

JZ Microphones Black Hole Condenser Microphone

I saw the Black Hole microphone for the first time during the NAMM exhibition on a modest JZ Microphone company stand. I've quickly realised that the company had its place on the market for a long time, but its name wasn't really popular among the sound engineers.

Based on my observations, I can see that development of such companies as Blue, Violet or JZ Microphones is a basic example of how Latvian microphone manufacturing looks like. What is most distinctive in contrary to other microphone companies is that they have a specific, outstanding design, and they do not want to use the same scheme over and over again. It seems that Latvian sound engineers search for new solutions not only in aesthetics but also in technology. "Black Hole" seems to be the perfect example to argument it.

Construction

Not so long ago, everyone thought that the capsule of a condenser microphone is a completely finished construction without any chance to expand it or upgrade it. There was one person that undermined this myth; Juris Zarins proved that the capsule can be built in another way than it was build for last 50 years, and still have all the condenser microphone features.

Black Hole is a condenser microphone with three polar patterns; cardioid, bidirectional and omnidirectional. It is provided by two separate capsules that are placed back-to-back. This resulted in achieving very coherent and equal directional patterns. Keep in mind that in case of the two-membrane capsules with common stable electrodes achieving such a result is much harder. But it is not the only difference between Black Hole and other condenser microphones on the market. Both of the membranes in this Latvian microphone do not have a centrally located lead-out (just like in classic Neumann models), but they have a lead out on both sides of the mic (just like in AKG C12). That's why the cable that connects the moving electrode with the rest of the system is not in the acoustic signal field. What's more, the membranes are gently covered with metal (the manufacturer did not provide us with the information of what is the alloy) in a special way - they are softly sprinkled with it on the both sides. This leads to reducing the condenser capacity, which results in improving the high frequency sound processing.

Even the shape of the microphone is not accidental. It enables us to place the mic in a very small distance from the sound source – much more closer than with using the cylindric microphones. What's more, even the mic grip construction is very original, meaning that the Black Hole is equipped with two pivots inside the microphone hole. In result, it muffles all the noises and tremors that can occur during the recording.

On the other hand, originality does not mean perfection. We can place the microphone in various angles, but we can't block it in this position. What's more, the blocking screw is a little bit too big, which results in damaging the capsule of the microphone when we want to tighten it up. Even though it is not a flaw that is very serious, it can still slow down your work.

The microphone body is built from two separate aluminium parts that are coated with a huge layer of powder laquer. Electronics inside the mic are mounted on a two narrow boards that are placed on the both sides of microphone body. The microphone does not have the output transformer, and the input symetric signal is being provided by the transistor-based circuitry.

Put into practics

Two different capsules made the omnidirectional and bidirectional polar patterns sound very equal. Simultaneously, the level of signal supression is much higher than in the case of other microphones that I've been testing in contrary to JZ Black Hole (Avantone CV-12, MXL2006). We have to keep in mind that this microphone presents us a great range of details and frequency band, both for upper and lower frequencies. At the same time, it seems like its sound is very sterile and exact. Black Hole is an extremely *precise* gear, and that's why it is crucial to set everything up very *precisely*; even the pop-filter. Black Hole microphones offers you a great sound quality, but you have to offer him a good set-up. I suppose that it is an excellent tool for recording quiet, delicate vocals,

Summary

Black Hole is a real hi-end microphone, that can try to compete with all the expensive and luxurious mics from european manufactures – especially due to the fact that it is much cheaper. Its use is very versatile, due to the fact that its sound is neutral, yet very distinctive. You can choose various polar patterns, which enables you to find your ultimate sound.

Juris Zarins from JZ Microphones proved all of us that the construction of cardoid microphones can still evolve, even though it seemed that its principles were set almost 80 years ago. Still the question lingers; do all these construction changes really affect the sound quality? This considers a further discussion, but there is nothing out of the ordinary in the fact that good condenser microphone used by a good sound engineer is the ultimate tool to capture the sound.