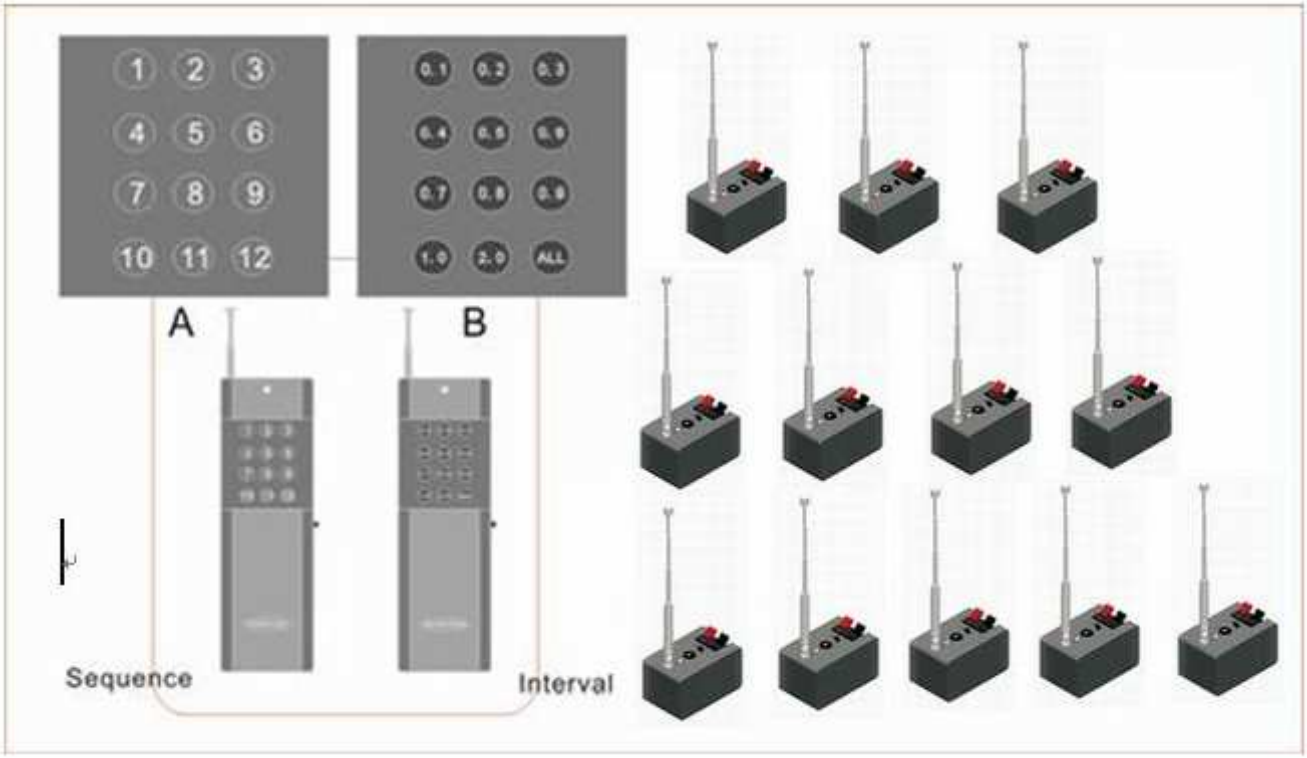
**Firing Module RF1A2**

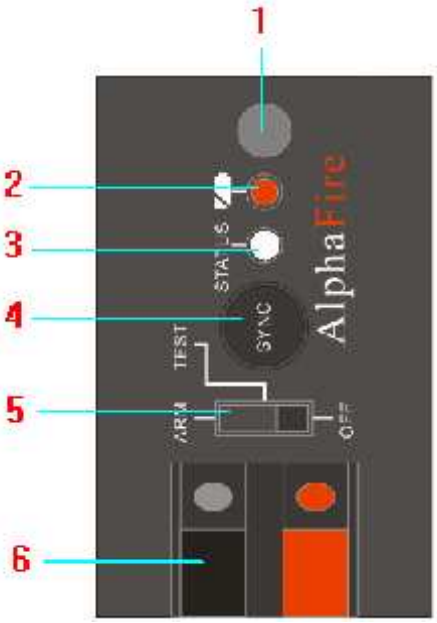
# User's Instruction




Cues can be activated in sequence with 12 intervals

RFRemotech Radio Frequency Remote Technology

Remote Control Products, Remote Controllable Service




## Warning!!!

1. Only the person who has Fireworks licence is allowed to purchase the product, or the person of whom there isn't fireworks purchase limitation in his/her country or district is allowed to purchase the product. RFRemotech/E-MadeinCHN is not with responsibility for any illegal usage.

2. If RED of LEARN/FIRE LED 3(left) keeps turned on though 3-position switch is OFF, don't use the receiver any more, the receiver will fire e-match or igniter without any operation. It is dangerous and may do damage to body! The light is visible through leaking out from the hole of 3-position switch.

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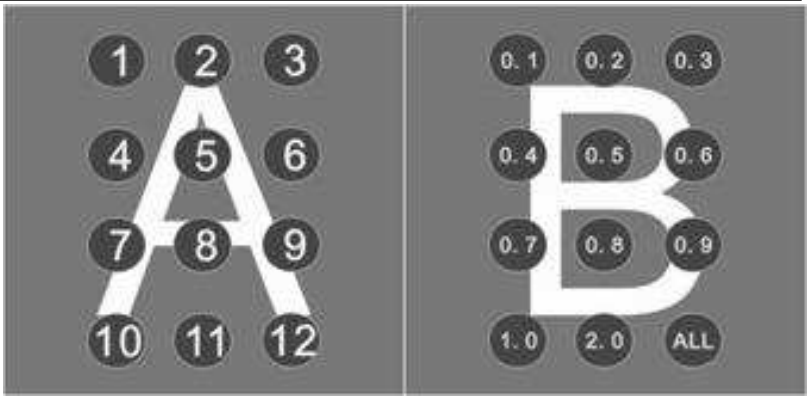
# Descriptions




Mode: OOK Wireless Radio
Type: Learning Code
Frequency: 433.92MHz
Cue: Max.12 cues
Interval: 0.1s, 0.2s, 0.3s, 0.4s, 0.5s, 0.6s, 0.7s, 0.8s, 0.9s, 1s, 2s, ALL.
Two transmitters, among transmitter A is for sequences setting and instan

transmitter B is for intervals setting and firing in sequence.

### 1. Transmitter:

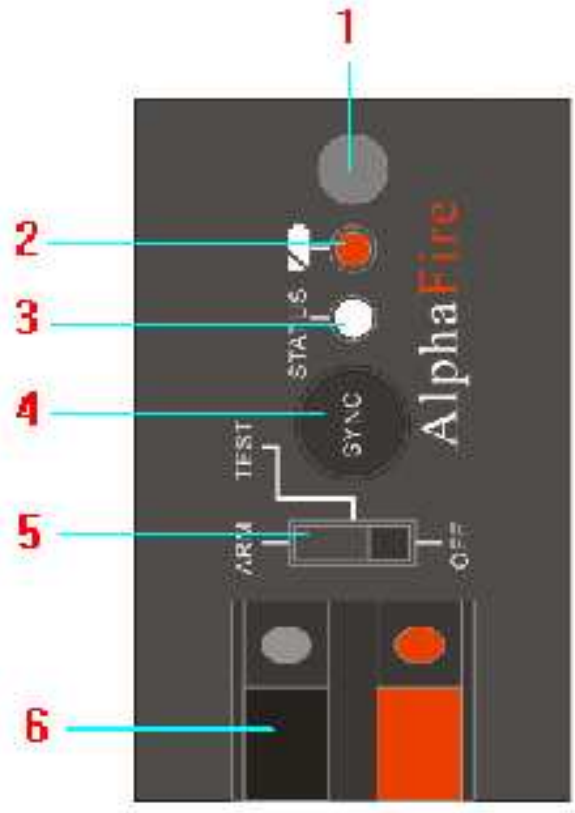
Model No.:
Transmitter A: TCL2000-12LN,
Transmitter B: TCL2000-12LNX
Power: 6F22 9V battery
Transmitting Range: 2000m

Model No.:
Transmitter A: TCF100-12LN (FCC/CE certified),
Transmitter B: TCF100-12LNX (FCC/CE certified)
Power: 23A 12V battery
Transmitting Range: 100m
The four transmitters are with ON/OFF switch, prevent buttons from misoperation

## 2.Receiver

Model No.:
Firing Module RF1A2,
Cue: 1 Cue
Power: 6LR61 9V battery
Firing current: >750mA, Max. 6000mA
Test current: <10mA
Sizes: 61x38x46mm, antenna is retractile and can be folded.

**1-**Antenna, retractile and can be folded.
**2-**Power/Low Power LED, red. Normally the LED is always on when 3-position switch is at ARM or TEST. When batteries are low, the LED blinks.
**3-**TEST LED/ LEARN/FIRE LED,dual colours yellow&red.
TEST LED:When exterior circuit is coherent, the LED is yellow; When exterior circuit is interrupted, the LED is off.
LEARN LED: When Yellow is on, ready is to learn code of transmitter, or is clearing code. When Red is on, terminals of receiver aresending or are to send heavy current, can fire igniter or e-match. See the following descriptions **Learn Code**.




**4-** LEARN Button. Only when 3-position switch is at ARM or TEST, LEARN button can work.
**5-**3-Position Switch, TEST-Test exterior circuit or learn code, OFF-Power is off, ARM-Receiver is armed to fire fireworks or learn code.
**6-**Fast Fastening Terminals.

# Before Use

**Put 6LR61 9V battery into battery enclosure.**

**Learn Code**

Receiver must learn code of transmitter button, so that transmitters will work with receiver together.

Only when Transmitter Ais learned by receivers, Transmitter B can be learned by the same receivers, otherwise Transmitter B is invalid.

**How to Learn Code of Transmitter A:**

Shift 3-position switch to ARM or TEST, keep depressing LEARN button more than 3 seconds to have YELLOW of LEARN/FIRE LED on, and then release LEARN button, press one of transmitter buttons within 3 seconds, LED will blink once and then be off, the button is learned by the receiver successfully.

**How to Learn Code of Transmitter B:**

When Transmitter A is learned by receiver successfully, have the receiver learn any button of Transmitter B according to the same steps as Transmitter A, Transmitter B will work with the receiver. You don't need to have all buttons of Transmitter B learned by the receiver.

Through learning Transmitter A, receivers will learn sequences number.

Through learning Transmitter B, receivers will learn intervals.

**How to Clear Code:** Shift 3-position switch to ARM or TEST, press LEARN button and don't release the button for more than 6 seconds until YELLOW of LEARN/FIRE LED blinks three times and then goes off, code is cleared.

**Warning: Only when no fireworks is connected, you can Learn Code or Clear Code!**

# How to Use

**1. Test**
To check if exterior circuit is coherent.
When an exterior circuit is connected, Shift 3-position switch to TEST, if TEST LED is on, it indicates the exterior circuit is coherent; If not, it indicates the exterior circuit is interrupted.

**2. Fire**
When exterior circuit is tested coherent, shift 3-position switch to ARM, press a button of Transmitter A or B, RED of LEARN/FIRE LED will blink once, firing current will be sent out.
**Please note,** in ARM status, receiver can be re-activated after 5 seconds.

For example:

1x Transmitter A TCL2000-12LN;
1x Transmitter B TCL2000-12LNX;
12x Receiver RF1A2: RX1, RX2, RX3, … , RX12.
Firstly have RX3 learn Button 3 of Transmitter A, and then have RX3 learn any button of Transmitter B, they will work like following,
Press Button 0.1 of Transmitter B, RX3 will fire after 0.1x(3-1)=0.2s;
Press Button 0.2 of Transmitter B, RX3 will fire after 0.2x(3-1)=0.4s;
Press Button 0.4 of Transmitter B, RX3 will fire after 0.4x(3-1)=0.8s;
Press Button ALL of Transmitter B, RX3 will fire instantly. Press Button 3 of Transmitter A, RX will fire instantly, But other buttons of Transmitter A cann't activate RX3.
The similar intervals with other buttons of Transmitter B.
The same with other receivers.

# Reference

Any number of receivers can be programmed to any of the buttons/cues, so a button/cue can fire multiple e-matches simultaneously.

Any other RFRemotech standard learning code transmitters can be used instead of Transmitter A TCL2000-12LN and TCF100-12LN.

Manufacturer: RFRemotech
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Http://www.RFRemotech.com
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NOTE: This equipment has been tested and found to comply with the limits for a 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.

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.

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.