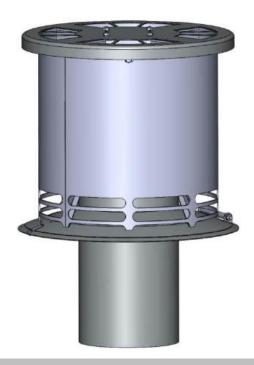


# BC 265 - BC 310



**User Manual and Installation Guide** 

EN 16475-2:2017

bluechimney.dk

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#### 1.0 Product information

BlueChimney is a smoke extractor that can be used for chimneys connected to:

- · Wood-burning stoves/fireplace inserts
- · Oxygen-controlled pellet stoves and oxygen-controlled central heating boilers for solid fuel
- · Open fireplaces

BlueChimney creates natural draught of approximately 16 Pa by raising the smoke into the chimney and then diluting it. This ensures proper chimney draught irrespective of weather conditions, resulting in better combustion, easier lighting as well as less smoke in the room during lighting. This also reduces the smell and smoke outside.

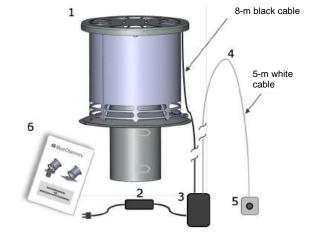
The smoke extractor is extremely quiet, as it is powered by a 24 VDC high-quality low-voltage EC motor. Since the smoke extractor does not require an earth terminal, you are permitted to install BlueChimney by yourself. Just connect it to an existing power socket. BlueChimney can be fitted to all round chimneys with an internal diameter of Ø146 to Ø300 mm. A square flange is available as a chimney accessory for square, brick sockets of up to 240x240 mm.

BlueChimney is available in 4 models:

Type designation	Maximum capacity	Chimney connection	Temperature class	Maksimum air speed (m³/h)
BC 265-150	15 kW	ø150-200	T350	160
BC 310-150	35 kW	ø150-200	T600	225
BC 310-200	35 kW	ø200-300	T350	275
BC 310-200-80	35 kW	ø200-300	T350	600

#### 1.1 Content

- BlueChimney, 8-metre black cable Flange for round sockets (Ø146 – 300 mm)
- 2. Power supply w/ mains cable
- 3. Control box
- 4. 5-metre-long control cable (manual control only)
- 5. Manual control or remote control
- 6. User Manual and Installation Guide



#### 1.2 Use

BlueChimney is used in chimneys where a stable, natural draught is required.

Switch on BlueChimney at full speed before lighting the fire in the fireplace. Once the firewood is properly ablaze, regulate BlueChimney's air supply and speed until there are clear and steady flames in the fireplace, or no smoke penetrates into the room (open fireplaces).

The natural draught in the chimney is not hindered when BlueChimney is closed. However, it is recommended to always let BlueChimney operate at the lowest speed when a fire is lit in the fireplace. This makes sure that the smoke is always guided away through the ventilation system rather than permitted to penetrate into the house.

#### 1.3 Function

BlueChimney is designed for a long service life and can withstand very high temperatures (up to 600°C). The temperature of the smoke often exceeds 350°C during wood-burning.

BlueChimney dilutes the smoke up to 60 times and then spreads the diluted smoke in the shape of a fan. This produces a unique dilution and spreading effect that reduces the smell of smoke as well as the nuisance in neighbouring areas.

BlueChimney is an open unit and, given proper lighting, poses no risk of asphyxiation in case of stoppage or clogging.

BlueChimney has automated safety, protection and maintenance functions that turn on the ventilator when the temperature exceeds 35°C. This protects the motor if you forget to turn BlueChimney on. On warm summer days, BlueChimney can start automatically in order to maintain the bearings and cool the motor (maintenance function).

**IMPORTANT:** BlueChimney does not remedy problems of poor lighting that are due to poorly functioning and incorrectly designed fireplaces, inappropriate or wet firewood and poor lighting practices. Damage to BlueChimney caused by such circumstances is not covered by the warranty provisions.

## 1.4 Chimney sweeping

When sweeping the chimney from the top down, unscrew the cable joint, disconnect the power and stop the motor. Turn the fastener on the flange to the side, and tilt BlueChimney slightly back until the chain tightens. The front legs of the hot plate can be pulled out of the mounting hole and tilted backwards. There will now be easy and unrestricted access to cleaning the chimney.

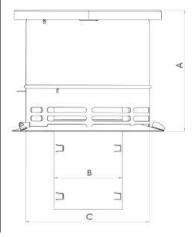
When the chimney is cleaned from the bottom up, guide the cleaning brush all the way up until it hits the hot plate, which can withstand the mechanical impact of the chimney sweep's cleaning tools. This way the chimney sweep ensures that the chimney is always cleaned all the way to the top.

### 1.5 Warranty

BlueChimney falls within the scope of the national rules for warranty and right to claim compensation from the date of purchase. In case of a complaint, send the following to BlueChimney ApS, <a href="mailto:info@bluechimney.dk">info@bluechimney.dk</a>: description of the problem, including pictures, if any, production number and purchase receipt. The production number can be noted down here:

#### 1.6 Specifications and dimensions

Model	BlueChimney 265	BlueChimney 310
Motor type	EC — IQ <sup>2</sup> 3620	EC — IQ <sup>2</sup> 3620
	GreenTech	GreenTech
Voltage	24 VDC	24 VDC
RPM	400-1,300 RPM	400-1,300 RPM
Current	1.3 A	1.3 A
Power consumption	1.8 W — 22 W	1.8 W — 22 W
Weight	6.6 kg	9.2 kg
Dimensions	A: 280 mm	A: 280 mm
	L: Ø 146 mm	L: Ø 146/196 mm
	C: Ø 265 mm	C: Ø 310 mm
Temperature class	T350	T350/T600
Automatic motor	35°C	35°C
cut-out		
Material	Stainless steel AISI 304	Stainless steel AISI 304
	Pro	Pro



#### 1.7 Installation

**IMPORTANT:** Install BlueChimney in such a way as to ensure easy and unobstructed access to subsequent maintenance and cleaning. Place BlueChimney in the middle of the outlet at the top of the chimney. Remove the chimney cowl, if any, since the smoke extractor itself acts as a rain hood (does not apply to model 310-200-80-1). Follow the national safety rules for walking on roofs. Attach BlueChimney in the following way:

#### Round vent hole:

If the vent hole is round (Ø146-300 mm), lower the round flange down into the hole. To ensure that the flange is wedged, bend the 8 chips on the immersion pipe outwards. Bend them so much outwards that they fit the inner dimension in the chimney and are securely wedged.

# Square vent hole up to 300x300 mm (brick chimney):

If the vent hole is square, it is necessary to swap the accompanying round flange with a square flange designed for a brick chimney (purchased separately).



### Installation of square flange on a brick chimney:

First, dismantle the round flange that is at the top of BlueChimney by removing the black motor cable from the cable holder. Then turn the fastener and open the unit by tilting BlueChimney backwards. Open the lowermost link of the safety chain and release the chain link from the hole in the pipe. Close the unit without turning the fastener to the "locked" position. Loosen the hinge bolts by unscrewing the lock nuts and pull the hinge bolts out of the hinge eyes.

You can now lift the BlueChimney unit out of the round flange and place it onto the flange for brick chimneys. Mount the hinge bolts into the hinge eyes and screw the lock nut to the end of the bolt.

Place the distance chain securely into the flange pipe and close the link. Close the BlueChimney unit and turn the fastener so that the BlueChimney unit is locked in position on the flange. Place the sealing mat over the hole on the chimney. Screw the flange onto the concrete cover.

#### 1.8 Electrical connection

#### IMPORTANT: THE BLUECHIMNEY POWER SUPPLY MUST ALWAYS BE CONNECTED TO THE POWER SOCKET.

BlueChimney is powered by a 24 VDC low-voltage EC motor and does not need an earth terminal. You are permitted to install BlueChimney yourself by connecting it to an existing power socket without earthing. Follow the national safety rules for walking on roofs.

Install the 8-m-long motor cable to BlueChimney. Make sure that the waterproof connector of the motor cable faces right (male connector) and that the union nut is fully screwed all the way to the bottom and tensioned slightly. Guide the motor cable down along the chimney through the flashing or through the roof and down to the ceiling or wherever there is access to power. Attach the cable to the chimney.

If the cable is too short, it is possible to purchase an additional extension cable (8 m).

IMPORTANT: If the control box and the power supply are installed outside in the open, the parts must be placed in a watertight installation box with protection class of at least IP 54 (accessory).

#### 1.9 BlueChimney with remote control

Insert the power supply plug into a socket. Insert the round power supply plug in the control box into the round socket positioned to the left of the box.



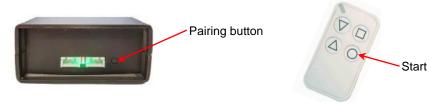
Insert the motor cable plug (female) into the large round connector, turn it into the notch, press it and screw it tight. Turn on the power socket; the LED lamp between the square sockets will now flash green and then light red.

Note: The transmitter has been paired to the control box from the factory so that BlueChimney can be put into service at once.

If the pairing does not work, or if you want to pair 2 or more transmitters paired to the same BlueChimney, use the following pairing instructions:

Pairing with transmitter (up to 7 transmitters) to govern the same BlueChimney:

Press and release the pairing button. The green LED will now flash quickly (approx. twice a second for 15 seconds).



Press the manual transmitter start key once within 15 seconds, and it will be paired once the green LED stops flashing after another 15 seconds.

#### Pairing of multiple transmitters:

The second manual transmitter can be paired within 15 seconds after the pairing of the first manual transmitter. The third manual transmitter can be paired within 15 seconds after the pairing of the second manual transmitter. The sequence is similar with any number of subsequent transmitters (up to 7 transmitters). When the green LED stops flashing quickly and reverts to flashing once a second, the pairing function will be complete, and the transmitter(s) can be put into service.

**Note:** The transmitter's range is up to 50 metres. Walls, metal screens, plate glass, radio signals, etc., can reduce or disrupt the transmitter's range.

#### Specifications of Remote Control BC/RC

Model	BlueChimney BC/RC
Transmitter	433 Mhz
Battery	6 Volt — 2 x CR 2016
Range	Up to 50 m.

Note: If BlueChimney is delivered with a remote control, the package will not include a cabled speed controller.

The transmission signal is encrypted and encoded to prevent other electronic devices from being affected by the transmitter. The draught in the chimney is regulated either automatically with the built-in program or manually, if needed. The device will switch off automatically approximately 4 hours after the last key press.

The remote control works both with a fully automated program and with manual control.

## Fully automated transmitter operation:

On start-up/relighting, the Start/Boost **O** is activated by pressing before lighting in the fireplace.

#### First 20 minutes:

BlueChimney starts by boosting the draught for 20 minutes to prevent smoke from going into the room during lighting. The speed is subsequently reduced by half automatically.

#### Next 100 minutes (1 hour and 40 minutes):

BlueChimney runs at half speed so the wood-burning stove burns most economically and pollutes as little as possible.

#### After two hours more:

BlueChimney switches off automatically.

# Relighting the fire:

Push the "Start/Boost" **O** button again before relighting the fire/adding wood to avoid smoke. This way the automatic system will start a new burning sequence of a total of 4 hours.

Manual operation: Automatic operation can be cancelled at an	ly time, and exhaust can be regulated by
pushing "more draught" $\Delta$ , "less draught" $ abla$ or the "Off" button"	

The BlueChimney switches off automatically 4 hours after you last push a button.

#### **Extended program functions**

**BlueChimney can run continuously** if — 15 seconds after the latest push of a button — you press the button "Off"  $\ \square$  and then, between 2 and 8 seconds later, you press the "more draught" button  $\Delta$ . BlueChimney will then start at its highest speed, which can subsequently be adjusted to the desired draught using the same arrow up and arrow down keys. Press the "Off" button to switch BlueChimney off, which will then go back to normal program the next time BlueChimney is started.

# Battery replacement in the remote:

Press with a pointed object into the little hole in the back of the remote, and then loosen the control panel. Pull out the black plastic holder and then insert 2 new batteries — CR 2016 — and press the control panel into place.



#### 1.10 BlueChimney with manual speed controller

# NOTE: Do NOT connect a cabled speed controller and a remote control to your BlueChimney at the same time.

Fit the white control cable to the speed controller by removing the back of the speed controller and fitting the wires in the manner described below:

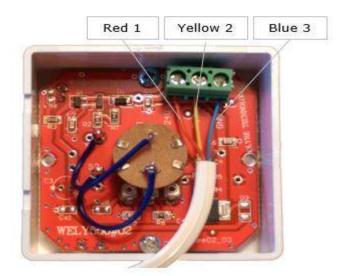
- Red wire to screw terminal no. 1 (24V+);
- Yellow wire to screw terminal no. 2 (CTRL);
- Blue wire to screw terminal no. 3 (GND).

Insert the cable into the cable slot and then click the back back into place. The speed controller can subsequently be mounted to the wall with self-adhesive tape or screws.

Note: The speed controller is not designed for outdoor installation

Guide the cable down through the ceiling and storey partition, if any, to the position where the speed controller is required to be in the room.

You can possibly go through the chimney's ceiling collar and down along the wall to the wood-burning stove.



**Step 1:** Place the black motor cable and power plug into the sockets in front of the Control Box.



**Step 2:** Insert the white control cable into the left square socket of the Control Box.

The LED lamp between the sockets will now flash green and then light red.



#### **Power supply:**

Important: The power supply must always be connected to a source of constant current. Do not place it in environments exposed to water, splashes, moisture or temperatures above 50°C. Ensure proper ventilation. In the event of outdoor installation, the power supply and the control box must be placed in shadow, in a watertight installation box with protection class of at least IP 54.

# 1.11 Maintenance and Troubleshooting

Assuming normal use, BlueChimney requires maintenance intervals that correspond to periodic visits of a chimney sweep. However, BlueChimney should be cleaned thoroughly by a professional at least once a year.

#### IMPORTANT: Disconnect the device from the power source before commencing cleaning.

During cleaning, dismantle the top ring and clean BlueChimney thoroughly internally. Replace or carefully clean the axial blade of soot deposits. Clean the safety net of any soot and dirt.

Tools: Size 2 Phillips screwdriver and 7-mm socket wrench.



# 1. Dismantling the top ring:

Dismantle the top by removing the two Phillips screws that are underneath the top ring on each side of the device.

Phillips screw PZ 2

## 2. Dismantling the cooling device:

Pull the black motor cable free of the cable holder on the side of the smoke extractor and lift the entire cooling device carefully up and free of the device.

IMPORTANT: Be very careful to prevent the blades from bending.

# Troubleshooting guide

Problem	Cause	Check
BlueChimney does not run.		
	There is no power	Is the power socket on and working? Is the plug inserted into the socket? Is there power to the power supply? Is the power supply intact (is the light diode green)? Are all wires properly mounted? Are the cables defective? Remove the power plug for the control box and reconnect it after 2 minutes. Is the battery intact? Chimney fire?
	It is hindered from rotating	Is there a lot of soot in the device? Are there any foreign bodies (birds, branches)?
	I don't know	Contact dealer
BlueChimney runs, but does not suck enough smoke.	The exhaust system is not airtight	Are the flue ducts, connections, chimney and clean-out doors airtight?
	There is under-pressure in the house	Is there any air extraction in the house? (Cooker hood, bathroom exhaust, forced air change?)
	The fireplace is too big	See under Product Information. Contact dealer
	I don't know	

# 1.12 EU Declaration of Conformity

The following producer/manufacturer

Manufacturer:	BlueChimney ApS
Address:	Snerlevej 14, 4180 Sorø, DK

Hereby declares that the following product(s)

Product name:	BlueChimney
Product type:	BC1GL01

Is in accordance with the following EU directive(s)

Directive reference	Directive
2006/42/EC	The Machinery Directive
2004/108/EC	The EMC Directive
2011/65/EC	The RoHS Directive

The following standards are applied to ensure compliance with the directive(s)

Standard reference	Standard
DS/EN ISO 12100:2011	Machine Safety - General principles for design - Risk Assessment and risk reduction
DS/ISO/TR 14121-2:2012	Safety of machinery – Risk assessment – Part 2: Practical guidance and examples of methods
DS/EN 60204-1:2006	Safety of machinery – Electrical equipment of machines – Part 1: General requirements
DS/EN ISO 13857:2008	Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs

Date: September 12, 2021 Place: Sorø

Name: Morten A.N. Bjørklund, CEO