



**KUZMA STABI S PS AC TURNTABLE** (on photo with Stogi S tonearm and clamp).....

**Instruction manual**

**2016-10**

# KUZMA LTD

## INSTRUCTION MANUAL FOR STABI S PS AC turntable

The **Stabi S PS AC** turntable is a very precisely engineered piece of equipment. The construction, however, is robust and requires little maintenance for optimal performance.



Fig.1. Stabi S with Stogi S tonearm

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### **General Description:**

the turntable is packed in one box on which is indicated whether a Stogi S tonearm is included, or an armboard for a different tonearm.

The basic approach to the turntable design was the same as that of all our products. Its unique shape and construction from solid brass rods, provide an extreme rigid connection of platter, bearing and tonearm support. The motor is housed independently in its own tower which dampens motor vibration. The bearing is of highly polished, fine grain carbon steel with a one point contact, while the bearing sleeve is of a resin/textile material which has excellent damping, non-resonant and high sliding properties. With the mat on top and rubber insert underneath, the platter provides a stable non - resonant platform for records, which can also be clamped.

External power supply ( PS) allows speed changes. The turntable can accommodate various tonearms by the use of different brass bases and allows for VTA adjustment on any tonearm mounted. It is possible to add a second tonearm if a special adaptor ( available as an optional extra ) is added.

### **Product registration and warranty extension:**

Kuzma products has a non transferable 2 year limited warranty on parts and labour varied by dealer/distributor in specific country.

To achieve 5 years limited warranty from us, you need to register product on our web site within 30 days of purchase.

We suggest to register products in any case because this will also help you to easier receive our technical support and with resale product's warranty.

Simply register on our web site and fill the requested forms and you will receive in a few days extended five year warranty card on your email.

### **Stabi S PS AC turntable : Technical data**

Mass:	13 kg
Platter:	4 kg
Motor:	AC synchronous
Speeds:	33, 45 rpm ( electronic)
Dimension:	400x 300x 140 mm
PS mains:	internal selectable 100-245V

Optional: clamp, wooden platforms, various armboards, adaptor for second tonearm, 12 inch versions, platter kit.

### **Safety Precautions:**

Electrical connection to the mains comes from the motor assembly via the cable. Please keep the motor assembly and PS away from moisture and be careful not to damage cables. If in doubt consult your dealer.

## Unpacking:

The whole turntable with tonearm (if supplied) is packed in one box. Before unpacking the individual parts of the turntable, prepare the area where the unit will be situated. The best position is on a solid shelf which is strong and rigid enough to support the turntable. For best performance this should be completely horizontal.

Contents:

Instruction manual, lid, T base, motor tower, oil bottle, belt, Allen key 3 mm, subplatter, platter, PS,..



Fig. 2. T base and parts



Fig. 3. Subplatter



Fig. 4. Platter



Fig. 5. Power supply ( PS AC)

## Basic setup:

**Note:** Carefully unpack parts which are in protective plastic bags.

**Note:** When assembling the motor tower and platter, ensure that the platter will not touch or damage the motor pulley! Check the distance of the motor tower from the T base.

**Note:** While the parts are packed in plastic bags for protection, these are not intended to be strong enough to lift or carry the parts.

**Note:** Allow space above Power supply for ventilation, of at least 10-20 mm.

## Lid:

If the turntable is supplied with a wooden platform, remove this and place in position. The rounded part should be on the left. Locate the three small holes which correspond to the intended position of the three black rubber rings on the main T base. If the turntable is supplied with Stogi S tonearm remove it in its box.

Unpack lid and put it aside.

## T base:

Remove the foam and lift the main T base ( Fig. 2) of turntable carefully as it is heavy and put it on a shelf so that the side with the bearing is situated at 8 o' clock and the side with the tonearm mount at 2' o clock. See Fig 6.



Fig. 6. Position T base + motor tower

## Motor tower:

Lift the motor tower with the connected 5pin DIN cable, being careful not to touch the black motor pulley. Position it in the 8 'o clock position in the middle of the shorter length of the T base. See Fig.6. Turn the motor tower so that the mains switch faces forwards- this switch is not functional when motor is supplied with PS or is omitted. The distance between the motor tower and T base should be approximately 10 mm.

The motor tower distance affects the speed very little. A difference of a few mm, keeps the speed tolerances below 0.1%.

## Bearing oil:

From the oil bottle, fill the bearing hole on the T base with 25 drops from the oil bottle.

**Subplatter:**

Lift the aluminium subplatter from the box ( Fig. 3 ) being careful not to touch the shaft with any sharp object such as keys, screwdrivers, etc. Remove the protective cover, insert the pointed part of the shaft into the bearing and manually check for free rotation.

**Belt:**

Place the belt over the subplatter and over the motor pulley. Check by manual rotation that the belt runs smoothly in the middle of the motor pulley groove.

**Platter:**

Remove the platter ( Fig. 4 ) from its protective bag while keeping the protective yellow cover on the mat. Place the platter carefully on top of the subplatter. Check again the position of the motor pulley in relation to the bottom surface of the platter. Remove plastic mat protection. When button START is pressed on PS, platter should reach 33 rpm in 4 seconds.

**Power Supply PS AC:****General description:**

The AC motor controller unit generates a dual sine wave output to control rotation and speed of two AC synchronous motors. The signal is generated by a sophisticated computer based program. This allows for smooth generation of the sine wave with very fine choice of speed. Each speed can be selected, finely adjusted independently and then stored in the memory.

The PS is factory preset. Connect the motor cable to the motor output.

It may take few hours for a new turntable to settle at the correct speed. When the PS is unplugged, the preset speeds will be stored. Fig. 5.

**PS (power supply ) connection:**

Position the PS in such a way, that it will be convenient for operation of the turntable. You should, however, allow space above for ventilation, of at least 10-20 mm.

The cable which connects the motor controller unit and turntable has a five pin DIN plug, which should be inserted and locked into the connectors at the rear of the PS and turntable. Connect the mains cable into the mains and then switch on the PS at the rear panel, which is left permanently on. A red light and green display will light up on the front panel.

**Turntable setup:**

Ensure that the turntable is levelled horizontally. Tidy up the power cables that runs away from the signal wires as much as possible.

**Tonearm mounting:****Stogi tonearms:**

Follow instructions provided with the tonearm. The brass pillar should be removed from the T base by unlocking it with Allen key ( 3 mm ) at the front end of the longer T base .

Notice that the inside hole of the brass pillar is eccentric. This hole should be turned towards the platter bearing.

First put the tonearm into the brass pillar. The rotational position and height of the tonearm has yet to be determined so fix the tonearm only gently with Allen key (3 mm). Return the brass pillar to the T base and note position of the tonearm. Make desired changes before fixing the tonearm firmly into the brass pillar. The VTA can be adjusted by raising or lowering the brass pillar in the T base, after releasing the screw with Allen key (3 mm).

#### **Other tonearms:**

Remove the brass pillar and find underneath two threaded holes. Find the circular brass armbase (optional) with appropriate cutout. Using Allen key (3 mm) and two screws fit this onto the pillar. Insert back into T base and, with tonearm protractor, position the brass plate correctly by rotating the brass pillar while releasing the VTA screw with Allen key (3mm). See fig. 7. Follow tonearm mounting instructions. It is possible that in some circumstances the lid provided may not fit.

The Rega RB 300 tonearm can fit directly into the hole in the brass pillar. The hole in the brass pillar should be turned away from the platter bearing and a thin tube inserted over the tonearm's base. Finally the tonearm should be fixed by an Allen key into the brass pillar.



Fig. 7. Circular brass armbase

#### **Use and adjustments:**

##### **Operation:**

1. Press the power button at the rear of the PS firmly. After 10 sec the PS is ready. The display will show green 33 and above the start button a red LED will be shown. You can keep the PS switched on all the time.
2. By pressing the start button the red LED will turn green and the platter should start rotating. To stop platter simply press the start button again. The red LED will show and the platter will stop rotating.
3. Press the speed button and the selected speed will change from 33 to 45. Press again and it will return to 33.
4. Do not press the start button before the mains switch is on.

It is normal to hear some crackling sounds made by the belt and this will disappear in a few days. If constant noise is heard, then check the height of the platter or the position of the belt on motor pulley.

### **Fine speed adjustment:**

Observe on a strobe disc if the bars are stationary. If not (bars move in the same direction as platter rotation then the speed is too high) then press the plus or minus buttons few times until the bars are stationary (there are very small steps- so keep pressing). On the display you will see a green dot in the right bottom corner indicating that change is in process. Using a pointed pen, press the “store” button and the green dot will disappear. Check speed independently for both speeds. When using the strobe disc, be sure that you use it properly. Check that you are looking at the correct speed and are using the correct strobe light.

### **PS AC factory reset:**

If you find out that your speed selection is out of range for some reason or on display are unusual signs you should reset PS to factory set outputs.

Turn the power off, wait 10 sec, press and hold the speed button and then press the power on. When the display shows CU, release the speed button. The display will now show FA and then 33. Your PS is now reset for factory outputs which are not correct speeds.

### **You must now fine adjust all speeds by using strobo disc!**

In this case when you set up the platter speed you will find that first steps are bigger until you put the adjusted speed for the first time into the memory, then next steps will be much finer.

### **VTA adjustment:**

Every tonearm mounted on this turntable can be adjusted for VTA. Release the brass pillar with Allen key (3 mm) and hold the tonearm in position while locking it back. It is helpful to mark the height position with a felt pen at the back of the brass pillar.

### **Clamp:**

Simply place the brass clamp on top of the record.

### **Maintenance:**

#### **Mat:**

The mat can be cleaned using a roller cleaner.

#### **Bearing:**

The oil in the bearing will last for 4 or more years. Running the bearing without oil will do little harm due to the materials used and type of construction.

A few drops of oil can be added after this time but it should be remembered that, when the shaft is re-inserted, the oil level will rise. If any spills out it should be wiped with a soft cloth.

#### **Belt:**

Periodically (about once a year) remove the platter and belt. Clean the belt and running surfaces of the motor pulley and subplatter with a soft cloth soaked in alcohol. For best performance replace the belt every three years.



**Power supply:**

Keep rear switch ON and only when you unplug audio system, unplug PS as well- keep area well ventilated.

**Troubleshooting:****Platter not rotating:**

Power supply

- check if the red LED is on
- green displays shows 33 or 45, if not re-plug MCU
- check connection cables from PS to motor
- belt position

Consult dealer or qualified electrician.

**Very slow start:**

-Check motor position- belt tension.

-Remove platter and belt and check if the subplatter rotates smoothly.

-Motor might receive only half an output from PS. While pulley is rotating, try to slow it down by braking with fingers and observe how much force is needed to slow them down. If this is not much and if you can manage to rotate it in the opposite direction, re-check PS.

**Wrong speed:**

If you find out that your speed selection is out of range for some reason you should reset PS to factory set outputs:

First check position of the belt and be sure that platter is not touching motor pulley .

**PS AC factory reset:**

Turn the power off, wait 10 sec and then press and hold speed button, then press power on. When display will show CU, release the speed button. The display will now show FA and then 33. Your PS is reset for factory outputs which are not correct speeds. See also page 8.

- A. Speed: To reach correct speed, adjusted it on the PS. Also check that the distance of motors to the platter are correct.
- B. If the speed is totally incorrect: Reset PS AC and readjust speeds by using strobo disc.

**Check also FAQ questions on our web site**

**Transportation:**

For short distances remove the platter and belt and ensure that the cartridge is protected. Do not over tilt the T base in case there is oil leakage from the turntable or some tonearms. Fix parts so that they do not slide around during transport.

For longer transportation, however, parts should be replaced, in reverse order, into their original packing, ensuring in particular that protection foam is inserted between parts such as the subplatter, platter and T base. Be sure that the motor pulley is protected. See Fig 2.

## Upgrades:

Adding second tonearm adaptor or 12 inch version tonearm adaptors are available, as well extra platter.



Second tonearm SD kit



Platter S kit

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