

Lexis FM Wireless Communication System

Sophisticated digital signal processing with a directional microphone array enhances speech understanding in noisy and reverberant conditions, resulting in independence, mobility and freedom for with any degree of hearing loss.

Feature Summary – Transmitter/Microphone

Wireless FM Transmission with 14 selectable channels

4 **Directional Microphones** with digital beam forming technology provides an AI-DI of 8.5 dB in the Superfocus mode

1 **Dedicated Omni-directional Microphone**

2 **Power Options** by either recharging the unit or using disposable AAA batteries

Modern Ergonomic Design is lightweight and easy to use

LCD Display shows selected frequency and battery status

TV/Audio coupling

Compatible With Other Receivers on the same channel

Feature Summary – Receiver

Wireless FM Transmission with 14 specific channels

No battery drain when in the off position

FM Gain Control Trimmer (14 dB range)

Adjustable Pin Orientation Lock

Standard Europin

Compatible With Other Transmitters on the same channel

Accessories

Audio Cord for connection to TV/Audio sources

External Antenna for extended operating range

Pin Orientation Lock

FM Gain Control Covers

Lavaliere Cord

Wall Charger

Rechargeable Batteries (AAA NiMH)

Travel and Carrying Cases

Options

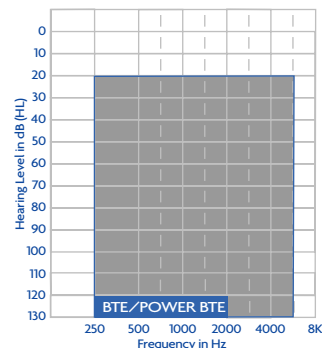
Boom Microphone

Rayovac Smart Charger to charge batteries in 1 hour

Tamper Resistant Battery Cover



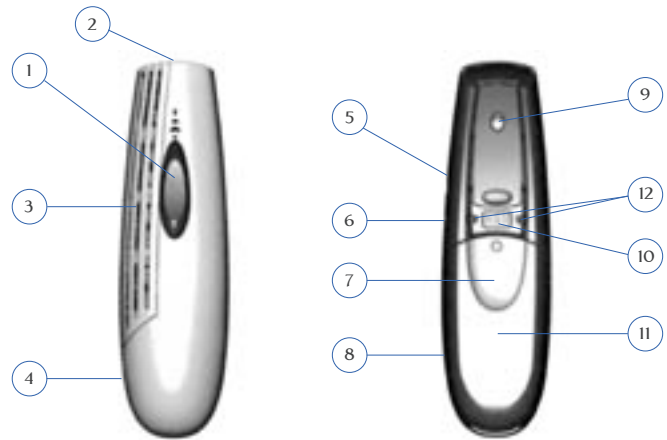
LEXIS



TECHNICAL SPECIFICATIONS

Transmitter/Microphone

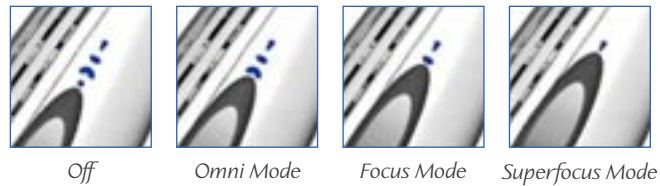
1. Mode Selector Slide Switch
2. Omni-directional Microphone
3. 4 Directional Microphone Array
4. Antenna Input Jack
5. DC Power Jack
6. Auxillary Audio Input Jack
7. Rechargeable/Disposable Batteries
8. Tamper Resistant Battery Cover
9. Pocket Clip
10. Liquid Crystal Display (LCD)
11. 4 Position Table Stand
12. Pen-push Buttons



User Controls

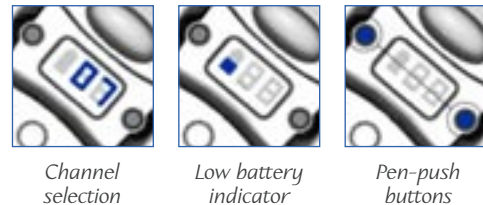
Mode Selector Slide Switch Positions

- Off
- Omni Mode
- Focus Mode
- Superfocus Mode



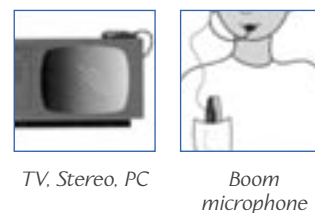
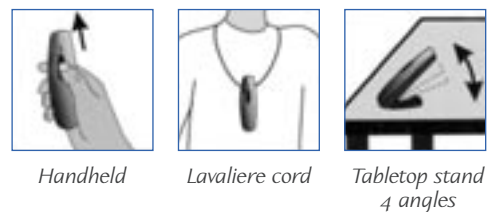
LCD Display

- Channel selection
- Low battery indicator
- Pen-push buttons (channel and boom microphone selection)

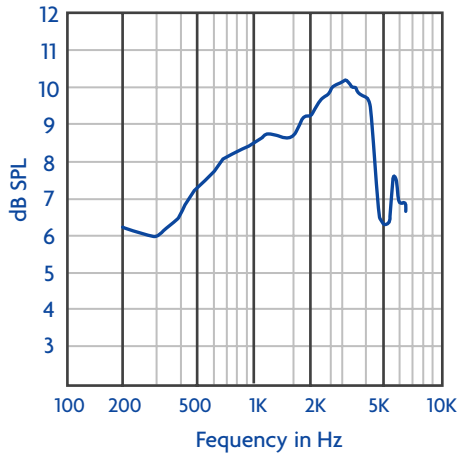


Placement Options

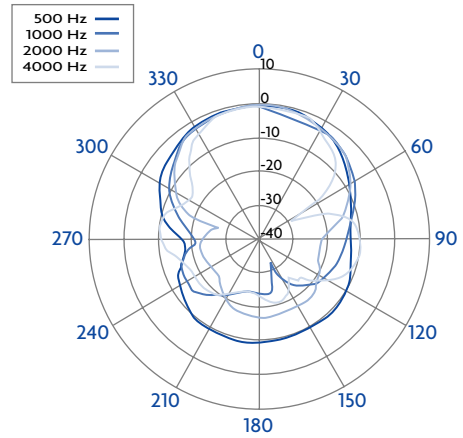
- **Handheld** so that the user can control the input by pointing at the relevant speaker
- **On the speaker** with a lavalier cord or placed in the shirt pocket
- **On a table** in 4 different angles
- **Directly into an external source**, such as a TV, stereo or PC for transmission to the hearing instrument
- **Directly in front of the speaker's mouth** via boom microphone accessory option



Transmitter/Microphone Directionality Index (DI)

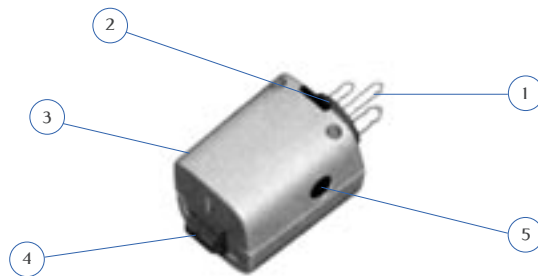


Transmitter/Microphone Superfocus Mode Polar Plot



Receiver

1. Connector Pins (Europins)
2. Pin Orientation Lock
3. Channel/Frequency Label
4. 3 Mode Switch
5. FM Gain Control Trimmer (14 dB range)

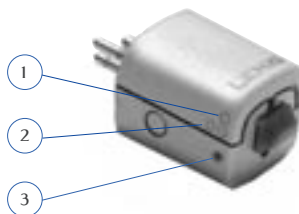


Receiver Orientation:

The connector pins can be rotated 270° to enable alignment with all audio shoes, then locked securely in place.

3 – Mode Switch Positions

- 1. FM Only – Used when background noise has to be eliminated
- 2. FM+HA Microphone – Used in quiet settings when listening to the FM signal plus signals from the environment are important (e.g. a lecture, in order to hear the speaker as well as questions from participants)
- 3. OFF – No FM signal, no battery drain



Technical Data Transmitter/Microphone

Dimensions	125 mm x 20 mm x 35 mm
Weight	75 g
Power supply	2 x 1.5 V NiMH Rechargeable Batteries AAA 2 x 1.5 V Disposable Batteries AAA 6 VDC Charger 100-240 V (60/50 Hz)
Battery life	~ 8 hrs + (10 hrs with disposable AAA)
Operating frequencies (model dependent)	173-175 MHz 181-185 MHz 208-217 MHz
Channel selection	Pre-programmed unit with multi-channel selection via pen-push buttons
Type of modulation	FM
Processing SNR	Digital Audio Processing > 50 dB
External audio	Input (mini-jack) 3.5 mm walkman type 400 mV RMS

System including Receiver

Distortion	< 1.5 %
Range	Up to 10 m/30 ft with internal antenna Up to 30 m/100 ft with external antenna
Bandwidth	100 Hz-6.5 kHz delivered from system to hearing aid

Receiver Technical Data

Dimensions	15.2 mm x 12.4 mm x 11.3 mm
Power supply	From hearing instrument battery
Power Supply range	0.95 - 1.60 V
Battery current drain -on	2.0 mA (1.2 V)
Battery current drain -off	No drain
Operating frequencies (model dependent)	173-175 MHz 181-185 MHz 208-217 MHz
Channel	Fixed crystal-based
Type of modulation	FM
Antenna	Internal Antenna
Audio bandwidth	200 Hz-6.5 kHz delivered from system to hearing aid
Total Harmonic Distortion	< 1 %
SNR	> 55 dB
Adjacent channel rejection	> 50 dB at 50 kHz channel spacing



Lexis conforms to the guidelines of the Mosaic standard. Mosaic helps ensure the interoperability of new wireless systems for hearing healthcare. Learn more at www.mosaic-consortium.org