# CFT -F900E    Operating Instructions

## I. Introduction

Coder -F900E is a portable device for writing /reading address code of all intelligent terminals our company produces, it's a basic tool in the processes of device installing, debugging and servicing.

## II. Features

1. Small size, shockproof and portable to take with;
2. Low power consumption, successive working duration is up to 18 hours;
3. Support 2100/9000 intelligent terminal;
4. Automatically increase the code based on previous, improve the work efficiency;
5. Battery level can be checked;
6. Over-discharge protection is provided;
7. Short circuit protection is provided;
8. Charging indicator is designed;
9. Automatically enter power saving mode and power off in idle mode.

## III. Technical Parameters

1. Built-in 1600mAh lithium battery;
2. External 24V/500mA DC can be used as direct work power supply or to charge the battery;
3. Working current: 15mA—170mA, standby current: 15mA;
4. Ambient temperature: -20℃～60℃, relative humidity: 5%～95%.

## IV. Appearance

Refer to figure 1



Figure 1

**Line-in:** for attached connection line only to intelligent terminals such as detector, module or audible and visual alarm;

*Note: do NOT connect any other USB device!*

**24VDC port**: for 24VDC/500mA power supply, inner is anode and outer ring is cathode.

*Note: do NOT disconnect the power plug in working state!*

**Screen**: displays battery level, prompts and address codes that have been read out and wait for writing.

**Indictors**: five indicators are designed to indicate the statuses of power, reading, writing, switching and charging (from left to right).

**Power—green**: the indicator turns on when it is powered on or there is an external power supply;

**Reading—red**: the indicator turns on when it's in reading mode;

**Writing—red**: the indicator turns on when it's in writing mode,and blinks when it's in auto increase mode.

**Switching—red**: support 9000 bus terminal when it turns off; support 2100 bus terminal when it blinks.

**Charging—green**: the indicator turns on when it's in charging state and turns off then it's fully charged.

**Keypad**: 17 functional keys are designed including: select, delete, run, increase, decrease and numeric keys, etc.

**MENU**: press this key to select the function of writing or reading; long press this key to enter the mode of auto increase.

**Delete**: use in writing mode, press this key to delete the wrong code entering.

**Run**: write and read the address code of the intelligent terminals.

**Increase**: use in writing mode, press this key once to increase one level, long press this key to increase the address code successively.

**Decrease**: use in writing mode, press this key once to decrease one level, long press this key to decrease the address code successively.

**Numeric Keys (0-9)**: enter the address code to be wrote

**"*"** : check battery level, not available when there is an external power supply.

**"#"** : press this key to switch between 2100 system mode and 9000 system mode.

**Shockproof Sheath**: reduce the impact with other hard objects, take it off when replacing battery.

## V. Operations

**1. ON/OFF**

Long press "ON/OFF" key for 1 sec to power on the device with power indicator and writing indicator turned on, the screen displays numbers, the device enters working mode; when the device is in normal working mode or power saving mode, press this key to power off the device and all indicators are turned off; when there is an external power supply, the power indicator keeps turning on even in power-off state, at this moment, the user may re-start the device by pressing this key.

**2. 2100/9000 System Switching**

It enters 9000 system as default when the device powers on; the user may press "#" key to switch to 2100 system, the screen displays "199" and the switching indicator blinks; further press "#" key to switch back to 9000 system, the screen displays "324" and the indicator turns off.

**3. Battery Level**

Press and hold "*" key to check the current battery level, 10 levels (1-10) are designed, as shown below:

$$\Xi 1 \cdots \Xi 10$$

When the level shows $\Xi 10$, it means the battery is fully charged and can be successively worked for 18 hours; when the level shows $\Xi 6$, it means the battery is half used; when the level shows $\Xi 4$, it means the battery is lower and needs to be charged and the buzzer beeps a sound every 30 secs; when the level shows $\Xi 1$, it means the battery is used up and the device will automatically power off; at this moment pressing "ON/OFF" key couldn't power on the device because the over-discharge protection is functioned, it must be charged immediately. The battery can be fully charged within 5 hours; the charging indicator turns off when it's full.

*Note: the successive working time is subject to the actual working conditions, 18H is an estimated value for reference only!*

**4. Writing**

Connect terminal device by attached connection line and switch to applicable bus type. Press numeric keys to enter the address code, press Run key to code; if the writing process succeeds, the screen displays the address code and a beep sound can be heard; if the writing process fails, the screen blinks to display Err, and three beep sounds can be heard, at this moment the user is advised to check the system bus type and the connection of the device and terminal, then enter the address code and try to write again. press "Delete" key to delete wrong code entering.

**5. Auto Increase of Address Code**

Press and hold "Select" key for 2 secs, the writing indicator blinks, the system enters the mode of auto increase. When a correct address is wrote, the screen blinks to display the address; at this moment the user may disconnect the terminal device and the address increases automatically by one, press "Run" key to continue to write the address when installing the next terminal device;it's unnecessary to enter address for later writing.

**6. Reading**

Connect terminal device by attached connection line and switch to applicable bus type. Press "Run" key to read out the address, if the reading process succeeds, the screen displays the address and a beep sound can be heard; if the reading process fails, the screen blinks to display Err, and three beep sounds can be heard, at this moment the user is advised to check the system bus type and the connection of the device and terminal, then read out the address again.

## VI. Other Functions

1. Bus short circuit detecting, in case of bus short circuit, the buzzer beeps twice a second till it recovers.
2. If no any operation is made within 1 minute, the screen would turn off and enter power saving mode; in this state, press any key to turn on (except ON/OFF).
3. If no any operation is made within 5 minutes, the system would automatically power off; pressing "ON/OFF" key can re-start the device.

## VII. Assembling of Peripheral Devices

As figure 2, figure 3 and figure 4

1. Insert Φ3.5mm plug into the writing jack on the base frame of detector to make reading/writing operation to the smoke detector and heat detector;
2. Insert Φ3.5mm plug into the writing jack of handhold alarm or fireplug to make reading/writing operation;
3. 5PIN plug is used for 2100 system module;
4. Insert 5PIN plug into the writing jack of handhold JTQ-BM-925T to make reading/writing operation;
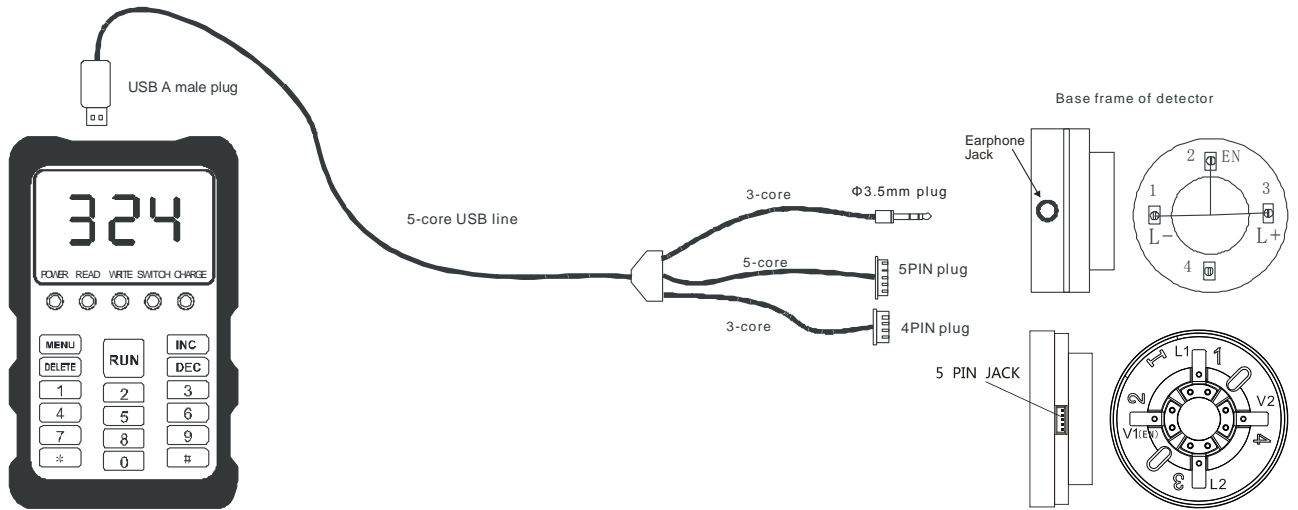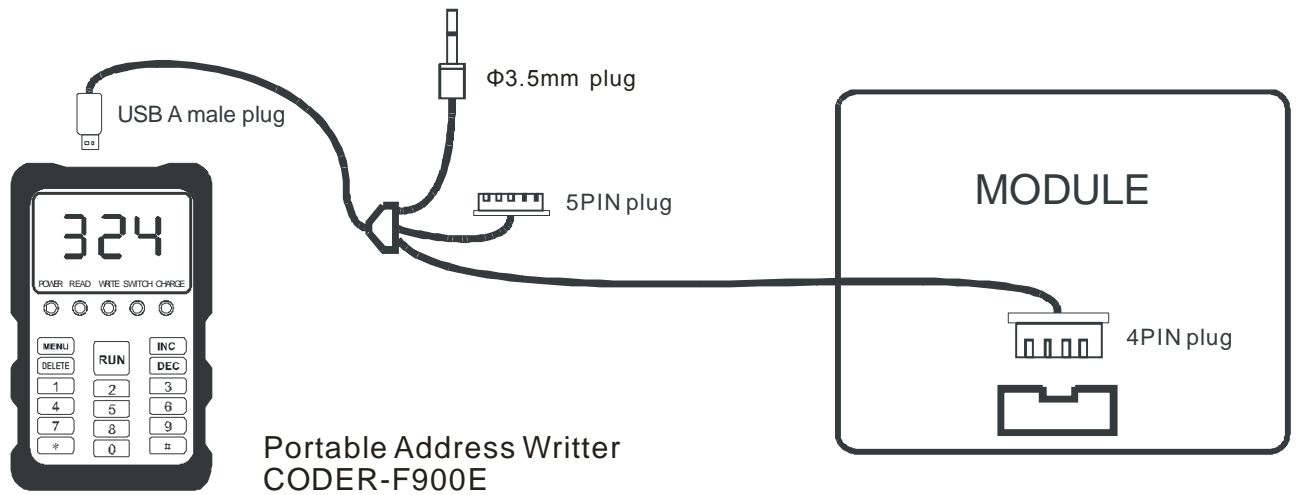5. 4PIN plug is used for intelligent module and audio/visual alarm.

USB A male plug

324

POWER READ WRITE SWITCH CHARGE

MENU  INC
DELETE  RUN  DEC
1  2  3
4  5  6
7  8  9
*  0  #

5-core USB line

3-core  Φ3.5mm plug

5-core  5PIN plug

3-core  4PIN plug

5 PIN JACK

Base frame of detector

Earphone Jack

2  EN
1  3
L−  L+
4

L1  1
2  V2
V1(E)
3  4
L2

Figure 2

Φ3.5mm plug

USB A male plug

324

POWER READ WRITE SWITCH CHARGE

MENU  INC
DELETE  RUN  DEC
1  2  3
4  5  6
7  8  9
*  0  #

5PIN plug

MODULE

4PIN plug

Portable Address Writter
CODER-F900E

Figure 3

2100 MANUAL CONTROL UNIT

H600  1 2 3 4 5  J6
H500  1 2 3 4 5  J5
H400  1 2 3 4 5  J4
H300  1 2 3 4 5  J3
H200  1 2 3 4 5  J2
H100  1 2 3 4 5  J1

J1

1 2 3 4 5

H100

Hold and insert with metallic side upward

Φ3.5mm plug

USB A male plug

324

POWER READ WRITE SWITCH CHARGE

MENU  INC
DELETE  RUN  DEC
1  2  3
4  5  6
7  8  9
*  0  #

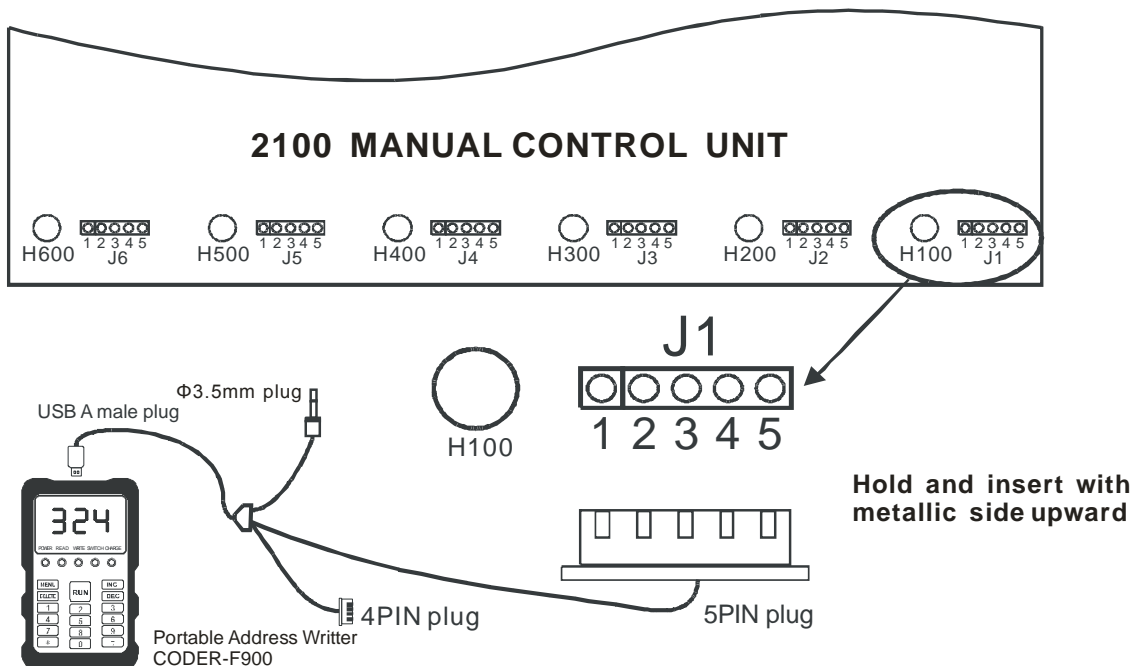4PIN plug

5PIN plug

Portable Address Writter
CODER-F900

Figure 4

## VIII. Troubleshooting

1，It prompts "ERROR" when writing/reading

① Check whether the bus type is correct, it means 9000 system is under working when the switching indicator turns off; 2100 system is under working when the indictor blinks;

② Check whether the intelligent terminal is good, change a terminal device to have a test;

③ Check whether the connection is good; if the connection line or coder doesn't work, please contact our service center for help;

2，Fail to power on

Check whether the battery has enough power, connect with external power supply and try to power it on again; if still fails, please contact our service center for help.

3，Buzzer beeps in successive

When the bus short circuit, the buzzer would beep in successive, at this moment the user should check whether the bus has short circuit, if not, please contact our service center for help.

## IX. Precautions

1. **Any other type of USB device is not allowed to connect with this product, otherwise it might damage your USB device.**

2. Keep away from corrosive liquids and do not use in wet, hot environment and strong magnetic field.

3. Please use DC power adapter we provide, other types of power adapters might damage this product.

4. This coder is used only for the products our company produces; do NOT use it for those produced by others.

*__Your suggestions for our improvements shall be highly appreciated!__*