

Installation and User Instructions



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1. Preface

1.1. Description of the User

This installation manual is intended for the end-user, the general homeowner, who wants to install one or more SpeedComforts on the radiators in his home. The user does not need to be skilled, trained or certified to install the SpeedComfort.

1.2. Conventions Used in this Manual

The following style conventions are used in this document:

Bold

Names of product elements

Italic Emphasis (for example a new term)

1.3. Explanation of Safety Warnings

Caution indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

NOTICE

Notice indicates information considered important, but not hazard-related.

1.4. Retaining Instructions

Read and understand this manual and its safety instructions before using this product.

Follow all the instructions. This will avoid fire, explosions, electric shocks or other hazards that may result in damage to property and/or injuries.

The product shall only be used by persons who have fully read and understand the contents of this user manual.



Ensure that each person who uses the product has read these warnings and instructions and follows them.

Keep all safety information and instructions for future reference and pass them on to subsequent users of the product.

The manufacturer is not liable for cases of material damage or personal injury caused by incorrect handling or non-compliance with the safety instructions. In such cases, the warranty will be voided.

1.5. Obtaining Documentation and Information

1.5.1. Internet

The latest version of the documentation is available at the following address: <u>https://www.speedcomfort.nl/media/downloads/SpeedComfort_manual.pdf</u>

1.5.2. Ordering documentation

Documentation, user instructions and technical information can be ordered by calling SpeedComfort at +31 85 666 62 23.

1.5.3. Documentation feedback

If you are reading **SpeedComfort** product documentation on the internet, any comments can be submitted on the support website. Comments can also be sent to <u>UKsupport@speedcomfort.com</u>.

We appreciate your comments.

1.5.4. Support and service

For information, questions, technical assistance, service or ordering user instructions please contact:

SpeedComfort

Antwoordnummer 7200 3734 ZW Den Dolder The Netherlands Tel: +31 85 666 62 23 Website: <u>www.speedcomfort.com</u>

2. Description of the Product

2.1. Intended Use and Reasonably Foreseeable Misuse

The SpeedComfort is intended to be used as a ventilator that is intended to be attached to a radiator or convector, which is connected to the central heating system. The SpeedComfort is intended to draw heat from the radiator to help heat the room more effectively.

The product may only be used in accordance with the instructions described in this manual. Any use other than those described in this manual is considered as non-intended use. This will also invalidate the warranty.

2.2. System Overview

This product contains several components that form a system.

The SpeedComfort is the main component. The SpeedComfort is connected to a power adapter and a temperature sensor. For a *wide radiator* (plates 70 mm or more apart) this is all that is needed, except for some optional cables. For other radiators, simply reposition the magnetic sliders or feet:

- For a *narrow radiator* (plates less than 70 mm apart), position the magnetic sliders with the magnet facing upwards, two on each side.
- For a *single plate radiator*, position the magnetic sliders with all four on one side and the magnet facing up.
- For a *convector*, position the four integrated feet in the holes provided on the underside of the SpeedComfort.

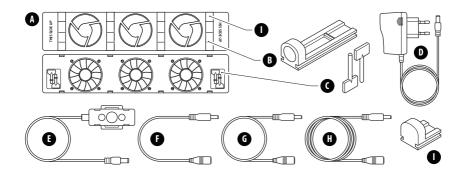
Additional SpeedComforts can be connected to each other making use of the cables (30 cm, 60 cm or 120 cm). These cables can also be used to extend the power adapter or temperature sensor cables.



2.3. Technical Data

Parameter	Unit
Product name	SpeedComfort
Technical lifespan: SpeedComfort	10 years
Technical lifespan: Power adapter	4 years
Power	0.55 W
Annual energy consumption	< 1 kWh
Noise level	< 20 dB(A)
Airflow	30 m³/hour
Width x length	7cm x 34cm
Output	12 V/DC
Power supply	100-240 V; 0.25 A 230 V AC
Operating temperature range	-20°C to +85°C
Storage temperature range	-40 °C to +85°C
Relative humidity during use and storage	max. 80% (non-condensing)

2.4. Main components



- A. SpeedComfort
- B. Adjustable magnets (4x)
- C. Feet (4x)
- D. Power adapter
- E. Temperature sensor (with Velcro)
- F. Connecting cable (included with Duoset, Trioset and Extension Set)
- G. 60 cm cable (optional)
- H. 120 cm cable (optional)
- I. Dummy blocks (4x without function)



3. Safety Instructions

Read and understand this manual and its safety instructions before using the SpeedComfort and matching components.

3.1. How to Use the Product Safely

3.1.1. Safety information for vulnerable people

- Never leave children alone with packaging material. There is a risk of suffocation.
- Children should not play with the product. This product is not a toy.
- Do not install the product if you have reduced physical, sensory or mental capabilities.
- Do not allow installation of the product by persons (including children) with reduced physical, sensory or mental capabilities.

3.1.2. Safety information related to the intended use

• Use this product only as a radiator ventilator by attaching it to a radiator. Follow the instructions in this manual to do so.

3.1.3. Product limitations and restrictions

- Do not use any sharp objects near the fans.
- Keep the product away from open fire, soldering irons, or other hot tools as this could damage the product.

3.1.4. Installation safety information

- Lift, handle and transport the product with great care.
- Pay attention and be careful when installing an electrical product. Do not install the product if you are not able to concentrate properly, or if you may faint or if you are under the influence of medication, alcohol or drugs.
- Before connecting the power adapter to the wall socket, ensure that the local voltage corresponds to the value on the product. The maximum permissible voltage is 230 V.
- Connect the product to a properly installed and easily accessible wall socket. Make sure the product can be disconnected from the power supply at any time.

3.1.5. Safety information regarding the use

- Never use the product outdoors. The product is intended for indoor use only.
- Check all components (including cables) for any damages before installing the product. Immediately remove the power adapter from the wall socket in the event of visible damage, strong odour or overheating of the components.

3.1.6. Maintenance safety information

- Never touch the product or power adapter with wet hands.
- Keep the product away from moisture. Take care when cleaning the product or radiator to which it is attached. Make sure no water enters the product through the fans.

3.1.7. Service and repair safety information

• Do not attempt to open, modify or repair the product. Alterations or modifications of this product are not permitted. This will void the warranty.



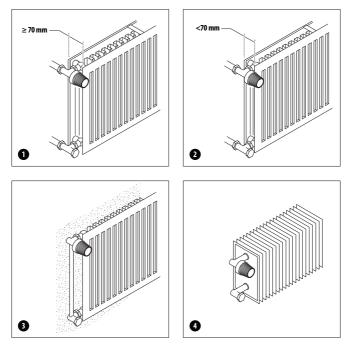
4. Installation

4.1. Determine the type of your radiator

The SpeedComfort can be installed on different types of radiators. Each type of radiator requires its own way of installation.

Determine the type of your radiator:

1. Determine the radiator types on which you want to install the **SpeedComfort**.



- 0
- This is a radiator where the distance between the plates is 70 mm or more.
- Narrow radiators are radiators where the distance between the plates is less than 70 mm.
- **3** Single plate radiators are radiators with only one plate.
- Convectors are radiators where the hot water is circulated through a tube, surrounded by small fins. It is normally installed inside a convector housing or a convector duct.

4.2. Connect the SpeedComfort to the Radiator

The SpeedComfort can be installed on different types of radiators. Each type of radiator requires its own way of installation. Follow the specific installation steps for this type of radiator.

- 4.2.1. Connect the SpeedComfort to a wide radiator (plates ≥ 70 mm apart)
- 1. Make sure that the **SpeedComfort** (A) faces upwards and that the **female connectors** (1) point towards the wall socket (see fig. 1).

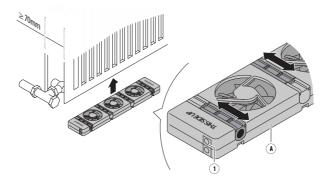


Fig. 1 - Position the SpeedComfort (A).



2. Identify a space where the radiator wall brackets and connecting clips are not in the way. Attach the **SpeedComfort** (A) at the bottom between the radiator plates with the **adjustable magnets** (B) (see fig. 2). The **SpeedComfort** (A) can also be attached on top of the radiator and under a cover. **NOTICE** Make sure the **fans** still face upwards!

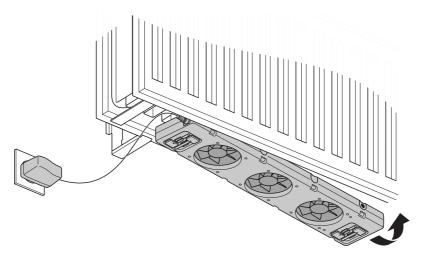


Fig. 2 - Attach the SpeedComfort (A).

- 3. Connect the **temperature sensor cable** (E) to one of the **SpeedComfort** (A) **female connectors** (1).
- Attach the temperature sensor (E) with its adjustable magnets (B) on the back of the radiator, close to the warm water supply pipe, or on the pipe itself (see fig. 3). Adjust the magnetic sliders to the correct width.

5. Connect the **power adapter** (D) to the remaining **female connector** (1) and the wall socket (see fig. 3).

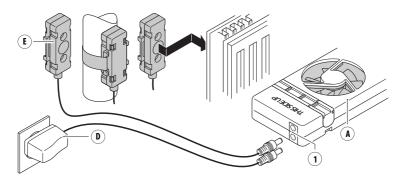


Fig. 3 - Connect the power adapter (D) and temperature sensor (E).

6. On long radiators, connect additional SpeedComforts (A) with the 30 cm connecting cables (F) (see fig. 4). Multiple SpeedComforts (A) (up to 20) can be connected to one power adapter (D). Additional temperature sensors (E) are not required. The Duoset and the Trioset include several SpeedComforts.

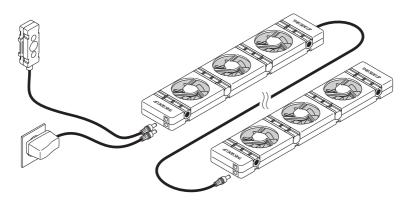


Fig. 4 - Connect additional SpeedComforts (A).

 Turn on your central heating system. Wait for the SpeedComfort (A) to automatically switch on. This happens when the radiator temperature exceeds 33°C. It automatically switches off when the radiator cools down to 25°C.



4.2.2. Connect the SpeedComfort to a narrow radiator (plates < 70 mm apart)

- 1. Turn the **adjustable magnets** (B) until the **magnet** (1) is on top (see fig. 5). Remove the small block located opposite to the adjustable magnets in the housing. Please dispose of the block as plastic waste.
- 2. Adjust the **adjustable magnets** (B) to the correct width.
- Repeat step 1 7 as for the wide radiator. Use the adjustable magnets (B) to hang the SpeedComfort (A) between the plates (see fig. 5 and 6). You can align the SpeedComfort on the front of the radiator.

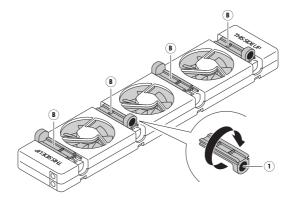


Fig. 5 - Return the adjustable magnets into the **SpeedComfort** (A).

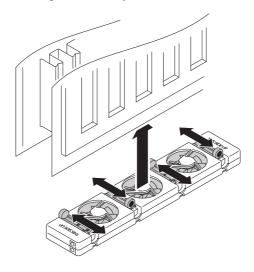


Fig. 6 - Hang the SpeedComfort (A) between radiator plates.

4.2.3. Connect the SpeedComfort to a Single plate radiator

- Position the adjustable magnets (B) until the magnets (1) are on the same side and all four magnets (1) are facing up. Remove the small block located opposite to the adjustable magnets in the housing. Please dispose of the block as plastic waste.
 Repeat step 1 – 7 as for the wide radiator.
- 3. Use the **adjustable magnets** (B) to attach the SpeedComfort (A) to the single plate radiator (see fig. 7).

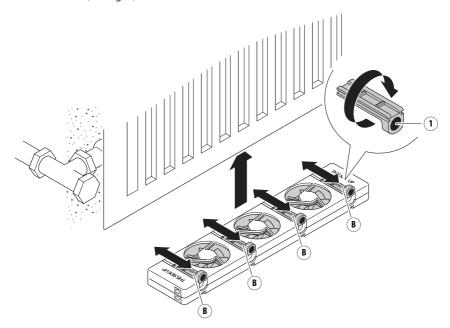


Fig. 7 - Attach the SpeedComfort (A) to a single plate radiator.

4.2.4. Connect the SpeedComfort to a convector

- 1. Attach the **feet** (C) by pushing them into the **slots** (2) of the **SpeedComfort** (A).
- 2. Make sure that the **SpeedComfort** (A) faces upwards and that the **female connectors** (1) point towards the wall socket (see fig. 9).
- 3. Place the **SpeedComfort** (A) on top of the convector and allow space between the convector sides and the **SpeedComfort** (A) to reduce noise (see fig. 9). The SpeedComfort can also be placed on the ground below the convector if space allows.



4. If the convector block is made of magnetic material, the **temperature sensor** (E) can be easily positioned on it with its magnets. The temperature sensor can also be clamped between two plates of the convector block to ensure good heat transfer. The sensor can be attached to a copper pipe or any other non-magnetic location using the provided Velcro.

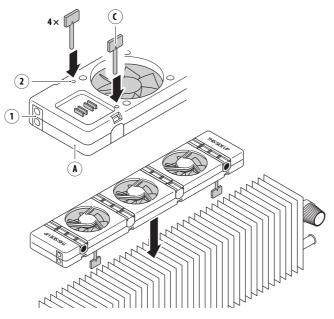


Fig. 8 - Attach a foot (C).

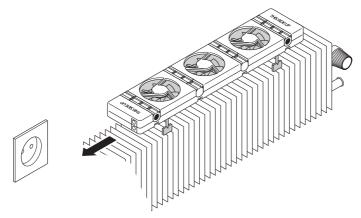


Fig. 9 - Position the **SpeedComfort** (A) on the convector.

4.3. Optimize the Central Heating

The SpeedComfort draws heat from the radiator, heating the room quicker and more evenly. This can reduce the energy usage in your house by up to 22%. However, to realize this saving, a few things need to be optimized: The SpeedComforts must be distributed throughout the house; the central heating temperature setpoint must be lowered; and the central heating system must be hydronically balanced.

4.3.1. Distribute the SpeedComforts

- 1. Install 3 to 5 **SpeedComforts** (A) (with matching components) in an (average) living room.
- 2. Install **SpeedComforts** (A) in all regularly used rooms.

This ensures that all the air in the room circulates once per hour (since one SpeedComfort circulates $30 \text{ m}^3/\text{h}$).

4.3.2. Lower the temperature setpoint

- Manually lower the central heating setpoint temperature to at least 60°C. Refer to the manual of your central heating system or ask your service technician to do this. If preferred, this can be done in small steps to find the optimal setpoint. A lower setpoint saves more energy.
- 2. Make sure your central heating service technician does not change this back to factory settings (75 90°C).

The **SpeedComfort** draws heat from the radiator, heating the room more quickly. This allows the boiler to shut down sooner, saving energy.

4.3.3. Hydronic balancing

Balance the central heating system by making use of either the radiator screw, standard thermostat setting or a separate radiator valve. **CAUTION!**

Ask the central heating service technician to help with the central heating system hydronic balancing. This is not a standard procedure and requires expertise.

Hydronic balancing optimizes the distribution of water in a heating system. This is necessary for efficient use of energy and to ensure that room temperatures do not vary.

To learn more about saving energy and reducing losses visit: www.speedcomfort.com.



5. Maintenance

5.1. How to Maintain the SpeedComfort

5.1.1. Cleaning the product

The SpeedComfort and matching components can be cleaned if necessary.

To clean the product:

- 1. Clean the product with a vacuum cleaner, when dirty. **CAUTION!** Make sure to use the lowest power setting on the vacuum cleaner.
- 2. Clean the product with a damp cloth only if required. **CAUTION!** Make sure no water enters the SpeedComfort through the fans.

5.1.2. Replacing components

If any components break, they must be replaced. **CAUTION!** Do not attempt to open, modify or repair the product.

To replace components:

- 1. Exchange broken components, still under warranty, at the supplier. The SpeedComfort has a ten year guarantee and the power adapter has a 2 year warranty. **NOTICE** For safety- and control reasons (CE), alterations or modifications of this product are not permitted.
- 2. Dispose of broken components that are not under warranty and buy new components.

6. Troubleshooting

Problem	Cause	Solution
SpeedComfort (A) does not fit between the radiator plates.	It is a narrow radiator.	Follow the installation steps for Speedcomfort with a narrow radiator.
SpeedComfort (A) does not fit at the bottom of the radiator.	There is too little space.	Place the SpeedComfort (A) on top of the radiator. This will not influence performance. The bottom is only preferred as it is less visible. Make sure the SpeedComfort (A) still faces upwards.
The SpeedComfort (A) need to be attached at the top of the radiator, but the radiator has a cover.	NA	Place the SpeedComfort (A) underneath the cover. Keep in mind that this exposes the SpeedComfort (A) to higher temperatures, which may slightly limit its lifespan.
Cannot connect the SpeedComfort (A) to the wall socket.	The SpeedComfort (A) was placed with the two female connections on the wrong side or the power adapter cable (D) is not long enough.	Turn the SpeedComfort (A) around so that the two female connections face in the other direction or buy and connect the power adapter cable (D) to a longer cable (G or H).
Cannot connect two SpeedComforts (A) with the supplied 30 cm long connecting cable (F).	The distance is too big / cable is too short.	Buy an additional 60 cm or 120 cm long cable (G or H) to connect the SpeedComforts (A).
The temperature sensor (E) cannot reach the warm water supply pipe.	The temperature sensor cable is too short.	Buy an additional 60 cm or 120 cm long cable (G or H) and connect to the temperature sensor cable . Else, the temperature sensor (E) may also be attached on the back of the radiator.



Cannot fit the SpeedComfort (A) between the wall and single plate radiator.	The space is usually too small (less than 70 mm).	Follow the single plate radiator installation steps. If there is not enough space between the back of the radiator and the wall, please attach the feet (C) to the SpeedComfort (A) and position the product on the floor below the radiator.
SpeedComfort (A) did not switch on after it was connected to the wall socket.	The temperature sensor (E) is not registering 33°C or more or the SpeedComfort (A) is not receiving power.	 Make sure the radiator is at least 33 degrees. Make sure that temperature sensor (E) is attached to the warm water supply pipe or close by to this pipe on the radiator where it gets warm. Make sure that the temperature sensor (E) makes proper contact. If the radiator does not heat up properly, vent the central heating system and consider doing hydronic balancing. Make sure that the power adapter (D) is properly inserted.
Cannot attach the temperature sensor (E) to the convector.	Convectors, which are made from copper or aluminum, are not magnetic.	Attach the temperature sensor (E) with supplied Velcro or clamp the temperature sensor between two thin plates in the convector block.
The SpeedComfort (A) does not seem to increase the radiator heat output.	The SpeedComfort (A) may be facing downwards. This causes the air to flow in the wrong direction; against rather than with the flow.	Turn the SpeedComfort (A) over so that the SpeedComfort (A) is facing upwards. The top is the side where the fans are covered with three white protective strips.

Do not save 22% on the energy bill.	The central heating system is not optimized enough or the central heating system has been functioning optimally before installation of the SpeedComforts (A).	Optimize the central heating system (see section 4.3) by distributing the SpeedComforts (A), adjusting the temperature setpoint and ensuring hydronic balancing. If the central heating system has been functioning optimally before the installation of the SpeedComforts (A), it may not be possible to save 22%. User behavior can also have an impact on the maximum savings that can be achieved.
Old cast iron radiator or Single plate radiator with plat < 55 mm from wall.	Not one of the 4 types of radiators mentioned.	Attach the feet (C) to the SpeedComfort (A) and place on the floor under the radiator.
The SpeedComfort (A) makes too much noise when placed on the convector.	This may be contact noise.	Make sure the SpeedComfort (A) does not touch any metal pieces. For this reason the feet (C) should also be attached.
The SpeedComfort (A) does not switch off when the radiator is off / cold.	The temperature sensor (E) is not switching it off.	Make sure the SpeedComfort (A) is properly connected to a temperature sensor (E).

You can find answers to frequently asked questions (FAQs) at <u>www.speedcomfort.com</u>.



7. Disposal

7.1. Disposal of the Product



The symbol on the product indicates that this product must not be treated as unsorted municipal waste, but must be collected separately! Dispose of the product via a collection point for the recycling of waste electrical and electronic equipment if you live within the EU and in other European countries that operate separate collection systems for waste electrical and electronic equipment. By

disposing of the product in the proper manner, you help to avoid possible hazards for the environment and public health that could otherwise be caused by improper treatment of waste equipment. The recycling of materials contributes to the conservation of natural resources. Therefore do not dispose of your old electrical and electronic equipment with the unsorted municipal waste.

7.2. Disposal of Packaging Waste

Dispose of the packaging through your local recycling facilities. By disposing of the packaging and packaging waste in the proper manner, you help to avoid possible hazards for the environment and public health.

www.speedcomfort.com

