

Installing ORIGIN LIVE & REGA ARMS

INSTRUCTIONS BY ORIGIN LIVE ©



PLEASE NOTE: The sound of new arms and rewire will improve significantly over the first 2 weeks as items bed down and arm wires burn in.

Introduction

Give special attention to underlined text in these instructions. Please note that on some arms, it may seem that there is “play” in the bearings - this is deliberate and bearing tension should not be altered or degradation will result - The bearing races are high quality and devoid of play, however the bearing housings are carefully dimensioned to allow a loose fit, thus “floating” the arm rather than rigidly coupling it to the deck.

Mounting the arm

Arm mounting methods are critical for best performance and vary depending on the arm AND the make of your turntable. This section caters for various scenarios. If possible, refer also to the mounting instructions from your turntable manufacturer.

Mounting hole dimensions

Most decks come with a predetermined hole position specifically set up for arms with “ Rega “ geometry but if this is not the case with your deck then use the following - Mounting dimensions for Origin Live & modified Rega arms require centre of platter, to centre of arm hole, to be approx 223mm plus or minus 2mm tolerance. The hole diameter for the arm is 23mm to 25 mm (24 - 25mm if a threaded vta adjuster is to fit). If you need to modify your existing armboard to enable an arm to fit, please refer to our web site FAQ (frequently asked questions) in the tonearm section.

For the newer 3 point mounting - once the large centre hole

(24mm diameter approx) is drilled, insert and position the arm. With the arm at right angles to the front of the deck, mark the 3 mounting holes using the arm base as a jig. A 3mm drill rotated by your fingers will do the trick - ideally you can mark and drill just one hole, then fit a bolt or screw into it, and then mark / drill the other 2 holes.

Mounting washers and vta adjusters

To allow vta adjustment and improve performance, various washers are used.

First of all, threaded vta adjusters can be fitted to all Origin Live arms except the 3 point mounting arms (All OL1 versions).

Next there is a choice of mounting cork washers, or no washers - please refer to the table below as a quick reference as to which to use. The fitting and other details are explained more fully in the following sub-headings.

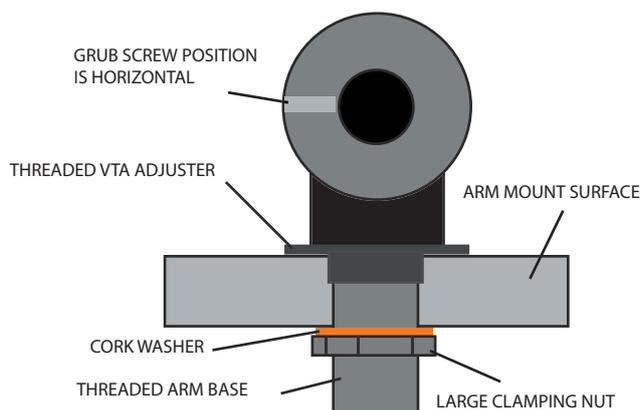
	OL1 to Silver & all Rega arms	Origin Live Encounter and above
Metal & non wood based armboards	Cork Washers & spacing washers if needed	Cork Washers
Wood based armboards	Only spacing washers if needed	No washers

MOUNTING THE ARM ON MK2 ORIGIN LIVE DECKS ONLY

Arms with a threaded base fit Origin Live decks as per the diagram below. To adjust the height of the arm, screw the threaded vta adjuster up or down and reclamp the arm using the large base clamping nut.

NOTE - For Origin Live arms with integral vta adjuster (Encounter and above) you should raise the arm height to approximately the right level using the threaded vta adjuster and then use the arm vta wheel for fine adjustment.

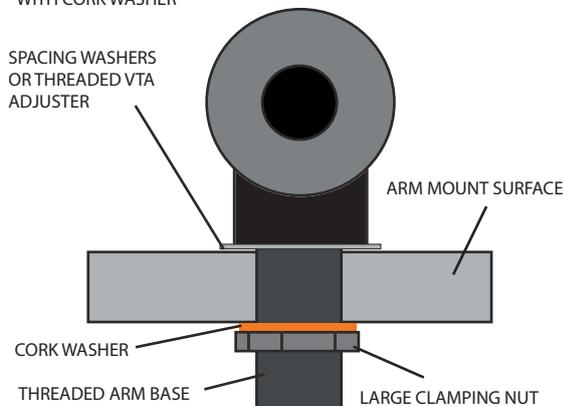
24 mm ARMBOARD HOLE WITH VTA ADJUSTER



MOUNTING ON ANY DECK WITH 23 TO 25MM ARMBOARD HOLE

Fit the arm as per the following diagram.

REAR VIEW OF ARM ON METAL OR NON WOOD BASED ARMBOARD WITH CORK WASHER



IF YOU DO NOT HAVE A VTA ADJUSTER

If you do not have a VTA adjuster, then use the 2 large spacing washers supplied to set the arm base to the correct height.

Bolt the arm to the armboard or plinth - you only need tighten the large nut to finger tightness or very slightly tighter.

IF YOU HAVE THE ORIGIN LIVE THREADED VTA ADJUSTER (WHICH FITS MOST DECKS)

This adjuster does not fit the newer Rega arms with 3 point mounting holes. First thread the adjuster onto the arm. Ensure that the threaded metal sleeve is the right way up with the serrated flange on the top side. This ensures that the arm goes all the way down into the sleeve. Once the threaded adjuster is

on, insert the arm through the armboard hole and fit the cork washer if desired then the large clamping nut. If you find your arm is too high with the vta adjuster fitted, then you should remove it, as it adds 1.5mm to the height of the arm.

IF YOU HAVE THE OL1 OR REGA ARM WITH 3 HOLE MOUNTING

The arm is bolted or screwed to the deck using the 3 mounting holes in the base of the arm. To raise the arm for VTA adjustment you will need to fit 3 or more spacing washers under the arm base holes. One piece spacers are available from Rega if you want a neater looking solution.

With arms supplied by Origin Live an assortment of spacers and fasteners is included to cater for most decks. These consist of

FASTENINGS

3 off M3 x 25mm machine screws and 3 off M3 nuts for through bolting.

3 off 3.5 x 25mm screws to screw into wood or soft armboards.

3 off M4 full nuts to act as 3mm spacers for height adjustment.

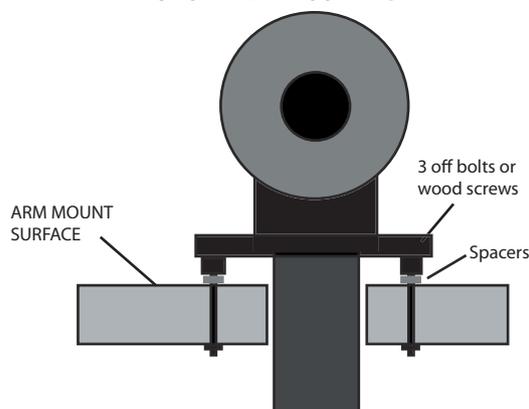
3 off M4 thin nuts to act as 2mm spacers

6 off M4 washers to act as 0.8mm spacers .

OTHER PARTS

Counterweight and grub screw, 3mm & 1.27mm Allen keys, alignment gauge, installation instructions.

3 POINT ARM MOUNTING



FOR MK1 ORIGIN LIVE DECKS AND SLIDING VTA ADJUSTERS

These are no longer current, so these instructions may be found on the Origin Live web site - see top navigation bar - support - then drop down list instructions - turntables - Aurora Gold - page 5 & 6.

Connecting the arm

FIT THE ARM CABLE CLIP

For best performance the arm cable should be supported by a cable clip screwed into position underneath the plinth - leave a slight droop on it so that it isn't "tight". Clipping the arm helps prevent vibration feeding into the arm.

CONNECT THE ARM TO YOUR PHONO STAGE / AMPLIFIER

Normally this is straightforward, however **if you have bullet plugs** you should heat them with a hair dryer (or similar) till they will fit easily onto your amplifier phono sockets. If this is omitted, the plugs can be such a tight fit that you damage the amplifier. Once fitted, you do not need to reheat the plugs in future as they will maintain the correct tightness.

The earth lead should be connected to the earth of your phono stage, pre-amplifier or amplifier. This earth lead is best separated slightly from the arm signal leads so do not wind it around them for best performance. Avoid pulling the external wires at the base of the arm as they are not indestructible and can become detached if excessive force is used to manipulate them.

If you have XLR plugs, you will not get both plugs through the mounting hole for the arm. For this reason we normally supply the arm with only one XLR plug fitted. Full instructions on how to fit the other XLR are available on our web site - see top navigation bar, click “general information” then “technical support” on the drop down list.

Cartridge set up

If you are not familiar with fitting cartridges then please read the detailed section “Hi-Fi Cartridges explained” found towards the end of this manual.

MOUNTING

Mount the cartridge in the headshell of the arm. Cartridge mounting screws (usually 2.5mm allen bolts) should be tight. Stainless steel allen bolts are the best for mounting hi-fi cartridges - aluminum or brass are OK but difficult to tighten in comparison to allen heads. Avoid steel bolts as they are magnetic and degrade your cartridge magnets.

is best done with the stylus guard in place but it may be necessary to remove it during at least one phase of the installation. If you do, replace it as soon as possible. Be especially careful when the stylus guard is off, as many MC cartridges have a strong magnetic field at the base of the cantilever. If this attracts the tip of a steel-bladed screwdriver, it can destroy the stylus - there is no hope of resisting it. The best precaution is to keep the screwdriver well away from the cantilever, use a nonferrous screwdriver, or keep the stylus guard on when you're using the screwdriver near it. The headshell screws should be finger-tightened just enough that the cartridge cannot fall off but is still loose enough that the cartridge is easily moved around. Work whenever possible with the stylus's guard in place. Now carry out the set up procedures outlined below. Do not deviate from this sequence as each step affects the subsequent one — change the order and the setup will be wrong.

SET TRACKING FORCE

Set the tracking force to the cartridge manufacturer's recommendations using a stylus force gauge (stylus balance). This will need to be re-set later on so do not worry about getting it too exact at this stage - within 0.3 grams of recommended tracking force is fine.

Set the tracking force by sliding the counterweight along the rear stub until the required tracking force is attained, then clamp up

the grub screw in the side. When adjusting the counterweight, set it so that the Allen bolt is at the side of the arm (not at the top) see figure “Rear end view of counterweight” . You will need a stylus force gauge to measure the force underneath the cartridge tip.

HINT - The counterweight is deliberately a very loose fit on the stub for best performance. Because of this, it helps to just lightly “nip” the allen bolt in the side of the counterweight onto the stub – this way the counterweight has a little friction to hold it in position as you slide it backwards and forwards. Once you have set the tracking force correctly you can tighten the allen bolt in the counterweight as firmly as possible to secure it tightly to the rear stub. Re-check that the tracking force is still correct after tightening.

For OL1 tonearms without the rear stub upgrade (i.e it has a plastic rear stub with spiral groove) – turn the counterweight till the arm balances level – once this is accomplished you can then set the tracking force by turning the counterweight – half a turn = 1 gram.

USE OF STYLUS FORCE GAUGE

Most stylus force gauges work on the same principle as a set of scales or balances. For example with the Ortofon Stylus Force Gauge, first place the stylus on the inscribed or graduated portion of the scales. Then try the stylus at different points until you find the point where the beam “balances” freely in a roughly level position. You then read the force that is being exerted – (1gram = 10 mN if the scale is in mN). From this number you can assess whether you need to increase the tracking force or vice-versa. Move the tonearm counterweight accordingly and re-measure the tracking force. Repeat this procedure until the correct tracking force is obtained. A digital force gauge works slightly differently so follow the manufacturer's instructions.

SET TANGENCY ALIGNMENT (LATERAL TRACKING ANGLE)

First of all **set the cartridge overhang**, which is 17mm for all Origin Live and Rega arms. The overhang of the cartridge is the measurement from the centre of the spindle to the tip of the cartridge stylus when the armtube is positioned such that its centre line is directly over the centre of the spindle. Whenever you rotate the cartridge to align it, the overhang position must be maintained and checked at the end of the whole procedure. Follow the manufacturer's literature and the dictates of your alignment gauge - different gauges use slightly different methods.

Square up the hi-fi cartridge body with the gauge's markings, be sure that the cartridge sides are square or your alignment will be wrong. When all adjustments are correct, carefully tighten down the hi-fi cartridge mounting screws. Keeping a firm grip on hi-fi cartridge and headshell together so nothing shifts, delicately tighten each screw down a turn or so, then repeat until tight. Tightening down one screw all the way before tightening the others is almost certain to twist the cartridge out of alignment. However careful you've been, always check the alignment again after tightening.

Ensure the headshell wires are bent so that they are clear of the record surface.

VTA ADJUSTMENT

To allow the cartridge needle to track at the correct VTA (vertical tracking angle) it is important that the base of the arm is at the correct height in relation to the platter.

For Rega arms, the OL1 series and Silver arm - Usually the optimum setting is such that the TOP edge of the arm is parallel with the surface of a FLAT record – you can use a piece of card with parallel lines drawn on it to check this once the cartridge is fitted.

For the Encounter, Illustrious, Conqueror and Enterprise arms – the *CENTRE LINE* of the tapered arm tube should be parallel with the surface of a *FLAT* record. You can use the template card supplied to help judge this.

It is always best to experiment with vta height by varying it and listening to the results till you have found the optimum position. This is necessary because of variations in stylus angle tolerances.

*** ***EXTREMELY IMPORTANT*** *****

The tension you put on the large base clamping nut is fairly critical to performance. You can tune the arm by listening to various tensions. This may seem laborious but you will be richly rewarded in terms of improved performance. The mistake is often made of over tightening this nut with the result that the music sounds deadened.

For Origin live OL1 to Silver arms and Rega threaded base arms it is best to tension the arm nut LOOSELY to the deck i.e so that the nut has the minimum possible clamping force and the arm base can easily be rotated out of position. You can compromise sound quality for practical purposes if you wish and clamp it to finger tight.

For Origin Live DUAL PIVOT arms - Encounter to Enterprise As a rule of thumb you will find the best tension is simply finger tight - as hard as you can. If you do not have a strong grip then just tighten to finger tight and use a spanner, pliers or molegrips to “nip” the nut a tiny fraction tighter.

The best approach is to tune-in VTA gradually by listening to music. You know the arm needs to be lowered at the arm pillar when the overall sound is hard and bright, with thin bass or no deep bass, edgy highs, and harsh midrange (of course, this could also be tracking force which is too light). Distortion obscures low level details between the musical notes so dynamic range is reduced. Transient attacks may be too sharp. Raise the arm when the sound is dull and damped, the highs rolled off, the lows muddy and lacking definition, and transient attacks are dull. Mind you, this sounds an awful lot like the effects of changes in tracking force (too light is edgy, too heavy is heavy and dull). They are different sounding but hard to explain. Start with the arm a little low and very gradually raise it, first to where it is parallel to the record, and then so the back of the cartridge is tilting up. Keep track of your settings so you can return to the one you like best where everything snaps into focus. The range of adjustments can be quite broad, as much as 3/4” or even more (at the arm pivot). Play with the full range so you know what it sounds like and don't be diffident.

ANTISKATE FORCE (SIDE BIAS)

This applies an opposing, balancing force to the natural inward drag of a pivoting arm while playing. Left uncontrolled, the

stylus would push up against the inner groove wall, causing distortion both from mistracking and a cantilever skewed in relation to the cartridge generator.

For OL1 to Silver arms and all Rega arms - The side bias force is set using the small sliding knob located beside the lift lower lever. This should be set to a value of approximately 1 or less due to the fact that the bias adjustments on Rega arms and similar arms tend to under-read the true value of side force produced.

For new generation Rega and OL1 arms - the side bias is adjusted by pulling or pushing the round portion just in front of the arm clip. Pulling the button out **decreases** the side bias and vica versa. It is advisable to set this slider almost in the fully “out” position as the bias adjustments on Rega made arms tend to under-read the true value of side force produced.

On the Encounter, Illustrious, Conqueror and Enterprise arms – Carefully twist the wire loop to the correct angle relative to the arm base – you can use the enclosed paper template, showing a plan view of the arm to do this – the angle only needs to be approximate – the wire loop is held in place by a set screw at it's base – this can be retightened if necessary using the allen key supplied.

Carefully unpack the 2 balls and joining thread. Set up the 2 balls and thread as shown in photo . The side bias force is set using the ball which slides along the silver shaft protruding from the rear of the arm yoke (beside the counterweight). This ball is clamped in position using a set screw in the ball and 1.5mm allen key. Thread the thin nylon filament line through the small gap of the wire “eye” to allow the ball weight to hang freely. The adjustment ball is initially best positioned about 5mm away from the yoke – this is approx the correct position for most cartridges. If you wish to increase the side bias force then unclamp the ball using the 1.5mm Allen key and move the ball further outwards. To decrease the side force move the ball inwards. Once you have finalised the correct position re-clamp the ball in position. To be on the safe side against excessive side force it is safest not to set the position of the clamped ball any further out than half way out along the rod as shown below.

Checking side bias

Ideally you need a test record with a track for checking side bias (not all do so check before you buy - The Ultimate Analogue Test LP is one that we can recommend as it has an Anti-skating test; 315Hz amplitude sweep to +12dbu (Lateral). Also the Hi Fi News test record has an Anti-skate/bias setting track.

In the absence of a side bias test track then the following method is better than nothing. Find a test record or a record with approx 10mm of blank vinyl between the end of the lead out groove and the record label. Lower the stylus needle on the blank uncut vinyl and observe whether the needle skates inwards towards the centre of the record or outwards. Increase antiskate until the arm starts to slowly drift inward towards the label. Also, watch the stylus when you set it into a groove. Does it move to the right or left relative to the cartridge body? This indicates too much or too little anti-skating.

FINE TUNING

You now have three adjustments approximated. Tracking force, VTA, and azimuth. It's a matter of reiteration to optimize the sound. The change in sound with each of these individual adjustments can be similar. It's therefore necessary, in optimizing

all three, to experimentally move from one type of adjustments to the next, then to the next, in order to balance the optimization for all three. It's helpful to listen to female vocals as you proceed. Firstly try deviating from the cartridge's recommended tracking force by small increments - about 0.2 of a gram deviation above and below the manufacturer's basic recommendations. Don't worry about record damage from heavy tracking as most record damage is actually caused by mistracking in the middle-to-high frequencies with too little tracking force rather than with too heavy. If you're getting mistracking at the low (lightest) end of the range and yet the low range is generally sounding the best (and on moderate signals, not heavy passages), then chances are you have either a dirty stylus, a bad record, an accumulation of crud in your cartridge, or a cartridge that's getting old. Changes in tracking force can change how you want VTA adjusted.

REMEMBER TO TUNE IN THE ARM FASTENING TIGHTNESS

Experiment with the tightness of the large base nut by listening to music. This may seem laborious but you will be richly rewarded as this adjustment is **CRITICAL** for performance.

WARRANTY

We guarantee arms supplied by ourselves to be free from fault for 2 years and will undertake remedial work, providing the arm has not been modified by any party other than ourselves and has not received maltreatment of any kind. Our OEM arms and modifications are not guaranteed by Rega so in the event of a warranty claim you should contact ourselves rather than Rega.

NOTES

Please note that the occasional rewired arm can make a slight "**rustling**" noise through the speakers when it is lifted across the record. This should not be a cause for concern as it is only caused by microphony of the internal litz cable - under normal playing conditions this is inaudible.

If Arm lift is at wrong height - You are able to raise the curved arm rest piece by undoing the tiny M2.5 allen bolt in it's side - Use the 1.27mm size A/F Allen key provided. If you then re-tighten this with the arm rest slightly higher up on it's shaft, you should be able to raise the arm off the record. If you do not have the correct size allen key or it's lost then try filing down a slightly oversized one to a "wedge" shape thus guaranteeing a tight fit.

If the arm "sticks" in playing a record, then it is almost certain that the curved arm rest is fouling on the yoke. To check if this is the case, hold the arm finger lift and check that the arm can be traversed by hand above the surface of the whole record. This will identify the position of the "stick" - simply rotate the arm rest till it no longer fouls - this can usually be carried out without loosening the arm rest grub screw.

Adjusting the arm clip - On the Conqueror, Illustrious and encounter tone-arms you can get a "gripping" action with the arm rest clip if you rotate it very slightly so that it is at an angle to the arm (not too much or you might eventually get wear on the arm surface coating). If you have a dual pivot arm the "clipping" action can produce a slight jolt but this is not a cause for concern as no harm will be done.

The sound of new arms and rewires will improve significantly over the first 2 weeks as items "bed in" and arm wires **burn in**.

Now that all the hard work is over you can settle back and hear

the results - we wish you many hours of enjoyable music and rediscovering your record collection.

Hi-Fi cartridges explained

optional reading for less experienced users

GENERAL NOTES

As Origin Live supply most makes of hi-fi cartridge we get asked questions from time to time about various issues regarding set up and care. To help newcomers to this area we have published the following notes. These guidelines are of a general nature - we publish them only to be of help and although widely accepted they are not formally authoritative - we cannot accept liability if you choose to use them and neither do we encourage the time consuming occupation of answering queries surrounding the procedures outlined - these are best referred to the manufacturer of your specific hi-fi cartridge.

For those new or inexperienced to fitting hi-fi cartridges we would state that this is **NOT** difficult and much of the detail and perfectionism outlined below is for those who like to experiment. We ourselves do not normally check azimuth, or vary tracking forces from the manufacturer's recommendations - neither would we worry if the arm was up to 2mm away from the recommended distance from the spindle - although all these details are audible they are generally of a relatively low order, however tracking force and VTA in particular are worth fine tuning should you feel anything is lacking. If things seem complicated we would encourage you not to be put off as it all becomes clear once you get started.

Before fine tuning the set up as described below you should allow the cartridge to "run in" properly - at least 40 hours for some cartridges.

IMPORTANCE OF SET UP

Hi-Fi cartridges travel like a bobsleigh through the grooves of a record only a few thousandths of an inch wide. You hear groove displacements of the order of a few millionths of an inch. (That's like splitting a hair into one thousand pieces.) Every bit of motion or vibration allowed at this level can be heard enormously amplified through your speakers. For this reason it is good to set up the turntable and arm correctly so that the audio cartridge can do its job properly. For instance a turntable out of level can produce side forces on the pickup cartridge tip that will wear it more on one side than the other as well as have a slightly degrading effect on the wear of your records.

LEVELNESS

When a turntable goes out of level, the platter bearing performance and the arm's dynamics, specifically anti-skate, are negatively affected. So be sure your turntable platter and tonearm mounting board are level - use a spirit level. If the platter is out of level, first adjust the surface that the deck stands on. The suspension (in the case of a suspended sub-chassis design) may also need levelling if it has subsided over time. If the arm board is not level (which means the arm pivot is not vertical), either return it to your dealer for repair or re-level it yourself by shimming between the mounting board and its support.

HI-FI CARTRIDGES ALIGNMENT

Alignment for hi-fi cartridges needs to be optimised in three different planes. However, it cannot be perfect in all three planes, so it must be optimised for an overall best balance or compromise. The final authority should always be your ears and preferably over an extended period of listening. Bear in mind that each record is cut slightly differently. Here again, optimise for an overall balance of good sound over a wide range of records. The three alignment planes are as follows. (Please note that it is the stylus, not the cartridge that is being aligned.)

Lateral tracking angle

Viewed from above, the hi-fi cartridges arcing movement across the record must maintain the stylus in the same relation to the groove as that of the cutting stylus's straight-line tracking; this is Lateral Tracking Angle, or Tangency. Apart from linear tracking arms this is always a matter of the best compromise.

Azimuth

Viewed from head on, the stylus must be perpendicular in the groove so as not to favour one groove wall, and therefore one channel, over the other wall/channel; this is Azimuth.

Vertical tracking angle (VTA)

Viewed from the side, the stylus must sit correctly in the groove, at the same angle as the original cutter; this is Vertical Tracking/Stylus Rake Angle. (VTA, however, varies from record to record due to their varying thicknesses. Therefore, this alignment must be set by ear, even more than is the case with the other adjustments).

HI-FI CARTRIDGE ALIGNING TOOLS

Tools required are an alignment gauge, a ruler, a tracking force gauge, a FLAT record, a screwdriver or Allen keys of the right size (usually 2mm), a good light may also be helpful. Small needle-nose pliers and a magnifying glass all help. It also helps to have the hi-fi news test record. Treat the arm with care as some parts are fragile. To this end ensure that tightening of any bolts is carried out gently and without causing undue strain.

Tonearm wiring uses a standard color code for channel and polarity identification: White = L Hot, Blue = L Ground, Red = R Hot, and Green = R Ground. If the cartridge pins aren't color-coded the same way, they will have letter identifications next to them. Make sure that the arm's wires, wire clips, and solder joints are in very good condition. At minimum, clean the contact between cartridge pins and wire clips by removing and replacing each clip. Holding the clips with needle-nose pliers can make this easier, but be careful that you don't strain the wires where they join the clip. Check the clips for a proper fit on the cartridge pins, and adjust them if necessary. "Proper" means snug but not tight. To check clip size, hold the cartridge tail-up close to the head wires, grasp a clip firmly right behind its tubular part with the tweezers, line it up with the cartridge pin, and press. If it does not slide on with moderate force, the clip needs opening-up. If it slides on easily but flops around when attached, it needs tightening. Re-sizing is the operation most likely to detach a clip. The trick is to avoid bending the wire at its attachment point or putting too much tension on it. To avoid either, always hold the clip with its wire slightly slack-looped behind it while adjusting. For opening a clip, hold it firmly with the tweezers or needle-noses, right behind its tubular section, and press the tip of the jeweler's screwdriver into the open end of its longitudinal slot until you see this widen very slightly. (Here's where you'll probably need the headband magnifier or reading glasses.) You're dealing with thousandths of an inch here, so a barely visible spreading may be all that's needed. Try it for fit, and repeat until it

does. For tightening a clip, press a toothpick inside it as far as it will go, then use the needle-nose pliers to gently squeeze together the sides of the clip near its free end, while watching the slot for any change. (Attempting to squeeze a clip without the toothpick inside it will flatten its sides.) Try it for size, and resqueeze if necessary until the fit is correct. When it is, close up the middle section of the tube to match the end

Proper care and maintenance of Hi-Fi cartridges & records

CARE OF CARTRIDGES

Replace your cartridge when due - hi-fi cartridges have a lifespan for their cantilever suspensions and stylus needles. This will vary from manufacturer and type of cartridge as well as other factors like the cleanliness of your record and the care you take of the cartridge. It is wise to enquire on the expected life of your cartridge to the manufacturer so that when the time comes it is replaced accordingly - most importantly this will preserve your records as well as enable you to enjoy the best performance.

If there is a build-up of dust and dirt where the needle enters the cartridge body you should use a small soft brush to brush the debris out. Always brush from the direction of the cantilever to the stylus or you may do damage.

Care of stylus - One well known method of cleaning stylus is the Linn green stuff which is a very fine abrasive paper - this may just be OK on some cartridges which do not have fine stylus tips and fragile cantilever mechanisms. However there is a danger of causing fractures or chips on your diamond stylus on certain fineline tips. This method can also strain the cantilever mechanism.

There are a number of fluids on the market that increase stylus life and help to clean gunge from the needle - a word of caution though - some of these can loosen the stylus glue on the cantilever over time - some fluids can also attack the cantilever or coil material itself or harden the suspension - consult your cartridge manufacturer over this. One key factor is to use the liquid very sparingly on a cotton bud such that it is just damp (not running with fluid) - this minimises the fluid which can run up inside the cartridge.

RECORD CARE AND CLEANING

The stylus itself does a pretty good job of cleaning the grooves and should itself therefore be kept clean. The proprietary brushes etc. for cleaning records will often do little more than brush dirt deeper into the record grooves and are best avoided if possible. Also keep records in high quality non-scratch record sleeves - preferably good ones.

A record cleaning machine is really the only answer for cleaning records properly as they suck out the debris and dust in the record grooves using a powerful vacuum. Tests using a microscope prove that this does the job with 100% success. The performance improvement is also very noticeable when it comes to even new records being played. We supply and highly recommend the Moth record cleaning machine as this is very effective from personal experience and comes with many glowing endorsements - see our web site for details and reviews.