

# Thixar

## Silencer iZ

### Yet another revolutionized active vibration control device

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Since Silencer was introduced in Audiotechnique magazine a few years back, this vibration control accessory has arrested a lot of attention among audiophiles. Although it costs more than HK\$100,000, which is really jaw-dropping to many people, I don't believe it is really un-affordable. At the end of the day, it's really a decision whether one is willing to invest this amount of cash into an audio accessory or not. Lincoln Cheng, Audiotechnique's chief editor, is one of those who are extremely serious about Hi Fi. He is always willing to spend a fortune just to achieve better sound. In fact, he was one of the earliest users of Halcyonics i4 in Hong Kong and he bought two sets! One was for his CD transport and the other one was for his LP turntable. Time flies. He has been using these vibration control devices for more than 6 years. Recently, Thixar introduced the new Silencer. The Greater China agent of Thixar, Pinnacle Audio & Video, quickly shipped a sample to our showroom. Its performance was simply amazing and deeply impressed our reviewers. And Lincoln is one of them.

### Strengthened mechanical design

The new model is called Silencer iZ. The new look is more like a piece of audio equipment than the older model, Halcyonics i4 which was like an industrial equipment. The footprint has also been revised too. If you recall the review article written by Lincoln before, Halcyonics i4 was originally designed to provide a super stable platform for microscope by reducing the effect of vibration to viewing and photography. Therefore, the appearance is no so much a concern for the user. Having realised the general expectation of audiophiles on the appearance of Hi Fi equipments, the designer has enhanced the exterior design. For example, the front panel is now made of carbon fibre. Also, it is built on a new active technology that is controllable by 3 buttons in the front panel. The new Silencer iZ looks much more stylish now. When a Silencer iZ was delivered to the listening room, I found that the passive composite platform on the top looked very similar to Thixar Silence Plus isolation platform that we used in our showroom for many years before. We were not surprised as Silencer iZ is also a Thixar product. The electronic circuit for driving the vibration control functionality has been optimised to increase the speed of the transient reaction and the responsiveness against vibrations. Meanwhile, the passive platform is designed by Thixar's CEO, Dirk Rüdell. What puzzled me was what the composite materials are made of. To find out the answer, I asked Dirk for details.

### Complete Defense

Two weeks ago, Dirk flew from Germany to China for business. He passed by HK for half a day. He stopped by Audiotechnique office and discussed with us about the vibration control technology, which, I think, is worthwhile sharing with our readers. He disclosed some details about the composite platform of Silencer iZ: The whole structure is divided into 4 layers. The bottom layer was made of multiple thin wooden boards.. Each layer was glued together with alternately 90 degree rotation. The wooden layer was treated with special damping fluid to fill up the small holes on the surface. As the treated wooden layer does not have any gap or small hole, the external vibrations with frequencies up to 7kHz will be absorbed. The middle layer was formed by two metallic boards glued together using special damping adherence materials, which formed a sandwiched structure. The advantage of this structure is that resonance would be limited to one of the metallic boards, instead of both. As such, vibrations with frequency between 200Hz and 7kHz will be dampened by the special materials and the metallic boards. The upper layer is carbon fibre. According to Dirk, manufacturing with carbon fibre is an expensive process since a small mistake would result in a total loss of the entire carbon fibre board. Besides, the vanishing and polishing process is very time consuming. The final appearance that resembles a mirror is



Technical Specification: \_\_\_\_\_

■ Isolation Performance: >5Hz = 25dB ( 94.4% ) : >10Hz = 40dB ( 99.0% ) ■ Effective frequency range: 0.6Hz - 200Hz ■ First time startup time: 300ms ■ Response time: 0.5ms ■ Loading: 0-120kg ■ Dimension: 400 × 110 × 500mm ■ Weight: 30kg ■ List Price: HK\$198,000

actually the result of repeating the vanishing and polishing process for 6 times. Unfortunately, there is no shortcut and no cheaper method.

## The difference between the two generations

From my listening experience with Halcyonics i4, the performance of the active vibration control is already very impressive. Now what happen if a passive composite platform is added on top of Silencer iZ? To start with, Silencer iZ monitors vibration through piezoelectric speed meter. When vibration is sensed, it will send a signal to the control circuit. After calculating the necessary signals required to cancel out the vibration, it will transmit the signals to the top sensor from the electrodynamic actuator. There are totally 6 set of sensors and actuators in Silencer iZ. They are joined as axes mechanically to each. Vibrations are measured and processed followed by control signals being sent to the actuator within 0.5ms. In a nutshell, Silencer iZ is a very sensitive and fast responding equipment. The fundamental operating principals between these two generations are basically the same. Having said that, the older model was designed to provide a stable platform for microscope which is essentially a static object. This is however not the case for Hi Fi equipment which produces vibrations itself. As a matter of fact, Silencer iZ can process vibrations with frequencies between 0.6Hz and 200Hz. The passive composite platform can cater the frequency range between 200Hz and 7kHz. This highlights that the technological difference between the two generations. Halcyonics i4 adopts 26mm Aluminium alloy for its floating platform. Dirk emphasized to me that vibration control using single type of materials can operate only in a narrow range of frequencies. That is why he adopted composite materials to achieve a much wider range of operating frequencies, which gives the existing user a good reason to upgrade.

### Active and Passive

I don't really have any complaint about Silencer iZ except that the left hand side and the right hand side of the chassis is black. It doesn't suit my personal taste especially when



there are situations in which I have to rotate the chassis by 90 degrees to fit the form factor of the equipment on top of it. I also told Dirk about my thoughts and I believe he will take this into consideration when designing the future models. Compared with the older models, Silencer iZ is somewhat different in terms of usage. When powered up for the first time, I pushed the "Load Adjust" button to unlock the machine. Normally, I don't need to push this button. But when the user needs to remove this machine, this function he/she should never forget to enable or the internal mechanism will be damaged. The "Isolation" function in the middle, however, needs to be enabled all the time. When it is turned off, all the vibration control functionality will be turned off as well. Another interesting thing is that, even when Silencer iZ is unplugged from power supply, the passive composite platform is still functioning to a limited extent.

Vibration comes from difference sources. Vibration come from the ground or the sound produced by the system will not always be in the same frequency band. However, typical passive vibration control accessories operate in a fixed frequency band. They do not work well with varying vibration frequencies and amplitudes. For example, percussion instruments produce repetitive and varying vibrations. Passive vibration control accessories can only work in a certain frequency band. By contrast, Silencer iZ creates correction forces according to the current conditions. Provided that the response is fast enough, it basically can correct any resonances or pulse excitations, including those that are not easily felt by human being but have interference to audio equipments. On the other hand, Silencer iZ deals with unnoticeable and subtle vibrations particularly well, making it an ideal platform for source equipments.

### A totally refreshing experience

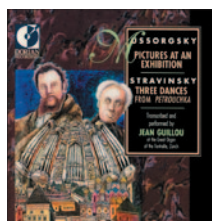
During the audition sessions, Silencer iZ offered me a mixture of familiar and unfamiliar feelings. It sounds contradictory, I know. I thought I were familiar with the sound of dCS Vivaldi given that it's been the reference audio source for a long time in the Audioteknique listening room. When I put dCS Vivaldi transport onto Silencer iZ, the whole system was like unheard before. The richness of detail is unprecedented. For example, when I played the SACD of "Virtuoso Pieces of Chinese Percussion" performed by Yim Hok-Man, which is a very famous audiophile album I have listened for uncountable times. When I listened to this album with Silence iZ, I almost mistook that I listened to it for the very first



time. The sound of the drums was exceptionally lively and very emotional. The sound of the big drums and the small drums are very coherent. Every detail including the the aftershock of drum skin and the sound of drum stick tapping the edge of the drum became so clear. The most exciting part is the valiant shouters along with the dynamic drum sounds pictured a team of sweaty drummers hitting the drums very very hard. In the finale, the power of the last few strokes almost took my breath away. In a nutshell, Silencer iZ unveiled so much unheard detail as if I rediscovered the strength of the Vivaldi transport. Also, the density of the sound was so high as if I were playing a glass CD. How on earth could a typical accessory deliver such an impressive experience?

### How come I never realize...

Following the drum album, I played a classic album of organ music performed by a french organist, Jean Guillou, in Zurich. He played on the massive Kleuker-Steinmeyer organ in Tonhalle concert hall. This album "Three Dances From Petrouchka", whether CD or LP, is a real challenge to many Hi-Fi systems in terms of bass reproduction. When I played "In the Capital in Kiev" of "Pictures at an exhibition", not only I felt the deep-down-to-earth-core bass, but also a very spacious sound stage with a very high ceiling. The bass was like waves of water flooded the ground of the listening room. Even when I turned down the volume, the bass was so very clear and solid. When I listened to such a deep bass, the first thing came up in my mind is the resonance that even the strongest chassis couldn't be immune. Vivaldi transport is of no exception, although its chassis is made of rock solid aluminum alloy. The presence of Silencer iZ is somewhat like fortified the transport, protecting it from the influence of resonance. It made me realize that what I heard before was actually heavily influenced by CD pickup errors and resonance impact to the electronics. With such a fortified protection, I found that every single CD sounds like a new album. I played Rodrigo Y Gabriela 's "Live in Japan". The last track "Diablo Rojo" was one of Rodrigo's ultimate virtuoso pieces. His fingers was very much like accelerated by motors, rapidly dancing on the guitar strings. In the final passage, he entered the realm of forgetfulness. Meanwhile, Rodrigo's partner, Gabriela, played very crispy guitar sound. One can tell from the sound how she actually played the guitar with her fingers. The sound image was so vivid that I couldn't help ask: "How come I never realize Vivaldi transport sound so amazing?"



### Conclusion

Given the listed price of Silencer iZ is close to HK\$200,000, it doesn't sound right for me to say Silencer iZ is an audio accessory. Silence iZ is simply a full blown audio equipment per se.

It's been my firm belief that there are many cutting edge technologies that could be used to improve the performance of Hi Fi audio today. Silencer iZ is evidently one of them. I was stunned to realize how much the combination of active and passive technologies could do to fight vibrations. In my opinion, Silencer iZ is by far the most effective defenses against vibrations I have ever seen. You would not find it unreasonable to pay for amazing technology like this. 🎵

