LUXMAN

High-Inertia, Belt-Driven, Arm-less Turntable with Vacuum Disc Stabilizer

# PD555

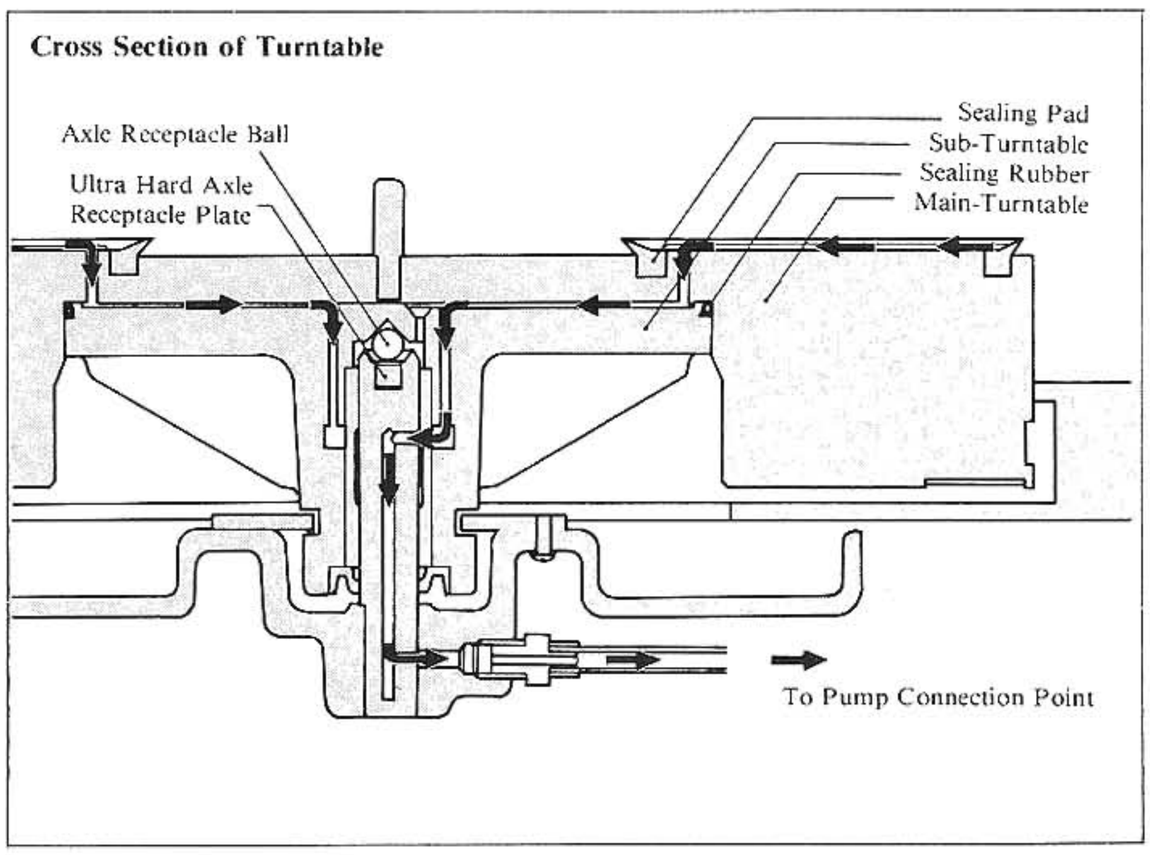
**Integration of disc and platter brought about the world of another dimension!**


LUX CORPORATION, JAPAN

# Picks up all pieces of music information cut into grooves of disc.

## "Vacuum" suction of disc to platter—now unveils all information hitherto hidden by ultra low noises of warp and resonance of record disc.

## Provision of vacuum disc stabilizer




### Simple, Rugged Structure

The vacuum disc stabilizer is the system to integrate the record disc and turntable platter by means of removal of air between them. To pick up all pieces of music information contained in the grooves of disc and further to eliminate unnecessary influences caused by resonance, etc. are the basic condition required for turntable. For this purpose such accessories as so-called audio stabilizer and special platter mat have been used and specifically improved among audiophiles. But conventional stabilizers have had such problems as to depress not the entire sonic grooves but a part of the disc and give bad effects to the turning servo mechanism due to variation of weight.

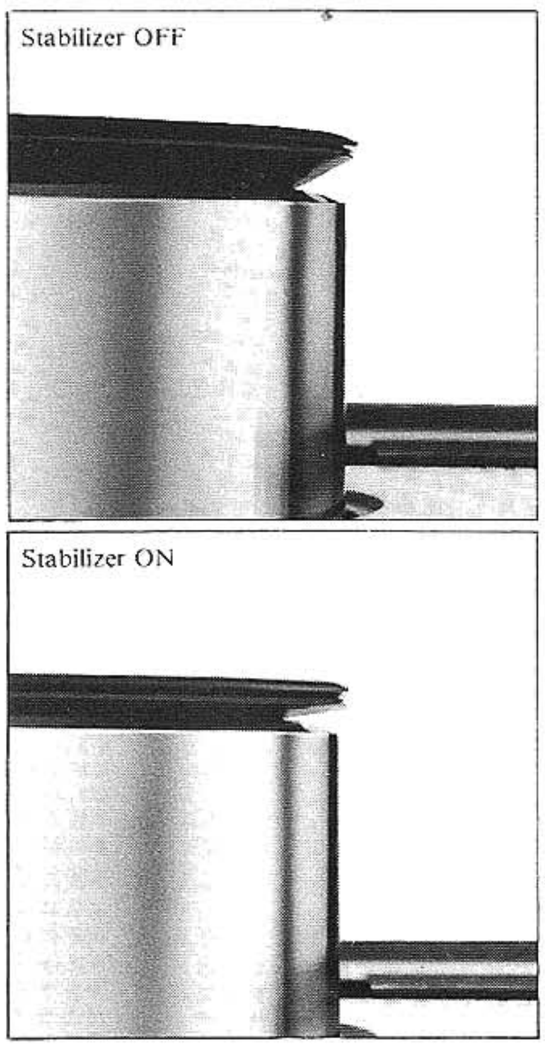
The vacuum disc stabilizer is, in a sense, an audio stabilizer by means of atmospheric pressure, which works evenly throughout an entire surface of the disc without adding weight on the platter. This is truly an ideal turntable system.

The structure is very simple; to suck out the air, the groove and sucking hole are provided on the surface of the platter and the air passage goes thru the inside, which is connected to the external stabilizer unit.

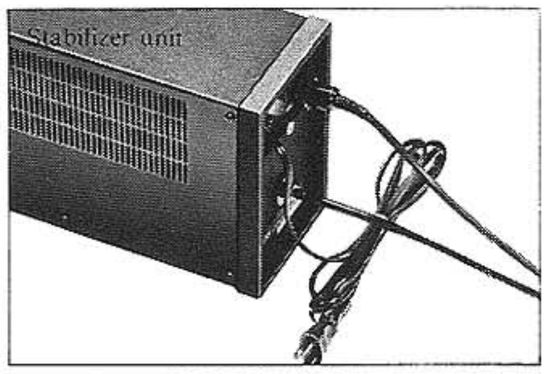
### Highly Airtight Construction

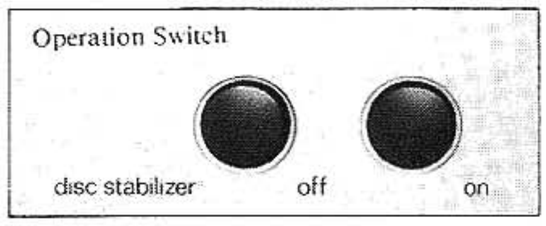
The record disc perfectly sticks to the platter, which can be sustained long. When the stabilizer is turned on, the atmospheric pressure fixes a disc firmly to the platter. In terms of weight, this means a stabilizer of 250kg is imposed on the disc, and the disc and platter are almost perfectly unified, thus providing an effect that the platter itself were changed into the disc. This banishes flawlessly all harmful bass noises (5-10Hz) by resonance of the disc itself or that of the tonearm and cartridge caused by the warp of disc.

After the stabilizer sucked a disc to the platter, the airtightness is maintained for long time, as the air passage is kept airtight by means of the sealing pad (Pat. Pend.), sealing ring, silicon liquid packing, etc.



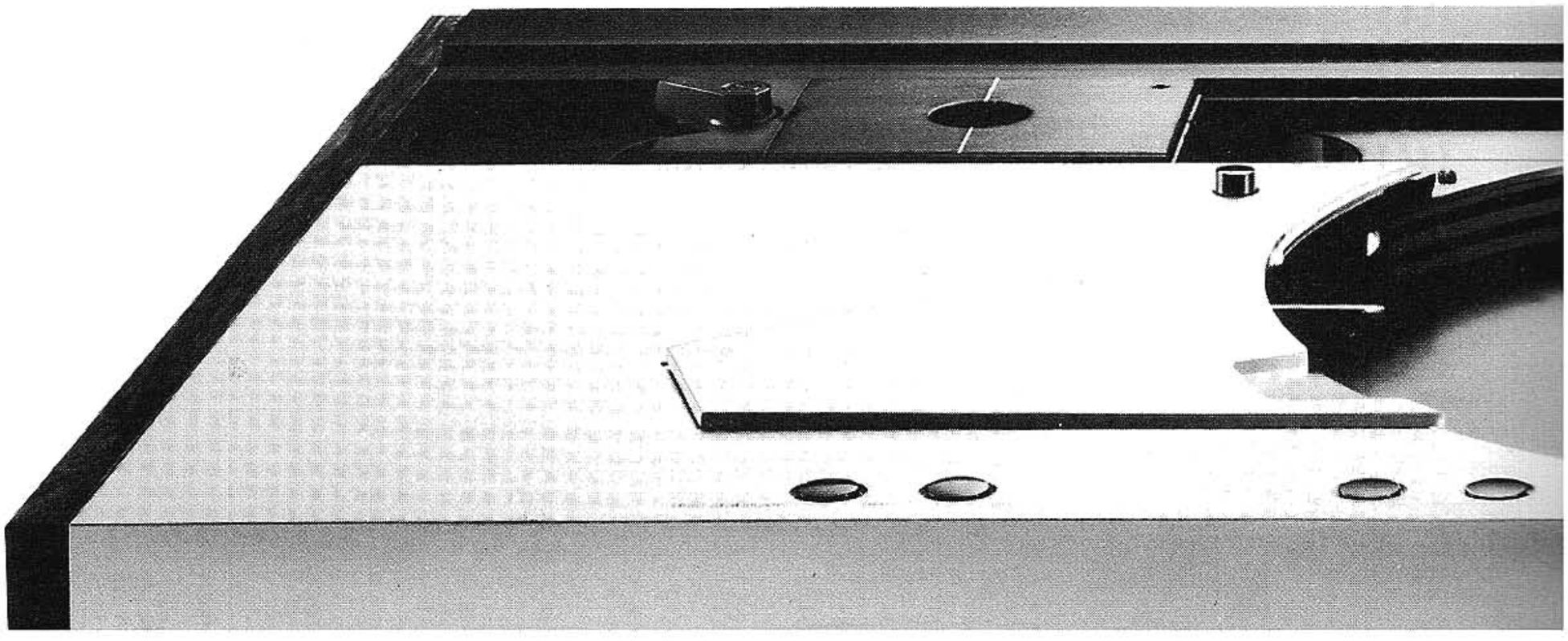

### Totally Mute Pump




Once the disc is fixed, the external stabilizer unit stops function and provides no noise while playing the disc. To create almost vacuum space, a vacuum pump is used as a stabilizer unit. Unlike conventional ones, high dependability and tranquility are simultaneously ensured with high-precision, robust structure. The stabilizer unit provides almost inaudible noises at the time of sucking and its release. Once the disc is fixed it ceases to operate and no noise or vibration is caused while the disc is played.

The stabilizer unit is operated by a feather-touch switch on the turntable, and its connection can be done easily by the remote cable and sucking tube. 2-meter length provided to the cable and tube allows you to place the stabilizer unit wherever you want.

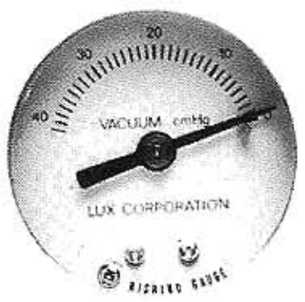


# Reproduces all music information as it is.

## Recorded signals are taken without distortion when the platter turns smoothly as if it were standing.

### Easy-to-Operate Functions

**Vacuum Meter**




The vacuum degree can be monitored by the vacuum meter on the top of the turntable. When the stabilizer switch is turned on, the pump is operated by one stroke, and the meter shows the difference between the vacuum degree and the external atmospheric pressure by unit of cm/Hg. A high-precision meter for professional use is employed to enhance reliability for monitoring.

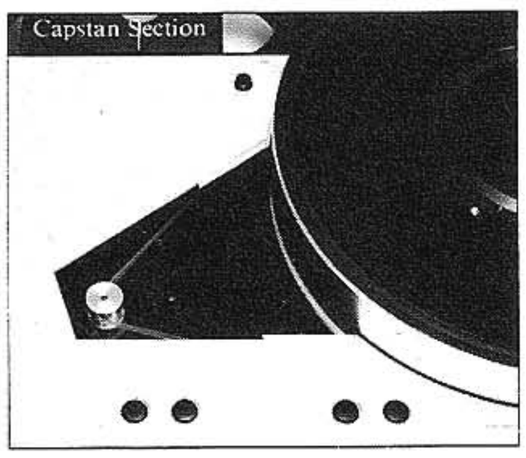
**Auto-Stabilizer**

The stabilizer can be made to interact with the rotation of a disc. Apart from the stabilizer on/off switch, thanks to the autostabilizer function, the stabilizer sucks a disc at the same time when the platter starts to turn, which is released when the platter stops. The selector switch is provided underneath the turntable board.

## Provision of High Inertia Turntable Platter.

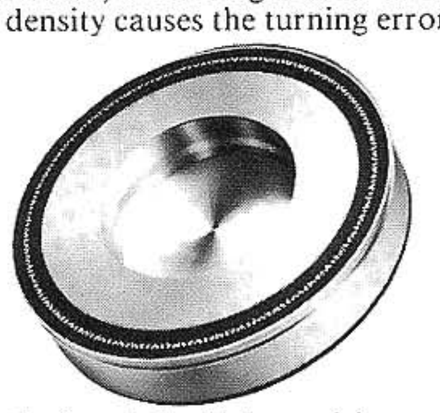
### Quiet, High-Precision Rotation Mechanism

The belt-drive system is employed in the turning mechanism with a ultra-heavy turntable platter. The high-inertia platter having 8.5kg weight and 1.2 ton/cm² inertia moment is driven by a high-performance, brushless, slotless DC servo motor, and totally noiseless rotation of disc is now realized by huge amount of energy thus obtained.




### High-Purity Aluminum Material

The turntable platter made by high-precision cast system eliminated the inner density/deviation. The accuracy of the platter itself plays an important role to ensure stable rotation of disc. With this turntable where the inertia weight of the platter is changed into the energy to turn a disc, even a slight error of inner density causes the turning error.

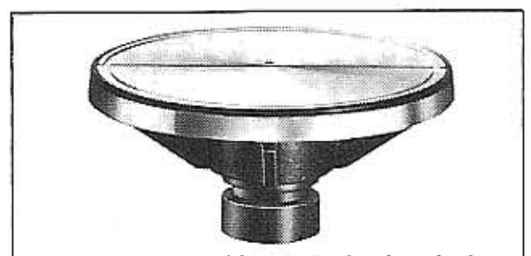


To obtain subtle, high precision, we dared to use the cast system instead of the die-cast system suitable for mass production. High purity aluminum material is slowly pressed to the required shape, and then finished in high precision. Not only the surface precision is produced, but blowholes inside the platter are totally expelled, which realizes highly uniform density. Also the inside concave is lessened in the platter to be a "mass", which helps remove resonance.

### Rugged, Stable Structure

**Sub-Turntable Platter**

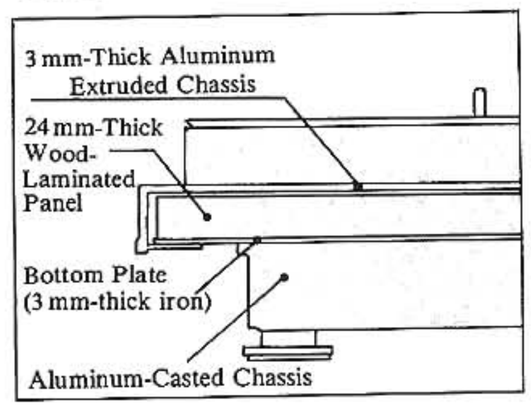
The sub-platter is so designed as to support the platter in full surface, and the resonance of the platter is perfectly eliminated. Like the platter, the aluminum cast system is employed to enhance the turning accuracy. Especially at the air passage and the contact point to the inner bearings, high precision is procured to provide sufficient air-tightness.



*The sub-turntable cannot be detached.

**Chassis Structure**

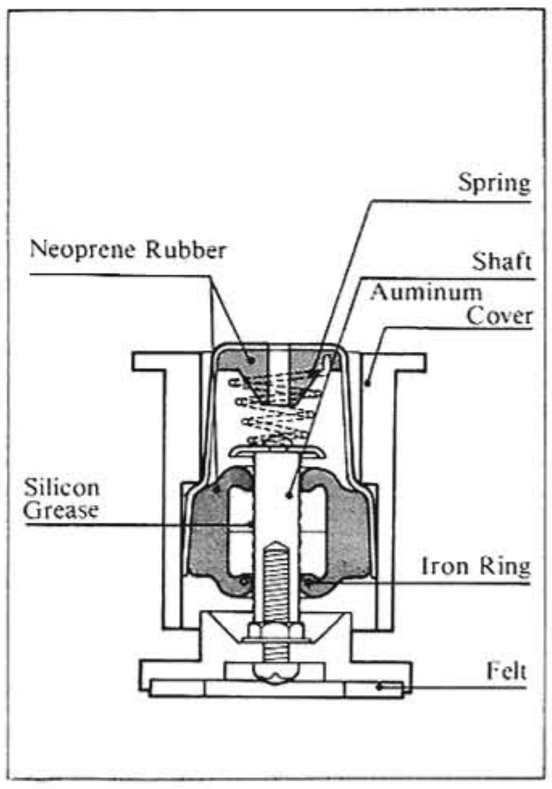
Slim yet solid chassis of the sandwich structure consisting of 3mm thick iron plate and aluminum extruded plate with high-density chip board inside is resistant to howling and external vibration and supports the ultra heavy turntable platter for the smoothest rotation. In between the aluminum plate and chip board a special braking tape having its own inner loss is employed to make an ideal solid, resonant-free chassis.




# Far beyond standard performance—in addition to ease of operation.

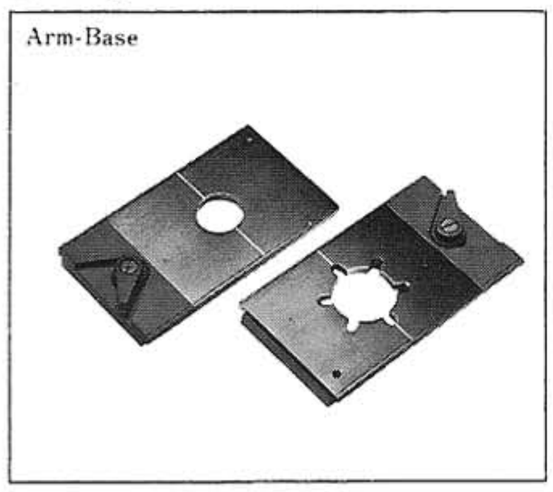
## Effective Insulator

Lux's exclusive 2-step braking insulator dumps all vibration, large or small in amplitude, thus banishing harmful acoustic feedback. With an insulator, in general, the lower the fo (the minimum resonance frequency) and the higher the Q (sharpness of resonance), the better the cut-off characteristic. But if Q is made simply higher, the turntable becomes unstable against large amplitude vibrations close to the fo. With this unit, high-compliance neoprene rubber supporting the shaft cuts off vibrations of small amplitude, while combination of spring and viscous brake of silicon grease effectively works against those of large amplitude.




## Arm-Base for "One-Touch" Replacement

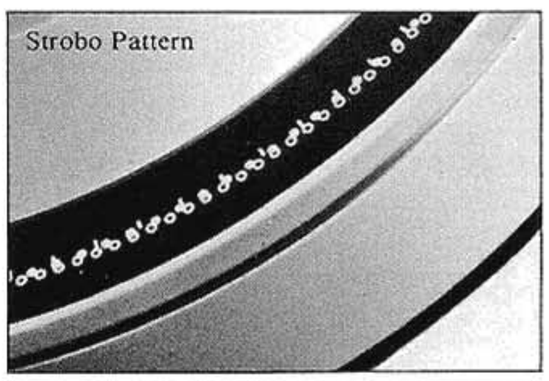
You can install two of your favorite tonearms including one long type. Quite frequently we encounter strong demand of audiophiles for such turntable that can use a long-type tonearm or 2 tonearms. Strange to say, however, no adequate one can be found available in the marketplace. To cater for such requirement we developed a truly innovative turntable with provisions for 2 tonearms including a long one.
Sliding arm-base devised from the slide head in the lathe provides easy replacement of tonearm. precision arm-rails make it possible to install any of your favorite tonearms with "one-touch" operation. You can fix the tonearm firmly at the optimum position by simple operation of a lever while sliding the arm-base in line with the overhang gauge on the panel. The armbase is made of die-cast zinc which is resistant to howling.

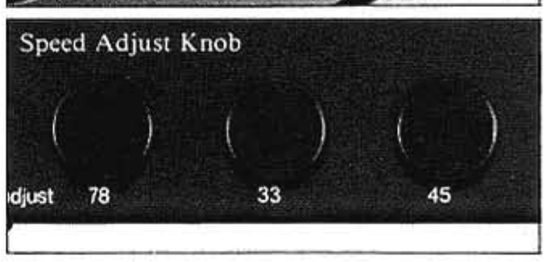



## Abundant Accessories

### Fine Adjustment of Rotation

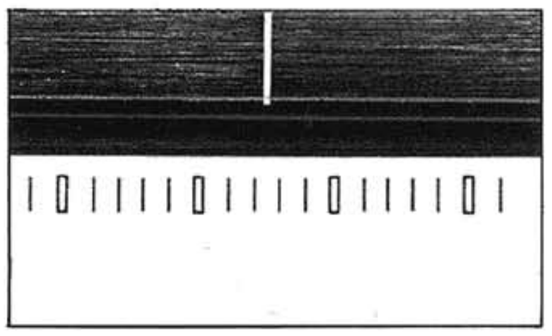
You can fine-tune the turning speed while monitoring the stroboscope placed beside the platter. The speed can be selected among 33 rpm, 45 rpm and 78 rpm the unique platter displayed by blinking light of crystal oscillator enables you to make acoustic adjustment.




### Overhang Gauge

Generally speaking, the overhang adjustment required much time, as the fixing screws of a cartridge have to be loosened. With this unit, simple slide of the arm-base suffices. Furthermore, the overhang gauge is provided on the panel for easy exchange of tonearm and cartridge.



### Platter Mat

This unit can be used as a simple, high-inertia belt-driven turntable without the vacuum disc stabilizer. For this purpose, provided is a platter mat supporting only the sound groove portion of a disc.

## PD555 SPECIFICATIONS

**[PHONO MOTOR SECTION]**

| | |
|---|---|
| **Driving System:** | Belt Drive System |
| **Motor:** | Brushless & Slotless DC Servo Motor |
| **Turntable Platter:** | 30cm (12″) aluminum-cast 8.5kgs (18.7 lbs.) |
| **Rotation:** | 33-1/3, 45 and 78 rpm (3-speed) |
| **S/N Ratio:** | better than 72dB |
| **Wow & Flutter:** | no more than 0.03% W.R.M.S. |
| **Inertia Moment:** | 1.2t·cm² |
| **Adjustable Range of Rotation:** | ±2.5% (33-1/3, 45 and 78 rpm independent) |
| **Run-up Time:** | within 4 seconds (within a rotation at the time of 33-1/3 rpm) |

**[GENERAL]**

| | | |
|---|---|---|
| **Power Consumption:** | Turntable Platter Drive ..... 20W<br>Vacuum Pump VS555 ..... 70W | |
| **Dimensions:** | Turntable Chassis<br>664(W) × 175(H) × 392(D)mm<br>(26-1/8″ × 6-7/8″ × 15-7/16″)<br>Vacuum Pump VS555<br>102(W) × 154(H) × 512(D)mm<br>(4″ × 6-1/6″ × 20-5/32″) | |
| **Weight:** | | |
| Turntable Chassis | Net | 26.5kgs (58.3 lbs.) |
| | Gross | 34.0kgs (74.8 lbs.) |
| Vacuum Pump VS555 | Net | 7.0kgs (15.4 lbs.) |
| | Gross | 8.2kgs (18.0 lbs.) |

Specifications and appearance design subject to change without notice.

AUTHORIZED DEALER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