



# User Manual for **FREEBOX-II**





## ➤ PRECAUTION—Device Maintenance

The **FREEBOX-II** contains relays and wiring ports, so please avoid damaging its internal components and wiring ports. Please make sure **FREEBOX-II** is placed in a dry and dust-free environment with room temperature. Please place **FREEBOX-II** in the electrical control cabinet to prevent accidental touches.

Please ensure the work environment is neat and set up orderly and the cable is placed well.

Equipment should always be stored in an environment that meets the following requirements:

- Operating temperature: - 20 to 40°C (optimum operating temperature 20°C)
- Humidity: Relative humidity 10% to 90% (non-condensing)

### Daily use

- Always place **FREEBOX-II** in a clean and dry environment;
- Avoid high temperature and high humidity working environment;
- Avoid splashing water, oil, and other substances on equipment;
- Do not immerse **FREEBOX-II** in water;
- Avoid falling and impacting of **FREEBOX-II**;
- Avoid foreign bodies contamination of **FREEBOX-II**;



## ➤ PRECAUTION—Battery Maintenance

Battery maintenance is recognized as one of the important steps of ensuring the safe and efficient running of an equipment. It is an essential component and needs to be powerful enough to provide the equipment with enough energy to complete the demands of user. Proper maintenance of the battery can keep user operation running smoothly. However, the appropriate procedure for battery maintenance is often overlooked. Performing maintenance in the correct order is just as essential as the maintenance steps themselves when it comes to saving time, extending the lifespan of your battery, and protecting your equipment.

- **Here are some battery maintenance tips to follow:**

1. Fully charge the battery before use;
2. Don't stop the charging process. Cutting the charging cycle will shorten the lifespan of your battery;
3. Avoid frequent deep-discharges
4. Don't let a discharged battery sit for too long before you recharge
5. Don't allow battery to drop below 20% capacity before charging.
6. Turn power off and allow battery to cool before removing.
7. Avoid exposure to direct sunlight.
8. Be aware of the battery's temperature when charging. Excessive heat will shorten the battery lifespan.



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1. INTRODUCTION;
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4. SERVICE & TROUBLESHOOTING;



# INTRODUCTION





# ➤ INTRODUCTION—Product Snapshot






# ➤ INTRODUCTION—Label Information



Model:FreeBox-5G<sup>TM</sup>  
SN:20200016  
Input:24V=1A  
SSID:FreeBox-5G-16 → WIFI ID  
PSK:12345678 → WIFI Passport  
IP:192.168.77.1 → IP Address  
C:3200mAh  
Apr.17th,2023

  
**ZG**  
**FC CE RoHS**

**ZG Technology Ltd.**  
[www.zg-3d.com](http://www.zg-3d.com)



## ➤ INTRODUCTION—Push Button Introduction



### Push Button Introduction

- 1, Single press power button to turn on the device.
- 2, Press & hold power button for **3 seconds** to turn off.

### Notice :

1. Once the scanning process is complete, please turn off **FREEBOX-II** in time to save the power.
2. Put the **FREEBOX-II** and accessories back to carrying box and keep them well and in order.





CONNECTION





## ➤ INTRODUCTION—Battery Installation Introduction



### **Battery Installation:**

- 1, Install battery pack into the cabinet of wireless scanning module.
- 2, To lock battery pack well in cabinet of wireless scanning module by using screw nuts & Allen key.



## ➤ Connection—FREEBOX-II Connection



### **FREEBOX-II Connection:**

- 1, Plug the USB cable and power cable into the **FREEBOX-II**;
- 2, Plug the USB cable and power cable into the scanner.



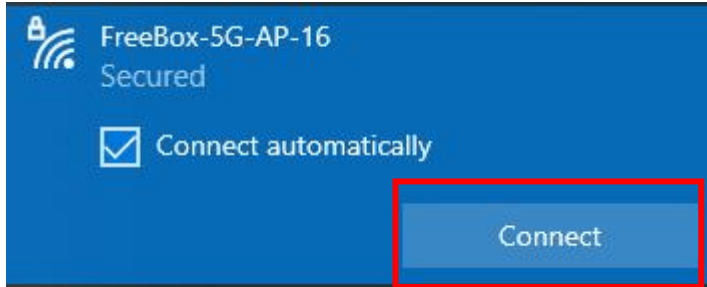
## ➤ Connection—FREEBOX-II Connection

The connection of the wireless module and scanner is shown as below picture.



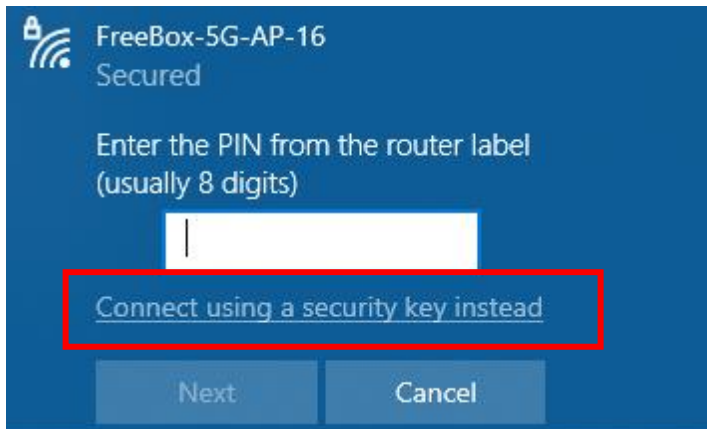


## ➤ Connection—Wireless Module WIFI Connection

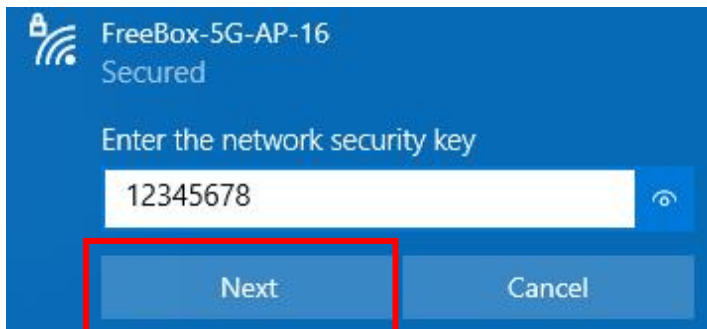


### Wireless Module WIFI Connection:

**Step one:** Power on and choose the WIFI corresponding to wireless module in the computer WIFI list and select “Connect”.



**Step Two:** Select “Connect using a security key instead.”

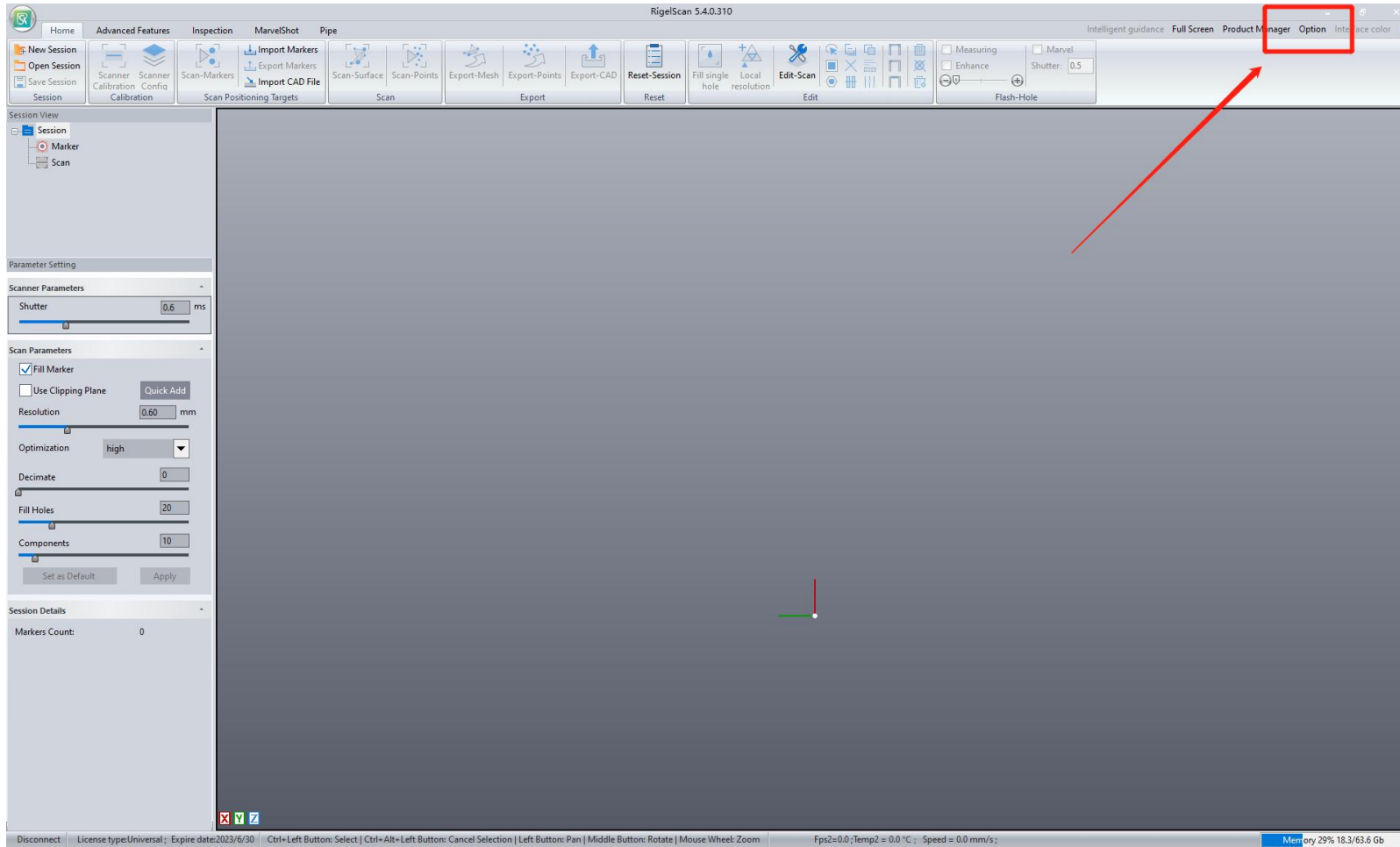


**Step Three:** Enter the network security and connect to the WIFI of wireless module.

Security key:12345678



# Connection—Wireless Module WIFI Connection



The wireless working mode of scanning software:

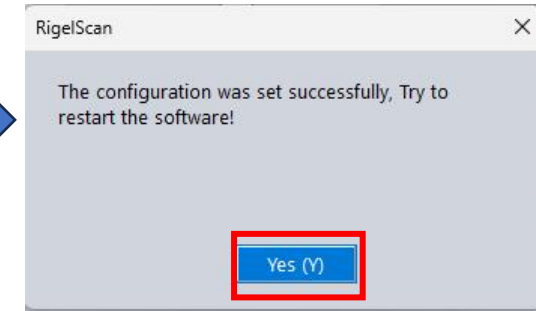
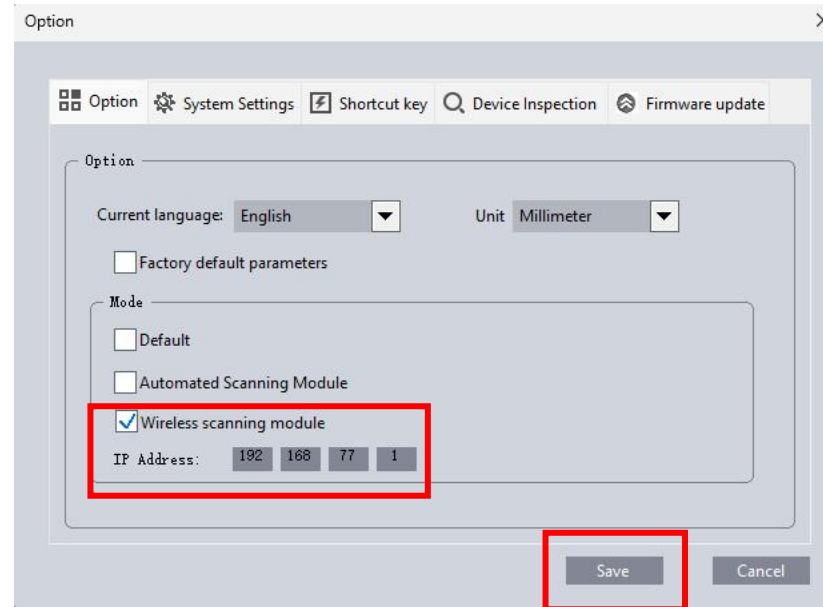
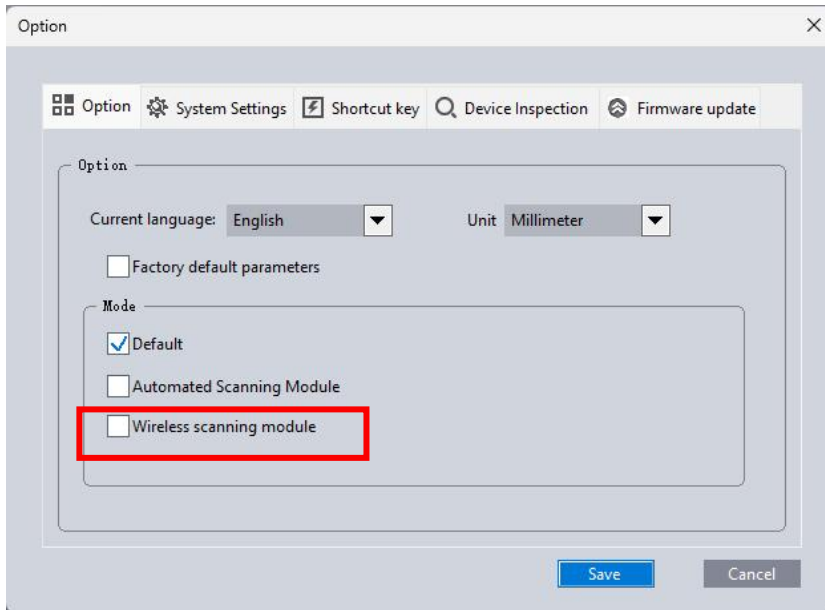
**Step One:** Choose the “Wireless Working Mode” in the “Option”



# Connection—Wireless Module WIFI Connection

**Step Two:** Select “Wireless scanning module” in “Option” and click on

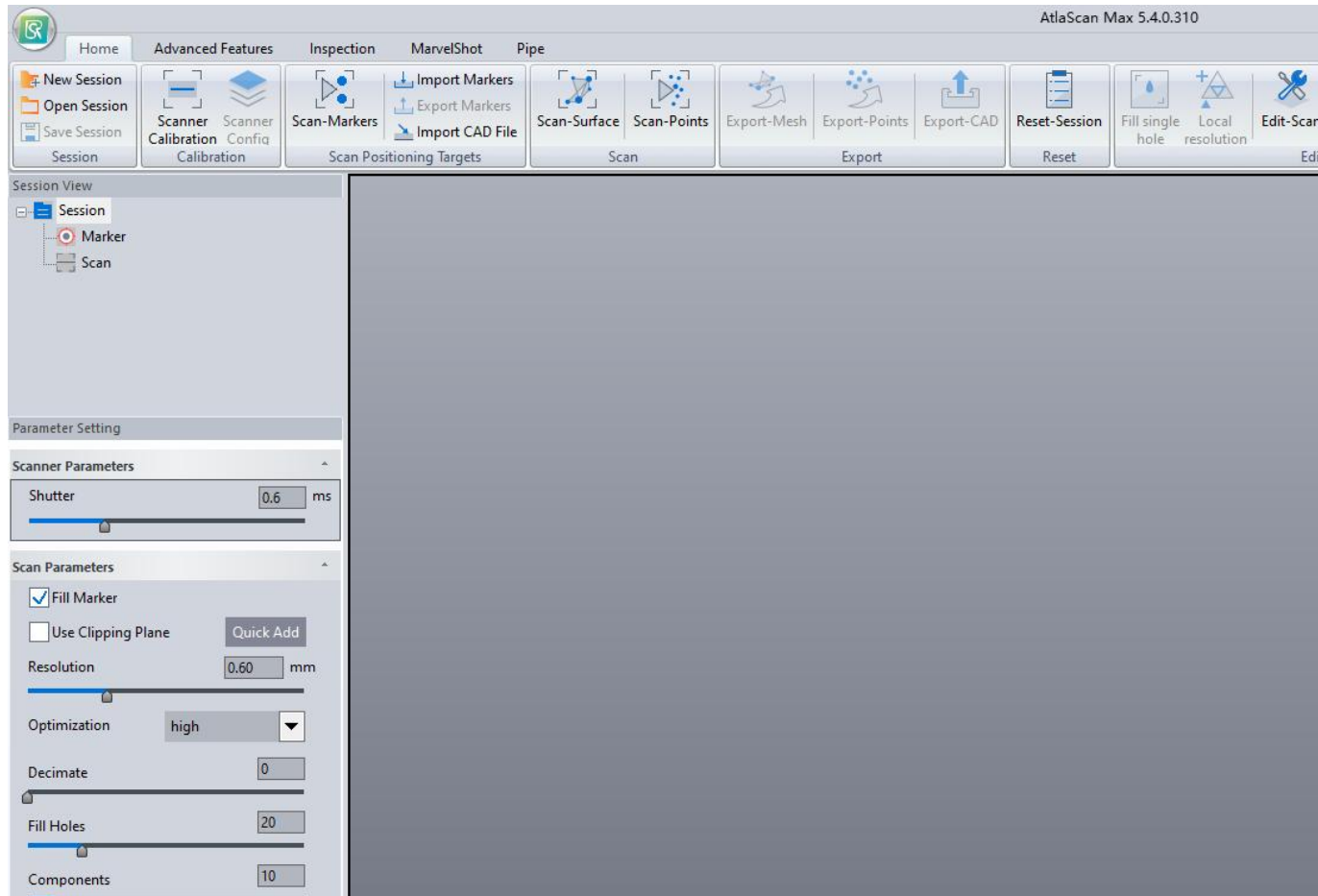
**Step Three:** The setting will take effect after restarting the scanning software.



**Note:** Do not change the default IP address of the scanning software (Default IP: 192.168.77.1)



# Connection—Wireless Module WIFI Connection



**Step Four:** Restart the scanning software and wait for the wireless module to connect;

**Step Five:** When the scanning icons light up, the set up of wireless working mode is complete.





# CHARGING INSTRUCTION





## ➤ Charging Instruction—Wireless Module Charging

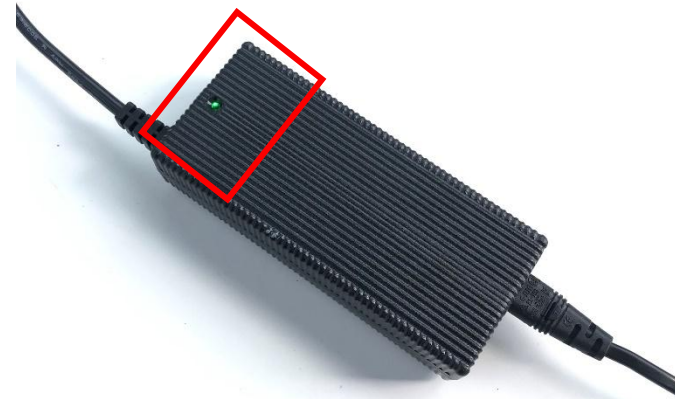
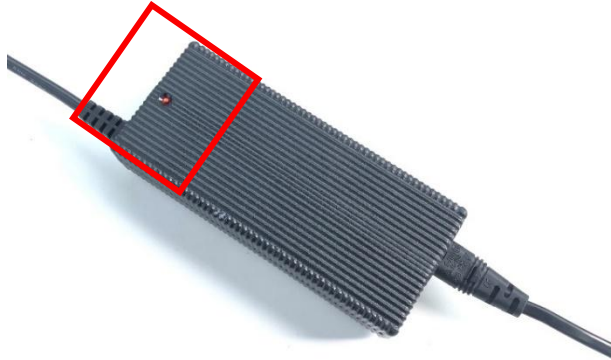


### **Wireless Module Charging:**

- 1, Connect charger with power cable;
- 2, Connect charger to the charging port of wireless module;
- 3, Connect power cable to the 100-240V power supply.



## ➤ Charging Instruction—Battery Charging Status Indication



### **Wireless Module Battery Charging Status Indication:**

- 1, When the charger turns red, the wireless module is charging;
- 2, When the charger turns green, the charging is complete.



## ➤ Charging Instruction—Battery Power Display

The battery icon indicates the power level, five cells indicate full power, one cell indicates low power;





# Troubleshooting

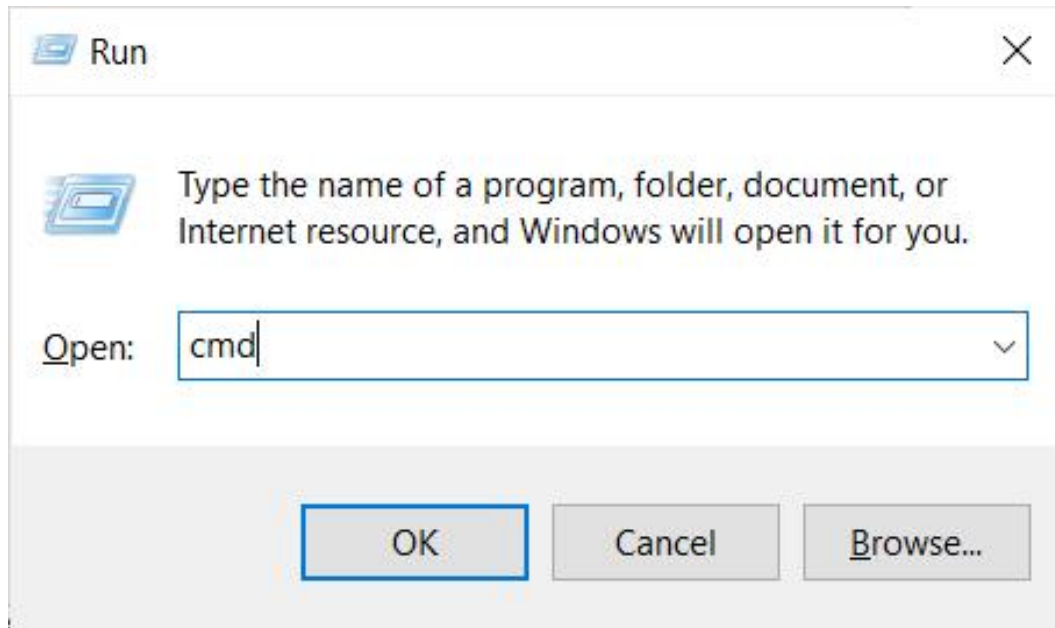




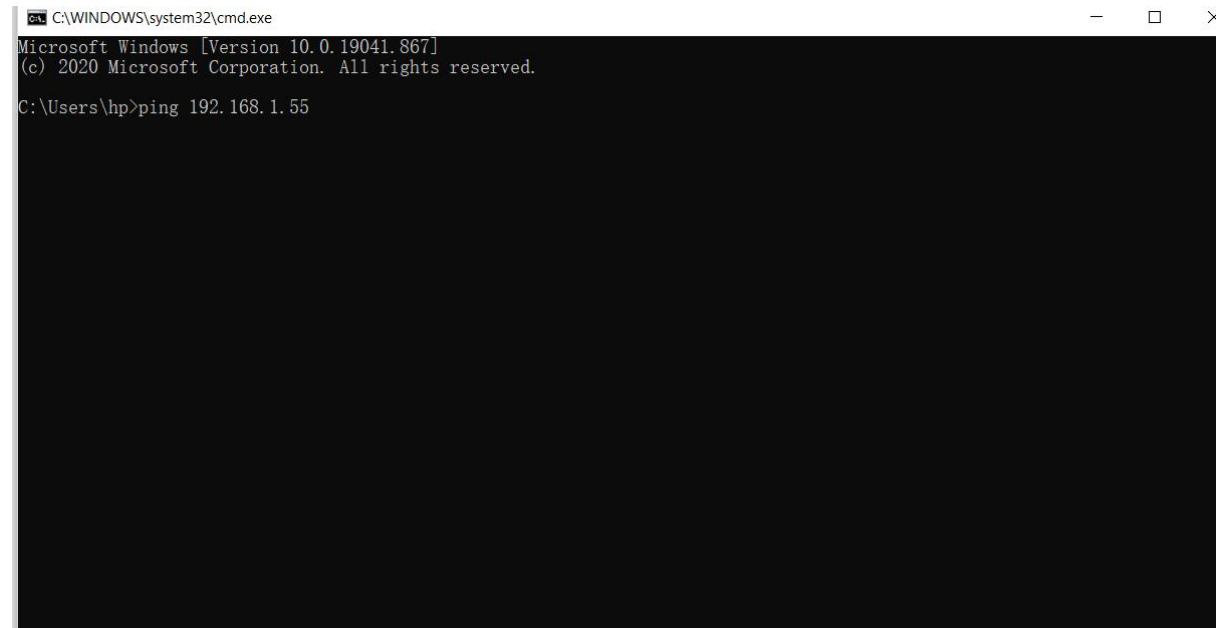
## ➤ Troubleshooting—Network Connectivity

- For checking the network condition.

1. Click the “Windows”+”R” at the same time to run the code “cmd” on the interface;



2. Enter “ping-blank-IP address” on the code running interface. The entered IP address should be the same as the IP address on the **FREEBOX-II** label and **FREEBOX-II** IP address shown in the software;





# Troubleshooting—Network Connectivity

## 3. Connection status is correct

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19041.867]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\hp>ping 192.168.1.55

Pinging 192.168.1.55 with 32 bytes of data:
Reply from 192.168.1.55: bytes=32 time=9ms TTL=64
Reply from 192.168.1.55: bytes=32 time=56ms TTL=64
Reply from 192.168.1.55: bytes=32 time=39ms TTL=64
Reply from 192.168.1.55: bytes=32 time=26ms TTL=64

Ping statistics for 192.168.1.55:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 9ms, Maximum = 56ms, Average = 32ms

C:\Users\hp>
```

## 4. Connection status is incorrect

```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows [Version 10.0.19041.867]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\hp>ping 192.168.1.55

Pinging 192.168.1.55 with 32 bytes of data:
Reply from 192.168.1.2: Destination host unreachable.
Reply from 192.168.1.2: Destination host unreachable.
Reply from 192.168.1.2: Destination host unreachable.
Reply from 192.168.1.2: Destination host unreachable.

Ping statistics for 192.168.1.55:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

C:\Users\hp>
```



## ➤ Troubleshooting—Software Function Check

If you encounter the following problems when scanning the surfaces or point clouds in the software, please restart **FREEBOX-II**, unplug all data cables from power sockets, then restart the software:

- 1) The software interface exists. However, the number of frames does not increase
- 2) The laser lines disappear, and the software interface gets stuck;
- 3) Software crashes after long-time scanning.





## ➤ Troubleshooting—Wireless Working Mode

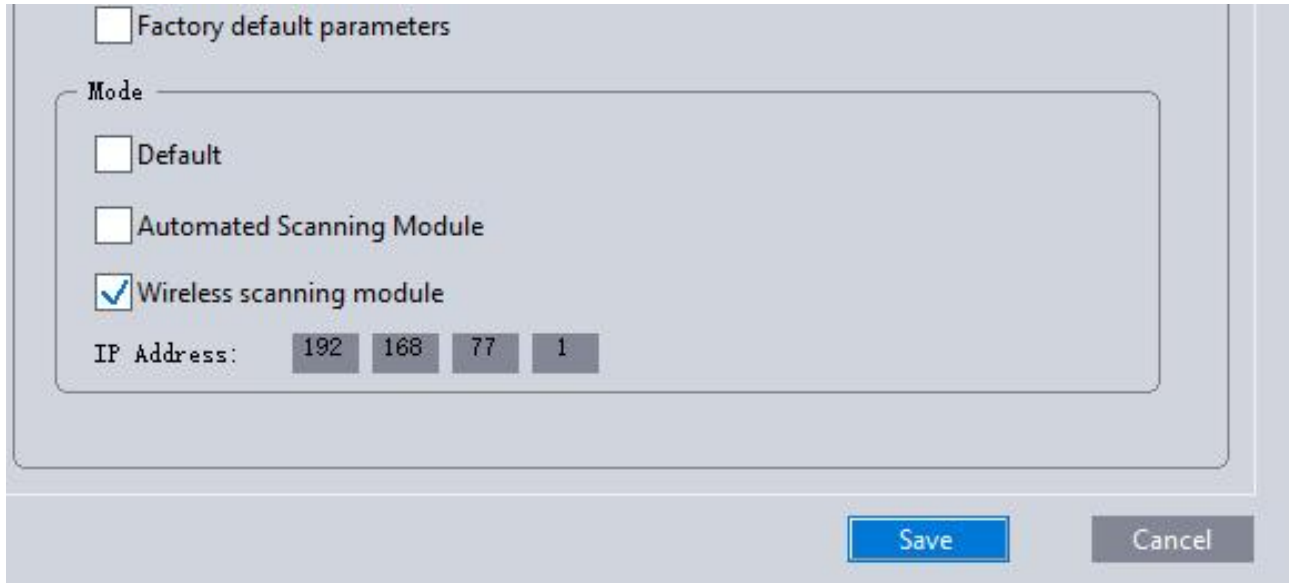


If the battery power display of wireless module is shown as the left, please check the following equipment conditions:

1. Check the data cable connection between scanner and wireless module. If not connect well, unplug the data cable from the scanner and reconnect it;
2. Check whether the configuration files are added correctly



## ➤ Troubleshooting—Wireless Working Mode



If the battery power display of wireless module is shown as the left, please check the following equipment conditions:

1. Whether the scanning software has been activated;
2. Whether the computer is connecting to the corresponding WIFI;
3. Whether the setting of mode and IP address is correct (The correct setting is shown as the left)

## **FCC Statement**

Wireless Scanning Module 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.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

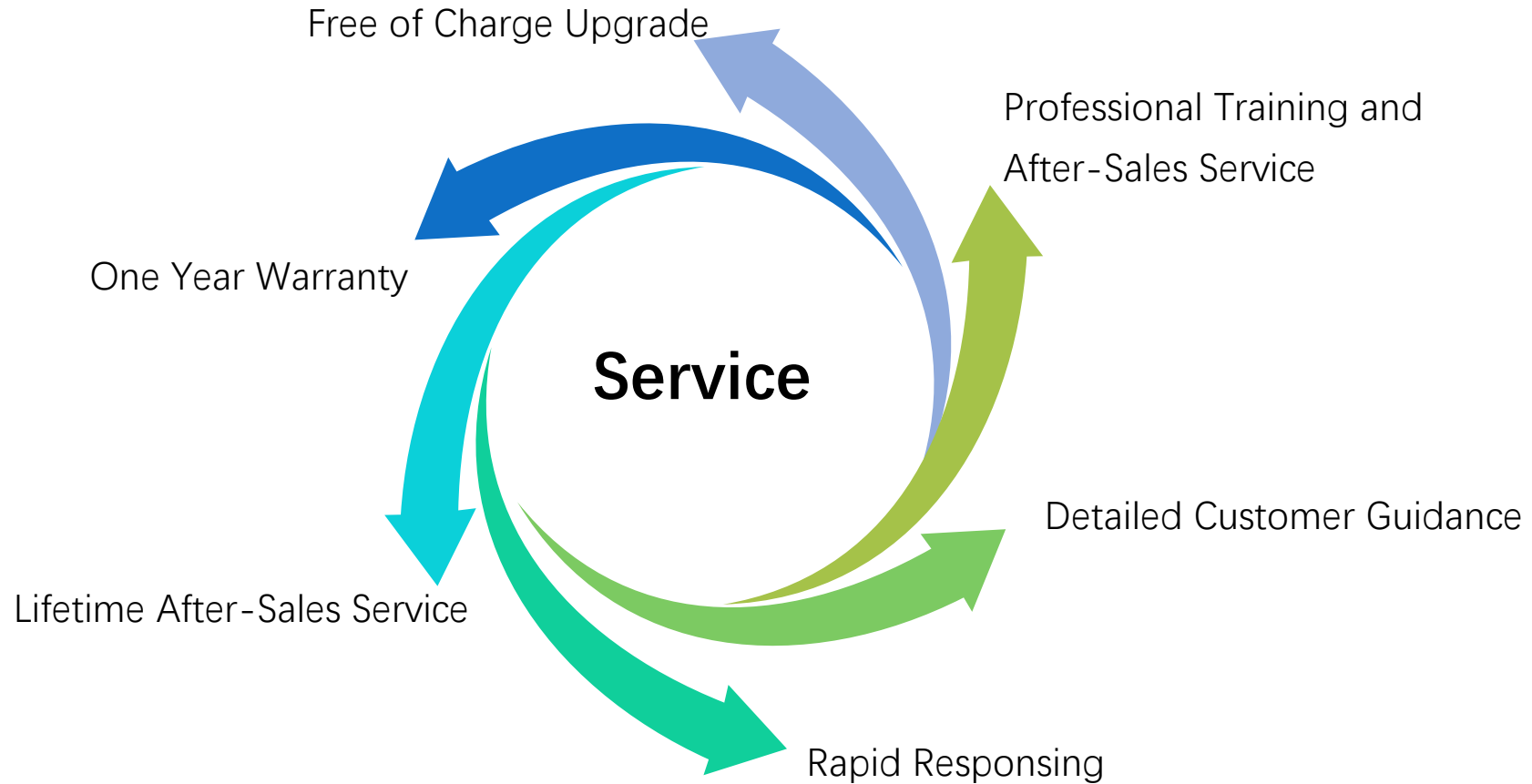
## **Specific Absorption Rate (SAR) information:**

Wireless Scanning Module meets the government's requirements for exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. FCC RF Exposure Information and Statement the SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types: Wireless Scanning Module has also been tested against this SAR limit.

This device was tested for typical body-worn operations with the back of the Wireless Scanning Module kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain an 0mm separation distance between the user's body and the back of the Wireless Scanning Module. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided.



## ➤ SERVICE & TROUBLESHOOTING



"One phone call or a mail and you will get a team of experts working behind for you – service is what sets us apart."



## THANK YOU!

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