

Linn Sondek LP12 Turntable: Setting Up & Instructions

Linn Sondek LP12 Vallhulla board & underside of trampoline photo



There are a number of reasons that we feel it would be helpful to publish some notes describing the salient points of Linn Sondek lp12 turntable set-up. This is for those who wish, for whatever reason, to attempt it themselves. Some may be abroad, whose nearest Linn LP12 accredited dealer is simply too far away. Others may have had their turntable's set-up bodged by those who, as Linn stockists, ought to know better. Others falling on hard times may not be able to

afford the set up charges. There is always the risk that owners whose turntable is in fact functioning perfectly well will be tempted to fiddle, and in the process do more harm than good. On the whole dealers do a pretty good job, and that poorly set up LP12's are in the minority. There are detailed differences in emphasis and approach to linn sondek lp12 set-up between those who practise it. However the essentials should be consistent, agreed upon and practised by the majority of Linn dealers.

We agree with the general view that the person to set up a sprung subchassis turntable is the dealer who sells it or supplies a new arm or cartridge for one. However, we cannot, maintain that this is a practical approach for everyone, or an approach guaranteed of success.

Those predisposed to fiddle would probably do so whether or not a set- up guide is available and that with one they might at least have some guidance, while those for whom the guide is really intended will benefit considerably. There are risks and arguments against notes such as this, but it is considered that there is a genuine need to shed light on the subject.

There are few better qualified to write about the Linn Sondek LP12 set-up than Jimmy Hughes who in the course of years of retail experience has set up more lp12s than he cares to remember. You may well have dealers tell you he's misguided (or something less polite), but that's common currency in these circles – everyone knows how to set the LP12 up better than everyone else does. Experience counts for everything, and Jimmy has had a great deal more than most.

Please note that neither Origin Live or Jimmy Hughes will field any questions with reference to these notes. The time consuming nature of such queries is not possible to respond to. We also accept no liability for the results of those following this guidance which is published in good faith.

I've decided to kick off with a few tips on how to unravel the mysteries of the Linn Sondek's suspension, and I sincerely hope the piece is going to be of use. However, I implore you don't start grappling with your deck unless you have at least a reasonable idea of what you're doing – I'm not going to be held responsible for your balls-ups. And make sure

you've got a good selection of tools handy. I suggest you need a set of Mole Grips and a long-reach 28A box spanner, along with the usual kit of screwdrivers, pliers, etc. Most important of all, disconnect your turntable from the mains before starting work. Your premature demise wouldn't linger on my conscience, but the world is short of LP enthusiasts as it is.

In many respects the suspension of a Linn LP12 turntable is the most obvious pointer to its physical well being — or so it would seem. Unfortunately, beauty in this case is little more than skin deep. A deck that has a nicely bouncing subchassis may sound no better than another deck, which grinds to a halt after a few spasms. If you set up Linns professionally you'll know that some bounce beautifully with little or no prompting, while others need endless adjustment and still fail to spring nicely. Part of the skill in setting up a Linn Sondek is knowing how to remedy the latter situation—after all; we can all do a good job on the straightforward decks.

Apart from the free movement of the suspension, the squareness of the arm board in its cut-out and its flushness to the top of the plinth are other factors that people tend to judge the setting up of a Linn LP12 by. Once again, a perfectly square, flush arm board is no guarantee of good sound, although I'd have to admit it looks nice. In my opinion the suspension is overrated for its contribution to good sound from a Sondek turntable, and for that reason I am against those who want to take ten hours over each deck so that it bounces up and down for half an hour at the merest touch (journalistic exaggeration). I say this not because I doubt the need for an effective suspension, but because there are bigger battles to be fought elsewhere in the deck, and if you score a victory in these, the importance of the suspension will recede. Indeed, at the risk of laboring the point I'd almost be inclined to state that if a turntable is hypercritical to the fine tuning of the suspension, or it depends absolutely on being placed on a particular table for its performance, then very likely something, somewhere, is wrong.

When setting up a Linn turntable it is advisable to have it fitted into a jig of some sort so that you can, with the base removed, work on the underside and still have the turntable level. If a jig isn't handy, but you've got an open frame table, this can often be pressed into service by taking the board off and placing the turntable straight onto the metal. On the other tables (with the permanently attached board supports) you'll have to set the deck at an angle on the top of the table. If you have no suitable table, enlist the help of a pair of speaker stands of equal height, and with them spaced about 15 inches apart sit the deck on them so that access underneath is allowed. Your speakers could fulfill the same function, incidentally.

Give the suspension a quick bounce by lightly tapping the platter close to the center spindle, and watch what happens. Ideally the platter and arm board should move up and down quite freely a few times before coming to rest. Looked at from above, there should be little or no sideways or rotational movement of the arm board as the suspension moves up and down. On a good deck you can bounce the suspension quite strongly while the stylus plays a disc, and it won't jump.

If the arm board does move from side to side (say, at the front) look to see if the board sits squarely in its cut out. In other words look to see if it sits approximately in the center of the oblong space formed by the plinth on three sides and the stainless steel top plate on the other. If it doesn't, try tuning the front right-hand spring that supports the subchassis in either a clockwise or anticlockwise direction. Usually the act of turning this spring will cause the position of the arm board to move in the cut out. With the arm board centred try

bouncing the suspension again. There are three support Linn springs for the subchassis, and all can be turned to influence the position of the subchassis assembly (which carries the main bearing and arm board) in relation to the plinth. In certain instances you can get a situation where all three springs pull against each other, and this invariably leads to a tight suspension.

If I'm having trouble with a Linn turntable and the suspension refuses to co-operate despite my attempts at turning the linn springs, I often admit defeat and remove the springs and rubber grommets completely. I then talc the grommets (this helps them turn more easily) and mix everything up so that when I put the springs and grommets back the combinations are changed. While you've got the grommets out take a look at them, and check if any excess amounts of moulding flash have been left untrimmed. If so take a razor knife and glass paper and trim the edges smooth. Moulding flash on the grommets is often the cause of a squeaky suspension too, although I doubt that this affects the sound quality.

When you're trying to cure a Linn LP12 of lateral or rotational modes it is a good idea to see if a cure can be effected by having the arm board skewed in the cut out. If your deck bounces best with the arm board off-centre, don't worry. Just loosen the three self-tapping screws that hold the arm board to the subchassis and then turn the board as appropriate. There is a little play here, and maybe the arm board was screwed on out of true when the deck was originally assembled. Hold the arm board in the direction you now want it to face, and re-tighten the three self-tappers.

In my experience heavy arms (like the Linn Ittok and Ekos) are more troublesome than the lightest arms like the Linn LV-X. Many a time I've had to upgrade a Basik arm to an Ittok, only to find that the lovely bounce possessed by the turntable disappears when the new arm is fitted. This is because the extra weight of the arm compresses the rear right-hand spring more than the two others. The only solution here is time and patience, perhaps resorting to the change round of springs and grommets if the patient doesn't respond.

The arm cable can influence the suspension too, and with some arms (notably the arms with thick cable) careful dressing is the only answer. Linn suggest that the suspension is set up initially with the arm cable detached. Sometimes, unknowingly, you can have a situation where the suspension spring is pulling over in one direction while the arm cable is tugging at the opposite angle. The two cancel out, and the arm board appears to centre-up nicely in the cut out. But the forces at work ensure the deck doesn't bounce properly, because the suspension is effectively under tension. In situations where the arm cable is very heavy, it's stiffness is such that it must be considered as a part of the suspension. You can dress a stiff cable and still get the suspension to bounce, but really that belongs to another article.

Linn's black springs opened up a whole new era in suspension setting up, and not wholly for the better I fear. That they potentially improve the sound of the deck is not in question. However, their higher lateral compliance makes them much more sensitive to errors in turntable levelling, and the concentricity of the suspension support bolts and the absolute trueness of the main bearing (which should obviously be perpendicular) assume the utmost importance.

Up till now I've outlined setting up procedures that have assumed the deck to be okay, and only in need of the magic touch to work. But sometimes you try everything you know and the darn thing still doesn't respond. What then? As I said, the black springs make it vital for

the various parts of the deck to be 'true' to one another. I've long had good reason to suspect that a certain number of Linn Sondek turntables are subjected to rough handling during transportation, the effect of a hard sideways jolt (perhaps when a deck is dropped on its side) being sufficient to send the subchassis crashing into the three black suspension support bolts with predictable consequences. That this happens gives further weight to my contention that the Linn LP12 should have some sort of transit bolt.

If the three suspension bolts are bent (and there is no easy way of telling with them fixed in place) the only thing to do is replace them with new ones. Unfortunately this isn't easy unless you have a long-reach 2BA box spanner. If you haven't, then the complete turntable needs stripping down to allow access to the three nuts holding these bolts in position.

In order to tell if these bolts are bent, loosen the nut a little, then keeping the head flush with the top plate turn the bolt slowly while watching the bottom end of it. If true it will be difficult to say whether or not it is rotating; if bent it will describe a circle. If the latter occurs, change the bolt, and change the other two as a matter of course! How widespread this problem is I cannot say. Being an essentially lazy person I avoid as much work as I can and only delve deeply when there is clearly no alternative. All I can say is, every 'impossible' deck invariably turns out to have bent bolts, and changing them usually cures the problem. A halfway house might be to change the black springs for a new set, and I periodically hear about dealers who go through ten sets of black springs before they find a good set, etc.! In my view that kind of thing is unnecessary. If your bolts are true and the main bearing is truly perpendicular you'll have no difficulty in getting a deck to bounce in 99 cases out of 100.

The business of the centre spindle being off-true is perhaps the oddest fault of all. Basically I cannot see how it can happen, but happen it does. To see if your sondek turntable runs true, carefully balance and level the platter, then look at how the platter sits in relation to the stainless steel top plate. Because the top plate bows at the right-hand side (near the arm board) you can't easily use it as a reference, but you can trust the heads of the five black bolts. Basically it should be possible to adjust the suspension so that the armboard sits flush with the top of the plinth and the platter rides at approximately the same height from each black bolt head.

If it doesn't there are two possible reasons. The first lies with the arm board, which may have been screwed on without due care and attention being given to the slight burring that occurs when the self-tapping screws are tightened. As the screw bites into the fibre material from which the board is made, a small amount of swarf is produced, and a small swelling forms around the screw hole which will ensure that the board doesn't sit flush to the subchassis. Then, when the arm board is levelled, it throws the platter ever so slightly out. In this case tackle the problem by removing the arm board and countersinking the holes slightly.

If on the other hand the Linn arm board is sitting flush with the subchassis (and really, the only way to see this is to remove the subchassis from the turntable), but the platter is out of true, you probably have a bent subchassis. To straighten it you need to send for the Linn Bent Sub-chassis Straightening Tool. To the great unwashed this looks like another piece of sawn-off steel pipe, the sort of object you'd get arrested for possessing if unlucky enough to be caught carrying it within a two mile radius of Chelsea football ground on a Saturday afternoon. But to the real experts it is no such thing, of course!

I hate using this device, and suggest its use only when the subchassis clearly is bent and all else has failed. Take care too, as its zealous overuse will cause more damage than good. To use it you should remove the inner platter, plug the bearing (with the supplied red plastic bung), put the pipe over the bearing housing underneath and then lever the whole assembly in the appropriate direction. For example, if the platter slopes down at the front when the arm board is levelled, bend the housing towards the front of the plinth. Older Linn sondek turntables need the kid-glove treatment; the considerable leverage available with the pipe will bend the subchassis with the merest of force. Newer Linns are much tougher it seems. Either that or digital has made my right arm go weak! It is also advisable to put a thin flat object between the subchassis and the piece of metal that holds the Valhalla board in place. This'll give you something to lever against.

If you don't use this tool, then nice and easy does it at first — particularly if your deck is an oldish one. Just give it a little bend, and then refit the inner hub and platter to see if the assembly now runs true. Don't lean on it with all your strength because if you bend it excessively you'll effectively knacker your subchassis and this part will need to be replaced. Those with a faint heart will probably not have the stomach for this sort of thing anyway! I describe this sort of setting up procedure as 'open heart surgery in the middle of your living room', and most enthusiast's Linn sondek turntables are so cosseted that the thoughts of bending the subchassis with a jazzed-up crow bar probably won't go down too well.

To recap, a poorly bouncing Linn Sondek turntable can usually be cured by carefully centred-up springs and bolts, plus a perfectly true subchassis/main bearing assembly. Obviously, the sondek turntable itself needs to be absolutely level too. Occasionally you'll come across the odd set of duff springs and/or rubber grommets, but usually I've found these items play the game if the rest of the record deck is set up correctly.

Don't be too hasty about replacing bits and pieces or bending the subchassis. Few dealers will supply you with Linn spares as customers are not considered competent to carry out work on their own Linn turntables, Always work on the principle that the deck is okay as it is, and that all it needs is a little adjustment to get it performing again. I always start from this premise. I also stick to what I said at the start about overestimating the importance of a super-bouncy suspension. Take it from me, there are much bigger fish to fry!

Now we'll take a look at one of these big fish — the dressing and clamping of the arm cable. If I'm not mysteriously assassinated by someone wielding a chassis straightening tool!

So what is the real decider? Well, a chain is only as strong as its weakest link so it could rightly be said that no one aspect is the magic adjustment — everything plays a part in determining the final quality of sound. But there is an aspect of Linn sondek turntable set-up that is frequently given less care than it ought to be, and which can make or break a turntable's performance. I'm thinking about the arm cable, its dressing and the need to clamp the cable in the P-clip before it exits from the LP12 plinth.

I've always found it intriguing that the Linn Sondek turntable alone should be so hypersensitive when it comes to cable dressing and clamping. With other suspended subchassis turntables the arm cable is still capable of influencing performance, but largely by pulling the suspension over or by fouling the plinth. With the LP12 the arm cable not only need be dressed so that it exerts the minimum influence on the position of the

subchassis, it also needs to be clamped tightly before it exits. This means, for a start, that the nuts which hold the top plate onto the plinth must be done up tight.

Some cables are harder to dress than others - you might think that a thin, soft, flexible arm cable would be best of all, but this appears not to be the case, at least with the Linn Sondek. In practice the sound of the deck seems to suffer if the arm cable is too insubstantial.

It's almost as if there needs to be a degree of physical contact between the base of the arm and the P-clip point. An Ittok/Basik cable is probably about right in terms of thickness and flexibility, being neither too stiff nor too compliant. But stiffer cables can be dressed without degradation given practice and experience. And truly, when you master this aspect the consistency between the sound of one linn sondek and the next will improve dramatically.

Dressing an arm cable is one of those things that can be easily demonstrated, but which fails to come across well when described in words. Basically, I favour putting a 'dog's leg' bend in most cables to give a hinge point. This imparts a suitable degree of compliance without destroying the necessary tension between the arm base and its mechanical 'grounding' point, the P-clip bolt. A Linn cable is pretty easy to do in this way, although care always needs to be taken to prevent the cable contacting the base of the sondek turntable — which is particularly prone to happen with Ittoks. To avoid this some advocate tying the cable back, but I would advise against this. If you tie an Ittok-Basik cable back on itself the sound will be impaired. Similarly the cable should never be split. Practise with the cable in one piece until you get it right!

A cable very rigid cable is much harder to dress, largely because of its stiffness and weight. This one needs tying back to the arm pillar with a nylon cable tie, and you'll only get the best results when its constituent cables are dressed optimally.

For very thick arm cables I prefer to keep the cores separate, so that for the foot or so between the arm base and P-clip the cables are apart. Again I favour a dog's leg bend at a point approximately 2 inches from the arm base, but before incorporating this get all cables running in a sympathetic manner. Some cables cannot easily be bullied into position, so a little preparation to see which way each cable will happily lie helps greatly. It isn't absolutely necessary, but a hairdryer can be used to help in the shaping.

Don't underestimate the ability of the cable to shift. If you dress it against the natural lie of the individual wires, the cables will move over a period of time and perhaps even foul the plinth. No two arm cables are exactly alike, so the secret is to treat every sample as an individual. Arms like the Linn range, and others are far more predictable.

When you've got your arm cable running the way you want and they're positioned nicely, the next stage is to P-clip them. If you're setting up Linn LP12s professionally you won't need me to tell you how important it is to use a P-clip in serviceable condition. I suggest replacement at the slightest sign of wear. (Your local component shop should be able to get them from RS Components — order size 2.) Before fitting a new P-clip, do be sure to crush it so that it draws up flat and tight with the minimum of effort.

Once you've got the P-clip on the arm cable, position it so that it neither pulls nor pushes the suspension out of position. With experience you get a feel for the correct position, but those less sure of themselves should check (where possible) by tightening the clip and

then removing the arm cable from the base of the arm. If the P-clip is set correctly, the suspension position will not be influenced. Once the P-clip is correctly positioned, tighten it to clamp the cable. A large Linn washer should be placed under the P-clip, and I prefer a washer on top too — although this doesn't enjoy universal approval. The upper washer should be either 2 BA or 0 BA in size, and its presence will help flatten the top of the clip and prevent the securing nut from biting into the nylon. A further improvement in sound quality can sometimes be obtained if the cable is taken in a sharp right angle to the exit point in the plinth.

Pulling the lower part away from the loop encircling the cable tightens the P-clip. Usually a screwdriver is employed to achieve this, but for those who require the ultimate tightness I recommend a set of circlip pliers.

Again a good test for the tightness is to try to pull the cable through the clip. If you can, it isn't tight enough. An even better test is to try wiggling the cable close to its exit from the P-clip. If the 'captive' section of the cable (the piece between the P-clip and the arm base) moves much, then the P-clip probably isn't as tight as it could be.

Really, arm cable dressing is something of an art, and you'll only gain in proficiency by experimenting yourself. Those that set up Linn LP12s professionally will definitely benefit if they own a Linn sondek turntable and experiment at home. But take it from me, a great deal can be won or lost in how the arm cable is dressed. And the better the arm and cartridge, the greater the difference seems to be.

The arm cable can influence the suspension too, and with some arms (notably the arms with thick cable) careful dressing is the only answer. Linn suggest that the suspension is set up initially with the arm cable detached. Sometimes, unknowingly, you can have a situation where the suspension spring is pulling over in one direction while the arm cable is tugging at the opposite angle. The two cancel out, and the arm board appears to centre-up nicely in the cut out. But the forces at work ensure the deck doesn't bounce properly, because the suspension is effectively under tension. In situations where the arm cable is very heavy, it's stiffness is such that it must be considered as a part of the suspension. You can dress a stiff cable and still get the suspension to bounce, but really that belongs to another article.

Linn's black springs opened up a whole new era in suspension setting up, and not wholly for the better I fear. That they potentially improve the sound of the deck is not in question. However, their higher lateral compliance makes them much more sensitive to errors in turntable levelling, and the concentricity of the suspension support bolts and the absolute trueness of the main bearing (which should obviously be perpendicular) assume the utmost importance.

Up till now I've outlined setting up procedures that have assumed the deck to be okay, and only in need of the magic touch to work. But sometimes you try everything you know and the darn thing still doesn't respond. What then? As I said, the black springs make it vital for the various parts of the deck to be 'true' to one another. I've long had good reason to suspect that a certain number of Linn Sondek turntables are subjected to rough handling during transportation, the effect of a hard sideways jolt (perhaps when a deck is dropped on its side) being sufficient to send the subchassis crashing into the three black suspension support bolts with predictable consequences. That this happens gives further weight to my contention that the Linn LP12 should have some sort of transit bolt.

If the three suspension bolts are bent (and there is no easy way of telling with them fixed in place) the only thing to do is replace them with new ones. Unfortunately this isn't easy unless you have a long-reach 2BA box spanner. If you haven't, then the complete turntable needs stripping down to allow access to the three nuts holding these bolts in position.

In order to tell if these bolts are bent, loosen the nut a little, then keeping the head flush with the top plate turn the bolt slowly while watching the bottom end of it. If true it will be difficult to say whether or not it is rotating; if bent it will describe a circle. If the latter occurs, change the bolt, and change the other two as a matter of course! How widespread this problem is I cannot say. Being an essentially lazy person I avoid as much work as I can and only delve deeply when there is clearly no alternative. All I can say is, every 'impossible' deck invariably turns out to have bent bolts, and changing them usually cures the problem. A halfway house might be to change the black springs for a new set, and I periodically hear about dealers who go through ten sets of black springs before they find a good set, etc.! In my view that kind of thing is unnecessary. If your bolts are true and the main bearing is truly perpendicular you'll have no difficulty in getting a deck to bounce in 99 cases out of 100.

The business of the centre spindle being off-true is perhaps the oddest fault of all. Basically I cannot see how it can happen, but happen it does. To see if your sondek turntable runs true, carefully balance and level the platter, then look at how the platter sits in relation to the stainless steel top plate. Because the top plate bows at the right-hand side (near the arm board) you can't easily use it as a reference, but you can trust the heads of the five black bolts. Basically it should be possible to adjust the suspension so that the armboard sits flush with the top of the plinth and the platter rides at approximately the same height from each black bolt head.

If it doesn't there are two possible reasons. The first lies with the arm board, which may have been screwed on without due care and attention being given to the slight burring that occurs when the self-tapping screws are tightened. As the screw bites into the fibre material from which the board is made, a small amount of swarf is produced, and a small swelling forms around the screw hole which will ensure that the board doesn't sit flush to the subchassis. Then, when the arm board is levelled, it throws the platter ever so slightly out. In this case tackle the problem by removing the arm board and countersinking the holes slightly.

If on the other hand the Linn arm board is sitting flush with the subchassis (and really, the only way to see this is to remove the subchassis from the turntable), but the platter is out of true, you probably have a bent subchassis. To straighten it you need to send for the Linn Bent Sub-chassis Straightening Tool. To the great unwashed this looks like another piece of sawn-off steel pipe, the sort of object you'd get arrested for possessing if unlucky enough to be caught carrying it within a two mile radius of Chelsea football ground on a Saturday afternoon. But to the real experts it is no such thing, of course!

I hate using this device, and suggest its use only when the subchassis clearly is bent and all else has failed. Take care too, as it's zealous overuse will cause more damage than good. To use it you should remove the inner platter, plug the bearing (with the supplied red plastic bung), put the pipe over the bearing housing underneath and then lever the whole assembly in the appropriate direction. For example, if the platter slopes down at the front when the arm board is levelled, bend the housing towards the front of the plinth. Older Linn sondek turntables need the kid-glove treatment; the considerable leverage available with the pipe will bend the subchassis with the merest of force. Newer Linns are much

tougher it seems. Either that or digital has made my right arm go weak! It is also advisable to put a thin flat object between the subchassis and the piece of metal that holds the Valhalla board in place. This'll give you something to lever against.

If you don't use this tool, then nice and easy does it at first — particularly if your deck is an oldish one. Just give it a little bend, and then refit the inner hub and platter to see if the assembly now runs true. Don't lean on it with all your strength because if you bend it excessively you'll effectively knacker your subchassis and this part will need to be replaced. Those with a faint heart will probably not have the stomach for this sort of thing anyway! I describe this sort of setting up procedure as 'open heart surgery in the middle of your living room', and most enthusiast's Linn sondek turntables are so cosseted that the thoughts of bending the subchassis with a jazzed-up crow bar probably won't go down too well.

To recap, a poorly bouncing Linn Sondek turntable can usually be cured by carefully centred-up springs and bolts, plus a perfectly true subchassis/main bearing assembly. Obviously, the sondek turntable itself needs to be absolutely level too. Occasionally you'll come across the odd set of duff springs and/or rubber grommets, but usually I've found these items play the game if the rest of the record deck is set up correctly.

Don't be too hasty about replacing bits and pieces or bending the subchassis. Few dealers will supply you with Linn spares as customers are not considered competent to carry out work on their own Linn turntables, Always work on the principle that the deck is okay as it is, and that all it needs is a little adjustment to get it performing again. I always start from this premise. I also stick to what I said at the start about overestimating the importance of a super-bouncy suspension. Take it from me, there are much bigger fish to fry!

Now we'll take a look at one of these big fish — the dressing and clamping of the arm cable. If I'm not mysteriously assassinated by someone wielding a chassis straightening tool!

So what is the real decider? Well, a chain is only as strong as its weakest link so it could rightly be said that no one aspect is the magic adjustment — everything plays a part in determining the final quality of sound. But there is an aspect of Linn sondek turntable set-up that is frequently given less care than it ought to be, and which can make or break a turntable's performance. I'm thinking about the arm cable, its dressing and the need to clamp the cable in the P-clip before it exits from the LP12 plinth.

I've always found it intriguing that the Linn Sondek turntable alone should be so hypersensitive when it comes to cable dressing and clamping. With other suspended subchassis turntables the arm cable is still capable of influencing performance, but largely by pulling the suspension over or by fouling the plinth. With the LP12 the arm cable not only need be dressed so that it exerts the minimum influence on the position of the subchassis, it also needs to be clamped tightly before it exits. This means, for a start, that the nuts which hold the top plate onto the plinth must be done up tight.

Some cables are harder to dress than others - you might think that a thin, soft, flexible arm cable would be best of all, but this appears not to be the case, at least with the Linn Sondek. In practice the sound of the deck seems to suffer if the arm cable is too insubstantial.

It's almost as if there needs to be a degree of physical contact between the base of the arm and the P-clip point. An Ittok/Basik cable is probably about right in terms of thickness and flexibility, being neither too stiff nor too compliant. But stiffer cables can be dressed without degradation given practice and experience. And truly, when you master this aspect the consistency between the sound of one linn sondek and the next will improve dramatically.

Dressing an arm cable is one of those things that can be easily demonstrated, but which fails to come across well when described in words. Basically, I favour putting a 'dog's leg' bend in most cables to give a hinge point. This imparts a suitable degree of compliance without destroying the necessary tension between the arm base and its mechanical 'grounding' point, the P-clip bolt. A Linn cable is pretty easy to do in this way, although care always needs to be taken to prevent the cable contacting the base of the sondek turntable — which is particularly prone to happen with Ittoks. To avoid this some advocate tying the cable back, but I would advise against this. If you tie an Ittok-Basik cable back on itself the sound will be impaired. Similarly the cable should never be split. Practise with the cable in one piece until you get it right!

A cable very rigid cable is much harder to dress, largely because of its stiffness and weight. This one needs tying back to the arm pillar with a nylon cable tie, and you'll only get the best results when its constituent cables are dressed optimally.

For very thick arm cables I prefer to keep the cores separate, so that for the foot or so between the arm base and P-clip the cables are apart. Again I favour a dog's leg bend at a point approximately 2 inches from the arm base, but before incorporating this get all cables running in a sympathetic manner. Some cables cannot easily be bullied into position, so a little preparation to see which way each cable will happily lie helps greatly. It isn't absolutely necessary, but a hairdryer can be used to help in the shaping.

Don't underestimate the ability of the cable to shift. If you dress it against the natural lie of the individual wires, the cables will move over a period of time and perhaps even foul the plinth. No two arm cables are exactly alike, so the secret is to treat every sample as an individual. Arms like the Linn range, and others are far more predictable.

When you've got your arm cable running the way you want and they're positioned nicely, the next stage is to P-clip them. If you're setting up Linn LP12s professionally you won't need me to tell you how important it is to use a P-clip in serviceable condition. I suggest replacement at the slightest sign of wear. (Your local component shop should be able to get them from RS Components — order size 2.) Before fitting a new P-clip, do be sure to crush it so that it draws up flat and tight with the minimum of effort.

Once you've got the P-clip on the arm cable, position it so that it neither pulls nor pushes the suspension out of position. With experience you get a feel for the correct position, but those less sure of themselves should check (where possible) by tightening the clip and then removing the arm cable from the base of the arm. If the P-clip is set correctly, the suspension position will not be influenced. Once the P-clip is correctly positioned, tighten it to clamp the cable. A large Linn washer should be placed under the P-clip, and I prefer a washer on top too — although this doesn't enjoy universal approval. The upper washer should be either 2 BA or 0 BA in size, and its presence will help flatten the top of the clip and prevent the securing nut from biting into the nylon. A further improvement in sound quality can sometimes be obtained if the cable is taken in a sharp right angle to the exit point in the plinth.

Pulling the lower part away from the loop encircling the cable tightens the P-clip. Usually a screwdriver is employed to achieve this, but for those who require the ultimate tightness I recommend a set of circlip pliers.

Again a good test for the tightness is to try to pull the cable through the clip. If you can, it isn't tight enough. An even better test is to try wiggling the cable close to its exit from the P-clip. If the 'captive' section of the cable (the piece between the P-clip and the arm base) moves much, then the P-clip probably isn't as tight as it could be.

Really, arm cable dressing is something of an art, and you'll only gain in proficiency by experimenting yourself. Those that set up Linn LP12s professionally will definitely benefit if they own a Linn Sondek turntable and experiment at home. But take it from me, a great deal can be won or lost in how the arm cable is dressed. And the better the arm and cartridge, the greater the difference seems to be.

Notes by kind permission of Jimmy Hughes.