Installation and Debugging Guidance

This is a Simple Operation Guidance for installation and debugging. Please follow the guidance gradually.

Section One

Checking & installing the control panel and components

1.1 Main power of control panel

The terminals L, N, PE: AC 230V terminal and AC ground terminal;

Then turn on the control panel, confirm it working normally.

Without the installation of the detectors the control panel will feedback with fault that can be ignored.

1.2 Install the components(detectors \models\ isolators and so on)

The loop terminals on the control panel are L1 & L2 which are non polarity.

(For TC5109 Control Panel, the loop terminals are from BS1 (OUT) to AS1 (IN); BP1 (OUT) to AP1 (IN))

There are some components need to connect to 24V and GND terminals such as sounder strobes & I/O models.

The wire should be RVS wire, sectional area > 1mm^2 .

NOTE： For testing, the wire connecting of I/O model should follow as below:

1) the terminals PW1 & NO should be shot circuit;
2) PW2 & CMO should be connected with a 10k resistor;
3) AS1 & AS2 should be connected with a 10k resistor.

Section 2 Encoding addresses for components

2.1 Encode each component with an address which can not be repeated by using the Handheld Encoder TC5023.

For example:

001 for Smoke Detector No.1; 002 for Smoke Detector No.2; 003 for Smoke Detector No.3;...

011 for Heat Detector No.1; 012 for Heat Detector No.2; .....

015 for TCSG5266 No.1 ; 016 for TCMK5260 No.1; .....Assign addresses as required.

Addresses should not be repeated in one loop.

2.2 Encoding Operation

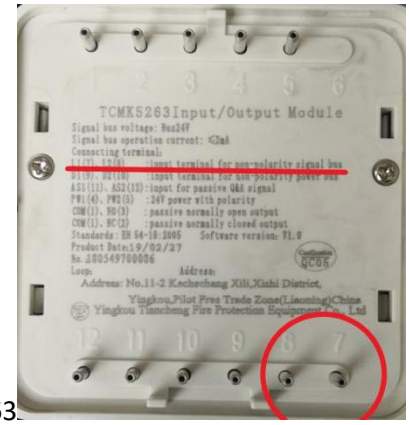
2.2.1 Power on the encoder with batterys.

On the back of the encoder,
there are two extended pins.
Contact them to a coding
device and encode it with an address.

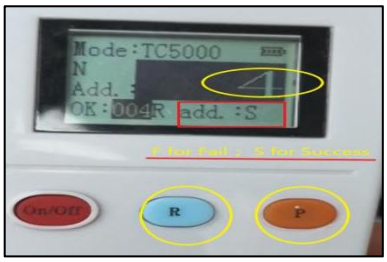
(The contact terminals of the devices are the singal bus input terminals, as sample :

TC5161

TC6263



2.2.2 Turn on the encoder and keep the pins contacting with the device.



Then press “1”---type address”001”---press “P” to Save the address for the device & Presss “R” to check Reading the address:“add:S” is success; “add: F” is fail as picture below.

Note: Mark the address number on the devices that can help identify addresses.

Section 3 Device register

3.1 Register the devices

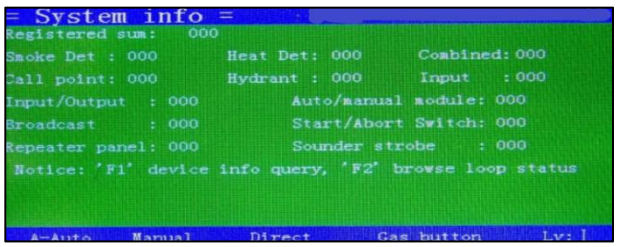
Control panel:

Press “Menu” ---Press “5 system setup”---Press “1 Device registration” and press “Enter”to start System registration.

The system will reset automatically after registration completed.

3.2 Checking Device Registration Info

Press “Menu”---“1” for “system information”,it will display the device species and sum . If device sum and species are not consistent with the actual situation, check again.



Section 4　Linkage programming

4.1 offline linkage program

(Using programming software to make linkage program and download to the control panel)

When heat detectors or MCPs set fire signal ,the sounder strobes will alarm though the linkage program.

First, download the linkage programming software\instruction manual & video guidance

Secondly,follow the instruction of the guidance <<Annotation and linkage programming software version 1.3>> and the video guidance to make a linkage program.

Third, export the program and 2nd code files into the USB flash disk .

(The USB disk should be a FAT 16 1GB or FAT 32 8/16GB and could be found in the accessory bag of the control panel.)

Fourth, plug the USB to the main board of the control panel. Then download the program and 2nd code to the control panel.

Operating path:

Press “Menu”→ press “7.Linkage Program”→ “2.Off-line Programming”, the system enters the off-line programming operation interface.

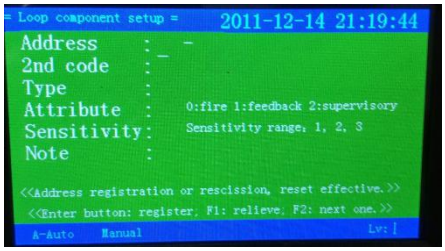
1.Download 2nd codes and notes", "2. Download programming ", The numeric key and the third-level password can be inputted to download the linkage programming and the 2nd code annotation to the control panel through the USB port. The system will reboot accordingly.

NOTE :The2nd code such as 01001001,
meaning of these numbers as shown in the picture.

4.2　Linkage programming **manually**

4.2.1　Program 2nd code for each component

Manu---Press 5 System Setup---Press 3 Loop component setup:



Address: 01-001（loop 01，device address 001）

2nd Code: 01001001 (loop 01, location 001 , device address 001)

Type: 001--heat detector, 002---smoke detector,003---combined,004---MCP, 010---I/O model,

011---sounder strobe, Please refer to the manual for more information.

Attribute: 0---fire （such as heat detector\smoke detector\MCP ...）

Sensitivity: 1-3 (high to low)

Note: note information

Then press “enter” to save, or F1 to relieve, F2----go to the next one;

Repeat the action for each component.

The sample as below.

Loop ...	Add....	Device code	Device type
1	1	01001001	002 Smoke detector
1	2	01001002	002 Smoke detector
1	3	01001003	002 Smoke detector
1	4	01001004	002 Smoke detector
1	5	01001005	002 Smoke detector
1	6	01001006	002 Smoke detector
1	7	01001007	002 Smoke detector
1	8	01001008	002 Smoke detector
1	9	01001009	002 Smoke detector
1	10	01001010	002 Smoke detector
1	11	01001011	002 Smoke detector
1	12	01001012	002 Smoke detector
1	13	01001013	002 Smoke detector
1	14	01001014	002 Smoke detector
1	15	01001015	002 Smoke detector
1	16	01001016	002 Smoke detector
1	17	01001017	002 Smoke detector
1	18	01001018	002 Smoke detector
1	19	01001019	002 Smoke detector
1	20	01001020	001 Heat detector
1	21	01001021	001 Heat detector
1	22	01001022	002 Smoke detector
1	23	01001023	Undefined
1	24	01001024	Undefined
1	25	01001025	Undefined
1	26	01001026	Undefined
1	27	01001027	Undefined
1	28	01001028	004 MCP
1	29	01001029	004 MCP
1	30	01001030	004 MCP
1	31	01001031	011 Sounder strobe
1	32	01001032	011 Sounder strobe
1	33	01001033	011 Sounder strobe

4.2.2 Write linkage program manually

Menu----Press 7 Linkage Program---Press 1 common linkage program:

Sample:

1：Y(0100103* 011)=(010010** 002)

It means each smoke detector will start all sounder strobes.

2：Y(0100103* 011)=(010010** 001)

It means each heat detector will start all sounder strobes.

3：Y(0100103* 011)=(010010** 004)

Each MCP will start all sounder strobes.

Note: * represent 0-9; 0100103* means 01001030-01001039 ; 011 is type for sounder,

In this sample, we encode the sounders with 01001030/01001031;

“010010** 002 “ means all the device from 01001001 to 01001099 with the type of smoke detector(Two conditions cross lock).

The other method:

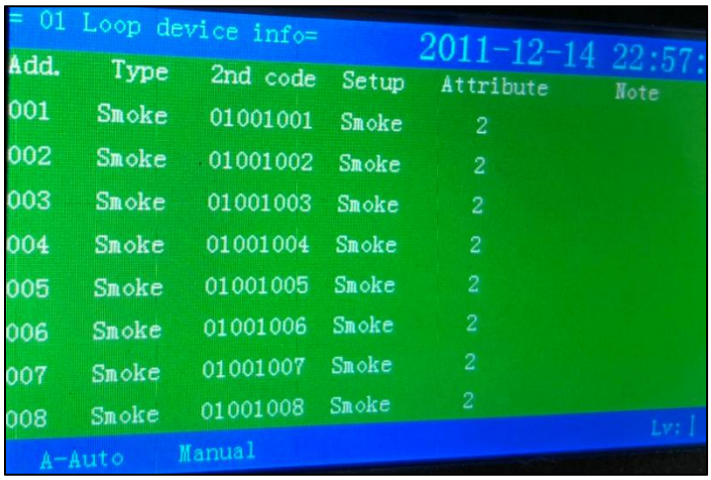
Y(0100103* 011)=(010010** 002)+(010010** 001)+(010010** 004)

“+” is for “or”. that means each heat or smoke or MCP can start the sounder strobe.

Section 5 Query the 2nd code and program

5.1 Query the 2nd code

Manu ---press 1 ---1---1---F1 to check the loop 01 device info as below.



Device type\Address\ 2nd code & quantities should be consistent with the actual situation.

5.2 Query the linkage program

Press Query -press 5 linkage programming to check linkage program items

Note: Mind the space between the 2nd code and the type.

(confirm the correct linkage program)

Section 6 System test

When all above are completed, no faults display, start system test.

Press MCP,the sounder and the control panel will alarm and the control panel will display the fire alarm information.

Observe the operation of the components and display in control panel.

Note:

Press “mute” to mute the sound.

Press “Reset” to reboot the system.

The original password is “111” & “111111”.

Section 7 Networking Mode

When there are two sets or more control panels, them can be connected together to be a network. One or some could be master mode, some to be slave mode. Each control panel should arrange an individual address, the address number should not be repeated.

7.1 connecting

Connect the control panels with the terminals “CANL”& “CANH”,those have polarity.

7.2 set up address for each control panel

“Manu” ---press 6 Networking --- press 2 Local address

Input password, set address and enter to complete.

Note: the address should not be repeated.

7.3 setup networking mode

“Manu” --- press 6 Networking --- press 1 Networking Mode:

Master mode:

The control panel with master mode could receive fire\ linkage\ fault\ disable\ transmit info, those functions could be set independently.

Slave mode: the control panel just could transit info to master mode control panel, that means slave mode control panel has a fire alarm, the master mode control panel will receive it. On the contrary, the slave mode control panel will not receive form master mode.

7.4 register the control panel

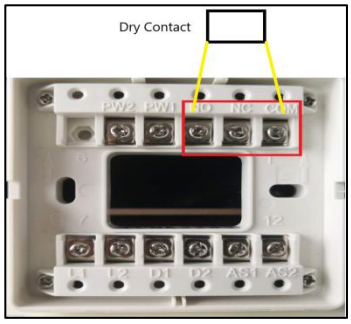
Manu---1 System info --- press 2 Networking --- press F1 to register the control panel, wait until complete.

Note:

1. Master control panel reset ,it will reset all slave mode control panel and other master mode control panel.
2. Slave mode control panel can only reset itself.

Section 8 For specical requirements

1. Dry contact of I/O Model:



Disconnect the linkage between terminal PW1 and NO, the terminals NO NC COM will be a switch mode. In Non-start condition, NC is connected with com, NO is independent. In action condition, NO will connect to COM and NC is independent. So the device needs dry contact should connect to the terminal NO & COM.

Appendix One Common Troubleshooting			
o	Fault	Possible Causes	Resolutions
1	No display or abnormal display	a. Power abnormal	a. Check 24V power

	after turned on	b. Disconnection with display cable	b. Check connecting cable
2	power fault' after turned on	a. No AC power	a. Check and connect AC cable
		b. AV fuse blowout	b. Replace AC fuse (see label for parameters)
3	'battery fault' after turned on	a. Fuse blow out	a. Replace fuse (see label for parameters)
		b. Circuit disconnected	b. Open battery cabinet and check connector
		c. Battery voltage insufficient or damage	c. Replace battery after fault not eliminated if powered by AC for more than 8h
4	Peripheral LCD repeater cannot be registered	Disconnection or bad connection of comm. wire	Check power wire and comm. wire of LCD repeater
5	Do not print	a. Printer nor turned on	a. Reset the printer
		b. Printer cable bad connected	b. Check and connect
		c. Printer failure	c. Replace printer
6	Manual button no feedback	a. Manual status disable	a. Reset start mode
		b. Manual fire start panel cable bad connection	b. Check and connect
7	Device fault	a. Device connection cut-off	a. Check the connection
		b. Device failure	b. Replace device
8	Loop control fault	Loop control short circuit	Check the loop
9	Time fault, storage fault, loop fault, etc.	a. Environment interference	a. Check if grounded well
		b. Relevant part burn-in	b. Contact our tech dep.
10	Loop bus open circuit fault, short circuit fault	a. The loop bus cable has an open circuit	a. Check the cable to reconnect the loop bus
		b. The loop bus cable has a short circuit	