ListenTALK

Surgical Center

LISTEN

Traditional two-way communication technology doesn't meet the needs of all training or collaborative environments.

In a medical center, the surgical team needs to communicate with the support team or students evaluating the medical procedure from an adjacent room. The problem with traditional two-way technology in a surgical center is the constraints associated with having to hold or wear a transmitter or receiver.

Challenges:

- The surgical team must be hands-free—there is no way to push a button or wear any equipment.
- Two-way communication is a necessity and the communication path must be reliable and consistent.
- Superior audio quality to ensure that all communications are clear.
- To comply with government confidentiality regulations the communication must be secure without being hacked or disrupted.
- Must be simple to use.

Solution

ListenTALK collaborative two-way communication system is the first product of its kind to work hands-free in a secure, medical environment.

Here's How it Works:

In the surgical room a shotgun microphone is used to pick up the voices from the surgical team, and a speaker is used to hear the support team from the adjacent room.
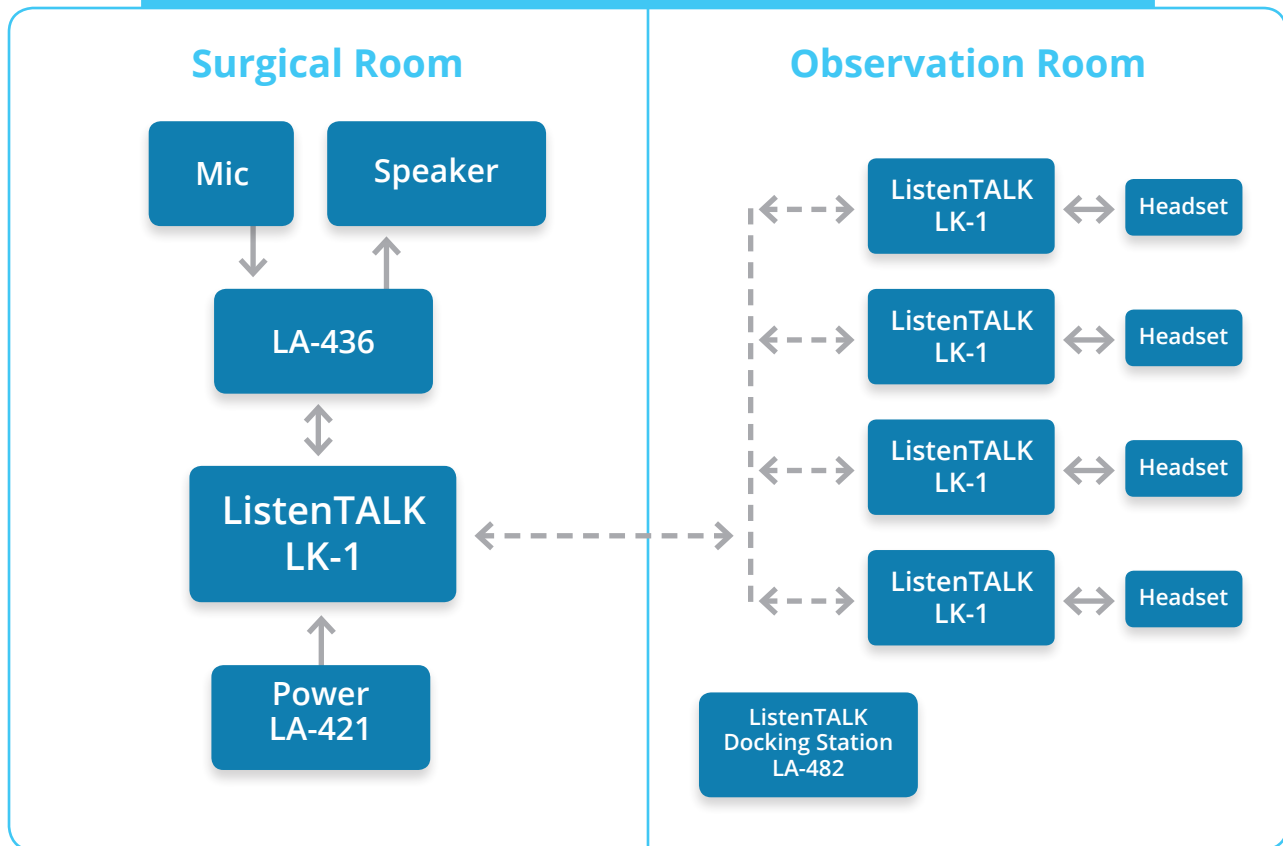
Both the mic and the speaker are connected to a ListenTALK LK-1 transceiver that wirelessly sends and receives two-way, high quality, encrypted audio between the surgical team and support team.

In the support room, each of the team members uses a LK-1 transceiver either on their belt or on a lanyard with a headset earphone/microphone allowing them to hear clearly and be understood when speaking. When the support team members want to talk, they simply push the TALK button.

LISTEN
TECHNOLOGIES

www.listentech.com

Hands-Free Surgical Center

Surgical Room

Mic

Speaker

LA-436

ListenTALK
LK-1

Power
LA-421

Observation Room

ListenTALK
LK-1 ↔ Headset

ListenTALK
LK-1 ↔ Headset

ListenTALK
LK-1 ↔ Headset

ListenTALK
LK-1 ↔ Headset

ListenTALK
Docking Station
LA-482

Simple Workflow

1 Before surgery, the support team collects the LK-1 from the charger, the unit automatically turns on when picked up.

2 The support team puts on the headset/microphone and attaches the unit to their belt, or it can be worn around the neck with a lanyard.

3 *When the support team wants to talk, they simply push the TALK button, when finished they push the TALK button again.

4 In the surgical room, the communication path is always open, the surgical team listens and talks freely.

5 When finished the support team returns the LK-1 units to the charging tray, once connected they automatically turn off and begin to charge.

* Note, only one support team member can talk at a time to ensure clear communication. When the button is pressed while someone is talking, the talk path ends and is redirected to the person who pressed the button.

Technical Description

In the surgical room, a shotgun microphone is aimed directly at the surgical team to ensure excellent audio quality.

Note, an omni-directional microphone is not recommended because it picks up the sound from the entire room.

The surgical team hears the audio from the support team via a self-powered speaker located away from the microphone to provide acoustic isolation.

A ListenTALK LK-1 transceiver is connected to the shotgun microphone and the self-powered speaker using the LA-436 Microphone Input/Headphone Output cable. The LK-1 is powered from the LA-421 USB Power Supply and USB cable.

The LK-1 is mounted to the side of the self-powered speaker.

Equipment List

Quantity	Part Number	Description	Where to Use
1	Sourced	Phantom-Power PSU	Surgical Room
1	Sourced	Shotgun Microphone	Surgical Room
1	Sourced	Shotgun Microphone to male 3.5mm cable	Surgical Room
1	Sourced	Self-Powered Speaker	Surgical Room
1	Sourced	Self-Powered Speaker to male 3.5mm cable	Surgical Room
1	LK-1	ListenTALK Transceiver	Surgical Room
1	LA-436	ListenTALK LK-1 to two input/output female 3.5mm connectors	Surgical Room
1	LA-421	USB Power Supply	Surgical Room
1	LA-422	USB Power Supply Cable	Surgical Room
1	Sourced	Power Strip	Surgical Room
1	Sourced	Heavy-duty Mounting Velcro	Surgical Room
4	LK-1	ListenTALK Transceiver including rechargeable battery and lanyard	Support Room
4	LA-452	Headset 2 Microphone/Earphone	Support Room
1	LA-482	4-Unit LK-1 Docking/Charging Station	Support Room

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