Netgear WNDR3400

|  |  |  |  |
| --- | --- | --- | --- |
| **Router details** | |  | **Additional information** |
| **Chipset** | BCM4718A1 |  | * DD-WRT Wiki: [Netgear WNDR3400](http://www.dd-wrt.com/wiki/index.php/Netgear_WNDR3400) |
| **RAM** | 0 MB |  |
| **FLASH** | 0 MB |  |
|  | | |  |
| **Supported by** |  | | |
| |  |  |  |  | | --- | --- | --- | --- | | **Description** | **Filename** | **Date** | **Size** | | DD-WRT Broadcom Generic - NEWD K2.6 - Big | [dd-wrt.v24-37305\_NEWD-2\_K2.6\_big-nv64k.bin](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_big-nv64k.bin) | [2018-10-10](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_big-nv64k.bin) | [7,33 MB](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_big-nv64k.bin) | | DD-WRT Broadcom Generic - NEWD K2.6 - Mega | [dd-wrt.v24-37305\_NEWD-2\_K2.6\_mega-nv64k.bin](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_mega-nv64k.bin) | [2018-10-10](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_mega-nv64k.bin) | [7,41 MB](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_mega-nv64k.bin) | | DD-WRT: Factory flash | [dd-wrt.v24-37305\_NEWD-2\_K2.6\_mini-WNDR3400.chk](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_mini-WNDR3400.chk) | [2018-10-10](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_mini-WNDR3400.chk) | [3,41 MB](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/10-10-2018-r37305/broadcom_K26/dd-wrt.v24-37305_NEWD-2_K2.6_mini-WNDR3400.chk) | | | | |

<https://dd-wrt.com/support/router-database/>’

# **Netgear WNDR3400**

**From DD-WRT Wiki**

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[](https://wiki.dd-wrt.com/wiki/index.php/Image:WNDR3400.png)

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| --- |
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[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=1)] Important Notes

**Only version 1 is supported.** Versions 2 & 3 are not yet officially supported.

There is an unofficial port of dd-wrt to the version 2 hardware it is discussed here [[1]](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=153543&postdays=0&postorder=asc&start=0) It is located on myopenrouter here [[2]](https://www.myopenrouter.com/download/dd-wrt-netgear-wndr3400v2-heartbleed-protection)

There is an unofficial port of dd-wrt to the version 3 hardware it is discussed in this thread here [[3]](http://www.dd-wrt.com/phpBB2/viewtopic.php?p=913695)

Use only **K2.6** builds with **nv64k** in the name, **K3** builds are often too big but you can check if they will fit! They must be less than 7995392 bytes in size. Always start with a K26 mini build though.

**Read** [**Peacock**](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486) **topic** (at top of Broadcom Forum). *Read it all. Carefully.*

[**DD-WRT Forums, Report Bugs!**](http://www.dd-wrt.com/phpBB2/viewforum.php?f=1)

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=2)] Hardware Specs

|  |  |
| --- | --- |
| **CPU** | Broadcom BCM4718A1 |
| **CPU Speed** | 480 MHz |
| **Flash ROM** | 8 MB |
| **RAM** | 64 MB |
| **Radios** | 2.4 GHz and 5 GHz |
| **WLAN Support** | A/B/G/N |
| **WLAN Max Speed** | 300 Mbps on 2.4Ghz and 300 Mbps on 5Ghz |
| **Antenna Location** | Internal |
| **Switch** | 4x 100 LAN + 1x 100 WAN |
| **USB** | 1x USB 2.0 |

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=3)] DD-WRT Installation

1. There are two versions of this router with corresponding initial flash mini firmware: K2.6\_mini-WNDR3400.chk is for Netgear branded routers and K2.6\_mini-WNDR3400\_CVNA.chk is for Cablevision routers. See [Where do I download firmware?](https://wiki.dd-wrt.com/wiki/index.php/Index:FAQ#Where_do_I_download_firmware.3F) for links. Check the build threads on the forums such as this one for [33772](https://www.dd-wrt.com/phpBB2/viewtopic.php?t=312321), do not consider this a build recommendation.
2. Do a factory reset (recessed button on the back), and upgrade with the appropriate mini firmware above. If it complains about downgrading, just Allow.
3. To gain functionality of the usb port, upgrade to a **big nv64** version or a **mega nv64** version after flashing the mini version above. Broadcom K3X builds can also be flashed to this router just make sure each build has the routers name in it like step 1 and is **less than 7995392 bytes (7808 bytes) in size** or you will brick the router.
4. 30-30-30 reset router (as described in [Peacock](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486)).

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=4)] Build Notes

Check every build to make sure that it is **less than 7995392 bytes** in size or you will brick your router. It is best to check the build threads on the forum. Such as this one for [build 33772](https://www.dd-wrt.com/phpBB2/viewtopic.php?t=312321&start=0).

I have tested build 33555 mini (10/20/17) on this router and it flashes and runs fine. This is the second build that patches the KRACK vulnerability in WPA2 and it can be obtained here [[4]](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2017/10-20-2017-r33555/broadcom_K26/dd-wrt.v24-33555_NEWD-2_K2.6_mini-nv64k.bin) All Mega builds later than the working ones listed below will brick the router. Builds earlier than 10/17/2017 are vulnerable to KRACK (meaning there is no Mega build now that will run on this router that is not vulnerable to KRACK) -tmittelstaedt 10/21/2017

* Version dd-wrt.v24-33772\_NEWD-2\_K2.6\_mega-nv64k.bin and dd-wrt.v24-33772\_NEWD-2\_K3.x\_mega-nv64k.bin both brick this router.
* Version dd-wrt.v24-30534\_NEWD-2\_K2.6\_mega-nv64k.bin bricks this router
* Version dd-wrt.v24-28493\_NEWD-2\_K3.x\_mega-nv64k.bin bricks this router

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=5)][**K3.x 36247 mega-nv64k**](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/06-29-2018-r36247/broadcom_K3x/dd-wrt.v24-36247_NEWD-2_K3.x_mega-nv64k.bin)

* Might brick this router! Size of .bin 7615488

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=6)][**K26 36247 Mini**](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2018/06-29-2018-r36247/broadcom_K26/dd-wrt.v24-36247_NEWD-2_K2.6_mini.bin)

* does not brick this router.

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=7)][**K26 33772 Mini**](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2017/11-16-2017-r33772/broadcom_K26/dd-wrt.v24-33772_NEWD-2_K2.6_mini.bin)

* does not brick this router.

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=8)][**K3.x 29440 Mega**](https://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2016/04-11-2016-r29440/broadcom_K3X/dd-wrt.v24-29440_NEWD-2_K3.x_mega-nv64k.bin)

* does not brick this router but vulnerable to KRACK

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=9)][**K26 29440 Mega**](http://download1.dd-wrt.com/dd-wrtv2/downloads/betas/2016/04-11-2016-r29440/broadcom_K26/dd-wrt.v24-29440_NEWD-2_K2.6_mega-nv64k.bin)

* does not brick this router but vulnerable to KRACK

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=10)][**Kong 22000++**](http://www.desipro.de/ddwrt-ren/K26/r22000++/)

* ***Recommended build for this router.***
* [DLNA version](http://www.desipro.de/ddwrt-ren/K26/r22000++/usb-ftp-samba3-dlna-nv64k-broadcom.bin) (home)
* [VPN version](http://www.desipro.de/ddwrt-ren/K26/r22000++/usb-ftp-samba3-vpn-nv64k-broadcom.bin) (office) (Has been known to brick router)

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=11)] Unbricking

This router can be "bricked" (rendered inoperable) by flashing the wrong firmware; by not following the correct flashing procedure (in [Peacock](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486)); or by flashing a bad build like 21676 Big.

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=12)] Factory method

See [**Reinstall the firmware on a router without the setup CD recovery tool**](http://kb.netgear.com/app/answers/detail/a_id/19841)

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=13)] Recovery mode method

[This method](http://wiki.openwrt.org/toh/netgear/wndr3800#recovery.flash.in.failsafe.mode), which works on the WNDR3800, *may* also work on the WNDR3400v1.

I tried the recovery method listed for WNDR3800 and couldn't seem to get it to work, it could be the timing. I was trying with linux TFTP and it does try around ten times and started it before and just after starting it but still didn't work.

What does work is a serial recovery, with serial adapter attached here is what worked.

* Hit CTRL-C then start router
* Type TFTPD at CFE prompt to start TFTP server
  + Could not get firmware to flash from CFE prompt
* TFTP either the official netgear firmware or DD-WRT initial flash firmware.
  + Had to use firmware with ".chk" extension, DD-WRT firmware with ".bin" extensions would flash, however, it would stop there and router will not program.
* Afterwards you can then upgrade to mega or Kong builds.

[Gostmn26](https://wiki.dd-wrt.com/wiki/index.php?title=User:Gostmn26&action=edit) 15:16, 23 November 2014 (CET)

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=14)] Pin short method

If you have bricked your router, and you are willing to accept the *risk of damaging it beyond repair* (as warned in [Peacock](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486)), the router can often be recovered by shorting pins as described [here](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=153763).

* Timing of the pin shorting is tricky -- power on, wait for the lights to flash, then try shorting a few times until the power light starts flashing steadily.
* Next use tftp2 (with no password) to flash factory firmware.
* After the flash, *wait at least five minutes after the router boots up and the power light becomes steady green* before resetting the router.

Here is another overview of the process for the WNDR3400 <http://stevejenkins.com/blog/2014/01/how-to-unbrick-a-netgear-wndr3400-n600-router-after-a-bad-dd-wrt-flash>

[[edit](https://wiki.dd-wrt.com/wiki/index.php?title=Netgear_WNDR3400&action=edit&section=15)] Revert to Factory Firmware

1. Download [official Netgear firmware](http://www.downloads.netgear.com/files/GDC/WNDR3400V1/WNDR3400%20Firmware%20Version%201.0.0.50.zip)
2. Reset DD-WRT (recessed button in the back)
3. Enable telnet under services
4. Telnet to router (192.168.1.1)
5. Issue the command "mtd erase linux" & wait ~3 mins
6. tftp the official firmware to the router
   * tftp for windows [[5]](http://www.dd-wrt.com/dd-wrtv2/downloads/others/tornado/Windows-TFTP/tftp2.exe) enter router ip, leave password blank, select official firmware file
7. 30-30-30 reset router (as described in [Peacock](http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51486))

**THIS IS BROADCOM ONLY!**   
  
I called this the peacock thread so it can be searched for easily. It contains a lot of information, so it is up to you to *read carefully*. (Take notes, if you want! Your router will be giving you a test later! )   
  
The information in this thread IS up to date, regardless of the post date of the thread. This post is constantly modified.   
  
Please note that I am seeing the same common problems and confusion arising over and over again. Here are some comments on common problems:   
  
**Required Reading:**   
**Note 1- Hard Reset and DD-WRT UPGRADE Flashing Info   
Note 2- Backup files can't be reused   
Note 3- Recommended builds   
Note 4- Understanding dd-wrt build options   
Note 5- ALWAYS FOLLOW THE WIKI INSTRUCTION FOR FIRST TIME FLASHING! ALWAYS!   
Note 7- Required Posting Info   
Note 9- How to backup your CFE - DO IT!   
Note 18- Miscellaneous EXTREMELY Useful Info**   
  
**Notes for Specific Issues**   
Note 6- Test for bricked routers   
Note 8- Don't Pin Short!   
Note 10- Memory Issues/P2P   
Note 11- How to Tftp   
Note 12- Limiting Bandwidth   
Note 13- Blank Webgui/White Page   
Note 14- Modem/Wan IP Issues   
Note 15- Bridging Routers/Public Wifi   
Note 16- Supported Routers   
Note 17- Power Supply/Hardware Issues   
  
  
1. **UNLESS YOU HAVE A LINKSYS EA ROUTER, DO A HARD RESET \*BEFORE *AND* AFTER\* YOU CHANGE DD-WRT FIRMWARE VERSIONS.** This does not mean hitting the reset button and saying you are done. This means doing the 30-30-30 reset. To do a 30-30-30 reset you must push the reset button with your router powered on. Hold it for 30 seconds with the router powered on. STILL holding it, pull the power cord for 30 seconds. Still holding it, plug the power back into your router and continue to hold the reset button for 30 more seconds. You will have held the button for a full 90 seconds without releasing it.   
  
DO NOT DO THIS PROCESS WITH AN EA SERIES LINKSYS ROUTER. They have a small CFE Nvram storage that holds important information, and this cannot be erased! Use the factory reset option. If you have screwed this up, here is user Robb's instructions on how to fix: <http://www.dd-wrt.com/phpBB2/viewtopic.php?p=920100#920100>   
  
HARD RESETS USUALLY DON'T WORK WITH STOCK FIRMWARE!   
  
Note: WRT54GS v1.1, GS v2, and GS2.1 models can brick after a hard reset *no matter how it is done*. See this thread and the solution in Vulcan's post:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=45024>   
  
Note: WRT320N has a faulty reset button. See this post about using the WPS button to erase nvram:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=63004>   
  
Note2: The Asus RT-N16 reset button puts it into firmware restore mode. See the RT-N16 wiki for how to reset this router.   
  
After you have done this WHEN DD-WRT IS INSTALLED, **if you haven't been asked to change your password by the dd-wrt webgui when you try to login to the router at 192.168.1.1,**(presuming you are doing a hard reset on a dd-wrt build newer than 9707, June 14, 2008, when the auto reconfig password was introduced) **you haven't done the hard reset properly.**   
  
**Failing to do a hard reset and failing to wait after flashing are the two most common NOOB errors that lead them to a world of *unnecessary* dd-wrt pain!** This is not a minor optional step. The firmware writes information to the Nvram. This step clears that information. If you don't clear it properly, parts of the old information be present with the new firmware, which can make it not operate properly. Don't cut corners. Doing it before you upgrade can be very important; a hard reset is not just for after upgrades.   
  
Hard resets will not remove dd-wrt from your router!   
  
**BELOW IN THIS NOTE ARE THE GENERAL INSTRUCTIONS FOR UPGRADING TO A DIFFERENT BUILD OF DD-WRT ONCE YOU HAVE DD-WRT ON THE ROUTER. YOU MUST FOLLOW THE WIKI INSTALL FOR YOUR ROUTER (NOTE 5 BELOW)IF YOU DO NOT ALREADY HAVE DD-WRT ON THE ROUTER. HOWEVER, ONCE DD-WRT IS INSTALLED, AND YOU WANT TO UPGRADE, USE THE INSTRUCTIONS BELOW. THESE INSTRUCTIONS ARE FOR UPGRADING FROM ANOTHER VERSION OF DD-WRT; THE WIKI IS FOR INITIAL INSTALLATION ON A ROUTER THAT DOESN'T HAVE ANY VERSION OF DD-WRT ON IT.** MAKE SURE YOU KNOW WHAT YOU ARE DOING AND FLASH THE RIGHT BUILD FOR YOUR ROUTER (NOTE 4 BELOW)   
  
The proper process for flashing **when upgrading EXISTING dd-wrt firmware** is:   
  
a.Set your computer to a static IP of 192.168.1.8. (or to whatever subnet the router is on) Disable all firewalls and security. Disable wireless on your computer and only have the router connected to the flashing computer by the ethernet cable between the two.   
b. Hard reset prior to flashing. Wait. Check for password page on re-login and change password.   
c. Flash firmware. You should use the dd-wrt webgui upgrade page except if you have a belkin router. (For belkin use tftp.exe to flash)   
d. Wait...at least three minutes. Lights should return to normal. See important2, below. Failing to wait is how most people brick their routers.   
e. **Do a power cycle of the router. (Unplug the cord, count to 30 and plug it back in.)**   
f. Wait for the lights to return to normal usually about 2 minutes.   
g. HARD reset again. Wait. Check for the password page and set the password. Then you can reconfigure your settings manually.   
h. Once configured set your computer back to autoIP and autoDNS.   
  
Important: This 30-30-30 hard reset works fine for Asus router, but you do have to power cycle after the reset....however, the RT-N16 model you do the 30/30/30 using the WPS button instead of the Restore button.   
  
Important2: **After you flash the firmware, and before you do the hard reset, the router will be building some nvram settings. YOU MUST WAIT FOR THIS TO FINISH PRIOR TO DOING ANYTHING WITH THE ROUTER INCLUDING A HARD RESET. Usually, you can tell when this process is completed by the WLAN light coming on, but it does take several minutes. Go have a beer. There are starting to be more and more people who BRICK their routers by not waiting until the nvram is rebuilt, PRIOR to doing a hard reset. YOU NEED TO WAIT!**  
If you have done a hard reset on the router, and received the change password screen, make sure you mention this in your post if you still have a problem....otherwise everyone will be telling you to do a hard reset.   
  
Wanna see what happens if you don't follow each and every step?   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=55693>   
  
If you have flashed a PROPER build (see note 4) the PROPER way (see above) and it looks like you still have the same firmware you had previously, CLEAR YOUR BROWSER CACHE!   
  
LOM has clarified this process:

|  |
| --- |
| **LOM wrote:** |
| A long reset is an emergency reset which makes the Broadcom CFE wipe out the nvram settings and initialise nvram with a **few** important router defaults.  You will lose any factory defaults that the routers stock firmware has stored in nvram.   The 1st 30 second of pushing the resetbutton when ddwrt runs is just not needed, a short push will do the same which is reboot the router. You can achieve the same by pushing the gui reboot button.   The 2nd 30, ie turn off router and wait 30 seconds before turning it on is just bogus, has no effect other than a placebo effect.  30-1-30 would do the same.   The 3rd 30 is what does something but should only be used when nothing else helps. It does not work in the u-boot boot loader (atheros, ralink, marvell) only in Broadcom.   The gui function for Factory defaults will wipe out any ddwrt setting but will keep defaults from CFE and from stock firmware.  Reset to factory defaults keeps variables which are needed for router type detection so it is the only nvram reset you should ever use before an upgrade.  You may need to do a reset to factory defaults if an nvram variables function changes between firmware version something which is extremely rare.    Finally, don't listen to users telling you to do "erase nvram" on a telnet cmd line.  This wipes out the complete nvram area (nvram variables and the nvram header) together with anything else residing in the mtd partition named nvram. |

2. **You CANNOT install old configuration files made on one svn build on any other firmware without risking large problems.** Don't do it. **Restoring backups after changing builds can brick your router!** Delete your old configuration files once you are sure the newer firmware is stable. They are useless. Also, it should not even have to be mentioned but **you cannot use backup files from one router model on another router model.** You should also not re-use old config files IF you are having any problems, or you could put the problem back in. This does mean you have to re-enter ALL your configurations again. Don't bitch about this. It's the FUN of third party firmware. Plus you might see some options you missed before. If this is a hassle for you, try using Imacros for firefox to automate the process.   
  
Frater has also championed some scripts that can be used to restore some parts of the nvram:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=44324>   
  
  
3. **Upgrade (or downgrade)to one of the forum recommended builds listed in this section, especially if you are running SP1 or v24 final (05/21/08 )13064 or 14896.** Stick with what is recommended in this thread or a router specific thread for your router if you want stability.   
All of these forum recommended builds are BETA and not "finished" yet. Although you use them at your own risk the forum recommended builds have been pretty thoroughly tested and work well. Browse the forums and see what others are saying.   
  
The newest builds, such as the 20xxx or 24xxx builds, that are newer than the recommended builds have been released for TESTING only. They are not new and "improved" and have not been released because they are obviously better. Some of the latest 25xxx buids seem to be reasonably good, but some builds can have massive problems. So realize that if you are installing a different build that the ones that are recommended here, you are testing a build and you might find that it DOES NOT WORK. Each build has a "build thread" in the forum that is created when the build is released. Report problems in that thread, but do not ask for help with your router in the build thread. **IF YOU WANT A GENERALLY STABLE BUILD, USE ONE OF THE BUILDS RECOMMENDED IN THIS note!** The only exception to this rule is if you are using a VERY new (2011+ release) router and that router requires initial flashing of a build that is newer than 15962, and in that case most should use 17990 or 18000 (which are basically the same). For newer routers you need to check the supported devices wiki and find which version was the first to be supported on your router, and not ever flash a build with a LOWER number than the first supported build.   
 **DON'T USE THE ROUTER DATABASE!** The **router database** has recommended some less stable builds, including 13064 (10/10/09) build or 14896. I suggest using the builds that are recommended here, rather than the ones in the router database. SP1 is full of bugs, and while 13064 is not nearly as bad, some are reporting connection issues fairly regularly. Sometimes the router database also has had the wrong build type. The router database is being worked on improve the recommendations but it still contains errors and bad builds. **Do not skip over reading the install wiki for your router just because you got the files from the router database.** You need to KNOW what to do with those files. **The wiki usually has the right builds for particular routers. READ THE WIKI!**   
  
**Prior to upgrading, understand how builds work by reading note 4, below, and ALWAYS follow the wiki install for your router when initially flashing it from oem firmware!**   
  
**These are the recommended builds:   
Brainslayer 14929.** This build has worked fine in most configurations and routers and should be used in most cases. If you wish to try a newer build, some people are finding very good stabilty with build 15962. 15962 is a good overall build for the e2000 and e3000 routers. (Do NOT use 15962 K26 if you have CPU 4704 (corerev=11) - No K26 builds after 15314 on 4704 CPUs) Many people have found major problems with some builds newer than 15962. However, if you are using a newer router model (e4200 etc) that can only run more recent builds than 15962 AND you don't need SSH, use build 17990 or 18000 or 25760. 27858 has also has gotten good reviews and appears to be a recent fairly stable build. 12548 is a good build for older G only routers.   
<ftp://ftp.dd-wrt.com/others/eko/V24_TNG/svn12548/>   
  
For SOME routers, some people have found good succsess with Kong 22000++ builds, but you need to understand which is the right build for your router before even attempting to use these builds:   
<http://www.desipro.de/ddwrt-ren/K26/r22000++/>   
  
Make sure you know the nvram size of your router if is is a newer model (e2000, e3000, e4200) as you must flash a nv60 or nv64 on some of these newer router models. Also, if your router wasn't supported when 14929 or 15962 was released, or any other build you are planning to use, using that build will brick it. See note 4, below before you flash. Your router must be flashed with a build LATER in number than the build that first was used on the router by dd-wrt. This information is usually in the supported devices wiki. Look up your router and check.   
  
Here is a link to the NEWD BS 14929 builds:   
**K24** builds **(NOT K26!!)**:   
<ftp://ftp.dd-wrt.com/betas/2010/08-12-10-r14929/broadcom/>   
  
K26 builds (**see below to determine if you need k24 or k26...screwing this up will brick your router**)   
  
If you have installed 14929 and are having problems, **ESPECIALLY IF REPEATER MODE ISN'T WORKING for you**, try dropping back to EKO 12548 if your router supports the older 12548 build.   
  
  
This is a link to these the new EKO builds. Click on the link and open the folder with the same number as the recommended build you wish to use:   
  
EKO:   
<ftp://ftp.dd-wrt.com/others/eko/V24_TNG/>   
  
Here is a link to all the available builds:   
  
<ftp://ftp.dd-wrt.com/betas/>   
  
  
Be sure to understand whether you need a k24 or a K26 version of dd-wrt BEFORE you upgrade. (See below on this). Some newly supported routers can ONLY use K26 builds, but don't use K26 if your router can use both k24 and k26.   
  
If you HAVE to use k26 (which you can tell by whether when you originally flashed the router, you were required to use a build with K26 in the name) here is the link to the k26 builds. Putting these on a router that can only use k24 WILL brick it. Most newer routers are now k26, and some now can use k3   
  
If you NEED a k26 build, here is the link to the recommended build.   
  
<ftp://ftp.dd-wrt.com/betas/2010/08-12-10-r14929/broadcom_K26/>   
  
**Note that if you need VINT for your router, (For VERY OLD routers - see note 4 on this) Build 13491 is a recommended VINT build.** 12548 also worked well for many.   
  
Here is a link to 13491 VINT:   
<ftp://ftp.dd-wrt.com/others/eko/V24_TNG/svn13491-snow/VINT/>   
  
Sometimes, a wireless encryption type doesn't work, so you might have to try another one if one is not working. **WPA2-AES is secure and working well. No other encryption except WEP works reliably with dd-wrt in these recommnded builds, and WEP is not secure.** So USE WPA2-AES.   
  
To make sure this is absolutely clear: **Builds that are newer than the recommended ones listed here are not necessarily better.** If you see a newer folder and think you will try that, even though it's not one of the builds recommended in this announcement, be sure you have a jtag cable and a place to attach it.   
  
In the past, there were newd and newd2 builds. The quick answer is that, given a choice, you should not use newd2. This if a very old issue, that has no relevance with routers released since about 2010.   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=54711>   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=55625>   
And this wiki article:   
<http://www.dd-wrt.com/wiki/index.php/NEWD2_Support_on_some_models>   
  
**Some newer routers MUST use K2.6 builds.** If you originally had to flash a build with k2.6 in the name, you likely will ALWAYS have to flash a k2.6 build. K2.6 builds always use the Newd-2 driver. See note 4, below for further info on this.   
  
**Make sure your firewalls and virus protection are disabled prior to upgrading.** Some people have had problems accessing their router due to not disabling their computer security.   
  
**Remember that newer is not necessarily better!!!**   
  
4. **CHECK and UNDERSTAND the proper build for your router.** The ROUTER memory (flash memory...not RAM) determines what build you can put on it. It is simple math. If you have a 4mb flash chip, you can't put a build larger than 4mb on it because it won't fit, even if you **wish** to have advanced features. In other words, don't look at the features and decide which one you want and then install it. You will often brick your router. This is bad.   
  
  
**Trailed builds** are builds with the router model in the name. BS builds are often, but not always trailed builds. These builds are often necessary for initial flashing of a virgin router because they have the right header in the file that allows it to be flashed on the stock firmware. **Once dd-wrt is installed, you should not use a trailed build, and should use a generic build instead UNLESS you have one of the new Linksys Routers (E2000, E3000 E4200) that allocate nvram differently. Those routers (eg. E2000 and E3000, E4200) must ALWAY USE A TRAILED BUILD for initial flashing, and some upgrades from initial flashing REQUIRE nv60 or nv64 builds. (See below for further info.).**   
  
**Additional Note for E2000 E3000 and E4200 etc. users:**   
Do the initial flash with the trailed build that contains your router model number...(example...xxx\_e2000.bin for a E2000 model) Once you have done the initial flash...you can upgrade firmware using the build that contains xxx\_e2k\_e3k.bin for all subsequent flashes. (If you are using a 16758 or higher build, which is newer than is recommended, you must use a nv60k build rather than the e2k-e3k build - See the wiki for your router and this post: <http://www.dd-wrt.com/phpBB2/viewtopic.php?t=148350>)   
  
Builds with nv60k in the name can only be used with routers that have a 60k nvram space. Builds with nv64k in the name can only be used on routers that have a 64k nvram space. If you use one of these builds and your router doesn't support it, you will brick your router and will need a serial cable to fix it. If you don't use one of these builds and your router needs it, you will brick your router and will need a serial cable to fix it. These nv60k/nv64k are only being used in many new routers, and the need to use these builds, if it applies to your router SHOULD be explained in the wiki for your router. No k24 supported routers use nv60/nv64.   
  
See this thread for specific models that must use nv60 or nv64 builds:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=156851>   
  
**FOLLOW THE *PROCESS* FOR FLASHING YOUR ROUTER THAT IS IN THE WIKI.**   
<http://www.dd-wrt.com/wiki/index.php/Installation>   
Once you have dd-wrt installed on your router, you can change to any generic stable build that the flash will support by upgrading using the webgui. You should not have to stick with the build in the wiki install for your router, but you do need to understand what builds can be flashed on your router!   
  
**Read the rest of this note to understand builds to flash to your router, once dd-wrt is installed according to the wiki, and to make sure you are flashing a supported build for your router.**   
  
To pick a build, there are three things you need to know. The **process** for flashing, the build **type** (micro, mini, standard or mega) and whether you need **newd, K26, nv60 or nv64**. Then you can pick the **build svn** (14929, 17990, 12548 etc.) that you want to flash.   
  
You don't have to use the build VERSION that are recommended in the wiki but it is a good practice to do so unless you undestand how all this works. You should use the build TYPE. (See below in this note.)   
  
You need to know whether you can put micro, mini, standard or mega on your router. You can determine what TYPE of build is supported on your router by going here:   
<http://www.dd-wrt.com/wiki/index.php/Supported_Devices>   
  
The supported devices wiki will also tell you the FLASH size that your router has. (DON'T Confuse flash with ram size). Your router will have 2, 4 or 8mb (or higher with modern routers)of Flash. The generic builds are not based on router models; trailed builds are only used for initial flashing. (Except for non standard nvram like E2000, E3000 Linksys)   
 **To determine what version TYPE to flash, use this guide:**   
  
If you have 2mb of flash, you MUST use Micro.bin. (See below for how to determine if you need NEWD\_Micro.bin or VINT\_Micro.bin). **You cannot use micro PLUS on ANY router unless it has a compressed CFE.** If you didn't compress your CFE, or don't know what a compressed CFE is, DON'T USE MICRO PLUS. Info on compressed CFEs can be found here:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=38844>   
  
If you have 4mb of flash, you can use any mini or standard build as long as you get the newd/k26/nv60/nv64 choice right (see below in this note). You cannot use Mega on a router with 4mb of flash. Some of these builds have different features built in. If you don't need VPN, then you can get a VPN version, for example.   
  
IF you have 4mb of flash, and you don't know what build to use, just use MINI.bin. You can always reflash later.   
  
If you have 8mb of flash, you can use any generic build you wish. (Subject to k26 or nv60/64 specific builds that your specific router might need), unless the build is larger than the 8mb flash size. (Some recent mega builds have been) .   
**Maximum firmware size**   
To be on a safe side, please check the size of new firmware file before flashing it to your router. **Flashing too large firmware file can brick your router.** (Netgear Routers often cannot flash standard builds because of the extra partition they have on the flash chip.)   
2MB flash chip / normal cfe (256k) : 1769472 bytes   
2MB flash chip / compressed cfe (128k): 1900544 bytes   
4MB flash chip (not Netgear): 3801088 bytes   
4MB flash chip Netgear routers: 3735552 bytes   
8MB flash chip: 7995392 bytes   
  
Micro builds are not recommended for 8mb flash routers and **Do NOT put a micro build on a router with an N radio.** Using micro on an N router can brick some N routers.   
Newd vs Vint vs Newd2 vs K26[/b]   
  
NEWD is the NEW Driver based on the kernel 2.4. Many older routers use this. Vint is the very old Vintage driver for really early Linksys router from about 15 years ago, also based on kernel 2.4. Newd-2 is a newer driver that is available both in a kernel 2.4 and a kernel 2.6. Don’t use builds with newd2 in the name. K26 is the new kernel that some very new routers MUST use and it has the newd-2 driver. Using K26 on a router that doesn't support it, or failing to use K26 on a router that requires it will both brick the router.   
  
NEWD has only NEWD (NOT NEWD2) in the filename of the bin file...DON'T CONFUSE THIS WITH NEWD2. All Brainslayer builds without k26 in the filename are NEWD builds. NEWD-2 has NEWD2 in the filename. K26 has K26 in the filename of the .bin file. VINT has the word VINT in the filename.   
  
Most routers should use NEWD rather than VINT when they can. VINT is for old routers that cannot support the new wireless drivers and have a correv of 4 or less. Many new models can ONLY use k26 builds, as explained above - if your original flash from the wiki was a build with k26 in the filename, you must always flash with a k26 build.   
Correvs for many models are listed in the wiki:   
<http://www.dd-wrt.com/wiki/index.php/Corerev>   
If you have dd-wrt installed, here the command that you send to the router to check:   
  
**nvram get wl0\_corerev**   
  
Do this from a telnet session or putty terminal window.   
It can also be done from the Administration>>Commands tab.   
In addition, some routers use a 60 or 64k nvram space, and must use EITHER a 60 or 64K build.   
CHECK all of this (Nv60, Build allowed etc.)and be sure. However, some of the information in the Wiki is out of date in that there are sometimes newer builds but generally the wiki install for your router has reliable specific instructions. If it says you can use generic\_standard, then any standard build can be used.   
  
So, if it says that you can use, for example Generic\_Standard v.24 12548 you could also use NEWD\_Standard svn12874, or, if you need a VINT build, VINT\_Standard svn12548. You should never use builds that have a specific name of the router in the name of build that is not the name of YOUR router! (These are also called 'trailed builds') Ie. Don't use v24-10700\_NEWD\_mini\_wr850g-v2-v3.bin (which is for a wr850 v.2 router, in a WRT54gl router! If there is not a specific build for your router, use flash size to determine the build, as explained above.   
  
HOWEVER, especially with a newer router, please note that you can never flash a router with a build that predates the support for that router. Some very new router have just been supported (e2500, e3200 etc.). **You cannot flash any build that was created before support was added for that router. So with newer router, you need to search to find out what build was the first one that could be used on that router, and make sure you ONLY FLASH builds that are that build or newer.** Using 14929 will brick a newer router model that was not supported when 14929 was released.   
  
If you want to know the differences between the versions, and what each of the different builds includes, see this page in the wiki:   
<http://www.dd-wrt.com/wiki/index.php/What_is_%22DD-WRT%22%3F#File_Versions>   
For example, if you need a VPN version, you can check which build types support it, but remember that ALL other considerations (n64, version supported, k26 etc) STILL have to be correct for you to flash the build type you want. (DHC\_Darkshadows has done some good work to keep that page detailed and up to date.}   
  
NEWD-2 was developed for some routers that could also use NEWD. So there was a choice of NEWD, or NEWD-2 for these routers. When k26 was developed it also used NEWD-2. So this meant there was a k24NEWD, and K24 NEWD-2 and and K26 NEWD-2. ALL k26 builds are NEWD-2.   
  
Don't use a kernel24 newd-2. There is no benefit that we have found. However, most routers developed in the last two years can ONLY use K26. Make sure you see this thread and check if your router can use K26 before flashing:   
  
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=63757&start=0>   
  
Also, to tell if you have one of the new routers that MUST ONLY use K26, you simply check the wiki install for your router and if you originally were told to use a K26 or a NV60 or NV64 build, you must continue to ALWAYS use a k26/nv60/nv64 build.   
  
IF you are wondering if you should use a **build with olsrd in the name**, then the answer is no. This is a case of "if you don't know what it is, you don't need it". OLSRD is for mesh networks.   
  
IF you have looked, and are not sure, ASK.   
  
5. **Read the WIKI and follow the wiki for INITIAL flashing of your router**. There has been a lot of work recently to improve the wiki for broadcom devices and the wiki is now mostly up to date and using good files. **Don't flash firmware based on youtube or instructions on another non dd-wrt website**. Often youtube or other internet instructions are out of date/incorrect! Read and follow the instructions here in the dd-wrt wiki.   
**One thing you REALLY need to look at is the procedure for installing to your router.** This is extremely important as there are a lot of subtle variations. Some routers must use a different ip address than 192.168.1.1. Who knew? If you haven't read about YOUR router, go here now:   
<http://www.dd-wrt.com/wiki/index.php/Installation>   
  
**DO NOT USE THE "ROUTER DATABASE" AS A SUBSTITUTE FOR FOLLOWING THE WIKI!** The router database is still recommending builds that are not optimum, even if they are newer. SP1 is not a good build, and 13064 (10/10/09) while better, is still causing problems for some people. In addition, the router database only provides the files (and not good ones), not the instructions. **YOU NEED BOTH GOOD FILES AND GOOD INSTRUCTIONS**, so follow the wiki install for your router. This is not optional.   
  
Once you have dd-wrt installed on your router for the first time, use the information at note 1, 3 and 4 to put the recommended build on your router.   
  
If you find an install article that is confusing or out of date (ie. suggests using SP1 or any build prior to 12548) please report it in this thread:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=57056>   
  
Please do not delete material from the wiki unless you are fully knowledgeable about the information. If you are not sure, but want to change the information, ADD the information above the material that is there as a suggested edit. Please report the fact that you have changed the wiki in the same thread:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=57056>   
  
6. **Is your router bricked?** A bricked router is usually a router that you can no longer communicate with through wireless or ethernet wired connections. It will give no response. Just because a router doesn't seem to be fully working, doesn't mean it is bricked. That being said, when we properly refer to a bricked router, we mean that it is not responding to an ethernet wired connection and needs a jtag or serial cable to fix it.   
  
A brick will normally not respond to pings at all. Often, all the lan lights and the power light are lit when a router is bricked, even those with no cable in the lan port. If you can get your router to respond to pings, there is hope.   
  
When pinging the router:   
  
If reply has TTL of 100, the bootloader (CFE) is responding. This is the best time to start the TFTP transfer. In **most** cases you should be able to flash dd-wrt firmware if you are getting any ttl=100 responses, as long as you flash at the start of these ping responses. See note 11 about how to flash. Timing can be tricky.   
  
If reply has TTL of 64, the operating system firmware(i.e. Linux, dd-wrt) is responding. The good news here is that there IS operating system firmware on your router.   
  
Routers with boot wait enabled will give you a few ping responses of ttl=100, while the operating system is loading, prior to changing to ttl=64. This enables you to flash firmware at bootup with tftp if you wish to.   
  
If there is no operating system firmware (dd-wrt) on the router (flash of firmware did not take for some reason), you will only get ttl=100 from the bootloader.   
  
If you get "destination host unreachable", you likely have your computer on a different sub-network than the one you are trying to ping. Check to make sure that you have your computer set to the same **static** IP subnet (eg.192.168.1.10) as the address you are trying to ping.   
  
If you only get "request timeout" responses, and you are pinging properly to the correct IP of the router from the same subnet,this is not good (router might be bricked) but we can still try TFTP just in case. Here's what to do:   
  
Try to ping at ALL the ip addresses that your router has ever had. Make sure that you set the IP on your computer to the same first three octets of the IP you are trying to ping. Usually, you will set the IP of the computer to 192.168.1.8. Then, at your command prompt, ping -t 192.168.1.1. Watch and report the results, if you have a problem.   
  
Be SURE to **check your power supply** and make sure it is the correct one for your router. We often see that people have used the wrong power supply and then find their router doesn't work. Also, power supplies fail, and if the capacitors are weak the power supply might seem fine when the router is not under load but often the supply won't work right at reboot, right when you need it to function properly. If you have another power supply, try both.   
  
**Specifically, here are the steps to see whether you have a brick and need to jtag (or use a serial cable):**   
  
a. Make sure your computer hardware, especially your lan cable are working properly. Make sure your network adapter is working. **Check your router power supply.**   
b. Disable all virus protection and firewalls on the computer. Also, disable any wireless cards.   
c. Connect one computer to the router with a cable. Have no other connections to the router except one computer and one cable to that computer.   
d. Set your computer ip address to 192.168.1.10 (if that is the same subnet as the router is supposed to be at).   
e. Try to ping the router using the command "ping -t 192.168.1.1" (presuming that 192.168.1.1 is the address your router was set to.) See if there are ANY responses. (There WILL be A response...you are looking for a ttl= response)   
f. If there are no ttl= responses, do a hard reset on your router. Make sure you get this right. (See note 1.) This should set your router back to dd-wrt defaults. Check to see what the dd-wrt default is for your router. Usually this is 192.168.1.1. Some routers are 192.168.10.1 and some are 192.168.1.254. You then need to redo steps d. and e. using the new ip address. Make sure if the subnet has changed, your have changed your computer to match the subnet.   
g. Start continuous pings to your router again. Note the responses. If they are not ttl=64, you have a problem. While the pings are continuing, power cycle your router. (This means unplug it, count to 30, and plug it back in). Watch the lights and wait until they come back on or for any changes. This could take a minute. Carefully watch for any ttl= responses during this time.   
h. If you do get ttl=64 that is the firmware responding. Your router is likely not bricked. Look elsewhere for your problem.   
i. If there are no ttl= responses, do a hard reset on your router, while the pings continue. Again. watch for any ping responses. If you get none, you likely need to jtag or use one of the recovery methods listed below in this note. Your router is bricked.   
  
If you get a few ping responses of ttl=100, or even 1, that is the CFE saying "Send me a firmware! NOW!" But you have to hit it with a tftp right then, when the ping responses start. See note 11 (below) and repeat the procedure that got your a ttl=100 response then try to get the tftp timing right.   
Some routers can be bricked even if they do give some ttl=100 responses to pings, but this is less common. Some routers can be bricked if the lights are not all lit. However, if the lights are all lit, and you cannot get a ping response, the router is definitely bricked. If you have properly flashed it, and cannot get firmware on, the router is bricked. You can try the alternate recovery methods below, but if none work and you can't successfully flash proper firmware using tftp, you must use serial recovery or jtag to fix it. (See the Links to the Wiki articles on these, below). It is often a wise idea to tftp oem firmware back onto the router if you get a ttl=100 response, but you will not be able to do so if you had to change the bootloader to install dd-wrt (linksys wrt54g v5 -8 for example. If you are not sure if you can flash oem firmware, ask in the forum!)   
 **DON'T PIN SHORT A BRICKED ROUTER**. It can cause harm that cannot be fixed. A bricked router can almost always be fixed with serial or jtag if there is a jtag terminal in the router. However a router with hardware damage cannot be recovered. Pin shorting often causes hardware damage.   
  
If someone has sent you to note 6 of the peacock thread, it is because **they are asking you to post the exact message you get from your initial ping attempt**, the message you get during and after a power cycle, and the message you get when pinging during and after a hard reset. **Be sure to post this information in your thread. You will ALWAYS get a message/response when you try to ping;(see the first paragraph for note 6, above) be sure to post exactly what those responses are. Also post what each light in the front of the router is doing, and whether something is plugged into any lan port. We also need to know what you did to brick your router - wrong build? WHICH EXACT BUILD DID YOU FLASH? Failed to wait? What? Finally we will need to know what operating system you are using on your computer to assess the message you get. POST ALL THIS INFORMATION IF YOU WANT USEFUL ASSISTANCE**   
  
Here are links on how to put your router in **management mode**, that has saved some people who thought that their router is bricked:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=47536>   
<http://kb.linksys.com/linksys/GetArticle.aspx?docid=a6d5b5f58421426e9543ca5b5bdf2a94_Router_not_working_after_failed_firmware_upgrade.xml&pid=80&converted=0>   
(This mode is sometimes obtained with a 30-5-5 reset)   
  
EKO has posted this for the Linksys 610N (Not sure if it works for other Linksys routers too?)   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=54286>   
  
As an alternative to serial or jtag, some recent version routers can be fixed by this method. It is worth a try before you solder:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=63444&start=15>   
  
If you cannot get ttl=100 or ttl=64, (or you can but you still can't recover the router after trying all of the above) you will have to jtag or serial recover. Serial is safer and normally works.   
  
If you need to jtag, here is a link to the **wiki article on jtag**:   
<http://www.dd-wrt.com/wiki/index.php/JTAG>   
  
You can do some router recovery with a **serial adapter** IF you have a working CFE on the router. (The CFE is protected on the flash chip and will not be corrupt unless there is hardware damage, you have deleted it with a jtag or used the very dangerous mtd command.) This is the preferred method if you flashed the wrong firmware but have not deleted the cfe with a jtag cable. See this wiki article on serial recovery:   
<http://www.dd-wrt.com/wiki/index.php/Serial_Recovery>   
  
If none of the above works, either you are not doing it correctly or you have hardware damage that cannot be recovered without replacing components.   
  
7. **ALWAYS put the version number of the dd-wrt you are using in your post** if you are asking for help. It matters. Tell the version number, the SP, if any, and the subversion (e.g. 11296 or 12060) and/or date of the build. Also post whether it is the micro, mini, big, std, or mega build. K26 or k24. Newd, nv60 or nv64. This information can be found in the top right corner of your webgui, or on the status page. A simple way to provide this information is to always post the full name of the bin file you used or tried to use. EG. "I flashed dd-wrt.v24-14929\_NEWD-2\_K2.6\_mini\_usb\_ftp.bin." We NEED this information, in detail, to assist properly.   
  
Don't simply put "dd-wrt.v24\_micro\_generic.bin" without the version number....there are about 100 different build versions with that name. And DON'T say you have the "latest build" on your router. "Latest build" can mean many different things. Put the version NUMBER or DATE at a minimum, but give the full file name if you can.   
  
**ALSO ALWAYS** post your router Make Model **and Version**. (There are about 15 Linksy WrtGS router and the version is critically important information). This information should be on your router label.   
  
Finally, if you are operating more than one device (eg router connected to a modem, or multiple routers) be sure to clearly state HOW each of the devices, including the modem, is connected to each other (cable/wireless etc.) and the IP numbers of each, including the modem. This is your network topography and is usually important. You also need to state whether you wish networked computers to have access to each other or whether they can be isolated from each other. If you are inquiring about wireless signal or problems, state your security type and channel number being used.   
  
(This is a test, btw. If you don't post your build properly,AND your router make model AND VERSION you fail the test, we all know you haven't really read this thread, and you will be sent back to read it more carefully.)   
  
8. **DON'T do a pin short until you are ready to throw the router out.** Do a JTAG first. YES, you have to wait and be patient....either have to build or buy a JTAG. BUT pin shorting can do irreversible harm. A JTAG will not. If you haven't done a pin short, it is LIKELY you will be able to fix your router. If you pin short your router too many unknown very bad things can happen. **Many forum members won't waste their time helping you sort out a bricked router after a pin short.** The only time that it seems to have worked at all is with the Asus WL500w, where it should still be a LAST resort. So DON'T PIN SHORT! See this post:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=55577>   
  
9. **Backup your CFE file.** Your flash is composed of three parts. The CFE file, which is the program that boots the router and is specific to your router, the NVram which is the memory for settings (simplistic explanation, I know) and the kernel which is the firmware. You can erase the nvram. You can reflash the kernal But if you don't have a CFE file FOR your specific model of router, you are pooched. Instructions for doing this are here:   
<http://www.dd-wrt.com/wiki/index.php/CFE_backup>   
  
This is SUPER easy and REALLY important. This only works once you have dd-wrt installed, but it should be one of the first things you do after flashing. If your router is at the default IP of 192.168.1.1, all you have to do to backup is click on this link:   
<http://192.168.1.1/backup/cfe.bin>   
  
Do it. You'll likely be glad you did when you need your CFE. (Change the IP address in the link to your router IP address, if it is not at 192.168.1.1). If you have more than one router, make sure you rename your CFE.bin file so you can identify which router it is from, later. (e.g Asus520GUCFE.bin)   
  
It would be nice if people would share this online in the CFE collection project sticky, but your MAC address is stored in the CFE file so some are reluctant to post this. You will lose your MAC address in CFE if you use someone elses CFE. There are ways to fix the MAC address though.   
  
This site can be used to download CFEs:   
  
<ftp://gakinaction.ddns.net/>   
  
Backup your CFE now.   
  
10. **Insufficient Ram and P2P programs.** P2P programs have "issues" They can overwhelm your router. If you are having any problems with dd-wrt, and you are running torrents, shut them all down, close the torrent program completely, power cycle your router, and see if the problems continue.   
  
Read about the problem and what you can do, here:   
<http://www.dd-wrt.com/wiki/index.php/Router_Slowdown>   
  
Routers with 8mb of RAM (not Flash)should have Max Ports no higher than 1024. With 16mb of RAM , this can be set to 4096. TCP/UDP to 120 each. **This can assist with many connection issues, not just P2P.**   
  
There is a limit to how much your router can handle. If you use it all up with p2p, you won't be able to browse the web.   
  
Even without running torrents, **insufficient ram** can cause problems. For example, being unable to access your webgui while the router is running, or slow speeds/timeouts. Here is some more detailed information on insufficient ram and what to do.   
<http://www.dd-wrt.com/wiki/index.php/Insufficient_ram>   
  
Knowing how much nvram is available can also be important. If you run out of nvram the router will often reboot or the settings may change unexpectedly. If you can't save your settings (and you don't have a browser cache AND are hitting APPLY not just save) nvram IS the problem!! Use these commands (thanks to user DC for this input) to determine the amount of free NVRAM you have:   
  
*Go to the ADMINISTRATION->COMMANDS tab and enter the following in the COMMANDS box (don't enter the quotes and don't press return at the end of the line) "nvram show >/dev/null" Press the 'RUN COMMANDS' button at the bottom of the page.   
  
The first line of the output will look something like: size: 28140 bytes (4628 left). In this example there are 4628 bytes of nvram left.* If it is less than 500, you are getting low. A hard reset will free it up.   
  
11. **The instructions for how to use tftp.exe** are here:   
<http://www.dd-wrt.com/wiki/index.php/Tftp_flash>   
  
In order to catch the narrow window for TFTP flash, you should use platforms with simple TCP/IP implementations that don't have CTCP implemented: WinXP or Linux are reported to work, but some are reporting significant problems with Vista, Win7 or W2K8. For more information see this [posting](http://www.dd-wrt.com/phpBB2/viewtopic.php?p=319574#319574)   
  
If you do wish to try to Post WinXP OS, you will need to right click on the icon and "Run As Administrator".   
  
**Make sure your firewalls and virus protection are disabled prior to upgrading.**   
  
It was thought that there was a 4mb limit to TFTP, but Barryware says there isn't and he normally knows! In any event, you should avoid flashing a large (mega/big) build by tftp. Flash a smaller build, get your router working, and then upgrade using the instructions at note 1 of this post.   
  
Make sure your computer hardware, especially your lan cable are working properly. Make sure your network adapter is working.   
  
Connect one computer to the **LAN port** of the router with a cable. Have no other connections to the router except one computer and one cable to that computer. Make sure your wireless is off.   
  
Redhawk0 always describes the process this way:   
  
**Get the appropriate dd-wrt firmware version for your router   
  
Use this tftp utility**[**ftp://ftp.dd-wrt.com/others/tornado/Windows-TFTP/**](ftp://ftp.dd-wrt.com/others/tornado/Windows-TFTP/) **Set your computer to a static IP 192.168.1.9 (presuming your router has a default IP address of 192.168.1.1...if it is 192.168.11.1, like some Buffalo routers, set your computer to 192.168.11.9.etc) and 255.255.255.0 for a mask.   
  
Plug ethernet cable into lan port   
  
Configure your tftp utility (tftp.exe or tftp2.exe)   
  
IP=192.168.1.1 (or your router's default IP address)   
no password - leave blank   
select the firmware   
set retries to 99   
  
unplug power adapter from router, plug back in...hit upgrade button immediately.   
  
wait a full 3-5 minutes after you get success message (you should be able to access the webgui), then do a power cycle, and wait for the webgui to come up, do a proper HARD reset, and wait for the webgui again...configure**.   
  
Be aware that sometimes you will get a success message when there has not actually been success. If you are trying to tftp proper firmware, and although it says "success" it is not actually flashing, you might need a cable to recover. See note 6, above.   
  
Timing is everything with tftp.exe. When your router is in trouble, you often have to hit the upgrade at exactly the right time for it to fully upload. You can get some guidance from this thread **which explains how to put a router into management mode**:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=47536>   
  
With MANY routers you have to prepare them for a flash of dd-wrt firmware. This is done PRIOR to flashing with dd-wrt. Check to see what steps need to be done for your model and version of router because if you don't you can brick your router. Bricking is a bad thing.   
  
12. **I know of no way to limit bandwidth in the free version of dd-wrt**, either by per day or by mac address. (It can, be done by Mac address in the v.24 special build that Brainslayer has made available and will, apparently set bandwidth for users, it will not cap it at a certain amount.   
  
13. **If your are having difficulties with the webgui** either not saving settings (looks like you have the same details after saving or an old version of dd-wrt after you flashed a new one) or the webgui has disappeared OR any other problem where you don't seem to be able to contact the router through the webgui, AND you have done the hard reset AND you are using a recommended build from note 3, **clear the cache in your browser or try a different browser (IE, Firefox, Safari, Opera)**. If it still is inacessible, power cycle the router. (unplug it and plug it back in after 30 seconds). Your webpage will often be blank after an "apply". Simply navigate to your router IP address to get back to the gui.   
  
14. **If you are having problems getting internet access through your modem and have no WAN IP**, try these steps:   
  
a. Turn everything off, and restart the modem first, then the router once the modem is up and running.   
b. Check to make sure your Mac address being detected matches the Mac address of your router by comparing with the label on the router. If it doesn't the simple solution is to follow these instructions of the master:   
  
*its been covered a bazillion times now...but why not one more:   
on the Administration>>Commands tab   
  
nvram set et0macaddr=00:11:22:33:44:55 (your mac)   
nvram commit   
  
Click Run...Save Startup...power cycle the router.*   
  
c. Look into Mac address cloning, as some ISPs require the Mac address to match what they are used to. If you have changed what was wired to your modem, you might have to clone the old mac address.   
d. Make sure you have enabled PPPoe in your router, if you need it.   
e. Sometimes you have to put the modem into bridged mode, and let the router handle DCHP. A modem and a router on the same subnet cannot both handle DHCP. **One has to be bridged**. See your modem instructions on how to do this. There is information here: <http://www.dd-wrt.com/wiki/index.php/Access_To_Modem_Configuration>   
<http://www.dd-wrt.com/wiki/index.php/Modem_-_Connection_to_Router>   
f. Release and renew your ISP IP address.   
  
15. **Client Bridge, Repeater, and Repeater Bridge etc.   
  
Repeater Bridge and Repeater usually must use the same encryption type AND passphrase on both the physical and virtual networks. Otherwise, they often will not work.** This means using ONLY WEP or WPA2-AES. (See note 18, below). Also, if you are having difficulty, try switching to G only or N only- mixed modes are flakey sometimes with dd-wrt bridges.   
  
This is one of the most powerful and useful feature of dd-wrt, for an average user. However there is confusion as to the differences. Basically, Repeater is a router on a different subnet then the access point that broadcasts a new ssid, Repeater Bridge is on the same subnet that broadcasts a new ssid, Client Bridge is the same subnet as the AP but can't be connected to wirelessly, and client mode is on a different subnet then the AP and can't be connected to wirelessly.   
  
These differences are desribed better and more fully here:   
<http://www.dd-wrt.com/wiki/index.php/Repeating_Mode_Comparisons>   
  
DO NOT FOLLOW INSTRUCTIONS FROM SOME OTHER PAGE ON THE INTERNET. They are often 1. Out of date and 2. Wrong. Use the dd-wrt wiki for all instructions.   
I have set out the basic settings for setting up a router in each of these modes, based on my actually taking a router from hard reset to online. **What I have included is not meant to be a substitute for the detailed information in the wiki.** (Link provided). It is only meant to cover the basic steps, and does not include information about, for example the need to disable spi firewalls or the need to make sure Block WAN Requests are all unchecked BEFORE disabling the SPI firewall. Also, if you corretly enter the SSID in the wireless tab, there is no need to do a site survey and hit join. Follow the wiki.   
  
<http://www.dd-wrt.com/wiki/index.php/Linking_Routers>   
  
My steps are just to show the basic differences in the processes.   
  
a. Basic settings for **Client Bridge Mode**- Wired connection no wireless clients (**This is the Mode you likely want for XBOX360**):   
  
These are the basic steps. Detailed steps are found here:   
<http://www.dd-wrt.com/wiki/index.php/Client_Bridged>   
  
Hard Reset Router. Change password. Static IP of computer to 192.168.1.10 (Same subnet as AP). Ip of CB to same subnet as AP. Disable DHCP server. Apply. Relogon to router at new IP address. Put into Client Bridge Mode. **Set channel to auto.** Apply. Set Wireless security to same as Host AP. Apply. Go to Status Wireless Site survey and scan for ssid. Hit join. Apply. Advanced routing. Set to Router. Apply. Set computer to auto IP/DNS.   
  
b. Basic Settings for **Repeater Mode** - Wired and wireless clients on a different subnet from access point.   
  
These again are the basic processes. Detailed process is found here:   
<http://www.dd-wrt.com/wiki/index.php/Wlan_Repeater>   
  
Reset Router. Set user name and pword. Set ip address to a different subnet than Host AP. (eg. 192.168.2.1) Apply. Set computer to static subnet of Repeater (192.168.2.10). Relogon to router at new IP. Set wireless security to same as Host AP. Apply. Set wireless mode to repeater. Set wireless channel to auto. Apply. Status, wireless site survey. Join SSID. Apply. Add virtual SSID and create name. Apply. Set up security for virtual ssid. Disconnect computer ethernet cable. Set Computer Ip/DNS auto on Ethernet and wireless. Connect to new ssid with wireless in computer.   
  
Might as well do the hat trick:   
  
c. **Repeater Bridge** – Wireless and Wired connections to AP on same subnet of AP   
  
Detailed instructions are here:   
<http://www.dd-wrt.com/wiki/index.php/Repeater_Bridge>   
  
Hard reset router. Reset username and password. Set RB to same subnet as AP. Disable DHCP. Set gateway to AP. Apply. (Relogon to router after setting static Ip on computer to same subnet, if necessary.) Set wireless security to same as AP. Apply. Set mode to repeater bridge. Set channel to auto. Apply. Status, wireless, site survey, join ssid. Apply. Add virtual interface and name new ssid. Apply. Set security for virtual interface. Apply. Advanced routing. Set to Router. Apply. Set computer to auto Ip and dns. ethernet connection. Join new ssid.   
  
d. You can also set the router into **client mode**. This will offer no wireless, and will be a dhcp server on a different subnet then the access point. The steps should be similar to a repeater, but without the virtual ssid. Here's the link to the wiki on this:   
<http://dd-wrt.com/wiki/index.php/Client_Mode>   
  
e. **You can also connect two routers by wiring them together with an ethernet cable.** This is a very common way to link routers. They are connected by a wire, rather than wireless.   
<http://www.dd-wrt.com/wiki/index.php/Wireless_Access_Point>   
  
f. WDS is a method of linking routers that uses the same ssid on all units. Normally, all router have to have the same chipset (eg Broadcom) for WDS to work. Also, to get it to work you often need to enable STP on the basic settings page for WPA forms of encryption to work, (and you should always use WPA2-AES with dd-wrt). If one of your WDS nodes shows 0 signal, or it isn't working, going to each router gui to the WDS tab and hitting "APPLY" can often get everything working.   
<http://www.dd-wrt.com/wiki/index.php/WDS_Linked_router_network>   
  
g. If you wish to create a separate **PUBLIC WIFI** or guest network on your router, see this wiki page: <http://www.dd-wrt.com/wiki/index.php/Multiple_WLANs>   
  
**16. Supported Routers** - If you want to know if your router can be upgraded to dd-wrt, please check the **supported devices wiki.** If it is not listed, it is likely not supported. If it is a WIP(Work in Progress) do a search of the forum to see if this has changed. The supported devices wiki is often out of date with respect to recommended builds, so check the wiki install for your router. (Remember that you can always upgrade to a more recent build if you start with an old build.) The supported devices wiki is pretty close to up to date with respect to compatible devices, however. So, this means that if your router is not listed, it is likely unsupported. At the bottom of the supported devices, there is a "known incompatible devices list".   
  
DD-wrt does not work on combination modem/router devices (except one buffalo atheros combo unit..but that's it. That ONE only!).   
  
Here is a link to the supported devices wiki:   
[http://www.dd-wrt.com/wiki/index.php/Supported\_Devices#](http://www.dd-wrt.com/wiki/index.php/Supported_Devices)   
  
Many new users think that if a router has a broadcom chipset, or the same CPU as a router that dd-wrt can be flashed to, that they should be able to simply flash some version of dd-wrt on their router. The process to get a router supported is FAR more complex than that. DD-wrt requires a CFE bootloader that many routers do not have. Manufacturers lock their firmware in, making it hard to remove. In recent times routers that have become supported have taken months to get figured out, by people who are experts at this. And these are the ones that *could* be supported. So, if your router is not listed in the supported devices wiki, there is likely a reason for it not being there: It isn't and can't be supported until one of the developers cracks it, which they might never do. Only the two dd-wrt developers control which devices are supported, so asking the users on the forum if a router will be supported is like asking a customer at McDonalds if the restaurant will be adding a new burger. However, older routers that are not supported will never be supported.   
  
If you wish to see how complex it is to get dd-wrt on an unsupported router, see this thread:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=65443>   
  
**17. Hardware Issues** - Power supply failure and bad capacitors are both **common** problem with routers that can often create issues that look like firmware bugs. This is particularly common with Asus and Netgear routers. Please read this thread for more information on the problem and how to test for it:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=56939>   
  
There is also useful information on how having better power supplies can benefit your signal in this thread:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=54242>   
  
**18. Miscellaneous stuff**If you can't get into your webgui, try telnet or ssh, where the username is always root. If that doesn't work, you have to do a hard reset, and get back to the password entry page. Use care in actually putting your username and passphrase in, and make sure you get the same number of dots as your passphrase; otherwise, you will have to do a hard reset and start again.   
  
If you have lost your username and/or password, doing a hard reset will also reset it to the defaults. A hard reset will not remove dd-wrt from your router.   
  
If you expect to have wireless N working properly, see the wiki article on N configuration:   
<http://www.dd-wrt.com/wiki/index.php/Wireless-N_Configuration>   
  
If you need help with Xbox read this post and post there if you still have a problem:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=62809>   
  
If you want to see the changes between the new experimental builds, the only explanation is the timeline:   
<http://svn.dd-wrt.com:8000/timeline>   
  
**Also, you have to hit "apply" for your changes to be made permanent.** "Save" just stores them temporarily in memory without actually writing them.   
 **Advanced Wireless Settings** can be found in this thread:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=51039>   
  
**Do not raise your TX value** if you are having signal quality issues. **Increasing TX values** is normally a useless/counterproductive setting. Routers normally need to both send (tx) AND receive (rx). Increasing one without the other means your router will yell, but not hear. **Wifi needs to be bi-directional.** If you are increasing TX on TWO devices that are communicating with each other then the communication might be enhanced as they are both yelling, but increasing TX often either simply does not work at all, or it increases noise which ends up degrading the overall signal quality so that it is lower than it was prior to the increase. Many people find a better signal by DECREASING rx. Many routers do much better with LOWER TX values, around 40-50 especially those with the crappy internal antennas (linksys ashtrays). Buffalo HP units should not be higher than 30. You should fix signal issues with antennas, but you need to understand how directional and omni antennas work (see below). Often the best thing to do is re-position devices.   
  
Here is a link to the "**Catfish thread**" about external antennas:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=43810,>   
  
Enabling conflicting settings can cause a 100% cpu load (as can p2p programs as stated in note 10). See this link:   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=60382>   
  
Here is a link to a thread that deals with software that can help with **network analysis:**   
<http://www.dd-wrt.com/phpBB2/viewtopic.php?t=57417>   
  
The ONLY security that works reliably with ddwrt is WEP or WPA2-aes. WEP is not secure **so always use WPA2-aes, only.** If you are using WEP, use a hex key only, using the same hex key on both. Enter it in key1 of dd-wrt. DD-WRT does not generate the same hex equivalent for its passphrase as other algorithms d