒ The device switches off.
2. Remove the mains plug from the mains socket.
3. Remove the upper part from the water tank.
4. Fill the water tank with fresh drinking water.
 - ⇒ The filling level should be below the filling level line in the water tank.
5. Check whether the SecoSan[®] Stick is correctly positioned inside the water tank.
6. Place the upper part onto the water tank.
 - ⇒ The display on the upper part and the logo on the lower part should point in the same direction.
7. Check whether the upper and lower part are properly interconnected as otherwise the device cannot be switched on.
8. Plug the mains plug into a sufficiently fused mains socket.
9. Press the power button (13).
 - ⇒ The device switches back on.

Shutdown

- Switch off the device.
- Remove the mains plug from the mains socket.
- Empty and clean the water tank.
- Remove the SecoSan[®] Stick.
- Clean the upper louvre.
- Store the device according to the chapter Storage.

Maintenance

Activities required before starting maintenance

- Do not touch the mains plug with wet or damp hands.
- Before any work, remove the mains plug!

Cleaning the housing

Clean the device with a soft, damp and lint-free cloth. Ensure that no moisture enters the housing. Do not use abrasive cleaners.

Cleaning the water tank

Clean the water tank at least once a week and prior to every start-up or shutdown.

- ✓ The device is switched off and disconnected from the mains.
 - ✓ The upper part of the device has already been removed from the device.
1. Take the disk out of the water tank.
 2. Take the SecoSan[®] Stick out of the water tank.
 3. Discharge the residual water into a drain.
 4. Clean the inside of the water tank with a mild detergent.
 5. Rinse the water tank and the SecoSan[®] Stick with clear water thoroughly.
 6. Dry the inside of the tank with a lint-free cloth.
 7. Insert the SecoSan[®] Stick into one corner of the water tank. Make sure not to block the rotating disk.
 8. Refit the disk. Check the disk for complete movability. If necessary, reposition the SecoSan[®] Stick so that the disk can turn freely.
 9. Fill the water tank with water.
 10. Put the upper part back on the device.

Exchanging the SecoSan® Stick (optional)

The SecoSan® Stick should be exchanged approx. every 6 months. The LED display for the SecoSan® Stick lights up when an exchange is required.

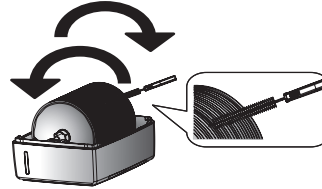
- ✓ The device is switched off and disconnected from the mains.
 - ✓ The upper part of the device has already been removed from the device.
1. Remove the disk.
 2. Remove the SecoSan® Stick and dispose of it properly.
 3. If necessary, empty the water tank.
 4. Insert the new SecoSan® Stick into one corner of the water tank. Make sure not to block the rotating disk.
 5. Refit the disk. Check the disk for complete movability. If necessary, reposition the SecoSan® Stick so that the disk can turn freely.
 6. Fill the water tank with fresh drinking water.
 7. Put the upper part back on the device.

After switching the device back on, you have to reset the LED display for the SecoSan® Stick:

The reset function is a combination of the power button (13) and plasma button (30). Press both buttons simultaneously for approx. 3 seconds to switch off the display.

Cleaning the disk

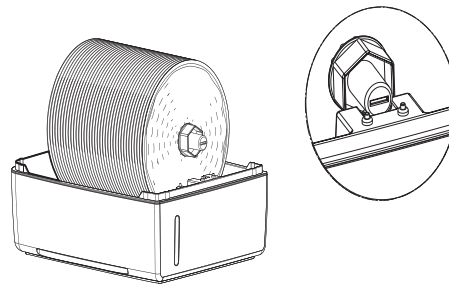
- ✓ The device is switched off and disconnected from the mains.
 - ✓ The upper part of the device has already been removed from the device.
1. In case of slight soiling, insert the Easy Kit between two of the disks and move it back and forth.



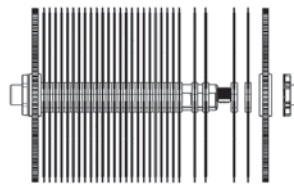
2. In case of heavy soiling, you can disassemble the disk into its individual components and clean them thoroughly:

Disassembling the disk

1. Take the disk out of the water tank.
2. Open the lateral screwing with the Easy Kit or with a coin by turning the cap counter-clockwise.



3. Remove the cap.
4. You can take the disks off the shaft and clean them individually.



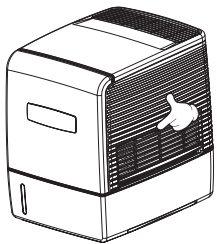
5. After cleaning, slide the disks back on the shaft.
6. Put the cap back on the shaft and fasten the cap by turning clockwise.
7. Reinsert the disk into the device. Check the disk for complete movability. If necessary, reposition the SecoSan® Stick so that the disk can turn freely.
8. Put the upper part back on the device.

Cleaning the pre-filters

Clean the pre-filters regularly, at the latest when heavy soiling is visible.

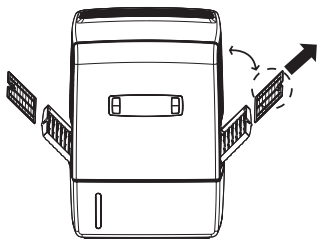
Proceed as follows to clean the pre-filters:

- ✓ The device is switched off and disconnected from the mains.
1. Slightly press onto the air inlet louvre on both sides of the device.

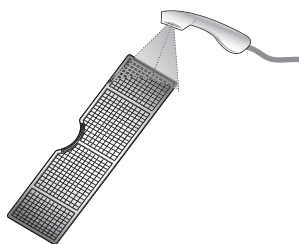


⇒ The louvres open.

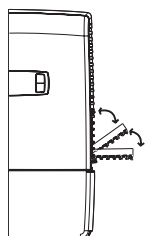
2. Fold out the louvres up to the lock position at 45°.



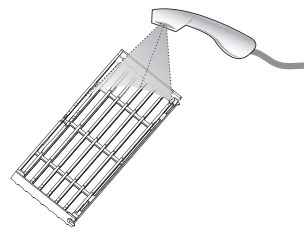
3. Remove the two pre-filters.
4. Clean the pre-filters under fresh water with a soft cloth.



5. Remove the two louvres by carefully pressing them down.



6. Clean the louvres under fresh water with a soft cloth.



7. Dry the pre-filters and the louvres before refitting them into the device.
8. Reinsert the louvres into the guides and fold up the louvres until they lock in place at approx. 45°.
9. Refit the pre-filters into the guide rail in the louvre.
10. Close the louvres with a snap.

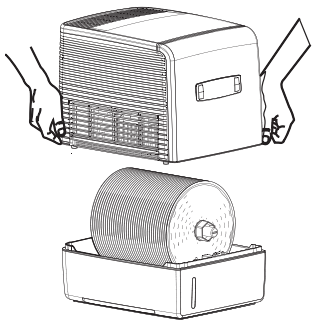
Exchanging the HEPA filters

The HEPA filters should be exchanged in case of heavy soiling. The HEPA filter indication (16) is illuminated if the HEPA filters must be replaced.

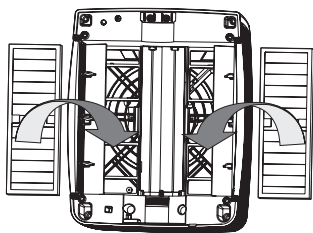
When operated in standard air washer mode, the HEPA filters should be replaced approx. every 2 years; in air purification mode, the period is approx. 1 year.

Proceed as follows to exchange the HEPA filters:

- ✓ The device is switched off and disconnected from the mains.
- 1. Remove the upper part from the water tank and place it onto the floor.



- 2. Turn the upper part around and position it upside down.
- 3. Carefully remove the HEPA filters from the guide rail by pulling at the lug.
- 4. Dispose of the used HEPA filters according to the national regulations.
- 5. Insert the new HEPA filters into the device.



- ⇒ The lugs should point up again.
- ⇒ The HEPA filters should be firmly seated in the guide rails.
- 6. Put the upper part back on the device.
- 7. After switching the device back on, simultaneously press the operating mode button (19) and the fan stage button (20) for approx. 3 s.
- ⇒ The HEPA filter indication (16) is no longer illuminated.

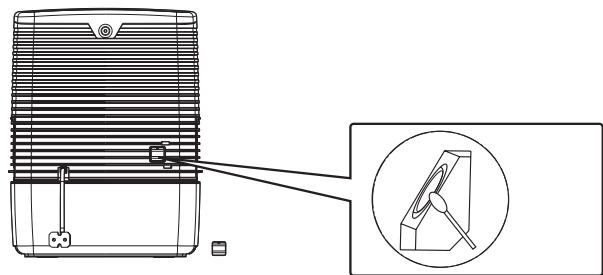
Cleaning the dust sensor

Clean the dust sensor approx. every 6 months.

In very dusty surroundings the dust sensor should be cleaned every 3 months.

Use customary cotton buds for cleaning. You can slightly dampen the cotton buds with water. If you are using damp cotton buds, always wipe dry with a dry cotton bud.

- ✓ The device is switched off and disconnected from the mains.
- 1. Remove the cover from the dust sensor at the rear of the device.



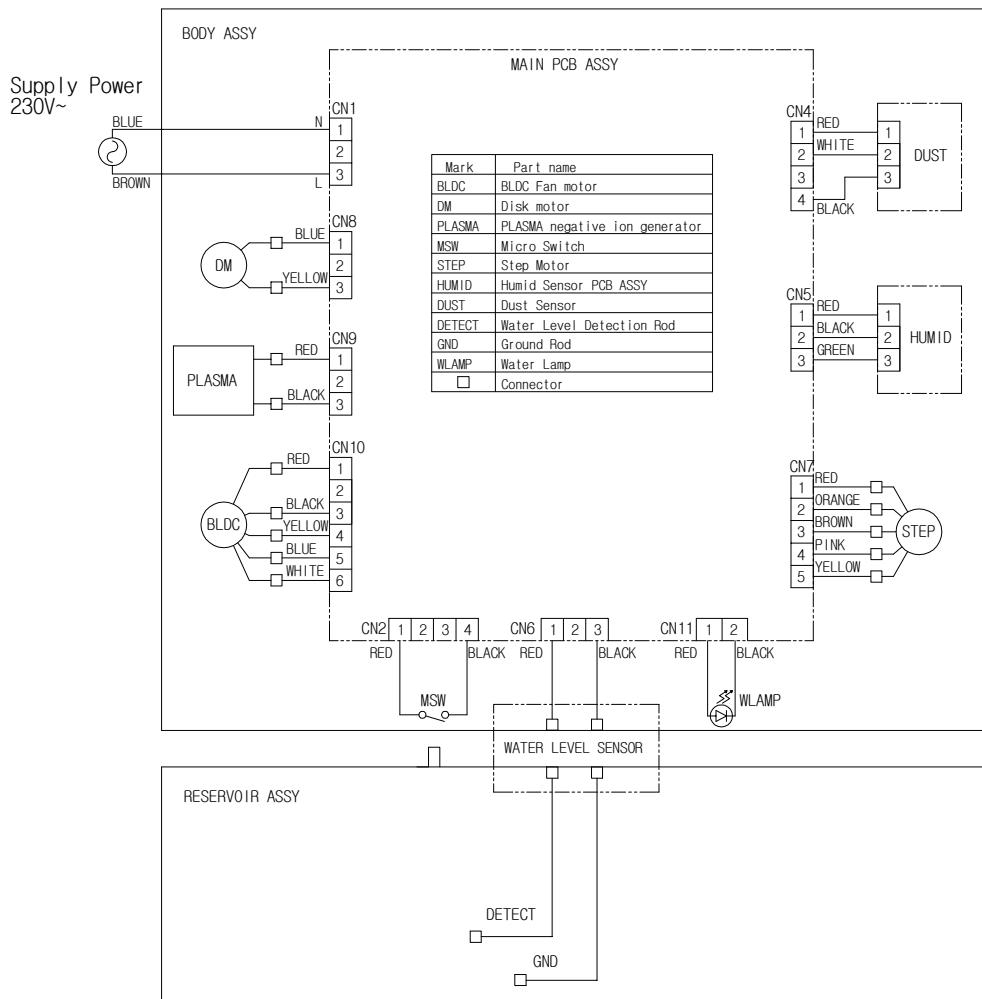
- 2. Carefully wipe over the dust sensor with a cotton bud.
- 3. Reattach the cover to the dust sensor.

Technical annex

Technical data

Parameter	Value
Suitable for rooms sized up to	55 m ² / 138 m ³
Humidification performance max.	750 ml/h
Display of relative humidity	20 % to 60 %
Amount of air	90-168-228 [m ³ /h]
Mains connection	1/N/PE ~ 220V / 50 - 60 Hz
Power input max.	24 W
Sound pressure level	47 dB
Water tank	9 l
Dimensions (packaging excluded, length x width x height)	410 x 325 x 420 [mm]
Weight (packing excluded)	10 kg
Water filter	SecoSan [®] Stick 10

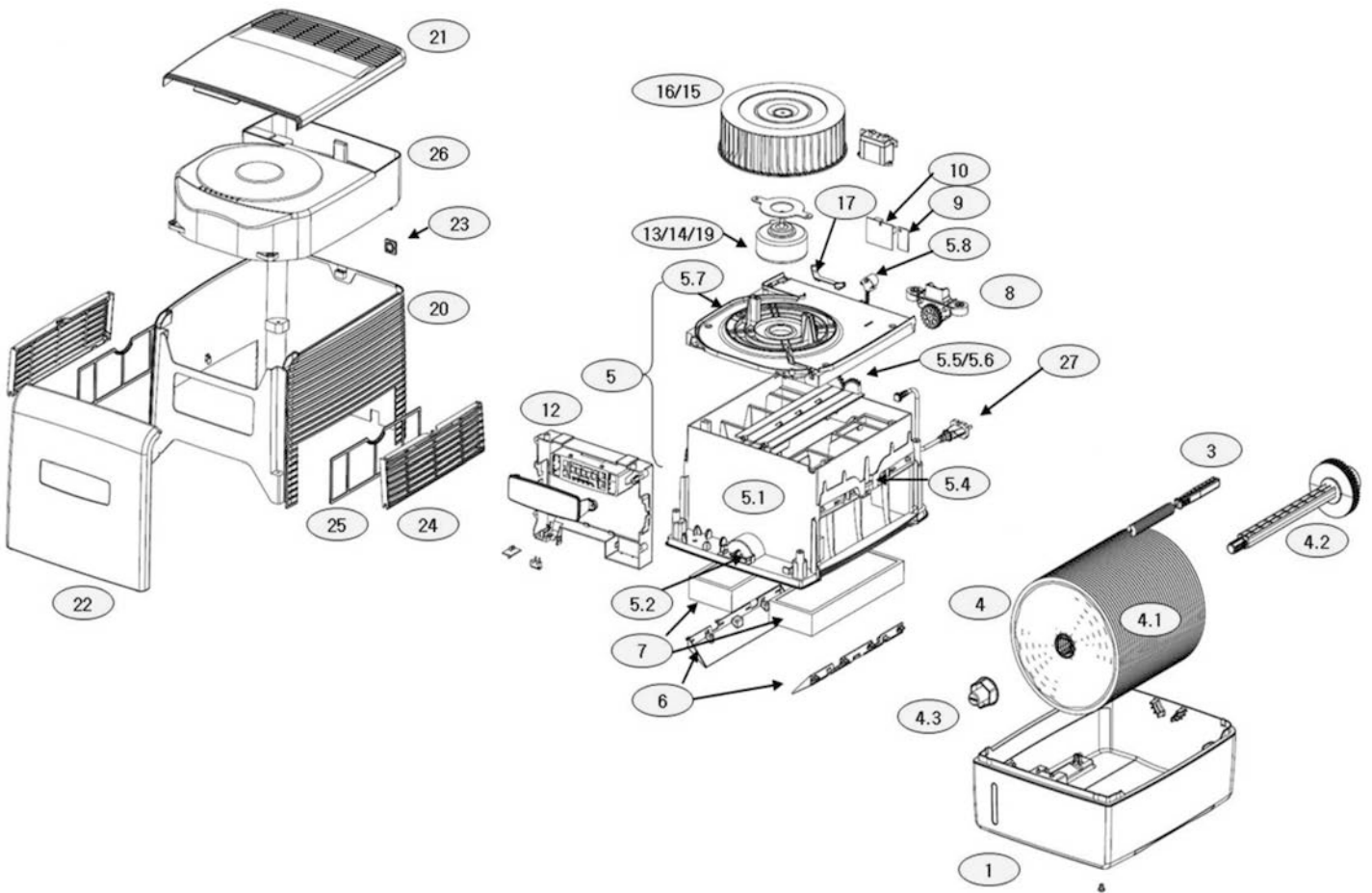
Wiring diagram



Exploded assembly drawing

Note!

The position numbers of the spare parts differ from those describing the positions of other parts mentioned in this operating manual.



List of spare parts

No.	Spare part	No.	Spare part	No.	Spare part
1	RESERVOIR ASSY	12	MAIN CONTROL ASSY	21	TOP COVER
4	DISK ASSY	13	FAN MOTOR	22	FRONT COVER
5	FRAME ASSY	14	PLAIN WASHER	23	CAP (Body)
6	AIR GUIDE	15	FLANGE NUT	24	GRILLE(INLET)
7	FILTER (HEPA)	16	BLOWER	25	PRE FILTER
8	DISK MOTOR ASSY	17	HARNESS COVER	26	BLOWER HOUSING ASSY
9	HUMID SENSOR ASSY	18	PLASMA GENERATOR	27	POWER CORD
10	DUST SENSOR ASSY	19	BKT(MOTOR)	3	EZ KIT ASSY
11	POWER IN HARNESS	20	BODY COVER		

Disposal



In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE). At the end of its life, please dispose of this device according to the valid legal requirements.

Declaration of conformity

in accordance with the EC Low Voltage Directive 2006/95/EC and the EC Directive 2004/108/EC about electromagnetic compatibility.

Herewith, we declare that the device AW 20 S was developed, constructed and produced in compliance with the named EC directives.

Applied standards:

EN 55014-1:2006+A1:2009+A2:2011

EN 6100-3-2:2006+A1:2009+A2:2009

EN 61000-3-3:2008

EN 55014-2:1997+A1:2001+A2:2008

EN 60335-2-98:2002+A1:2004+A2:2008

EN 60335-1:2010

The CE marking is found on the rear of the device.

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