



**STABI REFERENCE
TURNTABLE**

instruction manual

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I. GENERAL DESCRIPTION

STABI REFERENCE TURNTABLE is a suspended subchassis turntable. The base plate, subchassis and platter are of an acrylic and aluminium sandwich construction which dampens all resonance of the turntable. The subchassis is isolated from the environment by four springs which are damped with silicon oil in sealed reservoirs. The suspension is easily adjusted via four knobs on the turntable top. The whole turntable stands on three large spikes.

The bearing assembly is of an inverted type. The platter lies on a ruby ball and is centred by a sliding ring. These both have their own oil bath.

Two motors drive the platter via a flat belt. The turntable has its own power supply which enables motors 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 20W amplifier.

Each 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	40 kgs
external dimensions	500x400x200 mm
weight of platter	8 kgs
resonance of subchassis	2 Hz (damped)
speeds	33,45 RPM
mat	textile&rubber
motor	2 pcs 24 poles
mains supply (non selectable)	110 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 (plate)
2. Alan key 4 mm for tonearm board
3. Small plastic bottle with oil for bearing
4. belt
5. subplatter

II. UNPACKING

1. Open outer carton at the top (see vertical arrows)
2. Open inner carton (this has specifications on top). You may receive turntable in this box only.
3. Remove boxes:

Box A - containing power supply, subplatter & accessories.

Box B - containing subchassis (with bearing shaft)

Box C - containing baseplate (with motors)

Box D - containing platter

III. ASSEMBLY

1. Open box C and remove baseplate taking care not to knock motor pulleys. Place in intended location for use.
2. Open box B, remove subchassis and lower gently into position on top of base plate. Remove protection tape from shaft and check that the small ruby ball is in a central position on top of the shaft.
3. From box A remove subplatter, belt and small oil bottle. Remove protection tape from the underneath of the subplatter.
4. From small oil bottle squeeze 35 drops of oil onto the top of the shaft. Oil will run from top to fill lower well.
5. Gently lower subplatter onto shaft (NOTE: if at anytime it is necessary to remove subplatter, be aware that a certain amount of oil will adhere to it). Airpressure will slow motion of subp.
6. Carefully put belt around both motor pulleys and subplatter to make a diamond shape.
7. Remove platter from box D and place carefully on top of subplatter, mat uppermost.
8. Turning the adjustment knobs anticlockwise cause the subchassis to rise. If you look from the side between baseplate and subchassis you can see a line marked on each suspension towers which is 7 mm above the baseplate. Adjust height of subchassis by turning all 4 adjustment knobs so that lower edge of subchassis is level with markings on all towers.
9. The cable for connecting power supply and turntable has five pin plugs which should be inserted and locked into connectors at rear of power supply and turntable.
10. Connect mains cable into mains and then switch on power supply at the rear of PS. Red light should appear on front panel.

Testing for correct assembly

1. The subchassis should move a few mm in all directions if gently bounced.
2. Switch on to 33 rpm position at front panel. The red light will change to green and the platter should slowly start to rotate, obtaining full speed in 8 to 10 seconds. Initially some cracling noises may be heard. These are made by belt and will disappear in a few weeks. If constant noise is heard, check height of subchassis or position of belt.

Mounting tonearm

1. with blank mounting board

Use template provided by tonearm manufacturer and mark position of cuts. Bear in mind that there must be adequate space for counterweight. Check position of tonearm output cable.

Unscrew four screws securing mounting board using 4 mm Alan key.

The tonearm board is an aluminium and acrylic sandwich held together by two screws. These must be removed and cuts made in acrylic and aluminium separately.

Fix tonearm base to board as instructed and

2. with precut board

Unscrew 4 screws and take board off using 4 mm Alan key.

Fix tonearm base on board and fix it back to subchassis.

There is no need to secure tonearm cable. Just allow it to drop through hole in base plate and out at back.

NOTE: The weight of the tonearm will have altered the height of the subchassis. This should be readjusted using the four knobs on top of the suspension towers. Anticlockwise raises subchassis.

IV. ADJUSTMENT

1. Positioning turntable and power supply

- a. suitable surfaces are:
 - if floors are solid, a solid welded table, sand filled or purpose built turntable table
 - if floor are not solid - welded shelf
 - if neither of these options are available, avoid placing on heavy bulky furniture and place on strong but lightweight surface
- b. When carrying turntables tilt of up to 15° should not cause any oil spillage. But due to the weight of turntable we suggest platter and belt be removed. If you lift up and remove subchassis as well then the silicon oil will be sealed, but not oil in bearings.

2. Levelling of turntable

- a. Ensure that turntable support is horizontal
- b. level subchassis according to instructions in assembly no. 8.

3. 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 in plus minus 0.4 % in 0.05. steps.

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

- a. turn power supply upside down.
- b. remove front right rubber (ie. on opposite side to speed selector). This gives access to switch.
- c. place strobe disc on turntable and switch to 33 rpm. By observing disc, any speed deviation can be noted, but be aware of fluctuation in mains frequency.
- d. consult table and according to speed error choose correct setting on switch by pushing from on to off position by toothpick. This is largely a matter of trial and error.
- e. 45 rpm will be automaticly corrected. Turntable is set already in factory for 33 and 45 rpm.

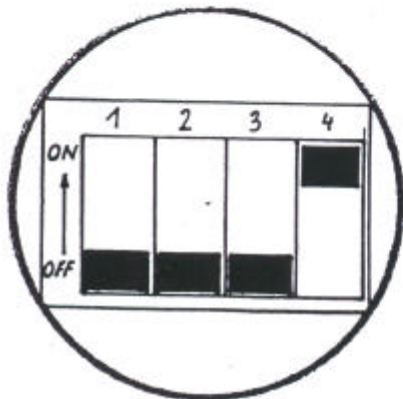
V. USE OF CLAMP

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 metal disc 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. Slight cracks on the middle of record (around the hole) might occur.



	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

VI. GENERAL MAINTAINANCE

1. Dust with a soft cloth and any oil stains can be removed with detergent or alcohol.

2. Cleaning pulleys and belt:

This should be done occasionally (3 to 6 months) according to regularity of use.

a. remove platter to gain access to belt and pulleys. Remove belt. Switch on motors, clean surfaces of pulleys and subplatter with cotton bud moistened with alcohol. By hand rotate subplatter and clean it.

b. moisten cloth with alcohol and pull belt through cloth to clean (ensure that hands are clean and grease free).

3. Cleaning of mat:

a. remove platter from turntable

b. squeeze alcohol onto mat until whole surface is wet.

c. with a toothbrush brush out from centre until alcohol evaporates.

4. Check oil in bearing:

The level of oil is not so critical due the use of metal versus non metal sliding materials. However, the level of oil should be just under the height of ruby ball and cca 2 mm height in the middle of lower bath.

VII. MINOR PROBLEMS

If any problem 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.

1. Immobile subchassis

- check turntable has been unpacked correctly,
- check tension of tonearm cable
- check clearance between subchassis and baseplate
- check that nothing else is touching subchassis

2. Platter does not rotate

- check mains. Is red light showing on at front panel and is green for 33 and orange for 45 rpm.
- remove platter and check that belt is correctly positioned. When height is adjusted, edge of subchassis will be pushing belt up, because weight of platter will put subchassis in correct height. Motors should rotate clockwise.

3. Slow start

- clean belt and check oil in bearing. If there is a fault in power supply consult your dealer. Check cable connection.

VIII. TRANSPORT AND PACKING

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 it its box. Remove belt.
2. remove tonearm counterweight and secure arm rest with tape, elastic band or foam insert.
3. remove subplatter, clean oil and put in in its box. See Note
4. disconnect cable to PS and turntable.
5. Put some foam between subchassis and baseplate
6. Tilt of turntable can be only cca 15°, due oil spills.

For longer transport we suggest to put baseplate and subchassis also in original boxes.

When you take off subchassis suspension oil wells are automatically sealed. In case the base plate is inadvertently held vertically or upside down for more t han a moment, it should be then left for 12 hours in horisontal position before use. Of course first you must remove oil from the shaft and be shure that ruby ball which is not fixed is protected.

NOTE: it is possible that ruby ball stays in side of subplatter. If that happened, shake subplatter and catch ball.