

ADSL2 Modem Models Tested:

Make	Model	Cost New	Cost Used	Link to Purchase
TP-Link	TD-8616	\$79.00	\$39.00	https://www.amazon.com/gp/product/B0034JSYZ2/ref=ppx_yo_dt_b_asin_title_o08_s01?ie=UTF8&psc=1
DLink	DSL-520B	\$45.93	\$7.00	https://www.amazon.com/gp/product/B0046TRVR6/ref=ppx_yo_dt_b_asin_title_o08_s00?ie=UTF8&psc=1
Netgear	DM200	-	\$72.00	https://www.amazon.com/Netgear-DM200-100EUS-DM200/dp/B01GL3YPHI/ref=sr_1_2?keywords=netgear+DM200&qid=1580915489&s=hi&sr=1-2-catcorr
Zyxel	P660R-S1	\$38.06	\$20.00	https://www.amazon.com/gp/product/B00BFNHNK4/ref=ppx_yo_dt_b_asin_title_o07_s00?ie=UTF8&psc=1

The TP-Link is your true ADSL2 modem. It just acts as a bridge and works out of the box. This particular model has several ADSL configurations prebuilt in and it auto selects the one it needs when plugged in.

The Zyxel also is another ADSL2 modem that worked out of the box. This gives you an IP like a router but has no advanced routing features.

The DLink is your traditional non-wireless ADSL2 modem/router. This required a bit of configuration. You will need to login to the device via <http://192.168.1.1>. The default UN/PW are admin/admin. Once logged in goto Advanced Setup and then WAN:

D-LinkDSL-520B

Device Info
Advanced Setup
WAN
LAN
NAT
Security
Quality of Service
Routing
DNS
DSL
Diagnostics
Management

ATM PVC Configuration

This screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting the checkbox to enable it.

VPI: [0-255]

VCI: [32-65535]

Service Category: UBR Without PCR

Enable Quality Of Service

Enabling packet level QoS for a PVC improves performance for selected classes of applications. QoS cannot be set for CBR and Realtime VBR. QoS consumes system resources; therefore the number of PVCs will be reduced. Use Advanced Setup/Quality of Service to assign priorities for the applications.

Enable Quality Of Service ☐

VPI = 0

VCI = 35

Service Category - Leave defaulted

Click Next

D-Link

DSL-520B

Device Info

Advanced Setup

WAN

LAN

NAT

Security

Quality of Service

Routing

DNS

DSL

Diagnostics

Management

Connection Type

Select the type of network protocol for IP over Ethernet as WAN interface

☐ PPP over Ethernet (PPPoE)

☒ MAC Encapsulation Routing (MER)

☐ Bridging

Encapsulation Mode

LLC/SNAP-BRIDGING ▾

BackNext

Choose MAC Encapsulation Routing (DHCP)

Encapsulation Mode - Leave defaulted at LCC

Click Next

D-Link

DSL-520B

Device Info

Advanced Setup

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LAN

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WAN IP Settings

Enter information provided to you by your ISP to configure the WAN IP settings.
Notice: DHCP can be enabled for PVC in MER mode or IP over Ethernet as WAN interface if "Obtain an IP address automatically" is chosen. Changing the default gateway or the DNS effects the whole system. Configuring them with static values will disable the automatic assignment from DHCP or other WAN connection.
If you configure static default gateway over this PVC in MER mode, you must enter the IP address of the remote gateway in the "Use IP address". The "Use WAN interface" is optional.

☒ Obtain an IP address automatically

☐ Use the following IP address:

WAN IP Address:

WAN Subnet Mask:

☒ Obtain default gateway automatically

☐ Use the following default gateway:

☐ Use IP Address:

☐ Use WAN Interface: mer_0_0_35/ ▾

☒ Obtain DNS server addresses automatically

☐ Use the following DNS server addresses:

Primary DNS server:

Secondary DNS server:

BackNext

Leave all these settings to obtain automatically

Click Next

D-Link
DSL-520B

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Network Address Translation Settings

Network Address Translation (NAT) allows you to share one Wide Area Network (WAN) IP address for multiple computers on your Local Area Network (LAN).

Enable NAT ☒

Enable Firewall ☐

Enable IGMP Multicast, and WAN Service

Enable IGMP Multicast ☐

Enable WAN Service ☒

Service Name:

Back Next

Enable NAT - Check

Enable Wan Service - Check

Leave Service Name Defaulted

Click Next

D-Link

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WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

PORT / VPI / VCI:	0 / 0 / 35
Connection Type:	MER
Service Name:	mer_0_0_35
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Enabled
Firewall:	Disabled
IGMP Multicast:	Disabled
Quality Of Service:	Disabled

Click "Save" to save these settings. Click "Back" to make any modifications.
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

Back Save

Your Summary Should Match This. If not Click Back

Click Next

- Device Info
- Advanced Setup
 - WAN
 - LAN
 - NAT
 - Security
 - Quality of Service
 - Routing
 - DNS
 - DSL
- Diagnostics
- Management

Wide Area Network (WAN) Setup

Choose Add, Edit, or Remove to configure WAN interfaces.
Choose Save/Reboot to apply the changes and reboot the system.

Port/Vpi/Vci	Con. ID	Category	Service	Interface	Protocol	Igmp	QoS	State	Remove	Edit
0/0/35	1	UBR	mer_0_0_35	nas_0_0_35	MER	Disabled	Disabled	Enabled	<input type="checkbox"/>	<input type="button" value="Edit"/>

To apply the changes click the save/reboot button. Once it reloads you should be online.

Make sure to login to the router again after its back up and go under Management and change the default password for security.

The Netgear is your traditional non-wireless ADSL2/VDSL modem/router. This was very easy to setup. You will need to login to the device via <https://192.168.5.1>. The default UN/PW are admin/password. Once logged in click on the basic tab and internet option:

VDSL Modem DM200 High Speed DSL Modem

Router Firmware Version V1.0.0.44

Logout

Auto

BASIC

ADVANCED

Home

Internet

Attached Devices

Internet Setup

Select Country USA

Select Internet Service Provider Other

Transfer Mode ADSL(ATM)

DSL Mode ADSL2+

Internet Internet

☒ Enable This Interface

Multiplexing Method LLC-BASED

VPI 0

VCI 35

DSL Mode - ADSL2+

Transfer Mode - ADSL(ATM)

Multiplexing Method - Leave Default - LCC-BASED

VPI - 0

VCI - 35

Then scroll down on the screen:

The screenshot shows the Netgear Genie web interface for a VDSL Modem DM200. The top header includes the Netgear logo, the product name 'VDSL Modem DM200 High Speed DSL Modem', a 'Logout' button, and the 'Router Firmware Version V1.0.0.44'. Below the header, there are tabs for 'BASIC' and 'ADVANCED', with 'BASIC' selected. A left sidebar contains navigation links: 'Home', 'Internet' (selected), and 'Attached Devices'. The main content area is titled 'Internet Setup' and features a 'Test' button, a 'Cancel' button, and an 'Apply' button. The setup form includes a question 'Does your Internet connection require a login?' with radio buttons for 'Yes' and 'No' (selected). Below this are input fields for 'Account Name (If Required)' (containing 'DM200') and 'Domain Name (If Required)'. The 'Internet IP Address' section has two radio button options: 'Get Dynamically from ISP' (selected) and 'Use Static IP Address'. Under the static IP option, there are input fields for 'IP Address', 'IP Subnet Mask', and 'Gateway IP Address'. At the bottom of the static IP section, there are radio buttons for 'Use IP Over ATM (IPoA)' and 'Use Static IP Address'. The footer of the interface includes a 'Help Center' link and a 'Show/Hide Help Center' button.

Your Internet Connection DOES NOT require a login

Internet IP Address - Get Dynamically from ISP

Scroll down again on the screen

NETGEAR[®] genie[™]
VDSL Modem DM200 High Speed DSL Modem

Logout Router Firmware Version V1.0.0.44

BASIC ADVANCED

Home Internet Setup

Test Cancel Apply

Domain Name Server (DNS) Address

☒ Get Automatically from ISP

☐ Use These DNS Servers

Primary DNS

Secondary DNS

Third DNS

Router MAC Address

☒ Use Default Address

☐ Use Computer MAC Address

☐ Use This MAC Address

b0:39:56:7b:ad:8c

DHCP Options

Vendor Class Identifier String (option 60)

Client Identifier String (option 61)

Help Center Show/Hide Help Center

DNS - Get Automatically from ISP

Router Mac Address - Use Default

Once all done click apply at the top of the screen. A bar will scroll across and the unit will reload. Once back up your should be online.

Make sure to login to the router again after its back up and click on the advanced tab, administration and choose set password to change your password for security.

Basic rules for any modem/router that is requiring some type of setup:

IP Address:

- Use DHCP
- Use MAC Encapsulation Routing
- Obtain Automatically

Gateway/DNS

- Obtain Automatically

DSL Mode

- ADSL2

Multiplexing Methods:

- Choose whichever one has LCC in the name
- VPI - 0

- VCI -35

REMEMBER TO LOG BACK IN AND CHANGE THE DEFAULT PASSWORD ON ANY ROUTER.