



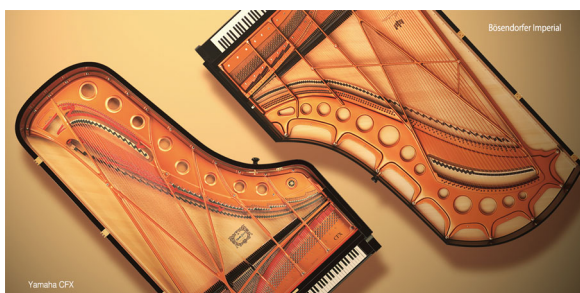
The new generation GrandTouch keyboard and finely-tuned 3-way speakers bring you the touch and feel of a real grand piano.

- CFX and Bösendorfer Imperial piano samples
- CFX Binaural sampling
- Improved VRM (Virtual Resonance Modeling)
- Smooth Release
- Key-Off samples
- String Resonance
- Damper Resonance
- 256-note polyphony
- 36 Voices
- GrandTouch keyboard with synthetic ebony and ivory keytops (wood is used for the white keys)
- Escapement
- 88-key Linear Graded Hammers
- GP Response Damper Pedal
- 128 x 64 full dot LCD
- Dual / Split / Duo
- Digital effects (Reverb/Chorus/Brilliance/Effect)
- 19 Voice Demo Songs + 50 Piano Songs* + 303 Lesson Songs (*The Clavinova comes with a book of music scores)
- 20 rhythms
- 16-track recording
- USB Audio Recorder (Playback/Recording: WAV)
- USB TO HOST and USB TO DEVICE
- Dual headphone jacks
- (35 W + 50 W + 20 W) x 2 amplifiers
- (16 cm + 8 cm + 5 cm) x 2 speaker system
- Speaker Box
- Acoustic Optimizer
- Intelligent Acoustic Control (IAC)
- Stereophonic Optimizer
- Music braces
- Built-in Bluetooth for wireless connection to iPhone, iPad, iPod Touch or Android

Features

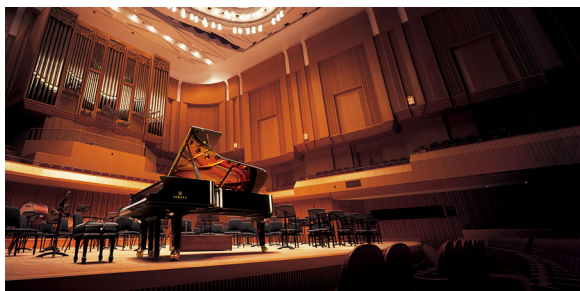
Sound

The sound of some of the finest concert grand pianos in the world



With two world-renowned concert grand pianos available at the touch of a button, the CLP Series lets you choose the perfect piano tone for the music you want to play. Offering far more than just sampled sounds, the CLP-600 Series reproduces the Yamaha CFX concert grand and the legendary Bösendorfer Imperial in meticulous detail.

The powerful tone of the acclaimed CFX



Yamaha's flagship 9' concert grand piano, the CFX, offers sparkling highs and a powerful resonant bass with a sound that projects to the furthest reaches of any concert hall. The CFX was played by the winner of the prestigious International Chopin Competition in 2010, and has since gained recognition as one of the greatest concert grands of modern times.

CFX sound on the CLP Series

Artists who play the CFX

Features

The legendary sound of a Bösendorfer Imperial



Originally founded in 1828, Bösendorfer holds a unique position amongst piano makers as the only manufacturer in the world still utilizing the Viennese tradition of hand-crafted design that produces the uniquely warm bass, singing treble and rich tonal colors known as the “Viennese Sound”. The development of Bösendorfer pianos has been influenced by such famed composers as Brahms and Johann Strauss, resulting in an instrument lauded as the only piano capable of withstanding the frenetic playing of Franz Liszt. Remaining true to this legacy of meticulous design and implementation, each Bösendorfer

instrument is painstakingly crafted over many hours at the hands of highly-experienced craftsmen. In 2008, Bösendorfer became part of the Yamaha Group and in 2014, the revered tone of the Bösendorfer Imperial was featured in the Clavinova CLP Series.

Bösendorfer sound on the CLP Series

Bösendorfer artist

Touch

Built on a Legacy of Concert Grand Piano Craftsmanship

Grand Piano keyboards are characterized by a light feel when played gently, and a heavier feel when played with more strength. Conversely, a non-grand piano keyboard has a uniform resistance regardless of whether the player uses a gentle or heavy touch. This has traditionally been one of the most significant differences between the touch of a grand piano and that of a digital piano. However, when developing GrandTouch keyboard action, Yamaha sought to reproduce the true key resistance that is unique to the grand piano, with greater fidelity. The result is an instrument with a more responsive touch, offering a greater dynamic range than ever before. Now you can experience a much more controlled, nuanced sound when playing softly, or powerful, brighter tones when playing with a stronger touch — just like that of a grand piano.

Features

Achieve True Balance

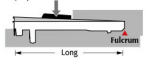


Pianists prefer grand pianos not only because of the way they sound, but also because of the way the keys respond to their touch. When grand piano keys are struck, there is a certain weight or resistance to the touch. Similarly, when keys are released, they return to a resting position based on the balance between the key and the internal mechanics of the keyboard. It is difficult to reproduce the natural return of the keys of a grand piano in a digital piano, due to differences in the mechanics. Yamaha carefully studied these characteristics when developing the GrandTouch keyboard, and has now reproduced this fine balance in the Clavinova digital piano. The result is GrandTouch - detailed grand piano feel that allows for uniform tone control, precise rhythm and smooth melodic expression - fundamental to an exceptional musical performance.

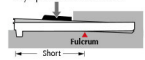
Leverage Your Artistic Expression

■ Ease of playing according to distance to the fulcrum

Key tip far from the fulcrum (Clavinova)



Key tip close to the fulcrum



When playing a digital piano, the back area of the keys may prove to be a challenge to full musical expression. This is because the back of the key is closest to the fulcrum of the action. The closer to this pivot point that you strike the key, the less leverage you have and the more strength you need to apply. The greater length of GrandTouch keys give the player MORE leverage, allowing for better expressive control, even at the backs of the keys. This is the same support length found on the Yamaha S3X premium grand piano (as of April 2017), and is the longest support length used on any digital piano.

We Didn't Let Any Detail Slide



Our fingers are more sensitive than we think, and for pianists, the texture of the piano keys is extremely important. The GrandTouch keyboard features white keys made from the highest quality synthetic ivory, developed independently by Yamaha. The black keys are finished in synthetic ebony. Synthetic ivory keytops reproduce the tactile surface of the real ivory keyboards once used in older acoustic pianos. It features highly absorbent material that prevents fingers from slipping even after hours of practice, while retaining the ideal texture and feel. Resulting from well over a century of experience in making acoustic pianos, this exclusive Yamaha technology achieves a finish that feels natural and comfortable. In addition to the feel, the appearance and fine texture of these keys is unmatched by any other digital piano, and is sure to inspire pianists from the moment they experience it.

Features

Our Design Philosophy for the GrandTouch Keyboard



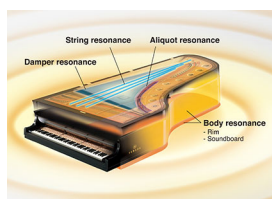
The GrandTouch keyboard was developed with a clear awareness of the need to recreate the responsive feel of a grand piano. For instance, one of the major characteristics of a grand piano is the wide change in key touch, from playing soft to striking the keys hard. Grand pianos respond to different ways of playing with different key touches—the keys move lightly when played softly, and the keys respond firmly when played strongly. With the GrandTouch keyboard, Yamaha has considered the key mechanism and weight, as well as the key shape and friction that occurs during key travel. In doing so, we have widened the range of differences in key touch between lighter and harder playing. This lets you naturally sense the difference between louder and quieter sounds while playing. Further, we have designed the GrandTouch keyboard to allow you to play with an expressiveness that rivals that of a grand piano, as the GrandTouch keyboard gives you tactile feedback from the time you touch the keys until they reach the keybed. What's more, we have included a mechanism that simulates the lifting of hammers on a grand piano, recreating the feeling of escapement at the end of the key stroke. With this, the GrandTouch emulates both the release feeling that is unique to an actual escapement mechanism, and the feeling of stopping that comes afterwards. We definitely encourage you to experience the GrandTouch's highly realistic feeling of a responsive grand piano mechanism that keeps moving from the outset until escapement and then stops... and with this, the sense of control brought to your performance throughout the entire keystroke range.

Clavinova Technology

Innovation for effortless performance

Clavinova is an innovative lineup of digital pianos that have continued to evolve while seeking to provide the touch and tone of a concert grand piano—the ultimate symbol of piano excellence. This authentic grand piano experience is the product of the knowledge and expertise that Yamaha has accumulated over more than 125 years of crafting acoustic pianos. Utilizing state-of-the-art technology to achieve grand piano quality, Clavinova digital pianos offer an inviting playing experience that is perfect for players of all levels. They emulate the touch and tone of a grand piano to make the transition from digital to acoustic piano a seamless and enjoyable one.

VRM physical modeling—the distinctive reverberation generated by the entire body of a concert grand piano

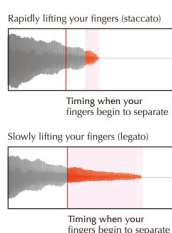


In a grand piano, sound resonates throughout the body of the instrument, producing a rich reverberation that envelops the listener in sound. This phenomena is reproduced perfectly in the Clavinova through enhanced Virtual Resonance Modeling (VRM). The original VRM calculates the various states of the strings for each of the 88 notes on the keyboard, from one instant to the next, and timing and depth of damper pedals pressed. The enhanced VRM now also calculates aliquot resonance in the upper octaves, and the full resonance of the soundboard, rim, and frame. This technology allows for vivid, bright, richly-varied expression that reflects the limitless number of factors inherent in piano performance.

Features

From staccato to legato—superbly expressive sound that responds to the player’s touch

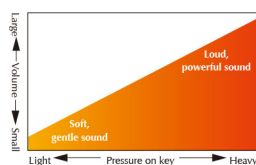
■ Benefits of Smooth Release



Featuring Yamaha Smooth Release technology, Clavinova offers the crisp tone heard when playing staccato as well as the lingering sound produced by releasing the keys more. This provides finely-nuanced response to the pianist’s playing.

Smooth tonal transformations perfectly matched to key pressure

■ Variations of sound according to touch



Sound in an acoustic piano attenuates over a long time. Pianists can change the volume of the sound—as well as its dynamics—to achieve both mellow and bright tones by simply changing the pressure they apply to the keys. The Clavinova features long, carefully-sampled recordings of notes on a piano, reproduces them in rich detail and utilizes unique Yamaha technologies to achieve smooth tonal transitions in response to the touch of the player. Additionally, the Clavinova has been repeatedly tested and adjusted by numerous pianists in order to attain a performance feel similar to that of a grand piano.

Key-Off samples

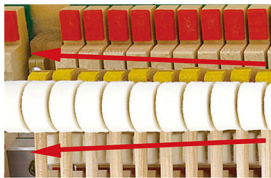
The moment a pianist’s fingers are lifted from the keys of a grand piano, subtle changes occur in the instrument’s tone as the damper is lowered onto the strings to mute its sound. Key-Off samples feature actual recordings of these changes, offering a faithful reproduction of the most subtle changes in the piano’s sound, allowing for a more realistic performance.

Escapement mechanism of Clavinova Keyboards

The escapement mechanism in a grand piano moves the hammers away from the strings quickly after they strike them, in order to prevent any interference with string vibration. This mechanism produces a slight clicking sensation when the keys are pressed gently. Since Real Grand Expression offers players superb sound, touch and pedaling, we decided to create an escapement that delivers outstanding playability, repetition, and response without impeding performance. The Clavinova keyboards feature an escapement mechanism that reproduces this sensation near the bottom of the key dip. They have been designed in such a way that the click is discernible only on the lightest keystrokes, similar to the keyboard of a grand piano. These keyboards have been adjusted to provide additional friction that balances key repetition and response without impeding performance.

Features

88-key Linear Graded Hammers—the first digital piano keyboard ever to feature alistic weighting on every key

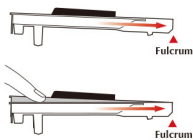


Grand piano hammers

Every single key on a grand piano keyboard is weighted differently. This is because the strings for each note are slightly thinner and shorter in the treble register, becoming thicker and longer towards the bass register. The 88-key Linear Graded Hammers of the Clavinova is the first-of-its-kind to faithfully duplicate this graded touch with differing weights and key return on each one of its keys. This results in a feel and response that is astonishingly like that of a grand piano, and allows players to gain an appreciation of a more authentic touch.

Keyboard Stabilizers—unique Yamaha mechanisms for improved keyboard stability and durability

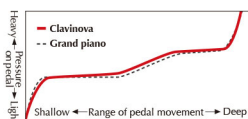
■ Operation of the Keyboard Stabilizer



Keyboards fulfill the vital role of transforming emotion from your fingertips into sound and therefore, must be smooth to play in order to maintain superb touch for prolonged performances. That is why Yamaha has fitted Keyboard Stabilizers to all 88 keys, offering players a natural touch and improving the stability and durability of the keyboard.

The GP Response Damper Pedal provides an authentic grand piano pedal feel

■ Response of GP Response Damper Pedal



Using the damper pedal subtly alters the nature of a piano's sound and is essential to providing the pianist with all the necessary expressive tools to convey their musical vision. Clavinova digital pianos feature a damper pedal that continually detects depression depth and allows halfpedaling, which lets players make minute adjustments to pedal depression and return, changing the depth and character of their piano sound. High-end models feature the GP Response Damper Pedal, which offers a grand piano-style resistance curve, starting out light to the touch and growing heavier as the pedal is depressed further. This allows players to become accustomed to the nuances of delicate pedaling.

Full-body resonance, just like an acoustic piano

Similar to an acoustic piano, the Clavinova is calibrated carefully, with speaker positioning and body materials checked to ensure that the entire instrument resonates optimally. For a sound image that is very close to the grand piano, these instruments feature Tone Escapement in several locations throughout the body that allow the sound from the speakers to be projected to the listener's ears without being trapped inside the instrument. The higher-end models in the CLP-600 Series feature dedicated DSPs, amplifiers and speakers. This vastly improves sound production, ensuring that the volume and quality of sound heard by the performer is flawless, with the output from each speaker arriving at the performer's ears in perfect synchrony.

Features

Acoustic Optimizer

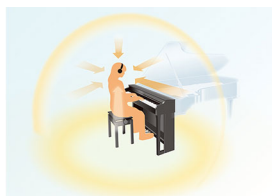
The speakers attached to the body exhibit a phenomenon in which, if nothing is done, the volume of the sound will increase due to the resonant frequency of the body. Conversely, installing pipes with the same resonant frequency within the body suppresses this resonance. Acoustic optimizers utilize this phenomenon. This improvement of the sound is something that has only been possible thanks to Yamaha's thorough knowledge of the internal acoustic characteristics of musical instruments.

The Stereophonic Optimizer—a new kind of headphone experience



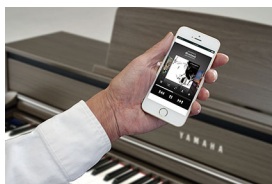
When using headphones, the Stereophonic Optimizer lets players enjoy the dispersed sound heard when sitting in front of an acoustic piano. With the Stereophonic Optimizer, Voices sampled from acoustic pianos* appear to come from the body of the instrument. This provides a comfortable, natural experience that removes the drawbacks of performing with headphones.* The CFX Voice utilizes binaural sampling technology

A fully immersive concert grand experience—even with headphones



Yamaha's advanced binaural sampling technology is now available on the Clavinova for the first time. The technology uses samples from the CFX, Yamaha's acclaimed concert grand piano, recorded with specialized microphones that capture locational information and other nuances discerned by the human ear. The resulting sound is so natural, so enveloping, that you'll soon forget you're even wearing headphones at all. Once you choose the Yamaha CFX Grand Voice and put headphones on, the binaural sampled sound is automatically ready and no additional settings are required. Now with or without headphones, you can fully enjoy the concert grand experience at home.

Connect wirelessly for Bluetooth® audio



You can play music through the audio system on the Clavinova by using a Bluetooth-enabled smart device. You can stream audio data such as mp3 files. You can enjoy playing along with any songs on your smart device, and you can even share your Clavinova performances.

Features

Multi-track Song Recorder

The recording function featured in Clavinova digital pianos allows you to record your performances* with a single touch, which is useful when you want to review your playing objectively. Additionally, you can record up to 16 tracks for simultaneous playback, so different hands can be recorded separately or overdub parts with different Voices.* Recordings are made in MIDI format, and can also be recorded to USB flash memory. Compatible software is required for playback of recorded data on a computer

USB Audio Recorder

Record performances to USB flash memory and create audio files* you can save and play back on a computer, share with friends or create a CD.* Data is saved in WAV format

USB Connectivity

USB TO DEVICE port 
USB TO HOST port 

Connect the Clavinova to a computer or a USB memory device to manage your library.