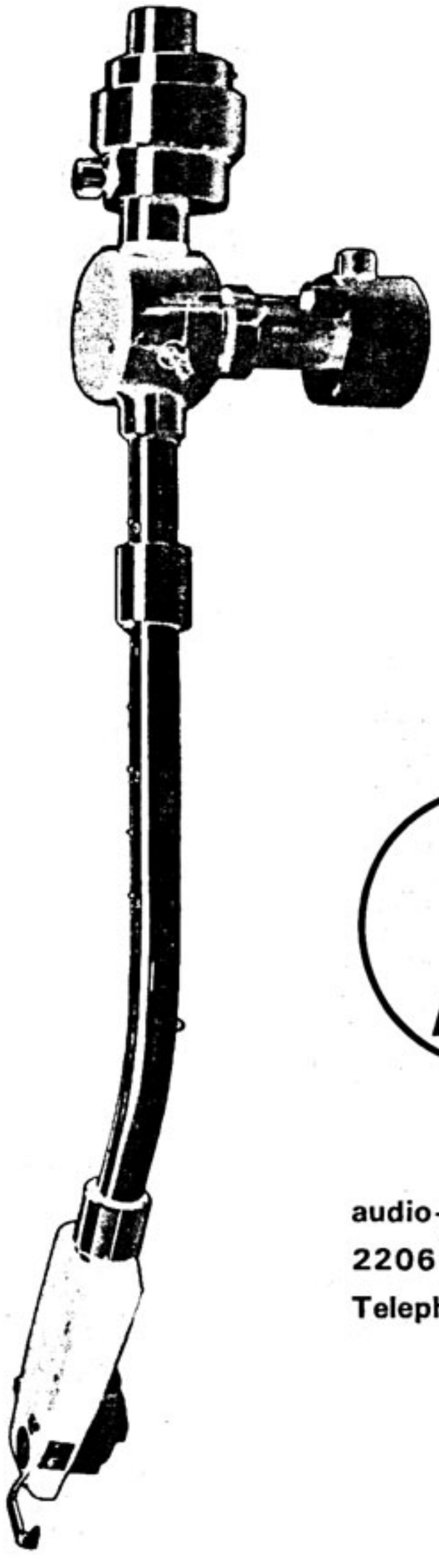
audio-technica®

Universal Tone Arm
for light tracking force

AT-1005 II



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CONSTRUCTION

Easy Handling, Stable Operation and Low Cost

The AT-1005 II is a highly efficient universal tone arm designed and manufactured based on the three basic designing patterns of easy handling, stable operation and low cost.

With emphasis placed on functional efficiency, the shape of the arm rest is designed to eliminate unstable elements during operation.

In this sense, it is a unique tone arm suitable for professional use.

MECHANISM AND FEATURES

STRAIGHT LINE SLIDE TYPE WEIGHT

This is a mechanism for easily and rapidly adjusting stylus pressure. A Teflon seat-loaded fine adjustment sub-weight is provided in the counterweight, for rapid attainment of zero balance. The pressurizing ring weight which slides in close contact with the front arm span is very easy to operate and can serve as dump material of pipe---this is a unique Technica's construction.

PERFECT S-SHAPED DESIGN

The so-called simple S-shaped bend type is a new design in which the installing angle of the front arm is improved so that if the counterweight is moved due to difference in cartridge weight, the weight balance point at both sides of the movable part is not changed, resulting in eliminating the trouble of adjusting the lateral balancer whenever a cartridge is fitted.

Dust-Proof Precision Revolving Mechanism

The top part of the vertical bearing is covered with smoked acryl for both high reliability and durability. The precision contact bearing is protected by a rubber damper. At the same time, selection is made in such a way that the installing angle is linear to the vibrating axial line of the cartridge. Therefore, the stylus point will not be inclined in either direction when an irregular-warped disc is used. Two sets of large-sized radial ball bearings are adopted for the horizontal revolving part, resulting in added strength against the thrust load.

Anti-Skating Bias Mechanism

This is a simple mechanism combining a thread and a weight. It will not hinder the movement of the arm and operates very positively and is easily handled and have extra high reliability. Amiran filament which has low frictional resistance and excellent weather-proofing is used on the thread for improved performance.

HIGH RIGIDITY, LIGHT HEAD SHELL

This is the standard (S type) shell of a new design. Wall thickness has been increased by 40% compared with conventional types. Punching holes are arranged very effectively for preventing resonance. Accordingly, it is very strong and light in weight. The cartridge mounting hole is also extra long and the adjustable range for position of stylus tip is also increased.

OTHERS

1 Hard vinyl cushion and coil spring are built in the center pillar fixing screw of the base. If the screw is not loosened fully, the arm will not drop due to dead weight. Therefore, its height can be adjusted freely.

2 Tightness in the arm rest causes deterioration of bearings. In this unit, careful selection is made of dimensions and material. A side bed is also provided to prevent undue stress on the arm.

3 An hydraulic damp arm lift specially designed for the model AT-1005 II is available as optional equipment. If installed on the center pillar, it affords improved operation.

HOW TO OPERATE THE AT-1005 II

INSTALLATION

1 Make a hole in the motor board. Install the drive motor first. Insert the center shaft in a hole punched as indicated in the template.
However, care must be taken so that the arm does not touch the player case even when the counterweight is moved to the rearmost part. When the correct position is determined, mark it with a pencil. With the base as the center, move the template and determine the position for the arm rest. Measure it with a scale and make a hole after confirming that the dimensions are correct.

2 Install the base and rest to the board respectively and secure them with the wrench supplied with the kit. Loosen the screw for the center pillar of the base counter-clockwise and insert the arm body in it and secure it temporarily. Then, the anti-skating bias weight must be removed.

3 Insert the 5P plug for the shielded cord in the plug socket at the side of the arm. If the protrusion at the side of the plug touches the edge of the center pillar, the connection is correct. The din plug at the other end is color-classified as follows:

RED = Right WHITE = Left

Conect it properly to the amplifier.

INSTALLATION OF CARTRIDGE

1 Install the cartridge to the shell. First, connect the lead tip to the output terminal of the cartridge. The diameter of the tip is adjusted to the pin dimensions (1.5ϕ) of the AT series cartridge. In VM3 or lower model numbers, it is slightly less, such as 1.3ϕ. Accordingly, install the spare lead tip. The color code of the lead wires is as follows:

RED = R+ (right channel hot)
GREEN = R− (right ground)
WHITE L+ (left channel hot)
BLUE = L− (left ground)

If an AT series cartridge is to be used, insert the tip in the same color pin. Soldering is not needed. Then, as shown in Fig. 1, the cartridge is fitted to the shell. If the stylus tip is installed 8 mm from the end of the shell, the approx. 15 mm overhang can be attained correctly. When the arm is installed, adjust it correctly by using the template.

ADJUSTMENT

1 Adjusting the Stylus Pressure
Make sure the player is level. The arm is of the static balance type and sensitivity of the bearing is very sensitive. If the player is not level, full performance cannot be obtained. Pressing the head shell lightly, insert the head connector and turn the screw collar counter-clockwise and then secure it firmly. After the counter weight is installed and the ring weight is placed at the zero position, adjust it so that the arm is stationary at a horizontal position. Fine adjustment can be made with the sub-weight.

2 Adjusting Arm Height
In this adjustment, the cartridge is easily damaged. Therefore, be careful so that the stylus tip does not strike the board. Place a record on the turntable and lower the stylus on it very gently. Move it up or down gently so that the front arm is parallel with the surface of the record.
After finishing, be sure to tighten the fitting screw of the center pillar of the base tightly. Adjust the height of the arm rest so that the arm is at a horizontal position.

3 Adjusting the Anti-Skating Bias
The anti-skating mechanism consists of a bias bar with 4 slits, a bias hook and two-split bias weights. As shown in Fig. 2 and 3 adjust it in the following way according to stylus pressure.

When stylus pressure lower than 2g:
Twist the lower half of the weight in the direction of the arrow as shown in Fig. 2.
Then, apply the loop of the hanging thread to the bar. If the stylus pressure is lg, apply it to the innermost slit. If it is 1.5g, apply it to the second one. When it is 2g, apply it to the third one.

When stylus pressure is more than 2g:
Combine the upper and lower weights. When the stylus pressure is 2g, apply it to the innermost slit. When it is 2.5g, apply it to the second one. When it is 3g, apply it to the third one.

When stylus pressure exceeds 3g:
Combine the upper and lower weights and apply the hang-thread to the outermost slit. The weight is hung through the bar. Correct the direction of the center pillar so that the correlative angle between bar and thread is 90° to the outer periphery of record, facing the top.
If the second slit is standard, even if the thread is moved to other slit, the error of angle can be disregarded. The measured pressure value thus obtained by such adjustment is approx. 10% of the stylus pressure.

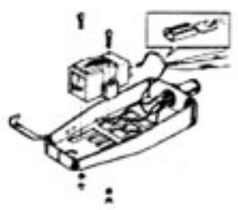
Fig. 1


Fig. 2

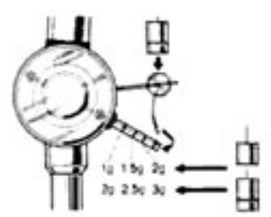
Fig. 3

SPECIFICATIONS

Type	Static balance universal type
Overall length	323 mm
Effective length	240 mm
Overhung	15 mm
Tracking error	1°30″or below
Stylus pressure	0~3 grs.
Suitable cartridge weight	5~24 grs.
Turntable height (Rough value with 17 mm thickness of cartridge)	30~57 mm
Head shell	S type (self-weight 8.5 grs.)
Effective mass (AT-35×when set)	20 grs.
Thickness of mounting board	22 mm or below

audio-technica® AT-1005Ⅱ