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Phasmatron
POWER

MA-100 - POWER AMPLIFIER

**WE/ALTEC/RCA/IPC/AMPEX ビーム管パワーアンプ
最新スピーカー対決試聴-真空管アンプでしか聴けない世界
3,000円 m以下のスピーカーケーブル20種-ブラインド試聴
タムラ新型トランスKT120シングル/ファインメットコアMCTランスの製作**

【Tube Kingdom, Vol. 86】

A preamplifier for the next generation released by A&M.

A broad sound field for a fresh and clear presentation of music.

A high signal-to-noise ratio that allows you to experience the atmosphere of a string concert.

A thick mid-range that can only be created by a tube amplifier.

Nobuyuki Fu

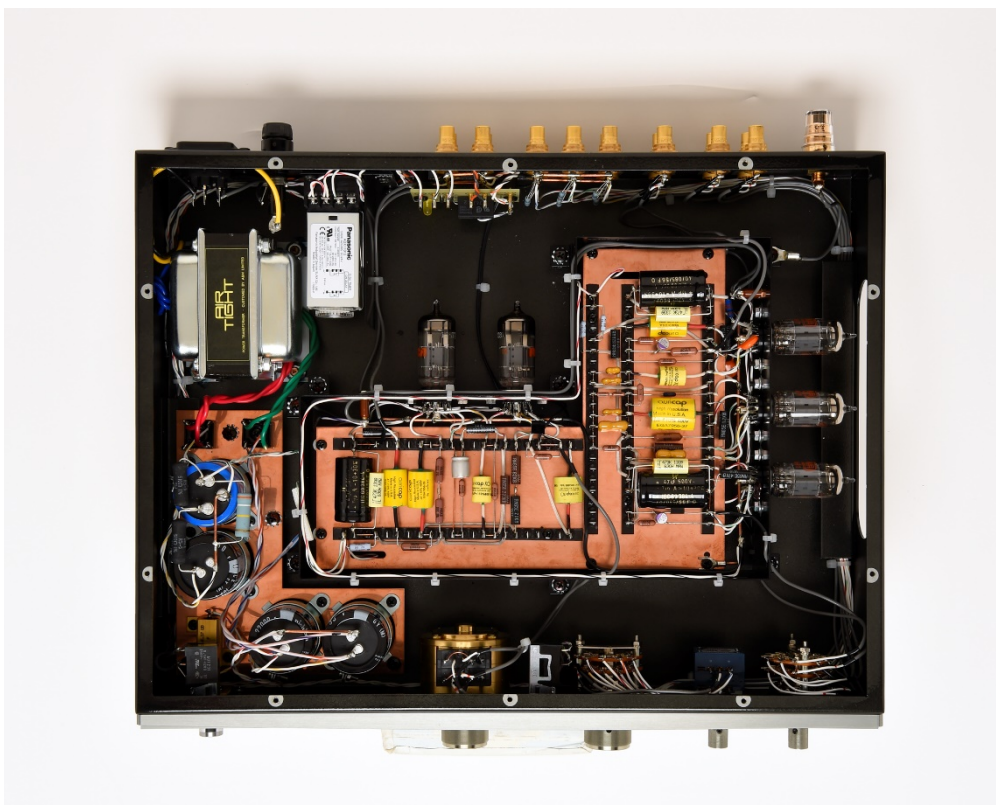


I always accept requests for interviews and write articles for general magazines which are, of course, not specialized in audio products. This is because I want as many people as possible to know the pleasure of audio. Even editorial departments of general magazines show interest in tube amplifiers and want to publish articles about them. However, they have this fixed idea that tube amplifiers are only suitable for listening to jazz with its warm, thick sounds, and it takes time to get them to shake off this idea. So, the best thing to do is to have them listen to the sounds of the ATC-5 and I made arrangements to play some music using this new product. The music played by

the ATC-5 has a broad sound field with fresh, clear acoustics.

As for Airtight's earlier tube preamplifiers the ATC-1 and ATC-2, the supply of parts has been partially discontinued and stocks are about to run out. Of course, the ATC-1 is a long seller and has been in the market for over 30 years. The subsequent ATC-2 is a stereo line-control amplifier, whereas the new product, the ATC-5, is a stereo line & phono control amplifier similar to the ATC-1.

The ATC-5 phono equalizer employs two-stage NF-CR type circuitry, perfectly controlling the lowest range (described later). As regards the tubes, for the phono equalizer, three 12AX7 tubes are used for a stable supply, while for the line amplifier, two 12AT7 tubes are utilized. As for the resistor, they use the Vishay Dale metal foil resistor or the Tokyo Ko-On Denpa RN65. However, using expensive ones does not simply produce good sounds. This is especially true for the first-stage cathode as, by using them at key positions, sounds can be better controlled. This contributes to a high signal-to-noise ratio, a factor that I recognized when I tried listening with ATC-5. As for the volume control element, an Alps controller is employed, and this option is considered just about the only mechanical volume controller for quality machines.



底板を外して内部を見る。真空管は写真右の側板内側にイコライザー部の 12AX7×3 本、写

真中央にラインアンプ部 12AT7×2 本を配する。イコライザー部とラインアンプ部の効率的なレイアウトを考慮して L 字型の基板を用い、高さ 90mm の薄型の筐体を実現するために L/Rch の基板を表裏の上下 2 段としている。配線は手配線で行なわれている。

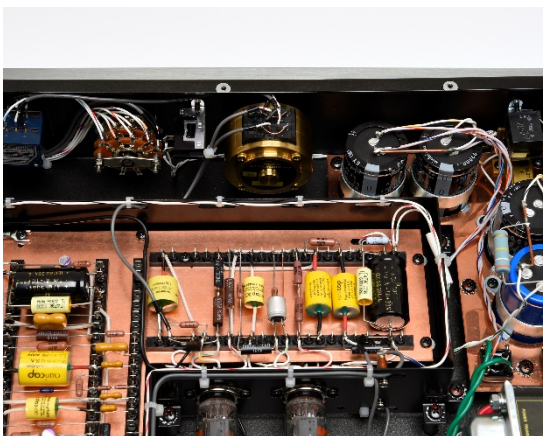
The ATC-5 hardly uses any printed circuit boards, and is primarily manually wired. In fact, printed circuit boards are not used at all for the signaling component. Additionally, Airtight promptly has introduced mechanical sound creation not only for its electrical network, but also for the structure of the chassis. By hanging a 1-mm-thick inner chassis in the traditional 1.6-mm-thick steel main chassis with its monocoque structure, the company has been able to adjust the sound quality of its new product, the ATC-5.



Switches and knobs: From left: Switching for 2 MM inputs, balance adjustment, input selector for phono and 3 lines, on/off (mute) switch, and volume control.



リアパネルを見る。中央から右へ 2 系統の Rear panel: From center to right: RCA unbalanced terminals for 2 outputs, 3 line inputs, 1 phono equalizer output, and 2 phono inputs.



controller by Alps, an optional extra for use with preamplifier ATC-2 for higher quality sounds.

Note that the ATC-5 is equipped with the RK501 as standard.

As mentioned above, the sounds produced by the ATC-5 clearly break away from the idea that tube amplifiers create warm and thick sounds. Its sound output is elaborate in every detail, unclouded and clearly defined, leaving one feeling completely satisfied. The signal-to-noise ratio is high. A string ensemble of 192/24 high resolution crisply stretches out and sounds pleasing to the ear. You can feel the atmosphere and the depth of tone, as the sound extend to both sides. From my experience, the extent to which this tube amplifier is able to produce an invigorating expression of sounds is truly valuable. Though its chassis is thin at 9 cm in height, the sound expression is not cramped. Furthermore, it is a tube amplifier that really does have a thick and smooth mid-range. Airtight says that their aim was to express the atmosphere produced by a modern high-end amplifier with high clarity and exciting sounds to listen to.

The sounds of analog discs are also clear and broad, unlike the old-fashioned expression that was soft and thick. For its step-up transformer for MC cartridge, it combined its own ATH-3.

Nowadays, it is common to use multiple speakers with small- to mid-size woofers. When playing analog discs with these speakers, the cones of the woofers sometimes become shaky. So, to enable the phono equalizer to reproduce good-quality sound, Airtight devised ways to offset the warps and face deflection of analog discs, as well as the vibration of the pickup. The time constant is rolled off at $\ominus 6$ dB and 30-40 Hz for the EQ stage and set at $\ominus 18$ dB and 10 Hz for the line stage. When we conducted our listening trial, we used a Bowers & Wilkins floor-standing speaker, the B&W 800D3, and hardly felt any vibration when we touched the cone of the woofer.

A quarterly magazine for audiophiles, Tube Kingdom, chooses the Airtight ATC-2HQ as its reference preamplifier. The ATC-2HQ is superior in its depth of shades, and its deep, solid sounds. However, the ATC-5 expresses sound in a flowing, neat and also attractive way. I feel that its sounds herald a new era for Airtight.



Mr. Nobuyuki Fu, checking the controllers of ATC-5

Preamplifier

AirTight ATC5

- Input : PHONO2 (MM, RCA unbalance)、LINE3 (RCA Unbalance) ●Output : 2 (RCA Unbalance)
- Input Impedance : $47k\Omega$ ●Gain : 40dB (PHONO)、18dB (LINE) ●Load Impedance : $>47k\Omega$
- 以上 ●Output Voltage : 20V ●Tubes Incorporated : 12AX7 \times 3 (EQ)、12AT7 \times 2 (Line Amp)
- Dimensions/Weight : W400 \times H90 \times D260mm/9kg
- Contact : A&M Limited TEL072 (678) 0064

Analogue player used for the listening trial:

Michell Engineering

GyroDec-UNV2, 610,000 yen

Contact: Tosy Corporation

MC cartridge:

Phasemation

PP2000, 440,000 yen

Contact: Kyodo Denshi Engineering Co., Ltd

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