INSTALLATION GUIDE

A5500 Gateway

Contents

Introduction

1

Your A5500 gateway is an advanced networking device that can be installed by you or your service provider. This all-in-one device includes the modem, router, wireless access point, firewall, and voice gateway.

Your gateway supports ADSL, ADSL2, and ADSL2+ technology. It has four wired Ethernet ports, 802.11b/g/n wireless networking, and voice capabilities.
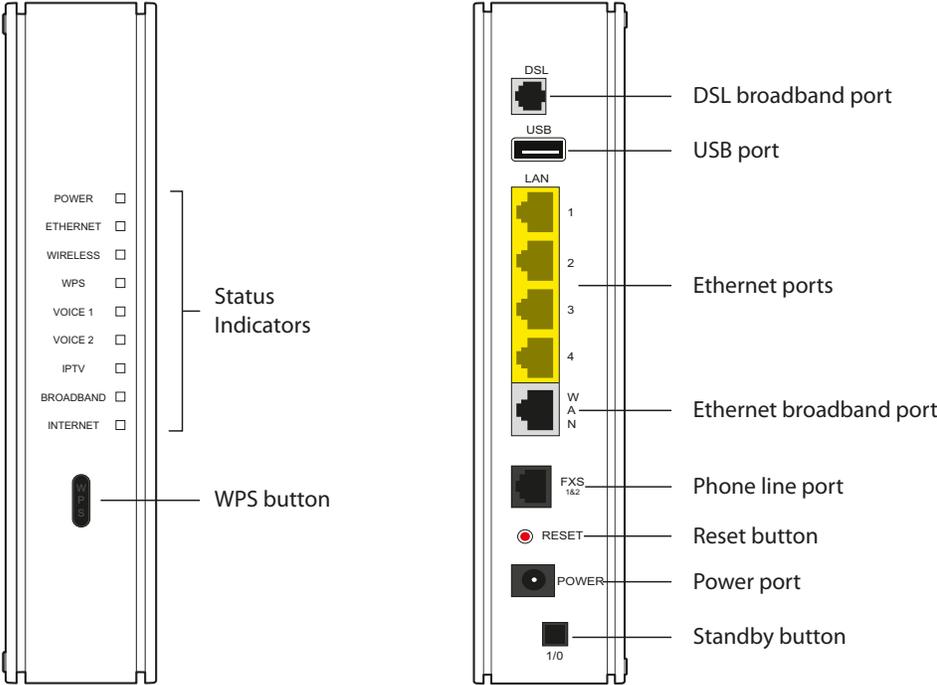
POWER	
ETHERNET	
WIRELESS	
WPS	Status Indicators
VOICE 1	
VOICE 2	
IPTV	
BROADBAND	
INTERNET	

WPS button

DSL — DSL broadband port

USB — USB port

LAN
1
2
3 — Ethernet ports
4

W A N — Ethernet broadband port

FXS 1&2 — Phone line port

RESET — Reset button

POWER — Power port

1/0 — Standby button

Use WPS (Wi-Fi Protected Setup) to simplify the process of connecting wireless devices to the network. For more information, go to your gateway configuration page at http://192.168.1.254

Gathering items for installation

To install your gateway, you will need:

- Gateway

- Power adapter

- DSL cable

- Ethernet cables (optional), to connect your gateway to the Broadband interface or a computer directly to your gateway using a wired connection

- Phone cable (optional), for connecting voice telephone service

- Gateway stand (optional), for installing your gateway vertically

- DSL filter (optional), for each phone on the same line as your gateway

- Voice line splitter (optional), for connecting two phones to the FXS port (voice) of your gateway

Finding a suitable location

Before you install your gateway, find an appropriate location for it. Set up your gateway near the main computer or any other device that will connect to it through the wired Ethernet ports.

Your gateway also serves as a wireless access point. Wireless signals are affected by many items in homes and offices. Consider the following while determining the location of your gateway:

- Place your gateway at least 5 ft (1.5 m) from cordless phones, microwave ovens, or other electronic devices to avoid potential interference, and at least 6 in (15 cm) from your television to avoid audio hissing or static.

- Place your gateway in an open area to minimize interference from its surroundings. Wireless signal strength is much stronger in an open area than an area with obstructions. In a single-story building, place your gateway as high and as close to each wireless device as possible.

- Keep your gateway away from large metal objects. Metal objects can reflect or obstruct signals, which can negatively impact wireless signal quality.

- Keep your gateway away from water sources like water coolers or aquariums.

Note: We recommend that you use the included stand to install your gateway vertically. This prevents you from stacking things on top of it, which can block vents and cause your gateway to overheat.

Installing your gateway

<div style="text-align: right">2</div>

Use the information in this chapter to connect your gateway to the Internet and to your home network.

To install the gateway, complete the following steps:

1. "Connecting the power adapter" on page 6
2. "Connecting the broadband interface through the Ethernet port" on page 7
3. "Connecting the broadband interface through the DSL port" on page 8
4. "Connecting computers to your gateway" on page 9
5. "Connecting phones" on page 11
6. "Connecting an IPTV set-top box" on page 12
7. "Configuring the gateway" on page 13

Connecting the power adapter

The power adapter supplies power to your gateway. Always use the power adapter that was packaged with your gateway because it matches the power requirements of your gateway and it complies with local requirements.

1. Connect one end of the power adapter to the power port on your gateway.
2. Connect the other end of the cable to an electrical outlet.

After your gateway is powered on, the **POWER** indicator blinks green for a moment and then turns steady green.
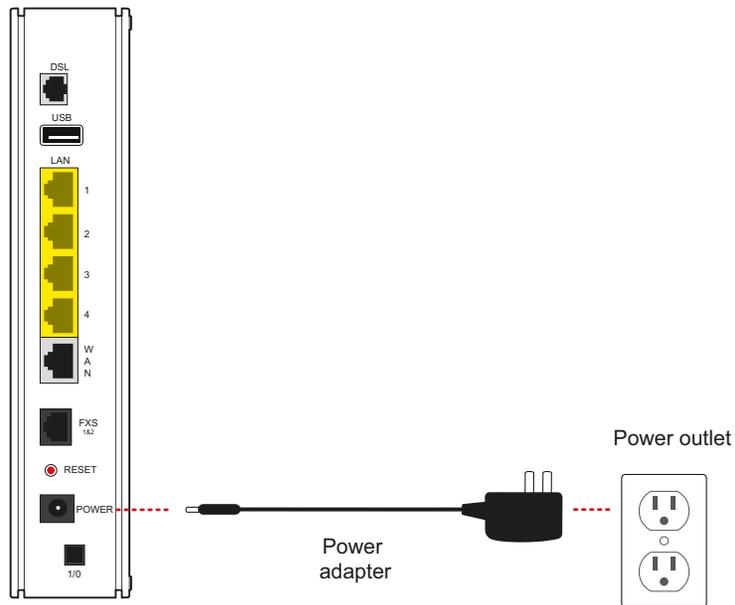
Power outlet

Power
adapter

Connecting the broadband interface through the Ethernet port

To connect your gateway to a RJ-45 jack of your broadband router or Ethernet wall socket:

1. Connect one end of the blue Ethernet cable to the Ethernet port (labelled WAN) on your gateway.

2. Connect the other end of the Ethernet cable to your broadband router or Ethernet wall socket.

After your gateway recognizes the connection, the **BROADBAND** indicator on the front panel blinks green for a few seconds and then turns steady green.
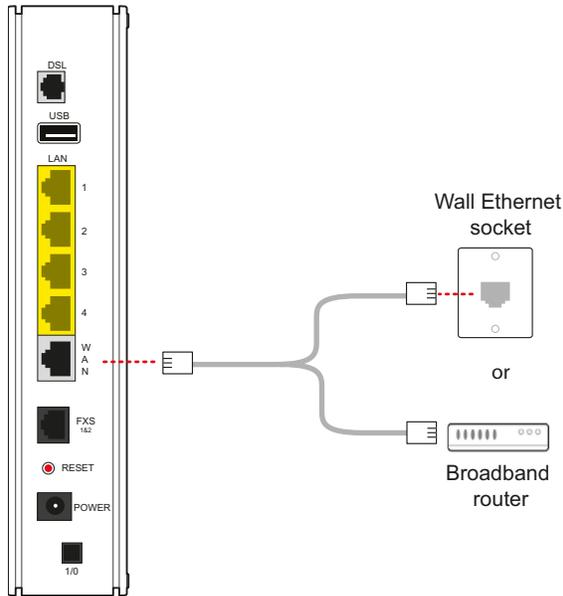
Connecting the broadband interface through the DSL port

To connect your gateway to a Asymmetric Digital Subscriber Line (ADSL) wall jack:

1. Connect one end of the phone cable/twisted pair cable to the DSL port on your gateway.

2. Connect the other end of the cable to the DSL port of the DSL filter, which must be plugged into the ADSL-enabled wall jack outlet.

After your gateway recognizes the connection, the **BROADBAND** indicator blinks green for a few seconds and then turns steady green.

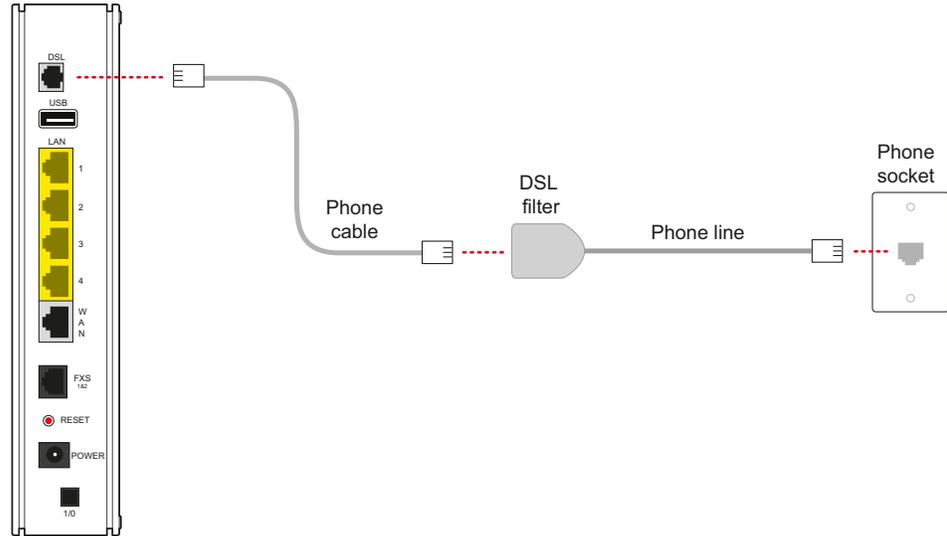# Connecting computers to your gateway

You can connect your computers and devices to your gateway using a wired connection or a wireless connection. With either type of connection, you can use the first computer that you connect to the network to set up your gateway.

Connecting devices using a wired connection

Your gateway has four wired Ethernet ports that you can use to connect computers or other devices.

1. Connect one end of the yellow Ethernet cable to one of the yellow Ethernet ports on the gateway.

2. Connect the other end of the cable to the Ethernet port on your computer.

You can connect up to 4 computers to your gateway using the wired Ethernet ports.

Note: A 6-foot yellow Ethernet cable is provided with the gateway. If you need an additional or longer cable, use a Cat 5 or Cat 5e Ethernet cable.

After your gateway recognizes your computer, the **ETHERNET** indicator turns steady green, and blinks when your computer starts communicating with your gateway.

Not required for wireless setup
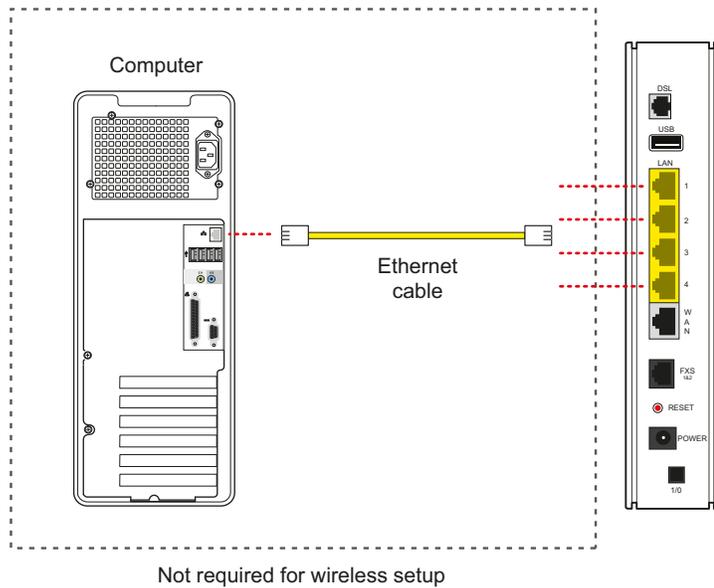
Connecting devices using a wireless connection

Your gateway has an integrated wireless access point that you can use to connect wireless devices to your gateway. By default, your gateway is configured with a network name (SSID) and WPA-PSK/WPA2-PSK security.

1. On the wireless device, view the available wireless networks. The specifics of how you do this depend on the device you are connecting.

    The default network name (SSID) and the encryption key (64-bit hex) are printed on the label on the bottom right side of your gateway. Mac OS X users might have to enter the "$" character at the beginning of the encryption key.

Location of the label containing the SSID and WiFi key

2. Select the appropriate network name and connect.

3. At the prompt, enter the encryption key.

After your gateway recognizes the wireless device, the **WIRELESS** indicator turns steady green, and blinks when the wireless device starts communicating with your gateway.

You can use WPS (Wi-Fi Protected Setup) to simplify the process of connecting wireless devices to the network. For more information, go to the gateway configuration page at http://192.168.1.254

Connecting phones

The gateway includes one RJ-14 port (Phone 1 & 2) with the capacity to support 2 phone lines using a splitter or multi-jack adapter.

WARNING: Do not connect the VoIP lines to your current home telephone wiring, especially if your home has an alarm system. Ensure that you are subscribed to VoIP service before configuring VoIP on the gateway.

1. Connect one end of the phone cable to the gray **FXS 1 & 2** port on your gateway.

2. Do one of the following:

    • For one phone, connect the phone cable directly to the telephone.

    • For two phones, connect the phone cable to a splitter and then to the telephones.
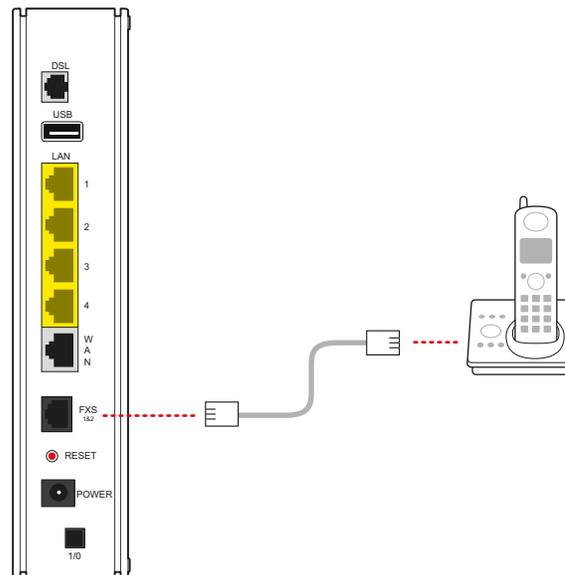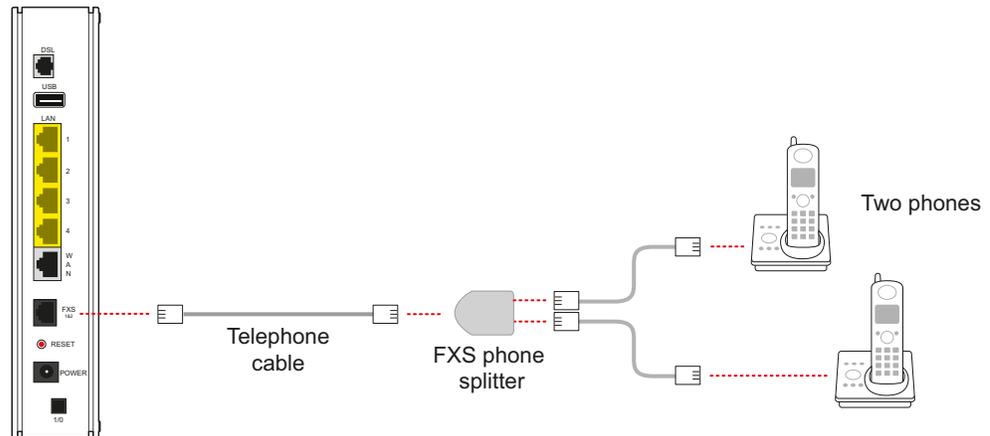
After your gateway recognizes the phones (Line 1 and Line 2), the **VOICE 1** and **VOICE 2** indicators turn steady green and blink when the associated phone is active.

Connecting an IPTV set-top box

Your gateway can be configured to use IPTV services through the Ethernet port.

To connect your gateway and set-top box:

1. Connect one end of the Ethernet cable to one of the yellow Ethernet ports on your gateway.

2. Connect the other end of the cable to the Ethernet port of your set-top box.

After your gateway recognizes your set-top box, the **ETHERNET** indicator turns steady green, and blinks when your computer starts communicating with your set-top box.

IPTV set-top box   Ethernet cable

DSL
USB
LAN
1
2
3
4
W A N
FXS 1&2
RESET
POWER
1/0
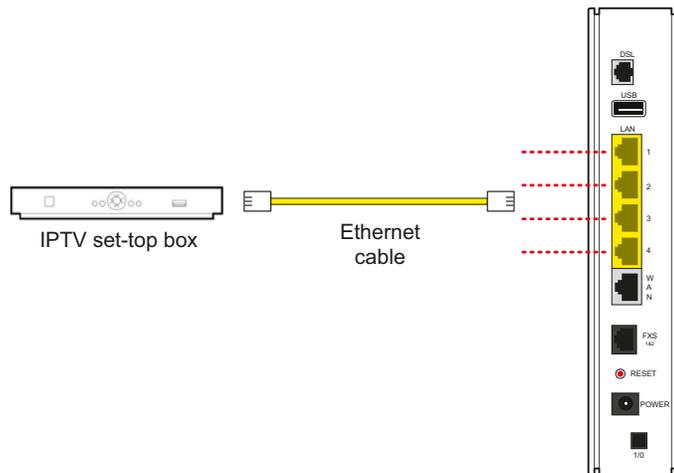
Configuring the gateway

If necessary, you can use the gateway configuration page to view or change the gateway settings.

On a computer connected to your gateway, enter the following into the address bar of a Web browser: http://192.168.1.254

Troubleshooting   3

This chapter provides information about common gateway installation issues. If an issue has more than one potential cause, the most common cause is listed first.

Connection issues

Use the information in this section to identify and resolve issues related to connectivity.

The POWER indicator is not on

- The power cable may be loose or disconnected. Check the power cable to ensure that the cable is securely connected. If the power cable is plugged in to a power strip or switched outlet, ensure that it is on. Ensure that you are using the power supply that came with your gateway.

- The power supply may be faulty. Verify that the light on the power supply is green.

- The AC outlet may be faulty. Try plugging your gateway in to a known good outlet.

The POWER indicator blinks immediately after the device starts, and then turns steady green

- The **POWER** indicator blinks during POST (Power on self-test). This is normal behavior.

The POWER indicator is red

- The POST (Power on self-test) may have failed. Press the **RESET** button and hold it for 10 seconds to reset your gateway.

The BROADBAND indicator blinks

- The Ethernet or DSL cable may be loose or disconnected. Check the connections to ensure that the cable is securely connected.

- The DSL connection may not be established. Press the **RESET** button and hold it for 10 seconds to reset your gateway. If resetting your gateway does not fix the problem, contact your service provider.

The BROADBAND indicator blinks green for a long time, then turns red

- Your gateway may have failed to synchronize with the service provider network. Check the connections to ensure that the cable is securely connected.

- Your Internet service may not be activated. Contact your Internet service provider.

The INTERNET indicator blinks

- Your Internet service may not be activated. Contact your service provider.

The INTERNET indicator is red

- The user name and password may have been entered incorrectly. Verify the user name and password on the gateway configuration page, and try again.

- Your Internet service may not be activated. Contact your service provider.

The ETHERNET indicator is not on

- The Ethernet cable may be loose or disconnected. Check the connections to ensure that the cable is securely connected.

The WIRELESS indicator is not on

- No devices on your home network are currently connected to your gateway over the wireless connection.

- Ensure that the wireless feature is enabled. For more information, go to the gateway configuration page at http://192.168.1.254

The Internet is not accessible but the gateway configuration page is accessible

- The Ethernet or DSL cable may be loose or disconnected. Check the connections to ensure that the cable is securely connected.

LAN issues

Use the information in this section to identify and resolve issues related to the home network.

Can't connect to your gateway through the Ethernet port

- The Ethernet cable may be loose or disconnected. Check the connections to ensure that the cable is securely connected. The **ETHERNET** indicator blinks green when there is a working link to a device.

A wireless device cannot get an IP address

- The device may not be set up with the appropriate security type or security key. Ensure that the wireless device is using the appropriate credentials.

- The wireless device and your gateway may be using different wireless modes, such as 802.11b, 802.11g, or 802.11n. Ensure that the wireless device and your gateway are using compatible modes.

The wireless signal is weak

- The wireless device may be out of range. Ensure that the wireless device is within the range of your gateway.

I cannot set a custom encryption key on the gateway user interface

- The custom encryption key may not conform with the security mode, key length, key type, or value type. Configure the custom encryption key so that it conforms to the security mode, key length, key type, or value type.

Voice issues

Use the information in this section to identify and resolve common issues related to VoIP (Voice over Internet Protocol).

The VOICE 1 and VOICE 2 indicators are not on

- The data cable may be loose or disconnected. Check the connections to ensure that the cable is securely connected.

- The lines or SIP server may be configured incorrectly. For more information, see the *A5500 Configuration Guide.*

No dial tone

- The service may be down or not activated. Verify that the phone is in Active mode. If the issue persists, contact your service provider.

Regulatory and Safety Information

<div align="right">A</div>

Declaration of conformity

The following sections describe regulatory compliance by region.

FCC/Industry Canada compliance

This device has been tested and certified as compliant with the regulations and guidelines set forth in the Federal Communication commission - FCC part 15, FCC part 68 and Industry Canada - ICES003 and RSS-210 Radio and telecommunication regulatory requirements.

Le présent materiel est conforme aux specifications techniques applicables d'Industrie Canada. Cet appareil numérique de la classe [*] est conforme à la norme NMB-003 du Canada.

Manufacturer: Pace plc
Model(s): A5500

Part 15 of FCC rules

This device complies with part 15 of the FCC Rules and Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux normes CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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 or more 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.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate this equipment.

TIA 968 (Part 68 of FCC rules)/IC CS-03

This equipment complies with the Telecommunication Industry Association TIA-968 (FCC part 68) and Industry Canada CS-03 Telecommunication requirements. On the product is a label that contains, among other information, the IC and FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information may be provided to the telephone company.

The REN is used to determine the quantity of devices that may be connected to the telephone line. Excessive RENs on the telephone line may result in the device not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0)

L'indice d'équivalence de la sonnerie (IES) sert à indiquer le nombre maximal de terminaux qui peuvent être raccordés à une interface téléphonique. La terminaison d'une interface peut consister en une combinaison quelconque de dispositifs, à la seule condition que la somme d'indices d'équivalence de la sonnerie de tous les dispositifs n'excède pas 5.

To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum RENs for the calling area.

This product cannot be used on telephone-company-provided coin service. Connection to Party Line Service is subject to state tariffs.

An FCC-compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack that is Part 68 compliant. If this equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. If advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it

Appendix A Regulatory and Safety Information

is necessary. The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of this equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications to maintain uninterrupted service. If trouble is experienced with this equipment, please contact Pace Americas, or your local Pace Americas distributor or service center in the U.S.A. for repair and/or warrant information. If the trouble is causing harm to the telephone network, the telephone company may request you to remove this equipment from the network until the problem is resolved. No repairs can be done by a customer on this equipment. It is recommended that the customer install an AC surge arrestor in the AC outlet to which this device is connected. This is to avoid damage to the equipment caused by local lightning strikes and other electrical surges.

MPE/SAR/RF exposure information

This device was verified for RF exposure and found to comply with Council Recommendation 1999/519/EC and FCC OET-65 RF exposure requirements. This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

WARNING: While this device is in operation, a separation distance of at least 20 cm (8 inches) must be maintained between the radiating antenna inside the EUT and the bodies of all persons exposed to the transmitter in order to meet the FCC RF exposure guidelines. Making changes to the antenna or the device is not permitted. Doing so may result in the installed system exceeding RF exposure requirements. This device must not be co-located or operated in conjunction with any other antenna or radio transmitter.

Safety information

The following sections describe the safety guidelines for this product.

AC adapter

This product is intended to be supplied with a listed Pace or 2Wire Direct Plug-In AC/DC power adapter marked Class 2 or LPS and rated 12V, 3A or 14.5VDC, 2.5A for all 50xxNV-xxx and 50xxN-xxx models.

The AC/DC power adapter supplied with this product is designed to ensure your personal safety and to be compatible with this equipment.

Please follow these guidelines:

- Do not use the adapter in a high moisture environment. Never touch the adapter when your hands or feet are wet.

- Allow adequate ventilation around the adapter. Avoid locations with restricted airflow.

- Connect the adapter to a proper power source. The voltage and grounding requirements are found on the product case and/or packaging.

- Do not use the adapter if the cord becomes damaged.

- Do not attempt to service the adapter. There are no serviceable parts inside. Replace the unit if it is damaged or exposed to excess moisture.

Telecommunication cord

Caution: To reduce the risk of fire, use only No. 26 AWG or larger UL Listed or CSA Certified Telecommunication Line Cord.

Internal telephone ports (VoIP)

Telecommunication equipment connected to this port (e.g., via "Voice 1 & 2" port) should be UL Listed and the connections shall be made in accordance with Article 800 of the NEC.

Repairs

Do not, under any circumstances, attempt any service, adjustments, or repairs on this equipment. Instead, contact your local Pace Americas distributor or service provider for assistance. Failure to comply may void the product warranty.

Location – electrical considerations

CAUTION: Due to risk of electrical shock or damage, do not use this product near water, including a bathtub, wash bowl, kitchen sink or laundry tub, in a wet basement, or near a swimming pool. Also, avoid using this product during electrical storms. Avoid locations near electrical appliances or other devices that cause excessive voltage fluctuations or emit electrical noise (for example, air conditioners, neon signs, high-frequency or magnetic security devices, or electric motors).

Location – environmental considerations

Do not plug the AC/DC power adapter into an outdoor outlet or operate the residential gateway outdoors. It is not waterproof or dustproof, and is for indoor use only. Any damage to the unit from exposure to rain or dust may void your warranty.

Do not use the residential gateway where there is high heat, dust, humidity, moisture, or caustic chemicals or oils. Keep the gateway away from direct sunlight and anything that radiates heat, such as a stove or a motor.