

Analogue Manufacturer Germany

Tone arm 9WT

Operating and installation manual

Tone arm 9WT

Dear music-lover,
thank you for your vote of confidence by choosing the AMG tone arm for playing your records.

Technical description

The tone arm 9WT is based on the unique bearing system of the AMG products.

Starting out from a standard tone arm with horizontal and vertical axles and the bearing play caused by the principle of design, we have totally eliminated the play in the horizontal axis by replacing it with two 0.4 mm thick spring steel wires. This also enables a direct acoustic coupling which exactly draws from your record what is truly on it. This principle is also used in the rotor heads of helicopters replacing the standard bearings and their play. The vertical axle is made of hardened tool steel and precision ground to a backlash-free fit with two roller bearings. The axles are maintenance free and never need to be adjusted. The antiskating system is also integrated in the bearing case. All materials we use are stainless steel, tool steel, spring steel and anodized aluminum in aircraft quality. The arm tube locking lever is plastic molded, the coupling attenuation sleeve in the counter weight is Teflon and the insert in the arm tube rest at the lift is of silicone.

Preparation for installation

Take the tone arm out of the wooden box and place it on a soft rag on a level surface. Please check that the arm tube is locked by the locking lever. Insert the audio cartridge into the head shell to a preliminary position and slide the color coded female connectors on to the related pins at the cartridge. Now start with the final adjustment:

Effective length	229 mm
Distance from pivot to turntable center	211 mm
Overhang	18.1 mm
Offset Angle	24.07 °
Effective Mass	10.2 g
Zero point (inner)	66.04 mm
Zero points (outer)	120.9 mm
Bore size for mounting bushing	20, 25 or 30 mm
Screw-hole circle	30 or 48 mm

Please be advised to tighten all screws at this precision engineered product at low torque and by a sensitive touch.

Drilling the mounting bore

Please mark out as precise as possible the distance from pivot to turntable center of 211 mm.

Drill a bore in your plinth or arm board at exactly this distance. You may use the mounting bushing as a gauge to drill the bores for the three fastening screws. Depending on the adapter you use, the screws are metric M3 or M4. For a wooden plinth use appropriate screws for wood. Insert the mounting bushing so as the locking screw for the tone arm shaft is easily accessible from the right.

If you do not have a drill press or better a milling machine, please see a machine shop.

The 12JT tone arm is available in three different variations concerning its connection.

- 1.) with a SME connector in the tone arm shaft where you may directly connect your audio cable
- 2.) with a SME connector in the tone arm shaft and a female SME connector you may make your own cable with
- 3.) with flying leads, which you have to solder to cinch or XLR connectors.

We also supply a cinch box made of solid aluminum and a pcb with two high quality cinch connectors and a 2 mm ground connector. If your turntable does not have connectors fit in.

Adjustment procedures

Slide the tone arm with the shaft into the mounting bushing. If you got the version with the female connector in the bushing (in combination with the Viella turntable) be sure both connectors are matching before you push the arm shaft to the detent.

Slide the counterweight onto the arm tube and balance it, so the tube is horizontal and free swiveling. Be sure, to adjust the height so your cartridge clears the platter. The active range of the antiskating system is about 250 mm. If the arm tube is locked on the lift, turn the arm shaft, that the cartridge needle is about 95 mm away from the platter.

Now lock the arm with locking screw on the back side of the arm.

Put the counterweight with the concave roundness to the front on the arm tube.

To continue, it is recommended to set the antiskating to minimum. In the right flange of the arm shaft is one knurl screw. Turn the knurl screw left and you can see that the mark on the front of the pillar goes down. This is what moves the antiskating magnets away from the ring magnet in the bearing case. Now your antiskating force is set to minimum.

Next adjust the vertical tracking force (VTF) with the digital scale (please use 2 x AAA batteries; for reasons of safety they are not included). It is essential, that the arm tube is in a horizontal position while resting on the scale. When VTF is set, gently fasten the locking screw in the counter weight. If you use the gauge for adjusting the cartridge, which is included, the VTF has to be measured with the cylindrical pin because it has an own weight of 1,85 g.

After adjusting the cartridge the VTA has to be double-checked without the cylindrical pin.

The tone arm lift is preset at the factory. If you like to raise your stylus higher or lower, the lift slides in the bracket by loosening the locking knurl screw in the bracket.

Cross check your pivot to turntable center distance. Now put a record on the platter and set the VTA until the spirit level in the arm hub shows horizontal.

Assuming your turntable is set to horizontal.

Loosen the locking screw on the back side of the arm and adjust the VTA with the height adjustment knurl screw in the lift bracket. Tighten the locking screw(s) again.

Now set the correct overhang by using gauge and the cylindrical pin. Put the pin in the hole of the headshell and let slide the pin in gauge. Now you can open the knurl screw on the top of the headshell. Slide the screw back or forward, if the needle is in the cross, the overhang is correct. Now you can lock the screw. If you don't like this knurl screw on top of the headshell, we have attached a lens head screw that you can replace with.

The antiskating system is very effective. To start with magnet up by two thirds. Than continue with a measuring record or Wally Tools Wallyskater or something equivalent.

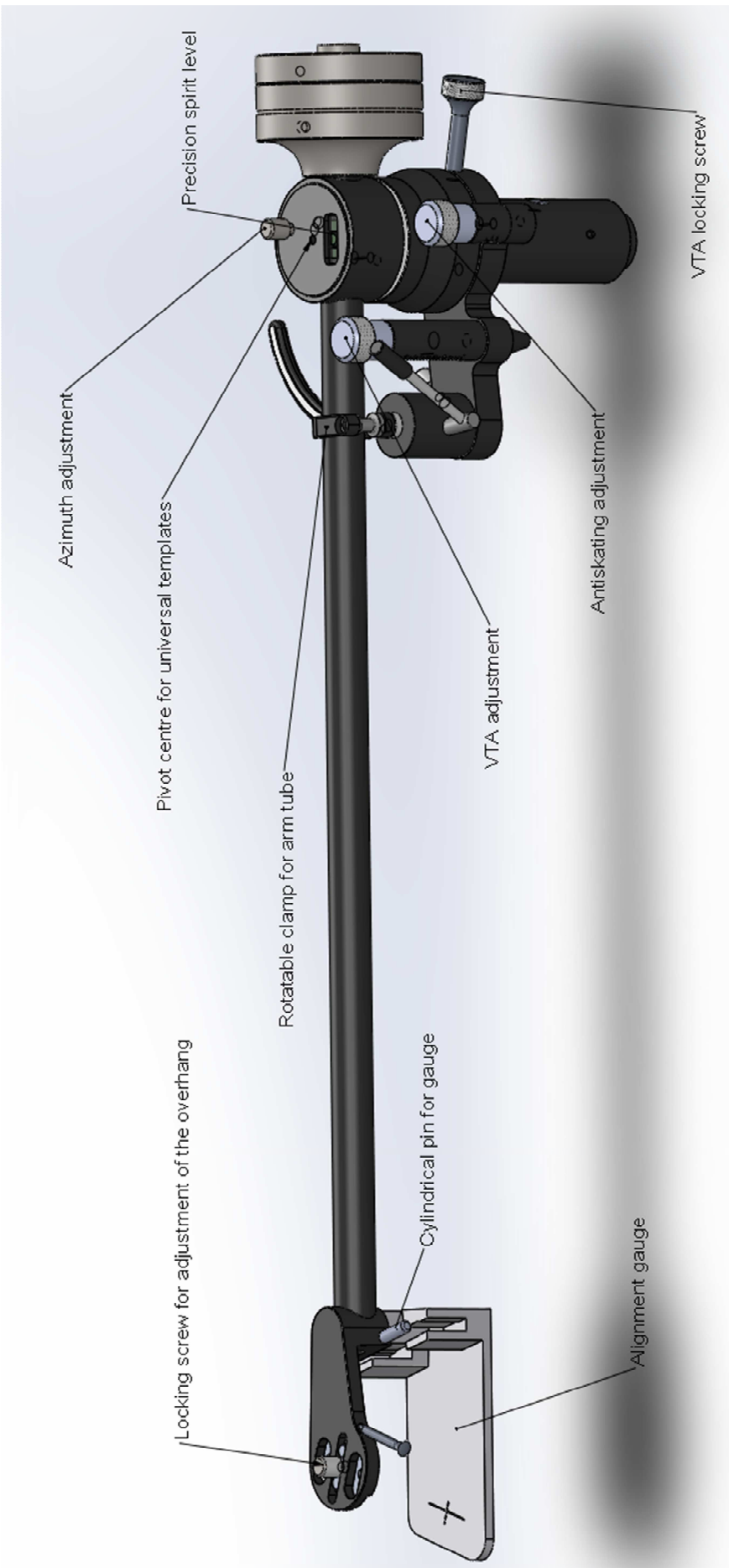
The tone arm also has an azimuth adjustment. It is set to zero at the factory. If you do not have appropriate measuring equipment, like a Fozgometer, it is not recommended to use it.

If you like to make azimuth adjustments, loosen the locking knurl screw at the left side of the tube hub. Then adjust the azimuth by little increments with the knurl screw on top of the hub.

Press the hub gently down by your finger while tightening the locking screw again.

Now enjoy your music. We like to wish you lots of joy with this precision product.

Your Julian Lorenzi with the team of AMG



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