Installation Guide - Dual - Band WiFi DSL Modem - SmartRG-SR516ac

 (1042KB)

Getting Your Internet Running

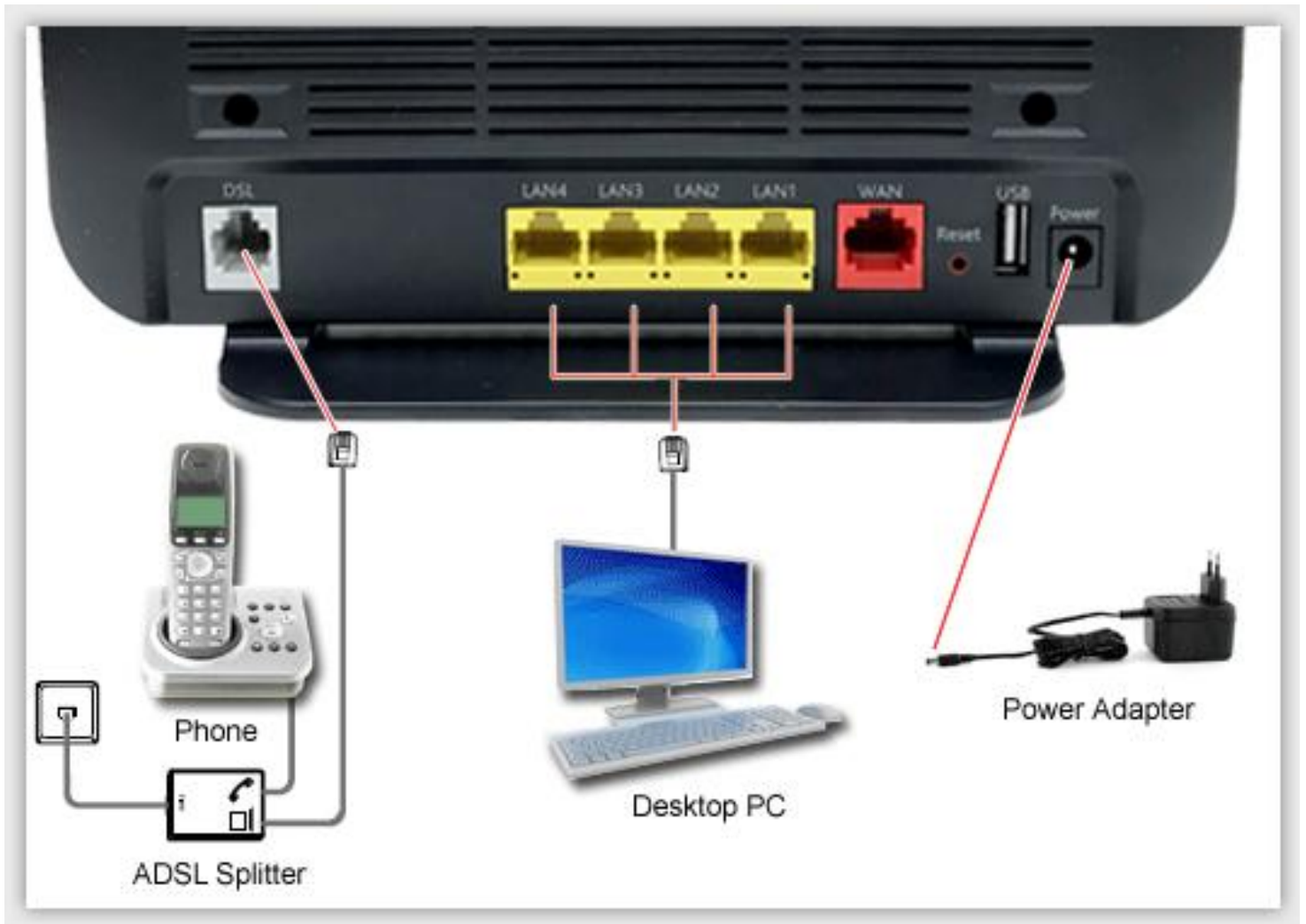**Check your modem package contents. It should contain the items shown here:**

Front Panel LED Explanation

Connect Your Modem

Refer to your modem user guide or follow the steps below:

1. Connect the power supply to the modem and plug it in.
2. Connect the phone cord to the modem and plug the other side into the wall phone jack. (There should be no surge suppressors or on this line.)
3. Connect the network cable to the modem and then into the Ethernet port on your computer.
4. Turn the power on and wait for approximately one minute.
5. The DSL/ADSL/SYNC lights should now be on and solid.
6. Contact us if you have any questions.

Now, you can now connect your devices to the modem with network cable or WIFI

(SSID & WIFI Key at the bottom of the modem)

ATTENTION: Your Modem has been pre-programmed. Normally you may skip the sections below.

1. Before Setup - Reset your modem & unplug modem

Connect your computer to the modem with Network Cable or WIFI

Press and hold the Reset button (hole) for 30 seconds on the back of the modem. After that, unplug the modem for 10sec. Then, open a web browser and type: **192.168.1.1** into the Address bar and press **ENTER**

Login Page (for modem only)- By default, User Name: admin & Password: admin

Click "Manage Gateway (advanced)"

On the Left side menu Click **"Management"** ➔ **"Settings"** ➔ **"Restore Default**

Device Info
Advanced Setup
Wireless
Diagnostics
Management
    Settings
        Backup
        Update
        Restore Default
    System Log
    Security Log
    SNMP Agent
    Management Server
    Internet Time
    Access Control
    Update Software
    Reboot
Logout

Settings -- Restore Default

Restore Broadband Router setting to the defaults.

Restore Default Settings

Reboot your modem.

You modem was restored to factory default

2. Set up your modem

Click **Advanced Setup** ➔ Click **WAN Service.** The Wide Are Network (WAN) Service Setup table should appear as below. (Remove anything present by checking the **Remove** box(es) and click the **Remove** button.
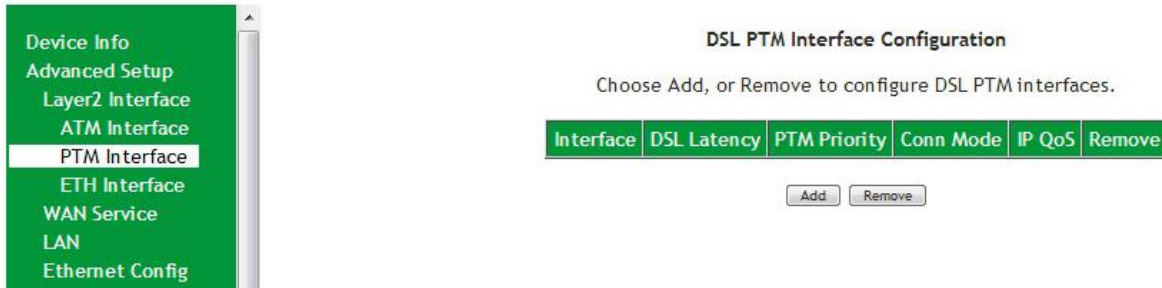
Device Info
Advanced Setup
  Layer2 Interface
    ATM Interface
    PTM Interface
    ETH Interface
  WAN Service
  LAN
  Ethernet Config
  NAT

Wide Area Network (WAN) Service Setup

Choose Add, Remove or Edit to configure a WAN service over a selected interface.

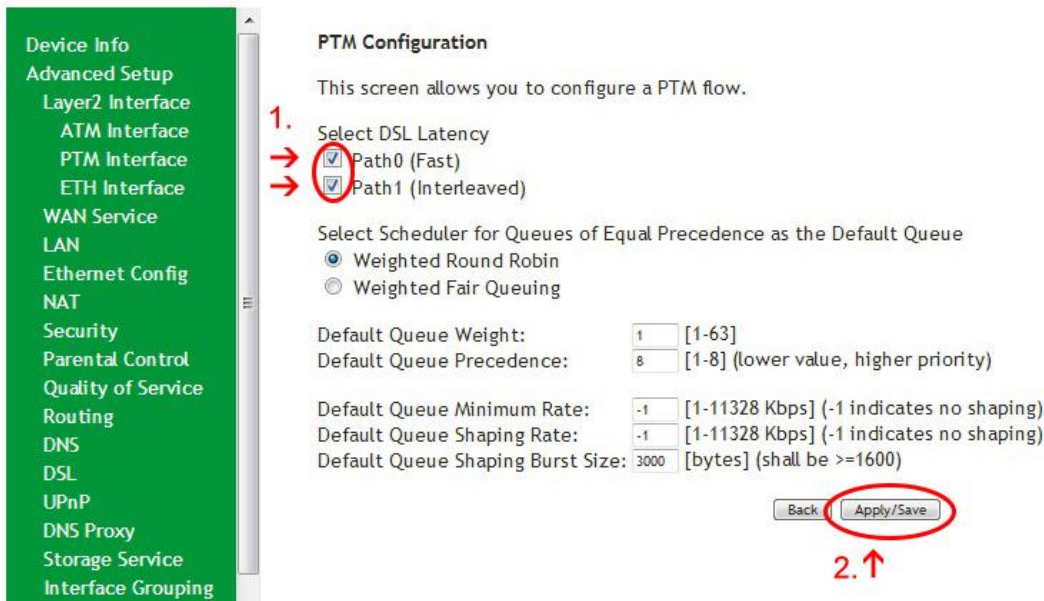| Interface	Description	Type	Vlan8021p	VlanMuxId	VlanTpid	Igmp Proxy	Igmp Source	NAT	Firewall	IPv6	Mld Proxy	Mld Source	Remove

Add   Remove

Click **Layer2 Interface** ➔ Click **PTM Interface**. The DSL PTM Interface Configuration table should appear as below. (Remove anything present by checking the **Remove** box(es) and click the **Remove** button.

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DSL PTM Interface Configuration

Choose Add, or Remove to configure DSL PTM interfaces.

Interface	DSL Latency	PTM Priority	Conn Mode	IP QoS	Remove

Add   Remove

Click **Add** button on PTM Interface Page

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DSL PTM Interface Configuration

Choose Add, or Remove to configure DSL PTM interfaces.

Interface	DSL Latency	PTM Priority	Conn Mode	IP QoS	Remove

Click "Add" button → Add   Remove

Check **Path0 (Fast)** and Path1 **(Interleaved) boxes** → Click **Apply/Save**

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  DNS
  DSL
  UPnP
  DNS Proxy
  Storage Service
  Interface Grouping

PTM Configuration

This screen allows you to configure a PTM flow.

1. Select DSL Latency
→ ☑ Path0 (Fast)
→ ☑ Path1 (Interleaved)

Select Scheduler for Queues of Equal Precedence as the Default Queue
  ⦿ Weighted Round Robin
  ○ Weighted Fair Queuing

Default Queue Weight: 1   [1-63]
Default Queue Precedence: 8   [1-8] (lower value, higher priority)

Default Queue Minimum Rate: -1   [1-11328 Kbps] (-1 indicates no shaping)
Default Queue Shaping Rate: -1   [1-11328 Kbps] (-1 indicates no shaping)
Default Queue Shaping Burst Size: 3000   [bytes] (shall be >=1600)

Back   Apply/Save

2. ↑

Click **WAN** Service → Click **Add** button

Select **ptm0/(4_1_1)** from the dropdown list. Click **Next**

Enter **802.IP Priority** = **1**
Enter **802.1Q VLAN ID** = **35**
Click **Next**

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   IP Tunnel
   IPSec
   Certificate
   Power Management

WAN Service Configuration

Select WAN service type:
- ● PPP over Ethernet (PPPoE)
- ○ IP over Ethernet
- ○ Bridging

Enter Service Description: pppoe_4_1_1

For tagged service, enter valid 802.1P Priority and 802.1Q VLAN ID.
For untagged service, set -1 to both 802.1P Priority and 802.1Q VLAN ID.

Enter 802.1P Priority [0-7]:   1 ←
Enter 802.1Q VLAN ID [0-4094]:   35 ←
Select VLAN TPID: Select a TPID ▼

Internet Protocol Selection:
IPV4 Only ▼

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Enter your World-Link Username into the PPP Username field
Enter your World-Link Password into the PPP Password Field
Change the **MTU size** to **1442** and click "**next**"

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PPP Username and Password

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

↓ Enter World-Link Username

PPP Username: `xxxxxx@iwtink.ca`   ☐ Use base MAC address as username
PPP Password: `••••••`   ← Enter World-Link Password
PPPoE Service Name:
Authentication Method: `AUTO` ▼

Link Control Protocol

LCP Keepalive Period (s): `30`
LCP Retry Threshold: `3`

☐ PPP IP extension

☐ Advanced DMZ
Non DMZ IP Address: `192.168.2.1`
Non DMZ Net Mask: `255.255.255.0`

☐ Use Static IPv4 Address
☐ Enable Fullcone NAT

☐ Enable SIP ALG
Port Control Protocol Mode `Disable` ▼
PCP Server

IGMP Multicast

☐ Enable IGMP Multicast Proxy

☐ Enable IGMP Multicast Source

MTU size [1370-1492]: `1442`   ← Enter "1442"

☑ Use Base MAC Address on this WAN interface (Note: only select this for one WAN interface)

[Back] (Next)

Routing – Default Gateway Page
Click **Next**

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Default gateway interface list can have multiple WAN interfaces served as system default gateways but only one will be used according to the priority with the first being the higest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

Selected Default Gateway Interfaces

ppp0.1

->

<-

Available Routed WAN Interfaces

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DNS Server Configuration Page
Click **Next**

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DNS Server Configuration

Select DNS Server Interface from available WAN interfaces OR enter static DNS server IP addresses for the system. In ATM mode, if only a single PVC with IPoA or static IPoE protocol is configured, Static DNS server IP addresses must be entered.

DNS Server Interfaces can have multiple WAN interfaces served as system dns servers but only one will be used according to the priority with the first being the higest and the last one the lowest priority if the WAN interface is connected. Priority order can be changed by removing all and adding them back in again.

◉ **Select DNS Server Interface from available WAN interfaces:**

Selected DNS Server Interfaces

Available WAN Interfaces

ppp0.1

[->]

[<-]

○ **Use the following Static DNS IP address:**
Primary DNS server: [_____]
Secondary DNS server: [_____]

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WAN Setup – Summary page
Click **Apply/Save**

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WAN Setup - Summary

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

PORT / VPI / VCI:	0 / 1 / 1
Connection Type:	PPPoE
Service Name:	pppoe_4_1_1.35
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Enabled
Full Cone NAT:	Disabled
Firewall:	Enabled
IGMP Multicast Proxy:	Disabled
IGMP Multicast Source Enabled:	Disabled
MLD Multicast Proxy:	Disabled
MLD Multicast Source Enabled:	Disabled
Quality Of Service:	Disabled

Click "Apply/Save" to have this interface to be effective. Click "Back" to make any modifications.

Back   Apply/Save

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Advanced Setup → DSL
Check **Stinger Mode Enable**
Click **Apply/Save**
Click OK Reboot to take effect. Reboot modem

☑ AnnexL Enabled
☑ ADSL2+ Enabled
☐ AnnexM Enabled
☑ VDSL2 Enabled

☑ 12a Enabled
☑ 12b Enabled
☑ 17a Enabled

US0
☑ Enabled

Select the phone line pair below.
⦿ Inner pair
◯ Outer pair

Capability
☑ Bitswap Enable
☐ SRA Enable
☐ PhyR Enable
☐ ADSL PTM Mode Enable
☑ Stinger® Mode Enable

Inventory Management
☐ Use board serial for EOC Serial Number

Back   Apply/Save

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Multicast
Wireless
Diagnostics

Congratulations! Your Connection is up and running and you should be able to browse the Internet.

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3. Wireless Setup

WIFI SSID (2.4G and 5G) and WIFI Key have been programmed as default as shown on the label of the modem. Unless you want to set the SSID to your desired wireless network name, you don't need any set up on wireless.

Change WIFI SSID name
Click **Wireless**
Change **SSID** to your desired name. The name will show up when you search for wireless networks
Click **Apply/Save**

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  2.4 GHz Band
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    Wireless Bridge
    Advanced
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Wireless -- Basic

This page allows you to configure basic features of the wireless LAN interface. You can enable or disable the wireless LAN interface, hide the network from active scans, set the wireless network name (also known as SSID) and restrict the channel set based on country requirements.
Click "Apply/Save" to configure the basic wireless options.

☑ Enable WiFi Button ⟵ Enable by default

☑ Enable Wireless

☐ Hide Access Point

☐ Clients Isolation

☐ Disable WMM Advertise

☑ Enable Wireless Multicast Forwarding (WMF)

SSID: SmartRG-XXXX

BSSID: 3C:90:66:CD:12:C9

Country: UNITED STATES

Country RegRev: 0

Max Clients: 32

Wireless - Guest/Virtual Access Points:

Enabled	SSID	Hidden	Isolate Clients	Disable WMM Advertise	Enable WMF	Max Clients	BSSID
☐	Guest	☐	☐	☑	☑	128	N/A
☐	Guest1	☐	☐	☑	☑	128	N/A
☐	Guest2	☐	☐	☑	☑	128	N/A

Apply/Save

Click **Security**
From **Select SSID** dropdown menu, select the SSID name you created
From Network Authentication dropdown menu, select **Mixed WPA2/WPA-PSK**

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Wireless -- Security

This page allows you to configure security features of the wireless LAN interface.
You may setup configuration manually
       OR
through WiFi Protcted Setup(WPS)
Note: When both STA PIN and Authorized MAC are empty, PBC is used. If Hide Access Point enabled or Mac filter list is empty with "allow" chosen, WPS2 will be disabled

WPS Setup

Enable WPS   Disabled ▾

Manual Setup AP

You can set the network authentication method, selecting data encryption,
specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.
Click "Apply/Save" when done.

Select SSID: SmartRG-xxxx ▾

Network Authentication: Mixed WPA2/WPA -PSK ▾
Protected Management   Disabled ▾
Frames:
WPA passphrase: ●●●●●●●●●   Click here to display
WPA Group Rekey Interval: 0
WPA Encryption: AES ▾
WEP Encryption: Disabled ▾

[Apply/Save]

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Device Info
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Wireless
→ 5 GHz Band
    Basic
→ Security
    MAC Filter
    Wireless Bridge
    Advanced
    Station Info
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Wireless -- Security

This page allows you to configure security features of the wireless LAN interface.
You may setup configuration manually
        OR
through WiFi Protcted Setup(WPS)
Note: When both STA PIN and Authorized MAC are empty, PBC is used. If Hide Access Point enabled or Mac filter list is empty with "allow" chosen, WPS2 will be disabled

WPS Setup

Enable WPS   Disabled ▾

Manual Setup AP

You can set the network authentication method, selecting data encryption,
specify whether a network key is required to authenticate to this wireless network and specify the encryption strength.
Click "Apply/Save" when done.

Select SSID: SmartRG-×××-5G ▾

Network Authentication: Mixed WPA2/WPA -PSK ▾
Protected Management
Frames: Disabled ▾
WPA passphrase: •••••••••   Click here to display
WPA Group Rekey Interval: 0
WPA Encryption: AES   ▾
WEP Encryption: Disabled ▾

[Apply/Save]

Change Wireless Channels (only if necessary)
Note: Wireless channels shouldn't have to be changed on a dual-band modem

Click **Wireless ➜ Advanced**
For 2.4GHz - Change **Channel** from **Auto** to the least interference as determined by your wireless interference test. Try in among **1, 6** and **11**
Click **Apply/Save**

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Wireless -- Advanced

This page allows you to configure advanced features of the wireless LAN interface. You can select a particular channel on which to operate, force the transmission rate to a particular speed, set the fragmentation threshold, set the RTS threshold, set the wakeup interval for clients in power-save mode, set the beacon interval for the access point, set XPress mode and set whether short or long preambles are used.
Click "Apply/Save" to configure the advanced wireless options.

802.11n Band:	2.4GHz ▾	**(change among 1,6 and 11)**
Channel:	Auto ▾ ←	Current: 11 (interference: acceptable)
Auto Channel Timer(min)	15	
MIMO-OFDM:	Auto ▾	
Bandwidth:	40MHz ▾	Current: 20MHz
Control Sideband:	Lower ▾	Current: N/A
MIMO Data Rate:	Auto ▾	
RTS/CTS Protection:	Auto ▾	
Support MIMO Clients Only:	Off ▾	
RIFS Advertisement:	Auto ▾	
OBSS Coexistence:	Disable ▾	
RX Chain Power Save:	Disable ▾	Power Save status: Full Power
RX Chain Power Save Quiet Time:	10	
RX Chain Power Save PPS:	10	
54g™ Rate:	1 Mbps ▾	
Multicast Rate:	Auto ▾	
Basic Rate:	Default ▾	

[Apply/Save]