



COACH HOUSE

*Acoustic & Digital
Piano Buyers Guide*



WELCOME

Coach House have supplied acoustic and digital pianos from all the leading manufacturers for over three decades and are widely respected in the music industry for providing unbiased information and impartial advice.

This buyers' guide offers some important insights about choosing and owning a piano - be it acoustic or digital - and will help you make an informed choice before making your first piano purchase or upgrade of your current piano.

Acoustic or Digital Piano.....	2
Acoustic Piano.....	3
Digital Piano.....	4
Choosing An Acoustic Piano.....	5
Choosing A Digital Piano.....	6
Hybrid Pianos.....	7
Upright piano.....	8
Grand Piano.....	9
New Or Used?.....	10
Caring For Your Piano.....	11
Caring For Your Piano (Acoustic).....	12
Location.....	13
Acoustic Piano Tuning.....	14
Warranty.....	15



ACOUSTIC OR DIGITAL PIANO?

The vast majority of professional pianists and piano teachers favour the use of a traditional acoustic piano but not everyone has the same individual requirements or budget. Also, if you are a beginner, an advanced pianist or a wise parent investing in a piano for your child, it is important to understand the differences between acoustic and digital pianos (or a combination of both e.g. Hybrid pianos as discussed on page 7), in order to make an informed choice. It is of particular importance to make the correct decision if it involves children who are learning to play the piano.

ACOUSTIC PIANO

- Acoustic pianos hold their value over time whilst digital pianos depreciate quickly due to new models being launched frequently with advancements in technology.
- An acoustic piano has pure and live tonal resonance due to the combination of natural materials and physics. Wool covered hammer-heads striking tensioned strings, blends of harmonics and a wooden spruce soundboard as a natural amplifier are unique features of these musical instruments.
- A digital piano imitates the sound of a real piano using digital sound samples and speakers, and despite huge advancements in sampling technology, it is not possible to obtain the same nuances experienced from an acoustic model.
- The construction of an acoustic piano is far stronger and many more times durable, whereas some digital pianos are built from very cheap and poor materials. The casework of an acoustic piano is of traditional cabinet build and damage to it can be repaired easily and often invisibly. Digital pianos tend towards cheaper casework finishes, in many models, a paper wood-grain effect rather than wood veneer makes it close to impossible to repair if damaged.
- If there is a problem with the mechanism of an acoustic piano, it can be fixed by a piano tuner very quickly and inexpensively. There are far fewer electronic engineers who understand digital pianos and replacement parts can be very costly or even not available, especially when out of warranty.
- The touch of an acoustic piano cannot be replicated and is far more touch-sensitive with physical escapement despite technological advancements in digital pianos. Digital pianos have a finite number of tones even if the key is played differently, causing long periods of playing to sound robotic which many musicians find uninspiring.
- Acoustic pianos mostly have a longer manufacturer's warranty – some up to 12 years, whereas a digital piano will usually have a lesser guarantee due to a shorter lifespan.
- Acoustic pianos do not require an electrical power supply whereas a digital piano does.
- Acoustic pianos should be tuned at least twice per annum to maintain the instrument at concert pitch (A440) at an approximate cost of £75 per tuning.
- The life expectancy of acoustic pianos is usually in excess of 50 years with various renovation and restoration options available, this is not possible with digital pianos as their lifespan is uncertain and most models are quickly out dated with technological advancements.



DIGITAL PIANO

- A digital piano's sound and the feel of its keyboard and action are designed to imitate as closely as possible those of an acoustic piano.
- A digital piano does not require regular maintenance or tuning, but does rely totally on electricity supply to operate.
- A digital piano can be played through headphones.
- A digital piano can often be more portable as they are much lighter construction than an acoustic piano, therefore making them easier to move being lighter in weight.
- Digital pianos can be less expensive to purchase than an acoustic piano, although some premium models cost a lot more than even a professional acoustic upright piano.
- Digital pianos are often lower in height than an acoustic piano and some times narrower in depth – the length is much the same because both have 88 keys.
- Digital pianos have additional features such as other instrument sounds, recording facilities, volume control, external flash drive storage and transpose. However, this is also available on the latest acoustic pianos (known as hybrid pianos – see page 7 for more information).
- Digital pianos are more versatile in environments where temperature and humidity levels fluctuate, whereas acoustic pianos use many natural materials which could be negatively affected by varied or extreme climatic conditions. i.e. in a conservatory or near a wood-burning stove.
- Delivery lead times are often quicker on digital pianos as they can be sent via parcel couriers although this can mean complicated self-assembly and packaging disposal.
- Digital pianos can be used as self-playing pianos (although the keys won't move), with demo functions and can enhance your learning with educational software.
- Digital pianos often have MIDI, Bluetooth etc which facilitates connections to computers, tablets and the internet for many other useful functions and Apps



CHOOSING AN ACOUSTIC PIANO

Sound & Tone

There are a variety of factors that affect a piano's sound and tonal quality. The size of the instrument, the quality of the components used and the overall construction all affect the tonal output. Both the tonal quality and volume of a piano are directly related to the size of the soundboard and the string length. A taller piano (upright) or longer piano (grand), provides a larger soundboard and longer string length, giving more powerful and richer tone. Every acoustic piano has its own distinct tonal character... even two new identical models may vary due to the many natural materials and components used and the hammer voicing by individual technicians.

Fine quality materials such as better grade of merino wool for the hammer felt has a positive impact on the tonal quality as does the quality of strings used. The tone of a piano is often described as 'mellow', 'medium' or 'bright'. However, the tone can be adjusted according to individual preference by either reducing tension in the hammer head using toning needles if the tone is too bright, or by re-shaping the hammerhead slightly and applying piano technician's dope to the shoulders of the head to make tone brighter if too mellow. It is important to remember that every piano will sound different in various environments. If after installation you decide you require the voicing to be changed to suit your room, it is best to let the piano settle in for at least 6 months prior to adjusting this.

Touch

The touch of a piano (like tone) is a personal preference and whilst tone and touch are independent of each other, they are psychologically connected. Invariably a brighter sounding piano feels lighter to play! This is because less pressure is required to achieve a similar volume to that of a more mellow piano! It is important to play a variety of pianos as the touch of each instrument will vary.

A piano with a 'heavier' feeling means the action will provide more resistance and may be less responsive compared to a lighter action ... although better for developing technique and building finger strength! The touch of an acoustic piano can be adjusted with regulation that adjusts key depth, set-off and check-off. More serious adjustment requires lead to be added or removed from inside the key sticks. The average down-weight of the keys is 50-55 grams and the up-weight is 20-25 grams. However, touch weight and responsiveness of piano keyboards are a very individual choice and acoustic pianos can be adjusted to suit most personal preferences.



CHOOSING A DIGITAL PIANO

Selecting a digital piano can be more complex in many respects because technology is always advancing and there are many more features that a digital piano can include that differentiates the various models. Some of the key factors that you should be aware of are listed below:

Touch

It is imperative that you purchase a digital piano with a touch-responsive keyboard and a fully weighted action as opposed to 'partially weighted' as this will replicate the playing experience of a real acoustic piano in the best possible way.

Keys

It is important to make sure that the instrument has a full-size keyboard, which is full 88 keys concert keyboard. 76 notes or less is not sufficient to complete your grades through to grade 8. Some digital pianos have wooden keys in order to feel more like a real piano and may even have an acoustic grand piano action for advanced repetition!

Sound

The sound of a digital piano is not generally regarded as an improvement on a real acoustic piano in terms of tonal quality. However, it is important that speakers and amplifier size are adequate to replicate an acoustic piano in the best way possible – the larger in size, the better quality of sound and power. It is recommended to ensure the piano has at least 2 x 15W amplifiers, plus 4 speakers.

Tone

Virtually all digital pianos are designed to imitate the tone of a real piano to some extent, but vary greatly in how accurately or not they do this. Resonances in acoustic pianos are produced in many different ways and it is generally only the premium digital pianos that have the advanced sampling to imitate the finer nuances and harmonics experienced in the tone of a real piano.



YAMAHA



HYBRID PIANOS

Relatively new to the world of music is the 'Hybrid' piano! Fast becoming the way forward, hybrid pianos are becoming increasingly popular and understandably so. These are ingenious instruments that combine the best of both digital and acoustic pianos in one instrument. In brief, a hybrid piano is a traditional acoustic piano that also incorporates the key features of an advanced digital piano i.e. play through headphones, record to USB, operating Apps etc. The authentic touch and tonal quality of an acoustic instrument is maintained with the ability to combine the prime features of both acoustic and digital pianos opening a vast world of inspiration and enduring value. A hybrid upright piano gives the illusion of playing a full-size concert grand through headphones and can be enjoyed any time of day or night.

There are retro-fit hybrid systems available, but this option should be treated cautiously as they are seldom as successful as those fitted at the time of manufacture and can negatively affect the regulation and action setup. The technology used in retro-fit systems is often outdated compared to the systems available from leading manufacturers such as Yamaha and Kawai. The leading hybrid piano models are:

SILENT *Piano*[™]

KAWAI HYBRID PIANO
ANYTIME X

TransAcoustic

AVANTGRAND

You should also be aware of another type of piano which is a variant of the hybrid pianos mentioned above – the self-playing piano. The Disklavier Enspire system is currently the market leader in this field and this system is available on both Yamaha and Bösendorfer pianos. It is a real acoustic piano combined with state-of-the-art technology that enables the piano to play many genres of music by itself at the push of a button from a smart-phone – even the keys depress, pedals move and dampers lift! The Enspire system features live streaming and pro-record facility on certain models.



TRADITIONAL
UPRIGHT



CONTEMPORARY
UPRIGHT

UPRIGHT PIANO

- The upright piano is popular in homes, schools and smaller venues.
- It is compact due to its vertical structure and has an action where the hammers move horizontally.
- Due to the physics of the action being vertical, a spring is required to return the hammer to position, this is a slightly slower process to the natural gravitational pull on a grand piano action.
- Upright pianos are typically built in two different styles – contemporary and traditional (see above images)
- Contemporary design uprights do not have a leg under the keyboard but have a gradual, sloping front panel which curves over to meet the top lid.
- The contemporary design uprights are more compact (normally 109cm high) and do not have the supporting leg at the front. They are not usually taller than 116cm otherwise they become top-heavy and potentially susceptible to falling over...not recommended for use where the piano will be moved frequently.
- Traditional design uprights are the most popular style with a leg under the keyboard, a straight front panel and a square top lid. This design is typically taller with the most common models being around 120cm and 130cm tall.
- The term 'Professional Upright' piano is widely used and this refers to all uprights that are 120cm (height) and above – this is because the string length is longer and the soundboard surface area is larger, thus giving a more powerful, rich, resonant tone. A 'professional upright' is the industry standard for a piano teacher, school, professional musician etc.
- Until the 1970s, upright pianos typically had two pedals – soft and sustain. From the 70s onwards, most upright pianos have three pedals with the additional pedal varying in its use – the most common use of the third pedal is to engage the 'celeste' rail which locks a piece of felt between the hammers and the strings, thus dampening the volume and often known as the 'practice pedal'. However, the higher quality upright pianos will often have a full 'sostenuto' pedal as do most grand pianos; this allows you to sustain just a selection of notes whilst continuing to play other keys without sustain.



GRAND PIANO

- The grand piano was established nearly a century before its upright counterpart and remains a 'grand' feature in any environment today.
- The horizontal action of a grand piano means a very fast return of the hammer after striking the string, facilitating faster repetition and allowing notes to be repeated without fully releasing the keys - this allows the pianist much greater control and expression.
- The open case design of a grand piano allows for the sound to be projected further, creating greater tonal power and volume. Similar to the upright piano, the longer the grand piano, the longer the string length and larger the soundboard surface area, meaning a greater depth of tone and power.
- The term 'baby grand' is a generic expression that is frequently used but in fact does not specifically refer to any one size of grand piano realistically it applies to grand pianos that are 5'6" (170cm) and smaller.
- A grand piano that is shorter than 5'0" (152cm) does not have a dissimilar string length and soundboard surface area to that of a 130cm height upright piano. However, the tonal power and quality will be much the same, although as mentioned above, the action of a grand piano is a greater advantage.
- It is not recommended to place a grand piano in a room less than 10sqm as it will be too overpowering as well as look aesthetically wrong. To ascertain which grand piano size is best for you it is recommended to request a piano template.

NEW OR USED?

There is no 'one size fits all' approach to this and it is strongly recommended that prior to purchasing a new piano you should research the possibility of a good pre-owned version of the same model. There can be dramatic savings made when purchasing a used piano and in the case of pre-owned acoustic pianos, the tonal qualities are often better suited to a domestic environment because the soundboard has matured. It is vitally important that when purchasing a used acoustic piano you enquire as to its history and what works have been carried out to the piano. If it has received any renovation or overhaul work, it is imperative that this has been done using genuine parts – this is especially important when considering refurbished Yamaha instruments (please ask a member of the Coach House team for a separate guide specifically about buying a used Yamaha piano). It is essential to purchase a used digital piano from a retailer who has trained electronic repair engineers and can warranty the instrument for a minimum of 2 years. Purchasing a pre-owned digital piano from a private seller should be wisely avoided without a warranty.



New

- No marks or scratches to the casework
- Interior components in perfect condition
- Acoustic pianos will adapt to your playing style over time
- Will be covered by a Manufacturers Warranty

Used

- Get more for your money – extensive savings compared to new
- The tone of an acoustic piano often improves with age as the soundboard matures
- Higher residual value as initial depreciation already been lost
- Better tuning stability (not applicable for digital pianos)

When buying a used piano, it is important to ensure any of the required repairs or maintenance has been carried out using 100% genuine parts. Only an authorised dealership of the piano brand will be able to guarantee this. It is important as it will greatly effect both the performance and playing experience of the piano but also the resale value, as a non-genuine instrument will be seen as a far less desirable instrument.

CARING FOR YOUR PIANO (acoustic and digital)

Casework

Acoustic and digital pianos are often considered as quite complex instruments but there is surprisingly little maintenance required to keep them in optimum condition. Both digital and acoustic pianos require an occasional dusting to the cabinet with a soft, microfibre cloth. We recommend avoiding the use of any furniture polish especially those containing silicon. Specialist piano polish is available and this should be applied indirectly (light spray to the cloth, not direct onto the piano casework). In the unfortunate event of casework damage, it is advisable to get in touch with a Piano Casework Repair Specialist or a reputable piano retailer who will be able to provide assistance. Most cabinet chips/dents/scratches can be repaired almost invisibly.

Water Damage

Should your piano be subjected to an environment with excessive amounts of water (i.e. burst pipe etc), it is imperative you request a qualified tuner or piano retailer to attend your property and carry out a detailed assessment – you should do this even if the water hasn't made contact with the piano as it is the sudden change in moisture content and humidity that can cause problems for the piano longer term.

Insurance

It is important to ensure your piano is covered by insurance – there are different ways to do this. You can request it is added to an existing home policy as a named item or you can initiate a specific policy for the instrument – Coach House have preferential rates negotiated with the leading musical instrument insurers so can assist with this if required. It is also recommended to insure your piano using a 'new for old' policy – the insurance company may require a covering letter from an authorised piano supplier to confirm the piano's retail value, again Coach House can assist with this.



CARING FOR YOUR ACOUSTIC PIANO

Tuning

We have covered this in more detail on the next page, however, acoustic pianos will require tuning approximately twice a year with the climatic conditions in which they are situated affecting this frequency - there are approximately 230 strings in a piano, subjected to extreme tension which combines to nearly 20 tons of pressure!

Regulation

Piano regulation is an essential part of piano maintenance and consists of the adjustment of the mechanical aspects of the action and other internal parts to optimise performance and compensate effects of wear. This is due to the compacting and settling of cloth, felt and buckskin but also the dimensional changes in wood and wool parts affected by humidity levels. This is usually an inexpensive process that many tuners will carry out as standard during routine tuning.

Voicing

Toning or voicing refers to the fine adjustment to the hammerheads - the felt may become compressed over time as the strings cause grooves in the felt. Voicing can be adjusted according to an individual's preference by either reducing pressure in the hammer head using toning needles (if the tone is too bright) or by re-shaping the hammerhead slightly and applying dope to the shoulders of the head (to make it a brighter tone if too mellow). This is something which you may choose to take place every five years or so, depending on intensity of use - it is a relatively simple process that most competent tuners will execute effectively.



ACOUSTIC PIANO TUNING

There is no denying that an in-tune piano gives the optimum playing experience and enjoyment. It is recommended that a piano is tuned twice a year, but this will depend on the intensity of use (a piano teacher would typically require a quarterly tuning).

Tuning frequency will also vary, depending on the climatic conditions in which the piano is situated – the large amount of wood and other natural materials used in the construction of an acoustic piano means they are affected by fluctuations in moisture content, humidity, temperature etc. It is therefore best to keep the climatic conditions as stable as possible – humidity should be between 40-60% and temperature 17-21C.

All pianos should be tuned as part of the final assessment before being delivered to you. Soon after installation in your home, an acoustic piano will gradually slip out of tune. This will occur if you purchase a new or used piano and is caused by the change in climatic conditions as mentioned above. The optimum settling in time is 6-8 weeks which is when your first free after-service should ideally take place (Good piano retailers should be offering a free after-service).

A qualified piano tuner will visit your home to carry out the tuning insitu which takes approximately one hour. Tuning is achieved by defining the frequency of vibration of each string, and is adjusted using a tuning lever to turn the pin which tensions the steel wire, so that it vibrates to give the closest possible harmony with the other strings. The strings are subject to extreme tension and have a tendency to gradually relax when struck by the hammers - although tuning stability increases over time as the strings and tuning pins become accustomed to their positioning.



LOCATION

The location of a piano should be considered carefully and places subject to severe temperature fluctuations should be avoided. Other things to avoid are direct sunlight (particularly morning sun), cold draughts, proximity to a radiator or a wood-burning stove and placing the instrument in a conservatory.

Underfloor heating is not normally a problem unless it is the only source of heat and therefore on a warm setting. This is particularly relevant to uprights as grand pianos have enough space underneath to allow air to circulate. In this situation, we suggest using an underfloor thermal-backed heating mat for upright pianos.

Where moisture content is high or if in a naturally colder environment, such as a church, then a heater bar can be fitted which is controlled by a thermostat and emits only a low amount of heat – these are inexpensive to fit.



WARRANTY

It is important that when purchasing a piano – be it a new or used acoustic or digital – that it has a substantiated warranty.

Most new instruments will be covered by a manufacturer's warranty. This is to protect the buyer against faulty goods and does not address issues caused by climatic variation. Sticking notes and squeaky pedals are examples of settling in issues you may experience during the first few months of owning an acoustic piano and are not usually covered by the manufacturer. Most reputable retailers should have a guarantee to cover any problems.

It is important to ensure any used piano purchased has a minimum of 12 months warranty and be warned about purchasing a piano from auctions and internet sites such as eBay. If not purchasing from an approved supplier, then you should take specialist advice and ensure any piano is checked out thoroughly before making a purchase.





For further advice and inspiration, please connect with us on our social media channels



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Coach House Pianos

Our Mission

To support and engage more people in music making

Coach House Pianos, 878 Carmarthen Road, Swansea, SA5 8HR
www.coachhousepianos.co.uk 01792 584 584 info@coachhousepianos.co.uk

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