

# bergmann



Model ***Sindre***  
Manual

**Sindre**> Nordic Mythology

From generation to generation the Nordic Mythology has told about the Dwarf, who possessed craftsmanship unrivalled by any other beings.

The Dwarf Sindre was the legendary blacksmith, who forged Mjolner the hammer of Thor, God of Thunder. Thor could hure Mjolner at the taget, whereupon it returnrd to the Gods hand of its owne accord, having hid the target with great accuracy.

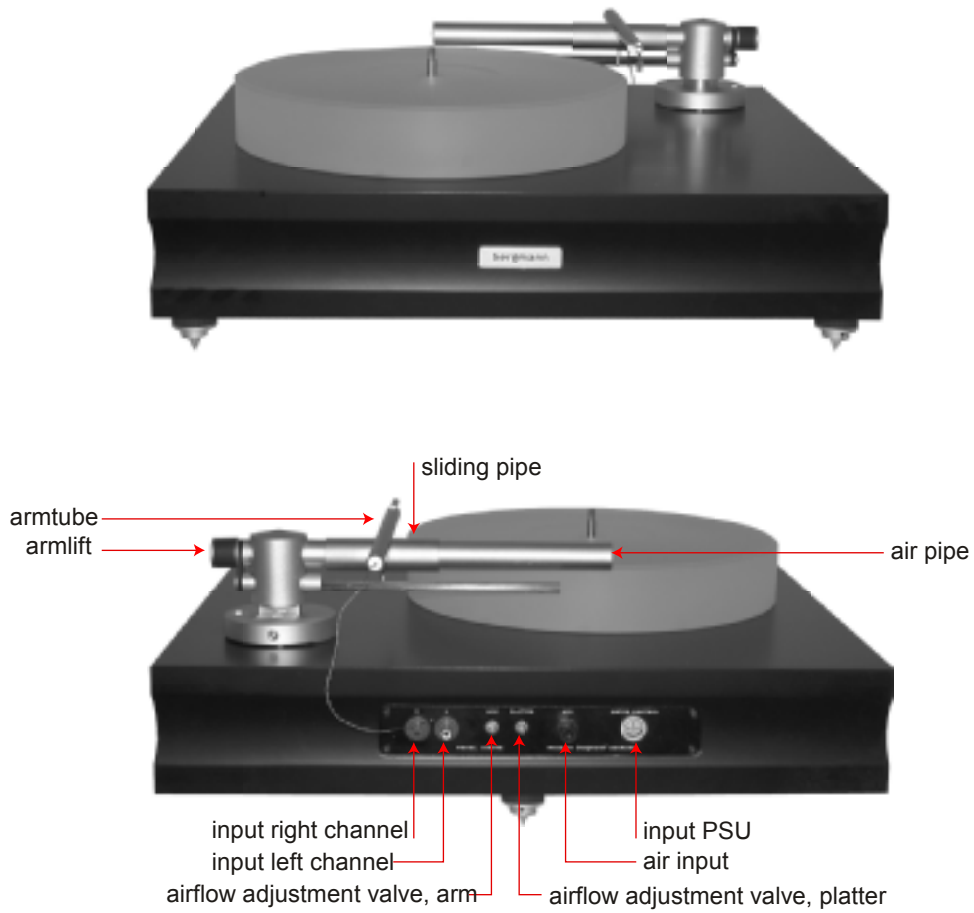


***Read this before handling the turntable!***

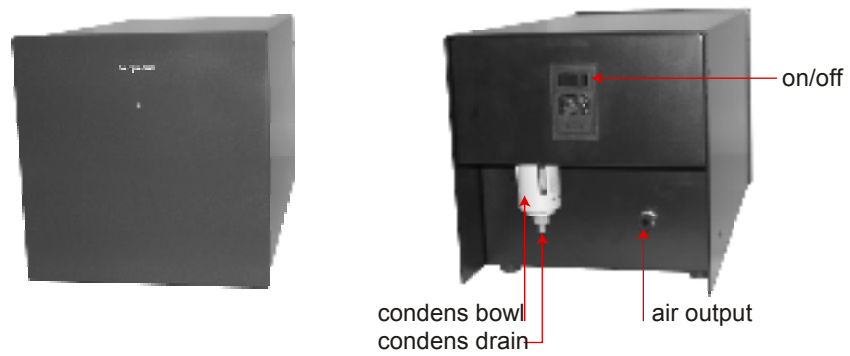
*An analogue playback system is a sensitive piece of precision mechanics, and must be handled as so.*

- Read the instruction carefully before set up and operating the turntable.
- Always keep the right side up when handling the turntable.
- Follow the instruction manual step by step, to get the best result.
- The tiny tonearm wire must be handled with care.
- Do not turn off the valves on the turntable backpanel when the air supply is operating!
- Use the enclosed gloves when handling all metal parts and platter.
- Keep the turntable away from direct sunlight.

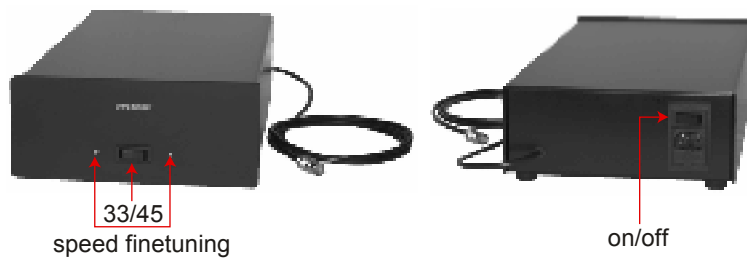
## Turntable



## Airsupply

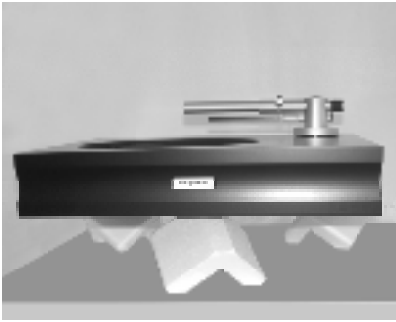


## PSU

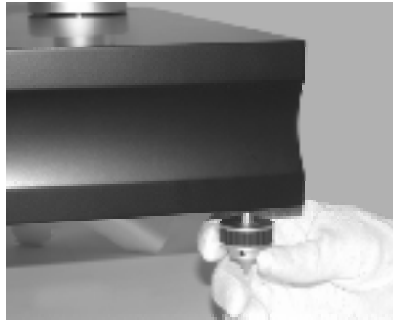


## Setup Manual.

1. Attach the spikes under the turntable, Pic. 1. and Pic. 2.

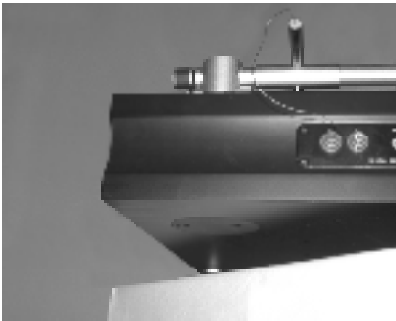


Pic. 1.



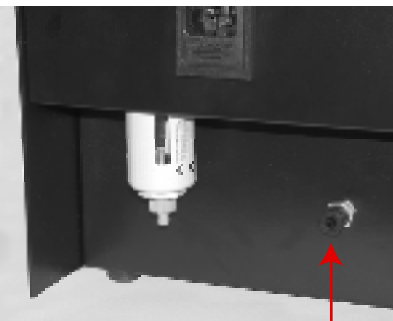
Pic. 2.

2. Place the turntable on the rack.  
For an easy adjustment of the tonearm (Page 6), ensure free access to the 2 screws underneath the turntable, holding the tonearm.  
If not possible in the rack, then place the turntable on the edge of a table, Pic. 3.



Pic. 3.

3. Place airsupply indoor, on a horizontal plane. Ensure the airsupply is stable to avoid vibrations, which can cause some noise.  
**Note>** If the airsupply is placed on a hard surface, it can reflect some noise. It is recommended to place the airsupply on a soft surface (carpet).  
Install the airtube, and connect one end to the airsupply and the other end to the turntable. Pic. 4 and 5.  
Do not cause any pressure or squeezing to the airtube.  
**Note>** Both the airsupply and airtube must be placed indoor in normal livingroom environment, to minimize condens.  
Connect the powercord to the airsupply, and the powercord to the outlet.



Pic. 4. air output



Pic. 5. air input

4. Remove the subplatter, Pic. 6. **Important**> Do not cause any scratches or marks to the bearing/airbearing. Even a small scratch can cause a noisy bearing. Add oil to the bearing, approximately half full, Pic. 7. Place the subplatter on top of the airbearing, and let it sink. Remove the subplatter again, Pic. 8. If the oil is pressed out of the bearing, the amount of oil is correct. Wipe away the surplus of oil. Be aware the oil does not flow into the airhole!



Pic. 6.

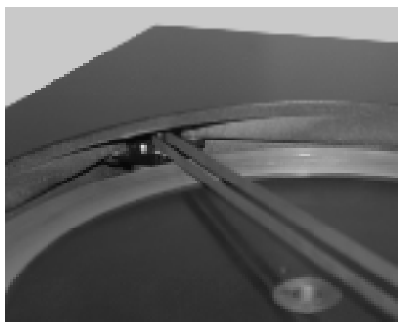


Pic. 7.



Pic. 8.

5. Mount the belt around the motor pulley, Pic 9. Hold the belt tight, and make sure the belt does not twist, Pic. 10. Hold the belt to the left, and place the subplatter on top of the airbearing, Pic. 11. Mount the belt around the subplatter, Pic. 12, 13 and 14. It is important to keep the belt tight (not stretched) when you mount it.



Pic. 9.



Pic. 10.



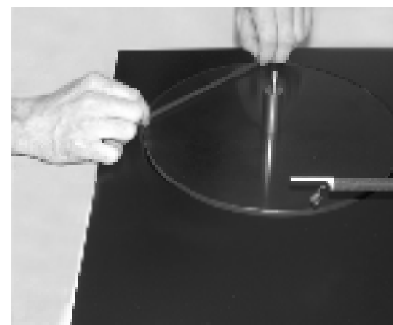
Pic. 11.



Pic. 12.

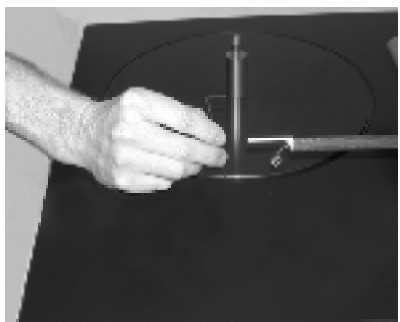


Pic. 13.

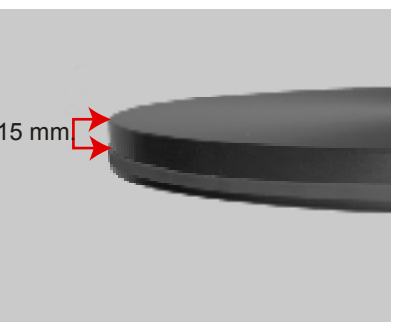


Pic. 14.

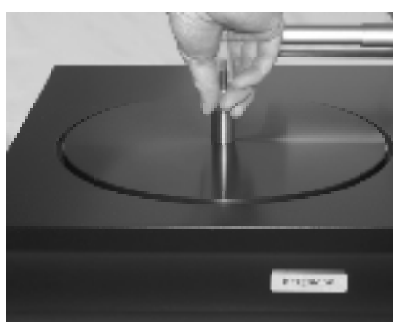
6. Use a tool to push down the belt carefully Pic. 15, approximately 15 mm from the subplatter upper edge. Pic. 16. Switch on the airsupply. Turn the subplatter carefully by hand, at least 2 turns, to ensure the belt fall into place, Pic. 17.



Pic. 15.



Pic. 16.



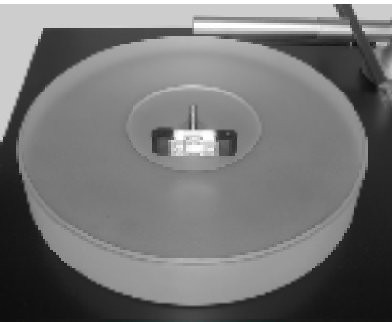
Pic. 17.

7. Place platter on top of the subplatter, Pic. 18.

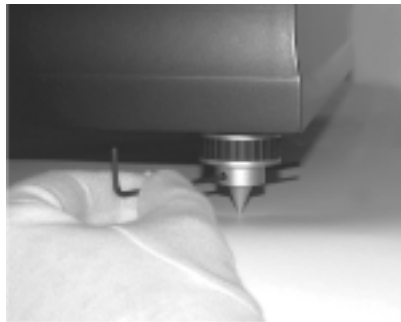


Pic. 18.

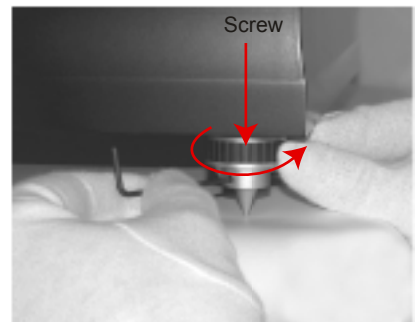
8. As the platter is slightly concave, the spirit level must be placed as shown on Pic. 19. Adjust the turntable in level, Pic. 20. Tighten the spikes, Pic. 21



Pic. 19.

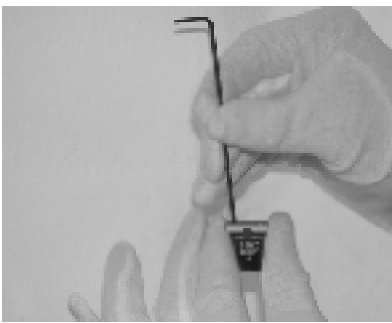


Pic. 20.



Pic. 21.

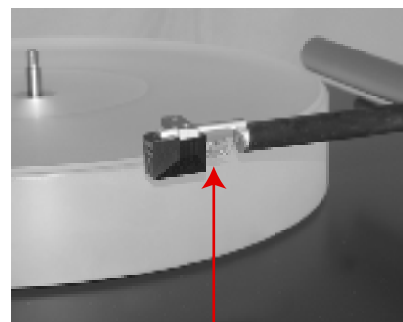
9. Mount the headshell clamp on the cartridge, Pic. 22. Mount the cartridge to the headshell, Pic. 23. Attach the connecting clips, to the cartridge, Pic. 24. **Note**> The clips must be handled with great care!



Pic. 22.



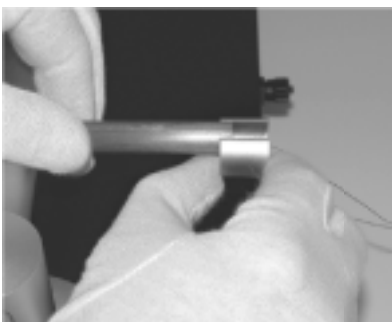
Pic. 23.



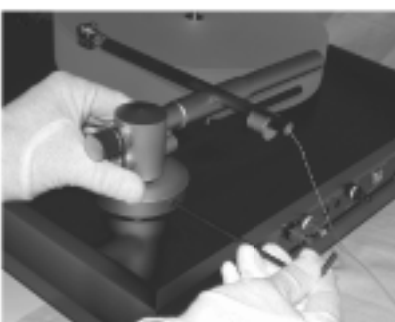
Pic. 24.

connecting clips

10. Attach the counter weight, Pic. 25. Adjust the trackingforce. See the cartridge manual for recommended trackingforce. Loosen the screw on the back of the armbase, and adjust the VTA approximately, Pic. 26.



Pic. 25.

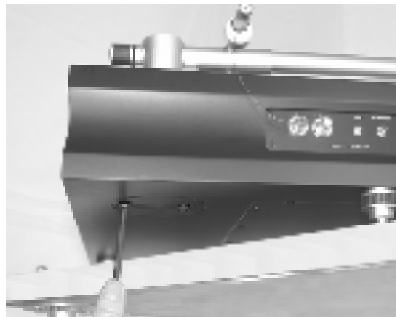


Pic. 26.

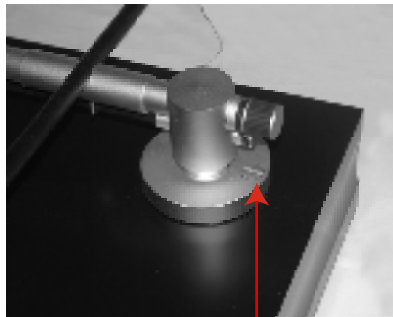
## Tonearm adjustment.

The tonearm can be move forward and backward on the plinth. Simply untighten the two screws holding the tonearm, undreneath the turntable, Pic. 27. The two screws (underneath turntable), must be untighten sufficiently to avoid scratches on the plint, when the tonearm is being moved!

Furthermore, the tonearm can be adjusted in the horizontal plan, independent of the plinth. Remove the screw on the right topside of the the armbase, Pic. 28. A small screw, placed under this screw, can tilt the tonearm, and adjust the horizontal plan, Pic. 29. **Note>** The tonearm horizontal plan will change, when the two screws holding the tonearm (underneath turntable) is tightened afterward.

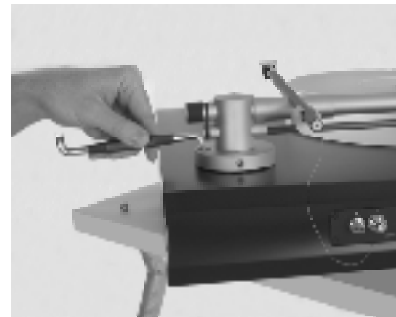


Pic. 27.



Pic. 28.

screw



Pic. 29.

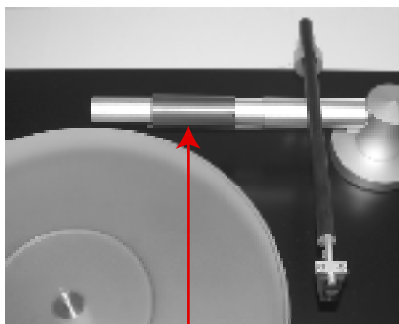
11. The adjustment pipe is a helpful tool to ease the horizontal adjustment which is vital for a linear tracking airbearing tonearm.

Draw the adjustment pipe onto the airpipe. Make sure the adjustment pipe is sliding frictionless on the airpipe.

Adjust the airflow if necessary, Pic. 31.

Adjust the horizontal plan as descripte above.

When the adjustment pipe, Pic. 30 sliding gently and smoothly to the left, the adjustment is correct.



Pic. 30.

adjustment pipe



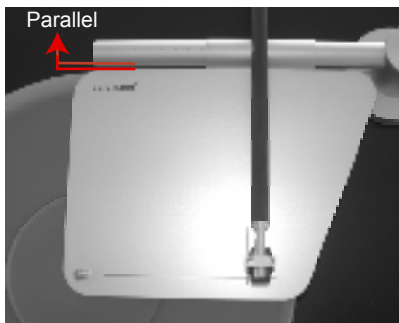
Pic. 31.

airflow adjustment valve, arm

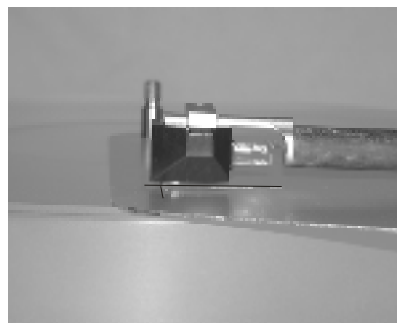
12. Switch off the aircsupply. Place the alignment tool on top of the platter. Ensure the alignment tool is parallel to the airpipe, Pic. 32.

Adjust the cartridge, so the stylus tip is exactly in the groove at the alignment tool, Pic. 33. The cartridge body must be parallel to the groove at the alignment tool, Pic. 34. **Note>** Operate the armlift slowly.

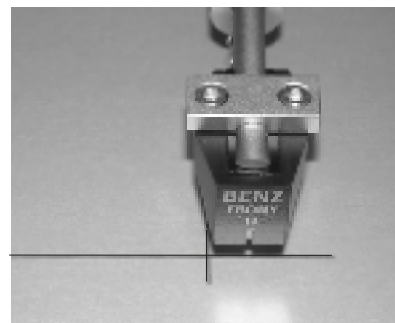
The azimuth is correct when the cartridge is tighten to the headshell.



Pic. 32.



Pic. 33.



Pic. 34.

13. Adjust the VTA finally as descript in point 10, Pic. 26.

After the VTA adjustment, check all the adjustments given above, to ensure, that the setup of cartridge/tonearm is perfectly done.

It is recomended to use a test record.

14. Connect the PSU by the connector, on the turntable backpanel, Pic. 35.  
Connect the powercord to the PSU, and finally connect the powercord to the outlet.



Pic. 35. connector

15. Switch on the airsupply, and start the platter. If you hear any noise from the bearing, a gentle airflow adjustment is required. Adjust the airflow at the turntable backpanel, Pic. 36.

**Note**> Too much or too little airflow can cause a noisy airbearing.

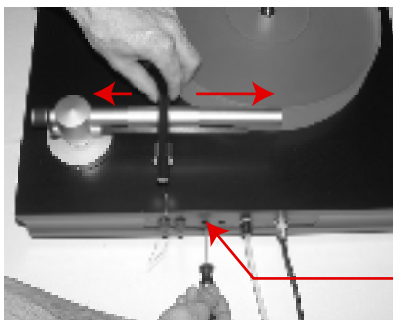
**Important**> Do not turn off the adjustment valves on the turntable when airsupply is operating.



Pic. 36.

airflow adjustment valve, platter  
airflow adjustment valve, arm

16. **Note**> The tonearm must slide absolutely frictionless on the airpipe.  
To obtain this effect, slightly move the tonearm on the airtube, Pic. 37, at the same time gently turn up the airflow.  
When you feel the tonearm is sliding unhindered (on an airfilm), the airflow is correct.  
Adjust the airflow at the turntable backpanel.



Pic. 37.

adjust the airflow

When the bearings are running absolutely noiseless and smoothly the airflow is correct.

If the setup is done on a table: Afterwards place the turntable on top of a stable floorstanding rack. Adjust the turntable in level. **Important**> Use the adjustment pipe for level finetuning. Adjust at the front spikes.

You are now ready to play records.

Do the final airflow finetuning when playing the first records!

## **Playing records**

Turn on the airsupply. It is recommended to turn off the airsupply when finish listen.

Tighten the clamp, just as much as the record is thightend to the platter. Do not overtighten.

When moving the tonearm, push carefully the sliding pipe. (Do not push the headshell).

Turn down the armlift slowly until the stop.

It is recommended to turn off the platter when changing revords.

*Enjoy*

## **Set up tips**

To ensure an airbearing turntable/tonearm to work perfect, there are some important parameters that is vital to succeed.

On the Bergmann turntables and tonearms the parameters are as follows:

The platter:

1. The platter must be in level, as every other turntables.
2. the amount of airflow must be correct! That means just enough air to lift the platter to obtain a frictionless airfilm between the airbearing and the subplatter.
3. The airbearing and subplatter must be absolutely clean to avoid friction and noise.

The tonearm:

1. The airpipe must slightly sloping towards the center spindle.  
Bergmann tonearms can be tilted independed of the plinth.
2. The airpip and the sliding pipe must be absolutely clean.
3. The tracking force must be correct.
4. The airflow must be correct!  
The airflow is correct when the sliding pipe is flying unhindered on the airpipe. An airfilm must create a space between the airpipe and the sliding pipe. That means just enough airflow to lift the sliding pipe from the airpipe, but not so much as a friction is caused at teh underside between the sliding pipe and the airpipe!

## Maintenance

### Turntable

It is recommended to check the adjustments yearly. If necessary, fine-tune.

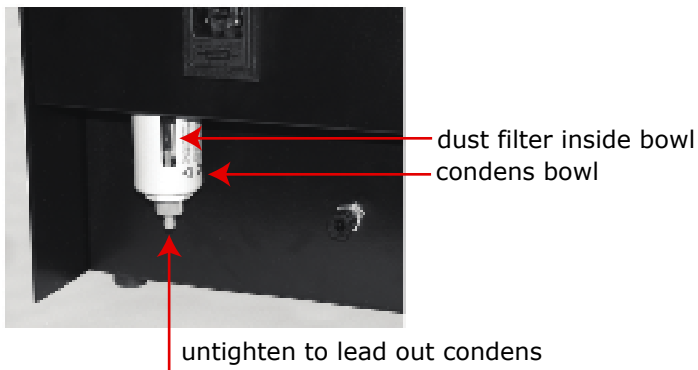
Check the amount of oil in the bearing yearly.

Clean carefully with a soft cloth wringed in mild soapy water.

### Airsupply

The filter/condens bowl at the back of the airsupply, must be drained from condens. Simply untighten the blue screw in bottom of the filter/condensbowl, and let the condens flow out. How often depends on the environment.

Clean carefully with a soft cloth wringed out in mild soapy water.



## Specifications

Turntable	Airsupported platter, centred by a spindle&hard weared low friction polymer bearing. DC motor. Beltdriven.
Plinth:	Solid fiber board.
Platter:	Acryl, 4 kg.
Subplatter:	Aluminium, 3,2 kg.
Total weight:	23 kg.
Dimensions:	475 x 500 x 210 mm. (D x W x H)
Tonearm	Linear tracking airbearing tonearm. Hard aluminium alloy&carbon.
Effectiv mass:	10 gr.
PSU	Separate. 33 & 45 rpm.
Dimensions:	370 x 210 x 94 mm. (D x W x H)
Airsupply	Silent, clean, dry and smooth airflow.
Weight:	8,4 kg.
Dimensions:	415 x 210 x 220 mm. (D x W x H)

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