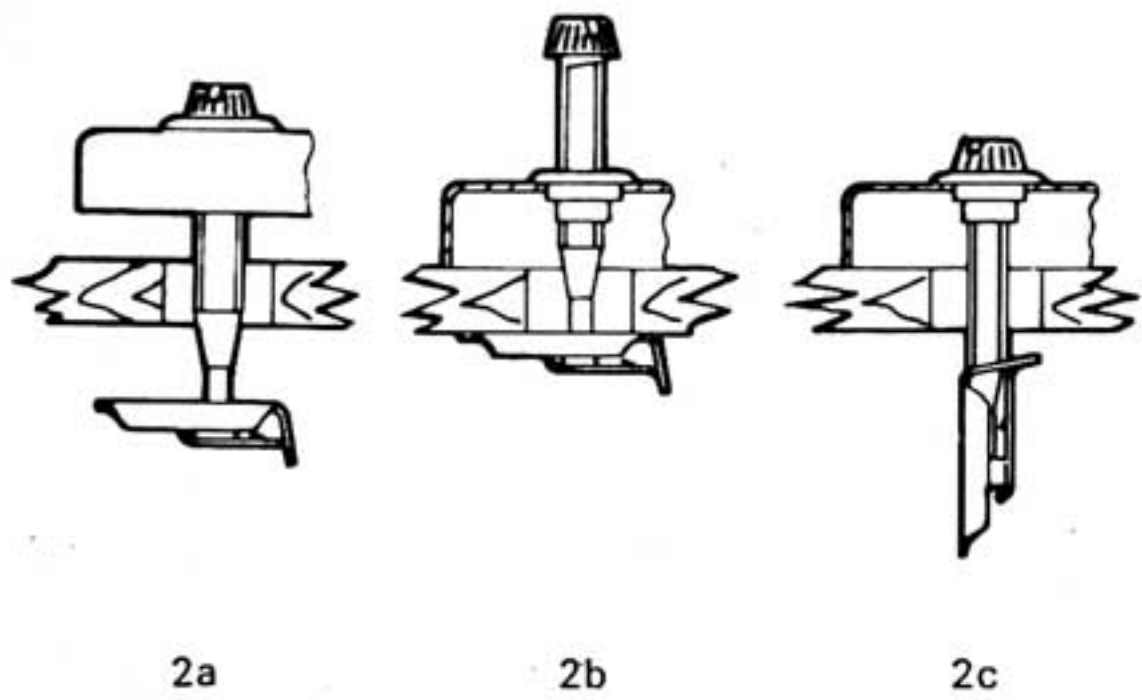


Garrard 125SB



Garrard

Model 125SB Instructions

Contents

This page – Description and operating instructions.
 Sections 1 to 6 – Installation.
 Sections 7 to 12 – Maintenance and Service.

Description

Model 125SB is a record player which allows automatic play of a single record by pre-selection of size and speed. Manual play and replay, damped cueing and automatic repeat are amongst additional facilities. The turntable is belt-driven by the famous Garrard Synchro-Lab motor. The 'swan-neck' pickup arm has a decoupled counterbalance weight and is fitted with a miniaturised cartridge slide. Model 125SB is compatible with quadraphonic equipment and made to the specification given below. The unit may be supplied in deck form or incorporated with other equipment; or it may be supplied in module form (with base, cover and connecting leads). Depending on territory, a pickup cartridge may already be fitted.

Even when supplied in a form in which the installation sections in this booklet may be ignored, before use it is advisable to check stylus force and bias compensation, also that the unit is correct for the power supply, particularly if it is a dual-voltage unit.

Technical specification

Wow and flutter: 0.16 peak % max. (DIN).
 Rumble: -57dB (DIN B).
 Minimum stylus force: 1½g.
 Power supply: 220/240V AC, 50Hz or 110/125V AC, 60Hz.
 Dual voltage version: 220/240V AC and 110/120V AC, 50Hz or 60Hz.

Safety regulation note for USA models

WARNING: To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

Operating instructions

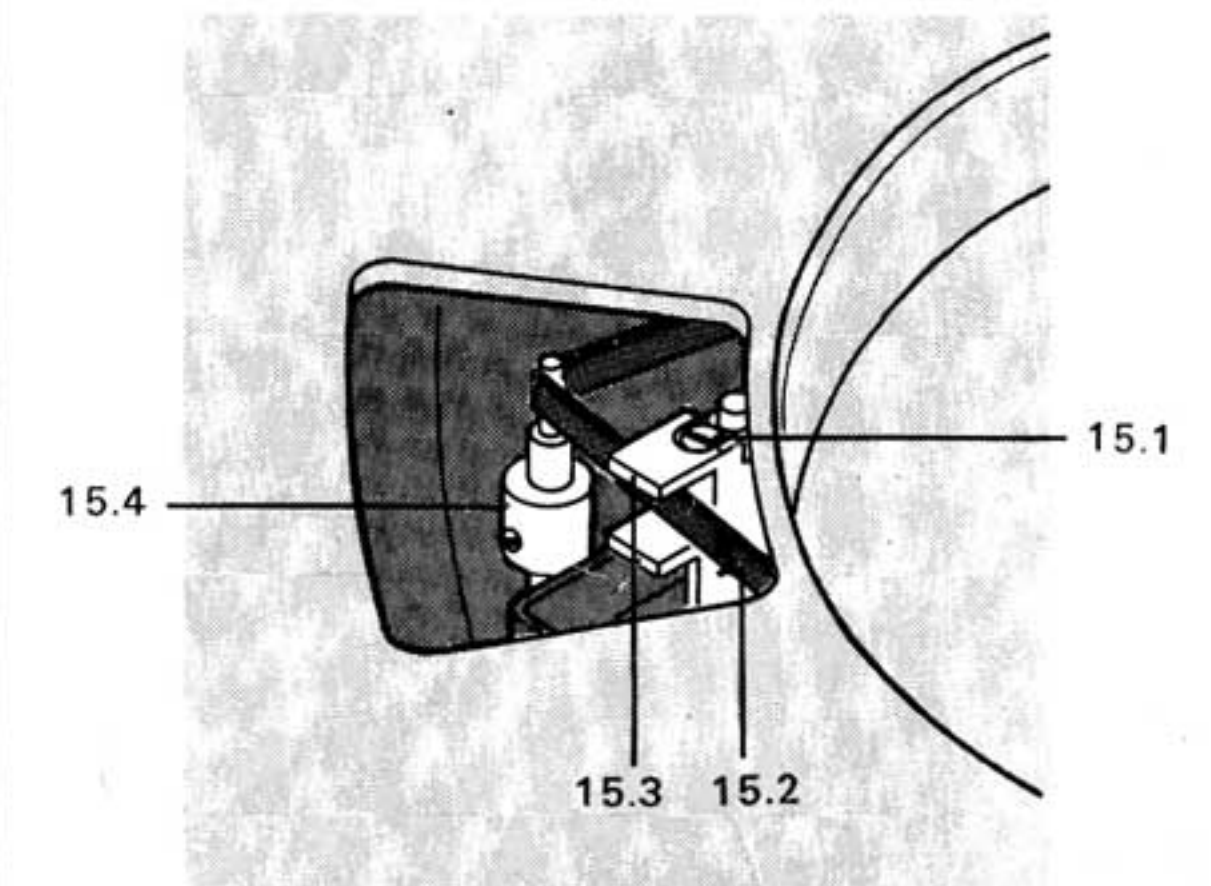
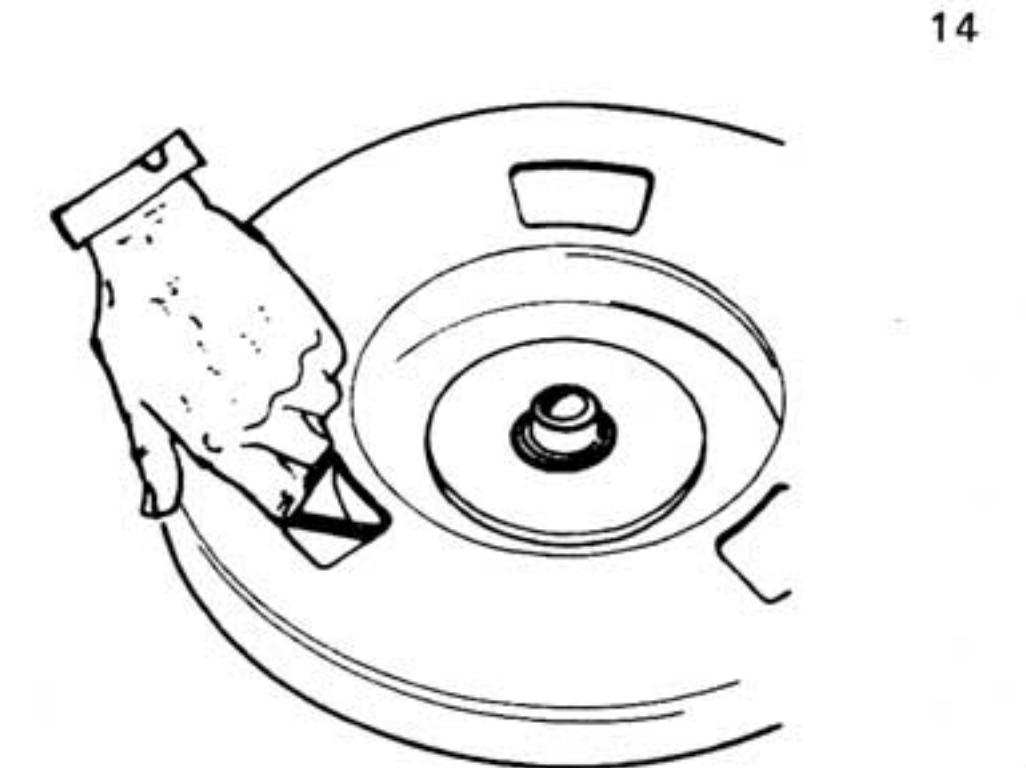
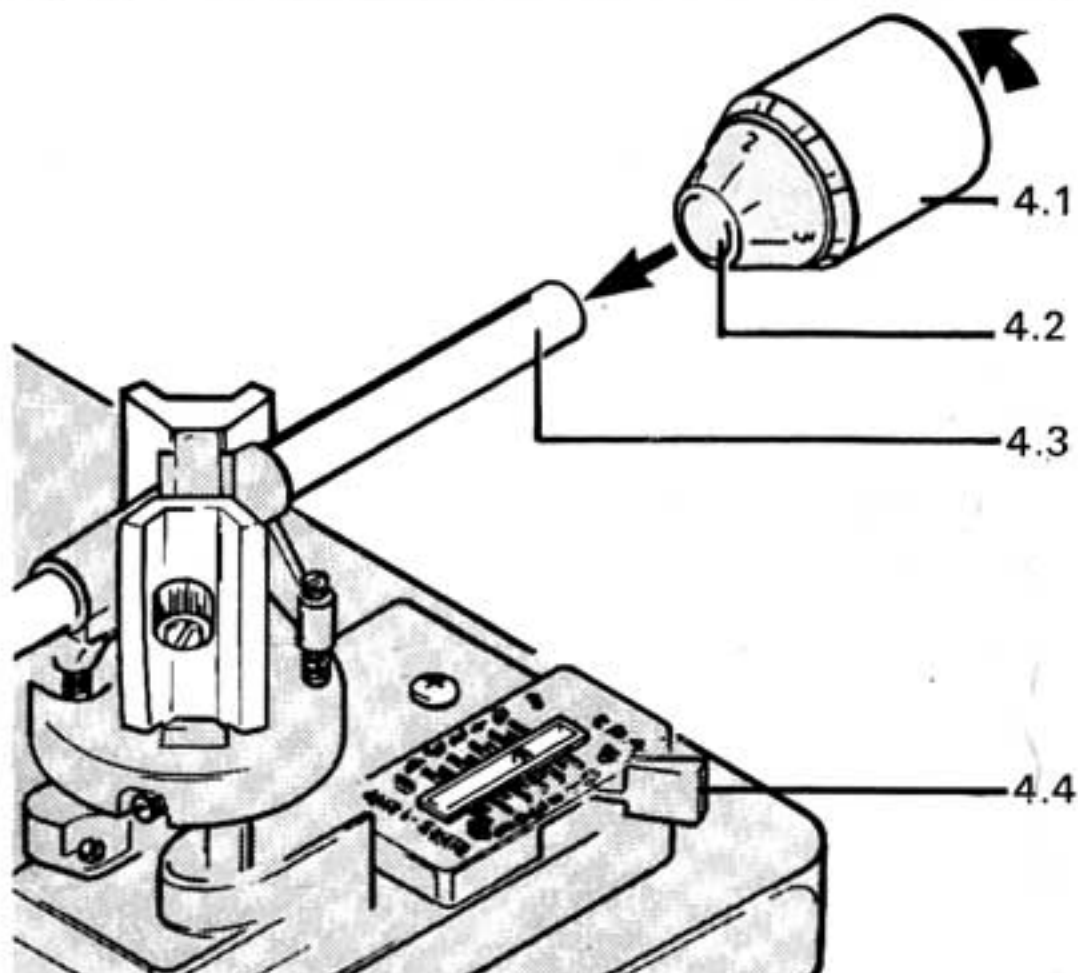
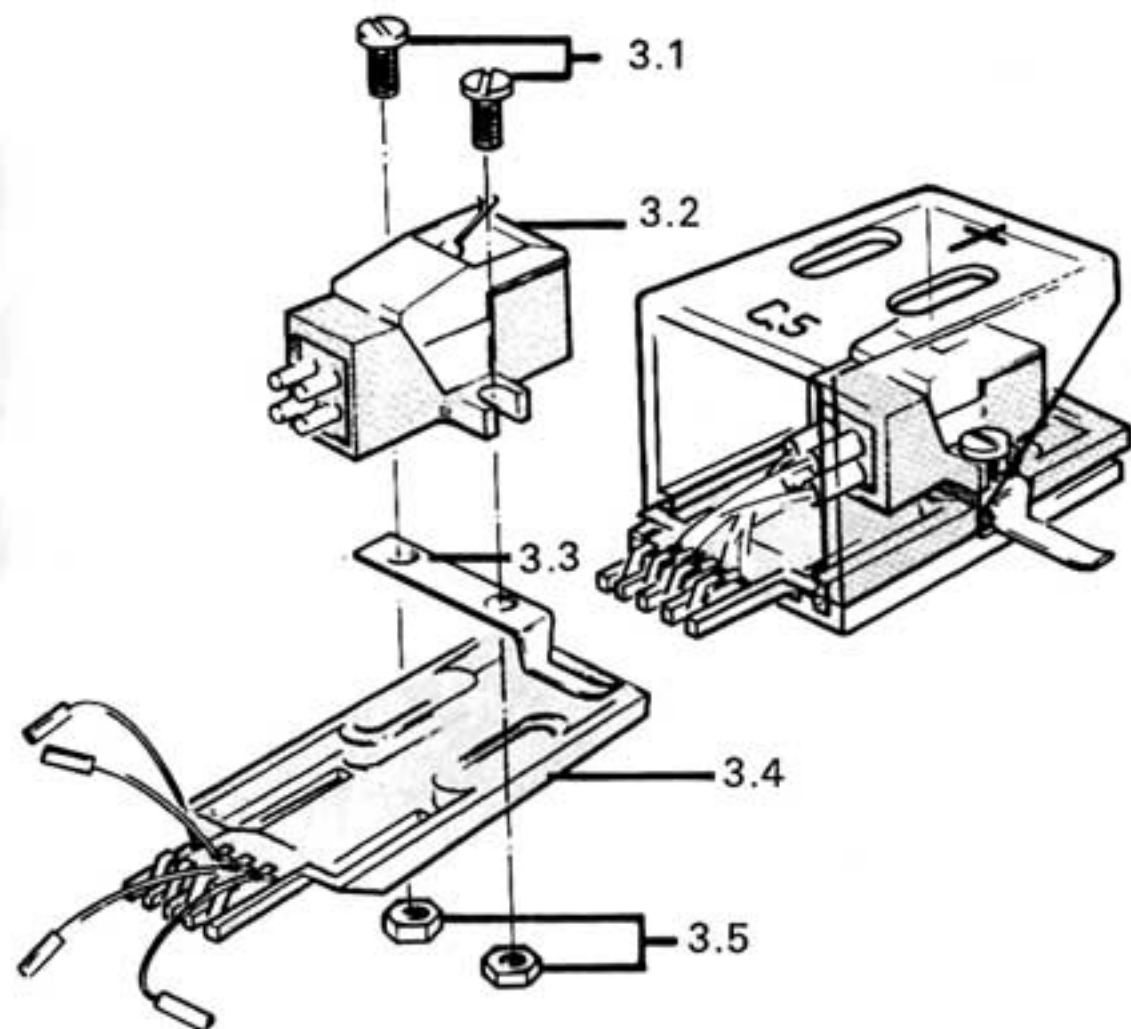
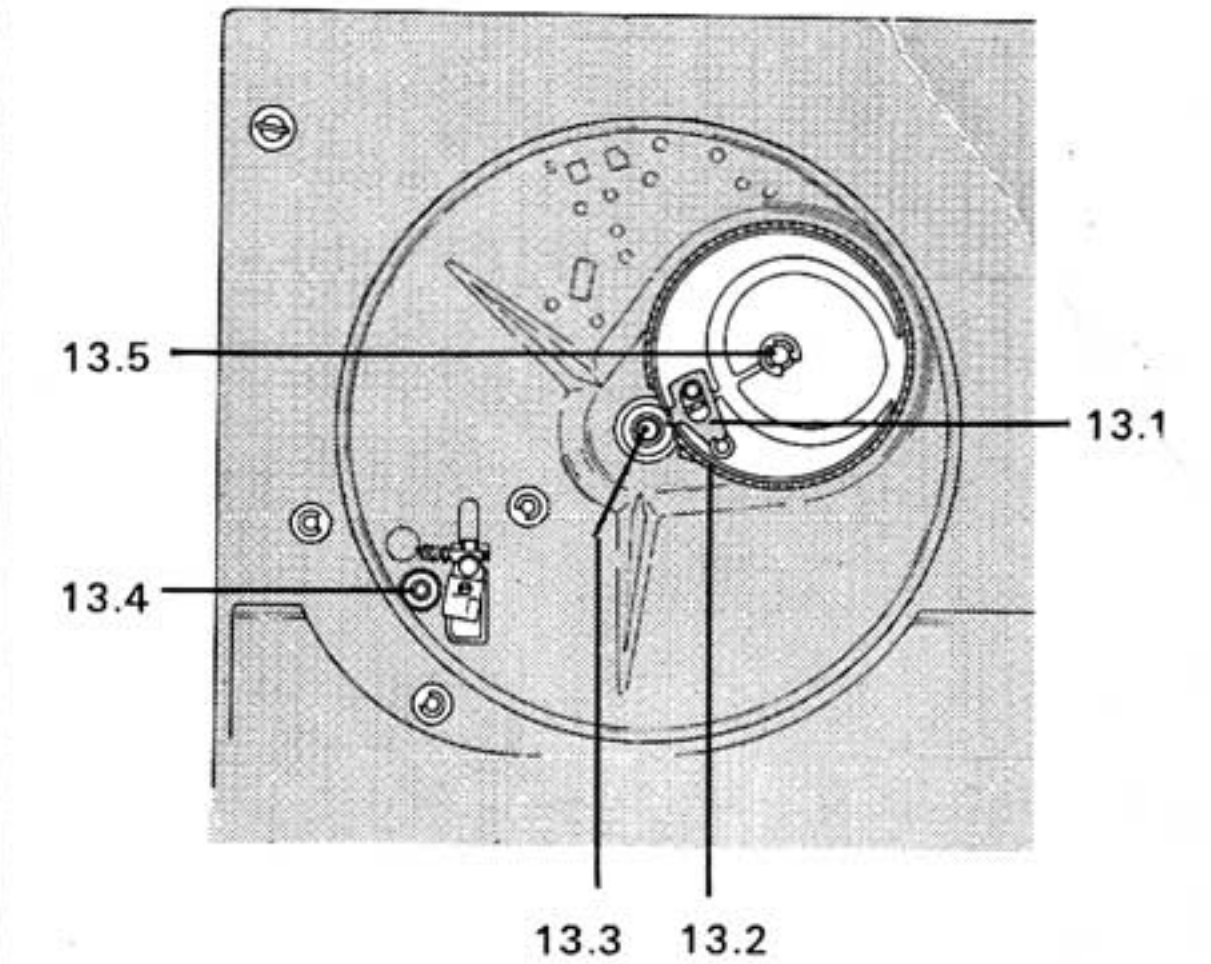
To obtain best results, store and clean records as recommended by the record manufacturers. Do not leave records on the unit when not in use. Keep the stylus free from accumulated dust and replace it when worn.

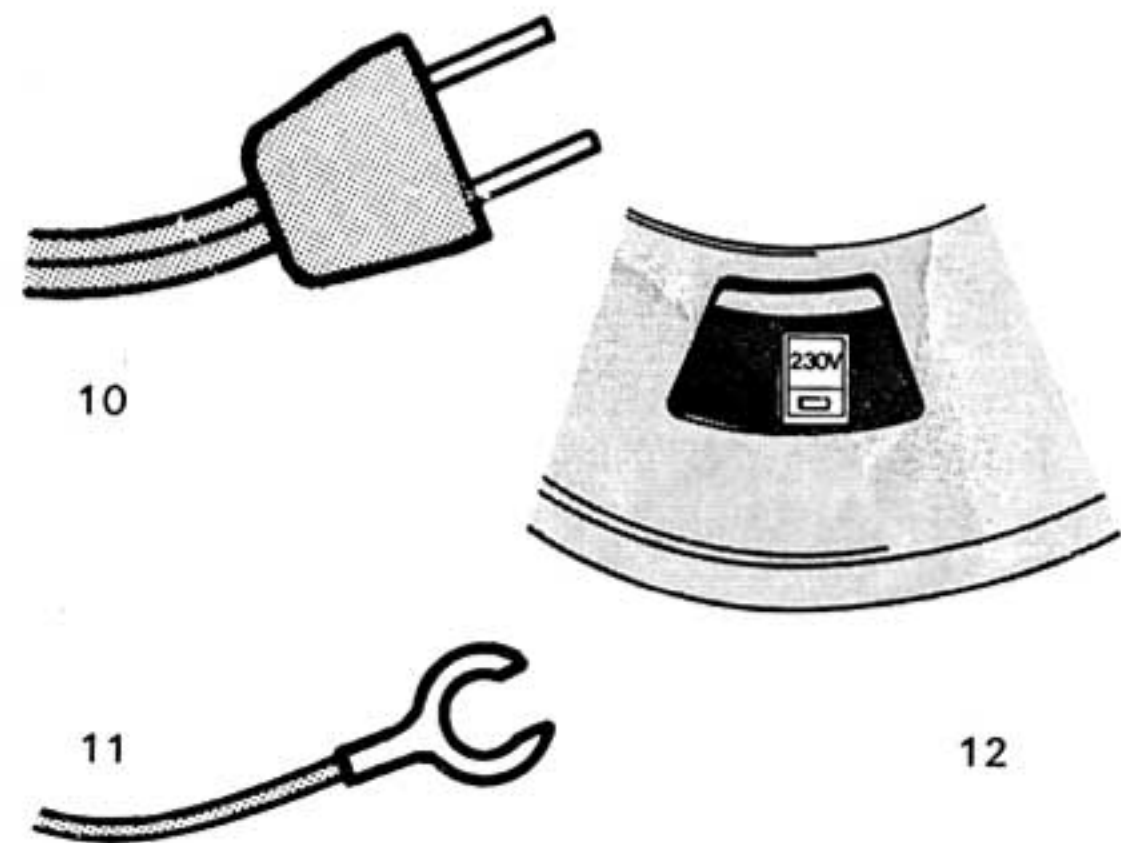
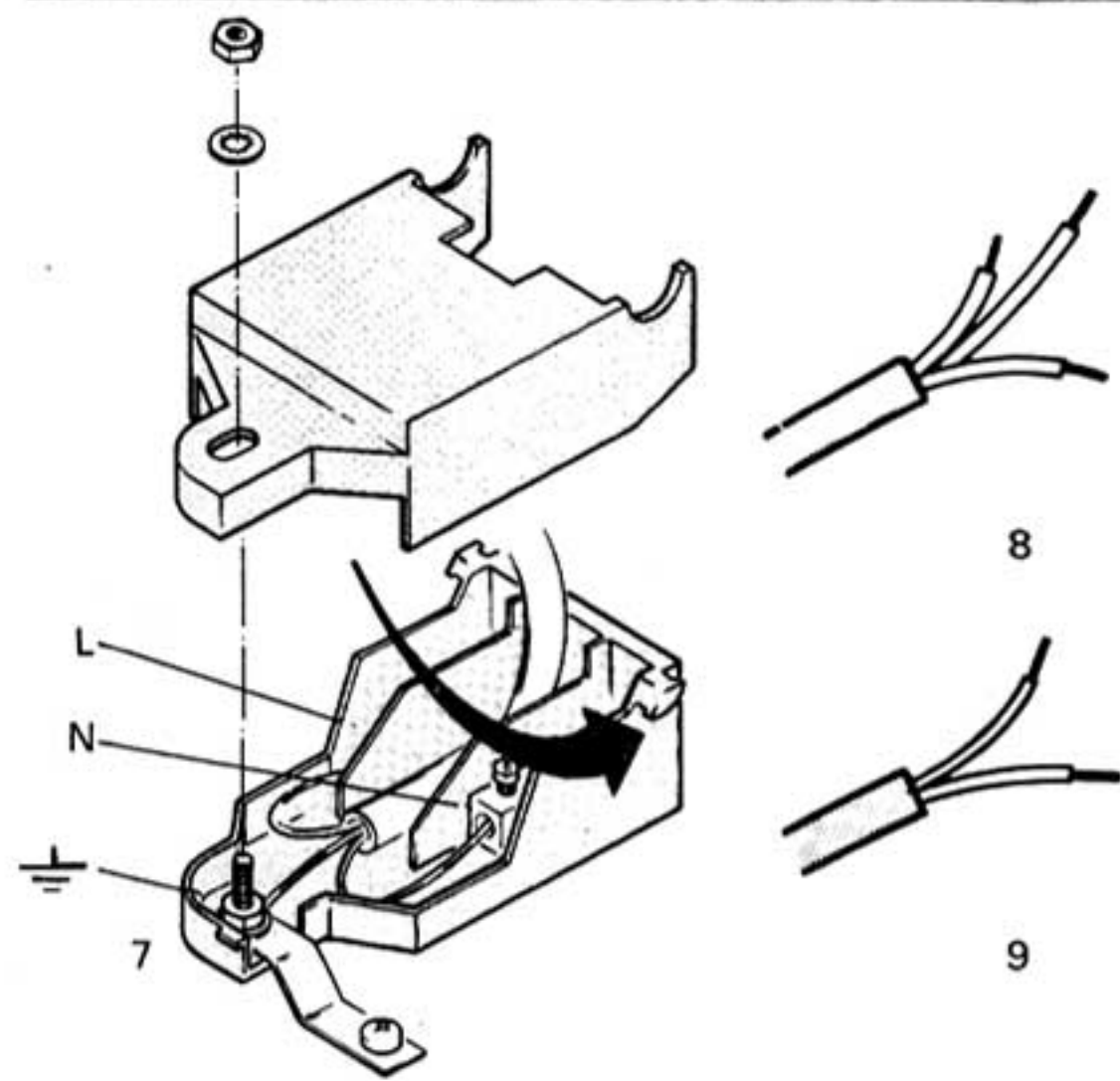
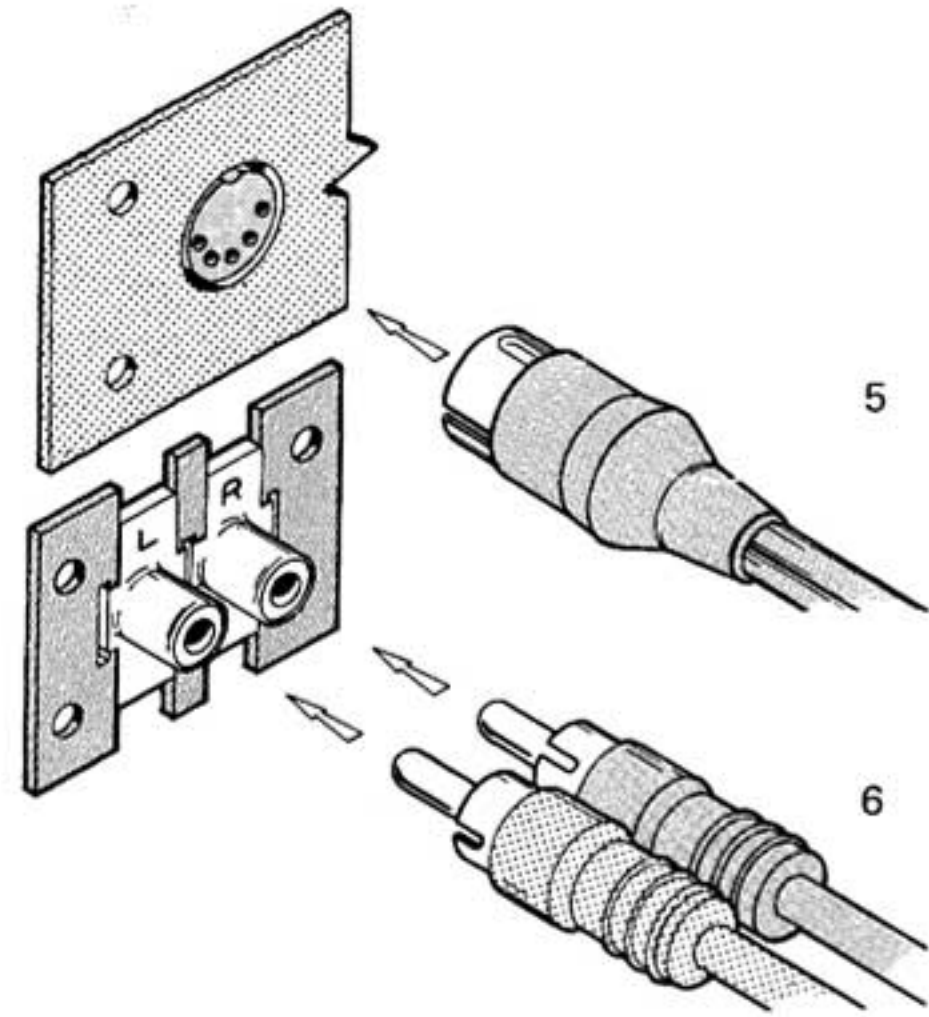
Before use

- 1 If in module form, either remove the cover from the unit or make sure the cover hinge locates correctly, then raise the cover to a hinged open position.
- 2 Check that the push-on rotating record spindle (1.10) is in place.
- 3 Free the pickup arm (1.1) by releasing its catch (1.3) and remove the pickup stylus guard (1.6), if fitted.
- 4 Check that the record speed (1.9), size (1.5) and 'Repeat play' (1.12) controls are set as required.
- 5 Check that the transit screws (1.11) are turned fully clockwise.

Automatic play

- 1 Place the record of your choice on the turntable (1.8).
- 2 Move the operating control (1.7) to 'Auto', pause and release the control which will return to 'Manual'.
- 3 The record will play automatically, the pickup will return to its rest and the unit will switch off.





Manual play

- 1 Place the record of your choice on the turntable (1.8).
- 2 Move the operating control (1.7) to 'Manual'.
- 3 Place the pickup (1.6) on the record by hand, using the finger lift (1.4). After playing the record the pickup will return to its rest and the unit will switch off.

Cue and pause

On manual play the cue and pause control (1.2) may be used to place the pickup at the start of the record, also to raise or lower the pickup at any selected point, or temporarily interrupt play. To raise the pickup, lift the cue and pause control, then move the pickup by hand to the position required. To lower the pickup, steadily lower the control.

A technique of lifting the control just sufficiently for the stylus to clear any warp on a record allows a shorter descent time and greater precision in aligning the stylus over the selected record groove.

Repeat

Turn the repeat control (1.12) from 'Single play' to 'Repeat play'. Any record played will repeat indefinitely. Move the control back to 'Single play' when the switch-off cycle is required.

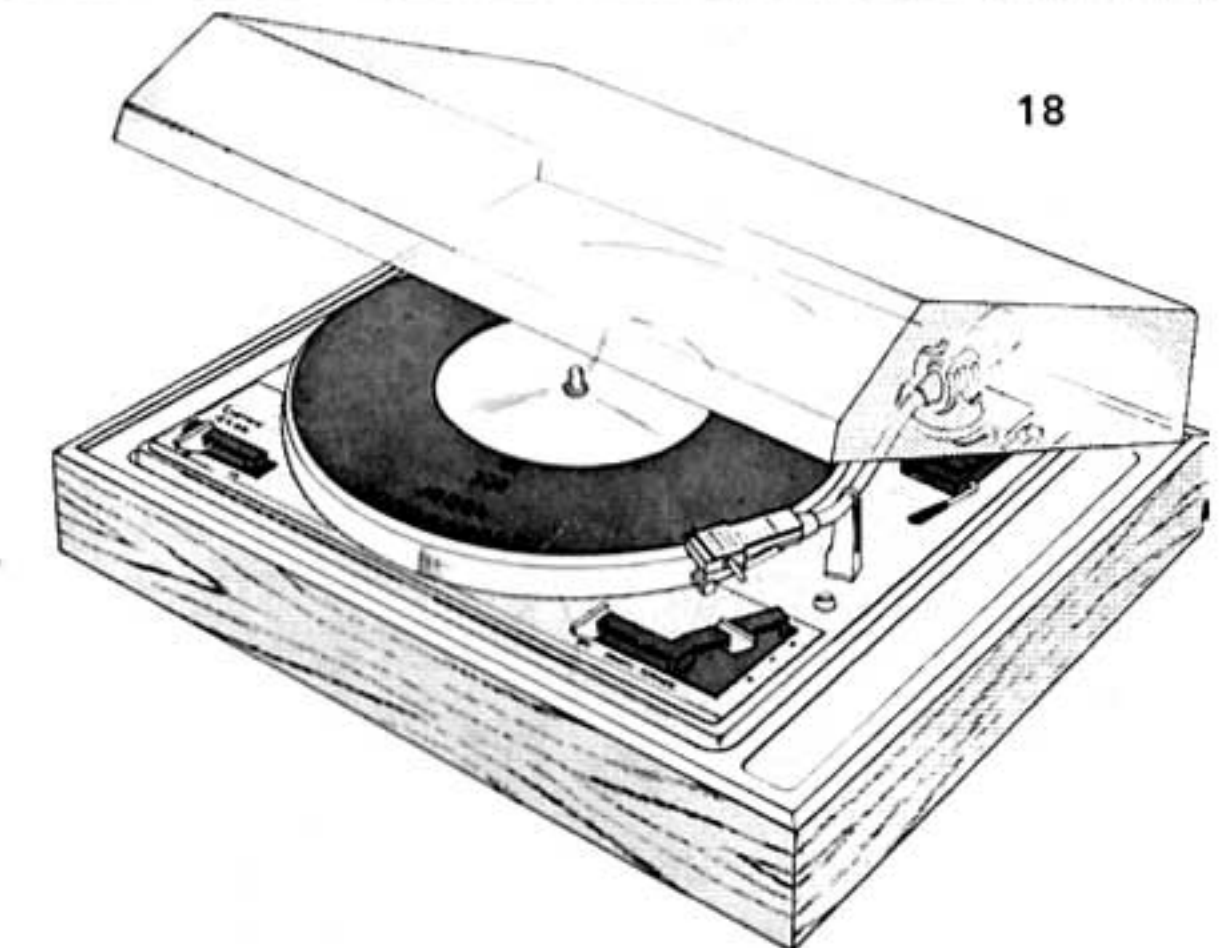
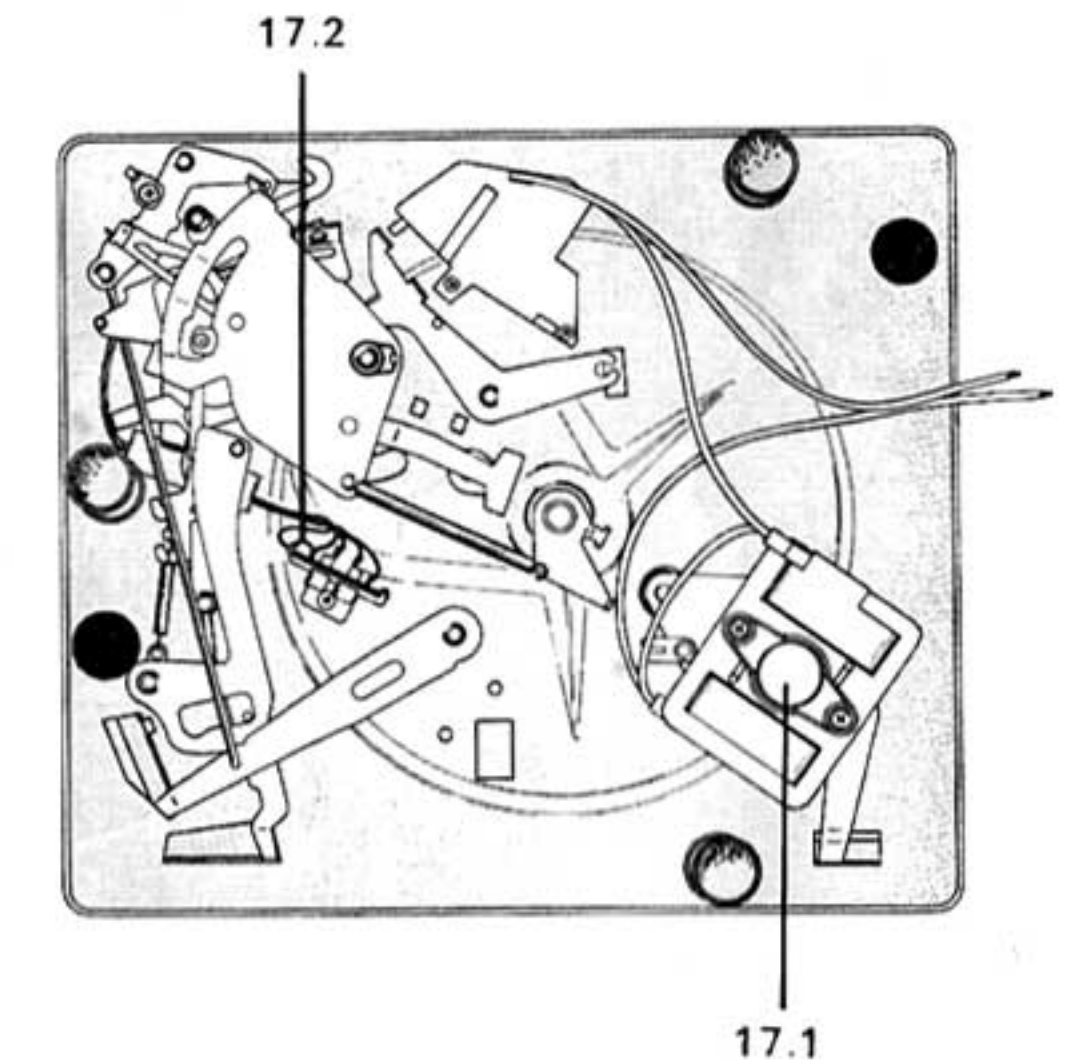
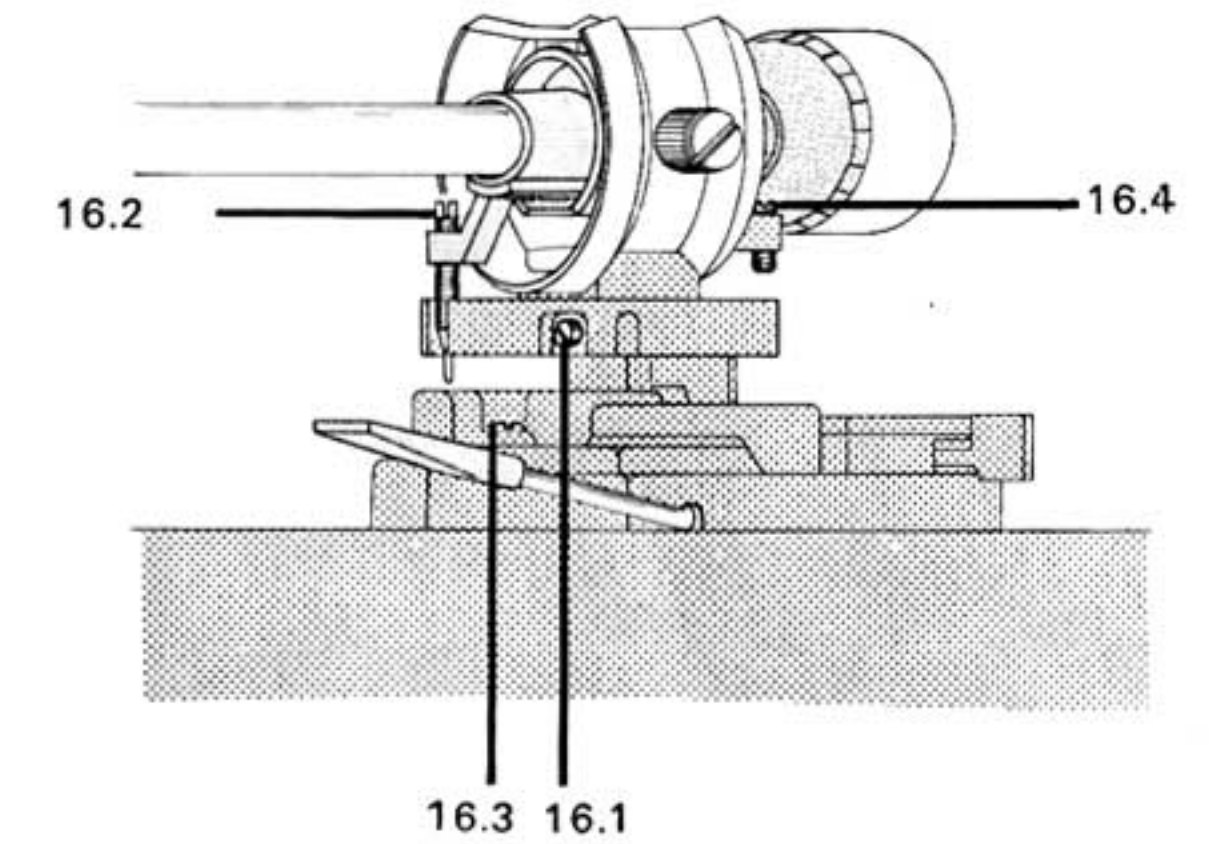
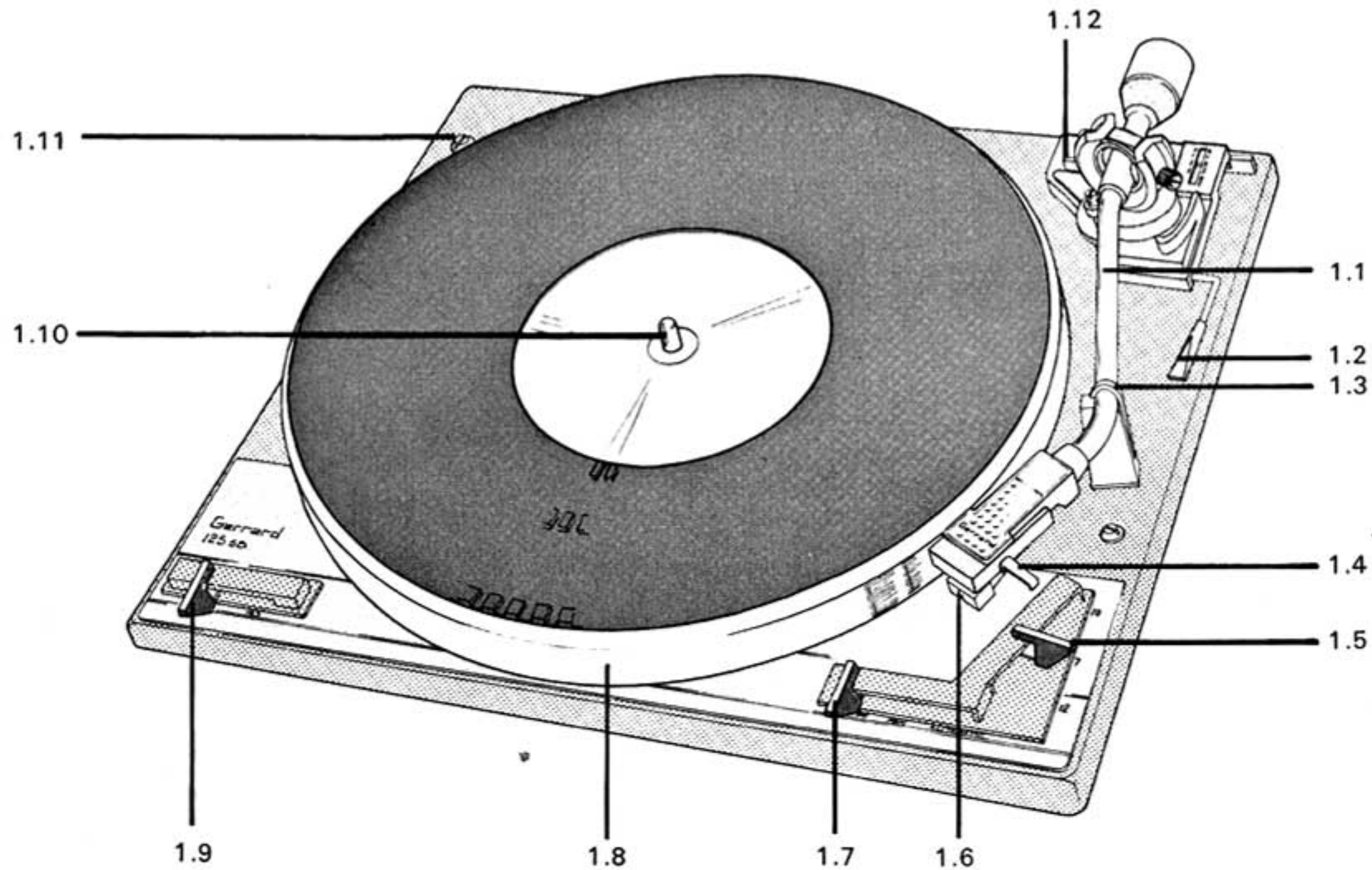
Reject (Stop)

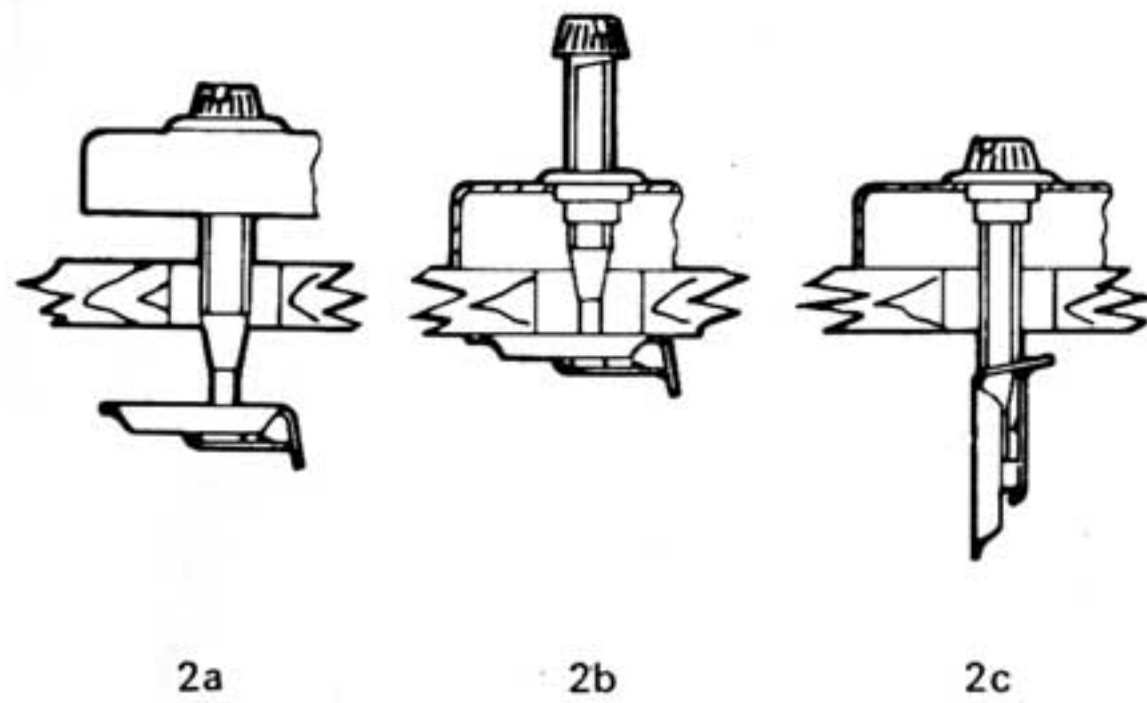
Use the cueing facility to return the pickup to its rest (1.3), then move the operating control (1.7) to 'Off'.

Large hole records

Fit the adaptor – available as an optional extra – over the record spindle (1.10) in order to play records with large centre holes.

Your unit may differ slightly in appearance from that shown here. Any such special trim changes do not affect the playing specification of the unit.





1 Installation

Unpacking

Remove polyfoam and cardboard packing, ties and rubber bands. Remove any protective film from trims, clean off any residual stickiness with a moist cloth, power supply unconnected. Do not lift the unit by its pickup arm. Do not discard any accessories (or the damping pads in the mounting springs).

WARNING: Keep plastic bags away from children.

Cabinet space

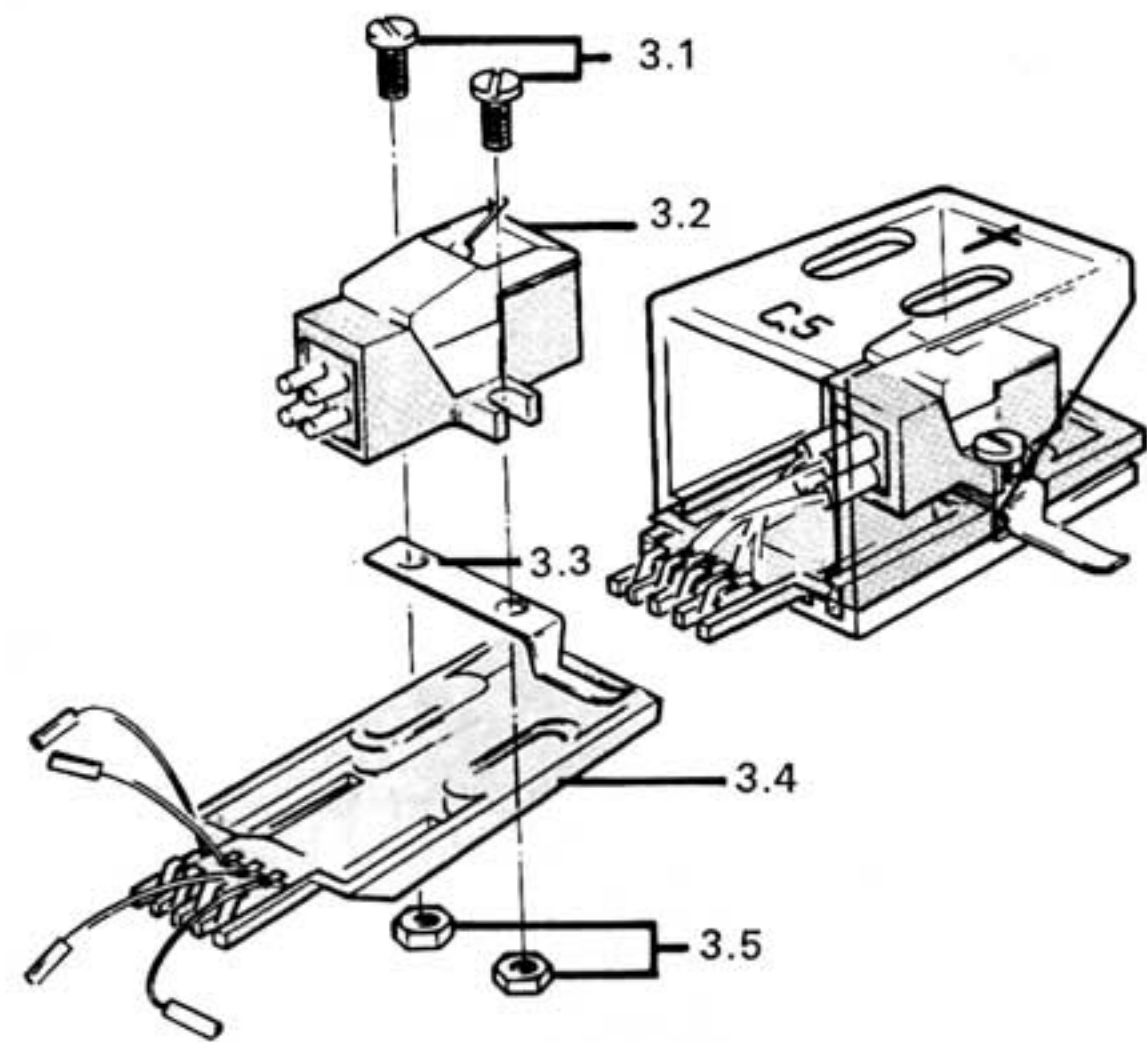
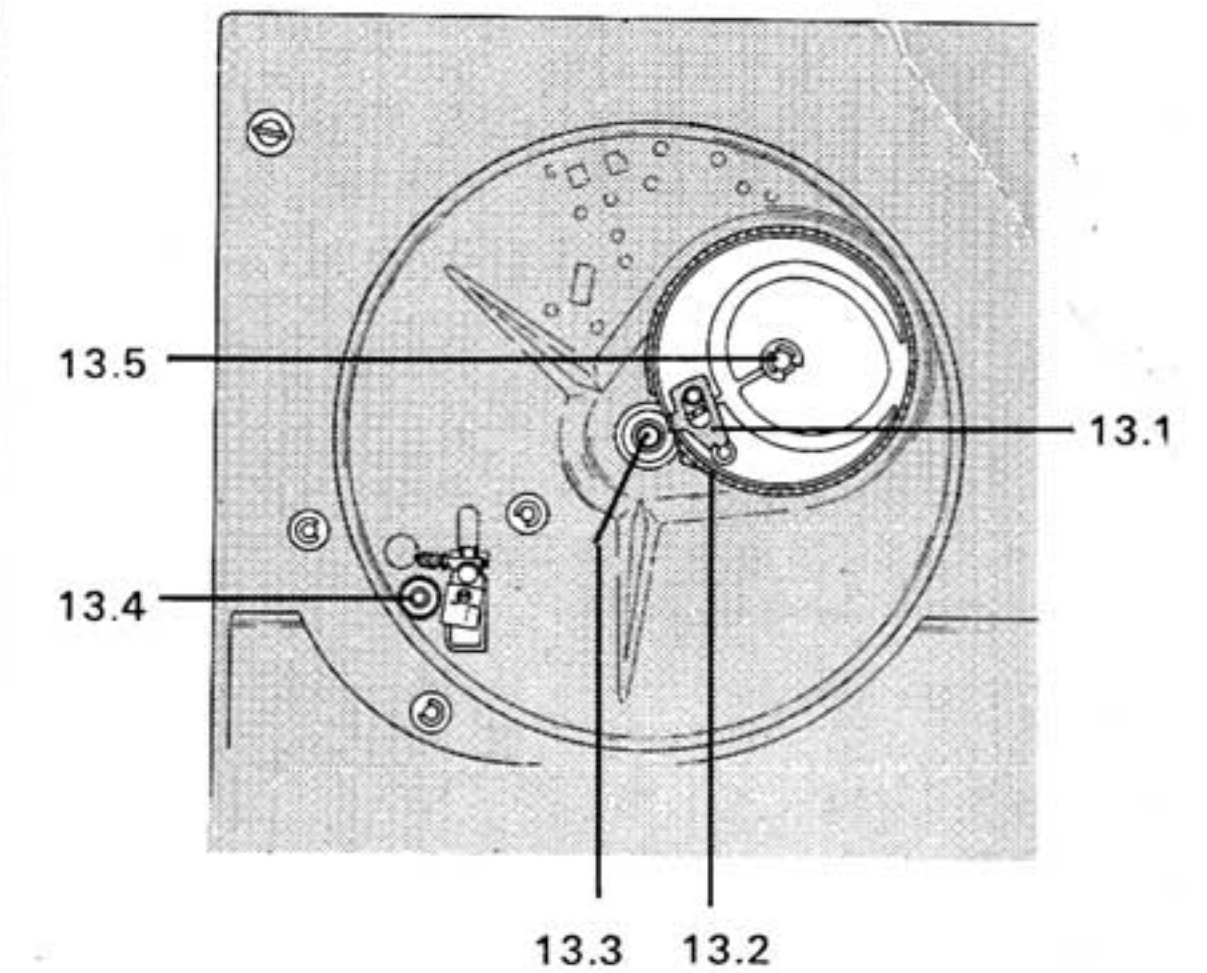
Model 125SB deck is 374.5mm wide by 317.5mm front to rear by 70mm above and 64mm below the lower edge of the unit plate.

Fitting

If supplied as a module, carry out installation adjustments. See section 12 for information on the base and cover should this be required. If supplied as a deck, refer to the fitting sequence in the template. Refer back to this booklet when required.

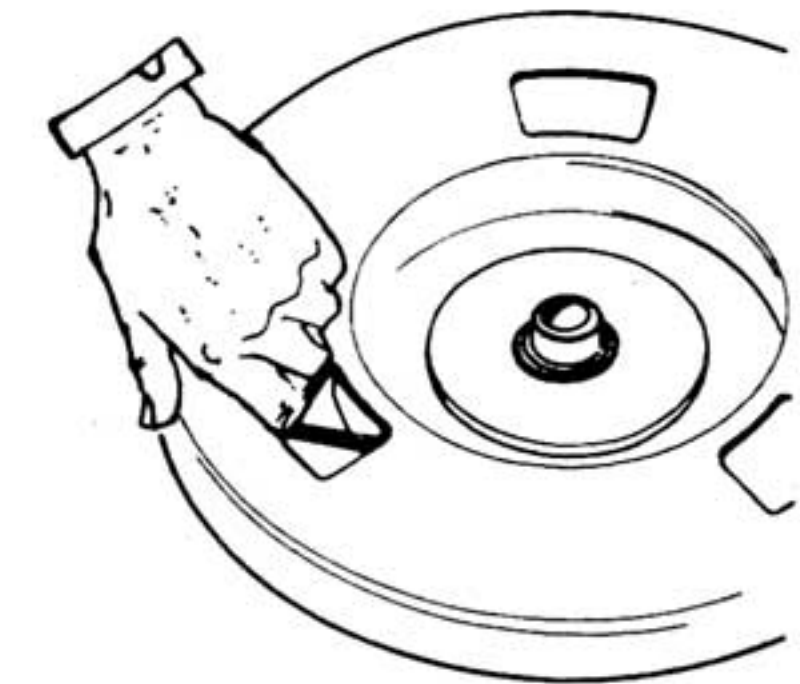
Transit

Before using the unit make sure that the transit screws are turned clockwise so that the unit floats (sectional diagram 2a). For safer portability at any time, turn the screws counterclockwise to securely clamp the unit (sectional diagram 2b). Sectional diagram 2c shows how the transit clips must be turned when fitting or removing the unit.

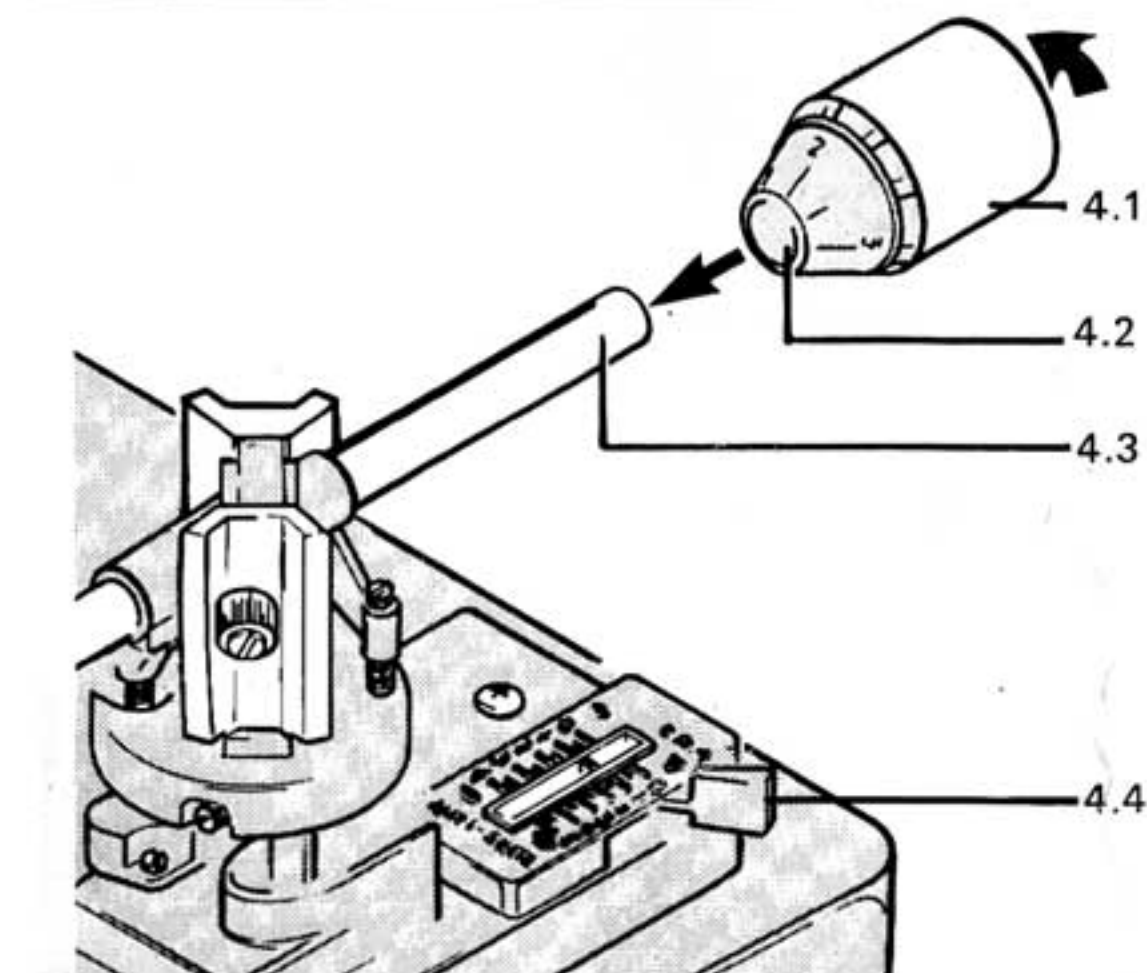


2 Fitting pickup cartridge

- 1 Withdraw slide (3.4) from head and assemble slide, finger lift (3.3) and cartridge (3.2), using nuts (3.5) and non-protruding screws (3.1).
- 2 Before fully tightening the screws move the cartridge squarely along the slots in the slide and align the stylus over the 'T' junction lines marked on the slide.
- 3 Alternatively if a setting gauge is provided, fit this to the slide as shown and carefully move the cartridge (any stylus guard removed) to set the stylus below the cross-lines on the gauge.
- 4 Tighten screws (3.1) and recheck cartridge squareness and stylus position.
- 5 Attach the pickup leads to the cartridge output terminals following the manufacturer's instructions and the colour code:
Red to right channel
Green to right channel ground
White to left channel
Black or blue to left channel ground
Do not solder leads directly to the cartridge.
- 6 Replace the slide securely in the front of the pickup arm.
- 7 If the rear of the cartridge can touch a record, fit the tilt wedge accessory between cartridge and finger lift, deep edge to the front.
- 8 Make installation adjustments. Check these if an alternative slide assembly is used.



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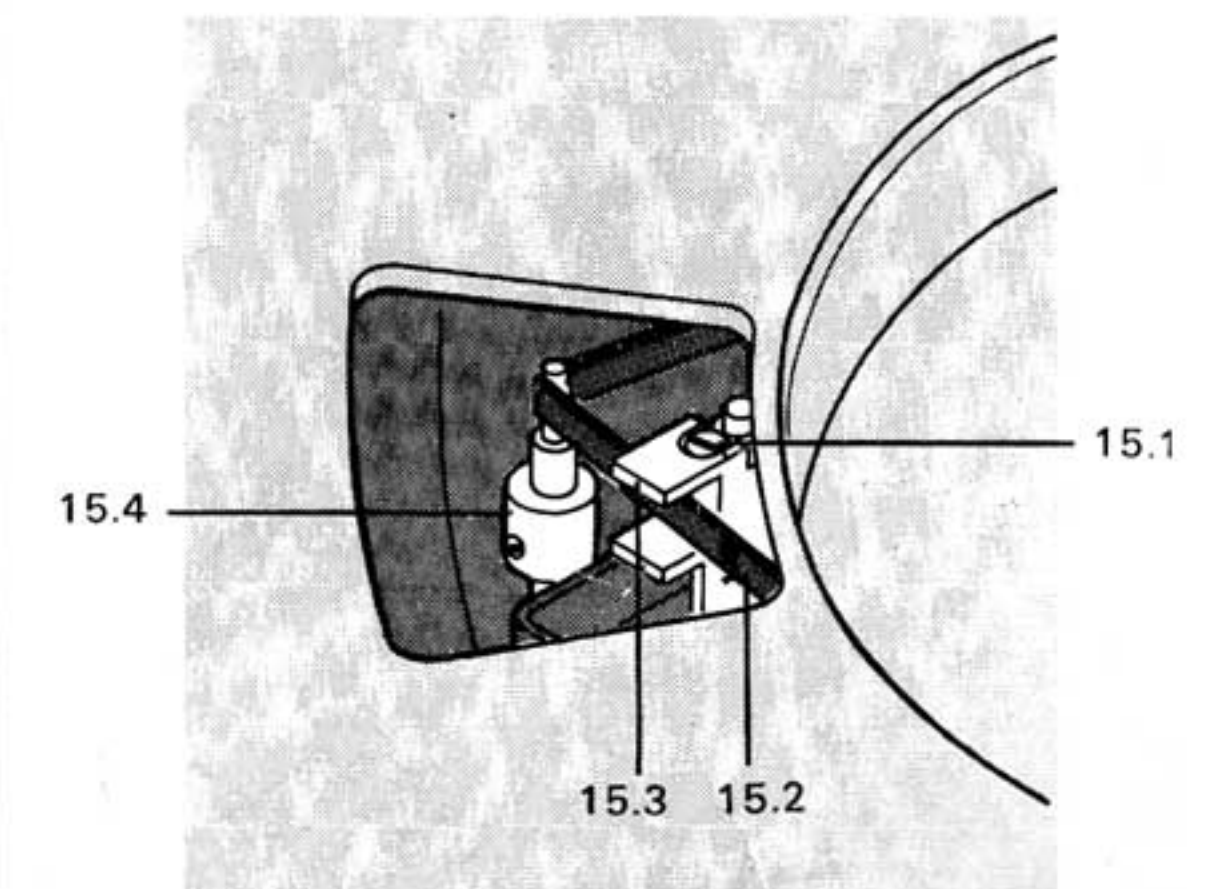


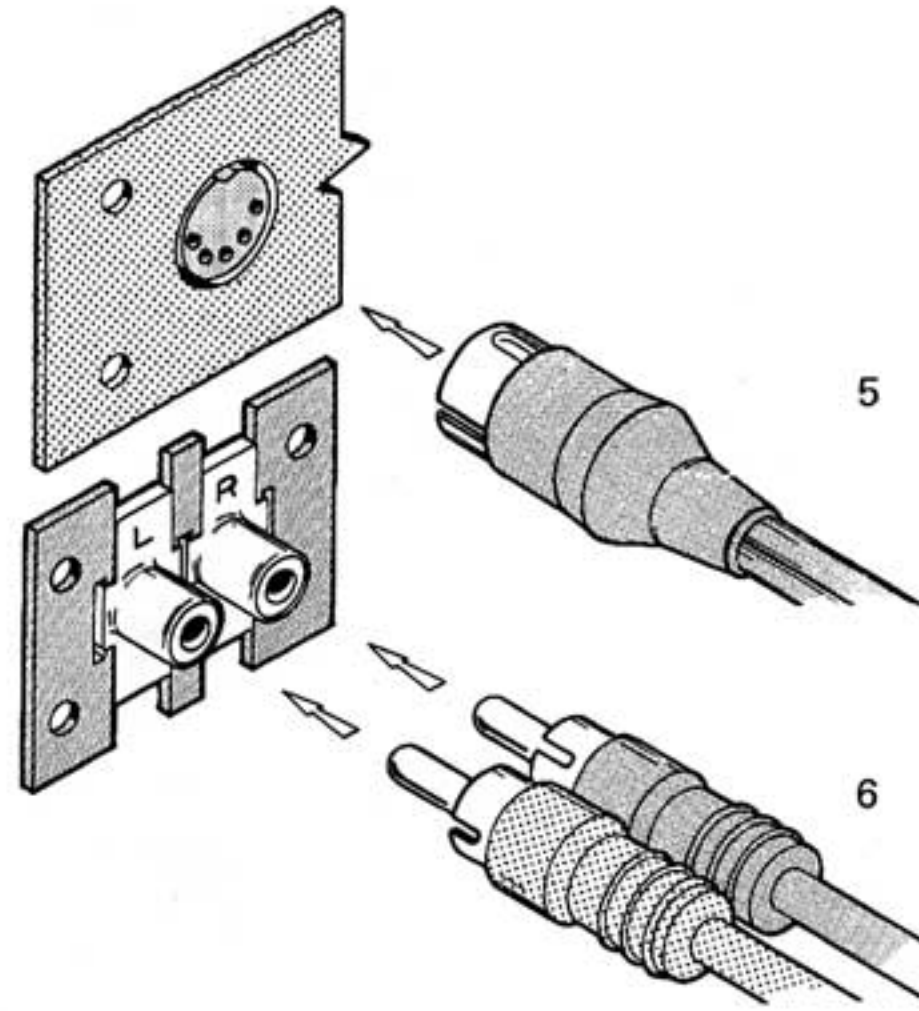
3 Installation adjustments

Firstly, with power supply unconnected, make sure that the pickup arm is clipped to its rest, with the operating control 'Off'. Now rotate the turntable gently clockwise at least six times.

Stylus force and bias compensator

- 1 Make sure that the weight (4.1) is pushed on the arm (4.3) so that its internal spiral groove forms a winding key with the spring-loaded pip under the arm.
- 2 Set the bias compensator control (4.4) to its zero, then unclip the arm and wind the weight to the position which balances the arm with the stylus tip (stylus guard removed) about 3mm above the turntable mat.
- 3 Clip the arm to its rest, then, keeping the weight stationary, rotate its calibrated collar (4.2) so that its zero aligns with the marker line on the arm.
- 4 Wind the whole weight forward until the marker line is set to the figure on the collar, representing stylus force required.
- 5 Move the bias compensator control (4.4) to the figure which corresponds to that for stylus force. If a cartridge is already fitted by Garrard, a suggested stylus force follows the cartridge description on the inspection label attached to the carton or transit screw.





4 Audio connections

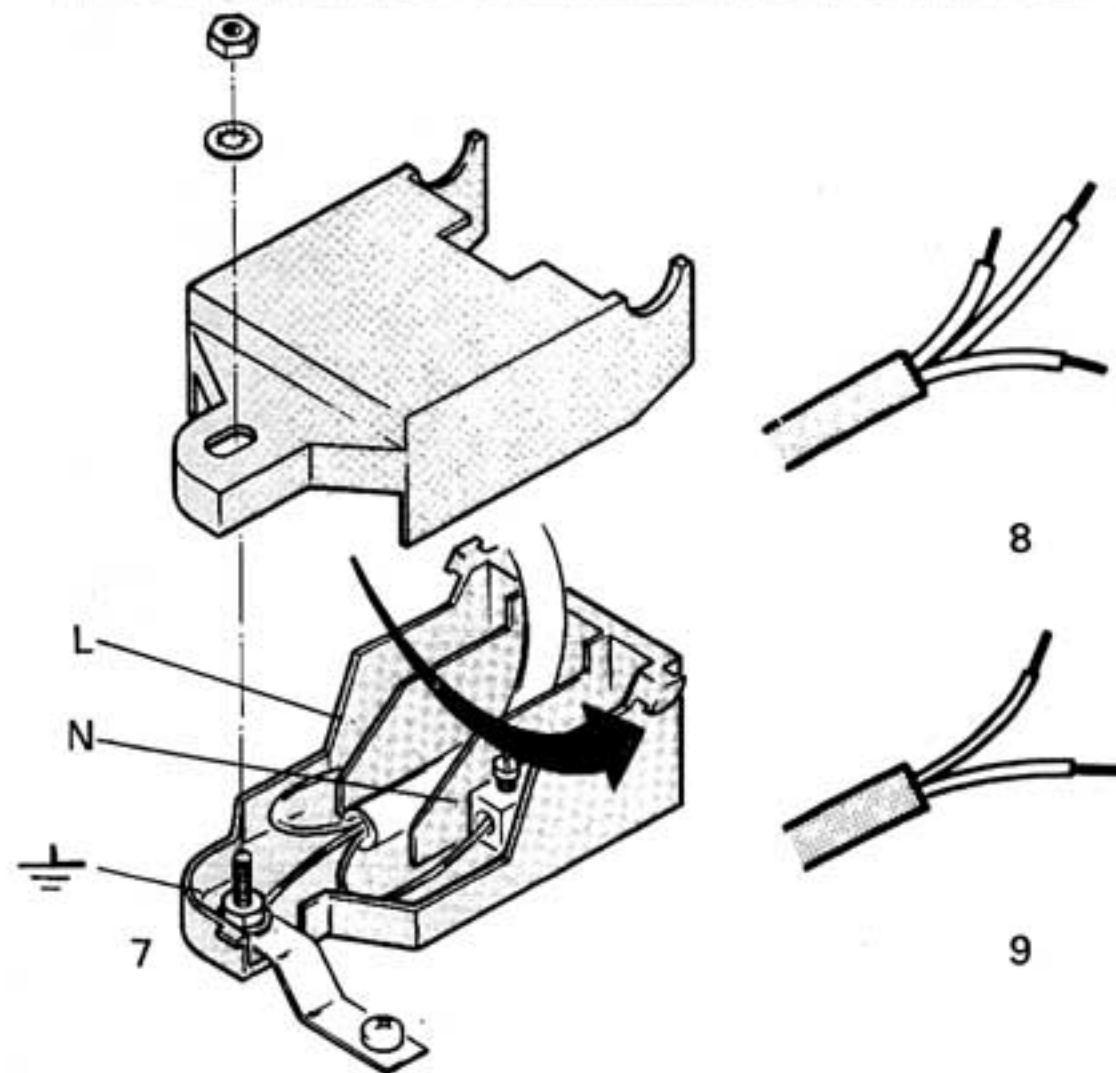
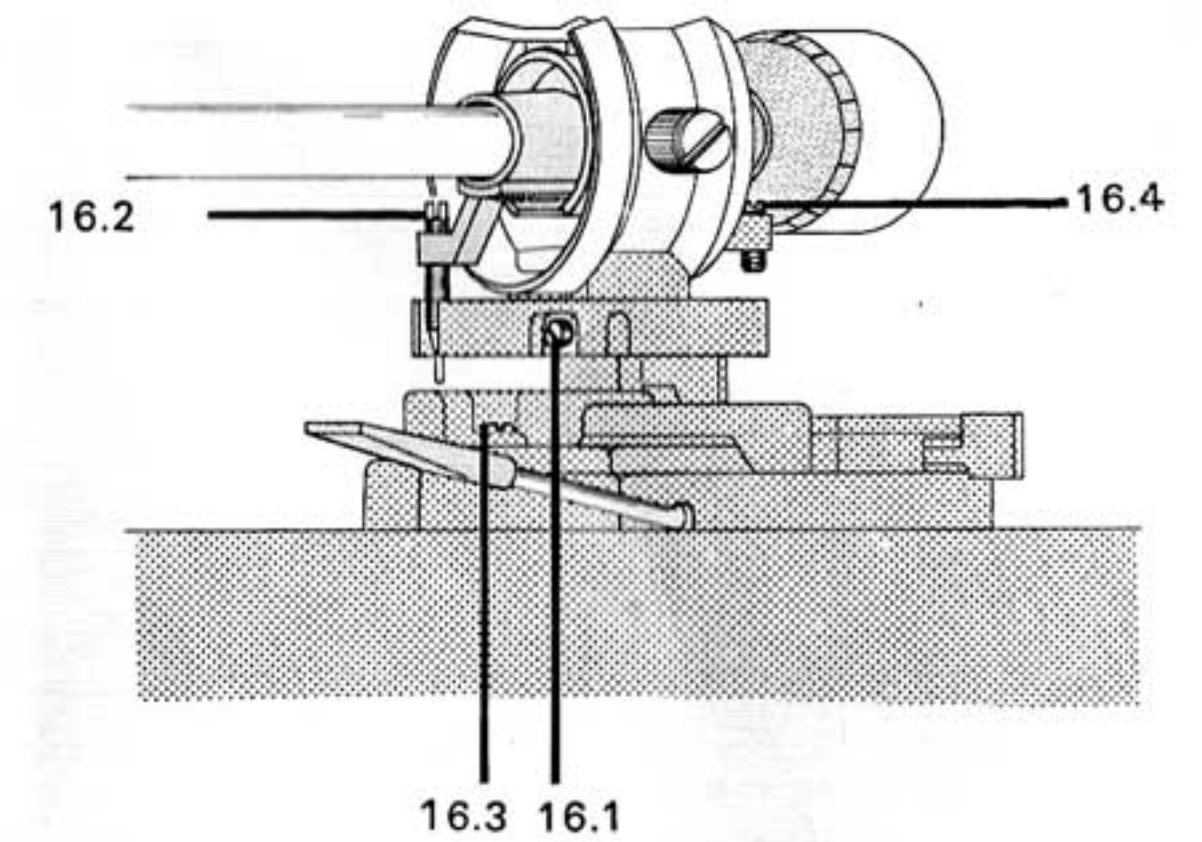
Pre-fitted leads usually have a 180° 5 pin DIN plug (diagram 5) or twin phono plugs (diagram 6) – black plug for right channel, grey plug for left channel. Connect the audio lead(s) to the pickup socket(s) on the amplifier – normally marked 'Phono' or 'P.U.'. If you require an alternative type of plug to match the amplifier input socket, adaptors are available from your dealer. Refer to the amplifier manufacturer's instructions for the selection of amplifier input level to suit your cartridge.

Audio note: All pickup leads on Garrard units are wired to the colour code given in Section 2, usually to a phono socket termination beneath the deck.

AC power supply connections

Check that the label information and any dual voltage setting suits the power supply (section 6). When leads are already fitted make plug connections to the power supply according to your requirements, referring to the following headed sections.

Diagram 7 shows how live (L), neutral (N) and, when fitted, earth \perp leads are fitted to the terminal block on the deck, should this information be required.



5 U.K. models 220/240V AC, 50Hz

If three core lead fitted (diagram 8) connect via a plug to an earthed AC power supply socket. If two core lead fitted, see also 'Double insulated units' note.

IMPORTANT: The wires in this mains lead are coloured in accordance with the following code:
Green and yellow – earth
Blue – neutral
Brown – live

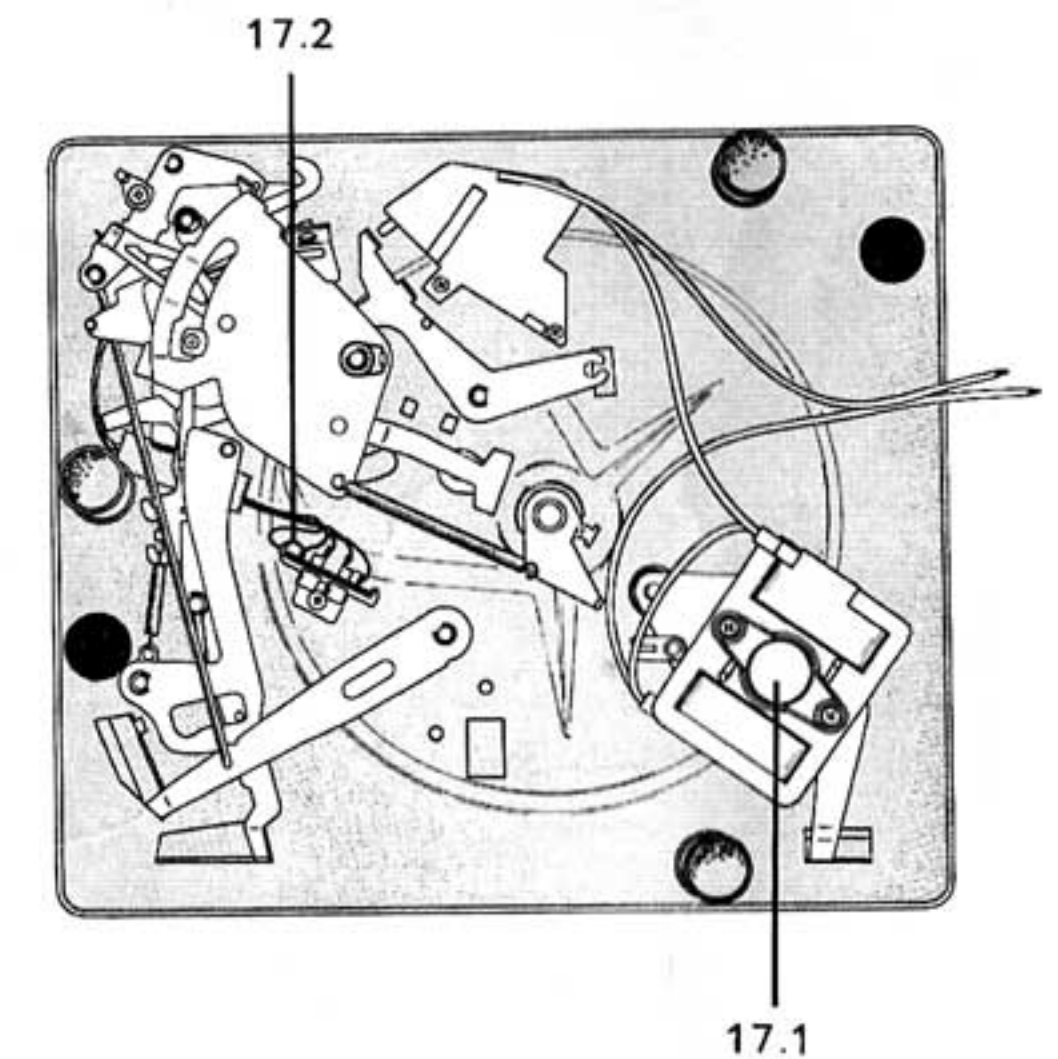
Connect a suitable plug to the mains lead. As the colour code of your plug may not correspond to this mains lead, proceed as follows:
Connect the green and yellow wire to plug terminal marked 'E' or \perp or coloured green or green and yellow.
Connect the blue wire to plug terminal marked 'N' or coloured black.

Connect the brown wire to plug terminal marked 'L' or coloured red.
The apparatus must be protected by a 3A fuse (in a 13A plug or distributor board).

Warning: This apparatus must be earthed.

Double insulated units

Garrard double insulated units are indicated so in writing or by the sign . Make lead connections as instructed here but note that there is no need to attach a safety earth lead. Other electrical equipment connected should be of a high safety standard. Normally double insulated units are signal-grounded to prevent hum. For this to be effective make sure that the amplifier is also earthed. See also service hint 'K', Section 11.



6 North American 110/125V AC, 60Hz, line cord

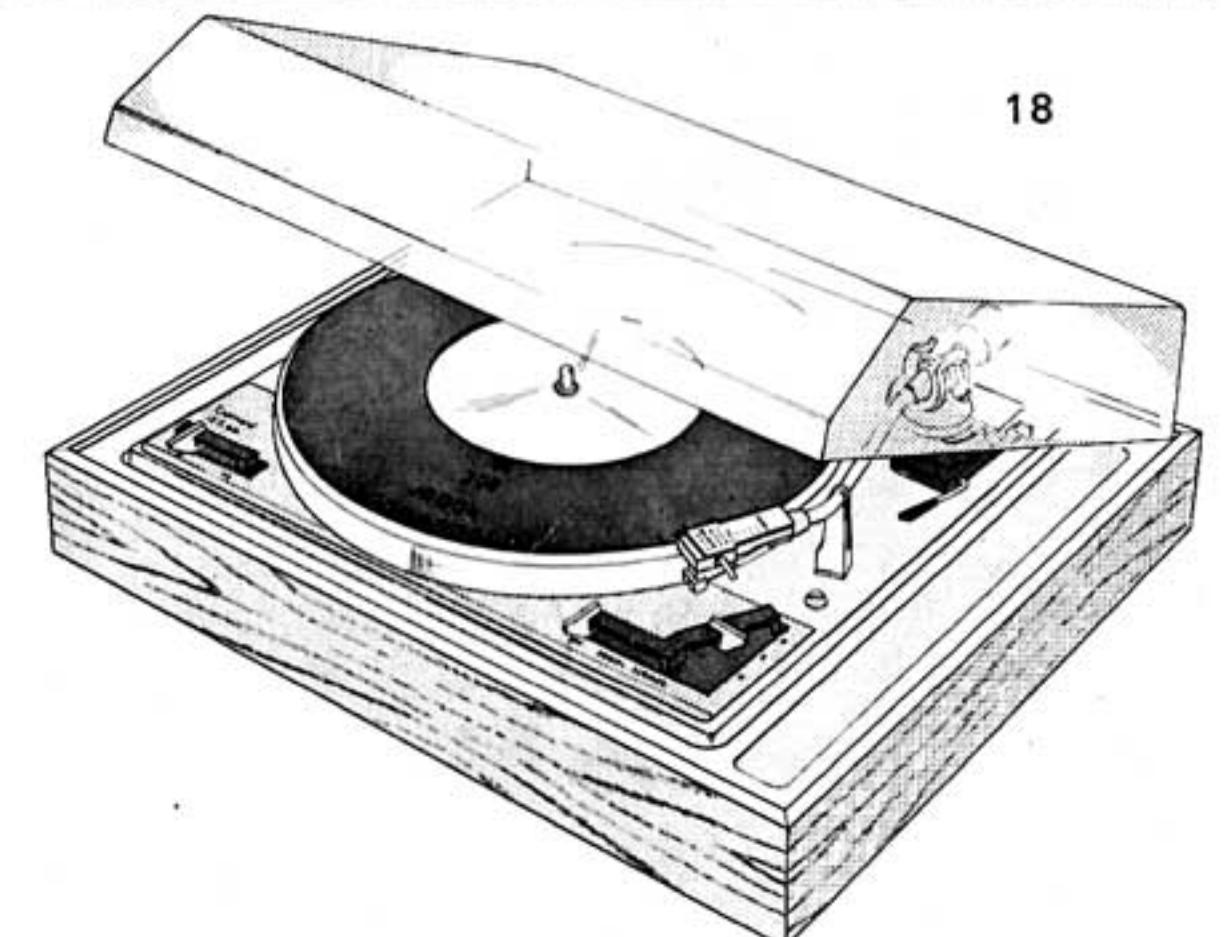
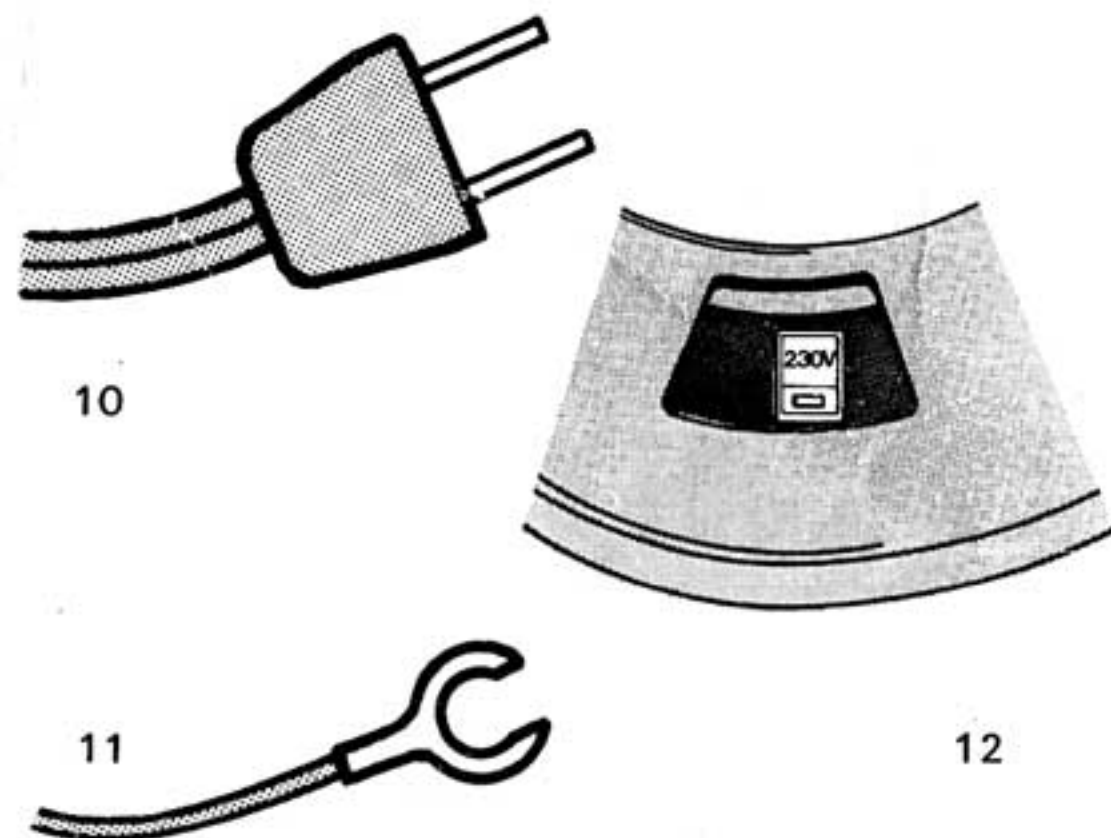
Connect the standard two flat-pin plug (diagram 10) to the power outlet on your amplifier or wall socket. Connect the line cord green ground lead (diagram 11) to a reliable grounding point on the amplifier chassis or directly to ground.

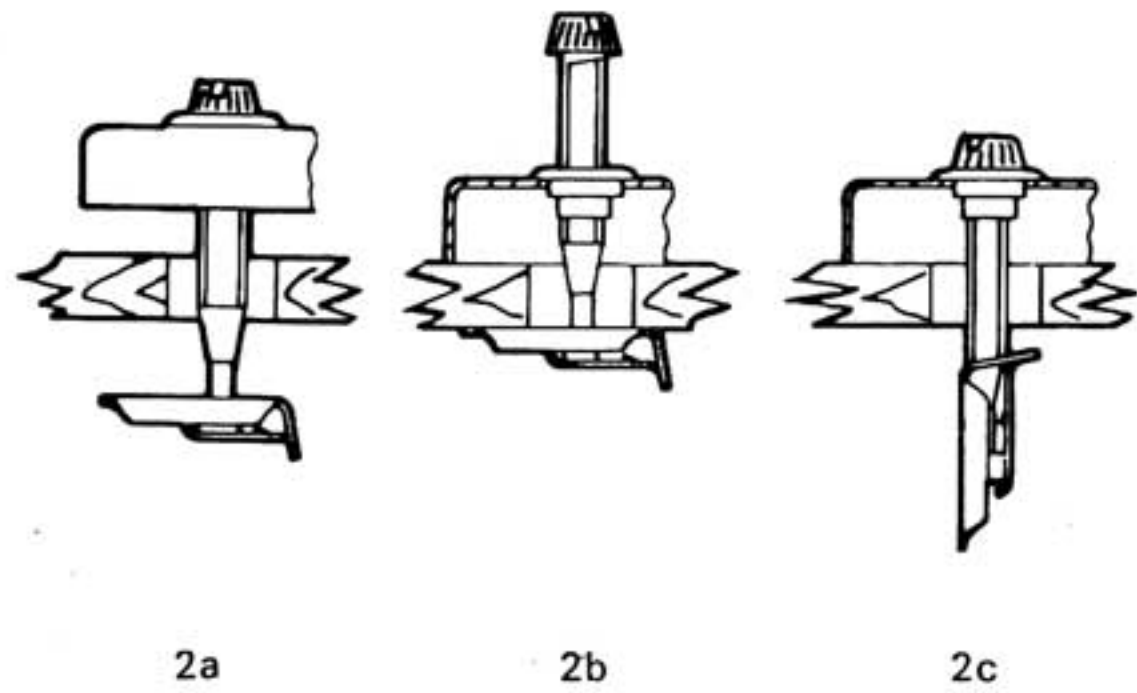
Voltage changeover switch (when fitted)

Remove the turntable mat and turn the turntable clockwise to expose the switch in the front of the unit as shown in diagram 12. Use a coin to slide the switch to read '230' if 220/240V AC or '115' if 110/120V AC power supply. Also

check that the motor pulley is correct for the power supply frequency.

A 60Hz pulley is distinguished from a 50Hz pulley by having a narrow groove around the circumference of the pulley base. To change the pulley, remove the turntable (see section 8) and carefully withdraw the pulley (13.4) from the motor spindle. As the pulley is a close fit it may require heat expansion. Fit the new pulley so that the belt runs in the middle of the lifting guide forks (15.3).





Maintenance

CAUTION: Firstly switch off power supply and protect pickup stylus.

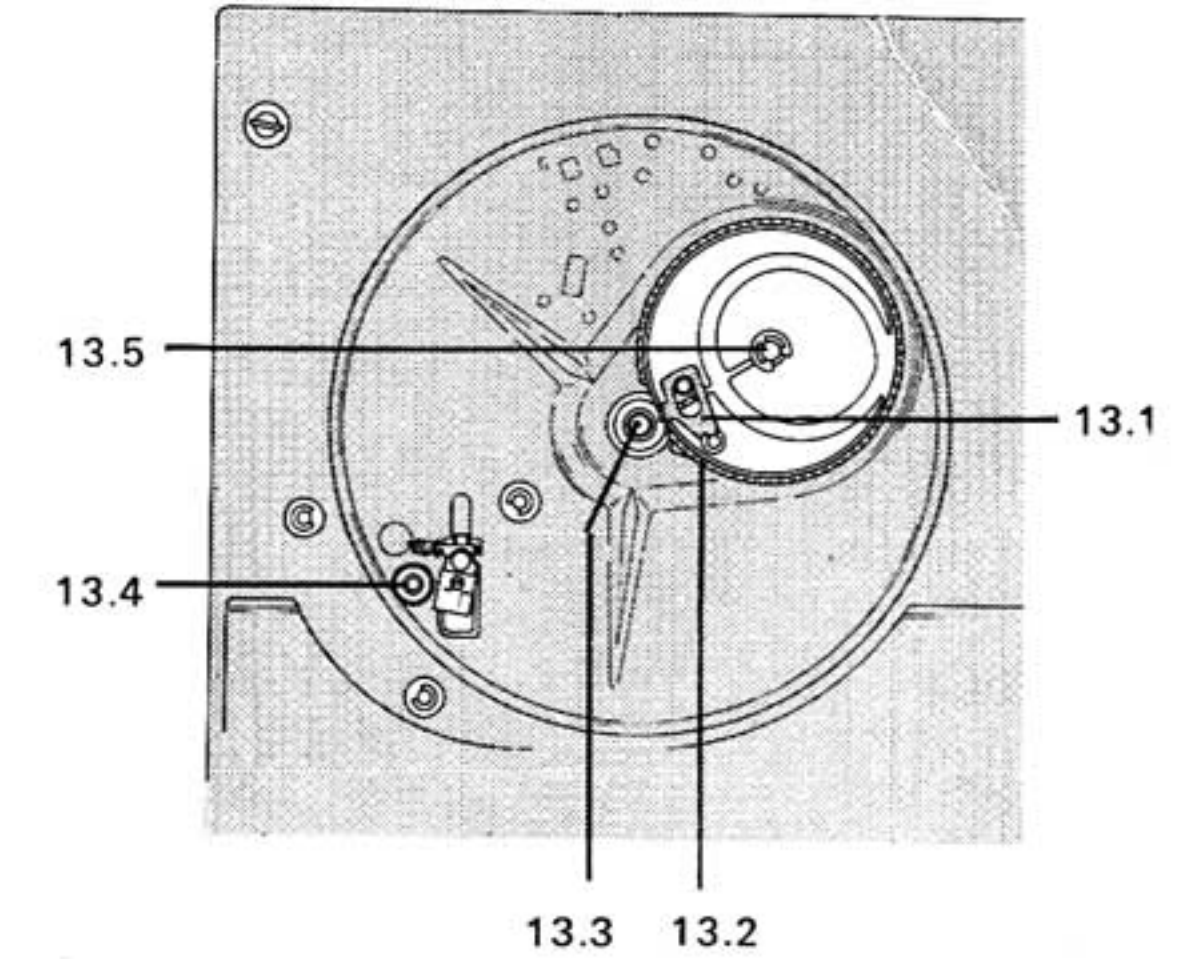
Lubrication

If necessary, apply a spot of sewing machine oil to the oil-retaining top motor bearing (13.4), the turntable bearing and spindle ball race beneath top thrust washer (13.3). Lubricate lever pivots and other moving bearing surfaces if stiffness in the mechanism becomes noticeable, also the bottom motor bearing (17.1). Do not oil the damped-cueing system. Remove any excess oil with a clean cloth. Pulley, belt and turntable drive drum must not

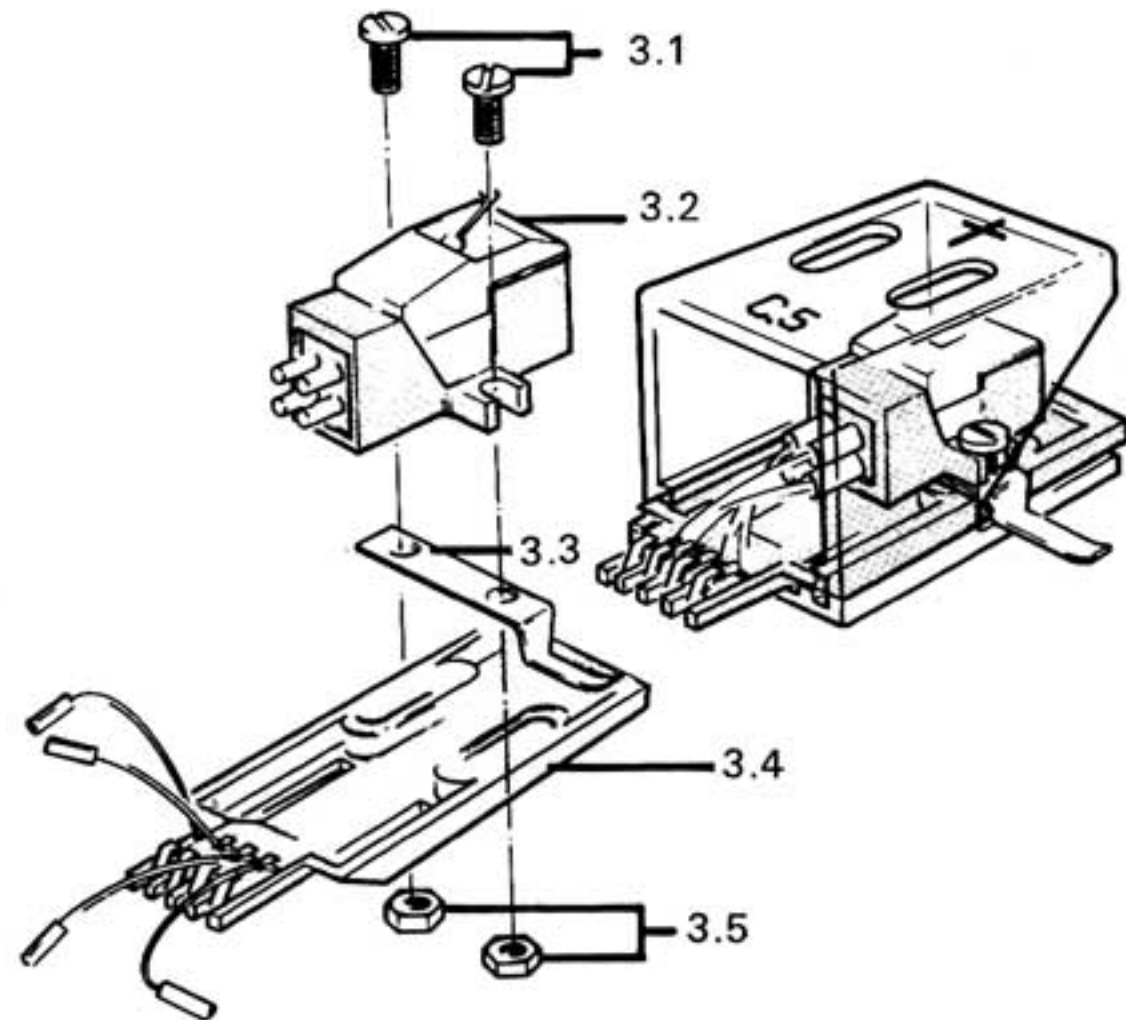
be contaminated or turntable speed may be affected.

Diagram key

- 13.1 Trip pawl (push away from turntable spindle).
- 13.2 Main cam (gap in teeth next to turntable spindle).
- 13.3 Turntable spindle (oil turntable bearing and spindle ball race beneath thrust washer).
- 13.4 Motor pulley (oil top motor bearing beneath pulley).
- 13.5 Main cam bearing (oil).



7



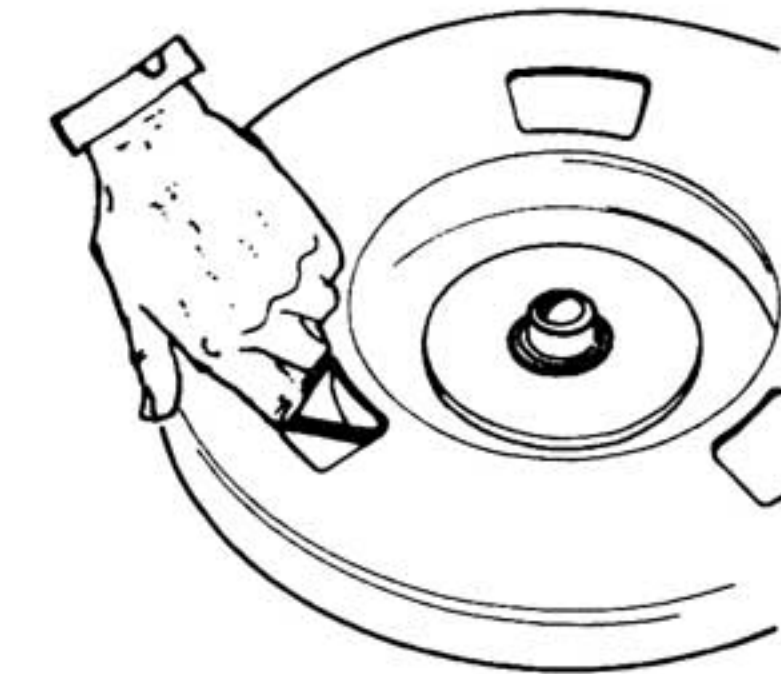
Fitting turntable and drive belt

- 1 Carefully lift off the turntable mat (store flat).
- 2 Remove the record spindle then, using a small screwdriver, lever off the turntable retaining clip.
- 3 Remove the turntable, turn it upside down and fit the drive belt (untwisted) around the turntable drive drum, belt narrow identification stripe (15.2) on the outside.
- 4 Check speed control is set to '33', also that the mechanism has gap in teeth of cam (13.2) adjacent to turntable spindle with

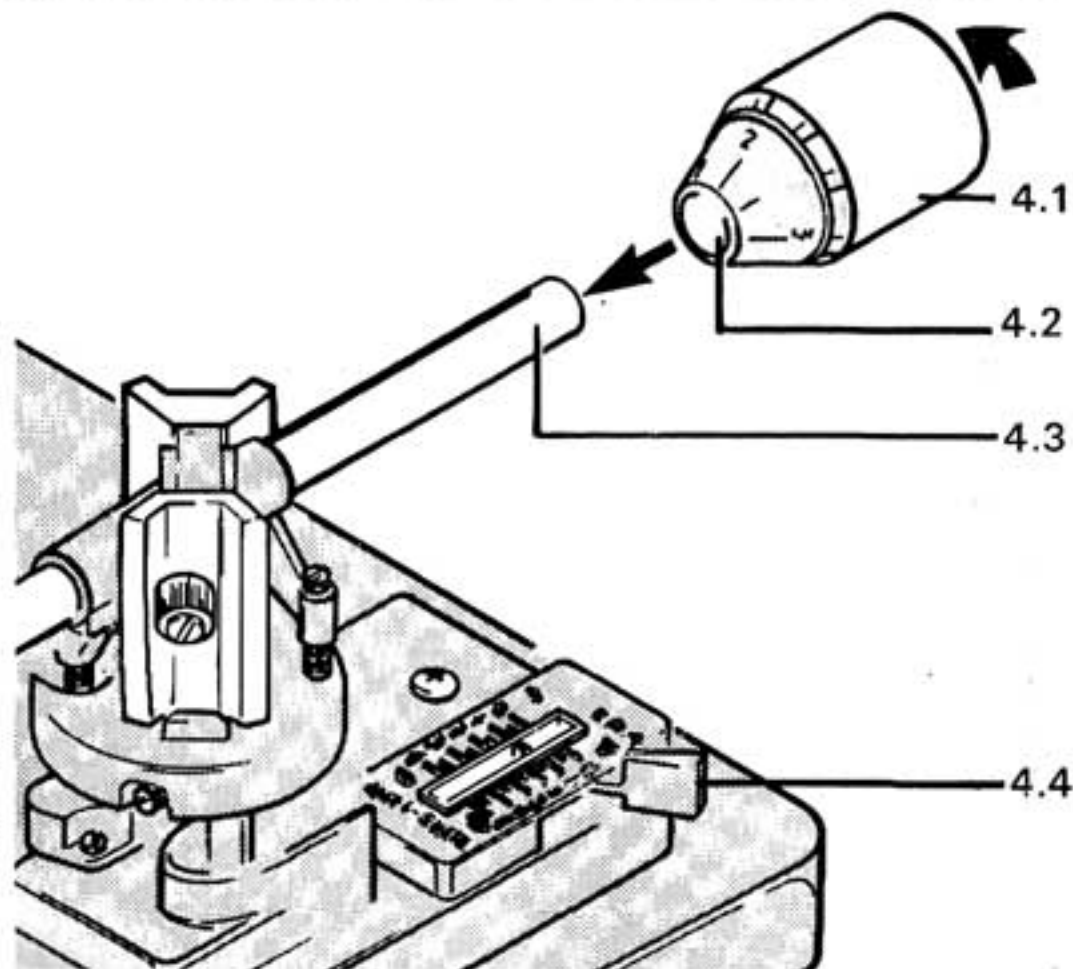
trip pawl (13.1) pushed away, for reassembly clearance.

- 5 Hook left forefinger through one of the turntable clearance holes and between belt and drum, as shown in diagram 14.
- 6 Refit turntable, aligning clearance hole in use over motor pulley (15.4). Carefully stretch belt over lifting guide (15.3) releasing it on to the top pulley step, as in diagram 15.
- 7 Refit turntable retaining clip and record spindle and carefully reseat turntable mat.

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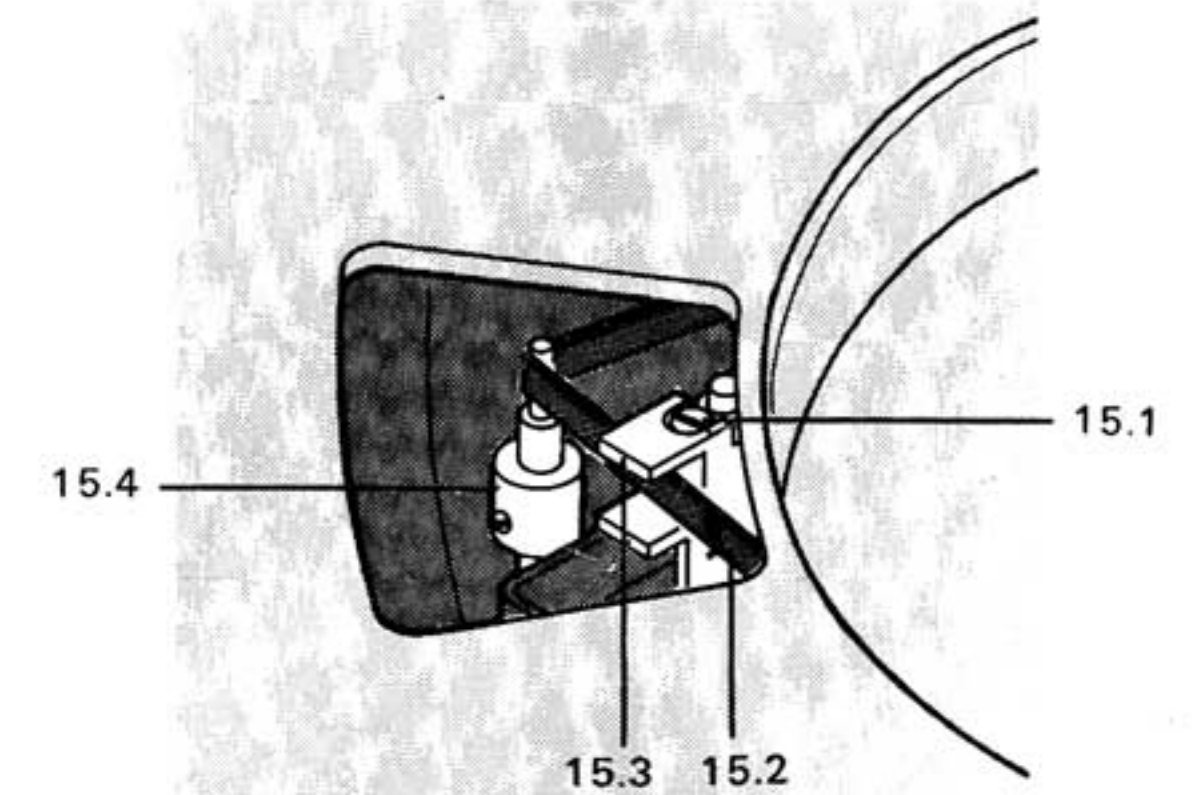


Drive belt lifting guide

The drive belt automatically takes up its position in the centre of the pulley step to which it is set. If the lifting guide rubs the edge of the belt or fails to move the belt to the other pulley step when a speed change is required, it can be adjusted by means of the screw (15.1) shown in diagram 15. First remove the turntable mat, then with the speed control set to '33', run the

turntable gently clockwise for a few turns and align one of the turntable clearance holes over the lifting guide. The belt should be in the centre of the top pulley step. Turn the lifting guide adjustment screw clockwise to lower or counterclockwise to raise the guide and set the guide so that the belt runs through the guide forks with equal clearance top and bottom.

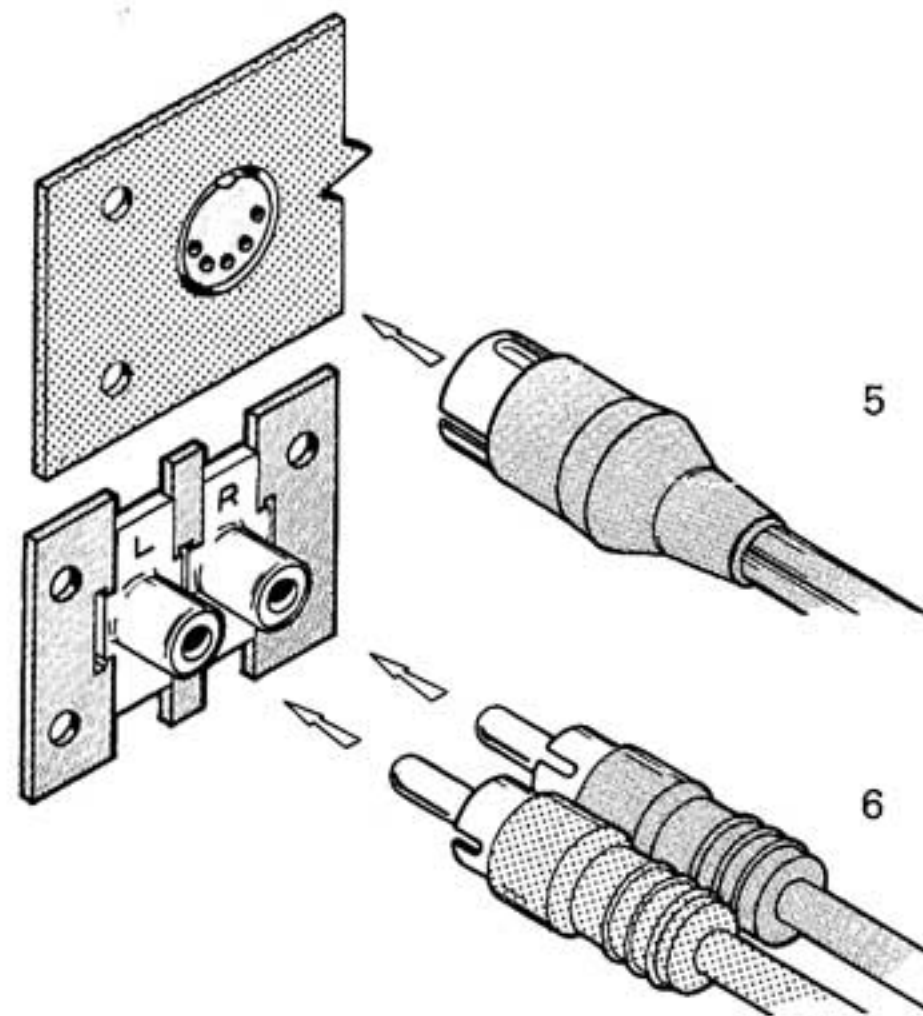
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15.4

15.1

15.3 15.2



Pickup arm adjustments

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These are factory set and normally need not be touched. If necessary, however, switch off the power supply, carry out the adjustment, then move the operating control to 'Auto' and revolve the turntable slowly clockwise by hand to check the adjustment.

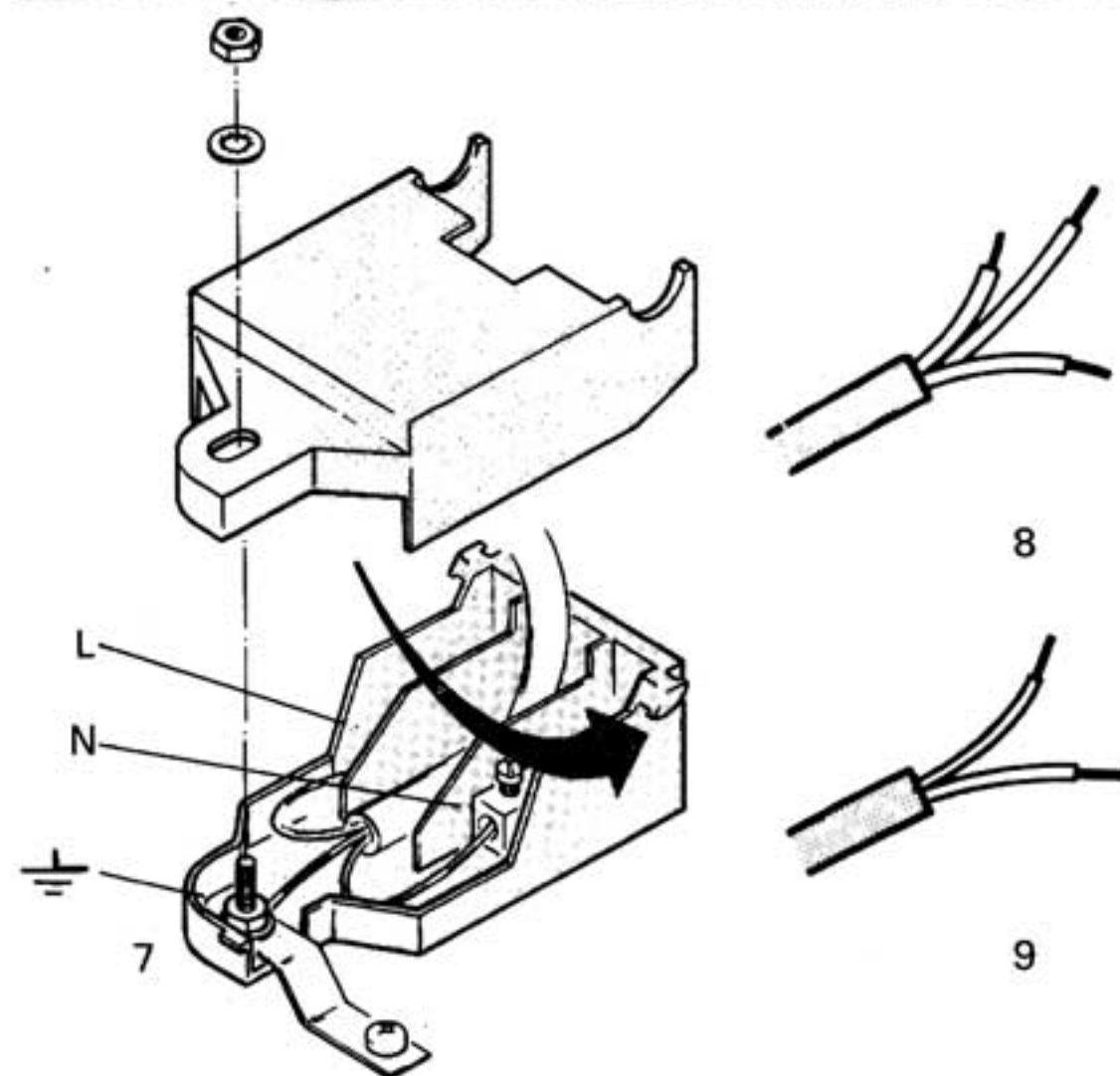
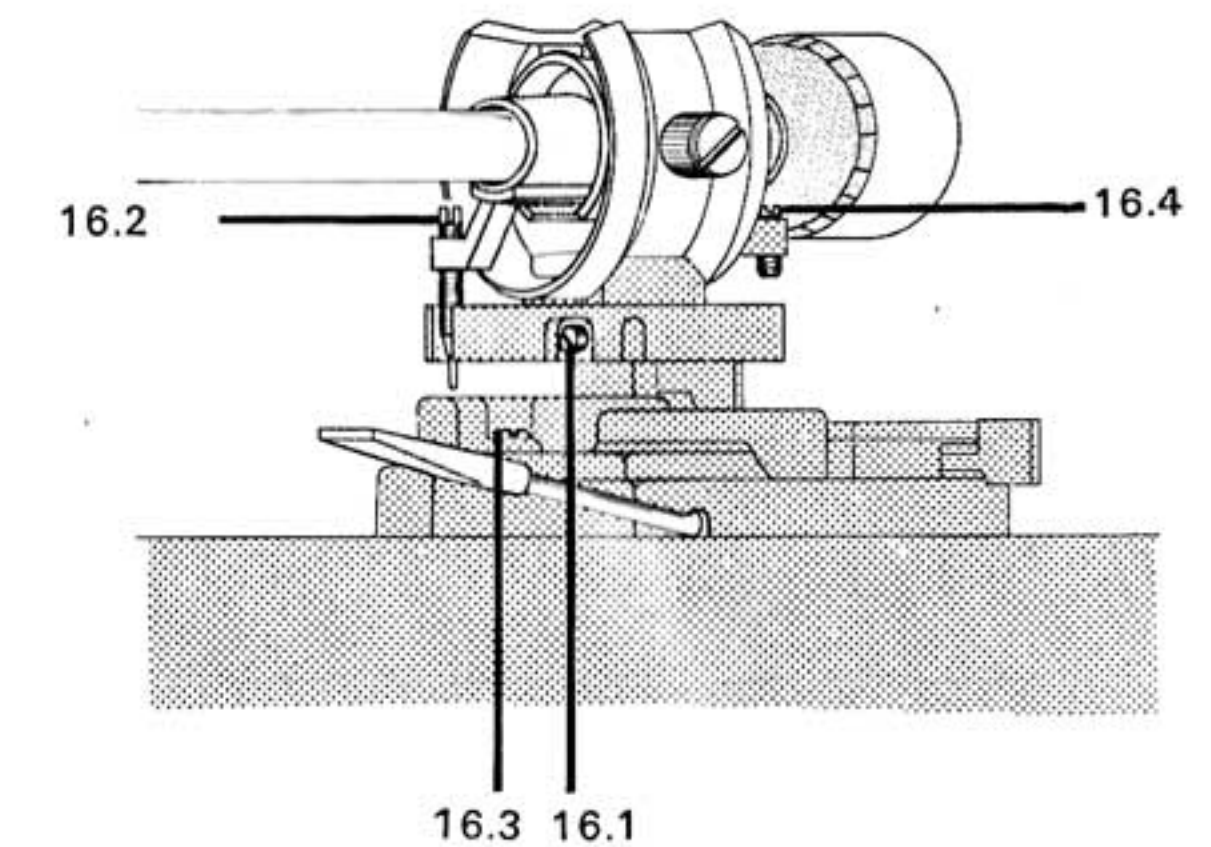
Pickup lowering position is adjusted by turning the screw (16.1) clockwise to move the lowering position inwards or counterclockwise to move it outwards. The lowering position should be set just inside the slope of records with a sloping edge, to avoid skating.

Pickup lifting height should be set normally so

that the arm just clears the top of the pickup rest as it returns automatically. Turn the screw (16.2) clockwise to increase or counterclockwise to decrease this height.

Pickup cueing height. The screw (16.2) can be used to give special adjustments to the height to which the pickup lifts when cued. A separate adjustment screw (16.3) in the lifting platform is factory set and should need no adjustment.

Pickup restrictor. This is fitted to safeguard the arm. Set screw (16.4) so that the pickup will lift manually about 1mm more than its auto lift height.



Service hints check list

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Pickup mistracking: A, B, C, D, E, F.
Distorted sound: A, B, C, D, G, K.
Speed varies: H, J.

- A Check stylus is clean.
- B Check stylus is correct type for record being played.
- C Fit tilt wedge if back of cartridge or leads touch record.
- D Check balance of pickup arm, stylus force and bias compensator setting.
- E Check pickup leads not caught up, restricting arm movement at rear.
- F Check cue and pause control fully down.
- G Have amplifier and loudspeakers checked.
- H Check no oil on motor pulley, drive belt or turntable drive drum.
- J Check belt lifting guide not rubbing top or bottom of drive belt.

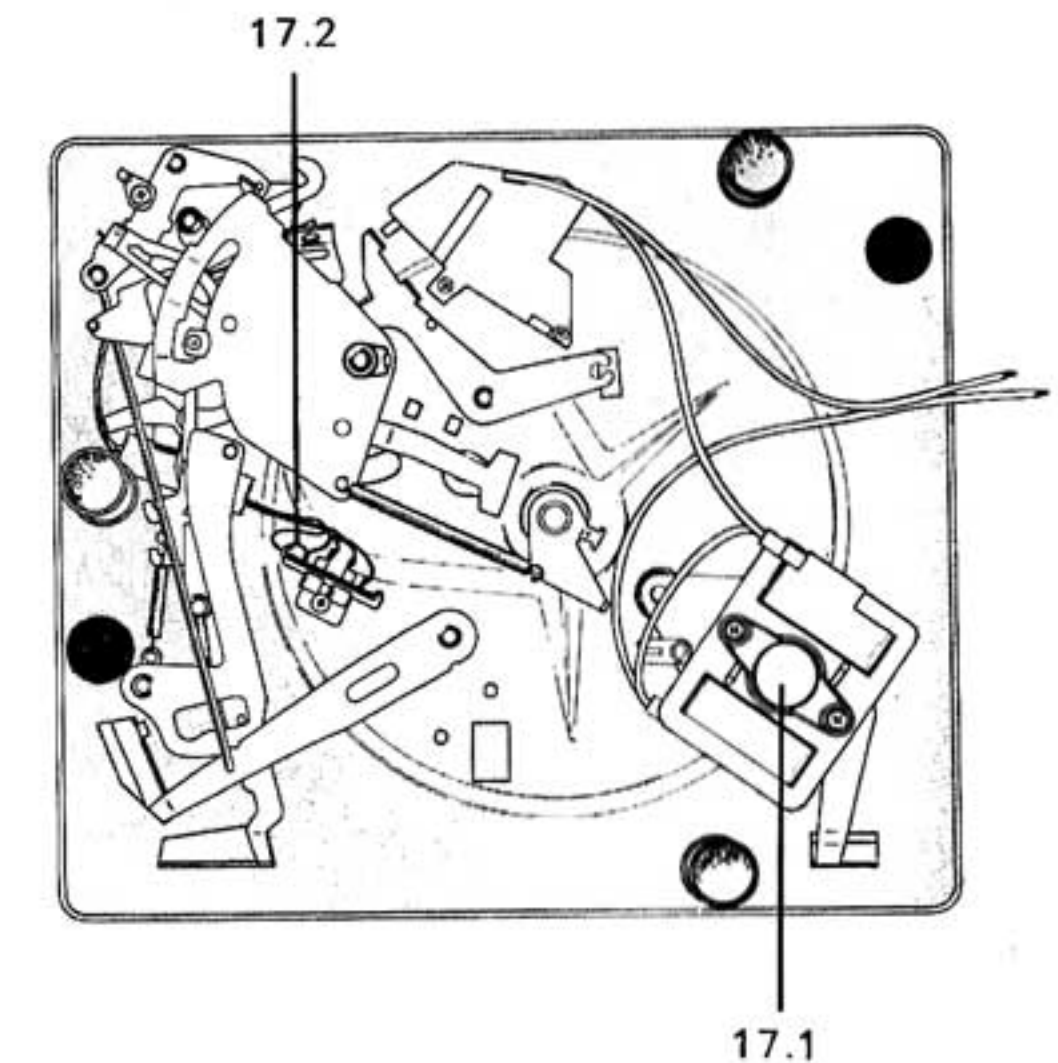
- K If low hum affects sound, check earthing arrangements. If a double insulated unit, check that the deck phono socket has a signal ground link fitted (17.2) and that your amplifier is earthed. If the amplifier is also double insulated and not earthed, disconnect this link, if fitted.

Accessories

Module base type B15; dust cover type LC15; large hole record adaptor, part no. 72698.

Sales service

Always quote the eight figure number from the unit inspection label (commencing 78800/---). For spares, state model type and describe part, with power supply details when applicable. Contact your dealer or Garrard territorial agent.
GARRARD, SALES SERVICE DEPT.,
Kembrey Street, Swindon, Wiltshire, England.
Telephone (0793) 693471.



Garrard module base and cover

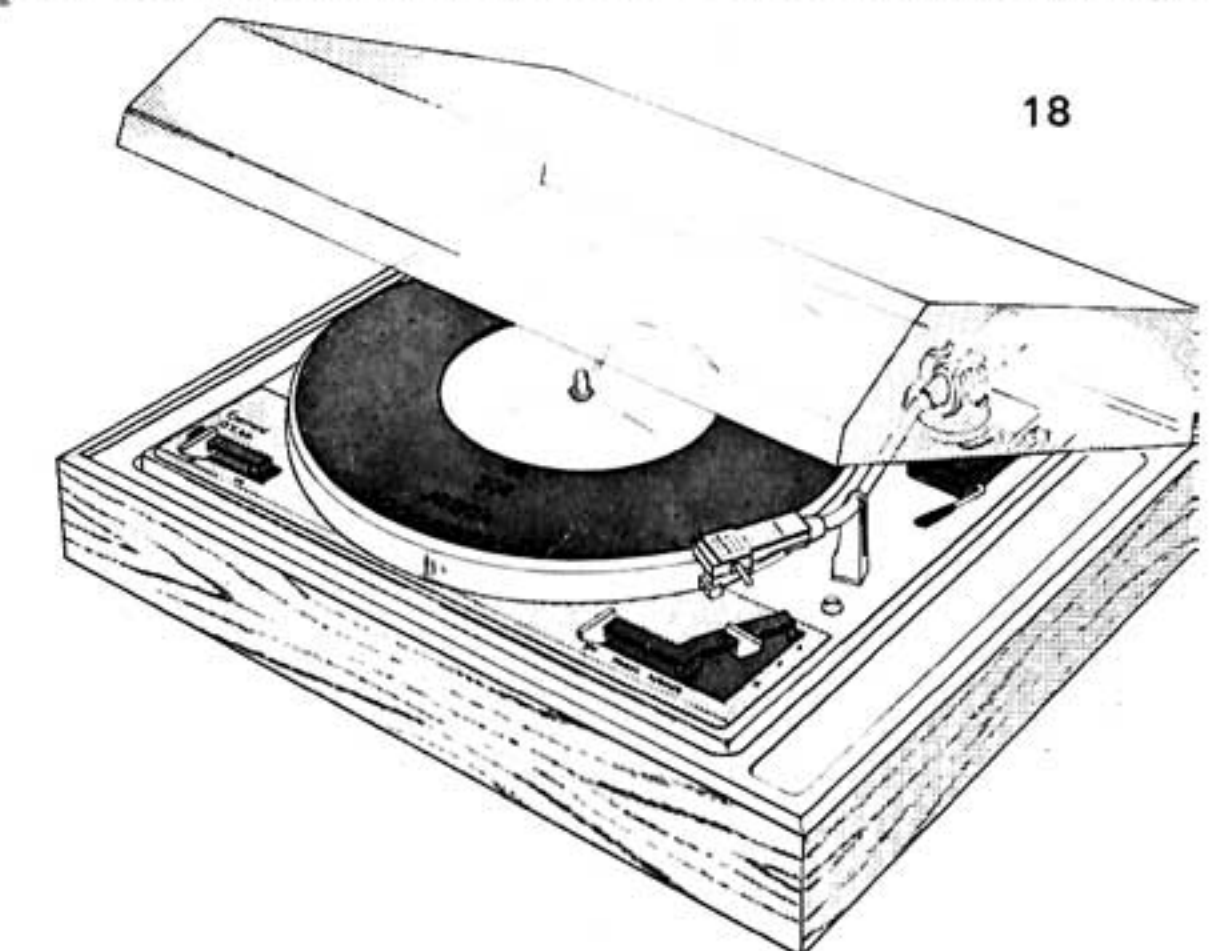
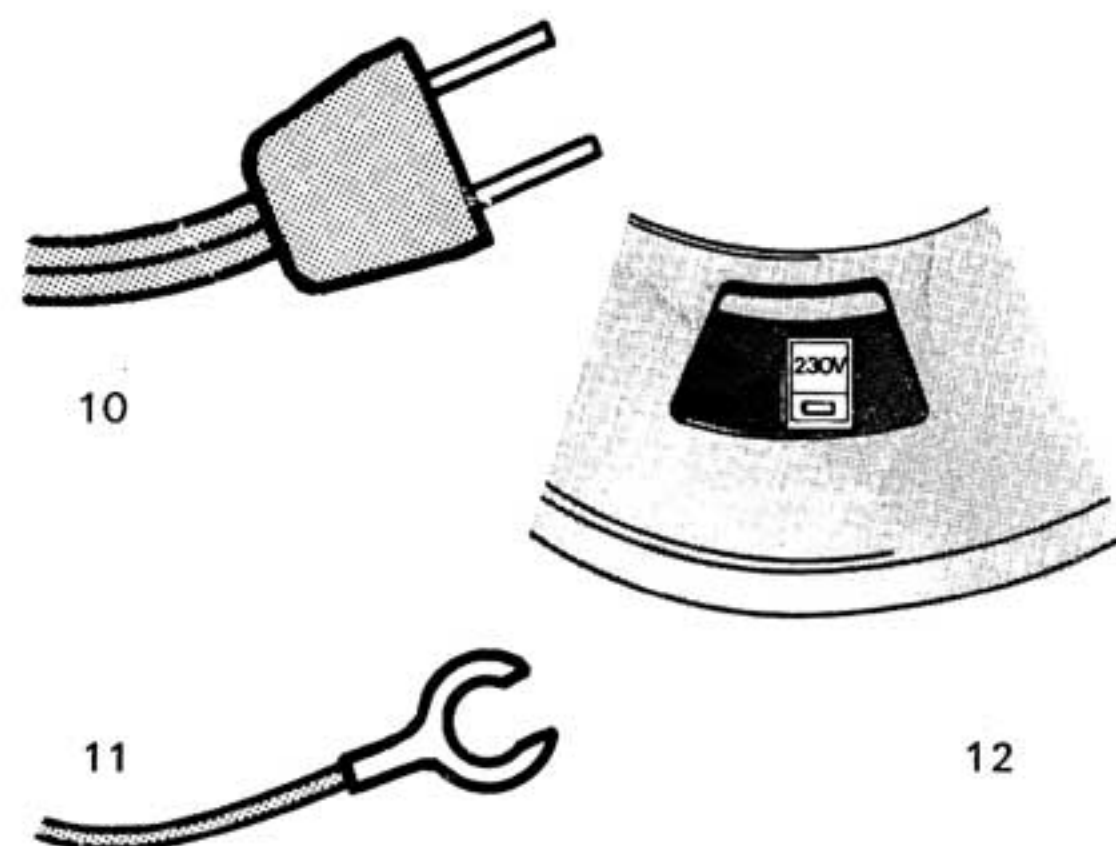
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The B15 base is made of low resonance material which safely encloses the mechanism. A clamp at the rear provides strain relief for connecting leads. The lift-off type LC15 cover has friction hinges fitted (patents applied for) but at low angles and when open vertically, the cover has free movement. A fractional turn on each hinge screw when the cover is vertical, allows friction adjustment if ever required. In fitting a deck to the B15 base, turn the transit clips as in diagram 2c, then temporarily clamp the deck (diagram 2b). Support the base and clamp the connecting leads with the lead clamp

using the three screws provided. Guide the phono lead(s) through the slot in the lead clamp nearest the pickup arm and make sure no lead is drawn tight inside the base. Refer to previous installation sections as required.

North American base and dust cover

Regulation note for USA models:
CAUTION: This turntable is for use with Garrard base Model B5 and dust cover Model DC5. (This BDC5 combination is not illustrated here.) In Canada also, a special base and dust cover may be supplied.



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