



STABI TURNTABLE

instruction manual

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CONTENTS

I. GENERAL DESCRIPTION	3
SPECIFICATIONS	4
ACCESSORIES	4
II. UNPACKING	6
III. ASSEMBLY	7
1. Oil in Suspension Reservoirs	7
2. Oil in Bearing and Insertion of Subplatter	9
3. Belt	9
4. Platter	10
5. Connecting Power Supply Unit	12
6. Testing	13
7. Mounting of Tonearm	14
IV. ADJUSTMENT	17
1. Positioning Turntable and Power Supply	17
2. Connections	18
3. Levelling Turntable	18
4. Levelling Platter	18
5. Testing	18
6. Fine Speed Adjustment	20
V. USE OF CLAMP	22
VI. GENERAL MAINTAINANCE	23
1. Cleaning of Woodwork	23
2. Cleaning Pulley and Belt	23
3. Tightening Screws on Armboard	23
4. Check Oil in Bearing	24
VII. MINOR PROBLEMS	25
A. Immobile Subchassis	25
B. Platter does not Rotate	25
C. Noisy Belt	25
D. Cleaning of mat	25
E. Slow Start	26
F. Movement of Subchassis while Platter is Rotating	27
G. Sensitivity to Mechanical Feedback and Shock	28
VIII. TRANSPORT AND PACKING	29

I. GENERAL DESCRIPTION

Stabi is a suspended subchassis turntable. The lid, sides and main plinth are constructed of solid oak and the lid is topped with a sheet of smoked glass. The mediate subchassis is suspended from four springs which are damped in four oil reservoirs. This suspension is simply adjusted by four black knobs on the top plate.

The turntable is additionally fitted with adjustable legs for levelling the plinth ending in spiked feet which can, if desired, be covered with the protective cups also supplied.

The shaft is highly polished and is supported in the bearing at five points ensuring no movement, low constant friction and minimum vibration. The shaft is fixed in the supplatter which is turned by a belt.

The motor is fixed on a metal plate, decoupled from the turntable via rubber inserts. The platter is of painted aluminium and weighs 3 Kg and has a rubber ring inserted for extra damping. The turntable also comes equipped with a mat and a record clamp.

Stabi has its own optional power supply which enables the motor to rotate with the minimum of vibration and constant torque. It is quartz controlled, split phase with internal ± 0.4 % speed adjustment. The signal is amplified by two 20 W amplifiers.

Each Stabi turntable is individually built and tested and made of the best available materials to ensure it gives the highest possible standard of musical performance. We wish you many happy and trouble free listening years.

SPECIFICATIONS

Mass	21 Kg
External Dimensions (Lid Closed)	510 mm x 411 mm x 200 mm
(Lid Open)	510 mm x 500 mm x 500 mm
Weight of platter and subplatter	4 Kg
Resonance of subchassis	3.5 Hz
Speeds	33 rpm and 45 rpm
Mat	special rubber & textile compound
Motor	24 pole synchronous 110 v, 50 Hz
Mains Supply	110 v, 220 v, 240 v - 50/60 Hz

ACCESSORIES

The following are supplied with the turntable and will be found in the accessories box.

1. Clamp with washer.
2. Alan key 5 mm for tonearm board.
3. Alan key 2.5 mm for fixing legs.
4. One small plastic bottle with oil for bearing.
5. One large plastic bottle with oil for suspension reservoirs Silicon Oil 5000.
6. Belt.

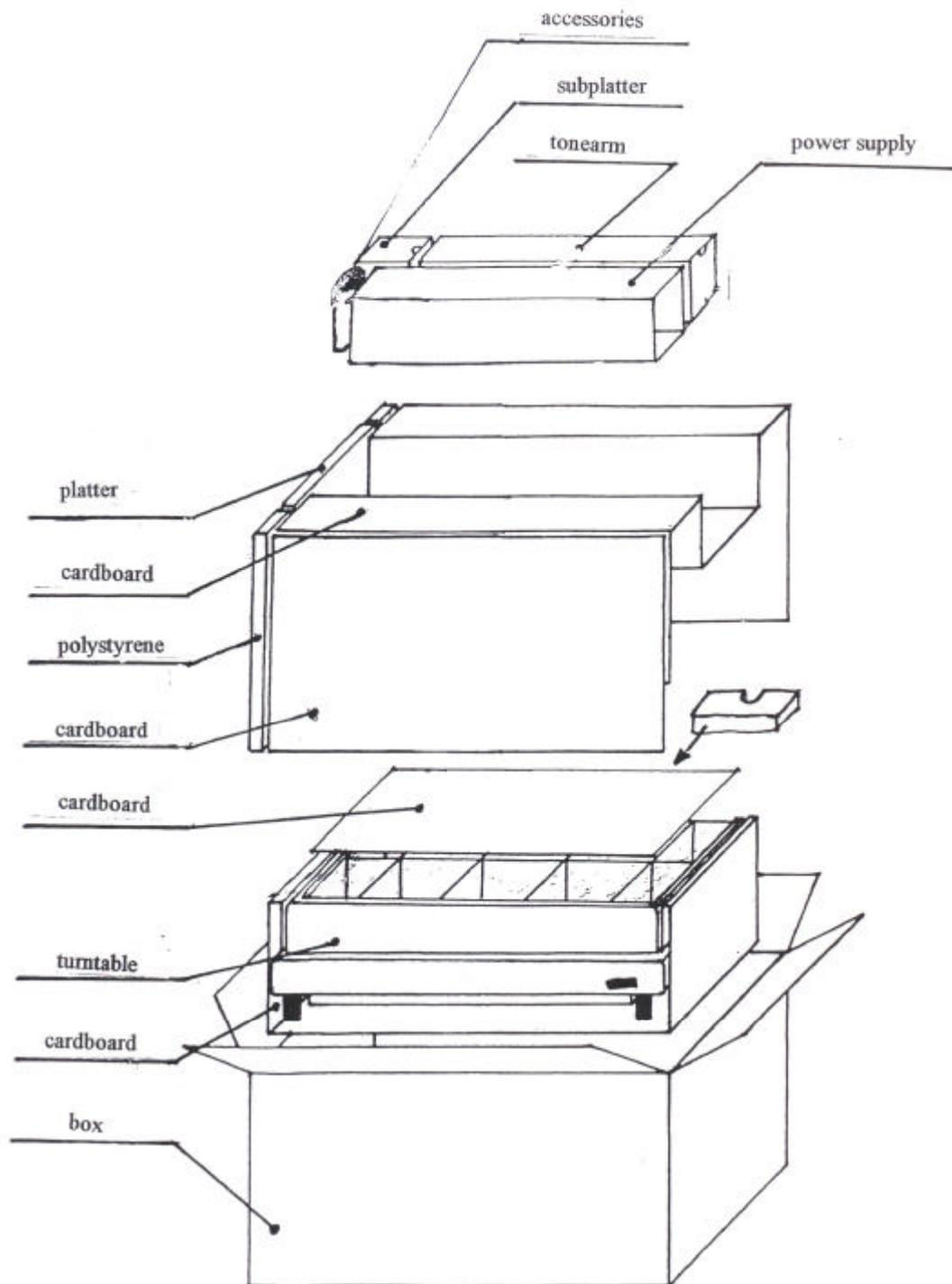


Fig.1

II. UNPACKING

(Fig. 1)

1. Remove box on top containing tonearm*, power supply*, subplatter and accessories.
2. Lift and remove shaped cardboard layer.
3. Remove glass protection cardboard layer.
4. At side remove polystyrene inserts and remove platter in box.
5. Remove internal u shaped cardboard containing turntable.
6. Open lid and remove cardboard cross.
7. On the underside of turntable between subchassis and plinth are four cardboard corner wedges which should be removed by pulling down. (Fig. 2)
8. Replace packing materials in box for possible future use.

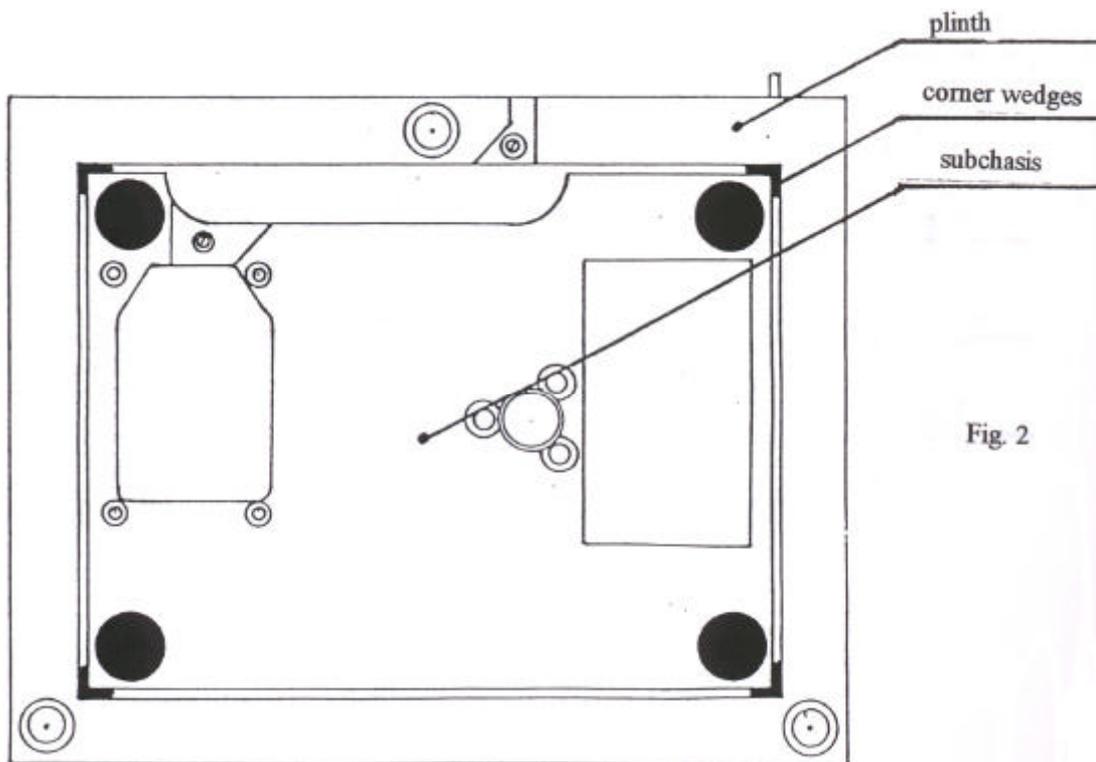


Fig. 2

III. ASSEMBLY

Place turntable on convenient worktable.

1. Oil in Suspension Reservoirs

You will need larger oil bottle, tissue, scissors.

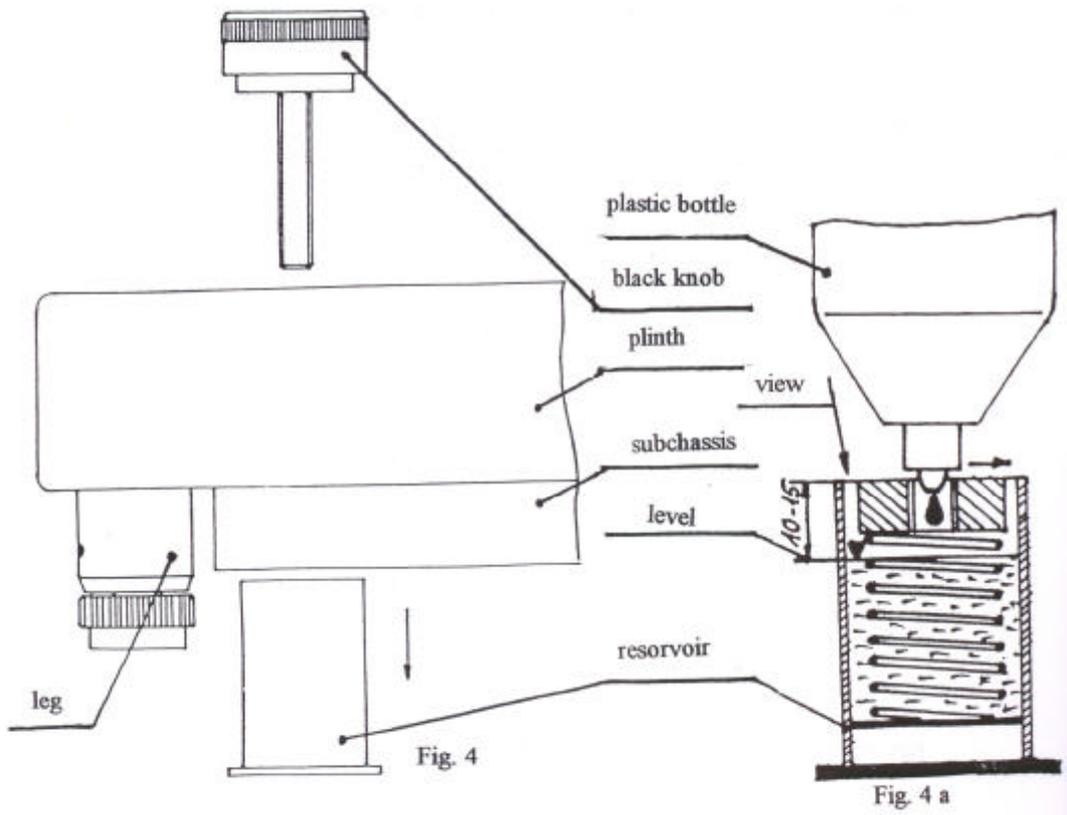
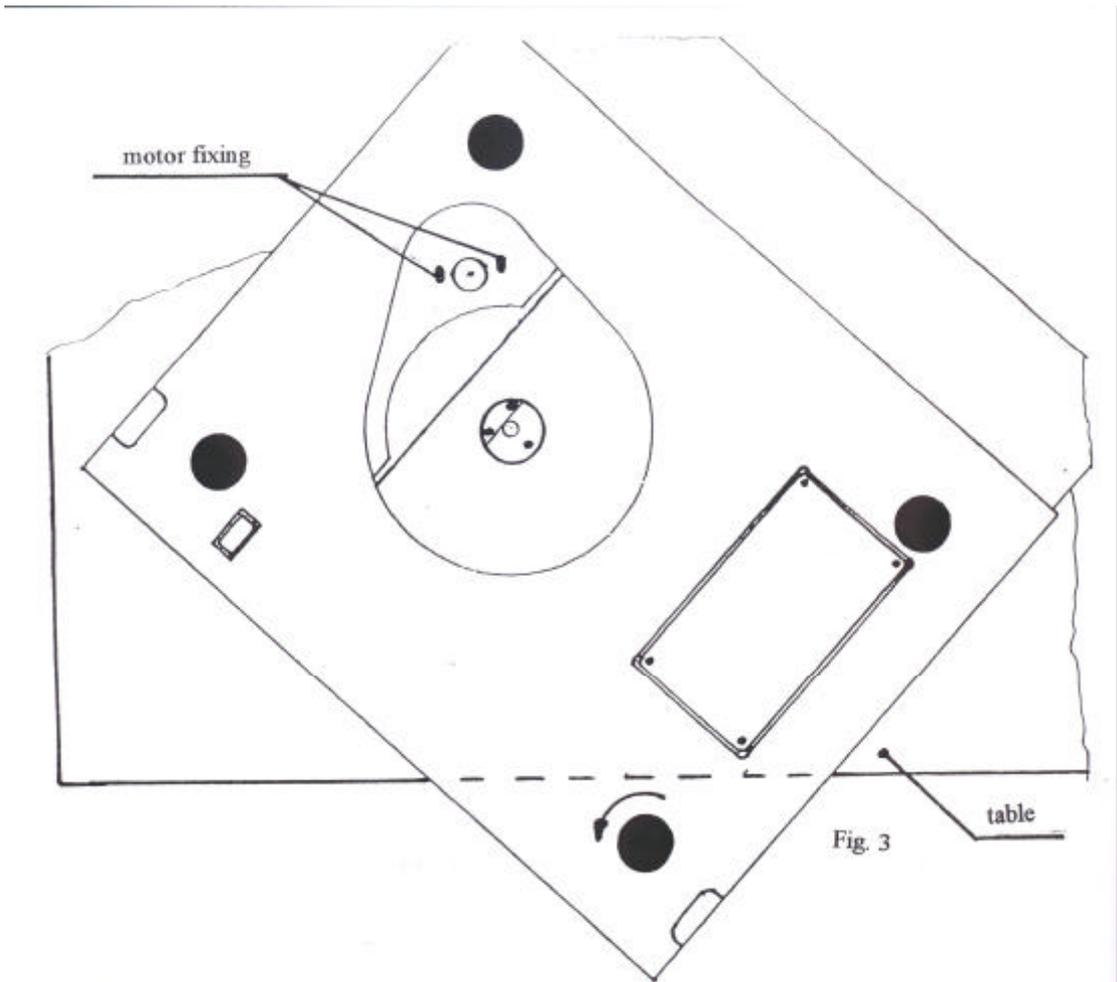
- a) Unscrew top of oil bottle and snip of 5 mm off nozzle.
- b) Position turntable so that one corner extends over edge of table. From underneath you will see around black plate which is the bottom of reservoir (Fig. 3)
- c) Open lid. With one hand unscrew black knob (anticlockwise) on turntable top that lies immediately above reservoir, supporting reservoir with fingers to prevent turning. Continue unscrewing until knob is released and can be removed. At this point reservoir will drop into your hand. (Fig. 4)
- d) In centre of reservoir is a hole in the inner ring through which the thick silicon oil should be slowly poured, squeezing the bottle, until surface of the oil shows approximately 10 - 15 mm below the top edge of reservoir (ie quarter of bottle). Allow oil to settle and check level by pushing ring sideways with nozzle of bottle (Fig. 4a)
- e) Wipe clean any spilled oil.
- f) Wipe dust on top edge of surface of plinth.
- g) You will notice that the inner ring is not central. It is recommended that the side closest to the edge should be directed towards the centre of turntable. Firmly reinsert reservoir back into the turntable from underneath and support while you rescrew (clockwise) the black knob until reservoir is fixed.

NOTE: Knob should be tightened until slight counter pressure can be felt.

NOTE: When moving turntable to reposition, always close lid.

- h) Repeat procedure for remaining three reservoirs.

NOTE: Oil used is silicon oil 5000 or oil of a similar viscosity.



2. Oil in Bearing and Insertion of Subplatter

- a) Remove tape sealing bearing.
- b) Take smaller oil bottle and squeeze 20 drops into the bearing in centre of turntable. The insertion of the shaft will cause the oil level to rise.
- c) Remove protective plastic tube from subplatter shaft. Handle carefully and ensure no dust adheres to shaft.

NOTE: Should any dirt become attached, wipe with cotton cloth and alcohol.

- d) Slowly insert flat ended shaft into bearing.
- e) Rotate subplatter to ensure smooth movement.
- f) Lift out subplatter and check that level of oil on shaft reaches the top. If level is lower add oil drops, approximately one drop to increase level for one mm. Oil should bathe shaft completely. To check this see Fig. 5.

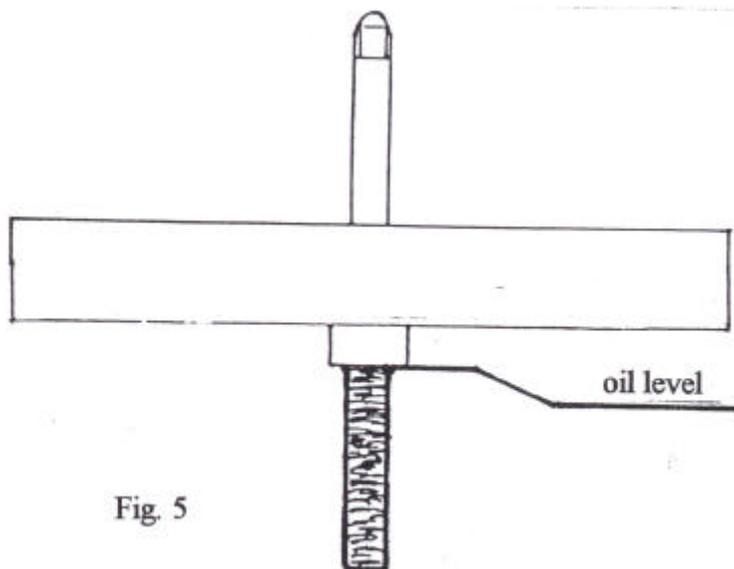


Fig. 5

Fig. 5

NOTE: The shaft is not tight in bearing and will rock slightly if pressed.

3. Belt

This can be found with subplatter.

- a) Ensure hands are clean and dry and remove belt from plastic bag.
- b) Place belt around subplatter and then around top groove of motor pulley.

NOTE: Subplatter is higher than motor pulley as weight of platter has yet to be added.

NOTE: When putting belt around subplatter it may slip and drop under subplatter. If so it is important to check that no oil has adhered to belt and if necessary to clean belt with cotton cloth and alcohol.

4. Platter

- a) Before positioning platter, check that top surface of subplatter and underside of platter are both dust free.
- b) Gently lower platter into spindle.
- c) Platter will now be in a raised position and it must be lowered to give an approximate clearance of 2 mm (ie approximate thickness of belt) between bottom surface of platter and turntable top. If platter is too low, raise by screwing black knobs clockwise (Fig. 6)
- d) This is achieved by unscrewing (anticlockwise) two diagonal black knobs (A) on turntable top and then the other diagonal pair (B). This operation should be done in small gradual stages ie, a few turns of one diagonal pair (A) then a few turns of the other pair (B) until the level is slowly brought down to a suitable clearance. Often, however, one part of platter is clearly higher and the knob closest to that part should be unscrewed separately until platter is parallel with plinth (Fig.7)

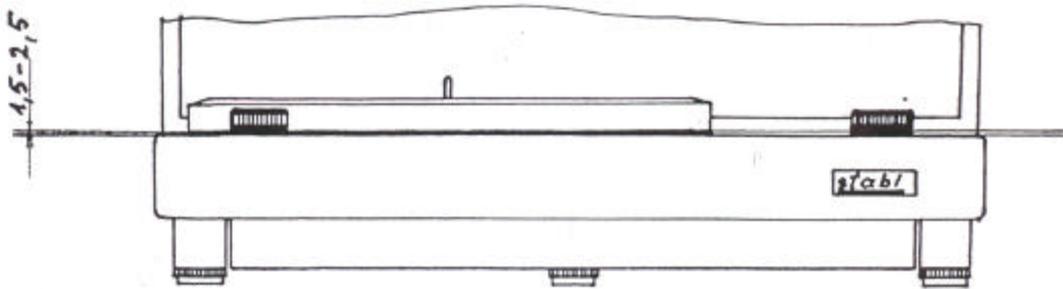


Fig. 6

HINT: While unscrewing one diagonal pair your eye position should be at platter level between that pair ie just to the side of front knob of the other diagonal pair.

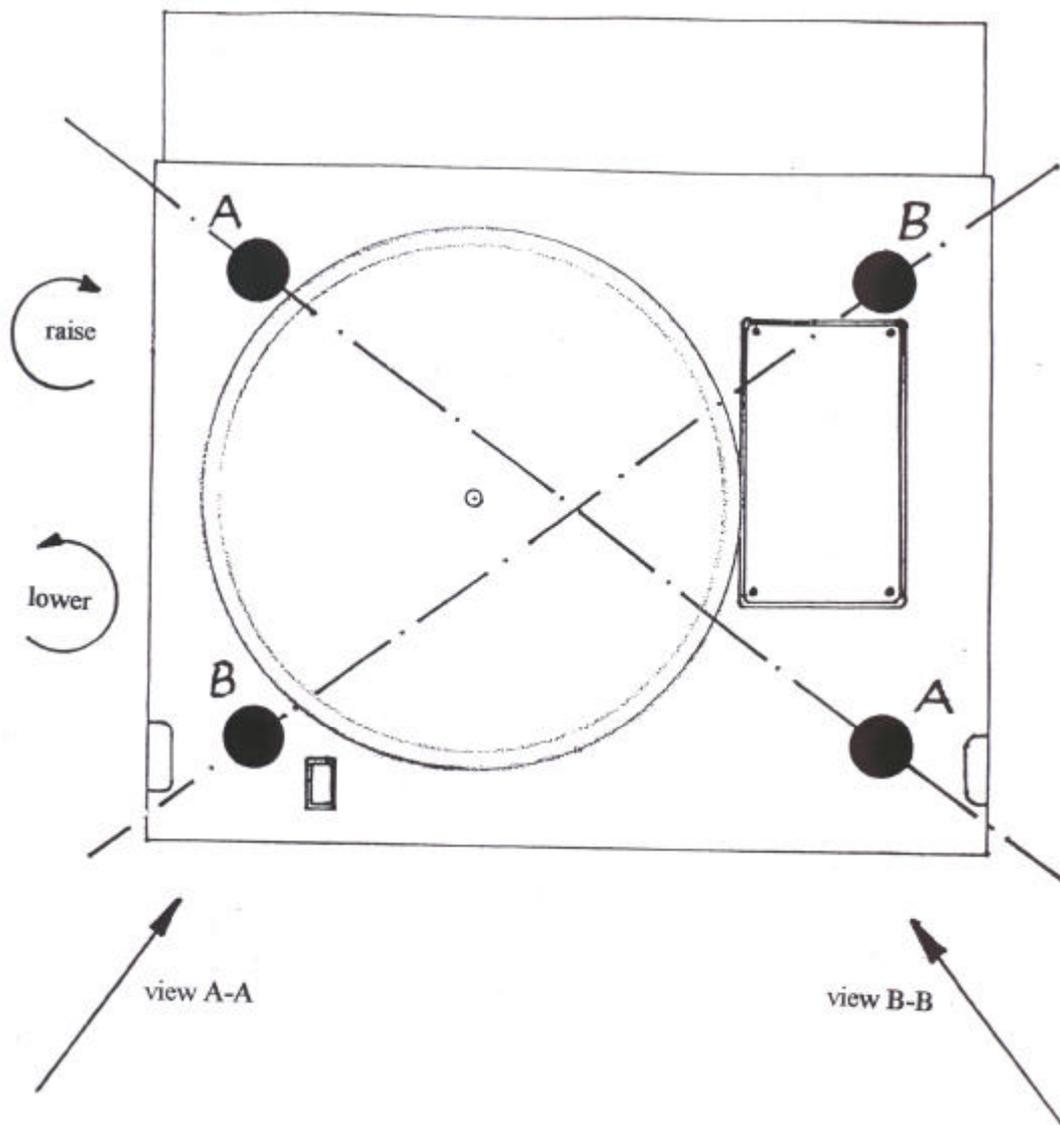


Fig. 7

5. Connecting Power Supply Unit

- a) The cable at the back of the turntable has a five pin plug which should be inserted into connector at rear of power supply. (Fig. 8)
- b) Connect mains cable into back of power supply. (Fig. 9)

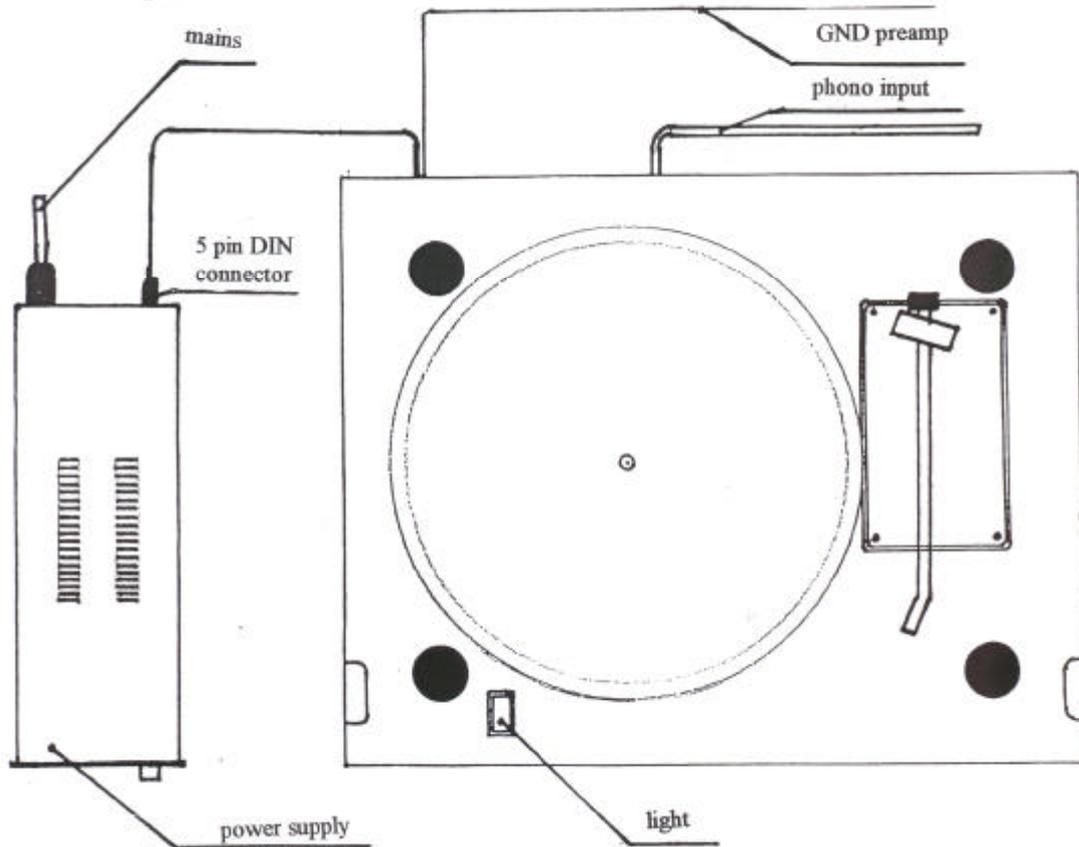


Fig. 8.

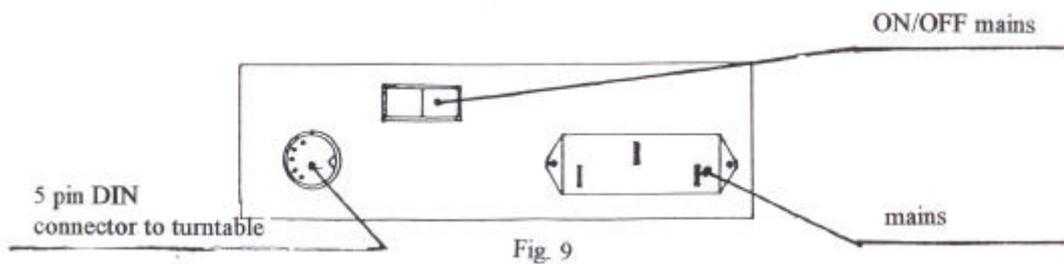


Fig. 9

NOTE: You will see a thin black wire at back of turntable. This is a grounding wire and will be connected to GND on preamplifier (not on GND of MC step up device) at a later stage.

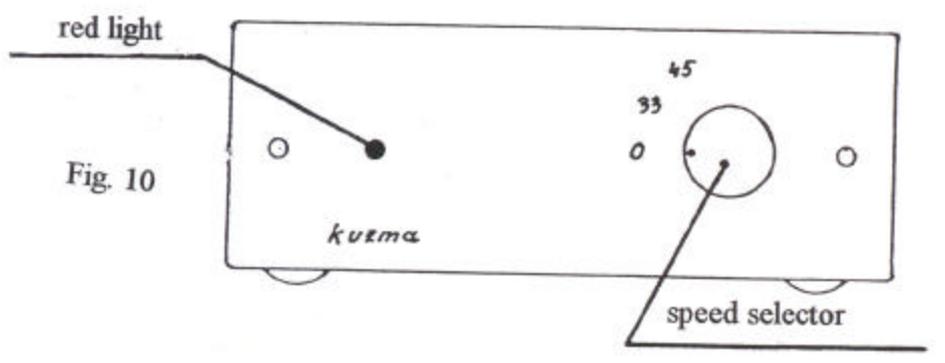
6. Testing

- a) With finger push spindle down gently to ensure subchassis has freedom of movement. Platter should oscillate for a few seconds.
- b) Plug into mains supply. Switch on at rear of power supply. Red light should appear on front panel (Fig. 9)

OR

If turntable is designed for use without power supply then connect cable to mains.

- c) Switch on to 33 rpm position. Light should appear on turntable top plate. (Fig. 10)



OR

Press black play switch. Platter should slowly rotate and reach full speed in 5 - 6 seconds.

- d) There should be no noise from turntable.
If there is, check that assembly instructions have been followed exactly, paying particular attention to height of platter and position of belt.

WARNING: If turntable is designed for use with power supply, the 5 pin connector should on no account be connected directly to the mains.

7. Mounting of Tonearm

a) To cut blank mounting board

- i) Use template provided by manufacturer and mark position of cuts. Bear in mind that there must be adequate space to close lid and for counterweight. Also check position of tonearm output cable.
- ii) Unscrew four screws securing mounting board using Alan key provided (No. 5)
- iii) Make cuts on board. Note that board is of medite which is easy to cut.
- iv) Fix tonearm base to board as instructed and replace mounting board, tightening screws with Alan key.

With pre-cut board

If board is pre-cut it may still be convenient to remove board to attach tonearm base (see ii and iv above) though this is not always necessary.

- b) Fix tonearm into arm base.
- c) The weight of the tonearm will have altered the height of the platter from the turntable top. This should be readjusted using the four black knobs to regain the required height between platter and top plate of 2 - 3 mm. Ensure that the height is even around the circumference of the platter (Figs. 6 and 7)

NOTE: Anticlockwise lowers platter, clockwise raises.

d) Securing tonearm cable

You will need a large screwdriver.

- i) Close lid and detach power supply.
- ii) Position turntable so that right rear corner extends well over table edge (back leg should extend over edge). (Fig. 11)
- iii) There are two fixing points for the cable, one on the subchassis A. and the other on frame near rear leg B. Secure cable in curve between these two points. Ensure that there is adequate cable from tonearm to allow for height adjustment of tonearm. (Fig. 12)

iv) With large screwdriver release screws at points A and B and catch cable between

wood and screw washers.

v) Between these two points the cable should be free and touch nothing. The cable must be long enough to allow subchassis movement but not too long. To check this replace leg on worktable so you can inspect the position of cable. If necessary

reposition with fingers.

vi) If position is not satisfactory release cable at point B and lengthen or shorten as required.

vii) Check subchassis movement by pressing spindle when platter should oscillate for a few seconds.

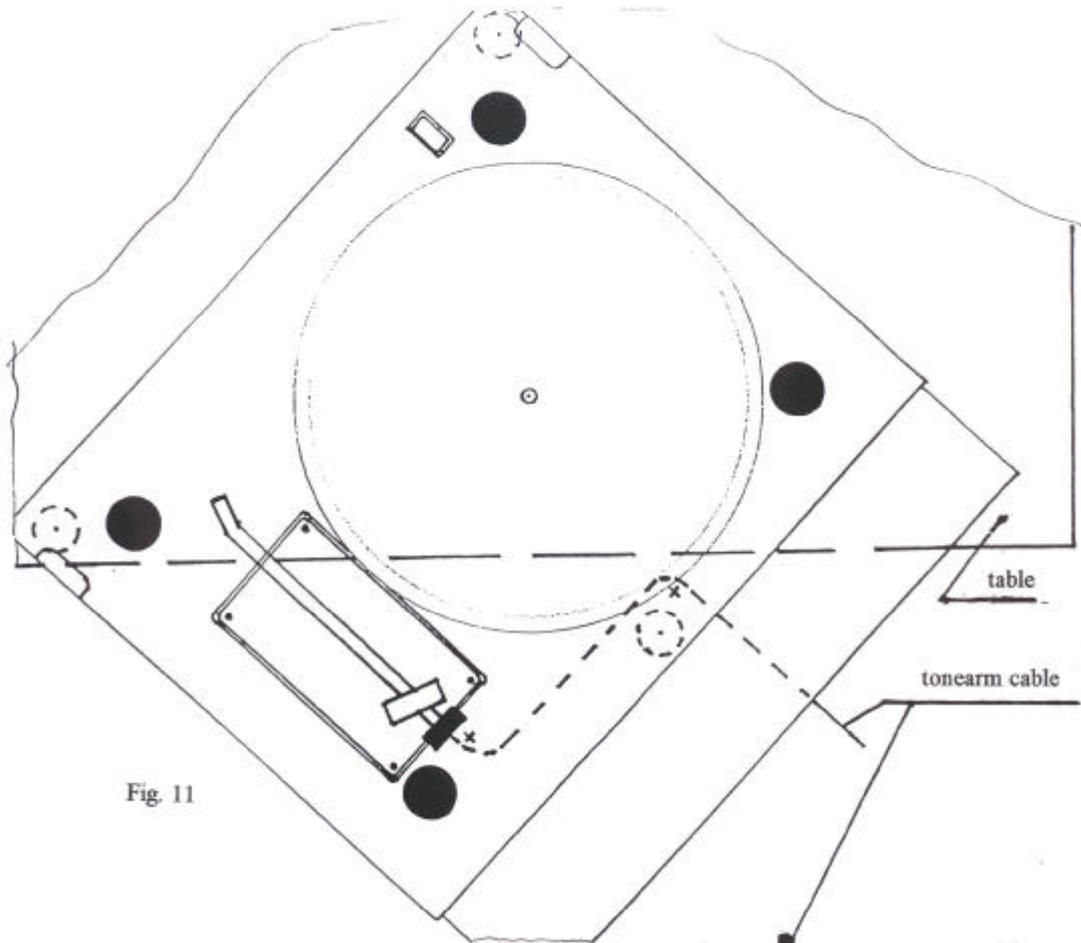


Fig. 11

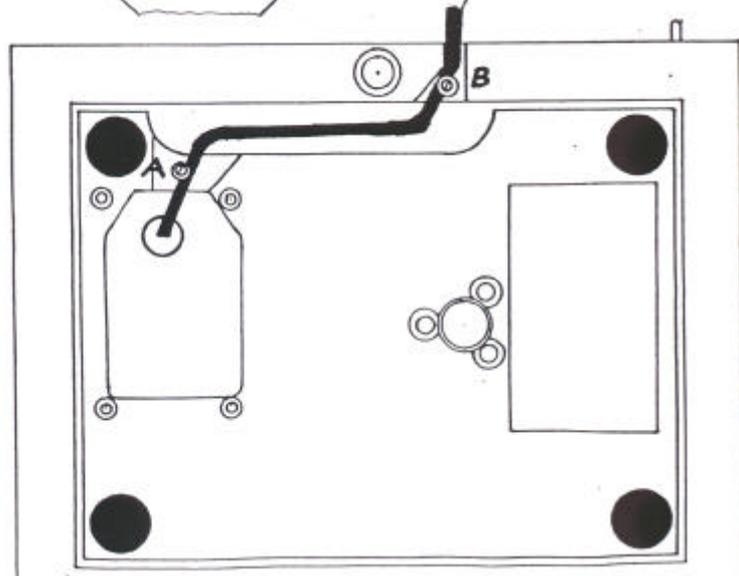


Fig. 12

IV. ADJUSTMENT

1. Positioning Turntable and Power Supply

a) Suitable surfaces are:

- i) If floors are solid, a solid welded table, sand filled or purpose built turntable table.
- ii) If floors are not solid - on a welded shelf.
- iii) If neither of these options are available, avoid placing on heavy bulky furniture and place on strong but lightweight surface.

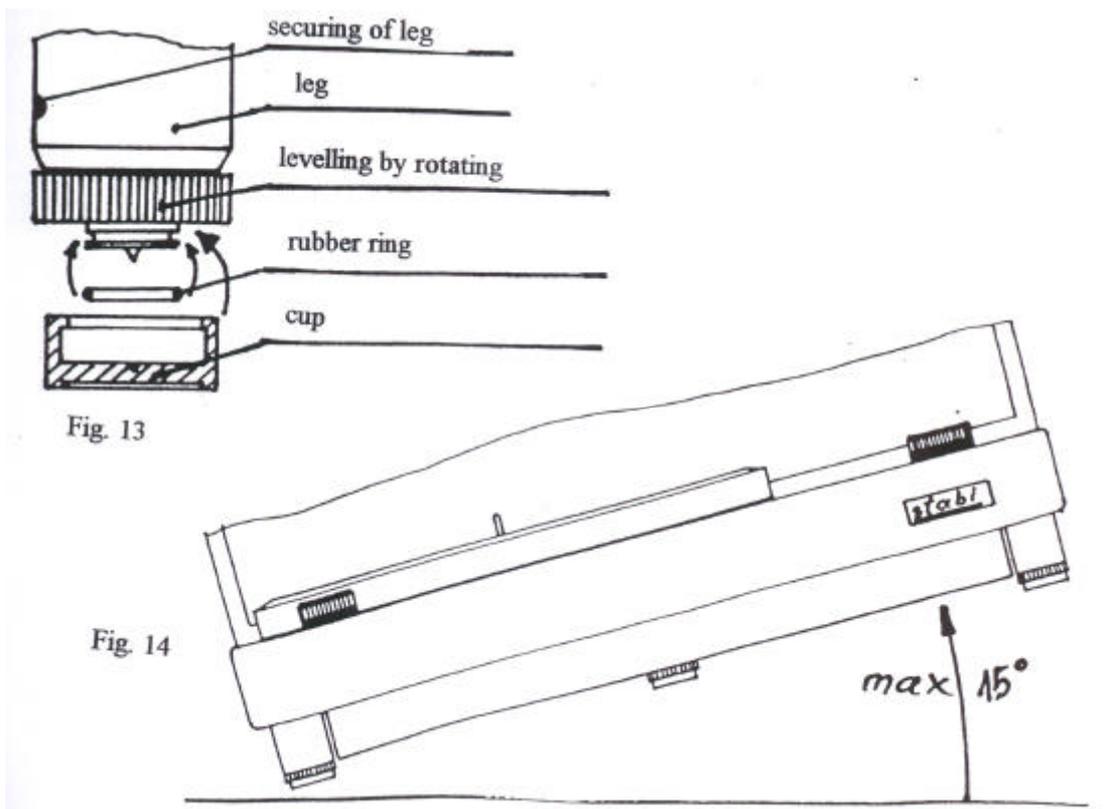
b) Disconnect power supply and remove platter.

c) Decide whether you will remove the protective cups on feet to expose the spikes (for optimum performance) or retain the cups. Cups are removed by simply pulling downwards. Ensure that rubber ring is not mislaid.

NOTE: To replace cups, first carefully place rubber ring around groove on spiked feet then push on cup, one edge at a time. The cup will be loose. (Fig. 13)

d) When carrying turntable, a tilt of up to 15° should not cause any oil spillage. Momentary larger angles of tilt are also acceptable due to the viscosity of the oil. (Fig. 14)

e) Position of power supply is not particularly critical though we do not recommend it be placed on the right side of the turntable and that there is a minimum clearance above unit of approximately 50 mm, due to the heat generated.



2. Connections

(See Fig. 8)

- a) Reconnect power supply.
- b) Connect thin black grounding wire from turntable to GND on preamplifier.
- c) Plug tonearm connectors to preamplifier Phono Input. (white - left, red - right) and tonearm grounding cable to GND on preamplifier.

3. Levelling Turntable

- a) Ensure turntable is horizontal using spirit level.
- b) Place level at front of turntable top (position A) and adjust front legs until level is horizontal. (Clockwise raises turntable, anticlockwise lowers) (Fig. 15)
- c) Repeat, now placing level on left of platter. (Position B)
- d) Check that front of turntable is still horizontal and adjust if necessary.
- e) Check that side of turntable is still horizontal, adjust as necessary until both measurements are stable.

NOTE: If using round spirit level, place at any point on turntable top plate.

- f) With Alan key 2,5 mm secure legs until firm but not overtightened. See Fig. 13

4. Levelling Platter

(See Figs 6 and 7)

Platter can be levelled by eye, although a very light spirit level can be used if available. Adjust level of platter using technique previously described (4d Assembly) until gap between platter and top plate is approximately 2 mm and horizontal.

5. Testing

Start turntable and ensure running is smooth and noise free.

NOTE: We advise “running in” turntable for approximately 24 hours.

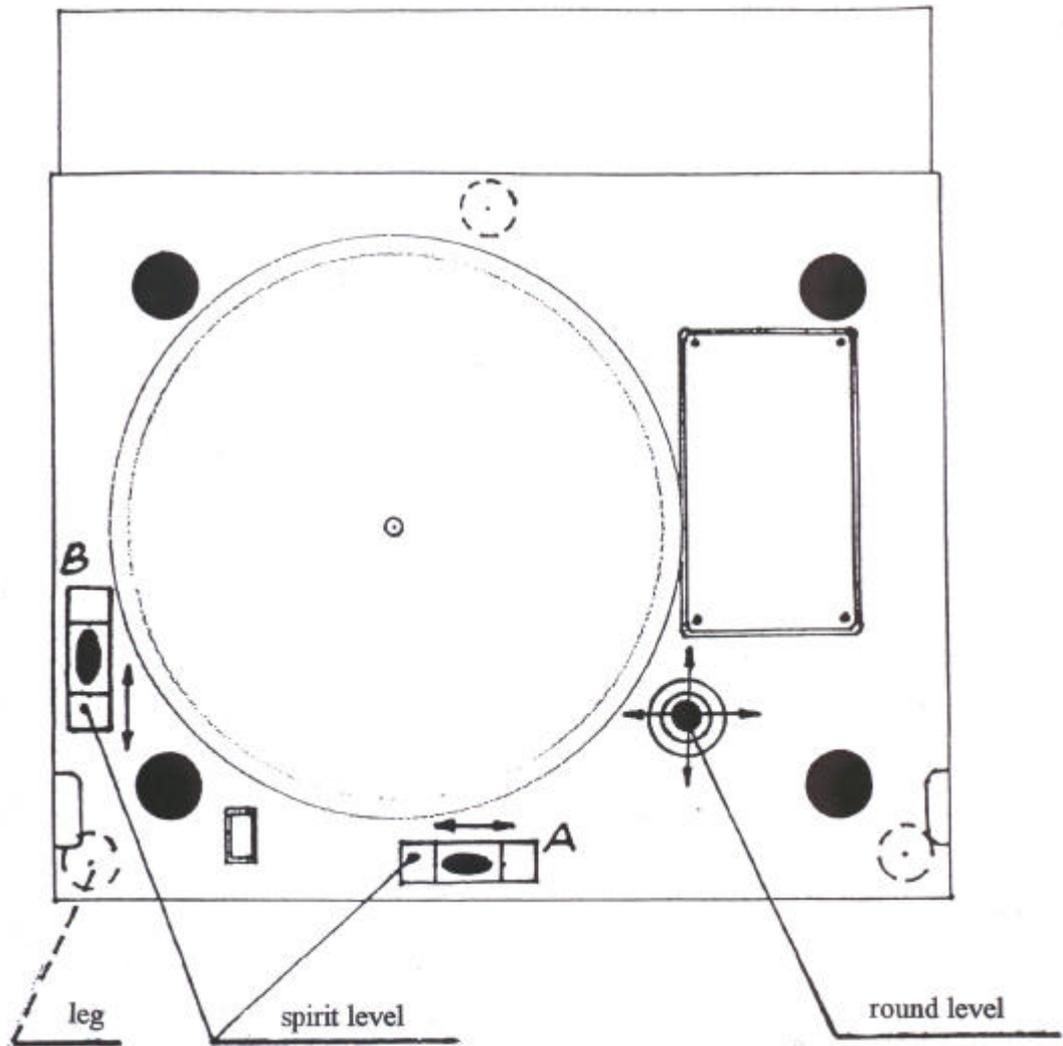


Fig. 15

6. Fine Speed Adjustment

The fine adjustment mechanism is controlled by a switch inside the power supply. The speed is adjusted in small stages according to the position of the switches. (Adjustment is possible $\pm 0,4\%$ in $0,05\%$ steps)

You will need a plastic or wooden toothpick or stick ie. not metal.

- a) Turn power supply upside down. (Fig. 16)
- b) Remove front right rubber leg (ie. on opposite side to speed selector). This gives access to switch (Fig. 16 a).

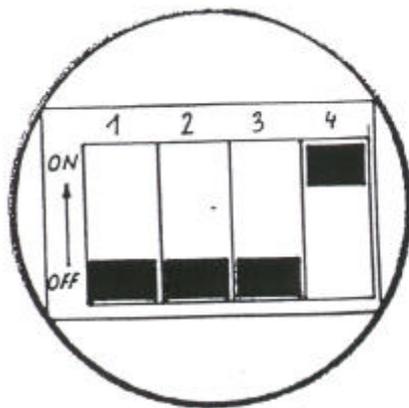
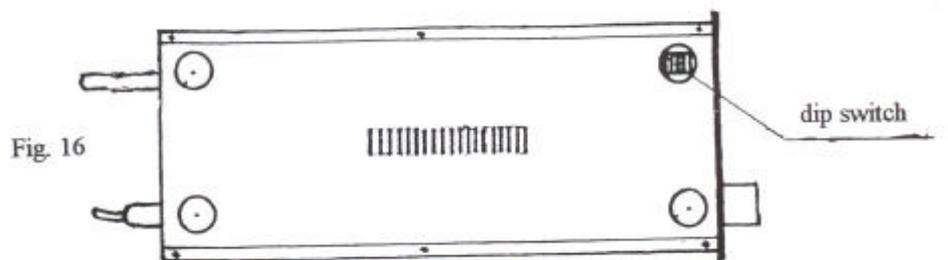


Fig. 16 a

	1	2	3	4
50.2	off	off	off	off
	on	off	off	off
	off	on	off	off
	on	on	off	off
	off	off	on	off
	on	off	on	off
	off	on	on	off
	on	on	on	off
50 Hz	off	off	off	on
	on	off	off	on
	off	on	off	on
	on	on	off	on
	off	off	on	on
	on	off	on	on
	off	on	on	on
49.8	on	on	on	on

Fig 17

- c) Place strobe disc on turntable and switch on to 33 rpm. By observing disc, any speed deviation can be noted, but be aware of fluctuations in mains frequency.
- d) Consult table and according to speed error choose correct setting on switch by pushing from on to off position with toothpick. This is largely a matter of trial and error. (Fig. 17)
- e) 45 rpm will automatically be corrected.

V. USE OF CLAMP

The function of the clamp is to press the record close to the platter mat, thus minimising vibration between record and platter and decreasing warps of record itself.

1. Position washer over spindle on top of mat.
2. Place record on spindle.
3. Gently screw clamp onto spindle while steadying platter and edge of record with fingers.
4. Clamp should be tightened so that rim of record touches mat. Continue tightening until rim of record starts to rise, at which point release clamp slightly.
5. With very bent records pay particular attention to highest point of rim.

With a little practise use of clamp soon becomes second nature.

NOTE: If clamp is inadequately tightened, inner grooves are out of contact with mat and if overtightened outer grooves are visibly raised.

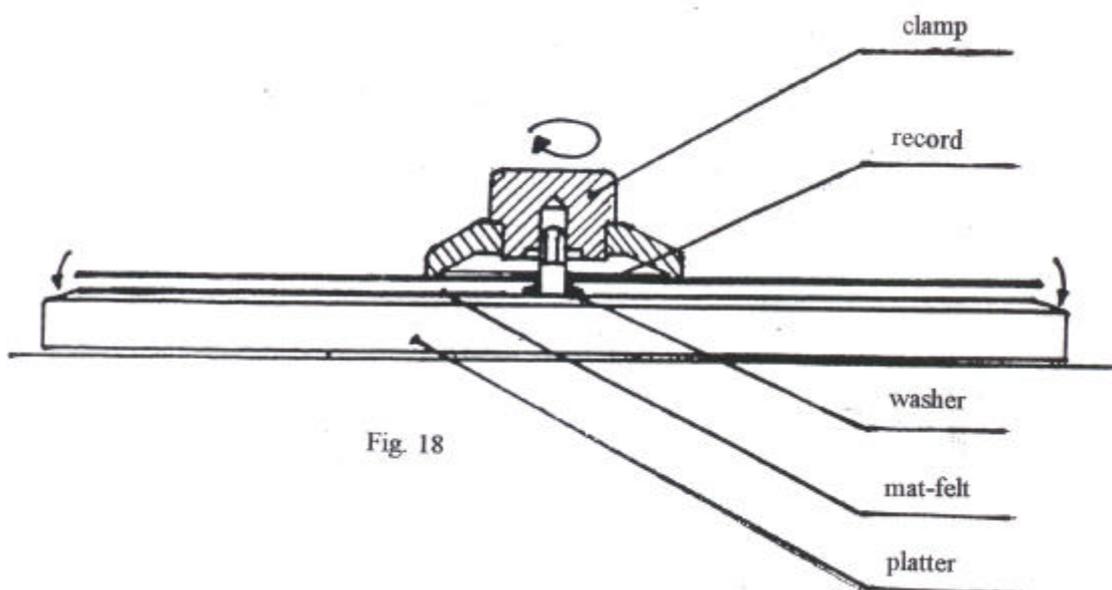


Fig. 18

VI. GENERAL MAINTAINANCE

1. Cleaning of Woodwork

A soft paintbrush or soft cloth is useful for regular dusting. The turntable finish is of varnished wood which should be cleaned with standard furniture polish and the glass can best be cleaned with a cloth moistened with pure alcohol or other glass cleaning products.

Should oil be spilled on wooden surfaces, remove excess with cloth and then gently rub with clean cloth until mark disappears. Should a stain remain, rub gently with cloth dampened in alcohol.

2. Cleaning Pulley and Belt

This should be done occasionally (6 months) according to regularity of use.

- a) Remove platter to gain access to pulleys. Remove belt. Switch on turntable and using cotton bud moistened with alcohol, clean grooves of motor pulley by pressing bud into groove as it rotates.
- b) Clean subplatter as above, but rotate subplatter by hand.
- c) Moisten cloth with pure alcohol and pull belt through cloth to clean (ensure that hands are clean and grease free).
- d) Replace belt and platter.

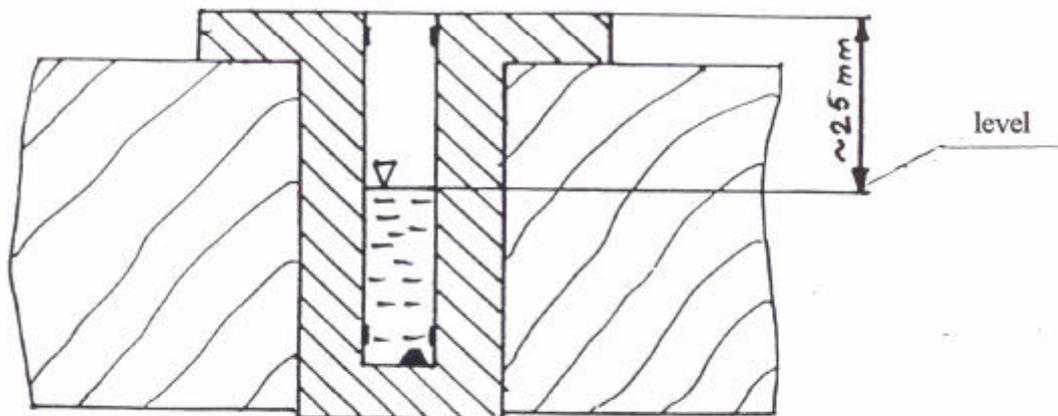
3. Tightening Screws on Armboard

With a new turntable it may be necessary to tighten the bolts which fix armboard to subchassis and those which hold tonearm to armboard after the first few months of use. This is due to settling in of wood.

NOTE: Do not tighten overenthusiastically.

4. Check Oil in Bearing

It should be unnecessary to continually top up bearing oil, but it is advisable to check oil level about once a year to ensure that oil reaches all supporting pads of the bearing. (Fig. 19)



When shaft is removed from bearing the level of oil should appear approximately 25 mm below top surface of bearing. This can easily be measured using a clean toothpick. If necessary top up oil. (Fig. 5 and 2 f).

VII. MINOR PROBLEMS

If any problems occur with your turntable do not hesitate to contact your dealer. It may, however, be convenient to be able to make a few checks and adjustments yourself.

A. Immobile Subchassis

1. Check turntable has been unpacked correctly, ie. the four cardboard inserts at corners have been removed.
2. Check tonearm cable is not too tight or too long.
3. Check clearance between platter and turntable.
4. Check clearance between subchassis and shelf or table!

B. Platter does not Rotate

1. Check mains. Is red light showing on power supply?
2. Is light showing on turntable? If not check that cable is connected to power supply, if so consult your dealer.
3. Remove platter and check that belt is correctly positioned. Also see if motor pulley is rotating clockwise.
4. By hand rotate subplatter which should move easily. If it does not then remove shaft
and check bearing for dirt deposits by removing oil with a plastic tube. Clean shaft and put clean oil in bearing.

C. Noisy Belt

When the turntable starts there may be some noise which rapidly ceases and this is unimportant. If, however, a crackling sound is heard when the platter is fully rotating then check height of the platter.

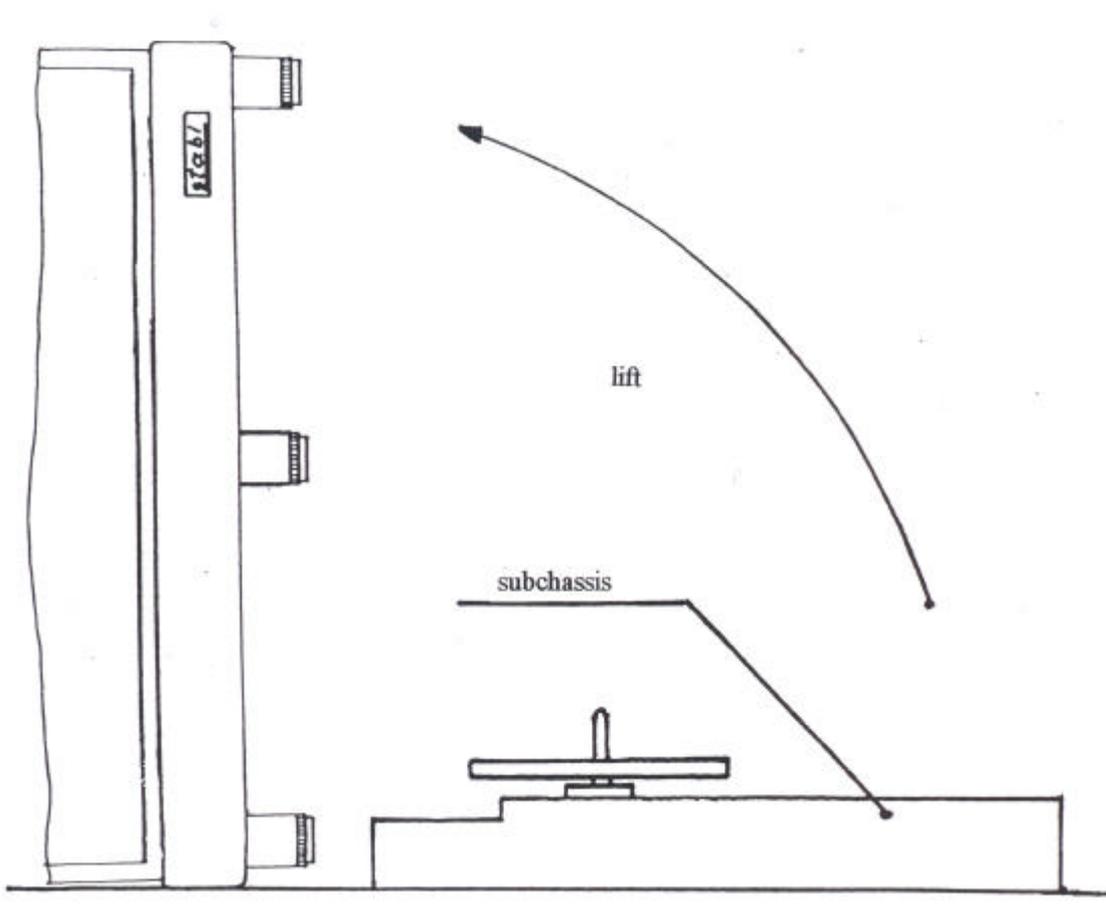
D. Cleaning of mat

Use rollers for cleaning cloth, rolling it over the surface of the mat.

E. Slow Start

Full speed of platter rotation should be achieved in approximately 4 - 6 seconds. If this takes longer first check that belt and pulley are clean and that there is adequate oil in the bearing. If the problem persists it will be necessary to increase the distance between subplatter and motor pulley in order to increase the tension of the belt. For this it is necessary to remove the subchassis to gain access to the motor.

We would advise you to consult your dealer for this or follow the procedure outlined below: (Fig. 20)



1. Unplug turntable from mains.
2. Remove platter.
3. Unscrew the two screws securing tonearm cable to subchassis and turntable frame and remove tonearm.
4. Unscrew four black knobs and remove.

NOTE: If subchassis is not on solid table be prepared for release of spring reservoirs. The subchassis will remain on table.

5. Lift turntable body and lid and place on its left side with lid open. In this position access to motor can be obtained from above and below.
6. Mark position of motor. (Fig. 3)
7. The motor is held by two nuts and bolts which should be loosened by holding bolt with pliers and unscrewing slightly with screwdriver or by using spanner (M3 screw).
8. Move motor outwards for 2 - 3 mm from previous position and retighten nuts and bolts.
9. Return turntable to position over subchassis and rescrew black knobs.
10. Lift subchassis by use of black knobs.
Return subplatter, platter and belt.
Adjust platter to appropriate level.
Check start of platter rotation.
11. If start is not satisfactory, reposition motor.
12. If start is satisfactory return tonearm adjust platter height and secure cable.

F. Movement of Subchassis while Platter is Rotating

The subchassis should stop oscillating 7 - 10 seconds after the motor is started (providing there is oil in spring reservoirs).

If there is movement after this time, check the tension of the belt or if there is oil on the belt or grooves.

G. Sensitivity to Mechanical Feedback and Shock

The turntable is so constructed that the cartridge should continue tracking even when the turntable is knocked with considerable force to sides and top, ie. dropping lid a few inches or a hammer blow, providing it is rigidly supported. If turntable seems sensitive to shock or feedback, check the following:

1. Check subchassis movement.
2. Has oil been put in spring reservoirs?

NOTE: The precise level of oil is not particularly critical.

3. Very commonly the problem lies in improper securing of the tonearm cable, ie. too tight or too loose a loop.
4. Is support unstable, ie. support which moves with low frequency (under 4 Hz).
5. Check that screws securing legs are properly fixed.

NOTE: For best shock resistance remove protective cups from spiked feet.

VIII. TRANSPORT AND PACKING

A. Preparing a Functioning Turntable for Short Transport

You may wish to transport your turntable for short distances in a car (preferably on a seat). In which case the following precautions should be taken:

1. Remove platter and place in its box.
2. Remove tonearm counterweight and secure arm with tape, elastic band or foam insert.
3. Raise subchassis by screwing four black knobs clockwise (though not too tightly) and insert the four cardboard corner wedges between subchassis and frame.
4. If necessary replace cups on spiked feet.

NOTE: During transport turntable should not be moved more than 15° off the horizontal to prevent oil spillage although a momentary slant of 30° is permissible due to the viscosity of the oil used.

5. If turntable is to be placed in the boot of the car it will be necessary to remove subplatter and put in box. Wipe shaft and cover with protective PVC tube prior to placing in box. If the bearing will be exposed for any length of time then protect from dust by closing hole with a strip of adhesive tape.