

EN INSTRUCTION MANUAL



EN Air Dehumidifier

Series	DS 10
	DS 20
	DS 40

This instruction manual is based on the technical and product-specific parameters. The manufacturer reserves the right to add supplementary information to the instruction manual.

As of: 05_2014

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2 Notes on this instruction manual

Symbols

In this instruction manual you will find information intended to warn you of possible hazards.



DANGER

Type and source

This symbol warns of a high risk of severe injury or acute danger to life.

➞ Measures to avert danger are described in this way.



WARNING

Type and source

This symbol warns of risks involving severe injury.

➞ Measures to avert danger are described in this way.



CAUTION

Type and source

This symbol warns of a risk of minor or moderate injury and material damage.

➞ Measures to avert danger are described in this way.

3 Safety

This instruction manual is part of the product. It contains important information on how to transport, install, operate, store and dispose of the device from **AERIAL** properly and safely. Keep this instruction manual in a safe place. Give this instruction manual to third parties that use the device temporarily.

Qualification of staff

This instruction manual addresses all users / operators of the devices manufactured by **AERIAL**. These persons must have read and understood the instruction manual. The device may only be operated by persons commissioned and instructed by the user.

Improper operation or misuse will cause danger to:

- the operator,
- the device and other material property of the user,
- efficient operation of the device.

All persons installing, operating, servicing or cleaning the device must be

- aware of the risks related to electrical equipment operated in a damp environment,
- closely observe the instructions set out in this manual.

Operating conditions

The device is intended for mobile or stationary use in heated closed rooms and storage rooms. The device works without problems in the temperature range from +5 °C to +32 °C and the humidity range from 40 % to 95 % relative humidity.

Storage of the device at impermissible temperature conditions can result in damage / problems in case of immediate switching-on. Therefore allow the device to adjust to the temperature for about 15 minutes before switching it on.

Original spare parts or spare parts approved by the manufacturer shall exclusively be used.

In addition the following conditions and safety instructions apply:

- The device must be installed securely and upright.
- Safe discharge of the condensate into a tank or an outlet must always be guaranteed.
- The available mains voltage must be in conformity with the data on the type plate.
- Extension cables must be selected according to the performance data on the type plate to prevent overload.
- Safety covers and housing parts must be removed.
- Free air circulation must be ensured (leave a free space of at least half a meter around the device), and the ventilation flaps must always be kept open during operation.

- In particular when installing the device in damp rooms, e.g. bathrooms or laundry rooms, secure the device according to the applicable regulations by a safety device.
- The suction side must not be blocked or soiled.
- The device must never be covered during operation.
- Collected condensate must be discharged at regular intervals.
- Never drink any condensate, there is danger of infection.
- In the event of any malfunction the device must be switched off and secured against unintended restarting.

The device must **not** be used under the following conditions:

- in rooms with potentially explosive atmospheres
- in rooms with atmospheres containing oil, sulphur, chlorine or salt
- in rooms with ozone-treated air
- in rooms with high solvent concentration
- in rooms with extreme dust load and for building site drying

4 Performance description

Designated use

The device is designed exclusively for dehumidifying air at atmospheric pressure in enclosed indoor rooms. The device is intended exclusively for private use.

Operating the air dehumidifiers within the limits of designated use also involves observing the specified operating conditions (refer to page 3).

Any use of the air dehumidifier not in conformity with or going beyond the designated use is considered contrary to its designated use and will result in the forfeiture of all warranty claims.

Scope of delivery

- Air dehumidifier
- Tank for condensate produced:
2.5 l for DS 10 and DS 20
7.2 l for DS 40
- One instruction manual

Device description



Fig. 1: Air dehumidifier DS 10 / 20 / 40 overview

1	Recessed grips	5	Filter retainer
2	Air intake with filter	6	Drain pipe for condensate hose
3	Air flaps for air outlet	7	Tank
4	Operating panel	8	Castors

The condensate can be collected in the tank (Fig. 1, item 7) supplied with the device or discharged directly into an outlet by connecting a condensate hose to the condensate drain pipe on the device. (Fig. 1, item 6).

In case of operation with the tank, a float switch determines the fill level of the tank. When the tank is full, the device is automatically switched off.

Automatic defrosting:

During dehumidification ice may build up on the evaporator. The volume of ice depends on the ambient conditions. The device is equipped with an automatic defrosting system. After defrosting the device resumes work in the standard dehumidification mode.

5 Transport and installation

Transport



Danger to life due to electric shock

Touching live parts can lead to death.

- Switch off the device via the on/off switch, disconnect the mains plug from the socket outlet and empty the water tank before moving the device!
- Never pull the cable, but the plug



Danger of injury from tipping device

- Transport the device upright.

1. Check the delivery (refer to page 4) for completeness.
2. Report any transport damage or the incompleteness of the delivery to your salesman in charge or your specialised dealer without delay.

Installation

1. Install the device according to the operating conditions (refer to page 3).
2. Ensure that the power cable is undamaged.
3. Connect the power cable to a power outlet.

6 Operation and operator control



Danger of injection

- Never drink the condensate produced!
- The condensate should not remain in the tank too long, empty the tank regularly!



Damage to the device

- Never use sharp or pointed objects to remove the ice!

Series DS 10 / 20 / 40 operating elements

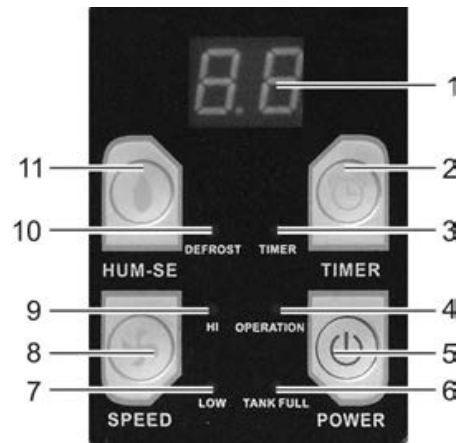


Fig. 2: Series DS 10 / DS 20 operating panel

1	Display of operating states and current humidity	7	Green pilot lamp - fan stage "low" active
2	Timer, adjustable in full hours	8	Fan, speed setting
3	Green pilot lamp - timer active	9	Green pilot lamp - fan stage "high" active
4	On / Off switch	10	Green pilot lamp, automatic defrosting
5	Green device-on lamp	11	Hygrostat
6	Red pilot lamp "Tank full"		



For living space, we recommend climate conditions of 20 – 25 °C and 50 – 60% relative humidity. To achieve a comfortable ambient climate set the hygrostat to "au" for automatic operation. In automatic operation, the optimal humidity is automatically adjusted depending on the ambient temperature.

To operate the device continuously set the hygrostat to "co".

If you the device is used as laundry dryer adjust the air flaps (Fig. 1, item 3) so that the air is blown directly onto the laundry.

We recommend the following adjustments:

- ironing dry: relative humidity = 55 %
- cupboard dry: relative humidity = 40 %

The stated values are guide values and must, if necessary, be adjusted to the local conditions.

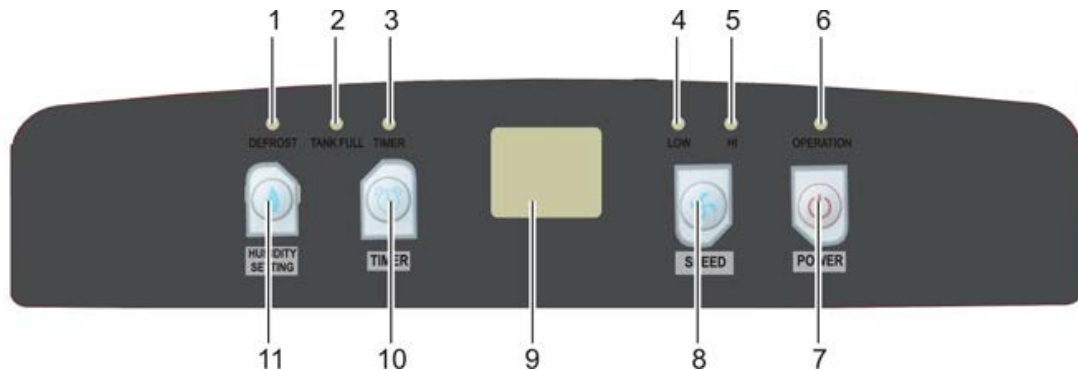


Fig. 3: Series DS 40 operating panel

1	Green pilot lamp, automatic defrosting	7	On / Off switch
2	Red pilot lamp "Tank full"	8	Fan, speed setting
3	Green pilot lamp - timer active	9	Display of operating states and current humidity
4	Green pilot lamp - fan stage "low" active	10	Timer, adjustable in full hours
5	Green pilot lamp - fan stage "high" active	11	Hygrostat
6	Green device-on lamp		

1. Ensure that the tank is in the device or a drain hose has been properly connected.
2. Open the air flaps (Fig. 1, item 3).
3. Switch the device on via the On/Off switch (Fig. 2, item 4 / Fig. 3, item 7).

4. Use the hygostat (Fig. 2 and Fig. 3, item 11) to set the desired humidity. During setting, the selected humidity value is indicated in the display (Fig. 2, item 1 / Fig. 3, item 9). After setting, the current humidity is displayed in per cent.. If the existing humidity is higher than the set value the device will start.
5. If required, set the fan speed using the button (Fig. 2 and Fig. 3, item 8).



The device-on lamp is on when the device is switched on.



Via the timer (Fig. 2, item 2 / Fig. 3, item 10) the device can be activated for up to 24 hours (0 to 24), as required. In case of humidity values above the set value the device will operate continuously up to the end of the set time. To switch off the timer set the timer to "0".

When the tank is full the pilot lamp (Fig. 2, item 6 / Fig. 3, item 2) lights up and the device stops working.

1. Switch the device off and empty the tank. After the tank has been put back into the device switch the device on again..



After the tank has been emptied, the device remains set to the humidity value previously set, the timer is automatically switched off.

7 Maintenance and service



WARNING

Danger of injury by electric shock and risk of material damage

- ➔ Always observe the safety instructions when performing any maintenance and service work!
- ➔ Switch the device off and pull the power plug before cleaning and inspection.



WARNING

Danger of injury due to sharp-edged lamellae

- ➔ Wear protective gloves during cleaning.



Damage to the device

Cleaning agents can cause damage to surfaces.

➡ Use only mild detergents.

Cleaning and filter change

The cleaning intervals depend on the operating conditions. Therefore check your device regularly.

In order to guarantee trouble-free functioning of the device also in continuous operation the device - in particular the air filter - must be checked and cleaned at regular intervals.



Fig. 4: DS 10 / DS 20 filter change (on the left), DS 40 without filter

1	Filter
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Proceed as follows:

1. Switch the device off.
2. Remove tank (DS 10 and DS 20).
3. Remove filter (Fig. 4, item 1) by releasing the filter retainer (Fig. 1, item 5) or pull filter downwards out (on DS 10 and DS 20).
4. Clean the air filter, if necessary replace it.
5. Visual inspection: tank, power cable, drain pipe and connected hose, if any
6. Clean casing on the outside with a moist cloth and a mild detergent.

7. Insert new or cleaned filter.
8. Connect power cable.


The device is ready for operation.

Spare parts and customer service

If you have any question concerning the device, or if you need spare parts, please contact your authorised dealer or the customer service.

8 Troubleshooting

In the event of any malfunctions please check at first the following points. Should the fault not be located please contact a specialist.

 WARNING	<p>Danger from electric shock and risk of material damage</p> <p>➔ The device may only be repaired by trained specialised staff. Within the warranty period, any work on the dehumidifier shall only be carried out by the manufacturer or persons commissioned by the manufacturer. Any work carried out by unauthorised persons shall lead to the forfeiture of all warranty claims!</p>
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Problem	Possible cause	Remedy
The device does not work	Power supply insufficient or power cable defective	Check the power supply Check power plug and power cable for damage Have the electrical installation checked by a specialist*
	Tank not correctly positioned, soiled or full	Check the tank The pilot lamp must not be on.
No condensate is produced, device does not work	Air filter soiled	Check air filter for soiling. Clean the filter or replace it by a new one, if required.

Problem	Possible cause	Remedy
The device generates noise and vibrates or condensate is leaking out	The device does not stand on a level surface	Install it on a level surface and ensure that the condensate is properly discharged
The device generates noise, heats up and dehumidification is insufficient	Air circulation is disturbed	Check the air openings for sufficient distance to walls and for soiling, observe operating conditions and clean air openings, if necessary.

* Should the problems not be rectified by these measures please contact your specialised dealer or the manufacturer.

9 Shutdown, storage and disposal

Shutdown



WARNING

Danger of injection

- Never drink the condensate produced!
- The condensate should not remain in the tank too long, empty the tank regularly!

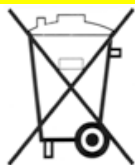
If you do not need the device for a longer period of time you can shut it down for some time. To do so proceed as follows:

1. Switch the device off via the On/Off switch (Fig. 2, item 4 / Fig. 3, item 7).
2. Pull the power plug.
3. Empty the tank.
4. Cover the device with a cloth to protect it from dust.

Storage

1. Package the device using cardboard.
2. Store the device in conformity with the specified operating conditions (refer to page 3).

Disposal



Please do not dispose of this device with the domestic waste. Dispose of this device in accordance with the local regulations.

10 Technical specifications



According to DIN EN 180 the actual dehumidification performance of the device may differ by up to 5% from the specified performance. This is not a product defect.

General data		
Power supply	230 V / 50 Hz	
Protection class	IP X0	
Operating conditions	+ 5 °C to + 32 °C	40% r. h. to 95% r. h.

Type	Unit	DS 10	DS 20	DS 40
Air circulation rate				
Fan speed I	cbm / h	110	140	300
Fan speed II	cbm / h	130	170	365
Power consumption	watt max.	250	480	630
Noise level	dB (A)	40	44	46
Dimensions H x W x D	mm	490 x 365 x 220		628 x 481 x 286
Weight	kg	11	13	20
Refrigerant (for filling quantity refer to type plate)		R134a		R410a

Dehumidifying performance / power consumption at:

30 °C / 80% r. h.	l / 24 h	10	20	40
	watt	250	480	630
20 °C / 60% r. h.	l / 24 h	2,9	7,2	17
	watt	148	330	440
10 °C / 70% r. h.	l / 24 h	1,6	3,2	6
	watt	130	240	330

11 EC Declaration of Conformity

EC Declaration of Conformity

according to EC machinery directive 2006/42/EC, Annex II, 1.A

Machinery directive 2006/42/EC

EMC directive 2004/108/EC

Low voltage directive 2006/95/EC

Manufacturer: AERIAL GmbH - Systeme zur Luftbehandlung
Oststraße 148, D-22844 Norderstedt

Product description: - Air dehumidifier Series DS 10
- Air dehumidifier Series DS 20
- Air dehumidifier Series DS 40

The product described is an air dehumidifier ready for connection.

Applicable standards:	EN ISO 12100	Safety of Machinery
	EN 61 000	Electromagnetic Compatibility (EMC)
	EN 60 335-2-40	Safety of electric appliances for domestic use and similar purposes

This declaration of conformity shall become void if any modification is made to the air dehumidifier not agreed with the manufacturer.

Norderstedt, den 28-02-2014

Signature / Stamp

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