# SURFLINK®

System includes: SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter



#### OPERATIONS MANUAL

IMPORTANT: SurfLink Mini Mobile Adapter is ONLY compatible with SurfLink Remote Microphone 2.

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## Introduction

The **SurfLink Mini Mobile** system includes both the SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter. Prior to use, both products will need to be separately set up. The SurfLink Remote Microphone 2 will be synced to your hearing instruments. The SurfLink Mini Mobile Adapter will be paired to your Bluetooth device.

The **SurfLink Remote Microphone 2** is designed to stream remote microphone audio directly to your 900MHz wireless hearing instruments. When worn by a distant speaker in noisy environments, SurfLink Remote Microphone 2 functions as an assistive listening device.

When **SurfLink Mini Mobile Adapter** is attached to SurfLink Remote Microphone 2, the resulting SurfLink Mini Mobile system is designed to stream audio from your Bluetooth device to your 900MHz wireless hearing instruments.

**Streaming** – Audio or sound transmitted from SurfLink Remote Microphone 2 to your 900MHz wireless hearing instruments.

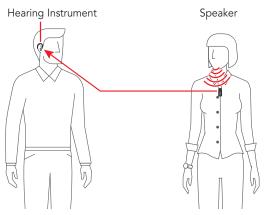
#### Package Contents

- SurfLink Remote Microphone 2
- SurfLink Mini Mobile Adapter
- USB-to-MicroUSB Charging Cable
- Wall Power Adapter
- Operations Manual

#### **Optional Accessories**

- Car Charger Adapter
- Lanyard

#### Typical Setup for SurfLink Remote Microphone 2



## SurfLink Remote Microphone 2 **Basic Use**

#### To guickly start using SurfLink Remote Microphone 2:

1. Power on Surfl ink Remote Microphone 2. Green LED appears for 2 seconds.



2. Press "Sync" icon on slider button for 5 seconds until LED starts rapidly blinking blue.



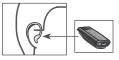
3. Open one hearing instrument battery door, insert battery and close battery door. Green LED pulses to confirm successful sync.

If you only have one hearing instrument, wait 20 seconds until red LED pulses.

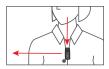


If you have two hearing instruments, open second hearing instrument battery door, insert battery and close battery door. Green LED pulses to confirm successful sync.

4. Each hearing instrument should automatically start streaming audio. Blue LED slowly pulses when audio streaming is active.



5. Have a speaker attach Surflink Remote Microphone 2 to their clothing, within 8 inches (20cm) of their mouth is recommended for best performance.



6. To stop streaming, turn off SurfLink Remote Microphone 2.



**Basic Use** 

#### To quickly start using SurfLink Mini Mobile:

 Ensure SurfLink Remote Microphone
 has been properly setup with your hearing instruments and is in powered on state.



2. Insert the male microUSB jack of SurfLink Mini Mobile Adapter into SurfLink Remote Microphone's female microUSB jack.



3. To turn on SurfLink Mini Mobile Adapter, press its push-button for 2 seconds and release when the green LED appears.



4. Put your Bluetooth device into pairing mode.

**NOTE**: Some devices may ask for the SurfLink Mini Mobile Adapter PIN, which is 0000.

5. While the green LED is slowly pulsing, double-click the pushbutton. The LED starts rapidly blinking blue, which puts SurfLink Mini Mobile Adapter into Bluetooth Pairing Mode.



6. On your Bluetooth device, select SurfLink Mini to complete the pairing process.

**Basic Use** 

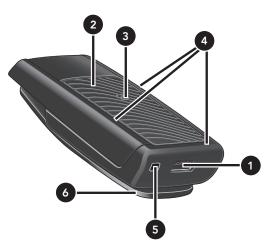
7. A green LED confirms a successful Bluetooth pairing.



- 8. To verify your setup, ensure LED is slowly pulsing blue and either:
  - Play music on your Bluetooth device
  - Have someone call your Bluetooth device
    - o When you hear the incoming call ringtone in your hearing instruments, briefly press and release the push-button on SurfLink Mini Mobile Adapter.
    - o Speak into SurfLink Mini Mobile Adapter microphone.
    - o To end the call, briefly press and release the push-button.

9. To turn off SurfLink Mini Mobile Adapter, press the push-button for 2 seconds and release it. The red LED briefly appears to provide confirmation.





## SurfLink Remote Microphone 2 **Controls Overview**

#### 1. MicroUSB Jack for Charging

Charging via Battery-Charging Cable.

#### 2. Power On/Off Slider

- Moving the slider towards the microUSB jack powers on SurfLink Remote Microphone 2.
- Moving the slider away from the microUSB jack powers off SurfLink Remote Microphone 2.

#### 3. Syncing

Establishes the relationship between SurfLink Remote Microphone 2 and hearing instruments.

#### 4. Built-In Microphones

Pick up sound and transmit to hearing instruments.

#### 5. LED Indicator

Identifies the current state of Surfl ink Remote Microphone 2.

#### 6. Clip

Affixes SurfLink Remote Microphone 2 to clothing, lanyard, etc.

### **Operation**

#### Low Battery and Charging

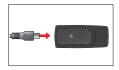
If SurfLink Remote Microphone 2 is on and enters a low battery condition, the LED slowly pulses red and provides an audible indicator tone to a hearing instrument. The indicator tone is distinctly different from the low battery indicator for a hearing instrument, so there is no confusion as to which is experiencing a low battery condition. Once SurfLink Remote Microphone 2 enters a low battery condition, the indicator tone will occur about every 5 minutes until SurfLink Remote Microphone 2 automatically shuts down, or until a power source is applied.

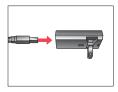
When SurfLink Remote Microphone 2 is attached to a power source, charging automatically begins. While SurfLink Remote Microphone 2 is off, the LED turns solid green during charging and turns off when fully charged. While SurfLink Remote Microphone 2 is on, the LED prioritizes streaming by slowly pulsing blue, but continues charging in the background. **TIP** – Charging SurfLink Remote Microphone 2 can take longer while streaming audio. Charging will be faster when the SurfLink Remote Microphone 2 is off.

#### **Typical Charging Method**

To charge the battery, attach the microUSB end of the charging cable to the microUSB jack on SurfLink Remote Microphone 2.

Attach the USB end of the charging cable to a female USB jack, such as found on a plugged-in wall power adapter, car charger adapter or computer.





#### Car Charger Adapter

The SurfLink Remote Microphone 2 can be charged using a car charger adapter. These adapters can be obtained from your hearing professional (ask for part #52869-000).



#### Power On/Off Slider

*Power On* – Move the slider toward the microUSB end to turn on. The LED turns green for 2 seconds to verify power is on.



Power Off – To stop streaming audio, move the slider away from the microUSB end until the brightly colored surface is exposed. The LED turns red for 2 seconds to verify power is off.



#### Syncing to Hearing Instruments

Syncing establishes a relationship between your hearing instruments and SurfLink Remote Microphone 2. For hearing instruments to receive streamed audio from SurfLink Remote Microphone 2, you must first sync the hearing instruments with SurfLink Remote Microphone 2. You only have to sync SurfLink Remote Microphone 2 with your hearing instruments once, as they will automatically link when both are powered on and they are within wireless operating range.

To put SurfLink Remote Microphone 2 into an active syncing state, press the "Sync" icon on the Power On/Off slider for 5 seconds until the LED starts rapidly



blinking blue. To sync a hearing instrument with SurfLink Remote Microphone 2, open your hearing instrument battery door, insert a battery, and close your hearing instrument battery door. The SurfLink Remote Microphone 2 remains in an active syncing state for up to 20 seconds (concluded by red LED blink), or until one hearing instrument is synced with it (confirmed by a green LED blink).

After a successful hearing instrument syncing, SurfLink Remote Microphone 2 continues in an active syncing state for another 20 seconds (concluded by red LED blink), or until the second hearing instrument is synced with it (confirmed by green LED blink).

After successful syncing, each hearing instrument should automatically start streaming audio. If syncing did not yield the desired result, then repeat the process.

To cancel syncing mode, turn off and then turn on SurfLink Remote Microphone 2.

The SurfLink Remote Microphone 2 can be synced with at most one left and one right hearing instrument at a time. When hearing instruments are synced with SurfLink Remote Microphone 2, any previously synced hearing instruments will be automatically deleted.

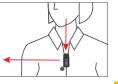
#### **Built-In Microphones**

Depending on SurfLink Remote Microphone's physical orientation, it automatically adjusts the microphone settings to either "Focus" (directional) or "Surround" (omni-directional).

**"Focus"** – When SurfLink Remote Microphone 2 is body worn, it automatically prioritizes sound from above while reducing sounds levels from other directions. This is useful for listening to a single speaker when background noise is present.

"Surround" – When SurfLink Remote Microphone 2 is placed horizontally (on its clip), it receives sound from all directions. This setting is useful for listening to multiple nearby speakers in quiet environments.

**TIP** – In noisy environments, move SurfLink Remote Microphone 2 as close as possible to sound source.



#### LED

The LED indicator provides helpful information about SurfLink Remote Microphone 2:

LED BEHAVIOR	SURFLINK REMOTE MICROPHONE 2 STATE
	• SurfLink Remote Microphone 2 is off and is not attached to a power source
Off	• If SurfLink Remote Microphone 2 is off and attached to a power source, then battery is fully charged.
	• If SurfLink Remote Microphone 2 appears on but is not operational, then battery may need charging.
Solid green	• Battery is charging and SurfLink Remote Microphone 2 is off
Green for 2 seconds	• SurfLink Remote Microphone 2 successfully powers on
Slow pulsing red	• Low battery state and SurfLink Remote Microphone 2 is on
Red for 2 seconds	• SurfLink Remote Microphone 2 powers off
Rapid blinking red	• Possible error condition, refer to Troubleshooting section
Slow pulsing blue	• SurfLink Remote Microphone 2 is streaming audio
Rapid blinking blue	• SurfLink Remote Microphone 2 is in active syncing state

#### How to Wear

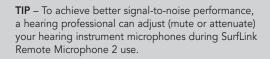
The SurfLink Remote Microphone 2 can be affixed to clothing or worn on a lanyard. For better performance, SurfLink Remote Microphone 2 should be within 8 inches (20cm) of the speaker's mouth.

**Clip** – Gently press the clip as shown. Slide clip opening onto clothing and release clip. Ensure SurfLink Remote Microphone 2 is securely affixed to clothing.

#### Lanyard (optional) -

- 1. Gently press the clip as shown.
- 2. Insert lanyard loop into clip opening and lift loop toward top of clip. Release clip. Ensure the lanyard is securely attached to SurfLink Remote Microphone 2.

Lanyards can be obtained from your hearing professional (ask for part #53262-000).



## Operation

#### **Streaming Audio**

After SurfLink Remote Microphone 2 powers on, it automatically begins streaming audio to synced hearing instruments. The LED slowly pulses blue to confirm that audio streaming is active and SurfLink Remote Microphone's battery is operational. When SurfLink Remote Microphone 2 is turned off, it automatically stops streaming audio.

The user can adjust streamed audio volume level via their hearing instruments. The SurfLink Remote Microphone 2 does not contain an integrated volume control.

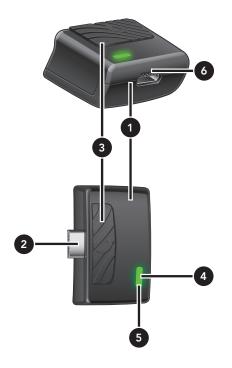
**TIP** – Try placing SurfLink Remote Microphone 2 near a television. To achieve a comfortable listening level, adjust the SurfLink Remote Microphone 2 distance from the television speakers or modify the television volume level.

#### Interoperability with Other Accessories

If you also use a SurfLink Mobile, then phone call streaming will take priority over the SurfLink Remote Microphone 2 audio stream. When a SurfLink Mobile phone call stream ends, SurfLink Remote Microphone's audio stream automatically returns to a hearing instrument.

SurfLink Remote Microphone 2 streamed audio is equal in priority to SurfLink Media streamed audio with preference being given to the first available audio source.

If you use a SurfLink Remote or SurfLink Mobile, then remote control commands will continue to be sent to your hearing instruments.



## SurfLink Mini Mobile Controls Overview

#### 1. SurfLink Mini Mobile Adapter

#### 2. Male MicroUSB Jack

Attaches SurfLink Mini Mobile Adapter to SurfLink Remote Microphone 2.

#### 3. Multi-Function Push-Button

Provides control over the operational state of SurfLink Mini Mobile Adapter.

#### 4. LED Indicator

Identifies the current state of SurfLink Mini Mobile Adapter.

#### 5. Built-In Microphone

Picks up your voice and transmits to caller during phone calls.

#### 6. Female MicroUSB Jack

Charges via battery-charging cable.

## **Operation**

#### Low Battery and Charging

If SurfLink Mini Mobile Adapter is on and enters a low battery condition, the LED slowly pulses red until it automatically shuts down, or until a power source is applied. When the Mini Mobile Adapter is attached to a power source, the LED becomes solid green and charging automatically begins. When power is on, the solid green LED will be interrupted by other LED behaviors. When the battery is fully-charged, the solid green LED turns off.

#### Typical Charging Method

Operation

To charge the battery, attach the microUSB end of the charging cable to the female microUSB jack on SurfLink Mini Mobile Adapter. Attach the USB end of the charging cable



to a female USB jack, such as found on a plugged-in wall power adapter, car charger adapter, or computer.

You can charge both SurfLink Mini Mobile Adapter and SurfLink Remote Microphone 2 at the same time while they are attached. While charging,



<sub>26</sub> you can stream audio for extended periods.

#### **Multi-Function Push-Button**

#### Powering On/Off

*Power On* – When power is off, press the push-button for 2 seconds and release it. The LED briefly turns green to verify power is on.

*Power Off* – When power is on, press the push-button for 2 seconds and release it. The LED briefly turns red to verify power is off.

#### **Bluetooth Pairing**

For SurfLink Mini Mobile Adapter to receive streamed audio from your Bluetooth device, you must first pair it. To start the Bluetooth pairing process, put your Bluetooth device into pairing mode. If you are unfamiliar with the Bluetooth pairing process, consult your Bluetooth device's operations manual.

To put SurfLink Mini Mobile Adapter into an active Bluetooth pairing state, ensure it is powered on and not Bluetooth-connected to other devices (the green LED will be slowly pulsing). Double-click the push-button so that the LED starts rapidly blinking blue. The Mini Mobile Adapter remains in an active pairing state for up to 60 seconds. When it appears, select the product name (SurfLink Mini) on your Bluetooth device. A green LED for 2 seconds confirms a successful pairing with the Bluetooth device while a rapid blinking red LED denotes an unsuccessful

Operation

pairing attempt. To cancel pairing mode on Mini Mobile Adapter, press the push-button for 2 seconds and release it, which powers off the Mini Mobile Adapter.

You only need to pair SurfLink Mini Mobile Adapter with your phone one time, as they should automatically Bluetooth connect when both are powered on and they are within wireless operating range. The Mini Mobile Adapter can be paired and connected with up to 2 Bluetooth devices at a time.

#### **Bluetooth Overview**

Bluetooth is a wireless communication technology used to transmit audio and data. To interoperate with SurfLink Mini Mobile, a Bluetooth-enabled device must support at least one of the following Bluetooth profiles:

- To make/receive phone calls, your Bluetooth device must support the "Hands-Free" (HFP) profile.
- To listen to music, your Bluetooth device must support the "Media" (A2DP) profile.

To enable Bluetooth communication, these processes must be completed:

Pairing – Establishes a relationship between a Bluetooth device and SurfLink Mini Mobile Adapter.

Connecting – Establishes the ability to actively stream audio from a previously paired Bluetooth device to your hearing instruments via SurfLink Mini Mobile Adapter.

#### Interacting with Phone Calls

The SurfLink Mini Mobile Adapter allows you to accept, reject, hang up, and transfer phone calls to/ from a Bluetooth connected phone.

**Accept** – When you hear the incoming call ringtone in your hearing instruments, briefly press and release the push-button on Mini Mobile Adapter.

**Reject** – When you hear the incoming call ringtone in your hearing instruments, press the push-button on Mini Mobile Adapter for more than 2 seconds. Release the button after the ringtone stops.

**Hang Up** – During an active phone call, briefly press and release the push-button on Mini Mobile Adapter.

**Transfer** – During an active phone call, press the push-button on Mini Mobile Adapter for more than 2 seconds to move the call from Mini Mobile Adapter to the phone. This allows you to directly conduct the call via the phone, if desired. Re-press the push-button for more than 2 seconds to move the call back to Mini Mobile Adapter.

During an active phone call, SurfLink Mini Mobile Adapter picks up your voice so that the caller can hear it during the conversation. In noisy environments, position Mini Mobile Adapter closer to your mouth.

#### Listening to Music or Other Streamed Audio

To receive music or other audio in your hearing instruments, simply play the audio on your Bluetooth connected device and it will be transmitted via SurfLink Mini Mobile. It is not necessary to press the push-button on SurfLink Mini Mobile Adapter.

#### Resetting

To reset SurfLink Mini Mobile Adapter back to factory settings, ensure it is powered on and not Bluetoothconnected to other devices (the green LED will be slowly pulsing). Double-click the push-button so that the LED starts rapidly blinking blue. Press the pushbutton for 12 seconds until LED starts rapidly blinking red. The Mini Mobile Adapter automatically turns off following a reset.

#### LED

The LED indicator provides helpful information about SurfLink Mini Mobile Adapter:

LED BEHAVIOR	SURFLINK MINI MOBILE STATE
Off	<ul> <li>Mini Mobile Adapter is off and is not attached to a power source.</li> <li>If Mini Mobile Adapter is off and is attached to a power source, then battery charging is complete.</li> </ul>
Slow pulsing green	• Mini Mobile Adapter is on, but not connected to Bluetooth device.
Green for 2 seconds	<ul> <li>Mini Mobile Adapter successfully powers on.</li> <li>Mini Mobile Adapter successfully pairs with Bluetooth device.</li> </ul>
Solid green	<ul> <li>Charging and power is off.</li> <li>When Mini Mobile Adapter is charging and power is on, then solid green will be briefly interrupted by other LED behaviors.</li> </ul>
Slow pulsing red	• Low battery state and Mini Mobile Adapter is on.
Red for 2 seconds	• Mini Mobile Adapter powers off.
Rapid blinking red	<ul><li>Failure to pair with Bluetooth device.</li><li>Reset to factory settings.</li></ul>
Slow pulsing blue	• Mini Mobile Adapter is connected to Bluetooth device.
Rapid blinking blue	• Mini Mobile Adapter is attempting to pair with Bluetooth device.

#### **Typical Use Cases**

To effectively use SurfLink Mini Mobile Adapter, it will need to be within easy reach so that you can quickly press the push-button to answer calls and speak into the built-in microphone. Typical operating scenarios include:

SCENARIO	OPTIMAL CONFIGURATION
Stream SurfLink Remote Microphone 2 audio from a <i>distant</i> talker.	Distant talker wears just SurfLink Remote Microphone 2, which is powered on. <b>OR</b> Distant talker wears SurfLink Remote Microphone 2 (which is powered on) attached to SurfLink Mini Mobile Adapter (which is powered off).
Stream an active phone call.	<ul><li>SurfLink Remote Microphone 2 is attached to SurfLink Mini Mobile Adapter and both are powered on.</li><li>Press the push-button on Mini Mobile Adapter to answer the phone call.</li></ul>
Stream music or other audio.	SurfLink Remote Microphone 2 is attached to SurfLink Mini Mobile Adapter and both are powered on. • Start audio on your Bluetooth device.
Desired hearing instrument microphones to be active, but allow for possibility of incoming phone calls.	SurfLink Remote Microphone 2 is attached to SurfLink Mini Mobile Adapter and both are powered on. • There is no active streaming from the cell phone.

## Troubleshooting

## SurfLink Remote Microphone 2

SYMPTOM / ISSUE	POSSIBLE CAUSE	POSSIBLE REMEDY
One (or both) hearing instruments unexpectedly drop out of audio streaming.	Hearing instrument may be on the edge of wireless range.	Move closer to SurfLink Remote Microphone 2.
	Battery level in hearing instrument can no longer support audio streaming.	Replace hearing instrument battery with new one.
	Large object, such as furniture or a wall, may be degrading signal.	For best performance, your hearing instruments should be within line-of-sight.
	Outdated hearing instrument firmware.	Hearing professional can update hearing instruments with the most recent firmware.
LED is slowly pulsing blue, but no streamed sounds are heard in the hearing instruments.	Hearing instruments are not within wireless range.	Move closer to SurfLink Remote Microphone 2.
	Hearing instruments are not properly synced with SurfLink Remote Microphone 2.	Sync hearing instruments with SurfLink Remote Microphone 2.
	Battery level in hearing instrument cannot support audio streaming.	Replace hearing instrument battery with new one.
LED is rapidly blinking red continuously.	Possible error condition.	Turn off SurfLink Remote Microphone 2, wait 15 seconds, and turn on SurfLink Remote Microphone 2.
Difficult to hear speaker in noisy environments.	SurfLink Remote Microphone 2 may be too far from speaker.	Move SurfLink Remote Microphone 2 closer to speaker's mouth.
	SurfLink Remote Microphone 2 may not be positioned for optimal streaming.	Re-orient SurfLink Remote Microphone 2 spatially by turning a few degrees to right or left.
	Signal-to-noise performance not optimal for current hearing instrument memory.	Change to memory optimized by your hearing professional for use with SurfLink Remote Microphone 2.

Troubleshooting

## Troubleshooting

## SurfLink Mini Mobile

SYMPTOM / ISSUE	POSSIBLE CAUSE	POSSIBLE REMEDY
Streamed audio is too loud or too soft in hearing instruments.	Bluetooth device is streaming at non-optimal volume.	Adjust volume control on the Bluetooth device.
LED is slowly pulsing blue, but no streamed audio is heard in the hearing instruments.	SurfLink Mini Mobile Adapter may be unattached from SurfLink Remote Microphone 2.	Ensure Mini Mobile Adapter is properly attached to SurfLink Remote Microphone 2.
	SurfLink Remote Microphone 2 may be powered off.	Turn on SurfLink Remote Microphone 2.
Caller cannot hear your voice during phone calls.	SurfLink Mini Mobile may be too far from your mouth.	Move Mini Mobile closer to your mouth.
Streamed Bluetooth audio quality is inconsistent.	Bluetooth device may be on the edge of wireless range.	Move Bluetooth device closer to SurfLink Mini Mobile.
	Battery level in SurfLink Mini Mobile Adapter is getting low.	Charge Mini Mobile Adapter.
	Large object, such as a human body or a wall, may be degrading signal.	For best performance, SurfLink Mini Mobile should be within line-of-sight of your Bluetooth device.
Smartphone alerts are not always received.	Alert duration is too short.	Lengthen alert tone to allow sufficient time for streaming to start.
Unable to Bluetooth pair with more than one Bluetooth device.	SurfLink Mini Mobile Adapter is already in an active Bluetooth connection.	Terminate the active Bluetooth connection and then try Bluetooth pairing with the new device.

Troubleshooting

## **Regulatory Notices**

#### **Required Information**



Waste from electronic equipment must be handled according to local regulations.

#### Instructions for Disposal of Old Electronics

Starkey Hearing Technologies encourages, and your local community laws may require, that your SurfLink Remote Microphone 2 and/or SurfLink Mini Mobile Adapter be disposed of via your local electronics recycling/disposal process.

The below instructions are provided for the benefit of disposal/recycling personnel. Please include this manual with your device when disposing of your SurfLink Remote Microphone 2 and/or SurfLink Mini Mobile Adapter.

#### For Disposal/Recycling Personnel Only

These products contain a Lithium Ion Polymer battery. To remove this battery from SurfLink Remote Microphone 2:

- Power off the SurfLink Remote Microphone 2.
- Insert small screwdriver into the side housing crevice just above the clip spring and pry apart the housing halves.
- Unplug the battery connector from the circuit board to prevent accidental shorting.
- Pry the battery away from the back plate using a wide flat blade.

To remove this battery from the SurfLink Mini Mobile Adapter:

• Power off the SurfLink Mini Mobile Adapter.

- Insert small screwdriver into a side housing corner and pry apart the housing halves.
- Cut the battery wires from the circuit board to prevent accidental shorting.
- Pry the battery away from the microUSB using your fingers.

#### Intended Use

The SurfLink Remote Microphone 2 is an accessory to a wireless air conduction hearing instrument. It is intended to wirelessly transmit audio signals from the location of the SurfLink Remote Microphone 2 directly to an air conduction hearing instrument.

The SurfLink Mini Mobile Adapter is an accessory to a wireless air conduction hearing instrument. It is intended to wirelessly transfer audio signals between a Bluetoothenabled device and hearing instruments via the SurfLink Remote Microphone 2 allowing users to better participate in phone conversations.

The SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are classified as a Type B applied part under the IEC 60601-1 medical instrument standard.

SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are designed to comply with the most stringent Standards of International Electromagnetic Compatibility. However, it is still possible that you may experience interference caused by power line disturbances, airport metal detectors, electromagnetic fields from other medical devices, radio signals and electrostatic discharges.

SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are designed to be cleaned with a damp cloth moistened with soapy water. Regulatory Notices If you use other medical devices or wear implantable medical devices such as defibrillators or pacemakers and are concerned that your SurfLink Remote Microphone 2 and/or SurfLink Mini Mobile Adapter might cause interference with your medical device, please contact your physician or the manufacturer of your medical device for information about the risk of disturbance. Neither SurfLink Remote Microphone 2 nor SurfLink Mini Mobile Adapter should be used during an MRI procedure.

#### Use on Aircrafts

Neither SurfLink Remote Microphone 2 nor SurfLink Mini Mobile Adapter should be used on aircrafts unless specifically permitted by the flight personnel.

#### International Use

SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are approved to operate at radio frequencies that are specific to your country or region and might not be approved for use outside your country or region.

Be aware that operation during international travel may cause interference with other electronic devices, or other electronic devices may cause interference with your SurfLink Remote Microphone 2 and/or SurfLink Mini Mobile Adapter.

The batteries in your SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are not replaceable. Do not attempt to replace the battery. The SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are designed to the following temperature ranges:

- Operating: -10 to +45 degrees C (14 to 113 degrees F), humidity ≤ 95% non-condensing
- Battery Charging: 0 to +45 degrees C (32 to 113 degrees F), humidity ≤ 95% non-condensing
- Storage: -20 to +63 degrees C (-4 to 145 degrees F)

We are required by regulations to provide the following warnings:

**WARNING:** Use of SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter directly next to other electronic equipment should be avoided because it could result in improper performance. If such use is necessary, note as to whether your hearing aids and the other equipment are operating normally.

**WARNING:** Use of accessories, components or replacement parts other than those provided by the manufacturer of your SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter could result in increased electromagnetic emissions and decreased electromagnetic immunity and could result in degradation of performance.

**WARNING:** If Portable Radio Frequency communications equipment is used closer than 30 cm (12 inches) from your SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter, degradation of the performance of your hearing aid could result. If this occurs, move away from the communications equipment. The SurfLink Remote Microphone 2 and Mini Mobile Adapter have a rating of IP 52 per IEC 60529. This means that the SurfLink Remote Microphone 2 and Mini Mobile Adapter are protected from dust and protected against vertically falling water drops when the enclosure is tilted 15 degrees or less from vertical.

The SurfLink Remote Microphone 2 and Mini Mobile Adapter do not contain any user-serviceable parts. Do not open or modify these devices.

Do not connect the SurfLink Remote Microphone 2 or Mini Mobile Adapter to any devices not described in this manual.

The expected service life of the SurfLink Remote Microphone 2 and Mini Mobile Adapter is 3 years.

#### Wireless Technical Description

The European version of the SurfLink Remote Microphone 2 operates in the 863-865 MHz band with a maximum effective radiated power of 10 dBm with transmission modulation type of 342KFXD. The receiver section of the radio has a bandwidth of 300 kHz.

The North American version of the SurfLink Remote Microphone 2 operates in the 902-928 MHz band with a maximum effective radiated power of 20 dBm with transmission modulation type of 508KF1D. The receiver section of the radio has a bandwidth of 300 kHz.

The SurfLink Mini Mobile Adapter operates in the 2.4-2.4835 GHz band with a maximum effective radiated power of 5.7 dBm with transmission modulation type of 1M12FXD. The receiver section of the radio has a bandwidth of 1 MHz. SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter have been tested to, and have passed, the following emissions and immunity tests:

- IEC 60601-1-2 radiated emissions requirements for a Group 1 Class B device as stated in CISPR 11.
- RF radiated immunity at a field level of 10 V/m between 80 MHz and 2.7 GHz as well as higher field levels from communications devices as stated in Table 9 of IEC 60601-1-2.
- Immunity to power frequency magnetic fields at a field level of 30 A/m.
- Immunity to ESD levels of +/- 8 kV conducted discharge and +/- 15 kV air discharge.

#### **FCC/IC Information**

SurfLink Remote Microphone 2 FCC ID: EOA-CM IC: 6903A-CM (Model 400)

SurfLink Mini Mobile Adapter FCC ID: EOA-CMA IC: 6903A-CMA (Model 500)

#### FCC/IC Notice

This device complies with part 15 of the FCC rules and with Industry Canada's license-exempt RSS standard(s). 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 of the device.

Regulatory Notices **NOTE**: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

#### Note FCC/IC

Cet appareil est conforme à la partie 15 des règles de la FCC et avec les normes RSS de licence d'Industrie Canada. Le fonctionnement est soumis à deux conditions: (1) Cet appareil ne doit pas causer d'interférences nuisibles et (2) cet appareil doit accepter toute interference reçue, y compris les interférences qui peuvent causer des fonctionnements du dispositif.

**NOTE**: Le manufacturier n'est pas responsable de l'interférence créée par la modification de cet équipement lors de l'écoute du téléviseur ou de la radio. De telles modifications pourraient entrainer la révocation de l'autorité de l'utilisateur à opérer cet équipement.

Hereby, Starkey Hearing Technologies declares that the SurfLink Remote Microphone 2 and SurfLink Mini Mobile Adapter are in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. A copy of the Declaration of Conformity can be obtained from the addresses on page 45 and from docs.starkeyhearingtechnologies.com Starkey Hearing Technologies 6600 Washington Ave. South Eden Prairie, MN 55344 USA

#### EC REP

Starkey Hearing Technologies European Headquarters Wm. F. Austin House, Bramhall Technology Park Pepper Road, Hazel Grove, Stockport SK7 5BX United Kingdom

CE

The following symbols are used in this document and on both the Remote Microphone 2 and Mini Mobile Adapter:

This device produces and receives radio frequency energy. Interference may occur in the vicinity of equipment marked with the following symbol.



Class II device

Dispose of properly

Consult operations manual





Regulatory Notices Regulatory Notices

Notes	Notes

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