



Electric Concrete Poker Drive Unit Operator's Manual LFR15E

**FOR YOUR SAFETY
READ AND UNDERSTAND THE ENTIRE MANUAL
BEFORE OPERATING THIS MACHINE**

Warranty Registration Form

Model:	
Serial Number:	
Type of Use:	Business / Domestic
Name:	
Business Name:	
Address:	
Email Address:	
Phone Number:	
Date of Purchase:	
Place of Purchase:	
Proof of Purchase enclosed:	

For the warranty to be valid the Warranty Registration Form must be completed and returned to Lumag Distribution Limited within 14 days of the purchase together with a copy of the purchase invoice.

We will use your email to confirm that we have received the completed Warranty Registration Form and contact you about any errors or omissions on the form. We may occasionally use this email address to make you aware of news, technical advice and special offers. If you do not wish to receive such emails please tick this box .

1. Application

This vibrator is an important machine in modern concrete construction. It applies to concreting components in which the vibrating rod can insert, such as concreting pillar, wall, main girder, sub girder and pre-cast component etc. Specially, it can be used for concreting light and small components and thin wall components. Also, it can be used for vibrating plastic component, semi-dry and hard, dry and hard concrete. It is a highly efficient vibrator.

Comparing with manual vibrating, the unit has following advantages: save cement use; make even the internal structure of concrete; increase strength of concrete, decrease volume shrinkage; increase waterproof, anti-infiltrating; anti-deterioration and anti-compactability; shorten concreting time and speed up construction schedule.

2. Structure

This unit consists of motor, soft shaft subassembly and vibrating rod.

- 1) The enclosure of motor is made of aluminum alloy with the switch and handle of top and the anti-reverse device and connector at end to ensure flexible movement.
- 2) The anti-reverse device is operated by a push button. When the motor rotated as required, the head of push button will insert the soft shaft socket due to centrifugal force and will push the soft shaft to rotate. And then the rod will vibrate. When the motor rotate reversely due wrong connection of wires, the push button will come away the socket and the soft shaft will not rotate so as to prevent reverse rotation and protect the soft shaft.
- 3) The motor is the latest series of single phase asynchronous motor with such characteristics as small volume and light weight etc. As it is fully closed and has class E insulation, it can be used in dusty and muddy environment.
- 4) The high frequency of vibrating rod is obtained from a planetary mechanism in the rod. As the vibrator is working, such transmission parts as soft shaft and bearing will run at a low speed (equal to the rotate speed of motor). As a result, the soft shaft and bearing will not generate much force when the vibrator is working. This is why the rotate speed of soft shaft is low and frequency of vibrating rod is high.

3. Use method and precautions

- 1) Make sure the wires are correctly connected before operating the vibrator. After powering on the vibrator, knock the vibrating rod on the ground once. After the vibrator sounds evenly and powerfully, operate the vibrator.
- 2) While operating the vibrator, insert the rod in the concrete vertically or slantly for a certain period. Vibrate the rod up and down while operating the vibrator.
- 3) If the component or building is concreted layerwise, insert the rod in the concreting layer when vibrating a new layer so as to eliminate the clearance between layer and obtain better effect.
- 4) Stop operating the vibrator for a while if the vibrator has worked for half an hour to prevent damaging components due to over heat.
- 5) In order to protect the soft shaft and pipe, the bending radius of them shall be lower than 500mm.

4. Maintenance of soft shaft and pipe

1) Flatly short the soft shaft and pipe.

2) After using the pipe for 100 hours, remove the steel wires from the pipe, cleanse and add lubricant oil on them, and then insert them into the pipe again.

5. Maintenance of vibrating rod

1) Dismantle all components in the rod after the rod has been used for 50-100 hours and clean them. Screw off the head and connector of soft pipe (left screw thread) first, and then knock the external rolling wimble at the end of larger diameter to remove the rolling wimble, bearing and oil seal etc. And then dismantle the connector of soft pipe (right screw thread).

2) After cleaning, replace damaged components and reinstall other components. All oil dirt of components shall be removed except bearing. The surface of rolling wimble and rolling channel, and the bushing shall be free of oil.

3) The screw thread on both ends of vibrating rod shall be fixed tightly to avoid infiltration of mortar, which might make vibration ceased.

4) If the rod ceases vibrating and vibrates weakly, dismantle the rod to check if the oil seal is damaged. If not, wipe up the oil dirt inside bushing and rolling wimble channel to solve the problem.

5) The lubricant oil might be frozen when working in low temperature environment, which might make the rotation of motor at the beginning of start-up difficult. If you power on the unit compulsively, the components might be damaged. If such case happens, stop the unit. Dismantle the vibrating rod and replace the lubricant oil with proper thin grease, or start up the motor after taking temporary measure to heat up the rod.