

JustTalk

Digital Audio Larynx

JustMed, Inc.

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INNOVATION AND TECHNOLOGY FOR A BETTER LIFE

JustMed, Inc. introduces the worlds first switchless hands free artificial larynx

User's Manual for *JusTalk* Digital Audio Larynx (DAL)



Figure 1

JusTalk: The world's first switchless, hands free speech aid with a switching mode wall charger and headset.

Foreword

Dear Customer,

JustMed, Inc. would like to take this opportunity to thank you for your purchase of our quality product, **JusTalk**. It is our goal to provide you with the highest quality, and the latest technological advances in artificial larynx. **JusTalk**'s engineers strive for continuous improvement in voice quality, and **JusTalk**'s unique software upgrade ability will provide these innovations to you and your Digital Audio Larynx. We believe **JusTalk** will provide you with a better quality voice, and, along with its ease of use, a better quality of life.

It is important to read the following instructions before using **JusTalk** for the first time to ensure the proper use of the speech aid, the battery charger, and headset that accompany it.

Sincerely,
Joel E. Just
Founder & Inventor

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Package Contents

This package contains the following:



- **JusTalk** Digital Audio Larynx
- **JusTalk** headset
- Battery charger
- Battery pack
- User's manual
- Lanyard
- Warranty and Registration card
- Windsock

Product Description

JusTalk DAL is a speech aid device designed to allow patients who have lost their voice the ability to speak again. Such voice loss may occur due to any of the following: illness, injury, or surgical removal of the larynx.

JusTalk may also be used by patients who require voice amplification. The digital signal processing used in **JusTalk** allows filtering unequalled in today's analog amplifiers.

JusTalk also provides the following for the patient/user:

- Ease of use: **JusTalk** is as easy to use as a transistor radio or portable CD player. Our system has been designed to make the electronics do all the work and not the patient. It's as easy as putting on the headset, adjusting the stimulus in front of your mouth and turning up the volume.

- Hands free: **JusTalk** does not require the use of hands once it is in place on the user; there will be no need to press anything against the user's neck or to hold anything, freeing the user's hands for other use; this will also eliminate the possibility of pain associated with pressing an artificial larynx against the neck.
- Switchless: **JusTalk** has a unique design allowing the processor to switch on during speech and off when the user pauses creating a truly hands free, switchless artificial larynx.
- Long battery life: **JusTalk** will provide the user with the longest available continuous talk time of any system on the market. Talk time will vary based on the volume selected by the user.
- Rechargeable battery: **JusTalk** comes with a pre-conditioned rechargeable battery pack. Pre-conditioning the batteries prepares them to the optimum condition specified by the battery manufacturer and extends the battery life.
- Battery Interchange: **JusTalk** allows the user to use 3 standard AA alkaline batteries in place of the rechargeable battery pack if such an occasion is needed. This is a very important feature when recharging is not available.
- Phone adaptation: **JusTalk** may be plugged into a standard wireless phone or a cell phone and still be used hands free.
- Adjustable volume control: **JusTalk** provides the user with very good amplification and also the ability to whisper.
- Upgrade capability: As the engineers at JustMed, Inc. develop better software and voice stimulus, your **JusTalk** will not be left behind. The unique programming port allows software upgrade capability for better voice

quality in the future. This allows the user to have access to the best voice technology provided by JustMed, Inc. at a minimal cost without having to replace their entire unit.

- Size: **JusTalk** can fit into a standard men's shirt pocket or may be hung around the neck with a lanyard. There will be no need to hold anything in the hand providing you with a truly hands free artificial larynx. This allows for better positioning of the sound source providing a more natural voice.

Safety Instructions

JusTalk DAL is designed to the highest quality standards, but in order to ensure you the longest use, please always use the following precautions and procedures when using your new **JusTalk** DAL:

- Do not drop the **JusTalk** DAL.
- Do not drop the **JusTalk** DAL in water or any other liquids.
- Do not expose the **JusTalk** DAL to extremely hot or cold temperatures.
- Do not place the **JusTalk** DAL in direct sunlight or on top of or next to any type of heat source.
- Do not sleep while wearing the **JusTalk** DAL headset due to the dangers of entangling with the wires.

JustMed, Inc. will not be held liable for any damages to any person or **ITEM** caused as a result of failure to comply with the **JusTalk** user's manual and safety instructions.

*The rechargeable battery pack included with your **JusTalk** DAL is designed for safe and reliable service. It is designed to be charged by the enclosed 2A/5V switching power supply. Do not use any other charging system to recharge this battery pack, and do not use this battery pack in any other device. Eventually, the capacity of the battery pack will decrease, resulting in shorter usable operation between charges. This is normal.*

*The rechargeable battery pack is made with Nickel-Metal Hydride cells. **DO NOT EXPOSE THIS PACK TO WATER. IF THE BATTERY PACK OR LEAD WIRES ARE DAMAGED IN ANY WAY, DO NOT CONTINUE TO USE IT.** This pack must be disposed of per local regulations, check with your local waste service for information specific to your area. **DO NOT DISPOSE OF THIS PACK IN INCINERATORS OR TRASH COMPACTORS.** New battery packs can be purchased from JustMed, Inc. and distributors.*

Warranty and Product Liability

The parts and materials of **JusTalk** DAL are covered under a 24-month warranty. The owner or claimant is responsible for the payment of shipping costs. The rechargeable battery pack which accompanies **JusTalk** DAL is covered under a 6-month warranty. If parts and materials need to be replaced, **only original parts and materials** may be used as a replacement. Any repairs from a non-authorized person or company will invalidate the **JusTalk** DAL warranty.

Please contact JustMed, Inc. to arrange repairs and replacements. Contact information and address are located on the back cover of this manual.

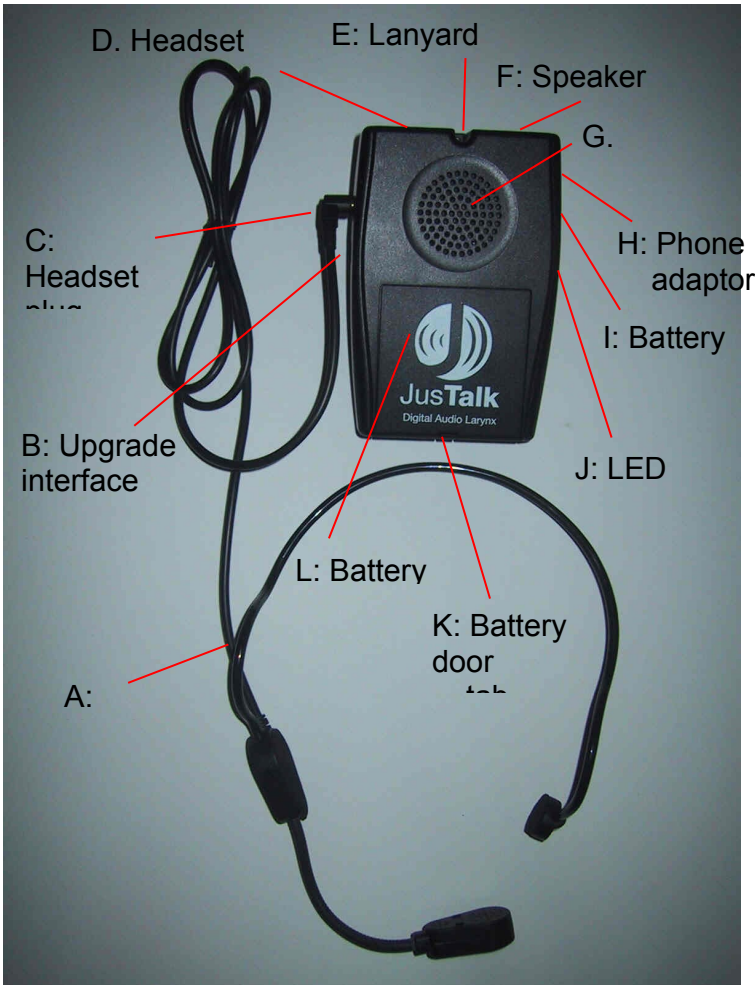


Figure 2 Product Photo-Label Overview

- | | |
|--------------------------------|-------------------------------|
| A: Headset | H: Phone adaptor |
| B: Upgrade interface | I: Battery charge plug |
| C: Headset plug | J: LED (light emitting diode) |
| D: Headset volume | K: Battery door tab opener |
| E: Lanyard attachment location | L: Battery |

F: Speaker volume
G: Speaker

L: Battery door

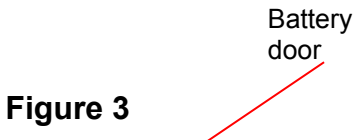
Product/User's Manual

- **Battery Check**

Your new **JusTalk** DAL comes with the battery already conditioned for long life. Plug in the battery charger and let charge until a **solid** green light is emitted on the LED. Now your battery is fully charged.

- **Battery Insertion**

In the case of long usage of your new **JusTalk** DAL or no availability for a wall outlet and the battery pack is no longer charged, the battery pack may be removed and 3 AA



alkaline batteries may be inserted. Locate the battery door tab opener as shown in *Figure 3*. Insert a small object such as a paper clip or flat head screwdriver into this slot and press in and up firmly. The battery door should open. Remove the battery door. You will see a

set of wires that are plugged into the Printed Circuit Board (PCB). Unplug these and remove the battery pack. Insert the 3 AA batteries as indicated on the molded case shown in *Figure 4*. Replace the battery door and **JusTalk** is ready to use again. When you are ready to replace the 3 AA batteries with the battery pack, follow the same procedure for opening the battery door. Remove the 3 AA

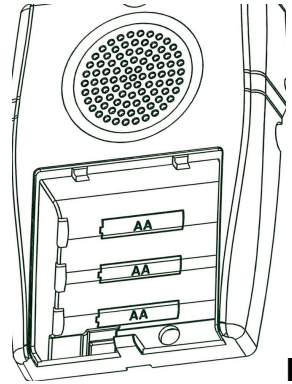


Figure 4

batteries. Insert the **JusTalk** battery pack with the negative (-) charge facing right as you are looking down at the unit. Plug the battery pack

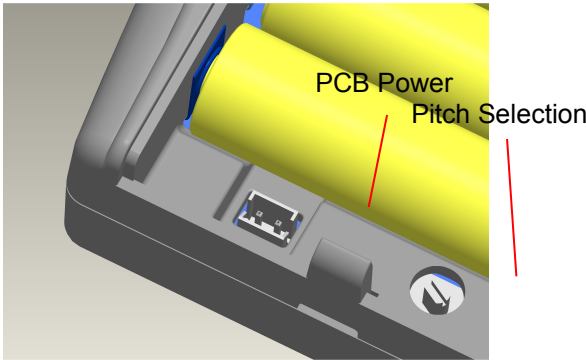


Figure 5

wires back into the PCB as shown in *Figure 5* and replace the battery door. Now you may charge the battery pack as explained above.

- **Adjusting the Pitch**

JusTalk provides the user with three different pitch choices: high, medium, & low. To change the pitch, you must first open the battery door as described above. Locate the battery door tab opener as shown in *Figure 3*. Insert a small object such as a paper clip or flathead screwdriver into this slot and press in and up firmly. The battery door should open. You will see a small white circle as shown in *Figure 5*, which is “notched” to receive a small Philips or straight type screwdriver as shown in *Figure 6*.



Figure 6

To change the pitch, insert the screwdriver and turn the white dial gently until you feel a click. Turn the **JusTalk** unit on and you will notice the pitch level. Turn the unit off and change the pitch using the same procedure. Turn **JusTalk** back on and you will notice a

different pitch. As mentioned, there are three different pitch selections and they are user dependant. For example, some females may have better sound quality with a lower pitch than others, whereas some may have better sound quality with a higher pitch level. Once you have decided which pitch is best for you, simply replace the battery door.

- **Headset**

Placement

The headset has two obvious different sides. One has a boom microphone which will be placed in front of the user's mouth, and the other has a pad which will rest against the user's cheek. Hold the headset in your hands so that the boom microphone will be coming off of the right ear. Place the headset on your head by placing the two curved parts over your ear. The headset wire has been designed to allow the user to bend the wire for a custom fit. If the cheek pads do not rest comfortably on your face, bend the headset wire in or out as required. **The cheek pads must be firmly resting on your cheeks before adjusting the boom microphone which will be explained later.** For some, the headset may fit a little loose. If this is the case, take the headset back off and squeeze the wire that is in between the two earpieces tighter. Then put the headset back on again.

Plug-In

Now that you have the headset on, take the headset cord and plug it in to the **JusTalk** speech box as shown in *Figure 7*.



Figure 7

Adjustment



Figure 8

Now you are ready to adjust the boom microphone in front of your mouth. It is important the microphone be as close to your mouth as possible if not touching your lips as show in *Figure 8*. The wire, which is attached to the microphone, is very flexible. It needs to be bent and adjusted so that the microphone is right in front of your

mouth and touching the lips.

- **Placement of *JusTalk* Speech Box**

JusTalk may be placed in a shirt or jacket pocket or hung around the user's neck via a lanyard that is provided. Simply hook the lanyard through the hole provided at the top of your ***JusTalk*** unit. Make sure the slide adjustor is at the top of your lanyard. Place the lanyard around your neck and allow the ***JusTalk*** to hang. Now adjust the slide on the lanyard to bring your ***JusTalk*** to the height you would like it.

- **Power**

To turn the power on for ***JusTalk***, simply turn the dial for volume I/O as shown in *Figure 9* below. This dial will also adjust the volume of the speaker box.

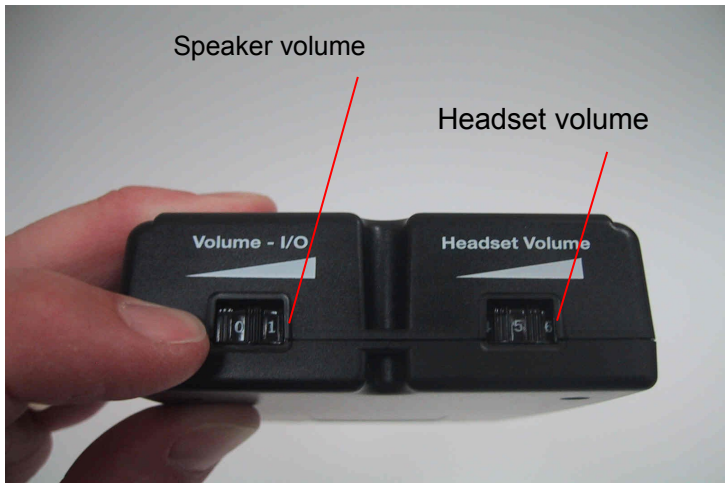


Figure 9

Adjusting the Volume

Headset Volume

The headset volume may be adjusted by turning the dial for the headset higher or lower as shown in *Figure 9*. This will allow for the low frequency sound wave, which is being injected into the user's mouth, to be increased or decreased as needed. The volume to the listener depends on both the headset volume and speaker volume. The **headset** volume directly increases the modulated speech coming out of the mouth. The **speaker** volume amplifies the modulated speech out to the listener.

Speaker Volume

The speaker volume may be adjusted by turning the dial for the volume higher or lower as shown in *Figure 9*. This will allow for the user's voice to be amplified to the listener. If you hear a whine, similar to feedback noise,

either the volume is adjusted too high or the **JusTalk** speaker box should be placed further away from the headset mouthpiece.

- **Speech**

By now, the headset should be in place on the user's head and the boom microphone adjusted close to the mouth. Begin with the headset volume (which adjusts the amount of stimulus to be used) set at 5-8 as shown in *Figure 9* **before** turning on the power to the unit. (If headset volume is below 5 before turning on the JusTalk, the JusTalk will then go into the "amplifier mode" instead of artificial larynx mode. Then the power should be turned on and volume knob adjusted to 7-9. You will hear a low frequency "buzz". This is the stimulus or sound wave that is being broadcast into the user's oral cavity to be modulated. Simply begin speaking and you should notice the words coming out of the speaker box.

- **Windsock**

If you are experiencing difficulty achieving good volume with your **JusTalk**, it could be due to the fact the wind sock does not allow for the headset mouthpiece to be as close to your mouth as needed. The windsock may be removed to achieve better volume.

- **Fine Tuning**

By now you have tried speaking with your new **JusTalk** with the headset and speaker volume both set at 5. Now some fine tuning needs to be done to practice achieving different volumes of speech for different speaking situations.

1. **More Volume:** Adjust the volume dial higher until you hear a feedback sound. Slightly lower the volume. Now adjust the headset volume higher. You may keep adjusting these both individually until you achieve the volume wanted.

 2. **Less volume:** You may achieve a lower volume voice close to a whisper first by lowering the speaker volume. If this is not low enough, then leave the speaker volume turned down to about 2 and gradually turn the headset volume down until the correct volume is achieved.

 3. **Amplification only:** If the user has a soft voice, or is using esophageal or TEP speech, and would like amplification, start with the boom microphone pushed away from the mouth by at least an inch. Turn the headset volume down to zero. Turn the speaker volume up to the desired level.
- *** If you still are not achieving a voice with your ***JusTalk*** try literally moving the boom microphone around in front of your mouth and repeat “one, two, three, four” until you’ve heard the best sound. Take notice of the location of the microphone while your hands are still on it. Then adjust the microphone appropriately. For some users the boom microphone needs to be as close to the lips as possible, if not touching it.

User Notes:

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JusTalk

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