

Guitar & Bass Gear Guide

THE MOST IMPORTANT THING IS TO PICK THE RIGHT INSTRUMENT, AMP & CAB FOR YOUR GENRE, PLAYING STYLE, TASTE AND DESIRED SOUND. HOW MANY STRINGS? WHAT SCALE LENGTH? WHICH TYPE OF PICKUPS? HIGH GAIN OR LOW GAIN? VINTAGE OR MODERN? THEN CHOOSE THE RIGHT STRINGS, PICKS, CABLES, ETC. HERE'S THE DETAILED INFO ON THE DIFFERENCES:

Strings (this is where most of the tone comes from):

- **Thicker strings:** More sustain, louder, better intonation, better note definition in chords. Can be harder to play, especially bend.
- **Too thick:** Can sound dull and cause intonation issues by putting too much tension on the neck
- **Thinner strings:** More detail and clarity in quieter parts and some lead parts. Easier to bend. Quieter, less sustain.
- **Too thin:** Will cause intonation problems, especially when picked hard. Chords will lack definition and sound out of tune, while strumming.
- **Please reference a string gauge calculator, like the one mentioned in the guitar setup bonus workshop. It's absolutely critical to choose the right gauge for your tuning and scale length. Try getting used to playing thicker strings. Most people play too thin strings, especially in rock and heavier genres. As a side effect they often don't pick hard enough, because of those thin strings.**
- **Pure steel:** Bright, high output, a lot of clarity. Pure steel is especially great for bass tone clarity.
- **Nickel plated steel:** The standard. Balanced overtones & highs. Reasonable output



- **Pure nickel:** Dark, mellow tone. Less clarity & output. "Vintage" sound.
 - **Cobalt, carbon, etc:** There are strings specifically designed to maximise clarity and output. Like the Ernie Ball Cobalt bass strings, or the D'Addario NYXL high carbon (my personal favourite guitar strings).
 - **Buy enough packs of strings for your project, because you'll need to change them as soon as they start to die (aka pretty often)! You will have to change strings approximately once per song. That's about the average for most professional sessions, but depends on the players pH (acidity), the playing style and the type of strings. So it's only an approximation to help you factor in the cost of strings. Don't be cheap here! The strings are the most important part of your guitar setup!**
 - There are strings with a special coating to increase durability. I would not recommend using these for recording or prioritising durability over tone. We're going for the best results, so we don't want compromises here because of \$20 saved.
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Picks:

- Even if you have a personal preference, you need to have a selection of different picks, because there's no pick that's better for everything. Some are better for rhythms, others for leads and another one might be better for palm mutes or heavy chugs. It also depends on the type of string, the pitch of the notes and the playing technique.
- Try different materials, shapes, sizes and thicknesses.
- Too thin: No pick attack and clarity
- Too thick: Intonation problems, performance issues, as some things can be harder to play
- The material and shape matter, as well. Not only the size or thickness.
- Always use brand new picks, as the condition of the edge makes an audible difference!
- General suggestions (starting points): Jazz pick: Precise and not squeaky, great for fast tremolo parts and everything technical. Thick, big picks: Great for massive rhythms and chugs, because you can really dig into the strings. Thinner, sharper picks: Great for leads, because faster playing is easier and they are usually not as squeaky. Very thin, light and flexible picks: Great for softer strumming, if pick attack is not wanted.



Pickups:

- More important than body of guitar
 - Changing pickups can drastically change the sound of a guitar or bass
 - Humbuckers: More output, less noise or hum, less clarity, softer attack, more and thicker low end, not as tight, bold mids, soft treble.
 - Single coil: Lots of clarity, harder attack, more noise and hum, lower output, more presence, very balanced frequency response, tight bass, even mids, sparkling top.
 - Active pickups: even more output and less noise. Can handle longer cables without significant presence loss. Some active ones have adjustable voicing and added tonal flexibility. Require battery power.
 - Passive pickups: every pickup has a certain unique character, often more coloured midrange, less highs and lows, less output, more noise and hum, require short cables.
 - Swapping out pickups sounds like a lot of work, but it's often absolutely worth the effort.
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Body, Neck & Fretboard & Hardware:

- The harder the wood, the brighter the tone.
- The thicker the body, the louder and fuller the tone. Very thick instruments can become boxy and lose clarity, though.
- The thinner the body, the more clarity and definition you get.
- Hollow body guitars have a pronounced midrange, sound a little boxy, are more likely to produce feedback, but have a very unique character that can be desirable for some genres.
- Hollow body basses have a lot of growl and lower midrange. Can sound very dirty and "mean". But can also lack definition and clarity and sound a little distant.
- Greater scale length means more string tension and ability to tune lower.



- Shorter scale lengths play easier, but require thicker strings, because of reduced tension. Can't be tuned as low.
 - Evertune bridges are always perfectly in tune if set up correctly. Highly recommended for recording. Avoid tremolo bridges if you don't really use the tremolo much. Locking tuners are really great for precise and quick setup and tuning. All parts should be adjustable, so you can set the intonation, relief and action properly before recording. If the strings are too thick for the nut (it often happens), change the nut or file it, so the string fits. Different nut and bridge materials sound different.
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Cables:

- Get reasonable quality cables. Nothing too fancy, but also not the cheapest.
 - Cheaper cables don't sound drastically different, but are often noisier and poorly built.
 - Cable length is the most important thing here. Keep it as short as possible! Especially with passive pickups.
 - Speaker cables don't matter as much. Just get a standard, quality cable in whatever length you need. But make sure to use an actual speaker cable, not an instrument cable. Especially for bass or any amps with lots of power.
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Amp Heads / Combos:

- More power means more headroom for clean tones and low end. So your cleans and your low end will be able to be reproduced without too much unwanted distortion or saturation.
- Less power means more power amp gain and saturation at lower volumes, which can be very pleasing. You can crank the amp without unreal volume in your room.



- There are "British-Style", aggressive and midrange-focussed amps, like Marshall, Orange or Vox amps and there are "American-Style", smooth, full, modern and open sounding amps like Mesa Rectifier, Peavey 5150, Soldano, etc.
 - And then there are classic clean amps, like Fender amps or Roland amps, that take pedals really well and often sound huge and crystal clear.
 - Transistor amps can also be used, but except for a few great sounding examples, they are less common.
 - For bass, there are popular tube amps (more saturated, more growl, more colourful midrange, less headroom, compressed lows at higher volumes) and popular transistor amps (cleaner, bigger low end, more headroom, less distortion at high volumes, clearer attack and definition)
 - Try the minimalistic approach: Unless you have to play many different genres, try to find your perfect amp and go with great manufacturing quality and as little power as possible. Also, one or two really amazing sounding channel are better than 8 mediocre sounding channels and tons of options.
 - When going for a combo, consider buying one that lets you disconnect the internal speakers and use an external cabinet
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Cabinets:

- Biggest impact on the whole rig tone
- More important than amp
- Find your 1 or 2 go-to cabs and you're fine. Most professionals tend to use the same 1 or 2 cabs over and over again, once they found their favourites and learned how they sound and react.
- Not only the speaker configuration, but the whole cabinet matters. Type of wood, size, weight, grille, etc.)
- A great starting point for anything loud & high gain are V30 speakers in a heavy cabinet. Mesa and Orange are the most popular choices here. A more "rock" tone with aggressive, screaming upper mids can be achieved with a classic Marshall 1960 cabinet. There are many more than these, of course, but between those two you should be able to get almost every kind of tone you could need.



- Open cabs are smoother and more dynamic sounding
 - Closed cabs are more direct, aggressive and compressed sounding, especially when played loud.
 - The bigger the individual speakers, the "slower" and "muddier" the cab. The smaller the individual speakers, the clearer the attack and the "faster" the cab. The overall speaker surface (among other things) determines how deep a cabinet can go. Not the individual speaker size. So, an 8x10" might go lower than a 1x15".
 - Ported speakers can go lower, but are not as flat, meaning that some frequencies (notes) are louder than others. Closed speakers without ports, such as the popular Ampeg SVT 8x10" are pretty flat down to the lowest notes, because they achieve the low end through overall speaker surface, as well as cabinet size and not through „tricks“, like ports in the cabinet.
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Pedals:

- Mostly a matter of taste, genre & creativity.
 - Always try keeping the signal chain as short as possible. So only buy things that are really necessary and produce sounds that can't be achieved otherwise.
 - Delays, reverbs, chorus, etc. affect the way you play and are often part of the performance, not only the tone.
 - Overdrive/Distortion is typically used in three ways:
 1. A Tube Screamer (or something similar) in front of high gain amps is a very common setup and it's not used to add any overdrive, but to benefit from a Tube Screamer's natural compression effect that controls the low end before it hits the amp. This prevents heavy chugs from becoming a rumbling mess and adds midrange definition to the tone.
 2. A distortion or overdrive pedal in front of a weaker preamp section to add gain. If an amp sounds great, but doesn't have enough gain on its own, a distortion pedal can help. Marshall JCM 800s or Plexis are amps that can take distortion pedals very well.
 3. A certain distortion character is wanted, that can only be achieved with a pedal. For example HM-2 style "chainsaw" distortion, or fuzzy Big Muff sounds. This can happen in front of a clean, slightly driven, or even already distorted amp, depending on the situation.
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Load Boxes, Power Soaks, etc:

- Never use a tube amp without a cabinet or other sufficient load connected to it!
- You can get a load box instead of a cabinet and record the amp's output quietly.
- Some load boxes have speakers simulations built in, some require you to use an external speaker simulation (software or hardware)
- Power soaks are boxes that you put between your amp and cabinet to attenuate the output level after the amp. They enable you to crank the amp to get the desired tone without the insane volume.
- Both load boxes and power soaks changes the tone of the amp and you need to compare and invest in quality ones, that give you exactly the characteristic you want out of your amp.



>>THESE PRINCIPLES ALSO APPLY TO VIRTUAL INSTRUMENTS, AMPS (AMP SIMS) AND CABINETS (IRs / "IMPULSE RESPONSES"), BECAUSE THOSE ARE REAL RECORDINGS OR SNAPSHOTS OF REAL GEAR. SO USE THIS KNOWLEDGE WHEN PICKING AMP SIMS, IRs, OR VIRTUAL GUITAR AND BASS INSTRUMENTS.<<

Notes: