

TEAC TN-4D-SE Turntable and Sumiko Oyster Cartridge

Details

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Many of today's best-known audio manufacturers have histories that date back to the beginnings of high-fidelity reproduction. Brands such as McIntosh (1949), Marantz (1952), and Thorens (1957 for their first turntable) have had long runs. Another company that dates back to the middle of the last century is TEAC, which was founded in 1953 in Tokyo. For the first few decades of its existence, the firm was noted for its excellent reel-to-reel tape recorders, and later, some very fine cassette decks.

More recently, TEAC has added amps, DACs, and turntables to its product mix. A brand-new entry to its vinyl lineup is the TN-4D-SE (\$749.99, all prices in USD), a manual unit that comes with a pre-mounted Sumiko Oyster moving-magnet cartridge. And while all TEAC's turntables have good features, the TN-4D-SE may be the most modern.



Significantly, it's a direct-drive design. Direct-drive 'tables have regained much of the popularity they enjoyed in the 1970s and '80s. TEAC claims the TN-4D-SE's brushless, quartz-controlled DC servo motor banishes cogging—the rapid, jerky rotation of the direct-drive motor—which was

the main objection to the direct-drive 'tables of the 1980s. The motor TEAC has developed for the turntable is fascinating in its low profile.

The arm and its pivot were designed in collaboration with Japan's SAEC. SAEC recently reintroduced a new version of its double knife-edge arm that, in the US, costs around \$7500. Obviously, the TN-4D-SE's arm is simpler, employing a single knife-edge pivot, but it follows SAEC's design philosophy.

Description

The TN-4D-SE is a handsome unit, with its base finished in either a gloss-black enamel or matte walnut and adorned by silver-toned aluminum accents; my review sample had the walnut finish. With its dust cover in place, the TN-4D-SE measures 4.6"H × 16.5"W × 14"D, and weighs 13.5 pounds.



The 12" die-cast aluminum platter is topped with a felt mat and fits firmly on the spindle. The statically balanced S-shaped aluminum arm has an effective length of 8.8" and will accommodate half-inch-mount cartridges that weigh between 4 and 13gm.

The Sumiko Oyster cartridge is a longtime favorite of many audiophiles for its clarity and overall value. The Oyster is equipped with a 0.7mil spherical stylus and, on its own, lists for \$79.



On the top panel is a three-position rotary speed-control switch with 0, 33, and 45 settings, and behind it, the cueing lever. The TN-4D-SE eschews flash for substance. The plinth itself is made of MDF with shock-absorbing rubber/stainless-steel feet.



The back panel is fairly well populated. First comes the ground/earth connection, followed by a pair of RCA output jacks and a switch for activating or defeating the onboard phono stage. That switch has two positions: On, which means the phono stage is active, and Thru, which means it's out of the circuit and the turntable should be connected to the phono input of an amplifier. Finally, there's the input for the 24V DC power supply and, next to it, the power standby/on switch.

The supplied dust cover fits into two hinges and operates smoothly. The large wall-wart power supply will crowd a multi-outlet power strip. Other supplied accessories are a 45-rpm adapter, adequate-but-not-fancy interconnects, and an eight-language owner's manual. The TN-4D-SE comes with a one-year parts-and-labor warranty.

Unpacking and setup

The TN-4D-SE is packed well. Unboxing it was a bit like taking apart a Russian nesting doll. Opening the outer shipping box revealed another box, which concealed the box that held the turntable. Predictably, the turntable's condition upon arrival was flawless.



Open the final box, and the first items are the owner's manual and a folded piece of cardboard that holds the felt platter mat in place. Remove those and next is the dust cover in a protective plastic cover. When the dust cover is out of the way, the turntable itself becomes visible, held in place by two polystyrene forms. Pull those up and the turntable comes out easily. In cubbyholes on the forms are the headshell with pre-mounted cartridge, counterweight, hinges,

45-rpm adapter, and power supply. Lifting the turntable reveals the aluminum platter in its own plastic bag at the bottom of the box. The interconnects are also in their own bag.

Once all the parts are available, you're directed to remove the cushions that hold the arm pivot in place during shipment, and then place the unit on a flat surface. Remove the platter from its bag and place it over the spindle followed by the felt mat. Then, install the counterweight on the rear of the arm with numbers facing the front of the turntable. TEAC recommends screwing the counterweight on until it won't go any farther—do so, but be gentle.

Next, install the headshell onto the front of the arm, securing it with the nut on the arm's tip. Before moving on, remove the stylus guard from the cartridge, but make certain you don't drag the stylus across the felt mat or bang it about. Again, "gentle" is the key word. Release the tonearm clasp so the arm can move freely. Engage the cueing lever and move the arm slightly to the left, between its support and the platter. Then lower the tonearm with the lever. Turn the counterweight clockwise until the entire arm is parallel to the top of the plinth.



At this point the arm is balanced—the tracking force is 0gm. Hold the counterweight and turn the scale dial until the “0” aligns with the groove on the top of the arm. Then, turn the counterweight and scale dial counterclockwise until the scale reads approximately 2.3gm (23mN). That sets the arm's tracking force to the recommended value for the Oyster cartridge. Finally, adjust the antiskating dial to as close to 2.3 as you can. (Antiskating pressure counteracts the arm's tendency to move to the center of the platter.)

Now, move to face the unit's back panel. Insert the interconnect RCA plugs into their respective jacks and then affix the ground/earth wire with the knurled knob. Make certain the phono preamplifier switch is in its proper position: On if your amp does not have a phono stage; Thru if it does. Plug the power supply first into the turntable and then into a power outlet. The PSU supplied with my sample had prongs only for US/Canada-style outlets. Press the standby/on button to On, and you're ready to go.



TEAC rates the unit's wow and flutter at 0.1% but doesn't specify speed accuracy. Estimates from the RPM app showed a rotational speed for 33½ rpm of 33.36 rpm (+0.09%) with wow of $\pm 0.20\%$. The estimates for 45 rpm were 45.08 rpm (+0.18%) with $\pm 0.16\%$ wow. Those figures are the averages of several tries. I was a bit surprised at the TN-4D's rather high wow figures, since two other direct-drive turntables I've reviewed, the Technics SL-1210GR and the Music Hall Stealth, both posted lower wow rates ($\pm 0.02\%$ and $\pm 0.04\%$ respectively at 33½ rpm). That said, the Technics and Music Hall 'tables are more than twice as expensive as the TEAC. As you'd expect from a direct-drive turntable, the TN-4D's platter starts and stops very rapidly.

Listening

I did most of my listening with the TN-4D-SE's phono stage defeated—I connected the 'table to the phono input of my Apt Holman preamp. The Apt pre was connected to my NAD C 275BEE power amplifier, and the amp to my Acoustic Energy Radiance 3 standmount speakers and Vera-Fi Audio Vanguard Caldera 10 subwoofer.

For my opening selection, I chose “Jupiter, the Bringer of Jollity” from Gustav Holst’s suite *The Planets*, performed by the Berlin Philharmonic Orchestra under the direction of Herbert von Karajan (Deutsche Grammophon 2532 019). “Jupiter” is probably the most famous section of the work and is heavily brass-driven. On some vinyl setups, the brass instruments, especially the trumpets, can sound harsh—even distorted. That was not the case here. The brass played loud and hard, but never showed signs of strain. The woodwinds, especially the flutes, were clear and clean. The strings don’t have a lot to do on “Jupiter,” but when they were playing, I heard plenty of that silky string tone for which the BPO is acclaimed. On the downside, the soundstage was not as deep as I’d have liked. But that may be because this is an early digital recording, and phase problems may have disrupted the spatial cues that provide a sense of front-to-back layering.



Recently, I came across a nearly perfect copy of an LP by Thad Jones, Mel Lewis, and their big band called *Potpourri* (Philadelphia International KZ 33152). I was particularly taken with their version of the O’Jays’ “For the Love of Money.” This was one hot big band, let me tell you. On this particular cut, the instrument that carries most of the melody was a harmonica—very unusual, but perfect for this song. The band was spread out nicely across the soundstage and I discerned some layering of the instruments, as I could pick out a trumpet in front of the bass which was in front of the drums. The harmonica usually showed up just to the right of center and well out front. Great cut; great reproduction.

The British group Yes had a moderate US hit in 1972 with their song “Roundabout,” from their album *Fragile* (Atlantic SD 7211). It’s a complex piece, with two guitars, drums, bass, electric

organ (probably a Hammond B3), and multiple synthesizer tracks. The TEAC–Sumiko combo served up a soundstage that was quite broad but not at all deep; vocalists and instruments were piled on top of one another. Also, I detected minor distortion on some of the vocal parts (some enthusiasts claim the Oyster produces high levels of inner-groove distortion). However, my copy *is* 50 years old, so I can't say whether this distortion was caused by the cartridge or the record itself. Other than the shallow soundstage, I thought this tune was well served by the TN-4D-SE.

It's said that when Toto recorded "Rosanna" for *Toto IV* (Columbia FC37728), they time-synchronized three 24-track analog recorders so they could have 72 tracks to play with. I have come to realize at least 13 of those tracks were devoted to synthesizers and other electronic keyboards. The tune has an amazing array of sounds, and it takes a pretty good turntable-cartridge combination to reproduce them all clearly. I'm pleased to say the TEAC TN-4D-SE and Sumiko Oyster did a fine job. The soundstage was quite broad, with decent depth. The synth tracks showed up all over the stage, resulting in a pretty satisfying sound. There was bass aplenty and the drum set was nicely prominent—but not too prominent.



Back in the 1970s and '80s, "Hot Stereo Rock Z-104" in Frederick, MD, played the hits 24/7 with style. In 1982, they released a compilation LP, *Z-104 FM Hot Hits Album* (Phoenix 8201), which contains one of my all-time favorites, the Emotions' "Best of My Love." The Emotions' main gig was serving as backing singers for Earth, Wind & Fire, so EWF in turn provided this song with an incredibly tight instrumental accompaniment. This is another song with a lot of layering of the participants. The lead singer is right out front while the other women are slightly but noticeably

back, and that's how the TEAC 'table rendered it. The band, especially the trumpets, was behind the singers and took up the rest of the soundstage. There's a great funk groove goin' on here, and the TEAC really nailed it.

Comparison 1: TEAC/Sumiko versus Music Hall/Ortofon

Initially, I planned to include the Doobie Brothers' "Takin' It to the Streets" from *Best of the Doobies* (Warner Bros. BSK 3112) as one of my listening selections. But I was initially underwhelmed with how it sounded on the TEAC 'table. First, it had minimal bass—and what bass there was lacked punch. Michael McDonald's voice was buried in the back of a rather shallow soundstage. The instruments, for the most part, came through the best; they had a broader soundstage, but there was little life to them. I had to ask myself: Does the record really sound this bad?

So I cued up the same track on my Music Hall Stealth and played it at the same volume, which confirmed that this disc won't win any awards for sound quality. The Ortofon 2M Blue cartridge pulled a bit more rhythm out of the instruments. McDonald didn't sound quite as if he was in another room, and there was some bass—but not as much bass as I expected.

I really love the song and find the intricate instrumental parts really enticing. I preferred the sound on the Stealth, but its price is more than double the TEAC's. I think the Oyster cartridge is the TEAC's only weak point.



Comparison 2: built-in preamp versus Apt Holman phono stage

To assess how the TEAC's built-in phono stage stands up against the one in my Apt preamp, I wanted some music that had lots of detail. I found that detail in the Manhattan Transfer's recording of Sonny Rollins's "Airegin" (that's "Nigeria" spelled backwards) from their 1985 album *Vocalese* (Atlantic 7-81266). The words go by in a flurry and only a turntable/cartridge/phono-preamplifier combination that has good detail will render them intelligibly. The TEAC did: I could understand my usual 50% of the lyrics and, in general, was very pleased. I did think, however, the TN-4D-SE's bass was a little too prominent. But that was about my only quibble—and I must admit, it was a nice, meaty bottom end.

When I disabled the TEAC 'table's phono stage and connected it to the phono inputs of my Apt Holman preamp, reproduction was just a skosh drier and less full-sounding. The bass was pulled back a good deal compared to the TN-4D-SE's phono stage, which I believe is truer to the recording. But, frankly, I could happily live with either phono preamp. The Apt Holman preamp is known for its excellent phono section, so it was impressive how well the TEAC's phono stage fared in this comparison.

Conclusion

TEAC has come up with a winner in the TN-4D-SE. The only complaint I can make is about the higher-than-claimed wow figures, but honestly, I couldn't hear any such speed variations when I was playing music. The motor is quiet and starts and stops quickly. I think the arm is extremely fine, and the Sumiko Oyster cartridge performed better than I had expected. Although it's not inexpensive, the TN-4D-SE's price is below average for a direct-drive unit. It looks great and it works well—what more can one ask for? The TEAC TN-4D-SE is certainly a turntable you should check out if it's in your price range.

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Associated Equipment

- **Speakers:** Acoustic Energy Radiance 3; Vera-Fi Audio Vanguard Caldera 10 subwoofer.
- **Power Amplifier:** NAD C 275BEE.
- **Preamplifier:** Apt Holman.
- **Analog Source:** Music Hall Stealth turntable with Ortofon 2M Blue cartridge.
- **Interconnects:** Manufacturer supplied for turntables; Morrow Audio MA1 analog from preamp to power amplifier.
- **Speaker cables:** Audtek 14-gauge OFC cable terminated in banana plugs.

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Price: \$749.99.

Warranty: One year, parts and labor.

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