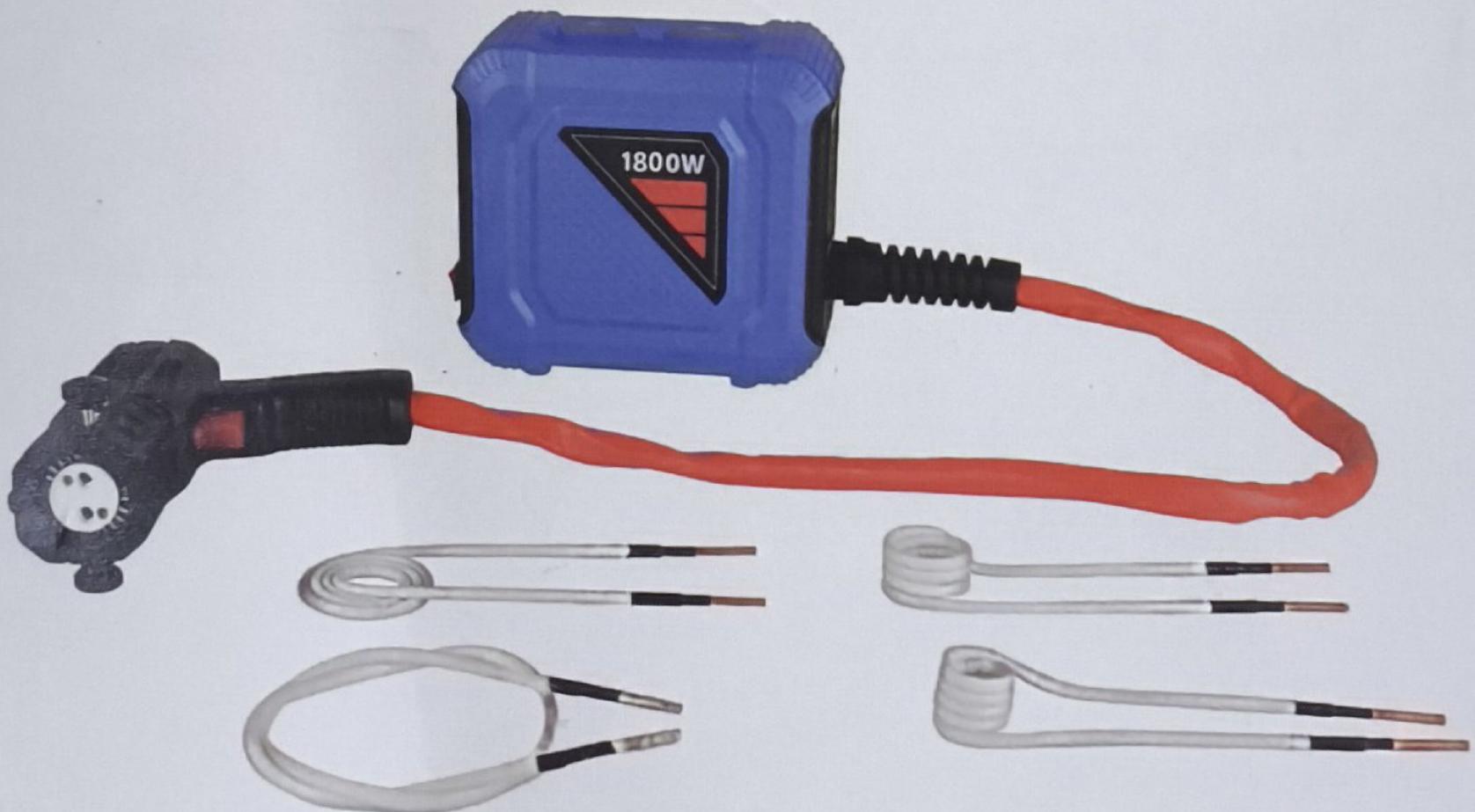


Flameless Heating System

User Manual

CE APPROVED



Thank you for choosing our flameless heating system, before you use it, we strongly recommend you go through the following content for safe and appropriate use.

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Safety Cautions

-  People who have an artificial heart pacemaker or similar electronic medical devices should avoid using or being near this device.
-  For professional use only.
-  Avoid wearing a ring, other metal jewelry, keys, watches, or any metal gadgets, and avoid any clothing that has metal rivets near the induction coil. Electromagnetic induction may cause high temperatures in such metal parts and may lead to skin burns or burning of clothing.
-  If the heating element has a deposition of toxic materials due to high temperatures, operators must wear an anti-poison gas mask or equivalent safety protection.
-  Electric shock can cause death.
-  Clear any flammable or explosive materials from the working area before use.
-  Protective gloves should be worn during use.

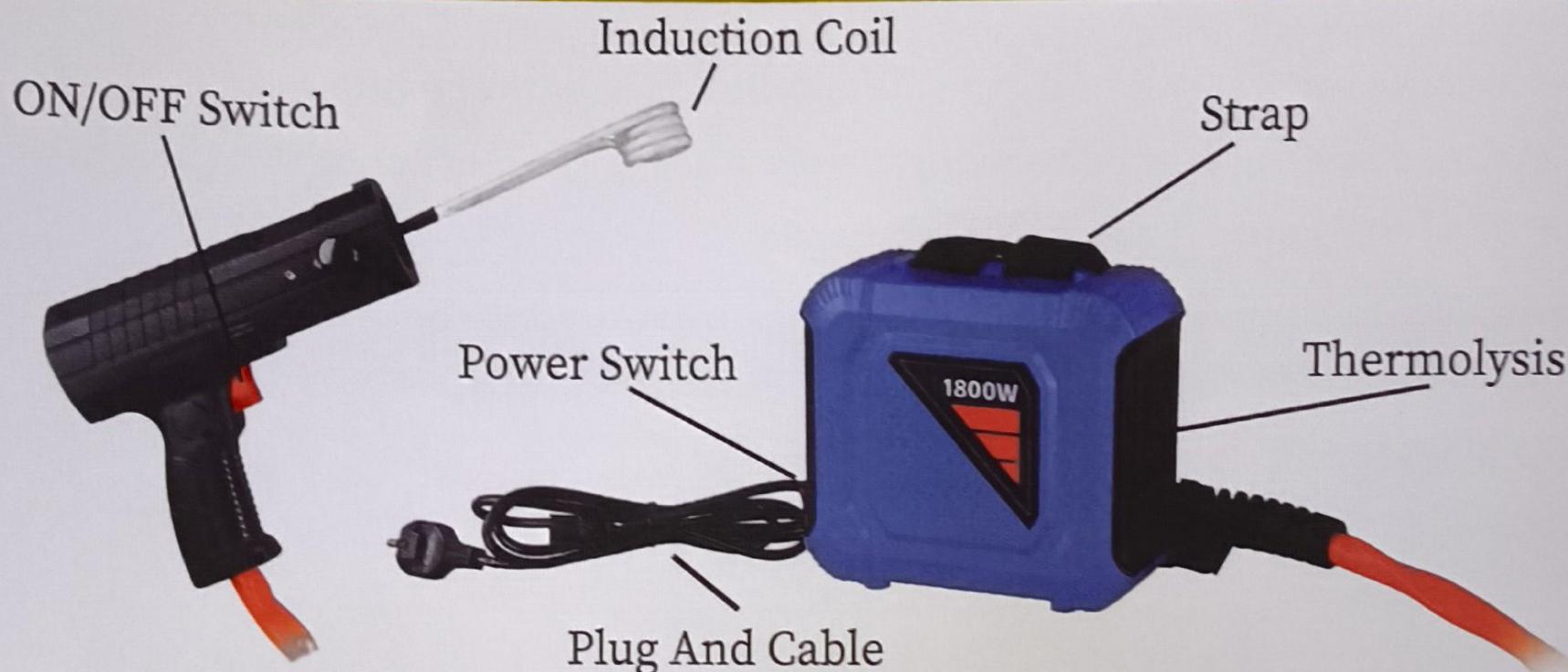
Functions



Heating rusted bolt nut, by the purpose of fast and easy remove from machines, cars etc. Using the thermal expansion theory, when the nuts of the bolt is heat, it expands which makes it easy to be removed from rusted bolt.

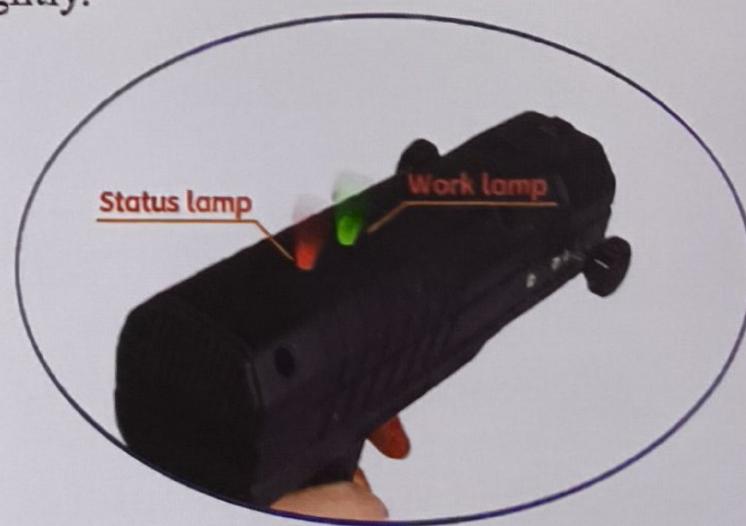
If you need to use this device to others applications, please contact local dealer for support, any inappropriate operation may cause damage to the device.

Device Description



Operation Steps

1. Release the two fixing bolts counterclockwise 0.5cm out.
2. Select appropriate size of coil for your work and insert the two ends into the front holes.
3. Twist the bolts clockwise to secure the coil tightly.



4. Turn on the power, place the heating element in the center of the coil, and press and hold the red button to start heating.
5. There are two display lights on the handle, which are status light and working light. When the status light shows green, it indicates that the heater is ready for heating operation. When the heater starts to work, the status light turns red and the working light shows green. The temperature of the heating element rises. After the work is completed, release the red button and store it safely.

Status lamp	Meaning
● Black	The machine is not powered.
● Green	Can be heated
● Red	Cooling progress, Unable to heat
● Red, flashing	Overcurrent

Work lamp	Meaning
● Black	The machine is not heating or cooling
● Green	Heating progress

Use Rules

1. The machine's maximum single working time is 90 seconds. After 90 seconds of work, the machine will automatically stop heating. At this time, the status light will show red, and the working light will go out. After waiting for cooling for 90 seconds, the status light will show green again and heating can be carried out again.
2. After a single heating for 30 seconds, heat dissipation for more than 30 seconds, and then heating for 90 seconds.
3. The single heating time is short, and the heat dissipation time is less than 30 seconds, the heating time will accumulate. After 90 seconds of cumulative heating, it will be forced to enter the cooling (the time is 90 seconds), and the waiting state light will be converted to green again, and heating can be performed again.
4. When using, please place the coil in the center of the bolt/heating object, try not to touch or close to large metal parts that do not need to be heated), otherwise the working load will increase and the bolt heating speed will slow down. See Figure 4.
5. When the insulation of the white coil is damaged, please replace it with a new insulating tube or replace the coil. If you must use it, please do not use it in the way shown in Figure 1 and Figure 2.

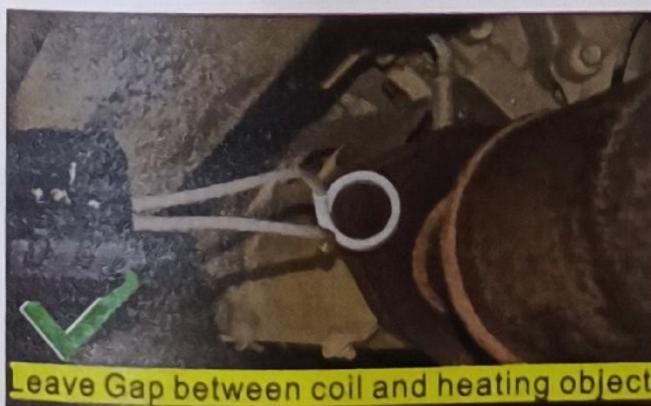
(Breach of insulation pipe may lead to short circuit of induction coil, thus may cause irreversible damage to the heater)



Plc1



Plc2



Plc3



Plc4

6. Do not block the vent holes during working, otherwise cooling ability decreases, and cause overheat to the device very soon.
7. Please don't put this device in fridge, near the air conditioner vent, this may cause condense water inside of the device and may damage the board.
8. Please don't bend the power cord sharply, whether in use or during storage.
9. Please don't open the device by yourself.

Bolt Heating Parameters

Coil Specification	φ20mm	φ30mm	Flat	Flexible
Bolt Diameter	Up to 10mm	Up to 20mm		

Notice: The diameter of the coil must minimum 10mm larger than the bolt

Based on the φ22mm bolt, room temperature 25°C

Heating capacity reference: Heating 10 bolts from 25°C to 300°C.

Recommend heating temperature and duration are as following

Bolt Diameter	Temperature	Heating Time
φ5-10mm	300°C, 572°F	15 - 20s
φ10-20mm	300°C, 572°F	20 - 25s
φ20-30mm	300°C, 572°F	25 - 30s

Recommended Heating Temperature : 200-700°C.

Note:

1. Visible dark red color on mild steel is around 550 °C, however, the bolt is already lose after about 10-20 seconds, at this moment, bolt is black.
2. Temperature on metal surface is 50-60 °C lower than its' inside.
3. Temperature over 550 °C may lead to over heating to the nut, directly affect mechanical properties, so recommend not heating it to red.

Temperature °C	400	500	550	600	650	700	750	800	850	900	950	1000
Color												

Trouble Shoot

Items	Solutions
No response after pressing "ON" button, no indication light on, no fan working, no increasing heating object.	<ol style="list-style-type: none"> 1. Check if the plug is broken; 2. If plug is firmly plugged in; 3. If the switch on the socket is on; 4. Or the fuse in the plug (British type) is damaged;
Indication light is on, cooling fan is on, slow heating speed,	<ol style="list-style-type: none"> 1. Check whether a large coil is used as a small diameter bolt, and the difference is above 20-30mm. 2. Check whether the insulation layer of the coil is damaged and the parts of the copper leakage are connected to each other. 3. Please place the heating object in the middle of the coil, the metal near the bolt will consume part of the heating power.
The heating time did not last 90 seconds before the shutdown.	<ol style="list-style-type: none"> 1. Check if the insulation is breach and the coil has contact with bolt and lead to short circuit. 2. If the heating bolt is surrounded by metal object, which will increase the load of the device. please clean the surrounding metal or concentrate power to the bolt. 3. After device recover to normal function, heat still remain in the device, please wait longer time to cool the device.
It is in Normal condttion if	<ol style="list-style-type: none"> 1. After press button, it takes 2-3seconds to start working; 2. When working, it gives off slight buzz sound

Parameters

Choose from two voltage options: 110V or 220V;

Note: 110V has a label, 220V doesn't.

Important: use the correct voltage to avoid damaging the heater



【110V】



【220V】

Rated Power: 1800W (Note: Working power changes as the heating element size changes)