



Furch CNR System® Active: Furch Guitars' Game-Changing Solution to Centuries-Old Playability Problem

Velké Němčice, Czech Republic – 25 November 2024 – Furch Guitars ([Furch](#)), one of the world's leading manufacturers of premium-quality all-solid-wood acoustic instruments, announces the release of the CNR System® Active, a groundbreaking proprietary neck construction technology designed to maintain a consistently optimal neck setup, playability, and string action, regardless of changing environmental conditions. This innovative Active version of the popular CNR System® ensures that guitarists experience enhanced comfort, stability, and performance, allowing them to focus entirely on their music instead of instrument servicing.

Revolutionizing Playability and Enhancing the Player's Experience

The CNR System® Active marks a significant advancement in acoustic guitar engineering, delivering not only technical innovation but also profound improvements to the everyday experience of guitar players. *“The beauty of the CNR System® Active lies in its ability to address two major challenges faced by acoustic guitar players,”* explains Petr Furch, CEO of Furch Guitars. *“First, it allows players to set up their guitar quickly and easily in just seconds, eliminating the need for costly, time-consuming, and risky neck resets. Second, it automatically maintains your preferred setup condition, even in varying environments such as summer or winter indoor climates. With the CNR System® Active, your guitar will always feel and play exactly the way you want.”*

Furch emphasizes that this innovation offers significant advantages for retailers as well. *“The CNR System® Active enables retailers to adjust an instrument's playability for their customers on the spot in just seconds, requiring only minimal guitar tech skills for the entire process.”* He also highlights how it addresses concerns about playability issues arising from transport, particularly when buying online, where customers cannot verify the guitar's setup before purchase. *“The system offers two solutions: customers can either adjust the action themselves to suit their preferences once the guitar arrives, or specify their desired action to the retailer, who can set it up quickly and easily prior to shipping. This gives customers greater confidence in buying their first Furch guitar online. By combining simplicity, accessibility, and performance, the CNR System® Active redefines how guitars are maintained, empowering both our players and retailers alike.”*





The CNR System® Active owes its reliable neck stability to its patented self-adjusting feature, which maintains consistent neck relief despite environmental changes and minimizes the need for frequent setups. Its unparalleled capability for playability personalization is enabled by a unique string action fine-tuning element, allowing for quick, precise, and effortless string height adjustments. Petr Furch explains, *“Players no longer have to worry about changes in string action before a session or gig, enabling longer, more enjoyable playing experiences. They can trust their guitar will always feel just as great as the last time they played it, regardless of environmental conditions. I believe that by minimizing maintenance concerns, the CNR System® Active allows players to fully immerse themselves in their music and strengthen their connection to their instrument—which, in the end, is what matters most.”*

To introduce the CNR System® Active and its benefits, Furch has published an official release video that highlights the innovative features and advancements of this cutting-edge technology. Watch the video here: <https://youtu.be/0pKYty1bxcM>

To showcase the ease and efficiency of the CNR System® Active, Furch has created a neck setup tutorial that demonstrates just how quick and simple it is to achieve optimal playability using the truss rod and string action adjustment screw. Watch the video here: <https://youtu.be/BCsUgpyMa7k>

How It Works: Development and Innovation Behind the CNR System® Active – A Deep Dive for Guitar Geeks

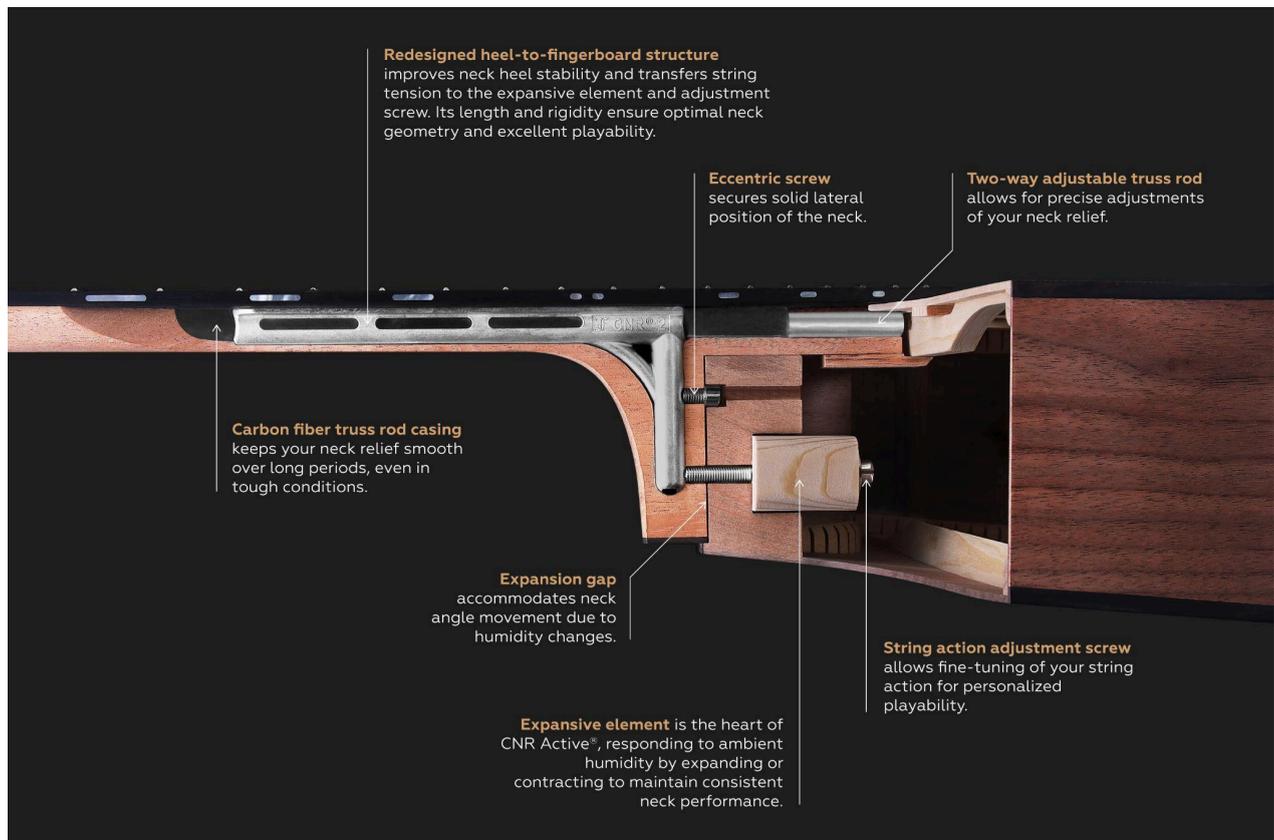
Furch's journey with the CNR System® Active reflects the brand's unwavering commitment to innovation. Pavel Hoffmann from Furch's R&D team explains, *“We began by analyzing data from over 60,000 guitars equipped with the original CNR System®, first introduced in 2016”*. This analysis revealed the need to further address string action variability caused by humidity-induced top movement, prompting the team to upgrade the system.

Petr Furch further explains: *“The CNR System® Active takes advantage of wood's natural properties, incorporating a solid wood expansion element within the body at the neck heel joint. The type of wood, its position, length, grain orientation, and the humidity level at the time of installation are all meticulously controlled to allow it to expand and contract in response to humidity changes, mirroring the natural expansion and contraction of the soundboard. This movement is then transferred to automatically adjust the neck angle, ensuring consistent string action. It was*





designed to work in harmony with the instrument, so players no longer need to worry about fluctuating playability due to weather changes.”



Cross-section of the CNR System® Active neck joint highlighting its constituent parts. Photos and graphics available for download [here](#).

Building on the foundation of the original CNR System®, the CNR System® Active includes a two-way adjustable truss rod embedded in a carbon fiber casing. This design evenly distributes tensile forces, enabling precise neck relief adjustments tailored to individual playing styles while remaining resistant to bumps and twists in the truss rod. Similarly to its predecessor, the Active



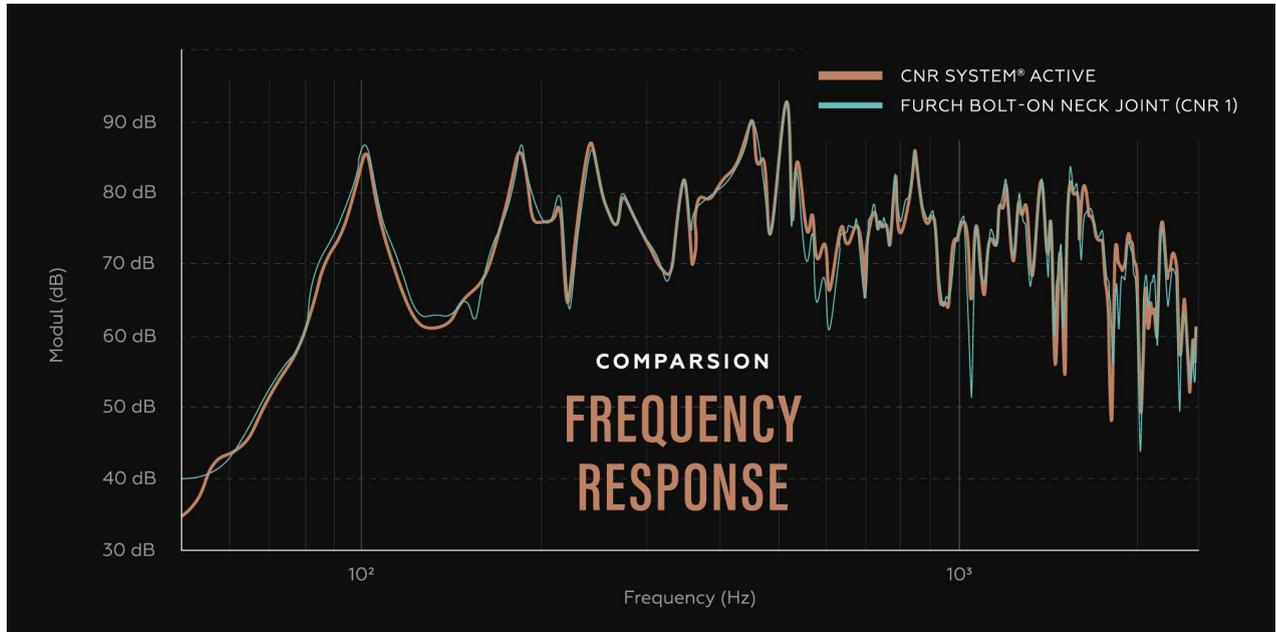


version also incorporates an L-shaped alloy component in the neck heel, enhancing neck angle rigidity and eliminating the need for a large wooden block in the heel—a feature that could otherwise dampen the resonance of the top soundboard. *“The updated L-shaped structure is now 60 mm longer and 45% stronger, significantly enhancing neck stability and optimizing the transfer of string tension,”* adds Petr Furch.

The L-shaped heel structure is connected to the wooden expansion element via a string action adjustment screw, allowing players to perform precise adjustments and achieve highly personalized playability using a simple Allen key. The lateral position of the neck is additionally secured by an eccentric screw that links the L-shaped heel structure to the body. An added expansion gap behind the heel accommodates natural wood movement caused by humidity fluctuations, enabling secure and effective adjustments in response to environmental changes.

Furch’s research and development process also placed a strong emphasis on preserving tonal integrity. Petr Furch explains: *“Despite the significant improvements in playability, we naturally had concerns about how the system might impact the sound. Introducing an expansion gap behind the heel could theoretically affect resonance. However, the tension of the strings and the transfer of acoustic waves primarily occur in the upper part of the neck. We ensured that resonance is channeled effectively through this area, particularly beneath the fretboard.”* Rigorous testing confirmed that any potential difference in sound quality is negligible, falling far below the threshold of audible perception. This ensures that players can enjoy improved playability without sacrificing the rich, resonant tone that defines Furch guitars.





Furch's comparison between the frequency response of a guitar equipped with the new CNR System® Active and one fitted with the first version of the Furch CNR System® confirmed no audible difference in sound quality. Photos and graphics available for download [here](#).

Furch first introduced players to the breakthrough technology of the CNR System® Active in the **2024 Limited Edition Dc-LR** model, featuring an Alpine spruce top paired with striking Indian rosewood back and sides with heavy figuring. Petr Furch explains, *“Integration across all our series production lines is currently underway. All new Furch guitars, starting with a Blue Gc-CM unit with serial number 126,202, and above, are equipped with this system.”* He concludes, *“After years of research and testing, we are thrilled to bring this technology to our customers, allowing them to experience even more performance from their Furch guitars, whether on stage, in the studio, or at home.”*





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Furch first implemented the CNR System® Active neck construction in the 2024 Limited Edition Dc-LR model, featuring an Alpine spruce top and figured Indian rosewood back and sides. Photos and graphics available for download [here](#).

About Furch Guitars

Founded in 1981, Furch Guitars ([Furch](#)) has worked its way up to become one of the world's leading manufacturers of all-solid-wood acoustic guitars. The company's production complex and head office are located in Velké Němčice in the municipality of Brno, Czech Republic. Furch instruments combine the company's extensive know-how in handcrafting acoustic guitars with





state-of-the-art technologies, production processes, and proprietary innovations. Thanks to that, the company is able to bring to the market premium-quality musical instruments with outstanding acoustic properties and excellent design parameters. Covered by a three-year warranty, Furch guitars are sold in over 40 countries on five continents. Furch employs over 70 luthiers and craftsmen and makes in excess of 9,000 instruments annually. Furch guitars are the preferred choice of such artists as Al di Meola, Suzanne Vega, Per Gessle, Glen Hansard, and Calum Graham. For additional information, visit www.furchguitars.com.

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