

Beyondfire Wireless Ignition System

OPERATION MANUAL

V1.2

Hunan Beyondfire Technologies Co.,Ltd.



★Please read this manual carefully before use.

★ The warranty card is included in this manual. Please keep it properly.

Safety Tips:

1) This product should pay attention to the use of moisture-proof, waterproof, and the safety distance should be controlled at more than 2 feet from fireworks and firecrackers, prohibited burning and suitable for personal consumption.

2) This product contains sharp parts and high temperature heating parts, so please avoid accidental injury caused by the wrong operation of minors.

Notes:

1) This product uses 1.5V AA alkaline batteries. Please do not leave it outside for a long time in low temperature. Please shut it down when not in use.

2) The copyright of products and related products belongs to Hunan Beyondfire Technologies Co., Ltd.

3) The company reserves the right to modify the user manual without prior notice. For the latest version of the relevant documents, please visit <u>www.beyondfire.com</u> to obtain!



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Brief product introduction

People like to set off fireworks in festivals, celebrations and grand evening parties. There are many kinds of fireworks with increasing power. If fireworks are set off by manual operation, it is not safe for operators. Moreover, it is difficult to achieve a good discharge effect if multiple fireworks are set off at the same time. Beyondfire wireless ignition system is a wireless discharge control system developed by Beyondfire Technologies for the users of household consumer fireworks.

Beyondfire wireless ignition system aims at the problem of fireworks discharge, enabling operators to have no direct contact with fireworks through special apps on mobile devices such as mobile phones and ipads. It makes music programming of discharge sequence and discharge delay for each fireworks unit in small fireworks discharge. The prepared music discharge program is downloaded to the wireless FirePoint of each fireworks unit in a wireless way, and then through the discharge command on the APP, each fireworks unit is controlled to discharge in a music rhythm sequence.



2 System frame diagram

The wireless ignition system for fireworks of Beyondfire consists of mobile devices, FireMaster, FirePoint and ignition heads. Mobile devices can use personal phones or tablet computers that support bluetooth V4.2 or above. You need to install Beyondfire special control APP provided by the company. The entire fireworks discharge control system is composed as shown in the figure below.



3 Specification and parameters

• The effective communication distance between FireMaster and FirePoint can reach

50 meters, and the maximum distance in open water can reach 400 meters.

- The effective communication distance between mobile device and FireMaster is about 10 meters.
- The max connecting number of FirePoint is 30 and it can connect 90 fireworks.
- 4 LR6 AA 1.5V alkaline batteries are used in the terminal; standby current < 50mA.
- Arc ignition head and DC3.5 adapter plug are optional, compatible with traditional electronic ignition head.

4 Initialization setting

- 4.1 The operating steps of modifying initial ID
- FireMaster and FirePoint are wireless 2.4g emission modules. Each wireless module must have its own unique ID, but the factory setting is the same ID.The factory ID of FireMaster is 100, and the factory ID of FirePoint is 99.The new device that the user just purchased cannot be used directly. The user must first reset the ID of the device as the following steps to use it.
- Visit www.beyondfire.com to download and install the Beyondfire APP on an Android[™] or Apple[®] portable wireless device. The APP will need access to the phone's associative function during installation. Please select allow.
- 2) Open the battery cover plate at the bottom of the FireMaster and install four 1.5v AA alkaline batteries. Pay attention to the polarity of the batteries. After confirming the correct installation, install the battery cover plate.



- 3) Long press the POWER key of FireMaster panel for 2 seconds, and the POWER indicator light is bright red, and then enter the power-on state.
- 4) Check the LOCK switch of the FireMaster panel, and put the switch in the OFF position, and LOCK LED indicator is in the OFF state.
- 5) Open the battery cover plate at the bottom of the FirePoint and install four 1.5v AA alkaline batteries. Pay attention to the polarity of the batteries. After confirming the correct installation, install the battery cover plate.
- 6)Long press the POWER key of FirePoint panel for 2 seconds, and the POWER indicator light is bright red, and then enter the power-on state.

Note: In order to ensure the ignition safety when setting off fireworks, the FirePoint program is designed with the function of self-check ignition channel fault. The self-check function is established to enter the program self-check under the condition that the ignition head is not connected when starting up.The access of ignition head before starting up will cause the program to do no fault detection on the current ignition channel. It is recommended that users do not connect the ignition head with FirePoint when starting up the FirePoint. Connect the ignition head with the FirePoint after the completion of self-inspection.

- 7) Turn on the bluetooth function of the mobile device. Open the BeyondFire APP and connect the FireMaster device by the APP bluetooth.
- 8) Refer to the part 5.4 of operation manual of mobile device APP, and modify the FireMaster ID to 3-digit number (101-600). Then modify the FirePoint ID to the digit number(1-98), and mark the ID serial number on the FirePoint device.
- 9) Turn on the next FirePoint device without setting ID, and enter the Firing Device interface of APP terminal. Then click SEARCH to refresh the online device, and set a new ID for FirePoint device with ID no. 99. Each FirePoint device must be set a different ID. It is recommended that the user select a number between 1 and 98 and set it in order.

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- 10) Repeat step 9 to complete setting all FirePoint device IDs in turn.
- 11) Enter the Firing Device interface at the APP terminal of mobile devices to click SEARCH, and all FirePoint devices that have been started will be displayed on the interface. If you encounter devices that fail to SEARCH successfully, please reset the FirePoint ID according to steps 8 and 9.

Note: After setting the ID of the FirePoint device, if it needs to be reset, the FirePoint device must be restored to factory settings before it can be reset. Please refer to the following section "equipment restored to factory settings" for the operation of restoring factory settings.

4.2 Restore factory settings

- FirePoint equipment: After starting up for 15 seconds, long press the Power button for 2 seconds, the 3 green lights of the ignition head channel 1-3 are in flashing state.
 Press the Power button again within 5 seconds to confirm, and the green LED flashes out in sequence of 3-2-1, indicating that the factory settings have been restored successfully.
- 2) FireMaster equipment: Within 15 seconds after starting up, long press the Power button for 2 seconds, and the digital tube shows that P1 character is in flashing state. Press the Power button again within 5 seconds to confirm, and the digital tube displays P2 characters for 2 seconds and then goes out, indicating that factory settings have been restored successfully.
- 3) After the devices are restored to factory settings, the ID shall be reset before normal use.



5 The operating instructions of mobile APP

- 5.1 APP running environment
- Visit www.beyondfire.com, download and install Beyondfire application on Android[™] or Apple[®] devices, and the use of APP needs to open: bluetooth, location, storage read and write rights.

Note: Android version of the APP is running on mobile phones based on Android platform (system above 6.0).

Apple version of the APP is running on iphones based on IOS platform (system above 10.0).

- As for operating instructions on Beyondfire application, please refer to the "?" Help documentation in the upper right corner of the main interface of the APP. For more details, visit www.beyondfire.com to obtain.
- 3) APP operation steps:



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5.2 Fireworks management

5.2.1 Entry page

Open the APP, click "Manager Fireworks" on the main page of the APP, and enter the page of fireworks management .



5.2.2 Add a firework

In the page of "Manager Fireworks", click "+" in the upper right corner to pop up the page of "Add a firework".





Input the name, lead and duration of the firework, and click OK to complete the work of adding a firework.



Note: the name of the fireworks can not be empty and lead time is 0-13 seconds.



5.2.3 Modify fireworks

In the page of "Manager Fireworks", click the page of fireworks, and select "Edit" from the popup menu to modify the fireworks. You can modify the name, duration and lead time of the fireworks.

| firework1 |
|-----------|
| Edit |
| Delete |

Note: fireworks modifications will not be synchronized to the music discharge project.

5.2.4 Delete fireworks

In the page of "Manager Fireworks", click the page of fireworks, and select "Delete" from the popup menu to delete the fireworks.

5.3 Connection of FireMaster

Open the APP, and click "Firing Setting" on the main page of the APP, and then the page of FireMaster connection can be entered.



The page will show all bluetooth devices searched by the phone, and click the connect

option whe right side of the bluetooth device, and the APP starts to connect the FireMaster. After successful connection, the FireMaster's power level, version and the

number of FirePoint will be displayed. When you need disconnect, click disconnect







Pull down to refresh if you need to research.



Note: once the APP connects to the FireMaster, it will actively inquire the status of the FireMaster and FirePoint. If the reply fails, it will assume that the bluetooth device is not the FireMaster and will actively disconnect the connection.

The APP successfully connects to the FireMaster, and it entered the control page.



Note: the IOS version of the APP has no "Import Show" function.



5.4 Fire setting

5.4.1 Entry page

In the control page, Click "Device Setting" to enter the ignition configuration page. The current FireMaster and all FirePoint are displayed in the page. If the number of FirePoint is wrong, click "Search" to search the FirePoint.



5.4.2 Modify ID

Click "FireMaster" to edit its name and ID. If the FireMaster ID is not 100, it means that the FireMaster has been configured and the APP does not support modification. If modification is needed, please restore the FireMaster to factory settings first. After the modification of FireMaster name is completed, disconnect and reconnect to see that the name has been modified.



Click "FirePoint" to modify its ID.





5.4.3 View history

Click the "History" in the upper right corner to view the history configuration details, including the time, the name and ID of the FireMaster, and the ID of the FirePoint.



5.5 Manual firing

5.5.1 Entry page

In the control page, click "Manual Firing" to enter the Manual Firing page.

In Manual Firing page, its titled name is FireMaster. The page displays all the

FirePoint.Click " in the upper right corner to search the FirePoint again.

In the pane of FirePoint, the ID, power and signal of FirePoint are on the left. The port 1-3 is on the right. Among them, Omeans not inserted, Omeans state of failure, Omeans inserted but not configured, Omeans configured, Omeans the lead has been ignited, Omeans already ignited, Omeans the discharge is over.





5.5.2 Port configuration in Manual Firing mode

Click the ignition terminal area to enter the corresponding terminal device port configuration page. The page displays port 1-3 configuration data, including port status, fireworks type, lead time, start(ignition) time and duration of fireworks. Click the sub-item of port to configure .Failure state or not inserted port, click no response.

| ¢., | Device 16 | | | |
|------|-----------|---|----------|----------|
| Port | | | | Duration |
| 01 | | | | ; |
| 2 | | | | ; |
| O 3 | - | : | <u>-</u> | |

Click the port fireworks data item, and all fireworks will pop up at the bottom of the page. Fireworks can be configured or created new fireworks.



Select the Fireworks, it will automatically synchronize the lead time and duration of fireworks to the port, and the default ignition time is 00:05.

| ¢. | Device 16 | | | |
|------|-----------|------|------|------|
| Port | | | | |
| 1 | 💷 firew | 0:01 | 0:05 | 0:15 |
| 0 2 | | | | |
| О 3 | | | | |

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If the firework data has been configured, click "CLEAR" on the left side of the popup to clear the firework.



Long press the port fireworks data item, and the fireworks data can be synchronized to other ports of the equipment.

| sync firework to oth | ner port |
|----------------------|----------|
| cancol | ok |

Click the port lead data item, and the page will pop up the scroll window, then the lead time can be configured and the range is 0-13 seconds.

| Cancel | Lead Time | Ok |
|--------|-----------|----|
| | second | |
| | 12 | |
| | | |
| | | |

Long press the port lead time data item, and the data of lead time can be synchronized to other ports of the device.





Click the port start data item to pop up the time selection window, which can be configured with the time of ignition.

| Cancel | Start Time | Ok |
|--------|------------|--------|
| minute | | second |
| | | 14 |
| | | |
| 01 | | 16 |

Long press the port start data item, and the data of lead time can be synchronized to other ports of the device.



Click the port duration data item, and a time selection window will pop up to configure the time of duration.

| Cancel | Duration | Ok |
|--------|----------|--------|
| minute | | second |
| | | 24 |
| 00 | | |
| 01 | | 26 |

Long press the port duration data item, and the data of lead time can be synchronized to other ports of the device.





Note: the ignition time of the port is the start time minus the lead time. The ignition time of the port in the same FirePoint should be at least 4 seconds apart, and the start time of the port should be greater than the lead time. When returning to the control interface from the port configuration page, these two requirements will be automatically checked.

| - Kr | | Device | 8 | |
|------|--|---------------|------------------|----------|
| Por | | | | Duration |
| 01 | | | | -: |
| 0 2 | | 0:05 | 0:01 | 0:00 |
| 03 | | 0:05 | 0:05 | 0:00 |
| | | | | |
| | | NOTIC | E | |
| | Port2: the lead time | start time sh | ould be later ti | nan |
| | | ok | | |
| Port | Fireworks | Lead Time | Start Time | Duration |
| | 💷 firew | 0:01 | 0:05 | 0:15 |
| | | 0:01 | 0:07 | 0:25 |
| | | | | |
| | | | | |
| | | ΝΟΤΙΟ | E | |
| s | Port1 and Port2 should be apart at least 4 seconds | | | |
| | | ok | | |



| ¢ | | Device | 8 | |
|--|--|--------|------|------|
| Port | | | | |
| O 1 | | | | |
| 2 | | 0:05 | 0:06 | 0:00 |
| 3 | | 0:05 | 0:05 | 0:00 |
| | | | | |
| | | NOTIC | Е | |
| Port2 and Port3 should be apart at least 4 seconds | | | | |
| | | ok | | |

5.5.3 Ignite fireworks

Click the "down" button at the bottom of the page, and the APP will count all the ignition points and sort them according to the ignition time, so as to issue the ignition point sequence.

| download | clear | firing |
|----------|-------|--------|
| | | |

Click "clear" to clear the ignition point sequence after it is issued successfully or when the discharge is paused.

After the ignition sequence is successfully issued, click "firing" to issue discharge order and start timing discharge.



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After the device enters the discharge state, the discharge time and discharge port number are displayed. Click pause or press the "Pause" button on the FireMaster to pause the discharge.



After the device is paused, click continue, or press the Pause button of the FireMaster to continue.

| | 0:13 - 0:21 | |
|-------|-------------|----------|
| clear | 2/4 | continue |
| | 2, 1 | |

After discharge, the APP returns to the initial state.

5.6 Music discharge

5.6.1 View project

After completing the connection of FireMaster, click the FireMaster to enter the control page.

If the FireMaster is not connected, click "SKIP" at the upper right corner of the "Select Device" page to enter the project page.





5.6.2 Export and delete

The list of projects is displayed. Click the file icon \square of the list, and the project files can be exported. The default export path is:/ internal storage /firing. Click delete icon \bigotimes , and the project can be deleted.

The contents of the exported file are as follows:

| 14 | | | | - | 1 2 1 | 1 | <u> </u> | | |
|----|-------|-----------|----------------|---------------|----------------|--------------|-------------|---------------|---------------|
| | id | show name | effective time | song name | song file | version | | | |
| ľ | 8 | New Show | 2:44 | Bach_Suite.mp | 3 . #;≠ | | | | |
| | index | lead time | start time | duration | device address | port address | firework id | firework name | firework note |
| 1 | 1 | 0:05 | 0:13 | 0:00 | 12213 | 0 | | | |
| ľ | 2 | 0:05 | 0:28 | 0:00 | 12213 | 2 | | | |

Among them, show name is the project name; effective time is the project music time; song name is the project music name; and song file is the music file. The exported Excel table does not support opening music files.

Note: the music project is a read-only file, any changes will cause unrecognized.

5.6.3 Import project

Click "Import Show" in the control page to open/store/fire location, and the file names are listed out. Then click the file to import the project.

| Select Show | | | | |
|----------------|--|--|--|--|
| 🔁Back | | | | |
| 🗎 audio | | | | |
| 🗊 newshow4.xls | | | | |
| 🗊 show3.xls | | | | |
| 🗊 show5.xls | | | | |
| 🗊 wdhdh.xls | | | | |
| 目 | | | | |
| cancel | | | | |



Note: the IOS version of the APP does not have this function.

If the imported project name repeats, you will be prompted to rename the project.



Click OK to rename the music project.



5.6.4 Enter page

Click the project page "Create Show", you can enter the project editing page to create new project.



Click the project in the project list of the project page, as the above picture"New Show1", and you can enter the project editing page, automatically reading music file and displaying the ignition point. If the device corresponding to the ignition point is connected,

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it will be displayed as configuration state. If the corresponding device is not found, It will show as unconfigured.

5.6.5 Modify name

Click the icon "I" in the title bar to rename the project. Duplicate names are not allowed for projects in the APP.



5.6.6 Select audio

| | ₩ " | | | 🕉 🕻 🔲 11:59 | |
|---|-----------------|----------|------------|-------------|--------------------|
| | | New Show | | SAVE | |
| | | | | | |
| | | | | | 0 |
| | | | | | \bigtriangledown |
| F | Point » 🗄 Sor | ng Name | 🕑 🗌 Test 🛛 | 00.00 | |

In the edit page, click i and the music selection box pops up. Users can add a piece of music or select multiple audio files. The supported types of audio files are: mp3, wav, 3gpp, 3gp, amr, aac, m4a, ogg. If you choose more than one piece of music, it will be merged into a single piece of music, and then edit special effects.





Depending on the phone, it may take some time to connect the music. Please do not exit the current page before finishing editing.



After successful music file merge, it will automatically import and generate tracks.

| ᡂ " _{al} i 奈 | New Show 🗹 | ୀତ ೫ ■) 4:25 SAVE | |
|-----------------------|---|----------------------|--------------------|
| | | | 0 |
| Point » 0:00 | Adele - All I Ask.mp3 Adele - Hello.mp3 | 9:27 | \bigtriangledown |



Click to play or pause the audio file. Select Test to enter the Test mode. In the Test mode, the APP will simulate the lead, ignition and discharge over state of the ignition and will not send the actual ignition command to the FireMaster.

5.6.7 Edit ignition point

In the audio track page, click on the audio track at the position where you need to light it.



In the audio track page, hold down the figure below the ignition point, then select the ignition point, drag left and right to adjust the discharge time of the ignition point.

In the audio track page, hold down the figure below the ignition point, then select the ignition point, and slide upward to remove the ignition point.

Click the button in the lower left corner to switch the ignition page and the audio track page.



| ED ⁴⁶ .11 | <u>();</u> | | | | | 0* | =) 4:30 | |
|----------------------|------------|----------------|-----------------|----------------|------|--------------|-----------------|--------------------|
| | | | Ne | w Show | S | | SAVE | |
| | | | | | | | | |
| 1 | | | 0:05 | 0:33 | 0:00 | | × | |
| O 2 | | | 0:05 | 1:19 | 0:00 | | × | 0 |
| 🕑 з | | | 0:05 | 2:04 | 0:00 | | × | \bigtriangledown |
| « Way | 0:00 | • Adele - A | All I Ask.mp3 A | dele - Hello.n | np3 | 🕨 🗌 Test 🛛 👱 | 9:27 | |

In the ignition point page, the list displays the serial number of ignition point, associated device, fireworks, lead duration, start time, duration, and delete button. The modification operation of fireworks, lead duration, start time and duration is the same as Manual Firing page.

Click on the port fireworks data item, and all fireworks will pop up at the bottom of the page. You can configure fireworks or create new fireworks.



Horizontal screen display

Select fireworks and it will automatically synchronize the lead duration and duration of fireworks to the port.



| 80 ⁴ .1 | ((;; | | | | | 0 | \$ 🔳 4:46 | |
|--------------------|------|-------------|-----------------|----------------|----------|--------------|-----------|-----------------|
| | | | \$ | Show6 🗹 | | | SAVE | |
| | | | | Start Time | Duration | | | |
| O 2 | 30-3 | 💷 firework1 | 0:01 | 1:06 | 0:15 | | × | 0 |
| 🕚 з | 16-1 | 뺽 firework2 | 0:05 | 2:04 | 0:21 | | × | 0 |
| () 4 | 16-2 | | 0:05 | 2:22 | 0:00 | | × | \triangleleft |
| « Way | 0:00 | Adele - A | .II I Ask.mp3 A | dele - Hello.n | np3 | 🕞 🗌 Test 🛛 👱 | 9:27 | |

If fireworks data has been configured, click "CLEAR" on the upper left of the popover to clear the fireworks. If the user selects fireworks from the database and then changes the lead time or duration, the name of fireworks will be cancelled automatically.

Long press the fireworks data item on the port to synchronize the fireworks data to other ports of the device.



Click the data item of lead time on the port, and the page will pop up the scroll wheel window. Lead time can be configured, ranging from 0 to 13 seconds.



Long press the lead time data item of the port to synchronize the lead duration data to other ports of the device.





Click the data item of the start time on the port, and the window of choosing the start time will pop up on the page. The start time can also be configured, and the position of the corresponding ignition point will also be changed after the change.

| Cancel | Start Time | Ok |
|--------|------------|--------|
| minute | | second |
| | | 14 |
| | | |
| 01 | | 16 |

Click the port duration data item, and the page will pop up the duration selection window. Duration can be configured.

| Cancel | Duration | Ok |
|--------|----------|--------|
| minute | | second |
| | | 24 |
| | | |
| 01 | | 26 |

Long press the port duration data item to synchronize the duration data to other ports of the device.



Note that the igniting time of the port is the start time minus the lead time. The igniting time of the ports in the same FirePoint should be separated by at least 4 seconds. Meanwhile, the start time of the port should be greater than the lead time. App will automatically detect the above when the page is changed.

In the ignition point configuration page, click the device data item. If the FireMaster has been connected, the ports of the ignition FirePoint and ignition FirePoint will be displayed. The ports that have been configured will show "Linked", not allowed to configure. If the FireMaster is not connected, the associated device is not supported.

| Cancel FirePoin | nt & Port Ok |
|-----------------|--------------|
| FirePoint ID | Port |
| | |
| 30 | |
| 16 | 3 |

In the ignition point page, click the delete icon \bigotimes to delete the ignition point

5.6.8 Discharge





Click the issue icon and the APP will issue the ignition point sequence. If there is no configured ignition point when issuing, the APP will prompt to remove the unconfigured ignition point. Click the icon and the APP will issue the discharge command and play the music file at the same time.

Click the pause icon or press the PAUSE button the device to stop the fireworks ignition.

Click the continue icon or press the PAUSE button on the device to continue the fireworks ignition.



If you exit the page in the ignition state, the APP will first issue the pause instruction, and then issue the clear sequence instruction to exit the page.

The ignition point gray¹¹³ indicates unconfigured, green¹¹⁴ indicates configured, orange¹¹⁵ indicates lead fired, red¹¹⁶ indicates already ignited, and yellow¹¹⁶ indicates discharge over.



5.6.9 Save

In the upper right corner of the page, click SAVE to save the project. Before saving, the APP will check whether there is a duplicate name inside, otherwise it is forced to change the name.



When exiting the page, the APP also checks whether the project has been saved, otherwise it prompts whether to exit after saving.



6 The operating instructions of FireMaster

6.1 The function description of FireMaster panel



1) Unit

Carries an "External 2.4g Antenna".

2) Communication light

Mobile device communication working indicator light. After starting up, it will be always on. When the APP is connected successfully, it will enter a slow flash state.

3) Power indicator light

Stays in red mode after starting up. When the battery power is low, it flashes to remind you to replace the batteries.

- 4) 2 digital display module
- 5) Indicator light of "Lock Switch" and also indicator light of ignition "Safety Switch".
- 6) The "Lock Switch"

Its means functions is as a safety feature in preventing accidental ignition. When set to OFF state, it will lock the system from accidental ignition. While, Lock Switch does not affect APP to issue ignition command.

7) Ignition "FIRE" button

When the Lock switch moves to the ON position, the Lock switch indicator light will be ON. At this time, long press the Fire ignition button for 3 seconds above, and the digital tube displays FA, and the FireMaster will issue all ignition command. During normal running, please turn the Lock switch to the OFF position to avoid accidental ignition.

8) PAUSE button

During discharge, press it to pause.

9) SEARCH button

Short press this button then the number of connected FirePoint is displayed.

10) POWER button

Long press 2 seconds to start up, while short press to shut down.

11) The working indicator light of the wireless communication module of the equipment.

6.2 The battery installation of FireMaster





- Remove the bottom battery cover and place 4 1.5v AA type alkaline batteries. Pay attention to the positive and negative polarity of the battery, and the battery contact sheet has the negative electrode of the battery connected by spring, or refer to the direction of the pattern logo of the battery bin to put batteries.
- 2) After putting in the batteries, install the battery cover plate, and long press the POWER button 2S on the panel to start the device. If the battery cannot be started normally or the battery is obviously hot, please open the battery cover in time and take out the battery to check whether the positive and negative polarity of the battery is correct.
- 3) If you do not use this device for a long time, please take out the batteries and keep them properly.



The operating instructions of FirePoint

7.1 The function description of FirePoint panel





①External 2.4g antenna.

234 Corresponding to the 1-2-3 state indicator light of ignition channel.

If the ignition head is not connected or the heating wire of the ignition head is damaged, the lights will not be on. When the ignition head is connected, the light turns green; while in the state of ignition, it turns red.

⑤POWER button.

Long press 2 seconds to start up, while short press to shut down.When the battery is low, the light flashes to remind you to replace the batteries in time.

(6) (7) (8) Corresponding to the 3-2-1 channel DC block interface of the external ignition head.

When FireMaster issues the "FIRE ALL" command, If all 3 channels are connected with ignition heads, the ignition will be in the sequence of channel 1-channel 2-channel 3.

Hunan Beyondfire Technologies Co.,Ltd.



8 The operating instructions of fireworks discharge

8.1 The installation and operation of ignition head

The FirePoint device supports three types of ignition heads:

1) The ignition head of electric heating wire: the lead wire are fixed in the clamp self-compression mode, which is convenient for users to use. Just press the end of the clamp, and open the front mouth to put the lead wire, and release the end of the spring to automatically press the lead wire into the state to be ignited.



Note:

- Make sure the end of the green lead is placed in the center above the heating wire, otherwise it will affect the success rate of ignition.
- After each ignition, carbides and residues generated by lead combustion will be adhered to the heating wire. It is recommended that the user clean the residue on the heating plate with a fine brush after each ignition, otherwise the success rate of the next ignition will be affected.



2) The arc ignition head and the fixed lead are designed as the double-clip self-pressing mode, which is convenient for users to use. They only need to press the tail end of the clip, put in the lead, and release the tail end, then use the spring force to automatically compress the lead into the state of waiting for ignition.



Note: the clamping position of the lead must be close to the front of the arc ignition column in the center, and being too far away from the arc may not successfully ignite the lead.

3) The ignition head of traditional little red head must be connected through the optional accessory DC3.5 adapter, and the exposed copper wire shall not be short-circuited during connection, so as to avoid damage to the internal circuit of the equipment.





8.2 The operating discharge of APP

- 1) Place fireworks in an open area and arrange them according to the desired discharge sequence or effect.
- 2) Determine the number of FirePoint needed according to the amount of fireworks or discharge effect. Turn on the FirePoint and place it near the fireworks. Determine the position of FirePoint according to the length of the ignition head and the number of ignition head to be connected by a FirePoint.
- 3) Connect the ignition head to the DC socket interface of FirePoint.
- 4) Fix the lead of fireworks with the clip (shrapnel) of ignition head.
- 5) All the people should find the best position (<50 meters) to watch the fireworks beyond the safe distance from the fireworks. Turn on the FireMaster to press the "SEARCH" button, and the LED digital tube will display the number of FirePoint connected to it.
- 6) On the APP terminal of mobile device, open bluetooth to connect to FireMaster device, and edit the desired discharge effect by referring to the user manual of the APP.
- 7) Download the edited discharge sequence to the FireMaster device.
- 8) Click 'Firing' and immediately start to enjoy the wonderful images of various fireworks.



8.3 The manual operating discharge of FireMaster

- 1) Place fireworks in an open area and arrange them according to the desired discharge sequence or effect.
- 2) Determine the amount of FirePoint needed according to the number of fireworks.Turn on the FirePoint and place it near the fireworks.Determine the position of FirePoint according to the length of the ignition head and the number of ignition head to be connected by a FirePoint.
- 3) Connect the ignition head to the DC socket interface of FirePoint.
- 4) Fix the lead of fireworks with the clip (shrapnel) of ignition head.
- 5) All the people should find the best position (<50 meters) to watch the fireworks beyond the safe distance from the fireworks. Turn on the FireMaster to press the "SEARCH" button, and the LED digital tube will display the number of FirePoint connected to it.
- 6) Turn the "LOCK" switch of the FireMaster panel to "ON' position, and LOCK LED is bright red. Long press the "FIRE" key for 3 seconds, then the LED digital tube displays "FA", and issue all ignition commands. All FirePoint devices will be fired in sequence by ignition channel 1 → ignition channel 2 → ignition channel 3.



9 Troubleshooting

| Problems | Reasons | Solutions |
|---|--|--|
| The device can't start up | Incorrect installation of battery polarity Low battery | 1.Remove the batteries and install them correctly according to the positive and negative polarity of the battery compartment.2.Replace with new LR6 AA alkaline batteries. |
| After starting up, the power lamp flashes slowly | Low battery | Replace with new LR6 AA alkaline batteries. |
| After starting up, the power lamp flashes quickly | Wireless module data read failed | Restore factory settings, and reset the ID according to the initial ID modification steps. |
| FirePoint starts up and the green light flashes then it automatically shuts down. | FirePoint designs self-check function. When it detects the internal safety fault, it will automatically shut down and can not be used to ensure the safety of use. | The safety part of device is damaged, so please stop using it and send it to be repaired. |
| The FireMaster can not connect APP by bluetooth. | Bluetooth function of mobile device is not turned on. The mobile device is too far away from the FireMaster device, and the communication distance of bluetooth device is less than 10 meters. | Turn on bluetooth on your mobile device. Adjust the distance between the mobile device and the FireMaster device. |
| The FirePoint device is not connected or unstable. | The FirePoint device is far away from the FireMaster device. The communication distance between wireless devices is related to the surrounding environment. The communication distance is far in the open area without cover, but it is close in the covered area of surrounding buildings. The wireless communication of this device uses 2.4g frequency band. Too many other nearby devices using 2.4g frequency band will interfere with each other and affect the normal communication. | 1.Adjust the distance between FirePoint and the FireMaster device within 50 meters. 2.Turn off other 2.4g devices that may cause interference. Adjust the distance between the wireless ignition system and other 2.4g devices to avoid mutual interference. |
| The fireworks cannot be ignited successfully. | 1.The DC plug of ignition head is loose or not inserted in place. 2.The fireworks lead is not in contact with the heater or electric arc in place. 3.Check FirePoint's batteries must be LR6 alkaline. 4.Low battery 5.The heating sheet of heating wire ignition head adheres residue. | I.Insert the plug again. Readjust the center place between the lead and heating sheet or arc ignition column. Replace with new LR6 AA alkaline batteries. Clean the residue of the heating sheet. |



| 0 Modified record of version | | | | | | |
|------------------------------|---------|---------------------------------------|----------|--|--|--|
| Modified date | Version | Modifier | Verifier | Modified Content | | |
| 2019-08-15 | V1.0 | Tan Zhousheng Ma Shengke | | Primary version | | |
| 2019-12-18 | V1.1 | Tan Zhousheng Ma Shengke | | Improve details; APP version changes. | | |
| 2020-01-05 | V1.2 | Tan Zhousheng Ma Shengke Li Wei | | Optimize description; Add English version. | | |

11 Warranty instructions

▲ Sincerely thank you for choosing this product. As the customer of our company, you will get the high-quality after-sales service provided by our company.

▲ The warranty period of this product is one year. If there is any quality problem within seven days after leaving the factory, the company can guarantee the replacement of products of the same model.



▲ During the warranty period, due to the hardware failure caused by the product itself, the company will provide free maintenance services for customers. Please do not dismantle the machine to repair.

★Any of the following circumstances shall not be covered by the warranty service:

1.Damage caused by improper carrying, use, management and maintenance of users, or man-made damage;

2. The product has been dismantled, modified or repaired without authorization;

3.Damage caused by external causes (lightning strike, power supply, etc.);

4.Damage caused by incorrect installation or use by the user;

For the products not covered by the warranty, the maintenance services will be charged.

★When maintenance is required, please show the purchase certificate and warranty card, otherwise it will not be handled with.



Warranty card:

| Product name: | Sequence number: | | | | |
|--------------------------------|-------------------|--|--|--|--|
| Purchase date: | | | | | |
| Contact number: | | | | | |
| Address: | | | | | |
| | | | | | |
| | | | | | |
| Customer feedback information: | | | | | |
| Actual fault treatment: | Maintenance date: | | | | |
| Customer feedback information: | | | | | |
| Actual fault treatment: | Maintenance date: | | | | |
| Customer feedback information: | | | | | |
| Actual fault treatment: | Maintenance date: | | | | |