

# KB800 User's Guide

## 1. System Composition

The KB800 series is composed of master unit, calling buttons, infrared remote button, display panels, alarm lamps, signal collector, wireless paging and computer. The master unit and calling buttons are basic component parts in the calling management system and the others are options.

## 2. Functional feature

- There are 7-segment light devices and LED indicator in the master unit. The 7-segment LED with 5 digits is used for display calling room number (3 digits) and calling bed number (2 digits) or current time (hours and minutes). The current time can be set manually. The indicator will switch on when corresponding calling is happened. The master unit with card slot can drive 80 calling buttons and can extend to 128.
- When press the calling button down, the communication between master unit and calling button will be set up simultaneously. If more calling button request, the late calling will queue sequentially.
- Usually the master unit and display panel display current time. It tune to calling room number and bed number automatically when requested. Corresponding LED will also switch on.
- The master unit will play music when requested and there are 4 kinds of music can be selected.
- The alarm lamps can install on the wall out of the door. It will light on when corresponding calling button is calling for auxiliary indicator. The infrared remote button is used to switch the alarm lamp off.
- Computer management is available.
- Paging system is compatible with this system when computer management is used.

## 3. Specification

- It is suggested to user RJ45 network cable to connect master unit and calling button. A network cable can connect 6 calling buttons.
- Master unit power supply : 12V DC
- Display panel power supply : 15V DC
- The size of master unit : 774mm x 377mm x 70mm
- The size of display panel : 653mm x 270mm x 70mm
- The size of calling button, interphone and alarm lamp : standard 86 box
- The maximum volume of master unit : 128
- The distance between master unit and calling button : 500 meters
- The power consumption : less than 30W
- Working condition : temperature -10—40°C, humidity  $\cong$  90%

## 4. Usage

### ■ Power on operation

Connect master unit and calling button first. Plug the power supply. The power indicator and 7-segment LED will turn on and the system comes into operation status. Some alarm lamp may blink and can use infrared remote button switch them off.

### ■ Current time setting

There are 3 buttons on the faceplate of master unit. The left one is decrease key, the middle one is increase key and the right one is mode key.

Press the right key, the hour showed on first 2 digits of 7-segment LED will blink and user left/middle key to adjust needed hour. Press the right key again, the minute will show on last 2 digits of 7-segment LED will blink and use left/middle key to adjust needed minute. Then press left key to complete time adjust. The display panel will follow the master unit to display set time from next minute automatically.

■ Music selection

Adjust the switch location on the faceplate of master unit. The music will be changed. The knob on the faceplate of master unit can be changed the volume of music.

■ Patient call

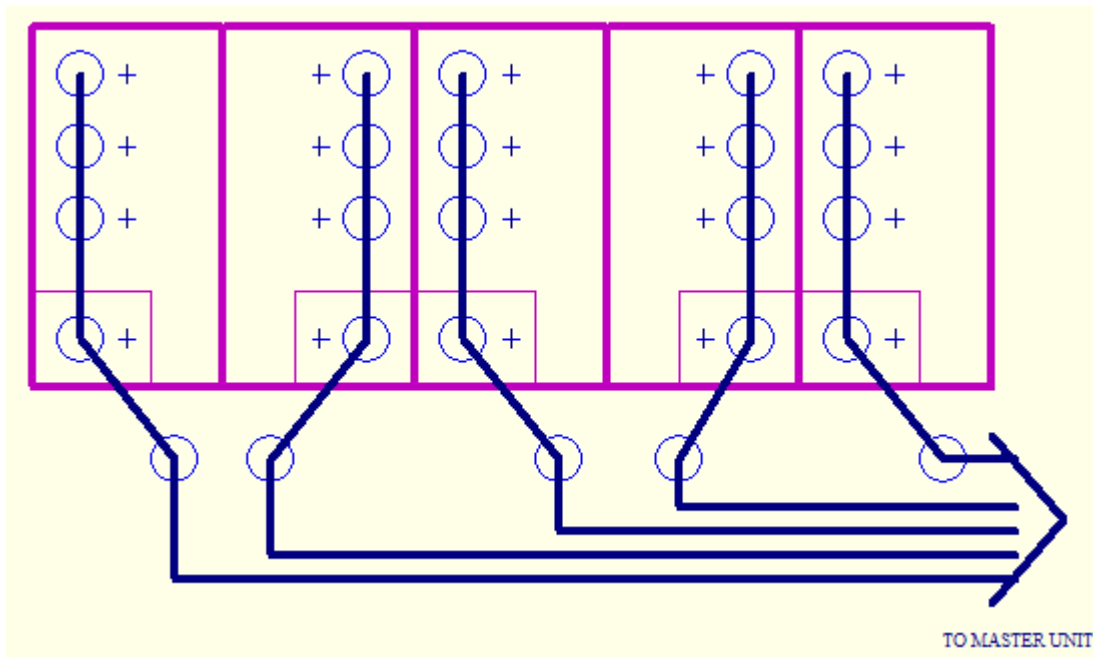
Press the calling button when needed. The master unit and display panel will display calling room number and bed number and play music simultaneously. The corresponding alarm lamp will turn on. The communication between the master unit and the calling button is set up. This situation is hold until press ‘报到’ key on the faceplate of master unit.

5. Setting and Debugging

It is introduce the star routing. There are 3 wires to connect every calling button, signal line, power line (+5V) and ground line. The power line and ground line can be used commonly.

It is necessary to connect master unit and display panel with another cable.

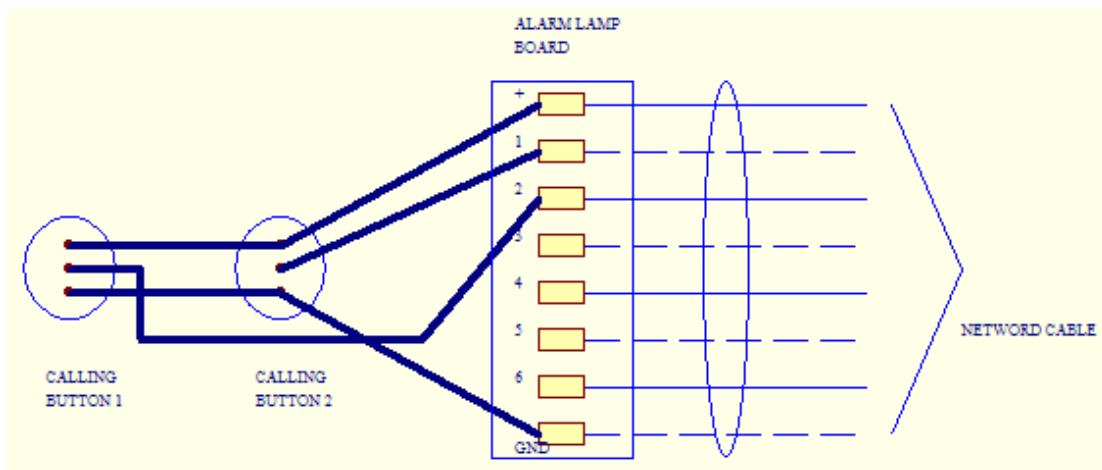
1) Pipe routing



note:

- It must use separate signal line for every calling button. The power line and ground line can be used commonly.
- It is parallel connect for calling button and alarm lamp.
- If the cable pass through two rooms, this cable must pass through two alarm lamps if needed.

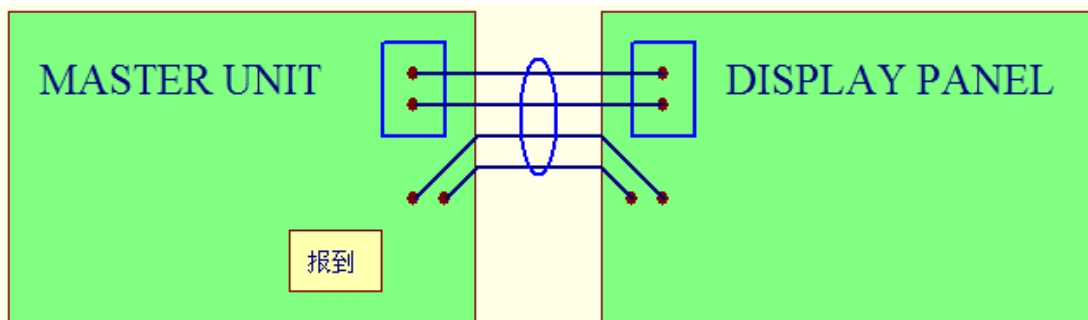
2) Alarm lamp wire



note:

- The cable for every room must pass through corresponding alarm lamp.
- 7 calling buttons can be connected for every alarm lamp.

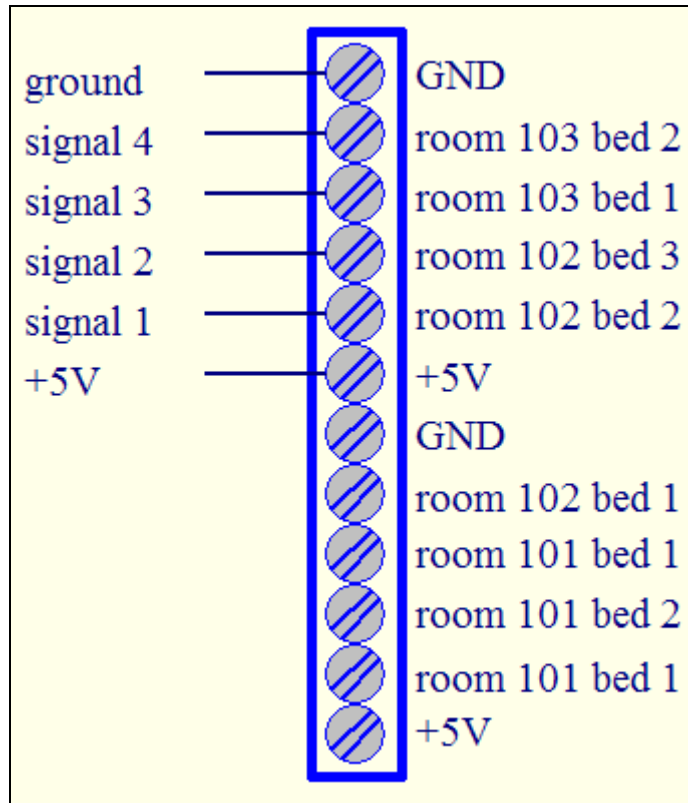
3) Connect master unit and display panel



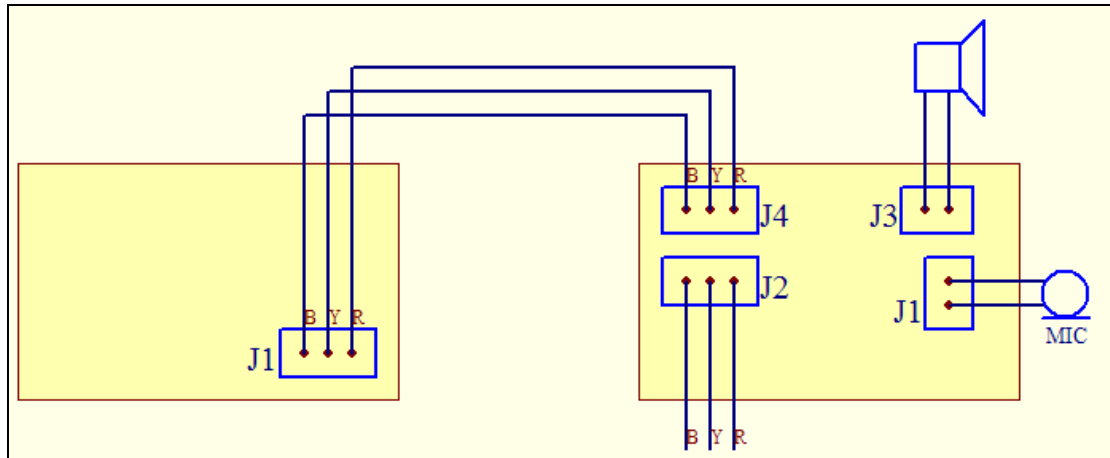
note:

- The connection with 4 wires is power supply, signal positive, signal negative and ground.
- Usually no necessary to connect extern power supply for display panel unless the distance between master unit and display panel is too long.
- It is necessary to use driver for very long distance.

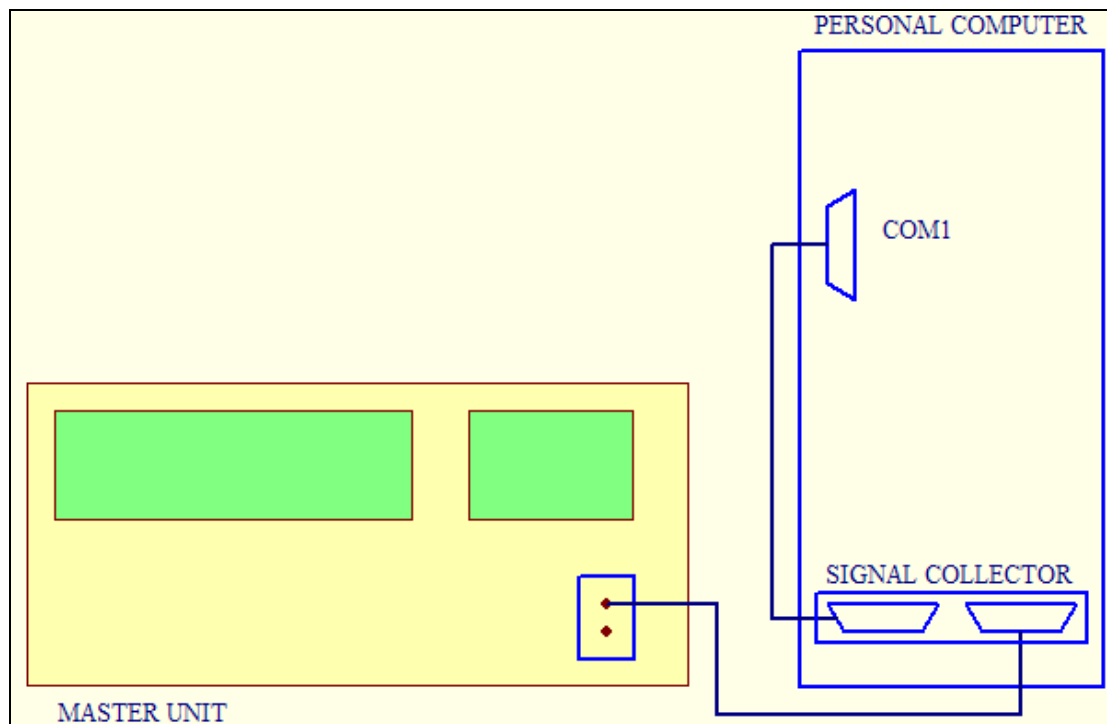
4) Connection internal the master unit



5) Connect the calling button and interphone



6) Connect master unit and computer



note:

- Parallel connection with 2 wires cable for more master units.
- The signal collector can install in computer or separate part as option.
- It is necessary to install special software for operation

## 6. Troubleshooting

Problem	Reasons
Moo continuously when power on	There is short circuit on the connection
The master unit always shows same calling intermittently	There is short circuit on the connection or calling button
No response when press calling button	The calling button failure or disconnect between the calling button and master unit
The volume of interphone too small	Adjust the potential meter on the interphone board located in the master unit
The display panel too dim or blinking	Install driver unit. This is the option parts.
Loss segment on the 7-segment LED of master unit	The master board is failure and need to replace
Can not stop alarm lamp blinking	The infrared remote button failure or out of battery or alarm lamp failure

## 7. Important notice

It is necessary to customize the firmware for every project. The custom must provide the project table to us as follows,

Calling user ID	Floor No.	Room No.	Bed No.
1			
2			
3			
.....			

Where the maximum calling user ID is 128, the floor number is 1-9, the room number is 01-99 and bed number is 01 – 99.

## 8. Contact

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