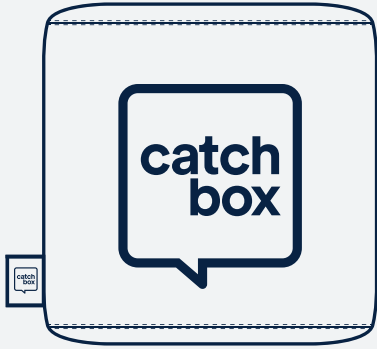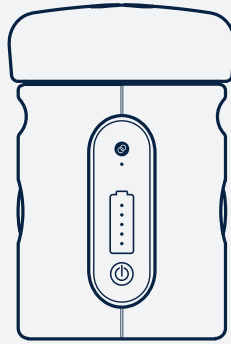# Catchbox Plus User Manual

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Cube Cover with ViralOff™

Cube Transmitter

Hub Receiver

Cube Wireless Charger

Clip Transmitter

Contents

1. Safety instructions

ⓘ Notice

- Before using the product, read and understand the user manual and inform others of proper usage.
- Follow all warnings and instructions on the product and in this manual.
- Keep this user manual and always include it when passing the equipment on to third parties.
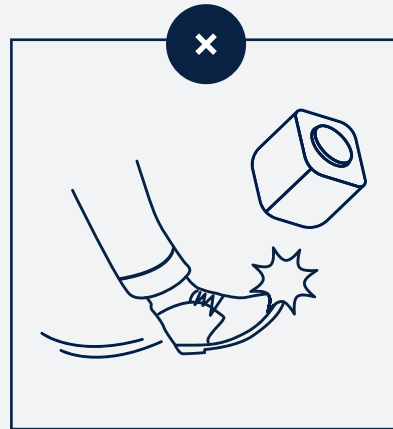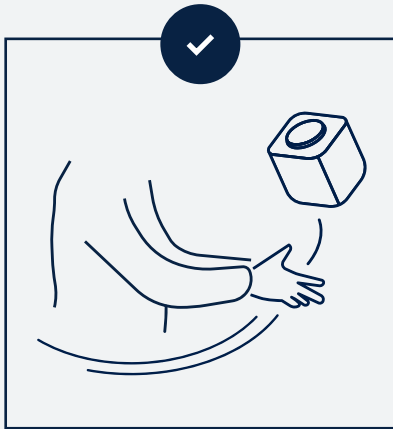
⚠ Warning

- Not heeding these warnings may lead to serious injury or property damage.
- Do not throw the Cube at peoples' heads and always make sure everyone is aware of the situation before throwing.
- Do not use in situations with fragile objects, hot liquids, or people susceptible to injury, like the very young or old.
- Do not throw the Cube in long passes (>5 m / 16 ft) or hard passes.
- Properly lock the into the Cover before use. Always use the Cover and the foam cap on the Cube Transmitter, when using the product.
- Operating or storing this product at temperatures above 50 degrees Celsius or 122 degrees Fahrenheit will cause the locking mechanism to fail permanently.
- The use of other antennas than those provided by the manufacturer is strictly prohibited.
- This product contains magnets which could affect the functioning of pacemakers and other electronic implants. These could stop working or switch into test mode, causing illness. If you wear these devices keep sufficient distance to magnets. Warn others who wear these devices from getting too close to magnets.

ⓘ Caution

- Magnets produce a far-reaching, strong magnetic field. Keep magnets away from devices and objects that could be damaged by strong magnetic fields, like laptops and other electrical equipment.
- Do not place the product near heat sources such as heating ducts or radiators and do not expose it to direct sunlight, excessive dust, moisture, rain, mechanical vibrations or shock.
- Do not use near water. Use equipment indoors only. If the equipment comes into contact with a liquid, turn off the product, shut down the sound system and disconnect the power cable from the power outlet immediately.
- Avoid excessive volume. Do not exceed 70dBa for airborne noise.
- Operate the equipment only with the included power supply.
- Clean the equipment with a moistened (not wet) cloth only. Be sure to disconnect the equipment from the power outlet before cleaning the equipment. Unplug the apparatus during lightning storms or when not in use.
- Protect the power supply cord from being walked on or pinched.
- The equipment should be opened, serviced, and repaired by qualified service personnel only.
- Do not attempt to modify this product or its accessories and use only accessories and attachments, like antennas and power supply, specified by the manufacturer.
- Changes or modifications to the equipment not expressly approved by manufacturer can void the warranty and user's authority to operate the equipment.
- Wireless Charger uses strong electromagnetic field to operate. Keep the equipment away from metallic objects as those can heat up and cause injury or property damage.

Throwing the Cube

To throw the Cube microphone, find someone in the audience who wants to ask a question or make a comment. Make sure that the person and those around them are aware of the situation and are prepared to catch.

- Short, underhand passes of up to 5 m / 16 ft distance are recommended.

- If someone farther away has a question, try to get the entire audience involved by having members pass the Cube short distances to the person who wants it. This is a great way to activate the crowd.

- Improper throwing and use of the device can lead to serious injury and/or property damage. Do not throw at peoples' heads and always make sure everyone is aware of the situation before throwing. Do not use in situations with fragile objects, liquids, or people susceptible to injury. Do not kick or hit the Cube.

2. Product description

2.1. Overview

The Plus is Catchbox's flagship wireless microphone system that is designed for simple hybrid meetings to large and complex multi-room installations.
Please check the front page to see the full list of the Plus system components.

Catchbox Cube is equipped with unique patented Automute technology turns off the audio signal when the microphone is being thrown ensuring the system doesn't make any unwanted noises when passed around (US Patent: US9936319B2).

All Cube Covers and Foam caps are treated with Polygiene ViralOff technology. ViralOff is an antimicrobial technology that reduces over 99% of microbes present on fabric. The treated fabrics are skin-friendly and do not interfere with the natural bacterial flora of the skin. ViralOff is always on and thus ensures your Cube mic is always ready for use.

2.2. DECT wireless standard overview

DECT is an acronym for Digital Enhanced Cordless Telecommunications. DECT standard uses a distributed Dynamic Channel Allocation (DCA) algorithm to automatically and dynamically (during the use of the product) select the transmission frequency from the designated frequency band. It helps to avoid potential interference with other DECT-enabled devices. However, other DECT-enabled devices such as cordless phones or translation systems may cause interference if used close to the Catchbox Plus system. The wireless range of Catchbox Plus product is 100 m / 330 ft under ideal working conditions (Line of Sight). However, indoor obstacles like walls, furniture and people may reduce the effective range.

DECT standard uses the following frequency bands:
1.880 to 1.900 GHz in Europe
1.920 to 1.930 GHz (DECT 6.0) in the United States and Canada
1.893 to 1.906 GHz (J-DECT) in Japan

Other regions in the world may use different spectrum allocations. Please check the actual frequency band with your local authority.

Improving wireless signal strength

Users can improve the performance of the system through the following measures:
Ensure that there are no objects or walls between the Transmitter and the Receiver
Decrease the distance between the Transmitter and the Receiver
Don't place the Transmitter and the Receiver in different rooms
Don't place the Receiver in a closed area, like inside a cupboard (especially metallic).

3. System products

3.1. Hub Receiver

The Hub is a two-channel microphone receiver at the heart of the Plus system.
Manage your mics through the intuitive graphical UI, connect and monitor your systems
via API or utilize built-in Dante™ audio over IP

3.1.1. Hub operating elements and connections
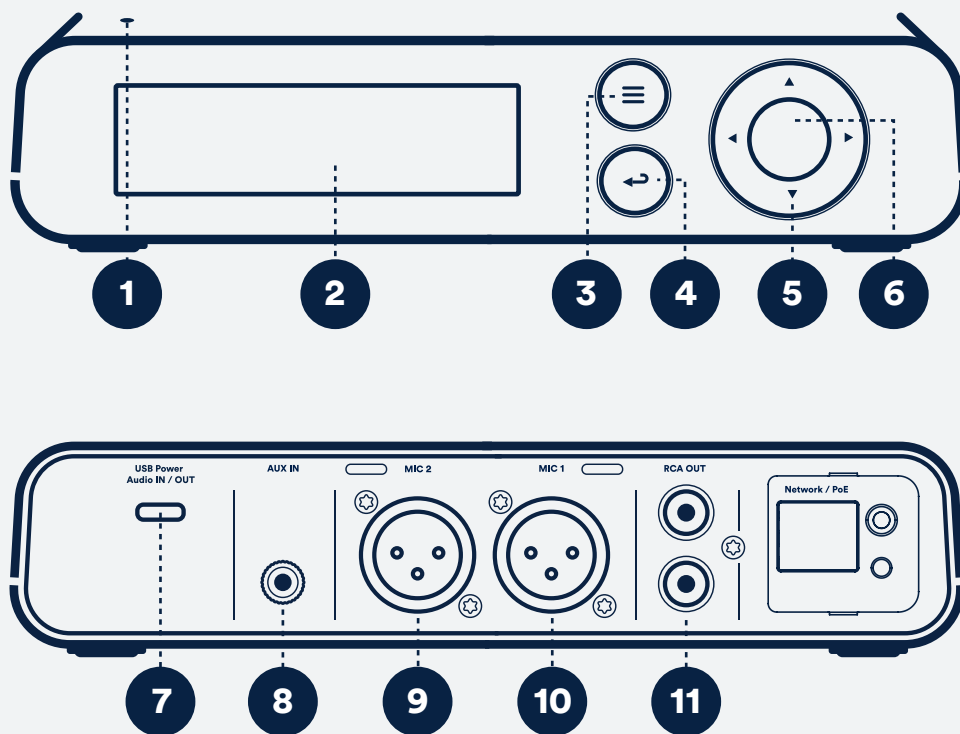
|	
1. Status LED	7. USB-C Power, Audio In/Out
2. Display	8. 3.5mm Auxiliary input
3. System menu	9. XLR Mic 2 Balanced audio output
4. Back button	10. XLR Mic 1 Balanced audio output
5. Navigation buttons	11. RCA Mixed Unbalanced audio output
6. Press to open or to confirm	

3.1.2. Hub connectivity

Turning on the Hub

Depending on your setup the Receiver will be powered by the included Power supply or by the computer's USB port. LED on the top surface will light up indicating the device is on.

Connecting the Hub to mixer, speakers or computer

For using each wireless channel separately use Balanced audio outputs Mic 1 and Mic 2.
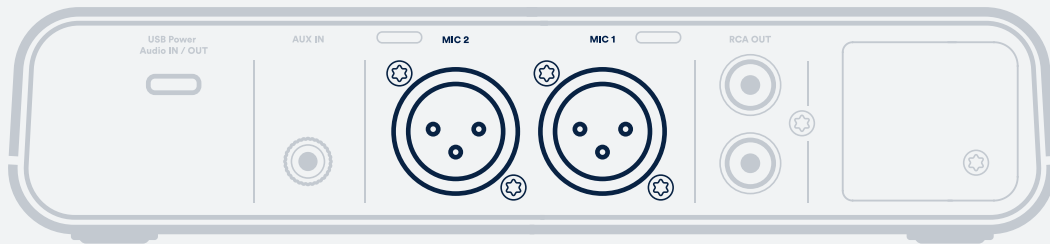
For using Mixed audio output use Unbalanced audio output RCA OUT. Mixed audio output mixes both wireless channels, Auxiliary-in and USB-In if the Catchbox Hub is selected as a Output device on your computer.
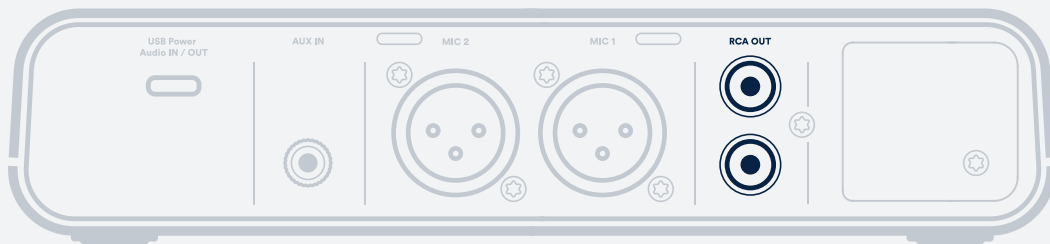
For using USB digital audio output use USB Audio Out output. Plug the USB data cable to the computer's USB port and on your computing device select Catchbox USB audio device as the input. USB out mixes both wireless channels and Auxiliary in channel.
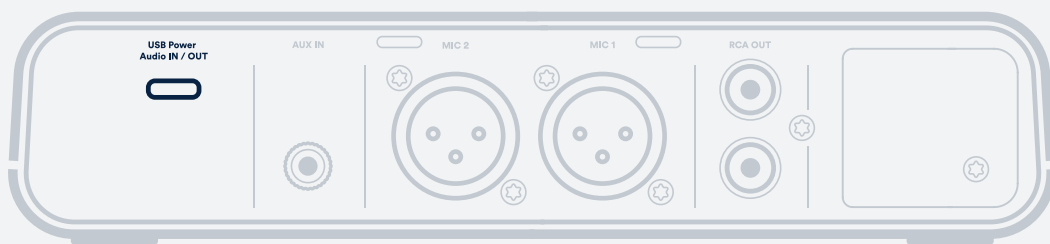
### 3.1.3. Hub status LED behaviour

Off	● ● ● ●	Not powered
Green	● ● ● ●	Power on, Transmitters paired to Hub
Amber	● ● ● ●	Power on, No transmitters connected to Hub
Amber blinking	● ● ● ●	In pairing mode

3.1.4. Hub displays

Hub screen displays are structured into Output and Input screens. Output screen gives an easy access to control volume levels for all of the outputs of the Hub and Input screen allows to manage wireless channel gain level and channel settings as well as gives an overview of other inputs
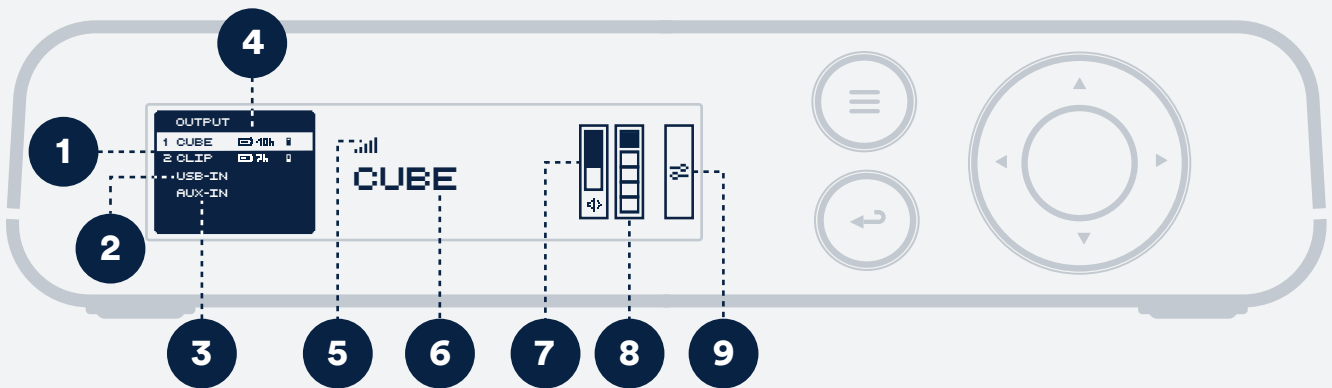
Output screen

The Output screen appears when the Hub is switched-on or after a long press of Back button.
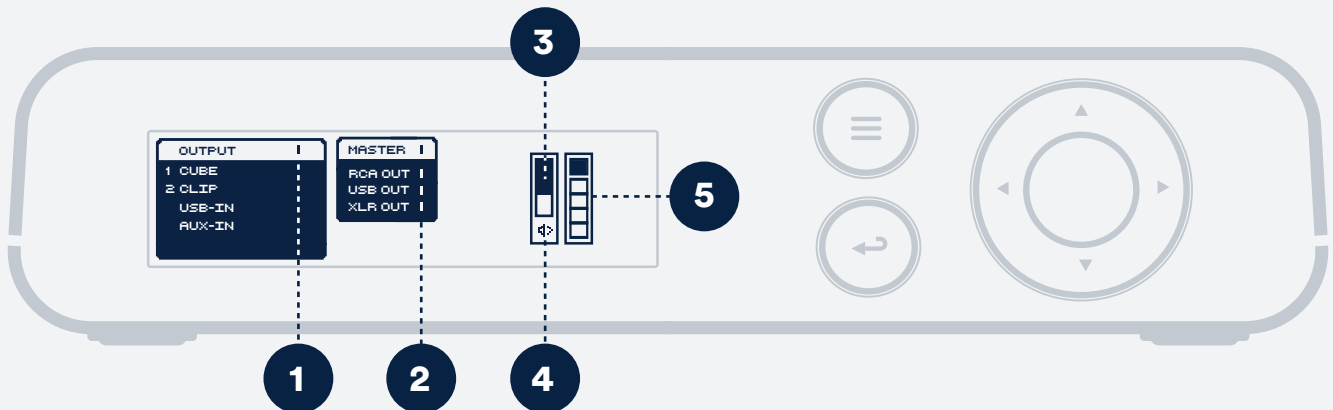
1. Audio level for a specific channel

2. Selected output

3. Selected output volume, press Confirm to Mute

4. Mute Icon

5. Audio level display

Input screen

The Input screen is default view for all of the possible inputs to the Hub.

1. Name of the paired transmitter

2. Appears if USB-IN in used with computer

3. Appears if Auxiliary in jack is used

4. Expected remaining battery life of the connected transmitter

5. 5-step display for the RF signal level

6. Name of selected Input channel

7. Gain for selected Input channel

8. Audio level display

9. Settings of selected Input channel

3.1.5. Hub menu Settings

Initiate pairing

Select the Wireless channel in which you want to pair a new Catchbox transmitter. Go into the channel setting, choose "Pairing" and activate it by selecting "Start".

Mute function

To activate Mute for any input or output channel select the desired channel and press Confirm button. To deactivate Mute on the selected channel, press Confirm once more.

Volume control

To control any input or output channel navigate to the desired channel and select the volume meter. For volume up press the Navigation button up and for volume down press the Navigation button down.

Stealth mode

To activate Stealth mode (disables buttons and display) press the System menu button, select System settings, Stealth mode, and confirm Activate. To disable the Stealth mode, press and hold the up and down Navigation buttons simultaneously.

3.2. Cube Transmitter

Make sure everyone can be heard and all participants can contribute to the conversation. The throwable cube microphone makes it easy to 'mic the whole room' in a dynamic, enjoyable and cost-effective way.

3.2.1. Cube operating elements and connections
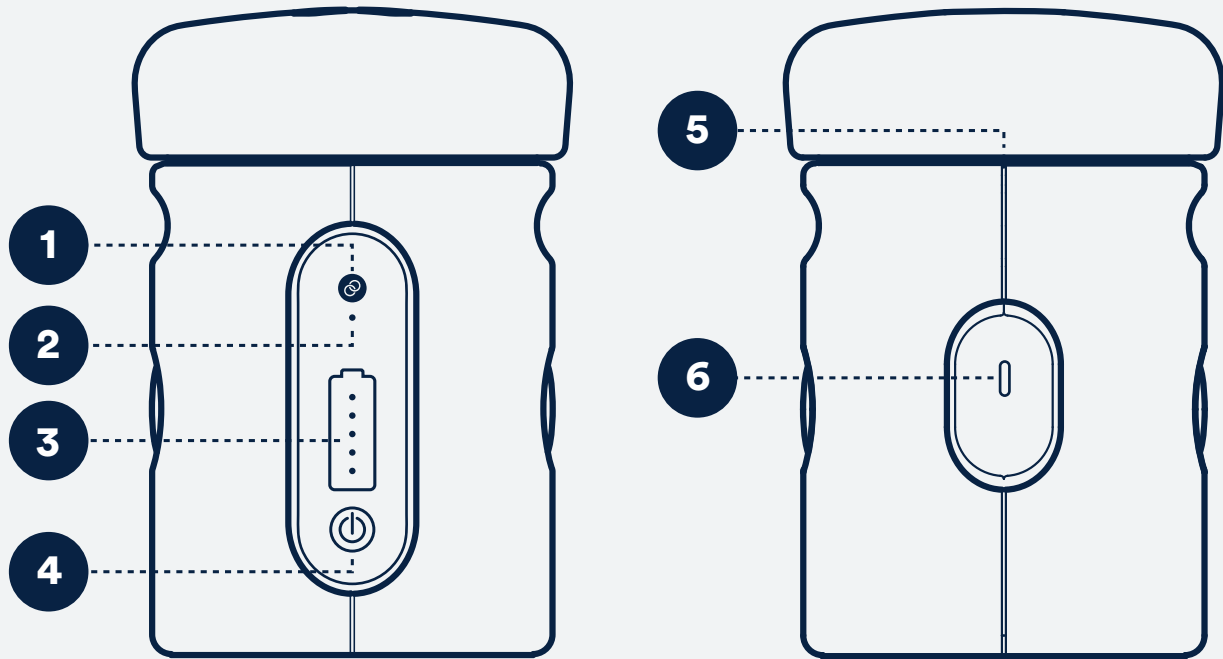
1. Pairing button - long press to initiate pairing

2. Link LED

3. Battery status LED's

4. Power button - long press for to turn transmitter on/off, short press for Battery life

5. Microphone element

6. Power jack (USB-C)

### 3.2.2. Cube Status LED behaviour

Off	○○○○	Not powered
Green	●●●●	Power on, Transmitters paired to Hub
Amber	●●●●	Power on, No transmitters connected to Hub
Amber blinking	●○●○	In pairing mode

3.2.3. Cube locking mechanism

The locking mechanism is composed of two magnets that attract each other when correctly aligned. Remove the Transmitter from the outer Cover by twisting it 90 degrees and pulling upwards. This motion will misalign the internal magnets and allow for easy removal of the Transmitter unit.
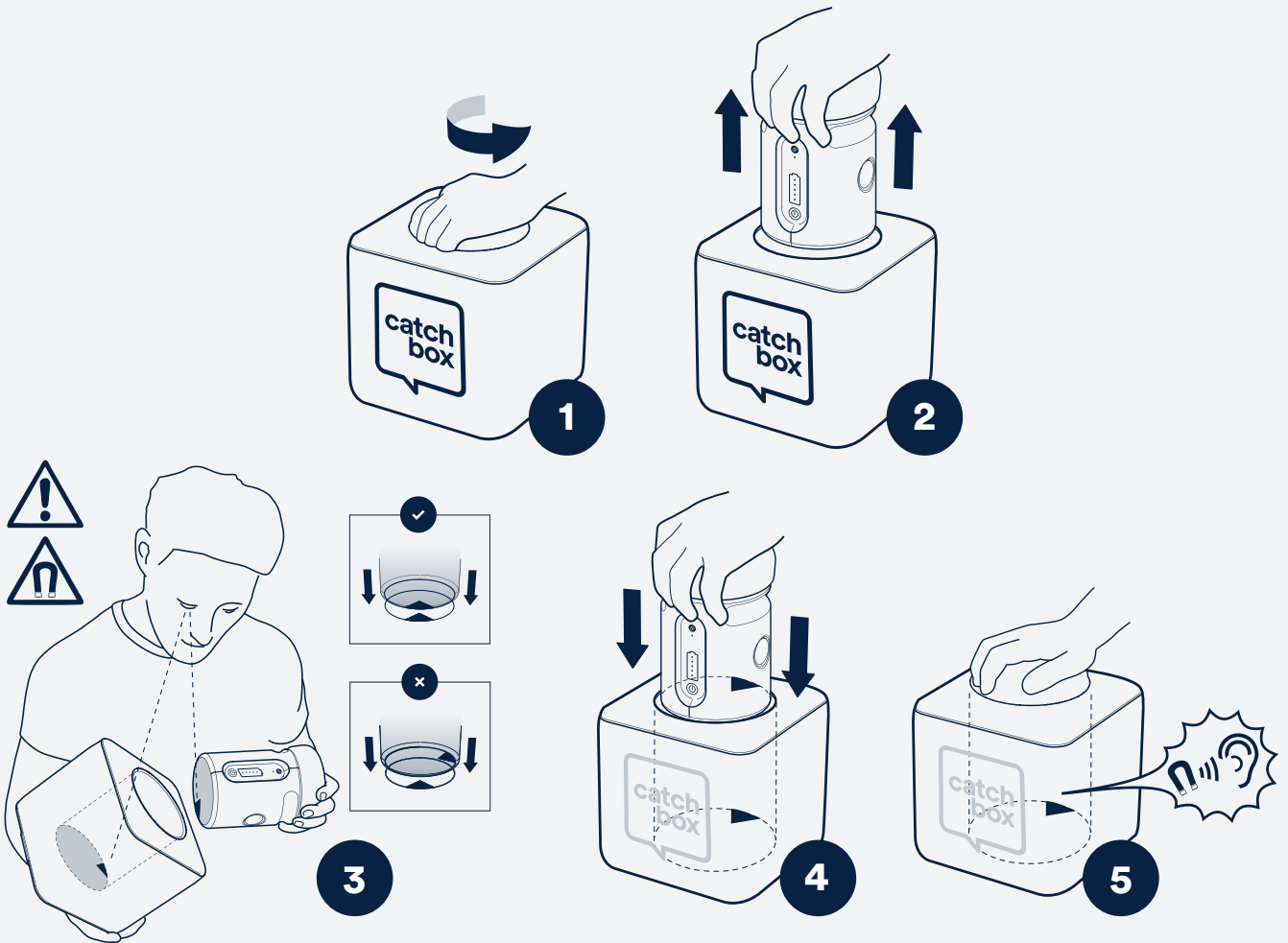
3.2.4. Using Cube

To use the Cube, simply speak into the foam cap located on top of the Transmitter. An optimal distance of 20 cm / 8 in will provide the clearest sound while not blocking the face of the person speaking.


20 cm/8"

Avoid using the Cube near louspeakers as this can cause audio feedback.

3.2.5. Charging Cube

Charging Cube with USB cable

Plug the Power supply to AC mains outlet and connect it to the USB-C socket located on the rear of the Transmitter. LEDs on the front of the Transmitter will light up indicating the state of charge of the battery. Blinking will indicate the charging process is ongoing. When all LEDs are steadily lit the battery is fully charged.
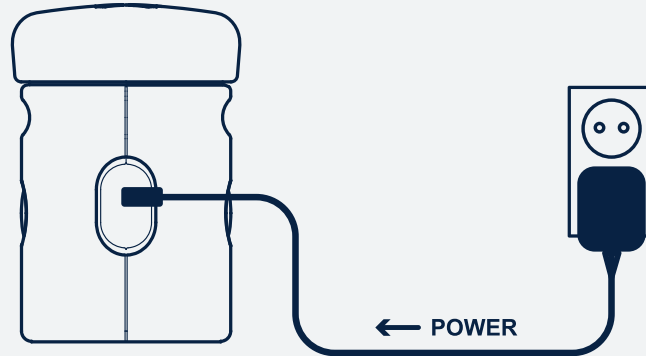
Charging Cube with Wireless Charger

Plug the included Power supply to AC mains outlet and connect it to the USB-C socket on the Wireless Charger. White LED on the Wireless Charger will turn on indicating that device is powered. Place the Cube (securely attached inside the Cover) in its natural position to start the charging. Always ensure there are no foreign objects located between the Cube and the surface of the Wireless Charger.
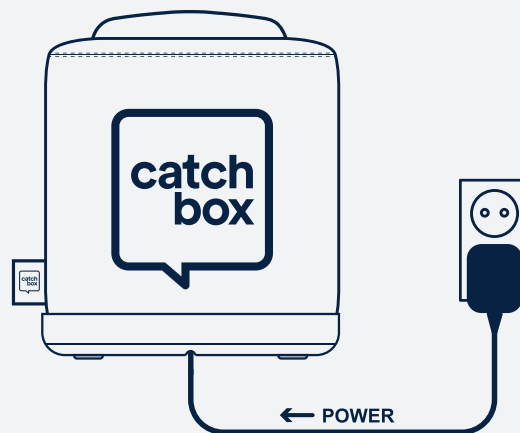
Wireless Charger is optimized for charging only Cube and will not charge other electronic devices such as mobile phones. Don't place electronic devices with the Wireless Chargers as doing so may damage the Wireless Charger and/or the device placed on it.

Always use the included Power supply to power the Wireless charger. Other devices may provide insufficient amount of power which will result in long charging time.
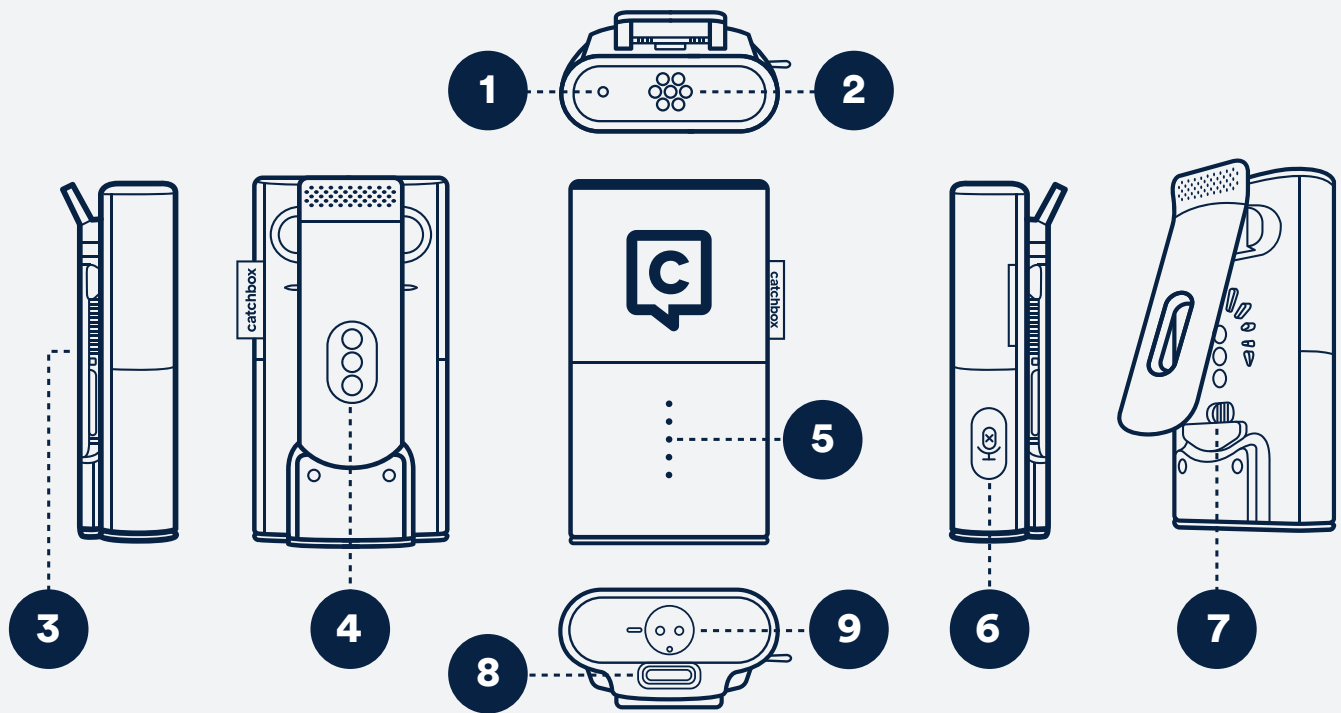
Wireless charger emits strong electromagnetic field which could affect the functioning of pacemakers and other electronic implants. These could stop working or switch into test mode, causing illness. If you wear these devices keep sufficient distance to device and warn others who wear these devices from getting too close to the device.

3.3. Clip Transmitter

Our innovative Clip microphone houses a powerful omnidirectional microphone in a compact, user-friendly design. Clip can be worn by a teacher or meeting leader to ensure seamless speech and powerful presentations.

3.3.1. Clip operating elements and connections

1. Status LED	**7. Power switch**
2. Microphone element	**8. Power jack (USB-C)**
3. Clip	**9. Battery compartment**
4. Charging pads	
5. Battery LED's	
6. Mute button	
a. If Mute button is pressed for 10 sec, pairing is initiated	

⚠️ This Clip contains magnets which could affect the functioning of pacemakers and other electronic implants. These could stop working or switch into test mode, causing illness. If you wear these devices keep sufficient distance to magnets. Warn others who wear these devices from getting too close to magnets.
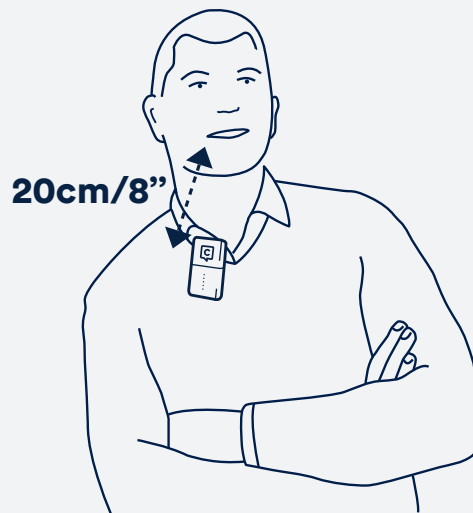
3.3.2. Clip Status LED behaviour

| Off	● ● ● ●	Not powered
Green	● ● ● ●	Power on, Transmitters paired to Hub
Amber	● ● ● ●	Power on, No transmitters connected to Hub
Amber blinking	● ● ● ●	In pairing mode

3.3.3. Using Clip

Wear it attached to clothing

To use the Clip, simply clip it on the collar or a lapel of clothing. An optimal distance of 20 cm / 8 in will provide the clearest sound.

20cm/8"

Wear it around your neck

To use the Clip with lanyard, simply slide the lanyard below the clip around your neck. An optimal distance of 20 cm / 8 in will provide the clearest sound.

20cm/8"
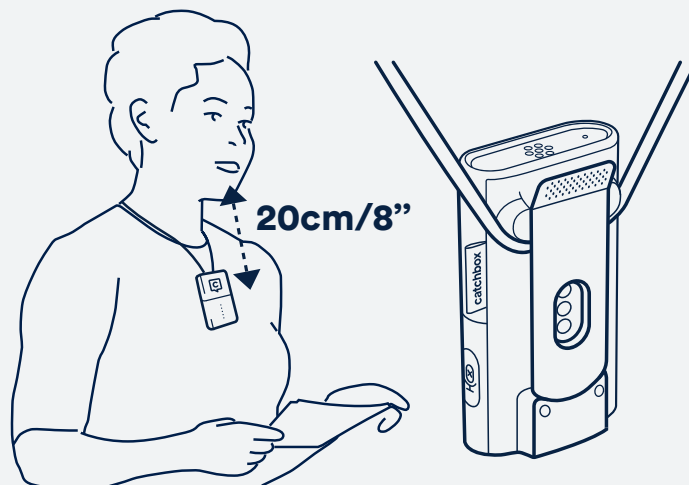
⚠ Use only the included lanyard with the Clip. Make sure the safety breakaway point is on the side of the lanyard or on the back of the neck of the user, so it can function properly.

3.3.4. Charging Clip

Charging Clip with USB cable

Plug the Power supply to AC mains outlet and connect it to the USB-C socket located on the bottom of the Clip. LEDs on the front of the Clip will light up indicating the state of charge of the battery. Blinking will indicate the charging process is ongoing. When all LEDs are steadily lit the battery is fully charged.

← **POWER**

4. Troubleshooting

Problem	Cause	Solution
No sound	1. The Transmitter and the Receiver are not paired. 2. The Transmitter or the Receiver is not powered. 3. Volume on the Receiver is on mute.	1. Pair the Transmitter and the Receiver units. 2. Turn on the Transmitter. Plug the Receiver into a wall socket and turn on. 3. Increase the volume level on the Receiver.
Audio signal dropouts or breaks	1. The Transmitter and the Receiver are located too far from each other. 2. There are obstacles in between the Transmitter and the Receiver.	1. Place the Transmitter and the Receiver closer to increase signal strength. 2. Place the Receiver unit in clear view of the Transmitter.
Distorted sound	1. Audio cable or adapter piece is broken or not properly attached. 2. Volume level is too high.	1. Check the audio cable connection and adapter piece. If problem persists, replace the cable and/or adapter. 2. Decrease the volume on the Hub.
Audio feedback	1. Transmitter is situated too close to the loudspeakers. 2. Volume level is too high.	1. Move the Transmitter further away from the loudspeakers. 2. Decrease the volume on the Hub.
Transmitter does not turn on	1. Battery level is critically low indicated by rapidly blinking LED.	1. Charge the Transmitter using the AC Power adapter.
Transmitter is not charging with the AC power adapter	1. AC Power adapter does not provide enough power. 2. Power cable is broken or not properly attached.	1. Use the included AC Power adapter. 2. Check the cable connection. If the problem persists replace the AC Power adapter.
Wireless Charger is not working	1. Wireless Charger is not powered. 2. Battery level of the Transmitter's battery is critically low.	1. Attach the power cable to the Wireless Charger. 2. Charge the Transmitter with the AC Power adapter.
Wireless Charger all LEDs are blinking	1. There is a foreign object between the Transmitter and the Wireless Charger. 2. Cube is not properly placed on the Wireless Charger. 3. The Transmitter is placed on the Wireless Charger without a Cover. 4. Transmitter has been heating up. 5. AC Power adapter does not provide enough power.	1. Remove the foreign object and place the Cube on the Wireless Charger. 2. Place Cube at the center of the Wireless Charger. 3. Place the Transmitter in Cover and place the Cube on the Wireless Charger. 3. Remove the Transmitter from the Cover and let it cool down. Check the ambient temperature in the room not to be above 30 degrees Celsius.

5. Maintenance, Storage, and Disposal

Proper maintenance and storage of the Catchbox Plus wireless system will help ensure the product remains operational and safe to use. Improper maintenance or storage, in turn, can lead to equipment failure which can cause serious injury during use. Always refer to this user manual for proper maintenance, storage, and disposal instructions and do not throw away this user manual. Always keep it near the product for reference by other users.

5.1. Cleaning

Clean the equipment with a moistened (not wet) cloth only. Be sure to disconnect the equipment from the power outlet before cleaning.

To clean the outer Cover, first remove the Transmitter unit from the inside. Only use dry cleaners and do not place the outer Cover in a washing machine. Always remember to inform cleaners that the device contains a magnet and should not be treated in temperatures in excess of 50 degrees Celsius or 122 degrees Fahrenheit or near equipment sensitive to strong magnetic fields.

5.2. Storage

Magnets produce a far-reaching, strong magnetic field. Keep magnets away from devices and objects that could be damaged by strong magnetic fields, like laptops and other electrical equipment.

Always store the product in temperatures between 0 to 50 degrees Celsius (32 to 122 degrees Fahrenheit).

Exposing this product to temperatures above 50 degrees Celsius or 122 degrees Fahrenheit will cause the locking mechanism to fail permanently. This, in turn, will cause the Transmitter capsule to fall out of the Cover during use, potentially leading to personal injury or property damage.

Do not place the equipment near heat sources such as heating ducts or radiators and do not expose it to direct sunlight, excessive dust, moisture, rain, mechanical vibrations, or shock.

Do not use or store near water. If the equipment comes into contact with a liquid, disconnect the power cable from the power outlet immediately.

5.3. Disposal

To dispose of a broken or defective unit, send the unit back to the manufacturer or consult your local waste management professional.

5.4. Maintenance of the lithium-ion battery

This product contains rechargeable lithium-ion battery. Please follow these guidelines:
Do not open or modify Cube transmitter to access or replace the battery. If it is necessary to replace Clip battery, purchase the original lithium-ion battery from manufacturer or registered partners.

Do not damage or pierce the battery. It may lead to accumulation of hazardous gases and cause explosion or fire leading to injury and property damage.

Always carefully follow the instructions for charging the battery.

Do not expose the product to water or fire.

Always use the product in temperatures between 0 to 30 degrees Celsius (32 to 86 degrees Fahrenheit).

Rechargeable lithium-ion battery will gradually lose its capacity over time resulting in decreased operation time for the product.

Typical estimated life time of a lithium-ion battery is about three years or 500 cycles of full discharge whichever happens first.

Do not leave the battery unused for extended periods of time. Charge the battery every 6 months. It is advisable to charge the battery to approximately 50% prior storage.

To dispose of an old battery send the product back to the manufacturer or consult your local waste management professional.

6. Certification

Catchbox Plus system consists of:
Catchbox Cube (Model #:CBPLTX002)
Catchbox Clip (Model #: CBPLCL001)
Catchbox Hub (Model #: CBPLRX002)
Catchbox Wireless Charger (Model #: CBWCH002)

Catchbox Cube (Model #:CBPLTX002)
Catchbox Clip (Model #: CBPLCL001)
Catchbox Hub (Model #: CBPLRX002)

All 3 products contain a pre-certified DECT module and meets the essential requirements of the
European RED directive 2014/53/EU and is found to comply with the following standards:
EN 301 406 V2.2.2
EN 303 417 V1.1.1
EN 55032:2015 & EN 55035:2017
EN 301 489-3 V2.1.1 & ETSI EN 301 489-6 V2.2.0 (ETSI EN 301 489-1 V2.1.1)

Certified under FCC CFR 47 Part 15 Subpart D.
FCC ID: AP8U-CBDECTRF001
Certified under IC in Canada under ISED RSS-213 Issue 3, ISED RSS-GEN Issue 4.
IC: 11942A-CBDECTRF001

Catchbox Wireless Charger (Model #: CBWCH0002)

Product meets the essential requirements of the European RED directive 2014/53/EU and is found
to comply with the following standards:
EN 301 406 V2.2.2
EN 303 417 V1.1.1
EN 55032:2015 & EN 55035:2017

Certified under FCC CFR 47 Part 15 Subpart D.
FCC ID: 2AP8UCBWCH0001
Certified under IC in Canada under ISED RSS-213 Issue 3, ISED RSS-GEN Issue 4.
IC: 11942A-CBWCH0001