Gigabit Ethernet Adapter

For 4600 & 5600 Series IP Phones

Installation and Safety Instructions

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For all IP Telephone documentation,
go to Http://www.avaya.com/support

IMPORTANT USER SAFETY INSTRUCTIONS

The most careful attention has been devoted to quality standards in the manufacture of your new Gigabit Ethernet Adapter. Safety is a major factor in the design of every Avaya Product. But, safety is YOUR responsibility too. Please read carefully the helpful tips listed below. These suggestions will enable you to take full advantage of this product. Then, retain these tips for later use.

⚠ WARNING:

This product is NOT for residential use. It is for business systems applications ONLY.
Do not plug a standard RJ-45 cable from an 1151A, 1151B, or 1151C device into the Ethernet input of this device or it will render this device permanently non-functional. A separate special power cable is required if using an 1151 type device. See page 5 for configuration information.

Use

When using your Gigabit Ethernet Adapter, the following safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons.

- Read and understand all instructions.
- Follow all warnings and instructions marked on the product and contained in its packaging.
- This product is for use only with specified Avaya equipment as outlined in the attached materials or available on http://www.avaya.com/support. No other use of this product is recommended or warranted.
- This device can be hazardous if immersed in water. Do not use this product near water, for example, near a bath tub, wash bowl, kitchen sink or laundry tub, in a wet basement or near a swimming pool. To avoid the possibility of electric shock, do not use it while you are wet. If you accidentally drop the Gigabit Ethernet Adapter into water, do not retrieve it until you have first unplugged the power cord from the AC wall receptacle (or other AC power source) if using an 1151C1 power supply, then unplugged the power cable to the Gigabit Ethernet Adapter. Then call service personnel to ask about a replacement.
- Do not allow anything to rest on the DC power cord. Do not locate this product where the cord will be abused, such as by persons walking on it.
- Allow adequate ventilation for the product. Do not cover or install in a confined space that may prevent cooling and allow excessive heat build-up.
- To reduce the risk of electric shock, do not disassemble this product. There are no user serviceable parts. Opening or removing covers may expose you to hazardous voltages. Incorrect reassembly can cause electric shock when the product is subsequently used.

Service

- Before cleaning or removing from service, unplug the DC power cable from the Gigabit Ethernet Adapter, unplug the power cord from the AC wall receptacle (or other AC power source) if using an 1151C1 power supply, then unplug the power cable to the Gigabit Ethernet Adapter. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- Be sure to disconnect all cords from this product and refer servicing to qualified service personnel when these conditions exist:

-- If the power cable is damaged or frayed.
-- If liquid has been spilled into the product.
-- If the product has been exposed to rain or water.
-- If the product has been dropped or the housing has been damaged.
-- If you note a distinct change in the performance of the product.

Declaration of Conformity

To download the Declaration of Conformity (DoC) for this equipment, visit http://www.avaya.com/support

⚠ SAVE THESE INSTRUCTIONS

When you see this warning symbol on the product, refer to this instructions booklet for more information before proceeding.

AVAYA

Notice

Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.

Warranty

Avaya Inc. provides a limited warranty on this product. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Avaya's standard warranty language as well as information regarding support for this product, while under warranty, is available through the following Web site: http://www.avaya.com/support.

Disclaimer

Avaya is not responsible for any modifications, additions or deletions to the original published version of this documentation unless such modifications, additions or deletions were performed by Avaya. Customer and/or End User agree to indemnify and hold harmless Avaya, Avaya's agents, servants and employees against all claims, lawsuits, demands and judgments arising out of, or in connection with, subsequent modifications, additions or deletions to this documentation to the extent made by the Customer or End User.

Standards Compliance

Avaya Inc. is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Avaya Inc. The correction of interference caused by such unauthorized modifications, substitution or attachment will be the responsibility of the user. Pursuant to Part 15 of the Federal Communications Commission (FCC) Rules, the user is cautioned that changes or modifications not expressly approved by Avaya Inc. could void the user's authority to operate this equipment.

How to Get Help

For additional support telephone numbers, go to the Avaya support Web site: http://www.avaya.com/support. If you are:

- Within the United States, click the *Escalation Contacts* link that is located under the *Support Tools* heading. Then click the appropriate link for the type of support that you need.
- Outside the United States, click the *Escalation Contacts* link that is located under the *Support Tools* heading. Then click the *International Services* link that includes telephone numbers for the international Centers of Excellence.

Product Safety Standards

This product complies with and conforms to the following international Product Safety standards as applicable:

- Safety of Information Technology Equipment, IEC 60950-1, 1st Edition, including all relevant national deviations as listed in Compliance with IEC for Electrical Equipment (IECEE) CB-96A.
- Safety of Information Technology Equipment, CAN/CSA-C22.2 No. 60950-1-03 / UL 60950-1, 1st Edition.
- Safety Requirements for Information Technology Equipment, AS/NZS 60950:2000.
- One or more of the following Mexican national standards, as applicable: NOM 001 SCFI 1993, NOM SCFI 016 1993, NOM 019 SCFI 1998

This product may also comply with and conform to other national, regional or commonly recognized product safety standards. For information regarding specific standards, check the product label or contact your local Avaya representative.

Electromagnetic Compatibility (EMC) Standards

This product complies with and conforms to the following international EMC standards and all relevant national deviations:

- Limits and Methods of Measurement of Radio Interference of Information Technology Equipment, CISPR 22:1997, EN55022:1998, and AS/NZS 3548.
- Information Technology Equipment Immunity Characteristics - Limits and Methods of Measurement, CISPR 24:1997 and EN55024:1998, including:
- Electrostatic Discharge (ESD) IEC 61000-4-2
- Radiated Immunity IEC 61000-4-3

- Electrical Fast Transient IEC 61000-4-4
- Surge Immunity IEC 61000-4-5
- Conducted Immunity IEC 61000-4-6
- Power Frequency H-Field Immunity IEC 61000-4-8
- Voltage Dips & Variations Immunity IEC 61000-4-11

Federal Communications Commission Statement, Part 15:

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 must accept any interference received, including interference that may cause undesired operation.

USA FCC CFR 47 part 15

Federal Communication Commission (FCC) Radio Frequency Devices, Sub part B Unintentional Radiators: Sections 15.107 & 15.109. Class B Device Declaration / User Statement Note:

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 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.

Declaration of Conformity (DoC) statement is available on the Avaya external web site: http://support.avaya.com/elmodocs2/DoC

European Union Declarations of Conformity

CE

Avaya Inc. declares that the equipment specified in this document bearing the “CE” (*Conformité Europeénne*) mark conforms to the European Union Radio and Telecommunications Terminal Equipment Directive (1999/5/EC), including the Electromagnetic Compatibility Directive (89/336/EEC) and Low Voltage Directive (73/23/EEC).

Copies of these Declarations of Conformity (DoCs) can be obtained by contacting your local sales representative and are available on the following Web site: http://www.avaya.com/support.

Japan

This is a Class B product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may occur, in which case, the user may be required to take corrective actions.

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Other

The above statements of compliance and conformity to various product safety and EMC standards may not be complete, and are subject to change. Changes may occur as certifications, listings, approvals, etc. are obtained or removed in accordance with various national and/or regional requirements. Applicable certification, listing, agency, and other suchsymbols and/or marks are often required to be visible on the product and may in many cases be used as a visual indication that the product has been tested and approved under the requirements of the associated country, organization, agency, certification body, etc. Checking the Gigabit

Ethernet Adapter markings is a good first step in determining which agency approvals have been granted. For inquiries regarding specific certifications, contact your local or regional Avaya representative.

To order copies of this and other documents:

Call: Avaya Publications Center
Voice 1.800.457.1235 or 1.207.866.6701
FAX 1.800.457.1764 or 1.207.626.7269
Write: Globalware Solutions
200 Ward Hill Avenue
Haverhill, MA 01835 USA
Attention: Avaya Account Management
E-mail: totalware@gwsmail.com
For the most current versions of documentation, go to the Avaya support
Web site: http://www.avaya.com/support.

Sources of Information

For information about the Gigabit Ethernet Adapter or instructions on how to install it, refer to this instruction booklet packed with the product.

Gigabit Ethernet Adapter Description

This Gigabit Ethernet Adapter is a mini Ethernet switch with PoE (Power-over-Ethernet) support. It features 3 Ethernet ports: one PoE-enabled 10/100/1000mbps uplink port (connect to the 1000mbps Ethernet wall socket), one PoE-enabled 10/100mbps downlink port (connect to your IP Phone), and one 10/100/1000mbps download port (connect to your computer). With this **Gigabit Ethernet Adapter**, you can connect your computer and IP Phone to the Ethernet network simultaneously.

Gigabit Ethernet Adapter For 4600 and 5600 Series IP Phones

This **Gigabit Ethernet Adapter** can be used with following IP Phone products:

- 4602SW, 4602SW+, 4610SW, 4620, 4620SW, 4621SW, 4622SW, 4625SW, 4630SW
- 5602SW, 5602SW+, 5610SW, 5620SW, 5621SW

Note: Other IP phones may also work but are not supported.

The **Gigabit Ethernet Adapter** will operate with Gigabit Ethernet switches that are fully compliant with the IEEE 802.3 standard.

Note: the Avaya-Cajun P580 Gigabit card does not support the Carrier Extend Signal and should not be used in conjunction with this **Gigabit Ethernet Adapter**.

Note: Failure to use and install as directed could result in injury. No other use of the **Gigabit Ethernet Adapter** is recommended or warranted. At the time of publication, every effort has been made to insure accuracy of this manual. However, it is possible that 1) some omissions have occurred, or 2) new products have since been introduced that use the **Gigabit Ethernet Adapter**. If you are unsure concerning the suitability of this **Gigabit Ethernet Adapter** for a particular application, check your product documentation or contact your local Avaya representative for assistance.

⚠ CAUTION:

This Gigabit Ethernet Adapter can only be used with telecommunication and computer equipment, indoors, in a controlled environment.

Operation

Before you deploy the **Gigabit Ethernet Adapter** in your network environment, please disconnect all Ethernet connections between Ethernet wall socket, IP Phone, and computer, and then switch them off.

Build the Ethernet connection between Ethernet wall socket and the uplink port of the **Gigabit Ethernet Adapter,** and check the status of power indicator LED now. If it illuminates, it means the Ethernet wall socket you connected to supports PoE; if not, please connect the optional power supply to the **Gigabit Ethernet Adapter's** power connector. Before you proceed to next step, the power indicator must be illuminated. Build the connection between your IP Phone and the **Gigabit Ethernet Adapter's** IP Phone downlink port now, and check the state of the power indicator LED again. If it's still illuminated, proceed to next step; if not, please

connect the optional power supply to the **Gigabit Ethernet Adapter's** power connector; if the power supply is already connected to the **Gigabit Ethernet Adapter** and the power indicator LED is still not illuminated, please contact your dealer of purchase to ask for help.

In the final step, please build the connection between the IP phone, computer and the **Gigabit Ethernet Adapter's** computer download port (Using a CAT6 cable is recommended). After that, switch the IP Phone and computer on, and try the network function of both IP Phone and computer. If any of them are not working properly, please re-check the cable connection and the state of power indicator LED.

Note: There are 2 LEDs located on every Ethernet port of the **Gigabit Ethernet Adapter**: One green LED located on the right, and one amber LED on the left. If the connected device is switched on and the Ethernet link is successfully built, the green LED will be illuminated, and it will blink when there is data transferring over that port. The amber LED indicates the duplex mode of Ethernet port, if the link is in full-duplex mode, it will be illuminated; if the link is in half-duplex mode, it will not be illuminated. If you think there is any problem associated with an Ethernet port, please use these LEDs to determine if there is a problem.

Maintenance

The **Gigabit Ethernet Adapter** contains no user serviceable parts. To reduce the risk of electric shock, do not disassemble the product.

To clean the **Gigabit Ethernet Adapter**, first unplug the power supply from the wall receptacle, if any, and disconnect all Ethernet cables from all Ethernet ports of the **Gigabit Ethernet Adapter**. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

Contents of the Gigabit Ethernet Adapter Carton

Quantity	Description	Comcode
1	Gigabit Ethernet Adapter for 4600 & 5600 IP Phones	700416985
1	CAT6 Ethernet Cable (6 feet)	700420847
1	Installation & Safety Instructions	

Note: When user does not use an IEEE Std 802.3af compliant switch or has a Class 3 phone, it will be necessary to purchase local power accessories**.** This will include the 1151C1/C2 power supply, AC power cord, and an additional cable to connect the 1151C1/C2 power supply and the **Gigabit Ethernet Adapter.** If the phone is already connected to an 1151B type power supply, only the **Gigabit Adapter Power Cable** is required.

Quantity	Description	Comcode
1	1151C1/C2 Power Supply	700356447/700356454
1	6 Feet Gigabit Adapter Power Cable(4600&5600 IP Phones only)	700416993

When purchasing an 1151C1/C2, an additional A/C power cord is required. Avaya has several available to meet regional plug configurations. Consult your Authorized Avaya deal for details.

Note: Class 0 devices may also require use of the local power supply, depending on their power rating.

Connecting the 1151C1/C2 Power Supply

The following connection arrangements, shown in **Figures 1 - 4** can be used with the **Gigabit Ethernet Adapter**:

- Fig 1 shows the interfaces of the **Gigabit Ethernet Adapter**
- Fig 2 shows the **Gigabit Ethernet Adapter** powering option arrangement for IP Telephone models 4602SW, 5602SW, 4602SW+, 5602SW+, 4610SW, 5610SW
- Fig 3 shows the **Gigabit Ethernet Adapter** powering option arrangement for IP Telephone models 5620SW, 4620, 4620SW, 5621SW, 4621SW, 4622SW, 4625SW.
- Fig 4 shows the **Gigabit Ethernet Adapter** powering option arrangement for IP Telephone models 4630SW.

Note: The type of cord(s) needed to make these connections are designated in each drawing.

Note: The use of PoE and local power simultaneously is not supported and will prevent the adapter from working properly, nor is it intended to serve as a fail-over option. The power cable must be removed from the Gigabit Ethernet Adapter to allow for use of PoE.

Avaya Limited Warranty

What is covered: Any defect in materials or workmanship.

For how Long: One year.

What will we do: If your Avaya product is defective in material and workmanship and is returned within one year of date it was purchased, we will repair it or, at our option, replace it at no charge to you.

What we ask you to do: To get warranty service for Avaya product, you must provide proof of the date of purchase.

Figure 1 Interface of the **Gigabit Ethernet Adapter**

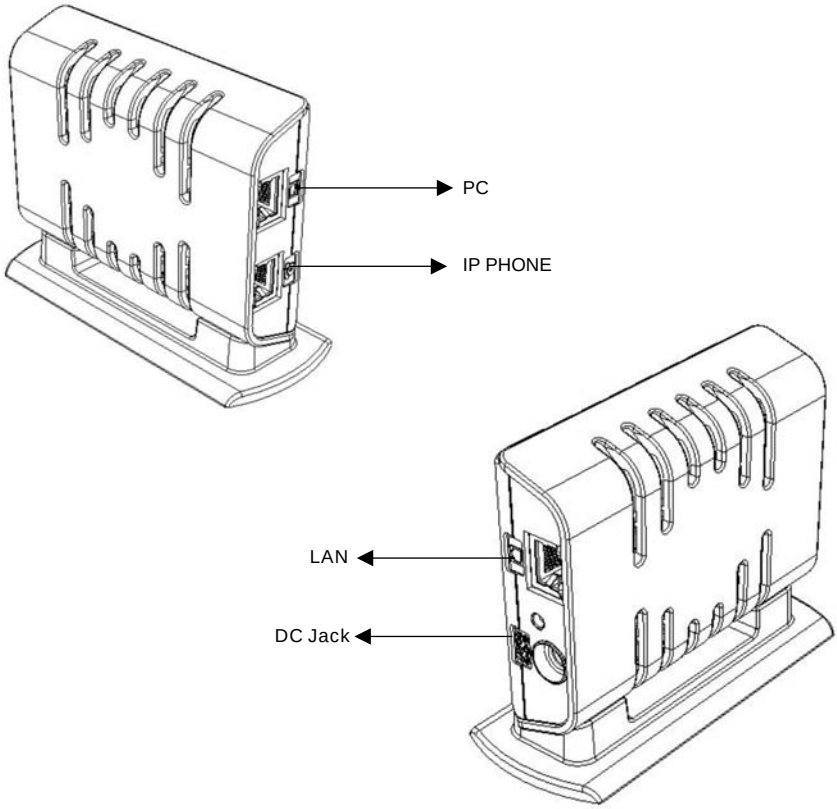
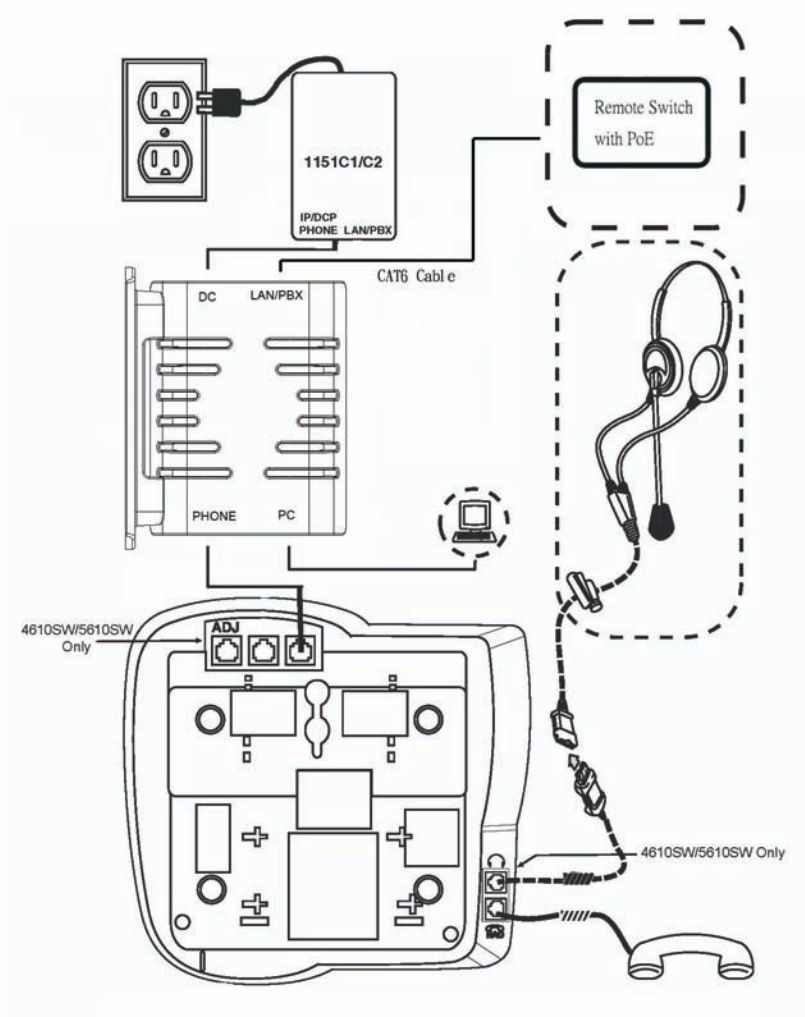


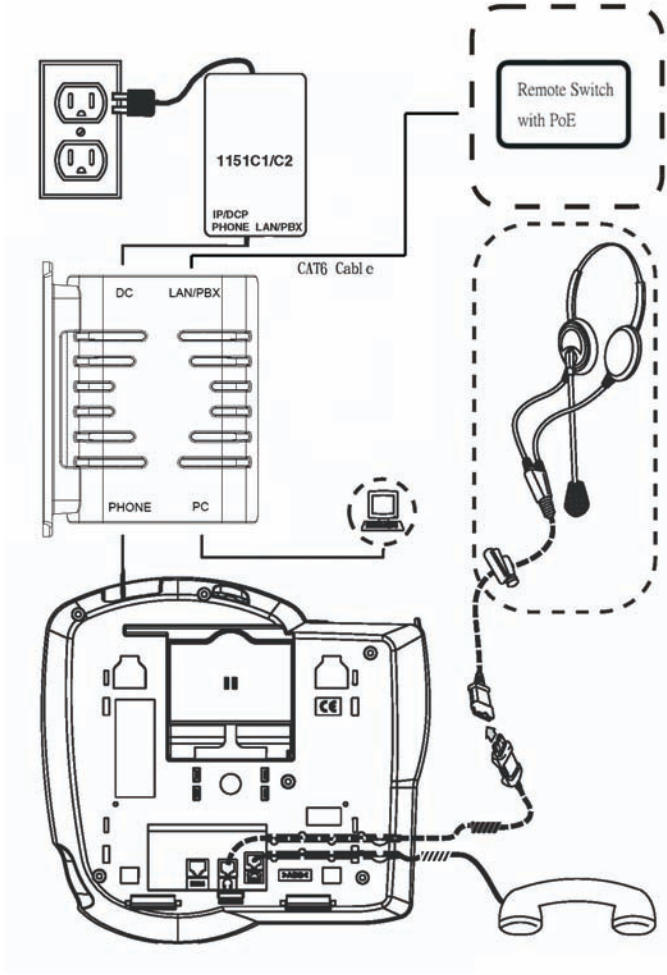
Figure 2 Powering Option for 4602SW, 5602SW, 4602SW+, 5602SW+, 4610SW, 5610SW IP phones



Note: These Telephone models are powered over network cabling from a central location using an IEEE 802.3af compliant switch or power supply as 1151C1/C2 Power Supply.
The use of PoE and local power simultaneously is not supported and will prevent the adapter from working properly, nor is it intended to serve as a fail-over option. The power cable must be removed from the Gigabit adapter to allow for use of PoE.

---=optional Representative drawing - not to scale. Exact Jack positions and orientations vary between specific models.

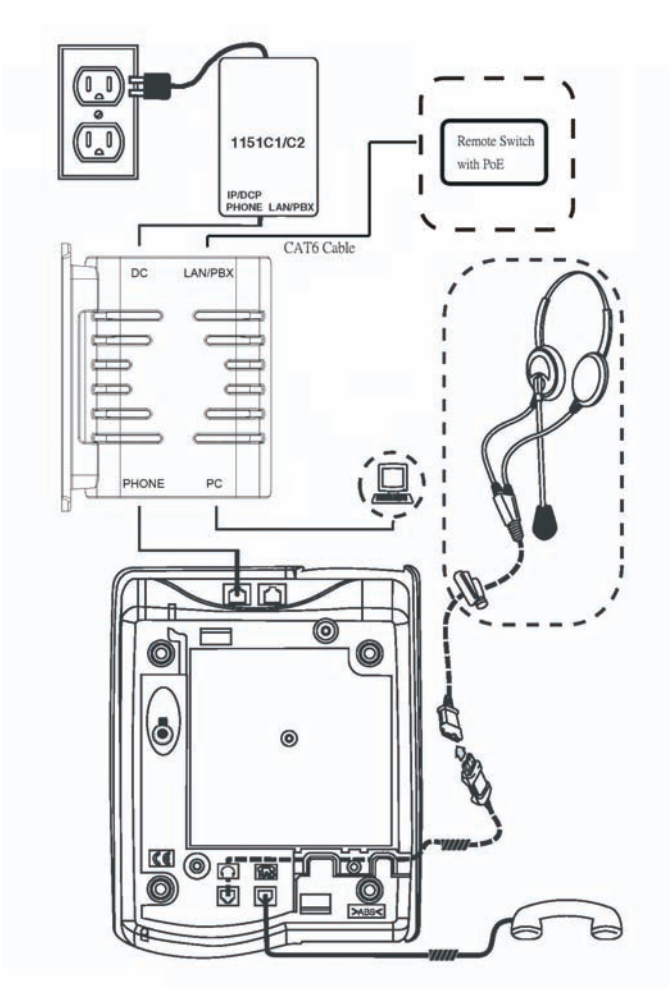
Figure 3 Powering Option for 4620, 4620SW, 5620SW, 4621SW, 5621SW, 4622SW, 4625SW IP Telephones



Note: These Telephone models are powered over network cabling from a central location using an IEEE 802.3af compliant switch or power supply as 1151C1/C2 Power Supply.
The use of PoE and local power simultaneously is not supported and will prevent the adapter from working properly, nor is it intended to serve as a fail-over option. The power cable must be removed from the Gigabit adapter to allow for use of PoE.

---=optional Representative drawing - not to scale. Exact Jack positions and orientations vary between specific models.

Figure 4 Powering Option for 4630SW IP Telephone with PoE Switch



Note: This Telephone model is powered over network cabling from a central location using an IEEE 802.3af compliant switch or power supply as 1151C1/C2 Power Supply.
The use of PoE and local power simultaneously is not supported and will prevent the adapter from working properly, nor is it intended to serve as a fail-over option. The power cable must be removed from the Gigabit adapter to allow for use of PoE.

---=optional Representative drawing - not to scale. Exact Jack positions and orientations vary between specific models.

Troubleshooting Q&A

If your **Gigabit Ethernet Adapter** does not function properly, before you send it to the dealer requesting service, please follow the troubleshooting guide first, it could help you solve the problem.

Q: The Power Indicator LED is not illuminated.

A1: This means your **Gigabit Ethernet Adapter** is not correctly powered. If you didn't use an 1151 type AC adapter with this product, please make sure the Ethernet socket you connected to is PoE-capable. If you're not sure, please ask your network administrator, or a qualified network technician.

A2: Please connect the AC adapter to the **Gigabit Ethernet Adapter** as described on page 3. If the LED is not illuminated now, it means either the Ethernet socket you connected to is not PoE-capable, or it does not have sufficient electrical power to properly run this product. Please use a power supply such as the 1151 type AC adapter, or switch to another PoE-enabled Ethernet socket.

A3: If you tried the two above solutions and the problem is not solved, please contact your dealer.

Q: My IP Phone is not powered on.

A1: If the power indicator LED is not illuminated when you plug the Ethernet cable into the IP Phone and the IP Phone downlink port of the **Gigabit Ethernet Adapter**, yet it illuminates again after you unplug the Ethernet cable from the IP Phone, please connect the IP Phone to an AC adapter or other electrical power source to self-power the IP Phone.

A2. Check the IP Phone connection to the IP Phone downlink port of the **Gigabit Ethernet Adapter**; verify that it is not connected to the computer downlink port.

Q: I can not make / accept phone calls with my IP Phone, or the network function of my computer is not working properly.

A1: Please check the Ethernet cable connection; make sure every cable is securely connected.

A2: Please check the link status LED located on the Ethernet port of this product. If the green light is not illuminated, please make sure the IP Phone and the network this product is connected to are functioning properly. Try replacing the Ethernet cable with a new one.

A3: Only use the straight Ethernet cable (i.e. not crossover / MDI-X type Ethernet cable) to connect this product to the Ethernet socket, IP Phone, and computer.

A4. Please check the service availability of the network you are connected to.

A5. Please disconnect all cables connected to this product, including AC.

Q: The network connection speed displayed on the computer is only 100mbps.

A1: Ensure that the network interface of your computer is capable of running at 1000mbps.

A2: Ensure the Ethernet cable of your computer is connected to the computer downlink port of this product, not the IP Phone downlink port.

A3. Replace the Ethernet cable with a new one, and determine it's capable of running at 1000mbps.

Q: The network connection speed displayed on the computer is 1000mbps, but the connection appears to be running slow.

A1: Please check that your closet switch is set to 1000mbps, auto-negotiate.

A2: Please check that your closet switch supports Carrier Extend Signaling.