

DIGITAL PIANO/ELECTRIC KEYBOARD BUYER'S GUIDE & FAQS

What are the different sizes of keyboards?

The standard full-size piano keyboard has 88 keys. There are many options available with fewer keys that can save space when a full-size keyboard isn't necessary or preferred. Common examples are 76-key, 61-key, 49-key, and 25-key. Larger keyboards usually require an additional stand if the product doesn't already include one. Smaller keyboards don't always need a stand, and some even fit comfortably on a computer desk or table.

What are the different types of keyboards?

Besides an acoustic piano, there are 3 major categories of keyboards. They are:

- **Digital Piano** – Designed to model an acoustic piano, they typically feature multiple-velocity sound sampling and full- or semi-weighted keys. Depending on the model, they sometimes have multiple voice options, such as electric piano, harpsichord, organ, strings, or more than one piano voice (like small, medium, or large grand piano). Generally considered to be the best substitute for a piano, digital pianos are recommended for students who don't have access to an acoustic piano at home. They typically have 76 or 88 keys and will most likely have built-in speakers. Usually has MIDI option.
- **Electric Keyboard/Synthesizer** – Designed to give the player a variety of voice (sound) options, they usually have semi- or non-weighted keys. Electric keyboards and synths usually have many voices such as piano, organ, guitar, FX, leads, pads, synths, and more. Some have the option to design customized voices by editing on-board sounds or creating brand new voices. They commonly have anywhere from 25 to 76 keys, but full sizes are also available. This type of keyboard may or may not have built-in speakers, and sometimes has a MIDI option.
- **MIDI Keyboard** – This type of keyboard is used to trigger information from another source of audio, such as a computer. There are usually no voices built into MIDI keyboards, which means you will not hear sound without another component (e.g. sound bank) used in conjunction with the MIDI keyboard. They commonly have other control parameters such as knobs, faders, mod/pitch bend wheels, or transport controls (play, stop, etc.). Most MIDI keyboards are quite versatile in the proper application because of customization options and assignable parameters. Sizes range from 25-88 keys, and may be non-, semi-, or fully-weighted; most likely will not have built-in speakers.

Which type of keyboard is right for me?

Most keyboards have multiple applications, but some are better suited to a player's specific needs. For example, a beginning piano student can learn the basics of notes and reading music on any keyboard, but a digital piano would most likely be recommended. This is because there are many aspects of learning to play piano besides knowing where the notes are located. The weight, action, velocity sensitivity, and size should mimic a real piano as closely as possible. A piano teacher will usually give lessons on an acoustic piano, so it's important to be consistent with the instrument at home to maximize the results of the lessons.

Another example is someone using a computer to do completely digitally-based sequencing within a software program. If on-board sounds (i.e. sounds that are 'built-in' to the keyboard) aren't going to be used, a MIDI keyboard could be ideal. This way, you can invest in the features you desire in the control surface instead of elaborate sound modeling and voices. Keep in mind that most digital pianos and electric keyboards have the option to use MIDI built-in, so if there's a possibility you want to use your keyboard for anything more than computer-based playing, another choice might be right for you.

If it's FM synthesis (Frequency Modulation) you're interested in, a synthesizer would be the likely choice. You can achieve a wide variety of sounds and effects using the keys, knobs, mod wheels, etc. that aren't always available on simpler models of electric keyboards. In most cases, you can edit the on-board sounds and save them as your own custom voices. Some synths allow you to start from scratch, building on a single sound wave that you modulate to create unique sounds.

What are the differences between key descriptions, like semi-weighted and hammer action?

There are a few different classifications used to describe the 'action,' 'play,' or 'feel' of a keyboard. Here are some common examples:

- Non-Weighted – Commonly seen on synthesizers and electric keyboards, there is no weight added to the keys to make them feel anything like an acoustic piano. Some players desire this feature, as it can be utilized for added speed and sensitivity.
- Semi-Weighted – Commonly seen on digital pianos and electric keyboards, each key has weight added to somewhat mimic an acoustic piano. Though it won't develop finger strength like a fully-weighted keyboard, it's better than non-weighted for someone looking to learn classical, jazz, or rock piano that chooses not to invest in fully-weighted keys. Some players prefer the feel of semi-weighted because they're quite responsive without being feather-light.
- Fully-Weighted – Usually seen on digital pianos, but sometimes seen on full-size MIDI keyboards. Each key has a precise weight designed to closely mimic the weight of an acoustic piano's keys. Fully-weighted keys are recommended for anyone beginning to play piano, as they help a player develop hand and finger strength, promote proper form, and improve technique.

- Hammer Action – This feature describes the ‘feel’ of the keys more than the weight, as each key has a counter-balance built in that simulates the action of a key moving a hammer, as in a real piano.
- Graded Hammer Action – Not only do these keys have full weight, and a counter-weight to simulate the feel of a key moving a hammer, but the keys at the lower register are heavier than the higher register. This is designed to account for the difference in the weights of the hammers on a piano. On an acoustic piano, lower notes have larger strings and therefore need wider, heavier hammers to strike them. Higher notes are thinner strings which don’t need as heavy of a hammer to make them resound. Graded Hammer Action accounts for these subtleties, and is regarded as the closest thing to playing an acoustic piano.

Note that there are varying degrees of quality within each of the above categories. The best way to ensure that you get what you want is to research reviews of the product you’re interested in. The bottom line here, as anywhere: you get what you pay for. If you have higher expectations and selective fingers, expect to pay a little more. If you’re a hobbyist or beginner who’s unsure about a big investment, then a less-expensive model may suit your needs just fine.

Also keep in mind that a beginner may not immediately appreciate the differences between weighted, hammer, and graded hammer action, and it may not affect their playing for quite some time. Generally, the more seasoned and experienced players are the ones who’ll immediately notice the difference between the action of the keys.