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Thiele TT01 Turntable with TA01 Zero Tracking Error Tonearm, RM01 Record Mat, ADB01 Active Damping Base, and DW01 Damping Weight

This ingenious turntable, tonearm, and active isolation base from Germany's Helmut Thiele brings something new to LP playback, says analog expert Andre Jennings.



Thiele TT01 Turntable with TA01 Zero Tracking Error Tonearm, RM01 Record Mat, ADB01 Active Damping Base, and DW01 Damping Weight

Helmut Thiele's Fabulous Record-Player System

Andre Jennings

My first encounter with Helmut Thiele's record-player system was during AXPONA 2024 in North American distributor Wynn Audio's listening ballroom. The space was huge and fronted with Thiele's analog playback creations. The components included the Thiele TT01 Turntable with TA01 Zero Tracking Error Tonearm, RM01 Record Mat, ADB01 Active Damping Base, and DW01 Damping Weight—which I will henceforth call the Thiele record-player system. Combined with other top-notch components from distributor Wynn Audio's catalog, the sound of the analog-sourced system was impressive for an assembly found in such a large display space.

About

The Thiele system consists of five parts. The TT01 turntable includes the RM01 Record Mat, and TA01 Zero Tracking Error Tonearm. The price of this TT01/RM01/TA01 combo is \$31,500. (The same combo except with a bronze/gold-plated TA01 arm is \$36,000.) The TA01 Zero Tracking Error Tonearm is also available separately at prices ranging from \$14,500

to \$19,200 depending on configuration options. The RM01 Record Mat is also available separately for \$250. The ADB01 Active Damping Base is \$20,000 and the DW01 Damping Weight is \$1200. The total price of the Thiele record-player system under evaluation (TT01/TA01/RM01/ADB01/DW01) is \$52,700.

The TT01 is a 3-strata constrained-layer-damped turntable with dimensions of 20" x 7.87" x 15.75" (510mm x 200mm x 400mm). The lower layer houses the motor, adjustable leveling feet, motor controller external connection, and XLR tonearm output connection. The middle

layer is reserved for the tonearm mount while the upper level holds the platter bearing and speed control panel. The three layers of the TT01 use dissimilar materials, including different woods, which are bonded together with a special adhesive.

The TT01 uses a flat belt to connect the motor to the inner section of the 3-piece platter. The platter is made up of an aluminum inner sub-platter, an acrylic disc, and an aluminum outer ring. Thiele says this material combination contributes to damping and smoothing platter vibrations. The platter bearing uses a ceramic ball that runs on a circular ring, using grease instead of oil for lubrication. This combination is said to create an evenly controlled braking force that smooths mechanical motor operation.

On the rear of the TT01 is the motor controller's power connector to the external linear power supply. In that general location, there are two fine-adjustment potentiometers for 33⅓ and 45rpm speed settings. On the opposite side of the rear panel, near the tonearm mount are a set of XLR output connectors and a grounding post. The TT01 only has XLR tonearm cable output connectors. If single-ended RCA outputs are desired, XLR-to-RCA adapters can be used.

Viewing the TT01 from the top, you can see the three adjustment feet (one in each front corner and one in the center rear). The backlit power/speed control buttons are in the front left corner. The turntable platter takes up much of the top's real estate on the left, while the tonearm base is on the right rear. The

The Thiele system allowed dynamic contrasts, truthful instrument timbre, staging and spatial cues, rhythmic pacing, and musical energy to shine.

tops of vinyl records so that they don't smear the natural sound retrieved by the cartridge. The 400-gram DW01 does this by combining aluminum, ebony wood (rods and inserts), and the same two-part damping gel used in the TA01 tonearm. I observed that the DW01 has a percentage of the sonic calming effect that is generally the *raison d'être* of properly implemented vacuum-hold-down record-spinners.

The ADB01 was born out of a collaboration with Thiele and the Seismion vibration isolation company. This active damping platform was specifically designed for the TT01 with aesthetically matched ex-

terior (color and footprint) and imbedded spike cups perfectly located for the turntable. The ADB01 contains special wood materials and load-bearing isolation plates. The Active Damping Base uses all analog electronics to eliminate frequency-limiting digital feedback's latency-induced sampling delays. After power up, the ADB01 internally stabilizes for about 20 seconds. Then the LED turns amber/green to indicate the unit is functioning. Internal sensors monitor external vibrations from the floor, rack, air, and turntable itself (motor, etc.). Thiele says: "The signals of these sensors are used to steer 4 electronic analog amplifiers, where the signal is inverted. These 4 amplifiers drive 4 actuators, which compensate for the vibrations and prevent the vibration from affecting the turntable. This is the same principle as a noise-canceling earphone." In use the ADB01 is very effective in limiting the external influence of floor vibrations, in addition to providing a level of isolation from low-level vibration-induced noise.

Setup

The ADB01 Active Damping Base is placed in the location (stand or shelf) chosen for the Thiele record player. The ADB01's power supply is attached to the unit and plugged into the AC outlet with the ADB01 power switch in the off position. Next, the base of the TT01 is placed on top of the ADB01, with the turntable's three leveling feet fitted into the dedicated locations on top of the ADB01. The turntable belt and subplatter assembly are installed according to instructions. The RM01 record mat is placed on the platter, and the turntable is checked/adjusted for level. The TT01's external linear power supply is then connected and plugged into the AC outlet.

Next the TA01 is installed on the TT01 according to instructions. At this point, there are sections in the instructions that mention making sure the platter is level before making the leveling adjustments of the TA01 arm base. This step is particularly important to the proper operation of the TA01 arm. When using the ADB01, one levels the turntable platter on the ADB01 and then rechecks/readjusts level after turning on the ADB01

TT01's 4-screw circular arm-board accepts the TA01 arm base, which is connected via a center steel ball and four outer screws in a parallelogram configuration. This contact is said to produce a higher level of isolation between the tonearm and chassis.

Thiele's TA01 is a pivoted linear-tracking tonearm that keeps tangency to the record groove via a two-point horizontal-movement design that is kept to within 0.036 degrees of angle error throughout its entire travel distance along the vinyl record. Vertical movement is like that of standard tonearms. The mechanical arm assembly material of the TA01 is mostly aluminum with wood damping added in certain areas like the headshell, one of the two-point control arms, and the counterweight. The armtube is made of double-walled carbon fiber with a special dual-component damping gel inserted between the walls.

When I quizzed Helmut Thiele about the lowest tracking force cartridge to use with the TA01, his response was to use cartridges that require a tracking force of 2.0 grams or higher. I agree with his statement. Therefore, I limited my evaluation to cartridges that operated within the TA01's recommended lowest tracking force range of 2.0 grams or higher.

The RM01 is a grey-colored record mat that dampens stylus-induced vibrations so that they don't smear the natural sound retrieved by the cartridge.

The DW01 Damping Weight operates on a similar principle of dampening and removing stylus-induced vibrations that travel along the



to ensure the TT01 platter is still level. At this point, the TA01 arm base can be adjusted. The compatible cartridge is then installed according to the instructions for proper alignment. One follows the 27-step manual (with photos) for standard cartridge adjustments of VTA/SRA, azimuth, VTF, and proper effective length for the stylus of the cartridge mounted in the pivoted linear-tracking tonearm.

With the TA01 Zero Tracking Error Tonearm, there is a bubble level that must be set once assembled and prior to cartridge installation. This level adjustment is then checked again after the cartridge installation is completed. (The TA01 manual covers this adjustment.) In addition, Helmut Thiele provided more information about the final manufacturing assembly setting and how the TT01's higher-mass horizontal movement works with the cartridge: "When I assemble my tonearms, I mount each tonearm with pickup cartridge installed on my turntable and adjust the four base screws which fix the base of the tonearm onto the steel center ball below it. Thereby, I make sure that one direction of the base is perfectly vertical and the other direction slightly slanted. This creates a tiny force which lets the tonearm move without affecting the position of the cantilever. I adjust the slant by checking the behavior of the cantilever when it touches the groove. If it moves to the center of the platter, the slant is too small, and the base must be tilted a bit more—and vice versa. When I find the perfect position of the base, I glue the spirit level in the center/neutral position into the base. This is the correct position for the pickup that I use (Ortofon Verismo); for other cartridges with different tracking forces or stylus shapes, it may be necessary to fine-tune this position. I explain the procedure in my manual." That explanation in the manual covers watching the cartridge's stylus action when lowered on a record and observing the behavior. Based on the results, adjustments to the arm base may be necessary.

The TT01, TA01, RM01, ADB01, and DW01 let the recording and cartridge strut their stuff and provided a platform ready for whatever came out of the grooves.

Listening

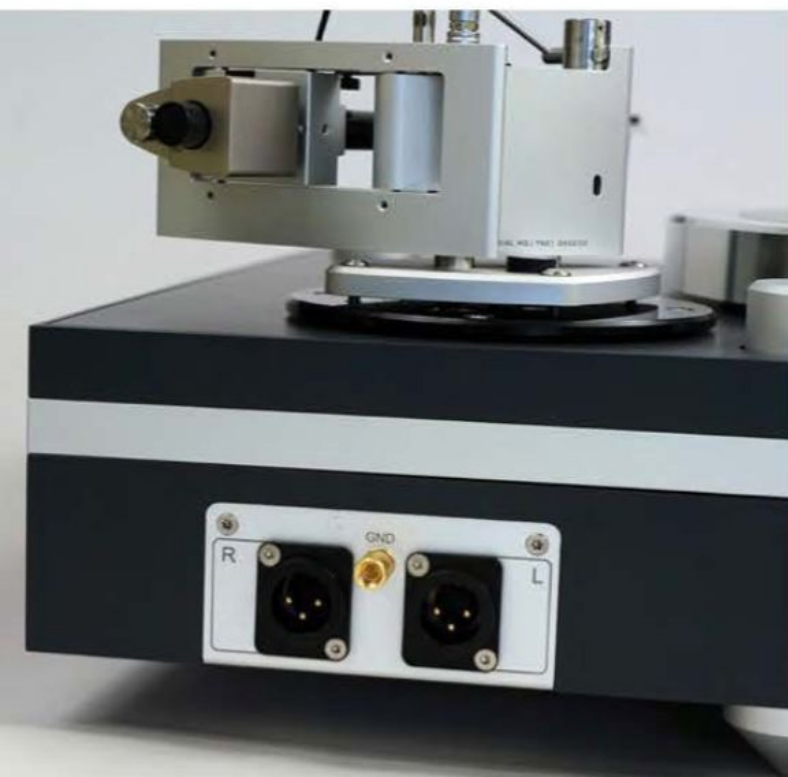
Once properly set up, the Thiele record-player system provided trouble-free operation. The first cartridge I mounted on the Thiele was the new overachieving Hana SL MKII. If you read my Hana SL MKII review, the following words will give you a *déjà vu* moment: "One afternoon/evening during the completion of this evaluation period with the Hana SL MK II mounted to the Thiele TA01 linear-tracking pivoted tonearm on the Thiele TT01 turntable, I managed to listen to music in this order, as the mood evolved from John Williams' Violin Concerto, Eric Bibb, Pink Floyd, Harry Belafonte, Nat King Cole, Lady Blackbird, Luigi Boccherini, Vivaldi, Kent Jordan, Ella Fitzgerald & Joe Pass, Duke Ellington, Art Pepper, and Regine Crespin performing Ravel's *Scheherazade*. Each piece of music was a delight to hear, and the genre didn't matter. As the mood shifted to selecting different pieces of music and different performers during the listening session, the cartridge adapted to the moment and output what the grooves of the LP presented with all the ease, liveliness, vigor, elegance, and emotional moods captured

during the recording session." This pretty much sums up the feeling of musical enjoyment the Thiele record player system is capable of conveying when a compatible cartridge yielding superb performance is installed. The Thiele invites the listener to experience and appreciate the performances of all types of compositions and feast on those presentations until satisfied.

More specifically, the TT01, TA01, RM01, ADB01, and DW01 allow the recording and cartridge to strut their stuff and provide a platform ready for whatever comes out of the grooves. The virtues of the Hana SL MK II were triplicated with the Umami Red and Umami Blue. The delta of contrasts with the Red and Blue were readily apparent. In short, Umami Red's slightly warmer tone and smoother play versus Umami Blue's more incisive and slightly speedier dynamic pacing were evident.

With music, the Thiele system allowed dynamic contrasts, truthful instrument timbre, staging and spatial cues, rhythmic pacing, and musical energy to shine. Circling back to a subset of the artists I listened to during my night of random listening, let's take a few of the pieces and unpack the traits I just mentioned. I played a few of the LPs again with the Hana SL MKII to focus on dynamics, timbre, staging/space, pacing, and musical energy. Musical togetherness was uniformly outstanding throughout the listening evaluation period.

With less complex duo or trio performances, the Thiele record-player system maintained the qualities mentioned



above. Kent Jordan's rendition of "Stella by Starlight" on his *Essence* album has Kevin Eubanks on acoustic guitar, Darrell Lavigne on piano, and Jordan playing flute. This makes for a simple arrangement that is still packed with the soft dynamics of Eubank's delicate guitar playing, which add tone color, timing, and precise string energy to the music. Lavigne's piano playing provides a spread that spans a good bit of the stage between the speakers, with precisely identifiable key strikes that linger just long enough to delight. Jordan's flute is front and center, mostly soft and airy, as one would expect from the instrument. The whole of the performance is mixed and mastered to create a spacious presentation that is both inviting and enjoyable when played back on the Thiele.

Contrast the Kent Jordan with the more direct recording of Eric Bibb performing the title cut from his album *Painting Signs*, where Bibb sings and plays guitar with Janne Pettersson playing stage strings. Bibb's guitar is closely miked and picks up his complete note, from the initial finger rub of the string to the guitar's body to the note's decay in a way that gives a direct, less room-acoustical sound to the instrument. Knowing it is Bibb playing this essentially single spotlight instrument with his unmistakable vocals gently telling a tale of literally painting signs, the instrumental and vocal immediacy make timbre palpable. Pettersson creates a deep, spacious, multi-string tonality that moves within the rear soundstage in a slow methodical fashion. The Thiele system expressed the emotional connection delivered by the song with ease.

An example of complexity comes from John Williams' Violin Concerto No. 2, with the Boston Symphony Orchestra conducted by the man himself and Anne-Sophie Mutter performing the violin part. Given that Williams said that the concerto's inspiration and energy came from thinking about Mutter as an artist, it seemed fitting that her playing in this concerto is one of her most captivatingly dynamic and energetic performances. The concerto starts with a very soft introduction of strings including pianissimo pizzicatos followed by low-level arco bass and cello. The violins and violas add to the mix in sweeping energetic runs from pianissimo to mezzoforte before

Mutter enters with similar energetic runs on her violin. After which, the entire orchestra launches into dynamic passages from delicate to bombastic, with the focus repeatedly transitioning from Mutter to the full orchestra. This new-age orchestral piece has it all—and that's just the opening "Prologue." With the Thiele system, the entire concerto sounds fabulous. The music takes the listener on a journey through a range of playing from Mutter that captivates.

Conclusion

When properly configured with a compatible cartridge, Helmut Thiele's record-player system is a pleasure to use and operate. The system draws sonic pictures of delight with well-recorded albums. Give the Thiele a listen and decide if it is *the* record player for you.

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Eric Neff, hi-fi+ #220 June 2023

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Absolute Analog Thiele TT01 Turntable

Specs & Pricing

TT01

Type: Belt-driven turntable
Motor: AC synchronous
Drive system: Belt drive
Speed stability +/- 0.07%
Fine speed adjustment: +/- 5%
Dimensions: 20" x 7.87" x 15.75"
Weight: 37.5 lbs.
Price: \$31,500 (\$36,000 w/gold-plated bronze TA01)

TA01

Type: Pivoted tangential-tracking tonearm
Max lateral tracking error: 0.036 degrees
Effective mass: 14 grams
Recommended dynamic compliance: ~20 (um/mN)
Cartridge weight balance range: 4 to 20 grams
Price: Included with TT01 purchase (\$14,500–\$19,200 purchased separately)

ADB01

Type: Active damping base
Damping system: All-analog electronic-sensor feedback & control
Price: \$20,000

RM01

Type: Record mat
Price: Included with TT01 purchase (\$250 purchased separately)

DW01

Type: Record weight
Price: \$1200

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Reference System

Analog tape: Otari MTR-10 Studio Mastering (1/4" 2-track) tape deck with custom Flux Magnetic Mastering Series repro head and secondary custom tube output stage, Studer A820 Studio Mastering (1/4" 2-track) tape deck (x2), Studer A80VU MKII Studio Mastering (1/4" 2-track) tape deck, ReVox A700 (1/4" 2-track and 1/4" 4-track heads) tape deck (x2), Stellavox SP7 (1/4" 2-track) tape deck with ABR large reel adapter, Nagra IV-S tape deck with custom large reel adapter, ReVox G-36 (1/4" 4-track) tape deck, 1950 Ampex 400A tape repro electronics, Soudation 757 De-emphasis unit

Analog vinyl: Basis Audio Debut Vacuum with Synchro-Wave Power Supply, Basis Audio 2800 Vacuum, Thiele TT-01 w/Active Damping Base, TW Acoustic Raven Two turntables; Basis Audio SuperArm 9, Basis Audio Vector IV (x2), Graham Phantom III, Graham 2.2, Thiele TA-01 tonearms; Lyra Atlas Lambda, Lyra Atlas Lambda SL, Lyra Etna Lambda SL, Lyra Titan-i, van den Hul Colibri XGP, Hana SL, Hana SL MK II, Hana Umami Red, Hana Umami Blue

Analog phono stage: The Raptor (Custom), Ayre P-5xe, Musical Surroundings Phomona II+ w/ Linear Power Supply, Soudation 350

Digital source: Intel i7 10th generation processor-based music server hosting JRiver Media Center, Roon, and Qobuz

Preamplification: Dual Placette Audio Active Linstage, Soudation 326

Amplification: Custom/modified solid-state monoblocks, Soudation 312

Loudspeakers: Vandersteen Model 3a Signature with dual 2Wq subs and dual SUB THREE subwoofers with M5-HPB high-pass filter

Cables: Assortment of AudioQuest, Shunyata, Tara Labs, Acoustic Research, Cardas, and custom cables

Support: Minus-K BM-1, Neumann shelf, Maple wood shelf, Symposium Ultra

Acoustics: Walker Audio

Accessories: Aurios Pro, Neumann Audio, Walker Audio, Klaudio KD-CLN-LP200, VPI 16.5, Clearaudio Double Matrix Professional Sonic

Room: 18' (W), 43' (L), 8' (H)