ULTIMATE HIGH FIDELITY STEREO COMPONENTS

LUXMAN PD444

DIRECT-DRIVE TURNTABLE (WITHOUT TONEARMS)

Crystal phase locked loop direct drive turntable with provision for two tonearms.

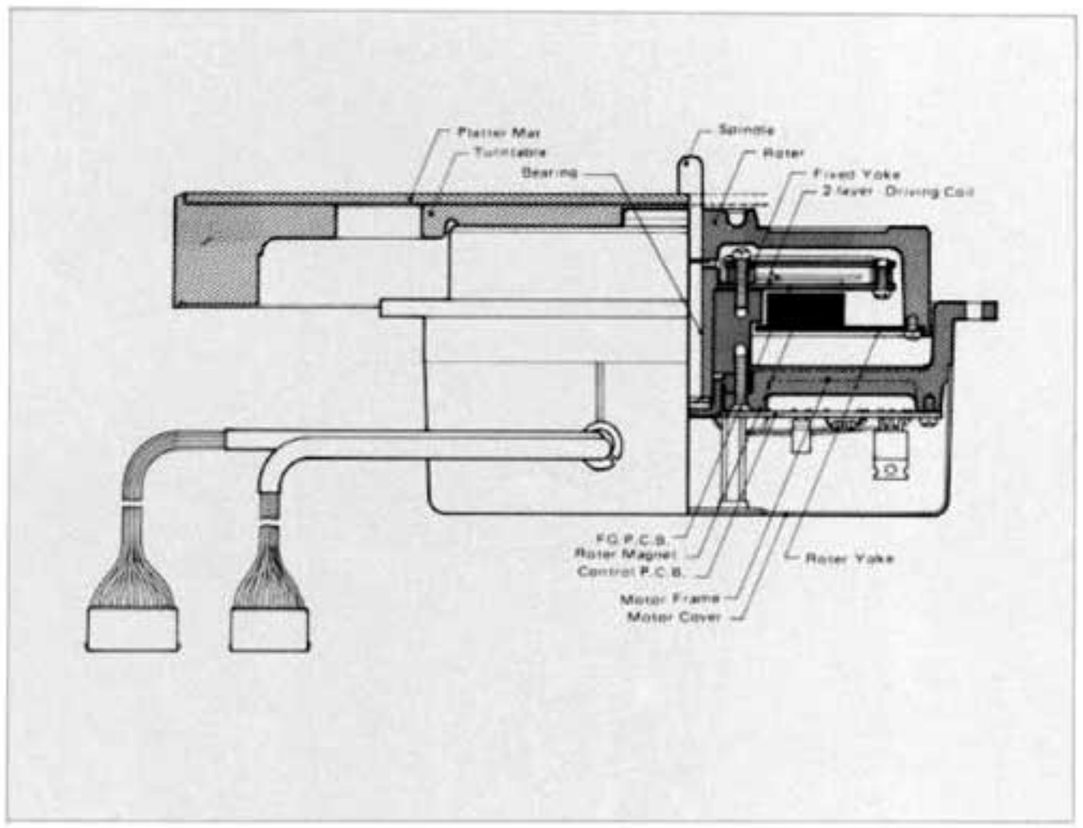
Quite frequently we encounter strong demand of audio buffs for a turntable which can use a long-type tonearm or 2 tonearms.
Strange to say, however, there is no adequate one available in the marketplace.
To cater to such requirements, LUX decided to develop an epoch-making turntable with provision for 2 tonearms, including a long one.
The PD444 is a direct drive quartz-locked turntable, and its most outstanding feature is its ability to remove all kinds of external load variation thanks to our exclusive Load-Free Spindle system. Additionally, the PD444 is made extremely resistant to howling and mechanical vibration by means of insulators of a 2-step brake system with the lowest resonant frequency, and an ultra heavy chassis of sandwich structure made from 2 thick iron plates and a high-density chip board.
Needless to say, all the necessary conditions for a high grade disc player are satisfied.
No tonearm is supplied with this unit. It is intended for installation of your favorite tonearms.

Load-Free Spindle Motor:

Though basically quartz-locked direct drive system, a newly developped motor is employed to alleviate the load of the turntable platter applied to the bearing, which is named "Load-Free Spindle" system. The platter is made to float by offsetting most of its weight by repelling power of magnetics in the motor, which makes it possible to reduce the platter's weight on the bearing to about 1/5 of its actual value.

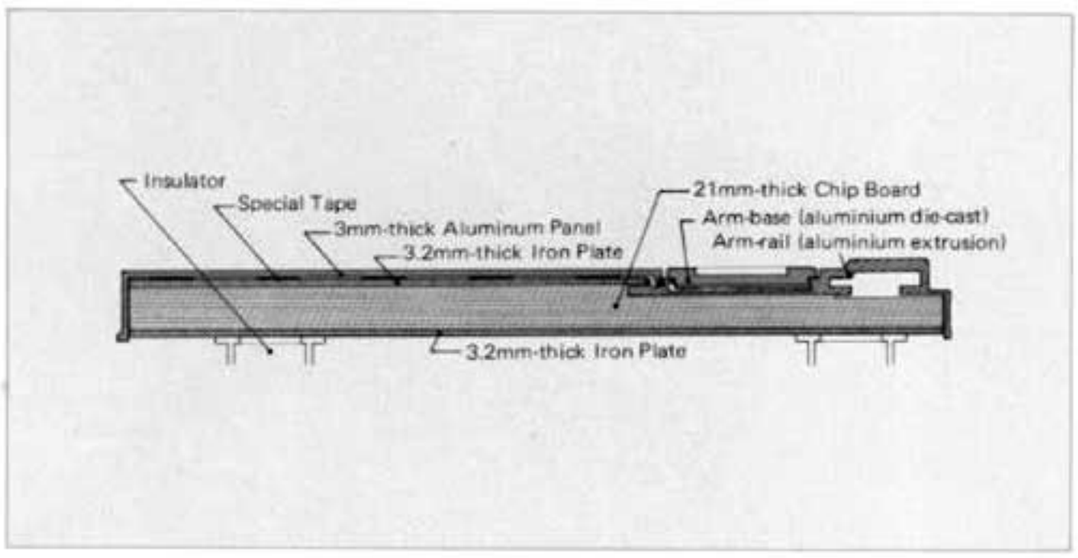
Even the best quartz-lock system is not a cure-all , and it is effective only in the suppression of external disturbing load variations ranging from DC to 1Hz. To reduce those of relatively higher frequencies (5 – 10Hz) that cannot be controlled by the quartz lock system, the flywheel effect of the platter must be utilized. The heavier the platter and consequently the larger its moment of inertia, the better.

But here arises a problem with respect to the life of the bearing. A prominent feature of this turntable lies in the beautiful solution of this problem. With the "Load-Free Spindle" system, the motor itself has the repelling power to float the turntable platter unlike the conventional magnet-float system where the platter is made floating by an additional magnet device.



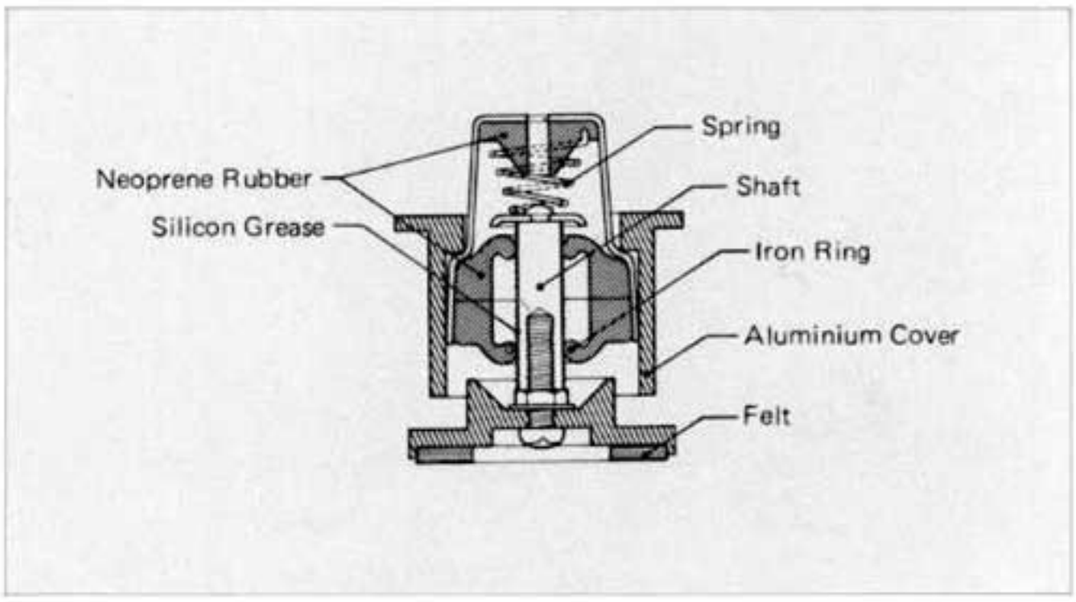
Slim yet Ultra Heavy Chassis of Sandwich Structure:

An unusually effective counter-measure against howling is hidden in the slim, compact appearance – an ultra heavy chassis of sandwich structure consisting of 2 pieces of 3.2mm thick iron plate and a high-density chip board. The iron plate itself is heavy in weight but susceptible to resonance, and therefore a high-density chip board which absorbs resonance is inserted between 2 iron plates. Thus we realized an ideal solid and resonant-free chassis for a disc player.



2-Step Brake Insulator:

Generally speaking, with an insulator the lower the f_o (the minimum resonance frequency) and the higher the Q (sharpness of resonance), the better the cut-off characteristics. If Q is simply made higher, however, the turntable becomes unstable against vibrations of large amplitude in the vicinity of f_o. To cope with these incompatible factors, a new 2-step brake insulator was developed. The neoprene rubber supporting the shaft of the insulator works against vibrations of small amplitude which cause acoustic feedback, and good cut-off characteristics are procured. While to counter the vibrations of large amplitude effective are the spring and viscous brake of neoprene rubber with silicon grease are effective. In other words, both cut-off characteristics and stability of operation are made compatible.



Sliding Arm-base for Easy Replacement of Tonearm:

Precision arm-rails make it possible to install any of your favorite tonearms with 'one-touch' operation. It is constructed so as to fix the tonearm firmly at the optimum position by simple operation of a lever while sliding the arm-base in line with the over-hang gauge on the panel. The arm-base is made of die-cast zinc resistant to howling. Also a 5-mm thick extruded alminium plate is employed as the arm panel in view of elegance at the surface and easy provision of various tonearms.

Platter Mat to Hold Disc Firmly:

A platter mat fit for the shape of the disc is employed to ensure the closest possible contact between the mat and disc. The surface of the mat is specially treated to realize smoothness, and the mat is made of high-density rubber to damp the platter itself.

Other Features:

Acrylic plates of 4-mm thickness are put together to form a dust cover, which is resistant to howling and external vibration. Also the hinge for the dust cover is incorporated into the slim chassis to provide a compact appearance. A semi-free-stop type hinge is used so that the total weight of the dust cover is applied to the turntable when it is closed. This also helps improve anti-howling characteristics.

SPECIFICATIONS

[PHONO MOTOR SECTION]	
Driving System:	Direct Drive System
Motor:	Crystal Control, Load-Free-Spindle System Flat Brushless DC Servo Motor
Turntable Platter:	30cm (12") aluminium die-cast 2.5kg
Rotation:	33-1/3, 45 rpm (2-speed)
S/N Ratio:	No less than 75dB
Wow & Flutter:	No more than 0.025% W.R.M.S.
Torque:	1kg/cm
Temperature Characteristics:	below 0.00003%/°C
Turning accuracy:	0.002%
[ADDITIONAL FEATURES]	
Acrylic Resin Cover:	4mm-thick (1.6") detachable with semi-free-stop hinge 2.5kg (5.5 lbs.)
Insulator:	Low "f_o", 2-step brake type by means of spring, rubber and grease; Height adjustable (adjustable range: 10mm [1/3"])
Lock Indicator:	33-1/3 rpm; Blue, 45 rpm; Orange
Arm Base:	Detachable, die-cast
Tonearm Selector Switch:	Tonearm-1. Tonearm-2 interchangeable
[OTHERS]	
Power Requirement:	AC 120/220/240V, 50/60Hz
Power Consumption:	16W
Dimensions:	664(W) x 160(H) x 392(D)mm (26-1/4" x 63" x 154")
Weight:	Net 22kgs (48.6 lbs.); Gross 25.5kgs (56.1 lbs.)

Specifications and appearance design are subject to possible change without notice.

LUX CORPORATION, JAPAN.

1-1, 1-CHOME, SHINSENRI-NISHIMACHI, TOYONAKA-SHI, OSAKA, PHONE: 06-834-2222 CABLE: LUXELECT OSAKA TELEX: J63694

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