

Service Notes

These notes are provided as a guide to servicing this Garrard model. Used with the user instruction literature for the unit, this information should enable most servicing to be carried out effectively. However, further information on this type of Garrard (Unimech) mechanism is provided in the 6-300 Series service manual, and this latter manual may be referred to if required.

Fault Check List

Disconnect the unit from its power supply before carrying out service operations. A list of possible fault areas is given below with a cross-reference (letter in brackets) to the check list.

Fault	Check List
1. Turntable fails to start. (A) (B) (D) (E)	(A) Check the continuity of wiring connections to the unit. Remove the plug-in loom (45) and check with a voltmeter if necessary. Check motor continuity with an ohmmeter, if required.
	(B) Check that the unit is suitable for the power supply. Check the voltage setting if a dual voltage range unit, also pulley type. (A 60Hz pulley will run the unit slowly on 50Hz supply.) Note that the 50Hz 4-pole motor pulley is identified by its having a smaller pulley base diameter than its 78 rev/min pulley step. When a 2-pole motor is fitted, the motor pulley is integral with the rotor shaft except for a 78 rev/min collar on the 50Hz version.
2. Turntable runs slowly. (A) (B) (C) (D) (E)	(C) Lubricate the bearings of the turntable (108), intermediate wheel (103) and top motor bearing with a few drops of fine grade machine oil.
	(D) Check the drive surfaces of pulley, wheel (103) and inside the turntable rim for oil or dirt. Clean if necessary. Replace the wheel (103) if its rubber rim has hardened or is dented through being stopped for long periods in its drive position.
3. Turntable runs erratically. (C) (D) (E) (F)	(E) Check that spring (135) is anchored and draws wheel (103) into contact with the motor pulley when the unit is switched on, retracting when switched off. Lubricate wheel bearing (103) also the two pivot spindles of support bracket assembly (131). Make sure that the tapered pin beneath bracket (131) is not bent.
	(F) Check that wheel (103) runs in the centre of its appropriate pulley step. Adjust height by means of the screw in the top of bracket (131) if necessary.
4. Pickup tracks incorrectly. (G) (H) (J) (K) (L)	(G) Clean any dust or fluff from the stylus, check stylus for wear or suitability for the records in use. Check stylus force and bias compensation settings.
	(H) Check that the pickup leads are slack, allowing the pickup arm free movement. The pickup lever carried by the arm beneath the unit also must not be obstructed during record play.
5. Pickup fails to leave rest. (M) (N)	(J) Check that the cue and pause control (26) is operated correctly, that spring (143) is attached and that the cueing mechanism is not set too high. Use screw (139) to set the stylus about $\frac{1}{2}$ in (12mm) above the mat, when cued.
	(K) Check that the horizontal pickup arm pivots are located correctly, also the vertical pivot, with lower bearing (34) located squarely in subplate (60) and spring (32) acting positively.
6. Pickup lifts too soon or fails to lift from record. (N) (P)	(L) Check that the cartridge carrier (125) is aligned properly and that pickup leads or back of cartridge do not foul a record being played. Fit the tilt wedge (127), thick edge facing forward if the cartridge does foul.
	(M) Check the pickup lifting height. Use special nut (132) to adjust if necessary, so that the front top edge of the finger lift (116) is about $1\frac{1}{2}$ in (44.5mm) above the mat as the arm returns to the rest.
7. Record size selection wrong. (K) (P) (Q) (S)	(N) Check the trip pawl and friction lever on the main cam assembly (77). Lugs on these two levers should be vertical and each should pivot freely.
	(P) Check the pickup lowering position. Adjust this by means of the screw (134) if necessary so that the arm lands in the centre of the record lead-in groove. Also check that a non-standard record is not in use.
8. Pickup repeats record. (R) (S)	(Q) Check that spring (153) functions as an overload spring when the arm is swung by hand right into the turntable centre.
	(R) Make sure that the plastic impulse lever mounted on the cycle control lever (69) pivots freely. Also check that the swing lever (30) is flat against the sub-plate (60) over its bearing area, is not twisted and that the lug on the switch-off lever (28) is square and contacts the side of the pickup lever during auto cycle.
9. Faulty record dropping. (T) (U) (V)	(S) Check that the pins on the pickup lever are square to the lever, also the link (17) is connected.
	(T) Make sure that the record centre hole is not over or under-size, also that it is not affected by moulding flash or record label paper. Records should also be not more than .090in thick or less than .053in thick at the centre hole.
10. Unwanted noise. (Rumble) (C) (W) (X) (Y) (Wow and flutter) (C) (D) (F) (T) (Hum) (Z) (Distortion) (C) (J) (K) (L)	(U) Check that the record spindle (113) latches and pushing pawl do not jam, also that the turntable retaining clip (109) is correctly fitted (with its small round hole to rear, left). The record spindle must be firmly pushed home but do not fit or remove the record spindle if the mechanism is in auto cycle.
	(V) Check that the end of spring blade (47) applies pressure to the bottom of the record spindle pawl (113), also that forked control link (59) and spring (44) are in place. In addition make sure that the overarm (111) lifts and lowers easily - check that spring (160) is fitted and oil the overarm spindle if necessary.
	(W) Make a comparison check with several records that rumble is not part of certain recordings.
	(X) Check that the unit rests freely on its mountings with damping pads (86) in place. Make sure that the mechanism is not touching the mounting board, also that the motor grommets (68) are in position with motor leads not pulling motor.
	(Y) Clean the cushion ring (63), thrust washers (64 and 66) and ball race (65). Replace worn or scored items. Oil the ball race and make sure that the thrust washers have their dull, lapped faces to the ball race.
	(Z) Check the earthing arrangements for the total hi-fi system, noting that earth hum can be caused by an earth loop through double earthing, as well as from lack of earthing.