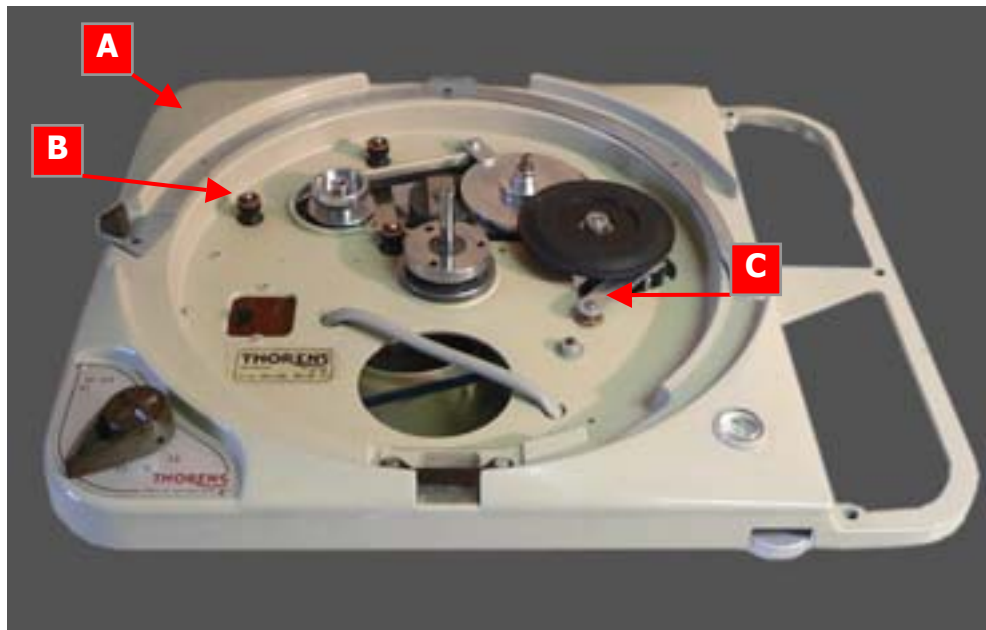


## Noise Spectrum Analysis of the Thorens TD 124

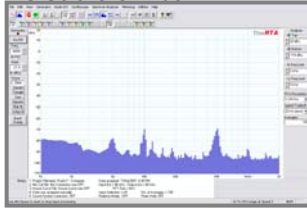


- TestPoint A: For this test-point the transducer is resting directly on the surface of TD 124 chassis at the corner of the motor suspension fix points.
- TestPoint B: The transducer is resting on top of the motor suspension rods. This means directly measuring the motor noise spectrum.
- TestPoint C: The arm for the idler wheel is the resting point for the transducer in a measurement to analyse the noise spectrum of the bearing and the rubber idler wheel surface.

**Test setup**

PC: Asus

PC Software: TrueRTA



Soundcard MP3+



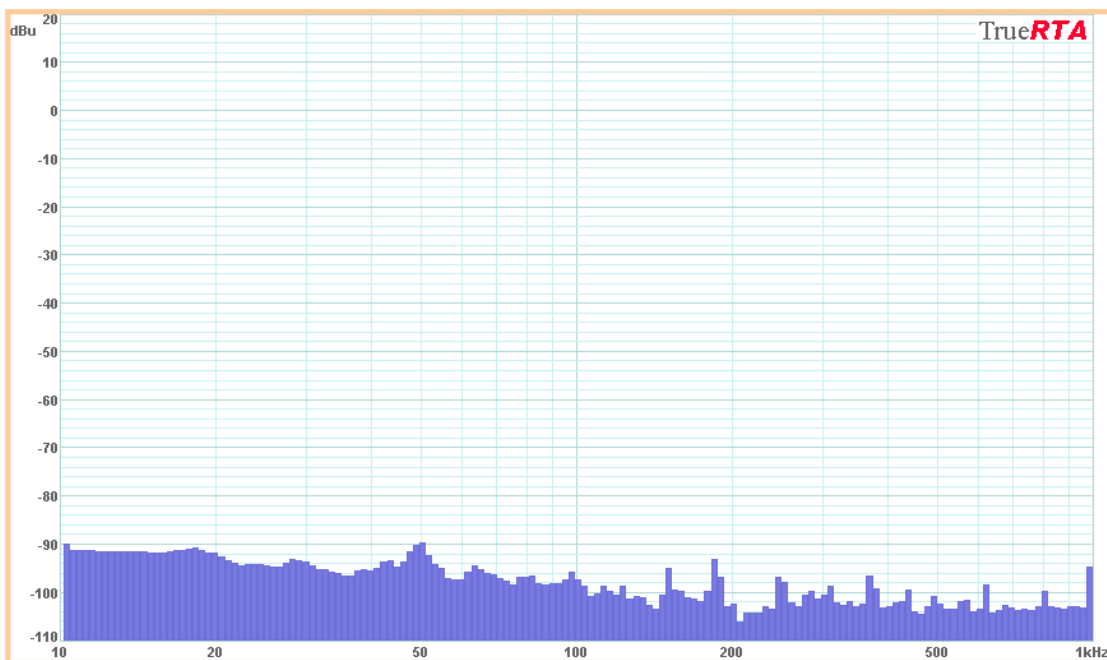
PreAmp MPA202



Transducer SP6/7



The transducer: B&O SP6/7 pickup



**The noise spectrum**

For the test setup – *the transducer is without any contact to a surface*

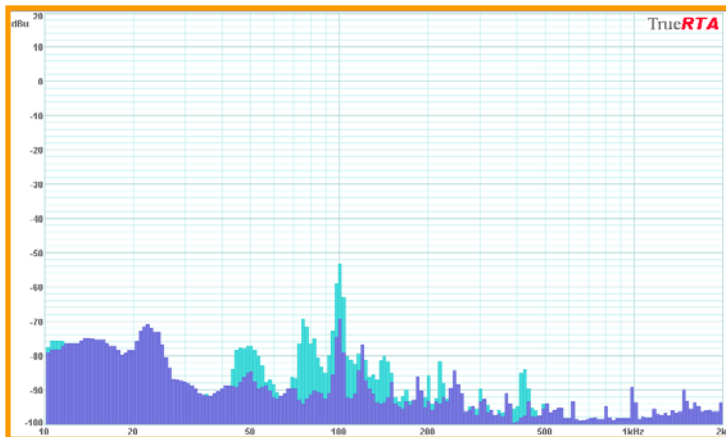
Key setup figures

Amplifier Gain: 30dB

TrueRTA: number of averages = 100

## The Result

TD 124 MK-II before and after restoration – at Schopper AG.

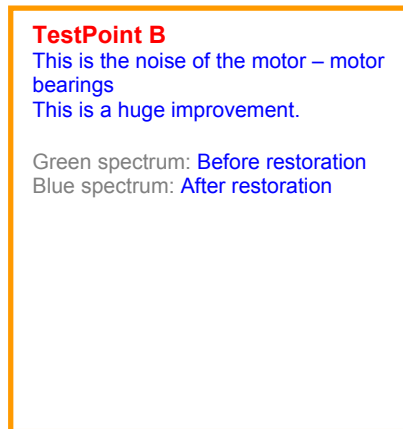


### TestPoint A

The TD 124 chassis test point  
The audible improvement is very  
visual here – all the light blue noise is  
gone during the restoration process.

Light blue spectrum: Before  
restoration

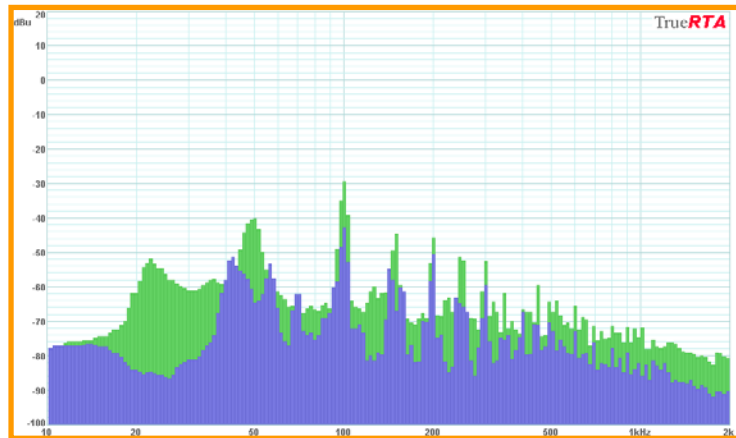
Blue spectrum: After restoration



### TestPoint B

This is the noise of the motor – motor  
bearings  
This is a huge improvement.

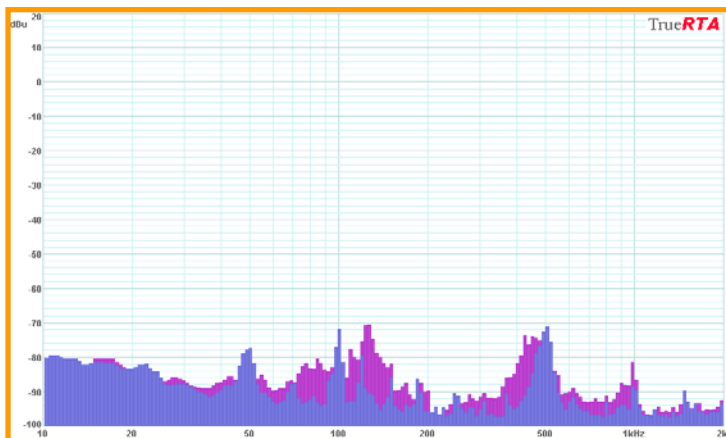
Green spectrum: Before restoration  
Blue spectrum: After restoration



### Testpoint C

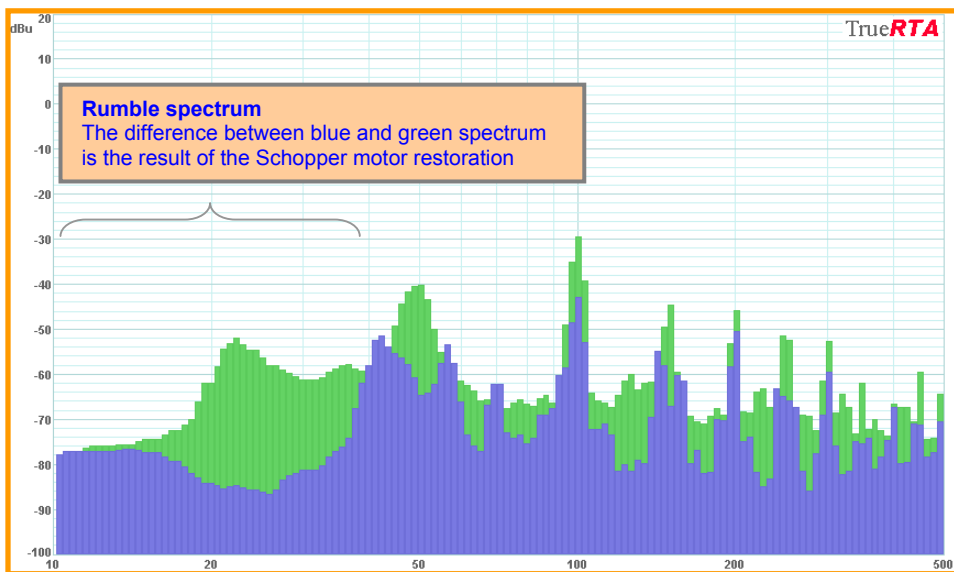
This is the idler wheel noise  
As you can see a remarkable  
reduction of noise between the violet  
and the blue colour noise spectrum.

Red spectrum: Before restoration  
Blue spectrum: After restoration

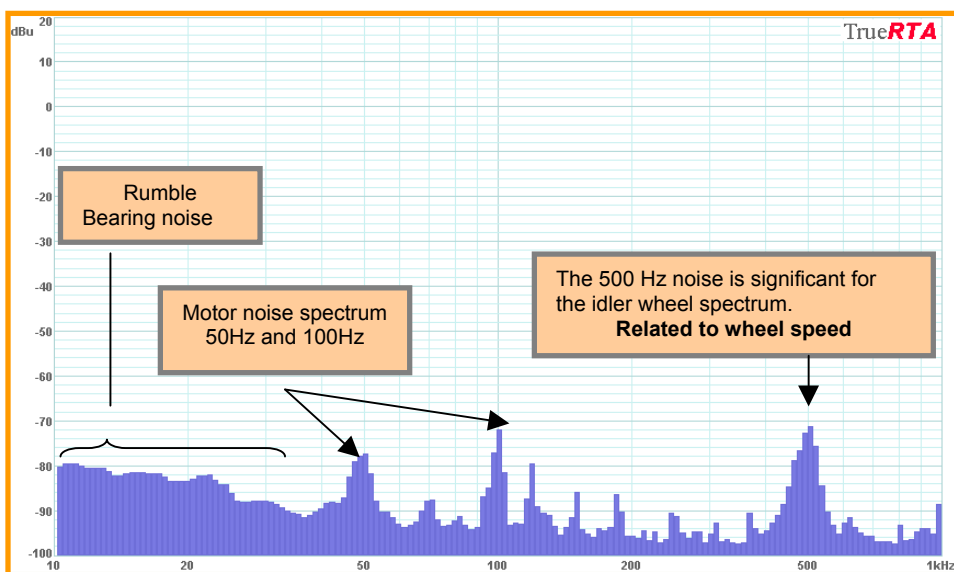


## Diagnostic 1

### TestPoint B

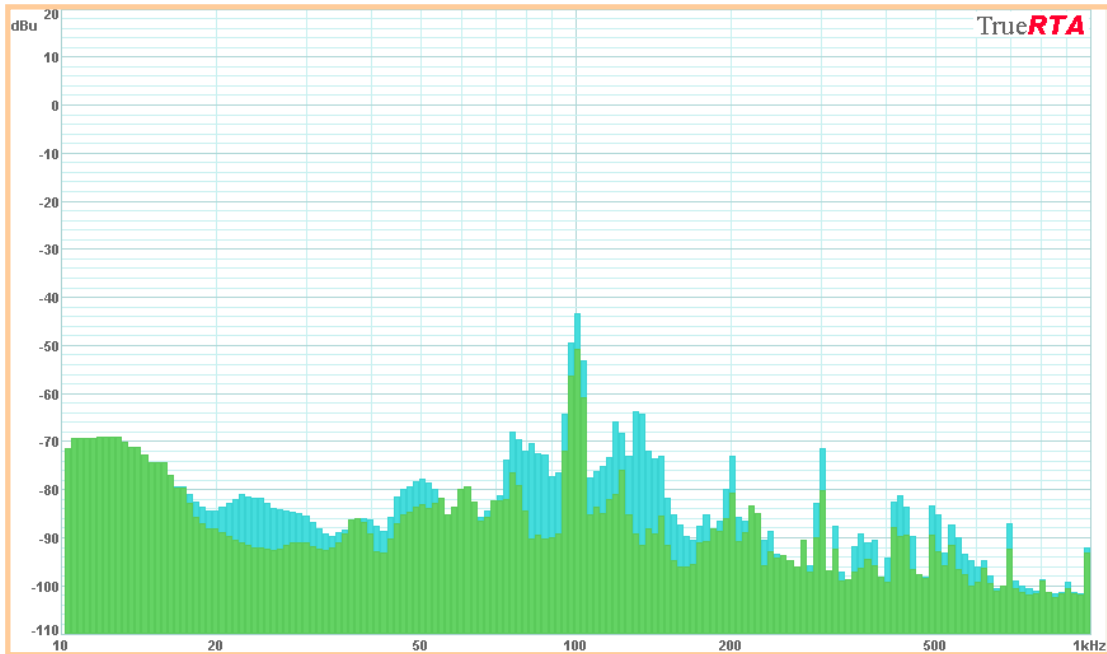


### TestPoint C



Diagnostic II

TestPoint A



This spectrum is interesting.

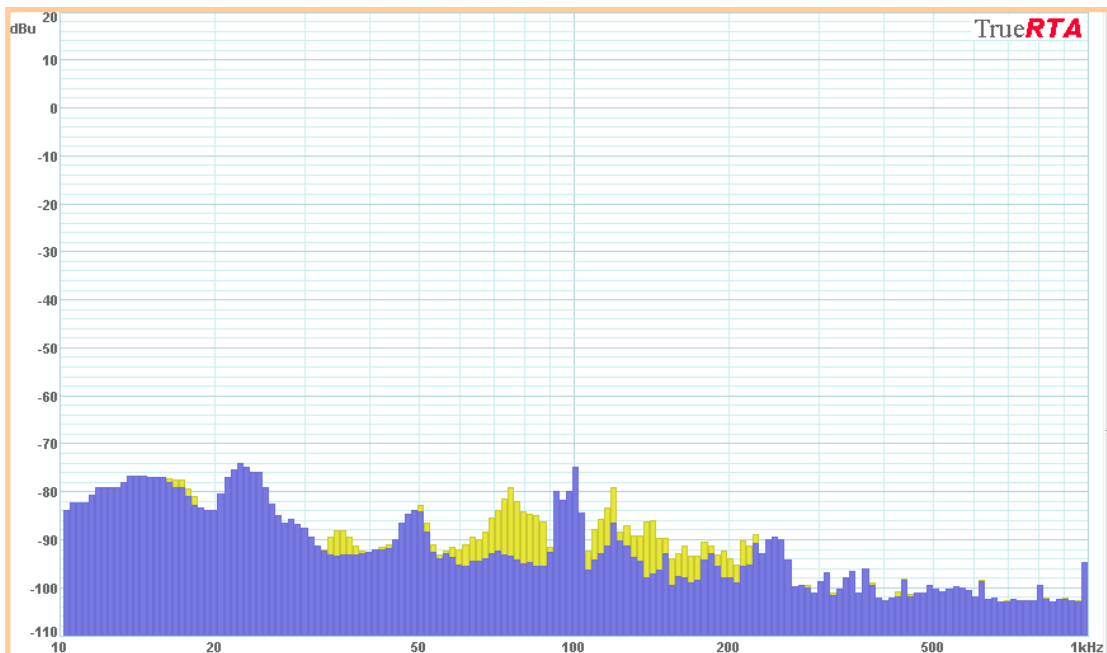
This is a spectrum measured at TestPoint A – the chassis of the TD 124.

The green spectrum: **The main platter is removed**

The light blue spectrum: **The main platter is in place**

**This means the difference is the noise spectrum of the main platter bearing.**

Remark: The test object here is a non restored TD 124-II



This spectrum is the same as above, but for at TD 124-II restored by Schopper AG

**The result is clear**

**The overall noise (rumble and audible noises) is reduced very much.**

**Specifically is the result of the main platter bearing restoration very visible in the spectrum and very audible.**

The blue spectrum: **The main platter is removed**

The yellow spectrum: **The main platter is in place**