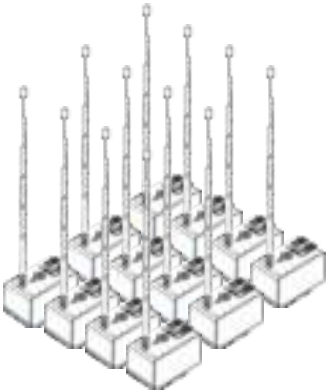
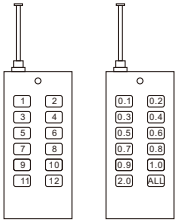




AlphaFire X Series (9th Generation)

User's Manual

rf remotech
Radio Frequency Remote Technology

Safe, Easy and Reliable,
With remote controllable service.

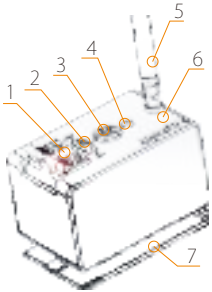
Contents

Warning!!!

A. The purpose of this device is to cause the ignition of fireworks. Fireworks are explosives and may cause personal injuries or death to yourself or others, including spectators. You are responsible for the safe and legal use of this device according to the laws and regulations of your country and/or state / province / district. RFRemotech is not responsible for illegal or unsafe use of this device. The buyer/user assumes all responsibility and liability in the use of this device and further agrees, by purchase and/or use of this device, to indemnify and hold harmless RFRemotech against all liability for injury, loss, or damage direct or consequential arising out of the use of, or inability to use this device.

B. If the marked LED Indicator above keeps turned RED but not dim red on whenever the rod of the 3-Position Switch is at OFF, SYNC-TEST or ARM, don't use the module any more, the unit will igniters randomly. It is dangerous and may do damage to body!

C. This equipment has been tested and found to comply with the limits for Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. -Consult the dealer or an experienced radio/TV technician for help.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.



A. Firing Module

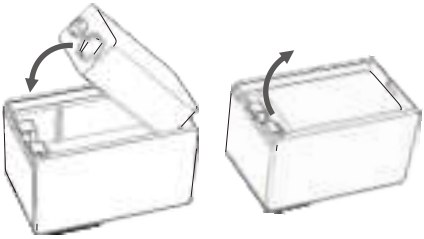
A1. Parts

1-**Wiring Terminals** for igniters / e-matches. Red for anode, black for cathode.
2-**3-Position Switch**, OFF / SYNC-TEST / ARM.
3-**SYNC Button**. Used for synchronization or deleting synchronization.
4-**LED Indicator**, two colors red and green.
5-**Antenna**, retractile and can be folded.
6-**Encloser**.
7-**Battery Cover**.

A2. Specification

Model No.: RF1XG9
Power: 1x 9V battery, 6LR61 or 6F22 or others
Firing Current: >750mA, Max.9A
Test Current: <1mA
Low Power Indication: 1 ohm, < 700mA
Sizes: L62xH46xW38mm, antenna is retractile and can be folded
Power / Low Power Indication, Firing Indication, RF Signal Indication, Overload Protection, Short Warning Indication

A3. How to Insert / Remove Battery



Insert Battery Remove Battery

A4. 3-Position Switch #2:

SYNC-TEST: To check if the connection of igniter / e-match is in good condition, see "Test" below, or press the SYNC-TEST button #3 to synchronize or delete transmitters.
ARM: Ready to fire igniter / e-match. There are 2 firing modes selectable. See "E. Two Firing Modes" below.

A5. Low Power Indication:

It is specially designed to check if the battery is powerful enough to fire an igniter. If the battery is too low, the DIM Red LED will blink. The checking result is just for reference. If users use a sensitive igniter, it can still fire though the Dim Red is blinking. On the contrary, If users use igniters which require more current to fire, though the Dim Red is not blinking, the firing will probably still fail.

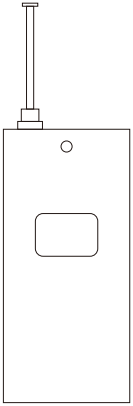
A6. LED Indicator #4:

Two Color LED-Red and Green.
Red-A heavy current is flowing out. It appears when 3-Position Switch #2 is at ARM and the module is firing or the module's circuit is short.
Dim Red-It appears when 3-Position Switch #2 is at SYNC-TEST position and no igniter is connected or the igniter is broken.
Blinking Dim Red-It appears when the power is checked low to fire an igniter.
Green-When 3-Position Switch #2 is at SYNC-TEST and the igniter is tested OK.
Blinking Green-The module is counting the firing sequence.
Orange-Red and Green are on in the same time, armed and ready to fire. It appears when 3-Position Switch #2 is at ARM.

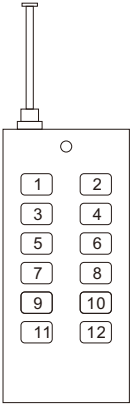
A7. Test

When the firing module is powered and an igniter is connected to Wiring Terminals #1, shift 3-Position Switch #2 to SYNC-TEST, LED Indicator #4 will be lit green, otherwise the igniter is broken or the wires are not connected well.
Only when the connection is tested OK, the igniter can fire successfully.

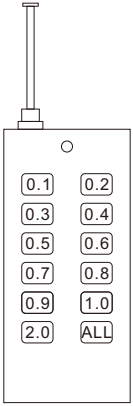
B. Transmitters / Remotes



Manual Firing
Transmitter A (1 button)



Manual Firing
Transmitter A (12 buttons)



Sequential Firing
Transmitter B

The transmitters / remotes need to be with the following features:
OOK Modulation;
433.92MHz;
Learning Code.

A firing module can work with 2 types of transmitter / remote:

B1. Transmitter A-Manual Firing Transmitter

Normally it is a 1, 2, 4 or 12 button device, every button can fire its matching firing modules. Buttons have numerals 1, 2, ⋯ , 12 or letters A, B, C, D respectively or blank.

B2. Transmitter B-Sequential Firing Transmitter:

It is a 12 button device, the buttons have marks 0.1, 0.2, ⋯ , 0.9, 1.0, 2.0 and ALL respectively, Button 0.1 can fire multiple firing modules one by one in interval time 0.1 second, Button 0.2 can fire in 0.2 seconds etc., when Button ALL is pressed, the interval time is zero.

C. Synchronization (SYNC)

C1. Before Synchronization

Users should be aware of the following information or do some operations like below.
It's better users do the step "Delete Synchronization" below in the firing module before synchronization.
Only when a transmitter / remote has already been synchronized to a firing module, the both can work together. If Transmitter B is synchronized but Transmitter A is not yet, the Transmitter B will not function.
A firing module can store codes of one Button of Transmitter A, one Transmitter B. If users synchronize the same type of transmitter / remote and button, the former transmitter / remote and button will be replaced.

C2. Synchronize Transmitter A

Shift the rod of 3-Position Switch #2 of the firing module from OFF to SYNC-TEST, press and don't release #3 SYNC-TEST button more than 3 seconds until LED Indicator #4 is lit, then press one button of Transmitter A within 3 seconds, LED Indicator #4 will blink twice and then go back to the state before doing SYNC, the button of the transmitter / remote is synchronized to the firing module successfully.

The button's numeral of the transmitter / remote is also remembered as the **Sequencing Number** when the module is implementing Sequential Firing.

C3. Synchronize Transmitter B

Shift the rod of 3-Position Switch #2 of the firing module from OFF to SYNC-TEST, press and don't release #3 SYNC-TEST button more than 3 seconds until LED Indicator #4 is lit, then press any button of Transmitter B within 3 seconds, LED Indicator #4 will blink twice and then go back to the state before doing SYNC, the transmitter / remote has been synchronized to the firing module successfully.

C4. Check Synchronization

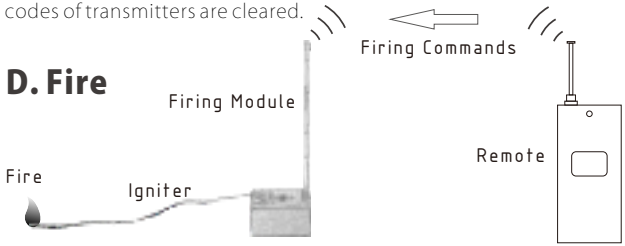
Shift the rod of 3-Position Switch #2 from OFF to SYNC-TEST,

1-If Button 5 of Transmitter A is already synchronized to the firing module, press Button 5 of the transmitter, the LED Indicator #4 will blink once. It indicates Button 5 is synchronized. The same with other buttons.

2-After the former step is done, press Button 0.7 of the synchronized Transmitter B, the LED Indicator #4 will blink 5 times in interval time 0.7 seconds. It indicates the Transmitter B is synchronized.

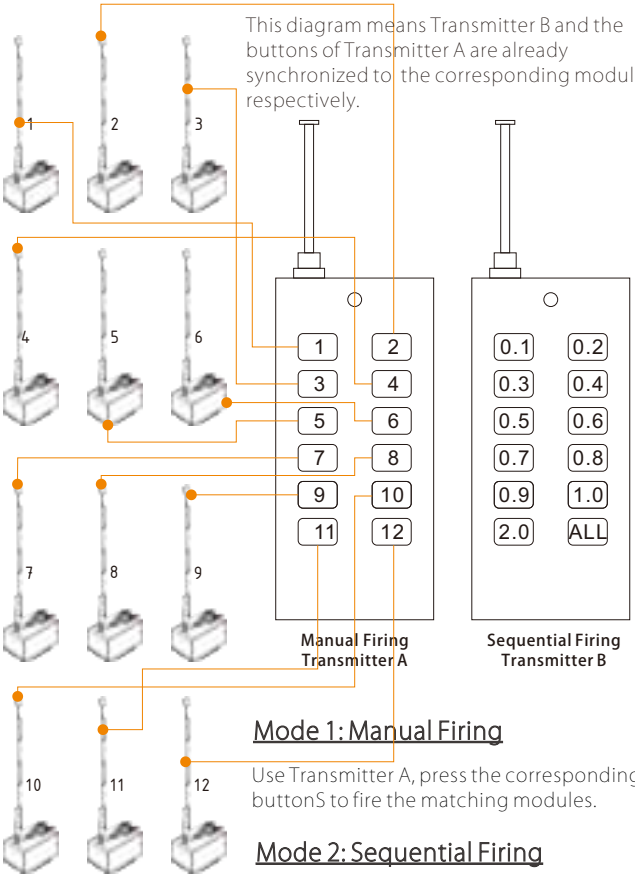
C5. Delete Synchronization

Shift the rod of 3-Position Switch #2 from OFF to SYNC-TEST , press and don't release button SYNC-TEST #3 more than 6 seconds, the LED Indicator #4 will be lit, don't release yet until the LED blinks twice and goes back to the state before pressing button SYNC-TEST #3, all stored codes of transmitters are cleared.



Before firing, you need to make sure following:

- Firing modules and transmitters / remotes are powered well, no one of them has Low Power.
  These units are already synchronized.
- Igniters are connected well and tested OK.
- The antennas of the modules and transmitters /
- remotes should be pulled and extended out.
  It's better if the firing modules are placed in the
- height 1.5m or more above the ground.
  The rod of 3-Position Switch #2 is at ARM.
- The distance from the transmitter / remote to the modules must be
- less than the ones marked on the transmitters / remotes, then more than 0.5m.



Mode 1: Manual Firing

Use Transmitter A, press the corresponding buttonS to fire the matching modules.

Mode 2: Sequential Firing

Use Transmitter B, press Button 0.1 to fire the matching modules at the corresponding Sequencing Numbers 1, 2, 3, ... in Interval Time 0.1s; Button 0.2 in Interval Time 0.2s, the same with other buttons.

Thanks for using RFRemotech products!

rf remotech
Radio Frequency Remote Technology

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