

ORACLE AUDIO

The Fine Art of Playing Music



Drorigine MkII

Owner's Manual

Oracle Audio Technologies

Foreword

Thank you for purchasing the Oracle Origine MkII turntable! We sincerely appreciate your support! Your Origine turntable is a precision instrument and its performance is directly linked to the quality and accuracy of the different adjustments you will perform. It is important to set up your new turntable with the utmost care so it can effectively convert record groove modulations into a stunning musical experience.

Optimal performance and accuracy of your source system can only be achieved by following a logical step by step process where each and every minute detail about the turntable calibration, tone arm and cartridge installation and alignment are carefully and accurately executed with maximum precision.

For your records

Origine serial Number: _____

Dealer Name: _____

Dealer Address: _____

Dealer Phone: _____

Purchase Date: _____

We strongly suggest you keep your purchase invoice together with this owner's guide.

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Unpacking your *Origine*

Before you begin the setup and the calibration process, it is important that you find a clean and rigid surface where you will be able to safely place the turntable and all its parts for the assembly. Make sure there is adequate lighting.

The packaging system has been designed to protect your Origine from the abusive handling possibly encountered during shipping. Such packing material is expensive, the replacement cost is over 250 \$. We strongly suggest that you save it as well as the protective plastic bags for future use. When repacking your turntable, position each item in its allocated section and always use the protective plastic bags to prevent a direct contact of the different acrylic surfaces with the foam packing material.

NOTE: The bottom foam section contains the Origine tonearm. If you ordered your Origine with the optional Ortofon MC-1 Turbo cartridge, know that it has been installed and calibrated at the factory. Handle the tonearm gently and with extreme care to prevent any damage to the phono cartridge or wire harness!

It is mandatory to use the original packaging for any warranty return to the factory!

All the accessories are strategically and safely located in the packaging to prevent them from moving around during transit preventing any damage to your turntable.

- Open the outer box.
- Lift the top two spacer foam rectangle blocks.
- If your Origine turntable was ordered with the dustcover, lift the dustcover straight up out of the box and set it aside on your work table.
- Remove the top flat foam piece. (It might be stuck inside the dust cover).
- Carefully remove the contents of the middle section and put them aside
Remove the middle section and set it aside.
- Remove the Origine's main plinth from the bottom section and set it on your work surface.
- Very carefully remove the Origine tonearm from the bottom foam section and delicately place it on your work table.

NOTE: There exists a cavity under the middle foam section which was designed to provide clearance for the tonearm's bracket underneath which extends higher than the bottom foam section. Make sure to align this cavity properly with the tonearm when repacking your Origine.

You can see below the turntable components as they appear inside the packaging. **Some of the plastic bags have been removed for the picture clarity purpose.** Using the protective plastic bags is necessary to prevent surface scratches to your Origine turntable. If you have to repack your turntable make sure you use the protective bags.

Top foam section



Under the platter



Bottom foam section



List of contents

Top section :

- Dustcover (Optional)

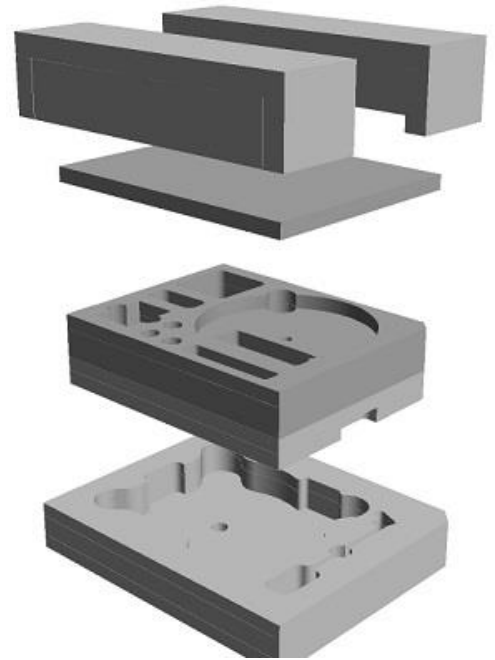
Note : The optional dustcover will also be in a protective plastic bag. It is extremely important to always place the dust cover in its protective bag when repacking the Origine to prevent any surface damage due to the rubbing against the foam packing material. **Never place any object on top of your dustcover** to avoid damaging it with scratches, its surface is very delicate and was polished with great care!

Middle section :

- 1 x pair, white gloves
- 1 x Drive belt
- 1 x Syringe of spindle oil
- 1 x Record clamp
- 3 x Leveling feet
- 1 x Tonearm tracking force calibration tool
- 1 x Tool bag (Allen keys, ground wire, spirit level)
- 1 x Brilliance cleaner and lint free cleaning cloth
- 8 x Anti-skating calibration stainless steel pins
- 1 x Calibrator disc
- 1 x Platter & spindle assembly
- 1 x Motor housing
- 1 x AC power adaptor

Bottom section :

- 1 x Origine main plinth assembly
- 1 x Origine tonearm
(with or without the optional Ortofon MC-1 cartridge).

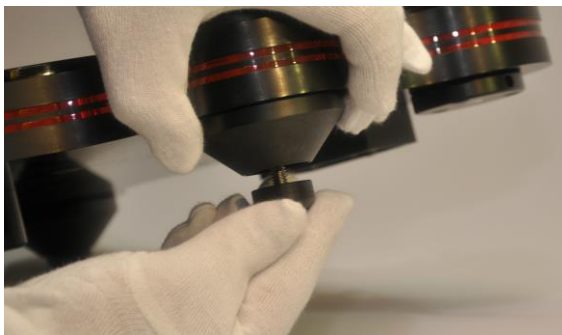


Installation procedure

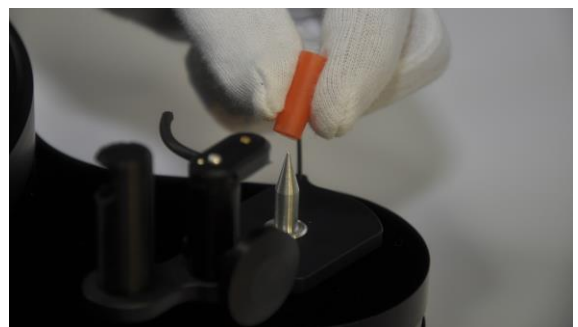
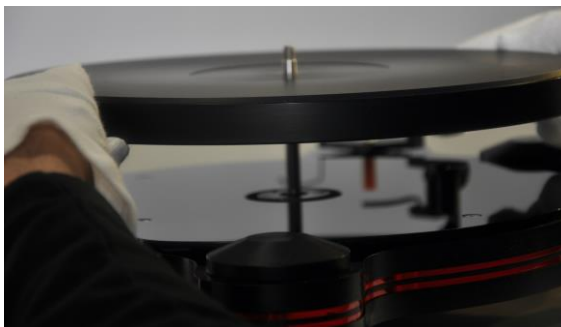


Note : A pair of white gloves is part of the accessories kit provided with your Origine turntable. We strongly suggest that you use them. Remove your gloves for manipulating the oil syringe and filling the spindle holder to prevent the contamination of the gloves. We suggest to wear the gloves when manipulating the platter as well!

- Install the three adjustable feet by screwing them under each of the three legs of the Origine.
- Add the full content of the syringe (5ml) of bearing oil into spindle holder.



- Gently install the platter by slowly and vertically lowering the spindle in the spindle holder.
- Remove the orange protective cap on top of the tonearm pivot shaft.

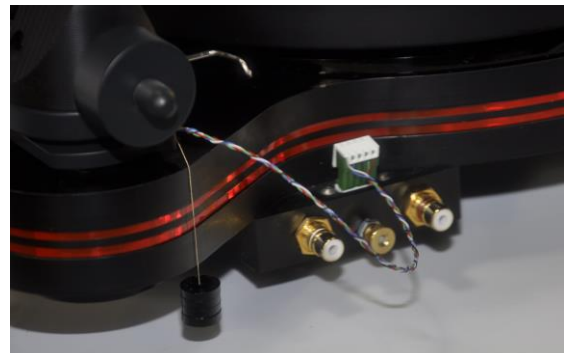
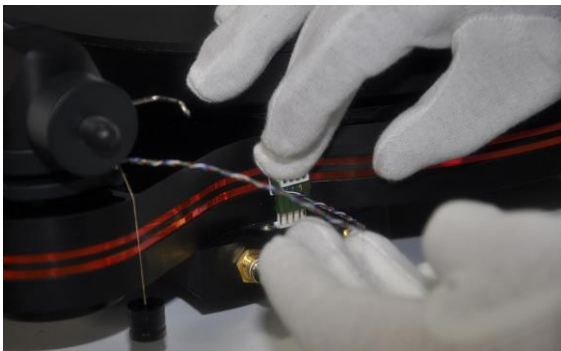


Note: Use this protective cap every time you remove the tonearm from the pivot shaft. Be careful from now on as the tip of the pivot is extremely sharp and could cause injury!

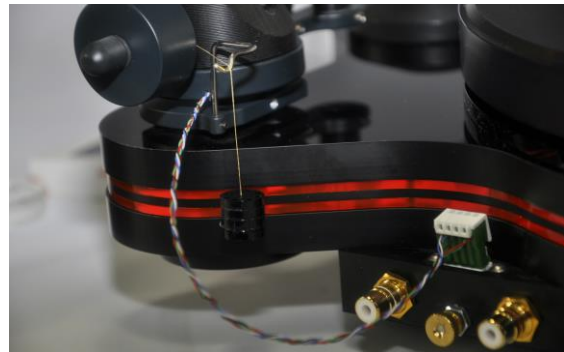
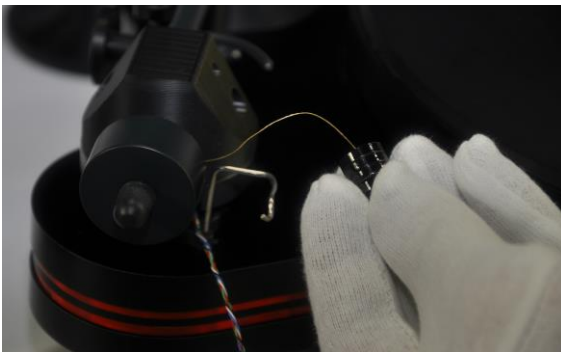
- Delicately position the tonearm over the pivot shaft being extremely careful not to hit the tonearm base against the tip of the pivot shaft as this would damage it. **Keep your stylus guard on your phono cartridge for now.**
- Clip the Origine tonearm in the armrest.



- Connect the tonearm wire harness (the 5 pin green connector) to the 5 pin header at the top of the RCA output box at the back of the Origine. **Note: this is a polarized connector and it can be connected in only one direction!** Once connected, the wires from the green connector should be pointing away from the turntable.
- Make sure that the delicate tonearm wires are free and that they do not get in contact with the RCA cables or ground cable. Any stress or tension on the tonearm wires will have an impact on the tonearm's free motion and will affect the sound reproduction.

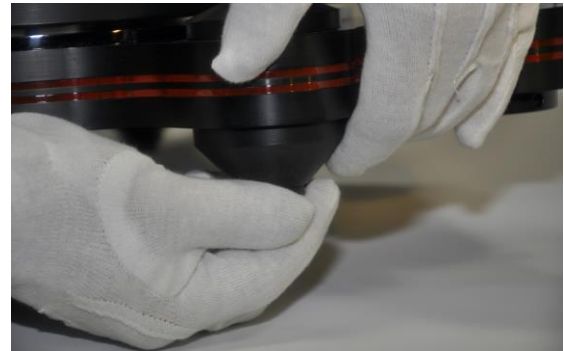


- Setup the anti-skating weight. One end of the string is already attached to the tracking force stem at the rear of the tonearm base. Gently lead the anti-skating barrel string up and over the support hook located at the rear of the tonearm base letting it hang freely. Make sure the string holding the barrel is not twisted around the tonearm wires! The acrylic barrel itself represents a weight of one gram. The provided small stainless steel pins each have a mass of 0.25 gram.



NOTE: For the Ortofon MC-1 Turbo cartridge we have found that anti-skating adjustment is achieved by a weight of approximately one gram, which is precisely the weight of the empty anti-skating barrel. This means that you will not need to use the additional mass from the small metallic pins.

- It is time to level the Origine using the supplied circular spirit level.
- Position the spirit level **near the spindle**, on the **flat central recess of the platter!**
- Level your Origine using the adjustable feet system.



- **Note:** It is important to always use the center of the platter as a reference for leveling your Origine turntable! The platter of the Origine is machined with a slight incline starting at the edge towards the center. Only the central recess area is flat.

NOTE : It is extremely important to precisely level the platter of the Origine. If the platter is not leveled correctly, the azimuth (the vertical alignment of the stylus of the cartridge with the record groove when viewed from the front of the cartridge) will not be perpendicular to the record surface! This will have a negative impact on the tracking accuracy when reading the groove! **The sound quality of your Origine greatly depends on the precision of the leveling of its platter surface and precise azimuth calibration!**

Adjusting the tracking force (VTF)

The vertical tracking force adjustment consists of adjusting the force exerted by the tonearm on the stylus according to your phono cartridge manufacturer's recommendation. The recommended tracking force of a phono cartridge is expressed in weight with grams as units of measure.

- Remove the stylus guard and bring the stylus on the scale's lever to the desired tracking force (1.8g for the Ortofon Mc-1 Turbo, see your cartridge's specifications).
- With one hand firmly holding the tonearm's head, move the rear counterweight of the Origine tonearm forward or backward along the counterweight stem until the scale's white plastic lever is leveled horizontally, parallel to the smokey acrylic support.



Tracking force too low



Tracking force too high



NOTE: When the Origine is ordered with the optional Ortofon MC-1 Turbo cartridge the tonearm and cartridge were pre-calibrated at the factory by our technicians. Still it is important to validate that the tracking force is set at 1.8g as the rear counterweight may have moved during transport.

If you are using a different phono cartridge it is time to install it to the headshell allowing you to perform your tracking force adjustment. Please refer to the phono cartridge installation section on page 13.

Motor positioning & the AC adapter:

- Connect the power adapter to a wall outlet and the round cylindrical connector to the power input at the rear of the motor housing.
- Position the motor unit on the left side of your Origine turntable so the motor housing matches with the concave recess section of the plinth with the power connector pointing towards the rear. This will position the On / Off switch button on the front left side of the motor unit.

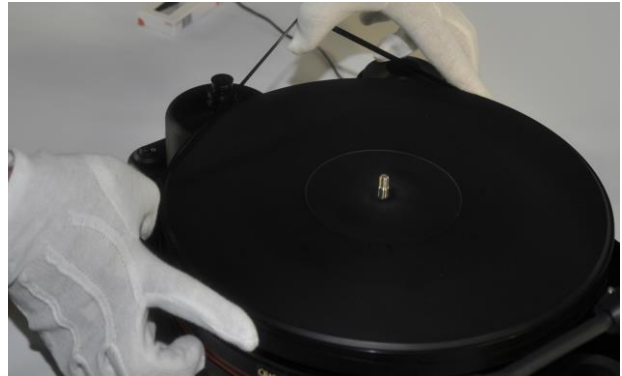


Note: It is important that the motor housing does not touch the plinth of the Origine to avoid the transmission of vibrations to the plinth! The motor of the Origine should be positioned at about 16mm (5/8th of an inch) from the plinth of the turntable.

Drive belt installation & 33^{1/3} rpm / 45 rpm speed selection

Note: The Origine drive belt has two different surfaces on each sides! One side has a glassy finish while the other side has a rough finish. It is very important that the rough side of the drive belt be the surface that is in contact with the platter's perimeter and the motor's pulley to ensure maximum friction!

The installation of the drive belt is done by circling it around the outside platter perimeter first and then looping it around the motor pulley using both hands as shown in the pictures below.



The top section of the motor's pulley is the $33^{1/3}$ rpm speed position while the bottom section of the pulley is the 45rpm speed position.



You do not have to move your motor when changing the speed of the Origine! When your $33^{1/3}$ rpm speed is calibrated properly, your 45 rpm speed will also be right on the money!

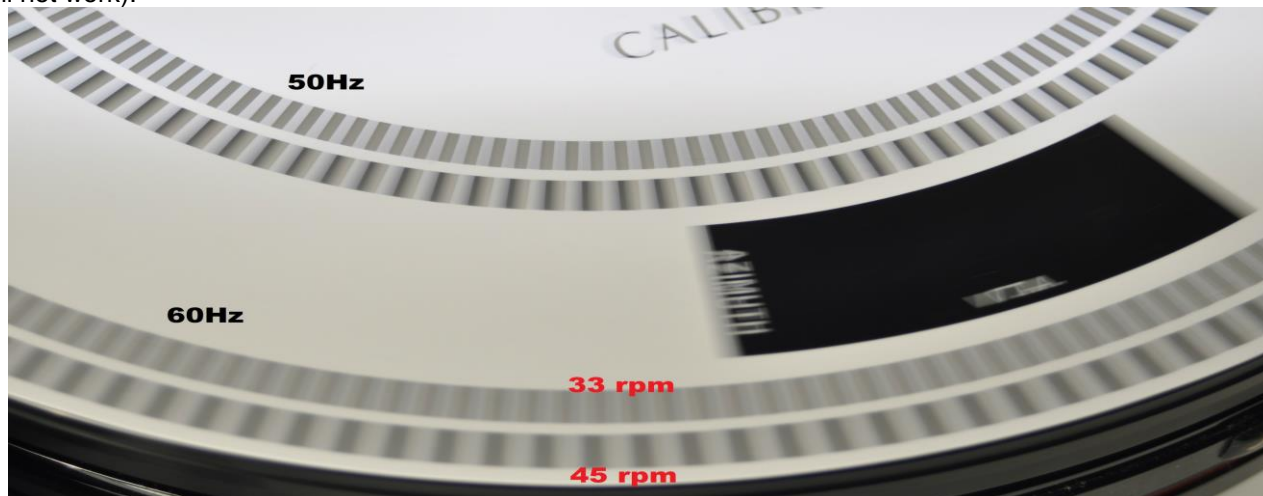
NOTE: Always turn the motor "Off" before repositioning the belt on the pulley to change the speed! Before you turn the motor "On" again make sure to align the belt on the platter's perimeter with its new height on the motor pulley by manually spinning the platter by at least two full turns. The belt will slowly align at its new height around the platter and you will then be able to start your motor again without the belt falling off. Preferably, use the record clamp to manually rotate the platter to avoid touching the perimeter of the platter with your fingers.



Speed calibration

The precise setting of the rotation speed of the platter is fundamental in order to ensure that the harmonic structure of the musical notes be reproduced with accuracy! The most precise method to calibrate the platter rotation speed is to use of the supplied Calibrator disc to locate the desired motor position with respect to the plinth..

Place your Calibrator disc on the platter and use an incandescent light source to ensure that the strobing effect of the Calibrator disc is easily and clearly visible. (Light sources like the Sun or battery powered flashlights will not work).



Note: The outer set of two strobe marks is for 60Hz and the inner set of two strobe marks is for 50Hz. The inner band of strobe bars is for 33rpm while the outside band is for 45 rpm.

- Turn on the motor at $33\frac{1}{3}$ rpm and validate that you can see the strobing effect of the lines on the Calibrator disc that correspond to 60Hz.
- Moving the motor closer to the plinth will cause the speed to increase very slightly. Moving it away from the plinth will cause the speed to slow down slightly.
- Position the motor where the strobe marks come to a standstill.



Note: If you have never used a Calibrator disc before we recommend that you learn more about it with the help of our Calibrator disc owner's manual available on our website's product page for the Calibrator disc.

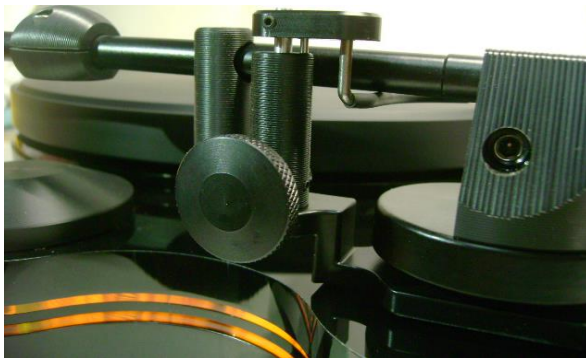
Installing the phono cable (not included)

- Plug your RCA to RCA interconnect cable at the rear of your Origine then plug the other end to your phono stage amplifier, pre-amplifier or integrated amplifier phono input. Make sure to follow the right and left signal and not invert them.
- Connect the ground lead from the rear of the turntable to the ground lug on your phono amplifier, pre-amplifier or integrated amplifier using the supplied ground green wire.

Operating your Origine turntable

The cueing mechanism

The cueing mechanism of the Origine is operated by rotating the cueing knob that is attached to your tonearm's support. The white dot painted along the perimeter of the cueing knob indicates the cueing position. When the dot is at the highest position and pointing upwards, the cueing pin is at its highest position and the stylus is off the record. When the dot is pointing towards you the cueing pin is at its lowest position and the stylus is on the record.



The armrest

When placing the Origine tonearm into its armrest or when removing the tonearm from the armrest one should always use both hands. A light pressure is required to fit the tonearm's tube inside the armrest and as the Origine tonearm is a unipivot tonearm such force, when applied nine inch away at the headshell, will have the tonearm's head to move and rotate on the pivot contact point. To minimize this effect, hold the headshell with one hand and use the other hand to apply a force on the armtube exactly in front of the armrest. This will make the use of the armrest quite safer for your tonearm.

Record clamp:

The record clamp is a single piece clamping device made of Delrin for optimal performance whose role is to secure the record against the platter, unwarp slightly warped records and significantly reducing record surface vibrations. The surface in contact with the record is covered with a felt pad. This design will prevent damaging the record's label when clamping the record. Delrin is a very efficient and inert barrier that will keep unwanted vibrational energy away from the record surface. As a result, this energy will not be transmitted to the stylus when reading the record groove. The sonic impact of the Origine record clamp is very audible.

NOTE : Avoid using excessive force when you screw in the record clamp and always power off the motor before you install or remove your record clamp!

The Origine tonearm and its adjustments

The following section will explain the different adjustments of the Origine unipivot tonearm. The proper functioning of your Origine turntable and its level of performance when reproducing music greatly depends on the fact that all the following parameters have been calibrated precisely!

The Origine tonearm is a lightweight unipivot design. There is a moveable weight attached to its armtube that we like to call the Olive. The primary role of the olive is to cut the armtube in two segments, effectively getting rid of unwanted armtube resonances. For phono cartridges of high compliance we have found that the sonically ideal position is in the center of the armtube. However owners of medium and low compliance cartridges are invited to experiment with olive positions closer to the headshell as the proximity of the olive may simulate a higher effective mass and enhance the tonearm / cartridge match. Remember to always re-calibrate the VTF after any olive position change!

Attention! If you have purchased your Origine turntable with the optional Ortofon MC-1 Turbo cartridge know that it has been pre-installed and calibrated at the factory which means that the VTA and azimuth adjustments were already performed on the Origine tonearm.

Phono cartridge installation procedure

- Carefully mount your phono cartridge to the tonearm headshell using the appropriate mounting hardware. Make sure you keep the stylus guard in place during the whole process until you are ready for the final calibration step.
- Secure the cartridge lightly to the headshell so it can be moved for the precision calibration
- Using needle nose pliers connect the tonearm phono leads to the cartridge.
 1. RED is the positive right channel
 2. GREEN is the negative right channel
 3. WHITE is the positive left channel
 4. BLUE is the negative left channel
- Do not install the anti-skating weight pins at this time.
- Remove the stylus guard
- Perform a tracking force pre-setting according to your phono cartridge manufacturer's tracking force recommendation.

Geometry calibration

Note: The calibrator disc alignment with the tonearm pivot shaft is performed with the tonearm tube assembly removed. **The tonearm wiring is very fragile please handle with great care. Before removing the tonearm from its pivot shaft PLEASE RE-INSTALL THE STYLUS GUARD!**

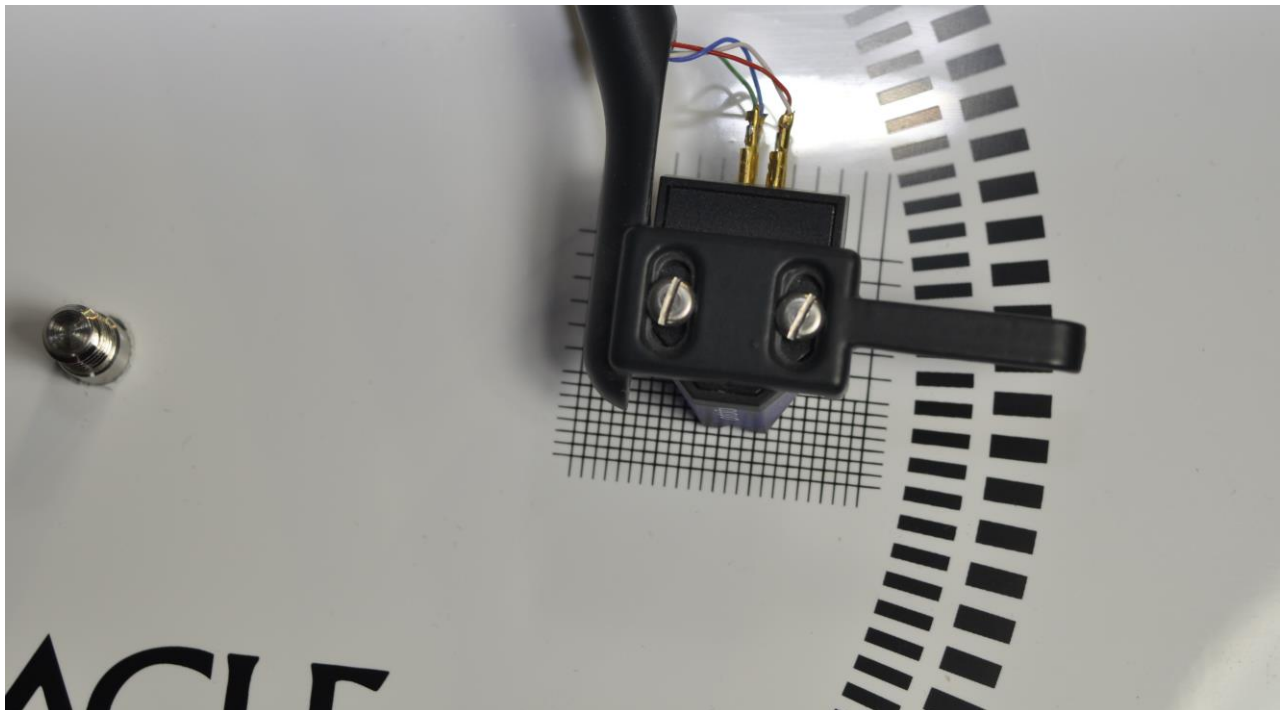
- Lift the tonearm off from its pivot base and set it just near behind the table without disconnecting the 5-pin tonearm harness connector.
- Place the supplied Calibrator disc on the platter over the spindle.
- Position the Calibrator disc so the black line is lining up with the tip of the pivot shaft.



- Use the blue cloth to jam the platter against the plinth preventing its rotation. This way your alignment with the pivot shaft tip will not move during the procedure.
- Gently and carefully put the tonearm back on the pivot shaft and seat it in the armrest post.
- Remove the stylus guard.
- Bring the tonearm over the grid on the Calibrator disc and lower it on the central dot on the grid



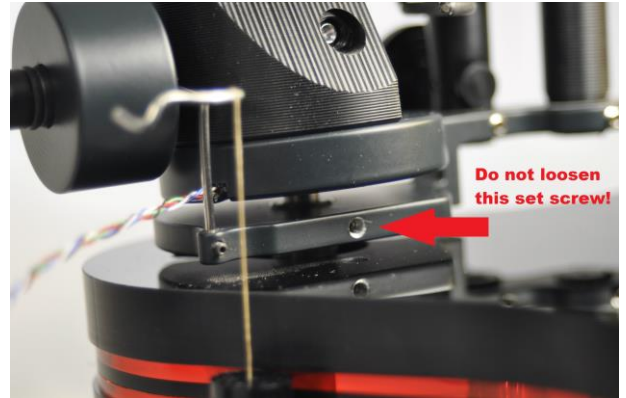
- If the stylus tip is not sitting in the center of the dot on the grid, move the phono cartridge toward the front or the back of the headshell until it is centered with the dot.
- Adjust the phono cartridge so the sides are parallel to the grid or so you can verify that the cantilever is on the same axis as the center line on the grid.



- Secure the cartridge screws enough, without any excessive force, to prevent the cartridge body from moving in the headshell.

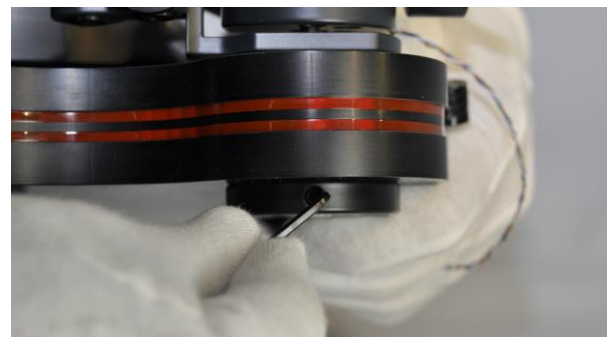
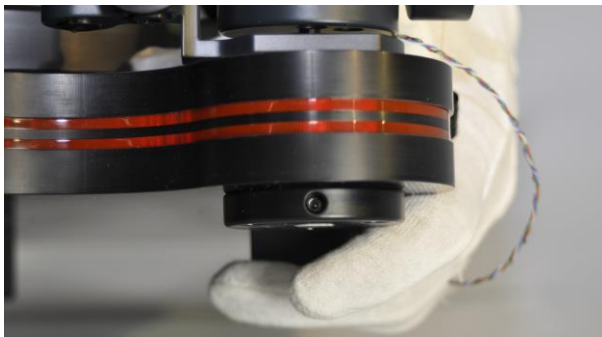
Adjusting the vertical tracking angle (VTA)

Note: If you purchased your Origine turntable with the optional Ortofon Mc-1 Turbo cartridge, there is no need to adjust the VTA as it has been performed by our technicians at the factory when aligning the phono cartridge on the tonearm. This procedure has to be done very carefully to prevent damaging the stylus. For adjusting the VTA it is recommended to use a record of an average thickness. This will ensure that your VTA adjustment stays close to the desired values when playing very thick records like the 180g or the same when playing very thin records. Do not turn on the motor for this adjustment the VTA adjustment is done with a static platter. We recognize that other methods like special records designed for the purpose of precisely calibrating the VTA are available. If you do not have such a record we feel that the method we describe below will allow you to obtain very satisfactory and reliable results.



BEWARE: Do not loosen the set screw holding the tonearm support bracket to the pivot shaft! The VTA adjustment set screw is located on the right-hand side of the flange holding the pivot shaft from under the plinth. See pictures below.

- Install a record on the platter
- Install the record clamp.
- Lower the stylus on the record surface and check if the tonearm tube is parallel to the record surface.
- Before adjusting the VTA, lightly cue up the tonearm and set it in the armrest to avoid any damage to the phono cartridge
- Use the 7/32" Allen wrench to loosen the VTA set screw that holds the pivot shaft. It is located on the right-hand side of the bottom tonearm mounting flange at the 3 o'clock position.

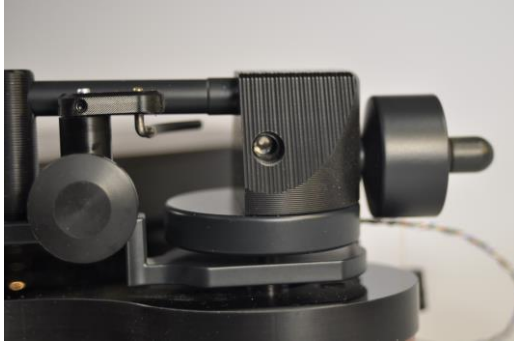


- Move the pivot shaft up or down. The whole cueing and armrest bracket assembly will move along vertically. This is normal.
- Adjust the height of the rear of the tonearm until the tube is parallel to the record surface when the stylus is resting on the record. Once you are satisfied with the VTA calibration secure the set screw firmly using the long section of the Allen wrench as a lever to firmly secure the set screw.

Adjusting the stylus azimuth

Note: Make sure the anti-skating cylinder string is set over the support hook and not resting loose behind the tonearm as this will negatively impact the calibration. The platter leveling **MUST** have been done prior to testing or correcting the azimuth.

- The Azimuth calibration is achieved by rotating the $\frac{1}{4}$ - 20 threaded set screw located laterally in the tonearm head using the supplied $\frac{3}{32}$ " Allen wrench.



- Rotating the set screw in a clockwise direction will make the tonearm tilt slightly towards the center of the platter. Rotating the setscrew in a counter clockwise direction will make the tonearm tilt slightly towards the outside.

Note: There exist a variety of precision measurement devices that can be used to calibrate the azimuth of a stylus. If you do not have access to such devices, please proceed with the following steps.

- Place the calibrator disc on the platter.
- Cue down the tonearm so that the stylus is in the middle of the black rectangle.
- Adjust the azimuth set screw until the reflection of the stylus on the black surface continues in a straight line extending from the stylus itself. Understandably this observation is done looking exactly straight in front of the cartridge and using a magnifying glass may greatly help.

Adjusting the anti-skating:

The objective of adjusting the anti-skating mechanism is to counter-balance the centripetal force dragging the tonearm towards the center of rotation of the disc by applying a rotational force on the tonearm's axis using a weight measured in grams. The resulting centrifugal force should completely cancel the centripetal force resulting from the stylus friction with the record groove leaving the tonearm and stylus perfectly still, laterally, in the grooves. A properly adjusted anti-skating mechanism prevents channel imbalance and undue stylus and record wear. There are a few ways to test the anti-skating action. We use the plain surface (the unprinted side of the Calibrator disc) to simulate a vinyl record with no grooves.

- Position the Calibrator disc on the platter over a record with the blank side facing up.
- Make sure the string of the anti-skating cylinder is looping over the support hook.
- If not already done, remove the stylus guard
- Cue the tonearm down in the middle section of the Calibrator disc.
- If the tonearm is moving inward the anti-skating force is insufficient. Add one of the supplied 0.25 gram stainless steel pins anywhere in the cuing cylinder and try again.
- If the tonearm is still moving inward place a second pin opposite to the pin you previously installed.
- Repeat the process until the tonearm starts moving outward. When it starts doing so remove one pin.

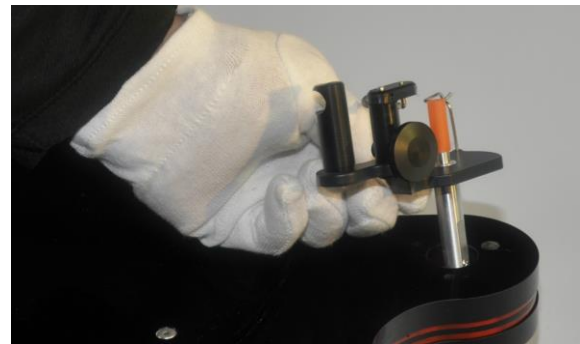
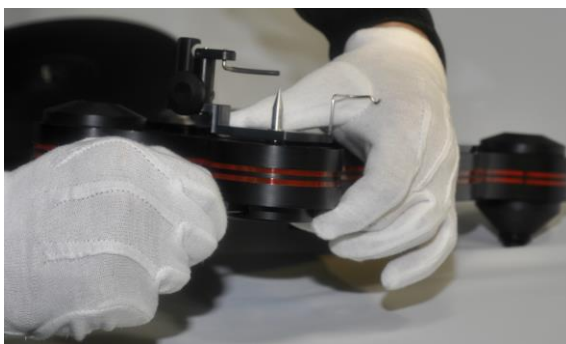
Adding or replacing acrylic color inserts to the plinth

The plinth of the Origine turntable can easily be disassembled to replace or add additional 3mm (1/8") thick acrylic color inserts. The Origine has been designed to accommodate up to two additional acrylic color inserts for a total of three inserts. The following procedure will explain how to safely replace or add color inserts. This should be done on a clean work table with enough space to spread the parts around.

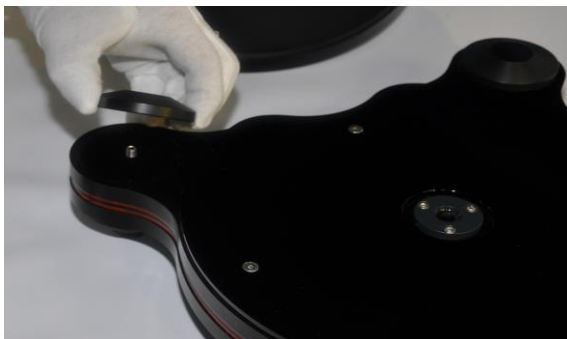
Note : Before you begin the procedure and remove the tonearm's pivot shaft and support bracket assembly, measure the space between the acrylic plinth and the support bracket assembly. You can use a piece of cardboard to make a shim that will allow you to reposition the bracket at the same height with respect to the plinth when you re-assemble the turntable. Doing so will effectively save the VTA adjustment! All other adjustments will remain unchanged.

Dismantling the plinth:

- Remove the drive belt and put it aside.
- Install the protective stylus guard on your phono cartridge.
- Remove the platter and set it aside. Beware of bearing oil dripping from the platter spindle you will need a paper towel to wipe off the platter spindle.
- Carefully unplug the tonearm cable harness pulling vertically on the green connector.
- Remove the tonearm and set it aside.
- **As a safety precaution, put the orange protective cap over the pivot shaft to avoid injuries.**
- Remove the tonearm pivot shaft and support bracket assembly by loosening the set screw in the flange below the plinth using the supplied 7/64" Allan wrench. The assembly will come out from above the plinth.

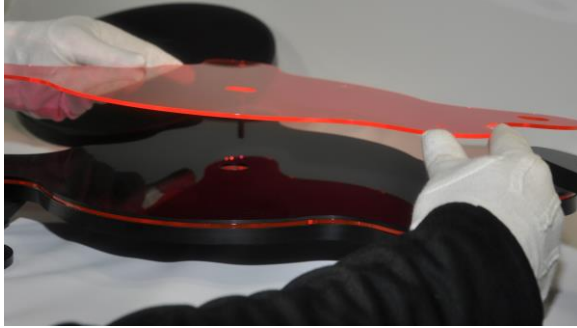


- Carefully unscrew the three round top caps holding the feet system from above the plinth.
- Do not remove the three feet from under the plinth.
- Gently lift off and remove the 12mm (1/2") top layer of the plinth.
-



- **You do not need to remove the spindle holder, however remember that there is oil in the spindle holder!**

- Replace the existing color insert for another color or add the extra color inserts at this time.



Re-assembling the plinth:

- Delicately install the 12mm (1/2") top layer of the plinth back into position.
- Install the 3 round caps over the feet threaded stems. If you increased the number of inserts from 1 to 3 the threaded stems might need to be re-adjusted by unthreading them slightly from the feet if needed.
- Insert the tonearm pivot shaft / armrest / cuing system support assembly back in the pivot flange from above and position it at about the same height it was previously installed.

Note: Adding or removing inserts will not change the height the support assembly was from the plinth from above. Only the pivot shaft will be locked at a different height in the flange below the plinth.

- Secure the set screw in the flange below the plinth remembering that you will need to recalibrate the VTA again. After the VTA is recalibrated secure the set screw firmly.
- Remove orange protective cap from the pivot shaft.
- Gently install the tonearm over the pivot shaft.
- Plug the tonearm cable harness (the green connector) to the RCA box at the rear of the turntable.
- Install the platter and install the drive belt.
- Remove the protective stylus guard from your phono cartridge.

Adjusting the motor height if you added or removed inserts:

Note: When adding or removing inserts to the plinth of the Origine the height of the platter will change. Each insert has a thickness of 3mm (1/8th of an inch) and when adding one or two inserts to the plinth you will need to swap the feet under the motor housing to the set of alternate holes. This procedure will raise the motor's pulley by 1/4 of an inch allowing the pulley to stay aligned with the platter.

- Install the three (3) x 1/4 - 20 socket head cap screws in the threaded holes in the motor base (see the pictures below).
- Move the Urethane grommets from the counter bore holes to snap over the screws heads.
- The three socket head cap set screws are provided when purchasing additional insert(s) or when ordering the Origine with two or three inserts.



Maintenance

- The blue cloth supplied with your Origine can be used to clean the surfaces and the acrylic platter. Do not use this cloth to pick up oil spills, keep it for the delicate work.
- Unless contaminated, there will be no need to replace the oil inside the spindle holder. It is important to know however that a certain quantity of oil will be lost every time the platter is removed from the spindle holder.
- The drive belt should be replaced every 5 years for optimal performance.

Specifications

Drive system:	16V AC synchronous outboard motor, belt driven, external power adaptor
Platter:	One-piece acrylic platter derived from the Paris MkV
Speed selection:	Two-step motor pulley allowing the selection of 33 rpm or 45 rpm
Tonearm:	Unipivot made of Aluminum and Delrin
Phono cartridge:	Ortofon MC-1 Turbo sold as an option
Suspensions:	Adjustable height using Urethane a decoupled Delrin feet system
Tonearm spindle center to tonearm mounting hole center :	223mm (8,780 inches)
Tonearm effective length :	240mm (9,45 inches)
Tonearm mounting hole diameter:	23mm (0.905 inch)
Power requirements:	18V AC @ 500mA to 1000mA max.
Dimensions :	without dustcover: 483 x 356 x 127mm (19 x 14 x 5) inches with dustcover: 496 x 381 x 146mm (19½ x 15 x 5¾) inches
Weight:	7,7 kilos (17 pounds) (including the motor)
Shipping weight:	12,25 kilos (27 pounds)

Ortofon MC-1 Turbo specifications

Output voltage at 1000 Hz, 5cm/sec: 3.3 mV
Channel balance at 1 kHz: < 2 dB
Channel separation at 1 kHz: > 22 dB
Channel separation at 15 kHz: 15 dB
Frequency range: 20-25.000 Hz
Frequency response: 20-20.000 Hz + 4 / - 1 dB
Tracking ability at 315Hz at recommended tracking force: > 65 µm
Compliance, dynamic, lateral: 13 µm/mN
Stylus type: Elliptical
Stylus tip radius: r/R 8/18 µm
Tracking force range: 1,8-2,2g (16-20 mN)
Tracking force, recommended: 2 g (20 mN)
Tracking angle: 20°
Internal impedance, DC resistance: 100 Ohm
Internal inductance: 700 mH
Recommended load resistance: 47 kOhm / < 500 Ohm
Cartridge weight: 4.1 g

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to sit down, relax and enjoy the Fine Art of Playing Music*

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Your new Oracle Audio Origine turntable carries a non-transferable, **3 year parts and labor limited warranty** against manufacturing defects. Oracle Audio Technologies will repair the defective item within this warranty period. The original bill of sale from an authorized dealer or distributor is required for any warranty repair.

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