OWNER'S MANUAL

LUXMAN

Vacuum Disc Stabilizer Turntable

PD555

CONTENTS

Thank you for purchasing the PD555.

The PD555 is a belt-driven turntable featuring our original idea that fixes the record disc on to the platter by use of the Vacuum Disc Stabilizer system. Quite heavy turntable (8.5 kgs) of quality aluminum cast provides such high inertia that exceeds 1 ton, further two tonearms can be mounted including a long one, which are beautifully arranged in a compact style.

The Vacuum Disc Stabilizer utilizes atmospheric pressure to fix the disc evenly on to the platter, therefore the turntable platter and record disc can be perfectly unified without giving load to the disc. Of course, the PD555 can be used as a high inertia turntable itself without the stabilizer, and you can check the difference.

Additionally, the PD555 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 a thick iron plate (3.2 mm) and aluminum chassis (3 mm) and a wood-laminated 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.

We recommend that you coose other Hi-Fi components to be used in combination, with care and go through the contents of this owner's manual to make the most of the potential of this turntable.

Switches & Controls

(1) Arm-base

Your favorite tonearm must be affixed to this arm-base. A standard tonearm can be fixed to the right arm-base, while the left one can be used for a longer tonearm (effective length about 280mm) as well.

First slide the arm-base into the arm-rail putting the fixing lever outwards. Then turn the lever in a clockwise direction (↻) to fix the base firmly to the turntable. Conversely, to remove the base, the lever has to be turned in a counter-clockwise direction (↺), and lift up. When the lock is released, the arm-base slides along the arm-rail and it is easy to adjust the over-hang.

This turntable is provided with 2 arm-bases: one for the SME tonearms (TP-LS) and the other for other tonearms in general (TP-SG) Most tonearms available in the marketplace can be affixed by simple change of the arm-base. Consult your dealer for an appropriate one. For further details refer to the section "Arm-base and Applicable Tonearms".

(2) AC Power Switch

When the Power Cord (24) is plugged into the extra AC outlet of other Hi-Fi components or the AC power socket of your listening room and this switch is depressed, the Pilot Lamp (26) lights up showing the turntable is put into operational condition. If the power cord is connected to the "SWITCHED" AC outlet of other annexed equipment and that (28) of the Stabilizer Unit to the "UNSWITCHED" AC outlet and this switch is kept turned on, the ON/OFF operation of this turntable as well as the Stabilizer Unit is controlled by the power switch of other equipment.

(3) Turntable Platter

A platter of heavy weight aluminum cast is employed (8.5 kgs) to obtain a large inertia moment. The form and thickness are carefully designed in the light of its solidity, resonance, etc.

(4) Air Vent

Connection of the Stabilizer Unit to the turntable chassis by use of the connection tube, the air between the platter and disc is sucked through the vent to fix the disc to the turntable platter.

(5) Speed Selector Switch

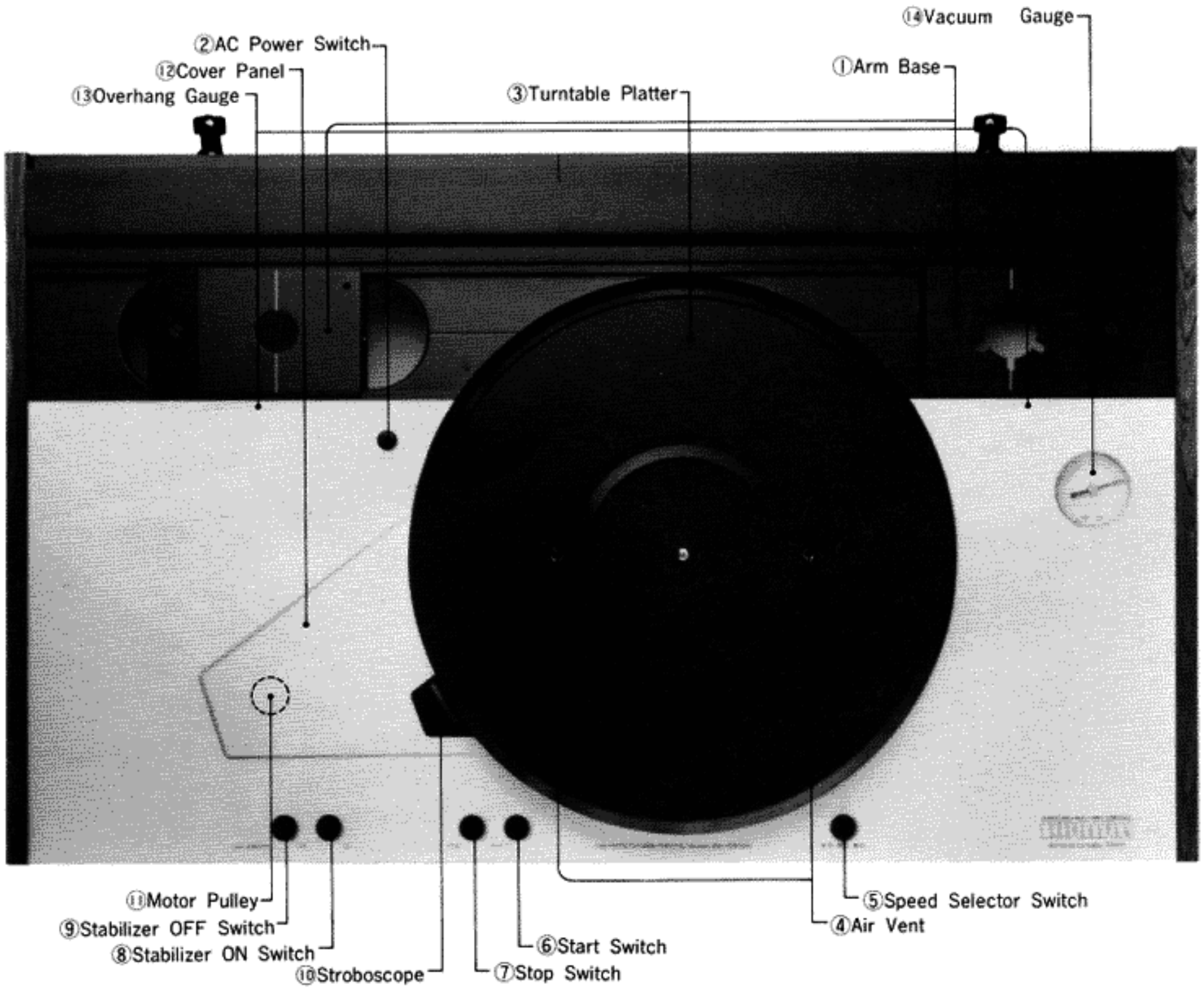
This switch changes the rotation speed of the platter among 45rpm, 33-1/3 rpm, and 78rpm.

(6) Start Switch

When you depress this switch the platter starts to rotate. In the case of 33-1/3rpm, rated rotation speed is obtained approx. in a rotation. When the Auto/Manual Selector Switch (15) is in the "protruded" (AUTO) position, pressing of the Start Switch automatically puts the Stabilizer Unit on to begin air-suction.

(7) Stop Switch

When you press in this switch, power supply to drive the motor is cut off. The platter keeps rotating for a while even after power supply is cut off, since the turntable platter has a large inertia moment.



When the Auto/Manual Selector Switch (15) is in the "protruded" position (AUTO), pressing of the Stop Switch automatically puts the Stabilizer Unit off to release air-suction.

(8) Stabilizer ON Switch

This switch operates the Stabilizer Unit when it is connected to the turntable chassis. Pressing of the switch commences air-suction.

When the disc is fixed to the platter, the Stabilizer Unit automatically stops operation, therefore it is not necessary to keep the switch pressed on.

(9) Stabilizer OFF Switch

Pressing of the switch releases air-suction to make the disc free from the platter for changing the disc.

(10) Stroboscope

Fine adjustment of rotation speed is possible since the PD555 employs belt-drive system. Adjust the Speed Adjust Controls (17)(18)(19) so that the strobo-pattern looks like ceasing.

(11) Motor Pulley

The pulley is located on top of rotation axle of the drive motor. Hang the drive-belt on this pulley to drive the turntable platter.

(12) Cover Panel

This panel protects the drive section (motor, belt etc.) from being damaged, and gives excellent look to the panel surface. Lift up the edge (arm-base side) to remove it, and insert this side first and then press the edge (arm-base side) for installation.

(13) Over-hang Gauge

This gauge is a guide for adjustment of over-hang by sliding the arm-base along the arm-rail. 1 scale division corresponds to 2mm in over-hang, and the required over-hang can be easily obtained. For details refer to the section "Adjustment of Over-hang".

(14) Vacuum Meter

This meter is provided to check the air-suction by the Vacuum Disc Stabilizer Unit operates accurately. When the meter indication exceeds 10cmHg point, air-suction is ideal.

(15) Stabilizer Auto/Manual Selector Switch

When this switch is in the "protruded" position (AUTO), with connecting the Vacuum Disc Stabilizer Unit to the turntable chassis, ON/OFF operation of platter rotation and air-suction can be done simultaneously by the Start Switch (6) and Stop Switch (7).

In the "depressed" (MANUAL) position, operation and release of air-suction should be done by the Stabilizer ON and OFF Switch (8)(9).

(16) Pilot Lamp

This interacts with the Power Switch (2) enabling you to confirm if the turntable is in operational condition. This lights up when the Power Switch is turned on.

(17) Speed Adjuster (33-1/3rpm)

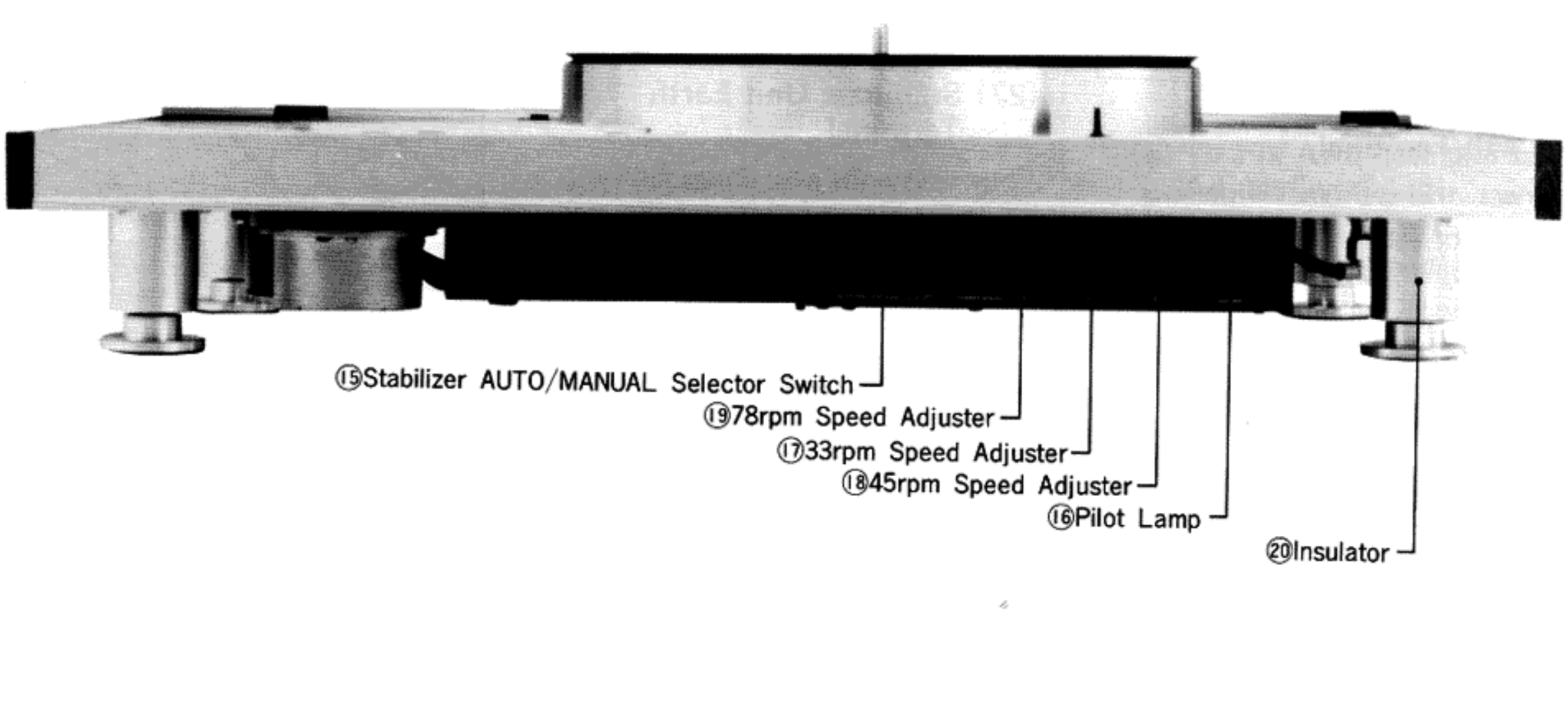
Fine and minute speed adjustment is possible by use of this adjuster. To adjust 33-1/3r.p.m. set the Speed Selector Switch (5) to the "33" position, and turn the knob (17) clockwise or counter-clockwise. When the stroboscope pattern appears to be stationary, correct rotation speed has been obtained.

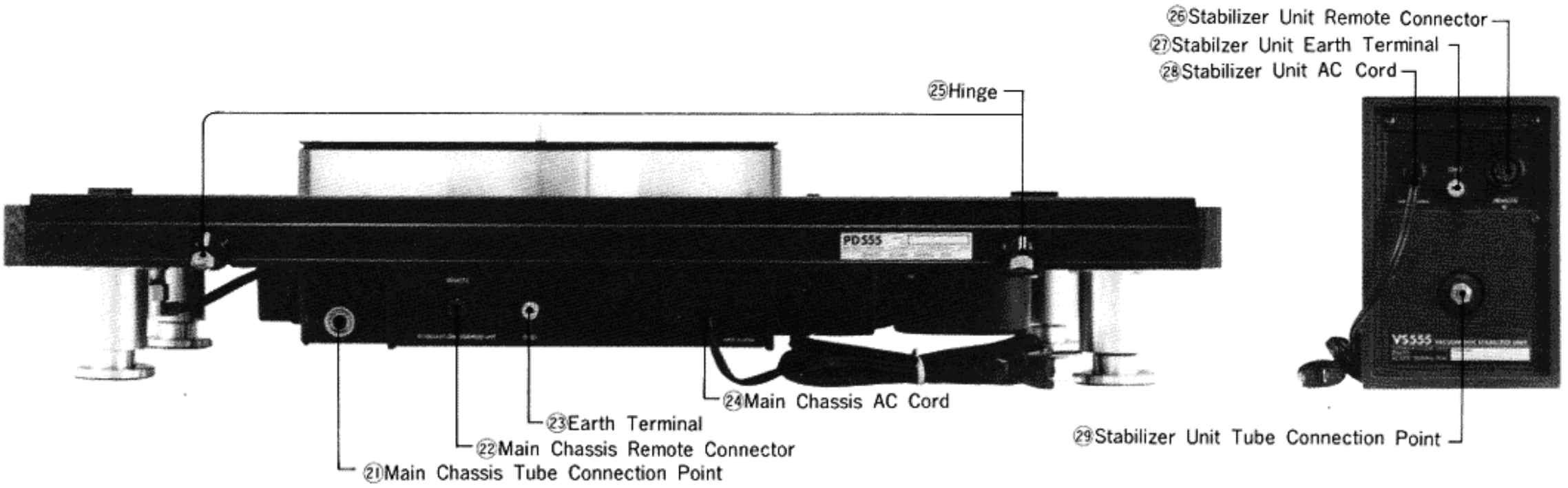
(18) Speed Adjuster (45rpm)

Set the Speed Selector Switch (5) to the "45" position, and turn the knob (18) clockwise or counter-clockwise. When the stroboscope pattern appears to be stationary, correct rotation speed has been obtained.

(19) Speed Adjuster (78rpm)

Set the Speed Selector Switch (5) to the "78" position, and turn the knob (19) clockwise or counter-clockwise. When the stroboscope pattern appears to be stationary, correct rotation speed has been obtained.





(20) Insulator

The insulator serves to support the weight of the turntable and at the same time to absorb external vibration and howling. An exclusive low "f_0" 2-step brake type is employed to effectively deal with both small-amplitude vibration such as howling and large-amplitude vibrations during operation. Also the height of the insulators is adjustable. For further details refer to the section "2-Step Brake Type Insulator".

(21) Main Chassis Tube Connection Point

Connect this point to the Stabilizer Unit Tube Connection Point (29) by use of the attached connection tube.

(22) Main Chassis Remote Cable Connector

Connect this connector to the Stabilizer Unit Remote Cable Connector (26) by use of the attached remote cable.

(23) Earth Terminal

Connect this terminal with the earth terminal (GND) of your amp by the attached earth lead wire.

Caution:

Hum may be triggered by a ground loop created by connection of the tonearm and this terminal, depending on the tonearm you use. Therefore, before operation check if such earth connection reduces the amount of hum.

(24) Main Chassis AC Power Cord

Connect the AC plug at the end of this cord to the AC power supply socket in your listening room or to an extra AC outlet on your amp if it is provided.

(25) Dust Cover Hinge

The hinge firmly holds the dust cover, which can be fixed by 2 screws. This hinge is incorporated into the thin chassis presenting a totally elegant, slim appearance. Also when the dust cover is closed, its whole weight is applied to the turntable, which is advantageous in respect to prevention of howling together with the semi-free stop system.

(26) Stabilizer Unit Remote Cable Connector

Connect this connector to the Main Chassis Remote Cable Connector (22) by use of the attached Remote Cable.

(27) Stabilizer Unit Earth Terminal

In case hum and noises are notable at the time of operating the unit, connect this terminal to the Earth Terminal (23). Usually grounding of this terminal is not necessary.

(28) Stabilizer Unit AC Cord

Connect the plug at the end of this cord to the AC power supply socket in your listening room or to an extra AC outlet (SWITCHED or UNSWITCHED) on your amp if it is provided.

(29) Stabilizer Unit Tube Connection Point

Connect this point to the Main Chassis Tube Connection Point (21) by use of the attached tube.

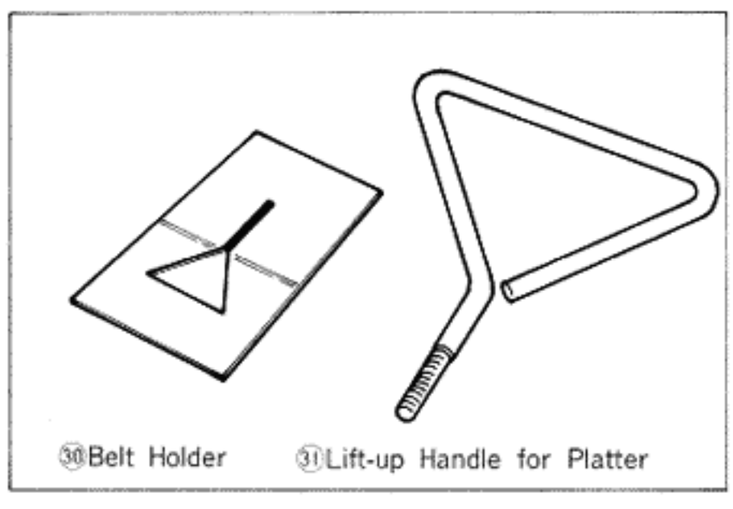
(30) Belt Holder

This holder is a jig to hang the drive-belt on the motor pulley. For use of this jig, refer to the section "Installation of platter & How to hang the driver-belt"

(31) Lift-up Handle for Platter

This handle is used at the time of installing the turntable platter.

For use of this jig, refer to the "Installation of platter & How to hang the dirve-belt"

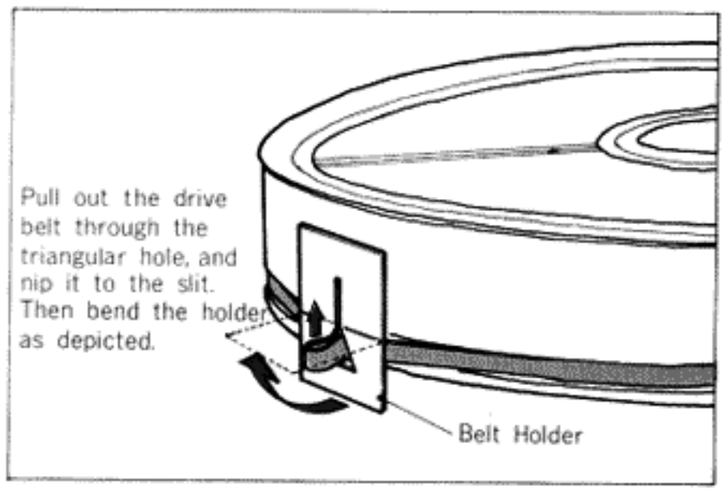


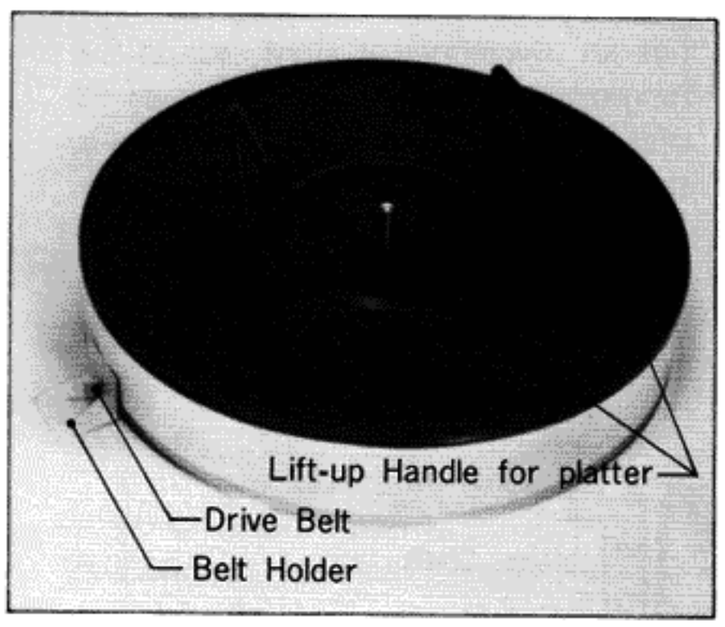
Installation

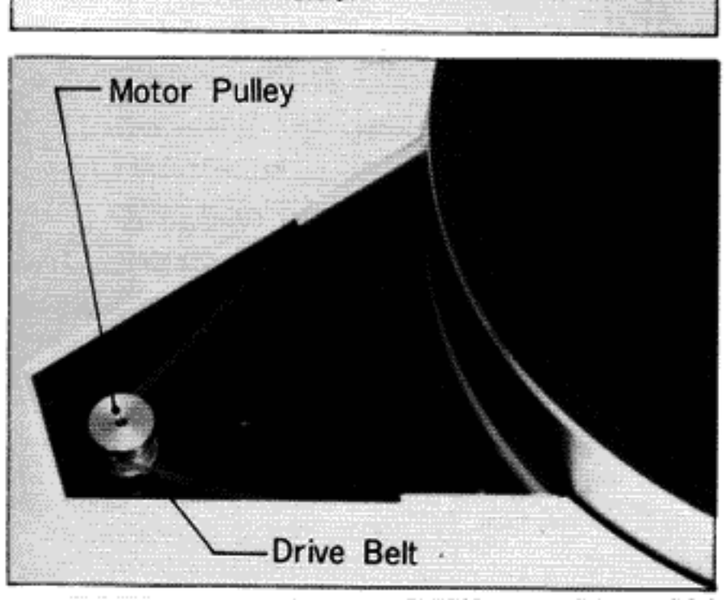
1) Installation of Platter & How to hang the Drive-Belt

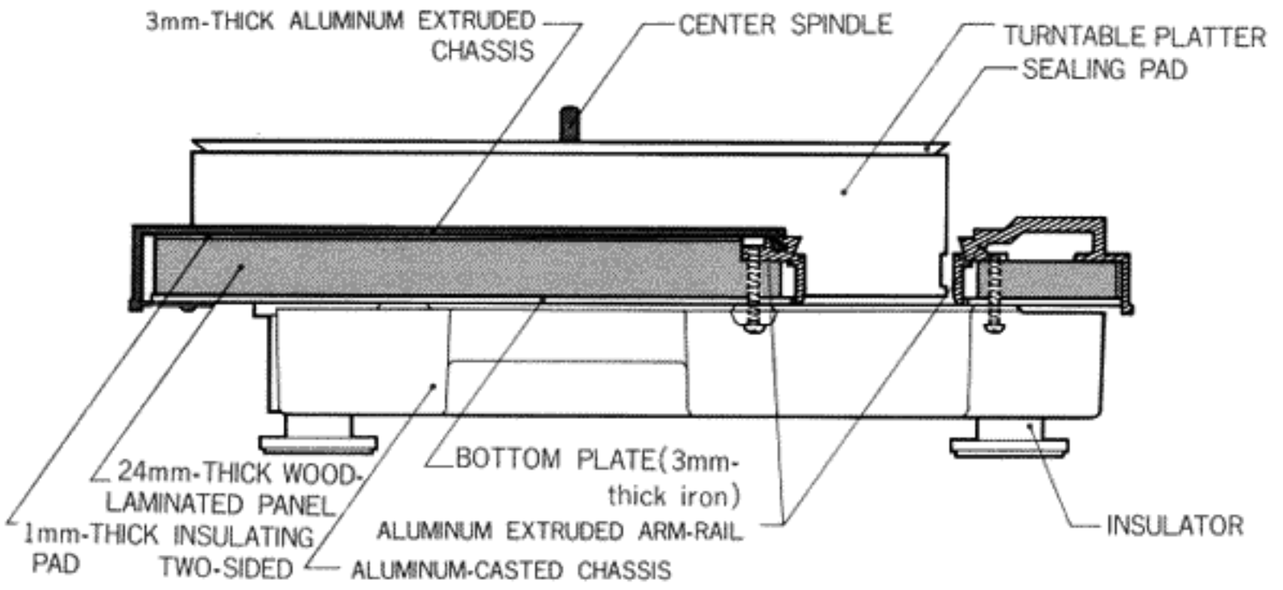
(1) Put the drive-belt on around the platter contour, and clamp the surplus of the drive-belt by use of the Belt Holder.
(2) Screw-in the two Lift-up Handles (31) to the Air Vent (4) on the platter, and install it on to the main chassis.
This work should be done carefully, as otherwise sub-turntable on the chassis may be damaged.
(3) Remove the Belt Holder (30), and hang the drive-belt on the motor-pulley.
(4) As the final step, install the Cover Panel (12). First insert this side (front) and then press the edge (arm-base side).

NOTE: The Lift-up Handles and Belt Holder should be kept aside for latter use.









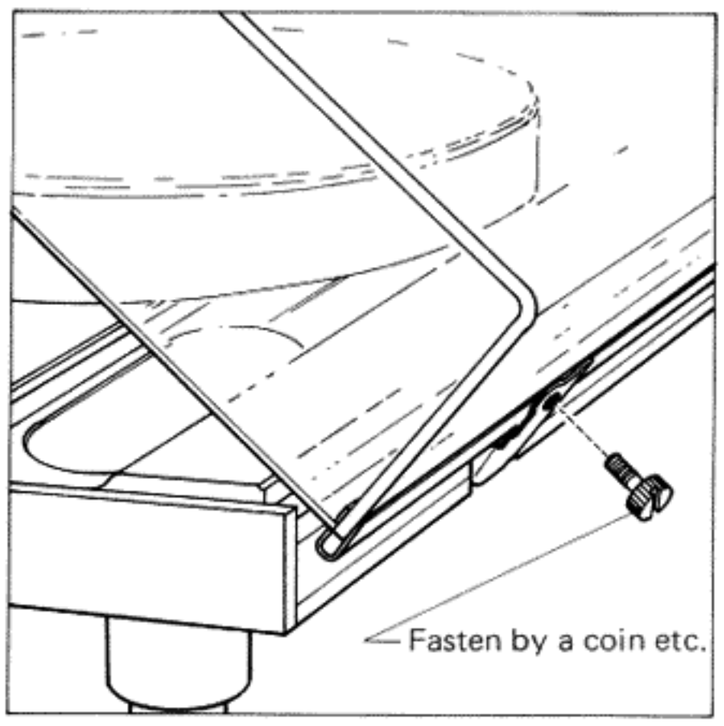
2) Structure of Chassis

An ultra heavy chassis of sandwich structure is composed of 3mm-thick aluminum panel, 3.2mm-thick iron plate and a wood-laminated plate. The total weight comes up to 26.5 kgs (58.3 lbs.).

The top panel of the chassis is of aluminum, which is not magnetic material, and an iron plate is utilized at the bottom, where affection by the magnetic material is negligible. Thus, an ideal solid and resonance-proof chassis is realized for a disc player.

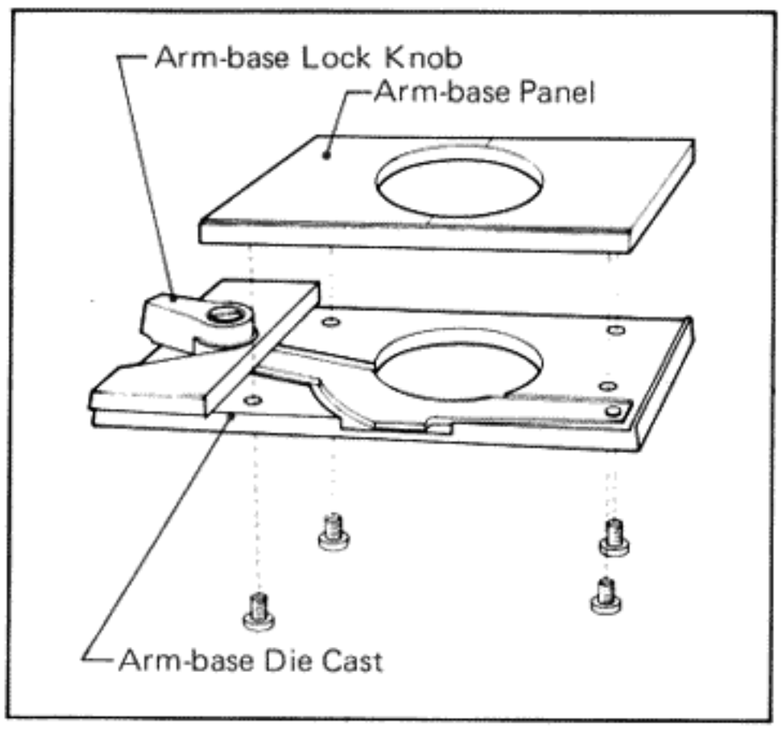
3) To Attach Dust Cover

The dust cover is detachable with 2 screws. Attachment has to be done with the dust cover open. The hinge is kept open by means of a spring. Fix the dust cover to the hinge by 2 screws as per the drawing. Fasten the screw by (–) driver or a coin. Detachment can be done in the reverse way.



4) Arm-base and Applicable Tonearms

The arm-base consists of the arm-base panel and die-cast arm-base. The arm-base panel is fixed to the die-cast arm-base by 4 screws, and by removing the screws it is possible to change the panel. (See next page.)

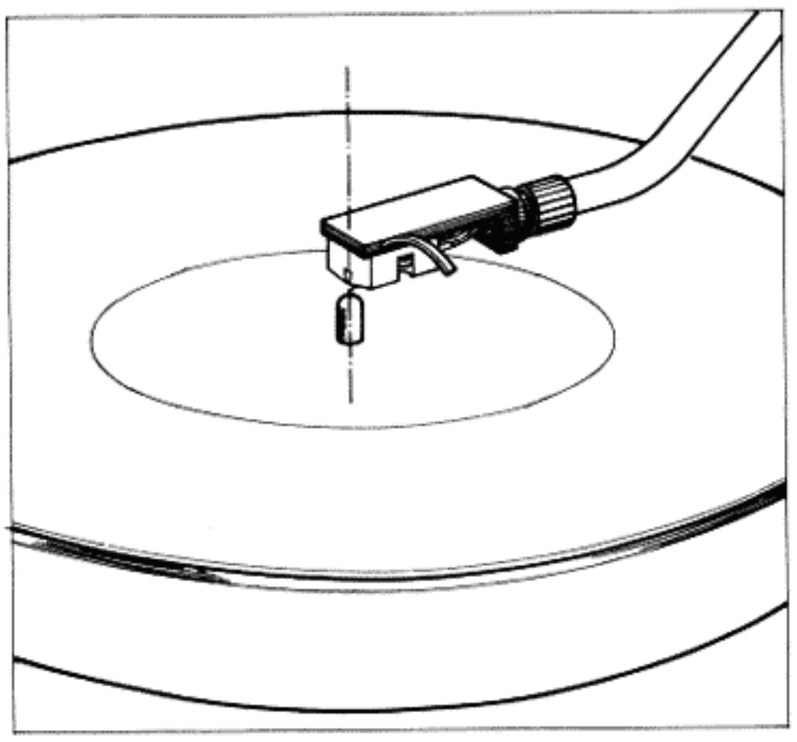


5) To Fix Arm-base and to Adjust Overhang

The arm-base has to be fixed to the arm-rail with its lever faced outwards. Be sure about this direction. The tonearm of long size can be fixed only at the left side arm-base.
To lock the arm-base to the turntable, turn the lever in a clockwise

direction, while a counter-clockwise turn releases the lock so that the base can slide along the arm-rail.

Adjustment of overhang can be done by sliding the arm-base. As per the drawing, slide the arm-base so that the stylus tip of the cartridge reaches the center spindle of the platter. Then read the calibration mark on the chassis shown by the white line of the arm-base. This is the "0" point of overhang. Each calibration mark equals 2 mm in terms of overhang. According to the specified overhang figure of the tonearm, slide the arm-base towards the platter and adjustment of overhang can be done easily. Adjust the overhang similarly on both right and left tonearms. Then turn the lever of the arm-base in a clockwise direction to firmly lock the arm-base.



Arm-base and Applicable Tonearms

NAME	SUITABLE TONEARMS		ACCESSORIES
TP-SG (for general use)	DENON	DA305,DA307,DA308 DA309	• Washer to fix tonearms • Arm Rest
	FR	FR54	
	GRACE	G940, G840F, G707, G545F, G860F, G860FB, G960, G565F, Σ 709F, G945	
	ADC	LMF–1, LMF–2	
	AUDIOCRAFT	AC300C, AC400C AC300A, AC400A	
	EXCEL SOUND	ES801	
TP-MT (for tonearms whose arm-base is fixed by 3 screws)	STAX	UA–7, UA–70	• Washer to fix tonearms • Arm Rest • Screws (2)
	FR	FE64, FR64S, FR14	
	GRACE	G704, G714	
	MICRO	MA505, MA505L MA707X	
	ORTOFON	RMG212, RMG309 RMA309	
	SAEC	WE308, WE308SX WE308L	
TP-LH (for tonearms of larger arm-base shaft)	FR	FR66S	• Arm Rest
	TECHNICS	EPA100	
TP-LS (for SME only)	SME	SME3009SII, SME3012 SME3009SIII	• Screws to fix tonearm base. *
TD-X	Arm-base die-cast		• Fixing screws

* Be sure to use those screws provided with the TP-LS when the SME tonearm is mounted on it, since the screw of SME original do not fit the TP-LS.
* When a long type tonearm is used, the arm-rest provided to the tonearm may not be used. In this case use the arm-rest which comes with the LUXMAN arm-base.

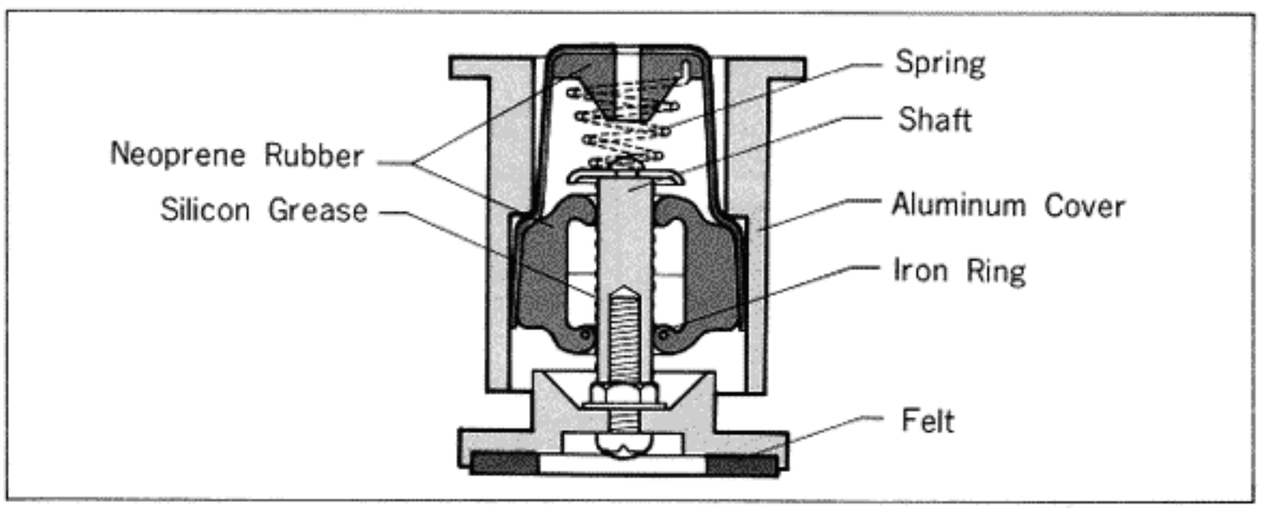
6) 2-Step Brake Insulator

Speaking about an insulator, the lower the "f_0" (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_0". A new 2-step brake insulator was developed to solve these incompatible problems.

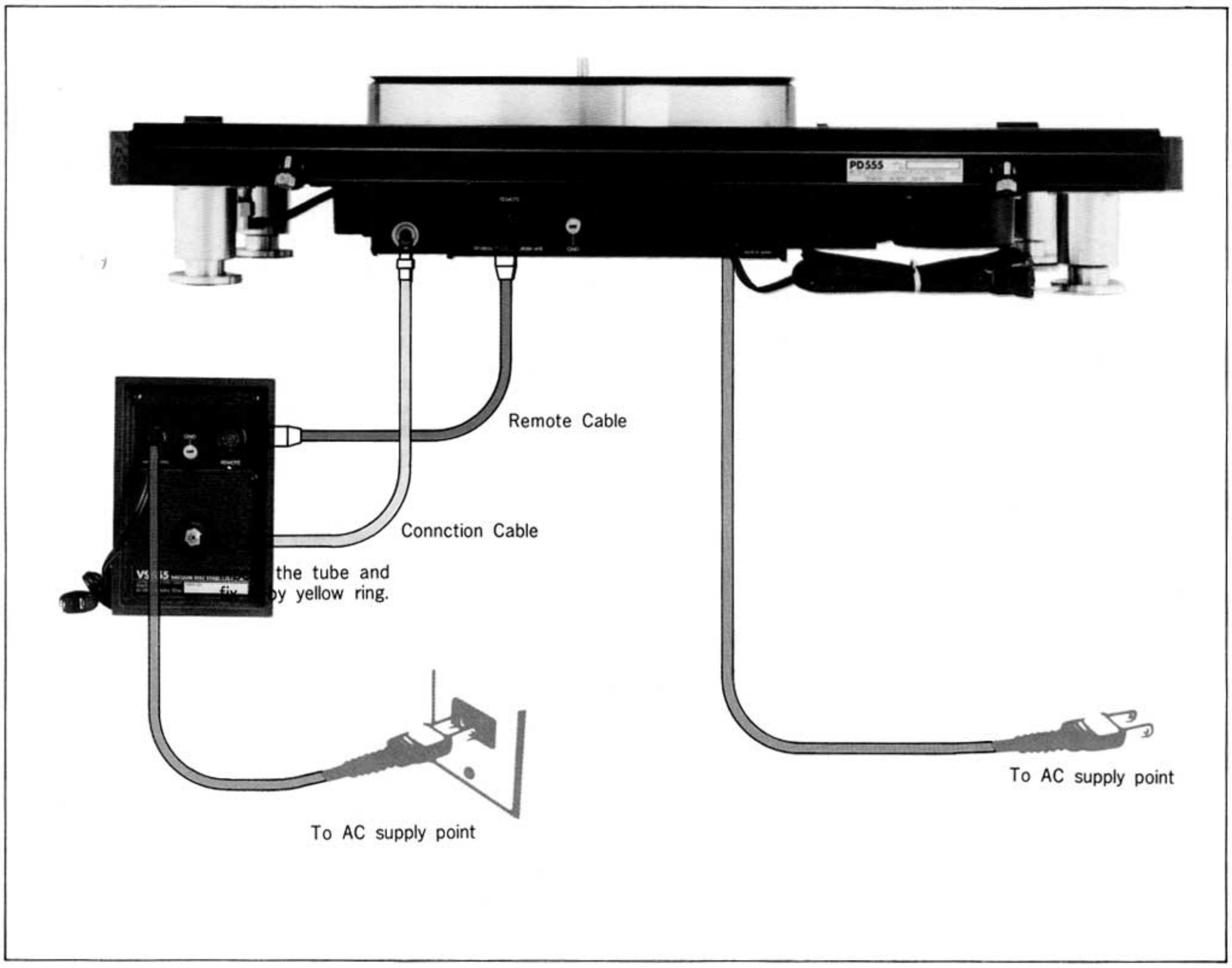
The neoprene rubber supporting the shaft of the insulator works against vibrations of small amplitude which cause acoustic feedback, realizing good cut-off characteristaics. Vibrations of large amplitude are effectively dealt with by the spring and viscous brake of neoprene rubber with silicon grease.

Now both the cut-off characteristics and operational stability are made compatible.

Also the height is adjustable with this insulator. The turntable is delivered with the least height on the insulator. If the mounting location has an uneveness or slant, adjust the height so that the turntable may be placed evenly. The height increase as the insulator is turned in a counter-clockwise direction (viewed from the bottom of the turntable) Adjustment is possible over a range of 10mm.



Connection Procedure

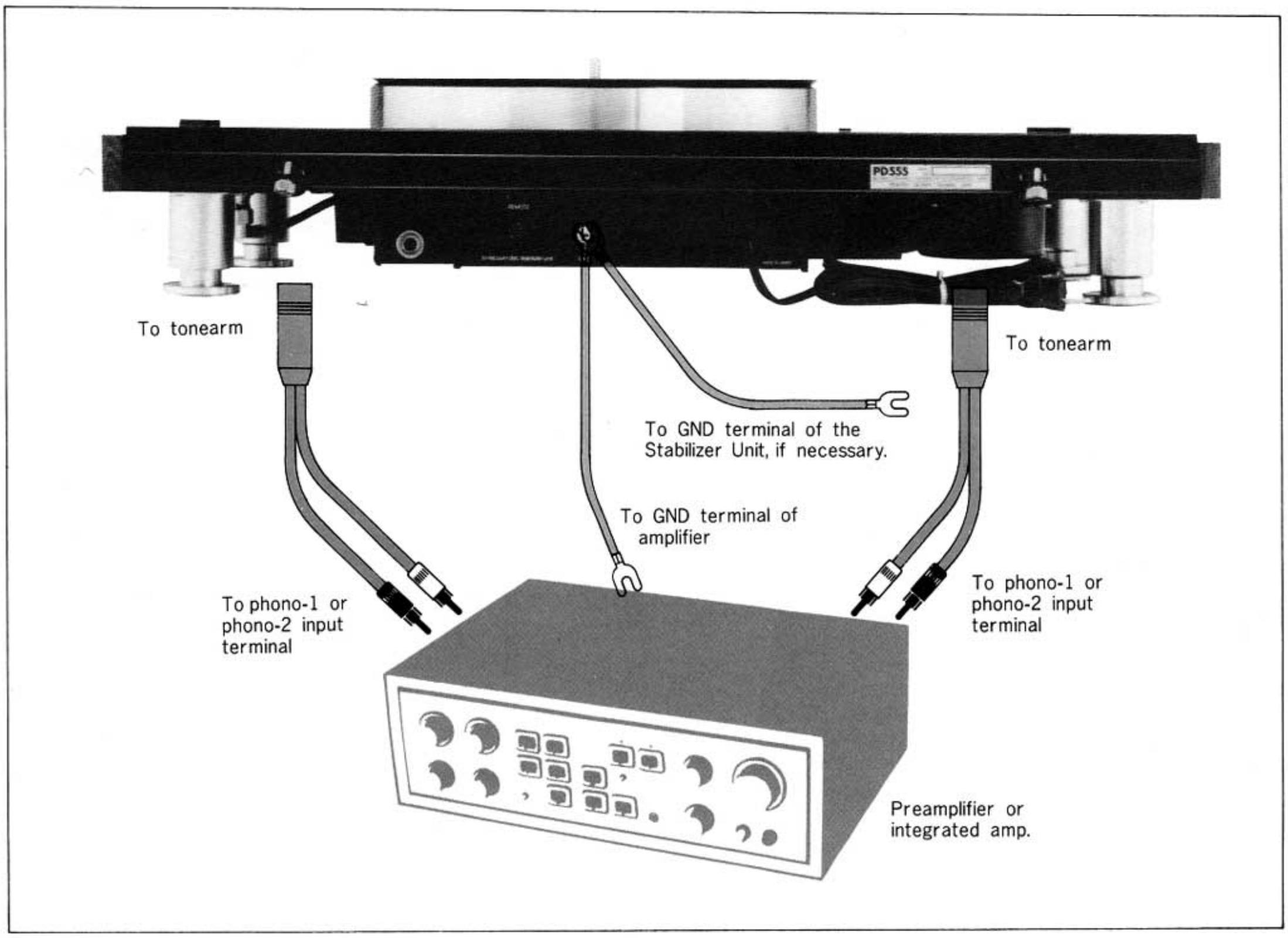


Connection between the Main Chassis and Vacuum Disc Stabilizer Unit

1) First, check that the two AC Cords (main chassis & stabilizer unit) are not connected to any power supply point.
2) Connect the Main Chassis Remote Cable Connector to the Stabilizer Unit Remote Cable Connector as depicted by use of the attached remote cable. Be careful about the direction of the plug at the end of the plug.
3) Connect the Main Chassis Tube Connection Point to the Stabilizer Unit Tube Connection Point by use of the attached connection tube. Be careful about the direction of the tube; connect the end with metal fitting to the main chassis. (For connection to the stabilizer unit, do not forget to fix the tube by a yellow ring.)
4) To disconnect the connection tube, pull the ring at the outer contour of the main chassis connector to unlock it, then disconnect the tube. For removing that at the stabilizer unit, be careful not to apply excessive force to connector.

Connection between Tonearm and Amplifier

1) No tonearm is provided to the PD555. Select your desired one, and check the type of the armbase.
2) The output cable of the tonearm should be connected to the phono input terminal of your amplifier. The Rch and Lch should be clarified.
3) Connect the ground lead of the tonearm directly to the ground terminal of your amplifier, or indirectly to it via the Earth Terminal (23) of the PD555. Take either of the connection ways that offers lesser hum and noises.
4) The gound lead between the Earth Terminal of Stabilizer Unit and that of the Main Chassis should be

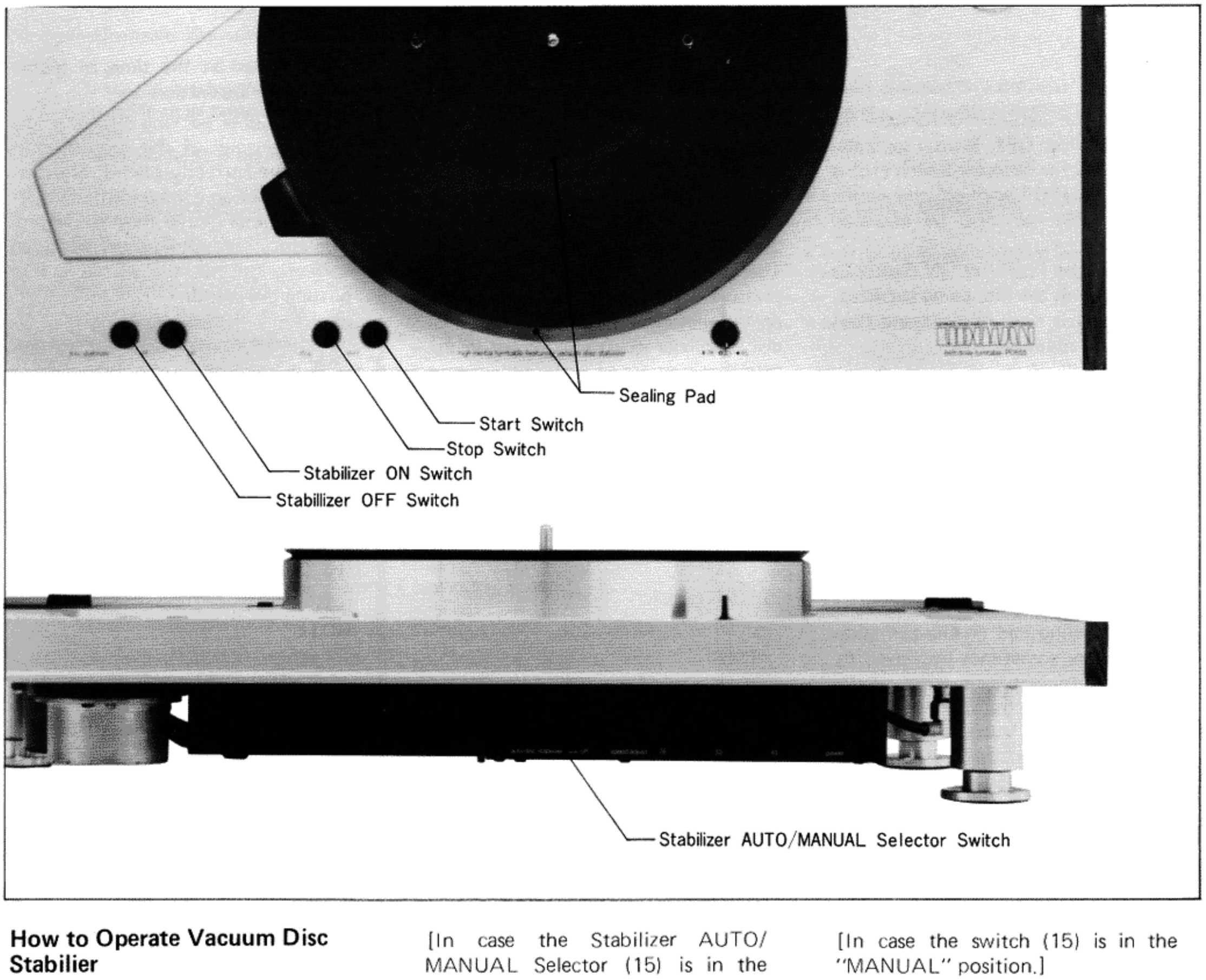


connected when hum and noises are caused. Usually, it is not necessary.

Connection of AC Cord

1) Be sure to connect the AC Cord to the power supply point after finishing all connections.
2) The AC Cord of the Stabilizer Unit can be connected to the extra AC outlet (switched or un-switched) if it is provided. The on/off operation of the AC power of the Stabilizer Unit can be done by the Power Switch on the Main Chassis.
3) It is advisable to connect the AC Cord of the Main Chassis to the extra AC outlet (switched) of the amplifier, whose power switch is to be turned on. In this case, power-on or -off of the PD555 is common to that of the amplifier.

How to Operate Vacuum Disc Stabilizer



How to Operate Vacuum Disc Stabilier

[In case the Stabilizer AUTO/ MANUAL Selector Switch is in the "AUTO" position]

1. Depress the Power Switch (2) to be on, and put the disc on the turntable platter.
2. A slight touch on the Start Switch makes turntable rotate and the Stabilizer Unit starts air-suction at the same time. The unit ceases operation when air-suction is finished. When the meter reading on the Vacuum Gauge (14) exceeds 10 cmHz, air-suction is complete.
   The platter reaches the rated rotation speed in about one rotation for 33-1/3 rpm.
   This completes setting of the disc.

[In case the Stabilizer AUTO/ MANUAL Selector (15) is in the "MANUAL" position.]

Put the disc on the platter. First, press the Start Switch (6) then press the Stabilizer ON Switch (8).

To remove the disc, take the following procedure.

[In case the Stabilizer AUTO/ MANUAL Selector Switch is in the "AUTO" position.]

Air-suction is released and the motor stops when the Stop Switch (7) is pressed. The platter does not stop for a while since the turntable of the PF555 has large inertia. (It is not recommended to stop rotation of the turntable by hands.)

[In case the switch (15) is in the "MANUAL" position.]

Both of Stop Switch and Stabilizer OFF Switch (9) should be pressed.

NOTE

When the Stabilizer AUTO/ MANUAL Selector Switch (15) is in the "AUTO" position, air-suction and release is common with ON-OFF of the motor by operating the Start Button (6) and Stop Button (7)

While in case the switch (15) is in the "MANUAL" position, only the motor is turned ON and OFF, and that of the Vacuum Stabilizer is

done by the Stabilizer ON Switch (8) and Stabilizer OFF Switch separately. In case the Selector Swtch (15) is in the "AUTO" position, the switch (8) and (9) can also be operated separately.

When the Stabilizer ON Switch is pressed, with the disc being stablized, air-suction is once released and then the disc is stabilized again.

When Vacuum Disc Stabilizer is not used

Use attached platter mat in such cases that you are to play EP disc, or the Vacuum Disc Stabilizer is not used.

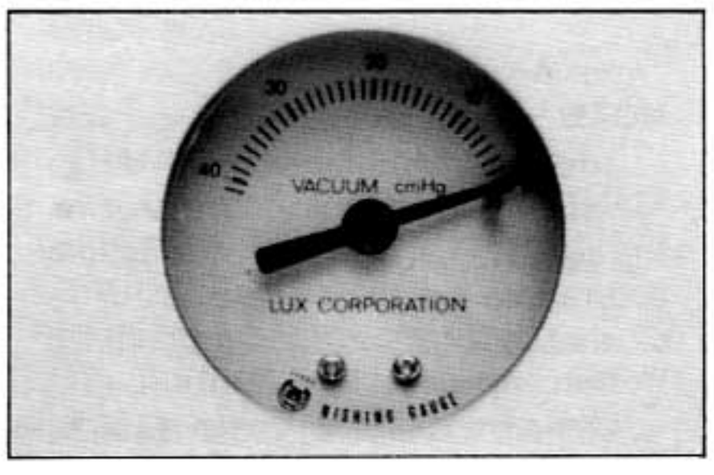
NOTE

The Sealing Pad on the turntable platter may sometimes be waved to cause insufficient air-suction, which is caused by the transport condition or when the Vacuum Stabilizer functions is not used for a long period. This is not trouble. Take the following procedure for easy recovery.

(1) Put a disc on the turntable platter, and press the labeled part of the disc evenly.

(2) Operate the Stabilizer ON, OFF Switches for several times. This completes the work.

Note that optimum stablized condition will not be achied when the disc is warping, or when it is badly damaged.



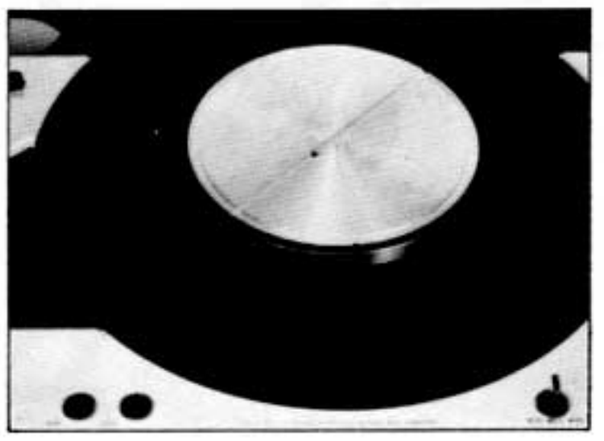
NOTE:

The optimum air-suction force obtained by operating the Vacuum Disc Stabilizer is 5cmHg, which is necessary enough, and such pressure exceeding 20cmHg is needless.

Therefore, do not try to increase the pressure level by depressing the disc on the platter or putting conventional disc stabilzier on it etc, except in the case that you are to restore the waved Sealing Pad.

Some Notes at the time of Installation and Operation

The rubber packing affixed at the outer contour of the sub-turntable should be correctly placed, as otherwise air-suction will be insifficient, or the turntable platter may be slanted. Therefore, set the rubber material correctly as per the photo before putting the platter.



NOTE

* For assembling the PD555, there is no screw to be removed. Especially note that those screws on the Sub-Turntable should not be touched.

* Special quality oil is employed for the motor, therefore you need not use additional oil.

* The two Lift-up Handles for the turntable platter should be removed on finishing its installation. Operation of the Vacuum Stabilizer with blocking up the hole by the handle may cause trouble.

* The height or tilt of the motor pulley is precisely adjusted at the factory. In case the drive-belt does not be positioned at the center of the pulley for some reason, consult your nearest LUXMAN dealer.

* Strong-enough semi-free-stop type hinges are employed to support the dust cover, but rough handling of the dust cover may cause excessive force on the hinge or cover. The dust cover should be handled softly.

Before Consulting A Service Shop

It may be possible that some knobs or switches are accidentally operated, or some connections are detached. In some cases, these are liable to be taken as troubles. Therefore, it is advisable to make fundamental check by use of the "Trouble Shooting" listed below.
When you find the trouble is not cured by this procedure, contact your nearest service shop.

SYMPTOM	CAUSE	MEASURES
AC power does not turn on.	• Power switch of other component is turned off. (When connected to the "SWITCHED" outlet.)	• Turn on the power switch of other component.
Turntable platter does not rotate.	• Drive-belt is incorrectly set.	• Set it correctly.
	• Power switch is not turned on. (Check the Pilot Lamp.)	• Turn it on.
Air-suction can not be done.	• Connection of tube is wrong.	• Check the direction of the connector, and connect it correctly.
	• Connection of tube is wrong.	• Insert the tube firmly.
Air-suction is insufficient. (below 10cmHg)	• AC Cord of the Stabilizer Unit is not connected.	• Connect AC Cord of the Stabilizer Unit to the AC power supply point.
	• Sealing Pad is waved.	• Recover the Sealing Pad, following the procedure listed on P. 10.
Strobo-pattern is not stationary.	• Speed adjustment is not correct.	• Set it correctly.

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•cm^2
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)

[ADDITIONAL FEATURES]

Vacuum Disc Stabilizer Unit:	Disc Stabilizer Device by use of a vacuum pump unit (model VS-555)
Stroboscope:	Stabilized indication by use of built-in quart oscillator
Dust Cover:	Acrylic Resin 4mm-thick Detachable with semi-free-stop hinge Weight; 2.5kgs (5.5 lbs.)
Insulator:	Low "f_0", 2-step brake type by use of spring, rubber and grease. Height adjustable [adjustable range: 10mm(1/3")]
Arm Base:	Detachable, die-cast

[GENERAL]

Power Consumption:	Turntable Platter Drive . . . . . 20W Vacuum Pump VS-555 . . . . . 70W
Dimensions:	Turntable Chassis 664(W) x 175(H) x 392(D) mm (26-1/8" x 6-7/8" x 15-7/16") Vacuum Pump VS-555 102(W) x 154(H) x 512(D) mm (4" x 6-1/16" x 20-5/32")

Weight:	Turntable Chassis	Net	26.5kgs (58.3 lbs.)
		Gross	34.0kgs (74.8 lbs.)
	Vacuum Pump VS-555	Net	7.0kgs (15.4 lbs.)
		Gross	8.2kgs (18.0 lbs.)

Specifications and appearance design subject to change without notice.

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