

# SmartMusic microphones



## SmartMusic overview

With SmartMusic installed on a computer, students plug in an instrumental or vocal microphone and begin practicing. They play or sing their part with accompaniment, and receive, in real time on the computer, detailed feedback on their performance. The software is ideal for woodwind, brass, string, and vocal musicians of all ages.

The SmartMusic microphone (“mic”) enables you to record performances, allows SmartMusic to assess and report on your performance, allows you to use the chromatic tuner, and allows SmartMusic to follow you with our exclusive Intelligent Accompaniment feature.

## Why you should buy a SmartMusic microphone

We recommend the **SmartMusic instrumental mic** because it has been designed and optimized for use with SmartMusic. All of our mics have undergone extensive testing to ensure the best results with the software. It attaches to your instrument or shirt with a plastic, non-scratch clip. The clip is small enough to clip on the bell of your instrument or on your shirt, but it won’t damage the finish and it pulls off easily. The hinge is stiff but allows rotation so you can position the mic in the best location for your instrument. The ten-foot cable provides plenty of length to reach your computer comfortably.

The **SmartMusic vocal mic** is also optimized to work with the software. It offers a unique design that allows you to easily position the soft-flex mic boom for optimum voice input. It rests comfortably on your head without covering your ears so you are free to hear rich sound from your multimedia speakers. We also offer a vocal mic with built-in headphones.

Built-in mics and webcam mics are not supported with SmartMusic. These mics can pick up the accompaniment sound from your speakers, and may interfere with SmartMusic’s assessment results.

### Mic Check Wizard—a SmartMusic exclusive

The Mic Check Wizard listens to you play or sing and automatically adjusts your mic level. The first screen in the Mic Check Wizard shows you how to attach the SmartMusic mic for your instrument or voice. Next, some music that is appropriate for your instrument appears on the screen. Play your instrument or sing, and you will see the meter level move across the bottom of the screen. When the mic level is set, you are ready to perform.

## Microphone types:



**Instrumental  
Microphone (Windows)**  
\$19.95



**USB Instrumental  
Microphone (Mac/Win)**  
\$29.95



**Vocal Microphone  
(Windows)**  
\$19.95



**USB Vocal Microphone  
(Mac/Win)**  
\$29.95



**Vocal Headphone/  
Microphone (Windows)**  
\$29.95

Insert the pink microphone plug into the “Mic In” port (🎤) of your Windows computer. Insert the green headphone plug into the headphone port (🎧) of your Windows computer.



**USB Vocal Headphone/  
Microphone (Mac/Win)**  
\$39.95

Insert the pink microphone plug into the pink port of the USB adaptor. Plug the USB adaptor into a USB port on your Macintosh or Windows computer. Insert the green headphone plug into the headphone port (🎧) of your Macintosh or Windows computer.



smartmusic®

## Microphone setup

It's easy to set up your mic to use with SmartMusic. For Windows® computers, place the 1/8" mic plug into the "Mic In" port (🎤), which is typically pink.

As Macintosh® computers do not include a 1/8" mic port, a USB mic is required. Plug in your mic into a free USB port on the Mac. For best results, use a USB port that is on the computer rather than a port on an external USB input device, such as a keyboard or hub.

To configure your mic in SmartMusic, click on Settings from the Home screen, and then select Microphone.

## Application notes

Please be careful when attaching the mic to your instrument. The mic cord should be positioned in a way that prevents it from being stepped on or wrapped around items in your practice studio. Always remember to unclip the mic when you are done.

If your mic level is consistently too high, try clipping the mic to a music stand a few feet away from your instrument. Make sure that the mic is not too close to your speakers, otherwise it may pick up the accompaniment sound. If your mic level is consistently too low, you may not see all of the notes you played in your assessment results.

When you are practicing, it is very important that your mic is at least four feet away from the speakers or the accompaniment sound might interfere with your assessment results. Position your speakers so that when sitting or standing, you are evenly between them. Keep the volume at a reasonable level—loud enough to hear yourself while practicing, but not loud enough so that the mic picks up the sound from your speakers. Headphones are an excellent solution if your mic is picking up too much sound from your speakers.

**makemusic®**

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## Technical specifications

- Microphones are optimized for instrumental and vocal music (they support a full-frequency response)
- Provide good quality recording with low noise
- Wide dynamic range (from a quiet student performer to a professional performer)
- Work on a variety of PC/Mac hardware
- Supports newer 1.8 V bias laptop soundcards (Windows)
- Supports older 3 V bias desktop soundcards
- Supports USB soundcards

### MIC UNIT SPECIFICATIONS

- Microphone type: electret condenser
- Directional characteristic: non-directional (omni-directional)
- Frequency response: approx 40Hz – 20kHz
- Impedance: 1.6 kΩ ± 30% at 1 kHz (RL = 2 kΩ)
- Sensitivity: -63 dB ± 4 dB (0 dB = 1 V/μBar) at 1 kHz
- RL = 2 kΩ Vcc = 3 V
- Maximum input sound pressure level: 120 dB S.P.L.
- Signal to noise ratio more than: 38 dB or above at 1 kHz (1 μBar, A weighted network)
- Operation voltage: 3 V (DC 1.1 V ~ DC 10 V)
- Circuit current: 400 μA max (Vcc = 3 V)

### CLIP

- Metal construction
- Durable rubber tips to grip cloth or polished brass without scratching
- Complete assembly includes fitting the mic into the clip snugly (mic stays secure in clip)
- Once fitted, the mic can be positioned freely
- The mic position is fixed after it is adjusted
- The clip tension feels reliable but is not overly strong
- The clip shape fits nicely into fingers, even for young children

### WINDSCREEN

- Built-in windscreen to control plosives

### CABLE

- Jack plug = 1/8" (Windows) USB (Macintosh)
- Cable length = 10 feet
- Cable is flexible and extremely durable
- Pull test = 14 lbs each
- Cable gauge = 24 or 26 (each wire)
- Cable has stranded wire either braided or spiral wound for shielding
- Cable shielding has at least 70% coverage
- Cable diameter = 0.07"