

## The kearns protractor - Baerwald arc protractor

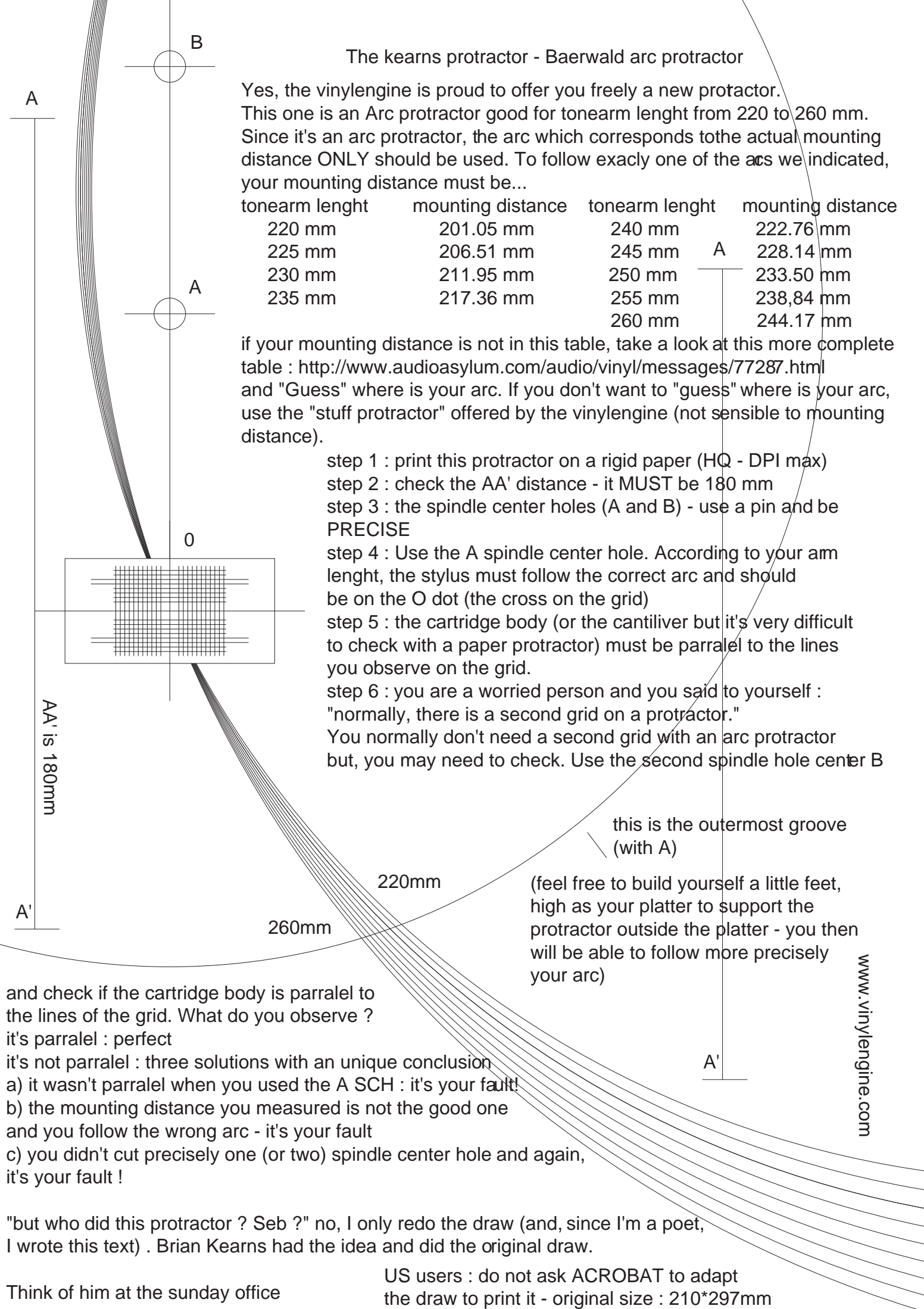
Yes, the vinylengine is proud to offer you freely a new protractor. This one is an Arc protractor good for tonearm length from 220 to 260 mm. Since it's an arc protractor, the arc which corresponds to the actual mounting distance ONLY should be used. To follow exactly one of the arcs we indicated, your mounting distance must be...

tonearm length	mounting distance	tonearm length	mounting distance
220 mm	201.05 mm	240 mm	222.76 mm
225 mm	206.51 mm	245 mm	228.14 mm
230 mm	211.95 mm	250 mm	233.50 mm
235 mm	217.36 mm	255 mm	238.84 mm
		260 mm	244.17 mm

if your mounting distance is not in this table, take a look at this more complete table : <http://www.audioasylum.com/audio/vinyl/messages/77287.html> and "Guess" where is your arc. If you don't want to "guess" where is your arc, use the "stuff protractor" offered by the vinylengine (not sensible to mounting distance).

- step 1 : print this protractor on a rigid paper (HQ - DPI max)
- step 2 : check the AA' distance - it MUST be 180 mm
- step 3 : the spindle center holes (A and B) - use a pin and be PRECISE
- step 4 : Use the A spindle center hole. According to your arm length, the stylus must follow the correct arc and should be on the O dot (the cross on the grid)
- step 5 : the cartridge body (or the cantiliver but it's very difficult to check with a paper protractor) must be parallel to the lines you observe on the grid.
- step 6 : you are a worried person and you said to yourself : "normally, there is a second grid on a protractor." You normally don't need a second grid with an arc protractor but, you may need to check. Use the second spindle hole center B

this is the outermost groove (with A)  
(feel free to build yourself a little feet, high as your platter to support the protractor outside the platter - you then will be able to follow more precisely your arc)



and check if the cartridge body is parallel to the lines of the grid. What do you observe ?

it's parallel : perfect

it's not parallel : three solutions with a unique conclusion

a) it wasn't parallel when you used the A SCH : it's your fault!

b) the mounting distance you measured is not the good one and you follow the wrong arc - it's your fault

c) you didn't cut precisely one (or two) spindle center hole and again, it's your fault !

"but who did this protractor ? Seb ?" no, I only redo the draw (and, since I'm a poet, I wrote this text) . Brian Kearns had the idea and did the original draw.

Think of him at the sunday office

US users : do not ask ACROBAT to adapt the draw to print it - original size : 210\*297mm