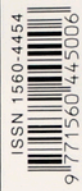


煮酒論英雄：加拿大KRONOS唱盤+KRONOS碳纖唱臂（亞洲首演）

# HiFi音響 review

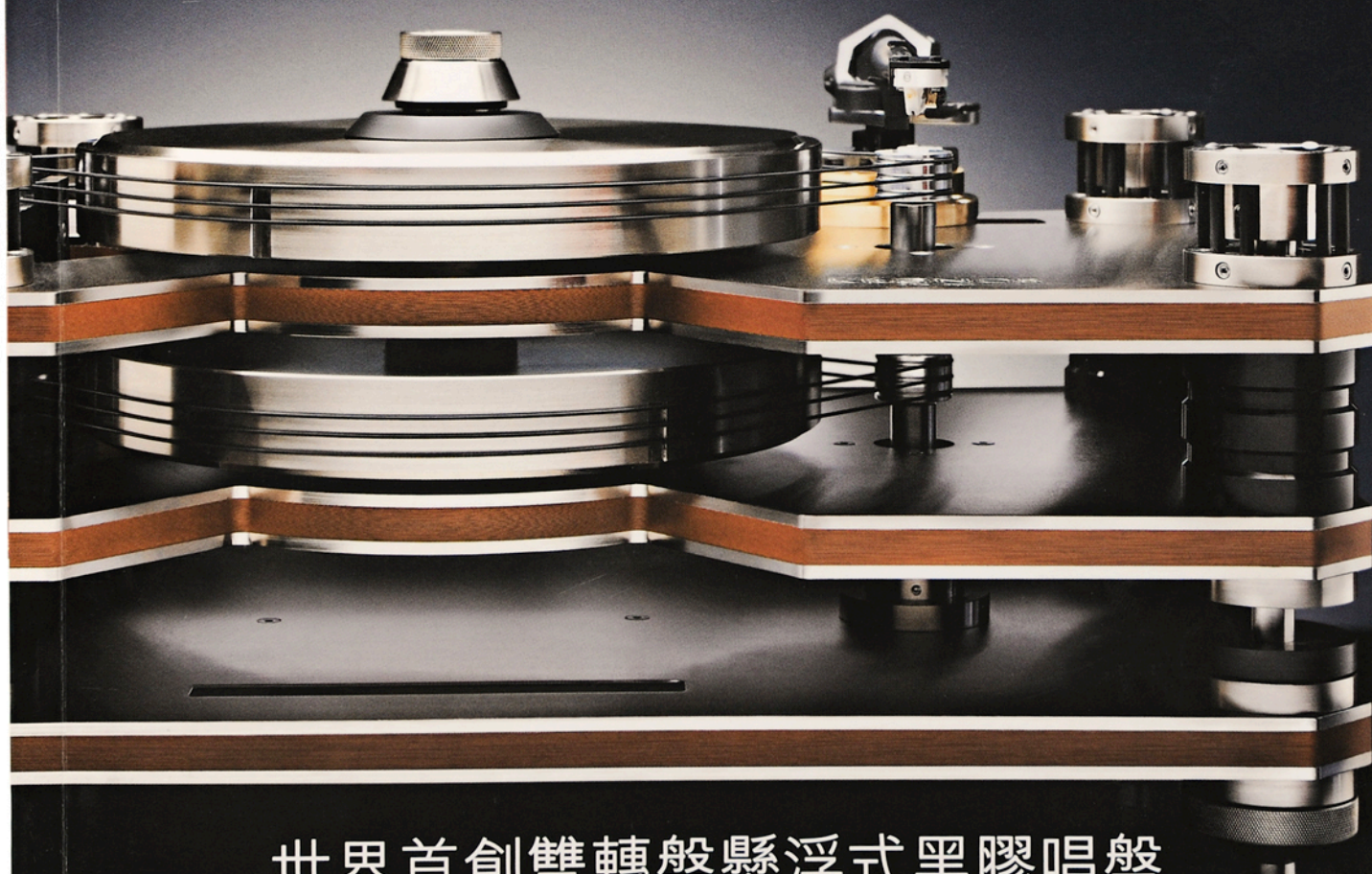
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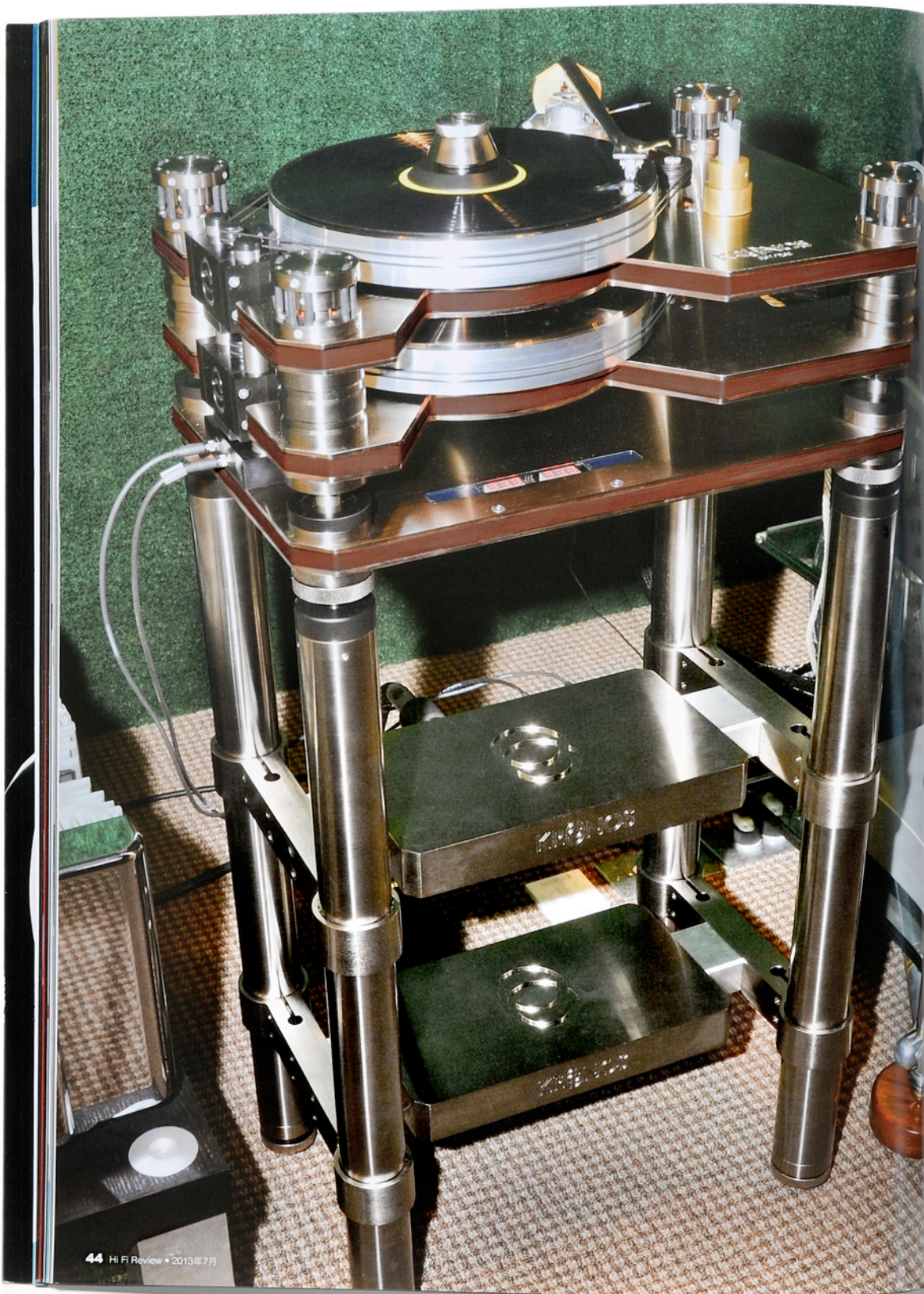


世界首創雙轉盤懸浮式黑膠唱盤

## KRONOS

TIME FOR MUSIC®





by Sam Ho  
July 2013

## WINNERS FROM THE START

### **KRONOS** Turntable and Tonearm

On May 22, 2013, I met Mr. Louis Desjardins - the creator behind the Kronos, at Pacific Audio's showroom in Central, Hong Kong. He personally came to set up the Kronos turntable, stands, and his prototype tonearm with ZYX UNiVerse II cartridge.

A few years years ago, Louis read an article discussing the negative effects of torsional force induced vibrations on the performance suspended turntables.

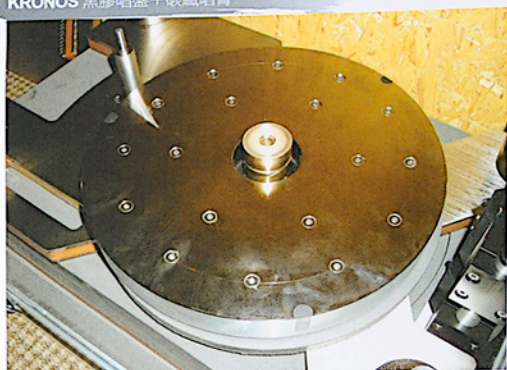


He reflected that two platters of the same mass spinning in opposite direction at the same speed would cancel out the torque effect and stabilize the entire turntable... for every force, a counter force of equal value. Thus, he designed a turntable with counter-rotating platters and a full floating suspension system.

Two years later he had his first working prototype.



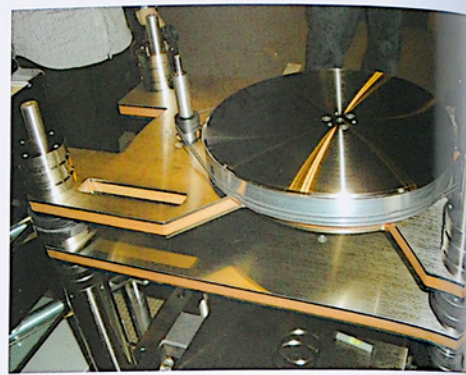




▲反轉轉盤可見18枚螺絲

As far as the appearance of the Kronos, he states: "I was a professional photographer, not an industrial designer. The esthetics of Kronos were completely accidental. Its look was the result of combining the best engineering solutions and choosing the best materials. Throughout the process, I was not following any stylistic goals. From the beginning, I was not considering whether Kronos would be a commercially viable product. I built the prototype only to validate a theory."

Only Two hundred and fifty Kronos turntables will be built in its first limited edition.

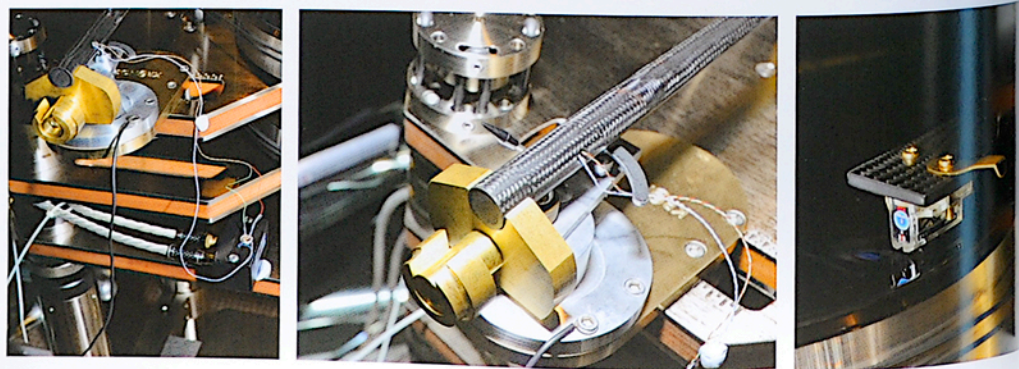


▲先安裝下層轉盤

In the first eighteen months since its introduction, Louis had already sold sixty turntables. Although the American and European economies are still in recovery, the \$32,000 USD Kronos turntable has gained considerable attention. Its success is reflected by its acceptance in the audio market place.

From Wikipedia, the torque effect experienced in helicopters is a result of Isaac Newton's third law of motion that "for every action there is an equal and opposite reaction"

Therefore, in helicopters, the torque created as the engine turns the rotor causes the body of the helicopter to turn in the opposite direction to the rotor.



To eliminate this effect, some sort of anti-torque control must be used.

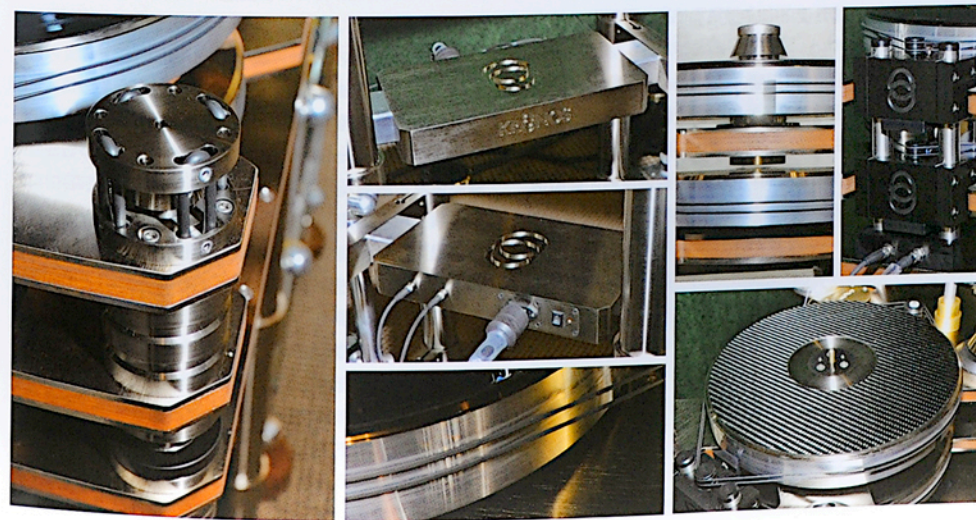
The concept behind the Kronos is that a counter-rotating platter will neutralize the torque effect and relax the suspension itself. When the main platter (upper deck) spins clockwise, the second platter (bottom deck) spins counter-clockwise at an equal speed to eliminate any displaced energy.

Louis stated that if the Kronos was like other traditional suspended turntable, there would be no reason to build it because there are already so many suspended turntables in the market.

In keeping with Kronos's engineering goal to eliminate vibrations that can corrupt the sound of LPs, the full suspension design isolates the vibrations that would be transferred to the platter and the tonearm from its environment. Kronos has four pillars, one at each corner, each with specially designed suspension modules.

Each suspension module has four O-rings made of Viton and other materials to hold the weight of the plinth assembly. The sixty-five pound dual platter system is at its ideal floating state. A small push can move the platters back and forth horizontally. The stability of this system appears magical: Louis pushed the platter slightly while the LP was playing and the record kept on playing like nothing had happened! Again, when Louis used his knuckles to slightly knock the base plinth of his turntable, the record did not even skip a beat.

Each platter is constructed like clam-shell. The top and bottom layers are made of aluminum to compress a phenolic ring within. Eighteen fasteners under the platters evenly squeeze the layers together to eliminate resonance. Louis explained, that phenolic is synthesized industrially; it's an industrial material used in manufacturing ...







... because of its unique properties. It does not expand nor shrink. When inserted between the layers of aluminum, it yields optimal dampening

Although the shape of the plinths add to the turntable's appeal and elegance, the purpose of the cut-outs help to balance the weight of the platter assembly equally at its center. The Kronos weighs 65 pounds with 16 O-rings distributing its weight (not including the tonearm). On average, each O-ring only has less than 5 pounds of pressure, a minimal stress. Each pillar has its own height adjustment at the top which allows users to easily level the turntable.

A careful reader will wonder why the Kronos in this article is slightly different from the Kronos on our cover page.



墊底噪音消失，微弱音極清晰

The Kronos on the cover uses three belts to drive the platters but in the pictures, for this demonstration, only two are shown. Louis explained that in the early stages the Kronos used three belts, however he got better result when he switched to a two belt configuration. He will always continue to refine the Kronos. Kronos is not the first turntable to employ a counter-rotating platter design. In Japan, 47 Laboratory has a dual platters system but is not suspended.



Kronos is not the first turntable to employ a counter-rotating platter design. In Japan, 47 Laboratory has a dual platters system but is not suspended. Louis declared he could not see the benefit of the using two counter-rotating platters without a suspension system. Kronos is the first and only turntable to implement counter-rotating platters with a full suspension system

Louis built the Kronos with one purpose in mind. He wanted the Kronos to reproduce the sound of master tape as closely as possible. Louis is a friend of Rene Laflamme, a Hi-res audio mastering engineer and owner of the Fidelio Audio record label. Rene recorded an arrangement of Holst's, The Planets, for brass quintet and church organ (Holst, The Planets, Buzz Brass & Melanie Barney, Fidelio Audio) using an Ampex 354 (Vacuum-Tube) analog tape recorder. The live recording took place at Montreal's Saint-Viateur d'Outremont church. This 45 rpm 180 gram vinyl pressing by Bernie Grundman Studios was chosen to test the performance of the turntable / tonearm / cartridge system.

The fact is that this recording boasts the hardest playback properties of almost any piece of music. It is a great recording with wide dynamics, extreme frequency range, and a richness of low-frequency information. It took Louis half a year to fine-tune the Kronos prototype and bring it to Rene's studio. Together, they compared the sound of the test pressing to the original master tape. In the end, the Kronos has a mysterious ability to playback most of the dynamic information found on the master tape.

Louis described four objectives that a Hi End system needs to achieve:

- (1), Rhythm and melody are the most basic elements to be reproduced.
- (2) The timbers of the musical instruments and performers' voices must be accurately rendered.
- (3) The soundstage and positioning of elements within the recording room must also be felt.
- (4) Ultimately you can actually hear the placement and type of microphones that were used within that room... You are there!







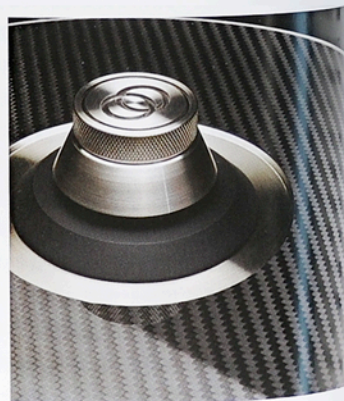
## 一個新的業界參考標準

Louis explained that Kronos is the God of Time in Greek mythology. He chose this name for his turntable because he feels that the Kronos helps him go back in time to the musical event. He wanted his “time machine” to bring the listener back to the recording studio where each LP was made as if they were there.

The shape of first “O” in the Kronos’ logo represents the dual counter-rotating platter design. Louis already has plans for the next step in the Kronos line. There will be a “Spartan” version of the flagship model (about 60% of the Kronos price tag). The 250 limited edition Kronos is the flagship model. The Spartan will also employ dual counter-rotating platters but will be smaller and simpler. The performance objective of the spartan model is maintain 80% of the level of the Kronos model.

On this trip, Louis brought us a special treat. We had the opportunity to hear the new Kronos 12 inch tonearm prototype “Number 000”. This innovative tonearm uses a unique oil-based ball bearing pivot design. The prototype’s carbon fiber handmade arm tube is very difficult and complicated to make. It takes two weeks for the builder to layer the carbon fiber and assemble the tonearm. Due to the high cost of production, the price on the commercial model will be around \$8,500 USD. This tonearm

along with the ZYX Universe2 cartridge reproduces the natural and vivid details of a live performance. Louis also recommended the Crystal Cable Absolute Dream as his choice of phono cable. The associated equipment used in this demonstration included: Pacific Audio Showroom’s Pi Greco P-1X Excellence + A-1000X Excellence monoblocks (Preamplifier + Power amplifiers), Pi Greco Phono Referimento MC (Phono Stage) and Rosso Fiorentino Siena (Loudspeakers).



On the day of the demo (May 25th), Thomas and I had the pleasure of hearing the Kronos for an hour and half. Mr. Chung arrived at 4:30. In between the interviews, Louis held a two hour demonstration for many die-hard vinyl fans.

In my first experience listening to the Kronos, the first quality I noticed was its dead silent background. The second was the astonishing nature of the clean sonic images. Kronos was projecting. It felt like listening to a master tape. The combination of turntable’s other enchanting characteristics – superior dynamics, high resolutions, tonal purity, three-dimensional sound-staging, full-range harmonic richness – allowed the music to flow within a realistic framework. The experience was sensational. Each and every LP’s characteristics were brought out by the Kronos. It creates an environment where all things are relaxed and alive. Any audiophile who loves LP’s would instantly have an immediate reaction: **“Please tell me its price and stop telling me how beautiful the high, mid and lows are!”**

The Kronos does not try to reproduce sounds that are too bold nor try to make them more delicate and smooth ... as do the turntables I have heard before.

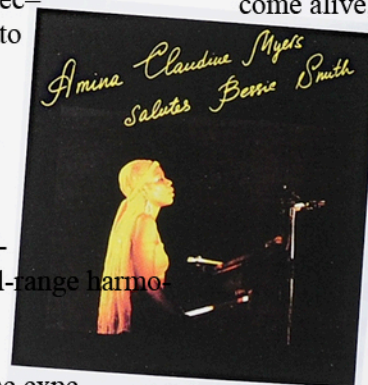
My feelings about the Kronos’s sonic presentation is that it has the widest frequency range without any hint of coloration.

The music’s hi and low-end information comes forth with more dynamic transparency and depth. Normally, I do not notice the liveliness of the drums on “High Life” from the Jazz at the Pawnshop. Not only can hear the excitement of the drum playing come alive, but the speed and the

details of the drum sound are so shockingly lifelike. Each instrument is richly texturized and clearly defined. Alto saxophonist, Arne Domnérus’s performance is ravishing. Never have I felt the presence of the “pawnshop” before. You can feel the performers, audiences and

the excitement. This is Kronos’ magic. It would be impossible to improve upon the sound I have experienced today.

The sound of the Kronos feels pure and intimate like being there at the recording studio. From Side D of McIntosh Demo LP, Starker plays Kodaly: Duo for Violin and Cello, Po. 7 - Allegro Serioso, non troppo. The cello feels lively and real. The double bass’s added resonance did not confuse the tonality.





# 電子鼓與真鼓的分析力動態嚇驚人

The performances of the violin and cello were graceful and pure. Starker's command has the ultimate combination of detail, resolution and dynamics. If there is one LP that is essential in evaluating a turntable, this is definitely it. The Kronos was able to show captivating dynamic power and rich emotionality.

Listening to Stokowski & RCA Victor's Symphony Orchestra's "Hungarian Rhapsody No. 2," the three-dimensional soundstage was wide and deep. The orchestra within the hall was revived through the Kronos. I was shocked at how much new information I was hearing. The instruments were appearing with clarity and a stable placement, even the triangle from the backstage was wispy and clear. Detailed imaging and the resolution of harmonic overtones were gorgeous. I was not able to find any imperfections. The turntable is able to create an environment where all things are delivered with ease, accuracy and directness.

Of course, I could not miss the opportunity to listen Rene Laflamme's arrangement of Gustav Holst's, The Planets (45 rpm brass quintet and church organ LP). Listening to "Mars", each and every note was clearly defined. The notes were recreated in the exact proportion where they originally existed. The Kronos was able to deliver an abundance of low-frequency information from the church organ. The brass instruments had a lively presence. I could hear the warmth



and surrounding of the hall effect from the church. The vinyl's "surface" noise was detached from the music. Although I have not heard the master tape of this recording, I had the feeling I was listening to the Ampex 354 (Vacuum-Tube) Analog's playback of this master tape.

On May 27th, I stepped into Pacific Audio's Hi Fi room again to hear a different tonearm installed on the Kronos (Tri-Planar VII Ultimate tonearm + ZYX Omega cartridge). Listening to the Jazz at the Pawnshop again, the instruments' sonic placements felt precise. Although the soundstage was more contained compared to the Kronos' 12 inch carbon-fiber tonearm, the music flowed nicely with the rhythm. The low-frequency information was more firm and in control. I bet Thomas will prefer using the Tri-Planar tonearm to listen to Yazoo & YMO's electric music due to the fact the low-frequency had more dynamic and resolution. If you are classical music fan like Mr. Chung, you will definitely prefer Kronos' carbon-fiber tonearm because the three-dimensional soundstage is wide and deep.

**No matter which tonearm or cartridge you prefer, hearing the Kronos turntable will make your heart thirst till the day you finally own it.**

General Distributor:  
Pacific Audio, Ltd.

Price:  
HKD \$328,000 (Kronos Turntable)  
HKD \$110,000 (Kronos Stand)