Zoom lesson setup guide

Everything you need to get your bass, your voice and a backing track into a Zoom lesson with me, and my audio back to you, with no echo. Keep this next to the mixer the first time you set up.

Before your first lesson

A Zoom lesson has two ends: you, the student, and me, Russ. Every job below is about sound getting from one end to the other, and never back to where it started.

What to buy

- ☐ **Rockville RockMix 4 mixer** (~$60). Comes with USB cable and power adapter.
- ☐ **HyperX Cloud Stinger Core headset** (~$40). Headset with built-in mic. Includes Y-splitter cable (separates mic and headphone plugs).
- ☐ **1/4-inch instrument cable** (~$15). Connects your bass to mixer (the larger plug).
- ☐ **3.5mm to dual 1/4-inch cable** (~$10). Plays backing tracks from a phone, tablet or computer. A device without a headphone jack also needs an adapter.
- ☐ **Adapters, only if you need them.** USB-C to 3.5mm adapter (~$8): for a phone, tablet or computer with a USB-C port and no headphone jack (most Android phones, iPhone 15 and later). Lightning to 3.5mm adapter (~$9): for an iPhone with a Lightning port (iPhone 7 through 14). 1/4-inch to 3.5mm adapter (~$8): only if your headphones have the small 3.5mm plug instead of the large 1/4-inch one.

The six steps

1. Connect your microphone (Voice → Russ)
2. Connect your bass (Bass → Russ)
3. Connect your playback device (Playback → Russ and student)
4. Connect your headphones (Russ → student)
5. Set the Record Source switch (Avoid loopback)
6. Connect the mixer to your computer (Bass → Russ, Playback → Russ and student, Voice → Russ, Russ → student)

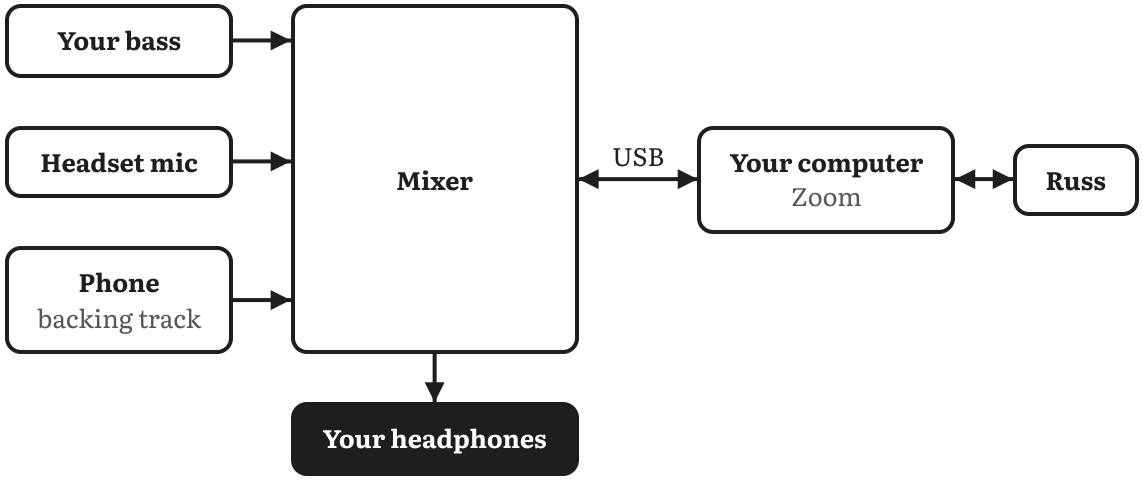
The one rule: Avoid loopback: what comes to either end from the call must never be sent back into it. Otherwise I hear myself come back on a delay, or you hear yourself. Every setup I recommend keeps that from happening.

The five jobs in the recommended setup

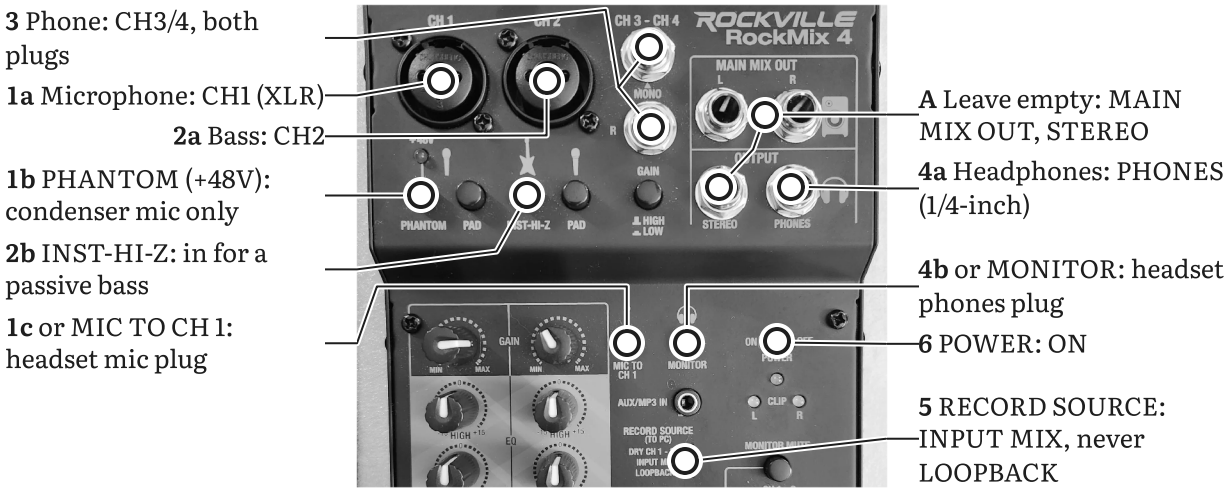
Job	How it's done
Bass → Russ	Instrument cable into CH2 on the mixer.
Playback → Russ and student	Phone or tablet into CH3/4 with the 3.5 mm to dual 1/4-inch cable.
Voice → Russ	The headset mic, through the Y-splitter into the mixer.
Russ → student	The headset earcups from the mixer headphone jack. Zoom comes in on the computer channel.
Avoid loopback	Record Source set to INPUT MIX. Your channels go to Zoom; Zoom does not go back to Zoom.

Plug it in, step by step

The recommended setup.



Where everything plugs in. A numbered label belongs to the step with that number below, and "or" marks the other way to do the same step.



1a Microphone: CH1 (XLR)
1b PHANTOM (+48V): condenser mic only
1c or MIC TO CH 1: headset mic plug
2a Bass: CH2
2b INST-HI-Z: in for a passive bass
3 Phone: CH3/4, both plugs

4a Headphones: PHONES (1/4-inch)
4b or MONITOR: headset phones plug
5 RECORD SOURCE: INPUT MIX, never LOOPBACK
6 POWER: ON
A Leave empty: MAIN MIX OUT, STEREO

1 Connect your microphone

Job: Voice → Russ

Headset: plug the Y-splitter into the headset, then its mic plug into MIC TO CH 1. Separate mic: put it in a desk stand near your mouth and run the XLR cable from the mic into CH1. A dynamic mic like the Shure SM58 does not need phantom power; a condenser mic does, so turn on +48V only then. Use one or the other: a plug in MIC TO CH 1 disables CH1.

2 Connect your bass

Job: Bass → Russ

Instrument cable from your bass into CH2. Passive bass (no battery): press INST-HI-Z, the button under CH2. Active bass (battery compartment): leave it off.

3 Connect your playback device

Job: Playback → Russ and student

Phone or tablet into CH3/4 with the 3.5 mm to dual 1/4-inch cable. If your phone has no headphone jack, use the USB-C or Lightning adapter first. Set the phone volume to maximum and leave it there; use the mixer knob for level.

4 Connect your headphones

Job: Russ → student

Headset: the Y-splitter's headphone plug into MONITOR. Separate headphones: into PHONES, with the 1/4-inch adapter if the plug is small.

5 Set the Record Source switch

Job: Avoid loopback

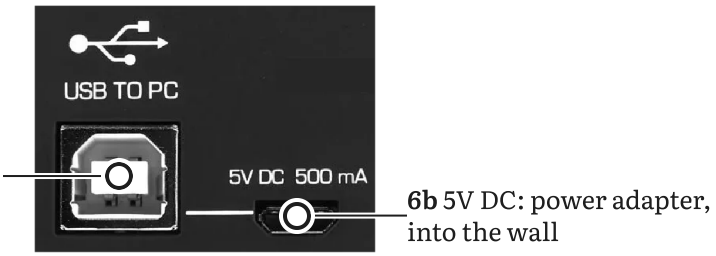
Find RECORD SOURCE (TO PC) on the top of the mixer and set it to INPUT MIX. This is the avoid-loopback job. LOOPBACK sends my voice back to me with a delay and makes the lesson unusable, so never leave it there.

6 Connect the mixer to your computer

Jobs: Bass → Russ, Playback → Russ and student, Voice → Russ, Russ → student

USB cable from the back of the mixer into the computer, power cable into the wall, POWER on. No drivers. The computer sees the mixer as a microphone and a speaker; the settings on the next page tell Zoom to use them.

The back of the mixer: USB and power.



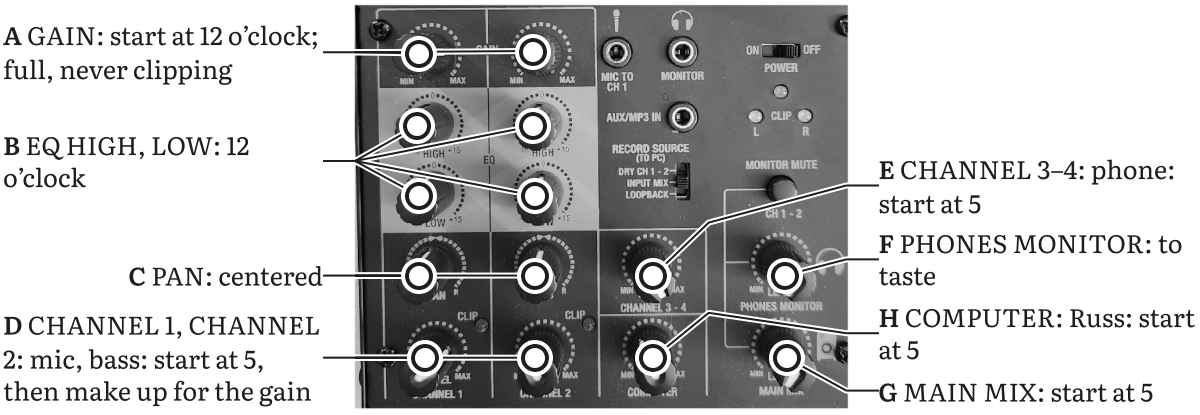
6a USB TO PC: to the computer

6b 5V DC: power adapter, into the wall

Mixer levels

Record Source: INPUT MIX. Gain (CH1/CH2): start at 12 o'clock, then turn it up or down until the bass or voice sounds full without lighting the red CLIP light. CH1 and CH2 levels: start at 5, then raise or lower each to make up for its gain. CH3/4 and MAIN MIX: start at 5. EQ (HIGH/LOW): 12 o'clock. PAN: centered. PHONES MONITOR: to taste. COMPUTER (my audio): start at 5, then adjust so my voice is comfortable. Phantom power (+48V): off unless your microphone needs it.

Where each knob starts.



A GAIN: start at 12 o'clock; full, never clipping

B EQ HIGH, LOW: 12 o'clock

C PAN: centered

D CHANNEL 1, CHANNEL 2: mic, bass: start at 5, then make up for the gain

E CHANNEL 3–4: phone: start at 5

F PHONES MONITOR: to taste

G MAIN MIX: start at 5

H COMPUTER: Russ: start at 5

Computer and Zoom settings

Mac

System Settings, Sound, Output. Select the USB mixer (it may appear as "USB Audio CODEC" or something similar).

Windows

Settings, System, Sound, Output device. Select the USB mixer. Windows 10 has a similar path under Settings, System, Sound.

If your computer is also your playback device, do not set the system output to the mixer. Leave it on the built-in speakers or the headphone jack and let only Zoom use the mixer; otherwise Zoom's audio loops back to me as an echo.

Zoom

In Zoom, Settings, Audio. Microphone: the USB mixer. Speaker: the USB mixer. Enable Original Sound for Musicians. This preserves your bass tone: Zoom's default processing filters out low frequencies and makes a bass sound thin and distant.

If it goes wrong

With this setup

You hear your own voice back with a delay.

Check: The Record Source switch. It is on LOOPBACK. **Fix:** Set it to INPUT MIX.

I hear myself echo.

Check: Same switch, same cause. **Fix:** Set Record Source to INPUT MIX, then have me talk again.

I hear your bass but not your voice, or the other way round.

Check: The gain and the level for the quiet one. Watch its red CLIP light while you play or talk. **Fix:** Turn its gain up until it sounds full without lighting the CLIP light, then raise its channel level to match the other.

Your backing track is only in your ears and I cannot hear it.

Check: The playback device is plugged into the computer, not the mixer. **Fix:** Move it to CH3/4 on the mixer. If the computer is the playback device, run its headphone jack into CH3/4 with the 3.5 mm cable, the same as a phone, and leave the system output on the built-in speakers or headphone jack.

Everything is very quiet in your headphones.

Check: The mixer headphone knob and the computer channel knob. **Fix:** Turn both up. If it is still quiet, put a small headphone amp between the mixer's headphone jack and your headphones; the live guide shows the cable under Options that improve the lesson.

Anything else

Sound drops out or stutters, or the video freezes.

Check: The internet first: are you on wifi, and is anyone else streaming? Run a speed test. **Fix:** Plug into the router with an ethernet cable if you can. Otherwise move closer to it and pause other downloads.

Zoom lags even though the internet tests fine.

Check: Memory and CPU. Open Activity Monitor on a Mac or Task Manager on Windows. A laptop with 8 GB and a browser full of tabs runs out of room. **Fix:** Quit everything except Zoom and the app you play tracks from. Restart the computer before the lesson if it has been up for days.

No sound at all, either way.

Check: Zoom audio settings. The microphone and the speaker are set to the built-in ones, not the mixer. **Fix:** Pick the USB mixer for both. Test with the Zoom microphone test before the lesson starts.

The live version of this guide, with photos of every cable and the options that improve the lesson: https://russrodgersbassguitar.com/bass-lessons/zoom-setup

Russ Rodgers, online bass lessons over Zoom.