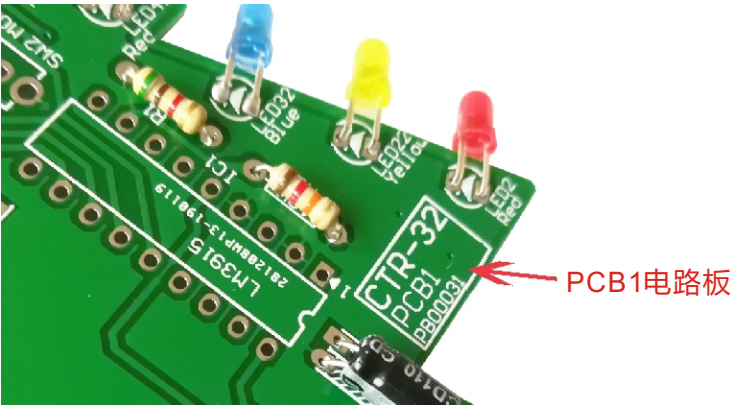


# CTR-32 Audio-controlled Christmas Tree Kit Installation Instructions

DeSi Electronic Products

Product number : PB00030

1. Install resistance to PCB1:  
Find a circuit board named PCB1 ,  
Then install R1 and R2



2. Install of LED

Bend the LED 90 degrees 90°, Then weld and install strictly according to the colour marked on the circuit board.

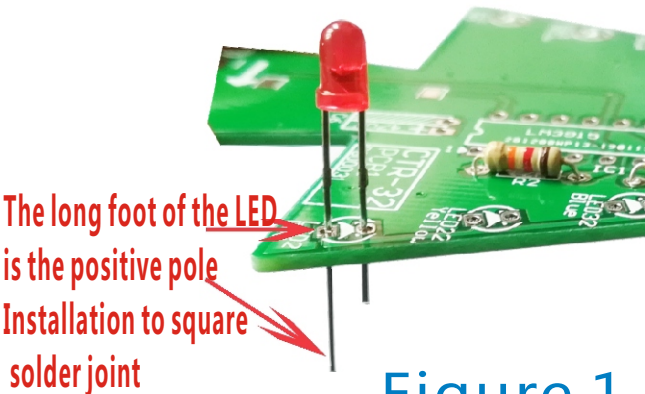


Figure 1

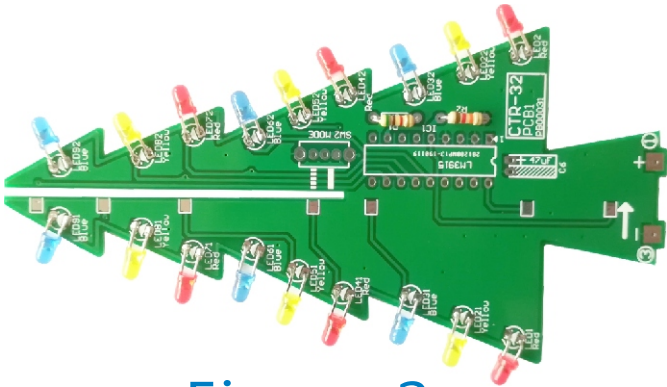
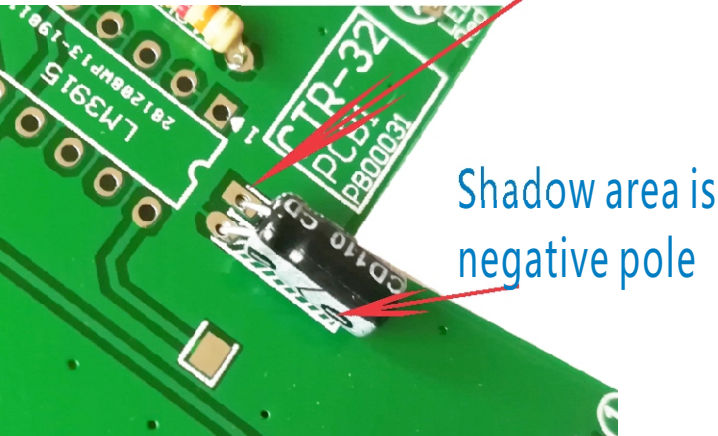


Figure 2

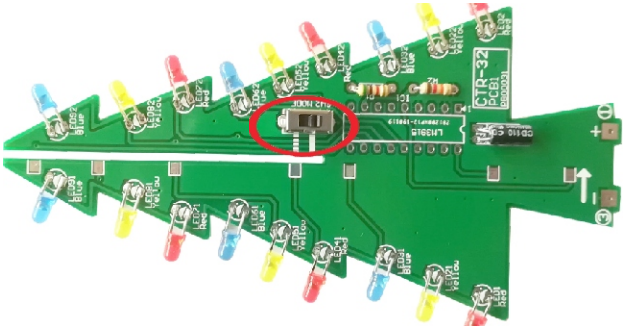
3. Install Electrolytic capacitor :

A square solder joint is a positive pole



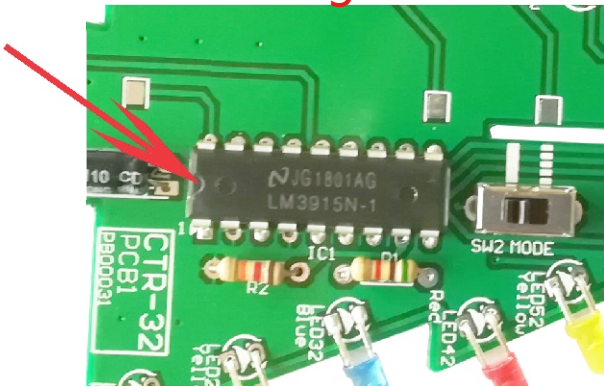
4. Installation mode switch

Mode switch can make LED work in strip or point state , Suggested working in strip shape



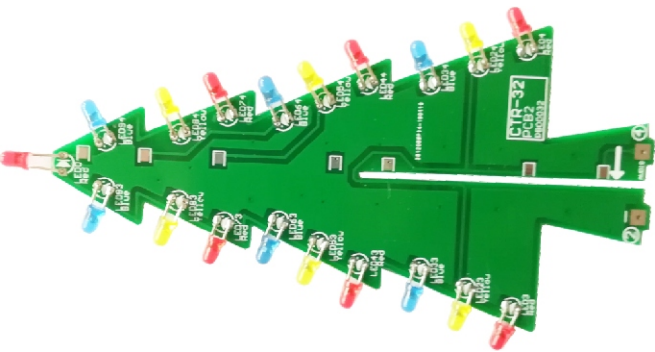
5. Install IC LM3915

Pay attention to identifying the direction of integrated circuits

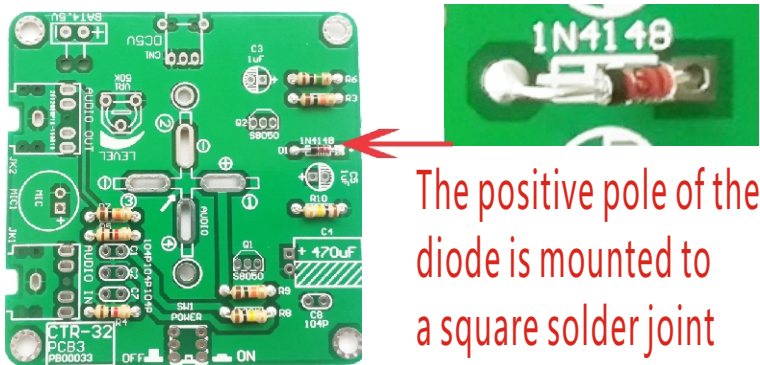


6. Installation of PCB2 LED:

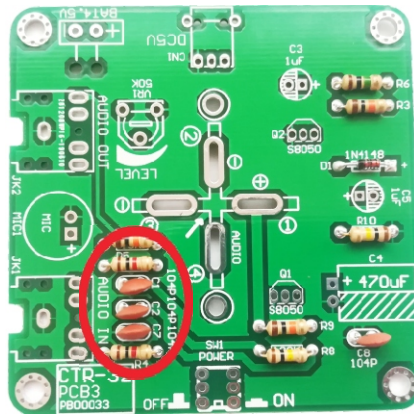
Please install the LED of PCB2 according to PCB1 method.



7. Installation of PCB3 Resistors and Diodes  
Installation of Resistors and Diodes with Reference to Shipment List or Marking on Circuit Board



8. Installation of Ceramic Plate Capacitance  
Ceramic capacitor has no direction



## Tools to be prepared:

- [1] Soldering iron
- [2] Solder wire
- [3] A multimeter
- [4] Bevel pliers
- [5] Sharp nose pliers
- [6] Tweezers

## Installation Notes

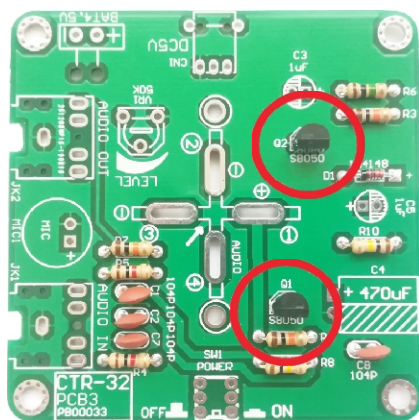
- [1] Number and specification of identification elements
- [2] Identify polarity and installation direction of components
- [3] Installation in strict accordance with instructions

### CTR-32 Sound control Christmas tree component list

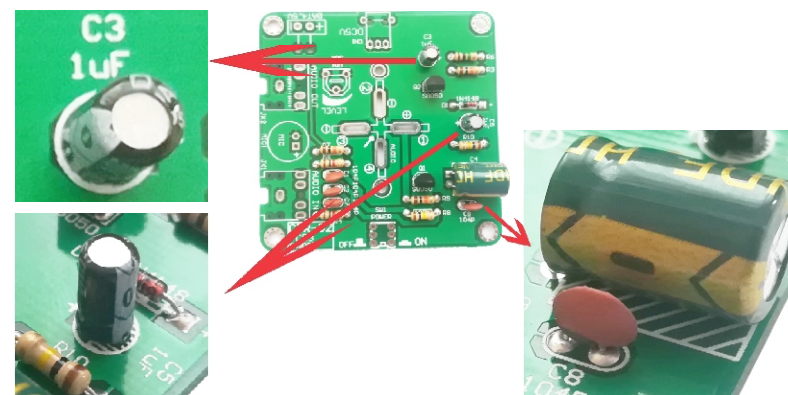
| NO.                                       | Name                           | Parameter    | QTY  |
|-------------------------------------------|--------------------------------|--------------|------|
| R4. R5                                    | RES                            | 1K           | 2    |
| R1                                        | RES                            | 5.1K         | 1    |
| R3. R7. R9                                | RES                            | 10K          | 3    |
| R2                                        | RES                            | 12K          | 1    |
| R8. R10                                   | RES                            | 100K         | 2    |
| R6                                        | RES                            | 1M           | 1    |
| C1. C2. C7. C8                            | CAP                            | 104PF        | 4    |
| C3. C5                                    | E-CAP                          | 1UF          | 2    |
| C6                                        | E-CAP                          | 47UF         | 1    |
| C4                                        | E-CAP                          | 470UF        | 1    |
| D1                                        | Diode                          | 1N4148       | 1    |
| Q1. Q2                                    | Triode                         | S8050        | 2    |
| VR1                                       | ADJ-RES                        | 50K          | 1    |
| LED0-LED4<br>LED41-LED44<br>LED71-LED74   | LED                            | 3mm Red      | 13+2 |
| LED21-LED24<br>LED51-LED54<br>LED81-LED84 | LED                            | 3mm Yellow   | 12+3 |
| LED31-LED34<br>LED61-LED64<br>LED91-LED94 | LED                            | 3mm Blue     | 12+3 |
| SW1                                       | POWER-SW                       | 5.8*5.8      | 1    |
| SW2                                       | Pullout SW                     | SS12D07      | 1    |
| JK1. JK2                                  | Audio seat                     | 5P           | 2    |
| MIC1                                      | MIC                            | 9*7          | 1    |
| IC1                                       | IC                             | LM3915       | 1    |
| CN1                                       | Power supply seat              | DC3.5        | 1    |
| JK1                                       | Audio cable                    | 3.5mm        | 1    |
| —                                         | Battery box<br>(Choose to buy) | 4.5V/AA      | 1    |
| CN1                                       | Power cord                     | USB to DC3.5 | 1    |
| —                                         | Screw                          | M2*5         | 2    |
| —                                         | Nut                            | M2           | 2    |
| PB00031                                   | PCB                            | CTR-32 PCB1  | 1    |
| PB00032                                   | PCB                            | CTR-32 PCB2  | 1    |
| PB00033                                   | PCB                            | CTR-32 PCB3  | 1    |

**Product number: PB00030**

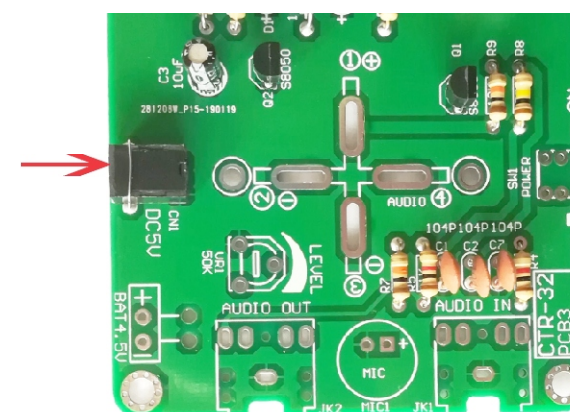
Please note the installation direction of the transistor !



The long foot of the electrolytic capacitor is a positive pole, which is welded to a square solder joint.



### Fix DC seat with pins of other parts :



[1]Soldering iron    [4]Bevel pliers  
[2]Solder wire    [5]Sharp nose pliers  
[3]A multimeter    [6]Tweezers

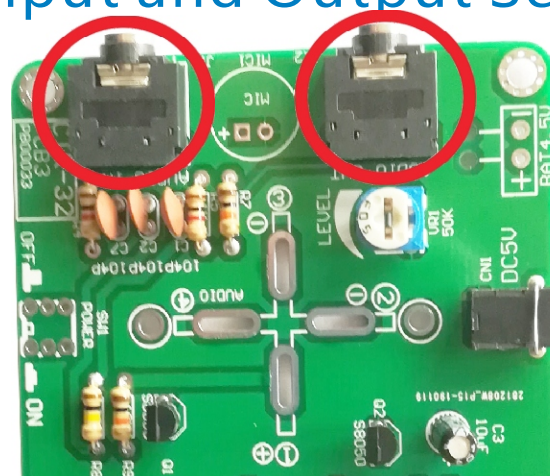
- [1]Number and specification of identification elements
- [2]Identify polarity and installation direction of components
- [3]Installation in strict accordance with instructions

## 12.Installation of adjustable resistance

Install 50K adjustable resistance to VR1

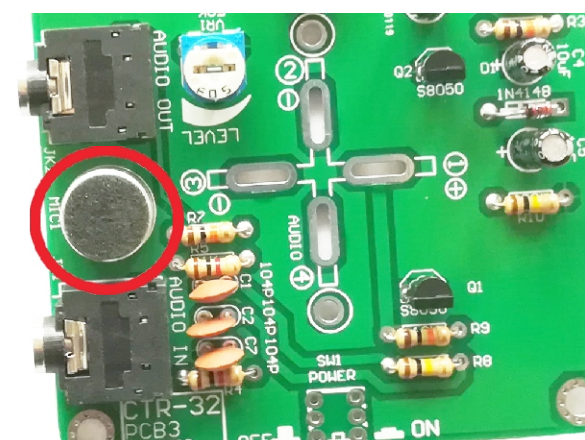


## 13. Installation of Audio Input and Output Seats

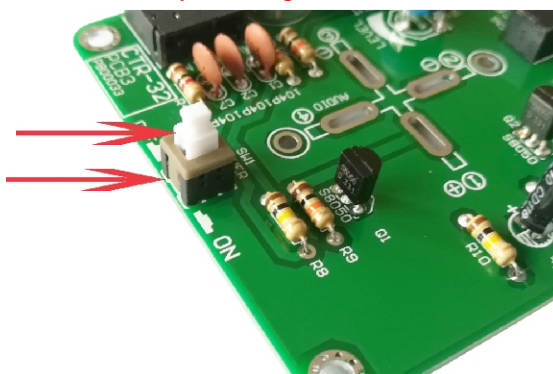


#### 14. Installation of MIC pickup

Distinguishing positive and negative poles of MIC  
Please install in the direction on the circuit board.

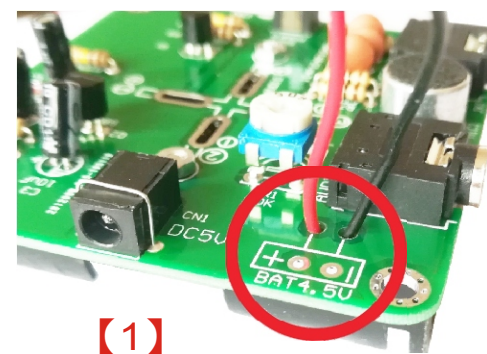


The grooved side of the power switch corresponds to the grooved screen printing of the circuit board !

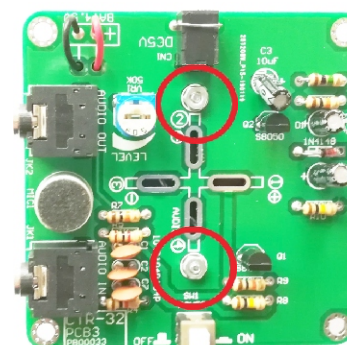


## 16. Install Battery Box (If you haven't bought a battery case, please skip this step)

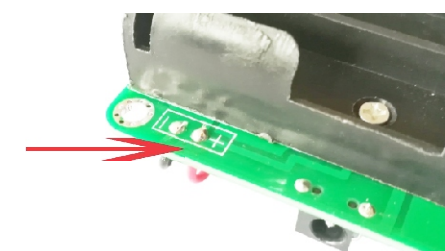
【1】 Put two lines of the battery box from the back of the circuit board into the circuit board



**【2】** Put two screws of M2\*5 into the circuit board from the battery box and fix them



**【3】** Weld the lead of the battery box from the bottom of the circuit board, red welding +, black welding-

Page2

# CTR-32 Audio-controlled Christmas Tree Kit Installation Instructions

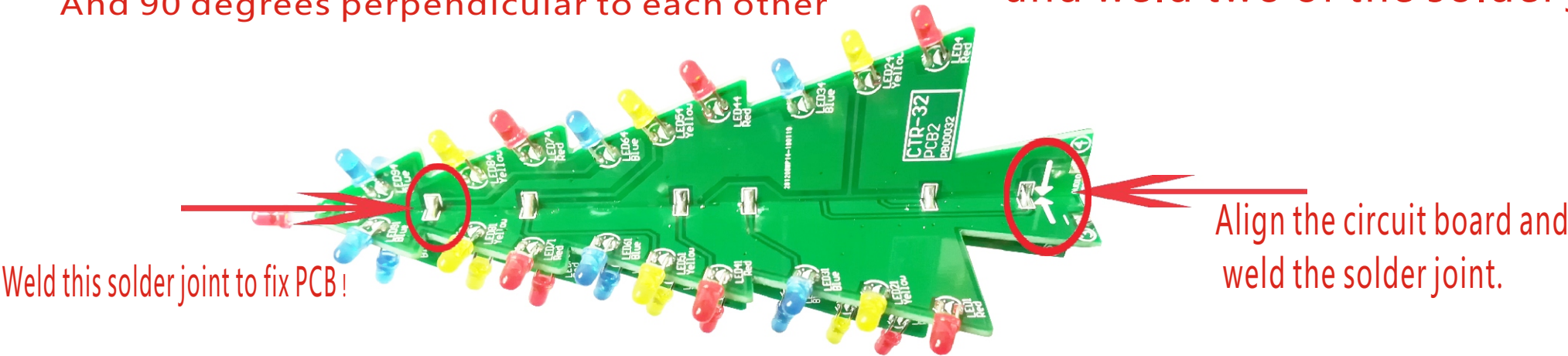
DeSi Electronic Products

Product number : PB00030

## 17.Merging PCB1 and PCB2

**[1]** PCB1 and PCB2 should be aligned.  
And 90 degrees perpendicular to each other

**[2]** Keep the two circuit boards vertical  
and weld two of the solder joints.



## 18.Install bottom PCB3

**[1]** Vertical insertion of the merged lamp board into the hole of the base plate  
Please note that the 1234 serial number of the lamp board should correspond to the 1234 serial number of the bottom board.

Three arrows in the same direction



## 19.Weld all solder joints to complete installation

Welding, all solder joints in the red ring and four solder joints at the bottom, a total of 16 solder joints.



## Tools to be prepared:

- [1]Soldering iron
- [2]Solder wire
- [3]A multimeter
- [4]Bevel pliers
- [5]Sharp nose pliers
- [6]Tweezers

## Installation Notes

- [1]Number and specification of identification elements
- [2]Identify polarity and installation direction of components
- [3]Installation in strict accordance with instructions

### CTR-32 Sound control Christmas tree component list

| NO.                                       | Name                           | Parameter    | QTY  |
|-------------------------------------------|--------------------------------|--------------|------|
| R4. R5                                    | RES                            | 1K           | 2    |
| R1                                        | RES                            | 5.1K         | 1    |
| R3. R7. R9                                | RES                            | 10K          | 3    |
| R2                                        | RES                            | 12K          | 1    |
| R8. R10                                   | RES                            | 100K         | 2    |
| R6                                        | RES                            | 1M           | 1    |
| C1. C2. C7. C8                            | CAP                            | 104PF        | 4    |
| C3. C5                                    | E-CAP                          | 1UF          | 2    |
| C6                                        | E-CAP                          | 47UF         | 1    |
| C4                                        | E-CAP                          | 470UF        | 1    |
| D1                                        | Diode                          | 1N4148       | 1    |
| Q1. Q2                                    | Triode                         | S8050        | 2    |
| VR1                                       | ADJ-RES                        | 50K          | 1    |
| LED0-LED4<br>LED41-LED44<br>LED71-LED74   | LED                            | 3mm Red      | 13+2 |
| LED21-LED24<br>LED51-LED54<br>LED81-LED84 | LED                            | 3mm Yellow   | 12+3 |
| LED31-LED34<br>LED61-LED64<br>LED91-LED94 | LED                            | 3mm Blue     | 12+3 |
| SW1                                       | POWER-SW                       | 5.8*5.8      | 1    |
| SW2                                       | Pullout SW                     | SS12D07      | 1    |
| JK1. JK2                                  | Audio seat                     | 5P           | 2    |
| MIC1                                      | MIC                            | 9*7          | 1    |
| IC1                                       | IC                             | LM3915       | 1    |
| CN1                                       | Power supply seat              | DC3.5        | 1    |
| JK1                                       | Audio cable                    | 3.5mm        | 1    |
| —                                         | Battery box<br>(Choose to buy) | 4.5V/AA      | 1    |
| CN1                                       | Power cord                     | USB to DC3.5 | 1    |
| —                                         | Screw                          | M2*5         | 2    |
| —                                         | Nut                            | M2           | 2    |
| PB00031                                   | PCB                            | CTR-32 PCB1  | 1    |
| PB00032                                   | PCB                            | CTR-32 PCB2  | 1    |
| PB00033                                   | PCB                            | CTR-32 PCB3  | 1    |

**Product number: PB00030**

**【 1 】 Install 3 1.5V batteries, Turn on the power switch, Without inserting audio lines, MIC detects the sound level of the environment, It is shown by circuit conversion. When the audio line is inserted and the audio is input, MIC automatically closes and switches to audio level display**

**【 2 】 Audio output interface is a transfer interface used to connect other power amplifier devices. No audio amplification function!**

