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Technics Baerwald Arc Protractor

Note: this protractor is for use with tonearms that have a mounting distance of 215mm only*

Instructions

- (1) Print the protractor ensuring that 'resizing' is turned off in your printer preferences
- (2) Check the scale for lines A-A (140mm) and B-B (200mm)
- (3) Reprint with appropriate scaling if required
- (4) Use a pin to precisely cut out the centre hole for the spindle
- (5) Set the anti-skate on the tonearm to zero (very important)
- (6) Adjust the cartridge overhang (move back and forth in the headshell) until the stylus tip is able to follow the arc between the C points
- (7) Without moving the protractor from step 6, place the stylus tip on the centre of the grid where it crosses the arc. Align the cartridge so that the cartridge/cantilever is parallel with the grid lines by rotating it in the headshell, without altering overhang.
- (8) Check that the stylus still follows the arc precisely and reset overhang as necessary.
- (9) Repeat steps 6-8 until you are happy that the cartridge follows the arc *and* aligns perfectly with the grid with the protractor stationary.
- (10) Recheck your VTF and anti-skate before playing a record

FAQ

Q. I am not able to get the stylus to follow the arc and align at the grid

A. There are two possibilities:

- The tonearm is not mounted at exactly 215mm – please measure the spindle to pivot distance (centre to centre) to verify.
- The headshell slots are not long enough – the Baerwald alignment used in this protractor aligns the cartridge for lower distortion/tracing error than original but requires additional overhang and offset to achieve this. For some cartridges in some headshells it may not be possible to move the cartridge far enough forward to align accurately and an alternative method should be used (eg the 2-point Stevenson protractor).

* effective length is *not* the same as mounting distance. To find the mounting distance of a tonearm, subtract the overhang from the effective length.