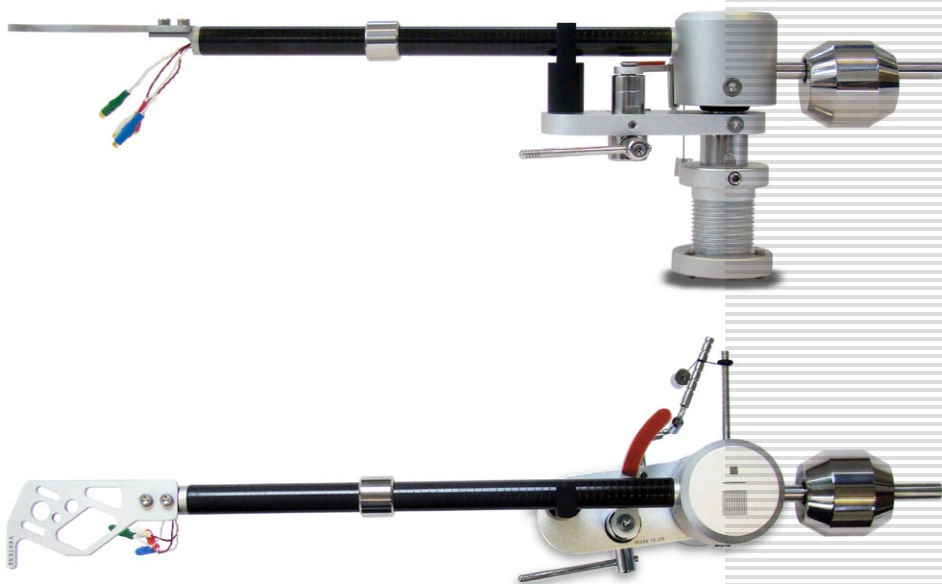


THE RECORD PLAYER

SG-1 Standard Tonearm



User & Setup Manual

General Use

Introduction

Thank you for your purchase of the SG-1 Tri-point Articulated Tonearm. Please study these instructions carefully. Your SG Tonearm is designed and manufactured to the highest standards and its correct installation will greatly enhance the sound quality of your record playing system rewarding you with many years of listening pleasure.

Guarantee

Your Vertere SG Tonearm is guaranteed against any defect in materials and workmanship for a period of two years from the date of purchase. You can extend this period to **ten years** by registering your warranty on the Vertere website - vertereacoustics.com

This guarantee excludes:

1. Damage caused due to accident, misuse, neglect and incorrect installation, adjustment or repair.
3. General wear & tear.
2. Liability for damage or loss during transit from the retailer or purchaser to Vertere or its authorised distributor for the purposes of repair or inspection.

Carriage costs to Vertere shall be borne by the consignor.

All claims under this guarantee must be made through an authorised Vertere retailer.

If equipment returned for repair to Vertere is found on inspection to comply with the product specification Vertere reserves the right to make a charge for examination and return carriage.

There are no user serviceable parts inside your SG-1 Tonearm.

Unauthorised servicing will void this guarantee.



Maintenance & Cautions

IMPORTANT

After clipping the arm in, placing the stylus guard on and switching the amplifier off, the tone arm may be cleaned with a lightly dampened soft cloth or soft brush.

Take extreme care not to damage the cartridge stylus, anti-skate weight/thread or the tone arm tri-point bearing by applying excessive force on any of the parts.

Do not undo or tighten any of the screws which are indicated as 'Not User Serviceable Part' in the following pages.

Do not apply undue force on any of the user adjustable screws or parts.

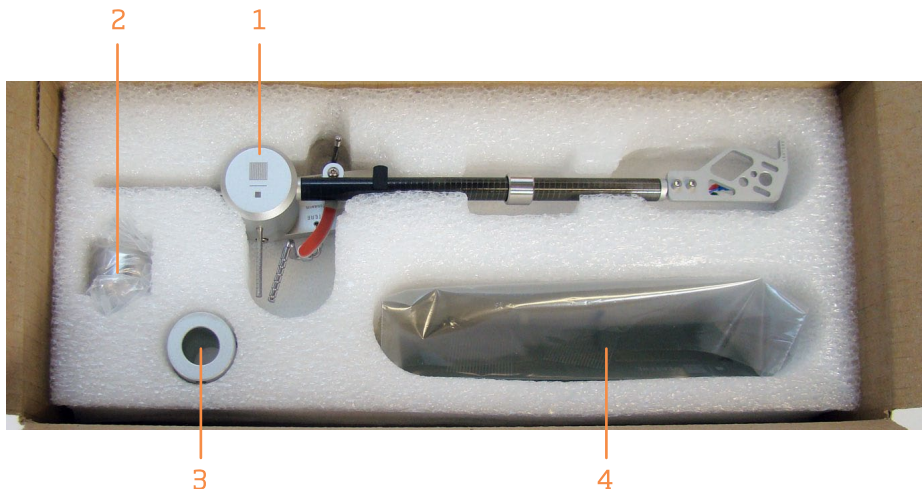
Avoid using abrasives or solvents on your SG-1 tonearm.

User Manual

Unpacking

Your SG-1 Tonearm comes packed with:

- 1 Main Tonearm
- 2 Main Counterweight
- 3 Pillar Holder & Fixing Nut
- 4 Accessory Pack



Accessory Pack

- 5 Arm Cut-out Protractor
- 6 Cartridge Fixing Screws
- 7 Anti-skate Weight/Thread Assembly
- 8 Allen Key Set
- 9 Cartridge Alignment Protractor



Tri-Point Bearing Protection Foam

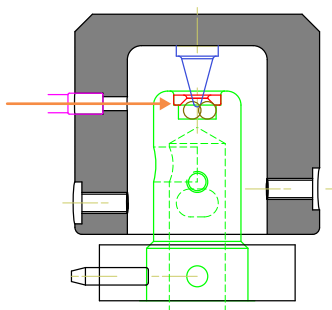
IMPORTANT

After removing the arm from its packing tray, observe the bearing protection foam which lifts the tone arm separating the bearing point from the three silicone nitride balls. After fitting the cartridge and the counterweight you can slide this out from under the yoke. The protective foam moves the main yoke up thus lifting the stainless steel bearing point off the three silicone nitride balls avoiding any damage to the Tri-point bearing during transit and shipping.

Slide protective foam out for use or gently lift the main yoke and slide it into position for transportation.



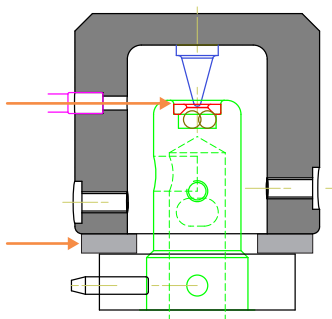
Stainless Steel Point & Tri-point Silicone Nitride Balls in contact - Operation Mode.



Tri-point Bearing
Silicone Nitride Balls



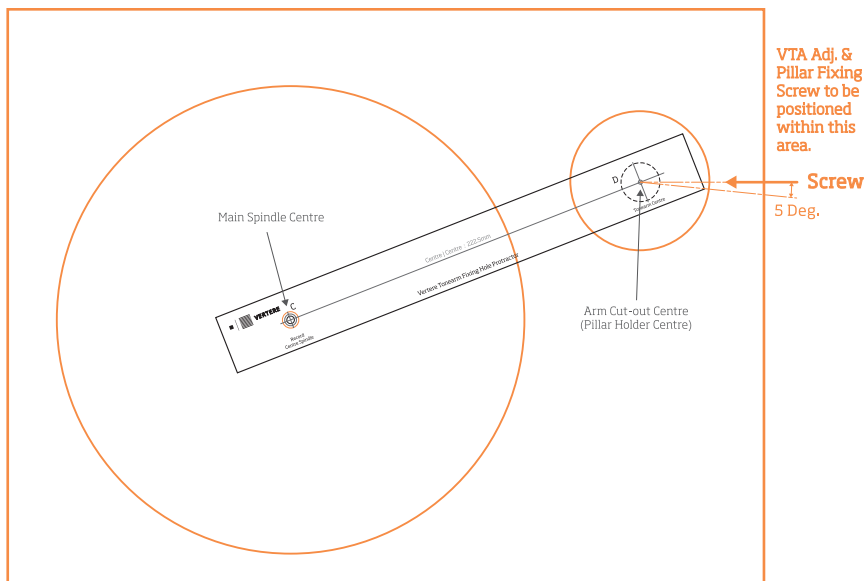
Stainless Steel Point lifted up & not in contact with Tri-point Silicone Nitride Balls in contact - Transit/Packaging Mode.



Protective Foam.

Tri-point Bearing
Stainless Steel Point





Fitting Instructions

Your SG-1 tonearm pillar holder should be fitted at 222.5mm from the main spindle centre. Using the tonearm fixing hole protractor, mark the centre of the arm pillar cut-out. Arm pillar holder cut-out hole diameter is 23mm. Use a suitable drill/cutter to cut this hole.

Please note any Rega/Roksan cut-out arm-board is suitable for your SG-1 tonearm.

Vertere RG-1/SG-1 record players are supplied with the corresponding SG-1 tonearm cut-out arm-boards as shown. Simply fit the arm pillar holder to the arm-board and tighten the fixing nut finger tight.

Make sure the three fixing grub screws are loose and not touching the arm board. These will later be used to finally fix the arm pillar holder to the arm-board.

Next fit the arm board to the record player - use the fixing hole protractor to locate the arm pillar holder at exactly 222.5mm distance to the spindle centre. Tighten the Arm-board to the record player, align the pillar fixing screw as shown, and tighten the three fixing grub screws to ensure rigid coupling of the arm pillar holder to the arm board.

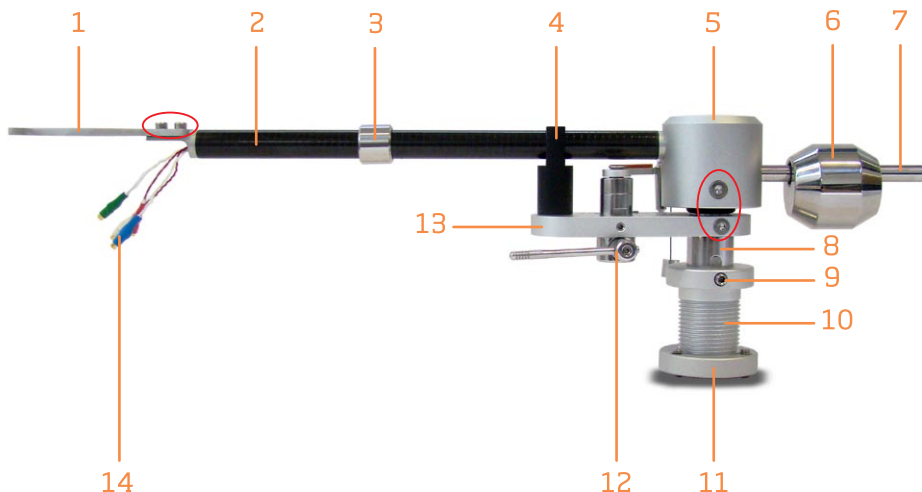


Tool required: 2.0mm A/F Allen Key - supplied

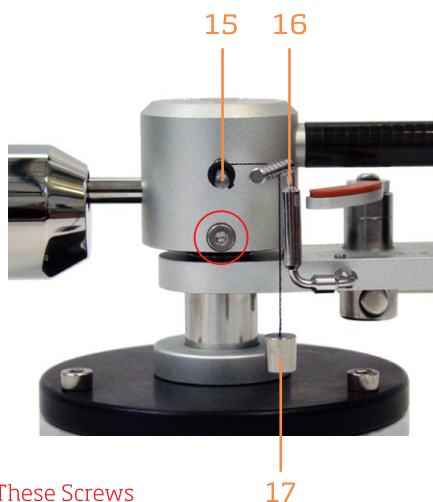
User Manual

Overview

- 1 Aluminium Alloy Head-shell
- 2 Roll Wrapped Carbon Fibre Arm Tube
- 3 Stainless Steel Effective Mass & Fine Tracking Weight Adjustment Ring
- 4 Machined Acetal Arm Clip



- 5 Aluminium Alloy Main Bearing Yoke
- 6 Stainless Steel Main Counterweight
- 7 Stainless Steel Counterweight Rod
- 8 Stainless Steel Main Pillar
- 9 VTA Adjustment & Pillar Fixing Screw
- 10 Aluminium Alloy Pillar Mount
- 11 Aluminium Alloy Pillar Mount Fixing Nut
- 12 Stainless Steel Lift/Lower Mechanism
- 13 Aluminium Alloy Lift/Lower Plate
- 14 Lead Wires & Gold Plated Cartridge Tags
- 15 Anti-skate Rod
- 16 Anti-skate Bar
- 17 Anti-skate Weight/Thread Assembly



○ Not A User Serviceable Part - Do Not Undo These Screws

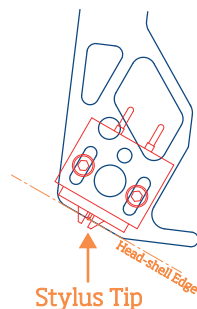
Fitting The Cartridge

Carefully remove the arm from its packing by holding the Main Pillar. Leave the protective foam in place to avoid damage to the Tri-Point Bearing. Have the cartridge you are intending to fit at hand and leave its stylus guard on for extra protection.

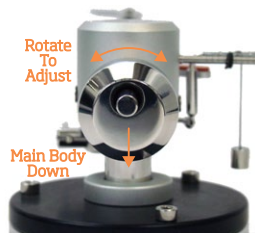
Using the high quality stainless steel M2.5 socket cap screws supplied, and nuts if required, mount the cartridge to the head-shell but do not fully tighten the screws just yet. Take care to connect the cartridge tags correctly in accordance with the cartridge manufacturer's instructions. Be especially careful with the internal wiring of the tonearm when connecting to the cartridge pins or fly leads.

The stylus tip should be set directly below the front edge of the head-shell and the body of the cartridge should be aligned parallel with the side edge. This way the alignment and the overhang would be almost done and ready to be checked using the supplied protractor.

The arm pillar can now be fitted to the arm pillar holder on the arm board. Please note at this point the counterweight is not yet fitted and the arm/cartridge should not be lowered onto the record, stylus balance or platter surface as this will damage the cartridge. The VTA adjustment and pillar fixing screw should be undone sufficiently to allow the tonearm pillar to easily slide into the pillar holder. There is a VTA locating recess on the tonearm pillar which will line up with the VTA adjustment screw and also stops the tonearm from coming out of or dropping fully down into the arm pillar holder. Locate the arm in a position where the arm tube is approximately parallel to the platter top surface. Almost correct VTA.

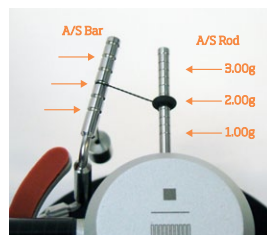


Now gently push fit the counterweight onto the C/W peg with the main body of the C/W hanging down as shown. The C/W has an off-centre hole thus allowing Azimuth adjustment and stabilizing the arm by lowering its centre of gravity.



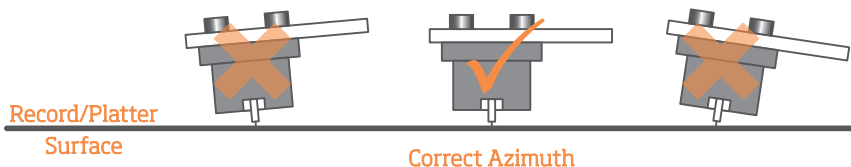
Using a stylus balance, now set the tracking weight of the cartridge with accordance to the manufacturer's instructions. Initially this should be done with the fine tracking weight adj. ring in the middle of the arm tube. Later the ring can be used to fine tune the tracking weight and the arm/cartridge resonance. Please note at this point the Anti-skate weight should also be fitted as this will influence the azimuth setting of the tonearm.

Remove the anti-skate weight/thread from the packing and fit the 'O'ring, initially, onto the middle of anti-skate rod with the thread going over the anti-skate bar's 3rd notch as shown.



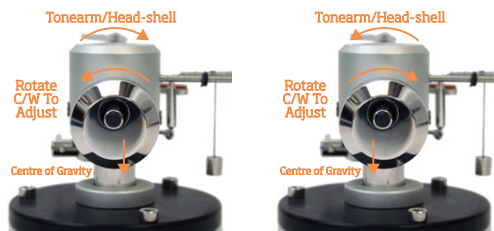
Cartridge Alignment

Cartridge azimuth must be set before you align the cartridge horizontal and vertical tracking angles. Correct azimuth is when the cartridge sits parallel to the record surface when viewed head on from the front - see below.



The azimuth can be adjusted by rotating the main counterweight which will in turn rotate the tonearm thus changing the angle of the cartridge to the record.

The head-shell/arm will rotate opposite to the C/W as its centre of gravity moves side to side ... See opposite

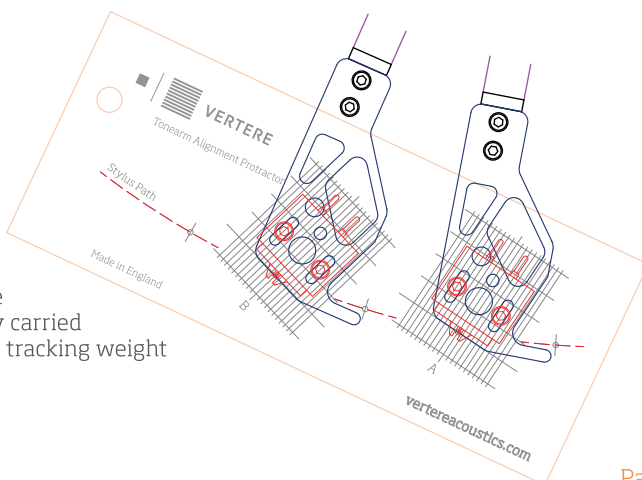


Its **important** to keep the C/W position along the C/W peg while rotating it to avoid any substantial change to the tracking weight.

Now place the alignment protractor provided onto the main spindle and carefully locate the arm/cartridge on it lining up the stylus tip with the marked stylus path arc as shown. When the cartridge is mounted in its correct position in the head-shell, the stylus tip will track along the marked stylus path and be aligned perfectly to the grid on A and B. See below.

Use the cartridge fixing screws to adjust the position of the cartridge achieve perfect alignment as this has a profound influence on the performance of the record player.

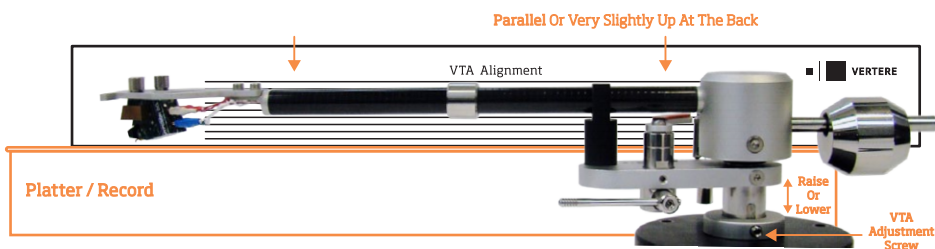
Once azimuth and cartridge alignments are successfully carried out, you can fine adjust the tracking weight and VTA.



VTA Adjustment

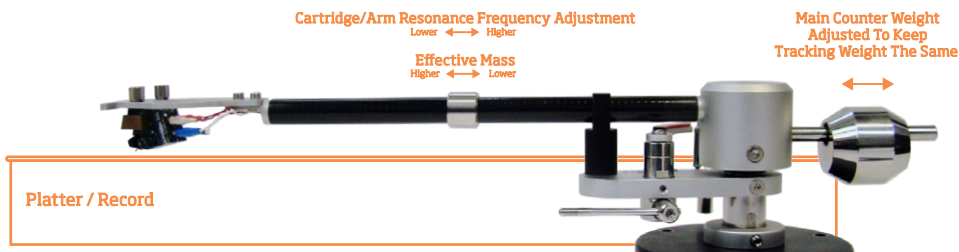
With the record player in stop mode, place a reasonably flat LP record on the platter/mat. Carefully lower the tonearm/cartridge and the VTA Alignment protractor provided on the record as shown below and check if the arm tube is parallel with the horizontal lines on the protractor. Using the VTA adjustment screw on the tonearm pillar holder, raise or lower the arm until the arm tube is parallel or just fractionally up at the back.

IMPORTANT: The arm must be lifted off the record and secured in the arm clip to avoid any damage to the stylus while raising or lowering it for this adjustment - see below.



Arm/Cartridge Resonance

With most cartridges the arm/cartridge resonance should be between 8Hz - 12Hz. If due to cartridge weight and compliance this resonance goes outside this range, it should be possible to bring it within the range by simply repositioning the tracking weight sleeve and the main counterweight. As shown, by moving the ring towards the head-shell the main counterweight would also require to be moved away from the bearing yoke thus increasing the arm effective mass. This will in turn lower the arm/cartridge resonance frequency. And vice versa to raise the frequency.



NOTE: To check and measure arm/cartridge resonance you require a test record with this facility recorded on it. If in doubt consult your retailer or Vertere.

Fine Tracking Weight Adjustment

With the record player in stop mode, place a stylus balance on the platter and check the cartridge tracking weight. Now fine adjust the tracking weight to manufacturer's recommendation by moving the ring slightly forward towards the head-shell to increase and back to decrease tracking weight - see below.

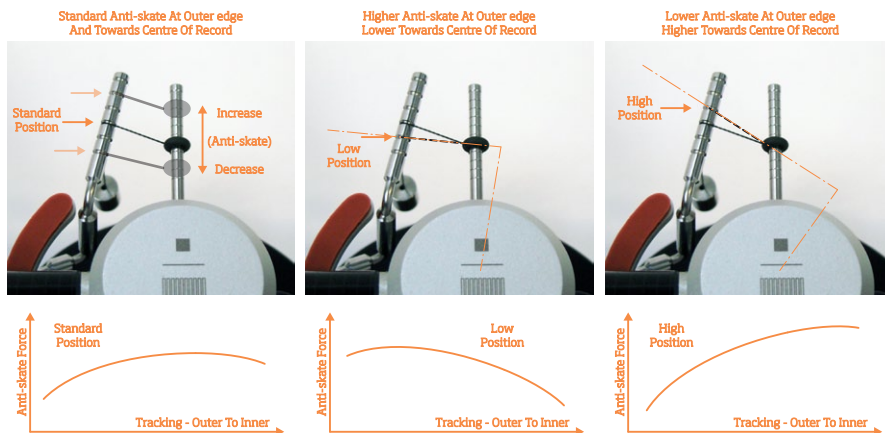


IMPORTANT: This procedure is for 'fine' adjustment only and the main counterweight should be used for general setting of the cartridge tracking weight.

Anti-skate Curve Adjustment

The anti-skate bar has 6 thread runner grooves that allow alignment with the position of the anti-skate 'O' ring. The 'O' ring position increases the amount of anti-skate the further it is from the bearing yoke. Choose the runner groove for the thread according to the 'O' ring position, normally using the standard position - see below. One groove lower or higher can also be chosen and this will effectively tilt the anti-skate force curve as shown below.

It is recommended to check anti-skate force is set correctly using a test record.



Specifications

Type _____ Tri Point Articulated
Effective Length _____ 240mm
Overhang _____ 17.5mm
Offset Angel _____ 22.9°
Head-shell _____ Aluminium Alloy
Arm Tube _____ Wrapped Carbon Fibre
Bearing Structure _____ Captive Silicone Nitride Ball (x3)
Precision Stainless Point
Counter Weight _____ Stainless Steel
Stainless Steel T/W Adj. Sleeve
Internal Wiring _____ Optional
Pulse Hand-built or Standard
Connectors _____ Proprietary Cartridge Tags & 5-Pin
x3 Thickness Gold Plated Contacts
Tonearm Cable _____ Optional
Pulse Hand-built, Pulse-R, Pulse-B, Pulse-C & D-Fi
Weight (With Standard, C/W) _____ 397g



All specifications are liable to change without prior notice. E & OE
Made in England



VERTERE™

SG-1 Standard Tonearm

User & Setup Manual

Vertere 1.28 The Light Box 111 Power Road London W4 5PY England
T +44 (0)20 3176 4888 F +44 (0)20 3176 4880 E info@vertereacoustics.com
vertereacoustics.com Printed in England