Clear Professional: Listening worthy of the best monitor speakers in a room with perfect acoustics, using reference headphones

Focal affirms its position as an innovative manufacturer with the arrival of its very first open-back circum-aural professional headphones, designed and manufactured in France. The result of research and development that began with Elear and Utopia, the goal for these high-end headphones is to become the undisputed leaders for the most demanding professionals.

In 2016, Focal launched its Elear and Utopia headphones, whose major innovation was the first completely open-back full range electrodynamic transducer. This technological advance meant that it was possible to eliminate the distortion generated by the vents, at the same time guaranteeing an absence of dynamic compression related to them. Two years on, the French manufacturer reveals Clear Professional. These open circumaural headphones incorporate a remarkable evolution of the speaker and an extremely open design aiming to make the headphones disappear, to the benefit of the sound.

Clear Professional headphones are so comfortable that you forget you are wearing them and the listening experience, equal to the best monitor speakers, takes over.

Clear Professional headphones take their place as a key staple for the most demanding professionals. These professional headphones have just one, unique objective: to be the ultimate tool for music production.



- Remarkable tonal balance over the entire spectrum
- Bass articulation, down to the very lowest frequencies
- · Great detail in the high frequencies
- A listening experience very close to a pair of monitor speakers
- · Comfort and ergonomics
- · Design and materials used
- Excellent performance connected to a laptop computer
- 2 cables provided, for each type of use
- · Rigid carrying case provided

Available: February 2018



ABOUT FOCAL

For more than 35 years, Focal has been recognised as a leader on the global stage for its high fidelity products. This French company based in Saint-Étienne (Loire department) manufactures speaker drivers, home audio and multimedia loudspeakers, car audio systems, monitoring loudspeakers and audiophile headphones. Some of our loudspeakers and technologies have become world-renowned references in the Hi-fi industry. All Focal products are designed and developed in France: they benefit from 35 years of innovation in exclusive and patented acoustic technologies. We have chosen to continue manufacturing products 'Made in France', where the quality and high standards of French workmanship place the brand above its competitors. A market leader in France, Focal exports more than 80% of its production, mainly to Europe, North America and Southeast Asia.

In 2011, Focal merged with Naim Audio Limited, the leader of high-end electronics in the U.K. Vervent Audio Group, the resulting holding company, has a turnover of over €85 millions.

Press contact for Focal:

Eva VAN DEN KERCHOVE - e.vandenkerchove@focal.com











CLEAR PROFESSIONAL

JANUARY 2018



Clear Professional uses a new generation of Focal 40mm full-range speaker.

A 24.5mm diameter, 5.5mm long unsupported copper coil has been developed. This major innovation weighs just 100mg. The material chosen, copper, has the effect of achieving an extremely high magnetic field in the coil. With this, the moving parts are always under control, even at maximum capacity, providing bass arti-

55 Ohm impedance makes Clear Professional easy to drive, even in mobile configuration, directly connected to the headphone output of a laptop.

culation worthy of the best subwoofers. Its

The proprietary 75 micron suspension combines very low mass with high elongation. It contributes to exceptional impulse response with break-up raised to 24kHz. Thus, high frequencies are extremely linear and transients totally respected. Clear Professional is capable of precisely revealing the tiniest details of the recording, providing extremely precise control.

35 YEARS' KNOW-HOW IN THE SERVICE OF THE ACOUSTIC ABSOLUTE

One of the reasons why work on headphones is significantly different from that on a pair of monitor speakers is the wave-form generated by the loudspeaker and the listening distance. Whether an inverted dome or a positive dome is used, a listening distance measured in centimetres requires a total rethink of the form of the dome to obtain a plane wave in an extremely close field. The French manufacturer's 35 years of experience have resulted in a new generation of domes, launched on Elear and Utopia headphones: the M-profile dome. Formed of an Aluminum/Magnesium alloy, it offers an ideal ratio, combining low mass, high rigidity and excellent damping. It is when you listen that you understand the full meaning of 'M' geometry: breadth and dynamics worthy of the best monitors are truly on offer. Focal made the most of this decisive advantage when it designed some of the most open headphones ever, thanks to very particular work on the ear cushions.

MAKING THE HEADPHONES DISAPPEAR, TO THE BENEFIT OF THE SOUND

One overwhelming factor governing one's ability to work with headphones is their acoustic impedance. What this means is that, in addition to their weight, users identify wearing headphones, even open models, as a change of space resulting in the sensation of leaving the room and going into a lower volume room. The design of Clear Professional solves this problem, thanks to their new microfibre ear cushions. The ear pads are to the headphones what the room is to acoustic speakers. Their one-millimetre diameter micro-perforations on the outside edge give a level of openness that is unequalled at this price range. The sensation of listening in the room, and not through headphones, is intensified. The second benefit to this design is its extreme tolerance to ear cushion positioning, regardless of head profile and size. This degree of openness also provides the benefit of excellent readability of upper bass and low midrange registers, typically where headphones usually find their limits in comparison with monitors.

At the same time, the ear cushions are also designed to define a 'listening room' acoustic. Here, special care was taken to the ratio between absorption and diffusion, in order to offer a control room with ideal acoustics. This resulted in a very specific design of the inside of the ear cushion. A very open acoustic fabric over 50% of the height of the cushion generates absorption, while the perforated microfibre on the remaining 50% controls acoustic diffusion.

On the design side, the finish of the ear cushions is reprised under the headband, giving black leather to the top and burgundy perforated microfibre below, in a gentle *hommage* by the French manufacturer to its SM6 range of monitor speakers.



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A UNIQUE DESIGN COMBINING COMFORT AND NOBLE MATERIALS

Focal has developed a constant curvature headband design, regardless of listener head size. The weight of the headphones is evenly distributed over the head, support being concentrated into one or two points. The solid Aluminum yoke is coated with structured black paint offering not only sleek design by also resistance to impacts and scratches. The yoke is also free from the traditional vertical rotation mechanism, which has been transferred to the headband for even greater comfort. The asymmetry of the yoke's attachment points to the ear pads provides optimal clamping force distribution, thus ensuring excellent fit, especially under the ears, to avoid any sound leakage translating as significant losses in the bass. The high resilience memory foam used in the ear cushions ensures a perfect fit to the face. This guarantees tonal stability and extra comfort for all.

CLEAR PROFESSIONAL, ALWAYS BY YOUR SIDE

Clear Professional comes with two cables so that users have the best solution for their device of choice. These OFC copper 24AWG cables offer very low resistance, and therefore high acoustic transparency. The first cable, a 5m spiral, for use in the studio, connected to a mixing console, for example. The second, 1.2m in length, is fitted with a 3.5mm stereo jack connector. This will be the cable of choice for people on the move, ensuring very high-quality reproduction connected to a compact audio interface using the 3.5mm to 6.35mm jack adapter. It can also be directly connected to a computer headphone output, where its low 55 Ohm impedance gives it a decisive advantage.

The headset itself is equipped with two locking 3.5mm mono jack sockets to secure the connection cable. The final Clear Professional accessory is a rigid carrying case. Its thermoformed shell in the shape of the headphones protects them from impacts and the hazards associated with transport. It also has capacity to store one cable and an iLok® key (not provided), all within its compact dimensions.

FOCAL: TOTAL CONTROL OF THE MANUFACTURING CYCLE IN THE SERVICE OF ACOUSTIC PERFORMANCE

The innovation implemented in the speakers in Elear and Utopia headphones is further strengthened with the arrival of Clear Professional. The very low mass of the moving parts of these three products has led to the design of a dedicated production line on Focal's site in Saint-Étienne (France), ensuring exceptional levels of precision to be achieved. When the five manufacturing stages of the speaker are complete, every transducer is tested and measured, after which they are paired. In this way, every pair of headphones has guaranteed speakers with a frequency response curve of +/- 0.5dB!

Focal continues its quest for the acoustic absolute with these new reference headphones. Their ability to reproduce every detail, their tonal balance, their remarkable dynamics, not to mention transients worthy of the best monitor speakers - this is why Clear Professional headphones are the go to for the most demanding professionals.

