24 v High Performance Synchronous Motor Upgrade Fitting Instructions

****IMPORTANT****
PLEASE READ THIS INFORMATION THOROUGHLY BEFORE STARTING WORK. THIS MOTOR CHANGE SHOULD ONLY BE CARRIED OUT IF YOU ARE TECHNICALLY QUALIFIED.

Thank you for purchasing this Rega upgrade product. This kit is designed to fit all past models of Rega turntables that do not already use a 24v motor. Please read these instructions carefully before fitting to ensure you use the correct kit parts for your model turntable.

WARNING: DISCONNECT YOUR TURNTABLE FROM THE MAINS ELECTRICITY BEFORE ATTEMPTING FITTING.

Before starting work pre-fitting preparation and advice.

With the platter and drive belt removed, place some adhesive tape across the hub bearing assembly (which the platter sits on), sticking it to the plinth. This will prevent the hub falling out, ensures the ball bearing remains in place, and that no oil is lost when the turntable is upside down during fitting. Make sure the arm is securely in the arm clip and the stylus guard is fitted to your cartridge to ensure no damage occurs. Support the turntable on a cushioned surface to ensure no unnecessary pressure is exerted on the tonearm bearings.

Stage 1 : **Removal of old motor.**

On the underside of the turntable remove the two black screws holding the plastic motor cover tray in place. Once removed you should remove the single screw which holds the old motor PCB in position. You are now ready to de-solder and remove the existing mains lead **Brown** & **Blue** (230v) or **Black** (115v). Then de-solder the two switch wires (usually White and White with a **Black** stripe).

The old mains lead is no longer required once de-soldered. Completely remove it from the turntable. The black grommet which held the lead in place should be removed from the lead and refitted in the mains lead hole on the rear of the turntable. If your turntable uses a plastic motor PCB tray and lead clamp, this should also be removed.

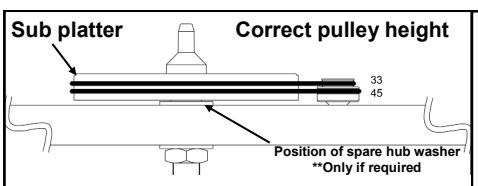
You are now ready to remove the old motor and PCB - early Rega turntables will exhibit two mounting variations. Early Planar and Planet models were suspended on 'O' rings and fitted via two screws (often plastic) on the top of the plinth, simply undo the two screws which will allow the motor to be removed.

Most other models use an adhesive pad to hard mount the motor, similar to the method used in this upgrade kit. To prevent damage to the plinth, great care must be taken when removing the old pad**.** Do not try to lever out the motor from a single point in one go. Use a wide, flat blade screwdriver and **gradually ease the pad away from the plinth at various points until the pad gives way.** With the motor removed, ensure any excess pad left inside the plinth is removed and the surface is left clean and flat.

Stage 2 : **Installing the new motor**
To ensure correct pulley height you must carefully follow the instructions relating to the turntable model you are fitting the kit to. The pulley is factory fitted to a set height. Correct mounting height is achieved between models by using different thickness motor mount pads, either **thin (double)** or **thick (triple), both supplied.** Check your turntable model against the pad requirement chart below. Some variations may occur across the range therefore it is highly recommended to visually double check the belt will sit correctly on the sub platter on both 33 and 45rpm **before removing the sticky backing and applying the motor as shown below.**

NB. ******A spare hub washer is included which can be fitted to the top side of the brass hub bearing. This will allow extra height adjustment in case of minor variations on Planar models. **In most cases this will not be necessary.**

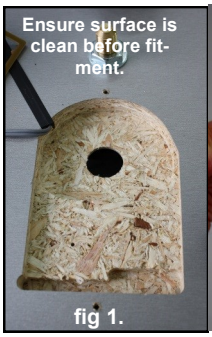
Turntable model	Pad requirement
Planet / Planar 3 / P3 2000 Planar 25	Thick - Triple pad required
RP1 / P1 / P2 2000/ Planar 2	Thin - Double pad required

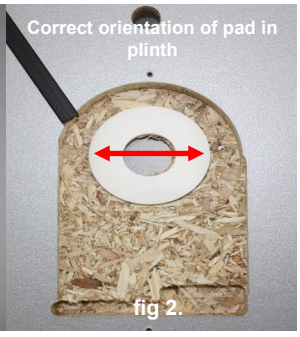


Check Pulley height for correct alignment.
If the pulley is too high, it may contact the platter.
If it is too low, the belt will fall off the sub platter on 45rpm.

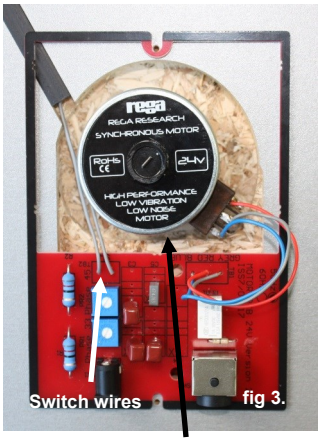
With the correct pad depth selected, remove one side of the protective film and place into the motor cavity (fig 2). Line up the centre of the pads with the hole in the plinth as close as possible. **Press firmly across the entire surface of the pads** to ensure good adhesion. Before fitting the motor, you must make sure the **MOTOR AND WIRING** is fed **THROUGH** the centre of the PCB to avoid the wires being trapped by the PCB when fitted.

Remove the protective film from the top of the fitted motor pad and carefully line up the motor to match the shape of the pad to maximise adhesion. **The label on the motor is oriented correctly.** If you can read the label, the motor wiring is automatically dressed in the correct position (avoiding contact with the motor body).





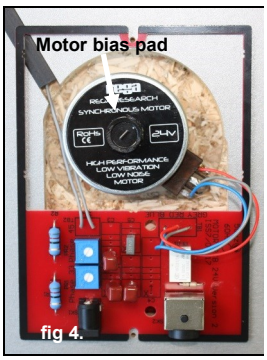
DO NOT PRESS THE MOTOR FIRMLY AT THIS STAGE. Turn the deck over to ensure the pulley is central in the plinth hole. If it is not central (and you have not already pressed the motor firmly), you may be able to realign the motor (spare pads are available from your Rega dealer if required). If you are happy with the position of the pulley you can now push the motor firmly onto the pad by applying even pressure across the back of the motor. **NB** early Planet and Planar models have thin laminate. Care should be taken not to push too hard to avoid damaging the plinth on these models (ideally support the plinth with your hand from the underside when applying pressure). Two black circular stickers are supplied to cover the holes where the older suspended motor was removed.

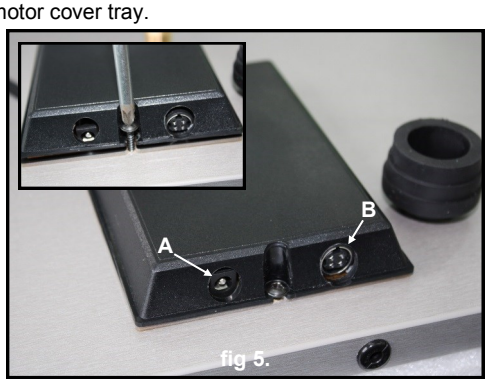


Motor orientation & wiring correctly dressed. Not contacting the motor body

Stage 3. **Reconnect the Switch Wire (fig 3).**

You can now reconnect the switch wires to the position marked **SW** on the PCB. (These can be connected either way as it is a non-polarity configuration). Again, it is important to make sure the switch wires are dressed correctly **THROUGH** the PCB not around the outside. Snip off the excess on the underside to prevent the risk of a short. Once complete, the assembly should appear as fig 4. Inside the motor cover tray a single white circular sticker is fitted which will align with the back of the motor bias pad. When the supplied tray is fitted it will gently compress. (On Planar 3, Planar 25 and Planet turntables, add the supplied thicker circular pad to account for the deeper plinth). There is no need to screw the new PCB into the plinth cut out. The PCB is held in place with the supplied screws that hold the new motor cover tray.





To connect your turntable, use **only the supplied wall plug power supply** directly into the jack socket on the back of the new cover tray. (fig 5. A) The Secondary input (fig 5. B) is for connection of the Rega TT PSU which offers electronic speed change and even greater noise reduction and stability. (sold separately). **WARNING:** Socket A and Socket B should never be connected simultaneously, when using the TT-PSU the power supply plug supplied with this kit is no longer required.