

Lenco

Hi-Fi Record Player L 75

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Operating instructions



Features

The Lenco L 75 Record player is a precision instrument of true Hi-Fi quality which will satisfy even the most demanding music lover.

The instrument can be used for stereo as well as monophonic listening.

The usual speeds of 16 $\frac{1}{2}$, 33 $\frac{1}{3}$, 45 and 78 RPM can be pre-set in click-stops and the speed can also be varied continuously from 30—86 RPM.

The light tonearm of the L 75 is a first-class example of fine mechanical precision, and guarantees clear, undistorted sound reproduction, with the greatest possible protection for your records. The tonearm is lowered onto the record by a hydraulically damped lowering device — thereby eliminating the possibility of record or needles being damaged whilst putting the tonearm onto the record.

The unit is SEV, DEMKO, NEMKO, SEMKO and CSA tested and approved.

Technical Description

The very silent 4-pole motor (30) is spring mounted onto a rigid steel baseplate. The dynamically balanced turntable is made of die-cast zinc, and weighs 4 kg.

The power is transmitted from the conical motor shaft (29) to the turntable by a rubber covered idler wheel (28). The speed is changed by moving the idler wheel on the motor shaft.

The miniature ball-bearings fitted into the tonearm allow for a free sideways movement, and the knife-edge bearing keeps friction to a minimum.

An adjustable sliding weight (5) enables one to set the stylus pressure exactly to suit the cartridge being used. An automatic brake (14) comes into operation when the turntable is switched off.

All tonearms can be supplied with the Anti-Skating device (3, 22, 23).

Every L 75 is supplied with a centre piece for records with a large centre hole, a stroboscope disc for exact setting of speed, a stylus-adjusting gauge for accurate setting of stylus overhang, a set of shock-absorbing mounting supports and a cut out template (only required for chassis model).

Unpacking the L 75

When unpacking check for possible damage. The L 75 is thoroughly checked and tested before leaving the factory. Any damage which may have been caused during transport should be reported immediately.

In this connection we would like to point out that the upper part of the knife-edge balance has been put into the lower part, i. e. it is held there only by the weight of the arm. The resulting movement which can be felt just above the pedestal spindle when lifting the arm, is a normal and necessary feature of this type of bearing and should not be mistaken for a fault or damage.

Preparation for Use

The L 75 is available on a wooden base, or as a build-in model. To avoid damage of the turntable spindle during transportation, the turntable is packed separately in a cardboard sleeve.

Models mounted on a wooden base are delivered fully assembled and can therefore be operated without any difficulty. The build-in model must be assembled on the spot, and the instructions on the cut out template should be carefully followed. On all models the spring-mounted motor (30) has been

secured for transit. This has been done by means of two red securing screws (17) on the base-plate under the turntable and these should be loosened until the motor is freely sprung. The L 75 is designed for use with 220 V 50 Hz. A C mains but can be supplied with a switchable motor for use on 115, 145 and 225 V mains.

To ensure perfect running, important bearing and driving points should be cleaned if necessary before putting on the turntable. The important points are: Turntable spindle, underside of turntable, motor shaft and the rubber surface of the idler wheel (28).

A clean, dry, non-fluffy cloth should be used for cleaning. Only if oil or grease spots are present should the cloth be sparingly sprinkled with methylated spirits or carbon tetrachloride. (Benzene must not be used.) The turntable should now be placed on the spindle and the rubber mat on the turntable. Push the large, counterweight (1) on to the rear end (24) of the pick up.

Interchangeable Plug-in Heads

The L 75 is usually supplied with an empty plug-in head, so that each user may select his own pick-up cartridge. The empty plug-in head (11) is complete with mounting screws for the popular, internationally standard cartridges. If various cartridges are selected (e. g. to play older 78 rpm shellac records), we suggest that a separate plug-in head is purchased for each one to facilitate the change from one cartridge to another.

Assembling of the Cartridge into the Plug-in Head

The cartridge should be mounted onto the mounting plate with the assembly material provided.

The plug-in head should then be put onto the tonearm and secured by knurled ring (10).

Place the semi-circular cut out in the template round the pedestal of the pick-up arm and the hole 'A' over the centre spindle of the turntable.

Withdraw the tonearm from the securing clip (9) push it towards the centre of the turntable and lay it gently on the cardboard.

Loosen screw (13) on pick-up the head (11). Slide the small mounting plate with the cartridge in the plug-in head, until the point of the needle is directly on the black line of the setting gauge, tighten the screw (13).

Remove plug-in head from tonearm and connect pick-up leads to cartridge.

Right channel: R = red
Right earth channel: GR = green
Left channel: L = white
Left earth channel: GL = blue

Put the plug-in head onto the tonearm again and secure with ring (8).

Mounting Material

- 2 screws 0.118 inches long
- 2 screws 0.314 inches long
- 2 screws 0.374 inches long
- 2 screws 0.5 inches long
- 2 distance bushes 0.137 inches long
- 2 mounting screws

Setting of Stylus Pressure

Setting of the stylus pressure is achieved by means of the two weights (1 & 5) at the rear end of the tonearm. The large weight (1) is used to balance out the tonearm, whilst the small weight (5) is used to set the stylus pressure.

1. Place the small weight right at the back of the outrider.
2. Balance out the tonearm by moving the large weight (1) along the rear end of the arm until the arm floats parallel to the record.
3. The recommended stylus pressure for the particular cartridge being used is then set with the small weight (5). Stylus pressure is increased by moving the weight forward from its null point at the end of the outrider. Each notch on the outrider represents 0.5 P. (P = pond which is equivalent to grams). In order to minimise distortion we suggest that too low stylus pressures be avoided. We recommend that the stylus pressure be set to about 20 % below the maximum pressure advised by the manufacturer of the particular cartridge being used. Extremely low stylus pressures should also be avoided in order to reduce record wear, as such low pressures tend to cause the stylus to rattle in the record groove, thus causing unnecessary record wear.

Table 1 of this instruction booklet contains details of the best stylus pressures and details of the stylus dimensions of a range of pick-up cartridges.

To set the Arm Lifting Device

1. Place a record onto the turntable.
2. Move the tonearm gently by hand until the needle of the cartridge is just above the first groove of the record.
3. Move the arm-lifting device (8) forward.
4. Place needle on record and check whether tonearm is horizontal, if not horizontal loosen flange screws (4) and adjust.

- Turn screw (20) on arm-lifting device until the distance between it and the rubber nipple on the tonearm is about 2 mm.
- Place the pick-up arm on to the pick-up rest (9). The needle of the cartridge must not touch the On/Off switch (12). If necessary adjust the height of the pick-up rest by loosening the screw in the bush at its base.



Fig. 2

Push semi-circular clamp (23) on tonearm support «B» as per drawing. The pip on the semi-circular clamp must locate into the hole on the tonearm support.

Electrical Connection

The shielded pick-up cable (27) is provided with a standard plug which can be connected to a loudspeaker or radio. This connection is indicated as «GRAMMO», «TA», «PICK-UP» or «Q» on the radio. Later models of amplifiers or radios of European origin have been fitted with a standard socket which fits the L 75. To connect to other or older models with different sockets a shielded intermediate cable should be used. When the unit has been connected (27) to the electric mains it is ready for use.

Anti-Skating Device

Modern pick-up design for geometrical reasons results in a force being imparted on to the stylus of the pick-up cartridge by the record, which pulls it towards the centre of the record. This force is called skating force. Its effect, especially with low stylus pressures, is to cause the stylus to jump several grooves when the arm is set on to the record. The different pressures on the two sides of the groove caused by the skating force also introduce a certain amount of distortion. This distortion, as well as the jumping of the stylus, can be avoided when the skating force is compensated for. For this reason an anti-skating device is supplied with the L 75 Arm.

Heavy Type. Assembly of the anti-skating device on tonearm:

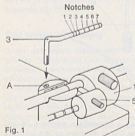


Fig. 1

Press bent steel rod (3) in hole «A» on top of tonearm.

Setting of the Anti-Skating Device

Before setting the anti-skating device, check that the arm has been correctly set as described earlier. Setting of the correct anti-skating force depends on two factors, namely a) the stylus pressure, b) the tip radius of the stylus of the cartridge being used. Two separate anti-skating weights are supplied with the L 75, namely a 1 g and a 4 g weight. A list of settings for all stylus pressures and tip radii is shown in Table 2 on the last page.

Example

To set the anti-skating force for a cartridge for which the recommended stylus pressure is 1.5 pond, and of which the stylus has a tip radius of 18 μ . (.0007"), Table 2 shows that for a stylus pressure of 1.5 pond and stylus tip radius of .0007" the 1 g weight should be used on Notch 6. Therefore hang the 1 g weight (22) over Notch 6 passing the thread over the adjacent hollow in the cork-screw (23) so that it hangs freely.

Cartridge	Stylus tip radius μ	Stylus pressure P (g)	Anti-skating bias	
			with weight	notch
BF 40	18	5	4 g	7
Shure M 75 MB II	18	2,5	4 g	3
B + O SP 6	18	2	4 g	1
Pickering AME 3	ellipt.	1,5	4 g	2
Goldring 800	12	3	4 g	5
Lenco M 94	12	2,5	4 g	4

To Play the Records

1. Check that the plug-in tonearm and the cartridge with the correct needle for the selected record has been properly plugged in, and that the securing (10) ring has been well tightened.
2. Set the speed control lever (16) to correspond with the speed required for the record, check that it is properly «clicked-in».
3. Place the tonearm onto the armrest (21) so that the point of the needle lies directly above the first groove of the record.
4. Turn the handswitch (12) to ON and wait a moment until the turntable has reached the correct speed.
5. Move arm-lifting device (8) forward.
6. To play records with a large centre hole, use the adaptor provided with your L 75.

Checking and Adjusting the Turntable Speed

1. Place the stroboscope (round aluminium disc with three rings of dark and light stripes), that is provided with each unit, on the turntable.
2. Start the motor and illuminate the stroboscope with a light from a lamp connected to the mains. It is suggested that the room be darkened to facilitate the setting. If the speed setting of the speed control lever is correct, then all the dark lines on the ring for the corresponding speed on the stroboscope will appear to stand still. If however they move, then it is a sign that the speed setting has altered. The speed can easily be corrected by lifting the speed control lever out of its catch and moving it slightly to either right or left. When the speed is correct the stripes on the stroboscope will appear to stand still. If an intentional deviation from the pre-set speed is required (e.g. if a musical instrument is being played and the pitch of the record is to be adjusted to that of the instrument), then the speed can be altered in the same way. If the speed is to be reset, i.e. a re-adjustment of the catch for the corresponding speed is required, then the following procedure should be adopted:

- a) Loosen slightly (not more than two turns) the screw at the side of the corresponding catch.
- b) Set the speed change lever in the catch and adjust the speed until the correct speed is reached.
- c) Carefully lift the speed change lever out of the catch without altering the position of the catch, and re-tighten the screw.

Maintenance

The bearing points which are to be found on the machine require no maintenance. To remove clinging dust or hairs, the point of the needle should be cleaned with a soft brush after each record.

N. B. To avoid damaging the pick-up cartridge the direction of cleaning should always be from the back to the front of the cartridge.

Necessity for cleaning the needle can be avoided or at least reduced to seldom occasions if the Lencoclean Record Cleaning Device is regularly used.

At least once a year the needle should be microscopically checked by an expert. Worn or damaged needles result in bad distorted sound reproduction and damage to your valuable records.

Mounting a Lencoclean

See Fig. 3. The Lencoclean Record Cleaning Device which cleans and moistens the record while it is being played, thereby reducing the unwanted noises to a minimum as well as increasing considerably the life of the record, can easily be fixed to the L 75. Remove the screw (19) in the left hand rear corner of the base plate, and in its place screw in the spindle (C). Remove the adjustable bearing from the base supplied with the Lencoclean, and place it on spindle (C), then place the Lencoclean on the spindle.

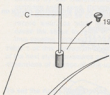


Fig. 3

In order to mount a Lencoclean on the L 75 just remove the screw (19) at the back on the left-hand side and substitute the supplied Spindle C. The synthetic suction device, included in the Lencoclean package, need therefore not be used.

Tabelle für die Einstellung der Antiskating-Kraft in Abhängigkeit vom Auflageindruck und der Spitzenverrundung der Pick-up-Nadel. • Tableau indiquant la valeur et la position des diagonales destinées à assurer la compensation de la poussée latérale (anti-skating) compte tenu de la force d'appui et du rayon de la pointe de lecture. • Table for the setting up of the anti-skating force related to the stylus pressure and tip radius of the stylus. • Tabel för inställning av antiskatingkraft beroende av nåltryck och nålspetsrunda. • Tabel voor het instellen van de dwarskracht compensatie, afhankelijk van naaldkracht en naaldspitsverronding. • Tabla para la fijación de la fuerza del «anti-skating» en relación con la fuerza de apoyo de la aguja y el radio de la punta de la misma.

Auflagedruck Force d'appui Stylus pressure Nåltryck Naaldruk Fuerza de apoyo gram	Spitzenverrundung der Pick-up-Nadel Rayon de la pointe Tip radius Nålspetsradie Afroding Radio de la punta				Antiskating-Einstellung Réglage Anti-skating setting Antiskating inställning Dwarskracht compensatie Fijación del Anti-skating		
	ellipt. bise. bilateral	10 µm .0005" .5 mil	15 µm .0007" .7 mil	25 µm .001" 1 mil			
0,5	1 g	1 g	1 g		Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
	1	1	1		Kerbe Encoche	Notch Markering	Inkeping Ranura
0,75	1 g	1 g	1 g		Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
	3	3	1		Kerbe Encoche	Notch Markering	Inkeping Ranura
1,0	1 g	1 g	1 g	1 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
	5	5	3	1	Kerbe Encoche	Notch Markering	Inkeping Ranura
1,25	1 g	1 g	1 g	1 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
	7	7	5	3	Kerbe Encoche	Notch Markering	Inkeping Ranura
1,5	4 g	4 g	1 g	1 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
	2	1	6	4	Kerbe Encoche	Notch Markering	Inkeping Ranura
1,75		4 g	4 g	1 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
		2	1	5	Kerbe Encoche	Notch Markering	Inkeping Ranura
2,0		4 g	4 g	1 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
		3	1	7	Kerbe Encoche	Notch Markering	Inkeping Ranura
2,5		4 g	4 g	4 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
		4	3	1	Kerbe Encoche	Notch Markering	Inkeping Ranura
3,0		4 g	4 g	4 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
		5	4	2	Kerbe Encoche	Notch Markering	Inkeping Ranura
3,5			4 g	4 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
			4	3	Kerbe Encoche	Notch Markering	Inkeping Ranura
4,0			4 g	4 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
			5	4	Kerbe Encoche	Notch Markering	Inkeping Ranura
4,5			4 g	4 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
			6	4	Kerbe Encoche	Notch Markering	Inkeping Ranura
5,0			4 g	4 g	Belastungsgewicht Poids de compensation	Weight Vikt	Gewicht Peso
			7	5	Kerbe Encoche	Notch Markering	Inkeping Ranura

Leergeplante Felder bedeuten, daß der betreffende Auflageindruck für den gegebenen Schifft der Pick-up-Nadel nicht mehr zulässig ist. • Les cases vides constituent la limite des forces d'appui qu'il n'est pas recommandé de dépasser pour un rayon de pointe donné. • Tomlått bejder att angivet nåltryck ej är att rekommendera vid denna slipning av pick-upnålen. • Waar kolommen leeggeplaat zijn, wil dat zeggen, dat de naaldkracht voor de gegeven naald niet meer toelaatbaar is. • Las casillas en blanco corresponden a fuerzas de apoyo que no deben emplearse, teniendo en cuenta el radio de la aguja.