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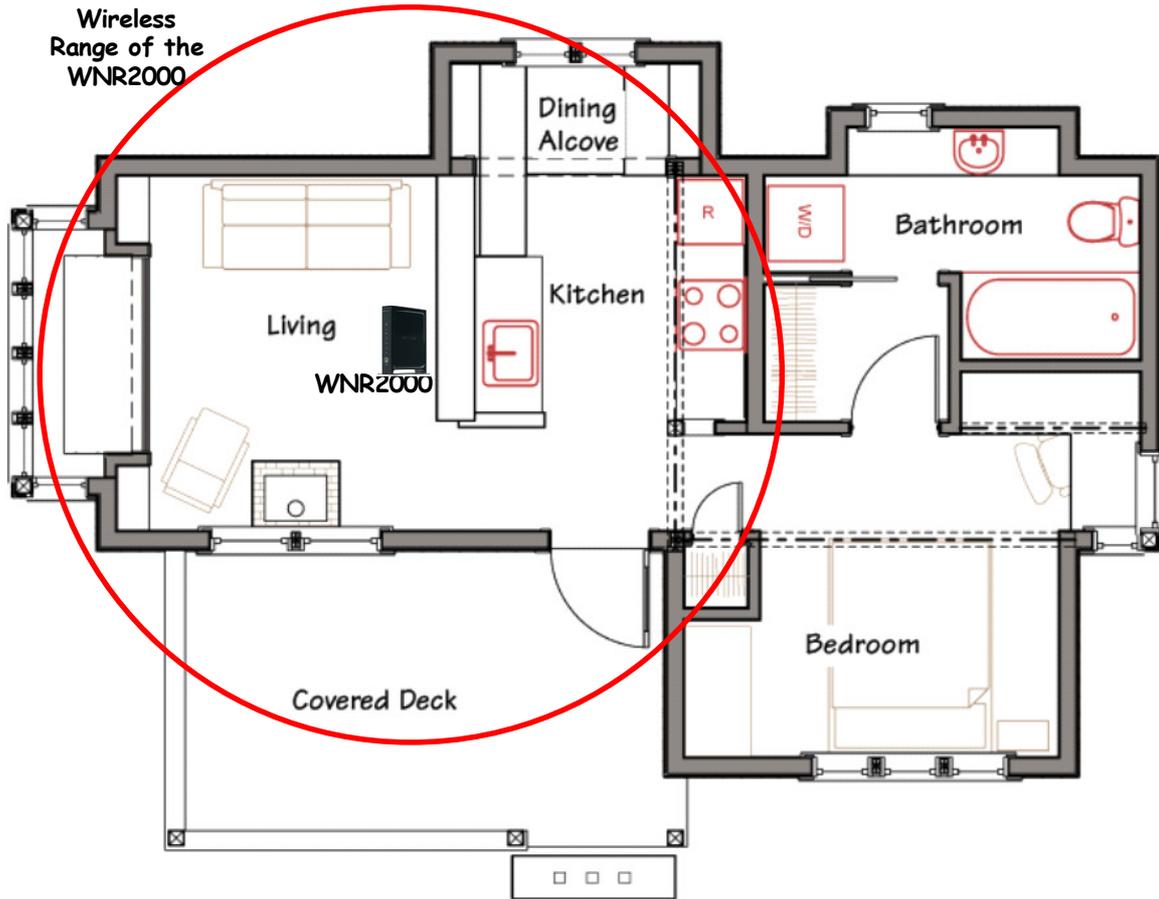
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## Repeating Using a WNR2000 and a WN802Tv1

Sometimes the wireless range of a router is not strong enough to reach all rooms in a house.

### Scenario 1 WNR2000 Broadcasting Wirelessly

In the below diagram the wireless range of the WNR2000 does not reach all rooms of the house.

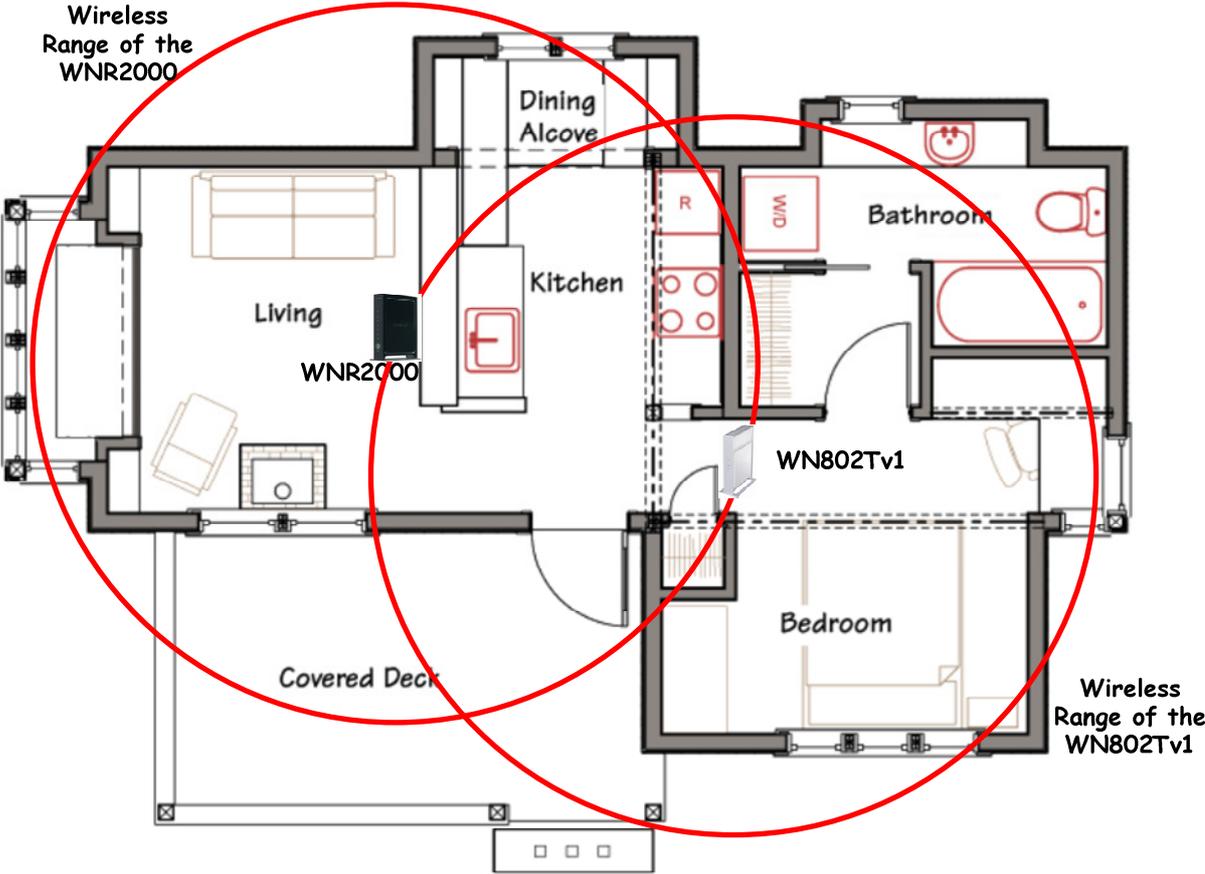


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## Scenario 2 WNR2000 & WN802Tv1 Broadcasting Wirelessly

In the below diagram the wireless range of the WNR2000 is extended by adding a WN802T to the network. Now the entire house is covered by the wireless signal of the WNR2000 by using the WN802Tv1 to repeat the signal of the WNR2000.



## WNR2000 Configuration

### Step 1 - Router Status

**NETGEAR SMARTWIZARD** router manager  
Wireless-N Router model WNR2000

**Router Status**

<b>Hardware Version</b>	WNR2000
<b>Firmware Version</b>	V1.2.3.7NA
<b>GUI Language Version</b>	V1.1.5.9

**Internet Port**

<b>MAC Address</b>	00:1E:2A:E0:04:2D
<b>IP Address</b>	0.0.0.0
<b>DHCP</b>	DHCPClient
<b>IP Subnet Mask</b>	0.0.0.0
<b>Domain Name Server</b>	0.0.0.0

**LAN Port**

<b>MAC Address</b>	00:1E:2A:E0:04:2C
<b>IP Address</b>	192.168.1.1
<b>DHCP</b>	On
<b>IP Subnet Mask</b>	255.255.255.0

**Wireless Port**

<b>Name (SSID)</b>	NETGEAR
<b>Region</b>	United States
<b>Channel</b>	Auto(3)
<b>Mode</b>	Up to 145 Mbps
<b>Wireless AP</b>	On
<b>Broadcast Name</b>	On
<b>Wi-Fi Protected Setup</b>	Configured

Show Statistics    Connection Status

Select Router Status.

Please ensure that you are using firmware version 1.2.3.7 or later.

Please note the LAN IP Address of the WNR2000 for the WN802T configuration. (See Step 5).

Disregard NA at the end of the firmware version if you are outside of America.

This firmware can be found at the following link - [http://kb.netgear.com/app/answers/detail/a\\_id/11895](http://kb.netgear.com/app/answers/detail/a_id/11895)

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## WNR2000 Configuration

### Step 2 – Wireless settings



Select Wireless Settings.

Make a note of all the wireless settings configured on the WNR2000 router.

The screenshot shows the 'Wireless Settings' page in the NETGEAR router manager. On the left is a navigation menu with options like 'Setup Wizard', 'Add WPS Client', 'Set Up', 'Basic Settings', 'Wireless Settings', 'Content Filtering', 'Logs', 'Block Sites', 'Block Services', 'Schedule', 'E-mail', 'Maintenance', 'Router Status', 'Attached Devices', 'Backup Settings', 'Set Password', 'Router Upgrade', and 'Advanced'. The main content area is titled 'Wireless Settings' and contains two sections: 'Wireless Network' and 'Security Options'. In the 'Wireless Network' section, the Name (SSID) is 'NETGEAR25', the Region is 'United States', the Channel is '01', and the Mode is 'Up to 300 Mbps'. In the 'Security Options' section, 'None' is selected. At the bottom right of the form are 'Apply' and 'Cancel' buttons.

All the wireless setting configured on the router must match the WN802Tv1 access point exactly.

Wireless SSID – NETGEAR25

Operating Mode – 11b/gNext

Channel Frequency - 1

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## WNR2000 Configuration

### Step 3 – Wireless Repeating

The screenshot shows the Netgear router manager interface for a WNR2000 model. The left sidebar contains a navigation menu with categories: Setup Wizard, Add WPS Client, Set Up (Basic Settings, Wireless Settings), Content Filtering (Logs, Block Sites, Block Services, Schedule, E-mail), Maintenance (Router Status, Attached Devices, Backup Settings, Set Password, Router Upgrade), and Advanced (Wireless Settings, Wireless Repeating Function). The main content area is titled "Wireless Repeating Function" and includes the following settings:

- Enable Wireless Repeating Function**  
Wireless MAC of this router 00:1E:2A:E0:04:2C
- Wireless Repeater**
  - Repeater IP Address: 192 . 168 . 1 . [ ]
  - Disable Wireless Client Association
  - Base Station MAC Address: [ ]
- Wireless Base Station**
  - Disable Wireless Client Association
  - Repeater MAC Address 1: 00:18:4d:23:c6:fb
  - Repeater MAC Address 2: [ ]
  - Repeater MAC Address 3: [ ]
  - Repeater MAC Address 4: [ ]

At the bottom of the main area are "Apply" and "Cancel" buttons.

Select Wireless repeating Function.

Check the Enable Wireless Repeating Function.

Select Wireless Base Station.

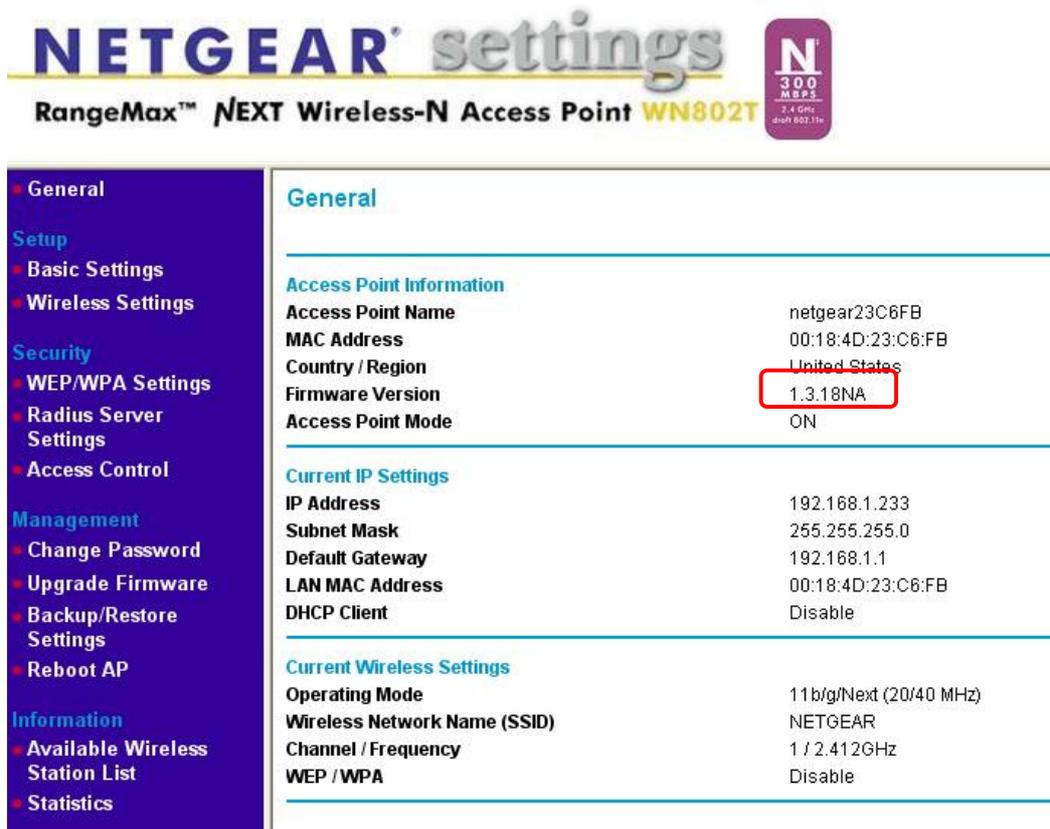
Repeater MAC address – Enter the MAC address of the WN802Tv1 (can be found on the back panel of the WN802Tv1).

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## WN802Tv1 Configuration

### Step 4 – General Settings



**NETGEAR® settings**  
RangeMax™ NEXT Wireless-N Access Point WN802T

**General**

- General
- Setup
  - Basic Settings
  - Wireless Settings
- Security
  - WEP/WPA Settings
  - Radius Server Settings
  - Access Control
- Management
  - Change Password
  - Upgrade Firmware
  - Backup/Restore Settings
  - Reboot AP
- Information
  - Available Wireless Station List
  - Statistics

**General**

**Access Point Information**

Access Point Name	netgear23C6FB
MAC Address	00:18:4D:23:C6:FB
Country / Region	United States
Firmware Version	1.3.18NA
Access Point Mode	ON

**Current IP Settings**

IP Address	192.168.1.233
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
LAN MAC Address	00:18:4D:23:C6:FB
DHCP Client	Disable

**Current Wireless Settings**

Operating Mode	11b/g/Next (20/40 MHz)
Wireless Network Name (SSID)	NETGEAR
Channel / Frequency	1 / 2.412GHz
WEP / WPA	Disable

Select General.

Please ensure that you are using firmware version 1.3.18 or later.

Disregard NA at the end of the firmware version if you are outside of America.

This firmware can be found at the following link - [http://kb.netgear.com/app/answers/detail/a\\_id/2722](http://kb.netgear.com/app/answers/detail/a_id/2722)

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## WN802Tv1 Configuration

### Step 5 - Router Status



Select Basic Settings.

<ul style="list-style-type: none"><li>General</li><li>Setup<ul style="list-style-type: none"><li>Basic Settings</li><li>Wireless Settings</li></ul></li><li>Security<ul style="list-style-type: none"><li>WEP/WPA Settings</li><li>Radius Server Settings</li><li>Access Control</li></ul></li><li>Management<ul style="list-style-type: none"><li>Change Password</li><li>Upgrade Firmware</li><li>Backup/Restore Settings</li><li>Reboot AP</li></ul></li><li>Information<ul style="list-style-type: none"><li>Available Wireless Station List</li><li>Statistics</li></ul></li></ul>	<h3>Basic Settings</h3> <hr/> <p><b>Access Point Name</b> <input type="text" value="netgear23C6FB"/></p> <hr/> <p><b>IP Address</b></p> <p>DHCP Client <input type="radio"/> Enable <input checked="" type="radio"/> Disable</p> <p>IP Address <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="233"/></p> <p>IP Subnet Mask <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/></p> <p>Default Gateway <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="1"/></p> <p>Primary DNS Server <input type="text" value="192"/> . <input type="text" value="168"/> . <input type="text" value="1"/> . <input type="text" value="1"/></p> <p>Secondary DNS Server <input type="text" value="4"/> . <input type="text" value="2"/> . <input type="text" value="2"/> . <input type="text" value="2"/></p> <hr/> <p><b>Time Zone</b> <input type="text" value="(GMT) Greenwich Mean Time, Dublin, London"/> ▾</p> <p><input checked="" type="checkbox"/> Automatically Adjust for Daylight Savings Time</p> <p><b>Current Time</b> Friday, 28 Aug 2009 13:02:40</p> <hr/> <p><input type="button" value="Apply"/> <input type="button" value="Cancel"/></p>
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IP Address

DHCP Client – Disable

IP address – 192.168.1.233

IP Subnet Mask – 255.255.255.0

Default Gateway – 192.168.1.1 (LAN IP Address of the WNR2000 – please see Step 1)

Primary DNS Server – 192.168.1.1 (LAN IP Address of the WNR2000)

Secondary DNS Server – 4.2.2.2

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## WN802Tv1 Configuration

### Step 6 – Wireless Settings

**NETGEAR settings**  
RangeMax™ NEXT Wireless-N Access Point WN802Tv1

**Wireless Settings**

Country / Region: United States

**Wireless LAN**

- Turn Radio On
- Wireless Network Name (SSID): NETGEAR25
- Broadcast Wireless Network Name (SSID):  Enable SSID Broadcast
- Operating Mode: 11b/g/Next (20/40 MHz)
- Channel / Frequency: 01 / 2.412GHz

Apply Cancel

Select Wireless Settings.

Please ensure that the details match the settings entered on the WNR2000.

The Wireless Settings of the WN802Tv1 must match the WNR 2000 exactly (Please see step 2 above.)

Wireless SSID – NETGEAR25

Operating Mode – 11b/gNext

Channel Frequency - 1

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## WN802Tv1 Configuration

### Step 7 – Wireless Repeating/Bridging

**NETGEAR settings**  
RangeMax™ NEXT Wireless-N Access Point WN802T

- General
- Setup
  - Basic Settings
  - Wireless Settings
- Security
  - WEP/WPA Settings
  - Radius Server Settings
  - Access Control
- Management
  - Change Password
  - Upgrade Firmware
  - Backup/Restore Settings
  - Reboot AP
- Information
  - Available Wireless Station List
  - Statistics
- Advanced
  - Wireless Settings
  - Wireless Bridging

#### Advanced Wireless Bridging Settings

**Access Point Mode**

Access Point

Wireless Multi-Point Bridging

Enable Wireless Client Association

Remote MAC Address [ ] [ ] [ ] [ ] [ ] [ ] Add

Repeater with Wireless Client Association

Remote MAC Address 00 1e 2a e0 04 2c Add

Remote Access Point	MAC address	
1	00:1e:2a:e0:04:2c	Delete
2		Delete
3		Delete
4		Delete
5		Delete
6		Delete

Apply Cancel

Select Wireless Bridging.

Select Repeater with Wireless Client Association.

Enter the MAC address of the WNR2000 and click the Add button.

The MAC address should then appear in the list below.

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## Test the Bridge

### WN2000

### Step 8 – WNR2000 Attached Devices

router manager  
Wireless-N Router model WNR2000

Attached Devices

#	IP Address	MAC Address	Device Name
1	192.168.1.250	00:15:58:D1:1C:FA	NETGEAR-EE81059
2	192.168.1.233	00:18:4D:23:C6:FA	<unknown>

Refresh

Log back in to the WNR2000 and Select Attached Devices.

The MAC address of the WN802Tv1 should appear with its IP address.