

Berklee**Shares.com**TM

FREE music lessons from Berklee College of Music

Recording and Producing for Guitarists

Lesson 1:
Connecting Your Guitar to the
Computer

This lesson is excerpted from an
online course. While the navigation
links on each page are not active,
all of the multimedia interactions
are. Have fun!

Check out Berkleeshares.com for more lessons
just like this one.



Berklee is offering free music lessons online designed to expand educational opportunities for musicians around the globe. The music lessons are available for free download from the Berkleeshares.com Web site and via a growing network of partner Web sites. These free music lessons are also available on digital file sharing networks. We encourage people to share our lessons with other musicians. While Berklee strongly disapproves of stealing copyrighted music online, we believe that file sharing offers new opportunities for musicians to learn, and to promote and distribute their work.



Lesson 1

[Topic 1](#)[Activity 1](#)

Topic 2

[Page 1](#)[Page 2](#)[Page 3](#)[Page 4](#)[Activity 2](#)[Topic 3](#)[Activity 3](#)[Topic 4](#)[Activity 4](#)[Activity 5](#)[Activity 6](#)[Topic 5](#)

Course Contents

[Syllabus](#)[Grades](#)[Bookmark](#)

Communication

[Announcements](#)[Class list](#)[Discussion](#)[Chat](#)

Connecting Your Guitar to the Computer



The first step in recording guitar is to get our guitar signal into the computer. The best way to do this depends on what equipment and software we have, and how we intend to use it.

The guitar signal needs to be strong enough to give us a solid recording. This is an issue because the signal right out of the guitar is weaker than what most computer and sound card inputs need to receive. It's also a high **impedance** signal. Computers and sound cards (or computer audio inputs) are looking for a low-impedance, line-level signal, while a guitar puts out something at less-than-line-level, at high impedance.

The best way to plug in is by using either an **instrument input jack** or an **input specifically designed for guitar** (or bass). These are found in a variety of places, such as some audio interfaces, most microphone pre-amps, some mixers, most guitar multi-processors (like the [Line-6 Pod](#), [Vox ToneLab](#), etc.), direct boxes (more on these later), and of course, all guitar amps.

[← Previous Activity Page](#)[Next Page →](#)

Lesson 1[Topic 1](#)[Activity 1](#)**Topic 2**[Page 1](#)[➔ Page 2](#)[Page 3](#)[Page 4](#)[Activity 2](#)[Topic 3](#)[Activity 3](#)[Topic 4](#)[Activity 4](#)[Activity 5](#)[Activity 6](#)[Topic 5](#)**Course Contents**[☰ Syllabus](#)[☰ Grades](#)[➔ Bookmark](#)**Communication**[📢 Announcements](#)[📖 Class list](#)[💬 Discussion](#)[💬 Chat](#)**Connecting Your Guitar to the Computer**


Some computer audio interfaces feature instrument inputs. If you have one of these, you're ready to go. An instrument input is usually labeled as such, whereas a dedicated guitar input might say "Guitar In" or "Hi-Z (high impedance) In." This high-impedance input is best suited to the guitar's characteristics, but a typical instrument input will do nearly as well.




Instrument inputs and especially hi-Z guitar inputs are designed to match the level and impedance of a guitar signal, and therefore give you a stronger, cleaner signal, usually with a wider frequency range.





If you're using an external audio interface, you may already have an instrument input ready to go. Ideally it should also have two microphone inputs (to be used later in the course). Here's a partial list of interfaces that have them:

1. Premium: [MOTU 828](#)
2. Mid-price with excellent specs: [PreSonus Firebox](#)
3. Budget: [M-Audio FastTrack USB](#)

[⬅ Previous Page](#)[Next Page ➡](#)

| |
|---|
| Lesson 1 |
| Topic 1 |
| Activity 1 |
| Topic 2 |
| Page 1 |
| Page 2 |
|  Page 3 |
| Page 4 |
| Activity 2 |
| Topic 3 |
| Activity 3 |
| Topic 4 |
| Activity 4 |
| Activity 5 |
| Activity 6 |
| Topic 5 |

| |
|--|
| Course Contents |
|  Syllabus |
|  Grades |
|  Bookmark |

| |
|---|
| Communication |
|  Announcements |
|  Class list |
|  Discussion |
|  Chat |

Connecting Your Guitar to the Computer



A mixer's line input might be a solution, if it has an input level control that will allow for a weaker signal than the usual line level. Many mixers (including all Mackies) do this. This is not an ideal solution (because of the mixer's lower input impedance), but it will usually suffice in a pinch.

A direct box (or DI box) will work beautifully, and cost-effectively, if you already have a mixer. Its purpose is to convert your guitar to a microphone-type signal. The output of the DI connects to the mixer's microphone input with an XLR type cable.

[Course Home](#) -> [Lesson 1](#) -> **Topic 2 Page 4****Lesson 1**[Topic 1](#)[Activity 1](#)**Topic 2**[Page 1](#)[Page 2](#)[Page 3](#) **Page 4**[Activity 2](#)[Topic 3](#)[Activity 3](#)[Topic 4](#)[Activity 4](#)[Activity 5](#)[Activity 6](#)[Topic 5](#)**Course Contents** [Syllabus](#) [Grades](#) [Bookmark](#)**Communication** [Announcements](#) [Class list](#) [Discussion](#) [Chat](#)**Connecting Your Guitar to the Computer**

You can plug your guitar directly into a sound card input (which will probably require an adapter or two), but it's not a great way to record. It is, however infinitely better than not making a recording!

 [Previous Page](#)[Next Activity: Signal Input: Does It Work?](#) 

Impedance

Impedance is the sum total of all the factors that tend to cause resistances to electric flow through a device. In the simplest terms, we want high-impedance signal sources (i.e. most guitar pickups) to be connected to high-impedance inputs and low-impedance signal sources to be connected to low-impedance inputs.



[Back to Page 2](#)

Want more?

Guitar.

Performance.

Production.

Songwriting & Arranging.

Music Business.

Theory, Harmony & Ear Training.

Study with the world-renowned professors of Berklee College of Music, on your own time, from anywhere in the world.

Online Courses and Certificates from Berkleemusic



Guitar Chords 101

Add more dynamics and expression to your playing in any number of styles, and gain a greater feel for your instrument by learning Berklee's approach to the construction of chords and chord voicing.



Amps, Effects and Getting Your Guitar Sound

Create your own unique sound by learning how to select, combine, and arrange guitar effects used by the pros, the qualities and attributes of different amps, and the characteristics of the instrument itself.



Guitar Scales 101

Organize the guitar fretboard, develop your technique, and learn to confidently navigate the instrument by gaining a firm understanding of the major, minor, Pentatonic, Dorian, Mixolydian and blues scales.



Production and Guitar Master Certificate

Gain a vast knowledge of music production with a concentration on guitar in this comprehensive and wide-ranging 9-course certificate program.

[Learn More](#) ➔

Books and DVDs from Berklee Press



A Modern Method for Guitar Volume 1

A practical and comprehensive guitar method designed for the serious guitar student and used as the basic text for the Berklee's guitar program. This is the method today's hottest guitarists learned when they first started playing.



Chop Builder for Rock Guitar

In this Berklee workshop, Joe Stump breaks down his disciplined approach to scale patterns and practice routines. He'll show you how to improve your technique and increase your speed, no matter what style you play.



Jazz Guitar Techniques: Modal Voicings

Unlock the mysteries of modal tonality, with a series of exercises and demonstrations that will expand your vocabulary, no matter what instrument you play. Extend your capabilities by integrating a variety of new voicings and articulations into your playing.



Berklee Practice Method: Guitar

The first-ever method that teaches you how to play in a rock band. Improve your improvisation, timing, technique, and reading ability, and master your role in the groove. Learn a variety of styles including rock, funk, jazz, blues, swing, and bossa nova.

[Learn More](#) ➔



berkleeshares.com



berkleemusic.com



berkleepress.com

