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## Introduction

As this Belkin router comes in several versions.

If you have a 4 MB model, you can reflash the router with the full version generic firmware from within the routers web interface after dd-wrt is installed as long as you check the filesize of the build you are flashing and make sure it not larger than what is allowed in your Belkin router. See the peacock announcement at the start of the broadcom forum, notes 3 and 4 for further information:

<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486>

v1000, and v1111, have 4 MB flash while v1444 has only a 2 MB flash. You have to flash 2 MB routers with the 2 MB micro firmware. There is information that suggests that flashing firmware over 3.5MB will brick a v1000

<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=29520&postdays=0&postorder=asc&start=180#239052>

v1232a and all others with Broadcom 4710 chips require VINT builds.

v1444 supports [Micro-plus](#)

v2000 has a different switch chip and flash chip than earlier versions so a special build is required. You will temporarily lose the functionality of the switch and will only be able to connect wirelessly after flashing. (see flashing instructions and instructions for enabling the switch ports [\[1\]](#)) v2000 supports [Micro-plus](#)

v3000 should work, but attempts to flash it have been unsuccessful with current versions of DD-WRT. Attempting to flash a v3000 could brick your router. (psuftbl has had success with v3000)

v4000 and higher appear to be based on the TI chipset found in the [Linksys WRT54GC](#).

## Flashing Instructions

**Warning: These instructions will brick v1212 and v1213 Belkin F5D7231-4 routers, apparently without a hope of fixing them short of some rewiring.** See the forum posts here [\[2\]](#) for possible help un-bricking one of these units.

1. Download the latest micro firmware (dd-wrt.v24\_micro\_generic.bin). See [Where do I download firmware?](#) for links. Located in the broadcom folder.

## Belkin\_F5D7230-4\_v2xxx\_and\_Lower

2. Reset router to factory defaults. Unplug the router.
3. Connect your computer directly to one of the LAN ports on the router.
4. The router starts up with IP address 192.168.2.1. Set your computer's IP address manually to the following setting: IP Address: 192.168.2.2, Subnet Mask: 255.255.255.0, Default Gateway: leave blank.
5. Go to Start->Run->"cmd" and press Enter.
6. Change your directory to the folder containing the firmware image. Ex. cd "C:\Documents and Settings\All Users\Desktop"
7. Type `tftp -i 192.168.2.1 PUT (file name of firmware image)` For example:  
`tftp -i 192.168.2.1 PUT dd-wrt.v24_micro_generic.bin`. **Do not press enter yet.**
8. Connect the power to the Belkin.
9. All port LEDs will illuminate.
10. After a few seconds, all LEDs except the one you are connected to will turn off. Wait exactly one second and hit enter to execute the command. If you get a timeout error just try again. (Also try running tftp right before powering up.) If you continue to have trouble with this step check out the alternative method below.
11. The LED on the LAN port will flash rapidly for a while after which the power button will flash rapidly for a while. Be patient and wait for the power light to stop flashing. Wait a couple more seconds.
12. Power cycle the router. (unplug the power, wait a few seconds, plug it back in).
13. Set your IP address back to automatic (DHCP), or set it to something beginning with 192.168.1.
14. The router is now accessible at <http://192.168.1.1/>
15. The user name is 'root' and the password is 'admin'
16. Enjoy your DD-WRT router

## Alternative for Flashing F5D7230-4

It may be easier to use a GUI TFTP Utility

1. Follow steps listed in the method above until you finish the part where you set your computer's IP address to 192.168.2.2
2. Download a GUI tftp tool from [here](#) or use tftpd32 (<http://tftpd32.jounin.net/>)
3. Start TFTP program and set server to: 192.168.2.1 and for the file part, put the location of your "dd-wrt.v24\_micro\_generic.bin" file. No password required.
4. Set retries to 20.
5. Power up router.
6. Click upgrade and then hit the reset button on your router. If program doesn't catch the Belkin's TFTP window, just hit reset again. The tftp program will let you know when it is upgrading and succeeds.

TFTP is only active during the first few seconds of boot. If you have problems catching the small TFTP window, try setting your NIC to 10mbps half duplex. This helps the NIC connect quicker. You can also try using a hub or switch between the router and PC.

## Second Alternative for Flashing F5D7230-4

If you're having difficulty with either of the above methods (or just don't feel like going through all the hoops required) there is a much simpler method that may work.

1. Reset the router to factory defaults.
2. Set your computer's IP address to 192.168.2.2 as described above.
3. Plug your computer into the router and power the router on.
4. In a command prompt (what you get by going to Run in the start menu) type out the tftp command line but **do not hit enter yet**.
5. Press and release the reset button on the back of the router.
6. Almost immediately hit enter in the command prompt to run the tftp command you typed out.
7. If tftp tells you the file was sent successfully wait a few seconds, unplug the router, then plug it back in. If it says the connection timed out or the transfer failed, prepare the tftp command line again (hitting the up arrow key should do it) and repeat the previous two steps.
8. Connect to 192.168.1.1 to configure (and enjoy) your vastly improved router.

After trying the first two methods a few times (the first method several times in particular) I managed to get my v1444 flashed in one try (!) using this method. As such I am unsure of the exact delay between resetting the router and starting TFTP, but it was definitely less than a second. At the very least this method is much more enjoyable than unplugging and re-plugging your router over and over again.

## Linux Instructions for Flashing F5D7230-4

- Set the IP address of your ethernet interface to be 192.168.2.2, netmask of 255.255.255.0

```
sudo ifconfig eth0 inet 192.168.2.2 netmask 255.255.255.0
```

- Make sure you have "tftp" installed.
- Start up tftp with the router switched off:

```
# tftp 192.168.2.1
tftp> verbose
Verbose mode on.
tftp> trace
Packet tracing on.
tftp> rexmt 1
tftp> binary
mode set to octet
tftp> status
Connected to 192.168.2.1.
Mode: octet Verbose: on Tracing: on
Rexmt-interval: 1 seconds, Max-timeout: 25 seconds
tftp> timeout 60
```

- Turn on the router after typing the following command:

```
tftp> put dd-wrt.v24_micro_generic.bin
putting dd-wrt.v24_micro_generic.bin to 192.168.2.1:dd-wrt.v24_micro_generic.bin [octet]
Sent 1746029 bytes in 14.8 seconds [943799 bits/sec]
tftp>
```

- When the lights stop rapidly blinking, reset the router.

## OSX Instructions for Flashing F5D7230-4

- Make sure the router is on and plugged into your Mac's ethernet port
- Goto System Preferences and click on the Network icon
- In the selection box next to the word "Show:" select the "Built-in Ethernet" option
- Change the IPv4 Configuration to manually and set the IP address to 192.168.2.2 the subnet mask to 255.255.255.0 and the router to 192.168.2.1
- Click "Apply Now" and change the selection box next to "Show:" back to "Network Status"
- Unplug the power from the router and watch the green dot next to "Built-in Ethernet" turn red
- Open the terminal application and type the following commands

```
tftp
tftp> connect 192.168.2.1
tftp> verbose
Verbose mode on.
tftp> binary
mode set to octet
tftp> status
Connected to 192.168.2.1.
Mode: octet Verbose: on Tracing: off
Rexmt-interval: 5 seconds, Max-timeout: 25 seconds
tftp> timeout 60
```

- Type the following but don't hit enter yet. Make sure you can still see the System Preferences window

```
tftp> put dd-wrt.v24_micro_generic.bin
```

- Now plug the router back in. As soon as you see the red dot next to "Built-in Ethernet" turn green, hit enter and the firmware should be flashed once the lights on the router stop blinking.
- In order to connect to the router you must first go back to the Network Preferences and change the IPv4 configuration back to DHCP and click "Renew DHCP Lease"

## Using v2000 Or FD57231-4 As A Wireless Client or Access Point with DD-WRT

(borrowed from <http://forum.bsr-clan.de/ftopic8732.html>)

The Belkin F5D7230-4 v2000/FD57231-4 (with screws not under label) are still not completely functional with DD-WRT, but it can be used as either a wireless access-point or a wireless client. The reason for this limitation is due to the fact that the current robo-switch is unable to properly configure the vlan with this router's implementation of the BCM5325EKQM switch chip. By bypassing the vlan stuff we can get limited functionality from this router. In order to load DD-WRT micro you must tftp it on to the router. These instructions are for the v24 build of DD-WRT micro not the multi-language version which seems to have stripped out the reboot, ls and other shell commands.

A) Belkin F5D7230-4 v2000 as a wireless client.

- 1) Connect to the router wirelessly
- 2) Telnet to the router and sign in or use a serial console cable
- 3) Enter the commands below:

## Belkin\_F5D7230-4\_v2xxx\_and\_Lower

```
nvrn set lan_ifnames="eth0 vlan0"  
nvrn set port0vlans=0  
nvrn set lan_ifname=eth0  
nvrn set wan_ifname=vlan1  
nvrn set wan_ifnames=vlan1  
nvrn commit  
reboot
```

4) After the reboot, unplug the router and plug it back in. When it starts back up your LAN ports should be active. The router's default IP address is 192.168.1.1. Just use the web interface via the LAN port to configure the router as a wireless client.

B) Belkin F5D7230-4 v2000 as a wireless access point

- 1) Connect to the router wirelessly
- 2) Telnet to the router and sign in or use a serial console cable
- 3) Enter the commands below:

```
nvrn set lan_ifnames="vlan0 eth1"  
nvrn set port0vlans=1  
nvrn set remote_management=1  
nvrn set lan_ifname="br0"  
nvrn set wan_ifname=eth0  
nvrn set wan_ifnames=eth0  
nvrn commit  
reboot
```

4) After the reboot, unplug the router and plug it back in. When it starts back up your WAN port should be active. The router's default IP address is 192.168.1.1. Just use the web interface via the WLAN port to configure the router as an access-point.

If you enter in the wrong setting or can not access your router you can always hold down the reset button to restore it to the factory defaults. Remember that we are bypassing all the VLAN stuff so some of the web configurations will not work.