

# USER'S MANUAL

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**BUCKET FAN**

**BUCKET FAN WHISPER**



Destratificator

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This user's manual is a main operating document intended for technical, maintenance, and operating staff.

The manual contains information about purpose, technical details, operating principle, design, and installation of the Bucket Fan (Whisper) unit and all its modifications.

Technical and maintenance staff must have theoretical and practical training in the field of ventilation systems and should be able to work in accordance with workplace safety rules as well as construction norms and standards applicable in the territory of the country.

## SAFETY REQUIREMENTS

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved

Cleaning and user maintenance shall not be made by children without supervision

Children shall not play with the appliance.

Connection to the mains must be made through a disconnecting device, which is integrated into the fixed wiring system in accordance with the wiring rules for design of electrical units, and has a contact separation in all poles that allows for full disconnection under overvoltage category III conditions.

**CAUTION:** In order to avoid a safety hazard due to inadvertent resetting of the thermal cut-out, this unit must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility.

Ensure that the unit is switched off from the supply mains before removing the guard.

**WARNING:** If there are any unusual oscillating movements, immediately stop using the unit and contact the manufacturer, its service agent or suitably qualified persons.

The replacement of parts of the safety suspension system device shall be performed by the manufacturer, its service agent or suitably qualified persons.

Precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliances.

Caution: mount with the lowest moving parts at least 8 ft (2.5 Meters) above floor or grade level

All user's manual requirements as well as the provisions of all the applicable local and national construction, electrical, and technical norms and standards must be observed when installing and operating the unit.

Disconnect the unit from the power supply prior to any connection, servicing, maintenance, and repair operations.

**Only qualified electricians with a work permit for electrical units up to 1000 V are allowed for installation. The present user's manual should be carefully read before beginning works.**

Check the unit for any visible damage of the impeller, the casing, and the grille before starting installation. The casing internals must be free of any foreign objects that can damage the impeller blades.

While mounting the unit, avoid compression of the casing! Deformation of the casing may result in motor jam and excessive noise.

Misuse of the unit and any unauthorised modifications are not allowed.

Do not expose the unit to adverse atmospheric agents (rain, sun, etc.).

Transported air must not contain any dust or other solid impurities, sticky substances, or fibrous materials.

Do not use the unit in a hazardous or explosive environment containing spirits, gasoline, insecticides, etc.

Do not close or block the intake or extract vents in order to ensure the efficient air flow.

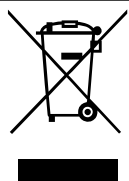
Do not sit on the unit and do not put objects on it.

The information in this user's manual was correct at the time of the document's preparation.

The Company reserves the right to modify the technical characteristics, design, or configuration of its products at any time in order to incorporate the latest technological developments.

Never touch the unit with wet or damp hands.

Never touch the unit when barefoot.



**THE PRODUCT MUST BE DISPOSED SEPARATELY AT THE END OF ITS SERVICE LIFE.  
DO NOT DISPOSE THE UNIT AS UNSORTED DOMESTIC WASTE.**

## PURPOSE

A destratificator is a device intended to minimize the heat loss by cancelling the temperature differential on the premises. Destratificators are essential elements of energy-saving solutions for buildings and premises.

Such units are used to force the warm air accumulated under the ceiling as a result of stratification towards the lower part of the space. By ensuring an even temperature in the entire space a destratificator helps to reduce the heating costs.

In the warm season destratificators are used to supply fresh air into a specific zone thus creating a favorable microclimate in the ventilated area.

The destratificator is designed for continuous operation without disconnection from power mains.

Transported air must not contain any flammable or explosive mixtures, evaporation of chemicals, sticky substances, fibrous materials, coarse dust, soot and oil particles or environments favourable for the formation of hazardous substances (toxic substances, dust, pathogenic germs).



**DO NOT INSTALL IN A COOKING AREA**



**NOT SUITABLE FOR USE WITH SOLID-STATE SPEED CONTROLS**



**MOTOR IS THERMALLY PROTECTED**



**FOR INTERIOR USE ONLY**

## DELIVERY SET

NAME	NUMBER
Destratificator	1 item
Mounting kit	1 item
Cable with a threaded tip	3 m
Fastening kit	1 item
Safety kit	1 item
Cable with a loop	3 m
User's manual	1 item
Packing box	1 item
Power cord (optional)	1 item

## DESIGNATION KEY

**BUCKET FAN 420 R**

**Power cord**

— not included in the delivery set

R — power cord

**Destratificator airflow [CFM]**

420, 1055, 1460

**Unit designation**

Bucket Fan — destratificator

Bucket Fan Whisper — destratificator in the noise-insulated casing

## TECHNICAL DATA

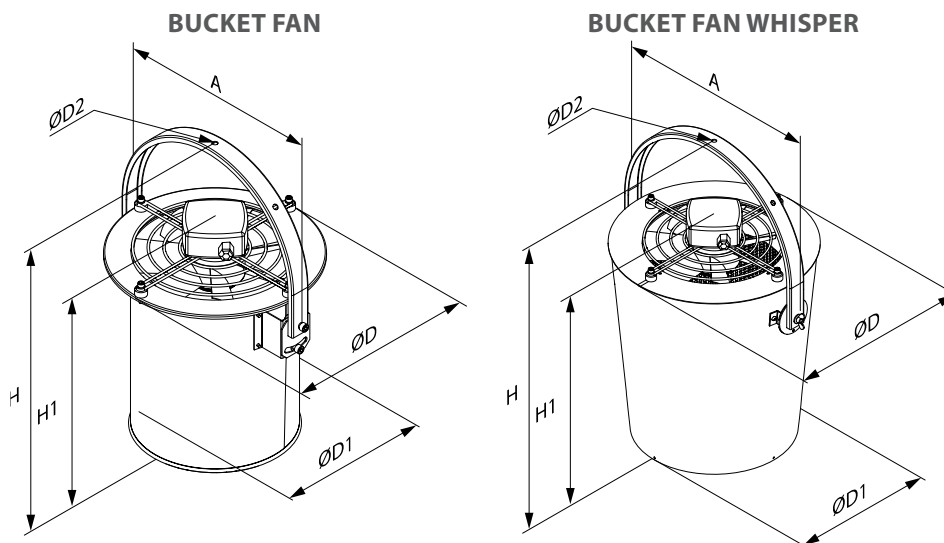
The destratificator is designed for operation in an enclosed area at ambient temperatures from + 32 °F to + 113 °F at relative humidity of up to 80 % (at + 77 °F).

The unit is rated as a Class I electrical appliance.

The destratificator undergoes continuous improvement - therefore, some models may slightly differ from the ones described in the User's manual.

Model	RPM	Max Watts	Max Amps	Airflow CFM (L/s)	Downrod length	Coverage area, ft <sup>2</sup>	Air flow speed depending on Bucket fan distance point (ft), fpm										Volts/Hz	
							3	6	10	13	15	20	23	25	30	33		35
Bucket Fan 420	1700	60	0.51	420 (198)	20"-30"	301-689	378	270	220	156	90	60	20	-	-	-	-	120/60
Bucket Fan 1055	1675	94	0.8	1055 (498)	26"-36"	538-1023	918	594	380	234	162	120	79	38	20	-	-	120/60
Bucket Fan 1460	1685	162	1.38	1460 (689)	33"-43"	840-1432	1100	756	760	468	324	300	217	169	120	59	19	120/60
Bucket Fan Whisper 420	1700	60	0.51	420 (198)	20"-30"	301-689	378	270	220	156	90	60	20	-	-	-	-	120/60
Bucket Fan Whisper 1055	1675	94	0.8	1055 (498)	26"-36"	538-1023	918	594	380	234	162	120	79	38	20	-	-	120/60
Bucket Fan Whisper 1460	1685	162	1.38	1460 (689)	33"-43"	840-1432	1100	756	760	468	324	300	217	169	120	59	19	120/60

Model	Measurements [in.]						Weight [lbs]
	Ø D	Ø D1	Ø D2	H	H1	A	
Bucket Fan 420	10 1/4"	13 7/16"	7/16"	20 5/8"	15 3/16"	15 3/8"	6.6
Bucket Fan 1055	12 7/16"	15 7/16"		24 7/16"	17 15/16"	17 3/8"	11
Bucket Fan 1460	14 3/16"	17 3/8"		27 3/4"	20 5/16"	19 5/16"	13.2
Bucket Fan Whisper 420	15 1/8"	11 7/8"		24 5/8"	18 7/16"	17 15/16"	24.3
Bucket Fan Whisper 1055	17 1/16"	13 7/8"		27 5/8"	20 3/8"	19 15/16"	32
Bucket Fan Whisper 1460	19 1/16"	15 13/16"		30 9/16"	22 3/8"	21 7/8"	37.5



**DESIGN AND OPERATING PRINCIPLE**

The destratificator consists of an axial fan attached to the casing via the vibration mounts.

At the outlet, the casing is equipped with a rectifier, which ensures direct air flow and maximum air throw distance.

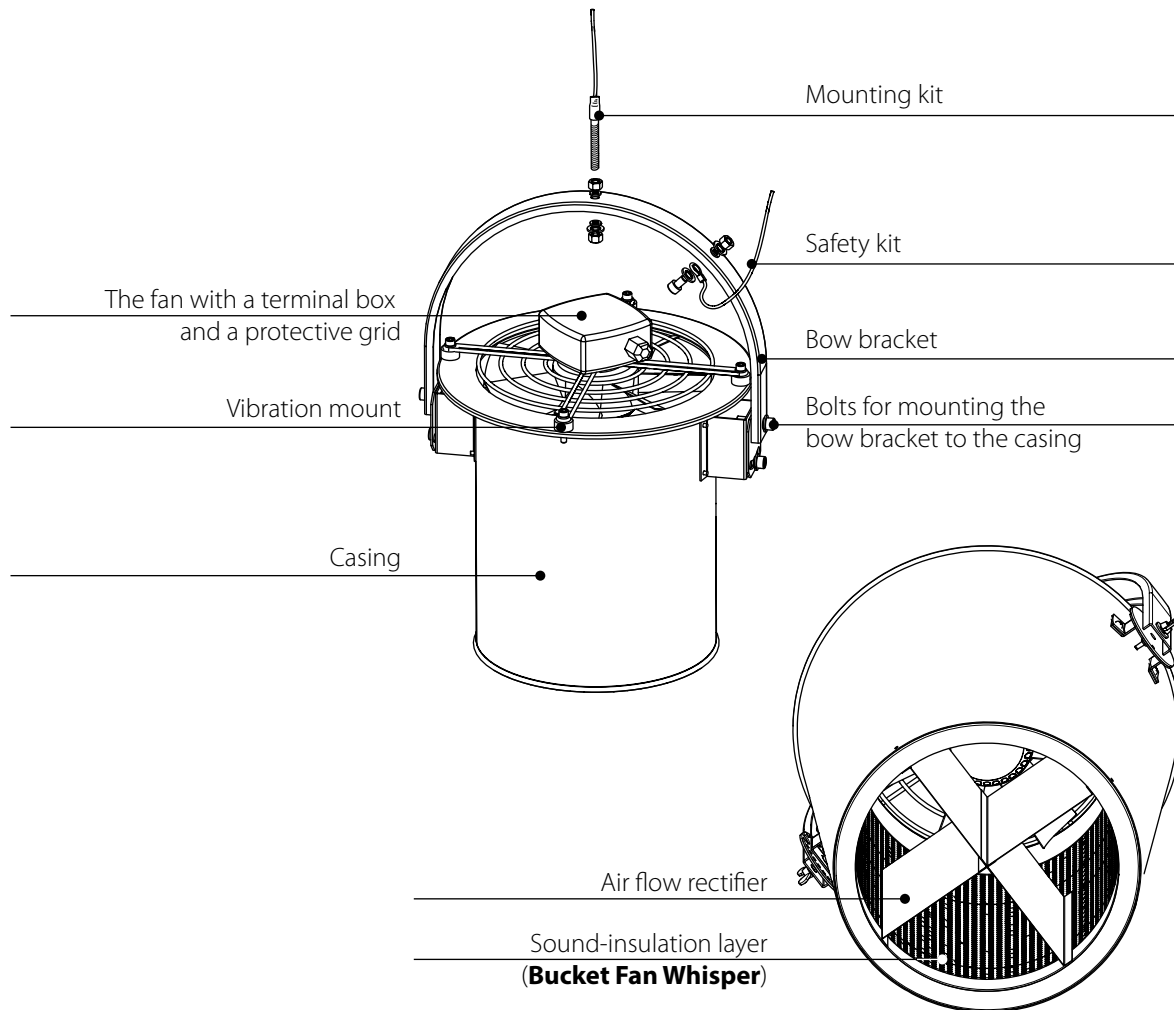
The destratificator has a polymer-coated steel casing.

The Bucket Fan Whisper casing has special perforation and a sound-insulating layer of mineral wool to reduce the noise generated by the axial fan.

Depending on the model, the destratificator is equipped with a single-phase asynchronous or electronically commutated motor with an external rotor and an axial impeller.

The motor is equipped with ball bearings and built-in thermal protection enabling its automatic restarting.

The destratificator is mounted by means of the bow bracket as well as the mounting and the safety cables with threaded joints each 9 27/32 ft (3 m) long. The destratificator position can be fixed every 15°.



## MOUNTING AND SET-UP



**READ THE USER'S MANUAL BEFORE INSTALLING THE UNIT.**



**WHILE INSTALLING THE UNIT ENSURE CONVENIENT ACCESS FOR SUBSEQUENT MAINTENANCE AND REPAIR.**

### Having unpacked the destratificator and prior to installation:

- Manually check the impeller for smooth rotation.
- Check the load-bearing structures at the installation site for adequate strength.
- Follow the safety regulations during the make-ready procedures and destratificator operation.

### Mounting:

The destratificator is designed for installation in premises protected against atmospheric agents.

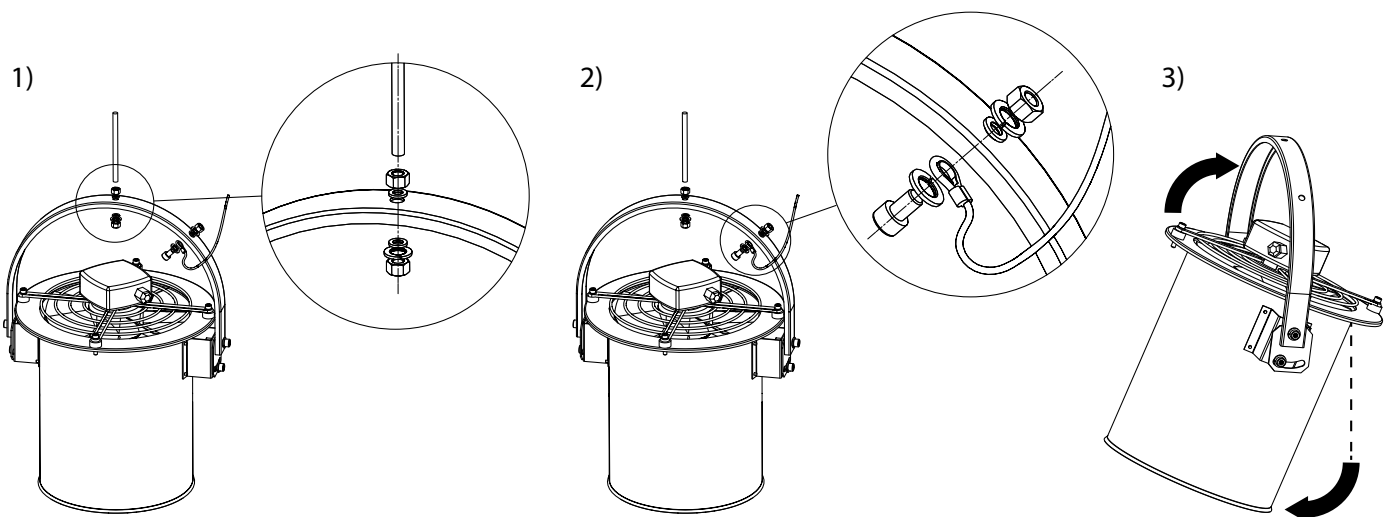
The unit is installed under the ceiling of the premises with the airflow nozzle down.

The destratificator is intended to be rigidly mounted to the load-bearing structure or suspended by means of the mounting kit (included in the delivery set).


Mounting the destratificator on two cables allows the additional benefit of unit angle correction by adjusting the safety cable length.

### Mounting sequence:

- Attach the destratificator by the bow bracket.
- Secure the destratificator to the threaded bar with 2 nuts (see Fig. 1).
- Avoid deformation of the destratificator elements during installation.
- Attach one end of the safety cable to the building structures.
- Attach the other end of the safety cable to the destratificator bracket (Fig. 2).
- Loosen the fastening bolts between the destratificator and the bracket, turn the destratificator and direct its nozzle toward the intended air supply area (see Fig. 3).
- Tighten the bolts between the casing and the bracket.



**CONNECTION TO POWER MAINS**



**DISCONNECT THE POWER SUPPLY PRIOR TO ANY OPERATIONS WITH THE UNIT.**

**CONNECTION OF THE UNIT TO POWER MAINS IS ALLOWED BY A QUALIFIED ELECTRICIAN WITH A WORK PERMIT FOR THE ELECTRIC UNITS UP TO 1000 V AFTER CAREFUL READING OF THE PRESENT USER'S MANUAL.**

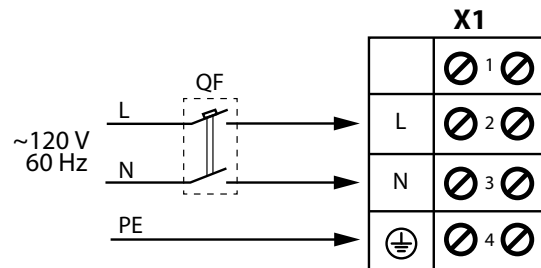
**THE RATED ELECTRICAL PARAMETERS OF THE UNIT ARE GIVEN ON THE MANUFACTURER'S LABEL.**



**ANY TAMPERING WITH THE INTERNAL CONNECTIONS IS PROHIBITED AND WILL VOID THE WARRANTY.**

The destratificator is intended for connection to a single-phase 120 V/60 Hz AC power mains. The destratificator connection must be made using durable, insulated and heat-resistant conductors (cables and wires). The external lead-in must be equipped with a circuit breaker built into the stationary wiring to disconnect all the mains phases. The QF external circuit breaker position must ensure free access for quick power-off of the unit. The recommended circuit breaker nominal current is 1.0 A. The conductor cross section is AWG20. However, the conductor selection shall be based on the maximum permissible wire heating depending on the wire type, its insulation, length and installation method (i.e. overhead, in pipes or inside the walls). The destratificator connections are made on the X1 terminal block mounted inside the terminal box on the casing of the destratificator. The electrical connections diagram sticker is located inside the terminal box. The speed adjustment (continuous and stepped) is performed by means of a thyristor or autotransformer speed regulator. The same regulator device can be used for connecting several destratificators simultaneously provided that their combined capacity and working current remain within the nominal parameters of the speed regulator.

**Bucket Fan, Bucket Fan Whisper wiring diagram**





## TECHNICAL MAINTENANCE



**DISCONNECT THE UNIT FROM POWER SUPPLY BEFORE ANY MAINTENANCE OPERATIONS!**  
**MAKE SURE THE UNIT IS DISCONNECTED FROM POWER MAINS BEFORE REMOVING THE PROTECTION**

The technical maintenance includes periodic cleaning of the surfaces from accumulated dust and dirt. The recommended annual maintenance should include:

- Checking the tightness of the fastening bolts and their tightening, if necessary;
- Checking the fan blades for contamination and their cleaning, if necessary.

## TROUBLESHOOTING

FAULT	POSSIBLE REASONS	TROUBLESHOOTING
The fan does not start	No power supply.	Make sure that the unit is properly connected to the power mains and make any corrections, if necessary.
	Jammed motor.	Switch off the destratificator. Troubleshoot the motor jamming. Switch on the destratificator again.
Circuit breaker tripping during the fan start.	Excessive electric current consumption caused by a short circuit.	Switch off the destratificator. Contact the Seller.
	Motor winding thermal protection is activated.	Wait till the fan cools down and the thermal switch resets to its normal position (about 3-5 minutes).
Noise, vibration.	The fan impeller is soiled.	Clean the impellers.
	The screw connection is loose.	Check the screw connection and tighten the screws if needed.

## STORAGE AND TRANSPORTATION REGULATIONS

- Store the unit in the manufacturer's original packaging box in a dry closed ventilated premise with temperature range from +41 °F to +104 °F and relative humidity up to 70 %.
- Storage environment must not contain aggressive vapors and chemical mixtures provoking corrosion, insulation, and sealing deformation.
- Use suitable hoist machinery for handling and storage operations to prevent possible damage to the unit.
- Follow the handling requirements applicable for the particular type of cargo.
- The unit can be carried in the original packaging by any mode of transport provided proper protection against precipitation and mechanical damage. The unit must be transported only in the working position.
- Avoid sharp blows, scratches, or rough handling during loading and unloading.
- Prior to the initial power-up after transportation at low temperatures, allow the unit to warm up at operating temperature for at least 3-4 hours.

## MANUFACTURER'S WARRANTY

Production meets standard operating requirements in the USA and Canada.

Vents US warrants to the original purchaser of the unit that it will be free from defects in materials or workmanship for a period of 24 months from the date of original purchase. The Vents US warrants to the original purchaser of the unit that the integrated control unit will be free from defects in materials and workmanship for a period of 24 months from the date of original purchase.

**THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

During the stated warranty period, Vents US will, at its option, repair or replace, without charge, any product or part which is found to be defective under normal use and service. This warranty does not cover (a) normal maintenance and normal service or (b) any products or parts which have been subject to misuse, negligence, accident, improper maintenance or repair (other than by Vents US), faulty installation or installation contrary to recommended installation instructions. Labor to remove and replace products is not covered. The duration of any implied warranty is limited to the time period specified for the express warranty. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

**VENTS US OBLIGATION TO REPAIR OR REPLACE, AT VENTS US OPTION, SHALL BE THE PURCHASER'S SOLE AND EXCLUSIVE REMEDY UNDER THIS WARRANTY. VENTS US SHALL NOT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH PRODUCT USE OR PERFORMANCE.**

Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. This warranty supersedes all prior warranties. If proof of sales date is absent, warranty period is calculated from the production date. The unit can be exchanged at the following address:

Vents-US  
400 Murray Road, Cincinnati, OH 45217, USA  
Tel: 1-888-640-0925, 513-583-5786, Fax: 513-268-4597  
E-mail: support@ventsus.com  
www.vents-us.com

Please follow guidelines in this manual for product problem-free operation.



**FOLLOWING THE REGULATIONS STIPULATED HEREIN WILL ENSURE A LONG AND TROUBLE-FREE OPERATION OF THE UNIT.**



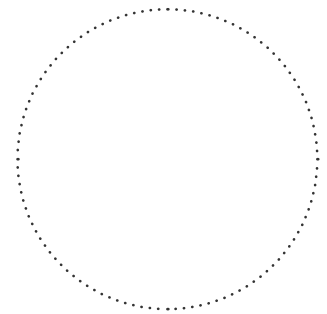
**USER'S WARRANTY CLAIMS SHALL BE SUBJECT TO REVIEW ONLY UPON PRESENTATION OF THE UNIT, THE PAYMENT DOCUMENT AND THE USER'S MANUAL WITH THE PURCHASE DATE STAMP.**

### CERTIFICATE OF ACCEPTANCE

<b>Unit Type</b>	Destratificator
<b>Model</b>	
<b>Serial Number</b>	
<b>Manufacture Date</b>	
<b>Quality Inspector's Stamp</b>	

### SELLER INFORMATION

<b>Seller</b>	
<b>Address</b>	
<b>Phone Number</b>	
<b>E-mail</b>	
<b>Purchase Date</b>	
This is to certify acceptance of the complete unit delivery with the user's manual. The warranty terms are acknowledged and accepted.	
<b>Customer's Signature</b>	

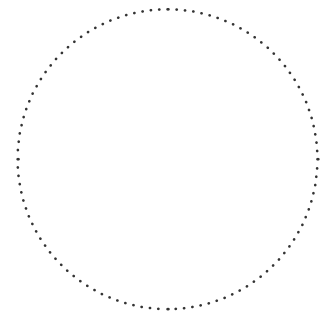


Seller's Stamp

### INSTALLATION CERTIFICATE

The \_\_\_\_\_ unit is installed pursuant to the requirements stated in the present user's manual.

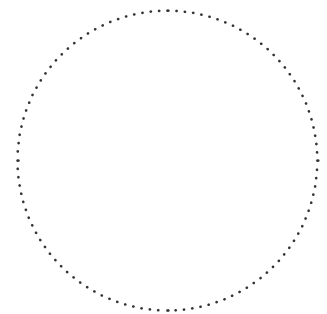
<b>Company name</b>	
<b>Address</b>	
<b>Phone Number</b>	
<b>Installation Technician's Full Name</b>	
<b>Installation Date:</b>	<b>Signature:</b>
The unit has been installed in accordance with the provisions of all the applicable local and national construction, electrical and technical codes and standards. The unit operates normally as intended by the manufacturer.	
<b>Signature:</b>	



Installation Stamp

### WARRANTY CARD

<b>Unit Type</b>	Destratificator
<b>Model</b>	
<b>Serial Number</b>	
<b>Manufacture Date</b>	
<b>Purchase Date</b>	
<b>Warranty Period</b>	
<b>Seller</b>	



Seller's Stamp

