1.

Platine Verdier motordrive modification, tips & tweaks

This document is offered by ***Callas-Audio*** The Netherlands.

There are some alternative motor drives at the marketplace which convert to tape drive or otherwise. Some who replace the stock Verdier motor indeed report on a better performance. It is a pity to read on the internet that after buying a different motor, the stock Verdier motor is sometimes classified as ‘bad’, and we have even read a statement like: ‘throw it away’.

Why should the stock motor need replacement, and exactly what parameters causes 'bad'? We experienced (and as measured* with the Feickert Adjust+ software) that the stock motor performs **superbly well**. So why do some Platine owners still decide to replace the motor?

There are some valid reasons why, but they have very little to do with the motordrive.
The lucky side: it is caused by relatively small issues which are easy to fix.
There are grossly 3 causes of speed instability and unfortunately these work together.

If we take a close look at La Platine from a mechanical / acoustical viewpoint, we may sum up the design principles.
It is spring suspended, pneumatically damped, it has a separate motor, most use tread drive, and all come into play and influence each other.
We have seen La Platine set-ups in which tread drive is used, the motor has been put some 3 feet ( ) away and with big tube amps underneath.. a sure recipe for speed problems.

The tread stretches during it’s life span, and is greatly influenced by humidity and temperature. Here is a first cause of instability. But it is not just the tread alone. La Platine is spring suspended, and once there is some jerking introduced, it will get into action. The tread causes uneven running by its very nature, and by stretching it also affects the level of the platter, which is influenced by putting tension on the tread. This doesn’t sound very stable does it? It is obvious that *any* jerking action is multiplied a 1000 times at the pick-up.

* Speed measurements with the Feickert Adjust+ software show a weighted 0,03% deviation.

2.

The V shaped pulley will eventually clog up (see photo added on page 14) with debris and so a *speed bump* occurs. In any case clean the pulley regularly. Any small deviation at this point greatly affects further down the line.
Now there is another point of concern, but presumably so after many years of use.
It is the motor attachment inside the housing and understandably few have looked so far.

The picture shows the stock assembly.
If disassembled to this point, one may feel that the rubber grommets have some play which is not a good idea at this particular point. With a jerking tread drive and the spring suspended 16 KG mass platter these are *potential* ingredients for speed instability. Things will add up quickly..

3.

Now comes the good part: It will cost almost nothing to adress this part..

The stock situation. See the brass collar inside the rubber grommet. The assembly may glide up and down, and over time gets play axial and radial. The rubber itself will dry and harden out during the years too, so here again: things add up.

4.

Insert a little Teflon washer from the local hardware store to fill up the play.

5.

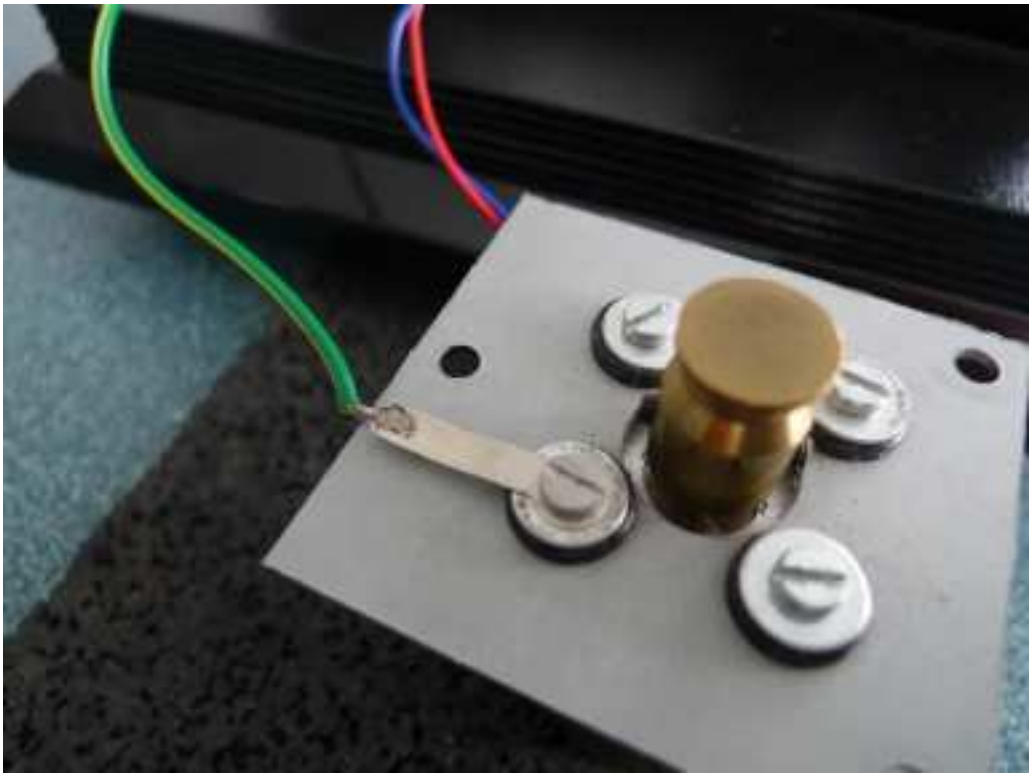
4 washers and assembly put together.

6.

Tightened up. no play, no vibration / resonance at this critical stage.

7.

Don’t forget to attach the earth wire.



Now we got this modified & problem fixed at the beginning.
We are confident that any Platine owner will be very pleased with this mod.

8.

The DC feeding.

This is one of the kits we used to sell, but any experienced DIY may assemble one.
Notice the digital display, a nice and recommended option.
We tried many battery types, and the dry cell Yuasa works great. Don't go cheap here.
6x 3Ah batteries sum up to 18Ah. We experienced that 18Ah works great.
Always keep the batteries fully charged at >12,5V when playing.
The Yuasa batteries serve about 10 years from our experience.

9.

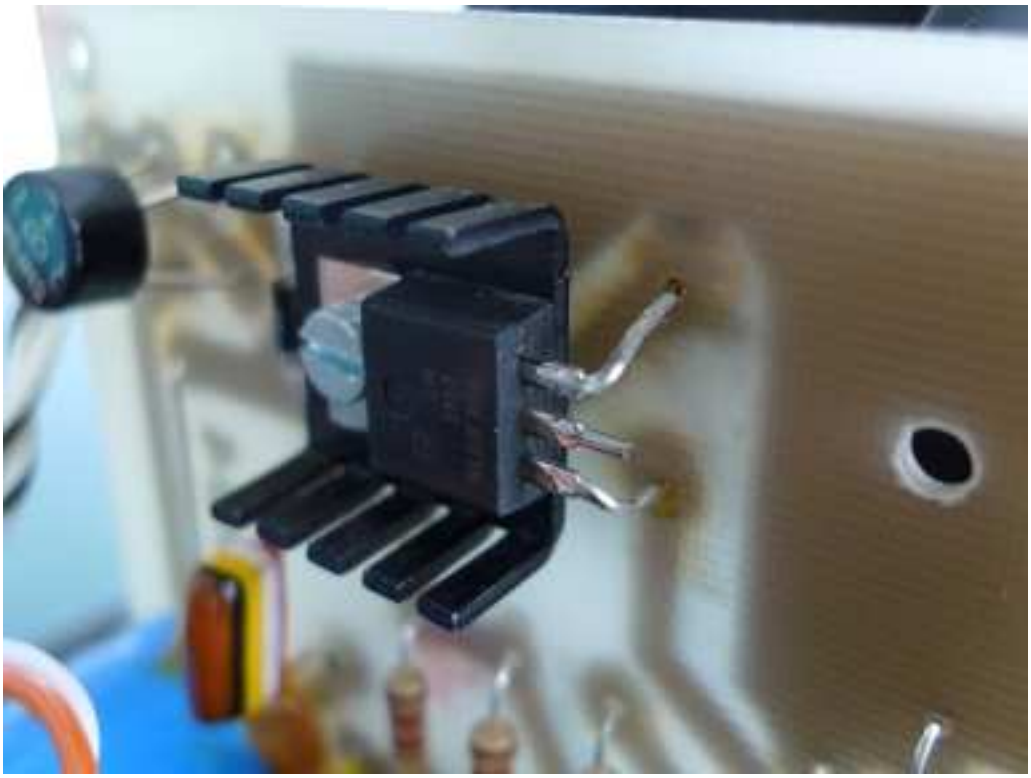
The internals. It can be made and look as professional as one would like.
An Italian online outlet with a very nice selection on housings:

http://www.modushop.biz/ecommerce/cat069_l2.php?n=1

10.

Next topic:

the **LM317T** (part numbers may differ through the years)
Now this part will either last a lifetime or break up at a moment you don't want it to: - the audio buddy gathering, and if it fails, the speed accuracy is instantly gone. We had this one replaced after some 8 years from new. (our La Platine is 1995 vintage)
The cost is a few cents each, so order a couple and be rest assured you have a spare one when it eventually happens.



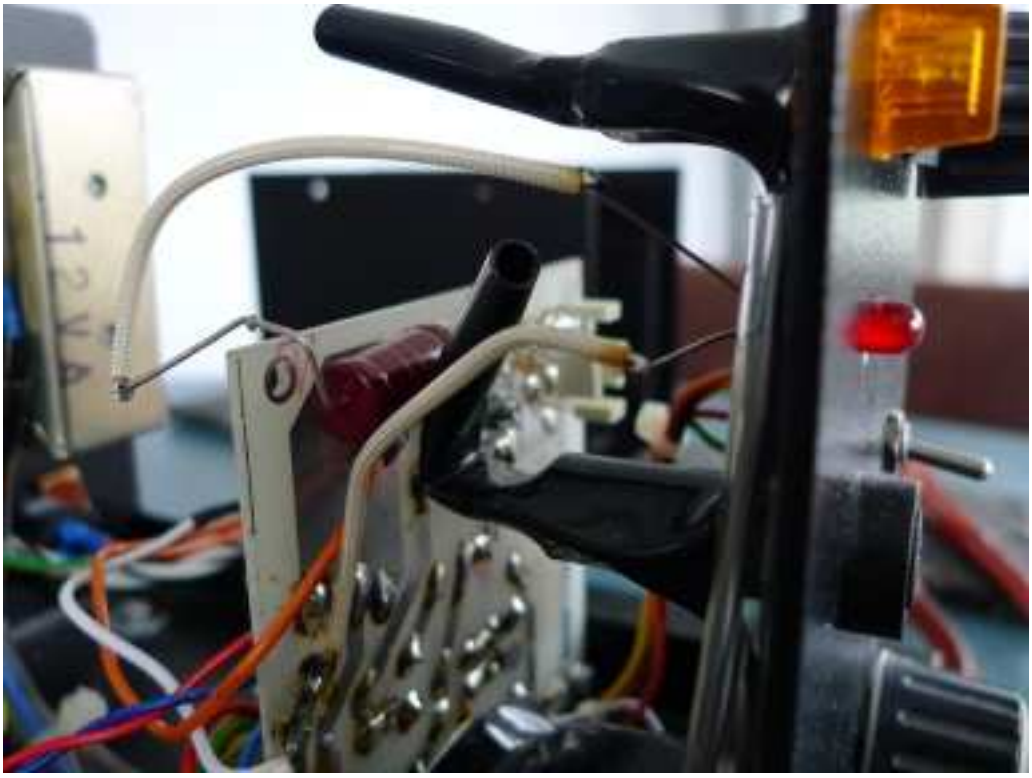
Links to the Paul Hynes website, with remarkable upgrades and solutions.

http://www.paulhynesdesign.com/page6.html
http://www.paulhynesdesign.com/page7.html

11.

Next topic:

the DC wiring conversion.



Here we see a red led put at the front to show ‘motor running’ and the white and orange wires routed from the DC input into the circuit board. Though the picture is not very clear, the DC wires must, –logically be soldered to the same points as the stock wires. We have left the stock transformer in place, disconnected and isolated the wire ends.
This is indeed a problem free and easy modification.

We encourage any Platine owner to convert to DC, and at least try it out.
The performance gain is there for sure, although not in a dramatically way.
Please note that DC feeding does not solve the (mechanical) issues showed earlier…

12.

Some electronic parts involved.

13.

We are confident that any La Platine owner may benefit from these tips & tweaks.

La Platine continues to impress, concerning the design is dated 1978..

But, there is room left to improve even further.

The Callas-Audio Modification kit:

Last but not least, we want to express our sincere thankfulness to the late

Monsieur J.C. Verdier

" You do not buy my turntable, you get married to it.. "

Keep em spinning.

Rudolf Ploeger
www.callas-audio.nl
Netherlands

Photo added: the V pulley in close up, any debris at this point measured in Micrometers deviation, means huge differences at the platter. Keep this part thoroughly clean.