

Technical Brain introducing an innovative integrated amp for the first time

The input selector switch is arranged right by the input terminals while the volume adjustor is arranged in the center between the circuit boards on each side.

A mechanism with which each is driven with a belt from the knobs on the panel has been newly developed to realize further shortening of the wiring paths.

# 11 years from Technical Brain's release of the emitter resistance-less series of amps.

11 years from the elimination of various contacts starting with the relays of the protection circuit.

11 years from the rectangular wire wounded large EI core power
transformer and direct outlet of the power cable.

This was a course of 11 years during which these innovative technologies
contributing to sound quality were evaluated and acknowledged.

Recently, amps following our concept have been appearing from several manufacturers.

We see this as evidence that our original challenges are being approved.

The ideas and technologies of patents obtained by our company are being shared with more manufacturers to improve sound quality and the use of such fills us with great joy.

From the bottom of our hearts, we are grateful that from 11 years ago, despite being an unknown amp manufacturer at the time, we have been blessed with a number of prizes awarded by magazines devoted to audio as well as a great number of music lovers who have taken the time to listen to music with our products to make a purchase.

Technical Brain will continue to strive for further innovation and new evolution.

Please look forward to what we will have for you in the future.



# TECHNICAL BRAIN TB-Zero/int.EX



#### An immense amount of information and spicy playback of "Mahler"

With a sound that freely pushes and pulls as if the amp packed the speakers under the control unit, an immense amount of information could be heard. There are wonders with "Cindy" where the ukulele and vocals simply appear right there. The reflections of the echoes can clearly be heard as well. "DIDO" was dark, heavy, and amorous. Then there was "Blue Coast" with which the presence of the vocalists and guitarists were outstanding. The peaks were not blurred at all and there was absolutely no muddiness. The extension of the low range was remarkable with "Piff, Puff". Although there could be a little more thickness with the bass singers, the depth of the sound field was significantly deep which was very splendid. "Brahms" rich in delicacy was also rich in harmony. With "Mahler" which goes well with keywords like precise and elaborate, playback was spicy without flowing towards impressions.



# A matchless combination next to that of Jeff with my theme

The Technical Brain TB-Zero/int is extremely limited in terms of functionality, and due to a low gain the rotational angle of the volume is greatly increased. The rather simple design adding to the limited opportunity to hear this unit creates a presence that sets itself apart from other units. However, as the sound is wonderfully nice, this is an amp that I do wish was more popular. With my theme for the combinations based on "seeking a non-static and dynamic ring while being wide and flat" with the KEF speakers, this unit is matchless next to the separately noted unit by Jeff Rowland. Although I chose the tranquil yet high speed and straight ring of Jeff, for those with a preference for the intensity of the push and elasticity of the music, this integrated amp is a worthy rival.



### A combination producing a very crisp and active sound

This was a combination that produced a very crisp and active sound. The voice of "Cindy" was rich in delicacy and approaches full of variety were attractive. The tone and sound separation of the ukuleles were favorable as well. It is worth noting that the expressions of intonations were more skillfully designed than other combinations and the sonorous bass voices heard in "Piff, Puff" were ringing in a fresh and airy manner. The ride of the rhythm in "Blue Coast" was nice and allowed the song to smoothly flow. The tonal texture of the vocals was lively for a playback with light footwork which slightly relaxes the pressure of the sound created due to the arrangement where the coaxial drivers are sandwiched by woofers on the top and bottom. This was the combination where the sense of depth of the sound field being developed could be felt the most.

#### 1st

### An attractive sound never heard before from KEF

Mayuzumi

This unit brought out an attractive sound that I have never heard before from KEF. The heaviness of the bass of "The Nutcracker" was nice and the uplifting feel of the strings was fun. A gentle and comfortable ring spread on both sides of the speaker with "Piano Concerto". Together with the reproduction of fine nuances of "Violin Concerto", this made me start to wonder if this amp was actually born for these speakers. The original flexibility and feel of elasticity could be felt with the bass of "Marsalis". The high driving performance of this amp can be felt with how only the kicking sound of the bass drum comes straight at the listener. An appropriate degree of thickness can be felt with the female vocals for an overflowing sense of the Reeves

# 2<sup>nd</sup>

# A concise and delicate depiction for a good impression overall

Yanagisawa

I felt that in terms of tendency there was something similar to the combination with the unit by Jeff Rowland. The elements of such are notably the high resolution and detailed depiction and the clear and supply texture. Although the simple and clean image of "Otter" is similar, this combination adds a slightly cute taste to that image which makes the listener aware of sweetness. However, instead of a thick and rich creamy texture, a concise feel provides the unit with a sense of classiness. Even with the piccolos in "The Nutcracker", a slightly rounded sweetness is added to the bright metallic color for a flexible and glossy sound. The orchestra is crisp and concise which adds excitement with delicate gorgeousness and dynamically whirls up the music. Although there was a feel that there could be more gust with each of the songs, this combination left a very good impression overall.

#### 2<sup>nd</sup> Wada

#### A surprisingly great number of sounds for a classy sound with a nice texture

"Otter" was well polished while being smooth and soft. Although due to its cleanness the boldness of a woman from the West cannot be acknowledged as much, it is a sound that I definitely like. A surprisingly great number of sounds could be heard with "The Nutcracker" while displaying a splendor of extreme delicacy. With no pushiness, it was a classy sound with a nice texture to it. I was left with the impression that this is a perfect match with "Piano Concerto". The gentle and elegant sound quality was clear with a slight taste of sweet spring water from the glades for a feeling that seemed to purify the air in the listening room. While "Moritato" can be enjoyed with the passionate and hot sound of the outstanding performance similar to that of a modern day Sonny Rollins, or with the pure clarity of the immense amount of information realized with the most advanced digital recordings, this unit is of course more advantageous for the appeal of the latter.

### Technical Brain's precise performance of depiction was brought out to the fullest and sounded the music in an active manner

1st Technical Brain TB-Zero/int.EX - Koji Onodera

Although this is a slim floor standing model, the speakers are provided with two 16.5 inch woofers arranged to sandwich the unique coaxial unit named "Uni-Q" to create a speaker system that realizes playback with a great amount of room for more power. What surprised me again with the listening this time is how wide the range is. Provided that such is included in the musical source, a surprising extension of the low range and a sense of volume can be obtained. The amps to combine with such are basically expected to be units that are rated as having a high so-called driving performance. In other words, although models with as much power as possible and excellent low impedance drive (= excellent current supplying ability. A type where the output increases as the load impedance decreases) are preferable, sounding these speakers with a deep taste by using a low output amp would be another way to enjoy these.

Having performance that vividly expresses the characteristics of the combined amps, the integrity of the unit by Mark Levinson, the bold and excellent ring of the unit by Simaudio, and the overwhelming silence of the unit by Jeff Rowland were enough to enable me to write a listening review on the amps. Nevertheless, the precise performance of depiction by the unit by Technical Brain was brought out to the fullest to create a type of acoustic sensation. This unit sounded the music in an active manner with a firm grip.

# The sound that the amp by Technical Brain brought out was outstanding while the rich expressions were simply amazing

1st Technical Brain TB-Zero/int.EX – Kenji Mayuzumi

The new reference series by KEF, compared to conventional models such as the R series, give further depth to the sound and significantly increase density which contributes to a remarkable improvement of its ability to reproduce the low range. Of course together with the intricacy of KEF's unique virtual coaxial arrangement where Uni-Q coaxial units are sandwiched with two small diameter woofers, the presentation of sound field producing information is delivered with extreme accuracy.

Although a great level of performance is expected of the amp to surely bring out this high level of basic performance and musicality, the combination of units by Technical Brain and Jeff Rowland wonderfully satisfy such expectation. Especially the sound that the unit by Technical Brain brought out of Reference 3 is outstanding as a sound coming from this speaker. While the rich expressions were simply amazing, the driving performance which drives the unit as it pleases was excellent. Although the unit by Jeff Rowland was very nice as well, I noticed that there were occasionally rough and bulky expressions. While this time I had the opportunity to listen to the units with a bridged connection of the power amps, I would like to try listening to a bi-amp connection which each drives the low end and high end of the speakers with a two channel stereo setup. I am assuming that such configuration will present further flexible expressions.

# The depth of the sound field presented by Reference 3 was greatly expanded with a crisp sound sharper than that of Levinson

1st Technical Brain TB-Zero/int.EX - Takahito Miura

Together with Reference 5 of the high-end model, I am secretly thinking that this unit is a very strong speaker. There is a sense of solidness that cannot be moved too easily. In a slightly mean expression, the truth behind how I feel about the tendency of this speaker is that it is a speaker that is almost stubborn. As of course I don't mean this in a negative sense, please don't get me wrong here... The reason for this is that the deported arrangement and the sound source originating from a point due to the compact coaxial driver and woofers on the top and bottom are constructing a completed unique sound field. The sound of this new KEF style sound source originating from a point blows me away.

The amp by Technical Brain seems to be outstandingly excellent with its performance of controlling the sound from the low range to the high range and this greatly expanded the sound field presented by Reference 3 in the direction of its depth. This is perhaps due to the output block which has been rid of the emitter resistance of the transistor, which is a significant characteristic of the circuit, and the fact that the unit is balance driven (with bridged connections). The sound produced seems to teach a lesson on the gist of circuit design that cannot simply be measured based on the mass of the amp. Even when compared against the unit by Mark Levinson which is similarly balance driven, it can be said without a doubt that Technical Brain had an advantage in terms of a crisp sharp sound.

# TECHNICAL BRAIN TB-Zero/int.EX





#### It could be understood that CE1 has limitlessly great capabilities

#### Mayuzumi

I believe that TAD-CE1 has limitless capabilities. As of now I have probably only heard a fraction of the actual capabilities of this speaker. While it was the first time for me to experience the combination with this amp, from how CE1 was ringing with a sound that I have never heard before, it could be understood that this unit has limitlessly great capabilities. Thickness could be felt with the sound of "Cy Coleman" and the intense driving power created a punching strength. Enough energy to shake the room was overflowing with "Blue Sweat II". The drifting and swinging feel of "Big Band" was exquisite as well. All of this while still having the lightness to intricately express the unique nosy voice of "Ricky Lee". Such is strangely enough due to this combination.

#### **2<sup>nd</sup>** Yanagisawa

## The bass is elastic with effective damping while tubes are thick

As this SP is a new model, I am not yet certain on how it should be sounded. However, assuming that jazz would make use of this taste due to its exterior and thick bulkiness, I chose the male vocals of "Cy Coleman" and the combo of "Blue Sweat II". Although the song is backed by a big band, the thickness and grounded feel of this sound is pleasant. Although tension is slightly emphasized with the voices, a thick throat and rich powerful style full of volume produces a nice heavy and dense feeling. With the combo, the bass is elastic with heaviness to it due to effective damping and the tubes blow through the space along with thickness. While brightness is slightly dull overall, the stickiness and held back accents unique to trombones are very realistic. Although other jazz based songs displayed a similar groove, there was a little dullness to the shiny brightness.

### Rich depiction that neatly lays the finest sounds right before the listener

#### Wada

The power and character of this amp that smartly sounds these speakers with a nice temperate feel and powerful expressions are worth taking note of. The nosy singing voice of "Ricky Lee" does not feel too sweet and with the expanded sound field of "J. Carter", various instruments are scattered throughout inclusive of the orchestra. The colorful depiction that cleanly polishes even these finest sounds and lays them right in front of the listener is very enjoyable. However, the energy balance that suppresses the bulge of the middle range could be better if the tenor saxophone playing the main part had more force coming out of the speaker. When combined with this amp, even "Fantasia" becomes appealing as a delicate and sophisticated orchestra.

## A vivid contrast, yet the amp is short on gain

#### Onodera

The high quality sound makes it apparent that mass has been appropriately invested with both units. With "Cindy", the world of a vivid contrast with a bottoming feel spreads. A wall of sound is constructed with "DIDO" for a sufficient listening feel. "Blue Coast" is presents vivid vocals and guitars. However, there was a shortage with gain and even at full volume (!) sound pressure was slightly lower than when listening to other units. "Boycie & Beyond" had a fast start up speed. Although "Brahms" is extremely beautiful, the tone should change more. Even with "Mahler" having an enormous scale with roaring gran cassas (bass drums), there is a high contrast. Although the sound is excellent, there is little drama with the music.

## How sounds lightly jump out full of expression is exhilarating

Fu

It is exhilarating how lightly the vocals and accompanying ukulele jump out. Especially because these sounds are produced with plenty of expressions that are not lightly created, "Cindy" is surely a good listen. The silence and size of the contrast with the sound is uniquely heard with this combination. There is no blurriness surrounding the image of the sound. How "DIDO" sings is very rich and the expressions in the lower level are surprising. While this is also true with the relaxed expressions of "Blue Coast", it can be understood that this combination gives reality to simple and straight expressions. Although the rotational angle of the volume knob goes up to the 4 o'clock position due to the gain of the amp being low, the fulfilling ring of "Boycie & Beyond" is simply hot. HOT.

### A purified clean sound, yet the music is flat overall

Miura

The setting for the gain of the amp is low. For this reason, the volume position became higher than when listening with TAD-CE1. "Blue Coast" is rich in terms of the amount of information and the high quality texture can be felt naturally with playback of a purified clean sound. In the notes I took while listening to this unit, I noted that there was pure water like sound that is common to other products by the same company. However, although the range is broad here, the approach of the sound is that with a passive tendency which slightly suppresses the active feel. Nevertheless, the punch of the kick drums from the intro is thick with "Boycie & Beyond" and there is nothing negative to say about the energy balance. Even still, the music felt somewhat flat overall. There was a significant contrast with the sound resulting from the combination with KEF.