# **\**AirSmart

## ICTUS C250 / C350 / C450



User manual



## Table of content

1	Warn	ing and safety instructions	3
2	Introd	duction user manual	4
3	RF cc	ontroller with LED communication	5
	3.1	Connecting the RF controller with ICTUS C	5
	3.2	Recommended	5
	3.3	Replacing the batteries of the RF controller + mounting	6
4	ICTU:	S	7
	4.1	LED-communication on ICTUS	7
	4.2	Manually opening bypass	
	4.3	Frost protection	8
5	Maint	tenance	
	5.1	Maintenance for end user	8
	5.2	Maintenance for the installer	
6	Decla	ration of conformity	10





### 1 Warning and safety instructions

#### **IMPORTANT**

#### READ THESE INSTRUCTIONS CAREFULLY BEFORE INSTALLING

- 1. Do not install this product in locations where the following conditions may occur:
  - Excessive oil or grease in the atmosphere;
  - · Corrosive or flammable gases, liquids, or vapors;
  - · Spray water from fire hoses;
  - Ambient temperatures above 40°C or below -10°C;
  - Possible obstructions that hinder access to or removal of the unit.
- 2. All wiring must comply with current IEE wiring regulations BS7671 or relevant standards in your country. Installation must be inspected and tested by a qualified person upon completion.
- 3. When installing an AirSmart ventilation unit, ensure no electrical or other hidden conduits are damaged.
- 4. The installer is responsible for the installation and electrical connection of the AirSmart system on-site. It is the installer's responsibility to ensure that the unit is installed safely and according to guidelines, and only left when the AirSmart is mechanically and electrically safe.
- 5. All legal requirements must be strictly followed to prevent danger to life and property during and after installation, as well as during service and maintenance.
- 6. The ICTUS unit must be connected with a double-pole plug + ground. This plug must be inserted into a socket adapted for the plug. This socket must be protected with a 16A fuse.
- 7. Ensure that the power supply (voltage, frequency, and phase) matches the values on the identification plate.
- 8. AirSmart ventilation units must be grounded.
- 9. The condensation drain of the AirSmart must be connected to the wastewater drainage system via a water trap (e.g., filled siphon). The condensation drain hose must be placed underwater in the siphon.
- 10. No exhaust or supply grille should be connected to the AirSmart ventilation units in a room where an open combustion boiler is installed
- 11. To achieve the desired noise level, the installer may need to use sound and vibration dampening materials, which are not provided as standard.
- 12. The unit must not be directly connected to a dryer.
- 13. The supply and exhaust valves must be fully opened before using the AirSmart.
- 14. The supply air must be drawn from outside the building.
- 15. Check the internal condensation drain and associated pipes for blockages before first use.
- 16. The supply and exhaust valves in the ceiling must be at least 300 mm away from a wall to ensure that the airflow measuring equipment fits correctly over the valves.
- 17. The unit must stabilize for at least 5 minutes when switching to a different ventilation speed.
- 18. If the AirSmart unit is installed in a new building, the exhaust or supply filters must be checked at least monthly for the first six months.
- 19. This device is not suitable for use without supervision by young children or people with reduced physical strength
- 20. Young children must be supervised to ensure they do not play with the device.
- 21. Ensure that the supply and exhaust ducts of the AirSmart ventilation unit are sufficiently spaced apart and at least 2000 mm away from any chimney.
- 22. If the ducts or condensation drain pipe run through an unheated attic or similar location, these must be insulated.
- 23. Waste: this product should not be disposed of with household waste. Ensure recycling if possible. Consult your local authorities for advice.





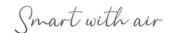
#### 2 Introduction user manual

Congratulations on your new ICTUS ventilation unit from AirSmart! This manual provides an overview of the basic functions and operation of your unit. For detailed instructions and comprehensive descriptions, you can always consult the full manual, which is available on our website: www.airsmart.pro.

Thank you for your confidence in AirSmart. We strive to optimize your indoor climate with energy-efficient, user-friendly and sustainable solutions.

Kind regards,

The AirSmart team





#### 3 RF controller with LED communication

### 3.1 Connecting the RF controller with ICTUS C

- 1. Unplug the appliance's power cable from the socket.
- 2. Plug the power cable back into the socket. Once the LEDs of the ICTUS device light up, you can connect the RF controller.
- 3. Take the RF controller and press the four buttons in the order shown in the illustration below (starting at the top left). Press each button for at least 2 seconds. The blue LED in the centre of the RF transmitter flashes when the connection is successful. It may take up to +- 15 seconds for the connection to be established (and the LED starts flashing)

#### Controlling the unit

#### Note:

- The pairing mode is on for five minutes after the power cable is plugged back in.
- If you want to pair multiple (up to 4) RF controls, repeat this operation for each RF control. If you try to pair a fifth RF control, the first paired RF control will be deactivated.

#### LED-notification on RF controller.

When you choose a different mode on the RF controller, a light will light up in the centre of the controller each time.

This can show different colours:

**Green**: standard mode **White**: Clean/ replace filters **Red**: no connection with the unit

#### 3.2 Recommended

DO NOT place the transmitters:

- in a metal distribution box, enclosure or wickerwork;
- in the immediate vicinity of large metal objects;
- on or near the ground.





#### 3.3 Replacing the batteries of the RF controller + mounting

Before you replace the batteries of your Rf controller keep in mind the following:

- Avoid direct hand contact with the battery to prevent discharge.
- Do not use NiCd batteries.
- Insert the new battery. When doing so, respect the polarity. ('+' and '-' sign in the compartment).
- Use battery type CR2032
- Please return used batteries to an authorized collection point.

The following section explains how to easily replace the battery of the RF control. For mounting the control to the wall or other smooth surface, you can refer to step 1, step 2 and step 5.

Step 1: Remove the frame of the controller.









Step 2: Detach the controller from the insert using a small flathead screwdriver.

You can now also easily fix the insert to the wall using screws, double-sided tape, or silicone. When using silicone, make sure you let it dry before mounting the control back in place.







Step 3: Remove the battery from the controller.





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Step 4: Place the new battery in the controller.

TIP: Make sure to insert the battery without touching the flat sides to prevent discharge.

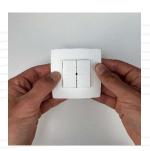




Step 5: Place the control back into the insert and then into the frame. Start at the bottom, inserting the wide prongs into the insert, followed by the two prongs closer together.







#### 4 ICTUS

#### 4.1 LED-communication on ICTUS

To check the operation of the unit, three LED lights on the unit give an indication of the status of the unit. Each LED represents a different aspect of the status.

#### LED1: Operating mode:

- Standard operating mode: green flashing
- Bypass open in cooling mode: blue
- Bypass open in heating mode: orange
- Frost protection: white (see point 5.2)

#### LED2: Connectivity:

If the unit is connected to the internet, LED 2 gives a white light, otherwise none. (Due to possible light pollution from other LEDs, this may have a slightly pinkish shine)

#### LED3: Notification:

- Filters cleaning/ replacing: green
- General warning message: red (Restart the unit by unplugging it. Wait 24 hours, if the LED is still on, contact your installer.)
- Temperature sensor: blue
- Warning fan 1: yellow
- Warning fan 2: pink
- Powerlimit: white

### 4.2 Manually opening bypass

Each ICTUS unit is equipped with a bypass valve. This provides free cooling or heating using outside air when climatic conditions are favorable. The bypass works fully automatically, so you do not need to do anything for this. However, it is possible to operate the bypass manually with the RF remote control. To open the valve, press the two top buttons simultaneously. To close the valve, press the two lower buttons. If you do not close the bypass manually, it will close automatically after one hour. It may be useful in certain situations to open the bypass valve for a while, for example after rain for fresh air or during drought for more humid air in the house.

2024 - p7 | 10







#### 4.3 Frost protection

When the outside temperature is very cold, the ICTUS unit may enter frost protection mode. During this period, you cannot operate the unit; this is perfectly normal in cold weather. Frost protection prevents the heat exchanger from freezing, which could cause damage to the unit. In frost protection mode, the unit automatically adjusts the speed to bring the heat exchanger back to the correct temperature. No action is required; the unit regulates this fully automatically.

#### 5 Maintenance

#### 5.1 Maintenance for end user

As an end user, there are three main maintenance tasks that you should keep a close eye on **cleaning** and **replacing** the **filters** and **filling** the **siphon**.

When LED 3 (see section 5.1) on the unit lights up green, it means that the filters need to be cleaned or replaced. This message appears every three months.

#### Cleaning the filters:

- Clean the filters three times a year.
- Use a vacuum cleaner to do so.

#### Replace the filters:

- Change the filters the fourth time the message appears, which is once a year. Performing this maintenance will ensure that your appliance continues to work optimally and a healthy living space is guanranteed.
- New filters are available on the website www.airsmart.pro. Please note, replica filters may damage the device

#### Replacing the filters

- When replacing the filters, make sure that, the arrows on the black cover of the unit match the arrows on the head side of the filter (see green circle in on the image).





- After putting the filters back, you need to reset the filter timer. You can do this by pulling out the green connector (with 5 connections, see photo) for 15 sec and then plugging it in again. It is located on the circuit board under the electronics cover. or via the application.





#### Filling siphon after summer

After summer, the siphon may have dried out due to the lack of condensation water. Therefore, it is recommended to refill the siphon with a litre of water in autumn.

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## 5.2 Maintenance for the installer

Once every 5 years, the heat exchanger should be cleaned and the fans checked. Contact a qualified fitter or service company for this.





## 6 Declaration of conformity

This declaration of conformity is provided under the full responsibility of the manufacturer

AirSmart BV Metropoolstraat 30 Unit 3.2 B - 2900 Schoten

who declares that the devices described below

ICTUS 250P, 350P, 450P

comply with Union harmonization legislation and the provisions of European standards:

- CE-Label
- EN 13141-2 Testen componenten residentiële ventilatie (toevoer- en afvoermonden)
- EN 13141-4 Testen componenten residentiële ventilatie (ventilator)
- EN 13141-7 Testen componenten residentiële ventilatie (prestatietesten unit)
- EN 55014-1 + A1 EMC (emissie)
- EN 55014-2 +A1 + A2 EMC (immuniteit)
- EN 60335-1 + A1 + A2 + A3 + A4 Veiligheid (algemeen)
- EN 60335-2-80 + A1 Veiligheid (bijzondere eisen voor ventilatoren)
- NBN EN 308 (warmtewisselaar)
- EN 308 (warmtewisselaar)
- NEN 5138 (rendement warmteterugwinning)
- Machinerichtlijn 2006/42/EC, zoals geamendeerd en gecorrigeerd (veiligheid)
- 89/106/EEC Bouwproductenrichtlijn, zoals geamendeerd (veiligheid & sterkte)
- 305/2011 Bouwproducten verordening
- 2014/35/EU Laagspanningsrichtlijn
- 2014/30/EU EMC richtlijn
- CISPR14-1/EN 55014-1 (Elektromagnetische compatibilteit)
- IEC/EN 61000-3-2 (EMC limieten)
- IEC/EN 61000-3-3 (EMC limieten)
- IEC/EN 61000-6-2 (EMC immuniteit)

AirSmart BV declares that it guarantees the use of high-quality components in the manufacture of the devices, as well as continuous quality control to comply with the above guidelines.

Signature:

Gunter FRENCKEN (managing director)

Date of issue: 01/01/2021 Place of issue: Schoten

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