



ReSound GN

ReSound Micro Mic

User guide

GN Making Life Sound Better

Welcome

Congratulations on your purchase of a ReSound Micro Mic. The Micro Mic is a high quality portable speech and audio streamer that streams speech and audio directly to your hearing instrument.

Please read this manual carefully to fully benefit from the Micro Mic. Ask your hearing care professional if you have any questions.

For further information you can also visit the www.resound.com

For your safety, carefully read the chapter Important Information, starting on page 29.

Model: SM-2M

FCC ID : X26SM-2M

Statement:

This device complies with Part 15 of the FCC Rules and ISED Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and ISED rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help. Changes or modifications can void the user's authority to operate the equipment.

Intended Purpose

The ReSound Micro Mic is intended to be a wireless remote microphone for wireless ReSound hearing aids.

The remote microphone is placed close to a person or a sound source and sends the voice or sound directly to the hearing aid.

Target group/user profile

The Micro Mic is intended to be used by lay persons.

Therapeutic indications

The accessory has no therapeutic indications in itself.

Contra-indications

No known contra-indications.

This product is in compliance with the following regulatory requirements:

In EU: The device conforms to the General Safety and Performance Requirements according to Annex I of the EU Medical Device Regulation 2017/745 (MDR).

Hereby GN Hearing A/S declares that the radio equipment type SM-2M is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.declarations.resound.com

In US: FCC CFR 47 Part 15, subpart C

In Canada: IC 6941C-SM2M

Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

For other identified applicable international regulatory requirements in countries outside EU and US, please refer to local country requirements for these areas.

In JP: Japanese Radio Law and Japanese Telecommunications Business Law Compliance.

This device is granted pursuant to the Japanese Radio Law (電波法) and the Japanese Telecommunications Business Law (電気通信事業法). This device should not be modified (otherwise the granted designation number will become invalid).

Contents

Welcome	2
Statement	3
Intended Purpose	4
Description	8
Getting Started	10
Turning your Micro Mic ON and OFF.	12
Pairing to your hearing instruments.	12
Start streaming	15
Stop streaming	16
Wearing the Micro Mic	18
Status light indicator (LED)	20
Volume control and mute	22
Mute light indicator	24
Special features	24
Test mode.	26
Important Information	28
General warnings	29

General precautions	30
Built-in battery care	32
Battery warning.	33
Charger care.	34
Charger warning	34
Technical specifications	36
Temperature test, transport and storage information	36
Warranty	36
What is covered by this warranty?	37
What is not covered by the warranty.	37
Troubleshooting guide	38

Description

- 1 Power button
- 2 Microphone inlet
- 3 Microphone inlet
- 4 Status light indicator (LED)
- 5 Micro USB for charging



- 6 Volume down
- 7 Mute button
- 8 Volume up
- 9 Mute light indicator (LED)
- 10 Paring button
- 11 Mounting clip



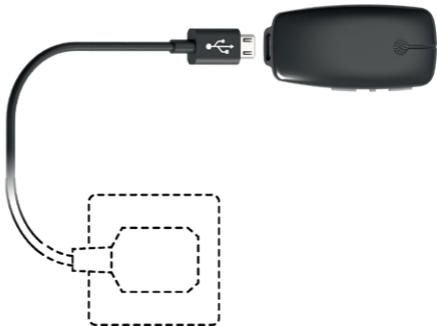
Getting Started

Before using your Micro Mic, you need to charge the rechargeable battery. To charge it, plug the charging cable into the Micro Mic as shown in the picture below.

Next, plug the other end of the charging cable into the charger and into a power outlet.

During the charging process, the status LED indicator will show a solid red light. When fully charged and still connected to the charger, the LED will turn solid red, interrupted by a green blink every 2 seconds.

Charging an empty battery typically takes about 3 hours. It is safe to leave the charger connected overnight – the battery cannot be overcharged.



- When charging your Micro Mic for the first time, let it charge for at least 3 hours, even if the battery indicator indicates that the battery is fully charged.
- For safety reasons, recharge the battery only with chargers supplied by ReSound.



Note: To protect the Micro Mic when not in use, please place it in carrying pouch delivered with the product.



Do not charge the Micro Mic while it is on your body.

Turning your Micro Mic ON and OFF

To turn the Micro Mic ON, press and hold the Power button (see page 8) for approximately 1.5 seconds, until the status LED turns green. After releasing the Power button, the status LED will blink green every 2 seconds.

To turn the Micro Mic OFF, press and hold the ON/ OFF button for approximately 1.5 seconds, until the status LED turns red – indicating that the unit is shutting down.

If the battery level is low, the status LED will blink orange once every second.

Pairing to your hearing instruments



Note! The following information is primarily intended for your hearing care professional, who in most cases will complete the necessary tasks needed before the Micro Mic can be used with your hearing instruments. However, the process is designed to be simple and most people can do it themselves.

It is possible to pair up to three ReSound streaming devices - e.g. one Micro Mic and two TV streamers (optional Unite™ accessory) - with a given pair of hearing instruments. Therefore, channel 1, 2 or 3 must be selected when starting the pairing process.

Pairing the Micro Mic in channel 1

1. Make sure the Micro Mic is turned ON. Your hearing instruments must be OFF – open the battery doors.
2. With the tip of a pen or similar object, press the small pairing button once, as shown in the picture to the right. The status LED will now blink orange once every 2 seconds to indicate that the Micro Mic is ready to be paired in channel 1. Your Micro Mic will remain in Pairing mode for 20 seconds.







3. While in Pairing mode, close the battery doors on both hearing instruments and make sure they are ON. A successful pairing will be indicated by an audible melody being played in both hearing instruments and the status LED (see page 8) will stay solid orange for 3 seconds. You are now ready to use the Micro Mic!

Pairing the Micro Mic in channel 2 or 3 (For people using more than one streaming device)

To pair the Micro Mic in channel 2, press the pairing button twice. The status LED will now blink yellow twice every 2 seconds to indicate that it is ready to be paired in channel 2. Close the battery doors on the hearing instruments.


To pair the Micro Mic in channel 3, press the pairing button three times. The LED will now blink yellow three times every 2 seconds to indicate that it is ready to be paired in channel 3. Close the battery doors on the hearing instruments.

Pairing blinking pattern:

Pairing button pushes	Light indicator pattern	Channel
1		1
2		2
3		3
Successful pairing indication		

Start streaming

Turn ON the Micro Mic and make sure your hearing instruments are turned ON. Streaming can be started in one of three ways.

1. Press and hold the push or toggle button on both hearing instruments for about three seconds in order to listen to a streamed audio signal*. If ear to ear program coordination is activated in you hearing instruments, you only have to activate streaming on one of the hearing instruments.
2. If you have a ReSound Unite™ Remote Control (optional accessory), simply press the streaming button  on the Remote Control*.
3. If you use a ReSound app offering remote control functionality, simply select the Micro Mic program in the program screen*.

*Once the hearing instruments connect to the Micro Mic, a short “streaming activation” melody will play in your hearing instruments followed by the streamed sound.

Start streaming from a 2nd or 3rd streaming device

If your hearing instruments are paired to more than one streaming device, you can start streaming from one of these devices in three ways.

1. Press and hold the hearing instrument program button for about 3 seconds two or three times in a row to access the 2nd or 3rd ReSound streaming device.
2. If you use a Unite™ Remote Control (optional accessory), press the streaming button on the Unite™ Remote Control a 2nd or 3rd time to access the 2nd or 3rd ReSound streaming device.
3. If you use a ReSound app offering remote control functionality, simply select the desired streaming program in the program screen.

Stop streaming

Streaming can be stopped in the following three ways:

1. Push the program button on your hearing instruments once*.
2. If you have a ReSound Unite™ Remote Control (optional accessory), press the “P” button, located in the center of the keypad*. You may also press the home button to return to your default settings.
3. If you use a ReSound app, select the desired program in the program screen.

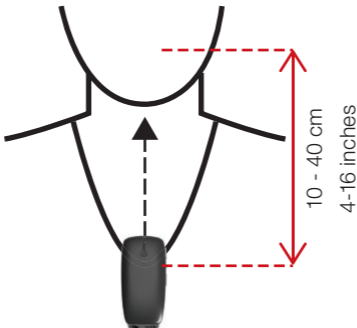
*This will return the hearing instruments to the last program used.



Note! You may get out of range from your Micro Mic. If your Micro Mic gets out of range and in range again within 5 minutes, your hearing instruments will automatically reconnect and continue streaming. This also applies if the Micro Mic is turned off and on again within 5 minutes.









Wearing the Micro Mic















Clip your Micro Mic on the speaker's jacket or other clothing or hang it around the neck using included the lanyard. Place the device within a range of 10-40cm (4-16 inches) from the speaker's mouth. When using the clip, make sure that the Micro Mic is mounted vertically with the Status LED pointing towards the mouth.



Status light indicator (LED)

The LED on your Micro Mic serves as a multipurpose user interface, providing information on the status of your device.

Power/Charging	No charging
Powered Off	
Powered On (Normal)	
Powered On (Volume control disabled)	
Powered On (Low battery)	
Powered On (Low battery) (Volume control disabled)	
Volume control locked or unlocked (See page 24)	
Turning power ON indication	 3 seconds
Turning power OFF indication	 3 seconds
Test mode (See page 26)	 Constant lit

Charging	Fully charged
	
	
	
No LED indication	No LED indication
No LED indication	No LED indication
	
 3 seconds	 3 seconds
 3 seconds	 3 seconds
 Constant lit	 Constant lit

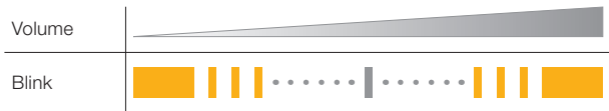
Volume control and mute

Volume control

Micro Mic is designed to provide a comfortable listening level from the moment it is activated. However, for some devices or listening environments you may want to adjust the volume. This can be accomplished in a variety of ways. Keep in mind that volume adjustments apply to the streamed signal only.

- Use the “+” and “-“ buttons (see page 9) to adjust volume to a comfortable level.

Every volume change on the on the Micro Mic will be indicated by a short blink of the Mute LED. When reaching the maximum or minimum volume level the Mute LED will show a longer (1 second) steady orange light.





Note: The Micro Mic will revert to its default level when re-started.

The Resound Unite™ Remote Control (optional accessory) can also be used to adjust the streaming volume in the hearing instrument. Please ask your hearing care professional for more information about this accessory.


Mute

The signal from the Micro Mic can be muted, should the wearer of the device want to engage in conversations or activities irrelevant for the hearing instrument user.

- To mute the signal press the Mute button (see page 9) once. The Mute LED will now start blinking orange.
- To unmute the signal press the Mute button once. The Mute LED will now stop blinking orange.

Note: Restarting the Micro Mic, while muted, will unmute the signal.

Mute Light indicator

Configuration/Blinking pattern	Mute Light indicator
Normal Operation (Unmuted)	
Normal Operation (Muted)	

Special features

Drop detection

In the event that the Micro Mic falls from a height of more than 75 cm (30 inches), a built-in sensor will mute the output streamed to the hearing instruments for up to 2 seconds. This is done to protect the hearing instrument user from very loud and unpleasant impact noise should the unit be accidentally dropped during use.

Volume control lock

If needed, the volume of the Micro Mic can be locked to a specific level.

When the volume control is locked, it will be fixed to the level it had when the Micro Mic was powered OFF, but it is still possible to use the mute/unmute functionality of the device.

How to lock the volume control

- Make sure the Micro Mic is turned OFF.
- Press and hold the volume ‘-’ button and the Power ON button for 1.5 seconds until the status LED turns green (Micro Mic powering up) and release the Power button.
- Keep pressing the volume ‘-’ button until a green-orange-red LED sequence is shown on the status LED after 10 seconds.

The status LED will now blink twice every 2 seconds to indicate that the volume control is locked.

How to unlock the volume control

- Make sure the Micro Mic is turned OFF.
- Press and hold the volume ‘+’ button and the Power ON button for 1.5 seconds until the status LED turns green (Micro Mic powering up) and release the Power button.
- Keep pressing the volume ‘+’ button until a green-orange-red LED sequence is shown on the status LED after 10 seconds.

Test mode

The Test mode is primarily intended to be used for pediatric transparency measurements. The transparency measurement evaluates if the hearing instrument and wireless (remote) microphones provide equal outputs when presented with the same 65 dB SPL input stimulus.

When in Test mode the microphone is set to omnidirectional mode with 0 dB gain when placed horizontally in the test chamber. Please refer to relevant guidelines for performing transparency measurements.

How to enter Test mode:

- Make sure the Micro Mic is turned OFF.
- Press and hold the Mute button and the Power button for 1.5 seconds until the status LED turns green and then release the Power button.
- Keep pressing the Mute button until the green-orange-red sequence is shown on status LED after 10 seconds.
- When in Test mode the Status LED (see page 8) will be solid orange.
- When entering Test mode the default volume is applied. If needed, volume can be adjusted on the Micro Mic until transparency has been verified.

- To exit Test mode and save settings turn off the Micro Mic and lock the volume control (see Volume control lock section in the Special features chapter).



Note: Adjustments to reach transparency can be made on the Micro Mic and/or in the hearing instrument using the fitting software.

Important Information

Maintenance and Care

- Clean the Micro Mic using a dry cloth. Never use household cleaning products (washing powder, soap etc...) or alcohol to clean the device.
- When the Micro Mic is not in use, turn it OFF and store it safely.
- Protect the Micro Mic from excessive moisture (bathing, swimming) and heat (radiator, car dashboard).
- Protect it from excessive shock and vibration.
- Protect the microphone and charger inlets from debris and dirt. If necessary, use the cleaning brush provided with your hearing instruments to clean these areas.

General warnings

- Keep this device out of reach of children under 3 years.
- Young children can wrap cords and lanyards/key chains around their neck causing the risk of strangulation. Therefore, always keep cords and lanyards/key chains out of reach of children.
- The Micro Mic may be interfered by other equipment.
- Micro Mic uses low-powered digitally coded transmissions in order to communicate with other wireless devices. Although unlikely, nearby electronic devices may be affected. In that case, move the Micro Mic away from the affected electronic device.
- When using Micro Mic and the device is affected by electromagnetic interference, move away from the source.
- Avoid exposing your product to rain, moisture or other liquids to protect against damage to the product or injury to you.
- Keep the product and any cords and cables away from operating machinery.
- If the product overheats, if the product is dropped or damaged, if the product has a damaged cord or plug, or if the product is dropped in a liquid, discontinue use and contact your hearing care professional.

- Do not use in areas where there are explosive hazards or where there is a danger of ignition of flammable gasses.



General precautions

- Do not use this device in locations where it is forbidden to use electronic devices.
- X-ray radiation (e.g. CT scans, MRI scans) may adversely affect the correct functioning of this device. We recommend that you switch the device OFF before undergoing X-ray procedures and keep it outside the room.
- High-powered electronic equipment, larger electronic installations and metallic structures may impair and significantly reduce the operating range.
- If the hearing instruments do not respond to the device because of an unusual field disturbance, move away from the disturbing field.
- Your hearing instruments and this device were given a unique communication code during the fitting. This ensures that the device will not affect hearing instruments worn by others.
- Do not make any changes or modifications to this device.
- Opening the Micro Mic may damage it. If problems occur which cannot be resolved, consult your hearing care professional.

- Micro Mic may only be repaired by an authorized service center.
- Do not use Micro Mic in areas where RF transmission is prohibited, e.g. air planes etc.
- Do only connect Micro Mic to connections, which it is explicitly intended for.

Built-in battery care



Please observe the following if the product contains a battery

- Your product is powered by a rechargeable battery.
- The full performance of a new battery is achieved only after two or three complete charge and discharge cycles.
- The battery can be charged and discharged hundreds of times, but will eventually wear out.
- Unplug the charger from the electrical plug and the product when not in use.
- If left unused, a fully charged battery will lose its charge over time.
- Leaving the product in hot places, such as in a closed car during hot summer conditions, will reduce the capacity and lifetime of the battery.
- A product with a cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Battery warning

- "Caution" – The battery used in this product may present a risk of fire or chemical burn if mistreated.
- Do not attempt to open the product or replace the battery. It is built-in and not changeable. Use of other batteries may present a risk of fire or explosion and the warranty will be terminated.
- The battery in your product can not be removed or replaced by the user. Any attempt to do so is risky and may result in damage of the product.
- Only recharge the Micro Mic with a power supply unit that has been supplied together with the product.
- Dispose of batteries according to local regulations. Please recycle when possible.
- Do not dispose the battery as household waste or in a fire as it may explode.
- Batteries may explode if damaged.

Charger care

Please observe the following if the product is supplied with a charger

- Do not attempt to charge your product with anything other than the AC adapter provided. The use of any other types may damage or destroy the product and could be dangerous.
- Use of other chargers may invalidate any approval or warranty.
- For availability of approved enhancements, please check with your hearing care professional.
- Charge the product according to the instructions supplied with the product.

Charger warning

Use the device only with the power supply unit that has been supplied together with the product. The use of any other types may damage or destroy the product and could be dangerous. Use of other power supplies may invalidate any approval or warranty.

- When you disconnect the power cord, grasp and pull the plug, not the cord.

- Never use a power supply that is damaged.
- Do not attempt to disassemble the power supply as it may expose you to dangerous electric shock.
- Incorrect reassembly can cause electric shock or fire when the product is subsequently used.
- Avoid charging your product in extremely high or low temperatures and do not use the charger outdoors or in damp areas.



Do not charge the Micro Mic while it is on your body.

Technical specifications

Operating range:	Up to 25 meters (Clear line of sight)
Power supply:	External wall adapter
Wireless:	2.4 GHz
Operating and charging temperature:	0 to 45 °C
Storage temperature:	-20 to 45 °C

Temperature test, transport and storage information

The product is subject to various tests in temperature and damp heating cycling between -25 °C and +70 °C according to internal and industry standards.

Warranty

The Micro Mic is covered by a limited warranty issued by the manufacturer for a period of 12 months from the day of the original purchase. Please notice that extended warranties may apply in your country. Please contact your local Hearing Care Professional for more information.

What is covered by this warranty?

Any electrical component, that because of workmanship, manufacturing or design defects fails to function properly under normal use during life of this warranty will be replaced or repaired at no charge for parts or labor when returned to the point of purchase. If it is determined that repair is not feasible, the entire unit may be replaced with an equivalent unit upon mutual agreement of the Hearing Care Professional and the customer.

What is not covered by this warranty?

Problems arising from improper handling or care, excessive use, accidents, repairs made by an unauthorized party, exposure to corrosive conditions or damage due to foreign objects entering the device are NOT covered by the limited warranty and may void it. The above warranty does not affect any legal rights that you might have under applicable national legislation governing sale of consumer products. Your Hearing Care Professional may have issued a warranty that goes beyond the clauses of this limited warranty. Please consult your Hearing Care Professional for further information.

Serial number: _____

Date of purchase: _____

TROUBLESHOOTING GUIDE

Symptom	Possible cause
The Micro Mic does not turn ON	The Power button is not pressed long enough
	The Micro Mic has run out of power
The Micro Mic does not turn OFF	The Power button is not pressed long enough
Volume cannot be changed using the Micro Mic volume control	The volume control on the Micro Mic may have been locked to a specific level
There is no sound in the hearing instruments although switched into in the streaming program	The Micro Mic and the hearing instrument are out of wireless range
	The Micro Mic is no longer powered on
	The Micro Mic has run out of power
	The Micro Mic is muted

Possible Remedy

Press the Power button for a least 1.5 seconds - until the status LED lights green for 3 seconds

Charge the battery in the Micro Mic

Press the Power button for a least 1.5 seconds - until the status LED lights green for 3 seconds

Unlock the volume control (see Volume control lock chapter)

Assure that Micro Mic and the hearing instruments are within wireless range

Power on the Micro Mic and activate streaming again

Charge the battery in the Micro Mic

Unmute the Micro Mic

TROUBLESHOOTING GUIDE

Symptom	Cause
The push button on the hearing instrument is pressed for more than 3 seconds but with no effect at all	The Micro Mic and hearing instruments have not been paired
When the pairing sequence times out, no pairing melody is played in the hearing instrument	The Micro Mic and the hearing instrument are not within wireless range
	The Micro Mic and the hearing instrument have not been simultaneously in pairing mode
One or both hearing instruments drop out of the streaming program	The battery in one or both hearing instrument are so depleted that they no longer supports audio streaming

Possible Remedy

Go through the pairing process

Assure that the Micro Mic and hearing instruments are within wireless range and repeat pairing process

Repeat pairing process and assure that the battery doors on both hearing instruments are closed within 20 seconds after the pairing button has been pressed on the Micro Mic

Replace the battery in the hearing instrument with a fresh one, and activate streaming again

TROUBLESHOOTING GUIDE

Symptom	Possible Cause
The sound level from the Micro Mic is very low	The Micro Mic is not worn correctly by the speaker
	The sound received by the microphone is very low

Possible Remedy

Clip the Micro Mic on the speaker's jacket or other clothing or hang it around the speaker's neck using the lanyard, placing the device within 10-40 cm (4-16 inches) from the speaker's mouth

Increase the volume using the "+" button on the Micro Mic

Be aware of information marked with the warning symbol



WARNING points out a situation that could lead to serious injuries.

CAUTION indicates a situation that could lead to minor and moderate injuries.



Advice and tips on how to handle your ReSound accessory better.



This device includes a RF transmitter that operates in the range of 2.4 GHz – 2.48 GHz.

Nominal RF output power transmitted is 14.3 dBm



Follow instructions for use.



Please ask your local hearing care professional concerning disposal of your Micro Mic.



Manufacturer.



Complies with ACMA requirements.

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ReSound is a trademark of GN Hearing A/S.



Manufacturer according to EU Medical Device Regulation 2017/745:



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Any serious incident that has occurred in relation to the device should be reported to the Legal manufacturer GN Hearing A/S and the competent authority of the EU Member State in which the user and/or patient is established.