

The logo for CANTON, featuring the word "CANTON" in a bold, sans-serif font. The letter "C" is stylized with a thin, curved line that loops around its top and left sides, creating a circular shape that partially overlaps the letter "A".

CANTON

INWALL / INCEILING
MANUAL

THANK YOU!

Thank you for choosing a Canton product.
You can now look forward to many hours of listening to excellent sound.

If you have any questions or require further information, please do not hesitate to contact us.

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SAFETY INSTRUCTIONS



Attention:

Proper installation and connection of the speaker are the responsibility of the user. Canton cannot accept any responsibility for damages or accidents caused by improper installation or improper connection!



Warning!

- Follow all installation and safety instructions. Otherwise, there is a risk of injury and damage to property.
- The installation of InWall / InCeiling systems requires appropriate tools and manual skills in handling these tools. If in doubt, consult a specialist.
- Install the device in accordance with the manufacturer's instructions. To avoid damage/injury, the appliance must be securely fastened to the wall or ceiling in accordance with the instructions.
- Ensure that the wall or ceiling has sufficient load-bearing capacity for the device.
- Ensure that there are no electrical cables or pipes (gas, water, heating, etc.) in the wall or ceiling at the installation site. Drilling into cables and/or pipes can lead to electric shock, fire, explosion, scalding, etc. There is danger to life! If necessary, contact a specialist.



Important safety instruction!

Read and follow all instructions. Observe all warnings and safety instructions. Keep these instructions and hand over all documents when passing the device on to third parties.

Operate this device only in a moderate climate (not in a tropical climate). Only operate this device indoors, not outdoors or in wet rooms. To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Do not operate this device near water. Do not expose this device to dripping or splashing water. Do not place any objects filled with liquids (e.g. vases) next to the device.

Notice: The instructions in this paragraph do not apply to "Outdoor Speakers".

Strong temperature fluctuations lead to condensation (water droplets) on the device. Wait until the moisture has evaporated (minimum 3 hours) before starting up the device. Do not place naked flames, such as lighted candles, on or near the device. Do not install the device near heat sources such as radiators, heat accumulators, ovens or other devices (including amplifiers) that generate heat. Prevent direct sunlight.

Install the device according to the manufacturer's instructions. Do not exert force on operating elements, connections and cables. Never touch signal and power cables with wet hands. Passive loudspeakers must never be connected to the mains, but only to the corresponding amplifier output sockets. Do not mount connectors on speaker cables that can also be connected to the mains (socket), such as 4mm plugs (so-called banana plugs). Use only mounting hardware and accessories that are approved by the manufacturer and/or delivered with the device.

Only clean this device with a clean, dry cloth. Do not use any aggressive, alcoholic or abrasive agents for cleaning.

Consult qualified specialists for all repair and maintenance work. This is necessary if the device is damaged in any way, e.g. if connections are damaged, if liquids have been spilt onto/into the appliance, if it has been exposed to rain or moisture, if it is not working properly or if it has been dropped. Do not make any modifications to the device or accessories. Unauthorized modifications may affect safety, legal compliance or system performance. In this case, the operating permit/warranty may be voided.



If sound distortions such as unnatural knocking, thumping or high-frequency clicking occur during playback, reduce the volume level immediately. To avoid possible hearing damage, do not listen at high levels for extended periods of time. Interrupt playback if you hear ringing or whistling noises in your ears or have the impression that you can no longer perceive high-pitched sounds (even briefly).



The device contains permanent magnets. Do not place any objects directly next to the device that may react sensitively to magnetic fields (e.g. CRT televisions, external hard disks, magnetic cards, video cassettes, etc.).



The device and/or the accessory pack may contain small parts that can be swallowed. There is a risk of choking! Therefore not suitable for children under 3 years. Never leave children unattended with the packaging material. Children often underestimate the dangers. Always keep children away from the product.



This symbol draws your attention to important operating and maintenance instructions on the product or in the accompanying documents (manual) supplied with the product.

INTENDED USE

The speaker system is designed for indoor use and must not be used outdoors or in wet environments (this requirement does not apply to 'Outdoor Speakers'). The device must not be altered or modified. Connect the device as described in the instructions and observe the safety instructions. Do not load the appliance with more than the input power specified on the rating plate.



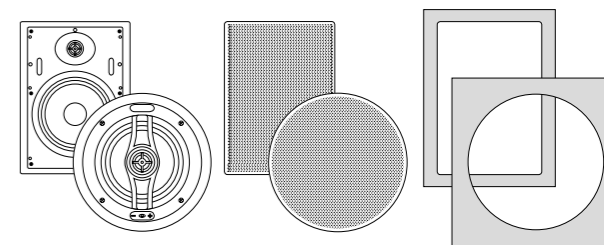
Electrical and electronic equipment placed on the market within the European Union must bear a CE mark to indicate that the equipment complies with the applicable requirements (e.g. on device safety or electromagnetic compatibility).



In accordance with the EU Directive on Waste Electrical and Electronic Equipment, devices marked with this symbol must not be disposed of with household waste. If necessary, please contact your local waste disposal company or the municipal/city administration for information on how to dispose of this equipment free of charge. It serves the protection of the environment and health as well as the saving of (rare) raw materials through recycling.

PACKAGE CONTENTS

- One or two InWall resp. InCeiling system(s) (depending on model)
- Correspondingly one or two speaker grilles (depending on model)
- 1× Installation template
- 1× User manual



GENERAL INFORMATION

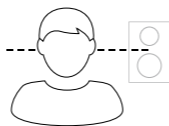
Canton loudspeakers are suitable for use with amplifiers with high output power, even if this is higher than the load capacity specified in the technical data of the Canton loudspeaker. In fact, low-power amplifiers pose more of a risk to the speaker, as they are overdriven when trying to generate more sound pressure by "turning up" the volume and tone controls. So-called "clipping" can cause distortions, which can destroy the tweeters of the speakers in particular. Therefore, pay attention to distortions when adjusting the volume and reduce the volume immediately if necessary.

In order to develop its maximum performance, a loudspeaker requires a break-in period of approx. 15–20 operating hours. During this time, the properties of many mechanical components change until they have reached the values specified during the development of the loudspeaker, i.e. the suspension of the chassis becomes more flexible and the reproduction quality is positively influenced.

POSITIONING IN THE ROOM

InWall speakers:

InWall speakers should be installed at about ear level to provide the best possible sound experience (see illustration).



Stereo operation:

When using two speakers in stereo mode, they should ideally be arranged in a so-called stereo triangle (equilateral triangle). The distance between the speakers is equal to the distance between each speaker and the listening position.

Multi-channel operation:

Depending on the number of speakers used, these are arranged differently. Please refer to the manual of your AV amplifier for the ideal positioning for your chosen setup.

Basically, the following applies:

InWall speakers: Centre viewed straight ahead from the listening position (below/above the TV), front left and front right each approx. 22°-30° to the side, surround left and surround right each approx. 110°-120° to the side.

InCeiling speakers: The top speakers should have the same base width (the same distance from each other) as the front speakers. When using two top speakers (Top Middle), these should be installed slightly in front of the listening position (65°-100° upwards from the axis to the TV). When using four top speakers (top front and top rear), two should be installed in front of (30°-55°) and two behind (125°-150°) the listening position.

CONNECTION



Caution: Before connecting the speakers, switch off at least the (power) amplifier(s) to prevent them from being damaged by a short circuit.

Notes:

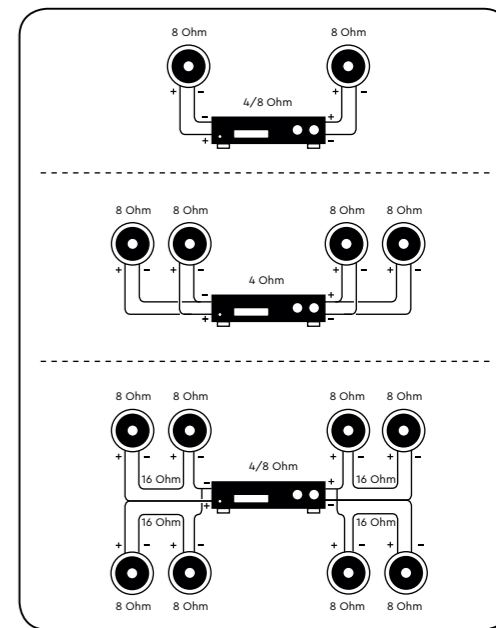
- When connecting the speakers, make absolutely sure that the polarity is correct: Incorrect polarity of the left and right speakers or two speakers connected in series would lead to sound distortion, especially signal cancellations in the bass range.
- Please ensure that you use high-quality speaker cables with a sufficient wire cross-section (minimum 1.5 mm²). Inferior cables can negatively affect the sound quality of your speakers and therefore the sound experience.
- Stereo operation: The speaker cables for the left and right channels should have approximately the same length. Speaker cables of different lengths can lead to a difference in volume between the two channels.

Your Canton InWall/InCeiling speakers are connected to the amplifier using two-core speaker cables. The speakers are connected either via two gold-plated spring terminals (for cable cross-sections from 0.5 mm² to 10 mm²) or via a plug-in screw terminal (for cable cross-sections from 0.5 mm² to 4 mm²). The screw terminal offers the advantage that the heavy weight of the loudspeaker does not have to be held during installation and it only has to be plugged in at the end. This terminal also reduces the required installation depth for many models.

All speakers have a nominal impedance of 8 Ohm resp. 16 Ohm and can be operated with any commercially available Hi-Fi amplifier and AV receiver. If you want to connect several systems to one amplifier channel (left resp. right), you can connect them in parallel and/or in series. However, make sure that the impedance of the selected configuration does not fall below the lower 'impedance limit' of your amplifier.



Caution: An impedance below the permissible impedance of the amplifier can lead to damage to the amplifier! If necessary, consult a specialist!



INSTALLATION

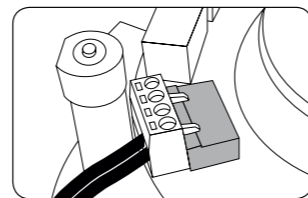
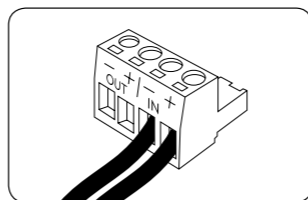
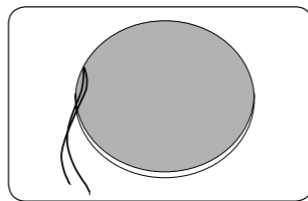
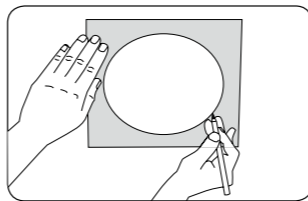
The installation is shown using an InCeiling loudspeaker as an example:

- Use the installation template contained in the scope of delivery to determine the position and exact size of the cut-out. The outer resp. inner edge of the template (depending on the model) determines the size of the installation opening.
- When laying the speaker cables from the amplifier or another InCeiling/InWall speaker to the installation location, make sure that the cable ends protrude about 20–30cm beyond the ceiling or wall cut-out.
- Connecting the speaker cable to the speaker:
 - Models with a 4-pole screw terminal:
 - First strip about 8 mm of insulation from the leads and twist the (copper) wires.
 - Unscrew the retaining clips of the IN+ and IN- screw terminal until the clamping area is fully open.
 - Insert the two wires of the speaker cable completely and screw the retaining clips back on. Ensure that the polarity is correct!



Caution: Make sure that no (copper) wires are sticking out. This can lead to short circuits and damage to the amplifier!

- If you want to install a speaker cable from this speaker to another speaker for a parallel connection, repeat the process with the two retaining clips OUT+ and OUT-. Ensure that the polarity is correct here too.
- For a series connection of speakers, you must route a wire from the positive terminal of the amplifier to the IN+ of the first speaker, from its IN- to the IN+ of the second speaker (and so on if desired) and from the IN- of the second resp. last speaker back to the negative terminal of the amplifier, as shown in the illustration. In this case, OUT+ / OUT- are not used.
- Before mounting the loudspeaker, insert the screw terminal into the socket on the circuitboard until it is fully locked.
- If the OUT+ and OUT- terminals are not used, please screw them tight to avoid 'rattling noises'.



b. Models with two spring terminals:

- First strip about 10-11mm of insulation from the leads and twist the (copper) wires.
- Press down the spring terminals one by one and insert the stripped end of the cable through the opening so that the (copper) wires are visible at the end. Ensure that the polarity is correct.



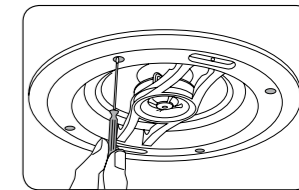
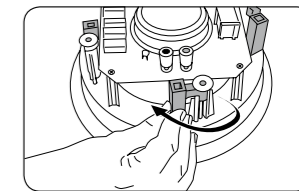
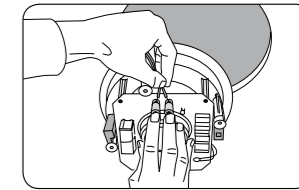
Caution: Make sure that no (copper) wires are sticking out and that the stripped ends cannot touch each other or anything metallic. This can lead to short circuits and damage to the amplifier!

- For a parallel connection, you can twist the incoming + and - wires with the outgoing + and - wires (to the next speaker) and fix them together with the spring terminals.
- For a series connection, please proceed as described above under point a.

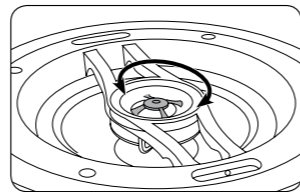
- Before you insert the speaker into the ceiling/wall opening, please ensure that the retaining clamps are folded in and remain in this position even when moving the speaker. Otherwise, tighten the screw of the retaining clamps a bit to exert the necessary pressure on the clamps.
- Now insert the speaker into the ceiling/wall opening and position it in the center of the opening. Tighten the screws (crosswise). This will automatically move the retaining clamps into the locking position. Now tighten the clamps with the screws so that the speaker is securely fixed in the opening.



Caution: Only tighten the screws hand-tight so that the retaining clamps are not damaged. The maximum torque is **0.75Nm**.

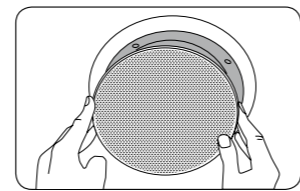
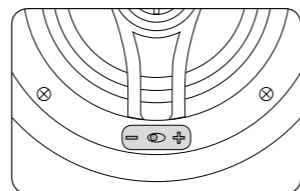


6. To optimize the sound quality, the tweeter can be oriented towards the listening position. For this purpose, the housing of the tweeter is movably mounted in the baffle resp. the bridge above the woofer.



Caution: Be very careful when adjusting the tweeter. Only press on the side of the tweeter housing. Slipping during the adjustment can lead to damage to the tweeter dome!

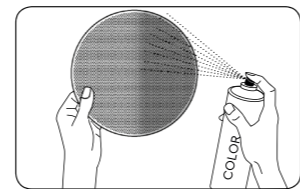
7. On the front of the InWall / InCeiling there is a toggle switch with three switch positions for adjusting the treble level. The center position of the switch (default setting) ensures a linear frequency response. To increase the treble level by 2dB, set the switch to the "+" position. To reduce the level by 2dB, set it to the "-" position.
8. The grille can be easily attached and removed at any time due to a magnetic fastening. The installation is now completed, and the speaker is ready for use.



PAINTING

The white metal grille (speaker cover) can be painted over with commercially available lacquers to match the wall resp. ceiling color.

To paint the grille, first remove it from the speaker and then carefully remove the fleece on the back. The glue on the fleece is permanent, so that the fleece can be reattached after painting, if desired. Only apply the lacquer in several layers, as thinly as possible. Make sure that the perforations in the grille are not sealed by the lacquer, as this would lead to a significant loss in sound quality.



TROUBLESHOOTING

Below you will find an overview of frequently occurring problems:

Problem	Possible reason(s)	Solution(s)
No (audio) signal comes out of the loudspeaker	Speaker cable not correctly connected to (power) amplifier and/or speaker	Connect the speaker cable correctly to the amplifier and/or speaker
Only little low frequency (bass)	Loudspeaker(s) polarity is/are reversed	Check polarity on speakers and (power) amplifier(s) and correct, if necessary
The maximum possible sound level is very low	You have connected too many speakers in series	Select a combination of series and parallel connection in which the allowed impedance of the amplifier is (at best) reached, but not undershot
One speaker is louder than the other one	1. The distance to the speakers differs very much	1. Use the level adjustment / balance control to compensate for the difference
	2. The level adjustment / balance setting is incorrect	2. Correct the setting on the amplifier / AV receiver
Unclean spatial imaging (e.g. voices do not come from the middle)	The distance from the listening position to the loudspeakers is too different	If an appropriate installation (stereo triangle) is not possible, use an AV amplifier where both the level and the distance can be adjusted.

TROUBLESHOOTING

Problem	Possible reason(s)	Solution(s)
The speakers are distorting	1. Your (power) amplifier is overloaded.	1. Use a more powerful amplifier (see chapter "General information")
	2. You have connected too many speakers in parallel; the minimum impedance of the amplifier is (dangerously) undershot	2. Select a combination of series and parallel connection in which the allowed impedance of the amplifier is (at best) reached, but not undershot
The sound (tone) of the speakers is different	The tweeter adjustment of the speakers is set differently	Set the level adjustment for both / all speakers to the same value (+2dB / 0dB / -2dB)

If you have any further questions, please contact our customer service on +49 (0)6083 287-87, by e-mail at service@canton.de, or reach out to your Canton dealer.

WARRANTY

You will find the detailed warranty conditions enclosed with this product or on our website at www.canton.de/en.

Bei Fragen oder Anregungen wenden Sie sich bitte an unseren Kundenservice:

For further questions, please do not hesitate to contact our Customer Service:

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