

An advanced model that elevates the entry-level experience

TechDAS

# Air Force IV



The core model of the Air Force series bearing the 'IV' name, bringing together cutting-edge innovations from the upper models

## Profile

Harnessing the unique air technologies, the Air Force Series delivers the advantages of digital audio—such as ultra-quiet operation and a high signal-to-noise ratio—reproducing the “modern analog sound”. The latest addition, the Air Force IV, incorporates premium technologies inherited from upper models, including a solid aluminum integrated platter precision-machined from a solid aluminum alloy, a low-vibration 2-phase 4-pole AC synchronous motor, and four specially engineered suspension feet. Despite its accessible price point, the Air Force IV is a groundbreaking turntable that takes a definitive step beyond the entry-level Air Force V, offering a refined analog experience powered by advanced Air Force technology.

## Specifications

- Drive System: Precision dual-sided polished polyester flat-belt drive
- Wow and Flutter: < 0.03%
- Total Moment of Inertia: 734 kg·cm<sup>2</sup>
- Dimensions (including feet): 420.5mm(W)×168mm(H)× 368mm (D)
- Weight: 34.3 kg
- Power Consumption: 50 W

The design of the turntable's chassis hints at the ultimate form of its evolution.

TechDAS has announced the Air Force IV.

They are a brand founded by the late Hideaki Nishikawa, the founder of high-end audio distributors, Stella and Zephyr, in order to realize his ideal record player. Their first model, the Air Force One, was released in 2012.

It features air bearing and vacuum LP hold down, along with its massive and highly rigid chassis, seemed to hint at the ultimate evolution of the record player. Since then, the company has continued to release a series of Air Force One's siblings into the market.

The Air Force IV is positioned as an upgraded version of the entry-level model, the Air Force V.

While the V uses a motor to drive a sub-platter housed beneath the main platter, the IV employs a motor hung with two robust brackets on the left side of the main chassis. This motor rotates an 8.7 kg platter, machined from solid aluminum alloy, just like the one used in the AF One.

The drive belt, made of polyester fiber, is flat and relatively wide, allowing to eliminate the material's resonance with as low tension as possible. Both the main chassis and the motor housing are machined from solid aluminum just like the platter, offering extremely high rigidity.

The power supply is housed in a separate chassis, which also contains the air pump. It connects to the main unit via a cable and two air pipes. The turntable can accommodate up to three tonearms. For the second and third tonearms, additional arm bases must be ordered separately.



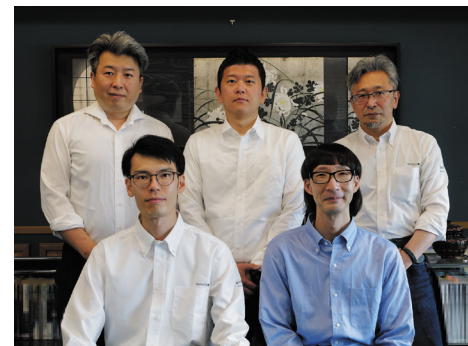
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and I found myself involuntarily exclaiming in my mind,  
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The tonearm mounted for the test unit was the 12-inch Ikeda IT-407CR-1. This choice was made with consideration for price balance in comparison with TechDAS's own tonearm, the Air Force 10. For this evaluation, the tonearm was paired with the brand's diamond cantilever cartridge, the TDC-01 Dia. Operation of the unit is performed via the front control panel. Pressing the button corresponding to the desired rotation speed initiates platter rotation. Once the target speed is reached, the indicator displays “lock,” confirming stable rotation.

For a floating-type turntable, rotational stability is reached remarkably quickly, so there's no sense of frustration or delay. Once “lock” is displayed, pressing the “Suction” button on the right initiates the vacuum hold. As the air between the platter surface and the record is removed, the record adheres firmly to the platter, creating a completely even surface. This allows even slightly warped records to be played back in a nearly flat state.

It would be no exaggeration to say that this was the best sound we've heard since beginning to use our new listening room. I've encountered the Air Force series several times at events and in manufacturer listening rooms, but this was my first time engaging with it in a serious listening session. The sound is unmistakably high-end audio—one could say it distills and concentrates all the elements of today's cutting-edge, ultra-luxury audio sound. The company's cartridge seems to play its part to contribute to it. First and foremost, the texture of the sound image is stunning. It has a fresh, moist richness that is pleasing to the ear and exudes refinement. No matter how closely you listen, there's not a trace of harshness or anything unintended by the composer or performer.

From  
Developer



TechDAS Development & Manufacturing Team  
(Clockwise from top left in the photo)  
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The soundstage is remarkably pure. It has very little extraneous coloration often associated with analog playback—what some might call “richness” or “depth”—leaving behind nothing but clean air that would pierce through the walls of the listening room and expand endlessly. The quietness is impressive, too. This kind of pristine and silent sound environment is sometimes described using phrases like “high perceived S/N ratio,” but resorting to such well-worn expressions feels almost embarrassing in this case. It's been one year and two months since we started using our new listening room, and it's no exaggeration to say that this equipment has produced the finest sound we've ever heard in this space.

The idea of using air to float the platter is not unique to TechDAS. A notable example would be the products of the former Micro Seiki. However, I have rarely—if ever—encountered an implementation as refined as this one, where air-bearing so clearly contributes to the perceived signal-to-noise ratio. Micro Seiki's turntables also featured a mechanism for vacuum-holding the record to the platter, but in terms of pump quietness, the AF IV is several levels superior. In fact, the late Hideaki Nishikawa once worked at Micro Seiki. I am convinced that TechDAS's craftsmanship carries a heartfelt homage to the now-defunct Micro Seiki.

One might expect a sense of absolute objectivity or neutrality to dominate musically—but that assumption was completely overturned. Surprisingly, the playback grooves and rocks! This is likely because the listener can effortlessly access every detail, making it easy to perceive the subtle nuances of the performance. These nuances seem to synchronize with the brain's sense of rhythm, allowing the musical flow to be felt more vividly. How many ultra-high-resolution players are there that are this genuinely enjoyable to listen to?

We had received many requests for a model in the same price range and with comparable performance to the original Air Force III. Development began two years ago, aiming to incorporate as much of the technologies used for the upper models as possible into a more compact chassis. With features such as a solid aluminum heavy platter, a low-vibration motor isolated from the main body, a specially polished polyester belt drive system shared with higher-end models, and a suspension structure equivalent to that of the Air Force III Premium S, the Air Force IV achieves both high rotational precision and a high signal-to-noise ratio. Despite its smaller size, the Air Force IV delivers uncompromising spatiality and resolution, following the Air Force 10 launched last year and further enriching the TechDAS lineup.

Even harsh, distorted sounds are rendered “beautiful” by this player. Below are some impressions by genre. With jazz, the initial impression was the familiar sensation of hot, energetic playing erupting into a pristine soundstage—a hallmark of high S/N ratio players. But this player goes beyond that. As with rock and classical music, jazz often involves the intentional distortion of instrumental timbre. This technique—known as “breaking the sound” or distorting—is a deliberate artistic choice by the performer to expand expressive range by producing harsh or edgy tones. As mentioned earlier, the AF IV does not produce harshness unless it is intentionally present in the performance. So, what happens when it is intentional? Of course, the sound becomes edgy. But even then, the harshness is rendered beautifully. This may well be the most defining musical characteristic of this player.

Vocals, depending on the recording, may vary—but at least in the case of Sarah Vaughan's After Hours, which I used for this listening session, the sound took a slightly different direction from realism. Rather than feeling as though Sarah were standing there singing just for me, I perceived the texture of



Despite its compact body, the unit can accommodate up to three tonearms. The chassis and motor feature a matte silver anodized finish, crafted from aluminum (A5052).



The rear panel is equipped with ‘Flotation’ and ‘Vacuum’ terminals that connect to the power supply unit (other configurations may vary depending on shipment). The drive belt adopts the same 4mm-wide flat belt used in higher-end models.



Power supply unit: dimensions are 350 mm (W) × 160 mm (H) × 270 mm (D), with a weight of 9 kg



A custom-made tonearm base is included, crafted to match your preferred tonearm.

the microphone and recording equipment seemed to be imprinted on the sound. It's by no means what one would call narrow-range, nor is the sound image or soundstage muddled. However, it does feel as though the resonant modes of mid-20th-century equipment are present in the playback. Yet, those resonances carry a vintage charm, and I found myself involuntarily exclaiming in my mind, “What a great sound!”

For classical music, I listened to Mahler's Symphony No. 3, and the powerful performance of the eight horns at the beginning was magnificent. This passage tends to sound distorted whether one likes it or not, but just as with the jazz tracks, the distortion here was beautiful. As the melody progresses, it essentially splits into two lines, and the resolution was so high that it felt as though I could “see” which player was performing melody A and which was playing melody B. This visual-like clarity is yet another musical hallmark of this turntable. The price of this unit is undeniably high. However, it seems to remain just on the edge of the unreal—within reach, yet still representing the pinnacle of what is possible. In that sense, it may be one of the finest products in the world that one could realistically hope to own.



The drive motor unit, separated from the chassis, features the same low-vibration two-phase, four-pole AC synchronous motor used in higher-end models. Its power supply utilizes digitally controlled rotation driven by power amplifiers.



With the platter removed, the unit features a tapered spindle designed to absorb any swaying of an off center LP.



The unit adopts suspension feet integrated with specialized damping material, just like the Air Force III Premium S, offering exceptional vibration isolation.



The precision-machined one-piece platter, made from aluminum alloy (A5056), boasts a heavy weight of 8.7 kg.