



TURNTABLE

DISCOVERY

ASSEMBLY INSTRUCTIONS

DS Audio Optional Spindle

THANK YOU

for purchasing the Kronos Discovery Turntable.

The Kronos Discovery has been designed to produce the best musical sound reproduction possible from a vinyl record. It is built without compromise for this single purpose. It is a state-of-the-art hand-built musical instrument. Each Kronos is individually crafted, assembled and tested to ensure years of musical enjoyment.

The Kronos counter-rotation system is unique and protected by a patent.

It is important that you take the time to read this manual before assembling, installing and operating your Kronos. Assembly is simple, provided you follow all the necessary steps. Leveling of the turntable is particularly important, as well as grounding it properly.

Once this is done, you will find the Kronos Discovery will not require frequent adjustments as it is a very stable platform. Of course, mandatory care must be given to setting up the tone arm and cartridge, as in any other turntable.

We recommend using the Discovery RS tonearm to optimize your vinyl playback performance. For setup instructions, please refer to the Discovery RS Tonearm Assembly Instructions.

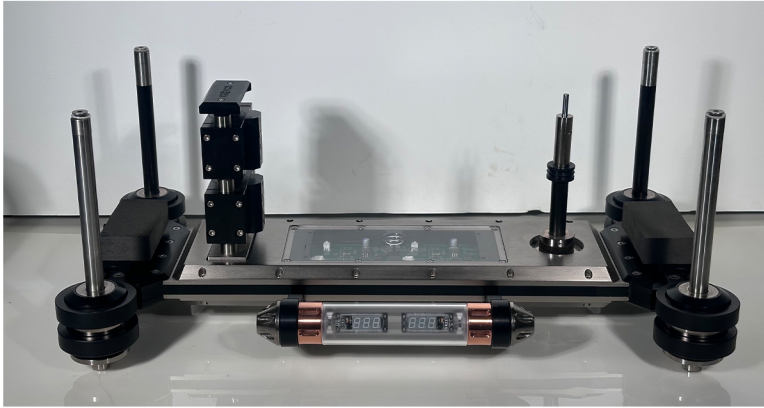
Please keep in mind that your Kronos will need to settle for its first few days of operation. The self-learning speed guidance system will calibrate itself with use. After a few hours, it will attain speed more quickly. The microprocessor-controlled speed control operates in a slow and deliberate manner. This use of minimal power reduces motor-induced vibration and hence optimum musical enjoyment.

Thank you for choosing KRONOS Audio.

Enjoy

A handwritten signature in black ink, reading "Louis Desjardins". The signature is fluid and cursive, with the first name "Louis" and last name "Desjardins" clearly distinguishable.

Louis Desjardins
Designer and CEO of Kronos Audio Products inc.

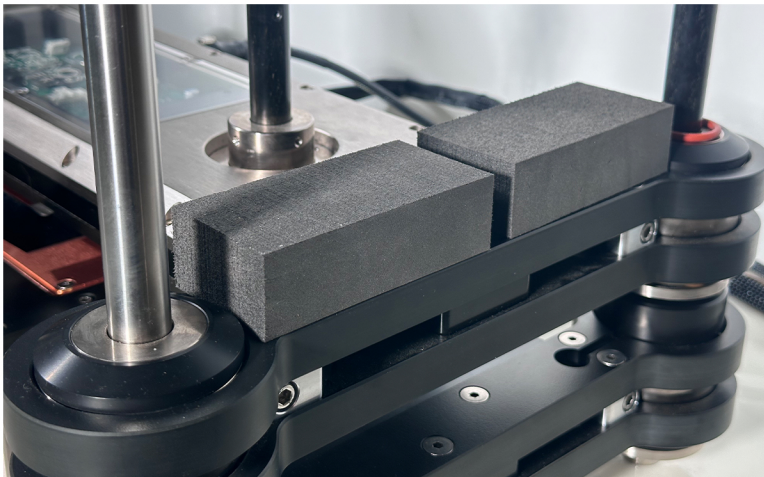


1

Install the DISCOVERY base on your equipment rack.

Ensure the unit is positioned on a stable and level surface before proceeding

If you are installing DISCOVERY along with the optional SCPS-D, please first install the SCPS-D with the Discovery turntable upon it.



2

Keep the 4 foams spacer in place.

The spacers ensure the upper plinths remain properly spaced during assembly. **They will be removed in Step 17.**



3

Connect the 6 PIN control cable to the rear panel of the DISCOVERY.

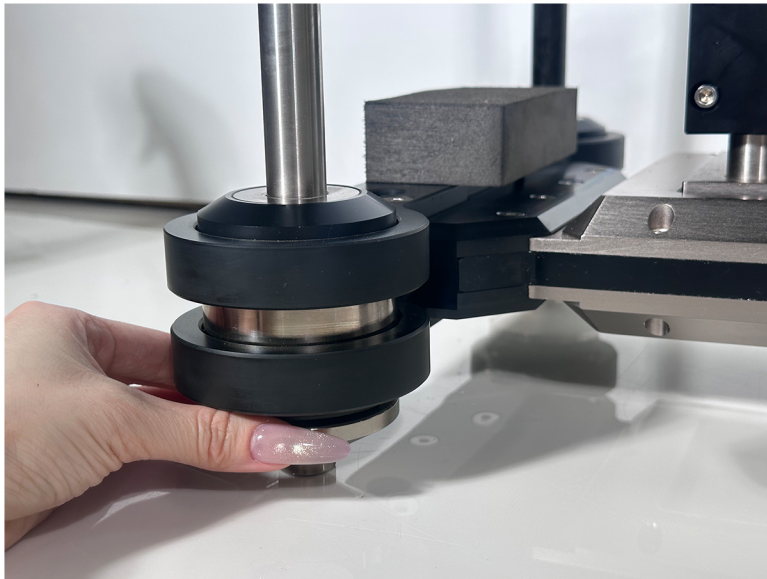
please make sure the cable connector properly **CLICK-IN**.



4

Connect 2 supplied grounding cables to the rear panel of the DISCOVERY.

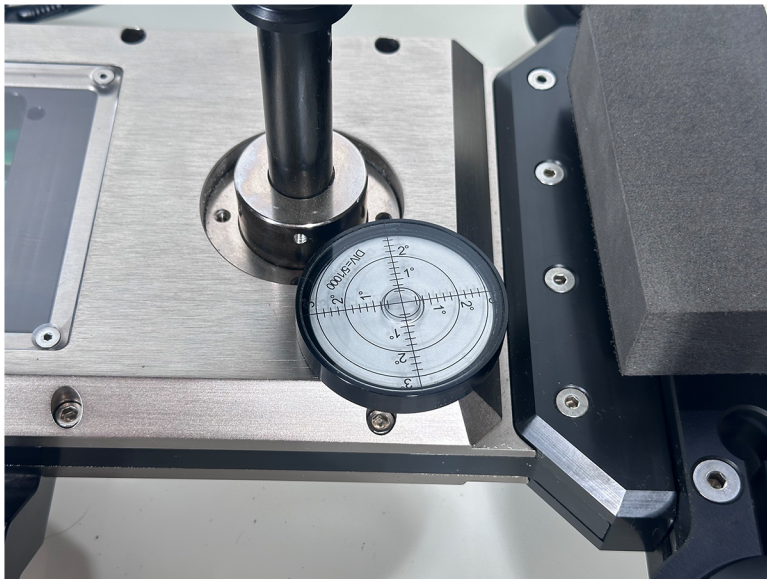
The other end of these cables will later connect to the two upper plinths.



5

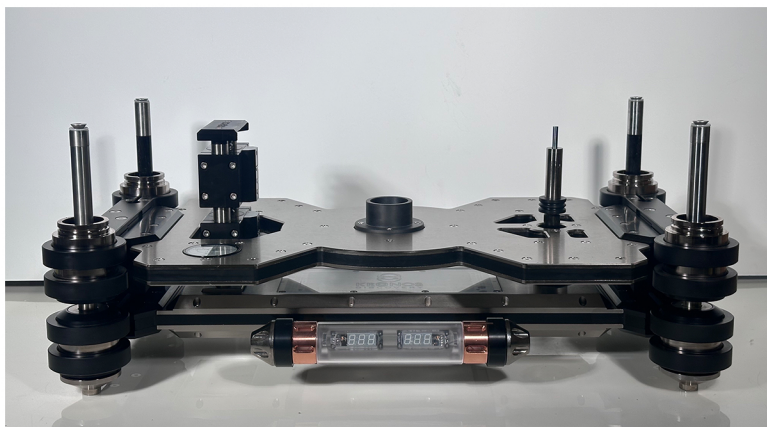
Adjust the level of the DISCOVERY base by unscrewing/screwing the 4 adjustable feet.

Rotate the feet as required until the base is approximately level.



6

Use the supplied precision level to level the DISCOVERY base.



7

Install the bottom plinth onto the DISCOVERY base.

Lower the bottom plinth **carefully** and evenly into position.

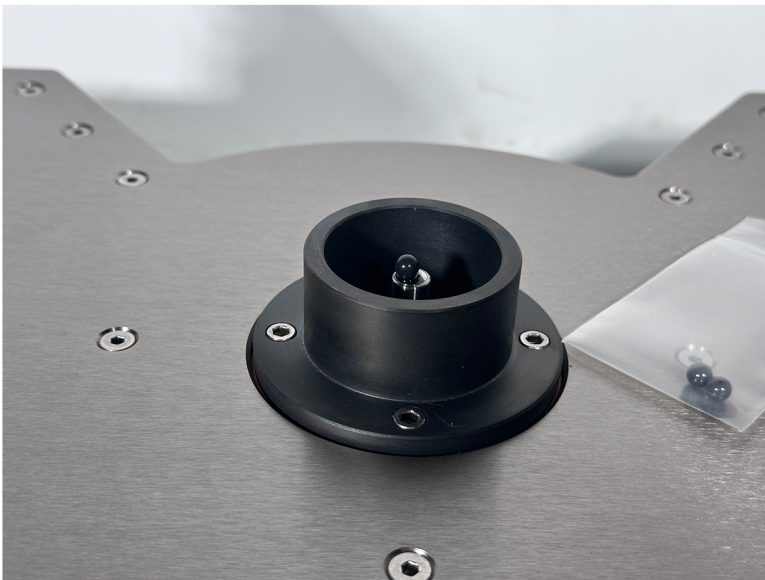
Ensure the orange O-rings inside the suspension tubes remain correctly seated during installation.



8

Add 10 ml of BEARING OIL to the bearing cup well.

Please ensure a small amount of oil is also applied to the bearing shaft.



9

Place the bearing ball on top of the bearing shaft.

PLEASE MAKE SURE THE BALL DOES NOT FALL OFF THE SHAFT.

A small amount of the supplied Vaseline grease may be applied to help keep the bearing ball in position during assembly.



10

Install the bottom platter onto the bearing shaft.

Lower the bottom platter carefully into position and **PLEASE MAKE SURE THE PLATTER IS FULLY SEATED ON THE BALL.**

PLEASE MAKE SURE THE BALL DOES NOT FALL OFF THE SHAFT.

The platter should rotate freely if the bearing ball remains correctly seated.

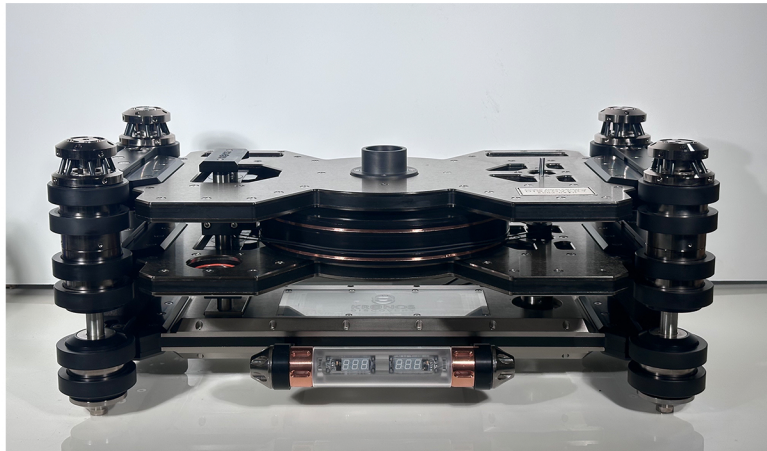


11

Install 2 belts onto the motor pulleys and the passive pulleys.

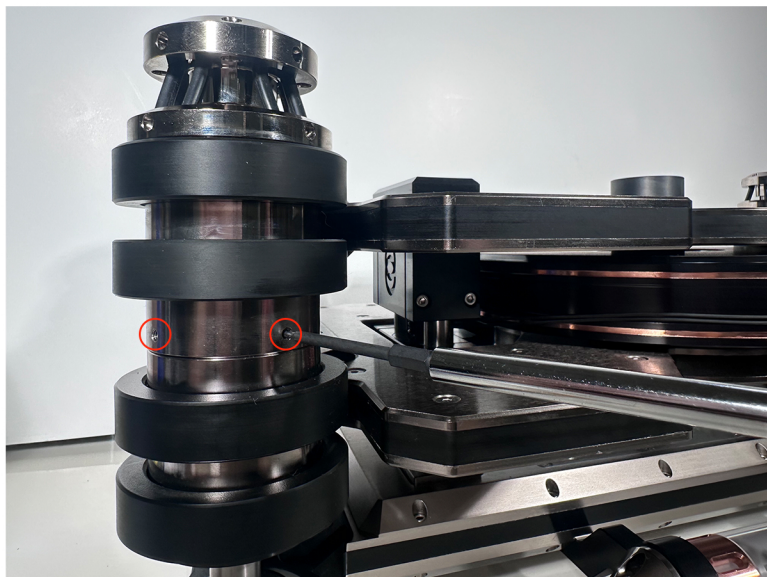
Please make sure the belts are properly seated in the pulley grooves and **are not crossed**.

Rotate the platter by hand with the belts in place to verify smooth operation.



12

Place the top plinth onto the bottom plinth as shown below.



13

Lightly tighten the 8 set screws on the coupling tubes.

Please ensure all set screws are securely tightened.

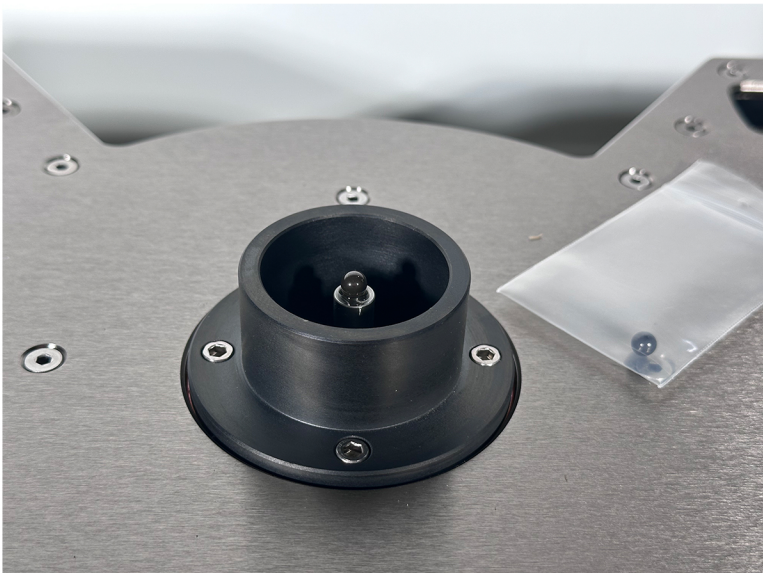


14

Add 10 ml of BEARING OIL to the bearing cup well.

Please ensure a small amount of oil is also applied to the bearing shaft.

(Same as step 8)



15

Place the bearing ball on top of the bearing shaft.

PLEASE MAKE SURE THE BALL DOES NOT FALL OFF THE SHAFT.

(Same as step 9)



16

Install the top platter onto the bearing shaft.

Lower the top platter carefully into position and **PLEASE MAKE SURE THE PLATTER IS FULLY SEATED ON THE SHAFT.**

PLEASE MAKE SURE THE BALL DOES NOT FALL OFF THE SHAFT.

The platter should rotate freely if the bearing ball remains correctly seated.

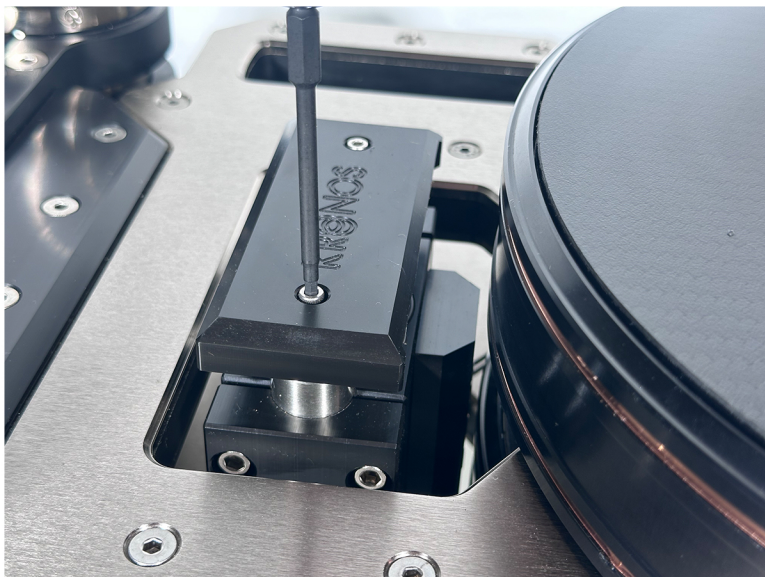
(Same as step 10)



17

Remove the foam spacing blocks on the right and left side.

The top 2 plinths are now fully suspended.



18

Remove the top motor cover.

This will permit you to install the drive belts.



19

Position the passive pulley onto the shaft as shown.

Ensure the pulley is fully seated and rotates freely.

Apply a small amount of the supplied Vaseline grease to the passive pulley shaft and ceramic washer.

Then position the passive pulley onto the shaft.

Note: The passive pulley should be removed, cleaned, and reinstalled every 2 months.

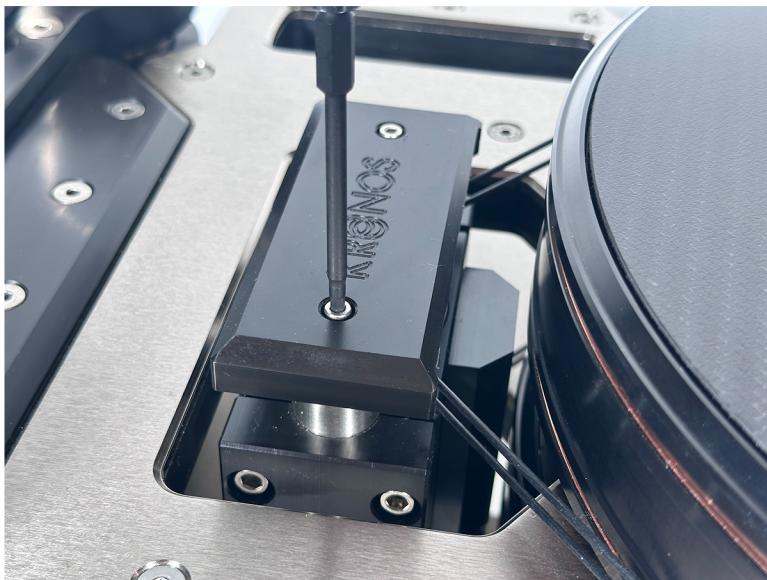


20

Install 2 drive belts onto the motor pulley and the passive pulley.

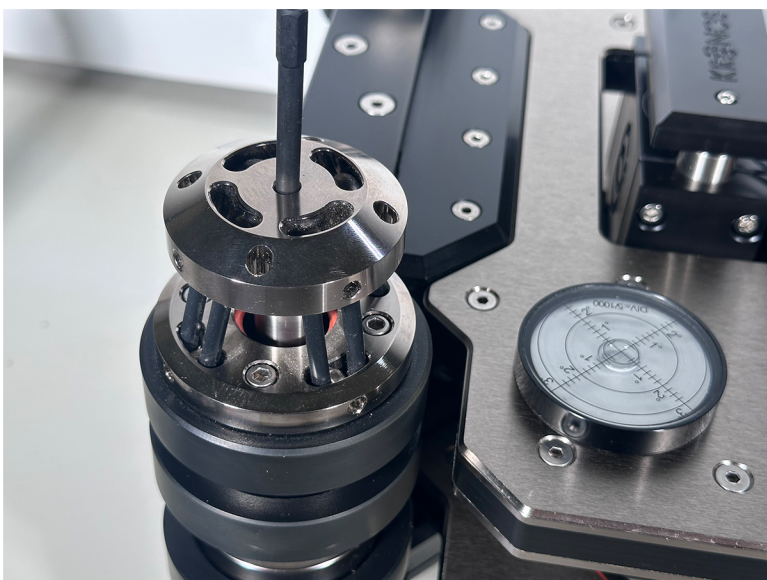
Please make sure the belts are properly seated in the pulley grooves and **are not crossed**.

(Same as step 11)



21

Reinstall the top motor cover.



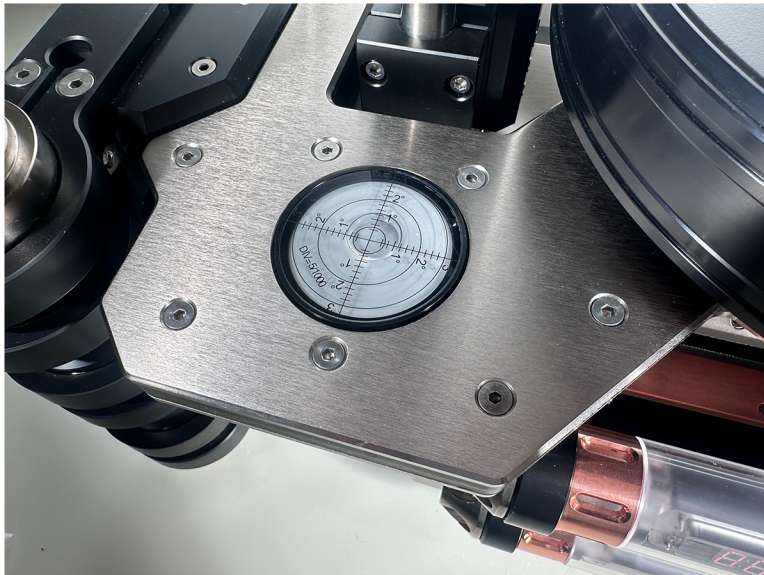
22

After installing the tonearm, verify that top plinth is level.

If necessary, adjust the suspension using the adjustment screws shown below.

First screw down the level adjustment screws. Raise **3 out of 4** screws to complete the leveling of the top plinth.

Note: Place the supplied level directly on the top plinth or preferably on the top platter



23

Place the supplied precision level in its storage location on the bottom plinth for future use.

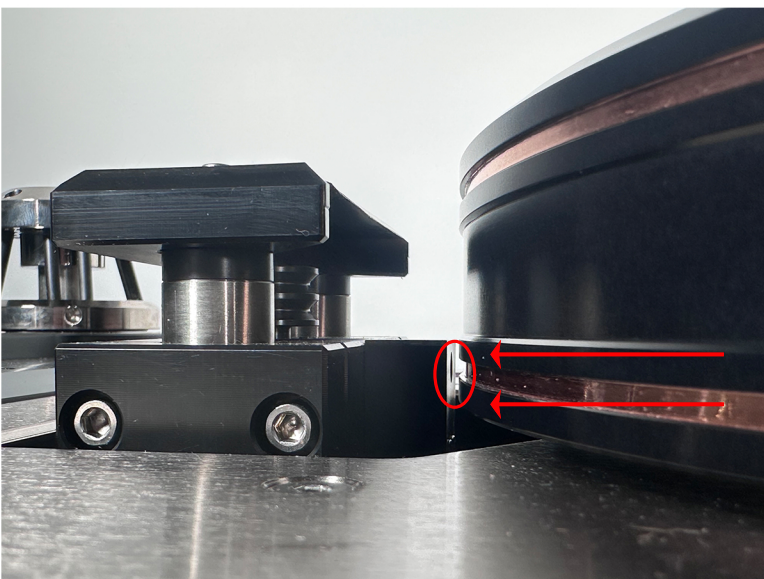


24

Loosen (DO NOT REMOVE) the 6 set screws as shown below.
(6 per side, 12 in total)

The screws should remain only lightly tightened.

Note: If the turntable is disassembled in the future, lightly re-tighten these set screws before reassembly.



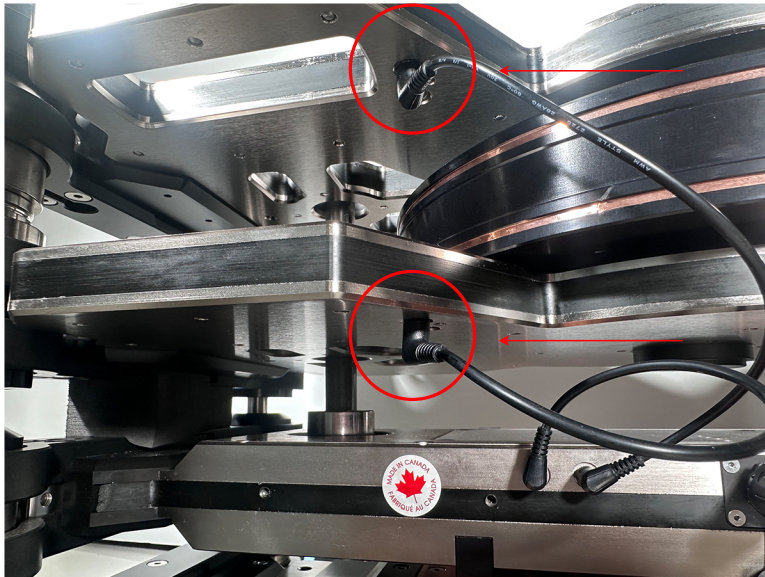
25

Sensor Height Verification

The **copper ring of the platter** should be **aligned** with the **optical sensor** located in the motor assembly.

Adjustment is only required if the alignment has been disturbed.

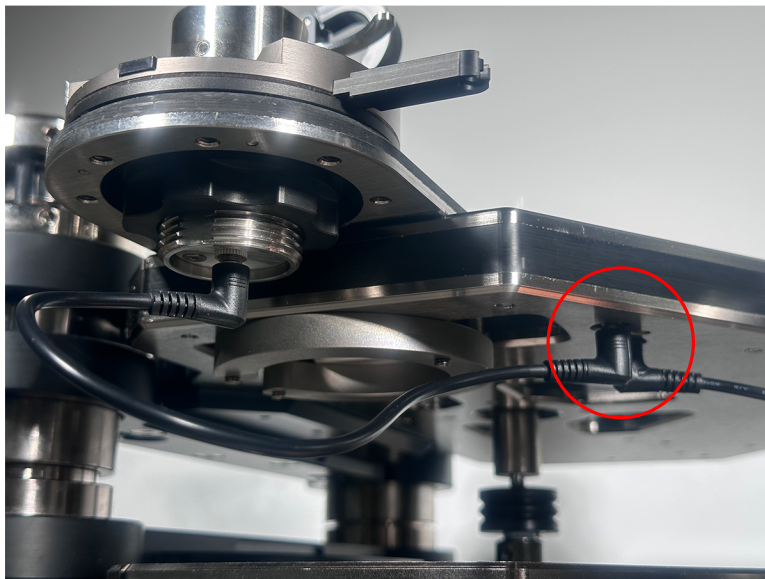
This adjustment is performed and verified at the KRONOS factory. If the alignment is no longer correct, it has most likely been affected during the leveling process, as raising the top plinth may slightly alter the sensor alignment.



26

Connect the two supplied grounding cables to the rear grounding terminals of the top and bottom plinths.

Ensure both grounding cable connectors are fully seated and click securely into place, as shown in the photo.

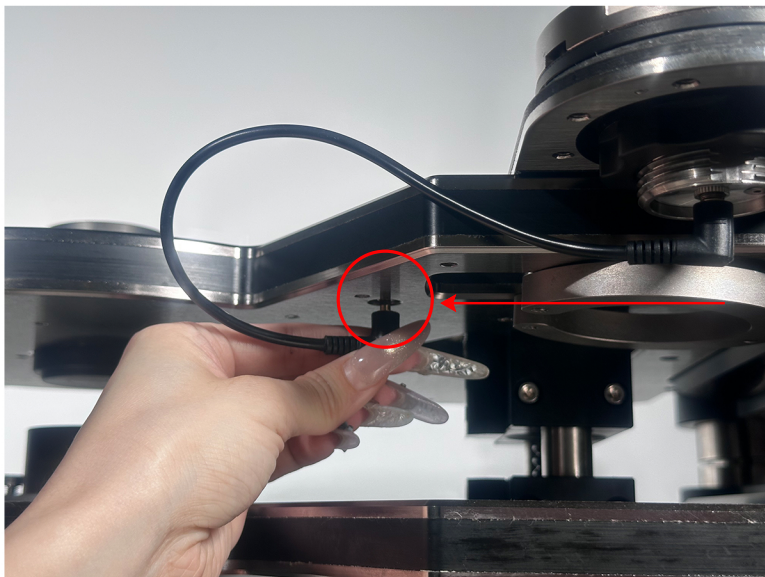


27

Connect the tonearm grounding cable(s) to the rear grounding terminals of the top plinth.

Primary tonearm:

Connect the grounding cable to the **right rear** grounding terminal of the top plinth.



Second tonearm (optional):

Connect the grounding cable to the **left rear** grounding terminal of the top plinth.



Connect the DC power cable to the appropriate connector.

If NOT using the SCPS-D:

Connect the cable to the 8V output socket located on the rear panel of the DISCOVERY power supply.

Ensure the internal toggle switch inside the power supply remains in the **DOWN** position.

This is the factory default setting and normally requires no adjustment.

If the SCPS-D was **not** ordered at the same time as the DISCOVERY turntable, verify that the internal toggle switch is in the DOWN position before use.

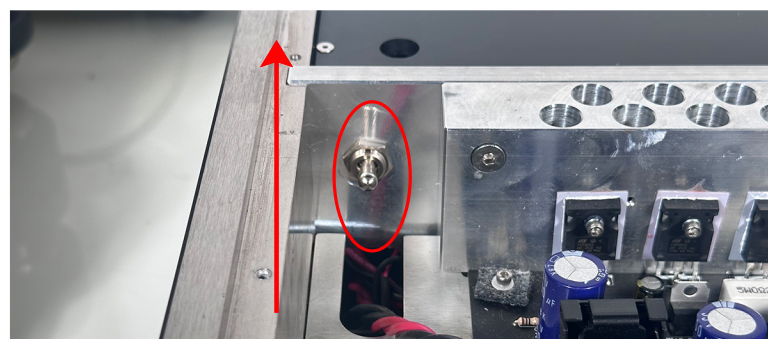


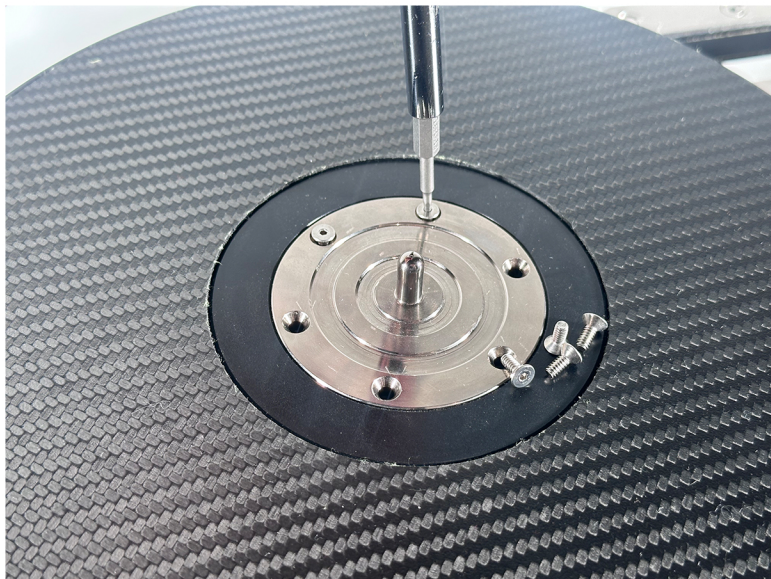
If using the SCPS-D:

Connect the cable to the corresponding output connector on the rear panel of the SCPS-D.

Ensure the internal toggle switch inside the power supply is in the **UP** position.

This setting is required when using the SCPS-D.





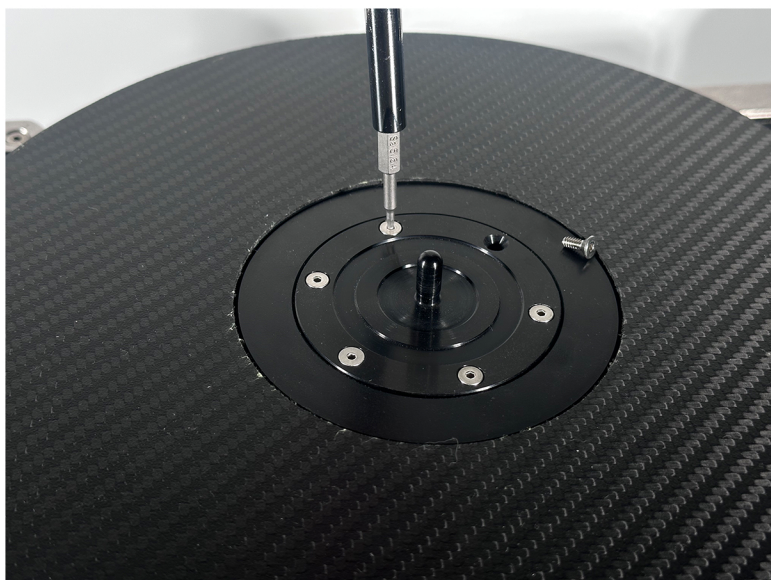
Optional DS Audio Optional Spindle Installation

Note: Install the DS Audio Optional Spindle **only** when using the DS Audio Centering Device. Please contact your authorized KRONOS distributor for availability.

A

Remove the original spindle

Remove the original spindle by loosening and removing the six retaining screws.



B

Install the DS Audio Optional Spindle

Do not overtighten the retaining screws. Tighten them only until the spindle is securely seated.



29

Install the record weight

Place the record clamp onto the installed spindle

Note: The supplied record weight **is not** intended to function as a record clamp.

KRONOS **does not** recommend the use of clamping weights with the Discovery turntable.



30

Connect a high-quality AC power cable to the power supply.

Connect a high-quality AC power cable to the AC inlet on the rear panel of the power supply.

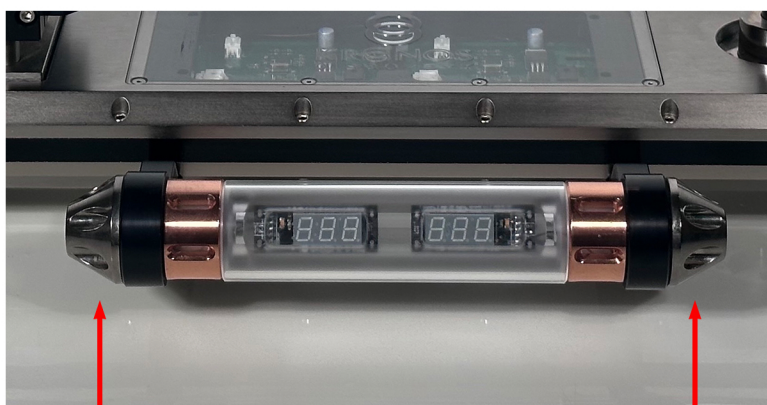


31

Connect the AC power cable directly to a grounded wall outlet.

The AC power cable should be connected **directly** to a properly grounded wall outlet.

Avoid using power conditioners, power regenerators, isolation transformers, or active grounding systems, as they may affect the performance of the turntable.



32

Front Panel Controls

A — LED Display ON/OFF

Rotate **A** to turn the LED display on or off.

B — Speed Selection

Rotate **B** to switch between 33 $\frac{1}{3}$ rpm and 45 rpm.

TECHNICAL SPECIFICATIONS:

rotational speed:	33.3 rpm and 45 rpm
tonearm length:	9 inches to 12 inches
dimensions (inches) :	27.5 in (W) x 15 in (D) x 10.5 in (H)
dimensions (cm) :	70 cm (W) x 38 cm (D) x 27 cm (H)
turntable weight :	120 lbs / 54 kg
power supply weight :	52 lbs / 24 kg
SCPS-D weight :	23 lbs / 10.5 kg
crate dimensions (inches) :	37 in (W) x 17.5 in (D) x 13 in (H),
crate dimensions (cm) :	94 cm (W) x 44.5 cm (D) x 33 cm (H)
shipping weight:	250 lbs / 113kg
number of tonearm:	2
power supply:	dedicated external low-noise linear DC power supply
ac voltage input:	110V or 220V factory set
dc voltage output:	0 to 5 volt, dual mono cpu controlled, factory calibrated
drive system:	dual counter-rotating platter architecture
motors:	DCX precious metal brushes dc motors (qty 2)
motor mounts:	delrin enclosure, height adjustable
speed guidance system:	2 continuous open feedback hall effect
sensors type:	2 optical diode I/O and 2 motor tachymeter
speed accuracy:	adaptive closed-loop monitoring system
correction cycle:	60 times / rotation. $\pm 0.015\%$ min.
platter type:	composite layers with copper and encapsulated, balanced
platter weight:	17 lbs (7.7 kg) / platter
drive:	2 silicone/viton string belts / platter
compensation pulley:	teflon and chrome steel bearing
lubricant:	petroleum grease
service interval:	3 months (clean and re-grease)
main bearings:	dual hydraulic isolated inverted sleeve and ball
shaft type:	ground heat-hardened tool steel
ball type:	precision ceramic
lubricant:	10 ml variable Automotive motor oil (SAE 20W-50)
service interval:	5 years (clean and re-oil)
suspension:	full floating top suspended
elastomers:	317 o-rings, viton/silicone proprietary mix

KRONOS

TIME FOR MUSIC®

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