This is only for **v1** (MIPS) hardware, which has "R6300" printed on the bottom label. The R6300v2 has an *ARM SoC* and is not covered here.

Contents

Hardware <u>Specs v1</u>

CPU	<u>Broadcom BCM4706</u>
CPU Speed	600 MHz
Flash ROM	128 MB
RAM	128 MB
Radios	BCM4360 5 GHz & BCM4331 2.4 GHz
WLAN Support	a/n+ac 3x3:3 & b/g/n 3x3:3
WLAN Max Speed	450 Mbps on 2.4Ghz and 1300 Mbps on 5Ghz
Antenna Location	Internal
Switch	4x GigE LAN + 1 GigE WAN
USB	2x USB 2.0
Power Adapter	12VDC 5A

Flashing Instructions

Read the <u>Firmware FAQ</u> (and **Peacock Announcement** for historical reference on Broadcom devices and related procedures).

Initial DD-WRT Installation

NOTE: Read the entirety of this page before installation, especially the Build Info section. Builds marked as "recommended" may be outdated, and newer builds can be used once their "New Build" thread is reviewed. See <u>Where do I download firmware?</u> for links.

To go from stock Netgear firmware on the R6300 to DD-WRT:

1. Download trailed initial flash (**.chk**) R6300 firmware.
    - ♦ <u>KRACK</u> fix trailed build <u>33772</u> can be directly flashed from OEM (V1.0.2.80_1.0.59 tested).
    - ♦ tested 2020 build <u>43078</u> can be directly flashed from last OEM (V1.0.2.80_1.0.59).
    - ♦ Do not consider this a build recommendation!
2. Reset router:
    1. Turn on router, wait for Power light to go solid green.
    2. Press & hold Reset button for 20sec, or until Power light starts flashing.
    3. Release Reset button, and router should reboot with much flashing of lights.
    4. Wait for Power light to go solid green again.
3. Disconnect PC from any network (wired or wireless).
4. Connect PC Ethernet port to a router Ethernet port (*not the yellow Internet port*) with a cable, and wait for PC to be configured by router DHCP (which can take up to a full minute).
5. Open Web browser and clear cache. (Initiate by holding down Shift and Ctrl while pressing Delete.)
6. In Web browser, go to <u>http://192.168.1.1</u> or <u>http://www.routerlogin.net</u>
7. At *Configuring the Internet Connection* select *No, I want to configure the Internet connection myself.*
    - ♦ Proceed through the confirmation.

8. Click on Advanced > Administration > Router Update
9. Browse to the downloaded initial trailed (.chk) build, and proceed.
    ♦ **Ignore any message that the update is older than the existing firmware, and proceed to update.**
10. After router says it is done, wait until it fully reboots and the power light is solid green again.
    ♦ **This may take several additional minutes.**
11. In Web browser, go to http://192.168.1.1 and verify DD-WRT successfully installed.
12. Reset router (as described above), and wait for Power light to go solid green again.
13. In web browser, again go to http://192.168.1.1 and you should see the DD-WRT create password screen.
14. Set a strong password, login, and configure DD-WRT.

DD-WRT Upgrade

To upgrade from DD-WRT to another version of DD-WRT:

• Read forum build threads before downloading firmware and see Where do I download firmware? for links.

1. Reset router as described in Initial DD-WRT Installation.
2. Disconnect PC from any network (wired or wireless).
3. Connect PC Ethernet port to a router Ethernet port (*not the yellow Internet port*) with a cable, and wait for PC to be configured by router DHCP (which can take up to a full minute).
4. Open Web browser and clear cache. (Initiate by holding down Shift and Ctrl while pressing Delete.)
5. In Web browser, go to http://192.168.1.1 and login.
6. Click on Administration > Firmware Upgrade
7. Choose File to select firmware downloaded in Step 1 above, and proceed.
8. After router says it is done, wait until it has fully rebooted and Power light has gone solid green again. (*This may take several additional minutes.*)
9. In Web browser, go to http://192.168.1.1 and verify DD-WRT successfully upgraded.
10. Reset router (as described above), and wait for Power light to go solid green again.
11. In web browser, again go to http://192.168.1.1 and you should see the DD-WRT create password screen.
12. Set a strong Password, Login, and configure DD-WRT.

Return to Stock

Flashing back to stock Netgear firmware is supported. Use the DD-WRT Web interface to upload Netgear firmware using the DD-WRT Upgrade procedure, and be sure to then *reset the router* as described in Initial DD-WRT Installation.

Build Information

Please note that all DDWRT builds for many years now are "beta" builds, as development is ongoing. Brainslayer has not made an official "stable" build since about 2009. In most cases beta builds are as stable as and have many more fixes than official releases.

Kong Builds: See [[Firmware_FAQ#Where_do_I_download_firmware.3F|

Kong no longer supports r6300v1 (only v2 is still supported). Therefore the Kong K3-AC 25015-SP1' build is the last Kong build for r6300v1. Kong's changes get rolled into the official SVN repository for Brainslayer's builds. As of September 2019, Kong has retired from DDWRT and will no longer produce builds for any routers.

Limitations

Prior to build 33006, DDWRT did not support accelerated NAT[1] which is required for Gigabit throughput on WAN port for this router. Internet speeds will be capped around 110 to 120 Megabit. This is a non-issue for ISP service providing less than these speeds. For anything faster you would have to switch to Tomato (http://tomato.groov.pl/?page_id=164) custom firmware or use Stock firmware to achieve Gigabit speeds on WAN side.

- [1] Broadcom's proprietary module is called CTF (Cut Through Forwarding), but Qualcomm's SFE (Shortcut Forwarding Engine) was open-sourced, allowing integration including to Broadcom devices (kernel 3.10+).

Resources

Alternative Firmware

FreshTomato is the latest Tomato branch supporting the R6300v1.

- Downloads: *K26RT-AC* directories at https://exotic.se/freshtomato-mips/

Latest stable build of Duxa's mod can be found here.

Forum Threads

- Support for Netgear R6300 / R6300v2 (**CAUTION:** this covers v1 and v2)
- Also check "New Build" threads for R6300 results and/or issues.