Public Address System

Intelligent Public Address Center

M-2120
M-2140

Operation Instructions

Thank you for using our public address system. To ensure optimal operation of this equipment, please read this Operation Instructions carefully before use.

LY International Electronics Co., Ltd.
http：//www.lyintlcorp.com/

Information on Operation Instructions

This Operation Instructions involves M-2120 and M-2140 micro intelligent systems for public address system, including introduction to functions and appearance of products, connection illustrations, settings, operation instructions, precautions, after-sale services, product performance and specifications. Please read this Operation Instructions carefully before connection and operation.

All contents in this Operation Instructions are based on operation of M-2140, which are only for illustration. Furthermore, operation methods for M-2120 are similar to that of M-2140.

Please keep this Operation Instructions properly for further use.

System Survey

Micro intelligent public address system integrates such functions as play, intelligent timing control, audio matrix, partition control, intelligent firefighting linkage, remote computer control as well as telephone and remote paging.

Owing to its integral public address functions and individualized intelligent control functions, this address system can better satisfy demands of users of medium and small address systems, such as amplification at such public places as primary and high schools, medium and small plants, parks and square.

This address system falls into two types as per the number of control zone, namely M-2120 and M-2140. M-2120 and M-2140 can control 20 and 40 zones respectively to provide more options for users.

Performance Features

1. A public address controller integrating such functions as play, intelligent timing control, audio matrix and partition control.

2. It has 5 timing programs. Each timing program is provided with 500 timing points for 7-day circulation. Each timing point is available for control of audio source selection, bell, built-in MP3, AM/FM, 2-way power source, 4 types of external peripheral audio sources (CD, tuner, socket and MP3 program player). The 5 timing programs are easy for switchover.

3. 8-route common audio source input, built-in MP3, AM/FM, 1-route local aviation microphone input 1st prior function), 1-route alarm signal input (2nd prior function), 1-route remote paging microphone signal input (3rd prior function) and 40-route output large audio matrix.

4. 40-route emergency firefighting input (short-circuit signal), 1-route firefighting linkage output (short-circuit signal used for expansion, which is available for connection with PB99/8815E, PB99/8823S and so on).(each route of emergency input is available for triggering of any programmable and random zone)

5. It is available for connection with external computers through LAN interface for control of the host computer via software (realize auto play as per fixed time, location and program through remote setting). (such function is to be realized by remote control software as purchased separately)

6. It is available for expansion of remote paging microphone through 9 pin ports.

7. All timing programs are available for instantaneous and easy manual intervention.

8. It is available for real-time monitoring of each zone and volume control (mechanical volume control).

9. It is equipped with ARM9 platform and 5.6-inch color screen + touchpad.

10. It is provided with USB interface used to copy songs in the USB directly to the host computer for play.

11. It can realize 100m wireless remote control with 12 programmable buttons. It can realize customized on/off of zone and selection of audio source and songs with one button.

12. It is provided with 3 types of bell signal output functions (mechanical volume control).

13. It is provided with alarm signal output function (mechanical volume control).

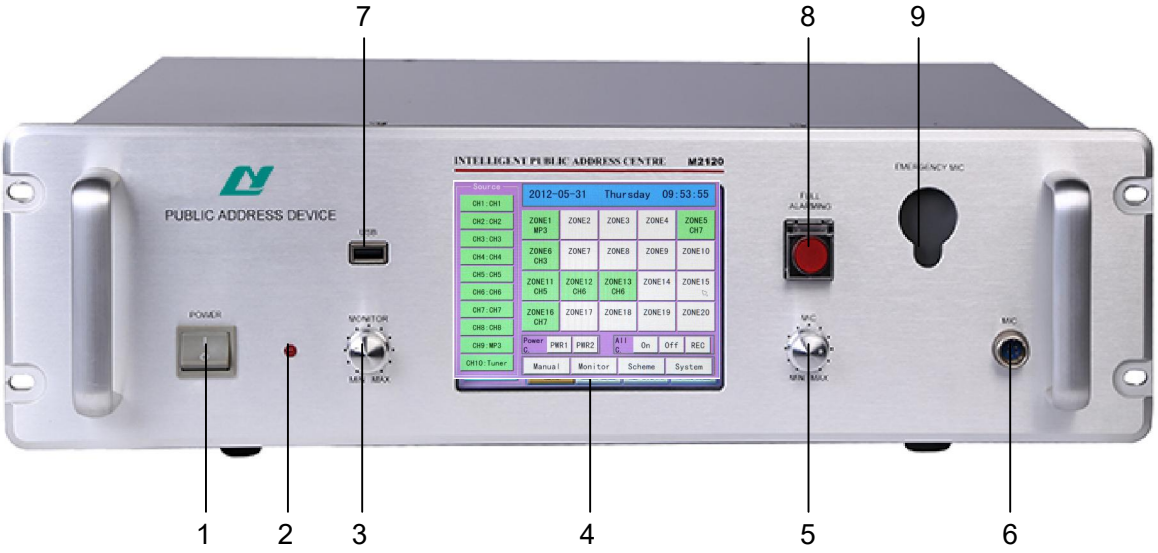
14. It is provided with telephone zone paging functions (mechanical volume control, password alteration, comprehensive paging, optional paging and programmed paging).

15. It is available for timed control of play status of external audio source.

16. It can realize calibration of touch points on the touch screen.

Appearance and Functions

6. Description of Front Panel



1. Power Switch

Press I and O to switch on and off the power source respectively.

2. Power Indicator Light

Indicator light will flash and distinguish respectively when the power is switched on and off.

3. Built-in Monitoring Speaker and Volume Control Knob

Turn the knob clockwise and counterclockwise respectively to increase and decrease the volume.

4. Display Screen / Touchpad

Display screen is for dynamic display of system information and operation of touch screen.

5. Aviation Microphone Volume Control Knob

It is used to control volume of microphone on the front control panel, which can be turned clockwise and counterclockwise to increase and decrease the volume respectively.

6. Microphone Interface

Signal of the microphone as connected to this interface has the ultimate priority, which can cover all output signals.

7. USB Interface

It is connected with such memorizers as USB stored with MP3 programs and mobile HD for copying of programs to MP3 player, which is available for plug-in of the mouse with USB plug.

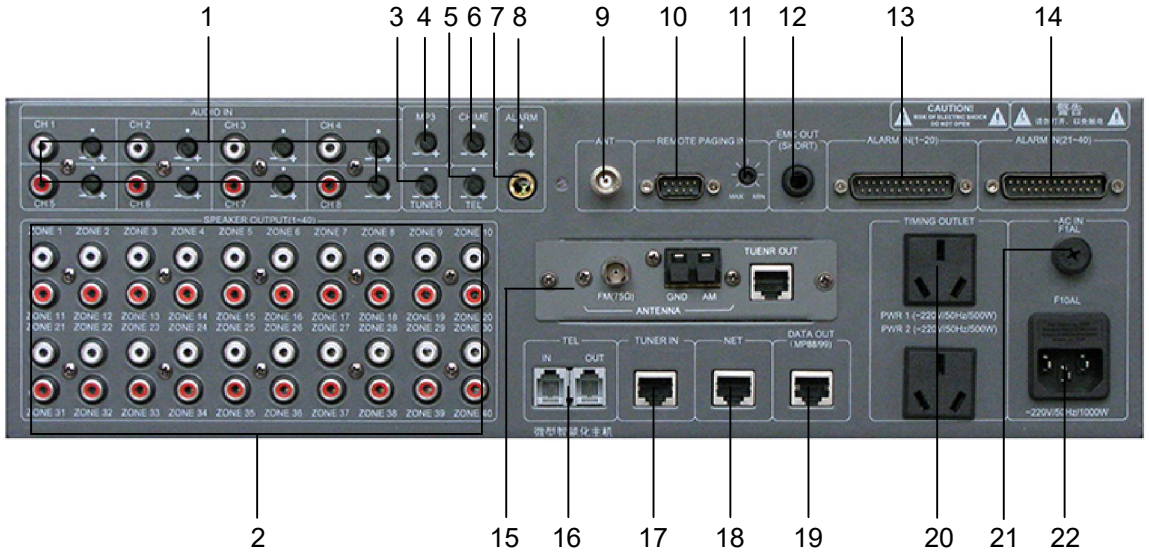
8. Total Alarm Button

It is applicable to send alarm signals to all zones by the system total alarm button. Button indicator light will flash when the alarm signal is being sent. Button indicator light will extinguish, and the button will spring up once the button is pressed to switch off the alarm.

9. Microphone Buckle

Be sure to insert the buckle on the back of microphone into this hole when the microphone is not in use.

1. Description of Rear Panel



1. 8-route Audio Source Input Interface and Volume Control Knob

8 independent audio source input channels are available for connection with 8 external audio source equipments. Each channel is provided with one independent volume control knob.

2. 40 Audio Matrix Output Interfaces

Each audio output interface is corresponding to one zone for connection with power amplification audio input interface.

3. Built-in Radio Volume Regulation Knob

This knob is for mechanical regulation of built-in radio volume.

4. Built-in MP3 volume regulation knob

This knob is for mechanical regulation of volume of built-in MP3.

5. Telephone Paging Volume Control Knob

It is used to control telephone paging output volume.

6. Bell Volume Control Knob

It is used to control built-in bell output volume.

7. External Alarm Signal Input Interface

It can be connected with PB99/8815E (alarm generator) for input of alarm signal into the machine and auto opening of corresponding zone for alarm. Signal from such interface has level 2 prior function next to that of aviation microphone on the front panel.

8. Alarm Volume Regulation Knob

It is used to control volume of alarm signal as input by PB99/8815E.

9. Wireless Remote Controlled Receiving Antenna Interface

Connect wireless remote control antenna to this interface. For details, please refer to Description of Wireless Remote Control Functions.

10. Remote Pager Connection Interface

9-pin D-type data port can be directly connected to remote paging device or paging hub for expansion of numerous remote pagers.

11. Remote Pager Volume Control Knob

It is available for mechanical control of volume of remote pager.

12. Short-circuit Signal Output Interface

Output short-circuit signals to other equipments to be activated.

13. Zone 1-20 Alarm Signal Input Interface

Input signals from firefighting center.

14. Zone 21-40 Alarm Signal Input Interface

Input signals from firefighting center.

15. Built-in Radio Head Module

For radio head module, please refer to Connection of Radio Head Module.

16. Telephone Interface

IN interface aims to connect telecommunication signals to this machine; whereas OUT interface is expected to link up with other telephone sets.

17. Radio Signal Input Interface

TUNER OUT interface as connected with radio head module aims to input radio signals to the machine for play of radio audio sources.

18. Network Interface

It is connected with LAN for remote control of the system.

19. Data Interface

It is for timed control of external audio sources, which is connected with data exchange interface with external audio sources.

20. Timed Power Output Socket

It provides AC 220V working power supply to external equipments for control output status via the timing points.

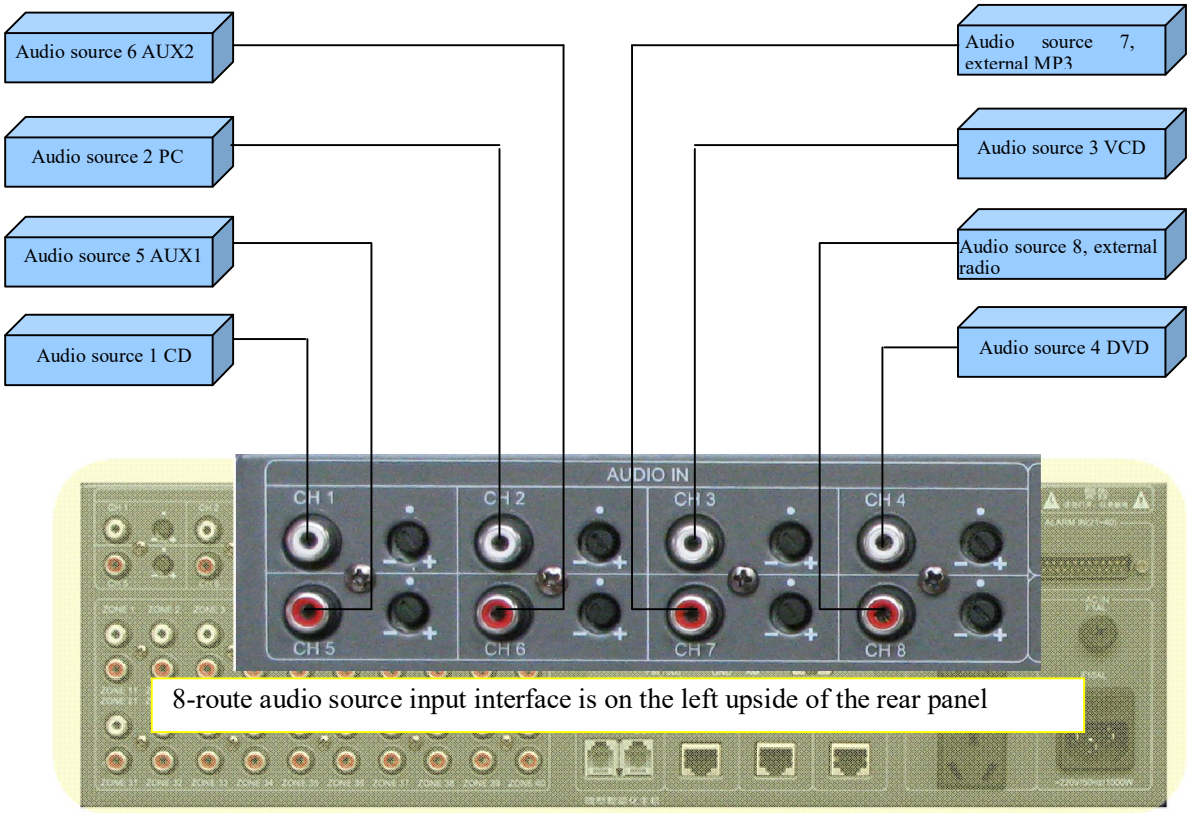
21. AC Fuse Holder

Please use fuse of the same specification to replace damaged one. There might be line faults to the machine in case of continuous blowout of fuse. Be sure to check the line, and use fuse of the same specification to replace the damaged one once the fault is recovered.

22 AC220V Power Input Faucet

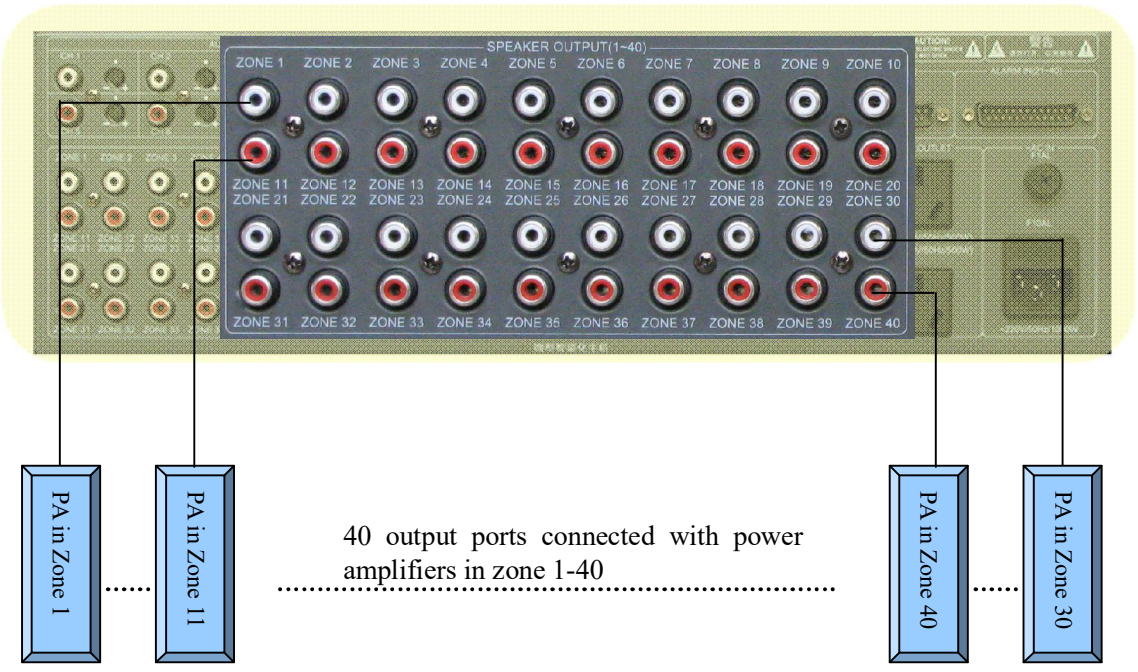
This interface is used for switch-in of working power supply to the machine. Be sure insert the plug before connection with power grid in case of connection.

2. Input Connection Description(Audio sources as indicated in the following figure is for illustration only; any user may proceed with connection at his or her discretion.)

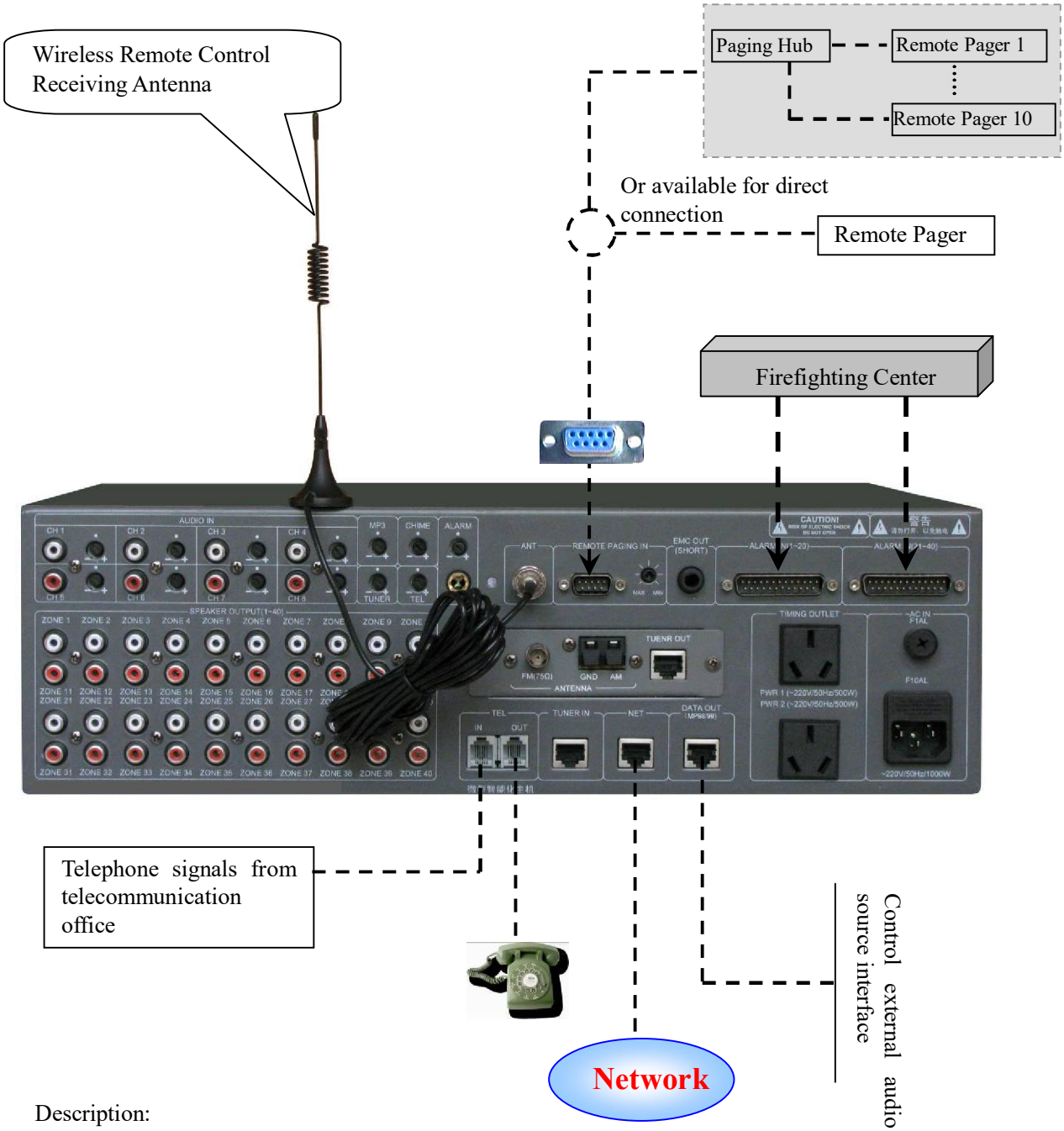


3. Description of Output Connection

This machine is expected to distribute 8 external audio sources and 2 built-in ones to 40 audio output ports for output to 40 zones. Each zone is provided with one set of power amplifier to receive audio signals from this machine. Refer to the following figure.



4. Other Connections



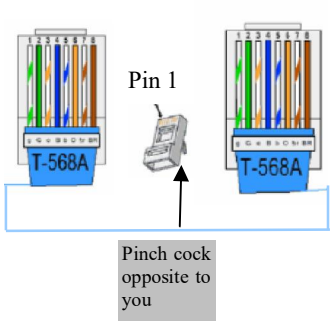
Description:

- Make sure that placement of wireless receiving antenna is close to the receiving orientation of wireless remote controller to obtain more satisfactory receiving effect and longer receiving distance.
- D-type port is available for direct connection with remote pager or paging hub for expansion of numerous remote pagers.

5. Connection of Radio Module

Radio function of this machine is realized by the module, which is available for separation. It is applicable to place radio module at the position of strong receiving signals for connection with extended network line so as to ensure effective improvement of receiving effect. Radio module is connected with this machine with T586 network line. Module as installed on this machine is also available for butt joint on the rear panel through network line.

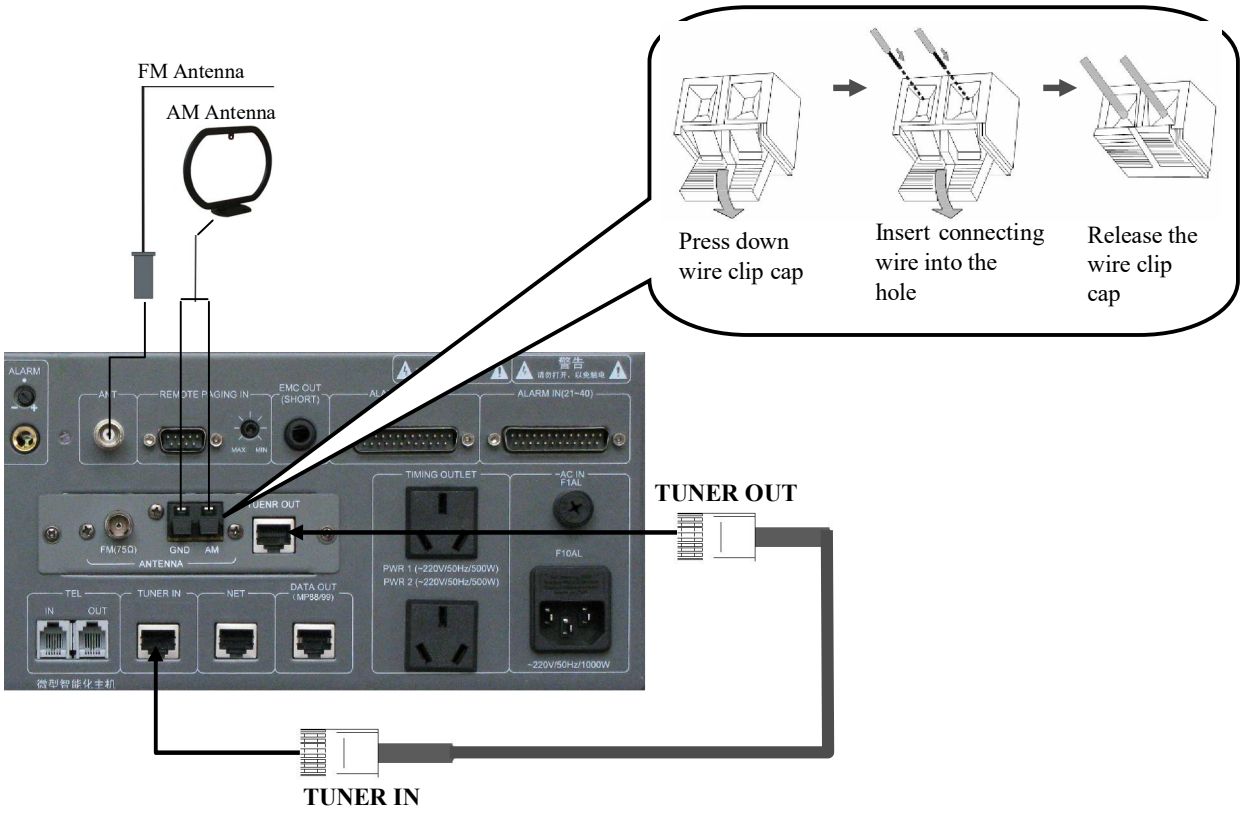
Prompt: Please fabricate extended connecting line in reference to the following figure if radio module is to be disconnected:



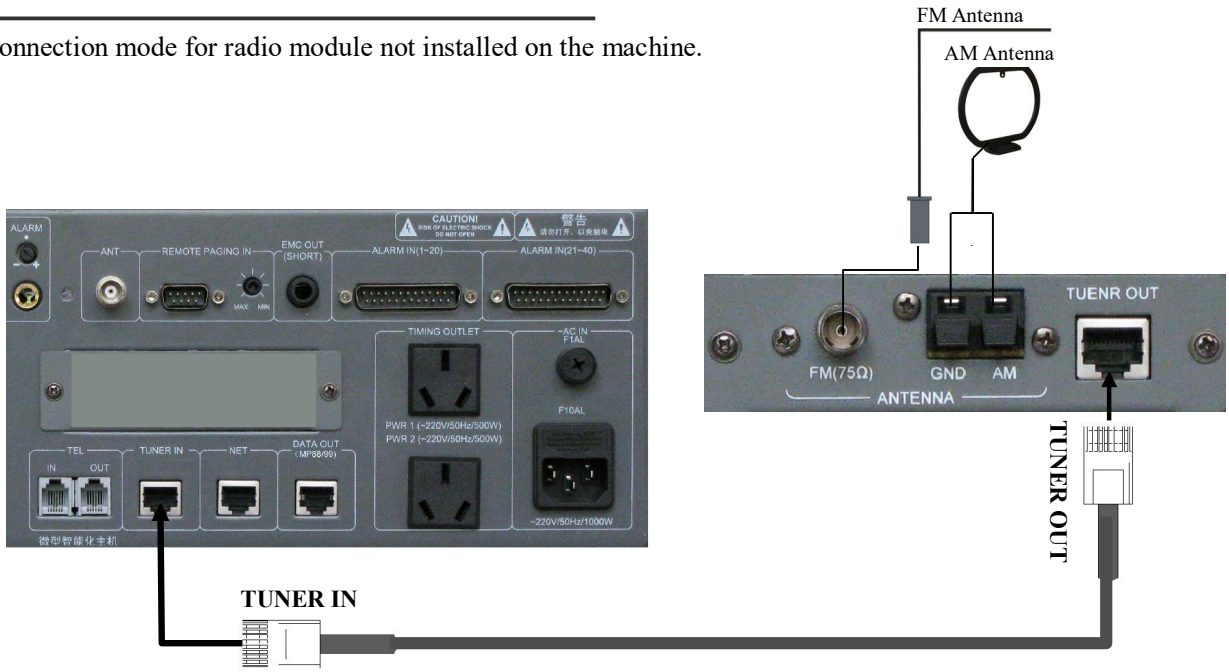
RJ45 interface
Colors for left-right connection
Green-white, green, orange-white and blue
Blue-white, orange, brown-white, brown;
both ends in one-to-one correspondence

Radio connection mode is as shown in the following figure.

① Connection mode for installation of radio module on the machine.



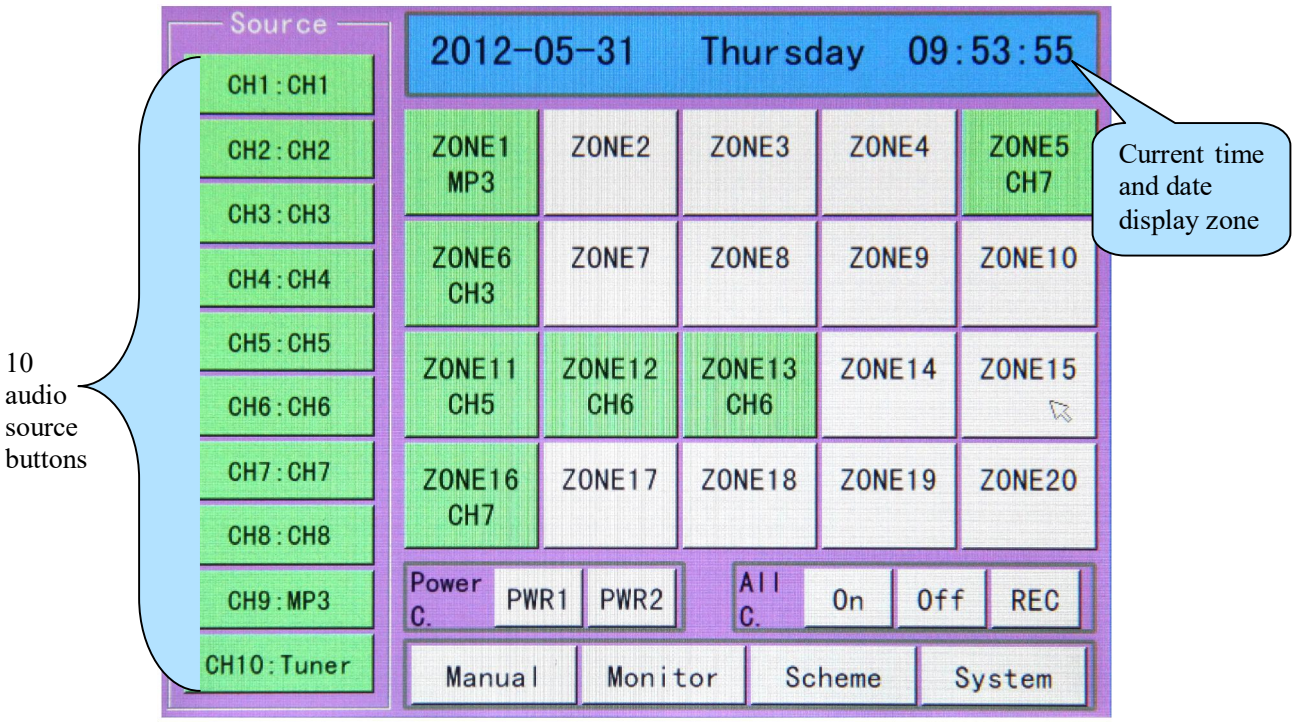
② Connection mode for radio module not installed on the machine.



Operation Instructions

1. Main Interface

Start in process, please wait" will be displayed on the screen once the power is switched on to start the machine.. It is applicable to enter the main interface as shown in the following figure after start-up.



(Figure 1) Main Interface

As shown in the aforesaid figure, information as displayed on the main interface include 10 audio sources, current time, status and operation of 40 zones, power output control status and operation, programmed/manual control setting, monitoring setting, timing program selection and system access setting.

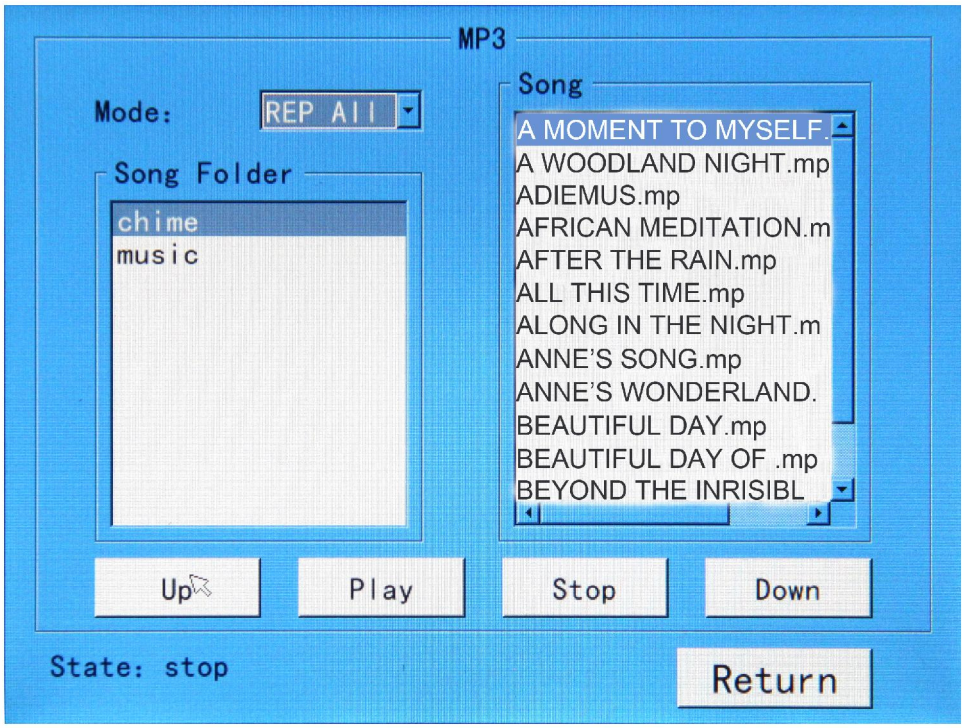
1） Distribution of external audio sources

Enter the main interface to play programs in corresponding zones. Firstly, select corresponding audio source for distribution to the zone where it is to be played. Specific operation is stated as follows: Select audio source to be displayed in "audio source zone" (if CH4 audio source is selected, audio source button will be sunken; whereas red color showing selected audio source is to be displayed). After that, click the zone where the audio source is to be played. It will be available for play once zone button is in green color, and audio source is displayed.

Prompt: Be sure to make sure that programs are being played by the external audio source to be distributed to the corresponding zone or switch such audio source to the play status after distribution. Caution: Audio source selection will be invalid if current zone is at paging, warning, call or aviation microphone paging status.

2） Distribution of Built-in Audio Source

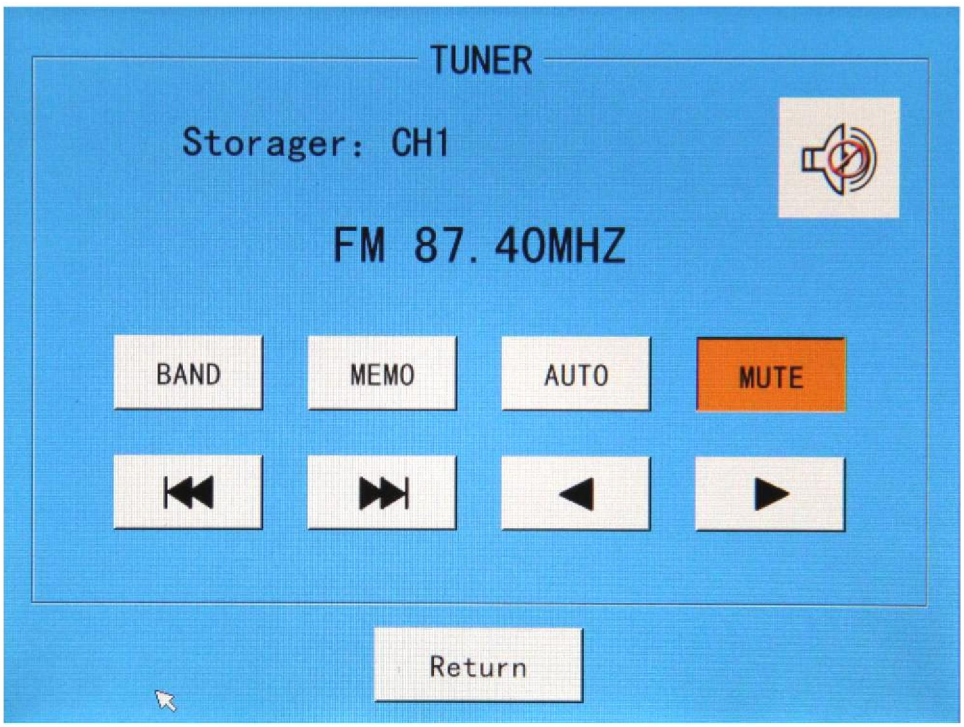
CH9 and CH10 in audio source zone belong to built-in audio sources. Each built-in audio source is provided with a player that can be turned on directly for setting of play status. Click the audio source button (such as CH9 button) to enter the play status operation interface (as shown in the following figure, random setting of MP3 programs to be played is available in the play interface) during operation.



(Figure 2) Main Interface

Select catalog (such as "common comity") in the "Song Catalog" on the left side for play. Songs in the catalog will be displayed in the playlist on the right side. After that, proceed with setting of play mode (such as "loop play") in the "mode selection" on the left corner of the interface before clicking "play" button to play. Click "back" to return to the main interface after play, and then click corresponding zone directly to distribute MP3 audio source to the zone where such audio source is to be played. Distribution mode for radio audio source is identical to that of MP3 audio source.

It is applicable to enter the radio play interface to select play status once "radio" audio source is selected. As shown in the following figure, radio play operations include band switching, radio station searching and storage as well as mute setting. **Note: Ensure correct connection of radio module on the rear panel of the machine.**



(Figure 3) TUNER

① Band switching: As shown in the aforesaid figure, “BAND” on the interface is used for band switching. It is applicable to click this button for switching between AM and FM. Frequency band of AM and FM is 522kHz-1620kHz and 87.00MHz-108.00MHz respectively.

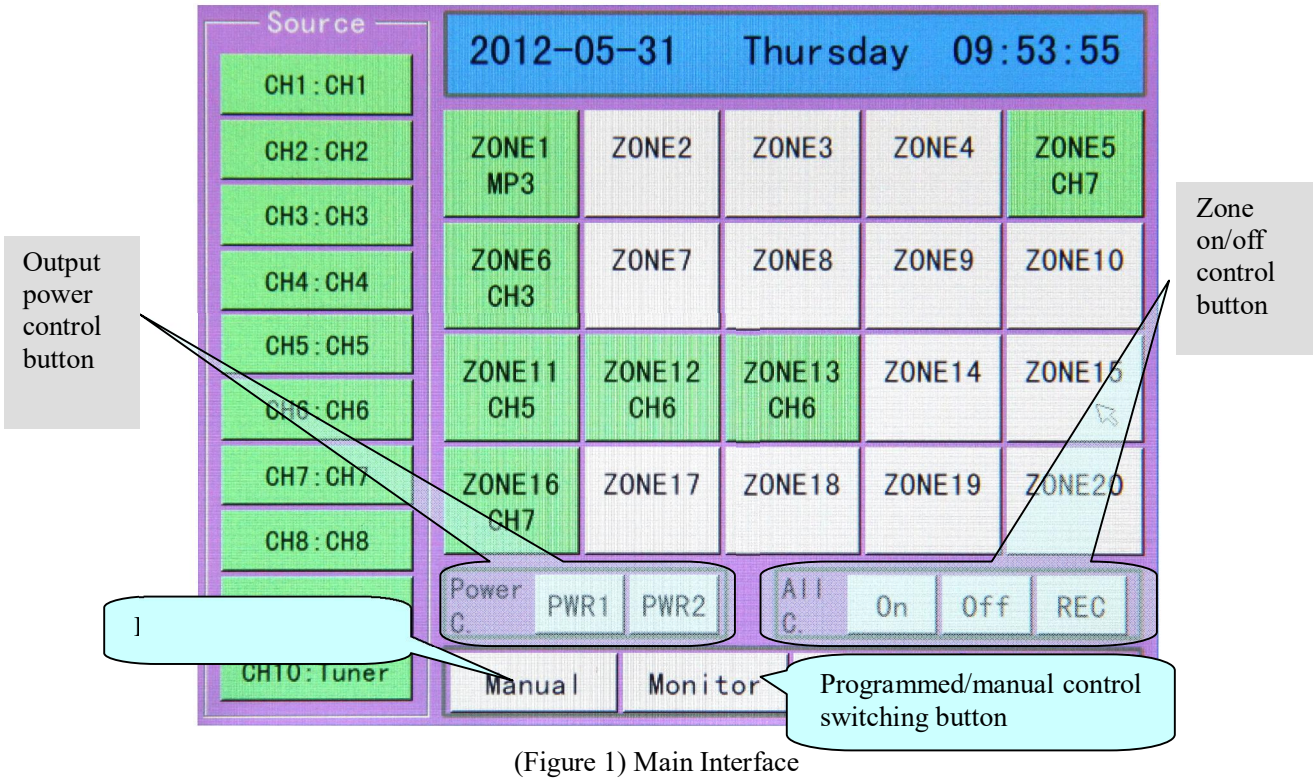
② Radio station searching: Click “AUTO” to select radio stations before clicking ◄ ► for forward and backward auto searching. Searching will come to a stop once any station is discovered.

③ Station memory: Any station as searched is available for numbered memory to facilitate timing control and further use. AM and FM are provided with 40 memory numbers respectively for storage of 40 station channels. Once any station is searched, click “MEMO” to change the button into orange color, and then push the ⏮ ⏭ to select memory number. Once corresponding memory number is selected, click “MEMO” again to change the button into white color to complete station memory.

④ Mute: As shown in the aforesaid figure, the button will be in orange color once the “MUTE” is clicked. Meanwhile, speaker icon at the right upper corner will be switched to the status as shown in the figure. This indicates that radio is switched to mute mode. The button will be in white color again if “MUTE” is clicked to cancel the mute mode.

3） Zone Switch Operation

Zone switch is available for both individual and synchronous control. As shown in the main interface, only zone 1-20 are displayed on the interface. It is necessary to use page rolling button (as shown in the following figure) for display of zone 21-40.



(Figure 1) Main Interface

Click zoning button directly for switching operation. The button will be in white and green colors respectively when corresponding zone is closed and opened. Furthermore, audio source for the said zone will also be displayed on the zoning button. It is also applicable to proceed with overall synchronous operation of the zone. Operation button is as shown in the aforesaid figure.

4） Output power source

As shown in the aforesaid figure, PWR1 and PWR 2 are control buttons for output power 1 and 2 respectively. It is

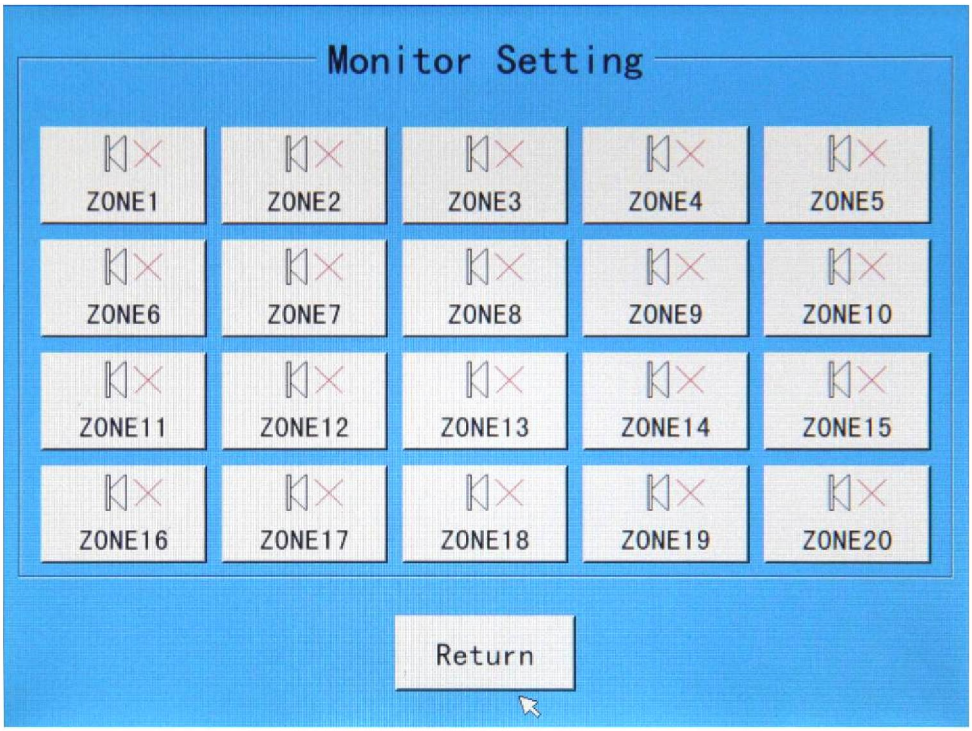
applicable to proceed with switching control of output power by clicking such buttons directly. Output power is also available for auto timing control.

5） Programmed / manual switching

As shown in the aforesaid figure, it is applicable to click “programmed/manual control” button directly for switching between programmed and manual modes.。**Note: Be sure to set this button at preset “programmed” timing point for execution. All timing points will unavailable for execution if such button is in “manual control” mode.**

6） Monitoring Setting

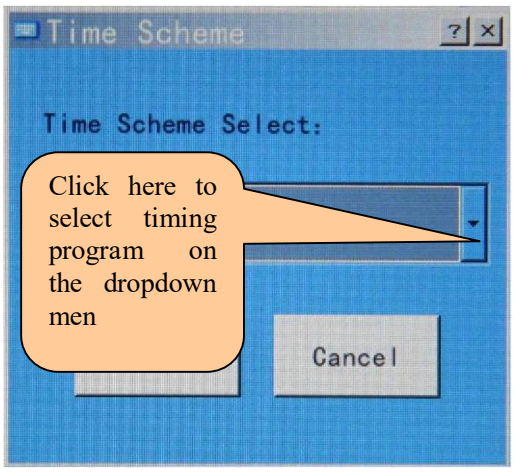
This machine is available for monitoring of each zone. Click “monitoring setting” button to enter the monitoring interface as shown in the following figure in case of operation.



(Figure 4) Monitoring Setting

It is applicable to monitor zone status by clicking zone button on the monitoring interface directly. The button will be in green color when the zone is under monitoring; whereas “×” before the speaker icon will be changed into “√”. Use “Page Rolling” button to open the display interface for zone 21-4 to be monitored. After that, press zone button for monitoring.Selection of Timing Program

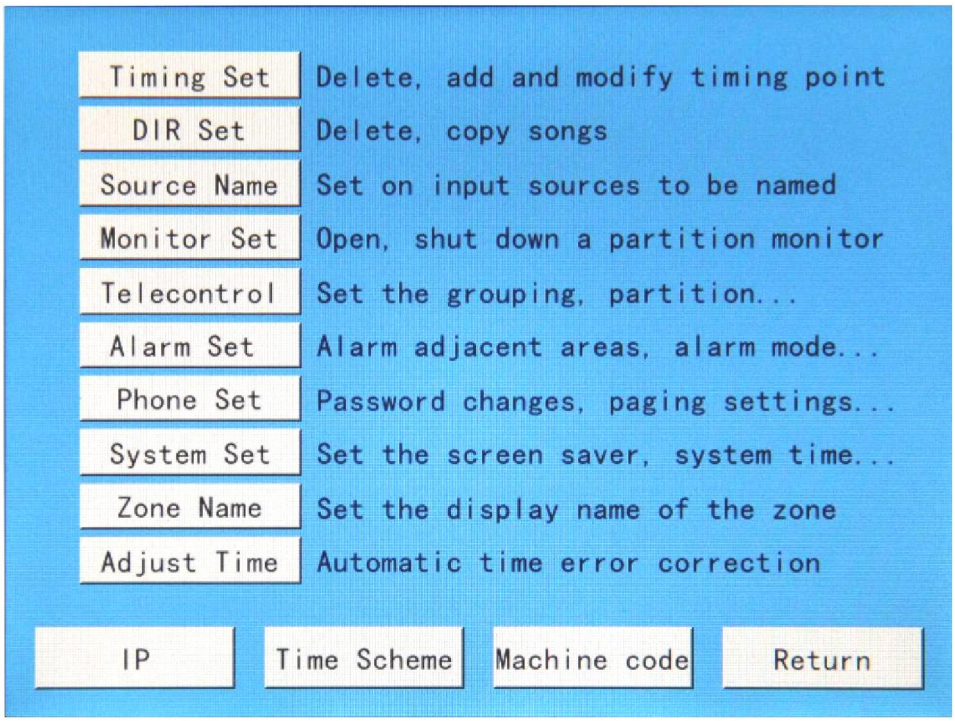
Press “Timing Program” to enter the timing program Interface as shown in the following figure. Make sure that timing program has been stored in the system before selection. The system can store 5 timing programs. Be sure to ensure proper saving of edited timing program in case of timed editing. Timing program is to be saved in reference to Timed Programming.



(Figure 5) Timing Program

2. System Setting

Click “System Setting” on the main interface to enter system setting interface as shown in the following figure:

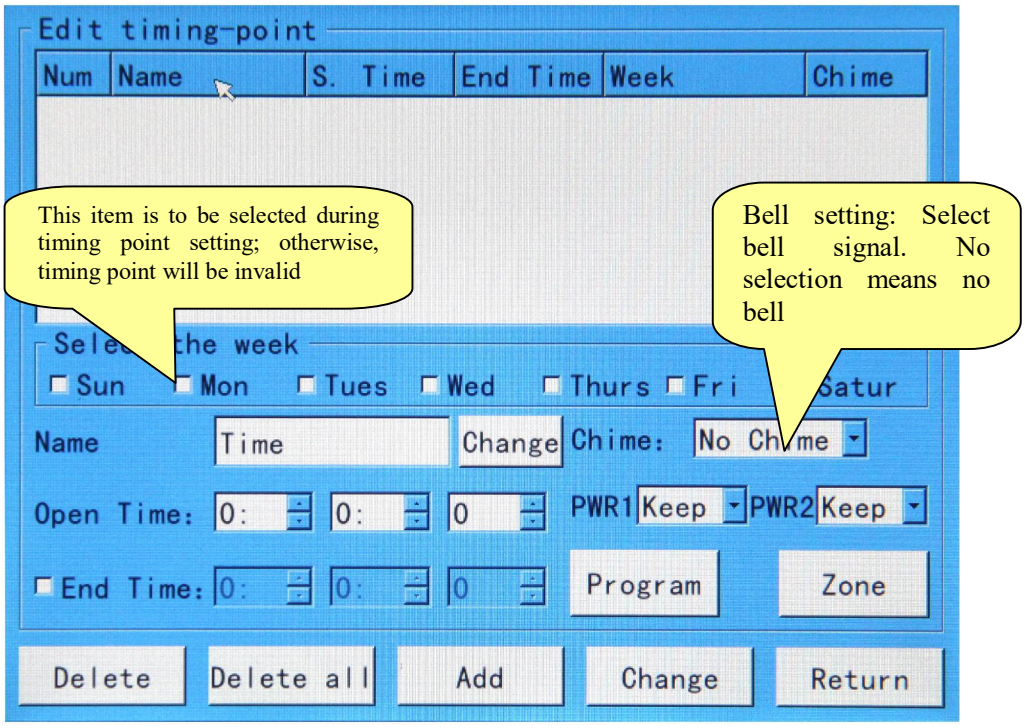


(Figure 6) System Setting

It is applicable to proceed with setting of overall system information on the system setting interface. Be sure to ensure proper setting of all options on the system setting interface before play on the main interface. This aims to ensure accurate execution and operation of various system functions.

1） Timing Setting

Click “Timing Setting” button to enter the timing setting interface as shown in the following figure:

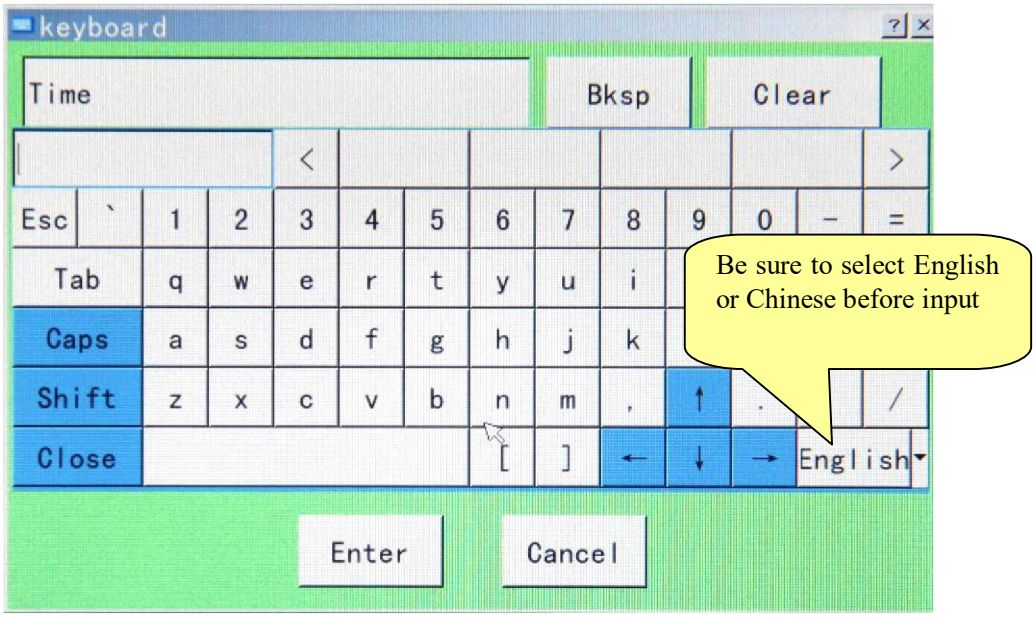


(Figure 7) Timing Setting

This interface is for editing various functional information on timing points:

① Week selection: This operation aims to select the date of timing points. For instance, it is applicable to select corresponding date in the block of “Monday-Friday” if timing points are to be executed from Monday to Friday (“√” in the block represents selected date).

② Designations of timing points: Define designation for edited timing points. For instance, timing point representing wake-up bell can be defined as “Wake-up”. Open the designation editing buttonboard (click the functional button of “Alteration” on the right side of timing point designation block) to enter the editing buttonboard interface (as shown in the following figure). After that, select Chinese or English at the bottom right corner of the buttonboard. Input timing point, and click the “Confirm” button at the bottom to complete editing, and exit the buttonboard.



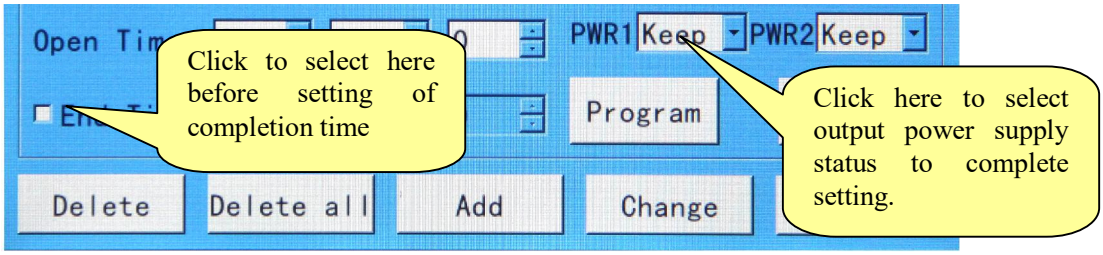
(Figure 8) Timing Point Editing Buttonboard

③ Bell selection: There are 3 bell signals available for selection in the system. Click inverted triangular symbol after the “Bell”, and select bell signal on the dropdown menu. The 3 bell signals are defined as bell 1, 2 and 3 respectively. Click the selected bell for one time to display its designation.

④ Timing time: This setting aims to edit start time of timing points. It is applicable to alter the time by click black triangular symbol beside the time block. Timing time of the system is accurate to second. Timing to the second will not be required if not necessary.

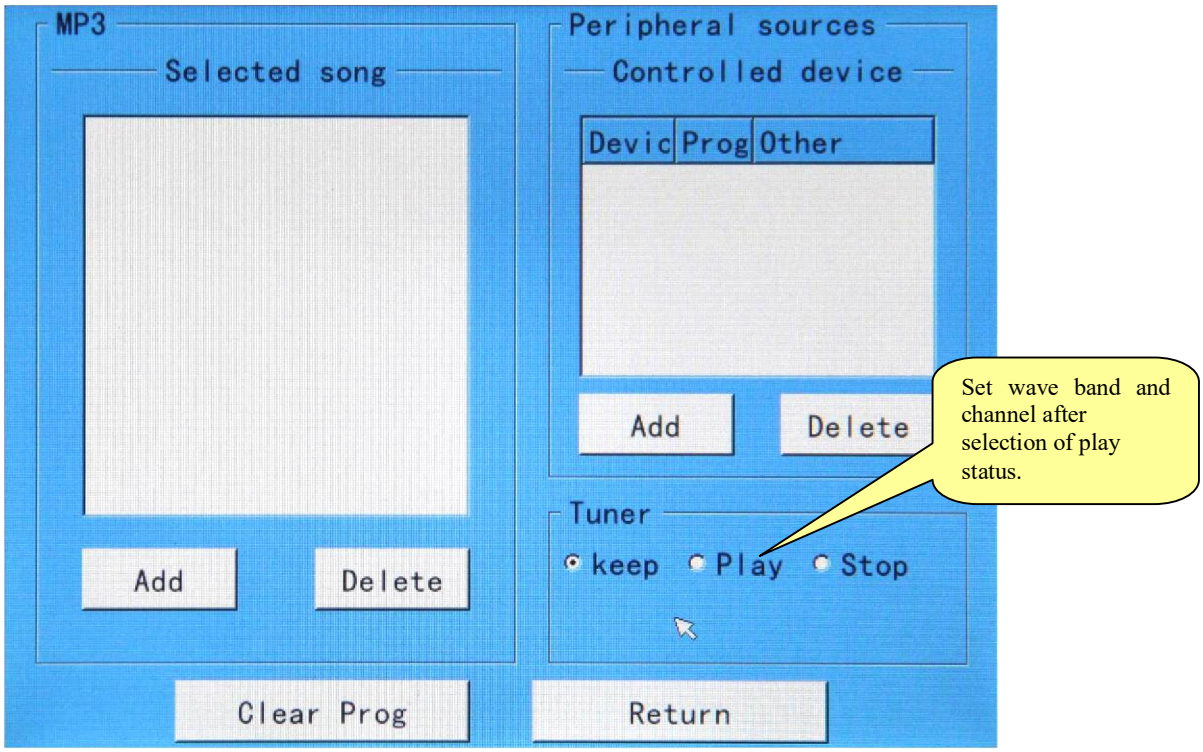
⑤ Output power supply control: “PWR1, PWR2” behind the “Timing Time” is used t control switching status of two-route power supply on the rear control panel. Click corresponding block for one time to select required power supply status on the dropdown menu to complete setting.

⑥ Completion time: Method for setting of completion time I identical to that for start time. The only difference is that the system has optional requirement for completion time. In other words, completion time may be required or not required as per specific demands, which is to be defined as per timing points.

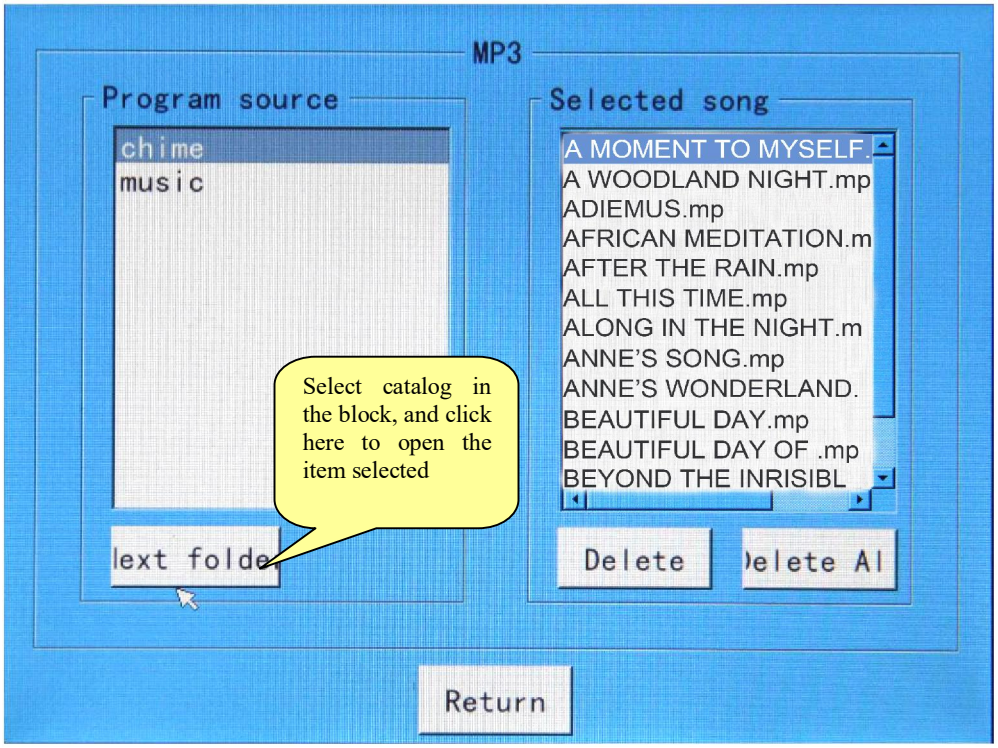


(Figure 9) Indication of Output Power Supply and Completion Time

⑦ Program selection: This operation aims to select operative audio source for timing points. Select “Program Selection” button to enter the program setting interface as shown in Figure (10), (11) and (12). One built-in timing point is available for timed play control of built-in MP3, built-in radio and 4 external audio sources.



(Figure 10) Setting of Audio Sources for Timing Points



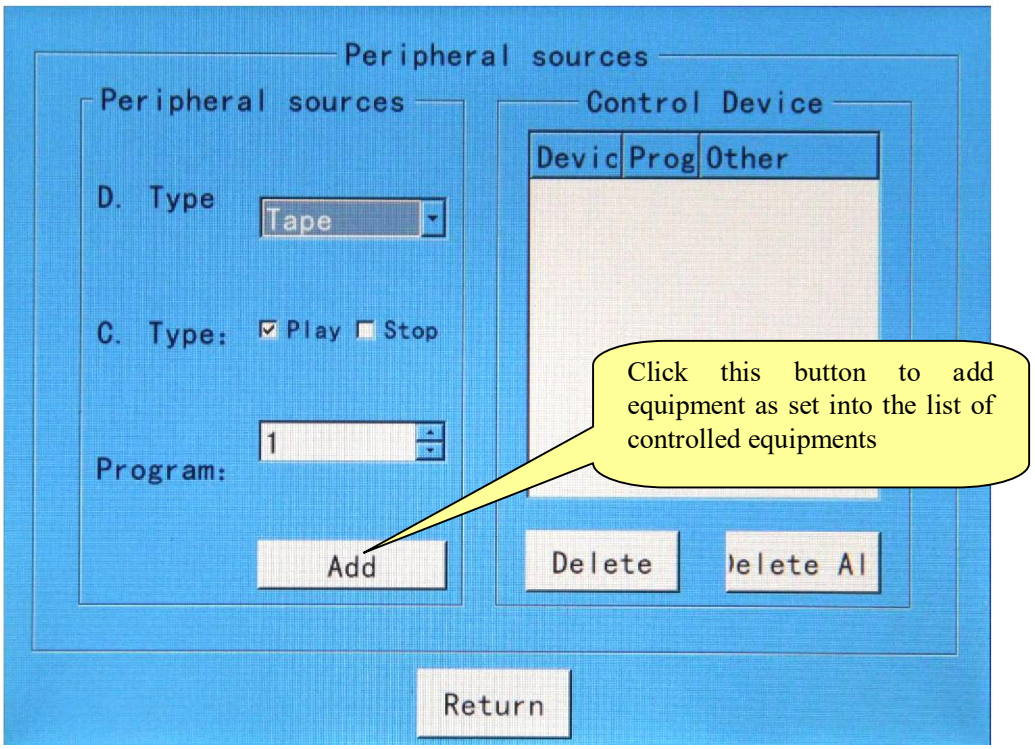
(Figure 11) Setting Audio Sources for Timing Points

As shown in Figure (10), click “Add” button to select catalog when setting built-in MP3 programs (such as selection of “common comity”). After that, click “Next Catalog” to open the catalog, and select songs to be played. Once completed, click the “Add” button, and designations of selected songs will appear in the playlist of “Selected Songs”. It is also applicable delete any song from the playlist of “Selected Songs”. Specific method is stated as follows: Select the song to be deleted, and click “Del” on the right side.

Select required control status among “Uncontrolled”, “Play” and “Stop” at the bottom right corner of the interface prior to editing when setting built-in radio programs (as shown in Figure 11). Note: Be sure to set wave band and channel after selection of play status. Channel number represents the memory number of station as stored in the radio tuner. Radio function at corresponding timing point will be invalid if the selected memory number is not stored with any station.

Setting of external audio sources involves the following operations: Selection of audio equipment types, control modes (play or stop) and programs. Click “Add” to add the audio source into the list of “Controlled Equipments” once any equipment (such as holder) to be controlled by the timing point is selected. It is also applicable to delete any uncontrolled equipment from the list (as shown in Figure 12).

Click “Return” button at the bottom to exit the audio source setting interface once all items are set.

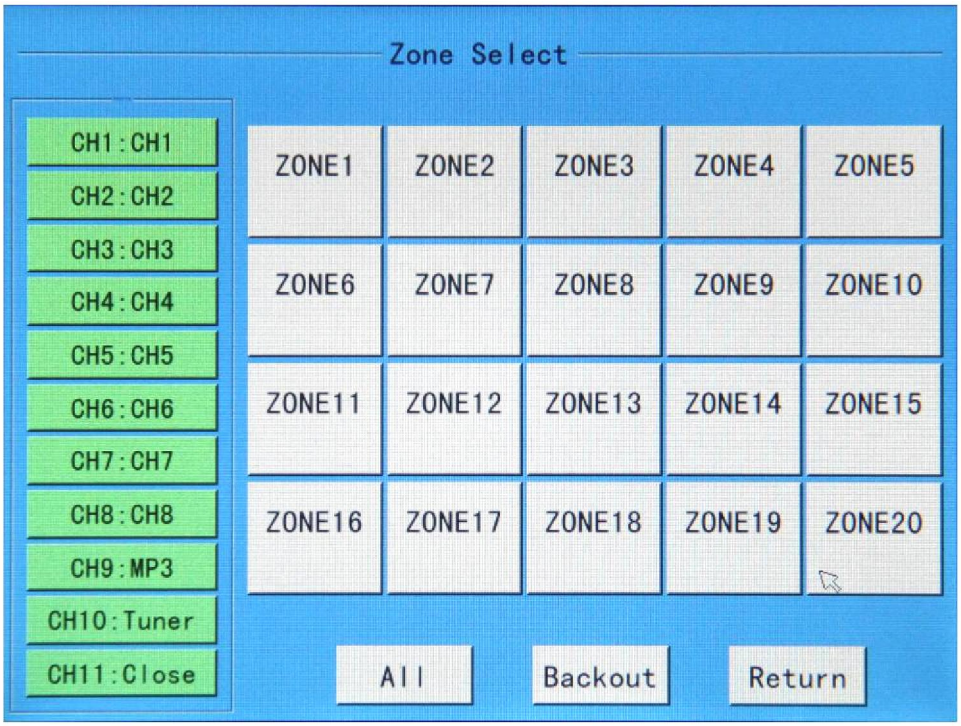


(Figure 12) Setting of Audio Sources for Timing Points

⑧ Zone selection: Click “Zone Selection” button on the timing setting interface to enter the zone selection interface as shown in the following figure (Figure 13).

Any timing point in this system can control play status of 6 audio sources. The 6 audio sources is available for free selection in the corresponding zone. In other words, all zones at one timing point can play different programs.

Firstly, select audio sources to be distributed to corresponding zone in case of setting. For instance, it is necessary to select “external radio” audio source, and click buttons in zone 1-10 if external radio is to be distributed to zone 1-10. Under such circumstance, corresponding button will be in green color to display “external radio”. If all audio sources subjecting to timing control are to be distributed to corresponding timing control zone, just click “Back” to exit the interface to complete timing setting of corresponding zone .



(Figure 13)

⑨ Once items for timing points are set, click “Add” to add such items into the timing list.

⑩ Deletion of timing points: Timing points can be deleted by clicking individual and whole deletion buttons. “Del” aims to delete certain selected timing point in the timing list; whereas “Delete All” is expected to delete all timing points.

⑪ Saving of timing points: Click “Add” to save one timing point as edited in the system. After that, click “Back” to exit the timing point setting interface.

2） Program Setting

Click “Program Setting” on the “System Setting” interface to enter the setting interface as shown in the following figure (Figure 14):

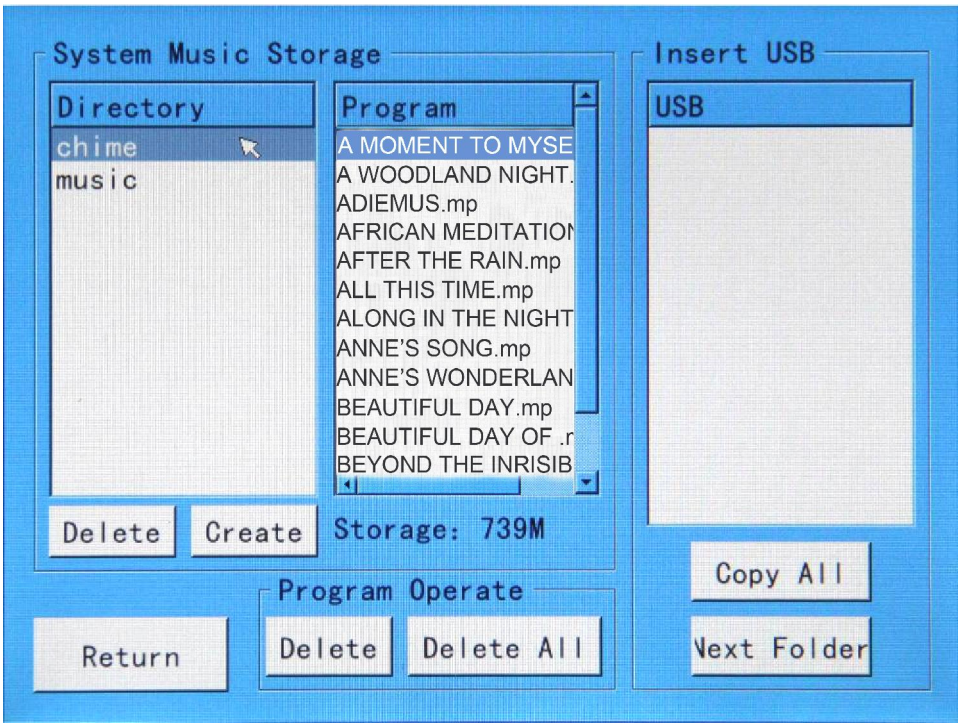


Figure 14

"Program Setting" for system setting aims to edit music library of built-in MP3, including browse, copy and deletion of songs. As shown in the aforesaid figure, once certain catalog in the catalog block on the right side is selected, all songs in it will be displayed in the central program block. Once programs in such block are selected, it will be applicable to proceed with deletion operation by using deletion button at the bottom of the interface.

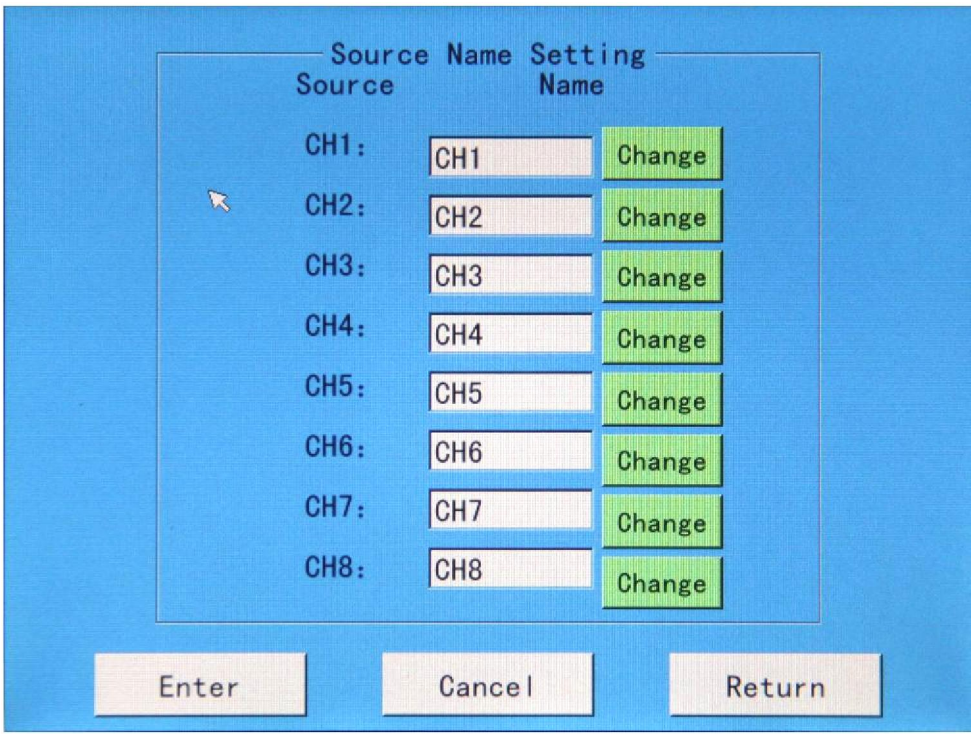
Block on the right side of the interface aims to display programs in the USB on the front panel. Once song designations are directly displayed in this block, it will be applicable to select relevant songs. After that, click "Individual Copy" button below the block to copy selected songs into the machine. In the event that catalog is displayed in the block below "USB Device", just select certain catalog, and click "Next Catalog" below the block to enter the playlist before copy programs.

If catalog is displayed in the block below "USB Device", just select this catalog, and click "Copy all" to copy all songs in this catalog into the machine.

Note: As music library of the system is only provided with one catalog, any song under the catalog additionally established is unavailable for play. Therefore, never copy songs to the system music library when copying programs.

3） Nomination of Audio Sources

Click "Audio Source Setting" on the "System Setting" interface to enter the audio source setting interface as shown in the following figure (Figure 15):



(Figure 15)

It is applicable to alter or nominate designation of each audio source on this interface. Click the block displaying designation of audio source to select certain audio source (such as CH2), and then click "Alteration" after it to open the input buttonboard. Input designation of the audio source on the buttonboard, and click "Confirm" button to complete nomination of audio source. Once completed, push the "Confirm" button again to return to the system setting interface.

4) Monitoring Setting

Click "Monitoring Setting" button on the "System Setting" interface to enter the zone monitoring interface. Monitoring mode here is identical to that on the main interface. For more details, please refer to "Monitoring Setting" on Main Interface during operation.

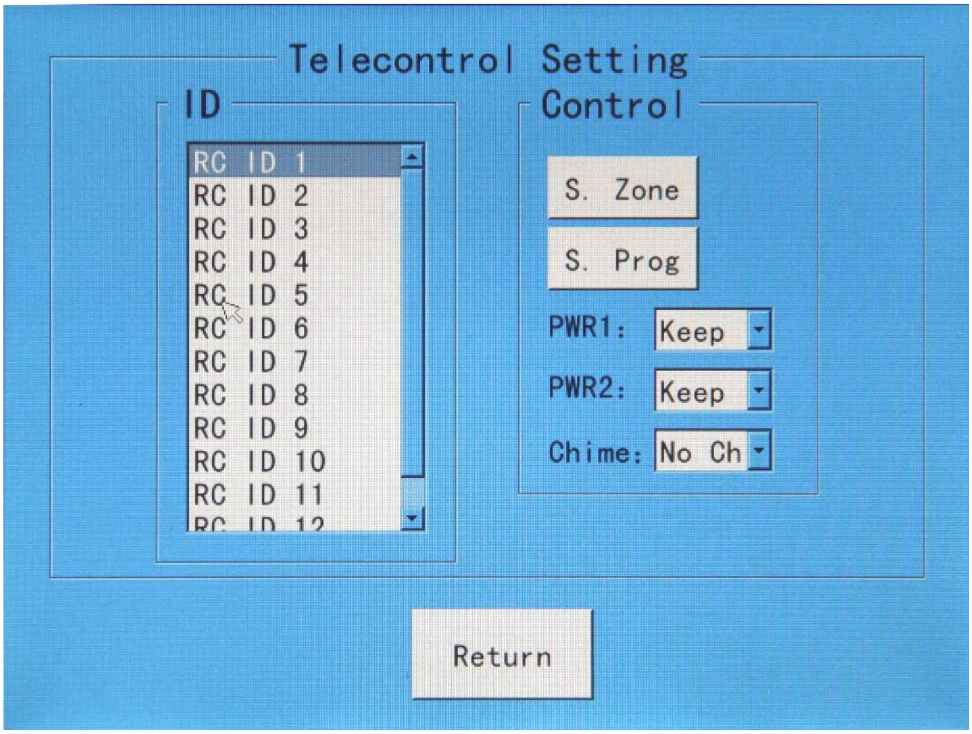
5) Wireless Process Setting

Click "Wireless Process Setting" button on "System Setting" interface to enter wireless process setting interface as shown in the following figure (Figure 16). This system can be controlled with wireless controller in the control mode identical to that for timing points. Remote control distance of wireless remote controller ranges from 100m to 1000m as per different environments. Be sure to properly set certain functional operation of certain button on the wireless

remote controller for control of this system in advance. Thus, once this button is pressed, the system will automatically execute preset functional operation.

Select certain remote control number (such as remote control number 1) among the “process serial numbers” on the left side in case of setting. After that, set control items in the functional setting block on the right side. For instance, if remote control number 1 is to be selected to control play of audio source :CH1” in zone 1-10, just click “Zone Selection” button to enter zone selection interface after selection of “remote control number 1”. Distribute audio source “CH1” to zone 1-10 as per audio source distribution mode on the interface before exiting the interface. If “remote control number 1” is requested to control play status of audio source, just enter the “Audio Source Setting” interface to proceed with various settings of audio source. Setting mode is identical to that for setting of audio sources for timing points. “Remote Control Number 1” is also available for simultaneous control of status of output power supply and bell.

Prompt: One button of wireless remote controller is capable of controlling one or numerous functions of this system. However, all controls should be set here in advance. Operation for selection of zones and programs is identical to that for timing points, which shall not be described herein.



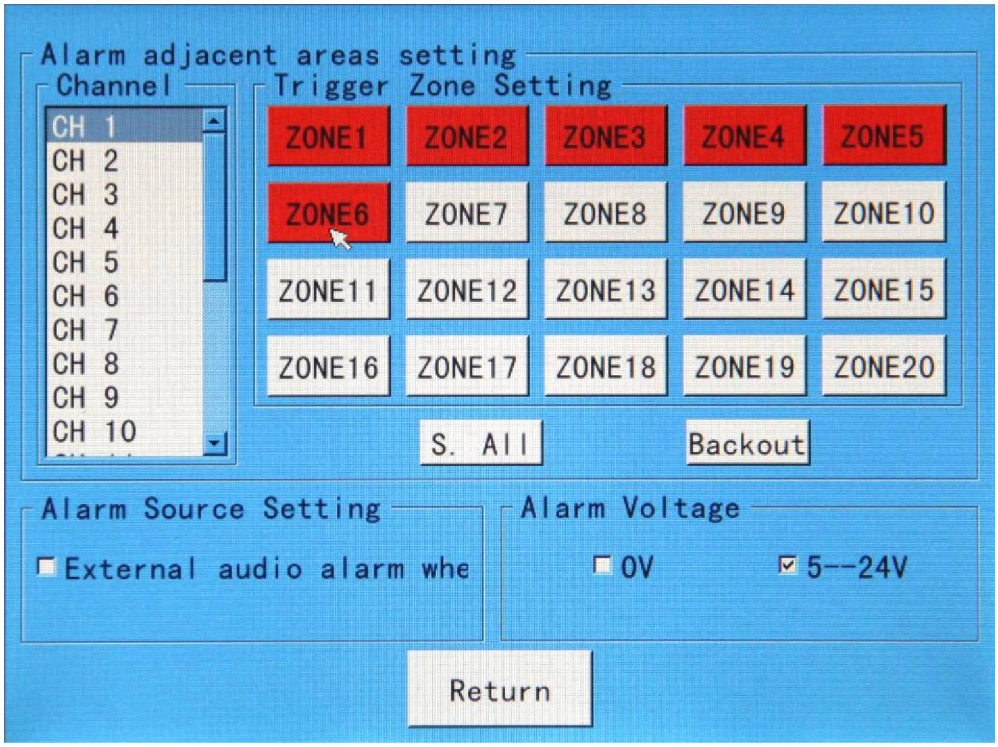
(Figure 16) Wireless Process Setting

6） Alarm Setting

Click “Alarm Setting” button on the “System Setting” interface to enter alarm setting interface as shown in the following figure (Figure 17). It is applicable to set alarm zone linkage, alarm audio source and alarm triggering level on this interface.

Be sure to properly set “Alarm Audio Source Setting” and “Alarm Level” below this interface in case of setting. After that, select one certain alarm channel (such as CHN1) in the “Alarm Channel” block on the left side. Once completed, select alarm zone to be triggered by CH1 in the “Triggering Zone Setting” on the right side. It is applicable to select single or all zones or cancel the selection.

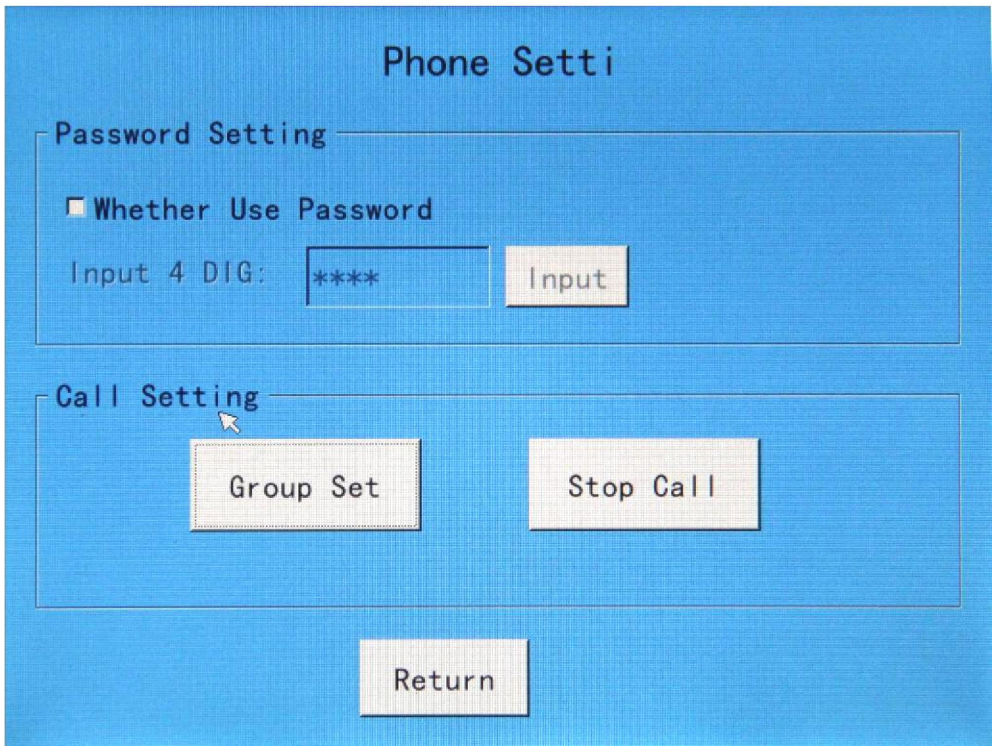
If “Alarm Time” is not selected, the system will initiate internal alarm whistle as alarm signal when external alarm audio source is actuated for alarm. If such option is selected, just use externally input alarm signal in priority instead of using internal alarm whistle in case of alarm. Make sure that external alarm equipment has been properly connected under such circumstance.



(Figure 17) Alarm Setting

7） Telephone Setting

Click “Telephone Setting” button on the “System Setting” interface to enter telephone setting interface as shown in the following figure (Figure 18).

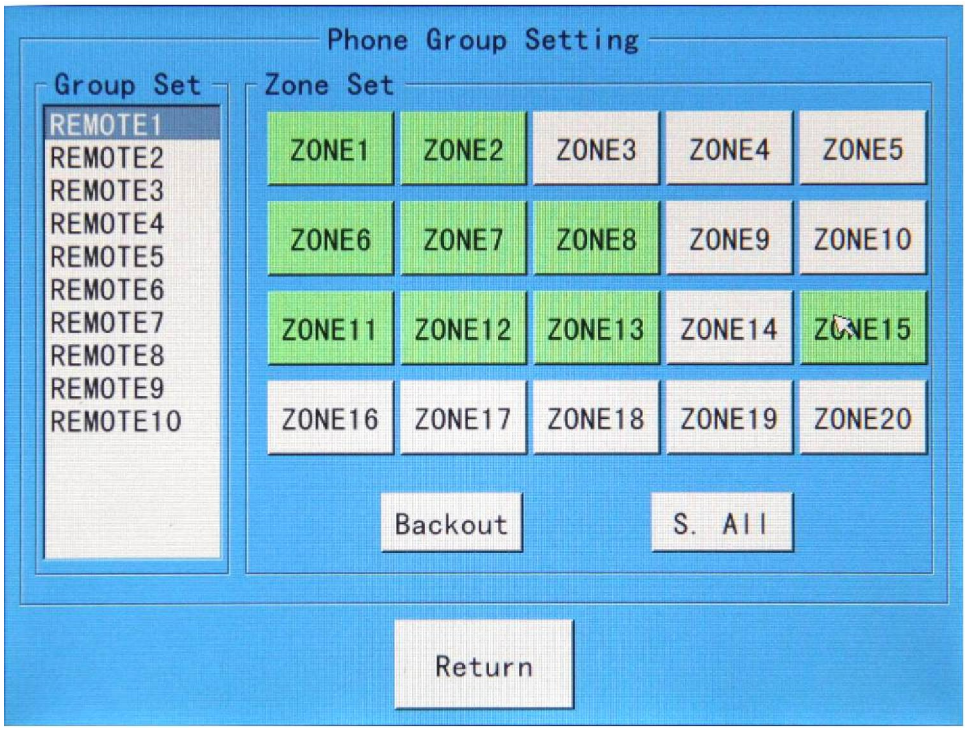


(Figure 18) Telephone Setting

The user can set password at discretion on the telephone setting interface. If it is necessary to select use of password, just input 4-digit password in the password input block. In this way, it will be applicable to input password t for calling or paging in case of incoming call.

Click “Grouped Paging” in the “Paging Setting” block to proceed with grouping for paging zones as shown in the

following figure (Figure 19):

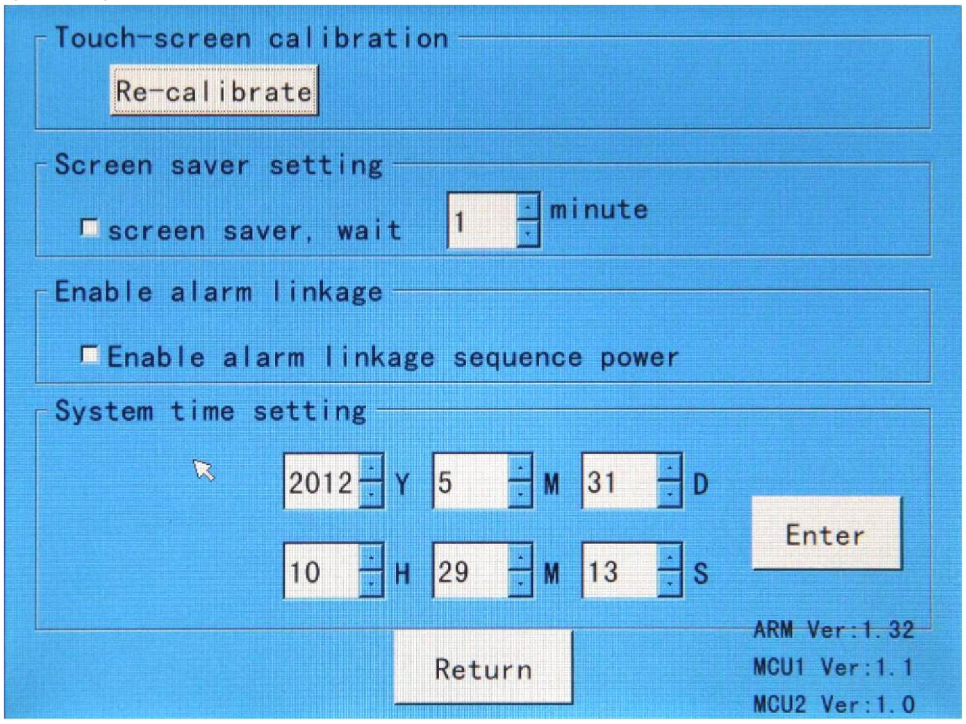


(Figure 19) Telephone Group Paging

Select one certain grouping number below the “Grouped Setting” block before click the zone on the right side in case of grouped paging. This zone is to be incorporated into the selected group. One group may include numerous or all zones. This system is available for setting of 10 groups. It is applicable to select grouping number as per voice prompt in case of telephone paging. The system is capable of sending telephone paging to numerous zones simultaneously.

8） System Setting

This interface is available for setting of system time, screen protection status and calibration of touch screen as shown in the following figure (Figure 20)



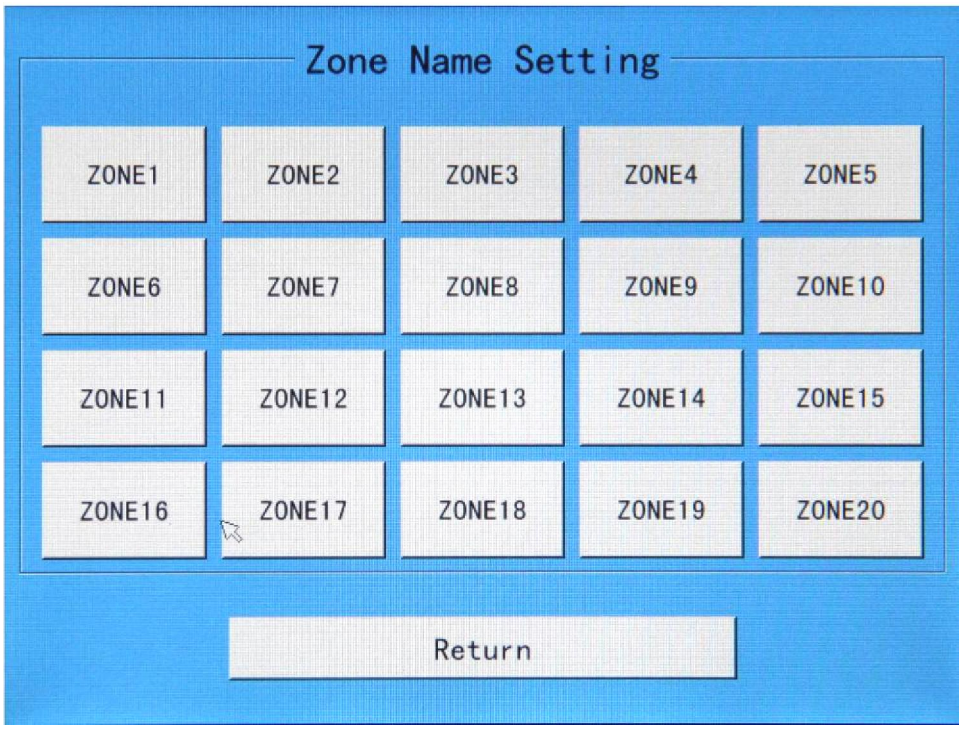
(Figure 20) System Time Setting

It is applicable to calibrate screen on the touch screen setting interface. Click “Screen Recalibration” to restart the system for calibration of touch screen. Once this option is selected on the screen protection setting interface, the display screen will be free of any display or under screen protection when no operation is carried out to the equipment. The screen will resume display once the touch screen is touched. Screen protection time is available for setting within the period of 1-30 minutes. In the event that screen protection is not set, screen of the equipment will be at ON status from start-up to closedown.

Please calibrate current clock when setting system time. This is associated with accurate execution of timing points. Timing points can be accurate to second. Be sure to set second hand when setting system time.

9） Zone Nomination Setting

Click “Zone Nomination Setting” button on the “System Setting” interface to enter zone nomination interface as shown in the following figure:

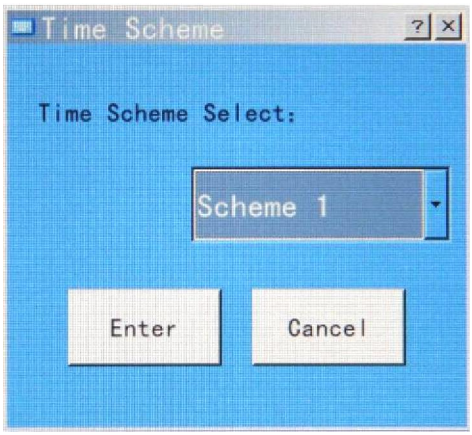


(Figure 21) Zone Nomination Setting

It is applicable to edit a designation for each zone on this setting interface so as to facilitate edit and management of zones in this function. Click the zone for designation editing to enter designation editing buttonboard in case of setting. Input zone designation on the buttonboard, and click “Confirm” button to exit the buttonboard to complete nomination of the zone.

10） Timing Program

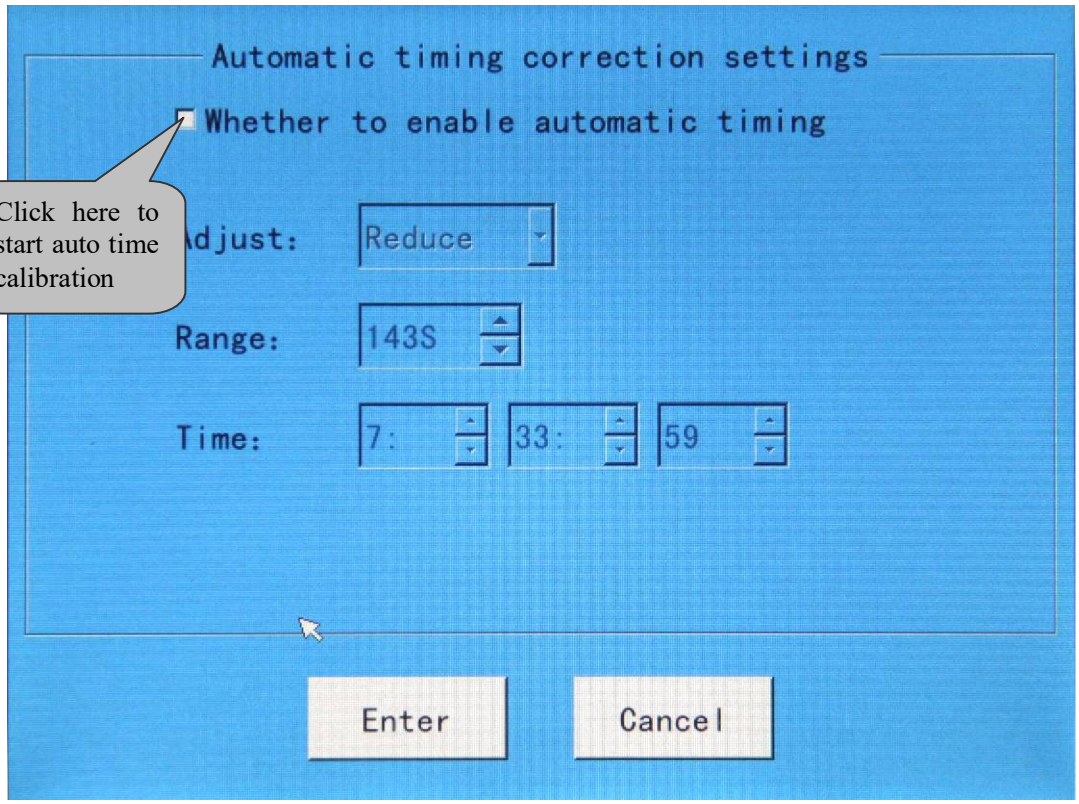
Click “Timing Program” (at the bottom right corner of the interface) on the “System Setting” interface to open the timing program selection interface as shown in the right figure. Once certain timing program is selected, timing points as edited during timing programming will be automatically saved in this timing program. It is recommended to select timing program before timing programming. In this way, it is applicable to edit 5 timing programs for further use as per specific demands.



(Figure 22) Timing Program Selection

11） Auto Time Calibration Setting

Click “Auto Time Calibration Setting” on “System Setting” interface to enter the following interface:



(Figure 23) Timing Program Selection

Prompt: Be sure to mind “prompt” information at the bottom of the interface.

Set “Regulation Direction” and “Regulation Amplitude” on the interface as shown in the aforesaid figure. The system will automatically increase or decrease the time value as set for “regulation amplitude” at “calibration time” as per preset regulation direction and amplitude. For instance:

“Regulation Direction:” is to be set as in reduction;

“Regulation Amplitude” is to be set as 10 seconds;

“Calibration Time” is to be set as 23：00：30

Accordingly, system time will be automatically adjusted to **23：00：20** at 23：00：30.

Other Functions

1. Warning

This machine aims to send warnings to individual or partial or all zones based on the input warning signals. Prerequisite for receiving external warning signals by the machine is stated as follows: It is a must to set warning level properly in "Warning Setting" block on "System Setting" interface (refer to System Setting).

The system will send warning signal to one zone in advance when it is necessary to give warnings to individual or partial zones. After that, this zone will be linked up with adjacent zones to further send warning signals. This machine can also send warning signals to all zones through total warning button on the front panel (refer to Description of Front Panel). When total warning button on the front panel is used to send warnings to all zones, it will be impossible to operate switches, and distribute audio sources until the total warning button ejects. Priority of warnings to individual or partial or all zones is next to signals from aviation microphone. In other words, no action is able to terminate or cover warning action except for signals from aviation microphone.

2. Paging

This system can send paging to corresponding zone through remote pager or aviation microphone on the front panel.

1）Paging with aviation microphone: Signals from aviation microphone have the highest priority, which can cover all other signals. Be sure to properly connect the microphone, and push the paging button before clicking the target zone for paging. When aviation microphone is used for paging, certain zone playing warning signals will be automatically switched to aviation paging status. Except for the zone subjecting warning, status of other zones is unavailable for auto switching, which requires manual clicking. Once paging by aviation microphone is completed, all paged zones will be switched to the status before paging automatically, including warning.

2）Paging through remote pager: Connect remote pager (refer to Introduction to Rear Panel), and select target zone on the remote pager to send remote paging to corresponding zone in this system. With regard to method for paging with remote pager, please refer to Operation Instructions for Remote Pager. Remote paging signals have level 3 priority, which can cover signals of telephone paging and background audio source.

3）Telephone paging: It is necessary to proceed with setting of relevant issues concerning telephone paging in "Telephone setting" block on "System Setting" interface before telephone paging, including grouping and password. For setting methods, please refer to Telephone Setting. Telephones on this machine fall into 10 groups. It is applicable to input grouping number directly on the telephone set as per voice prompt in case of telephone paging. For instance, press figure "8" on the telephone set and "#" for paging the 8^{th} group. Be sure to input password as set during "Telephone Setting" before further inputting the target group for paging. Telephone paging has level 4 priority, of which signals can cover signals of background music.

3. Priority Sequence

Priority level of this system is in the following sequence: aviation microphone---warning---remote paging---telephone paging---background music. Signals of higher priority will cover lower ones for prior output. Signals of lower priority will be automatically recovered once those of higher priority are sent.

4. Calibration of Touch Screen

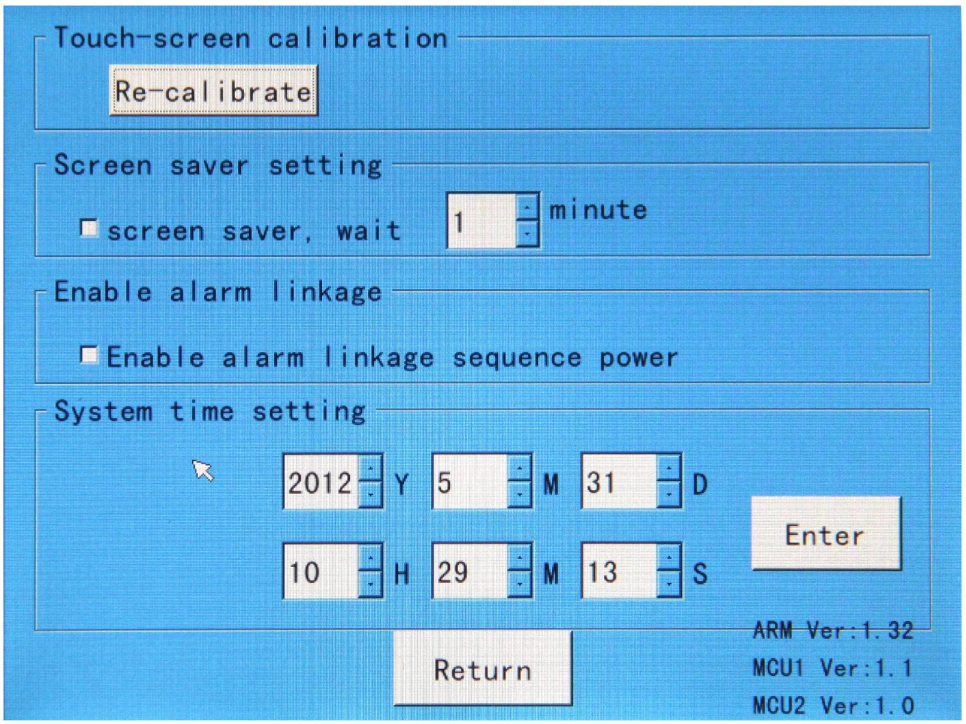
Touch point on the touch screen will be unavailable for accurate shift to the operating option due to rise in temperature or other factors after the machine is operated for a certain period of time. It is applicable to calibrate the touch screen with the following methods under such circumstance.

1) Touch "System Setting" option on the main interface to enter the system setting interface. Touch "System Setting" option on the option interface to enter the interface of screen calibration and time setting.
2) Touch the "Touch Screen Recalibration" button on this interface to restart the system, and enter the screen

calibration interface (as shown in the following figure).

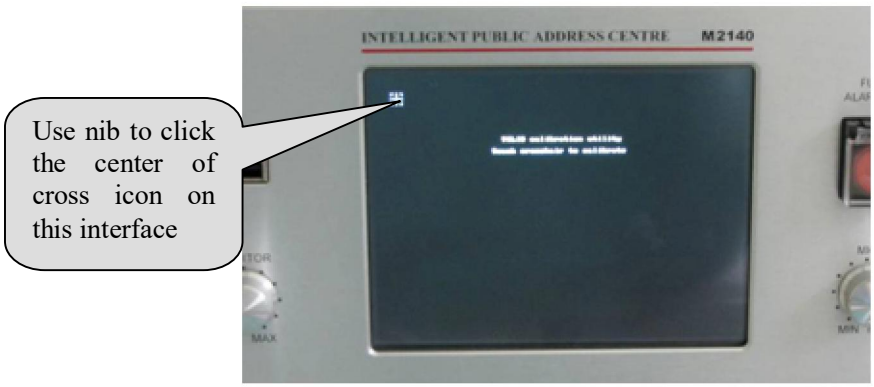
3) Click the center of cross icon with nib on the screen calibration interface (note: be sure to click the center).

4) Proceed with aforesaid calibration at four corners and center of the screen. Otherwise, it will be unable to shift the cursor to the designated option during operation. Under such circumstance, it is applicable to connect USB mouse to restart screen calibration on the screen calibration interface.



(Figure 24) Screen Calibration and Time Setting Interface

Note: It is only applicable to use nib to click the center of cross icon during screen calibration. Never touch the touch screen with body or other objects. Otherwise, it may result in failed screen calibration. Under such circumstance, it will be impossible to use cursor to select the designated option in the system.



(Figure 24) Touch Screen Calibration Interface

Operation Precautions

1. Safety Precautions

- Never plug the mains plug of the equipment into the power grid before system lines are connected.
- Make sure that input voltage of is in compliance with that as specified for this equipment. Otherwise, it may result in burnout of the equipment.
- Hazardous voltage as carried by the machine may result in electric shock. Never open the casing without permission for fear that may result in electric shock.
- As the machine is not disconnected from the power grid even if the power switch on the equipment is at "OFF" status, please plug off the power line from the socket to ensure safety when the equipment is not used
- Never place the equipment at the place of extremely high or low temperature.
- Ensure perfect ventilation in the working environment of the equipment so as to guard against damages to the machine by overheat and high temperature.
- Be sure to plug off mains plug in case of cloudy days of high humidity or prolonged shutdown.
- Be sure to plug off the mains plug to disconnected the equipment from the power grid before taking off or reinstalling any part, disconnecting or reinstalling any plug or other connections.
- When the equipment is in failure, any other person is not allowed to disassemble the casing for repair for fear that it may incur accidents or intensify damages to the equipment.
- Never place any corrosive chemical on or at the periphery of the equipment.

2. Precautions for After-sale Services

- Our company will provide three-year free guarantee (including free replacement of parts) for any quality problem as occurred during regulated installation and normal operation as per operation instructions from the date of purchase.
- Any user enjoying the free guarantee is requested to present receipt of the warranty card and invoice.
- The following cases are not covered by free guarantee:

  （1） Damages to products due to incorrect installation, operation or handling;

  （2） Damages to products by any abnormality (such as over-voltage or extremely high ambient humidity);

  （3） Damage as incurred by such incidents as natural and man-made disasters to products.

  （4） Product number has been changed, altered or deleted;

  （5） The product was once repaired or refitted by personnel not authorized by the company;
- Please properly keep the operation instructions and warranty card.
- With regard to issues or precautions not mentioned in the operation instructions, please contact corresponding distributor or visit official site of the company---http://www.lyintlcorp.com.
- Please contact service personnel of our company (or distributor) for processing in case of fault during guarantee period. Our company shall not guarantee any damage as incurred by unauthorized disassembly or repair by other technicians.

Performance Specifications

Model	M-2120		M-2140	
No. of control zone	20		40	
Display	5.6-inch color screen			
Control mode	Touch screen/remote control/wireless control			
Input sensitivity	250mV(±25mV)			
Output	1V(0dBV)			
Built-in audio source	Radio, MP3			
MP3	Frequency response	20Hz-20kHz		
	SNR	85dB		
	Dynamic range	90dB		
	Harmonic distortion	0.05%		
Radio	AM	Sensitivity	52dBu	
		Receiving range	522kHz-1620kHz	
		Transmission band	6kHz	
		SNR	35dB	
	FM	Sensitivity	26dBu	
		Receiving range	87.0MHz-108.0MHz	
		Transmission band	15kHz	
		SNR	75dB	
Wireless control	12 unit with control distance within 100-1000m			
Frequency response	20Hz-20kHz(±3dB)（individual zone）			
SNR	85dB			
Crosstalk	70dB			
Warning mode selection	Low level is 0V; high level is 5V～24V			
Timed power output	PWR1		AC220V/50Hz/500W	
	PWR2		AC220V/50Hz/500W	
Fuse	Local protection		F1AL	
	Power source protection		F10AL	
Power source	AC220V（±10%）/50Hz			
Gross power	22W			
Packing size (mm)	（L×W×H）555×460×235			
Machine dimension (mm)	（L×W×H）484×360×132			
Gross weight	11.8kg		12.3kg	
Net weight	9.2kg		9.6kg	

Any alteration to specifications shall not be notified otherwise.

Remote Control (Optional)

1. Remote Control Computer Software

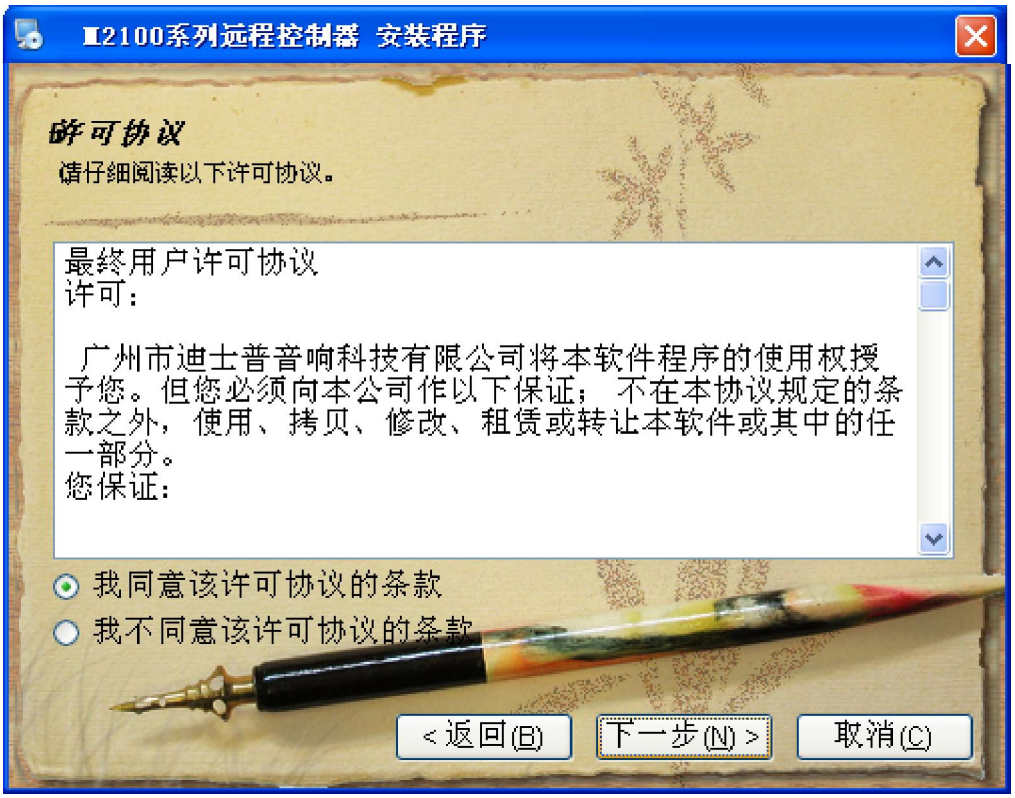
1）Installation of Remote Control Computer Software

LAN interface can be connected with computers to realize remote control of the host computer through control software (realize auto play of fixed programs at fixed time and place). (such function is to be realized by remote control software separately purchased).

Any system installed with remote control software is to be attached with a remote control software installing CD at the time of delivery. Insert this CD into the CD-ROM to install the software in the computer according to prompts. Installation procedures are stated as follows:

- Initiate installation program to enter the interface as shown in the following figure:

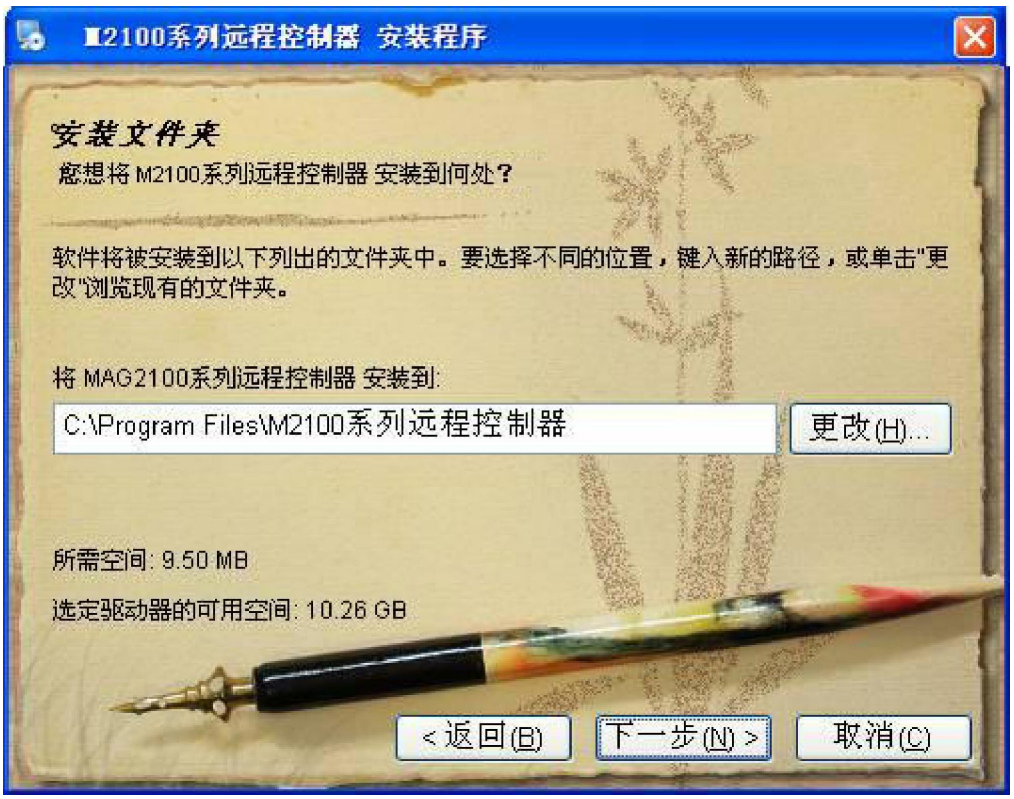
Click “Next” on this interface to enter the follow-up installation interface.



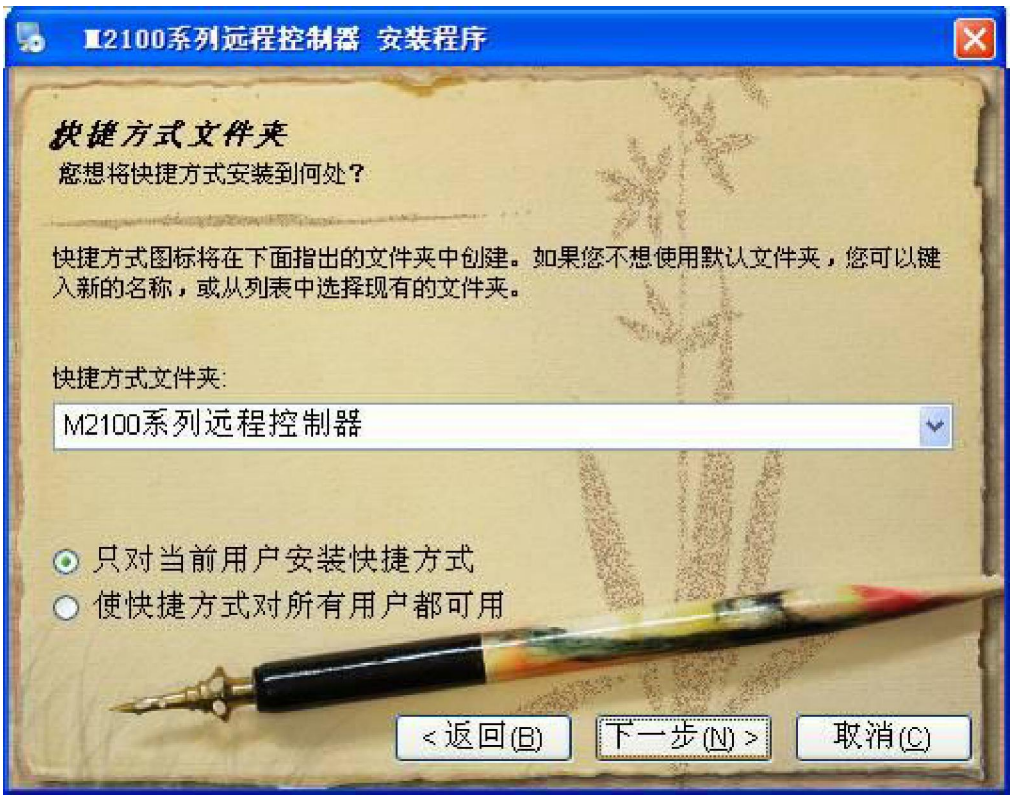
Read User License Agreement on the interface. If agreed, select “Agree” to proceed with the next stop:

It is no need to alter designations and company information on this interface. Just click “Next” to enter the

next interface.

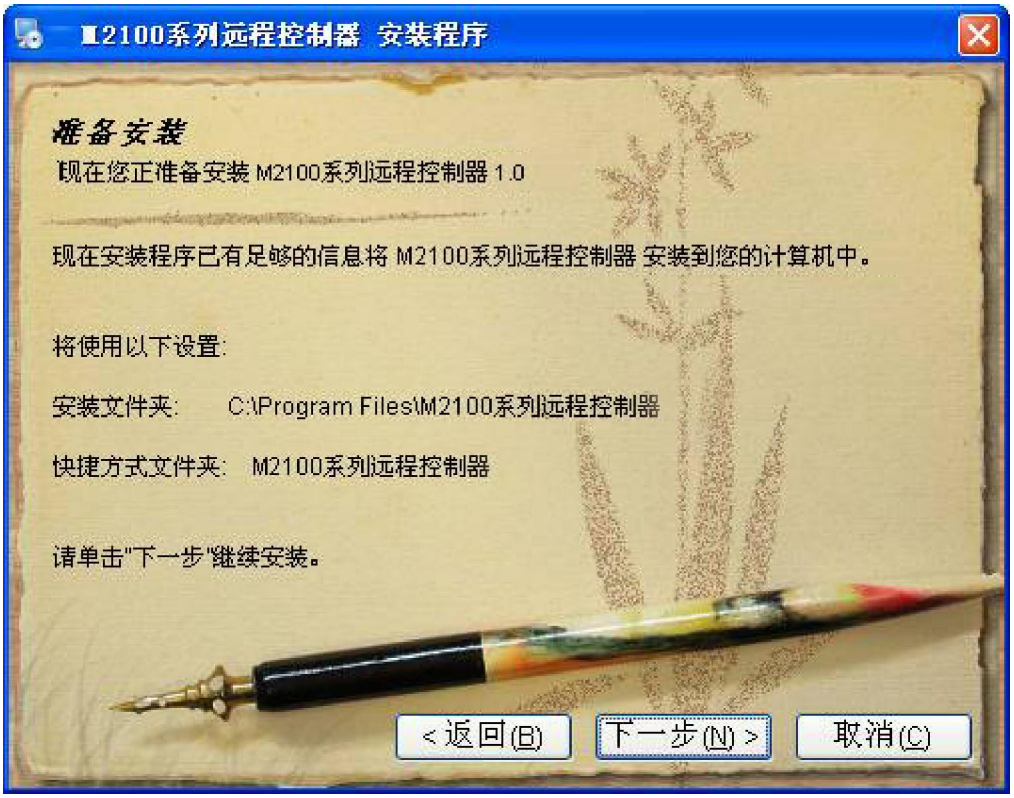


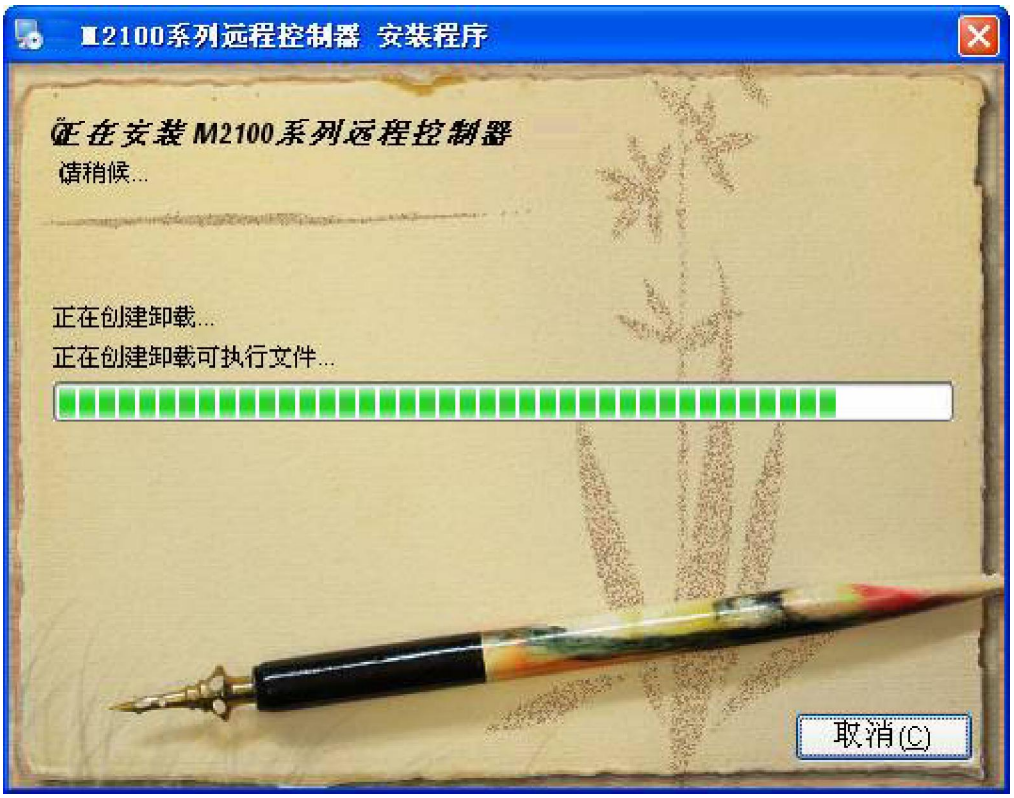
Input installation directory of the software according to prompts on the interface. Click “Next” if it no nee d to alter the installation directory.



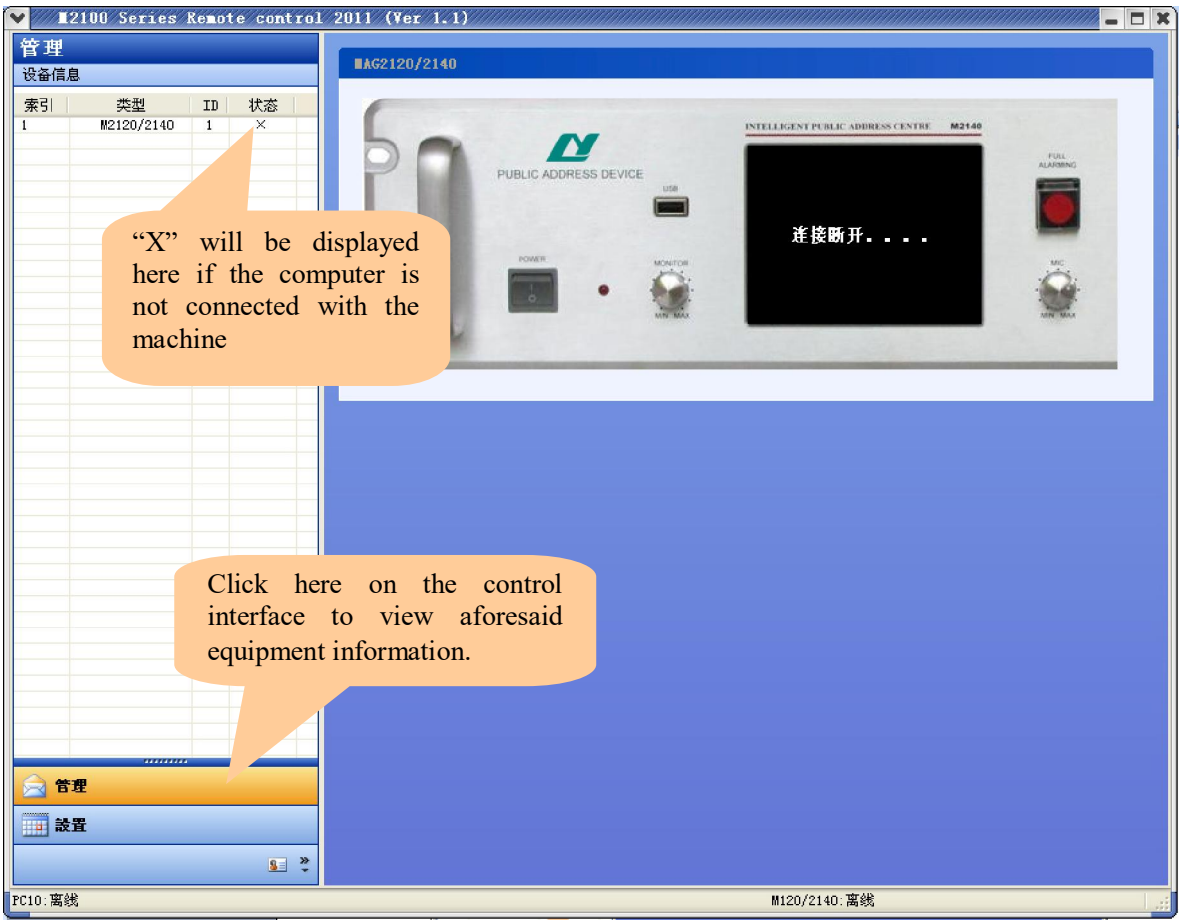
Input the file containing shortcut according to prompts on the interface. No alteration will be required i f default file is used. Just click “Next” to enter the next installation interface. Make sure the next interf

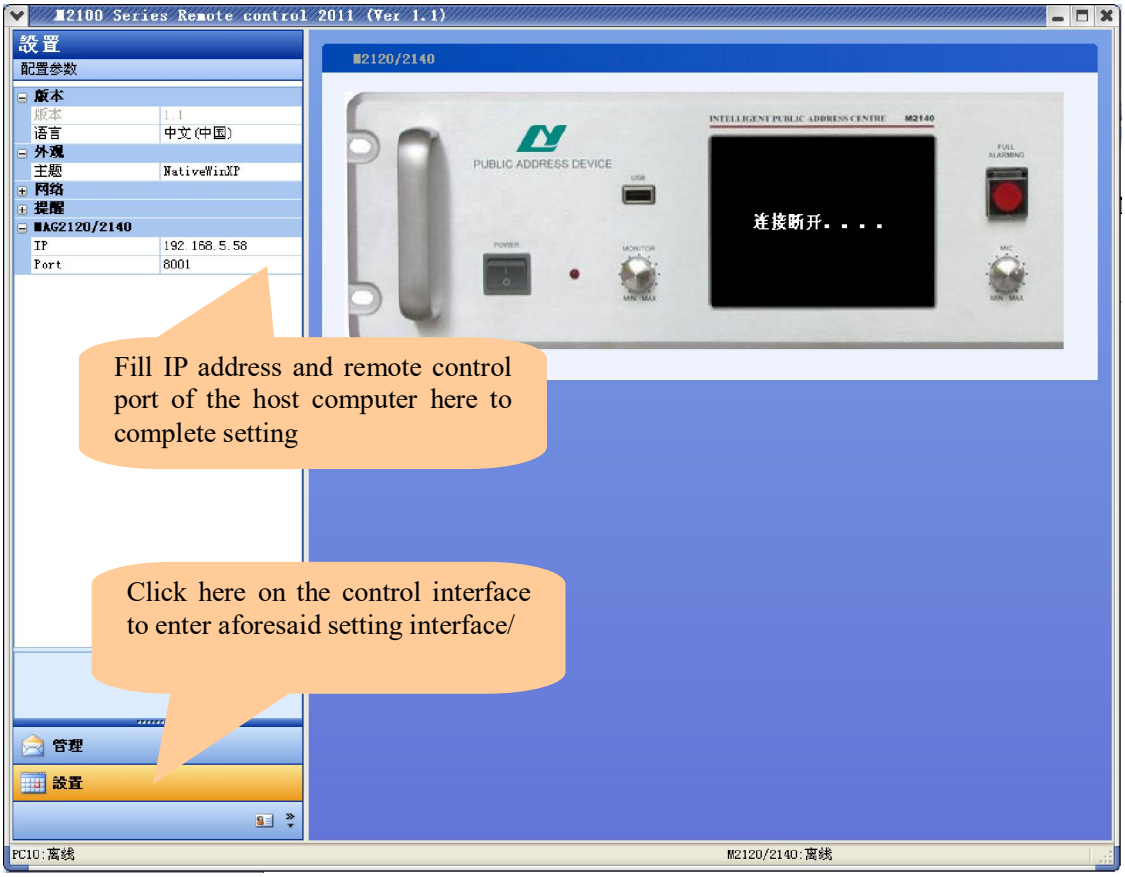
ace is for installation setting, and click “Next” to enter the next interface.

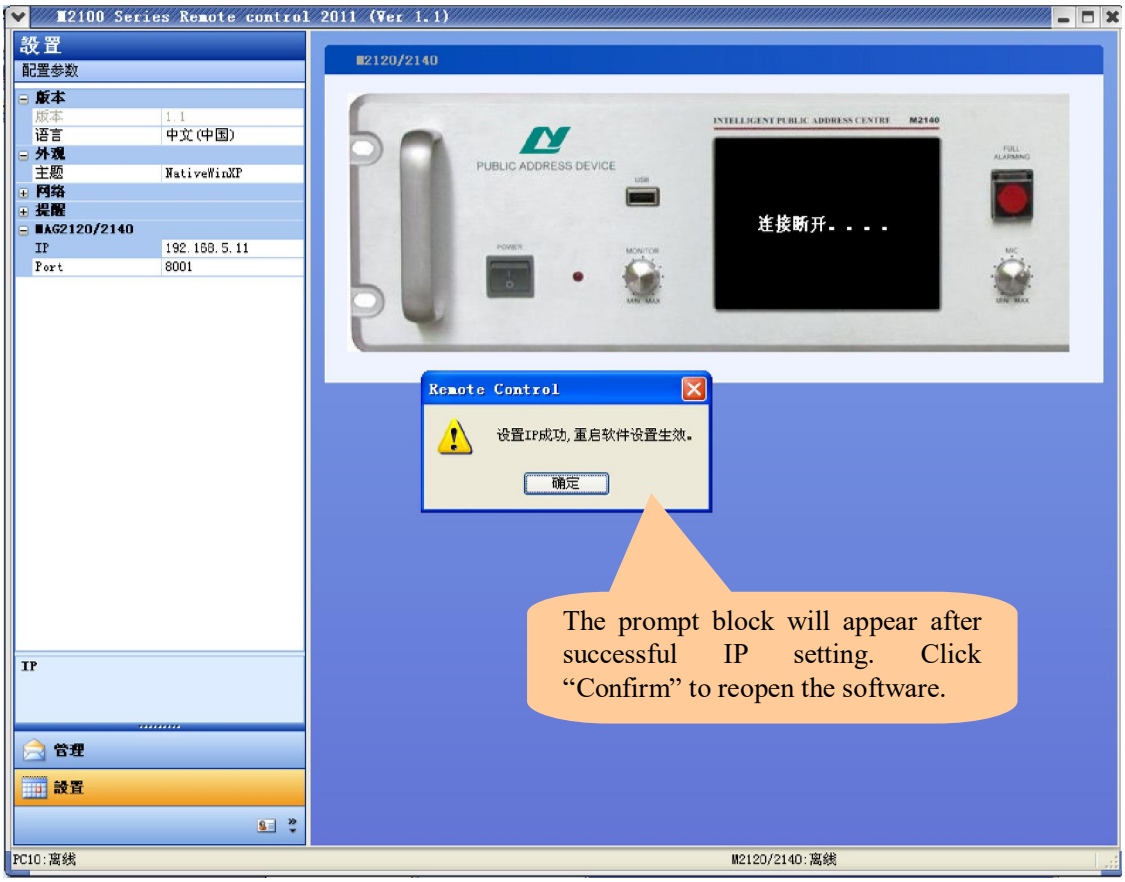




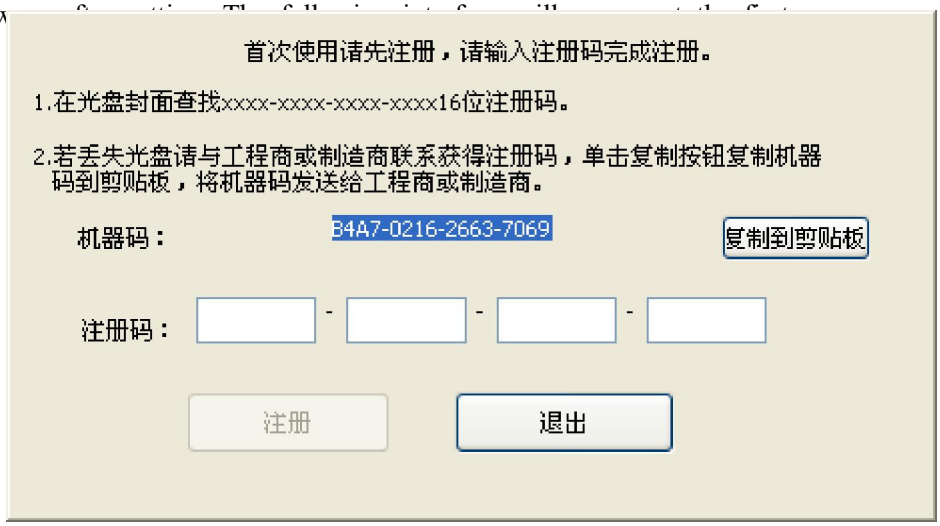
Click “Complete” on the interface as shown in the aforesaid figure to complete installation of control s oftware. A shortcut icon will appear on the desktop after installation of control software. Double click t his icon to open software control interface as shown in the following figure.




M2100 Series Remote control 2011 (Ver 1.1)
設置
配置参数
版本
版本 1.1
语言 中文(中国)
外观
主题 NativeWinXP
网络
提醒
MAG2120/2140
IP 192.168.5.58
Port 8001
M2120/2140
PUBLIC ADDRESS DEVICE
INTELLIGENT PUBLIC ADDRESS CENTRE M2140
连接断开. . . .
Fill IP address and remote control port of the host computer here to complete setting
Click here on the control interface to enter aforesaid setting interface/
管理
設置
PC10:离线
M2120/2140:离线

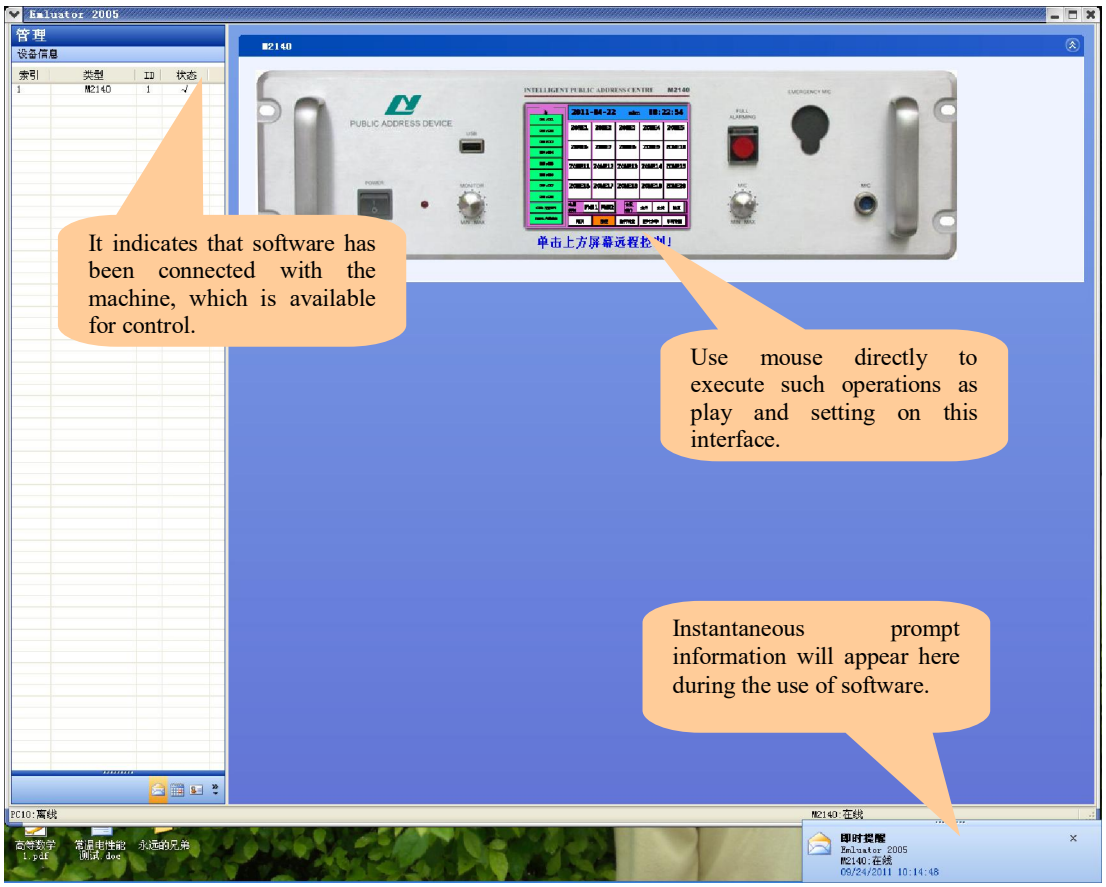

M2100 Series Remote control 2011 (Ver 1.1)
設置
配置参数
版本
版本 1.1
语言 中文(中国)
外观
主题 NativeWinXP
网络
提醒
MAG2120/2140
IP 192.168.5.11
Port 8001
M2120/2140
PUBLIC ADDRESS DEVICE
INTELLIGENT PUBLIC ADDRESS CENTRE M2140
连接断开. . . .
Remote Control
设置IP成功,重启软件设置生效。
确定
The prompt block will appear after successful IP setting. Click "Confirm" to reopen the software.
IP
管理
設置
PC10:离线
M2120/2140:离线

Restart the softw



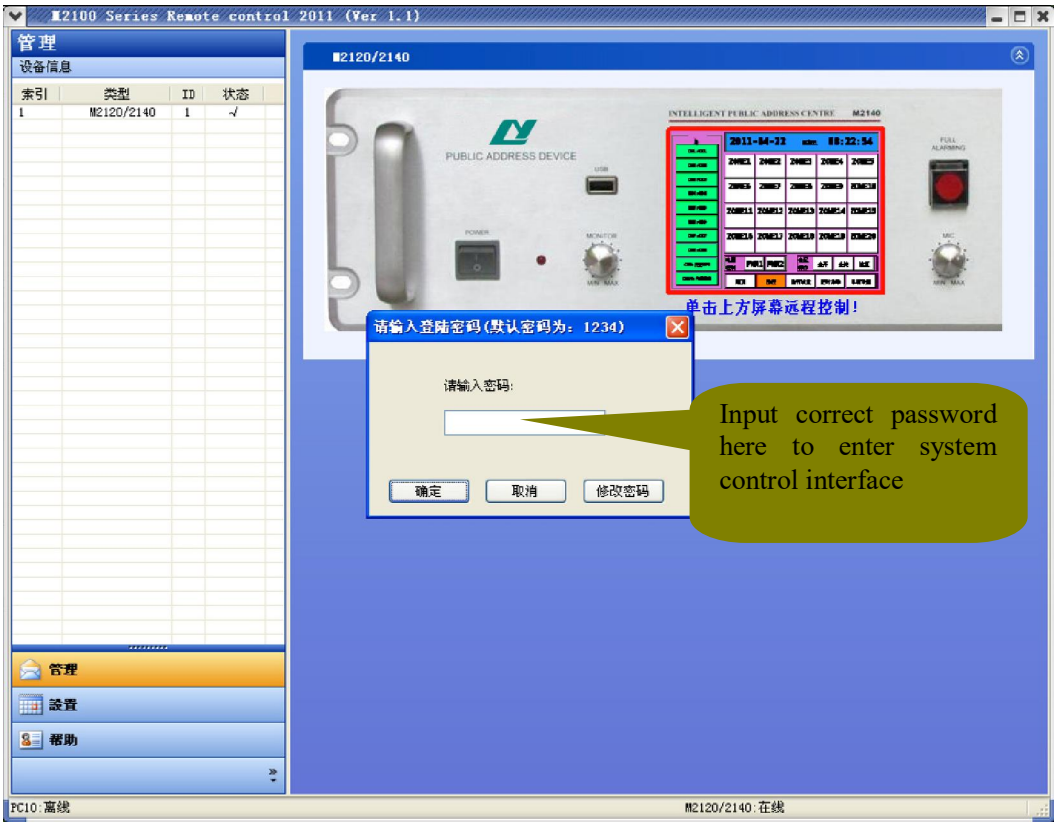
This interface aims to remind user to proceed with registration. Please find 16-digit registration code on the cover of the software installing CD, and input it on this interface. After that, click “Registration” to complete registration. If CD is lost, just obtain registration code according to prompts on the interface a s shown in the aforesaid figure.

Enter the software control interface as shown in the following figure after registration:



Click equipment display screen on the interface as shown in the aforesaid figure to open the passwor d input prompt block. Input correct password in this prompt bloc to open the control interface for remo

te control of the equipment.

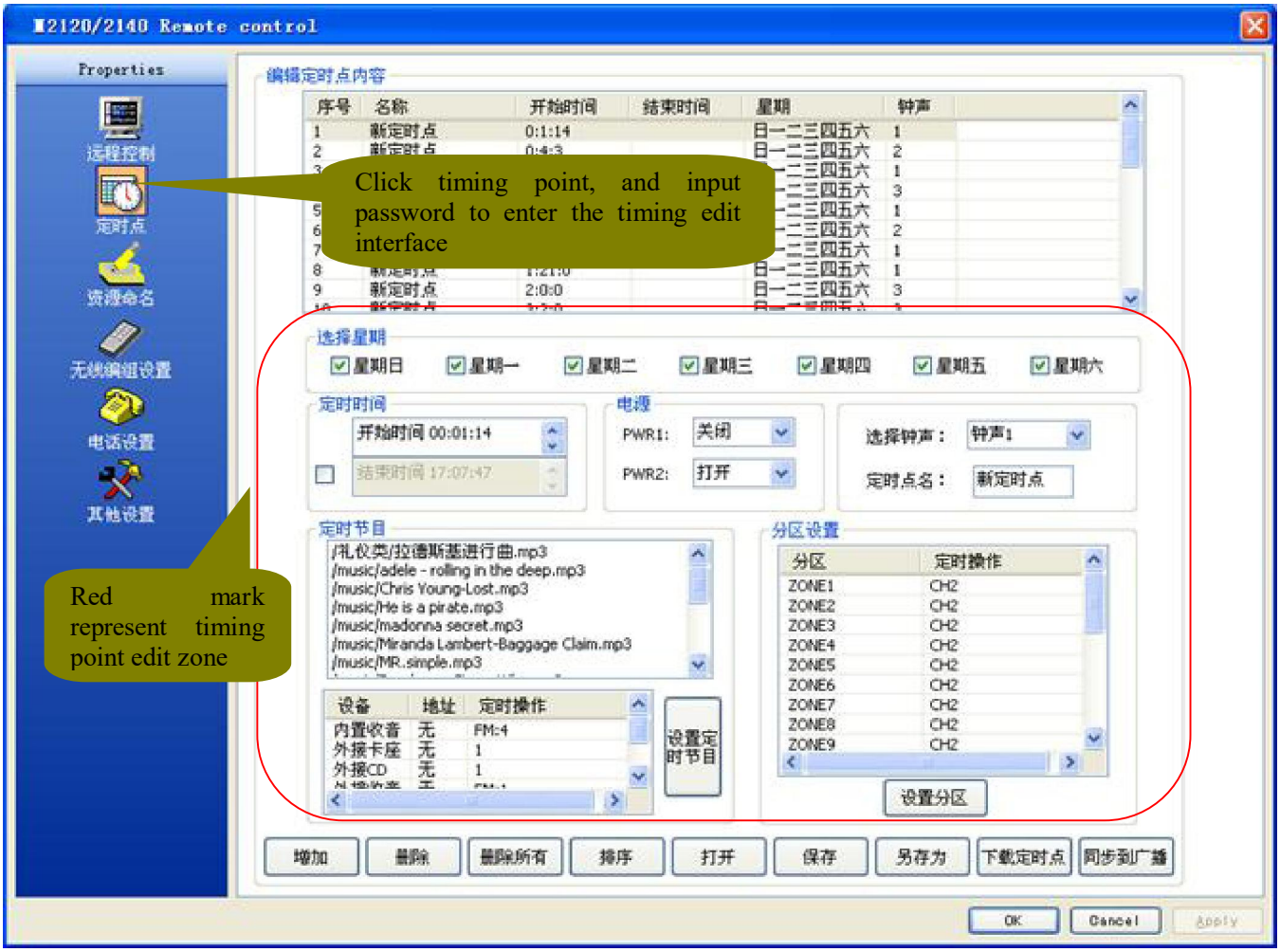


2）Remote Control Operation

System control interface as shown in the aforesaid figure can be used for setting of audio matrix to distribute 10 audio sources to 40 zones (20 zones for M-2120). Operation methods for audio source distributed to each zone is identical to

that for the host computer, which will not be described herein.

Timing Point Setting and Synchronization

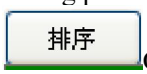


1. As shown in the aforesaid figure, all timing points as edited are displayed in the list. Click options in the list for setting.

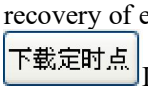

Help information will be displayed automatically when the mouse stops at aforesaid buttons.
2. 

Add: Add one timing point for auto addition into the list.
3. 

Del: Delete one selected timing point in the aforesaid list.
4. 

Delete All: Delete all timing points in the list. It is applicable to proceed with backup of current timing point by clicking “Save As” before deletion.
5. 

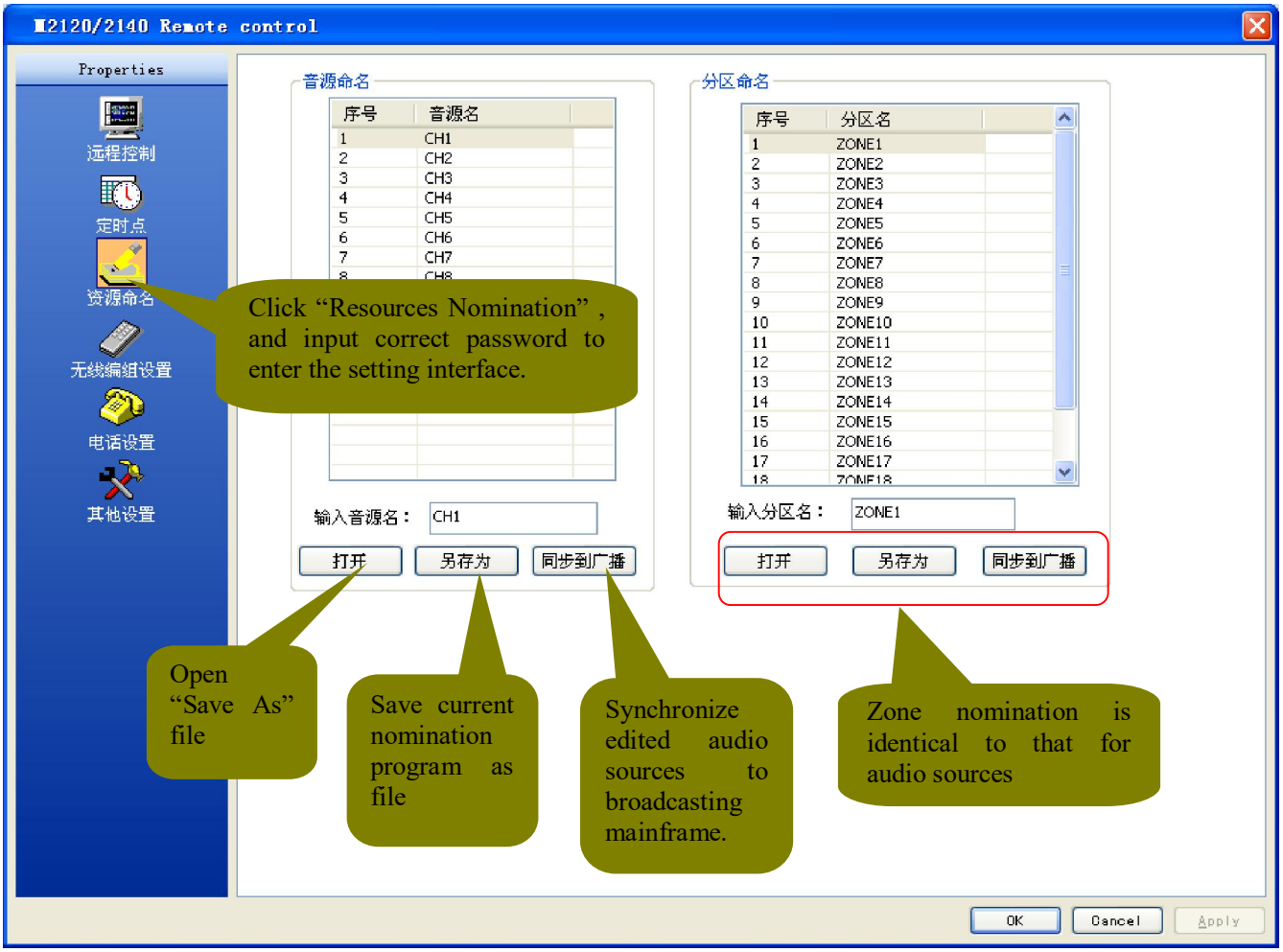
Ordering: It aims to realize precedence ordering of edited timing points in proper sequence as per commencement time.
6. 

”Open”, “Save” and “Save As”: The three buttons are used for backup and recovery of edited timing points. Shift the mouse to such button to display detailed help information.
7. 

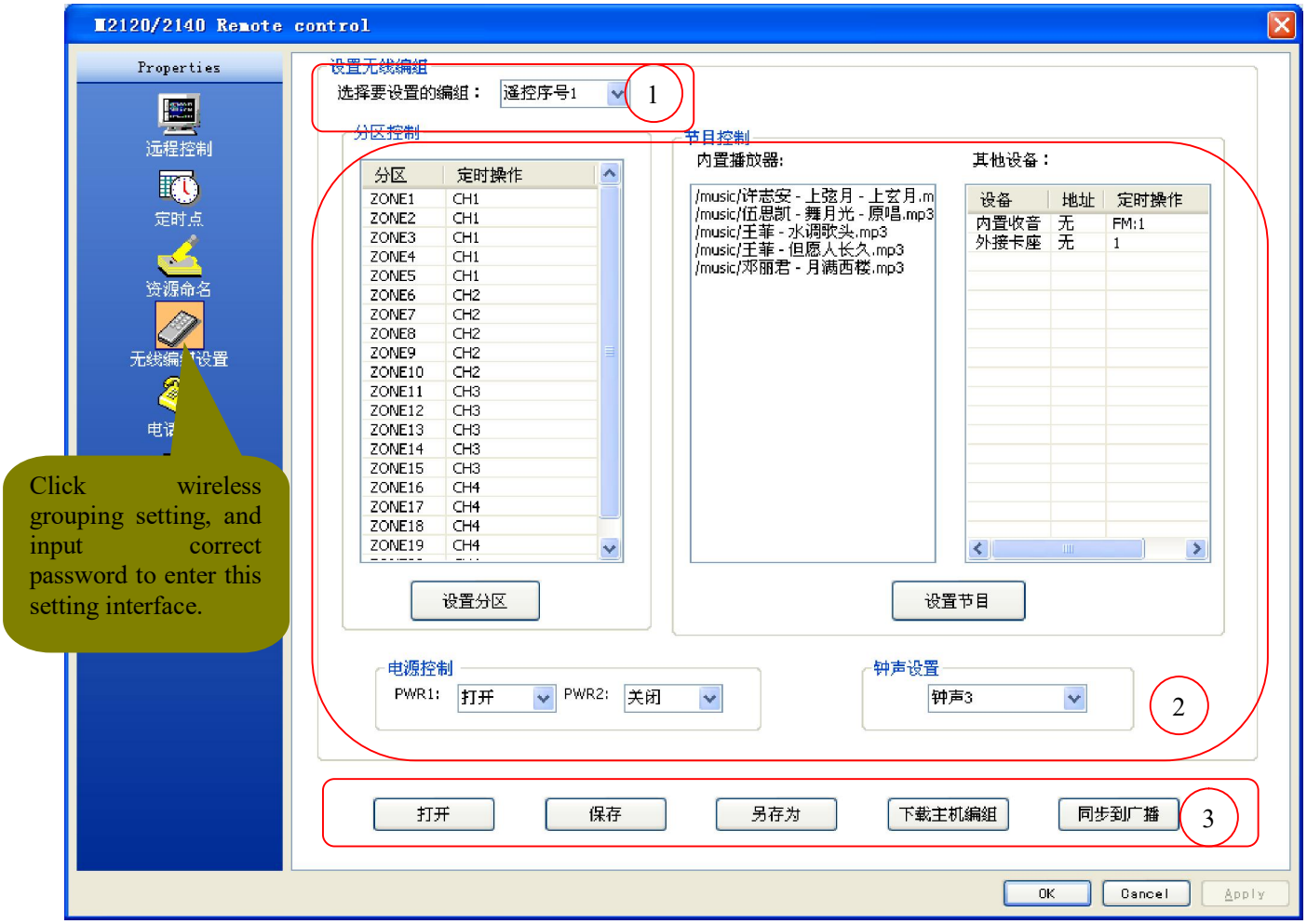
Download Timing Points: Download timing points on the broadcasting mainframe to current list.
8. 

Synchronization to broadcast: Synchronize edited timing points to broadcasting mainframe.

Resources Nomination



Wireless Grouping Setting



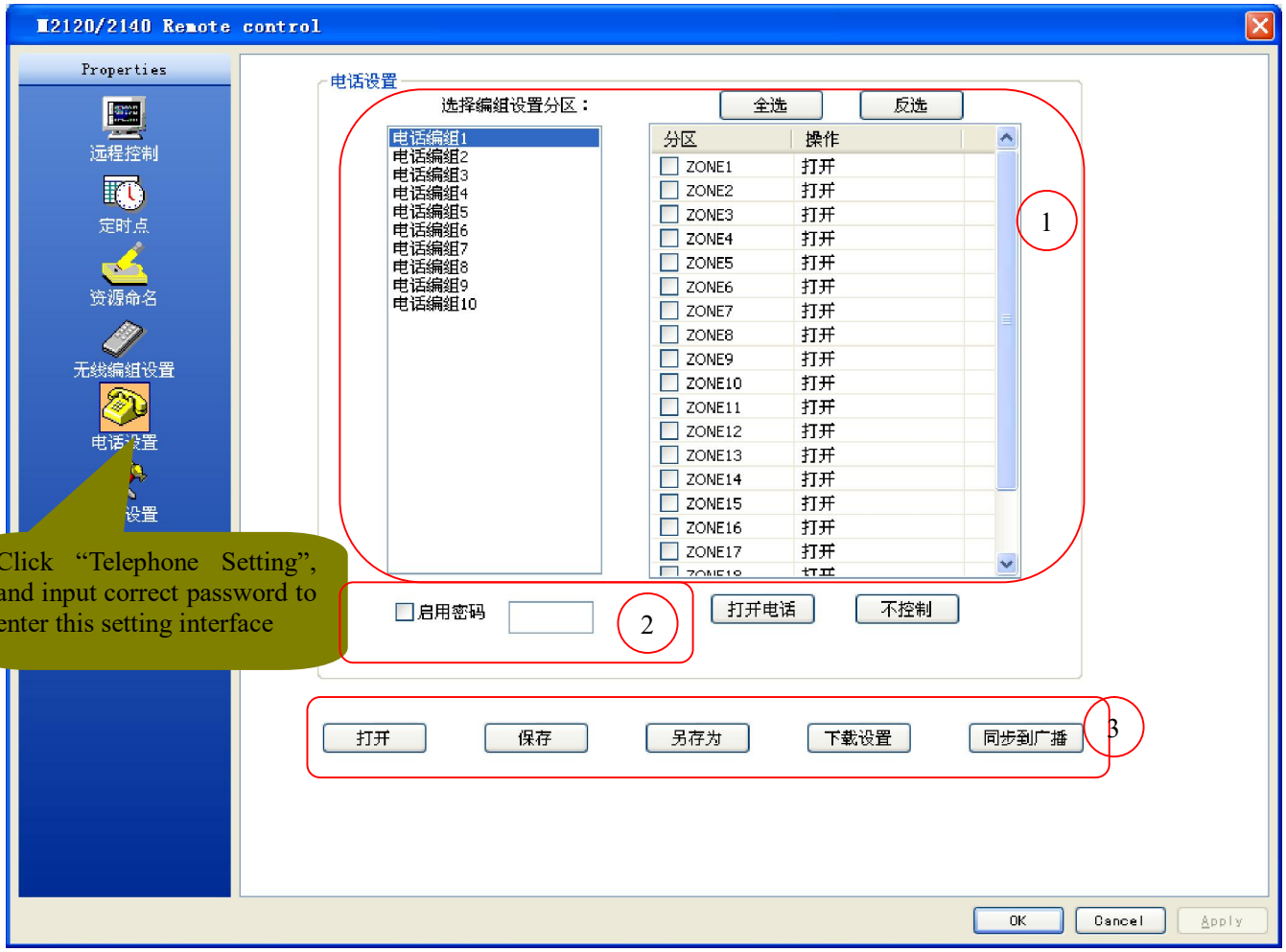
As indicated by the icon, wireless grouping falls into 3 steps:

① Select remote control key for setting.

② Display selected information on remote control key for direct setting on such interfaces.

③ Use such buttons to realize such functions as backup, recovery and synchronization once all wireless groups are edited.

Telephone Setting



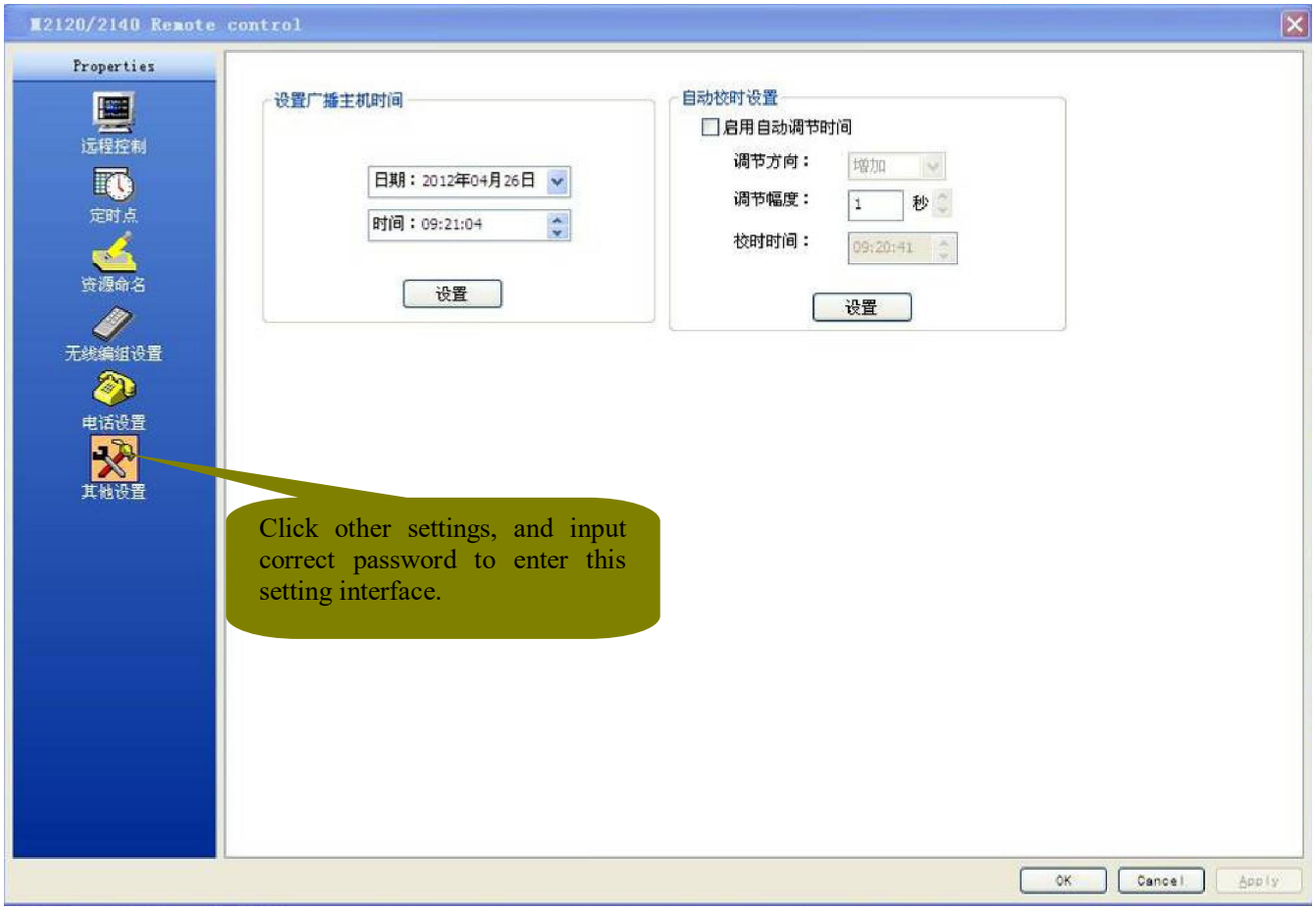
As shown in the figure:

①This zone is for telephone grouping setting. Click grouping list to select corresponding group for setting, and then click zone list setting to see if it has been opened.

②This zone is for setting of telephone password. It is applicable to set password and forbidden/invocation password.

③This zone is for saving, open and synchronization of edited settings to the mainframe. Click such buttons to realize this function.

Other Settings



Once “Auto Calibration” function is selected, broadcasting mainframe will proceed with auto time calibration with computer installed with this software. It is also applicable to select manual adjustment of system time in addition to auto time calibration.

2. Remote Control Software for Android System

1. Installation

1.1 Installation File

Any user having purchased micro intelligent remote control software can find the file entitled “micro intelligent mobile phone installation pack.apk” in the CD (“micro intelligent tablet installation pack.apk for Android system tablet). This file can be uploaded to the Android mobile phone (tablet) through USB or in other modes.

1.2 System Requirements

As tested, the software can support mobile phone system (tablet above version 3.0) above Android 2.1. Please do not hesitate to contact use, and indicate mobile phone model and system version if your mobile phone (tablet) is not compatible with this software.

1.3 Installation Procedures

Open the installation file entitled “micro intelligent mobile phone installation pack.apk” on the mobile phone (tablet) to enter the following interface. Click installation button for installation. Be sure to click “Open” button after network setting upon completion of installation.

2. Network Setting

It is applicable to control micro intelligent mainframe through WIFI and 3G network. As requested by 3G network, any user should have a IP for static public network as distributed by network supplier. However, dynamically distributed IP such as ADSL is not applicable. Please contact relevant network administrators.

2.1 WIFI Control

2.1.1 Equipment Requirements

Android mobile phone (Android system tablet), micro intelligent mainframe and wireless router.

2.1.2 Setting Methods

（1）Refer to operation instructions for micro intelligent mainframe, and click IP setting button on the system setting interface to enter mainframe IP address setting interface. Properly set IP address and remote control port of micro intelligent mainframe. For instance, IP address and port of the mainframe can be set as 为 192.168.1.211 and 8001 respectively.

（2）Connect mainframe with network of wireless router.

（3）Open WIFI on the mobile phone (tablet), and make sure that IP addresses of the mobile phone and micro intelligent mainframe are on the same network section. For instance, mobile phone can be set as 192.168.1. 2.

2.2 Control via 3G Internet

（1） Connect micro intelligent mainframe with LAN, and properly set IP address and remote control port. For instance, IP address and port of the mainframe can be set as 为 192.168.1.211 and 8001 respectively.

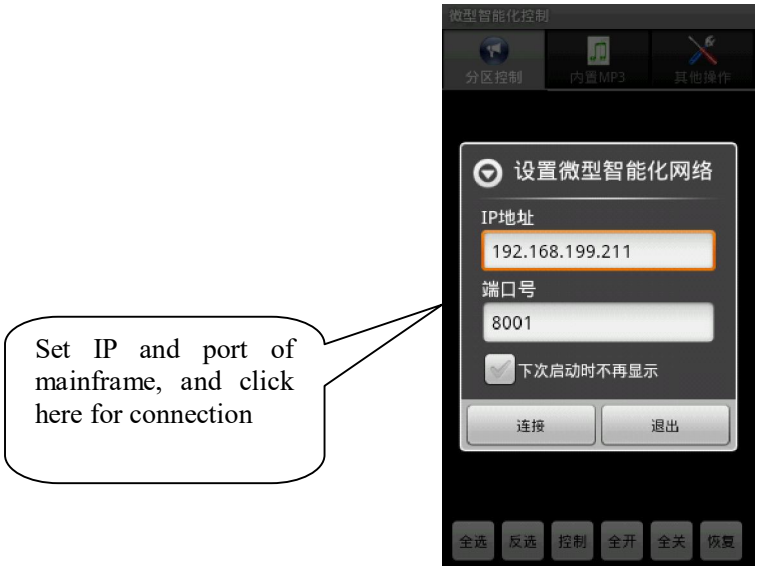
（2）Map IP address and network port of micro intelligent mainframe to the router. For instance, set service port number on the dummy server of the router as per IP address and port as set in (1): 8001, IP address: 192.168.1.111, protocol: ALL, status: valid. See the following figure.

（3）Make sure that 3G mobile phone network is unobstructed.

2.3 Software Operation Instructions

2.3.1 Android Mobile Phone Software

1) Open the software to enter the interface as shown in the following figure. Any user may set IP address according to network configuration on this interface.



A. Any user using WIFI control is only requested to fill in IP and control port of micro intelligent host computer.

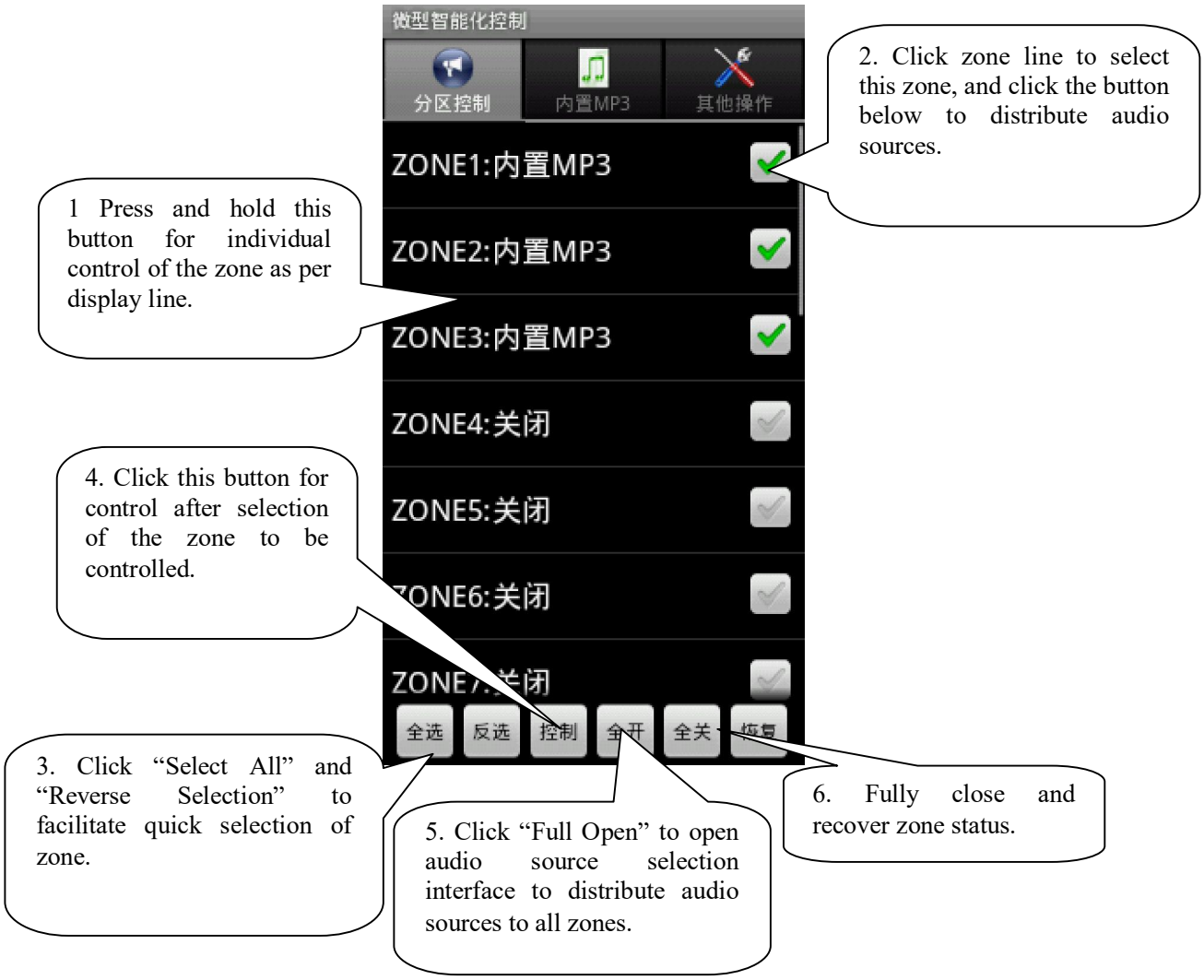
B. Any user using 3G Internet control is only requested to fill in IP address and service port number of the router.

2）Once micro intelligent network is properly set, click the connection button to enter the following interface, and wait for connection. It is applicable to reset IP and control port of the host computer by clicking network setting button.

3） This software requires registration when it is used for the first time after connection. Input serial number in the serial number block as shown in the following figure to complete registration. It is applicable to obtain the serial number from the CD or host computer.

4) Enter the control interface after successful operation of the software. This interface is as shown in the following figure, which includes three interfaces, namely zone control, built-in MP3 and other operations. Click "Zone Control" button to enter zone control interface.

1. Zone Contorl Interface

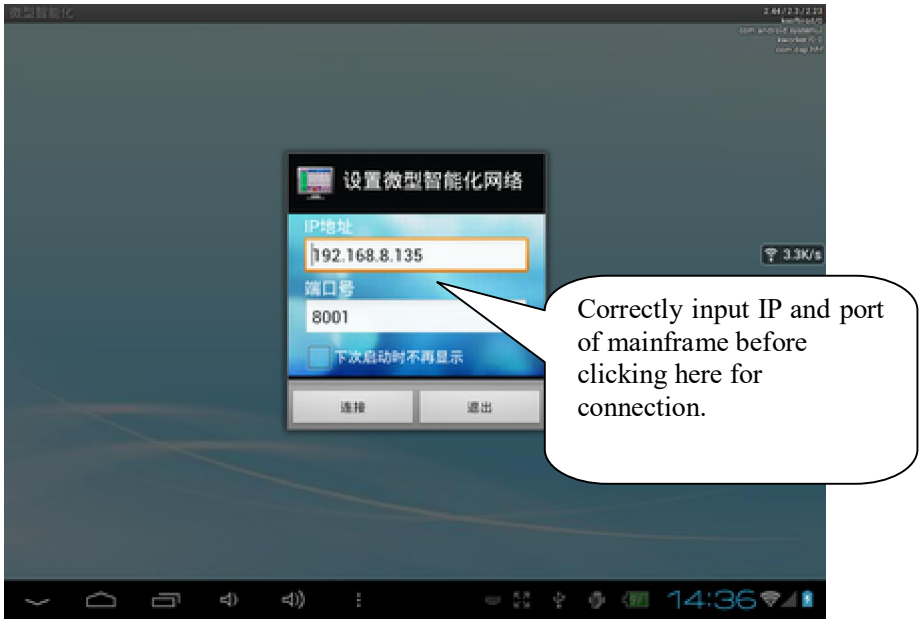


2. Control Interface for Built-in MP3

3. Other setting interfaces:

2.3.2 Android Tablet Software

1) Open the software to enter the interface as shown in the following figure. Any user may set IP address according to network configuration on this interface.



A. Any user using WIFI control is only requested to fill in IP and control port of micro intelligent host computer.

B. Any user using 3G Internet control is only requested to fill in IP address and service port number of the router.

2）Once micro intelligent network is properly set, click the connection button to enter the following interface, and wait for connection. It is applicable to reset IP and control port of the host computer by clicking network setting button.

3）This software requires registration when it is used for the first time after connection. Input serial number in the serial number block as shown in the following figure to complete registration. It is applicable to obtain the serial number from the CD or host computer.

4) Enter the control interface as shown in the following figure following successful operation of the software:

1. Remote Control

1. Click setting option for switchover to different functional modules.

6. Zone control: Click the button to load selected audio source at the designated zone.

Click this button to select audio source.

3. Power on/off button

4. Manual and programm

5. Zone full open/close control

2. Built-in MP3

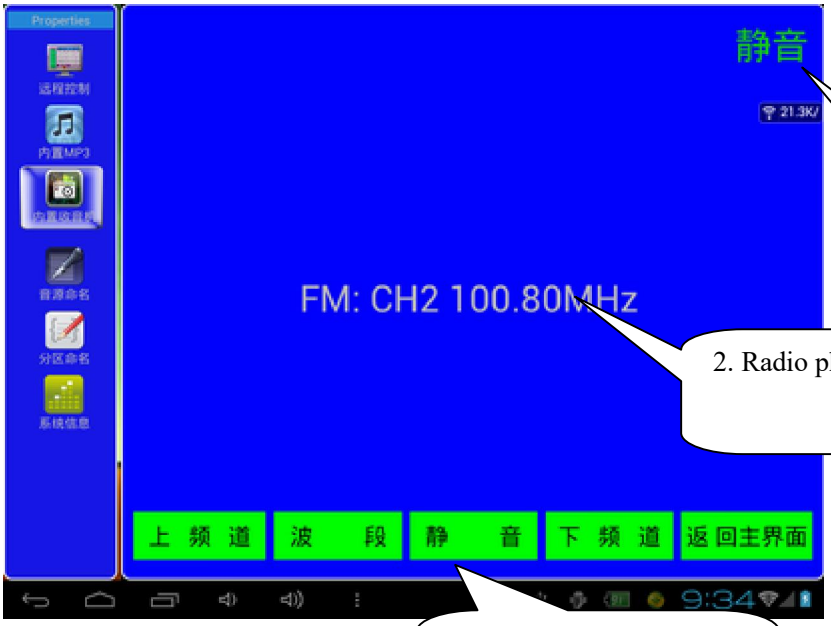
2. Song is being played.

1.点击选择歌曲目录

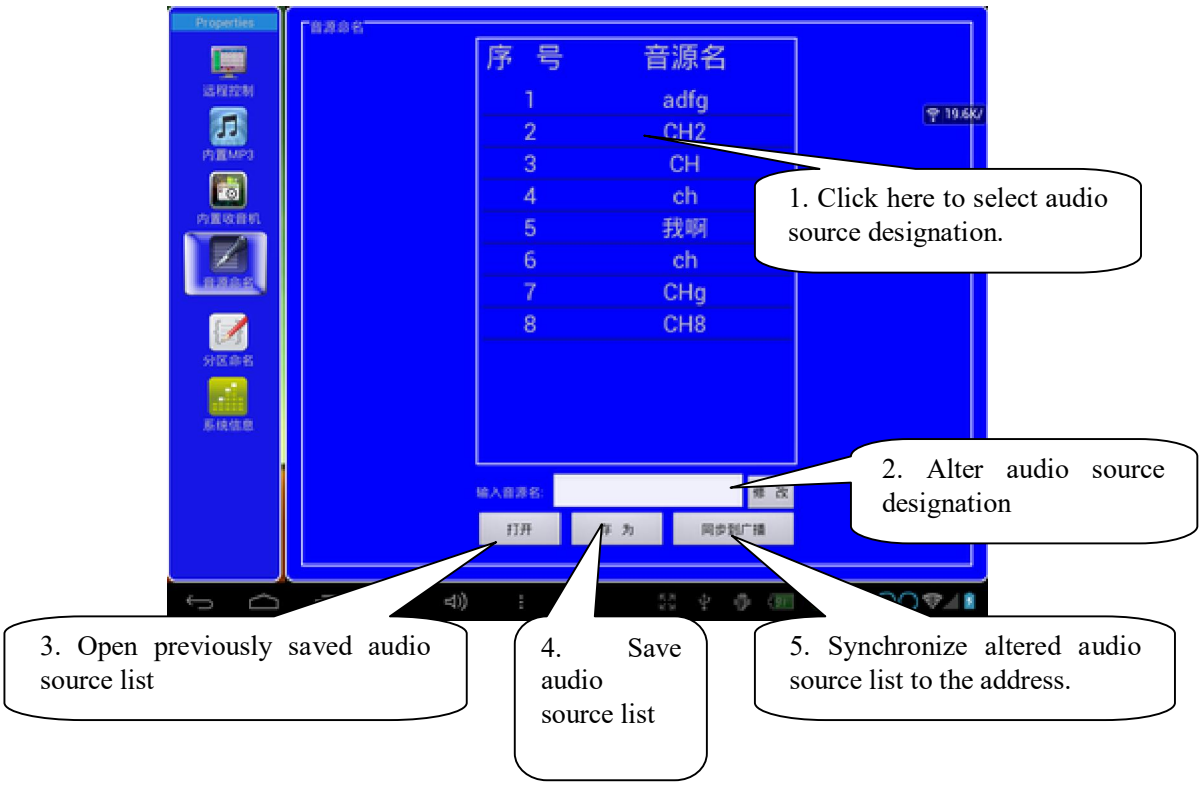
3. Click selected song, and press and hold this button for play

4. Song play control zone

3. Built-in Radio



4. Nomination of Audio Sources



5. Zone Nomination