

T25

Instructional Audio System



User Manual



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OVERVIEW



Important Safety Instructions

1. Do not use the apparatus near water.
2. Clean only with dry cloth.
3. Do not block any ventilation openings.
4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
5. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the outlet.
6. **WARNING:** Battery pack shall not be exposed to excessive heat such as sunshine, fire or the like. (1) The battery pack is not serviceable. Do not open, disassemble, or service any battery pack. (2) Do not crush or cut or puncture the internal battery cell. (3) Do not short-circuit the battery, or expose it to water or other liquids. (4) Do not touch the internal battery cell for any reason. (5) Keep the battery away from fire or a hot oven. Do not dispose of the battery into fire or a hot oven. (6) Keep the product with battery away from extremely low air pressure or high temperature surrounding environment. Battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas. (7) Stop using the battery pack if it is damaged, or if you notice any discharge or the buildup of foreign materials on the battery contacts. (8) Do not put the battery in trash that is disposed of in landfills. When disposing of the battery pack, comply with local ordinances or regulations.
7. **CAUTION:** Risk of explosion if battery is replaced by any battery other than Lightspeed Part # L3.7V



OVERVIEW



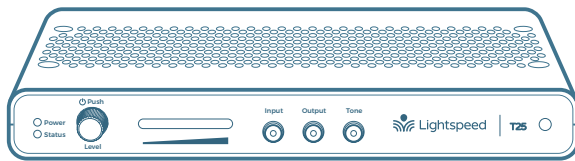
Consignes de sécurité importantes

1. N'utilisez pas l'appareil près de l'eau.
2. Nettoyer uniquement avec un chiffon sec.
3. Ne bloquez aucune bouche d'aération.
4. Ne l'installez pas à proximité de sources de chaleur telles que des radiateurs, des registres de chaleur, des cuisinières ou d'autres appareils (y compris des amplificateurs) produisant de la chaleur.
5. N'annulez pas l'objectif de sécurité de la fiche polarisée ou de mise à la terre. Une fiche polarisée a deux lames dont l'une est plus large que l'autre. Une fiche de type mise à la terre a deux lames et une troisième broche de mise à la terre. La lame large ou la troisième dent est prévue pour votre sécurité. Si la fiche fournie ne rentre pas dans votre prise, consultez un électricien pour remplacer la prise.
6. Avertissement: La batterie ne doit pas être exposée à une chaleur excessive telle que le soleil, le feu ou similaire. (1) La batterie n'est pas réparable. N'ouvrez, ne démontez et n'entretenez aucun bloc-piles. (2) Ne pas écraser, couper ou percer la cellule de batterie interne. (3) Ne court-circuitez pas la batterie et ne l'exposez pas à l'eau ou à d'autres liquides. (4) Ne touchez pas la cellule de la batterie interne pour quelque raison que ce soit. (5) Gardez la batterie à l'écart du feu ou d'un four chaud. Ne jetez pas la batterie au feu ou dans un four chaud. (6) Gardez le produit avec la batterie à l'écart d'une pression d'air extrêmement basse ou d'un environnement à haute température. Une batterie soumise à une pression d'air extrêmement faible peut provoquer une explosion ou une fuite de liquide ou de gaz inflammable. (7) Arrêtez d'utiliser la batterie si elle est endommagée ou si vous remarquez une décharge ou l'accumulation de corps étrangers sur les contacts de la batterie. (8) Ne jetez pas la batterie dans des ordures qui sont jetées dans des décharges. Lors de la mise au rebut de la batterie, respectez les ordonnances ou réglementations locales.
7. Mise en garde: Risque d'explosion si la batterie est remplacée par une batterie autre que Lightspeed partie #L3.7V.

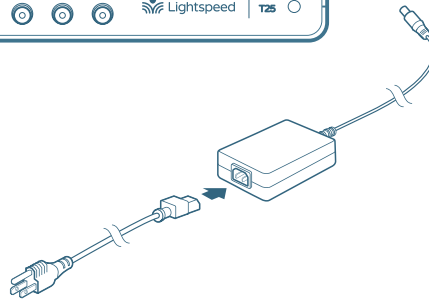


System Components and Unpacking

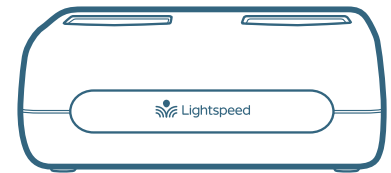
The standard configuration of the T25 system includes:



T25
Instructional Audio System
with Power Supply



Clearmike
Teacher Microphone



Microphone Cradle Charger
and Power Supply



TIP: The T25 and wireless microphones are paired together at the factory. Please keep all components together as a system. Moving them from one system or room to another will result in the need to re-pair them to function.



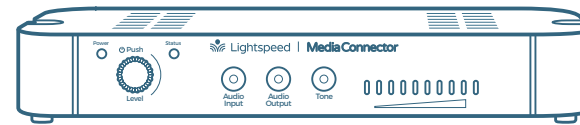
Optional Components

Optional equipment which may be part of your T25 system.



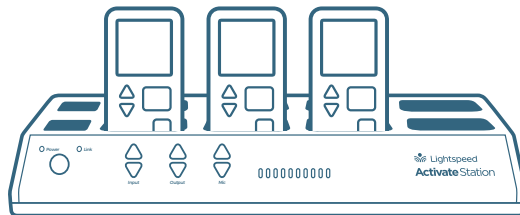
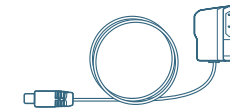
SHAREMIKE

Student Microphone *(Optional)*



MEDIA CONNECTOR

and Power Adapter



ACTIVATE SYSTEM

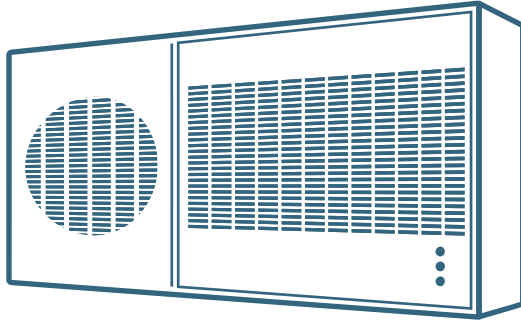
Group Learning Pods

For further information on Activate,
please visit www.lightspeed-tek.com

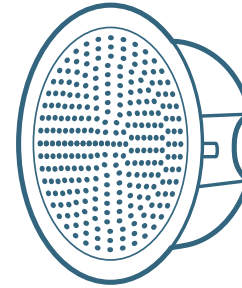


Optional Speakers

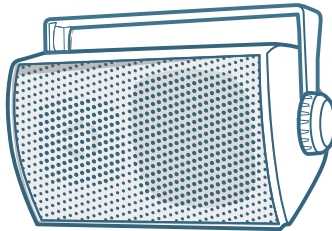
SYSTEMS CAN BE CONFIGURED WITH A VARIETY OF CEILING OR WALL-MOUNTED SPEAKERS, INCLUDING THESE LIGHTSPEED MODELS.



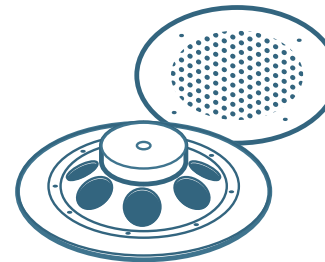
TCQ (x 1)
Hybrid Ceiling Speaker



DRQ (x 4)
Ceiling Speaker



WMQ (x 4)
Wall Speaker
Available in U.S. and Canada only



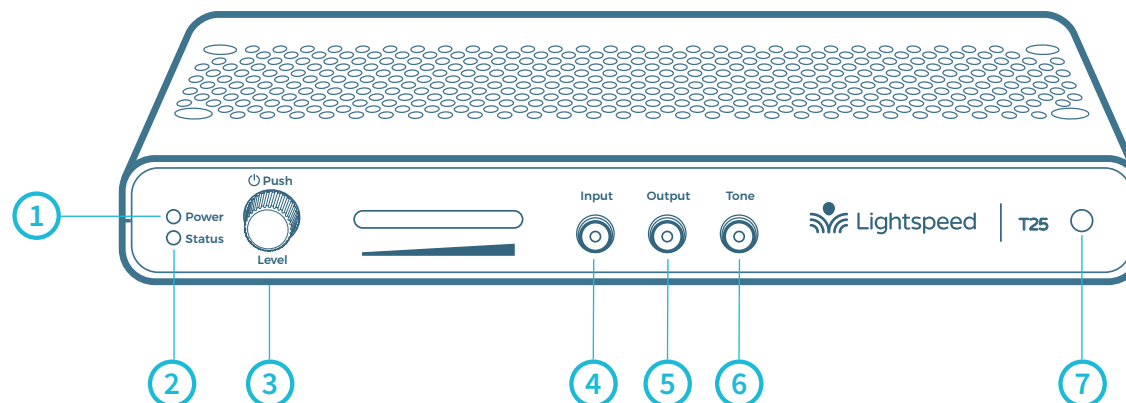
4JCS (4 per room)
Plenum Ceiling Speaker
Available in U.S. only



T25 Controls and Indicators

FRONT PANEL

1. **POWER LIGHT**
White light: Power on
2. **STATUS LIGHT:** Microphone link and pair indicators.
Green light: Microphone(s) is/are connected to the system
Off: Microphone(s) is/are not connected to the system
3. **POWER BUTTON / VOLUME ADJUSTMENT:** Press and hold this button for one second to turn the system power on or off. This also functions as an adjustment knob for the volume and tone depending on the mode selected (see 4,5,6 below).
4. **AUDIO INPUT VOLUME SELECTOR:** Selects Audio Input as the mode for the adjustment knob (3) for the audio sources connected to the audio inputs on the back of the T25.
5. **AUDIO OUTPUT VOLUME SELECTOR:** Selects Audio Output as the mode for the adjustment knob (3) for the audio device connected to the audio output jack on the back of the T25.
6. **TONE SELECTOR:** Selects Tone as the mode for the adjustment knob (3) for the microphone. This adjusts the bass or treble that is heard through the speaker output.
7. **IR RECEIVER:** For pairing to microphone.

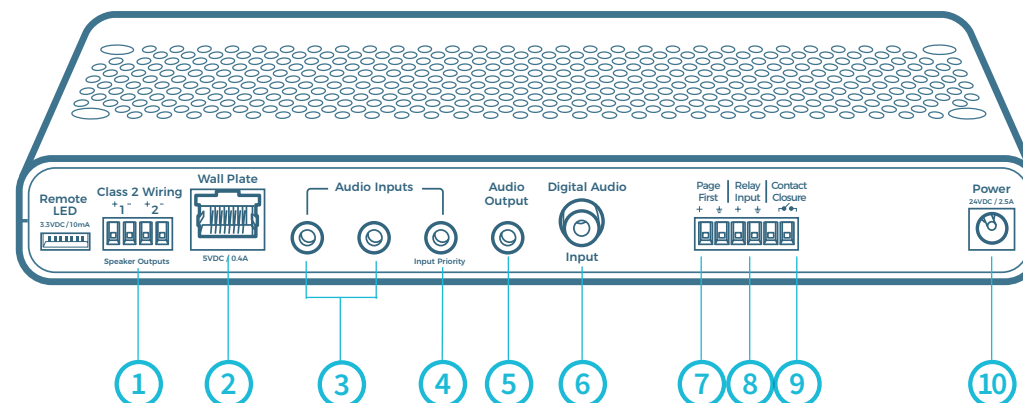




T25 Controls and Connections

BACK PANEL

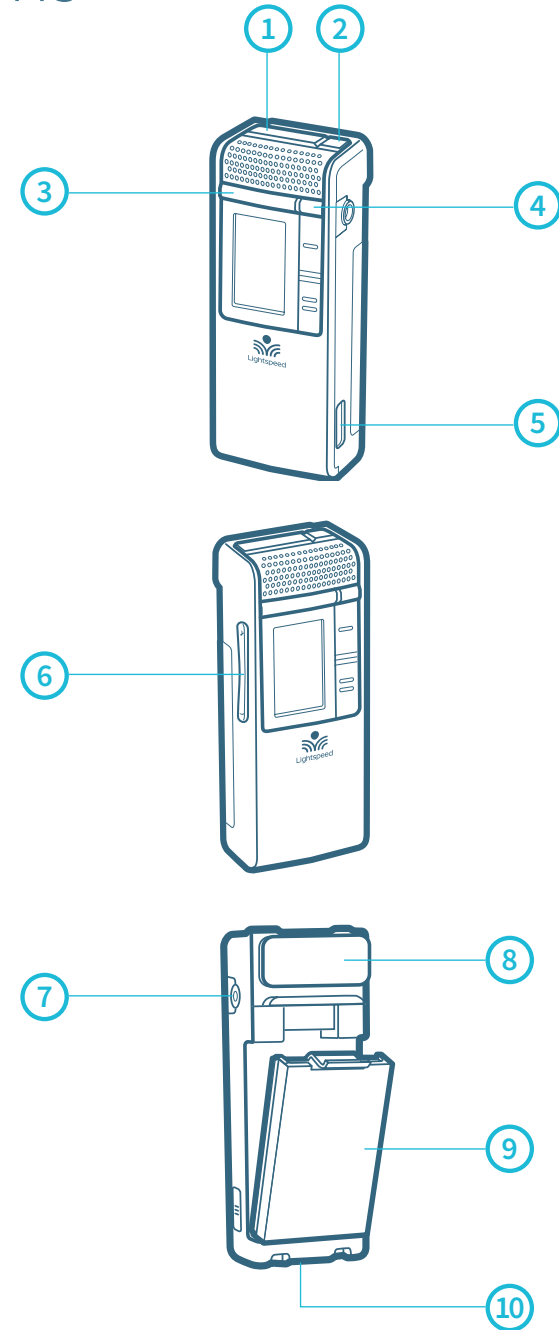
1. **SPEAKER OUTPUTS:** This Euroblock connector is used to connect the T25 to the loudspeaker(s). Up to two 8-ohm speakers can be connected to each output.
NOTE: *Wiring to these terminals should follow the Class 2 wiring methods as outlined in the National Electric Code.*
2. **RJ45 for Wallplate**
3. **AUDIO INPUTS:** 3.5mm stereo connectors for connecting classroom audio sources to be played through audio system.
4. **INPUT PRIORITY:** Additional 3.5 mm stereo connector that automatically mutes other audio inputs when a signal is detected.
5. **AUDIO OUTPUT:** 3.5mm stereo connector for connecting to an assisted listening device (ALD) or to a computer for recording.
6. **S/PDIF RCA:** Digital Audio Input to connect one T25 to another.
7. **PAGEFIRST INPUT:** Connect the input from the optional PageFirst sensor here when interfacing with a building's paging system to mute the T25 during a page.
8. **RELAY INPUT:** Senses external relay closure to mute T25 audio when a signal from a fire alarm, paging system or other device is detected.
9. **CONTACT CLOSURE:** Internal relay contact closure to provide signal to notify external system based on user input.
10. **DC POWER:** Plug the power supply (24V/2.5A) into this jack.





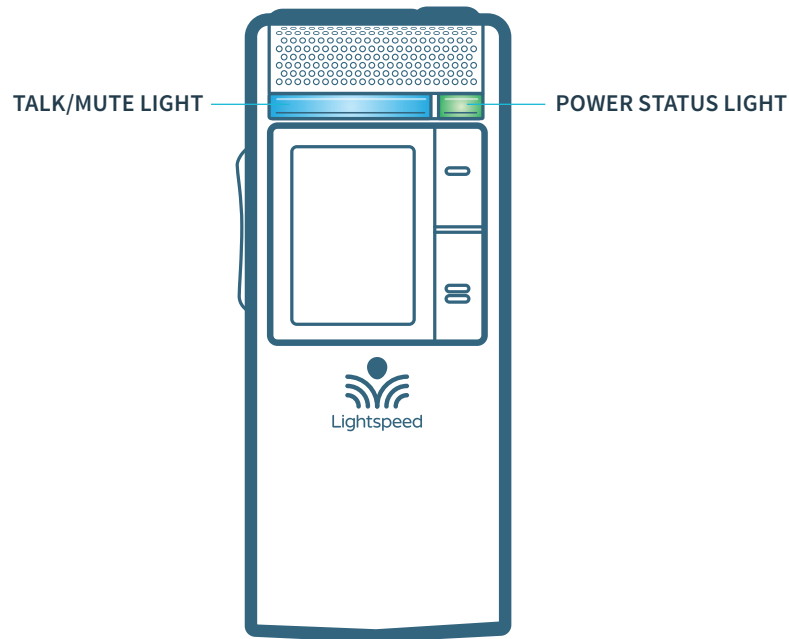
Clearmike Controls and Connections

1. **POWER/MUTE BUTTON:** Press and hold 1 second to power on. Press and hold for 2 seconds to power off. Tap to mute or talk. Press and hold for 5 seconds to initiate pairing.
2. **IR TRANSMITTER:** For pairing to base unit.
3. **TALK/MUTE LIGHT:** See page 10 for light color descriptions.
4. **POWER STATUS LIGHT:** See page 10 for light color descriptions.
5. **EMERGENCY ALERT BUTTON:** Press and hold 2 seconds to activate alert.
6. **MICROPHONE VOLUME UP/DOWN**
7. **EARBUD/MIC CONNECTION:** For use with optional EMA (earset) or LMA (lapel) microphones..
8. **LANYARD INTERFACE:** Insert the lanyard into this hook to wear the Clearmike.
9. **BATTERY:** Rechargeable battery pack can be replaced by the user.
10. **USB INPUT:** Connect audio source to send to T25. USB input can also be used for charging.





Microphone Lights



LEFT LIGHT / RIGHT LIGHT



OFF / OFF: Mic off or no live link with base



SOLID WHITE / OFF: Mute, live link with base



SOLID BLUE / OFF: Talk



ANY COLOR / BLINKING RED: Low Battery



BLUE/WHITE ALTERNATING / OFF: Pairing



OFF / BLINKING ORANGE: Firmware update in progress

In Charger:



OFF / SOLID RED: Charging



OFF / SOLID GREEN: Charged

Plugged into USB:



SOLID BLUE / SOLID RED: Charging



SOLID BLUE / SOLID GREEN: Charged



Clearmike Display

BATTERY INDICATOR

(Full, half, empty)

MUTE INDICATOR/ VOLUME

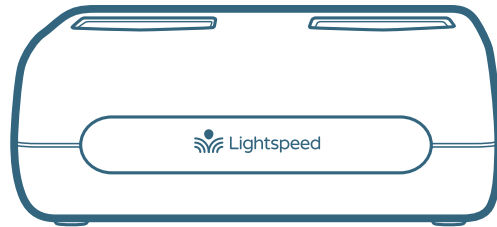
MIC NUMBER (M1 OR M2)

DEFAULT SCREEN

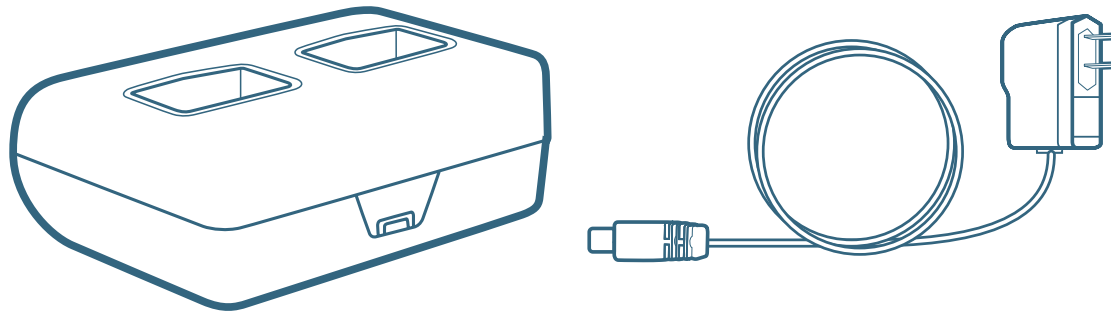




Microphone Cradle Charger



DC POWER PORT: Connect the 5V/1.0A DC power cord

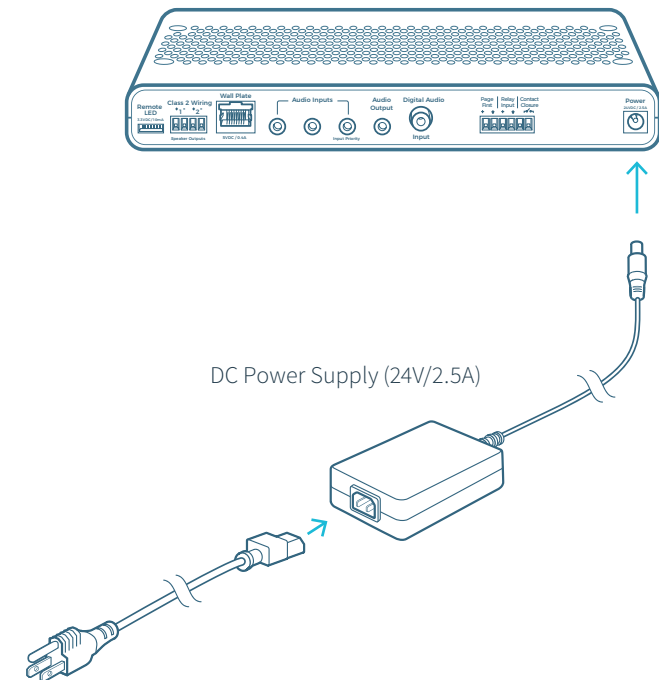




SET-UP & OPERATION

Connecting the Power Supply

- Locate the power supply and AC power cord.
- Connect the AC power cord into the DC power supply.
- Insert the DC connector into the “Power” port on T25 and plug the other end to an electrical outlet.
- The T25 automatically powers on and the white Power light on the front panel will turn on.
- A network connection is required for network communication when using the DC power supply.



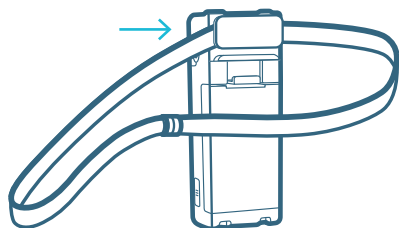


Charging the Clearmike

BEFORE USE, THE CLEARMIKE SHOULD BE CHARGED

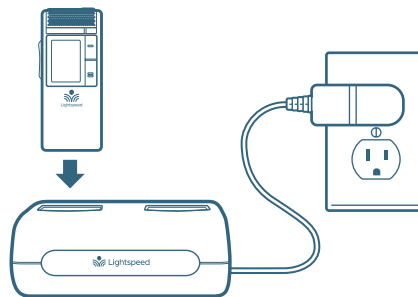
It will take 5-6 hours for the Clearmike to obtain a full charge. A fully charged Clearmike will last for up to 8 hours of use. If microphones are used daily, they should be charged each night.

Replacement lithium polymer battery packs may only be purchased through Lightspeed (part # L3.7V).



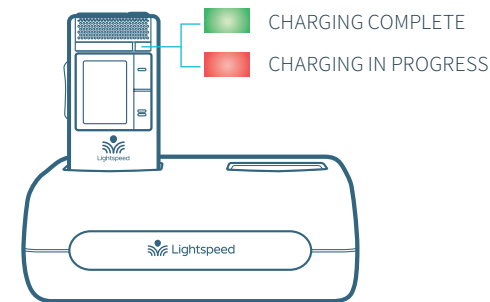
ATTACH LANYARD

Hang the Clearmike on the lanyard opposite the magnetic clasp.



CONNECT CRADLE CHARGER

Plug power cord into the cradle charger and then plug the AC end into an electrical outlet.



CHARGE CLEARMIKE

Place the microphones into the cradle charger. The power status light will glow red when it is charging. When charging is complete, the power status light will glow green.

It takes about 5-6 hours to fully charge the microphone battery.



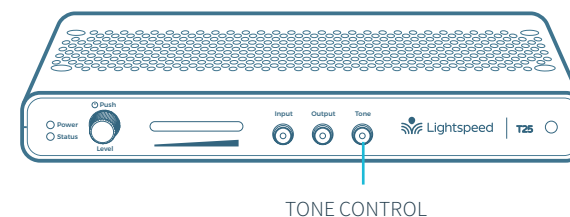
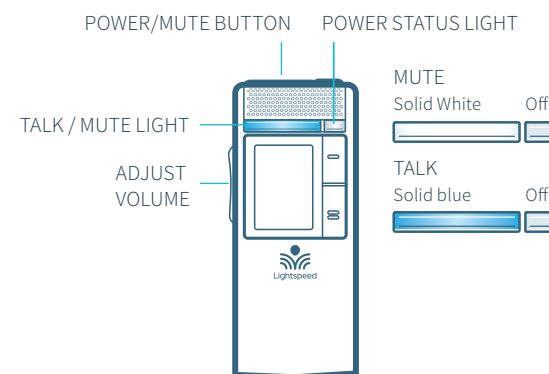
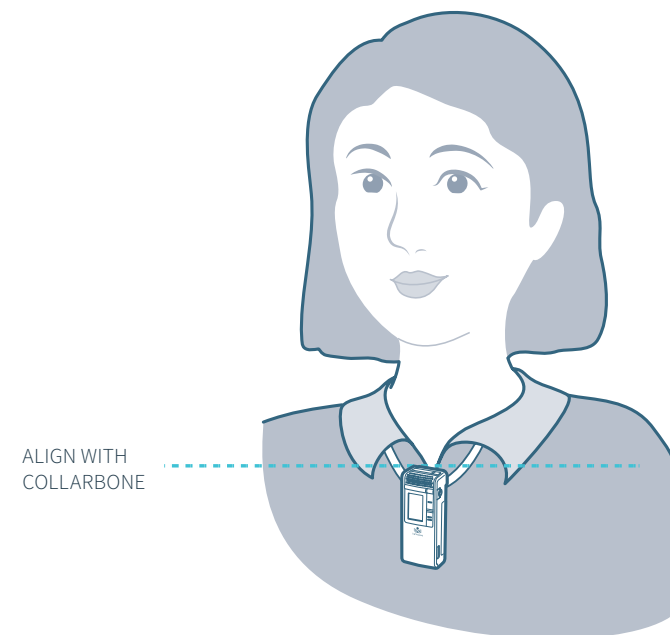
Setting Up the Clearmike

Once the Clearmike is charged, follow these steps for use.

1. Remove the Clearmike from the charger and put it on by connecting the magnetic clasps behind your neck. Adjust the lanyard so that the top of the Clearmike aligns with the collarbone.
2. The Clearmike will automatically power on and mute when it is removed from the charger.
3. The microphone volume on the Clearmike is set at the factory to the midpoint. It is adjusted by the up/ down buttons on the side of the mic. The volume can only be adjusted while the microphone is in talk mode.
4. While speaking in a normal voice, fine tune the microphone volume. Proper volume level should be as follows:
 - Your voice should be clearly heard by another person on the other side of the room.
 - You should barely be able to hear your own voice.
 - There should not be any audio “feedback” or squealing unless you are too close to a speaker (2-3 feet). If there is, turn the volume down slightly.

REMEMBER: This equipment supplements the user’s voice so they are able to speak in a conversational tone. Having the volume set too high will result in feedback and listener fatigue.

- Once initial volume level is set, walk around the room and listen for overall audio quality.
- If further fine tuning is required, you may need to adjust the Tone Control on the front of the T25.





Daily Use of the Clearmike

1. AT THE START OF THE DAY, REMOVE CLEARMIKE FROM THE CHARGER

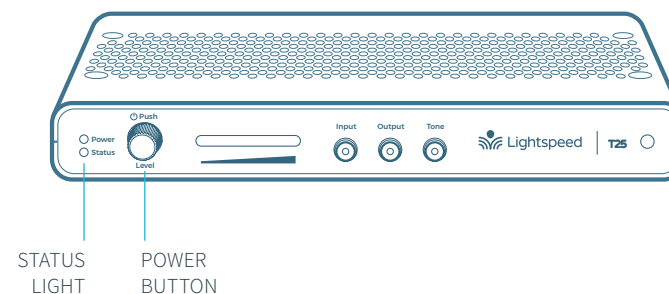
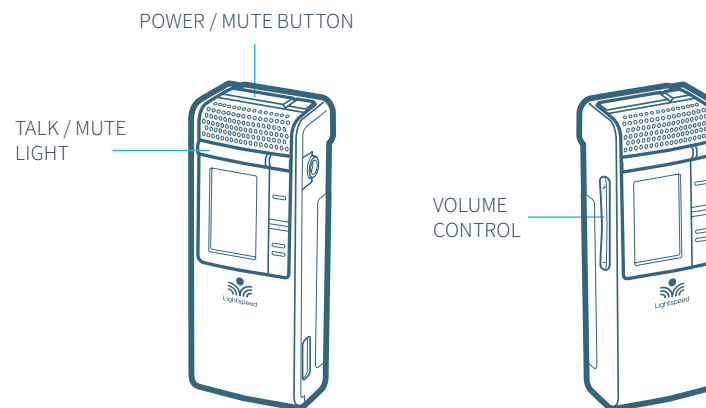
- The microphone will default to the Mute state, the Talk/Mute light will turn to white.
- Place the microphone around your neck.
- Press the power/mute button. The Talk/Mute light will turn blue, indicating the microphone is active and ready to use.
- Adjust volume with the UP/DOWN buttons if necessary. The volume can only be changed when the microphone is in the Talk state.
- If Clearmike needs to be powered down for some time, press and hold the power button for 2 seconds and release. To power Clearmike again, press and hold the power button until the Talk/Mute light turns white.

2. PRIVATE CONVERSATIONS

- Mute the Clearmike during private conversations by momentarily pressing the power button. When muted, the blue light turns white.
- When conversation is over, momentarily press the power button again to unmute the Clearmike.

3. END OF DAY

- Place the Clearmike into the cradle charger and make sure the power supply is plugged in to an electrical outlet.
- The T25 will not power down if it has a live link to a microphone. After 60 minutes of audio inactivity, the T25 will automatically power down.
- When Clearmike is removed from charging cradle the next day, it will automatically power on the T25.





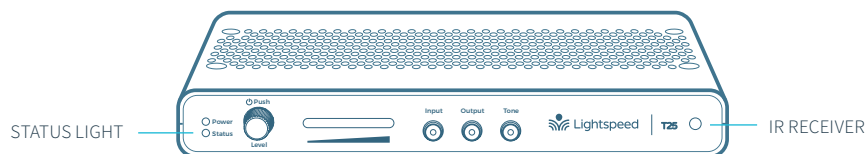
Pairing your Clearmike



Your system is shipped with microphones and base units pre-paired for quick and easy use.

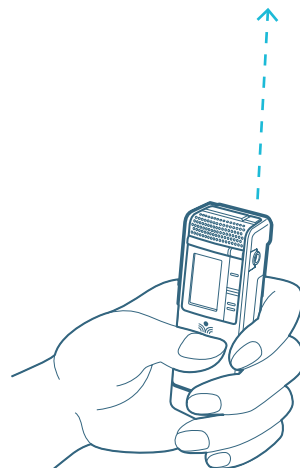
If for any reason you need to pair new components, follow this pairing process:

PLEASE NOTE: All microphones must be out of the charger while pairing.



①

With the Clearmike powered off, point the IR transmitter lens toward the T25.

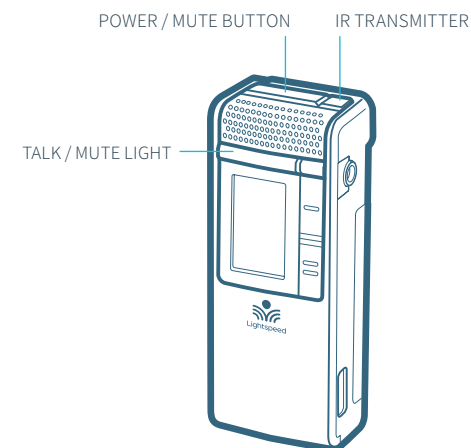


②

Press and hold the Power/Mute button for 5 seconds until the Talk/Mute light starts flashing green and white. The Status light on the T25 will also start flashing green and white.

③

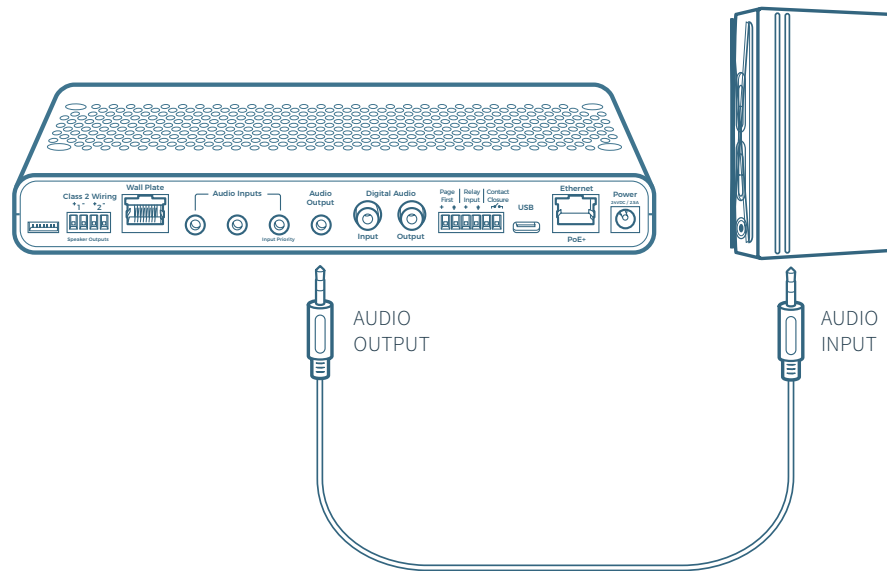
When complete, the Status light on the T25 will turn green, the Talk/Mute light on the microphone will be white, and the display on the microphone will say "Pair Success".





Output Audio to Assistive Listening Device (ALD)

1. Press the Audio Output Selector first, then turn the volume control on the front panel all the way down (fully counterclockwise).
2. Determine the type of audio input jack on the ALD as manufacturers' products differ in connector size and shape. Many require a 3.5 mm to 3.5 mm patch cable (part# MSC3535, not included).
3. Connect a patch cable from the ALD microphone jack or AUX input to AUDIO OUT jack on the back of the T25.
4. With the T25 and ALD turned on, speak into the Flexmike and slowly adjust the corresponding volume control on the T25 until the appropriate audio level is obtained in the ALD.
5. It may be necessary to adjust the volume on the ALD to achieve appropriate volume level.





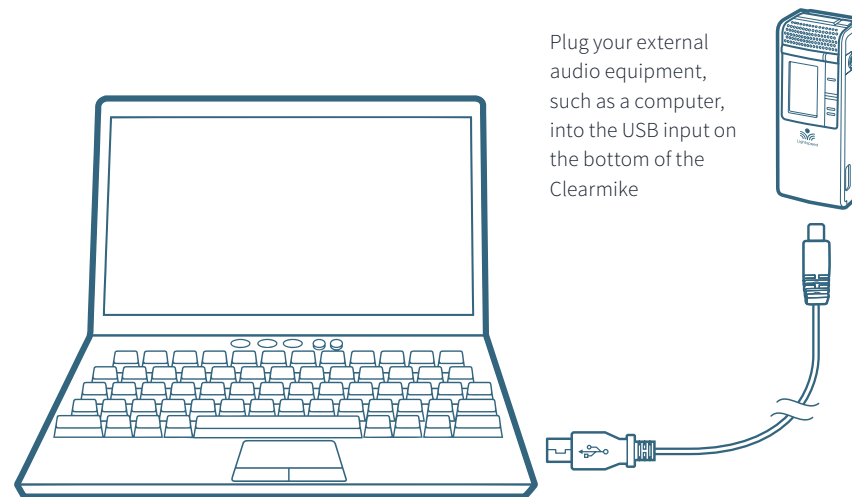
Using Your Microphone as a Wireless Audio Link

You can connect your 2nd microphone to your computer's USB port to enable a wireless 2-way audio link.

SEND AUDIO FROM THE COMPUTER to the T25 to ensure all audio from the computer (videos, video conferencing, audio books, music, etc) can be played through the Lightspeed T25 system and speakers.

SEND AUDIO TO THE COMPUTER from the T25 to ensure the teacher's Clearmike and any student microphones are clearly picked up by a video conferencing solution.

1. With a USB-C cable connect your microphone to your computer's USB port.
This will also power/charge your microphone.
2. Open sound settings on your computer:
 - Select Lightspeed Audio as the Output source to send all computer audio to the T25 system
 - Select Lightspeed Audio as the Input source to use the Lightspeed microphones as the computer microphone audio for video conferencing and recording applications.
3. You may also need to select Lightspeed Audio as the speaker and microphone audio in your video conferencing application the first time you use it.



Plug your external audio equipment, such as a computer, into the USB input on the bottom of the Clearmike

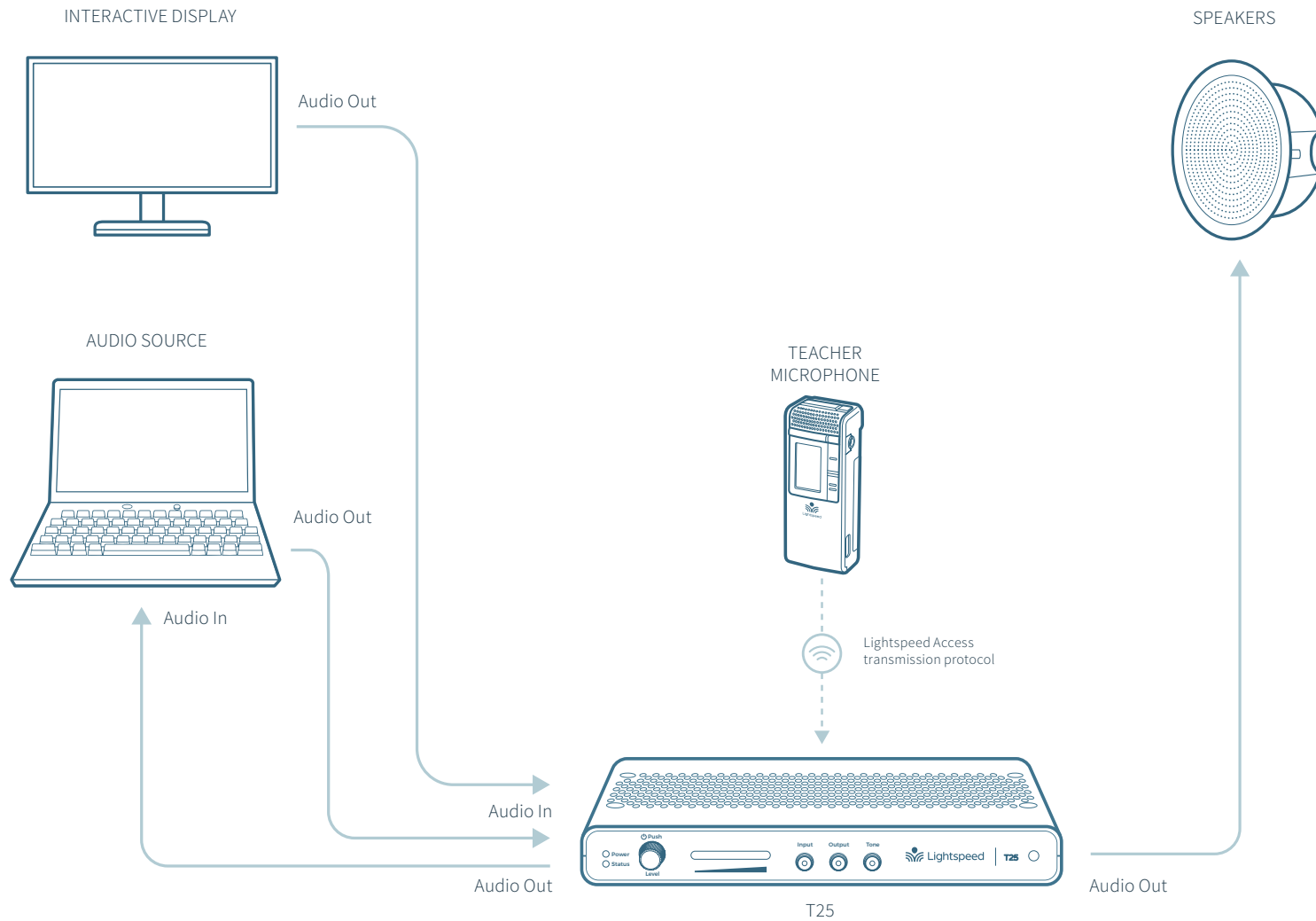
USB cable sold separately. Lightspeed offers a USB-A to USB-C cable for sale (part #USBC)



TIP: If your system includes two Clearmikes, you can use one mic for instruction and the second mic to transmit audio through the system.



Audio Integration





Analog Control Features

The T25 connects and responds to several important third-party life safety solutions.



1. INPUT PRIORITY

MUTES CLASSROOM AUDIO SYSTEM

When an audio source is connected to the Input Priority jack, an audio signal from that source will automatically mute all other audio inputs to allow it to be heard without interference. The T25 is shipped with a removable plug inserted into the Input Priority jack to ensure that the connection to an audio source is intentional.



2. PAGEFIRST

MUTES CLASSROOM AUDIO SYSTEM

When the PageFirst sensor clip is connected to an external paging source, all audio signal are muted to ensure paging is heard clearly.

See page 34 for installation details



3. RELAY INPUT

MUTES CLASSROOM AUDIO SYSTEM

When the T25 is connected to a fire alarm, audio signals going through the unit are muted when the fire alarm is activated to minimize distractions from the sound of the alarm.

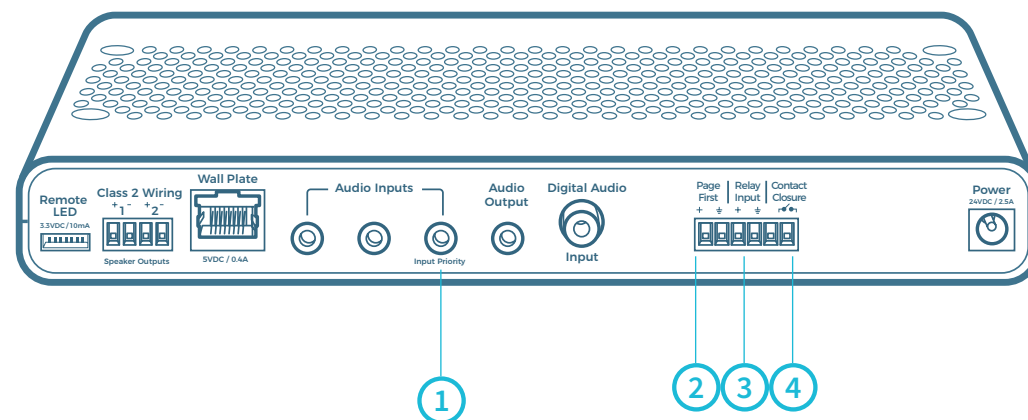


4. ALERT NOTIFICATION

INITIATES ALERT WITH CLEARMIKE

If your building is equipped with an alert notification system, the T25 and Clearmike can be programmed to initiate a contact closure function. Press and hold the emergency alert button on the side of the Clearmike for two seconds to activate the contact closure. External systems sense this contact closure to perform a prescribed action, notifying the appropriate parties of a classroom alert.

See page 46 for details





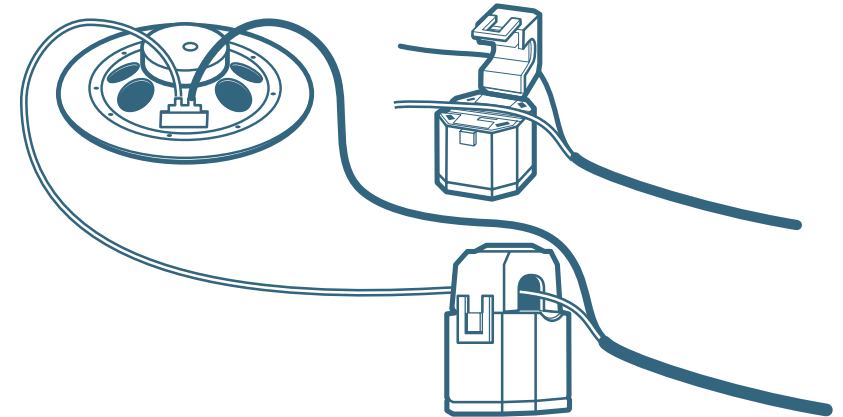
Installing PageFirst Sensor *(optional)*

This T25 can interface with an independent classroom paging system.

When a page is broadcast, all audio from the system is muted, ensuring important school-wide messages are not missed. Please note that PageFirst is not compatible with telephone or IP-based paging systems.

How it works:

1. PageFirst sensor clip is hung around a lead wire attached to the classroom paging speaker.
2. The clip is hard-wired to the T25.
3. As a page is broadcast, the sensor clip detects the audio signal through induction and immediately mutes the amplifier.
4. When the page is over, the audio from the amplifier returns to normal volume level.



USING ALERT NOTIFICATION

If your building is equipped with an alert notification system, you can use the Clearmike to send an alert. This activates the contact closure function on the T25, which external systems use to perform a prescribed action, such as notifying the appropriate parties of a classroom alert.



Press and hold the emergency alert button on the side of the Clearmike for two seconds to activates the contact closure.

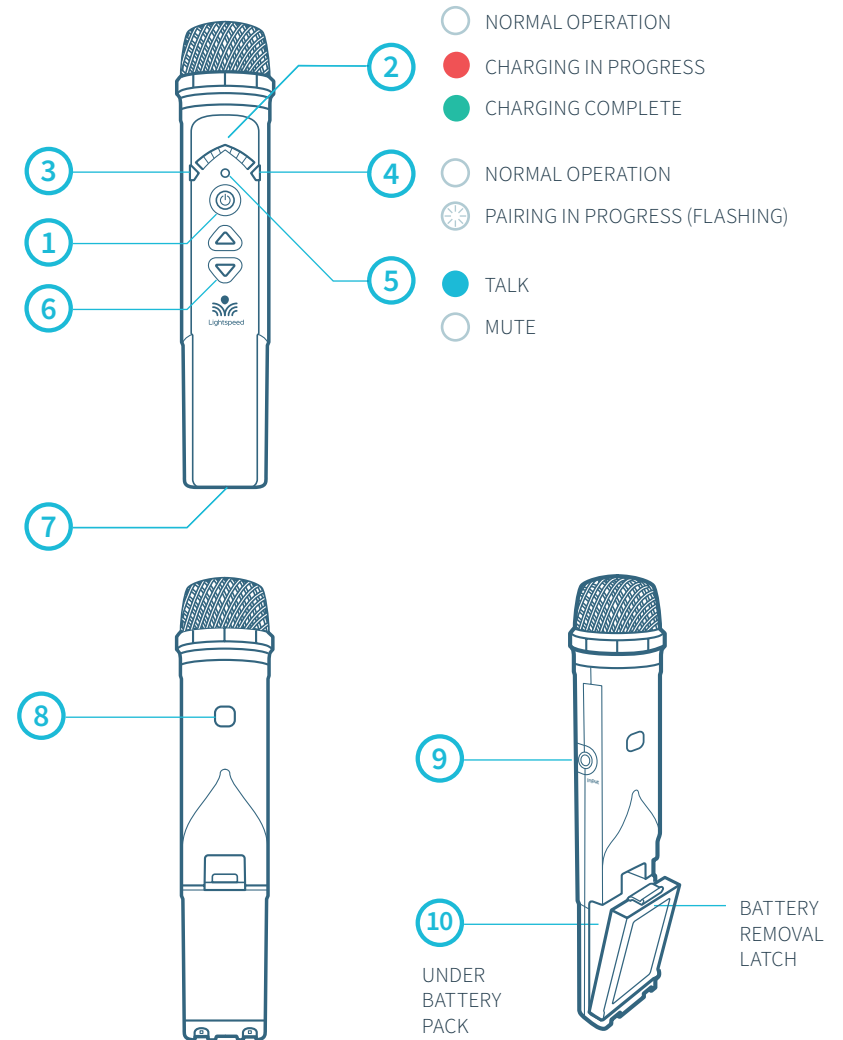


OPTIONAL ACCESSORIES

ShareMike Controls and Connections

1. **POWER BUTTON**
2. **POWER STATUS LIGHT**
Red light: During operation, turns red to indicate low battery
White light: Normal operation

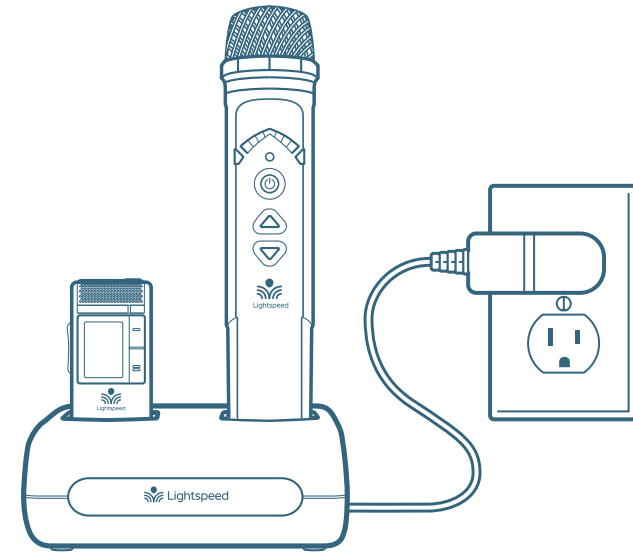
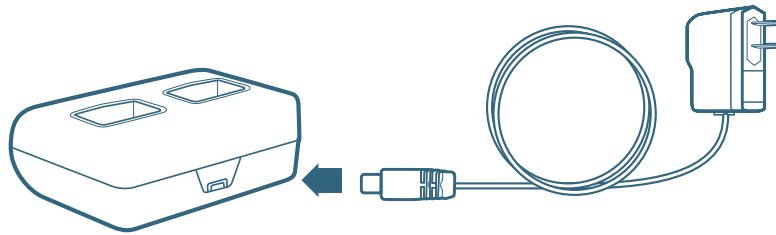
When charging in Cradle Charger:
Red light: Charging
Green light: Charging complete
3. **MIC 1 STATUS:** Lighted to indicate microphone is registered as Mic 1
White: solid = Normal operation
White: flashing = Pairing in process
4. **MIC 2 STATUS:** Lighted to indicate microphone is registered as Mic 2
White: solid = Normal operation
White: flashing = Pairing in process
5. **MUTE/TALK STATUS LIGHT**
Blue: solid = Talk
White: solid = Mute
6. **MICROPHONE VOLUME UP/DOWN**
7. **USB INPUT:** Connect audio source to send to T25. USB input can also be used for charging.
8. **IR TRANSMITTER:** For pairing to base unit
9. **AUDIO INPUT:** Plug a laptop or other audio device into this jack to wirelessly transmit the audio signal to be played through the system.
10. **VOLUME LOCK:** Disables volume controls.





ShareMike: Charging

1. Make sure the charger is plugged into a wall outlet.
2. The power status light on the microphone will glow red to indicate charging.
3. Leave the ShareMike in the charger overnight to obtain a full charge. It takes about 5-6 hours to fully charge the battery. The light will turn green when charging is complete.



PLEASE NOTE: The T25 and microphone(s) are paired together at the factory and all components should be kept together as a system. Moving them from one system, or room, to another will result in the need to re-pair.