

ヴィンテージ・オーディオの 魅力

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徹底追求

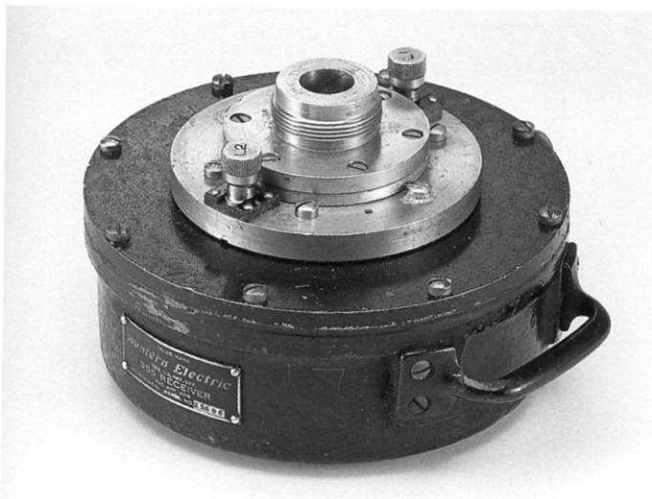
1 WE555用

小型ホーンの聴き比べ

2 ウェストレックス「14タイプ」

スピーカーシステム試聴





High frequency unit Western Electric (WE) 555

The driver used in this audition is a WE555 of the 7th series, the first type with the oblique diaphragm voice coil leads. Usually WE555 are combined with one of the many type of large-sized curved horn, power and sound is very strong with the 1920-30 amplifier as [41+42] [46] [86] and the like. But, this time, as small-sized straight horns are tested, a generally popular amplifier is used, and it should sufficient satisfaction with such a model (Doi)

This time, we have decided to listen to 2 different themes: “listening and comparing to small-sized horn for the WE555 receiver” and the “Westrex speaker system” listening.

The first theme is the listening of a WE555 receiver connected to small horns. The combination auditions of WE555 and small-sized horns are the 31st questioning of the capacity of the WE555: with such a theme, the challenge is to compare WE555 for multiple channel systems.

This project used to be my first participation as a member of this magazine of a listening session, and it was a good personal remembering. However, since a long time has passed since then, here again we would want to stare at a WE555 project with a small horn.

Well, there is a wide variety of models of small horns. This time the amplifier chosen was the Altec 1520T beam tube power amplifier, which is easily available, and the small horns usually fitted with WE555 were excluded, as the curved KS6368. And the reason is that to drive a highly curved horn from the 1920-30, with an amp must be difficult.



プリアンプ
アルテック 1567A

試聴用リファレンス機器



CDプレーヤー
スチューダー A730

We have prepared the following lists the horns: The first is an Altec "H811", the second is "H808C". Then WE with 6 horns: "KS121024", "KS121025", "WE32A", "TA7322", "WE3A" and "WE4A", which are designed to be used with WE555, and the ninth horn : Lansing "808".

WE555 cannot be directly attached to them, so we used a WSI adapter.,

Then, additionally, the WE555 is combined with the adapter and aligned with a 15 inch diameter woofer Magnavox ID2880 field-coil type, in an Altec H825 cabinet.

Altec N800D is used as a network, and WE555 power supply used was a TA7471 tungar tube supply.

After that, the second theme is the listening of the Westrex "Type 14" speaker system.

This system may not be very common, as it was published in 1954, as an Altec A7 system, almost identical to those announced for 1955 by Westrex.

The reference preamplifier is an Altec 1567A, CD player is Studer A730.

Mr. Atsushi Tadashi usual auditors are three with me and Mr. Shinoda and Atarashi.

PART 1 : WE555

Listening session of small horns

Atarashi / Shinoda / Doi

試聴プログラムソース



ソニー・ロリンズ / サキソフォン・コロッサス
より「セント・トーマス」
ソニー・ロリンズ (ts)、トミー・フラナガン (p)、ダグ・
ワトキンス (b)、マックス・ローチ (ds)
文中表記:「ソニー・ロリンズ」
録音:1956年6月22日、エンジニア:ルディ・ヴァ
ン・ゲルダー
(プレスティッジ/ビクター VICJ60261 MONO
CD)



J.S.バハ:無伴奏チェロ組曲第2番 / 第
3番
より「第3番」ハ長調 BWV1009
バプロ・カザルス (チェロ)
文中表記:「カザルス」
録音:1936年11月23日、ロンドン、アビー・ロード第
3スタジオ
(グッディーズ 78CDR-3100 米RCA VICTOR
16015/16020盤からの復刻)



トゥー・クラシック・アルバム・フロム・ドリス・デイ
より「枯葉」
ドリス・デイ (vo)、ポール・ウェストン楽団
文中表記:「ドリス・デイ」
録音:1956年、ロスアンジェルス
(英SONY Columbia 475749-2)



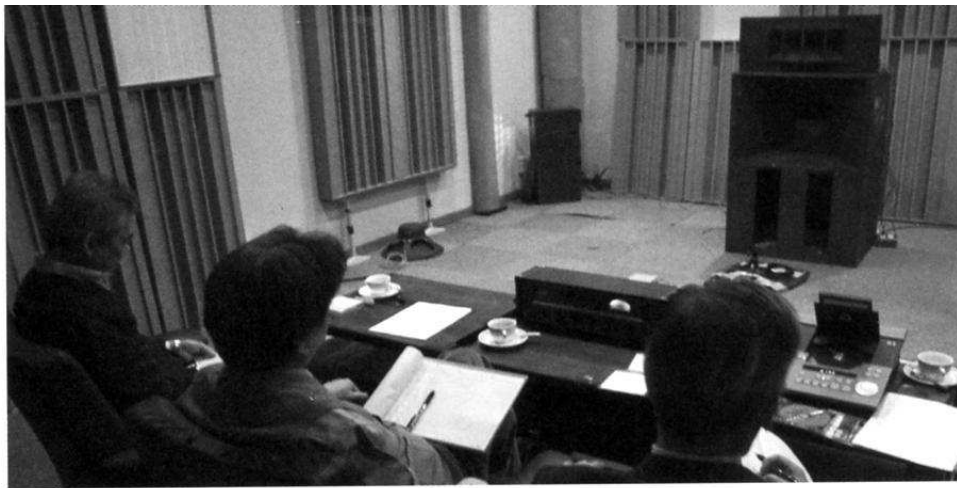
WHAT'S JAZZ/JAZZ VOCAL
より「サイド・バイ・サイド」
ケイ・スター (vo)
文中表記:「ケイ・スター」
(EMIミュージックジャパン TOCJ66425)



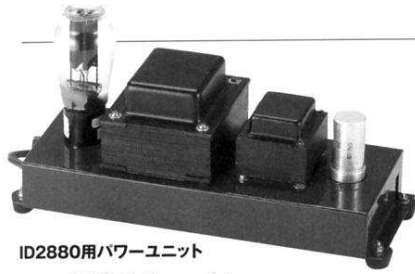
オール・アバウト・ジャズ・サウンド
より「ユード・ビー・ソー・ナイス・トゥ・カム・ホーム
・トゥ」
ヘレン・メリル (vo)、クリフォード・ブラウン (tp)、
ダンニー・バンク (f)、ジミー・ジョーンズ (p)ほか
文中表記:「ヘレン・メリル」
録音:1954年12月、ニューヨーク
(Stereo Sound Reference Record Vol.4
SSPH3004)



アルテュール・グリュミオーの芸術
より「バガニーニ:魔女たちの踊り」
アルテュール・グリュミオー (vn)、リカルド・カス
タニョーネ (pf)
文中表記:「グリュミオー」
録音:1955~1958年
(フィリップス PHCP1260~2)



WE555に最適な小型ホーンを試聴テストにより探る。
ホーンによりさまざまな音色が再現され、楽しい試聴会となった。



ID2880用パワーユニット
W.S.I. F820レプリカ

This "F820" power supply made by WSI is the replica of the iconic field coil power supply. To power the Magnavox ID2880, 2 units are connected in parallel, with the DC output voltage remaining at 275V. The original rectifier tube was a 5Z3, but here as output voltage is too high, a WE274A is used (Doi).

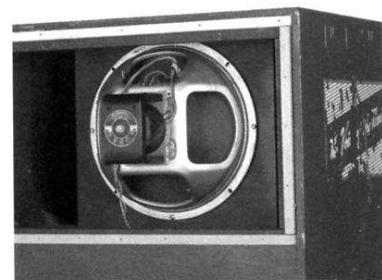


ネットワーク
アルテック・ランシング
N800D

N800D filter was announced in 1947, and was adopted as a crossover in the "800" speaker system, impedance 120ohms, with a crossover frequency of 800Hz (at 12dB/oct). High-frequency response can be adjusted at 0dB, -1dB, -2dB, -3dB, -4dB, by soldering.

This as the first time this large case size was used, as in the 1950 internal capacitors were not miniaturized (Doi).

試聴用リファレンス機器



低域用ユニット
マグナヴォックス

ID2880

This unit is a 15 inches field-coil speaker built in the 1940's for organ. Type is "ID2880" which is a part number rather than its full name. As a variation of speaker type, the paper cone can be of 2 types of curved cone (JBL make the type 150-4, which is similar) and 2 types of field-coil DC resistance 5200ohms or 2650ohms, thus it makes 4 different speaker types. The unit used in the listening has a filed coil of DCR5200ohms, thus DC275V power supply requirement (Doi).



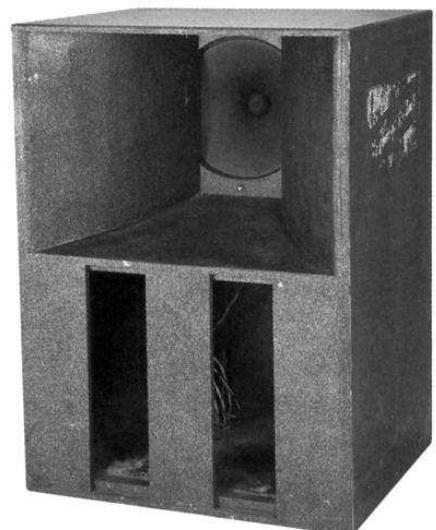
WE555用パワーユニット
ウェスタン・エレクトリック (WE)
TA7471

We used two tungar power units "TA7471" with an outside rheostat to drop the output voltage from 24V to DC 7V. This time, "TA7471" output voltage is dropped to 14VDC, as the requirement for the "555" receiver is DC7V/1.5A, connection is done with 2 "555" receivers in series (one is only used as a coil) (Doi)

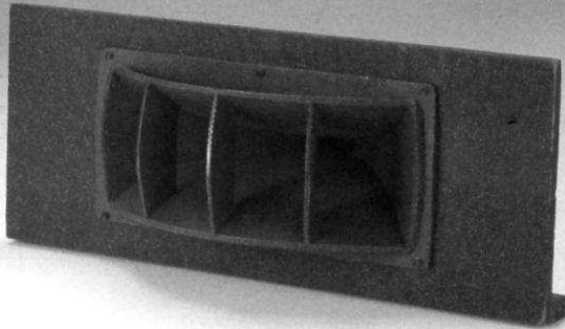


パワーアンプ
アルテック・ランシング
1520T

This "1520T" bridging amplifier was developed in 1953, with an output stage composed of a push-pull of 6L6G and obtains 35W power. For driving "555" receivers, a direct heating triode amplifier is normally a better solution, but as majority of the horns used in this test are small-sized straight horns, the pentode tube like this is sufficient (Doi)



WE555用小型ホーン——1



Altec Lansing H811

"H811" started in 1954 as the midrange of the Voice of the Theatre "A7" system in combination with the "802C" driver for midrange above 800Hz. This horn was used like shown on picture, with a flat baffle to secure it, 756mm width and 300mm high.

Thickness of aluminium die-cast around the horn opening is visible in wall thickness. It is necessary to use the WSI adapter or equivalent item to adapt the WE555 driver to the horn throat. (Doi)



WE555 Compact horn: 2

Altec Lansing

H811

Crisp treble and a good extend of the saxophone, with a lot of sound coming out.

To get the optimum sound out of WE555, the fact is widely known that the best combination is with large-sized horn as the WE15A and the like.

But as a practical matter, if you try to build a system that is as that big, you must have quite a large listening room, which is almost impossible in a residential environment.

This time, we brought together nine types of horn, with size corresponding to a normal personal space, to see which one is able to pull out the capability of WE555, and additionally to verify what the sound character of each one is.

First we are listening to the Altec H811 horn.

Atarashi: Since I usually use the WE555, I have enjoyed it without a strange feeling, as sound was from the same tendency.

Shinoda: If you only speak of the WE555, there is a luxurious density in sound. There is moderate high range.

Doi: This time, the field-coil 15" Magnavox type ID2880 woofer is listened in a 2-way monaural combination, it gives a good balance. The ability of the WE555 matches correctly this horn. I think it also possesses sufficient presence in the high range.

Atarashi: For some readers, WE555 has sufficiently high frequencies, but some people seem to expect from the specs that high frequencies are not extended enough, but even with a 2 ways system, we happen to have a sufficient wide range reproduction. It depends on the circumstances of use, I think. In combination with H811 horn that ability has been demonstrated and can properly convey the joy of music, and then you will not complain about it.

Shinoda: I am also using an Altec A7 at home with a different look and different horns of the same age. Because of that, it is clearly different. For example, in "Casal", the charm and delicate expression of string instrument, is completely different. With a unique SP record, you cannot enjoy the pleasant and warm taste of sound. This is the unique capacity of the WE555 here. With the permanent magnet driver Altec 802, it cannot reproduce this sense of lyricism

Doi: Yes. Saxophone of "Sonny Rollins" comes out with a good level, and with good and crisp treble.

Atarashi: There are many different sounds, each of them is impressive. It is like whether sound overflows, and you are listening to a gorgeous performance.

Shinoda: It sounds like there was a lot of space. Like a lightweight sport car, with a high power engine.

Doi: The capability of WE555 is not entirely expressed here, but it has an attractive sound.

WE555 Compact horn: 2

Altec Lansing

H808C

Crisp and pleasing sound, recommended for those who prefer a bright and cheerful horn sound.

Horn is an Altec multicellular type. At the beginning, we have installed horn with the diaphragm of woofer and WE555 aligned together. As it was not good, we pushed the horn about 5cm away for audition.

Atarashi: There is a lot of difference in appearance compared to the H811 and sound gives a very different impression.

Shinoda: Reminiscence of the California blue sky, it sounds crisp and pleasant. The sound is bright and lively, "Sonny Rollins" is healthy and playing vigourously.

Doi: This has a light tone. We have the impression that we hear the sound of the horn material.

Atarashi: It gives the impression that it makes a neat sound. But we feel that it thins more or less the WE555 sound.

Shinoda: Multicellular unique specification of this horn. In my opinion, this multicellular horn gives a highly effective sound diffusion. You get a good sound covering in small spaces and private home listening room. However, the real weight of the sound is a bit limited with this horn. So if you enjoy watching movies, or when it comes the time to listen to music, I think that sound is a little too light.

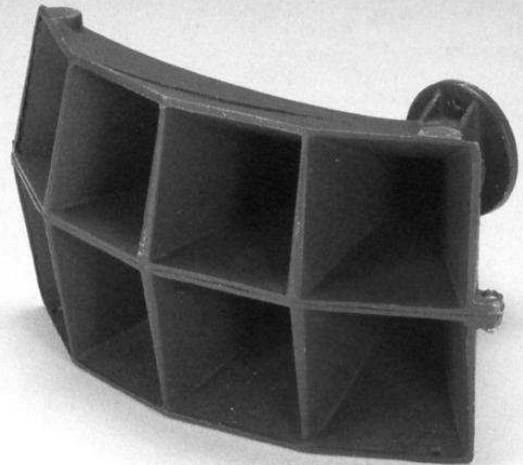
Doi: I think the sound balance is low (toward bass) and it is bad to me, it is out my limit. It is the same as I said earlier with H811. For example with "Sonny Rollins", I had the impression that sound gravity center is lower, saxophone sounds thick.

Atarashi: It seems that WE555 is not bad under any circumstances. In a sense, there is enough energy; high frequency extension is high enough. However, there is more midrange thickness; it has a good time and feel, more tactile.

Shinoda: In any case, sound is too bright for me with this horn. My personal taste is rather for a sound which has a little darker.

Doi: As speaking, you can advice this horn to the people who like enjoy the WE555 refreshing sound, and who like a bright and lively sound.

WE555用小型ホーン——2

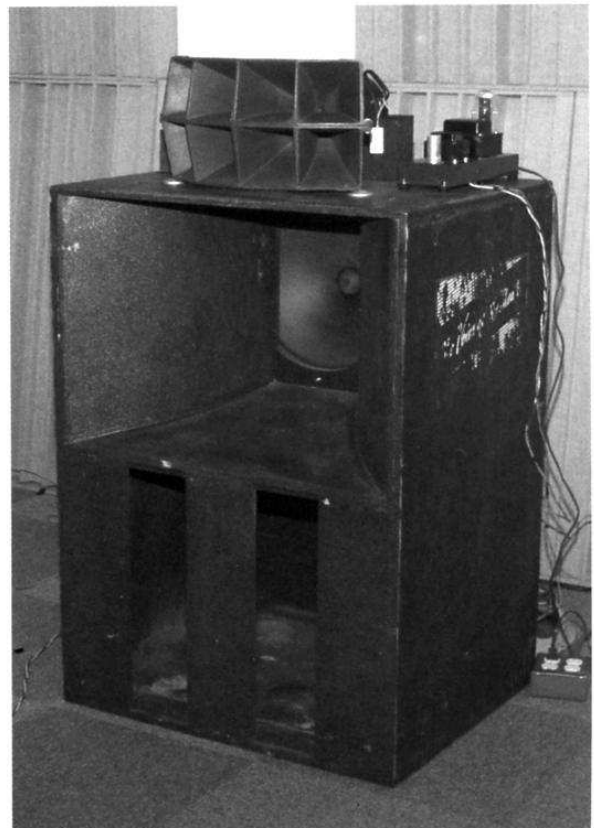


Altec Lansing

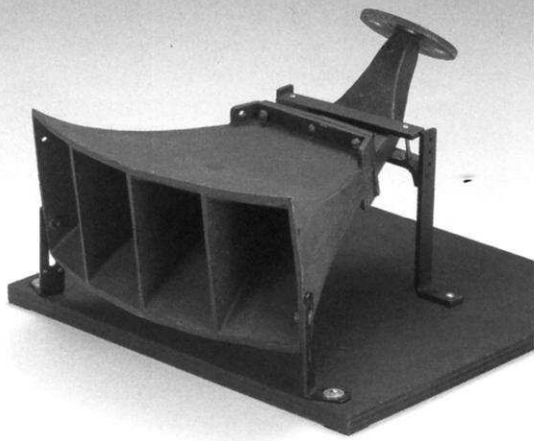
H808C

Aluminium die-cast Altec H808-C horn appeared in 1952, in system 820A as a medium high channel of the system with 802B driver with adjustable N800D network.

Altec 808 Horn type has been made in various materials. First in 1937 it appeared as the "H808" in the iconic system, made of soft iron. Then appeared in "800" system in 1947, made of plastic. There were also some models made of compressed wood chips and cement.



マグナヴェックス ID2880/アルテック・ランシング H825+WE555/
アルテック・ランシング H808C



WE555 Compact horn: 3 Western Electric (WE) KS12024

Sound monitor horn. Would it be balanced, what kind of music is it for? Then listening to the second KS horn.

Atarashi: The first listening of the Ks12024 horn is pretty good and very impressive. The sound is rather a theatre sound than a monitoring sound, with a wide frequency range, does not require a tweeter to balance sound. Colorful expression but very soft and right tone.

Shinoda: Good compatibility with the WE555 – very balanced.

Doi: I agree. The KS12024 horn is the core of Westrex sound systems. They attached an angle to the throat, which makes a 2 part horn, this was also used to improve directivity, and I thought there might be some part of the sound missing, but that is not at all the case. Perfect balance, perfect match with woofer, perfect melting sound here.

Atarashi: You understand when you hear "Casal" with such a good quality. The fact To clearly hear both the sound of the ringing and the sound of the string body, both being organically overlapped, gives the firm presence impression of the cello. Emotion is well transmitted, as if to express the music with the help of like Casals Bach. It is an emotionally rich sound.

Shinoda: I am not focusing on scratches on the SP record; I can concentrate myself on music. I feel a sense of depth and it sounds quite well.

Doi: More noteworthy, it is no fun listening to music. No likes and dislikes of music genres.

Atarashi: Yes. "Casal" as well as "Sonny Rollins" or "Kay Starr", all are lively and enjoyable performances.

Shinoda: I think this system tends to give a HiFi tone, I've felt the energy impression and the thickness of the sound together. For example, "Sonny Rollins" in front of the stage, plays saxophone lively first, joined by strong sidemen from behind with Max Roach, you can hear the music even more impressive. That's because there is a bodily sensation, you can feel the thickness part of the sound, performance is close to the human perception without being disordered.

Doi: There is an energy impression in sound, at the same time also the tone is beautiful. However, it is wide range, as if it was a full range system. This is a very valuable horn, which gives the best quality of the WE555 driver, according to me.

Atarashi: When you heard the sound of this combination, you think that extension of WE555 is not difficult to obtain (laughs!).

Shinoda: I agree. The WE555 is splendid, and this sound is difficult to obtain with many horns.

Western Electric (WE) KS 12024

KS12024 horn with 713B Drivers was announced in 1947. The horn was used in Western Electric loudspeaker systems [L8] [L9] [L10] [L11] [L12] and was adopted in our Type 1 system. One feature of this unit is the horizontal coverage of 50°, alternately for two consecutive unit on top of each other, with double driver, a spread of 100° is possible (Doi).



WE555 Compact horn: 4 Western Electric (WE) KS 12025

Sound capability is not shown here. Power amplifier combination should be reconsidered.

Doi: The KS12025 is very different from the KS12024 as sound is considered.

Atarashi: Tone tendency is similar, but the feeling is closer to High Fidelity reproduction. Although the skeleton of the music is reproduced properly, as there is a sense of distance between the listener and the music.

Shinoda: I feel like a weak sense of energy. The WE555 sound density and depth impression are felt, but there is no splendor as previously. I should rather be called a dark sound. For example, in "Sonny Rollins" as far as presence of each part is concerned, the fun and performance is showed with a bad mood, an overall weak performance. Yes, sax should sound more lightly and the drums should be with more burst.

Doi: On "Kay Star" if you assume the record should sound like sun, this time it sounds like clouds with humidity included. Because of this, the rhythm is not reproduced enough.

Atarashi: The sound is thick and heavy but I am impressed. In "Kay Star" the density of the multiple recording overdubs, gives a impression of reality loss.

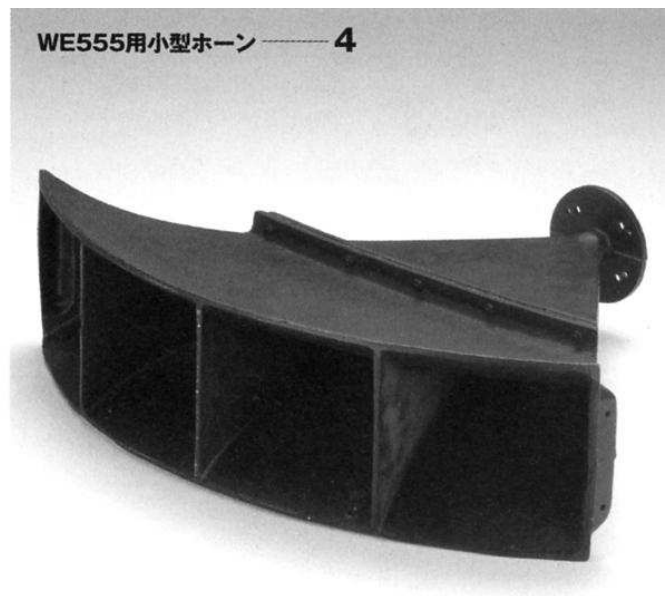
Shinoda: Perhaps, the balance is a problem of bandwidth. If you add a good tweeter, the impression would certainly fairly change.

Doi: I would feel the need to review the crossover frequency. If this horn is used, a little lower extension can have the side aspect of limitation the good quality of WE555, and remove the air in which the entire balance lays on.

Atarashi: There may be compatibility problems with the power amplifier. I would like to see the changes when using a single ended triode amplifier.

Shinoda: It may also be the combination of the power amplifier which has not all the quality.

Doi: perhaps, being able to combine with the power amplifier driving force would be the solution. However, the "WE555 easily enjoyable" sentence, would there not be true.



Western Electric (WE) KS 12025

The 713B driver was released simultaneously with the aforementioned horn KS12024, and used in Western Electric loudspeaker systems [L8] [L9] [L10] [L11] [L12] and in Westrex "type 15" system. The difference between this one and KS12024 is a wider horizontal coverage of 80°(Doi).



マグナヴォックス ID2880/アルテック・ランシング H825+WE555/
ウェスタン・エレクトリック KS12025

Western Electric (WE)

32A

The WE32A horn was released in 1941 as a monitor speaker for midrange channel of the broadcasting 753A 3-way system and Lit was used with the "722A" driver.

In order to fit inside the small size enclosure, horn is bent perpendicularly, which is a special feature of this horn. It was also later adopted for the 2 way systems ("753B" "753C"). There is a same type of horn, numbered KS, and also with Altec 32A number for the A8 systems, so there are several models. (Doi).

WE555 Compact horn: 5

Western Electric (WE)

32A

Good impression with a high sense of sound density, but small horn. Beautiful sounding horn.

Next, we listen of the original WE32A genuine horn. As for this first, it is normally to install horn in [hi] direction, but because there is a difficulty in problem of distance to audition position or the being connected of sound, installing horn in the downward look, it did the audition.

Atarashi: The placement might be irregular; it yields to a sound source point below the horn. Even if it gives a rather small sound in the listening room, it sounds good even with such a testing position.

Well, concerning the playback sound, if you try to express it only in one word, you think that it sounds totally as the 753C system.

As for 753C, which is a system that combines a 713A driver+32A horn and a 15 inch diameter woofer, the monitor which reproduces the program source closely looks like this faithfully; it sounds the same way.

Shinoda: Your expression, when you mean a good sound, it actually is a great sound. The impression is a small sound and a good sense of intonation, high sense of density, it gives a good impression. WE555 sound comes out with energy.

Doi: It is a very beautiful sounding horn. Sound has a good stability and we could keep on listening comfortably.

Atarashi: But I feel like a slightly unique coloration of this system. In other words, I do not mean the sound principle is not good. The singing of "Doris Day", above all, is always a sweet sounding voice, and here it is sounding like a depression. "Kay Star" is similar.

Shinoda: Both seem to be women, the listening exceeds the kind of feeling which is emphasized. Such sounding would probably be the taste of the person who mainly listens to woman vocal.

Atarashi: Also when Casal plays, it exceeds the performance, but as you say, it might be good like this.

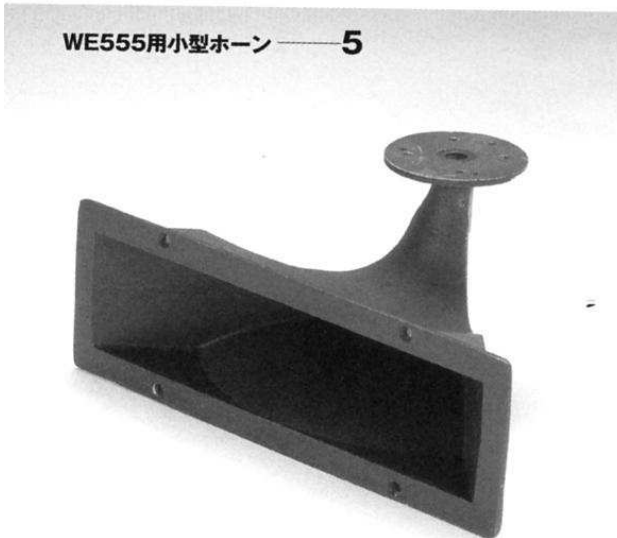
Atarashi: The intensity for Bach's music, in this performance, the listening is exceeding better. The soft sounds is nice and yet, far away; the impression that the music does not become weak, the capability of WE555 is able to show is properly. In this sense, it is a very good combination.

Shinoda: I have to say a personal preference: I want a little more depth in the midrange. I just feel that the voice on "Kay Starr" is thinned a bit.

I think it would be perfect but with a bit more of added weight to the voice.

Doi: I think it is enough. I fell in love with the mature voice of "Doris Day".

Atarashi: To give someone's extra taste, sound convinces me at each play.



マグナヴォックス ID2880/アルテック・ランシング H825+WE555/
ウェスタン・エレクトリック 32A

WE555 Compact horn: 6 Western Electric (WE) TA7322

A well balanced sound. It gives a very youthful and vibrant music

The following wooden conical horn TA7322 (inner expansion type is "exponential") is a rare form.

Atarashi: This is also very well balanced, sounds like a very well-equipped. Like the following compared horn type 32A, this is rather a monitor horn or for listening to music.

Shinoda: Very neat, yet dense class sound. Listening to "Doris Day", it is like hearing the unique atmosphere of the 1950s.

Doi: My previous audition of this horn was done in full range, impression was not good to me, and honestly not realistic. But now, used in high channel in a 2-way system, I am surprised as the sound suddenly has changed. The balance is not destroyed when you increase sound volume. Sonny Rollins sometimes sounds too tight and metallic when you increase volume too much, that is not the case with this horn. You can increase volume as much as you like and I realized that this is the natural use of it.

Atarashi: And this is not only the excellence of the monitoring, it sounds beautifully. For example, "Kay Starr" in former Horns shows a clumsy sound, due, as you say, to some electric recording overdubs, which does not allow enjoying the music properly. But with this TA7322, you do not feel that, the vocal heard is warm and strong which lead to a spontaneous vocal impression.

Shinoda: The performance is very fresh, full of vitality. And yet, you are getting the sound details you can entirely concentrate on music.

Doi: This works in perfect link with the woofer, as if you were listening to a full range speaker.

Atarashi: Voice is very attractive; "Doris Day" is also good: there is warmth, and the sound is beautiful. This is justified to say that the listening of those 2 great voices is a splendid singing.

Shinoda: It sounds so sweet and relaxing.

Doi: With "Casal", I've felt in love with the cello's sound. The performance expression is dense, all the sound is played with a great feeling everything is beautiful.

Atarashi: This one has got numerous beautiful words (laughs). In fact, I indeed think it sounds great.

Shinoda: The good impression could also be felt by the fact that it is a conical wooden horn.

Doi: As expected, a truly "great work" by Western Electric.



Western Electric (WE) TA7322

The wooden horn "TA7322" of this circular type was developed in 1935 for the midrange channel above 600Hz, of the "TA8002" wide range system with WE555 and 2 woofer units type TA4151 for the low frequency)

Size of the horn is diameter 32cm and depth 23cm. This is probably the smallest genuine horn for the 555 receiver (Doi)



マグナヴェックス ID2880/アルテック・ランシング H825+WE555/
ウェスタン・エレクトリック TA7322

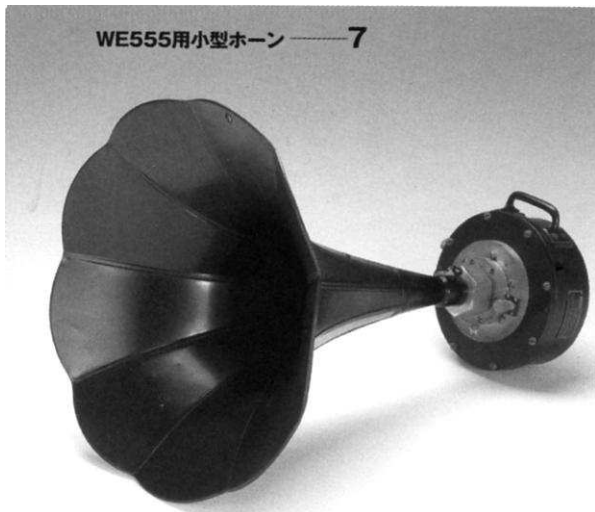
Western Electric (WE)

4A

This "WE4A" horn is the part which is suitable to horn in the taking in sound section of the microphone, originally using the carbon microphone with this.

Removing the microphone, the "555" can be used together with a modification adapter assembled to the receiver.

Sometimes, some WE4A come out in the market, but to use it with a WE555, you must insure that the mounting adapter is included (Doi).



WE555 Compact horn: 7 Western Electric (WE)

4A

Like and dislike on musicals: string instruments as violin and cello play excellent.

Atarashi: As for the TA7322 before, this 4A horn has a strange lack of consistency and weight; it gives the impression that only the horn exists.

Shinoda: Yes. Wind instrument and also the voice, make you feel that you hear the sound of the horn itself. It means that with a straight horn, as the TA7322 which has a similar sound similar, sound is different.

Doi: The inner horn curve expansion is different; I can feel the load is not optimal. As this horn is originally for recording sound, this may explain that the character of reproduced sound is so different. However, as the WE555 is good, you can feel high sound density well reproduced.

Atarashi: However, listening to the sax of "Sonny Rollins", it gives a gracious and pleasant sound, whereas it seems to have little capacity for rhythm section.

Shinoda: It missed the timing of the bass, but I feel the sound coming out later. Gives a bad mood, cannot feel the sense of groove. Moreover, the sound of each instrument is reproduced without separation, and also texture is bad.

Doi: On the other hand, on "Casal" the string instruments are fine and much better.

Atarashi: Some instruments are good, other are not. I am glad with the string instruments such as violin or cello.

Shinoda: Until the details are not really transmitted, sound is rather gracious and good, but the sound is not tactile. So you have to choose the music but you cannot enjoy it in any case. You cannot feel the charm of the WE555 and enjoy it on everything that you listen.

Doi: Not bad, but it is not the best horn. And changing components as power amplifier or crossover would not change the horn character.



マグナヴォックス ID2880/アルテック・ランシング H825+WE555/
ウェスタン・エレクトリック 4A

WE555 Compact horn: 8 Western Electric (WE)

3A

4A is completely different. The intensity reproduced and expression power improves extremely.

Then we wonder about the 3A straight type horn.

Atarashi: The first appearance is similar to 4A, but it sounds totally different. On metal horn, sound and appearance are different and conflicting. Moreover, it sounds quiet and good. The high-frequency can be expressed subtle. On "Grumiaux" you can hear the violin very close, as if it were impressed with improved strength and expressive power.

Shinoda: I agree completely. It is really different from the 4A. WE555 +3 A combination is well-balanced with the woofer and bass-horn, working to give a better impression of straight metal horns. The highs and air in music is not noisy, it is only attached to sound to make it shine.

Doi: this is a monitoring system, but it just sounds with character and elegant. I would call it 'impressionist' in sound. WE555 and 3A combination makes a chemical reaction happening, as I expected, so we decide to listen to it.

Atarashi: Originally the 3A horn was used with 549W and 551W magnetic receivers, as 6A and 11A models and then, this was the point where horns started to evolve. The original use was for full-range sound reproduction. The idea of using it in two-way systems for mid-high range is quite uncommon and might be a second use for it. As expected!

Shinoda: Western Electric has been there too!

Doi: No, you make compliments here, whereas I am afraid I would not (laughs).

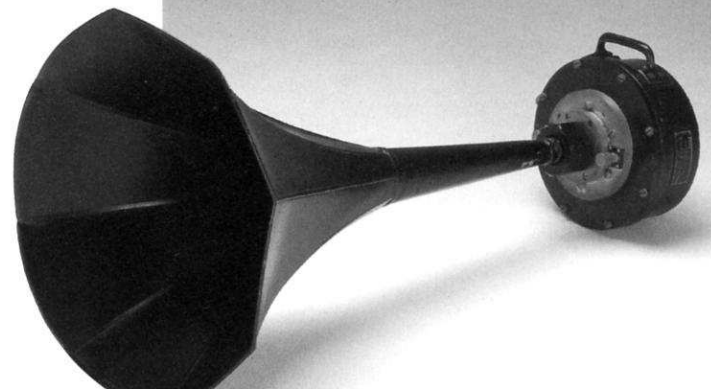
Atarashi: I also have the memory of a sweet good sound, but now I hear a different song, but still, I hear to a great "Guriyumio". It is certainly a sound of a monaural recording from the 50's, rather than powerful playback, it reproduces a beautiful performance.

Featuring this high-frequency performance characteristic, this makes the natural charm of the recorded music sufficiently reproduced. I really like.

Shinoda: You choose the musical genre that can make good impression. On "Sonny Rollins" it is almost as if the 3A horn has become like a saxophone, it sounds natural to me. And even Max Roach has very real sounding cymbals. As if they were playing over the speaker. Meanwhile, "Casal" also sounds impressive, gives the impression of the presence of the cello.

Doi: On the latest theme (small-sized horn giving the capability of WE555), it is one of the 2 best competitors. But I personally would want a more powerful amplifier. Doing so, the charm of the WE555 will be added to a good quality and preponderant cut off density impression being pulled from the combination.

Atarashi: It has a charming tone by itself, give a real music reproduction, good compatibility with monaural recordings. I do not feel frustrated at all, it is a great horn.



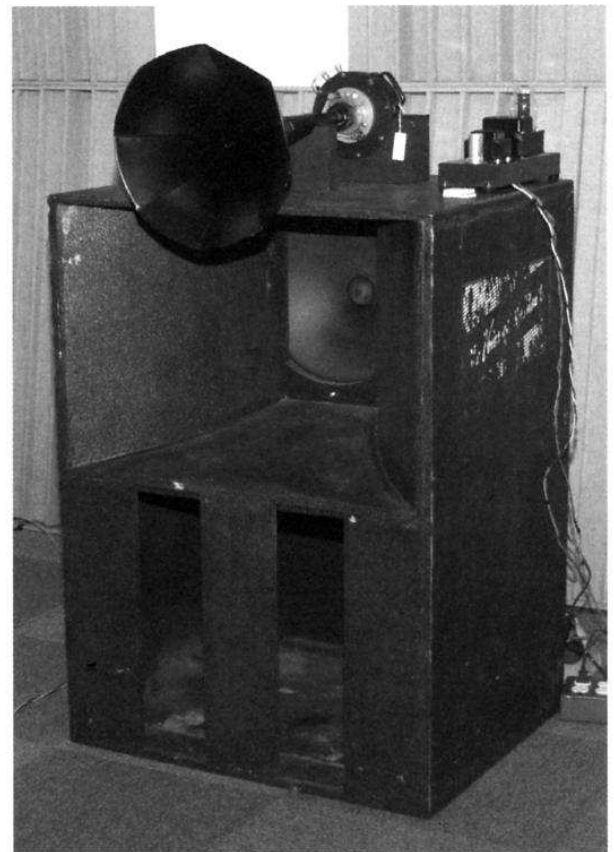
Western Electric (WE)

3A

This straight horn in a small metal fabrication, it seems to be built in the early 1920s.

The main use of it is in combination with balanced armature-type receiver, as 196w, 549 or 551, for a public address use.

Unit has a tin-like appearance. Does such a finger knock resonating horn would allow obtaining good sound? We will try to use it (Doi).



マグナヴォックス ID2880/アルテック・ランシング H825+WE555/
ウェスタン・エレクトリック 3A

Shinoda: After listening to the sound of 4A horn, this 3A horn gives especially deep emotion. Design may look similar, but it is something far different, with different tone applications.

Doi: here it is what we call the Western Electric appeal.

Lansing 808

This unit is a multicellular horn (2x4) which seems to have been manufactured by Lansing, with a throat to attach a "555" or different receiver. According to the data, high frequency unit in the system was changed from the 555 to the iconic "801" driver by Lansing. Only a small number of the horn has been done. (Doi)

WE555 Compact horn: 9 Lansing 808

It contrasts with strength of reproduction. Strong attractive force of playing.

Finally, this 808 is made by Lansing. Altec produced some 808 in the previous die-cast material, whereas this one is made of wood. However wood and, despite the fairly rigid material, it sounds and looks like metal construction.

Atarashi: The shape is almost identical, but I would say the sound is completely different: extension and fundamental tone tendency surely differ. 808 Horn manufactured by Altec tested earlier, showed a bright sound, and it was impressing to hear a light sound image, whereas 808 made by Lansing shows a light and dark strength sound, very rich, and a strong attractive force.

Shinoda: Balance of horn is excellent. Even if my taste is not for multicellular horn according to previous remarks, this one quickly corrects that. You have to recognize that you cannot just judge by the model type. The only difference is the age of materials and it is the same model number, and sound changes. Actually, you have to really listen and there are many things that cannot judge.

Doi: We would not have imagined that the 808 made by Lansing is so far from the other system, and we were surprised.

Atarashi: Horn is so expressive, it extracts a lot of wonderful music with splendor, in particular, "Casal" sound of the strings is great. As power of performance and strength of player is accurately reproduced, the "feeling" is included in the performance. One person sitting alone in the third studio of Abbey Road, and you see the illusion of the figure of "Casal" playing.

Shinoda: Cello sounds very impressive, especially in the bass being rich. Previously, 3A horn appeared also wonderful, but it is better with this one. It is funny to see how tones are completely different.

Doi: I fell in love listening to Sonny Rollins. It is stable with a well balanced and firm sound, and the details are good. 3A is charming and difficult to throw away, but this is one is the best of the part 1.

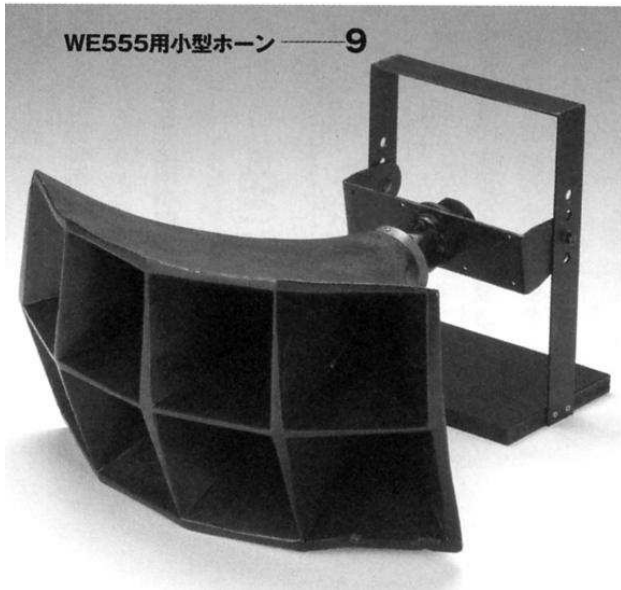
Atarashi: Yes. This 808 made by Lansing makes the total system by itself. "Grumiaux" is often thought as a technique-oriented performer, but listen to this sound as you have never heard before. Rich feeling, you can enjoy the feeling of the music.

Shinoda: I admire such difference in performance showed by those horns. "Sonny Rollins" with Max Roach, I sometimes think the sound is a bit too metallic, here I feel a delicate work of hammering, what a surprise!

Doi: We had enjoyed great sound. But unfortunately, Those 808 horns made by Lansing exist in very limited number.

Atarashi: Is it a wooden horn?

Doi: It was also made of bakelite for PA, but in a small number, so it is not very common.



マグナヴォックス ID2880/アルテック・ランシング H825+WE555/
ランシング 808

Part 2 :

Listening of the Westrex

“type 14” speaker system

Atarashi / Shinoda / Doi

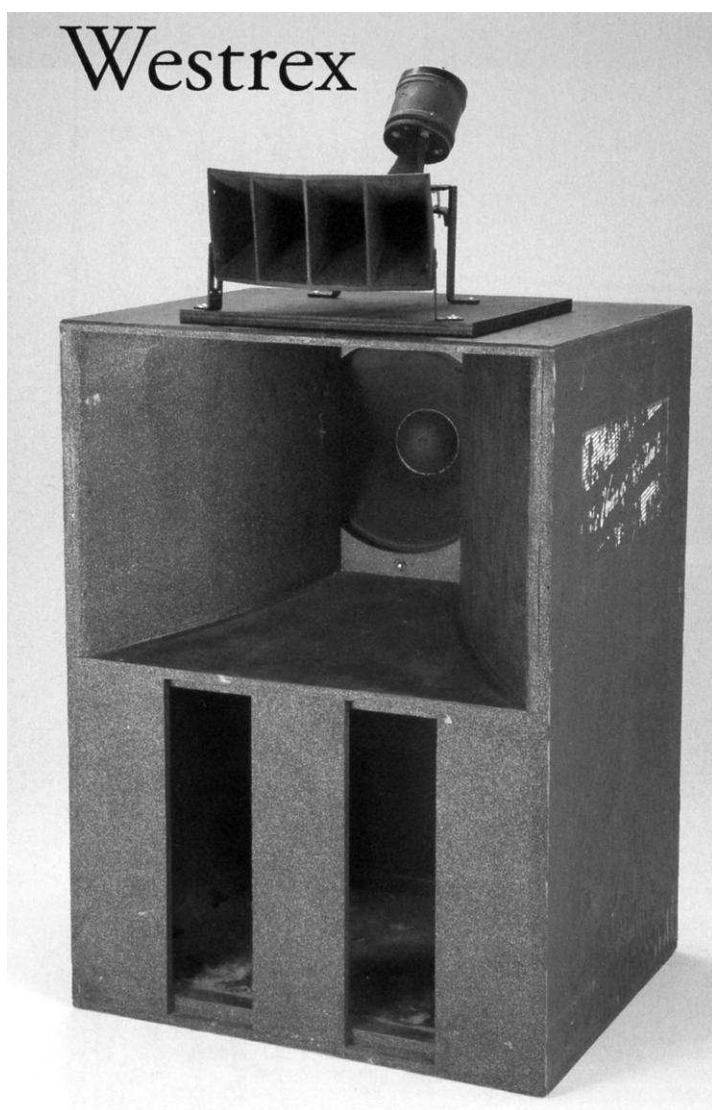
We were attracted to the characteristic of "good density" for the high-frequency unit. The sound is also impressive with permanent alnico magnet, we then move to the second part of article, with the Westrex "type 14" system and listen to it.

Unlike the WE555 which is a field coil driver, here we use a combination of permanent alnico magnet units. Will the impression differ a lot, probably?

Atarashi: With the difference in magnetization type, the spirit and the density impression of sound changed considerably. However, the Western Electric sound character is maintained, as expected. This is correctly fast sounding, with a good presence in the sound. All in all, this sound has some weight and body.

Shinoda: I have the impression that the sound is close to the character of A7. This is a sound which very familiar to me. In regard to the freshness impression of sound, there is a part which is not due to the type of magnet.

Doi: This A7 configuration is similar to the model of year 1954, with a different driver and horn. We here have a system for listening; it is just assembled as shown on manufacturer instruction drawings.



Atarashi: According to the specifications, 713B driver can play from 800Hz to 10kHz bandwidth, but I have to say that I cannot feel the lack of high frequencies. At the opposite, you can feel the intense sense of high frequency, and they are more attractive.

Shinoda: I am impressed by the sound of the alnico magnet system. For example, the sax of "Sonny Rollins" was persistent enough to assert its presence. So, for a midrange channel, I think a very good permanent magnet driver has much appeal. Simply, previous listening of the WE555 was splendid, because it had a bodily sensation. The amount of details which are in the sound, you cannot have any impression of masking by any means.

Doi: You must not compare. Because this is a small size horn, you did not just listen to the WE555 (laughs).

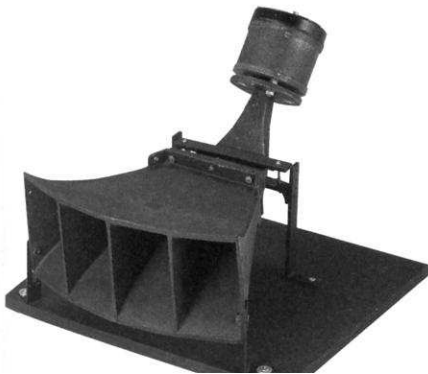
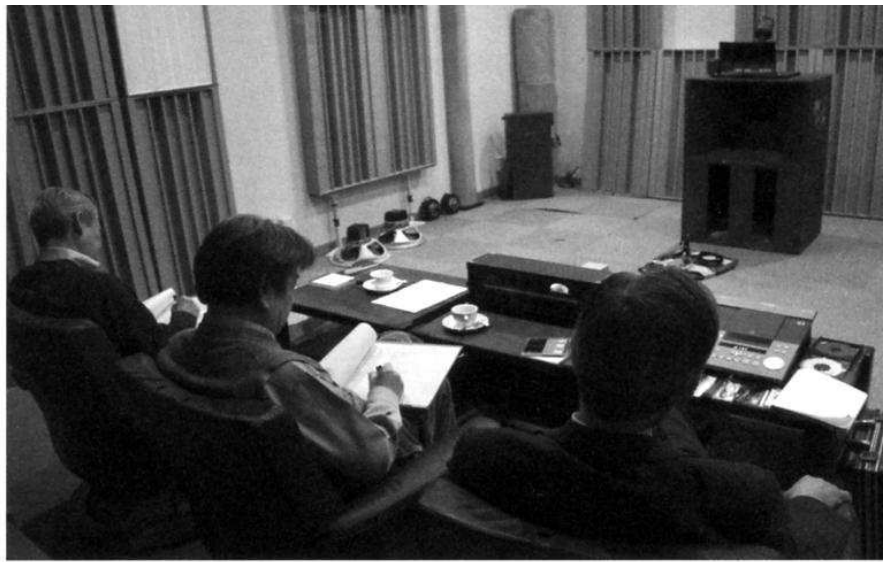
Atarashi: I think it is an excellent system. The sound reproduced is exactly sufficient for jazz. With a unique sense of groove, you cannot find a permanent magnet system more exciting. Also the cello of "Casal" shows a very good quality of power expression, with extremely light air which increases the impression of a solo.

Westrex - Type 14 - Loudspeaker System

This system is an equivalent unit configuration as the Altec Voice of the theater "A7" system. Voice of the Theater was a dedicated system in the USA, which formerly appeared as Westrex in 1945 from the equipment and material supply company. As for this Type 14 system which appeared on February 15th 1955, introduced with a 803A woofer unit, H825 bass cabinet, 713B driver + KS12024 or KS12025 Horn, and N800D network (Doi)

Shinoda: Capacity of "Kay Star" to seem close to the listener's vocals is better here. But I would want a little more relaxed sound toward the high frequencies. As starting it seemed to be sufficient, but on "Sonny Rollins", the high frequency reproduction is not satisfactory by any means. If the high extension increased a little, sound would become more powerful, and secondly, a better balance should also affect the out band low- frequency.

Furthermore, if you like horns like 3A with which you can hear the air and treble, it is good too.



**High frequency unit
Western electric (WE)
713B+KS 12024**

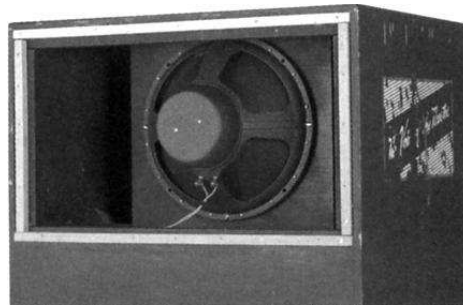
The "713B" driver impedance uses a 4 Ohms voice coil and phenolic diaphragm structure with two-inch diameter voice coil, as outdoor public address system. "713B" driver and KS12024 horn is used in "L" series WE speaker system with a "754A" woofer and in the Westrex Type 14 system with a 803A woofer (Doi).

**Network
Westrex
N800**



The impedance of this Altec N800D unit is 12 Ohms, whereas the Westrex Type 14 driver "713B" impedance is 4 Ohms.

I planned to use a matching transformer to match the Westrex "type 14" system, but not only this system, such a mismatch is rather common on professional systems (Doi).



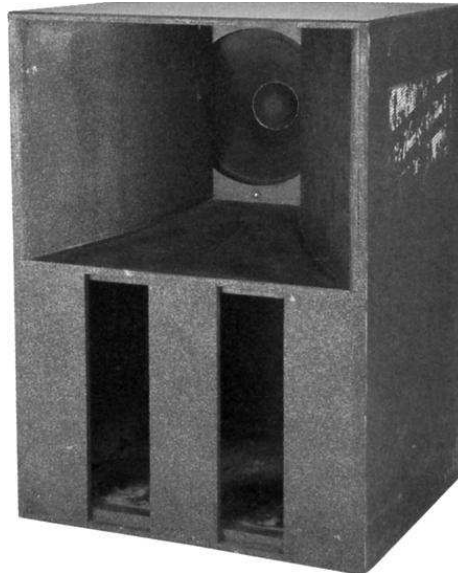
Doi: To that respect, I've been wondering for a long time. Why then did you choose the WE 713B in this system? Whereas the WE 713A extends to 15kHz, doesn't it?

And using the N800 network with the 713B, the impedance is not matched.

Some questions remain about the choices of such a combination.

As a practical solution to this problem, the method of changing many parameters as in previous paragraphs is effective.

And we also should try to change the power amplifier, because there should be some consideration for the potential problem.



**Low frequency unit
Altec
803A+H825**

This combination, announced in 1954, by Altec as the A7 system with a 15" diameter 803A woofer, and it was common with the Westrex "Type 14" system. It has a low-frequency horn. However, Altec H825 «Voice of the Theatre» sticker has been put on the front and back sides of the cabinet, but no Westrex mark is attached (Doi).