Dynalink ADSL2+ Modem Router

Quick Setup Guide

- RTA1320 (Single Ethernet & USB)
- RTA1030W (Single Ethernet & USB with Wireless)
- RTA1025W (4-Ethernet ports & USB with Wireless)
- RTA1046VW (4-Ethernet ports with Wireless & VoIP)
Important

This Guide is intended to get you started quickly. We have made the factory default setting of this router suitable for your country\(^1\). All you need is to follow through the steps we describe here.

This Guide should be read in conjunction with the User Manual\(^2\). It is provided as a PDF file on this CD. You can view or print this User Manual.

Advanced users, or those who have other setup preferences such as USB install should also refer to the relevant sections of the User Manual.

Notes for this page:

1. In Australia the majority of ADSL subscribers get PPPoE service by default. In New Zealand the majority of ADSL subscribers get PPPoA service by default. Your router is already preset to meet this requirement.

2. In the User Manual please ignore all references to the value of VPI or VCI. In Australia VPI is 8 and VCI is 35, In New Zealand VPI is 0 and VCI is 100. These numbers are preset as factory default. Do not change them.

Do I need a micro filter?

Microfilters filter out ADSL signals to allow ADSL and regular voice calls simultaneously over a single telephone line.

Any equipment sharing an ADSL telephone line, other than an ADSL modem, must be connected to a telephone jackpoint via a microfilter. Examples include telephone headsets, fax machines, dial-up modems and set top boxes (eg Foxtel Digital).

A quality microfilter/splitter featuring two jacks (ADSL/MODEM and PHONE) is recommended for performance and convenience. A suitable Dynalink microfilter/splitter can be purchased from your local computer store or your service provider.
Before you start

Your computer must have:

- Ethernet port (or USB for models RTA1320, RTA1030W, RTA1025W)
- TCP/IP protocol enabled
- A web browser, such as Internet Explorer 5.x, Firefox 1.x or better.

Obtain your Internet account information from your ISP:

- Login user name and password
- Public IP address (only if you subscribe for static IP)
- DNS server IP (only if specified by ISP).

Connection options:

1. **Ethernet (Recommended - this option is Operating System independent.)**
   The modem router comes with single Ethernet port (RTA1320 & RTA1030W), or a built in 4-port switch (RTA1025W & RTA1046VW). If you require more ports, purchase a network switch to provide for more connections, or use wireless (see the next option). Only one Ethernet cable is provided. Extra cables and network switch can be purchased from your supplier.

2. **Wireless LAN (Only for computers that support wireless LAN. This option is also Operating System independent.)**
   The router is also a wireless access point that supports IEEE 802.11g and 802.11b standards. To configure for wireless it is best to connect to a computer via Ethernet and then follow the Setup Procedure under Section 6 Setting up wireless. Model RTA1320 does not have this option.

3. **USB (Not recommended - this option is intended for a standalone Windows Vista/XP/2000/ME/98SE computer only)**
   Choose this option only if a computer does not have an Ethernet port and it is not feasible to add an Ethernet port or use wireless. You must then install a driver to operate the router. The USB driver and detailed installation instructions (in the User Manual) are located on the enclosed CD. Model RTA1046VW does not have this option.
Connecting the modem router

1. Connect the DSL port of the modem directly into your ADSL jackpoint (telephone wall socket) with the provided line cord. If connecting through a filter, the filter must have a designated ADSL/MODEM port for bypassing filtering of ADSL signals.

2. Connect the Ethernet port of each computer to Ethernet/LAN port of the router. One Ethernet cable is provided.
   
   *Note: If you choose to connect via the USB port (not recommended), there is no need to use the Ethernet cable. Do not plug in the USB cable yet. During driver installation, you will be advised to do so. Refer to the User Manual for instructions.*

3. Connect the provided AC/AC power adaptor to the Power jack of the router. Plug the adaptor into a mains power outlet. Switch on the router. In normal operation the following lights should be on: Power, DSL, Ethernet/LAN (1, 2, 3 or 4 if using 4-port models), WLAN (wireless models only). Section 10 of this Guide explains how these indicator lights work.

Getting the computer ready

You have two options. Option (1) is recommended and is the Windows default network setting.

1. Obtain an IP address automatically
   
   Most computers are already configured this way. By default the router is a DHCP server which automatically assigns an IP address to a computer that is connected to it. Now go to Section 5 – Going On-Line.

   If you are unsure of your computer’s network configuration, refer to Q1-6 in Section 11 – Troubleshooting.

2. Assign an IP address manually
   
   The router’s default address is 192.168.1.1. If you prefer to assign an IP address manually to your computer, use 192.168.1.x (x is a number between 2 and 254).
Windows XP/2000:


2. Enter 192.168.1.x (x is a number you pick between 2 and 254). This is the IP address you assign to the computer. Subnet Mask is 255.255.255.0.

3. Enter the router’s IP 192.168.1.1 as Default gateway, and as Preferred DNS server If your ISP specifies DNS server addresses, enter the specified addresses according to the ISP’s instructions.

4. Click OK to finish.

You have now finished with configuring your computer. Go to the next section for going on-line.

Going on-line

STEP 1  GO TO THE ‘CONNECT TO INTERNET’ PAGE

Start your web browser (Internet Explorer, Firefox, etc). Enter the default address http://192.168.1.1. Type admin for both User name and Password.

See Q1 in Section 11 - Troubleshooting if you cannot get this screen.

Next you will be in the Quick Start > Connect to Internet page.

STEP 2  ENTER INTERNET ACCOUNT DETAILS

Enter your Internet account User Name & Password in the exact format as specified by the ISP. Typically the User name resembles an e-mail address with the suffix “@isp.com.au”. Make sure the page displays “Your DSL router is ready to connect” before clicking Connect.
See Q2 in Section 11 – Troubleshooting, if after several minutes the message “Your DSL router is not ready to connect” still shows.

Once connected the screen changes to displaying on-line time. The PPP light on the front panel of the router will come on, indicating that you are online. Click Disconnect only if you wish to disconnect manually.

You are now successfully connected to the Internet. Your Internet account user name & password will be saved automatically.

If previously the computer had a dial-up modem for Internet connection, check your browser setting. The system may still try to communicate through the previous connection. In Internet Explorer, go to Tools–Internet options–Connections, select Never dial a connection. Close Internet Explorer to take effect.
Setting up Wireless
Models RTA1025W, RTA1030W and RTA1046VW only

A full description on this topic is found in the User Manual for each model.

Wireless support is enabled by default. The router is a wireless access point. IEEE 802.11g and 802.11b wireless network standards are supported. For indoor operations, these standards provide typically 20m and 60m range respectively.

Wireless security features are disabled for ease of initial install. It is important to enable wireless security to protect your network after you have verified that all wireless computers can connect.

6.1 SET UP PROCEDURE

1. Connect via Ethernet or wirelessly from a computer to configure for wireless operation. Start your web browser. Enter the default address http://192.168.1.1. Username and Password are both admin. (This is also described in Step 1, Section 5 – Going On-line)

2. Go to Wireless > Basic settings. You may choose your own SSID, or use the unique factory default SSID. Wireless computers scan all channels and once connected, use the same channel as the access point. Note: if interference with another nearby wireless network is detected, select a different channel.

3. Set up wireless computers according to the vendor’s instructions. Because the router is a wireless access point, select infrastructure mode. Do not use Adhoc (peer-to-peer) mode.

To verify that a wireless computer is connected, go to Status > Wireless Clients. The table displays the hardware MAC addresses of all connected wireless computers.

6.2 SET UP WIRELESS SECURITY

It is essential to protect your network by enabling wireless security. Go to Wireless > Security. Select ‘WPA-PSK’ and then choose ‘TKIP’ or ‘AES’ for ‘Data Encryption’. AES is generally accepted as better than TKIP, and is much more secure than the outdated WEP encryption. Please make sure your wireless computer also supports the same encryption type.
Next, enter your choice of ‘password’ into the Pre-Shared Key: box. Any printable characters may be used. Good practice is to use a strong password of random characters and is over 20 characters long. Click Apply to take effect.

The same key must be entered into your computer when you attempt to connect wirelessly. Refer to the vendor’s instructions of your computer or wireless adaptor for details. Usually the process is like this:

- Click on a wireless icon at the right hand bottom corner of your desktop.
- Select your wireless router from a list of wireless networks available. Your wireless router is identifiable by its SSID.
- Windows will ask for a “Network Key”. Enter the Pre-Shared Key you have chosen for the router.
Voice over IP

Model RTA1046VW only

VoIP (Voice over IP) is a voice service provided over the internet by some service providers. It allows users to talk without using a conventional telephone service and often provides lower call costs.

A full description on this topic is found on Chapter 4: Web Configuration > Voice over IP on page 117 of the User Manual.

7.1 CONNECTING THE HARDWARE

1. Connect a telephone handset to Phone1 port.
2. Connect the PSTN port to the Phone port of your microfilter/splitter.
3. Connect the DSL port to the Modem port of your microfilter/splitter.
4. Plug the microfilter into the telephone wall outlet.

Note:
A: Handsets are not provided. Any standard telephone handsets may be used.
B: Microfilters/splitters can be purchased separately. To use your VoIP Service without a microfilter/splitter, connect the DSL port directly to the telephone wall outlet. However, with this configuration you cannot use the RTA1046VW for PSTN calls (conventional telephone service).
7.2 CONFIGURING THE VOIP SETTINGS

The router supports only SIP (Session Initiation Protocol) protocol for Internet telephony. It is necessary to subscribe and receive the settings required from your VoIP service provider in order to set up VoIP service.

The settings required are specific to your VoIP provider. Before you start, make sure you have received appropriate settings from your service provider.

Go to Voice > SIP Basic. Example settings:

**Australian Users** should choose `pppe_8_35_1` (or `pppoa_8_35_1`).

**New Zealand Users** should choose `pppoa_0_100_1`.

**SIP Transport Protocol**: Specify **UDP** (default) or **TCP** as required by the service provider.

**SIP Transport Port**: Enter the port number of the SIP proxy server if specified by the service provider. Default is **5060**.

**SIP Registrar Address**: Enter the Domain Name or IP and the port required for the service.

**SIP Outbound Proxy**: Enter the Domain Name or IP and the port required for the service.

**SIP Proxy Server Address**: Enter the Domain Name or IP and the port required for the service.

**Registration Information**: Enter your SIP account details. If using two accounts, enter the account details that correspond to Phone1 and Phone2. Click **Apply**.

The **VoIP Ready** indicator light will change to green upon successful registration with your VoIP provider.

**Warning**: Note that the dial tone for VoIP calls will be slightly different when compared to standard telephone line dial tone. Ensure you are aware of the difference so you can be sure you are making low cost VoIP calls rather than more expensive PSTN calls (conventional telephone service).

Other advanced VoIP functions and settings are optional. A full description on this topic is found on Chapter 4: Web Configuration > Voice over IP on page 117 of the **User Manual**.
Advanced functions

8.1 FIREWALL & TRAFFIC RESTRICTIONS

Default firewall configuration
By default the firewall blocks all inbound requests including Ping from the Internet to your local network. In the outbound direction, all traffic that originates from your local network are allowed. Most users do not require changing any firewall settings and are automatically protected by this default configuration.

Running a server on your local network
If you want Internet users to have access to servers on your local network, set up Port Forwarding (Virtual Servers) to allow incoming requests reaching the servers. Refer to the Virtual Server Port Forwarding section of the User Manual.

DMZ
If you run applications that require unrestricted 2-way traffic between a computer on your network and the Internet, set up the computer as DMZ Host. Refer to the Virtual Server DMZ Host section of the User Manual. Caution: the specified computer will no longer be protected by the firewall.

Restricting access
You can block specified computers on your network to access the Internet by defining IP Filters. Refer to the Firewall IP Filtering section of the User Manual.

8.2 IP EXTENSION (HALF-BRIDGING)

The ADSL router can be made to resemble a bridge modem. It bridges traffic between the Internet (WAN) and your local network (LAN). In this mode firewall and Internet sharing (NAT) are disabled. A computer or network device connected directly to the modem receives a WAN IP from your ISP via the bridged modem. This arrangement is suitable for certain applications that require a computer or a network device, such as a VPN router, to receive a WAN IP.

Caution: This mode of operation disables the firewall and assumes security will be provided by another device on your LAN.
To set IP extension, go to the **Advanced** menu. Select **WAN > Internet**. Click on the “modify icon” under **Edit**:

The next screen displays VPI/VCI as 8/35 (Australia) or 0/100 (New Zealand). Do not change these numbers. Go Next. Select **PPPoE LLC (Australia)** or **PPPoA VCMUX (New Zealand)**. Go Next. On the next screen untick **Enable NAT**, and tick **PPP IP extension** as illustrated. Go Next.

Enter your Internet account user name and password. Go Next. The new configuration is displayed. Click **Apply** to confirm changes. The router will restart itself to activate IP extension mode.

NAT or firewall settings disappear from the **Advanced** menu hereafter. Now follow Step 2 of **Section 5 – Going On-line**.

Please refer to the *User Manual* for other advanced functions. Always restart the router to activate any changes to configuration.
**Tips for security**

This router is shipped “secure” with firewall enabled by default. In order to take full benefit from the security features of this router:

**Do:**

- Change your router’s administrative user name & password.
- Back up your router’s configuration. This function can be found in the router’s **Management > Backup Config** menu.
- Disable UPnP if you don’t need this function.
- Read about the more advanced functions. They can be found in the **User Manual** for each of the models.

**Don’t:**

- Enable remote access to the router, unless you are confident in handling the security implications.
- Enable IP extension (half-bridging) without any other firewall protection. If the router operating in this mode is connected to a computer, to the minimum install a “personal firewall” (software) to protect the computer.
- Send your router away for repair or replacement without resetting to factory default or wiping out your Internet account login details. Use the Backup Configuration option to store your router’s setting elsewhere. This function can be found in the router’s **Management > Backup Config** menu. When a replacement unit is received, restore the original setting from the backup file.

**WIRELESS SECURITY**

A number of wireless security features are supported.

**Protected access**

To enable wireless security, go to **Wireless > Security**. Available options are: WEP, 802.1x, WPA, WPA2.
Advanced security is provided by WPA/WPA2 and 802.1x. These are robust security mechanisms. A special “home mode” known as WPA-PSK is recommended for most users. You choose a password, known as Pre-Shared Key or PSK, for the wireless network. Please refer to Section 6.2 of this Guide for setting up.

WEP offers basic protection from eavesdropping. When enabled, all wireless stations transmit data encrypted using a predetermined key. WEP is outdated and is mainly used for backward compatibility with legacy equipment.

Whichever protection method is selected at the access point, all wireless clients must also support the same method in order to connect.

Access Control
This allows access control via a list of wireless stations by registering the MAC address of permitted clients at the access point. Go to Wireless > Access Control and follow the instructions. For detail procedure, refer to the User Manual.

Hide SSID
SSID is a name given to an access point to identify the network. Users may change SSID anytime. By default, SSID is periodically broadcasted by the access point to advertise its presence. In enabling the Wireless > Basic > Hide Wireless Network option, SSID is not broadcasted. Other wireless users normally cannot see the access point.
# Indicator lights

<table>
<thead>
<tr>
<th>Function</th>
<th>Color and Status</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Power</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Power is off</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>Power is on and the device operates normally</td>
</tr>
<tr>
<td></td>
<td>Solid Red</td>
<td>Power on self-test in progress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The device enters the console mode of the boot loader</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Power on self-test failure if this light remains solid</td>
</tr>
<tr>
<td></td>
<td>Flashing Red</td>
<td>Firmware upgrade in progress</td>
</tr>
<tr>
<td><strong>DSL</strong></td>
<td>Off</td>
<td>No DSL signal</td>
</tr>
<tr>
<td></td>
<td>Slow Flashing Green</td>
<td>DSL line handshaking in progress</td>
</tr>
<tr>
<td></td>
<td>Fast Flashing Green</td>
<td>DSL line training in progress</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>DSL link is up</td>
</tr>
<tr>
<td><strong>PPP</strong></td>
<td>Off</td>
<td>Modem is not online</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>Modem is online</td>
</tr>
<tr>
<td><strong>Ethernet/ LAN 1 to 4</strong></td>
<td>Off</td>
<td>No Ethernet signal</td>
</tr>
<tr>
<td></td>
<td>Flashing Green</td>
<td>Data going through port</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>Ethernet is connected</td>
</tr>
<tr>
<td><strong>RTA1320, RTA1025W and RTA1030W only</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>USB</strong></td>
<td>Off</td>
<td>No USB signal</td>
</tr>
<tr>
<td></td>
<td>Flashing Green</td>
<td>Data going through port</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>USB is connected</td>
</tr>
<tr>
<td><strong>RTA1025W, RTA1030W and RTA1046VW only</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WLAN</strong></td>
<td>Off</td>
<td>Wireless is disabled</td>
</tr>
<tr>
<td></td>
<td>Flashing Green</td>
<td>Data going through wireless</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>Wireless is ready</td>
</tr>
<tr>
<td><strong>RTA1046VW only</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Phone 1 or 2</strong></td>
<td>Off</td>
<td>Handset on hook/ in PSTN mode</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>VoIP in use</td>
</tr>
<tr>
<td><strong>VoIP ready</strong></td>
<td>Off</td>
<td>VoIP service is not ready</td>
</tr>
<tr>
<td></td>
<td>Solid Green</td>
<td>VoIP service is ready</td>
</tr>
</tbody>
</table>
11 Troubleshooting Q & A

Q1. Cannot display page to enter Internet user name & password?

1. If previously the computer had a dialup modem, check browser setting. For example in Internet Explorer, go to Tools–Internet options–Connections, and select Never dial a connection. Check LAN Settings that the option Use a Proxy Server is not selected.

2. Check that the router’s ETHERNET light is on. If not, check your Ethernet cable is firmly plugged in.

3. Perform a PING test. In Windows XP or 2000, click Start-Run. Enter cmd then OK. Type ping 192.168.1.1 then press Enter. The response should be:

```
Pinging 192.168.1.1 with 32 bytes of data:
Reply from 192.168.1.1: bytes=32 time=4ms TTL=30
```

If there is a similar response, the router is communicating with your computer correctly and the problem lies elsewhere. If the result is Request timed out, there may be a network problem. Check that the ETHERNET cable is firmly plugged in.

4. Disable any personal firewall or virus checker temporarily. If you use Internet Explorer, go to Tools–Internet options–Security. Reset security level of all 4 icons to default. (You can revert to your customised settings after configuring the router).

5. If the router is connected to a network hub, try connecting the router directly to the computer to eliminate any possible problem associated with the hub.

6. Check that your Computer is set to obtain its IP address automatically. Go to Start-Run, type ncpa.cpl and press enter. Right click Local Area Connection > Properties > Internet Protocol (TCP/IP)-Properties. Select Obtain IP address automatically and Obtain DNS servers automatically. Click OK, then OK to exit.

Q2. Cannot connect to Internet or cannot browse web pages?

- If the DSL light is off

This means the broadband service may not have been activated on your telephone line. Check that the ADSL Line Filter has been connected correctly. If it has, contact ISP to confirm that the broadband service has been provisioned. It is impossible to go online if the DSL light is off, or keeps flashing all the time.
• If the DSL light is on but the PPP light is off
This means the modem is unable to go online because the Internet username or password you entered as described in Section 5 – Going Online is incorrect, or the Internet account has not been activated. Check that you have entered your Internet user name and password in the exact format as specified by ISP. Repeat entry if necessary. Should this problem persist, check with your ISP that the Internet account, username & password are correct, and that your account has been activated.

• If both DSL and PPP light are on
The modem is actually online. This problem may be with your browser setting. Try returning any custom settings of the browser to default. If you have a personal firewall, disable it to see if it makes any difference.

If you still cannot browse, perform a **PING test** as described in Q1-3, using these addresses:

(A) Ping www.dynalink.com.au (or any valid web address)
(B) Ping 203.26.24.112 (or any valid public IP address)

If both (A) & (B) reported “request time out”, there is an issue on your local network, your computer is not communicating to the modem correctly due to either hardware issues or network misconfiguration.

If (A) failed but (B) yielded responses, this is a DNS server problem. Ask your ISP if you must enter the DNS server address manually. Follow Q1-6, change the **Obtain DNS servers automatically** option to **Use the following DNS server addresses**. Enter the DNS server address provided by your ISP.

**Q3. Browsing is fine but how can I run certain on-line applications?**
You need to set up virtual servers or DMZ host. See Section 8 on Firewall & traffic restrictions.

**Q4. How to reset router if its IP and/or administrative password have been changed but forgotten?**
Reset the router to factory default by pushing a pin into the hidden reset button located next to the push button at the back of the unit. Push and hold for at least 5 seconds then release to trigger reset.
**Q5. What is the assigned WAN IP when the router is on line?**

Go to **Status > Internet Connection**, the WAN IP is displayed here.

<table>
<thead>
<tr>
<th>PVC Name</th>
<th>VPI/VCI</th>
<th>Category</th>
<th>Protocol</th>
<th>NAT</th>
<th>QoS</th>
<th>WAN IP Address</th>
<th>Status / Online Time</th>
</tr>
</thead>
</table>
| pppoe_8_35_1 | 0/100 | UBR | PPPoE LLC/SNAP | On | On | 203.97.201.11 | Up 06:00:02:142

**Q.6 How to get information update?**

This Quick Guide and User’s Manual on CD are the primary source of information about the product. Please check the Dynalink website http://www.dynalink.com.au or http://www.dynalink.co.nz regularly for updates, links, or to download a more current version of this Quick Set-up Guide.
12 Default Configuration

This router is shipped with the following factory default settings depending on your region.

Router IP address 192.168.1.1
Subnet mask 255.255.255.0
VPI/VCI 8/35 (Australia)
0/100 (New Zealand)
Connect mode PPPoE LLC/SNAP (Australia)
PPPoA VC-MUX (New Zealand)
NAT enabled
DSL line mode ADSL2+ (Australia)
G.DMT (New Zealand)
WAN IP dynamic
DHCP enabled
DNS relay on
UPnP IGD enabled

Firewall
Incoming requests blocked
Outgoing traffic not blocked

Configuration & management:
User name admin
Password admin
Telnet password admin

Wireless Settings (not applicable to model RTA1320):
Wireless Channel 11
Wireless security disabled

VoIP settings (RTA1046VW only):
Default SIP port TCP 5060
Default CODEC Auto switching (G.711, G.726, G.729)
Warranty

Dynalink warrants this product against defects in materials and workmanship for a period of twelve months from the original date of purchase. We will, at our discretion, repair or replace the faulty unit, free of charge, provided it is returned to us with proof of purchase from an authorised dealer within the warranty period. Return delivery after repair will be paid for by Dynalink. We reserve the right not to repair or replace goods that:

- have been mishandled, abused or not installed according to the guidelines as outlined in the instructions.
- have been subjected to a power surge from other equipment or other external factors.
- have been altered or modified.

How to get help

If you were unable to progress your installation to the step where you enter your Internet username and password, contact Dynalink to log a request for telephone support. Please make sure you provide your full telephone number including area code or mobile number.

If possible, visit Dynalink’s on-line support area at
http://www.dynalink.co.nz/support (New Zealand)

or send e-mail to
support@dynalink.com.au (Australia)
support@dynalink.co.nz (New Zealand)

Dynalink Technical Support (Australia):
Phone 1800 653 962
Fax 1800 063 962
(Monday-Friday: 9:00am-5:00pm)

Dynalink Technical Support (New Zealand):
Phone 0800 653 962
Fax 09 448 5549
(Monday-Friday: 8:30am-7:30pm)