



Balun diy kit V2

Antenna balun, uses the high quality nickel zinc magnetic ring, working in the 1-30MHz band,high power can bear 100W-200W, can make very convenient high performance Barron,ensure that the radio transceiver communication efficiently, but also can let you fully enjoy the fun of DIY.

Component listing

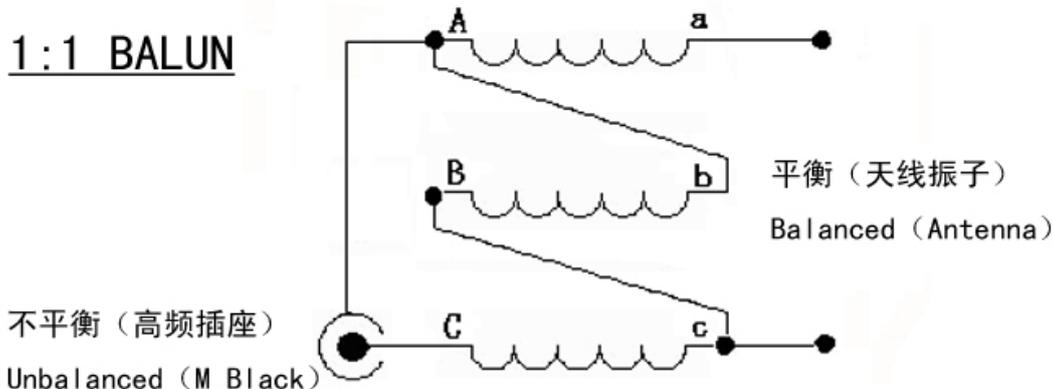
| | | |
|--|---------------------|------|
| Waterproof sealing box (has turned hole) | 防水密封盒(已经转孔) | 1 |
| NXO-100 (31*18*7) | NXO-100 磁环(31*18*7) | 1 |
| M type RF interface (flange style) | M 座(法兰盘样式) | 1 |
| Ø1 Enameled wire | Ø1 漆包线 | 1.5m |
| Heat shrinkable tube | 热缩管 | 0.5m |
| The six outer angle screw M8*25 | 外六角螺丝 M8*25 | 2 |
| Multiple tooth antiskid gasket M8 | 多齿防滑垫片 M8 | 4 |
| Anti loose nut M8 | 防松螺母 M8 | 2 |
| Butterfly nut M8 | 蝶形螺母 M8 | 2 |
| The OT cold press terminal - 8 | OT 冷压接线端子-8 | 4 |
| Pan head screw M3 (for fixed M) | M3 平头螺钉(用于固定 M 座) | 4 |
| M3 nut (for fixed M) | M3 螺母(用于固定 M 座) | 4 |
| M3 welding piece | M3 焊片 | 2 |

1:1 balun is applicable to bipolar DP (inverted V antenna is V) Yagi antenna (40-100).

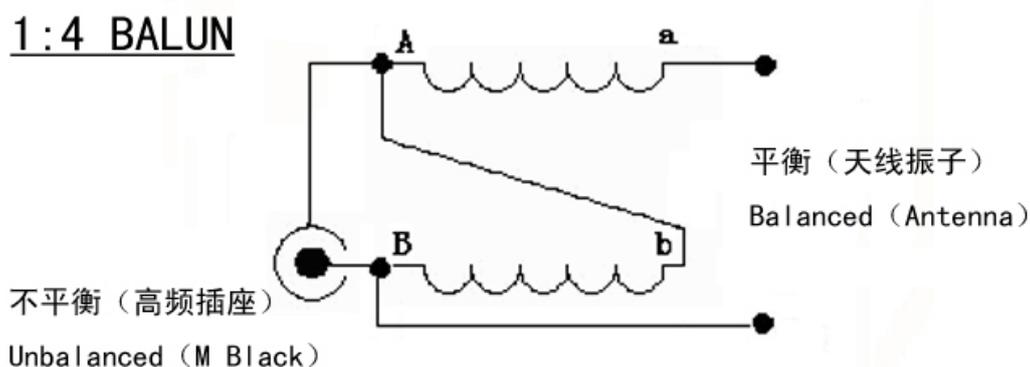
1:4 balun is suitable for the LOOP antenna and the Winton antenna (200-400).

1:9 balun is suitable for antenna.

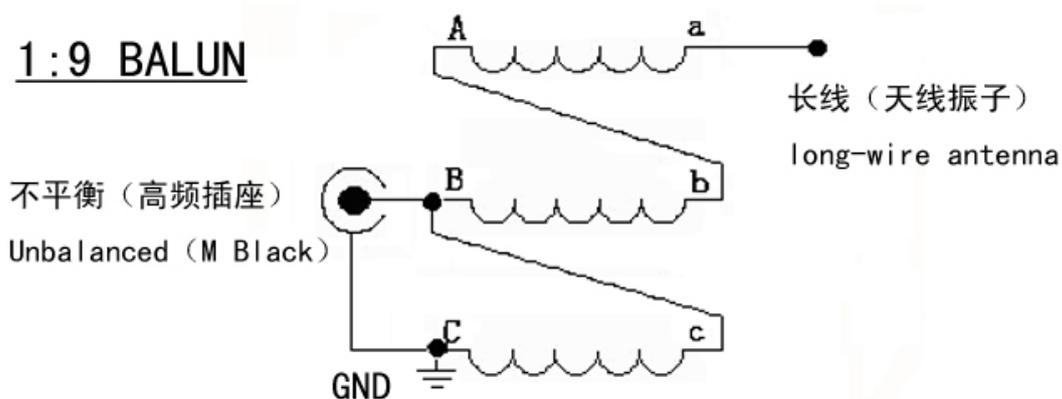
1. Schematic diagram.



7 turns in 1:1 balun



8 turns in 1:1 balun



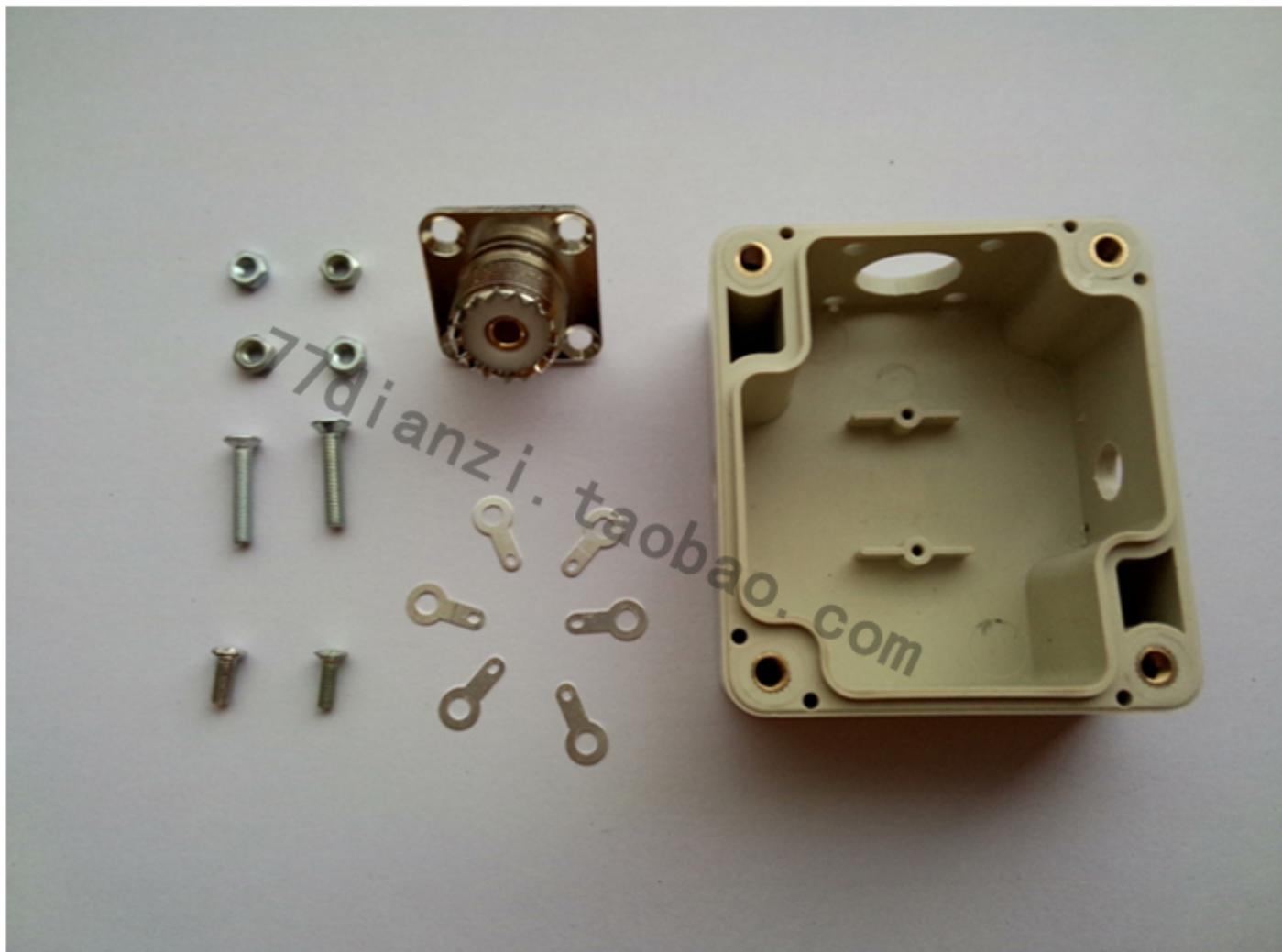
10 turns in 1:1 balun

2. Making method (1:9 as an example)

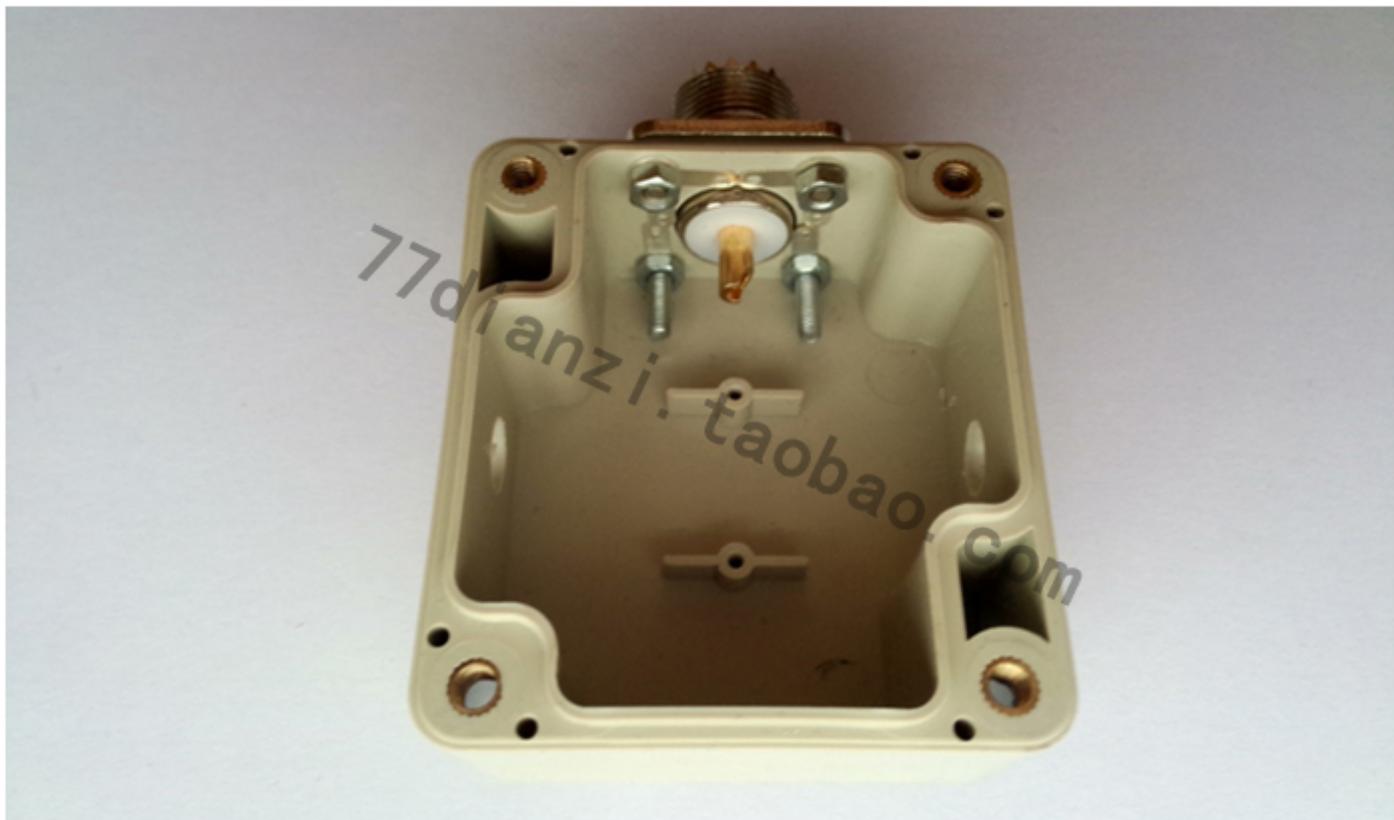
2.1 Ready to iron, solder wire, scissors, knife, wrench, multimeter and other tools. Check the type and quantity of components according to the component table.



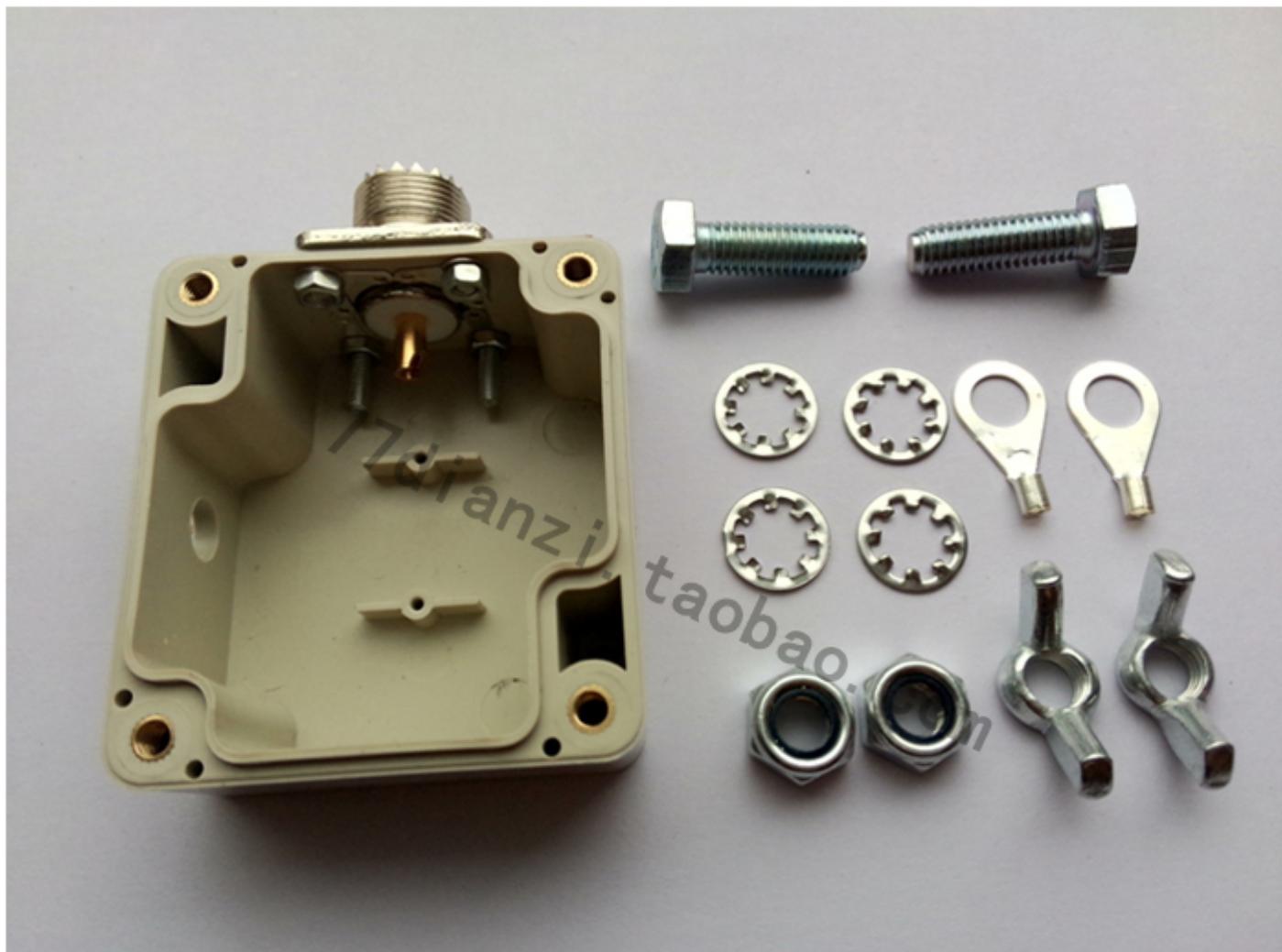
2.2 Install to M type RF interface, Required components are as follows:



The bottom two holes are close to the side, so choose the long M3 screw.



2.3 Install two terminal posts to the housing, Required components are as follows:



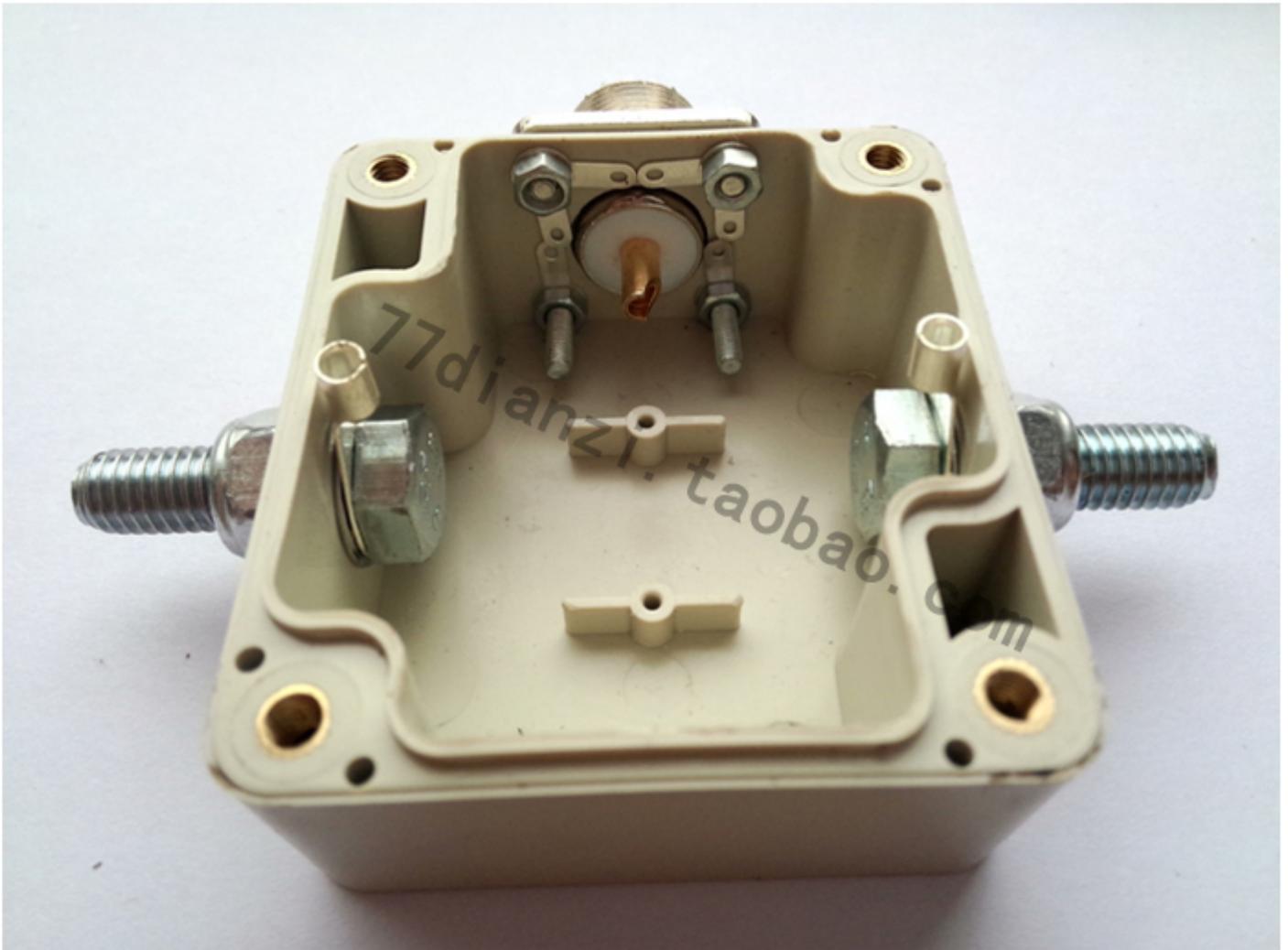
The wiring column uses the M8 screw column, can withstand the huge pulling force. The order of the gasket is as follows:



Using anti loose nut is fixed, the use of wrench tightening needed to force, coupled with the inside and outside of the anti slide gasket, can prevent the rotation, reference below:



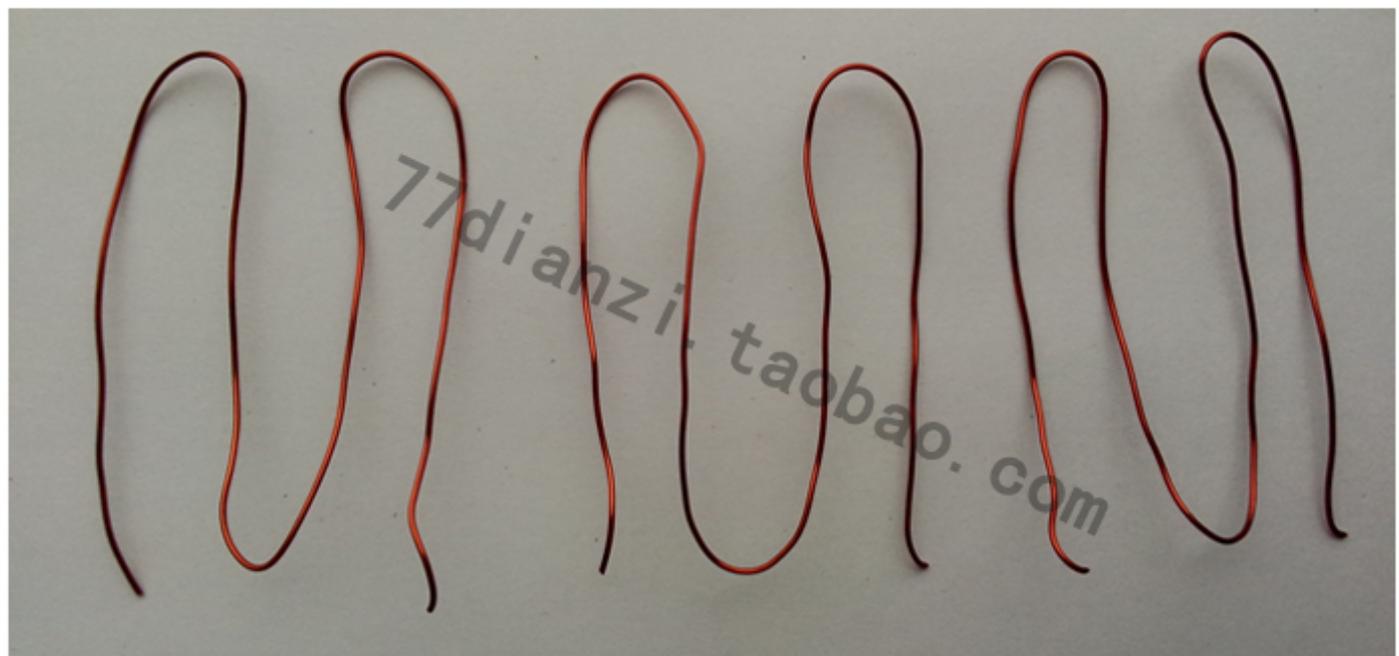
After installation, as shown below:



2.4 Winding transformer, the required components are as follows:



Divide the enameled wire into three equal length segments:



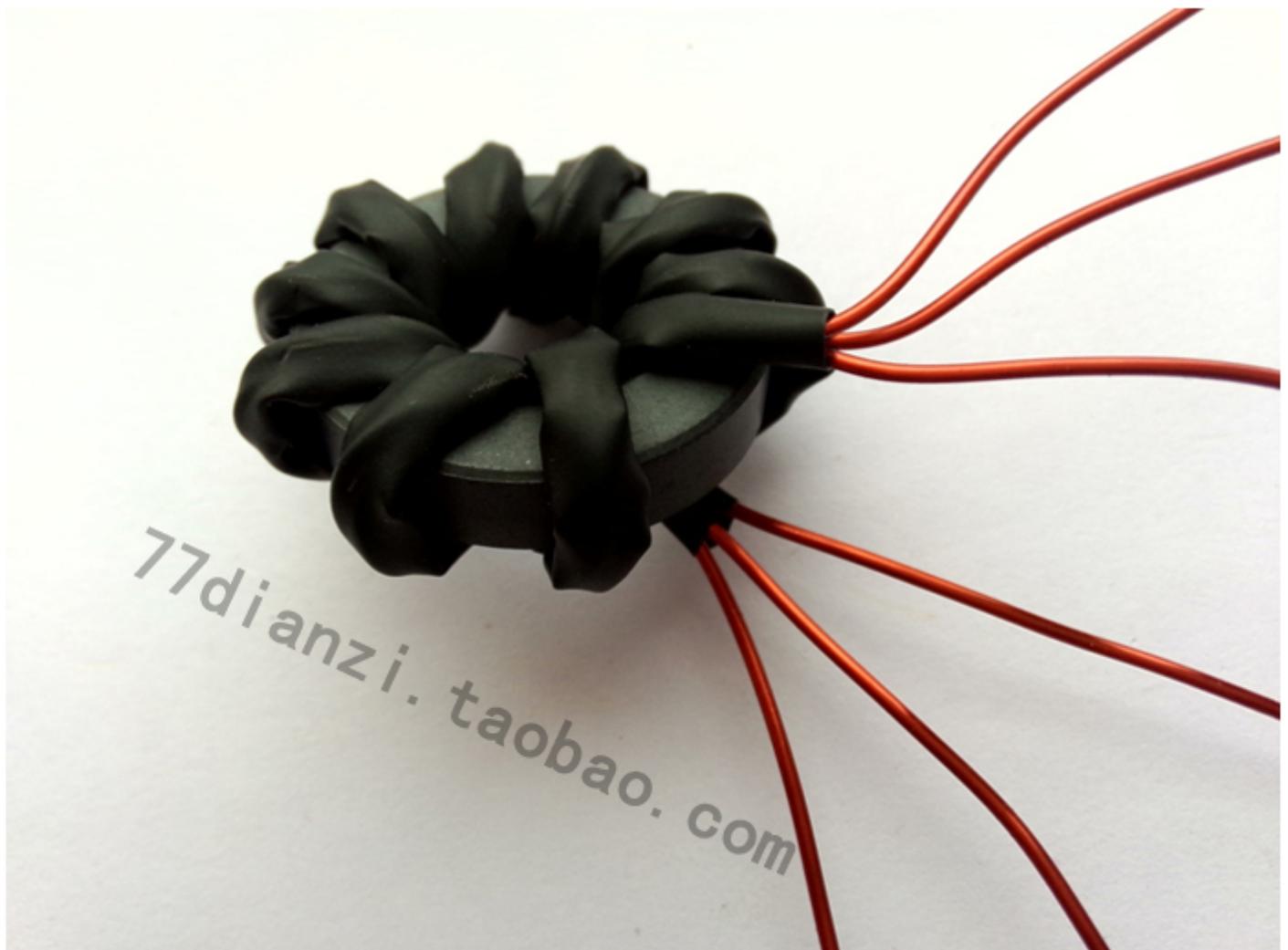
Twist the three line together, about 3-4 times per cm:



The use of heat shrinkable tube:



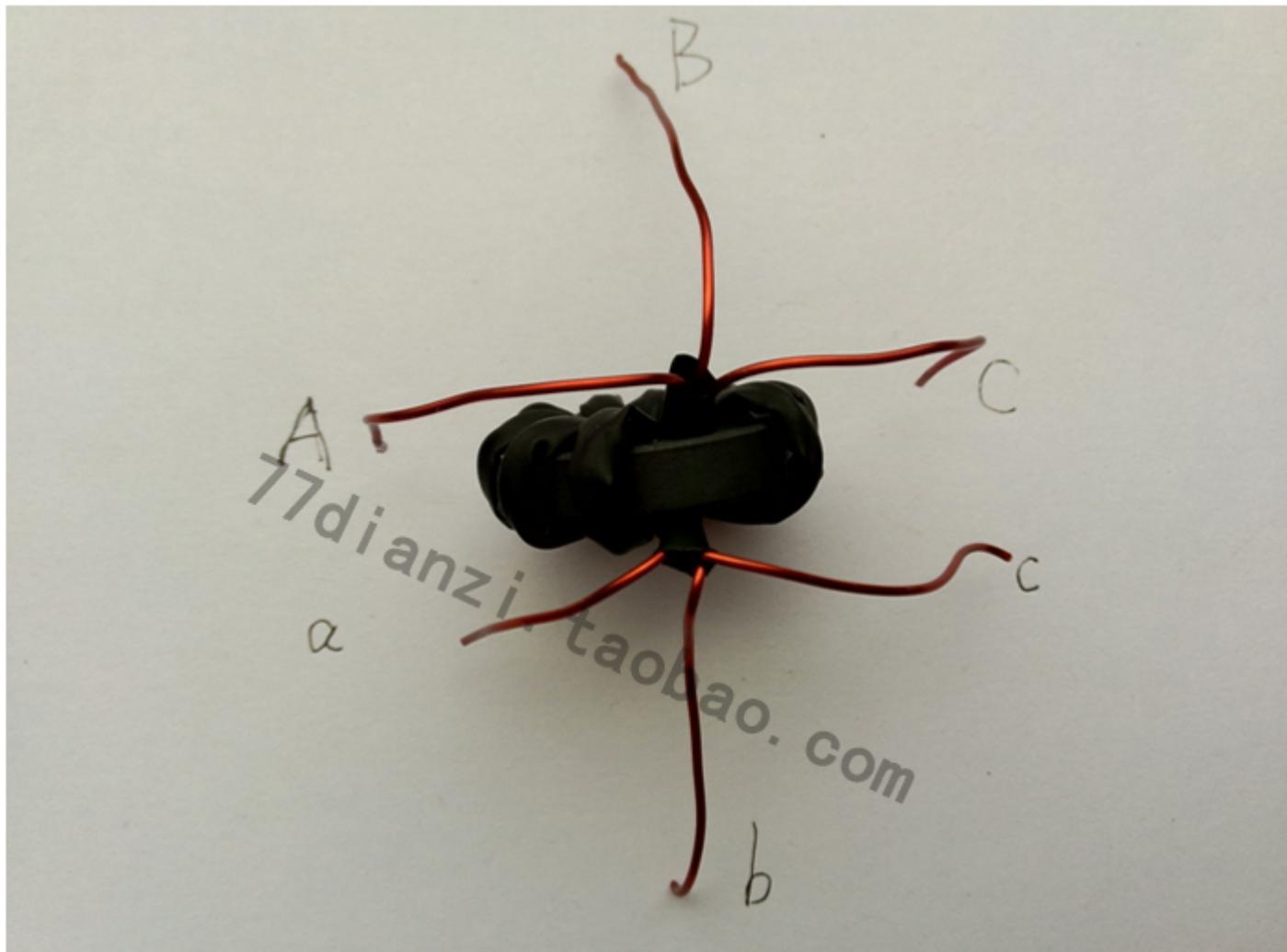
According to the 1:9 winding around the 10 laps, **note: wire through the magnetic ring once regarded as a circle**, as follows:



Heat shrinkable tube heating, make it shrink:

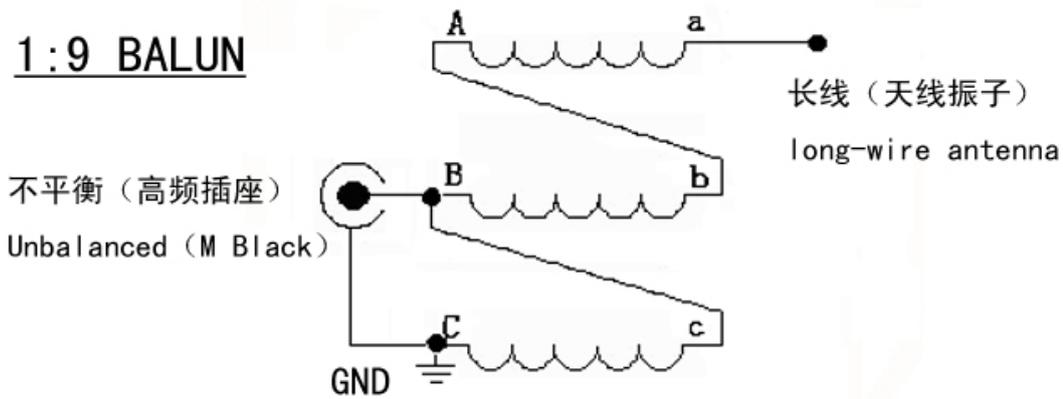


Use multimeter, distinguish the outlet ends of three line correspondence (if not multimeter, side is required at the beginning of the three stranded wire is marked to distinguish), intended to build use the following way to distinguish between:

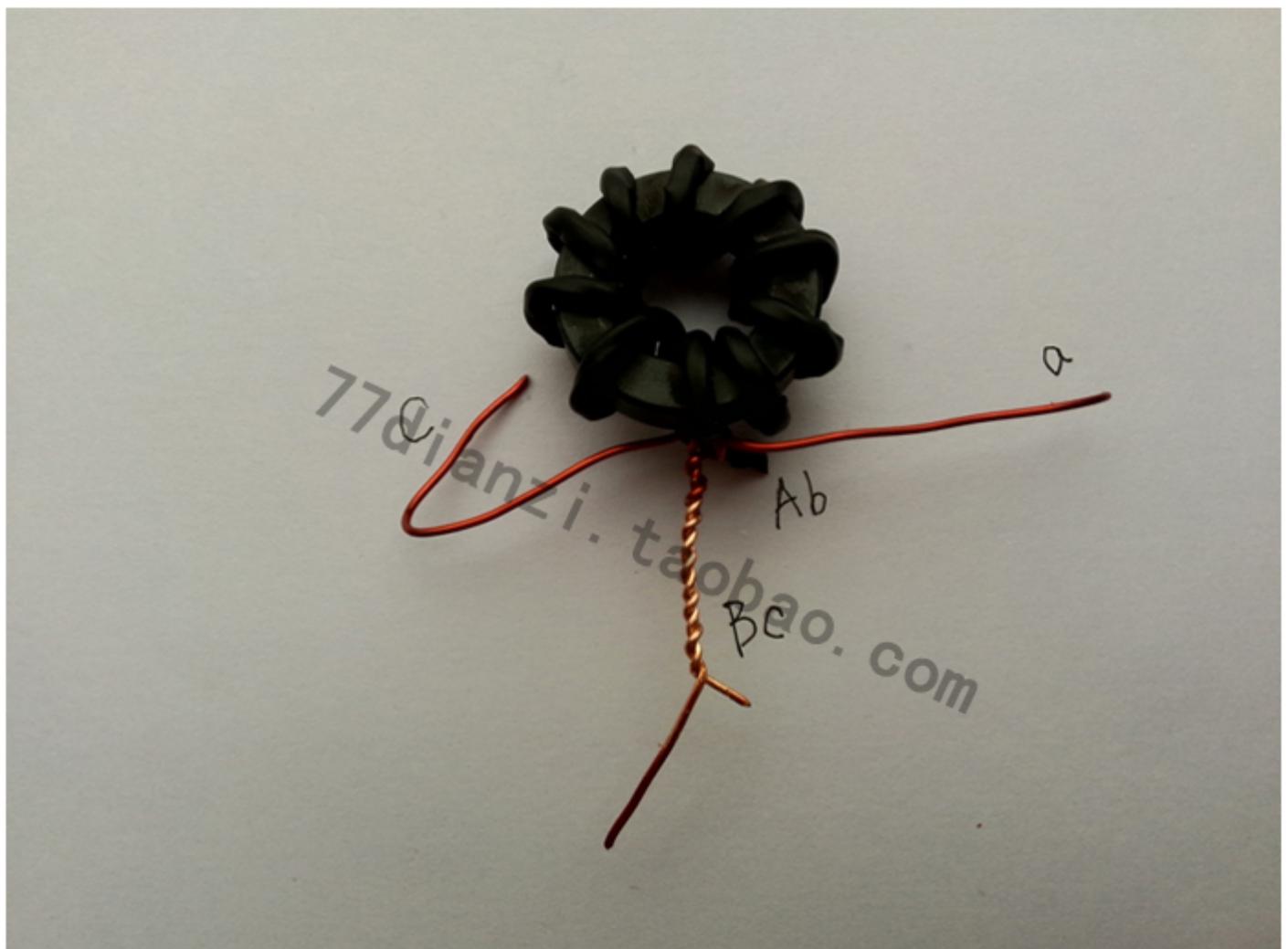


Reference 1:9 schematic:

1:9 BALUN



"a" connection antenna, "C" connection GND, "A" and "b" short circuit, "B" and "c" short circuit connection Core of M type radio frequency interface, the results are as follows:



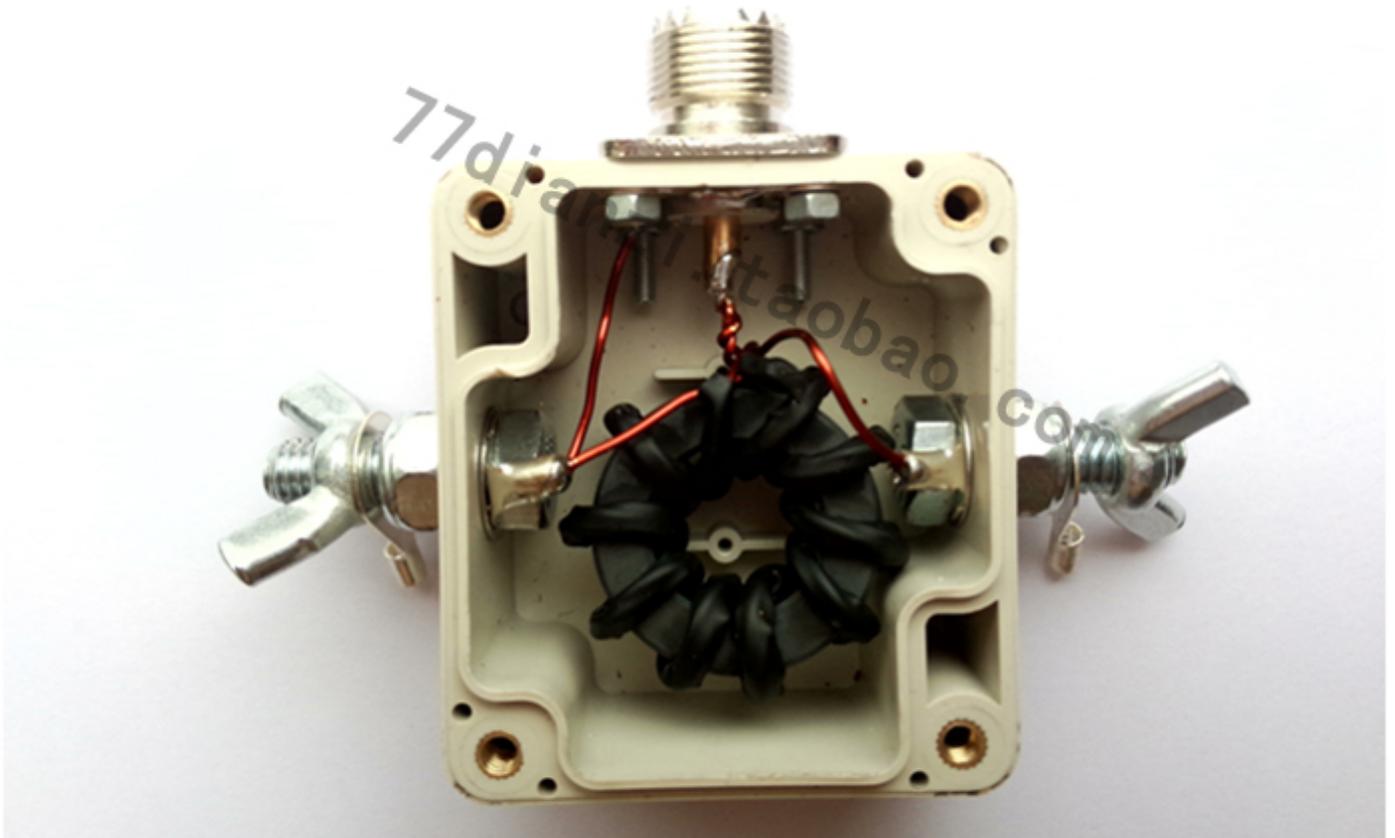
2.5 The ring is welded to the shell.



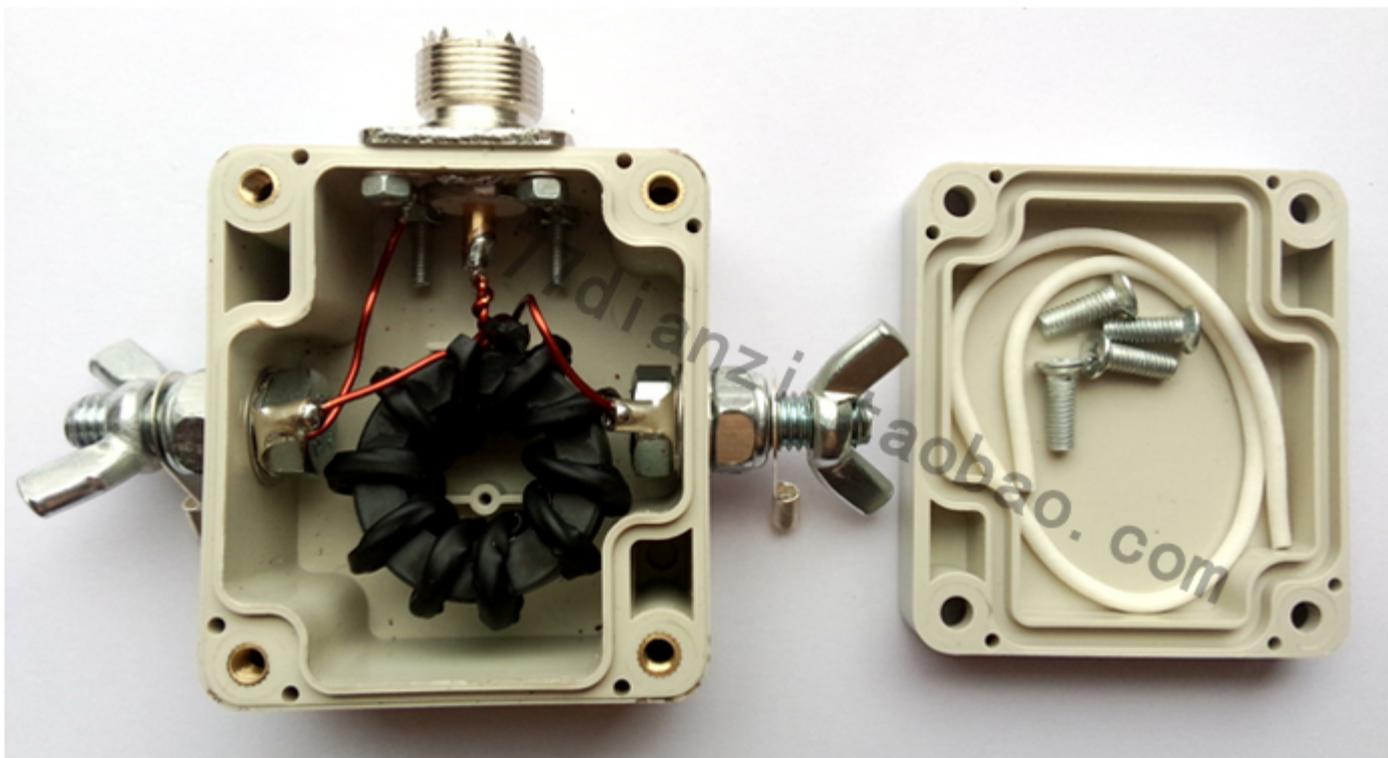
Solder welding piece:



According to the principle of welding:



2.6 Install the shell.



Install sealing strip:



1:9 balun need to distinguish between the GND terminal and the antenna terminal:



Complete:

