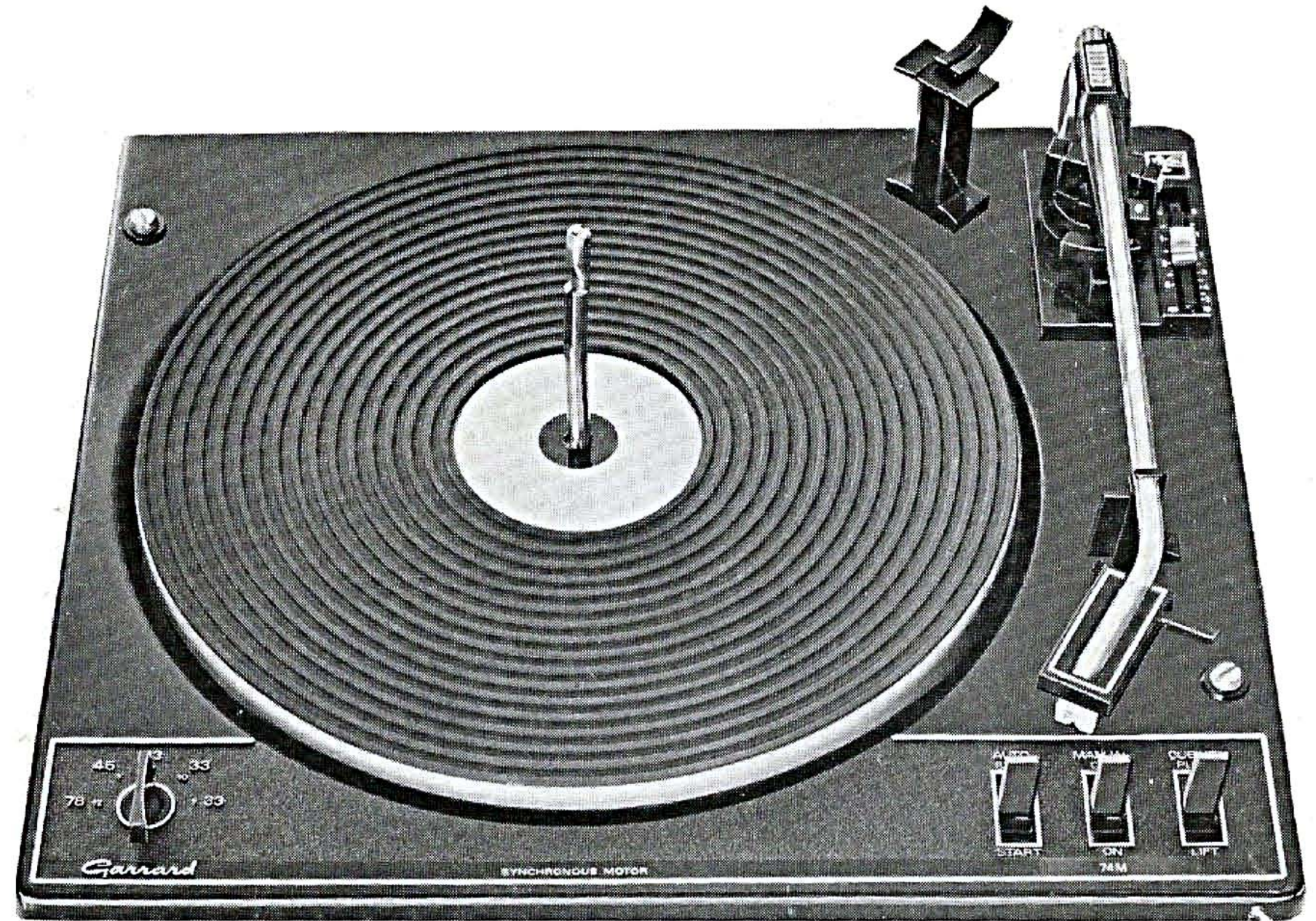


# Garrard

## MODEL 74M



Automatic  
Transcription  
Turntable

Instruction Manual

# Garrard

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## Model 74M auto transcription turntable

(Patents Pending)

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## Introduction

The Garrard Model 74M is a transcription quality record playing unit with the ability to play records automatically when required. It will automatically play 12in (300mm), 10in (250mm) and 7in (174mm) records single or a stack of up to six 12in records at any of three speeds – 78, 45 or 33 $\frac{1}{3}$  rev/min. For playing 78 rev/min records a 3 mill stylus is recommended.

It will also automatically play up to six 7in records with large diameter centre holes using a large record spindle, Type LRS 100 available as an optional extra.

An adaptor for playing these records singly is provided. Operation is controlled by tabs grouped conveniently at the front of the unit.

### The Tonearm

- ★ The tubular arm with its bias compensator calibrated for spherical and elliptical styli, is weight counterbalanced.
- ★ Stylus force is easily set with the integral calibration.

- ★ Almost any modern pickup cartridge requiring a stylus force of 1 gramme or more can be fitted to the arm.
- ★ It can be lowered steadily on to a record using a fluid-damped 'cue and pause' facility, under either manual or automatic control.
- ★ After playing a record the arm will return to its rest and the unit will switch off.

### The Platter

- ★ Its precision-finished, oil-retaining bearings contribute to smooth running and long life.
- ★ The rubber mat is designed to be cleaned easily.

### The Motor

- ★ The Garrard 4-pole Synchro-Lab motor is resiliently suspended.
- ★ It drives the turntable at a steady speed through a rubber intermediate wheel which is protected by being retracted when not in use.

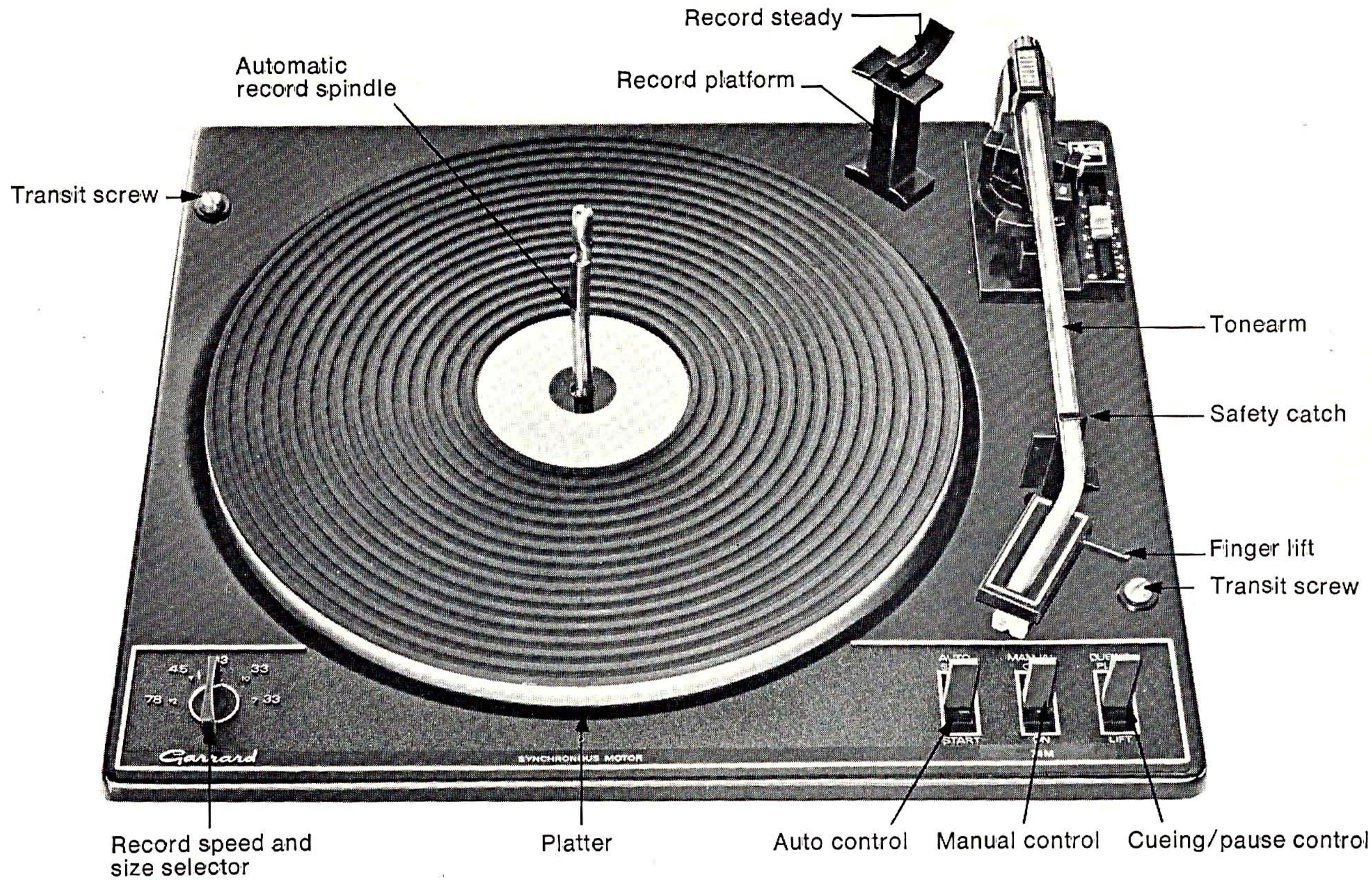


Diagram 1 General view of Model 74M

# Operating instructions

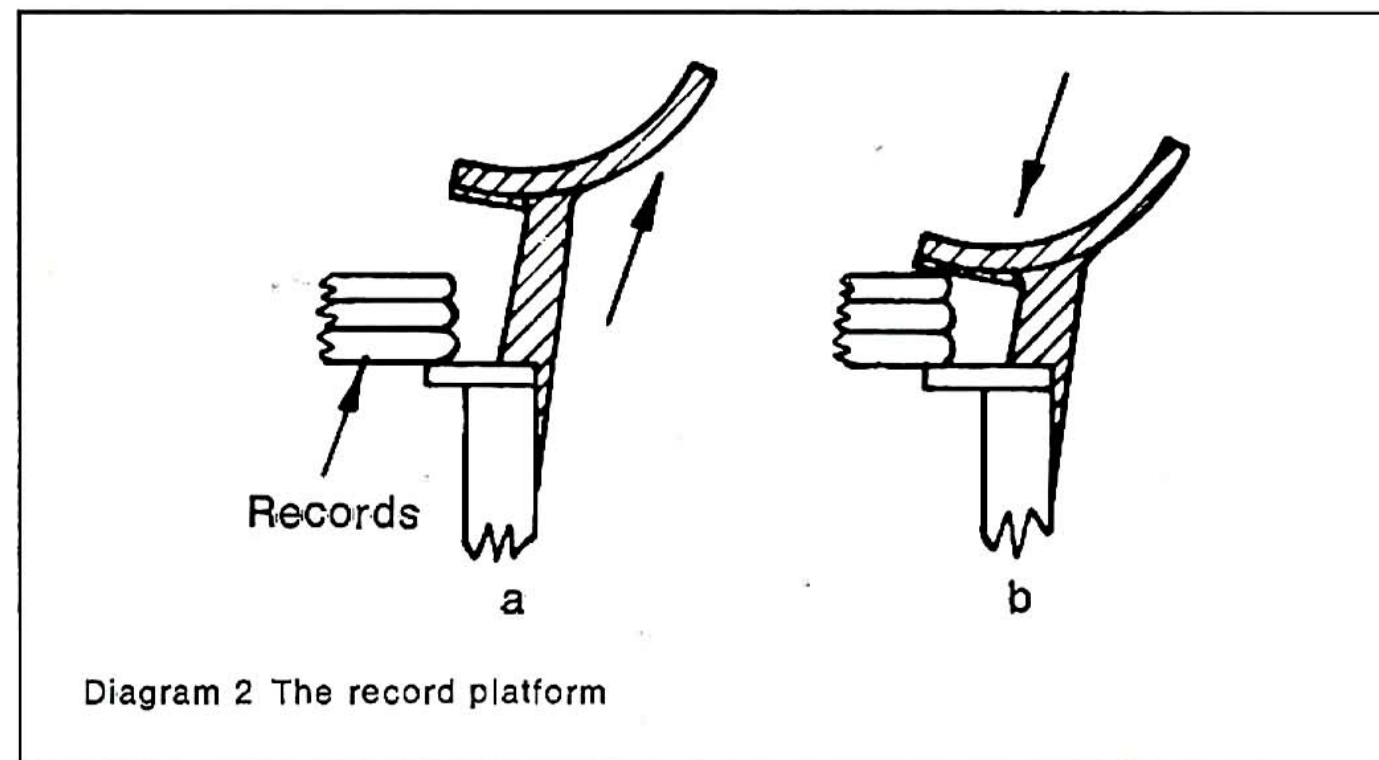
## GENERAL NOTES

- 1 Always switch off unit after use.
- 2 Do not rotate the turntable counterclockwise.
- 3 Before transporting the unit when in its cabinet secure the tonearm to its rest, turn both transit screws fully counterclockwise to clamp the unit to the mounting board and refit the stylus guard to protect the pickup cartridge. Before further use, unclamp the unit.
- 4 Keep the stylus free from accumulated dust, and replace it when worn.
- 5 Do not leave records on the turntable. Store and clean them as recommended by the manufacturers.
- 6 The normal position of the control tabs is upright. They will return to this position when the unit switches off.
- 7 Before playing a record:
  - (a) Unclip safety catch to release tonearm, remove stylus guard if fitted, and check that the stylus suits the type of record to be played.
  - (b) Never switch on unless at least one record is in position on unit.

## OPERATION

Automatic play (long record spindle)

- 1 Fit the automatic record spindle, rotating it until it can be pressed firmly into place.
- 2 Set record speed and size selector control.
- 3 **(a) 12in Records**  
Locate up to six records on step of record spindle with edge resting on platform, then lift record steady outwards and up by means of the tab (diagram 2a). Position the record steady on top of the record stack (diagram 2b).
- (b) 7in Records with Large Holes**  
Place LRS 100 record spindle (optional extra) over automatic record spindle, and load up to six records on to its step.



# Operating instructions (continued)

4 Move 'AUTO' control fully to 'START'. The first record will slide down onto the turntable and the pickup arm will lower to start play. After the last record has played the arm will return to its rest and unit will switch off.

## 5 To unload

Lift records clear of record spindle, even if replaying them. When using the LRS 100 large record spindle lift records with fingers whilst pressing down on spindle top with thumbs.

### Single Record Automatic Play

- 1 Fit short record spindle. For a 7in record with large centre hole, fit record adaptor over the spindle.
- 2 Set record speed and size selector control.
- 3 Place record on turntable and move 'AUTO' control fully to 'START'. The tonearm will lower on to the record and, after playing, will return to its rest. The unit will then switch off.

### Manual Cue/pause Play

- 1 Fit short record spindle. For a 7in record with large centre hole, fit record adaptor over the record spindle.
- 2 Place record on turntable.
- 3 (a) Normal single record play: Move 'MANUAL' control fully to 'ON' then place pickup on record.  
(b) To cue: Move 'MANUAL' control fully to 'ON' and the 'CUEING' control to 'LIFT'. Position the pickup arm over any desired point on the rotating record, and gently move the control back to 'PLAY'. The pickup will then lower on to the record.

### Pause

Record play can be interrupted by moving the 'CUEING' control to 'LIFT'. The tonearm will rise but the turntable will continue to revolve. Gently move the control back to 'PLAY' and the arm will lower and resume playing. This feature is particularly useful for repeating any portion of a record and interrupting play without switching off.

### Repeat

Any single record being played, or the last record of a stack, may be repeated by moving the 'AUTO' control to 'START'.

### Reject

Any record of a stack being played (except the last) can be rejected by moving the 'AUTO' control to 'START'. The last record is rejected by moving the 'AUTO' control to 'STOP'.

### Stop

- 1 When a record is playing, moving the 'AUTO' control to 'STOP' will cause the pickup arm to return to its rest, whereupon the next record will be lowered and the unit will switch off. Upon restarting (using the 'AUTO' control) the next record of the stack will be lowered and played.
- 2 Move the 'MANUAL' control to 'OFF'.

# Maintenance

## REMOVING THE PLATTER

Protect the stylus and switch off the power supply before making any adjustments.

Make sure that the unit is switched off and remove the record spindle. Then prise off the decorative centre disc and retaining clip using a small screwdriver. Lift the platter applying equal pressure on opposite sides.

## REFITTING THE PLATTER

First check that the centre hole and the drive rim are clean, then carefully fit the platter on to the spindle while rotating clockwise, refit the retaining clip, the mat and the centre disc and the record spindle.

## INTERMEDIATE WHEEL HEIGHT

Turntable speed will be incorrect if the motor pulley is out of position. In this case set the 'MANUAL' control to 'OFF' and remove the turntable. Then set the speed control to '33' and touch the intermediate wheel against the motor pulley. The rubber wheel should contact the centre of the smallest step of the pulley. The height of the intermediate wheel is adjusted by moving the blue spring blade in the support bracket near the motor (see diagram 4). To change the motor pulley, loosen both screws holding it to the shaft and lift off the pulley.

If the pulley is a very close fit on the spindle hold a hot, clean soldering iron to the base of the pulley for a few seconds to expand it.

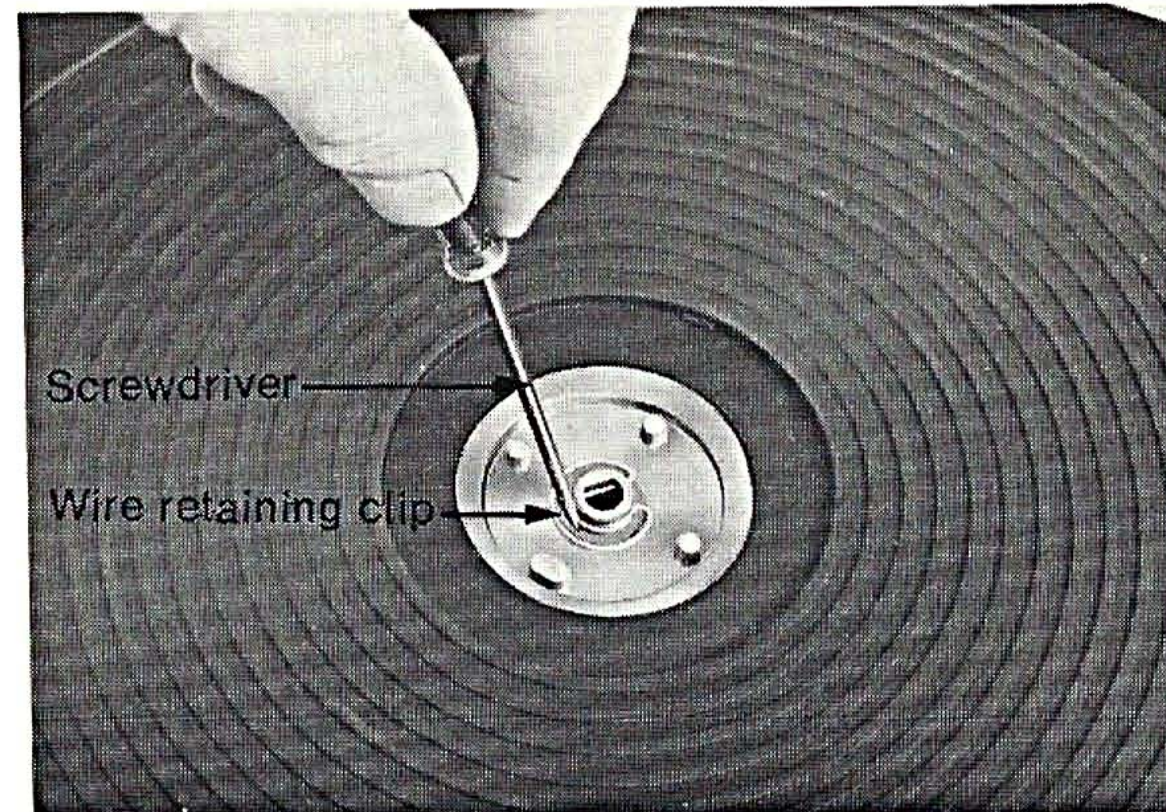


Diagram 3 Removing the retaining clip

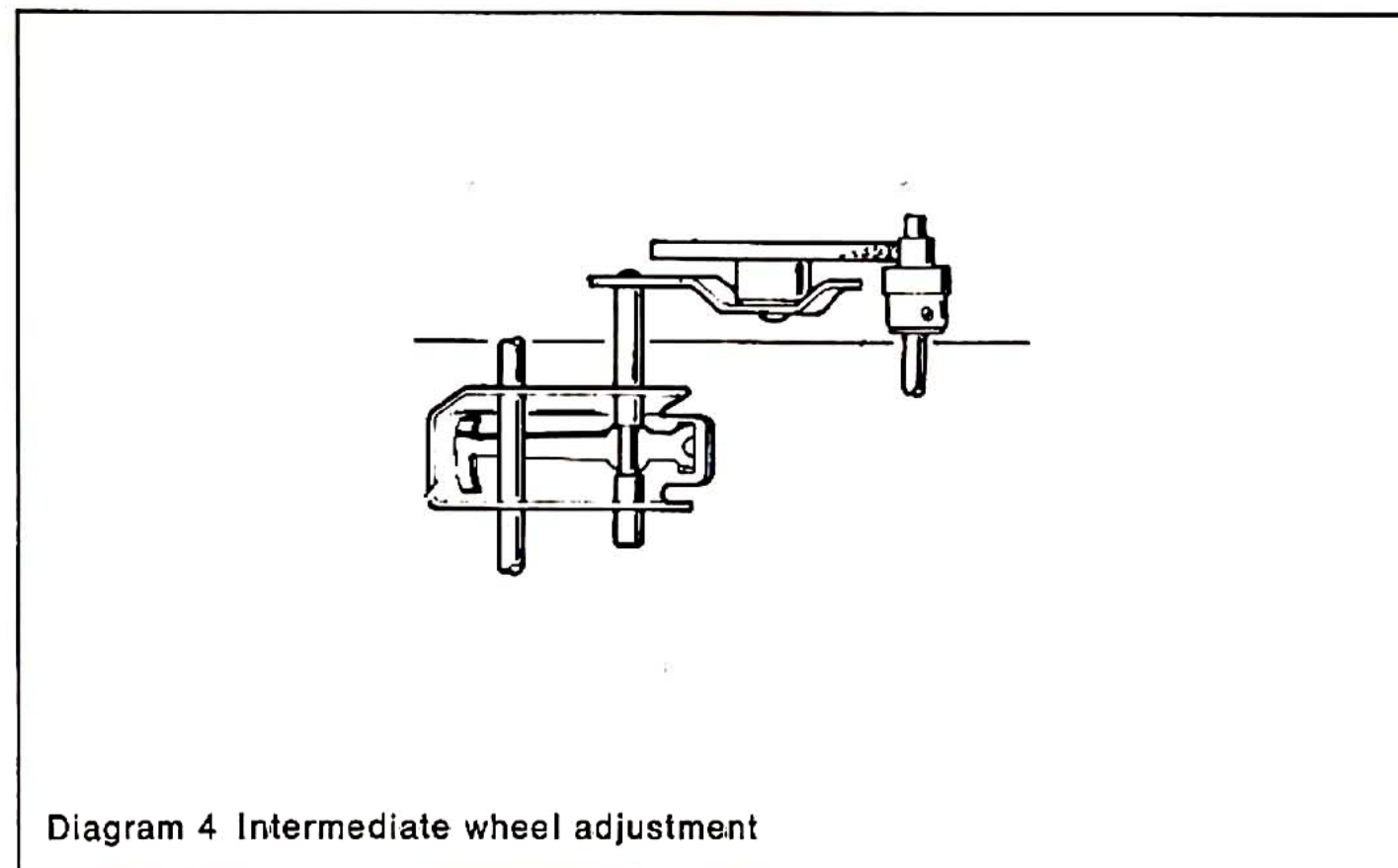


Diagram 4 Intermediate wheel adjustment

# Maintenance (continued)

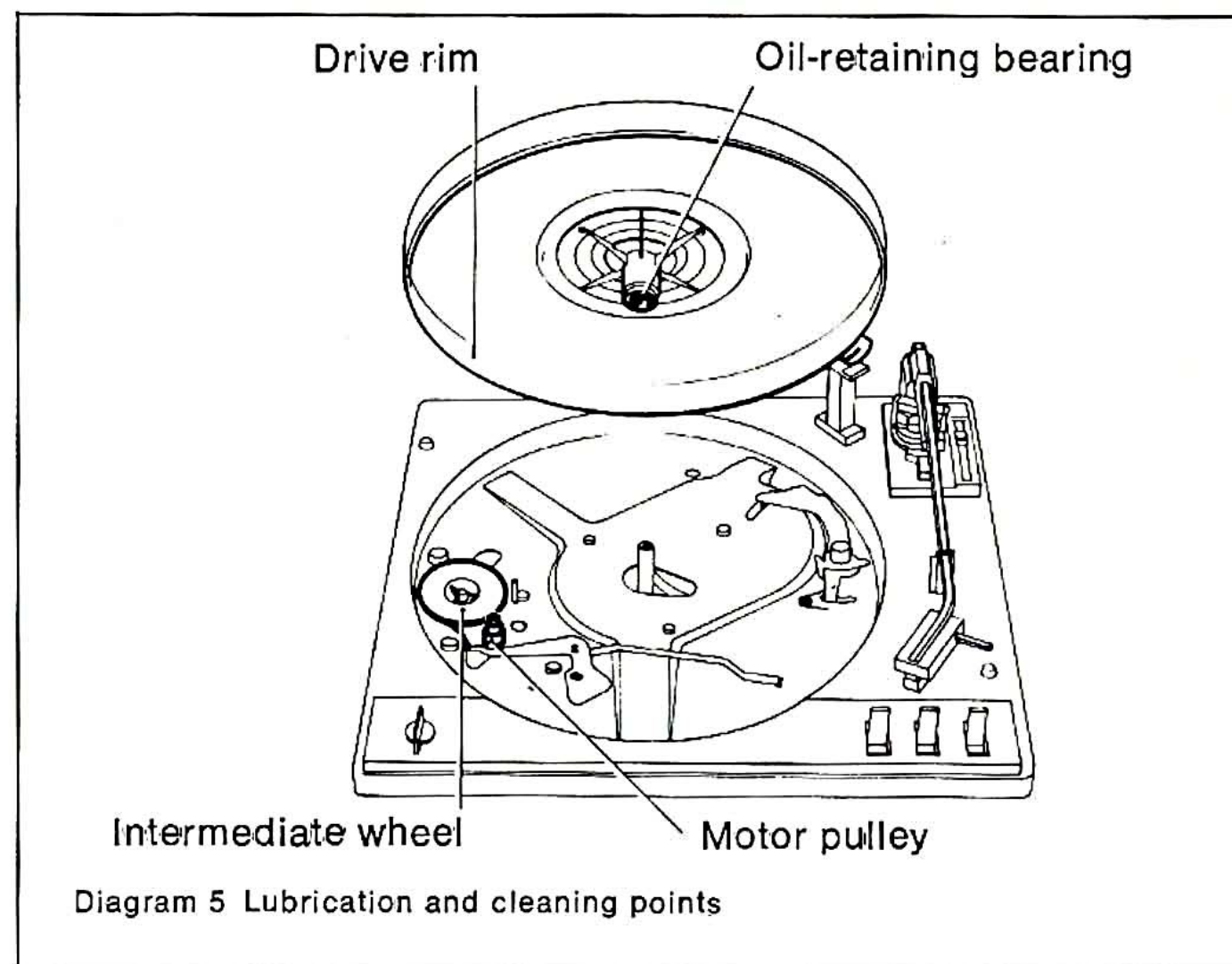
## LUBRICATION

### Motor Bearing

The bearings of the motor are of the oil-retaining type and rarely require lubrication. When the need becomes apparent remove the turntable (see page 5) and place a few drops of light oil on the motor shaft adjacent to the bearing.

### Intermediate Wheel Bearing

Remove the platter (see page 5). Take off the retaining spring clip and plastic washer to lift off the intermediate wheel and fibre washer (this may stick to the bottom of the intermediate wheel bearing). Clean inside the bearing and the periphery of the shaft with a clean cloth. Using a toothpick dipped in light oil, coat the inside of the bearing with oil, making sure that none touches the rubber wheel. Re-assemble the parts, with the longer portion of the bearing facing downwards, then clean the rubber surface of the intermediate wheel with a clean cloth.



## Cleaning

### Drive Mechanism

Erratic platter speed (wow and flutter) or rumble is often an indication that the drive mechanism requires cleaning or lubrication.

When this is suspected, remove the platter (see page 5) and clean the surfaces of its driving rim, the intermediate wheel and the motor pulley using a clean lint-free cloth. Make certain that no oil remains on these surfaces.

### Platter Mat

Clean the mat with a soft brush.

# Setting up instructions

## STYLUS FORCE (with cartridge fitted)

Set the red stylus force pointer to 0 on scale B (diagram 6) by turning screw A fully clockwise when viewed from the front of the tonearm. Unclip the safety catch and move the arm away from the rest towards the platter centre. With the arm thus free to pivot, slacken the knurled screw on the left hand side of counterbalance weight C and slide the weight along the arm until it is in balance with the stylus tip at a height corresponding to that of the top face of a single record on the turntable, then tighten the knurled screw. Return the tonearm to its rest and secure it with the safety catch.

Set the stylus force recommended by the cartridge manufacturer by turning adjustment screw A until the correct figure for stylus force in grammes is indicated by the red pointer on scale B (1-1½ grammes for Shure 91ED).

## TO NEARM ANTI-SKATING DEVICE

Slide the weight D along its arm until the scale marking corresponds with the stylus force setting in grammes. For example, if a stylus force of 2 grammes has been applied set the black line at the figure 2.

In order to satisfy different operating requirements of cartridges with spherical and elliptical styli two scales are provided. For identification purposes the scale for cartridges with spherical styli is marked ● and the scale for elliptical styli is marked ● .

## TO NEARM LOWERING POSITION (Factory-set)

With one record on the turntable, start automatic play and move the 'MANUAL' control to 'OFF' just before the stylus touches the record. Turn adjustment screw E clockwise to move the arm inwards and counterclockwise to move it outwards.

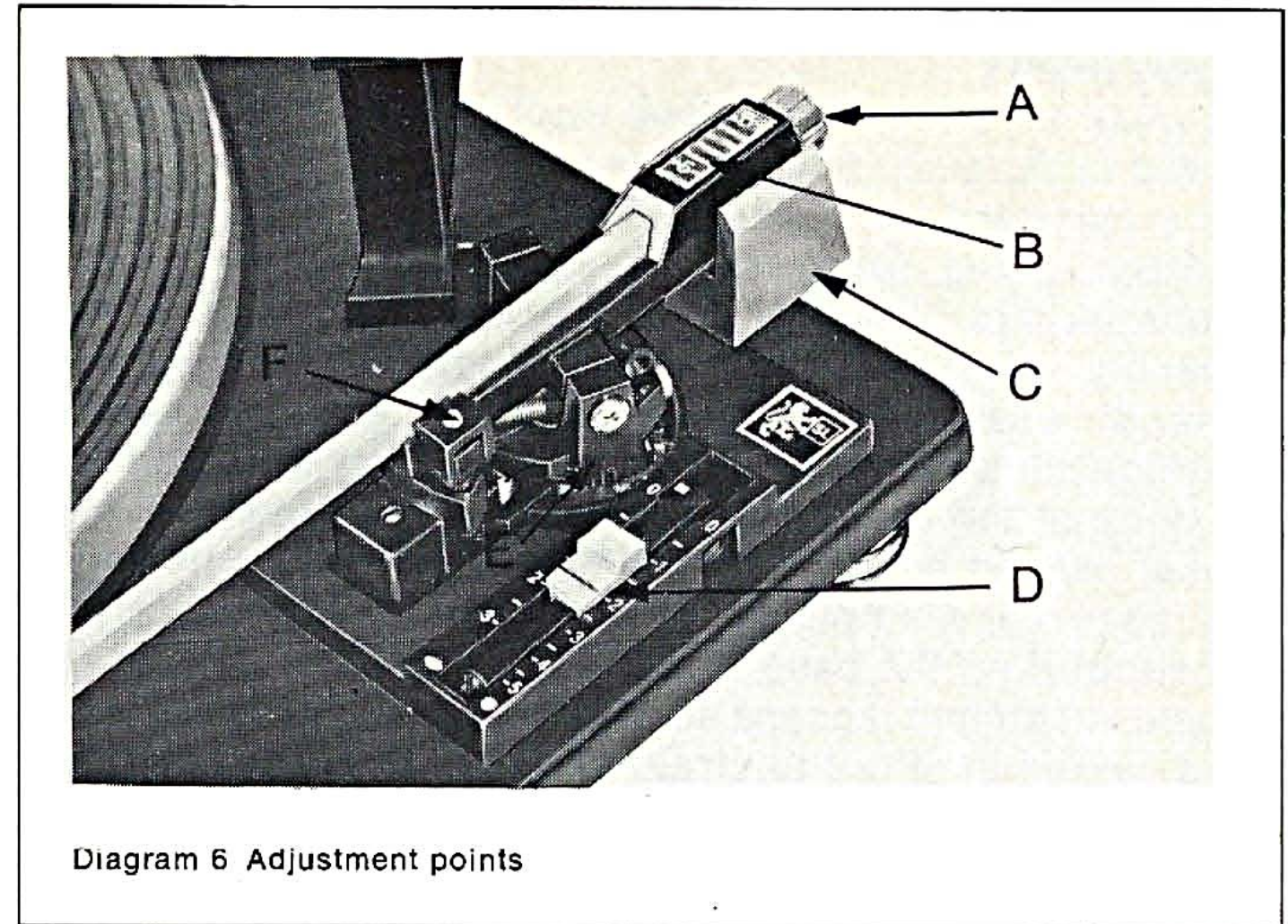


Diagram 6 Adjustment points

## TO NEARM LIFTING HEIGHT (Factory-set)

The height of the stylus tip above the top face of one record on the turntable as the arm returns to its rest should be  $\frac{5}{8}$  in.

Adjust as follows: Make sure that the unit is switched off then engage the mechanism by moving the tonearm towards the centre of the turntable while turning the platter slowly clockwise by hand. Stop turning when the arm has lifted and is about halfway back to its rest then turn screw F clockwise to raise it or counterclockwise to lower it.



# Setting up instructions

## **FITTING PICKUP CARTRIDGE (ignore if cartridge is already fitted)**

The diagram alongside shows how your pickup cartridge is fitted to the pickup head. Normally, any pickup cartridge with a standard  $\frac{1}{2}$ in spaced 2-hole fixing arrangement can be fitted, using fixing screws of suitable length. Some cartridges are fitted with a bracket as shown in the assembly diagram, while others have a bracket permanently attached as shown in the alternative type of cartridge illustrated, or fixing lugs may be moulded into the body of the cartridge. Assembly of a pickup cartridge is best carried out by supporting the unit vertically on its rear edge (or clamping it to its base with transit screws and supporting the base vertically). Unclip the pickup arm to give maximum access to the underside of the pickup head, taking care not to strain pickup arm pivots. Information on its connection is usually supplied with the chosen cartridge and will correspond to the pickup lead colour coding on these Garrard units as follows:

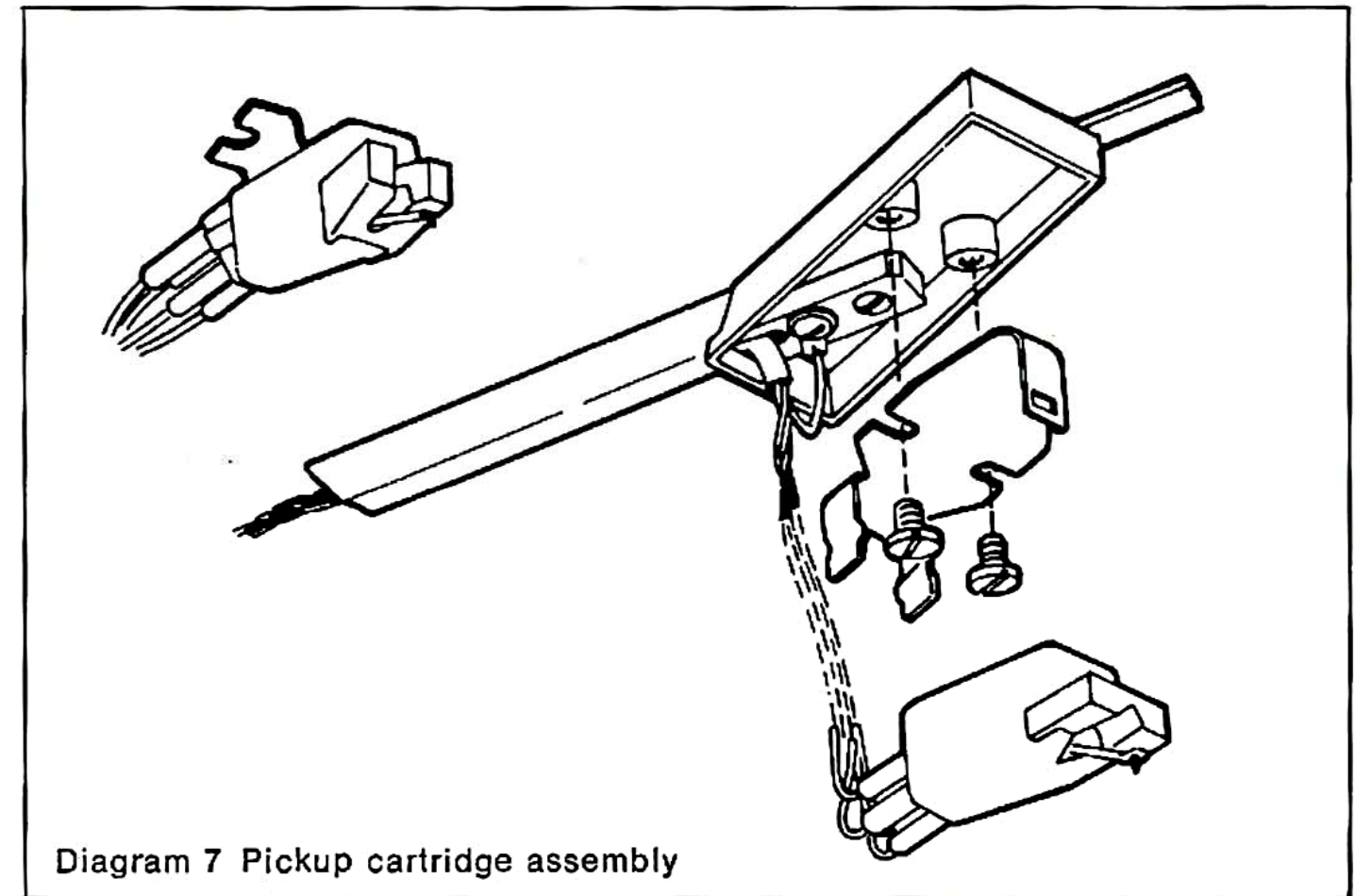
**Red – Right Channel Signal.**

**Green – Right Channel Ground.**

**White – Left Channel Signal.**

**Black – Left Channel Ground.**

Never solder leads directly to the cartridge as this may cause damage; if special connecting tags are required, solder these to the pickup leads first, then clinch them to the cartridge pins.



For cartridges having three connections use the green lead as the common connection, or join the black and green leads together and use these as the common connection. For mono cartridges use the red and green leads. Insulate with tape and tuck away any leads not required. Reset tonearm adjustments if necessary, after fitting a pickup cartridge. A minimum stylus force of 1 gramme is recommended for this model.

# Service and Spares

When ordering parts please quote Model 74M, the description of the part is required, its part number and, if the part is enamelled or moulded, its colour. If the code number on the coloured label beneath the unit plate is also quoted, the correct part will be supplied.

Description of Service Part	Part Number
Automatic record spindle ... ..	72340
Single record spindle ... ..	74773
Single record spindle adaptor for large hole records ... ..	72698
Turntable retaining clip ... ..	43857
Turntable with mat ... ..	77387
Turntable mat ... ..	77298
Centre disc for mat ... ..	76322
Intermediate wheel ... ..	75625
Motor pulley 50Hz ... ..	60848
Motor pulley 60Hz ... ..	60847
Motor (state voltage) ... ..	60810
Plug-in loom with switch ... ..	60365
(State number on tape around switch)	

For technical information or spare parts contact your Garrard agent or write to

In U.S.A.:

GARRARD SALES CORPORATION, WESTBURY, NEW YORK 11590.

Other territories:

GARRARD SALES SERVICE DEPARTMENT, KEMBREY STREET, SWINDON, WILTSHIRE, ENGLAND.



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