

Motorola_WR850G

Because this tutorial reflects the latest 23SP2 version the installation method may be different if you're attempting to install on a previous distribution.

The Motorola WR850G is based on very similar hardware to the Linksys WRT54G except that it stores the MAC address information in flash memory and, in version 3 (the latest version), it has antennas that are not removeable (one antenna is internal). The way it stores the MAC address requires a special "mini" firmware first to use DD-WRT firmware. Versions 1 and 2 have removeable antennas but the firmware doesn't work equally well between those two versions. The version can be easily identified by looking at the bottom of the Router. It should be listed under the FCC ID ending as V2 or V1.

The following instructions will only work with hardware versions v2 and v3 or the WR850G and the WR850GP. If your WR850G doesn't have any version information on the back, it requires [different instructions](#).

Even though DD-WRT v23 SP1 and later knows about the hardware it is being installed on, you risk bricking the router when restoring defaults!

It is extremely important to follow the guidelines for your specific router. Please see [Installation](#) for more information. Remember to follow the peacock thread first for background [\[1\]](#), use this page to identify your router model correctly, and use the dd-wrt download search page ([DD-WRT Downloads page](#) or [secure version](#)) to ensure that you are getting the correct file (or files, as often is required) for the job.

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Installation

Below are listed two methods. Try the first, as the second seems to be slightly more difficult, and possibly buggier.

Normal Method

Flashing the Motorola WR850G is a multi-step process to get to the full version or a single step if the mini firmware's options are sufficient. **Remember to use a wired (ethernet) connection when flashing firmware.** That means make sure your computer is hooked directly via a cable, and not via WiFi.

In the original configuration by Motorola, the MAC address information for the Motorola WR850G is not stored in the same manner as the other routers, so a special "mini" version is necessary to convert the router to work with the full version of DD-WRT. This mini version has many of the features of the full version and

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may be sufficient for most users.

NOTE: A 30-30-30 reset of this router will wipe the MAC address from the NVRAM. Do not do it before updating to dd-wrt. I have a WT850G v2 that I DID do a 30-30-30 reset to because I ran out of NVRAM space to store OpenSSL keys for a VPN. I did it with dd-wrt and it worked but the MAC was bogus. Fixing the MAC in nvram is detailed in the debricking section on the WR850G v1 page and it works for the V2 as well. My guess is a lot of other motorola-specific data got wiped from NVRAM also, so it probably won't be possible to revert to the factory firmware. But it did allow me to free enough space up to store my SSL keys. - [Tmittelstaedt](#)

This method has been tested with Motorola firmware version 6.14. It is strongly recommended you upgrade your [Motorola firmware](#) to this version prior to starting.

1. Download the motorola-specific firmware from *ATTENTION - These links are out of date. Please go to the main index, choose downloads, and select the the Motorola Mini, not the micro version.[DD-WRT](#). The Motorola specific router is dd-wrt.v23_mini_moto.bin.
2. If you want the full version or a specialized full version of the firmware, download the generic version of the full version from [DD-WRT](#). You can download the zip file (which contains more files than you require), or you can download the standard generic one (with more features) or a specialized one (such as the VOIP version) from one of the directories. Unzip if you use the zip file.
3. Logon the the Motorola Router's [Web Interface](#).
 - ◆ The router's default IP address is "192.168.10.1" If this address is not found, make sure your network card's settings are set to automatically detecting DHCP. **NOTE:** For the Motorola WE800G, the default IP is "192.168.30.1".
 - ◆ The router's default username is "admin"
 - ◆ The router's default default password is "motorola".
4. On the firmware upgrade page (the last tab), upload the motorola-specific mini firmware. This will take several minutes to transfer the file and then several more minutes until the router reboots completely.
 - ◆ If your router informs you that upgrade firmware failed try changing the moto mini file extension from ".bin" to ".trx". This probably won't be necessary.
5. Now login to the [Web Interface](#) of your DD-WRT router
 - ◆ The ip is now 192.168.1.1, older versions may preserve the 192.168.10.1 ip.
 - ◆ The username is root.
 - ◆ The password should be "admin" but may be your old password.
6. Reset the router to Factory Defaults.
 - ◆ Your router's IP Address may now be "192.168.1.1".
 - ◆ You may need to renew your DHCP license.
 - ◆ The password will now be "admin"
7. Change settings as you like or upgrade to a different version of DD-WRT. The Motorola V2 has 4MB of flash memory (and 16MB RAM), so you can safely upgrade to any firmware you like. Voip has been confirmed as running fine.
 - ◆ Be sure to use Generic Versions of DD-WRT files.
 - ◆ Some things you might want to do:
 - ◇ Ensure firewall is on (security)
 - ◇ Change Wireless SSID
 - ◇ Add Wireless Security

Alternate Method

If the method above failed, you may find yourself with a bricked router. *All is not lost!*

The router can be recovered just like the [Linksys Router](#). The motorola router uses an IP address of 192.168.10.1 instead of the Linksys 192.168.1.1.

NOTE: For the Motorola WE800G, the default IP is "192.168.30.1".

The starting conditions for this are that the router is unplugged (no power).

NOTE: Some computers with wired and wireless connections may not work as intended. You may need to use a computer with only one ethernet connection to router to work as intended.

TFTP

The Least intrusive method is to try to "tftp" the firmware to the router.

1. Set a static IP address to your computer's ethernet port. Set your IP address to something in the same subnet, specifically 192.168.10.x (192.168.10.11 is recommended). Set the subnet to 255.255.255.0 and the gateway to 192.168.10.1. Ignore any DNS settings.
2. Plug the ethernet cord into the router and computer, if not already connected.
3. Open up two command shells (in windows, run "cmd"). On one shell, run a continuous ping of 192.168.10.1 (the router) by running "ping -t 192.168.10.1". Initially the ping will not reach the router; this is normal.
4. In the other shell, type in (but do not run) "tftp -i 192.168.10.1 put (path\firmwarename.bin)" (where "(path\firmwarename.bin)" is the path and filename of the mini firmware specific to the motorola router.)
5. Plug in your router to give it power, but only after understanding the following:
 - ◆ You have a time constraint upon powering up your router. Once you powered, You will need to be able to do the following step quickly as it is time driven.
6. Wait for the ping command to start receiving replies and run the tftp command you entered before ASAP.
7. If successful, a delay should occur and then report that a xxx bytes transferred.
 - ◆ The router will then store that firmware and start using the firmware.
 - ◆ This will take several minutes!
 - ◆ You can tell the router is finished after the red power light changes back to green (stays green for more than 15 seconds).
 - ◆ After the router is running again, you'll need to set your computer to obtain an IP address automatically. You'll think the router isn't working when your computer is now just using a different subnet.