



Well Tempered Lab

INSTRUCTION MANUAL

Simplex

## Preliminary

**Simplex: Nothing could be simpler, yet we strongly recommend thoroughly reviewing this manual before embarking on assembling and playing the Well Tempered Lab Simplex. The Well Tempered Lab cannot be held responsible for consequences resulting from failure to comprehend these instructions. If in doubt always consult with your dealer.**

**The Well Tempered Lab's policy is the continuous improvements of its products. We therefore reserve the right of departure from illustration or specification that this might occasion.**

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## Unpacking the Simplex

Carefully remove components as required from the foam packaging.

Take care that none of the fluids contaminate the surfaces of your Simplex.

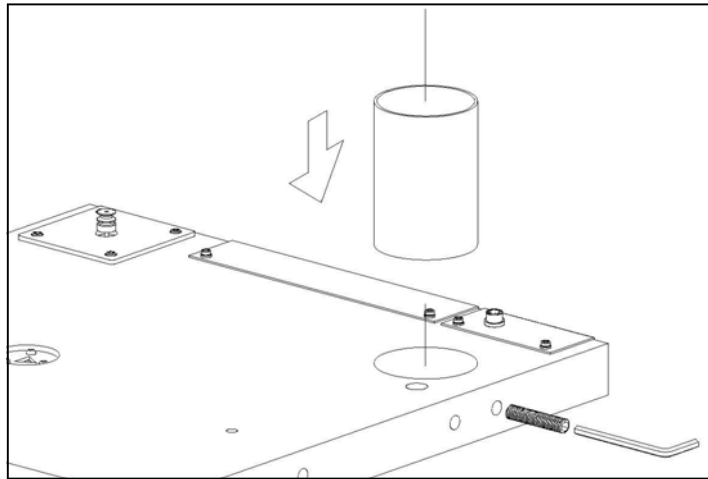
The Simplex packaging has been designed to protect it from the hazards of shipping. It is advisable to save it for further use.

## Assembly

For ease of assembly we recommend a flat work surface, such as a table or bench. All necessary tools have been provided.

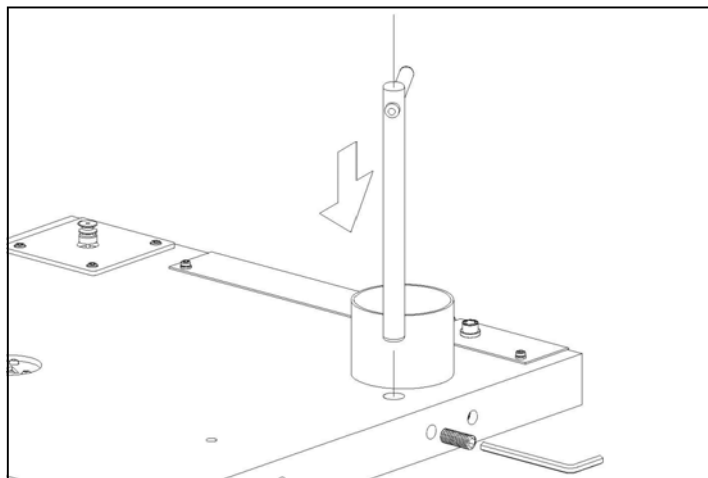
1. Install bearing cup in plinth adjust to approx 40mm (1.6in) above plinth and tighten set screw. See Fig (1).

Fig (1)



2. Install tonearm suspension pillar to approx 95mm (3.8in) above plinth and tighten set screw. Complete with tonearm suspension rod. See Fig (2).

Fig (2)



3. Install tonearm rest / lock in plinth approx 50mm (2in). See Fig (3)

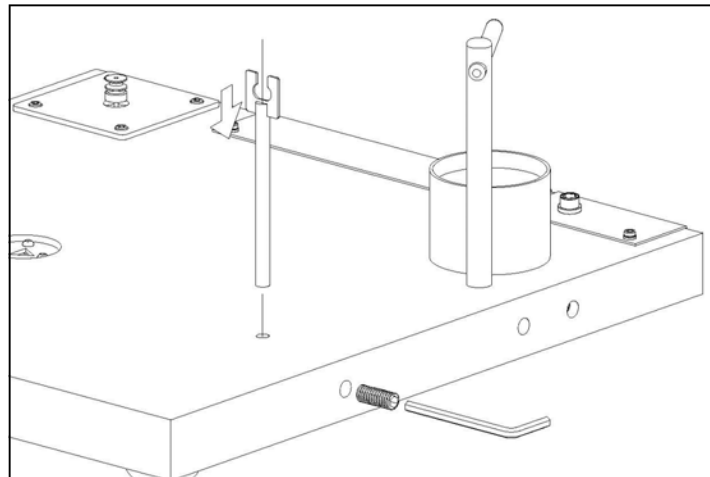


Fig (3)

**Note:** There is no requirement to apply excessive force to the above set screws. A gentle tighten is sufficient to secure the components. Over tightening can lead to damaging the plinth.

### Suspending the Tonearm

*Before embarking on this procedure, we suggest a review of the manual from Fig (4) - (13) is mandatory.*

1. Coarse azimuth adjustment if necessary can be achieved by rotating the tonearm within the golf ball. The Headshell should be parallel to the small nylon filament points. See Fig (4).

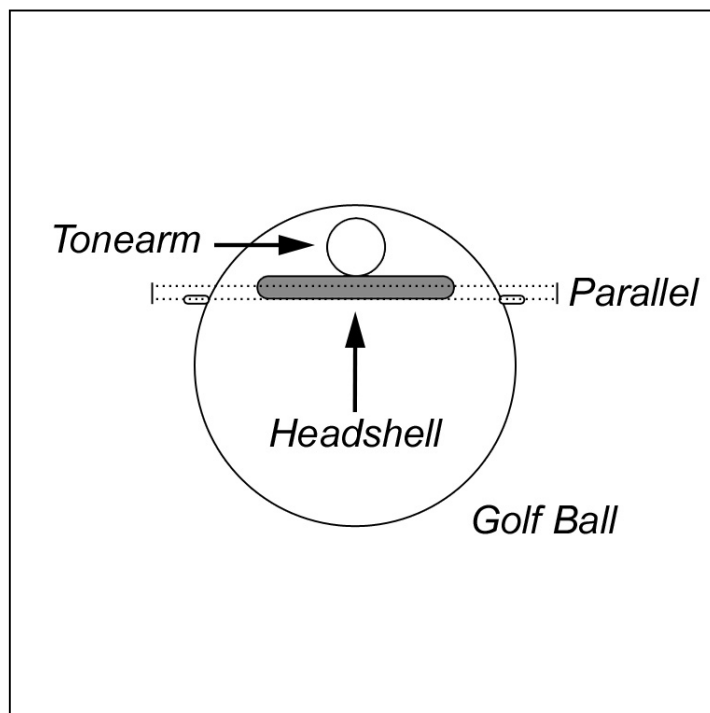


Fig (4)

2. With a small amount of care take tonearm and apply one and a half turns of the nylon suspension from the golf ball around the azimuth adjustment collar. See Fig (5).

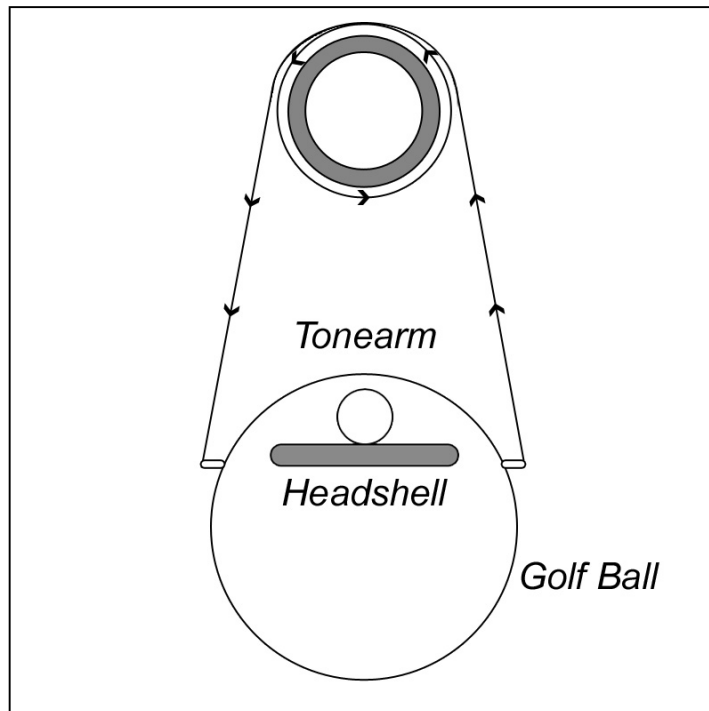


Fig (5)

3. Correct bridle length when tonearm is suspended is approximately 25mm from top of tonearm to bottom of suspension rod. See Fig (6). Apply a clockwise half twist to the azimuth adjustment collar and install on the suspension rod. The half twist on the nylon suspension effectively applies the correct "anti-skate". See Fig (6) - (12). Correct azimuth adjustment is achieved by rotating the azimuth collar in the directions of the arrows.

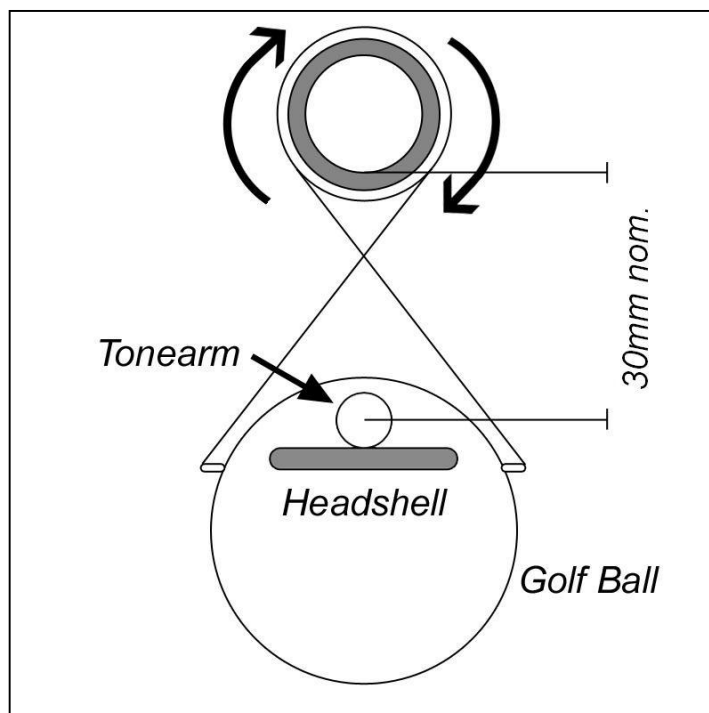


Fig (6)

**Note:** Simplex Azimuth collar features a mill specification rubber grommet, not stainless steel as in above images.



Fig (7)



Fig (8)



Fig (9)

**Note:** Simplex Azimuth collar features a mill specification rubber grommet, not stainless steel as in above photo's. Images also show Amadeus arm, Simplex setup is identical.

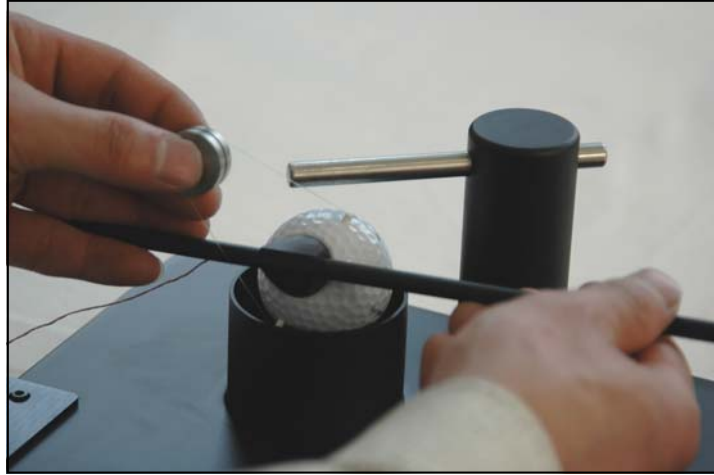


Fig (10)

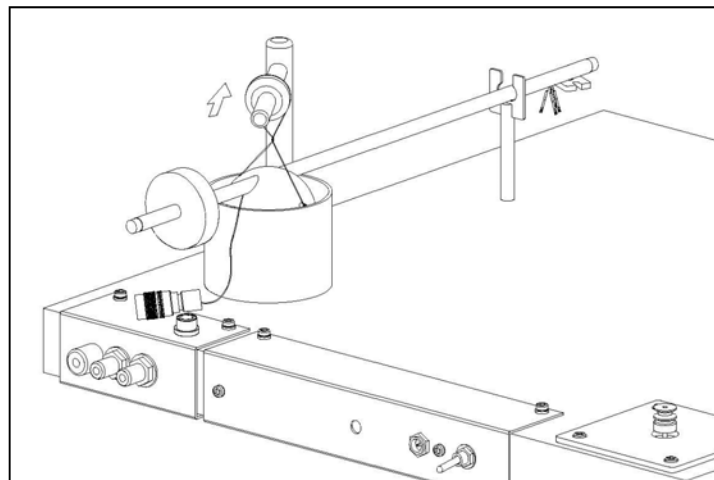


Fig (11)

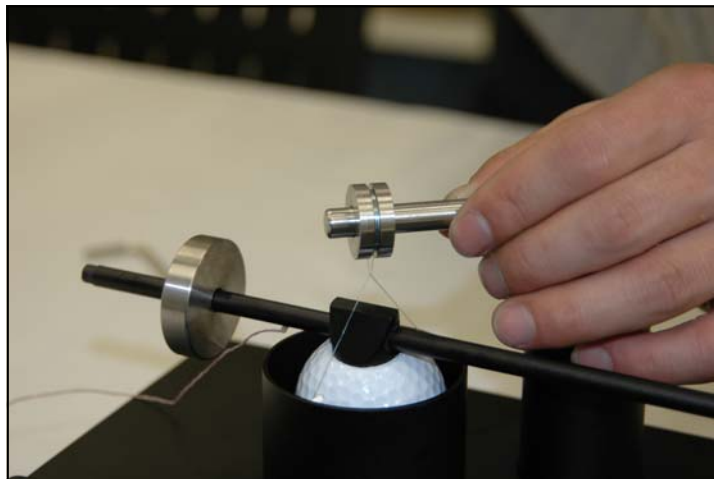


Fig (12)

5. Adjust pillar, rod and azimuth collar to allow golf ball to float central of bearing cup.

**Note:** All the above adjustments can be fine tuned when cartridge is installed. Images (Fig 10 - 12) show the Amadeus arm, Simplex arm adjustments are identical.

6. Fit tonearm connector to socket making sure that the connector "locks" in place, failure to ensure this connector is firmly locked may result in a loss of signal on either channel. See Fig (13)

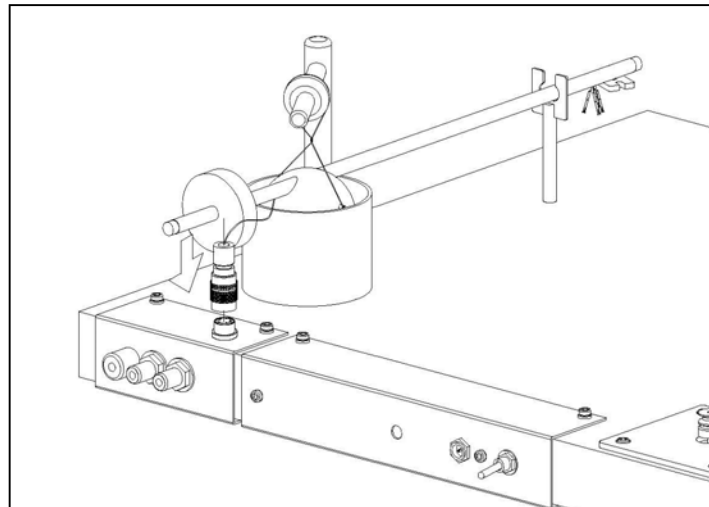


Fig (13)

### Installing the Platter

Please ensure that the point of the triangle hold in the upper teflon bearing is correctly orientated to the motor pulley. See Fig (14). If necessary consult your dealer.

Fill the bearing with synthetic oil supplied to a level of approx 5mm (1/4") above the **bottom** Teflon bearing, this is not critical. Do **not** overfill. Over-filling the bearing will cause the oil to overflow the bearing housing when the platter spindle is lowered into the bearing housing. Gently lower platter into bearing. See Fig (14) - (16). It is most important that spindle is located correctly in the centre of the lower thrust bearing. Failure to locate the pivot point of the spindle correctly will cause the platter to rotate abnormally. The spindle has been designed to protrude through the platter to provide a central lifting point that enables the user to easily achieve this.

**Important:** The unique design of the zero clearance Well Tempered Lab top bearing allows the spindle to be virtually "free standing". It is perfectly normal for the platter to tilt away from the motor when the belt has **not** been installed.

Should there be any necessity to replace the bearing oil, any synthetic motor oil of any brand within a viscosity range of 5W-50 is acceptable.

**Note:** The zero clearance Well Tempered bearing can rotate for hours without oil. If you wish, you can complete other adjustments before applying the bearing oil. See Fig (14).



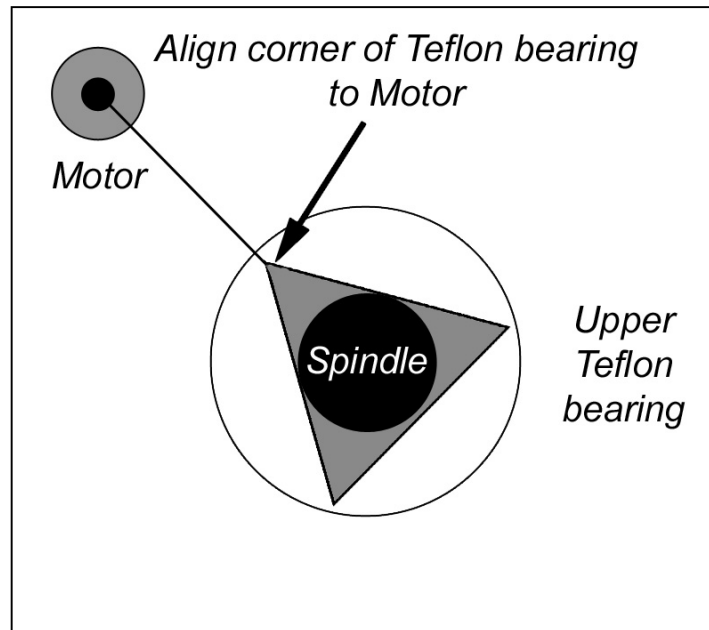


Fig (14)

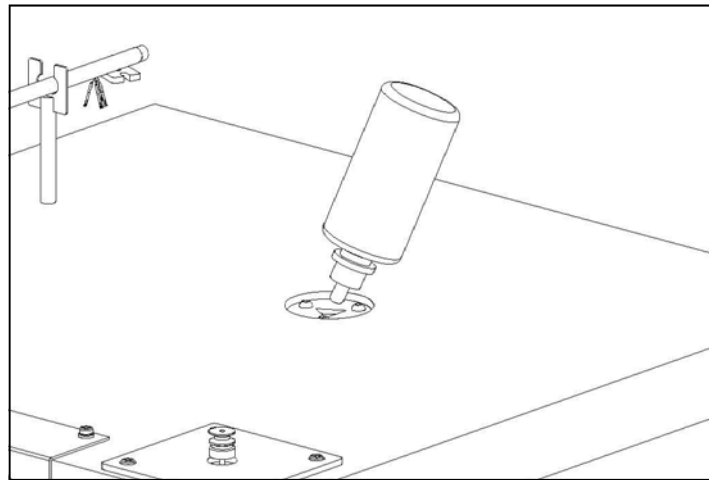


Fig (15)

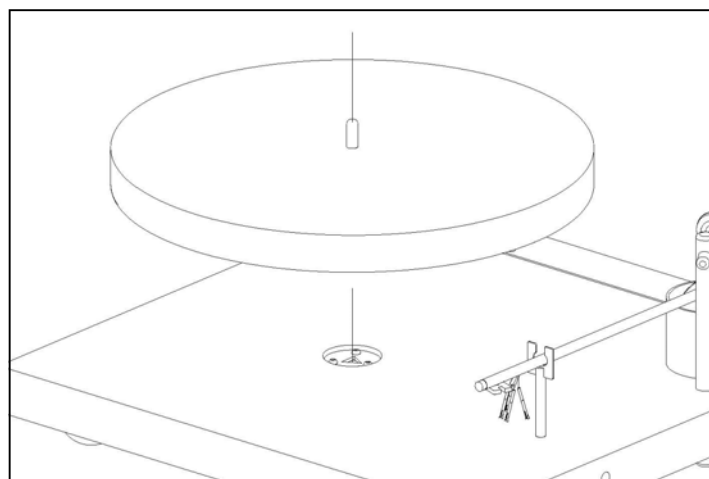


Fig (16)

### Speed Control

Speed change is effected by manual movement of the belt on the pulley. 33.5 RPM on the small diameter step on the pulley, 45 RPM on the larger diameter step on the pulley.

## Installing the Belt

Start with the belt around the motor pulley, take care the other end clears the centre spindle and rotate the platter, the belt will track around the platter. See Fig (17). Well Tempered Lab belts if dropped are easily misplaced, we give you two but suggest you place the belt on something dark to make it easily seen.

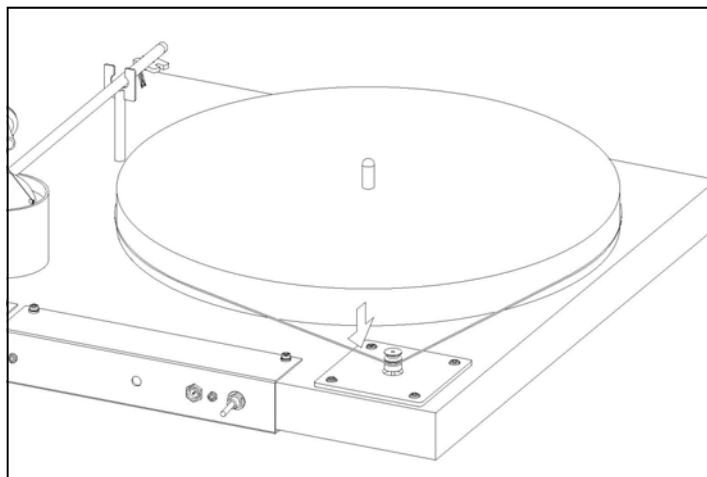


Fig (17)

## Belt for life

The Well Tempered Lab offer a "belt for life policy" just send a self addressed envelope with stamp to your distributor or dealer for replacement.

## Speed Adjustment

This is factory set, but if required, this can be achieved by carefully adjusting the small screw adjacent to the DC socket.

## Fitting the Cartridge and Tonearm adjustments

1. We recommend fitting the cartridge with the tone arm in position. However it is possible to fit the cartridge before suspending the tone arm (see Fig 18). Great care needs to be taken when installing the cartridge as the Well Tempered Lab bears no responsibility for cartridge damage.

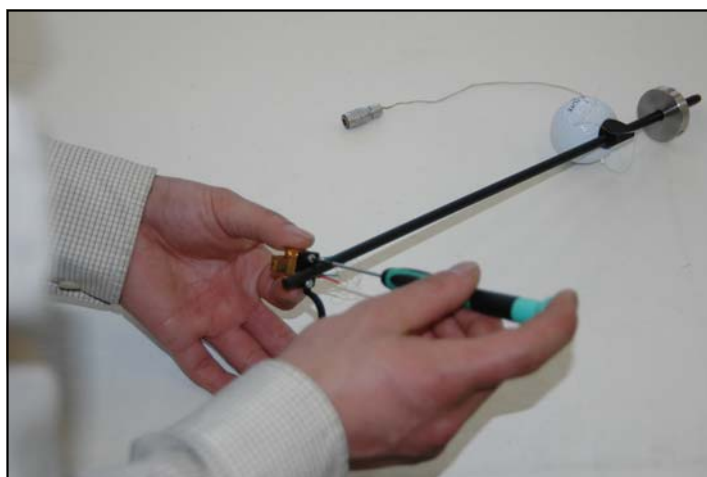


Fig (18)

2. Install the cartridge to the manufacturer's specifications. The Simplex features a head shell that requires no tracking alignment adjustment. We strongly recommend it remains firmly fixed in the correct position as supplied.

3. The Simplex tonearm has an effective length of 10.5" (267 mm). The headshell is fixed ex-factory in the optimum position. There is no provision for over-hang adjustment. Some alignment protractors may well disagree. However, The Well Tempered Lab stands by their convictions.

**Important:** There is absolutely no reason to torque headshell/cartridge mounting hardware to excess. Cartridge mounting hardware only requires firm but **gentle** tightening. Heavy handed torquing of mounting hardware can result in movement of the Simplex headshell (refer to [www.welltemperedlab.net](http://www.welltemperedlab.net) on tracking geometry).

4. There is an optional finger lift provided which can be attached to the cartridge fixing screw, adjacent to the right hand side of the plinth.

5. Apply enough damping fluid so as that no more than one third of the golf ball is submerged in fluid. See Fig (19).

**Note:** Damping can be altered by simply raising or lowering the damping cup, it is not critical and maybe adjusted to suit the listener's own preference.

6. Set tracking force with stylus gauge, supplied to cartridge manufacturer's specification.

7. To set tracking force, two counterweights are supplied to enable correct tracking force to be applied to cartridges of various weights. We recommend choice of counterweight (s) that allow correct tracking force to be obtained with weight (s) as close to the tone-arm lead out cable as practicable. This is not critical but care needs to be taken as to not damage tone-arm lead out cable when attaching counterweights to tone-arm.

8. Adjust tonearm for correct VTA by set screw on suspension pillar.

9. Correct Azimuth can be obtained by gently rotating the azimuth adjustment collar to allow the cartridge to track parallel to the record surface. This can be achieved whilst the record is rotating and requires only minor correction in both directions to achieve the correct result.

10. Due to the viscosity of the damping fluid adjustments in both tracking force and azimuth require the tonearm to momentarily "settle" to effect the correct results.

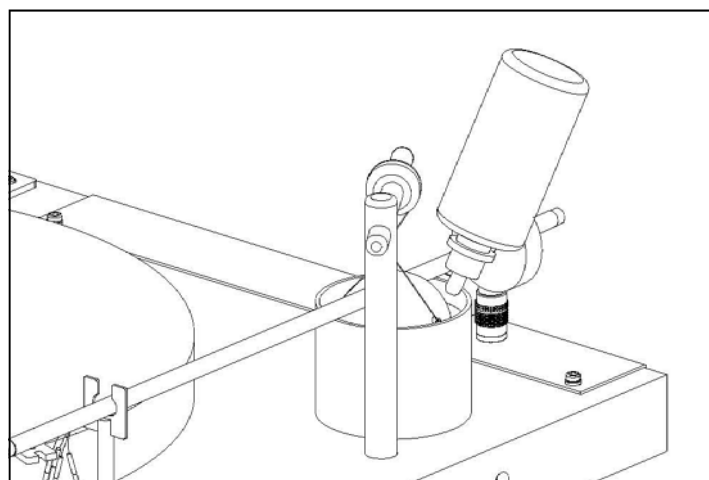


Fig (19)

## Rear Panel

Earth screw and phono sockets colour coded and clearly marked are on the rear panel. See Fig (20). Speed adjustment is also available on this panel. Connection for the AC adaptor is on this panel and clearly marked. Plug it in, you are ready to go. Enjoy!

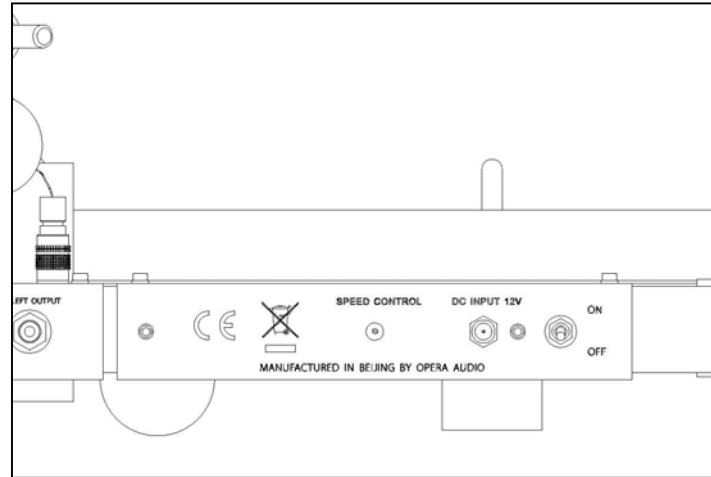


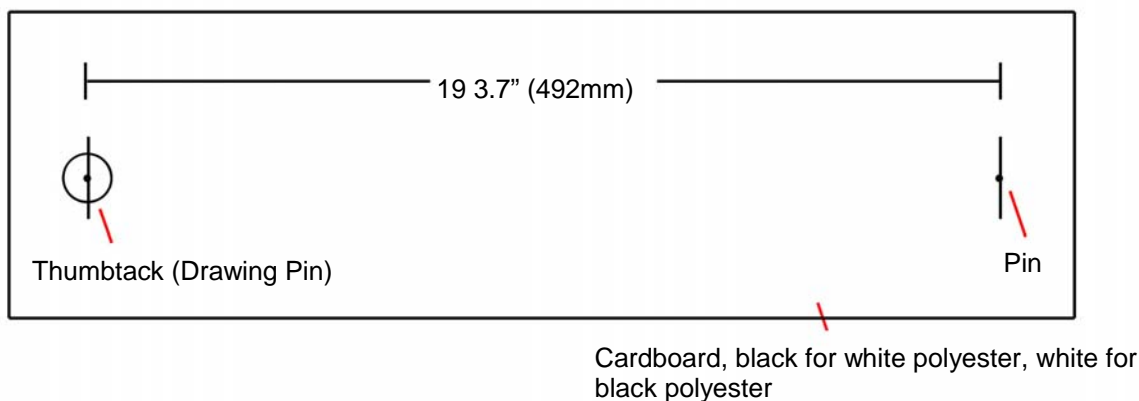
Fig (20)

## DC Power Supply

We recommend a power supply with a maximum output of 12V and not less than 7V, with a minimum of 100mA, centre pin positive.

## Making a Belt

Loop a long length of 0.004" polyester monofilament around the thumbtack. Tie a simple double overhand knot around the pin. Remove the pin and tighten the knot. Hold knot with thumbnail and pull on excess. Cut off excess leaving 10mm (minimum) tails.



## Troubleshooting

1. In the unlikely event that you wish to remove the tonearm, the golf ball can be lifted clear of the fluid, and left to drain. Surplus fluids may then be wiped from the golf ball with a paper towel.
2. Rubbing alcohol of 70% or above proof will remove all traces of fluid. All paper towels must be immediately discarded in a suitable receptacle. We also have it on good authority that Vodka of the highest proof can be pressed into service if rubbing alcohol is unavailable. Our chief designer also uses "Ronsonol" brand cigarette lighter fluid with excellent results. This is also known in some countries as white spirits or white gas. We suggest you first try cleaning fluid with caution and on the underside of the plinth. The Well Tempered Lab can bear no responsibility for damage caused by cleaning fluid.
3. Well Tempered Lab belts are easily lost. We recommend placing or hanging on a dark background, when not on the turntable.
4. For cartridges without threaded fixing holes we find it most convenient to attach the cartridge to the head shell in the slot closest to the platter. The other screw with the optional finger lift attached can then be passed through the head shell and remaining cartridge hole. A small "popsicle" stick or similar with a piece of double backed sticky tape on the end is invaluable. Just place the remaining cartridge nut on the tape at the end of the stick under the protruding screw and tighten.

**Note:** Some cartridges may necessitate the shortening of the Nylon bridle that suspends the Golf Ball. This can easily be achieved by the removal of one of the small plastic tubes that the Nylon passes through. Removal of this tube will allow excess nylon to be pulled through the tube when the correct height is obtained the tube can be re-inserted and the excess Nylon removed with a sharp craft knife. See Fig (22).

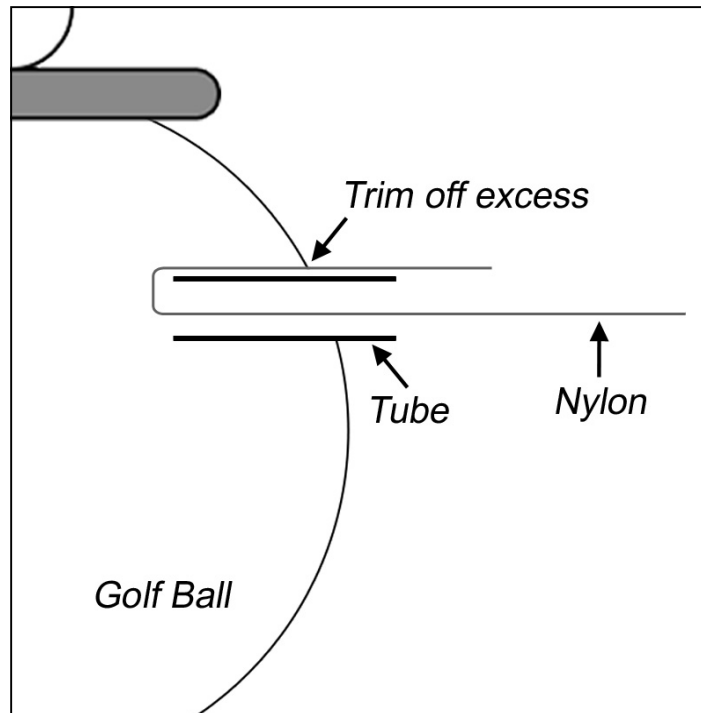


Fig (22)

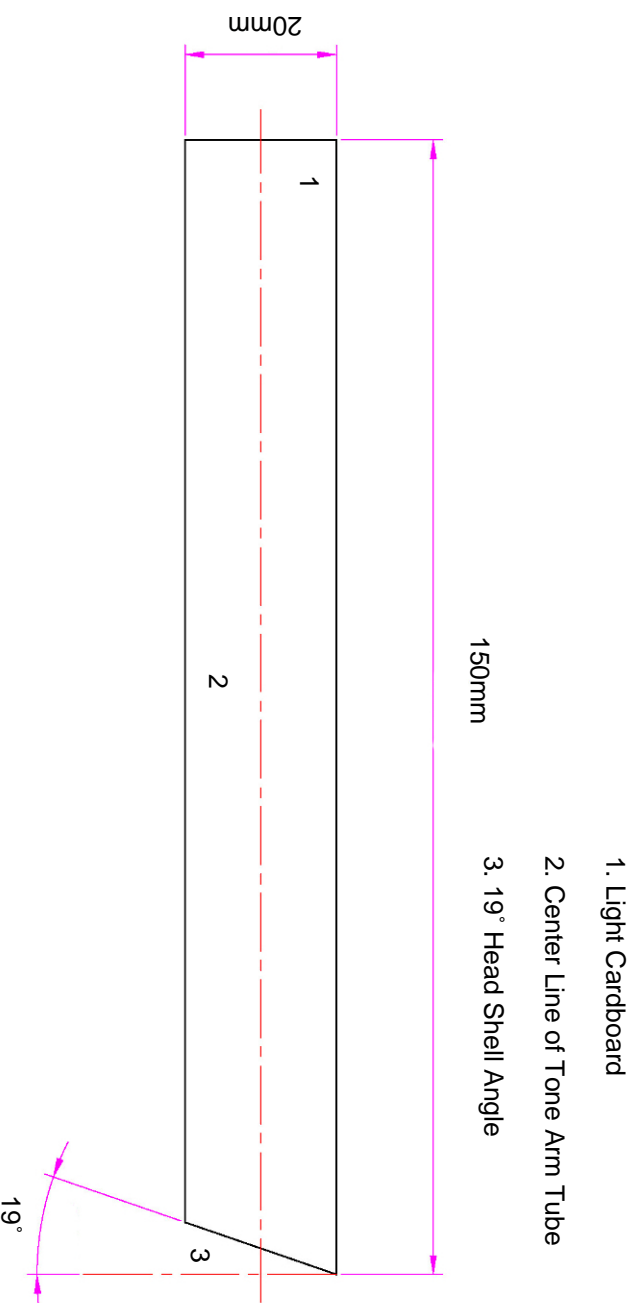
5. The Simplex motor has bearing tolerances that cause it to be noisy without the load of the belt and platter. It is sometimes possible during transit for the motor to shift within the isolating rubber mounting and vibrate against the motor mounting cover. This is easily remedied by gently moving the motor clear of the mounting cover plate.

6. If the platter rotates abnormally, please refer to page 8 "Installing the Platter" to centre the spindle.

7. **Important:** For optimum performance Well Tempered turntables require to operate on a flat and level surface.

10. When moving or shipping the turntable, we recommend the removal of the platter from the bearing assembly. Care must be taken as there will be a small amount of oil residue on the spindle. Care must also be taken to ensure the turntable remains level at all times to avoid spillage of fluids.

## Headshell Alignment Guide For Well Tempered Turntables



Note: The Headshell is factory fixed in position. Well Tempered Lab unequivocally reiterates that it should not be moved.

Heavy handed mounting of the cartridge may result in moving the head shell. In which case place the above guide with center line parallel to tone arm tube and align head shell to 19° angle.

It will be necessary to gently but firmly retighten the small screw fixing the headshell to the tonearm. **Do not overtighten this screw.**

## WARRANTY & SERVICE

Valid on completion of warranty card and confirmed date of purchase. Details can be registered at [www.welltemperedlab.net](http://www.welltemperedlab.net)

This Well Tempered Lab product is warranted against defects in material and workmanship for one year from date of purchase.

This warranty does not cover normal wear and tear and is void if the Well Tempered product has been subject to mis-use, accident or negligence or if it has been tampered with or modified in any-way. Spillage of any fluids supplied by the Well Tempered Lab is not covered within the scope of this warranty.

Warranty is restricted to the territory in which the product was purchased. Our distributors and dealers are under contractual obligation to service under warranty products only sold through them. They are entitled to make a non refundable charge for service to products purchased outside the territory if required.

### Claims Under This Warranty

The product should be returned to the dealer or nearest Well Tempered distributor, complete with warranty card and confirmed date of purchase. **Note special care is required with the fluids and the Well Tempered Lab and its agents can bear no responsibility for spillage or damage caused by incorrect handling and packaging of the fluids.**

### The European Waste Electrical and Electronic Directive



This product can be recycled. Products bearing this symbol must NOT be thrown away with normal household waste. At the end of the product's life, take it to a collection point designated for recycling of electrical and electronic devices. Find out more about return and collection points through your local authority.



The European Waste Electrical and Electronic (WEEE) Directive was implemented to dramatically reduce the amount of waste going to landfills, there by reducing the environmental impact on the planet and on human health. Please act responsibly by recycling used products. If this product is still useable, consider giving it away or selling it.



Well Tempered Lab

### REGISTRATION CARD

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_ Post Code (Zip) \_\_\_\_\_  
Telephone \_\_\_\_\_  
Email \_\_\_\_\_  
Model \_\_\_\_\_  
Serial Number \_\_\_\_\_ Date of Purchase \_\_\_\_\_  
Dealer \_\_\_\_\_