

# Vigor2860 Series

# VDSL2 Security Firewall



# **Quick Start Guide**

# Vigor2860 Series VDSL2 Security Firewall Quick Start Guide

Version: 4.01 Firmware Version: V3.8.2 (For future update, please visit DrayTek web site) Date: November 20, 2015

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# Safety Instructions and Approval

Safety Instructions	<ul> <li>Read the installation guide thoroughly before you set up the router.</li> <li>The router is a complicated electronic unit that may be repaired only be authorized and qualified personnel. Do not try to open or repair the router yourself.</li> <li>Do not place the router in a damp or humid place, e.g. a bathroom.</li> <li>Do not stack the routers.</li> <li>The router should be used in a sheltered area, within a temperature range of +5 to +40 Celsius.</li> <li>Do not expose the router to direct sunlight or other heat sources. The housing and electronic components may be damaged by direct sunlight or heat sources.</li> <li>Do not deploy the cable for LAN connection outdoor to prevent electronic shock hazards.</li> <li>Keep the package out of reach of children.</li> <li>When you want to dispose of the router, please follow local regulations on conservation of the environment.</li> </ul>
Warranty	We warrant to the original end user (purchaser) that the router 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 tore-store 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.

# **European Community Declarations**

Manufacturer: DrayTek Corp. Address: No. 26, Fu Shing Road, HuKou Township, HsinChu Industrial Park, Hsin-Chu County, Taiwan 303 Product: Vigor2860 Series

DrayTek Corp. declares that Vigor2860 Series of routers are in compliance with the following essential requirements and other relevant provisions of R&TTE 1999/5/EC, ErP 2009/125/EC and RoHS 2011/65/EU.

The product conforms to the requirements of Electro-Magnetic Compatibility (EMC) Directive 2004/108/EC by complying with the requirements set forth in EN55022/Class B and EN55024/Class B.

The product conforms to the requirements of Low Voltage (LVD) Directive 2006/95/EC by complying with the requirements set forth in EN60950-1.

This product is designed for LTE, DSL and 2.4GHz /5GHz WLAN network throughout the EC region.

## **Regulatory Information**

Federal Communication Commission Interference Statement

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.

The antenna/transmitter should be kept at least 20 cm away from human body.

DrayTek Vigor2860 series VDSL2/ADSL2+ routers are compliant with 47 C.F.R. Part 68.



More update, please visit www.draytek.com.

# Be a Registered Owner

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

## Firmware & Tools Updates

Due to the continuous evolution of DrayTek technology, all routers will be regularly upgraded. Please consult the DrayTek web site for more information on newest firmware, tools and documents. <u>http://www.draytek.com</u>

### LTE network interface module

Available bands for the LTE network interface module #1 supported by Vigor2860 are listed in the following table:

LTE bands	LTE bands: 3, 7, 8 and 20
	800MHz (band 20), 900MHz (band 8), 1800MHz (band 3) and 2600 MHz (band7)

Module #1 can be seen on product label.

Dray Tek Corp.	
Model: http://www.draytek.com E-mail:support@draytek.com Power Consumption:17W(MAX.) Power Input: 12V-15V === 1.5A-1.2 Serial No:	((
LTE MODULE : 1 FOS parks Reg# US:DR DL01BV2860 WLAN FCC ID:VGYV2860VN	CCAG14B1001018

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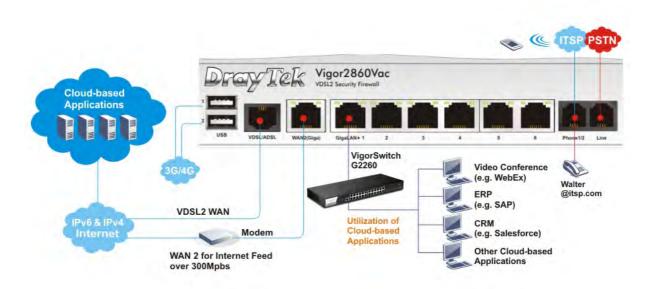
# 1. Introduction

Vigor2860 series is a VDSL2 router with multi-subnet for secure and efficient workgroup management. It integrates IP layer QoS, NAT session/bandwidth management to help users control works well with large bandwidth.

By adopting hardware-based VPN platform and hardware encryption of AES/DES/3DES, and hardware key hash of SHA-1/MD5, the router increases the performance of VPN greatly and offers several protocols (such as IPSec/PPTP/L2TP) with up to 32 VPN tunnels.

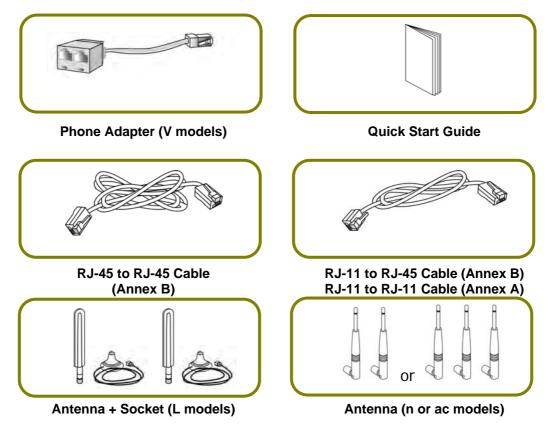
The object-based design used in SPI (Stateful Packet Inspection) firewall allows users to set firewall policy with ease. CSM (Content Security Management) provides users control and management in IM (Instant Messenger) and P2P (Peer to Peer) more efficiency than before. In addition, DoS/DDoS prevention and URL/Web content filter strengthen the security outside and control inside.

Vigor2860 series supports USB interface for connecting USB printer to share printing function, 3G/4G USB modem for network connection, or connectivity for network FTP service

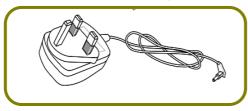


# 2. Package Content

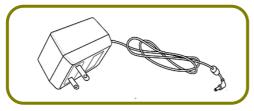
Take a look at the package content. If there is anything missed or damaged, please contact DrayTek or dealer immediately.



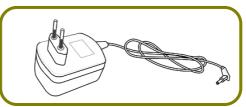
The type of the power adapter depends on the country that the router will be installed. \* The maximum power consumption is *24 Watt*.



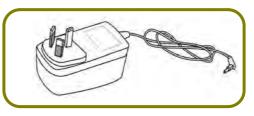
**UK-type Power Adapter** 



USA/Taiwan-type Power Adapter



**EU-type Power Adapter** 



AU/NZ-type Power Adapter

# 3. Panel Explanation

# 3.1 Vigor2860 / Vigor2860L





LED		Status	Explanation		
ACT (Activity)		Blinking	The router is powered on and running		
			normally.		
		Off	The router is powered off.		
WAN2		On	Internet connection is ready.		
		Off	Internet connection is not ready.		
		Blinking	The data is transmitting.		
QoS		On	The QoS function is active.		
USB1~2	/ USB	On	USB device is connected and ready for use.		
		Blinking	The data is transmitting.		
LTE		On	LTE device is connected and ready for use.		
		Off	LTE device is not detected, or has serious problem (e.g., no SIM card, SIM pin error, SIM deactivated, and etc.).		
		Blinking	Slowly: LTE device is in dialing up.		
			Quickly: The data is transmitting.		
DSL		On	The router is ready to access Internet through DSL link.		
		Blinking	Slowly: The DSL connection is ready. Quickly: The connection is training.		
WCF		On	The Web Content Filter is active. (It is enabled from Firewall >> General Setup).		
VPN		On	The VPN tunnel is active.		
		Off	VPN services are disabled		
		Blinking	Traffic is passing through VPN tunnel.		
DoS		On	The DoS function is active.		
		Blinking	It will blink while detecting an attack.		
LED on	Connect	tor			
	Left	On	The port is connected.		
WAN2	LED	Off	The port is disconnected.		

(Giga)		Blinking	The data is transmitting.
	Right	On	The port is connected with 1000Mbps.
	LED	Off	The port is connected with 10/100Mbps
<u></u>	Left	On	The port is connected.
GigaLAN 1~6	LED	Off	The port is disconnected.
I~0		Blinking	The data is transmitting.
	Right	On	The port is connected with 1000Mbps.
	LED	Off	The port is connected with 10/100Mbps





Switch on Rear Side





(Available for Vigor2860L)

Interface	Description
Factory Reset	Restore the default settings. Usage: Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
USB1~2 / USB	Connecter for a USB device (for 3G/4G USB Modem or printer or thermometer.
VDSL/ADSL	Connecter for accessing the Internet.
WAN2	Connecter for local network devices or modem for accessing Internet.
GigaLAN (1-6)	Connecters for local network devices.
PWR	Connecter for a power adapter.
ON/OFF	Power Switch.
SIM Card Slot	Connector for a SIM card.

#### Notifications for Antenna Installation (for Vigor2860L)

Magnetic antenna must be installed on the antenna socket before connecting to Vigor router. There are two mounting holes for installing antennas. If only one antenna shall be installed, please use the mounting hole (major signal transmitted hole) near to the SIM card slot.



While installing the SIM card into the card slot, note that back plate of the SIM card slot must be removed first and the direction of card notch must be on the left side.





• 6		Dre	YT	ek v	igor2860 SL2 Security Fire	ac wall					
Wireless LAN ON/OFF/WPS Factory Reset 2.4G	WAN2 QoS DSL WCF 5G DoS	USB	VDSL/ADSL	WAN2(Giga)	GigaLAN ► 1	2	3	4	5	6	
		Dom		δια ν	igor2860	)n-nlus					
Wireless LAN ON/OFF/WPS	WAN2 QoS	Plice			igor2860	wall		107 107	107 107		
Factory     Reset     2.4G	DSL WCF				CmmL			-000	- ime	-	
		USB	VDSL/ADSL	WAN2(Giga)	GigaLAN ► 1	2	3	4	5	6	
• [		Dre	TY T	ek v	igor286( SL2 Security Fire	)n wall					
Wireless LAN ON/OFF/WPS	WAN2 QoS				8		-			• •	
USB	DSL WCF										

# 3.2 Vigor2860ac/Vigor2860n-plus/Vigor2860n/Vigor2860Ln



LED	Status	Explanation
ACT (Activity)	Blinking	The router is powered on and running normally.
	Off	The router is powered off.
WAN2	On	Internet connection is ready.
	Off	Internet connection is not ready.
	Blinking	The data is transmitting.
QoS	On	The QoS function is active.
USB	On	USB device is connected and ready for use.
	Blinking	The data is transmitting.
LTE	On	LTE device is connected and ready for use.
	Off	LTE device is not detected, or has serious problem (e.g., no SIM card, SIM pin error, SIM deactivated, and etc.).
	Blinking	Slowly: LTE device is in dialing up.
		Quickly: The data is transmitting.
DSL	On	The router is ready to access Internet through DSL link.
	Blinking	Slowly: The DSL connection is ready. Quickly: The connection is training.
WCF	On	The Web Content Filter is active. (It is enabled from Firewall >> General Setup).

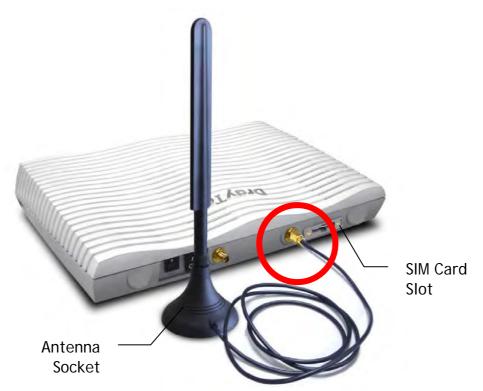
/WLAN	On	2.4G/5G: Wireless access point with		
	-	bandwidth of 2.4GHz/5GHz is ready.		
		WLAN: Wireless access point is ready.		
	Blinking	It will blink slowly while wireless traffic goes		
	Dinning	through.		
		ACT and WLAN LEDs blink quickly and		
		simultaneously when WPS is working, and will		
		return to normal condition after two minutes.		
		(You need to setup WPS within 2 minutes.)		
	On	The VPN tunnel is active.		
	Off	VPN services are disabled.		
	Blinking	Traffic is passing through VPN tunnel.		
	On	The DoS function is active.		
	Blinking	It will blink while detecting an attack.		
Connect	or			
Left	On	The port is connected.		
LED	Off	The port is disconnected.		
	Blinking	The data is transmitting.		
Right	On	The port is connected with 1000Mbps.		
LED	Off	The port is connected with 10/100Mbps		
Left	On	The port is connected.		
LED	Off	The port is disconnected.		
	Blinking	The data is transmitting.		
Right	On	The port is connected with 1000Mbps.		
LED	Off	The port is connected with 10/100Mbps		
	Left LED Right LED Left LED Right	NumberOnBlinkingBlinkingOnOffBlinkingOnBlinkingOnBlinkingConnectorLeftOnBlinkingConnectorLeftOffBlinkingRightOnLeftOffBlinkingRightOnLeftOffBlinkingRightOnBlinkingRightOn		

Wireless LAN ON/OFF/WPS Statory Reset	USB VDSLADSL WAN2(Gigs) CigaLAN+1 2 3 4 5 6
Wireless LAN ON/DFF/WPS Factory Reset 24G 50 DoS	Vigor2860n-plus           VDSL2 Security Firewall           VDSLADSL         VAN2(Giga)         GigaLAN+1         2         3         4         5         6
Wineless LAN ONOFFWPS E Factory Reset VAN VPN DoS	VIGOT2860n VDSI2 Security Firewoll USB VDSLADSL WARZ(Gip) GigeLAN+1 2 3 4 5 6
Wireless LAN ONOFFWPS Factory Reset	Drov Tek Vigor2860Ln VDS12 Security Firewoll USB DSL WAN2 LAN $\Box$ 2 3 4 5 6
	witch on Rear Side (Available for Vigor2860Ln)
Interface Wireless LAN ON/OFF/WPS	<ul> <li>Description</li> <li>For Vigor2860n : <ul> <li>Press the button and release it within 2 seconds. When the wireless function is ready, the green LED will be on.</li> <li>Press the button and release it within 2 seconds to turn off the WLAN function. When the wireless function is not ready, the LED will be off.</li> <li>For Vigor2860ac/Vigor2860n-plus/Vigor2860Ln :</li> </ul> </li> <li>Wireless band will be switched /changed according to the button pressed and released. For example, <ul> <li>2.4G (On) and 5G (On) - in default.</li> <li>2.4G (Off) and 5G (On) - pressed and released the button once.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> </ul> </li> <li>When WPS function is enabled by web user interface, press this button for more than 2 seconds to wait for client's device making network connection through WPS.</li> </ul>

Factory Reset	Restore the default settings. Usage: Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
USB1~2 / USB	Connecter for a USB device (for 3G/4G USB Modem or printer or thermometer.
VDSL/ADSL	Connecter for accessing the Internet.
WAN2 (Giga)	Connecter for local network devices or modem for accessing Internet.
GigaLAN (1-6)	Connecters for local network devices.
PWR	Connecter for a power adapter.
ON/OFF	Power Switch.
SIM Card Slot	Connector for a SIM card.

#### Notifications for Antenna Installation (for Vigor2860Ln)

Magnetic antenna must be installed on the antenna socket before connecting to Vigor router. There are two mounting holes for installing antennas. If only one antenna shall be installed, please use the mounting hole (major signal transmitted hole) near to the SIM card slot.

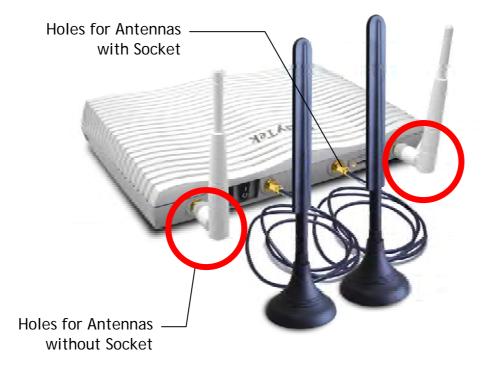


While installing the SIM card into the card slot, note that back plate of the SIM card slot must be removed first and the direction of card notch must be on the left side.



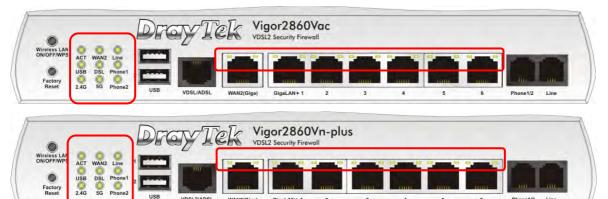


There are two types of antennas provided for Vigor2860Ln, which must be installed in different locations carefully and correctly. Wrong installation might cause bad signal of wireless connection. Therefore, pay attention to the installation of antennas by referring to the following illustration.



# 3.3 Vigor2860Vac / Vigor2860Vn-plus

VDSL2/ADSL



GigaLAN ► 1

2

3

4

5

WAN2(Giga)

Phone1/2 Line

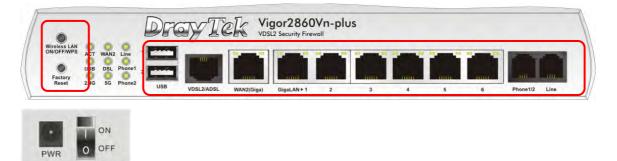
6

LED	Status	Explanation
ACT (Activity)	Blinking	The router is powered on and running
	_	normally.
	Off	The router is powered off.
WAN2	On	Internet connection is ready.
	Off	Internet connection is not ready.
	Blinking	The data is transmitting.
Line	On	A PSTN phone call comes (in and out).
		However, when the phone call is
		disconnected, the LED will be off.
	Off	There is no PSTN phone call.
USB	On	USB device is connected and ready for use.
	Blinking	The data is transmitting.
DSL	On	The router is ready to access Internet through DSL link.
	Blinking	Slowly: The DSL connection is ready.
		Quickly: The connection is training.
Phone1/Phone2	On	The phone connected to this port is off-hook.
	Off	The phone connected to this port is on-hook.
	Blinking	A phone call comes.
2.4G/5G	On	Wireless access point with bandwidth of 2.4GHz/5GHz is ready.
	Blinking	It will blink slowly while wireless traffic goes through.
		ACT and WLAN LEDs blink quickly and
		simultaneously when WPS is working, and will
		return to normal condition after two minutes.
		(You need to setup WPS within 2 minutes.)

	Left	On	The port is connected.
WAN2	LED	Off	The port is disconnected.
(Giga)		Blinking	The data is transmitting.
	Right	On	The port is connected with 1000Mbps.

	LED	Off	The port is connected with 10/100Mbps
	Left	On	The port is connected.
GigaLAN 1~6	LED	Off	The port is disconnected.
I~0		Blinking	The data is transmitting.
	Right	On	The port is connected with 1000Mbps.
	LED	Off	The port is connected with 10/100Mbps

	DrovTek Vigor2860Vac VDSL2 Security Firewall
Wireless LAN ON/OFF/WPS	می کر کر کر کر کر ا
Factory Reset 24G 5G Phone2	



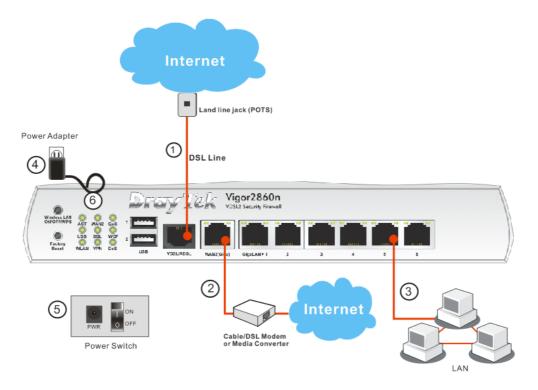
Interface	Description
Wireless LAN ON/OFF/WPS	<ul> <li>Wireless band will be switched /changed according to the button pressed and released. For example,</li> <li>2.4G (On) and 5G (On) - in default.</li> <li>2.4G (Off) and 5G (On) - pressed and released the button once.</li> <li>2.4G (On) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button twice.</li> <li>2.4G (Off) and 5G (Off) - pressed and released the button three times.</li> </ul>
Factory Reset	Restore the default settings. Usage: Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
USB	Connecter for a USB device (for 3G/4G USB Modem or printer).
VDSL/ADSL	Connecter for accessing the Internet.
WAN2 (Giga)	Connecter for local network devices or modem for accessing Internet.
GigaLAN (1-6)	Connecters for local network devices.
Phone 1/2	Connecter for analog phone(s).

Line	Connector for PSTN life line.
PWR	Connecter for a power adapter.
ON/OFF	Power Switch.

# 4. Hardware Installation

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

Before starting to configure the router, you have to connect your devices correctly. (For the hardware connection, we take "n" model as an example.)



- 1. Connect the DSL interface to the land line jack with a DSL line cable.
- 2. Connect the cable Modem/DSL Modem/Media Converter to the WAN port of router with Ethernet cable (RJ-45).
- 3. Connect one end of an Ethernet cable (RJ-45) to one of the LAN ports of the router and the other end of the cable (RJ-45) into the Ethernet port on your computer.
- 4. Connect one end of the power adapter to the router's power port on the rear panel, and the other side into a wall outlet.
- 5. Power on the device by pressing down the power switch on the rear panel.
- 6. The system starts to initiate. After completing the system test, the ACT LED will light up and start blinking. (For the detailed information of LED status, please refer to section 3. Panel Explanation)

# 5. Software Configuration

To access Internet, please finish basic configuration after completing the hardware installation.

# 5.1 Quick Start Wizard for Network Connection

The **Quick Start Wizard** is designed for you to easily set up your router for Internet access. You can directly access the **Quick Start Wizard** via Web Configurator. Make sure your PC connects to the router correctly.



You may either simply set up your computer to get IP dynamically from the router or set up the IP address of the computer to be the same subnet as the default IP address of Vigor router 192.168.1.1. For the detailed information, please refer to - Trouble Shooting of 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 🖌	Vigor2860	Series
Login		
Username	admin	]
Password	•••••	]
	Lo	gin
Copyright©, DrayTek Corp. All Rights R	eserved.	

 Note
 If you fail to access to the web configuration, please go to "Trouble Shooting" on User's Guide for detecting and solving your problem.

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

ray Tek	Vigor 286	0 Series			<b>*</b>	12 111 日 日
gout • 186	Dashboar	d 🔛				
ard s Status	Curcers LANS	ACT WAN2 QoS	DrayTe	Vigor2860Ln VDSI2 Security Freewoll		
d-Balance/Route Policy wall	Factory Reset	USB WLAN DoS	USB DSL	WAND LAN P 1 2	3 4	5 6
r Management	System I	nformation				🚍 Status
cts Setting	Model Na		Sve	tem Up Time 69:30:40		Status
	Router Na				29 Thu 1:8:10	Operational
width Management		Version 3.8.2 RC4a			015 11:07:22	Access Tech
ations	DSL Vers				-DD-75-00	LTE
nd Remote Access	LOOP VELS		CTITE A	1990 Houress 00-10-46	100-10-00	
ate Management	IDvd Inte	rnet Access				Band
VPN Management	IP V4 Inte	Line / Mode	IP Address	MAC Address	Up Time	E-UTRA Op Band 3
I AP Management			Disconnected		00:00:00	Operator
	WAN1	ADSL / PPPoE		00-1D-AA-DD-75-01		Chunghwa
ess LAN	WAN2	Ethernet / PPPoE	114.37.147.102		69:30:23	Signal
PN	LTE	USB / DHCP Client	10.112.181.60	00-A0-C6-00-00-55	69:30:01	-62 dBm
plication	WAN4	USB /	Disconnected	00-1D-AA-DD-75-04	00:00:00	New SMS
Maintenance						4
stics al Devices	Interface					
arbevices	DSL	Connected : Down S	Stream : OKbps / Ug	Stream : OKbps		
	WAN	Connected : 2, 🥥	WAN1 WAN2	LTE WAN4		Quick Access
Area	C LAN	Connected : 5, 💚	LAN1 @LAN2	@LAN3 @LAN4 @L	ANS @LAN6	System Status
t Registration	C WLAN	Connected : 0				Dynamic DNS
-	USB	Connected : 0,	USB			TR-069
Admin mode						User Management
Status: Ready	Security					IM/P2P Block
	ET VPN	Connected : 1		Domote Dial in Us	ser / LAN to LAN	Schedule

Note

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

If your router can be under an environment with high speed NAT, the configuration provide here can help you to deploy and use the router quickly. The first screen of **Quick Start Wizard** is entering login password. After typing the password, please click **Next**.

#### Quick Start Wizard

r login password	
Please enter an alpha-nur	neric string as your <b>Password</b> (Max 23 characters).
Old Password	
New Password	••••
Confirm Password	
	Sack Next > Finish Ca

On the next page as shown below, please select the WAN interface that you use. If DSL interface is used, please choose WAN1; if Ethernet interface is used,

please choose WAN2; if 3G USB modem is used, please choose WAN3 or WAN4. Then click **Next** for next step.

Quick Start Wizard

Quick Start Wizard

ADSL / VDSL2
Auto negotiation 💉

WAN1, WAN2, WAN3 and WAN4 will bring up different configuration page. Refer to the following for detailed information.

# 5.1.1 For WAN1 (ADSL/VDSL2)

WAN1 is specified for ADSL or VDSL connection.

WAN Interface:	WAN1 💌
Display Name:	
Physical Mode:	ADSL / VDSL2
Physical Type:	Auto negotiation 😪

Click **Next** to go to the following page. You have to select the appropriate Internet access type **according to the information from your ISP**. For example, you should select PPPoE mode if the ISP provides you PPPoE interface. In addition, the field of **For ADSL Only** will be available only when ADSL is detected. Then click **Next** for next step.

#### Quick Start Wizard

	-
Connect to	Internet

Protocol	MPoA / Static or Dynamic IP 🔽
Protocol	MPOA7 Static or Dynamic IP
For ADSL Only:	
Encapsulation	1483 Bridged IP LLC
VPI	0 Auto detect
VCI	88
Fixed IP	⊙ Yes 🛛 No(Dynamic IP)
IP Address	192.16.20.86
Subnet Mask	255.255.255.0
Default Gateway	192.16.20.1
Primary DNS	8.8.4.4
Second DNS	168.95.192.1

#### PPPoE/PPPoA

1. Choose WAN1 as WAN Interface and click the Next button; you will get the following page.

WAN 1	
Protocol	PPPoE / PPPoA
For ADSL Only:	
Encapsulation	PPP₀E LLC/SNAP 💌
VPI	0 Auto detect
VCI	88
Fixed IP	⊙Yes ○No(Dynamic IP)
IP Address	192.16.20.86
Subnet Mask	255.255.255.0
Default Gateway	192.16.20.1
Primary DNS	8.8.4.4
Second DNS	168.95.192.1

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

Quick Start Wizard

Quick Start Wizard

WAN 1	
User Name	77494727@hinet.net
Password	•••••
Confirm Password	

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

WAN Interface:	WAN1
Physical Mode:	ADSL / VDSL2
VPI:	0
VCI:	33
Protocol / Encapsulation:	PPPoE / LLC
Fixed IP:	No
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.

Quick Start Wizard	Quick	Start	Wizard
--------------------	-------	-------	--------

WAN 1	
Protocol	MPoA / Static or Dynamic IP 💌
For ADSL Only:	
Encapsulation	1483 Bridged IP LLC
VPI	0 Auto detect
VCI	88
Fixed IP	⊙ Yes ○No(Dynamic IP)
IP Address	192.16.20.86
Subnet Mask	255.255.255.0
Default Gateway	192.16.20.1
Primary DNS	8.8.4.4
Second DNS	168.95.192.1

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 S	Start V	Vizard
---------	---------	--------

	e confirm your settings: WAN Interface: Physical Mode: VPI: VCI: Protocol / Encapsulation: Fixed IP: Primary DNS: Secondary DNS:	WAN1 ADSL / VDSL2 0 33 1483 Route LLC No 8.8.8.8 8.8.4.4
--	--	---

- 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.

# 5.1.2 For WAN2 (Ethernet)

WAN2 is dedicated to physical mode in Ethernet. If you choose WAN2, please specify physical type. Then, click **Next**.

Quick Start Wizard	
WAN Interface	
WAN Interface: Display Name: Physical Mode: Physical Type:	WAN2  Ethernet Auto negotiation
	<pre>&lt; Back Next &gt; Finish Cancel</pre>

On the next page as shown below, please select the appropriate Internet access type according to the information from your ISP. For example, you should select PPPoE mode if the ISP provides you PPPoE interface. Then click **Next** for next step.

### PPPoE

1. Choose **WAN2** as the WAN Interface and click the **Next** button. The following page will be open for you to specify Internet Access Type.

Quick Start V	Nizard
---------------	--------

Connect to Internet	
WAN 2	
Select one of the following Internet Acces	s types provided by your ISP.
PPPoE	
○ РРТР	
O L2TP	
🔘 Static IP	
О рнср	
	<pre>&lt; Back Next &gt; Finish Cancel</pre>

2. Click **PPPoE** as the Internet Access Type. Then click **Next** to continue.

Quick Start Wizard

Quick Start Wizard

WAN 2		
Enter the user name and pa	ssword provided by your ISP.	
User Name	77494727@hinet.net	
Password	•••••	
Confirm Password		

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

WAN Interface:	WAN2
Physical Mode:	Ethernet
Physical Type:	Auto negotiation
Internet Access:	PPPoE
settings and restart the Vi	

- 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.

#### PPTP/L2TP

1. Choose **WAN2** as the WAN Interface and click the **Next** button. The following page will be open for you to specify Internet Access Type.

ect to Internet				
WAN 2				
Select one of the following	Internet Access	types provide	d by your ISP.	
	○ PPPoE			
	○ РРТР			
	L2TP			
	🔘 Static IP			
	О рнср			

2. Click PPTP/L2TP as the Internet Access Type. Then click Next to continue.

WAN 2 Enter the user name, pass your ISP.	word, WAN IP configuration and PPTP serv	ver IP provided by
User Name	77494727@hinet.net	
Password		
Confirm Password		
WAN IP Configuration		
🔘 Obtain an IP address	automatically	
Specify an IP addres	s	
IP Address	192.16.20.86	
Subnet Mask	255.255.255.0	
Gateway	192.16.20.1	
Primary DNS	8.8.8.8	
Second DNS	8.8.4.4	
PPTP Server		

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

_	
WAN Interface:	WAN2
Physical Mode:	Ethernet
Physical Type:	Auto negotiation
Internet Access:	РРТР
Click <b>Back</b> to modify char settings and restart the V	nges if necessary. Otherwise, click <b>Finish</b> to save the current 'igor router.

- 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.

# Static IP

Quick Start Wizard

1. Choose **WAN2** as the WAN Interface and click the **Next** button. The following page will be open for you to specify Internet Access Type.

WAN 2				
Select one of the	e following Internet A	ccess types provid	ed by your ISP.	
	🔘 PPPoE			
	🔘 РРТР			
	🔘 L2TP			
	📀 Static	IP		
	🔘 ДНСР			

2. Click Static IP as the Internet Access type. Simply click Next to continue.

Static IP Client Mode			
WAN 2 Enter the Static IP configur	ation provided by your ISP.		
WAN IP	192.16.20.86		
Subnet Mask	255.255.255.0		
Gateway	192.16.20.1		
Primary DNS	8.8.8.8		
Secondary DNS	8.8.4.4	(optional)	
	< Back	Next > Fini	ish Cancel

3. Please type in the IP address information originally provided by your ISP. Then click **Next** for next step.

e confirm your settings:	
WAN Interface:	WAN2
Physical Mode:	Ethernet
Physical Type:	Auto negotiation
Internet Access:	Static IP
Click <b>Back</b> to modify char settings and restart the V	nges if necessary. Otherwise, click <b>Finish</b> to save the current rigor router.

- 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.

# DHCP

1. Choose **WAN2** as WAN Interface and click the **Next** button. The following page will be open for you to specify Internet Access Type.

Quick Start Wizard					
Connect to Internet					
WAN 2 Select one of the fo	Illowing Internet Acces PPPoE PPTP L2TP Static IP O DHCP	s types provide	ed by your ISF	p.	
		< Back	Next >	Finish	Cancel

2. Click DHCP as the Internet Access type. Simply click Next to continue.

DHCP Clie	ent Mode	
If	AN 2 your ISP require nter it in.	es you to enter a specific host name or specific MAC address, please
ŀ	Host Name	(optional)
r	MAC	00 -1D -AA -A6 -26 -1A (optional)
		Cancel

3. After finished the settings above, click **Next** for viewing summary of such connection.

se confirm your settings:	
WAN Interface:	WAN2
Physical Mode:	Ethernet
Physical Type:	Auto negotiation
Internet Access:	DHCP
Click <b>Back</b> to modify chan settings and restart the Vi	iges if necessary. Otherwise, click <b>Finish</b> to save the current igor router.

- 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.

# 5.1.3 For WAN3/WAN4 (USB)

1. Choose WAN3/WAN4 as WAN Interface.

Quick Start Wizard

WAN Interface	
WAN Interface: Display Name: Physical Mode:	WAN3 V USB
	<pre>&lt; Back Next &gt; Finish Cancel</pre>

2. Then, click **Next** for getting the following page.

WAN 3	
Internet Access :	3G/4G USB Modem(PPP mode) 🔽
	3G/4G USB Modem(PPP mode)
3G/4G USB Modem(PPP mode)	4G USB Modem(DHCP mode)
SIM PIN code	
Modem Initial String	AT&FE0V1X1&D2&C1S0=0
-	(Default:AT&FE0V1X1&D2&C1S0=0)
APN Name	Apply

3. After finished the settings above, click **Next** for viewing summary of such connection.

Please confirm your settings:	
WAN Interface:	WAN3
Physical Mode:	USB
Internet Access:	РРР
settings and restart the Vi	igor router.
	<pre>&lt; Back Next &gt; Finish Cancel</pre>

- 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.

# 5.1.4 For LTE WAN

1. Choose LTE as WAN Interface.

Quick Start Wizard

WAN Interface	
WAN Interface: Display Name: Physical Mode:	LTE V USB
	< Back Next > Finish Cancel

2. Then, click **Next** for getting the following page.

Connect to Internet	
LTE	
Internet Access :	3G/4G USB Modem(DHCP mode) ▼
	3G/4G USB Modem(DHCP mode)
3G/4G USB Modem(DHCP mod	1e)
SIM PIN code	••••
Network Mode	4G/3G/2G 🔻 (Default:4G/3G/2G)
APN Name	internet
	< Back Next > Finish Cancel

3. Please type in required information originally provided by your ISP. Then, click **Next** for viewing summary of such connection.

WAN Interface:	LTE	
Physical Mode:	USB	
Internet Access:	DHCP	

- 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.

# 6. Customer Service

Quick Start Wizard

If the router 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.