SME

CLASSIC MODEL 6

INTEGRATED PRECISION TURNTABLE

OWNERS MANUAL

CLASSIC

M6DEL

INTEGRATED PRECISION TURNTABLE

Instructions

This is no ordinary turntable.
These instructions include unpacking, set up procedures and specifications.
Please read carefully.

Warning! Important Safety Instructions

CAUTION: RISK OF ELECTRIC SHOCK DO NOT REMOVE POWER UNIT COVER.

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE SPEED CONTROL UNIT (POWER UNIT) COVER. THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER ALL SERVICING TO QUALIFIED PERSONNEL.

- Please read this manual carefully and keep it in a safe place for future reference.
- The vent slots in the underside of the Speed Control Unit are for necessary ventilation. To ensure reliable operation of this apparatus and to protect from overheating these vents must never be blocked or covered.
- Do not place a water containing vessel on this apparatus, as this can result in a risk of fire or electric shock. Do not expose this apparatus to rain or place it near water.
- If this apparatus accidentally gets wet, unplug it and contact an authorised dealer immediately.
- You can clean this apparatus with a damp cloth when necessary, but be sure to unplug the apparatus first. To cut off the power source, unplug the apparatus from the AC wall outlet.
- Do not overload AC wall outlets, power cables or adaptors beyond their capacity as this can result in fire or electric shock.
- Power cables should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cables at the plug end, adaptors and the point they exit from the appliance.
- Before connecting the AC power cable to the Speed Control Unit, make sure the voltage of the Power Unit, as marked on the identification label at the rear, corresponds to the local electricity supply.
- Never insert anything metallic into the open parts of this apparatus.
- Only a qualified technician should remove the Speed Control Unit cover.
- Be sure to hold the plug, not the power cable, when disconnecting this apparatus from an electric socket.
- Locate this apparatus near an easily accessible AC outlet.
- If this apparatus does not operate normally, in particular if there are any unusual sounds or smells, unplug it immediately and consult an authorised dealer.
- Unplug this apparatus from the AC outlet before any service.

IMPORTANT NOTICE:

The power cable on this equipment when supplied for use in the UK, is fitted with a moulded plug incorporating a fuse. The value of the fuse is indicated on the pin face of the plug and if it required replacing a fuse approved to BSI 1362 of the same rating must be used. Never use the plug with the fuse cover omitted if the cover is detachable. If the plug fitted is not suitable for the power points in your room or if the power cable is not long enough to reach the power point, you should obtain a suitable safety approved extension lead or consult your dealer for assistance.

IMPORTANT:

The wires in the power cable are coloured in accordance with the following code: BLUE NEUTRAL, BROWN LIVE. As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows: The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured BROWN or RED.

WARNING:

DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL, WHICH IS MARKED WITH THE LETTER (E) OR BY THE EARTH SYMBOL OR COLOURED GREEN OR GREEN/YELLOW.

WEEE SYMBOL INFORMATION

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable to the European Union and other European countries with separate collection system).

The marking shown on this product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible damage to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable re-use of material resources.

Household users should contact either the retailer where they purchased this product or their local government office, for more detailed information of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Introduction

SME is an iconic brand founded in 1946 by audio legend Alastair Robertson-Aikman in West Sussex, England. Today SME is recognised as makers of the finest precision turntables and tonearms in the world. Entirely made in-house by state of the art manufacturing processes, complemented by traditional craftsmanship methods. SME audio has evolved from 75 years of engineering excellence, innovation and perfection delivering precise and pure audio reproduction.

The Model 6 Classic is a precision turntable with a CNC machined chassis made from a unique polymer high density resin material which provides high mass and superb resonance absorption. The chassis is complemented by a specialist isolation system incorporated into the self-levelling feet. The main bearing, spindle and drive pulleys are precision made to the same exact standards as all SME high-end turntables. Speed control is a highly sophisticated bi phase, frequency and amplitude, DSP based sine wave generator, with a dedicated discrete power amplifier to drive the motor. It generates two pure sine waves which drive twin coils present inside a custom made AC motor. The frequency (speed) is user adjustable in approximately 0.0133 Hz steps allowing a very accurate musical pitch to be set.

The Model 6 Classic is equipped with the highly credible SME M2-9R tonearm which is of meticulous build quality. Primary features include lightweight stainless steel tonearm tube, detachable aluminium headshell with double draw pins for extra rigidity and azimuth adjustment, thumbwheel vertical tracking adjustment, tungsten balance weight(s) and high quality ball race bearings in all planes. The M2-9R tonearm is designed to suit a wide range of cartridges up to 38 grams and with a direct plug-in head up to 46 grams.

Design and engineering excellence built by audio enthusiasts for audio enthusiasts.

Contents

1. Weights & Dimensions (mm)

Turntable

Width: 420
Depth: 320
Height: 128
Platter Diameter: 300
Spindle to Arm: 215.4
Net Weight: 9.1kg

Speed Control Unit

Width: 220
Depth: 200
Height: 85
Net Weight: 2.05kg

Power Consumption: Idle 5W- Max 10W

2. Packing List

Qty	Description	✓
1	Model 6 Serial No	□
1	M2-9R Tonearm	□
1	Control Unit – 100V □ 115V □ 230V □	□
1	Power Cable – UK □ EU □ USA □	□
1	Platter	□
1	Stroboscopic Disc	□
1	Record Clamp	□
1	Spindle Washer	□
1	Drive Belt	□
1	Velcro Strap	□
1	Balance Weight	□
1	Accessory Weight	□
1	Detachable Headshell	□
1	Cartridge Screw Set	□
1	Bias Weight	□
1	Bias Guide	□
1	2mm Hex Wrench	□
1	0.89mm Hex Wrench	□
1	Alignment Protractor	□
1	Owner's Manual	□

3. Parts Identification

1. Speed Control Unit
2. Power ON/OFF Button
3. Rotary Speed Control
4. Platter
5. Bias Weight
6. Bias Guide
7. Anti-Skate Lever
8. Balance Weight
9. Tonearm
10. Finger Lift
11. Headshell
12. Wayrod/Rider Weight

Power Cable & Phono Connectors Identification

Low Voltage
Power Cable 24V

Power
ON / OFF

AC Power
Cable Socket

Phono Output
Sockets

Earth Point

Low Voltage Input
Socket 24V

4. Unpacking

1. Unpack and check all items against the packing list in Section 2. In the very unlikely event that anything is missing your dealer should be notified at once.
2. The design of the turntable allows it to be used on any substantial table or similar piece of furniture in the absence of a dedicated audio equipment stand.

5. Setting Up

1. With the turntable sited, follow the set up instructions in the order detailed.
2. Drive belt installation: place the belt over the driven pulley, pressing it down as far as the lower flange and ensuring free from twists and stretch the belt over the motor pulley. Rotate the driven pulley slowly by hand to position the belt on the pulleys.
3. Platter fitment: ensure the upper face of the driven pulley and the underside of the platter mating surfaces are clean, place the platter squarely over the turntable spindle lowering it gently until it rests on the driven pulley.
4. Speed control unit: fit the mains power cable (check carefully that this matches your mains power voltage). The mains voltage setting is indicated on the back panel.

   WARNING! To meet international safety standards the control unit is earthed through the yellow/green wire of the power cable and particular care must be taken to ensure that this is connected in order to maintain effective earthing.
5. Low voltage connection cable: connect the speed control unit to the turntable by inserting the cable plug into the 24v input socket at the rear of the turntable.

6. Operation – Speed Control

The Model 6 precision turntable is extensively run-in and it's speeds set before leaving the factory. If you should wish to check the speed settings and make your own adjustments, the procedure is as follows:

1. **Mains Power:** the power ON/OFF button is located on the rear of the speed control (power unit). With power ON the last used speed indicator LED light will illuminate on the speed control unit fascia.
2. **Motor Power:** pressing the power button on the speed control unit fascia will start the motor. With power OFF and pressing the rotary button on the fascia the speed settings of 33 and 45rpm will cycle and be indicated by the speed LED. With the motor running, pressing the power button will stop the motor.
3. **Speed Testing:** the stroboscopic disc installed on the platter is used to check speeds of 33 and 45rpm. Use the strobe bands appropriate for your mains AC frequency. The disc should be viewed in a fluorescent or neon light. The appropriate band will synchronise and appear stationary when the speed is correct. Whilst forward and reverse band movement will indicate fast or slow running respectively. This is best observed with the cartridge fitted and the tonearm in the raised position and placed directly over the band being viewed as a reference point.
4. **Speed Adjustment:** with the motor running press and hold the rotary button for two seconds, the speed indicator LED will begin to flash. The motor is now in speed adjust mode and the speed can now be adjusted in conjunction with the stroboscopic disc. Turning the rotary button anti-clockwise will reduce speed and clockwise will increase speed. The method provides a microfine incremental adjustment. When the speed adjustment is completed depress and release the rotary button, the speed indicator LED light will stop flashing and become constant and the speed setting will be stored in the system memory for future use.
5. Repeat this process for the 45rpm speed range if required.
6. **Timeout:** if in adjustment mode and no adjustments have been made for 20 seconds the new settings will be saved and the system will exit adjust mode and resume running normally.
7. **Cancel/Abort Adjustment:** with the motor running and the system in adjustment mode, if the power button is pressed, the motor will stop and any adjustments that have been made will be discarded and not saved.

7. Operation – Turntable

1. Turn on mains power at rear of the speed control unit (push ON/OFF switch).
2. Place record spindle washer on spindle followed by the record.
3. Fit record clamp by holding main body of the clamp and turn locking knob gently about 1⁄4 turn.
4. Select required speed by pressing the rotary control button on speed control unit until 33 or 45 is indicated.
5. Press power button.
6. You are now ready to play your record.

8. Tonearm

- General Arrangements
- Dimensions
- Specifications
- Fitting Balance & Bias Weights
- Fitting Headshell & Cartridge
- Tonearm Set Up & Adjustment

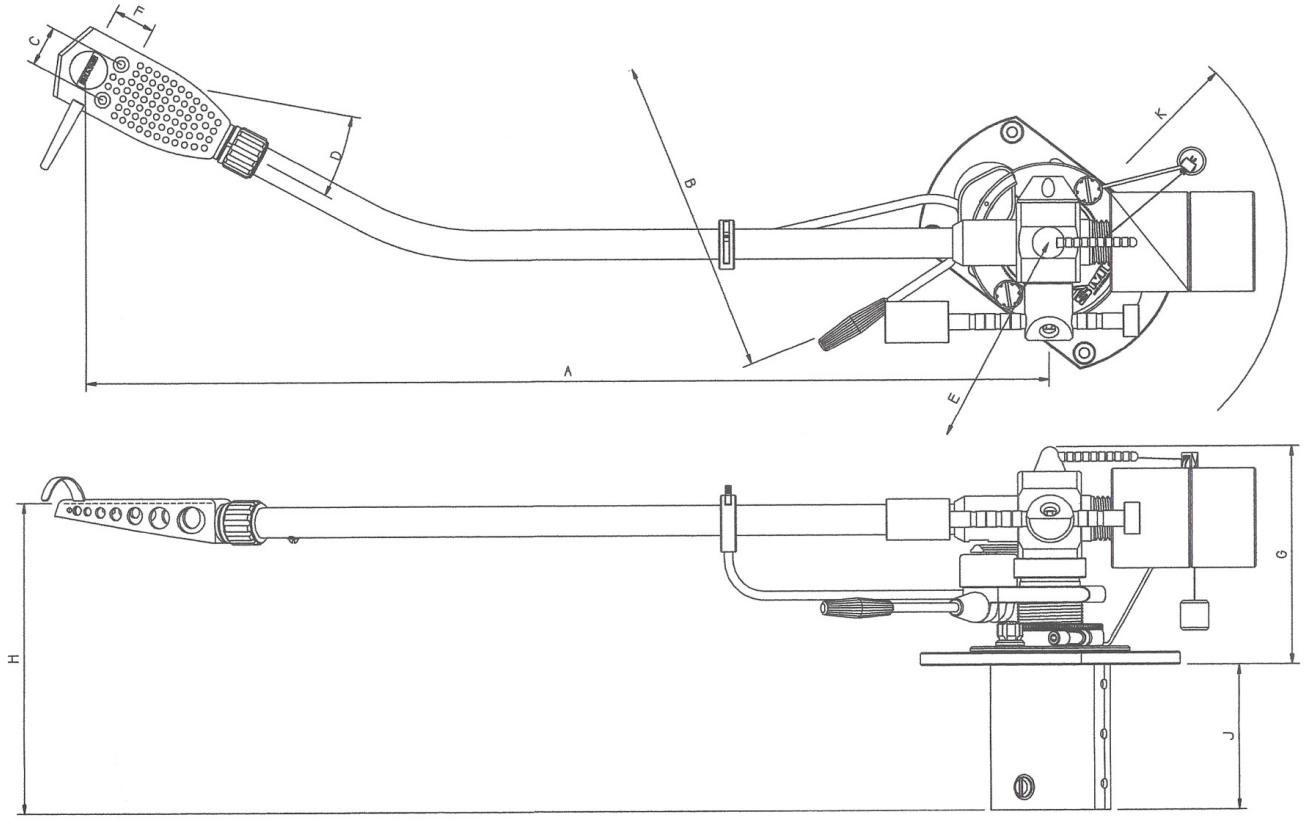
Note:

Tonearm images for references only, mounting base plate profile may vary.

For your convenience the headshell is supplied detached from the tonearm ready for fitment of your cartridge.

Cartridge not supplied – images of cartridge used for illustration purposes only.

General Arrangement



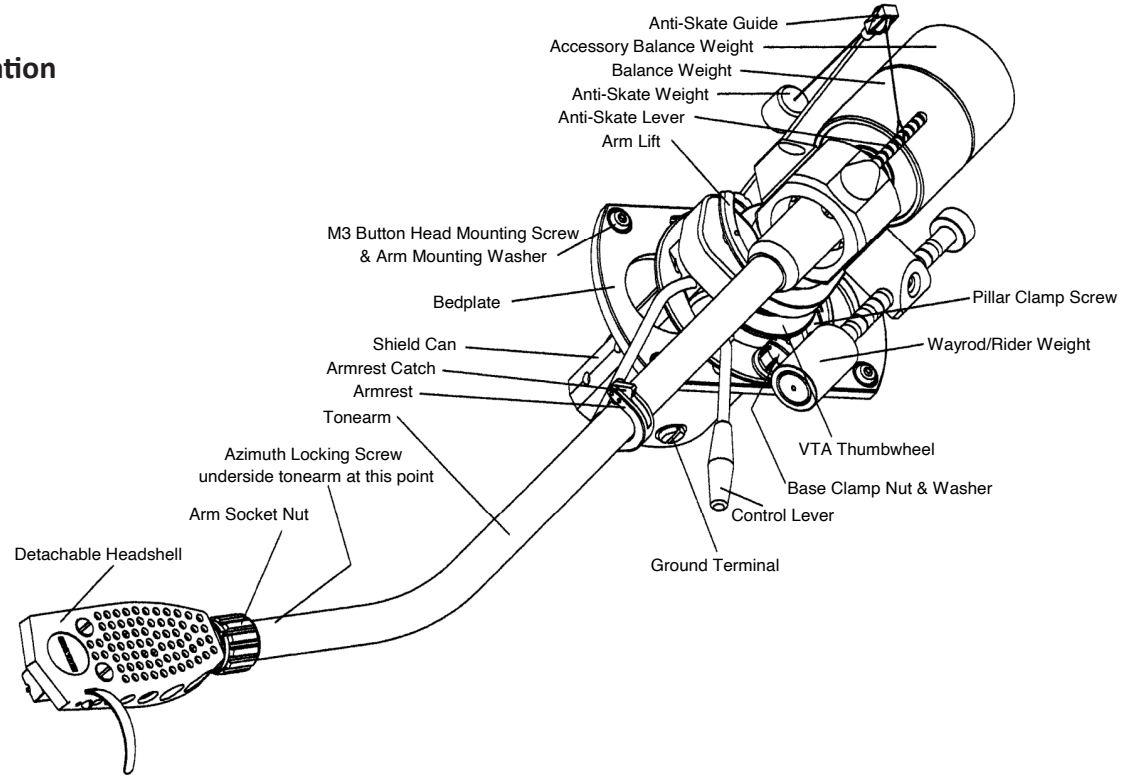
Dimensions

	(mm)
A – Pivot to Stylus	233.20
B – Pivot to Turntable Centre	215.40
C – Cartridge Fixing Centres	12.70
D – Offset Angle (degrees)	23.63˚
E – Linear Offset	93.47
F – Overhang	17.80
G – Height above Mounting Surface (Max)	87.00
Height above Mounting Surface (Min)	63.00
H – Mounting Surface to Underside of Headshell (Max)	67.40
Mounting Surface to Underside of Headshell (Min)	43.40
J – Depth below Mounting Surface	46.00
K – Balance Weight Radial Clearance	79.00

Specifications

	(g/mm)
Effective Mass (g)	9.50
Cartridge Balance Range	
Headshell: Up to (g)	38.0
Plug-heads: Up to (g)	46.0
Vertical Tracking Force (g)	5.0
Maximum Tracking Error (degree/mm)	0.013
Null Points: Inner (mm radii)	66.04
Outer (mm radii)	120.9
Silver Litz Internal Wiring	
RCA Phono – Gold Plated Connectors	

Tonearm Identification

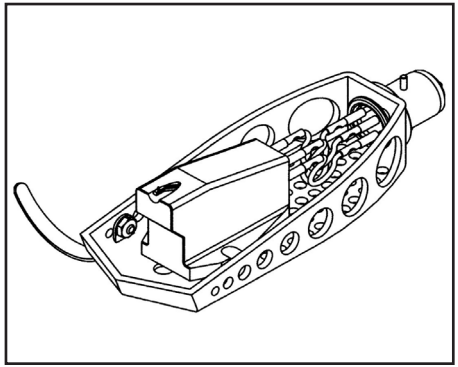


Fitting Balance & Bias Weights

The tonearm balance and bias weights are packed separately for safety in transit. Carefully screw the balance weight onto the threaded stud on the rear of the tonearm, the dial should face forward towards the headshell.

Fitting of the bias weight is described in the following set up pages.

Fitting Headshell & Cartridge

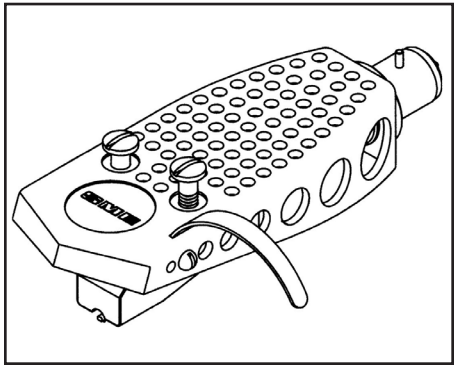


Before fitting the cartridge see that the stylus guard (not illustrated) is in position as a precaution against accidental damage.

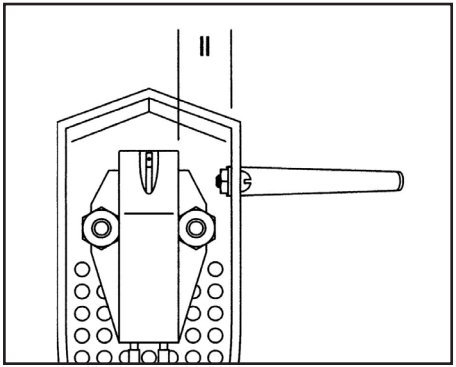
Cartridge leads may require adjustment for a snug fit. This can be achieved by use of pointed nose pliers to close connectors or with a narrow screwdriver blade to splay (open) connectors. Connections must never be made by direct soldering.

The coding is as follows:

Red	–	Right Channel Signal
Green	–	Right Channel Ground
White	–	Left Channel Signal
Blue	–	Left Channel Ground



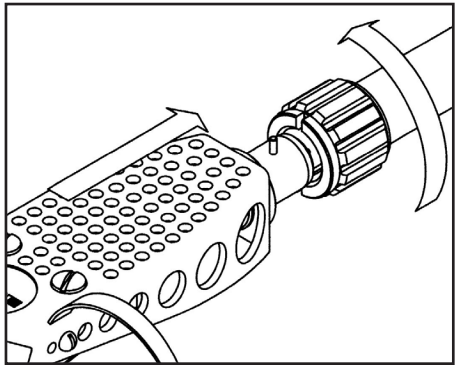
Most cartridges have their own screws. One pair #3-48 UNC x 11mm with nuts and washers are provided, other lengths are available from SME.



Examine the top of the cartridge. It is important that it presents a good flat face to the underside of the headshell. Before final tightening check that the cartridge is lying parallel to the reference edge of the headshell, as shown.

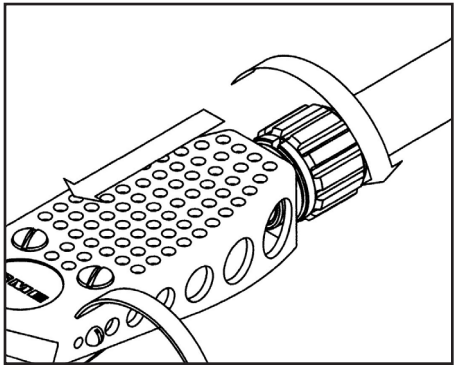
Tighten the fixing screws securely using a screwdriver, which must be a good fit in the screw slots to avoid damage. Hold the nut if necessary to prevent rotation.

The screws are non-magnetic. Damage can be caused if a screw is snatched by magnetic attraction whilst being offered up to the cartridge. For the same reason do not lay down tools nearby.



Fitting Headshell

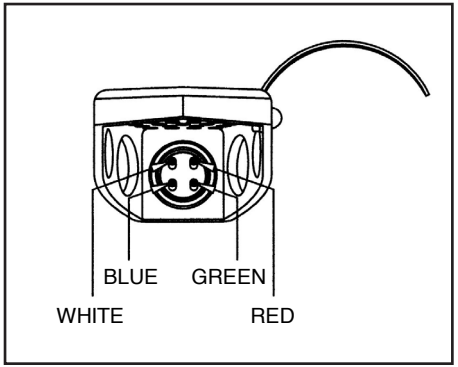
Insert the headshell into the arm socket and press firmly inwards until the draw pins contact the thread of the socket nut. Maintaining pressure, turn the socket nut anti-clockwise viewed from the front to draw the headshell home. It should be tightened firmly but not to the point of strain.



Removing Headshell

Removal is the reverse of fitting. Holding the headshell firmly to prevent rotation turn the socket nut, clockwise when viewed from the front, until the headshell is completely released.

Take care to avoid damaging the cartridge during this operation.

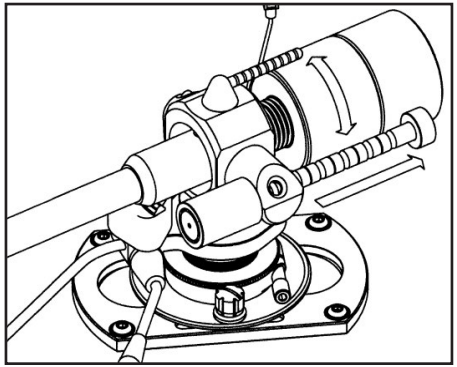


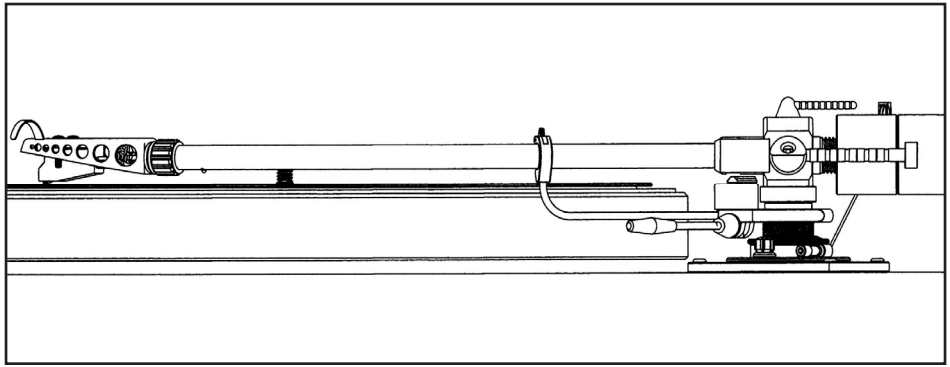
Cartridge Lead Replacement

Replacement cartridge leads can be obtained directly from SME.

They should be fitted according to the colour coding shown looking onto the headshell from the front.

Tonearm Set Up & Adjustment





Longitudinal Balance

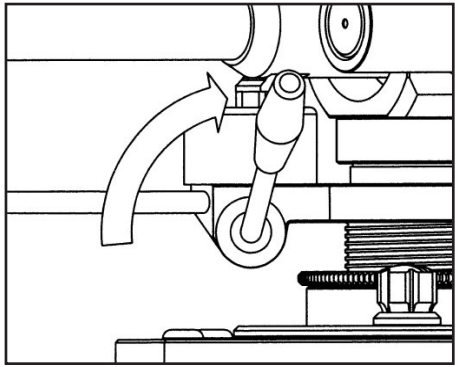
With only the main balance weight fitted, cartridges up to 16g may be balanced. However by removing the balance weight end cap and coupling the accessory balance weight (as illustrated) cartridges up to 38g, mounted in the headshell or plug in heads up to 46g can be catered for.

Slide the wayrod/rider weight into the rearmost zero position and balance the tonearm by rotating the balance weight in the required direction.

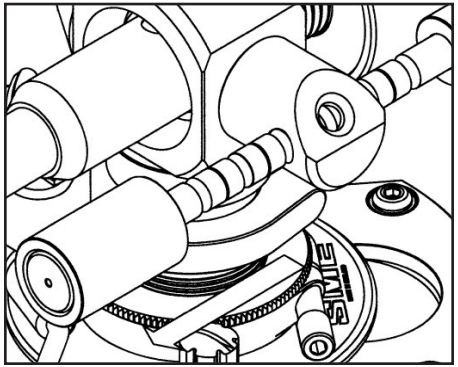
Remove the accessory balance weight, when needed, by unscrewing anti-clockwise from the balance weight. Replace the balance weight end cap.

Adjust until the tonearm (with the cartridge fitted) is either level or slightly low at the front end.

Vertical Tracking Force (VTF) Adjustment



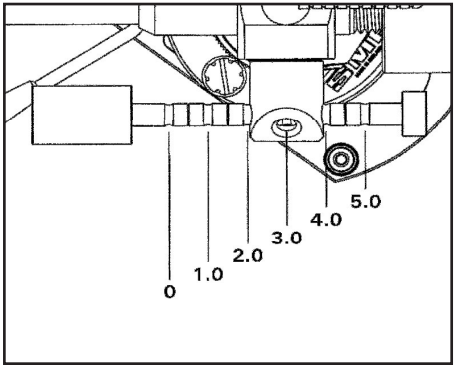
For safety the lever of the lowering control should now be moved into the raised position.



VTF is set after longitudinal balancing has been completed.

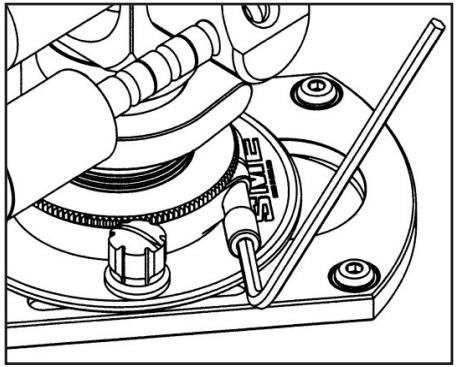
It is applied by moving the complete wayrod assembly forward as indicated. The assembly is calibrated to provide a maximum of 5.0g VTF in 1.0g increments between the indent positions.

Position shown is the setting for 3.0g VTF.



Half gram settings are indicated by the shallow grooves alternating with the indent positions.

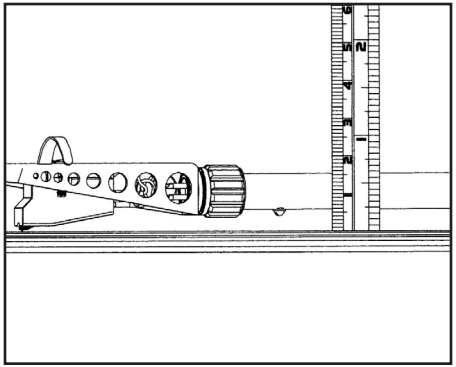
Vertical Tracking Force (VTF) Adjustment



Release the pillar clamp screw, using the 2mm wrench, by one turn only.

Rotate the VTA thumbwheel clockwise to increase the height of the tonearm relative to the base.

To lower the tonearm turn the VTA thumbwheel anti-clockwise. Finger pressure may be required to move the tonearm downwards until it stops on the arm base, at which point further movement in either direction can be made as necessary.

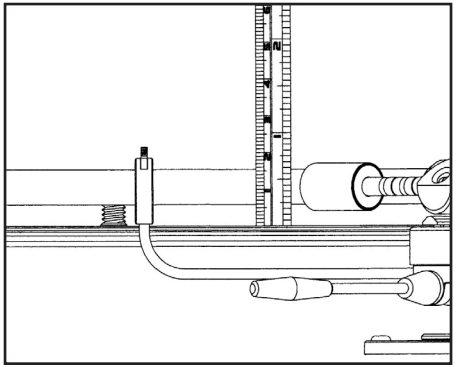


Use an old but unwarped record for the following procedures in case of accidental damage.

Place the tonearm about halfway across the record and move the control lever forward to lower it into the playing position.

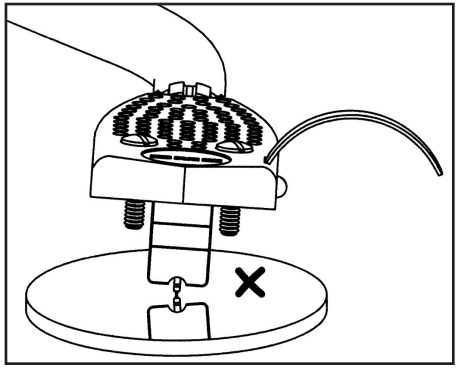
The top of the cartridge is normally the horizontal datum; correctly fitted it will be parallel with the tonearm.

Measure the distance from the surface of the record to the top of the tonearm tube at the front end using a small non-metallic ruler.

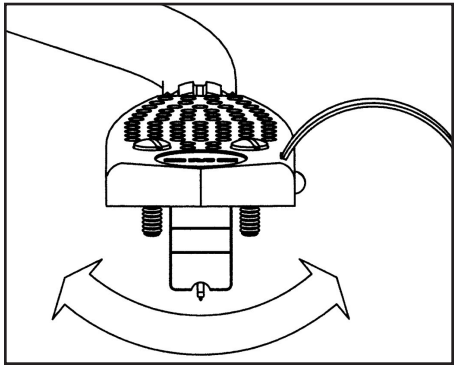


Repeat the measurement towards the rear of the tonearm tube and compare it with first one. Adjust the tonearm height with the VTA thumbwheel until similar readings are obtained indicating that the tonearm is level with the surface of the record. Re-lock the pillar clamp screw, view the tonearm in the playing position and re-adjust as necessary.

Azimuth Adjustment

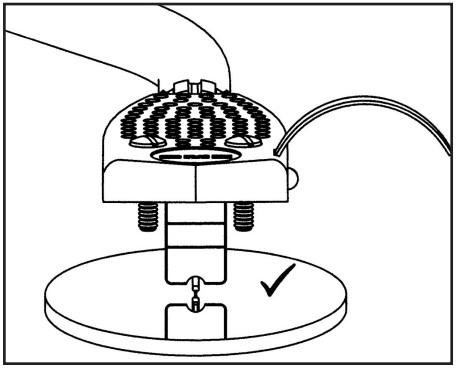


Place a small mirror on the turntable and rest the stylus on it. Viewed in this way any departure from the vertical is accentuated and easily visible.



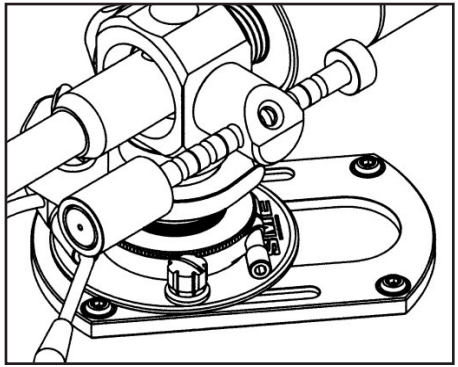
Release the headshell clamp bolt by one quarter turn. The stylus must be clear of the mirror whilst this is done.

Holding the headshell close to the tonearm, rotate it in the required direction. The clamp bolt allows enough movement for this adjustment.



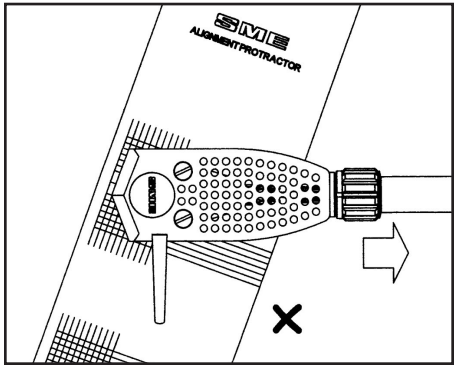
Re-check with the mirror and when satisfied lightly re-lock the screw underneath the tonearm.

Horizontal Tracking Force (HTF) Adjustment



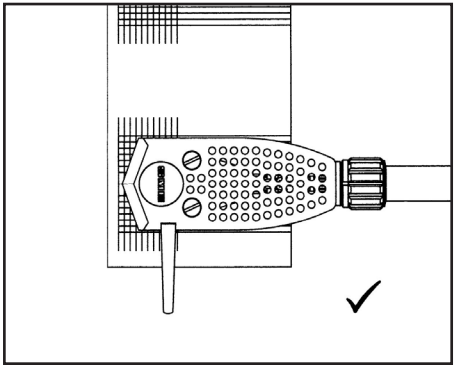
Place the tonearm into the armrest and release the two base clamp nuts, using a snugly fitting screwdriver.

Move the base on the bedplate as far forward as it will go.



With a record on the turntable and having pierced the alignment protractor for the stylus, place it on the turntable spindle. Check that the VTF has been set to suit the cartridge in use. Move the tonearm rest out of the armrest and place it so that the stylus enters the point where the alignment protractor has been pierced. The protractor provides two null points, the inner at 66mm and the outer at 121mm radius. Move the base on the bedplate until the cartridge and headshell appear symmetrical with the lines on the protractor at the inner point.

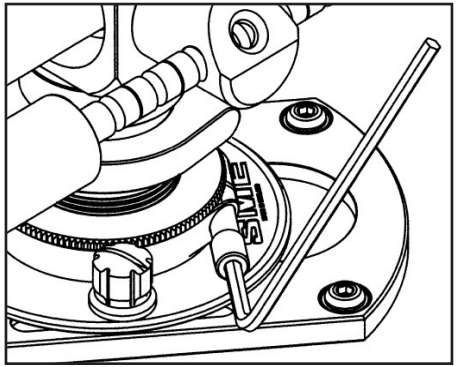
Inaccuracy is shown and the arrow indicates the direction of movement required to correct it.



Similarly check the outer point and adjust the tonearm until the conditions shown in the illustration above are met.

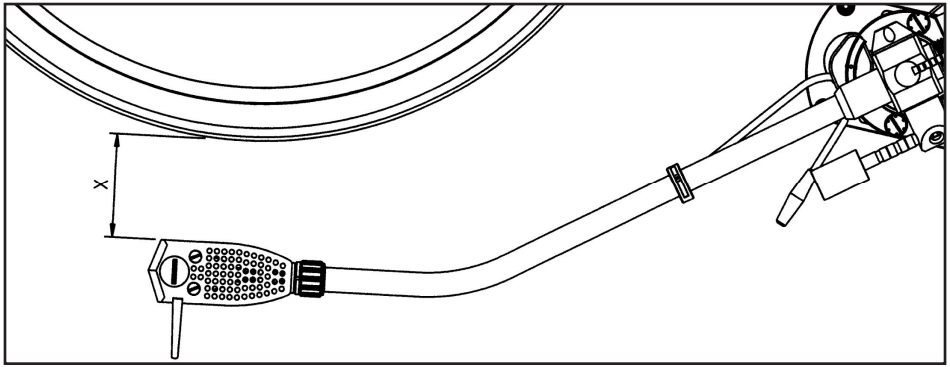
Firmly re-lock the outer base clamp nut only.

Positioning the Armrest



Release the pillar clamp screw using the 2mm wrench.

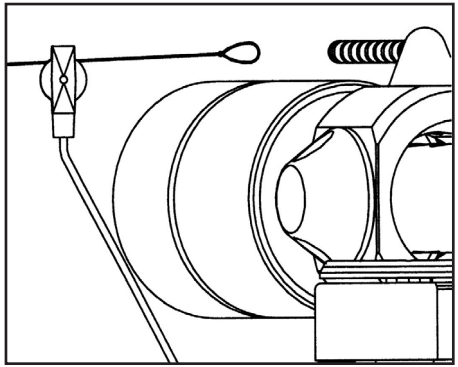
Height adjustment will be maintained by the VTF thumbwheel.



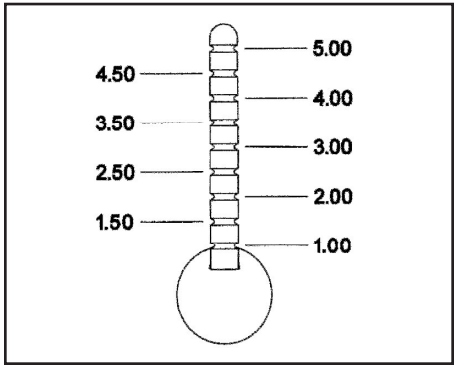
Rotate the pillar to position the armrest conveniently in relation to the turntable. The dimension ‘X’ should not be more than 110mm or less than 50mm.

Tighten the pillar clamp screw firmly, avoiding excessive force.

Anti-Skate Adjustment

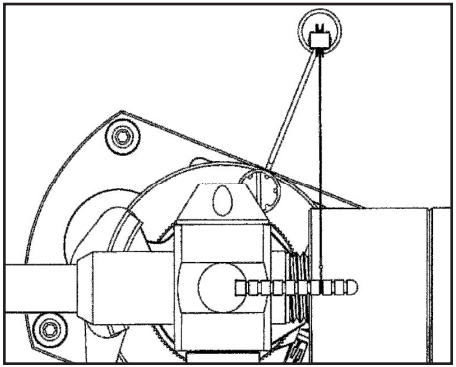


Thread the cord through the guide pulley housing and pass the loop over the anti-skate lever.



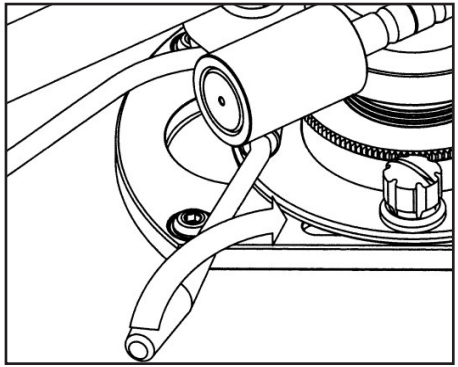
Drop the loop into the groove matching the vertical tracking force being used.

Anti-skate is always a matter of compromise. The values indicated are a good starting point. Note how the stylus enters the run-in groove. 'Snatch' would indicate the need for a lower value.

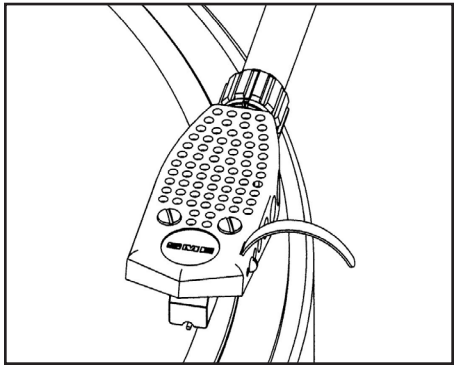


Loosen the inner base clamp nut enough to allow movement of the anti-skate guide. Position the guide so that the cord is approximately 90° to the anti-skate lever when the stylus is over the outer groove of a twelve inch record. Firmly re-lock the base clamp nut. Rotate the guide pulley housing to align it with the cord, which must lie in the groove of the pulley.

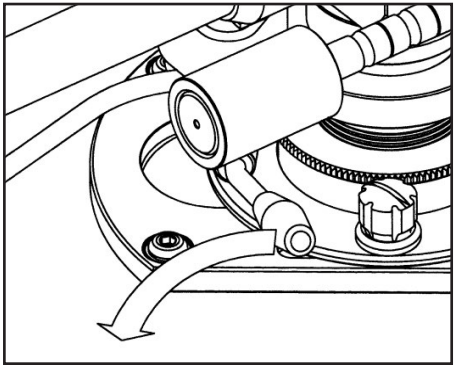
Operation



Rotate the control lever fully, in the direction of the arrow, and move the tonearm out from the armrest.



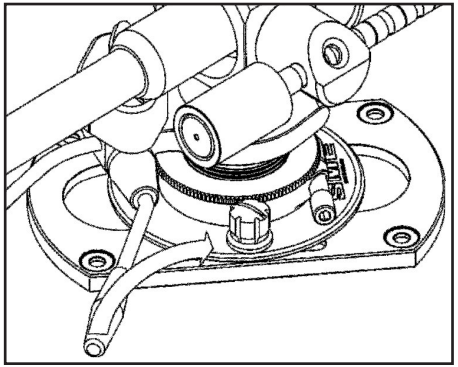
Position the tonearm so that the stylus is over the selected track of the record.



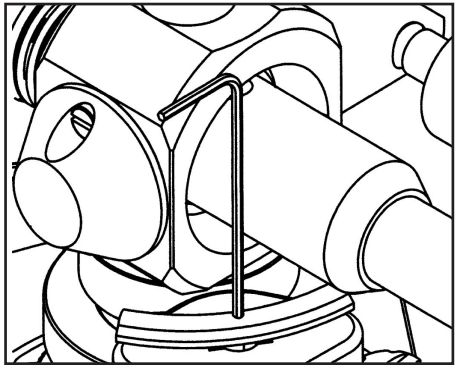
To lower the stylus onto the record move the control lever forwards, in the direction of the arrow, just past top dead centre. This will set the control in motion, at which point it will take over the movement of the lever, giving a smooth controlled descent.

Note: For the correct descent times the control must be operated exactly as above. The descent speed will increase considerably if the lever is pushed down instead of being allowed to fall of its own accord.

Operation (continued)



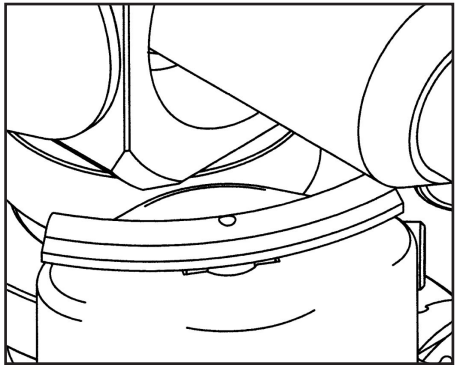
To raise the stylus from the record move the control lever back to its original position. When the tonearm is not in use it should always be returned to the armrest for safety.



The raising and lowering control is set to suit the majority of cartridges but the height raised above the record can be changed to meet individual needs.

The small hole in the centre of the arm lift provides access to the adjustment screw. Insert the long leg of the 0.89mm wrench through this hole to engage the screw. Clockwise rotation will decrease the height of the lift: anti-clockwise rotation will increase the height.

The adjustment is sensitive so the wrench should only be turned a few degrees at a time. Apply firm downward pressure to the arm lift after each clockwise rotation of the adjustment screw.



If the tonearm drifts outwards during raising or lowering it indicates contaminant on the rubber pad. To restore positive working, wipe the pad with a damp cloth and repeat with a paper tissue until dry. Clean the underside of the tonearm in the same manner where it contacts the rubber pad.

9. Maintenance – Turntable

1. There are no critical adjustments or need for 'tweak' and only very little maintenance. Clean the drive belt occasionally by drawing it through a piece of soft linen moistened with lighter fuel. The same material may be used to clean the periphery of the motor and driven pulleys.
2. Replace the drive belt after 1000 hours or two years.
3. Clean the turntable only with a microfibre or lint free clean cloth, lightly dampened with luke warm water and if necessary one drop of washing up liquid.
4. There are no user-serviceable parts inside the turntable or speed control unit.

10. Guarantee

Your SME Model 6 turntable is guaranteed against faulty material and workmanship. The nominal period of the guarantee is 24 months but is liberally interpreted at SME's discretion subject to the following conditions being observed:

1. Any matter arising must in the first instance be reported to SME Limited at the address appearing below.
2. Do not return the turntable or any part thereof to SME Limited unless requested to do so.
3. SME Limited will not accept liability for any items until they reach the factory safely.
4. Any parts found to be faulty will be replaced free of charge.
5. Return transport and insurance costs will be charged.
6. The guarantee expressly excludes:
   a. Damage by any cause.
   b. Contingent and third party liability.
   c. Personal injury.
7. No alteration or variation of the guarantee will be recognised by SME Limited.
8. The guarantee is not transferable.

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Appendix

We hope these instructions have made the set up of your Model 6 precision turntable and M2-9R tonearm straightforward. Care for it will befits its fine construction. Do not invert it except where directed for service. Do not attempt to take it to pieces or interfere with any of the assembly screws except as directed in the instructions. To do so will invalidate the guarantee and may incur costly repairs. Fit the cartridge stylus guard in place carefully when not in use, to reduce the possible risk of damage. Keep your turntable clean by dusting it regularly with due regard for the safety of the cartridge and stylus.

In the unlikely event of a problem concerning operation or service, always contact SME Limited in the first instance at the address at the bottom of Section 10 (Guarantee), stating the exact nature of the problem, the name and address of the dealer who supplied the unit and its serial number which will be found on the label at the rear of the turntable base.

EC DECLARATION OF CONFORMITY

The SME Model 6 turntable has been manufactured to conform with the protection requirements of the EC Council Directive 89/336/EEC relating to EMC by application of the following standards:

BS EN 61000-6-3:2007 + A1:2001 Emissions Standard & BS EN 61000-6-1:2007 Immunity Standard.

Also the requirements of the EC Low Voltage Directive relating to electrical safety by application of the following standard:

BS EN 62368-1:2014 International Safety Standard.

For the purposes of testing the SME Model 6 turntable was used with the high quality interconnects supplied by SME Limited. Compliance with the above standards may only be made if the unit is installed as per this manual and using the correct cables.

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