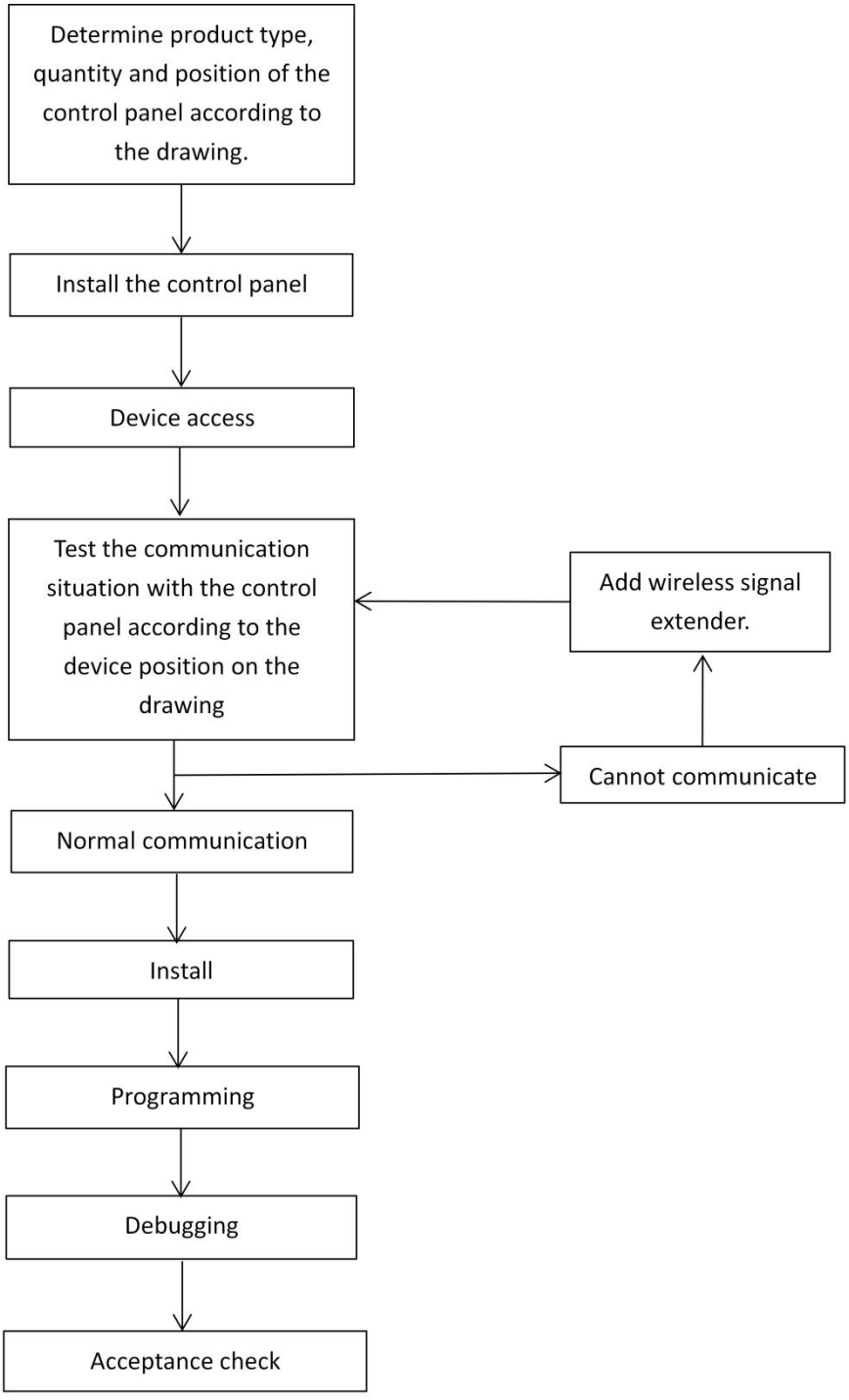
JB-TB-TC5126W Installation and debugging process and precautions of wireless fire alarm control panel

I. Installation flow chart



II. Device access to the network and product communication distance test

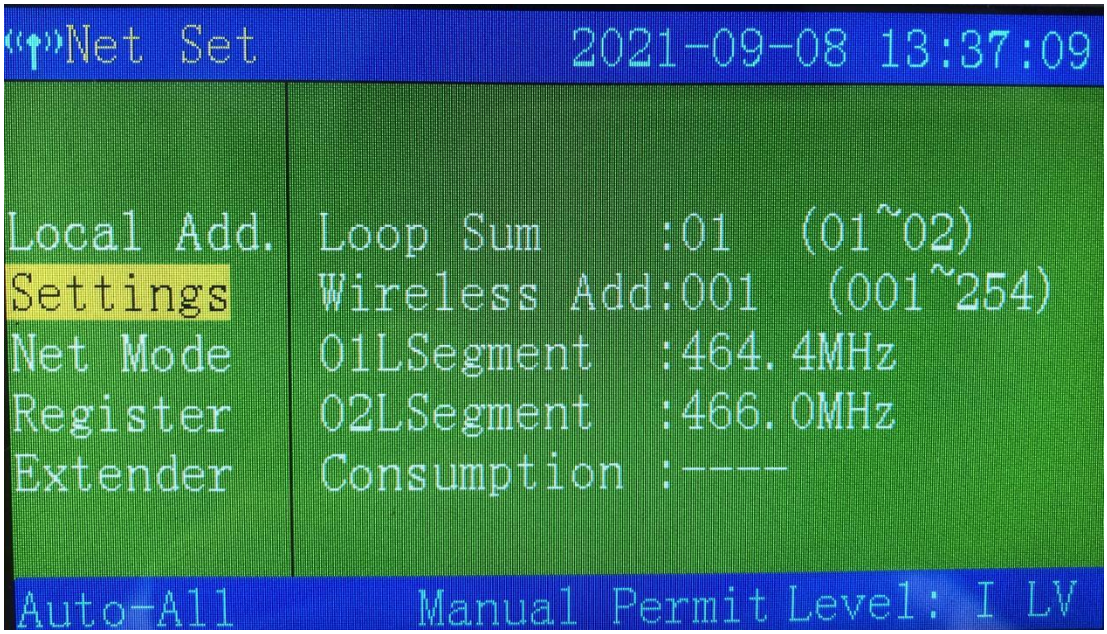
1. Determine the position of the control panel according to the drawings.

2. Determine the type, quantity and installation position according to the drawings.

3. Determine the number of control panels according to the number of devices.

4. Device access to the network

4.1. Network segment setting: The device network segment should be set before entering the network. In the network setting interface of the control panel menu, set the network segment of the network according to the actual situation on site.

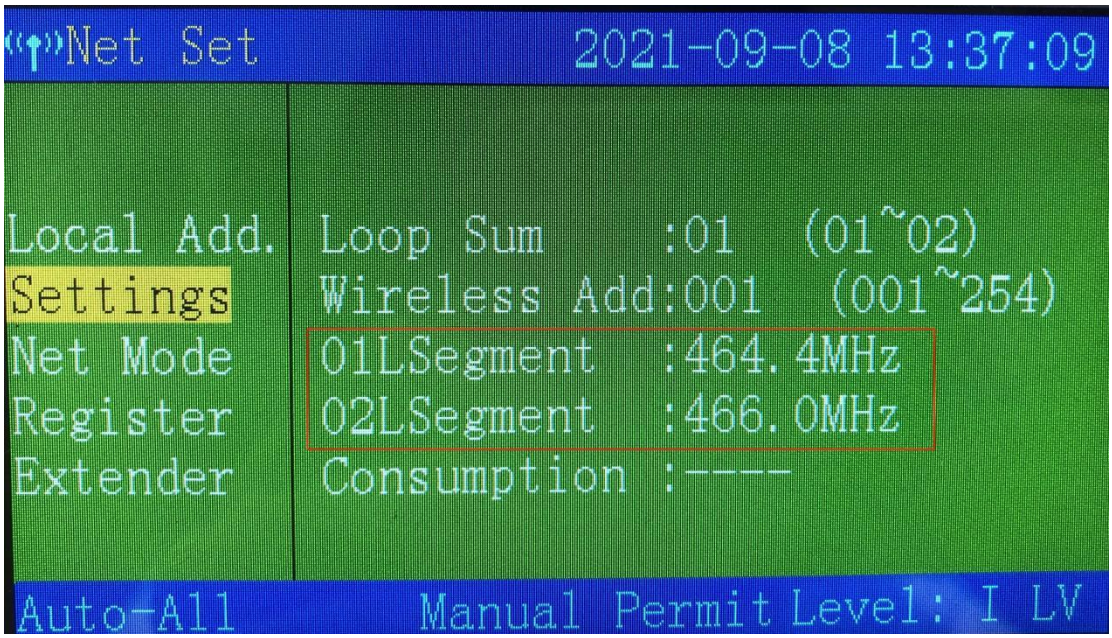


4.1.1. Operation of network segment setting: (Menu→6 Network setting →Enter password 111111→2 Wireless setting→Press the ENTER to set).

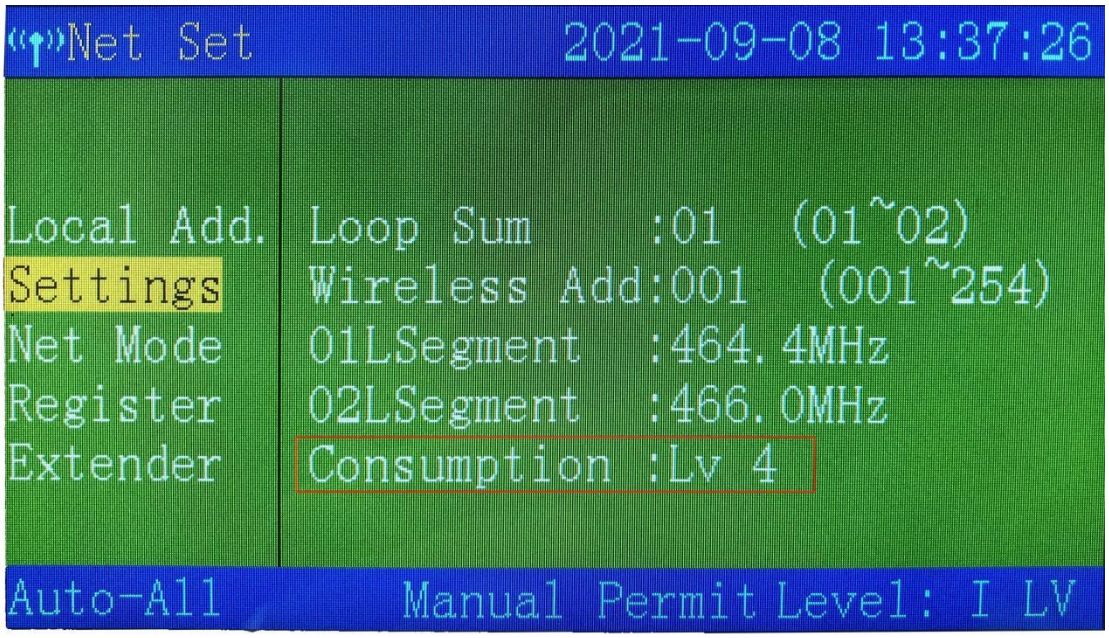
4.1.2. Set the number of loops: set according to the number of loops used by the control panel.

4.1.3 Wireless address setting: the setting range of address on field devices shall be between 1-254. (When the signal extender is debugged, the address number of the panel's wireless address setting should be the same as that of the signal extender's in the debugging software. If it is different, normal communication may not possibly work).

4.1.4 When setting the network segment, the first network segment should be set apart from the second network, (for example: the network segment of the first channel should be set to 464.2MHz, the network segment of the second channel should be set to 466.2MHz) Avoid mutual interference in communication among field devices due to the same or similar network segment.



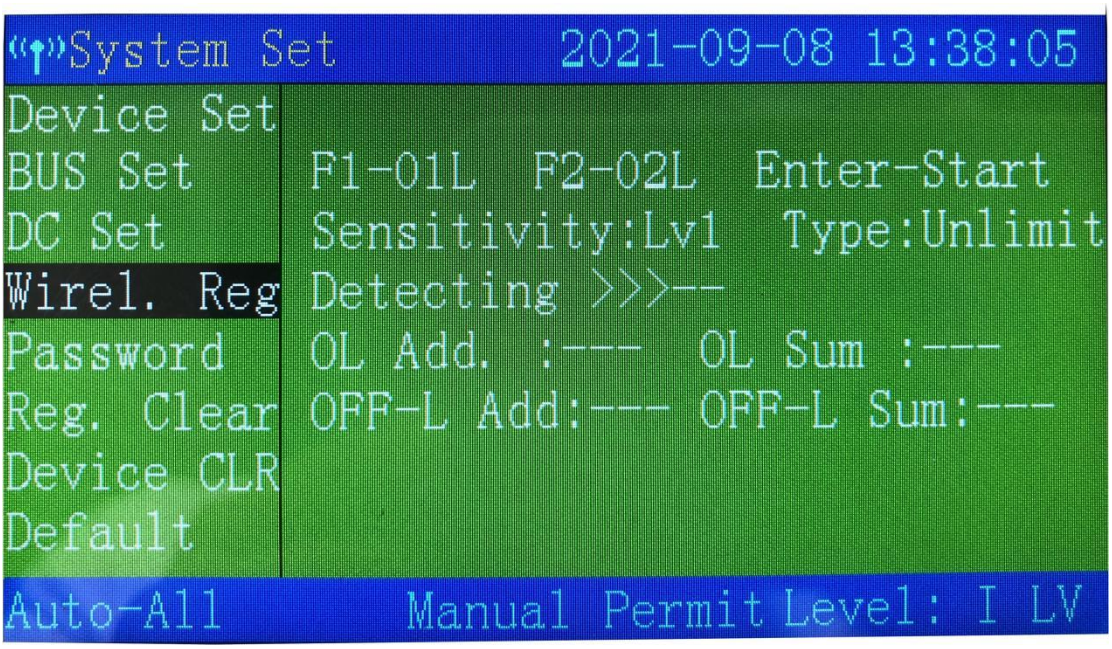
4.1.5 The level of wireless power consumption: The wireless power consumption level is divided into four levels (first level power consumption: communication fault reporting time is 100 seconds, second level power consumption: communication fault reporting time is 2 hours, third power consumption: communication fault reporting time is 12 hours , Four-level power consumption: 15 hours for communication fault reporting). When the wireless power consumption level is set to level one, each loop of the control panel can carry up maximum 32 wireless field devices; when the wireless power consumption registration is set to level two, three, or four power consumption, each loop can take maximum 64 wireless field devices. Note: The power consumption level affects the life of battery in the components and device. Choose them due to the on-site situation. Set up the power consumption to level four is recommended)

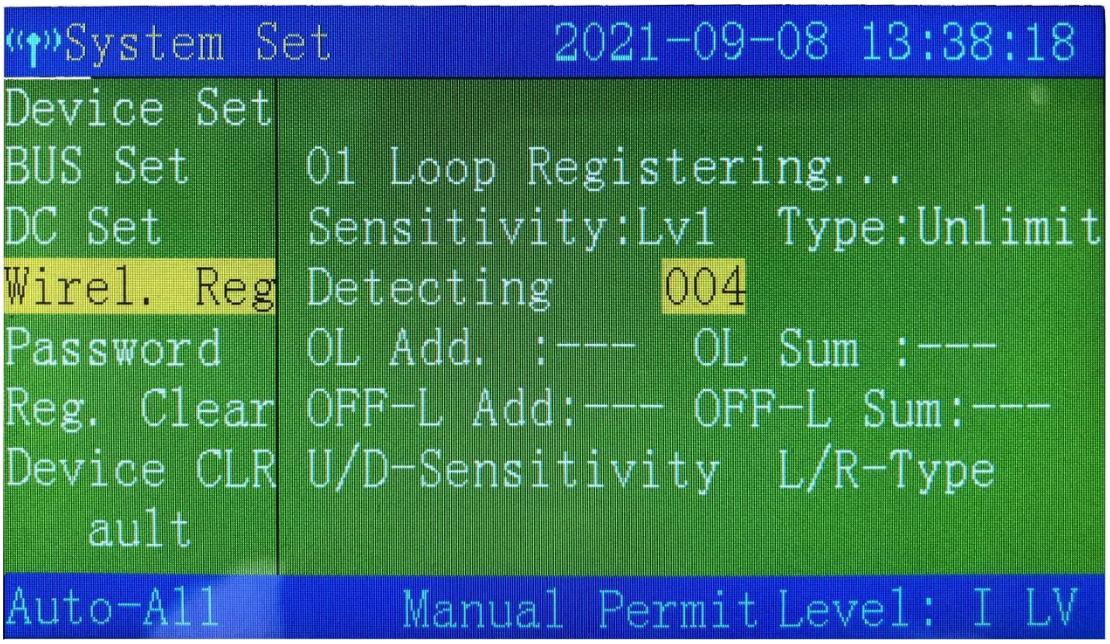


4.2 The field devices are accessing and exiting the network: (Before accessing the network, consider the number of devices to be installed in each loop to avoid inconsistent loops when it is added later. The same signal extender cannot be set to forward the data of two loop devices at the same time. Example: 1 loop No. 1 The field device cannot share one signal extender with the 2 loop No. 1 field device)

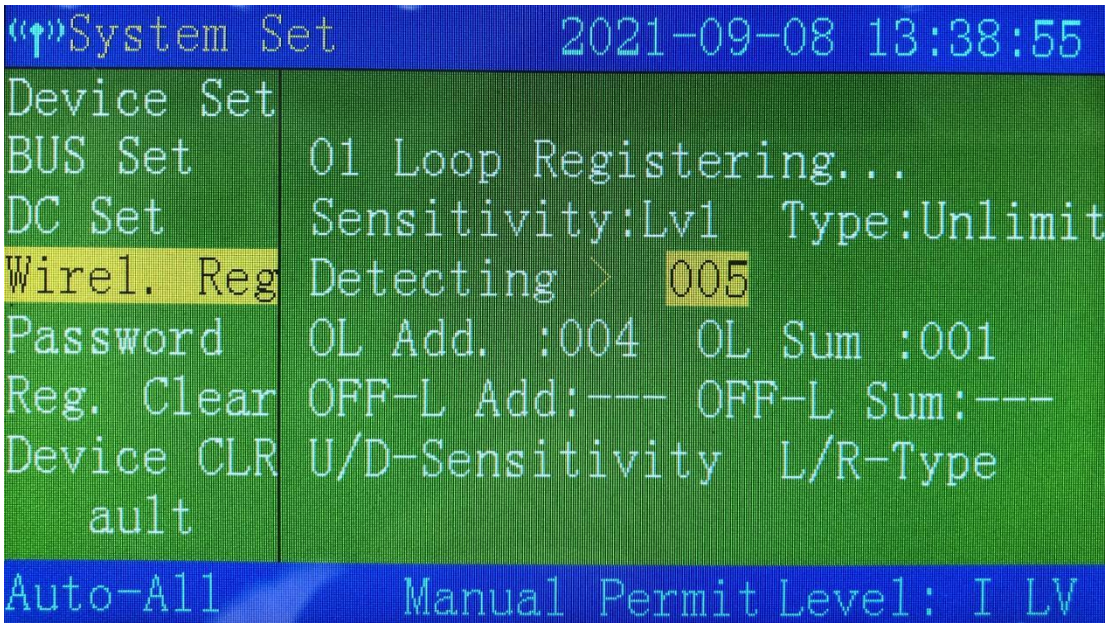
4.2.1 Devices access to the network: press menu → No.5 system settings → enter the password 111111 → 4 wireless registration → press the enter key → F1/F2 to select the loop of the device to be connected to the

network → press enter to start the network → press the up and down buttons of the control panel to select the sensitivity of networked field devices (The sensitivity is effective for smoke detector, and the control panel defaults to a first-level sensitivity). Press the left and right buttons of the control panel to select the type of networked field device (the control panel defaults to unlimited access to the network).



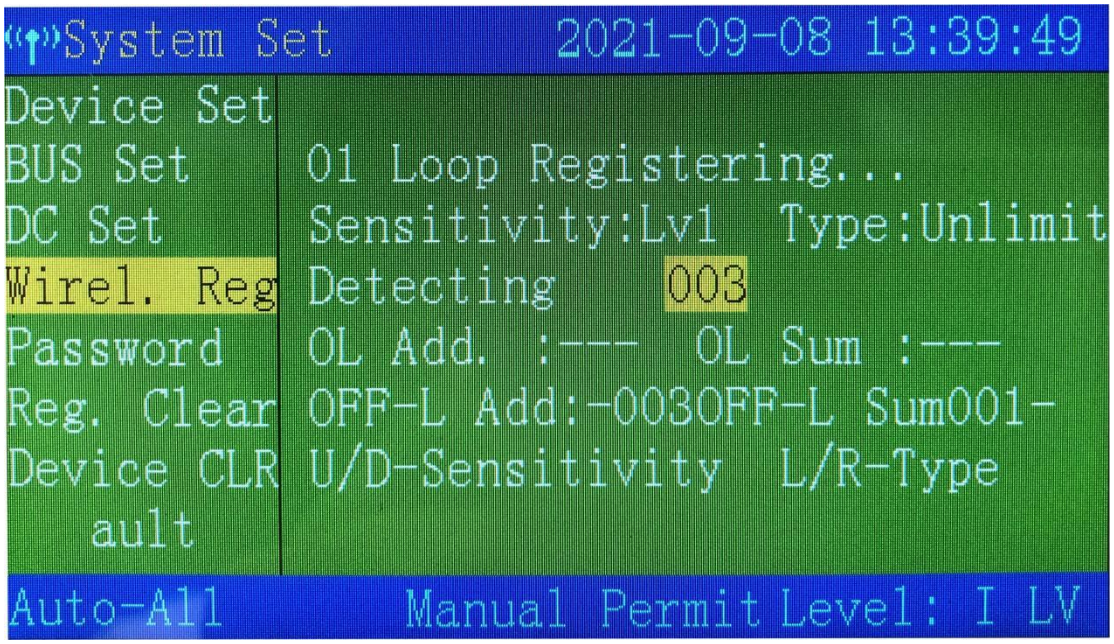


4.2.2 When the screen shows on the "wireless registration" and also the device is not registered to the network, quickly press the network button 3 times, and the green light flashes 3 times, the device sends a network connection request to the control panel. After the application is successful, the control panel shows that total number of connections +1. (When the indicator is always red, indicating that the device is not be connected to the network. Solution: 1. Find the instruction to exit the network, and refer to "4.2.3 Exit operation"; 2. Restore the device to factory settings, refer to "4.6 Restore to factory default". When power on the device again as the device's red light is always on, and press the "Networking" button 5 times, then the red indicator flashes 3 times and goes out. You can re-access the network at this time.)



4.2.3 Exit network operation: When the screen is on the "wireless registration" and the device is connected to the network already, press the

network button 3 times quickly, and the green light flashes 3 times, the device sends an exit request to the control panel, after application success, the total number of logout displayed by the control panel +1.



4.3 Status test: After the device is powered on, press the network button once, and the green light flashes once. If the screen displays the loop address number of the field device, it indicates that the device has successfully connected to the network, otherwise the device is not connected to the network.

4.3.1 Note: 1-01 represents the address of No. 1 device of loop 1. R and T represent signal strength (unit: dBm). This data indicate that the field device communicates with the control panel normally. (the value of R and T indicates between 0 and 130. The smaller the value, the better the communication with the control panel.)

4.3.2 If the device transmits the signal through the signal extender, then the number displayed on the screen is: 1 loop and No. 1, device communication is normal, at this time the signal strength of R and T is the communication signal from the field device to the signal extender strength.

4.4 Device alarm: When the device alarms or actives, the red light is always on. The device sends an alarm signal or feedback signal to the control panel, and the control panel responds to the alarm signal or feedback signal.

4.5 Device reset: manual call point and fire hydrant button adopt special key to reset, and other products reset on control panel.

4.6 Restore factory default: After the device is connected to the network, when it is powered on again, the alarm light will last 10s. During this period, you can restore the factory default by tapping the network button 5 times.

4.7 When there are multiple control panels in the same project, the network access operation should be carried out separately to avoid the situation where there are too many devices and the wrong control panels are connected to each other.

5. Test the communication distance between the field device and the control panel.

5.1 After the devices arrive at the designated installation position, press the network button of the device to check whether the control panel can receive the signal and signal strength of the device. If it can communicate normally, continue to test the online situation if you want further. If the control panel does not respond after pressing, you need to add a signal extender at the appropriate position.

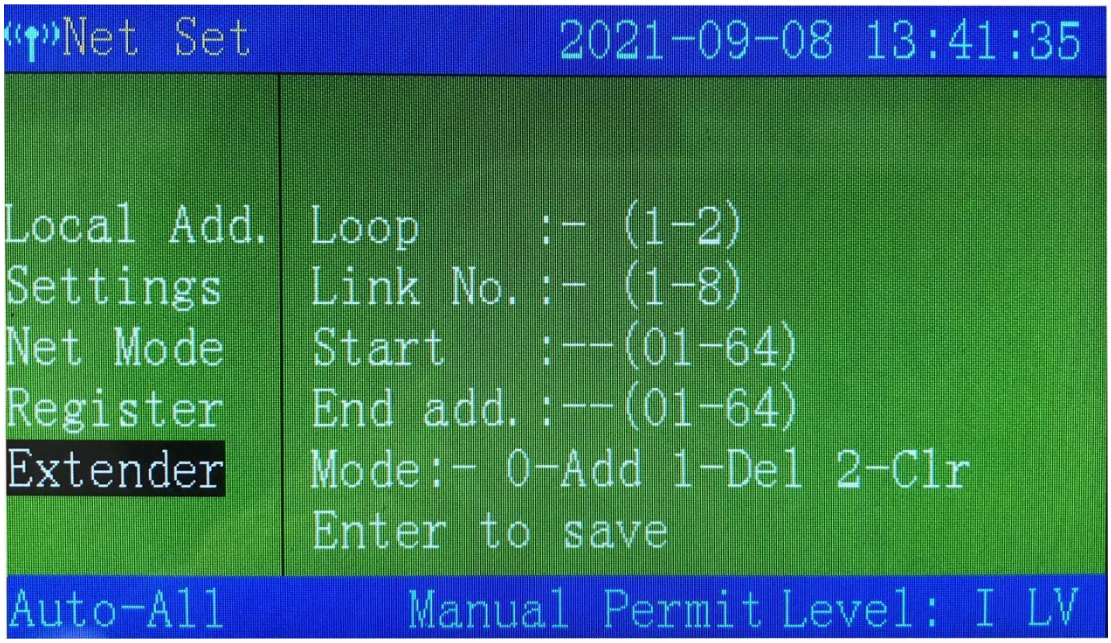
6. Debug and add signal extender

TC-ZJ402 wireless signal extender is used in the system of JB-TB-TC5126W wireless fire alarm control panel, and its function can be understood as the the bridge between the field devices and control

panels, it's responsible for the data exchange between the smoke detector, the MCP, the fire hydrant, the sounder strobe, the modules and the control panel, which increases the monitoring range of the control panel and extends the communication distance.

The signal extender setting is divided into two parts (the control panel and wireless signal extender setting, the other setting is wireless signal extender software part.)

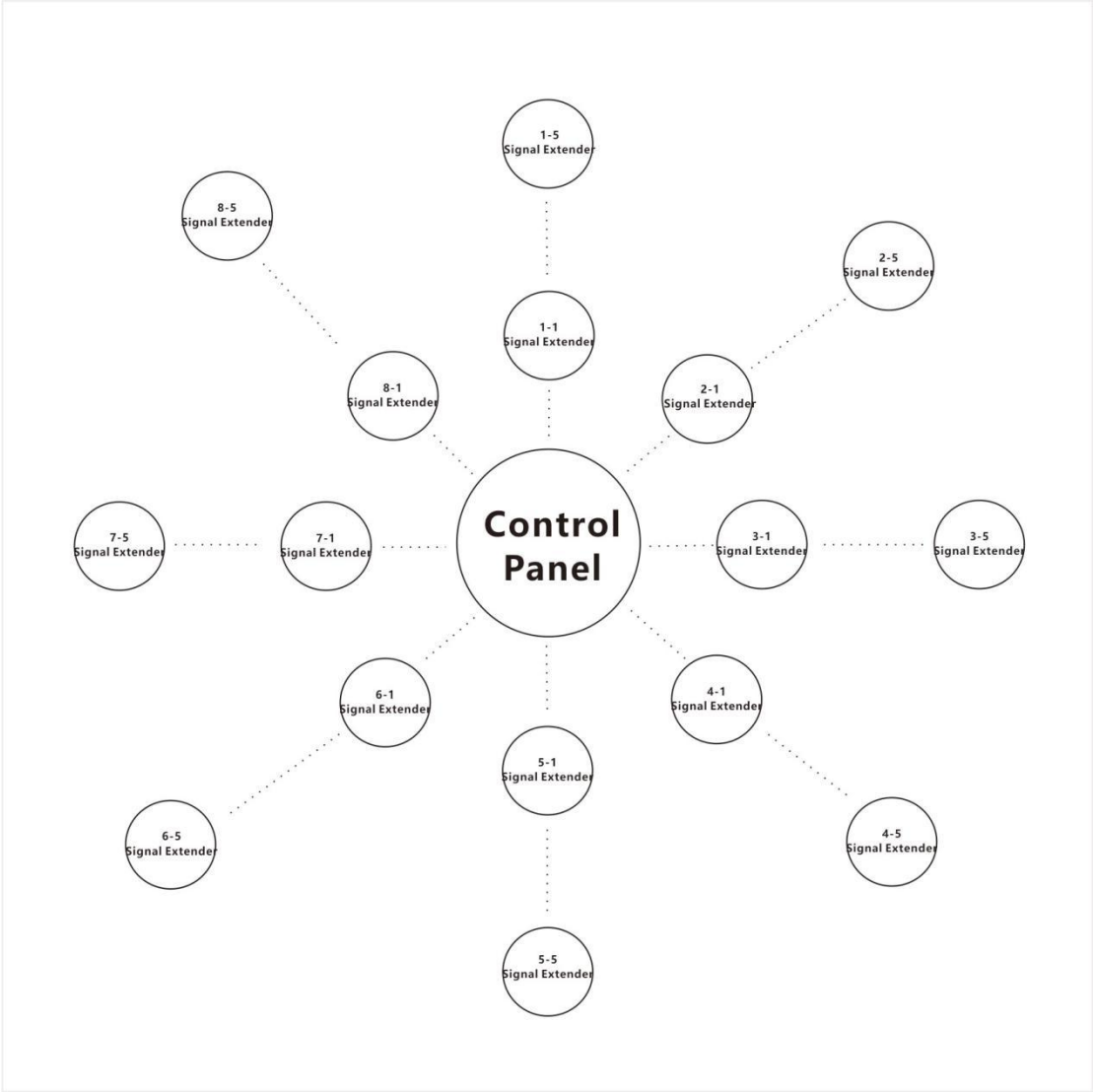
6.1 (Control panel debugging) Enter the menu interface of the wireless fire alarm control panel → 6 network setting → enter the password 111111 → 5 signal extender setting. (If the device address numbers in the same loop are not consecutive, you need to set the device address numbers of this loop multiple times.)



6.1.1 Wireless loop: The number of the wireless loop where the device to

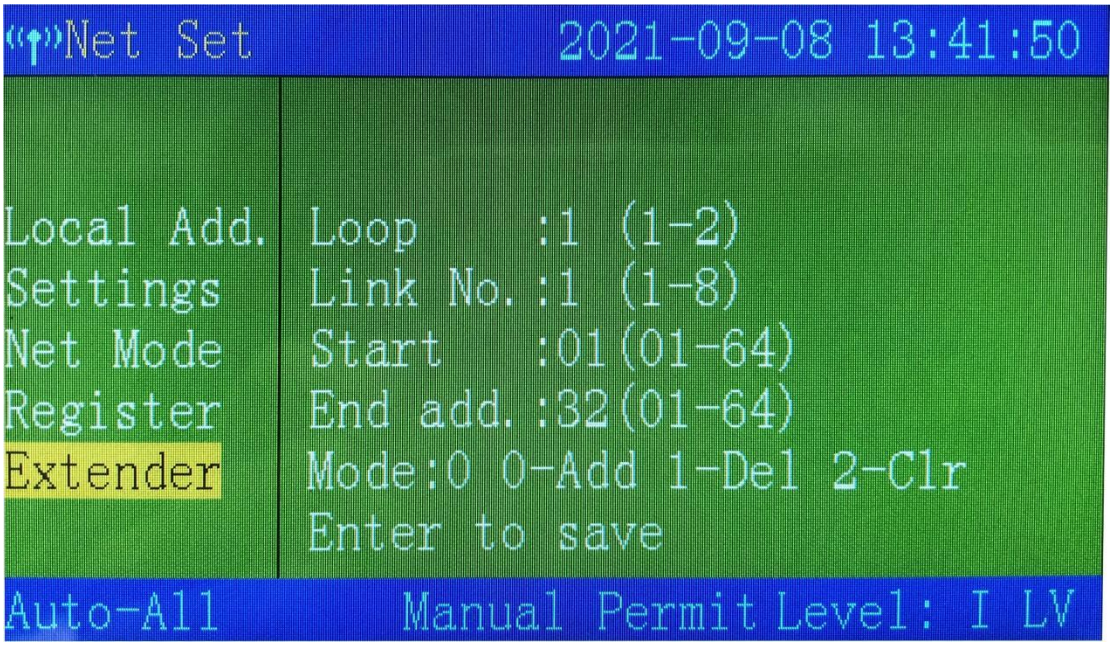
transmit the signal through the signal extender. (For example: the loop 1, 1-64 device to transmit the signal through link 1, the setting content is as follows: wireless address is 1, link is 1, start address from 01, end address 64, mode 0 press the confirm key to complete the setting) .

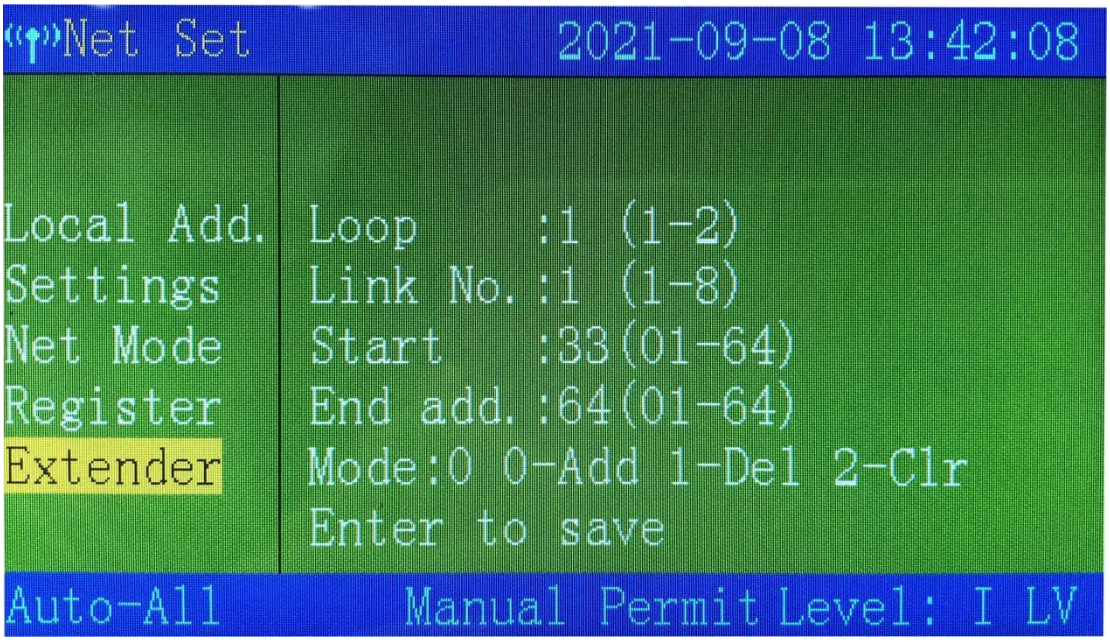
6.1.2 Relay link: Max 8 relay channels can be set for each panel, Max 5 signal extenders can be added to each relay channel, and each relay channel works independently and does not affect each other. The channel distribution diagram is as follows: (For example, the signal extender 1-5 in the figure are in channel 1, The number 1 in the front represents the number of relay channel, and the 5 in the back represents the number of signal extender)



Example of setting the control panel

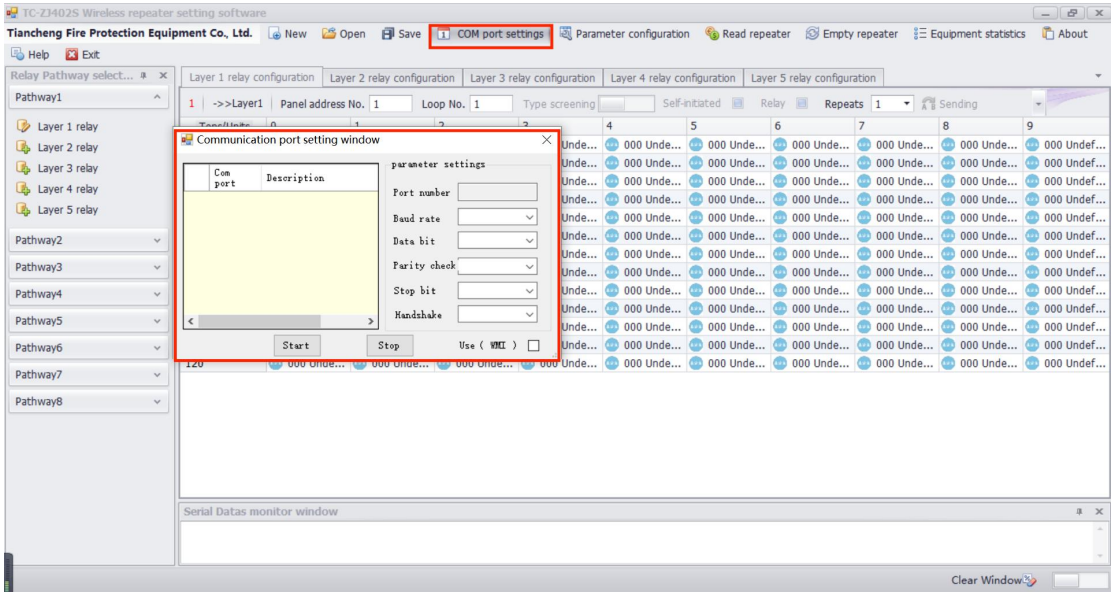
For example: the 1-64 devices of loop 1 are all in channel 1, then the settings are as follows: wireless loop 1, relay channel 1, start address 01, end address 64, mode 0, press the Enter to complete the setting; if the first 32 points of the loop are channel 1, 33-64 are channel 2, it needs to be completed twice, the first wireless loop 1, relay channel 1, start address 01 end address 32, mode 0, press the Enter to complete the setting. The second setting, wireless loop 1, relay channel 2, start address 33 end address 64, mode 0 press the confirm key to save.

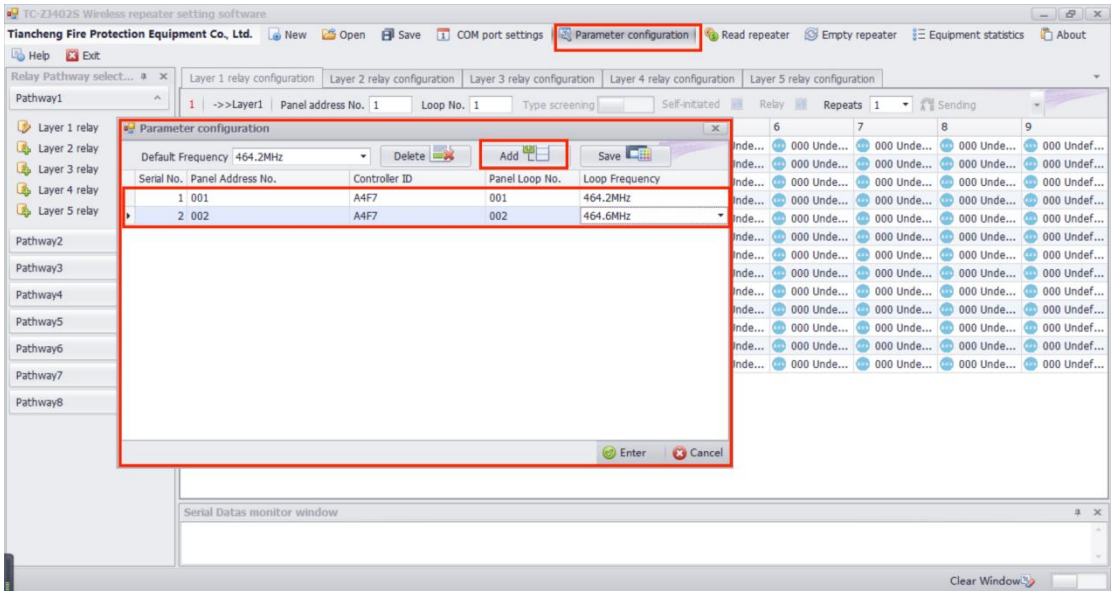


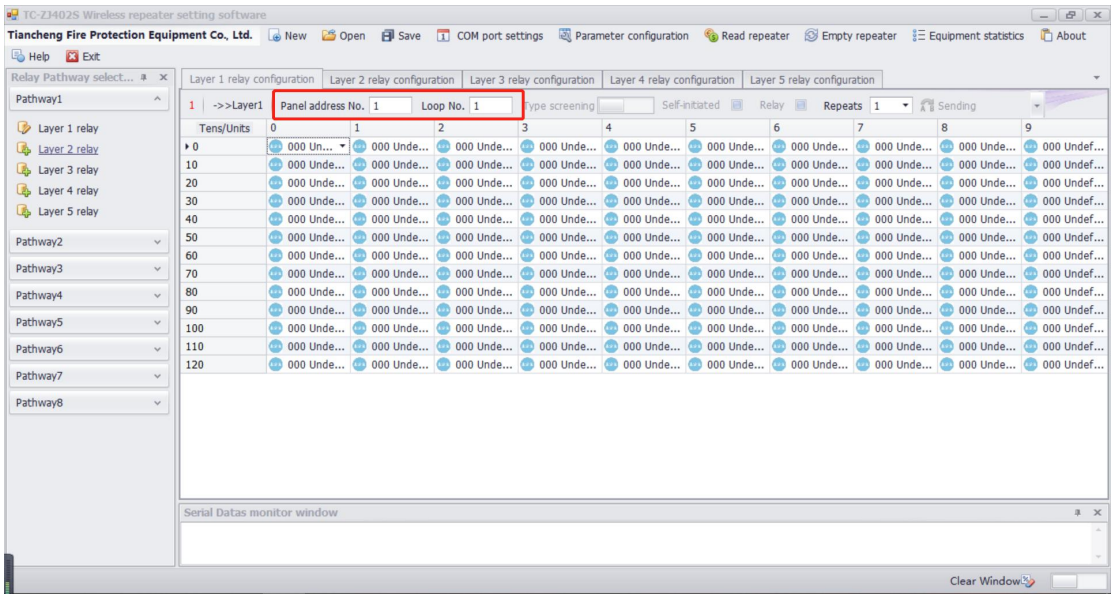


6.3 (signal extender software debugging) Connect the RF470 wireless communicator into the computer, find the com in Device Manager in the software of the computer, open the wireless debugging software, select the COM port settings, start com address number that founded, and then Open the parameter configuration, fill in the control panel wireless

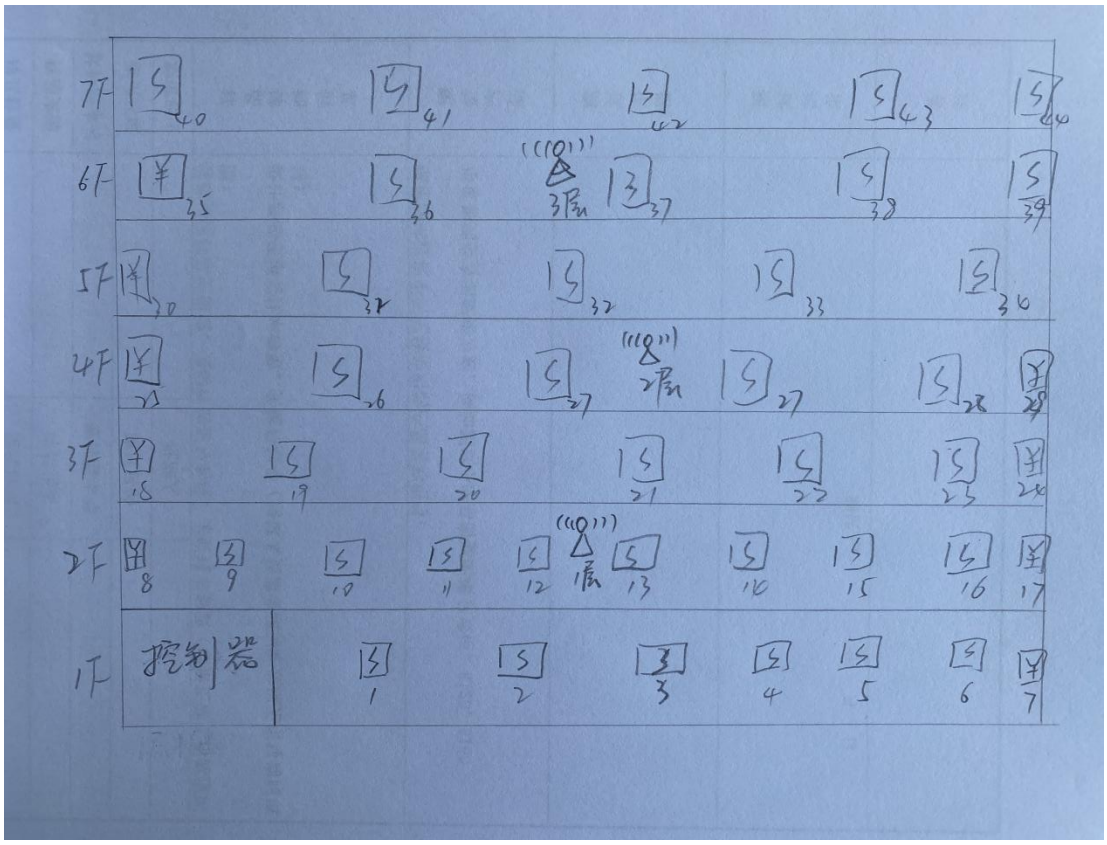
address number (refer to the "wireless address setting" in the control panel wireless settings for the wireless address number), control panel ID (control panel ID is at the fourth relay setting in the setting query), Loop number and loop network frequency.







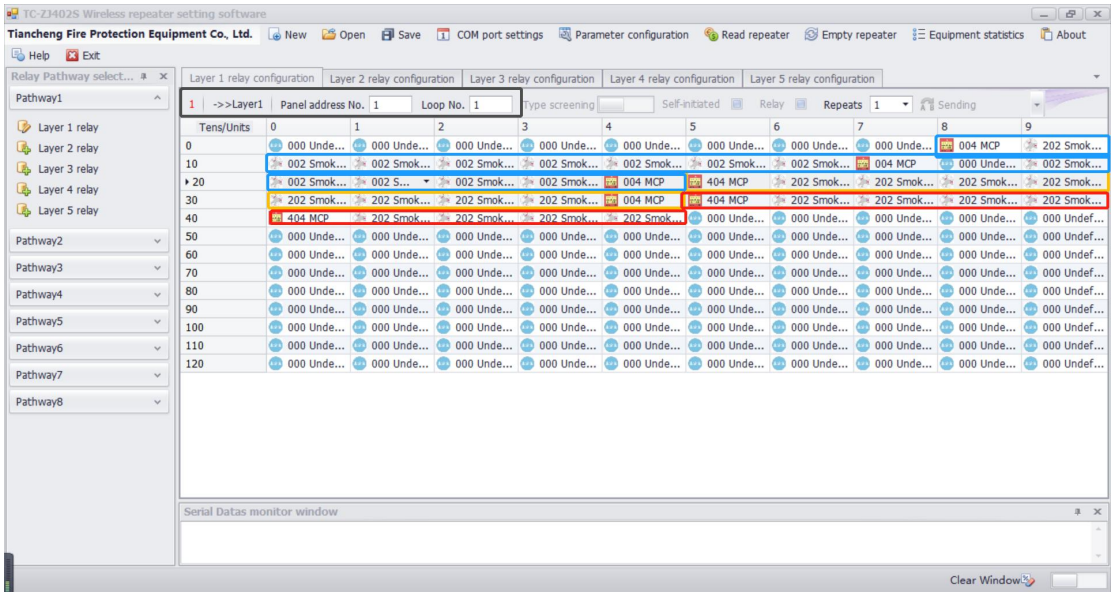
6.3.1 The setting method of the signal extender is as follows: (For example, the control panel is in the control room on the first floor, and there are seven floors in the building. Smoke detectors, MCP and other device are installed. Due to the poor communication effect of the on-site environment, it is necessary to add signal extender to ensure device.)



The device address number on the first floor is 1-7, the device address number on the second floor is 8-17, the device address number on the third floor is 18-24, the device address number on the 4th floor is 25-29, and the device address number on the 5th floor is 30-34 , The address number on the 6th floor is 35-39, and the address number on the 7th floor is 40-44. Due to the large field interference, it is necessary to add the signal extender to ensure the normal communication of the device. After the test, signal extender are added to the second, fourth, and sixth floors. Then the debugging method is as follows.

6.3.1.1 The device on the 1st floor communicates normally, so there is no need to add a signal extender. The devices which at second floor and above need to transmit data through the signal extender. The extender on

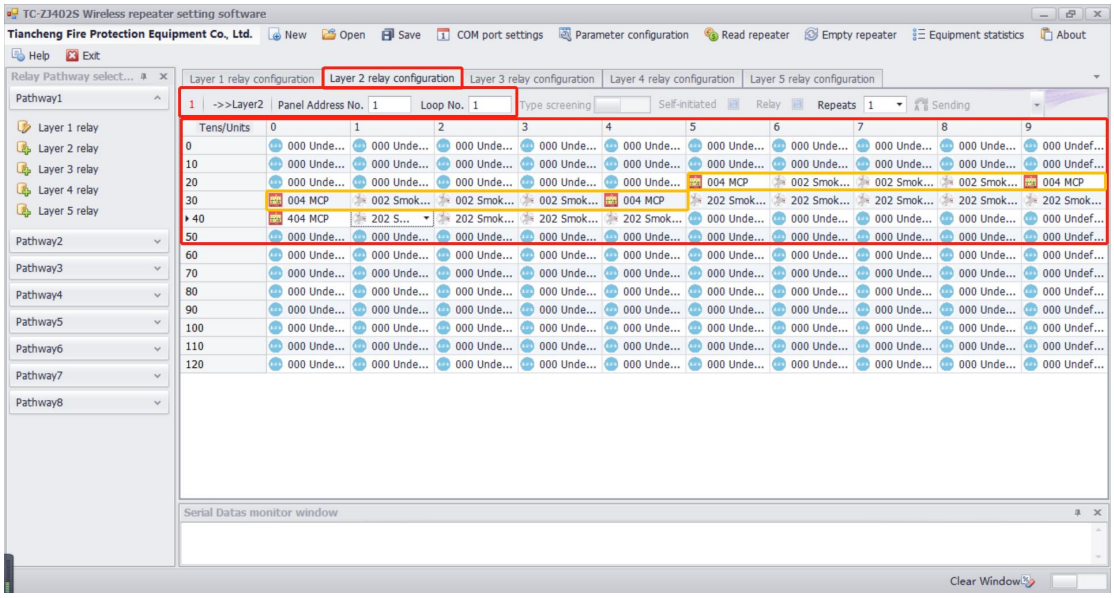
Relay channel 1 must be responsible for the address number of the transmission device between 8-44. However, the device on the fourth floor or above in the building is transmitted back through channel 1,signal extender 2 and signal extender 3 ,so the signal extender should be set up in accordance with the floor.



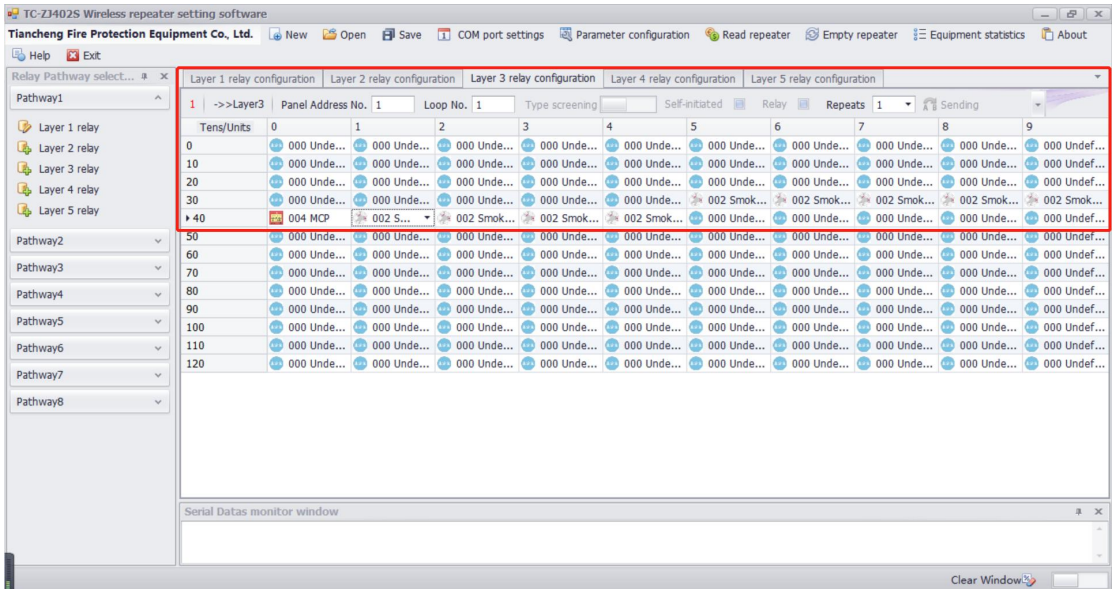
6.3.1.2 The above figure shows the model and address number of the device that the floor 1 signal extender is responsible for transmission. The selected part in the blue frame is the address number and type of devices (No.8-24 device) to be transmitted by the signal extender at this floor, and the other 25-34 is the address number of relay transmission device at floor 2 and 35-44 is that of relay transmission device at floor 3. The type of device responsible for transmission by the signal extender at this level is shown in the signal extender debugging software as 00X (for example,

the type of smoke detector to be transmitted by the signal extender at this level is 002, and the MCP is 004). Meanwhile, the type of device to be transmitted by the signal extender after this level is shown as X0X (for example, the types of signal extenders at lower levels are 202 and 404).

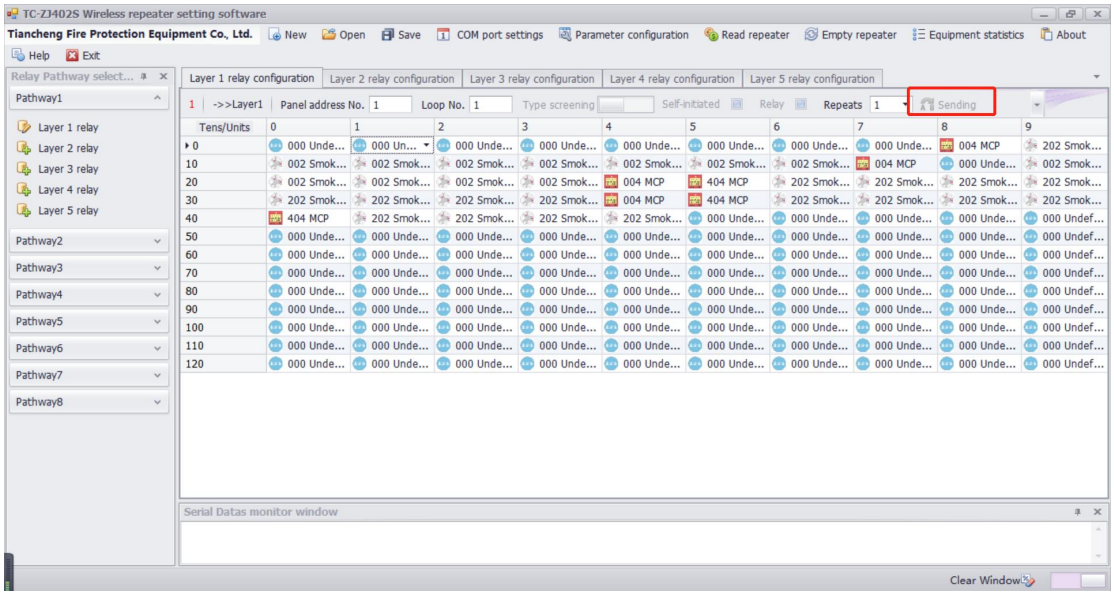
6.3.1.3 We set the content of the second floor signal extender down below. As shown in the figure below (No. 25-44 in the box is the device address number of the floor 2 signal extender transmission signal, of which 25-34 is the address number of the device to be transmitted by the floor signal extender, so the device type is 00X, and 35-44 is the address number of the device to be transmitted by the next floor signal extender, the device type needs to use X0X).



6.3.1.4 The third floor signal extender is set as follow:



6.3.2 After the software is set up, you need to set the signal extender corresponding to the floor. When setting, the signal extender is powered on, and the running light is flashing after power on. At this time, press the setting button 5 times continuously, and the three indicators flash at the same time, then click on the software sending, and watch the progress bar at the back. When 100% appears, the signal extender setting is completed. After the setting is completed, you need to press the setting button on the signal extender again to exit the setting mode and enter the working mode. (Note: When setting the signal extender, only one signal extender can be set at a time, and multiple signal extender cannot be set at the same time).



6.4 After the signal extender debugging is completed, start to test the communication between the signal extender and the control panel.

6.4.1 Key points of on-site test and installation

The signal extender should be installed in a suitable position in the wireless network, so that the signal extender can act as a bridge between the panel and the detector. When the signal strength is not enough (signal strength test method, if there is a 5-floor signal extender, first Turn on the control panel, the signal extender of first floor is powered on, press the button twice, observe the fault light, after flashing 3 times, if it is off, it means the signal is good, if it is off after 3s, it means the signal is bad, and the position of signal extender needs to be adjusted. By analogy with the installation of continuous floor signal extender, the position of the relays in the network can be reasonably arranged, so that the signal extender can cover a larger area, and at the same time, it can avoid channel collisions caused by too close distances.

6.4.2 Find the transmission device corresponding to the signal extender, press the setting button of the device, and check the loop number, address number and communication signal strength of the device on the control panel. (The signal strength displayed at this time is the communication signal strength from the device to the signal extender. Similarly, the smaller the figure, the better the communication quality)

6.4.3 In the same way, when the communication distance of the first floor signal extender still cannot meet the field requirements, it is necessary to add two or more floors of signal extender. (JB-TB-TC5126W wireless fire alarm control panel panel, each loop of the control panel can carry up to 8 floors signal extender, and each floor can carry up to five floors of signal extender)

III. Installation

After the product is commissioned, the installation starts. The installation method should be selected according to the surface material of the fixed device. The installation method is divided into 3M glue installation and self-tapping screw fixing.

1. The installation is generally fixed by self-tapping screws. Generally, the wall is normally drilled to install the expansion plug, and then fixed with self-tapping screws.

2. For those who do not have the drilling conditions on site, you can also choose to use 3M glue to fix.

2.1 If the 3M glue is used for fixing, check the test wall before fixing to ensure that the installation surface is smooth, flat, firm, dry, and clean, and whether it can be firmly bonded to the 3M glue. If there is water, dust, oil stains, or peeling off the wall, the contact surface that is not easy to stick needs to be wiped or cleaned before sticking. If the 3M glue fixing method is not available, it is recommended to change the installation method. After pasting, gently rotate the device with your hand to confirm whether the pasting is secure. (When using 3M glue to install, it is necessary to regularly check the adhesion of the device to avoid potential safety hazards due to improper adhesion.)

3. After the installation is complete, press the setting button of the device by the way, and see the online loop number and address number communication signal strength displayed on the control panel screen. If it does not display, it means that there is a communication problem, and a signal extender needs to be appropriately added.

IV. The control panel debugging

1. Compile the annotation information and linkage program of the device according to the coding table.

2. Control panel upload notes and linkage program: You can download notes and linkage program through U disk or manually write note information and linkage program by control panel.

V. Test linkage

According to the linkage programming, press the MCP or the detection device such as smoke and temperature to trigger the alarm, and the linkage device action. (After the linkage test is completed, reset the field devices and control panel to avoid affecting the battery life due to the devices being in the alarm state for a long time).

VI. Attention

1. Before entering the network, determine the type and quantity of device to be installed according to the drawings. The loop is divided according to the total number of wireless addresses of the control panel into the network. (Avoid the lack of device during installation in this area, and there will be no idle address points in the loop when the device is added later, and the normal communication cannot be performed when the same signal extender cannot transmit two wireless loop devices at the same time in the additional loop).

2. Before the network, you must first set the control panel's loop network segment and the control panel address number (after the device is connected to the network, you cannot modify the wireless loop network segment to avoid the device being unable to communicate with the control panel normally).

3. After the devices connected to the network needs to add a signal extender due to poor communication effect, it is necessary to set a signal extender on the control panel side as well. (If you don't set or forget to set,

the device will alarm but the control panel will not respond).

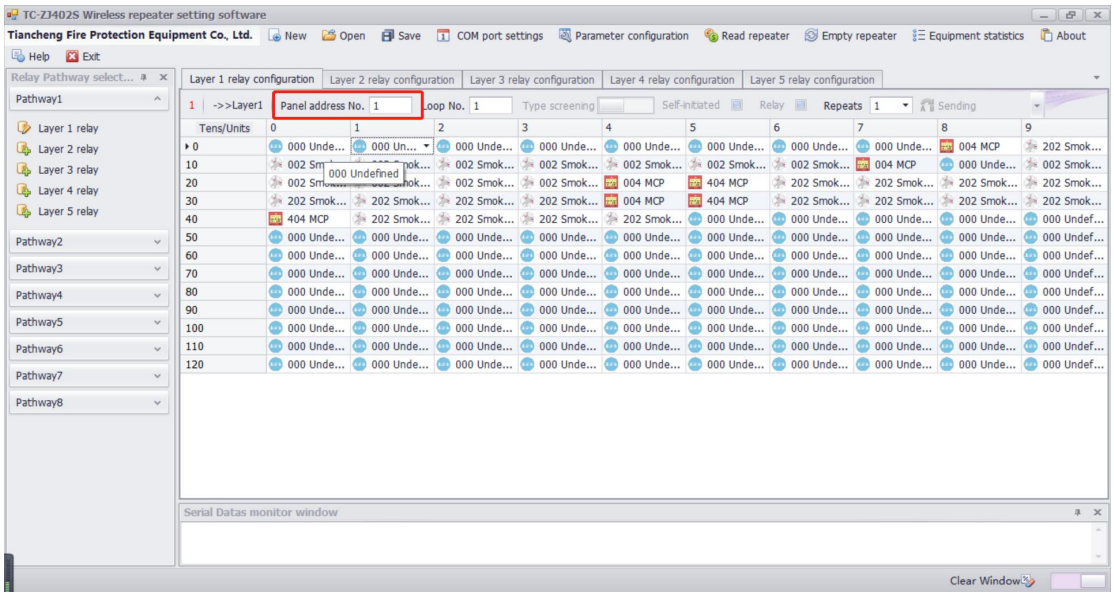
4. Before the devices are installed, it is necessary to conduct a survey of the on-site installation situation and what kind of installation method the wall supports (self-tapping screw fixing method and 3M glue sticking method, considering the fixing reliability, it is recommended to use self-tapping screws to fix the device)

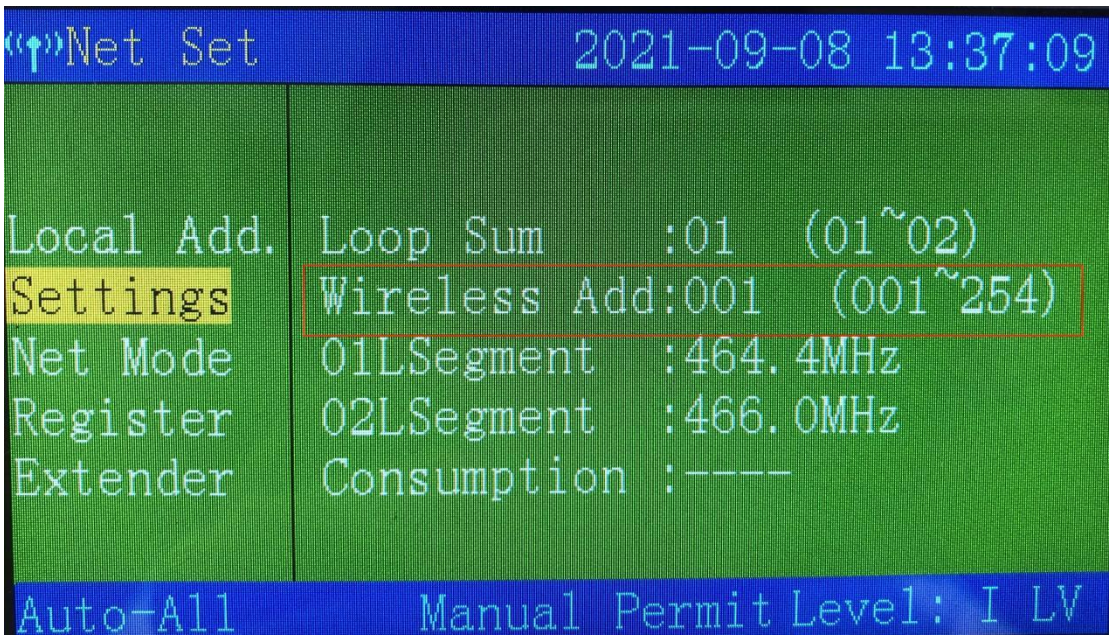
5. When setting the signal extender, each floor of signal extender needs to be set correspondingly. Only one signal extender can be set at a time, and multiple signal extender cannot be set at the same time.

6. signal extender setting, if there are multiple floor signal extender are in the same loop, the control panel setting the "signal extender setting" start address and end address can not directly set the start address 01 and end address 64. It should correspond to the specific address number transmitted by the floor signal extender. For example:No 1 floor signal extender is responsible for devices No. 1-32, and No 2 floor signal extender is responsible for devices No. 33-64, then when setting No 1 floor signal extender, the start address should be 01 and the end address is 32. When No 2 floor signal extender is set, the start at address 33, ends at Address 64; If you set the start address 01 and end address 64 for No 1 floor signal extender and start address 01 and end address 64 for No 2 floor signal extender during setting, the control panel will take the last setting as the standard. The result is that the No 1 floor signal extender

device set for the first time will not be able to communicate with the control panel and transmit information normally.

7. When setting the signal extender software, the "control panel wireless address number" in the signal extender debugging software should be the same as the "wireless address setting" of the control panel. (The wireless address setting range of the control panel is 1-254)





8. When the signal extender is in use, the power adapter should be

connected to ensure that the device is in the power supply state.

9. Due to installing the signal extender, it should not be installed in the power distribution shaft, distribution box, humidity, electromagnetic interference and signal shielding positions.

10. After the device alarms and device feedback, the device should be reset to the control panel in time. Long-term device alarms will affect the battery power and service life.

11. When the device wants to exit the network after entering the network, try to exit the network on the control panel side.

12. After the device is connected to the network, when the control panel wants to single-point clear a certain device or a channel device, it must find this device to restore the factory operation to avoid the device being removed by the control panel but the device is still here by default on the control panel, frequently sending heartbeats to the control panel interferes with other devices.

13. When multiple control panels are connected to the network at a short distance, it should be avoided to connect to the network at the same time or according to the type to prevent the device from entering the wrong control panel or the device from leaving the network by mistake.

14. The antenna should be fixed near the control panel. (It is better not to fix it on the control panel).

VII. Common problems and solutions

No.	Phenomenon	Solution
1	The control panel does not respond after the device is connected to the network.	1. Check whether it is transmitted through a signal extender device. 2. Check if the signal extender is working properly Check if the signal extender settings is correct.
2	The device cannot be connected to the network	1. Power on the device again and observe whether the red light is always on. 2. The red light is always on for 10 seconds, indicating that the device is in the network state. When the red light is always on again, press the network button 5 times to restore the factory. 1. Battery voltage is low, replace the battery
3	The device reports a communication fault	1. The communication between the device and the

		control panel is not good, add a signal extender in the appropriate position 1. The device battery is dead, replace the battery.
4	The device is online and the control panel is not linked	1. There is no comment and linkage program in the control panel 2. The comment and linkage program are incorrect. The control panel is not at automatic state.
5	I/O module reports input fault	1. 10K resistor is added to the feedback terminal of the module
6	I/O module reports output fault	1. The line check function is turned on and the device is not detected. When the module is powered on again when the red light is always on when the module is connected to the network; press the network

		button three times in a row, and the fault light flashes three times successfully.
7	Recovery after the control panel reports the base separation fault	1. Check if the base of the device is well covered and press it again.