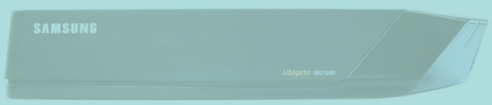
SAMSUNG

Experience the power of one

Ubigate iBG1000™

Quick Start Guide



www.samsungnetwork.com

The purposes of Safety Concerns are to ensure user's safety and to prevent property losses.
Please read this document carefully for proper use.

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TRADEMARKS

Ubigate iBG1000 is a registered trademark of SAMSNUG Electronics.
All other company and product names may be trademarks of the respective companies with which they are associated.

WEEE SYMBOL INFORMATION

Correct Disposal of This Product

(Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

This manual should be read before the installation and operation, and the operator should correctly install and operate the product by using this manual.

This manual may be changed for the system improvement, standardization and other technical reasons without prior notice.

If you have a question for the content of manual or want to obtain further information on the updated manual, please contact the homepage below.

Homepage: http://www.samsungdocs.com

GENERAL USER INFORMATION

RADIO FREQUENCY INTERFERENCE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC REQUIREMENTS

This equipment, the Ubigate iBG1000, complies with Part 68 of the FCC rules and the requirements adopted by the ATCA. On the bottom of this equipment is a label that contains, among other information, a product identifier in the format **US: A3LIS00BiBG1000**. If requested, this number must be provided to the telephone company.

UNAUTHORIZED MODIFICATIONS

Any changes or modifications performed on this equipment that are not expressly approved in writing by SAMSUNG ELECTRONICS, CO., LTD. could cause non-compliance with the FCC rules and void the user's authority to operate the equipment.

Allowing this equipment to be operated in such a manner as to not provide for proper answer supervision is a violation of Part 68 of the FCC's rules.

TELEPHONE CONNECTION REQUIREMENT

A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ATCA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

FCC Part 68

This equipment complies with Part 68 of the FCC rules. The FCC Part 68 label is located on the bottom chassis panel. This label contains the FCC Registration Number and Ringer Equivalence Number (REN) for this equipment. If requested, this information must be provided to your telephone company.

INCIDENCE OF HARM

If this equipment, the Ubigate iBG1000, causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't 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 is necessary.

SERVICE CENTER

If trouble is experienced with the Ubigate iBG1000, please contact your local office of SAMSUNG ELECTRONICS, CO., LTD. for repair or warranty information. If the trouble is causing harm to the telephone network, the telephone company may request that you remove the equipment from the network until the problem is resolved.

FIELD REPAIRS

Only technicians certified on the Ubigate iBG1000, are authorized by SAMSUNG ELECTRONICS, CO., LTD. to perform system repairs. Certified technicians may replace modular parts of a system to repair or diagnose trouble. Defective modular parts can be returned to SAMSUNG ELECTRONICS, CO., LTD. for repair.

GENERAL

Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

Electrical Safety Advisory

Parties responsible for equipment requiring AC power should consider including an advisory notice in their customer information suggesting the customer use a surge arrestor. Telephone companies report that electrical surges, typically lightning transients, are very destructive to customer terminal equipment connected to AC power sources. This has been identified as a major nationwide problem.

SAFETY WARNING

High touch current earth connection essential before making telecommunication network connection.

Energy Hazard-careful treatment is needed.

Every wire for communication should be larger than 26 AWG.

Double pole/neutral fusing.

UNDERWRITERS LABORATORIES

The Ubigate iBG1000 system has been tested to comply with safety standards in the United States and Canada. This system is listed with Underwriters Laboratories. The cUL Mark is separately shown on the label.
The following statement from Underwriters Labs applies to the Ubigate iBG1000 System:

1. Separation of TNV and SELV - Pluggable A:
   INSTRUCTION: The separate protective earthing terminal provided on this product shall be permanently connected to earth.

2. Separation of TNV and SELV - Pluggable B:
   INSTRUCTION: Disconnect TNV circuit connector (s) before disconnecting power.

3. Warning to service personnel:
   CAUTION: Double pole/neutral fusing

4. Telephone line cord:
   CAUTION: To reduce the risk of fire, use only No. 26 AWG or larger (e.g., 24 AWG) UL Listed or CSA Certified Telecommunication Line Cord

5. Leakage currents due to ringing voltage - Earthing installation instructions: '1. A supplementary equipment earthing conductor is to be installed between the product or system and earth, that is, in addition to the equipment earthing conductor in the power supply cord.

2. The supplementary equipment earthing conductor may not be smaller in size than the unearthed branch-circuit supply conductors. The equipment earthing conductor is to be connected to the product at the terminal provided, and connected to earth in a manner that ill retain the earth connection when the power supply cord is unplugged.

The connection to earth of the supplementary earthing conductor shall be in compliance with the appropriate rules for terminating bonding jumpers in Part K of Article 250 of the National Electrical Code, ANSI/ NFPA 70 and Article 10 of Part 1 of the Canadian Electrical Code, Part 1, C22.1. Termination of the supplementary earthing conductor is permitted to be made to building steel, to a metal electrical raceway system, or to any earthed item that is permanently and reliably connected to the electrical service equipment earthed.

3. Bare, covered, or insulated earthing conductors are acceptable. A covered or insulated conductor must have a continuous outer finish that is either green, or green with one or more yellow stripes.'

6. Safety Instructions - Rack Mount ‘Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:

A) Elevated Operating Ambient - If installed in a closed or multi-unitrack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (Tma) specified by the manufacturer.

B) Reduced Air Flow - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

C) Mechanical Loading - Mounting of the equipment in a rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

D) Circuit Overloading - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

E) Reliable Earthing - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).’

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Ubigate iBG1000 Quick Start Guide

Inspecting the Ubigate iBG1000

After opening the shipping carton, remove and save all packing materials and boxes.


NOTE

Save the packing materials. If you need to return the product, you will need to repack the unit.

Check the packing slip and contents of the shipping carton to ensure that you have received the following:

- Ubigate iBG1000 body
- Console cable DB-9 to RJ-45 cable adapter
- AC/DC Power adapter
- Plastic anchor and screw 2 sets
- Quick Start Guide
- Manual CD

Inspect the Ubigate iBG1000 for damage that may have occurred during shipping. If you discover damage or missing items, contact Technical Support:

http://www.samsungnetwork.com

Ubigate iBG1000 Status LED

LED in the top of the Ubigate iBG1000 indicates the status of the Ubigate iBG1000's performance and operation. Each LED's description is shown as follows.

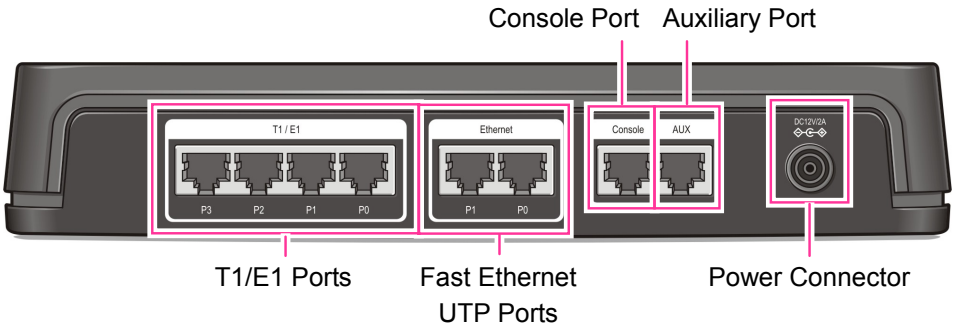
Status LED Description

LED	Indication & Color	Description
SYS	Solid green	System is operating normally.
	Solid red	System is not operating normally.
	Amber	System diagnostic mode.
	Off	Router is not receiving power.
P0 ~ P3 (T1/E1)	Solid green	T1/E1 port is operating normally.
	Solid red	T1/E1 port cable is not connected properly or critical alarm detected.
	Amber	User alarm detected.
	Off	Router is not operating normally.
P0 ~ P1 (Ethernet)	Solid green	Ethernet port link is detected.
	Blinking green	Ethernet port activity is detected.
	Off	Ethernet port link is not detected.
⏻ (Power)	Solid blue	Power supply installed and operating normally.
	Amber	Power supply installed but power fault condition detected.
	Off	Power supply not present or power supply failure.

Ubigate iBG1000 Rear Side

The Ubigate iBG1000 rear panel provides connections for networking. The Ubigate iBG1000 rear panel provides connections for two Fast Ethernet ports and four T1/E1 ports.

Rear Connector Description



Connector	Description
T1/E1 Port	T1/E1 WAN connection
Fast Ethernet UTP Port	Fast Ethernet LAN connection
Console Port	Serial port for local monitoring and configuring
Auxiliary Port	Serial port for remote monitoring
Power Connector	DC power connector

Safety Recommendations

The safety warnings that appear in this document (such as the one below) indicate a procedure that can harm you if not done correctly.

Electric hazard exists. Verify the power is turned off. Do not work on energized equipment. Working on energized equipment can result in serious electrical shock.

To avoid electric shock, do not connect safety extra-low voltage (SELV) circuits (as found in LAN ports) to telephone-network voltage (TNV) circuits (as found in WAN ports). Be sure to follow connection instructions carefully.

This equipment must be installed and maintained by properly trained service personnel. Make sure the proper electrical service is available before plugging this unit in and turning it on. Disconnect the telecommunications lines before unplugging the main power connector.

Cover Panels

Do not operate the Ubigate iBG1000 with missing cover panel.
The cover prevents exposure to hazardous voltages and currents inside the chassis. It is important to maintaining proper air flow through the chassis. It also prevents electromagnetic interference (EMI) that might disrupt other equipment.

Installing the Ubigate iBG1000

This section describes how to prepare the Ubigate iBG1000 for operation either as a tabletop or a wall-mounted unit.

Installing on a tabletop

Allow sufficient room at the front, rear, and side of the unit for interface cabling, power cord clearance, and adequate ventilation.

Set the device on a flat surface, making sure there are sufficient spaces on all sides for proper air flow.

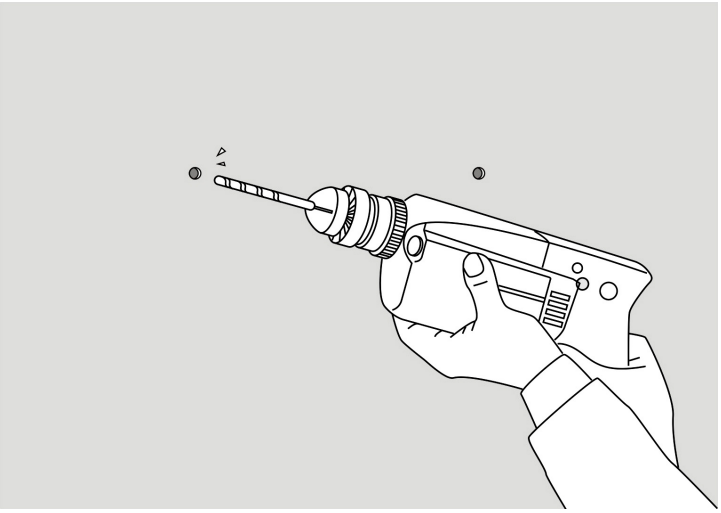
Do not place any items that weigh more than 10 pounds (4.5 kilograms) on top of the chassis, and do not stack routers on a tabletop.

Installing on a wall

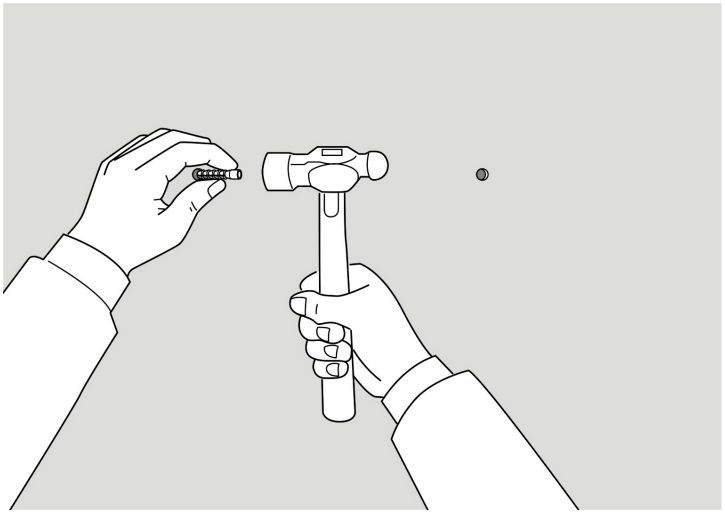
This section describes how to install Ubigate iBG1000 on a wall.

1. Mark two holes, horizontally or vertically, on a desired wall. The hole distance is about 130 mm.

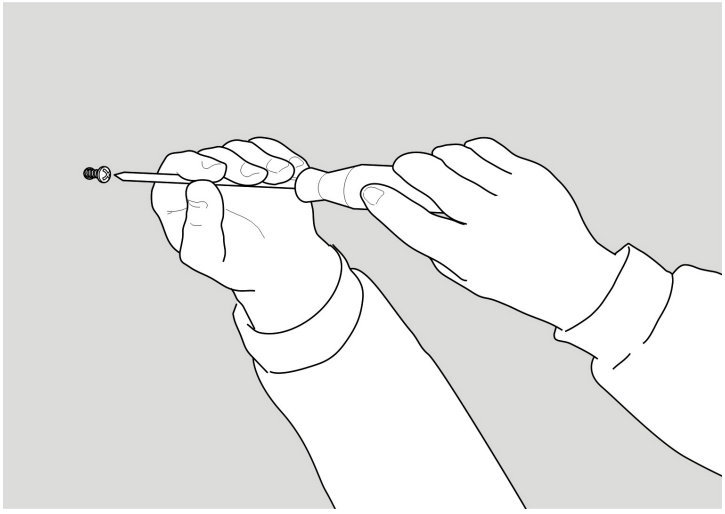
2. Make holes on the marked position with an electric drill. Make the depths and the diameters of the holes more than 33 mm and around 5.5 mm to insert the plastic anchors easily, respectively.



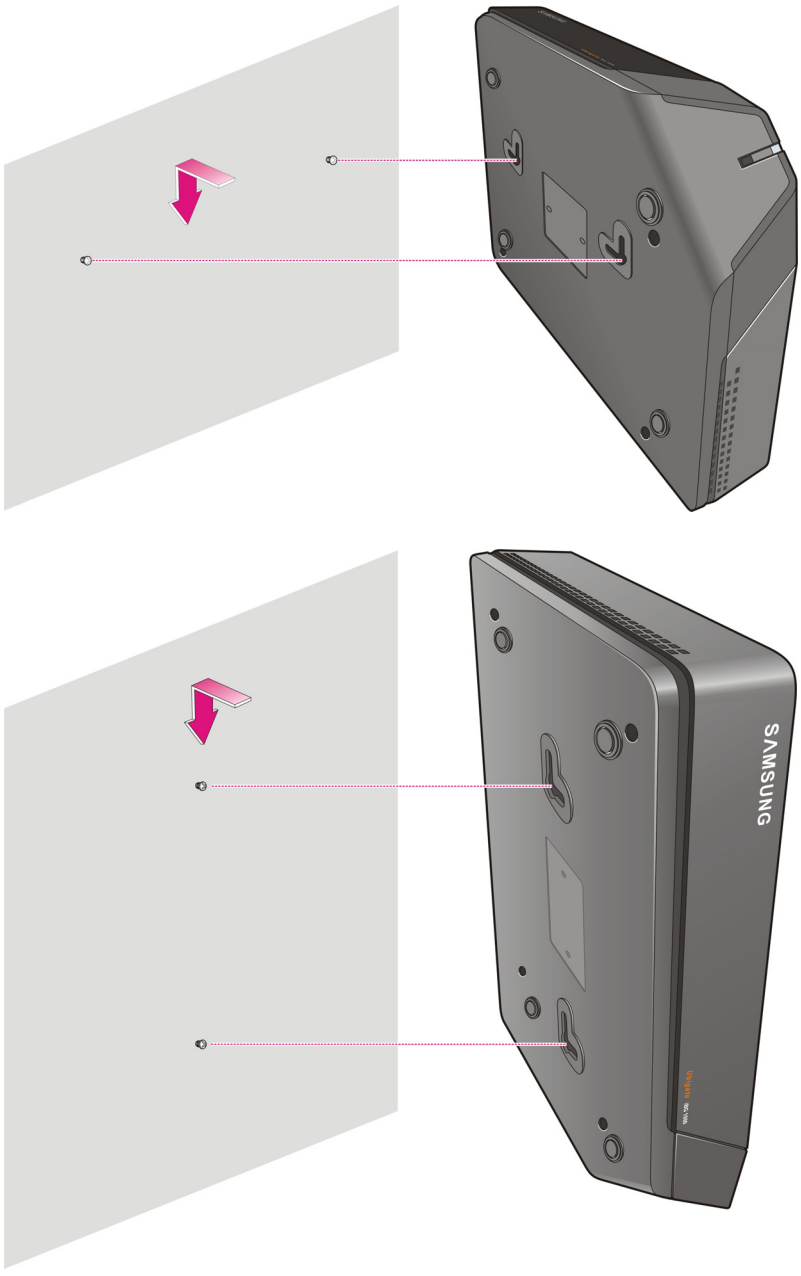
3. With a hammer, insert plastic anchors into the holes.



4. Insert screws to each hole and tighten the screws with a Phillips screwdriver. Be sure to remain screws untightened about 2 mm.



5. Align the screws to the bottom holes of Ubigate iBG1000 and fix it.



Connecting the Ubigate iBG1000

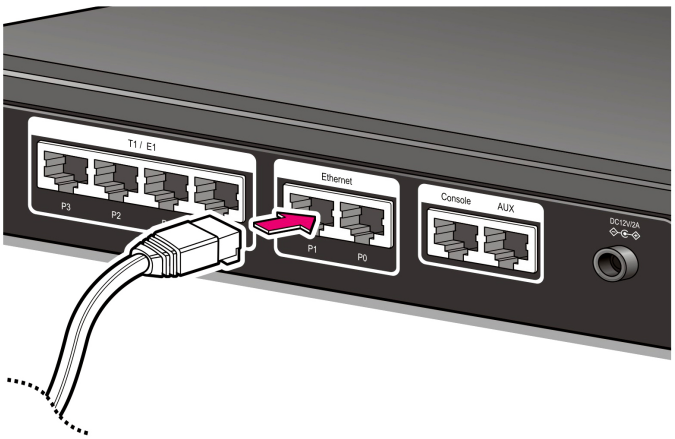
Connecting to the Network

This section describes how to connect the Ubigate iBG1000 to various network interfaces. Follow the procedure for the interface appropriate for your network facility environment.

LAN Interface

The Ubigate iBG1000 accommodates several network connections. Use a Category 5 (minimum) Ethernet cable with RJ-45 connectors to connect to the network.

1. Insert the RJ-45 connector on one end of the cable in any of the Ethernet ports.

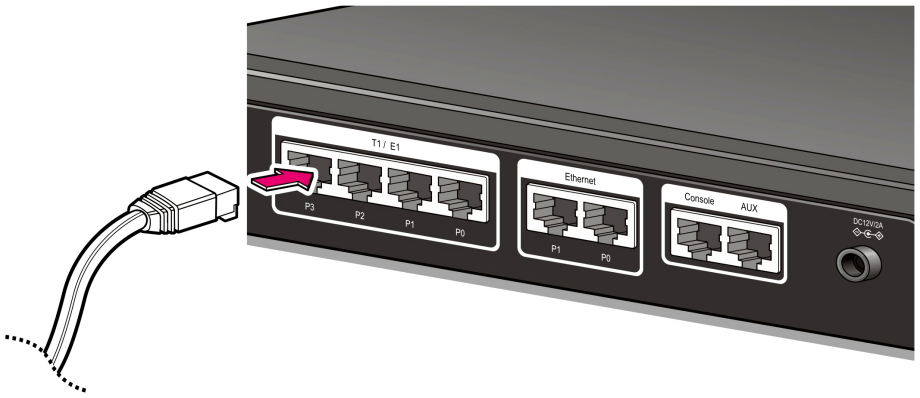


2. Connect the RJ-45 connector on the other end of the cable to the designated network. Make sure that the cable connectors are locked and secure in the ports.

T1/E1 Interface

The Ubigate iBG1000 accommodates several network connections. Use a cable with RJ-45 connectors to connect to the T1/E1 network.

1. Insert the RJ-45 connector on one end of the cable in any of the T1/E1 ports.



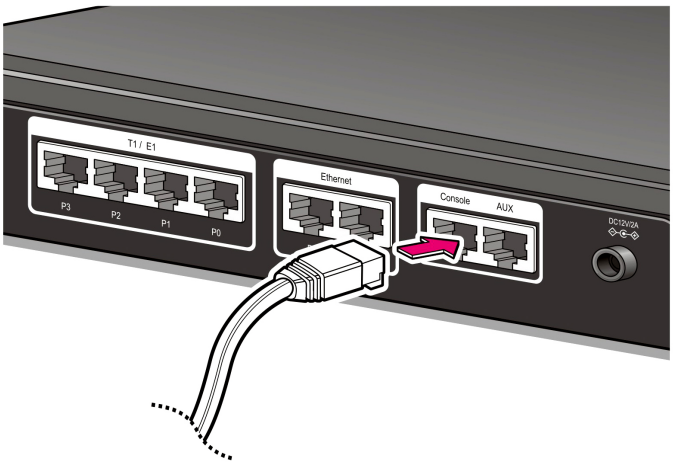
2. Connect the RJ-45 connector on the other end of the cable to the designated network. Make sure that the cable connectors are locked and secure in the ports.

Console Interface

A terminal (VT-100 or equivalent) or workstation with terminal emulation software can be used for the operator console. Connect the console to the Ubigate iBG1000 with an RJ-45 cable. For connection to a PC running terminal emulation software, your Ubigate iBG1000 is provided with an RJ-45 to DB-9 adapter cable.

To assemble and connect the console cable:

1. Connect the RJ-45, 8-conductor to the console port on the Ubigate iBG1000.



2. Connect the adapter with the female DB-9 connector to the communications port on the workstation or terminal.

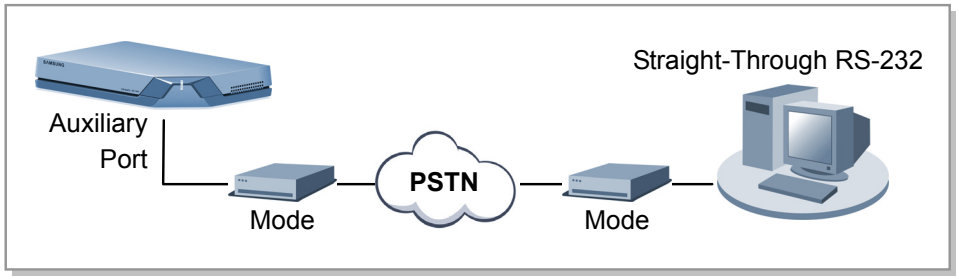
3. Configure the workstation or terminal for 9,600 bps, 8 data bits, 1 stop bit, no parity, and no flow control.

Auxiliary Interface (for Remote Access)

The Ubigate iBG1000 and a terminal can be connected to modems and phone lines for remote access. (Use a null-modem cable at the Ubigate iBG1000 to establish a modem connection.) This configuration allows you to dial into the router from a remote location.

Below is a list of tested modems that operate properly with the Ubigate iBG1000 system. It is recommended to use tested modems below or compatible modems with them.

- US Robotics: V.92 5686
- D-Link: DFM-562E
- MutiTech System: MT5634 ZBA



NOTE

The default Serial configuration is DTE. To use the Ubigate iBG1000 as DCE equipment, you must reconfigure the interface and reboot the router.

NOTE

Do not configure the modem to ‘send result codes’ or ‘echo’ commands. Doing so may cause the router to hang.

Refer to your modem documentation for guidelines about establishing an asynchronous DCE-to-DCE connection between these two devices through the public switch telephone network (PSTN). Use an RJ-45 to DB-9 (or DB-25) adapter cable to connect the router to a modem.

1. Connect the RJ-45 connector of the adapter cable to the Auxiliary port on the Ubigate iBG1000.

2. Connect the other end of the adapter cable, the DB-9 (or DB-25) connector cable to the modem.

3. Connect the modem to a telephone line using a standard twisted-pair cable with modular RJ-11 connectors.

4. Repeat steps 2 and 3 on the remote terminal or workstation side.

5. Configure modems for 9600 bps, 8 data bits, 1 stop bit, no parity, and hardware flow control.
   Refer to your modem documentation if necessary. If a workstation is used for the console, use VT-100 terminal emulation software or equivalent, and configure the software as specified for modems.


NOTE

A modem connected to the Console port of an Ubigate iBG1000 and set for verbose mode (configured to 'send result codes' or 'echo' commands) can prevent the router from booting up properly. Ubigate iBG1000 recommends that the user configures the modem to quiet (nonverbose) mode when it is connected to the router Console port.

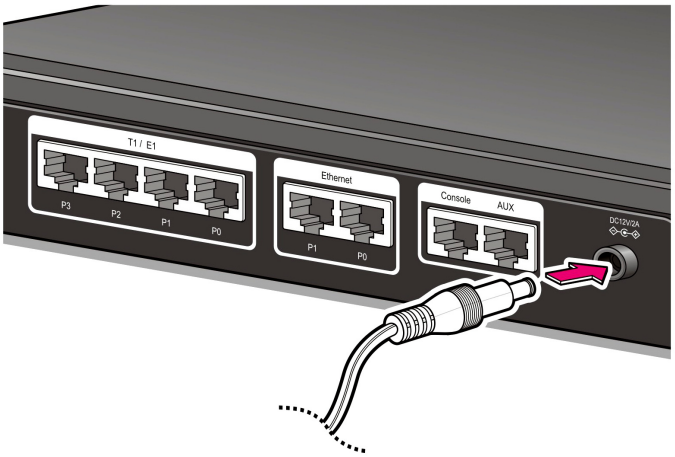
Powering Up the Ubigate iBG1000

Ubigate iBG1000 is shipped with 24 Watt AC Power Adaptor by default. This chapter describes how to power up the Ubigate iBG1000.

> **CAUTION**
>
> Use only the adapter provided with the Ubigate iBG1000. Using other adapter can result in overheating or explosion and may cause malfunction.

Connecting Power

To connect power to Ubigate iBG1000, connect the AC power connector to the power supply. Connect the other end to a grounded power receptacle rated for the Ubigate iBG1000.



Applying Power

Before applying power to an Ubigate iBG1000, make sure that appropriate procedures have been completed, and that an operator console has been connected to the iBG1000.

Ensure that the Ubigate iBG1000 is connected to a power source.

Then, the power LED illuminates blue. After that, the router starts a booting sequence. Upon successful boot-up, the system LED illuminates green. Other status LEDs will be in various states.
This is a normal condition when the router is not configured for specific network line conditions.

The login prompt is displayed on the console screen.

Initial Configuration

The following figure shows the login sequence and related prompts.

```
login: samsung
password: samsung

samsung logged in on Fri May 7 05:28:01 2004 from
console

Router#
```

NOTE

The default login ID and password can be different for certain ISP customers. If you have a problem with login sequence, please contact a local Samsung technical support center.

Changing Login Parameters

The System Administrator login consists of two components: the account name and the password. The initial login name is always ‘samsung’, but you can change this to suit the needs of your facility after logging in for the first time.

The default administrative password, ‘samsung’, should be changed as soon as possible to ensure only authorized access to the system is allowed.

For more information about command usage, see the Ubigate iBG1000 Command Reference.

Password

This procedure enables the system administrator or any user to change their password on an Ubigate iBG1000.

To change the password

1. Access the password configuration mode

```
Router# password
```

The system prompts for the current user name.

2. Type ‘samsung’, and then press Enter. The system prompts for the old password.

3. Type ‘samsung’, and then press Enter. The system prompts for the new password.

4. Type your new password, and then press Enter. The system prompts you to verify the new password.

5. Type the new password again and then press Enter. A message appears, confirming that the password has been changed.

Administrator Account

This procedure changes the administrator login name (Level 1 access) to a user-specified name. The system default is ‘samsung’.

To change the account name

1. Access the configure mode.

```
Router# configure term
```

2. Change the account name.

```
Router/configure# admin_name SAbob
```

This example changes the Level 1 user name to SAbob. The system displays a confirming message.

```
Administrator account name changed to SAbob
```

System Host Name

Use the configure hostname command to assign a host name to the Ubigate iBG1000. Once assigned, the host name becomes the command line interface (CLI) prompt name.

To configure the host name

1. Access the terminal configuration mode

```
Router# configure term
```

2. Type hostname, and then type a new host name. Press Enter.

```
Router/configure# hostname Fremont
```

In the above example, the new host name for the system is Fremont. The CLI prompt changes to Fremont, accordingly.

```
Fremont/configure#
```

Date and Time

Date and time are set using the configure utc, configure date, and the configure time commands.
To set the current time for the router in Universal Time Coordinated time, specify the time zone offset ahead (+) or behind (-) the time in Greenwich, England, the number of hours ahead or behind Greenwich time, and the number of minutes ahead or behind the time in Greenwich. For example, to set the local Pacific Standard Time to UTC time, enter.

```
Router/configure# utc - 08 00
```

To configure the date, enter the month, day, and year. For example, to set the date to April 30, 2005, enter.

```
Router/configure# date 04 30 2005
```

Then enter the hours (0-23) and minutes (0-59).

```
Router/configure# time 18 14 00
MON OCT 24 18:14:00 2005
Router/configure#
```

Adding Users

The configure user command allows the system administrator to add up to 15 users (login ID) including the admin account, and assign each user an access privilege (levels 2-4). Only the System Administrator (level 1) can add, modify, or remove this information.

To add a new user

1. Enter the terminal configuration mode

```
Router# configure term
```

2. Type user, enter the name that you want to add, and then enter the access level to be assigned to that name (optional).
   - For non-root user
     user name length: 3-38 characters
     password length: 3-10 characters

- For Admin user
  user name length: 3-39 characters
  password length: 3-10 characters

```
Router/configure# user John level 2
```

The system prompts you to enter a new password.

3. Enter the new password. The system prompts you to re-enter the new password.

4. Re-enter the new password. The system confirms that the password is set and confirms the name of the added user. You can use the show user_accounts command to view user information.

Removing Users

The no user command allows the system administrator to remove configured user names from the Ubigate iBG1000.

To remove a user name

1. Type no user, followed by the user's name.

2. Press Enter. The specified user is removed from the system.

Verifying the Hardware Configuration

To check the current hardware configuration, enter.

```
Router# show chassis
```

To verify the current configuration, enter the following commands.

```
Router# show version
Router# show running-config
```

Default Configuration

To restore factory default configuration settings:

- Clear the contents of the system.cfg file.

Use the ‘clear cfg_file’ command, and then use the reboot command to restore the factory default settings.
To save the factory default settings to the system.cfg file, execute the save local command after rebooting the system.


NOTE

After performing either of the two options, the system.cfg file no longer exists. Subsequently, a ‘file not found’ error message is displayed upon rebooting the system. This message will not impact operation, and it should be ignored.

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Quick Start Guide

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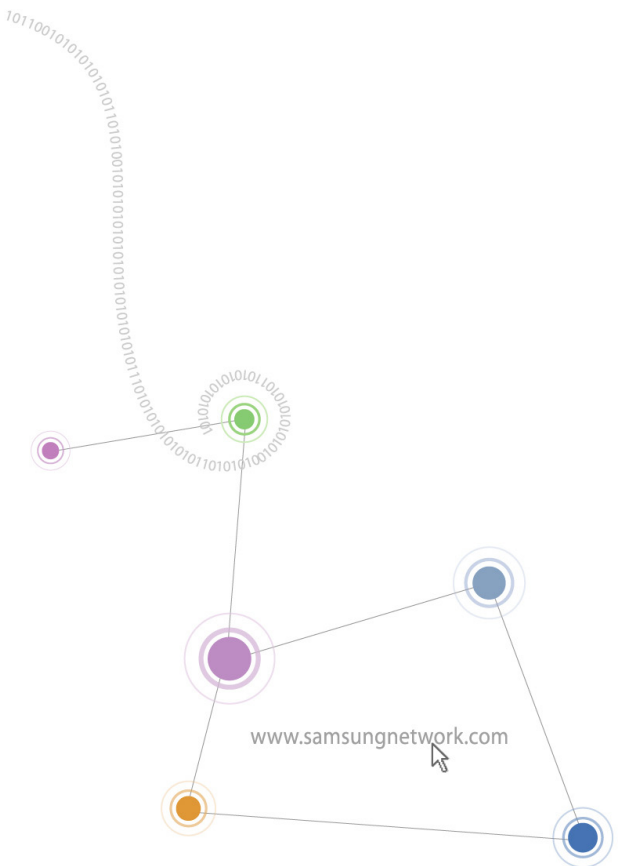

Homepage
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