

102HW User Guide

# 102HW User Guide Contents

| Introduction  |  |
|---|--|
| Introduction  | 3                                      |
|   |  |
| Getting Started   |  |
| Parts & Functions   | 6                                      |
| USIM Card   | 7                                      |
| Memory Card   |  |
| Charging Battery  |  |
| Power On/Off  |  |
| Internet Connectivity   |  |
| ,   |  |
| Internet Connectivity   |  |
| Connecting to 4G/3G   |  |
| Connecting to Internet Wi-Fi  |  |
| Using SoftBank Wi-Fi Spot   | 16                                     |
| Connecting WLAN   |  |
| WLAN (Wi-Fi)  | 18                                     |
| Connecting Windows PC   | 19                                     |
| Connecting Mac  |  |
| Connecting iPhone/iPad  | 24                                     |
| Connecting Smartphone   | 26                                     |
| Connecting Nintendo 3DS/DSi/DS  | 27                                     |
| Connecting PlayStation®Vita/PSP®  |  |
| (PlayStation®Portable)  | 32                                     |
| Connecting PlayStation®3  | 35                                     |
| Connecting WPS Supported WLAN Device  | 38                                     |
| Connecting with Micro USB Cable (Windov   | vs)                                    |
| USB Connection with a Windows PC  |  |
| Device Recognition/Removal on Windows PC  |  |
| Software Installation (Windows PC)  |  |
| Software installation (willdows FC)   | 43                                     |
| Connecting with Micro USB Cable (Mac)   |  |
| USB Connection with a Mac   | 56                                     |
| Device Recognition/Removal on Mac   | 56                                     |
| Software Installation (Mac)   | 57                                     |
| Advanced_Settings   |  |
| SoftBank 102HW Utility Overview   | 62                                     |
|   |  |
| SoftBank 102HW Htility  |  |
|   | 00                                     |
| Quick Setting   | 69                                     |
| Quick Setting<br>Mobile Network Settings  |  |
| Quick Setting<br>Mobile Network Settings<br>Internet Wi-Fi  | 81                                     |
| Quick Setting<br>Mobile Network Settings<br>Internet Wi-Fi<br>LAN Wi-Fi   | 81<br>84                               |
| Quick Setting   | 81<br>84<br>96                         |
| Quick Setting   | 81<br>84<br>96<br>118                  |
| Quick Setting   | 81<br>84<br>96<br>118<br>. 124         |
| Quick Setting   | 81<br>84<br>96<br>118<br>. 124<br>125  |
| SoftBank 102HW Utility  Quick Setting  Mobile Network Settings  Internet Wi-Fi  LAN Wi-Fi  Router Setting  System  Checking Statistics  Software Update  Memory Card Data  Customer Support | 81<br>84<br>96<br>118<br>. 124<br>125  |
| Quick Setting   | 81<br>84<br>96<br>118<br>124<br>125    |
| Quick Setting   | 81<br>96<br>118<br>. 124<br>125<br>127 |

| Warranty & Service1                                 | 39 |
|---|----|
| Customer Service1                                   | 40 |
|   |    |
| Safety Precautions                                  |    |
| Safety Precautions14                                | 42 |
| General Notes1                                      | 47 |
| Specific Absorption Rate (SAR) Information for this |    |
| Product1  | 48 |

### Introduction

### Before You Begin

Read "Safety Precautions" and this guide thoroughly beforehand for proper usage.

Accessible services may be limited by contact conditions.

### Guide Usage Notes

Most operation descriptions are based on default settings.

### Screenshots & Key Labels

Screenshots and Key labels are provided for reference only. Actual PC windows may differ in appearance.

### Other Descriptions

This product is referred to as "Wi-Fi router" in this guide. In this guide, microSD™/microSDHC™/microSDXC™ Card is referred to as "Memory Card."

### Operating Environment

Use Wi-Fi router in any of these operating environments. Use outside these environments may affect performance. Operating environment (hardware, connected peripherals, installed applications, etc.) may also affect performance.

 For PC support, OS version upgrade information, etc., see corresponding manufacturer's product support documentation.

| documentation.          |  |
|-------------------------|--|
| Item                    | Description  |
|                         | Windows XP Home Edition (Service Pack 3 or later)                    |
|                         | Windows XP Professional (Service Pack 3 or later)                    |
|                         | Windows Vista Home Basic (32-bit or 64-bit)                          |
|                         | Windows Vista Home Premium (32-bit or 64-bit)                        |
|                         | Windows Vista Business (32-bit or 64-bit)                            |
| Compatible<br>Operating | Windows Vista Ultimate (32-bit or 64-bit) Windows 7 Starter (32-bit) |
| Systems                 | Windows 7 Home Basic (32-bit or 64-bit)                              |
| -,                      | Windows 7 Home Premium (32-bit or 64-bit)                            |
|                         | Windows 7 Professional (32-bit or 64-bit)                            |
|                         | Windows 7 Enterprise (32-bit or 64-bit)                              |
|                         | Windows 7 Ultimate (32-bit or 64-bit)                                |
|                         | Windows 8 (32-bit or 64-bit)   |
|                         | Windows 8 Pro (32-bit or 64-bit)                                     |
|                         | Windows 8 Enterprise (32-bit or 64-bit)                              |
|                         | Mac OS X 10.5 to 10.7 (32-bit or 64-bit)                             |
|                         | Windows XP: 256 MB+ (512 MB + recommended)                           |
|                         | Windows Vista: 512 MB+ (1 GB+  |
|                         | recommended)   |
| Memory                  | Windows 7: 1 GB+ (32-bit)/2 GB+ (64-                                 |
| Requirements            | bit)   |
| '                       | Windows 8: 1 GB+ (32-bit)/2 GB+ (64-                                 |
|                         | bit)   |
|                         | Mac OS X: 256 MB+ (512 MB+   |
|                         | recommended)   |
| Hard Disk               | 200 MB+ recommended (100 MB+ free                                    |
| Capacity                | space needed)  |
| Interface               | USB2.0   |
|                         | Microsoft Internet Explorer 6, 7, 8, 9, 10                           |
| Compatible              | Safari 3.0 or later  |
| Compatible<br>Browser   | Firefox 4.0 or later   |
|                         | Chrome 10 or later   |
|                         |  |

Opera 11.0 or later

### Package Contents

The following items are included in the package. Please confirm package contents before use.

Contact SoftBank Customer Support for missing items. Keep accessories including Warranty in a safe place.

Battery is built into Wi-Fi router. Internal Battery cannot be removed by customer.

- · 102HW
- · AC Charger (HWCAL1)
- · Micro USB Cable (HWDAU1)
- ・クイックスタート (Japanese)
- · Warranty (unit, AC Charger)
- ・お願いとご注意 (Japanese)
- · WLAN Initialization Sticker

### Factory Default Settings

When connecting to a Wi-Fi (WLAN) device, SSID (network name) and security keys are required. SSID and security keys are set by default. See WLAN Initialization Sticker for SSID, WPA/WPA2 Key, and WEP Key.

- Two SSID are set to Wi-Fi router. By default, WPA/WPA2 is set as security for SSID A; WEP is set for SSID B.
- For greater security, use WPA/WPA2. Some game consoles may not be WPA compatible. See game console user guide for compatibility.



- 1 SSID A, Security Key (WPA, eight digits)
- 2 SSID B, Security Key (WEP, five digits)

### **Usage Conditions**

- · SoftBank 4G Service is available only for supporting models.
- · Wi-Fi router supports Software Update. Use Wi-Fi router with the latest version software.
- Communication speed may become slow or communication may not be available because of connection congestion or communication environment.
- If Wi-Fi router is used abroad, changing settings according to the law of country is required.

### Trademarks

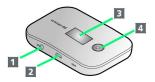
- SOFTBANK, SOFTBANK's equivalent in Japanese and the SOFTBANK logo are registered trademarks or trademarks of SOFTBANK CORP. in Japan and other countries.
- Microsoft®, Windows®, Internet Explorer, Windows Vista® are registered trademarks of Microsoft Corporation in the United States/other countries.
- $\cdot$  Microsoft Windows Operating System is indicated in its abbreviated form as Windows.
- The trademark "iPhone" is used with a license from Aiphone K.K. iPhone, iPad and Multi-Touch are registered trademarks of Apple inc. TM and © 2011 Apple Inc. All rights reserved.
- · Apple is a trademark of Apple Inc.
- PlayStation, PS3 and PSP are registered trademarks of Sony Computer Entertainment Inc. PSVITA is a registered trademark of Sony Computer Entertainment Inc.
- Wii, Nintendo 3DS, Nintendo DS and Nintendo DSi are trademarks of Nintendo.
- microSD, microSDHC and microSDXC logos are trademarks of SD-3C, LLC.
- · "Android™" is a trademark or registered trademark of Google Inc.
- The names of the companies, products and services used in this guide are registered trademarks or trademarks of the respective companies.

# Getting Started

| Parts & Functions | 6 |
|-------------------|---|
| USIM Card         |   |
| Memory Card       | 9 |
| Charging Battery1 | 0 |
| Power On/Off      | 2 |

# Parts & Functions

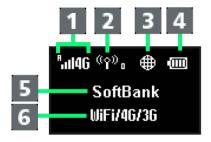
# Wi-Fi router





| Part                      | Description                 |
|---------------------------|-----------------------------|
| 1 WPS<br>Button           | Enable WPS                  |
| 2 External<br>Device Port | Connect Micro USB Cable     |
| 3 Display                 | Wi-Fi router status appears |
| 4 Power<br>Button         | Toggle power on/off         |
| 5 Memory<br>Card Slot     | Insert Memory Card          |
| 6 Reset<br>Button         | Reset settings to defaults  |
| <b>7</b> USIM Card        | Insert USIM Card            |

# Display



- 1 Signal Strength and Network Type
- 2 WLAN Connection Status
- 3 Internet Connection Status
- 4 Battery Level
- 5 Connected Network
- 6 Internet Access Mode Status

### Icons

Icons on Display are as follows.

| Icon       | Description   |
|------------|---|
| ııl        | Signal is strong (Mobile Network)   |
| ı          | Signal is weak (Mobile Network)   |
| 置外         | Out of service area (Mobile Network)  |
|            | Roaming   |
| 46         | Connected to SoftBank 4G  |
| 36         | Connected to SoftBank 3G  |
| 令          | Signal: Strong (Internet Wi-Fi)   |
|            | Signal: Weak (Internet Wi-Fi)   |
| ്ര         | WLAN devices status (Number indicates<br>sum of connected devices and Internet Wi-<br>Fi) |
| <b>#</b>   | Connected to Internet (While disconnected, icon does not appear)                          |
|            | Battery is full   |
|            | Battery is low  |
|            | Battery is almost empty (Flashing)  |
| WiFi/4G/3G | Connected to Internet Wi-Fi   |
| 46/36      | Connected to only Mobile Network  |

### Status Notifications (Animation/Text)

Animation or text on Display indicates communication status or abnormal status.

| Notification                                | Description  |
|---|--|
| No Service                                  | Out of service area  |
| SoftBank                                    | Network name   |
| Insert USIM                                 | USIM Card is not inserted  |
| Invalid USIM                                | Invalid USIM Card is inserted  |
| USIM Locked                                 | USIM Card is completely locked                                       |
| Enter PIN                                   | Waiting for PIN entry: Authenticate PIN in<br>SoftBank 102HW Utility |
| Enter PUK                                   | Waiting for PUK Entry: Enter PUK in<br>SoftBank 102HW Utility        |
| Roaming! Please access Web UI to reconnect! | In international roaming area  |
| BATTERY<br>ERROR                            | Internal Battery is abnormal   |
| Low Battery                                 | Battery is almost empty. Immediately charge Battery                  |

### **Button Operations**

Use Buttons to perform following operations.

| Operation                                      | Description   |
|--|---|
| Power on/off                                   | Press & Hold Power Button for about two seconds   |
| Forced Shut-<br>down                           | Press & Hold Power Button for about ten<br>seconds or more<br>If Wi-Fi router operation freezes etc.,<br>shut down power forcibly   |
| Internet Wi-Fi<br>on/off                       | Press & Hold WPS Button for about one second  |
| Show SSID/<br>Security Key<br>(WLAN is on)     | Press WPS Button twice to toggle a view<br>between SSID/Security Key in SSID A, and<br>Software version   |
| Show SSID/<br>Security Key<br>(WLAN is off)    | Press WPS Button twice to toggle a view<br>between SSID/Security Key in SSID A,<br>SSID/Security Key in SSID B, and Software<br>version   |
| Log on<br>SoftBank Wi-<br>Fi Spot              | Press & Hold Power Button and WPS Button for about two seconds at the same time to show SoftBank Wi-Fi Spot Account PIN entry window. Click WPS Button to move between boxes and Click Power Button to toggle numbers |
| Connect by<br>WPS (Internet<br>Wi-Fi)          | Press & Hold WPS Button for about three seconds  Press WPS Button   |
| Connect by<br>WPS (WLAN)                       | Press & Hold WPS Button for about three seconds  Press Power Button   |
| Software<br>Update<br>(Notification<br>screen) | Click Power Button to start Software<br>update<br>Click WPS Button to cancel Software<br>update   |

### Sleep Mode

If no operation is performed on Wi-Fi router for a while, Display turns off automatically. Press any one of Buttons to release Sleep Mode.

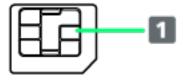
- If Wi-Fi router is idle with no data communication or Battery has not been charged, Wi-Fi router enters in Power Saving Sleep Mode.
- $\cdot$  Internet connection is disabled in Sleep Mode. Press any one of Buttons to release Sleep Mode, then reconnect to Internet.
- Depending on usage environment or settings, time of restoring from Sleep Mode differs.

### **USIM** Card

USIM Card IC chip contains customer information, including phone number.

### Handling USIM Card

- SoftBank Mobile Corp. is not liable for damages resulting from inserting USIM Card in other-brand IC card reader etc.
- · Always keep IC chip clean.
- · Clean USIM Card with soft dry cloth.
- $\boldsymbol{\cdot}$  Do not attach label on USIM Card. May cause malfunction.
- $\cdot$  For handling, see USIM Card user guide.
- $\cdot$  USIM Card is the property of SoftBank Mobile Corp.
- $\cdot$  You will be charged for reissue of lost or damaged USIM Card.
- · Return USIM Card to SoftBank Mobile Corp. when canceling
- Returned USIM Card will be recycled for protection of the environment.
- $\boldsymbol{\cdot}$  Specifications and performance of USIM Card are subject to change without notice.
- Keep copy of saved contents in USIM Card by yourself SoftBank Mobile Corp. is not liable for damages incurred due to loss of saved information.
- In case USIM Card or Wi-Fi router (USIM Card inserted) is lost or stolen, request to have usage suspended urgently.
   Contact SoftBank Customer Support, General Information.
- Power off Wi-Fi router before removing/installing USIM Card.



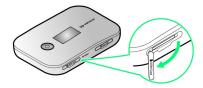


### **USIM** Card Installation

Power off Wi-Fi router in advance.



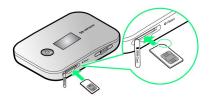
Open USIM Card Slot Cover



· Hook finger in groove beneath USIM Card Slot, pull out Cover to rotate down.



Insert USIM Card into Slot with IC chip up until it clicks



USIM Card is installed.

 $\cdot$  Confirm that USIM Card is completely installed and then close USIM Card Slot Cover.

### Removing USIM Card

Power off Wi-Fi router in advance.



Open USIM Card Slot Cover



 $\cdot$  Hook finger in groove beneath USIM Card Slot, pull out Cover to rotate down.



Push USIM Card and then release slowly



 $\cdot$  USIM Card pops out a little.



Pull out USIM Card



USIM Card is removed.

· Close USIM Card Slot Cover.

# Memory Card

Install Memory Card to share the contents between Wi-Fi router and PC connected by Micro USB Cable or WLAN device via WLAN.

### Memory Card Installation

Power off Wi-Fi router in advance.



Open Memory Card Slot Cover



 $\cdot$  Hook finger in groove beneath Memory Card Slot, pull out Cover to rotate down.



Insert Memory Card into Slot with metal terminals up until it clicks



- Memory Card is installed.
- $\cdot$  Confirm that Memory Card is completely installed and then close Memory Card Slot Cover.

### Removing Memory Card

Power off Wi-Fi router in advance.



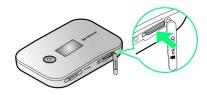
Open Memory Card Slot Cover



· Hook finger in groove beneath Memory Card Slot, pull out Cover to rotate down.



Push Memory Card and then release slowly



Memory Card pops out a little.



Pull out Memory Card



- Memory Card is removed.
- · Close Memory Card Slot Cover.

### Notes on Memory Card usage

### Memory Card Capacity

Wi-Fi router accepts 2 GB (microSD)/32 GB (microSDHC)/64 GB (microSDXC) Memory Card. SoftBank does not guarantee compatibility with all Memory Cards.

### Reading/Writing Data

Do not remove Memory Card or do not power off Wi-Fi router while Memory Card is in operation. May cause damage of saved contents, system shut down, or other abnormality.

### Installation

Firmly push Memory Card until it clicks. If you release finger before Memory Card is completely locked, Memory Card may jump out. Do not face Memory Card Slot toward your face when installing.

### Removing

Do not release finger soon when Memory Card pops out. If you release finger suddenly, Memory Card may jump out. Do not face Memory Card Slot toward your face when removing.

#### Loss

Be careful not to loose removed Memory Card.

### Saved Contents

Saved contents in Memory Card may be lost or altered by accident or malfunction. Keep copy of saved contents by yourself. SoftBank Mobile Corp. is not liable for damages incurred due to lost or altered information.

### Battery Level

If Battery is low, reading/writing data may fail.

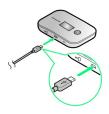
# Charging Battery

Internal Battery is not fully charged by default. Charge Battery before using.

## Using AC Charger

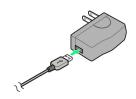


Insert Micro USB Cable (Micro USB plug) into External Device Port



2

Insert Micro USB Cable (USB plug) into AC Charger



3

Plug AC Charger into AC outlet



Charging starts.

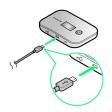
### Using USB (PC)

Use supplied Micro USB Cable.

- · Make sure to power on PC before charging.
- · Depending on PC connection environment, charging may fail.

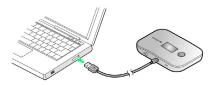


Insert Micro USB Cable (Micro USB plug) into External Device Port  $\,$ 



2

Insert Micro USB Cable (USB plug) into PC USB port



Charging starts.

When connecting Wi-Fi router to PC for the first time,
 Driver software is automatically installed. For details, see
 "Software Installation (Windows)" or "Software Installation (Mac)."

### Notes on Charging

### Peripheral Devices

Always use supplied AC Charger and Micro USB Cable.

### Connecting

Confirm that orientation of Micro USB Cable plugs is correct. Connecting in wrong orientation may cause damage or malfunction.

### Charging with PC

It takes longer than using AC Charger. Charging time varies by connected  ${\sf PC}.$ 

### Wi-Fi router or AC Charger Becoming Warm/Hot

Wi-Fi router or AC Charger may become hot while charging; this is not a malfunction. However, in case Wi-Fi router or AC Charger becomes extremely hot, it may be abnormal. Immediately stop using Wi-Fi router or AC Charger.

### Precautions for long time usage

Wi-Fi router may become hot while in use or while charging, especially in high temperatures. Prolonged contact with skin may cause low-temperature burn injuries.

### Power On/Off





Press Power Button for about two seconds





 Wi-Fi router scans in the order of Wireless LAN router (including SoftBank Wi-Fi Spot) SoftBank 4G SoftBank 3G to connect to Internet. Priority of scanning networks can be changed in SoftBank 102HW Utility. For details, see "Mobile Network Settings."

### Power Off



With power on, Press Power Button for about two seconds



Power is off.

### Forced Shut-Down

Shut down power when Wi-Fi router freezes etc.



With power on, Press Power Button for about ten seconds



Power is off.

# Internet Connectivity

| Internet Connectivity1        | 14 |
|-------------------------------|----|
| Connecting to 4G/3G1          | 14 |
| Connecting to Internet Wi-Fi1 | 15 |
| Using SoftBank Wi-Fi Spot     | 16 |

# Internet Connectivity

### Overview of Internet Connectivity

102HW mobile Wi-Fi router connects to Internet via various WLAN devices.

- · Internet Wi-Fi means Internet connection via Wi-Fi using WLAN router at home or office, or a Public Wireless LAN Service such as SoftBank Wi-Fi Spot. Connect to Internet via Wi-Fi high speed network by simple settings.
- · 102HW scans networks in the order of WLAN router (including SoftBank Wi-Fi Spot) → SoftBank 4G → SoftBank 3G and connects. Connection switches automatically from Internet Wi-Fi to 4G/3G (or vice versa) network by communication area.

# Connecting to 4G/3G

### Overview

Wi-Fi router automatically connects to 4 $\mathrm{G}/\mathrm{3G}$  if WLAN router is not scanned.

# Connecting to Internet Wi-Fi

Connect to Internet via WLAN router at home or office or a Public Wireless LAN Service such as SoftBank Wi-Fi Spot.

# Connecting to WPS Supported WLAN

Connect to Internet via a WPS supported WLAN router by simple operation.

- · First, power on Wi-Fi router.
- · Operation steps vary by WLAN router. For details, refer to WLAN router manual.



Activate WLAN function on WLAN router



Press and Hold WPS Button on Wi-Fi router for three seconds



WPS setup screen appears.

3

Press WPS Button



WPS connection to WLAN router starts.

4

Configure WPS connection on WLAN router

- WPS connection to WLAN router is established.
- · When WPS connection is established, WLAN connection count number on Display increases by one.

### Connecting WPS Non-Supported WLAN Router

Use SoftBank 102HW Utility to connect a WLAN router at home or office.

For instructions, see "Internet Wi-Fi."

· Power on Wi-Fi router and connect to PC, then start SoftBank 102HW Utility to make settings.

### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display.

Press WPS Button twice

SSID A Network Name and Security Key appear.

### Notes on WLAN Security and WPS Usage

### SSID Stealth

If SSID Stealth is enabled on SSID A, WPS connection is not available. Change SSID Stealth settings in SoftBank 102HW

### Changing Security Encryption

If SSID A encryption is WEP, the encryption will be changed to WPA when WPS function starts. Change encryption to WPA if SSID A has been set to WEP or non-encryption on WLAN device before WLAN device is connected with WPS.

### For Non-encrypted WLAN Devices

WPA function cannot be started on WLAN device with SSID A set to non-encryption. Set encryption to a setting other than non-encryption before using.

### Notes on Security

For greater security, use WPA/WPA2 instead of WEP. However, some game consoles do not support WPA/WPA2.

# Using SoftBank Wi-Fi Spot

Set SoftBank Wi-Fi Spot to ON. Wi-Fi router automatically connects to Internet in SoftBank Wi-Fi Spot Service Area.

### Setting Security Code

First, power on Wi-Fi router.



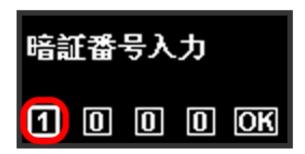
Press Power Button and WPS Button at the same time for about two seconds



SoftBank Wi-Fi Spot Security Code entry screen appears.

### 2

Press WPS Button to move between boxes Press Power Button and toggle numbers to enter



- $\cdot$  Pressing WPS Button toggles entry boxes. Move between boxes and edit.
- Pressing Power Button toggles numbers. Firmly Press Power Button until number is switched.



Confirm entered Security Code and Press Power Button on the last box ("OK")



SoftBank Wi-Fi Spot Security Code is set.

 Wi-Fi router automatically connects to Wi-Fi network in SoftBank Wi-Fi Spot Service Area.

# SoftBank Wi-Fi Spot Connection Settings

### Default Password

SoftBank Wi-Fi Spot default password is four-digit security code set at subscription.

### Default Settings

SoftBank Wi-Fi Spot is set to ON by default.

# Advanced Settings for SoftBank Wi-Fi Spot Connection

Use SoftBank 102HW Utility to set SoftBank Wi-Fi Spot to ON/OFF or change Security Code. For details, see "Internet Wi-Fi."

### ■ Notes on Using SoftBank Wi-Fi Spot

If Internet Wi-Fi function (including SoftBank Wi-Fi Spot) is turned on by SoftBank 102HW Utility, WLAN connection to PC, game device, smartphone, etc. is momentarily disconnected and connected again.

# Connecting WLAN

| WLAN (Wi-Fi)                         | .18 |
|--------------------------------------|-----|
| Connecting Windows PC                | 19  |
| Connecting Mac                       | 23  |
| Connecting iPhone/iPad               | .24 |
| Connecting Smartphone                | .26 |
| Connecting Nintendo 3DS/DSi/DS       | 27  |
| Connecting PlayStation®Vita/PSP®     |     |
| (PlayStation®Portable)               | .32 |
| Connecting PlayStation®3             | 35  |
| Connecting WPS Supported WLAN Device | .38 |

### WLAN (Wi-Fi)

Wi-Fi router automatically connects to Internet when powered on. Wi-Fi router connects several WLAN devices such as PC, game console, etc. at the same time via WLAN for data transfers. In a Public Wireless LAN area such as SoftBank Wi-Fi Spot, Wi-Fi router connects for high-speed communication via WLAN.

### Overview

Wi-Fi router supports IEEE802.11b/g/n standards. Connect WLAN devices (PC, game console, etc) via WLAN for wireless data transfers at maximum 300 Mbps (IEEE802.11n)/maximum 54 Mbps (IEEE802.11g)/maximum 11 Mbps (IEEE802.11b). Wi-Fi router supports Wi-Fi Protected Setup (WPS), which easily configures Wi-Fi connection settings on any WPS compliant WLAN device. Enter Wi-Fi router's SSID and Security Key to connect non-WPS compliant WLAN devices.

- These settings should be performed the first time Wi-Fi router is connected to another WLAN device. Thereafter, simply activate WLAN to automatically connect Wi-Fi router to a WLAN device (WAN Connection Mode set to Always On).
- Wi-Fi router connects to a computer using Micro USB Cable for data transfer. In such case, setup including driver installation is needed. For details, see "USB Connection with a Windows PC" or "USB Connection with a Mac."

### ₩LAN

### **Advanced Settings**

Change WLAN advanced settings as required. For details, see "LAN Wi-Fi Advanced Settings."

### Simultaneous Connection Availability

Wi-Fi router connects up to ten WLAN devices. If Internet Wi-Fi is enabled, Wi-Fi router connects up to nine WLAN devices. WLAN and USB can be used simultaneously. Up to 11 devices comprising ten WLAN devices (including Internet Wi-Fi) and one USB connection in total are available.

# Automatic update for optimizing Wi-Fi connection

Settings for optimizing connection may be received and updated automatically while connected to Wi-Fi.

### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display. Press WPS Button twice

SSID A Network Name and Security Key appear.

· To show SSID B, Press twice again.

### Notes on WLAN Security

### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

### For Safer Transmission

Change default SSID and Security Key.
Usage of WPA/WPA2 instead of WEP is recommended.
However, some game consoles do not support WPA/WPA2.

# Connecting Windows PC

This section describes setup operations for WPA/WPA2 security setting.

### Windows 8

Power on Wi-Fi router in advance.

Activate PC WLAN function

· Method for activating PC WLAN varies by model. Contact PC manufacturer.

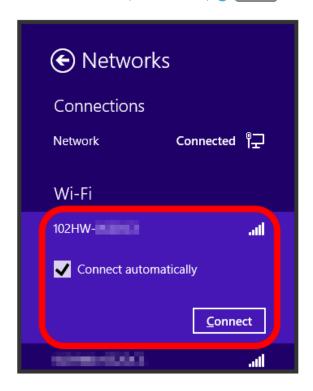


Swipe in from the right edge (with mouse, move the pointer 

3

Click Wi-Fi router's SSID (102HW-XXXXXXX) → Connect







Enter Security Key correctly 🔵 Next



- Wi-Fi router connects via WLAN.
- · WLAN connection counter number on Display increases by
- · Confirmation message on PC sharing may appear but setting is not necessary here. For PC sharing, refer to Windows

### Windows 7

Power on Wi-Fi router in advance.



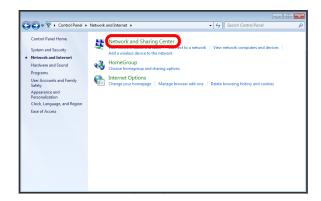
### Activate PC WLAN function

· Method for activating PC WLAN varies by model. Contact PC manufacturer.



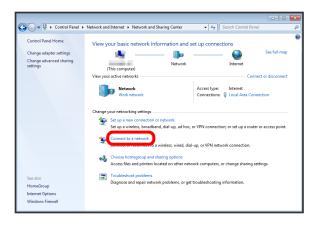


Network and Sharing Center



3

### Connect to a network



4

Click Wi-Fi router's SSID (102HW-XXXXXX) → Connect





Open Network and Sharing Center

Currently connected to:

5

Enter Security Key correctly 🔵 OK



- Wi-Fi router connects via WLAN.
- · WLAN connection counter number on Display increases by one.

### Windows Vista

Power on Wi-Fi router in advance.

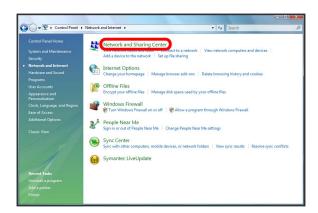
1

### Activate PC WLAN function

 $\cdot$  Method for activating PC WLAN varies by model. Contact PC manufacturer.

2





3

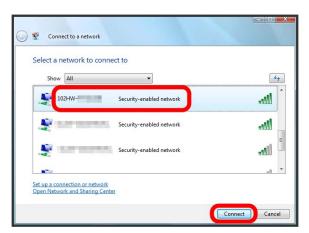
### Connect to a network



4

Click Wi-Fi router's SSID (102HW-XXXXXXX) 

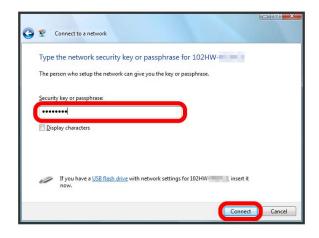
◆ Connect



5

Enter Security Key correctly 

Connect



- Wi-Fi router connects via WLAN.
- WLAN connection counter number on Display increases by one.

### Windows XP

Power on Wi-Fi router in advance.

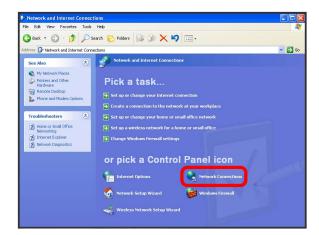
1

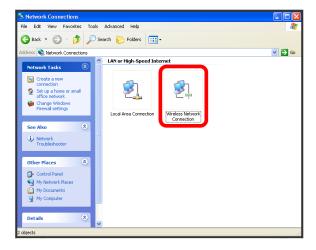
### Activate PC WLAN function

· Method for activating PC WLAN varies by model. Contact PC manufacturer.





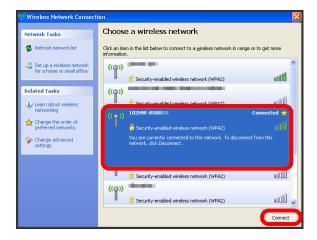




4

Click Wi-Fi router's SSID (102HW-XXXXXX) → Connect





Enter Security Key in "Network key" and "Confirm network key" fields 🔵 Connect



- Wi-Fi router connects via WLAN.
- $\cdot$  WLAN connection counter number on Display increases by

### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display. Press WPS Button twice

- SSID A Network Name and Security Key appear.
- · To show SSID B, Press twice again.

## Notes on WLAN Security

### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

### For Safer Transmission

Change default SSID and Security Key. Usage of WPA/WPA2 instead of WEP is recommended. However, some game consoles do not support WPA/WPA2.

# Connecting Mac

This section describes setup operations for WPA security setting.

### Mac OS X 10.8

Power on Wi-Fi router in advance.

In Apple menu → System Preferences... → Network

2





WLAN is ON.

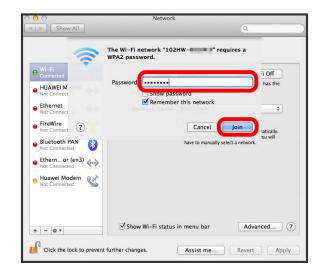
3

In "Network Name" pulldown list, select Wi-Fi router's SSID (102HW-XXXXXX)



4

Enter Security Key correctly Click "Remember this network" Join



- Wi-Fi router connects via WLAN.
- WLAN connection counter number on Display increases by one.
- SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display.

Press WPS Button twice

- SSID A Network Name and Security Key appear.
- $\cdot$  To show SSID B, Press twice again.
- Notes on WLAN Security

### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

### For Safer Transmission

Change default SSID and Security Key.

Usage of WPA/WPA2 instead of WEP is recommended. However, some game consoles do not support WPA/WPA2.

# Connecting iPhone/iPad

This section describes setup operations for WPA security setting.



Power on Wi-Fi router in advance.



Activate iPhone, then in Home screen, Settings 

Wi-Fi

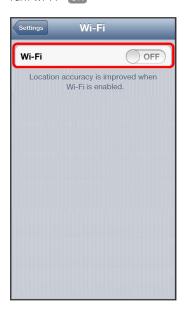


>

2

Turn Wi-Fi ON

Privacy



iPhone scans access points.

· When Wi-Fi is already "ON," go to Step 3.

3

In scan results, Touch Wi-Fi router's SSID (102HW-XXXXXX)



4

Enter Security Key correctly, Join



Wi-Fi router connects via WLAN.

 $\cdot$  WLAN connection counter number on Display increases by one.

### iPad

Power on Wi-Fi router in advance.

1

Activate iPad, then in Home screen, Settings 

Wi-Fi



Turn Wi-Fi ON



iPad scans access points.

2

In scan results, Touch Wi-Fi router's SSID (102HW-XXXXXX)



3

Enter Password correctly, Join



- Wi-Fi router connects via WLAN.
- · WLAN connection counter number increases on Display by one.

### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display.

Press WPS Button twice

- SSID A Network Name and Security Key appear.
- $\cdot$  To show SSID B, Press twice again.

# Notes on WLAN Security

### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

### For Safer Transmission

Change default SSID and Security Key.

Usage of WPA/WPA2 instead of WEP is recommended.

However, some game consoles do not support WPA/WPA2.

# Connecting Smartphone

This section describes setup operations for WPA/WPA2 security setting.

# Smartphone

Connect an Android smartphone to connect to Internet. Power on Wi-Fi router in advance.







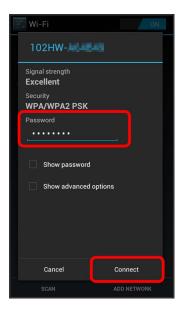
2

Select Wi-Fi router's SSID (102HW-XXXXXX)



3

Enter Security Key correctly, Connect



- Wi-Fi router connects via WLAN.
- WLAN connection counter number on Display increases by one.

### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display.

Press WPS Button twice

- SSID A Network Name and Security Key appear.
- · To show SSID B, Press twice again.

### Notes on WLAN Security

### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

### For Safer Transmission

Change default SSID and Security Key.
Usage of WPA/WPA2 instead of WEP is recommended.
However, some game consoles do not support WPA/WPA2.

# Connecting Nintendo 3DS/DSi/DS

This section describes setup operations for WPA security setting.

### Nintendo 3DS

Power on Wi-Fi router in advance.

· Connection procedures for Nintendo 3DS described below are verified and produced by Huawei Technologies Co., Ltd. Please refrain from contacting Nintendo regarding these descriptions.

In Nintendo 3DS menu, 本体設定 🔿 はじめる 🗦 インター ネット設定







2

インターネット接続設定

インターネット接続設定 いつの間に通信 DSソフト用設定 その他の情報 もどる

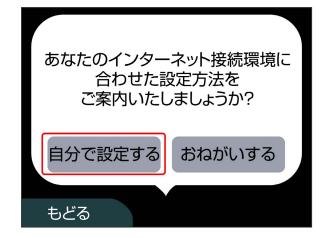
3

[接続先の登録]



4

[自分で設定する]



5

アクセスポイントを検索



6

Touch Wi-Fi router's SSID (102HW-XXXXXX)

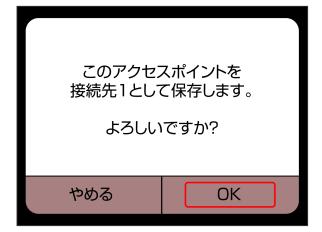


Enter Security Key correctly, 決定



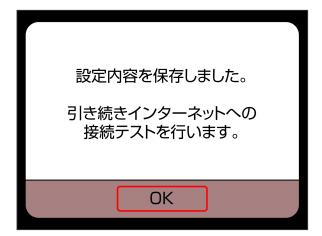
8

OK)



9

OK)



Mark Connection Test starts. When complete, "接続に成功しました。" or "接続テストに成功しました。" appears.

 $\cdot$  WLAN connection counter number on Display increases by one.

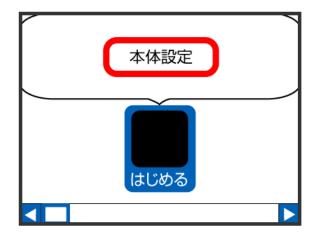
### Nintendo DSi

Power on Wi-Fi router in advance.

 Connection procedures for Nintendo DSi described below are verified and produced by Huawei Technologies Co., Ltd.
 Please refrain from contacting Nintendo regarding these descriptions.



In Nintendo DSi menu, 本体設定



2

[インターネット]



接続設定



4

[上級者設定]



·"上級者設定" is not available for DS software.

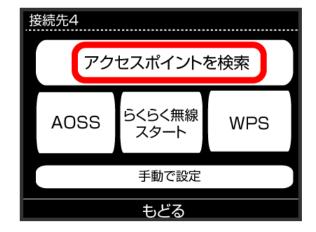
5

Touch any one of "未設定"



6

アクセスポイントを検索



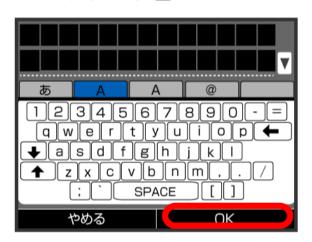
7

Touch Wi-Fi router's SSID (102HW-XXXXXX)



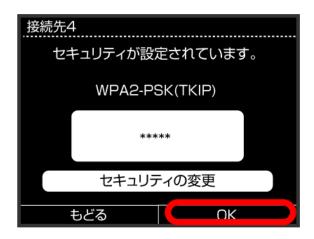
8

Enter Security Key correctly, OK













Machine Connection Test starts. When complete, "接続に成功しました。" or "接続テストに成功しました。" appears.

 $\cdot$  WLAN connection counter number on Display increases by one.

### Nintendo DS

Power on Wi-Fi router in advance.

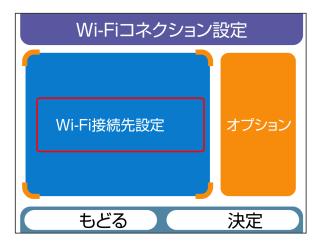
- Nintendo DS does not support WPA/WPA2. Change security setting to WEP using SoftBank 102HW Utility.
- Connection procedures for Nintendo DS described below are verified and produced by Huawei Technologies Co., Ltd.
   Please refrain from contacting Nintendo regarding these descriptions.



In Nintendo DS, activate Nintendo Wi-Fi Connection compatible software 🔵 Wi-Fiコネクション設定

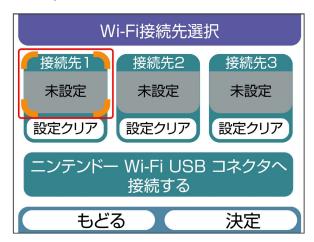
2

### Wi-Fi接続先設定



3

Touch any one of "未設定"

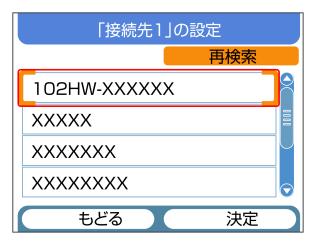


### 「アクセスポイントを検索」



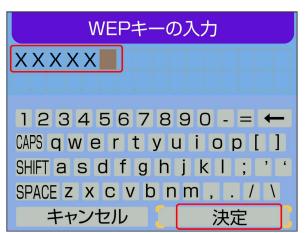
5

Touch Wi-Fi router's SSID (102HW-XXXXXX)



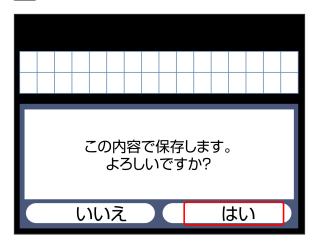
6

Enter Security Key correctly, 決定



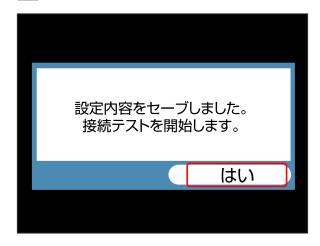
7

[はい]



8

(はい)



- Connection Test starts. When complete, "接続に成功しました。" or "接続テストに成功しました。" appears.
- WLAN connection counter number on Display increases by one.
- SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display. Press WPS Button twice

SSID A Network Name and Security Key appear.

 $\cdot$  To show SSID B, Press twice again.

### Notes on WLAN Security

### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

### For Safer Transmission

Change default SSID and Security Key. Usage of WPA/WPA2 instead of WEP is recommended. However, some game consoles do not support WPA/WPA2.

# Connecting PlayStation®Vita/PSP® (PlayStation®Portable)

This section describes setup operations for WPA security setting.

### Connecting PlayStation®Vita

Power on Wi-Fi router in advance. ©2011 Sony Computer Entertainment Inc.



In PS Vita Home screen, Settings 

Start









2

[Network]



Wi-Fi Settings



Checkmark Wi-Fi  $\Rightarrow$  Touch Wi-Fi router's SSID (102HW-XXXXXX)



5

Enter Security Key correctly, OK



Wi-Fi Settings screen reappears. Confirm that Wi-Fi router's SSID and WLAN device are properly connected.

 $\cdot$  WLAN connection counter number on Display increases by one.

### Connecting PSP® (PlayStation®Portable)

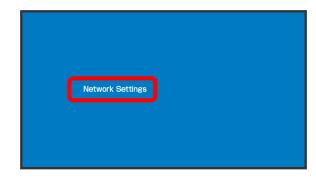
Power on Wi-Fi router in advance. ©2008 Sony Computer Entertainment Inc.

1

Slide PSP WLAN Switch to On

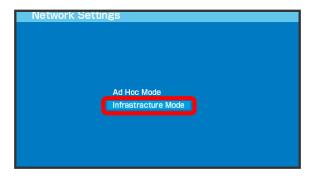
2

In PSP Home menu, select Settings → Network Settings , then Press ○



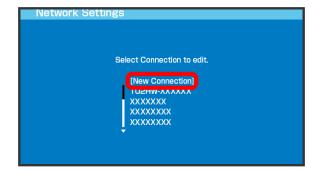
3

[Infrastructure Mode] → Press ○



4

New Connection → Press ○



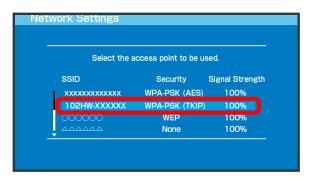


Scan Press Right Key



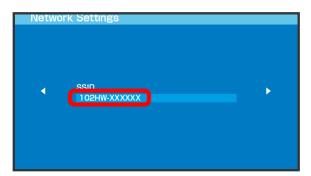
6

Select Wi-Fi router's SSID (102HW-XXXXXX) → Press ○



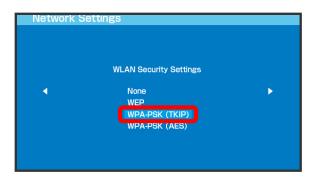
7

Confirm SSID, then Press Right Key



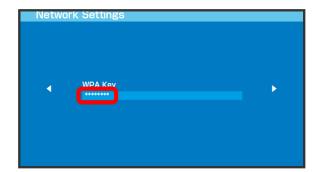
8

WPA-PSK (TKIP) → Press Right Key



9

Press ○ and enter Security Key correctly **→** Press Right Key



10

Easy Press Right Key



11

Confirm name 🥏 Press Right Key



 $\cdot$  This screen does not appear in PSP-1000. Skip ahead to Step  $\frac{12}{}$  .

12

Confirm the setting list 🤝 Press Right Key



13

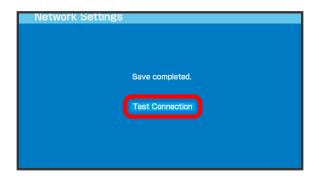
Press O



Saving of settings starts.

14

When complete, Press ○



- Connection Test starts. When complete, test results appear.
- WLAN connection counter number on Display increases by one.
- SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display. Press WPS Button twice

SSID A Network Name and Security Key appear.

 $\cdot$  To show SSID B, Press twice again.

### Notes on WLAN Security

#### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

#### For Safer Transmission

Change default SSID and Security Key.
Usage of WPA/WPA2 instead of WEP is recommended.
However, some game consoles do not support WPA/WPA2.

# Connecting PlayStation®3

This section describes setup operations for WPA security setting.

©2012 Sony Computer Entertainment Inc.

# Connecting PlayStation®3

Power on Wi-Fi router in advance.

1

In PS3 Home menu, Settings Network Settings



2

OK 
Press 
O



3

Easy Press Right Key



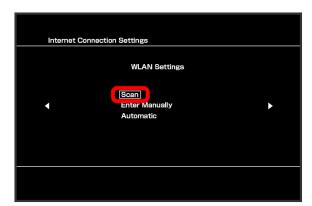


Wireless 🗦 Press Right Key



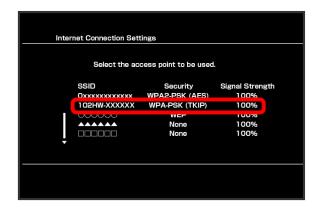
5





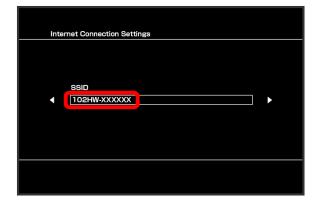
6

Select Wi-Fi router's SSID (102HW-XXXXXXX) → Press ○



7

Confirm SSID 🔵 Press Right Key



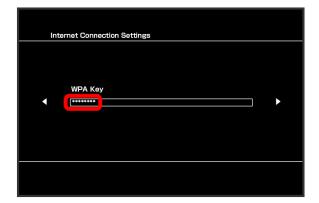
8

WPA-PSK/WPA2-PSK → Press Right Key



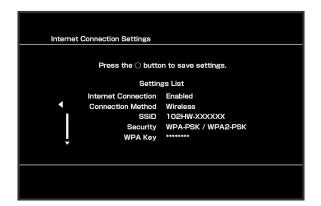
9

Press ○ and enter Security Key correctly **>** Press Right Key



10

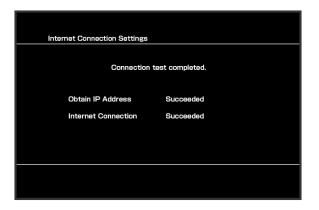
Confirm the setting list → Press ○



Saving of settings starts.

11

When complete, Press  $\bigcirc$ 



- Connection Test starts. When complete, test results appear.
- $\cdot$  WLAN connection counter number on Display increases by one.

#### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display. Press WPS Button twice

SSID A Network Name and Security Key appear.

 $\cdot$  To show SSID B, Press twice again.

Notes on WLAN Security

#### WLAN Initial Settings

See WLAN Initialization Sticker for SSID and Security Key.

#### For Safer Transmission

Change default SSID and Security Key.

Usage of WPA/WPA2 instead of WEP is recommended.

However, some game consoles do not support WPA/WPA2.

### Connecting WPS Supported WLAN Device

### WPS Supported WLAN Device

Power on Wi-Fi router in advance.

- · WLAN device via WPS connects to SSID A.
- · If no access to device for about two minutes from start of WPS functioning, security setting returns to default.
- · Method of setting WPS function varies by WLAN device. See WLAN device user guide etc.



Activate WLAN function on WLAN device, then prepare for WPS settings as required



Press Wi-Fi router WPS Button for about three seconds



WPS setup screen appears.



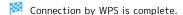
Press Wi-Fi router Power Button



WPS connection to WLAN device starts.



On WLAN device, perform WPS connection operation



· WLAN connection counter number on Display increases by one.

### SSID and Security Key

Enter SSID (Network Name) and Security Key to perform WLAN connection. Check settings on Wi-Fi router Display. Press WPS Button twice



SSID A Network Name and Security Key appear.

#### Notes on WLAN Security and WPS Usage

#### SSID Stealth

If SSID Stealth is enabled on SSID A, WPS connection is not available. Change SSID Stealth settings in SoftBank 102HW Utility.

#### Changing Security Encryption

If SSID A encryption is WEP, the encryption will be changed to WPA when WPS function starts. Change encryption to WPA if SSID A has been set to WEP or non-encryption on WLAN device before WLAN device is connected with WPS.

#### For Non-encrypted WLAN Devices

WPA function cannot be started on WLAN device with SSID A set to non-encryption. Set encryption to a setting other than non-encryption before using.

#### Notes on Security

For greater security, use WPA/WPA2 instead of WEP. However, some game consoles do not support WPA/WPA2.

# Connecting with Micro USB Cable (Windows)

| USB Connection with a Windows PC40         | 0 |
|--|---|
| Device Recognition/Removal on Windows PC40 | 0 |
| Software Installation (Windows PC)4        | 3 |

# USB Connection with a Windows PC

#### Overview

Wi-Fi router automatically connects to Internet when powered on. Use a PC connected to Wi-Fi router with Micro USB Cable to transfer data. Also make advanced settings for WLAN and Internet connection using SoftBank 102HW Utility.

· If Wi-Fi router is connected to a PC and "Internet Wi-Fi" is "Off," up to ten WLAN devices can be connected via WLAN. Transfer data using Wi-Fi router and a PC connected via USB as an access point.

# Device Recognition/Removal on Windows PC

#### Device Recognition (Windows)

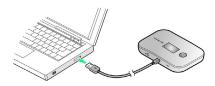


Insert Micro USB Cable (Micro USB plug) into Wi-Fi router External Device Port



2

Insert Micro USB Cable (USB plug) into PC USB Port



200

Device recognition is complete.

#### Device Removal (Windows 8/Windows 7)

Make sure that data transmission has been finished and SoftBank 102HW Utility is exited before removing Wi-Fi router.

• If Memory Card is installed and "SD card sharing mode" is set to "USB access only" in SoftBank 102HW Utility, perform "Safely Remove Hardware" for Windows.

#### Device Removal (Windows Vista)

Perform "USB Mass Storage Device" for Wi-Fi router.

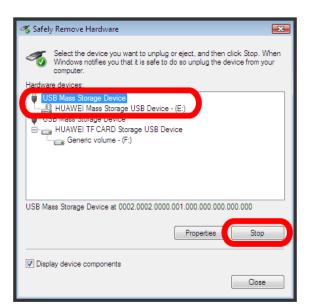
1

Double-click on Task Tray

"Safely Remove Hardware" appears.

2

Select USB Mass Storage Device → Stop



- "Stop a Hardware device" appears.
- $\cdot$  To check details of "USB Mass Storage Device," checkmark "Display device components" at bottom.
- 3

Confirm that device can be removed from PC safely, OK



- "Safe To Remove Hardware" appears.
- 4

For second "USB Mass Storage Device," repeat Steps 2 to



Wi-Fi router can be removed safely.



Disconnect Micro USB Cable from PC and Wi-Fi router



Device removal is complete.

#### Device Removal (Windows XP)

Perform "USB Mass Storage Device" for Wi-Fi router.

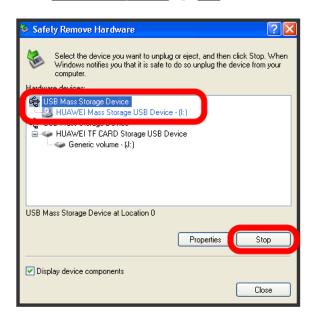
1

Double-click 🐉 on Task Tray

Safely Remove Hardware" appears.

2

Select (USB Mass Storage Device) → (Stop)



- Stop a Hardware device" appears.
- To check details of "USB Mass Storage Device," checkmark "Display device components" at bottom.

3

Confirm that device can be removed from PC safely, OK



Safely Remove Hardware" reappears.

4

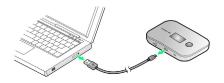
For second "USB Mass Storage Device," repeat Steps 2 to



🧭 Wi-Fi router can be removed safely.



Disconnect Micro USB Cable from PC and Wi-Fi router



- Device removal is complete.
- Notes on Device Recognition/Removal

#### Device Recognition

Wi-Fi router may malfunction if PC enters sleep mode or is restarted with it connected. Remove Wi-Fi router before waking or restarting PC.

#### Device Removal

Make sure that data communication has been finished then remove Wi-Fi router in Steps described above. Removing Wi-Fi router during data communication or by improper procedure may cause system malfunction or damage data saved in Memory Card.

# Software Installation (Windows PC)

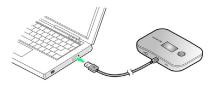
#### Driver Installation (Windows 8)

Start PC and power on Wi-Fi router.

 Since driver for Wi-Fi router is not Windows-Store compliant, installation/uninstallation are performed on Desktop. Shortcut appears only on Desktop after installation.



Connect Wi-Fi router to PC



2

Tap "SoftBank 102HW" (Click "SoftBank 102HW", for mouse users)

CD Drive (K:) SoftBank 102HW
Tap to choose what happens with this disc.

3

Run AutoRun.exe



· If "User Account Control" appears, Tap (or click) "Yes."

4

Select "English," then OK



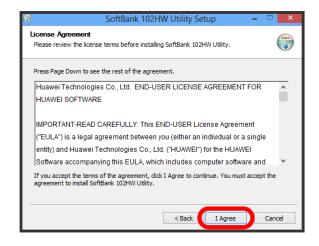
5

[Next]



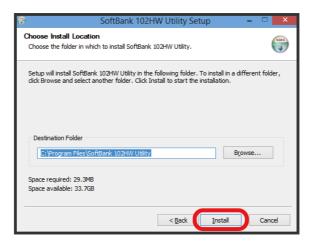
6

[ Agree



7

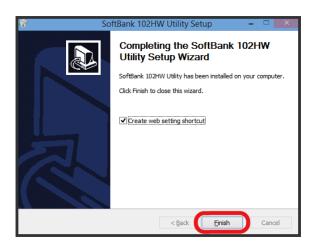
Select folder for installation, then Install



Installation starts.

8

Finish



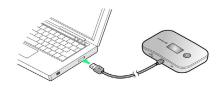
When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Driver Installation (Windows 7)

Start PC and power on Wi-Fi router.



Connect Wi-Fi router to PC



2

Run AutoRun.exe



· If "User Account Control" appears, click "Yes."

3

Select "English," then OK

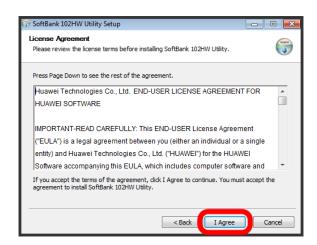


Next



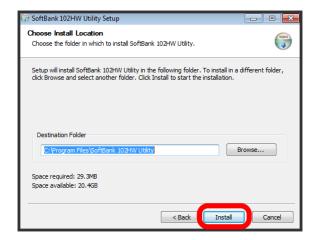
5

[I Agree]



6

Select folder for installation, then Install



Installation starts.

7

Finish)



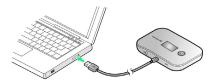
When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Driver Installation (Windows Vista)

Start PC and power on Wi-Fi router.



Connect Wi-Fi router to PC



2

Run AutoRun.exe



 $\cdot$  If "User Account Control" appears, click "Continue."



Select "English," then OK



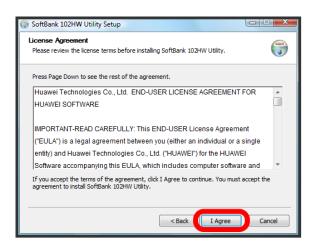
4

Next



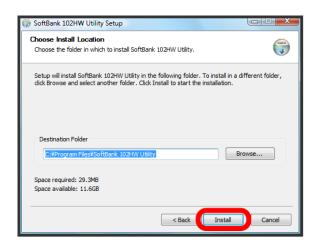
5

[ Agree ]



6

Select folder for installation, then Install



Installation starts.

(Finish)



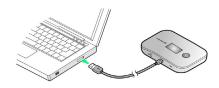
When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Driver Installation (Windows XP)

Start PC and power on Wi-Fi router.

1

Connect Wi-Fi router to PC



2

Select "English," then OK



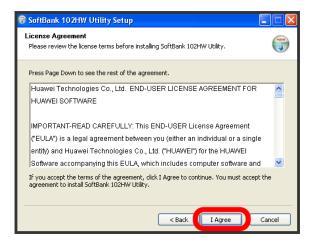
3

Next



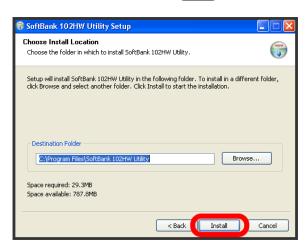
4

[ Agree ]



5

Select folder for installation, then Install



Installation starts.

6

Finish



When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Manual Installation (Windows 8)

If installer fails to start automatically after connecting Wi-Fi router, follow these steps.

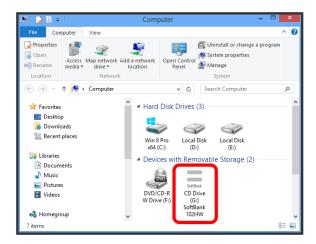
· Since driver for Wi-Fi router is not Windows-Store compliant, installation/uninstallation are performed on Desktop. Shortcut appears only on Desktop after installation.



Swipe in from the right edge (with mouse, move the pointer into the upper-right corner) ( ) ( ) ( ) Apps ( ) ( ) ( ) ( ) ( )

2

Double-tap "SoftBank 102HW" (Double-click "SoftBank 102HW", for mouse users)



If "User Account Control" appears, Tap (or click) "Yes."

3

See " Driver Installation (Windows 8) " Step 4 and later.

When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Manual Installation (Windows 7)

If installer fails to start automatically after connecting Wi-Fi router, follow these steps.

1



2

Double-click "SoftBank 102HW"



· If "User Account Control" appears, click "Yes."

3

See " Driver Installation (Windows 7) " Step 3 and later.

When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Manual Installation (Windows Vista)

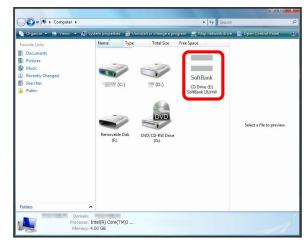
If installer fails to start automatically after connecting Wi-Fi router, follow these steps.

1



2

Double-click "SoftBank 102HW"



· If "User Account Control" appears, click "Continue."

3

See " Driver Installation (Windows Vista) " Step 3 and later.

When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Manual Installation (Windows XP)

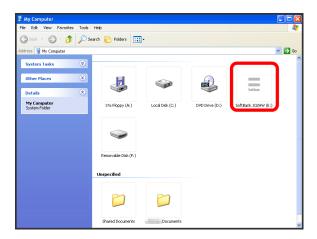
If installer fails to start automatically after connecting Wi-Fi router, follow these steps.

1

start 🔵 [My Computer]

2

Double-click "SoftBank 102HW"



3

See " Driver Installation (Windows XP) " Step 2 and later.

When complete, SoftBank 102HW Utility icon appears on Desktop.

#### Uninstalling Driver (Windows 8)

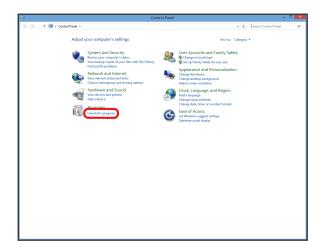
Remove Wi-Fi router before uninstalling.

· Since driver for Wi-Fi router is not Windows-Store compliant, installation/uninstallation are performed on Desktop.



Swipe in from the right edge (with mouse, move the pointer into the upper-right corner) → ☆ charm → Control

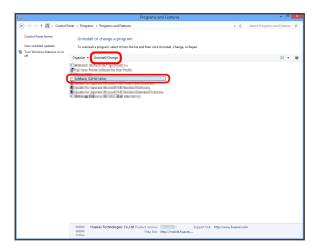




2

Select "SoftBank 102HW Utility" 

Uninstall/Change

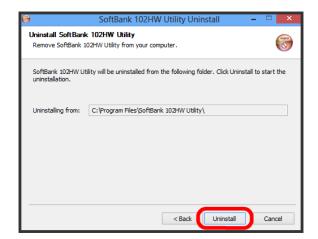


Next



4

Confirm application to uninstall, then Uninstall



5

Finish



When complete, SoftBank 102HW Utility icon disappears from Desktop.



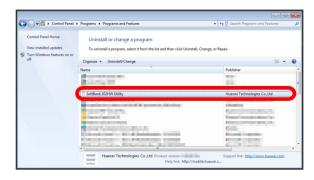
1



2

Select "SoftBank 102HW Utility" 

Uninstall/Change



· If "User Account Control" appears, click "Yes."

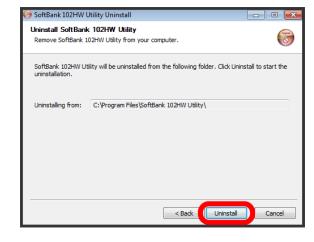
3

Next



4

Confirm application to uninstall, then Uninstall



Uninstallation starts.

5

Finish



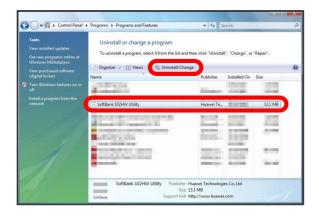
When complete, SoftBank 102HW Utility icon disappears from Desktop.

#### Uninstalling Driver (Windows Vista)



2

Select "SoftBank 102HW Utility" 🗦 Uninstall/Change



· If "User Account Control" appears, click "Continue."

3

[Next]



Confirm application to uninstall, then Uninstall



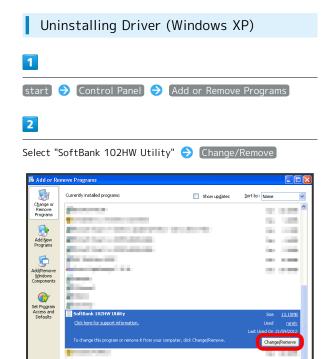
Uninstallation starts.

5

Finish



When complete, SoftBank 102HW Utility icon disappears from Desktop.

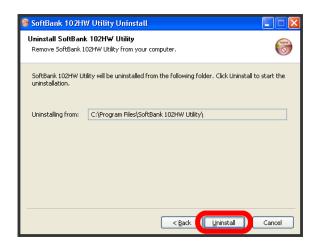


3





Confirm application to uninstall, then Uninstall



- Uninstallation starts.
- 5

[Finish]



- When complete, SoftBank 102HW Utility icon disappears from Desktop.
- Notes on Setting Up

# Installing/Uninstalling Driver

Log in to Windows as Administrator.

#### Removal during Driver Installation

Do not remove Wi-Fi router during installation. May cause failure of installation, system shutdown or other abnormality.

# Connecting with Micro USB Cable (Mac)

| USB Connection with a Mac         | 56 |
|-----------------------------------|----|
| Device Recognition/Removal on Mac | 56 |
| Software Installation (Mac)       | 57 |

# USB Connection with a Mac

#### Overview

Wi-Fi router automatically connects to Internet when powered on. Use a Mac connected to Wi-Fi router with Micro USB Cable to transfer data. Also make advanced settings for WLAN and Internet connection using SoftBank 102HW Utility.

· If Wi-Fi router is connected to a MAC and "Internet Wi-Fi" is "Off," up to ten WLAN devices can be connected via WLAN.

Transfer data using Wi-Fi router and a Mac connected via USB as an access point.

# Device Recognition/Removal on Mac

### Device Recognition (Mac)

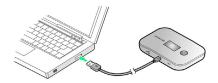


Insert Micro USB Cable (Micro USB plug) into External Device Port



2

Insert Micro USB Cable (USB plug) into Mac USB Port



Device recognition is complete.

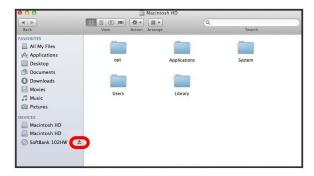
#### Device Removal (Mac)

1

Finder

2

Click removal icon for Wi-Fi router



- Wi-Fi router is ready to be removed.
- · Alternatively, drag device icon in Trash to remove.
- If Memory Card is inserted to Wi-Fi router and "SD card Sharing" in SoftBank 102HW Utility is set to "USB access only," click memory card removal icon in the Device list.



Disconnect Micro USB Cable from Mac and Wi-Fi router



Device removal is complete.

# ■ Notes on Device Recognition/Removal

#### Device Recognition

Wi-Fi router may malfunction if Mac enters sleep mode or is restarted with it connected. Remove Wi-Fi router before waking or restarting Mac.

#### Device Removal

Make sure that data communication has been finished then remove Wi-Fi router in Steps described above. Removing Wi-Fi router during data communication or by improper procedure may cause system malfunction or damage data saved in Memory Card.

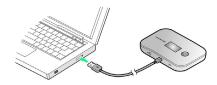
# Software Installation (Mac)

#### Driver Installation (Mac)

Start Mac and power on Wi-Fi router.



Connect Wi-Fi router to Mac



Shortcut icon appears on desktop and SoftBank 102HW folder automatically opens.

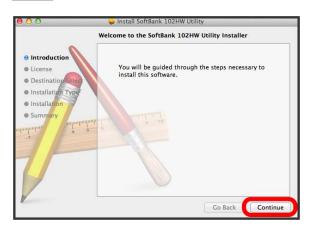
2

Double-click "SoftBank 102HW Utility\_Driver"



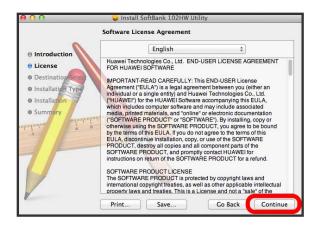
3

(Continue



4

Continue



5

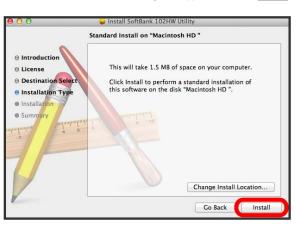
Agree



• If Select a Destination dialog box appears, select installation destination and click Continue .

6

Standard Install on Mac HD dialog box appears. Click Install



· "Macintosh HD" is a hard disk name. It may vary by operating environment.

7

Enter Mac Name (user name) and Password and Install
Software



Installation starts.

8

Close



When complete, SoftBank 102HW Utility icon appears in

#### Manual Installation (Mac)

If installer fails to start automatically after connecting Wi-Fi router, follow these steps.

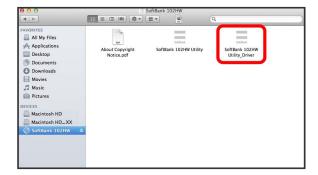
1





2

Double-click "SoftBank 102HW Utility\_Driver"



3

See Driver Installation (Mac) Step 3 and later

When complete, SoftBank 102HW Utility icon appears in Dock.

#### Uninstalling Driver (Mac)

Open Applications

2

Double-click SoftBank 102HW Uninstall icon



3

OK



4

Enter Mac Name (user name) and Password and click OK





5

OK



When complete, SoftBank 102HW Utility icon disappears from Dock.

# Notes for Setup

#### Installing/Uninstalling Driver

 $\label{loginary} \mbox{Log in as an Administrator to operate.}$ 

#### Removal during Driver Installation

Do not remove Wi-Fi router during installation. It may cause installation failure, system malfunction or other system errors.

# Advanced\_Settings

| SoftBank 102HW Utility Overview | 62  |
|---------------------------------|-----|
| SoftBank 102HW Utility          | 64  |
| Quick Setting                   | 66  |
| Mobile Network Settings         | 69  |
| Internet Wi-Fi                  | 81  |
| LAN Wi-Fi                       | 84  |
| Router Setting                  | 96  |
| System                          |     |
| Checking Statistics             | 124 |
| Software Update                 | 125 |
| Memory Card Data                | 127 |
| Customer Support                | 133 |

# SoftBank 102HW Utility Overview

Connect Wi-Fi router to a computer or mobile device via Micro USB Cable or WLAN; use this utility software through web browser to change Wi-Fi router settings, etc.

### Activating SoftBank 102HW Utility

Screen shots and steps described here are for computer (Windows 8) compatible with SoftBank 102HW Utility.



Start computer or WLAN device and connect Wi-Fi router via Micro USB Cable or WLAN



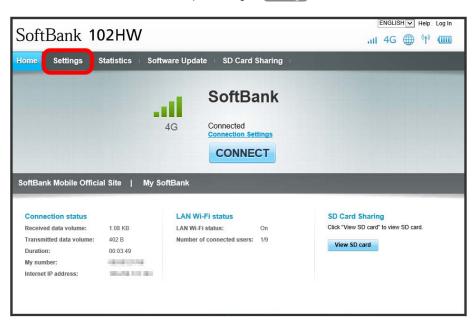
Activate web browser and enter "web.setting" in address bar



· Select English from Language list.

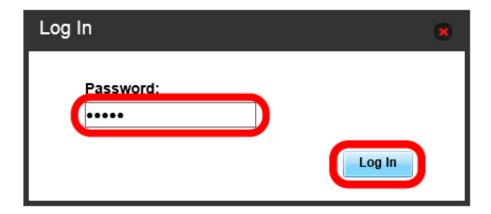


In Main Menu of SoftBank 102HW Utility Home Page, Settings





Enter password 🗦 Log In



- After logging in to SoftBank 102HW Utility, SoftBank 102HW Utility Home Page appears.
- · Password is "admin" by default.
- $\cdot$  Only one device can access SoftBank 102HW Utility to make settings at a time.

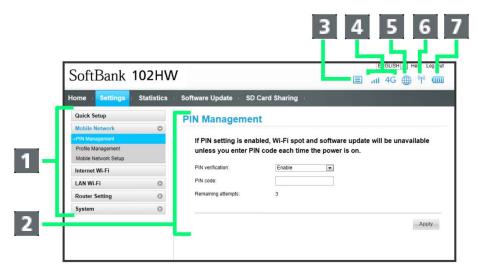
# SoftBank 102HW Utility

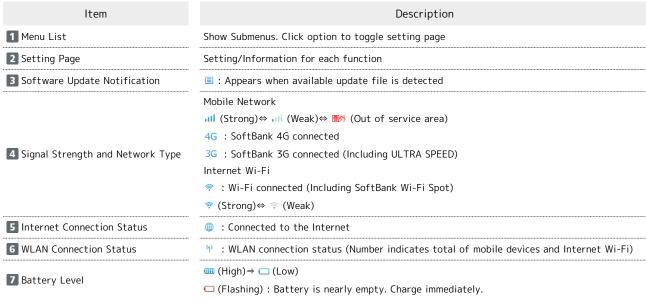
# SoftBank 102HW Utility Home Page



| Item   | Description  |
|--|--|
| 1 Main Menu                                    | Toggle setting menu  |
| 2 Connection Status                            | Show current connection, including connection destination and network type |
| 3 SoftBank Mobile Official Site/My<br>SoftBank | Open SoftBank Mobile web page  |
| 4 Connection Status                            | Show Internet/WLAN connection status                                       |
| 5 Language                                     | Switch language  |
| 6 Help   | Open SoftBank Customer Support web page                                    |
| 7 Log In/Log Out                               | Log in/out to/from SoftBank 102HW Utility                                  |
| 8 View SD card                                 | Show shared Memory Card data   |

#### SoftBank 102HW Utility Setting Page





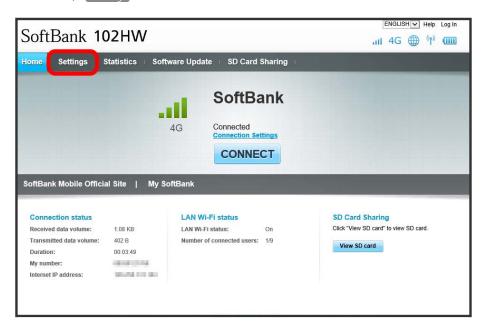
# **Quick Setting**

Clicking Settings in SoftBank 102HW Utility Home Page opens Quick Setting Wizard. Make basic settings. Settings can be changed later.

Quick Setting Wizard



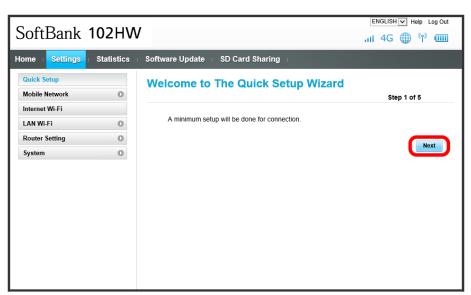
In Main Menu, Settings



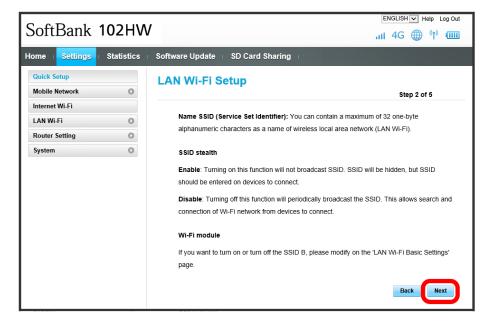
Quick Setup Wizard appears.

2

[Next]

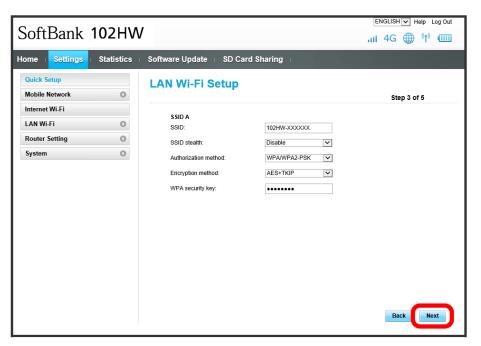


Check LAN Wi-Fi Setup, Next



4

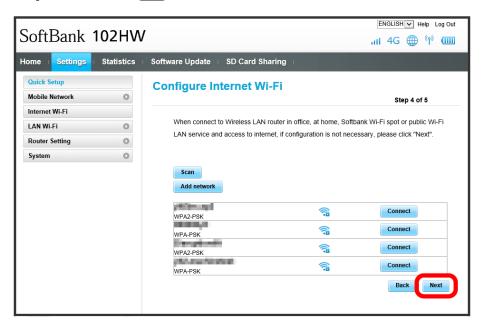
Configure LAN Wi-Fi, Next



· For setting items and operations, see "LAN Wi-Fi Basic Settings."



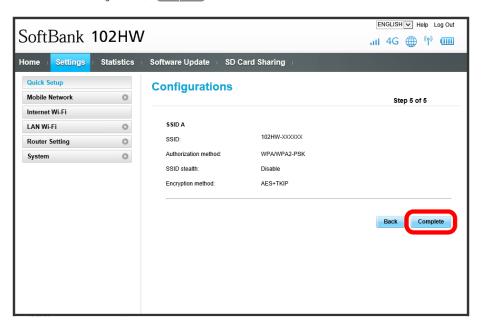
Configure Internet Wi-Fi, Next



· For setting items and operations, see "Internet Wi-Fi."



Check network configuration, Complete



Basic network configuration is complete.

# Mobile Network Settings

Make advanced settings when using 4G/3G network

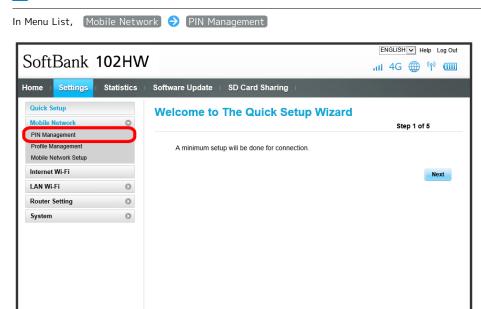
#### **USIM PIN**

PIN (Personal Identification Number) is a code to prevent unauthorized use. Activate/deactivate PIN authentication, change PIN code, validate PIN code.

- $\cdot$  If PIN is set, entering PIN is required every time Wi-Fi router is connected to a computer.
- · Incorrectly entering PIN three consecutive times activates PIN Lock. PUK Code is required to unlock it. For details about PUK, contact SoftBank Customer Support, General Information. Incorrectly entering PUK Code ten consecutive times locks Wi-Fi router completely. If Wi-Fi router is completely locked, Wi-Fi router must be serviced. Contact SoftBank Customer Support, General Information.

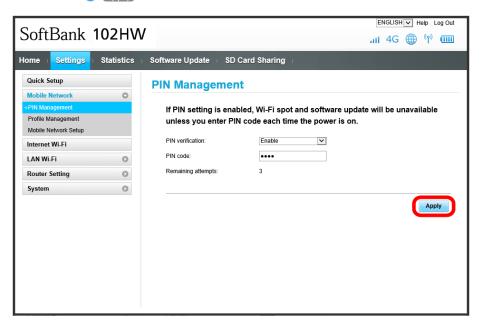
#### Setting PIN Authentication





2

Enter PIN code (>) (Apply)

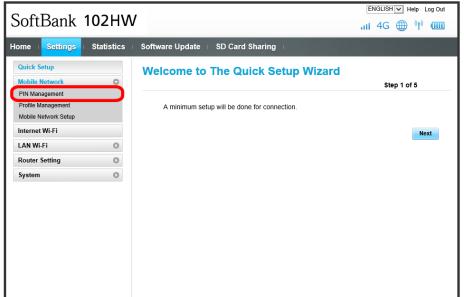


PIN authentication is required from the next time Wi-Fi router is connected to computer.

#### Disabling PIN Authentication

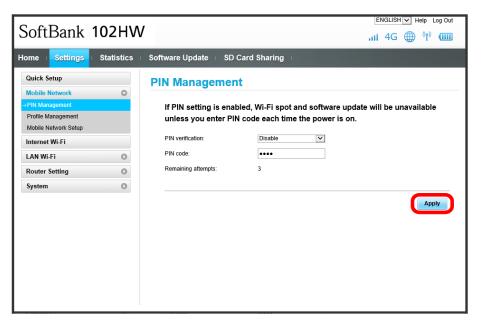
1





2



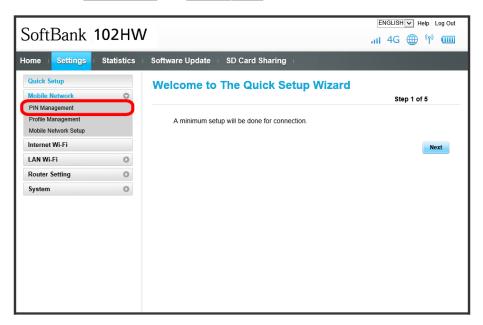


PIN authentication is turned off.

#### Change PIN Code

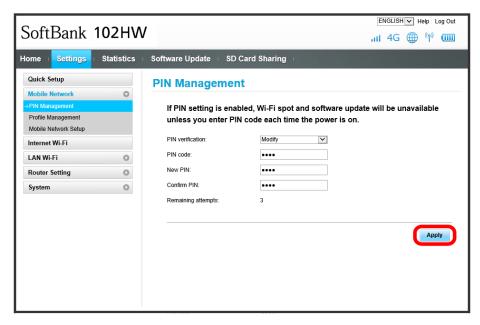
1

In Menu List, Mobile Network 
PIN Management



2

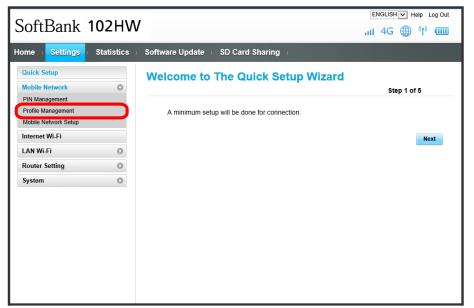
Set PIN verification to Modify  $\Rightarrow$  Set required items  $\Rightarrow$  Apply



PIN code is changed.

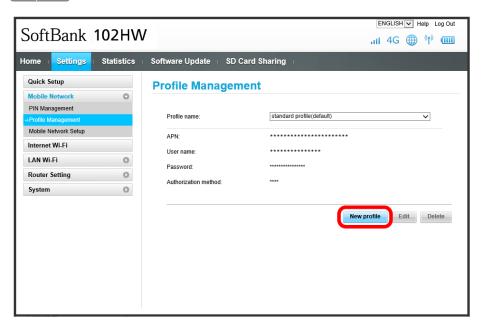
1





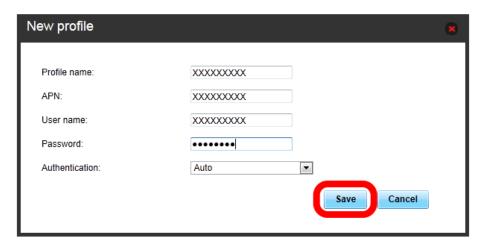
2

New profile





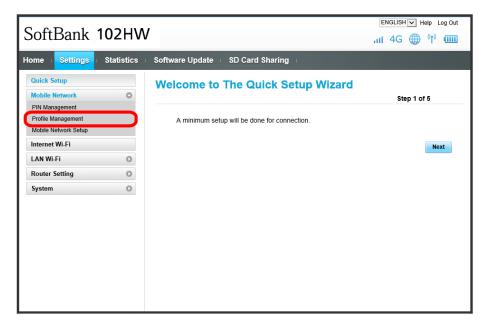
Set each item  $\Rightarrow$  Save



Created profile appears for profile name.

1

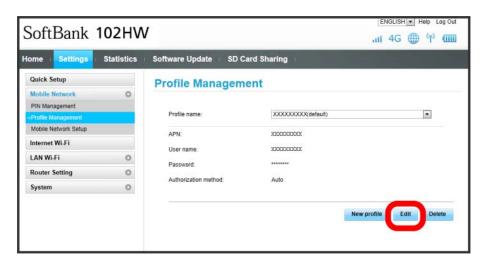




2

Select profile name 

Edit





Enter each item 🗦 Save



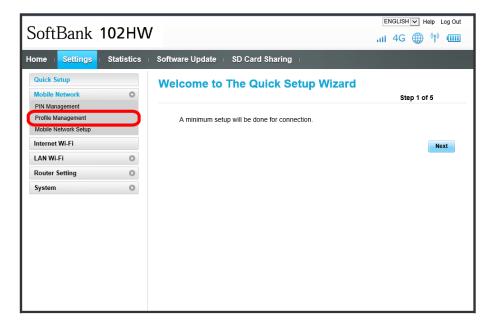
Edited information appears.

#### Deleting Profile

Delete created profiles. Preset profiles cannot be deleted.

1

In Menu List, Mobile Network Profile Management



2

Select profile name 

Delete



3

OK)





SoftBank 102HW

#### Changing Preferred Network Mode

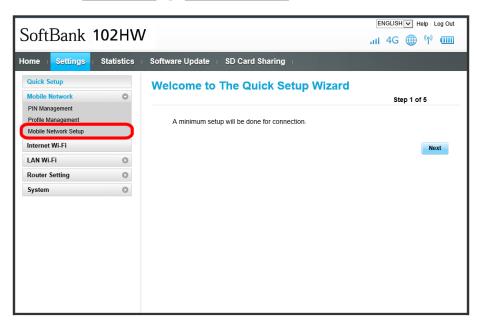
 $\cdot$  Default setting for preferred network mode is "4G/3G" in Japan and "3G Only" overseas.



In Menu List, Mobile Network 

Mobile Network 

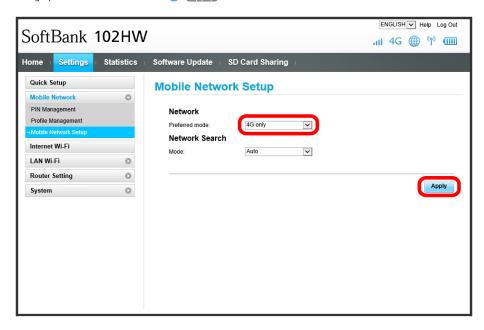
Mobile Network Setup



2

Change preferred network mode 

Apply

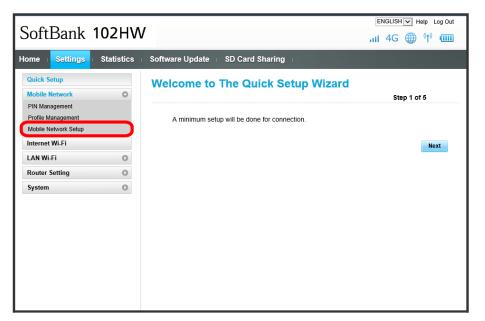


Preferred network mode is changed.

#### Changing Network Searching Mode

1

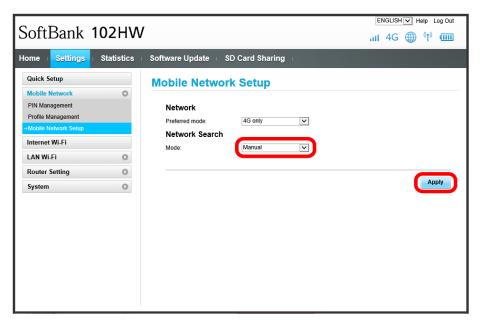




2

Change network searching mode 

Apply



Networks are re-searched.



Select a network to connect to  $\bigcirc$  OK





· If "Manual" is set, manual network selection is required when Wi-Fi router becomes out of service area, etc.

#### Internet Wi-Fi

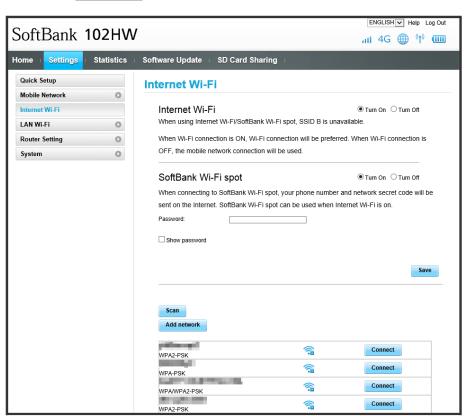
Connecting to the Internet via Wi-Fi is called Internet Wi-Fi.

#### Setting Internet Wi-Fi

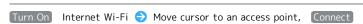
Activating Internet Wi-Fi connects to the Internet via Wi-Fi using a WLAN router at home or office, or a Public WLAN Service.

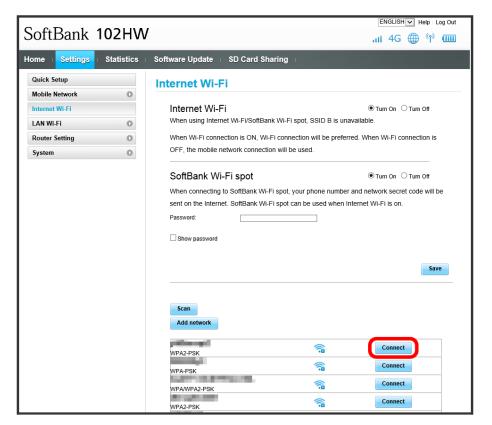
1

In Menu List, Internet Wi-Fi





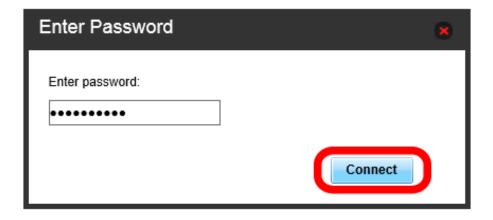




3

Enter password 

Connect



Connection with selected access point is established.

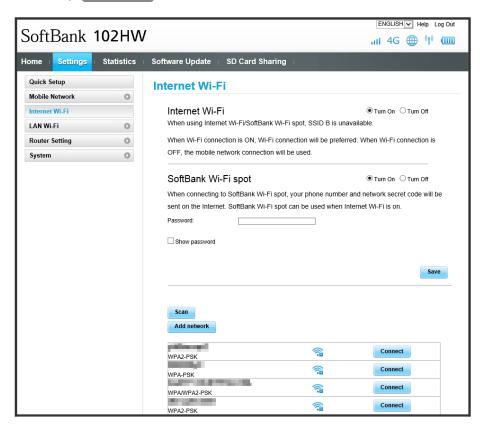
#### SoftBank Wi-Fi Spot Setup

Turning on SoftBank Wi-Fi Spot automatically connects when entering a SoftBank Wi-Fi Spot service area.

· SoftBank Wi-Fi Spot password is a four-digit security code set at subscription.

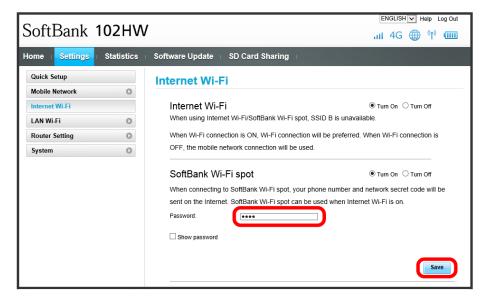
1

In Menu List, Internet Wi-Fi



2

Turn On | Internet Wi-Fi 🗦 Turn On | SoftBank Wi-Fi Spot 🗦 Enter SoftBank Wi-Fi Spot password 🗦 [Save]



SoftBank Wi-Fi Spot is set.

# LAN Wi-Fi

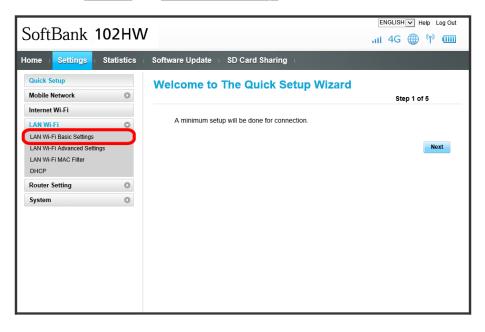
# LAN Wi-Fi Basic Settings (SSID A)

Make basic WLAN settings for SSID A. Setting items are as follows:

| Item                 | Description  |
|----------------------|--|
| Show password on LCD | Checkmark to show password for SSID currently connected when WPS Button is pressed two consecutive times                           |
| SSID                 | Set network name (SSID)  |
| Authorization method | Set authorization method   |
| Encryption method    | Set encryption method  |
| WPA security key     | Appears when "WPA-PSK," "WPA2-PSK," or "WPA/WPA2-PSK" is selected in "Authorization method." Enter security key                    |
| Network key 1-4      | Appears when "Auto," "Open," or "Shared Key" is selected in "Authorization method" and "Encryption method" is "WEP." Enter WEP key |
| Current network key  | Set default WEP key  |
| AP isolation         | Set whether to permit communication between devices inside LAN   |
| SSID stealth         | Set to hide SSID information   |

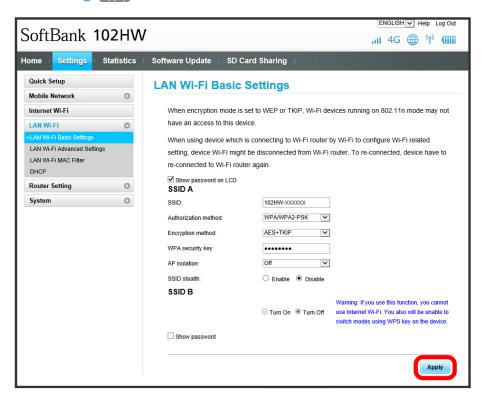


In Menu List, (LAN Wi-Fi) → (LAN Wi-Fi Basic Settings)



Set each item 

Apply



LAN Wi-Fi basic settings for SSID A are made.

# LAN Wi-Fi Basic Settings (SSID B)

Make basic WLAN settings for SSID B.

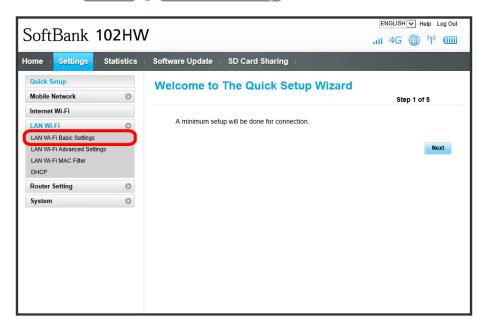
- $\cdot$  To use SSID B, turn Internet Wi-Fi off. Connect to the Internet via mobile network.
- · SSID B does not support WPA/WPA2.

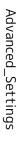
Setting items are as follows:

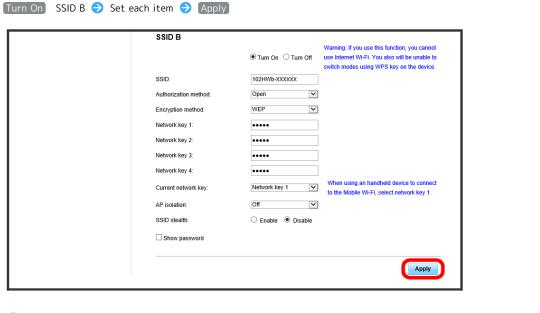
| Item                 | Description  |
|----------------------|--|
| SSID                 | Set network name (SSID)  |
| Authorization method | Set authorization method   |
| Encryption method    | Set encryption method  |
| Network key 1-4      | Appears when "Auto," "Open," or "Shared Key" is selected in "Authorization method" and "Encryption method" is "WEP." Enter WEP key |
| Current network key  | Set default WEP key  |
| AP isolation         | Set whether to permit communication between devices inside LAN   |
| SSID stealth         | Set to hide SSID information   |

1

In Menu List, (LAN Wi-Fi) → (LAN Wi-Fi Basic Settings)







🔀 LAN Wi-Fi basic settings for SSID B are made.

2

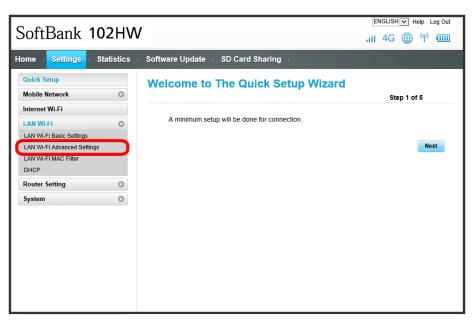
#### LAN Wi-Fi Advanced Settings

Setting items are as follows:

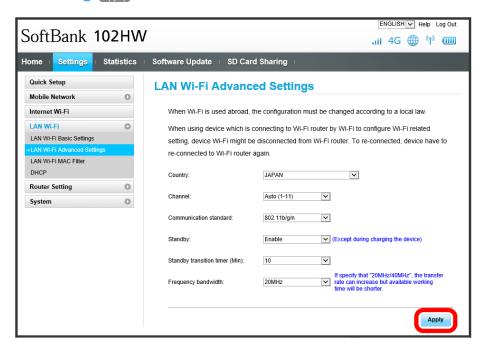
| Item                           | Description  |
|--------------------------------|--|
| Country                        | Set country where you use WLAN   |
| Channel                        | Set WLAN channel   |
| Communication standard         | Set WLAN operation mode  |
| Standby                        | Set whether to automatically disconnect WLAN when power from external power supply is lost |
| Standby transition timer (Min) | Set time until WLAN is automatically disconnected when Standby is set to "enable"          |
| Frequency bandwidth            | Set frequency bandwidth  |

1





Set each item 🔵 Apply



LAN Wi-Fi advanced settings are made.

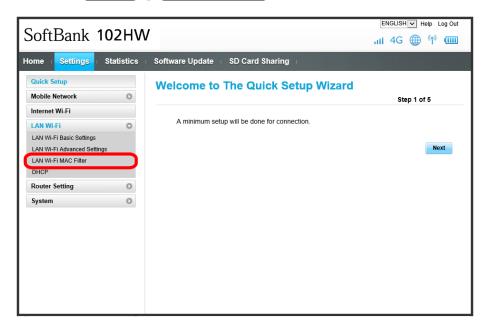
#### Setting MAC Address Filter

Save MAC address of WLAN devices and set WLAN connection permission to enhance security.

 $\cdot$  When SSID B is set to on in WLAN basic setting for SSID B, SSID B can also be set in MAC address filter.



In Menu List, (LAN Wi-Fi) > (LAN Wi-Fi MAC Filter)

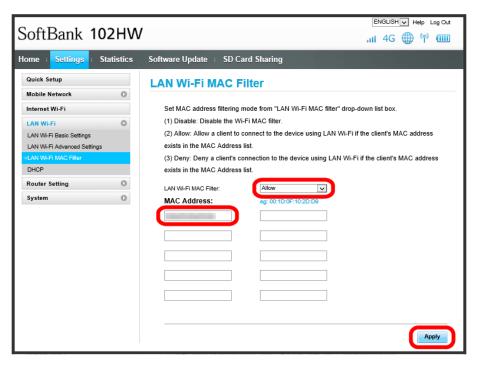


2

Allow / Deny for LAN Wi-Fi MAC Filter 

Enter MAC address 

Apply



 $\cdot$  When deleting entered MAC address, follow the same operation.

3

OK)

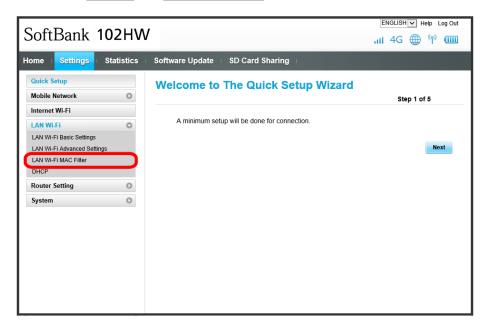


Setting is made.

## Turning Off MAC Address Filter

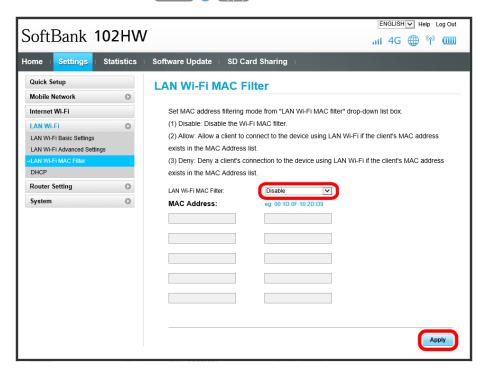


In Menu List, (LAN Wi-Fi) (LAN Wi-Fi MAC Filter)



2

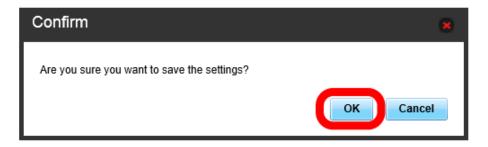
Set LAN Wi-Fi MAC Filter to Disable Apply



SoftBank 102HW

3

OK)



Setting is made.

#### DHCP

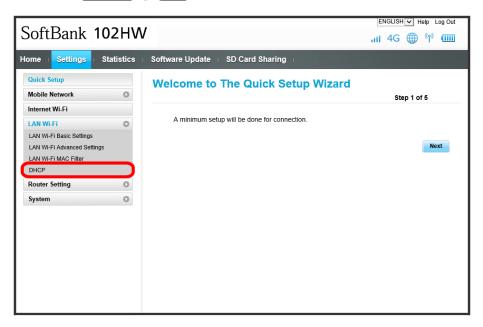
Assign IP addresses to devices inside LAN. Setting items are as follows:

| Item                | Description   |
|---------------------|---|
| IP address          | Set Wi-Fi router private address                      |
| Subnet mask         | Set Subnet mask                                       |
| DHCP server         | Set whether to use DHCP function                      |
| Start IP address    | Set lowest IP address to be assigned to WLAN devices  |
| End IP address      | Set highest IP address to be assigned to WLAN devices |
| DHCP lease time (s) | Set IP address lease time                             |

1

In Menu List, [LAN Wi-Fi] 

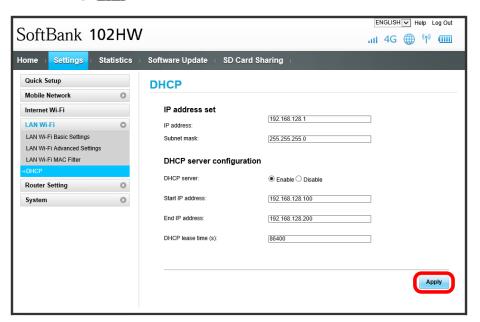
DHCP



2

Set each item 

Apply



3





Wi-Fi router is rebooted and DHCP is set.

# Router Setting

#### Firewall Switch

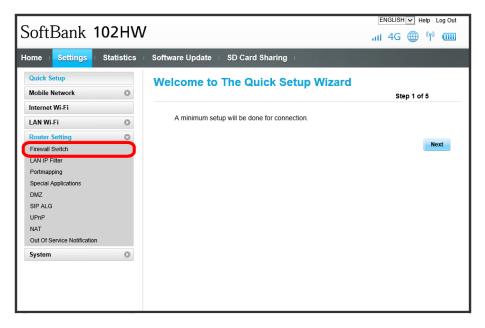
Make Firewall advanced settings.

Setting items are as follows:

| Item                 | Description                                   |
|----------------------|---|
| Firewall             | Set whether to use Firewall function          |
| IP address filtering | Set whether to use IP Address Filter function |
| WAN port ping reply  | Set whether to enable WAN Ping respond        |



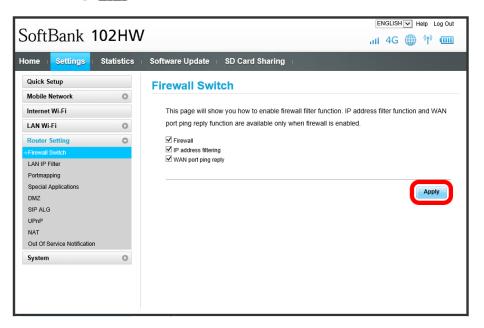




Set each item 

Apply

2



Firewall switch is set.

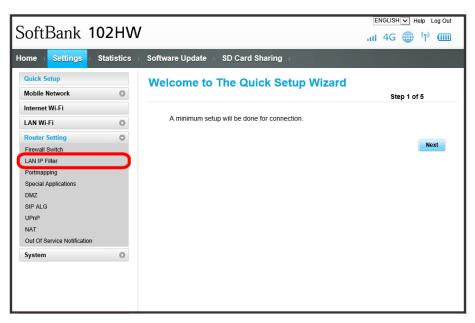
#### LAN IP Address Filter

Set whether to apply rules and allow transmissions from Internet through Firewall, based on sender/receiver addresses. Setting items are as follows:

| Item            | Description                                |
|-----------------|--|
| LAN IP Address  | Set source IP address to apply rules       |
| LAN Port        | Set source port number to apply rules      |
| WLAN IP Address | Set destination IP address to apply rules  |
| WAN Port        | Set destination port number to apply rules |
| Protocol        | Select protocol to apply rules             |
| Status          | Set whether to apply rules                 |
| Options         | Save or delete rules                       |

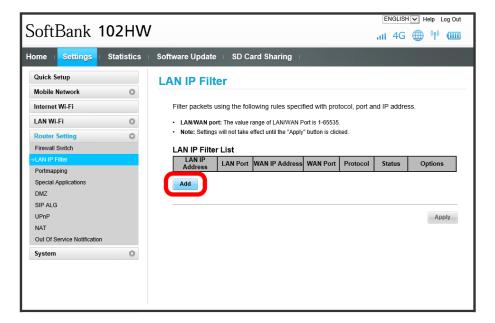


In Menu List, Router Setting → LAN IP Filter



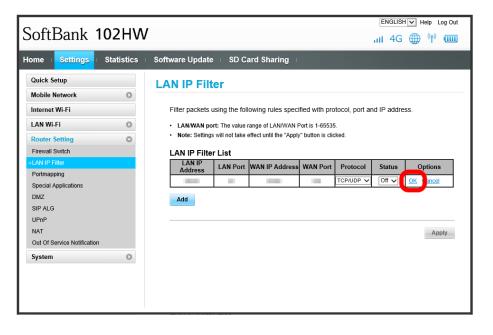
· If a message asking to enable IP address filter appears, enable "IP address filtering" from Firewall Switch and retry.

Add



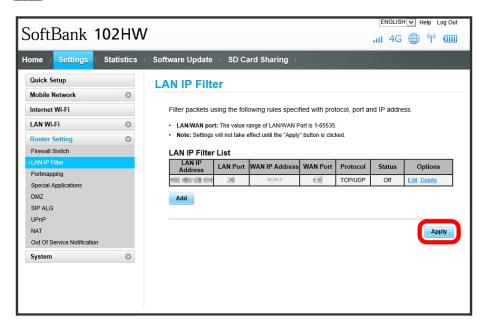
3

Enter each item 🔵 OK



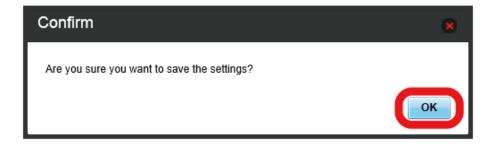


[Apply]



5



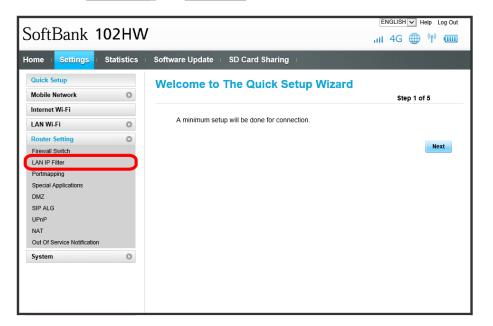


Setting is made.

#### Deleting IP Address Filter

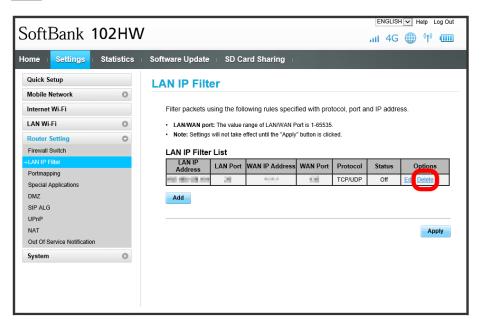
1





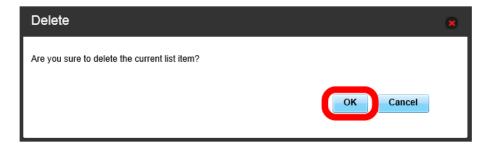
2

[Delete]





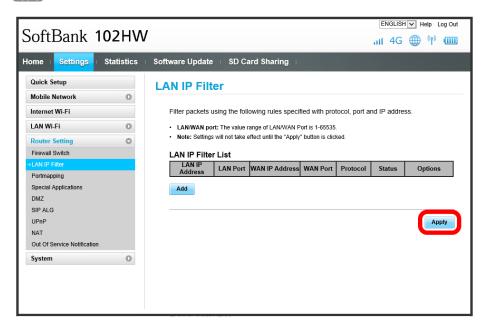




IP address filter is deleted.

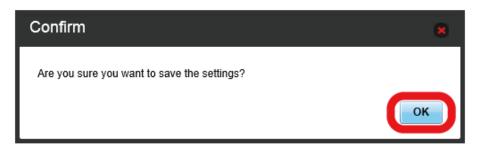


[Apply]



5





Setting is made.

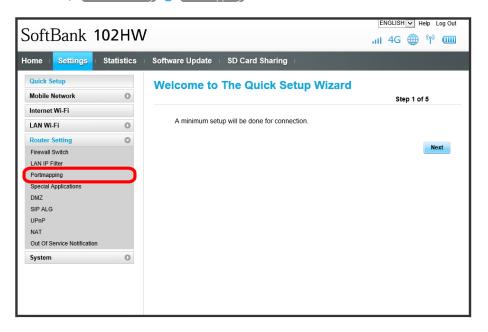
# Portmapping Setup

Set a virtual server for accessing a specified device inside LAN via the Internet. Setting items are as follows:

| Item           | Description   |
|----------------|---|
| Name           | Name virtual server   |
| WAN Port       | Set source port number  |
| LAN IP Address | Set IP address for device inside LAN to make available as a server  |
| LAN Port       | Set destination port number for device inside LAN to make available as a server when transmitting packets |
| Protocol       | Select protocol to apply rules  |
| Status         | Set whether to apply rules  |
| Options        | Save or delete rules  |

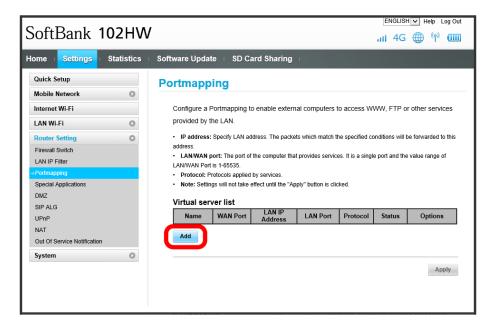
1

In Menu List, (Router Setting) → (Portmapping)



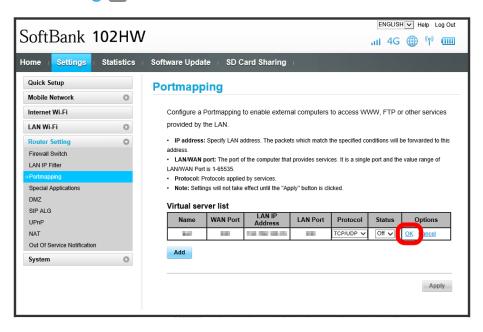


Add

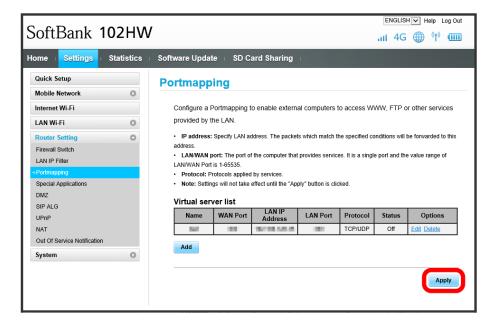


3

Enter each item 🔵 OK

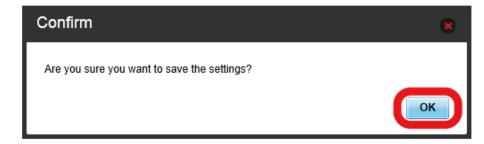


[Apply]



5

 $[\mathsf{OK}]$ 

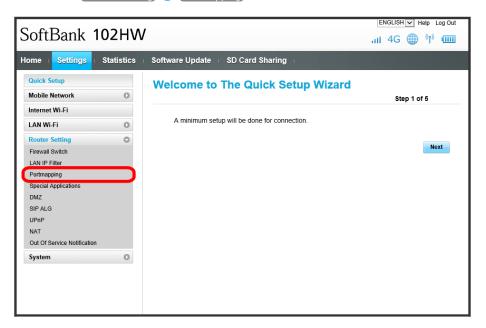


Portmapping is set.

## Deleting Portmapping

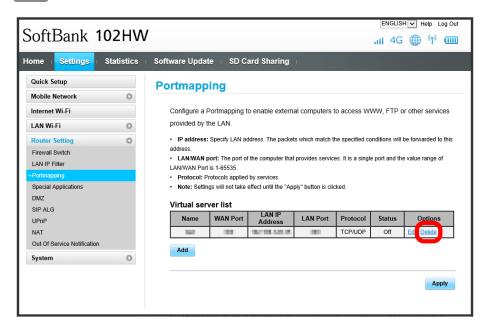
1

In Menu List, (Router Setting) → (Portmapping)

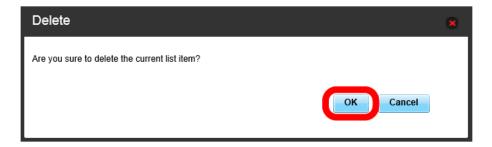


2

Delete



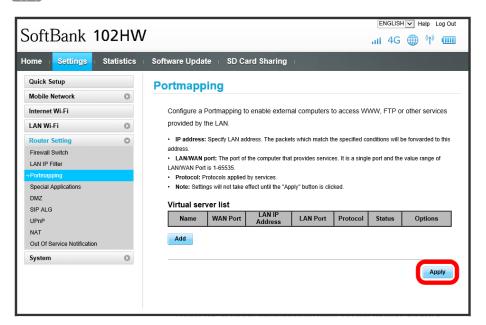
[OK]



Portmapping is deleted.

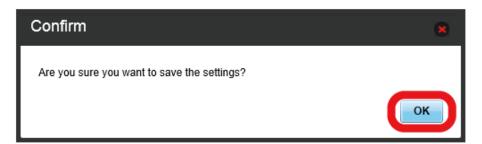
4

[Apply]



5

OK)



Setting is made.

## Setting Special Applications

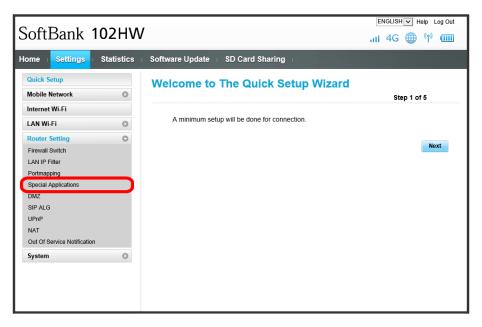
Enable use of applications such as online games and video phone system. Setting items are as follows:

| Item             | Description                       |
|------------------|-----------------------------------|
| Name             | Name applications                 |
| Status           | Set whether to apply rules        |
| Trigger Port     | Set port number for control data  |
| Trigger Protocol | Select protocol for control data  |
| Open protocol    | Select protocol for data transfer |
| Open port        | Set port number for data transfer |
| Options          | Save or delete rules              |

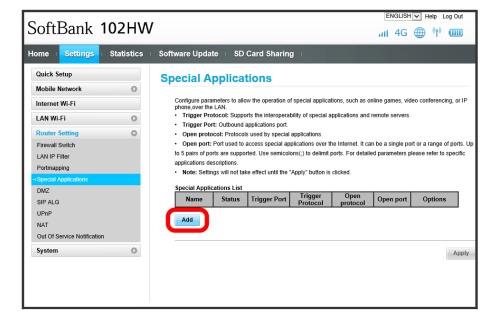


In Menu List, Router Setting 

Special Applications

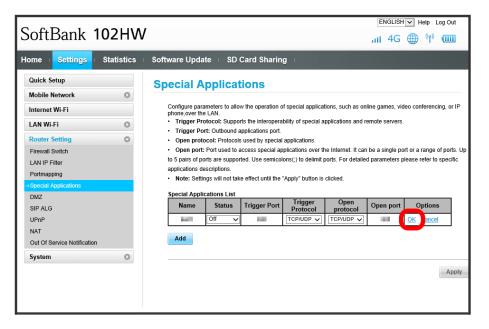


Add



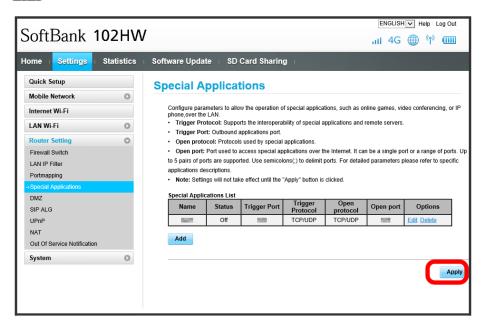
3

Enter each item  $\Rightarrow$  OK



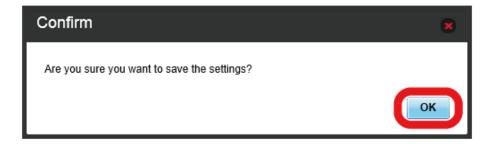


Apply







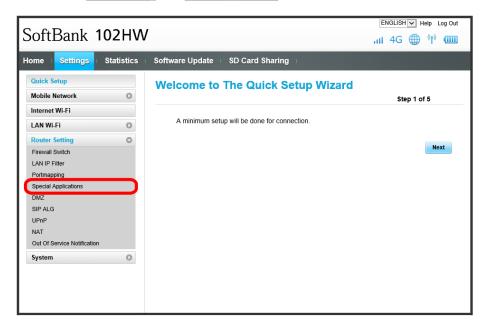


Special Applications is set.

### **Deleting Special Applications**

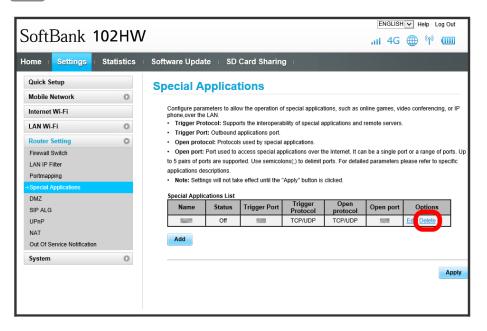
1





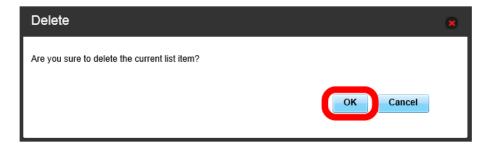
2

[Delete]





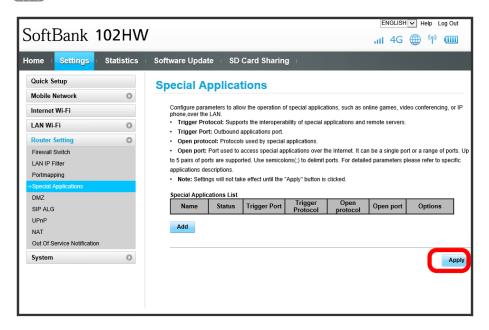




Special Applications is deleted.

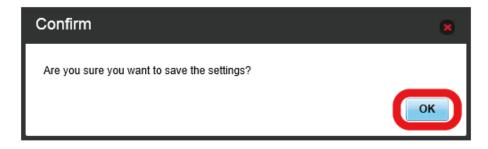


Apply



5





Setting is made.

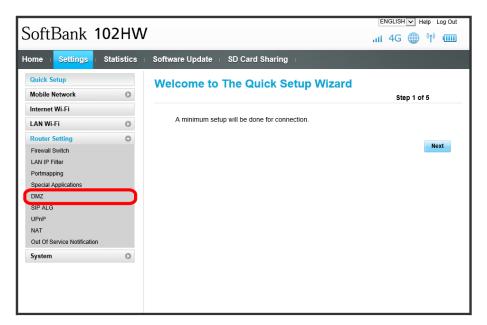
### DMZ

Set specified device inside LAN as DM host isolated from other devices. Setting items are as follows:



1

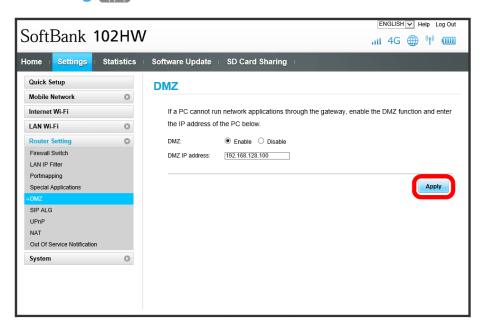




2

Set each item 

Apply

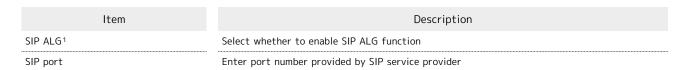


MZ setting is made.

### SIP ALG

Set when using an SIP application to use Internet telephone, etc.

Setting items are as follows:

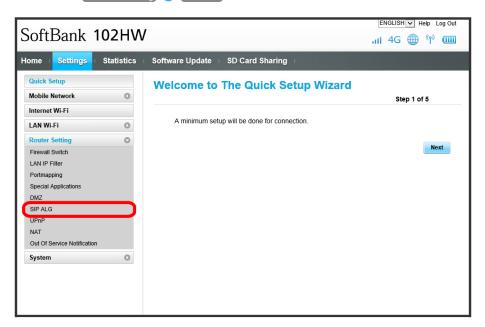


1 SIP ALG is to be enabled when using SIP applications (e.g. X-Lite, Yate, Sipdroid, etc.) on a WLAN device connected to Wi-Fi router. If normal calling is not available with the SIP application, checkmark "SIP ALG"/uncheck "SIP ALG" (Apply), then reboot the SIP application.



In Menu List, Router Setting 

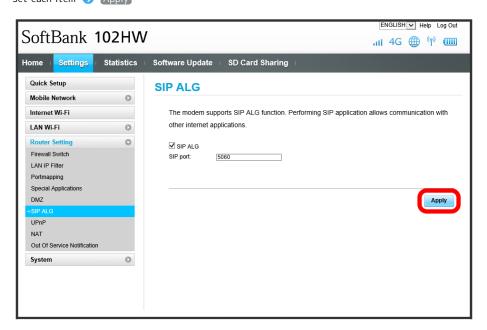
SIP ALG



2

Set each item 

Apply



### UPnP

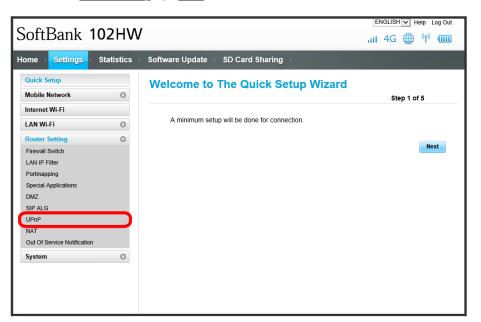
Set UPnP for using UPnP-compatible peripheral devices, audio visual devices, appliances and UPnP-compatible applications such as messenger software.

Setting item is as follows:



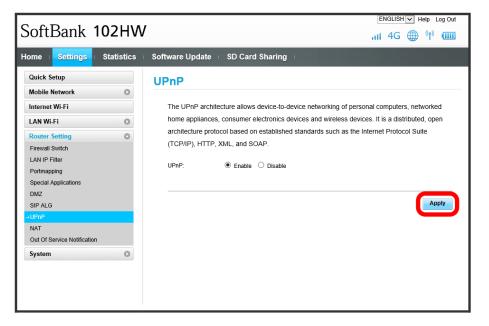
1

In Menu List, Router Setting → UPnP



2





UPnP is set.

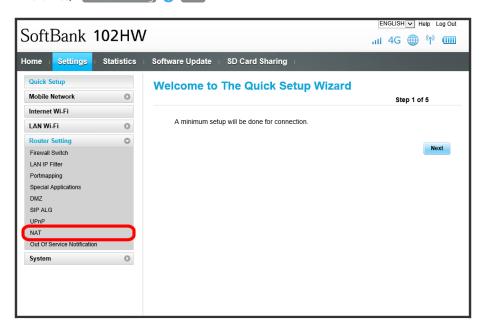
### NAT

Convert private IP address used inside LAN to global IP address for connecting to the Internet.

1

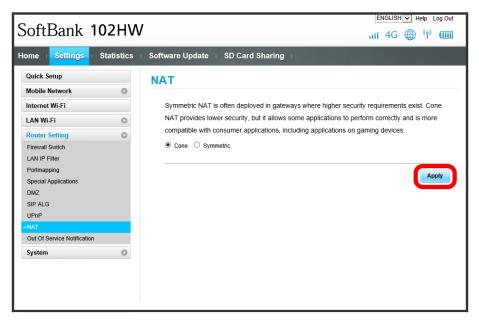
In Menu List, Router Setting 

NAT



2





MAT is set.

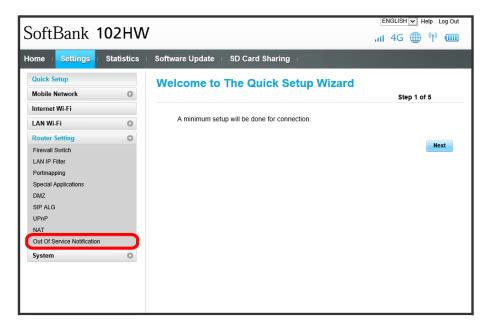
### Out Of Service Notification

Set whether to notify on the web browser when handset is out of network service area.

· When "Turn On" is selected, notification appears on the web browser when Internet connection is disabled due to out of service area.

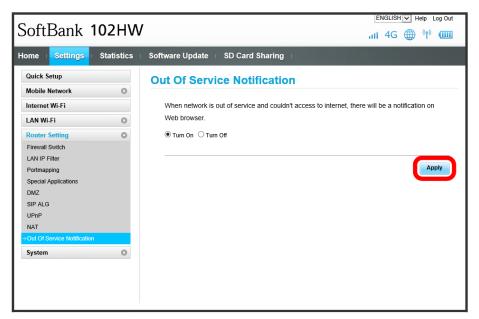
1

In Menu List, Router Setting → Out Of Service Notification



2





Out Of Service Notification is set.

# System

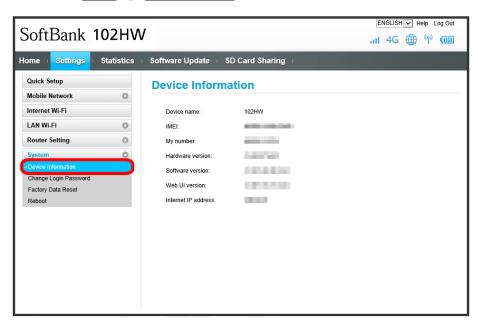
### **Device Information**

Check Wi-Fi router device information.



In Menu List, System 

Device Information



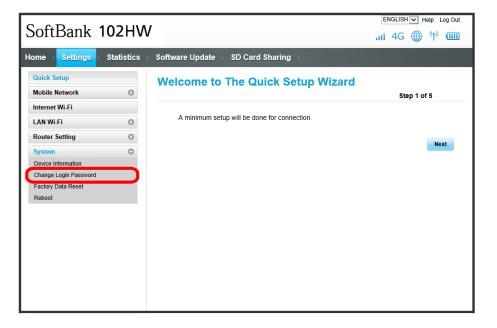
Device information appears.

### Changing Login Password

Change Login password.

1

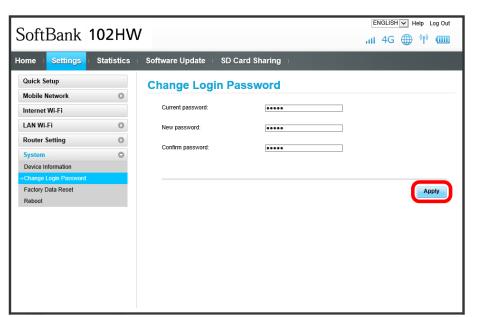
In Menu List, System → Change Login Password



2

Set each item 

Apply



Screen returns to SoftBank 102HW Utility Home Page. New password is set.

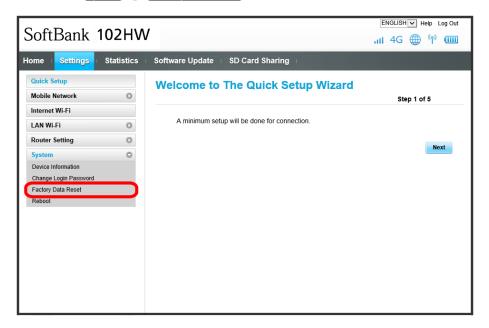
### Factory Data Reset

Restore all Wi-Fi router settings to their factory defaults.

 $\cdot$  Note that all Wi-Fi router settings are restored to their factory defaults except for USIM Card and Memory Card data.

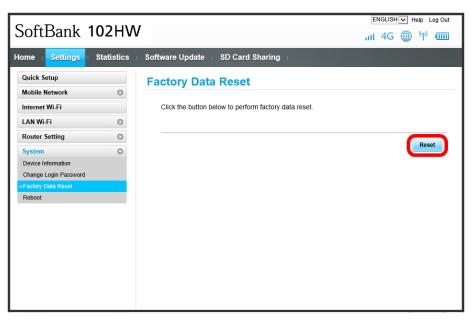


In Menu List, System → Factory Data Reset



2

Reset



3

OK)



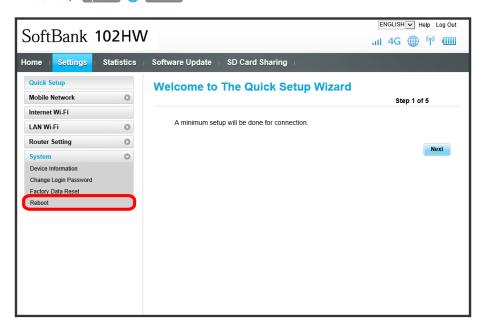
Wi-Fi router is reset.

### Rebooting

Restart Wi-Fi router.

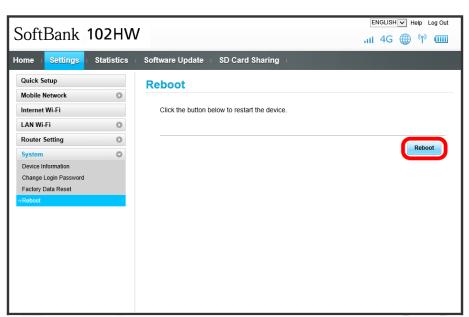


In Menu List, System → Reboot



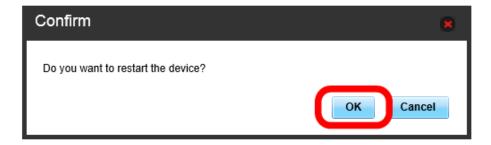
2

[Reboot]



3





Wi-Fi router is restarted.

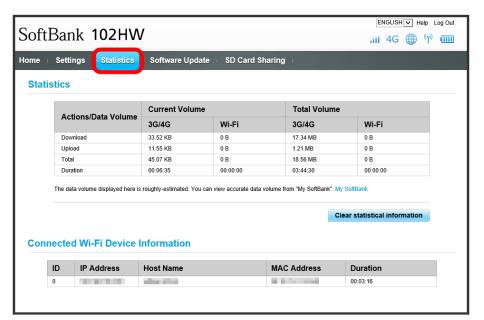
# **Checking Statistics**

Check mobile network connection time and WLAN connection status.

# **Checking Statistics**



In Main Menu, Statistics





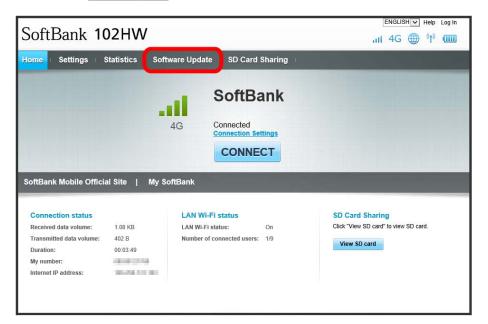
· Click Clear statistical information to clear mobile network connection history.

# Software Update

### Updating Software

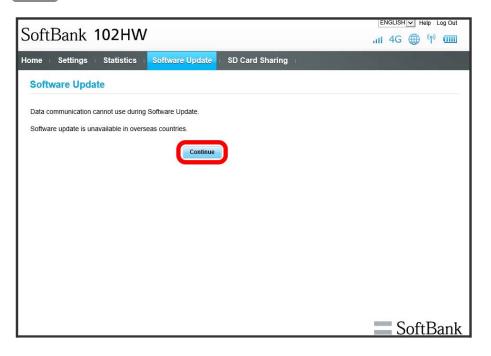
1

In Main Menu, Software Update



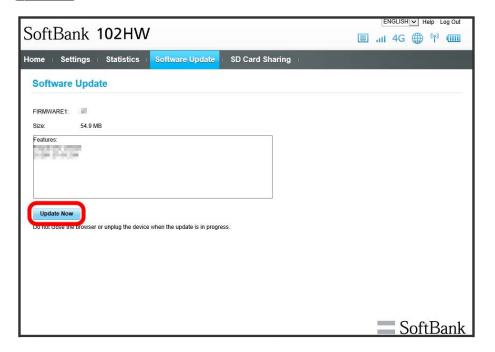
2

Continue





[Update Now]



4





Software is updated.

# Memory Card Data

Check files saved in Memory Card installed in Wi-Fi router in SoftBank 102HW Utility on a computer inside WLAN or a computer connected via USB.

### Sharing Memory Card Data

Set Memory Card sharing. Setting items are as follows:

| Item                 | Description  |
|----------------------|--|
| SD card sharing mode | Set sharing mode<br>Setting to "Web share mode" enables to share Memory Card with a computer inside WLAN |
| Access type          | Set operation range for other computer when "SD card sharing mode" is set to "Web share mode"            |
| Shared path          | Set tolerance level for sharing when "SD card sharing mode" is set to "Web share mode"                   |

1

In Main Menu, SD Card Sharing

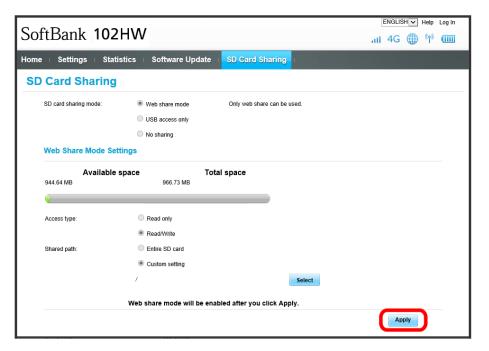


· To share Memory Card data, log in to SoftBank 102HW Utility. Although SD Card Sharing window can be shown without logging in, to change settings, click "Log In" at the right top of the window to log in.



Set each item 

Apply



List of shared folders appears.

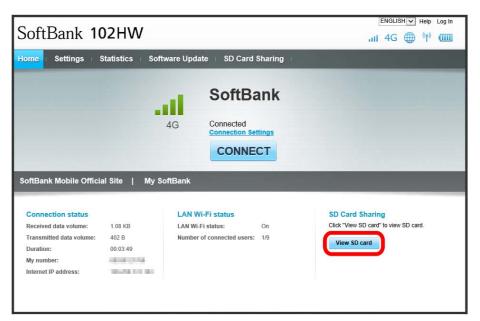
### Checking Memory Card Data

Check data saved in a Memory Card inserted to Wi-Fi router on the screen of a computer inside WLAN or a computer connected via USB.

 $\cdot$  To use this function, set SD Card Sharing mode in "SD Card Sharing" to "Web share mode" beforehand.

1

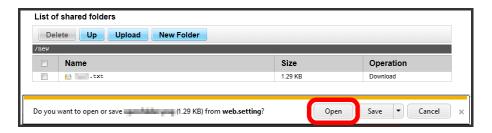
In SoftBank 102HW Utility Home Page, View SD card



SD Card Sharing window opens.

2

Click a folder to check  $\Rightarrow$  Click a file  $\Rightarrow$  Open



File opens.

 $\dot{}$  To move between folders, click  $\ensuremath{\,\text{Up}\,}$  to go back to the previous folder.

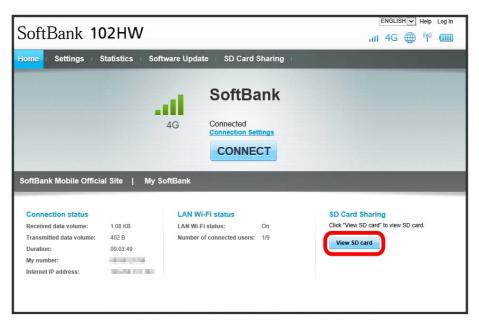
### Saving Information on a Memory Card

Save information to Memory Card inserted to Wi-Fi router from a computer inside WLAN or a computer connected via USB.

· Before using the function, set access type to "Read/Write" in "Web share mode."

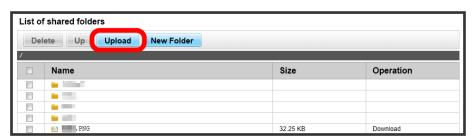


In SoftBank 102HW Utility Home Page, View SD card



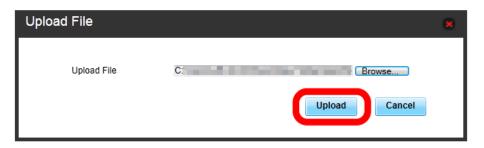
2

[Upload]



3

Browse... Select files to save ( Upload )



Data is saved to shared folder.

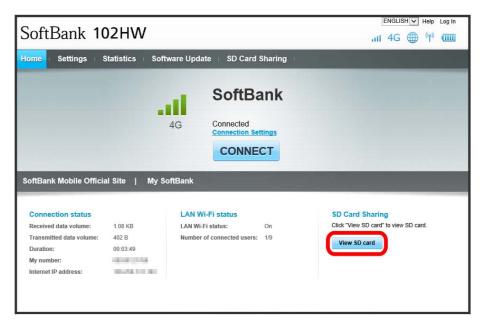
### Saving Information from a Memory Card to a Computer

Save information from Memory Card inserted in Wi-Fi router to a computer inside WLAN or a computer connected via USB.

· Before using the function, set access type to "Read/Write" in "Web share mode."

1

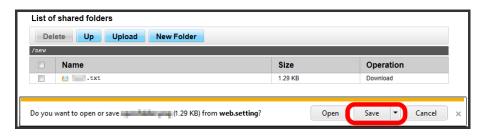
In SoftBank 102HW Utility Home Page, View SD card



2

Click files in List of shared folders 

Save



Data is saved to a computer.

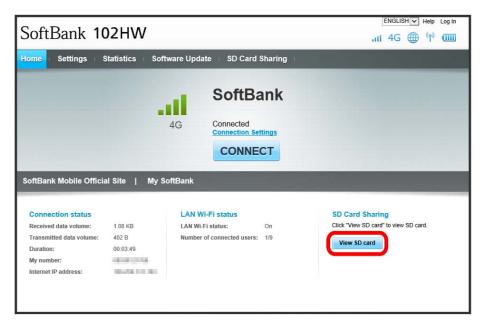
### Deleting Information Saved in a Memory Card

Delete information saved in Memory Card from a computer inside WLAN or a computer connected via USB.

· Before using the function, set access type to "Read/Write" in "Web share mode."



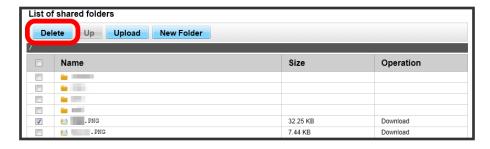
In SoftBank 102HW Utility Home Page, View SD card



2

Checkmark files in List of shared folders 

Delete



3

[OK]



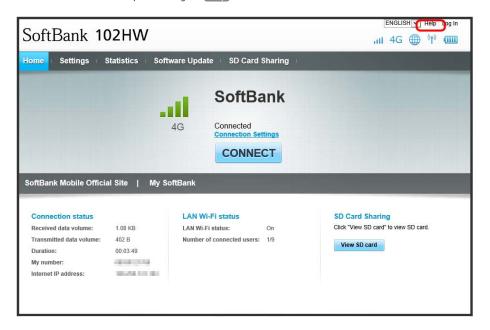
Data is deleted from List of shared folders.

# Customer Support

Accessing Customer Support (Help)

1

In SoftBank 102HW Utility Home Page, Help



SoftBank Customer Support web page opens.

# Appendix

| Troubleshooting    | !. 136 |
|--------------------|--------|
| Specifications     | 138    |
| Warranty & Service | 139    |
| Customer Service   | 140    |

## Troubleshooting

### Troubleshooting

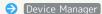
Check the following Q & A. If problem persists, visit your nearest SoftBank Shop or contact SoftBank Customer Support, General Information.

### Problems

- O. Unable to connect WLAN
- A. Make sure Wi-Fi router and WLAN device WLAN functions are activated.
- A. If WPA or WPA2 is set, confirm that Wi-Fi router SSID is selected and correct WPA pre-shared key is set on WLAN device. If you forget SSID or WPA pre-shared key, Press WPS Button twice. SSID and WPA appear on Display. Alternatively, check and change security settings from "LAN Wi-Fi" in SoftBank 102HW Utility.
- A. Some WLAN devices do not support WPA/WPA2. See WLAN device user guide.
- A. If WEP is set, confirm that Wi-Fi router SSID is selected and correct WEP key is set on WLAN device. If you forget SSID or WEP key, Press WPS Button twice. SSID and WPA appear on Display. Alternatively, check and change security settings from "LAN Wi-Fi" in SoftBank 102HW Utility.
- A. If you are unable to connect with WPS function, see
  WLAN device user guide etc. If problem persists, set up
  WLAN manually. See "LAN Wi-Fi."
- A. To connect to WPS PIN specified WLAN, confirm PIN.
- Q. PC does not recognize Wi-Fi router
- A. Confirm that Wi-Fi router is properly connected to PC.
- A. Remove Wi-Fi router from PC, restart PC, then reconnect Wi-Fi router.
- A. Make sure that "HUAWEI Mass Storage USB Device",
   "HUAWEI Mobile Connect Extra Control Device",
   "HUAWEI TF CARD Storage USB Device", "HUAWEI
   Mobile Connect Network Adapter", "HUAWEI
   Mobile Connect PC UI Interface(COMxx)", "HUAWEI
   Enumerator Device", "HUAWEI Mobile Connect Bus
   Enumerator Device", "USB Composite Device", and "USB
   Mass Storage Device" appear in "Device manager" on PC.

For Windows 8: On the Windows Desktop, swipe in from the right edge (with mouse, move the pointer into the upper-right or lower-right corner) 

Control Panel 
System and Security



For Windows 7: Right-click "Computer" 🔵

Properties Advanced system settings

(Hardware) 🔷 (Device Manager)

(Hardware) 🔵 (Device Manager)

For Windows Vista: Right-click "Computer" >
Properties Advanced system settings

For Windows XP: Right-click "My Computer" 🕣

Properties → [Hardware] → [Device Manager]

- Q. Installer does not automatically activate (Windows PC)
- New hardware recognition takes a few seconds. If installer does not automatically activate, remove Wi-Fi router from PC, then reconnect to PC.
- A. Install driver manually. See "Manual Installation (Windows 8)," "Manual Installation (Windows 7)," "Manual Installation (Windows Vista) ," "Manual Installation (Windows XP)" for installation.
- O. Internet connection fails
- A. Make sure you are within the service area.
- A. If signal reception is poor, move to where signal is strong, then reconnect.
- A. The access point might be busy depending on the time of day, wait a little while then reconnect.
- Activate SoftBank 102HW Utility and confirm that network settings are correct.
- A. If temperature of Wi-Fi router remains high for a long time, communication may be restricted. Try to connect after a while.
- Q. Transmission fails
- A. Signal may be weak. Move to where signal is stronger.
- A. Check Battery of Wi-Fi router. If Battery is low, charge Battery with AC Charger or PC using Micro USB Cable.
- A. Confirm that Wi-Fi router and WLAN device are properly connected.
- A. If Wi-Fi router is connected via WLAN, power off Wi-Fi router, then power on again.
- A. If Wi-Fi router is connected using Micro USB Cable, remove Wi-Fi router from PC, then reconnect.
- A. If problem persists, remove Wi-Fi router, restart WLAN device or PC, then reconnect to Wi-Fi router.
- Q. Transmissions are slow
- A. Signal may be weak. Move to where signal is stronger.
- A. Connection may be poor. Try again later.
- A. Interference with nearby WLAN device etc. may occur. Change Wi-Fi router channel or connect with Micro USB Cable.
- Q. Forget PIN/Unknown PUK Code/USIM Card is locked
- A. Contact SoftBank Customer Support, General Information.

- Q. USIM Card is not recognized
- A. Power off Wi-Fi router, then confirm that USIM Card is properly installed.
- A. Check that USIM Card is specified card.
- A. Check USIM Card for warping.
- A. Check USIM Card IC chip for scratches/corrosion.
- Debris on USIM Card (particularly on IC chip) may prevent recognition. Clean it with a soft cloth.
- A. Contact SoftBank Customer Support, General Information
- Q. Confirming Administrator logon
- A. For Windows 8

Swipe in from the right edge (with mouse, move the pointer into the upper-right corner) 🗦 🔯 charm



Accounts and Family Safety 
Make sure that the account type you are logging in as is "Administrator."

- Q. Resetting factory defaults (Reset)
- A. Use RESET Button.

With power on, Press RESET Button for approximately

- Wi-Fi router restarts.
- A. Use SoftBank 102HW Utility.

In SoftBank 102HW Utility, Settings ♦ System

→ Factory Data Reset → Reset



- Wi-Fi router restarts.
- · Wi-Fi router settings are restored to default. If you changed settings, set them again.
- · USIM Card and SD Card contents remain.
- Q. Wi-Fi router operations are unstable
- A. Confirm that Wi-Fi router is not used in extreme temperatures/high humidity/direct sunlight/dusty areas. Read "Safety Precautions" beforehand for using under proper environment.
- A. Confirm that improper software is not used. Operation is not guaranteed for Internet connection using software provided by manufacturer other than SoftBank.

# Specifications

# Wi-Fi Router

| Item   | Description   |
|--|---|
| Dimensions <sup>1</sup>                          | 66 mm (W) x 104.8 mm (H) x 15.5 mm (D)  |
| Weight <sup>1</sup>                              | 135 g   |
| Interface  | USB 2.0 High Speed (Micro USB terminal)<br>microSD Card/microSDHC Card/microSDXC<br>Card  |
| Power<br>Consumption <sup>1</sup>                | Maximum on communication: 4.3 W Usual on communication: 1.4 W On standby: (WLAN off) 23 mW *Power consumption varies by usage.  |
| Continuous<br>Communication<br>Time <sup>1</sup> | AXGP: 8.5 hours<br>3G: 7.5 hours  |
| Continuous<br>Standby<br>Time¹                   | AXGP: 400 hours<br>3G: 550 hours<br>(WLAN off)  |
| Charging<br>Time <sup>1</sup>                    | AC Charger: 4 hours<br>Micro USB Cable: 7.5 hours   |
| Operation<br>Environment                         | Operating Temperature: 0℃ to 35℃<br>Storage Temperature: -20℃ to 45℃<br>Humidity: 30% to 85%  |
| Compatible<br>Networks                           | Japan: 3G, AXGP (2.5 GHz)<br>Overseas: 3G<br>WLAN: IEEE802.11b/g/n  |
| Frequency  | AXGP: Upstream: 2545 MHz to 2575 MHz Downstream: 2545 MHz to 2575 MHz 3G: Upstream: 1427.9 MHz to 1447.9 MHz, 1920 MHz to 1980 MHz Downstream: 1475.9 MHz to 1495.9 MHz, 2110 MHz to 2170 MHz WLAN: 2400 MHz to 2483.5 MHz (13ch all) |
| Communication<br>Speed                           | AXGP: Max Upstream 10 Mbps/Max<br>Downstream 110 Mbps<br>3G: Max Upstream 5.7 Mbps/Max<br>Downstream 42 Mbps  |

1 Approximate value

## Internal Battery

| Item     | Description         |
|----------|---------------------|
| Voltage  | 3.7 V               |
| Туре     | Lithium-ion polymer |
| Capacity | 3000 mAh            |

# AC Charger

| Item                                | Description                           |
|-------------------------------------|---------------------------------------|
| Dimensions <sup>1</sup>             | 43.3 mm (W) x 63 mm (H) x 28.3 mm (D) |
| Power Source                        | 100 V to 240 V AC                     |
| Input Current                       | Maximum 0.2 A                         |
| Output Power<br>Voltage/<br>Current | 5.0 V/1.0 A                           |

1 Approximate value

## Micro USB Cable

| Item   | Description       |
|--------|-------------------|
| Length | 120 cm            |
| Plug   | Standard USB Plug |

# Material List (Wi-Fi Router)

| Item                           | Description                 |
|--------------------------------|-----------------------------|
| Front                          | PC, PET film                |
| Side                           | PC + Coating                |
| Operation<br>button<br>(Power) | PC + Coating, Laser Etching |
| Operation<br>button (WPS)      | PC + TPU, Coating           |
| Bottom                         | PC + Coating                |
| USIM Card<br>Slot              | PC + TPU, Coating           |
| Memory Card<br>Slot            | PC + TPU, Coating           |

# Material List (AC Charger)

| Item          | Description |
|---------------|-------------|
| Unit          | PC, ABS     |
| Plug          | CuPb        |
| USB Connector | CuPb        |

# Material List (Micro USB Cable)

| Item              | Description                     |
|-------------------|---------------------------------|
| Unit              | PPO                             |
| USB Plug          | Iron, Nickel plating            |
| Micro USB<br>Plug | Stainless Steel, Nickel plating |

### GPL Written Offer

This product contains free software complying with GNU General Public License (Version 2). For details, refer to the following web page

http://www.huaweidevice.com/mbb\_copyright or contact mobile@huawei.com.

# Warranty & Service

### Warranty

Wi-Fi router purchase includes Warranty.

- · Confirm shop name and purchase date.
- $\cdot$  Read contents of Warranty and keep it in a safe place.
- $\cdot$  The warranty period can be found in the Warranty. SoftBank Mobile Corp. is not liable for any damages or loss resulting from use of Wi-Fi router.

### When requesting repair

See "Troubleshooting" before contacting SoftBank Mobile Corp. for service or repair.

If you cannot find solutions or solve problems, contact SoftBank Customer Support, or a SoftBank Shop nearby. Be able to provide a detailed description of the problem.

- During the warranty period, repairs will be made under the terms and conditions described in the warranty.
- $\cdot$  After the warranty period, repairs will be upon request; if said repairs can be made, you will be charged for them.

### Customer Service

For SoftBank Wi-Fi router or service information, call General Information. For repairs, call Customer Assistance.

### SoftBank Customer Support

### General Information

From a SoftBank handset, dial toll free at 157 From a landline/IP Phone, dial toll free at © 0800-919-0157

### For Customer Assistance

From a SoftBank handset, dial toll free at 113 From a landline/IP Phone, dial toll free at

**(6)** 0800-919-0113

If you cannot reach a toll free number, use the number (charges apply) below for your service area: Hokkaido Area, Tohoku Area, Hokuriku Area, Kanto & Koshinetsu Area 022-380-4380 Tokai Area 052-388-2002 Kansai Area 06-7669-0180 Chugoku & Shikoku Area, Kyushu & Okinawa Area

### SoftBank Technical Support Center

Setup, Operations & Technical Issues: From a SoftBank handset, dial toll free at \*5525 From a landline/IP Phone, dial toll free at 6 0088-21-5525

· Service Hours

092-687-0010

Weekday: 9:00 am - 7:00 pm

Saturday, Sunday, Holiday: 9:00 am to 5:00 pm

· These numbers cannot be dialed from outside Japan.

### SoftBank Mobile Global Call Center

From outside Japan or if 102HW is lost or stolen: +81-3-5351-3491 (international charges apply, toll free from SoftBank handsets)

# Safety Precautions

| Safety Precautions1                                 | 42 |
|---|----|
| General Notes1                                      | 47 |
| Specific Absorption Rate (SAR) Information for this |    |
| Product   | 48 |

## Safety Precautions

Read safety precautions before using Wi-Fi router. Observe precautions to avoid injury to self or others, or damage to property.

SoftBank Mobile Corp. is not liable for any damages resulting from use of this product.

### Labels & Symbols

These labels indicate the degree of risk from improper use. Make sure you thoroughly understand their meanings before reading on.

| Mark             | Descriptions   |
|------------------|--|
| <b>⚠</b> DANGER  | Great risk of death or serious injury <sup>1</sup> from improper use                   |
| <b> MARNING</b>  | Risk of death or serious injury <sup>1</sup> from improper use                         |
| <b>⚠</b> CAUTION | Risk of minor injury <sup>2</sup> or damage to property <sup>3</sup> from improper use |

- 1 Serious injury includes: Loss of eyesight, physical injury, high temperature burns, low temperature burns, electric shock, fractures, poisoning and other conditions having side effects or requiring hospitalization or long-term treatment.
- 2 Injury includes: Physical burns, electric shock, and other conditions not requiring hospitalization or long-term treatment.
- 3 Damage to property includes: Incidental damage to structures and household property and/or to pets and livestock.

These symbols indicate prohibited or compulsory actions. Make sure you thoroughly understand their meanings before reading on.

| Mark                         | Descriptions                   |
|------------------------------|--------------------------------|
| Prohibited                   | Prohibited actions             |
| Do Not<br>Disassemble        | Disassembly prohibited         |
| Avoid Liquids<br>Or Moisture | Exposure to liquids prohibited |
| Do Not Use<br>Wet Hands      | Use with wet hands prohibited  |
| Compulsory                   | Compulsory actions             |
| Disconnect<br>Power Source   | Unplug Charger from outlet     |

### Wi-Fi Router, USIM Card, AC Charger, Micro USB Cable

### **⚠** DANGER



Use specified AC Charger and Micro USB Cable only

Non-specified accessory use may cause Internal Battery to leak, overheat, burst or ignite, or cause AC Charger or Micro USB Cable to overheat, ignite, malfunction, etc.



Do not disassemble, modify or solder.

May cause fire, injury, electric shock or malfunction. Internal Battery may leak, overheat, burst or ignite. Modifying Wi-Fi router is prohibited by the Radio Law and subject to penalty.



Keep away from water.

Do not let liquid-exposed (water, pet urine, etc.) Wi-Fi router/related hardware remain wet; do not charge wet Battery. Doing so may cause overheating, electric shock, fire, injury or malfunction. Use Wi-Fi router/related hardware properly/where appropriate.



Do not charge Battery or use/expose Wi-Fi router/related hardware to extreme heat (e.g. near fire or source of heat, in direct sunlight, inside vehicles on hot days, etc.). Do not charge Battery or use, leave, or be carrying Wi-Fi router in a place where heat collects, such as under a kotatsu (blanketed warming table) or electric blanket, next to a kairo (worn warming patch), etc.

May cause warping/malfunction; Internal Battery may leak, overheat, ignite or burst. Wi-Fi router or related hardware may become too hot to touch, leading to burn injuries, etc.



Do not force AC Charger/Micro USB Cable into Wi-Fi router. Confirm terminal/connector orientation; retry.

Internal Battery may leak, overheat, burst, ignite, etc.

#### **⚠** WARNING



Do not put Wi-Fi router, AC Charger, Micro USB Cable in cooking appliances such as a microwave or pressure cooker or on IH cooking heaters.

May cause Internal Battery to leak, overheat, burst or ignite or cause Wi-Fi router, AC Charger or Micro USB Cable to overheat, emit smoke, ignite or cause malfunction.



Keep Wi-Fi router off and do not charge Battery near gas station or places with fire/ explosion risk (flammable gases (propane gas, gasoline, etc.) or fine particulates).

Wi-Fi router use near petrochemicals or other flammables may cause fire/explosion.



Do not drop, throw or otherwise subject to strong force or impact.

Internal Battery may leak, overheat, burst, or ignite, and may result in fire, cause electric shock, malfunction, etc.



Take these actions in case of odd sound, odor, smoke or abnormalities, during use, charging, or storage:

- 1. Grasp AC Charger to unplug it.
- 2. Power off.

Continued use may cause fire, electric shock, etc.



Keep liquids (water, pet urine, etc.) and conductive material (pencil lead, metal parts, necklaces, hairpins, etc.) away from External Device Port.

May cause short circuit, resulting in fire, malfunction, etc.

#### **⚠** CAUTION



Do not place Wi-Fi router on unstable/uneven surfaces.

Wi-Fi router or related hardware may fall, resulting in injury, malfunction, etc.



Keep Wi-Fi router and related hardware out of infants' reach.

Infants may swallow Wi-Fi router or related hardware resulting in injuries.



A guardian should supervise use by children and insure Wi-Fi router is used as instructed.

Failure to do so may result in injuries.

#### Wi-Fi Router

#### **⚠** DANGER



Do not dispose of Wi-Fi router in fire.

Internal Battery may leak, burst, ignite, etc.



Do not damage (nail, hammer, stomp, etc.) Wi-Fi router or subject it to strong impact.

Internal Battery may leak, overheat, burst, ignite, etc.



If internal battery fluid gets into eyes, do not rub; rinse with water and consult a doctor immediately.

May cause blindness.

#### **MARNING**



If internal battery fluid contacts skin or clothes, discontinue Wi-Fi router use and rinse with clean water immediately.

May cause skin damage.



If Battery does not charge after specified time, stop charging.

Internal Battery may leak, overheat, bust, ignite, etc.



Do not allow a pet to bite or chew on Wi-Fi router.

Internal Battery may leak, overheat, burst or ignite. Wi-Fi router may malfunction or cause fire.



Power off near electronic devices or equipment operating on high precision control or weak signals.

May cause electronic malfunctions, etc.

\*Take added care near these devices: Hearing aids, implanted cardiac pacemakers, implanted cardioverter defibrillators, other electronic medical equipment, fire detectors, automatic doors, and other automatically controlled devices or equipment.



Power off before boarding aircraft to avoid possible radio wave interference with aircraft operations.

If Wi-Fi router use is allowed on board, follow airline or cabin crew instructions regarding Wi-Fi router use.



If thunder is audible while outdoors, power off immediately and seek shelter.

Lightning strikes or electric shock may occur.



Do not sit on Wi-Fi router in back pants pocket.

Excessive pressures may damage Wi-Fi router Display or Internal Battery, resulting in overheating, ignition or injury.

#### **⚠** CAUTION



Do not dispose of an old Wi-Fi router with ordinary refuse.

Take Wi-Fi router to a SoftBank Shop.



Do not use Wi-Fi router when it may affect a vehicle's electronic equipment.

Wi-Fi router use may affect devices and lead to unsafe driving.



If you experience any skin irritation associated with Wi-Fi router use, discontinue Wi-Fi router use and consult a doctor.

Metal and other materials may cause skin irritation, rashes, or itchiness depending on your physical condition. (See "Material List (Wi-Fi Router)")



Keep Wi-Fi router away from magnetic cards, etc.

Data on bank cards, credit cards, telephone cards, floppy disks, etc. may be lost.



Wi-Fi router may become hot while in use or while charging for a long period, especially in high temperatures.

Prolonged contact with skin may cause low-temperature burn injuries.

#### USIM Card and Memory Card

#### **⚠** CAUTION



Do not apply excessive force when inserting/removing USIM Card.

May cause malfunction. Be careful not to injure your hands, fingers, etc. when removing USIM Card.



Do not use USIM Card other than specified card.

May cause data loss or malfunction



Do not insert objects other than Memory Card in Memory Card Slot.

May cause overheating, electric shock or malfunction.



Do not subject Memory Card to strong shock or vibration or remove Memory Card while Memory Card is being read or written to.

May cause data loss or malfunction.



Do not use Memory Card other than compatible card.

May cause data loss or malfunction. Wi-Fi router supports up to 32 GB (microSDHC)/64 GB (microSDXC) Memory Card.

#### AC Charger and Micro USB Cable

#### **MARNING**



Do not cover/wrap with clothing or bedding while charging.

Heat may build up resulting in fire, malfunction, etc.



Use specified power supply and voltage.

May cause fire, malfunction, etc.

AC Charger: 100 V to 240 V AC (household AC outlet only) Do not use commercially available voltage converter, as when travelling. Doing so may cause fire, electric shock or malfunction.



Unplug AC Charger if you are not going to use it for long periods.

May cause electric shock, fire or malfunction.



If liquids (water, pet urine, etc.) seep inside AC Charger, grasp AC Charger and unplug it immediately.

May cause electric shock, fire or malfunction.



If plug is dusty, grasp AC Charger to unplug it, then clean with a dry cloth.

May cause fire.



When plugging AC Charger into outlet, keep conductive materials (pencil leads, metal parts, necklaces, hair pins, etc.) away from AC Charger plug/Micro USB Cable terminals and plug AC Charger firmly into outlet.

May cause electric shock, short circuit, fire, etc.



Do not plug in/unplug AC Charger with wet hands.

 $\label{eq:maycause} \mbox{May cause electric shock or malfunction.}$ 



Do not touch AC Charger if thunder is audible.

May cause electric shock, etc.

## **A** CAUTION



Grasp AC Charger to unplug it before cleaning.

May cause electric shock, etc.



Always grasp AC Charger (not Micro USB Cable) to disconnect it.

Not doing so may cause electric shock, fire, etc.



Do not subject AC Charger to strong shock such as pulling while it is plugged into the outlet.

May cause injury or malfunction.



Do not pull, bend with excessive force or twist Micro USB Cable.

Do not damage or modify Micro USB Cable. Do not place objects on Micro USB Cable. Do not expose Micro USB Cable to excessive heat.

May cause electric shock, overheating or fire.

# Wi-Fi Router Use & Electronic Medical Equipment

This section based on "Guidelines on the Use of Radio Communications Equipment such as Cellular Telephones and Safeguards for Electronic Medical Equipment" (Electromagnetic Compatibility Conference) and "Report of Investigation of the Effects of Radio Waves on Medical equipment, etc." (Association of Radio Industries and Business, March 2001).

#### **MARNING**



Persons with an implanted pacemaker or defibrillator should keep Wi-Fi router at least 22 cm away from the device.

Radio waves may interfere with implanted pacemakers or defibrillators.



When using electronic medical equipment (other than implanted cardiac pacemakers/ defibrillators) outside medical facilities, check with the equipment manufacturer for information about the effects of radio waves.

Wi-Fi router radio waves may affect electronic medical equipment.



Wi-Fi router radio waves may affect electronic medical equipment. Observe these guidelines in medical institutions:

- $\,\cdot\,$  Do not take Wi-Fi router into operating rooms, or intensive or coronary care units.
- $\cdot$  Keep Wi-Fi router turned off in hospital wards.
- Even in lobbies or other places where Wi-Fi router use is permitted, keep Wi-Fi router off near electronic medical equipment.
- · Follow medical facility rules and do not use or bring Wi-Fi router into prohibited areas.



Power off in crowded places such as trains. People with implanted pacemakers or defibrillators may be near.

Radio waves may interfere with implanted pacemakers or defibrillators causing such devices to malfunction.

#### General Notes

#### For Safety

- Do not disassemble, modify or solder.
   May cause fire, injury, electric shock or malfunction.
- $\cdot$  Do not drop, throw or otherwise subject to strong force or impact.

May cause malfunction.

- Do not put Wi-Fi router in cooking appliances such as a microwave or pressure cooker or on IH cooking heaters.
   May cause malfunction.
- Do not use or expose Wi-Fi router to extreme heat (e.g. near fire or source of heat, in direct sunlight, inside vehicles on a hot day, etc.).
- Doing so may cause device warping or malfunction. Wi-Fi router or related hardware may become too hot to touch, leading to burn injuries, etc.
- · Wi-Fi router may become hot while in use or while charging for a long period, especially in high temperatures. Prolonged contact with skin may cause low-temperature burn injuries.

#### Do Not Disturb Others

- Keep Wi-Fi router turned off in aircraft.
   May cause radio wave interference with aircraft operations.
   The use of portable electronic devices such as cellular phones aboard aircraft is prohibited by law and subject to penalty.
- Do not use Wi-Fi router in a prohibited area such as a hospital or research laboratory. Medical equipment etc. might be affected.
- Do not use Wi-Fi router near courtesy seats in train or bus.
   Medical devices such as pacemaker etc. might be affected.
- Do not use Wi-Fi router if thunder is heard while outdoors (golf course, etc.).

#### General Use

- SoftBank 4G Service can be used with only dedicated models.
- Wi-Fi router supports Software Update. Use Wi-Fi router with the latest software updated.
- $\cdot$  Wi-Fi router transmissions may be disrupted inside buildings, tunnels or underground, or in vehicles, or when moving into/out of such places.
- Use Wi-Fi router without disturbing others. Theaters and public transportation systems may or may not allow use of Wi-Fi router.
- Wi-Fi routers are radios as stipulated by the Radio Law.
   Under the Radio Law, Wi-Fi routers must be submitted for inspection upon request.
- Files may be lost or damaged in the following situations.

  SoftBank Mobile Corp. is not liable for damages incurred due to lost or altered information. To minimize damages, back up data and store separately.
- When using Wi-Fi router incorrectly
- When affected by static electricity or electrical noise.
- Powering Wi-Fi router off while in use.
- When Wi-Fi router breaks down or is submitted for repair.
- If Wi-Fi router is used abroad, changing settings according to the law of country is required. For settings, see "LAN Wi-Fi Advanced Settings."
- Communication may slow down or may become unavailable due to heavy traffic or under certain circumstances.
- Do not use Wi-Fi router in the proximity of areas where explosive materials are handled. An explosion may be induced. In addition, explosive devices might be affected.
- Wi-Fi router USIM Card cannot be used with some mobile devices (including SoftBank models).
- Wi-Fi router may become hot while charging or in use for a long time.
- $\cdot$  Prolonged contact with skin may cause low-temperature burn injuries.
- · AC Charger may become hot while charging.

#### Handling

- Do not expose Wi-Fi router to rain, snow, or high humidity. Wi-Fi router is not waterproof.
- Avoid extreme temperatures/high humidity/direct sunlight/ dusty areas.
- · Do not drop or subject to strong impact.
- · Clean Wi-Fi router with a soft dry cloth. Alcohol/solvent use may fade color/label.

#### Wi-Fi (Wireless LAN)

Wireless Frequencies & Modulations information: On Wi-Fi router package.



· 2.4:2400 MHz range

DS/OF: DSSS or OFDM modulation

4: Maximum interference range of 40 m

: Utilizes 2400 MHz– 2483.5 MHz band, and mobile identifier device bands are

- · Available channels vary depending on the country.
- · For use abroad aircraft, contact the airline beforehand.
- · When using Wi-Fi in other countries, check local regulations beforehand.
- Do not use Wi-Fi router near magnetic devices such as electrical appliances or AV/OA devices.
- Magnetic/radio waves may hinder or disable communication. Avoid microwave ovens.
- Use near a TV or radio, etc. may cause interference; may affect TV reception.
- If there are multiple Wireless LAN access points using the same channel, search may fail.
- Wireless LAN device operates same frequency band used by industrial, scientific, consumer and medical equipment including microwave ovens, premises radio stations for identifying mobile units used in the manufacturing lines of plants (radio stations requiring a license), specified low power radio stations (radio stations requiring no license) and amateur radio stations (radio stations requiring a license)
- 1. Before using Wi-Fi router, confirm that premises radio stations for identifying mobile units, specified low power radio stations and amateur radio stations are not being operated nearby.
- 2. If Wi-Fi router causes disruptive radio interference with premises radio stations for identifying mobile units, immediately change frequency band, stop use, or move to another location to avoid crosstalk (e.g. wall partitions, etc.).
- Since information is exchanged between terminals and the Wireless LAN access points, an advantage of Wireless LAN connections is that LAN connections can be freely enabled within the reachable range of the signals. However, if the security settings are not set, there is a possibility that security issues may arise from the interception of communication data and illegal intrusions.. Wi-Fi router is configured to work with its security functions at the time of purchase. However, in consideration of security, it is recommended that the security settings at the time of purchase be changed.

For security function setting procedures, see this guide or the user's manuals for the Wireless LAN devices.

- Use Wi-Fi router with the understanding that the Wireless LAN specifications can be breached via special methods.
- Inquire with Customer Support to consult if you are unable to configure the security settings.
- SoftBank cannot be held liable for WLAN security issues.

## Specific Absorption Rate (SAR) Information for this Product

#### Specific Absorption Rate (SAR) Information for this Product

This product "102HW" meets international guidelines on radio wave protection.

This product is designed to abide by permitted levels for radio wave protection as recommended by international guidelines. These international guidelines are set forth by the World Health Organization in cooperation with the ICNIRP\*\*, and the permitted levels provide a sufficient safety margin regardless of age and health of the user.

International guidelines define the permitted levels of exposure for radio wave protection by an averaged Specific Absorption Rate, or SAR. The SAR limit for this communication terminal is 2.0 watts/kilogram (W/kg).The highest SAR value for this product is 0.45 W/kg when used in the following prescribed manner. While there may be differences between the SAR levels of individual products, all products meet the permitted levels.

Use close to the body

To use this product close to the body, maintain a separation of 1.5 cm from the body. This will ensure this product meets international guidelines on radio wave protection\*.

The World Health Organization has announced that "A large number of studies have been performed over the last two decades to assess whether mobile phones pose a potential health risk. To date, no adverse health effects have been established as being caused by mobile phone use."

- \* A method of measuring SAR when a mobile phone is used at positions other than at the ear was established in March 2010 through an international standard (IEC62209-2).
- \*\* International Commission on Non-Ionizing Radiation Protection.

For more information about SAR, see the following websites:

- Ministry of Internal Affairs and Communications (MIC) http://www.tele.soumu.go.jp/e/sys/ele/body/index.htm
- Association of Radio Industries and Businesses (ARIB) http://www.arib-emf.org/index02.html (Japanese)

#### Electromagnetic Safety

For body worn operation, this mobile phone has been tested and meets RF exposure guidelines when used with an accessory containing no metal and positioning the Wi-Fi router a minimum 10 mm from the body. Use of other accessories may not ensure compliance with RF exposure guidelines.

#### European RF Exposure Information

Your mobile device is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves recommended by international guidelines. These guidelines were developed by the independent scientific organization ICNIRP and include safety margins designed to assure the protection of all persons, regardless of age and health. The guidelines use a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit for mobile devices is 2.0W/kg and the highest SAR value for this device when tested on the body is 0.45 W/kg\*. As SAR is measured utilizing the devices highest transmitting power the actual SAR of this device while operating is typically below that indicated above. This is due to automatic changes to the power level of the device to ensure it only uses the minimum level required to reach the network.

The World Health Organization has stated that present scientific information does not indicate the need for any special precautions for the use of mobile devices. They note that if you want to reduce your exposure then you can do so by limiting the length of calls or using a hands-free device to keep the mobile phone away from the head and body. \*Please see Electromagnetic Safety for important notes regarding body worn operation.

World Health Organization

http://www.who.int/emf

List of Specific Absorption Rates (SAR) for radio waves http://mb.softbank.jp/mb/support/sar/ (Japanese)



| Charging Battery1                         | 10  |
|---|-----|
| Checking Statistics12                     |     |
| Connecting iPhone/iPad2                   |     |
| Connecting Mac2                           |     |
| Connecting Nintendo 3DS/DSi/DS2           |     |
| Connecting PlayStation®33                 |     |
| Connecting PlayStation®Vita/PSP®          |     |
| (PlayStation®Portable)                    | 32  |
| Connecting Smartphone2                    |     |
| Connecting to 4G/3G1                      |     |
| Connecting to Internet Wi-Fi1             |     |
| Connecting Windows PC1                    |     |
| Connecting WPS Supported WLAN Device      |     |
| Customer Service14                        |     |
| Customer Support13                        |     |
| customer support                          | رر  |
|   |     |
| D   |     |
|   |     |
| Device Recognition/Removal on Mac5        |     |
| Device Recognition/Removal on Windows PC4 | 40  |
|   |     |
|   |     |
| G   |     |
| General Notes14                           | 47  |
|   |     |
|   |     |
|   |     |
|   |     |
| nternet Connectivity1                     |     |
| nternet Wi-Fi8                            |     |
| ntroduction                               | . 5 |
|   |     |
|   |     |
| 9   |     |
| _AN Wi-Fi8                                | 34  |
|   |     |
|   |     |
| M   |     |
| Memory Card                               | o   |
| Memory Card Data12                        |     |
| Mobile Network Settings6                  |     |
| Toblie Network Settings                   | J   |
|   |     |
| P   |     |
|   |     |
| Parts & Functions                         |     |
| Power On/Off1                             | 12  |
|   |     |
|   |     |
|   |     |
| Quick Setting6                            | 56  |
|   |     |
|   |     |
| R   |     |

# 102HW User Guide Index



| Safety Precautions14                                |     |
|---|-----|
| SoftBank 102HW Utility6                             | 54  |
| SoftBank 102HW Utility Overview6                    | 52  |
| Software Installation (Mac)                         | 57  |
| Software Installation (Windows PC)                  | 43  |
| Software Update12                                   |     |
| Specific Absorption Rate (SAR) Information for this |     |
| Product14   | 48  |
| Specifications13                                    | 38  |
| System  |     |
|   |     |
|   |     |
|   |     |
|   |     |
| Troubleshooting13                                   | 56  |
|   |     |
|   |     |
| <b>O</b>  |     |
| USB Connection with a Mac                           | 56  |
| USB Connection with a Windows PC                    | 40  |
| USIM Card   | . 7 |
| Using SoftBank Wi-Fi Spot                           | 16  |
| ·   |     |
|   |     |
| W   |     |
| Wasserland Commission                               | 70  |
| Warranty & Service                                  |     |
| WLAN (Wi-Fi)  | 18  |

# SoftBank 102HW User Guide

May 2013, Second Edition SoftBank Mobile Corp.

Visit SoftBank Shop for assistance

Model : SoftBank 102HW Manufacturer : HUAWEI TECHNOLOGIES CO., LTD.