

Large diaphragm condenser microphones in transistor and tube technology

Lauten Audio Clarion FC-357 & Oceanus LT-381

Lauten Audios product portfolio currently consists of exactly four microphone types. Apart from the Horizon model, tested one year ago and the Torch (small diaphragm condenser microphone), the two dual-diaphragm Condenser Clarion Oceanus, in particular, raise the most interest.

The founder of the company, Brian A. Loudenslager did not try, like many other manufacturers, to imitate famous classic microphones in regards to sounds and optics, but preferred to design the product their own way. Thus, Clarion and Oceanus, two large diaphragm condenser microphones, are designed in a classic manner, but don't emulate any concrete patterns. They want to be perceived as self-reliant when it comes to sound. In the USA, Lauten Audio already had considerable success. Due to user comments posted on relevant American Internet forums as well as the statements of several well-known engineers and producers who endorse and use Lautens.

The two Lauten Audio microphones are delivered in a nice wooden box. This box comes, in turn, in a carrying case, which



Well revealed: Both Clarion and Oceanus are delivered in a practical deluxe flight case

also includes the attached accessories. In addition to the solid constructed shock mount, Clarion comes with a foam windscreen, and the tube condenser microphone Oceanus comes with the required power supply and a suitable 7-pin connector XLR cable. Remarkable for both models are firstly the impressive appearance, and then the resulting high net weight. While Clarion weighs about 900 grams and is therefore compatible with a standard stand, the use of a microphone boom with counterweight is definitely advised for the 1.2 kilograms heavy Oceanus.

The transistor-microphone Clarion has a 1.1 inch (diameter), gold coated dual-diaphragm, which supplies the following polar patterns: cardioid, omnidirectional, and Figure-8. The switching is done via a three-position switch, which is located on the side of the microphone body. Likewise, there is a switch for the selection of the PAD. This can be placed between 0, -10 and +10 dB, thus making it possible to optimally adjust the sensitivity to the acoustic source before the preamp. A high-pass filter for the attenuation of subsonic noise or low-noise is absent. Oceanus compared to Clarion has a slightly larger diaphragm surface area of 1.2 inch and is equipped with two tubes for the amplifier circuit. There is a pentode in the pre amplifier and a triode at the output instead of the usual transformer. The pre-pentode from Oceanus is connected like a triode, which is often practiced in the microphone technique – such is the case of the legendary Neumann U47. The advantage of a pentode is



The two, extremely massive, large diaphragm Clarion and Oceanus are really professional tools with character

a higher output and therefore a better signal-to-noise ratio, without at the same time, abandon the acoustically pleasing performance of a triode. The use of a triode instead of a transformer has several advantages: firstly, the tube has a better transient response and a smoother frequency response compared to the transformer - at the same time the distortion of the tube compared to the transformer distortion is usually perceived as pleasant, particularly when high levels are produced. The high impedance was the known problem of the tubes, but Lauten Audio solved it. Oceanus has an output impedance of less than 200 ohms. The above mentioned rock solid power supply provides power for the tubes circuit of the microphone. The desired polar pattern (Omnidirectional, Cardioid, Figure-8 plus six intermediate levels) can be selected via a rotary switch. Oceanus doesn't have an additional PAD or a high-pass function.

The main purpose of large-diaphragm condenser microphones is certainly to record speech and vocals. Thanks to the fact that I had Clarion and Oceanus at the same time, I was able to make recordings in parallel, and compare the particular merits in regards to the sound, for both the transistor technique and the tubes technique. The initial assessment showed that from the sound point of view, the two microphones are closer than thought. Both Clarion and Oceanus were convincing, with a full base note and accurate formants for all voice and speaking layers. Particularly the upper-mids and the high range were

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perfectly fine-tuned by the Lauten Audio engineers. The fresh tonal image of the two large-diaphragm microphones is delightful. It never seems sharp, which was immediately perceived with “S” sounds, and the sibilant sounds of human voices. Comparing them, I liked Oceanus better. The tubes' silky sheen really got me for vocal recordings. The lead vocals sounded as expected: more noble and more “pricy”, which can be enforced even better in a Mix. When it comes to speech, Clarion's results convinced the author. It proved itself in the unobtrusive low key area and is a big plus in the somewhat more natural transfer of the sibilants. For example, it is known that a speaker's voice with too much presence in radio drama productions is rather counter-productive because it is often perceived as tiring. By changing the polar pattern from cardioid or figure-8 to omnidirectional, the good first impression was reinforced even more. The recorded speaking voices sounded balanced with Clarion, so that subsequent corrections with EQ or De-Esser were completely unnecessary. The root tones, in particular, benefit significantly from reduced “proximity speaking” effect. Of course, recording with the omnidirectional polar pattern is possible only in acoustically favorable environments and this pattern is not suitable for every situation; however this option should always be kept in mind during a production, instead of categorical using all mics with cardioid polar pattern. This is suitable not only for speaking voices, but actually for vocal recordings of certain musical styles, which gives an additional openness that is difficult to achieve with aligned polar pattern. In regards to the specific search for the optimum directivity, the Oceanus trumped again the possibility to choose the polar pattern directly from the PSU. If you place the power supply in the control room, you can easily make some experiments

without interfering with the performance in the recording studio. The switching processes are carried out completely crack-free and the three intermediate stages between omnidirectional, cardioid and figure-8 bring additional and well-sounding variations.

Both of the large-diaphragm microphones have good performances receiving other sound sources. Clarion is the favorite for percussion-sounds, thanks to its' clear timbre and accurate transmission of the transients, whereas Oceanus provides more highs and a fresh tonal palette. In general, the facilitated properties of Oceanus are useful to embed sounds in a Mix, because the tone will be conveyed firmly. Even with the recording of a cello, Oceanus showed a pleasant, full of character signal coloration. Clarion has a more natural tonal palette. For very quiet sources Clarion did better than the Oceanus regarding S/N ratio. The +10 dB PAD setting proved to be beneficial. By using this setting, you can use a mid-range preamp and the background noise remains at a pleasing low level. On the other end of the scale, very high level closed drum miking, both microphones could not be brought into distortion. Although, on paper, Clarion tolerates with 130 dB (SPL) more acoustic pressure than Oceanus (120 dB (SPL)), due to the unique tubes circuit topology and the soft tube distortion, Oceanus provides pleasing, one may say subjectively better results. Overall, the two Lauten Audio Mics work on the same high level in this application.

The bottom line is that Clarion and Oceanus proved to be all-purpose working devices. Oceanus in general, has a bit more character and, depending on the situation, a little more assertiveness in the mix. The possibility to choose between nine switchable polar patterns makes it a real all-rounder, beyond pure vocal recording tasks. Clarion provides a superbly balanced large-diaphragm sound, too, and for certain applications it brought even better results. Moreover, it is relatively inexpensive to buy it. BTW: If you want to hear the two microphones in action before you buy or test yourself, check the “Lauten Session” on the Lauten Audio website. Online you can find different drum, piano and voice recordings that were produced with Lauten Audio microphones. The first two example categories, Drums and Piano, demonstrate the quality of the microphones very well. , , . Unfortunately, the voice samples do not show the potential of Clarion and Oceanus, adequately. If you are seriously interested, it is always better to test the two Lauten Audio microphones in person – the interested ones can expect excellent quality for a fair price.

Distributor: Analog Audio
Internet: www.analogonline.de
Price (MSRP): 788 EUR (Clarion FC-357)
1.758 EUR (Oceanus LT-381)

- Very well-balanced sound
- good manufacture
- Oceanus: nine switchable polar patterns
- Clarion: +10 dB PAD