

FlexyMike Dual Ear Cardioid: The Complete User Guide

A Comprehensive Guide to the SpeechWare FlexyMike Dual Ear Cardioid Microphone



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Speech Recognition Solutions, LLC
4 Spencer Rd. Hanover NH 03755 www.SpeechRecSolutions.com

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FlexyMike Dual Ear Cardioid: User Guide

Congratulations on your purchase of a SpeechWare FlexyMike Dual Ear Cardioid (FMK-DEC) microphone. When properly set-up and used with proper dictation technique, this microphone provides superb accuracy when used with speech recognition applications.

The FMK-DEC is sold by Speech Recognition Solutions in three versions:

- Microphone alone
- Microphone bundled with a SpeechWare USB MultiAdapter
- Microphone bundled with an Andrea Pure Audio (MA version) USB adapter.

This user guide applies to all versions.

Contents

Introduction.....	4
Technical Specifications	4
Sound Card Considerations	5
Preliminary Considerations: Microphone vs. Soundcard.....	6
Windows Set-up: Dragon	7
Windows Set-up: Older Versions of Dragon	8
Set-up with other Windows Applications	12
Mac Setup.....	13
Special Issues for the Mac User	14
Microphone Troubleshooting: Reduced Accuracy.....	15
Microphone Troubleshooting: Not Working at All	16
Guide to Optimizing Accuracy.....	18
Additional Resources.....	19

Introduction

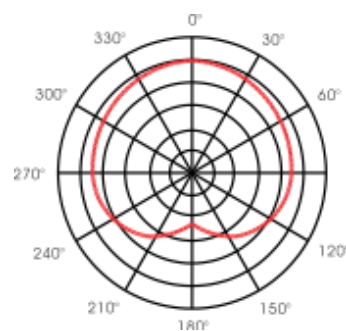
The FlexyMike Dual Ear Cardioid (Second Generation) was released in May of 2017 and is a product of the Belgian company, SpeechWare. It is manufactured in Taiwan and imported to the US by Speech Recognition Solutions, LLC. In 2019 a third-generation device was released. This guide is applicable to all version of the FlexyMike DEC.

Unique to the FlexyMike are the following features:

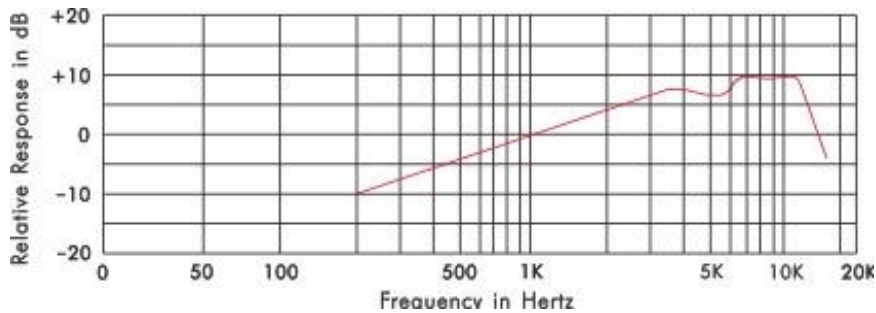
- Very low-profile, low-weight design. The total weight of the microphone is 25 g, equivalent to the weight of 3 US quarters, allowing exceptional comfort
- Use of a highly sensitive, accurate, and externally noise rejecting microphone element
- A “hypercardioid” pick-up pattern which tends to accept sound coming only from the portion of the element facing the user’s mouth (see polar pattern below)
- A unique design which allows for mounting around the back of the head, rather than on top of the head like traditional headsets
- A lack of speakers which allows both ears to be uncovered, allowing improved situational awareness, better comfort, and availability of both ears for telephone and other use
- Adjustable headband to accommodate variable head size and shape

Technical Specifications

- Back Electret Condenser Element
- Unidirectional Polar Pattern



- Frequency Range: 50Hz ~ 18,000Hz



- Sensitivity: $-65\text{dB} \pm 3\text{dB}$ (RL:2.2K, DC:1.5V)
- Impedance: $1.500\Omega \pm 30\%$ @ 1KHz
- Operating Voltage: 1V – 10V
- Connector: standard 3.5 mm gold-plate plug
- Agency Approvals: FCE, CE, BC, IC

Sound Card Considerations

The FlexyMike Dual Ear Cardioid is an analog microphone. To be used by your computer software, it will need to interface with an analog to digital converting device, typically termed a “sound card”. It is the digital signal from this converting device that is used by your software. There are two options when it comes to sound cards: 1) using the default sound card present on your computer and 2) utilizing an external USB sound adapter.

Using your on-board sound card involves nothing more than inserting the plug on your FlexyMike Dual Ear Cardioid microphone into the “mic-in” jack on your computer. The advantage is simplicity. There are, though, potential disadvantages. Most computers have sound cards which consist only of some dedicated circuitry on the motherboard. These are not necessarily of the best quality, often do not include digital sound processing to remove external noise, and are susceptible to signal deterioration from electrical processes within the computer.

We recommend the use of an *external sound card* for several reasons:

1. They tend to me of better quality than most on-board sound cards (exception: if you have a desktop with a dedicated sound card this may not be the case)
2. They tend to more reliably provide the voltage needed for analog microphones and are more consistently compatible with a broad variety of microphones
3. By virtue of being located outside of the computer they are less susceptible to internal electrical “noise” that may degrade the signal
4. Most high-end USB sound adapters (including the two we highlight below) contain advanced signal processing to remove repetitive external noise

Our two recommended external USB sound adapters are described briefly below. Since it has some unique functionality, the SpeechWare USB MultiAdapter is described in more detail later in this guide.

SpeechWare USB MultiAdapter

For the speech recognition user with “mission critical” needs for the process, this is the absolute best USB sound adapter for use with Dragon and will provide the best possible results. Unique to this adapter is a high level of digital speech processing to remove noise, and the presence of “equalizer” technology to allow for variable sound input levels. A section dedicated to this device is present later in this guide and the reader is advised to refer to this for more information. One important point is that the SpeechWare USB MultiAdapter can be used in one of two modes – a near or blue mode and a distant or green mode. The mode refers to the distance the user will be from the microphone element. With the FlexyMike you should be using the MultiAdapter in the near (blue) mode.



Andrea Pure Audio MA USB adapter

While not including some of the special features of the above-described USB adapter by SpeechWare, this USB adapter is a “workhorse” product that enjoys widespread compatibility with microphones and is highly compatible with the FlexyMike Dual Ear Cardioid. This is a “monaural” adapter and handles only sound going into your computer and does not deal with outgoing sound. If you need such capacity, you should consider the binaural version of this adapter, the Andrea Pure Audio SA Adapter. The only advantage of this adapter over the SpeechWare MultiAdapter is less cost.



Preliminary Considerations: Microphone vs. Soundcard

Keep in mind that there are two key factors involved with converting your voice into a signal used by your computer – the microphone itself (an analog device) and the sound conversion device that converts the analog signal emanating from the microphone to the digital signal utilized by your speech recognition software.

As touched upon in the prior section, the sound conversion device could be one of 3 things:

1. Your computer’s on-board “sound card”
2. An external sound adapter that plugs into a USB port
3. A sound adapter incorporated into your microphone (not the case with the FlexyMike DEC)

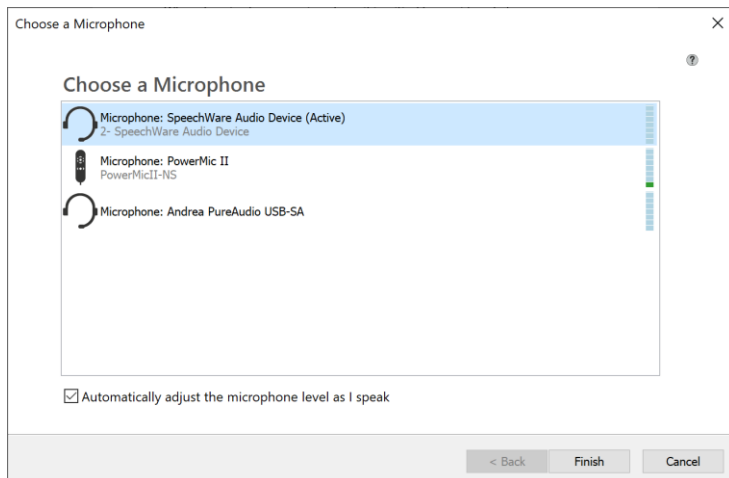
When changing to a new microphone, including the FlexyMike DEC, it is critical to consider what you are actually changing.

- Are you simply plugging a new microphone into an existing sound card? If this is the case, your job is simple, because your software is not aware of the microphone itself but looks for and is critically affected by the sound card (either internal or external). If the sound card is not changing, then there isn't much to do but plug in your new microphone and at most recalibrate the microphone input volume with your software.
- Are you changing the sound card itself by moving to an external sound adapter or a microphone that includes the sound conversion capability? If you are using the FlexyMike with a new external sound adapter (such as the SpeechWare MultiAdapter or Andrea Pure Audio MA USB adapter) , you need to be sure that your software recognizes this change. Depending upon your software, this may be extremely simple (Dragon 15) or a bit more nuanced (earlier versions of Dragon).

With the above in mind, let's get a bit more specific.

Windows Set-up: Dragon

The beauty of Dragon 15 (including Dragon 15 Professional, Dragon 15 Legal, and DMPE4) is that it has greatly simplified the handling of microphones. If it starts up and does not find the last sound source it used or if it detects multiple sound sources, it will query you about which of available sound sources it should use. All you need do is attach your microphone (and any included USB sound adapters) before starting Dragon and you will get a message such as the one shown below:



In this case, Dragon is seeing 3 potential sound sources and you simply need select the one you plan to use and then click "Finish". If you like, you can run the microphone check by selecting Settings > Microphone > Check Microphone.

So, to recap, here are the basic scenarios with the FlexyMike and how to handle them with Dragon.

Dragon 15 Pro, Dragon 15 Premium, Dragon 15 Legal, DMPE4:

1. If you are using it with your existing sound device (either on-board or external) simply plug it and start Dragon. Dragon may ask you to confirm which sound device you are using and after you select the appropriate device, Dragon will complete it's start up and you'll be all set.
2. If you are incorporating a new external sound card, such as the two described above, Dragon will notice the availability of the new device, ask you which one to use, and you need only select it.

Earlier Version of Dragon: See special instruction below.

And that's it!

If you are using Dragon 15 or DMPE4, you are done, and you can ignore everything below this text box. Seriously!!

Windows Set-up: Older Versions of Dragon

If you haven't made the move to Dragon 15, we strongly suggest you do. It comes with a lot of improvements, particularly when it comes to handling audio sources.

Before using your new microphone with a pre-15 version of Dragon, **it is important to realize that it is not always possible and rarely recommended that you simply replace one microphone with another.** Microphones differ in their sensitivity, acoustic properties, and means of integrating with your computer. Also appreciate that each time Dragon starts, it looks for the *last sound source* it used (either the on-board sound card or a sound device attached via USB or Bluetooth). So, if you are switching from a microphone plugged into your computer mic input jack (therefore using the onboard sound card) to one which attaches via USB or Bluetooth, Dragon will *not* automatically change to the new microphone.

There are three basic options when switching to a new microphone:

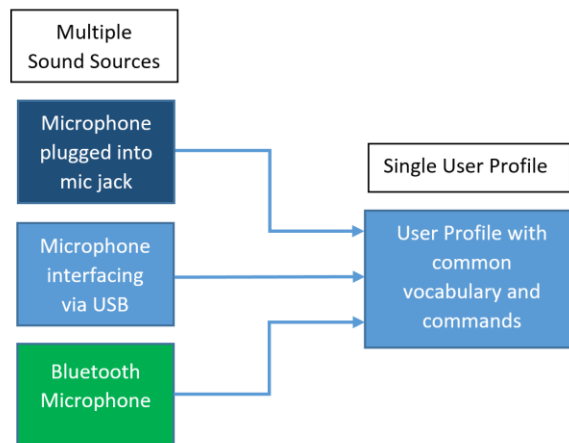
1. **Add the new microphone as a new "Source" to your existing profile – RECOMMENDED METHOD**
2. Simply connect the new microphone, run the audio setup wizard to set volume and assess accuracy, and use it without making any additional modifications to Dragon – THIS WILL NOT ALWAYS WORK.

3. Create an entirely new user profile with the new microphone – good as a last resort if you’re having trouble setting up a new microphone, but time consuming and not usually necessary.

Overview of methods of adding new microphone:

Method	Create New “Source”	Run Mic Set-Up Wizard	Create New User Profile
Time Involved	< 5 min	1 min	5-10 min
Preservation of words/commands	Yes	Yes	No, unless manually moved
Optimizes performance new mic	Yes	No	Yes
Leaves old source intact	Yes	No	Yes
Comments	Preferred method	Not recommended if changing type of sound source	Good but time-consuming; requires manual export/import of old words and commands

Preferred Method: Adding a new source to your existing user profile: Adding a new “source” to an existing user profile has the effect of maintaining the entirety of your old user profile (with the exception of your microphone settings), including all of your customized training, acoustic information, customized words and commands, and yet tailoring it to the new microphone. Depending upon your Dragon version, this method may require you do the mandatory 5-6 minutes of reading. After creating the “source”, each time you start Dragon you will have the choice of which source to use. If you want, you can remove any old source(s).



The beauty of this method is that you can have multiple “sources” on the same user profile. You might for instance, sometimes use a Bluetooth microphone, sometimes a hand-held USB microphone, and sometimes a file from a digital recorder. When having multiple sources for the same user profile if you add words, commands or make other changes to the profile, these will be retained when you open the user profile with any of the sound sources.

Steps for adding a new source to your existing profile: Simply follow this procedure from the Dragon toolbar:

[Note: with all of the versions described below, if you are adding a microphone interfacing with your computer the same way as your old microphone/source, during the step in which you are asked to choose the type of your new source (microphone-in, line-in, USB, Bluetooth, etc.) it may not offer you the type of source which you were previously using. In other words if your old source was based on a USB mic or source, this will likely not be a choice. In this situation, just ignore this and pick another available source, such a microphone-in or line-in. It won’t make any difference.

Dragon 13 and 14:

1. Go to Profile > Manage Dictation Sources
2. From the “Manage Dictation Sources” window select your new audio source
3. Click “Add New Dictation Source”
4. Follow subsequent instructions

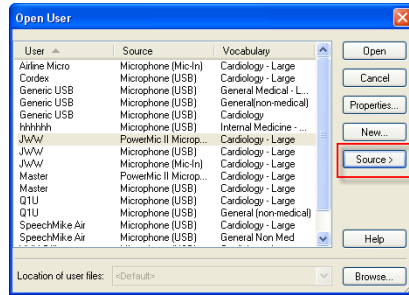
Dragon 12 (DMPE2) or Equivalent

1. Go to the Profile menu and select “Add dictation source to the current User Profile ...”
2. On the next screen select the appropriate type of sound source from the drop-down menu
3. On the next screen select the actual sound source
4. Follow all subsequent instructions

Dragon 11 and earlier

1. If the sound source Dragon was expecting is not available upon opening, you will be presented with the “Open User” profile.
2. If Dragon is already open, Select Profile > Open User Profile ...
3. On the far right of the Open User dialog, click on “Source” and then “New” (Don’t click on the separate “New ...” button shown on the image below.)

4. Select the new source.



5. If you want to prevent it from each time you > Open User and “Source” and then “Delete”.

source from those listed and follow complete the training for the new

delete your old source (doing so will showing up for potential selection open Dragon), simply go to Dragon select the old profile. Then click on

Alternate Method: Simple substitution of one microphone for another: The simplest way to switch to a new microphone is simply to plug it in, run the “audio set-up wizard” (renamed “microphone check wizard in most recent versions) to set the microphone volume and confirm basic accuracy, and use it. This method is recommended only if a) you are using the same sound source with the new microphone and b) you are using the same basic type of microphone (example changing from one wired headset to another).

How do you run the audio set-up wizard? If the microphone is attached and Dragon running, the simplest way is simply to say “Check Audio”. If this doesn’t work or for any reason you need to run the audio set-up wizard manually, this is the way to do it:

- ❖ Dragon 15, 14, 13 and 12: Navigate to Audio menu and select “Check Microphone”; follow recommended steps
- ❖ Dragon 11 and earlier version: Navigate to Tools > Accuracy Center > Check My Audio Settings, and follow the resulting instructions.

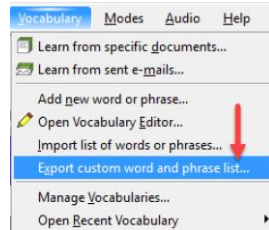
The advantage of this method is simplicity. When moving from one wired microphone to another (especially when moving to a more accurate microphone) this method may be adequate. If you are changing the type of microphone (i.e. moving from a wired to a wireless microphone or vice versa, switching from a simple microphone [3.5 mm plugs] to a USB microphone, or switching to or from a Bluetooth microphone) this simple method is not advisable and we recommend you use the “preferred” method described above.

Last resort method: Creating a New Profile: This is the least preferred method, in that it requires you create an entirely new user profile from scratch, using the new microphone, which is time consuming. We recommend this only if you have an existing profile which is either extremely new (you haven’t invested much time and training into it) or extremely old (AND

suspected to be somewhat corrupted). There is nothing wrong with this method and it creates a brand new profile, which is occasionally a good thing to do, but it leaves you losing all the training and personalization you put into your last profile.

Here are instructions for creating a new user profile from scratch.

1. Before doing anything, open Dragon with your old microphone and export any words and commands from your old profile so you can import them into your new profile once created. This will give your



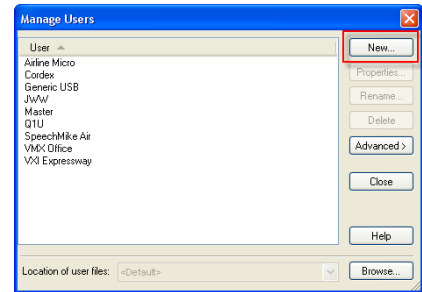
new user profile a huge “jump

- a. Export your old words to Vocabulary > Export version 11 and earlier words to a location

from the Dragon toolbar by going custom word and phrase list (in go to Words > Export.) Save your that you will remember.

- b. Export your commands by opening the Command Browser (Tools > Command Browser). Under the Mode menu, select “Manage”. Click the box next to the command category you want to export and then click on Export on the left menu

2. Create a new profile in version 14 and 15 by navigating to Profile > New User Profile. In earlier versions, from the Dragon toolbar select Profile > Manage User Profiles. In Dragon 12 and earlier navigate to Dragon > Manage User
3. Select New (see image above)
4. Follow the subsequent steps, being sure to select the new microphone or device as your audio source.



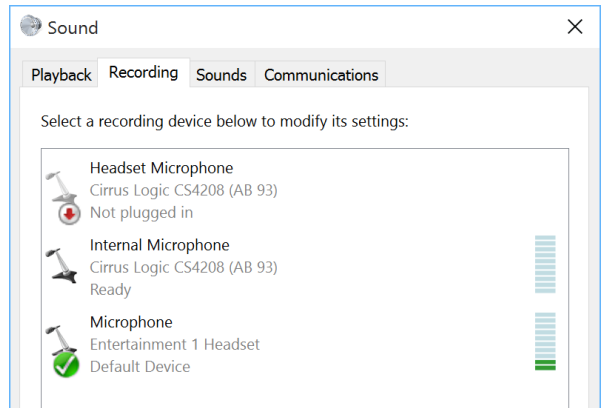
Set-up with other Windows Applications

While the breadth of Windows applications makes it impossible for us to provide detailed set-up instructions, the basic process is simple and involves the following few steps:

1. If using one, plug in your external sound adapter (SpeechWare MultiAdapter or Andrea Pure Audio adapter.) Allow time for drivers to install.
2. Plug your microphone into the on-board sound card or external USB sound adapter.
3. Assure that your microphone is being seen by your operating system
4. Configure your software to use the new microphone

While in most cases it is not necessary to worry about step 3 above, as a last resort and reality check, there is never harm in doing so. The process of assuring your microphone is being sensed and is active is fairly identical in most recent Windows operating systems and involves the following:

1. From the Start Menu select Control Panel
2. Open the “Sound” control panel
3. Click on the “Recording” Tab
4. Assure that your microphone or sound source is listed and showing as the default device. In the example shown below, our microphone shows up and the green circle with check mark indicates that it is the default microphone.
5. If another microphone is connected to your system and is not listed as the default device, simply right click over the microphone and select “Set as the default communication device.”



The remainder of the set-up process involves steps taken from the perspective of your audio application.

Mac Setup

Although Nuance is no longer making Dragon for the Mac environment, if you have one of the older operating systems and appropriate Dragon software, you can still use it. Adding a new microphone for users of the Mac version of Dragon (currently called “Dragon for Mac” and previously “Mac Dictate”) is a simple process and involves the following basic steps:

1. The FlexyMike Dual Ear Cardioid should be interfaced with a Mac using an external USB adapter. You should not attempt to insert analog microphone into the audio jack on your Mac.
2. Insert your USB adapter into an available USB port and allow the drivers to be installed.
3. Open System Preferences and click on the “Sound” icon in the hardware section.
4. Confirm that your USB adapter is listed and select it. Speak into your microphone and confirm activity in the area labeled “Input Level”
5. Open Dragon Dictate
6. Open the Profiles window by selecting “Profiles” from the Tools menu. You will see the screen below. Note that any existing profiles are shown on the left and sound sources assigned to the selected profile are shown on the right.



7. To add a new sound source to your existing profile click on the “+” sign under Audio Sources. You will need to select your sound source in the lower drop down menu and give it a name in the text entry box.
8. Click “Continue” and you will then be brought through the microphone set-up procedure for the microphone and then be asked to read the usual training text. Follow all subsequent instructions.



For more information on setting up a mic for a Mac versions of Dragon and other Mac resources, please see the following sources in our “Support” section at [speechrecsolutions.com](http://www.speechrecsolutions.com):

<http://www.speechrecsolutions.com/tutorials.html#macuser>

http://www.speechrecsolutions.com/assets/Adding_Microphone_Dragon_Dictate.pdf (spaces in URL are underscores).

Special Issues for the Mac User

For those purchasing a microphone for use with other applications within the Mac OS, we offer a bit more advice. There are two important issues to consider:

1. From the beginning, Macs have generally had a sound-in jack (and sound card) expecting “Line-in” voltage and not “Mic-in” voltage. The difference is that a line-in signal has been amplified, while the mic-in signal has not. As a result, if you plug an ordinary headset microphone into the sound-in jack on a Mac, it doesn’t provide a strong enough signal to the sound card and it generally won’t work. While this has changed in some recent vintage Macs, the issue continues as a result of #2 below:
2. Recent vintage Macs (like other computers) have tended to change to a single integrated audio jack which handles both sound in and sound out. In general, this jack is designed to work with a male plug having 4 terminals. Plugging the microphone plug from a typical headphone microphone into this jack simply doesn’t work.

Although there are rare and finagled situations in which you can use an ordinary analog microphone with a Mac, you will likely waste a lot of time trying to do so and we recommend, rather, that you simply buy a microphone that interfaces via USB or interface your existing analog microphone using an “external USB sound adapter”. If you purchased the FMK-DEC with either the SpeechWare MultAdapter or Andrea Pure Audio USB adapter, you are all set.

Microphone Troubleshooting: Reduced Accuracy

A drop in recognition accuracy is an occasional scenario and may or may not be the result of a dysfunctional microphone. Keep in mind that accuracy is dependent upon many factors and the most important of these is your dictation style. In this situation, we recommend a sequential approach, as follows:

1. First, rule out obvious audio issues by listening to a recording of your speech. There are many ways to do this depending upon your operating system. Within Dragon, the simplest method is simply to dictate some text and then use Dragon's playback functionality to hear your speech. This is done by selecting some or all of the text you dictated and then issuing the command "Play that". You will hear your dictation replayed, in your own voice, and get a sense of the audio quality. Listen to the recording to be sure it sounds clear and that there are no word cut-outs, static or other interfering sounds. If so, you likely have a mechanical problem related to the microphone or sound card. If the sound seems to be clean, then proceed to the next step.

[Note: Mac users can create a sound recording using the built in QuickTime application. Instructions can be seen at this link: <http://www.mactip.net/how-to-record-sound-on-a-mac/>]

2. Run the audio set-up wizard (Dragon users). This takes just a couple of minutes and resets your microphone gain and also provides a crude check of your system integrity by means of providing a speech to noise ratio. The audio set-up wizard can be access either by saying "check audio" or manually opening the wizard (Dragon 15,14, 13, and 12: Navigate to Audio > Check Microphone; Dragon 11 and earlier go to Tools > Accuracy Center > Check My Audio Settings.) Depending upon which version of Dragon you are using, you may simply get a "check mark" if the audio was acceptable (Dragon 13, 14 & 15), a "Pass" indication (Dragon 11 and 12), or a specific speech to noise ratio indication (Dragon 10 and earlier - anything between 15 and 25 indicates your system is probably OK.)
3. If you are using a laptop computer, it likely has an on-board microphone. If you are using a microphone plugged into the sound/microphone jacks, it is possible that Dragon is using the on-board microphone and not the one you have plugged in. You should manually disable the on-board microphone from the sound control panel and this will likely resolve your issue. Alternatively, use a USB interface for your microphone (external USB sound adapter). These are inexpensive devices that substitute for your on-board sound card.
4. If the above did not help, we suggest that you devote extra attention to your dictation style. Keys to optimal dictation are the following:

- Enunciate clearly
 - Speak in a smooth manner, neither overly slowly or excessively rapidly. Speak in either sentences or phrases. Recognition is worst when speaking one word at a time.
 - Maintain a relatively consistent pitch and tone when dictating
5. Consider switching to a USB microphone or use your current microphone with an external USB adapter. This may be particularly helpful if you are using a laptop computer. The external USB adapter substitutes for your internal sound card and offers the possibility of removing internal electrical interference which may be negatively impacting your accuracy.
 6. Consider upgrading to a higher quality microphone. Be aware that the microphone that came with your version of Dragon cost Nuance about \$10 or less. There are many better microphones that offer better accuracy and rejection of external noise.

Microphone Troubleshooting: Not Working at All

This is a rare situation, but one which leads to great frustration. Keep in mind that Dragon will only use a microphone that is being recognized by the operating system. In our experience in 10 years or so of selling microphones, if your mic is new and doesn't seem to be working at all, it's usually because it hasn't been set up properly. Please read the early sections of this guide to review the proper set-up instructions.

Here is our basic protocol:

1. Visually inspect the microphone and cord (and external sound device if being used) to be sure there is no evidence of damage to the wire.
2. Be sure your microphone doesn't have a mute switch. If so, be sure that the muting function is not activated
3. If you are using a USB adapter, be sure that it doesn't have a mute switch, and if it does, be sure the sound is not being muted.
4. If possible, use the microphone with another application, either on your current computer or another to assess its integrity in another environment. For instance, try your microphone with Skype or another audio application which uses a microphone. If it works fine in another application, you know the issue isn't the mic but rather the integration with your software program.
5. Confirm that your operating system is sensing the microphone:
 - a. Windows 8 and 10: Go to Control Panel > Sound > Recording tab. You should see your microphone and when talking, you see green deflections in the sound magnitude scale. If not, your system is not recognizing the microphone. If you search "sound

recorder” on Windows 8 it will launch a sound recorder which can be used to record a sample recording for use in assessing microphone sound quality.

- b. Windows 7 & Vista: Go to your Control Panel > Hardware and Sound > Sound, and click on the recording tab. You should see your microphone. When talking, you should see deflections in the green sound magnitude scale.
- c. Windows XP: Confirming a microphone is more difficult in XP than in 7. Often, the simplest method is to try a sample sound recording. This is done as follows:
 - i. Click on Start > All Programs > Accessories > Entertainment > Sound Recorder
 - ii. On the sound recorder Edit menu, select Audio Properties
 - iii. Under the Sound Recording section, be sure your sound device is correctly chosen (select your on-board sound card if using a microphone plugged into the mic and sound jacks; if using a USB microphone or device, select the name corresponding to the device – many USB sound adapters show up as AK5370 in windows XP)
 - iv. Make a sample recording by clicking on the record button. If audio is being recorded you will see deviations in the green signal line in the center of the recording.
 - v. Hit the rewind button to bring you back to the beginning of the recording
 - vi. Hit the play button and listen to the recording



6. If you are using a laptop and have a microphone plugged into the sound-out and microphone jacks, it should be disabling the on-board microphone, but there are many examples of this not being the case. It is possible that Dragon is taking the sound signal from the on-board microphone and not the microphone you have plugged in. In this case you should attempt manually disable the on-board microphone. This method varies from machine to machine and may not be possible. As a last resort (but nonetheless an excellent solution), get yourself an external USB sound adapter and do away with the problem. Dragon will be directed to take it sound signal from the USB device into which you microphone is plugged and the on-board microphone will no longer harass you!
7. If you are plugging your microphone into the sound and microphone jacks on your computer, confirm that you have these properly selected. In general the sound jack is marked in green and the microphone jack in pink or red. If you have more than one set of jacks (front and rear), try plugging the microphone into the other set. If you know your microphone is otherwise working but not with your PC, consider the route of using an external USB sound adapter.

Guide to Optimizing Accuracy

Optimizing accuracy has always been the “holy grail” for the speech recognition user. The following tips, distilled from various sources, are intended only as a starting point. Additional guides on improving accuracy are listed at the end.

1. Optimize Your Dictation Style: Despite our tendency to seek technical ways to improve recognition accuracy, far and away the most important key to optimizing accuracy with voice recognition software is the manner in which you dictate.

- Enunciate clearly
- Speak in a smooth manner, neither overly slowly or excessively rapidly. Speak in either sentences or phrases. Recognition is worst when speaking one word at a time.
- Maintain a relatively consistent pitch and tone when dictating

To hear some examples of good dictation and bad dictation, look at the examples from emicrophones.com (<http://www.emicrophones.com/articles/index.asp>)

2. Optimize Your System

- Don't run unnecessary programs (will compete with available RAM)
- Run disk defragmenter periodically (programs > accessories > system tools > disk defragmenter). This can be somewhat time-consuming, so don't start it in the middle of the day! (**Note:** This does not apply to computers with solid state drives (SSDs).)
- Be sure your computer has adequate RAM; although 1 GB is the specified minimum, a more realistic suggestion would be 2 Gb for 32-bit systems and 4 GB for 64-bit systems. 8 GB to 16 GB is much more ideal (as of January, 2013).
- Be sure you have a powerful enough processor. Dragon is one of the few programs in use by "normal" users that will still tax a modern CPU. If your system is more than ~3 years old, it might be time to consider an upgrade. Although it will run on older Core 2 Duo and first-generation Core i-series processors, a second or third-generation Core i5 or i7 will provide significantly reduced latency (though it will not affect accuracy).
- If you notice recognition accuracy deteriorate during the day, consider restarting your computer to clear your RAM
- Use the best microphone you can afford
- If you are using a laptop computer and are not getting great accuracy, consider bypassing your integrated "sound card" by using a "USB sound adapter". This is a device into which you plug your microphone and which in turn is plugged into a USB port on your computer. The USB pod digitalizes the analog signal from your microphone and bypasses the internal sound card on your computer. Two commonly sold USB pods are made by Andrea and VXI. These can both be purchased here ([view accessories](#)).

3. Optimize Your Software

- Run the "audio set-up wizard" (tools > accuracy center > check your audio settings) when making a major change in dictating environment or when you notice a deterioration in

recognition accuracy Train Software. (The audio set up wizard can also be opened simply by saying "Check Audio".)

- Let Dragon learn from its mistakes (read the appropriate chapter in the User's Manual that came with your version of dragon) - but do not utilize "training" methods if the mistake occurred because you enunciated poorly.
- Before training an apparent "error" you should listen to the dictation either by setting dragon to automatically "automatic playback on correction" (under the tools > options > correction menu) or by choosing "Play that Back" from the correction menu.
 - If your enunciation was clear, you can reasonably correct the dictation.
 - If your enunciation was not clear, you should simply re-dictate the wrong word or phrase, otherwise the poor enunciation will be stored with your correction and acoustic model degraded.
- After establishing a good working user profile (typically after a week or so of regular dictation and corrections), stop saving your user files regularly. Rather, save user file only after making major corrections or additions to your vocabulary.

Additional Resources

For further assistance with microphone issue, we recommend the following resources:

- Reading our "Accuracy Improvement Guide" at <http://www.speechrecsolutions.com/accuracy.htm>
- Send an email to Speech Recognition Solutions support inbox at support@speechrecsolutions.com
- Call us at 866-778-0524 and select the support option. If we don't answer, please leave a message. We are a small business and do not have someone on-site 8 hours per day but we always return calls!