For painting on silence

Linear tracking tonearm

Model

5T

User manual

Figure 1

Video link for *Reed 5T* mounting:

https://www.youtube.com/watch?v=44HMDmE5aZg&t=166s

1. **Tonearm unpacking:**

   a) Please read the User Manual (Figure 1) before starting to assemble the Reed 5T tonearm. Not following assembly instructions may permanently damage the tonearm.

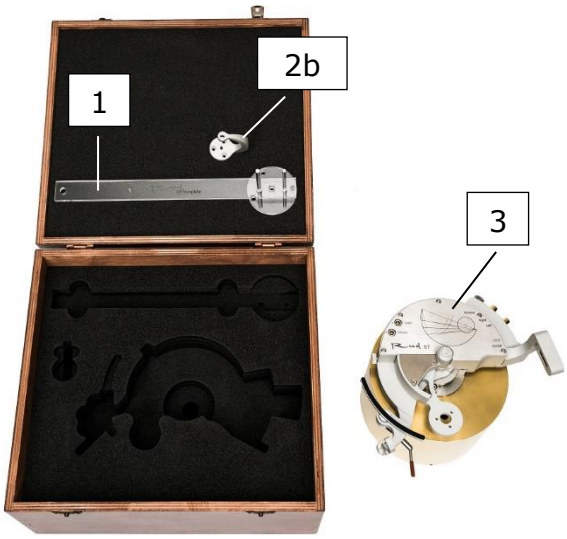

Figure 2

   b) Remove the top packaging layer. Take out the template [1], armwand base [2b] and tonearm body [3] (Figure 2).

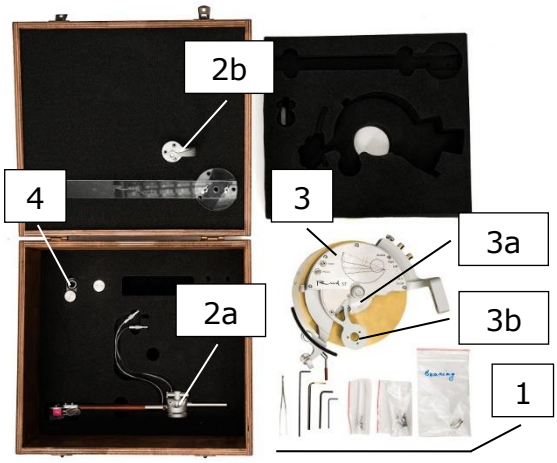

Figure 3

   c) Take out the middle layer of packaging.
   Take out all the accessories [1], except pivoted armwand [2a] and a counterweight [4] (Figure 3).

   Tonearm consists of *pivoted armwand [2a], armwand base [2b], tonearm body [3], tonearm base [3a] and armwand base pad [3b]* (Figure 3).

2. Tonearm mounting:

a) Mount the tonearm onto a turntable using mounting drawing, template and protractor.
b) On the turntable mark three tonearm base mounting holes and center hole using Reed 5T mounting drawing and check the position with Reed 5T template [1] (Figure 2).

Figure 4

c) Drill three 4.2 mm holes and thread them with M5 thread. Fix the armboard in a designated place using a template (Figure 4).

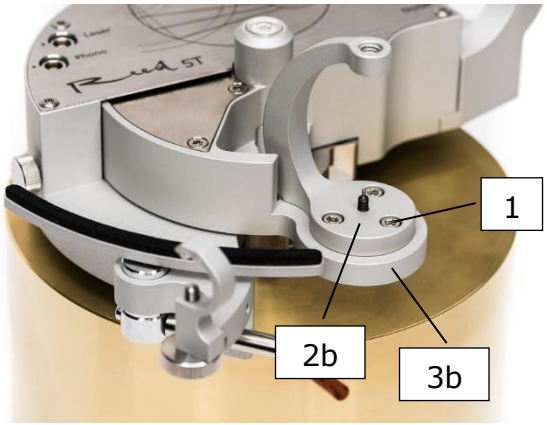

Figure 5

d) Fix armwand base [2b] to armwand base pad [3b] using three M3 screws [1] (Figure 5).

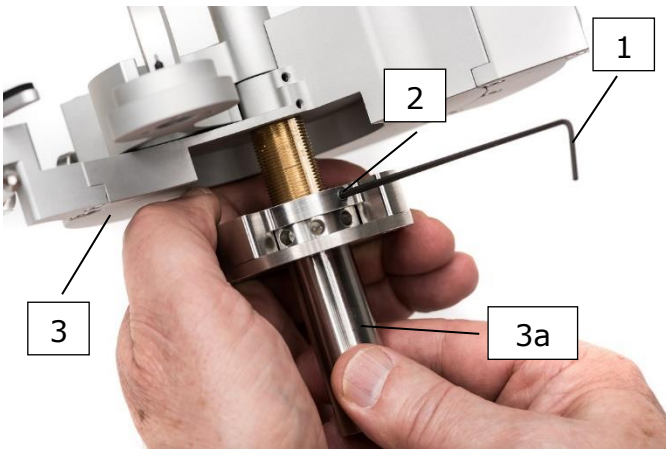

Figure 6

e) Using s=2 mm Allen key [1] release fixing screw of VTA adjuster [2] by rotating it half-turn counter-clockwise.

While holding a tonearm, unscrew its base [3a] counter-clockwise and lift off the tonearm body [3] until it stops. Do not use excessive force (Figure 6).

Fully release the fixing screw of VTA adjuster [2] by rotating it another three counter-clockwise full-turns.

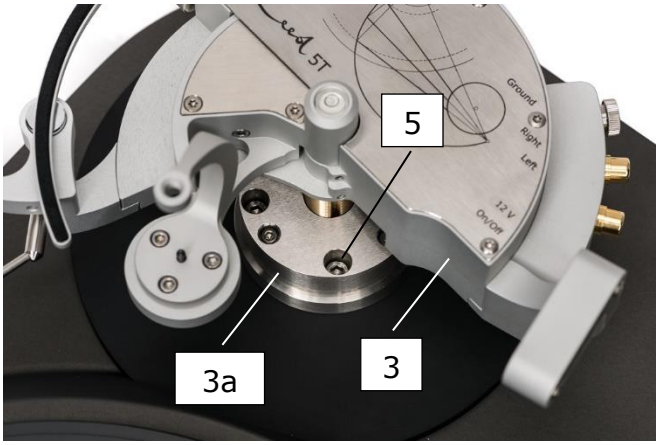

Figure 7

f) Place the tonearm on a turntable and match all three mounting holes (there is only one matching position). Carefully turn a tonearm base [3a] around its axis to see if mounting holes match. Tonearm body [3] should be freely rotating around tonearm base [3a] as well (Figure 7).

Fix the tonearm onto a turntable using three M5 screws [5].

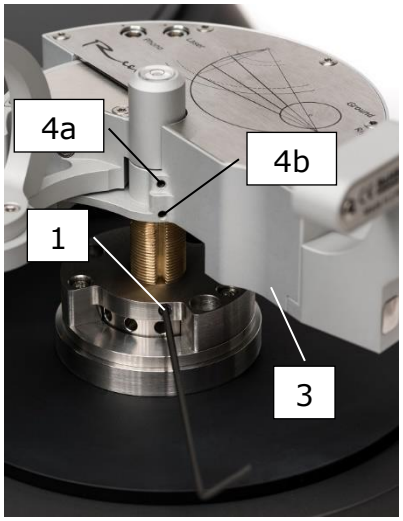

Figure 8

g) Set tonearm body [3] in a position, that fixing screw of VTA adjuster [1] would be in the same line with two body fixing screws [4a] and [4b] (Figure 8).

Tighten the fixing screw of VTA adjuster [1].

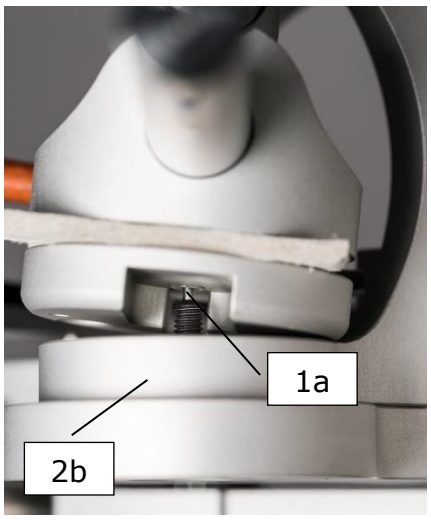

Figure 9

h) Take out the pivoted armwand [2a] (Figure 3) from its packaging and place it on the armwand base [2b]. Make sure that the bottom bearing of a vertical axis [1a] is in the right position (Figure 9).

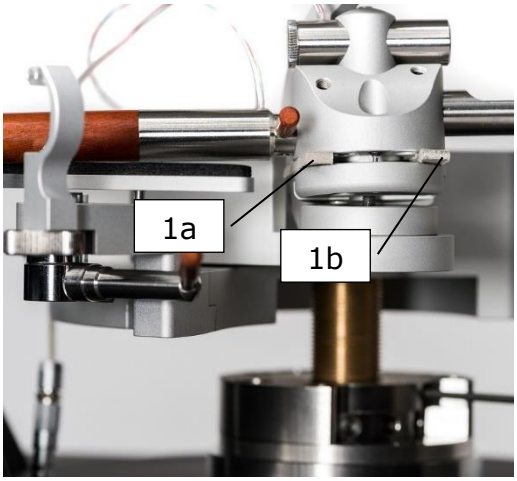

Figure 10

i) Remove bearings protection strips [1a] and [1b] (Figure 10) from the armwand and check if horizontal axis bearings [1c] and [1d] are in a correct position (Figure 11).

Bearings protection strips [1a] and [1b] (Figure 10) must be placed back while transporting tonearm. Otherwise the bearings may be damaged.

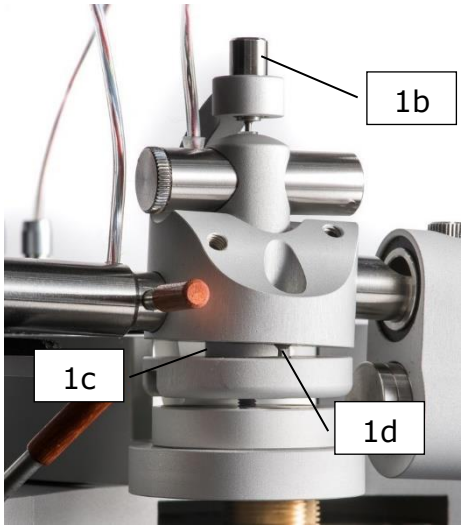

Figure 11

j) Screw out the top bearing of vertical axis from bearing protection. Take the hex (allen) key s=2,5 mm and screw bearing in place [1b]. Needle of the bearing must be embed in sapphire V cup. Bearing should be screwed in tight, however do not apply excessive force (Figure 11).

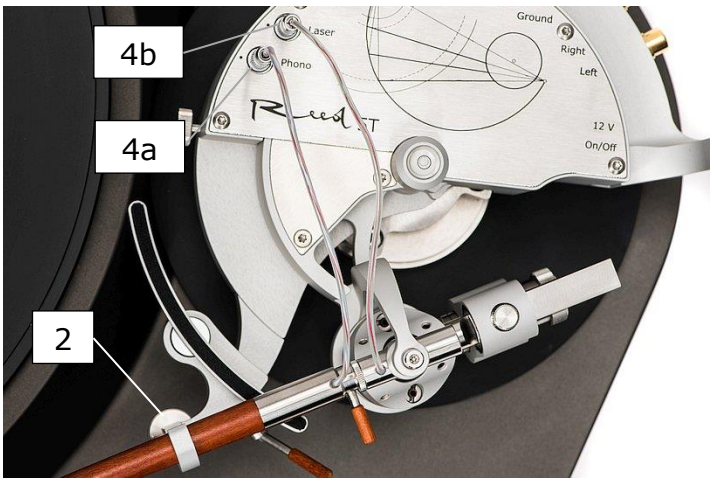

Figure 12

k) Plug tonearm's cables to the Phono and Laser connectors [4a] and [4b] (Figure 12), set tonearm's armwand to a rest position and gently tighten armtube fixing screw [2].

Tonearm should not be connected to a power supply without performing steps 3-8 first. Doing so may permanently damage phono cartridge and tonearm performance.

l) Place and align your turntable to a horizontal position.

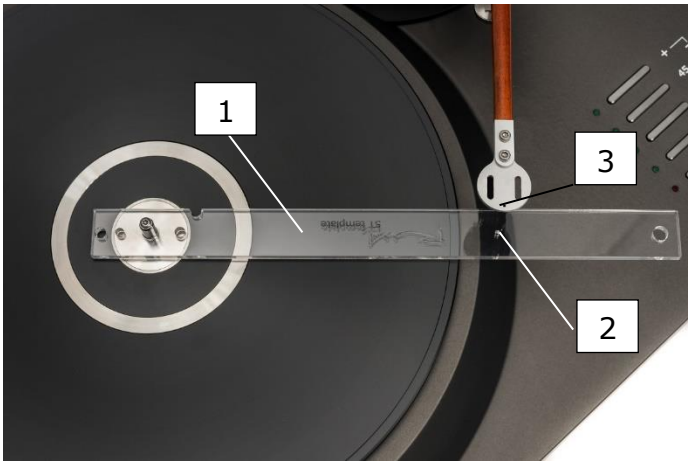

Figure 13

m) Check tonearm setup using Reed 5T template ruler [1] (Figure 13). Template's hole [2] should be aligned with hole in the headshell [3]; max. allowed deviation is +/-1mm. If deviation is bigger, please check your setup according to steps 2-f, 2-g, and 2-j of this manual.

n) Attach a cartridge of your choice to headshell.

Be careful while connecting or disconnecting wire connectors to the cartridge, because tonearm wiring is very fragile. For connecting and disconnecting wires use tweezers. Always pull the wire by its connector and **never** pull by wire itself.

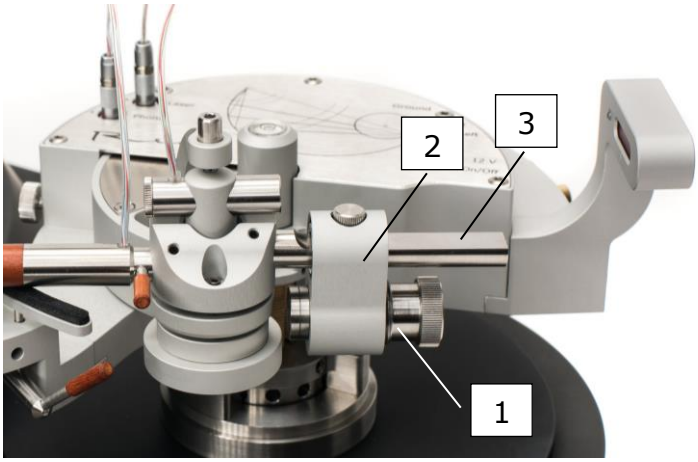

Figure 14

o) Final adjustment of cartridge position can be done by using Reed 5T Protractor when tonearm is turned on (Step 9-g).

p) Unpack the counterweight [4] (Figure 3). Take the required weight according to the cartridge settings (30 g or 45 g weight). Screw counterweight weight [1] out of the frame [2] until weight's frontal surface aligns with frame's surface (i.e. it should not stick from a frame) (Figure 14).

r) Put counterweight frame [2] onto the holder [3] (Figure 14).

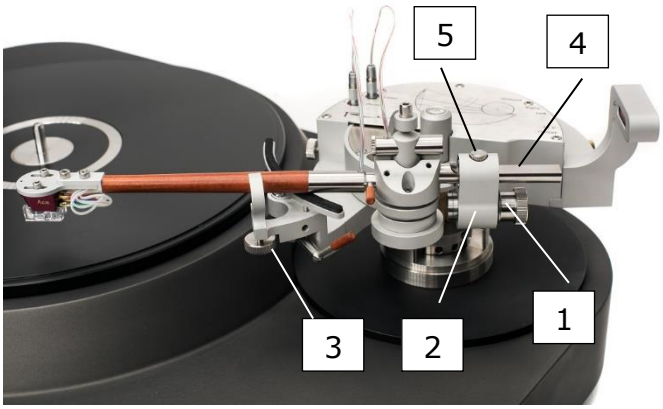

Figure 15

3. Vertical Tracking Force (VTF) adjustment (Figure 15):

a) Loosen the fixing bolt [3]
Rotate the armwand above the platter and lower the arm with the cartridge (Figure 15).
b) Set tonearm balance by sliding counterweight frame [2] on the holder [4].
c) After setting the balance fasten counterweight frame [2] with a screw [5]
d) Screw in the counterweight weight [1] forward by two segments. After VTA setup (Step 4) finalize VTF using scales.

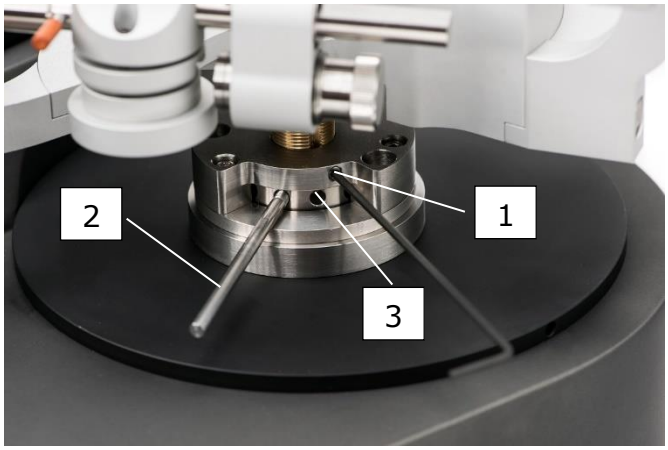

Figure 16

4. VTA (Vertical Tracking Angle) adjustment (Figure 16):

a) Loosen fixing screw of VTA adjuster [1] by rotating it half-turn counter-clockwise.
b) By using handle [2], turn dial of VTA adjuster [3] counter-clockwise and keep lowering tonearm's body until tonearm's armtube will become parallel to the platter (with LP)
c) Firmly fasten fixing bolt [1]
Make sure to check VTF setting using scales.
d) Lift up the microlift.

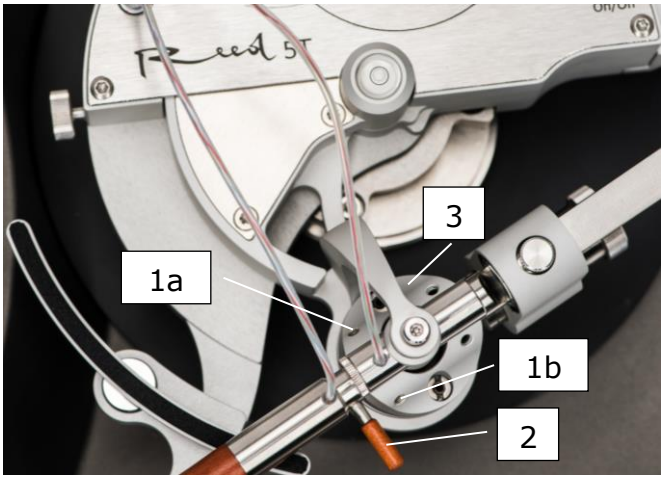

Figure 17

5. Azimuth adjustment (Figure 17):

a) If you need to adjust azimuth, hold the armwand cylinder [3] and loosen screws [1a] and [1b] by using s=1.5mm Allen key. By carefully turning handle [2] up or down adjust azimuth and tighten [1a] and [1b] screws.

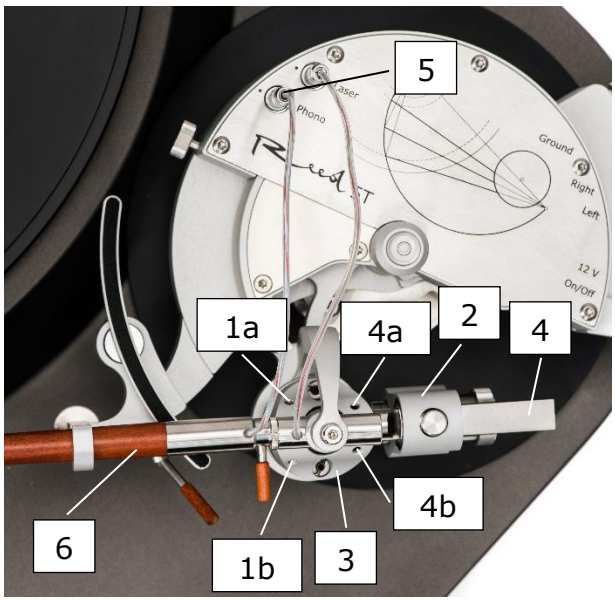

Figure 18

6. Armtube replacement (Figure 18):

a) Take off the counterweight [2].
b) Disconnect armtube cable from Phono connector [5]
c) While holding armwand cylinder [3], unscrew [1a] and [1b] screws using s=1.5 mm Allen key and pull out armtube [6] from the cylinder [3].
d) Insert and push the new armtube into a cylinder [3] and tighten it with the screws [1a] and [1b]. Connect armtube cable to Phono connector [5]. Put back the counterweight [2] and adjust VTF and azimuth according to Manual steps 3 and 5 respectively.

7. Counterweight holder [4] replacement (Figure 18):

a) If you're using cartridge, which is lighter than 5,2 g and a light armtube, you will have to replace counterweight holder to shorter one*.
b) Take off the counterweight [2].
c) While holding armwand cylinder [3], unscrew [4a] and [4b] screws using s=1.5 mm Allen key and pull out counterweight holder [4] from the cylinder [3].
d) Insert and push the new counterweight holder into a cylinder [3]. A flat side of the holder [4] should be facing top. Tighten the screws [4a] and [4b], put back the counterweight and adjust VTF according to Manual step 3.

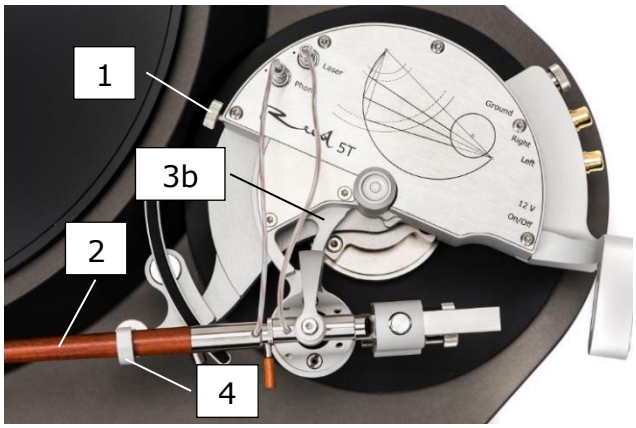

Figure 19

8. Loosening of armwand base pad [3b] (Figure 19):

a) Screw out armwand base pad [3b] rotation limiter screw [1] in a way that first spiral of its thread would match tonearm body edge (Figure 20).
b) Make sure that armtube [2] and armwand base pad [3b] can rotate freely (microlift should be lifted up).
c) Return armwand base pad to initial position (push counter-clockwise until it stops) and armtube to its rest position [4].

*made to order

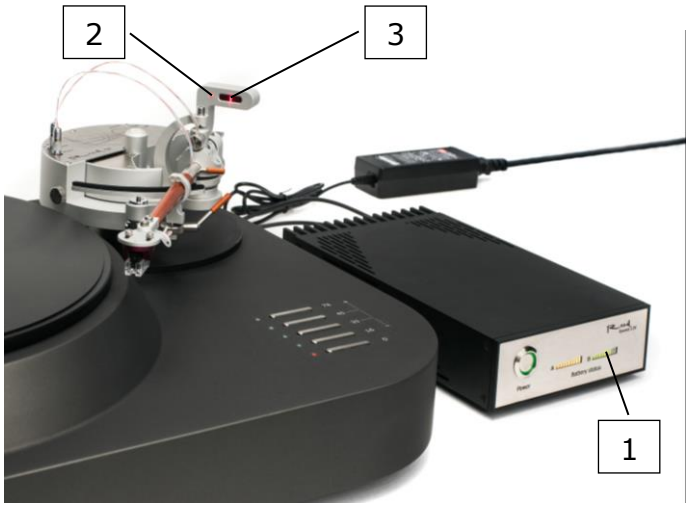

Figure 20

9. Connecting Reed Source 12V power supply:

a) Unpack Reed Source 12V power supply (supplied with tonearm) while reading its User Manual and prepare it for operation.
b) Connect power supply and a tonearm.
c) Turn on a power supply by pressing Power button.
d) At least one Battery status indicator bar should be lit green [1] (Figure 20).
e) Red-colored light [2] on a tonearm shows that tonearm is connected to power source, and tonearm's laser beam points at tonearm's sensor grid [3].
f) Laser beam should point somewhere near the center of sensor grid.

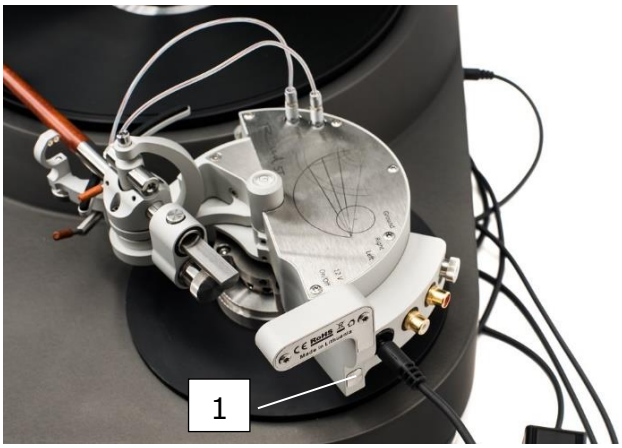

Figure 21

g) Power on the tonearm by pressing On/Off button [1] (Figure 21).
h) Tonearm may move and green light [2] starts to blink (Figure 22). It indicates that tonearm is ready but is not yet actively guided, since it is far from the LP's outer edge. Gently push tonearm's armtube towards LP. When green light [2] stops blinking, it indicates that tonearm's guidance started. Do not resist to tonearm's movement, it has to operate freely. Perform final adjustments of cartridge position using Reed 5T Protractor.
i) Lower down the microlift at any track of LP and enjoy the music.

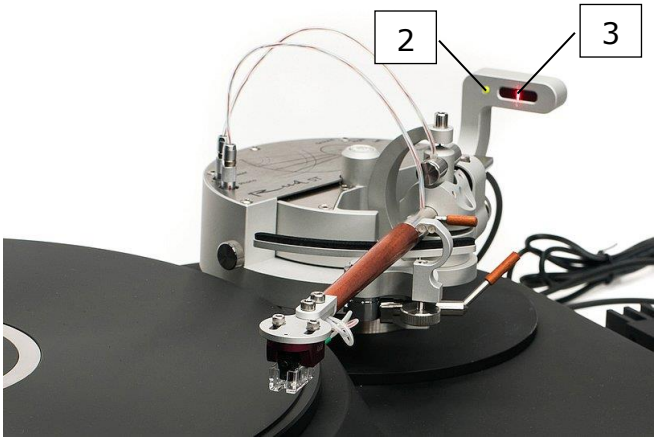

Figure 22

10. Tonearm operation:

a) When tonearm is operating, laser beam should point to the center of sensor grid [3] (Figure 22)
b) When tonearm's armtube reaches the end of LP record, it's active guidance stops and green light [2] starts to blink.
c) If you will interrupt laser beam for more than 0.5 seconds or laser beam will not point to the grid, automated guidance of tonearm will stop and light [2] will start to blink red and green.
d) If you interrupted laser beam while playing the record, please press "On/Off" button [1] while playing (Figure 21).

e) Tonearm was designed and tested in various real life situations, so possibility to damage LP or cartridge is no bigger than using conventional tonearm with antiskating mechanism.

f) In every situation when you are not sure what is happening, lift up armtube using microlift, move armtube in a way that laser beam was pointing to the center of a sensor grid, and press “On/Off” button.

g) Please avoid applying force and swift movements when touching armtube. If light [2] started to blink red (Figure 22), it means that tonearm operation was overloaded. In such case, please perform Step 10-f of this User manual.