

ListenTALK

USER MANUAL



Mobile Two-Way
Communication
System

LISTEN
TECHNOLOGIES

www.listentech.com

www.tourguidesystem.co.uk

Dear Valued Customer,

Thank you for choosing Listen! We are dedicated to providing you with the highest quality products available, and take pride in delivering outstanding performance to ensure you are completely satisfied.

We independently certify each of our products to the highest quality standards and back them with a limited lifetime guarantee. We are available to answer any questions you might have during installation or in the operation of our products. At Listen, it's all about you, should you have any comments or suggestions we're here to listen.

Here's how to reach us:

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Thank you and enjoy your listening experience!

Best regards,

Russell Gentner and the Listen Team

LISTEN
TECHNOLOGIES 

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INTRODUCTION

ListenTALK is a portable wireless collaboration system designed for group communications in a variety of applications including Training and Collaboration, Assistive Listening, Guided Tour Groups, Language Interpretation and Translation, Event Production and Sports Intercom.

SIMPLE AND VERSATILE

ListenTALK systems are simple to purchase and configure and they are highly versatile. Create a ListenTALK Group with the push of a button in the Docking Station, with the click of a mouse in the ListenTALK Software Suite or on the go using built-in Near Field Communication (NFC) technology. Use as many as ten simultaneous groups in the same area.

ListenTALK Transceivers are simple to operate and Leaders can easily designate one of three Participant modes to meet the needs of any venue or application.

RELIABLE AND SECURE

Instead of the overcrowded 2.4 GHz frequency, ListenTALK operates on the 1.9 GHz band in full duplex and utilizes frequency hopping and spread spectrum technology to increase reliability and reduce interference. Headset styles are available for use in quiet or noisy environments.

Listen understands that your security matters, so each ListenTALK is equipped with a multilayer security protocol consisting of a 40-bit (pin free) group subscription, 32-bit authentication and a 64-bit encryption scheme assuring secure conversations.

WELCOME TO LISTENTALK!

ListenTALK is Simple, Versatile, Scalable, Secure and Reliable!

LISTENTALK COMPONENTS



ListenTALK Transceiver LK-1

The term ListenTALK refers to the system as a whole and to the hand-held ListenTALK Transceivers.



Docking Station 16 Tray

The optional ListenTALK Docking Station 16 serves as convenient storage, programming and charging station for ListenTALK Transceivers. The Docking Station makes it easy to create a ListenTALK Group and perform other tasks.



Docking Station Case 16

The optional ListenTALK Docking Station Case serves as convenient storage, programming and charging station and portable carrying case for ListenTALK Transceivers. The Docking Station Case provides all of the features of the Docking Station 16 Tray.



Accessories

ListenTALK accessories include an Intelligent Cable Management Unit for the Docking Station 16 Tray, several headsets and an alkaline battery case. Note that ListenTALK Transceivers may also be used with standard smart phone headsets.



ListenTALK Software Suite

Available for Windows PCs, the ListenTALK Software Suite makes it easy to pair ListenTALKs to form ListenTALK Groups, check ListenTALK status and it includes many advanced programming features. (See Page 21)

LISTENTALK DEFINITIONS

ListenTALK Group

A ListenTALK Group is two or more ListenTALK Transceivers which have been Paired.

Pairing

Pairing is the process whereby ListenTALK Transceivers become a group. ListenTALK Transceivers may be paired by NFC (Near-Field Communications), with a Docking Station or with the ListenTALK Software Suite.

Leader, Sub-Leader and Participant

A Group consists of one Leader, one or more Sub-Leaders (optional) and one or more Participants. In a museum tour, the museum guide would be the Leader, an assistant guide would be the Sub-Leader and the museum guests would be Participants.

ListenTALK Security

Conversations within a ListenTALK Group are encrypted by a unique Pair Key which separates Groups from one another and ensures secure conversations within each Group. The Pair Key is generated by the Group's Leader and shared with each Sub-Leader and Participant (see Page 18).

LISTENTALK SAFETY CAUTIONS!

Hearing Safety

This product is designed to amplify audio to a high volume level which could potentially cause hearing damage if used improperly. To protect your hearing make sure the volume is turned down before putting on the headset. Then adjust the volume up to the minimum setting required to hear clearly. Do not allow children or other unauthorized individuals to have access to this product without supervision.

Medical Device Safety

Before using this Listen product with an implantable or other medical device, consult your physician or manufacturer of your implantable or other medical device. Always make sure you are using this product in accordance with the safety guidelines established by your physician or the implantable device manufacturer.

Recycling

Help Listen Technologies protect the environment! Please take the time to dispose of your equipment properly.



Product Recycling Instructions

Please do NOT dispose of your Listen Technologies equipment in the household trash. Please take the equipment to an electronics recycling center; OR, return the product to the factory for proper disposal.



Battery Recycling Instructions

Please do NOT dispose of batteries in the household trash. Please take the batteries to a retail or community collection point for recycling.



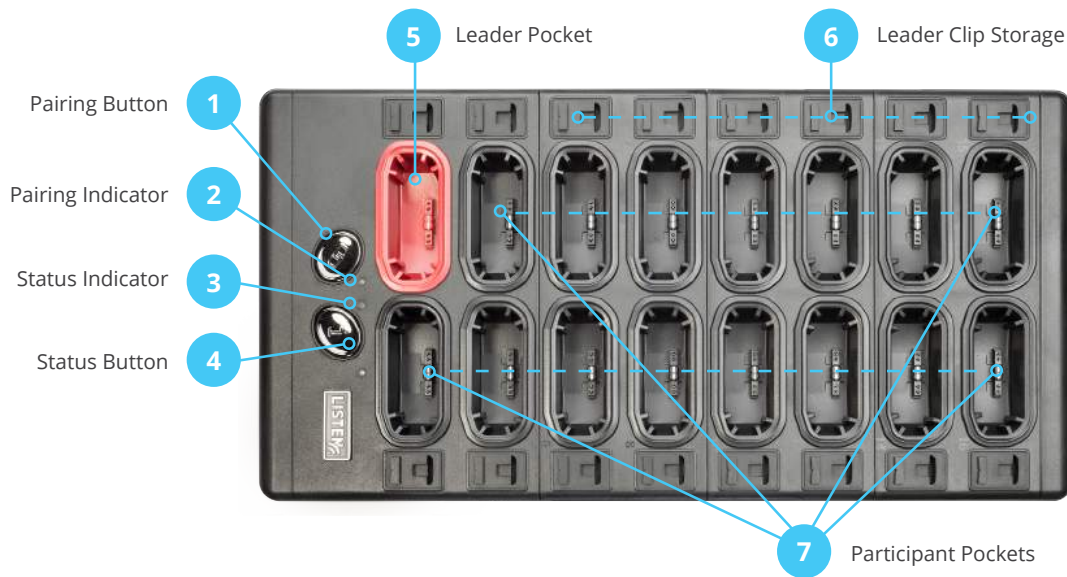
LISTENTALK TRANSCEIVER QUICK REFERENCE

- 1 Internal Microphone**
Internal microphone may be used by a Participant. For best results, a Leader should use an external microphone-equipped headset. Visit www.listentech.com/assistive-listening/listentalk/ to choose from a wide range of headsets and other accessories.
- 2 Graphic Display**
Displays context-sensitive information such as Group Name/Number, Charging Status, Battery Life, Profile Mode, Soft Button Menus, and Volume Level.
- 3 Soft Buttons**
Leader: Left Soft Button scrolls through System Talkback Modes (Off Mode, Leader Mode or Group Mode – See Page 17). Right Soft Button initiates pairing. Both buttons operate for Transceiver programming (see Page 18).
Participant: Soft Buttons are disabled except during Transceiver programming (see Page 18).
- 4 Talk Button & Menu Exit**
Leader: Press Talk Button to toggle between Talk and Mute.
Participant: Press and hold Talk Button to talk; release to mute.
- 5 Light Sensor**
Automatically brightens or dims the Graphic Display based on ambient light conditions.
- 6 Removable Belt/Lanyard Clip**
To use the Lanyard, snap its metal ring into and up in the slot at the top of the Belt Clip. Then, adjust the Lanyard to a comfortable length and slip it over the user's head. Alternately, simply slip the Belt Clip over a user's belt.
- 7 Rechargeable Battery**
Charge ListenTALKs in Docking Station or connect a USB charger to the Micro USB port. Access the battery compartment by depressing the button on the battery door. Alkaline batteries (not rechargeable) may be used by installing the optional Alkaline Battery Case and three AAA size alkaline batteries.
- 8 Nearfield Antenna**
Allows a Leader to Pair with Sub-Leaders or Participants to form a Group as described on Page 15.



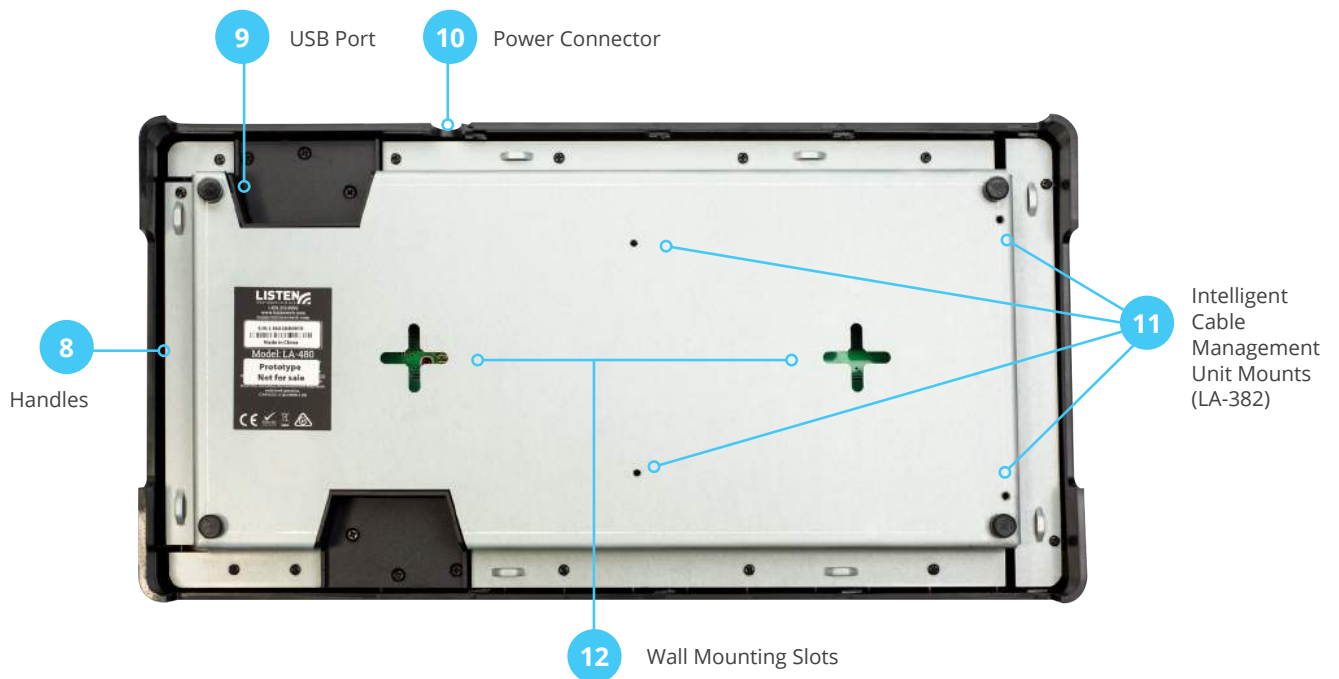
LISTENTALK TRANSCEIVER QUICK REFERENCE

- 9** **Volume Control & Menu Navigation**
Operation: Controls Headset volume.
Programming: Navigates menus shown in the Graphic Display.
- 10** **Micro USB**
Connect Micro USB to a standard USB charger to charge the ListenTALK. Connect to a Windows computer to program the ListenTALK using the ListenTALK Software Suite.
- 11** **Power Button & Status Screen**
Press and hold for one second to power on the ListenTALK and display the Status Screen. Press and hold for three seconds to power off. Press momentarily to display the Status Screen during use.
- 12** **Status Indicator**
Status Indicator will flash during charging and turn solid when ListenTALK is fully charged. Leader or Sub-Leader Status Indicator turns red to indicate Mute after pressing Talk Button.
- 13** **Leader Clip**
Snap a Leader Clip onto a Transceiver to create a Leader or Sub-Leader. Omit from Participant Transceiver.
- 14** **3.5mm Headset/Microphone Port**
Use a headset such as those available at www.listentech.com/assistive-listening/listentalk/transceiver-headsets/. Note that ListenTALK Transceivers also accept standard smart phone headsets/earbuds.
- 15** **Charger Contacts**
Allow ListenTALKs to charge automatically when placed in the Docking Station. Also allow communication with a Windows computer equipped with the ListenTALK Software Suite.



LISTENTALK DOCKING STATION TRAY QUICK REFERENCE

- 1** **Pairing Button**
Create a ListenTALK Group by inserting Transceivers into Leader and Participant Pockets, and then momentarily pressing the Docking Station Pairing Button. Note: Momentarily pressing the Docking Station Pairing Button uses the Leader's existing Pairing Key. To create a new Pairing Key, press and hold the Pairing Button for five seconds (also see Page 15).
- 2** **Pairing Indicator**
Pairing Indicator will flash during pairing, then turn solid momentarily and finally extinguish when the pairing process is completed successfully. The Pairing Indicator and Status Indicator will both flash and then extinguish during New Pair Key generation (see Page 21).
- 3** **Status Indicator**
Status Indicator lights during Status Button activation.
- 4** **Status Button**
Press and hold the Status Button to illuminate the ListenTALK Graphic Displays for Group identification and individual ListenTALK information.
- 5** **Leader Pocket**
Used for charging, pairing and programming.
- 6** **Leader Clip Storage**
Snap unused Leader Clips onto these storage tabs.
- 7** **Participant Pockets**
Used for charging, pairing and programming.



LISTENTALK DOCKING STATION TRAY QUICK REFERENCE

- 8 Handles**
Handles for holding the Docking Station Tray.
- 9 USB Port**
Connect to Windows computer to program, pair and manage inventory of ListenTALK Transceivers using the ListenTALK Software Suite.
- 10 Power Connector**
Connect the Power Supply to this Power Connector and the Power Cord to any standard AC outlet (100/240 VAC, 50/60 Hz).
- 11 Intelligent Cable Management Unit Mounts (LA-382)**
The Optional Docking Station Intelligent Cable Management Unit fastens to these holes.
- 12 Wall-Mounting Slots**
Mount two screws with ¼" heads 6-inches apart on a wall. Slip Docking Station 16 onto screw heads.

LISTENTALK TRANSCEIVER SPECIFICATIONS*

Physical

Dimensions (H x W x D) with Belt Clip	10 x 5.4 x 2.4 cm (3.93 x 2.13 x 0.93 in.)
Dimensions (H x W x D) less Belt Clip	10 x 5.4 x 1.6 cm (3.93 x 2.13 x 0.63 in.)
Weight	79 g (2.79 oz.)
Ship Weight	206 g (7.20 oz.) with 454 g (1.0 lbs.) minimum
Enclosure material	PC ABS Plastic
Indicators	Display - 64 x 128 OLED, Variable brightness LED - RED/White multifunction (Mute, Charge Status)
User Controls	Volume up, Volume Down, Talk, Power/Status, Talk Modes, Pairing
Programming	Via software and USB port on Transceiver or via software and USB port on Docking Station
Connections	Headset - 3.5mm TRRS, CTIA complaint USB - Micro USB, Control and Charging Charger- 4 Contact, Control and Charging

Audio

Headphone Output									
Speaker load	16 - 32 ohm load								
Max output power	67 mW, 16-ohm load, Threshold of Clipping								
Sidetone	Adjustable								
Microphone Input									
Compatibility	Electret, external bias								
Bias	3 volt, 2 mA Current Maximum								
Sensitivity requirement	-28 to - 50 dBV/Pa								
Internal Microphone									
Switching	Auto detect on jack insertion or Manual								
Maximum input level	109 DBSPL								
Gain	Adjustable, 30 dB range								
Headset/Microphone Port									
Purpose	Accepts Listen Technologies Headsets or standard smart-phone headsets. Can be used as a Mic/Line input (See "Mic Select" Menu Choices on Page 19)								
Connector	 <table border="0"> <tr> <td>Tip</td> <td>Headset Left +</td> </tr> <tr> <td>First Ring</td> <td>Headset Right +</td> </tr> <tr> <td>Second Ring</td> <td>Common/Ground/-</td> </tr> <tr> <td>Sleeve</td> <td>Mic/Line Input +</td> </tr> </table>	Tip	Headset Left +	First Ring	Headset Right +	Second Ring	Common/Ground/-	Sleeve	Mic/Line Input +
Tip	Headset Left +								
First Ring	Headset Right +								
Second Ring	Common/Ground/-								
Sleeve	Mic/Line Input +								
Nominal Input Level for Line Source	-10dBu (0.24 volts)								
System									
Frequency Response	40 Hz to 15 kHz +/- 3dB, 22kHz low pass filter								
SNR	70 dB, A- weighted, Threshold of Clipping								
THD	0.5% @ 1kHz, 22kHz low pass enabled								

LISTENTALK TRANSCEIVER SPECIFICATIONS CONTINUED

Radio

Operating Frequency	North America – 1920 to 1930 MHz Europe – 1880 to 1900 MHz
Average Power	North America – 4 mW Europe – 10 mW
Typical Range	North America – Indoor 100 m, Outdoor 200 m, depending upon conditions Europe – Indoor 150 m, Outdoor 300 m, depending upon conditions
Modulation	GFSK – FHSS TDD/TDMA/DCA
Security	Subscription – 40 bit (Pin Free) Authentication – 32 bit Encryption – 64 bit

Power & Battery Management

Battery type	Lithium – ion, rechargeable non-proprietary removable, 1200 mAh Optional - 3 AAA Battery Compartment
Typical operate time	Li-Ion - Participant Mode – 12 Hours AAA – Participant Mode – 7 Hours LI-ion – Leader Mode – 7 hours AAA – Leader Mode – 4 hours
Typical charge time	4 Hours
Power save modes	Power down on loss of signal Power down on disconnection of headset (1 min) Power down on charging

Environmental

Temperature - Operation	-10° C (14° F) to 40° C (104° F)
Temperature - Storage	-20° C (-4° F) to 50° C (122° F)
Relative Humidity	0 to 95% relative humidity, non-condensing

Compliance

Standards	Pending (FCC part 15, ICS-03, CE, RCM, RoHS, WEEE)
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* Specifications subject to change without notice.

LISTENTALK DOCKING STATION 16 SPECIFICATIONS*

Physical

Color	Black, Chrome Buttons, Red Leader Pocket
Dimensions (H x W x D)	50 x 192 x 375 mm (1.97 x 7.56 x 14.77 in.)
Unit Capacity	16 Units
Unit Weight	1.73 kg (3.8 lbs.)
Ship Weight	2.59 kg (5.7 lbs.)

Power

Power Supply Input	100-240VAC, 50-60 Hz
Power Supply Output	12 VDC, 5.0 A, 60 W
Power Supply Connector	5.5 mm (0.22 in.) OD x 2.3 mm (.09 in.) ID, barrel type
Power Cord	182.9 cm (72 in.) Input Power Cord, 109.3 cm (43 in.) Output Cord

Interconnections

Connection/s	USB type B
	Power

Compliance

Standards	UL, CE, RCM, RoHS
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* Specifications subject to change without notice.

LISTENTALK DOCKING STATION CASE 16 SPECIFICATIONS*

Physical

Case Color	Gray & Chrome
Tray Color	Black, Chrome Buttons, Red Leader Pocket
Dimensions (H x W x D)	190 x 350 x 465 mm (7.48 x 13.78 x 18.31 in.)
Unit Capacity	16 Units
Unit Weight	5.13 kg (11.3 lbs.)
Ship Weight	5.95 kg (13.1 lbs.)

Power

Power Supply Input	100-240VAC, 50-60 Hz
Power Supply Output	12 VDC, 5.0 A, 60 W
Power Supply Connector	5.5 mm (0.22 in.) OD x 2.3 mm (.09 in.) ID, barrel type
Power Cord	182.9 cm (72 in.) Input Power Cord, 109.3 cm (43 in.) Output Cord

Interconnections

Connection/s	USB type B
	Power

Compliance

Power Supply	UL, CE, RCM, RoHS
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* Specifications subject to change without notice.

LISTENTALK SYSTEM SETUP



Mount and Connect the Docking Station

ListenTalk Transceivers may be operated with or without a Docking Station. If your system does not have a Docking Station, please proceed to “Prepare and Charge Each ListenTalk Transceiver” (next). Mount the Docking Station on a flat surface. Connect the Power Supply to the Docking Station and to any standard AC outlet (100/240 VAC, 50/60 Hz). To program the Docking Station and its Transceivers via computer (USB) install the ListenTALK Software Suite (see Page 21).

LISTENTALK SYSTEM SETUP CONTINUED



Prepare and Charge the ListenTALK Transceivers

Remove the protective screen cover and clear plastic battery isolation tab from each Transceiver. Charge Transceivers in the Docking Station or connect each Transceiver's Micro USB to a USB charger. When 100% charged, a Transceiver's Status Indicator is solid. Alternately, insert the optional Alkaline Battery Pack and three AAA size alkaline batteries.



Create a ListenTALK Leader

Each ListenTALK Transceiver can be a Leader or a Participant. The default mode is Participant. To create a Leader, turn on any Transceiver and place a red Leader Clip on the Transceiver. To create a Sub-Leader, place a Leader Clip on a Participant Unit and pair to the Leader.

Create a ListenTALK Group by Pairing Transceivers

A ListenTalk Group consists of at least one Leader and an unlimited number of Participants and Sub-Leaders (Sub-Leaders are optional). Create a ListenTalk Group by Pairing a Leader with Participants and Sub-Leaders.



Pairing With a Docking Station

Place the Leader into the red Docking Station pocket. Place Participant and Sub-Leader Transceivers into the black Docking Station pockets (see diagrams on Page 9). Momentarily press the Pairing Button on the Docking Station. Pairing Indicator will flash during pairing, then turn solid momentarily and finally extinguish when the pairing process is completed. To pair more than 15 Participants and Sub-Leaders, repeat the process using the same Leader.



Pairing Without a Docking Station – Near-Field Communications Method

Press and hold the Leader's Right Soft Button to initiate Pairing Mode. Then, Pair Participant and Sub-Leader Transceivers to the Leader by touching the back of the Leader to the back of each Participant and Sub-Leader. Upon successful pairing, the Participant or Sub-Leader will beep and display a link symbol on its Graphic Display. Press and hold the Leader's Right Soft Button again to exit Pairing Mode.

Create Additional ListenTALK Groups

An unlimited number of ListenTalk Groups may be created by repeating these steps. Up to 10 groups may be operated simultaneously in one area.

Adding Participants to an Existing Group

With a Docking Station, simply place the existing Leader and new Participant or Sub-Leader Transceivers into the Docking Station and press the Pairing Button momentarily. To add Participants without a Docking station, place the Leader into Pairing Mode and touch the back of the Leader to each new Participant or Sub-Leader.



Connect Ear Speakers or Headsets

Connect headsets to each Transceiver. Participants may use the Transceiver's built-in microphone. Leaders and Sub-Leaders should use a microphone-equipped headset in noisy environments.

LISTENTALK TRANSCIVER – GENERAL OPERATION

General Operation

Belt Clip and Lanyard

To use the Lanyard, snap its metal ring in and up in the slot at the top of the Belt Clip. Then, adjust the Lanyard to a comfortable length and slip it over the user's head. Alternately, simply slide the Belt Clip over a user's belt.

Power Button

Press and hold the Power Button for one second to turn the Transceiver on. Press and hold the Power Button for three seconds to turn it off. While a Transceiver is powered on, a momentary Power Button press will display the Transceiver's status for three seconds.

Volume Buttons

Press the Volume Up or Volume Down button to increase or decrease the volume.

Transceiver Display and Status

The Display will extinguish automatically after a few seconds. Press the Power Button momentarily to check Transceiver Status. Press any button (i.e. Volume Up/Down) to activate the Display for that function. Function buttons operate normally even when the Display is off.

Battery Status, Charging and Battery Replacement

The Status Indicator will flash slowly when the Transceiver needs to be charged. Rechargeable ListenTALK Transceivers may be charged in the Docking Station. To charge an individual Transceiver, connect a USB charger to its Micro USB port. To replace batteries on Transceivers equipped with the optional Alkaline Battery Case, depress the button on the battery door to access the Battery Compartment. Insert three AAA size alkaline batteries.

Internal Microphone

In quiet environments, both Leader and Participants may use the Transceiver's Internal Microphone. Microphone-equipped headsets are best for noisy environments visit www.listentech.com/assistive-listening/listentalk/transceiver-headsets/

Participant Buttons

Press and hold the Talk Button to speak. Release to mute. Participant can speak to the entire Group or only to the Leader depending on the Talkback Mode set by the Leader (see Page 17). The Participant Talk Button does not function when the Leader chooses "Off" mode. Only one Participant can speak at a time. Soft Buttons are disabled on Participant Transceivers.

Leader Buttons

Press and release the Talk Button to toggle between Talk and Mute. It is not necessary to hold down the Leader's Talk Button. The Leader configures ListenTALK Talkback Modes as described on Page 17. The Leader also controls Group Pairing and passes the Group Name and Pair Key to Sub-Leaders and Participants.

Sub-Leader Buttons

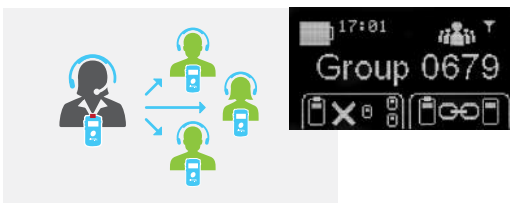
The Sub-Leader's Talk Button operates like that on a Leader. A Sub-Leader can Pair new Sub-Leaders and Participants making them members of a Group. In so doing, the Sub-Leader passes on the Group Name and Pair Key from the Leader.

Operation with Leader and Sub-Leader

ListenTALK Groups have one Group Leader and an unlimited number of Sub-Leaders and Participants. A single Sub-Leader is useful for classes with dual instructors or tour groups led by more than one person. A Group with one Leader and multiple Sub-Leaders is a versatile wireless intercom for event production, sporting activities and training sessions and it can facilitate workgroup collaboration in warehouses, manufacturing environments or construction sites. Sub-Leaders can Pair with new Sub-Leaders or Participants, making them members of a Group and passing the Group name and Pair Key from the Leader. Also see Applications on Page 22.

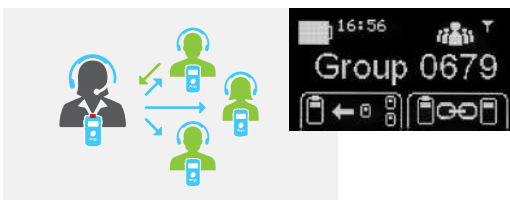
LISTENTALK SYSTEM TALKBACK MODES

Press and release the Leader's Left Soft Button repeatedly to toggle among the three Talkback Modes. In Off Mode, Participant and Sub-Leader Talkback is disabled. In Leader Mode, only the Leader can hear Participant and Sub-Leader questions. In Group Mode, Participant and Sub-Leader questions are broadcast to the entire Group. The Leader's Graphic Display indicates Talkback Mode (see below). Only one Participant or Sub-Leader can speak at a time.



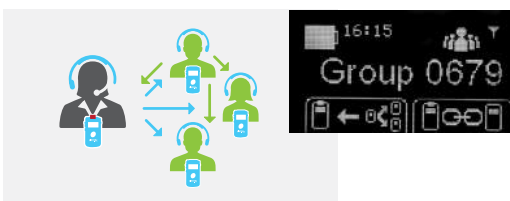
Off or Listen-only Mode – Leader's Display has No Arrows

Participants and Sub-Leaders can listen to the Leader but cannot respond.



Leader or Respond Mode – Leader's Display has Left Arrow

Participants and Sub-Leaders can listen to Leader and pose questions to the Leader.



Group or Discuss Mode – Leader's Display has Left and Right Arrows

Participants and Sub-Leaders can listen and respond to the Leader and other Group members.

LISTENTALK SECURITY

Conversations within a ListenTALK Group are encrypted by a unique Pair Key which separates Groups from one another and ensures secure conversations within each Group. The Pair Key is generated by the Group's Leader and shared with each Sub-Leader and Participant. When Sub-Leaders add new Transceivers to a Group, they pass the Leader's Pair key to these new group members.

ListenTALK Pair Key security may be configured with the ListenTALK Software Suite or through the Leader's New Pair Key menu choices as described next.

Never – Normal Security (Default)

By this (default) choice the Pair Key never changes within a Group. This enables secure communication within a Group while allowing unrestricted Group expansion and is a good choice for venues like museums where the number of Participants may vary from tour to tour.

8 Hours, 4 Hours or 1 Hour – High Security

By this choice, the existing Pair Key is maintained when expanding a Group within the chosen time window. After the time window expires, the Leader will generate a new Pair Key when it Pairs with a Sub-Leader or Participant making them part of a new Group. This enables expansion of an existing Group but only within the chosen time window.

Always – Highest Security

By this choice, the Leader will always generate a new Pair Key when it Pairs with a Sub-Leader or Participant making them part of a new Group. This disables the expansion of an existing group and is a good choice for high-security venues.

Resetting a Group's Pair Key

It is possible to reset a Group's Pair Key without changing the Group Name. This may be useful when a Transceiver is misplaced and you want to exclude that Transceiver from the Group thereby preventing it from listening to or taking part in conversations.

To reset the Pair Key for a ListenTALK Group, place the Leader, Sub-Leader(s) and Participants into their respective Docking Station pockets. Then, press and hold the Docking Station Pairing Button for five seconds. The Pairing Indicator and Status Indicators will flash momentarily and then turn solid indicating success. The ListenTALK Software Suite can also implement this process.

To reset the Pair Key for a ListenTALK Group without a Docking Station, set the Leader's New Pair Key menu choice to "Always". Then, repeat the Near Field Communication pairing operation for all Transceivers in a Group.

Note that the Docking Station and Software Suite force a New Pair Key without regard to the Leader's New Pair Key menu choice.

LISTENTALK TRANSCEIVER PROGRAMMING

ListenTALK Transceivers may be programmed by placing them in the Docking Station and connecting the Docking Station USB Port to a Windows computer equipped with the ListenTALK Software Suite. An individual ListenTALK Transceiver may be programmed by connecting its Micro USB to the USB port on a Windows computer equipped with the ListenTALK Software Suite. An individual ListenTALK Transceiver may be programmed by pressing specific buttons on the Transceiver while monitoring its Graphic Display. Programming choices are described in the following topic.

Programming an Individual ListenTALK Transceiver Without a Computer

Accessing the ListenTALK Transceiver Menu

Turn on the Transceiver. Then, simultaneously press and hold the Power Button and Volume Down Button for about three seconds to access the Programming Menu. The Display will say "Main Menu" at the top left. The Transceiver will automatically exit the Menu after 20 seconds of inactivity.



Navigating the Menu

Scroll through Menu Items using the Volume Up and Down Buttons. The Display shows the current Menu Item in large type. The previous and next Menu Items are displayed in smaller type above and below the current Menu Item.

Press and momentarily hold the Right Soft Button to access a Menu Item. Then, scroll through options for this Menu Item using the Volume Up and Down buttons. To choose an option, press and momentarily hold the Right Soft Button again. The Menu Item will display a check mark to confirm your choice. Then, press and momentarily hold the Left Soft Button to exit this Menu Item.

Exiting the ListenTALK Transceiver Menu

To exit the Transceiver menu and save your choices, press the Left Soft Button twice. The Display will show "Updated" to confirm that your choices have been saved.

Transceiver Menu Choices

Mic Select

Auto (default): Automatically selects an external mic, if present, or the ListenTALK's internal mic if no external mic is detected.

Internal: Forces force use of the ListenTALK's internal microphone.

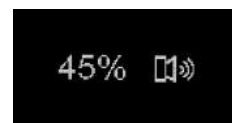
External: Forces use of an external microphone.

Line: Allows use of an external, -10dBu line-level source.

Mic Gain

Auto (default): Appropriate for the Transceiver's internal microphone and most external microphones.

Numeric: To manually adjust the gain for an external microphone or line-level source, scroll up or down for up to ± 12 dB of increase/decrease in 3dB increments.



Brightness

Auto (default): Uses the ListenTALK's Light Sensor to adjust Display brightness.

Bright or Dim: Permanently adjusts the display brightness.

Off: Turns the display off during normal use. (Volume Up & Down, Talk Button remain functional).



Auto Power

On (default): The Transceiver will automatically turn off and charge when it is returned to the Docking Station and automatically turn on when it is removed from the Docking Station.

Off: Control the Transceiver's on/off status manually.

Auto Off

30 Minutes (default): Turns the Transceiver off after 30 minutes of inactivity (no link to Leader).

20 Minutes or 10 Minutes: Turns the Transceiver off after 20 or 10 minutes of inactivity.

Off: Disables the Auto Off function.

Jacksense

On (default): Turns on the Transceiver when a headset is connected to the Headset/Microphone Port; turns off the Transceiver when the headset is disconnected.

Off: Control the Transceiver's on/off status manually.

Sidetone

Normal (default): A talker hears their own voice at a normal level in their own headset.

Quiet or Loud: Decreases or increases the level of a talker's voice in their own headset.

New Pair Key

This menu choice – which only functions on a Leader - controls ListenTALK New Pair Key security. Please see ListenTALK Security on Page 18 for a discussion of this menu choice.

Mode Select

Use Leader Clip (default): You must insert a Leader Clip to convert a Transceiver into a Leader.

Force Leader: Converts a Transceiver into a Leader without a Leader Clip.

Language

English (default): The default language for the Menus is English.

Espanol, Duetsch, Français; Presents Menus in Spanish, German or French.

Reset Device

No (default): Maintains existing menu choices, Group name and Pair Key.

Yes: To reset the ListenTALK to all factory default settings, choose Yes.

LISTENTALK DOCKING STATION OPERATION (SEE PAGES 9 - 10)

The ListenTALK Docking Station operates as a charger and programming station and provides convenient storage for ListenTALK Transceivers. Mount the Docking Station on a flat surface. Connect the Power Supply to the Docking Station and to any standard AC outlet (100/240 VAC, 50/60 Hz). Place ListenTALK Transceivers into the Leader and Participant Pockets to charge and program the Transceivers.

Creating a ListenTALK Group with the Docking Station

To create a Leader, or Sub-Leader snap a red Leader Clip onto any Transceiver. Omit the Leader Clip from Participant ListenTALKs. Place the Leader in the Docking Station's red Leader Pocket. Place Sub-Leader(s) and Participants in the Docking Station's black Participant Pockets.

To create a Group, Pair the Leader with Sub-Leader(s) and Participants by pressing the Pairing Button momentarily on the Docking Station. The Pairing Indicator will flash during pairing, then turn solid and finally extinguish when the pairing process is completed.

Resetting a Group's Pair Key with the Docking Station

To reset the Pair Key for a ListenTALK Group, place the Leader, Sub-Leader(s) and Participants into their respective Docking Station pockets. Then, press and hold the Docking Station Pairing Button for five seconds. The Pairing and Status Indicators will flash momentarily and then turn solid indicating success.

Checking ListenTALK Status with the Docking Station

Press the Docking Station Status Button. The Status Indicator will illuminate and the individual ListenTALK Graphic Displays will show ListenTALK Transceiver ID, Group name, Group number, battery status, signal strength and other information.

LISTENTALK ADVANCED FEATURES

Using Multiple ListenTALK Groups

Each ListenTALK Group operates on its own communications channel. You may create an unlimited number of ListenTALK Groups and up to ten Groups may operate without interference within a given area. ListenTALK Groups have one Group Leader and an unlimited number of Sub-Leaders and Participants. Communication within a Group is encrypted by a unique Pair Key making ListenTALK an ideal choice for facilities that need secure communications for simultaneous translation, tour-guide use and other applications. Please see "ListenTALK Security" on Page 18 for more information.

Charging and Battery Replacement

Rechargeable ListenTALK Transceivers may be charged in the Docking Station. To charge an individual Transceiver, connect a USB charger to its Micro USB port.

To replace batteries on a non-rechargeable Transceiver, depress the button on the battery door and slide the battery door downwards. Insert three AAA size alkaline batteries.

Updating ListenTALK Firmware

ListenTALK Transceiver firmware updates are available through the ListenTALK Software Suite.

LISTENTALK SOFTWARE SUITE

The ListenTALK Software Suite allows a Windows computer to program a ListenTALK system and check ListenTALK status. After installation, the software will automatically connect to any Docking Station or individual Transceiver connected to the computer's USB port.

ListenTALK Software Suite features include complete setup, inventory management, group creation and naming. The suite includes an extensive help file.

LISTENTALK ACCESSORIES

A wide variety of accessories enable ListenTALK systems to be configured for many different applications. A complete list and full description of ListenTALK accessories may be found at: www.listentech.com/assistive-listening/listentalk/

Docking Station Case 16

The Docking Station Case has the same features as the Docking Station Tray 16 in a convenient portable form.

Chargers

For applications that do not require Docking Station programming features, Listen offers a one-port or four-port USB charger.

Headsets

Several varieties of headsets are available allowing ListenTALK usage in quiet and noisy environments. ListenTALK Transceivers accept third-party earphones and microphone-equipped earphones through their 3.5mm Headset/Microphone Ports. ListenTALK Transceivers include a built-in microphone which may be used by Participants in quiet environments.

Other Accessories

Other accessories include a spare Lithium-Ion Rechargeable Transceiver Battery Pack, a AAA Alkaline Battery Compartment and a Transceiver Protective Case.

LISTENTALK APPLICATIONS

Tour Guide System

A ListenTALK System is ideal for use as a museum, factory or other facility tour-guide system. Create a ListenTALK Group as described on Page 15. Press and release the Leader's Talk Button to toggle between Talk and Mute. Press and hold a Participant Talk Button to talk to the Leader or Group as defined by the Leader's choice of Talkback Modes (see Page 17).

Tour Guide System with Leader and Sub-Leader

A second ListenTALK Leader, known as a Sub-Leader, is useful for two-instructor tours, classrooms or any application where a second Leader will accompany a group and speak to all Group members. Insert a red Leader Clip onto a Transceiver and Pair it to the Leader (see Page 15) to create a Sub-Leader. The Leader controls the Group name, Pair Key and Talkback Modes. The Sub-Leader Talk Button toggles between Talk and Mute modes. Sub-Leaders can Pair with new Sub-Leaders or Participants, making them members of a Group and passing the Group name and Pair Key from the Leader.

Training and Collaboration

A ListenTALK System with multiple Sub-Leaders is ideal for training in a corporate or sports setting. Choose a noise-cancelling, microphone-equipped headset when needed for noisy environments and set the ListenTALK System Talkback Mode as desired to restrict or enable talkback from Sub-Leaders and Participants (see Page 17).

Simultaneous Translation

It may be desirable to create two, separate ListenTALK Groups so that Participants speaking one language are not confused by translation into a second language. For this application, create two separate ListenTALK

Groups in a normal manner as described on Page 15. The ListenTALK Software Suite allows Groups to have descriptive names such as “English” and “Spanish”.

Wireless Intercom

Two or more ListenTALK Transceivers may be used as a versatile wireless intercom for event production, sporting activities and training sessions and it can facilitate workgroup collaboration in warehouses, manufacturing environments or construction sites. Create a ListenTALK Group with one Transceiver as Leader and the other Transceivers as Sub-Leaders to enable hands-off, full-duplex conversations.

The Talk Button on a Leader or Sub-Leader is a toggle – touch once to talk; touch again to mute. This allows a Leader and a Sub-Leader to hold a hands-off, full-duplex conversation (both in Talk Mode). If a second Sub-Leader presses their Talk Button, they take over the conversation and the first Sub-Leader automatically mutes. Multiple Sub-Leaders can hold a conversation with the Leader in this manner while other Sub-Leaders listen. To enable this capability, the Leader must choose “Group Mode” using their Left Soft Button. Also see “Operation with Leader and Sub-Leader” on Page 17.

LISTENTALK SYSTEM TROUBLESHOOTING

The ListenTALK Has No Power

Make sure the ListenTALK has a fully charged battery or is connected to a standard USB charger. Make sure the Power Button on the top of the Transceiver has been pressed to turn the Transceiver ON. If this does not work, make sure the battery is installed properly and/or install a replacement battery.

There is No Audio

Check that the ListenTALK is on the same Group with other Participants and the Leader. Make sure the Volume Control is turned up to at least 25%. Confirm that the headset is plugged in all of the way.

Audio is Distorted

Verify the audio on the transmitter is not turned up too loud; this will cause distortion. Insure the headset connectors are pushed all the way into the Headset/Microphone Port on top of the Transceiver. Try a different headset.

I Cannot Pick Up the Signal on My ListenTALK

Check to make sure the ListenTALK Leader and Participants are members of the same group.

I Can Pick up the Signal on the ListenTALK, but it Sounds like it's not Tuned in.

Check the ListenTALK Leader and Participant and confirm members of the same group and move closer to the Leader.

My Battery is Not Charging (Rechargeable ListenTALK Transceivers).

Verify the clear plastic pull tab has been removed from the ListenTALK battery door engaging the battery connections. Make sure the battery is installed properly and that the Transceiver is fully inserted into the Docking Station pocket. If using a USB charger, try another USB cable. Check the charging device to verify it is plugged in the proper power outlet and power is available at the outlet. If this does not work, install a replacement battery.

I Want to Run the ListenTALK Transceiver from a USB Charger

Simply plug any standard USB charger into the Micro USB connector on the side of the ListenTALK Transceiver.

COMPLIANCE NOTICE AND FCC STATEMENT AND INDUSTRY CANADA STATEMENTS

Compliance Notice

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

FCC Statement

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. 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 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.

ICES Statement

This device complies with ICES-003 class B.

This device complies with Industry Canada's license-exempt RSS. 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.

Cet appareil est conforme à la classe B de l'ICES-003

Cet appareil est conforme avec Industrie Canada RSS standard exempts de licence (s). Son utilisation est soumise aux deux conditions suivantes:

- (1) cet appareil ne peut pas provoquer d'interférences et
- (2) cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

CAN ICES-3 (B)/NMB-3(B)

WARRANTY

Please visit www.listentech.com/support/warranty/ for warranty and service information.

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