

PHILIPS RECORD PLAYER

TYPE AG 2002

GENERAL AND OPERATION.

Type AG2002 record player is a three-speed unit suitable for playing at speeds of 78, 45 and 33½ r.p.m. It is normally fitted with a dual sapphire stylus, but single sapphire stylus heads can be used, for playing both normal and microgroove recordings.

Speed selection is by way of a lever which causes an intermediate rubber shod driving wheel to move to one of three diameters on a stepped driving collar. A fourth position of the speed selection lever, marked "O," is a rest position whereby the intermediate wheel is held away from the driving collar thus preventing indenting of the rubber due to prolonged resting.

The on/off switch is operated by movement of the pick-up arm. To start the unit, lift the pick-up arm from its rest and turn it outwards. This will engage the switch and cause the turntable to rotate at a speed dependent on the position of the speed selection lever. When the stylus runs into the running-out groove at the end of the record the unit is automatically switched off.

PICK-UP HEADS AND STYLI.

The pick-up heads and their styli are given in the following table:—

Head	AG3010	AG3012	AG3013
Stylus, normal	AG5008	AG5005	—
Stylus, micro.	AG5009	—	AG5006

ACTION OF MAINS SWITCH.

In the action of switching on the unit when the pick-up arm is moved over to the right, a bracket coupled to the pick-up arm spindle bears against the switch operating lever and this transfers movement to the switch toggle arm.

During playing of a record, as the pick-up moves toward the centre of the record, it carries with it a bracket which is coupled to its spindle through a friction clutch. This bracket eventually bears against the switch operating lever causing it to turn on its pivot. This causes, at the switch end, a plastic knocking-off piece to move closer to a stud moulded into the underside of the turntable. If the two touch during the time the stylus is in the playing portion of the groove the switch operating lever is "brushed off."

However, when the stylus moves into the run-out groove, the extra movement causes the turntable stud to hit against the short side of the plastic knocking-off piece. This imparts a longitudinal movement to the switch operating lever and causes the switch to open.

ADJUSTMENT OF MAINS SWITCH.

In the case of incorrect operation of the mains switch, there are adjustments provided to correct this.

If the switch switches on too soon, the movable bracket at the pick-up end of the switch operating lever should be moved toward the switch end. If the switch comes on too late, the bracket should be moved in the other direction.

If at the end of playing a record the switch opens too soon, the top end of the friction clutch driven bracket should be bent toward the switch operating lever. If switching off is delayed, the bracket should be bent in the opposite direction.

The mains switch is mounted in slotted holes and this allows of an adjustment of the switch position to allow of easier functioning.

ADJUSTMENT OF FRICTION CLUTCH.

If the action of the friction clutch should become difficult, the trouble can be remedied by cleaning the two friction surfaces by rubbing lightly with very fine sandpaper and lubricating very sparingly with a very light, preferably watchmakers', oil.

LUBRICATION.

Oil for lubrication should be a very light type. It should be used sparingly and should not be allowed to get on to rubber parts or the flange of the turntable. When oiling the turntable spindle, this should be done sparingly, otherwise oozing from the ball pivot at the centre of the turntable will take place.

PARTS LIST

DRIVE

Description	Code No.
Intermediate wheel	49.928.79
Intermediate wheel tension spring	49.938.54
Intermediate wheel bearing spindle	49.938.04

MOTOR

Rotor assembly	49.924.78
Stator assembly	49.927.02
Drive collar, 50c/s	CR.381.801
Upper bearing, complete	49.927.04
Lower bearing, complete	49.927.05
Ball, ⅛" (in lower bearing)	89.205.02

MECHANISM

Speed control bracket	49.938.03
Speed control bracket compression spring	49.938.07
Knob for speed control bracket	P4.525.13/17
Split sleeve for speed control bracket	07.593.37
Friction clutch bracket	49.938.74

SWITCHES

Mains switch	CZ.210.111
Muting switch	49.928.97
Switch operating lever (trip lever)	49.928.98

PICK-UP

Pick-up arm assembly	49.945.35
Pick-up flex, bulk (11")	R.294.KN/01A
Pick-up arm spindle assembly	49.928.99
Grub screw for pick-up arm	07.802.54

MOTOR SUSPENSION

Grommet, 3x	49.936.00
Spring, 3x	49.935.30
Fibre washer, 3x	49.936.01
Dished retaining washer nut, 3x	49.935.31

UNIT SUSPENSION

Grommet	A3.642.01
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MISCELLANEOUS

Turntable	49.927.91
Turntable spindle	49.935.16
Moulded cover	P4.525.12/17