

INSTRUCTION MANUAL FOR GOLDRING - LENCO "GL 75" TRANSCRIPTION UNIT

It is recommended that these instructions be carefully read before unpacking the Unit.

DESCRIPTION

The Goldring-Lenco GL.75 is a precision engineered transcription turntable unit suitable for the reproduction of both mono and stereo records. It is available in chassis form (GL.75) for mounting in a cabinet, or as GL.75/P already fitted to a specially made plinth.

The turntable, which is die-cast from non-ferrous material, is dynamically balanced and weighs 9 lbs. It is driven by a 4-pole constant velocity motor via a rubber rimmed idler wheel and the total wow and flutter is as low as 0.6%. The unique vertical drive system allows the turntable speed to be continuously varied from 86 r.p.m. to 30 r.p.m., and from 18-15 r.p.m., the standard playing speeds of 78, 45, $33\frac{1}{3}$ and $16\frac{2}{3}$ r.p.m. being located by adjustable pre-set click in positions.

The L.75 pick-up arm fitted to this unit is of lightweight construction with a removable plug-in shell. It has calibrated stylus pressure adjustment by means of a sliding counter balance weight and a template is provided to ensure correct alignment of the stylus for minimum distortion.

Anti-skating bias compensation is also fitted and as a further protection for records the arm is gently lowered and raised by a viscously damped lowering device.

As the unit is switched off, the turntable is automatically braked and the idler wheel simultaneously disengaged from the motor and turntable, thereby preventing "flats" appearing on it.

The GL. 75 is built to instrument standards of quality—a superb unit for the discriminating user.

SPECIFICATION

General:

Dynamically balanced turntable.
Viscously damped pick-up lowering device.

Speed adjustment infinitely variable between 30 and 86 r.p.m.
Click-in stops for $16\frac{2}{3}$, $33\frac{1}{3}$, 45 and 78 r.p.m.

Wow and flutter according to Din Specification 0.06%.

Rumble measured according to Din Specification -60 dB.

Variation of speed for a 10% change in mains voltage $\pm 0.2\%$.

Maximum speed variation when loaded by a pick-up playing at 6 grms. 0.3%.

Motor:

4-pole constant velocity motor with conical rotor spindle.

AC mains 50 Hz 200-240V.

Power consumption at 220 volts 50 Hz 15 VA.

Pick-up Arm:

Pick-up arm with counter balanced weight.

Knife-edge bearings.

Stylus pressure adjustable from 0.5-5 grms. with calibrated sliding weight.

Minimum stylus pressure 0.5 grms.
Removable lightweight pick-up headshell

Can accommodate any cartridge with standard fixing centres.

Total length of pick-up arm 12.4".

Tracking length, (distance from pedestal centre to centre of turntable), 8.3".

Overhang of stylus 0.675".

Total adjustment for stylus position $\frac{1}{8}$ ".

Offset angle 23° 12 minutes.

Tracking error $\pm 0.8^{\circ}$

Measurements:

Baseplate 15" x 13".

Height above baseplate $2\frac{1}{4}$ ".

Depth below baseplate 3".

Turntable diameter 12 $\frac{1}{4}$ ".

Turntable weight 8.8 lbs.

Total weight of Unit 18.7 lbs.

1. UNPACKING. This unit was carefully checked before leaving the factory. Observe the condition of the packing carton for signs of improper handling in transit. If damage is apparent make an immediate claim to the dealer from whom you made the purchase. Check that all items shown in paragraph (4) are complete.

2. BASEBOARD. (Chassis model only). The unit should be mounted on a wooden baseboard about $\frac{1}{2}$ "- $\frac{3}{4}$ " thick of somewhat the size as outlined on the enclosed template sheet.

The baseboard should be cut so as to provide one large cut-out, and drilled for four holes of 1" diameter.

The position of the cut-out and the holes may be obtained by either of these two methods:—

- Cover the baseboard with carbon paper laid face downwards and fix the template in the desired position with drawing pins at the given centres; then scribe on the heavy outline of the cut-out, so that the line is reproduced on the baseboard by the carbon paper.
- Attach template to the baseboard with self-adhesive tape or with pins, and prick through the template with a sharp pointed instrument such as a scriber or a Bradawl.

3. CABINET CLEARANCES. (Chassis model only). Top clearance: $2\frac{3}{4}$ " above top surface of wooden baseboard. Bottom clearance: $2\frac{1}{2}$ " below top surface of wooden baseboard.

4. CONTENTS OF CARTON. The following items are contained in the carton:—

- (a) Turntable.
- (b) Rubber turntable mat.
- (c) Motor unit complete with pick-up arm.
- (d) Headshell for pick-up arm.
- (e) Large sliding weight for pick-up arm. (1)
- (f) Small sliding weight. (4)
- (g) Mounting screws for pick-up cartridge.
- (h) Circular plastic moulding for use with 45 r.p.m. records with 1½" centre hole.
- (i) Envelope containing mounting components for unit. (Chassis model only).
- (j) Stroboscope.
- (k) Components for bias compensation, consisting of notched guide rod, (2), corkscrew rod on clip, (29) and two weights. (27)
- (l) Spindle for use with Lencoclean record cleaning system.

5. MOUNTING MOTOR UNIT TO BASEBOARD.

(Chassis model only)

Screw the threaded spindles into tapped bosses (31) underneath the baseplate, **having first removed from these bosses the grub screws**. Run the nylon nut up the spindle until it is tight against the boss. Screw the mounting plates on to the baseboard as shown on template. Push rubber bush over threaded spindle and lower unit on to motor mounting board so that the threaded spindles protrude through the mounting plates. Offer the springs to mounting plate and secure with lock nut. Levelling of unit is achieved by tightening or loosening this lock nut.

6. WARNING. The motor (30) is held in position by two screws (19) for safety in transit. Before the unit can be played these must be loosened until the motor is freely sprung.

7. TURNTABLE. Place the turntable over the centre spindle (18), ensuring that it is properly seated. Place loose rubber mat over centre spindle. In order to remove the turntable apply a sharp tap with a wooden block to the centre spindle while lifting the turntable.

8. HEADSHELL. The lightweight plug-in shell (11) has an adjustable cartridge mounting plate to give the correct stylus position for minimum distortion.

To Mount Cartridge:

Screw cartridge on to plate with screws provided.

Plug shell on to arm and ensure that the location pip on the arm engages in the slot of the headshell and secure with knurled ring (10).

Place the stylus template on the turntable with the hole over the centre spindle (18) and the circular cut-out round the pedestal (5).

Lift tone arm from rest (9) and swing towards centre, laying it gently on the template.

Loosen the screw (12) on the headshell and slide cartridge until the stylus point is exactly on the black line of the template.

Tighten screw (12) and remove headshell from arm.

Connect pick-up leads to cartridge.

"L" left-hand channel—white.

"R" right hand channel—red.

"GL" left earth—blue.

"GR" right earth—green.

For connection of 2-pin mono cartridges use red and green leads.

For connecting stereo cartridges for mono use only, see cartridge instructions.

Replace headshell.

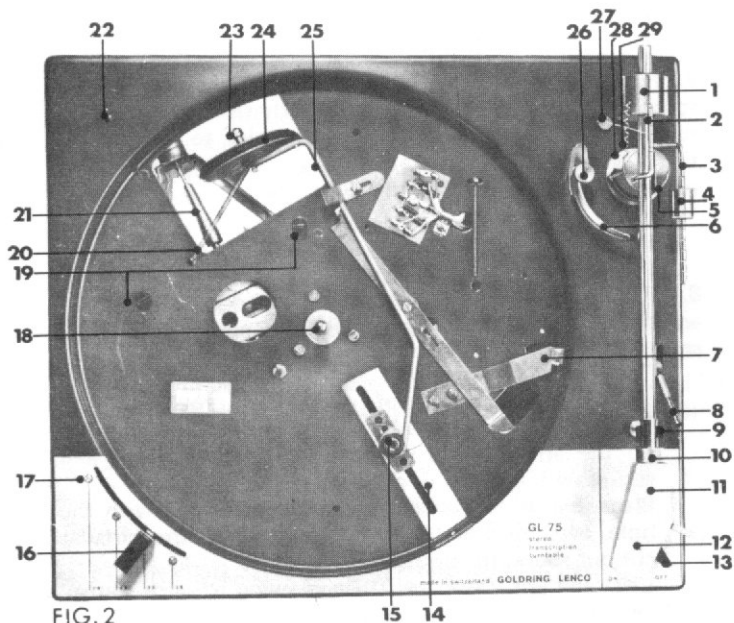


FIG. 2

TRUE PLAN

LARGE COUNTER WEIGHT	1
NOTCHED GUIDE ROD	2
OUTRIDER	3
SMALL COUNTER WEIGHT	4
PEDESTAL	5
LOWERING ARM	6
BRAKE	7
LOWERING ARM CONTROL LEVER	8
REST CLIP	9
KNURLED HEAD SECURING RING	10
HEADSHELL	11
CARTRIDGE MOUNTING PLATE	12
ADJUSTING SCREW	13
ON OFF LEVER	14
SLIDEWAY	15
IDLER WHEEL ARM SECURING CLIP	16
SPEED CONTROL LEVER	17
SPEED CATCH SET SCREW	18
CENTRE SPINDLE	19

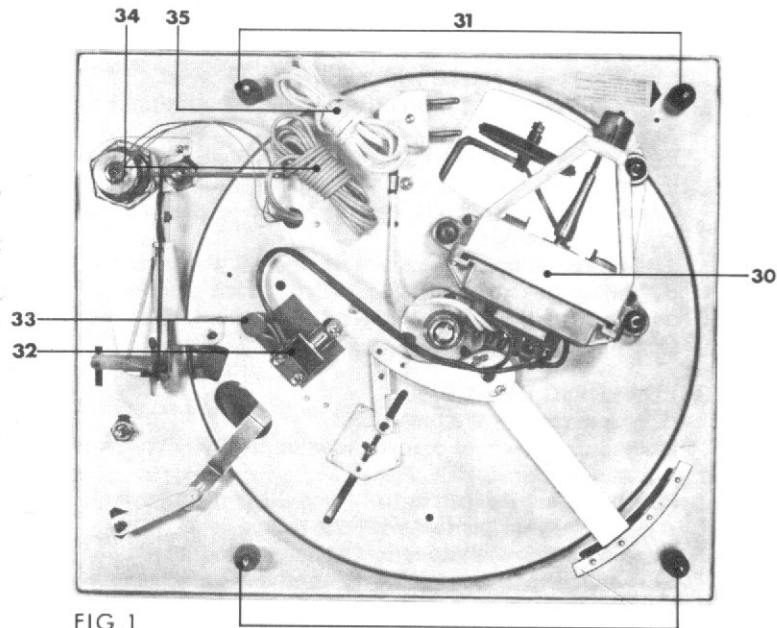


FIG. 1

UNDERSIDE PLAN

MOTOR TRANSIT SCREWS	19
IDLER WHEEL SPRING	20
CONICAL MOTOR SPINDLE	21
HOLE FOR MOUNTING LENCOCLEAN	22
IDLER WHEEL RETAINING NUTS	23
IDLER WHEEL	24
IDLER WHEEL ARM	25
KNURLED HEIGHT ADJUSTING SCREW	26
ANTISKATING WEIGHT	27
PEDESTAL BASE	28
CORKSCREW	29
UNDERSIDE PLAN	
MOTOR	30
SPRING MOUNTING BOSSES	31
MAINS SWITCH	32
SWITCH CLICK SUPPRESSING CONDENSER	33
PICK-UP LEADS	34
MAINS LEAD	35

9. PLAYING WEIGHT.

Check that unit is level with a spirit level.
Place small weight (4) on outrider (3) and push back as far as it will go.

Place large weight (1) on back of arm, and with arm free to move slide this weight forward until arm is balanced. Rotate large weight (1) until the arm neither swings inwards nor outwards.

Set the stylus pressure recommended for the cartridge by sliding the small weight forward. (Each graduation on the outrider equals 0.5 grms. and should be read from the front face).

10. LOWERING DEVICE.

Place a record on the turntable.

Move pick-up arm to playing position until the stylus is just above the record.

Push lowering device control lever (8) forward and let stylus come into contact with the record.

Check that the pick-up arm is horizontal. If not, loosen screws in pedestal base (28 fig. 3) and move the pedestal up or down until the arm is level. Tighten screws.

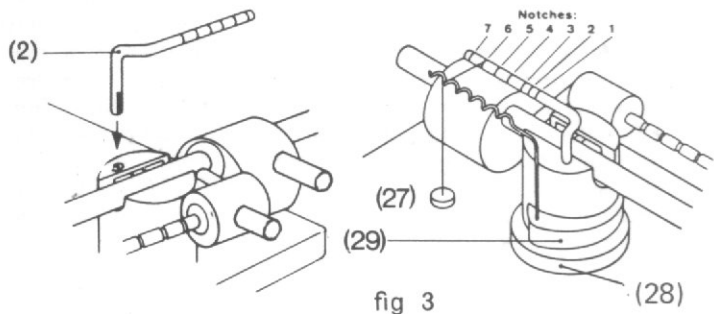
Turn knurled screw (26) on lowering arm (6) until there is a gap of $\frac{1}{8}$ " between it and the rubber buffer on the tone arm.

11. ANTI-SKATING DEVICE. This is to compensate against side thrust which increases the force of the stylus on the inner side of the groove and reduces it on the outer.

Press the notched guide rod (2) into hole in pedestal. (5).

Push clip with corkscrew (29) on to pedestal base so that the pip locates in the hole in the front of the pedestal. (It might be found necessary to raise the height of the arm to achieve this. In this case the hexagon stand-off pillars should be used for mounting the cartridge).

See fig (3)



Before setting the antiskating device check that the arm has been correctly set as described earlier. Setting of the correct antiskating force depends on the stylus pressure. Two separate antiskating weights are supplied with the GL. 75, namely a 1 gm. and a 4 gm. weight. A list of settings for typical stylus pressures is shown on the Table on Page 11.

EXAMPLE

To set the antiskating force for a cartridge for which the recommended stylus pressure is 2 grms. the Table shows that for a stylus pressure of 2 grms. the 4 gm. weight should be used on Notch 4. Therefore hang the 4 gm. weight over Notch 4, passing the thread over the adjacent hollow in the corkscrew (21) so that it hangs freely.

12. PICK-UP CONNECTIONS. The leads (34) from the pick-up arm are terminated in Phono plugs. These are standard and should fit the input of most amplifiers. The one colour coded red is the right-hand channel connection and should be plugged into the right-hand channel input of the amplifier. The one colour coded white is the left-hand channel and should be connected to the left-hand channel input of the amplifier.

13. MAINS SUPPLY. The unit is normally supplied for 200-250 volts 50 Hz AC mains. (Special motors for use on other mains voltage or frequency are available on request).

Connect mains lead (35) to the supply, ensuring that the On/Off switch (13) is in the "OFF" position.

A separate earth lead is fitted (this is the single lead terminated in a spade and adjacent to the main lead).

This should be connected to the amplifier "earth" or to a convenient external earth point (In some cases this might create a hum loop and in these circumstances this lead should be ignored).

14. TO PLAY. Check that the pick-up leads are correctly connected and that the mains lead is plugged in with the mains switched on.

Set the speed control lever (16) to the correct speed for the record.

Place the pick-up arm on the lowering arm (6) so that the stylus is directly above the selected groove on the record.

Table for the correct setting of antiskating force according to stylus pressure.

STYLUS PRESSURE grams	WEIGHT grams	NOTCH
½	1	4
¾	1	6
1	4	1
1¼	4	2
1½	4	3
2	4	4
2½	4	5
3	4	6
3½	4	7

Simplified Table for Bias correction settings for L 75 arm.

Turn the On/Off knob (13) to "ON" and move lowering device control lever (8) forward.

At the end of the record or at the end of the chosen passage move the lever (8) back and the pick-up will be lifted off the record.

Turn the On/Off switch to "OFF" and the motor will stop, the idler wheel will be disengaged and the turntable braked. ALWAYS SWITCH MOTOR OFF BEFORE RETURNING ARM TO REST POSITION.

NOW RETURN ARM TO REST.

IMPORTANT. Always switch off the motor before switching off at the mains, or a "flat" might develop on the idler wheel and cause rumble.

15. SPEED ADJUSTMENTS. Although every care has been taken to ensure that the speed locations are pre-set accurately, it is possible that due to transit, or in mounting, these have become slightly altered. Check each speed with the stroboscope which is supplied with the unit, and should adjustment be necessary this may be done by loosening the set screw (17) at the side of each speed catch, and adjusting the speed regulator (16) until the lines for the required speed on the stroboscope appear to remain stationary. The set-screw should then be tightened. Repeat this test at each speed.

N.B. That side of the stroboscope marked 50 should be used in the United Kingdom. The stroboscope should be illuminated from an ordinary electric lamp operating on the appropriate AC mains supply whilst checking speeds. If this is not done the lines will not appear to remain stationary at any time.

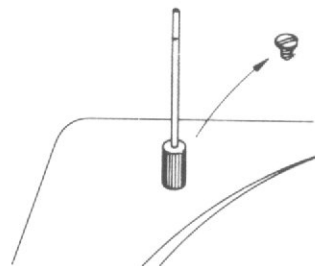


fig 4

16. LENCOCLEAN. To minimise record and stylus wear as well as reduce crackle clicks and pops from the record we recommend the use of the Lencoclean. A spindle for supporting it is supplied and this should be fitted in the hole (22) as shown fig (4). The pedestal supplied with the lencoclean need then not be used.

17. MAINTENANCE AND SERVICE. The motor bearings and turntable spindle bearings are self-lubricating and no further lubrication should be necessary. Should the slideway (14) of the speed change mechanism run dry, then a small amount of vaseline should be applied. Care must always be taken that the underside of the turntable and the idler wheel be kept clean and free from grease.

N.B. Use a clean, dry non-fluffy cloth for cleaning. To remove grease, use a few drops of methylated spirit or carbon tetrachloride on the cloth.

IF the turntable does not rotate but the motor is going, then the idler wheel spring (20) needs replacing and the underside of the turntable should be cleaned with a solution of carbon-tetrachloride.

IF the motor does not operate when the unit is switched on, check that the mains are connected correctly. Should the motor still not operate, then a fault has developed and the motor should be repaired.

IF the motor continues to operate when the unit is switched off, then the switch click suppressing condenser (33) is faulty and should be replaced.

IF the speed is erratic or a rumble develops, then the idler wheel (24) should be cleaned with carbon tetrachloride as should be the underside of the turntable and the motor cone. (21).

IF a flat has developed on the idler wheel, this should be replaced. To replace idler wheel remove the circlip (15) and unhook the spring (20). Lift out the idler wheel arm (25). The idler wheel is secured by two locknuts.(23). Undo these and slide the idler wheel off the spindle. Fit the new idler wheel, taking care not to touch the rubber ring. Do not over-tighten the locknuts. Replace assembly and refit spring and circlip.

WARNING

If the unit is to be transported for any reason, it is essential that the following precautions be taken:

- (1) Remove large counterweight from rear of arm and the small weight from the outrider. Secure pick-up arm to rest.
- (2) Remove the headshell complete with cartridge, and pack carefully as a separate item.
- (3) Remove the turntable and pack as a separate item.
- (4) Retighten motor transit screws.

IMPORTANT

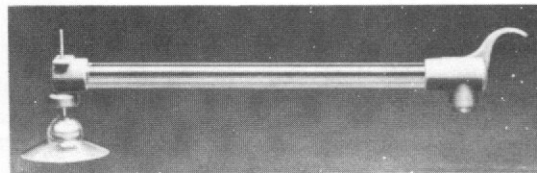
If for any reason it is found necessary to return a Goldring/Lenco Turntable Unit to the Service Department, it is essential that full details be given as to the reason for return. Failure to comply with this request might result in delay of the return of goods. Furthermore, failure to comply with the instructions for transportation will result in damage to the unit.

GOLDRING PLINTH 75



A specially made plinth to accommodate the Model GL. 75 is available. Finished in waxed teak, it has a sprung base.

A separate dust cover, Lid 75, which can be hinged to the plinth is available separately as an optional extra.

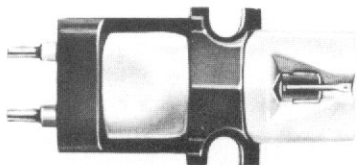


LENCOCLEAN

A unique record cleaning system which is easily fitted to the GL. 75, is also available.

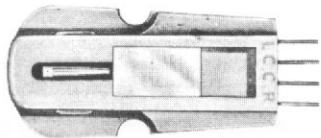
It brushes the records clean and dispenses a narrow band of fluid which eliminates electrostatic charges and cools the point of contact reducing stylus and record wear.

RECOMMENDED CARTRIDGES



GOLDRING G800 & G800E

For High Quality Amplifiers, these new magnetic stereo cartridges employing the "free field" principle have an exceptionally wide and flat frequency response and excellent separation at all frequencies. G.800—G.800/H for slightly less sensitive amplifiers. G.800/E (elliptical stylus). G.800 Super E. Individually calibrated version for use at very low stylus pressures.



GOLDRING CS90 & CS91E

For less sensitive amplifiers, these stereo ceramic cartridges which have higher outputs than the G800 have excellent frequency response characteristics and separation and track at low stylus pressures.