

DrayTek

Vigor160 Series

35b/G.Fast Modem



QUICK START GUIDE

V1.2

Vigor160 series 35b/G.Fast Modem Quick Start Guide

Version: 1.2

Firmware Version: V4.0.5

(For future update, please visit [DrayTek web site](#))

Date: March 4, 2020

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Safety Instructions and Approval

Safety Instructions

- Read the installation guide thoroughly before you set up the modem.
- The modem is a complicated electronic unit that may be repaired only by authorized and qualified personnel. Do not try to open or repair the modem yourself.
- Do not place the modem in a damp or humid place, e.g. a bathroom.
- Do not stack the modems.
- The modem should be used in a sheltered area, within a temperature range of 0 to +45 Celsius.
- Do not expose the modem to direct sunlight or other heat sources. The housing and electronic components may be damaged by direct sunlight or heat sources.
- Do not deploy the cable for LAN connection outdoor to prevent electronic shock hazards.
- Keep the package out of reach of children.
- When you want to dispose of the modem, please follow local regulations on conservation of the environment.

Warranty

We warrant to the original end user (purchaser) that the modem will be free from any defects in workmanship or materials for a period of two (2) years from the date of purchase from the dealer. Please keep your purchase receipt in a safe place as it serves as proof of date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, we will, at our discretion, repair or replace the defective products or components, without charge for either parts or labor, to whatever extent we deem necessary to restore the product to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal value, and will be offered solely at our discretion. This warranty will not apply if the product is modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions. The warranty does not cover the bundled or licensed software of other vendors. Defects which do not significantly affect the usability of the product will not be covered by the warranty. We reserve the right to revise the manual and online documentation and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.



EU Declaration of Conformity

We DrayTek Corp. , office at No.26, Fu Shing Road, HuKou County, Hsin-Chu Industry Park, Hsinchu 300, Taiwan , R.O.C., declare under our sole responsibility that the product

- **Product name:** 35b/G.Fast Modem
- **Model number:** Vigor165, Vigor166
- **Manufacturer:** DrayTek Corp.
- **Address:** No.26, Fu Shing Road, HuKou County, Hsin-Chu Industry Park, Hsinchu 300, Taiwan , R.O.C.


is in conformity with the relevant Union harmonisation legislation:

EMC Directive 2014/30/EU , Low Voltage Directive 2014/35/EU , ErP 2009/125/EC and RoHS 2011/65/EU with reference to the following standards

Standard	Version / Issue date
EN 55032	2012+AC:2013 class B
EN 61000-3-2	2014 Class A
EN 61000-3-3	2013
EN 55024	2010+A1:2015
EN 62368	2014+A11:2017
EC No. 1275/2008	2008

Hsinchu
(place)

20th September, 2019
(date)


Calvin Ma / President .
(Legal Signature)



Regulatory Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device may accept any interference received, including interference that may cause undesired operation.

USA Local Representative	Company name	ABP International Inc.		
	Address	13988 Diplomat Drive Suite 180 Dallas TX 75234		
	ZIP Code	75234	E-mail	rmesser@abptech.com
	Contact Person	Mr. Robert Messer	Tel.	19728311600

More update, please visit www.draytek.com.

*The external power supply used for each product will be model dependent.

	1	2	3	4	5	6	7	8	9
A Manufacturer	CWT	CWT	CWT	CWT	CWT	APD	APD	APD	APD
B Address	No. 222, Sec. 2, Nankan Rd., Lujhu Township, Taoyuan County 338, Taiwan	No. 222, Sec. 2, Nankan Rd., Lujhu Township, Taoyuan County 338, Taiwan	No. 222, Sec. 2, Nankan Rd., Lujhu Township, Taoyuan County 338, Taiwan	No. 222, Sec. 2, Nankan Rd., Lujhu Township, Taoyuan County 338, Taiwan	No. 222, Sec. 2, Nankan Rd., Lujhu Township, Taoyuan County 338, Taiwan	No. 5, Lane 83, Lung-Sou St., Taoyuan City 330, Taiwan	No. 5, Lane 83, Lung-Sou St., Taoyuan City 330, Taiwan	No. 5, Lane 83, Lung-Sou St., Taoyuan City 330, Taiwan	No. 5, Lane 83, Lung-Sou St., Taoyuan City 330, Taiwan
C Model identifier	2ABB012F UK 2ABB012F EU	2ABB018F UK 2ABB018F EU	2ABLO24F UK 2ABLO24F EU	2ABLO30F UK 2ABLO30F EU	2ABNO36F UK 2ABNO36F EU	WA-12M12FG WA-12M12FK	WB-18D12FG WB-18D12FK	WA-24Q12FG WA-24Q12FK	WA-36A12FG WA-36A12FK
D Input voltage	100-240V	100-240V	100-240V	100-240V	100-240V	100-240V	100-240V	100-240V	100-240V
E Input AC frequency	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz	50/60Hz
Output voltage DC	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V	12.0V
F Output current	1.0A	1.5A	2.0A	2.5A	3.0A	1.0A	1.5A	2.0A	3.0A
G Output power	12.0W	18.0W	24.0W	30.0W	36.0W	12.0W	18.0W	24.0W	36.0W
H Average active efficiency	84.9%	86.2%	87.6%	87.8%	89.8%	83.7%	85.4%	88.6%	88.2%
I Efficiency at low load 10%	73.6%	78.0%	81.3%	83.3%	83.7%	74.5%	80.5%	86.4%	85.4%
J No-load power consumption	0.07W	0.07W	0.07W	0.07W	0.07W	0.07W	0.10W	0.07W	0.10W

External power supply (Power Adapter) information. For more update, please visit www.draytek.com.

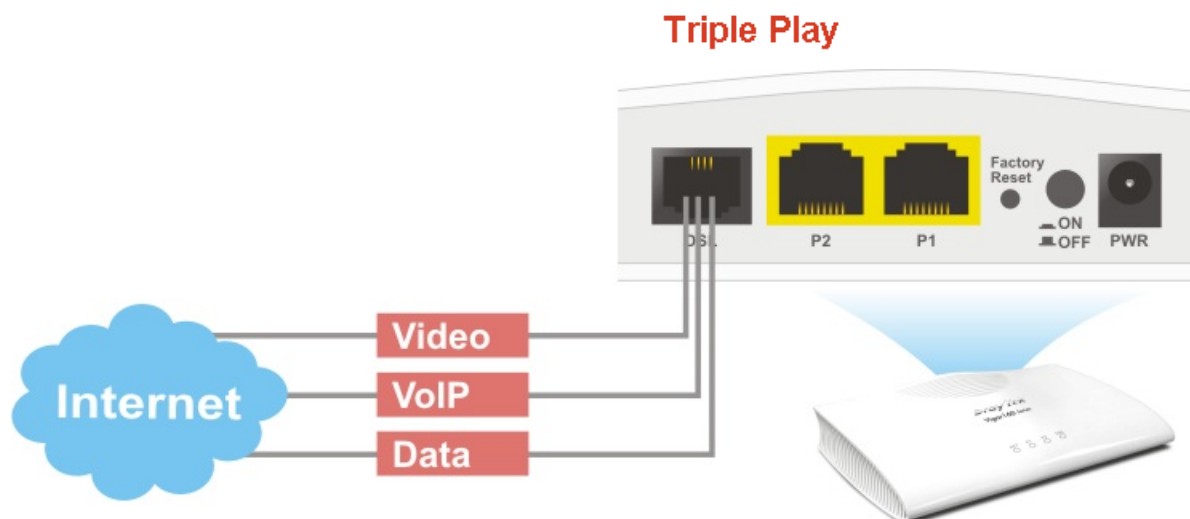


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1. Introduction

Vigor160 series include Vigor165, 35b Modem and Vigor166, G.Fast Modem. As the following figure shown, the modem supports triple play application like Video, VoIP and Data via the Internet.



Check the label on the bottom of the modem to differentiate which modem you have.

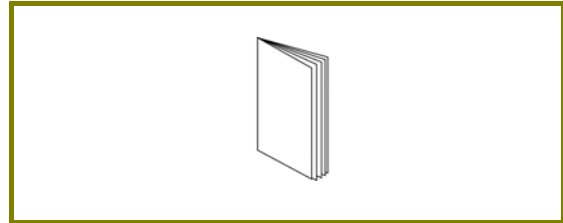


2. Package Content

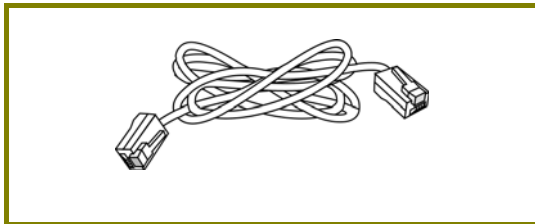
Take a look at the package content. If there is anything missed or damaged, please contact DrayTek or dealer immediately.



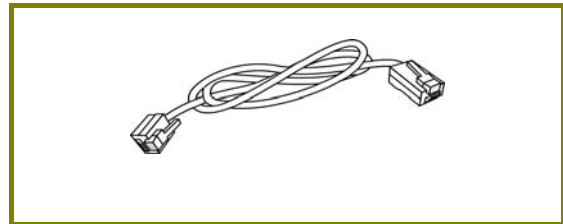
Modem



Quick Start Guide



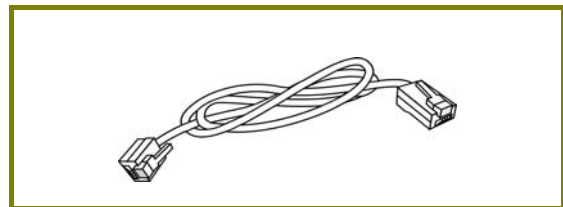
RJ-45 Cable (Ethernet)



RJ-11 to RJ-11 Cable (Annex A)

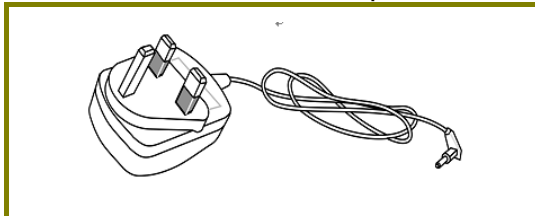


RJ-11 to RJ-45 Cable (Annex B)

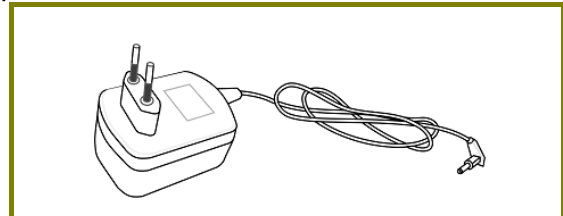


RJ-45 to RJ-45 Cable (Annex B)

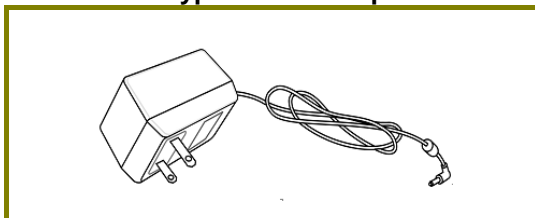
The type of the power adapter depends on the country that the modem will be installed. * The maximum power consumption is *7.5 Watt*.



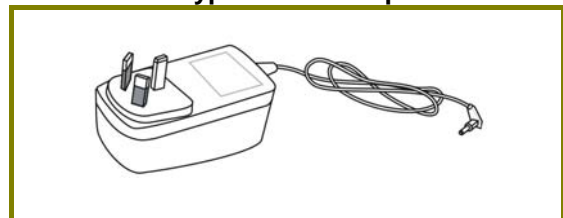
UK-type Power Adapter



EU-type Power Adapter

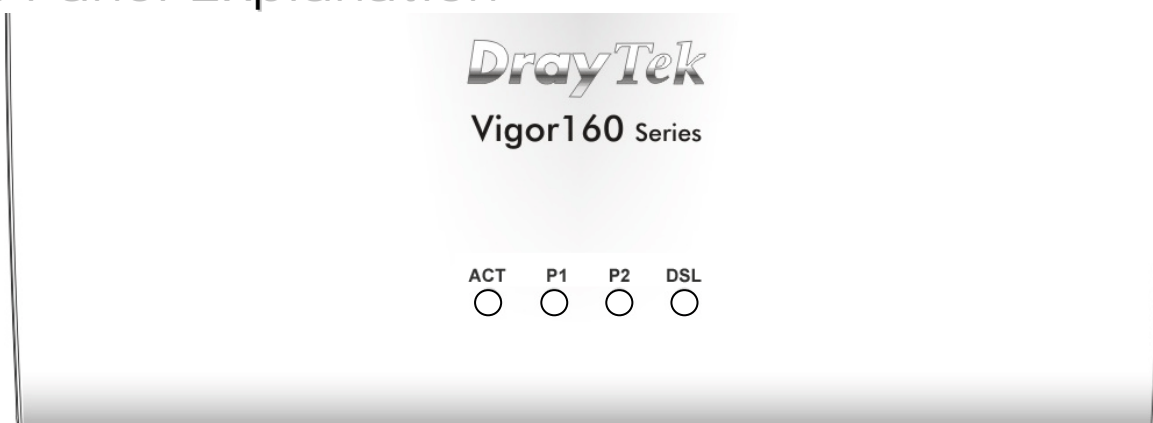


USA/Taiwan-type Power Adapter

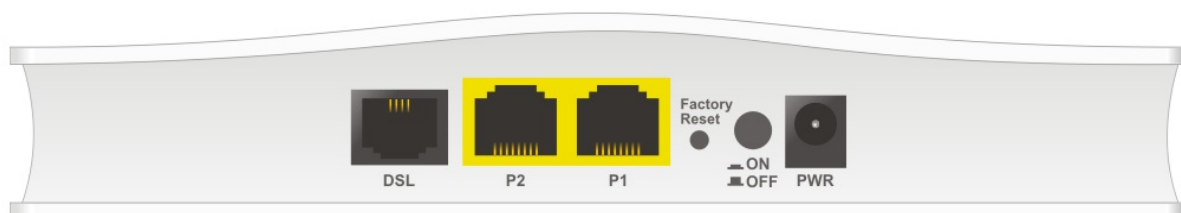




AU/NZ-type Power Adapter

3. Panel Explanation



LED	Status	Explanation
ACT	Off	The system is not ready or is failed.
	Blinking	The system is ready and can work normally.
P1/P2	On	A normal connection is through its corresponding port.
	Off	LAN is disconnected.
	Blinking	Data is transmitting (sending/receiving).
DSL	On	xDSL connection synchronized.
	Blinking	xDSL connection is synchronizing.



Interface	Description
DSL	Connector for accessing the Internet through xDSL.
P2-P1	Connector for local networked devices.
Factory Reset	Restore the default settings. Usage: Turn on the modem. Press the button and keep for more than 10 seconds. Then the modem will restart with the factory default configuration.
	ON/OFF: Power switch.
	Connector for a power adapter.



Note

Remove the protective film from the router before use to ensure ventilation.

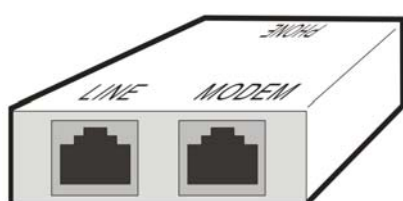
4. Hardware Installation

This section will guide you to install the modem through hardware connection and configure the modem's settings through web browser.

Before starting to configure the modem, you have to connect your devices correctly.

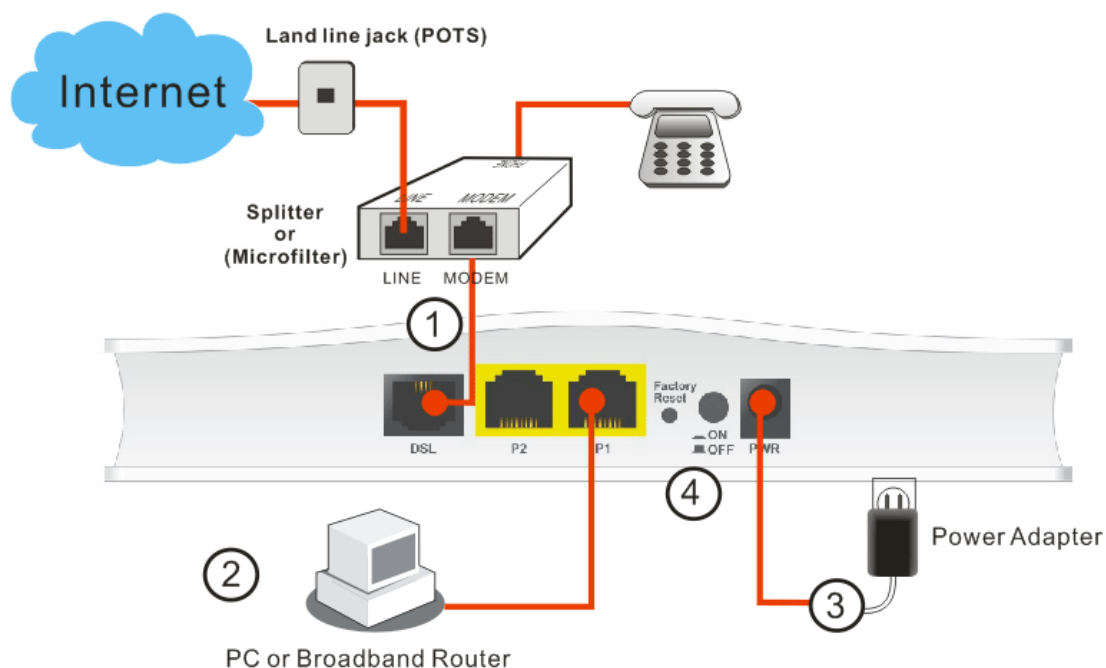
4.1 Network Connection

1. Connect the DSL interface to the MODEM port of external splitter with a DSL line cable.



(splitter)

2. Connect the LAN port to your computer with a RJ-45 cable.
3. Connect one end of the power adapter to the Power port of this device. Connect the other end to the wall outlet of electricity.
4. Power on the modem.
5. Check the POWER, ACT, LAN, DSL and INTERNET LEDs to assure network connections.

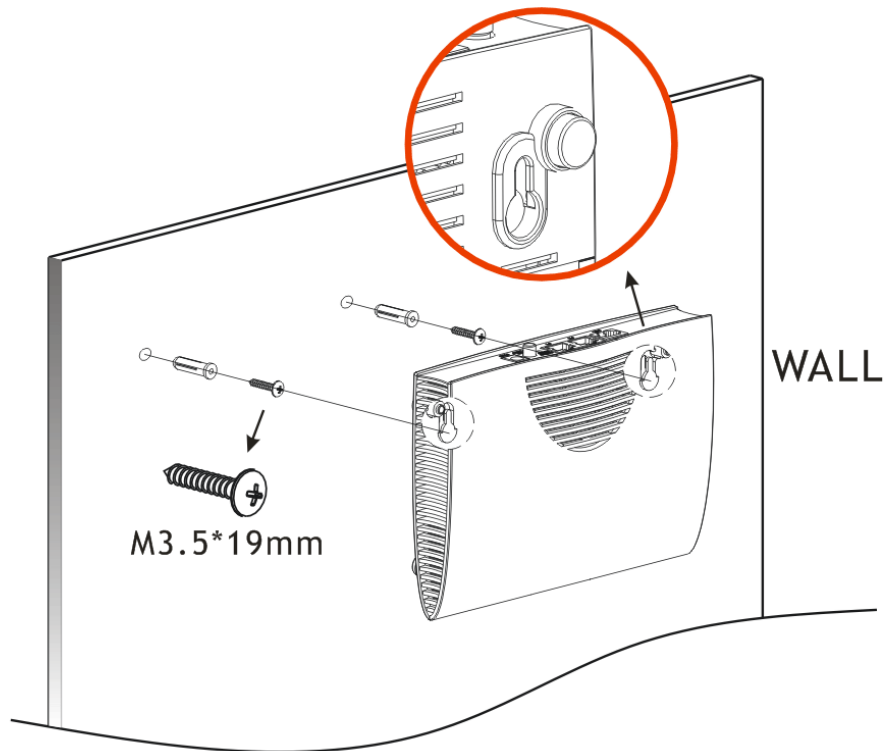


(For the detailed information of LED status, please refer to section 3.)

4.2 Wall-Mounted Installation

Vigor160 series has keyhole type mounting slots on the underside.

1. A template is provided on the Vigor160 series packaging box to enable you to space the screws correctly on the wall.
2. Place the template on the wall and drill the holes according to the recommended instruction.
3. Fit screws into the wall using the appropriate type of wall plug.



Note

The recommended drill diameter shall be 6.5mm (1/4").

4. When you finished about procedure, the modem has been mounted on the wall firmly.

5. Software Configuration

To access Internet, please finish basic configuration after completing the hardware installation. Here we take Vigor165 as an example.

The **Quick Start Wizard** is designed for you to easily set up your modem for Internet access. You can directly access the **Quick Start Wizard** via Web Configurator.

Make sure your PC connects to the modem correctly.



Note

You may either simply set up your computer to get IP dynamically from the modem or set up the IP address of the computer to be the same subnet as the **default IP address of Vigor modem 192.168.1.1**. For the detailed information, please refer to the section - Trouble Shooting in the User's Guide.

Open a web browser on your PC and type **http://192.168.1.1**. A pop-up window will open to ask for username and password. Please type "admin/admin" as the Username/Password and click **Login**.

DrayTek **Vigor165**

Login

Username

Password

Login

Security Warning: You are logging in without encryption which is not recommended. To login securely [click here](#).

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Now, the Main Screen will pop up. Click Wizards>>Quick Start Wizard.

System Information

Model Name	Vigor165	System Up Time	0:1:5
Router Name	DrayTek	Current Time	2000 Jan 1 Sat 0:1:3
Firmware Version	4.0.5_STD	Build Date/Time	Oct 31 2019 11:51:27
DSL Version	8B2607_A/B/C HW: B	LAN MAC Address	00-1D-AA-93-7F-B4

IPv4 Internet Access

Line / Mode	IP Address	MAC Address	Up Time
WAN1	VDSL2 / Static IP	Disconnected	00-1D-AA-93-7F-B5 00:00:00

Interface

DSL	Connected : Down Stream : 0Kbps / Up Stream : 0Kbps
WAN	Connected : 0, WAN1
LAN	Connected : 0, Port1 Port2

Quick Access

System Status
Dynamic DNS
TR_069
Schedule
SysLog / Mail Alert
Firewall Object Setting



Note

The home page will change slightly in accordance with the modem you have.

The first screen of Quick Start Wizard is entering login password. After typing the password, please click Next.

Quick Start Wizard

Enter login password

Please enter an alpha-numeric string as your **Password** (Max 23 characters).

Old Password

New Password

Confirm Password

Hint: If you want to keep the password unchanged, leave the password blank and press "Next" button to skip this process.

Next, select the appropriate protocol according to the information from your ISP. For example, you should select PPPoE mode if the ISP provides you PPPoE interface.

PPPoE / PPPoA

1. Choose PPPoE / PPPoA as the protocol.

Quick Start Wizard

Connect to Internet

WAN 1	
Protocol	PPPoE / PPPoA
For ADSL Only:	
Encapsulation	PPPoE LLC/SNAP
VPI	1 Auto detect
VCI	32
Fixed IP	<input checked="" type="radio"/> Yes <input type="radio"/> No(Dynamic IP)
IP Address	0.0.0.0
Subnet Mask	0.0.0.0
Default Gateway	0.0.0.0
Primary DNS	8.8.8.8
Second DNS	8.8.4.4
VLAN Tag insertion (ADSL):	Enable
Tag value	7 (0~4095)
Priority	0 (0~7)
VLAN Tag insertion (VDSL2):	Disable

< Back Next > Finish Cancel

Encapsulation for PPPoE/PPoA contains PPPoE and PPoA; encapsulation for MPoA/Static or Dynamic IP contains 1483 Bridged IP and 1483 Routed IP.

2. After finished the above settings, simply click Next.

Quick Start Wizard

Set PPPoE / PPPoA

WAN 1	
Service Name (Optional)	165
Username	84005755@hinet.net
Password	●●●●●●
Confirm Password	●●●●●●

< Back Next > Finish Cancel

3. Please manually enter the Username/Password provided by your ISP. Then click **Next** for viewing summary of such connection.

Quick Start Wizard

Please confirm your settings:

WAN Interface:	WAN1
Physical Mode:	ADSL / VDSL2
VPI:	1
VCI:	32
Protocol / Encapsulation:	PPPoE / LLC
Fixed IP:	Yes
IP Address:	0.0.0.0
Subnet Mask:	0.0.0.0
Default Gateway:	0.0.0.0
Primary DNS:	8.8.8.8
Secondary DNS:	8.8.4.4

4. Click **Finish**. A page of **Quick Start Wizard Setup OK!!!** will appear. Then, the system status of this protocol will be shown.
5. Now, you can enjoy surfing on the Internet.

MPoA / Static or Dynamic IP

1. Choose WAN1 as WAN Interface and click the Next button; you will get the following page. Choose MPoA / Static or Dynamic IP as the protocol.

Quick Start Wizard

Connect to Internet

WAN 1

Protocol: MPoA / Static or Dynamic IP ▼

For ADSL Only:

Encapsulation: 1483 Bridged IP LLC ▼

VPI: 1 [Auto detect]

VCI: 32

Fixed IP: Yes No(Dynamic IP)

IP Address: 192.168.1.52

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.1.11

Primary DNS: 8.8.8.8

Second DNS: 8.8.4.4

VLAN Tag insertion (ADSL): Enable ▼

Tag value: 7 (0~4095)

Priority: 0 (0~7)

VLAN Tag insertion (VDSL2): Disable ▼

< Back Next > Finish Cancel

2. Please type in the IP address/mask/gateway information originally provided by your ISP. Then click Next for viewing summary of such connection.

Quick Start Wizard

Please confirm your settings:

WAN Interface:	WAN1
Physical Mode:	ADSL / VDSL2
VPI:	1
VCI:	32
Protocol / Encapsulation:	1483 Bridge LLC
Fixed IP:	Yes
IP Address:	192.168.1.52
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.11
Primary DNS:	8.8.8.8
Secondary DNS:	8.8.4.4

< Back Next > Finish Cancel

3. Click Finish. A page of Quick Start Wizard Setup OK!!! will appear. Then, the system status of this protocol will be shown.
4. Now, you can enjoy surfing on the Internet.

6. Customer Service

If the modem still cannot work correctly after trying many efforts, please contact your dealer for further help right away. For any questions, please feel free to send e-mail to support@draytek.com.

Be a Registered Owner

Web registration is preferred. You can register your Vigor modem via <http://www.draytek.com>.

Firmware & Tools Updates

Due to the continuous evolution of DrayTek technology, all devices will be regularly upgraded. Please consult the DrayTek web site for more information on newest firmware, tools and documents.

<http://www.draytek.com>