

MCR600 Machine Control Receiver (FMR600)

Instruction Manual

I Description of the product

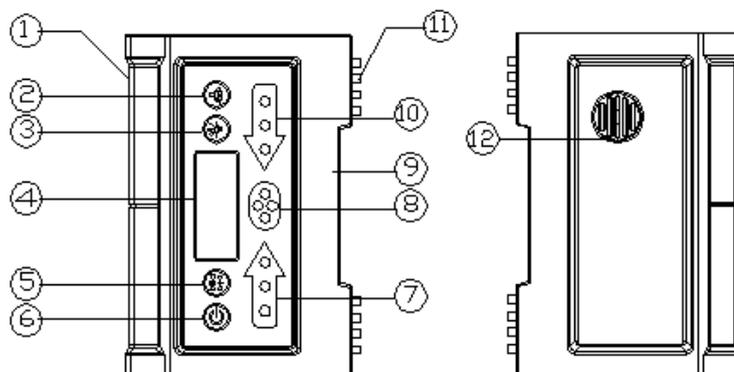
The FMR600 laser detector is an indispensable accessory of rotating laser. The two must be used together. Detector function detects the position of the laser signals transmitted by the rotating laser, which provides quickly and precisely the horizontal plane references.

This product is characterized by large-scale detecting window, 240° available laser beam receiving, LCD and LED display, low power consumption, good reliability and easy manipulation. It can be used with different types of rotating laser instrument.

II Technical Specification

- Detecting range: 200m
- Detecting accuracy: Fine +/-5mm
Coarse +/-12.5mm
- Receiving range: 4.8" (12cm) Receiving window
- Receiving angle: 240 degree receivable
- Time for automatic power off: 30+/-1minutes
- Power: DC 6V (AA*4)
- Battery life: 35 h (continuous using, LCD lighting off)
- Sound indicator: Slowly short sound, rapidly short sound and lasting sound
- LCD indicator: Down arrow, up arrow, middle indicator
- LED indicator: Up, mid, down
- Accessory fixing device: Clamp holder
- Dimensions: 170*115*42mm³
- Weight: 680g
- Working condition: Temperature: -20 degrees centigrade ~+ 50 degrees centigrade
Rainproof, dustproof and shake resistance
- Other functions: At last, if the receiving place in not in the middle (the receiving window emitting laser beam), the instrument memorizes the state and keep displaying for 5 seconds. The instrument will be off when the battery voltage is low.

III Components



(I) Exterior Instruction (see figure1)

- (1) Receiving window (5) Coarse/Fine detection (9) Battery-box Cap
- (2) Sound switch (6) Power key (10) Downward LED display
- (3) illumination key (7) upward LED display (11) Magnet
- (4) LCD display window (8) Middle ward LED display (12) Buzzer

(II) Display(see figure 2)

- (1) Power indicator (2) Low battery indicator
- (3) Detection indicator (4) Sound indicator
- (5) Detected position (grade) indicator

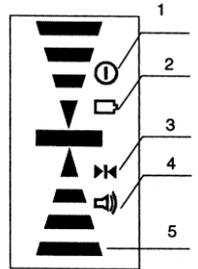


图 2

IV Operation guide

1. Installation of battery

- (1) Rotate battery-box cap counterclockwise to open it (can use a screwdriver)
- (2) Put 4*AA batteries in (note polarity) and clockwise rotate battery-box cap to close it.
- (3) When the battery voltage is low, the unit will display low battery indicator and there will be buzzer reminding sound per 2-4 second. You still can the instrument for a short time. (Note: at this time the illumination function is invalid. See the illumination operation). please change the battery as soon.

Note:

- (1) Take the battery out when the unit is not in use for a long time.
- (2) When displaying low battery, change the battery as soon
- (3) Turn off the sound and illumination function, you can use the unit for a long time.

2. Detector

- (1) Note: Keep the instrument stable, when detecting.;
- (2) Press the ON/OFF, LCD display all the segments for 0.5s(see fig.3), then detect and LCD display ON and detecting symbol;(see fig 4).

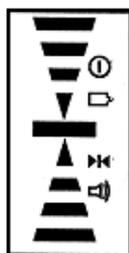


图 3

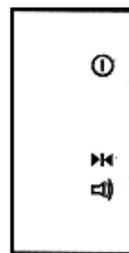


图 4

- (3) Detect horizontal laser signal:

Put the unit vertically (see the horizontal vial), detector window faces the instrument, receiving the laser signal. If the LCD show the down arrow, and

simultaneously the down LED flashing, and there is rapidly short sound, it means the laser signal is down.(see fig 5) If the LCD show the up arrow, and simultaneously the up LED flashing and there is slowly short sound, it means the laser signal is up.(see fig 6) If the LCD show the mid mark, and simultaneously the middle green LED flashing and there is lasting sound, it means the laser signal is mid.

(see fig 7-1) show mediacy of coarse detector

(see fig 7-2) show mediacy of fine detector

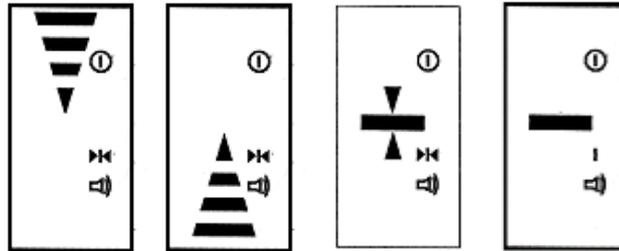


图 5

图 6

图 7-1

图 7-2

【NOTE】 :When the laser signal is nearby the mid position gradually, the displaying arrow will decrease along the mid direction till display the mid signal. (See fig 8,9,10)

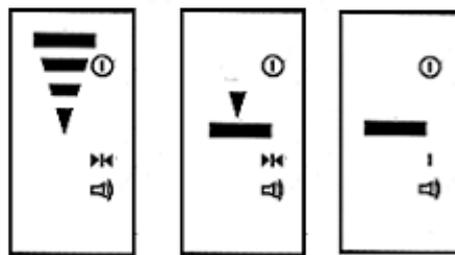


图 8

图 9

图 10

3. Sound function

The instrument is ON, pressing the sound key, it alternate between sound-on and sound-off, also the sound sign is changing in the LCD screen.

(see fig 11,12)

The sound function is open:

If the laser signal shows the up part, there is slowly short sound;

If the laser signal shows the down part, there is rapidly short sound.;

If the laser signal shows the mid part, there is lasting sound.

【NOTE】 : Regardless which condition the sound function is, there is indicator sound when you press the key.

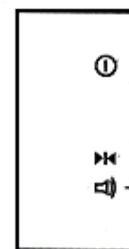


图 11

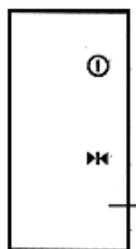


图 12

4. Coarse/fine detecting switch

The instrument is open, pressing coarse/fine switch, the unit alternate between coarse and fine detecting. The instrument has different check and measure precision(see parameter list),

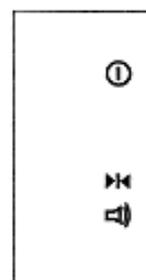


图 13

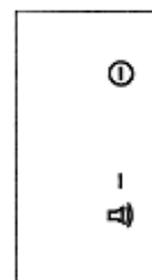


图 14

Fig16 shows the coarse detecting
Fig17 shows the fine detecting

5. Illumination function

The instrument is open, pressing illumination buttons, the backdrop illumination function of LCD is ON/OFF.

6. Saving power function

The instrument default this function as power off state. The instrument is on, press the illumination key for more than 2 seconds, and the buzzer makes 3 indicator sounds, and the middle green indicator light simultaneously flashing, which means the instrument is in 30 minutes automatic power off state. When the instrument cannot receive the laser signal for 30 minutes, and there is no any operation during this 30 minutes, the unit will be off automatically to prolong the battery's life. The function is open, press the illumination key for more than 2 seconds, and the buzzer makes an indicator sound, and the middle green indicator light simultaneously flashing, which means this function is off

7. Low battery indicating function

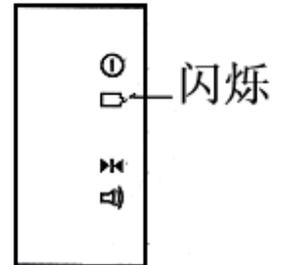
If LCD blinks the battery sign, it shows low battery and remind to change the battery as soon. (See fig 18)

If the battery power is too low, the instrument will be off automatically. At this time, change battery to keep on using.

8. Memorizing state function

At last, if the receiving place in not in the middle

(the receiving window emitting laser beam), the instrument memorizes the state and keep displaying for 5 seconds.



V Maintenance

- 1) Working is over, put the instrument back to the packing case in time.
- 2) Keep the instrument, particularly the detecting window clean. If there is dusty, using clothe and wipe clean gently.
- 3) Avoid knocking, falling on the ground.
- 4) Although the instrument is rainproof, you should avoid to merge the unit in the water for a long time. If merging in water incautiously, wipe it dry in time. Strictly prohibit throwing the instrument in the fire