

試聽心得  
EQUIPMENT REVIEW

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Laboratory Grade Anti-Vibration Platform

# Accurion Silencer & i4



It has been almost 40 years since I have become an audiophile. But the longer time I've been immersed in the world of Hi-Fi, the more deeply I feel how little I know about its fundamental. Every time when I believe my Hi-Fi system has already been optimally configured and calibrated and nothing can be done to improve it, there were always novel equipments or accessories coming up and surprised me with their significant acoustic performance. I feel like evolving into some kind of Schizophrenia: I was getting so happy with the music my system brought me but meanwhile I was so depressed when I realized how much I have spent on Hi-Fi.

## Undisputed Performance

The story began in 2010 when Franck Tchang of ASI came to my home and set up his resonators, which drastically enhanced the acoustics of my rectangular living room. Then I replaced all the interconnects and speaker cables with Siltech Royal Reference Double Crown Series. I didn't stop there. I installed the swiss-made Thales Simplicity tonearm, which significantly reduced the tracking error to a maximum of 0.008°, for my LP system. In November 2010, I also evaluated Tripoint Troy for Audioteknique in my home setup. I replaced all the ground cables with custom made wires from Siltech using the same materials as their Double Crown series. After these upgrades, I realized the music of my system was just relaxing, soothing and touching, which also made my sleep sweet at night. I was astonished by the rich details in the recordings, compelling high frequency bandwidth, exceptional smoothness, coherence, tonal balance, speed, macro and micro dynamics

of the reproduced sound. The sound stage was remarkably open and gigantic. The sound image was sharply focused and deep. Every aspect audiophiles could think of demonstrated superb performance. One of the Audioteknique contributors, Patrick Lee (nicknamed "lee388"), visited my home very often. He said, "I have been paying attention to the detail of the impacts to your system brought about by the new accessories, cables and equipments. Not until today, the performance of your system is so fantastic that there is one single thing I could criticize.

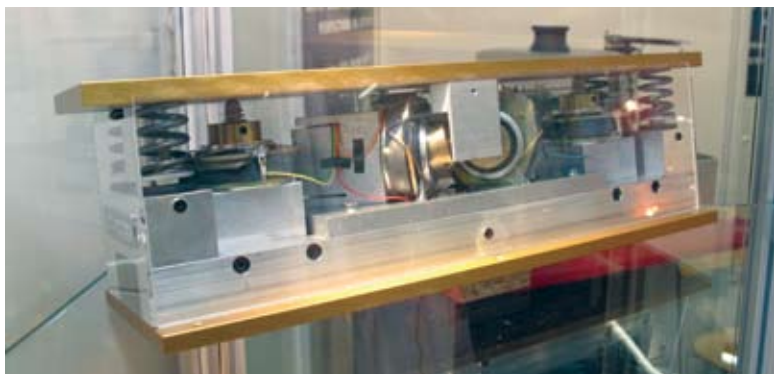
As I worked hard to optimize my system and achieved some success, I convinced myself that I have already spent enough money on the system as there was almost nothing to improve. But I was wrong, when a new product, called Accurion Silencer, emerged in the market several months later.





## The Gladiator from the East

The story of Accurion Silencer started from Munich Audio Show in May 2011. During the show, I came across a booth displaying a set of heavy-duty German-made Turntable placed on a piece of standard sized (484mm W x 144mm H x 432mm D) equipment. The front panel of that equipment looked like a DAC. Out of my curiosity, I stopped by for a while and tried to figure out why they placed a turntable on top of a DAC. There was a poster stick on the wall beside the setup, which demystified everything: It is an active electronic vibration isolation platform developed by a high tech company called Accurion. The product is known as Silencer. There are six sensors which can detect and attenuate even the weakest vibrations in all directions (up, down,



forward, backward, left and right). The servos inside Silencer are automatically activated to counteract the vibration with a latency of less than 5 ms.

Accurion were apparently very confident in their product so they decided to demonstrate Silencer's performance with an LP system that was known to be very sensitive to vibrations. They also showcased the interior of Silencer, which appeared to be sophisticated and interesting. However, when I realized that the product was selling at more than €10,000 in this (weak) economic environment, I reckoned there would be no agent bold enough to become the distributor of the product in Hong Kong. As such, I only briefly reported the product in the AudioTechnique magazine and did not follow up.

During Hong Kong Hi-End AV Show in August 2011, I was surprised to see Silencer was demonstrated in conjunction with Vibrato CD Player from Symphonic Line. I immediately called up my friend, Tommy Chow, Sales Director of Dynaudio Asia. He told me Musical Fidelity HK has become the distributor of Silencer in Greater China (including Hong Kong and Macau), which was obviously a very bold move in this economic environment. I could not help call them the "Gladiator from the East"! There is no reason why I should not ask them for an evaluation. I requested them to ship me a unit to my home after

the show. It did not take long before I realized I was actually THE gladiator but it was too late already...

## Nano Film Technology

Silencer aroused my interest in Accurion. This German company was founded by merging two high tech companies in 2000. One of them, called Nanofilm Technology GmbH, specialized in Imaging Ellipsometry and Reflection Spectroscopy since 1991. They produced the first commercial Brewster Angle Microscope, which was called BAM1. Since a vibration free platform is required for observation and photography via microscope, they spawned another company called Halcyonics GmbH to research and develop active vibration isolation platform. Subsequently, these two companies underwent a merger to form today's Accurion.

Accurion has produced totally six models with different dimensions for various applications. Although the primary target users of these platforms are those who need vibration free support for microscope or apparatus of high precision, Accurion decided to produce an active vibration isolation platform in 2006 to address the needs from the audiophiles in Europe who had similar requirements in their Hi-Fi systems.

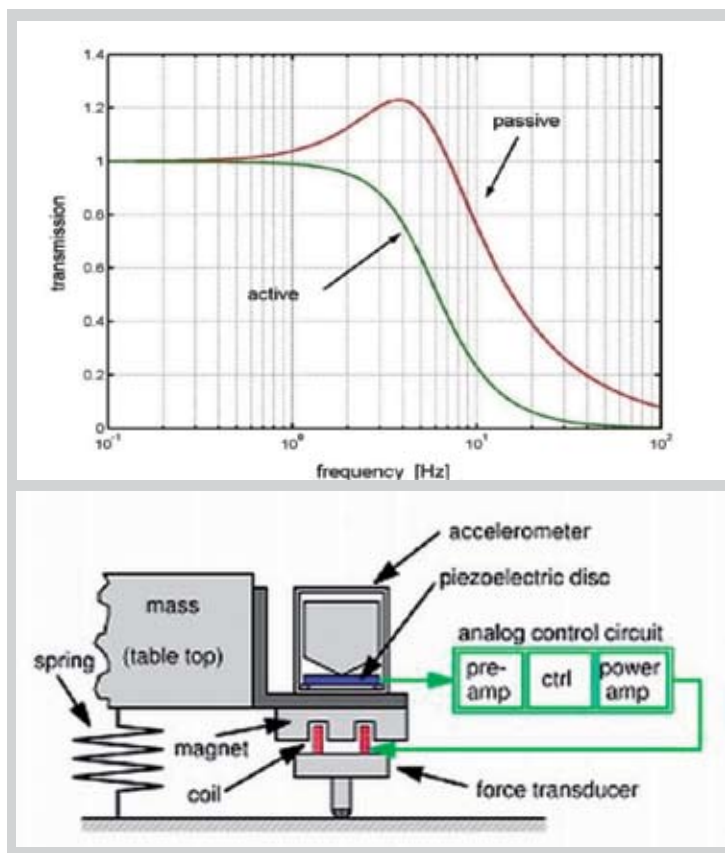
## Fighting Vibrations

The effect of vibrations originated from equipments themselves and external sources to the quality of playback is well known amongst audiophiles. Accessories such as spikes, cones, shoes, spring, platforms supported by magnetism or air etc. are popular tricks to fight vibrations. How effective could these tricks do to the acoustic performance of your system? To a great extent it depends on how well you know these tricks work and how you use them in your system. In my setup, the equipments that are most sensitive to vibration are my CD/SACD transport - Esoteric P-01 VU - and my LP system - SME 30/12. Before Silencer came into the picture, I used Vibraplane, which utilizes a frictionless rolling diaphragm air seal to support a load carrying piston in conjunction with dual air chambers as the spring and damping medium. Practically, it does as the manufacturer advertised - its ability to isolate vibration impressed me. The only complaint I had with Vibraplane was its price. Later I bought one more to serve my Esoteric P-01 VU CD/SACD transport. I was extremely happy with it until Silencer came into the picture...

## Active Vibration Isolation Technology

There are uncountable origins of vibration. Your listening place could be adjacent to roads with busy traffics, or could there be a construction site nearby (which is not unusual in such a densely populated city like Hong Kong). Chances are that your Hi-Fi systems are heavily influenced by these vibrations. Even if you are living in a relatively quiet area (i.e., rural area with no busy road and no construction site nearby), you cannot run away from vibrations transmitted from water pumps, transformers, lifts, refrigerator, washing machines etc. Low frequency vibrations are everywhere! We don't feel them but they are significant enough to affect our Hi-Fi components, especially LP systems, CD transport and DAC. Of course, these components are also sources of vibrations. They transmit vibrations to other components sitting in the same rack. Vibrations from loudspeaker are also detrimental to the quality of playback.

Today, most audiophiles employ passive vibration isolation tricks such as spikes, spring and supporting platforms. However, even if the most elegant way such as Vibraplane is used, we still couldn't completely eliminate these vibrations and the resonance caused by them. Why? Vibraplane has a resonance frequencies





between 1Hz and 8Hz, which is not humanly noticeable though. Active vibration isolation technology, however, does a far better job because it does not suffer from any internal resonance. There are massive springs to support the upper plate and the equipments on top of it. It attenuates vibrations at 200Hz or above. Meanwhile, there is a active closed loop circuit that attenuates vibrations at 0.6Hz - 200 Hz.

Silencer contains highly sensitive piezoelectric accelerometer, which detects vibrations and emits signals to an internal amplifier before reaching the control circuit. The control circuit calculates the amplitude of the counter signal and feeds the signal to another amplifier. This amplifier then feeds amplified signals to an electromagnetic actuator. Through this mechanism, all vibrations get attenuated within 5 ms.

## Dissecting Silencer

Silencer has a form factor of a typical Hi-Fi component. It weights 32 kg, which is only half the weight of Vibraplane. But it can support equipment up to 90 kg. The housing is made of Aluminum Alloy. There are eight massive springs inside Silencer. Each of them has a set of standalone electronic sensors and attenuators. The upper plane is as thick as 26 mm, made of rock solid Aluminum Alloy. On the left and right side of the



housing, there are two hex screws and a small hole with a pin inside it, indicating the vertical position of the upper plate for balancing purpose.

The front panel has two LEDs and a power switch. The green LED indicate the status of the power supply. The yellow LED indicates the status of the vibration isolation function. There is also two rows of sixteen LEDs. The eight LEDs on the left shows the amplitude of the counter force to vibration. The eight LEDs on the right indicates the amplitude of the detected vibration.

Setting up Silencer is very straightforward. I just put a piece of equipment on top of Silencer, switch it on, use the supplied Allen wrench to adjust the level of the platform. Make sure the pins in the small holes are at the centre. There is no further calibration required. It is as simple as plug and play, isn't it?

## Listening is Believing

When I first tried out Silencer in my home setup, Patrick was also there. After I explained to him how Silencer works, he immediately gave this product a special nickname - "Vibration Free Platform". Indeed it's a creative name describing quite well what Silencer does.

As Silencer was too small to accommodate SME 30/12 Turntable, I decided to put Esoteric P-01 VU SACD/CD transport on it. I'm very familiar with the sound of my system given that I haven't made any significant change in it over the past couple of months. I played back a few male voice tracks from one of my favorite albums.



This is something I usually do when there is any equipment change or cable replacement. When the music started, both Patrick and I almost fell off from our chairs! We realized that the background of the sound stage was much darker than before. The accompanying musics were much more vivid. The positions and sizes of the instruments were more precise and tighter. The sound of cellos and double basses appeared to go far lower in the frequency band. The human voices were the most interesting part - male voices were more charming and moving. The sense of presence of the singer was a lot more convincing, not to mention how much more airy the voices became. We were so surprised by the amount of details that we have been missing in the musics which we were familiar with!

We also played "Wordless Drama" from the SACD version of "The Sound of Rhythm". Again, there was nothing but surprises. The Chinese drum and the other percussion instruments were so real. We could almost hear every detail of the impact sound between the bamboo stick and the drum hide, as well as the vibration of the drum hide. The bass throbs were more propulsive and quicker than before. Cymbals displayed a lot more clarity and revealed a lot of details in the overtones. The realism was incredible!

## There is Always Better

Every time when I upgraded my system, I was strongly motivated to go through all my favorite albums again. It's not usual for me to "discover"

a lot of more details than what I could possibly imagine. I almost convinced myself that I was playing new audiophile versions of these albums! Now that the improvement in sound performance Silencer brought to my P-01 VU was unprecedented. It sounds exaggerating but I never realized the SACD/CD player could sound so great! Not surprisingly, Patrick made his favorite comment: "There is no such thing as the best in Hi-Fi. There is always better."

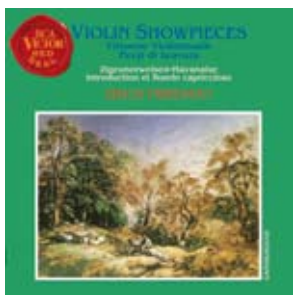
I was fully convinced the positive impact Silencer brought to my SACD/CD player. That led me to think about the upgrade strategy for my LP system. Silencer was too small to accommodate my turntable. Accurion's sales representative suggested me use i4. i4 shares similar design and structure as Silencer although the former is a bit pricier than the latter. The platform was just big enough to accommodate SME 30/12. Its dimensions are 400mm(W) x 500mm(D) x 90mm(H).

## More Surprises

Several weeks later, the distributor of Accurion shipped me two brand new sets of "Vibration Free Platform" - one is i4 and the other is Silencer. There were two surprises. The first surprise was, they shipped me a Silencer with black upper plate (instead of silver gray). The sixteen LEDs in the front panel were red instead of blue. It looked more professional than the set I tested. The second surprise was, i4 was fully automatic. There were three buttons in front of the front panel that







is made of carbon fibre. The left one is the power switch. The right one is the auto-leveling switch. The middle one is for enabling/disabling vibration isolation. The setup of i4 was straightforward. I just needed to settle i4 on a flat and stable surface and push these three buttons in the correct sequence. I spent less than half a minute to finish the whole setup procedures. I didn't even need to perform any manual calibration.

I invited Patrick to come to my home again to audition the combination of SME 30/12 and i4. The tonearm was Thales Simplicity and the phono cartridge was Air Tight PC1 Supreme. I played my favorite vinyl album - Tsai Chin's "Old Songs". When the accompanying music started, we were even more surprised than we were with Silencer. It was almost expected that the noise floor would be significantly lower with i4. But honestly we didn't expect the amount of details and the openness of the sound stage that i4 could reveal. i4 simply exceeded our expectation, even after experiencing the power of Silencer.

## Conclusion

I don't remember exactly how many LPs I have auditioned using i4. The most impressive ones were Erick Friedman's "Violin Showpieces" and Hugh Masekela's "Stimela". Everything from electric bass, saxophone and even the concert hall sounded more physical, which enhanced my listening experience.

Are these Accurion products expensive? Yes, they are apparently not very affordable. But if you ask me if they are worth the prices, I would say yes, given that they could really bring the performance of an LP system or a SACD/CD player to the next level. Don't forget that this product was initially designed and developed for high precision laboratory use. 音



# Vibration Free Platform

## Beyond Imagination

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EQUIPMENT REVIEW

Patrick Lee(Lee388)



The impact of vibration to Hi-Fi equipments is not novel to audiophiles. The need to fight against vibration necessitates a wide range of products such as spikes, platforms etc. But I'm never convinced these tricks could completely eliminate vibration or isolate it. They merely change the resonance frequency of the equipments and produce different sounds. This explains well why wooden spikes produce warm sounds; metallic spikes produce brighter sounds. After auditioning Silencer, I realized that there is a practical way to isolate and eliminate vibration without introducing any sound signature. That's why I call Accurion Silencer "Vibration Free Platform".

I came across information about similar professional equipments on Internet. They were highly sophisticated products made in USA, Germany or Japan. Their prices are typically very high. So I think the price tag of Silencer is not really marked up for the audiophile community.

Before I checked out Silencer, I never imagined the extent of improvement that an equipment as such could bring about to an Hi-Fi system. After Silencer is used, the albums that I'm familiar do not sound familiar to me any more. I was lucky enough to be invited to Lincoln's home to witness the power of Silencer. To be frank, the amount of details I heard when adopting Silencer is 50% more than before. It's very unusual for me to use numbers to quantify my listening experience. But the observed difference is so big that I couldn't help use numbers to illustrate the extent of improvement. If you think I'm exaggerating here, I would just say, "Believe it or not, but I do."

When playing my favorite track "Wordless Drama" from "The Sound of Rhythm" with Silencer, I found there were a lot of details I have never heard before. When two pieces of Chinese clash cymbals hit together, the weak sound from the airflow incurred by the collision were clearly heard. At the moment when there was no music, the background was very dark and quiet.

As the performance of Silencer was already incredible when supporting a CD transport, my expectation of its performance of supporting an LP system has already been elevated. When playing Eagles' "Hotel California", which I usually adopted to audition Lincoln's system, I was caught by surprise by the rock solid, punchy and speedy drum sounds, which again was far beyond my expectation.

I was at first under impression that Silencer would be effective only when the loudspeakers produce high sound power. But later I realized, even when playing soft vocal or solo instrument passages, the improvement was also noticeable. A good example is "Peter, Paul and Mary" - an album which does not involve any extreme dynamics. But Silencer did a lot of good to the sharpness of voice images and the accuracy of instrument positions. The low frequency band of guitar sound was noticeably improved.

If you think you have done an excellent job in configuring your CD transport or LP system, I strongly recommend you check out Silencer. You will quite certainly discover a lot of details that you have never heard before, thus having a strong desire to go over your CD / LP collection again. 音