

LS700/LS700II Laser Detector Instruction Manual



Dear customers,

LS700 laser detector is an indispensable accessory of the rotating laser instrument. The two must be used together. This detector detects the position of the laser scanning signals transmitted by the rotating laser instrument. It provides quickly and precisely the horizontal references and vertical references for constructional engineering.

LS700II laser detector have the function of double-faced display. The detecting position should be showed on the right-faced and the reverse-faced of the instrument. The operation guide is the same that LS700 laser detector be operated.

This detector is characterized by high sensitivity, wide variety of functions, good reliability and easy manipulation. It can be used with different types of rotating laser instrument.

CONTENTS

1. Specification
2. Components
 - (1) Structure
 - (2) Display
3. Operation guide
 - (1) Installation of battery
 - (2) Turn on/off
 - (3) The use of clamp holder
 - (4) Detection
 - (5) Sound function
 - (6) Turn-off timer
4. Maintenance

1. Specification

- * Detecting Range: =100m
- * Detecting precision: Fine $\pm 1\text{mm}$
Coarse $\pm 2.5\text{mm}$
- * Turn-off timer: 9 minutes
- * Life of battery: =12h
- * Three types of sound
- * Size: 168mm×68mm×23mm

2. Components

2.1 Structure

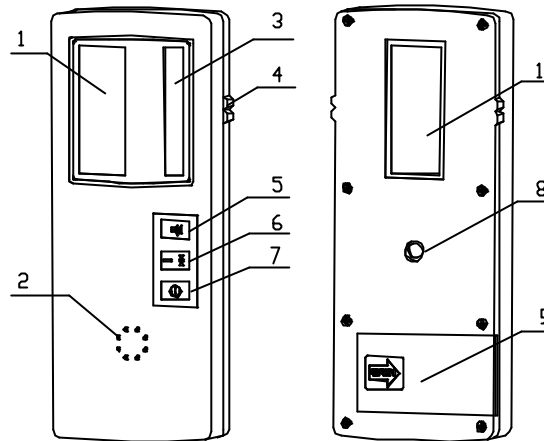


Figure 1

- | | |
|---------------------|---------------------------------|
| 1. Display window | 6. Coarse/Fine detection button |
| 2. Buzzer | 7. Power button |
| 3. Receiving window | 8. Threaded hole |
| 4. Reference rabbet | 9. Battery-box cap |
| 5. Sound button | |

2.2 Display

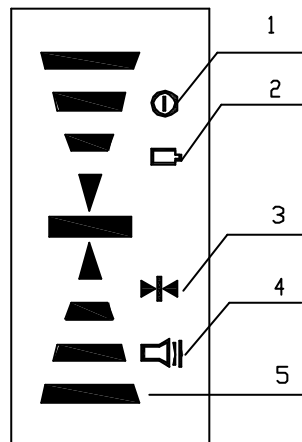


Figure 2

- | | |
|----------------------------|------------------------------|
| 1. Power symbol | 4. Sound symbol |
| 2. Low battery symbol | 5. Detecting position symbol |
| 3. Coarse detection symbol | |

3. Operation guide

3.1 Installation of battery

* Open the battery-box cap and connect the cords inside with the two polarities of the 9V

battery.

* Put the 9V battery into the battery box and close the battery-box cap.

* Note: Take the battery out if the instrument is not in use for a long time.

3.2 Turn on/off

* Press the on/off button. When Power symbol is displayed (figure 3), the instrument is ready for coarse detection.

* When low battery symbol is displayed, change the battery.

* Press the on/off button again to turn off the instrument

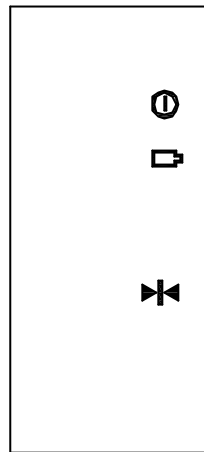


Figure 3

3.3 The use of clamp holder

* Position the instrument on the clamp holder by the M5 screw of the clamp holder.

* Position the clamp holder on tower rod or other types of surveying rods by the clamp bolt of the clamp holder.

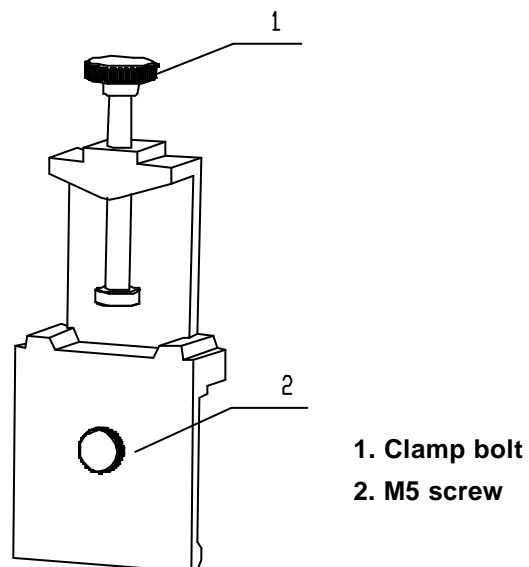


Figure 4

3.4 Detection

3.4.1 Coarse detection

* Aim the receiving window at the rotating laser instrument. Loosen the clamp bolt and move the instrument up and downwards to receive the laser scanning signals transmitted by the rotating laser instrument.

* When the instrument displays like figure 5-(A), move the instrument slightly downwards as indicated by the arrow. When it displays like figure 5-(B), move it slightly upwards as indicated by the arrow.

* When figure 5-(C) is displayed, the instrument is at the right position.

* Tighten the clamp bolt and mark the position of the object on the rabbet. This mark will be horizontal reference of the coarse detection

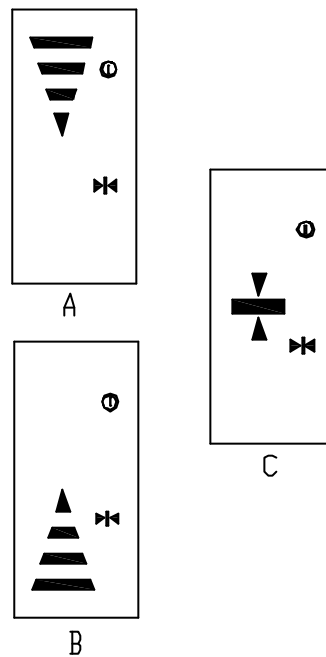


Figure 5

3.4.2 Fine detection

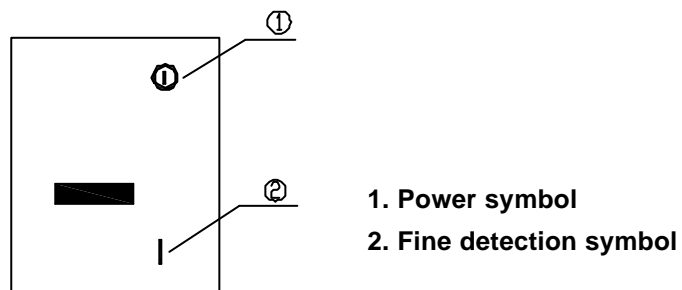


Figure 6

* Press coarse/fine detection button. The instrument is ready for fine detection.

* Move the instrument slightly up and downwards like the coarse detection procedure.

* When the instrument displays like figure 6, it is at the right position.

* Tighten the clamp bolt and mark the position of the object on the rabbet. This mark will be horizontal reference of the fine detection.

3.4.5 Sound function

* If the instrument is working in a circumstance which makes it difficult to use the display function, the sound function can be used instead.

* Press the sound function button. The sound symbol is displayed which means it is ready for sound function. The instrument then conducts coarse/fine detection through sound (buzz) signals.

* When the sound signal is ultra-short buzz, move the instrument slightly upwards.

* When the instrument makes short buzz, move it slightly downwards.

* When the instrument makes intermittent, continuous sound, it is at the right position.

* If there is no buzz heard, the instrument has not received the laser scanning signal.

3.4.6 Turn-off timer

The instrument will automatically turn off if it has not received laser scanning signal for 9 minutes.

4. Maintenance

* Keep the instrument, particularly the receiving window, clean. While cleaning, use lens cloth and wipe gently.

* Avoid knocking, falling onto ground, being wet with water or heated by fire.