

# SBG-1000

## Quick Start Guide



## Regulatory and Safety Notices

### 1. Radio Frequency Emissions:

#### FCC Compliance statement:

This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions;

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

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 the receiver.
- Connect the equipment into an outlet on a different circuit from that to which the receiver is connected.

If problems persist, consult the dealer or an experienced radio/TV technician for help.

#### Canadian Compliance statement:

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This device complies with Class B limits of Industry Canada. 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.

#### STATEMENT:

The term "IC" before the radio certification number only signifies that Industry Canada technical specifications were met.

#### CAUTION:

Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### European Union Declarations of Conformity:

LG-Ericsson Co., Ltd. declares that the equipment specified in this document, which bears the "CE" mark, conforms to the European Union Radio and Telecommunications Terminal Equipment Directive (R&TTE 1999/5/EC) including,

- Electromagnetic Compatibility Directive (2004/108/EEC) and
- Low Voltage Directive (2006/95/EEC)

The product fulfills the essential requirements of the harmonized standards shown above.

### 2. Product Safety Instructions

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

- Safety of Information Technology Equipment, IEC 60950-1, including
- Relevant national deviations as listed in Compliance with IEC for Electrical Equipment (IECEE)
- Safety of Information Technology Equipment, CAN/CSA-C22.2 No. 60950-1/UL 60950-1

**3. Privacy:**

This multi-line telephone system (MLTS) implements security and encryption technologies appropriate for DECT however, privacy of communications may not be ensured when using this telephone.

**4. RF Exposure Statement:**

This equipment complies with FCC/IC RF radiation exposure limits set forth for an uncontrolled environment. Use of other accessories may not ensure compliance with FCC/IC RF exposure guidelines. This device must not be co-located or operating in conjunction with any other antenna or transmitter. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**Base Station :**

This equipment complies with FCC/IC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."

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# SYSTEM OVERVIEW

## 1. SBG-1000 Network Connection Diagram

### SBG-1000 (Smart Business Gateway-1000)

SBG-1000 is all-in-one multi-service communication solution via single Internet connection for small businesses.

The following figure shows the components that make up the SBG-1000 system.

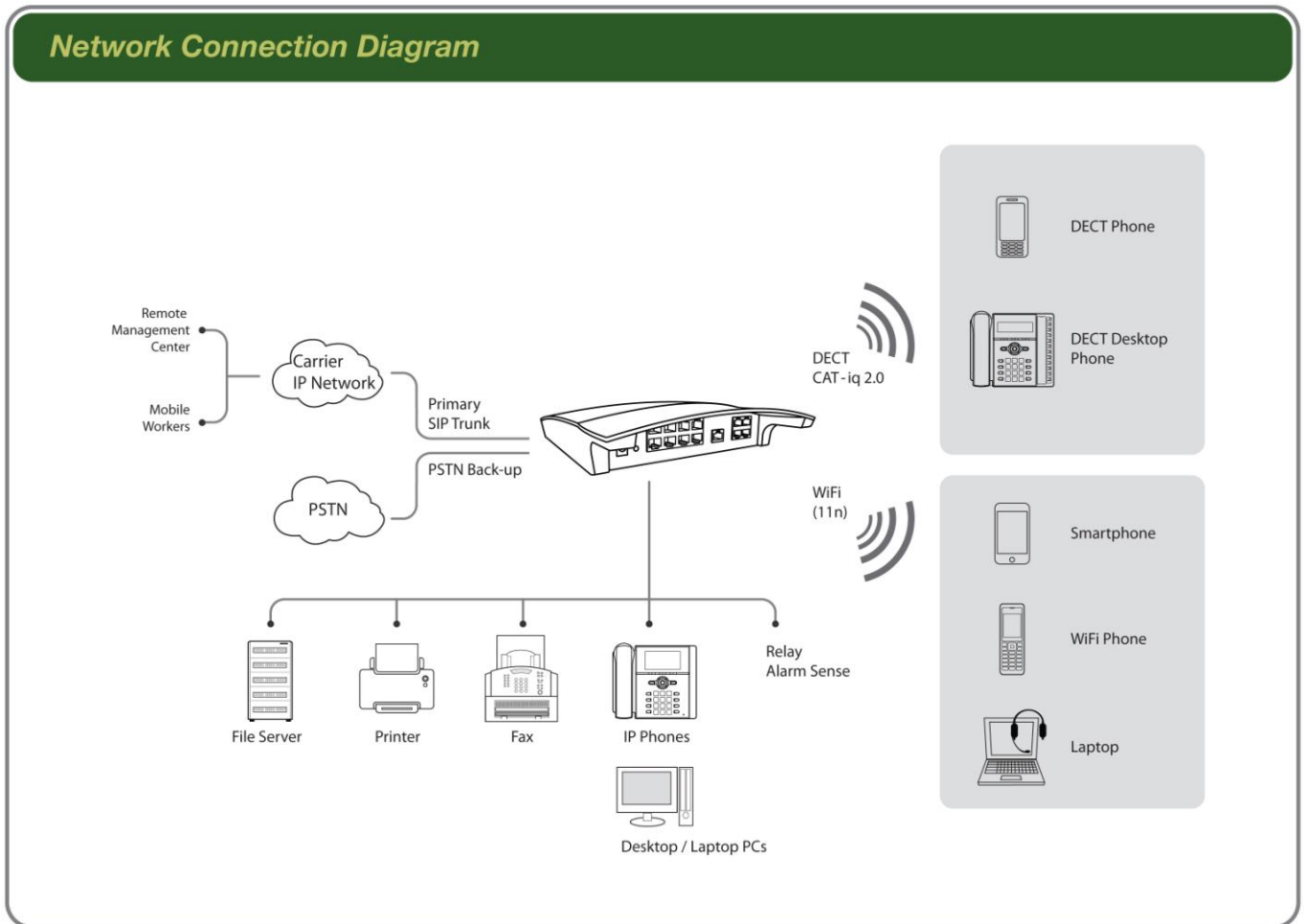


Figure 1. Network Connection Diagram

### 1.2 PSTN back-up types

PSTN back-up functions can be supported using ONLY one of following daughter board types assembled from the factory.

Daughter board types for PSTN back-up	Resources	Remark
CIU1 installed in SBG-1000	CO 1 port	CO Interface Unit
CIU2 installed in SBG-1000	CO 2 ports	CO interface Unit
BRIU installed in SBG-1000	BRI 1 port (2B + D)	Basic Rate Interface Unit
CSIU installed in SBG-1000	CO 1 port & SLT 1port	CO & SLT Interface Unit

# INSTALLATION

## 2.1 Unpacking

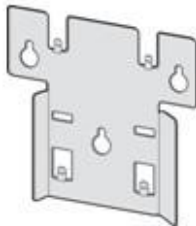
Open the box and verify the items shown in the following figure are included:



**SBG-1000**



**Adapter & Power Cord**



**Wall Mount Bracket**



**Insert & Screw**



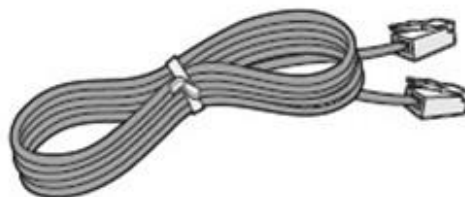
**CD manual**



**Cable Ties**



**Quick Start Guide**



**LAN Cable**

**Figure 2.1. SBG-1000 Carton Contents**

## 2.2. Wall Mounting/ Wiring Arrangement

### 2.2.1. Wall Mounting

1. Install the wall mount bracket to the wall and drill the hole.
2. Install 3 anchor plugs into the wall.
3. Insert 3 included screws into the 3 anchor plugs.
4. Install the SBG-1000 system to the wall mount bracket.

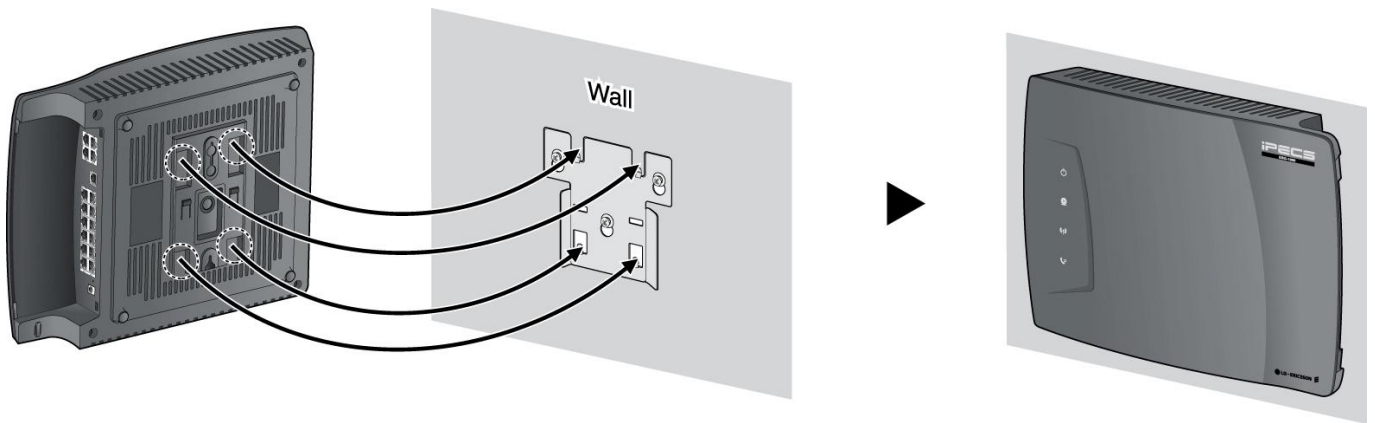


Figure 2.2.1. Wall Mounting



Note: Basically, LG-ERICSSON recommends the wall mounting installation for better wireless characteristics.

### 2.2.2. Wiring Arrangement

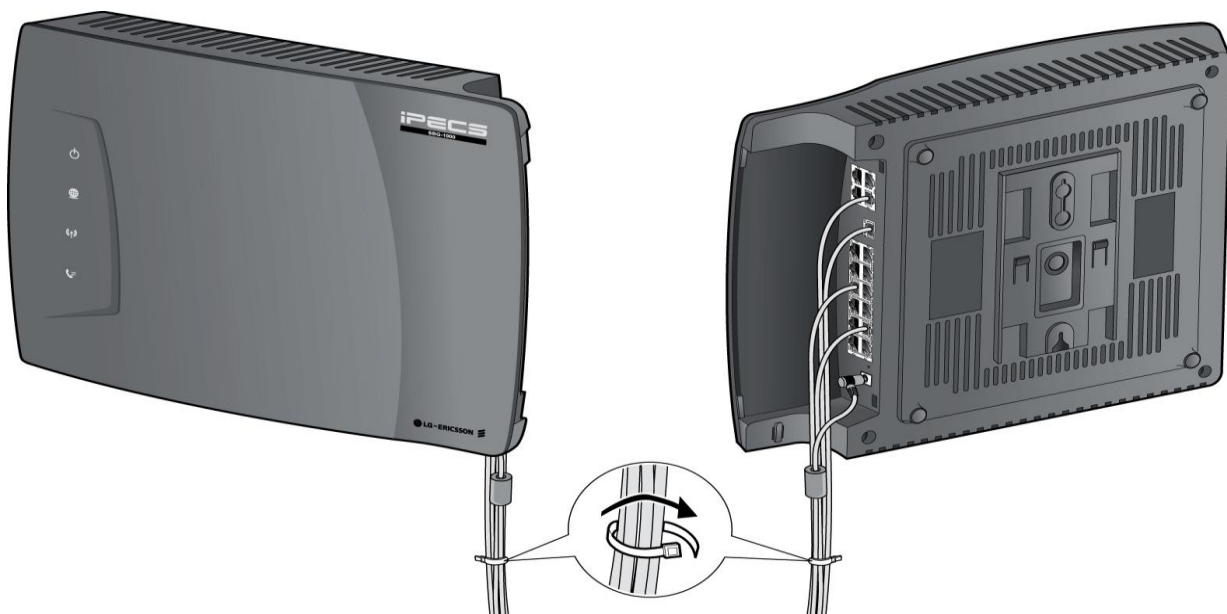


Figure 2.2.2. Wiring Arrangement

# SPECIFICATIONS

## 3. Specifications

### 3.1. General Specifications

#### 3.1.1. Dimension and Weight

ITEM	HEIGHT(mm)	WIDTH(mm)	DEPTH(mm)	WEIGHT(g)
SBG-1000 System (with CIU1 back-up)	34	278	233	860.5

#### 3.1.2 Environment

ITEM	DEGREES (°C)	DEGREES (°F)
Operation Temperature	0~40	32~104
Optimum Operation Temperature	20~26	68~78
Storage Temperature	10~70	32~158
Relative Humidity	0~80% non-condensing	

#### 3.1.3 AC/DC Power Adapter

Electrical SPECIFICATION	
- AC Input	100 ~ 240 Volt AC @50/60Hz, 1A Max.
- DC Output	DC48V, 0.8A Max., 38.4W

#### 3.1.4 SLT (Basic SLT or CSIU)

ITEM	SPECIFICATION
Connector	RJ-45 Modular Jack
Loop distance	1.5 km with AWG24
Caller Identification (CID)	FSK (ITU-T V.23 or Bell 202) or DTMF (ITU-T Q.23)
Ring capacity/ frequency	60Vrms (up to 3 REN)/ 25Hz

#### 3.1.5 CO (CIU1 or CIU2 or CSIU)

ITEM	SPECIFICATION
Connector	RJ-45 Modular Jack
Interface type	Loop start CO, Caller Identification (CID) detection

#### 3.1.6 BRI (with BRIU)

ITEM	SPECIFICATION
Connector	RJ-45 Modular Jack
Maximum wiring distance	1000 m (Point to point) / 200 ~ 500 m (Point to multi point)

#### 3.1.7 Ethernet (LAN port 1 ~ LAN port 8)

ITEM	SPECIFICATION
Connector	RJ-45 Modular Jack
LAN Interface	10/100 BASE-T (Auto-Negotiation), 10 Mbps or 100 Mbps, IEEE 802.3
Maximum wiring distance/ Cable	100 m/ 0.328kft, Category 5 UTP cable



**3.1.8 Ethernet (WAN port)**

ITEM	SPECIFICATION
Connector	RJ-45 Modular Jack
WAN Interface	10/100/1000 BASE-T (Auto-Negotiation), 10 Mbps or 100 Mbps or 1000 Mbps, IEEE 802.3/ IEEE 802.3ab/ IEEE 802.3az
Maximum wiring distance/ Cable	100 m/ 0.328kft, Category 5e UTP cable for 1000 Mbps

**3.1.9 PoE (LAN port 1 ~ LAN port 4 only, LAN port 5 ~ LAN port 8 are not supported)**

ITEM	SPECIFICATION
Interface specification	IEEE 802.3af (Total budgets : 20 W)

**3.1.10 WiFi**

ITEM	SPECIFICATION
Interface specification/ Frequency	IEEE 802.11 b/g/n (Draft 2.0), 2x2 MIMO, 2.412GHz ~ 2.472GHz



Note: Basically, LG-ERICSSON recommends the wall mounting installation for better wireless characteristics.

**3.1.11 DECT**

ITEM	SPECIFICATION
Interface specification	CAT-ig 2.0, DECT 6.0
Frequency	1,880MHz ~ 1,900MHz for Europe, 1,920MHz ~ 1,930MHz for US



Note: Basically, LG-ERICSSON recommends the wall mounting installation for better wireless characteristics.

**3.1.12 USB**

ITEM	SPECIFICATION
Interface specification	USB V 1.1, V2.0, Host mode

**3.2. System Capacity**

	Extension				Trunk	
	IP Wired Wireless	SLT	SIP Wired Wireless	DECT	SIP	PSTN Back-up
Total (Basic)	11	1 or 2	6	6	3	1 or 2
	12				4 or 5	
Total (Extended)	23	1 or 2	6	6	4	1 or 2
	24				5 or 6	

\* PSTN back-up function using CIU1/ CIU2/ BRIU/ CSIU daughter board.

\* DECT : 4 simultaneous call, 6 registration

\* Lock key is required for system capacity extended.

# CONNECTIONS

## 4. Connections

### 4.1 Connection for AC/DC adapter

1. Open the side cover.
2. Connect the plug of AC/DC adapter on the right side of the SBG-1000 system.
3. Close the side cover and insert SBG-1000 system to the wall mount bracket.
4. Connect the plug of power cord to a wall outlet.

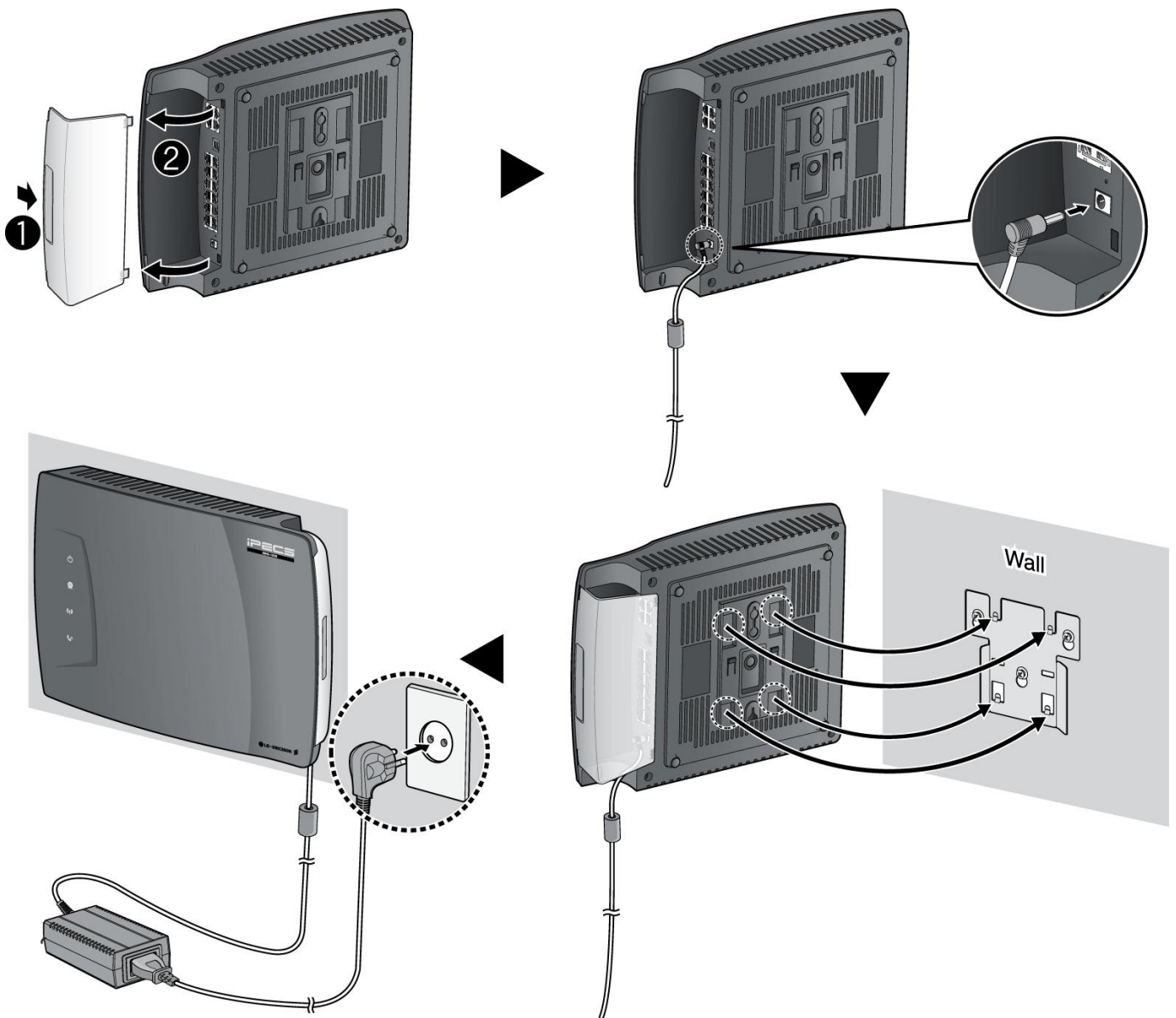


Figure 4.1. Connection for AC/DC Adapter

## 4.2 Connections for LAN/ WAN/ PSTN Back-up

### 4.2.1 Port definition – Right side

The following figure shows for port connections.

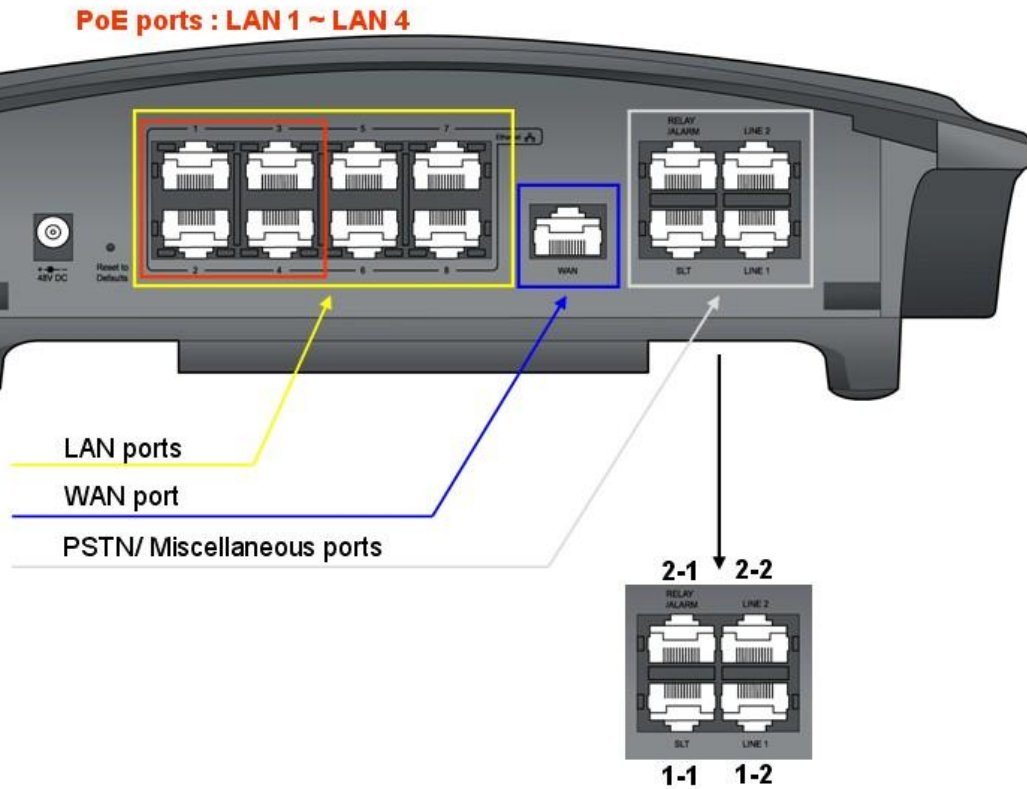
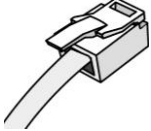



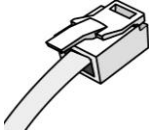

Figure 4.2.1. Connections for LAN/ WAN/ PSTN Back-up

#### 4.2.1.1 Pin Assignment for Ethernet (LAN)

LAN port				
CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME	FUNCTION
		4,5,7,8	Reserved	
		1	TX+	Transmit Data
		2	TX-	Transmit Data
		3	RX-	Receive Data
		6	RX+	Receive Data

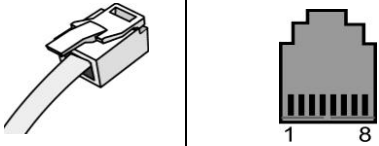
**i** Note: SBG-1000 has 4 PoE ports for LAN1 ~ LAN4. (Maximum 20W).

#### 4.2.1.2 Pin Assignment for Ethernet (WAN)

WAN port				
CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME	FUNCTION
		1	DA_P	Positive Data A
		2	DA_N	Negative Data A
		3	DB_P	Positive Data B
		4	DC_P	Positive Data C
		5	DC_N	Negative Data C
		6	DB_N	Negative Data B
		7	DD_P	Positive Data D
		8	DD_N	Negative Data D

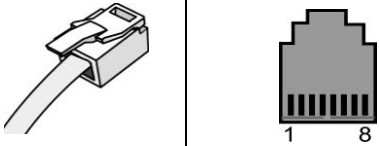
**4.2.1.3 Pin Assignment for SLT**

**SLT port (MJ1-1)**

CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME
RJ45 		1	N/A
		2, 3	N/A
		4	SLT_RING
		5	SLT_TIP
		6, 7	N/A
		8	N/A

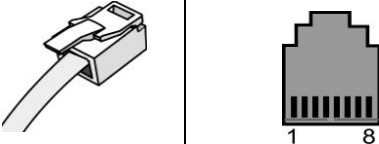
**4.2.1.4 Pin Assignment for Relay Contact and Alarm Detection**

**MISC port (MJ2-1)**

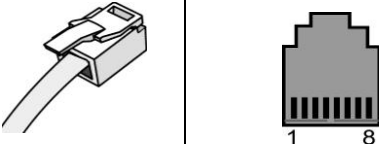
CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME
RJ45 		1	RELAY-TIP
		2	RELAY-RING
		3, 4	N/A
		5, 6	N/A
		7	ALARM-TIP
		8	ALARM-RING

**4.2.1.5 Pin Assignment for PSTN Back-up**

**LINE 1 (MJ1-2)**

CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME	FUNCTION
RJ45 		1	N/A	
		2	N/A	
		3	TX+	Transmit data for BRIU
		4	RX+/ CO1-R	Receive data for BRIU or / CO1-RING for CIU/ CSIU
		5	RX-/ CO1-T	Receive data for BRIU or / CO1-TIP for CIU/ CSIU
		6	TX-	Transmit data for BRIU
		7	N/A	
		8	N/A	

**LINE 2 (MJ2-2)**

CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME	FUNCTION
RJ45 		1	N/A	
		2	N/A	
		3	N/A	
		4	CO1-R/ SLT-R	CO1-RING for CIU or SLT_RING for CSIU
		5	CO1-T/ SLT-T	CO1-TIP for CIU or SLT_TIP for CSIU
		6	N/A	
		7	N/A	
		8	N/A	

PSTN back-up functions can be supported using ONLY one of following daughter board types assembled from the factory.

Daughter board types	Resources	Remark
CIU1 installed in SBG-1000	CO 1 port	CO Interface Unit
CIU2 installed in SBG-1000	CO 2 ports	CO interface Unit
BRIU installed in SBG-1000	BRI 1 port (2B + D)	Basic Rate Interface Unit
CSIU installed in SBG-1000	CO 1 port & SLT 1port	CO & SLT Interface Unit

4.2.2 Port definition – Left side

The following figure shows for USB connection.

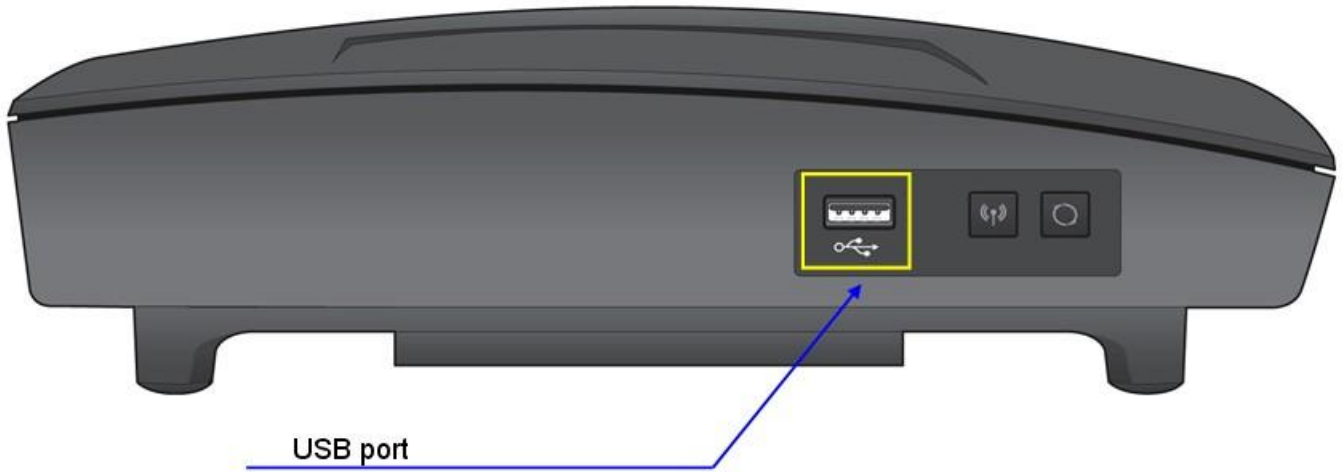




Figure 4.2.2.1. Connection for USB

USB port			
CONNECTOR	PIN NUMBER	NO.	SIGNAL NAME
USB Type A 	4 3 2 1 	1	GND
		2	D+
		3	D-
		4	VBUS (+5V)

Example for USB port

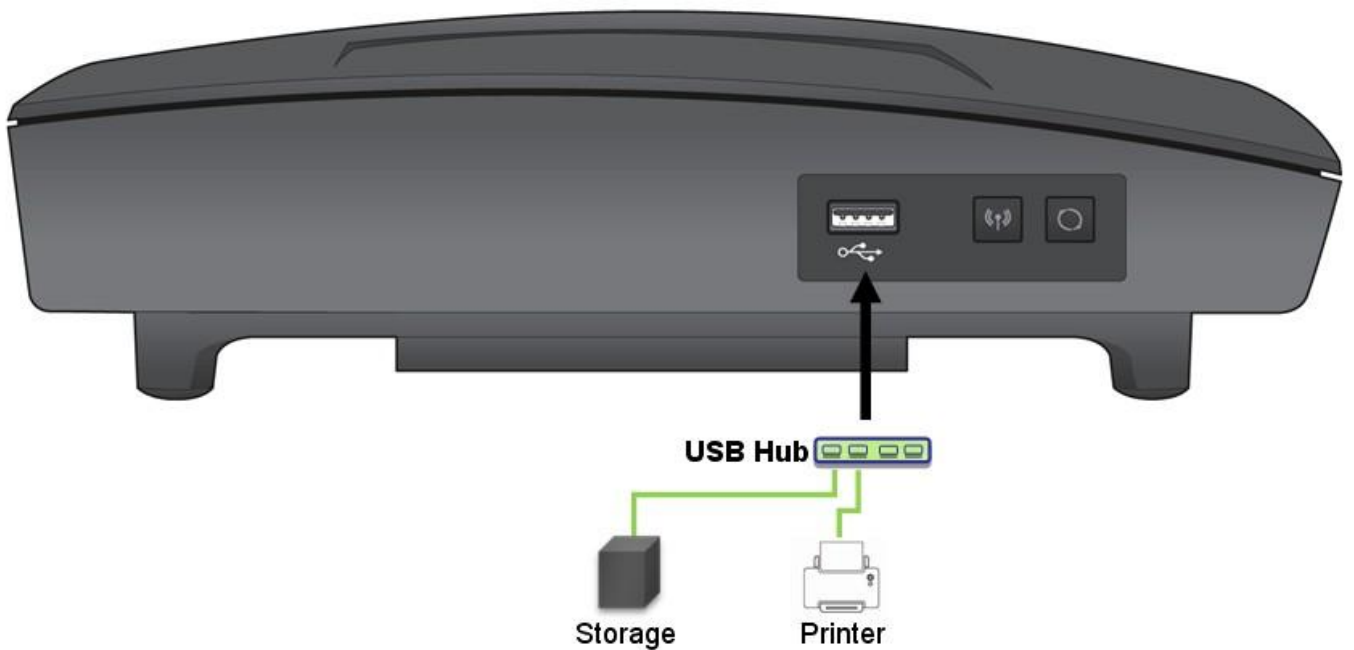


Figure 4.2.2.2. Example for USB port

# FUNCTION BUTTONS/ LED ICONS/ LEDs

## 5. Function Buttons/ LED Icons/ LEDs

### 5.1. Function Buttons

The following figure shows for button functions.

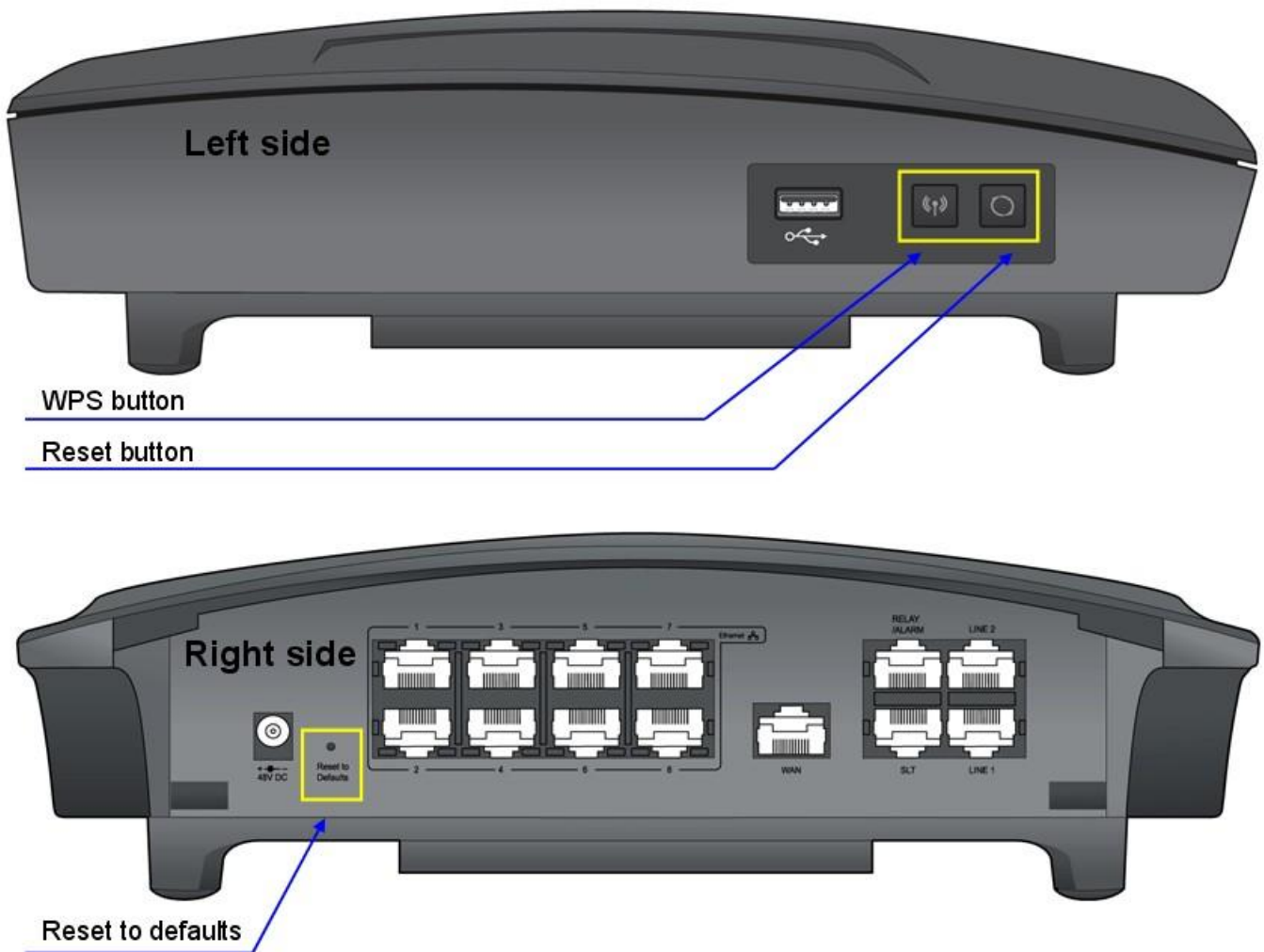


Figure 5.1. Function buttons

SBG-1000 has 3 function buttons.

Buttons	Functions	Remark
WPS (WiFi Protect Setup)	WiFi simple configuration	Refer to CD manual for more detail
Reset	System reset	
Reset to defaults	Database clear	Refer to CD manual for more detail



Note:

- . **WPS** button is used for activating wireless device connections.
- . **Reset to defaults** button is used for clearing SBG-1000's database only when pressed more than 5 seconds.

## 5.2. LED Icons

The following figure shows for the Icons on the top of SBG-1000.

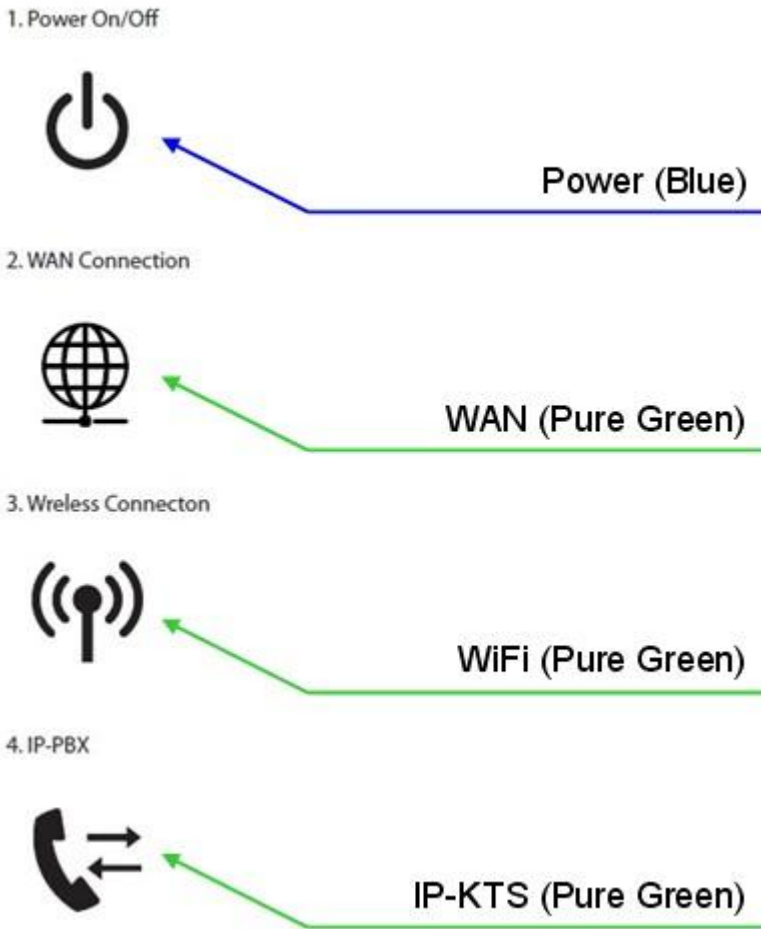


Figure 5.2. LED Icons

Icons	Functions	Remark
Power (Blue)	Power Connection	On – Connected Off or Blink – Abnormal or not connected
WAN (Pure Green)	WAN Connection	On – Connected Off or Blink – Abnormal or not connected
WiFi (Pure Green)	WiFi status	On – Normal Off or Blink - Abnormal
IP-PBX (Pure Green)	IPECS protocol	Blink – Normal On or Off - Abnormal

### 5.3. LEDs

The following figure shows for LED functions.

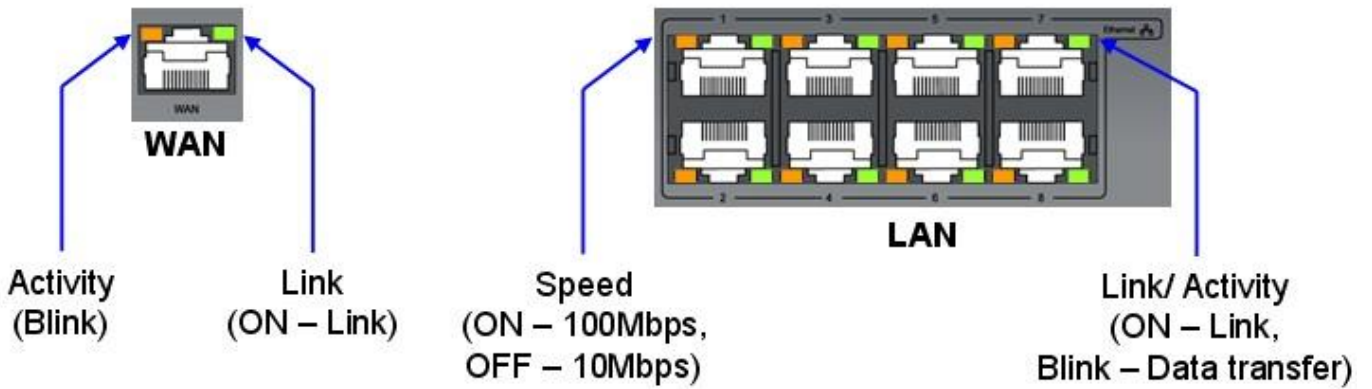


Figure 5.3. LEDs

#### 5.3.1. LEDs for Ethernet (WAN)

LED Indication (WAN port)

LED	DESCRIPTION
Orange color	Activity Status LED – Blink : Activity, ON : Idle
Green color	Link Status LED – ON : Link OK, OFF : No Link

#### 5.3.2. LEDs for Ethernet (LAN)

LED Indication (LAN ports)

LED	DESCRIPTION
Orange color	Speed Status LED – ON : 100Mbps, OFF : 10Mbps
Green color	Link Status LED – ON : Link OK, OFF : No Link, Blink : Data Transfer



# STARTING SBG-1000

## 6. Installation wizard

The installation wizard is the first and foremost configuration procedure, which automatically diagnoses your network environment and configures its components. It is a step-by-step procedure that guides you through establishing an Internet connection, a wireless network, and helps you to subscribe for different services. The wizard progress box, located at the right hand side of the screen, provides a monitoring tool for its steps during the installation progress.

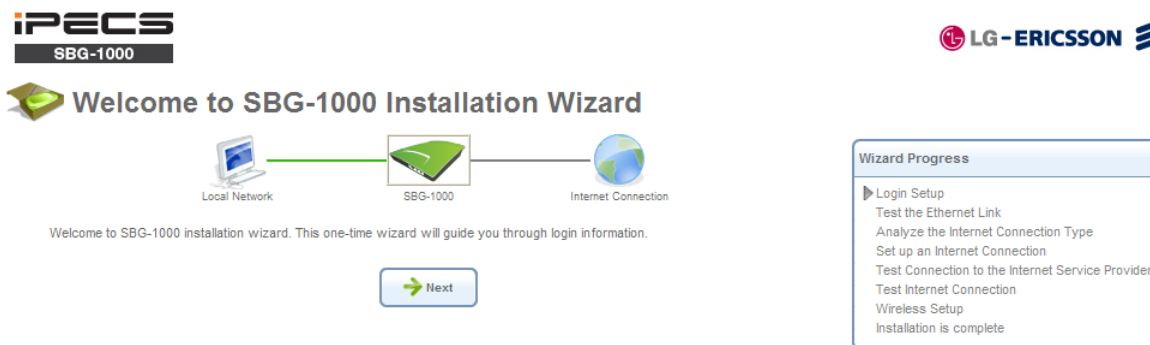


Figure 6.1 Welcome to SBG-1000 Installation Wizard

1. To start the installation wizard, perform the following: Select the desired language and click 'Next' to continue. The 'Login Setup' screen appears.

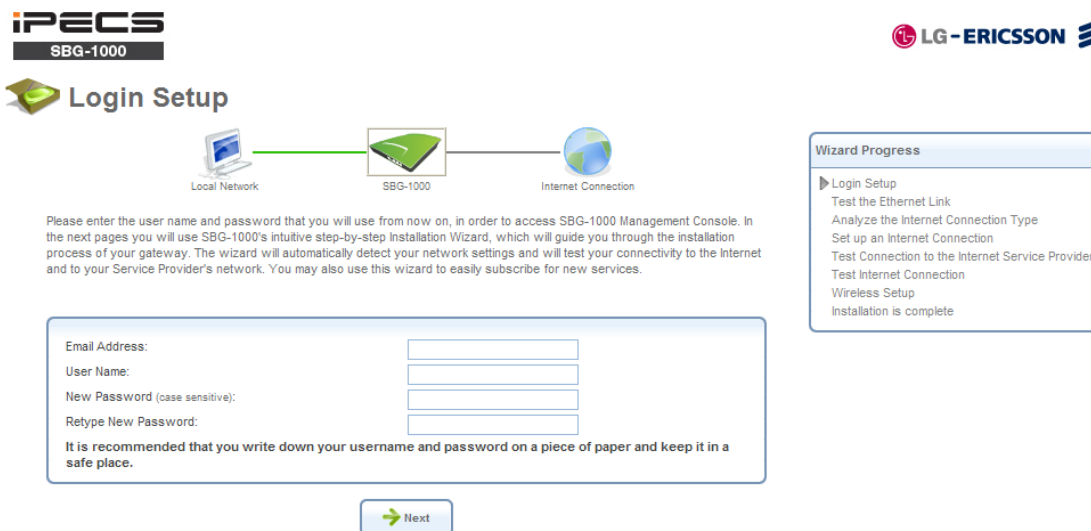


Figure 6.2. Login Setup

2. Enter a valid email address. It will be used by your service provider for sending you important service information.
3. The 'User Name' field is auto-completed by the username part of your email address. You can enter another username, which may only consist of letters and numbers.
4. Enter a password, and retype it in the next field to verify its correctness.



Note: It is recommended to write down your login details on a piece of paper, and store it in a safe place.

5. Click 'Next'. The wizard is now ready to begin your gateway's configuration.
6. Click 'Next'. The wizard procedure will commence, performing the steps listed in the progress box consecutively, stopping only if a step fails or if input is required. The following sections describe the wizard steps along with their success/failure scenarios. If a step fails, use the 'Retry' or 'Skip' buttons to continue.



**Warning:** The installation wizard overrides all Internet connection settings, which you may have previously defined.

## 6.1 Step 1: Test Ethernet Link

The first step is a test of the Ethernet connection.

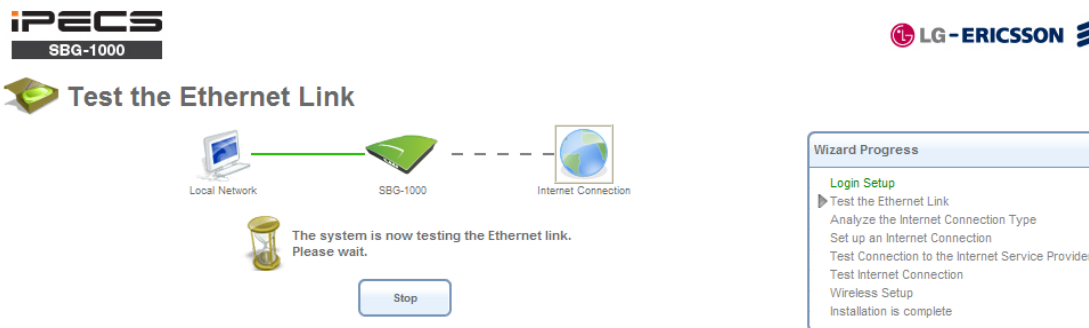


Figure 6.3 Test Ethernet Link

This step may fail if SBG-1000 cannot detect your Ethernet link (for example, if the cable is unplugged). In this case, the screen changes to the following.

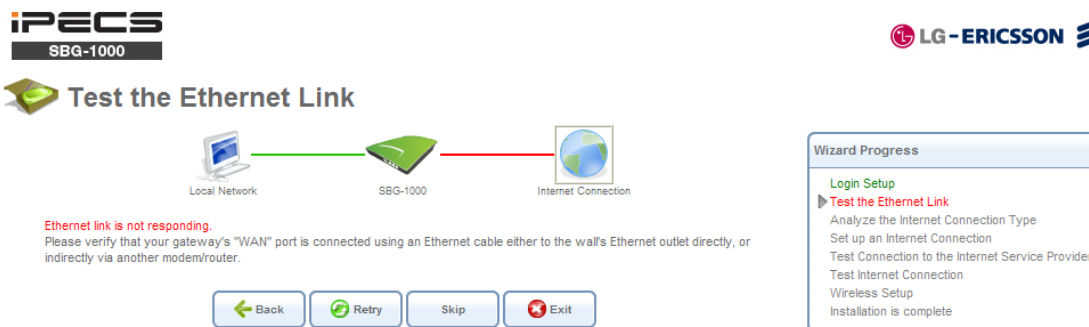


Figure 6.4 Test Ethernet Link – Failure

Verify that your Ethernet/DSL cable is connected properly, and click 'Retry'.

## 6.2 Step 2: Analyze Internet Connection Type

The next step is an analysis of your Internet connection.

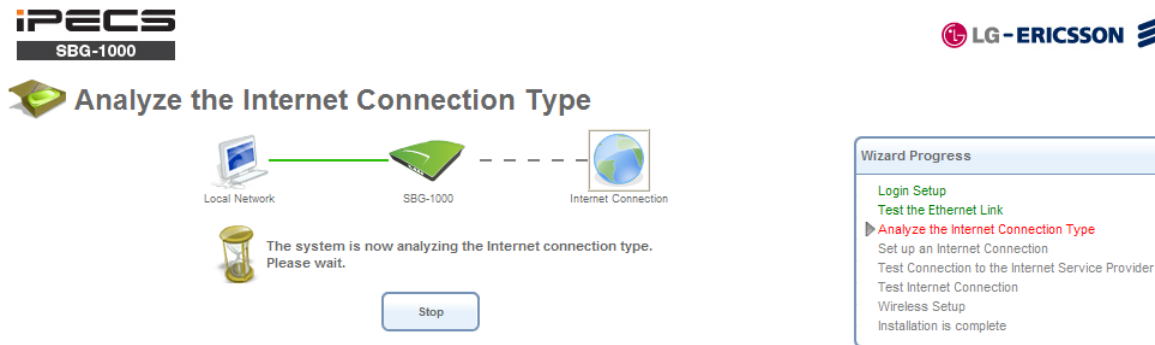


Figure 6.5 Analyze Internet Connection Type

This step may fail if SBG-1000 is unable to detect your Internet connection type.

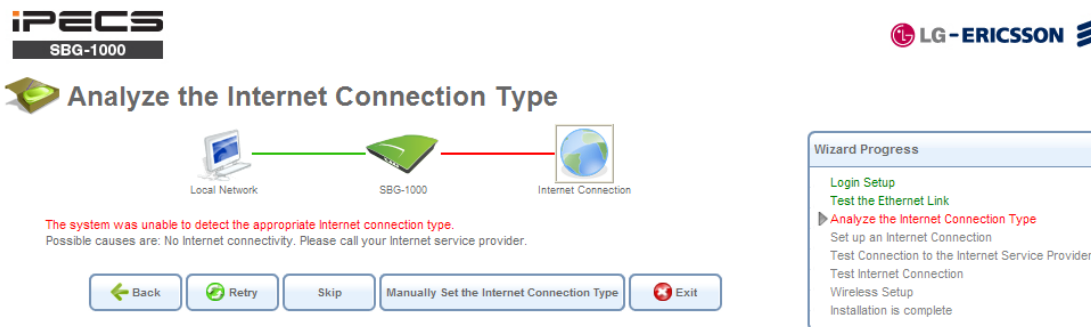


Figure 6.6 Analyze Internet Connection Type – Failure

In this case, you can manually set the Internet connection type, by clicking the corresponding button. The following screen appears.

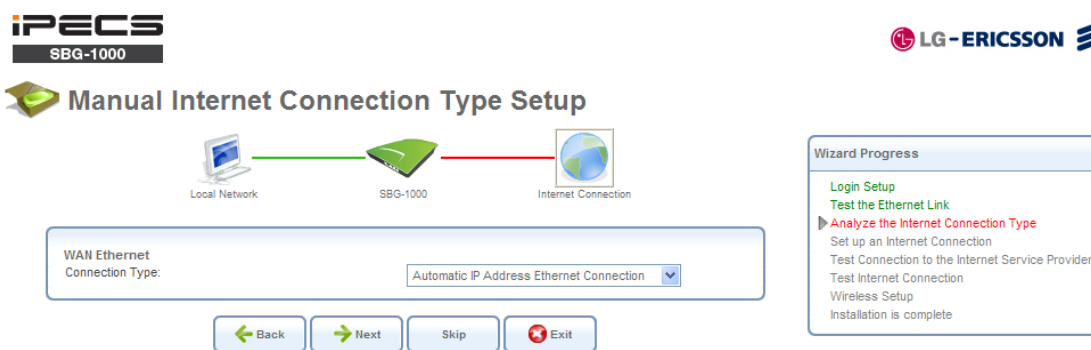


Figure 6.7 Manual Internet Connection Type Setup

To learn about manually configuring your Internet connection, refer to [Section 6.4](#).

### 6.3 Step 3: Setup Internet Connection

If your Internet connection requires login details provided by your Internet Service Provider (ISP) (e.g. when using PPPoE), the following screen appears.

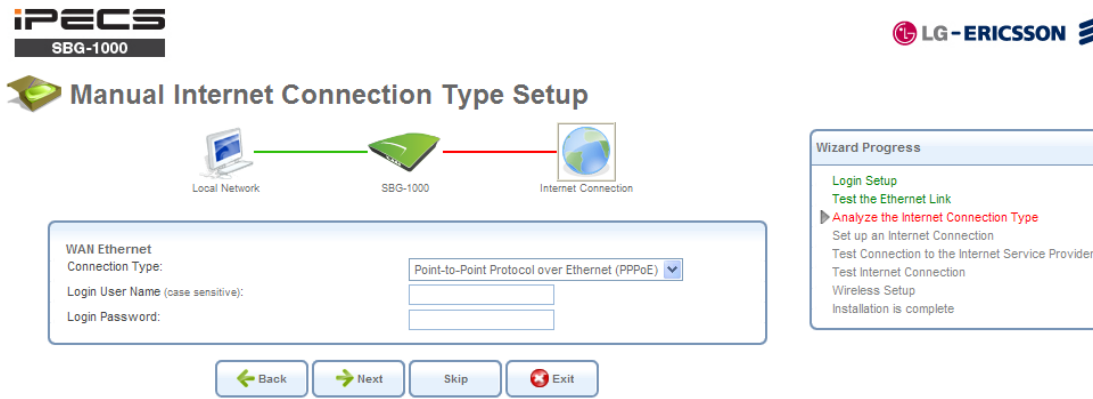


Figure 6.8 Internet Account Information

Enter your user name and password and click 'Next'. Failure to enter the correct details yields the following message. Click 'Back' and try again.



Figure 6.9 Setup Internet Connection

You may have forgotten your login details, issued by your ISP. SBG-1000 saves the username and password of the PPPoE connection to the ISP, even if it is restored to the factory default settings. When restoring the connection with the installation wizard, SBG-1000 will offer your old login details.



Figure 6.10 Internet Account Information

### 6.4 Step 4: Test Service Provider Connection

This step tests the connectivity to your ISP.



#### Test Connection to the Internet Service Provider



Wizard Progress

- Login Setup
- Test the Ethernet Link
- Analyze the Internet Connection Type
- Set up an Internet Connection
- ▶ Test Connection to the Internet Service Provider
- Test Internet Connection
- Wireless Setup
- Installation is complete

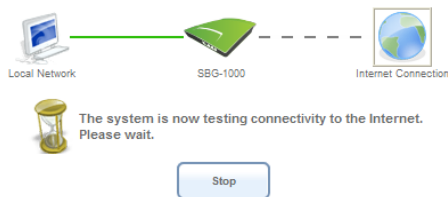
Figure 6.10 Test Service Provider Connection

### 6.5 Step 5: Test Internet Connection

This step tests the connectivity to the Internet.



#### Test Internet Connection



Wizard Progress

- Login Setup
- Test the Ethernet Link
- Analyze the Internet Connection Type
- Set up an Internet Connection
- Test Connection to the Internet Service Provider
- ▶ Test Internet Connection
- Wireless Setup
- Installation is complete

Figure 6.11 Test Internet Connection

### 6.6 Step 6: Wireless Setup

This step enables you to rename your wireless network, as well as change its security level.



#### Wireless Setup



Primary Wireless Network Settings

Wireless Network:

Security:

- None  
No authentication is required in order to surf the Internet or use your local network. Your local network may be exposed to other wireless users.
- Medium - Web Authentication  
Require wireless users to log in in order to access your local network and Internet connection.

---

Encrypted Wireless Network Settings

Wireless Network:

Network Key:

Wizard Progress

- Login Setup
- Test the Ethernet Link
- Analyze the Internet Connection Type
- Set up an Internet Connection
- Test Connection to the Internet Service Provider
- Test Internet Connection
- ▶ Wireless Setup
- Installation is complete

Figure 6.12 Wireless Setup

SBG-1000 assigns a default name for its wireless network, which you may later change. Select the wireless security level. The default “Medium” level secures your network by requiring users to provide a password in order to connect. “High” level utilizes the Wi-Fi Protected Access (WPA) protocol, requiring a password (network key) as well, but also encrypts the wireless traffic. When selecting this option, enter an eight-character password in the provided field. Click ‘Next’ to continue.

### 6.6.1 Setup via Wireless Connection

If you are running the installation wizard while being connected to SBG-1000 via a wireless connection, the wizard does not change the default SSID (to prevent you from disconnecting). If you choose to change it manually, the following screen appears, requesting that you re-establish your wireless connection (from your computer) before proceeding with the wizard.



Figure 6.13 Wireless Setup

This screen also appears after selecting the High wireless security level, or after changing the previously entered WPA password (see Figure 6.13).

### 6.6.2 Additional SSIDs with Virtual Access Points

If your gateway supports multiple virtual access points, an additional pre-configured WPA-secured wireless network is displayed in ‘Wireless Setup’ screen.

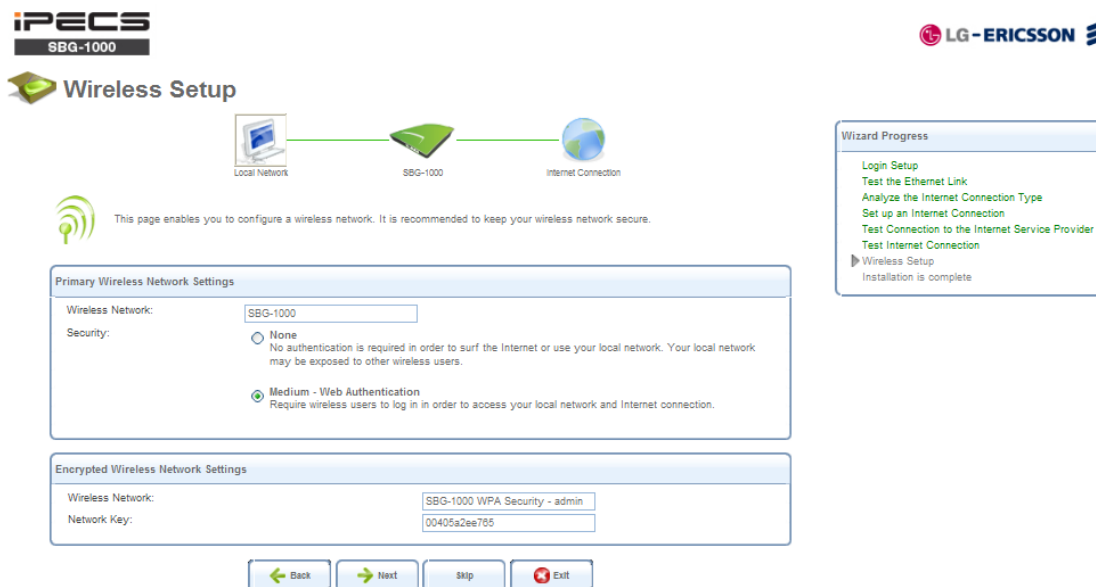


Figure 6.14 Wireless Setup

You can change the default name and network key (password) of this encrypted wireless network in their respective text fields (clicking ‘Next’ will save the new details). This wireless network will also appear in the ‘Network

Connections' screen under the 'System' tab, where it can be edited or deleted such as any other network connection.

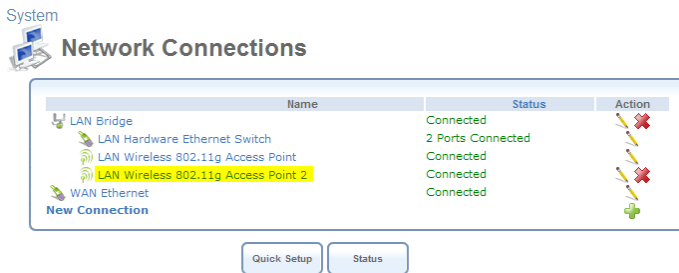


Figure 6.15 Network Connections

Note: In order to delete this connection, you must first remove it from under the LAN bridge.

### 6.7 Step 10: Installation Completed

This screen provides a summary of all the above Internet connection configuration steps and their results. Click 'Finish' to complete the wizard procedure.

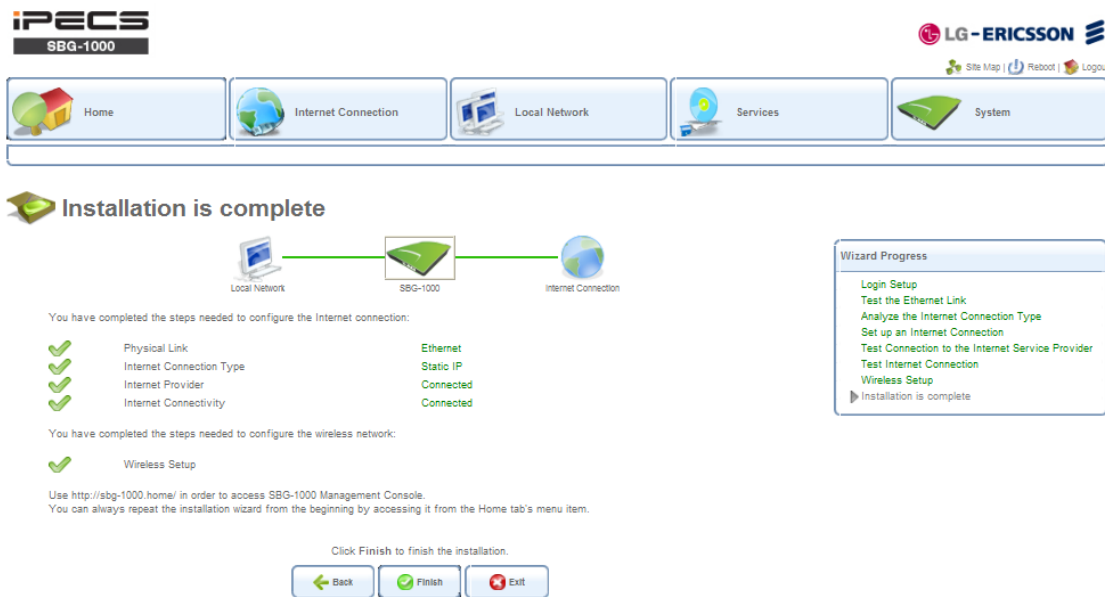


Figure 6.16 Installation Completed

Refer to CD manual for more detailed information.



CD manual

# TROUBLESHOOTING

Problem	Cause/Symptom	Solution
<b>System power failure</b>	AC Power Fail	Check the AC Power source. Check the Inlet and adapter connection. Replace AC/DC adapter with a good one.
	Power On/Off Icon (On – Normal, Off or blink – Abnormal)	Check DC Output voltage and DC/DC.
<b>System does not operate</b>	Power short circuit (Adapter, DC/DC circuit on main board)	Check the connection between main board and PSTN back-up board. Check AC/DC adapter and DC/DC.
	Bad board connection (PSTN back-up board)	Check a short circuit on the main board or PSTN back-up board. Press the Reset button for system restart. Press the Reset to defaults button for The factory default mode.
<b>IP phone does not operate</b>	Bad connection (Between the LAN port and IP Terminals)	Check the connection between the LAN port and IP Terminals on MDF. SBG has 4 PoE ports for LAN1 ~ LAN4. The other ports (LAN5~LAN8) should be connected adapter to IP Terminals.
	Maximum distance of LAN port	Check the Max. distance between the LAN port and IP terminals
	Bad IP Terminals	Plug the IP Terminals into another LAN port that has been verified as working. If the IP Terminals still does not work properly, replace the IP Terminals.
<b>SLT does not operate</b>	Bad connection (Between the SLT port and SLT)	Check the connection between the lines of the SLT on the MDF. (Refer to connections for MDF)
<b>CO line operation failure</b>	Bad connection (Between the CO port and CO line)	Check the connection between the lines of the CO on the MDF. (Refer to connections for MDF)
<b>Relay does not operate</b>	Bad connection	Check the connection. (Refer to connections for MDF)
<b>Alarm does not operate</b>	Bad connection	Check the connection. (Refer to connections for MDF)
<b>WAN does not operate</b>	Bad connection or IP setting	Check the network connection. (Refer to connections for MDF) Check WAN type and IP setting. WAN Icon (On : connected) Check WAN LEDs on modular jack.
<b>LAN does not operate</b>	Bad connection or IP setting	Check the network connection. (Refer to connections for MDF) Check LAN LEDs on modular jack. (Link/Activity, Speed)
<b>WiFi does not operate</b>	Bad connection	Check wireless network and setting. Recommend the wall mount for WiFi.
<b>DECT does not operate</b>	Bad connection	Check DECT terminal setting. Recommend the wall mount for DECT.



**RSS-GEN Section 7.1.5.**

*Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.*

RF Exposure Statement

IC RF Radiation Exposure Statement: This equipment complies with IC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

Le présent appareil est conforme aux 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.

Rapport d'exposition de rayonnement d'IC rf : Cet équipement est conforme aux limites d'exposition de rayonnement d'IC rf déterminées pour un environnement non contrôlé. Ce dispositif et son antenne ne doivent pas n'être coïmplantés ou opération en même temps qu'aucune autre antenne ou émetteur.

### FCC RF Radiation Exposure Statement

The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operation in conjunction with any other antenna or transmitter.

Rapport d'exposition de rayonnement de la FCC rf Les antennes utilisées pour cet émetteur doivent être installées pour fournir a la distance de séparation au moins de 20 cm de toutes les personnes et ne doit pas être coïmplanté ou opération en même temps que toute autre antenne ou émetteur.