

# Flashing the Xiaomi Mi-Wifi 3G

## Step 1 – Setting up the factory firmware

The first thing that must be done with this router is to set up the passwords for the factory firmware. Using Ethernet, plug in your computer to one of the router's LAN ports. Then use your browser to go to 192.168.31.1.

You will see the opening splash screen for the router.



Click on the text in the lower right hand corner.

This will take you to another screen where you must click on the large button.



You will then be asked to enter a password for the Wifi. It must be at least 8 characters long.



请设置Wi-Fi名称与密码

Xiaomi\_A3A4 Wi-Fi名称

Wi-Fi密码 Password

☒ 开启穿墙模式

下一步 Click here

返回

需要拨号(PPPoE) | 无线中继 | 有线中继

Click on the button after entering a password.

Next you will be asked to enter the password to access the router's GUI. Remember this password as you will need it again.



请设置管理密码

家 位置 ▾

管理密码 

☐ 与Wi-Fi 密码相同

配置完成

返回

**Password**

**Click here**

The image shows a blue background with a white MI router at the top. Below the router is the text '请设置管理密码'. There are two red ovals: one around the '管理密码' field and another around the '配置完成' button. Red text labels 'Password' and 'Click here' point to these elements respectively.

In the next screen click on the button.



Again, in the next screen click on the text at the bottom.



Close the following popup box by clicking on the button.



At this point the router is set up and ready for use.



## Step 2 – flashing to the developer firmware

Once the router is set up you will have to flash it to the Xiaomi Developer firmware.

To do this click on the drop down box in the upper right hand corner and select Upgrade.



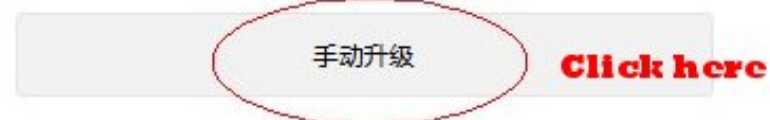
Next, click on the button that allows a manual upgrade of the firmware.



### 升级检测

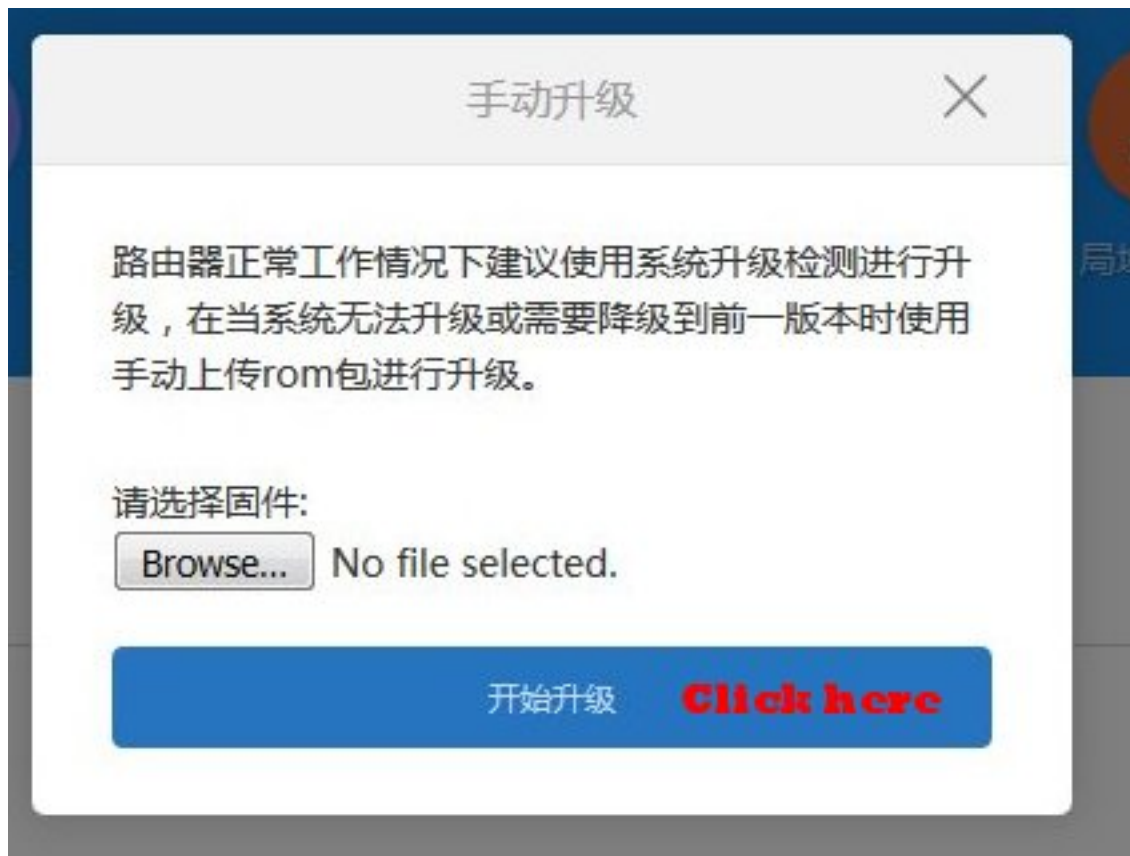
#### 系统版本

当前版本2.26.3，检查失败，网络繁忙请刷新页面重试。





In the popup box that now appears use the browse button to select the **miwifi\_r3g\_firmware\_c2175\_2.25.122.bin** file and then click on the Upgrade button.



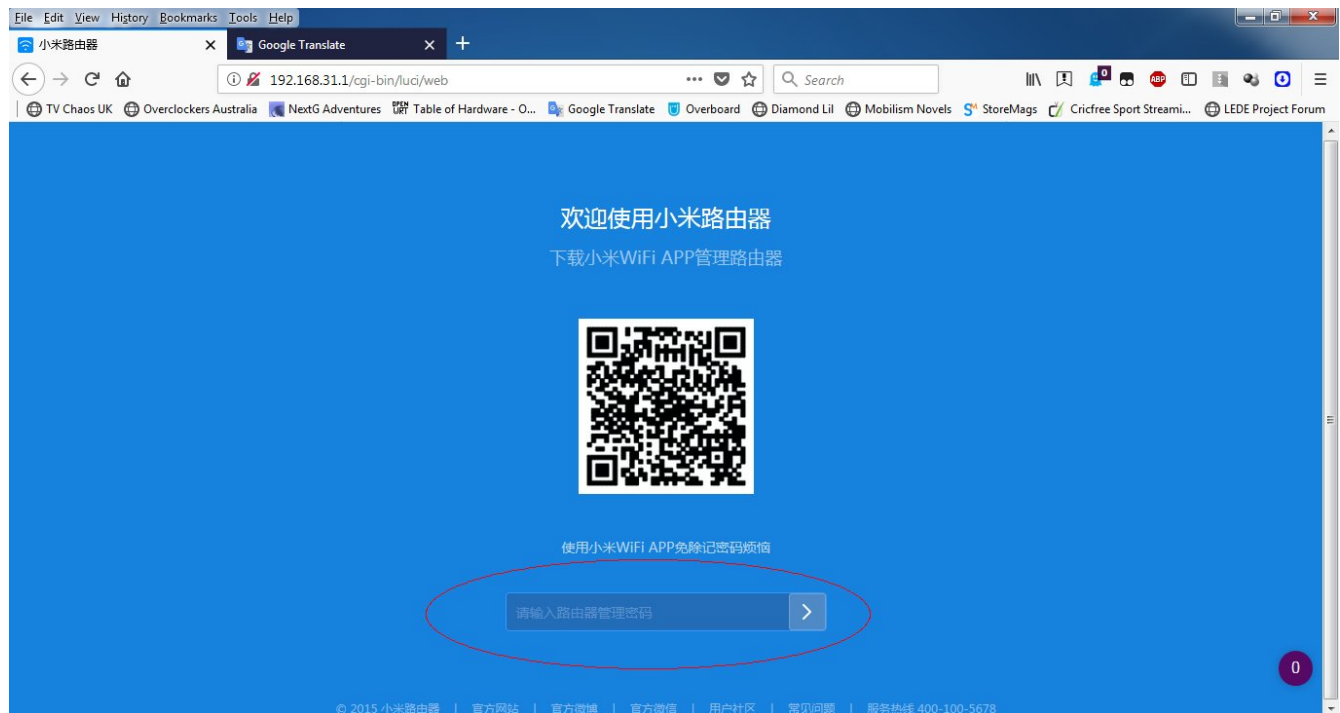
Confirm that you want to upgrade the firmware by clicking on the button in the next screen.



The router will now upload the new firmware and begin the flashing process. This will take a few minutes and the light on the front of the router will change colors.

Wait for the light to become a solid blue again and you will be able to access the GUI at 192.168.31.1.

You will be able to log in using the router password you set earlier.



Enter the password and click on the arrow on the right side of the box. The router has now been flashed to the Developer firmware.

### Step 3 – obtain the SSH firmware

In order to be able to flash to the ROOter firmware the router must once again be flashed to a special Xiaomi firmware that allows SSH access to the router.

To obtain this firmware for the router you must make an account with Xiaomi so your router can be registered with them and they can make up a special firmware for it is a custom password.

To create the account use your browser to go to

<https://account.xiaomi.com/pass/register>

and select your country and enter your email address.

Xiaomi has issues with many email servers as described here

<http://en.miui.com/thread-590105-1-1.html>

and it has been found that you need to use a Gmail account to make the process work. You may have to set up a Gmail account if you don't already have one just to register with Xiaomi.

At this point you must provide the router with Internet to its WAN from another source. This can be regular wired Internet or from the LAN of another router that has Internet access to the WAN of the Xiaomi Mi 3G.

***You must be using the Xiaomi Mi 3G router for Internet access on your computer when you attempt to download the special SSH firmware.*** Use your browser to go to

<https://d.miwifi.com/rom/ssh>

If you have trouble accessing this site check the URL in the browser address bar. You will have to reenter the **http://** part at the start of the URL to try again. It may take several tries to access the site.

Use your account email address and password to enter the site.



Xiaomi_A3A4(小米路由器3增强版)	<b>password</b> root密码 205e0eb0	<b>Click here</b> 下载工具包
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工具包使用方法：小米路由器需升级到开发版0.5.28及以上，小米路由器mini需升级到开发版0.3.84及以上，小米路由器3即将支持。注意：稳定版不支持。

You will see at the top of the page a password line with **root** in it. It will have some Chinese as well, followed by the password which will be something like **205e0eb0**. Write down this password as you will need it later to gain SSH access to the router.

Click on the button next to it to download the SSH firmware. In the popup box that will now appear click on the right hand button.

## SSH功能使用许可协议

开启小米路由器的SSH功能之后用户可以获得root权限，root之后用户的各种操作将有可能导致路由器系统不稳定或软硬件出现故障。对于用户主动选择开启上述功能而可能产生的后果，小米公司将不会承担任何法律责任（包括但不限于路由器中数据的丢失、软硬件损坏）。同时，用户开启此功能即代表主动放弃小米公司提供的保修服务，请您在开启本功能之前慎重考虑！

拒绝

接受

Click here

You will then download the **miwifi\_ssh.bin** file.

### Step 4 – flashing the SSH firmware

Flashing the SSH firmware and the ROOter firmware will require a USB memory stick formatted to FAT32. Any size memory stick can be used.

Copy the **miwifi\_ssh.bin** file to the memory stick along with the **kernel1.bin** and **rootfs0.bin** files from the ROOter package.

Unplug the power from the router.

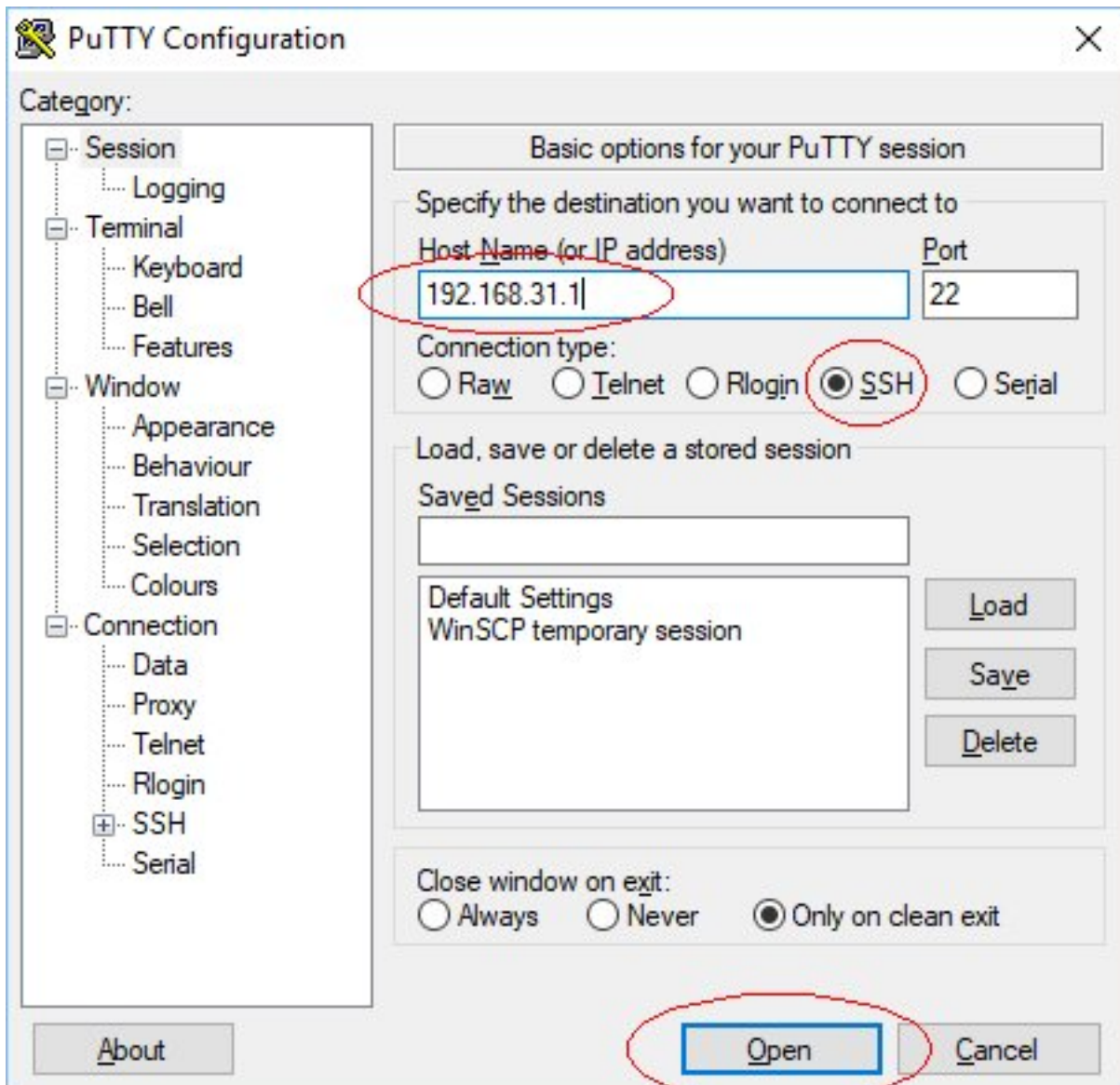
Use a paperclip or toothpick to hold down the recessed **reset** button on the back of the router and, while still holding it down, plug in the power. Keep holding the button in until the front light starts flashing yellow. This can take 10 seconds or more to happen. Then release the reset button.

Wait for the router to flash to the SSH firmware. When this is finished the front light will turn blue.

Leave the router powered up and the memory stick plugged into it at this point.

## Step 5 – flashing the ROOter firmware

Extract the **putty.exe** file from the ROOter package and place it in a temporary folder. Double click it to start it running.



Enter the router's IP Address ( 192.168.31.1 ) in the **IP address** box and make sure that **SSH** is selected. Click on the **Open** button.

Click on **Yes** in the popup box that appears asking if you know and trust this device.

When the Putty terminal box appears you will be asked to enter a **user**. Enter **root** and press *Enter*. You will then be asked for the **password**. Enter the password you received when you downloaded the SSH firmware. Press *Enter*.



You will now be at the router's command line and are able to enter commands there. Enter the following commands one at a time, pressing *Enter* after each one, and waiting until the prompt appears again before entering the next one.

- ◆ `cd /extdisks/sda1`
- ◆ `mtd write kernel1.bin kernel1`
- ◆ `mtd write rootfs0.bin rootfs0`
- ◆ `nvramp set flag_try_sys1_failed=1`
- ◆ `nvramp commit`
- ◆ `reboot`

You can now close the Putty terminal window and wait for the router to flash the ROOter firmware. The front light will change color when this starts to happen.

When the front light changes to blue you will have access to the ROOter web GUI at **192.168.1.1**.

*However, the process of booting up the router for the first time after the flash will take about 10 minutes so you will have to wait until then before doing anything with the router. There is no easily seen indication that the flash is finished so you just have to wait.*

After the first flash, when you reboot the router, it will boot up in a normal amount of time and you can access the web GUI when the front light turns blue.

## Step 6 – upgrading the ROOter firmware

Once the router has been flashed to the ROOter firmware it will act like a normal ROOter whenever you want to upgrade to a newer version of ROOter.

Select the **System** menu and the **Backup/Flash Firmware** submenu and browse for the file in the ROOter package with *upgrade.tar* in its name.

As with the above flashing method, it will take about 10 minutes after a flash before the router is really ready to be used.