

SASHA MATSON

# Canton Reference 5

## LOUDSPEAKER

**C**anton Elektronik GmbH is a family-owned manufacturer of loudspeakers based in Weilrod, Germany. Founded in 1972—the name is from Latin and German: “Can” from the Latin “cantare,” “to sing”; “Ton” from the German for “sound”—Canton is now well past its 50th anniversary. The largest manufacturer of perfectionist speakers in Germany, Canton is still based in the small township where it began, with manufacturing facilities in the Czech Republic.

John Atkinson reviewed the Canton Reference 7K in 2021, and Ken Micallef followed up-up. The 7K ended up in Class A, Restricted Extreme LF, of *Stereophile*'s Recommended Components list. Now that Canton has significantly revised its Reference Series, it's time to take another look and listen.

Which new Reference-series speaker should I audition? I provided Jay Rein of importer-distributor Bluebird Music with the dimensions of my new listening room and asked him to choose the model he felt would be the best fit. In other words, I proceeded as customers with knowledgeable dealers should proceed. Jay recommended the Reference 5 (\$11,000/pair), sharing that it was his favorite model in the series. Canton Head of Marketing Moritz Jung told me the same thing. The Reference 5 comes with an impressive 10-year warranty.

When I started gathering Canton intel,



one of the first things that struck me was the breadth of the company's offerings. I counted 21 floorstanding models in seven named series. I may have missed a couple. I didn't count standmounts, wall-mounts, subwoofers, center channels, or speakers intended as surrounds. Canton has something for everyone, from that first parental graduation present on up to the most experienced audiophiles. Bluebird Music's Jay Rein commented: “Yes, there is a huge amount of choice. Canton offers solutions for music lovers of all stripes, no matter how they take their music. Their philosophy is to make anyone who wants music happy.”

Canton's current Reference Series is, as the name implies, their top of the lineup.<sup>1</sup> There are five models, designated simply, with numbers: 1, 2, 3, 5, and 7. The Reference 7 is the smallest and least expensive, moving up in size and budget to the Reference 1. I auditioned the Reference 5, a three-way floorstander that weighs 79.3lb. Height is 39.7", width is 11.8", and depth is 18.1"—so, a substantial cabinet but not huge. Canton likes ceramic drivers, and these speakers come with a single 1" Black Ceramic dome tweeter, single 6.85" Black Ceramic Tungsten midrange driver, and two 6.85" Black Ceramic Tungsten woofers.

Canton designs and constructs all their drivers in-house. This has resulted in a sustained development process that separates

<sup>1</sup> Although the new, even higher-end Alpha series is likely to be out by the time this review is published.—**Jim Austin**

## SPECIFICATIONS

**Description** Three-way reflex vented floorstanding speaker system. Drive units: 1" Black Ceramic domed tweeter, 6.85" Black Ceramic Tungsten midrange, two 6.85" Black Ceramic Tungsten woofers. Crossover frequencies: 160Hz, 3kHz. Frequency range: 21Hz–40kHz. Sensitivity: 88dB. Nominal impedance: 4 ohms. Max. power handling: 370Wpc.

**Dimensions** 39.7" (102cm) H × 11.8" (30cm) W × 18.1" (46cm) D. Weight: 79.3lb (36kg).

**Finishes** White Satin, Black piano; Walnut for a 10% premium.

**Serial numbers of units reviewed**

24226937C, 24226938C. Designed and manufactured in Germany.

**Price** \$11,000/pair. Approximate number of dealers: >30, US & Canada. Warranty: Ten years unconditional, transferable.

### Manufacturer

Canton Elektronik GmbH & Co.  
Weilrod, Germany.

US distributor:  
Bluebird Music Ltd.,  
110 Military Rd.,  
Kenmore, NY 14217.  
Tel: (416) 638-8207.

Web: bluebirdmusic.com.

this company from the pack. In 2015, Canton started using blends of ceramic, tungsten, and titanium in the manufacture of their speaker diaphragms. The material employed in the Reference Series, in tweeters, midrange drivers, and woofers, is described by Canton as “Black Ceramic” (BC). Starting with an aluminum cone, some of the molecular content is converted into a ceramic structure. From a Canton white paper: “A specialized electrochemical oxidation process binds oxygen molecules on both sides, creating a ceramic structure.” The midrange and woofer diaphragms add tungsten to the mix; the resulting ceramic material maintains the advantages of ceramics with less brittleness. Canton refers to these as “Black Ceramic Tungsten” (BCT) cones.

The result, Rein told me, is “a cone material that is extremely stiff and extremely light. They are easily controlled by the amplifier. The result is speed and accuracy in musical reproduction. Canton’s ceramic drivers have desired speed and accuracy but with some damping that keeps the high

frequencies sounding sweet and natural.”

Canton drivers feature what the company calls “Triple Curved Cone” (TCC): “The profile of the diaphragm consists of three consecutive radii that differ from each other. This gives the driver a much stiffer construction and reduces distortion. The TCC driver also offers improved dispersion characteristics, and a higher bandwidth.”

Each driver is in its own enclosure. The tweeter features an “Isolated mid-high frequency wave-guide grille” and an “Ultra-light single wire voice coil.” From a low extension frequency of 21Hz, the crossovers hand off to the midrange driver at 160Hz. The midrange driver covers a large frequency band, from 160Hz up to 3kHz. From there, the tweeter takes over and extends to a rated 40kHz. Users should have flexibility in choice of amplification. Measurements will reveal more.

Another proprietary aspect of Canton’s crossovers is what the company calls “Displacement Control,” DC for short. Technical Director Frank Goebel described it as “An

## MEASUREMENTS

I measure loudspeakers in our living room. I move the furniture to the sides, place the speaker on my computer-controlled Outline turntable, raising it so that the tweeter is midway between the floor and ceiling, and fire the speaker along one of the room’s diagonals. That maximizes the anechoic time window before reflections from the room boundaries arrive at the microphone. However, I was unable to lift the heavy Canton Reference 5 as high off the ground as I would have wished. I therefore measured the response and dispersion with the microphone at 1m rather than my usual 50”.

I used DRA Labs’ MLSSA system and a calibrated DPA 4006 microphone to measure the farfield behavior of one of the Canton Reference 5 speakers and an Earthworks QTC-40 mike for the nearfield responses. I measured the Reference 5’s impedance magnitude and electrical phase angle with Dayton Audio’s DATS V2 system.

My B-weighted estimate of the Reference 5’s voltage sensitivity was a high 89.4dB(B)/2.83V/1m. Fig.1 shows the impedance magnitude (solid trace) and electrical phase angle (dashed trace) with the high-frequency and midrange plugs on the rear panel set to the central Flat positions. The magnitude stays between 4 ohms and 8 ohms over most of the audioband, with minimum values of 3.48 ohms at 42Hz and 3.47 ohms at 372Hz. However, as the



electrical phase angle is often high, the effective resistance, or EPDR,<sup>1</sup> drops below 2 ohms below 39Hz and below 3 ohms for several regions between 46Hz and 1kHz, and above 5.2kHz. The minimum EPDR values are 1.56 ohms at 24Hz, 2.69 ohms at 51Hz, 2.17 ohms at 90Hz, and 2.17 ohms between 512Hz and 663Hz. As music can have high energy in the higher-frequency regions, the Reference 5 is a demanding amplifier load, though this will be ameliorated by its high sensitivity.

Repeating the impedance measurements with the high-frequency and midrange plugs set to the + and – positions gave, respectively, impedances of 5.45 ohms at 152Hz and 8.2 ohms at 180Hz. The shape of the traces were otherwise very similar to the values with the plugs set to neutral.

The Canton’s enclosure seemed inert when I rapped its panels with my knuckles. When I investigated the Canton’s vibrational behavior with a plastic-tape accelerometer, the highest-level resonant mode I

measured was at 152 Hz. The enclosure seemed inert when I rapped its panels with my knuckles. When I investigated the Canton’s vibrational behavior with a plastic-tape accelerometer, the highest-level resonant mode I

<sup>1</sup> EPDR is the resistive load that gives rise to the same peak dissipation in an amplifier’s output devices as the loudspeaker. See “Audio Power Amplifiers for Loudspeaker Loads,” JAES, Vol.42 No.9, September 1994, and [stereophile.com/reference/707heavy/index.html](http://stereophile.com/reference/707heavy/index.html).

Stereophile Canton Reference 5 Impedance (ohms) & Phase (deg) vs Frequency (Hz)

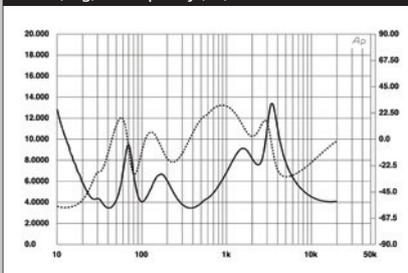


Fig.1 Canton Reference 5, electrical impedance (solid) and phase (dashed) (2 ohms/vertical div.).

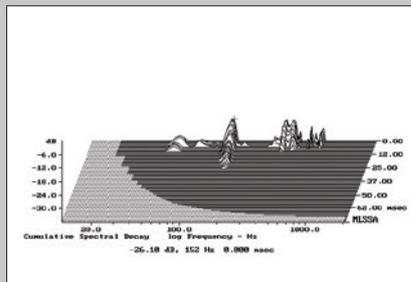


Fig.2 Canton Reference 5, cumulative spectral-decay plot calculated from output of accelerometer fastened to center of a sidewall level with the lower woofer (measurement bandwidth, 2kHz).

innovative solution that extends the bass range of the speakers. By employing specialized high-pass filters to control excursion, Canton effectively shifts the lower cutoff frequency of the drivers down by an entire octave, achieving a significantly deeper and more linear crossover to the midrange driver. This supports the midrange drivers' critical role in achieving broadband performance." Application of this circuitry increases impedance below 20Hz.

A significant external change from the K-series Reference models, including the 7K JA reviewed, is rounder cabinets. The new Reference Series speakers have fully rounded forms; there are no sharp angles anywhere, including the front and rear baffles. The prior Ref K models had flat front



baffled and tapered sides.

These rounded cabinets are achieved with bentwood—laminated ply. Distributor Jay Rein observed, "Cabinet material is so important in the high end, and nobody offers shaped laminated ply at anywhere near our price." This is how the rims of grand pianos are constructed—very strong and inert. In this reviewer's opinion, the visual aesthetic of the Reference Series models is top-notch, and I would expect that measurements will reveal excellent dispersion behavior due to the absence of sharp edges.

The review pair was finished in smooth "Piano" white, contrasting the black drivers. Magetically attachable black grilles are included, curved to match the cabinets.

### measurements, continued

found lay at 152Hz on the sidewalls level with the lower woofer, with two other modes at 402Hz and 465Hz (fig.2). However, these modes are all very low in level and have a high Q (Quality Factor), which means they won't have audible consequences.

The impedance magnitude trace in fig.1 has an unusual rise in value below 25Hz, which suggests that the crossover includes a high-pass filter in the woofer feed to reduce the diaphragms' excursion at infrasonic frequencies. This is confirmed by the nearfield responses of the woofers (blue trace) and the downward-firing port (red trace) in fig.3, which roll off with close to 18dB/octave high-pass slope, a third-order slope, instead of a reflex alignment's second order, 12dB/octave slope.

The saddle centered at 34Hz in the fig.1 magnitude trace indicates that this is the tuning frequency of the port. Its output

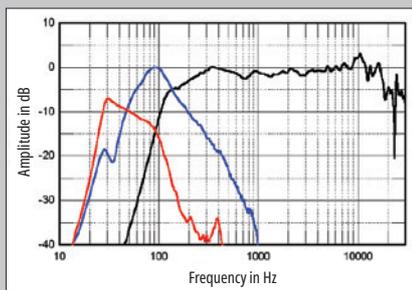
peaks just below the tuning frequency, and the upper-frequency rollout is very clean. The two woofers behaved identically, and their summed nearfield response has the expected minimum-motion notch at the port tuning frequency. The woofers cross over to the midrange unit (fig.3, black trace below 350Hz) around 140Hz.

The complex sum of the woofer and port responses (black trace below 300Hz in fig.4) has only a modest rise in the midbass response that will be due to the nearfield measurement technique, which assumes that the drive units are mounted in a true infinite baffle.<sup>2</sup> The Reference 5's woofer

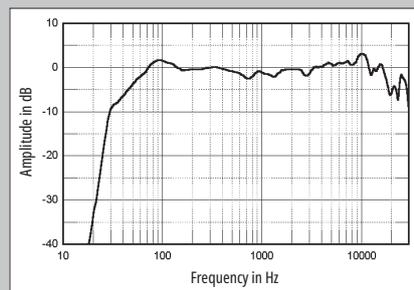
alignment is slightly overdamped, with the nearfield output down by 6dB at 40Hz.

The Reference 5's manual makes no mention of what vertical listening axis is optimal. Canton's Frank Goebel explained, "Our optimizations are based on an ear height of 110cm [43"] at a listening distance of 3 meters [10']. This applies to all our floorstanding models, regardless of the positioning of the tweeter or midrange driver. For this optimization, the acoustic radiation origin is evenly weighted between the tweeter and midrange driver, meaning the effec-

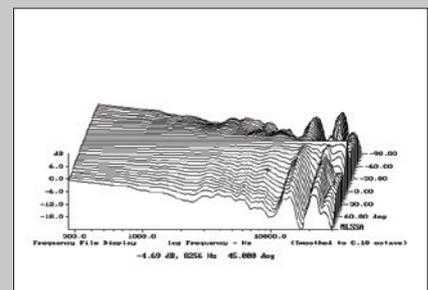
<sup>2</sup> This means that the loudspeaker is firing into hemispherical space rather than a full sphere. A speaker that has a truly flat response in the usual "4pi" space will therefore appear to have a boosted upper-bass output with a nearfield measurement, the center frequency of that boost depending on the physical dimensions of the speaker and the woofer alignment. See [stereophile.com/content/measuring-loudspeakers-part-three-page-6](http://stereophile.com/content/measuring-loudspeakers-part-three-page-6).



**Fig.3** Canton Reference 5, farfield response on optimal axis at 1m, corrected for microphone response, with the nearfield responses of the midrange unit (black), woofers (blue), and port (red), respectively plotted below 350Hz, 1kHz, and 425Hz.



**Fig.4** Canton Reference 5, anechoic response on optimal axis at 1m, averaged across 30° horizontal window and corrected for microphone response, with the complex sum of the nearfield responses plotted below 300Hz.



**Fig.5** Canton Reference 5, lateral response family at 1m, normalized to response on optimal axis, from back to front: differences in response 90°–5° off axis, reference response, differences in response 5°–90° off axis.

Canton Reference Series speakers sit on a two-part support: “Bass-Guides” occupy the space between the traditional bottom plate and the bottom of the speaker cabinet. Goebel explained. “This design integrates the bass-reflex port into the enclosure, operating on a combined front-firing and back-firing principle. Airflow is guided through a channel recessed in the base plate, directing it to the front and rear of the enclosure. This ensures remarkably stable bass resonance, regardless of the speaker’s placement in the room.” This is similar in function and design to the more expensive TAD Grand Evolution loudspeaker I reviewed<sup>2</sup> and may be unique in this price range. The bass plates (and the rest of the speaker) are supported by adjustable feet with discs, not spikes.

The speaker taps at the rear are high-quality WBT Nextgen, in biwirable pairs; gold-plated bridges are provided for those who



do not employ biwiring. Next to the speaker terminals is another significant feature, new to the Reference Series: two sets of physical taps that, by joining them with similar bridges, allow for independently boosting or cutting the tweeter and midrange output by 1.5dB. More on this in a moment.

### Musical chairs

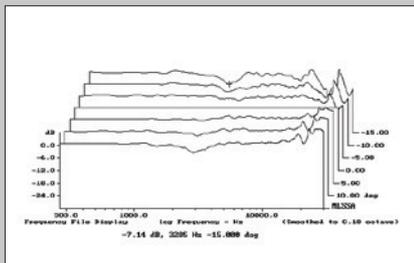
Bookshelf speakers they ain't, but the Canton Ref 5s are manageable in size and weight compared to some other speakers and amps I have wrangled recently. The two boxes arrived without incident, strapped to

a palette. Using my cloth-covered handcart, I was able to roll them into position in my listening room without having to hire my son and a homie as an informal hi-fi moving company. The Reference 5s ended up fairly close to the sweet spot for my reference system speakers: about 3.5' from the front wall, 7' apart, and 8' from my

## measurements, continued

tive radiation point is positioned between them. Particular attention is given to the transition between the midrange driver and tweeter.”

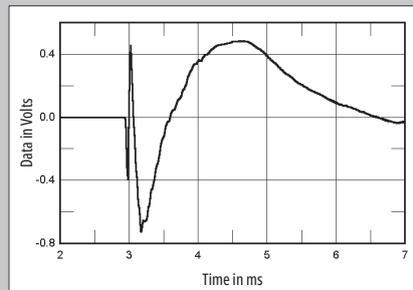
The midway point between the Reference 5's tweeter and midrange unit is 33" (84cm) from the floor, which is 3" lower than what a survey performed by Stereophile in the 1990s indicated was a typical listener ear height. But for a listener 10' away whose ears are 43" from the floor, this means that the optimal axis is tilted up from that midpoint by an angle of 5.5°. I therefore examined the farfield response on this optimal axis. The speaker's output at 1m on this axis (black trace above 350Hz) is generally even, tilting up slightly above 5kHz with a small peak centered on 10kHz. The graph supplied by Canton with the sample that I measured, serial number 24226938C, looked broadly similar to that shown in fig.3.



**Fig.6** Canton Reference 5, vertical response family at 1m, normalized to response on optimal axis, from back to front: differences in response 15°–5° above axis, reference response, differences in response 5°–15° below axis.

The black trace above 300Hz in fig.4 shows the Reference 5's quasi-anechoic farfield response averaged across a 30° horizontal window centered on the optimal axis. The response is even, with an upward tilt in the treble similar to that in fig.3. Repeating this measurement with the tweeter and midrange unit plugs set to the + and – positions respectively boosted and reduced the levels above 3kHz and between 200Hz and 1kHz by up to 1dB instead of the 1.5dB mentioned in the manual.

Fig.5 shows the Reference 5's horizontal dispersion, normalized to the response on the optimal axis, which thus appears as a straight line. The contour lines in this graph are even and well-controlled, which is known to correlate with stable stereo imaging. The small suckouts between 11kHz and 21kHz in the on-axis response fill in to the speaker's sides. The Canton's radiation pattern in the vertical plane, again normal-



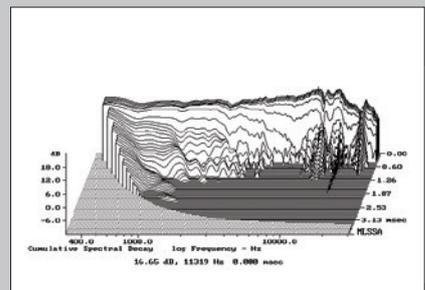
**Fig.7** Canton Reference 5, step response on optimal axis at 1m (5ms time window, 30kHz bandwidth).

ized to the optimal-axis response (fig.6), indicates that the loudspeaker's response doesn't change appreciably up to 5° above and below that axis.

The Reference 5's step response on the optimal axis (fig.7) indicates that the tweeter and midrange driver are both connected in inverted acoustic polarity, the woofers in positive polarity. The tweeter's output arrives first at the microphone, followed by that of the midrange unit, then that of the woofer. The decay of each drive unit's step smoothly blends with the start of that of the next lower in frequency, which implies an optimal crossover topology. Other than some low-level delayed energy at the top of the audioband, the Canton's cumulative spectral-decay plot (fig.8) features a clean decay.

Overall, the Canton Reference 5 offers excellent measured performance.

—John Atkinson



**Fig.8** Canton Reference 5, cumulative spectral-decay plot on optimal axis at 1m (0.15ms risetime).

listening chair.

The Reference 5s arrived here from a dealer fully broken in, so I didn't have to go through that strange phenomenon specific to reviewers in which we worry whether a component is sounding as it was intended to sound, or whether it is in need of further break-in. What makes this especially challenging is that the sound of some speakers continues to change well after the manufacturer-stated break-in period has passed—at what point do we conclude that it sounds like itself?

The driver array of the Canton Reference 5 places the two twin woofers at the bottom, the tweeter in the middle, and the midrange driver on top. This arrangement is less common than tweeter on top. I asked the Canton Design Team about this choice: “The midrange driver is primarily responsible for spatial focus and soundstage representation. For this reason, we aim to design it as broadband as practically feasible and position it as optimally as possible for such localization-critical tasks.”

In his measurements, John Atkinson often notes the degree to which the tweeters are above, below, or in his normal listening position—or vice versa. The tweeter on the Reference 5 measures a low 30" from the floor. The center of the midrange driver is 35" high. My typical ear height when I'm seated in the armchair I have recently been using as a listening seat is a high 42". Thus, I am listening from about 12" above the tweeter axis and 5" above the midrange axis.

I wanted to hear how changing my listening position would alter my perception of the tonal balance of the speakers, so I swapped in a shorter, smaller armchair I have used in the past, which places my ears at about 38"—quite close to the axis of the midrange. Listening height really did make a difference. At the lower height, the sonic picture clicked into better focus, and the presentation became livelier and more energetic. I discussed this topic with John Atkinson, and he stated that “This depends on the crossover. The optimal axis could be tilted up.” I am curious of course to see the measurements. With these speakers, I suggest experimenting with your listening height. You can also use the adjustable feet to aim the speakers higher or lower.<sup>3</sup>

### On stage

The first recording I made notes on was a winner. An excellent LP reissue from Analogue Productions, part of their Living Stereo series: *Festival* with Reiner and the Chicago Symphony (Sony LSC 2423, 1960/2015). This showoff recording cries out for full-range speakers. This festival is all about the Bear, including the Russian National anthem that blares away in Tchaikovsky's *Marche Slave*. The concert bass drum gets a workout throughout this album. Heard from the Reference 5s, these room-filling low-end whacks left nothing to be desired. The Ref 5's published low-end range is 21Hz, though no plus-minus limits are specified.

I immediately noticed that the soundstage illusion extended beyond the speakers left and right, and above as well. Da!

Intentionally grinding musical gears, I spun a recent LP reissue of Lou Donaldson's *Midnight Creeper* (Blue Note BST 84280.1968). I look forward to the latest Tone Poet—series remasterings, always beautifully executed by Kevin Gray and Joe Harley. *Creeper* grooves like all get-out, with young George Benson (who Donaldson

brought into the Blue Note stable) and Lonnie Smith at the B-3. Rudy Van Gelder didn't record Hammond B-3s that often, but on this date, that sound was smokin', as was the fine sound of Donaldson's alto sax. The reproduction of saxes is another acid-test for hi-fi, similar in some ways to the reproduction of vocals: You want an appropriate amount of breathy texture, without harshness, particularly for an alto. The Canton Reference 5s did not disappoint.

Speaking of vocals, I've been on an Ann Hampton Callaway kick lately. What a voice! Callaway can do it all: musical theater, jazz, straight-ahead pop—plus, she has significant cred as a songwriter. Her outstanding album *Easy Living*, covering well-known tunes from the American Songbook, dates from 1999 and employs a mix of fine New York Jazz Cats—pianist Bill Charlap, saxophonist/arranger Andy Farber, even Wynton Marsalis on a few tracks (Sin-Drome Records SD 8934, 1999, 16/44). Callaway's ability to dip *way down low* is rare, perhaps unique. There is no strain or shakiness when she enters the contralto range—as low as the female voice goes. Ann doesn't shy away from belting out the high notes, either. With this kind of vocal pyrotechnics, the wide frequency coverage of the Reference 5's midrange driver is just the ticket. Sexy as hell—I loved the way Callaway sounded with these loudspeakers.

I learn a lot reading the writings of other *Stereophile* writers. Robert Baird reminded me about the band Lone Justice; my good friend Marvin Etzioni was a member of that group. Sometimes you feel like music with some grit and dirt, in your face and in your ears. In 1983, Lone Justice recorded an album's worth of material in two days. Most of those tracks were only released in 2014, as *This Is Lone Justice: The Vaught Tapes, 1983* (Omnivore Recordings OVL7-77). This guitar quartet has roots in the punk-rockabilly revival of the late '70s but moved beyond it to a deeper, more creative take on classic country & western songs, propelled by Maria McKee's needle-pegging vocal power and Etzioni and McKee's songwriting skills.

Listening to this Bernie Grundman—mastered LP, via the Reference 5s, I could feel the raw roots power this band must have projected live. Recorded direct to two-track tape, these

**The Ref 5s brought the bacon without politeness or hi-fi niceties. These speakers can rock.**



<sup>3</sup> After this review was submitted, I asked Frank Goebel: What is the intended vertical listening axis for the Canton Reference 5? “Our optimizations are based on an ear height of 110cm at a listening distance of 3m,” he answered. That’s 43.3”, which is quite high. However, the “vertical dispersion range” is a very wide 7°. At 3m (not quite 10’), that’s ±14.5”, so any listening position from (roughly) 30” above the floor to 57” above the floor should be fine. —Jim Austin

cuts are mainly mono mixes—which doesn't surprise me, as my friend Marvin is a mono freak. Opening with the George Jones/Roger Miller tune "Nothing Can Stop My Loving You," the band moves on to mostly original material. Etzioni's "Grapes of Wrath" gets right down to an early Americana rockin' tempo that doesn't let up. Snare drums slappin', guitars twangin', and Maria steppin' up to the plate and driving it over the wall—the Ref 5s brought the bacon without politeness or hi-fi niceties. These speakers can rock.

### Tweaking

Having gotten a good feel for the "default" Canton Reference 5, it was time to check out what the tone taps would bring to the mix. Canton describes this as their "Room Compensation" (RC) technology: two sets of bridges that boost or lower the outputs of the tweeter and the midrange driver by  $\pm 1.5\text{dB}$  by adding or subtracting resistance to the crossover. All analog of course. The midrange driver's output can be altered over the 100Hz–400Hz range. The output level of the tweeter can be adjusted over almost the whole treble range, between 3kHz and 20kHz.

First alteration I tried was to dip the level of the midrange by 1.5dB and revisit that Reiner *Festival* recording. This wasn't a good move. I felt a loss of the solidity that a fine midrange provides. The singing quality of the strings decreased.

Then I pulled up a recording of conductor Mariss Jansons doing the Mahler Symphony No.9 with the Symphonieorchester Des Bayerischen (BR Klassik 900719, 2022, 24/48)—part of a complete cycle in great sound—and boosted the tweeter level. At first, I was excited by what I was hearing, especially with brass transients and percussion and string attacks. But as I continued to listen, those transients started to feel strident. What at first had seemed like extra detail began to sound busy and disagreeable.

These "Room Compensation" adjustments are, of course, highly room-dependent. If you have a bright space with lots of hard, reflective surfaces, taming the treble a bit will probably yield a more pleasing sound. Conversely, if your listening room is heavily damped with rugs, furniture, curtains, and so forth, you may find a 1.5dB treble boost is just right. And boosting both the tweeters and the mids and raising the volume just a little can help tame booming bass. Canton summarizes: "Addressing and compensating for these influences is the purpose of the Room Compensation function in the Reference speakers." But my room didn't need compensation.

I ended by putting the tone taps back to neutral and treating myself to some Miles Davis, specifically the incredible new release from Analogue Productions, *Birth of the Blue* (Columbia/Analogue Productions APJ172, 2024, LP). I first heard this album played on

## ASSOCIATED EQUIPMENT

**Analog sources** VPI HMW-40 turntable, VPI 12" Fatboy tonearm, Pro-ject Classic EVO turntable, Lyra Etna  $\lambda$  Lambda cartridge, Ortofon Bronze Cadenza cartridge, Sumiko Amethyst cartridge.

**Digital sources** MacBook Air running Tidal, Roon, Qobuz. Bricasti M1 Series II DAC, Musical Fidelity M1 CDT transport, Pro-ject CD Box RS2 T.

**Preamplification** McIntosh C12000 Preamplifier, McIntosh MA252 Integrated Amplifier.

**Power amplifiers** McIntosh MC462 Quad Balanced Stereo Amplifier, McIntosh MA252 Integrated Amplifier.

**Loudspeakers** Harbeth C7ES-3XD, Wilson Audio Specialties Sasha V.

**Cables** Digital: AudioQuest Diamond AES, Coffee USB; Interconnects: AudioQuest Fire, Sky; Speaker: AudioQuest Firebird, Robin Hood; AC: AudioQuest Dragon.

**Accessories** AudioQuest Niagara 7000 power conditioner, Mapleshade equipment rack, TonTrager speaker stands, Audiodesksysteme Vinyl Cleaner Pro, VPI Periphery Ring Clamp, IsoAcoustics isolation footers, Gingko Audio Cloud Platforms.—Sasha Matson



yuuuuuge Wilson Chronosonic XVX loudspeakers at Innovative Audio, just south of Central Park in New York City. Hearing it in my own room via the Canton Reference 5s, I did not feel shortchanged. Miles's great sextet, which recorded this music a year before making *Kind of Blue*, was *right there*, and Trane's tenor and Cannonball's alto spoke the truths that Miles was in search of. Outstanding reproduction of outstanding music.

### My conclusions

The Canton Reference 5 loudspeakers are beautiful, physically and sonically. The creative design of the drivers, coupled with serious cabinetry and European craftsmanship, results in a product that excels in a crowded category. The Reference 5's "Bass Guides" contribute to flexibility in room placement. The ability to adjust outputs in the highs and mids adds another level of flexibility.

Many audiophiles dedicate the largest portion of their system budget to loudspeakers. That's a fine approach but, depending on your hi-fi-system budget, with the Canton Reference 5s, that may not be necessary. These high-value speakers acquit themselves with authority matched to components that cost much more. At a mere 80lb, they more than carry their weight.

We've been around the ring, and the finalists have been culled. Step forward—you will have to be the judge now and decide who gets the ribbon. ■